

TS-SW3002S4  
TS-SW2502S4  
TS-SW2002D2

**1500W** MAX. / NOM. **400W**  
**1200W** MAX. / NOM. **300W**  
**600W** MAX. / NOM. **150W**

## CAR-USE COMPONENT SUBWOOFER

Be sure to read this instruction manual before installing this speaker.

### **⚠WARNING**

The sealed enclosure series subwoofers are capable of reproducing music at extremely loud levels. Caution should be exercised to prevent permanent hearing loss. Additionally, driving with the system at high volume levels could impair your ability to hear emergency vehicles.

### **CAUTION**

• To prevent damage to your speakers please observe the following caution.

• At high volume levels if the music sounds distorted or additional sounds are perceived lower the volume.

• PIONEER recommends that this speaker be used in conjunction with amplifiers whose continuous (RMS) output is lower than the nominal input power of this speaker.

• Since this speaker is continuously used being turned on full blast, temperature of the magnetic circuit rises, avoid touching it directly by hand and placing something near it. If it is heated, it may cause a burn, deformation or damage to peripheral things.

(TS-SW3002S4, TS-SW2502S4)

• If this product is used in free-air conditions (without an enclosure), insufficient damping causes the sound without accuracy and reduces the power handling capability to 1/4 of its usual levels. It may result in permanent damage to the product.

(TS-SW2002D2)

• Never connect only one voice coil of this Dual Voice Coil (DVC) speaker.

• Both voice coils must be connected to the amplifier for correct operation.

### **● APPLICABLE FOR FREE AIR USE**

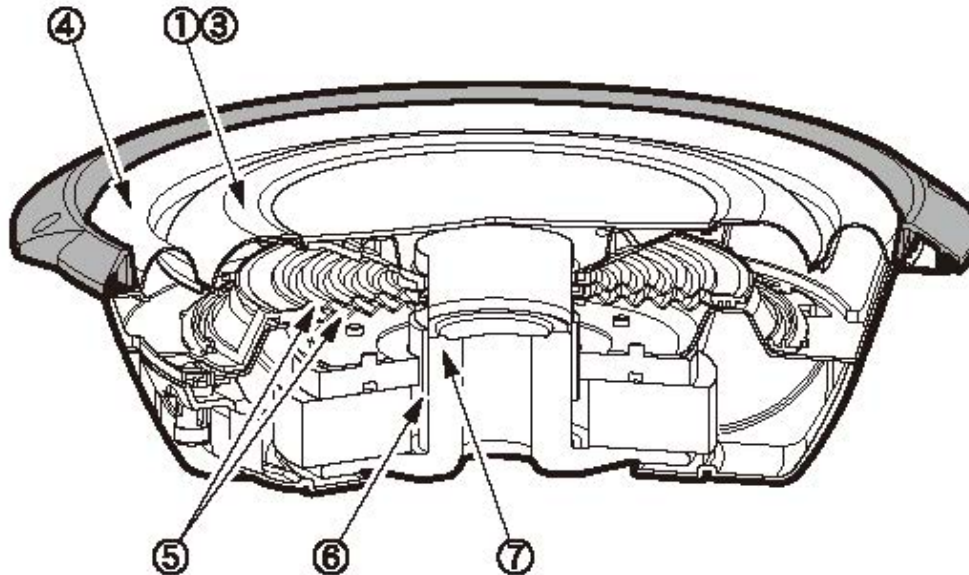
(Only for 2002D2)

The TS-SW2002D2 is also capable for FREE AIR use, for applications such as rear deck mounting in a sedan.

OEM-FIT allows the TS-SW2002D2 shallow subwoofer to fit into many OEM subwoofer location and can be integrated with the OEM amplifier or connected to a more powerful aftermarket amplifier.

- OEM-friendly mounting holes fit a wide variety of OEM subwoofer mounting types.
- Shallow basket design minimizes the need to modify the OEM subwoofer enclosure.
- Dual 2-Ohm voice coil can be wired to match the impedance of most OEM subwoofers.

\* OEM (Original Equipment Manufacturing) = Factory / equipment



## ● FEATURES

1. **OVER SIZED CONE (TS-SW3002S4 TS-SW2502S4)** : The unique oversized cone structure provides greater cone and gasket surface without changing its standard external dimension. This larger cone area allows the subwoofer to produce deeper and powerful bass.
2. **OEM-FIT (TS-SW2002D2)** : TS-SW2002D2 shallow subwoofers with OEM-FIT design can be used for OEM audio system replacements or upgrades.  
\* OEM (Original Equipment Manufacturing) = Facto fit / equipment
3. **MICA REINFORCED IMPP CONE** : This highly rigid cone structure made with Mica injection-molded resin creates a stiff and durable cone, which produces accurate bass with minimal distortion. The bonding process of reinforced pulp to the cone's back side makes / capable of achieving clean and accurate bass response by eliminating excess vibrations.
4. **DUAL LAYER , FIBER REINFORCED ELASTIC POLYMER SURROUND** : Precisely controls the huge power handling and extended excursion, resulting in louder, more controlled bass response with improved durability.
5. **DUAL SPIDER** : Using two dampers provides cone motion control for optimized stiffness ; this stabilizes the excursion and supports the subwoofer's linear movement.
6. **4-LAYER , LONG VOICE COIL DESIGN** : High power and long excursion capability for deeper, louder, more impactful bass.
7. **VENTED AND PROJECTED POLE YOKE DESIGN** : allows for better heat dissipation, increased power handling and greatly improves linearity during large excursions by expanding the magnetic field.

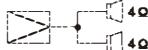
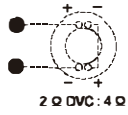

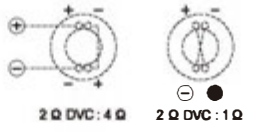

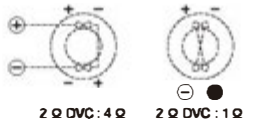
# ● SPECIFICATIONS

Model	Size	Nominal Impedance	Max music power	Nominal impedance	Sensitivity	Frequency response	Max. weight	Displacement
TS-SW3002S4	250mm	400W	1500W	4 Ω	93dB ±1.5dB (in 8Ω, input: 1W)	20 Hz To 125 Hz (-20dB in car, input: 1W)	2030g	1.11 liters
TS-SW2502S4		300W	1200W	4 Ω	91dB ±1.5dB (in 8Ω, input: 1W)	20 Hz To 125 Hz (-20dB in car, input: 1W)	1030g	0.65 liters
TS-SW2002D2	200mm	150W	600W	dual 2 Ω	86dB ±1.5dB (in 8Ω, input: 1W)	20 Hz To 200 Hz (-20dB in car, input: 1W)	840g	0.44 liters

Model	R <sub>vc</sub> (Ω)	L <sub>vc</sub> (mH)	F <sub>s</sub> (Hz)	Q <sub>ms</sub>	Q <sub>es</sub>	Q <sub>ts</sub>	V <sub>as</sub> (liters)	R <sub>ms</sub> (N.S/m)	M <sub>ms</sub> (g)	C <sub>ms</sub> (mN)	Diam (mm)	BL (T.m)	X <sub>max</sub> (mm)
TS-SW3002S4	3	2.27	35	13.95	0.64	0.61	4	4.29	243	8.5×10 <sup>-6</sup>	271	17.0	8.8
TS-SW2502S4	3	1.91	42	12.04	1.06	0.97	18.5	3.79	171	8.2×10 <sup>-6</sup>	225	12.0	6.5
TS-SW2002D2	dual 1.5	1.08(4 Ω) 0.27(1 Ω)	65	5.23	1.20	0.98	3.8	7.08	90	6.6×10 <sup>-6</sup>	160	10.0(4 Ω) 5.0(1 Ω)	2.8

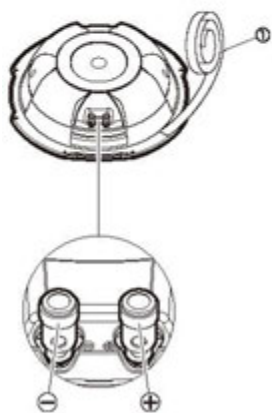
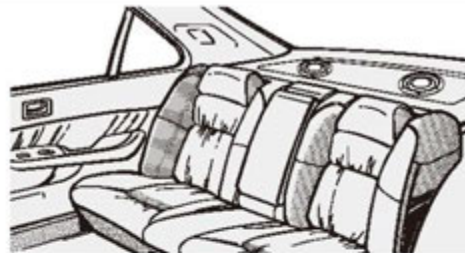
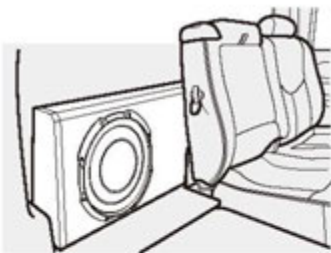
## ● DVC (DUAL VOICE COIL) CONNECTION

Only for TS-SW2002D2 2D2

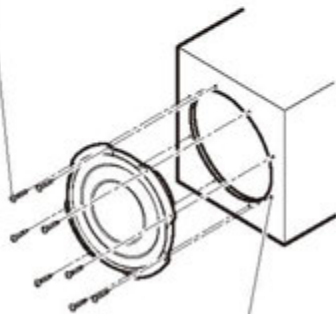
Connection	Speaker wiring	Advantage
2 Ω Bridged mono (Parallel) 	4 Ω Wiring  2 Ω DVC : 4 Ω	Good for higher sensitivity
1 Ω or 4 Ω Stereo 	1 Ω or 4 Ω Wiring  2 Ω DVC : 4 Ω    2 Ω DVC : 1 Ω	Good for higher sensitivity Good for channel separation
1 Ω or 4 Ω Bridged mono 1 Ω oder 4 Ω Überbrücktes mono 1 Ом или 4 Ом 	1 Ω or 4 Ω Wiring  2 Ω DVC : 4 Ω    2 Ω DVC : 1 Ω	Good for higher sensitivity  Notice : Verify that your amplifier can operate in a 1 Ω or 4 Ω mono configuration.

⚠ CAUTION : Never connect only one voice coil of this Dual Voice Coil (DVC) speaker. Both voice coils must be connected to the amplifier for correct operation.

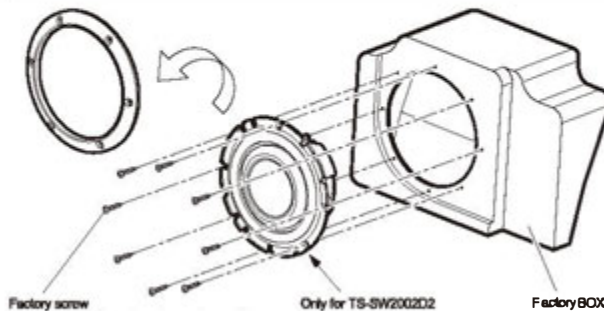
● HOW TO INSTALL



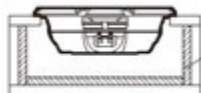
② TS-SW3002S4, TS-SW2502S4 :  $\phi 4 \times 30$   
TS-SW2002D2 :  $\phi 5 \times 30$



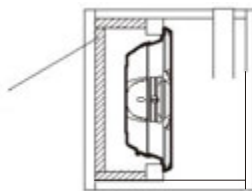
TS-SW3002S4, TS-SW2502S4 :  $\phi 2.5$   
TS-SW2002D2 :  $\phi 3$



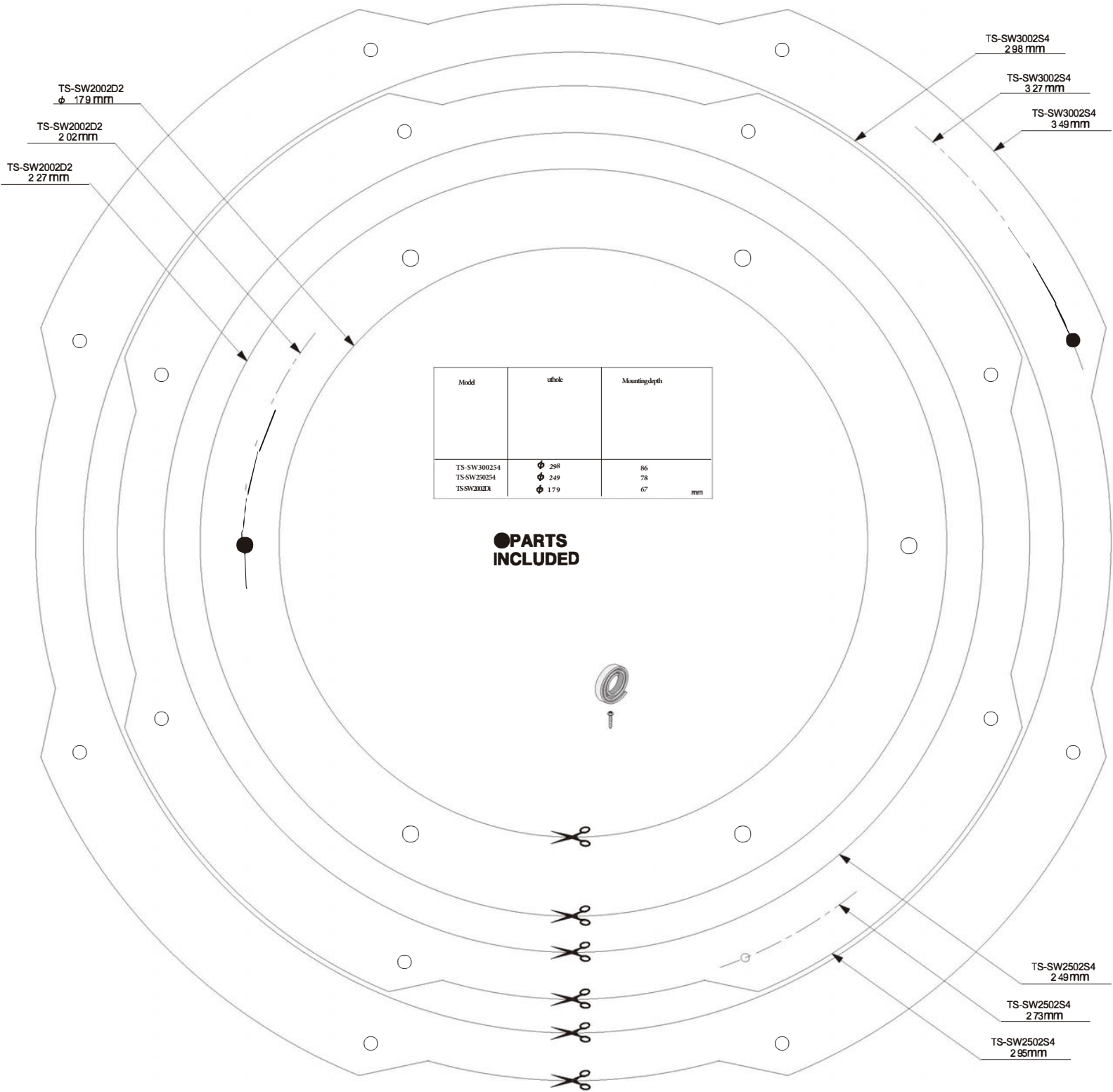
mm



Sound-absorbing material on all the inner surface.



● **TEMP  
LATE**



Model	ut hole	Mounting depth
TS-SW3002S4	φ 298	86
TS-SW2502S4	φ 249	78
TS-SW2002D2	φ 179	67

● **PARTS  
INCLUDED**

