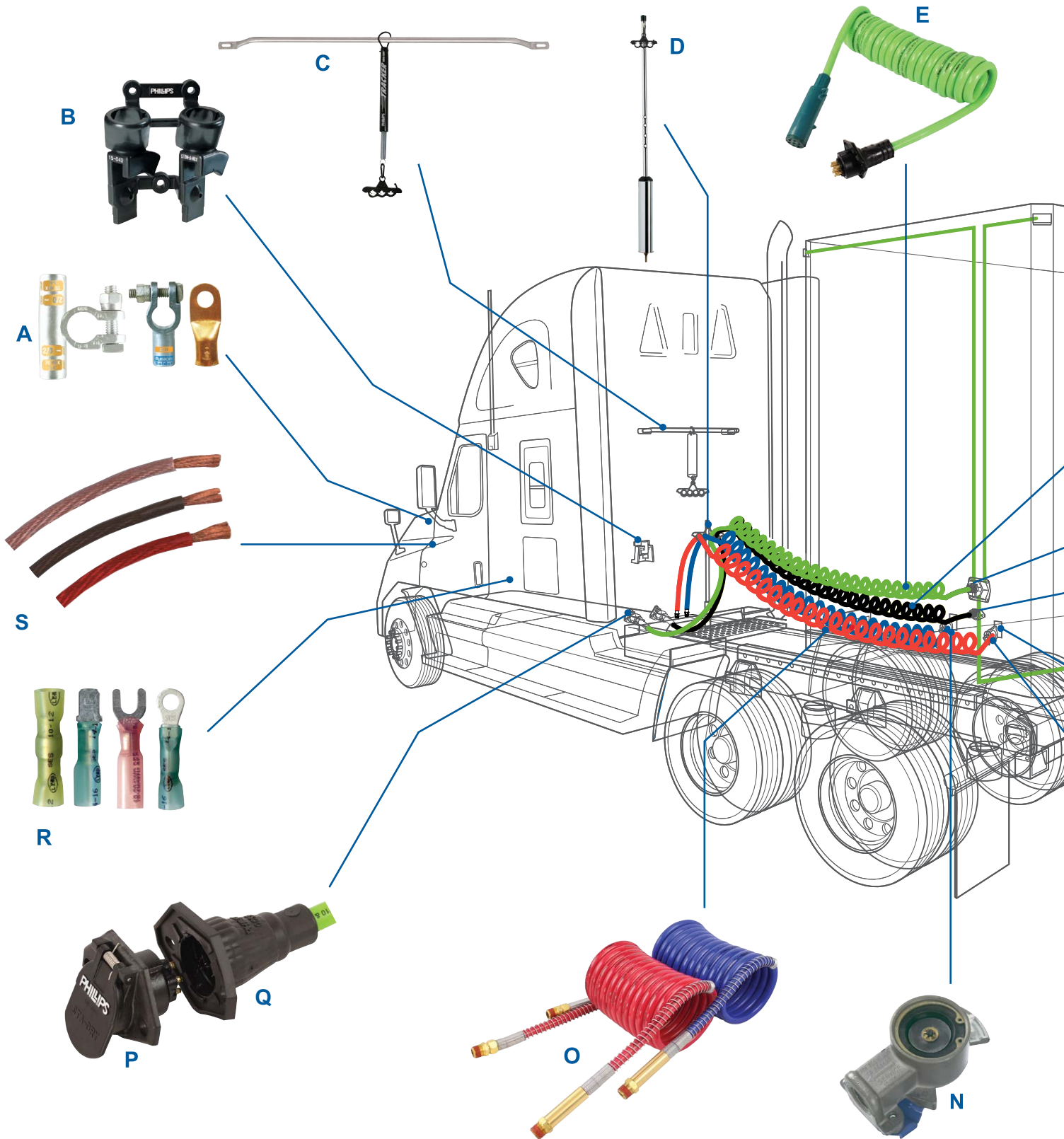


# PHILIPS

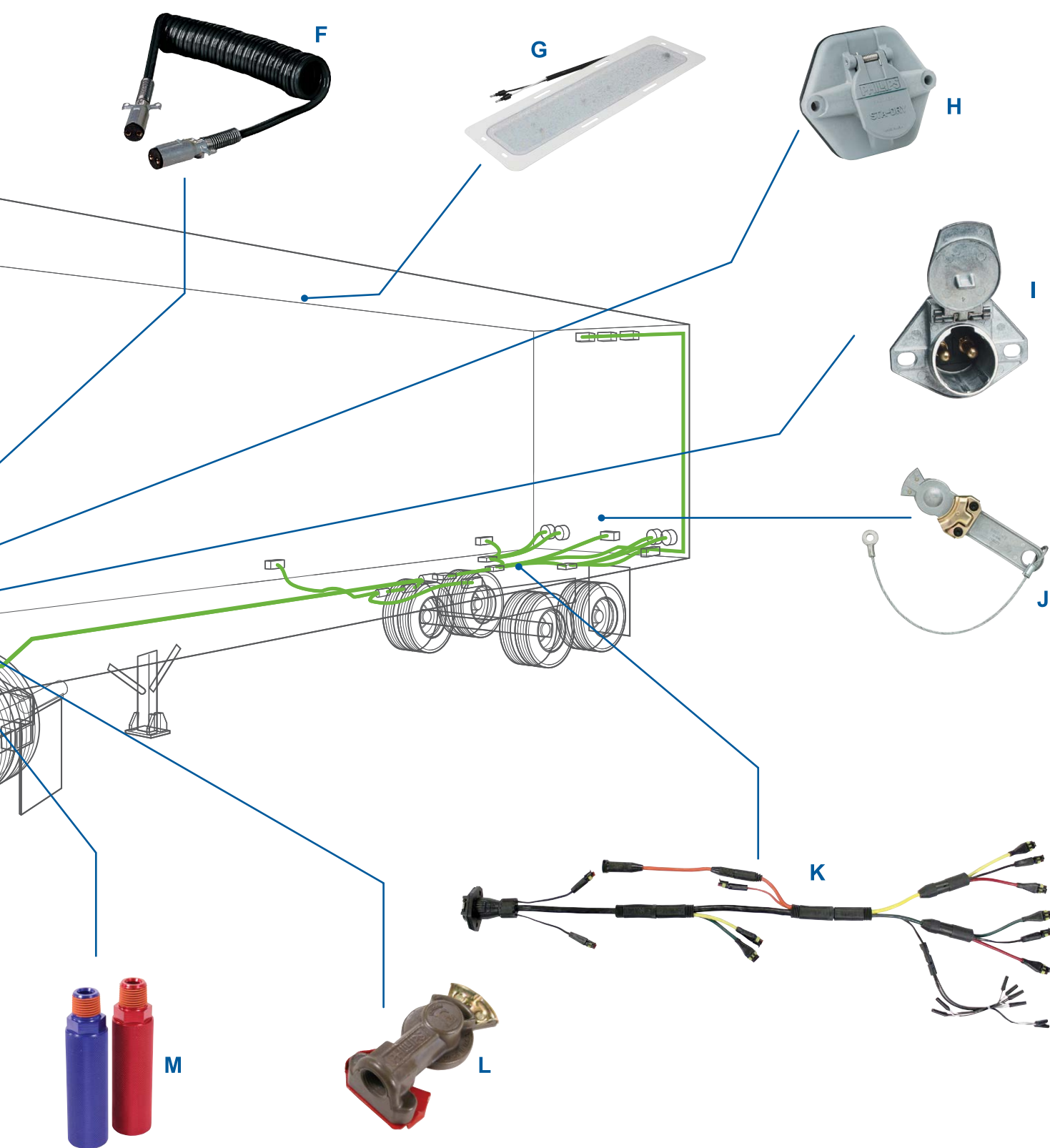
WE MAKE PRODUCTS THAT MAKE A DIFFERENCE®





|                                  |         |
|----------------------------------|---------|
| A. Battery Terminals .....       | Pg. 80  |
| B. STOW-A-WAY™ .....             | Pg. 115 |
| C. Tracker Bar Kit .....         | Pg. 116 |
| D. Pogo Stick .....              | Pg. 115 |
| E. STA-DRY® QCMS2™ Assembly..... | Pg. 5   |

|                                   |         |
|-----------------------------------|---------|
| F. Dual Pole Liftgate Cable ..... | Pg. 12  |
| G. PERMALITE™ XB LED.....         | Pg. 146 |
| H. STA-DRY® Socketbreaker.....    | Pg. 44  |
| I. Dual Pole Socket.....          | Pg. 37  |
| J. Shut-Off Gladhand .....        | Pg. 55  |



K. STA-DRY® Harness ..... Pg. 126  
 L. Anodized Gladhand..... Pg. 53  
 M. Coiled Air Grips..... Pg. 59  
 N. QWIK-E® Gladhand..... Pg. 51  
 O. POLAR AIR® Coiled Air ..... Pg. 18

P. STA-DRY® Socket ..... Pg. 32  
 Q. QCS® (Quick-Change Socket) Assembly..... Pg. 33  
 R. STA-DRY® Heat Shrink Terminals ..... Pg. 94  
 S. CLEAR-VU™ Battery Cable ..... Pg. 75

# A HISTORY OF MAKING PRODUCTS THAT MAKE A DIFFERENCE

HISTORY OF PHILLIPS

## AN OBSESSION

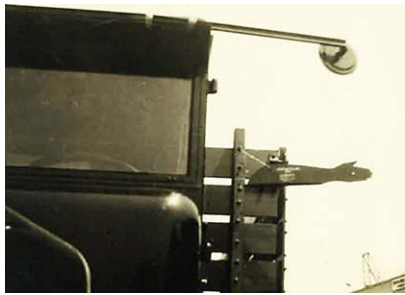


The company mission statement on the wall in the corporate lobby reads, "We are obsessed with improving everything about trucks and trailers, one innovation at a time." Since the beginning, Phillips was

already on its way to becoming a company with a philosophy propelled by providing customers with innovative, solution-driven products. And over the decades, Phillips has built a legacy of making products that make a difference based on the foundation of this philosophy.

## THE BEGINNING

With humble beginnings in 1928, H.W. Phillips Mfg. Co. was established when Hugh Phillips started selling truck parts to produce haulers. During a time when vehicle turn signals were an aftermarket item and still emergent in their development, he seized an opportunity and designed and applied for a patent for the first reflective directional signal arm for trucks. The company began manufacturing the arm two years later, and this single product became the foundation on which the company's success was built.



## FROM DISTRIBUTOR TO INNOVATOR & MANUFACTURER

Over the decades, Phillips evolved from a parts distributor to an innovator and manufacturer of advanced concept air and electrical parts for the commercial vehicle transportation industry. With an approach of genuinely listening to the customer, in addition to a desire to improve existing products and remedy the challenges faced with their design short-



Bob Phillips - CEO

comings, Bob Phillips continued to tread in his grandfather's footsteps to find better ways.

"In many cases, the only way to meet our specifications was to build it ourselves," says Bob Phillips, CEO.

## A REPUTABLE REPUTATION

Phillips Industries has become well-known in the industry. They are a Tier 1 supplier and partner to virtually every major tractor and trailer manufacturer in the US. Phillips' leadership in quality and innovation has been recognized by numerous industry awards and has certification of the coveted industry-wide IATF 16949 and ISO 14001.



## A CONTINUED LEGACY OF GROWTH AND INNOVATION

In 2013 Rob Phillips took the helm of the company as President and COO, and Dave Phillips stepped into the role of Executive Vice President. With recent expansive growth, and under their leadership, Phillips officially restructured its business model in 2020 and divided into five distinct strategic business units (SBUs) organized under the Phillips corporate umbrella. These five SBUs are Phillips Aftermarket, Phillips OEM, Phillips Connect Technologies, Phillips Asia-Pacific, and Phillips Europe. By breaking into smaller, more focused businesses, resources are concentrated on specific markets to be more responsive to customer needs, and innovative in product development. With a more customer-centric platform and an obsession to continually strive for better, Phillips is ensuring it remains at the forefront of progress and success.



Rob Phillips - President and COO



Dave Phillips - Executive Vice President



# TABLE OF CONTENTS

## Electrical Assemblies

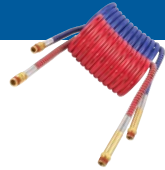
7-way, 6-way, 4-way, Liftgate,  
and Auxiliary  
*Coiled and Straight*



4

## Air Assemblies

Coiled Nylon Assemblies,  
Rubber Air Assemblies,  
2-IN-1 Rubber Air Assemblies,  
and Bulk Rubber Air



17

## Electrical & Air Combo Assemblies

3-IN-1, 4-IN-1 with Single Pole,  
4-IN-1 with Dual Pole,  
and 4-IN-1 with Auxiliary



23

## Electrical Connectors

Plugs, Sockets, Socket Accessories,  
Socketbreakers, Noseboxes,  
Nosebox Accessories, Trailer Wire Management,  
Junction Boxes, and Solenoids



27

## Air Connectors

Gladhands (QWIK-E®, Standard,  
Corrosion Resistant & Specialty),  
AIR-DEFENSE™ System, Air Accessories,  
Air Brake Tubing, Brass and Composite Fittings



50

## Cable & Wire

Bulk Trailer Cable, Bulk Battery Cable,  
Primary Wire, and Service Wire



70

## Battery Terminals & Accessories

Terminals, Lugs, Heavy Duty Jumpers,  
Booster Cables, Solder Slugs,  
Battery and Battery Hardware Accessories



80

## Wire Terminals

STA-DRY® Heat Shrink Wire Terminals  
and PVC Wire Terminals



94

## Heat Shrink Tubing

Dual Wall, Single Wall,  
and Self-Sealing Shrink Tape



109

## Cable/Wire Support & Accessories

STOW-A-WAY®, Tracker Bar Spring Kits, Pogo Sticks,  
Sliding Axle Spring Kits, Replacement Springs,  
Hose Holders, Cable Ties, Spiral Wrap, Split Loom,  
Grommets, Bushings, and Rubber Cushion Clamps



114

## Electrical Harness Systems

Complete Aftermarket Harnesses,  
Retrofit Rear Sill, Repair Pieces,  
LITE-SENTRY®, Pigtails, and  
Adapters



126

## PERMALITE™ HD Trailer Lighting

Cargo Lamps, Stop-Tail-Turn Lights,  
Side Turn Lights, Marker/  
Clearance Lights, License Lights,  
and Mounting Accessories



145

## Tractor and Trailer Power Management

V-CHECK™ II Battery Status Indicator,  
PERMALOGIC™ Products, and  
STA-CHARGE™ Battery Charger



161

## Tools & General Accessories

Cutters, Strippers, Crimpers, Testers,  
Shop Tools and Accessories, Heat  
Guns & Torches, Brushes, Charging Clips,  
Document Holders, and CSA Kit



169

## Traffic Builders

Showroom Displays, Wall Displays,  
Counter Top Displays, Clip Strips,  
Bulk Merchandising, and Trays/Drawers



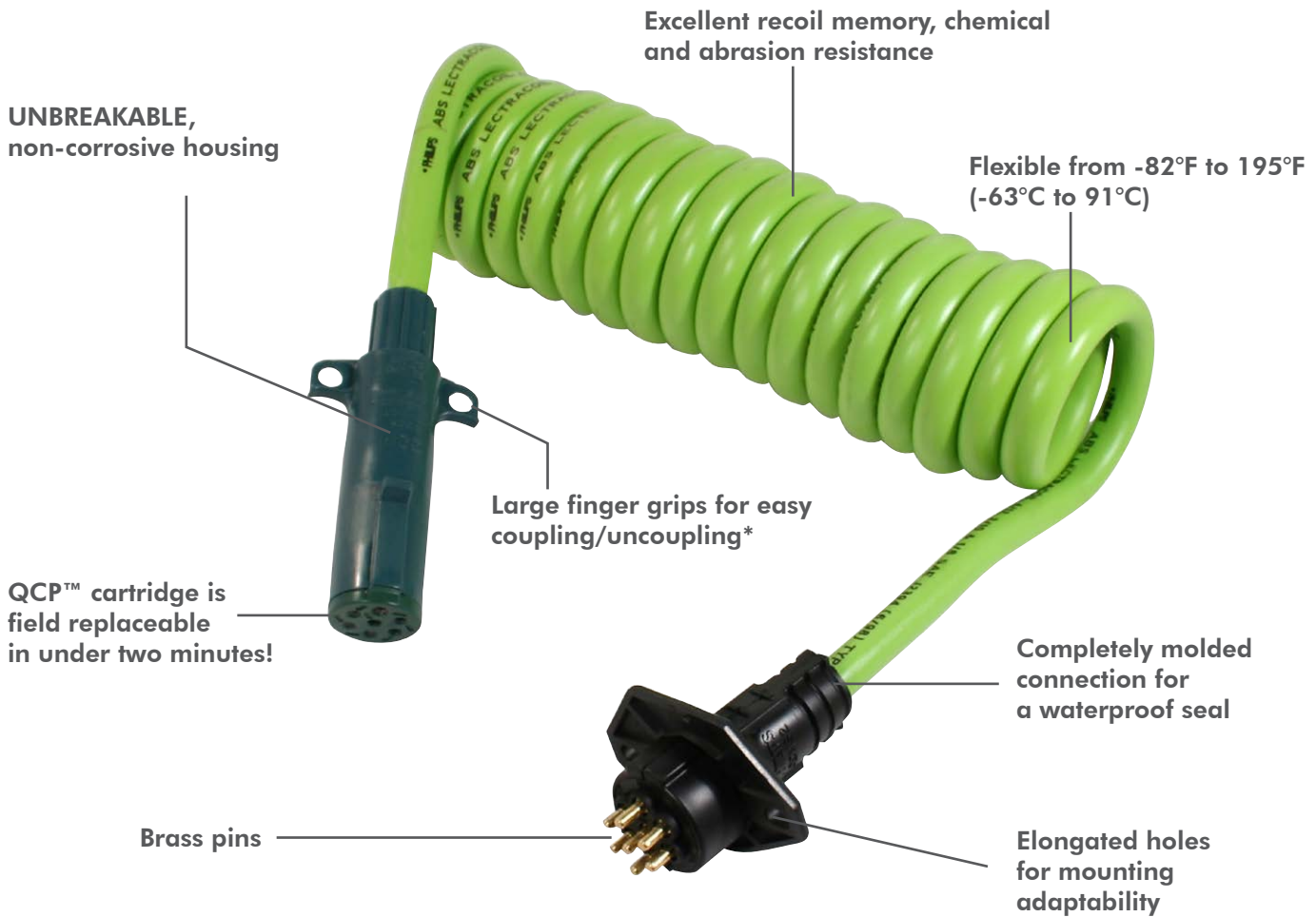
182

## Index

193

# ELECTRICAL ASSEMBLIES

## STA-DRY® QCMS2™



\* Standard on all Phillips electrical cable assemblies and plugs

# ELECTRICAL ASSEMBLIES

- Large finger grips for coupling/uncoupling, even with gloves
- Longer plug interior for easy maintenance
- Protected with non-corrosive, non-conductive, dielectric grease
- WEATHER-TITE™ PERMAPLUGS™ have machine-cripped terminals for increased conductivity
- Meets SAE J560, J2222, J2394 or ISO 3731

## 1/8, 2/10 & 4/12 ga. ABS Applications

| Part No.       | Description                         |   |
|----------------|-------------------------------------|---|
| <b>30-9334</b> | 12', with QCMS2™ and QCP™           | * |
| <b>30-9634</b> | 15', with QCMS2™ and QCP™           | * |
| <b>30-9934</b> | 15', 48" lead, with QCMS2™ and QCP™ | * |

- A tight STA-DRY® seal locks out road contaminants, completely stopping the devastating effects of corrosion
- Plugs directly into the tractor and is rarely removed, further reducing the possibility of contaminants entering the electrical system
- Features the revolutionary QCP™ (Quick-Change Plug), with QCP™ cartridge which is field replaceable in under two minutes!
- Works with the QCS® or QCS2® boot, eliminating the need for a socket
- Flexible from -82°F to 195°F (-63°C to 91°C)
- Built-in theft deterrent
- Patent No. 6,483,200
- ABS LECTRACOIL™ jacketing
- Meets SAE J560, J2394 and J2222
- As a recommended practice, use a tracker bar spring kit or pogo stick to support cable assemblies with longer leads

## STA-DRY® QCMS2™



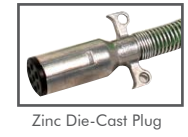
## 1/8, 2/10 & 4/12 ga. ABS Applications

| QCP™ (Quick-Change Plug) |                          | 5 Year Warranty<br>See website for details |
|--------------------------|--------------------------|--|
| Part No.                 | Description              |  |
| <b>30-9324</b>           | 12', with QCP™           | *  |
| <b>30-9624</b>           | 15', with QCP™           | *  |
| <b>30-9924</b>           | 15', 48" lead, with QCP™ | *  |
| <b>30-9954</b>           | 20', with QCP™           | *  |

| WEATHER-TITE™ PERMAPLUG™ |   | 3 Year Warranty<br>See website for details |
|--------------------------|---|--|
| Part No.                 | Description                                   |  |
| <b>30-9120</b>           | 10', with WEATHER-TITE™ PERMAPLUGS™           | *  |
| <b>30-9320</b>           | 12', with WEATHER-TITE™ PERMAPLUGS™           | *  |
| <b>30-9620</b>           | 15', with WEATHER-TITE™ PERMAPLUGS™           | *  |
| <b>30-9920</b>           | 15', 48" lead, with WEATHER-TITE™ PERMAPLUGS™ | *  |
| <b>30-9820</b>           | 20', 48" lead, with WEATHER-TITE™ PERMAPLUGS™ | *  |

| Zinc Die-Cast Plug |   | 3 Year Warranty<br>See website for details |
|--------------------|---|--|
| Part No.           | Description                             |  |
| <b>30-9321</b>     | 12', with zinc die-cast plugs           | *  |
| <b>30-9621</b>     | 15', with zinc die-cast plugs           | *  |
| <b>30-9921</b>     | 15', 48" lead, with zinc die-cast plugs | *  |
| <b>30-9951</b>     | 20', with zinc die-cast plugs           | *  |
| <b>30-9821</b>     | 20', 48" lead, with zinc die-cast plugs | *  |

## ABS LECTRACOIL™



- Recommended for ABS applications and trailers with high voltage demands
- Flexible from -82°F to 195°F (-63°C to 91°C)
- Excellent recoil memory, chemical and abrasion resistance
- QCP™ cartridge is field replaceable in under two minutes!
- The WEATHER-TITE™ PERMAPLUG™ seal blocks contaminants from entering the electrical system
- As a recommended practice, use a tracker bar spring kit or pogo stick to support cable assemblies with longer leads

\* Working length - As measured by pull force per SAE J2222. Length of actual cable is significantly longer.

## ABS PERMACOIL™



- Recommended for ABS applications
- Flexible from -87°F to 150°F (-66°C to 66°C)
- Good recoil memory, chemical and abrasion resistance
- QCP™ cartridge is field replaceable in under two minutes!
- The WEATHER-TITE™ PERMAPLUG™ seal blocks contaminants from entering the electrical system
- As a recommended practice, use a tracker bar spring kit or pogo stick to support cable assemblies with longer leads

### 1/8, 2/10 & 4/12 ga. ABS Applications

#### QCP™ (Quick-Change Plug)

| Part No. | Description              |   |
|----------|--------------------------|---|
| 30-4324  | 12', with QCP™           | * |
| 30-4624  | 15', with QCP™           | * |
| 30-4924  | 15', 48" lead, with QCP™ | * |
| 30-4954  | 20', with QCP™           | * |

#### WEATHER-TITE™ PERMAPLUG™

| Part No. | Description                                   |   |
|----------|---|---|
| 30-4320  | 12', with WEATHER-TITE™ PERMAPLUGS™           | * |
| 30-4420  | 12', 48" lead, with WEATHER-TITE™ PERMAPLUGS™ | * |
| 30-4620  | 15', with WEATHER-TITE™ PERMAPLUGS™           | * |
| 30-4920  | 15', 48" lead, with WEATHER-TITE™ PERMAPLUGS™ | * |
| 30-4820  | 20', 48" lead, with WEATHER-TITE™ PERMAPLUGS™ | * |

#### Zinc Die-Cast Plug

| Part No. | Description                             |   |
|----------|---|---|
| 30-4321  | 12', with zinc die-cast plugs           | * |
| 30-4621  | 15', with zinc die-cast plugs           | * |
| 30-4721  | 15', 72" lead, with zinc die-cast plugs | * |
| 30-4921  | 15', 48" lead, with zinc die-cast plugs | * |
| 30-4951  | 20', with zinc die-cast plugs           | * |
| 30-4821  | 20', 48" lead, with zinc die-cast plugs | * |

## DURACOIL™



- For standard 7-way applications, NON-ABS equipped trailers
- Flexible from -82°F to 195°F (-63°C to 91°C)
- Excellent recoil memory, chemical and abrasion resistance
- UNBREAKABLE WEATHER-TITE™ PERMAPLUG™ or heavy duty reinforced zinc die-cast plugs
- The WEATHER-TITE™ PERMAPLUG™ seal blocks contaminants from entering the electrical system
- As a recommended practice, use a tracker bar spring kit or pogo stick to support cable assemblies with longer leads

### 1/10 & 6/12 ga. NON-ABS Applications

#### WEATHER-TITE™ PERMAPLUG™

| Part No. | Description                                   |   |
|----------|---|---|
| 22-9320  | 12', with WEATHER-TITE™ PERMAPLUGS™           | * |
| 22-9620  | 15', with WEATHER-TITE™ PERMAPLUGS™           | * |
| 22-9720  | 15', 72" lead, with WEATHER-TITE™ PERMAPLUGS™ | * |

#### Zinc Die-Cast Plug

| Part No. | Description                             |   |
|----------|---|---|
| 22-9321  | 12', with zinc die-cast plugs           | * |
| 22-9521  | 12', 72" lead, with zinc die-cast plugs | * |
| 22-9621  | 15', with zinc die-cast plugs           | * |
| 22-9721  | 15', 72" lead, with zinc die-cast plugs | * |
| 22-9921  | 15', 48" lead, with zinc die-cast plugs | * |

### 1/12 & 6/14 ga. NON-ABS Applications

| Part No. | Description                   |   |
|----------|-------------------------------|---|
| 24-9621  | 15', with zinc die-cast plugs | * |

\* Working length - As measured by pull force per SAE J2222. Length of actual cable is significantly longer.



**1/10 & 6/12 ga. NON-ABS Applications**

**QCP™ (Quick-Change Plug)**

| Part No. | Description    |   |
|----------|----------------|---|
| 22-4624  | 15', with QCP™ | * |
| 22-4954  | 20', with QCP™ | * |

**WEATHER-TITE™ PERMAPLUG™**

| Part No. | Description                         |   |
|----------|-------------------------------------|---|
| 22-4320  | 12', with WEATHER-TITE™ PERMAPLUGS™ | * |
| 22-4620  | 15', with WEATHER-TITE™ PERMAPLUGS™ | * |

**Zinc Die-Cast Plug**

| Part No. | Description                             |   |
|----------|---|---|
| 22-4321  | 12', with zinc die-cast plugs           | * |
| 22-4621  | 15', with zinc die-cast plugs           | * |
| 22-4721  | 15', 72" lead, with zinc die-cast plugs | * |
| 22-4951  | 20', with zinc die-cast plugs           | * |

**NON-ABS PERMACOIL™**



- For standard 7-way applications, NON-ABS equipped trailers with minimal voltage demands
- Flexible from -87°F to 150°F (-66°C to 66°C)
- Good recoil memory, chemical and abrasion resistance
- QCP™ cartridge is field replaceable in under two minutes!
- The WEATHER-TITE™ PERMAPLUG™ seal blocks contaminants from entering the electrical system
- As a recommended practice, use a tracker bar spring kit or pogo stick to support cable assemblies with longer leads

**1/12 & 6/14 ga. NON-ABS Applications**

**QCP™ (Quick-Change Plug)**

| Part No. | Description    |   |
|----------|----------------|---|
| 24-4324  | 12', with QCP™ | * |
| 24-4624  | 15', with QCP™ | * |
| 24-4954  | 20', with QCP™ | * |

**WEATHER-TITE™ PERMAPLUG™**

| Part No. | Description                         |   |
|----------|-------------------------------------|---|
| 24-4320  | 12', with WEATHER-TITE™ PERMAPLUGS™ | * |
| 24-4620  | 15', with WEATHER-TITE™ PERMAPLUGS™ | * |

**Zinc Die-Cast Plug**

| Part No. | Description                   |   |
|----------|-------------------------------|---|
| 24-4321  | 12', with zinc die-cast plugs | * |
| 24-4621  | 15', with zinc die-cast plugs | * |
| 24-4951  | 20', with zinc die-cast plugs | * |

**Coiled M7**



- The M7, or Molded 7-way electrical assembly, features plugs that are unbreakable and completely molded to the electrical cable to combat against the devastating effects of corrosion!
- Jacketing is flexible from -87°F to 150°F (-66°C to 66°C)
- ABS cables feature an army green colored jacketing
- Good recoil memory, chemical and abrasion resistance
- Plug meets SAE J560 standards

**1/8, 2/10 & 4/12 ga. ABS Applications**

| Part No. | Description                                   |   |
|----------|---|---|
| 30-4327  | 12', coiled, with molded plugs                | * |
| 30-4627  | 15', coiled, with molded plugs                | * |
| 30-4927  | 15', with 48" lead, coiled, with molded plugs | * |

**1/12 & 6/14 ga. NON-ABS Applications**

| Part No. | Description                    |   |
|----------|--------------------------------|---|
| 24-4327  | 12', coiled, with molded plugs | * |
| 24-4627  | 15', coiled, with molded plugs | * |

\* Working length - As measured by pull force per SAE J2222. Length of actual cable is significantly longer.

## ISOCOIL™



### 1/8, 2/10 & 4/12 ga. ISO Applications

| Part No. | Description                             |   |
|----------|---|---|
| 31-9323  | 12', with zinc die-cast plugs           | * |
| 31-9623  | 15', with zinc die-cast plugs           | * |
| 31-9923  | 15', 48" lead, with zinc die-cast plugs | * |

- For ISO (International Standard Organization) / auxiliary applications
- Flexible from -82°F to 195°F (-63°C to 91°C)
- Excellent recoil memory, chemical and abrasion resistance
- Twisted pair brown and green wires to avoid signal noise
- Male ground pin to prevent misconnections
- Heavy duty, reinforced zinc die-cast housing
- As a recommended practice, use a tracker bar spring kit or pogo stick to support cable assemblies with longer leads

## Accessory Coil



### 1/8, 2/10 & 4/12 ga. ISO Applications

| Part No. | Description                   |   |
|----------|-------------------------------|---|
| 31-4323  | 12', with zinc die-cast plugs | * |
| 31-4623  | 15', with zinc die-cast plugs | * |

- For auxiliary applications
- Brown and green wires are not twisted
- Flexible from -87°F to 150°F (-66°C to 66°C)
- Good recoil memory, chemical and abrasion resistance
- Male ground pin to prevent misconnections
- Heavy duty, reinforced zinc die-cast plugs

## Straight STA-DRY® QCMS2™



### 1/8, 2/10 & 4/12 ga. ABS Applications

| Part No. | Description                |  |
|----------|----------------------------|--|
| 30-2055  | 12', with QCMS2™ with QCP™ |  |
| 30-2075  | 15', with QCMS2™ with QCP™ |  |
| 30-2095  | 20', with QCMS2™ with QCP™ |  |

- A tight STA-DRY® seal locks out road contaminants, completely stopping the devastating effects of corrosion
- Plugs directly to the tractor and is rarely removed, further reducing the possibility of contaminants entering the electrical system
- QCP™ cartridge is field replaceable in under two minutes!
- Works with the QCS® or QCS2® boot, eliminating the need for a socket
- Built-in theft deterrent
- ABS LECTRAFLEX™ jacketing
- Flexible from -40°F to 150°F (-40°C to 66°C)
- Available in 3-IN-1 and 4-IN-1 assemblies
- Patent No. 6,483,200

\* Working length - As measured by pull force per SAE J2222. Length of actual cable is significantly longer.

**1/8, 2/10 & 4/12 ga. ABS Applications**

**QCP™ (Quick-Change Plug)**

| Part No. | Description    |
|----------|----------------|
| 30-2054  | 12', with QCP™ |
| 30-2074  | 15', with QCP™ |
| 30-2094  | 20', with QCP™ |

**WEATHER-TITE™ PERMAPLUG™**

| Part No. | Description                         |
|----------|-------------------------------------|
| 30-2010  | 8', with WEATHER-TITE™ PERMAPLUGS™  |
| 30-2030  | 10', with WEATHER-TITE™ PERMAPLUGS™ |
| 30-2050  | 12', with WEATHER-TITE™ PERMAPLUGS™ |
| 30-2070  | 15', with WEATHER-TITE™ PERMAPLUGS™ |

**Zinc Die-Cast Plug**

| Part No. | Description                   |
|----------|-------------------------------|
| 30-2011  | 8', with zinc die-cast plugs  |
| 30-2031  | 10', with zinc die-cast plugs |
| 30-2051  | 12', with zinc die-cast plugs |
| 30-2071  | 15', with zinc die-cast plugs |
| 30-2091  | 20', with zinc die-cast plugs |

**Straight ABS LECTRAFLEX™**



- Spring-wrapped compression contact pins
- Chemical and abrasion resistant
- QCP™ cartridge is field replaceable in under two minutes!
- The WEATHER-TITE™ PERMAPLUG™ seal blocks contaminants from entering the electrical system
- Flexible from -40°F to 150°F (-40°C to 66°C)
- Available in 3-IN-1 and 4-IN-1 assemblies

**1/10 & 6/12 ga. NON-ABS Applications**

| Part No. | Description                   |
|----------|-------------------------------|
| 22-2011  | 8', with zinc die-cast plugs  |
| 22-2031  | 10', with zinc die-cast plugs |
| 22-2051  | 12', with zinc die-cast plugs |
| 22-2071  | 15', with zinc die-cast plugs |

- Chemical and abrasion resistant
- Heavy duty, reinforced zinc die-cast housing
- Spring-wrapped compression contact pins
- Flexible from -40°F to 150°F (-40°C to 66°C)
- Available in 3-IN-1 and 4-IN-1 assemblies

**Straight NON-ABS DURAFLEX™**



**1/8, 2/10 & 4/12 ga. ABS Applications**

| Part No. | Description                        |
|----------|------------------------------------|
| 30-2057  | 12', straight, with molded plugs * |
| 30-2077  | 15', straight, with molded plugs * |

**1/10 & 6/12 ga. NON-ABS Applications**

| Part No. | Description                        |
|----------|------------------------------------|
| 22-2057  | 12', straight, with molded plugs * |
| 22-2077  | 15', straight, with molded plugs * |

- The M7, or Molded 7-way electrical assembly, features plugs that are unbreakable and completely molded to the electrical cable to combat against the devastating effects of corrosion!
- Jacketing is flexible from -40°F to 150°F (-40°C to 66°C)
- ABS cables feature an army green colored jacketing
- Good chemical and abrasion resistance
- Plug meets SAE J560 standards

**Straight M7**



\* Working length - As measured by pull force per SAE J2222. Length of actual cable is significantly longer.

## Straight ISO FLEX™



### 1/8, 2/10 & 4/12 ga. ISO Applications

| Part No.       | Description                   |
|----------------|-------------------------------|
| <b>31-2033</b> | 10', with zinc die-cast plugs |
| <b>31-2053</b> | 12', with zinc die-cast plugs |
| <b>31-2073</b> | 15', with zinc die-cast plugs |
| <b>31-2093</b> | 20', with zinc die-cast plugs |

- Good chemical and abrasion resistance
- Heavy duty, reinforced zinc die-cast housing
- Flexible from -40°F to 150°F (-40°C to 66°C)
- Available in 4-IN-1 assemblies
- For auxiliary applications
- Twisted pair brown and green wires to reduce signal
- Spring-wrapped compression contact pins

## DOLLY CABLES

### 'Y' Dolly Cables



Zinc Die-Cast Plug

### 1/8, 2/10 & 4/12 ga. ABS Applications

| Part No.       | Description  |
|----------------|--|
| <b>30-4140</b> | 10', 'Y' dolly cable, with WEATHER-TITE™ PERMAPLUGS™ * |
| <b>30-4141</b> | 10', 'Y' dolly cable, with zinc die-cast plugs *       |

- For trailer doubles utilizing dolly applications
- Connect electricals to the second trailer and dolly with one cable
- Recommended for ABS applications
- ABS PERMACOIL™ jacketing flexible from -87°F to 150°F (-66°C to 66°C)
- Good recoil memory, chemical and abrasion resistance
- WEATHER-TITE™ PERMAPLUG™ seal blocks all contaminants from entering the electrical system, creating a complete seal!
- Plugs meet SAE J560 specifications

## LIGHT DUTY CABLES

### STA-DRY® 6 & 4-Way Light Duty Cables



Molded plug for long life!

#### Coiled

| 6-Way          | 4-Way          | Description                     |
|----------------|----------------|---------------------------------|
| <b>19-6708</b> | <b>19-4708</b> | 8', with THERMOSEALED™ plugs *  |
| <b>19-6710</b> | <b>19-4710</b> | 10', with THERMOSEALED™ plugs * |
| <b>19-6712</b> | <b>19-4712</b> | 12', with THERMOSEALED™ plugs * |
| <b>19-6715</b> | <b>19-4715</b> | 15', with THERMOSEALED™ plugs * |

#### Straight

| 6-Way          | 4-Way          | Description                              |
|----------------|----------------|--|
| <b>19-6006</b> | <b>19-4006</b> | 6', with THERMOSEALED™ plugs <b>NEW</b>  |
| <b>19-6008</b> | <b>19-4008</b> | 8', with THERMOSEALED™ plugs <b>NEW</b>  |
| <b>19-6010</b> | <b>19-4010</b> | 10', with THERMOSEALED™ plugs <b>NEW</b> |
| <b>19-6012</b> | <b>19-4012</b> | 12', with THERMOSEALED™ plugs <b>NEW</b> |
| <b>19-6015</b> | <b>19-4015</b> | 15', with THERMOSEALED™ plugs <b>NEW</b> |
| <b>19-6020</b> | <b>19-4020</b> | 20', with THERMOSEALED™ plugs <b>NEW</b> |

- For light duty towing applications such as boats and utility trailers
- Plugs are molded for moisture and corrosion resistance
- Coiled cables have the same heavy duty jacket as our PERMACOIL™ and ABS PERMACOIL™
- Flexible from -87°F to 150°F (-66°C to 66°C)
- 16 ga. wires

\* Working length - As measured by pull force per SAE J2222. Length of actual cable is significantly longer.



## 7-Way Light Duty PERMACOIL™

### 1/14 & 6/16 ga. Fine Stranded Copper

| Part No.       | Description               |
|----------------|---------------------------|
| <b>19-7752</b> | 11.5', with PERMAPLUGS™ * |

- Light duty 7-way accessory cable for truck mounted applications such as forklifts
- Capable of running stop, turn and tail lights
- 360° compression ring secures PERMAPLUG™ to cable and eliminates moisture and corrosion
- Flexible from -87°F to 150°F (-66°C to 66°C)
- Good recoil memory, chemical and abrasion resistance
- Meets ISO 1185 and ISO 4141 specifications



## STA-DRY® WEATHER-TITE™ M2 LIFTGATE CHARGING CABLES

- For dual pole liftgate applications utilizing a trailer battery pack
- Features plugs that are unbreakable with non-corrosive housing which are completely molded to the electrical cable to combat against corrosion
- The WEATHER-TITE™ seal adds additional corrosion protection at the front of the plug by blocking moisture and contaminants from entering the electrical system through the coupled connection
- 100 amp continuous capacity, 200 amp intermittent capacity
- Flexible from -82°F to 195°F (-63°C to 91°C)
- Meets J3082 standards

### Coiled Dual Pole WEATHER-TITE™ M2 - 4 GA.

#### 2/4 ga. Fine Stranded Copper

| Part No.        | Description  |
|-----------------|--|
| <b>23-23276</b> | 12', 1 ground, 1 hot, 4 ga. <b>NEW</b>               |
| <b>23-26276</b> | 15', 1 ground, 1 hot, 4 ga. <b>NEW</b>               |
| <b>23-29276</b> | 15' with 48" lead, 1 ground, 1 hot, 4 ga. <b>NEW</b> |

- Excellent recoil memory, chemical and abrasion resistance



### Coiled Dual Pole WEATHER-TITE™ M2 - 2 GA.

#### 2/2 ga. Fine Stranded Copper

| Part No.        | Description  |
|-----------------|--|
| <b>25-23276</b> | 12', 1 ground, 1 hot, 2 ga. <b>NEW</b>               |
| <b>25-26276</b> | 15', 1 ground, 1 hot, 2 ga. <b>NEW</b>               |
| <b>25-29276</b> | 15' with 48" lead, 1 ground, 1 hot, 2 ga. <b>NEW</b> |

- Excellent recoil memory, chemical and abrasion resistance



\* Working length - As measured by pull force per SAE J2222. Length of actual cable is significantly longer.

## Straight Dual Pole WEATHER-TITE™ M2 - 4 GA.



| 2/4 ga. Fine Stranded Copper |  |
|------------------------------|--|
| Part No.                     | Description  |
| 23-22576                     | 12', 1 ground, 1 hot, 4 ga. <span style="float: right;">NEW</span> |
| 23-22776                     | 15', 1 ground, 1 hot, 4 ga. <span style="float: right;">NEW</span> |

- Good chemical and abrasion resistance

## Straight Dual Pole WEATHER-TITE™ M2 - 2 GA.



| 2/2 ga. Fine Stranded Copper |  |
|------------------------------|--|
| Part No.                     | Description  |
| 25-22576                     | 12', 1 ground, 1 hot, 2 ga. <span style="float: right;">NEW</span> |
| 25-22776                     | 15', 1 ground, 1 hot, 2 ga. <span style="float: right;">NEW</span> |

- Good chemical and abrasion resistance

# ZINC DIE-CAST LIFTGATE CHARGING CABLES

- For liftgate applications utilizing a trailer battery pack
- 4 ga. fine stranded copper for flexibility
- 100 amp continuous capacity; 200 amp intermittent capacity

## Dual Pole



| 2/4 ga. Fine Stranded Copper |                                  |
|------------------------------|----------------------------------|
| Part No.                     | Description                      |
| 23-2326                      | 12', 1 ground, 1 hot *           |
| 23-2626                      | 15', 1 ground, 1 hot *           |
| 23-2926                      | 15', 48" lead, 1 ground, 1 hot * |

- Excellent recoil memory, chemical and abrasion resistance
- Flexible from -82°F to 195°F (-63°C to 91°C)
- Internal ground to improve ground connections
- As a recommended practice, use a tracker bar spring kit or pogo stick to support cable assemblies with longer leads
- Heavy duty, reinforced zinc die-cast housing
- Mates with dual pole metal socket 15-326

## Dual Pole PERMACOIL™



| 2/4 ga. Fine Stranded Copper |                                  |
|------------------------------|----------------------------------|
| Part No.                     | Description                      |
| 23-2316                      | 12', 1 ground, 1 hot *           |
| 23-2616                      | 15', 1 ground, 1 hot *           |
| 23-2916                      | 15', 40" lead, 1 ground, 1 hot * |

- Good recoil memory, chemical and abrasion resistance
- Flexible from -87°F to 150°F (-66°C to 66°C)
- Internal ground to improve ground connections
- Mates with dual pole metal socket 15-326
- Same heavy duty jacket as our PERMACOIL™ and ABS PERMACOIL™
- As a recommended practice, use a tracker bar spring kit or pogo stick to support cable assemblies with longer leads

\* Working length - As measured by pull force per SAE J2222. Length of actual cable is significantly longer.

## Dual Pole "Y" Adapter

### 2/4 ga. Fine Stranded Copper

| Part No.       | Description                               |
|----------------|---|
| <b>23-2630</b> | 15', 48" and 24" leads, 1 ground, 1 hot * |

- For fleets with single and dual pole trailers
- Allows dual pole tractor to connect to single or dual pole trailer
- Coil has dual pole tractor side and dual and single pole plug trailer side
- Excellent recoil memory, chemical and abrasion resistance
- Flexible from -82°F to 195°F (-63°C to 91°C)
- Heavy duty, reinforced zinc die-cast housing
- As a recommended practice, use a tracker bar spring kit or pogo stick to support cable assemblies with longer leads



## Dual Pole to Single Pole Lead

### 2/4 ga. Fine Stranded Copper

| Part No.       | Description            |
|----------------|------------------------|
| <b>23-2628</b> | 15', 1 ground, 1 hot * |

- Coil has one dual pole and one single pole plug
- Excellent recoil memory, chemical and abrasion resistance
- Flexible from -82°F to 195°F (-63°C to 91°C)
- Heavy duty, reinforced zinc die-cast housing



## Single Pole

### 1/4 ga. Fine Stranded Copper

| Part No.       | Description                 |
|----------------|-----------------------------|
| <b>23-4325</b> | 12', 1 hot *                |
| <b>23-4625</b> | 15', 1 hot *                |
| <b>23-4925</b> | 15', with 48" lead, 1 hot * |

- Good recoil memory, chemical and abrasion resistance
- Flexible from -87°F to 150°F (-66°C to 66°C)
- Heavy duty, reinforced zinc die-cast housing
- Mates with single pole metal socket 15-320
- As a recommended practice, use a tracker bar spring kit or pogo stick to support cable assemblies with longer leads



## Straight - Single Pole

### 1/4 ga. Fine Stranded Copper

| Part No.       | Description |
|----------------|-------------|
| <b>23-2051</b> | 12', 1 hot  |
| <b>23-2071</b> | 15', 1 hot  |
| <b>23-2091</b> | 20', 1 hot  |

- Good chemical and abrasion resistance
- Heavy duty, reinforced zinc die-cast plugs
- Flexible from -82°F to 195°F (-63°C to 91°C)
- Mates with 15-320 socket
- Available in 4-IN-1 applications



\* Working length - As measured by pull force per SAE J2222. Length of actual cable is significantly longer.

## Straight - Dual Pole



| 2/4 ga. Fine Stranded Copper |                      |
|------------------------------|----------------------|
| Part No.                     | Description          |
| 23-2251                      | 12', 1 ground, 1 hot |
| 23-2271                      | 15', 1 ground, 1 hot |

- Good chemical and abrasion resistance
- Internal ground to improve ground connection
- Heavy duty, reinforced zinc die-cast plugs
- Flexible from -82°F to 195°F (-63°C to 91°C)
- Mates with 15-326 socket
- Available in 4-IN-1 applications

## AUXILIARY VERTICAL DUAL POLE CABLES

- For auxiliary applications such as tarps, utilizing a trailer battery pack
- Pins are offset allowing for initial ground contact, preventing the potential for arcing
- Made with either 4 ga. or 6 ga. fine stranded copper for flexibility
- Internal ground to improve ground connections
- Heavy duty, reinforced zinc die-cast plugs
- Mates with vertical dual pole metal socket 15-328
- Meets J3082 standards

### Vertical Dual Pole - 4 Ga.



| 2/4 ga. Fine Stranded Copper |  |
|------------------------------|--|
| Part No.                     | Description                                  |
| 23-2329                      | 12', 1 ground, 1 hot, 4 ga. *                |
| 23-2629                      | 15', 1 ground, 1 hot, 4 ga. *                |
| 23-2929                      | 15', with 48" lead, 1 ground, 1 hot, 4 ga. * |

- Excellent recoil memory, chemical and abrasion resistance
- Flexible from -82°F to 195°F (-63°C to 91°C)
- 100 amp continuous capacity; 200 amp intermittent capacity

### Vertical Dual Pole PERMACOIL™ - 4 Ga.



| 2/4 ga. Fine Stranded Copper |  |
|------------------------------|--|
| Part No.                     | Description                                  |
| 23-4329                      | 12', 1 ground, 1 hot, 4 ga. *                |
| 23-4629                      | 15', 1 ground, 1 hot, 4 ga. *                |
| 23-4929                      | 15', with 48" lead, 1 ground, 1 hot, 4 ga. * |

- Good recoil memory, chemical and abrasion resistance
- Flexible from -87°F to 150°F (-66°C to 66°C)
- 100 amp continuous capacity; 200 amp intermittent capacity
- Same heavy duty jacket as our PERMACOIL™ and ABS PERMACOIL™

### Vertical Dual Pole - 6 Ga.



| 2/6 ga. Fine Stranded Copper |  |
|------------------------------|--|
| Part No.                     | Description                                  |
| 21-2329                      | 12', 1 ground, 1 hot, 6 ga. *                |
| 21-2629                      | 15', 1 ground, 1 hot, 6 ga. *                |
| 21-2929                      | 15', with 48" lead, 1 ground, 1 hot, 6 ga. * |

- Excellent recoil memory, chemical and abrasion resistance
- Flexible from -82°F to 195°F (-63°C to 91°C)
- 70 amp continuous capacity; 130 amp intermittent capacity

\* Working length - As measured by pull force per SAE J2222. Length of actual cable is significantly longer.



**Vertical Dual Pole PERMACOIL™ - 6 Ga.****2/6 ga. Fine Stranded Copper**

| Part No.       | Description                                |   |
|----------------|--|---|
| <b>21-4329</b> | 12', 1 ground, 1 hot, 6 ga.                | * |
| <b>21-4629</b> | 15', 1 ground, 1 hot, 6 ga.                | * |
| <b>21-4929</b> | 15', with 48" lead, 1 ground, 1 hot, 6 ga. | * |

- Good recoil memory, chemical and abrasion resistance
- Flexible from -87°F to 150°F (-66°C to 66°C)
- 70 amp continuous capacity; 130 amp intermittent capacity
- Same heavy duty jacket as our PERMACOIL™ and ABS PERMACOIL™

**Straight - Vertical Dual Pole - 4 Ga.****2/4 ga. Fine Stranded Copper**

| Part No.       | Description                 |  |
|----------------|-----------------------------|--|
| <b>23-2232</b> | 10', 1 ground, 1 hot, 4 ga. |  |
| <b>23-2252</b> | 12', 1 ground, 1 hot, 4 ga. |  |
| <b>23-2272</b> | 15', 1 ground, 1 hot, 4 ga. |  |
| <b>23-2292</b> | 20', 1 ground, 1 hot, 4 ga. |  |

- Good chemical and abrasion resistance
- 100 amp continuous capacity; 200 amp intermittent capacity

**Straight - Vertical Dual Pole - 6 Ga.****2/6 ga. Fine Stranded Copper**

| Part No.       | Description                 |  |
|----------------|-----------------------------|--|
| <b>21-2232</b> | 10', 1 ground, 1 hot, 6 ga. |  |
| <b>21-2252</b> | 12', 1 ground, 1 hot, 6 ga. |  |
| <b>21-2272</b> | 15', 1 ground, 1 hot, 6 ga. |  |
| <b>21-2292</b> | 20', 1 ground, 1 hot, 6 ga. |  |

- Good chemical and abrasion resistance
- 70 amp continuous capacity; 130 amp intermittent capacity



\* Working length - As measured by pull force per SAE J2222. Length of actual cable is significantly longer.

# KIT

## Liftgate Dual Pole Installation/Conversion Kit



- Improve conductivity with a dual pole charge set-up
- Dual pole sockets offer a secure ground that a 5th wheel does not
- Kit is available with or without 150 amp circuit breakers

| Part No.          | Description   |
|-------------------|---|
| <b>15-327</b>     | Liftgate dual pole conversion kit                               |
| <b>15-327-150</b> | Liftgate dual pole conversion kit with 150 amp circuit breakers |

| Kit Contents     |  |         |
|------------------|--|---------|
| Part No.         | Description  | Qty.    |
| <b>3-503-010</b> | 4 ga. red battery cable  | 10 feet |
| <b>3-504-010</b> | 4 ga. black battery cable  | 10 feet |
| <b>5-712*</b>    | 7/16" (center hole) grommet for battery box                            | 1       |
| <b>5-45074*</b>  | 7/16" rubber cushion clamps, with 3/8" mounting hole                   | 20      |
| <b>6-404*</b>    | 1-2/0 ga. heavy dual wall heat shrink tubing, black, 1.5"              | 2       |
| <b>6-405*</b>    | 1-2/0 ga. heavy dual wall heat shrink tubing, red, 1.5"                | 2       |
| <b>8-4121*</b>   | 4 ga. x 1/4" tin-plated copper lug                                     | 4       |
| <b>8-4122*</b>   | 4 ga. x 5/16" tin-plated copper lug                                    | 4       |
| <b>8-4123*</b>   | 4 ga. x 3/8" tin-plated copper lug                                     | 2       |
| <b>15-326*</b>   | Dual pole socket   | 1       |
| <b>15-740*</b>   | Boot - 7-pin socket  | 1       |
| <b>15-784*</b>   | Flat mounting bracket  | 1       |
| <b>15-798*</b>   | Mounting gasket - 2 hole mount socket                                  | 1       |
| <b>17-154*</b>   | QWIK-SNAP™ 4-hose holder   | 1       |
| <b>23-2626*</b>  | 15' dual pole coiled cable   | 1       |
| <b>53-515*</b>   | 150 amp high capacity circuit breakers (included with 15-327-150 only) | 1       |
| <b>80-250*</b>   | Dielectric grease tubes, 6 grams                                       | 2       |

\*Part number quantities listed in the kit break standard pack. If part number is ordered separately outside of the kit, additional quantities will be received.

# AIR ASSEMBLIES

## POLAR AIR®

Large, 5" coil diameter to improve flexibility

Pre-applied thread sealant provides air tight seal\*

Jacketing provides superior recoil memory, chemical and abrasion resistance

Remains flexible to -85°F for extreme cold weather protection

Extra long spring for strain relief and to prevent kinking\*

Three-piece swivel factor side fitting

POWER GRIP™ long brass handle for easy coupling/uncoupling

**PolarAir®**  
**EXTREME**  
**COLD WEATHER**  
**AIR COIL**



\* Standard on all Phillips air coils

# COILED AIR

## POLAR AIR®



- REMAINS FLEXIBLE AT -85°F (-65°C)!
- FOR EXTREME WEATHER CONDITIONS
- Excellent recoil memory, chemical and abrasion resistance
- Jacketing prevents fractures and provides durable rubber feel
- Large coil diameter prevents kinking and provides greater recoil
- POWER GRIP™ gladhand extension provides superior coupling/uncoupling leverage
- Single piece trailer side and three-piece swivel tractor side fittings
- 1/2" NPTF
- Meets SAE J844 and J1131 specifications
- Meets DOT 49 CFR FMVSS 571.106 specifications
- Meets DOT 49 CFR FMVSS 393.45 specifications
- As a recommended practice, use a tracker bar spring kit or pogo stick to support cable assemblies with longer leads

| 8' Working Length |                     |
|-------------------|---------------------|
| Part No.          | Description         |
| 11-5110           | Pair (red and blue) |

| 12' Working Length |                     |
|--------------------|---------------------|
| Part No.           | Description         |
| 11-5120            | Pair (red and blue) |

| 12' Working Length with 40" Lead |                                   |
|----------------------------------|-----------------------------------|
| Part No.                         | Description                       |
| 11-5300                          | Pair (red and blue) with 40" lead |

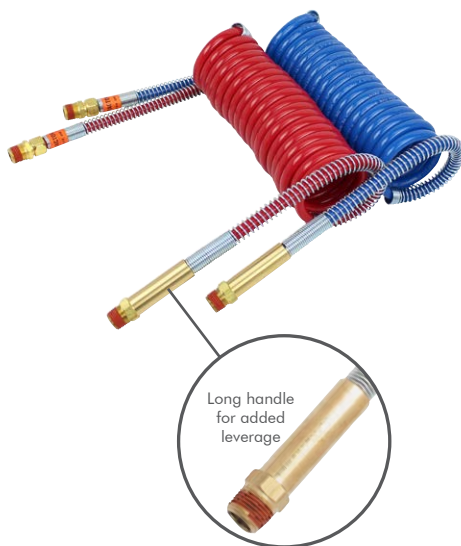
| 15' Working Length |                           |
|--------------------|---------------------------|
| Part No.           | Description               |
| 11-5150            | Pair (red and blue)       |
| 11-5151            | Red (emergency) coil only |
| 11-5152            | Blue (service) coil only  |

| 15' Working Length with 40" Lead |  |
|----------------------------------|--|
| Part No.                         | Description                              |
| 11-5400                          | Pair (red and blue) with 40" lead        |
| 11-5401                          | Red (emergency) coil only, with 40" lead |
| 11-5402                          | Blue (service) coil only, with 40" lead  |

| 20' Working Length |                     |
|--------------------|---------------------|
| Part No.           | Description         |
| 11-5200            | Pair (red and blue) |

| 20' Working Length with 40" Lead |                     |
|----------------------------------|---------------------|
| Part No.                         | Description         |
| 11-5240                          | Pair (red and blue) |

## POWER GRIP™



| 12' Working Length |                           |
|--------------------|---------------------------|
| Part No.           | Description               |
| 11-3120            | Pair (red and blue)       |
| 11-3100            | Red (emergency) coil only |
| 11-3110            | Blue (service) coil only  |

| 15' Working Length |                           |
|--------------------|---------------------------|
| Part No.           | Description               |
| 11-3150            | Pair (red and blue)       |
| 11-3170            | Red (emergency) coil only |
| 11-3180            | Blue (service) coil only  |

| 15' Working Length with 40" Lead |  |
|----------------------------------|--|
| Part No.                         | Description                              |
| 11-3400                          | Pair (red and blue), with 40" lead       |
| 11-3380                          | Red (emergency) coil only, with 40" lead |
| 11-3390                          | Blue (service) coil only, with 40" lead  |

- POWER GRIP™ gladhand extension provides superior coupling/uncoupling leverage
- Includes thread seal for secure connection to gladhand and chassis
- Single piece trailer side and three-piece swivel tractor side fittings
- Remains flexible at -40°F (-40°C)
- 1/2" NPTF
- Meets SAE J844 and J1131 specifications
- Meets DOT 49 CFR FMVSS 571.106 specifications
- Meets DOT 49 CFR FMVSS 393.45 specifications
- As a recommended practice, use a tracker bar spring kit or pogo stick to support cable assemblies with longer leads



## Heavy Duty Coiled Air



| 12' Working Length |                           |
|--------------------|---------------------------|
| Part No.           | Description               |
| 11-312             | Pair (red and blue)       |
| 11-310             | Red (emergency) coil only |
| 11-311             | Blue (service) coil only  |

| 12' Working Length with 48" Lead |  |
|----------------------------------|--|
| Part No.                         | Description                              |
| 11-333                           | Pair (red and blue), with 48" lead       |
| 11-331                           | Red (emergency) coil only, with 48" lead |
| 11-332                           | Blue (service) coil only, with 48" lead  |

| 15' Working Length |                           |
|--------------------|---------------------------|
| Part No.           | Description               |
| 11-315             | Pair (red and blue)       |
| 11-317             | Red (emergency) coil only |
| 11-318             | Blue (service) coil only  |

| 15' Working Length with 40" Lead |  |
|----------------------------------|--|
| Part No.                         | Description                              |
| 11-340                           | Pair (red and blue), with 40" lead       |
| 11-338                           | Red (emergency) coil only, with 40" lead |
| 11-339                           | Blue (service) coil only, with 40" lead  |

| 20' Working Length |                           |
|--------------------|---------------------------|
| Part No.           | Description               |
| 11-320             | Pair (red and blue)       |
| 11-321             | Red (emergency) coil only |
| 11-322             | Blue (service) coil only  |

- Includes thread seal for secure connection to gladhand
- Single piece trailer side and three-piece swivel tractor side fittings
- Plated steel spring for added tubing protection
- Remains flexible at -40°F (-40°C)
- 1/2" NPTF
- Meets SAE J844 and J1131 specifications
- Meets DOT 49 CFR FMVSS 571.106 specifications
- Meets DOT 49 CFR FMVSS 393.45 specifications
- As a recommended practice, use a tracker bar spring kit or pogo stick to support cable assemblies with longer leads

| 12' Working Length |   |
|--------------------|---|
| Part No.           | Description                                       |
| 11-3129            | Pair, with 2 gladhands                            |
| 11-51209           | POLAR AIR® pair, with POWER GRIP™ and 2 gladhands |

| 15' Working Length |   |
|--------------------|---|
| Part No.           | Description                                       |
| 11-3159            | Pair, with 2 gladhands                            |
| 11-31509           | POWER GRIP™ pair, with 2 gladhands                |
| 11-51509           | POLAR AIR® pair, with POWER GRIP™ and 2 gladhands |

| 15' Working Length with 40" Lead |  |
|----------------------------------|--|
| Part No.                         | Description  |
| 11-3409                          | Pair, with 40" lead and 2 gladhands                              |
| 11-34009                         | POWER GRIP™ pair, with 40" lead and 2 gladhands                  |
| 11-54009                         | POLAR AIR® pair, with 40" lead, with POWER GRIP™ and 2 gladhands |

## Coiled Air with Gladhands



- Pre-installed gladhands torqued to factory specifications
- Air coils are built to "working length" to ensure coil does not kink and gladhands are secure under excessive pull force
- Gladhands are built with a heavy gauge powder-coated connector plate for corrosion protection
- Single piece trailer side and three-piece swivel tractor side fittings
- Air coils remain flexible at -40°F (-40°C) with the exception of POLAR AIR® which remains flexible at -85°F (-65°C)
- 1/2" NPTF
- Meets DOT 49 CFR FMVSS 571.106 specifications
- Meets DOT 49 CFR FMVSS 393.45 specifications
- As a recommended practice, use a tracker bar spring kit or pogo stick to support cable assemblies with longer leads

## Coiled Air



### 12' Working Length

| Part No.      | Description         |
|---------------|---------------------|
| <b>11-712</b> | Pair (red and blue) |

### 15' Working Length

| Part No.      | Description               |
|---------------|---------------------------|
| <b>11-715</b> | Pair (red and blue)       |
| <b>11-717</b> | Red (emergency) coil only |
| <b>11-718</b> | Blue (service) coil only  |

### 15' Working Length with 40" Lead

| Part No.      | Description                             |
|---------------|---|
| <b>11-738</b> | Red (emergency), with 40" lead          |
| <b>11-739</b> | Blue (service) coil only, with 40" lead |
| <b>11-740</b> | Pair (red and blue), with 40" lead      |

- Includes thread seal for secure connection to gladhand
- Comes standard with temporary protective fitting caps to shield thread seal and block unwanted debris before installation
- Steel springs for added tubing protection
- Single piece trailer side and four piece tractor side fittings
- 1/2" NPTF
- Working temperature: -40°F to 200°F (-40°C to 93°C)
- Meets SAE J844 and J1131 specifications
- Meets DOT 49 CFR FMVSS 571.106 specifications
- Meets DOT 49 CFR FMVSS 393.45 specifications
- As a recommended practice, use a tracker bar spring kit or pogo stick to support cable assemblies with longer leads

## Sliding Fifth Wheel Coiled Air



11-302



11-300KT

| Part No.        | Description   |
|-----------------|---|
| <b>11-300</b>   | 54" extension with 1/4" male pipe thread                        |
| <b>11-300KT</b> | 11-300 with brass female adapter, 90° elbow fitting and 8" tie  |
| <b>11-302</b>   | 60" extension with 1/4" quick connect swivel and coil protector |
| <b>11-303</b>   | 36" extension with 1/4" male pipe thread                        |

- Brass ends for durability
- Industry standard nylon tubing
- Extra long spring for strain relief

# STRAIGHT RUBBER AIR

## Rubber Air Lines

| 8' Working Length |  |
|-------------------|--|
| Part No.          | Description  |
| 11-81068          | Red rubber, with red (emergency) grip                                      |
| 11-81076          | Blue rubber, with blue (service) grip                                      |
| 11-81080          | Pair, red and blue rubber, with red and blue (emergency and service) grips |

| 12' Working Length |  |
|--------------------|--|
| Part No.           | Description  |
| 11-8110            | Black rubber, with red (emergency) grip                                    |
| 11-8111            | Black rubber, with blue (service) grip                                     |
| 11-8112            | Pair, black rubber, with red and blue (emergency and service) grips        |
| 11-8113            | Black rubber, with black (universal) grip                                  |
| 11-81108           | Red rubber, with red (emergency) grip                                      |
| 11-81116           | Blue rubber, with blue (service) grip                                      |
| 11-81120           | Pair, red and blue rubber, with red and blue (emergency and service) grips |

| 15' Working Length |  |
|--------------------|--|
| Part No.           | Description  |
| 11-8115            | Pair, black rubber, with red and blue (emergency and service) grips        |
| 11-8117            | Black rubber, with red (emergency) grip                                    |
| 11-8118            | Black rubber, with blue (service) grip                                     |
| 11-8119            | Black rubber, with black (universal) grip                                  |
| 11-81150           | Pair, red and blue rubber, with red and blue (emergency and service) grips |
| 11-81178           | Red rubber, with red (emergency) grip                                      |
| 11-81186           | Blue rubber, with blue (service) grip                                      |

| 20' Working Length |  |
|--------------------|--|
| Part No.           | Description  |
| 11-8120            | Pair, black rubber, with red and blue (emergency and service) grips        |
| 11-8121            | Black rubber, with red (emergency) grip                                    |
| 11-8122            | Black rubber, with blue (service) grip                                     |
| 11-8123            | Black rubber, with black (universal) grip                                  |
| 11-81200           | Pair, red and blue rubber, with red and blue (emergency and service) grips |
| 11-81218           | Red rubber, with red (emergency) grip                                      |
| 11-81226           | Blue rubber, with blue (service) grip                                      |



- Tractor end includes swivel fitting for easy installation and spring guard for strain relief
- Large grips for easy coupling/uncoupling and hose support
- Provides excellent abrasion resistance and resists cracking, kinking and weathering
- 1/2" NPTF
- Meets DOT CFR 49 FMVSS 571.106 specifications
- Meet SAE J1402 hose specifications
- Red and blue rubber air lines available in 2-IN-1, 3-IN-1 and 4-IN-1 applications

## 2-IN-1 Air Combination Assemblies



| Part No.        | Description   |
|-----------------|---|
| <b>11-82120</b> | 12' spiral wrapped red & blue rubber air lines, with red & blue (emergency and service) grips |
| <b>11-82150</b> | 15' spiral wrapped red & blue rubber air lines, with red & blue (emergency and service) grips |
| <b>11-82200</b> | 20' spiral wrapped red & blue rubber air lines, with red & blue (emergency and service) grips |

- Spiral wrapped for a clean and organized look
- Includes hanging clamp and stainless steel clip for easy installation (P/N: 5-5018)
- Outstanding kink and abrasion resistance
- Tractor end includes swivel fitting for easy installation and spring guard for strain relief
- Large grips for easy coupling/uncoupling and hose support
- 1/2" NPTF
- Meets DOT CFR 49 FMVSS 571.106 specifications
- Meet SAE J1402 hose specifications

## Bulk Heavy Duty Rubber Air Hose



| Part No.           | Description                 |
|--------------------|-----------------------------|
| <b>11-8180-250</b> | 3/8" I.D. 250' spool, black |
| <b>11-8190-250</b> | 1/2" I.D. 250' spool, black |
| <b>11-8186-250</b> | 3/8" I.D. 250' spool, blue  |
| <b>11-8188-250</b> | 3/8" I.D. 250' spool, red   |

- Heavy duty EPDM rubber air brake hose
  - 4-spiral polyester reinforced rubber
  - Resists cracking, kinking and weathering
  - Provides excellent abrasion-resistance
- -40°F to 200°F (-40°C to 93°C)
- Burst pressure: 871 PSI
- Operating pressure: 145 PSI
- Meets SAE J1402 specifications

# ELECTRICAL & AIR COMBO ASSEMBLIES

## 3-IN-1 & 4-IN-1

Outstanding kink and abrasion resistance

Spiral wrapped for an organized, clean look

Red and blue rubber air lines to denote service and emergency

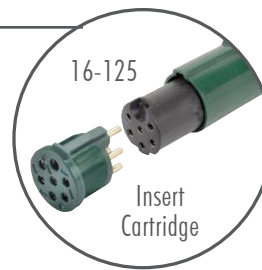
QWIK-CLAMP - Quick and easy install (P/N 17-181)\*

Tractor end swivel brass fittings

Large grips for easy coupling/uncoupling leverage and acts as strain relief



The QCMS2™ connects to the QCS2® creating a tight STA-DRY® seal that locks out moisture and contaminants



QCP™ (Quick-Change Plug) cartridge is field replaceable in under two minutes

\* Standard on all premium 3-IN-1's with QCMS2™/QCP™ or QCP™ electrical assemblies



# ELECTRICAL & AIR COMBO ASSEMBLIES

## ALL ASSEMBLIES

- Spiral wrapped for a clean organized look
- Outstanding kink and abrasion resistance
- Cable clamp 5-5018 is included with all assemblies, excluding premium 3-IN-1s
- The QWIK-CLAMP™ 17-181 is included with all premium 3-IN-1s that have QCMS2™ / QCP™ or QCP™ electrical assemblies

## ELECTRICAL

### ABS LECTRAFLEX™ & NON-ABS DURAFLEX™\*

- Spring-wrapped compression contact pins\*
- Chemical and abrasion resistant

### Liftgate Charging Cable

- For liftgate applications
- 100 amp continuous capacity, 200 amp intermittent capacity

### ISOFLEX™ Cable

- For auxiliary applications
- Twisted pair of brown and green wires reduces signal noise

## AIR

### Rubber Air Lines

- Large red and blue handle grips for easy coupling/uncoupling and hose support
- Tractor end includes swivel fitting for easy installation
- Provides excellent abrasion resistance and resists cracking, kinking and weathering
- Air lines are color coded red and blue to denote emergency and service\*
- -40°F to 200°F (-40°C to 93°C)

\*With exception to all M7 assemblies

## 3-IN-1 Electrical & Air Assemblies



### Straight DURAFLEX™ 1/10 & 6/12 ga. NON-ABS Applications

#### Zinc Die-Cast Plug

| Part No. | Description   |
|----------|---|
| 22-2151  | 12', NON-ABS with zinc die-cast plugs, rubber air lines |
| 22-2171  | 15', NON-ABS with zinc die-cast plugs, rubber air lines |

### Straight LECTRAFLEX™ 1/8, 2/10 & 4/12 ga. ABS Applications

#### QCMS2™ and QCP™ (Quick-Change Plug)

| Part No. | Description                                     |
|----------|---|
| 30-2155  | 12', ABS with QCMS2™ and QCP™, rubber air lines |
| 30-2175  | 15', ABS with QCMS2™ and QCP™, rubber air lines |
| 30-2195  | 20', ABS with QCMS2™ and QCP™, rubber air lines |

#### QCP™ (Quick-Change Plug)

| Part No. | Description                          |
|----------|--------------------------------------|
| 30-2154  | 12', ABS with QCP™, rubber air lines |
| 30-2174  | 15', ABS with QCP™, rubber air lines |
| 30-2194  | 20', ABS with QCP™, rubber air lines |

#### WEATHER-TITE™ PERMAPLUG™

| Part No. | Description   |
|----------|---|
| 30-2150  | 12', ABS with WEATHER-TITE™ PERMAPLUGS™, rubber air lines |
| 30-2170  | 15', ABS with WEATHER-TITE™ PERMAPLUGS™, rubber air lines |
| 30-2190  | 20', ABS with WEATHER-TITE™ PERMAPLUGS™, rubber air lines |

#### Zinc Die-Cast Plug

| Part No. | Description   |
|----------|---|
| 30-2151  | 12', ABS with zinc die-cast plugs, rubber air lines |
| 30-2171  | 15', ABS with zinc die-cast plugs, rubber air lines |
| 30-2191  | 20', ABS with zinc die-cast plugs, rubber air lines |

### 1/8, 2/10 & 4/12 ga. ABS Application

#### M7 (Molded 7-Way)

| Part No. | Description                                    |
|----------|--|
| 30-1157  | 12', ABS with M7 plugs, black rubber air lines |
| 30-1177  | 15', ABS with M7 plugs, black rubber air lines |

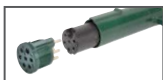
## PLUGS & CLAMPS



QCMS2™ connects to QCS2®

### QCMS2™

- Connects to the QCS2® creating a tight STA-DRY® seal that locks out moisture and contaminants, stopping the devastating effects of corrosion



QCP™ (Quick-Change Plug)

### QCP™ (Quick-Change Plug)

- Reduces maintenance time
- Cartridge is field replaceable in under two minutes

### QWIK-CLAMP™ (17-181)

Included with the above premium plug options



WEATHER-TITE™ PERMAPLUG™

### WEATHER-TITE™ PERMAPLUG™

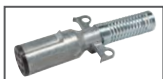
- The WEATHER-TITE™ seal resists water and contaminants from entering the electrical system creating a complete seal!



M7

### M7 (Molded 7-Way)

- Unbreakable and corrosion resistant
- Completely molded to the cable to prevent water intrusion at the back of the plug



Zinc Die-Cast Plug

### Zinc Die-Cast

- Heavy duty reinforced zinc die-cast housing for durability

### Cable Clamp (5-5018)

Included with the above three plug options



## 4-IN-1 Electrical & Air Assemblies - With Single Pole

### Straight LECTRAFLEX™ 1/8, 2/10 & 4/12 ga. ABS Applications

#### QCMS2™ and QCP™ (Quick-Change Plug)

| Part No.       | Description  |
|----------------|--|
| <b>30-2259</b> | 12', ABS with (1) QCMS2™ and (1) QCP™, single pole, rubber air lines |
| <b>30-2279</b> | 15', ABS with (1) QCMS2™ and (1) QCP™, single pole, rubber air lines |
| <b>30-2299</b> | 20', ABS with (1) QCMS2™ and (1) QCP™, single pole, rubber air lines |

#### QCP™ (Quick-Change Plugs)

| Part No.       | Description                                       |
|----------------|---|
| <b>30-2254</b> | 12', ABS with QCP™, single pole, rubber air lines |
| <b>30-2274</b> | 15', ABS with QCP™, single pole, rubber air lines |
| <b>30-2294</b> | 20', ABS with QCP™, single pole, rubber air lines |

#### WEATHER-TITE™ PERMAPLUGS™

| Part No.       | Description  |
|----------------|--|
| <b>30-2250</b> | 12', ABS with WEATHER-TITE™ PERMAPLUGS™, single pole, rubber air lines |
| <b>30-2270</b> | 15', ABS with WEATHER-TITE™ PERMAPLUGS™, single pole, rubber air lines |
| <b>30-2290</b> | 20', ABS with WEATHER-TITE™ PERMAPLUGS™, single pole, rubber air lines |

#### Zinc Die-Cast Plugs

| Part No.       | Description  |
|----------------|--|
| <b>30-2251</b> | 12', ABS with zinc die-cast plugs, single pole, rubber air lines |
| <b>30-2271</b> | 15', ABS with zinc die-cast plugs, single pole, rubber air lines |
| <b>30-2291</b> | 20', ABS with zinc die-cast plugs, single pole, rubber air lines |



#### PLUGS



QCMS2™ connects to QCS2®

- QCMS2™**
- Connects to the QCS2® creating a tight STA-DRY® seal that locks out moisture and contaminants, stopping the devastating effects of corrosion



QCP™ (Quick-Change Plug)

- QCP™ (Quick-Change Plug)**
- Reduces maintenance time
  - Cartridge is field replaceable in under two minutes



WEATHER-TITE™ PERMAPLUG™

- WEATHER-TITE™ PERMAPLUG™**
- The WEATHER-TITE™ seal resists water and contaminants from entering the electrical system creating a complete seal!



Zinc Die-Cast Plug

- Zinc Die-Cast**
- Heavy duty reinforced zinc die-cast housing for durability

## 4-IN-1 Electrical & Air Assemblies - With Dual Pole



### PLUGS



QCMS2™ connects to QCS2®

#### QCMS2™

- Connects to the QCS2® creating a tight STA-DRY® seal that locks out moisture and contaminants, stopping the devastating effects of corrosion



QCP™ (Quick-Change Plug)

#### QCP™ (Quick-Change Plug)

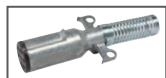
- Reduces maintenance time
- Cartridge is field replaceable in under two minutes



WEATHER-TITE™ PERMAPLUG™

#### WEATHER-TITE™ PERMAPLUG™

- The WEATHER-TITE™ seal resists water and contaminants from entering the electrical system creating a complete seal!



Zinc Die-Cast Plug

#### Zinc Die-Cast

- Heavy duty reinforced zinc die-cast housing for durability

### Straight LECTRAFLEX™ 1/8, 2/10 & 4/12 ga. ABS Applications

#### QCMS2™ and QCP™ (Quick-Change Plug)

| Part No. | Description  |
|----------|--|
| 30-2255  | 12', ABS with (1) QCMS2™ and (1) QCP™, dual pole, rubber air lines |
| 30-2275  | 15', ABS with (1) QCMS2™ and (1) QCP™, dual pole, rubber air lines |
| 30-2295  | 20', ABS with (1) QCMS2™ and (1) QCP™, dual pole, rubber air lines |

#### QCP™ (Quick-Change Plugs)

| Part No. | Description                                     |
|----------|---|
| 30-2257  | 12', ABS with QCP™, dual pole, rubber air lines |
| 30-2277  | 15', ABS with QCP™, dual pole, rubber air lines |
| 30-2297  | 20', ABS with QCP™, dual pole, rubber air lines |

#### WEATHER-TITE™ PERMAPLUGS™

| Part No. | Description  |
|----------|--|
| 30-2256  | 12', ABS with WEATHER-TITE™ PERMAPLUGS™, dual pole, rubber air lines |
| 30-2276  | 15', ABS with WEATHER-TITE™ PERMAPLUGS™, dual pole, rubber air lines |
| 30-2296  | 20', ABS with WEATHER-TITE™ PERMAPLUGS™, dual pole, rubber air lines |

#### Zinc Die-Cast Plugs

| Part No. | Description  |
|----------|--|
| 30-2252  | 12', ABS with zinc die-cast plugs, dual pole, rubber air lines |
| 30-2272  | 15', ABS with zinc die-cast plugs, dual pole, rubber air lines |
| 30-2292  | 20', ABS with zinc die-cast plugs, dual pole, rubber air lines |

## 4-IN-1 Electrical & Air Assemblies - With ISOFLEX™



### 1/8, 2/10 & 4/12 ga. ISO Applications

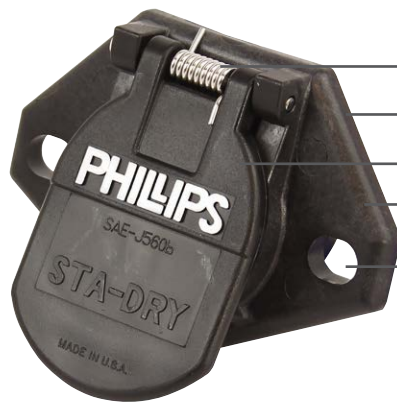
#### Straight ABS LECTRAFLEX™ 1/8, 2/10 & 4/12 ga. with Zinc Die-Cast Plugs

| Part No. | Description   |
|----------|---|
| 30-2253  | 12', ABS with zinc die-cast plugs, ISOFLEX™, rubber air lines |
| 30-2273  | 15', ABS with zinc die-cast plugs, ISOFLEX™, rubber air lines |
| 30-2293  | 20', ABS with zinc die-cast plugs, ISOFLEX™, rubber air lines |

- ISOFLEX™ cable offers a twisted pair of brown and green wires to reduce radio noise for auxiliary connections
- Heavy duty reinforced zinc die-cast plugs

# ELECTRICAL CONNECTORS

## STA-DRY® Socket (16-720)



- Stainless steel hinge pin and spring\*
- Durable glass-filled nylon housing
- Full-opening lid for easy plug insertion\*
- UNBREAKABLE lid, non-corrosive housing resists impact in cold weather
- Elongated holes adapt to most mounting positions\*

Locking tab inside lid provides solid plug-to-socket connection\*

Inner cavity is sealed to prevent corrosion from passing through to wire harness

Slanted 5° for moisture drain\*

Extended front barrel for additional cable support\*



## WEATHER-TITE™ PERMAPLUG™ (16-730)



Large finger grips for easy coupling/uncoupling\*\*

UNBREAKABLE, non-corrosive housing

Floating brass pins for secure installation in misaligned sockets\*\*

WEATHER-TITE™ SEAL

360° cable compression for a solid cable grip

Extended housing allows for easy repair\*\*



\* Standard on all Phillips sockets  
 \*\* Standard on all Phillips plugs

# PLUGS

- Large finger grips for ease of coupling/uncoupling
- Meets SAE J560 specifications (ISO meets ISO 3731)
- Floating brass pins for secure installation in misaligned sockets
- Extended housing for easy repair
- Wire insertion on 7-way (non-blade), 6-way and 4-way plugs

## WEATHER-TITE™ PERMAPLUG™



| Part No.      | Description              |
|---------------|--------------------------|
| <b>16-730</b> | WEATHER-TITE™ PERMAPLUG™ |

- WEATHER-TITE™ seal blocks all contaminants from entering the electrical system, creating a complete seal!
- UNBREAKABLE, non-corrosive housing
- 360° ratcheting compression cable clamp
- Thread sealed screws prevent wire pull-out
- Spring-wrapped, machine crimped brass compression pins
- 15-715 replacement insert
- 5-750 replacement rubber seal
- Patent No. 8,192,216

## Zinc Die-Cast Connectors



| Part No.       | Description   |
|----------------|---|
| <b>15-710</b>  | Heavy duty, reinforced zinc die-cast plug                                       |
| <b>15-730</b>  | Heavy duty, reinforced zinc die-cast plug with cable guard                      |
| <b>15-730B</b> | Heavy duty, reinforced zinc die-cast plug with cable guard, individually bagged |

- Thread sealed screws prevent wire pull-out
- Spring-wrapped, machine crimped brass compression pins
- Heavy duty, reinforced zinc die-cast housing
- Strong cable guard to support heavy cables
- 15-731 replacement cable guard
- 15-711 replacement insert

## ISO Connectors



| Part No.      | Description               |
|---------------|---------------------------|
| <b>15-830</b> | ISO plug with cable guard |

- Replacement plug for ISO 3731 coiled and straight cables
- Heavy duty reinforced zinc die-cast housing for durability
- Male ground pin to prevent misconnection
- Strong cable guard to support heavy cables
- 15-731 replacement cable guard
- 16-811 replacement insert

## Cable Guard



| Part No.      | Description                      |
|---------------|----------------------------------|
| <b>15-731</b> | Cable guard / replacement spring |

- Heavy duty cable guard for 15-710, 15-730, 15-335, 15-336 and 15-830 plugs
- .090 galvanized steel wire
- Prevents kinking and offers strain relief for electrical cables

## QCP™ (Quick-Change Plug) Cartridge



| Part No.      | Description           |
|---------------|-----------------------|
| <b>16-125</b> | Replaceable cartridge |

- Plug-in replacement cartridge for QCP™ assemblies ONLY
- High quality machined brass pins
- Floating brass pins for secure installation in misaligned sockets
- PUT ONE IN THE TOOL BOX OR GLOVE BOX AS A SPARE!



## Replacement Inserts

| 6-Way    |                          |
|----------|--------------------------|
| Part No. | Description              |
| 15-611   | For Phillips 6 pin plugs |

| 7-Way    |   |
|----------|---|
| Part No. | Description                                     |
| 15-711   | For standard Phillips pin SAE J560 plugs, black |
| 15-715   | For Phillips WEATHER-TITE™ PERMAPLUG™           |
| 16-811   | For Phillips pin ISO 3731 plug, yellow          |

- 15-611 fits Phillips 15-610 and 15-630 plugs
- 15-711 fits Phillips 15-710 and 15-730 plugs
- 15-715 fits Phillips 16-730 plugs
- 16-811 fits Phillips 15-830 plugs
- Floating brass pins for secure installation in misaligned sockets
- Thread sealed screws prevent wire pull-out



## WEATHER-TITE™ PERMAPLUG™ Replacement Seal

| Part No. | Description   |
|----------|---|
| 5-750    | WEATHER-TITE™ PERMAPLUG™ replacement rubber seal, 2/bag |

- Thick rubberized sealing component for WEATHER-TITE™ PERMAPLUG™
- Three individual wiper rings
- Blocks all contaminants from entering the electrical system, creating a corrosion free connection
- Easily replaceable



## LIGHT DUTY PLUGS

## STA-DRY® 6 &amp; 4-Way THERMOSEALED™ Plugs

| 6-Way 6/16 ga. |  |
|----------------|--|
| Part No.       | Description  |
| 19-6102        | THERMOSEALED™ plug with 2' (24") blunt cut straight cable <b>NEW</b> |
| 19-6104        | THERMOSEALED™ plug with 4' (48") blunt cut straight cable <b>NEW</b> |

| 4-Way 4/16 ga. |  |
|----------------|--|
| Part No.       | Description  |
| 19-4102        | THERMOSEALED™ plug with 2' (24") blunt cut straight cable <b>NEW</b> |
| 19-4104        | THERMOSEALED™ plug with 4' (48") blunt cut straight cable <b>NEW</b> |

- Plugs are molded for moisture and corrosion resistance
- Flexible from -87°F to 150°F (-66°C to 66°C)
- Heavy duty jacketing for long life



| 6-Way    |                             |
|----------|-----------------------------|
| Part No. | Description                 |
| 15-610   | 6-way                       |
| 15-630   | 6-way plug with cable guard |

| 4-Way    |                             |
|----------|-----------------------------|
| Part No. | Description                 |
| 15-410   | 4-way                       |
| 15-430   | 4-way plug with cable guard |

- Heavy duty, reinforced zinc die-cast housing
- Brass terminations for superior conductivity
- Rugged finger grips for easy coupling/uncoupling
- 15-611 replacement insert fits Phillips 15-610 and 15-630 plugs

## 6 &amp; 4-Way Connectors



## 7-WAY BLADE PLUG

### 7-Way Blade Type Connector



| Part No. | Description           |
|----------|-----------------------|
| 16-713   | 7-way blade connector |

- Light duty truck and RV connections
- Non-corrosive housing
- Large finger grips for easy coupling/uncoupling
- Brass contacts for superior conductivity
- Use with 16-714 socket

## 7-WAY J560 TYPE CONNECTORS FOR LIGHT DUTY APPLICATIONS

### STA-DRY® WEATHER-TITE™ PERMAPLUG™



5-750

| Trailer Side 2/10, 1/12 & 4/14 ga. |   |
|------------------------------------|---|
| Part No.                           | Description   |
| 26-2100-048                        | 7-way WEATHER-TITE™ PERMAPLUG™ with 4' (48") blunt cut cable <b>NEW</b> |
| 26-2100-060                        | 7-way WEATHER-TITE™ PERMAPLUG™ with 5' (60") blunt cut cable <b>NEW</b> |
| 26-2100-072                        | 7-way WEATHER-TITE™ PERMAPLUG™ with 6' (72") blunt cut cable <b>NEW</b> |

- Connects a light duty trailer to a vehicle with a J560 style socket\*
- The WEATHER-TITE™ seal blocks all contaminants from entering the electrical system, creating a complete seal
- Large finger grips for coupling/uncoupling
- Floating brass pins for secure installation in misaligned sockets
- Unbreakable non-corrosive housing
- Flexible from -85°F to 175°F (-65°C to 115°C)
- 5-750 replacement rubber seal

\*Important Note: A J560 type socket or plug, normally used for commercial vehicles, can be wired for light duty applications as an alternative connector. However, commercial tractor/trailer J560 connections and light duty applications using the same J560 plug/socket type connectors should never be coupled together. Commercial and light duty applications each have different wire color code configurations for their electrical system. If coupled together, lights will not function properly.

## 4-WAY FLAT CONNECTORS

### STA-DRY® 4-Way Molded Flat Connectors



15-421-024



15-426-024

| Vehicle Side |   |
|--------------|---|
| Part No.     | Description   |
| 15-421-024   | Molded 4-way flat connector, three female pins and one male pin, with 2' (24") cable <b>NEW</b> |
| 15-421-048   | Molded 4-way flat connector, three female pins and one male pin, with 4' (48") cable <b>NEW</b> |

| Trailer Side |   |
|--------------|---|
| Part No.     | Description   |
| 15-426-024   | Molded 4-way flat connector, three male pins and one female pin, with 2' (24") cable <b>NEW</b> |
| 15-426-048   | Molded 4-way flat connector, three male pins and one female pin, with 4' (48") cable <b>NEW</b> |

- Common connection for light duty towing - pickups, SUVs, small trailers
- Universal pin size and configuration
- Vehicle side has completely overmolded plug
- 14 ga. wires enclosed in jacketing for corrosion protection
- Flexible from -40°F to 150°F (-40°C to 66°C)
- Meets SAE J1239

## LIFTGATE CHARGING PLUGS

- For liftgate applications utilizing a trailer battery pack
- 100 amp continuous capacity; 200 amp intermittent capacity

- Heavy duty, reinforced zinc die-cast housing

### Ground Return System

| Part No.      | Description    |
|---------------|----------------|
| <b>15-336</b> | Dual pole plug |

- Provides separate power and ground connections
- Accepts 4 ga. wire only
- Separate ground pin for ground return systems
- For best fit use solder slug 7-261 (4 ga.)
- Mates with 15-326 socket

### Dual Pole



### Chassis Ground System

| Part No.      | Description      |
|---------------|------------------|
| <b>15-335</b> | Single pole plug |

- Universal single pole plug
- Industry standard plug
- Lug for 4 ga. cable included
- Installs with standard lug crimp tool (crimp code gray)
- Mates with 15-320 socket

### Single Pole



### Chassis Ground System

| Part No.      | Description  |
|---------------|--------------|
| <b>15-800</b> | Black socket |
| <b>15-801</b> | Red socket   |
| <b>15-805</b> | Black plug   |
| <b>15-806</b> | Red plug     |

- Ideal for dump truck applications
- Breakaway plug/socket
- 10 ga. to 6 ga.
- 50 amp

### Single Conductor Breakaway



## VERTICAL DUAL POLE AUXILIARY PLUGS

### Vertical Dual Pole Auxiliary Plugs

| Part No.      | Description                   |
|---------------|-------------------------------|
| <b>15-338</b> | 4 ga. vertical dual pole plug |
| <b>15-339</b> | 6 ga. vertical dual pole plug |

- For auxiliary applications utilizing a trailer battery pack
- Pins are offset allowing for initial ground contact, preventing the potential for arcing
- Provides separate power and ground connections
- For best fit use solder slug 7-261 (4 ga.) or 7-260 (6 ga.)
- Heavy duty, reinforced zinc die-cast housing
- 4 ga. plug has a 100 amp continuous capacity; 200 amp intermittent capacity
- 6 ga. plug has a 70 amp continuous capacity; 130 amp intermittent capacity



# STA-DRY® SOCKETS



- Inner cavity sealed to prevent contaminants from passing to wire harness
- Non-corrosive housing
- Resists magnesium chloride, salt, oil, grease and fuels
- Extended front barrel for additional cable support
- Slanted 5° for moisture drain
- Unbreakable housing and lid
- Stainless steel hinge pin and spring
- Elongated holes for mounting adaptability
- Meets SAE J560 specifications
- All part numbers below have split brass pins
- For solid pin sockets, please contact customer service

## Wire Insertion



| Part No.       | Description                       |
|----------------|-----------------------------------|
| <b>16-720</b>  | 2-hole, wire insertion, split pin |
| <b>16-720B</b> | 16-720, individually bagged       |

- Thread sealed screws prevent wire pull-out
- For added protection against moisture, use socket boot P/N 15-740

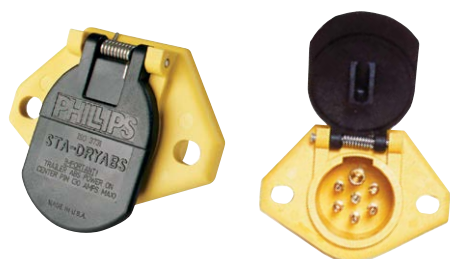
## Ring & Bullet Termination



| Part No.       | Description                           |
|----------------|---------------------------------------|
| <b>16-722</b>  | 2-hole, ring termination, split pin   |
| <b>16-724</b>  | 2-hole, bullet termination, split pin |
| <b>16-725</b>  | 3-hole, bullet termination, split pin |
| <b>16-7222</b> | 2-hole, ring termination, solid pin   |
| <b>16-7242</b> | 2-hole, bullet termination, solid pin |

- 16-722 and 16-7222 accept #8 ring terminals
- 16-724, 16-725 and 16-7242 accept .180 bullets
- 16-724 and 16-7242 recommended for use with Phillips QCS2®

## ISO



| Part No.      | Description                          |
|---------------|--------------------------------------|
| <b>16-822</b> | 2-hole, ring termination, ISO socket |

- For ISO/auxiliary applications
- Meets ISO 3731 specifications
- Female ground pin
- Use #8 ring terminals

### QCS2® Harness

| QCS2® (Quick-Change Socket) |   |
|-----------------------------|---|
| Part No.                    | Description   |
| 16-7403                     | Straight back, 48" blunt-cut cable, includes socket |

| Replacement Socket |   |
|--------------------|---|
| Part No.           | Description   |
| 16-724             | 2-hole, bullet termination, recommended for use with Phillips QCS2® |

- Significantly reduces socket replacement time, lowering maintenance costs
- Molded housing includes integrated flange to seal out moisture and corrosion
- For use with standard ABS wiring system
- Standard on most OEM trucks
- 6 o'clock position available
- Contact customer service for blunt cut lengths



### QCS® Harness

| QCS® (Quick-Change Socket) |   |
|----------------------------|---|
| Part No.                   | Description   |
| 16-7401                    | Straight back, 48" blunt-cut cable, includes socket |
| 16-7421                    | 6 o'clock, 48" blunt-cut cable, includes socket     |

| Replacement Socket |  |
|--------------------|--|
| Part No.           | Description  |
| 16-726             | 2-hole, bullet with locking clip for Phillips QCS® |

- Significantly reduces socket replacement time
- For use with standard ABS wiring systems
- For use with most OEM configurations
- 3 o'clock and 12 o'clock positions available. Contact customer service for more details



### ISO QCS® Harness

| ISO QCS® (Quick-Change Socket) |   |
|--------------------------------|---|
| Part No.                       | Description   |
| 16-7402                        | Straight back, 48" blunt-cut cable, includes ISO socket |
| 16-7422                        | 6 o'clock, 48" blunt-cut cable, includes ISO socket     |

| Replacement Socket |   |
|--------------------|---|
| Part No.           | Description   |
| 16-826             | 2-hole, bullet termination with locking clip, female ground pin, recommended for Phillips ISO QCS® only |

- For ISO/auxiliary applications
- Meets ISO 3731 specifications
- Uses female ground pin
- 3 o'clock, 9 o'clock and 12 o'clock positions available. Contact customer service for more details.





## QCS2® Extension Cable



| Part No. | Description  |
|----------|--|
| 16-74036 | 36" QCS2® straight LECTRAFLEX™ extension cable with QCMS2™ |

- Provides a 36 in. extension for your QCS2® as needed for applications such as bulkhead racks
- For use with standard ABS wiring system
- The LECTRAFLEX™ cable jacketing is chemical and abrasion resistant and flexible from -40°F to 150°F (-40°C to 66°C)

### QCMS2™

- A tight STA-DRY® seal locks out road contaminants, completely stopping the devastating effects of corrosion
- Plugs directly into the QCS® or QCS2® boot, eliminating the need for a socket
- Bolts to QCS® or QCS2® boot creating a built in theft deterrent and is rarely removed further reducing the possibility of contaminants entering the electrical system

### QCS2® Boot

- Works with QCS2® socket or QCMS2™ electrical cable
- Molded housing includes integrated flange to seal out moisture and corrosion

# ZINC DIE-CAST SOCKETS

## 7-Way Sockets



| Part No. | Description                                      |
|----------|--|
| 15-720   | 2-hole, wire insertion, split pin                |
| 15-720B  | 15-720, individually bagged                      |
| 15-721   | 2-hole, wire insertion, solid pin                |
| 15-722   | 3-hole, wire insertion, split pin                |
| 15-724   | Replacement insert for 15-720, 15-722, split pin |
| 15-796   | Replacement lid kit                              |

- Heavy duty, reinforced zinc die-cast housing
- Thread sealed screws prevent wire pull-out
- Elongated holes for mounting adaptability
- Stainless steel hinge pin and spring
- Full-opening lid
- Reduce exposure to contaminants and moisture, use socket boot P/N 15-740

# LIGHT DUTY 6 & 4-WAY ROUND SOCKETS

## STA-DRY® 6 & 4-Way Molded Sockets



16-400



16-600

| 4-Way 4/14 ga. |  |
|----------------|--|
| Part No.       | Description  |
| 16-400         | 4-way molded socket with 2' (24") blunt cut straight cable, split pin <b>NEW</b> |

| 6-Way 6/14 ga. |  |
|----------------|--|
| Part No.       | Description  |
| 16-600         | 6-way molded socket with 2' (24") blunt cut straight cable, split pin <b>NEW</b> |

- Sockets are molded for moisture and corrosion resistance
- Elongated holes for mounting adaptability
- Stainless steel hinge pin and spring for long life
- Full opening lid
- Flexible from -87°F to 150°F (-66°C to 66°C)
- Heavy duty cable jacketing for long life

## 6 & 4-Way Zinc Die-Cast Sockets

| 6-Way         |                                  |
|---------------|----------------------------------|
| Part No.      | Description                      |
| <b>15-600</b> | 6-way, wire insertion, split pin |

| 4-Way         |                                  |
|---------------|----------------------------------|
| Part No.      | Description                      |
| <b>15-400</b> | 4-way, wire insertion, split pin |

- Heavy duty, zinc die-cast housing for durability
- Elongated holes for mounting adaptability
- Stainless steel hinge pin and spring for long life
- Full-opening lid
- Reduce exposure to contaminants and moisture, use socket boot P/N 15-640
- Closed back design



## 7-WAY BLADE SOCKET

| Part No.      | Description        |
|---------------|--------------------|
| <b>16-714</b> | 7-way blade socket |

- Light duty truck and RV OEM connections
- Non-corrosive housing for long life
- Brass terminations for superior conductivity
- Mates with 16-713 plug

### 7-Way Blade Socket



### 7-Way Blade Socket with Blunt Cut Cables

| 2/10, 1/12 & 4/14 ga. |  |
|-----------------------|--|
| Part No.              | Description  |
| <b>26-2305-024</b>    | 7-way blade socket, with socket boot, with 2' (24") blunt cut cable <b>NEW</b> |
| <b>26-2305-048</b>    | 7-way blade socket, with socket boot, with 4' (48") blunt cut cable <b>NEW</b> |

- Light duty truck and RV connections
- Non-corrosive housing for long life
- Brass terminations for superior conductivity
- Heavy duty cable jacketing for long life
- Flexible from -85°F to 150°F (-65°C to 66°C)



# LIFTGATE CHARGING SOCKETS

- For liftgate applications utilizing a trailer battery pack
- Stainless steel hinge pin and spring for long life
- 100 amp continuous capacity; 200 amp intermittent capacity (with exception to 15-320 & 15-326)
- Zinc die-cast housing

## CHARGE-BOX™



| Part No.        | Description                                       |
|-----------------|---|
| <b>16-77712</b> | STA-DRY® nosebox with single and dual pole socket |

### SOCKET

- Zinc die-cast housing for durability
- Solid brass pins
- Elongated holes for mounting adaptability
- Stainless steel hinge pin and spring for long life

### STA-DRY® NOSEBOX

- Non-corrosive, nylon housing
- Impact resistant
- Steel reinforced mounting collars

## Dual Pole Nosebox



| Part No.        | Description                                 |
|-----------------|---|
| <b>16-77526</b> | STA-DRY® nosebox with dual pole socket      |
| <b>15-77526</b> | Zinc die-cast nosebox with dual pole socket |

### STA-DRY® HOUSING

- STA-DRY® nosebox housing is non-corrosive and impact resistant
- Steel reinforced mounting collars
- Zinc die-cast socket for durability
- Solid brass pins
- Circuit breaker not included
- Assembly includes gasket and grommet

### ZINC DIE-CAST HOUSING

- Zinc die-cast nosebox housing and socket for durability
- Solid brass pins
- Circuit breaker not included
- Assembly includes gasket and grommet

## S2™ Dual Pole Swivel Socket



| Part No.       | Description   |
|----------------|---|
| <b>16-9326</b> | Dual pole swivel socket with 24" blunt cut cable        |
| <b>16-9328</b> | Dual pole swivel socket with 24' (288") blunt cut cable |

- Socket swivels 80 degrees side to side (40 degrees each way), following the tractor
- Tested to over 1 million cycles
- Automatic disconnect feature prevents damage to liftgate charging cable and socket
- Steel brackets and swivel housing are coated with epoxy undercoat and polyester topcoat for ultimate resistance to harsh chemicals
- Zinc die-cast socket for durability
- Includes butt splices or copper lugs and heat shrink tubing for ease of installation

### 16-9326 Includes:

- 8-4920: (2) butt splice
- 6-212: (1) 6 in. black heat shrink tubing

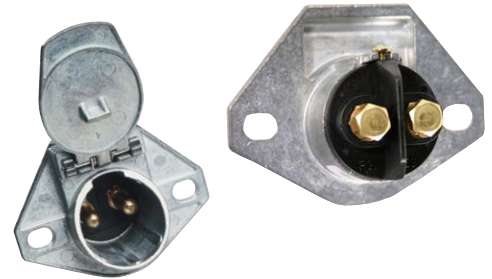
### 16-9328 Includes:

- 8-2121: (1) 4 ga. x 1/4 in. copper lug
- 8-2122: (1) 4 ga. x 5/16 in. copper lug
- 8-2123: (1) 4 ga. x 3/8 in. copper lug
- 6-404: (1) 1-1/2 in. black heat shrink tubing
- 6-405: (1) 1-1/2 in. red heat shrink tubing

## Dual Pole Socket

| Part No.      | Description      |
|---------------|------------------|
| <b>15-326</b> | Dual pole socket |

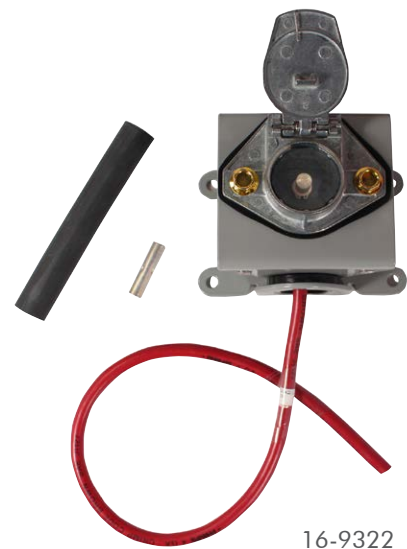
- Zinc die-cast housing for durability
- Solid brass pins
- Elongated holes for mounting adaptability
- Stainless steel hinge pin and spring for long life
- 1/4 in. stud size for lugs
- 150 amp continuous capacity; 200 amp intermittent capacity
- Mates with 15-336 dual pole plug



## S1™ Single Pole Swivel Socket

| Part No.       | Description   |
|----------------|---|
| <b>16-9322</b> | Single pole swivel socket with 24' blunt cut cable        |
| <b>16-9324</b> | Single pole swivel socket with 24' (288") blunt cut cable |

- Socket swivels 80 degrees side to side (40 degrees each way), following the tractor
- Tested to over 1 million cycles
- Automatic disconnect feature prevents damage to liftgate charging cable and socket
- Steel brackets and swivel housing are coated with epoxy undercoat and polyester topcoat for ultimate resistance to harsh chemicals
- Zinc die-cast socket for durability
- Includes butt splices or copper lugs and heat shrink tubing for ease of installation



16-9322

### 16-9322 Includes:

- 8-4920: (1) butt splice
- 6-212: (1) 6 in. black heat shrink tubing

### 16-9324 Includes:

- 8-2121: (1) 4 ga. x 1/4 in. copper lug
- 8-2122: (1) 4 ga. x 5/16 in. copper lug
- 6-405: (1) 1-1/2 in. red heat shrink tubing

## Single Pole Socket

| Part No.      | Description        |
|---------------|--------------------|
| <b>15-320</b> | Single pole socket |

- Zinc die-cast housing for durability
- Solid brass pins
- Elongated holes for mounting adaptability
- Stainless steel hinge pin and spring for long life
- 150 amp continuous capacity; 200 amp intermittent capacity
- Mates with 15-335 single pole plug
- For use with 4 ga., 5/16 in. copper lug



## Dual Pole QCS2® Quick-Change Socket



| Dual Pole QCS2® |  |            |
|-----------------|--|------------|
| Part No.        | Description  |            |
| 16-2223         | 6 o'clock angled position, 48" blunt-cut cable, 2 ga., includes dual pole QCS2® socket | <b>NEW</b> |
| 16-2423         | 6 o'clock angled position, 48" blunt-cut cable, 4 ga., includes dual pole QCS2® socket | <b>NEW</b> |

| Replacement Socket |  |            |
|--------------------|--|------------|
| Part No.           | Description  |            |
| 16-324             | 2-hole mount, offset solid brass pins, bullet termination, recommended for use with Phillips dual pole QCS2® | <b>NEW</b> |

### Dual Pole QCS2® Socket

- Quick and easy plug-in bulletted termination, no re-wiring
- Offset pins to prevent arcing
- Stainless steel hinge pin and spring for long life
- Elongated mounting holes for easy mounting
- Non-corrosive housing resists moisture, magnesium chloride, salt, oil, grease, and fuels
- Extended front barrel for additional cable support and slanted 5° for moisture drain
- Non-corrosive unbreakable lid for long life and durability

### Dual Pole QCS2® Boot

- Flexible boot flange bends easily for quick installation through small openings. Flange also grips socket for superior protection
- Sealed inner cavity prevents contaminants from passing to liftgate harness
- Completely molded boot connection creates a waterproof seal
- Cable jacketing has excellent abrasion resistance and resists magnesium and calcium chloride and other chemicals

## AUXILIARY VERTICAL DUAL POLE SOCKET

### Auxiliary Vertical Dual Pole Socket

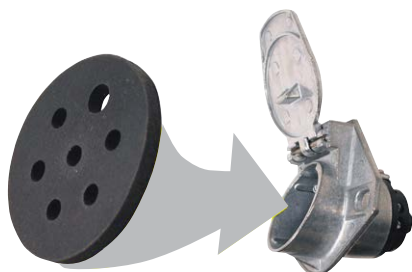


| Part No. | Description               |
|----------|---------------------------|
| 15-328   | Vertical dual pole socket |

- For auxiliary applications utilizing a trailer battery pack
- Pins are offset allowing for initial ground contact, preventing the potential for arcing
- Zinc die-cast housing for durability
- Solid brass pins
- Elongated holes for mounting adaptability
- Stainless steel hinge pin and spring for long life
- Includes (2) 4 ga. and (2) 6 ga. copper lugs
- 1/4 in. stud size for lugs
- 150 amp continuous capacity; 200 amp intermittent capacity
- Mates with 15-338 or 15-339 vertical dual pole plug

## SOCKET ACCESSORIES

### Foam Socket Seal



| Part No. | Description   |
|----------|---|
| 15-795   | Corrosion prevention gaskets, 2/bag                     |
| 15-7955  | Corrosion prevention gaskets, 50/bag                    |
| 80-795   | Corrosion prevention gaskets, 200 count, display bucket |

- Insert foam seal into base of socket to help stop corrosion
- Easy and inexpensive way to slow the devastating effects of corrosion



## Lid Replacement Kits

| Part No.      | Description  |
|---------------|--|
| <b>15-796</b> | Zinc die-cast - for socket and socketbreaker housing |
| <b>16-797</b> | Black - for ISO 3731 housings                        |
| <b>16-798</b> | Gray - for socketbreaker housings                    |
| <b>16-799</b> | Black - for socket housings                          |

- Includes lid, stainless steel hinge pin and spring
- 16-797, 16-798 and 16-799 are for use with STA-DRY® sockets



## Socket Boot

| Part No.      | Description   |
|---------------|---|
| <b>15-640</b> | Fits 15-400 and 15-600  |
| <b>15-740</b> | Fits 15-320, 15-720, 15-721, 15-722, 16-720, 16-721, 16-722, 16-822 |



## Replacement Gasket

| Part No.      | Description                         |
|---------------|-------------------------------------|
| <b>15-798</b> | 2-hole mount socket mounting gasket |

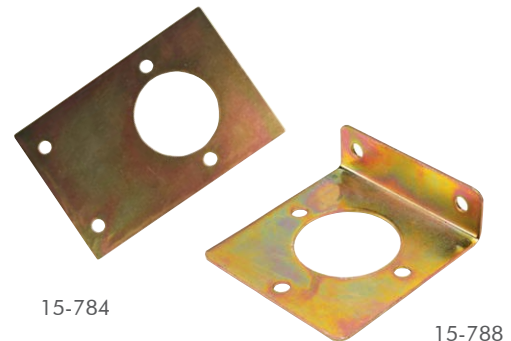
- Replaceable closed cell sponge gaskets for sockets



15-798

## Mounting Bracket

| Part No.       | Description   |
|----------------|---|
| <b>15-784</b>  | Flat, fits all 7-way sockets, 15-720, 15-721, 15-722, 15-326 and 15-320 |
| <b>15-788</b>  | 90°, fits all 7-way sockets 15-720, 15-721, 15-722, 15-326 and 15-320   |
| <b>63-2724</b> | Fits RV 7-way blade type 16-714   |



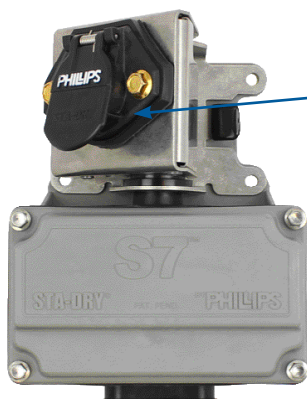
15-784

15-788

# STA-DRY® TRAILER WIRE MANAGEMENT



## STA-DRY® S7™



**QCS2®**  
16-724

The industry's **ONLY** swivel socket designed to completely eliminate pull-away damage!

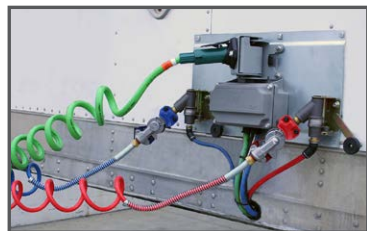


**Top 20 Products of 2013!**

| Part No.         | Description                                       |
|------------------|---|
| <b>16-9500</b>   | Swivel socket without junction box                |
| <b>16-9510</b>   | Nosebox without circuit breakers                  |
| <b>16-9520</b>   | Nosebox with 20 amp circuit breakers              |
| <b>16-9530</b>   | Nosebox with 30 amp circuit breakers              |
| <b>16-9515</b>   | Replacement lid for STA-DRY® S7™                  |
| <b>16-9526PL</b> | Replacement lid for STA-DRY® S7™ with PERMALOGIC™ |

- Socket swivels 80° side to side (40° each way), following the tractor
- Automatic disconnect feature eliminates damage to all components
- Features our award-winning QCS2® (Quick-Change Socket), for fast and easy socket replacement
- Over 50% more interior room keeps trailer wires organized and pinch-free
- Quick-change 20 amp (P/N 53-120) and 30 amp (P/N 53-130) circuit breakers available
- Durable weather-resistant housing
- Interior wiring sealed against corrosion, chemicals and extreme weather
- U.S. patent pending
- NOW AVAILABLE WITH PERMALOGIC™
- STA-DRY® S7™ QCS2® replacement kits available. See part numbers 16-7890, 16-7891 and 16-795 for more details.

## STA-DRY® S7™ System



| Part No.        | Description   |
|-----------------|---|
| <b>16-95140</b> | Nosebox without circuit breakers, anodized swinger gladhands, galvanized mounting plate     |
| <b>16-95240</b> | Nosebox with 20 amp circuit breakers, anodized swinger gladhands, galvanized mounting plate |
| <b>16-95340</b> | Nosebox with 30 amp circuit breakers, anodized swinger gladhands, galvanized mounting plate |

- S7™ socket swivels 80° side to side (40° each way)
- Gladhand swivels 180° without kinking air line!
- The automatic disconnect feature eliminates damage to all components
- All components offer superior corrosion protection
- Mounting plate measures 11 in. x 21 in. and comes with pre-drilled trailer mounting holes (Part Number 15-7895)
- Trailer mounting area needed to accommodate entire S7™ System: Approximately 12 1/4 in. x 24 in.
- STA-DRY® S7™ QCS2® replacement kit with ring terminals available. See part numbers 16-7890 and 16-7891 for more details
- NOW AVAILABLE WITH PERMALOGIC™
- STA-DRY® S7™ QCS2® replacement kits available. See part numbers 16-7890 and 16-7891 for more details.

## STA-DRY® S7™ System Mounting Plate

| Part No.       | Description                          |
|----------------|--------------------------------------|
| <b>15-7895</b> | Hot dipped galvanized mounting plate |

- Hot dipped for extra corrosion protection
- Pre-drilled mounting holes for STA-DRY® S7™ and gladhands
- Pre-drilled trailer mounting holes
- Measure 11 in. x 21 in.



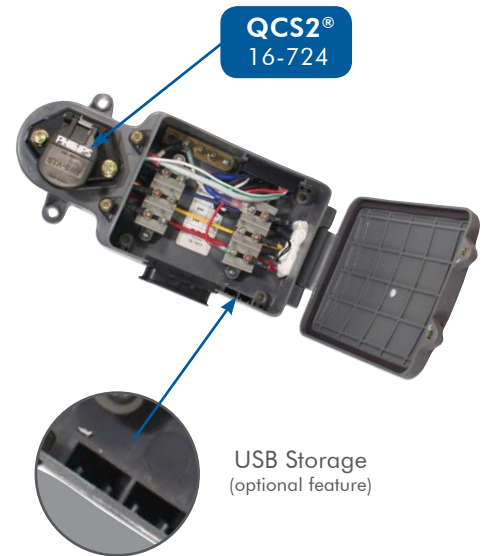
## i-BOX™

| Part No.         | Description  |
|------------------|--|
| <b>16-7800</b>   | Without circuit breakers   |
| <b>16-7801</b>   | With 15 amp circuit breakers   |
| <b>16-7802</b>   | With 20 amp circuit breakers   |
| <b>16-7803</b>   | With 30 amp circuit breakers   |
| <b>16-7810</b>   | Without circuit breakers, with PERMALOGIC™                                     |
| <b>16-7811</b>   | With 15 amp circuit breakers and PERMALOGIC™                                   |
| <b>16-7812</b>   | With 20 amp circuit breakers and PERMALOGIC™                                   |
| <b>16-7812TC</b> | With 20 amp circuit breakers and PERMALOGIC™ TC                                |
| <b>16-7813</b>   | With 30 amp circuit breakers and PERMALOGIC™                                   |
| <b>16-7820</b>   | Without circuit breakers, with 1 USB memory slot                               |
| <b>16-7821</b>   | With 15 amp circuit breakers and 1 USB memory slot                             |
| <b>16-7822</b>   | With 20 amp circuit breakers and 1 USB memory slot                             |
| <b>16-7823</b>   | With 30 amp circuit breakers and 1 USB memory slot                             |
| <b>16-7830</b>   | Without circuit breakers, with PERMALOGIC™ and 1 USB memory slot               |
| <b>16-7831</b>   | With 15 amp circuit breakers, PERMALOGIC™ and 1 USB memory slot                |
| <b>16-7832</b>   | With 20 amp circuit breakers, PERMALOGIC™ and 1 USB memory slot                |
| <b>16-7833</b>   | With 30 amp circuit breakers, PERMALOGIC™ and 1 USB memory slot                |
| <b>16-780</b>    | i-BOX™ replacement lid repair kit - lid, hinge pin, (2) bolts, and gasket seal |

- Features our award-winning QCS2® (Quick-Change Socket), for fast and easy socket replacement
- Over 2/3 more working room than traditional noseboxes
- Quick-change 15 amp (P/N 53-115), 20 amp (P/N 53-120) and 30 amp (P/N 53-130) circuit breakers available
- Large ground for more consistent power to the trailer
- Durable, weather-resistant housing
- Hinged lid with weather-proof gasket for easy access and convenience
- U.S. Patent No. D589,456
- Replacement lid available
- i-BOX™ QCS2® replacement kit with ring terminals available. See part number 16-7840 for more details.

### Optional Features:

- Our award-winning PERMALOGIC™ Trailer Dome Lamp Controller
- USB memory stick to store important trailer schematics, bills of material
- maintenance documents, etc.
- QCS2® (Quick-Change Socket) available with solid or split pins



### PERMALOGIC™ and PERMALOGIC™ TC (optional feature)



**QBOX™**



| Part No.       | Description  |
|----------------|--|
| <b>16-8510</b> | Without circuit breakers   |
| <b>16-8511</b> | With 15 amp circuit breakers                                       |
| <b>16-8512</b> | With 20 amp circuit breakers                                       |
| <b>16-8513</b> | With 30 amp circuit breakers                                       |
| <b>16-850</b>  | QBOX™ replacement lid repair kit - lid, (4) bolts, and gasket seal |

- Features our award-winning QCS2® (Quick-Change Socket), for fast and easy socket replacement
- Over 50% more interior room keeps trailer wires organized and pinch-free
- Quick-change 15 amp (P/N 53-115), 20 amp (P/N 53-120) and 30 amp (P/N 53-130) circuit breakers available
- Durable, weather-resistant housing
- Interior wiring sealed against corrosion, chemicals and extreme weather
- Replacement lid available
- QBOX™ QCS2® replacement kit with ring terminals available. See part number 16-7842 for more details.

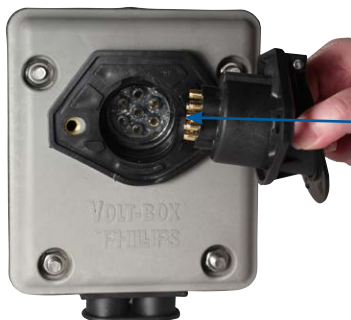
**VOLT-BOX™**



| Part No.        | Description  |
|-----------------|--|
| <b>16-8000</b>  | VOLT-BOX™ 7-way nosebox, without circuit breakers, split pin |
| <b>16-80002</b> | VOLT-BOX™ 7-way nosebox, without circuit breakers, solid pin |



- Compact design fits tight space constraints
- STA-DRY® housing is resistant to impact, chemicals and harsh environments
- Features the industry standard QCS2® made with high impact composite material with interchangeable mounting holes
- Available with split or solid pin
- Can be used for retrofit and features the standard 7-way trailer mounting bolt pattern
- Offers more interior room than the competition for easier wire maintenance
- Measurements: 6.5 in. high x 5.8 in. wide x 3.02 in. deep and QCS2® J560 socket protrudes 1.5 in. from housing
- Stainless steel mounting carriage bolts for ultimate corrosion resistance
- Available with PERMALOGIC™



STA-DRY® QCS2® for fast and easy socket replacement!

# REPLACEMENT KITS

## STA-DRY® QCS2® Replacement Kit With Ring Terminals

| STA-DRY® S7™ |   |
|--------------|---|
| Part No.     | Description   |
| 16-7890      | S7™ QCS2® (Quick-Change Socket) replacement kit, with ring terminals, for junction box with circuit breakers    |
| 16-7891      | S7™ QCS2® (Quick-Change Socket) replacement kit, with ring terminals, for junction box without circuit breakers |

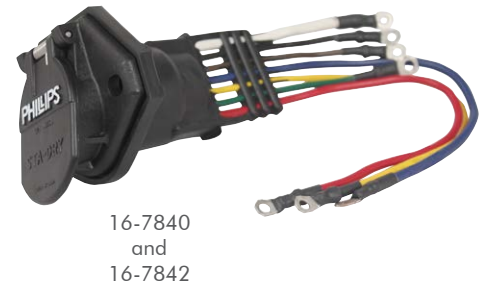
| i-BOX™   |  |
|----------|--|
| Part No. | Description  |
| 16-7840  | i-BOX™ QCS2® (Quick Change Socket) replacement kit, with ring terminals for junction box with or without circuit breakers, 3" white wire |

| QBOX™    |   |
|----------|---|
| Part No. | Description   |
| 16-7842  | QBOX™ QCS2® (Quick Change Socket) replacement kit, with ring terminals for junction box with or without circuit breakers, 9" white wire |

- Significantly reduces socket replacement time, lowering maintenance costs
- Molded housing includes integrated flange to seal out moisture and corrosion
- For use with standard ABS wiring systems
- Includes QCS2® socket (P/N: 16-724) with split pins
- Standard #10 ring terminals for easy mounting to studs
- 16-7890 compatible with STA-DRY® S7™ PERMALOGIC™ products
- 16-7840 compatible with i-BOX™ PERMALOGIC™ products



16-7890  
and  
16-7891



16-7840  
and  
16-7842

## STA-DRY® S7™ QCS2® Replacement Kit With SLIM-7™

| Part No. | Description   |
|----------|---|
| 16-795   | S7™ QCS2® (Quick-Change Socket) replacement kit, with SLIM-7™, for swivel socket without junction box |

- Significantly reduces socket replacement time, lowering maintenance costs
- Molded housing includes integrated flange to seal out moisture and corrosion
- For use with standard ABS wiring systems
- Includes QCS2® socket (P/N: 16-724) with split pins
- Molded SLIM-7™ female harness connector





# STA-DRY® SOCKETBREAKERS



- Sealed to prevent contaminants from passing to wire harness
- Non-corrosive housing
- Stainless steel hinge pin and spring for long life
- Quick-change circuit breakers can be replaced in 30 seconds
- Raised interior ribs for moisture exit
- Includes neoprene closed cell sponge mounting gaskets
- Full-opening lid

## 7-Way Socketbreakers



Quick-change circuit breakers

- Allows up to 5 ground circuits

| Without Nosebox |  |
|-----------------|--|
| Part No.        | Description                              |
| <b>16-760</b>   | Without circuit breakers, split pins     |
| <b>16-761</b>   | With 15 amp circuit breakers, split pins |
| <b>16-762</b>   | With 20 amp circuit breakers, split pins |
| <b>16-763</b>   | With 30 amp circuit breakers, split pins |

| With STA-DRY® Nosebox* |   |
|------------------------|---|
| Part No.               | Description   |
| <b>16-77029</b>        | Without circuit breakers, solid pins, with STA-DRY® nosebox     |
| <b>16-7709</b>         | Without circuit breakers, split pins, with STA-DRY® nosebox     |
| <b>16-77229</b>        | With 20 amp circuit breakers, solid pins, with STA-DRY® nosebox |
| <b>16-7729</b>         | With 20 amp circuit breakers, split pins, with STA-DRY® nosebox |
| <b>16-7739</b>         | With 30 amp circuit breakers, split pins, with STA-DRY® nosebox |

\*Includes 3 1/2 in. deep nosebox (16-775)

## 7-Way Socketbreakers with 28 Pin Rear



- Allows up to 4 connections on 1 circuit
- Accepts .180 bullet terminals

| Part No.           | Description   |
|--------------------|---|
| <b>16-7602-28</b>  | 28-pin, solid pins, without circuit breakers                  |
| <b>16-7612-28</b>  | 28-pin, solid pins, 15 amp circuit breakers                   |
| <b>16-7622-28</b>  | 28-pin, solid pins, 20 amp circuit breakers                   |
| <b>16-7632-28</b>  | 28-pin, solid pins, 30 amp circuit breakers                   |
| <b>16-7709-28</b>  | 28-pin, split pins, single nosebox*, without circuit breakers |
| <b>16-7719-28</b>  | 28-pin, split pins, single nosebox*, 15 amp circuit breakers  |
| <b>16-7729-28</b>  | 28-pin, split pins, single nosebox*, 20 amp circuit breakers  |
| <b>16-7739-28</b>  | 28-pin, split pins, single nosebox*, 30 amp circuit breakers  |
| <b>16-77029-28</b> | 28-pin, solid pins, single nosebox*, without circuit breakers |
| <b>16-77229-28</b> | 28-pin, solid pins, single nosebox*, 20 amp circuit breakers  |
| <b>16-77329-28</b> | 28-pin, solid pins, single nosebox*, 30 amp circuit breakers  |

\*Includes 3 1/2 in. deep nosebox (16-775)

## ISO Socketbreakers



Quick-change circuit breakers

| Part No.      | Description   |
|---------------|---|
| <b>16-860</b> | Without circuit breakers, solid pins with female ground pin     |
| <b>16-861</b> | With 15 amp circuit breakers, solid pins with female ground pin |
| <b>16-862</b> | With 20 amp circuit breakers, solid pins with female ground pin |
| <b>16-863</b> | With 30 amp circuit breakers, solid pins with female ground pin |

- When 7 circuits are not enough
- Reverse ground pin ensures the correct cable is connected
- For ISO/auxiliary applications
- Meets ISO 3731 specifications
- Allows up to 5 ground circuits
- For use with yellow-jacket cables

# STA-DRY® ZINC DIE-CAST SOCKETBREAKERS

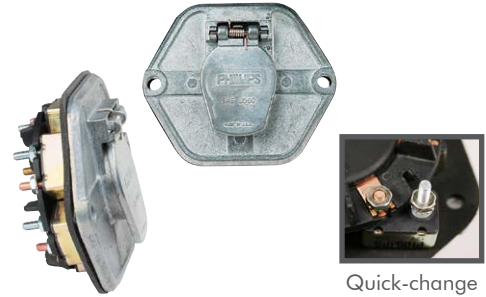
- Meets SAE J560 specifications
- Stainless steel hinge pin and spring
- Full-opening lid
- STA-DRY® feature seals to prevent moisture and contaminants from entering the harness system
- Raised interior ribs for moisture exit
- Includes neoprene closed cell sponge mounting gaskets
- Quick-change circuit breakers can be replaced in 30 seconds



## 7-Way Low Profile

| Part No.      | Description                             |
|---------------|---|
| <b>15-750</b> | Without circuit breakers, split pin     |
| <b>15-751</b> | With 15 amp circuit breakers, split pin |
| <b>15-752</b> | With 20 amp circuit breakers, split pin |
| <b>15-753</b> | With 30 amp circuit breakers, split pin |

- For container chassis, piggy-back and intermodal trailers where flush applications are required
- Circuit breaker designed to be serviced in 30 seconds
- Allows up to 5 ground circuits

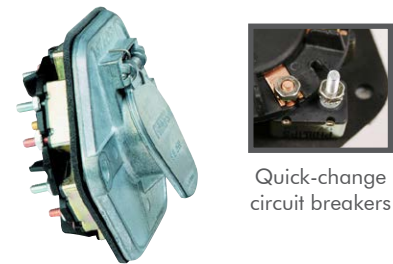


Quick-change circuit breakers

## 7-Way Extended Barrel

| Part No.       | Description                             |
|----------------|---|
| <b>15-760</b>  | Without circuit breakers, split pin     |
| <b>15-7602</b> | Without circuit breakers, solid pin     |
| <b>15-761</b>  | With 15 amp circuit breakers, split pin |
| <b>15-762</b>  | With 20 amp circuit breakers, split pin |
| <b>15-7622</b> | With 20 amp circuit breakers, solid pin |
| <b>15-763</b>  | With 30 amp circuit breakers, split pin |

- Designed to support ABS cable weight
- Circuit breaker designed to be serviced in 30 seconds
- Allows up to 5 ground circuits



Quick-change circuit breakers

## 7-Way Socketbreaker with Nosebox

### Nosebox - 1 7/8" Deep

| Part No.       | Description                             |
|----------------|---|
| <b>15-7609</b> | Without circuit breakers, split pin     |
| <b>15-7619</b> | With 15 amp circuit breakers, split pin |
| <b>15-7629</b> | With 20 amp circuit breakers, split pin |
| <b>15-7639</b> | With 30 amp circuit breakers, split pin |

### Nosebox - 3 1/8" Deep

| Part No.        | Description                             |
|-----------------|---|
| <b>15-78029</b> | Without circuit breakers, solid pin     |
| <b>15-7809</b>  | Without circuit breakers, split pin     |
| <b>15-7819</b>  | With 15 amp circuit breakers, split pin |
| <b>15-7829</b>  | With 20 amp circuit breakers, split pin |



- 1 7/8 in. or 3 1/8 in. deep zinc die-cast nosebox
- Fits standard mounting holes
- Includes mounting hardware for socketbreaker to nosebox

# NOSEBOXES, ACCESSORIES, & FUSES

## STA-DRY® Nosebox



| Part No.      | Description   |
|---------------|---|
| <b>16-775</b> | Single cavity nosebox kit, 3 1/2" deep with gasket    |
| <b>16-777</b> | Dual cavity nosebox kit, 3 1/2" deep with backplate   |
| <b>16-779</b> | Single cavity nosebox kit, 2 1/2" deep with backplate |

- Non-corrosive, nylon housing
- For use with 15 series or 16 series socketbreakers
- Impact-resistant
- Steel reinforced mounting collars
- Kit includes grommet and socketbreaker mounting hardware

## Zinc Die-Cast Nosebox



| Part No.      | Description               |
|---------------|---------------------------|
| <b>15-775</b> | Zinc die-cast nosebox kit |

- 55% more interior space than the 15-769
- Larger interior space allows for easier access and maintenance
- 3 1/8 in. deep
- Fits 15 series and 16 series socketbreakers
- Standard hole pattern
- Kit includes gasket, grommet and socketbreaker mounting hardware
- Does not include nosebox mounting hardware

## Zinc Die-Cast Nosebox Kit



| Part No.      | Description               |
|---------------|---------------------------|
| <b>15-769</b> | Zinc die-cast nosebox kit |

- 1 7/8 in. deep
- For use with 15 series or 16 series socketbreakers
- Kit includes gasket, grommet and socketbreaker mounting hardware
- Does not include nosebox mounting hardware

## Adapter Plate

| Part No.      | Description                          |
|---------------|--------------------------------------|
| <b>15-770</b> | Adapter, powder-coated, 10 ga. steel |

- Allows standard socket to mate with a nosebox
- Can be used on single and dual noseboxes



## Replacement Face Plates

| Part No.      | Description   |
|---------------|---|
| <b>15-755</b> | Low profile face plate for 15-750, 15-751, 15-752, 15-753     |
| <b>15-773</b> | Extended barrel face plate for 15-760, 15-761, 15-762, 15-763 |

- Zinc die-cast
- Stainless steel hinge pin and spring



## Replacement Gaskets & Grommets

| Part No.      | Description   |
|---------------|---|
| <b>15-765</b> | D-shaped grommet for junction box (15-769 and 15-961) |
| <b>15-766</b> | Socketbreaker mounting gasket                         |
| <b>15-767</b> | Nosebox mounting gasket                               |

- Closed cell sponge gaskets



15-765



15-766



15-767

## Replacement Circuit Breakers

| Part No.      | Description |
|---------------|-------------|
| <b>53-115</b> | 15 amp      |
| <b>53-120</b> | 20 amp      |
| <b>53-130</b> | 30 amp      |

- Longer "hot" leg for correct and easy installation
- SAE snap-in type, includes nuts and washers
- Copper leg mounts to copper strip in socketbreaker
- Meets SAE J553 standard



## High Capacity Circuit Breakers



| Part No.      | Description |
|---------------|-------------|
| <b>53-515</b> | 150 amp     |
| <b>53-520</b> | 200 amp     |

- Water resistant
- Panel or surface mounted
- Made of thermoset plastic
- Rated to 30 VDC, 3000 amp interrupt capacity
- Complies with SAE J1625
- Includes terminal covers

## In-Line ATO/ATC Fuse Holder with Case



| Part No.      | Description                           |
|---------------|---------------------------------------|
| <b>54-350</b> | In-line ATO/ATC fuse holder with case |

- 30 amp in-line fuse holder for ATO/ATC fuses
- Includes water resistant cap
- 12 ga. wire is 5 1/2 in. long
- Includes 30 amp fuse

# JUNCTION BOXES

## Junction Box



15-960



15-961

| Part No.      | Description                 |
|---------------|-----------------------------|
| <b>15-960</b> | Black junction box          |
| <b>15-961</b> | CLEAR-VU™ grey junction box |

- Larger junction box accepts ABS cable and additional wiring
- Ring termination
- Pass-through grommets accommodate up to .80 O.D. cable
- Seven #10 stud posts
- Hole pattern is 7.37 in. center to center
- Box measures approximately 6 5/8 in. long x 3 3/4 in. wide x 2 1/2 in. deep at its widest points



## Quick-Connect Junction Box

| Part No.      | Description   |
|---------------|---|
| <b>15-860</b> | 10" pigtail with packard plus 4-way flat connectors |
| <b>15-861</b> | 10" pigtail with packard connector                  |
| <b>15-865</b> | Replacement lid and pin                             |

- Easily adaptable to most trailer wiring systems
- Perfect for rental vehicles



15-860

15-861

## HEAVY DUTY LIFTGATE SOLENOIDS

### Intermittent Duty

| Part No.      | Volt   | Amps | Inrush Amps |
|---------------|--------|------|-------------|
| <b>54-130</b> | 12 VDC | 80   | 200         |

- Intermittent duty, 10 seconds on / 60 seconds off
- Chassis ground
- For liftgate applications



### Continuous Duty

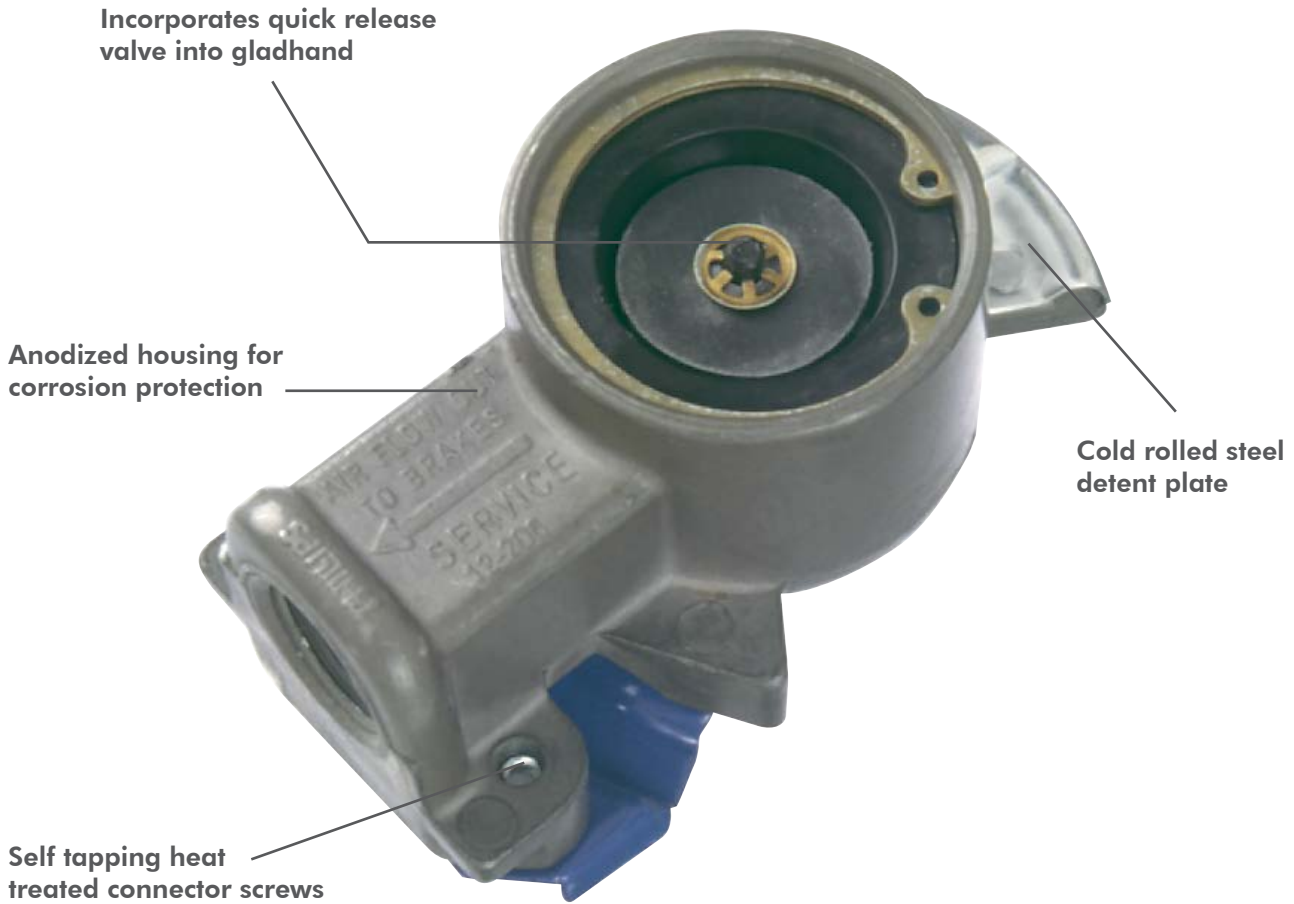
| Part No.      | Volt   | Amps | Inrush Amps |
|---------------|--------|------|-------------|
| <b>54-140</b> | 12 VDC | 80   | 200         |

- Continuous duty
- External ground
- For liftgate applications

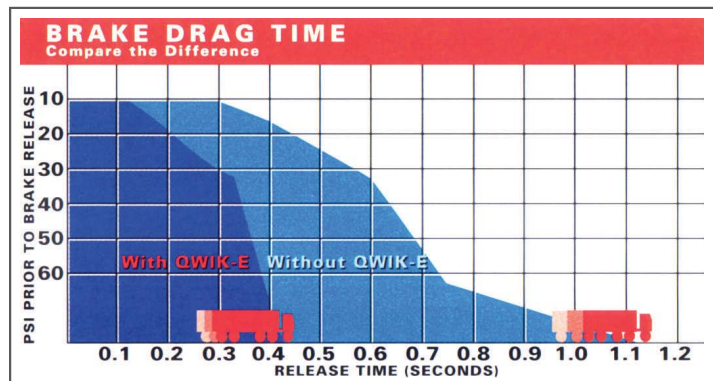


# AIR CONNECTORS

## QWIK-E<sup>®</sup> Gladhand



Trailer brakes are released up to 50% faster than with conventional methods!



# QWIK-E® GLADHANDS

- Trailer brakes are released up to 50% faster than with conventional methods
- Quick-release valve and gladhand combined
- Reduces tire flat spots
- Anodized housing for corrosion protection
- For use with ABS and non-ABS brake systems
- By reducing brake lining and drum wear, thousands of dollars are saved over the life of the trailer
- Improves response time of brake release - drivers love it!
- Standard equipment on most OEM trailers
- Meets SAE J318 specifications

## QWIK-E® Gladhands

| Straight Mount |  |
|----------------|--|
| Part No.       | Description  |
| <b>12-206</b>  | Service, blue, 1/2" female pipe thread without filter screen |
| <b>12-2061</b> | Service, blue, 1/2" female pipe thread with filter screen    |
| <b>12-206B</b> | Service, blue, 12-206, individually packaged, polybag        |

- For use on trailer service lines only

| Trailer Mount   |   |
|-----------------|---|
| Part No.        | Description   |
| <b>12-236</b>   | Service, blue, 3/8" female pipe thread bottom port                    |
| <b>12-2361</b>  | Service, blue, 3/8" female pipe thread bottom port with filter screen |
| <b>12-23617</b> | Service, blue, 3/8" female pipe thread rear port with filter screen   |
| <b>12-2367</b>  | Service, blue, 3/8" female pipe thread rear port                      |
| <b>12-236B</b>  | Service, blue, 12-236, individually packaged, polybag                 |

- For use on trailer service lines only



12-206



12-236

| Part No.      | Description        |
|---------------|--------------------|
| <b>12-226</b> | Repair service kit |

- Kit includes breather valve, polyurethane seal, snap ring and gasket

## QWIK-E® Service Kit



## Quick Exhaust Valve

| Part No.      | Description  |
|---------------|--------------|
| <b>12-810</b> | Trailer side |
| <b>12-811</b> | Tractor side |

- Provides quick exhaust of trailer's service air brake pressure
- Tractor side hooks to the tractor protection valve
- Zinc die-cast



## Quick Release Valve

| Part No.      | Description        |
|---------------|--------------------|
| <b>12-800</b> | 3/8" x 3/8" x 3/8" |
| <b>12-801</b> | 1/2" x 3/8" x 3/8" |

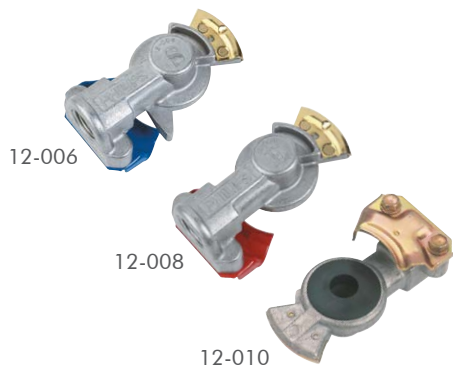
- Aluminum die-cast housing for corrosion resistance
- 150 psi maximum
- Crack pressure 0.5 PSI



# STANDARD GLADHANDS

- Wrap-around connector plate provides additional strength
- Powder-coated connector plate for corrosion resistance
- Zinc-coated detent plates
- E-coated screws for corrosion protection
- Meets SAE J318 specifications
- Stainless steel detent plates and connector plates available, please contact customer service
- Service and emergency keyed to prevent cross coupling

## Straight Mount



| Part No.       | Description  |
|----------------|--|
| <b>12-006</b>  | Service, blue, 1/2" female pipe thread                         |
| <b>12-0061</b> | Service, blue, with filter screen, 1/2" female pipe thread     |
| <b>12-006B</b> | Service, blue, 1/2" female pipe thread, individually packaged  |
| <b>12-008</b>  | Emergency, red, 1/2" female pipe thread                        |
| <b>12-0081</b> | Emergency, red, with filter screen, 1/2" female pipe thread    |
| <b>12-008B</b> | Emergency, red, 1/2" female pipe thread, individually packaged |
| <b>12-010</b>  | Universal, 1/2" female pipe thread                             |
| <b>12-010B</b> | Universal, 1/2" female pipe thread, individually packaged      |

- For use on air coil, tractor and trailer
- Many more options available - ask your sales representative or customer service

## Trailer Mount (38°)



| Part No.        | Description  |
|-----------------|--|
| <b>12-136</b>   | Service, blue, bottom port, 3/8" female pipe thread                      |
| <b>12-1361</b>  | Service, blue with filter screen, bottom port, 3/8" female pipe thread   |
| <b>12-13617</b> | Service, blue, with filter screen, rear port, 3/8" female pipe thread    |
| <b>12-138</b>   | Emergency, red, bottom port, 3/8" female pipe thread                     |
| <b>12-1381</b>  | Emergency, red, with filter screen, bottom port, 3/8" female pipe thread |
| <b>12-13817</b> | Emergency, red, with filter screen, rear port, 3/8" female pipe thread   |

- For use on trailer

## Cast Iron



| Part No.        | Description  |
|-----------------|--|
| <b>12-406</b>   | Service, blue polyurethane seal, 1/2" female pipe thread                               |
| <b>12-408</b>   | Emergency, red polyurethane seal, 1/2" female pipe thread                              |
| <b>12-410</b>   | Universal, black polyurethane seal, 1/2" female pipe thread                            |
| <b>12-41010</b> | Universal, black polyurethane seal with dust flaps and screen, 1/2" female pipe thread |

- Cast iron for durability
- Integrated connector plate
- Spring-loaded ball lock
- Polyurethane seal
- Meets SAE J318 specifications

## CORROSION-RESISTANT GLADHANDS

- Anodized for increased protection against magnesium chloride, road salts and chemicals
- Designed for highly corrosive operating conditions
- Wrap-around connector plate provides additional strength
- Powder-coated connector plate for corrosion protection
- Zinc-coated detent plates
- Meets SAE J318 specifications
- Stainless steel detent plates and connector plates available, please contact customer service
- Service and emergency keyed to prevent cross coupling

### Anodized Gladhands

| Straight Mount  |   |
|-----------------|---|
| Part No.        | Description                                       |
| <b>12-00623</b> | Service, blue, anodized, 1/2" female pipe thread  |
| <b>12-00823</b> | Emergency, red, anodized, 1/2" female pipe thread |

- For use on air coil, tractor and trailer

| Trailer Mount   |  |
|-----------------|--|
| Part No.        | Description  |
| <b>12-13623</b> | Service, blue, bottom port, anodized, 3/8" female pipe thread  |
| <b>12-13823</b> | Emergency, red, bottom port, anodized, 3/8" female pipe thread |



12-00623



12-00823



12-13623



12-13823

## SPECIALTY GLADHANDS

| Part No.      | Description                             |
|---------------|---|
| <b>12-340</b> | Universal, 1/2" female pipe thread      |
| <b>12-346</b> | Service, blue, 1/2" female pipe thread  |
| <b>12-348</b> | Emergency, red, 1/2" female pipe thread |

- Durable cast iron connector plate
- Aluminum body to save weight
- Stainless steel ball-bearing provides a positive lock for gladhand mating
- Service and emergency keyed to prevent cross coupling
- Meets SAE J318 specifications

### STA-LOCK™ Gladhands



12-340



12-346



12-348



## LATCH-IT™ Gladhands



| Part No.       | Description                             |
|----------------|---|
| <b>12-1119</b> | Universal, 1/2" female pipe thread      |
| <b>12-1169</b> | Service, blue, 1/2" female pipe thread  |
| <b>12-1189</b> | Emergency, red, 1/2" female pipe thread |

- HELPS PREVENT ACCIDENTAL GLADHAND DISCONNECTIONS
- Patented latch provides a positive lock
- Easy-grip feature ensures fast coupling/uncoupling, even with gloves
- Powder-coated for easy identification
- Stainless steel connector plate and spring for longevity
- Polyurethane seal
- Meets SAE J318 specifications
- Service and emergency keyed to prevent cross coupling

## Swinger Gladhands



| Part No.         | Description   |
|------------------|---|
| <b>12-4506</b>   | 45° with service gladhand, blue, 3/8" female pipe thread, bottom            |
| <b>12-4508</b>   | 45° with emergency gladhand, red, 3/8" female pipe thread, bottom           |
| <b>12-450623</b> | 45° with anodized service gladhand, blue, 3/8" female pipe thread, bottom   |
| <b>12-450823</b> | 45° with anodized emergency gladhand, red, 3/8" female pipe thread, bottom  |
| <b>12-4546</b>   | 45° with cast iron service gladhand, blue, 3/8" female pipe thread, bottom  |
| <b>12-4548</b>   | 45° with cast iron emergency gladhand, red, 3/8" female pipe thread, bottom |
| <b>12-4526</b>   | 45° with QWIK-E® gladhand, blue, 3/8" female pipe thread, bottom            |

- GLADHAND SWIVELS 180° WITHOUT KINKING AIR LINE!
- When not in use, gladhand is automatically returned to seal, protecting the air lines
- Designed for intermodal and piggy-back trailers where straight or angled gladhands are exposed to damage
- Anodized for increased protection against magnesium chloride, road salt and chemicals
- Stainless steel return spring for long life

## STA-LOCK™ Cast Iron Swinger Gladhands



| Part No.        | Description  |
|-----------------|--|
| <b>12-4906</b>  | 90° service, blue polyurethane seal                              |
| <b>12-4908</b>  | 90° emergency, red polyurethane seal                             |
| <b>12-49064</b> | 90° service, blue polyurethane seal with built-in filter screen  |
| <b>12-49084</b> | 90° emergency, red polyurethane seal with built-in filter screen |

- GLADHAND SWIVELS 180° WITHOUT KINKING AIR LINE!
- Stainless steel ball-bearing provides a positive lock for gladhand mating
- Cast iron for durability
- Stainless steel return spring for long life
- 3/8" female pipe thread, bottom
- Polyurethane gladhand seals with built-in filter screens help keep debris out of the air lines
- When not in use, gladhand is automatically returned to seal, protecting the air system
- Designed for intermodal and piggy-back trailers where straight or angled gladhands are exposed to damage
- Meets SAE J318 specifications

## Shut-Off Gladhands

| Bulkhead Mount |   |
|----------------|---|
| Part No.       | Description                             |
| <b>12-306</b>  | Service, blue, 3/8" female pipe thread  |
| <b>12-308</b>  | Emergency, red, 3/8" female pipe thread |

- Mounts in 1 in. hole

| Surface Mount |   |
|---------------|---|
| Part No.      | Description                             |
| <b>12-336</b> | Service, blue, 3/8" female pipe thread  |
| <b>12-338</b> | Emergency, red, 3/8" female pipe thread |

- For double trailers
- Comes standard with 12-0167-25 dust flap poly seal and 12-038 filter screen
- Includes bulkhead fitting
- Integrated shut-off valve or arm
- Color-coded connector plate for easy identification
- Meets SAE J318 specifications



12-306



12-308



12-336



12-338

## Composite Shut-Off Gladhands

| Surface Mount |   |
|---------------|---|
| Part No.      | Description                             |
| <b>12-316</b> | Service, blue, 3/8" female pipe thread  |
| <b>12-318</b> | Emergency, red, 3/8" female pipe thread |

| Bulkhead Mount |   |
|----------------|---|
| Part No.       | Description                             |
| <b>12-326</b>  | Service, blue, 3/8" female pipe thread  |
| <b>12-328</b>  | Emergency, red, 3/8" female pipe thread |

- For double trailers
- Composite material for increased protection against magnesium chloride, road salts and chemicals
- Integrated shut-off arm to seal air system
- Molded in color for easy identification
- Standard with 12-0167-25 dust flap poly seal and 12-038 filter screen
- Patent No. 5,348,043
- Meets SAE J318 specifications



12-316



12-318



12-326



12-328

## Economy Shut-Off "Dummy" Gladhand

| Part No.       | Description                                 |
|----------------|---|
| <b>12-0100</b> | Economy shut-off "dummy" gladhand, aluminum |

- Inexpensive way to seal rear gladhands for double trailers
- Provides air-tight shut-off
- 18 in. cable with ring terminal



# AIR LINE FILTRATION SYSTEMS

**NEW**

## AIR-DEFENSE™ Swinger System With Quick-Change Cartridge Trailer Air Brake In-Line Filtration System



12-8540



12-8542



12-8546



12-8548



12-854689



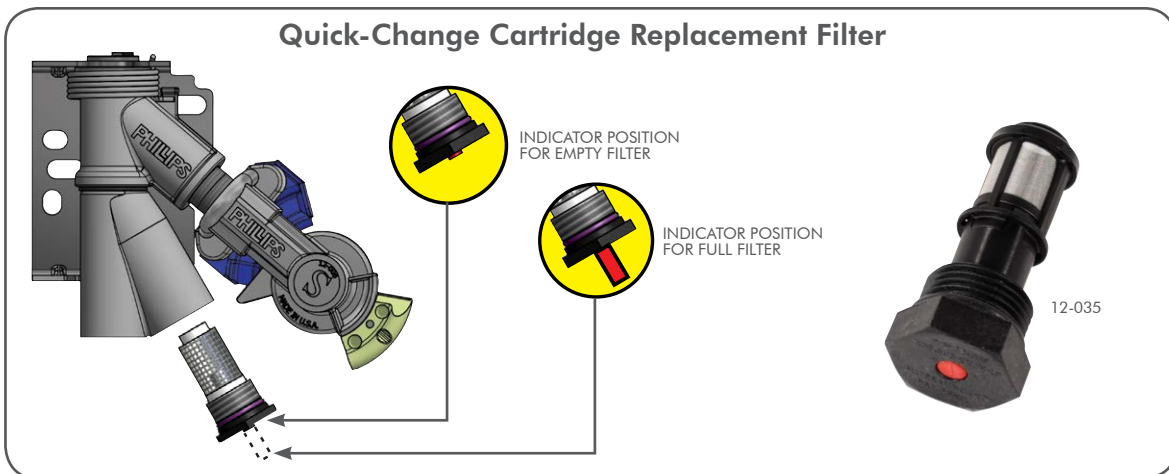
12-854889

| Part No.  | Description   |            |
|-----------|---|------------|
| 12-8540   | AIR-DEFENSE™ Swinger System with swinger arm, without gladhand            | <b>NEW</b> |
| 12-8542   | AIR-DEFENSE™ Swinger System with QWIK-E®                                  | <b>NEW</b> |
| 12-8546   | AIR-DEFENSE™ Swinger System with straight service/blue gladhand           | <b>NEW</b> |
| 12-8548   | AIR-DEFENSE™ Swinger System with straight emergency/red gladhand          | <b>NEW</b> |
| 12-854689 | AIR-DEFENSE™ Swinger System with straight anodized service/blue gladhand  | <b>NEW</b> |
| 12-854889 | AIR-DEFENSE™ Swinger System with straight anodized emergency/red gladhand | <b>NEW</b> |

**Combines a trailer air line filtration system and gladhand into one, offering the best protection for your air lines!**

- Debris is trapped in the Quick-Change Cartridge (12-035) of the AIR-DEFENSE™ System, reducing debris entering the trailer air lines and brake valves
- The Quick-Change Cartridge features a bypass mode which ensures full airflow at all times, even when the filter is full
- Visual service indication: Red indicator (non-resettable) notifies mechanic or operator that it's time to replace a dirty air filter cartridge
- The cartridge is replaceable in minutes and in route; simply unscrew the old filter cartridge and replace with a new one
- Can be used on both service and emergency lines
- Swinger gladhands swivel 180°, keeping air lines open and kink-free during use
- When not in use, the gladhand is automatically returned to the seal, protecting the air lines
- Available with the following gladhand options: straight blue/service (anodized or aluminum body), straight red/emergency (anodized or aluminum body), QWIK-E®, or without gladhand for customization (for straight gladhands with 1/2" female pipe thread)
- Patent pending

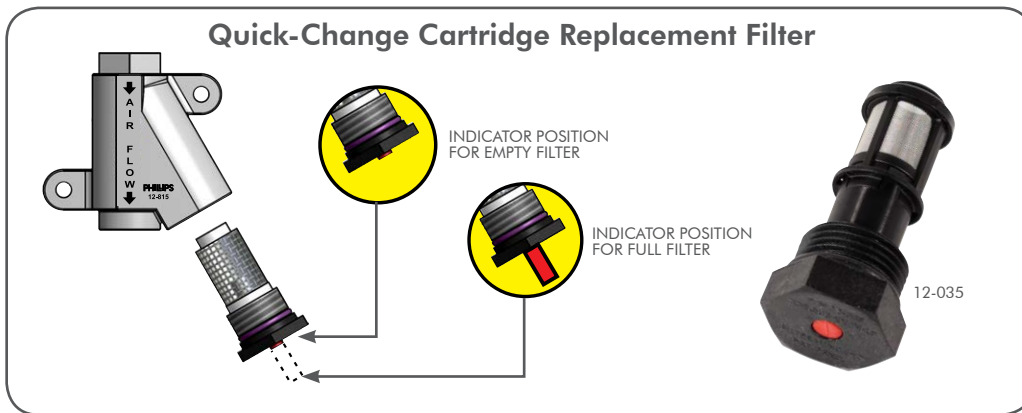
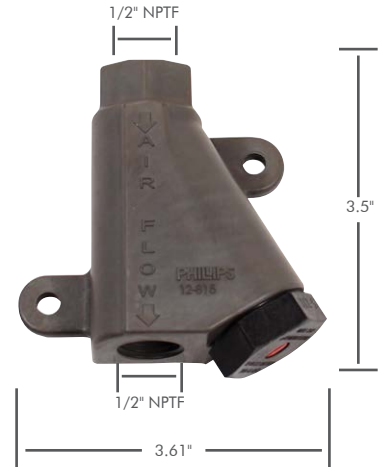
AIR CONNECTORS



## AIR-DEFENSE™ System With Quick-Change Cartridge Trailer Air Brake In-Line Filtration System

| Part No.      | Description         |
|---------------|---------------------|
| <b>12-815</b> | AIR-DEFENSE™ System |

- Debris is trapped in the Quick-Change Cartridge (12-035) of the AIR-DEFENSE™ System, reducing debris entering the trailer air lines and brake valves
- The Quick-Change Cartridge features a bypass mode which ensures full airflow at all times, even when the filter is full
- Visual service indication: Red indicator (non-resettable) notifies mechanic or operator that it's time to replace dirty air filter cartridge
- The cartridge is replaceable in minutes and en route; simply unscrew the old filter cartridge and replace with a new one
- Can be used on both service and emergency lines
- 1/2" NPTF top and bottom ports
- Designed and assembled in the U.S.A.
- The AIR-DEFENSE™ System with Quick-Change Cartridge is intended to be installed between the trailer gladhands and the air lines to the brake valves
- Patent Pending



### Quick-Change Cartridge

| Part No.      | Description                                 |
|---------------|---|
| <b>12-035</b> | Quick-Change Cartridge - replacement filter |

- Replacement filter for all AIR-DEFENSE™ system products
- Replaceable in minutes in route; simply unscrew the old filter cartridge and replace with a new one
- Visual service indication: Red indicator (non-resettable) notifies mechanic or operator that it's time to replace dirty air filter cartridge
- Always keep at least one cartridge on hand for easy in-transit replacement
- Patent Pending



# AIR ACCESSORIES

## Gladhand Seals



12-0161-25;  
12-0161-100



12-0162-25;  
12-0162-100



12-0102-25;  
12-0102-100



12-0111-25;  
12-0111-100



12-0163-25;  
12-0163-100



12-0167-25;  
12-0167-100  
must be used with  
filter screen



12-01611-25;  
12-01611-100



12-01621-25;  
12-01621-100



12-01631-25;  
12-01631-100

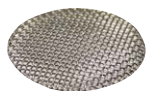
- Fits all industry standard gladhands
- Available in rubber and polyurethane
- Polyurethane available in blue and red to denote service and emergency
- Polyurethane gladhand seals with built-in filter screens help keep debris out of the air lines
- Quantities of 200 available with our selection of gladhand seal displays for retail or easy storage in the shop. See the Traffic Builders section for more details.

| Part No.     | Description  | Qty. |
|--------------|--|------|
| 12-011-25    | Narrow lip, black (universal), rubber  | 25   |
| 12-011-100   | Narrow lip, black (universal), rubber  | 100  |
| 12-012-25    | Wide lip, tapered base for easy insertion, black (universal), rubber             | 25   |
| 12-012-100   | Wide lip, tapered base for easy insertion, black (universal), rubber             | 100  |
| 12-0161-25   | Blue (service), polyurethane   | 25   |
| 12-0161-100  | Blue (service), polyurethane   | 100  |
| 12-0162-25   | Red (emergency), polyurethane  | 25   |
| 12-0162-100  | Red (emergency), polyurethane  | 100  |
| 12-0163-25   | Black (universal), polyurethane  | 25   |
| 12-0163-100  | Black (universal), polyurethane  | 100  |
| 12-0164-04   | Retail pack, 2 red (emergency), 2 blue (service), polyurethane                   | 4    |
| 12-0164-100  | Retail pack, 50 red (emergency), 50 blue (service), polyurethane                 | 100  |
| 12-0167-25   | With dust flap, gray (universal), polyurethane (must be used with filter screen) | 25   |
| 12-0167-100  | With dust flap, gray (universal), polyurethane (must be used with filter screen) | 100  |
| 12-01611-25  | Blue (service), polyurethane gladhand seals with built-in filter screen          | 25   |
| 12-01611-100 | Blue (service), polyurethane gladhand seals with built-in filter screen          | 100  |
| 12-01621-25  | Red (emergency), polyurethane gladhand seals with built-in filter screen         | 25   |
| 12-01621-100 | Red (emergency), polyurethane gladhand seals with built-in filter screen         | 100  |
| 12-01631-25  | Black (universal), polyurethane gladhand seals with built-in filter screen       | 25   |
| 12-01631-100 | Black (universal), polyurethane gladhand seals with built-in filter screen       | 100  |

## Gladhand Filter Screens



12-038



12-039

| Part No. | Description   |
|----------|---|
| 12-038   | Fits gladhand part numbers 12-006, 12-008, 12-010, 12-136, 12-138 |
| 12-039   | Fits QWIK-E® gladhand part numbers 12-206, 12-236                 |

- 12-038 meets Ontario, Canada special regulations



## Coiled Air Gladhand Extensions

| Part No.      | Description   |
|---------------|---|
| <b>12-600</b> | Pair (red and blue), clamshell                                    |
| <b>80-600</b> | Display, includes 9 pairs of 12-600, display rack and header card |

- Provides strong leverage for coupling/uncoupling gladhands
- Durable and strong; made of solid machined aluminum
- One-piece body for easy installation
- Bright, corrosion-resistant anodized color coating
- Easy installation - Installs between air coil and gladhand
- Heavy diamond knurl for outstanding grip



12-600

## Rubber Air Grips

| Part No.      | Description      |
|---------------|------------------|
| <b>12-606</b> | Service, blue    |
| <b>12-608</b> | Emergency, red   |
| <b>12-610</b> | Universal, black |

- Color-coded for easy identification
- One-piece body for easier installation
- Can be used on both straight air lines and Phillips POWER GRIP™ coiled air



## Air Coil QWIK-REPAIR™ Kit

| Part No.      | Description                 |
|---------------|-----------------------------|
| <b>12-911</b> | Air Coil QWIK-REPAIR™ kit * |

### 12-911 Contents:

| Description  | Qty. |
|--|------|
| Economy nylon air tube cutter (P/N 12-90003)                 | 1    |
| 1/2" QWIK-FIT™ straight union composite fitting with o-rings | 1    |
| 1/2" QWIK-FIT™ brass male fitting with o-rings               | 1    |

- For use with 1/2 in. O.D. air tubing
- Contents will repair (1) one brass fitting on coiled assembly
- Contents will make (1) one repair to damaged portion of coiled assembly
- Easy to install and reduces downtime
- Includes instructions
- Fittings meet SAE and DOT specifications
- Great addition to your Phillips CSA QWIK-FIX™ kit!



\*Repairs made with this kit should be considered as a temporary solution in an emergency situation and are not intended for long terms use. Damaged air coils should be replaced as soon as possible

## Rubber Air QWIK-REPAIR™ Kit

| Part No.      | Description  |
|---------------|--|
| <b>12-050</b> | QWIK-REPAIR™ kit, 3/8" rubber hose I.D., 1/2" fittings |
| <b>12-052</b> | QWIK-REPAIR™ kit, 3/8" rubber hose I.D., 3/8" fittings |

- For 3/8 in. I.D. rubber air lines
- Easy to install
- Reduces downtime
- Contents will make two repairs
- Great addition to your Phillips CSA QWIK-FIX™ kit!
- Includes installation instructions

### 12-050 and 12-052 Contents:

- 2 - Cases (each case consist of two pieces)
- 1 - Wrench
- 2 - Assembly rings
- 2 - Male fittings with pre-applied thread sealant
- 2 - Greased lock stems



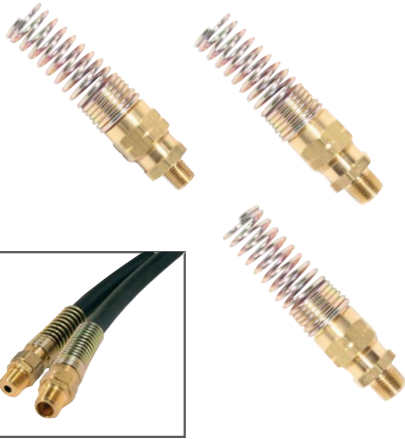
## Gladhand Lock



| Part No.      | Description   |
|---------------|---------------|
| <b>12-700</b> | Gladhand lock |

- Constructed of corrosion resistant material
- Includes two numbered keys for easy identification
- Uniquely designed to fit standard, angled or swinger style gladhands
- Upon request, multiple orders can be keyed alike

## Rubber Air Hose Replacement Fittings



| Part No.      | Description                      | Qty. |
|---------------|----------------------------------|------|
| <b>12-020</b> | 1/2" pipe thread, fits 3/8" hose | 5    |
| <b>12-022</b> | 3/8" pipe thread, fits 3/8" hose | 5    |
| <b>12-024</b> | 1/4" pipe thread, fits 3/8" hose | 5    |
| <b>12-042</b> | 3/8" pipe thread, fits 1/2" hose | 5    |
| <b>12-044</b> | 1/2" pipe thread, fits 1/2" hose | 5    |

- Designed to replace end of rubber air hose
- Includes spring guard

## Bulkhead Fittings



| Part No.      | Clamping Overall Thread Size | Internal Pipe Thread Size | Length |
|---------------|------------------------------|---------------------------|--------|
| <b>12-804</b> | 3/4"                         | 1/4"                      | 2 1/8" |
| <b>12-806</b> | 1"                           | 3/8"                      | 2 1/8" |

- Male pipe thread is 1/2 in. NPT
- For bulkheads up to 1/2 in. thick

## Rubber Hose Ferrule



| Part No.      | Description                            | Qty. |
|---------------|--|------|
| <b>12-026</b> | Brass ferrule for 3/8" rubber air hose | 5    |
| <b>12-046</b> | Brass ferrule for 1/2" rubber air hose | 5    |

- Replacement ferrule for rubber air hose
- Can be used with 12-020, 12-022, 12-024

## Heavy Duty Drain Valve



| Part No.      | Description                     | Qty. |
|---------------|---------------------------------|------|
| <b>12-820</b> | 60" cable with 1/4" pipe thread | 5    |
| <b>12-822</b> | 60" cable with 3/8" pipe thread | 5    |

- Includes brass valve and cable

# AIR BRAKE TUBING

- Phillips' nylon tubing can save as much as 75% in weight over copper tubing or rubber hose
- Resists road salts, oil, grease, gasoline, diesel fuel and moisture
- Bends easily without deforming
- Operating temperature range -40°F to 200°F

## Type A - Single Wall Tubing

| Part No. | Description                  |
|----------|------------------------------|
| 11-125   | 1/8" O.D., black, 100', box  |
| 11-250   | 1/4" O.D., black, 100', box  |
| 11-260   | 1/4" O.D., black, 250', box  |
| 11-253   | 1/4" O.D., orange, 100', box |
| 11-257   | 1/4" O.D., red, 100', box    |
| 11-258   | 1/4" O.D., yellow, 100', box |

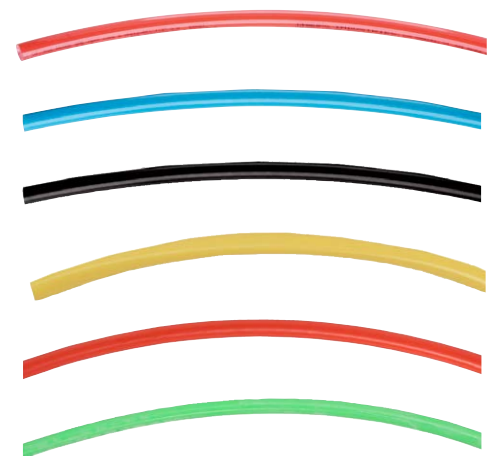
- Ideal for pneumatic accessories that operate off of the air system
- Meets SAE J844 type "A" specifications
- Operating temperature range -40°F to 200°F (-40°C to 93°C)



## Type B - Reinforced

| Part No. | Description                   |
|----------|-------------------------------|
| 11-261   | 3/8" O.D., black, 100', box   |
| 11-262   | 3/8" O.D., black, 250', box   |
| 11-263   | 3/8" O.D., black, 500', spool |
| 11-273   | 3/8" O.D., orange, 100', box  |
| 11-274   | 3/8" O.D., green, 100', box   |
| 11-276   | 3/8" O.D., blue, 100', box    |
| 11-277   | 3/8" O.D., red, 100', box     |
| 11-278   | 3/8" O.D., yellow, 100', box  |
| 11-264   | 1/2" O.D., black, 100', box   |
| 11-265   | 1/2" O.D., black, 250', box   |
| 11-269   | 1/2" O.D., black, 500', spool |
| 11-266   | 1/2" O.D., blue, 100', box    |
| 11-267   | 1/2" O.D., red, 100', box     |
| 11-268   | 1/2" O.D., yellow, 100', box  |
| 11-270   | 5/8" O.D., black, 100', box   |
| 11-271   | 3/4" O.D., black, 100', box   |

- Ideal for pneumatic accessories that operate off of the air system
- Meets SAE J844 type "B" specifications
- Operating temperature range -40°F to 200°F (-40°C to 93°C)



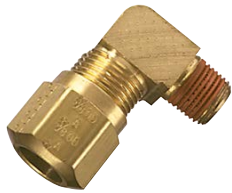
# BRASS COMPRESSION FITTINGS

## Male Connector



| Part No. | Tube Size | Pipe Size | Qty. |
|----------|-----------|-----------|------|
| 12-8304  | 1/4"      | 1/8"      | 10   |
| 12-8305  | 1/4"      | 1/4"      | 10   |
| 12-8306  | 1/4"      | 3/8"      | 10   |
| 12-8307  | 3/8"      | 1/4"      | 10   |
| 12-8308  | 3/8"      | 3/8"      | 10   |
| 12-8309  | 3/8"      | 1/2"      | 10   |
| 12-8311  | 1/2"      | 3/8"      | 10   |
| 12-8312  | 1/2"      | 1/2"      | 10   |

## Male Elbow



| Part No. | Tube Size | Pipe Size | Qty. |
|----------|-----------|-----------|------|
| 12-8404  | 1/4"      | 1/8"      | 10   |
| 12-8405  | 1/4"      | 1/4"      | 10   |
| 12-8406  | 3/8"      | 1/4"      | 10   |
| 12-8407  | 3/8"      | 3/8"      | 10   |
| 12-8408  | 1/2"      | 1/4"      | 10   |
| 12-8409  | 1/2"      | 3/8"      | 10   |
| 12-8410  | 1/2"      | 1/2"      | 10   |
| 12-8411  | 5/8"      | 1/2"      | 10   |

## Full Union



| Part No. | Tube Size | Qty. |
|----------|-----------|------|
| 12-8504  | 1/4"      | 10   |
| 12-8506  | 3/8"      | 10   |
| 12-8508  | 1/2"      | 10   |
| 12-8510  | 5/8"      | 10   |

## Tee-Ends



| Part No. | Tube Size | Qty. |
|----------|-----------|------|
| 12-8604  | 1/4"      | 10   |
| 12-8606  | 3/8"      | 10   |
| 12-8608  | 1/2"      | 10   |

## Nut



| Part No. | Tube Size | Qty. |
|----------|-----------|------|
| 12-8704  | 1/4"      | 10   |
| 12-8706  | 3/8"      | 10   |
| 12-8708  | 1/2"      | 10   |
| 12-8710  | 5/8"      | 10   |

## Sleeve

| Part No. | Tube Size | Qty. |
|----------|-----------|------|
| 12-8804  | 1/4"      | 10   |
| 12-8806  | 3/8"      | 10   |
| 12-8808  | 1/2"      | 10   |
| 12-8810  | 5/8"      | 10   |

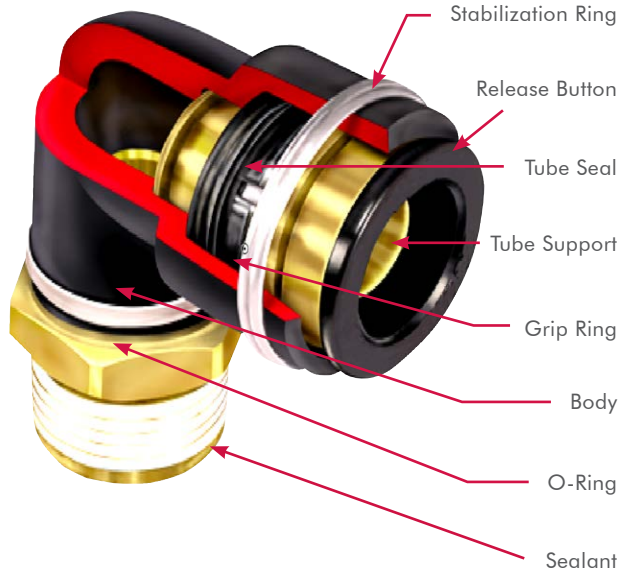


## Nylon Tubing Inserts

| Part No. | Tube Size | Qty. |
|----------|-----------|------|
| 12-8904  | 1/4"      | 10   |
| 12-8906  | 3/8"      | 10   |
| 12-8908  | 1/2"      | 10   |
| 12-8910  | 5/8"      | 10   |



## QWIK-FIT™ PUSH-TO-CONNECT COMPOSITE AIR FITTINGS



Today's OEM's are turning to composite fittings over brass to save both weight and labor. In fact, a tractor equipped with Phillips QWIK-FIT™ composite fittings can typically save 5-7lbs and can be installed up to 42% faster over brass! With the durability of brass and the savings on weight and labor, the Phillips QWIK-FIT™ composite fittings are ideal for OEM's as well as all other quick air line repairs.

**24% - 33% lighter than brass and saves up to 42% in labor costs!!**

### WARNING

- Phillips QWIK-FIT™ push-to-connect composite fittings are designed only for use in applications where air is utilized as an operating fluid
- Fittings must be used in accordance with manufacturer and industry specifications
- Phillips QWIK-FIT™ push-to-connect composite fittings are not intended for use in environments exceeding 145 PSI or 140°F
- The Department of Transportation FMVSS 49CFR571-106 prohibits the use of this type of fitting for connections between towed and towing vehicles or between a driveshaft and chassis
- Using Phillips QWIK-FIT™ fittings in a manner inconsistent with manufacturer specifications may result in serious injury or property damage

## Bulkhead Union

| Part No. | Tube Size | Drill Diameter | Qty. |
|----------|-----------|----------------|------|
| 12-90044 | 1/4"      | 5/8"           | 10   |
| 12-90066 | 3/8"      | 15/16"         | 10   |
| 12-90088 | 1/2"      | 1-1/8"         | 5    |
| 12-90010 | 5/8"      | 1-5/32"        | 5    |





## Union Elbow



| Part No.  | Tube Size | Qty. |
|-----------|-----------|------|
| 12-91022* | 1/8"      | 10   |
| 12-91033* | 3/16"     | 10   |
| 12-91044  | 1/4"      | 10   |
| 12-91055* | 5/32"     | 10   |
| 12-91066  | 3/8"      | 10   |
| 12-91088  | 1/2"      | 5    |
| 12-911010 | 5/8"      | 5    |

## Female Bulkhead Union



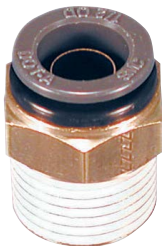
| Part No.  | Tube Size | Pipe Size | Qty. |
|-----------|-----------|-----------|------|
| 12-92024* | 1/8"      | 1/4"      | 10   |
| 12-92042  | 1/4"      | 1/8"      | 10   |
| 12-92044  | 1/4"      | 1/4"      | 10   |
| 12-92054* | 5/32"     | 1/4"      | 10   |
| 12-92064  | 3/8"      | 1/4"      | 10   |
| 12-92066  | 3/8"      | 3/8"      | 10   |
| 12-92086  | 1/2"      | 3/8"      | 5    |

## Female Connector



| Part No. | Tube Size | Pipe Size | Qty. |
|----------|-----------|-----------|------|
| 12-88042 | 1/4"      | 1/8"      | 10   |
| 12-88044 | 1/4"      | 1/4"      | 10   |
| 12-88064 | 3/8"      | 1/4"      | 10   |
| 12-88066 | 3/8"      | 3/8"      | 10   |

## Male Connector



Pre-applied  
thread sealant  
allows for quicker  
installation!

| Part No.  | Tube Size | Pipe Size | Qty. |
|-----------|-----------|-----------|------|
| 12-93022* | 1/8"      | 1/8"      | 10   |
| 12-93024* | 1/8"      | 1/4"      | 10   |
| 12-93032* | 3/16"     | 1/8"      | 10   |
| 12-93034* | 3/16"     | 1/4"      | 10   |
| 12-93042  | 1/4"      | 1/8"      | 10   |
| 12-93044  | 1/4"      | 1/4"      | 10   |
| 12-93046  | 1/4"      | 3/8"      | 10   |
| 12-93052* | 5/32"     | 1/8"      | 10   |
| 12-93054* | 5/32"     | 1/4"      | 10   |
| 12-93062  | 3/8"      | 1/8"      | 10   |
| 12-93064  | 3/8"      | 1/4"      | 10   |
| 12-93066  | 3/8"      | 3/8"      | 10   |
| 12-93068  | 3/8"      | 1/2"      | 10   |
| 12-93084  | 1/2"      | 1/4"      | 5    |
| 12-93086  | 1/2"      | 3/8"      | 5    |
| 12-93088  | 1/2"      | 1/2"      | 5    |
| 12-93106  | 5/8"      | 3/8"      | 5    |
| 12-93108  | 5/8"      | 1/2"      | 5    |
| 12-93126  | 3/4"      | 3/8"      | 5    |
| 12-93128  | 3/4"      | 1/2"      | 5    |

\*Does not Meet DOT or SAE specifications for air brake applications. Color of fittings differs from those that meet DOT and SAE specifications. NON DOT and SAE fittings are grey and orange in color.

**Male Elbow (Swivel) \*\***

| Part No.  | Tube Size | Pipe Size | Qty. |
|-----------|-----------|-----------|------|
| 12-94022* | 1/8"      | 1/8"      | 10   |
| 12-94024* | 1/8"      | 1/4"      | 10   |
| 12-94032* | 3/16"     | 1/8"      | 10   |
| 12-94034* | 3/16"     | 1/4"      | 10   |
| 12-94042  | 1/4"      | 1/8"      | 10   |
| 12-94044  | 1/4"      | 1/4"      | 10   |
| 12-94046  | 1/4"      | 3/8"      | 10   |
| 12-94052* | 5/32"     | 1/8"      | 10   |
| 12-94064  | 3/8"      | 1/4"      | 10   |
| 12-94066  | 3/8"      | 3/8"      | 10   |
| 12-94068  | 3/8"      | 1/2"      | 10   |
| 12-94084  | 1/2"      | 1/4"      | 5    |
| 12-94086  | 1/2"      | 3/8"      | 5    |
| 12-94088  | 1/2"      | 1/2"      | 5    |
| 12-94106  | 5/8"      | 3/8"      | 5    |
| 12-94108  | 5/8"      | 1/2"      | 5    |
| 12-94128  | 3/4"      | 1/2"      | 5    |
| 12-941012 | 5/8"      | 3/4"      | 5    |

**Straight Union**

| Part No.  | Tube Size    | Qty. |
|-----------|--------------|------|
| 12-95022* | 1/8"         | 10   |
| 12-95033* | 3/16"        | 10   |
| 12-95044  | 1/4"         | 10   |
| 12-95046  | 1/4" to 3/8" | 10   |
| 12-95055* | 5/32"        | 10   |
| 12-95066  | 3/8"         | 10   |
| 12-95068  | 3/8" to 1/2" | 10   |
| 12-95088  | 1/2"         | 5    |
| 12-951010 | 5/8"         | 5    |

**Union Tee**

| Part No.  | Tube Size | Qty. |
|-----------|-----------|------|
| 12-96222* | 1/8"      | 10   |
| 12-96444  | 1/4"      | 10   |
| 12-96555* | 5/32"     | 10   |
| 12-96666  | 3/8"      | 10   |
| 12-96888  | 1/2"      | 5    |
| 12-961010 | 5/8"      | 5    |



\*Does not meet DOT or SAE specifications for air brake applications. Color of fittings differs from those that meet DOT and SAE specifications. NON DOT and SAE fittings are grey and orange in color.

\*\*Swivel to final position only. Not designed for constant rotation.

## Y Union



| Part No.  | Tube Size | Qty. |
|-----------|-----------|------|
| 12-96044  | 1/4"      | 10   |
| 12-96055* | 5/32"     | 10   |
| 12-96066  | 3/8"      | 10   |

## Male Branch Tee (Swivel) \*\*



Pre-applied  
thread sealant  
allows for quicker  
installation!

| Part No.  | Tube Size | Pipe Size | Qty. |
|-----------|-----------|-----------|------|
| 12-97222* | 1/8"      | 1/8"      | 10   |
| 12-97224* | 1/8"      | 1/4"      | 10   |
| 12-97444  | 1/4"      | 1/4"      | 10   |
| 12-97446  | 1/4"      | 3/8"      | 10   |
| 12-97664  | 3/8"      | 1/4"      | 10   |
| 12-97666  | 3/8"      | 3/8"      | 10   |
| 12-97668  | 3/8"      | 1/2"      | 10   |
| 12-97886  | 1/2"      | 3/8"      | 5    |
| 12-97888  | 1/2"      | 1/2"      | 5    |
| 12-97106  | 5/8"      | 3/8"      | 5    |
| 12-97108  | 5/8"      | 1/2"      | 5    |

## 45° Male Elbow (Swivel)\*\*



Pre-applied  
thread sealant  
allows for quicker  
installation!

| Part No.  | Tube Size | Pipe Size | Qty. |
|-----------|-----------|-----------|------|
| 12-98042  | 1/4"      | 1/8"      | 10   |
| 12-98044  | 1/4"      | 1/4"      | 10   |
| 12-98046  | 1/4"      | 3/8"      | 10   |
| 12-98052* | 5/32"     | 1/8"      | 10   |
| 12-98062  | 3/8"      | 1/8"      | 10   |
| 12-98064  | 3/8"      | 1/4"      | 10   |
| 12-98066  | 3/8"      | 3/8"      | 10   |
| 12-98068  | 3/8"      | 1/2"      | 10   |
| 12-98084  | 1/2"      | 1/4"      | 5    |
| 12-98086  | 1/2"      | 3/8"      | 5    |
| 12-98088  | 1/2"      | 1/2"      | 5    |
| 12-98106  | 5/8"      | 3/8"      | 5    |
| 12-98108  | 5/8"      | 1/2"      | 5    |
| 12-981012 | 5/8"      | 3/4"      | 5    |
| 12-98126  | 3/4"      | 3/8"      | 5    |
| 12-98128  | 3/4"      | 1/2"      | 5    |

\*Does not meet DOT or SAE specifications for air brake applications. Color of fittings differs from those that meet DOT and SAE specifications. NON DOT & SAE fittings are grey and orange in color.

\*\*Swivel to final position only. Not designed for constant rotation.

**Male Run Tee (Swivel) \*\***

| Part No. | Tube Size | Pipe Size | Qty. |
|----------|-----------|-----------|------|
| 12-99022 | 1/8"      | 1/8"      | 10   |
| 12-99024 | 1/8"      | 1/4"      | 10   |
| 12-99042 | 1/4"      | 1/8"      | 10   |
| 12-99044 | 1/4"      | 1/4"      | 10   |
| 12-99046 | 1/4"      | 3/8"      | 10   |
| 12-99052 | 5/32"     | 1/8"      | 10   |
| 12-99054 | 5/32"     | 1/4"      | 10   |
| 12-99064 | 3/8"      | 1/4"      | 10   |
| 12-99066 | 3/8"      | 3/8"      | 10   |
| 12-99068 | 3/8"      | 1/2"      | 10   |
| 12-99084 | 1/2"      | 1/4"      | 5    |
| 12-99086 | 1/2"      | 3/8"      | 5    |
| 12-99088 | 1/2"      | 1/2"      | 5    |
| 12-99108 | 5/8"      | 1/2"      | 5    |



Pre-applied  
thread sealant  
allows for quicker  
installation!

**Male Branch "Y"**

| Part No. | Tube Size | Pipe Size | Qty. |
|----------|-----------|-----------|------|
| 12-89042 | 1/4"      | 1/8"      | 10   |
| 12-89044 | 1/4"      | 1/4"      | 10   |



Pre-applied  
thread sealant  
allows for quicker  
installation!

**Dust Boot**

| Part No. | Tube Size | Qty. |
|----------|-----------|------|
| 12-90040 | 1/4"      | 10   |
| 12-90060 | 3/8"      | 10   |
| 12-90080 | 1/2"      | 10   |



- Protects air fittings from the elements, ensuring an easy release every time

**Plug**

| Part No. | Tube Size | Qty. |
|----------|-----------|------|
| 12-90400 | 1/4"      | 10   |
| 12-90600 | 3/8"      | 10   |
| 12-90800 | 1/2"      | 10   |



- Provides a positive seal of protection for unoccupied parts

\*\*Swivel to final position only. Not designed for constant rotation.

# QWIK-FIT™ Starter Kit



| Part No.       | Description           |
|----------------|-----------------------|
| <b>80-1290</b> | QWIK-FIT™ starter kit |

- 310 – QWIK-FIT™ pieces
- 28 – Bin boxes
- 1 set – Restock labels
- 1 – Color counter mat/wall chart



## 80-1290 Contents:

| Part No.          | Description                 | Tube Size | Thread Size | Assortment Qty. |
|-------------------|-----------------------------|-----------|-------------|-----------------|
| <b>12-90003</b>   | Nylon tube cutter - economy | —         | —           | 5               |
| <b>12-90044</b>   | Bulkhead union              | 1/4"      | —           | 10              |
| <b>12-90066</b>   | Bulkhead union              | 3/8"      | —           | 10              |
| <b>12-90088</b>   | Bulkhead union              | 1/2"      | —           | 5               |
| <b>12-91066</b>   | Union elbow                 | 3/8"      | —           | 10              |
| <b>12-91088</b>   | Union elbow                 | 1/2"      | —           | 5               |
| <b>12-93042</b>   | Male connector              | 1/4"      | 1/8"        | 20              |
| <b>12-93064</b>   | Male connector              | 3/8"      | 1/4"        | 20              |
| <b>12-93066</b>   | Male connector              | 3/8"      | 3/8"        | 20              |
| <b>12-93086</b>   | Male connector              | 1/2"      | 3/8"        | 10              |
| <b>12-94042</b>   | Male elbow                  | 1/4"      | 1/8"        | 10              |
| <b>12-94044</b>   | Male elbow                  | 1/4"      | 1/4"        | 10              |
| <b>12-94064</b>   | Male elbow                  | 3/8"      | 1/4"        | 10              |
| <b>12-94066</b>   | Male elbow                  | 3/8"      | 3/8"        | 10              |
| <b>12-94086</b>   | Male elbow                  | 1/2"      | 3/8"        | 5               |
| <b>12-95022</b>   | Union                       | 1/8"      | —           | 20              |
| <b>12-95044</b>   | Union                       | 1/4"      | —           | 20              |
| <b>12-95055</b>   | Union                       | 5/32"     | —           | 20              |
| <b>12-95066</b>   | Union                       | 3/8"      | —           | 20              |
| <b>12-95088</b>   | Union                       | 1/2"      | —           | 10              |
| <b>12-96444</b>   | Union tee                   | 1/4"      | —           | 10              |
| <b>12-96666</b>   | Union tee                   | 3/8"      | —           | 10              |
| <b>12-96888</b>   | Union tee                   | 1/2"      | —           | 5               |
| <b>12-98044</b>   | 45° male elbow              | 1/4"      | 1/4"        | 10              |
| <b>12-98064**</b> | 45° male elbow              | 3/8"      | 1/4"        | 10              |
| <b>12-98066**</b> | 45° male elbow              | 3/8"      | 3/8"        | 10              |
| <b>12-98086**</b> | 45° male elbow              | 1/2"      | 3/8"        | 5               |
| <b>12-98088</b>   | 45° male elbow              | 1/2"      | 1/2"        | 5               |

\*\*Swivel to final position only. Not designed for constant rotation.



**QWIK-FIT™ Travel Kit**

| Part No.       | Description          |
|----------------|----------------------|
| <b>80-1291</b> | QWIK-FIT™ travel kit |

**80-1291 Contents:**

| Part No.          | Description             | Tube Size | Thread Size | Kit Qty. |
|-------------------|-------------------------|-----------|-------------|----------|
| <b>12-90040</b>   | 1/4" dust boot          | -         | -           | 10       |
| <b>12-90060</b>   | 3/8" dust boot          | -         | -           | 10       |
| <b>12-90080</b>   | 1/2" dust boot          | -         | -           | 10       |
| <b>12-93044</b>   | Male connector          | 1/4"      | 1/4"        | 2        |
| <b>12-93064</b>   | Male connector          | 3/8"      | 1/4"        | 2        |
| <b>12-93066</b>   | Male connector          | 3/8"      | 3/8"        | 2        |
| <b>12-93086</b>   | Male connector          | 1/2"      | 3/8"        | 2        |
| <b>12-95044</b>   | Straight union          | 1/4"      | -           | 2        |
| <b>12-95066</b>   | Straight union          | 3/8"      | -           | 2        |
| <b>12-95088</b>   | Straight union          | 1/2"      | -           | 2        |
| <b>12-98064**</b> | 45° male elbow (swivel) | 3/8"      | 1/4"        | 2        |
| <b>12-98066**</b> | 45° male elbow (swivel) | 3/8"      | 3/8"        | 2        |



**80-1291**  
48 pieces  
6 1/2" x 10 1/2"

**QWIK-FIT™ Shop Kit**

| Part No.       | Description        |
|----------------|--------------------|
| <b>80-1292</b> | QWIK-FIT™ shop kit |

**80-1292 Contents:**

| Part No.          | Description             | Tube Size | Thread Size | Kit Qty. |
|-------------------|-------------------------|-----------|-------------|----------|
| <b>12-90040</b>   | 1/4" dust boot          | -         | -           | 10       |
| <b>12-90060</b>   | 3/8" dust boot          | -         | -           | 10       |
| <b>12-90080</b>   | 1/2" dust boot          | -         | -           | 10       |
| <b>12-93022*</b>  | Male connector          | 1/8"      | 1/8"        | 5        |
| <b>12-93042</b>   | Male connector          | 1/4"      | 1/8"        | 5        |
| <b>12-93044</b>   | Male connector          | 1/4"      | 1/4"        | 10       |
| <b>12-93064</b>   | Male connector          | 3/8"      | 1/4"        | 10       |
| <b>12-93066</b>   | Male connector          | 3/8"      | 3/8"        | 10       |
| <b>12-93086</b>   | Male connector          | 1/2"      | 3/8"        | 5        |
| <b>12-95044</b>   | Straight union          | 1/4"      | -           | 5        |
| <b>12-95066</b>   | Straight union          | 3/8"      | -           | 5        |
| <b>12-95088</b>   | Straight union          | 1/2"      | -           | 5        |
| <b>12-951010</b>  | Straight union          | 5/8"      | -           | 5        |
| <b>12-98064**</b> | 45° male elbow (swivel) | 3/8"      | 1/4"        | 5        |
| <b>12-98066**</b> | 45° male elbow (swivel) | 3/8"      | 3/8"        | 5        |
| <b>12-98086**</b> | 45° male elbow (swivel) | 1/2"      | 3/8"        | 5        |



**80-1292**  
110 pieces  
12" x 18"

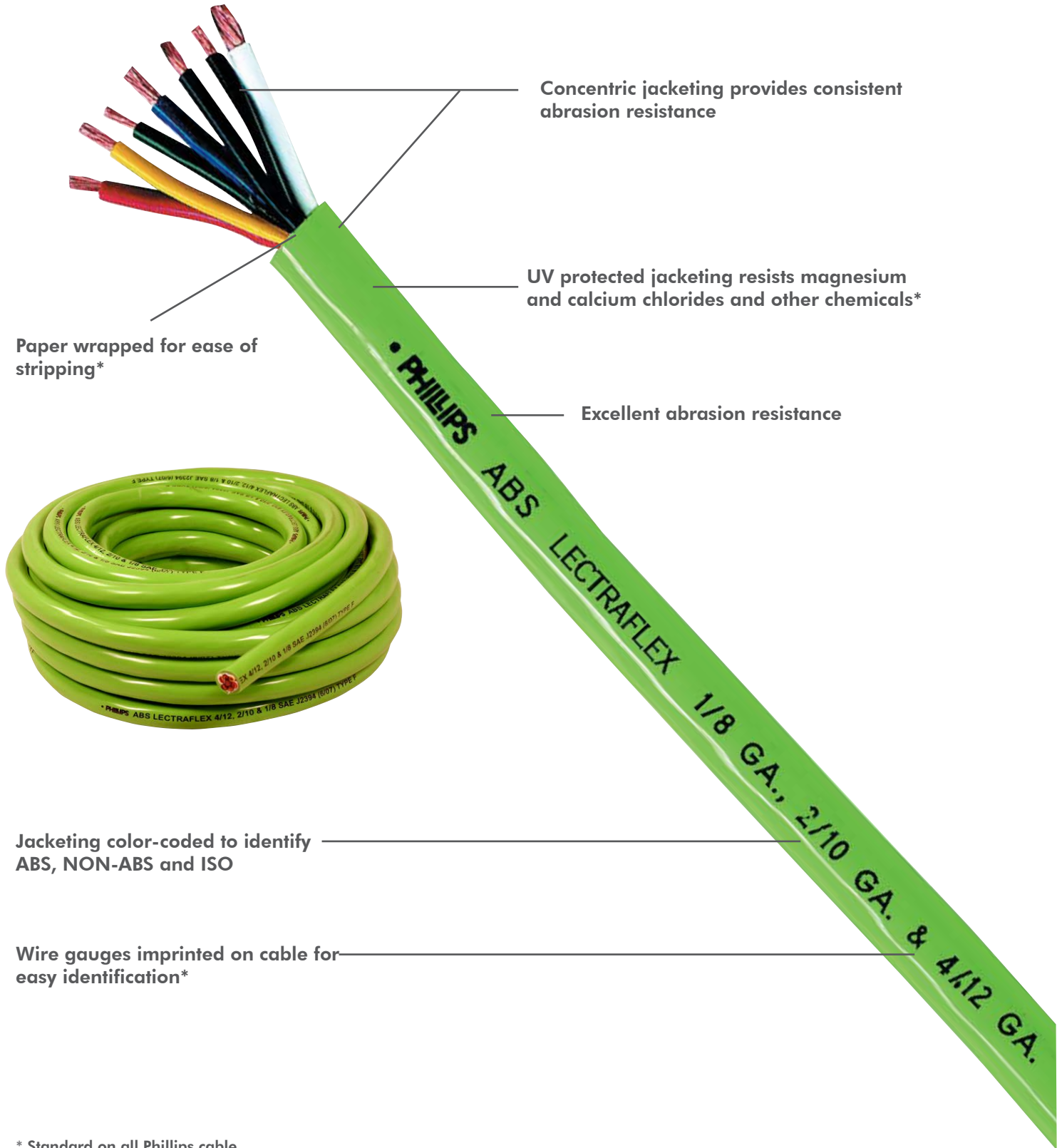
\*Does not meet DOT or SAE specifications for air brake applications. Color of fittings differ from those that meet DOT and SAE specifications.

\*\*NON DOT and SAE fittings are grey and orange in color.

\*\*Swivel to final position only. Not designed for constant rotation.

# CABLE AND WIRE

## LECTRAFLEX™



Concentric jacking provides consistent abrasion resistance

UV protected jacking resists magnesium and calcium chlorides and other chemicals\*

Paper wrapped for ease of stripping\*

Excellent abrasion resistance

Jacketing color-coded to identify ABS, NON-ABS and ISO

Wire gauges imprinted on cable for easy identification\*

\* Standard on all Phillips cable

# BULK TRAILER CABLE

- Resistant to chemicals, oils and fuel
- Paper wrapped for ease of stripping
- Concentric jacketing - copper centered in jacket for consistent abrasion resistance

## 7 CONDUCTOR - 1/8, 2/10, 4/12 ga. ABS .700 O.D. Black - Brown - Blue - Green - Red - White - Yellow

| Part No.     | Length | Package | Stranding<br>12 ga. | Stranding<br>10 ga. | Stranding<br>8 ga. |
|--------------|--------|---------|---------------------|---------------------|--------------------|
| <b>3-642</b> | 100'   | Spool   | 65 x 30             | 105 x 30            | 168 x 30           |
| <b>3-643</b> | 250'   | Spool   | 65 x 30             | 105 x 30            | 168 x 30           |
| <b>3-644</b> | 500'   | Spool   | 65 x 30             | 105 x 30            | 168 x 30           |

## 7 CONDUCTOR - 1/10, 6/12 ga. .640 O.D. Black - Brown - Blue - Green - Red - White - Yellow

| Part No.     | Length | Package | Stranding 12 ga. | Stranding 10 ga. |
|--------------|--------|---------|------------------|------------------|
| <b>3-632</b> | 100'   | Spool   | 65 x 30          | 105 x 30         |
| <b>3-633</b> | 250'   | Spool   | 65 x 30          | 105 x 30         |

## 7 CONDUCTOR - 1/12, 6/14 ga. .570 O.D. Black - Brown - Blue - Green - Red - White - Yellow

| Part No.     | Length | Package | Stranding 14 ga. | Stranding 12 ga. |
|--------------|--------|---------|------------------|------------------|
| <b>3-622</b> | 100'   | Spool   | 41 x 30          | 65 x 30          |
| <b>3-623</b> | 250'   | Spool   | 41 x 30          | 65 x 30          |
| <b>3-624</b> | 500'   | Spool   | 41 x 30          | 65 x 30          |

## 6 CONDUCTOR - 6/14 ga. .550 O.D. Black - Brown - Green - Red - White - Yellow

| Part No.     | Length | Package | Stranding |
|--------------|--------|---------|-----------|
| <b>3-612</b> | 100'   | Spool   | 41 x 30   |
| <b>3-613</b> | 250'   | Spool   | 41 x 30   |
| <b>3-614</b> | 500'   | Spool   | 41 x 30   |

## 4 CONDUCTOR - 4/14 ga. .440 O.D. Brown - Yellow - Green - White

| Part No.     | Length | Package | Stranding |
|--------------|--------|---------|-----------|
| <b>3-602</b> | 100'   | Spool   | 41 x 30   |
| <b>3-603</b> | 250'   | Spool   | 41 x 30   |
| <b>3-604</b> | 500'   | Spool   | 41 x 30   |

## 3 CONDUCTOR - 3/14 ga. .440 O.D. Black - Red - White

| Part No.     | Length | Package | Stranding |
|--------------|--------|---------|-----------|
| <b>3-662</b> | 100'   | Spool   | 41 x 30   |
| <b>3-663</b> | 250'   | Spool   | 41 x 30   |
| <b>3-664</b> | 500'   | Spool   | 41 x 30   |

## 2 CONDUCTOR - 2/14 ga. .340 O.D. Black - White

| Part No.     | Length | Package | Stranding |
|--------------|--------|---------|-----------|
| <b>3-652</b> | 100'   | Spool   | 41 x 30   |
| <b>3-653</b> | 250'   | Spool   | 41 x 30   |
| <b>3-654</b> | 500'   | Spool   | 41 x 30   |
| <b>3-655</b> | 1000'  | Spool   | 41 x 30   |

## ARCTIC SUPERFLEX™

FLEXIBLE TO  
-85°F



- Designed for durability in extreme temperatures
- Stays flexible from -85°F to 175°F (-65°C to 79°C)
- Dark blue jacket color
- Resistant to chemicals, oils and fuels

**DURAFLEX™**



- For general trailer rewiring
- Black jacket
- Stays flexible to -40°F (-40°C)
- Meets SAE J1128 specifications

**7 CONDUCTOR - 1/10, 6/12 ga. .690 O.D.  
Black - Brown - Blue - Green - Red - White - Yellow**

| Part No.     | Length | Package |
|--------------|--------|---------|
| <b>3-221</b> | 50'    | Spool   |
| <b>3-222</b> | 100'   | Spool   |
| <b>3-223</b> | 250'   | Spool   |
| <b>3-224</b> | 500'   | Spool   |
| <b>3-225</b> | 1000'  | Spool   |

**7 CONDUCTOR - 1/12, 6/14 ga. .500 O.D.  
Black - Brown - Blue - Green - Red - White - Yellow**

| Part No.     | Length | Package |
|--------------|--------|---------|
| <b>3-241</b> | 50'    | Spool   |
| <b>3-242</b> | 100'   | Spool   |
| <b>3-243</b> | 250'   | Spool   |
| <b>3-244</b> | 500'   | Spool   |
| <b>3-245</b> | 1000'  | Spool   |

**6 CONDUCTOR - 6/14 ga. .500 O.D.  
Black - Brown - Green - Red - White - Yellow**

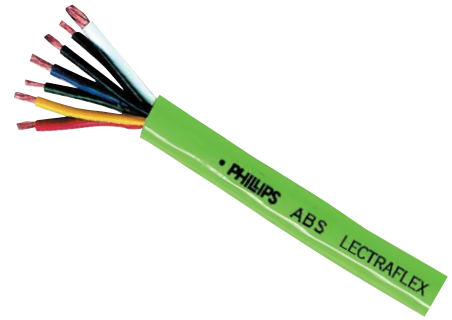
| Part No.     | Length | Package |
|--------------|--------|---------|
| <b>3-201</b> | 50'    | Spool   |
| <b>3-202</b> | 100'   | Spool   |
| <b>3-203</b> | 250'   | Spool   |
| <b>3-204</b> | 500'   | Spool   |
| <b>3-205</b> | 1000'  | Spool   |

**4 CONDUCTOR - 4/14 ga. .400 O.D.  
Brown - Yellow - Green - White**

| Part No.     | Length | Package |
|--------------|--------|---------|
| <b>3-191</b> | 50'    | Spool   |
| <b>3-192</b> | 100'   | Spool   |
| <b>3-193</b> | 250'   | Spool   |
| <b>3-194</b> | 500'   | Spool   |
| <b>3-195</b> | 1000'  | Spool   |

**LECTRAFLEX™****7 CONDUCTOR - 1/8, 2/10, 4/12 ga. ABS BRIGHT GREEN .680 O.D.  
Black - Brown - Blue - Green - Red - White - Yellow**

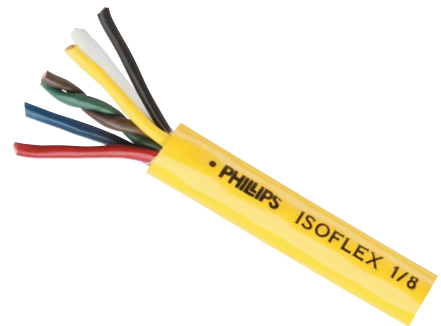
| Part No.     | Length | Package | Stranding<br>12 ga. | Stranding<br>10 ga. | Stranding<br>8 ga. |
|--------------|--------|---------|---------------------|---------------------|--------------------|
| <b>3-326</b> | 50'    | Spool   | 65 x 30             | 105 x 30            | 168 x 30           |
| <b>3-327</b> | 100'   | Spool   | 65 x 30             | 105 x 30            | 168 x 30           |
| <b>3-328</b> | 250'   | Spool   | 65 x 30             | 105 x 30            | 168 x 30           |
| <b>3-329</b> | 500'   | Spool   | 65 x 30             | 105 x 30            | 168 x 30           |
| <b>3-330</b> | 1000'  | Spool   | 65 x 30             | 105 x 30            | 168 x 30           |



- For ABS applications
- Green jacket
- Superior abrasion resistance
- Stays flexible to -40°F (-40°C)
- Meets SAE J2394 specifications

**ISOFLEX™****7 CONDUCTOR - 1/8, 2/10, 4/12 ga. ISO BRIGHT YELLOW .770 O.D.  
Black - Brown - Blue - Green - Red - White - Yellow**

| Part No.     | Length | Package | Stranding<br>12 ga. | Stranding<br>10 ga. | Stranding<br>8 ga. |
|--------------|--------|---------|---------------------|---------------------|--------------------|
| <b>3-341</b> | 50'    | Spool   | 65 x 30             | 105 x 30            | 168 x 30           |
| <b>3-342</b> | 100'   | Spool   | 65 x 30             | 105 x 30            | 168 x 30           |
| <b>3-343</b> | 250'   | Spool   | 65 x 30             | 105 x 30            | 168 x 30           |
| <b>3-344</b> | 500'   | Spool   | 65 x 30             | 105 x 30            | 168 x 30           |

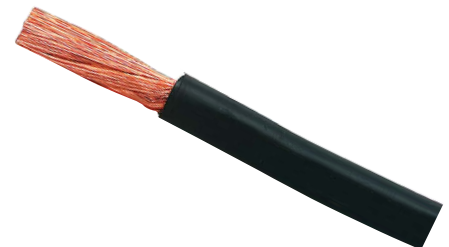


- Ideal for multiplexing applications
- Twisted pair (green and brown) reduces radio noise
- Good chemical and abrasion resistance
- Bright yellow jacket color
- Stays flexible to -40°F (-40°C)
- Meets ISO 3731

**Welding Cable**

| Part No.     | Gauge | Length | Package | Stranding | O.D. |
|--------------|-------|--------|---------|-----------|------|
| <b>3-407</b> | 2/0   | 25'    | Spool   | 1273 x 30 | .630 |

- Fine stranding for superior flexibility
- Neoprene jacketing for durability
- Resistant to chemicals, oils and fuels
- Stays flexible to -58°F (-50°C)
- Black jacket
- Rated to 600V





## Bulk Booster Cable - Yellow / Black



| Part No.     | Description                                       |
|--------------|---|
| <b>3-518</b> | 4 ga., 2 conductor, yellow and black, 100', spool |

- Chemical and abrasion resistant
- Fine stranding for flexibility
- Operating temperature range: -40°F to 140°F (-40°C to 60°C)
- DC voltage rating: 50V max.
- Black/yellow jacketing for ease of polarity identification
- RoHS compliant
- Meets SAE J1494
- Meets SAE J1127 Type SGT

## Bulk Booster Cable - Red / Black



| Part No.          | Description                                     |
|-------------------|---|
| <b>3-524</b>      | 4 ga., 2 conductor, red and black, 100', spool  |
| <b>3-524-250</b>  | 4 ga., 2 conductor, red and black, 250', spool  |
| <b>3-524-500</b>  | 4 ga., 2 conductor, red and black, 500', spool  |
| <b>3-524-1000</b> | 4 ga., 2 conductor, red and black, 1000', spool |

- Chemical and abrasion resistant
- Operating temperature: -22°F to 176°F (-30°C to 80°C)
- DC voltage rating: 60V max.
- Black/red jacketing for ease of polarity identification
- RoHS compliant
- Meets SAE J1494
- Meets SAE J1127 Type SGT

## Bulk Booster Cable - Orange / Black



| Part No.          | Description  |
|-------------------|--|
| <b>3-523</b>      | 6 ga., 2 conductor, orange and black, 100', spool  |
| <b>3-523-250</b>  | 6 ga., 2 conductor, orange and black, 250', spool  |
| <b>3-523-500</b>  | 6 ga., 2 conductor, orange and black, 500', spool  |
| <b>3-523-1000</b> | 6 ga., 2 conductor, orange and black, 1000', spool |

- Chemical and abrasion resistant
- Operating temperature: -22°F to 176°F (-30°C to 80°C)
- DC voltage rating: 60V max.
- Black/orange jacketing for ease of polarity identification
- RoHS compliant
- Meets SAE J1494
- Meets SAE J1127 Type SGT

## CLEAR-VU™ Corrosion-Detecting Battery Cable

|                    | Size    | Length | Stranding | Package | Part No.         |                    |
|--------------------|---------|--------|-----------|---------|------------------|--------------------|
| <b>CLEAR RED</b>   | 4 ga.   | 25'    | 133 x 25  | Spool   | <b>3-545</b>     | <b>CLEAR RED</b>   |
|                    | 4 ga.   | 100'   | 133 x 25  | Spool   | <b>3-545-100</b> |                    |
|                    | 1 ga.   | 25'    | 133 x 22  | Spool   | <b>3-555</b>     |                    |
|                    | 1 ga.   | 100'   | 133 x 22  | Spool   | <b>3-555-100</b> |                    |
|                    | 2/0 ga. | 25'    | 259 x 23  | Spool   | <b>3-565</b>     |                    |
|                    | 2/0 ga. | 100'   | 259 x 23  | Spool   | <b>3-565-100</b> |                    |
| <b>CLEAR SMOKE</b> | 4 ga.   | 25'    | 133 x 25  | Spool   | <b>3-546</b>     | <b>CLEAR SMOKE</b> |
|                    | 4 ga.   | 100'   | 133 x 25  | Spool   | <b>3-546-100</b> |                    |
|                    | 1 ga.   | 25'    | 133 x 22  | Spool   | <b>3-556</b>     |                    |
|                    | 1 ga.   | 100'   | 133 x 22  | Spool   | <b>3-556-100</b> |                    |
|                    | 2/0 ga. | 25'    | 259 x 23  | Spool   | <b>3-566</b>     |                    |
|                    | 2/0 ga. | 100'   | 259 x 23  | Spool   | <b>3-566-100</b> |                    |
| <b>CLEAR</b>       | 6 ga.   | 25'    | 133 x 27  | Spool   | <b>3-526</b>     | <b>CLEAR</b>       |
|                    | 4 ga.   | 25'    | 133 x 25  | Spool   | <b>3-528</b>     |                    |
|                    | 4 ga.   | 100'   | 133 x 25  | Spool   | <b>3-528-100</b> |                    |
|                    | 2 ga.   | 25'    | 133 x 23  | Spool   | <b>3-530</b>     |                    |
|                    | 2 ga.   | 100'   | 133 x 23  | Spool   | <b>3-530-100</b> |                    |
|                    | 1 ga.   | 25'    | 133 x 22  | Spool   | <b>3-551</b>     |                    |
|                    | 1 ga.   | 100'   | 133 x 22  | Spool   | <b>3-551-100</b> |                    |
|                    | 2/0 ga. | 25'    | 259 x 23  | Spool   | <b>3-532</b>     |                    |
|                    | 2/0 ga. | 100'   | 259 x 23  | Spool   | <b>3-532-100</b> |                    |



- Easy to see corrosion creeping through your battery cable
- Prevents premature battery, starter and alternator replacement
- Rope-style stranding for flexibility
- Easy to strip
- Superior abrasion resistance
- Flexible from -40°F to 150°F (-40°C to 66°C)
- Meets SAE J1127 SGT specifications

## Battery Cable



- Rope-style stranding for flexibility
- Easy to strip
- Superior abrasion resistance
- Operating temperature range -40°F to 150°F (-40°C to 66°C)
- Meets SAE J1127 SGT specifications

| Size         | Length | Stranding | Package | Part No.         |
|--------------|--------|-----------|---------|------------------|
| <b>RED</b>   |        |           |         |                  |
| 6 ga.        | 25'    | 133 x 27  | Spool   | <b>3-501</b>     |
| 6 ga.        | 100'   | 133 x 27  | Spool   | <b>3-501-100</b> |
| 6 ga.        | 250'   | 133 x 27  | Spool   | <b>3-501-250</b> |
| 4 ga.        | 25'    | 133 x 25  | Spool   | <b>3-503</b>     |
| 4 ga.        | 100'   | 133 x 25  | Spool   | <b>3-503-100</b> |
| 4 ga.        | 250'   | 133 x 25  | Spool   | <b>3-503-250</b> |
| 2 ga.        | 25'    | 133 x 23  | Spool   | <b>3-505</b>     |
| 2 ga.        | 100'   | 133 x 23  | Spool   | <b>3-505-100</b> |
| 2 ga.        | 250'   | 133 x 23  | Spool   | <b>3-505-250</b> |
| 1 ga.        | 25'    | 133 x 22  | Spool   | <b>3-507</b>     |
| 1 ga.        | 100'   | 133 x 22  | Spool   | <b>3-507-100</b> |
| 1/0 ga.      | 25'    | 133 x 21  | Spool   | <b>3-509</b>     |
| 1/0 ga.      | 100'   | 133 x 21  | Spool   | <b>3-509-100</b> |
| 1/0 ga.      | 250'   | 133 x 21  | Spool   | <b>3-509-250</b> |
| 2/0 ga.      | 25'    | 259 x 23  | Spool   | <b>3-511</b>     |
| 2/0 ga.      | 100'   | 259 x 23  | Spool   | <b>3-511-100</b> |
| 2/0 ga.      | 250'   | 259 x 23  | Spool   | <b>3-511-250</b> |
| 3/0 ga.      | 25'    | 259 x 22  | Spool   | <b>3-513</b>     |
| 3/0 ga.      | 100'   | 259 x 22  | Spool   | <b>3-513-100</b> |
| 4/0 ga.      | 25'    | 259 x 21  | Spool   | <b>3-515</b>     |
| <b>BLACK</b> |        |           |         |                  |
| 6 ga.        | 25'    | 133 x 27  | Spool   | <b>3-502</b>     |
| 6 ga.        | 100'   | 133 x 27  | Spool   | <b>3-502-100</b> |
| 6 ga.        | 250'   | 133 x 27  | Spool   | <b>3-502-250</b> |
| 4 ga.        | 25'    | 133 x 25  | Spool   | <b>3-504</b>     |
| 4 ga.        | 100'   | 133 x 25  | Spool   | <b>3-504-100</b> |
| 4 ga.        | 250'   | 133 x 25  | Spool   | <b>3-504-250</b> |
| 2 ga.        | 25'    | 133 x 23  | Spool   | <b>3-506</b>     |
| 2 ga.        | 100'   | 133 x 23  | Spool   | <b>3-506-100</b> |
| 2 ga.        | 250'   | 133 x 23  | Spool   | <b>3-506-250</b> |
| 1 ga.        | 25'    | 133 x 22  | Spool   | <b>3-508</b>     |
| 1 ga.        | 100'   | 133 x 22  | Spool   | <b>3-508-100</b> |
| 1 ga.        | 250'   | 133 x 22  | Spool   | <b>3-508-250</b> |
| 1/0 ga.      | 25'    | 133 x 21  | Spool   | <b>3-510</b>     |
| 1/0 ga.      | 100'   | 133 x 21  | Spool   | <b>3-510-100</b> |
| 1/0 ga.      | 250'   | 133 x 21  | Spool   | <b>3-510-250</b> |
| 2/0 ga.      | 25'    | 259 x 23  | Spool   | <b>3-512</b>     |
| 2/0 ga.      | 100'   | 259 x 23  | Spool   | <b>3-512-100</b> |
| 2/0 ga.      | 250'   | 259 x 23  | Spool   | <b>3-512-250</b> |
| 3/0 ga.      | 25'    | 259 x 22  | Spool   | <b>3-514</b>     |
| 3/0 ga.      | 100'   | 259 x 22  | Spool   | <b>3-514-100</b> |
| 3/0 ga.      | 250'   | 259 x 22  | Spool   | <b>3-514-250</b> |
| 4/0 ga.      | 25'    | 259 x 21  | Spool   | <b>3-516</b>     |
| 4/0 ga.      | 100'   | 259 x 21  | Spool   | <b>3-516-100</b> |
| 4/0 ga.      | 250'   | 259 x 21  | Spool   | <b>3-516-250</b> |

# PRIMARY WIRE

- SAE Type GPT (General Purpose Thermoplastic) wire
- Resistant to acids, greases, oils and fuels
- Good abrasion resistance
- Concentric jacketing allows for easy wire stripping
- Soft annealed copper conductors for flexibility
- Operating temperature range -40°F to 150°F (-40°C to 66°C)
- Meets SAE J1128, type GPT
- 60V DC

| 4-Way Connector Chart    |                             | Phillips Plug/<br>Socket ID |
|--------------------------|-----------------------------|-----------------------------|
| Color                    | Circuits                    |                             |
| <b>White</b>             | Ground return               | W                           |
| <b>Green</b>             | Right turn and brake lights | G                           |
| <b>Yellow</b> <b>Red</b> | Left turn and brake lights  | R                           |
| <b>Brown</b>             | Tail lights                 | B                           |

| 7-Way ATA Connector Chart Per SAE J560 |                          | Phillips Plug/<br>Socket ID |
|--|--------------------------|-----------------------------|
| Color                                  | Circuits                 |                             |
| <b>White</b>                           | Ground return            | WHT                         |
| <b>Black</b>                           | Clearance, marker and ID | BLK                         |
| <b>Brown</b>                           | Tail lights              | BRN                         |
| <b>Yellow</b>                          | Left turn                | YEL                         |
| <b>Red</b>                             | Stop                     | RED                         |
| <b>Green</b>                           | Right turn               | GRN                         |
| <b>Blue</b>                            | Auxiliary/ABS            | BLU                         |

| 6-Way Connector Chart |                   | Phillips Plug/<br>Socket ID |
|-----------------------|-------------------|-----------------------------|
| Color                 | Circuits          |                             |
| <b>White</b>          | Ground return     | GD                          |
| <b>Brown</b>          | Tail lights       | TM                          |
| <b>Yellow</b>         | Left turn         | LT                          |
| <b>Red</b>            | Stop              | S                           |
| <b>Green</b>          | Right turn        | RT                          |
| <b>Black</b>          | Auxiliary circuit | A                           |

**HOW TO USE THIS CHART:**

1. Measure distance from power source/battery to the most distant lamp
2. Determine the total amp draw by adding the amp draw of all the lamps on the circuit
3. Double the distance to include the ground return wire
4. Determine wire gauge by intersecting the length and amp column on the chart. If the length or total amp draw falls in between columns, always use the higher gauge wire

| WIRE GAUGE SELECTION CHART |  |      |       |       |       |       |       |       |       |        |
|----------------------------|--|------|-------|-------|-------|-------|-------|-------|-------|--------|
| 12-Volt System             | Total Length of Cable in Circuit from Battery to Most Distant Lamp Including Ground Side |      |       |       |       |       |       |       |       |        |
| Amps (APP.)                | 2.5 ft   | 5 ft | 10 ft | 20 ft | 30 ft | 40 ft | 50 ft | 60 ft | 80 ft | 100 ft |
| 1.0                        | 20   | 20   | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 18     |
| 1.5                        | 20   | 20   | 20    | 20    | 20    | 20    | 20    | 20    | 18    | 18     |
| 2                          | 20   | 20   | 20    | 20    | 20    | 20    | 18    | 18    | 16    | 16     |
| 3                          | 20   | 20   | 20    | 20    | 20    | 18    | 18    | 16    | 16    | 14     |
| 4                          | 20   | 20   | 20    | 20    | 18    | 16    | 16    | 16    | 14    | 12     |
| 5                          | 20   | 20   | 20    | 18    | 18    | 16    | 14    | 14    | 12    | 12     |
| 6                          | 20   | 20   | 20    | 18    | 16    | 16    | 14    | 14    | 12    | 12     |
| 7                          | 20   | 20   | 20    | 18    | 16    | 14    | 14    | 12    | 12    | 10     |
| 8                          | 20   | 20   | 20    | 16    | 16    | 14    | 12    | 12    | 10    | 10     |
| 10                         | 20   | 20   | 18    | 16    | 14    | 12    | 12    | 12    | 10    | 10     |
| 11                         | 20   | 20   | 18    | 16    | 14    | 12    | 12    | 10    | 10    | 8      |
| 12                         | 20   | 20   | 18    | 16    | 14    | 12    | 12    | 10    | 10    | 8      |
| 15                         | 20   | 20   | 18    | 14    | 12    | 12    | 10    | 10    | 8     | 8      |
| 18                         | 20   | 20   | 16    | 14    | 12    | 10    | 10    | 8     | 8     | 8      |
| 20                         | 20   | 18   | 16    | 12    | 12    | 10    | 10    | 8     | 8     | 6      |
| 22                         | 20   | 18   | 16    | 12    | 10    | 10    | 8     | 8     | 8     | 6      |
| 24                         | 20   | 18   | 16    | 12    | 10    | 10    | 8     | 8     | 6     | 6      |
| 36                         | 20   | 16   | 14    | 10    | 8     | 8     | 8     | 6     | 6     | 4      |
| 50                         | 18   | 16   | 12    | 10    | 8     | 6     | 6     | 4     | 4     | 2      |
| 100                        | 14   | 12   | 10    | 6     | 4     | 4     | 2     | 2     | 1     | 1/0    |
| 150                        | 14   | 10   | 8     | 4     | 2     | 2     | 1     | 1/0   | 2/0   | 3/0    |
| 200                        | 12   | 8    | 6     | 4     | 2     | 1     | 1/0   | 2/0   | 3/0   | 4/0    |

## Primary Wire



100 FT SPOOLS



BLISTER PACK

### 8 Gauge

| Color        | 6' Blister Pack | 100' Spool |
|--------------|-----------------|------------|
| <b>Black</b> | 2-1513          | 2-151      |
| <b>Red</b>   | 2-1553          | 2-155      |
| <b>White</b> | -               | 2-156      |

### 18 Gauge

| Color         | 40' Blister Pack | 100' Spool |
|---------------|------------------|------------|
| <b>Black</b>  | 2-1013           | 2-101      |
| <b>Blue</b>   | 2-1023           | 2-102      |
| <b>Green</b>  | 2-1043           | 2-104      |
| <b>Red</b>    | 2-1053           | 2-105      |
| <b>White</b>  | 2-1063           | 2-106      |
| <b>Yellow</b> | 2-1073           | 2-107      |

### 14 Gauge

| Color         | 20' Blister Pack | 100' Spool | 1000' Spool |
|---------------|------------------|------------|-------------|
| <b>Black</b>  | 2-1213           | 2-121      | 2-121-1000  |
| <b>Blue</b>   | 2-1223           | 2-122      | 2-122-1000  |
| <b>Brown</b>  | 2-1233           | 2-123      | 2-123-1000  |
| <b>Green</b>  | 2-1243           | 2-124      | 2-124-1000  |
| <b>Red</b>    | 2-1253           | 2-125      | 2-125-1000  |
| <b>White</b>  | 2-1263           | 2-126      | 2-126-1000  |
| <b>Yellow</b> | 2-1273           | 2-127      | 2-127-1000  |

### 16 Gauge

| Color         | 28' Blister Pack | 100' Spool | 1000' Spool |
|---------------|------------------|------------|-------------|
| <b>Black</b>  | 2-1113           | 2-111      | 2-111-1000  |
| <b>Blue</b>   | 2-1123           | 2-112      | -           |
| <b>Brown</b>  | 2-1133           | 2-113      | -           |
| <b>Green</b>  | 2-1143           | 2-114      | -           |
| <b>Red</b>    | 2-1153           | 2-115      | 2-115-1000  |
| <b>White</b>  | 2-1163           | 2-116      | 2-116-1000  |
| <b>Yellow</b> | 2-1173           | 2-117      | 2-117-1000  |

### 12 Gauge

| Color         | 12' Blister Pack | 100' Spool | 1000' Spool |
|---------------|------------------|------------|-------------|
| <b>Black</b>  | 2-1313           | 2-131      | 2-131-1000  |
| <b>Blue</b>   | 2-1323           | 2-132      | 2-132-1000  |
| <b>Brown</b>  | 2-1333           | 2-133      | -           |
| <b>Green</b>  | 2-1343           | 2-134      | 2-134-1000  |
| <b>Red</b>    | 2-1353           | 2-135      | 2-135-1000  |
| <b>White</b>  | 2-1363           | 2-136      | -           |
| <b>Yellow</b> | 2-1373           | 2-137      | 2-137-1000  |

### 10 Gauge

| Color         | 8' Blister Pack | 100' Spool |
|---------------|-----------------|------------|
| <b>Black</b>  | 2-1413          | 2-141      |
| <b>Blue</b>   | 2-1423          | 2-142      |
| <b>Green</b>  | -               | 2-144      |
| <b>Red</b>    | 2-1453          | 2-145      |
| <b>White</b>  | 2-1463          | 2-146      |
| <b>Yellow</b> | 2-1473          | 2-147      |



## Primary Wire Assortment

| Part No.       | Description             |
|----------------|-------------------------|
| <b>80-2006</b> | Primary wire assortment |

| Replacement Part No. | Description                              | Qty. |
|----------------------|--|------|
| <b>2-111</b>         | Primary wire, 16 ga., black, 100' spool  | 1    |
| <b>2-112</b>         | Primary wire, 16 ga., blue, 100' spool   | 1    |
| <b>2-115</b>         | Primary wire, 16 ga., red, 100' spool    | 1    |
| <b>2-121</b>         | Primary wire, 14 ga., black, 100' spool  | 1    |
| <b>2-122</b>         | Primary wire, 14 ga., blue, 100' spool   | 1    |
| <b>2-123</b>         | Primary wire, 14 ga., brown, 100' spool  | 1    |
| <b>2-124</b>         | Primary wire, 14 ga., green, 100' spool  | 1    |
| <b>2-125</b>         | Primary wire, 14 ga., red, 100' spool    | 1    |
| <b>2-126</b>         | Primary wire, 14 ga., white, 100' spool  | 1    |
| <b>2-127</b>         | Primary wire, 14 ga., yellow, 100' spool | 1    |
| <b>2-131</b>         | Primary wire, 12 ga., black, 100' spool  | 1    |
| <b>2-135</b>         | Primary wire, 12 ga., red, 100' spool    | 1    |



**80-2006**

12 spool wire assortment,  
fits in 80-191 rack below

## Wire Rack

| Part No.      | Description |
|---------------|-------------|
| <b>80-191</b> | Wire rack   |

- Holds 12 ft. - 100 ft. rolls
- For rolls up to 12 ga.
- Ideal for the 80-2006 primary wire assortment



## Parallel Wire

| Part No.     | Gauge | Type   | Jacket Color                |              | Length | Std. Pkg. |
|--------------|-------|--------|-----------------------------|--------------|--------|-----------|
|              |       |        | External                    | Internal     |        |           |
| <b>2-401</b> | 2/16  | Fig. 1 | Gray                        | Black, white | 100'   | Spool     |
| <b>2-402</b> | 2/14  | Fig. 1 | Gray                        | Black, white | 100'   | Spool     |
| <b>2-403</b> | 2/12  | Fig. 1 | Gray                        | Black, white | 100'   | Spool     |
| <b>2-404</b> | 2/10  | Fig. 1 | Gray                        | Black, white | 100'   | Spool     |
| <b>2-422</b> | 3/16  | Fig. 2 | Brown, yellow, green        | -            | 100'   | Spool     |
| <b>2-423</b> | 4/16  | Fig. 3 | Brown, yellow, green, white | -            | 100'   | Spool     |
| <b>2-424</b> | 3/14  | Fig. 2 | Brown, yellow, green        | -            | 100'   | Spool     |
| <b>2-425</b> | 4/14  | Fig. 3 | Brown, yellow, green, white | -            | 100'   | Spool     |
| <b>2-426</b> | 3/12  | Fig. 2 | Brown, yellow, green        | -            | 100'   | Spool     |



## U.L. Service Cord

| Part No.     | Gauge | Internal Wire Color | Strands | Length | Pkg.  |
|--------------|-------|---------------------|---------|--------|-------|
| <b>3-112</b> | 2/14  | Black, white        | 41 x 30 | 250'   | Spool |
| <b>3-113</b> | 3/14  | Black, white, green | 41 x 30 | 250'   | Spool |

- Type SJ00W cable
- Great flexibility and excellent resistance to oil and moisture
- Good tensile strength, elongation and aging characteristics
- Excellent abrasion resistance
- UL, CSA certified for indoor/outdoor use
- 300V at -40°F to 194°F (-40°C to 90°C)



# BATTERY TERMINALS & ACCESSORIES

Centered bolt holes improve clamp efficiency and strength

All exceed SAE conductivity standard J163 and J1811

Smooth contact surface provides greater conductivity

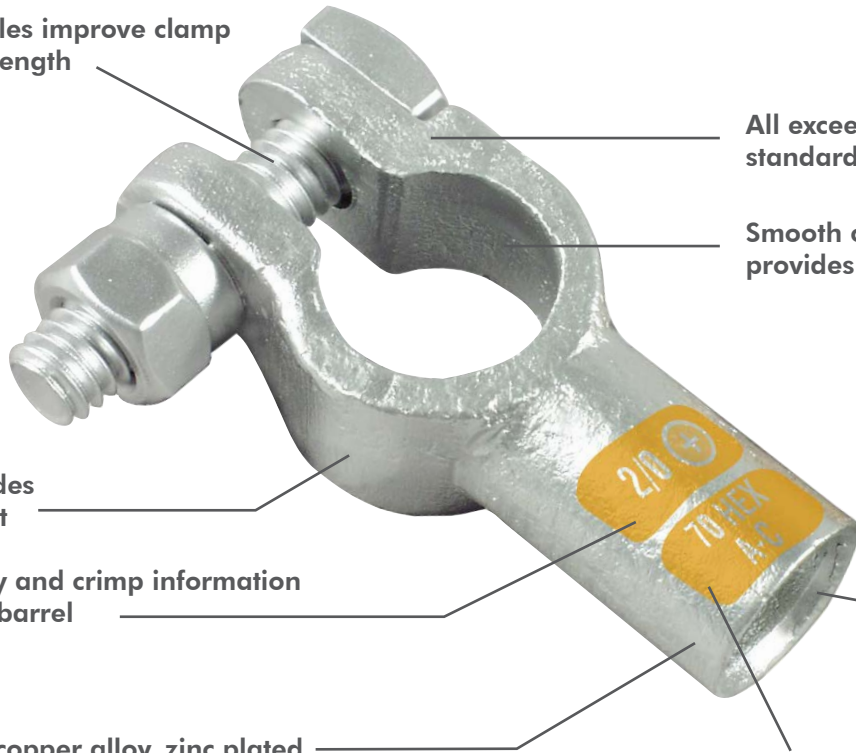
Terminal provides full post contact

Gauge, polarity and crimp information printed on the barrel

Chamfered barrel for easy wire entry

Made of 100% copper alloy, zinc plated

Compatible with industry-standard crimper



## Color Code and Size

The size dots will help you determine the gauge of an unmarked starter cable. Measure the bare conductor only, not the insulation. Actual diameters vary depending on specific wire stranding.



6



4



2



1



1/0



2/0



3/0



4/0



# COPPER BATTERY TERMINALS

- Copper battery connectors are tin-plated for added conductivity and corrosion resistance
- Can be crimped or soldered
- Exceeds SAE conductivity standard J163 and J1811
- Works well with solder slugs
- All part numbers come in quantities of 10

## Straight Clamp

| Gauge | Positive      | Negative      | Universal     |
|-------|---------------|---------------|---------------|
| 4     | <b>8-1120</b> | <b>8-1121</b> | <b>8-1122</b> |
| 2     | <b>8-1130</b> | <b>8-1131</b> | <b>8-1132</b> |
| 1     | <b>8-1140</b> | <b>8-1141</b> | -             |
| 1/0   | <b>8-1150</b> | <b>8-1151</b> | -             |
| 2/0   | <b>8-1160</b> | <b>8-1161</b> | -             |
| 3/0   | <b>8-1170</b> | <b>8-1171</b> | -             |
| 4/0   | <b>8-1180</b> | <b>8-1181</b> | -             |



8-1160

## Left Elbow

| Gauge | Positive      | Negative      |
|-------|---------------|---------------|
| 1/0   | <b>8-1250</b> | <b>8-1251</b> |
| 2/0   | <b>8-1260</b> | <b>8-1261</b> |



## Right Elbow

| Gauge | Positive      | Negative      |
|-------|---------------|---------------|
| 2/0   | <b>8-1360</b> | <b>8-1361</b> |



## Flag

| Gauge | Positive       | Negative      |
|-------|----------------|---------------|
| 2/0   | <b>8-1460</b>  | <b>8-1461</b> |
| 2/0   | <b>8-1660*</b> | -             |
| 3/0   | <b>8-1470</b>  | <b>8-1471</b> |
| 4/0   | <b>8-1480</b>  | <b>8-1481</b> |

\*Accessory wire capability



## GROUP 31

### Straight Clamp

| Gauge | 3/8" Hole Single | 3/8" Hole Dual |
|-------|------------------|----------------|
| 2/0   | <b>8-1763</b>    | <b>8-1863</b>  |



### Heavy Duty Copper Locking Lugs

| Gauge | 3/8" Hole Single | 1/2" Hole     |
|-------|------------------|---------------|
| 2/0   | <b>8-2763</b>    | <b>8-2765</b> |



### Non-Rotating Copper Lugs

| Gauge | 3/8" Hole Single | 3/8" Hole Dual |
|-------|------------------|----------------|
| 4     | <b>8-4723</b>    | -              |
| 1 & 2 | <b>8-4733</b>    | -              |
| 2/0   | <b>8-4763</b>    | <b>8-4863</b>  |
| 3/0   | <b>8-4773</b>    | -              |
| 4/0   | <b>8-4783</b>    | -              |



4-152  
Heavy Duty  
Hand-Held Crimper

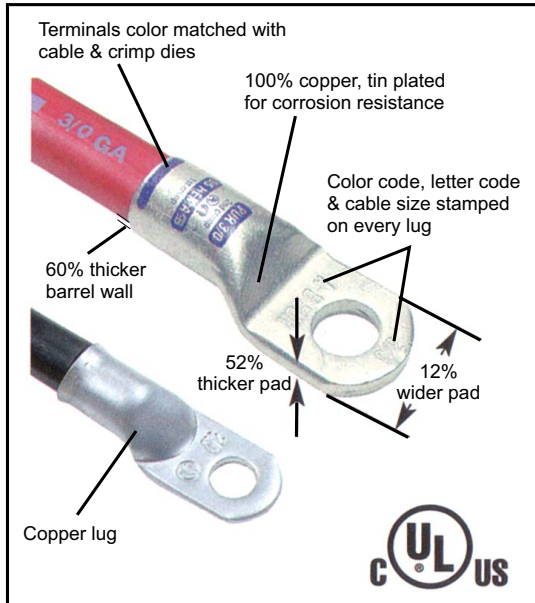


4-153  
Bench Mount,  
Hex Crimp



# HEAVY DUTY TIN-PLATED COPPER LUGS

- Wider and thicker pad for better electrical conductivity and greater strength than standard lugs
- Copper battery lugs are tin-plated for added conductivity and corrosion resistance
- Exceeds SAE standards and conforms to TMC and ATA recommended practices
- Meets UL standard (UL Std. 486A)
- Lugs for every application
- All part numbers come in quantities of 10




## Starter/Ground Lug

| Gauge | 1/4"          | 5/16"         | 3/8"          | 1/2"          |
|-------|---------------|---------------|---------------|---------------|
| 6     | <b>8-4111</b> | -             | -             | -             |
| 4     | <b>8-4121</b> | <b>8-4122</b> | <b>8-4123</b> | <b>8-4125</b> |
| 1 & 2 | <b>8-4131</b> | <b>8-4132</b> | <b>8-4133</b> | <b>8-4135</b> |
| 1/0   | -             | <b>8-4152</b> | <b>8-4153</b> | <b>8-4155</b> |
| 2/0   | <b>8-4161</b> | <b>8-4162</b> | <b>8-4163</b> | <b>8-4165</b> |
| 3/0   | -             | -             | <b>8-4173</b> | <b>8-4175</b> |
| 4/0   | -             | -             | <b>8-4183</b> | <b>8-4185</b> |

## 45° Lug

| Gauge | 3/8" | 1/2"          |
|-------|------|---------------|
| 2/0   | -    | <b>8-4365</b> |

## Butt Splice



| Gauge | Part No.      |
|-------|---------------|
| 4     | <b>8-4920</b> |
| 1 & 2 | <b>8-4930</b> |
| 1/0   | <b>8-4950</b> |
| 2/0   | <b>8-4960</b> |
| 3/0   | <b>8-4970</b> |
| 4/0   | <b>8-4980</b> |

## 90° Lug

| Gauge | 3/8"          | 1/2"          |
|-------|---------------|---------------|
| 2/0   | <b>8-4463</b> | <b>8-4465</b> |

## 3/8" Elbow

| Gauge | Left          | Right         |
|-------|---------------|---------------|
| 2/0   | <b>8-4563</b> | <b>8-4663</b> |

## Brazed Seam Lug - Non-Insulated



| Gauge | #10           | 1/4"          | 5/16"         | 3/8"          | 1/2"          |
|-------|---------------|---------------|---------------|---------------|---------------|
| 8     | -             | <b>8-2001</b> | <b>8-2002</b> | <b>8-2003</b> | -             |
| 6     | <b>8-2010</b> | <b>8-2011</b> | <b>8-2012</b> | <b>8-2013</b> | -             |
| 4     | -             | <b>8-2021</b> | -             | <b>8-2023</b> | <b>8-2025</b> |
| 2     | -             | -             | -             | <b>8-2033</b> | -             |
| 1/0   | -             | -             | -             | <b>8-2053</b> | <b>8-2055</b> |
| 2/0   | -             | -             | -             | <b>8-2063</b> | <b>8-2065</b> |
| 3/0   | -             | -             | -             | <b>8-2073</b> | -             |

- Serrated barrel increases pull-out strength
- 100% copper, tin-plated
- Cost effective solution

# COPPER LUGS

- Some copper battery lugs are tin-plated for added conductivity and corrosion resistance
- Ideal for crimping or soldering
- Exceeds SAE conductivity standard J163 and J1811
- Ideal for general wiring as well as starter or ground connections
- All part numbers come in quantities of 10

## Starter/Ground Lug

| Gauge | #10           | 1/4"          | 5/16"         | 3/8"          | 1/2"          |
|-------|---------------|---------------|---------------|---------------|---------------|
| 8     | <b>8-2100</b> | <b>8-2101</b> | -             | <b>8-2103</b> | -             |
| 6     | <b>8-2110</b> | <b>8-2111</b> | <b>8-2112</b> | <b>8-2113</b> | <b>8-2115</b> |
| 4     | -             | <b>8-2121</b> | <b>8-2122</b> | <b>8-2123</b> | <b>8-2125</b> |
| 2     | -             | <b>8-2131</b> | <b>8-2132</b> | <b>8-2133</b> | <b>8-2135</b> |
| 1     | -             | <b>8-2141</b> | <b>8-2142</b> | <b>8-2143</b> | <b>8-2145</b> |
| 1/0   | -             | -             | <b>8-2152</b> | <b>8-2153</b> | <b>8-2155</b> |
| 2/0   | -             | -             | <b>8-2162</b> | <b>8-2163</b> | <b>8-2165</b> |
| 3/0   | -             | -             | -             | <b>8-2173</b> | <b>8-2175</b> |
| 4/0   | -             | -             | -             | <b>8-2183</b> | <b>8-2185</b> |



## Straight Lug - Tin-Plated\*

| Gauge | 3/8"          | 1/2"          |
|-------|---------------|---------------|
| 8     | <b>8-2203</b> | -             |
| 6     | <b>8-2213</b> | -             |
| 4     | <b>8-2223</b> | -             |
| 2     | <b>8-2233</b> | -             |
| 1     | <b>8-2243</b> | -             |
| 1/0   | <b>8-2253</b> | <b>8-2255</b> |
| 2/0   | <b>8-2263</b> | <b>8-2265</b> |
| 3/0   | <b>8-2273</b> | <b>8-2275</b> |
| 4/0   | <b>8-2283</b> | <b>8-2285</b> |



\*Tin-plated for added conductivity

## Copper Butt Splice - Tin-Plated\*

| Gauge | Part No.      |
|-------|---------------|
| 8     | <b>8-2900</b> |
| 6     | <b>8-2910</b> |
| 4     | <b>8-2920</b> |
| 2     | <b>8-2930</b> |
| 1     | <b>8-2940</b> |
| 1/0   | <b>8-2950</b> |
| 2/0   | <b>8-2960</b> |
| 4/0   | <b>8-2980</b> |



\*Tin-plated for added conductivity



# AUTOMOTIVE, HEAVY DUTY, MILITARY, MARINE

## Automotive



8-612

8-613

| Part No.     | Description                                  | Qty. |
|--------------|--|------|
| <b>8-612</b> | Automotive clamp, universal, 6-2/0 ga., lead | 10   |
| <b>8-613</b> | Heavy duty clamp, universal, 1-4/0 ga., lead | 10   |

- Heavy duty design for truck, bus, construction, agriculture and industrial applications
- For temporary field repairs
- Universal size to fit 6 ga. to 2/0 ga.

## Military



| Part No.     | Description                          | Qty. |
|--------------|--------------------------------------|------|
| <b>8-618</b> | Negative polarity, lead; zinc plated | 10   |
| <b>8-619</b> | Positive polarity, lead; zinc plated | 10   |

- Military - complies with MIL SPEC A521425-1/A52425-2

## Marine

8-621  
8-6238-620  
8-622

| Part No.     | Description  | Qty. |
|--------------|--|------|
| <b>8-620</b> | Top post-to 3/8" stud, positive polarity, brass; tin-plated  | 10   |
| <b>8-621</b> | Top post-to 3/8" stud, positive polarity, lead; zinc plated  | 10   |
| <b>8-622</b> | Top post-to 5/16" stud, negative polarity, brass; tin-plated | 10   |
| <b>8-623</b> | Top post-to 5/16" stud, negative polarity, lead; zinc plated | 10   |

- Marine conversion battery post to stud connector

## Top Mount Quick Disconnect



| Part No.     | Description                                       | Qty. |
|--------------|---|------|
| <b>8-638</b> | Top post, negative polarity, copper; brass plated | 10   |

- Quick disconnect - 1/4 turn of knob to disconnect battery
- Great for RV's, golf carts or long term storage of any vehicle

## Conversion Connectors & Adapters

| Part          | Description  |
|---------------|--|
| <b>8-6421</b> | Stud-to-post conversion (3/8" - 16), pos. and neg., lead, 1 pair |



## Accessory Wire Adapters

| Fig. | Part No.     | Description  | Qty. |
|------|--------------|--|------|
| 1    | <b>8-644</b> | Adapter bolt, side terminal accessory post for single power lead | 10   |
| 2    | <b>8-648</b> | Adapter nut, terminal accessory post: 3/8" - 16 x 3/4"           | 10   |

- For adding accessory wire connections
- Precision-machined from solid brass, includes zinc-plated steel nut and washer
- Connects power accessories directly to battery\*
- Adapter nut fits standard battery bolt
- Side terminal adapter bolt available for single and dual power leads

\*Caution: Accessories directly connected to battery should be protected by fuse or circuit breaker device



8-644



8-648

Fig. 1

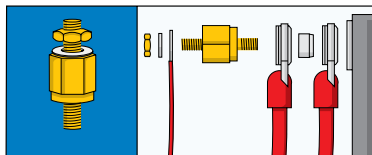
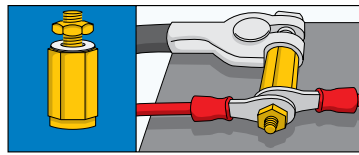


Fig. 2



## HEAVY DUTY JUMPERS

- Truck, bus, farm, construction, etc.
- 2/0 gauge for parallel connections of 2 or 3 batteries
- Exceeds SAE and OEM specifications
- Ideal for Group 31 and similar batteries
- Most efficient way to connect two or three paralleled batteries for delivery of maximum starting power at same voltage

### Group 31

### Battery Jumpers

| Description    | Positive (Red) | Negative (Black) | CLEAR-VU™ (Clear) |
|----------------|----------------|------------------|-------------------|
| 9", 3/8" hole  | <b>9-208</b>   | <b>9-209</b>     | <b>9-210</b>      |
| 12", 3/8" hole | <b>9-211</b>   | <b>9-212</b>     | <b>9-213</b>      |
| 15", 3/8" hole | <b>9-214</b>   | <b>9-215</b>     | <b>9-216</b>      |
| 17", 3/8" hole | <b>9-217</b>   | <b>9-218</b>     | <b>9-219</b>      |

- Non-rotating, heavy duty battery terminals
- 2/0 ga. cable and terminals







## CLEAR-VU™ Battery Jumpers - OEM Replacement



| Part No. | Description                                 |
|----------|---|
| 9-350    | 2/0 CLEAR-VU™ clear, 2 lug, 8"              |
| 9-351    | 2/0 CLEAR-VU™ translucent smoke, 2 lug, 8"  |
| 9-352    | 2/0 CLEAR-VU™ translucent red, 2 lug, 8"    |
| 9-360    | 2/0 CLEAR-VU™ clear, 3 lug, 17"             |
| 9-361    | 2/0 CLEAR-VU™ translucent smoke, 3 lug, 17" |
| 9-362    | 2/0 CLEAR-VU™ translucent red, 3 lug, 17"   |
| 9-370    | 2/0 CLEAR-VU™ clear, 4 lug, 26"             |
| 9-371    | 2/0 CLEAR-VU™ translucent smoke, 4 lug, 26" |
| 9-372    | 2/0 CLEAR-VU™ translucent red, 4 lug, 26"   |

- Replaces OEM battery cables
- Translucent cable allows you to see corrosion
- Heavy wall shrink tubing stops water and contaminants from entering charging system
- Rope-style stranding for flexibility
- Operating temperature range -40°F to 150°F (-40°C to 66°C)
- Non-rotating 3/8 in. lugs

| BEFORE CORROSION BUILD-UP   |   |
|---|---|
|  |    |
| CLEAR-VU™ Battery Cable   | Standard Battery Cable  |
| AFTER POTENTIAL CORROSION BUILD-UP  |   |
|  |    |
| Corrosion is visible through the CLEAR-VU™ jacketing at all times.                | Signs of corrosion are NOT visible through solid jacketing, but you can see through this demonstration that corrosion is there. |

### OEM Replacement Chart

| PHILLIPS | Volvo/Mack | Freightliner | Peterbilt  | Kenworth   | International |
|----------|------------|--------------|------------|------------|---------------|
| 9-351    | 32001404   | N54-4226     | D6204-3035 | D6204-3035 | 547937C91     |
| 9-352    | 3201140280 | N54-4883     | D6207-1046 | D6207-1046 | 546389C91     |
| 9-361    | 8085769    | N54-4667     | -          | -          | 546889C91     |
| 9-362    | 8075153    | N54-4688     | -          | -          | 547422C91     |

## Battery-To-Battery Jumpers



| Gauge | 8"    | 12"   |
|-------|-------|-------|
| 2/0   | 9-126 | 9-128 |

- Lead terminals
- 2/0 ga. cable
- Black cable

## Braided Ground Straps



| Gauge | 12"   | 18"   | 24"   |
|-------|-------|-------|-------|
| 4     | 9-150 | 9-151 | 9-152 |

- Fine stranded copper conductor for maximum conductivity and flexibility
- Corrosion resistant plating
- 3/8 in. hole

## Coiled Ground Cable



| Part No. | Description                              |
|----------|--|
| 9-5560   | 5' PERMACOIL™ coiled ground cable, 8 ga. |

- Cable offers more flexibility and allows for less tangling when the fifth wheel is adjusted back and forth
- 5 ft. extended working length
- PERMACOIL™ cable jacketing has good recoil memory and is UV, chemical and abrasion resistant
- Flexible from -87°F to 150°F (-66°C to 66°C)
- Tin-plated copper lugs and heat shrink tubing used to help prevent corrosion at the connections

## Two Battery Jumpers

| Top Post-to-Power Take-Off Post |              |              |
|---------------------------------|--------------|--------------|
| Description                     | Positive     | Negative     |
| 7-3/8"                          | <b>9-242</b> | <b>9-243</b> |

| Stud-to-Power Take-Off Stud |              |              |
|-----------------------------|--------------|--------------|
| Description                 | Positive     | Negative     |
| 7-3/8"                      | <b>9-262</b> | <b>9-263</b> |



## Three Battery Jumpers

| Stud-to-Power Take-Off Post |              |              |
|-----------------------------|--------------|--------------|
| Description                 | Positive     | Negative     |
| 14-3/4"                     | <b>9-282</b> | <b>9-283</b> |

| Stud-to-Power Take-Off Stud |              |              |
|-----------------------------|--------------|--------------|
| Description                 | Positive     | Negative     |
| 13-5/8"                     | <b>9-290</b> | <b>9-291</b> |
| 14-3/4"                     | <b>9-292</b> | <b>9-293</b> |



# TERMINAL PROTECTORS

- Protects alternator and electrical system from shorts
- Reduces the risk of battery explosion caused by sparks
- High temperature PVC construction, rated at 190°F (90°C)
- Color-coded for easy polarity identification

## Straight Clamp

| Gauge     | Red           | Black         |
|-----------|---------------|---------------|
| 1 & 2     | <b>8-7122</b> | <b>8-7123</b> |
| 1/0 & 2/0 | <b>8-7124</b> | <b>8-7125</b> |
| 3/0 & 4/0 | <b>8-7126</b> | <b>8-7127</b> |



## Right Elbow

| Gauge     | Red           | Black         |
|-----------|---------------|---------------|
| 1/0 & 3/0 | <b>8-7132</b> | <b>8-7133</b> |



## Left Elbow

| Gauge     | Red | Black         |
|-----------|-----|---------------|
| 1/0 & 3/0 | —   | <b>8-7137</b> |



## Flag Clamp

| Gauge     | Red           | Black         |
|-----------|---------------|---------------|
| 1/0 & 2/0 | <b>8-7142</b> | <b>8-7143</b> |



## Heavy Duty Starter

| Gauge     | Red           | Black         |
|-----------|---------------|---------------|
| 1/0 & 2/0 | <b>8-7146</b> | <b>8-7147</b> |



## Straight or Angle Lug

| Gauge | Red           | Black         |
|-------|---------------|---------------|
| 4     | <b>8-7150</b> | <b>8-7151</b> |



# SOLDER SLUGS

## Solder Flux



| Part No.     | Description                 | Qty. |
|--------------|-----------------------------|------|
| <b>7-259</b> | 2 oz. bottle of solder flux | 1    |

- Cleans conductors and terminals for soldering

## Solder Slugs



| Part No.     | Wire Gauge | Color  | Qty. |
|--------------|------------|--------|------|
| <b>7-260</b> | 6          | Gray   | 25   |
| <b>7-261</b> | 4          | Gray   | 25   |
| <b>7-262</b> | 2          | Green  | 25   |
| <b>7-263</b> | 1          | Pink   | 25   |
| <b>7-264</b> | 1/0        | Black  | 25   |
| <b>7-265</b> | 2/0        | Orange | 25   |
| <b>7-266</b> | 3/0        | Purple | 25   |
| <b>7-267</b> | 4/0        | Yellow | 25   |

Solder slugs were developed as a quick way to attach a battery terminal to the cable. Solder slugs eliminate the need for a crimping tool.

- Makes an OEM quality sealed connection
- Drop slug into terminal, insert cable, heat...finished!
- Fast-easy-clean-safe
- For best results, use STA-DRY® heat shrink tubing

## Solder Kit



7-1800

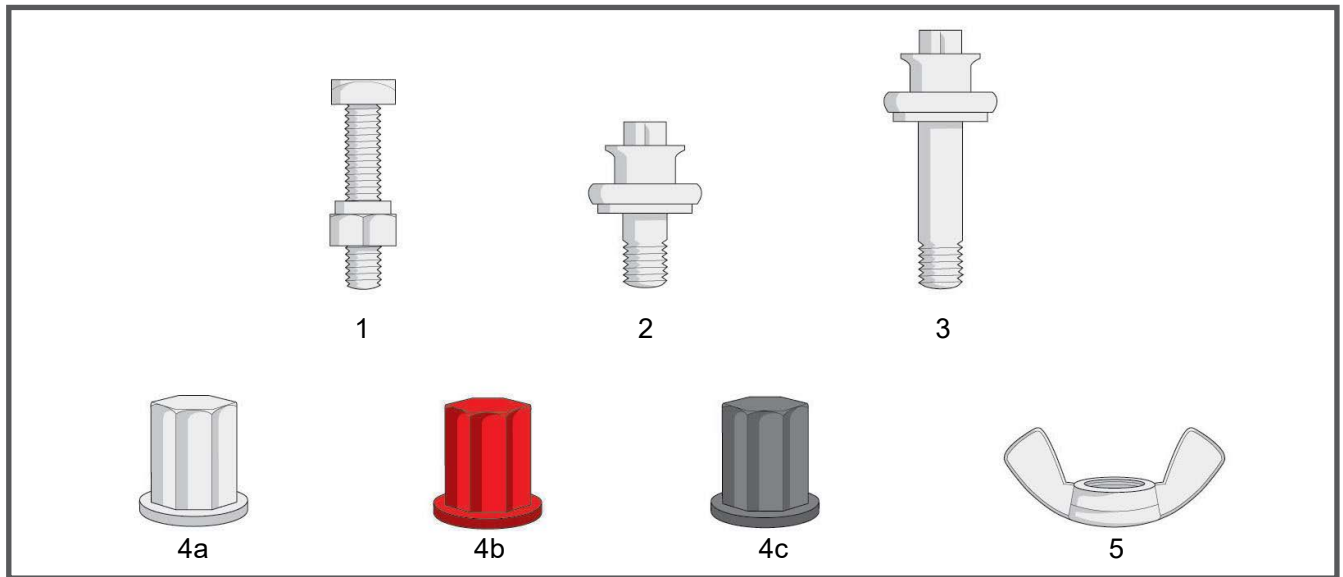
| Part No.      | Description |
|---------------|-------------|
| <b>7-1800</b> | Solder kit  |

### 7-1800 Contents:

| Replacement Part No. | Description  | Qty. |
|----------------------|--|------|
| <b>6-402</b>         | STA-DRY® heat shrink tubing 6-4 ga., 1/2", black   | 10   |
| <b>6-403</b>         | STA-DRY® heat shrink tubing 6-4 ga., 1/2", red     | 10   |
| <b>6-404</b>         | STA-DRY® heat shrink tubing 2-2/0 ga., 3/4", black | 10   |
| <b>6-405</b>         | STA-DRY® heat shrink tubing 2-2/0 ga., 3/4", red   | 10   |
| <b>7-259</b>         | Battery terminal solder flux                       | 1    |
| <b>7-260</b>         | Solder slug - 6 ga., gray                          | 20   |
| <b>7-261</b>         | Solder slug - 4 ga., gray                          | 20   |
| <b>7-263</b>         | Solder slug - 1 ga., pink                          | 10   |
| <b>7-264</b>         | Solder slug - 1/0 ga., black                       | 10   |
| <b>7-265</b>         | Solder slug - 2/0 ga., orange                      | 10   |

# BATTERY FASTENER HARDWARE

- Complete selection of standard and heavy duty battery related hardware
- Hardware meets or exceeds OEM, SAE or MIL specifications, where relevant



| Fig. | Part No. | Description  | Qty. |
|------|----------|--|------|
| 1    | 8-651    | Bolt, square head and shoulder nut, 5/16" - 18 x 1-1/4", steel, tin-plated | 10   |
| 2    | 8-656    | Bolt, side terminal, 3/8" - 16 x 15/32", for single power lead, OEM type   | 10   |
| 3    | 8-657    | Bolt, side terminal, 3/8" - 16 x 1", for dual power leads, OEM type        | 10   |
| 4a   | 8-662    | Nut, closed-cap, 3/8" - 16, stainless steel, group 31, universal           | 10   |
| 4b   | 8-663    | Nut, closed-cap, 3/8" - 16, red, stainless steel, positive                 | 10   |
| 4c   | 8-664    | Nut, closed-cap, 3/8" - 16, black, stainless steel, negative               | 10   |
| 5    | 8-667    | Nut, wing, 3/8" - 16   | 10   |



# BATTERY BOXES & HOLD-DOWNS

## Commercial Battery Boxes



| Part No.     | Description   |
|--------------|---|
| <b>9-404</b> | 8D High (Inside 21"L x 11-3/4"W x 11"D, Outside 24-1/2"L x 14-1/2"W x 13"D) |

- Composite
- Resists acid, gasoline, oil and solvents
- Flame resistant
- UV stabilized (rating 6)
- Rugged, durable heavy wall construction
- Top vents prevent hydrogen gas build-up
- Cover held firmly with convenient thumb screws

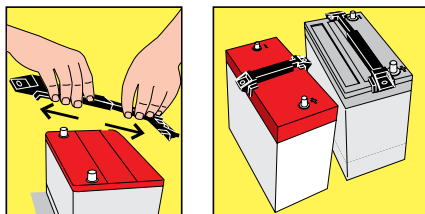
## Heavy Duty Battery Boxes



| Part No.     | Description  |
|--------------|--|
| <b>9-405</b> | Group 24 (Inside 10-3/8"L x 7"W x 9-1/2"H, Outside 16-1/2"L x 9"W x 10-1/4"H)        |
| <b>9-407</b> | Group 24-31 (Inside 12-3/4"L x 7-1/4"W x 9-3/4"H, Outside 14-3/4"L x 9"W x 10-1/2"H) |

- Acid-proof, seamless polyethylene construction keeps battery clean and dry
- Top vents prevent hydrogen gas build-up
- Includes hold-down strap and mounting brackets

## Battery Hold-Down



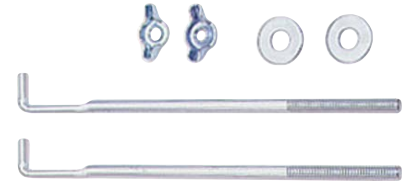
| Description      | 5 1/2" to 9" | 8 5/8" to 14 3/4" |
|------------------|--------------|-------------------|
| Offset hold-down | <b>9-413</b> | -                 |
| Flush hold-down  | -            | <b>9-416</b>      |

- Infinitely adjustable and lockable
- Non-conductive; eliminates hold-down as source of shorts
- Ideal for all applications
- Fiberglass-reinforced polypropylene is rust and corrosion proof
- Does not include mounting hardware
- Standard pack of 1

## Hold-Down Bolt Sets - "L" Style

| Part No.     | Description             | Qty. |
|--------------|-------------------------|------|
| <b>9-427</b> | Hold-down bolt set, 8"  | 1    |
| <b>9-428</b> | Hold-down bolt set, 10" | 1    |

- Long thread accommodates all crossbar / frame designs
- Use with battery trays
- "L" style bend eliminates any need to shift or remove battery
- Sold as a pair - hardware included



## BOOSTER CABLES

- Tangle-proof cable
- Flexible from -58°F to 221°F (-50°C to 105°C)
- 100% copper welding cable for maximum conductivity
- Solid copper 500 and 800 amp clamps

| Description    | 500 amp      | 800 amp      |
|----------------|--------------|--------------|
| Booster clamps | <b>9-309</b> | <b>9-310</b> |

- Solid copper parrot clamps
- Sold in pairs only
- Hardware included
- 9-309 will accept up to 1/0 ga. lug and cable
- 9-310 will accept up to 3/0 ga. lug and cable

### Booster Clamps



### Heavy Duty Booster Cable

| Part No.     | Gauge | Amp | Length | Clamp Style   |
|--------------|-------|-----|--------|---------------|
| <b>9-313</b> | 4     | 500 | 16'    | Coated parrot |
| <b>9-323</b> | 2     | 500 | 20'    | Mechanic      |

- Resealable vinyl bag
- Carrying handle



## Commercial Heavy Duty Booster Cable



| Part No.     | Gauge | Amp | Length | Clamp Style  |
|--------------|-------|-----|--------|--------------|
| <b>9-325</b> | 2/0   | 800 | 20'    | Parrot clamp |

- Resealable / waterproof bucket
- Carrying handle

# PREVENTIVE MAINTENANCE

## Protective Spray



| Part No.     | Description                      | Qty. |
|--------------|----------------------------------|------|
| <b>8-752</b> | Protective aerosol spray, 10 oz. | 1    |

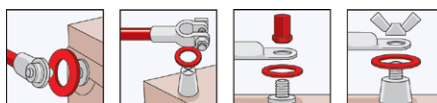
- Red spray protects exposed electrical connections from corrosion, ensuring maximum current flow
- Use on battery terminals, connectors and hardware
- Compact size fits in toolbox or pocket
- For occasional use

## Protective Washers



| Part No.     | Description  |
|--------------|--|
| <b>9-435</b> | Felt washers, top post terminal, black, 100 pieces |
| <b>9-436</b> | Felt washers, top post terminal, red, 100 pieces   |

- Contains long-lasting corrosion inhibitors to extend life of battery connectors and hardware
- Easy to install - slip over post



# SERVICE KITS

| Part No.      | Description                         |
|---------------|-------------------------------------|
| <b>9-1002</b> | 2/0 battery cable field service kit |

## 9-1002 Contents:

| Replacement Part No. | Description   | Qty. |
|----------------------|---|------|
| -                    | Heavy duty handheld cable cutter                                  | 1    |
| <b>4-152</b>         | Heavy duty handheld hex crimp tool                                | 1    |
| <b>6-211</b>         | Red 6" heat shrink tubing, 6-2/0 ga.                              | 2    |
| <b>6-212</b>         | Black 6" heat shrink tubing, 6-2/0 ga.                            | 2    |
| <b>8-1160</b>        | 2/0 ga. straight clamps, positive                                 | 2    |
| <b>8-1161</b>        | 2/0 ga. straight clamps, negative                                 | 2    |
| <b>8-1460</b>        | 2/0 ga. flag clamps, positive                                     | 2    |
| <b>8-1461</b>        | 2/0 ga. flag clamps, negative                                     | 2    |
| <b>8-4165</b>        | 2/0 ga. heavy duty tin-plated straight lugs, 1/2" stud            | 2    |
| <b>8-4763</b>        | 2/0 ga. single cable locking anti-rotational lugs, 3/8" stud      | 2    |
| <b>8-4863</b>        | 2/0 ga. dual cable locking anti-rotational lugs, 3/8" stud        | 2    |
| <b>8-7124</b>        | Red terminal protectors, straight clamps - fits 1/0 and 2/0 ga.   | 4    |
| <b>8-7125</b>        | Black terminal protectors, straight clamps - fits 1/0 and 2/0 ga. | 4    |
| <b>8-7142</b>        | Red terminal protectors, flag clamps - fits 1/0 and 2/0 ga.       | 2    |
| <b>8-7143</b>        | Black terminal protectors, flag clamps - fits 1/0 and 2/0 ga.     | 2    |

## Field Service Kit



9-1002

- Field repair kit contains components to build or repair 2/0 battery cables
- Portable and convenient durable (7) compartment metal box with handle and latch

## Field Service Kit - Heavy Duty

| Part No.      | Description                                |
|---------------|--|
| <b>9-1004</b> | Heavy duty battery cable field service kit |

## 9-1004 Contents:

| Replacement Part No. | Description   | Qty. |
|----------------------|---|------|
| <b>6-404</b>         | Black 1.5" heat shrink tubing, 6-2/0 ga.                          | 20   |
| <b>6-405</b>         | Red 1.5" heat shrink tubing, 6-2/0 ga.                            | 20   |
| <b>8-651</b>         | 5/16" x 1 1/4" tin-plated battery bolts and 5/16" nuts            | 28   |
| <b>8-662</b>         | 3/8" stainless steel closed cap nuts                              | 5    |
| <b>8-1160</b>        | 2/0 ga. straight clamps, positive                                 | 10   |
| <b>8-1161</b>        | 2/0 ga. straight clamps, negative                                 | 10   |
| <b>8-1460</b>        | 2/0 ga. flag clamps, positive                                     | 4    |
| <b>8-1461</b>        | 2/0 ga. flag clamps, negative                                     | 4    |
| <b>8-2263</b>        | 2/0 ga. tin-plated straight lugs, 3/8" stud                       | 10   |
| <b>8-2265</b>        | 2/0 ga. tin-plated straight lugs, 1/2" stud                       | 10   |
| <b>8-2763</b>        | 2/0 ga. terminal locking lugs, 3/8" stud                          | 10   |
| <b>8-2765</b>        | 2/0 ga. terminal locking lugs, 1/2" stud                          | 5    |
| <b>8-4165</b>        | 2/0 ga. heavy duty tin-plated straight lugs, 1/2" stud            | 5    |
| <b>8-4763</b>        | 2/0 ga. single cable locking anti-rotational lugs, 3/8" stud      | 5    |
| <b>8-4863</b>        | 2/0 ga. dual cable locking anti-rotational lugs, 3/8" stud        | 4    |
| <b>8-7124</b>        | Red terminal protectors, straight clamps - fits 1/0 and 2/0 ga.   | 5    |
| <b>8-7125</b>        | Black terminal protectors, straight clamps - fits 1/0 and 2/0 ga. | 5    |
| <b>8-7142</b>        | Red terminal protectors, flag clamps - fits 1/0 and 2/0 ga.       | 3    |
| <b>8-7143</b>        | Black terminal protectors, flag clamps - fits 1/0 and 2/0 ga.     | 3    |



9-1004

- Assortment contains components needed to make OEM quality cables
- Durable 24 compartment metal box with handle and latch fits into standard fastener rack

# PHILLIPS STA-DRY® HEAT SHRINK CONNECTORS

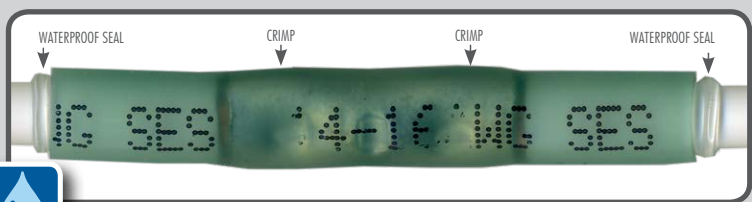
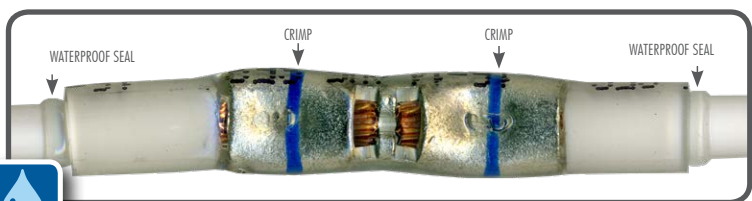
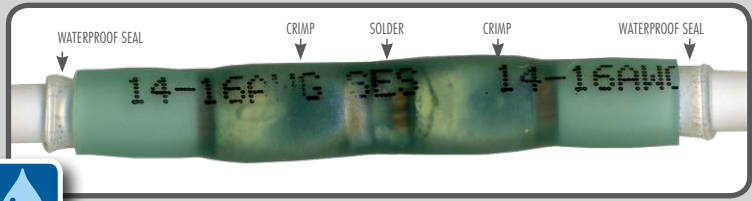
Designed to meet the  
harshest electrical  
demands a tractor or  
trailer will encounter!

**STOP WIRE CORROSION**

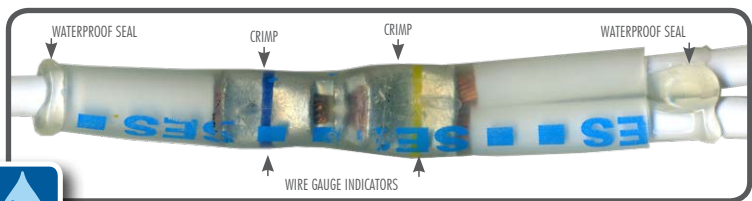
Corroded Wire

Adhesive-Lined Waterproof Seal

**MAKE PERMANENT REPAIRS**



## SPECIALTY TRAILER WIRING





## CRIMP, SOLDER & SEAL™ The Ultimate Electrical Connection!

- Crimp provides mechanical reliability and holds wires in place for soldering
- Solder provides maximum tensile strength and conductivity
- Seal prevents wire corrosion ... Keeps out moisture and road salts

1-1862



81% stronger than



## CLEAR-VU™, CRIMP & SEAL™ Innovative Crimp Connectors!

- Crystal-clear tubing provides unparalleled visual inspection and weatherproof seal
- Window ensures the wire is stripped to proper length and is fully seated to wire stop
- Color-coded stripes identify wire gauge size and show where to crimp the connector

1-1662



50% stronger than



## CRIMP & SEAL™ Excellent Mechanical Connection!

- Crimp provides mechanical reliability for excellent conductivity
- Seal prevents wire corrosion ... Keeps out moisture and road salts

1-1962



50% stronger than



## STA-DRY™ MULTIPLE WIRE CONNECTOR

- Allows splicing 2 wires to 1 wire
- Easy to crimp for a strong mechanical termination
- Window allows for visual inspection
- Seal prevents wire corrosion

1-1724



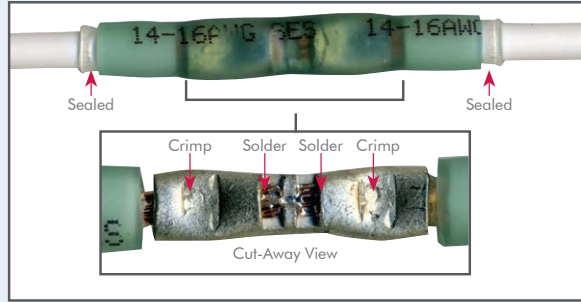


# STA-DRY® CRIMP, SOLDER & SEAL™

## The Ultimate Electrical Connection!

14-16AWG SES 14-16AWG SES **81% stronger than** 

- Crimp provides mechanical reliability and holds wires in place for soldering
- Solder flows into window to solder wire to connector
- Solder provides maximum tensile strength and conductivity
- Seal prevents wire corrosion...keeps out moisture and road salts
- CRIMP, SOLDER & SEAL™ connectors meet or exceed the most stringent OEM standards
- RoHS compliant



## Butt Connectors



Heat Required



| Color  | Gauge | Part No. (25 Pcs. Per Bag) | Part No. (100 Pcs. Per Bag) | Part No. (500 Pcs. Per Bag) | Part No. (5 Pcs. Per Clamshell) | Part No. (60 Pcs. Per Jar) | Part No. (100 Pcs. Per Jar) |
|--------|-------|----------------------------|-----------------------------|-----------------------------|---------------------------------|----------------------------|-----------------------------|
| Red    | 22-18 | 1-1863                     | 1-1863-100                  | 1-1863-500                  | 1-1863C                         | -                          | 1-1863J                     |
| Blue   | 16-14 | 1-1862                     | 1-1862-100                  | 1-1862-500                  | 1-1862C                         | -                          | 1-1862J                     |
| Yellow | 12-10 | 1-1861                     | 1-1861-100                  | 1-1861-500                  | 1-1861C                         | 1-1861J                    | -                           |



SHAKE JAR

## Ring Terminals



Heat Required



| Color  | Gauge | Stud | Part No. (25 Pcs. Per Bag) | Part No. (5 Pcs. Per Clamshell) |
|--------|-------|------|----------------------------|---------------------------------|
| Red    | 22-18 | #10  | 1-1878                     | -                               |
| Blue   | 16-14 | #10  | 1-1875                     | 1-1875C                         |
| Blue   | 16-14 | 1/4" | 1-1876                     | -                               |
| Blue   | 16-14 | 3/8" | 1-1877                     | -                               |
| Yellow | 12-10 | #10  | 1-1871                     | -                               |
| Yellow | 12-10 | 1/2" | 1-1872                     | -                               |
| Yellow | 12-10 | 1/4" | 1-1873                     | 1-1873C                         |
| Yellow | 12-10 | 3/8" | 1-1874                     | 1-1874C                         |

## Spade Terminals

| Color  | Gauge | Stud | Part No.<br>(25 Pcs. Per Bag) |
|--------|-------|------|-------------------------------|
| Blue   | 16-14 | #10  | <b>1-1880</b>                 |
| Yellow | 12-10 | #10  | <b>1-1879</b>                 |



Heat Required



## Slip-On Terminals

| Color  | Gauge | Tab   | Style  | Part No.<br>(25 Pcs. Per Bag) | Part No.<br>(5 Pcs. Per Clamshell) |
|--------|-------|-------|--------|-------------------------------|------------------------------------|
| Blue   | 16-14 | .250" | Female | <b>1-1893</b>                 | <b>1-1893C</b>                     |
| Blue   | 16-14 | .250" | Male   | <b>1-1894</b>                 | <b>1-1894C</b>                     |
| Yellow | 12-10 | .250" | Female | <b>1-1891</b>                 | -                                  |
| Yellow | 12-10 | .250" | Male   | <b>1-1892</b>                 | -                                  |



Heat Required



## STA-DRY® CRIMP, SOLDER & SEAL™ Kit

| Part No.      | Description                        |
|---------------|------------------------------------|
| <b>1-1803</b> | STA-DRY® CRIMP, SOLDER & SEAL™ kit |

### 1-1803 Contents:

| Connector Style | Gauge & Size | Part No.      | Qty. |
|-----------------|--------------|---------------|------|
| Butt connector  | 12-10        | <b>1-1861</b> | 4    |
| Butt connector  | 16-14        | <b>1-1862</b> | 8    |
| Butt connector  | 22-18        | <b>1-1863</b> | 4    |
| Ring            | 12-10, 1/4"  | <b>1-1873</b> | 4    |
| Ring            | 12-10, 3/8"  | <b>1-1874</b> | 4    |
| Ring            | 16-14, 10"   | <b>1-1875</b> | 4    |
| Ring            | 16-14 1/4"   | <b>1-1876</b> | 4    |
| Ring            | 16-14, 3/8"  | <b>1-1877</b> | 4    |
| Ring            | 22-18, 10"   | <b>1-1878</b> | 3    |
| Female slip-on  | 16-14, .250" | <b>1-1893</b> | 3    |
| Male slip-on    | 16-14, .250" | <b>1-1894</b> | 3    |



### 1-1803

11 Part #'s, 45 Pieces  
7 1/2 in. x 3 3/4 in.

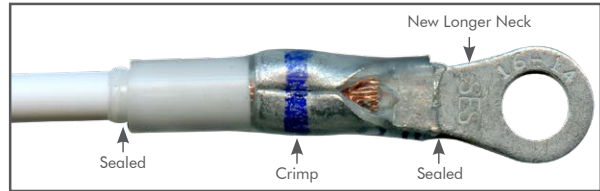
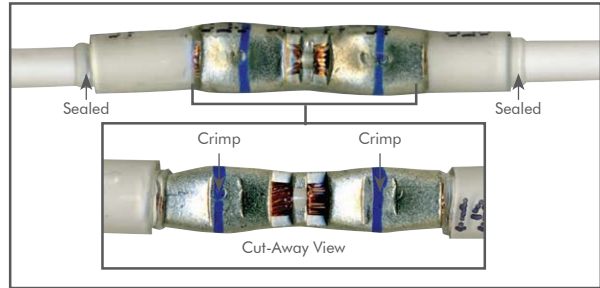
# STA-DRY® CLEAR-VU™ CRIMP & SEAL™

## Innovative Crimp Connectors!



50% stronger than

- CLEAR-VU™ crystal-clear tubing provides unparalleled visual inspection
- Window ensures the wire is stripped to the proper length and is fully seated to wire stop
- Color-coded stripes identify wire gauge size to use and where to crimp the connector
- Crimp provides mechanical reliability for excellent conductivity
- Waterproof seal prevents wire corrosion ...keeps out moisture and road salts
- Seamless barrel ensures superior crimp performance
- Wire-stop prevents over-insertion of wire
- Wire gauge imprint simplifies wire size identification
- RoHS compliant



## CLEAR-VU™ Window Butt Connectors



Heat Required



| Color  | Gauge | Part No. (25 Pcs. Per Bag) | Part No. (100 Pcs. Per Bag) | Part No. (60 Pcs. Per Jar) | Part No. (100 Pcs. Per Jar) |
|--------|-------|----------------------------|-----------------------------|----------------------------|-----------------------------|
| Red    | 22-18 | <b>1-1661</b>              | <b>1-1661-100</b>           | -                          | <b>1-1661J</b>              |
| Blue   | 16-14 | <b>1-1662</b>              | <b>1-1662-100</b>           | -                          | <b>1-1662J</b>              |
| Yellow | 12-10 | <b>1-1663</b>              | <b>1-1663-100</b>           | <b>1-1663J</b>             | -                           |



SHAKE JAR

## CLEAR-VU™ Window Step-Down Connectors



Heat Required



| Gauge | TO         |            | Part No. (25 Pcs. Per Bag) |
|-------|------------|------------|----------------------------|
|       | Side 1 ga. | Side 2 ga. |                            |
| 16-14 | 22-18      | 16-14      | <b>1-1618</b>              |
| 12-10 | 16-14      | 12-10      | <b>1-1617</b>              |
| 8     | 12-10      | 8          | <b>1-1616</b>              |

## CLEAR-VU™ Ring Terminals

| Color  | Gauge | Stud | Part No.<br>(25 Pcs.<br>Per Bag) |
|--------|-------|------|----------------------------------|
| Blue   | 16-14 | #10  | <b>1-1623</b>                    |
| Blue   | 16-14 | 1/4" | <b>1-1624</b>                    |
| Blue   | 16-14 | 3/8" | <b>1-1626</b>                    |
| Yellow | 12-10 | #10  | <b>1-1633</b>                    |
| Yellow | 12-10 | 1/4" | <b>1-1634</b>                    |
| Yellow | 12-10 | 3/8" | <b>1-1636</b>                    |



CLEAR-VU™ ring terminals have a longer neck, enabling them to be stacked without the tubing impeding contact between the screw and terminal and providing a flush mount.

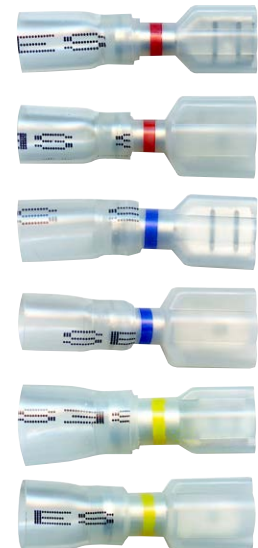
STACK WITHOUT IMPEDING

Heat Required



## CLEAR-VU™ Fully Insulated Slip-On Terminals

| Color  | Gauge | Tab   | Style  | Part No.<br>(25 Pcs.<br>Per Bag) |
|--------|-------|-------|--------|----------------------------------|
| Red    | 22-18 | .250" | Female | <b>1-1675</b>                    |
| Red    | 22-18 | .250" | Male   | <b>1-1676</b>                    |
| Blue   | 16-14 | .250" | Female | <b>1-1671</b>                    |
| Blue   | 16-14 | .250" | Male   | <b>1-1672</b>                    |
| Yellow | 12-10 | .250" | Female | <b>1-1665</b>                    |
| Yellow | 12-10 | .250" | Male   | <b>1-1666</b>                    |



Heat Required

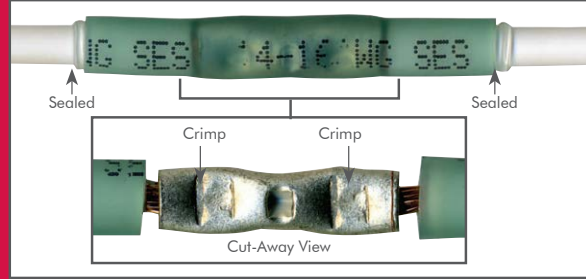


# STA-DRY® CRIMP & SEAL™

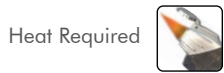
## A Strong Electrical Connection!

50% stronger than 

- Crimp provides mechanical reliability for excellent conductivity
- Seal prevents wire corrosion ... Keeps out moisture and road salts
- RoHS compliant



## Butt Connectors

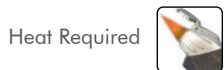
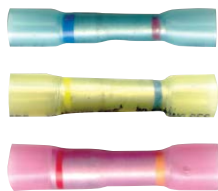


| Color  | Gauge | Part No. (25 Pcs. Per Bag) | Part No. (100 Pcs. Per Bag) | Part No. (500 Pcs. Per Bag) | Part No. (5 Pcs. Per Clamshell) | Part No. (60 Pcs. Per Jar) | Part No. (100 Pcs. Per Jar) |
|--------|-------|----------------------------|-----------------------------|-----------------------------|---------------------------------|----------------------------|-----------------------------|
| Red    | 22-18 | 1-1961                     | 1-1961-100                  | 1-1961-500                  | 1-1961C                         | -                          | 1-1961J                     |
| Blue   | 16-14 | 1-1962                     | 1-1962-100                  | 1-1962-500                  | 1-1962C                         | -                          | 1-1962J                     |
| Yellow | 12-10 | 1-1963                     | 1-1963-100                  | 1-1963-500                  | 1-1963C                         | 1-1963J                    | -                           |
| Red    | 8     | 1-1964                     | -                           | -                           | -                               | -                          | -                           |



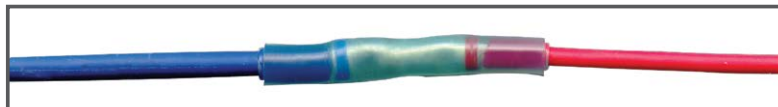
SHAKE JAR

## Step-Down Connectors



| Color  | Gauge | Side 1 ga. | TO | Side 2 ga. | Part No. (10 Pcs. Per Bag) |
|--------|-------|------------|----|------------|----------------------------|
| Blue   | 16-14 | 22-18      |    | 16-14      | 1-1728                     |
| Yellow | 12-10 | 16-14      |    | 12-10      | 1-1727                     |
| Red    | 8     | 12-10      |    | 8          | 1-1726                     |

- Connects 2 different wire gauges
- Each end color coded



### Ring Terminals

| Color  | Gauge | Stud  | Part No.<br>(10 Pcs.<br>Per Bag) | Part No.<br>(25 Pcs.<br>Per Bag) | Part No.<br>(100 Pcs.<br>Per Bag) | Part No.<br>(5 Pcs. Per<br>Clamshell) |
|--------|-------|-------|----------------------------------|----------------------------------|-----------------------------------|---------------------------------------|
| Red    | 22-18 | #6    | -                                | <b>1-1917</b>                    | -                                 | -                                     |
| Red    | 22-18 | #8    | -                                | <b>1-1918</b>                    | -                                 | -                                     |
| Red    | 22-18 | #10   | -                                | <b>1-1919</b>                    | -                                 | <b>1-1919C</b>                        |
| Red    | 22-18 | 1/4"  | -                                | <b>1-1920</b>                    | -                                 | -                                     |
| Blue   | 16-14 | #6    | -                                | <b>1-1921</b>                    | -                                 | -                                     |
| Blue   | 16-14 | #8    | -                                | <b>1-1922</b>                    | -                                 | -                                     |
| Blue   | 16-14 | #10   | -                                | <b>1-1923</b>                    | <b>1-1923-100</b>                 | <b>1-1923C</b>                        |
| Blue   | 16-14 | 1/4"  | -                                | <b>1-1924</b>                    | <b>1-1924-100</b>                 | <b>1-1924C</b>                        |
| Blue   | 16-14 | 5/16" | -                                | <b>1-1925</b>                    | -                                 | -                                     |
| Blue   | 16-14 | 3/8"  | -                                | <b>1-1926</b>                    | <b>1-1926-100</b>                 | <b>1-1926C</b>                        |
| Yellow | 12-10 | #8    | -                                | <b>1-1932</b>                    | -                                 | -                                     |
| Yellow | 12-10 | #10   | -                                | <b>1-1933</b>                    | <b>1-1933-100</b>                 | <b>1-1933C</b>                        |
| Yellow | 12-10 | 1/4"  | -                                | <b>1-1934</b>                    | <b>1-1934-100</b>                 | <b>1-1934C</b>                        |
| Yellow | 12-10 | 5/16" | -                                | <b>1-1935</b>                    | -                                 | -                                     |
| Yellow | 12-10 | 3/8"  | -                                | <b>1-1936</b>                    | <b>1-1936-100</b>                 | -                                     |
| Yellow | 12-10 | 1/2"  | -                                | <b>1-1937</b>                    | -                                 | -                                     |
| Red    | 8     | #10   | <b>1-1945</b>                    | -                                | -                                 | -                                     |
| Red    | 8     | 1/4"  | <b>1-1946</b>                    | -                                | -                                 | -                                     |
| Red    | 8     | 5/16" | <b>1-1947</b>                    | -                                | -                                 | -                                     |
| Red    | 8     | 3/8"  | <b>1-1948</b>                    | -                                | -                                 | -                                     |



Heat Required



### Spade Terminals

| Color  | Gauge | Stud | Part No.<br>(25 Pcs.<br>Per Bag) |
|--------|-------|------|----------------------------------|
| Red    | 22-18 | #8   | <b>1-1939</b>                    |
| Blue   | 16-14 | #6   | <b>1-1940</b>                    |
| Blue   | 16-14 | #8   | <b>1-1941</b>                    |
| Blue   | 16-14 | #10  | <b>1-1942</b>                    |
| Yellow | 12-10 | #10  | <b>1-1944</b>                    |

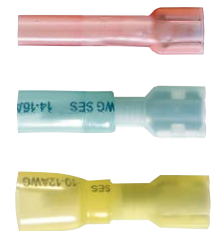


Heat Required



### Fully Insulated Slip-On Terminals

| Color  | Gauge | Tab   | Style  | Part No.<br>(25 Pcs.<br>Per Bag) | Part No.<br>(100 Pcs.<br>Per Bag) | Part No.<br>(5 Pcs. Per<br>Clamshell) |
|--------|-------|-------|--------|----------------------------------|-----------------------------------|---------------------------------------|
| Red    | 22-18 | .250" | Female | <b>1-1975</b>                    | -                                 | <b>1-1975C</b>                        |
| Red    | 22-18 | .250" | Male   | <b>1-1976</b>                    | -                                 | <b>1-1976C</b>                        |
| Blue   | 16-14 | .250" | Female | <b>1-1971</b>                    | <b>1-1971-100</b>                 | <b>1-1971C</b>                        |
| Blue   | 16-14 | .250" | Male   | <b>1-1972</b>                    | <b>1-1972-100</b>                 | <b>1-1972C</b>                        |
| Yellow | 12-10 | .250" | Female | <b>1-1965</b>                    | <b>1-1965-100</b>                 | <b>1-1965C</b>                        |
| Yellow | 12-10 | .250" | Male   | <b>1-1966</b>                    | <b>1-1966-100</b>                 | -                                     |



Heat Required





## Slip-On Terminals



Heat Required



| Color  | Gauge | Tab   | Style  | Part No.<br>(25 Pcs. Per Bag) |
|--------|-------|-------|--------|-------------------------------|
| Red    | 22-18 | .110" | Female | <b>1-1950</b>                 |
| Red    | 22-18 | .250" | Female | <b>1-1951</b>                 |
| Red    | 22-18 | .250" | Male   | <b>1-1952</b>                 |
| Blue   | 16-14 | .187" | Female | <b>1-1953</b>                 |
| Blue   | 16-14 | .250" | Female | <b>1-1954</b>                 |
| Blue   | 16-14 | .250" | Male   | <b>1-1955</b>                 |
| Yellow | 12-10 | .250" | Female | <b>1-1956</b>                 |
| Yellow | 12-10 | .250" | Male   | <b>1-1957</b>                 |

## 4-Wire Connectors



Heat Required



| Color  | Gauge | Part No.<br>(25 Pcs. Per Bag) |
|--------|-------|-------------------------------|
| Blue   | 16-14 | <b>1-2241</b>                 |
| Yellow | 12-10 | <b>1-2242</b>                 |

## Bullet Connectors



Heat Required



| Color | Gauge | Diameter | Style  | Part No.<br>(25 Pcs. Per Bag) | Part No.<br>(100 Pcs. Per Bag) | Part No.<br>(5 Pcs. Per Clamshell) |
|-------|-------|----------|--------|-------------------------------|--------------------------------|------------------------------------|
| Red   | 22-18 | .157"    | Male   | <b>1-1982</b>                 | -                              | -                                  |
| Red   | 22-18 | .180"    | Male   | <b>1-2268</b>                 | -                              | -                                  |
| Red   | 22-18 | .157"    | Female | <b>1-1981</b>                 | -                              | -                                  |
| Red   | 22-18 | .180"    | Female | <b>1-2266</b>                 | -                              | -                                  |
| Blue  | 16-14 | .157"    | Male   | <b>1-1984</b>                 | -                              | -                                  |
| Blue  | 16-14 | .180"    | Male   | <b>1-2269</b>                 | <b>1-2269-100</b>              | <b>1-2269C</b>                     |
| Blue  | 16-14 | .157"    | Female | <b>1-1983</b>                 | -                              | -                                  |
| Blue  | 16-14 | .180"    | Female | <b>1-2267</b>                 | <b>1-2267-100</b>              | <b>1-2267C</b>                     |

## STA-DRY® CRIMP & SEAL™ Kits

| Connector Style | Wire Gauge & Size | Part No.      | 1-1905 Mini Kit | 1-1903 Mini Kit | 1-1900 Kit |
|-----------------|-------------------|---------------|-----------------|-----------------|------------|
| Ring            | 22-18, #10        | <b>1-1919</b> | -               | 4               | 5          |
| Ring            | 16-14, #10        | <b>1-1923</b> | -               | 4               | 5          |
| Ring            | 16-14, 1/4"       | <b>1-1924</b> | -               | 4               | 5          |
| Ring            | 16-14, 3/8"       | <b>1-1926</b> | -               | 4               | 5          |
| Ring            | 12-10, #10        | <b>1-1933</b> | -               | 4               | 5          |
| Ring            | 12-10, 1/4"       | <b>1-1934</b> | -               | 4               | 5          |
| Butt connector  | 22-18             | <b>1-1961</b> | 10              | 5               | 20         |
| Butt connector  | 16-14             | <b>1-1962</b> | 10              | 10              | 30         |
| Butt connector  | 12-10             | <b>1-1963</b> | 10              | 5               | 20         |
| Butt connector  | 24-22             | <b>1-1967</b> | -               | -               | 1          |
| Female slip-on  | 16-14, .250"      | <b>1-1971</b> | -               | 4               | 5          |
| Male slip-on    | 16-14, .250"      | <b>1-1972</b> | -               | 4               | 5          |
| Female slip-on  | 22-18, .250"      | <b>1-1975</b> | -               | 4               | -          |
| Mini-jet torch  |                   | <b>4-054</b>  | 1               | -               | -          |

**1-1905**  
 4 Part #'s  
 30 Pieces  
 1 Mini-Torch  
 7 1/2 in. x 3 3/4 in.



**1-1903**  
 12 Part #'s  
 56 Pieces  
 7 1/2 in. x 3 3/4 in.



**1-1900**  
 12 Part #'s  
 115 Pieces  
 11 in. x 6 3/4 in.



## MOBILE WIRE REPAIR KIT STA-DRY® CRIMP & SEAL™

| Part No.       | Description                                   |
|----------------|---|
| <b>80-1000</b> | STA-DRY® CRIMP & SEAL™ mobile wire repair kit |

### 80-1000 Contents:

| Part No.      | Description   |
|---------------|---|
| <b>1-1961</b> | 22-18 ga., red, 25 pcs.   |
| <b>1-1962</b> | 16-14 ga., blue, 25 pcs.  |
| <b>1-1963</b> | 12-10 ga., yellow, 25 pcs.  |
| <b>1-1919</b> | 22-18 ga., #10, red, 25 pcs.                                      |
| <b>1-1923</b> | 16-14 ga., #10, blue, 25 pcs.                                     |
| <b>1-1933</b> | 12-10 ga., #10, yellow, 25 pcs.                                   |
| <b>1-1924</b> | 16-14 ga., 1/4", blue, 25 pcs.                                    |
| <b>1-1926</b> | 16-14 ga., 3/8", blue, 25 pcs.                                    |
| <b>1-1934</b> | 12-10 ga., 1/4", yellow, 25 pcs.                                  |
| <b>1-2269</b> | 16-14 ga., .180", male, blue, 25 pcs.                             |
| <b>1-2267</b> | 16-14 ga., .180", female, blue, 25 pcs.                           |
| <b>1-1971</b> | 16-14 ga., .250", female, blue, 25 pcs.                           |
| <b>1-1972</b> | 16-14 ga., .250", male, blue, 25 pcs.                             |
| <b>1-2268</b> | 22-18 ga., .180", male, red, 25 pcs.                              |
| <b>1-2266</b> | 22-18 ga., .180", female, red, 25 pcs.                            |
| <b>1-1939</b> | 22-18 ga., #8, red, 25 pcs.                                       |
| <b>1-1942</b> | 16-14 ga., #10, blue, 25 pcs.                                     |
| <b>1-1944</b> | 12-10 ga., #10, yellow, 25 pcs.                                   |
| <b>1-1728</b> | 22-18 to 16-14 ga., blue, 10 pcs.                                 |
| <b>1-1727</b> | 16-14 to 12-10 ga., yellow, 10 pcs.                               |
| <b>4-214</b>  | Wire stripping and crimping tool                                  |
| <b>6-300</b>  | 20-16 ga., STA-DRY® flexible dual wall heat shrink tubing, 6 pcs. |
| <b>6-301</b>  | 16-14 ga., STA-DRY® flexible dual wall heat shrink tubing, 6 pcs. |
| —             | Cable ties - 8" L 50lb. black, 25 pcs.                            |
| —             | Butane torch  |

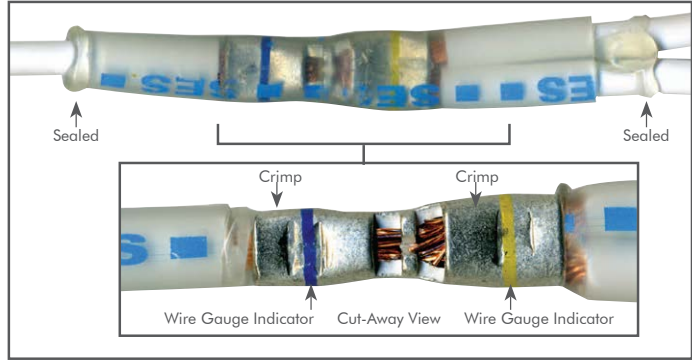


**Torch and Multi-Purpose Crimp Tool Included**

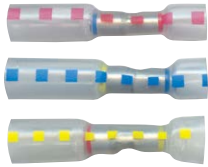


# STA-DRY® MULTIPLE WIRE CONNECTORS

- Window ensures the wire is stripped to the proper length and is fully seated to the wire stop
- Allows for "daisy chain" by joining 3 wires in-line
- Active adhesive seals between multiple wires to prevent corrosion
- Tapered barrel has a uniform copper wall, making it easy to crimp with a strong termination
- Color-coded stripes identify wire gauge size to use and where to crimp the connector
- Crimp provides mechanical reliability for excellent conductivity
- RoHS compliant



## Multiple Wire Connectors



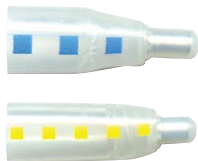
Heat Required



| Color  | Gauge | Tubing Color | Part No. (10 Pcs. Per Bag) | Part No. (100 Pcs. Per Bag) | Part No. (25 Pcs. Per Jar) |
|--------|-------|--------------|----------------------------|-----------------------------|----------------------------|
| Red    | 22-18 | Clear/Red    | <b>1-1725</b>              | <b>1-1725-100</b>           | -                          |
| Blue   | 16-14 | Clear/Blue   | <b>1-1724</b>              | <b>1-1724-100</b>           | <b>1-1724J</b>             |
| Yellow | 12-10 | Clear/Yellow | <b>1-1723</b>              | <b>1-1723-100</b>           | -                          |



## Closed-End Connectors



Heat Required




| Color  | Gauge | Tubing Color | Part No. (10 Pcs. Per Bag) |
|--------|-------|--------------|----------------------------|
| Blue   | 22-14 | Clear/Blue   | <b>1-1730</b>              |
| Yellow | 18-10 | Clear/Yellow | <b>1-1729</b>              |





# PVC TERMINALS


## STUD HOLE CHART


Actual-Size Stud Hole Gauge


  
#6

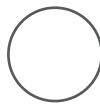
  
#8

  
#10

  
1/4"

  
5/16"

  
3/8"

  
1/2"

| Stud Size       | 6      | 8     | 10    | 1/4   | 5/16  | 3/8   | 1/2    |
|-----------------|--------|-------|-------|-------|-------|-------|--------|
| Hole Diam. - in | .143   | .169  | .196  | .262  | .323  | .388  | .516   |
| Hole Diam. - mm | 3.3632 | 4.292 | 4.978 | 6.655 | 8.204 | 9.855 | 13.106 |

### Butt Connectors - PVC

| Color  | Gauge | Part No.<br>(25 Pcs.<br>Per Bag) | Part No.<br>(100 Pcs.<br>Per Bag) |
|--------|-------|----------------------------------|-----------------------------------|
| Red    | 22-18 | -                                | <b>1-51006</b>                    |
| Blue   | 16-14 | <b>1-51104</b>                   | <b>1-51106</b>                    |
| Yellow | 12-10 | <b>1-51204</b>                   | <b>1-51206</b>                    |
| Blue   | 6     | <b>1-51304</b>                   | -                                 |

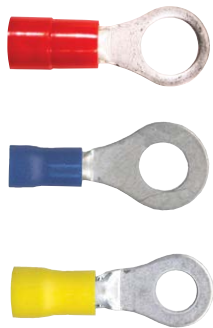


### Hook Terminal - PVC

| Color | Gauge | Stud | Part No.<br>(25 Pcs.<br>Per Bag) |
|-------|-------|------|----------------------------------|
| Blue  | 16-14 | #10  | <b>1-52424</b>                   |



## Ring Terminals - PVC



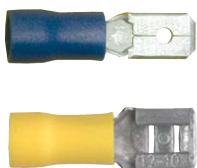
| Color  | Gauge | Stud  | Part No.<br>(25 Pcs.<br>Per Bag) | Part No.<br>(50 Pcs.<br>Per Bag) | Part No.<br>(100 Pcs.<br>Per Bag) |
|--------|-------|-------|----------------------------------|----------------------------------|-----------------------------------|
| Red    | 22-18 | #10   | -                                | -                                | <b>1-52026</b>                    |
| Red    | 22-18 | 1/4"  | <b>1-52034</b>                   | -                                | -                                 |
| Red    | 22-18 | 5/16" | <b>1-52044</b>                   | -                                | -                                 |
| Red    | 22-18 | 3/8"  | <b>1-52054</b>                   | -                                | -                                 |
| Blue   | 16-14 | #8    | <b>1-52114</b>                   | -                                | <b>1-52116</b>                    |
| Blue   | 16-14 | #10   | <b>1-52124</b>                   | -                                | <b>1-52126</b>                    |
| Blue   | 16-14 | 1/4"  | <b>1-52134</b>                   | -                                | <b>1-52136</b>                    |
| Blue   | 16-14 | 5/16" | <b>1-52144</b>                   | -                                | <b>1-52146</b>                    |
| Blue   | 16-14 | 3/8"  | <b>1-52154</b>                   | -                                | <b>1-52156</b>                    |
| Yellow | 12-10 | #8    | <b>1-52214</b>                   | -                                | <b>1-52216</b>                    |
| Yellow | 12-10 | #10   | <b>1-52224</b>                   | -                                | <b>1-52226</b>                    |
| Yellow | 12-10 | 1/4"  | <b>1-52234</b>                   | -                                | <b>1-52236</b>                    |
| Yellow | 12-10 | 5/16" | <b>1-52244</b>                   | -                                | <b>1-52246</b>                    |
| Yellow | 12-10 | 3/8"  | <b>1-52254</b>                   | -                                | <b>1-52256</b>                    |
| Yellow | 12-10 | 1/2"  | -                                | <b>1-52265</b>                   | -                                 |
| Blue   | 6     | 1/4"  | <b>1-52334</b>                   | -                                | -                                 |
| Blue   | 6     | 3/8"  | <b>1-52354</b>                   | -                                | -                                 |
| Blue   | 6     | 1/2"  | <b>1-52364</b>                   | -                                | -                                 |

## Spade Terminals - PVC



| Color  | Gauge | Stud | Part No.<br>(25 Pcs.<br>Per Bag) |
|--------|-------|------|----------------------------------|
| Red    | 22-18 | #8   | <b>1-54014</b>                   |
| Red    | 22-18 | #10  | <b>1-54024</b>                   |
| Blue   | 16-14 | #6   | <b>1-54104</b>                   |
| Blue   | 16-14 | #8   | <b>1-54114</b>                   |
| Blue   | 16-14 | #10  | <b>1-54124</b>                   |
| Yellow | 12-10 | #10  | <b>1-54224</b>                   |
| Yellow | 12-10 | 1/4" | <b>1-54234</b>                   |

## Slip-On Terminals - PVC



| Color  | Gauge | Tab   | Style  | Part No.<br>(25 Pcs.<br>Per Bag) | Part No.<br>(50 Pcs.<br>Per Bag) | Part No.<br>(100 Pcs.<br>Per Bag) |
|--------|-------|-------|--------|----------------------------------|----------------------------------|-----------------------------------|
| Blue   | 16-14 | .250" | Male   | <b>1-53104</b>                   | <b>1-53105</b>                   | -                                 |
| Blue   | 16-14 | .250" | Female | <b>1-53114</b>                   | <b>1-53115</b>                   | -                                 |
| Blue   | 16-14 | .187" | Female | <b>1-53134</b>                   | -                                | -                                 |
| Yellow | 12-10 | .250" | Male   | <b>1-53204</b>                   | -                                | <b>1-53206</b>                    |
| Yellow | 12-10 | .250" | Female | <b>1-53214</b>                   | -                                | <b>1-53216</b>                    |

## Fully Insulated Slip-On Terminals - PVC

| Color  | Gauge | Tab   | Style  | Part No.<br>(25 Pcs.<br>Per Bag) | Part No.<br>(50 Pcs.<br>Per Bag) |
|--------|-------|-------|--------|----------------------------------|----------------------------------|
| Red    | 22-18 | .250" | Male   | <b>1-53304</b>                   | -                                |
| Red    | 22-18 | .250" | Female | <b>1-53314</b>                   | -                                |
| Blue   | 16-14 | .250" | Male   | <b>1-53404</b>                   | -                                |
| Blue   | 16-14 | .250" | Female | <b>1-53414</b>                   | -                                |
| Yellow | 12-10 | .250" | Male   | <b>1-53504</b>                   | <b>1-53505</b>                   |
| Yellow | 12-10 | .250" | Female | <b>1-53514</b>                   | <b>1-53515</b>                   |



## Bullet Connectors - PVC

| Color | Gauge | Diameter | Style  | Part No.<br>(25 Pcs.<br>Per Bag) | Part No.<br>(50 Pcs.<br>Per Bag) | Part No.<br>(100 Pcs.<br>Per Bag) |
|-------|-------|----------|--------|----------------------------------|----------------------------------|-----------------------------------|
| Blue  | 16-14 | .157"    | Male   | <b>1-55104</b>                   | -                                | <b>1-55106</b>                    |
| Blue  | 16-14 | .157"    | Female | <b>1-55114</b>                   | -                                | <b>1-55116</b>                    |
| Blue  | 16-14 | .188"    | Male   | <b>1-55124</b>                   | <b>1-55125</b>                   | -                                 |
| Blue  | 16-14 | .188"    | Female | <b>1-55134</b>                   | <b>1-55135</b>                   | -                                 |



## Quick Splice - PVC

| Color  | Gauge | Style   | Part No.<br>(5 Pcs.<br>Per Bag) | Part No.<br>(15 Pcs.<br>Per Bag) | Part No.<br>(25 Pcs.<br>Per Bag) | Part No.<br>(100 Pcs.<br>Per Bag) |
|--------|-------|---------|---------------------------------|----------------------------------|----------------------------------|-----------------------------------|
| Red    | 22-18 | In-line | <b>1-56001</b>                  | <b>1-56003</b>                   | -                                | -                                 |
| Red    | 22-18 | T-tap   | <b>1-56011</b>                  | <b>1-56013</b>                   | -                                | -                                 |
| Blue   | 16-14 | In-line | <b>1-56101</b>                  | -                                | <b>1-56104</b>                   | <b>1-56106</b>                    |
| Blue   | 16-14 | T-tap   | <b>1-56111</b>                  | -                                | <b>1-56114</b>                   | <b>1-56116</b>                    |
| Yellow | 12-10 | In-line | <b>1-56201</b>                  | <b>1-56203</b>                   | -                                | -                                 |
| Yellow | 12-10 | T-tap   | <b>1-56211</b>                  | <b>1-56213</b>                   | -                                | -                                 |





## Wire Terminal Kit - PVC



1-2200

| Part No.      | Description           |
|---------------|-----------------------|
| <b>1-2200</b> | PVC wire terminal kit |

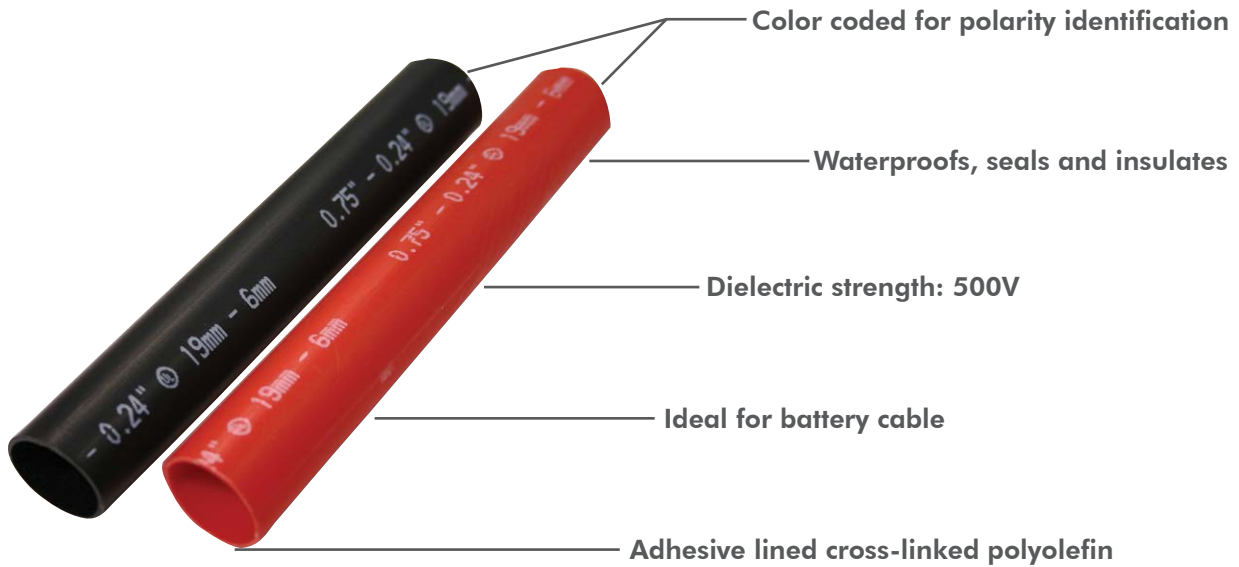
### 1-2200 Contents:

| Equivalent Replacement Part No. | Description  | Qty. |
|---------------------------------|--|------|
| <b>1-51006*</b>                 | Butt connector - 22-18 ga., insulated PVC                        | 50   |
| <b>1-51106*</b>                 | Butt connector - 16-14 ga., insulated PVC                        | 50   |
| <b>1-51206*</b>                 | Butt connector - 12-10 ga., insulated PVC                        | 50   |
| <b>1-52124</b>                  | Ring terminal - 16-14 ga., #10, insulated PVC                    | 25   |
| <b>1-52134</b>                  | Ring terminal - 16-14 ga., 1/4", insulated PVC                   | 25   |
| <b>1-52154</b>                  | Ring terminal - 16-14 ga., 3/8", insulated PVC                   | 25   |
| <b>1-52224</b>                  | Ring terminal - 12-10 ga., #10, insulated PVC                    | 25   |
| <b>1-52234</b>                  | Ring terminal - 12-10 ga., 1/4", insulated PVC                   | 25   |
| <b>1-52254</b>                  | Ring terminal - 12-10 ga., 3/8", insulated PVC                   | 25   |
| <b>1-53104</b>                  | Slip-on terminal - 16-14 ga., .250 male, insulated PVC           | 25   |
| <b>1-53114</b>                  | Slip-on terminal - 16-14 ga., .250 female, insulated PVC         | 25   |
| <b>1-53404</b>                  | Slip-on terminal - 16-14 ga., .250", male, fully insulated PVC   | 25   |
| <b>1-53414</b>                  | Slip-on terminal - 16-14 ga., .250", female, fully insulated PVC | 25   |
| <b>1-54124</b>                  | Spade terminal - 16-14 ga., #10, PVC                             | 25   |
| <b>1-54224</b>                  | Spade terminal - 12-10 ga., #10, PVC                             | 25   |
| <b>1-55124</b>                  | Bullet connector - 16-14 ga., .188", male, insulated PVC         | 25   |
| <b>1-55134</b>                  | Bullet connector - 16-14 ga., .188", female, insulated PVC       | 25   |
| <b>1-56104</b>                  | Quick splice - 16-14 ga., inline, PVC                            | 25   |
| <b>4-214</b>                    | Shop tool - wire stripping and crimping tool                     | 1    |
| <b>8-33087*</b>                 | Cable tie - 7 1/2" blade, nylon, 50lb.                           | 20   |

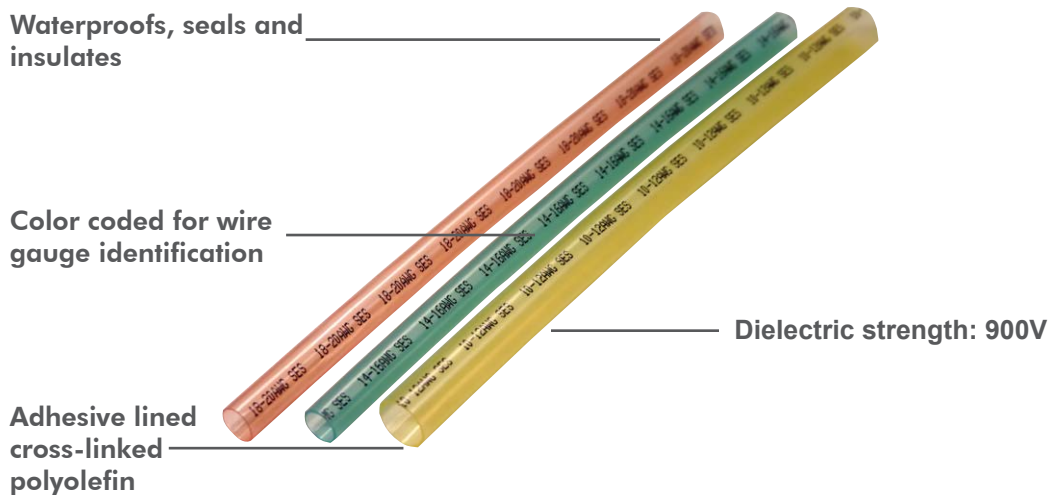
\*Replacement part number quantities listed break standard pack. If part number is ordered outside of kit separately, additional quantities will be received.

# HEAT SHRINK TUBING

## STA-DRY® Heavy Duty Dual Wall



## STA-DRY® CLEAR-VU™ Dual Wall



# HEAT SHRINK TUBING



Phillips STA-DRY® heat shrink tubing provides the best protection for connections subject to extreme conditions. Heat shrink tubing provides outstanding defense from calcium and magnesium chlorides, heat, shock, cold, vibration, moisture and other critical environmental conditions.

Heat shrink tubing can extend the life of terminals indefinitely and assures reliable electrical performance. When heated, the inner wall of adhesive within Dual Wall tubing conforms to the size and shape of the underlying materials making a fast, easy, semi-permanent seal with natural strain-relief properties.

**DO IT ONCE. DO IT RIGHT.**

|                              | Heavy Duty Dual Wall            | CLEAR-VU™ Hi-Flow               | CLEAR-VU™ Dual Wall             | Flexible Dual Wall              | Single Wall                     |
|------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| <b>Material</b>              | Cross-Linked Polyolefin         | Cross-Linked Polyolefin         | Cross-Linked Polyolefin         | Cross-Linked Polyolefin         | Cross-Linked Polyolefin         |
| <b>Shrink Ratio</b>          | 3:1                             | 4:1                             | 3:1                             | 3:1                             | 2:1                             |
| <b>Colors</b>                | Red and Black                   | Clear                           | Translucent Red, Blue, Yellow   | Red, Black and Clear            | Red, Blue, Yellow               |
| <b>Meltable Sealant</b>      | Yes                             | Yes                             | Yes                             | Yes                             | No                              |
| <b>UL</b>                    | 486 D                           | No                              | E157227                         | E157227                         | E35506                          |
| <b>CSA</b>                   | C622.2                          | No                              | No                              | No                              | LR31929                         |
| <b>Military Spec.</b>        | MIL-DTL-23053/15, Class 2       | No                              | MIL-DTL-23053/4                 | MIL-DTL-23053/4 Class 3         | MIL-DTL-23053/5, Class 1        |
| <b>Flame Retardant</b>       | Yes                             | No                              | No                              | Red and Black                   | Yes                             |
| <b>Operating Temperature</b> | -67°F To 230°F (-55°C To 110°C) | -67°F To 230°F (-55°C To 110°C) | -67°F To 230°F (-55°C To 110°C) | -67°F To 230°F (-55°C To 110°C) | -67°F To 275°F (-55°C To 135°C) |

## STA-DRY® Heavy Duty Dual Wall



Heat Required



- Waterproofs, seals and insulates
- Adhesive lined cross-linked polyolefin
- Color-coded for polarity identification
- Dielectric strength: 500V
- "C" in part number denotes clamshell package
- Ideal for battery cable

|       | Color | Wire Gauge* | Expanded ID | After Recovery | Qty.  | Length | Part No.      |     |
|-------|-------|-------------|-------------|----------------|-------|--------|---------------|-----|
| RED   | Red   | 8-6         | .500"       | .0167"         | 6     | 6"     | <b>6-210</b>  | RED |
|       | Red   | 8-6         | .500"       | .0167"         | 6     | 1.5"   | <b>6-403</b>  |     |
|       | Red   | 1-2/0       | .750"       | .250"          | 6     | 6"     | <b>6-211</b>  |     |
|       | Red   | 1-2/0       | .750"       | .250"          | 1     | 6"     | <b>6-211C</b> |     |
|       | Red   | 1-2/0       | .750"       | .250"          | 6     | 1.5"   | <b>6-405</b>  |     |
|       | Red   | 1/0-4/0     | 1.100"      | .367"          | 6     | 6"     | <b>6-207</b>  |     |
|       | Red   | 1/0-4/0     | 1.100"      | .367"          | 6     | 2"     | <b>6-401</b>  |     |
|       | Red   | 1/0-4/0     | 1.100"      | .367"          | 1     | 48"    | <b>6-209</b>  |     |
|       | BLACK | Black       | 12-10       | .400"          | .150" | 6      | 6"            |     |
| Black |       | 8-6         | .500"       | .167"          | 6     | 6"     | <b>6-204</b>  |     |
| Black |       | 8-6         | .500"       | .167"          | 6     | 1.5"   | <b>6-402</b>  |     |
| Black |       | 1-2/0       | .750"       | .250"          | 6     | 6"     | <b>6-212</b>  |     |
| Black |       | 1-2/0       | .750"       | .250"          | 1     | 6"     | <b>6-212C</b> |     |
| Black |       | 1-2/0       | .750"       | .250"          | 6     | 1.5"   | <b>6-404</b>  |     |
| Black |       | 1/0-4/0     | 1.100"      | .367"          | 6     | 6"     | <b>6-206</b>  |     |
| Black |       | 1/0-4/0     | 1.100"      | .367"          | 6     | 2"     | <b>6-400</b>  |     |
| Black |       | 1/0-4/0     | 1.100"      | .367"          | 1     | 48"    | <b>6-208</b>  |     |

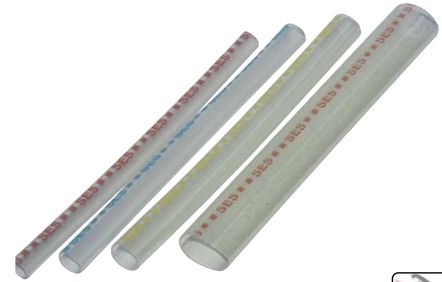
\*Recommended wire gauge

## STA-DRY® CLEAR-VU™ Hi-Adhesive Flow Tubing

| Color  | Wire Gauge* | Expanded ID | After Recovery | Qty. | Length | Part No.     |
|--------|-------------|-------------|----------------|------|--------|--------------|
| Red    | 20-10       | 0.30"       | 0.06"          | 6    | 6"     | <b>6-351</b> |
| Blue   | 16-8        | 0.35"       | 0.08"          | 6    | 6"     | <b>6-353</b> |
| Yellow | 14-4        | 0.45"       | 0.105"         | 6    | 6"     | <b>6-355</b> |
| Orange | 8-2/0       | 0.70"       | 0.175"         | 6    | 6"     | <b>6-357</b> |

\* Recommended wire gauge

- Waterproofs, seals and insulates
- Adhesive-lined, cross-linked polyolefin
- Active adhesive seals between multiple wires to prevent corrosion
- Dielectric strength: 500V



Heat Required



## STA-DRY® Flexible Dual Wall

|              | Color | Wire Gauge* | Expanded ID | After Recovery | Qty. | Length | Part No.     |              |
|--------------|-------|-------------|-------------|----------------|------|--------|--------------|--------------|
| <b>RED</b>   | Red   | 1-2/0       | 0.750"      | 0.250"         | 6    | 6"     | <b>6-306</b> | <b>RED</b>   |
|              | Red   | 1/0-4/0     | 1.000"      | 0.320"         | 6    | 6"     | <b>6-308</b> |              |
| <b>BLACK</b> | Black | 22-18       | 0.125"      | 0.040"         | 6    | 6"     | <b>6-309</b> | <b>BLACK</b> |
|              | Black | 20-16       | 0.187"      | 0.062"         | 6    | 6"     | <b>6-300</b> |              |
|              | Black | 16-14       | 0.250"      | 0.080"         | 6    | 6"     | <b>6-301</b> |              |
|              | Black | 12-10       | 0.375"      | 0.120"         | 6    | 6"     | <b>6-302</b> |              |
|              | Black | 8-6         | 0.500"      | 0.160"         | 6    | 6"     | <b>6-304</b> |              |
|              | Black | 1-2/0       | 0.750"      | 0.250"         | 6    | 6"     | <b>6-305</b> |              |
|              | Black | 1/0-4/0     | 1.000"      | 0.320"         | 6    | 6"     | <b>6-307</b> |              |
| <b>Clear</b> | Clear | 22-18       | .125"       | .040"          | 6    | 6"     | <b>6-310</b> | <b>Clear</b> |
|              | Clear | 20-16       | .187"       | .062"          | 6    | 6"     | <b>6-311</b> |              |
|              | Clear | 16-14       | .250"       | .080"          | 6    | 6"     | <b>6-312</b> |              |
|              | Clear | 12-10       | .375"       | .120"          | 6    | 6"     | <b>6-313</b> |              |
|              | Clear | 8-6         | .500"       | .160"          | 6    | 6"     | <b>6-314</b> |              |
|              | Clear | 4-2/0       | .750"       | .250"          | 6    | 6"     | <b>6-315</b> |              |

\*Recommended wire gauge

- Waterproofs, seals and insulates
- Adhesive lined cross-linked polyolefin
- Color-coded for polarity identification
- Dielectric strength: 700V



Heat Required

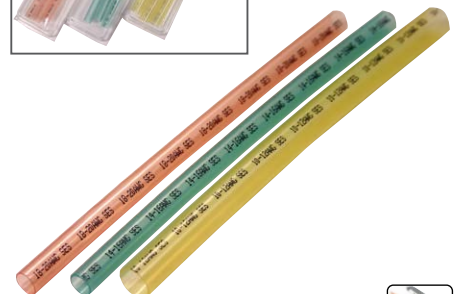


## STA-DRY® CLEAR-VU™ Dual Wall

|               | Color  | Wire Gauge* | Expanded ID | After Recovery | Qty. | Length | Part No.      |               |
|---------------|--------|-------------|-------------|----------------|------|--------|---------------|---------------|
| <b>RED</b>    | Red    | 22-18       | 0.245"      | 0.045"         | 6    | 6"     | <b>6-103</b>  | <b>RED</b>    |
|               | Red    | 22-18       | 0.245"      | 0.045"         | 3    | 6"     | <b>6-103C</b> |               |
| <b>BLUE</b>   | Blue   | 16-14       | 0.245"      | 0.080"         | 6    | 6"     | <b>6-105</b>  | <b>BLUE</b>   |
|               | Blue   | 16-14       | 0.245"      | 0.080"         | 3    | 6"     | <b>6-105C</b> |               |
| <b>Yellow</b> | Yellow | 12-10       | 0.360"      | 0.100"         | 6    | 6"     | <b>6-107</b>  | <b>Yellow</b> |
|               | Yellow | 12-10       | 0.360"      | 0.100"         | 3    | 6"     | <b>6-107C</b> |               |

\*Recommended wire gauge

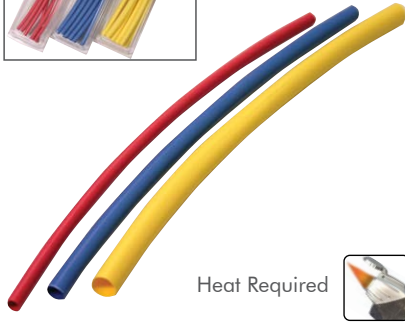
- Waterproof seal and insulates
- Adhesive lined cross-linked polyolefin
- Color-coded for wire gauge identification
- "C" in part number denotes clamshell package
- Dielectric Strength: 900V



Heat Required



## Single Wall



|        | Color  | Wire Gauge* | Expanded ID | After Recovery | Qty. | Length | Part No. |        |
|--------|--------|-------------|-------------|----------------|------|--------|----------|--------|
| RED    | Red    | 22-18       | .1875"      | 0.093"         | 6    | 6"     | 6-102    | RED    |
|        | Red    | 22-18       | .1875"      | 0.093"         | 6    | 6"     | 6-102C   |        |
| BLUE   | Blue   | 16-14       | .2500"      | 0.125"         | 6    | 6"     | 6-104    | BLUE   |
|        | Blue   | 16-14       | .2500"      | 0.125"         | 6    | 6"     | 6-104C   |        |
| Yellow | Yellow | 12-10       | .375"       | 0.187"         | 6    | 6"     | 6-106    | Yellow |
|        | Yellow | 12-10       | .375"       | 0.187"         | 6    | 6"     | 6-106C   |        |

\*Recommended wire gauge

- Insulates
- Flexible polyolefin
- Color-coded for wire gauge identification
- "C" in part number denotes clamshell package
- Dielectric strength: 900 Volts

## STA-DRY® Heat Shrink Tubing Kits



### STA-DRY® Flexible Dual Wall Part # 6-1800

12 Part #'s  
78 Pieces  
11 in. x 6 3/4 in.

**PRIMARY WIRE APPLICATIONS**



### STA-DRY® Flexible Dual Wall Part # 6-1801

12 Part #'s  
150 Pieces  
Fits in Standard Cabinets

**PRIMARY WIRE APPLICATIONS**

| Part No. | Type                        | Wire Gauge | 6-1800 Mini Kit | 6-1801 Drawer |
|----------|-----------------------------|------------|-----------------|---------------|
| 6-300    | STA-DRY® flexible dual wall | 20-16 AWG  | 10              | 15            |
| 6-301    | STA-DRY® flexible dual wall | 16-14 AWG  | 10              | 15            |
| 6-302    | STA-DRY® flexible dual wall | 12-10 AWG  | 5               | 10            |
| 6-304    | STA-DRY® flexible dual wall | 8-6 AWG    | 2               | 10            |
| 6-305    | STA-DRY® flexible dual wall | 1-2/0 AWG  | 2               | 10            |
| 6-309    | STA-DRY® flexible dual wall | 22-18 AWG  | 10              | 15            |
| 6-310    | STA-DRY® flexible dual wall | 22-18 AWG  | 10              | 15            |
| 6-311    | STA-DRY® flexible dual wall | 20-16 AWG  | 10              | 15            |
| 6-312    | STA-DRY® flexible dual wall | 16-14 AWG  | 10              | 15            |
| 6-313    | STA-DRY® flexible dual wall | 12-10 AWG  | 5               | 10            |
| 6-314    | STA-DRY® flexible dual wall | 8-6 AWG    | 2               | 10            |
| 6-315    | STA-DRY® flexible dual wall | 4-2/0 AWG  | 2               | 10            |

## Self-Sealing Shrink Tape

| Part No.     | Description |
|--------------|-------------|
| <b>6-521</b> | 1" x 30'    |

- For watertight connections that cannot use heat
- Tape seals to itself and creates a tight, yet flexible waterproof bond
- Can be applied in any weather condition
- Withstands hard cleaning chemicals and steam
- Conforms to the contours of oddly shaped objects
- Seals to rubber, plastics and metals
- Rated from -40°F to 212°F (-40°C to 100°C)



## Self-Sealing Pads

| Part No.     | Description      | Qty. |
|--------------|------------------|------|
| <b>6-532</b> | 2.5" x 2.5" pads | 25   |

- Designed for moisture protection on all electrical connections, such as battery terminals
- 45 mil thickness provides outstanding corrosion, chemical and UV protection
- Compatible with plastic, rubber and metal
- Rated from 0°F to 220°F (-18°C to 105°C)
- Rated to 600V



## Torches

| Part No.     | Description        |
|--------------|--------------------|
| <b>4-054</b> | Mini-jet torch     |
| <b>4-057</b> | Professional torch |
| <b>4-058</b> | Heavy duty torch   |

- Refillable butane tanks from 30 to 220 minute capacity depending on selected torch (butane not included)
- All torches meet Consumer Product Safety Commission 16CFR Part 1212 - Safety Standard for Multi-Purpose Lighter (Child Resistant)
- See page 177 and 178 for more details regarding each individual torch



**Torches for any job big or small**



# CABLE/WIRE SUPPORT & ACCESSORIES

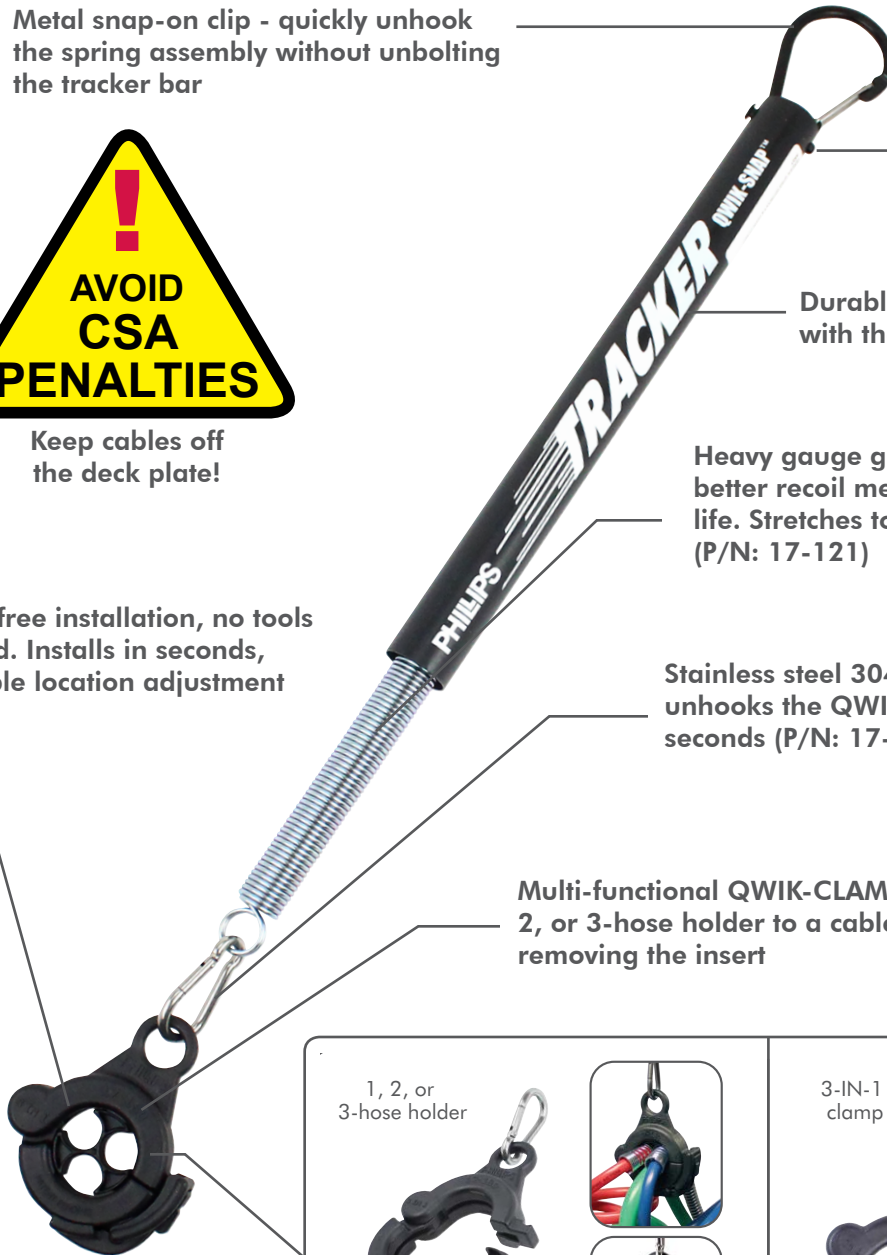
## Tracker Spring Kit with QWIK-CLAMP™

Metal snap-on clip - quickly unhook the spring assembly without unbolting the tracker bar



Keep cables off the deck plate!

Hassle-free installation, no tools required. Installs in seconds, and cable location adjustment is easy



Pin keeps the sleeve at the top of the spring

Durable PVC sleeve tubing stays with the top of the spring

Heavy gauge galvanized wire (.10) offers better recoil memory and longer spring life. Stretches to 35" at 30 lbs. of pull force (P/N: 17-121)

Stainless steel 304 snap-on clip unhooks the QWIK-CLAMP™ in seconds (P/N: 17-173)

Multi-functional QWIK-CLAMP™ converts from a 1, 2, or 3-hose holder to a cable clamp for a 3-IN-1 by removing the insert

1, 2, or 3-hose holder



17-180

Hose Holder: Supports straight ABS electrical cables and 3/8" rubber air hoses, or coiled ABS electrical cables and nylon air lines with longer leads



3-IN-1 clamp



17-181

3-IN-1: Clamp will support Phillips 3-IN-1s or assemblies approximately 1.60" in diameter



## STOW-A-WAY™

| Part No.      | Description               |
|---------------|---------------------------|
| <b>15-041</b> | 1 plug, 2 gladhand holder |
| <b>15-042</b> | 2 plug, 2 gladhand holder |

- 32% of truckers Workmen's Comp claims are from accidents occurring behind the cab, according to leading insurance carriers
- STOW-A-WAY™ offers safe, easy storage for coiled electrical cables, liftgate cables and air lines when not in use
- Corrosion resistant and extremely durable
- Air and electrical can be coupled/uncoupled with both feet on the ground
- Angled for easy access



15-041

15-042

## Mounting Kit

| Part No.      | Description  |
|---------------|--------------|
| <b>17-039</b> | Mounting kit |

- Securely mounts STOW-A-WAY™ to pogo sticks



## Pogo Sticks

| Part No.       | Description       |
|----------------|-------------------|
| <b>17-0240</b> | 24" chrome        |
| <b>17-0241</b> | 24" gold chromate |
| <b>17-0400</b> | 40" chrome        |
| <b>17-0401</b> | 40" gold chromate |

- Designed for heavier ABS cables
- Extra heavy duty internal spring
- Can accept STOW-A-WAY™ (15-041, 15-042), with 17-039 mounting kit
- Includes QWIK-SNAP™ 3-hose holder
- 8 in. coated spring for corrosion resistance
- Heavy duty 7/16 in. mounting bolt



Keep cables off the deck plate!

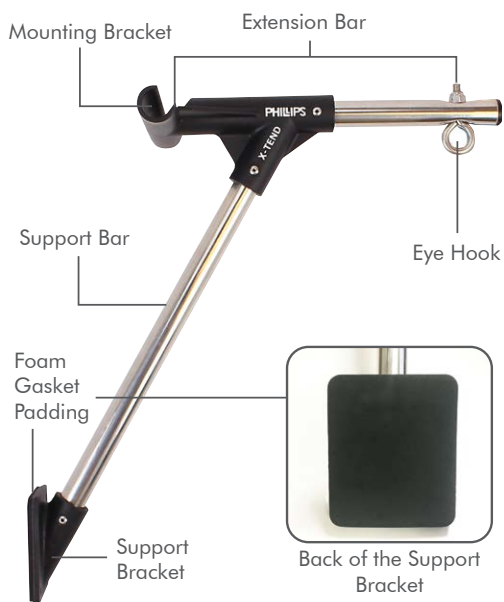


17-0241

17-0400

17-0401

## X-TEND™ Tracker Bar Extension



| Part No. | Description   |
|----------|---|
| 17-3000  | X-TEND™ tracker bar extension, for tracker bars with a 3/4" diameter <b>NEW</b> |
| 17-3001  | X-TEND™ tracker bar extension, for tracker bars with a 1" diameter <b>NEW</b>   |

**Prevents damage from cables banging up against the back of the cab by extending them out and away from the back of the tractor.**

- Extends the tracker spring kit and cables out an additional 8 inches from the tracker bar
- Prevents spiral wrapped assemblies from banging up against the back of the cab and causing damage
- Avoid costs to repair damage at the back of the cab and increase the tractor's resale value
- Easy to Install. Snaps on. No hardware!
- Available for either 3/4" or 1" diameter tracker bars
- Stainless steel metal tubing and eye hook
- Non-corrosive nylon mounting and support brackets

Can be used on tractors with a solid metal back or windows with a metal frame down the center of the back of the cab. NOT for use with tractors that have solid, one-piece back windows.



## Tracker Bars



| Part No. | Description      |
|----------|------------------|
| 17-147   | Tracker bar, 43" |
| 17-247   | Tracker bar, 36" |

- Stainless steel

## Tracker Bar Kits



| Part No. | Description                     |
|----------|---------------------------------|
| 17-149   | Kit with 43" bar and 20" spring |
| 17-246   | Kit with 36" bar and 25" spring |
| 17-249   | Kit with 36" bar and 20" spring |

- Back of cab cable support
- Kits include bar, snap-on clip, PVC sleeve, QWIK-SNAP™ 3-hose holder and spring
- Stainless steel bar



## Tracker Spring Kits

| Part No. | Description  |
|----------|--|
| 17-145   | Kit with 25" single heavy duty spring, with QWIK-SNAP™                       |
| 17-148   | Kit with 20" single heavy duty spring, with QWIK-SNAP™                       |
| 17-1481  | Kit with 20.5" extra heavy duty spring, with QWIK-CLAMP™ (17-180) <b>NEW</b> |
| 17-1487  | Kit with 20" single heavy duty spring, with U-bolt holder                    |
| 17-1488  | Kit with 20.5" extra heavy duty spring, with cable clamp holder              |
| 17-420   | Kit with 16" dual springs, with QWIK-SNAP™                                   |

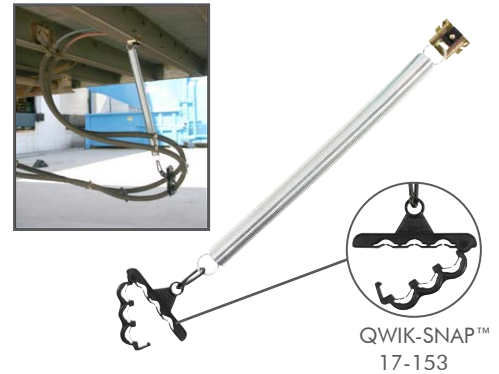
- Replacement spring and hardware for tracker bars
- Kits include snap-on clip, PVC sleeve, spring(s) and 3-hose holder, cable clamp holder, or QWIK-CLAMP™
- Ideal for ABS cable use



## Sliding Axle Spring Kits

| Part No. | Description                                     |
|----------|---|
| 17-182   | Single 16" spring with QWIK-SNAP™ 2-hose holder |
| 17-183   | Single 16" spring with QWIK-SNAP™ 3-hose holder |

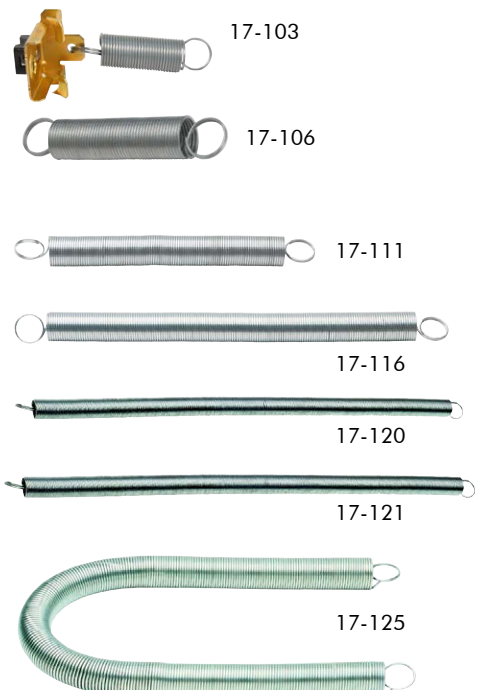
- Quick change - save up to 5 minutes!
- Great spring memory
- Won't chaff hoses



## Replacement Springs

| Sliding Axles |  |
|---------------|--|
| Part No.      | Description  |
| 17-103        | 3" spring with tandem frame clip (5-5007), 3/4" O.D. |
| 17-106        | 6" spring, 1.10" O.D.                                |

- For use on trailers with sliding axles
- Supports air lines to rear axle
- 17-106 has pre-galvanized hard drawn wire per SAE-ASTM-A227-77



| Cable & Hose Support |  |
|----------------------|--|
| Part No.             | Description  |
| 17-111               | 11", tandem cable and air line support, 1.10" O.D.   |
| 17-116               | 16", recommended for straight cable assemblies, 1.10" O.D.   |
| 17-120               | 20", heavy duty, for use with ABS coiled assemblies, 0.90" O.D.  |
| 17-121               | 20.5", extra heavy duty, for use with combination electrical and air assemblies and with hydraulic lines, 0.93" O.D. |
| 17-125               | 25", extra heavy duty, for use with ABS coiled assemblies, 0.90" O.D.  |

- Pre-galvanized hard drawn wire per SAE-ASTM-A227-77

## Hose Separators



| Part No.      | Description                          |
|---------------|--------------------------------------|
| <b>17-150</b> | 2-hose separator, 3/8" hose          |
| <b>17-151</b> | 4-hose separator, 3/8" hose          |
| <b>17-155</b> | 2-hose separator, 1/2" hose          |
| <b>17-170</b> | 2-hose separator, 1/2" and 3/8" hose |
| <b>17-171</b> | 4-hose separator, 1/2" hose          |
| <b>17-172</b> | 2-hose separator, 3/8" and 1/4" hose |

- Keeps nylon air hoses secure and out of the way
- For tractor coiled air, trailer slider hose applications

## QWIK-CLAMP™



| Part No.      | Description                |            |
|---------------|----------------------------|------------|
| <b>17-180</b> | QWIK-CLAMP™ with insert    | <b>NEW</b> |
| <b>17-181</b> | QWIK-CLAMP™ without insert | <b>NEW</b> |

- The QWIK-CLAMP™ is multi-functional, converting from a 1, 2, or 3-hose holder to a cable clamp for a 3-IN-1 by removing the insert
- Installation is quick, easy, and no tools are required. It installs in seconds and cable location adjustment is easy
- Clamp and insert are non-corrosive and UV resistant
- Recommended assembly/cable sizes:  
 3-IN-1: Clamp will support Phillips 3-IN-1s or assemblies approximately 1.60" in diameter  
 Hose Holder: Supports straight ABS electrical cables and 3/8" rubber air hoses, or coiled ABS electrical cables and nylon air lines with longer leads
- Patent No. 10436352

## QWIK-SNAP™ Hose Holders



| Part No.      | Description   |
|---------------|---------------|
| <b>17-152</b> | 2-hose holder |
| <b>17-153</b> | 3-hose holder |
| <b>17-154</b> | 4-hose holder |

- Easy to use with gloves - no loose parts
- Positive lock - stays connected at over 80 lbs. of pull force
- Durable nylon for extreme weather, corrosion and impact resistance
- Quicker than conventional hose holders - change hoses in seconds!
- Versatile design adjusts to accommodate 3/8" and 1/2" hoses
- Tested over 30,000 cycles with no sign of failure
- Patent No. 8,408,501

## Eye Bolt Hose Holders



| Part No.      | Description              |
|---------------|--------------------------|
| <b>17-156</b> | 2-hose holder, 3/4" O.D. |
| <b>17-177</b> | 3-hose holder, 3/4" O.D. |

- Zinc-plated hardware
- 2-piece ABS clamp

## U-Bolt Hose Holders

| Part No.      | Description                                   |
|---------------|---|
| <b>17-157</b> | 3-hose holder, 3/4" O.D.                      |
| <b>17-158</b> | 4-hose holder (2) 3/4" O.D. and (2) 5/8" O.D. |

- Zinc-plated hardware
- 2-piece ABS clamp



17-157



17-158

## Cable Clamp Holder

| Part No.      | Description   |
|---------------|---|
| <b>5-5008</b> | Cable clamp holder, 1 5/8" I.D.                               |
| <b>5-5018</b> | Cable clamp holder with stainless steel snap-on clip (17-173) |

- Designed for use with the electrical and air combo assemblies (3-IN-1 and 4-IN-1)
- Offers easy installation



5-5008



5-5018

## Snap-On Clip

| Part No.      | Description                               |
|---------------|---|
| <b>17-160</b> | Large snap-on clip, black, 4"             |
| <b>17-163</b> | Small snap-on clip, black, 2.4"           |
| <b>17-169</b> | Large snap-on clip, stainless steel, 4"   |
| <b>17-173</b> | Small snap-on clip, stainless steel, 2.4" |

- Offers easy replacement for spring kits
- No need to unhook tracker bar



## Tandem Frame Clip

| Part No.      | Description | Qty. |
|---------------|-------------|------|
| <b>5-5007</b> | Frame clip  | 5    |

- For wire, air hoses and tubing
- Easy to install, simply slide clip into place (can also be used with rivets or self-tapping screws)
- Secure hose or tubing in place with spring or cable ties



## Universal Gladhand Holder

| Part No.      | Description   |
|---------------|---------------|
| <b>15-039</b> | Gold chromate |
| <b>15-040</b> | Chrome plated |

- Accepts individual gladhands
- Mounts at back of cab or attaches to pogo stick



15-039



# CABLE TIES

## Phillips Cable Ties

Manufactured to combine the lowest insertion force with the highest tensile strength. The design of the pawl (locking mechanism) makes Phillips cable ties superior in strength and allows our products to exceed the required industry standard tensile strengths.

## Phillips Mounting Pads

Incorporates a unique no-slip tab that holds cable ties in place during installation.

## Storage Recommendations for Cable Ties\* and Mounting Pads\*\*:

Store at room temperature in at least 50% humidity (recommended 80%RH) in a completely sealed polyethylene bag if not being used. In extreme heat and cold, limit the exposure of unused cable ties and/or mounting pads. If after being exposed to extreme temperatures and/or extreme relative humidities, the cable ties and/or mounting pads must be allowed to be stored at room temperature and at least 50% humidity (recommended 80%RH) for at least 24 hrs. in a sealed bag before being used again.

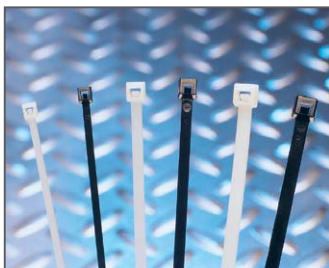
\*Includes Assortment Pack

\*\*Excludes Dual Tie Wraps – See Below For This Information

## Storage Recommendations for Dual Tie Wraps:

Store at 73°F with 50%RH in a completely sealed polyethylene bag if not being used and avoid direct, prolonged exposure to heat sources and sunlight.

## Light & Medium Duty Nylon - 18 & 50 lb

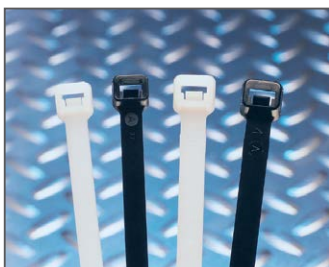


| 18 lb. Nylon |         |             |                             |                |          |
|--------------|---------|-------------|-----------------------------|----------------|----------|
| Length       | Per Bag | Tie Tensile | Bundle Diameter Inches (mm) | Part No.       | Color    |
| 4"           | 100     | 18 lb.      | 0.157" (4) - 0.9" (22)      | <b>8-41047</b> | UV Black |

| 50 lb. Nylon |         |             |                             |                |          |
|--------------|---------|-------------|-----------------------------|----------------|----------|
| Length       | Per Bag | Tie Tensile | Bundle Diameter Inches (mm) | Part No.       | Color    |
| 7.5"         | 100     | 50 lb.      | 0.276" (7) - 1.97" (50)     | <b>8-33087</b> | Natural  |
| 11"          | 100     | 50 lb.      | 0.276" (7) - 2.76" (70)     | <b>8-33117</b> | Natural  |
| 14"          | 100     | 50 lb.      | 0.276" (7) - 4.016" (102)   | <b>8-33147</b> | Natural  |
| 7.5"         | 40      | 50 lb.      | 0.276" (7) - 1.97" (50)     | <b>8-43084</b> | UV Black |
|              | 100     |             |                             | <b>8-43087</b> | UV Black |
| 11"          | 100     | 50 lb.      | 0.276" (7) - 2.76" (70)     | <b>8-43117</b> | UV Black |
| 14"          | 100     | 50 lb.      | 0.276" (7) - 4.016" (102)   | <b>8-43147</b> | UV Black |
| 17"          | 100     | 50 lb.      | 0.276" (7) - 4.331" (110)   | <b>8-43177</b> | UV Black |

- UL recognized / CSA approved
- Operating temperature -4°F to 185°F (-20°C to 85°C)
- Minimum installation temperature: 5°F (-15°C)

## Heavy Duty Nylon - 120 lb.



| Length | Per Bag | Tie Tensile | Bundle Diameter Inches (mm) | Part No.       | Color    |
|--------|---------|-------------|-----------------------------|----------------|----------|
| 15"    | 100     | 120 lb.     | 0.551" (14) - 4.016" (102)  | <b>8-34147</b> | Natural  |
| 15"    | 100     | 120 lb.     | 0.551" (14) - 4.016" (102)  | <b>8-44147</b> | UV Black |

- UL recognized / CSA approved
- Operating temperature -4°F to 185°F (-20°C to 85°C)
- Minimum installation temperature: 5°F (-15°C)

## Mounting Hole - 50 & 120 lb.

| Length | Per Bag | Tie Tensile | Screw Size | Bundle Diameter Inches (mm) | Part No.       | Color    |
|--------|---------|-------------|------------|-----------------------------|----------------|----------|
| 8"     | 100     | 50 lb.      | #10        | 0.276" (7) - 1.811" (46)    | <b>8-49077</b> | UV Black |
| 15"    | 100     | 120 lb.     | 1/4"       | 0.551" (14) - 3.86" (98)    | <b>8-49157</b> | UV Black |



- 8 in. UL recognized / CSA approved
- ROHS compliant
- Operating temperature -4°F to 185°F (-20°C to 85°C)
- Minimum installation temperature: 5°F (-15°C)

## Releasable - 50 lb.

| Length | Per Bag | Tie Tensile | Bundle Diameter Inches (mm) | Part No.       | Color    |
|--------|---------|-------------|-----------------------------|----------------|----------|
| 8"     | 100     | 50 lb.      | 0.276" (7) - 1.97" (50)     | <b>8-48087</b> | UV Black |
| 14"    | 100     | 50 lb.      | 0.551" (14) - 4.02" (102)   | <b>8-48147</b> | UV Black |



- 8 in. UL recognized / CSA approved
- ROHS compliant
- Operating temperature -4°F to 185°F (-20°C to 85°C)
- Minimum installation temperature: 5°F (-15°C)

## Assortment Packs

| Length | Per Pack | Tie Tensile | Bundle Diameter Inches (mm) | Part No.       | Color    |
|--------|----------|-------------|-----------------------------|----------------|----------|
| 4"     | 200      | 18 lb.      | 0.157" (4) - 0.9" (22)      | <b>8-61020</b> | UV Black |
| 8"     | 100      | 50 lb.      | 0.276" (7) - 2.76" (70)     |                |          |
| 11"    | 100      | 50 lb.      | 0.276" (7) - 1.97" (50)     |                |          |



8-61020

- UL recognized / CSA approved
- Clamshell dimensions: 15 in. x 7 1/8 in. x 2 in.
- Great for shop use
- Operating temperature -4°F to 185°F (-20°C to 85°C)
- Minimum installation temperature: 5°F (-15°C)

## Mounting Pads

| Length | Per Bag | Height | Slot Height | Slot Width | Adhesive | Part No.       | Color    |
|--------|---------|--------|-------------|------------|----------|----------------|----------|
| .74"   | 10      | .19"   | .05"        | .20"       | Rubber   | <b>8-30050</b> | Natural  |
|        | 100     |        |             |            |          | <b>8-30057</b> | Natural  |
| .74"   | 10      | .19"   | .05"        | .20"       | Rubber   | <b>8-40050</b> | UV Black |
|        | 100     |        |             |            |          | <b>8-40057</b> | UV Black |



- UL recognized / CSA approved, excluding sticky adhesive
- Operating temperature -4°F to 185°F (-20°C to 85°C)
- Minimum installation temperature: 5°F (-15°C)

**Makes installation easy!!!**

## Dual Tie Wraps



| Part No. | Description                             | Pkg. Qty. | Weight   | Recommended Stud Size In. (mm) | Min. Tensile Strength | Max. Bundle Dia. In. (mm) | Approx. Length In. (mm) | Approx. Width In. (mm) |
|----------|---|-----------|----------|--------------------------------|-----------------------|---------------------------|-------------------------|------------------------|
| 8-45134  | Dual clamp cable ties black, 13" length | 25        | 0.9 lbs. | 1/4" (6.35)                    | 150 lbs               | 1.3 each side (33.02)     | 12.9" (327.66)          | 0.50"                  |
| 8-45194  | Dual clamp cable ties black, 19" length | 25        | 1.3 lbs  | 1/4" (6.35)                    | 150 lbs               | 2.3" each side (58.42)    | 19.2" (487.68)          | 0.50"                  |

- Dual-head design lets you wrap two separate bundles with a single cable tie
- Mounting holes allow easy attachment to walls, trailers, and vehicle chassis
- Minimum 150 lb. tensile strength
- Provides parallel spacing between cable bundles, hoses, tubing or wires
- Made of high impact black nylon 6/6
- Operating temperature -40°F to 230°F (-40°C to 110°C)
- Minimum installation temperature: -40°F (-40°C)

## Cable Tie Installation Tool



| Part No. | Description                         |
|----------|-------------------------------------|
| 4-231    | Plastic cable tie installation tool |

- Secures nylon cable ties
- Good for light duty or occasional use, 18-50 lb ties

# WIRE SUPPORT & ACCESSORIES

## Bulk Spiral Wrap

For multiple installations and/or fleet maintenance shops. Varying sizes for multiple types of applications.



| Part No. | I.D.   | Length | Application Type                                  |
|----------|--------|--------|---|
| 5-525    | 3/8"   | 100'   | Small wire and air tubing                         |
| 5-527    | 1/2"   | 100'   | Small wire and air tubing                         |
| 5-530    | 5/8"   | 100'   | Small wire and air tubing                         |
| 5-532    | 3/4"   | 100'   | Small wire and air tubing                         |
| 5-534    | 1"     | 100'   | Medium wire and air tubing                        |
| 5-536    | 1 3/8" | 100'   | Combination assemblies                            |
| 5-538    | 2"     | 100'   | Hydraulic lines and 4-IN-1 combination assemblies |

- Protects cables, wires, hoses and tubing from abrasion, tangling, chaffing, wire pull-out and deterioration
- UV and abrasion resistant, and unaffected by most solvents
- Operating temperature range: -40°F to 280°F (-40°C to 137°C)

## Pre-Cut Spiral Wrap

For one time do-it-yourself installations



| Part No. | I.D.   | Length | Application Type                  |
|----------|--------|--------|-----------------------------------|
| 5-523    | 1 3/8" | 8'     | Combination assemblies <b>NEW</b> |
| 5-524    | 1 3/8" | 10'    | Combination assemblies <b>NEW</b> |

- Organize and protect your air and electrical assemblies!
- UV and abrasion resistant, and unaffected by most solvents
- Operating temperature range: -40°F to 280°F (-40°C to 137°C)

## Mini Pre-Cut Spiral Wrap ("Minis")

For one time **QUICK** and **EASY** do-it-yourself installations/ replacement

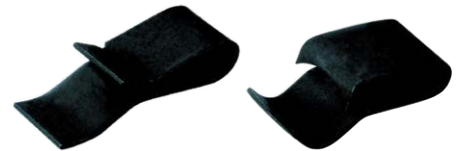
| Part No.     | I.D.   | Length | Qty. | Application Type                  |
|--------------|--------|--------|------|-----------------------------------|
| <b>5-522</b> | 1 3/8" | 2.5"   | 3    | Combination assemblies <b>NEW</b> |

- Easy maintenance - avoid time consuming removal and replacement of traditional spiral wrap when replacing or repairing cables
- Alternative to cable ties - replaces cable ties which have the potential to damage rubber air lines as they contract and expand during braking
- Easily store a few extra on board
- UV and abrasion resistant, and unaffected by most solvents
- Operating temperature range: -40°F to 280°F (-40°C to 137°C)



## Frame Clips

| Part No.      | Description             | Qty. |
|---------------|-------------------------|------|
| <b>5-5003</b> | Holds 2-3, 14 ga. wires | 100  |
| <b>5-5006</b> | Holds 5-6, 14 ga. wires | 100  |



5-5003

5-5006

## Nylon Cable Wrap

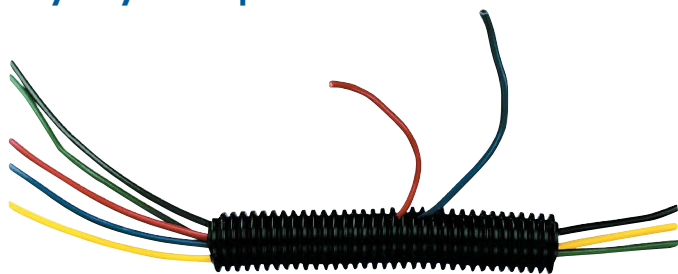
For 3-IN-1 Combination Assemblies

| Part No.     | Description          | Application Type                          |
|--------------|----------------------|---|
| <b>5-608</b> | 8' nylon cable wrap  | 12' combination assemblies <b>NEW</b>     |
| <b>5-610</b> | 10' nylon cable wrap | 13'-15' combination assemblies <b>NEW</b> |
| <b>5-612</b> | 12' nylon cable wrap | 15' combination assemblies <b>NEW</b>     |
| <b>5-616</b> | 16' nylon cable wrap | 20' combination assemblies <b>NEW</b>     |

- Easy to assemble and build custom 3-IN-1 combination assemblies
- Easy to unwrap for cable repair/replacement and DOT inspections
- Uses hook-and-loop to securely fasten the wrap together
- Simple and convenient alternative replacement for spiral wrap
- Made from durable woven nylon for protection against the elements with double stitched ends to prevent fraying
- Stainless steel grommets for cable ties for optional security
- UV coated for sun protection and water resistant inner lining for winter weather protection
- Protects cables from damage due to harsh weather conditions, chaffing, rubbing and tangling
- Keeps cables organized



## Polyethylene Split Loom



### Popular choice for routing and protection of wires

- Provides crush-resistant protection for electrical wires
- Protects electrical wires even when bent or twisted
- Wires are inserted quickly, eliminating the time needed for tape, braid or cloth loom
- Lightweight with excellent flexibility
- Good abrasion and chemical resistance
- Operating temperature range -40°F to 200°F

| Part No.   | I.D. | Length | Std. Pack |
|------------|------|--------|-----------|
| 5-023      | 1/4" | 100'   | Box       |
| 5-023-250  | 1/4" | 250'   | Box       |
| 5-023-1000 | 1/4" | 1000'  | Spool     |
| 5-025      | 3/8" | 100'   | Box       |
| 5-025-250  | 3/8" | 250'   | Box       |
| 5-025-1000 | 3/8" | 1000'  | Spool     |
| 5-027      | 1/2" | 100'   | Box       |
| 5-027-250  | 1/2" | 250'   | Box       |
| 5-027-1000 | 1/2" | 1000'  | Spool     |
| 5-029      | 5/8" | 100'   | Box       |
| 5-029-250  | 5/8" | 250'   | Box       |

| Part No.  | I.D.   | Length | Std. Pack |
|-----------|--------|--------|-----------|
| 5-030     | 3/4"   | 100'   | Box       |
| 5-030-250 | 3/4"   | 250'   | Box       |
| 5-030-500 | 3/4"   | 500'   | Spool     |
| 5-032     | 1"     | 100'   | Box       |
| 5-032-250 | 1"     | 250'   | Box       |
| 5-032-500 | 1"     | 500'   | Spool     |
| 5-034     | 1 1/4" | 100'   | Box       |
| 5-034-250 | 1 1/4" | 250'   | Box       |
| 5-036     | 1 1/2" | 100'   | Box       |
| 5-036-250 | 1 1/2" | 250'   | Box       |
| 5-040     | 2"     | 100'   | Box       |

## Neoprene Grommets



| Part No. | Groove Width | Drill Diameter | Center Hole | Qty. |
|----------|--------------|----------------|-------------|------|
| 5-710    | 1/16"        | 5/16"          | 3/16"       | 50   |
| 5-711    | 1/16"        | 7/16"          | 5/16"       | 50   |
| 5-712    | 1/16"        | 11/16"         | 7/16"       | 50   |
| 5-713    | 1/16"        | 7/8"           | 5/8"        | 50   |
| 5-714    | 1/4"         | 13/16"         | 9/16"       | 50   |
| 5-715    | 1/4"         | 1"             | 11/16"      | 50   |
| 5-716    | 1/4"         | 1 1/6"         | 3/4"        | 50   |

### Protect your wire and cable from sharp edges

- Eliminates sharp and rough edges from through-holes
- Made from neoprene for durability and flexibility
- Adds a neat, clean look to any installation
- High resistance to acids, greases, oils and diesel fuels
- Grommets for 1/16 in. and 1/4 in. panels

## Nylon Insulating Bushings



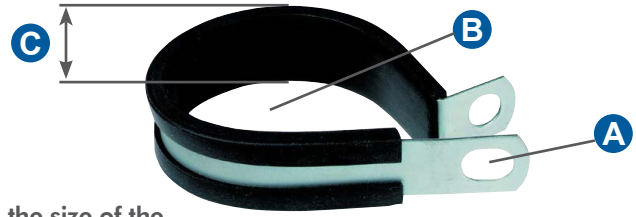
| Part No. | Hole Diameter | Max. Thickness | Center Hole | Qty. |
|----------|---------------|----------------|-------------|------|
| 5-811    | 3/4"          | 1/8"           | 5/8"        | 50   |
| 5-812    | 1"            | 1/8"           | 3/4"        | 50   |
| 5-813    | 1 1/4"        | 1/8"           | 15/16"      | 50   |
| 5-814    | 1 1/2"        | 1 1/4"         | 1 1/16"     | 50   |
| 5-815    | 1 3/4"        | 1 1/4"         | 1 3/8"      | 50   |
| 5-816    | 2"            | 1 1/4"         | 1 5/8"      | 50   |

### DRILL HOLE - SNAP IN - RUN CABLE OR HOSE. IT'S THAT EASY!

- Easy to mount by quickly snapping into place
- Multiple locks ensure secure fit
- Protects wire, cable or tubing from sharp, unfinished edges
- Adds a neat, clean look to any installation
- Spring-like fingers snap out to hold the grommet in place

## Rubber Cushion Clamps

- Provides electrical insulation and vibration absorption
- Allows for easy adding or rerouting of wires
- Recommended for long-term applications
- Galvanized steel for corrosion protection
- Elongated holes allow for minor adjustments of clamped parts



**Note:** When using with split loom, select the next size up from the size of the split loom. Example: 3/8 in. split loom needs 7/16 in. clamp

| 1/4" Mounting Hole |                        |               |           |      |
|--------------------|------------------------|---------------|-----------|------|
| Part No.           | Mounting Hole Size (A) | Tube Size (B) | Width (C) | Qty. |
| 5-45034            | 1/4"                   | 3/16"         | 1/2"      | 25   |
| 5-45044            | 1/4"                   | 1/4"          | 1/2"      | 25   |
| 5-45054            | 1/4"                   | 5/16"         | 1/2"      | 25   |
| 5-45064            | 1/4"                   | 3/8"          | 1/2"      | 25   |
| 5-45074            | 1/4"                   | 7/16"         | 1/2"      | 25   |
| 5-45084            | 1/4"                   | 1/2"          | 1/2"      | 25   |
| 5-45094            | 1/4"                   | 9/16"         | 1/2"      | 25   |
| 5-45104            | 1/4"                   | 5/8"          | 1/2"      | 25   |
| 5-45124            | 1/4"                   | 3/4"          | 1/2"      | 25   |
| 5-45144            | 1/4"                   | 7/8"          | 1/2"      | 25   |
| 5-45164            | 1/4"                   | 1"            | 1/2"      | 25   |
| 5-45224            | 1/4"                   | 1-1/8"        | 1/2"      | 25   |
| 5-45241            | 1/4"                   | 1-1/4"        | 1/2"      | 5    |
| 5-45261            | 1/4"                   | 1-3/8"        | 1/2"      | 5    |
| 5-45271            | 1/4"                   | 1-7/16"       | 1/2"      | 5    |

| 3/8" Mounting Hole |                        |               |           |      |
|--------------------|------------------------|---------------|-----------|------|
| Part No.           | Mounting Hole Size (A) | Tube Size (B) | Width (C) | Qty. |
| 5-46034            | 3/8"                   | 3/16"         | 5/8"      | 25   |
| 5-46044            | 3/8"                   | 1/4"          | 5/8"      | 25   |
| 5-46054            | 3/8"                   | 5/16"         | 5/8"      | 25   |
| 5-46064            | 3/8"                   | 3/8"          | 5/8"      | 25   |
| 5-46074            | 3/8"                   | 7/16"         | 5/8"      | 25   |
| 5-46084            | 3/8"                   | 1/2"          | 5/8"      | 25   |
| 5-46094            | 3/8"                   | 9/16"         | 5/8"      | 25   |
| 5-46104            | 3/8"                   | 5/8"          | 5/8"      | 25   |
| 5-46124            | 3/8"                   | 3/4"          | 5/8"      | 25   |
| 5-46144            | 3/8"                   | 7/8"          | 5/8"      | 25   |
| 5-46164            | 3/8"                   | 1"            | 5/8"      | 25   |
| 5-46224            | 3/8"                   | 1-1/8"        | 5/8"      | 25   |
| 5-46241            | 3/8"                   | 1-1/4"        | 5/8"      | 5    |
| 5-46261            | 3/8"                   | 1-3/8"        | 5/8"      | 5    |
| 5-46271            | 3/8"                   | 1-7/16"       | 5/8"      | 5    |
| 5-46281            | 3/8"                   | 2"            | 5/8"      | 5    |
| 5-46291            | 3/8"                   | 2-1/2"        | 5/8"      | 5    |
| 5-46301            | 3/8"                   | 3"            | 5/8"      | 5    |

## 3/8" Clamp Assortment Kit

| Part No. | Description               |
|----------|---------------------------|
| 5-1000   | 3/8" clamp assortment kit |

### 5-1000 Contents:

| Replacement Part No. | Mounting Hole Size | Tube size | Qty. |
|----------------------|--------------------|-----------|------|
| 5-46034              | 3/8"               | 3/16"     | 50   |
| 5-46044              | 3/8"               | 1/4"      | 50   |
| 5-46064              | 3/8"               | 3/8"      | 50   |
| 5-46084              | 3/8"               | 1/2"      | 50   |
| 5-46104              | 3/8"               | 5/8"      | 50   |
| 5-46124              | 3/8"               | 3/4"      | 50   |
| 5-46164              | 3/8"               | 1"        | 25   |





# ELECTRICAL HARNESS SYSTEMS

## STA-DRY® SLIM-7™



- Incredibly strong seal
- Extraordinary corrosion protection
- Slim design allows for tight squeezes
- Shape transitions from a round cable to a square plug making pull-through easier
- Accepts a wide array of cables and wires providing many harness design options
- Provides the best moisture barrier in the market by using less space than any other standard heavy duty truck 7 pole connection

# STA-DRY® HARNESSSES

Protect against moisture, corrosion and failure by choosing an electrical harness system built to withstand the most extreme environmental conditions. Phillips has the capability to handle your custom harness needs from design through production.

### Superior Quality

- 100% factory tested components

### Corrosion-Resistant

- Corrosion-inhibiting grease on all modules
- Molded material on all plugs adheres / bonds to cables
- Molded connections keep moisture and contaminants from penetrating the electrical system

### Easy to Install

- Industry-standard lamp pigtails
- Indexed plugs ensure proper connection

### Easy to Maintain

- Harness modules allow for easy replacement should accidental damage occur
- Universal pigtail modules eliminate the need to stock separate "curbside" and "roadside" pigtails

# STA-DRY® SLIM-7™ SYSTEMS

## CUSTOM CAPABILITIES

All STA-DRY® Electrical Harness System part numbers are recommendations. Additional lengths, molded ends and other options are available.

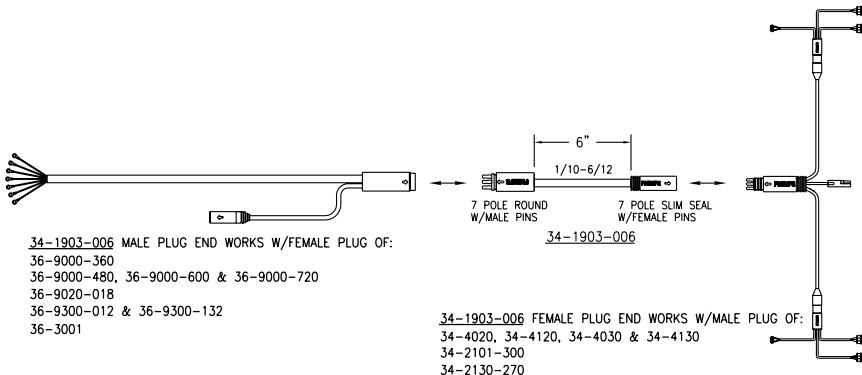
34 series (STA-DRY® SLIM-7™ System) is not interchangeable with the 36 series (STA-DRY® System) except where noted. Adapter available below.



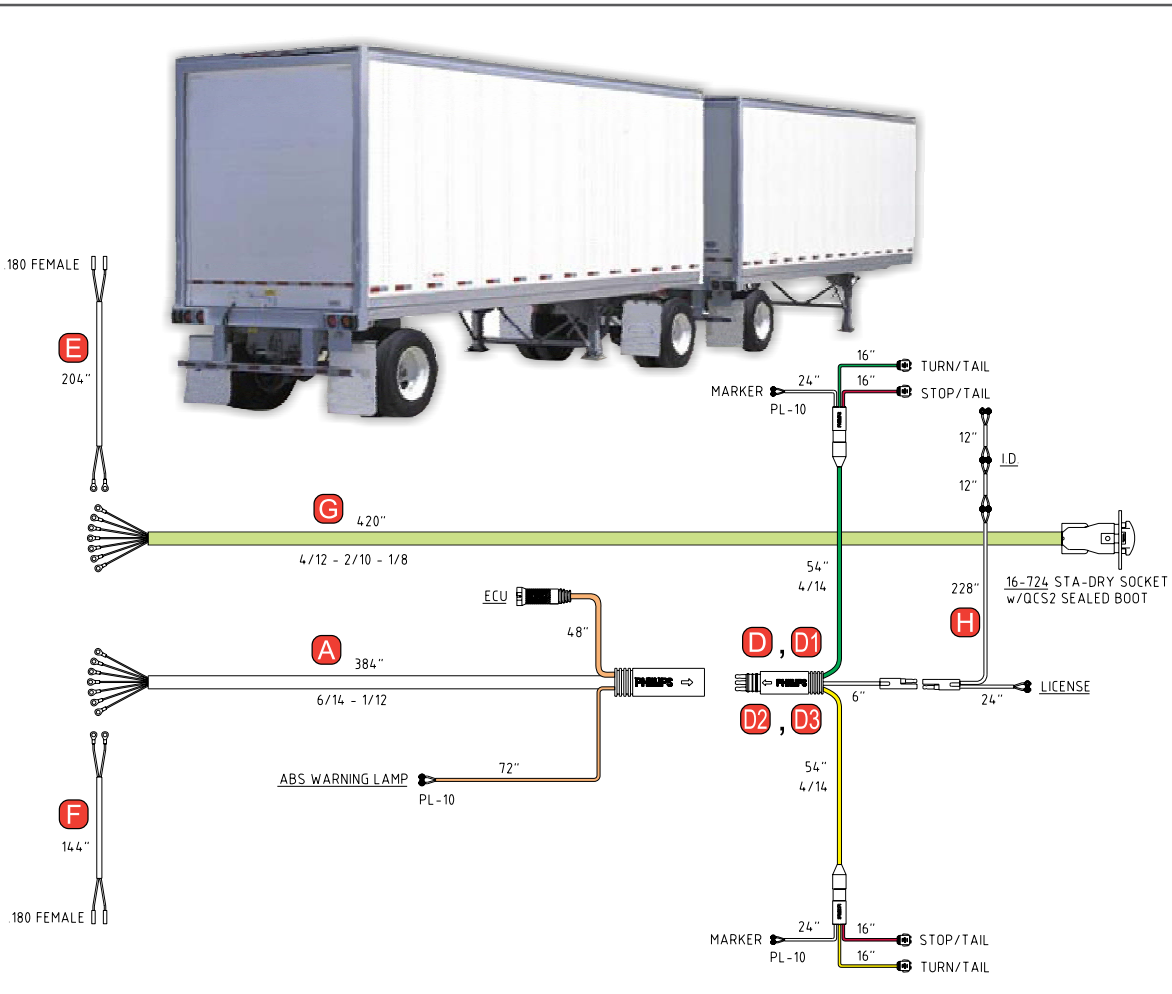
## Harness Adapter

| Part No.           | Description  |
|--------------------|--|
| <b>34-1903-006</b> | 7 way round male to 7-way SLIM-7™ female harness adapter |

- Connects main and/or mid-main 36 series STA-DRY® modular harness systems to the 34 series STA-DRY® SLIM-7™
- Molded plug connections keep moisture and contaminants from penetrating the electrical system
- Corrosion resistant pre-applied dielectric grease
- Easy to install



# STA-DRY® SLIM-7™ System - Van Doubles (28 ft.)



ELECTRICAL HARNESS SYSTEMS

**STANDARD PIGTAILS (PL-3)**

**D & D2**

---

**AMP STYLE PIGTAIL**

**D1 & D3**

---

**WITH 3 STOP / TURN / TAIL LIGHTS**

**D2** = STANDARD CONNECTION  
**D3** = AMP STYLE CONNECTION

**Standard (Length as shown above)**

| 28 ft.             |   |     |
|--------------------|---|-----|
| Part No.           | Description   | Key |
| <b>34-1300-384</b> | Main with ECU and ABS warning lamp drop, 384" (32')     | A   |
| <b>34-5100-204</b> | Front marker, 204" (17')                                | E   |
| <b>34-5100-144</b> | Front marker, 144" (12')                                | F   |
| <b>34-1402-420</b> | Main with socket for pintle hook connection, 420" (35') | G   |
| <b>36-9601-228</b> | ID / license  | * H |

**2-Lamp Rear Sill Harness Options**

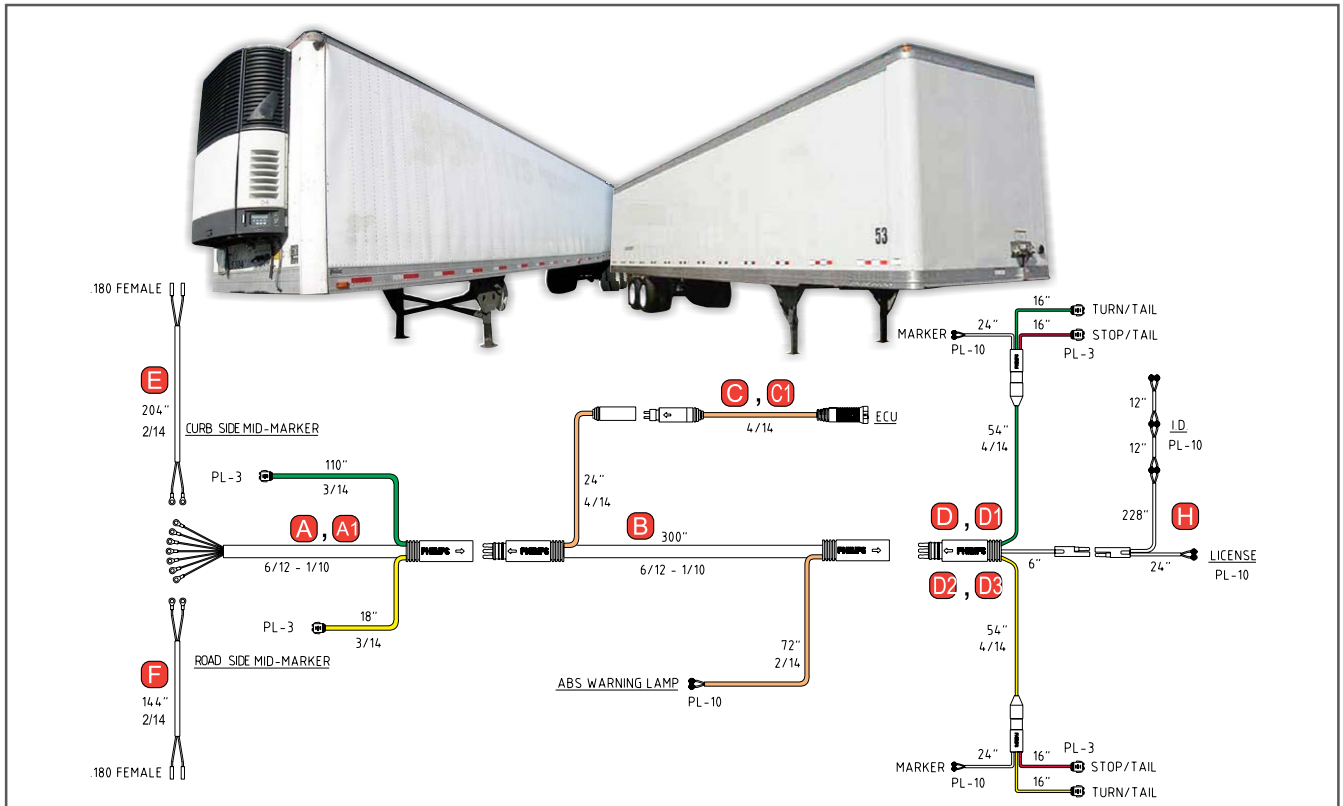
| Part No.       | Description                               | Key |
|----------------|---|-----|
| <b>34-4020</b> | With 2 stop/turn/tail, standard pigtails  | D   |
| <b>34-4120</b> | With 2 stop/turn/tail, amp style pigtails | D1  |

**3-Lamp Rear Sill Harness Options**

| Part No.       | Description                               | Key |
|----------------|---|-----|
| <b>34-4030</b> | With 3 stop/turn/tail, standard pigtails  | D2  |
| <b>34-4130</b> | With 3 stop/turn/tail, amp style pigtails | D3  |

\* Will fit both 34 series (STA-DRY® SLIM-7™ System) and 36 series (STA-DRY® System)

## STA-DRY® SLIM-7™ System - Reefer & Dry Freight Van (48ft. to 53ft.)



### Standard (Length as shown above)

48 ft. & 53 ft.

| Part No.    | Description   | Key |
|-------------|---|-----|
| 34-2101-300 | Mid-main with ECU and ABS warning lamp drop, 300" (25') | B   |
| 34-5100-204 | Curbside front marker, 204" (17')                       | E   |
| 34-5100-144 | Roadside front marker, 144" (12')                       | F   |
| 36-9601-228 | ID / license  | * H |

### Main Options

| Part No.    | Description                   | Key |
|-------------|-------------------------------|-----|
| 34-1231-324 | Main, 324" (27'), 48' trailer | A   |
| 34-1231-384 | Main, 384" (32'), 53' trailer | A1  |

### ABS Options

| Part No.    | Description                   | Key |
|-------------|-------------------------------|-----|
| 34-3000-156 | ABS power harness, 156" (13') | C   |
| 34-3000-288 | ABS power harness, 288" (24') | C1  |

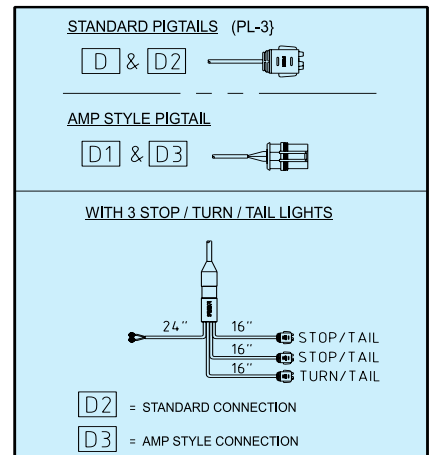
### 2-Lamp Rear Sill Harness Options

| Part No. | Description                               | Key |
|----------|---|-----|
| 34-4020  | With 2 stop/turn/tail, standard pigtails  | D   |
| 34-4120  | With 2 stop/turn/tail, amp style pigtails | D1  |

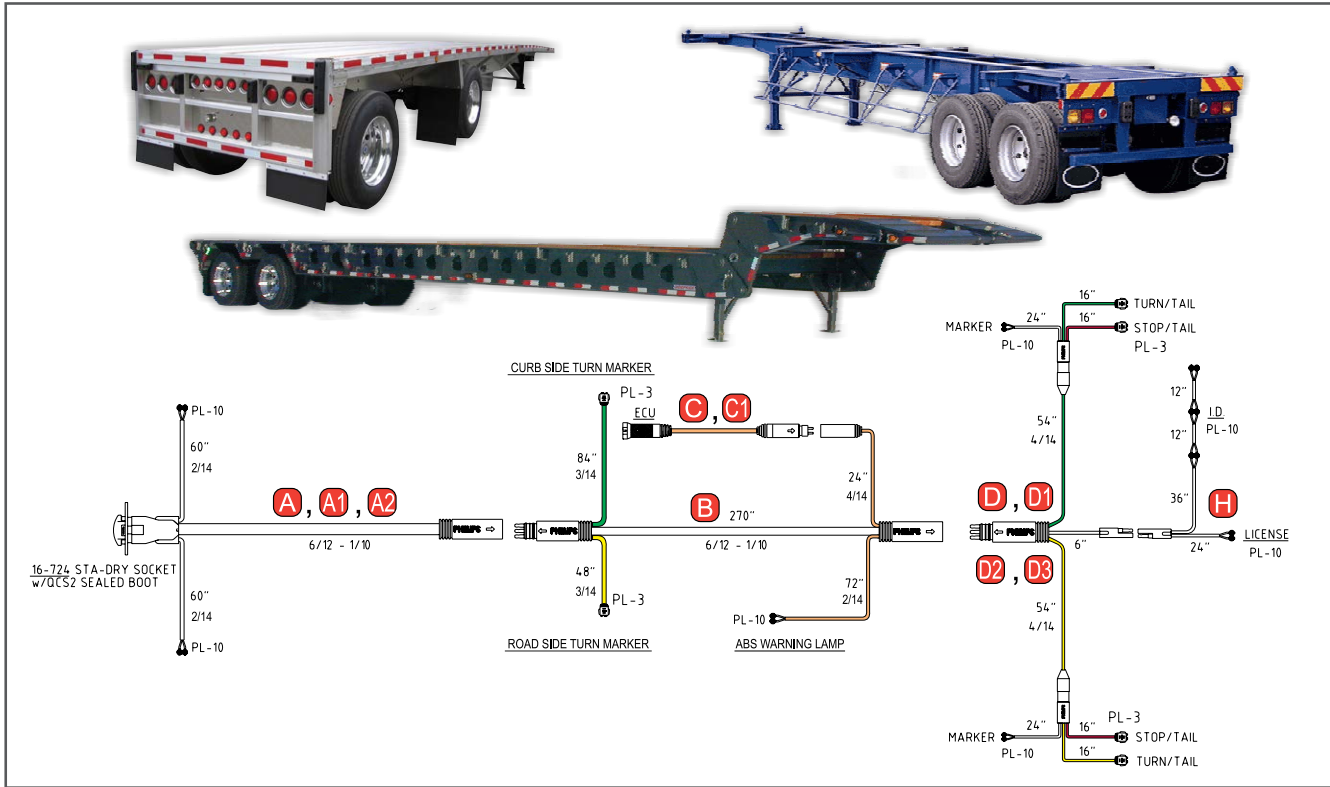
### 3-Lamp Rear Sill Harness Options

| Part No. | Description                               | Key |
|----------|---|-----|
| 34-4030  | With 3 stop/turn/tail, standard pigtails  | D2  |
| 34-4130  | With 3 stop/turn/tail, amp style pigtails | D3  |

\* Will fit both 34 series (STA-DRY® SLIM-7™ System) and 36 series (STA-DRY® System)



# STA-DRY® SLIM-7™ System - Flatbed & Container Chassis



ELECTRICAL HARNESS SYSTEMS

**STANDARD PIGTAILS (PL-3)**

**D** & **D2**

---

**AMP STYLE PIGTAIL**

**D1** & **D3**

---

**WITH 3 STOP / TURN / TAIL LIGHTS**

**D2** = STANDARD CONNECTION  
**D3** = AMP STYLE CONNECTION

**Standard (Length as shown above)**

| Part No.           | Description  | Key |
|--------------------|--|-----|
| <b>34-2130-270</b> | Mid-main with mid-marker, ECU and ABS warning lamp drop, 270" (22'-5") | B   |
| <b>36-9601-036</b> | ID / license   | * H |

**Main Options**

| Part No.           | Description                  | Key |
|--------------------|------------------------------|-----|
| <b>34-1010-300</b> | 45' trailer main, 300" (25') | A   |
| <b>34-1010-336</b> | 48' trailer main, 336" (28') | A1  |
| <b>34-1010-396</b> | 53' trailer main, 396" (33') | A2  |

**ABS Options**

| Part No.           | Description                   | Key |
|--------------------|-------------------------------|-----|
| <b>34-3000-156</b> | ABS power harness, 156" (13') | C   |
| <b>34-3000-288</b> | ABS power harness, 288" (24') | C1  |

**2-Lamp Rear Sill Harness Options**

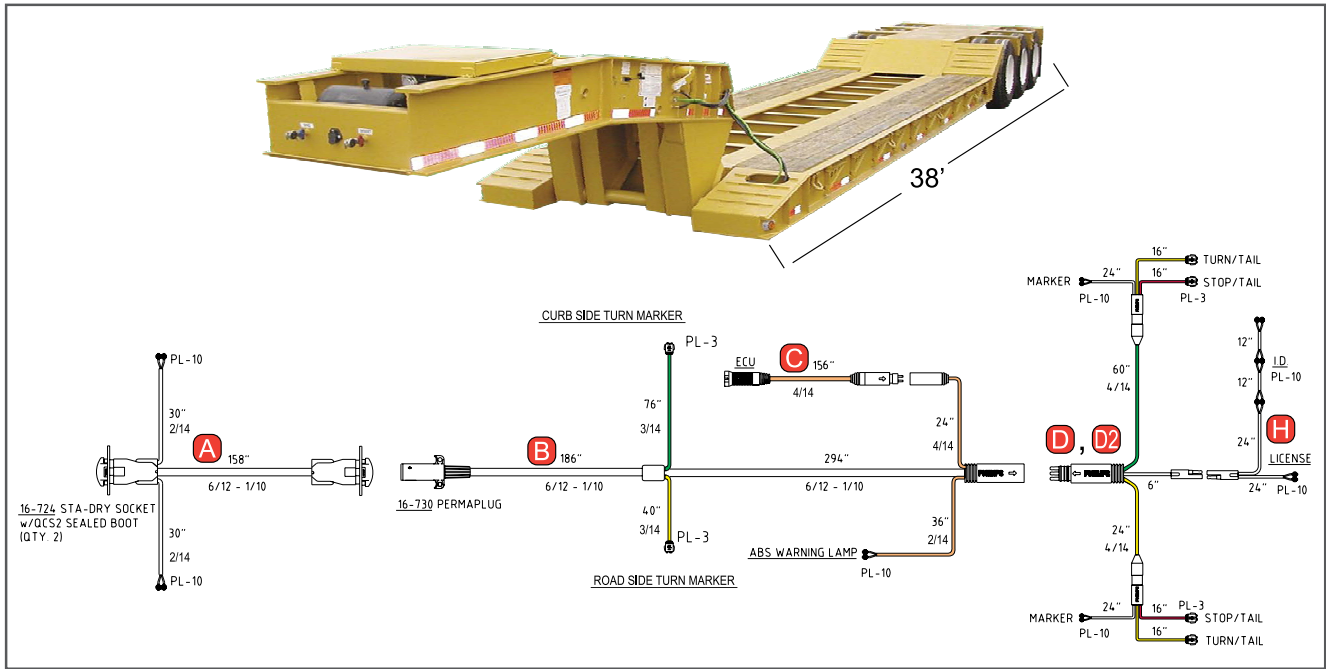
| Part No.       | Description                               | Key |
|----------------|---|-----|
| <b>34-4020</b> | With 2 stop/turn/tail, standard pigtails  | D   |
| <b>34-4120</b> | With 2 stop/turn/tail, amp style pigtails | D1  |

**3-Lamp Rear Sill Harness Options**

| Part No.       | Description                               | Key |
|----------------|---|-----|
| <b>34-4030</b> | With 3 stop/turn/tail, standard pigtails  | D2  |
| <b>34-4130</b> | With 3 stop/turn/tail, amp style pigtails | D3  |

\* Will fit both 34 series (STA-DRY® SLIM-7™ System) and 36 series (STA-DRY® System)

# STA-DRY® SLIM-7™ System - Detachable Gooseneck



### Standard (Length as shown above)

| Part No.    | Description   | Key |
|-------------|---|-----|
| 34-1111-158 | Main, 158" (13'-2")   | A   |
| 34-2231-480 | Mid-main with mid-marker, ECU and ABS warning lamp drop, 480" (40') | B   |
| 34-3000-156 | ABS power harness, 156" (13')                                       | C   |
| 36-9601-024 | ID / license  | * H |

### 2-Lamp Rear Sill Harness Options

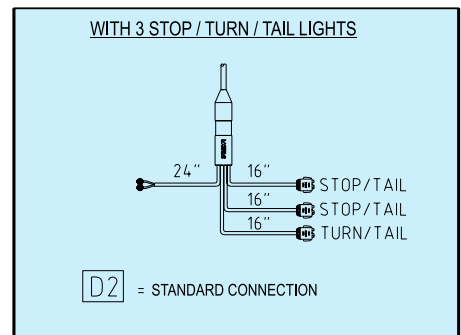
| Part No.   | Description                              | Key |
|------------|--|-----|
| 34-4020-01 | With 2 stop/turn/tail, standard pigtails | D   |

### 3-Lamp Rear Sill Harness Options

| Part No.   | Description                              | Key |
|------------|--|-----|
| 34-4030-01 | With 3 stop/turn/tail, standard pigtails | D2  |

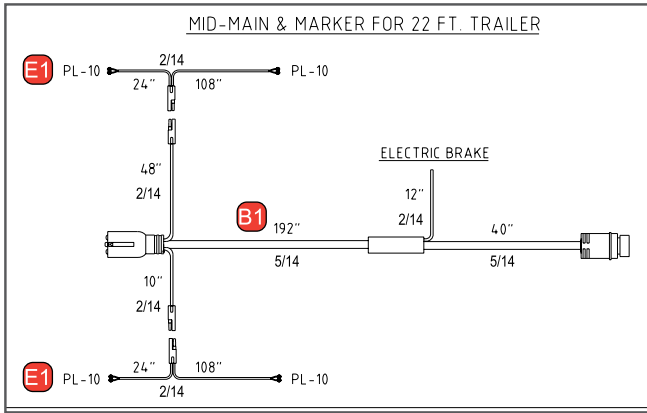
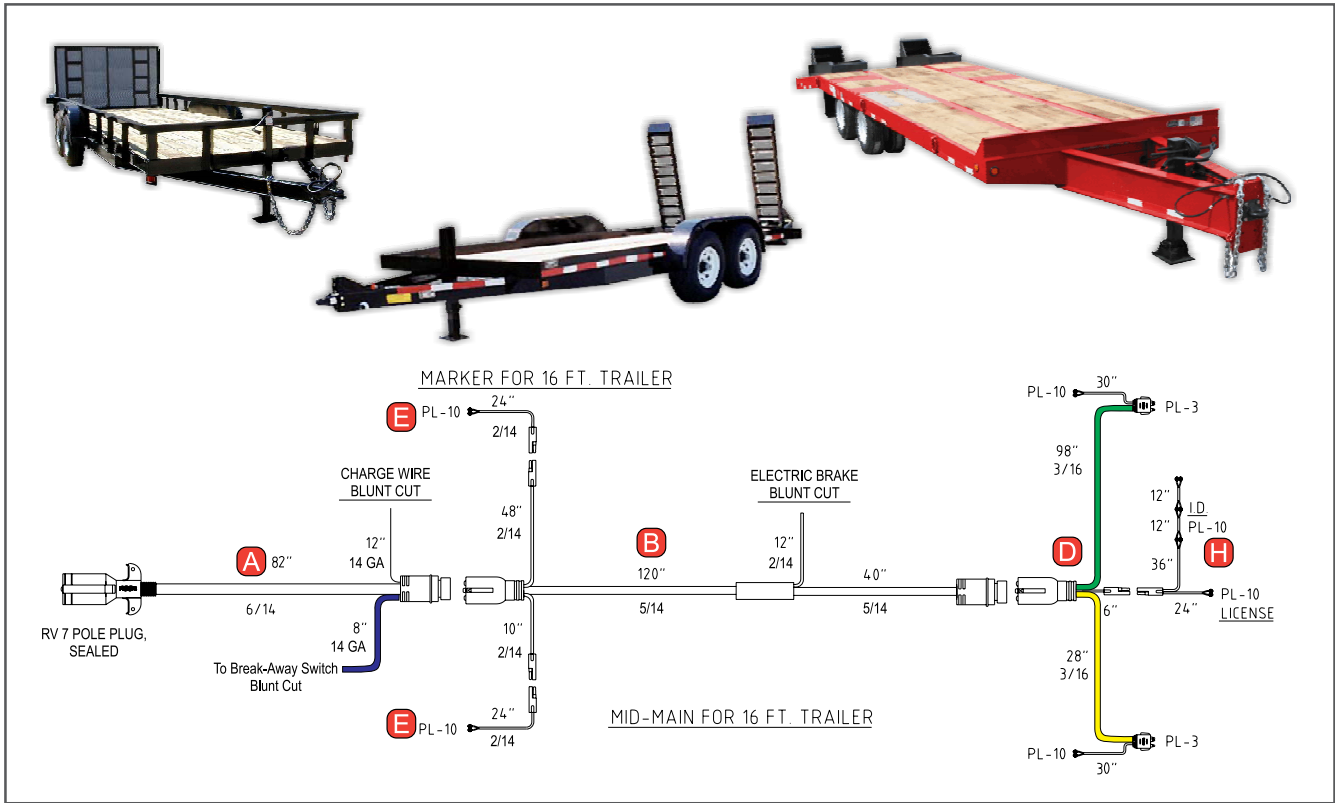
\* Will fit both 34 series (STA-DRY® SLIM-7™ System) and 36 series (STA-DRY® System)

### REAR SILL HARNESS STOP/TURN/TAIL LIGHT OPTIONS





# STA-DRY® System - Tagalong, Equipment & Landscape - Electric Brakes



**Standard (Length as shown above)**

| Part No.           | Description        | Key |
|--------------------|--------------------|-----|
| <b>34-1703-082</b> | Main, 82" (6'-10") | A   |
| <b>34-4010</b>     | Rear sill          | D   |
| <b>36-9601-036</b> | ID / license       | * H |

\* Will fit both 34 series (STA-DRY® SLIM-7™ System) and 36 series (STA-DRY® System)

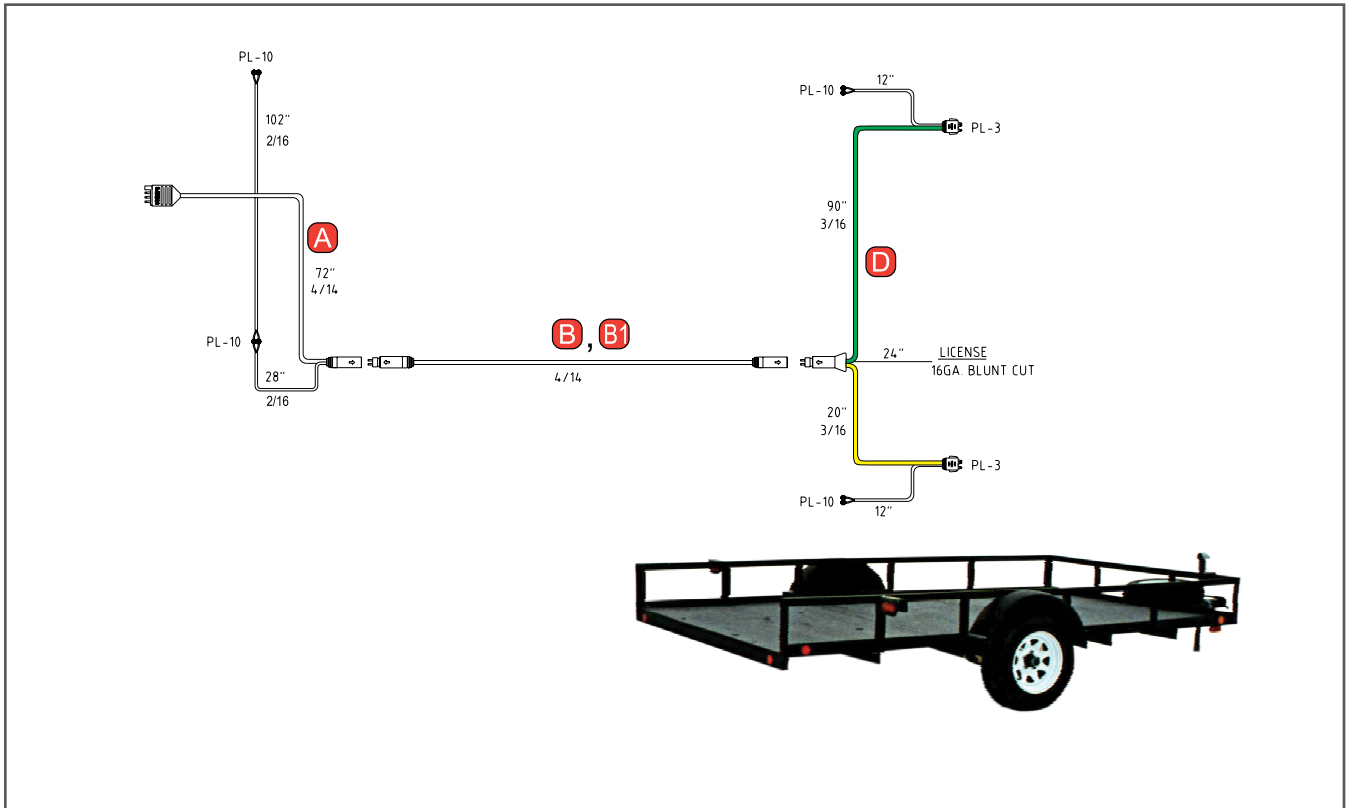
**Mid-Main Harness Options**

| Part No.           | Description   | Key |
|--------------------|---|-----|
| <b>34-2023-160</b> | 16' trailer mid-main with marker and electric brake drop, 160" (13'-4") | B   |
| <b>34-2023-232</b> | 22' trailer mid-main with marker and electric brake drop, 232" (19'-4") | B1  |

**Marker Lamp Lead Options**

| Part No.              | Description                              | Key |
|-----------------------|--|-----|
| <b>34-5211-024</b>    | 16' trailer mid-marker, 24" (2')         | E   |
| <b>34-5221-024108</b> | 22' trailer mid-marker, 24"/108" (2'/9') | E1  |

## STA-DRY® System - Utility Trailer



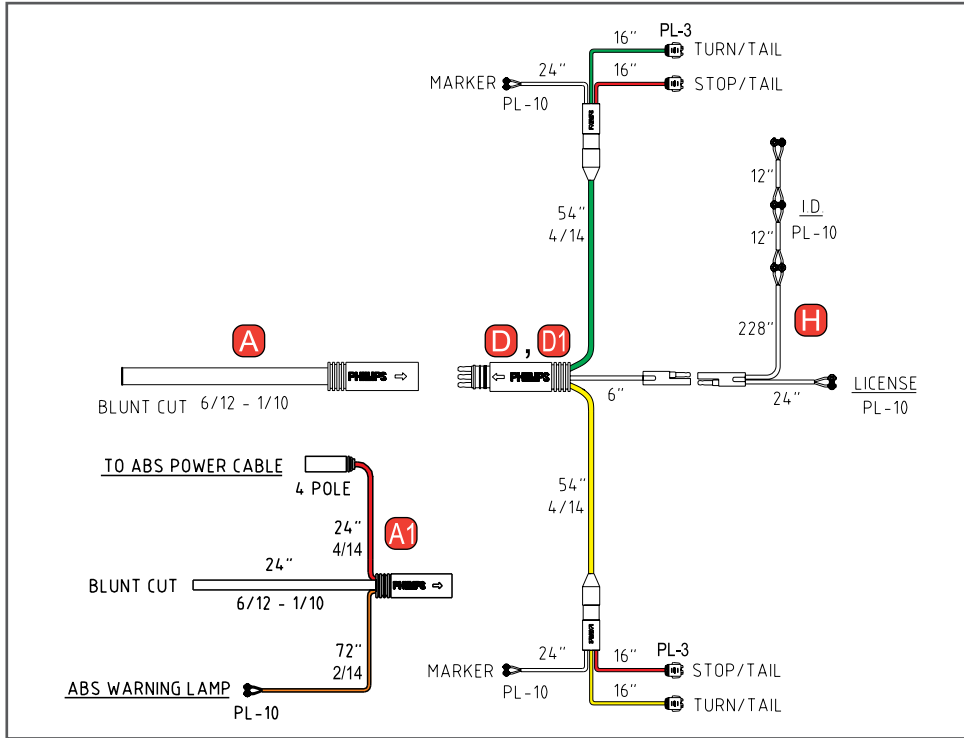
### Standard (Length as shown above)

| Part No.           | Description    | Key |
|--------------------|----------------|-----|
| <b>34-1824-072</b> | Main, 72" (6') | A   |
| <b>34-4012</b>     | Rear sill      | D   |

### Mid-Main Harness Options

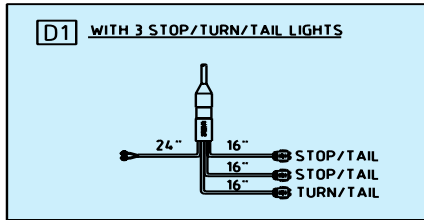
| Part No.           | Description                        | Key |
|--------------------|------------------------------------|-----|
| <b>34-2004-066</b> | 8' trailer mid-main, 66" (5'-6")   | B   |
| <b>34-2004-114</b> | 12' trailer mid-main, 114" (9'-6") | B1  |

# STA-DRY® SLIM-7™ System - Retrofit Trailer



ELECTRICAL HARNESS SYSTEMS

### REAR SILL HARNESS STOP/TURN/TAIL LIGHT OPTIONS



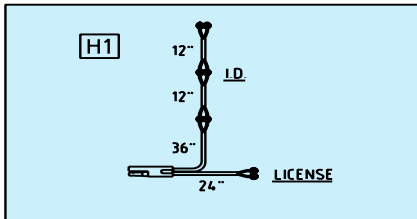
### Main Harness

| Part No.    | Description                  | Key |
|-------------|------------------------------|-----|
| 34-1901-024 | Main, 24" (2')               | A   |
| 34-1902-024 | Main, 24" (2') with ABS drop | A1  |

### 2-Lamp Rear Sill Harness Options

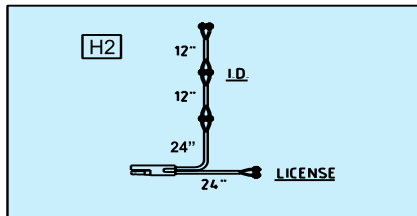
| Part No. | Description                              | Key |
|----------|--|-----|
| 34-4020  | With 2 stop/turn/tail, standard pigtails | D   |

### ID / LICENSE OPTIONS



### 3-Lamp Rear Sill Harness Options

| Part No. | Description                              | Key |
|----------|--|-----|
| 34-4030  | With 3 stop/turn/tail, standard pigtails | D1  |



### ID / License Rear Sill Harness Options

| Part No.    | Description              | Key  |
|-------------|--------------------------|------|
| 36-9601-024 | ID / license, 24" (2')   | * H2 |
| 36-9601-228 | ID / license, 228" (19') | * H  |
| 36-9601-036 | ID / license, 36" (3')   | * H1 |

\* Will fit both 34 series (STA-DRY® SLIM-7™ System) and 36 series (STA-DRY® System)

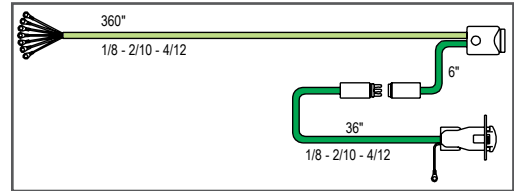
34 series (STA-DRY® SLIM-7™ System) is not interchangeable with the 36 series (STA-DRY® System) except where noted. Adapter available, page 127.

# STA-DRY® MAIN MODULE

## Double Trailer

| Part No.           | Description                |
|--------------------|----------------------------|
| <b>36-9000-360</b> | 30' with 3' QCS® extension |

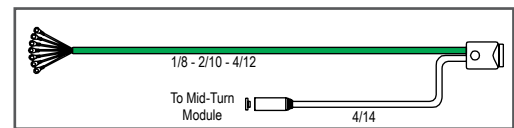
- 1/8, 2/10 and 4/12 ga. conductors exceed the maximum power requirements for the ABS unit
- Equipped with a detachable 36 in. molded QCS® socket for double trailer use
- Ring terminals



## Single Trailer

| Part No.           | Description                         |
|--------------------|-------------------------------------|
| <b>36-9000-480</b> | 40' with 20' mid-turn module outlet |
| <b>36-9000-600</b> | 50' with 25' mid-turn module outlet |
| <b>36-9000-720</b> | 60' with 30' mid-turn module outlet |

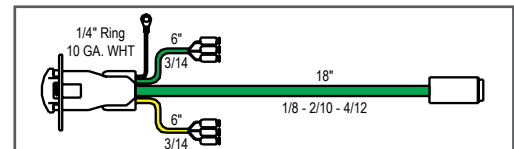
- 1/8, 2/10 and 4/12 ga. conductors exceed the maximum amperes
- Easy connection to mid-turn module
- All mid-turn outlets are "dummy" plugged
- Ring terminals



## QCS2® Main

| Part No.           | Description                               |
|--------------------|---|
| <b>36-9020-018</b> | 18" with 6" marker drop and 7 pole female |

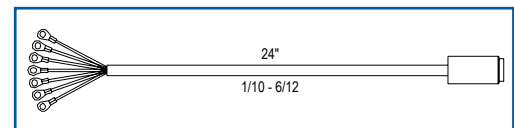
- 1/8, 2/10 and 4/12 ga. conductors
- QCS2® socket



## Main Repair Harness

| Part No.       | Description                             |
|----------------|---|
| <b>36-3001</b> | 24" with 7 pole female, 1/10 - 6/12 ga. |

- #10 ring terminals

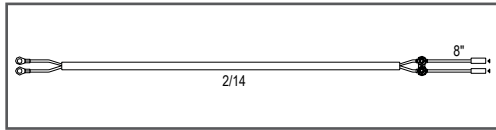


34 series (STA-DRY® SLIM-7™ System) is not interchangeable with the 36 series (STA-DRY® System) except where noted. Adapter available, page 127.



# JUMPER HARNESS

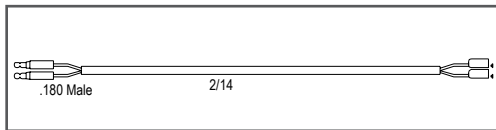
## Marker Harness



| Part No.           | Description                       |
|--------------------|-----------------------------------|
| <b>36-9100-060</b> | 5', lower marker/clearance lamps  |
| <b>36-9100-192</b> | 16', upper marker/clearance lamps |

- For use with front (nosebox) marker lamps
- Standard with #10 ring terminals for a positive connection
- Standard with female .180 bullets to add additional lamps
- Dummy plugged female bullets
- Custom harness lengths available in 12 in. increments

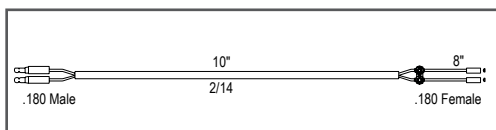
## Male/Female Jumper Harness



| Part No.           | Description                    |
|--------------------|--------------------------------|
| <b>36-9101-060</b> | 5', with 2 pole female bullets |
| <b>36-9101-192</b> | 16', with 2 female bullets     |

- Female bullets connect to pin lamp pigtails
- 2 female bullets per conductor for additional connections
- Color coded conductors to ensure proper connections
- Custom harness lengths available in 12 in. increments

## Marker/Clearance Harness



| Part No.       | Description  |
|----------------|--|
| <b>36-9701</b> | 10" marker/clearance lamps with additional marker connection |

- Unique design enables any amount of lamps to be connected using marker modules or additional pigtails

34 series (STA-DRY® SLIM-7™ System) is not interchangeable with the 36 series (STA-DRY® System) except where noted.  
Adapter available, page 127.



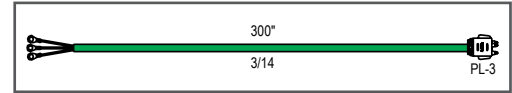
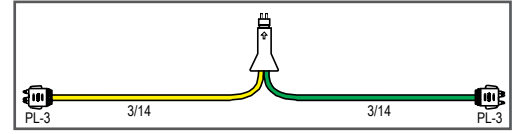
# MID-TURN MODULE

## Mid-Turn Module

| Part No.            | Description                        |
|---------------------|------------------------------------|
| <b>36-9200-6060</b> | Center, 60" roadside, 60" curbside |
| <b>36-9200-2484</b> | Offset, 24" roadside, 84" curbside |

- Provides a moisture proof connection to main harness

| Part No.           | Description             |
|--------------------|-------------------------|
| <b>36-9202-300</b> | Mid-turn, 25' extension |

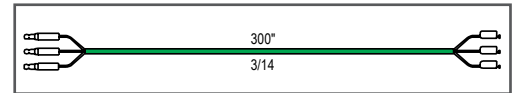
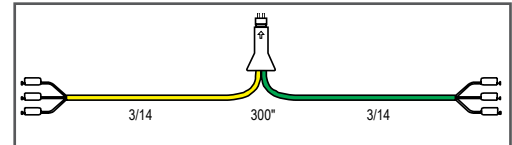


## LED & Male Pin

| Part No.            | Description                        |
|---------------------|------------------------------------|
| <b>36-9201-6060</b> | Center, 60" roadside, 60" curbside |
| <b>36-9201-2484</b> | Offset, 24" roadside, 84" curbside |

- Provides a moisture proof connection to main harness

| Part No.           | Description             |
|--------------------|-------------------------|
| <b>36-9203-300</b> | Mid-turn, 25' extension |

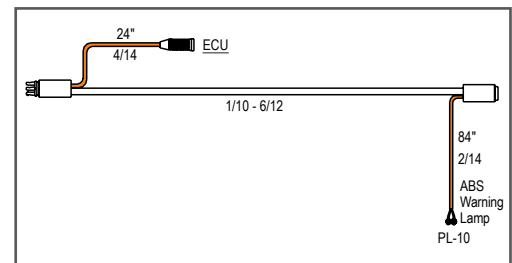


# ALL OTHER MODULES

## ABS Module

| Part No.           | Description                                       |
|--------------------|---|
| <b>36-9300-012</b> | 1' for forward axle ABS position, 1/10 - 6/12 ga. |
| <b>36-9300-132</b> | 11' for rear axle ABS position, 1/10 - 6/12 ga.   |

- Sealed thermo-plastic ABS ECU connector
- ECU connector is industry-standard
- ECU and warning lamp cables color coded orange for easy identification

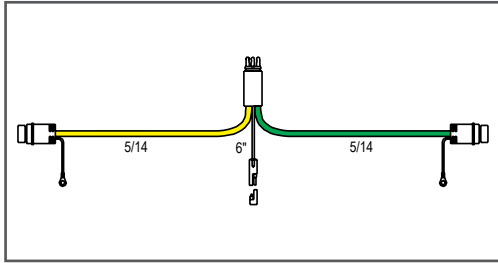


34 series (STA-DRY® SLIM-7™ System) is not interchangeable with the 36 series (STA-DRY® System) except where noted. Adapter available, page 127.

Additional ABS harness configurations are available, please ask your sales representative.



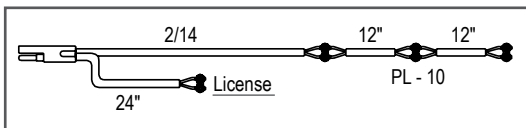
## Rear "T" Module



| Part No.            | Description                        |
|---------------------|------------------------------------|
| <b>36-9400-2484</b> | Offset, 24" roadside, 84" curbside |
| <b>36-9400-5050</b> | Center, 50" roadside, 50" curbside |

- Additional ground wires ensure a solid ground
- 2 pole plug from center for I.D. and license module connection, dummy plugged

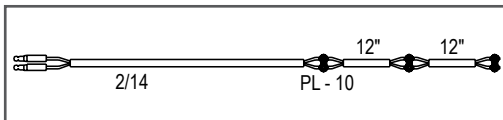
## Rear "T" License & I.D. Marker Harness Module



| Part No.           | Description                                 |
|--------------------|---|
| <b>36-9601-024</b> | 2', lower I.D. lamps and 2' license lamp *  |
| <b>36-9601-036</b> | 3', lower I.D. lamps and 2' license lamp *  |
| <b>36-9601-228</b> | 19', upper I.D. lamps and 2' license lamp * |

- Plugs to rear "T" for a sealed connection
- Dimensions fit standard upper and lower position I.D. lamp, plus a license lamp connection

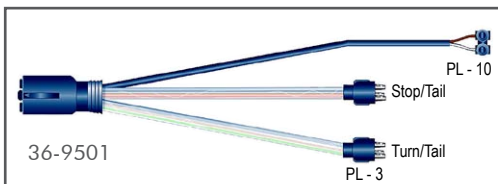
## Pigtail Module, License & I.D. Marker Harness



| Part No.           | Description           |
|--------------------|-----------------------|
| <b>36-9603-036</b> | 3', lower I.D. lamps  |
| <b>36-9603-228</b> | 19', upper I.D. lamps |

- Connect to pigtail module with a male .180 bullet

## Lamp Rear "T" Plug-In Pigtail Module - Standard

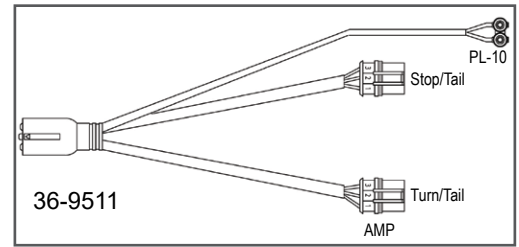


| Part No.       | Description  |
|----------------|--|
| <b>36-9501</b> | 2 stop/turn/tail and 1 PL-10 sealed marker, 4 pin        |
| <b>36-9502</b> | 2 stop/turn/tail and 4 .180 double female bullets, 5 pin |
| <b>36-9503</b> | 3 stop/turn/tail and 1 PL-10 sealed marker, 4 pin        |
| <b>36-9504</b> | 3 stop/turn/tail and 4 .180 double female bullets, 5 pin |

\* Will fit both 34 series (STA-DRY® SLIM-7™ System) and 36 series (STA-DRY® System)

## LED Model 44 & 60 Lamp Module - AMP Connector

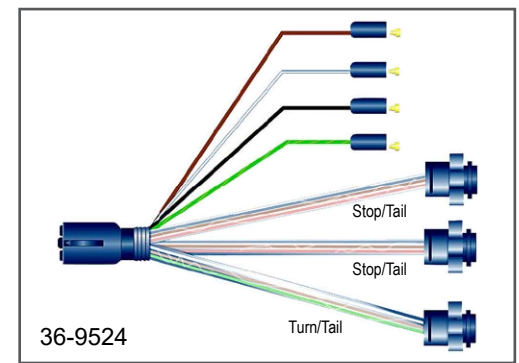
| Part No.       | Description  |
|----------------|--|
| <b>36-9511</b> | 2 stop/turn/tail and 1 PL-10 marker, 4 pin               |
| <b>36-9512</b> | 2 stop/turn/tail and 4 .180 double female bullets, 5 pin |
| <b>36-9513</b> | 3 stop/turn/tail and 1 PL-10 marker, 4 pin               |
| <b>36-9514</b> | 3 stop/turn/tail and 4 .180 double female bullets, 5 pin |



## Female Pin Plugs, Mates to Male Pin Lamp Module

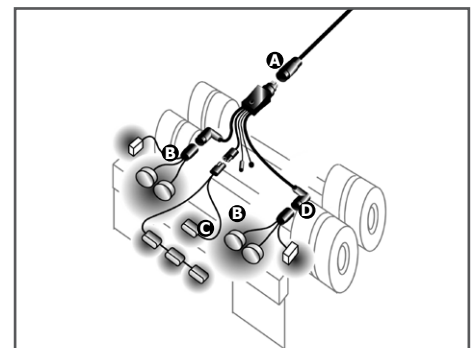
| Part No.       | Description                                       |
|----------------|---|
| <b>36-9523</b> | 3 stop/turn/tail and 1 PL-10 sealed marker        |
| <b>36-9524</b> | 3 stop/turn/tail and 4 .180 double female bullets |

- 2 or 3 stop-tail-turn lamp connections
- Available with 4 double female .180 bullets for connecting additional lamps
- Clear shield protects wire conductors and makes it easy to see wire color and function
- Green and yellow stripe wire indicates turn signal function and eliminates the need to stock separate curbside and roadside pigtails
- Unique "pop" together mold design keeps pigtails connected to rear "T" and keeps moisture and contamination out



## STA-DRY® System - Repair Kit

| Part No.            | Description    | Key |
|---------------------|----------------|-----|
| <b>36-3001</b>      | Main           | A   |
| <b>36-9501</b>      | Marker modules | B   |
| <b>36-9601-036</b>  | ID/license     | C   |
| <b>36-9400-2484</b> | Rear "T"       | D   |



34 series (STA-DRY® SLIM-7™ System) is not interchangeable with the 36 series (STA-DRY® System) except where noted.  
 Adapter available, page 127.

# LITE-SENTRY®

## LITE-SENTRY®

Know instantly if a trailer light or trailer lighting connection has failed!



| Part No.           | Description   |
|--------------------|---|
| <b>34-1107-024</b> | 2' LITE-SENTRY® indicator, with QCS2® socket and SLIM-7™* |

\*Current design shown (P/N: 34-1107-024) is for OEM only

- Works with all 12V LED lights that draw more than 19mA
- Designed to work with LED exterior trailer lighting only
- Integrated and completely sealed into a Phillips STA-DRY® electrical harness
- Optional: Lighting and connection failure notifications can also be sent via telematics to fleet managers or any other individual that would benefit from this knowledge
- Integrated short circuit protection: No more electrical harnesses burning up due to "dead shorts"
- Contact your local sales representative to find out how to integrate the LITE-SENTRY® into your electrical harness system with custom lengths and terminations available for both OEM and retrofit chassis applications
- Patent No.9434308

Find out how this can be customized to fit your new fleet spec or retrofit application!

The LITE-SENTRY® monitors the exterior trailer lighting for lighting connection failures and notifies the driver by an indicator light mounted at the front of the trailer.



## HOW IT WORKS

### SYSTEM INTEGRATION:

The LITE-SENTRY® is integrated into the front of the trailer harness system and monitors the current that flows through the trailer's electrical system while the vehicle is powered on.

### UPON INITIAL START UP:

When power is supplied to the electrical system, the amber indicator light will turn on for approximately 3 seconds to confirm that the LITE-SENTRY® is functioning.

### DURING THE RIDE:

With the vehicle powered on, and after initial start-up, the indicator light should be monitored regularly, similarly to how the lights on the dashboard of a tractor are monitored.

### DETECTION OF LIGHTING FAILURES:

With power supplied to the trailer, when the driver engages any exterior trailer lighting, if a significant drop in electrical current is detected within the electrical system, the indicator light will turn on, and stay on, to notify the driver of possible lighting failure.

### NORMAL LIGHT OPERATION

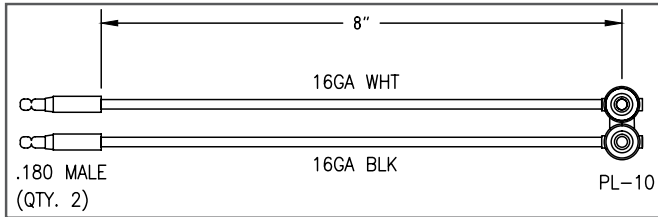
If the indicator light remains off during the ride, no problems are detected.

# MARKER / CLEARANCE LIGHT PIGTAILS

## PL-10 Connector

| Part No.           | Description                      | Qty. |
|--------------------|----------------------------------|------|
| <b>51-96010</b>    | PL-10 connector, (2) bullets, 8" | 1    |
| <b>51-96010-25</b> | PL-10 connector, (2) bullets, 8" | 25   |

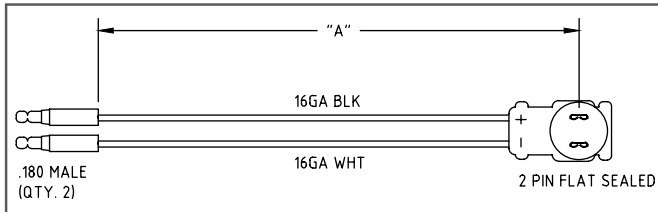
- Molded connections to protect against contaminants
- 16 ga. black and white wires
- .180 male bullets



## Flat Seal Connector

| Part No.           | Description                          | Qty. |
|--------------------|--------------------------------------|------|
| <b>51-96110</b>    | Flat seal connector, (2) bullets, 6" | 1    |
| <b>51-96110-25</b> | Flat seal connector, (2) bullets, 6" | 25   |

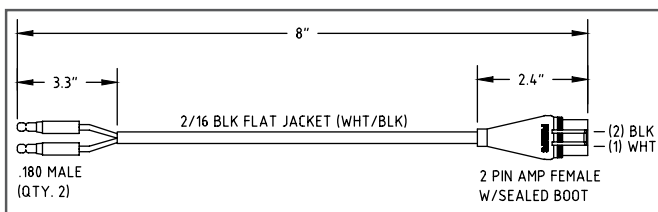
- Molded connections to protect against contaminants
- Molded o-ring ensures water-tight connection
- 16 ga. black and white wires
- .180 male bullets



## 2 Pin AMP Connector with STA-DRY® Sealed Boot

| Part No.           | Description  | Qty. |
|--------------------|--|------|
| <b>51-96310</b>    | 2 pin amp connector with STA-DRY® sealed boot, (2) bullets, 8" | 1    |
| <b>51-96310-25</b> | 2 pin amp connector with STA-DRY® sealed boot, (2) bullets, 8" | 25   |

- 2 pin amp connector with STA-DRY® sealed boot adds additional protection to help seal out moisture and contaminants
- 16 ga. black and white wires
- .180 male bullets

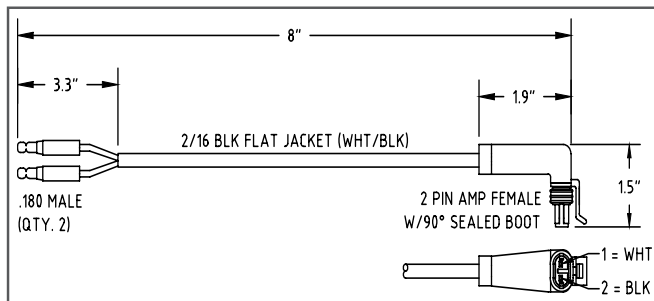


## 90° 2 Pin AMP Connector with STA-DRY® Sealed Boot



| Part No.           | Description  | Qty. |
|--------------------|--|------|
| <b>51-96319</b>    | 90° 2 pin amp connector with STA-DRY® sealed boot, (2) bullets, 8" | 1    |
| <b>51-96319-25</b> | 90° 2 pin amp connector with STA-DRY® sealed boot, (2) bullets, 8" | 25   |

- For use with LED lights
- For use in tight spaces
- STA-DRY® sealed boot adds additional protection to help seal out moisture and contaminants

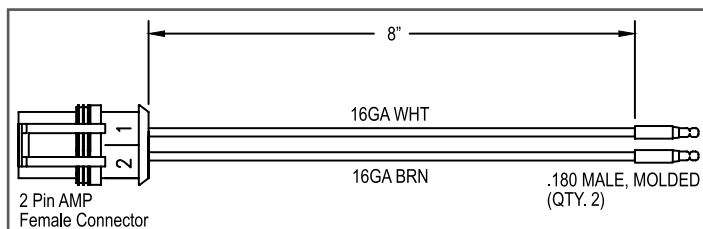


## 2 Pin AMP Connector



| Part No.           | Description                          | Qty. |
|--------------------|--------------------------------------|------|
| <b>51-96210</b>    | 2 pin amp connector, (2) bullets, 8" | 1    |
| <b>51-96210-25</b> | 2 pin amp connector, (2) bullets, 8" | 25   |

- For use with LED lights
- For use in tight spaces
- Molded connections to protect against contaminants
- 16 gauge white and brown wires
- .180 male bullets

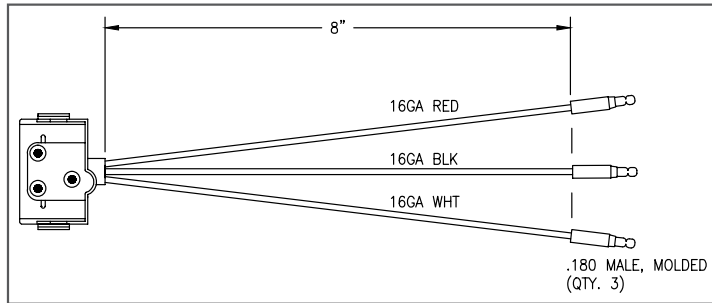


# STOP-TAIL-TURN & MID-TURN LIGHT PIGTAILS

## 90 Degree PL-3 Connector

| Part No.           | Description                                | Qty. |
|--------------------|--|------|
| <b>51-96510</b>    | 90 degree, PL-3 connector, (3) bullets, 8" | 1    |
| <b>51-96510-25</b> | 90 degree, PL-3 connector, (3) bullets, 8" | 25   |

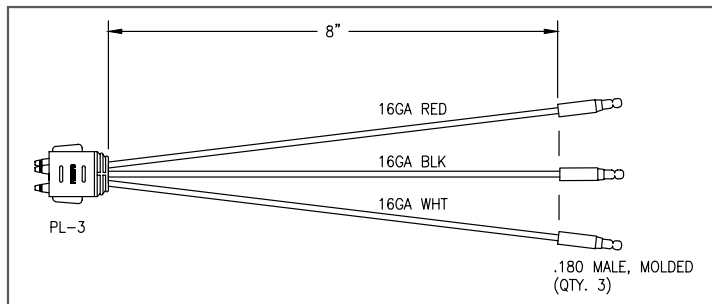
- Molded connections to protect against contaminants
- 90° plug-in connection with splash guard for added protection
- 16 ga. black, white, and red wires
- .180 male bullets



| Part No.           | Description                     | Qty. |
|--------------------|---------------------------------|------|
| <b>51-96410</b>    | PL-3 connector, (3) bullets, 8" | 1    |
| <b>51-96410-25</b> | PL-3 connector, (3) bullets, 8" | 25   |

- Molded connections to protect against contaminants
- 16 ga. black, white, and red wires
- .180 male bullets
- Can be used with adapter 51-97470 to convert the PL-3 connection to a 3 pin amp connection

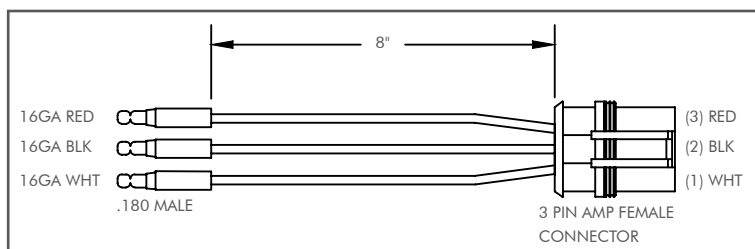
## PL-3 Connector



| Part No.           | Description                          | Qty. |
|--------------------|--------------------------------------|------|
| <b>51-96610</b>    | 3 pin amp connector, (3) bullets, 8" | 1    |
| <b>51-96610-25</b> | 3 pin amp connector, (3) bullets, 8" | 25   |

- For use with LED lights
- For use in tight spaces
- Molded connections to protect against contaminants

## 3 Pin AMP Connector





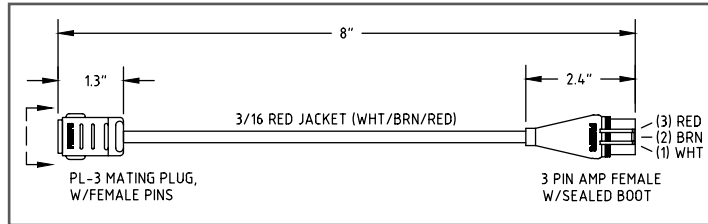
# PIGTAIL ADAPTERS

- Converts the PL-3 connection to a 3 pin amp connection
- For use with stop-tail-turn or mid-turn lights
- Molded connections to protect against contaminants
- 3 pin amp connector with STA-DRY® sealed boot adds additional protection to help seal out moisture and contaminants
- 16 ga. white, brown, and red wires

## PL-3 to 3 Pin AMP Pigtail Adapter



| Part No.    | Description                             | Qty. |
|-------------|---|------|
| 51-97470    | PL-3 to 3 pin amp connector adapter, 8" | 1    |
| 51-97470-25 | PL-3 to 3 pin amp connector adapter, 8" | 25   |

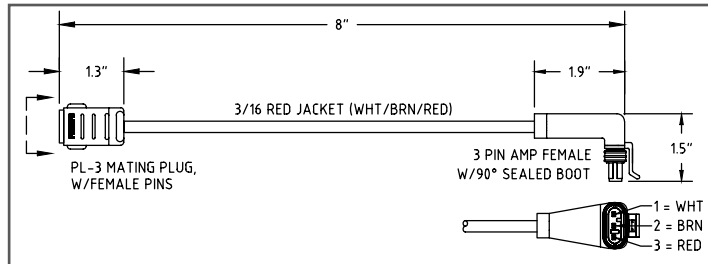


## PL-3 to 90° 3 Pin AMP Connector Adapter

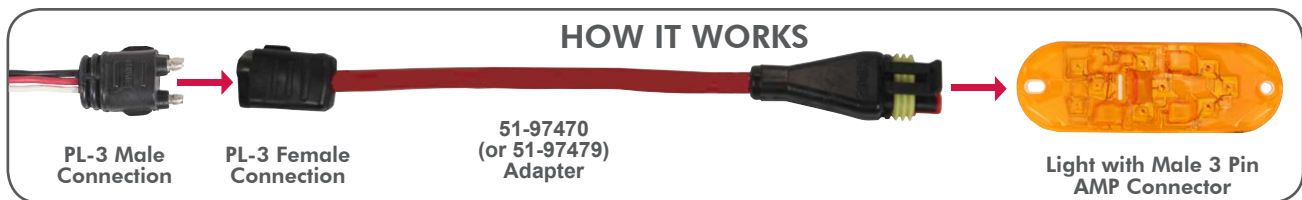


| Part No.    | Description                                 | Qty. |
|-------------|---|------|
| 51-97479    | PL-3 to 90° 3 pin amp connector adapter, 8" | 1    |
| 51-97479-25 | PL-3 to 90° 3 pin amp connector adapter, 8" | 25   |

- For use in tight spaces



### HOW IT WORKS



PL-3 Male Connection → PL-3 Female Connection

51-97470  
(or 51-97479)  
Adapter

Light with Male 3 Pin AMP Connector

# PERMALITE™ HD TRAILER LIGHTING



# PERMALITE™ XB CARGO LAMPS

- Up to two times brighter than the competition
- Fits almost any application with a slim, light weight design and universal mounting holes
- Available with PIR motion sensor – Light automatically turns on and off
- Consistent light output throughout the operating voltage range

## Specifications



51-22221/51-22224



51-22211/51-22214

|   |   |  |
|---|---|--|
| <b>Operating Voltage</b>                  | 10 - 36V DC   | 10 - 36V DC  |
| <b>Multi-volt 12V &amp; 24V (10V-36V)</b> | Yes   | Yes  |
| <b>Current Draw (at 12V)</b>              | 1.5A  | 1.5A   |
| <b>Operating Temperature</b>              | -40°F to 176°F<br>(-40°C to 80°C)                               | -40°F to 176°F<br>(-40°C to 80°C)                              |
| <b>IP Rating</b>                          | IP65  | IP65   |
| <b>Dimensions</b>                         | 18.19 in x 5.75 in x 1.17 in<br>(46.21 cm x 14.61 cm x 2.97 cm) | 18.19 in x 5.75 in x .91 in<br>(46.21 cm x 14.61 cm x 2.31 cm) |
| <b>Lumens</b>                             | 2200  | 2200   |
| <b>Lens</b>                               | Textured Clear<br>Polycarbonate                                 | Textured Clear<br>Polycarbonate                                |
| <b>Housing Color</b>                      | Powder Coated White   | Powder Coated White  |
| <b>Housing Material</b>                   | Aluminum  | Aluminum   |
| <b>LED Warranty</b>                       | 3 Years   | 3 Years  |
| <b>Lighting Source</b>                    | 20 LEDs   | 20 LEDs  |
| <b>Reverse Polarity Protection</b>        | Yes   | Yes  |
| <b>Universal Mounting Holes</b>           | Yes   | Yes  |
| <b>.180 male bullet connectors</b>        | Yes   | Yes  |

### Passive Infrared (PIR) Motion Sensor (51-22221/51-22224)

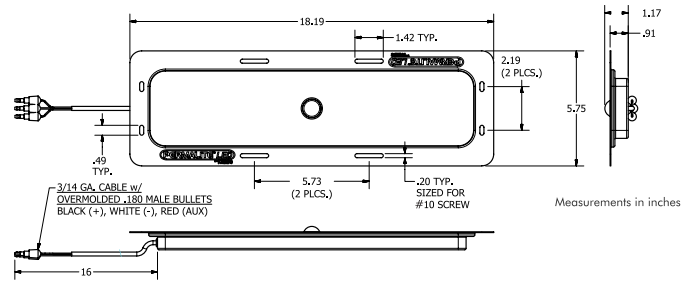
|  |                  |
|--|------------------|
| <b>Detection Angle</b>                       | 100°             |
| <b>Detection Distance</b>                    | Max 16.4 ft (5m) |
| <b>Shut Off Timer (after activity stops)</b> | 5 Minutes        |

## PERMALITE™ XB High Efficiency LED With PIR Motion Sensor

| Part No. | Description  | Qty. |
|----------|--|------|
| 51-22221 | Cargo lamp, 20 LEDs, 2200 lumens, PIR motion sensor, individual retail box | 1    |
| 51-22224 | Cargo lamp, 20 LEDs, 2200 lumens, PIR motion sensor, bulk pack             | 6    |



- Passive infrared (PIR) motion sensor
  - 5 minute shut off timer (after activity stops)
  - Angle of movement detection 100° at 16.4 ft max
- 20 LEDs
- 2200 lumens
- Multi-volt: runs on a 12 or 24 volt system
- Operating voltage: 10V – 36V DC
- Current AMP draw: 1.5A at 12V
- Reverse polarity protection
- Designed for extreme temperatures:
  - 40°F to 176°F (-40°C to 80°C)
- Strong aluminum housing with powder coated finish and textured clear polycarbonate lens
- Silicone seal protects components under lens from moisture build up
- 14 ga. wires with .180 male bullet connectors protected by an additional layer of STA-DRY® jacketing to guard against corrosion

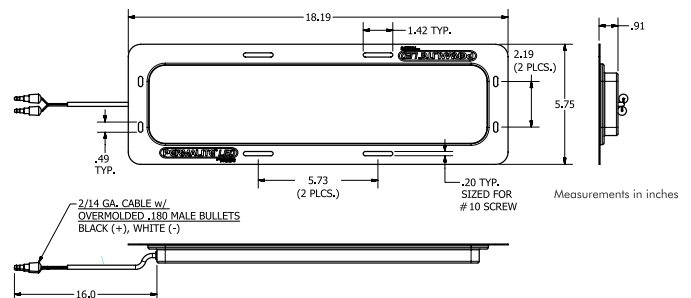


## PERMALITE™ XB High Efficiency LED Without PIR Motion Sensor

| Part No. | Description   | Qty. |
|----------|---|------|
| 51-22211 | Cargo lamp, 20 LEDs, 2200 lumens, individual retail box | 1    |
| 51-22214 | Cargo lamp, 20 LEDs, 2200 lumens, bulk pack             | 6    |



- 20 LEDs
- 2200 lumens
- Multi-volt: runs on a 12 or 24 volt system
- Operating voltage: 10V – 36V DC
- Current AMP draw: 1.5A at 12V
- Reverse polarity protection
- Designed for extreme temperatures:
  - 40°F to 176°F (-40°C to 80°C)
- Strong aluminum housing with powder coated finish and textured clear polycarbonate lens
- Silicone seal protects components under lens from moisture build up
- 14 ga. wires with .180 male bullet connectors protected by an additional layer of STA-DRY® jacketing to guard against corrosion



# PERMALITE™ XT EXTERIOR TRAILER LIGHTING

Manufactured for exclusive distribution by Phillips Industries – A California Corporation

### All Lighting

- Superior durability and impact resistance
- Resistance to corrosion, harsh chemicals and UV exposure

### BOARDFREE® Technology

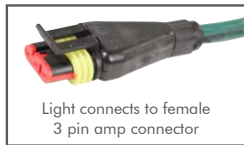
- Utilizes BOARDFREE® technology; a patented in-mold LED lighting solution that eliminates the need for a printed circuit board
- No printed circuit board means:
  - No hazardous waste
  - Optimal heat management which leads to a longer life expectancy
- BOARDFREE® is a registered trademark of Innotec Group

### Hard Wired Lighting

- Hard wired LED lighting
- For applications with space restrictions
- Available with AMP and bullet connections

## 4.0" Round Flange Mount Stop-Tail-Turn Light

BOARDFREE® Technology

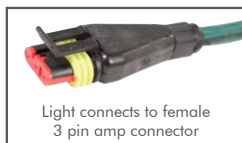
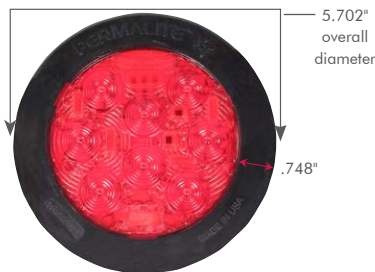


| Part No.           | Description                                       | Qty. |
|--------------------|---|------|
| <b>51-40202</b>    | 4.0" round flange mount stop-tail-turn light, red | 1    |
| <b>51-40202-16</b> | 4.0" round flange mount stop-tail-turn light, red | 16   |

- ABS and acrylic construction
- Sealed and greased male 3 pin amp connector
- BOARDFREE® technology with 9 diodes
- Meets SAE S2 and T2 specifications
- Slotted low stress mounting holes with standard mounting dimensions
- Can be mounted any direction and meets DOT specifications
- Connects to Phillips pigtail: P/N: 51-96610
- Optional stainless steel trim ring available (P/N: 51-40904)

## 4.0" Anti-Theft Round Stop-Tail-Turn Light

BOARDFREE® Technology



| Part No.           | Description  | Qty. |
|--------------------|--|------|
| <b>51-40122</b>    | 4.0" round stop-tail-turn light, with black anti-theft overmold, for 3/16" trailer plate thickness, red  | 1    |
| <b>51-40122-16</b> | 4.0" round stop-tail-turn light, with black anti-theft overmold, for 3/16" trailer plate thickness, red  | 16   |
| <b>51-40132</b>    | 4.0" round stop-tail-turn light, with silver anti-theft overmold, for 3/16" trailer plate thickness, red | 1    |
| <b>51-40132-16</b> | 4.0" round stop-tail-turn light, with silver anti-theft overmold, for 3/16" trailer plate thickness, red | 16   |
| <b>51-40142</b>    | 4.0" round stop-tail-turn light, with black anti-theft overmold, for 1/4" trailer plate thickness, red   | 1    |
| <b>51-40142-16</b> | 4.0" round stop-tail-turn light, with black anti-theft overmold, for 1/4" trailer plate thickness, red   | 16   |
| <b>51-40152</b>    | 4.0" round stop-tail-turn light, with silver anti-theft overmold, for 1/4" trailer plate thickness, red  | 1    |
| <b>51-40152-16</b> | 4.0" round stop-tail-turn light, with silver anti-theft overmold, for 1/4" trailer plate thickness, red  | 16   |

- ABS and acrylic construction
- Sealed and greased male 3 pin amp connector
- BOARDFREE® technology with 8 diodes
- Meets SAE S2 and T2 specifications
- Molded anti-theft ring is designed to install in a 4.5 in. mounting hole with a trailer plate thickness of 3/16 in. or 1/4 in.
- Connects to Phillips pigtail: P/N: 51-96610
- Patent pending

## 4.0" Round Grommet Mount Stop-Tail-Turn Light

| Part No.           | Description  | Qty. |
|--------------------|--|------|
| <b>51-40212</b>    | 4.0" round grommet mount stop-tail-turn light, red*  | 1    |
| <b>51-40212-16</b> | 4.0" round grommet mount stop-tail-turn light, red*  | 16   |
| <b>51-40500</b>    | Mounting grommet for 4.0" round light*   | 1    |
| <b>51-40500-25</b> | Mounting grommet for 4.0" round light*   | 25   |
| <b>51-40212K</b>   | Kit - 4.0" round grommet mount stop-tail-turn light, red (51-40212) and grommet (51-40500) | 1    |

\*Light and grommet sold separately. Select kit 51-40212K to purchase both the light and grommet together.

### Grommet Mount Light

- ABS and acrylic construction
- Sealed and greased intergrated male 3 pin amp connector
- BOARDFREE® technology with 9 diodes
- Meets SAE S2 and T2 specifications
- Can be mounted any direction and meets DOT specifications
- Sold separately from grommet
- Connects to Phillips pigtail: P/N: 51-96610

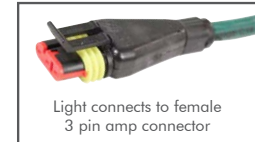
### Grommet

- Grommet provides additional protection to the light against vibration and shock
- Fits in standard 4.5 in. openings
- Grommet mounts up to a 1/4 in. plate

### Kit

- Includes:
  - 51-40212 (1) 4.0 in. round grommet mount stop-tail-turn light
  - 51-40500 (1) Mounting grommet for 4.0 in. round light

 Technology



## 4.0" Round Grommet Mount Reverse Light

| Part No.           | Description  | Qty. |
|--------------------|--|------|
| <b>51-40811</b>    | 4.0" round grommet mount reverse light, clear*   | 1    |
| <b>51-40811-16</b> | 4.0" round grommet mount reverse light, clear*   | 16   |
| <b>51-40500</b>    | Mounting grommet for 4.0" round light*   | 1    |
| <b>51-40500-25</b> | Mounting grommet for 4.0" round light*   | 25   |
| <b>51-40811K</b>   | Kit - 4.0" round grommet mount reverse light, clear, (51-40811) and grommet (51-40500) | 1    |

\*Light and grommet sold separately. Select kit 51-40811K to purchase both the light and grommet together.

### Grommet Mount Light

- ABS and acrylic construction
- Sealed and greased intergrated male 3 pin amp connector
- BOARDFREE® technology with 9 diodes
- Meets SAE R specifications
- Can be mounted any direction and meets DOT specifications
- Sold separately from grommet
- Connects to 2 pin tail light connector

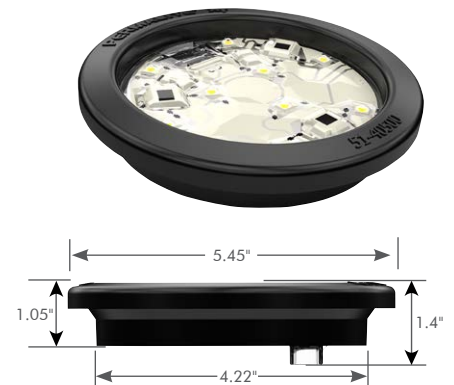
### Grommet

- Grommet provides additional protection to the light against vibration and shock
- Fits in standard 4.5 in. openings
- Grommet mounts up to a 1/4 in. plate
- Made of UV protected EPDM
- Sold separately from light
- For use with round grommet mount lights only

### Kit

- Includes:
  - 51-40811 (1) 4.0 in. round grommet mount reverse light
  - 51-40500 (1) Mounting grommet for 4.0 in. round light

 Technology





## 4.0" Round Flange Mount Reverse Light

**BOARDFREE®** Technology

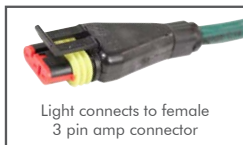


| Part No.           | Description                                  | Qty. |
|--------------------|--|------|
| <b>51-40801</b>    | 4.0" round flange mount reverse light, clear | 1    |
| <b>51-40801-16</b> | 4.0" round flange mount reverse light, clear | 16   |

- ABS and acrylic construction
- Sealed and greased integrated male 3 pin amp connector
- BOARDFREE® technology with 9 diodes
- Meets SAE R specifications
- Slotted low stress mounting holes with standard mounting dimensions
- Can be mounted any direction and meets DOT specifications
- Connects to 2 pin tail light connector
- Optional stainless steel trim ring available (P/N: 51-40904)

## 6.5" Oval Grommet Mount Side Turn/Marker & Stop-Tail-Turn Lights

**BOARDFREE®** Technology



Light connects to female 3 pin amp connector

| Part No.           | Description  | Qty. |
|--------------------|--|------|
| <b>51-60312</b>    | 6.5" oval grommet mount stop-tail-turn light, red* <b>NEW</b>  | 1    |
| <b>51-60312-16</b> | 6.5" oval grommet mount stop-tail-turn light, red* <b>NEW</b>  | 16   |
| <b>51-60313</b>    | 6.5" oval grommet mount side turn/marker light, amber* <b>NEW</b>  | 1    |
| <b>51-60313-16</b> | 6.5" oval grommet mount side turn/marker light, amber* <b>NEW</b>  | 16   |
| <b>51-60500</b>    | Mounting grommet for 6.5" oval light*  | 1    |
| <b>51-60500-25</b> | Mounting grommet for 6.5" oval light*  | 25   |
| <b>51-60312K</b>   | Kit - 6.5" oval grommet mount stop-tail-turn light, red (51-60312) and grommet (51-60500) <b>NEW</b>     | 1    |
| <b>51-60313K</b>   | Kit - 6.5" oval grommet mount side turn/marker light, amber (51-60313) and grommet (51-60500) <b>NEW</b> | 1    |

\*Light and grommet sold separately. Select kit 51-60312K/51-60313K to purchase both the light and grommet together.

### Grommet Mount Light

- ABS and acrylic construction
- BOARDFREE® technology with 9 diodes
- Sealed and greased integrated male 3 pin amp connector
- Side turn light meets SAE I6, P2 and P3 for turn signals and side markers
- Stop-tail-turn light meets SAE S2 and T2 specifications
- Sold separately from grommet
- Connects to Phillips pigtail: P/N: 51-96610

### Grommet

- Grommet provides additional protection to the light against vibration and shock
- Fits in standard openings
- Grommet mounts up to a 1/4 in. plate
- Made of UV protected EPDM
- Sold separately from light
- For use with oval grommet mount lights only

### Kit

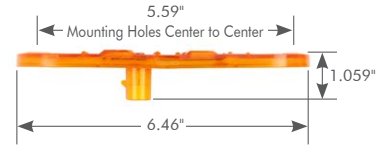
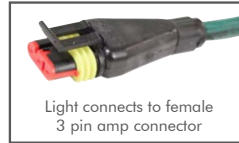
- 51-60312K Includes:
  - 51-60312 (1) 6.5 in. oval grommet mount light, red
  - 51-60500 (1) Mounting grommet for 6.5 in. oval light
- 51-60313K Includes:
  - 51-60313 (1) 6.5 in. oval grommet mount light, amber
  - 51-60500 (1) Mounting grommet for 6.5 in. oval light

## 6.5" Surface Mount Oval Side Turn/Marker & Stop-Tail-Turn Lights

 Technology

| Part No.           | Description  | Qty. |
|--------------------|--|------|
| <b>51-60302</b>    | 6.5" oval stop-tail-turn light, red <b>NEW</b>     | 1    |
| <b>51-60302-16</b> | 6.5" oval stop-tail-turn light, red <b>NEW</b>     | 16   |
| <b>51-60303</b>    | 6.5" oval side turn/marker light, amber <b>NEW</b> | 1    |
| <b>51-60303-16</b> | 6.5" oval side turn/marker light, amber <b>NEW</b> | 16   |

- ABS and acrylic construction
- BOARDFREE® technology with 9 diodes
- Sealed and greased integrated male 3 pin amp connector
- Side turn light meets SAE I6, P2 and P3 for turn signals and side markers
- Stop-tail-turn light meets SAE S2 and T2 specifications
- Low stress mounting holes
- Connects to Phillips pigtail: P/N: 51-96610
- Optional stainless steel trim ring available (P/N: 51-60904)

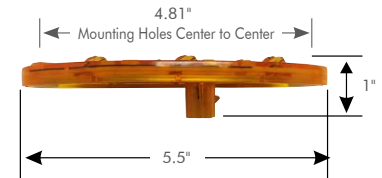
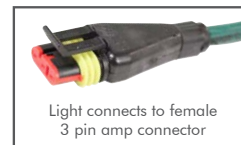


## 5.5" J2039 Side Turn/Marker Light

 Technology

| Part No.          | Description                              | Qty. |
|-------------------|--|------|
| <b>51-60213</b>   | 5.5" J2039 side turn/marker light, amber | 1    |
| <b>51-60213-4</b> | 5.5" J2039 side turn/marker light, amber | 4    |

- ABS and acrylic construction
- 10 times thinner than any other J2039 side turn light on the market
- BOARDFREE® technology with 9 diodes
- Sealed and greased integrated male 3 pin amp connector
- Meets SAE P2 E for turn signals and side markers
- Low stress mounting holes
- Connects to Phillips pigtail: P/N: 51-96610

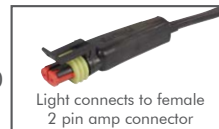


## 4.0" Low Profile Marker/Clearance Lights

 Technology

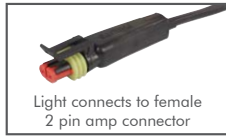
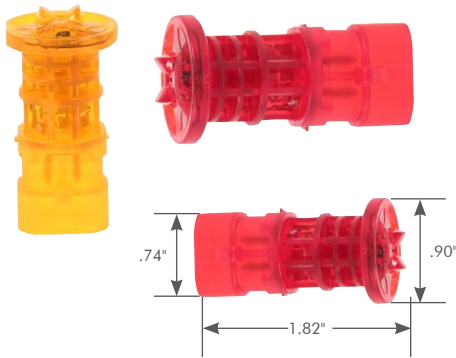
| Part No.           | Description                                    | Qty. |
|--------------------|--|------|
| <b>51-18312</b>    | 4.0" low profile marker/clearance light, red   | 1    |
| <b>51-18312-10</b> | 4.0" low profile marker/clearance light, red   | 10   |
| <b>51-18313</b>    | 4.0" low profile marker/clearance light, amber | 1    |
| <b>51-18313-10</b> | 4.0" low profile marker/clearance light, amber | 10   |

- ABS and acrylic construction
- BOARDFREE® technology with 4 diodes
- Sealed and greased integrated male 2 pin amp connector
- Meets SAE PC standards for marker lights
- Meets FMVSS 108
- Slotted low stress mounting hole
- Connects to Phillips pigtails: P/Ns: 51-96310; 51-96319; 51-96210
- Optional mounting gasket available (P/N: 51-18500)



### 3/4" PC2 Rated Round Marker/Clearance Light

**BOARDFREE®** Technology



\*PC2 light must be mounted with 51-34500 grommet when mounting against trim ring or adapter plates

| Part No.    | Description  | Qty. |
|-------------|--|------|
| 51-34302    | 3/4" PC2 rated round marker/clearance light, red                         | 1    |
| 51-34302-10 | 3/4" PC2 rated round marker/clearance light, red                         | 10   |
| 51-34303    | 3/4" PC2 rated round marker/clearance light, amber                       | 1    |
| 51-34303-10 | 3/4" PC2 rated round marker/clearance light, amber                       | 10   |
| 51-34500    | Mounting grommet for 3/4" PC2 rated round marker/clearance light*        | 1    |
| 51-34500-10 | Mounting grommet for 3/4" PC2 rated round marker/clearance light*        | 10   |
| 51-34550    | Anti-theft mounting ring for 3/4" PC2 rated round marker/clearance light | 1    |
| 51-34550-10 | Anti-theft mounting ring for 3/4" PC2 rated round marker/clearance light | 10   |

- Acrylic construction
- Sealed and greased integrated male 2 pin amp connector
- BOARDFREE® technology with a single diode
- Meets SAE PC2 standard for marker lights
- Anti-theft mounting ring or mounting grommet available
- Connects to Phillips pigtails: P/Ns: 51-96310; 51-96319; 51-96210
- Optional trim ring available\* (P/N: 51-34904)
- Optional adapter plates available\* (P/N: 51-34020 or 51-34025)

## 3/4" Round Single Function Marker/Clearance Light

### Hard Wired

#### Amp Connections

| Part No.           | Description   | Qty. |
|--------------------|---|------|
| <b>51-34312</b>    | 3/4" PC rated round single function light, 2 pin amp connector, red   | 1    |
| <b>51-34312-25</b> | 3/4" PC rated round single function light, 2 pin amp connector, red   | 25   |
| <b>51-34313</b>    | 3/4" PC rated round single function light, 2 pin amp connector, amber | 1    |
| <b>51-34313-25</b> | 3/4" PC rated round single function light, 2 pin amp connector, amber | 25   |

- Polycarbonate lens with sealed housing and hard wired connection
- 3 diodes
- 16 ga., 8 in. wire leads with sealed 2 pin male amp connection
- Meets SAE J592 standards for P2/PC marker/clearance lights
- IP65 rated
- Includes mounting grommet (P/N: 51-34501)
- Optional adapter plates available (P/N: 51-34020 or 51-34025)
- Connects to Phillips pigtails: P/Ns: 51-96310; 51-96319; 51-96210



Amp Connections

#### Bullet Connections

| Part No.           | Description  | Qty. |
|--------------------|--|------|
| <b>51-34322</b>    | 3/4" PC rated round single function light, (2) .180 bullet connectors, red   | 1    |
| <b>51-34322-25</b> | 3/4" PC rated round single function light, (2) .180 bullet connectors, red   | 25   |
| <b>51-34323</b>    | 3/4" PC rated round single function light, (2) .180 bullet connectors, amber | 1    |
| <b>51-34323-25</b> | 3/4" PC rated round single function light, (2) .180 bullet connectors, amber | 25   |

- Polycarbonate lens with sealed housing and hard wired connections
- 3 diodes
- 16 ga., 8 in. wire leads with .180 male bullet connections
- Meets SAE J592 standards for P2/PC marker/clearance lights
- IP65 rated
- Includes mounting grommet (P/N: 51-34501)
- Optional adapter plates available (P/N: 51-34020 or 51-34025)



Bullet Connections

Included Mounting Grommet  
P/N: 51-34501

## 3/4" Round Dual Function Marker/Clearance Light

### Hard Wired



Amp Connections

### Amp Connections

| Part No.           | Description   | Qty. |
|--------------------|---|------|
| <b>51-35312</b>    | 3/4" PC rated round dual function light, 3 pin amp connector, red   | 1    |
| <b>51-35312-25</b> | 3/4" PC rated round dual function light, 3 pin amp connector, red   | 25   |
| <b>51-35313</b>    | 3/4" PC rated round dual function light, 3 pin amp connector, amber | 1    |
| <b>51-35313-25</b> | 3/4" PC rated round dual function light, 3 pin amp connector, amber | 25   |

- Polycarbonate lens with sealed housing and hard wired connection
- 3 diodes
- 16 ga., 8 in. wire leads with sealed 3 pin male AMP connection
- Meets SAE J592 standards for P2/PC marker/clearance lights in low mode
- IP65 rated
- Includes mounting grommet (P/N: 51-34501)
- Optional adapter plates available (P/N: 51-34020 or 51-34025)
- Connects to Phillips pigtail: P/N: 51-96610



Bullet Connections

### Bullet Connections

| Part No.           | Description  | Qty. |
|--------------------|--|------|
| <b>51-35322</b>    | 3/4" PC rated round dual function light, (3) .180 bullet connectors, red   | 1    |
| <b>51-35322-25</b> | 3/4" PC rated round dual function light, (3) .180 bullet connectors, red   | 25   |
| <b>51-35323</b>    | 3/4" PC rated round dual function light, (3) .180 bullet connectors, amber | 1    |
| <b>51-35323-25</b> | 3/4" PC rated round dual function light, (3) .180 bullet connectors, amber | 25   |

- Polycarbonate lens with sealed housing and hard wired connections
- 3 diodes
- 16 ga., 8 in. wire lead with .180 male bullet connections
- Meets SAE J592 standards for P2/PC marker/clearance lights in low mode
- IP65 rated
- Includes mounting grommet (P/N: 51-34501)
- Optional adapter plates available (P/N: 51-34020 or 51-34025)



## 4.0" Low Profile License Light

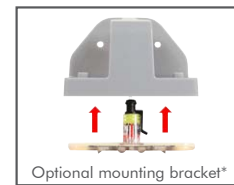
 Technology

| Part No.           | Description  | Qty. |
|--------------------|--|------|
| <b>51-18701</b>    | 4.0" low profile license light, clear  | 1    |
| <b>51-18701-10</b> | 4.0" low profile license light, clear  | 10   |
| <b>51-18701K</b>   | Kit - 4.0" low profile license light, (51-18701), mounting bracket (51-18900) and pigtail amp connector (51-96210) | 1    |

- ABS and acrylic construction
- Sealed and greased integrated male 2 pin amp connector
- BOARDFREE® technology with 4 diodes
- Meets SAE L standard for use as a license light by FMVSS
- Slotted low stress mounting holes
- Optional mounting bracket available (P/N: 51-18900)
- Connects to Phillips pigtails: P/Ns: 51-96310; 51-96319; 51-96210

### Kit

- 51-18701K Includes:
  - 51-18701 (1) 4.0 in. low profile license light
  - 51-18900 (1) 4.0 in. low profile license light mounting bracket
  - 51-96210 (1) Pigtail, 2 pin female amp connector to (2) .180 male bullet connections



### Amp Connections

| Part No.           | Description  | Qty. |
|--------------------|--|------|
| <b>51-34711</b>    | 3/4" round license light, 2 pin amp connector, clear | 1    |
| <b>51-34711-10</b> | 3/4" round license light, 2 pin amp connector, clear | 10   |

- Polycarbonate lens with sealed housing and hard wired connection
- 3 diodes
- 16 ga., 8 in. wire leads with sealed 2 pin male amp connection
- Meets SAE L standard for use as a license light when mounted correctly
- Includes hooded mounting grommet
- Connects to Phillips pigtails: P/Ns: 51-96310; 51-96319; 51-96210

### Bullet Connections

| Part No.           | Description   | Qty. |
|--------------------|---|------|
| <b>51-34721</b>    | 3/4" round license light, (2) .180 bullet connectors, clear | 1    |
| <b>51-34721-10</b> | 3/4" round license light, (2) .180 bullet connectors, clear | 10   |

- Polycarbonate lens with sealed housing and hard wired connections
- 3 diodes
- 16 ga., 8 in. wire lead with .180 male bullet connections
- Meets SAE L standard for use as a license light when mounted correctly
- Includes hooded mounting grommet

## 3/4" Round License Light

Hard Wired





## 3/4" Round Auxiliary Light

Hard Wired



### AMP Connections

| Part No.    | Description  | Qty. |
|-------------|--|------|
| 51-34011    | 3/4" round auxiliary light, 2 pin amp connector, clear | 1    |
| 51-34011-10 | 3/4" round auxiliary light, 2 pin amp connector, clear | 10   |

- Polycarbonate lens with sealed housing and hard wired connection
- 3 diodes
- 16 ga., 8 in. wire leads with sealed 2 pin male amp connection
- Includes mounting grommet (P/N: 51-34501)
- Optional adapter plates available (P/N: 51-34020 or 51-34025)
- Connects to Phillips pigtails: P/Ns: 51-96310; 51-96319; 51-96210

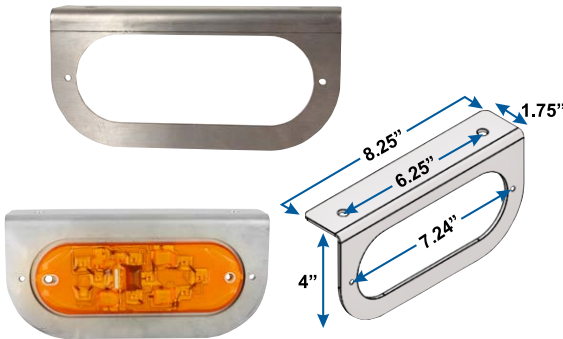
### Bullet Connections

| Part No.    | Description   | Qty. |
|-------------|---|------|
| 51-34021    | 3/4" round auxiliary light, (2) .180 bullet connectors, clear | 1    |
| 51-34021-10 | 3/4" round auxiliary light, (2) .180 bullet connectors, clear | 10   |

- Polycarbonate lens with sealed housing and hard wired connections
- 3 diodes
- 16 ga., 8 in. wire lead with .180 male bullet connections
- Includes mounting grommet (P/N: 51-34501)
- Optional adapter plates available (P/N: 51-34020 or 51-34025)

# BRACKET AND MOUNTING ACCESSORIES

## Side Turn Light Mounting Bracket

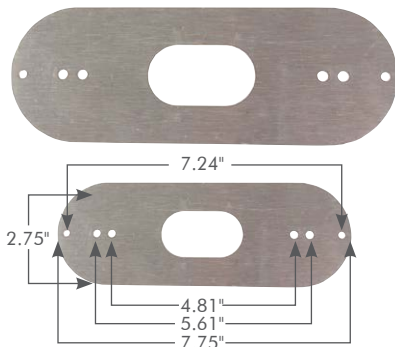


Lights pictured sold separately

| Part No.    | Description                           | Qty. |
|-------------|---------------------------------------|------|
| 51-60900    | Mounting bracket for side turn lights | 1    |
| 51-60900-10 | Mounting bracket for side turn lights | 10   |

- Features high-strength 12 ga. 304 stainless steel construction with 90 degree flange for mounting
- 6.25 in. mounting hole spacing
- 0.365 in. mounting holes
- Accommodates standard grommet or flange mounted 6 in. oval side turn lighting products on the market
- Surface mount PERMALITE™ XT side turn lights (P/N: 51-60303 and 51-60213) will require back plate adapter (P/N: 51-60910) for installation

## Back Plate Adapter



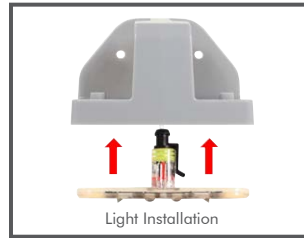
| Part No.    | Description                             | Qty. |
|-------------|---|------|
| 51-60910    | Back plate adapter for side turn lights | 1    |
| 51-60910-10 | Back plate adapter for side turn lights | 10   |

- Features high-strength 12 ga. 304 stainless steel construction
- Designed to mount PERMALITE™ XT side turn lights (P/N: 51-60303 and 51-60213) on standard industry mounting brackets (Phillips mounting bracket P/N: 51-60900)

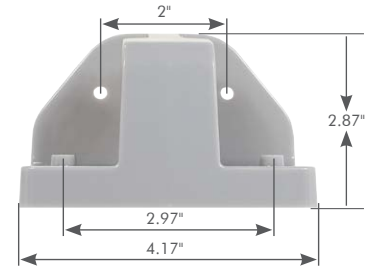
## 4.0" Low Profile License Light Bracket

| Part No.        | Description                                     | Qty. |
|-----------------|---|------|
| <b>51-18900</b> | 4.0" low profile license light mounting bracket | 1    |

- Adds additional protection to the PERMALITE™ XT 4.0 in. low profile license light
- Made of UV resistant non-corrosive polycarbonate material
- The 2 pin amp connector without a sealed boot must be used to accommodate for spacing within the bracket for the pigtail wiring (Phillips P/N: 51-96210)



Light and pigtail pictured sold separately



## 4.0" Mounting Grommet

For 4.0" Round Grommet Mount Lights

| Part No.           | Description  | Qty. |
|--------------------|--|------|
| <b>51-40500</b>    | Mounting grommet for 4.0" round grommet mount lights | 1    |
| <b>51-40500-25</b> | Mounting grommet for 4.0" round grommet mount lights | 25   |

- Grommet provides additional protection to the light against vibration and shock
- Fits in standard 4.5 in. openings
- Grommet mounts up to a 1/4 in. plate
- Made of UV protected EPDM



Light pictured sold separately

## 6.5" Mounting Grommet

For 6.5" Oval Grommet Mount Lights

| Part No.           | Description   | Qty. |
|--------------------|---|------|
| <b>51-60500</b>    | Mounting grommet for 6.5" oval grommet mount stop-tail-turn and side turn/marker lights | 1    |
| <b>51-60500-25</b> | Mounting grommet for 6.5" oval grommet mount stop-tail-turn and side turn/marker lights | 25   |

- Grommet provides additional protection to the light against vibration and shock
- Fits in standard openings
- Grommet mounts up to a 1/4 in. plate
- Made of UV protected EPDM



Lights pictured sold separately



### 3/4" PC2 Mounting Grommet

For 3/4" PC2 Rated Round Marker/Clearance Lights



Light pictured sold separately



| Part No.           | Description   | Qty. |
|--------------------|---|------|
| <b>51-34500</b>    | Mounting grommet for 3/4" PC2 rated round marker/clearance lights | 1    |
| <b>51-34500-10</b> | Mounting grommet for 3/4" PC2 rated round marker/clearance lights | 10   |

- For use with the PERMALITE™ XT 3/4 in. PC2 rated round marker/clearance light only
- Constructed of EPM rubber and is resistant to the weather elements

### 3/4" PC2 Anti-Theft Mounting Ring

For 3/4" PC2 Rated Round Marker/Clearance Lights



| Part No.           | Description   | Qty. |
|--------------------|---|------|
| <b>51-34550</b>    | Anti-theft mounting ring for 3/4" PC2 rated round marker/clearance lights | 1    |
| <b>51-34550-10</b> | Anti-theft mounting ring for 3/4" PC2 rated round marker/clearance lights | 10   |

- For use with the PERMALITE™ XT 3/4 in. PC2 rated round marker/clearance lights
- Constructed of high-strength POM material which is abrasion and heat resistant

### 3/4" Mounting Grommet

For 3/4" Round Hard Wired Lights



Light pictured not included with purchase of 51-34501

| Part No.        | Description                                       | Qty. |
|-----------------|---|------|
| <b>51-34501</b> | Mounting grommet for 3/4" round hard wired lights | 5    |

- For use with 3/4 in. round hard wired single function, dual function and auxiliary lights (Not for use with 3/4 in. round hard wired license lights)
- Constructed of EPM rubber and is resistant to the weather elements
- Fits trailer plate thickness of 1/8 in. – 1/4 in.

## 2.0" Mounting Adapter Plate

For 3/4" Round Lights

| Part No.           | Description                                   | Qty. |
|--------------------|---|------|
| <b>51-34020</b>    | 2.0" adapter plate for 3/4" PC and PC2 lights | 1    |
| <b>51-34020-10</b> | 2.0" adapter plate for 3/4" PC and PC2 lights | 10   |

- For use with PERMALITE™ XT 3/4 in. round lights
- Light must be mounted with grommet to the adapter plate
- Adapter plate comes with installation holes for riveting to the surface around the light
- Constructed of non-corrosive polycarbonate material
- Used to upgrade traditional 2.0 in. flange style lights to smaller more efficient LED lights
- Universal mounting pattern



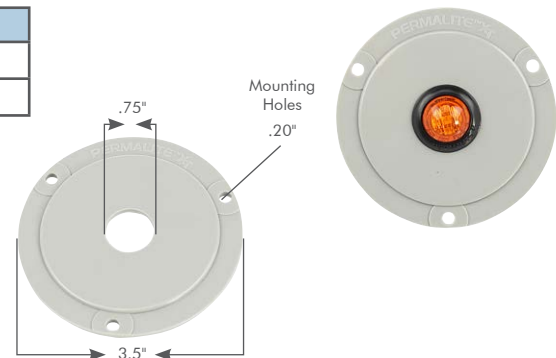
Light and grommet pictured sold separately

## 2.5" Mounting Adapter Plate

For 3/4" Round Lights

| Part No.           | Description                                   | Qty. |
|--------------------|---|------|
| <b>51-34025</b>    | 2.5" adapter plate for 3/4" PC and PC2 lights | 1    |
| <b>51-34025-10</b> | 2.5" adapter plate for 3/4" PC and PC2 lights | 10   |

- For use with PERMALITE™ XT 3/4 in. round lights
- Light must be mounted with grommet to the adapter plate
- Adapter plate comes with installation holes for riveting to the surface around the light
- Constructed of non-corrosive polycarbonate material
- Used to upgrade traditional 2.5 in. flange style lights to smaller more efficient LED lights
- Universal mounting pattern



Light and grommet pictured sold separately

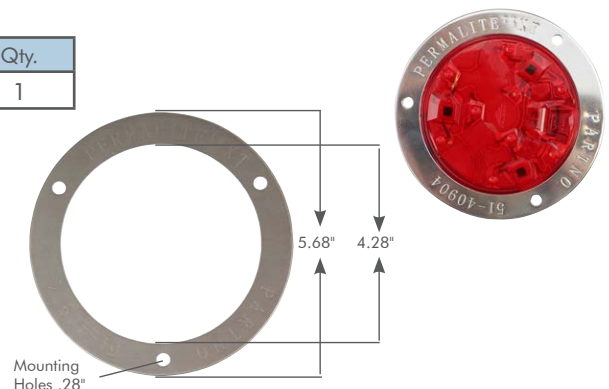
# LIGHTING STAINLESS STEEL TRIM RINGS

- Attractive add-on feature
- Provides added anti-theft benefits when installed using rivets
- All trim rings are made of stainless steel for durability and corrosion resistance

## Trim Ring For 4.0" Flange Mount Lights

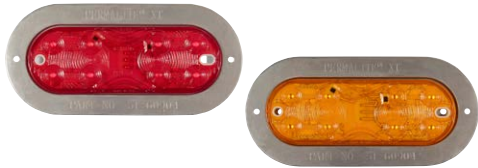
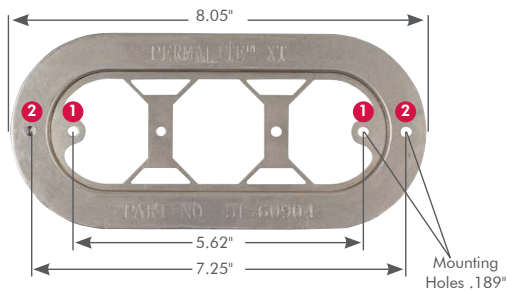
| Part No.        | Description                                   | Qty. |
|-----------------|---|------|
| <b>51-40904</b> | Trim ring for 4.0" round stop-tail-turn light | 1    |

- For use with PERMALITE™ XT 4.0 in. round stop-tail-turn light
- (P/N: 51-40202 and reverse light P/N: 51-40801)
- Can also be used on similar flanged lights
- Install using 1/4 in. rivets for additional protection against theft



Light pictured sold separately

## Trim Ring For 6.5" Oval Lights



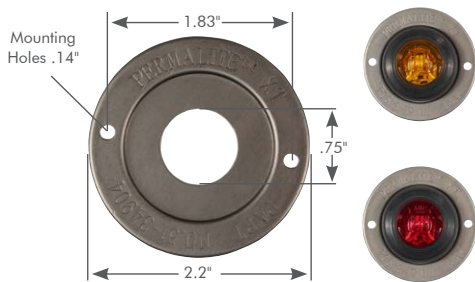
Light pictured sold separately

| Part No. | Description  | Qty. |
|----------|--|------|
| 51-60904 | Trim ring/adapter plate for 6.5" oval side turn lights | 1    |

- For use with PERMALITE™ XT 6.5 in. oval side turn/marker light (P/N: 51-60303) and PERMALITE™ XT 6.5 in. oval stop-tail-turn light (P/N: 51-60302)
- Can be used to install the light in a standard opening without the use of an additional adapter plate by:
  1. Riveting the light directly to the trim ring
  2. Then riveting the trim ring to the mounting surface around the opening

(Mounting holes for 1 & 2 can be referenced in the figure to the left)

## Trim Ring For 3/4" PC2 Rated Round Lights



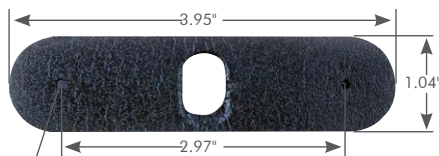
Lights and grommet pictured sold separately

| Part No. | Description   | Qty. 1 |
|----------|---|--------|
| 51-34904 | Trim ring for 3/4" PC2 rated round marker/clearance light | 1      |

- For use with PERMALITE™ XT PC2 rated round marker/clearance lights (P/N: 51-34302; red and 51-34303; amber)
- Light must be mounted with 51-34500 grommet against trim ring
- Trim ring comes with installation holes for optional riveting to the surface around the light

# LIGHTING GASKET

## 4.0" Low Profile Marker/Clearance Light Mounting Gasket



Light pictured sold separately



| Part No.    | Description   | Qty. 1 |
|-------------|---|--------|
| 51-18500    | Mounting gasket for low profile marker/clearance lights | 1      |
| 51-18500-10 | Mounting gasket for low profile marker/clearance lights | 10     |

- Helps prevent water intrusion and corrosion
- For use with the PERMALITE™ XT 4.0 in. low profile marker/clearance lights (P/N: 51-18312; red and 51-18313; amber)
- Constructed of PE foam with adhesive back

# TRACTOR AND TRAILER POWER MANAGEMENT



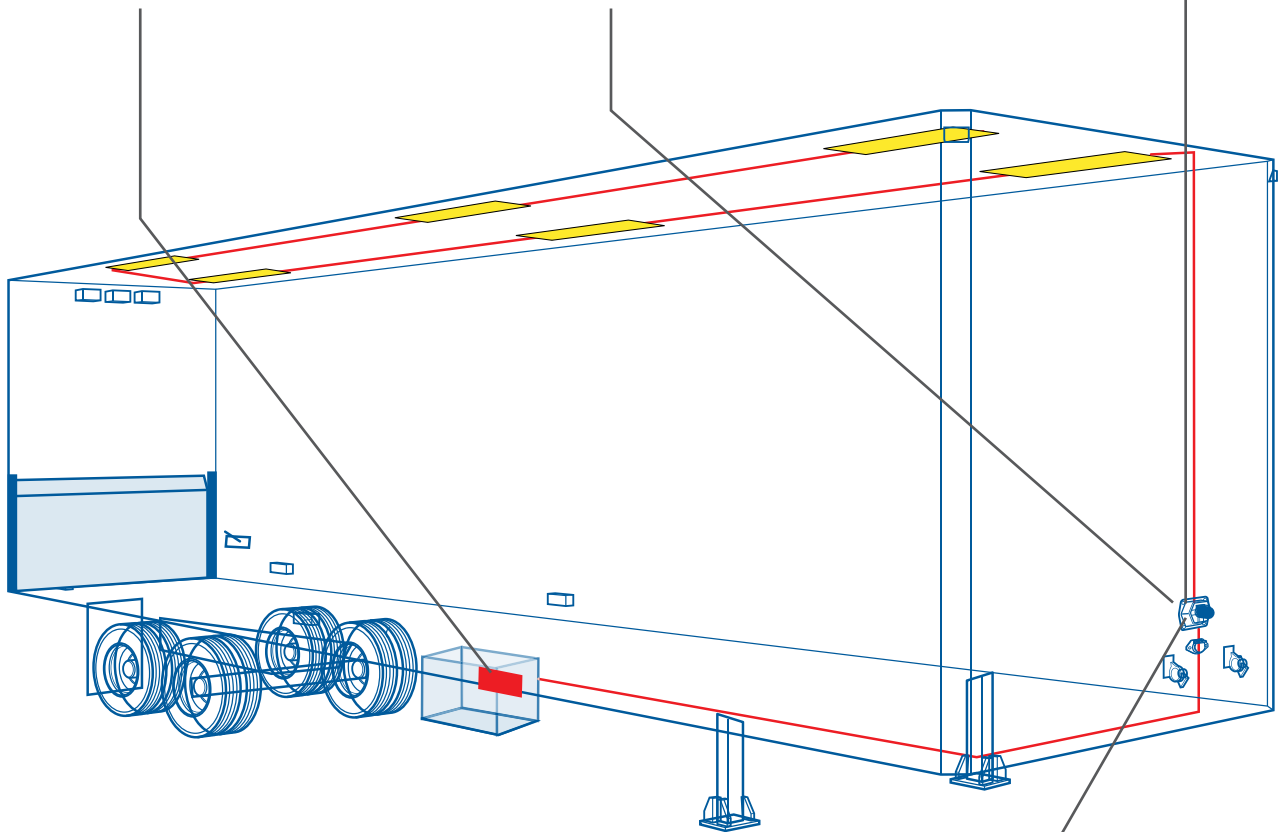
V-CHECK™ II



PERMALOGIC™ NOSEBOX



PERMALOGIC™ REMOTE



QWIK-CHECK™



## V-CHECK™ II



One look is all it takes to ensure your batteries have all the power they need. V-CHECK™ II digitally monitors the state of power for any battery, particularly liftgate batteries.

| Part No. | Description  |
|----------|--|
| 60-9100  | V-CHECK™ II battery status indicator, digital with 'Go/No-Go' LED, 12V |

- Provides a digital display of the battery voltage (9-16 volts), and the battery state of charge
- Features the 'Go / No-Go' LED – Know instantly if your battery is ready for the ride!
- Easy to install
- 2.0" diameter face
- Voltage color guide sticker included



### HOW IT WORKS

#### DIGITAL VOLT DISPLAY

- Voltage measurement and battery state of charge will appear every 15 seconds
- If the voltage is 15.0V – 16.0V the state of charge will be displayed as 'HI'
- If the voltage is 9.0V – 11.2V the state of charge will be displayed as 'SOS'
- If the voltage is below 9.0V, the digital display will read as \_9.0 with a state of charge displayed as 'SOS'

#### GO/NO-GO LED COLOR CODE

- GREEN: 12.6V – 16.0V\*
- YELLOW: 12.4V – 12.5V
- RED: 12.3V and below

#### SLEEP MODE

- Unit will enter sleep mode after 2 days of no activity
- Unit will wake when voltage fluctuates +/- 0.2V

| Voltage Measurement | State of Charge | LED Color Code |
|---------------------|-----------------|----------------|
| 15.0V - 16.0V       | HI*             | GREEN ●        |
| 12.6V - 14.9V       | 95% - 100%      | GREEN ●        |
| 12.4V - 12.5V       | 75% - 80%       | YELLOW ●       |
| 11.3V - 12.3V       | 10% - 70%       | RED ●          |
| 11.2V - 9.0V        | SOS             | RED ●          |
| _9.0V (Below 9.0V)  | SOS             | RED ●          |

\*A digital reading of "HI" (15V - 16V) will most likely never be displayed, however, if it does, it's an indication that the batteries are overcharged. Most often this leads to the batteries dying rapidly. However, in rare instances it can also cause the batteries to become hot and melt or swell, causing them to leak chemicals and burst.

## QWIK-CHECK™



60-9200



60-9201 and 60-9202

| Part No. | Description   |
|----------|---|
| 60-9200  | QWIK-CHECK™ for universal installation, with 12" blunt cut wires and #10 ring terminals for installation <b>NEW</b> |
| 60-9201  | QWIK-CHECK™ replacement for i-BOX™, with #10 ring terminals pre-installed <b>NEW</b>                                |
| 60-9202  | QWIK-CHECK™ replacement for VOLT-BOX™, with #10 ring terminals pre-installed <b>NEW</b>                             |

- Quickly and easily assess if there is power within the 7-way connection between the tractor and trailer
- LED indicator easily identifies which circuit is not receiving power
- Designed for integration into the electrical system at the nosebox\*
- Eliminates the immediate need for a continuity tester

#### Important Note:

This product does not eliminate or replace the need to perform a pre-trip inspection. It only confirms an electrical signal from the tractor to the trailer. It does NOT check the lighting and wires on the trailer.

\*Additional tools (not included) may be needed for installation. Phillips is not liable for damage caused to any nosebox when installing for retrofit.

### HOW IT WORKS

With the tractor turned on, and power supplied from the tractor to the trailer 7-way connection, the LED lights on the QWIK-CHECK™ will light up as each circuit receives power. Each light is an indication that power on that correlating circuit is reaching the trailer 7-way connection. If the correlating LED does not light up, there is a problem with the circuit.

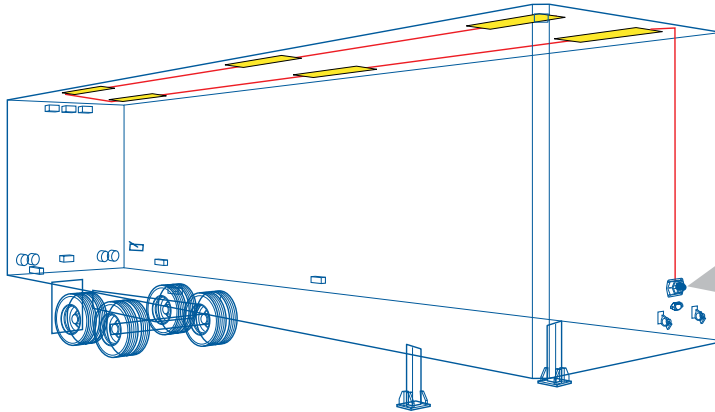
| Color | Circuit/Function  |
|-------|---|
| BLU   | ABS/Auxiliary (Automatically engages by turning on the ignition)                              |
| BRN   | Tail Lights (Turn on headlights)  |
| BLK   | Marker/Clearance Lights (Turn on marker/clearance lights or flip the switch on the dashboard) |
| GRN   | Right Turn Signal (Turn on hazards)   |
| YEL   | Left Turn Signal (Turn on hazards)  |
| RED   | Brake (Step on the brake pedal)   |

Note: The LED lights are an indication of continuity at the 7-way connection only. They do not confirm if there is sufficient voltage to power a circuit.

# PERMALOGIC™

## Trailer Dome Lamp Controller

PERMALOGIC™ is an all-weather, all-electronic controller designed to manage power to trailer dome lamps. By simply stepping on the brake pedal, allowing the automatic timer to turn off the lamps, manually flipping a switch, or low battery voltage disconnect - you'll save the life of your battery and the expense of a road call.



Lamps are on



Overloaded circuit



Normal conditions/  
Trailer dome lamps  
are off



Constant - low voltage  
Flashing - low voltage  
shut-off

- Eliminates any chance of leaving trailer dome lamps on
- Turns off trailer dome lamps by stepping on the brake pedal
- Fully electronic - eliminates mechanical air pressure switch
- Visual indicator of tractor battery condition
- Weatherproof, solid-state electronics
- Patent No. 7,498,687

| REMOTE         |                             |
|----------------|-----------------------------|
| Part No.       | Description                 |
| <b>60-2500</b> | Single circuit, remote unit |
| <b>60-2502</b> | Dual circuit, remote unit   |



REMOTE UNIT

| NOSEBOX           |   |
|-------------------|---|
| Part No.          | Description   |
| <b>60-2520</b>    | Single circuit, without circuit breakers, composite nosebox     |
| <b>60-2520-20</b> | Single circuit, with 20 amp circuit breakers, composite nosebox |
| <b>60-2520-30</b> | Single circuit, with 30 amp circuit breakers, composite nosebox |
| <b>60-2522</b>    | Dual circuit, without circuit breakers, composite nosebox       |
| <b>60-2522-20</b> | Dual circuit, with 20 amp circuit breakers, composite nosebox   |



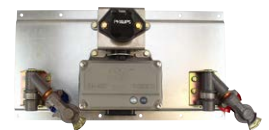
NOSEBOX KIT

• All -20 part numbers contain 20 amp circuit breakers, 30 amp on blue wire

| STA-DRY® S7™ NOSEBOX |  |
|----------------------|--|
| Part No.             | Description  |
| <b>16-9520PL</b>     | STA-DRY® S7™ nosebox with 20 amp circuit breakers  |
| <b>16-9530PL</b>     | STA-DRY® S7™ nosebox with 30 amp circuit breakers  |
| <b>16-95246PL</b>    | STA-DRY® S7™ nosebox with 20 amp circuit breakers, emergency and QWIK-E® gladhands on mounting plate |



STA-DRY® S7™ NOSEBOX

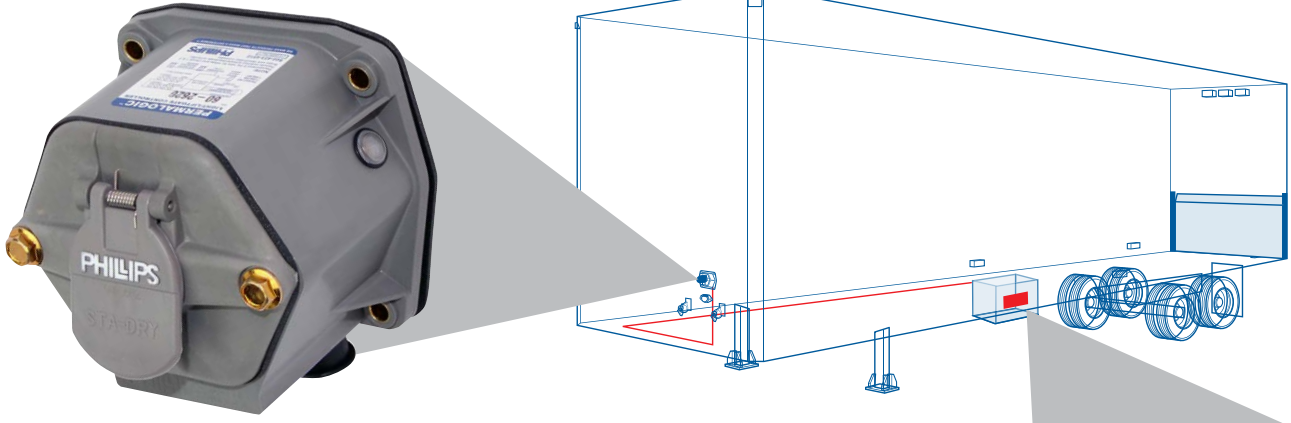


STA-DRY® S7™ SYSTEM

# PERMALOGIC™ TC

## Liftgate Battery Charging System

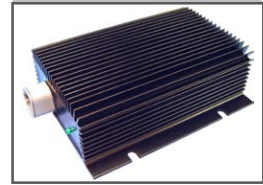
PERMALOGIC™ TC can eliminate the need for a single or dual pole set-up in most situations\* by providing a 14.4 volt charge to the liftgate battery. By stepping up the voltage, the liftgate battery is charged to capacity, allowing for more frequent use of the liftgate.



Liftgate battery is charging



Normal conditions/  
Trailer dome lamps are off



- FOR USE WITH TRAILER LIFTGATE AND NO TRAILER DOME LAMPS
- Provides a 14.4V, 20A charge to the liftgate battery
- Eliminates a single or dual pole set-up in most situations\*
- Brake light activated - If brakes are activated at any time, the PERMALOGIC™ TC automatically turns off the charge to the liftgate battery. By doing this, all power is available for the trailer ABS braking system.
- Patent No. 7,498,687



REMOTE UNIT

### REMOTE UNIT

| Part No.       | Description |
|----------------|-------------|
| <b>60-2600</b> | Remote unit |

### NOSEBOX KIT

| Part No.            | Description                                     |
|---------------------|---|
| <b>60-2620KT</b>    | Without circuit breakers, composite nosebox     |
| <b>60-2620-20KT</b> | With 20 amp circuit breakers, composite nosebox |

- Kit contents: PERMALOGIC™ TC nosebox, 50 ft. plug-in harness and TRAIL-CHARGER™



NOSEBOX KIT

### REPLACEMENT PARTS

| Part No.       | Description                                 |
|----------------|---|
| <b>60-2620</b> | Without circuit breakers, composite nosebox |
| <b>60-2690</b> | 50' plug-in harness, 2/8 and 1/14 ga.       |
| <b>60-2699</b> | TRAIL-CHARGER™ - liftgate battery charger   |

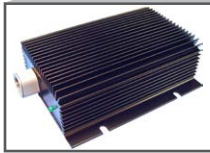
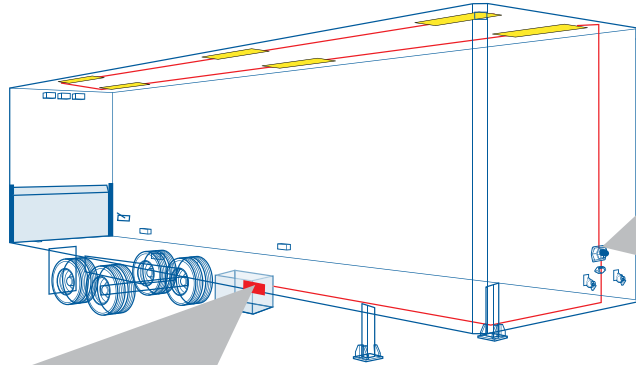
- All -20 part numbers contain 20 amp circuit breakers, 30 amp on blue wire

\* Depending on liftgate load, size and cycles

# PERMALOGIC™ TC PLUS

## Complete Trailer Power Management System

PERMALOGIC™ TC PLUS offers both the trailer dome lamp controller and liftgate charger, in one package. Trailer dome lamps can be controlled normally and the liftgate charger is automatically used when needed to provide maximum charge to the liftgate battery.



Dome lamps are on



Liftgate battery is charging



Normal conditions/  
Trailer dome lamps are off



Overloaded circuit



Constant - low voltage  
Flashing - low voltage shut-off

- FOR USE WITH TRAILER LIFTGATE AND TRAILER DOME LAMPS
- Provides a 14.4V, 20A charge to the liftgate battery
- Automatically charges liftgate batteries when the trailer dome lamps are not in use
- Brake light activated - By simply stepping on the brake pedal the PERMALOGIC™ TC PLUS automatically turns off the trailer dome lamps and the charge to the liftgate battery. By doing this, all power is available for the trailer ABS braking system.
- Patent No. 7,498,687

### NOSEBOX KIT

| Part No.            | Description   |
|---------------------|---|
| <b>60-2720KT</b>    | Single circuit, without circuit breakers, composite nosebox     |
| <b>60-2720-20KT</b> | Single circuit, with 20 amp circuit breakers, composite nosebox |

- Kit contents: PERMALOGIC™ TC PLUS nosebox, 50 ft. plug-in harness and TRAIL-CHARGER™



REMOTE UNIT

### REPLACEMENT PARTS

| Part No.          | Description   |
|-------------------|---|
| <b>60-2700</b>    | Single circuit, remote unit                                     |
| <b>60-2720</b>    | Single circuit, without circuit breakers, composite nosebox     |
| <b>60-2720-20</b> | Single circuit, with 20 amp circuit breakers, composite nosebox |
| <b>60-2690</b>    | 50' plug-in harness, 2/8 and 1/14 ga.                           |
| <b>60-2699</b>    | TRAIL-CHARGER™ - liftgate battery charger                       |



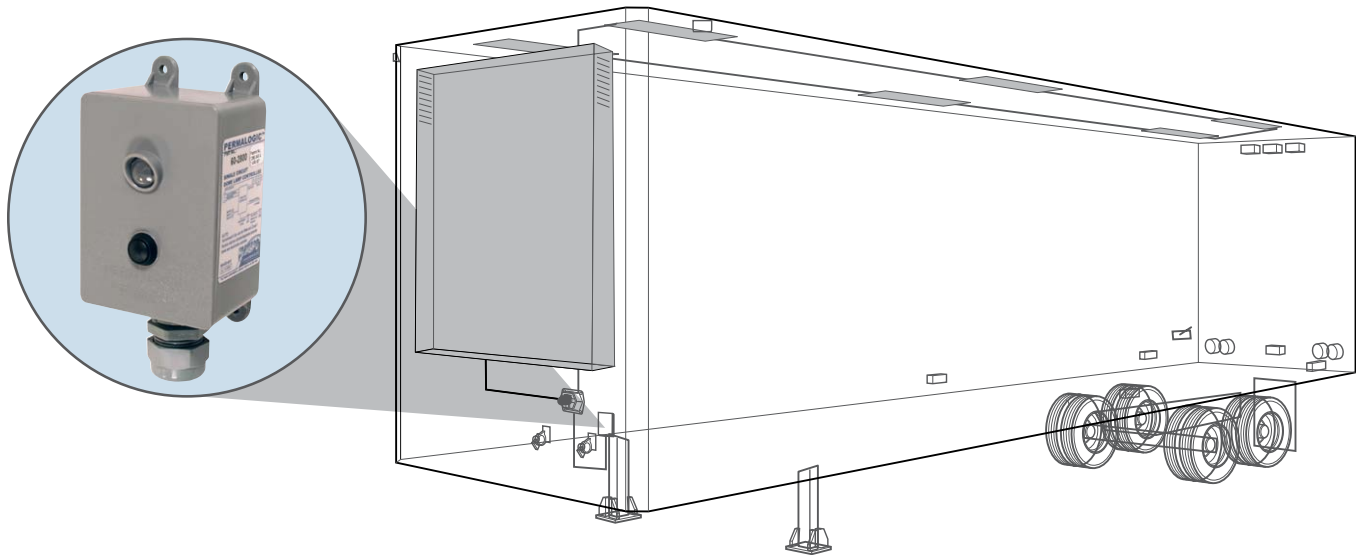
NOSEBOX KIT

- All -20 part numbers contain 20 amp circuit breakers, 30 amp on blue wire

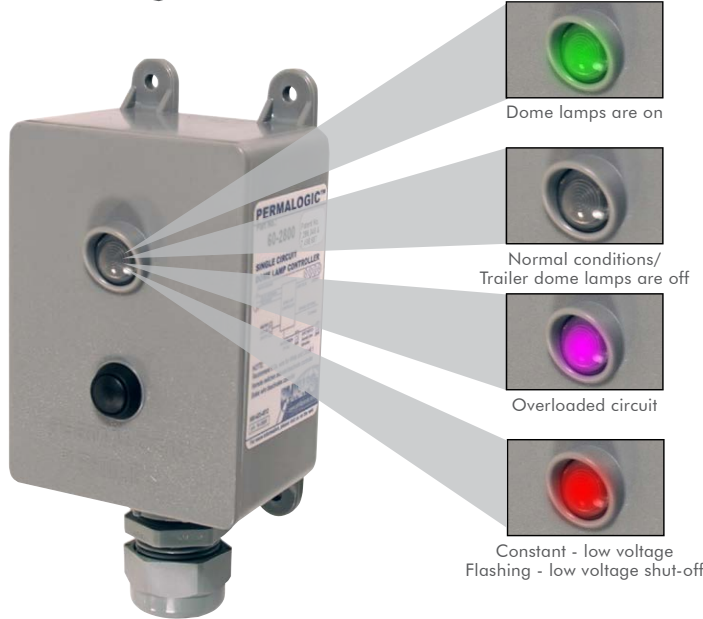
# PERMALOGIC™ REEFER

## Trailer Dome Lamp Controller For Refrigeration Units

PERMALOGIC™ REEFER is an all-weather, all-electronic controller designed to manage power to trailer dome lamps in trailers with refrigeration units. By simply stepping on the brake pedal, allowing the automatic timer to turn off the lamps, or manually flipping a switch - you'll save the life of your battery and the expense of a road call.



- For trailers with dome lamps powered by a reefer battery
- Eliminates any chance of leaving trailer dome lamps on
- Brake pedal activated
- Fully electronic - eliminates mechanical air pressure switch
- Weatherproof - sealed to prevent contaminants from passing to the wire harness
- Anti-corrosive housing to protect against magnesium and calcium chlorides
- Patent No. 7,498,687



| REMOTE   |                             |
|----------|-----------------------------|
| Part No. | Description                 |
| 60-2800  | Single circuit, stand-alone |

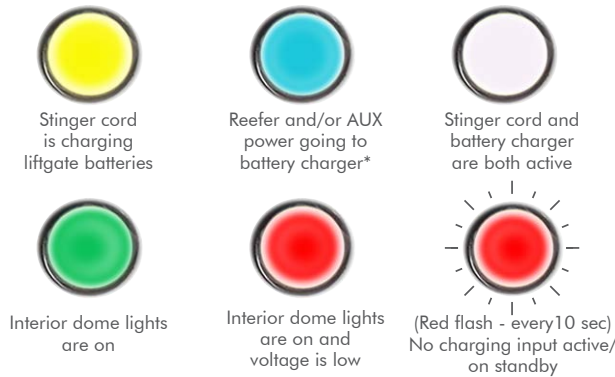


# PERMALOGIC™ SMART-CHARGE

## Trailer Power Management

The PERMALOGIC™ Smart-Charge is a “smart” charging system for liftgate and auxiliary battery banks that recognizes and automatically manages the best power source(s) to charge your batteries from ALL available sources collectively at the same time.

- Regulates power draw from ALL available sources collectively
- Recognizes and automatically manages the best power source(s) to charge your batteries
- Has built-in low voltage detection to avoid draining power sources
- LED indicator displays which power input source is being utilized



\*When the jumper wire from solenoid to rectifier is used, the aqua light indicates that the 7-way/reefer/stinger is charging the liftgate

### How it works

- With the PERMALOGIC™ Smart-Charge, the STA-CHARGE™ Battery Charger pulls power at no more than a maximum combined 28 Amps from the following sources collectively:
  1. J560 7-way AUX/BLUE circuit
  2. Reefer unit
  3. Additional input to accommodate for technological charging input advances – ie. solar
- If these sources run low or become depleted, and power from the STA-CHARGE™ Battery Charger is no longer enough, the PERMALOGIC™ Smart-Charge will automatically engage the liftgate/auxiliary charging system to supplement the charging.
- The liftgate/auxiliary charging system will work in conjunction with the STA-CHARGE™ battery charger, or independently.

#### PERMALOGIC™ SMART-CHARGE kit

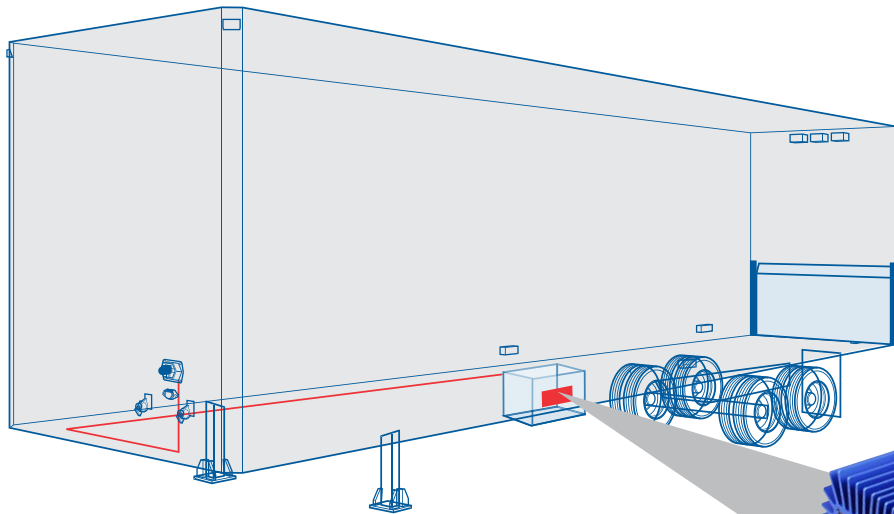
| Part No.         | Description                  |
|------------------|------------------------------|
| <b>60-3000KT</b> | PERMALOGIC™ Smart-Charge kit |

#### 60-3000KT Contents

| Part No.           | Description                                       |
|--------------------|---|
| <b>60-3000</b>     | PERMALOGIC™ Smart-Charge – dual nosebox           |
| <b>60-3600</b>     | STA-CHARGE™ - liftgate battery charger            |
| <b>60-3656-540</b> | 45', STA-CHARGE™ harness with fuses               |
| <b>60-2687</b>     | 45', dual pole/single pole (stinger) cable, 2 ga. |
| <b>60-2691</b>     | 5', 7-way AUX harness                             |
| <b>60-2692</b>     | 10', reefer harness                               |



# STA-CHARGE™ Battery Charger



- Maximizes the liftgate or auxiliary battery efficiency with a faster charge when paired with a Phillips STA-CHARGE™ harness.
- Regulates over-charging of trailer batteries
- Prevents 12V truck battery from becoming so low it won't start

| STA-CHARGE™    |                             |
|----------------|-----------------------------|
| Part No.       | Description                 |
| <b>60-3600</b> | STA-CHARGE™ Battery Charger |

- For 12V liftgate/load batteries
- Input voltage: 8V – 16V
- Output voltage: 14.4V\*\*
- Maximum input current: 27A
- Maximum output current: 23A
- Automatically adjusts output voltage depending on temperature
- Environmentally sealed connector
- Anodized cooling heatsink

- Visual indicator shows status of charging
- Phillips patented Lock Out feature: stops charging batteries when brakes are pressed
  - When tied to the BLUE circuit, this ensures all power is available during an ABS event
- Standard mounting pattern
- Must be used with a Phillips STA-CHARGE™ harness or available harness adapters (see below)

\*\*Voltage is temperature compensated so that in cold temperature the batteries are charged at a higher voltage.



| STA-CHARGE™ Harness |                                    |
|---------------------|------------------------------------|
| Part No.            | Description                        |
| <b>60-3656-540</b>  | 45' STA-CHARGE™ harness with fuses |

- Other charging systems use 10 ga. wire harnesses, which increase the time it takes to charge the batteries. The STA-CHARGE™ 8 ga. harness allows for a faster charge rate, resulting in an increased number of liftgate cycles sooner.
- Other lengths are available
- Contact your sales representative for more information



| Harness Adapters |  |
|------------------|--|
| Part No.         | Description  |
| <b>60-3651</b>   | Harness Adapter – TRAIL-CHARGER™ harness to STA-CHARGE™ assembly |

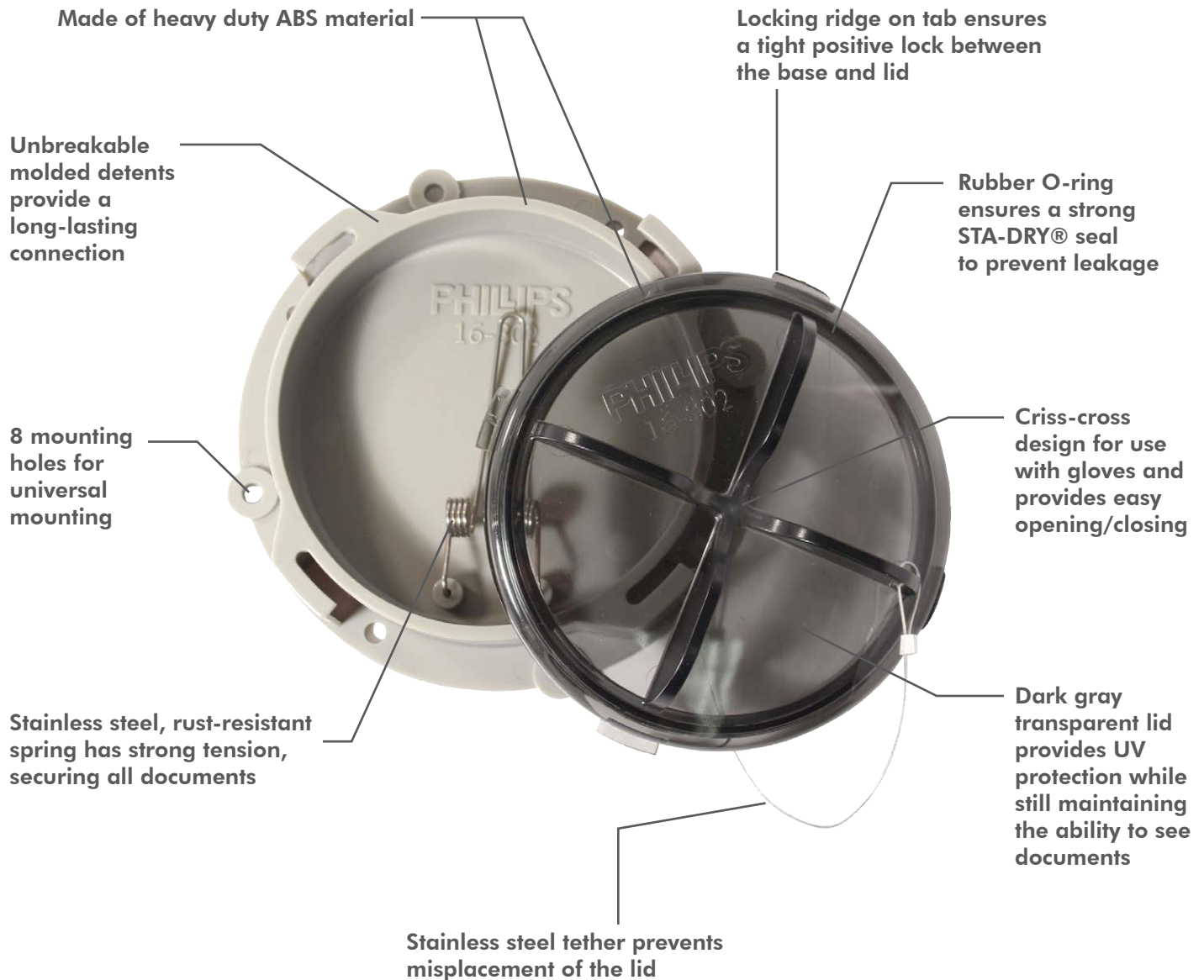
- For retrofitting a STA-CHARGE™ with existing TRAIL-CHARGER™ harness

| Part No.       | Description  |
|----------------|--|
| <b>60-3652</b> | Harness Adapter – STA-CHARGE™ harness to TRAIL-CHARGER™ assembly |

- For retrofitting a new STA-CHARGE™ harness with an existing TRAIL-CHARGER™ unit

# TOOLS & GENERAL ACCESSORIES

## STA-DRY® Document Holder



# TOOLS

## Heavy Duty Handheld Cable Cutter



| Part No.     | Description                      |
|--------------|----------------------------------|
| <b>4-101</b> | Heavy duty handheld cable cutter |

- Cuts up to 2/0 cable
- For use with copper cable only

## Hammer Crimper



| Part No.     | Description                |
|--------------|----------------------------|
| <b>4-140</b> | Hammer style crimping tool |

- Crimps 8 thru 4/0 ga. connectors
- Use with hammer
- Fits in any toolbox

## 6/0 Cable Cutters



| Part No.     | Description                    |
|--------------|--------------------------------|
| <b>4-146</b> | Heavy duty cutter, bench mount |
| <b>4-147</b> | Heavy duty cutter, handheld    |

- Cuts cable up to 6/0 ga. (250 MCM)
- Blades made of carbon steel for strength and long life
- 26 in. handle(s)

## Battery Terminal Crimper



| Part No.     | Description          |
|--------------|----------------------|
| <b>4-150</b> | Crimper, lever style |

- Designed for light and medium duty battery terminals
- Crimps 8 ga. thru 1/0 ga.
- 15 in. handles

## Heavy Duty Battery Terminal Crimpers

| Part No.     | Description            |
|--------------|------------------------|
| <b>4-152</b> | Handheld, hex crimp    |
| <b>4-153</b> | Bench mount, hex crimp |

- Handheld and bench mount models
- Bench mount also attaches to wall, service trucks, etc.
- Bench mount tools are easier and safer to use
- Crimps 8 ga. thru 6/0 ga.
- 26 in. handle(s)



## Wire Stripping & Crimping Tool

| Part No.     | Description                      |
|--------------|----------------------------------|
| <b>4-214</b> | Wire stripping and crimping tool |

- Multi-purpose tool
- Strips wire sizes from 22 thru 10 ga.
- Crimps insulated and non-insulated terminals
- Machined for precision wire cuts and strips
- Color-coded to ensure proper crimp
- Overlapping teeth provide a consistent cut
- Insulated handles for safety



## Cable Stripper

| Part No.     | Description    |
|--------------|----------------|
| <b>4-221</b> | Cable stripper |

- Strips 10 thru 4/0 ga. cable and 2 to 7 conductor round cable
- Easily removes cable insulation
- Adjustable stripper depth
- Contains replacement blade



## Ratcheting Crimper



| Part No.     | Description        |
|--------------|--------------------|
| <b>4-230</b> | Ratcheting crimper |

- Calibrated for STA-DRY® heat shrink connectors
- Assures the proper crimp force will be applied to heat shrink connectors every time
- Color-coded crimp nest for ease and accurate crimp
- Designed to install 20 thru 8 ga. terminals

## Cable Tie Installation Tool



| Part No.     | Description                         |
|--------------|-------------------------------------|
| <b>4-231</b> | Plastic cable tie installation tool |

- Secures nylon cable ties
- Plastic is good for light duty or occasional use

## Heavy Duty Wire Stripper & Cutter



| Part No.     | Description                         |
|--------------|-------------------------------------|
| <b>4-507</b> | Heavy duty wire stripper and cutter |

- Cuts and crimps 22 thru 6 ga. wire and terminals

## QWIK-FIT™ Tubing Release Tool

| Part No.        | Description                   |
|-----------------|-------------------------------|
| <b>12-90005</b> | QWIK-FIT™ tubing release tool |

- Designed to push and connect tubing to fittings in hard to reach places such as under the dashboard
- Accommodates 1/8 in. and 1/4 in. sized fitting



## Nylon Air Tube Cutters

| Part No.        | Description                 |
|-----------------|-----------------------------|
| <b>12-90003</b> | Nylon tube cutter - economy |

- Compact – Ideal for emergency situations
- Preset tubing guides



Economy

| Part No.        | Description                  |
|-----------------|------------------------------|
| <b>12-90002</b> | Nylon tube cutter – standard |

- Ideal for shop use
- 1/2 in. tubing maximum
- Preset tubing guides



Standard

| Part No.        | Description  |
|-----------------|--|
| <b>12-90004</b> | Nylon tube cutter – heavy duty*                    |
| <b>4-904</b>    | Replacement blade for nylon tube cutter heavy duty |

- Ideal for heavy use or production lines
- Shortened nose for greater clearance during installation
- Preset tubing guides

\* Replaceable blade sold separately



Heavy Duty



## POCKET CONTINUITY TESTERS

- Checks conductivity of all circuits
- Fits all standard 7-way round, 7-way blade type and 4-way flat connectors
- LED lights glow when circuit is functioning correctly
- All testers are internally grounded
- Handy and essential tool for every shop
- Many drivers carry these LED circuit checkers to quickly identify lighting problems prior to leaving yard

### 7-Way Socket Circuit Checker



| Part No.      | Description                               |
|---------------|---|
| <b>15-200</b> | 7-way LED circuit checker for J560 system |

- For SAE J560 sockets
- For use on tractor side or back of trailer when there is a 7-way socket available

### 7-Way Plug Circuit Checker



| Part No.      | Description                               |
|---------------|---|
| <b>15-208</b> | 7-way LED circuit checker for J560 system |

- For SAE J560 plugs
- For use on tractor side

### 7-Way E-Z Tester



| Part No.       | Description                              |
|----------------|--|
| <b>63-0170</b> | 7-way tester for 7-way blade socket type |

- For 7-way RV type sockets

### 4-Way E-Z Tester



| Part No.       | Description  |
|----------------|--------------|
| <b>63-0040</b> | 4-way tester |

- For 4-way flat connections

### Digital Multimeter



| Part No.     | Description        |
|--------------|--------------------|
| <b>4-532</b> | Digital multimeter |

Check fuses, plugs, sockets, electrical cables, extension cords, control panels, small appliance, batteries, wall receptacles, etc.

- Pocket size
- Large LED display
- Temperature display
- Overload protection
- Accurate within .5%
- Low battery indicator

# SHOP TOOLS & ACCESSORIES

## 66 LED with Flashlight

| Part No.     | Description                |
|--------------|----------------------------|
| <b>8-120</b> | Rechargeable LED work lamp |

- 66 bright white LED floodlight runs up to 4 hours
- 6 bright white LED flashlight runs up to 24 hours
- Rechargeable – charges in about 3 hours on 110/220V AC or 12V DC power
- Dual mode switch – operates floodlight or flashlight



## Professional Fluorescent Work Lamp with Tool

| Part No.     | Description                   |
|--------------|-------------------------------|
| <b>8-110</b> | 26 watt fluorescent work lamp |

- 26 watts, equivalent to 125 watt incandescent bulb
- Spot work light on top
- 90 degree swivel cord pivots for hands-free, stand-up use
- 3 wire, 25 ft. cord
- Retractable and removable nylon-tipped double hang hook rotates 360 degrees
- Polarized plug with 12 amp grounded receptacle



## Retractable Triple Outlet Cord Reel

| Part No.     | Length | Gauge |
|--------------|--------|-------|
| <b>8-103</b> | 30'    | 3/16  |

- Triple outlet retractable cord reel provides three grounding outlets
- Rugged cord reel and jacketed cord give superior performance under the toughest conditions
- Complete with mounting hardware
- 3 conductor SJTW-A, 300V



# SHOP TOOLS & ACCESSORIES

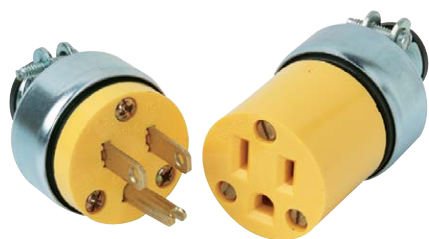
## 110 Volt Drop Light



| Part No.     | Gauge | Length |
|--------------|-------|--------|
| <b>8-101</b> | 3/16  | 50'    |

- High-visibility, heavy duty jacketing resists oil, grease, fuel, acids and abrasion
- 3 conductor drop light
- Metal bulb shield (bulb not included)
- UL listed

## 110 Volt Plug & Socket



| Part No.     | Description                |
|--------------|----------------------------|
| <b>8-210</b> | 15a. - 125v. male plug     |
| <b>8-211</b> | 15a. - 125v. female socket |

- 2-pole, 3-wire, enclosed parallel grounding
- Armored cap yellow vinyl

## Air Cab Blower



| Part No.      | Description    |
|---------------|----------------|
| <b>11-304</b> | Cab blower kit |
| <b>4-500</b>  | Air gun only   |

- Cleans the cab in a hurry
- 18 ft. working length
- Swivel fitting on one end
- 1/4 in. M.P.T. on both ends
- Desirable safety yellow color per U.S. Government OSHA directives
- Service temperature range: -40°F to 200°F (-40°C to 93°C)
- 225 PSI maximum working pressure

## Retractable Shop Air Hose



| Part No.      | I.D. | Working Length | Each End |
|---------------|------|----------------|----------|
| <b>11-414</b> | 1/4" | 18'            | 1/4" NPT |
| <b>11-416</b> | 3/8" | 18'            | 3/8" NPT |

- For work bench, overhead air supply and low-pressure air powered equipment and tools
- Swivel fitting on one end
- 225 PSI maximum working pressure
- Desirable safety yellow color per U.S. Government OSHA directives
- Service temperature range: -40°F to 200°F (-40°C to 93°C)

# HEAVY DUTY TIRE INFLATOR

## Heavy Duty Tire Inflator

| Part No.      | Description                  |
|---------------|------------------------------|
| <b>11-301</b> | 50' heavy duty tire inflator |

- For use on trucks with air brake systems
- 50 ft. straight PVC air hose to reach all tires
- Includes universal gladhand (12-010) and air chuck



# HEAT GUN & TORCHES

## Heat Gun

| Part No.     | Description         |
|--------------|---------------------|
| <b>4-046</b> | Heavy duty heat gun |

- Includes stand and deflector shield for easy use
- Lightweight - 2 1/2 lbs
- Built-in circuit breaker protects operator and unit
- Adjustable air intake and heat settings
- Double jacketed nozzle helps insulate heat
- Heat range 500°F to 750°F
- 115V; 14 amps



## Mini-Jet Torch

| Part No.     | Description  |
|--------------|--|
| <b>4-054</b> | Mini-jet torch, blister pack                                 |
| <b>4-055</b> | Mini-jet torch, 2 clip strips with 6 blister packs per strip |

- For small jobs and quick repairs
- Lifetime waterproof ignition system
- Refillable tank provides up to 30 minutes of butane capacity
- Adjustable gas flow with wind-resistant flame
- Protective flip-open cap
- See-through fuel tank
- Meets Consumer Product Safety Commission 16CFR Part 1212 - Safety Standard for Multi-Purpose Lighters (Child Resistant)

| Specifications                       |                 |
|--------------------------------------|-----------------|
| Length                               | 35 mm (1.4 in)  |
| Height                               | 71 mm (2.8 in)  |
| Width                                | 20 mm (0.8 in)  |
| Weight (when gas-filled)             | 46 g            |
| Flame temperature                    | 1300°C (2500°F) |
| Gas container capacity               | 5 ml            |
| Operating capacity (one gas filling) | 30 min.         |

30 MINUTE  
CAPACITY



## Professional Torch

220 MINUTE CAPACITY



| Part No. | Description             |
|----------|-------------------------|
| 4-057    | Professional torch, box |

- For daily professional use
- Adjustable flame
- Refillable tank provides up to 220 minutes of butane capacity
- Brass body covered with a protective grip
- Waterproof piezoelectric ignition system
- Removable base provides for storage flexibility
- Meets Consumer Product Safety Commission
- 16CFR Part 1212 - Safety Standard for Multi-Purpose Lighters (Child Resistance)

### Specifications

|                                      |                 |
|--------------------------------------|-----------------|
| Length                               | 100 mm (1.4 in) |
| Height W/O stand                     | 138 mm (2.8 in) |
| Width                                | 36 mm (0.8 in)  |
| Weight (when gas-filled)             | 280 g           |
| Flame temperature                    | 1300°C (2500°F) |
| Gas container capacity               | 60 ml           |
| Operating capacity (one gas filling) | 220 min.        |

## Heavy Duty Torch

120 MINUTE CAPACITY



| Part No. | Description                 |
|----------|-----------------------------|
| 4-058    | Heavy duty torch, clamshell |

- For battery terminals and heavy wall shrink tubing
- Highest BTU output of all Phillips torches
- Adjustable flame
- Waterproof piezoelectric ignition system
- Refillable tank provides up to 120 minutes of butane capacity
- Powerful wind-resistant flame
- Meets Consumer Product Safety Commission
- 16CFR Part 1212 - Safety Standard for Multi-Purpose Lighters (Child Resistance)
- Due to large flame, this torch is not recommended for use with heat shrink terminals

### Specifications

|                                      |                  |
|--------------------------------------|------------------|
| Length                               | 128 mm (4.73 in) |
| Height                               | 172 mm (6.8 in)  |
| Grip Diameter                        | 45 mm (1.78 in)  |
| Base Diameter                        | 65 mm (2.56 in)  |
| Weight (Empty)                       | 460 g            |
| Flame temperature                    | 2600°F (1350°C)  |
| Gas container capacity               | 60 ml            |
| Operating capacity (one gas filling) | 120 min.         |

# BRUSHES

## Heavy Duty Battery Post & Terminal Cleaner

| Part No.     | Description                     |
|--------------|---------------------------------|
| <b>4-120</b> | Battery post and terminal brush |

- Internal wire brush



## 6 & 7-Way Plug & Socket Brush

| Part No.     | Description                 |
|--------------|-----------------------------|
| <b>4-121</b> | 7-way plug and socket brush |
| <b>4-122</b> | 6-way plug and socket brush |

- Stainless steel bristles for durability
- Perfect for glove box or tool box



# CHARGING CLIPS AND TEST CLIPS

## Test Clips

| Part No.     | Description                    | Qty. |
|--------------|--------------------------------|------|
| <b>7-410</b> | 5 amp miniature alligator clip | 25   |

- Nickel-plated steel
- Full-meshing teeth
- Jaw opens .19 in.



## Charging Clips

| Part No.     | Description                         | Qty. |
|--------------|-------------------------------------|------|
| <b>7-412</b> | 10 amp center squeeze charging clip | 25   |
| <b>7-414</b> | 25 amp center squeeze charging clip | 25   |
| <b>7-416</b> | 50 amp center squeeze charging clip | 25   |

- Screw or crimp connection
- Full-meshing teeth
- Zinc-plated steel





# CSA KITS

## CSA QWIK-FIX™ Kit



*It's customizable!  
We saved room in the bag so that you can add lights and other parts to fit your needs*



Keep cables off the deck plate!

New regulations deliver harsher penalties to the driver and fleet for electrical and air system failures. Our CSA QWIK-FIX™ KIT keeps standard electrical and air products at your fingertips, so if the situation arises, you'll be prepared!

| Part No.      | Description       |
|---------------|-------------------|
| <b>80-850</b> | CSA QWIK-FIX™ KIT |

### 80-850 Contents

| Replacement Part No. | Description                                   | Qty. |
|----------------------|---|------|
| <b>16-720</b>        | STA-DRY® 7-way socket                         | 1    |
| <b>16-730</b>        | STA-DRY® WEATHER-TITE™ PERMAPLUG™ 7-way plug  | 1    |
| <b>4-121</b>         | 7-way plug and socket brush                   | 1    |
| <b>4-250</b>         | QWIK-SHOT™ grease tubes                       | 2    |
| <b>12-010</b>        | Universal gladhands                           | 2    |
| <b>12-012-25</b>     | Gladhand rubber seals                         | 5    |
| <b>12-95066</b>      | 3/8" QWIK-FIT™ composite air fittings - union | 2    |
| <b>12-95088</b>      | 1/2" QWIK-FIT™ composite air fittings - union | 2    |
| <b>12-90003</b>      | Economy nylon air tube cutter                 | 1    |
| <b>17-153</b>        | QWIK-SNAP™ 3-hose holder                      | 1    |
| <b>8-43087</b>       | 7.5" cable ties                               | 100  |
| <b>17-150</b>        | 2-hose separators                             | 4    |

# DOCUMENT HOLDERS

## STA-DRY® Document Holder

| Part No.      | Description                                |
|---------------|--|
| <b>16-802</b> | STA-DRY® document holder                   |
| <b>16-801</b> | STA-DRY® document holder replacement lid * |

\*Tether not included with replacement lid.

- Waterproof – documents remain dry in extreme weather
- Stainless steel tether - prevents misplacement of lid
- Twist-on lens with large grips – easy to use with gloves
- Stainless steel hardware – keeps documents rust free
- Mounts with most competitive document holders - 8 mounting holes
- Large interior for multiple documents

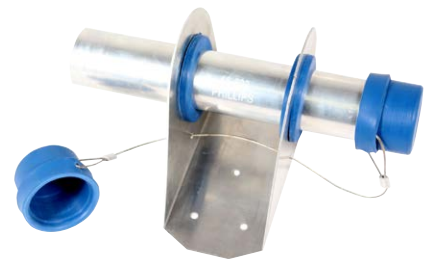


## Tube Document Holder

| Part No.      | Description   |
|---------------|---|
| <b>16-803</b> | Aluminum tube document holder with mounting bracket |
| <b>16-804</b> | Replacement rubber cap *                            |

\*Tether not included with replacement cap.

- Features a sturdy, light-weight aluminum tubular body and mounting bracket with cushioned tube support
- UV protected rubber end caps with watertight seal
- Stainless steel tether – prevents misplacement of rubber end cap
- Easy to install – mounts to any flat surface



# TRAFFIC BUILDERS

Prominent Phillips header card is easily visible from a distance

Removable hanging side racks maximize the display's real estate to display even more product

Comes with top moving air and electrical products

Great as an end aisle display



Branded Phillips display buckets offer plenty of room for product

Bucket stickers offer a quick and easy visual reference of the product and part number to help customers find what they're looking for and to aid in restocking

Rack is easy to assemble and maintain

Designed to turn more than 6 times per year

## Air & Electrical Center

| Part No.      | Description                               |
|---------------|---|
| <b>80-130</b> | Air and electrical center wall assortment |

- Get organized
- Increase gross profit through impulse sales
- Includes top moving items - designed to turn at least 6 times per year

### Assortment Includes:

- Products
- Gondola header card
- Re-order stickers
- Floor talkers
- 25 products pull-through sales flyers
- Detailed planogram



### Gondola Header Card



### Re-order Stickers



### Floor Talkers



### 80-130 Contents:\*

| Replacement Part No. | Description   | Qty. |
|----------------------|---|------|
| <b>11-315</b>        | Heavy duty coiled air, 15' pair (red and blue)                        | 5    |
| <b>11-3150</b>       | POWER GRIP™, 15' pair (red and blue)                                  | 5    |
| <b>11-5150</b>       | POLAR AIR®, 15' pair (red and blue)                                   | 5    |
| <b>12-006</b>        | Gladhand - service, straight mount                                    | 25   |
| <b>12-008</b>        | Gladhand - emergency, straight mount                                  | 25   |
| <b>15-042</b>        | STOW-A-WAY™, gladhand and plug holder                                 | 10   |
| <b>15-720</b>        | 7-way zinc die-cast socket  | 25   |
| <b>15-730</b>        | 7-way zinc die-cast plug  | 25   |
| <b>15-762</b>        | 7-way zinc die-cast plug with extended barrel socketbreaker           | 10   |
| <b>16-720</b>        | STA-DRY® socket, 2-hole, wire insertion                               | 25   |
| <b>16-730</b>        | WEATHER-TITE™ PERMAPLUG™  | 25   |
| <b>22-4621</b>       | NON-ABS PERMACOIL™, 15', with zinc die-cast plugs, 1/10 and 6/12 ga.  | 5    |
| <b>24-4621</b>       | NON-ABS PERMACOIL™, 15', with zinc die-cast plugs, 1/12 and 6/14 ga.  | 5    |
| <b>30-4621</b>       | ABS PERMACOIL™, 15', with zinc die-cast plugs, 1/8, 2/10 and 4/12 ga. | 5    |

\* Does not come with shelves, fences or gondola



## Air Center



| Part No.      | Description                |
|---------------|----------------------------|
| <b>80-131</b> | Air center wall assortment |

- Get organized
- Increase gross profit through impulse sales
- Includes top moving items - designed to turn at least 6 times per year

### Assortment Includes:

- Products
- Gondola header card
- Re-order stickers
- Floor talkers
- 25 products pull-through sales flyers



### Gondola Header Card



### Re-order Stickers



### Floor Talkers

### 80-131 Contents:\*

| Replacement Part No. | Description  | Qty. |
|----------------------|--|------|
| <b>11-312</b>        | Heavy duty coiled air, 12' pair (red and blue)               | 5    |
| <b>11-315</b>        | Heavy duty coiled air, 15' pair (red and blue)               | 5    |
| <b>11-320</b>        | Heavy duty coiled air, 20' pair (red and blue)               | 5    |
| <b>11-340</b>        | Heavy duty coiled air, 15' pair (red and blue) with 40" lead | 5    |
| <b>11-3150</b>       | POWER GRIP™, 15' pair (red and blue)                         | 5    |
| <b>11-5150</b>       | POLAR AIR®, 15' pair (red and blue)                          | 5    |
| <b>12-006</b>        | Gladhand - service, straight mount                           | 25   |
| <b>12-008</b>        | Gladhand - emergency, straight mount                         | 25   |
| <b>12-010</b>        | Gladhand - universal, straight mount                         | 25   |
| <b>12-600</b>        | Coiled air gladhand grips, pair (red and blue)               | 12   |
| <b>12-136</b>        | Gladhand - service, angle mount                              | 25   |
| <b>12-138</b>        | Gladhand - emergency, angle mount                            | 25   |
| <b>12-0100</b>       | Gladhand - dummy   | 25   |
| <b>12-012-25</b>     | Gladhand seal - wide lip, polybag                            | 25   |

\* Does not come with shelves, fences or gondola

## Deluxe Air & Electrical Center Bucket Display

| Part No.      | Description                       |
|---------------|-----------------------------------|
| <b>80-110</b> | Deluxe air and electrical display |

### 80-110 Contents:

| Replacement Part No. | Description   | Qty. |
|----------------------|---|------|
| <b>11-315</b>        | Heavy duty coiled air, 15' pair (red and blue)                        | 5    |
| <b>11-3150</b>       | POWER GRIP™, 15' pair (red and blue)                                  | 5    |
| <b>11-5150</b>       | POLAR AIR®, 15' pair (red and blue)                                   | 5    |
| <b>12-006</b>        | Gladhand - service, straight mount                                    | 25   |
| <b>12-008</b>        | Gladhand - emergency, straight mount                                  | 25   |
| <b>15-042</b>        | STOW-A-WAY™, gladhand and plug holder                                 | 10   |
| <b>15-720</b>        | 7-way zinc die-cast socket  | 25   |
| <b>15-730</b>        | 7-way zinc die-cast plug  | 25   |
| <b>15-762</b>        | 7-way zinc die-cast socket with extended barrel socketbreaker         | 10   |
| <b>16-720</b>        | STA-DRY® socket, 2-hole, wire insertion                               | 25   |
| <b>16-730</b>        | WEATHER-TITE™ PERMAPLUG™  | 25   |
| <b>22-4621</b>       | NON-ABS PERMACOIL™, 15', with zinc die-cast plugs, 1/10 and 6/12 ga.  | 5    |
| <b>24-4621</b>       | NON-ABS PERMACOIL™, 15', with zinc die-cast plugs, 1/12 and 6/14 ga.  | 5    |
| <b>30-4621</b>       | ABS PERMACOIL™, 15', with zinc die-cast plugs, 1/8, 2/10 and 4/12 ga. | 5    |
| <b>80-106</b>        | Bucket rack with 8 buckets  | 1    |
| <b>80-107</b>        | Side attachment set   | 1    |
| <b>80-1078</b>       | Bucket sticker set  | 1    |

- Contains 14 of our top-moving gladhands, plugs, sockets, air and electrical assemblies
- Great as an end and aisle display
- Easy to assemble and maintain
- Dimensions: 79 in. x 33 in. x 13 in.\*

\*Approximate measurements are of display rack with header card, excluding buckets and any product.



**80-110**

## Air & Electrical Center Bucket Display

| Part No.      | Description                |
|---------------|----------------------------|
| <b>80-105</b> | Air and electrical display |

### 80-105 Contents:

| Replacement Part No. | Description   | Qty. |
|----------------------|---|------|
| <b>12-006</b>        | Gladhand - service, straight mount                            | 25   |
| <b>12-008</b>        | Gladhand - emergency, straight mount                          | 25   |
| <b>15-042</b>        | STOW-A-WAY™, gladhand and plug holder                         | 10   |
| <b>15-720</b>        | 7-way zinc die-cast socket                                    | 25   |
| <b>15-730</b>        | 7-way zinc die-cast plug                                      | 25   |
| <b>15-762</b>        | 7-way zinc die-cast socket with extended barrel socketbreaker | 10   |
| <b>16-720</b>        | STA-DRY® socket, 2-hole, wire insertion                       | 25   |
| <b>16-730</b>        | WEATHER-TITE™ PERMAPLUG™                                      | 25   |
| <b>80-106</b>        | Bucket rack with 8 buckets                                    | 1    |
| <b>80-1078</b>       | Bucket sticker set  | 1    |

| Replacement Part No. | Description             |
|----------------------|-------------------------|
| <b>80-801</b>        | Phillips display bucket |

**DESIGNED TO TURN MORE THAN 6 TIMES PER YEAR!**



**80-801**



## STA-DRY® Heat Shrink Display



### Generate New Customers and Repeat Revenue

Every fleet uses these items. Keep them coming back for more.

### Sturdy Self-Standing Display

Takes up just 4 sq. ft. of floor space

### Display Dimensions

25.5 in. wide  
69.5 in. tall (including header card)  
21 in. deep

| Part No.       | Description                            |
|----------------|--|
| <b>80-1850</b> | STA-DRY® heat shrink connector display |

### 80-1850 Contents:

| Replacement Part No. | Description  | Qty. |
|----------------------|--|------|
| <b>1-1661</b>        | STA-DRY® CRIMP & SEAL™, CLEAR-VU™, butt connector, 22-18 ga., red stripe, 25 pcs/bag                           | 2    |
| <b>1-1662</b>        | STA-DRY® CRIMP & SEAL™, CLEAR-VU™, butt connector, 16-14 ga., blue stripe, 25 pcs/bag                          | 2    |
| <b>1-1663</b>        | STA-DRY® CRIMP & SEAL™, CLEAR-VU™, butt connector, 12-10 ga., yellow stripe, 25 pcs/bag                        | 2    |
| <b>1-1723</b>        | STA-DRY® CRIMP & SEAL™ - butt connector, daisy chain, 12-10 ga., yellow stripe, 10 pcs/bag                     | 2    |
| <b>1-1724</b>        | STA-DRY® CRIMP & SEAL™ - butt connector, daisy chain, 16-14 ga., blue stripe, 10 pcs/bag                       | 2    |
| <b>1-1861</b>        | STA-DRY® CRIMP, SOLDER & SEAL™ - butt connector 12-10 ga., yellow, 25 pcs/bag                                  | 2    |
| <b>1-1861C</b>       | STA-DRY® CRIMP, SOLDER & SEAL™ - butt connector 12-10 ga., yellow, 5 pcs/clamshell                             | 5    |
| <b>1-1862</b>        | STA-DRY® CRIMP, SOLDER & SEAL™ - butt connector 16-14 ga., blue, 25 pcs/bag                                    | 2    |
| <b>1-1862C</b>       | STA-DRY® CRIMP, SOLDER & SEAL™ - butt connector 16-14 ga., blue, 5 pcs/clamshell                               | 5    |
| <b>1-1863</b>        | STA-DRY® CRIMP, SOLDER & SEAL™ - butt connector 22-18 ga., red, 25 pcs/bag                                     | 2    |
| <b>1-1863C</b>       | STA-DRY® CRIMP, SOLDER & SEAL™ - butt connector 22-18 ga., red, 5 pcs/clamshell                                | 5    |
| <b>1-1922</b>        | STA-DRY® CRIMP & SEAL™ - ring terminal, 16-14 ga., blue, #8 stud, 25 pcs/bag                                   | 2    |
| <b>1-1923</b>        | STA-DRY® CRIMP & SEAL™ - ring terminal, 16-14 ga., blue, #10 stud, 25 pcs/bag                                  | 2    |
| <b>1-1923C</b>       | STA-DRY® CRIMP & SEAL™ - ring terminal, 16-14 ga., blue, #10 stud, 5 pcs/clamshell                             | 5    |
| <b>1-1924</b>        | STA-DRY® CRIMP & SEAL™ - ring terminal, 16-14 ga., blue, 1/4" stud, 25 pcs/bag                                 | 2    |
| <b>1-1926</b>        | STA-DRY® CRIMP & SEAL™ - ring terminal, 16-14 ga., blue, 3/8" stud, 25 pcs/bag                                 | 2    |
| <b>1-1933</b>        | STA-DRY® CRIMP & SEAL™ - ring terminal, 12-10 ga., yellow, #10 stud, 25 pcs/bag                                | 2    |
| <b>1-1935</b>        | STA-DRY® CRIMP & SEAL™ - ring terminal, 12-10 ga., yellow, 5/16" stud, 25 pcs/bag                              | 2    |
| <b>1-1936</b>        | STA-DRY® CRIMP & SEAL™ - ring terminal, 12-10 ga., yellow, 3/8" stud, 25 pcs/bag                               | 2    |
| <b>1-1961</b>        | STA-DRY® CRIMP & SEAL™ - butt connector, 22-18 ga., red, 25 pcs/bag  | 3    |
| <b>1-1961C</b>       | STA-DRY® CRIMP & SEAL™ - butt connector, 22-18 ga., red, 5 pcs/clamshell                                       | 5    |
| <b>1-1962</b>        | STA-DRY® CRIMP & SEAL™ - butt connector, 16-14 ga., blue, 25 pcs/bag   | 3    |
| <b>1-1962C</b>       | STA-DRY® CRIMP & SEAL™ - butt connector, 16-14 ga., blue, 5 pcs/clamshell                                      | 5    |
| <b>1-1963</b>        | STA-DRY® CRIMP & SEAL™ - butt connector, 12-10 ga., yellow, 25 pcs/bag   | 3    |
| <b>1-1963C</b>       | STA-DRY® CRIMP & SEAL™ - butt connector, 12-10 ga., yellow, 5 pcs/clamshell                                    | 5    |
| <b>1-1964</b>        | STA-DRY® CRIMP & SEAL™ - butt connector, 8 ga., red, 25 pcs/bag  | 2    |
| <b>1-1971</b>        | STA-DRY® CRIMP & SEAL™ - slip-on terminal, fully insulated, .250" tab, 16-14 ga., blue, female, 25 pcs/bag     | 2    |
| <b>1-1972</b>        | STA-DRY® CRIMP & SEAL™ - slip-on terminal, fully insulated, .250" tab, 16-14 ga., blue, male, 25 pcs/bag       | 2    |
| <b>1-2267</b>        | STA-DRY® CRIMP & SEAL™ - bullet terminal, fully insulated, .180" diameter, 16-14 ga., blue, female, 25 pcs/bag | 2    |
| <b>1-2269</b>        | STA-DRY® CRIMP & SEAL™ - bullet terminal, .180" diameter, 16-14 ga., blue, male, 25 pcs/bag                    | 2    |
| <b>1-2269C</b>       | STA-DRY® CRIMP & SEAL™ - bullet terminal, .180" diameter, 16-14 ga., blue, male, 5 pcs/clamshell               | 5    |
| <b>4-057</b>         | Professional torch, box  | 1    |
| <b>4-214*</b>        | Shop tool - wire stripping and crimping tool   | 1    |
| <b>6-300</b>         | STA-DRY® flexible dual wall heat shrink tubing - 20-16 ga., black, 6", 6 pcs/bag                               | 2    |
| <b>6-301</b>         | STA-DRY® flexible dual wall heat shrink tubing - 16-14 ga., black, 6", 6 pcs/bag                               | 2    |
| <b>6-302</b>         | STA-DRY® flexible dual wall heat shrink tubing - 12-10 ga., black, 6", 6 pcs/bag                               | 2    |
| <b>6-304</b>         | STA-DRY® flexible dual wall heat shrink tubing - 8-6 ga., black, 6", 6 pcs/bag                                 | 2    |
| <b>6-305</b>         | STA-DRY® flexible dual wall heat shrink tubing - 1-2/0 ga., black, 6", 6 pcs/bag                               | 2    |

\*Part number quantity listed in display breaks standard pack. If part number is ordered separately outside of display to replenish inventory, additional quantities will be received.

## QWIK-CHANGE™ Tracker Bar Spring Kit Display

| Part No.      | Description                                 |
|---------------|---|
| <b>80-420</b> | QWIK-CHANGE™ tracker bar spring kit display |

### 80-420 Contents:

| Replacement Part No. | Description  | Qty. |
|----------------------|--|------|
| <b>17-148</b>        | Kit with 20" heavy duty spring, with QWIK-SNAP™          | 5    |
| <b>17-1481</b>       | Kit with 20.5" extra heavy duty spring, with QWIK-CLAMP™ | 5    |
| -                    | 20" tracker bar - to display/hang product                | 1    |
| -                    | Poster for easy identification and product replenishment | 1    |

- Branded Phillips display poster, easily visible from a distance
- Poster offers a quick and easy visual reference of the product and part number
- Uses minimal wall space at 20 in. wide x 36 in. tall x 5 in. deep
- Kits include snap-on clip, PVC sleeve, spring, and our QWIK-SNAP™ 3-hose holder, or QWIK-CLAMP™ that converts from a 1, 2 or 3-hose holder to cable clamp for 3-IN-1s (approx 1.6 in. diameter)

Equipped with the QWIK-SNAP™ or QWIK-CLAMP™



Does not include slatwall



## 2/0 CLEAR-VU™ Battery Jumpers Display

**TAKE CARE OF CORROSION BEFORE CORROSION TAKES CARE OF YOU!**

| Part No.      | Description                           |
|---------------|---------------------------------------|
| <b>80-903</b> | 2/0 CLEAR-VU™ battery jumpers display |

### 80-903 Contents:

| Replacement Part No. | Description                                 | Qty. |
|----------------------|---|------|
| <b>9-350</b>         | 2/0 CLEAR-VU™ clear, 2 lug, 8"              | 3    |
| <b>9-351</b>         | 2/0 CLEAR-VU™ translucent smoke, 2 lug, 8"  | 3    |
| <b>9-352</b>         | 2/0 CLEAR-VU™ translucent red, 2 lug, 8"    | 3    |
| <b>9-360</b>         | 2/0 CLEAR-VU™ clear, 3 lug, 17"             | 3    |
| <b>9-361</b>         | 2/0 CLEAR-VU™ translucent smoke, 3 lug, 17" | 3    |
| <b>9-362</b>         | 2/0 CLEAR-VU™ translucent red, 3 lug, 17"   | 3    |
| <b>9-370</b>         | 2/0 CLEAR-VU™ clear, 4 lug, 26"             | 3    |
| <b>9-371</b>         | 2/0 CLEAR-VU™ translucent smoke, 4 lug, 26" | 3    |
| <b>9-372</b>         | 2/0 CLEAR-VU™ translucent red, 4 lug, 26"   | 3    |
| -                    | Display poster                              | 1    |
| -                    | Slatwall hooks                              | 9    |

- Branded Phillips display poster, easily visible from a distance
- Poster offers a quick and easy visual reference of the product and part number
- Comes with 9 OF THE FASTEST MOVING Phillips 2/0 battery jumpers
- Display poster has OEM replacement chart for ease of interchangeability between manufacturers
- Uses minimal wall space at 22 in. wide x 34 in. tall x 3 in. deep
- Display poster comes double sided with English on one side and French on the reverse side

Does not include slatwall



Double-sided poster with English and French translation!

## STA-DRY® Heat Shrink Connector Shake Jar Display



### Includes Product Sample Board!

- Contains nine of our most popular STA-DRY® heat shrink connectors in easy to sell shake jars!
- Increase profit through impulse sales!
- Comes pre-assembled
- Dimensions are approximately 12 in. x 12 in. x 12 in., the header card is approximately 8 in. x 12 in.
- Includes product sample board

### STA-DRY® Heat Shrink Connector Shake Jar Display WITH Replacement Jars

| Part No.        | Description                                    |
|-----------------|--|
| <b>80-1860</b>  | Shake jar display - English (includes 21 jars) |
| <b>80-1860F</b> | Shake jar display - French (includes 21 jars)  |
| <b>80-1860S</b> | Shake jar display - Spanish (includes 21 jars) |

### STA-DRY® Heat Shrink Connector Shake Jar Display WITHOUT Replacement Jars

| Part No.        | Description                                    |
|-----------------|--|
| <b>80-1861</b>  | Shake jar display - English (includes 12 jars) |
| <b>80-1861F</b> | Shake jar display - French (includes 12 jars)  |
| <b>80-1861S</b> | Shake jar display - Spanish (includes 12 jars) |

#### Contents:

| Part No.       | Description  | 80-1860;<br>80-1860F;<br>80-1860S;<br>Contents | 80-1861;<br>80-1861F<br>80-1861S;<br>Contents |
|----------------|--|--|---|
| <b>1-1661J</b> | STA-DRY® CRIMP & SEAL™, CLEAR-VU™ window, 22-18 ga., 100 pcs/jar | 2  | 1   |
| <b>1-1662J</b> | STA-DRY® CRIMP & SEAL™ CLEAR-VU™ window, 16-14 ga., 100 pcs/jar  | 3  | 2   |
| <b>1-1663J</b> | STA-DRY® CRIMP & SEAL™, CLEAR-VU™ window, 12-10 ga., 60 pcs/jar  | 2  | 1   |
| <b>1-1861J</b> | STA-DRY® CRIMP, SOLDER & SEAL™, 12-10 ga., 60 pcs/jar            | 2  | 1   |
| <b>1-1862J</b> | STA-DRY® CRIMP, SOLDER & SEAL™, 16-14 ga., 100 pcs/jar           | 3  | 2   |
| <b>1-1863J</b> | STA-DRY® CRIMP, SOLDER & SEAL™, 22-18 ga., 100 pcs/jar           | 2  | 1   |
| <b>1-1961J</b> | STA-DRY® CRIMP & SEAL™, 22-18 ga., 100 pcs/jar                   | 2  | 1   |
| <b>1-1962J</b> | STA-DRY® CRIMP & SEAL™, 16-14 ga., 100 pcs/jar                   | 3  | 2   |
| <b>1-1963J</b> | STA-DRY® CRIMP & SEAL™, 12-10 ga., 60 pcs/jar                    | 2  | 1   |
| -              | STA-DRY® heat shrink connectors sample board                     | 1  | 1   |

## QWIK-SNAP™ Display



| Part No.      | Description                                |
|---------------|--|
| <b>80-153</b> | QWIK-SNAP™ hose holder counter top display |

#### 80-153 Contents:

| Replacement Part No. | Description              | Qty. |
|----------------------|--------------------------|------|
| <b>17-152</b>        | QWIK-SNAP™ 2-hose holder | 10   |
| <b>17-153</b>        | QWIK-SNAP™ 3-hose holder | 10   |
| <b>17-154</b>        | QWIK-SNAP™ 4-hose holder | 10   |
| -                    | Display header card      | 1    |
| -                    | Counter rack             | 1    |

- Contains all three of our QWIK-SNAP™ hose holders
- Increase gross profit through impulse sales
- Quicker than conventional hose holders - change hoses in seconds

## Coiled Air Gladhand Extension Display

| Part No.      | Description                                       |
|---------------|---|
| <b>80-600</b> | Coiled air gladhand extension counter top display |

### 80-600 Contents:

| Part No.      | Description  | Qty. |
|---------------|--|------|
| <b>12-600</b> | Coiled air gladhand extension pairs (red and blue) | 9    |
| -             | Display header card                                | 1    |
| -             | Counter rack                                       | 1    |

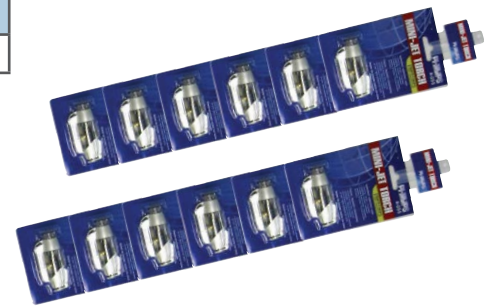
- Provides strong leverage for coupling/uncoupling gladhands
- One-piece body for easy installation
- Durable and strong; made of solid aluminum
- Corrosion-resistant anodized color coating
- Easy installation - installs between air coil and gladhand



## Mini-Jet Torch Clip Strips

| Part No.     | Description                                  |
|--------------|--|
| <b>4-055</b> | 2 clip strips with 12 blister packs of 4-054 |

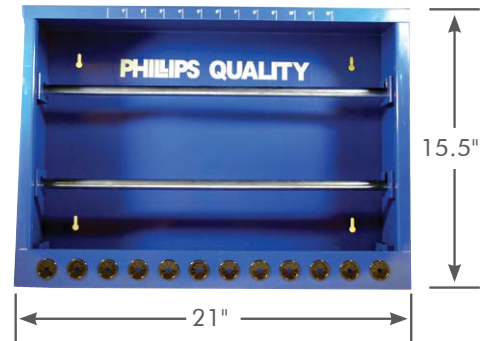
- Contains 12 mini-torches 4-054
- Packaged as 2 clip strips with 6 torches each



## Wire Rack

| Part No.      | Description       |
|---------------|-------------------|
| <b>80-191</b> | Primary wire rack |

- Ideal for the 80-2006 primary wire assortment
- Holds 12 ft. - 100 ft. primary wire spools
- Keeps wire organized and accessible
- Printed 1 ft. ruler for easy measuring
- Wall mountable or freestanding
- Sturdy rack that is built to last
- 21 in. x 15.5 in. x 5.5 in.





## Gladhand Seal Buckets



| Part No.       | Description  |
|----------------|--|
| <b>80-012</b>  | Black rubber, 200 count                                  |
| <b>80-0161</b> | Blue polyurethane, 200 count                             |
| <b>80-0162</b> | Red polyurethane, 200 count                              |
| <b>80-0163</b> | Black polyurethane, 200 count                            |
| <b>80-0164</b> | Blue and red polyurethane, 200 count (100 blue, 100 red) |
| <b>80-0167</b> | Grey polyurethane with dust flap, 200 count              |

- Great for countertop impulse sales
- Place to "write in" price
- Barcode on label for scanning
- Fits all industry standard gladhands
- SILENT SALESMAN FOR THE COUNTER!

## Gladhand Seal Dispenser Box Displays



| Part No.       | Description  |
|----------------|--|
| <b>80-1161</b> | Blue (service) polyurethane gladhand seals, 200 count <b>NEW</b>                 |
| <b>80-1162</b> | Red (emergency) polyurethane gladhand seals, 200 count <b>NEW</b>                |
| <b>80-1163</b> | Black (universal) polyurethane gladhand seals, 200 count <b>NEW</b>              |
| <b>80-1164</b> | Blue (service) and red (emergency) polyurethane, 100 count each color <b>NEW</b> |
| <b>80-112</b>  | Black (universal) rubber gladhand seals with wide lip, 200 count <b>NEW</b>      |

- For retail display or easy grab-n-go storage in the shop
- Comes pre-assembled and pre-filled with gladhand seals
- Easy to refill and keep inventory replenished
- Environmentally friendly - biodegradable and recyclable
- Aesthetically pleasing visual design with a location to write pricing in
- Box dimensions:  
8 1/8 in. tall x 5 in. wide x 5 1/2 in. deep  
Fully opened front lip to back of box: 8 7/8 in. deep

## QWIK-SHOT™ Grease Tube Bucket



| Part No.      | Description                             |
|---------------|---|
| <b>80-250</b> | Grease tubes, 6 grams, 200 count bucket |

- Perfect for use on plug/socket connection
- Great for countertop impulse sales
- Convenient one-use tubes
- High film strength and exceptional anti-wear properties
- Creates non-conductive, watertight barrier for electrical connections
- Unlimited applications - heavy duty, automotive, marine, agriculture, construction, material handling
- SILENT SALESMAN FOR THE COUNTER!

## Foam Socket Seal Bucket



| Part No.      | Description                                    |
|---------------|--|
| <b>80-795</b> | Corrosion prevention gaskets, 200 count bucket |

- Keep corrosion out of the electrical system!
- Easy to install in 7-way J560 socket only
- Weather and chemical resistant
- Great for counter top impulse sales
- SILENT SALESMAN FOR THE COUNTER!

# OUR TOP MOVERS IN A NO-HASSLE DISPLAY!

## Bulk Merchandisers

### Heavy Duty Coiled Air

| Part No.       | Description              | Qty. |
|----------------|--------------------------|------|
| <b>11-315G</b> | 15', Pair (red and blue) | 50   |

- Most popular coiled air sets; packaged for easy sales
- Individually bagged



### NON-ABS PERMACOIL™

| Part No.        | Description                         | Qty. |
|-----------------|-------------------------------------|------|
| <b>24-4621G</b> | 15', with two zinc die-cast plugs * | 100  |

- Most popular NON-ABS coiled electrical; packaged to move
- Individually bagged



### ABS PERMACOIL™

| Part No.        | Description                         | Qty. |
|-----------------|-------------------------------------|------|
| <b>30-4621G</b> | 15', with two zinc die-cast plugs * | 100  |

- Most popular ABS coiled electrical; guaranteed to increase sales
- Individually bagged



\* Working length - As measured by pull force per SAE J2222. Length of actual cable is significantly longer.



# ASSORTMENT TRAYS

## Empty Tray



| Part No.       | Description |
|----------------|-------------|
| <b>80-1901</b> | Tray only   |

- Great for creating your own assortment
- 24 compartments

## 3/8" Assortment Clamp Kit



| Part No.      | Description               |
|---------------|---------------------------|
| <b>5-1000</b> | 3/8" assortment clamp kit |

- Please see page 125 for complete contents

## Flexible Heat Shrink Tubing



| Part No.      | Description  |
|---------------|--|
| <b>6-1801</b> | STA-DRY® flexible dual wall shrink tubing assortment |

- Please see page 112 for complete contents

## 2/0 Heavy Duty Crimp Kit



| Part No.      | Description                         |
|---------------|-------------------------------------|
| <b>9-1004</b> | Heavy duty 2/0 ga. crimp assortment |

- Please see page 93 for complete contents

## Mobile Wire Repair Kit



| Part No.       | Description                                   |
|----------------|---|
| <b>80-1000</b> | STA-DRY® CRIMP & SEAL™ mobile wire repair kit |

- Please see page 103 for complete contents

| Part No.        | Page            | Part No.        | Page          | Part No.        | Page          | Part No.        | Page     |
|-----------------|-----------------|-----------------|---------------|-----------------|---------------|-----------------|----------|
| 1-1616.....     | 98              | 1-1917.....     | 101           | 1-1975.....     | 101, 103      | 1-54114.....    | 106      |
| 1-1617.....     | 98              | 1-1918.....     | 101           | 1-1975C.....    | 101           | 1-54124.....    | 106, 108 |
| 1-1618.....     | 98              | 1-1919.....     | 101, 103      | 1-1976.....     | 101           | 1-54224.....    | 106, 108 |
| 1-1623.....     | 99              | 1-1919C.....    | 101           | 1-1976C.....    | 101           | 1-54234.....    | 106      |
| 1-1624.....     | 99              | 1-1920.....     | 101           | 1-1981.....     | 102           | 1-55104.....    | 107      |
| 1-1626.....     | 99              | 1-1921.....     | 101           | 1-1982.....     | 102           | 1-55106.....    | 107      |
| 1-1633.....     | 99              | 1-1922.....     | 101, 186      | 1-1983.....     | 102           | 1-55114.....    | 107      |
| 1-1634.....     | 99              | 1-1923.....     | 101, 103, 186 | 1-1984.....     | 102           | 1-55116.....    | 107      |
| 1-1636.....     | 99              | 1-1923-100..... | 101           | 1-2200.....     | 108           | 1-55124.....    | 107, 108 |
| 1-1661.....     | 98, 186         | 1-1923C.....    | 101, 186      | 1-2241.....     | 102           | 1-55125.....    | 107      |
| 1-1661-100..... | 98              | 1-1924.....     | 101, 103, 186 | 1-2242.....     | 102           | 1-55134.....    | 107, 108 |
| 1-1661J.....    | 98, 188         | 1-1924-100..... | 101           | 1-2266.....     | 102, 103      | 1-55135.....    | 107      |
| 1-1662.....     | 95, 98, 186     | 1-1924C.....    | 101           | 1-2267.....     | 102, 103, 186 | 1-56001.....    | 107      |
| 1-1662-100..... | 98              | 1-1925.....     | 101           | 1-2267-100..... | 102           | 1-56003.....    | 107      |
| 1-1662J.....    | 98, 188         | 1-1926.....     | 101, 103, 186 | 1-2267C.....    | 102           | 1-56011.....    | 107      |
| 1-1663.....     | 98, 186         | 1-1926-100..... | 101           | 1-2268.....     | 102, 103      | 1-56013.....    | 107      |
| 1-1663-100..... | 98              | 1-1926C.....    | 101           | 1-2269.....     | 102, 103, 186 | 1-56101.....    | 107      |
| 1-1663J.....    | 98, 188         | 1-1932.....     | 101           | 1-2269-100..... | 102           | 1-56104.....    | 107, 108 |
| 1-1665.....     | 99              | 1-1933.....     | 101, 103, 186 | 1-2269C.....    | 102, 186      | 1-56106.....    | 107      |
| 1-1666.....     | 99              | 1-1933-100..... | 101           | 1-51006.....    | 105, 108      | 1-56111.....    | 107      |
| 1-1671.....     | 99              | 1-1933C.....    | 101           | 1-51104.....    | 105           | 1-56114.....    | 107      |
| 1-1672.....     | 99              | 1-1934.....     | 101, 103      | 1-51106.....    | 105, 108      | 1-56116.....    | 107      |
| 1-1675.....     | 99              | 1-1934-100..... | 101           | 1-51204.....    | 105           | 1-56201.....    | 107      |
| 1-1676.....     | 99              | 1-1934C.....    | 101           | 1-51206.....    | 105, 108      | 1-56203.....    | 107      |
| 1-1723.....     | 104, 186        | 1-1935.....     | 101, 186      | 1-51304.....    | 105           | 1-56211.....    | 107      |
| 1-1723-100..... | 104             | 1-1936.....     | 101, 186      | 1-52026.....    | 106           | 1-56213.....    | 107      |
| 1-1724.....     | 95, 104, 186    | 1-1936-100..... | 101           | 1-52034.....    | 106           | 2-101.....      | 78       |
| 1-1724-100..... | 104             | 1-1937.....     | 101           | 1-52044.....    | 106           | 2-102.....      | 78       |
| 1-1724J.....    | 104             | 1-1939.....     | 101, 103      | 1-52054.....    | 106           | 2-104.....      | 78       |
| 1-1725.....     | 104             | 1-1940.....     | 101           | 1-52114.....    | 106           | 2-105.....      | 78       |
| 1-1725-100..... | 104             | 1-1941.....     | 101           | 1-52116.....    | 106           | 2-106.....      | 78       |
| 1-1726.....     | 100             | 1-1942.....     | 101, 103      | 1-52124.....    | 106, 108      | 2-107.....      | 78       |
| 1-1727.....     | 100, 103        | 1-1944.....     | 101, 103      | 1-52126.....    | 106           | 2-111.....      | 78, 79   |
| 1-1728.....     | 100, 103        | 1-1945.....     | 101           | 1-52134.....    | 106, 108      | 2-111-1000..... | 78       |
| 1-1729.....     | 104             | 1-1946.....     | 101           | 1-52136.....    | 106           | 2-112.....      | 78, 79   |
| 1-1730.....     | 104             | 1-1947.....     | 101           | 1-52144.....    | 106           | 2-113.....      | 78       |
| 1-1803.....     | 97              | 1-1948.....     | 101           | 1-52146.....    | 106           | 2-114.....      | 78       |
| 1-1861.....     | 96, 97, 186     | 1-1950.....     | 102           | 1-52154.....    | 106, 108      | 2-115.....      | 78, 79   |
| 1-1861-100..... | 96              | 1-1951.....     | 102           | 1-52156.....    | 106           | 2-115-1000..... | 78       |
| 1-1861-500..... | 96              | 1-1952.....     | 102           | 1-52214.....    | 106           | 2-116.....      | 78       |
| 1-1861C.....    | 96, 186         | 1-1953.....     | 102           | 1-52216.....    | 106           | 2-116-1000..... | 78       |
| 1-1861J.....    | 96, 188         | 1-1954.....     | 102           | 1-52224.....    | 106, 108      | 2-117.....      | 78       |
| 1-1862.....     | 95, 96, 97, 186 | 1-1955.....     | 102           | 1-52226.....    | 106           | 2-117-1000..... | 78       |
| 1-1862-100..... | 96              | 1-1956.....     | 102           | 1-52234.....    | 106, 108      | 2-121.....      | 78, 79   |
| 1-1862-500..... | 96              | 1-1957.....     | 102           | 1-52236.....    | 106           | 2-121-1000..... | 78       |
| 1-1862C.....    | 96, 186         | 1-1961.....     | 100, 103, 186 | 1-52244.....    | 106           | 2-122.....      | 78, 79   |
| 1-1862J.....    | 96, 188         | 1-1961-100..... | 100           | 1-52246.....    | 106           | 2-122-1000..... | 78       |
| 1-1863.....     | 96, 97, 186     | 1-1961-500..... | 100           | 1-52254.....    | 106, 108      | 2-123.....      | 78, 79   |
| 1-1863-100..... | 96              | 1-1961C.....    | 100, 186      | 1-52256.....    | 106           | 2-123-1000..... | 78       |
| 1-1863-500..... | 96              | 1-1961J.....    | 100, 188      | 1-52265.....    | 106           | 2-124.....      | 78, 79   |
| 1-1863C.....    | 96, 186         | 1-1962.....     | 95, 100, 103  | 1-52334.....    | 106           | 2-124-1000..... | 78       |
| 1-1863J.....    | 96, 188         |                 |               | 1-52354.....    | 106           | 2-125.....      | 78, 79   |
| 1-1871.....     | 96              | 1-1962-100..... | 100           | 1-52364.....    | 106           | 2-125-1000..... | 78       |
| 1-1872.....     | 96              | 1-1962-500..... | 100           | 1-52424.....    | 105           | 2-126.....      | 78, 79   |
| 1-1873.....     | 96, 97          | 1-1962C.....    | 100, 186      | 1-53104.....    | 106, 108      | 2-126-1000..... | 78       |
| 1-1873C.....    | 96              | 1-1962J.....    | 100, 188      | 1-53105.....    | 106           | 2-127.....      | 78, 79   |
| 1-1874.....     | 96, 97          | 1-1963.....     | 100, 103, 186 | 1-53114.....    | 106, 108      | 2-127-1000..... | 78       |
| 1-1874C.....    | 96              | 1-1963-100..... | 100           | 1-53115.....    | 106           | 2-131.....      | 78, 79   |
| 1-1875.....     | 96, 97          | 1-1963-500..... | 100           | 1-53134.....    | 106           | 2-131-1000..... | 78       |
| 1-1875C.....    | 96              | 1-1963C.....    | 100, 186      | 1-53204.....    | 106           | 2-132.....      | 78       |
| 1-1876.....     | 96, 97          | 1-1963J.....    | 100, 188      | 1-53206.....    | 106           | 2-132-1000..... | 78       |
| 1-1877.....     | 96, 97          | 1-1964.....     | 100, 186      | 1-53214.....    | 106           | 2-133.....      | 78       |
| 1-1878.....     | 96, 97          | 1-1965.....     | 101           | 1-53216.....    | 106           | 2-134.....      | 78       |
| 1-1879.....     | 97              | 1-1965-100..... | 101           | 1-53304.....    | 107           | 2-134-1000..... | 78       |
| 1-1880.....     | 97              | 1-1965C.....    | 101           | 1-53314.....    | 107           | 2-135.....      | 78, 79   |
| 1-1891.....     | 97              | 1-1966.....     | 101           | 1-53404.....    | 107, 108      | 2-135-1000..... | 78       |
| 1-1892.....     | 97              | 1-1966-100..... | 101           | 1-53414.....    | 107, 108      | 2-136.....      | 78       |
| 1-1893.....     | 97              | 1-1967.....     | 103           | 1-53504.....    | 107           | 2-137.....      | 78       |
| 1-1893C.....    | 97              | 1-1971.....     | 101, 103, 186 | 1-53505.....    | 107           | 2-137-1000..... | 78       |
| 1-1894.....     | 97              | 1-1971-100..... | 101           | 1-53514.....    | 107           | 2-141.....      | 78       |
| 1-1894C.....    | 97              | 1-1971C.....    | 101           | 1-53515.....    | 107           | 2-142.....      | 78       |
| 1-1900.....     | 103             | 1-1972.....     | 101, 103, 186 | 1-54014.....    | 106           | 2-144.....      | 78       |
| 1-1903.....     | 103             | 1-1972-100..... | 101           | 1-54024.....    | 106           | 2-145.....      | 78       |
| 1-1905.....     | 103             | 1-1972C.....    | 101           | 1-54104.....    | 106           | 2-146.....      | 78       |

| Part No. | Page | Part No.   | Page | Part No.   | Page          | Part No.  | Page       |
|----------|------|------------|------|------------|---------------|-----------|------------|
| 2-147    | 78   | 3-341      | 73   | 3-555-100  | 75            | 5-036-250 | 124        |
| 2-151    | 78   | 3-342      | 73   | 3-556      | 75            | 5-040     | 124        |
| 2-155    | 78   | 3-343      | 73   | 3-556-100  | 75            | 5-522     | 123        |
| 2-156    | 78   | 3-344      | 73   | 3-565      | 75            | 5-523     | 122        |
| 2-401    | 79   | 3-407      | 73   | 3-565-100  | 75            | 5-524     | 122        |
| 2-402    | 79   | 3-501      | 76   | 3-566      | 75            | 5-525     | 122        |
| 2-403    | 79   | 3-501-100  | 76   | 3-566-100  | 75            | 5-527     | 122        |
| 2-404    | 79   | 3-501-250  | 76   | 3-602      | 71            | 5-530     | 122        |
| 2-422    | 79   | 3-502      | 76   | 3-603      | 71            | 5-532     | 122        |
| 2-423    | 79   | 3-502-100  | 76   | 3-604      | 71            | 5-534     | 122        |
| 2-424    | 79   | 3-502-250  | 76   | 3-612      | 71            | 5-536     | 122        |
| 2-425    | 79   | 3-503      | 76   | 3-613      | 71            | 5-538     | 122        |
| 2-426    | 79   | 3-503-010  | 16   | 3-614      | 71            | 5-608     | 123        |
| 2-1013   | 78   | 3-503-100  | 76   | 3-622      | 71            | 5-610     | 123        |
| 2-1023   | 78   | 3-503-250  | 76   | 3-623      | 71            | 5-612     | 123        |
| 2-1043   | 78   | 3-504      | 76   | 3-624      | 71            | 5-616     | 123        |
| 2-1053   | 78   | 3-504-010  | 16   | 3-632      | 71            | 5-710     | 124        |
| 2-1063   | 78   | 3-504-100  | 76   | 3-633      | 71            | 5-711     | 124        |
| 2-1073   | 78   | 3-504-250  | 76   | 3-642      | 71            | 5-712     | 16, 124    |
| 2-1113   | 78   | 3-505      | 76   | 3-643      | 71            | 5-713     | 124        |
| 2-1123   | 78   | 3-505-100  | 76   | 3-644      | 71            | 5-714     | 124        |
| 2-1133   | 78   | 3-505-250  | 76   | 3-652      | 71            | 5-715     | 124        |
| 2-1143   | 78   | 3-506      | 76   | 3-653      | 71            | 5-716     | 124        |
| 2-1153   | 78   | 3-506-100  | 76   | 3-654      | 71            | 5-750     | 28, 29, 30 |
| 2-1163   | 78   | 3-506-250  | 76   | 3-655      | 71            | 5-811     | 124        |
| 2-1173   | 78   | 3-507      | 76   | 3-662      | 71            | 5-812     | 124        |
| 2-1213   | 78   | 3-507-100  | 76   | 3-663      | 71            | 5-813     | 124        |
| 2-1223   | 78   | 3-508      | 76   | 3-664      | 71            | 5-814     | 124        |
| 2-1233   | 78   | 3-508-100  | 76   | 4-046      | 177           | 5-815     | 124        |
| 2-1243   | 78   | 3-508-250  | 76   | 4-054      | 103, 113, 177 | 5-816     | 124        |
| 2-1253   | 78   | 3-509      | 76   |            |               | 5-1000    | 125, 192   |
| 2-1263   | 78   | 3-509-100  | 76   | 4-055      | 177, 189      | 5-5003    | 123        |
| 2-1273   | 78   | 3-509-250  | 76   | 4-057      | 113, 178, 186 | 5-5006    | 123        |
| 2-1313   | 78   | 3-510      | 76   | 4-058      | 113, 178      | 5-5007    | 117, 119   |
| 2-1323   | 78   | 3-510-100  | 76   | 4-101      | 170           | 5-5008    | 119        |
| 2-1333   | 78   | 3-510-250  | 76   | 4-120      | 179           | 5-5018    | 24, 119    |
| 2-1343   | 78   | 3-511      | 76   | 4-121      | 179, 180      | 5-45034   | 125        |
| 2-1353   | 78   | 3-511-100  | 76   | 4-122      | 179           | 5-45044   | 125        |
| 2-1363   | 78   | 3-511-250  | 76   | 4-140      | 170           | 5-45054   | 125        |
| 2-1373   | 78   | 3-512      | 76   | 4-146      | 170           | 5-45064   | 125        |
| 2-1413   | 78   | 3-512-100  | 76   | 4-147      | 170           | 5-45074   | 16, 125    |
| 2-1423   | 78   | 3-512-250  | 76   | 4-150      | 170           | 5-45084   | 125        |
| 2-1453   | 78   | 3-513      | 76   | 4-152      | 81, 93, 171   | 5-45094   | 125        |
| 2-1463   | 78   | 3-513-100  | 76   | 4-153      | 81, 171       | 5-45104   | 125        |
| 2-1473   | 78   | 3-514      | 76   | 4-214      | 103, 108, 171 | 5-45124   | 125        |
| 2-1513   | 78   | 3-514-100  | 76   |            |               | 5-45144   | 125        |
| 2-1553   | 78   | 3-514-250  | 76   | 4-221      | 171           | 5-45164   | 125        |
| 3-112    | 79   | 3-515      | 76   | 4-230      | 172           | 5-45224   | 125        |
| 3-113    | 79   | 3-516      | 76   | 4-231      | 122, 172      | 5-45241   | 125        |
| 3-191    | 72   | 3-516-100  | 76   | 4-250      | 180           | 5-45261   | 125        |
| 3-192    | 72   | 3-516-250  | 76   | 4-500      | 176           | 5-45271   | 125        |
| 3-193    | 72   | 3-518      | 74   | 4-507      | 172           | 5-46034   | 125        |
| 3-194    | 72   | 3-523      | 74   | 4-532      | 174           | 5-46044   | 125        |
| 3-195    | 72   | 3-523-250  | 74   | 4-904      | 173           | 5-46054   | 125        |
| 3-201    | 72   | 3-523-500  | 74   | 5-023      | 124           | 5-46064   | 125        |
| 3-202    | 72   | 3-523-1000 | 74   | 5-023-250  | 124           | 5-46074   | 125        |
| 3-203    | 72   | 3-524      | 74   | 5-023-1000 | 124           | 5-46084   | 125        |
| 3-204    | 72   | 3-524-250  | 74   | 5-025      | 124           | 5-46094   | 125        |
| 3-205    | 72   | 3-524-500  | 74   | 5-025-250  | 124           | 5-46104   | 125        |
| 3-221    | 72   | 3-524-1000 | 74   | 5-025-1000 | 124           | 5-46124   | 125        |
| 3-222    | 72   | 3-526      | 75   | 5-027      | 124           | 5-46144   | 125        |
| 3-223    | 72   | 3-528      | 75   | 5-027-250  | 124           | 5-46164   | 125        |
| 3-224    | 72   | 3-528-100  | 75   | 5-027-1000 | 124           | 5-46224   | 125        |
| 3-225    | 72   | 3-530      | 75   | 5-029      | 124           | 5-46241   | 125        |
| 3-241    | 72   | 3-530-100  | 75   | 5-029-250  | 124           | 5-46261   | 125        |
| 3-242    | 72   | 3-532      | 75   | 5-030      | 124           | 5-46271   | 125        |
| 3-243    | 72   | 3-532-100  | 75   | 5-030-250  | 124           | 5-46281   | 125        |
| 3-244    | 72   | 3-545      | 75   | 5-030-500  | 124           | 5-46291   | 125        |
| 3-245    | 72   | 3-545-100  | 75   | 5-032      | 124           | 5-46301   | 125        |
| 3-326    | 73   | 3-546      | 75   | 5-032-250  | 124           | 6-102     | 112        |
| 3-327    | 73   | 3-546-100  | 75   | 5-032-500  | 124           | 6-102C    | 112        |
| 3-328    | 73   | 3-551      | 75   | 5-034      | 124           | 6-103     | 111        |
| 3-329    | 73   | 3-551-100  | 75   | 5-034-250  | 124           | 6-103C    | 111        |
| 3-330    | 73   | 3-555      | 75   | 5-036      | 124           | 6-104     | 112        |

| Part No. | Page            | Part No. | Page       | Part No. | Page       | Part No. | Page     |
|----------|-----------------|----------|------------|----------|------------|----------|----------|
| 6-104C   | 112             | 8-619    | 84         | 8-2125   | 83         | 8-4930   | 82       |
| 6-105    | 111             | 8-620    | 84         | 8-2131   | 83         | 8-4950   | 82       |
| 6-105C   | 111             | 8-621    | 84         | 8-2132   | 83         | 8-4960   | 82       |
| 6-106    | 112             | 8-622    | 84         | 8-2133   | 83         | 8-4970   | 82       |
| 6-106C   | 112             | 8-623    | 84         | 8-2135   | 83         | 8-4980   | 82       |
| 6-107    | 111             | 8-638    | 84         | 8-2141   | 83         | 8-6421   | 85       |
| 6-107C   | 111             | 8-644    | 85         | 8-2142   | 83         | 8-7122   | 87       |
| 6-202    | 110             | 8-648    | 85         | 8-2143   | 83         | 8-7123   | 87       |
| 6-204    | 110             | 8-651    | 89, 93     | 8-2145   | 83         | 8-7124   | 87, 93   |
| 6-206    | 110             | 8-656    | 89         | 8-2152   | 83         | 8-7125   | 87, 93   |
| 6-207    | 110             | 8-657    | 89         | 8-2153   | 83         | 8-7126   | 87       |
| 6-208    | 110             | 8-662    | 89, 93     | 8-2155   | 83         | 8-7127   | 87       |
| 6-209    | 110             | 8-663    | 89         | 8-2162   | 83         | 8-7132   | 87       |
| 6-210    | 110             | 8-664    | 89         | 8-2163   | 83         | 8-7133   | 87       |
| 6-211    | 93, 110         | 8-667    | 89         | 8-2165   | 83         | 8-7137   | 87       |
| 6-211C   | 110             | 8-752    | 92         | 8-2173   | 83         | 8-7142   | 87, 93   |
| 6-212    | 36, 37, 93, 110 | 8-1120   | 81         | 8-2175   | 83         | 8-7143   | 87, 93   |
| 6-212C   | 110             | 8-1121   | 81         | 8-2183   | 83         | 8-7146   | 87       |
| 6-300    | 103, 111, 112   | 8-1122   | 81         | 8-2185   | 83         | 8-7147   | 87       |
|          |                 | 8-1130   | 81         | 8-2203   | 83         | 8-7150   | 87       |
| 6-301    | 103, 111, 112   | 8-1131   | 81         | 8-2213   | 83         | 8-7151   | 87       |
|          |                 | 8-1132   | 81         | 8-2223   | 83         | 8-30050  | 121      |
| 6-302    | 111, 112, 186   | 8-1140   | 81         | 8-2233   | 83         | 8-30057  | 121      |
| 6-304    | 111, 112, 186   | 8-1141   | 81         | 8-2243   | 83         | 8-33087  | 108, 120 |
| 6-305    | 111, 112, 186   | 8-1150   | 81         | 8-2253   | 83         | 8-33117  | 120      |
| 6-306    | 111             | 8-1151   | 81         | 8-2255   | 83         | 8-33147  | 120      |
| 6-307    | 111             | 8-1160   | 81, 93     | 8-2263   | 83, 93     | 8-34147  | 120      |
| 6-308    | 111             | 8-1161   | 81, 93     | 8-2265   | 83, 93     | 8-40050  | 121      |
| 6-309    | 111, 112        | 8-1170   | 81         | 8-2273   | 83         | 8-40057  | 121      |
| 6-310    | 111, 112        | 8-1171   | 81         | 8-2275   | 83         | 8-41047  | 120      |
| 6-311    | 111, 112        | 8-1180   | 81         | 8-2283   | 83         | 8-43084  | 120      |
| 6-312    | 111, 112        | 8-1181   | 81         | 8-2285   | 83         | 8-43087  | 120, 180 |
| 6-313    | 111, 112        | 8-1250   | 81         | 8-2763   | 81, 93     | 8-43117  | 120      |
| 6-314    | 111, 112        | 8-1251   | 81         | 8-2765   | 81, 93     | 8-43147  | 120      |
| 6-315    | 111, 112        | 8-1260   | 81         | 8-2900   | 83         | 8-43177  | 120      |
| 6-351    | 111             | 8-1261   | 81         | 8-2910   | 83         | 8-44147  | 120      |
| 6-353    | 111             | 8-1360   | 81         | 8-2920   | 83         | 8-45134  | 122      |
| 6-355    | 111             | 8-1361   | 81         | 8-2930   | 83         | 8-45194  | 122      |
| 6-357    | 111             | 8-1460   | 81, 93     | 8-2940   | 83         | 8-48087  | 121      |
| 6-400    | 110             | 8-1461   | 81, 93     | 8-2950   | 83         | 8-48147  | 121      |
| 6-401    | 110             | 8-1470   | 81         | 8-2960   | 83         | 8-49077  | 121      |
| 6-402    | 88, 110         | 8-1471   | 81         | 8-2980   | 83         | 8-49157  | 121      |
| 6-403    | 88, 110         | 8-1480   | 81         | 8-4111   | 82         | 8-61020  | 121      |
| 6-404    | 16, 36, 88, 93  | 8-1481   | 81         | 8-4121   | 16, 82     | 9-126    | 86       |
|          |                 | 8-1660   | 81         | 8-4122   | 16, 82     | 9-128    | 86       |
| 6-405    | 16, 36, 37, 88  | 8-1763   | 81         | 8-4123   | 16, 82     | 9-150    | 86       |
|          |                 | 8-1863   | 81         | 8-4125   | 82         | 9-151    | 86       |
| 6-521    | 113             | 8-2001   | 82         | 8-4131   | 82         | 9-152    | 86       |
| 6-532    | 113             | 8-2002   | 82         | 8-4132   | 82         | 9-208    | 85       |
| 6-1800   | 112             | 8-2003   | 82         | 8-4133   | 82         | 9-209    | 85       |
| 6-1801   | 112, 192        | 8-2010   | 82         | 8-4135   | 82         | 9-210    | 85       |
| 7-259    | 88              | 8-2011   | 82         | 8-4152   | 82         | 9-211    | 85       |
| 7-260    | 31, 88          | 8-2012   | 82         | 8-4153   | 82         | 9-212    | 85       |
| 7-261    | 31, 88          | 8-2013   | 82         | 8-4155   | 82         | 9-213    | 85       |
| 7-262    | 88              | 8-2021   | 82         | 8-4161   | 82         | 9-214    | 85       |
| 7-263    | 88              | 8-2023   | 82         | 8-4162   | 82         | 9-215    | 85       |
| 7-264    | 88              | 8-2025   | 82         | 8-4163   | 82         | 9-216    | 85       |
| 7-265    | 88              | 8-2033   | 82         | 8-4165   | 82, 93     | 9-217    | 85       |
| 7-266    | 88              | 8-2053   | 82         | 8-4173   | 82         | 9-218    | 85       |
| 7-267    | 88              | 8-2055   | 82         | 8-4175   | 82         | 9-219    | 85       |
| 7-410    | 179             | 8-2063   | 82         | 8-4183   | 82         | 9-242    | 87       |
| 7-412    | 179             | 8-2065   | 82         | 8-4185   | 82         | 9-243    | 87       |
| 7-414    | 179             | 8-2073   | 82         | 8-4365   | 82         | 9-262    | 87       |
| 7-416    | 179             | 8-2100   | 83         | 8-4463   | 82         | 9-263    | 87       |
| 7-1800   | 88              | 8-2101   | 83         | 8-4465   | 82         | 9-282    | 87       |
| 8-101    | 176             | 8-2103   | 83         | 8-4563   | 82         | 9-283    | 87       |
| 8-103    | 175             | 8-2110   | 83         | 8-4663   | 82         | 9-290    | 87       |
| 8-110    | 175             | 8-2111   | 83         | 8-4723   | 81         | 9-291    | 87       |
| 8-120    | 175             | 8-2112   | 83         | 8-4733   | 81         | 9-292    | 87       |
| 8-210    | 176             | 8-2113   | 83         | 8-4763   | 81, 93     | 9-293    | 87       |
| 8-211    | 176             | 8-2115   | 83         | 8-4773   | 81         | 9-309    | 91       |
| 8-612    | 84              | 8-2121   | 36, 37, 83 | 8-4783   | 81         | 9-310    | 91       |
| 8-613    | 84              | 8-2122   | 36, 37, 83 | 8-4863   | 81, 93     | 9-313    | 91       |
| 8-618    | 84              | 8-2123   | 36, 83     | 8-4920   | 36, 37, 82 | 9-323    | 91       |

| Part No. | Page         | Part No.    | Page             | Part No.    | Page         | Part No.     | Page         |
|----------|--------------|-------------|------------------|-------------|--------------|--------------|--------------|
| 9-325    | 92           | 11-739      | 20               | 12-012-25   | 58, 180, 184 | 12-4546      | 54           |
| 9-350    | 86, 187      | 11-740      | 20               | 12-012-100  | 58           | 12-4548      | 54           |
| 9-351    | 86, 187      | 11-3100     | 18               | 12-020      | 60           | 12-4906      | 54           |
| 9-352    | 86, 187      | 11-3110     | 18               | 12-022      | 60           | 12-4908      | 54           |
| 9-360    | 86, 187      | 11-3120     | 18               | 12-024      | 60           | 12-8304      | 62           |
| 9-361    | 86, 187      | 11-3129     | 19               | 12-026      | 60           | 12-8305      | 62           |
| 9-362    | 86, 187      | 11-3150     | 18, 183, 184     | 12-035      | 56, 57       | 12-8306      | 62           |
| 9-370    | 86, 187      |             | 185              | 12-038      | 55, 58       | 12-8307      | 62           |
| 9-371    | 86, 187      | 11-3159     | 19               | 12-039      | 58           | 12-8308      | 62           |
| 9-372    | 86, 187      | 11-3170     | 18               | 12-042      | 60           | 12-8309      | 62           |
| 9-404    | 90           | 11-3180     | 18               | 12-044      | 60           | 12-8311      | 62           |
| 9-405    | 90           | 11-3380     | 18               | 12-046      | 60           | 12-8312      | 62           |
| 9-407    | 90           | 11-3390     | 18               | 12-050      | 59           | 12-8404      | 62           |
| 9-413    | 90           | 11-3400     | 18               | 12-052      | 59           | 12-8405      | 62           |
| 9-416    | 90           | 11-3409     | 19               | 12-136      | 52, 58, 184  | 12-8406      | 62           |
| 9-427    | 91           | 11-5110     | 18               | 12-138      | 52, 58, 184  | 12-8407      | 62           |
| 9-428    | 91           | 11-5120     | 18               | 12-206      | 51, 58       | 12-8408      | 62           |
| 9-435    | 92           | 11-5150     | 18, 183, 184     | 12-206B     | 51           | 12-8409      | 62           |
| 9-436    | 92           |             | 185              | 12-226      | 51           | 12-8410      | 62           |
| 9-1002   | 93           | 11-5151     | 18               | 12-236      | 51, 58       | 12-8411      | 62           |
| 9-1004   | 93, 192      | 11-5152     | 18               | 12-236B     | 51           | 12-8504      | 62           |
| 9-5560   | 86           | 11-5200     | 18               | 12-306      | 55           | 12-8506      | 62           |
| 11-125   | 61           | 11-5240     | 18               | 12-308      | 55           | 12-8508      | 62           |
| 11-250   | 61           | 11-5300     | 18               | 12-316      | 55           | 12-8510      | 62           |
| 11-253   | 61           | 11-5400     | 18               | 12-318      | 55           | 12-8540      | 56           |
| 11-257   | 61           | 11-5401     | 18               | 12-326      | 55           | 12-8542      | 56           |
| 11-258   | 61           | 11-5402     | 18               | 12-328      | 55           | 12-8546      | 56           |
| 11-260   | 61           | 11-8110     | 21               | 12-336      | 55           | 12-8548      | 56           |
| 11-261   | 61           | 11-8111     | 21               | 12-338      | 55           | 12-8604      | 62           |
| 11-262   | 61           | 11-8112     | 21               | 12-340      | 53           | 12-8606      | 62           |
| 11-263   | 61           | 11-8113     | 21               | 12-346      | 53           | 12-8608      | 62           |
| 11-264   | 61           | 11-8115     | 21               | 12-348      | 53           | 12-8704      | 62           |
| 11-265   | 61           | 11-8117     | 21               | 12-406      | 52           | 12-8706      | 62           |
| 11-266   | 61           | 11-8118     | 21               | 12-408      | 52           | 12-8708      | 62           |
| 11-267   | 61           | 11-8119     | 21               | 12-410      | 52           | 12-8710      | 62           |
| 11-268   | 61           | 11-8120     | 21               | 12-600      | 59, 184, 189 | 12-8804      | 63           |
| 11-269   | 61           | 11-8121     | 21               | 12-606      | 59           | 12-8806      | 63           |
| 11-270   | 61           | 11-8122     | 21               | 12-608      | 59           | 12-8808      | 63           |
| 11-271   | 61           | 11-8123     | 21               | 12-610      | 59           | 12-8810      | 63           |
| 11-273   | 61           | 11-8180-250 | 22               | 12-700      | 60           | 12-8904      | 63           |
| 11-274   | 61           | 11-8186-250 | 22               | 12-800      | 51           | 12-8906      | 63           |
| 11-276   | 61           | 11-8188-250 | 22               | 12-801      | 51           | 12-8908      | 63           |
| 11-277   | 61           | 11-8190-250 | 22               | 12-804      | 60           | 12-8910      | 63           |
| 11-278   | 61           | 11-31509    | 19               | 12-806      | 60           | 12-00623     | 53           |
| 11-300   | 20           | 11-34009    | 19               | 12-810      | 51           | 12-00823     | 53           |
| 11-300KT | 20           | 11-51209    | 19               | 12-811      | 51           | 12-01611-25  | 58           |
| 11-301   | 177          | 11-51509    | 19               | 12-815      | 57           | 12-01611-100 | 58           |
| 11-302   | 20           | 11-54009    | 19               | 12-820      | 60           | 12-01621-25  | 58           |
| 11-303   | 20           | 11-81068    | 21               | 12-822      | 60           | 12-01621-100 | 58           |
| 11-304   | 176          | 11-81076    | 21               | 12-911      | 59           | 12-01631-25  | 58           |
| 11-310   | 19           | 11-81080    | 21               | 12-0061     | 52           | 12-01631-100 | 58           |
| 11-311   | 19           | 11-81108    | 21               | 12-0081     | 52           | 12-13617     | 52           |
| 11-312   | 19, 184      | 11-81116    | 21               | 12-0100     | 55, 184      | 12-13623     | 53           |
| 11-315   | 19, 183, 184 | 11-81120    | 21               | 12-0161-25  | 58           | 12-13817     | 52           |
|          | 185, 191     | 11-81150    | 21               | 12-0161-100 | 58           | 12-13823     | 53           |
| 11-315G  | 191          | 11-81178    | 21               | 12-0162-25  | 58           | 12-23617     | 51           |
| 11-317   | 19           | 11-81186    | 21               | 12-0162-100 | 58           | 12-41010     | 52           |
| 11-318   | 19           | 11-81200    | 21               | 12-0163-25  | 58           | 12-49064     | 54           |
| 11-320   | 19, 184      | 11-81218    | 21               | 12-0163-100 | 58           | 12-49084     | 54           |
| 11-321   | 19           | 11-81226    | 21               | 12-0164-04  | 58           | 12-88042     | 64           |
| 11-322   | 19           | 11-82120    | 22               | 12-0164-100 | 58           | 12-88044     | 64           |
| 11-331   | 19           | 11-82150    | 22               | 12-0167-25  | 55, 58       | 12-88064     | 64           |
| 11-332   | 19           | 11-82200    | 22               | 12-0167-100 | 58           | 12-88066     | 64           |
| 11-333   | 19           | 12-006      | 52, 58, 183      | 12-1119     | 54           | 12-89042     | 67           |
| 11-338   | 19           |             | 184, 185         | 12-1169     | 54           | 12-89044     | 67           |
| 11-339   | 19           | 12-006B     | 52               | 12-1189     | 54           | 12-90002     | 173          |
| 11-340   | 19, 184      | 12-008      | 52, 58, 183      | 12-1361     | 52           | 12-90003     | 59, 173, 180 |
| 11-414   | 176          |             | 184, 185         | 12-1381     | 52           | 12-90004     | 173          |
| 11-416   | 176          | 12-008B     | 52               | 12-2061     | 51           | 12-90005     | 173          |
| 11-712   | 20           | 12-010      | 52, 58, 177, 180 | 12-2361     | 51           | 12-90010     | 63           |
| 11-715   | 20           |             | 184              | 12-2367     | 51           | 12-90040     | 67, 69       |
| 11-717   | 20           | 12-010B     | 52               | 12-4506     | 54           | 12-90044     | 63, 68       |
| 11-718   | 20           | 12-011-25   | 58               | 12-4508     | 54           | 12-90060     | 67, 69       |
| 11-738   | 20           | 12-011-100  | 58               | 12-4526     | 54           | 12-90066     | 63, 68       |



| Part No. | Page       | Part No.   | Page           | Part No. | Page             | Part No.    | Page            |
|----------|------------|------------|----------------|----------|------------------|-------------|-----------------|
| 12-90080 | 67, 69     | 12-97108   | 66             | 15-611   | 29               | 16-725      | 32              |
| 12-90088 | 63, 68     | 12-97222   | 66             | 15-630   | 29               | 16-726      | 33              |
| 12-90400 | 67         | 12-97224   | 66             | 15-640   | 35, 39           | 16-730      | 27, 28, 29, 180 |
| 12-90600 | 67         | 12-97444   | 66             | 15-710   | 28, 29           |             | 183, 185        |
| 12-90800 | 67         | 12-97446   | 66             | 15-711   | 28, 29           | 16-760      | 44              |
| 12-91022 | 64         | 12-97664   | 66             | 15-715   | 28, 29           | 16-761      | 44              |
| 12-91033 | 64         | 12-97666   | 66             | 15-720   | 34, 39, 183, 185 | 16-762      | 44              |
| 12-91044 | 64         | 12-97668   | 66             | 15-720B  | 34               | 16-763      | 44              |
| 12-91055 | 64         | 12-97886   | 66             | 15-721   | 34, 39           | 16-775      | 44, 46          |
| 12-91066 | 64, 68     | 12-97888   | 66             | 15-722   | 34, 39           | 16-777      | 46              |
| 12-91088 | 64, 68     | 12-98042   | 66             | 15-724   | 34               | 16-779      | 46              |
| 12-92024 | 64         | 12-98044   | 66, 68         | 15-730   | 28, 29, 183      | 16-780      | 41              |
| 12-92042 | 64         | 12-98046   | 66             |          | 185              | 16-795      | 40, 43          |
| 12-92044 | 64         | 12-98052   | 66             | 15-730B  | 28               | 16-797      | 39              |
| 12-92054 | 64         | 12-98062   | 66             | 15-731   | 28               | 16-798      | 39              |
| 12-92064 | 64         | 12-98064   | 66, 68, 69     | 15-740   | 16, 32, 34, 39   | 16-799      | 39              |
| 12-92066 | 64         | 12-98066   | 66, 68, 69     | 15-750   | 45, 47           | 16-801      | 181             |
| 12-92086 | 64         | 12-98068   | 66             | 15-751   | 45, 47           | 16-802      | 181             |
| 12-93022 | 64, 69     | 12-98084   | 66             | 15-752   | 45, 47           | 16-803      | 181             |
| 12-93024 | 64         | 12-98086   | 66, 68, 69     | 15-753   | 45, 47           | 16-804      | 181             |
| 12-93032 | 64         | 12-98088   | 66, 68         | 15-755   | 47               | 16-811      | 28, 29          |
| 12-93034 | 64         | 12-98106   | 66             | 15-760   | 45, 47           | 16-822      | 32, 39          |
| 12-93042 | 64, 68, 69 | 12-98108   | 66             | 15-761   | 45, 47           | 16-826      | 33              |
| 12-93044 | 64, 69     | 12-98126   | 66             | 15-762   | 45, 47, 183      | 16-850      | 42              |
| 12-93046 | 64         | 12-98128   | 66             |          | 185              | 16-860      | 44              |
| 12-93052 | 64         | 12-99022   | 67             | 15-763   | 45, 47           | 16-861      | 44              |
| 12-93054 | 64         | 12-99024   | 67             | 15-765   | 47               | 16-862      | 44              |
| 12-93062 | 64         | 12-99042   | 67             | 15-766   | 47               | 16-863      | 44              |
| 12-93064 | 64, 68, 69 | 12-99044   | 67             | 15-767   | 47               | 16-2223     | 38              |
| 12-93066 | 64, 68, 69 | 12-99046   | 67             | 15-769   | 46, 47           | 16-2423     | 38              |
| 12-93068 | 64         | 12-99052   | 67             | 15-770   | 47               | 16-7222     | 32              |
| 12-93084 | 64         | 12-99054   | 67             | 15-773   | 47               | 16-7242     | 32              |
| 12-93086 | 64, 68, 69 | 12-99064   | 67             | 15-775   | 46               | 16-7401     | 33              |
| 12-93088 | 64         | 12-99066   | 67             | 15-784   | 16, 39           | 16-7402     | 33              |
| 12-93106 | 64         | 12-99068   | 67             | 15-788   | 39               | 16-7403     | 33              |
| 12-93108 | 64         | 12-99084   | 67             | 15-795   | 38               | 16-7421     | 33              |
| 12-93126 | 64         | 12-99086   | 67             | 15-796   | 34, 39           | 16-7422     | 33              |
| 12-93128 | 64         | 12-99088   | 67             | 15-798   | 16, 39           | 16-7602-28  | 44              |
| 12-94022 | 65         | 12-99108   | 67             | 15-800   | 31               | 16-7612-28  | 44              |
| 12-94024 | 65         | 12-450623  | 54             | 15-801   | 31               | 16-7622-28  | 44              |
| 12-94032 | 65         | 12-450823  | 54             | 15-805   | 31               | 16-7632-28  | 44              |
| 12-94034 | 65         | 12-854689  | 56             | 15-806   | 31               | 16-7709     | 44              |
| 12-94042 | 65, 68     | 12-854889  | 56             | 15-830   | 28, 29           | 16-7729     | 44              |
| 12-94044 | 65, 68     | 12-911010  | 64             | 15-860   | 49               | 16-7739     | 44              |
| 12-94046 | 65         | 12-941012  | 65             | 15-861   | 49               | 16-7709-28  | 44              |
| 12-94052 | 65         | 12-951010  | 65, 69         | 15-865   | 49               | 16-7719-28  | 44              |
| 12-94064 | 65, 68     | 12-961010  | 65             | 15-960   | 48               | 16-7729-28  | 44              |
| 12-94066 | 65, 68     | 12-981012  | 66             | 15-961   | 47, 48           | 16-7739-28  | 44              |
| 12-94068 | 65         | 15-039     | 119            | 15-7602  | 45               | 16-74036    | 34              |
| 12-94084 | 65         | 15-040     | 119            | 15-7609  | 45               | 16-77029    | 44              |
| 12-94086 | 65, 68     | 15-041     | 115            | 15-7619  | 45               | 16-77229    | 44              |
| 12-94088 | 65         | 15-042     | 115, 183, 185  | 15-7622  | 45               | 16-77029-28 | 44              |
| 12-94106 | 65         | 15-200     | 174            | 15-7629  | 45               | 16-77229-28 | 44              |
| 12-94108 | 65         | 15-208     | 174            | 15-7639  | 45               | 16-77329-28 | 44              |
| 12-94128 | 65         | 15-320     | 13, 31, 36, 37 | 15-7809  | 45               | 16-77526    | 36              |
| 12-95022 | 65, 68     |            | 39             | 15-7819  | 45               | 16-77712    | 36              |
| 12-95033 | 65         | 15-326     | 12, 14, 16, 31 | 15-7829  | 45               | 16-7800     | 41              |
| 12-95044 | 65, 68, 69 |            | 36, 37, 39     | 15-7895  | 40, 41           | 16-7801     | 41              |
| 12-95046 | 65         | 15-327     | 16             | 15-7955  | 38               | 16-7802     | 41              |
| 12-95055 | 65, 68     | 15-328     | 14, 38         | 15-77526 | 36               | 16-7803     | 41              |
| 12-95066 | 65, 68, 69 | 15-327-150 | 16             | 15-78029 | 45               | 16-7810     | 41              |
|          | 180        | 15-335     | 28, 31, 37     | 16-125   | 67, 9, 23, 28    | 16-7811     | 41              |
| 12-95068 | 65         | 15-336     | 28, 31, 37     | 16-324   | 38               | 16-7812     | 41              |
| 12-95088 | 65, 68, 69 | 15-338     | 31, 38         | 16-400   | 34               | 16-7812TC   | 41              |
|          | 180        | 15-339     | 31, 38         | 16-600   | 34               | 16-7813     | 41              |
| 12-96044 | 66         | 15-400     | 35, 39         | 16-713   | 30, 35           | 16-7820     | 41              |
| 12-96055 | 66         | 15-410     | 29             | 16-714   | 30, 35, 39       | 16-7821     | 41              |
| 12-96066 | 66         | 15-421-024 | 30             | 16-720   | 27, 32, 39, 180  | 16-7822     | 41              |
| 12-96222 | 65         | 15-421-048 | 30             |          | 183, 185         | 16-7823     | 41              |
| 12-96444 | 65, 68     | 15-426-024 | 30             | 16-720B  | 32               | 16-7830     | 41              |
| 12-96555 | 65         | 15-426-048 | 30             | 16-721   | 39               | 16-7831     | 41              |
| 12-96666 | 65, 68     | 15-430     | 29             | 16-722   | 32, 39           | 16-7832     | 41              |
| 12-96888 | 65, 68     | 15-600     | 35, 39         | 16-724   | 32, 33, 41       | 16-7833     | 41              |
| 12-97106 | 66         | 15-610     | 29             |          | 42, 43           | 16-7840     | 41, 43          |



| Part No.   | Page             | Part No. | Page        | Part No.    | Page        | Part No.    | Page        |
|------------|------------------|----------|-------------|-------------|-------------|-------------|-------------|
| 16-7842    | 42, 43           | 19-4008  | 10          | 23-2630     | 13          | 30-2255     | 26          |
| 16-7890    | 40, 43           | 19-4010  | 10          | 23-2916     | 12          | 30-2256     | 26          |
| 16-7891    | 40, 43           | 19-4012  | 10          | 23-2926     | 12          | 30-2257     | 26          |
| 16-8000    | 42               | 19-4015  | 10          | 23-2929     | 14          | 30-2259     | 25          |
| 16-8510    | 42               | 19-4020  | 10          | 23-4325     | 13          | 30-2270     | 25          |
| 16-8511    | 42               | 19-4102  | 29          | 23-4329     | 14          | 30-2271     | 25          |
| 16-8512    | 42               | 19-4104  | 29          | 23-4625     | 13          | 30-2272     | 26          |
| 16-8513    | 42               | 19-4708  | 10          | 23-4629     | 14          | 30-2273     | 26          |
| 16-9322    | 37               | 19-4710  | 10          | 23-4925     | 13          | 30-2274     | 25          |
| 16-9324    | 37               | 19-4712  | 10          | 23-4929     | 14          | 30-2275     | 26          |
| 16-9326    | 36               | 19-4715  | 10          | 23-22576    | 12          | 30-2276     | 26          |
| 16-9328    | 36               | 19-6006  | 10          | 23-22776    | 12          | 30-2277     | 26          |
| 16-9500    | 40               | 19-6008  | 10          | 23-23276    | 11          | 30-2279     | 25          |
| 16-9510    | 40               | 19-6010  | 10          | 23-26276    | 11          | 30-2290     | 25          |
| 16-9515    | 40               | 19-6012  | 10          | 23-29276    | 11          | 30-2291     | 25          |
| 16-9520    | 40               | 19-6015  | 10          | 24-4320     | 7           | 30-2292     | 26          |
| 16-9520PL  | 163              | 19-6020  | 10          | 24-4321     | 7           | 30-2293     | 26          |
| 16-9526PL  | 40               | 19-6102  | 29          | 24-4324     | 7           | 30-2294     | 25          |
| 16-9530    | 40               | 19-6104  | 29          | 24-4327     | 7           | 30-2295     | 26          |
| 16-9530PL  | 163              | 19-6708  | 10          | 24-4620     | 7           | 30-2296     | 26          |
| 16-80002   | 42               | 19-6710  | 10          | 24-4621     | 7, 183, 185 | 30-2297     | 26          |
| 16-95140   | 40               | 19-6712  | 10          |             | 191         | 30-2299     | 25          |
| 16-95240   | 40               | 19-6715  | 10          | 24-4621G    | 191         | 30-4140     | 10          |
| 16-95340   | 40               | 19-7752  | 11          | 24-4624     | 7           | 30-4141     | 10          |
| 16-95246PL | 163              | 21-2232  | 15          | 24-4627     | 7           | 30-4320     | 6           |
| 17-039     | 115              | 21-2252  | 15          | 24-4951     | 7           | 30-4321     | 6           |
| 17-103     | 117              | 21-2272  | 15          | 24-4954     | 7           | 30-4324     | 6           |
| 17-106     | 117              | 21-2292  | 15          | 24-9621     | 6           | 30-4327     | 7           |
| 17-111     | 117              | 21-2329  | 14          | 25-22576    | 12          | 30-4420     | 6           |
| 17-116     | 117              | 21-2629  | 14          | 25-22776    | 12          | 30-4620     | 6           |
| 17-120     | 117              | 21-2929  | 14          | 25-23276    | 11          | 30-4621     | 6, 183, 185 |
| 17-121     | 114, 117         | 21-4329  | 15          | 25-26276    | 11          |             | 191         |
| 17-125     | 117              | 21-4629  | 15          | 25-29276    | 11          | 30-4621G    | 191         |
| 17-145     | 117              | 21-4929  | 15          | 26-2100-048 | 30          | 30-4624     | 6           |
| 17-147     | 116              | 22-2011  | 9           | 26-2100-060 | 30          | 30-4627     | 7           |
| 17-148     | 117, 187         | 22-2031  | 9           | 26-2100-072 | 30          | 30-4721     | 6           |
| 17-149     | 116              | 22-2051  | 9           | 26-2305-024 | 35          | 30-4820     | 6           |
| 17-150     | 118, 180         | 22-2057  | 9           | 26-2305-048 | 35          | 30-4821     | 6           |
| 17-151     | 118              | 22-2071  | 9           | 30-1157     | 24          | 30-4920     | 6           |
| 17-152     | 118, 188         | 22-2077  | 9           | 30-1177     | 24          | 30-4921     | 6           |
| 17-153     | 116, 117, 118    | 22-2151  | 24          | 30-2010     | 9           | 30-4924     | 6           |
|            | 180, 187, 188    | 22-2171  | 24          | 30-2011     | 9           | 30-4927     | 7           |
| 17-154     | 16, 118, 188     | 22-4320  | 7           | 30-2030     | 9           | 30-4951     | 6           |
| 17-155     | 118              | 22-4321  | 7           | 30-2031     | 9           | 30-4954     | 6           |
| 17-156     | 118              | 22-4620  | 7           | 30-2050     | 9           | 30-9120     | 5           |
| 17-157     | 119              | 22-4621  | 7, 183, 185 | 30-2051     | 9           | 30-9320     | 5           |
| 17-158     | 119              | 22-4624  | 7           | 30-2054     | 9           | 30-9321     | 5           |
| 17-160     | 119              | 22-4721  | 7           | 30-2055     | 8           | 30-9324     | 5           |
| 17-163     | 119              | 22-4951  | 7           | 30-2057     | 9           | 30-9334     | 5           |
| 17-169     | 119              | 22-4954  | 7           | 30-2070     | 9           | 30-9620     | 5           |
| 17-170     | 118              | 22-9320  | 6           | 30-2071     | 9           | 30-9621     | 5           |
| 17-171     | 118              | 22-9321  | 6           | 30-2074     | 9           | 30-9624     | 5           |
| 17-172     | 118              | 22-9521  | 6           | 30-2075     | 8           | 30-9634     | 5           |
| 17-173     | 114, 119         | 22-9620  | 6           | 30-2077     | 9           | 30-9820     | 5           |
| 17-177     | 118              | 22-9621  | 6           | 30-2091     | 9           | 30-9821     | 5           |
| 17-180     | 114, 117, 118    | 22-9720  | 6           | 30-2094     | 9           | 30-9920     | 5           |
|            | 187              | 22-9721  | 6           | 30-2095     | 8           | 30-9921     | 5           |
| 17-181     | 23, 24, 114, 118 | 22-9921  | 6           | 30-2150     | 24          | 30-9924     | 5           |
| 17-182     | 117              | 23-2051  | 13          | 30-2151     | 24          | 30-9934     | 5           |
| 17-183     | 117              | 23-2071  | 13          | 30-2154     | 24          | 30-9951     | 5           |
| 17-246     | 116              | 23-2091  | 13          | 30-2155     | 24          | 30-9954     | 5           |
| 17-247     | 116              | 23-2232  | 15          | 30-2170     | 24          | 31-2033     | 10          |
| 17-249     | 116              | 23-2251  | 14          | 30-2171     | 24          | 31-2053     | 10          |
| 17-420     | 117              | 23-2252  | 15          | 30-2174     | 24          | 31-2073     | 10          |
| 17-0240    | 115              | 23-2271  | 14          | 30-2175     | 24          | 31-2093     | 10          |
| 17-0241    | 115              | 23-2272  | 15          | 30-2190     | 24          | 31-4323     | 8           |
| 17-0400    | 115              | 23-2292  | 15          | 30-2191     | 24          | 31-4623     | 8           |
| 17-0401    | 115              | 23-2316  | 12          | 30-2194     | 24          | 31-9323     | 8           |
| 17-1481    | 114, 117, 187    | 23-2326  | 12          | 30-2195     | 24          | 31-9623     | 8           |
| 17-1487    | 117              | 23-2329  | 14          | 30-2250     | 25          | 31-9923     | 8           |
| 17-1488    | 117              | 23-2616  | 12          | 30-2251     | 25          | 34-1010-300 | 130         |
| 17-3000    | 116              | 23-2626  | 12, 16      | 30-2252     | 26          | 34-1010-336 | 130         |
| 17-3001    | 116              | 23-2629  | 14          | 30-2253     | 26          | 34-1010-396 | 130         |
| 19-4006    | 10               | 23-2628  | 13          | 30-2254     | 25          | 34-1107-024 | 140         |

| Part No.            | Page          | Part No.         | Page          | Part No.          | Page               | Part No.         | Page     |
|---------------------|---------------|------------------|---------------|-------------------|--------------------|------------------|----------|
| 34-1111-158.....    | 131           | 51-18312-10..... | 151           | 51-40904....      | 148, 150, 159      | 60-3000.....     | 167      |
| 34-1231-324.....    | 129           | 51-18313.....    | 151, 160      | 51-60302.....     | 151, 160           | 60-3000KT .....  | 167      |
| 34-1231-384.....    | 129           | 51-18313-10..... | 151           | 51-60302-16.....  | 151                | 60-3600.....     | 167, 168 |
| 34-1300-384.....    | 128           | 51-18500.....    | 151, 160      | 51-60303....      | 151, 156, 160      | 60-3656-540..... | 167, 168 |
| 34-1402-420.....    | 128           | 51-18500-10..... | 160           | 51-60303-16.....  | 151                | 60-3651.....     | 168      |
| 34-1703-082.....    | 132           | 51-18900.....    | 155, 157      | 51-60312.....     | 150                | 60-3652.....     | 168      |
| 34-1824-072.....    | 133           | 51-18701.....    | 155           | 51-60312-16.....  | 150                | 60-9100.....     | 162      |
| 34-1901-024.....    | 134           | 51-18701-10..... | 155           | 51-60312K.....    | 150                | 60-9200.....     | 162      |
| 34-1902-024.....    | 134           | 51-18701K.....   | 155           | 51-60313.....     | 150                | 60-9201.....     | 162      |
| 34-1903-006.....    | 127           | 51-22211.....    | 146, 147      | 51-60313-16.....  | 150                | 60-9202.....     | 162      |
| 34-2004-066.....    | 133           | 51-22214.....    | 146, 147      | 51-60313K.....    | 150                | 63-0040.....     | 174      |
| 34-2004-114.....    | 133           | 51-22221.....    | 146, 147      | 51-60213.....     | 151, 156           | 63-0170.....     | 174      |
| 34-2023-160.....    | 132           | 51-22224.....    | 146, 147      | 51-60213-4.....   | 151                | 63-2724.....     | 39       |
| 34-2023-232.....    | 132           | 51-34011.....    | 156           | 51-60500.....     | 150, 157           | 80-012.....      | 190      |
| 34-2101-300.....    | 129           | 51-34011-10..... | 156           | 51-60500-25.....  | 150, 157           | 80-105.....      | 185      |
| 34-2130-270.....    | 130           | 51-34020....     | 152, 153, 154 | 51-60900.....     | 156                | 80-106.....      | 185      |
| 34-2231-480.....    | 131           | 51-34020-10..... | 159           | 51-60900-10.....  | 156                | 80-107.....      | 185      |
| 34-3000-156.....    | 129, 130      | 51-34021.....    | 156           | 51-60904.....     | 151, 160           | 80-110.....      | 185      |
| .....               | 131           | 51-34021.....    | 156           | 51-60910.....     | 156                | 80-112.....      | 190      |
| 34-3000-288.....    | 129, 130      | 51-34021-10..... | 156           | 51-60910-10.....  | 156                | 80-130.....      | 183      |
| 34-4010.....        | 132           | 51-34025....     | 152, 153, 154 | 51-96010.....     | 141                | 80-131.....      | 184      |
| 34-4012.....        | 133           | 51-34025-10..... | 159           | 51-96010-25.....  | 141                | 80-153.....      | 188      |
| 34-4020.....        | 128, 129, 130 | 51-34302.....    | 152, 160      | 51-96110.....     | 141                | 80-191.....      | 79, 189  |
| .....               | 134           | 51-34302-10..... | 152           | 51-96110-25.....  | 141                | 80-250.....      | 16, 190  |
| 34-4020-1.....      | 131           | 51-34312.....    | 153           | 51-96210....      | 142, 151, 152      | 80-420.....      | 187      |
| 34-4030.....        | 128, 129, 130 | 51-34312-25..... | 153           | .....             | 153, 155, 156, 157 | 80-600.....      | 59, 189  |
| .....               | 134           | 51-34312-25..... | 153           | 51-96210-25.....  | 142                | 80-795.....      | 38, 190  |
| 34-4030-1.....      | 131           | 51-34313.....    | 153           | 51-96310....      | 141, 151, 152      | 80-801.....      | 185      |
| 34-4120.....        | 128, 129, 130 | 51-34313-25..... | 153           | .....             | 153, 155, 156      | 80-850.....      | 180      |
| 34-4130.....        | 128, 129, 130 | 51-34303.....    | 152, 160      | 51-96310-25.....  | 141                | 80-903.....      | 187      |
| 34-5100-144.....    | 128, 129      | 51-34303-10..... | 152           | 51-96319....      | 142, 151, 152      | 80-0161.....     | 190      |
| 34-5100-204.....    | 128, 129      | 51-34322.....    | 153           | .....             | 153, 155, 156      | 80-0162.....     | 190      |
| 34-5211-024.....    | 132           | 51-34322-25..... | 153           | 51-96319-25.....  | 142                | 80-0163.....     | 190      |
| 34-5221-024108..... | 132           | 51-34323.....    | 153           | 51-96410.....     | 143                | 80-0164.....     | 190      |
| 36-3001.....        | 135, 139      | 51-34323-25..... | 153           | 51-96410-25.....  | 143                | 80-0167.....     | 190      |
| 36-9000-360.....    | 135           | 51-34500....     | 152, 158, 160 | 51-96510.....     | 143                | 80-1000.....     | 103, 192 |
| 36-9000-480.....    | 135           | 51-34500-10..... | 152, 158      | 51-96510-25.....  | 143                | 80-1078.....     | 185      |
| 36-9000-600.....    | 135           | 51-34501....     | 153, 154, 156 | 51-96610....      | 143, 148, 149      | 80-1161.....     | 190      |
| 36-9000-720.....    | 135           | .....            | 158           | .....             | 150, 151, 154      | 80-1162.....     | 190      |
| 36-9020-018.....    | 135           | 51-34550.....    | 152, 158      | 51-96610-25.....  | 143                | 80-1163.....     | 190      |
| 36-9100-060.....    | 136           | 51-34550-10..... | 152, 158      | 51-97470.....     | 144                | 80-1164.....     | 190      |
| 36-9100-192.....    | 136           | 51-34711.....    | 155           | 51-97470-25.....  | 144                | 80-1290.....     | 68       |
| 36-9101-060.....    | 136           | 51-34711-10..... | 155           | 51-97479.....     | 144                | 80-1291.....     | 69       |
| 36-9101-192.....    | 136           | 51-34721.....    | 155           | 51-97479-25.....  | 144                | 80-1292.....     | 69       |
| 36-9200-2484.....   | 137           | 51-34721-10..... | 155           | 53-115.....       | 41, 42, 47         | 80-1850.....     | 186      |
| 36-9200-6060.....   | 137           | 51-34904.....    | 152, 160      | 53-120.....       | 40, 41, 42, 47     | 80-1860.....     | 188      |
| 36-9201-2484.....   | 137           | 51-35312.....    | 154           | 53-130.....       | 40, 41, 42, 47     | 80-1860F.....    | 188      |
| 36-9201-6060.....   | 137           | 51-35312-25..... | 154           | 53-515.....       | 16, 48             | 80-1860S.....    | 188      |
| 36-9202-300.....    | 137           | 51-35313.....    | 154           | 53-520.....       | 48                 | 80-1861.....     | 188      |
| 36-9203-300.....    | 137           | 51-35313-25..... | 154           | 54-130.....       | 49                 | 80-1861F.....    | 188      |
| 36-9300-012.....    | 137           | 51-35322.....    | 154           | 54-140.....       | 49                 | 80-1861S.....    | 188      |
| 36-9300-132.....    | 137           | 51-35322-25..... | 154           | 54-350.....       | 48                 | 80-1901.....     | 192      |
| 36-9400-2484....    | 138, 139      | 51-35323.....    | 154           | 60-2500.....      | 163                | 80-2006.....     | 79, 189  |
| 36-9400-5050.....   | 138           | 51-35323-25..... | 154           | 60-2502.....      | 163                |                  |          |
| 36-9501.....        | 138, 139      | 51-40122.....    | 148           | 60-2520.....      | 163                |                  |          |
| 36-9502.....        | 138           | 51-40122-16..... | 148           | 60-2520-20.....   | 163                |                  |          |
| 36-9503.....        | 138           | 51-40132.....    | 148           | 60-2520-30.....   | 163                |                  |          |
| 36-9504.....        | 138           | 51-40132-16..... | 148           | 60-2522.....      | 163                |                  |          |
| 36-9511.....        | 139           | 51-40142.....    | 148           | 60-2522-20.....   | 163                |                  |          |
| 36-9512.....        | 139           | 51-40142-16..... | 148           | 60-2600.....      | 164                |                  |          |
| 36-9513.....        | 139           | 51-40152.....    | 148           | 60-2620.....      | 164                |                  |          |
| 36-9514.....        | 139           | 51-40152-16..... | 148           | 60-2620KT.....    | 164                |                  |          |
| 36-9523.....        | 139           | 51-40202.....    | 148, 159      | 60-2620-20KT..... | 164                |                  |          |
| 36-9524.....        | 139           | 51-40202-16..... | 148           | 60-2687.....      | 167                |                  |          |
| 36-9601-024.....    | 131, 134      | 51-40212.....    | 149           | 60-2690.....      | 164, 165           |                  |          |
| .....               | 138           | 51-40212-16..... | 149           | 60-2691.....      | 167                |                  |          |
| 36-9601-036.....    | 130, 132      | 51-40212K.....   | 149           | 60-2692.....      | 167                |                  |          |
| .....               | 134, 138      | 51-40500.....    | 149, 157      | 60-2699.....      | 164, 165           |                  |          |
| 36-9601-228.....    | 128, 129      | 51-40500-25..... | 149, 157      | 60-2700.....      | 165                |                  |          |
| .....               | 134, 138      | 51-40801.....    | 150, 159      | 60-2720.....      | 165                |                  |          |
| 36-9603-036.....    | 138           | 51-40801-16..... | 150           | 60-2720KT.....    | 165                |                  |          |
| 36-9603-228.....    | 138           | 51-40811.....    | 149           | 60-2720-20.....   | 165                |                  |          |
| 36-9701.....        | 136           | 51-40811-16..... | 149           | 60-2720-20KT..... | 165                |                  |          |
| 51-18312.....       | 151, 160      | 51-40811K.....   | 149           | 60-2800.....      | 166                |                  |          |