



Automotive Loudspeakers

P-422, P-522, P-622 & P-923 Owner's Manual

GENUINE JBL



Installation of the P-422 speakers as shown in Figures 1a and 1b.

Thank you for purchasing JBL's Power Series™ multi-element automotive loudspeakers. We've organized this manual to make your installation as simple and trouble-free as possible. Please read through it completely before proceeding. If, after having read it, you decide that you would rather leave installation to a professional, consult your JBL Power Series Dealer.

Autosound at its Best

Your JBL Power Series multi-element speakers are built to meet the same rigorous standards of construction and performance that have long established JBL's renowned home and professional speakers.

These speakers incorporate advanced materials and construction especially suited to the unique acoustic environment of modern vehicles. They are engineered to provide excellent dispersion, wide frequency response, and high power handling.

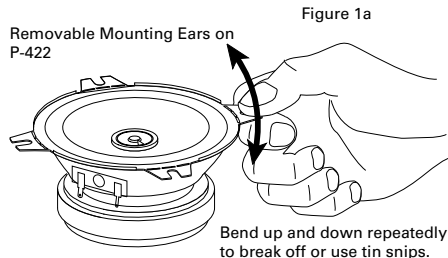


Figure 1a

- Some Toyota installations may require mounting ears to be removed from opposite sides.
- Some European car installations may require all four ears to be removed.

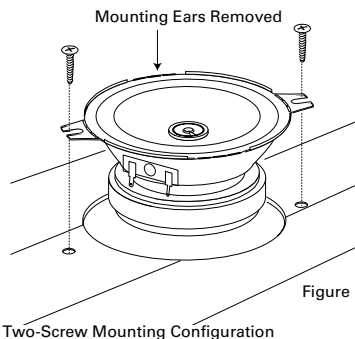


Figure 1b

Typical installation of the P-923, P-522, and P-422 speakers with grilles as shown in Figure 2.

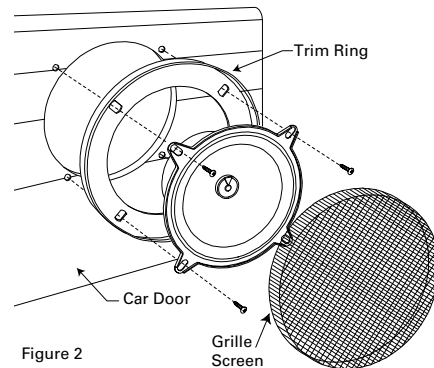
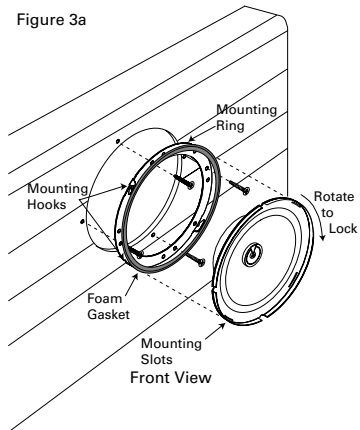


Figure 2

Figure 3a



Installation of the P-622 speakers with the Intermount II™ (pat. pend.) mounting system as shown in Figures 3a, 3b, 3c.

Figure 3c

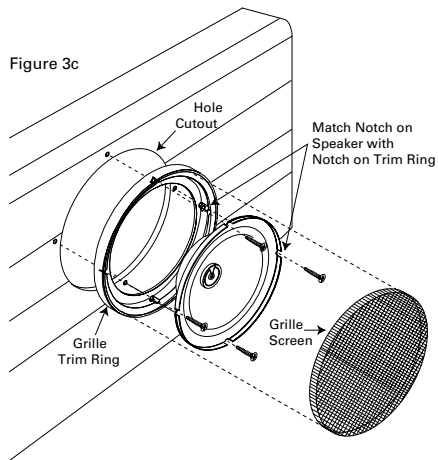


Figure 3b

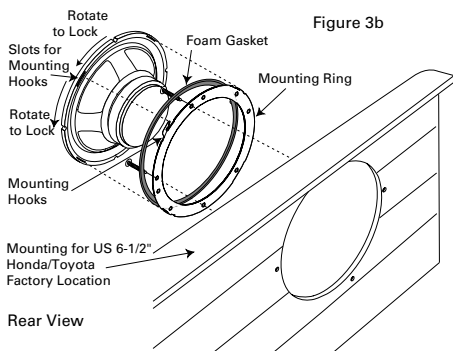
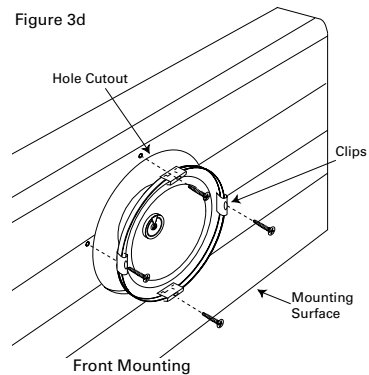
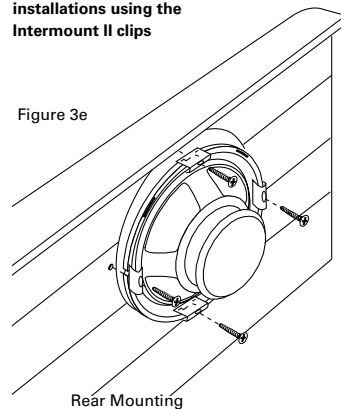


Figure 3d



Mounting the P-622 in 165/170mm DIN (European) installations using the Intermount II clips

Figure 3e



Speaker Placement

Because of the Power Series speakers' versatile mounting options, there are many placement options that will achieve excellent sound quality in your vehicle. Please consider the following to help you get the most from your speakers.

1. The most spacious stereo image is achieved when the left and right speakers are placed as far apart as possible.
2. The best center image will be achieved when the distance from the left speaker and the right speaker are as equal as possible from your listening position. This is most easily achieved by placing the speakers as far forward as possible.
3. Treble is directional in nature. This means that high frequencies are reduced as you move off the tweeter's axis. If possible, rotate the speakers so that the angle of the tweeter points across the car to the listener on the opposite side. This will make each listener slightly off-axis to the tweeter that is closest to that listener, but on axis to the most distant speaker, which helps compensate for the fact that each listener is always closer to one speaker than to the other (see Figures 4a and 4b). Choosing mounting locations that satisfy all of the above criteria will provide the most satisfying performance.

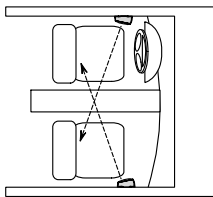


Figure 4a

Aim Triangle of Tweeter Diffuser
Toward Listener

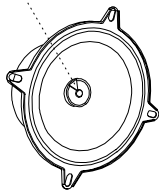


Figure 4b

System Design

A more advanced system design can be achieved by adding a Decade™ GT, Power, GTi, or equivalent subwoofer to your Power Series speakers. In this case the Power Series multi-element speakers will be used as high and midbass frequency drivers and should have their extremely low frequencies blocked by electrical means. Active or passive crossovers can be used in order to achieve the best system fidelity and widest dynamic range. A crossover frequency of between 80Hz and 120Hz is recommended for the best imaging and widest dynamic range.

Installation Warnings and Tips

- Be careful not to cut or drill into fuel tanks, fuel lines, brake or hydraulic lines, vacuum lines or electrical wiring when working on your vehicle. Inspect behind panels before you cut or drill.
 - Make sure that the speaker will physically fit in the mounting location. If door mounting, check for adequate clearance with the window in both closed and open positions as well as for interference with the window crank and power window mechanism. If mounting elsewhere, check for clearance around rear deck torsion bars, glove box or other structural elements.
 - Do not mount speakers where they will get wet.
 - Make sure that it will be easy to run connecting wires to the speakers. Trace speaker wire paths before you undertake mounting.
 - Always disconnect the ground wire from the battery before doing any work on the vehicle.
- CAUTION:** Fuel tanks are located directly beneath the rear deck in some cars. Check for adequate speaker basket clearance before considering this location!

A Note on Power Handling

As a result of their high efficiency, all JBL loudspeakers will produce reasonable volume levels in the automotive environment using very little amplifier power. However, the use of a small amplifier to attain very high volume levels could lead to overdriving the amplifier. This will generate high distortion levels which can easily damage loudspeakers, even if the rated power of the amplifier is below the rated maximum power handling of the loudspeaker!

As a general rule, do not turn up the volume control past the point where you hear distortion in the form of either signal distortion from an overdriven amplifier or mechanical noise from an overstressed speaker.

For the best performance and speaker reliability, you should select an amplifier with an output rating slightly higher than the maximum power likely to be used to generate the desired volume levels. This margin of reserve power will ensure that the amplifier will not attempt to deliver more power than its design allows.

WARNING: Playing loud music over 120dB can permanently damage your hearing. The maximum volume levels achievable with JBL speakers combined with high power amplification may exceed safe levels for extended listening. When listening at high volume levels, always use hearing protection or turn the volume down!

Specifications

Multi-Element Loudspeakers

With Injection-Molded Titanium-Composite Woofer Cones and Butyl-Rubber Surrounds

	P-923 6" x 9" 3-Way	P-622 6-1/2" 2-Way	P-522 5-1/4" 2-Way	P-422 4" 2-Way
Super Tweeter	3/4" Solid-state Titanium Composite			
Tweeter	Titanium- Composite Balanced Dome	Titanium- Composite Balanced Dome	Titanium- Composite Balanced Dome	Titanium- Composite Balanced Dome
Tweeter Size	1-1/4"	3/4"	3/4"	3/4"
Speaker Impedance	4 Ohms	4 Ohms	4 Ohms	4 Ohms
Recommended Amplifier				
Power Range	5 – 250W RMS	5 – 175W RMS	5 – 150W RMS	5 – 120W RMS
Frequency Response	25Hz – 22kHz	45Hz – 22kHz	55Hz – 22kHz	65Hz – 22kHz
Sensitivity	92dB	91dB	90dB	90dB
Mounting Depth				
Drop-in	3-1/16" (78mm)	2-3/16" (56mm)	2-3/8" (61mm)	1-7/8" (48mm)

Service

Should your loudspeaker ever need service, return it to the JBL dealer from whom it was purchased. If for some reason this is impractical, call 800-336-4JBL for your nearest warranty station. Do not return products to the JBL factory without prior authorization.

General Care

The loudspeaker grilles may be cleaned with a slightly damp cloth.

Do not use any cleaners or solvents on the grilles or the speaker drivers.

Safety Note

To avoid the dangers of accidental suffocation, please properly dispose of the plastic bag used in the speaker packaging.

Declaration of Conformity



We, JBL Europe A/S
Kongevejen 194B
DK-3460 Birkerød
DENMARK

declare in own responsibility, that the products
described in this owner's manual are in compliance
with technical standards:

EN 50 081-1/1992

EN 50 082-1/3.1995

A handwritten signature in black ink, appearing to read 'Steen Michaelsen'.

Steen Michaelsen
JBL Europe A/S
Birkerød, DENMARK. 1/98



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