

Thank you for choosing **PPI** audio epuipment. Now, HANG ON! **PPI** products are engineered and manufactured to deliver a wild ride of performance, sound quality, and reliability. This **PPI** product reflects our commitment to offer you versatility and quality for years of incredible power and listening enjoyment!

SERVICE

Do not attempt to service **PPI** products yourself. Performing exploratory surgery on your audio equipment yourself will void the warranty. All parts of your **PPI** gear have been built to our specifications. These parts are not made available to any unauthorized **PPI** dealer nor are they for sale. Our goal is to make sure that your **PPI** product will always perform as good as the day it was purchased. Contact your authorized **PPI** dealer about obtaining any warranty service through **PPI**. (See Warranty inside back cover.)

CAUTION!

The extended use of a high powered audio system may result in hearing loss or damage. While **PPI** systems are capable of "Concert Level" volumes, they are also designed for you to enjoy at more reasonable levels all of the creative expressions made by musicians. Please stay seated while driving and observe all local sound ordinances.





Please read this entire manual before beginning your installation. If you have questions or do not feel that your installation skills are up to the challenge of installing your new speakers yourself, refer to the authorized *PPI* retailer that you purchased the speakers from.

Your speakers incorporate some or all of the following features:

- Woven Carbon Fiber Woofer Cones This rigid and light material provides powerful bass and rich midrange without distortion and cone breakup
- Santoprene Rubber Woofer Surrounds & Flat Spiders -Provides low distortion through the full range of speaker cone motion
- Titanium Tweeter Domes Will not distort even when driven with large amounts of power
- Composite Tweeter Surrounds Eliminates ringing that can occur with metal dome tweeters while controlling dome motion
- Neodymium Tweeter Magnets Greater magnetic strength in a smaller package
- Swivel Tweeter Mounts Allows you to focus the acoustical energy for better imaging
- Flush or surface mount tweeters Allows mounting flexibility in any installation without an additional hardware purchase
- Two way Crossover Our crossover accurately divides the audio into the high and low frequencies used by the tweeters and woofers.

 Also, with the -3db switch the tweeter mid level can be adjusted to your taste.
- Acoustically Transparent Speaker Grills Protects the speakers without degrading the sound
- Gold Plated Speaker Terminals Provides a corrosion free high integrity connention
- Professional Mounting Hardware, including Speaker Cable



Contents of the PPI series component system include:

- 1 pair of woofers
- 1 pair of tweeters
- 1 pair of passive crossovers
- 1 pair of 2 piece speaker grilles with adhesive
- 2 pair of stick-on logos for speaker grilles and
- 2 pairs of 2 conductor speaker cable with push on speaker terminals
- 12 mounting screws for woofers and crossover
- 12 speed clips for woofers and crossover
- 1 pair of tweeter surface mount plates with appropriate hardware
- 1 pair of tweeter flush mount cups with appropriate hardware



PPI4.2

Woofer Size 4 inch Tweeter Size 19 mm Swivel Tweeter Yes Surface and Flush Mounts Yes Tweeter Cup Diameter (for flush mount) 2.04 inches 80 Watts Maximum power handling Nominal power handling 40 Watts Frequency Response 70 Hz - 22 kHz Crossover Slope 12 dB/Octave Efficiency @ 1W/1M 90 dB Xmax 1.5 mm Woofer Voice Coil Diameter 1 inch Woofer Magnet Weight 8 oz Impedance 4 ohms Resonant Frequency 134 Hz Voice Coil Resistance 3.8 ohms Woofer Mounting Depth 1 7/8 in







PPI5.2

Woofer Size 5.25 inch Tweeter Size 19 mm Swivel Tweeter Yes Surface and Flush Mounts Yes Tweeter Cup Diameter (for flush mount) 2.04 inches Maximum power handling 90 Watts Nominal power handling 45 Watts Frequency Response 60 Hz - 22 kHz Crossover Slope 12 dB/Octave Efficiency @ 1W/1M 88 dB Xmax 2.5 mm Woofer Voice Coil Diameter 1 inch Woofer Magnet Weight 10 oz Impedance 4 ohms Resonant Frequency 105 Hz Voice Coil Resistance 3.9 ohms Woofer Mounting Depth 2 3/8 in







PPI6.2

6.5 inch Woofer Size Tweeter Size 19 mm Swivel Tweeter Yes Surface and Flush Mounts Yes Tweeter cup Diameter (for flush mount) 2.04 inches Maximum power handling 100 Watts Nominal power handling 50 Watts 40 Hz - 21 kHz Frequency Response Crossover Slope 12 dB/Octave 91 dB Efficiency @ 1W/1M **Xmax** 3 mm Woofer Voice Coil Diameter 1 inch Woofer Magnet Weight 13 oz Impedance 4 ohms Resonant Frequency 65 Hz Voice Coil Resistance 3.8 ohms Woofer Mounting Depth 2 13/16 in





The installation of your *PPI* component system should be relatively simple, especially if you are replacing factory speakers of the same size. However, if you are installing your speakers where there are not any currently installed or if you are planning to install speakers larger than the factory speakers, the process will be more difficult. If this is case, we strongly recommend a professional installation by your authorized *PPI* retailer.

Your *PPI* component system is shipped with all the hardware you should need. Although, as with most installations, you may not use all of the pieces. We recommend that you keep everything including this owner's manual and the original packing in case you ever decide to move the speakers into another vehicle that may require a different type of installation. Before starting the installation make sure the system is operating properly. Do the volume, balance, and fader controls affect the system as they should? If everything is fine proceed with the installation, otherwise, locate the problems and have them repaired.

The first step is to decide where the components of your system will be installed. Locations for the passive crossovers, woofers and the tweeters must be found. In most cases the easiest place to install the woofer is the factory speaker location. If the factory location does not hold the same size speaker as the replacement, a new speaker baffle must be made. It may be possible to fit both the woofer and the tweeter on the baffle if the original speaker was a large one. For tweeters it is usually best to select a location near the woofer for the most accurate soundstage and image. You may want to experiment with different tweeter locations by installing the system without mounting the tweeters and



listening to the system with the tweeters in different places until a location is found that sounds best. Mounting locations for the crossovers include the kick panels, between the door panel and the door, or under the seat. The crossovers must be mounted in a dry location where they will not interfere with the operation of the vehicle. Inspect any panels that are to be drilled or cut in order to insure there is adequate clearance behind them.

The next step is to gain access to the existing speaker. This will involve removing a grille or a panel. Use extreme caution when removing anything from your vehicle since hidden screws or mounts may have been used by the factory.

When prying loose any panels be careful not to cause any breaks or cracks. Once the grille or panel has been removed place it in a safe area until the installation is finished. Next, remove the hardware securing the factory speaker and set it aside. Gently remove the speaker from its mounting baffle far enough to unplug the factory wires from the back. The speaker can now be completely removed. If you are not running new speaker cable the factory wires can be connected to the passive crossover by splicing a short length of the provided cable to the factory wires. If possible match the polarity of the factory cables to the new cables, otherwise, make sure to connect the new wires the same way on each side.

If the speakers are to be connected to an amplifier rather than a head unit, new speaker cable should be run from the amp to the passive crossovers and from the crossovers to each of the speakers.



The cables should be connected to the passive crossover, the woofer, and the tweeter as shown on diagram 1. Polarity must be observed on both the speakers and crossover. Now that the cables are in place on the crossover they can be connected to the speakers. Gently push the wire terminals onto the speaker terminals. On the speaker the smaller terminal is the negative lead and the larger is the positive lead. Insure that the correct wires are connected to the woofer and the tweeter otherwise damage will occur!

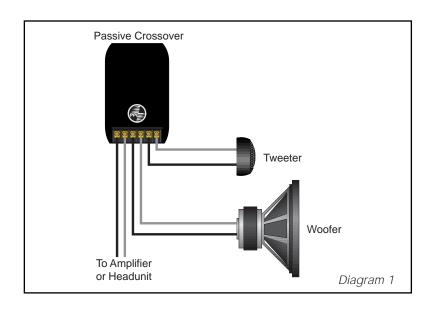
Do not connect either speaker lead to ground or to a 12 volt power source. Your speakers, amplifier, or head unit can be damaged!

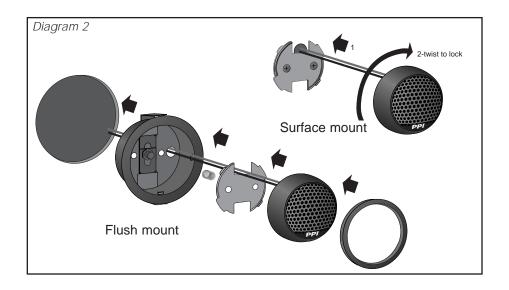
After the woofers have been wired they can be mounted to the speaker baffle using the factory hardware or the supplied mounting equipment. Use whichever will work best for your needs. The tweeters can be mounted next following diagram 2 to either flush or surface mount the speaker. Now that the speakers are wired and mounted the system should be tested for proper operation. If it is operating properly the grille or panel can be reinstalled and the speakers for the other side can be installed. If the system is not working as it should refer to the troubleshooting chart on page 11.

Reinstall the grille or panel by reversing the steps followed in the removal of the component. Install all screws and fasteners securely to avoid potential rattles and other problems. The other speakers can be replaced by following the same procedure.

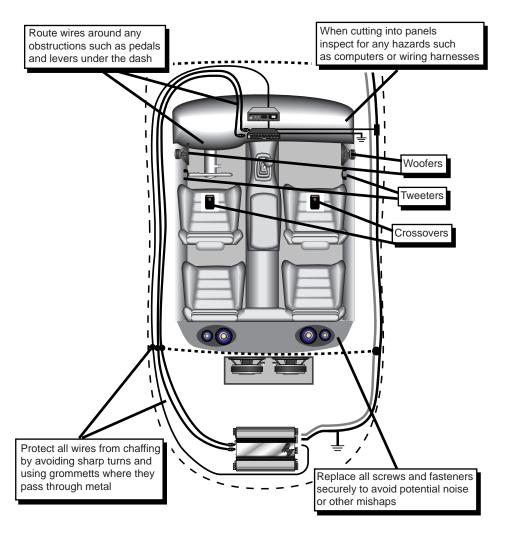
If a non-factory installation is your choice, be careful when cutting into your vehicle. Make sure any panels that are to be cut are free of any obstructions on both sides.







Look for anything that could be damaged such as wiring harnesses, computers, or brake and fuel lines. Speaker cables will need to be run all the way to the amplifier or head unit when performing a non-factory install. Route the cables safely out of the way of any hazards such as the pedals and levers under the dash. Use a grommett whenever the cables pass through any metal.



Troubleshooting

NO SOUND Is the head unit and / or amplifier on?

YES NO

Check that speaker leads are connected to the speaker and head unit or amplifier.

Check power and remote turn-on wire for voltage. Make sure ground wire is secure.

ANY SOUND NOW?

YES NO

You are done

Check that the speaker leads are not shorted or contacting ground.

VERY LITTLE BASS WHEN BALANCE IS CENTERED. MORE WHEN BALANCE IS MOVED FROM ONE SIDE TO THE OTHER

Speakers are wired out of phase.

Check them and reverse the polarity on the improperly wired speaker

HIGH FREQUENCIES ARE PLAYING FROM WOOFERS LOW FREQUENCIES OR NO SOUND FROM TWEETERS

Passive crossover is wired wrong Change speaker cables to the proper terminals

SPEAKERS SOUND DISTORTED OR SCRATCHY

Is the battery voltage low?

YES

Make sure charging system is properly charging battery

NO

Check speakers for physical damage

YES

Consult your authorized PPI dealer or call 1-800-62POWER



3-Year Limited U.S.A. Warranty



This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. PrecisionPower, Inc. (PPI) warrants its products to be free from defects in materials and workmanship under normal use and service for a period of three (3) years from the date of original purchase when the unit is installed by an Authorized Dealer. Non-Authorized Dealer installed products carry a one (1) year parts and ninety (90) days labor limited warranty. The extent and conditions of Limited Warranty are as follows:

- 1. Authorized Dealer Installed Products: PPI will either repair or replace at no charge, to the original purchaser, any unit which PPI's examination discloses to be defective and under warranty, provided the defect occurs within three (3) years from the date of original purchase when the unit is installed by an Authorized Dealer and the product is returned immediately to PPI. This warranty is not transferable
- 2. Non-Authorized Dealer Installed Products: PPI will either repair or replace at no charge, to the original purchaser, any unit which PPI's examination discloses to be defective and under warranty, provided the defect occurs within ninety (90) days from the date of purchase and the product is returned immediately to PPI. Warranty claims beyond ninety (90) days for Non-Authorized Dealer Installed Products will be for parts only and will extend for one (1) year from the date of purchase. This warranty is not transferable.
- 3. The date of purchase and proof of Authorized Dealer Installation of a PPI product must be established by an original sales receipt which must accompany the article being returned for warranty work.
- 4. This warranty shall NOT apply to any PPI product found to have the original factory serial number removed or defaced. All products received (by PPI) for in warranty or out of warranty repair, with their original serial numbers removed or defaced, will NOT be repaired and will be returned to sender, freight collect. Refer to original packaging for the serial number of your component speakers
- 5. The provisions of this warranty shall not apply to any PPI product used for a purpose for which it is not designed, which has been repaired or altered in any way, or which has been connected, installed, or adjusted other than in accordance with the instructions furnished in PPI's owner's manual. Nor shall this warranty apply to any part which has been subject to misuse, neglect, or accident
- 6. PPI does not authorize any other persons to assume any other liability in connection with its products. THIS WARRANTY IS THE ONLY EXPRESS WARRANTY MADE BY PRECISIONPOWER APPLICABLE TO ITS PRODUCTS. ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLICABLE TO PRECISIONPOWER PRODUCTS IS LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY. PRECISIONPOWER SHALL NOT BE LIABLE FOR THE INCIDENTAL, CONSEQUENTIAL, OR COMMERCIAL DAMAGES RESULTING FROM THE BREACH OF THIS WRITTEN WARRANTY. Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts; so the above limitations or exclusions may not apply to you.
- 7. Your product will be serviced on an in-warranty basis within the warranty period for the correction of warranted defects. If improper operation of your PPI product should occur, contact your Authorized Dealer for assistance with the return and factory repair of your PPI product. If an Authorized Dealer is not available, return the unit including your name, telephone number, return address, a copy of your sales receipt, and a description of the problem to:

Precision**Power**, Inc. Service Department 4829 S. 38th Street Phoenix, AZ 85040-2964

TO RETURN PPI PRODUCTS OUT OF WARRANTY: Return the unit, postage prepaid, in the original protective carton. Please include a description of the problem and, if desired, a request for an estimate of repair costs. Unless a request for an estimate is included, the unit will be repaired as necessary. Please contact PPI Customer Service at 1-800-62-POWER for questions concerning out of warranty repair charges. Repaired unit will be returned with an itemized statement, C.O.D.



