

# ATS

*DIESEL PERFORMANCE*

TRANSMISSION CATALOG



PROVEN. DIESEL. PERFORMANCE.



ATS  
**BILLET**  
TRANSMISSIONS



# ATS BILLET TRANSMISSIONS



When you are looking for a transmission to replace your worn out one, or upgrading to accommodate extreme power, there are plenty of options out there for you to choose from. But when you are looking for a transmission that is not going to leave you and your family stranded on the side of the road and want to have a trouble-free experience, then there is only one choice. With industry leading innovation, invention, and manufacturing techniques, ATS transmissions are built to outlast, out-perform, and outshine the competition.

## FEATURES OF THE ATS BUILT TRANSMISSION:

- **ATS formulated clutch material, bonded in-house to our CNC laser cut clutch steels**
- **Proprietary valve body components**
- **Torrington bearing construction**
- **Optional billet transmission shafts**
- **Industry best 5 year 500,000 mile warranty\***



# ATS Billet Transmissions

There's something to be said about hard work, ingenuity, dedication and perseverance. About products that are 100% engineered, tested and manufactured in the United States of Americans.

There's something to be said about taking an idea from concept, to design, to final production all in the same facility. Setting standards in the industry that is constantly evolving and fueled by competition.

ATS Diesel Performance has been setting the standard for excellence and innovation in building performance products for over 2 decades. Our team of dedicated specialists designs, tests and manufactures the industry's leading extreme-duty powertrain and driveline components in our state-of-the-art 115,000 s.f. facility right here in Denver, Colorado.

Whether you're looking for performance, capability, or long-term reliability, whether you rely on your truck for work or for play, ATS Diesel Performance has what you need.

From drag racing, sled pulling, and towing your camper to your favorite destination, the ATS built transmission for Dodge Ram Cummins will help you reach your destination.

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Located at the foot of the Rocky Mountains, ATS Diesel Performance proudly manufactures and installs the premier high-performance diesel parts we sell at our 115,000 s.f. facility in Arvada, Colorado.







## ATS BILLET 518/618 (1990-1993 Dodge RAM 2wd/4wd)

(Transmission only, Deep Pan® and TripleLok® Torque Converter sold separately)

With industry leading innovation, invention, and manufacturing techniques, the ATS Built 618 Transmission is the perfect choice for your 1990 - 1993 Dodge 5.9L Cummins. ATS transmissions are built to outlast, out-perform, and overcome the competition. From drag racing, sled pulling and towing your camper to your favorite destination, the ATS built 618 transmission for your 1st generation Dodge Ram will make sure you get there. On time, every time.

- New performance forward clutch pack and steels with 1 added friction
- New performance direct clutch pack and steels with 1 added friction
- New performance overdrive brake clutch pack and steels with 1 added friction
- New performance overdrive clutch pack and steels
- Low/reverse band replaced w/ Borg Warner Red Lining performance band
- Intermediate/2<sup>nd</sup> gear band replaced w/ Borg Warner Red Lining performance band
- 1:5.0 performance band apply lever
- Billet Band strut
- Billet accumulator piston
- Precision machined forward pressure plate (machined step)
- Precision machined lower forward pressure plate (machined flat)
- Precision machined overdrive brake pressure plate (machined flat)
- New direct pressure plate
- Performance low/reverse one-way clutch
- Ability to circulate fluid to the torque converter in park/reverse/neutral
- Increase line pressure
- Improve shift quality and firmness
- Gasket and seal overhaul kit
- Bearings and bushing

Brand	ATS Diesel
Ship. Dimensions	48L x 42W x 40H
Weight	265 Lbs.





# ATS 618 TRANSMISSION PACKAGES

In re-designing the 618, ATS addressed inherent weaknesses to produce a strong, reliable transmission for towing, daily driving or racing. The modification process began with the torque converter. Instead of a stamped converter with a single lock-up clutch, ATS 47RH transmission packages come with our patented Five-Star® torque converter. Utilizing a billet 12 bolt cover, five square tab lock-up clutches, a billet stator and other modifications, this converter is designed for heavy loads, years of reliability and brute power. The goal is to efficiently transfer your 12V's power through the converter into the transmission. In order to handle the increased efficiency of the converter, we addressed the 47RH from bellhousing to tailshaft. The transmission's pump is modified to progressively raise line pressure, above the factory settings, to provide clamping force to the clutch packs. High-performance clutch packs are then added. Pressure plates are precisely machined to add 1 more forward and 1 more direct clutch. High performance bands, billet band strut, billet accumulator piston, and heavy duty overdrive bearings strengthen the clutch pack/band assembly.

All ATS Transmission Packages come standard with the ATS Deep Pan. Featuring a finned design to dissipate heat, and adding five quarts of fluid over stock, the pan helps keep the transmission running cool. ATS 47RH transmission packages are designed for trucks with stock to mild power increases, light towing and daily driving, to extreme power applications, heavy towing or competition use. Call ATS to discuss which transmission package would fit your application. All ATS transmission packages come backed with an industry leading 5 year / 500,000 mile warranty.



## ATS 618 STAGE 1 PACKAGE includes:

- ATS Built 618 automatic transmission
- ATS Five Star® viskus clutch drive torque converter
- ATS Deep Pan® extra deep transmission pan for added cooling convenience
- Performance transmission pump
- Modified high performance clutch packs/bands and steels
- Valve body built around reliability and increased transmission life



The ATS 618 Stage 1 is designed for trucks with stock to mild power increases, light towing and daily driving.

## ATS 618 STAGE 2 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub

The ATS 618 Stage 2 is designed for trucks with stock to moderate power increases, light and heavy towing and daily driving.

## TRANSMISSION OVERHAUL/REBUILD KITS

Shade tree mechanics: We hear your calling, and this is our answer. ATS built transmission kits that you can do in your own garage.

These transmission kits come with the same exact quality and strength that comes in our ATS built transmissions, but this kit allows you to build it in your garage. Kits include the ATS built clutches, pump upgrade kit, and our CNC laser cut steels. Give that old worn out transmission a face lift, and put the power to the ground.

Kits include new single-sided Stage 1 racing clutches, laser cut steels, overhaul kit, pump kit (application specific), bushings and bearings (application specific).







### ATS BILLET 47RH (1994-1995 Dodge RAM 2wd/4wd)

(Transmission only, Deep Pan® and Five Star® Torque Converter sold separately)

Dodge 47RH transmissions can be plagued by sticking throttle valve issues. The valve controls shift timing and fluid flow to the clutch packs. When the valve sticks, there can be a no 'up-shift' condition. In time, this can wear on the clutch packs and internals to hasten the transmission's life. ATS machines the bore to accept a Teflon sleeve, this ensures precise movement and control of the valve. In addition, the valve body is modified to circulate fluid in park, reverse and neutral, capable of locking the torque converter in any forward gear, and raising line pressure vs. stock.

In re-designing the 47RH, ATS addressed inherent weaknesses to produce a strong, reliable transmission for towing, daily driving or racing.

- New performance forward clutch pack and steels with 1 added friction
- New performance direct clutch pack and steels with 1 added friction
- New performance overdrive brake clutch pack and steels with 1 added friction
- New performance overdrive clutch pack and steels
- Low/reverse band replaced w/ Borg Warner Red Lining performance band
- Intermediate/2<sup>nd</sup> gear band replaced w/ Borg Warner Red Lining performance band
- 1:5.0 performance band apply lever
- Billet Band strut
- Billet accumulator piston
- Precision machined forward pressure plate (machined step)
- Precision machined lower forward pressure plate (machined flat)
- Precision machined overdrive brake pressure plate (machined flat)
- New direct pressure plate
- Performance low/reverse one-way clutch
- Ability to circulate fluid to the torque converter in park/reverse/neutral
- Increase line pressure
- Improve shift quality and firmness
- Gasket and seal overhaul kit
- Bearings and bushing

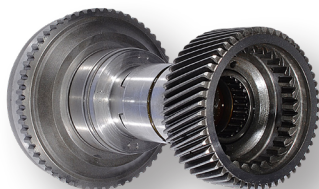
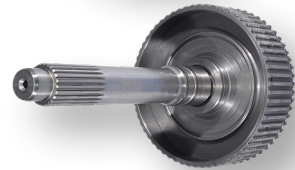
Brand	ATS Diesel
Ship. Dimensions	40L x 42W x 48H
Weight	267 Lbs.



# ATS 47RH TRANSMISSION PACKAGES

In re-designing the 47RH, ATS addressed inherent weaknesses to produce a strong, reliable transmission for towing, daily driving or racing. The modification process began with the torque converter. Instead of a stamped converter with a single lock-up clutch, ATS 47RH transmission packages come with our patented Five-Star® torque converter. Utilizing a billet 12 bolt cover, five square tab lock-up clutches, a billet stator and other modifications, this converter is designed for heavy loads, years of reliability and brute power. The goal is to efficiently transfer your 12V's power through the converter into the transmission. In order to handle the increased efficiency of the converter, we addressed the 47RH from bellhousing to tailshaft. The transmission's pump is modified to progressively raise line pressure, above the factory settings, to provide clamping force to the clutch packs. High-performance clutch packs are then added. Pressure plates are precisely machined to add 1 more forward and 1 more direct clutch. High performance bands, billet band strut, billet accumulator piston, and heavy duty overdrive bearings strengthen the clutch pack/band assembly.

All ATS Transmission Packages come standard with the ATS Deep Pan. Featuring a finned design to dissipate heat, and adding five quarts of fluid over stock, the pan helps keep the transmission running cool. ATS 47RH transmission packages are designed for trucks with stock to mild power increases, light towing and daily driving, to extreme power applications, heavy towing or competition use. Call ATS to discuss which transmission package would fit your application. All ATS transmission packages come backed with an industry leading 5 year / 500,000 mile warranty.



## 47RH STAGE 1 PACKAGE includes:

- ATS Built 47-RH automatic transmission
- ATS Five Star® viskus clutch drive torque converter
- ATS Deep Pan® extra deep transmission pan for added cooling convenience
- Performance transmission pump
- Modified high performance clutch packs/bands and steels
- Valve body built around reliability and increased transmission life



The ATS 47RH Stage 1 is designed for trucks with stock to mild power increases, light towing and daily driving.

## 47RH STAGE 2 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub

The ATS 47RH Stage 2 is designed for trucks with stock to moderate power increases, light and heavy towing and daily driving.

## 47RH STAGE 3 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller

The ATS 47RH Stage 3 is designed for trucks with stock to moderate power increases, heavy towing and daily driving.

## 47RH STAGE 4 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate

The ATS 47RH Stage 4 is designed for trucks with moderate power increases, heavy towing and performance driving.

## 47RH STAGE 5 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate
- ATS Billet Intermediate Shaft

The ATS 47RH Stage 5 is designed for trucks with moderate to extreme power increases, heavy towing and competition.





### ATS BILLET 47RE (1996-2002 Dodge RAM 2wd/4wd)

(Transmission only, Deep Pan® and Five Star® Torque Converter sold separately)

In 1996, Dodge went from the hydraulic 47RH to the partially electronic 47RE. The 47RE transmission is the weakest point on a Dodge Cummins truck. Not only do they fail on trucks with minor upgrades, but even trucks in stock form have been known to be too powerful. A heavy duty truck needs parts which can stand up to heavy trailers, stop-and-go commutes to work, or high-horsepower applications. That's why ATS modifies the transmission to make it the strongest and most reliable part of your drivetrain. In re-designing the 47RE, ATS addressed inherent weaknesses to produce a strong, reliable transmission for towing, daily driving or racing.

- New performance forward clutch pack and steels with 1 added friction
- New performance direct clutch pack and steels with 1 added friction
- New performance overdrive brake clutch pack and steels with 1 added friction
- New performance overdrive clutch pack and steels
- Low/reverse band replaced w/ Borg Warner Red Lining performance band
- Intermediate/2<sup>nd</sup> gear band replaced w/ Borg Warner Red Lining performance band
- Performance band apply lever
- Billet Band strut
- Billet accumulator piston
- Precision machined forward pressure plate (machined step)
- Precision machined lower forward pressure plate (machined flat)
- Precision machined overdrive brake pressure plate (machined flat)
- New direct pressure plate
- Performance low/reverse one-way clutch
- Machined TV valve sleeve (prevents sticking TV valve)
- Ability to achieve 1st and 2nd gear lockup
- Ability to circulate fluid to the torque converter in park/reverse/neutral
- Increase line pressure
- Improve shift quality and firmness
- Gasket and seal overhaul kit
- Bearings and bushing

Brand	ATS Diesel
Ship. Dimensions	48L x 42W x 40H
Weight	280 Lbs.

# ATS 47RE TRANSMISSION PACKAGES

All ATS 47RE transmission packages come with our patented Five-Star® torque converter. Utilizing a billet 12 bolt cover, five square tab lock-up clutches, the ATS Deep Pan , a billet stator and other modifications, this converter is designed for heavy loads, years of reliability and brute power. The goal is to efficiently transfer your 12 or 24V Cummins' power through the converter into the transmission.

In order to handle the increased efficiency of the converter, we addressed the 47RE from bellhousing to tailshaft. The transmission's pump is modified to progressively raise line pressure, above the factory settings, to provide clamping force to the clutch packs. High-performance clutch packs are then added. Pressure plates are precisely machined to add 1 more forward and 1 more direct clutch. High performance bands, billet band strut, billet accumulator piston, and heavy duty overdrive bearings strengthen the clutch pack/ band assembly.

Next is the valve body. Dodge 47RE transmissions can be plagued by sticking throttle valve issues. The valve controls shift timing and fluid flow to the clutch packs. When the valve sticks, there can be a no 'up-shift' condition. In time, this can wear on the clutch packs and internals to hasten the transmission's life. ATS machines the bore to accept a Teflon sleeve, this ensures precise movement and control of the valve. In addition, the valve body is modified to circulate fluid in park, reverse and neutral, capable of locking the torque converter in any forward gear, and raising line pressure vs. stock.



## 47RE STAGE 1 PACKAGE includes:

- ATS Built 47-RE automatic transmission
- ATS Five Star® viskus clutch drive torque converter
- ATS Deep Pan® extra deep transmission pan
- Performance transmission pump
- Modified high performance clutch packs/bands and steels
- Valve body built around reliability and increased transmission life



The ATS 47RE Stage 1 is designed for trucks with stock to mild power increases, light towing and daily driving.

## 47RE STAGE 2 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub

The ATS 47RE Stage 2 is designed for trucks with stock to moderate power increases, light and heavy towing and daily driving.

## 47RE STAGE 3 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller

The ATS 47RE Stage 3 is designed for trucks with stock to moderate power increases, heavy towing and daily driving.

## 47RE STAGE 4 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate

The ATS 47RE Stage 4 is designed for trucks with moderate power increases, heavy towing and performance driving.

## 47RE STAGE 5 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate
- ATS Billet Intermediate Shaft

The ATS 47RE Stage 5 is designed for trucks with moderate to extreme power increases, heavy towing and competition.







### ATS BILLET 48RE (2003-2007 Dodge RAM 2wd/4wd)

(Transmission only, Deep Pan® and Five Star® Torque Converter sold separately)

The 48RE transmission is the weakest point on a 03-07 Dodge Ram Cummins truck. Not only do they fail on trucks with minor upgrades, but even trucks in stock form have been known to be too powerful. A heavy duty truck needs parts which can stand up to heavy trailers, stop-and-go commutes to work, or high-horsepower applications. That's why ATS modifies the transmission to make it the strongest and most reliable part of your drivetrain. In re-designing the 48RE, ATS addressed inherent weaknesses to produce a strong, reliable transmission for towing, daily driving or racing.

- New performance forward clutch pack and steels with 1 added friction
- New performance direct clutch pack and steels with 1 added friction
- New performance overdrive brake clutch pack and steels with 1 added friction
- New performance overdrive clutch pack and steels
- Low/reverse band replaced w/ Borg Warner Red Lining performance band
- Intermediate/2<sup>nd</sup> gear band replaced w/ Borg Warner Red Lining performance band
- Performance band apply lever
- Billet Band strut
- Billet accumulator piston
- Precision machined forward pressure plate (machined step)
- Precision machined lower forward pressure plate (machined flat)
- Precision machined overdrive brake pressure plate (machined flat)
- New direct pressure plate
- Performance low/reverse one-way clutch
- Machined TV valve sleeve (prevents sticking TV valve)
- Ability to achieve 1st and 2nd gear lockup
- Ability to circulate fluid to the torque converter in park/reverse/neutral
- Increase line pressure
- Improve shift quality and firmness
- Gasket and seal overhaul kit
- Bearings and bushing

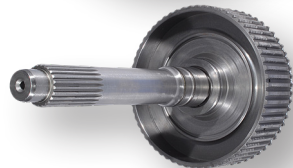
Brand	ATS Diesel
Ship. Dimensions	48L x 42W x 40H
Weight	280 Lbs.

# ATS 48RE TRANSMISSION PACKAGES

All ATS 48RE transmission packages come with our patented Five-Star® torque converter. Utilizing a billet 12 bolt cover, five square tab lock-up clutches, the ATS Deep Pan , a billet stator and other modifications, this converter is designed for heavy loads, years of reliability and brute power. The goal is to efficiently transfer your 12 or 24V Cummins' power through the converter into the transmission.

In order to handle the increased efficiency of the converter, we addressed the 48RE from bellhousing to tailshaft. The transmission's pump is modified to progressively raise line pressure, above the factory settings, to provide clamping force to the clutch packs. High-performance clutch packs are then added. Pressure plates are precisely machined to add 1 more forward and 1 more direct clutch. High performance bands, billet band strut, billet accumulator piston, and heavy duty overdrive bearings strengthen the clutch pack/ band assembly.

Next is the valve body. Dodge 48RE transmissions can be plagued by sticking throttle valve issues. The valve controls shift timing and fluid flow to the clutch packs. When the valve sticks, there can be a no 'up-shift' condition. In time, this can wear on the clutch packs and internals to hasten the transmission's life. ATS machines the bore to accept a Teflon sleeve, this ensures precise movement and control of the valve. In addition, the valve body is modified to circulate fluid in park, reverse and neutral, capable of locking the torque converter in any forward gear, and raising line pressure vs. stock.



## 48RE STAGE 1 PACKAGE includes:

- ATS Built 48-RE automatic transmission
- ATS Five Star® viskus clutch drive torque converter
- ATS Deep Pan® extra deep transmission pan
- Performance transmission pump
- Modified high performance clutch packs/bands and steels
- Valve body built around reliability and increased transmission life



The ATS 48RE Stage 1 is designed for trucks with stock to mild power increases, light towing and daily driving.

## 48RE STAGE 2 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub

The ATS 48RE Stage 2 is designed for trucks with stock to moderate power increases, light and heavy towing and daily driving.

## 48RE STAGE 3 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller

The ATS 48RE Stage 3 is designed for trucks with stock to moderate power increases, heavy towing and daily driving.

## 48RE STAGE 4 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate

The ATS 48RE Stage 4 is designed for trucks with moderate power increases, heavy towing and performance driving.

## 48RE STAGE 5 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate
- ATS Billet Intermediate Shaft

The ATS 48RE Stage 5 is designed for trucks with moderate to extreme power increases, heavy towing and competition.





Brand	ATS Diesel
Ship. Dimensions	48L x 42W x 40H
Weight	285 Lbs.

(Shown with optional Case Brace case support bracket).

### ATS BILLET 68RFE (2007.5-2019 Dodge RAM 2wd/4wd) (not cab & chassis models)

(Transmission only, Deep Pan®, Five Star® Torque Converter and Case Brace sold separately)

The 68RFE was originally designed to be very inexpensive to manufacture. This approach forced the original designers to cut corners in size and quality of materials that could be used. On a positive note, the technology that is utilized in the transmission is leading edge; this advanced technology has forced the aftermarket to completely rethink how to modify and control the transmission so that it can still perform and remain reliable while modifying the engine to have higher power levels over stock.

ATS has developed a combined technology utilizing recalibration of the hydraulic circuits inside the transmission, including revamped accumulator rates, reprogrammed clutch to clutch apply and release timings, and line pressure rise rate to perfectly match the torque output of the engine. These enhancements, along with other key hydraulic modifications which ATS makes, must be done to ensure the clutch packs have the correct apply and release rates when commanded on or off. As well, the transmission hard parts have many limiting weaknesses which do not allow for increased power levels over stock. Specifically, the light duty shafts and hubs, and the low one-way sprag; at ATS, these hard part weaknesses have been addressed.

- Under drive (Forward) clutch pack surface area is increased by 21%, using single sided clutch plates
- Over drive clutch pack surface area is increased by 17%, also using single sided clutch plates
- 2C clutch pack surface area is increased by 34%, using double sided frictions
- 4C clutch pack surface area is increased by 34%, using double sided frictions
- The weak mechanical low one-way sprag is replaced with a stronger roller clutch design that used a "cam and roller" system
- Heavily modified valve body, hydraulic oil flow is ported to certain clutch packs where additional pressure is needed
- Accumulator piston seals have been redesigned to ensure hydraulic pressure integrity
- Accumulator plate is made of high-grade material to compensate for the additional pressure that the accumulator pistons and springs exert during heavy power situations
- The forward hub/shaft is reinforced to eliminate breakage
- The Intermediate hub/shaft is reinforced to eliminate breakage
- Input shaft is an optional upgrade, and is made made from 300M billet material
- Hydraulically modified main transmission case to allow for proper oil flow

# ATS 68RFE TRANSMISSION PACKAGES

Dodge stepped up its game in 2007 with the introduction of the 68RFE automatic. Geared for quick acceleration and fuel efficiency, the six speed automatic delivered what RAM owners wanted. That is until you modified your 6.7L or got higher mileage. ATS addressed the flaws in the 68RFE design by bulletproofing the clutch packs, safely adding and controlling line pressure, reinforcing the weak factory case and by offering a billet flex plate and input shaft. All ATS 68RFE transmissions come with the upgraded Overdrive and Underdrive clutch hubs, upgraded compound planetary assembly, and ATS case brace!

ATS started R&D in 2007 and spent countless man hours and resources re-designing and strengthening the platform. This began with building our Five Star converter for the transmission. It features a billet cover, five square tab lock-up clutches, billet stator, furnace brazed impeller, billet piston and HD bearings ' all staled to the Cummins torque curve. Capable of handling 2500 ft/lbs of torque, this torque converter will handle whatever is thrown at it.

ATS offers various stages to the 68RFE platform to meet certain power levels and uses. Contact ATS to discuss which stage transmission would be best for you.



## 68RFE STAGE 1 PACKAGE includes•

- ATS Built 68-RFE automatic transmission
- ATS Five Star® viskus clutch drive torque converter
- ATS Deep Pan® extra deep transmission pan
- Performance transmission pump
- Modified high performance clutch packs/bands and steels
- Valve body built around reliability and increased transmission life



The ATS 68RFE Stage 1 is designed for trucks with stock to mild power increases, light towing and daily driving.



## 68RFE STAGE 2 PACKAGE adds•

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller

The ATS 68RFE Stage 2 is designed for trucks with stock to moderate power increases, heavy towing and daily driving.



## 68RFE STAGE 3 PACKAGE adds•

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate

The ATS 68RFE Stage 3 is designed for trucks with moderate power increases, heavy towing and performance driving.



## 68RFE STAGE 4 PACKAGE adds•

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate
- ATS HD Overdrive Clutch Drum

The ATS 68RFE Stage 4 is designed for trucks with moderate to extreme power increases, heavy towing and competition.

**BilletPROOF**  
TRANSMISSIONS

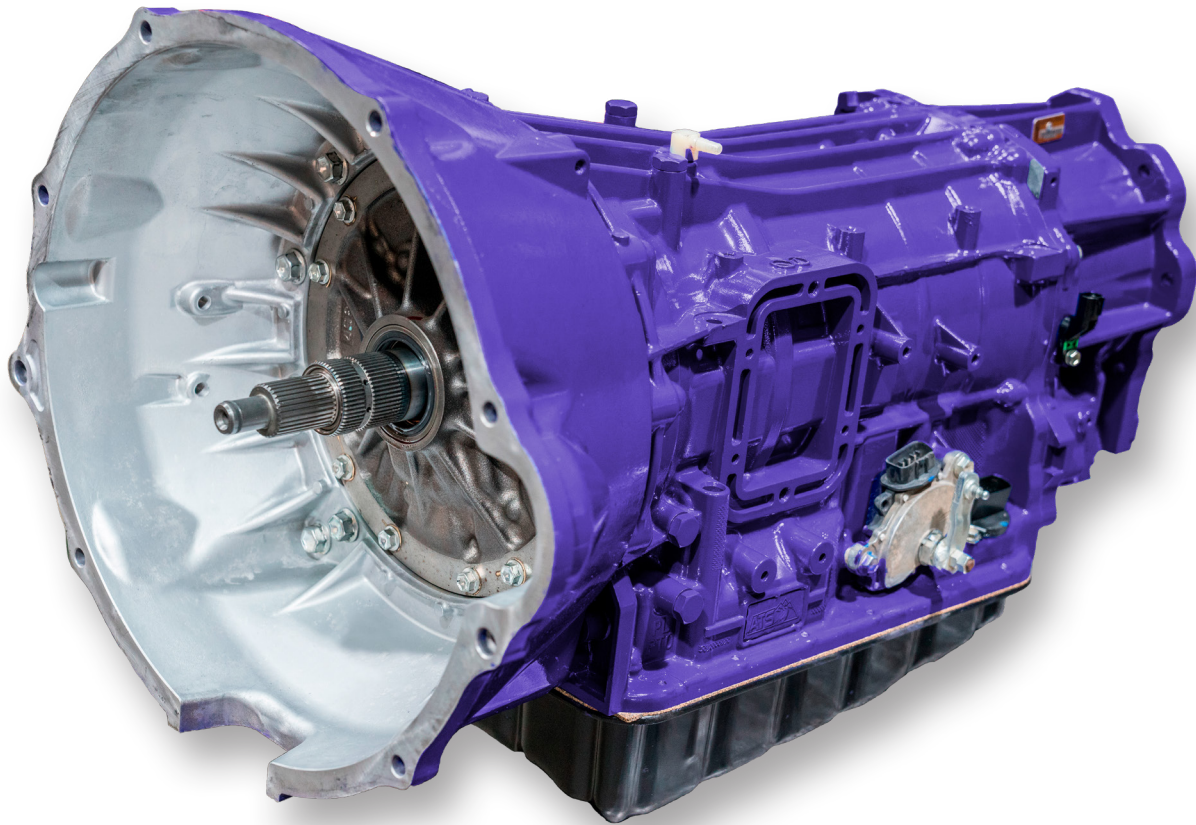


## BILETPROOF YOUR 68RFE AND MAKE IT VIRTUALLY INDESTRUCTIBLE!

The ATS 68RFE BilletProof kit - CoPilot package includes:

- 68RFE Five Star® viskus drive torque converter
- 68RFE Deep Pan extra deep transmission pan
- 68RFE Case Brace transmission case support bracket
- 68RFE ATS CoPilot transmission controller





## AISEN AS69RC (2013-2019 Dodge RAM 3500 2wd/4wd)

(Transmission only, Deep Pan® and Five Star® Torque Converter sold separately)

The Aisen AS69RC is a medium duty 6 speed automatic transmission offered in the Ram 3500 HD beginning the 2013 model year, and comes standard on the High Output version of the 6.7L Cummins only available in 3500 pickups. The transmission is larger and marketed as a more robust option to the 68RFE.

The AS69RC is a notoriously problematic transmission built with very low quality internal parts and its capacity to handle increased power in stock form is minimized. ATS addresses the issues associated with the Aisen transmission by replacing the low quality parts commonly associated with transmission failure with the highest quality parts on the market.

Brand	ATS Diesel
Ship. Dimensions	48L x 42W x 40H
Weight	325 Lbs.

### ATS Thermal Bypass Cooler Block for 68RFE and Aisen AS69RC

The ATS Thermal Bypass Cooler Block is a MUST for any truck that has a 68-RFE or Aisen AS69RC transmission or the Dodge HEMI with 545RFE, 65RFE, or 66RFE Transmissions in it. Dodge decides to incorporate a transmission cooler by pass valve into the cooling system of the 68-RFE and Aisen AS69RC that bypasses the transmission cooler during cold operation.

The intent was to force the transmission to warm up faster, the reality is this bypass valve leaks and sticks in the bypass position in almost every case causing the transmission cooler flow to bypass the trans cooler essentially eliminating the trans cooler from the circuit. This causes a severe damage to the transmission over time. The ATS cooler block replaces the faulty design eliminating the bypass valve and ensures 100% of the trans cooler flow is forced through the trans cooler. Includes 2 quick-release fittings and billet filter coupler (\$35 value).

(see pg. 49 for ordering info)

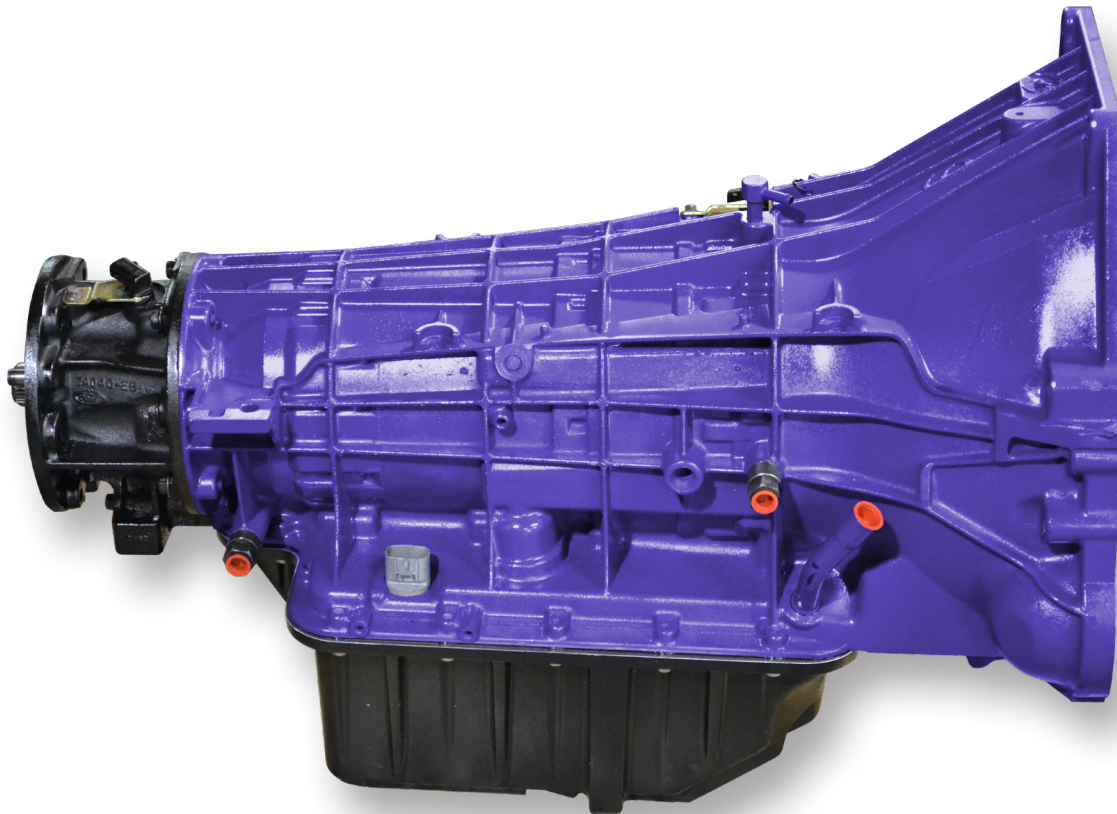


# TRANSMISSION FITMENT GUIDE · DODGE RAM HD

VEHICLE FITMENT	PART NUMBER (transmission only)
1990 - 93 Dodge Ram 2wd (518/618)	3069202116
1990 - 93 Dodge Ram 2wd w/ Speedo Adapter (518/618)	3069222116
1990 - 93 Dodge Ram 4wd (518/618)	3069402116
1994 - 95 Dodge Ram 2wd (47RH)	3069202164
1994 - 95 Dodge Ram 2wd w/ Speedo Adapter (47RH)	3069222164
1994 - 95 Dodge Ram 4wd (47RH)	3069402164
1996 - 98 Dodge Ram 2wd (47RE)	3069202188
1996 - 98 Dodge Ram 2wd w/ Speedo Adapter (47RE)	3069222188
1996 - 98 Dodge Ram 4wd (47RE)	3069402188
1998.5 - 99 Dodge Ram 2wd (48RE)	3069202218
1998.5 - 99 Dodge Ram 2wd w/ Speedo Adapter (48RE)	3069222218
1998.5 - 99 Dodge Ram 4wd (48RE)	3069402218
1999.5 - 2002 Dodge Ram 2wd (48RE)	3069202237
1999.5 - 2002 Dodge Ram 4wd (48RE)	3069402237
2003 - 04 Dodge Ram 2wd w/ T.V. Cable (48RE)	3069202272
2003 - 04 Dodge Ram 4wd w/ T.V. Cable (48RE)	3069402272
2004.5 - 07 Dodge Ram 2wd w/ T.V. Motor (48RE)	3069202290
2004.5 - 07 Dodge Ram 4wd w/ T.V. Motor (48RE)	3069402290
2007.5 - 11 Dodge Ram 2wd (68RFE)	3069202326
2007.5 - 11 Dodge Ram 4wd (68RFE)	3069402326
2012+ Dodge Ram 2wd (68RFE)	3069212380
2012+ Dodge Ram 4wd (68RFE)	3069412380
2013+ Dodge Ram 2wd (Aisen AS69RC)	3069242392
2013+ Dodge Ram 4wd (Aisen AS69RC)	3069442392







## ATS BILLET E4OD (1989-1998 Ford F Series 2wd/4wd)

(Transmission only, Deep Pan® and Five Star® Torque Converter sold separately. Available in 2wd, 4wd applications.)

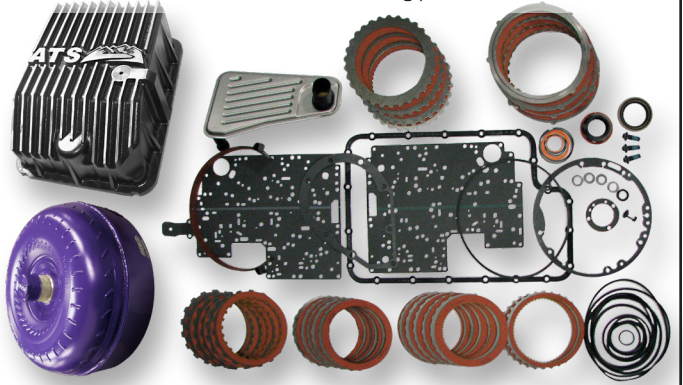
The Ford E4OD transmission was designed to fit behind various powerplants including gas and diesel engines. Most failures revolve around the torque of the diesel motor, especially when power is increased over stock. The good news is that the framework of the E4OD allows for substantial increases in reliability and capability.

The ATS built E4OD features high performance overdrive, intermediate and forward clutch packs, with 1 additional clutch per section. We've modified the transmission pump to increase line pressure, which provides increased clamping force on the clutch packs. A modified valve body focuses around precise shifts, increasing line pressure and torque capacity. ATS also includes new bearings, seals and gaskets, as well as a new roller clutch, heavy-duty intermediate sprag, bonded coast and overdrive pistons.

Brand	ATS Diesel
Ship. Dimensions	48L x 42W x 40H
Weight	325 Lbs.

### ATS Ford E4OD transmission rebuild kit

The ATS E4OD basic rebuild kit for Ford features all new rings and seals. All steel and friction clutch disks are included. This high quality overhaul kit provides greater holding capabilities and gives you improved shift quality. To build a BilletProof setup, you can also add our TripleLok or Five Star converter, valve body kits, modified pumps and billet shafts. Contact ATS to learn more about BilletProofing your E4OD!



## ATS E40D TRANSMISSION PACKAGES

All ATS E40D transmission packages come with our patented Five-Star® torque converter featuring a billet cover, 5 lock-up clutches available in either low or high stall configurations. An ATS Deep Pan extra deep transmission pan is also included in all packages to help keep the transmission cooler by adding an additional 5 quarts of fluid capacity. The Stage 2 package adds a billet input shaft for increased reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. The shaft is made of billet 300M material and precisely machined for an exact fit. The Stage 3 package includes a billet input shaft for increased reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. In addition, we add a lock-up controller for the torque converter on the Stage 3 setup. This allows the user to base lock-up on vehicle speed ' in any forward gear. The Stage 4 features the addition of a billet flex plate. The billet flex plate is designed for high horsepower/torque trucks and those that tow heavy. The flex plate is the first point of power transfer from the motor to the transmission assembly. By using a billet steel flex plate, we can increase the reliability of power transfer from the crank to the converter. We also add a billet intermediate shaft to the Stage 5 package, and a billet output shaft for the Stage 6 package. This is a requirement for trucks with aftermarket injectors, injection pump and turbo. During high torque situations (i.e. racing), our billet intermediate shaft will absorb the torsional loads to transfer power through the transmission. Without a billet intermediate and output shaft, the transmission is at risk for failure during heavy towing/competition use. All ATS E40D transmission packages feature an industry-best 5 year/500,000 mile warranty.

### E40D STAGE 1 PACKAGE includes:

- ATS Built E40D automatic transmission
- ATS Five Star® viskus clutch drive torque converter
- ATS Deep Pan® extra deep transmission pan
- Performance modified transmission pump
- Modified high performance clutch packs/bands and steels
- Valve body built around reliability and increased transmission life

The ATS E40D Stage 1 is designed for trucks with stock to mild power increases, light towing and daily driving.

### E40D STAGE 2 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub

The ATS E40D Stage 2 is designed for trucks with stock to moderate power increases, light and heavy towing and daily driving.

### E40D STAGE 3 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller

The ATS E40D Stage 3 is designed for trucks with moderate power increases, moderate to heavy towing and daily driving.

### E40D STAGE 4 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate

The ATS E40D Stage 4 is designed for trucks with moderate power increases, heavy towing and performance driving.

### E40D STAGE 5 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate
- ATS Billet Intermediate Shaft

The ATS E40D Stage 5 is designed for trucks with moderate to extreme power increases, heavy towing and competition.

### E40D STAGE 6 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate
- ATS Billet Intermediate Shaft
- ATS Billet Output Shaft

The ATS E40D Stage 6 is designed for trucks with extreme power increases, heavy towing and high-torque competition.





4R100 Transmission · 99-03 Ford 7.3L Powerstroke



(Shown with optional TripleLok® torque converter).

## ATS BILLET 4R100 (1999-2003 Ford F Series 2wd/4wd)

(Transmission only, Deep Pan® and Five Star® Torque Converter sold separately. Available w/ PTO, Non PTO, 2wd, 4wd)

The factory Ford 4R100 suffers from weak points in the converter, clutch pack assemblies, valve body and line pressure limitations. These weaknesses arise when the motor's power is increased or in towing applications. ATS addressed these concerns by re-designing the torque converter, transmission pump, valve body and clutch packs. The result is a solid transmission setup to meet the demands of your Ford Super Duty.

By increasing the line pressure with a modified transmission pump, adding high performance clutch packs with a larger clutch pack surface area to accommodate the additional clutches and modifying the valve body with redesigned accumulator pistons, the 4R100 becomes a consistent, responsive and dependable transmission with a smooth, precise shift feel.

Brand	ATS Diesel
Ship. Dimensions	48L x 48W x 24H
Weight	325 Lbs.

### ATS Filler Tube Repair Kit for E40D 4R100/5R110 (1989-2010)

The factory dipstick/oil fill tube on the early Ford HD Transmissions are a press in type that depend on a Teflon™ coating to seal and keep the transmission fluid in. Often times the Teflon™ coating does not seal entirely and results in a fluid leak. ATS made this two piece tube that utilizes oil resistant o-ring seals that will insure a leak free seal. Our product also allows for a simple removal that allows you to remove the lower part of the dipstick / oil fill tube from the transmission case while the transmission is intact. Whether you are removing your transmission or if you are trying to fix your leaking dipstick/oil fill tube, this ATS product will give you the peace of mind that your transmission has the best components possible, and turns a 5-hr. project into a 20 min. repair!



(See pg. 49 for ordering info.)

## ATS 4R100 TRANSMISSION PACKAGES

All ATS 4R100 transmission packages come with our patented Five-Star® torque converter featuring a billet cover, 5 lock-up clutches available in either low or high stall configurations. An ATS Deep Pan extra deep transmission pan is also included in all packages to help keep the transmission cooler by adding an additional 5 quarts of fluid capacity. The Stage 2 package adds a billet input shaft for increased reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. The shaft is made of billet 300M material and precisely machined for an exact fit. The Stage 3 package includes a billet input shaft for increased reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. In addition, we add a lock-up controller for the torque converter on the Stage 3 setup. This allows the user to base lock-up on vehicle speed in any forward gear. The Stage 4 features the addition of a billet flex plate. The billet flex plate is designed for high horsepower/torque trucks and those that tow heavy. The flex plate is the first point of power transfer from the motor to the transmission assembly. By using a billet steel flex plate, we can increase the reliability of power transfer from the crank to the converter. We also add a billet intermediate shaft to the Stage 5 package, and a billet output shaft for the Stage 6 package. This is a requirement for trucks with aftermarket injectors, injection pump and turbo. During high torque situations (i.e. racing), our billet intermediate shaft will absorb the torsional loads to transfer power through the transmission. Without a billet intermediate and output shaft, the transmission is at risk for failure during heavy towing/competition use. All ATS 4R100 transmission packages feature an industry-best 5 year/500,000 mile warranty.

### 4R100 STAGE 1 PACKAGE includes:

- ATS Built 4R100 automatic transmission
- ATS Five Star® viskus clutch drive torque converter
- ATS Deep Pan® extra deep transmission pan
- Performance modified transmission pump
- Modified high performance clutch packs/bands and steels
- Valve body built around reliability and increased transmission life

The ATS 4R100 Stage 1 is designed for trucks with stock to mild power increases, light towing and daily driving.

### 4R100 STAGE 2 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub

The ATS 4R100 Stage 2 is designed for trucks with stock to moderate power increases, light and heavy towing and daily driving.

### 4R100 STAGE 3 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller

The ATS 4R100 Stage 3 is designed for trucks with moderate power increases, moderate to heavy towing and daily driving.

### 4R100 STAGE 4 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate

The ATS 4R100 Stage 4 is designed for trucks with moderate power increases, heavy towing and performance driving.

### 4R100 STAGE 5 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate
- ATS Billet Intermediate Shaft

The ATS 4R100 Stage 5 is designed for trucks with moderate to extreme power increases, heavy towing and competition.

### 4R100 STAGE 6 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate
- ATS Billet Intermediate Shaft
- ATS Billet Output Shaft

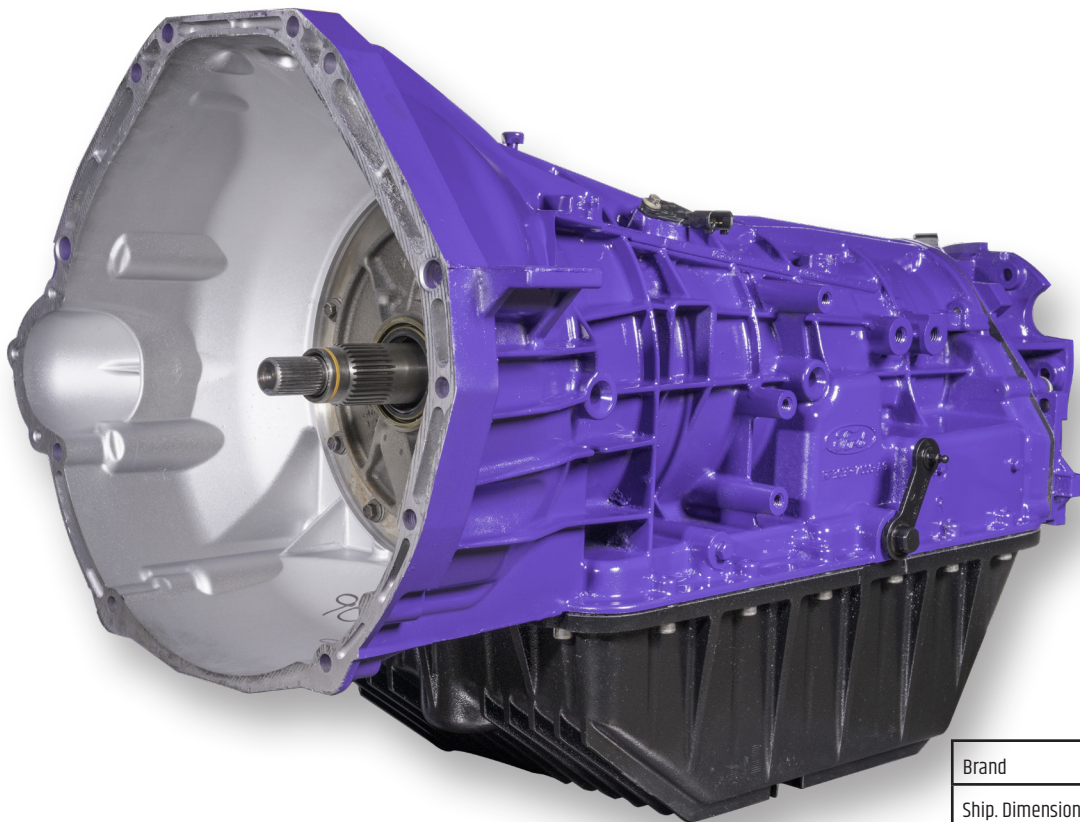
The ATS 4R100 Stage 6 is designed for trucks with extreme power increases, heavy towing and high-torque competition.





# ATS BILLET TRANSMISSIONS · FORD POWERSTROKE

5R110 Transmission · 03<sup>5</sup>-10 Ford 6.0L/6.4L Powerstroke



Brand	ATS Diesel
Ship. Dimensions	48L x 48W x 24H
Weight	325 Lbs.

## ATS BILLET 5R110 (2003<sup>5</sup>-2010 Ford F Series 2wd/4wd)

(Transmission only, Deep Pan® and Five Star® Torque Converter sold separately. Available in 2wd, 4wd applications.)

The 5R110 transmission requires many up-grades in order for it to hold up to the Powerstroke engine. Not only does the factory transmission fail on trucks with minor upgrades, but even trucks in stock form have been known to be too powerful for the stock transmission. A heavy duty truck needs parts which can stand up to heavy trailers, stop-and-go commutes to work, or high-horsepower applications. That's why ATS modifies the transmission to make it the strongest and most reliable part of your drivetrain.

With the many shortcomings of the 5R110, none are more important than the clutch packs. This is what takes the power and transmits it to the rear wheels. We increase the clutch count in the Forward, Overdrive, Intermediate and Overdrive clutch packs which allow much higher torque capacity in each gear. Clutch material is also essential which is why we use a combination of Borg Warner, Raybestos and Alto clutch packs which has both high torque strength as well as longevity and reliability.

The valve body receives extensive modifications as well. This is the valve body of choice for a street driven all-purpose truck. It is calibrated to reduce the apply time between shifts, shifts are firm and quick. It is a very aggressive valve body and a minimum of billet input shaft and flex plate are recommended.

### ATS Billet Shafts · Ford 5R110

The ATS Billet input shaft is the backbone of your Ford Powerstroke's transmission. It is the first hard part to bring power into the transmission and transmit that power to the wheels. With no dampening or power loss other than the torque converter, the input shaft has a lot to handle. Now add power, weight from a trailer, bigger tires (and in some cases all these things together) and you will be well beyond what that factory shaft was designed for.



## ATS 5R110 TRANSMISSION PACKAGES

All ATS 5R110 transmission packages come with our patented Five-Star® torque converter featuring a billet cover, 5 lock-up clutches available in either low or high stall configurations. An ATS Deep Pan extra deep transmission pan is also included in all packages to help keep the transmission cooler by adding an additional 5 quarts of fluid capacity. The Stage 2 package adds a billet input shaft for increased reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. The shaft is made of billet 300M material and precisely machined for an exact fit. The Stage 3 package includes a billet input shaft for increased reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. In addition, we add a lock-up controller for the torque converter on the Stage 3 setup. This allows the user to base lock-up on vehicle speed ' in any forward gear. The Stage 4 features the addition of a billet flex plate. The billet flex plate is designed for high horsepower/torque trucks and those that tow heavy. The flex plate is the first point of power transfer from the motor to the transmission assembly. By using a billet steel flex plate, we can increase the reliability of power transfer from the crank to the converter. We also add a billet intermediate shaft to the Stage 5 package, and a billet output shaft for the Stage 6 package. This is a requirement for trucks with aftermarket injectors, injection pump and turbo. During high torque situations (i.e. racing), our billet intermediate shaft will absorb the torsional loads to transfer power through the transmission. Without a billet intermediate and output shaft, the transmission is at risk for failure during heavy towing/competition use. All ATS 5R110 transmission packages feature an industry-best 5 year/500,000 mile warranty.

### 5R110 STAGE 1 PACKAGE includes:

- ATS Built 5R110 automatic transmission
- ATS Five Star® viskus clutch drive torque converter
- ATS Deep Pan® extra deep transmission pan
- Performance modified transmission pump
- Modified high performance clutch packs/bands and steels
- Valve body built around reliability and increased transmission life

The ATS 5R110 Stage 1 is designed for trucks with stock to mild power increases, light towing and daily driving.

### 5R110 STAGE 2 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub

The ATS 5R110 Stage 2 is designed for trucks with stock to moderate power increases, light and heavy towing and daily driving.

### 5R110 STAGE 3 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller

The ATS 5R110 Stage 3 is designed for trucks with moderate power increases, moderate to heavy towing and daily driving.

### 5R110 STAGE 4 PACKAGE adds:

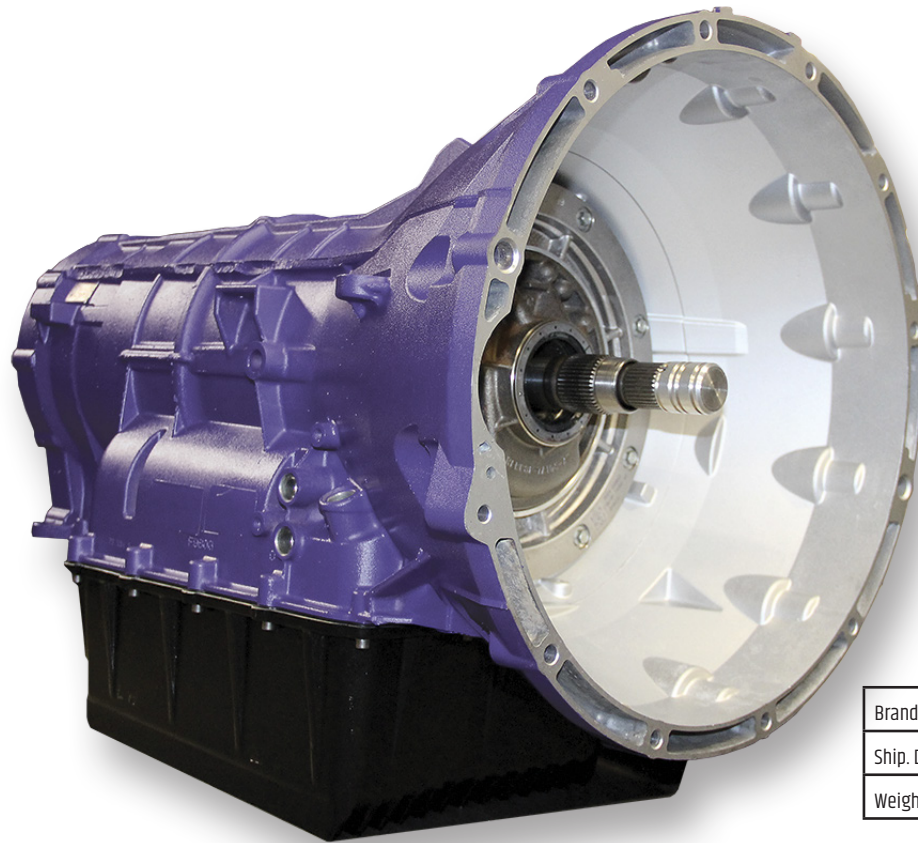
- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate
- 

The ATS 5R110 Stage 4 is designed for trucks with moderate power increases, heavy towing and performance driving.





## 6R140 Transmission · 2011+ Ford 6.7L Powerstroke



Brand	ATS Diesel
Ship. Dimensions	48L x 48W x 24H
Weight	325 Lbs.

## ATS BILLET 6R140 (2011-2019 Ford F Series 2wd/4wd)

(Transmission only, Deep Pan® and Five Star® Torque Converter sold separately. Available w/ PTO, Non-PTO, 2wd, 4wd)

The 6R-140 transmission construction is solid except for a few areas that commonly fail due the design. The three major areas that need attention are the torque converter, transmission main pump and the over drive clutch section. Unfortunately addressing these areas require a full transmission rework in order to correct the problems. There are many up-upgrades that are performed in order for the 6R-140 to hold up to the Ford 6.7L Power Stroke Engine. Not only does the factory transmission fail on trucks with minor upgrades, but even trucks in stock form have been known to be too powerful for the stock transmission. A heavy duty truck needs parts which can stand up to heavy trailers, stop-and-go commutes to work, or high-horsepower applications. That's why ATS modifies the transmission to make it the strongest and most reliable part of your drivetrain.

With the many shortcomings of the 6R140, none are more important than the converter, pump and OD clutch packs. This is what takes the power and transmits it to the rear wheels. We increase the clutch count in the Forward, Overdrive, Intermediate and Overdrive clutch packs which allow much higher torque capacity in each gear. Clutch material is also essential which is why we use a combination of Borg Warner, Raybestos and Alto clutch packs which has both high torque strength as well as longevity and reliability.

### ATS Ford 6R140 transmission upgrade kit

The ATS 6R140 rebuild kit for Ford features all new rings and seals. All steel and friction clutch disks are included. This high quality overhaul kit provides greater holding capabilities and gives you improved shift quality. Add an ATS Deep Pan, modified valve body and Five Star® torque converter to give your 6R140 monster strength!



**ATS**  
**DeepPANS**

**FIVE STAR**  
TORQUE CONVERTER

## ATS 6R140 TRANSMISSION PACKAGES

All ATS 6R140 transmission packages come with our patented Five-Star® torque converter featuring a billet cover, 5 lock-up clutches available in either low or high stall configurations. An ATS Deep Pan extra deep transmission pan is also included in all packages to help keep the transmission cooler by adding an additional 5 quarts of fluid capacity. The Stage 2 package adds a billet input shaft for increased reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. The shaft is made of billet 300M material and precisely machined for an exact fit. The Stage 3 package includes a billet input shaft for increased reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. In addition, we add a lock-up controller for the torque converter on the Stage 3 setup. This allows the user to base lock-up on vehicle speed ' in any forward gear. The Stage 4 features the addition of a billet flex plate. The billet flex plate is designed for high horsepower/torque trucks and those that tow heavy. The flex plate is the first point of power transfer from the motor to the transmission assembly. By using a billet steel flex plate, we can increase the reliability of power transfer from the crank to the converter. We also add a billet intermediate shaft to the Stage 5 package, and a billet output shaft for the Stage 6 package. This is a requirement for trucks with aftermarket injectors, injection pump and turbo. During high torque situations (i.e. racing), our billet intermediate shaft will absorb the torsional loads to transfer power through the transmission. Without a billet intermediate and output shaft, the transmission is at risk for failure during heavy towing/competition use. All ATS 6R140 transmission packages feature an industry-best 5 year/500,000 mile warranty.

### 6R140 STAGE 1 PACKAGE includes:

- ATS Built 6R140 automatic transmission
- ATS Five Star® viskus clutch drive torque converter
- ATS Deep Pan® extra deep transmission pan
- Performance modified transmission pump
- Modified high performance clutch packs/bands and steels
- Valve body built around reliability and increased transmission life

**The ATS 6R140 Stage 1 is designed for trucks with stock to mild power increases, light towing and daily driving.**

### 6R140 STAGE 2 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub

**The ATS 6R140 Stage 2 is designed for trucks with stock to moderate power increases, light and heavy towing and daily driving.**

### 6R140 STAGE 3 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller

**The ATS 6R140 Stage 3 is designed for trucks with moderate power increases, moderate to heavy towing and daily driving.**

### 6R140 STAGE 4 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate

**The ATS 6R140 Stage 4 is designed for trucks with moderate power increases, heavy towing and performance driving.**





# TRANSMISSION FITMENT GUIDE · FORD

VEHICLE FITMENT	PART NUMBER (transmission only)
1989 - 91 Ford Superduty 2wd (E40D)	3069203104
1989 - 91 Ford Superduty 4wd (E40D)	3069403104
1992 - 94 Ford Superduty 2wd (E40D)	3069403140
1992 - 94 Ford Superduty 4wd (E40D)	3069203140
1995 - 98 Ford Superduty 2wd (E40D)	3069203176
1995 - 98 Ford Superduty 4wd (E40D)	3069403176
1999 - 03 Ford Superduty 2wd (4R100)	3069403224
1999 - 03 Ford Superduty 2wd w/ PTO (4R100)	3069213224
1999 - 03 Ford Superduty 4wd (4R100)	3069402188
1999 - 03 Ford Superduty 4wd w/ PTO (4R100)	3069203224
2003.5 - 2010 Ford Superduty 2wd w/ PTO (5R110)	3069213278
2003.5 - 2010 Ford Superduty 4wd w/ PTO (5R110)	3069413278
2003.5 - 2007 Ford Superduty 2wd w/ 6.0L (5R110)	3069203278
2003.5 - 2007 Ford Superduty 4wd w/ 6.0L (5R110)	3069403278
2007.5 - 2010 Ford Superduty 2wd w/ 6.4L (5R110)	3069203326
2007.5 - 2010 Ford Superduty 4wd w/ 6.4L (5R110)	3069403326
2011 - 2019 Ford Superduty 2wd (6R140)	3069203368
2011 - 2019 Ford Superduty 2wd w/ PTO (6R140)	3069213368
2011 - 2019 Ford Superduty 4wd (6R140)	3069403368
2011 - 2019 Ford Superduty 4wd w/ PTO (6R140)	3069413368





# PATENTED INNOVATION MEANS MORE POWER TO THE GROUND.

ATS WARRANTY  
**5yr/500k**

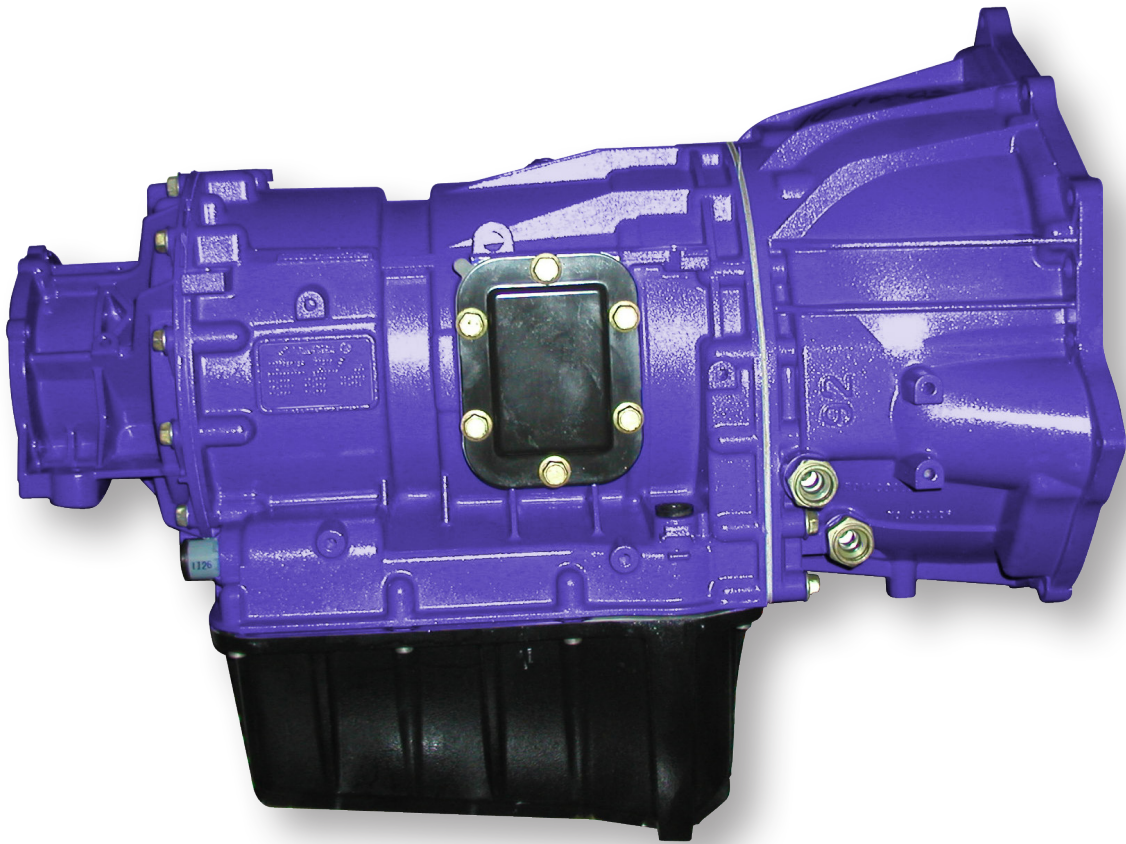


**ATS DIESEL PERFORMANCE**  
**ATS DIESEL PERFORMANCE PATENTED FIVE STAR TORQUE CONVERTER**

- PATENTED VISKUS CLUTCH DRIVE SYSTEM FOR INCREASED EFFICIENCY
- BILLET COVER WITH PATENTED SQUARE FLANK DRIVE
- SQUARE TAB CONSTRUCTION (NOT ROUND)
- VISKUS DISC CNC LASER CUT CLUTCH PLATES
- BILLET PISTON WITH PATENTED FLANK DRIVE TAB DESIGN
- PROPRIETARY ATS EXCLUSIVE CLUTCH FORMULATION W/ UNIQUE BONDING TECHNOLOGY
- REDESIGNED SPRING DAMPENER SUPPORTS INCREASED TORQUE LOADS
- 4340 HARDENED TURBINE SPLINES PROVIDE LONGEVITY AND RELIABILITY
- FULLY WELDED TURBINE AND IMPELLER VANES
- CNC STATOR WITH HIGH FLOW WINDOWS INCREASE OIL FLOW PROVIDING INCREASED EFFICIENCY
- FULL ROLLER BEARING CONSTRUCTION BETWEEN HIGH LOAD AREAS
- 4340 CNC CLUT PUMP DRIVE HUB LOCKED INTO IMPELLER HOUSING
- PLASMA WELDED FOR UNSURPASSED STRENGTH







## ATS ALLISON LCT1000 5-speed (2001-2005 GM Duramax 2wd/4wd)

(Transmission only, Deep Pan® and Five Star® Torque Converter sold separately. Available in 2wd, 4wd applications)

Saying a lot of R&D has gone into our built Allison 1000 transmissions would be the understatement of the century. Between the engineering team designing parts that our transmission specialists have developed and the thousands of testing hours on thousands of trucks around the world, no other transmission has been put through the paces like the ATS transmission has. We have transmissions in anything from stock truck with worn out factory transmissions, to professional hot shot drivers, to weekend drag racers and sled pullers, to competition drag racers and sled pullers, and even all the way as wild as a snow cat! The ATS built transmission was designed and produced for what you want out of it and how you are going to drive.

What sets the ATS transmission apart from the rest can be summed up in two words: innovation and technology.

Brand	ATS Diesel
Ship. Dimensions	48L x 42W x 40H
Weight	350 Lbs.

### GM Billet Flexplate - SFI 29.3

#### ATS Billet Flexplates Features and Benefits:

- Fits stock and aftermarket converter
- Solves common breakage issues
- Meets SFI 29.3 Standards
- Strong, durable and reliable



P/N: 3059004248

# ATS Allison LCT1000 5-speed TRANSMISSION PACKAGES

ATS takes the potent Allison platform and bulletproofs it with the parts you need for towing, racing and reliability. ATS formulated clutch material, CNC cut steels, billet torque converters and the Co-Pilot Transmission Controller will give you the edge over the track, a trailer or the competition. An ATS Deep Pan extra deep transmission pan is also included in all packages to help keep the transmission cooler by adding an additional 5 quarts of fluid capacity. The Stage 2 package adds a billet input shaft for increased reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. The shaft is made of billet 300M material and precisely machined for an exact fit. The Stage 3 package includes a billet input shaft for increased reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. In addition, we add a lock-up controller for the torque converter on the Stage 3 setup. This allows the user to base lock-up on vehicle speed in any forward gear. The Stage 4 features the addition of a billet flex plate. The billet flex plate is designed for high horsepower/torque trucks and those that tow heavy. The flex plate is the first point of power transfer from the motor to the transmission assembly. By using a billet steel flex plate, we can increase the reliability of power transfer from the crank to the converter. We also add a billet intermediate shaft to the Stage 5 package, and a billet output shaft for the Stage 6 package. All ATS transmission packages feature an industry-best 5 year/500,000 mile warranty.

## LCT1000 STAGE 1 PACKAGE includes:

- ATS Built Allison LCT1000 5-speed automatic transmission
- ATS TripleLok® clutch drive torque converter
- ATS Deep Pan® extra deep transmission pan
- Performance modified transmission pump
- ATS C1-C5 custom CNC'd steels and proprietary clutch pack material
- Modified A&B Trim Valves, new gaskets and seals

The ATS LCT1000 Stage 1 is designed for trucks with stock to mild power increases, light towing and daily driving.

## LCT1000 STAGE 2 PACKAGE adds:

- ATS CoPilot Torque Converter Lock-Up Controller

The ATS LCT1000 Stage 2 is designed for trucks with stock to moderate power increases, light and heavy towing and daily driving.

## LCT1000 STAGE 3 PACKAGE adds:

- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate

The ATS LCT1000 Stage 3 is designed for trucks with moderate power increases, moderate to heavy towing and daily driving.

## LCT1000 STAGE 4 PACKAGE adds:

- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate
- Ability to hold 1000+ HP!

The ATS LCT1000 Stage 4 is designed for trucks with moderate power increases, heavy towing and performance driving.

## LCT1000 STAGE 5 PACKAGE adds:

- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate
- Ability to hold 1000+ HP!
- ATS Billet Input Shaft

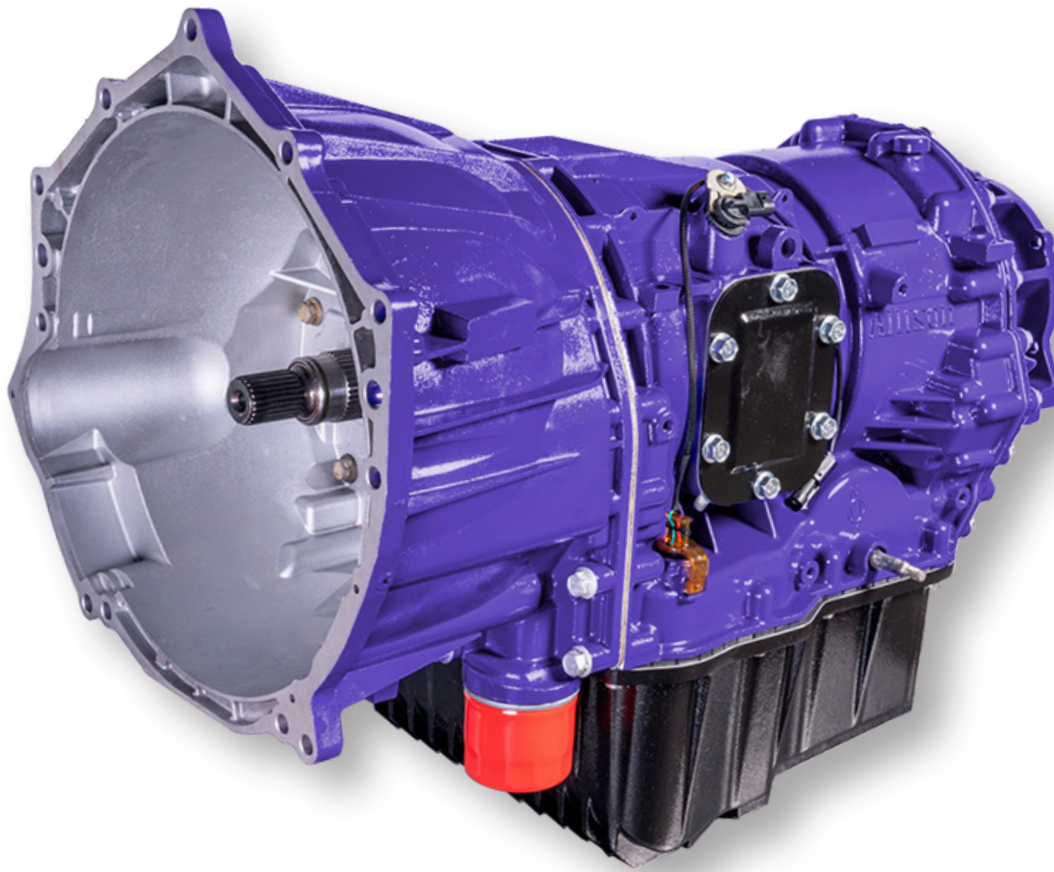
The ATS LCT1000 Stage 5 is designed for trucks with moderate to extreme power increases, heavy towing and competition.

## LCT1000 STAGE 6 PACKAGE adds:

- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate
- Ability to hold 1000+ HP!
- ATS Billet Input Shaft
- ATS Billet Output Shaft

The ATS LCT1000 Stage 6 is designed for trucks with extreme power increases, heavy towing and high-torque competition.





## ATS ALLISON LCT1000 6-speed (2006+ GM Duramax 2wd/4wd)

(Transmission only, Deep Pan® and Five Star® Torque Converter sold separately. Available in 2wd, 4wd applications)

The Allison 1000 has proven itself to be a stout unit behind the formidable Duramax power plant. However, as power is increased over stock, weak points quickly rise to the surface. ATS addresses the inherent short-comings to offer a robust setup for your modified Allison transmission. By increasing the capability of the torque converter, clutch surface area and line pressure, the transmission can hold 200% more torque than stock. The result is a setup strong enough to handle aftermarket fueling, turbo(s), tuning and the intensity of drag racing, sled-pulling or dyno competitions. Yet, it is still smooth enough to tow and daily drive.

Brand	ATS Diesel
Ship. Dimensions	48L x 42W x 40H
Weight	325 Lbs.

### Co-Pilot TC Controller for the LCT1000

The Co Pilot for the 06-10 Allison 1000 makes it possible to transfer increased power levels over stock developed by a modified engine to the rear wheels without causing the dreaded transmission slip and "Fail Safe" condition that plagues the Allison transmission. The Co-Pilot™ package alone, without any internal transmission modifications, allows the transmission to handle approximately 85 more horsepower and 120 foot pounds of torque over the power level at which the stock Allison will typically enter into "Fail Safe" mode, roughly 425HP/650Tq. Also has race mode which forces tcc early than factory for a more aggressive feel. Co-Pilots for the 6-Speed Allison transmissions require the ATS Deep Transmission Pan



P/N: 6019244368

# ATS Allison LCT1000 6-speed TRANSMISSION PACKAGES

ATS takes the potent Allison platform and bulletproofs it with the parts you need for towing, racing and reliability. ATS formulated clutch material, CNC cut steels, billet torque converters and the Co-Pilot Transmission Controller will give you the edge over the track, a trailer or the competition. An ATS Deep Pan extra deep transmission pan is also included in all packages to help keep the transmission cooler by adding an additional 5 quarts of fluid capacity. The Stage 2 package adds a Co-Pilot transmission controller for lock-up reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. The shaft is made of billet 300M material and precisely machined for an exact fit. The Stage 3 package includes a billet flex plate for increased reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. In addition, we add a lock-up controller for the torque converter on the Stage 3 setup. This allows the user to base lock-up on vehicle speed in any forward gear. The Stage 4 features the addition of a billet flex plate. The billet flex plate is designed for high horsepower/torque trucks and those that tow heavy. The flex plate is the first point of power transfer from the motor to the transmission assembly. By using a billet steel flex plate, we can increase the reliability of power transfer from the crank to the converter. We also add a billet output shaft to the Stage 5 package, and a billet input shaft for the Stage 6 package. All ATS transmission packages feature an industry-best 5 year/500,000 mile warranty.

## LCT1000 STAGE 1 PACKAGE includes:

- ATS Built Allison LCT1000 6-speed automatic transmission
- ATS TripleLok® or Five Star® viskus clutch drive torque converter
- ATS Deep Pan® extra deep transmission pan
- Performance modified transmission pump
- Modified high performance clutch packs/bands and steels
- Valve body built around reliability and increased transmission life

The ATS LCT1000 Stage 1 is designed for trucks with stock to mild power increases, light towing and daily driving.

## LCT1000 STAGE 2 PACKAGE adds:

- ATS CoPilot Torque Converter Lock-Up Controller

The ATS LCT1000 Stage 2 is designed for trucks with stock to moderate power increases, light and heavy towing and daily driving.

## LCT1000 STAGE 3 PACKAGE adds:

- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate

The ATS LCT1000 Stage 3 is designed for trucks with moderate power increases, moderate to heavy towing and daily driving.

## LCT1000 STAGE 4 PACKAGE adds:

- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate
- Ability to hold 1000+ HP!

The ATS LCT1000 Stage 4 is designed for trucks with moderate power increases, heavy towing and performance driving.

## LCT1000 STAGE 5 PACKAGE adds:

- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate
- Ability to hold 1000+ HP!
- ATS Billet Output Shaft

The ATS LCT1000 Stage 5 is designed for trucks with moderate to extreme power increases, heavy towing and competition.

## LCT1000 STAGE 6 PACKAGE adds:

- ATS CoPilot Torque Converter Lock-Up Controller
- ATS Billet Flex Plate
- Ability to hold 1000+ HP!
- ATS Billet Output Shaft
- ATS Billet Input Shaft

The ATS LCT1000 Stage 6 is designed for trucks with extreme power increases, heavy towing and high-torque competition.

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# TRANSMISSION FITMENT GUIDE · GM DURAMAX

VEHICLE FITMENT	PART NUMBER (transmission only)
2001 - 02 GM 6.6L LB7 Duramax 2wd (LCT1000 5-speed)	3069214248
2001 - 02 GM 6.6L LB7 Duramax 4wd (LCT1000 5-speed)	3069414248
2003 - 04 GM 6.6L LB7 Duramax 2wd (LCT1000 5-speed)	3069214272
2003 - 04 GM 6.6L LB7 Duramax 4wd (LCT1000 5-speed)	3069414272
2003 - 04 GM 6.6L LB7 Duramax 2wd (Extreme LCT1000 5-speed)	3069934272
2003 - 04 GM 6.6L LB7 Duramax 4wd (Extreme LCT1000 5-speed)	3069954272
2004.5 - 05 GM 6.6L LLY Duramax 2wd (LCT1000 5-speed)	3069214290
2004.5 - 05 GM 6.6L LLY Duramax 4wd (LCT1000 5-speed)	3069954290
2004.5 - 05 GM 6.6L LLY Duramax 2wd (Extreme LCT1000 5-speed)	3069934290
2004.5 - 05 GM 6.6L LLY Duramax 4wd (Extreme LCT1000 5-speed)	3069954290
2006 - 07 GM 6.6L LLY/LBZ Duramax 2wd (LCT1000 6-speed)	3069934308
2006 - 07 GM 6.6L LLY/LBZ Duramax 4wd (LCT1000 6-speed)	3069954308
2006 - 07 GM 6.6L LLY/LBZ Duramax 2wd (Extreme LCT1000 6-spd)	3069934308
2006 - 07 GM 6.6L LLY/LBZ Duramax 4wd (Extreme LCT1000 6-spd)	3069954308
2007.5 - 10 GM 6.6L LMM Duramax 2wd (LCT1000 6-speed)	3069924332
2007.5 - 10 GM 6.6L LMM Duramax 4wd (LCT1000 6-speed)	3069944332
2007.5 - 10 GM 6.6L LMM Duramax 2wd (Extreme LCT1000 6-speed)	3069924332
2007.5 - 10 GM 6.6L LMM Duramax 4wd (Extreme LCT1000 6-speed)	3069944332
2011+ GM 6.6L LML Duramax 2wd (LCT1000 6-speed)	3069203368
2011+ GM 6.6L LML Duramax 4wd (LCT1000 6-speed)	3069213368





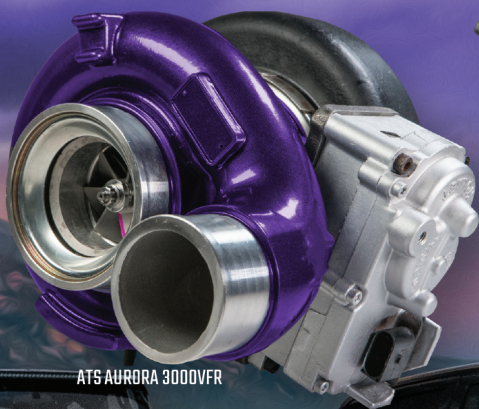
# MAKE MASSIVE POWER WITH EMISSIONS INTACT!

(you're happy, the EPA's happy - it's a win-win, really)

## ATS AURORA VFR (VARIABLE FACTORY REPLACEMENT) TURBO

ATS Aurora 3000 VFR upgraded replacement turbocharger includes a new actuator, billet 316 stainless steel unison rings and turbine housing and updated modern solid state electronics. Maintain all factory functions- exhaust braking, warm up function and quick spool-up with no programming and no deletes required!

Aurora VFR's will reliably support as much as 550+ hp as a single unit or well over 750 hp in a plus kit with tuning. And there's no need to worry about actuator cleaning intervals on this 100% maintenance free unit!  
ATS 2-year, 150,000 mile warranty included.



ATS AURORA 3000VFR



ATS CP3 TWIN FUELER



ATS AURORA PLUS COMPOUND KIT



2015 Dodge Ram 6.7L Cummins Turbo Diesel

ATS Aurora Plus 3000 VFR/7500 Compound Kit w/ CP3 Twin Fueler.

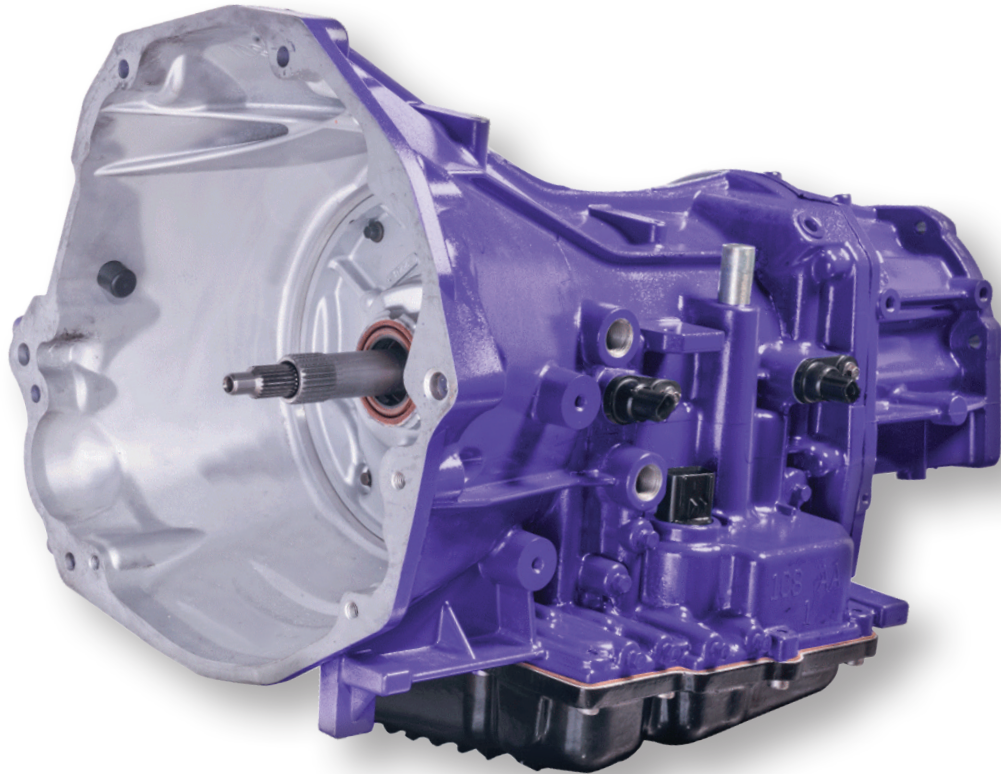
• Actual output: 795 rwHP

• Torque: 1,400 ft./lbs.

• EMISSIONS ON







## ATS BILLET 42RLE (2003-11 Jeep 4.0L/3.8L 2wd/4wd)

(Transmission only, TruLok® Torque Converter sold separately. Available in 2wd, 4wd applications)

The 42-RLE transmission that is used in the 2003-2011 Jeep was never designed to handle the abuse of after market add-ons such as over-sized tires, extreme off-roading, increased power levels, higher gear ratios or towing. The small 42-RLE factory transmission also has a very low volume cooling system, the low cooler flow does not allow adequate transmission fluid circulation through the torque converter in order to properly cool the torque converter during normal driving much less stressful situations such as four wheeling or hauling any additional weight over stock. The primary hydraulic pump of the transmission is not big enough to support the increased pressures and lubrication that is needed to keep the clutch packs and gear sets alive at higher power levels.

The ATS 42RLE is engineered to hold the power and abuse Jeep owners can throw at it. Substantial increases in clutch pack surface area, line pressure and shift quality provide the reliability Jeep owners demand.

Brand	ATS Diesel
Ship. Dimensions	48L x 42W x 40H
Weight	197 Lbs.

### ATS Jeep 42RLE Deep Pan

ATS Deep Pans add more fluid capacity to your transmission to help keep it cool! Heat is the number one enemy of a transmission and the cooler it runs, the longer it lasts! ATS Deep pans feature a finned design, magnetic drain plug and are tapped for a temperature probe. All 42RLE pans are powder-coated black with machined ATS Off-Road logo and fins and come with a gasket, and for some models, a billet block to lower the stock filter to the bottom of the pan. A transmission filter is NOT included. Contact ATS for specific questions on your application.



P/N: 3019008272

## ATS 42RLE TRANSMISSION PACKAGES

On the trail or street, the ATS 42RLE is backed by a 5 Year / 500,000 mile warranty. All ATS 42RLE transmission packages come with our patented TruLok® torque converter featuring a billet cover, a heavy-duty carbon composite lock-up clutch with a stall speed that is better matched to the engine torque curve. The ATS modified 42-RLE has been redesigned to correct all of these problems and handle increased power levels of larger displacement engines, Super charged or Turbo charged engines, Larger tires or heavy towing. We understand the real world abuse that this transmission is asked to do in modified applications so we came up with the fixes for it. ATS has developed a combined technology utilizing recalibration of the hydraulic circuits inside the transmission, including revamped accumulator rates, reprogrammed clutch to clutch apply and release timings, and line pressure rise rate to perfectly match the torque output of the engine. These enhancements, along with other key hydraulic modifications which ATS makes, must be done to ensure the clutch packs have the correct apply and release rates when commanded on or off. As well, the transmission hard parts have many limiting weaknesses which do not allow for increased power levels over stock. Specifically, the light duty shafts and hubs must be addressed. All of these areas are addressed in our transmission to allow for increased power levels and reliability. Here are some of the modifications we do to the 42-RLE transmission so it will handle the extreme use that your looking for. All ATS 42RLE transmission packages feature an industry-best 5 year/500,000 mile warranty.

Other design limitations of the 42-RLE plague the ability of the transmission to handle much power over stock. The stock torque converter is manufactured using stamped steel parts that make up the lock-up porting of the converter. The converter cover will deflect under power causing the converter clutch to slip under load creating excessive heat and clutch material to shed from the lock-up piston. The combination of heat and debris from the converter clutch causes transmission failure as the material from the torque converter is flushed into the transmission.

The ATS modified 42-RLE has been redesigned to correct all of these problems and handle increased power levels of larger displacement engines, Super charged or turbocharged engines, larger tires or heavy towing. We understand the real world abuse that this transmission is asked to do in modified applications so we came up with the fixes for it. ATS has developed a combined technology utilizing recalibration of the hydraulic circuits inside the transmission, including revamped accumulator rates, reprogrammed clutch to clutch apply and release timings, and line pressure rise rate to perfectly match the torque output of the engine. These enhancements, along with other key hydraulic modifications which ATS makes, must be done to ensure the clutch packs have the correct apply and release rates when commanded on or off. As well, the transmission hard parts have many limiting weaknesses which do not allow for increased power levels over stock. Specifically, the light duty shafts and hubs must be addressed. All of these areas are addressed in our transmission to allow for increased power levels and reliability.

### 42RLE STAGE 1 PACKAGE includes:

- ATS Built 42RLE automatic transmission
- ATS TruLok® clutch drive torque converter
- ATS CoPilot Torque Converter Lock-Up Controller
- Heavy-duty carbon composite lock-up clutch
- Hardened pump hub and turbine splines
- Torrington bearing construction for better thrust load

The ATS 42RLE Stage 1 is designed for trucks with stock to mild power increases, light towing and daily driving.

### 42RLE STAGE 2 PACKAGE adds:

- ATS Deep Pan extra capacity transmission pan

The ATS 42RLE Stage 2 is designed for trucks with stock to moderate power increases, light and heavy towing and daily driving.

### 42RLE STAGE 3 PACKAGE adds:

- ATS 42RLE transmission cooler

The ATS 42RLE Stage 3 is designed for trucks with moderate power increases, moderate to heavy towing and daily driving.

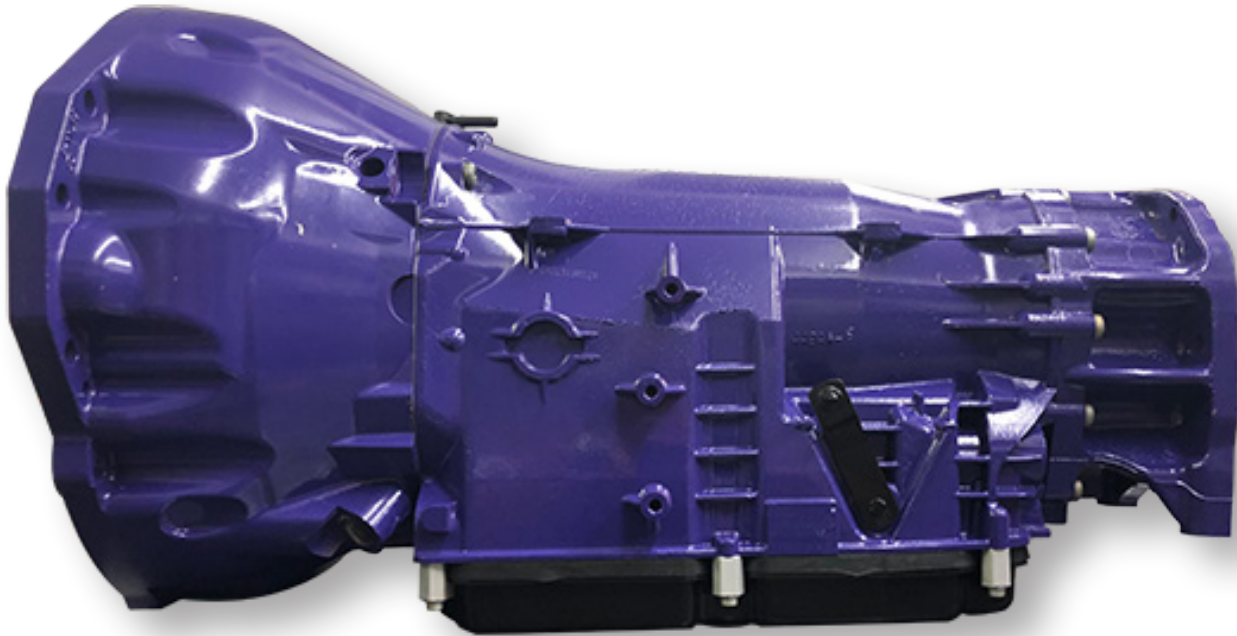
## Real testimony from real ATS customers

*"JUST WANTED TO TELL YOU THAT I RAN THE TRUCK AT THE TRACK N/A. RAN A 13.40 @ 102MPH. THIS MEANS THAT THE ATS TRANSMISSION IS A PART OF THE QUICKEST AND FASTEST 4TH GEN RAM N/A! I ACTUALLY RAN ONLY .002 SLOWER THAN A 4 DOOR WITH NITROUS! BUT STILL TRAPPED 1MPH QUICKER. JUST WANTED TO ALREADY GIVE YOU A LITTLE UPDATE."*

*THANKS AGAIN,  
-KYLE W.*







## ATS BILLET NAG1/722.6 (2012+ Jeep Wrangler 3.6L Pentastar 4wd)

(Transmission only, TruLok® Torque Converter sold separately. Available in 2wd, 4wd applications)

The ATS modified NAG1 has been redesigned to correct all of these problems and handle increased power levels of larger displacement engines, super-charged or turbocharged engines, larger tires or heavy towing. We understand the real world abuse that this transmission is asked to do in modified applications so we came up with the fixes for it. ATS has developed a combined technology utilizing recalibration of the hydraulic circuits inside the transmission, including revamped clutch apply rates, and line pressure rise rate to perfectly match the torque output of the engine. These enhancements, along with other key hydraulic modifications which ATS makes, must be done to ensure the clutch packs have the correct apply and release rates when commanded on or off. All of these areas are addressed in our transmission to allow for increased power levels and reliability. Here are some of the modifications we do to the NAG1 transmission so it will handle the extreme use that your looking for.

Brand	ATS Diesel
Ship. Dimensions	48L x 42W x 40H
Weight	197 Lbs.



### ATS TruLok® Torque Converter - NAG1/722.6

Jeep Wrangler's stock torque converter lock-up clutch is extremely small and designed to be a constant slip design, at factory power levels, stock size tires and no engine modifications this does not present a huge problem but when any of these areas are altered the converter clutch slips under power causing the fluid to breakdown.



#### Features and Benefits:

- Heavy-duty carbon composite lock-up clutch
- Hardened pump hub
- Hardened turbine splines
- Stall speed is better matched to engine torque curve
- Full Torrington bearings construction



P/N: 3029018380

## ATS NAG1/722.6 TRANSMISSION PACKAGES

All ATS NAG1/722.6 transmission packages come with our patented Five-Star® torque converter featuring a billet cover, 5 lock-up clutches available in either low or high stall configurations. An ATS Deep Pan extra deep transmission pan is also included in all packages to help keep the transmission cooler by adding an additional 5 quarts of fluid capacity. The Stage 2 package adds a billet input shaft for increased reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. The shaft is made of billet 300M material and precisely machined for an exact fit. The Stage 3 package includes a billet input shaft for increased reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. In addition, we add a lock-up controller for the torque converter on the Stage 3 setup. This allows the user to base lock-up on vehicle speed ' in any forward gear. The Stage 4 features the addition of a billet flex plate. The billet flex plate is designed for high horsepower/torque trucks and those that tow heavy. The flex plate is the first point of power transfer from the motor to the transmission assembly. By using a billet steel flex plate, we can increase the reliability of power transfer from the crank to the converter. We also add a billet intermediate shaft to the Stage 5 package, and a billet output shaft for the Stage 6 package. This is a requirement for trucks with aftermarket injectors, injection pump and turbo. During high torque situations (i.e. racing), our billet intermediate shaft will absorb the torsional loads to transfer power through the transmission. Without a billet intermediate and output shaft, the transmission is at risk for failure during heavy towing/competition use. All ATS 4R100 transmission packages feature an industry-best 5 year/500,000 mile warranty.

### NAG1 STAGE 1 PACKAGE includes:

- ATS Built NAG1/722.6 automatic transmission
- ATS TruLok® clutch drive torque converter
- Modified main pressure regulator circuit (pump assembly)
- Modified ATS clutch drum assembly and clutch packs
- Modified ATS valve body built around reliability and increased transmission life

The ATS NAG1 Stage 1 is designed for trucks with stock to mild power increases, light towing and daily driving.

### NAG1 STAGE 2 PACKAGE adds:

- ATS Deep Pan extra capacity transmission pan

The ATS NAG1 Stage 2 is designed for trucks with stock to moderate power increases, light and heavy towing and daily driving.

## What Google users are saying about the ATS experience:

I trailered my truck to ATS from California to have my nv4500 transmission rebuilt, upgrade the clutch and diagnose my transfer case because my 4 wheel drive wasn't activating. When I got there, I spoke to Seth and he gave me multiple upgrade options but also asked what I would be using the truck for and explained what applications these upgrades were great for. So I approved of the transmission rebuild, a new Southbend clutch and the transfer case rebuild. Being in California through this process, Seth was great on communication on giving me updates when something new was discovered, like my rear differential gears that were destroyed. He ordered all the parts and necessities to make it better than ever. When I picked the truck up I was going to road trip it back to California.

All the work done looked incredible.. powder coated rear axle, powder coated transfer case, and a bright Barney purple transmission. 3 days and 1400 miles later and not ONE single issue occurred. Not from Arvada to Ouray, to Silverton, Durango, all of Utah, Vegas & Ventura. NOTHING. The south bend clutch felt super responsive, smooth and durable on the coal rolling get-ups, my gas mileage was the best that I EVER got, up in 23/24 range, I even got the truck up to 100 mph on a straight way and it felt like it was gliding on rails. Just the quality of the ride was unbelievable and it felt like **my transmission internals were straight from Thor's hammer!**

Can't thank ATS enough for all the hard quality work they applied into my truck and I know it's going to perform great for the years to come. I'm a firm believer in you get what you pay for and I definitely got more than that! Thanks ATS!!!

Daniel Cueto



Tell the world about your experience with ATS and leave us a review on Google!







Brand	ATS Diesel
Ship. Dimensions	48L x 48W x 24H
Weight	325 Lbs.

## ATS BILLET 545RFE (2003+ Dodge Ram Hemi® 2wd/4wd)

(Transmission only, TruLok® Torque Converter sold separately. Available in 2wd, 4wd applications)

There are several things that should be understood about the HEMI 545-RFE ATS built transmission. This transmission was originally designed to be very inexpensive to manufacture. This approach forced the original designers to cut corners in size and quality of materials that could be used. On a positive note, the technology that is utilized in the transmission is leading edge; this advanced technology has forced the aftermarket to completely rethink how to modify and control the transmission so that it can still perform and remain reliable while modifying the engine to have higher power levels over stock.

Because of the combined combination of technologies we have used to redesign this transmission to handle extreme power levels we now offer the RFE for any application. If your looking for the best in performance, durability and over all shift quality you have found what your looking for.

ATS 545-RFE packages are designed and tested to handle the abuse of towing, racing, superchargers, turbos or nitrous. Performance clutch packs (and more of them) are added to increase the 545-RFEs holding capacity. Line pressure is increased to provide more clamping force on the clutches increasing their life.

### Protect Your Investment, Prevent Overheating

Keeping your transmission cool will help protect seals and ensure years of trouble-free operation. Transmissions, by their nature, create immense amounts of friction. The best way to combat this friction is to use the oil to help with lubricity and keep heat down. While it does a good job, it can still overheat as the transmission works harder. This caused heat in turn decreases the oils lubricity, causing it to not do as good of a job, and causing faster wear on transmission clutches.



#### Features and Benefits:

- Allows full coolant flow at lower temperature
- Keeps transmission running at optimal temperatures
- Provides maximum cooling



P/N: 3109012000

## ATS 545RFE TRANSMISSION PACKAGES

ATS 545RFE packages were designed and tested to handle the abuse of towing, racing, superchargers, turbos or nitrous. Performance clutch packs (and more of them) are added to increase the 545RFE's holding capacity. Line pressure is increased to provide more clamping force on the clutches ? increasing their life.

ATS billet converters harness the power from the motor and send it to the tires. Custom stall speeds are available for towing, forced induction applications or drag racing. Topped off with an ATS deep pan, our 545RFE packages provide the transmission your legendary Hemi deserves.

The Stage 2 package adds a billet input shaft for increased reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. The shaft is made of billet 300M material and precisely machined for an exact fit. The Stage 3 package includes a billet input shaft for increased reliability when towing heavy loads, under modified power levels or street performance. The billet input shaft is designed to withstand greater torsional loads than the factory shaft, thus increasing reliability. In addition, we add a lock-up controller for the torque converter on the Stage 3 setup. This allows the user to base lock-up on vehicle speed ' in any forward gear. The Stage 4 features the addition of a billet flex plate. The billet flex plate is designed for high horsepower/torque trucks and those that tow heavy. The flex plate is the first point of power transfer from the motor to the transmission assembly. By using a billet steel flex plate, we can increase the reliability of power transfer from the crank to the converter. We also add a billet intermediate shaft to the Stage 5 package, and a billet output shaft for the Stage 6 package. This is a requirement for trucks with aftermarket injectors, injection pump and turbo. During high torque situations (i.e. racing), our billet intermediate shaft will absorb the torsional loads to transfer power through the transmission. Without a billet intermediate and output shaft, the transmission is at risk for failure during heavy towing/competition use. All ATS 4R100 transmission packages feature an industry-best 5 year/500,000 mile warranty.

### 545RFE STAGE 1 PACKAGE includes:

- ATS Built 545RFE automatic transmission
- ATS Five Star® viskus clutch drive torque converter
- ATS Deep Pan® extra deep transmission pan
- Performance modified transmission pump
- Modified high performance clutch packs/bands and steels
- Valve body built around reliability and increased transmission life

The ATS 545RFE Stage 1 is designed for trucks with stock to mild power increases, light towing and daily driving.

### 545RFE STAGE 2 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub

The ATS 545RFE Stage 2 is designed for trucks with stock to moderate power increases, light and heavy towing and daily driving.

### 545RFE STAGE 3 PACKAGE adds:

- ATS Billet 300M input shaft and forward hub
- ATS CoPilot Torque Converter Lock-Up Controller

The ATS 545RFE Stage 3 is designed for trucks with moderate power increases, moderate to heavy towing and daily driving.



### ATS 545-RFE Upgraded Pump Package

The HD ATS pump is redesigned to withstand increased pressures over stock in excess of 200+PSI by installing a high pressure bushing material for the center pump gear to ride in and bushings to support the two idler gears. The Pressure regulator valve assembly and Lock up valve assembly is also reworked to promote proper function and durability.

P/N: 3149102272



# FIVE STAR TORQUE CONVERTER

## TripleLOK™ TORQUE CONVERTER

## TruLOK TORQUE CONVERTER



**ATS DIESEL PERFORMANCE**  
**ATS DIESEL PERFORMANCE PATENTED FIVE STAR TORQUE CONVERTER**

- PATENTED VISKUS CLUTCH DRIVE SYSTEM FOR INCREASED EFFICIENCY
- BILLET COVER WITH PATENTED SQUARE FLANK DRIVE
- SQUARE TAB CONSTRUCTION (NOT ROUND)
- VISKUS DISC CNC LASER CUT CLUTCH PLATES
- BILLET PISTON WITH PATENTED FLANK DRIVE TAB DESIGN
- PROPRIETARY ATS EXCLUSIVE CLUTCH FORMULATION W/ UNIQUE BONDING TECHNOLOGY
- REDESIGNED SPRING DAMPENER SUPPORTS INCREASED TORQUE LOADS
- 4340 HARDENED TURBINE SPLINES PROVIDE LONGEVITY AND RELIABILITY
- FULLY WELDED TURBINE AND IMPELLER VANES
- CNC STATOR WITH HIGH FLOW WINDOWS INCREASE OIL FLOW, PROVIDING INCREASED EFFICIENCY
- FULL ROLLER BEARING CONSTRUCTION BETWEEN HIGH LOAD AREAS
- 4340 CNC CUT PUMP DRIVE HUB LOCKED INTO IMPELLER HOUSING
- PLASMA WELDED FOR UNSURPASSED STRENGTH

**EXCLUSIVE 12-BOLT COVER DESIGN**

**PATENTED 2-PIECE COVER**



Many transmissions are notorious for factory converters that fail with high mileage, greater than stock power and/or frequent towing. OEM units are typically made with stamped metal, a single lock-up clutch and the stall speed is not matched to the motor's torque curve.

ATS TripleLok and Five Star converters completely eliminate these weaknesses. They feature our patented square tab clutch design (for reliability during lock-up), ATS proprietary clutch material, CNC cut steels, re-designed stators, Torrington bearings and stall speeds matched to the Cummins motor. Both the TripleLok and Five Star are designed to hold increase torque while efficiently transferring it to the transmission. The result is more power to the ground, lower transmission temperatures and greater overall performance.

Custom stall speeds are available for racing/sled-pulling applications. ATS TripleLok and Five Star converters come with a 5 year / 500,000 mile warranty; even for competition use.

HARDENED PUMP DRIVE HUB  
FACE BRAZED IMPELLER VANES

4340 CNC CUT PUMP DRIVE HUB  
LOCKED INTO IMPELLER HOUSING

INTERNALLY BALANCED TURBINE

BILLET PISTON

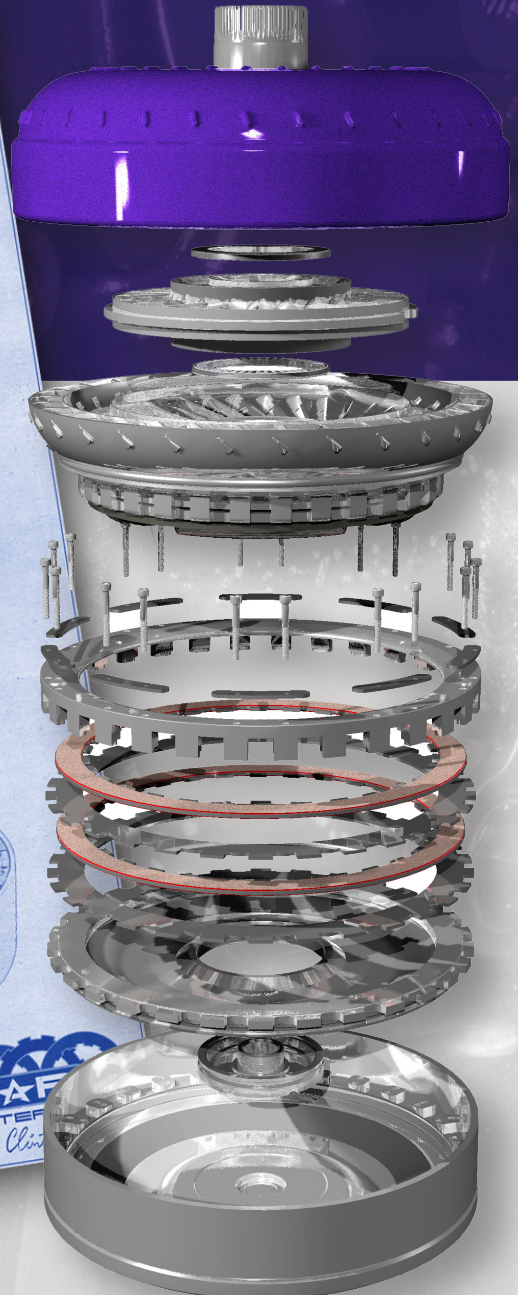
PATENTED SQUARE TAB  
VISKUS CLUTCH DRIVE

PATENTED SQUARE  
LUG DESIGN

BILLET COVER

CONSTRUCTION

**FIVE STAR**  
CONVERTER  
*Clutch*





# ATS TORQUE CONVERTERS



## TRULOK™ CONVERTER - JEEP NAG1/722.6

The stock torque converter lock-up clutch is extremely small and designed to be a constant slip design, at factory power levels, stock size tires and no engine modifications this does not present a huge problem but when any of these areas are altered the converter clutch slips under power causing the fluid to breakdown.

P/N: 3029018380



## TRULOK™ CONVERTER - 2003-2011 JEEP 42RL

ATS 1900-2100 RPM Stall Speed TruLok™ Torque Converter, 2003-Present 545RFE Transmission

P/N: 3029018272



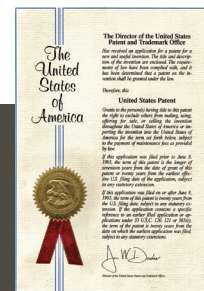
## TRULOK™ CONVERTER - 2003+ HEMI RAM 545RFE

ATS 1300-1500 RPM stall speed TruLok™ Torque Converter, 2003+ 545RFE Transmission. 1900-2100 RPM stall speeds also available.

P/N: 3029159272 (1300-1500 RPM) | P/N: 3029199272 (1900-2100 RPM)



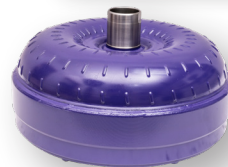
The only diesel torque converter on the market that has been awarded two patents from the United States patent office. There is no other torque converter offered anywhere that can make this claim. The 30 square drive tabs that are precision CNC cut into the billet cover is only one of the many patented aspects of the TripleLok™ converter. The patented radial flank drive tabs virtually eliminate the wear that is common with all other round tab multi-disc torque converters. This is the number one reason ATS can offer a 5 year warranty on all our torque converters.



## TRIPLELOK™ CONVERTER, 2003-07 FORD 6.0L, 5R-110

TripleLok™ torque converter, 2003 to 2007 Ford 6.0L Powerstroke, 5R-110 Transmission

P/N: 3029303278



## TRIPLELOK™ CONVERTER, 2001-10 GM 6.6L, LCT-1000

TripleLok™ torque converter, 2001-10 GM 6.6L Duramax, LCT1000 Transmission. Factory stall speed.

P/N: 3029304248



## TRIPLELOK™ CONVERTER, 2010.5+ GM 6.6L, LCT1000

TripleLok™ torque converter, 2010+ GM 6.6L Duramax, LCT1000 Transmission. Factory RPM stall speed, cast stator, positive impeller.

P/N: 3029304368



 **FUMMINS CONVERSION - 2007<sup>5</sup>-2013 RAM 6.7L CR TO FORD 4R100**

4R Performance Conversion Five Star™ Viskus Clutch Drive torque converter, Mid-Stall, 1500 RPM +/- w/ extreme efficiency mixed flow stator - 2007.5-2013 Cummins 6.7L CR when used with 4R100 transmission.

P/N: 3029505326



 **FIVE STAR® CONVERTER - 2011+ FORD 6.7L 6R140**

The ATS Five Star™ torque converter for the 6R140 transmission features 160% more combined clutch surface, 2 times more friction surfaces and 20% more piston surface area over stock converters. Increased piston surface area gives you increased clamping force, while the billet cover, piston and retaining ring give you increased reliability. Furnace brazed impeller vanes, balanced rotating components, with patented square lug design, two piece construction, 12 bolt cover design and a 5 year/500,000 mile warranty, make the ATS 6R140 converter the best torque converter on the market today! Different RPM stall speeds available.

P/N: 3029503368 (1100-1300 RPM) | P/N: 3029523368 (1300-1500 RPM)



 **FIVE STAR® CONVERTER - 2007.5+ RAM 3500 AISEN AC69RC**

Dodge transmissions are notorious for factory converters that fail with high mileage, greater than stock power and/or frequent towing. OEM units are typically made with stamped metal, a single lock-up clutch and the stall speed is not matched to the motor's torque curve. ATS developed this heavy duty replacement torque converter for 2007.5+ Ram 3500 6.7L Cummins to completely eliminate these weaknesses. They feature our patented square tab clutch design (for reliability during lock-up), ATS' proprietary clutch material, CNC cut steels, re-designed stators, Torrington bearings and stall speeds matched to the Cummins motor.

P/N: 3029202326



Torque converters full list and part numbers on pg. 39

**CaseBRACE**  
TRANSMISSION BRACE

 **DODGE RAM 68RFE/545RFE CASE BRACE**

Protect your investment with the ATS CaseBRACE Transmission Support Brace, external 2-piece girdle used to eliminate 68RFE and 545RFE cracked case failures.

P/N: 3141692326





## ATS TORQUE CONVERTERS



SPECIFICATIONS/FITMENT	PART NUMBER
Stall Speed 1300 to 1500RPM, Five Star Viskus Clutch Drive Torque Converter, Aluminum Stator, Positive Impeller, Ford, 2003.5 to 2007, 6.0L Powerstroke, 5R-110 TorqShift Transmission	3029503278
(Non Lock-up) Torque Converter, Low Stall, Heavy Duty - 1990-93 Dodge w/ 518/618 Automatic	3029002116
1300 - 1500 RPM Stall Speed, Five Star Viskus Clutch Drive Torque Converter, Billet Stator F-Trim, Positive Impeller, Ford, 2007.5 to 2010, 6.4L Powerstroke, 5R-110 TorqShift Transmission	3029503326
1300-1500 RPM Stall Speed -Five Star Viskus Clutch Drive Torque Converter, Billet Stator F-Trim, Positive Impeller, Dodge, 94-07, 5.9L Cummins, 47R-H/47-RE/48-RE Transmission (Recommended for CR Engines)	3029502164
1500 - 1700 RPM Stall Speed, Five Star Viskus Clutch Drive Torque Converter, Billet Stator L-Trim, Positive Impeller, Ford, 1989 to 2003, 7.3L Powerstroke, 4R-100 Transmission	3029513104
1500 - 1700 RPM Stall Speed, Five Star Viskus Clutch Drive Torque Converter, Billet Stator L-Trim, Positive Impeller, Ford, 2003.5 to 2007, 6.0L Powerstroke, 5R-110 Transmission	3029513278
1500 - 1700 RPM Stall Speed, Five Star Viskus Clutch Drive Torque Converter, Billet Stator L-Trim, Positive Impeller, Ford, 2007.5 to 2010, 6.4L Powerstroke, 5R-110 TorqShift Transmission	3029513326
1500-1700 RPM Stall Speed -Five Star Viskus Clutch Drive Torque Converter, Billet Stator J-Trim, Positive Impeller, Dodge, 94-07, 5.9L Cummins, 47/48-RE Transmission	3029532164
1700 - 1900 RPM Stall Speed, Five Star Viskus Clutch Drive Torque Converter, Billet Stator X-Trim, Positive Impeller, Ford 1989 to 2003, 7.3L Powerstroke, E4OD/4R100 Transmission	3029553104
1700 - 1900 RPM Stall Speed, Five Star Viskus Clutch Drive Torque Converter, Billet Stator X-Trim, Positive Impeller, Ford, 2003.5 to 2007, 6.0L Powerstroke, 5R-110 TorqShift Transmission	3029553278
1700 - 1900 RPM Stall Speed, Five Star Viskus Clutch Drive Torque Converter, Billet Stator X-Trim, Positive Impeller, Ford, 2007.5 to 2010, 6.4L Powerstroke, 5R-110 TorqShift Transmission	3029553326
1700-1900 RPM Stall Speed -Five Star Torque Converter, Billet Stator N-Trim, Positive Impeller, Dodge, 94-07, 5.9L Cummins, 47/48-RE Transmission	3029542164
1700-1900 RPM Stall Speed, Five Star Viskus Clutch Drive Torque Converter, Billet Stator X-Trim, Negative Impeller, Ford 2011+, 6.7L Powerstroke, 6R140 Transmission	3029553368
1800-2200 RPM Stall Speed Five Star Viskus Drive Torque Converter, Factory High Stall Stator, Negative Impeller, GM 8.1L Gas With Allison LCT-1000	3029624248
1900-2100 RPM Stall Speed -Five Star Viskus Clutch Drive Torque Converter, Billet Stator S-Trim, Positive Impeller, Dodge, 94-07, 5.9L Cummins, 47R-H/47-RE/48-RE Transmission	3029552164
2001-2010 6.6L Duramax Five Star Viskus Drive Torque Converter, 1500-1700 RPM Stall Speed, Billet F-Trim Stator, Negative Impeller	3029514248
2001-2010 6.6L Duramax Five Star Viskus Drive Torque Converter, 1700-1900 RPM Stall Speed, Billet L-Trim Stator, Positive Impeller	3029524248
2001-2010 6.6L Duramax Five Star Viskus Drive Torque Converter, 1900-2100 RPM Stall Speed, Billet L-Trim Stator, Positive Impeller	3029534248
2001-2010 6.6L Duramax Five Star Viskus Drive Torque Converter, 2100-2500 RPM Stall Speed, 300mm Housing, Billet High Stall Stator, Positive Impeller	3029554248
2001-2010 6.6L Duramax TripleLok Torque Converter, Factory RPM Stall Speed, Cast Stator, Positive Impeller	3029304248
2001-2010 6.6L Duramax Five Star Viskus Drive Torque Converter, 1300-1500 RPM Stall Speed, Billet F-Trim Stator, Positive Impeller	3029504248

# ATS TORQUE CONVERTERS



SPECIFICATIONS/FITMENT	PART NUMBER
2010.5+ 6.6L Duramax Five Star Viskus Drive Torque Converter, 1300-1500 RPM Stall Speed, Billet F-Trim Stator, Positive Impeller	3029504368
2010.5+ 6.6L Duramax TripleLok Torque Converter, Factory RPM Stall Speed, Cast Stator, Positive Impeller	3029304368
2100-2500 RPM STALL SPEED -Five Star Viskus Clutch Drive Torque Converter, Billet Stator S-Trim, Negative Impeller, Dodge 94 to 07, 5.9L Cummins	3029652164
2200-2500 RPM STALL SPEED Five Star Viskus Drive Torque Converter, Billet High Stall Stator, Negative Impeller, GM 8.1L Gas With Allison LCT-1000	3029614248
ATS Tru-Lok Torque Converter, Billet Cover, Carbon Composite Clutch , 4L80-E	3021014086
8.1L Gas with 4L80E/4L85E Five Star Viskus Drive Torque Converter, Factory RPM Stall Speed, Gas Stator, Negative Impeller	3029604248
ATS 1300-1500 RPM Stall Speed TruLok Torque Converter, 2003+ 545RFE Transmission	3029159272
ATS TruLok Torque Converter, 2003-2011 Jeep 42RLE	3029018272
ATS TruLok Torque Converter, Nag1 / 722.6, 2012-2018 Jeep Wrangler	3029018380
ATS Heavy Duty Billet Torque Converter (Non Lock-Up), 1990-93 Dodge w/ 518/618 Automatic ***Must be used if installing a billet flexplate***	3029102116
Five Star Torque Converter Kit, Dodge V-10 Gas. Viskus Clutch Drive High Torque Stator, Extreme Efficiency, Dodge V-10 Gas Engine	3029602164
Five Star Viskus Clutch Drive Torque Converter, Mixed Flow Stator, Extreme Efficiency - 2007.5+ Dodge 6.7L Cummins with 68RFE automatic transmission	3029502326
Gas V-10, Five Star Viskus Clutch Drive Torque Converter, Factory Stall Speed, Billet Stator F-Trim, Positive Impeller, 1989 to 2003 Ford, 7.3L Powerstroke, E4OD/4R100 Transmission	3029603228
Heavy Duty Replacement Torque Converter, 2007.5+ Dodge Ram 6.7L Cummins with Aisin Transmission	3029202326
Heavy Duty Replacement Torque Converter, 2013+ Dodge Ram 6.7L Cummins with Aisen AS69RC Transmission	3029202392
Stall Speed 1300 to 1500RPM, Five Star Viskus Clutch Drive Torque Converter, Aluminum Stator, Positive Impeller, Ford, 1989 to 2003, 7.3L Powerstroke, E4OD/4R100 Transmission	3029503104
Stock Stall Speed 1100 - 1300 RPM Stall Speed, Five Star Viskus Clutch Drive Torque Converter, Billet Stator F-Trim, Positive Impeller, Ford 2011+, 6.7L Powerstroke, 6R140 Transmission	3029503368
Torque Converter, Lock-up, GM 4L60E, Billet cover, Stock HD replacement	3021024164
TripleLok Torque Converter, 1989 to 2003 Ford 7.3L Powerstroke, E4OD/4R100 Transmission	3029303104
TripleLok Torque Converter, 2003 to 2007 Ford 6.0L Powerstroke, 5R-110 Transmission	3029303278
TripleLok Torque Converter, Factory Stall Speed, 1994 to 2007, 5.9L Cummins, Dodge 47R-H/47-RE/48-RE Transmission	3029302164

Visit [ATSDiesel.com](http://ATSDiesel.com) for current pricing and products



# ATS CO-PILOT TRANSMISSION CONTROLLERS

## ATS CO-PILOT TRANSMISSION CONTROLLERS



The Co-Pilot is available in two different options, Pressure or Pressure and Forced Lock-up. Today's transmissions are controlled by the TCM, in every case the TCM only commands just enough line pressure to keep the clutch packs from slipping at factory power levels. In situations where the clutch packs need more clamping force such as heavy towing, increased power or better durability the line pressure should be increased over stock. The Co-Pilot Pressure box directly ties the transmission line pressure into the torque rise of the engine increasing the line pressure well over stock providing as much as twice the torque capacity.

When the Forced Lock-Up Co-Pilot is added to the transmission you get all of the pressure advantages along with having the ability to (force) lock-up on when the engine is producing the power to support the load. This is a huge drivability advantage and massive increased power transfer to the wheels! The smart logic of the Co-Pilot senses TPS and Boost to determine when the TCC should be applied to provide the ultimate in performance, drive-ability and towing. The TCC apply can be adjusted on the fly with the simple touch of a button.



P/N: 6019103104

Co-Pilot, Ford, 89-97, E40D, 7.3L Ford, Controls Transmission TCC and Exhaust Brake  
FORCED CONVERTER LOCK-UP



P/N: 6019003224

Co-Pilot, Ford, 99-03, 4R-100, 7.3L Ford, Controls Transmission TCC and Exhaust Brake Based  
FORCED CONVERTER LOCK-UP



P/N: 601-900-3368

Co-Pilot, Ford, 2011-2019, 6R-140, 6.7L, Controls Transmission Line Pressure  
LINE PRESSURE



P/N: 601-901-3368

Co-Pilot, Ford, 2011-2019, 6R-140, 6.7L, Forced TCC Apply and Line Pressure Control  
FORCED LOCK-UP/LINE PRESSURE



P/N: 6019102164

Co-Pilot, Dodge, 94-98, 47-RH/RE, 5.9L Cummins 12-Valve, Controls Transmission TCC  
FORCED CONVERTER LOCK-UP



P/N: 6019002218

Co-Pilot, Dodge, 98.5-02, 47-RE, 5.9L Cummins 24-Valve, Controls Transmission TCC  
FORCED CONVERTER LOCK-UP



P/N: 6019002284

Co-Pilot, Dodge, 04-05, 48-RE, 5.9L Cummins CR, Controls Transmission TCC  
FORCED CONVERTER LOCK-UP



P/N: 6019002308

Co-Pilot Lockup kit - Early 2006 Dodge 48RE (Prod. date before 5/2006)  
FORCED CONVERTER LOCK-UP



P/N: 6019002317

Co-Pilot, Dodge, 2006.5 - Early 2007 (prod. date 05/2006 & later, Controls Transmission TCC  
FORCED CONVERTER LOCK-UP



P/N: 6019002326

ATS Diesel Performance Co-Pilot TOW Edition Transmission Controller Kit for 2007.5-Present Dodge with 6BRFE Transmission  
LINE PRESSURE



P/N: 6019004326

Co-Pilot RACE Version with forced Lock-Up. Transmission Controller Kit for 2007.5-Present Dodge with 6BRFE Transmission  
FORCED LOCK-UP/LINE PRESSURE



P/N: 6019009272

Co-Pilot Transmission Controller - Fits 2003-2019 Dodge/Ram with a 545-RFE, 65-RFE and 66-RFE Transmission  
LINE PRESSURE

# ATS PROTECTOR DIFFERENTIAL COVERS



Fight off the heat with a high capacity differential cover from ATS. With additional fluid capacity and cooling characteristics, your differential will thank you. The ATS differential cover is cast in our foundry so we can ensure that we have unmatched quality and function. Not only do these look good sitting on the massive axle, but they hold an additional 2.5 quarts of fluid. This translates into cooler running temperatures as well as better lubrication of the ring and pinion and seals.



**97+ Jeep with Dana 44 Axle**  
P/N: 4029008200

This differential cover is constructed of iron to provide the ultimate in ring gear protection while being rounded so rocks can not catch on the cover when using for extreme applications. Powdercoated black, standard pipe thread fill, new differential cover attachment bolts, silicone sealant is recommended to seal the cover to the axle housing (all included).



**03+ Jeep with Dana 60 Axle**  
P/N: 4029028272

This differential cover is also constructed of iron to provide the ultimate in ring gear protection while being rounded so rocks can not catch on the cover when using for extreme applications. Powdercoat black, standard pipe thread fill, new differential cover attachment bolts, silicone sealant is recommended to seal the cover to the axle housing (all included).



**Dana 80**  
Fits: \*Dodge - 94-02 2500 w/ Manual Transmission (NV4500); all 94-02 3500  
\*Ford 99+ F350 & F450 dually Superduty;  
90-98 Superduty  
P/N: 4029805116

This differential cover features 2.5 quart fluid capacity over stock, optimal gear lubrication for easy fluid service without removing cover. This aluminum pan with powder-coated finish has a built-in heat sink for cooler oil. Comes with everything needed for an easy installation.



**14 Bolt 11.5" American Axle**  
Fits: 01+ GM, 03+ Dodge  
P/N: 4029156248

ATS Protector Rear Differential Cover Kit- 14-Bolt, 11.5" Ring Gear American Axle Fits: \*GM 01+ 2500HD & 3500 w/ Full Floating Axle (All Duramax & 8.1L Equipped Trucks) \*Dodge 2003 2500 High Output Diesels; 2003 3500 Standard & High Output; 04-08 2500 & 3500, Standard & High Output Diesels. This differential cover features 2.5 quart fluid capacity over stock, optimal gear lubrication for easy fluid service without removing cover. Comes with everything needed for an easy installation.



**Dana 60, Front, Iron**  
Fits: Ford (Front) - 05+ F250/350/450/550  
P/N: 4029011000

This differential cover is constructed of iron to provide the ultimate in ring gear protection.



**Ford 12-Bolt, 10.25" & 10.5" Ring Gear**  
Fits: \*Ford 86-10 F250, F350, E250, E350 w/ Single Rear Wheel, 2x4 & 4x4 \*Ford 11-19 F250 only  
P/N: 4029003068

This differential cover features 2.5 quart fluid capacity over stock, optimal gear lubrication for easy fluid service without removing cover. This aluminum pan with powder-coated finish has a built-in heat sink for cooler oil. Comes with everything needed for an easy installation.



# ATS BILLET SHAFTS

## ATS BILLET SHAFTS

More power requires more strength and these billet transmission shafts are up to the task. When the motor is spinning hard, the first components to harness this power are the transmission shafts, moving the power through the transmission. This is an immense amount of rotational force, that is being resisted by weight, heavy drivetrain components, and traction held by the tires. With this force being put on the shafts, the stock ones are prone to breaking, leaving you stranded. With the ATS Billet Transmission Shafts, you can rest assured that you have the strongest components running through your transmission, allowing you to transfer every hard earned horsepower your motor can make.



**271/273 Transfer Case Head Gear with extended spline hub**  
P/N: 3044252326

To be used when a clocking ring is installed between the transmission and the Transfer Case. This part replaces the front spline/head gear in the transfer case. The female spline is extended out approximately 1-Inch farther than the stock spline. In many cases can be used on transmission output splines that have been previously worn.



**ATS Billet Input Shaft - 2007.5+ Dodge 68RFE**  
P/N: 3049102326

ATS provides this billet shaft with an unmatched production process where inputs are first machined, then splined and heat treated. ATS furthers quality by executing a finish machining process which ensures clean fitment and improved fatigue resistance.



**Billet Output Shaft, 2 piece, 03+ Dodge 48RE**  
P/N: 3049302272

The theory behind billet shafts is not quite what you may have in mind. The key to success is not to make the shaft "stronger" necessarily, but give it the ability to absorb more torsional load. ATS billet shafts have the ability to rotate further, transmit more torque and more load with out breaking.



**BorgWarner 4446 Transfer Case Head Gear w/ extended spline hub**  
P/N: 3044252380

To be used when a clocking ring is installed between the transmission and the Transfer Case. This part replaces the front spline/head gear in the transfer case. The female spline is extended out approximately 1-Inch farther than the stock spline. In many cases can be used on transmission output splines that have been previously worn.



**Intermediate Shaft, Billet 47/8-RH/E, 1994+**  
P/N: 3049202164

The ATS Billet intermediate shaft is part of the back bone of your Dodge Cummins transmission. It is the first hard part to bring power into the transmission and transmit that power to the wheels. ATS billet shafts allow your truck to transmit more torque and more load with out breaking.



**Input Shaft, Billet 47/8-RH/E, 1994+**  
P/N: 3049102164

At increased power levels, towing weight or in performance applications, the stock input shaft can break or twist. When this occurs, the transmission will lose movement and can damage the converter, pump and transmission. ATS recommends using this billet input with increased power and/or towing capacity/frequency.



**Billet Input Shaft - E4OD, 4R100, 5R110 (recommended over 400hp)**  
P/N: 3049103104

With no dampening or power loss other than the torque converter, the input shaft has a lot to handle. Now add power, weight from a trailer, bigger tires (and is some cases all these things together) and you will be well beyond what that factory shaft was designed for.



**Billet Intermediate Shaft 89-02 E4OD/4R100 (rec. over 700hp)**  
P/N: 3049203104

The theory behind billet shafts is not quite what you may have in mind. The key to success is not to make the shaft "stronger" necessarily, but give it the ability to absorb more torsional load. The way we do this, is by using billet shafts, they have the ability to rotate further with out breaking.



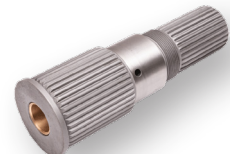
**Billet Intermediate Shaft 89-02 E4OD/4R100 (rec. over 700hp)**  
P/N: 3049203104



**Billet Output Shaft - E4OD/4R100 (Recommended over 850HP)**  
P/N: 3049303104



**Allison Billet Input Shaft**  
P/N: 3049104248



**Billet Output Shaft, 2011+ LML GM LCT-1000, 4x4**  
P/N: 3049314368

# ATS BILLET FLEX PLATES

## ATS BILLET FLEX PLATES



SFI approved billet flex plates from ATS will hold up under the most extreme conditions. ATS Billet Flex Plates are SFI approved, meaning that they stand up to the toughest race application standards. These are crafted out of strong billet steel allowing your transmission to shift faster and harder with out running the risk of breaking the flex plate. The added strain of racing your high horsepower truck is put directly onto the flex plate, giving it much more pressure than the factory settings ever intended. The added strength allows this high-stress situation to be overcome, and transfer all those ponies to the wheels.



P/N: 3059003278

ATS Billet Flex Plate, SFI Certified - 2003-07 Ford 5R110, 6.0L Powerstroke



P/N: 3059003104

ATS Billet Flex Plate, SFI Certified - 1989-2003 Ford E4OD/4R100, 7.3L Powerstroke



P/N: 3059003332

ATS Billet Flex Plate, SFI Certified - 2008-2010 Ford 5R110, 6.4L Powerstroke



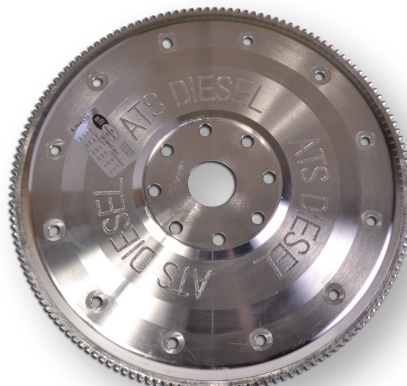
P/N: 3059003368

ATS Billet Flex Plate, SFI Certified - 2011 and Up Ford 6R140, 6.7L Powerstroke



P/N: 3059004248

ATS Billet Flex Plate, SFI Certified - 2001-2016 Allison LCT1000, 6.6L Duramax



P/N: 3059002104

ATS Billet Flex Plate, SFI Certified - 1989-2007 Ram 47/8-RH/E, 6.7L Cummins



P/N: 3059002326

ATS Billet Flex Plate, SFI Certified - 2007.5 and up 68-RFE, 6.7L Cummins



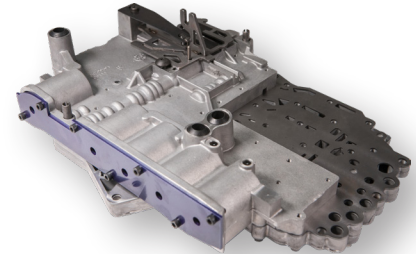
# ATS VALVE BODIES



## RAM 68RFE PERFORMANCE VALVE BODY

The 68-RFE uses a non-synchronous, clutch-to-clutch design. This means that the shifts from gear to gear must be timed perfectly thereby releasing and applying a friction clutch to achieve a flawless shift. Because of the sensitivity of the hydraulic circuits, we heavily modified many areas of the valve body. Hydraulic oil flow is ported to certain clutch packs where additional pressure is needed. The accumulator piston seals have been redesigned to ensure hydraulic pressure integrity. The accumulator plate is made of high-grade material to compensate for the additional pressure that the accumulator pistons and springs exert during heavy power situations. When our Performance Valve Body is installed in a good stock transmission you can expect the transmission to hold on average an additional 100+HP.

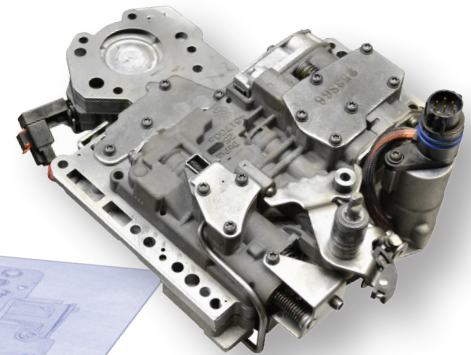
P/N: 3039002326



## RAM 48RE VALVE BODY - TOWING EDITION

ATS has designed an innovative solution in our Dodge Ram transmissions using a unique 'Hydro-balanced Valve and Sleeve'. By altering both the shape and material of the valve itself, as well as placing a hardened sleeve in the valve body's bore the sticking issues are prevented. The valves in the ATS Valve Body perform extremely smoothly and operate as intended after extended use. Utilizing this new design valve and sleeve assembly allows the hydraulic flow to be altered providing a more aggressive line pressure slope while providing quality shifts and Torque converter clutch engagement.

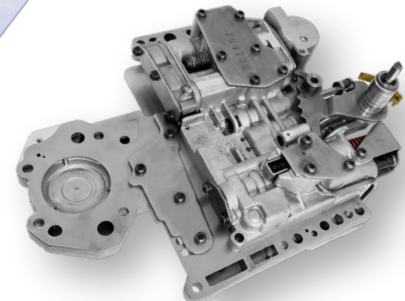
P/N: 3039022272



## RAM 48RE VALVE BODY - RACING EDITION

The throttle valves (TV Valve) in a transmission's valve body control shift timing between gears through the constriction of hydraulic fluid. The TV valve also controls the line pressure required to clamp the clutch pack and band inside the transmission. Until now these valves have been known to have issues sticking inside the bore in the valve body, or wearing out due to friction, which causes malfunction and improper shifts. The concept used by ATS is similar to that of a piston sleeve in an engine. By using high quality, hardened material, the lifespan of the moving component is greatly increased and the issue of a worn bore is eliminated. This technique further raises the functionality and quality level of the ATS Valve Body and Transmission system to an even higher level.

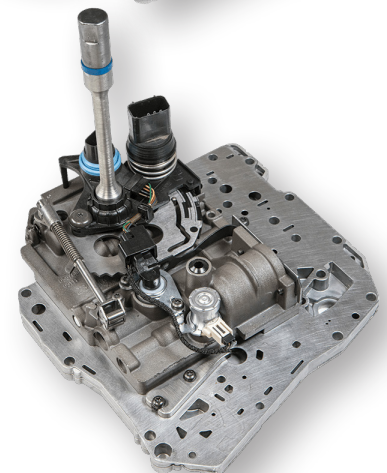
P/N: 3039012272



## JEEP 42RLE PERFORMANCE VALVE BODY

The valve body is considered the nervous system of the transmission, it is responsible for converting the electrical signals from the TCM into hydraulic actions. The 42RLE uses a non-synchronous, clutch-to-clutch design. This means that the shifts from gear to gear must be timed perfectly thereby releasing and applying a friction clutch to achieve a flawless shift. Because of the sensitivity of the hydraulic circuits, we heavily modify many areas of the valve body. Hydraulic oil flow is ported to certain clutch packs where additional pressure is needed. The accumulator piston seals have been redesigned to ensure hydraulic pressure integrity. We increase converter charge pressure and volume to reduce the trans and converter temperature. The ATS 42RLE valve body can be purchased separately and installed in a stock transmission or any aftermarket transmission for increased transmission performance and reliability. On all 2007 to 2011 42RLE transmissions you should also install the Co-Pilot to fully control and increase line pressure in the transmission. Together the ATS Co-Pilot and Valve body work together to provide the ultimate on performance, drive-ability and reliability. The valve body by itself addresses all of the issues except it requires the external electronic control of the Co-Pilot to provide the increased line pressure necessary to increase clutch pack torque capacity.

P/N: 3039008272





TRANSMISSION UPGRADES



**Heavy Duty K2 Drum w/ bronze bushing for AS69RC transmission**  
P/N: 3145052392

Heavy duty bronze bushing replaces factory bearing. Built to outperform whatever you can throw at it.



**47/48 Billet Reverse Servo Piston Kit (aka L/R Accumulator)**  
P/N: 3140142104

This servo has a wide Viton wear ring that prevents the servo from scoring onto the cast aluminum transmission case when applied. The large ring insures the servo stays centered in the bore.



**ATS Billet Intermediate 2nd Gear Accumulator Piston - Ram 47/48RE**  
P/N: 3140092104

This billet aluminum accumulator piston is designed to use double rubber O-ring seals in place of the leaky steel delivery rings that the factory cast version uses.



**ATS 2nd Gear Billet Servo Assembly - Ram 47/48RE**  
P/N: 3140132104

This is one of the most important parts of a good performance build. The 2nd gear band servo is not only used to apply the 2nd gear band but it is used to apply the 3rd gear clutch pack band.



**ATS Billet Band Anchor - Ram 47/48RE**  
P/N: 3147512104

One of two billet parts that apply the 2nd gear band. This parts fits between the Band and the adjustment bolt located in the case.



**ATS Billet Band Strut - Ram 47/48RE**  
P/N: 3147522104

One of two billet parts that apply the 2nd gear band. This parts fits between the Band and the Fulcrum. This part can be changed out and upgraded without removing the transmission or transmission pan.



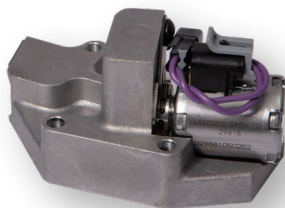
**ATS Billet Direct Piston - Ram 47/48RE**  
P/N: 3140082104

This billet direct piston is internal to the 3rd clutch drum.



**ATS Billet Fulcrum, 4:2 ratio, 2nd Gear Band Lever - Ram 47/48RE**  
P/N: 3141012164

This part is located at the front of the transmission between the 2nd gear servo and the band strut. This part can not be changed out and upgraded without removing the transmission.



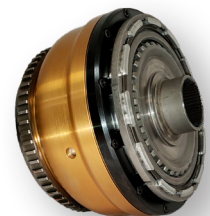
**ATS Governor Pressure Solenoid Block GM Conversion Kit - Ram 48RE**  
P/N: 3031002188



**ATS Billet Filter Coupler - Ram 6.7L CR**  
P/N: 3010212326

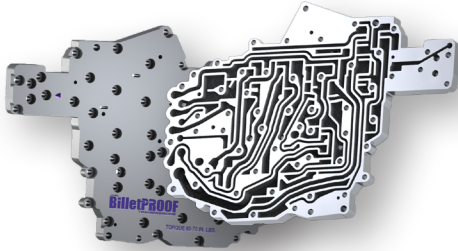


**ATS Line Pressure Test Adapter - Ram 68RFE/545RFE**  
P/N: 3141702326



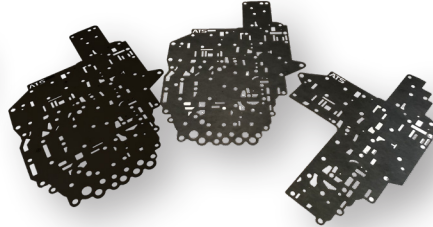
**Heavy Duty Overdrive Clutch Drum - Ram 68RFE**  
P/N: 3145052326





**ATS Valve Body Channel Plate · Dodge Ram 68RFE**

Call for P/N:



**ATS Valve Body Separator Plate w/ Gaskets · Dodge Ram 68RFE**

P/N: 3030312326



**Accumulator Piston Kit · Dodge Ram 68RFE**

Call for P/N:

Transmission Case Brace, external 2-piece girdle used to eliminate 68RFE and 545RFE cracked case failures.



**Low Rev HD One-Way Clutch · Dodge Ram 68RFE**

P/N: 3146152326

This clutch locks in first gear to transfer power to the wheels, all of the power must go through this part in order to attain first gear operation. Our heavy duty low roller clutch design replaces the weak factory Sprag type clutch design with a roller/cam clutch type that will not fail under extreme power.



**ATS 68-RFE Upgraded Pump Package**

P/N: 3149102326

The HD ATS pump is redesigned to withstand increased pressures over stock in excess of 300+PSI by installing a high pressure bushing material for the pump gear to ride in. These modifications ensure reliability and they also allow the pump to build more pressure across the RPM range by reducing hydraulic leaks.



**Accumulator Piston Plate Dodge Ram 68RFE**

P/N: 3030302326



**Case BRACE Transmission Support Brace Dodge Ram 68RFE/545RFE**

P/N: 3141692326

68RFE / 545RFE Transmission Case Brace, external 2-piece girdle used to eliminate 68RFE and 545RFE cracked case failures.



**Thermal Bypass Valve Upgrade Dodge Ram 68RFE/AS69RC**

P/N: 3100052326

The ATS cooler block replaces the faulty design eliminating the bypass valve and ensures 100% of the trans cooler flow is forced through the trans cooler. Includes fittings and billet filter coupler.



**Overdrive/Forward Clutch Hub Dodge Ram 68RFE**

Overdrive P/N: 3270012326 · Forward P/N: 3270022326

Reinforced billet overdrive clutch hub and reinforced billet forward clutch hub.



TRANSMISSION UPGRADES



**Manual Valve**  
Dodge Ram 48RE  
P/N: 3030112104



**Billet Boost Valve**  
Ford 4R100  
P/N: 3140043104

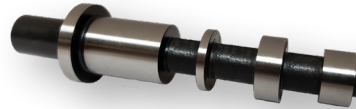


**Filler Tube Repair Kit**  
Ford E4OD/4R100/5R110  
P/N: 3142203104

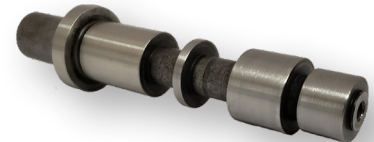
ATS made this two piece tube that utilizes oil resistant o-ring seals that will insure a leak free seal making the repair only a 20 minute replacement vs. a 5 hour repair.



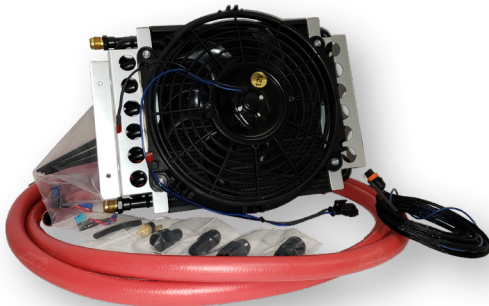
**Cooler Line Fittings**  
GM Allison  
P/N: 3140054248 (2001-2003)  
P/N: 3140054271 (2004+)



**Pressure Regulator Valve**  
GM Allison 6-speed  
P/N: 3030104290



**Pressure Regulator Valve**  
GM Allison 5-speed  
P/N: 3030104248



**Transmission Cooler Kit - Ford, Dodge**  
P/N: 3109002000 (1/2" lines) · 3109003000 (3/8" lines)

Kit includes high-flowing oil cooler, thermostatically controlled electric fan attached, all lines and fittings, thermostat kit, mounting bracket.



**Transmission Cooler Kit - Jeep 42RLE**  
P/N: 3109008320 (3.8L) · 3109008272 (4.0L)

Kit includes high-flowing oil cooler, thermostatically controlled electric fan attached, all lines and fittings, thermostat kit, mounting bracket.



**Aux. Trans. Thermostat - Ford, Dodge**  
P/N: 3109012000 (1/2" lines) · 3109013000 (3/8" lines)

Allows full coolant flow at lower temperature, keeps transmission running at optimal temperatures and provides maximum cooling.



ATS DEEP PANS

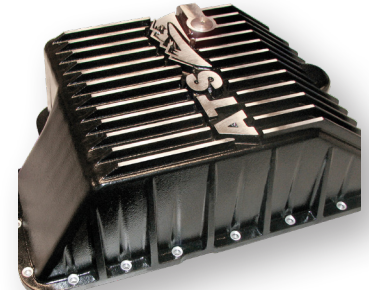
# DeepPANS

ATS Deep Pans add more fluid capacity to your transmission to help keep it cool! Heat is the number one enemy of a transmission and the cooler it runs, the longer it lasts! ATS Deep pans feature a finned design, magnetic drain plug and are tapped for a temperature probe. All pans are powder-coated black with machined ATS logo and fins.

ATS pans come with a gasket, and for some models, a billet block to lower the stock filter.



**ATS Deep Pan**  
Ford 6R140  
P/N: 3019003368



**ATS Deep Pan**  
Ford E4OD/4R100/5R110  
P/N: 3019003104



**ATS Deep Pan**  
Dodge Ram 68RFE  
P/N: 3019002326



**ATS Deep Pan Dodge Ram**  
618, 727, 47RH, 47/48RE  
P/N: 3019002116



**ATS Deep Pan Dodge Ram**  
545RFE, 45RFE  
P/N: 3019009272



**ATS Deep Pan**  
GM Allison LCT1000  
P/N: 3019004248



**ATS Deep Pan**  
Jeep 42RLE  
P/N: 3019008272



**ATS Deep Pan**  
Jeep NAG1/722.6  
P/N: 3019008380



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- Decreased Back Pressure
- Increased Reliability
- Increased Usable Torque Curve

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**5yr/500k**  
on all ATS Transmission Packages

**AURORA**  
TURBO SYSTEMS

**TripleLOK**  
MANIFOLDS

**PulseFLOW**  
MANIFOLDS





## ATS BILLET TRANSMISSIONS

- ATS Extra Deep Transmission Pan
- ATS 5-Star Billet Torque Converter
- Extra Clutch Packs added for strength
- Modified Transmission pump for increased line pressure



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TRANSMISSIONS

**FIVE STAR**  
TORQUE CONVERTER

**DEEPPANS**



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