

JBL

GRAND TOURING SERIES



AUTOMOTIVE COMPONENT SYSTEMS

GT4.0c, GT5.0c, GT6.0c OWNER'S MANUAL

GENUINE JBL



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Thank you for purchasing a JBL Grand Touring 2-way Component System. 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 Component System is built to meet the same rigorous standards of construction and performance that have long established JBL's renowned home and professional speaker systems.

Your Component System has been designed using a combination of technologies that bring high value to high performance. The tweeter dome used in your Component System tweeter is manufactured from a proprietary material known as Titanium Composite. This material combines the control and damping of an advanced polymer with the reinforcing stiffness of vapor-deposited titanium to prevent breakup at high levels.

Similarly, the woofer cones are manufactured with a proprietary copolymer which is reinforced with graphite in order to deliver the clarity and effortless power that have made JBL famous. The pattern molded into this material further stiffens it, reducing breakup at high listening levels. This cone is suspended by a heavy Butyl rubber surround, which serves to absorb any remaining cone resonances for the clearest, most articulate reproduction of voices and other mid-range sounds. As a bonus, the Butyl rubber surround is impervious to temperature extremes and humidity, making it ideal for automotive applications.

By following the installation recommendations and suggestions included in this manual, you will be assured of many years of trouble-free enjoyment from your Grand Touring series loudspeakers.

Component System Parts

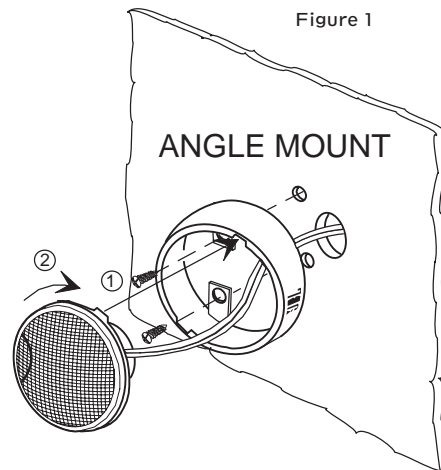
Your new Component System consists of the GTC04 neodymium magnet tweeter and either a 4", 5-1/4", or 6-1/2" midwoofer. Both the GTC04 and the midwoofer have high-quality passive crossover parts already built into them. Figure 2 is an illustration of the proper wiring procedure of the Component System.

Important Paperwork

Before proceeding, be sure to put the sales receipt from your JBL Component System purchase in a safe place. It is necessary to validate your Limited Warranty. Having access to the receipt is also valuable for insurance purposes and when it comes time to resell your vehicle.

Tweeter Installation

The GTC04 has been supplied with both Angle and Flush mounting brackets. Figures 1 and 2 show the proper way to flush- and angle-mount the GTC04. The mounting hole diameter for the flush-mount frame is 1-3/4".



- ① Line up tab with slot on bracket
- ② Push tweeter into bracket and turn clockwise

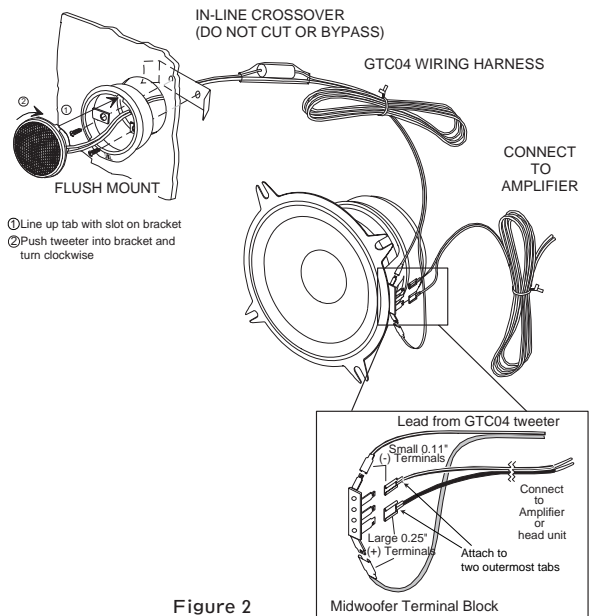


Figure 2

Typical installation of the GT4.0c and GT5.0c woofers with grilles as shown in Figure 2a.

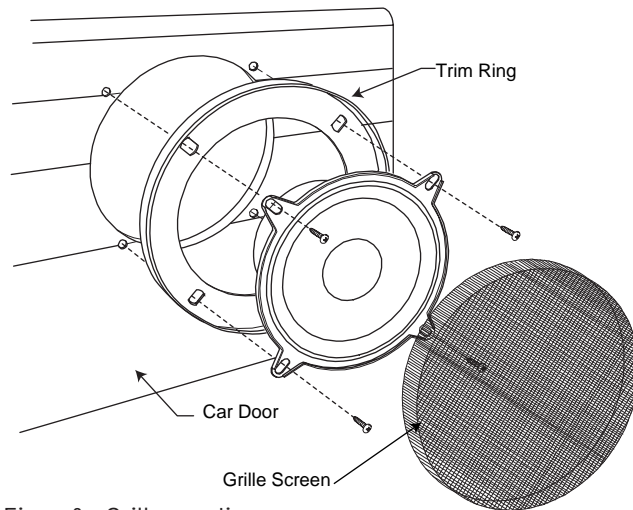


Figure 2a. Grille mounting

Tweeter Output Level

The GTC04 is a very efficient tweeter. If there is a need to lower the tweeter output level, a pair of 4 ohm / 5 watt resistors can be connected in series with the GTC04 as shown in Figure 3. To avoid short circuits, make sure that heat-shrink tubing or electrical tape is used to cover all exposed wiring. The in-line crossover acts as a

high-pass filter as well as a protection device that keeps the tweeter from being over-exerted by low frequencies that it was not designed to reproduce. **Under normal circumstances this crossover should not be bypassed or removed for any reason. Bypass the installed capacitor only when using an outboard active crossover or a custom-built passive crossover set above 5kHz.**

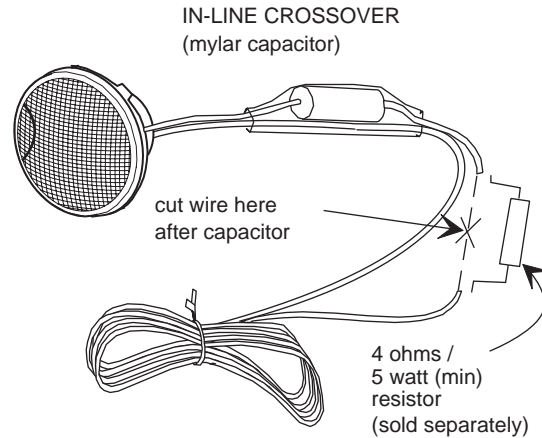
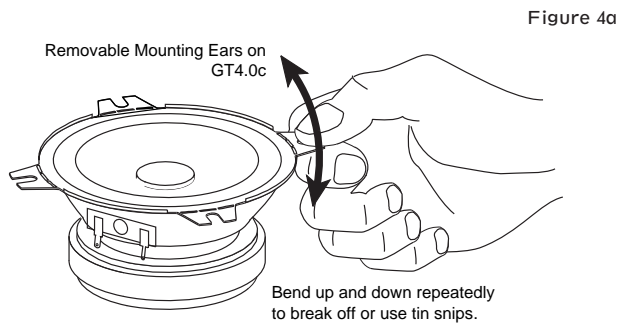


Figure 3

Installation of the GT4.0c woofer as shown in Figures 4a and 4b.



- 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.

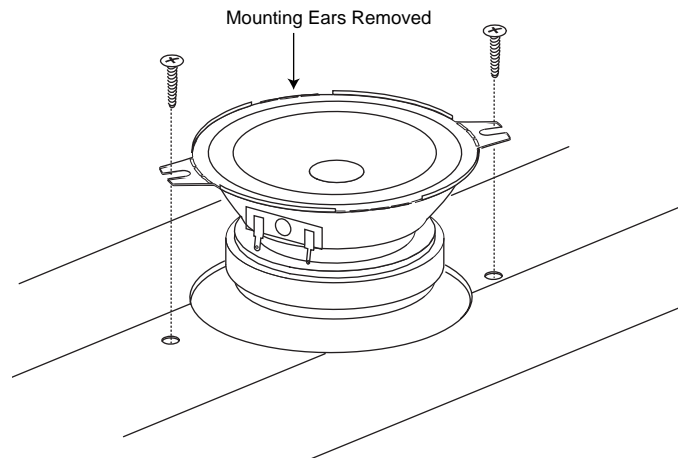
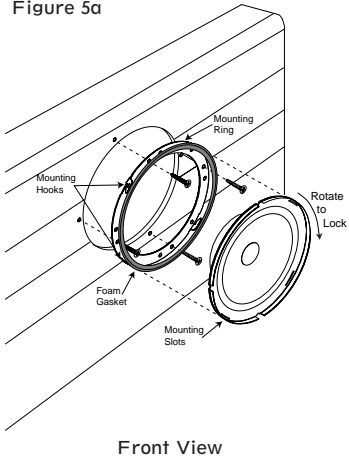


Figure 5a



Front View

Installation of the GT6.0c woofer with the Intermount II (pat. pend.) mounting system is shown in Figures 5a, b, c.

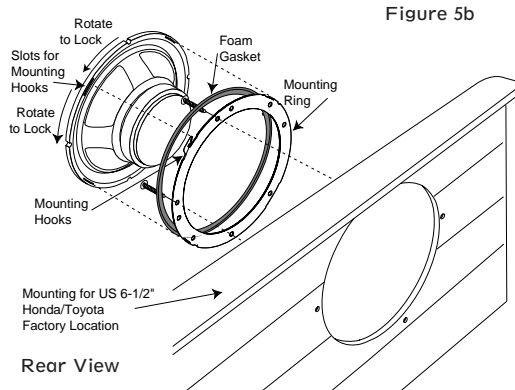
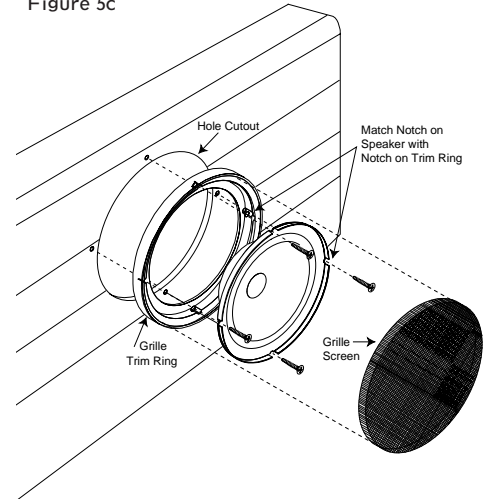


Figure 5b

Rear View

Figure 5c



Custom Door Mounting with Grille
Screw Patterns Fit DIN (European)
165/170mm Mounting Holes

Figure 5d

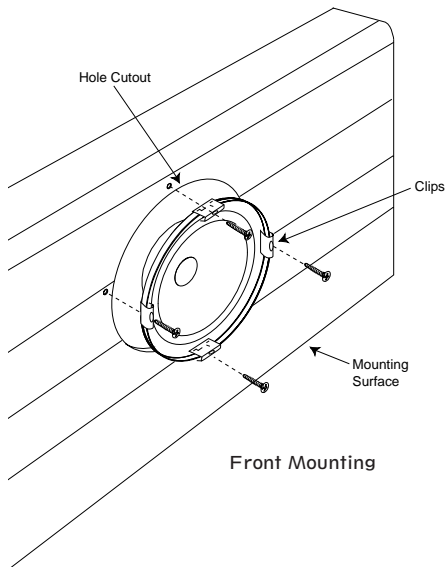
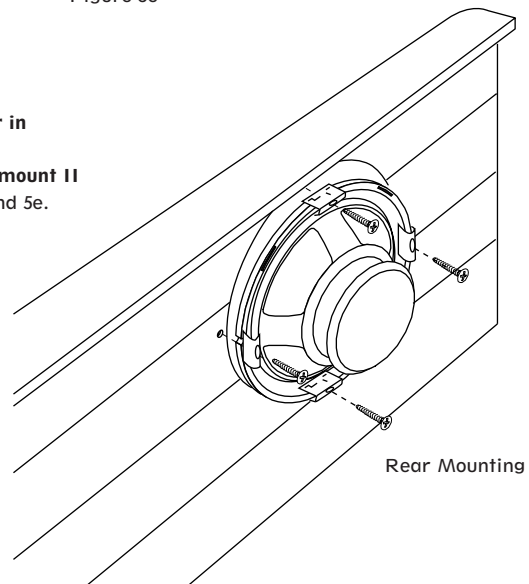


Figure 5e



**Mounting the GT6.0c woofer in
165/170mm DIN (European)
installations using the Intermount II
clips shown in Figures 5d and 5e.**

Component Placement

Because of the JBL Component System's small size and extremely versatile mounting options, there are an almost infinite number of placement options to achieve excellent sound quality in any vehicle. Please consider the following statements to help you get the most from your system.

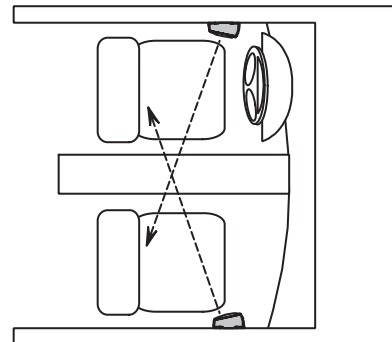
1. The most spacious stereo image is achieved when the left and right speaker systems are placed as wide apart as possible.

2. The best center image will be achieved when the distance from the left speaker and the right speakers 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. The angle mounts will allow the GTC04 tweeters 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, which helps to compensate for the fact that the listener is always closer to one tweeter than to the other (see Figure 6).

The best system integration is achieved when the tweeter is mounted close to the midwoofer speaker. This helps smooth the transition from the midrange and tweeter crossover point. Choosing mounting locations which satisfy all of the above criteria will provide the most satisfying performance.

Figure 6



System Design

There are a variety of system options available with the Component System. The simplest configuration is to use them full range with their built-in passive crossovers by connecting them to the output of a head unit or an amplifier (Figures 7 and 8).

If you want to build your system using active (electronic) crossovers, with separate amplifiers to drive the tweeter and midwoofers, you can bypass the capacitor on the tweeter and the coil on the midwoofer (Figure 9). A more advanced system design can be achieved by adding a GT, GTX, GTi, or equivalent subwoofer to your component system. In this case the component system 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. Crossover frequency recommendations are given in the Specifications.

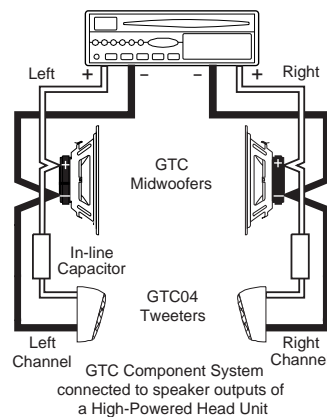


Figure 7

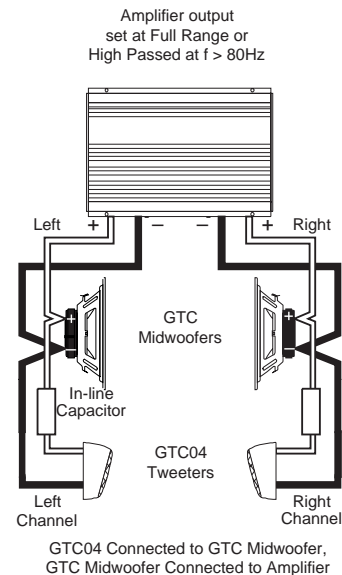


Figure 8

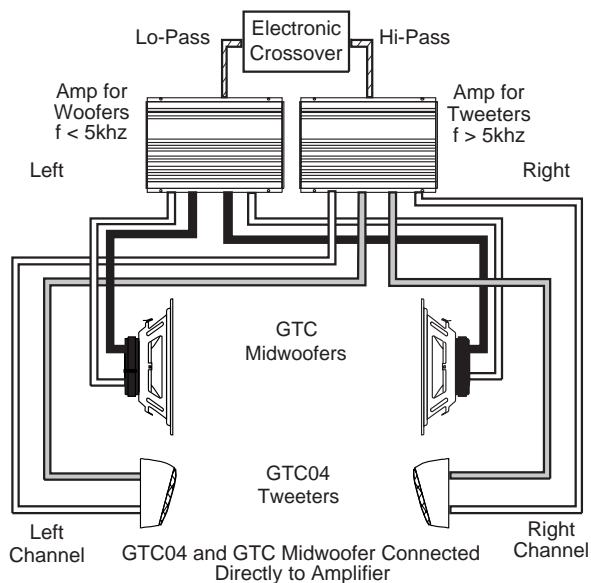


Figure 9

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 midwoofer will physically fit in the mounting location. If door mounting, check for adequate clearance with the window in both rolled-up and rolled-down positions as well as for interference with 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 water may splash on the cones.
 - 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 system reliability, you should select an amplifier with an output rating greater than the maximum power likely to be used to generate the desired volume levels.

If you want your system “Loud + Clear,” we suggest that you step up to a JBL power amplifier which has an RMS power rating equal to, but not exceeding the Maximum Recommended Amplifier Power listed in the specifications of your specific JBL speaker. This margin of reserve power will ensure that the amplifier will not attempt to deliver more power than its design allows. Your dealer will be happy to point out which high power JBL amplifiers are optimum for your application and listening habits.

Following these guidelines will provide virtually distortion-free sound reproduction and long loudspeaker life.

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

Specifications

Component Systems

Model	GT6.0c	GT5.0c	GT4.0c
	Grand Touring Automotive 6-1/2" 2-way Component System	Grand Touring Automotive 5-1/4" 2-way Component System	Grand Touring Automotive 4" 2-way Component System
	1" Titanium Composite Balanced-Drive Neodymium Magnet Tweeter with 1/2" Dome. Surface and Flush Mounting Brackets Supplied	1" Titanium Composite Balanced-Drive Neodymium Magnet Tweeter with 1/2" Dome. Surface and Flush Mounting Brackets Supplied	1" Titanium Composite Balanced-Drive Neodymium Magnet Tweeter with 1/2" Dome. Surface and Flush Mounting Brackets Supplied
	Graphite-Reinforced Polytex Woofer Cone with Butyl Rubber Surround	Graphite-Reinforced Polytex Woofer Cone with Butyl Rubber Surround	Graphite-Reinforced Polytex Woofer Cone with Butyl Rubber Surround
Speaker Impedance	4 Ohms	4 Ohms	4 Ohms
Recommended Amplifier Power Range	5 – 125 Watts RMS	5 – 110 Watts RMS	5 – 100 Watts RMS
Frequency Response	50Hz – 21kHz	60Hz – 21kHz	70Hz – 21kHz
Sensitivity	91dB	90dB	90dB
Mounting Depth			
Drop In:	2-3/16"	2-3/8"	1-3/8"
Bottom Mount:	2-9/16"	2-1/2"	2"

Warranty Terms: 1 Year Transferable Limited Warranty / 2 Year Extended Transferable Limited Warranty (USA Only)

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This is an important document.

Attach your bill of sale to this page and keep it in a safe place.

Your bill of sale is your warranty.

The JBL warranty remains in effect for one year from the date of the first consumer purchase unless installed by an authorized JBL dealer. Installation by an authorized JBL dealer will extend the warranty to a period of two years.

Who is Protected by this Warranty

The JBL warranty protects the original owner and all subsequent owners providing that the JBL product was purchased from an authorized dealer in the United States or purchased by military personnel from an authorized military outlet. **A copy of the original dated bill of sale must be presented whenever warranty service is required.**

What is Covered by this Warranty

Except as specified below, the JBL warranty covers all defects in material and workmanship. The following are not covered: Damage caused by accident, misuse, abuse, product modification or neglect; damage occurring during shipment; damage from failure to follow instructions contained in the instruction manual; damage resulting from the performance of repairs by someone not authorized by JBL; damage caused by installation of parts that do not conform to JBL specifications; units used for commercial or business use; any claims based on misrepresentations by the seller; products sold on an "as-is" or final sale basis; or the cost of installing, removing, or reinstalling the unit. JBL's liability is limited to the repair or replacement, at our option, of any defective product and shall not

include incidental or consequential damages. JBL reserves the right to replace a discontinued model with a comparable model. Any replacement units or parts may be new or rebuilt.

To Obtain Warranty Service

If you require warranty service, please return the product to your dealer. If this is not possible and you live in the United States, please call 1-800-336-4JBL, for information on how to obtain service or replacement. If purchased outside the United States, contact your local dealer for repair or replacement.

Do Not Return Products to the JBL Factory without Authorization.

They will be Returned Unopened.

You are responsible for transporting your product for repair or replacement. JBL will pay reasonable return charges for delivery to any location in the United States if the repair or replacement is covered under the warranty.

Correspondence with JBL should be addressed to: JBL Customer Service, 80 Crossways Park West, Woodbury, NY 11797 or fax us at 516-496-0812. Outside the United States, please contact your local distributor.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above may not apply to you.

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. 5/96



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8500 Balboa Blvd.
Northridge, CA 91329

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H A Harman International Company

Part No. GT4050600M
Made in China

