

GRAND TOURING® SERIES



AUTOMOTIVE LOUDSPEAKERS

GTO302, GTO402, GTO502, GTO602, GTO603, GTO572, GTO573, GTO962, GTO963, GTO803, GTO462, GTO462d & GTO4102 Owner's Manual

Specifications

Multi-Element Loudspeakers With Poly-Tex Copolymer Woofer Cones and Butyl-Rubber Surround

	GTO963 6" x 9" 3-way	GTO962 6" x 9" 2-way	GTO602 6-1/2" 2-way	GTO603 6-1/2" 3-way	GTO572 5" x 7" 2-way	GTO573 5" x 7" 3-way	GTO803 8" 3-way
Super Tweeter	Solid-state Titanium Composite			Solid-state Titanium Composite		Solid-state Titanium Composite	Solid-state Titanium Composite
Tweeter	Titanium- Composite Cone	Titanium- Composite Cone	Titanium- Composite Cone	Titanium- Composite Cone	Titanium- Composite Cone	Titanium- Composite Cone	Titanium- Composite Cone
Tweeter Size	1-3/4"	1-3/4"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-3/4"
Speaker Impedance	4 Ohms	4 Ohms	4 Ohms	4 Ohms	4 Ohms	4 Ohms	4 Ohms
Recommended Amplifier Power Range	5 – 175W RMS	5 – 150W RMS	5 – 125W RMS	5 – 125W RMS	5 – 150W RMS	5 – 150W RMS	5 – 175W RMS
Frequency Response	45Hz – 21kHz	45Hz – 21kHz	55Hz – 21kHz	55Hz – 21kHz	50Hz – 21kHz	50Hz- 21kHz	35Hz – 21kHz
Sensitivity	92dB	91dB	91dB	91dB	91dB	91dB	92dB
Mounting Depth Drop-in Bottom Mount	3-1/16" (78mm) 3-1/2" (89mm)	3-1/16" (78mm) 3-1/2" (89mm)	1-13/16" (46mm) 2-1/4" (57mm)	1-13/16" (46mm) 2-1/4" (57mm)	2-5/16" (59mm) 2-5/8" (67mm)	2-5/16" (59mm) 2-5/8" (67mm)	3-3/8" (86mm) 3-5/8" (93mm)
	GTO502 5-1/4" 2-way	GTO402 4" 2-way	GTO462 4" x 6" 2-way	GTO462d 4" x 6" 2-way	GTO4102 4" x 10" 2-way	GTO302 3-1/2" 2-way	
Tweeter	Titanium- Composite Cone	Titanium- Composite Cone	Titanium- Composite Cone	Titanium- Composite Cone	Titanium- Composite Cone	Titanium-Composite Balanced Dome	
Tweeter Size	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1"	
Speaker Impedance	4 Ohms	4 Ohms	4 Ohms	4 Ohms	4 Ohms	4 Ohms	
Recommended Amplifier Power Range	5 – 90W RMS	5 – 75W RMS	5 – 60W RMS	5 – 60W RMS	5 – 150W RMS	5 – 60W RMS	
Frequency Response	65Hz – 21kHz	85Hz – 21kHz	75Hz – 21kHz	75Hz – 21kHz	55Hz – 21kHz	100Hz – 21kHz	
Sensitivity	90dB	90dB	92dB	92dB	93dB	90dB	
Mounting Depth Drop-in Bottom Mount	2-3/8" (61mm) 2-1/2" (64mm)	1-7/8" (48mm) 2" (51mm)	1-7/8" (48mm) 1-15/16" (50mm)	1-7/8" (48mm) 1-15/16" (50mm)	2-3/8" (60mm) 2-3/4" (70mm)	1-1/2" (38mm) 1-5/8" (45mm)	



Thank you for purchasing JBL's Grand Touring 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 Grand Touring Dealer.

Autosound at its Best

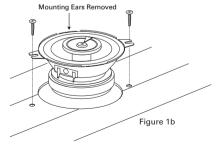
Your JBL GT Series multi-element speakers are built to meet the same rigorous standards of construction and performance that have long established JBL's renowned home and professional speakers.

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.

Installation of the GTO402 speakers as shown in Figures 1a and 1b.

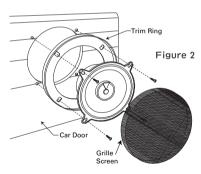


- Some Toyota installations may require mounting ears to be removed from opposite sides.
- Some European car installations may require all four ears to be removed.



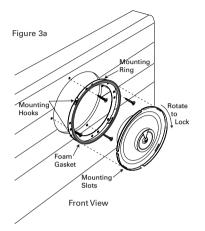
Two-Screw Mounting Configuration

Typical installation of the GT0962, 803, 963, 502, and 402 speakers with grilles as shown in Figure 2.

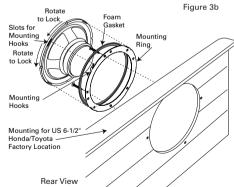


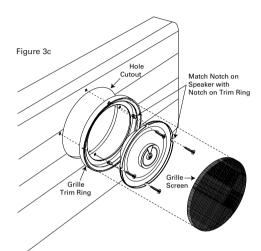
Note: The GTO462, 462d, 572, 573, 4102, and 302 are designed for direct replacement of factory speakers. Therefore they do not contain the grilles and trim ring shown in Figure 2.

Installation of these models simply entails reversing the steps taken to remove the original speakers.



Installation of the 6-1/2" speakers as shown in Figures 3a, b, c.





Custom Door Mounting with Grille Screw Patterns Fit European 170mm Mounting Holes

Speaker Placement

Because of the GT Series speakers' versatile mounting options, there are many placement options which 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 wide 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, angle the speakers to be pointed 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 Figure 4). Choosing mounting locations which satisfy all of the above criteria will provide the most satisfying

performance.

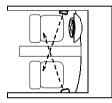


Figure 4

System Design

A more advanced system design can be achieved by adding a GT, GTX, GTI, or equivalent subwoofer to your GT series speakers. In this case the GT series multielement 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!

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 it down!

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 DFNMARK

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

Steen Michaelse

Steen Michaelsen JBL Europe A/S Birkerød. DENMARK. 2/98



JBL Consumer Products 250 Crossways Park Drive Woodbury, NY 11797

8500 Balboa Blvd. Northridge, CA 91329 800-336-4JBL (4525) www.jbl.com

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