

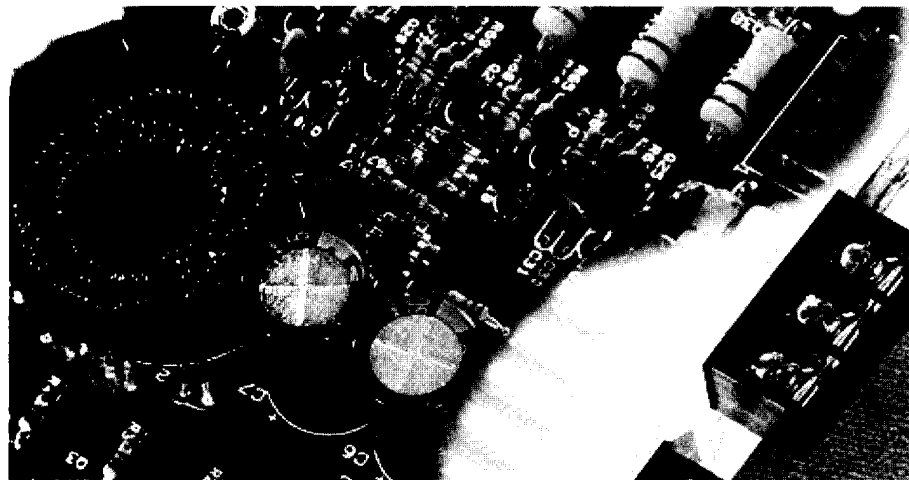
Precision**Power**

*Sedona Series 50 / 100iX
200iX / 500iX / 430iX / 460iX*

Owner's Manual



Absolutely State of the Art



Precision**Power**

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Designed and Handcrafted in the USA



CONGRATULATIONS AND THANK YOU for your choice of a Precision**Power**, Inc. high performance mobile audio amplifier. Precision**Power** is proud to be a world leader specializing in the design, engineering, and manufacture of "State of the Art" mobile audio electronics. Our success is derived from the fact that we do not incorporate gadgets or passing fads into our products. Sound engineering practice, combined with deceptively simple yet highly effective circuit designs, characterize every **PPI** product. Yet our demand for maximum value dictates every ounce of fat be trimmed if it does not contribute to sound quality or reliability. This is why **PPI** products have consistently enjoyed an unparalleled reputation for sound value. We are sure your new Sedona amplifier will provide you with years of listening pleasure.

 This Manual Was Printed on Recycled Stock

Important Safeguards

The following list of 'Important Safeguards' has been compiled to help you achieve optimum satisfaction and the highest quality performance from your new mobile audio amplifier. **Please take the time to review these safeguards before operation and/or installation of your new Sedona amplifier.**

Read Instructions

We all have a tendency to read instructions only after something doesn't work as anticipated. This manual provides specific information concerning the operation and installation of your new amplifier. **Please read this manual thoroughly and retain it for future reference.**

Keep Your Sales Receipt

Your **PPI** amplifier has a three-year limited warranty when it is installed by an Authorized **PPI** dealer. Non authorized dealer installed (**PPI**) amplifiers carry a one-year parts / ninety days labor limited warranty. To establish the starting date of warranty coverage, a copy of your sales receipt must accompany your amplifier for all warranty service. Please file your sales receipt away for future reference. For your convenience, a complete limited warranty statement is located at the back of this manual.

Follow Instructions

All use and installation instructions should be followed to assure proper operation of your new Sedona amplifier.

Heed All Wiring Requirements

A high-performance amplifier requires minimum wire gauges be used for the Power, Ground, Remote Turn-On, and Speaker cables. To assure proper operation of your Sedona amplifier, follow all wiring requirements.

Heed all Fusing Requirements

The fusing requirements of your Sedona amplifier have been established for its continued safe operation. Replacement with a higher value fuse may result in damage and voiding of warranty.

Installation Accessories

Sedona amplifiers will require non-supplied installation accessories. Please refer to the Installation Section of this manual for a list of requirements or consult your Authorized **PPI** dealer before installation.

Water and Moisture

Never mount your Sedona amplifier in a location which would subject it to immersion or exposure to water.

Servicing

Do not attempt to service this amplifier yourself. Opening or removing covers will void your warranty. For service information, consult your Authorized **PPI** dealer or call Precision **Power**, Inc. at 1-800-62-POWER. Our customer service representatives are available Monday through Friday from 8am to 6pm Mountain Standard Time.

Caution!

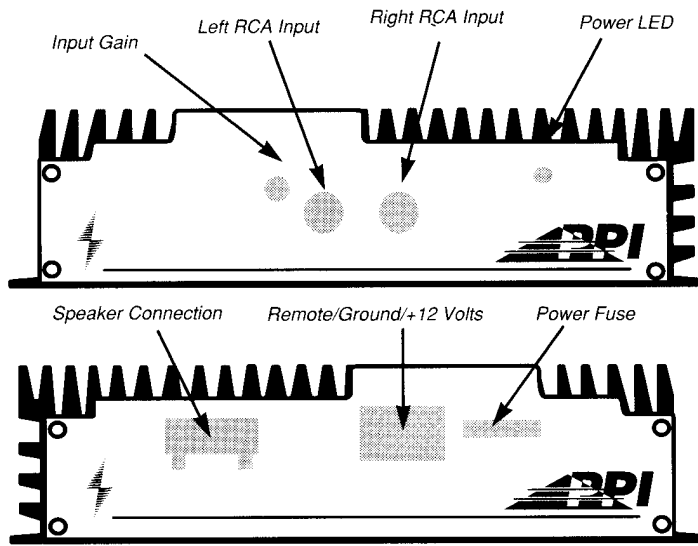
The use of a high powered audio system may cause hearing loss or damage. While **PPI** systems are capable of "Concert level" volumes with incredible accuracy, they are designed for you to enjoy the subtleties created by musicians while listening at reasonable sound pressure levels. The use of a high powered audio system may impair your ability to hear traffic sounds and, therefore, may constitute a traffic hazard. We advise lower volume levels while driving.

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Sedona 50 Features



50 Front / Rear End Plates

MOSFET Switching Power Supply

Ultra-wide Bandwidth Circuitry

Internally Bridgeable

Gold RCA Input Connectors

Output Short Circuit Protection with Diagnostic LED

Low Impedance Protection

Thermal Protection

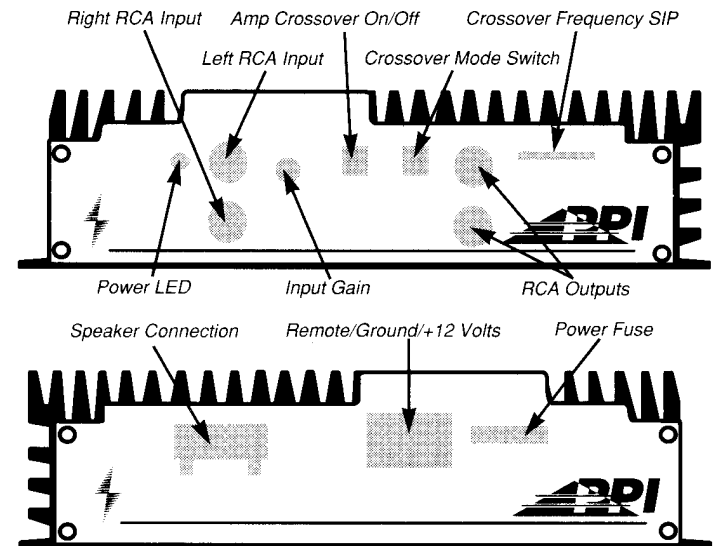
Soft Start

Adjustable Input Sensitivity

Three-Year Warranty

Manufactured In The U.S.A.

100iX & 200iX Features



100iX / 200iX Front / Rear End Plates

MOSFET Switching Power Supply

Ultra-wide Bandwidth Circuitry

Internally Bridgeable

Gold RCA Input Connectors

Output Short Circuit Protection with Diagnostic LED

Low Impedance Protection

Thermal Protection

Soft Start

Adjustable Input Sensitivity

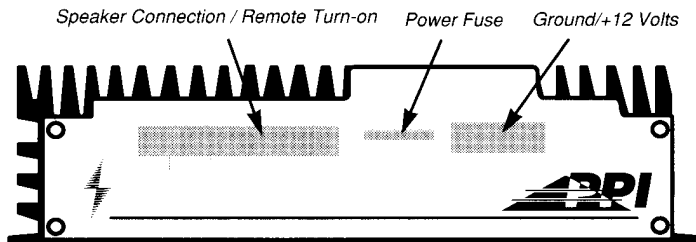
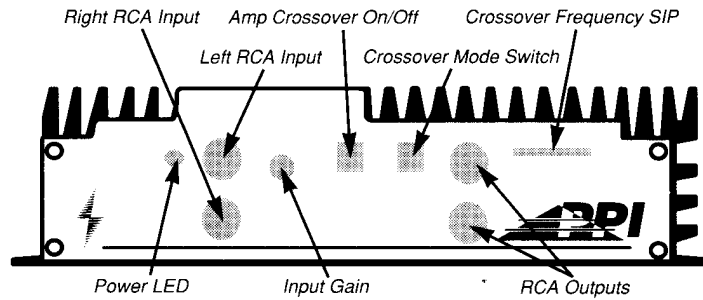
Adjustable Two-Way Electronic Crossover

Gold RCA Crossover Output Connectors

Three-Year Warranty

Manufactured In The U.S.A.

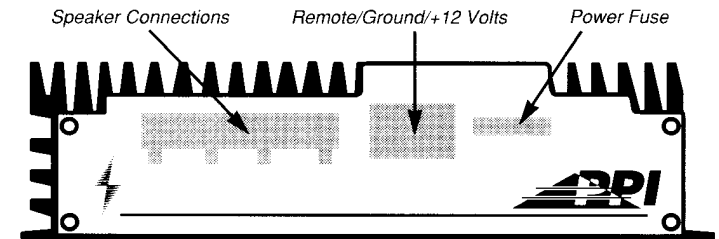
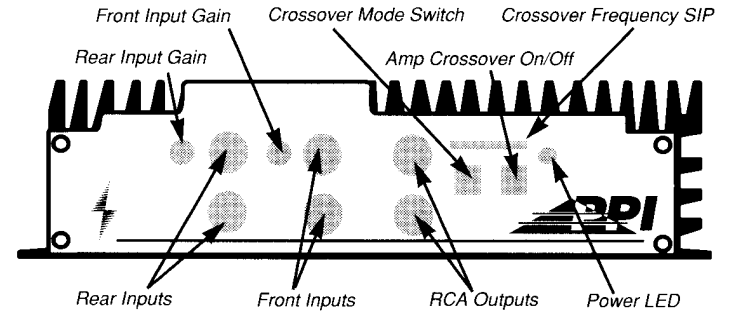
500iX Features



500iX Front / Rear End Plates

- MOSFET Switching Power Supply**
- Ultra-wide Bandwidth Circuitry**
- Internally Bridgeable**
- Gold RCA Input Connectors**
- Output Short Circuit Protection with Diagnostic LED**
- Low Impedance Protection**
- Thermal Protection**
- Soft Start**
- Adjustable Input Sensitivity**
- Adjustable Two-Way Electronic Crossover**
- Gold RCA Crossover Output Connectors**
- Three-Year Warranty**
- Manufactured In The U.S.A.**

430iX & 460iX Features



430iX / 460iX Front / Rear End Plates

- MOSFET Switching Power Supply**
- Ultra-wide Bandwidth Circuitry**
- Internally Bridgeable**
- Gold RCA Input Connectors**
- Output Short Circuit Protection with Diagnostic LED**
- Low Impedance Protection**
- Thermal Protection**
- Soft Start**
- Adjustable Input Sensitivity**
- Adjustable Two-Way Electronic Crossover**
- Gold RCA Crossover Output Connectors**
- Three-Year Warranty**
- Manufactured In The U.S.A.**

Specifications

Sedona Two-Channel Amplifiers

Model	50	100iX	200iX	500iX
<i>Continuous Output Power @ 14.4 Volts</i>				
Watts per Channel @ 4 Ohms	25 Watts	50 Watts	100 Watts	250 Watts
Watts per Channel @ 2 Ohms	45 Watts	90 Watts	165 Watts	350 Watts
Bridged Mono Output @ 4 Ohms	90 Watts	180 Watts	330 Watts	700 Watts
Power Bandwidth	10Hz to 50kHz	10Hz to 50kHz	10Hz to 50kHz	10Hz to 50kHz
Distortion (THD)	0.08%	0.08%	0.08%	0.08%
Signal-To-Noise Ratio	> 96 dB	> 96 dB	> 96 dB	> 96 dB
Damping Factor	>500	>500	>500	>500
Stereo Separation	>72 dB	>72 dB	>72 dB	>72 dB
Input Sensitivity	0.01 - 2.0V	0.01 - 2.0V	0.01 - 2.0V	0.01 - 2.0V
Input Impedance	10 kOhms	10 kOhms	10 kOhms	10 kOhms
Output Impedance	2 - 8 Ohms	2 - 8 Ohms	2 - 8 Ohms	2 - 8 Ohms
Output Impedance (Bridged)	4 - 8 Ohms	4 - 8 Ohms	4 - 8 Ohms	4 - 8 Ohms
Crossover	No	Yes	Yes	Yes
Supplied Crossover Frequency	N/A	90 Hz	90 Hz	90 Hz
Available Crossover Frequencies	N/A	20 Hz to 9 kHz	20 Hz to 9 kHz	20 Hz to 9 kHz
RCA Crossover Outputs	No	Yes	Yes	Yes
Supply Voltage	14.4 Volts	14.4 Volts	14.4 Volts	14.4 Volts
Fuse	10 Amp	20 Amp	20 Amp	60 Amp
Dimensions	8.2 x 2 x 5.1"	8.2 x 2 x 7.1"	8.2 x 2 x 9.6"	8.2 x 2 x 24"

Specifications

Sedona Four-Channel Amplifiers

Model	430iX	460iX
<i>Continuous Output Power @ 14.4 Volts</i>		
Watts per Channel @ 4 Ohms	30 Watts	60 Watts
Watts per Channel @ 2 Ohms	50 Watts	100 Watts
Bridged Mono Output (Watts x 2 Ch) @ 4 Ohms	100 Watts	200 Watts
Power Bandwidth	10 Hz to 50 kHz	10 Hz to 50 kHz
Distortion (THD)	0.08%	0.08%
Signal-To-Noise Ratio	> 96 dB	>96 dB
Damping Factor	>500	>500
Stereo Separation	>72 dB	>72 dB
Input Sensitivity	0.01 - 2.0V	0.01 - 2.0V
Input Impedance	10 kOhms	10 kOhms
Output Impedance	2 - 8 Ohms	2 - 8 Ohms
Output Impedance (Bridged)	4 - 8 Ohms	4 - 8 Ohms
Crossover	Yes	Yes
Supplied Crossover Frequency	90 Hz	90 Hz
Available Crossover Frequencies	20 Hz to 9 kHz	20 Hz to 9 kHz
RCA Crossover Outputs	Yes	Yes
Supply Voltage	14.4 Volts	14.4 Volts
Fuse	20 Amp	30 Amp
Dimensions	8.2 x 2 x 10.1"	8.2 x 2 x 12.1"

Glossary

The following terms are used in this manual. Since they may be unfamiliar, the following definitions are provided.

- Bridging:** Combining two amplifier channels into one channel. Typically used to create a mono output.
- Gain:** The ratio of output voltage to input voltage. The gain control allows adjustment to the amplifier's output level for varying input levels.
- L.E.D.:** **Light Emitting Diode.** Indicates power on / off.
- Load Impedance:** Measurement of speaker(s) resistance / reactance that the amplifier must drive.
- Mixed Mono:** The amplifier's ability to play the Left and Right Stereo channels while playing a third (bridged) mono channel.
- Remote Turn-On:** Low current automatic switching circuit that turns the amplifier on and off. Typically connected to the remote antenna or amp turn-on lead of most car radios, cassettes, or CD players.
- Low-Pass Filter:** An electronic circuit which blocks frequencies above a pre-determined frequency. Frequencies below the cutoff are passed without effect.
- High-Pass Filter:** An electronic circuit which blocks frequencies below a pre-determined frequency. Frequencies above the cutoff are passed without effect.
- "SIP"** **Single In-line Package.** This refers to the plug-in resistor module that sets the crossover frequency for the 100iX, 200iX, 500iX, 430iX, and 460iX.

Installation

PRIOR TO INSTALLATION of your new Sedona amplifier, it is important to consider the following: In your profession, your abilities and expertise insure a job well done. Trained professional car audio installers are no different. It's their chosen profession and what they do best. **PPI** believes so strongly in its responsibility to you, that we invest heavily in the hands-on training of professional installers. Our comprehensive system design / installation seminar provides our authorized dealers with the latest techniques to deal with the complexities of car audio today. There is more than meets the eye to insure that a car stereo reaches its fullest potential. The trained professional, through experience, can approach, recognize, and address all the needs of the mobile audio environment. **PPI** highly recommends that this amplifier and/or any other mobile audio equipment be installed by a trained professional.

Tools / Parts Needed for Installation (not supplied):

Small flat blade screwdriver	Phillips screwdriver
Wire cutters	Wire strippers
Soldering iron	Solder
Flux cleaner	5 washers, 4 #6 and 1 #8 sheet metal screws
1 - ring connectors	3 Spade Connectors
Speaker wire – 16 gauge or larger	Power and Ground wire – 12 gauge or larger
Heat shrink	Grommets
Silicone or similar material	In-line fuse holder and fuse

Mounting

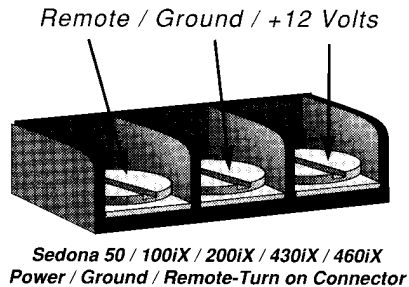
To prevent damage to the amplifier while driving, mount it in a secure place. Choosing the appropriate location will depend upon your vehicle and the complexity of your system design. It may be mounted in any compatible space that is convenient to your needs and provides sufficient airflow. Adequate ventilation allows the amplifier to dissipate the heat that develops during operation. Inadequate ventilation may result in overheating. The thermal protection circuit will shut the amplifier off when the heatsink temperature reaches 75 degrees Celsius. The amplifier will automatically return to operation once the heatsink cools.

Typical mounting locations include: trunk and passenger compartment (floor or seat). Never mount the amplifier in a location which would subject it to immersion or exposure to water.

The Precision**Power** Sedona heatsink is designed for high-efficiency cooling, but improper mounting may compromise its ability to cool. When mounting the amplifier in a confined space (i.e. under seat), care must be taken to ensure that at least two inches' of clearance is provided around the amplifier. If the amplifier is located in an area which has restricted air-flow or is totally enclosed, a fan may be used to improve air circulation.

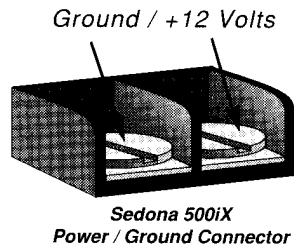
Power, Ground, and Remote Turn-On

Before beginning, disconnect the negative (-) terminal of the battery prior to working on the positive terminal to prevent a short to ground. Reconnect the negative terminal only after all connections have been made.



Sedona amplifiers are designed to operate from a car's (+) positive 12 volt, negative ground electrical system. The power and ground cables should be a minimum of 12 gauge. Depending upon the complexity of your system, larger gauge wire may be needed.

The main power cable should run from the amplifier location, through the vehicle to the battery, avoiding sharp corners, creases, and sharp body parts. When passing through any metal wall (i.e. fire wall etc.), a grommet must be used to prevent the wire from chafing and shorting to ground. For safety reasons, **PPI** recommends that the power cable be fused at the positive terminal of the battery. If this fuse is not installed, and the power wire shorts to ground (between the battery and the amplifier), a fire can result. The fuse at the battery should be of the same value as the chassis fuse located on the rear end plate of the amplifier. Consult your Authorized **PPI** Dealer for an appropriate in-line fuse holder that meets the needs of your installation. We suggest crimping and soldering all wire connections. Insulate the connection with heat shrink to prevent a short to ground.



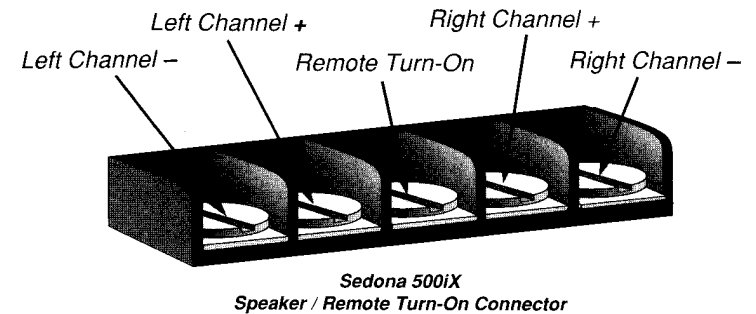
The ground wire should be of the same gauge as the power wire. As a 'rule of thumb', use as short a length of wire as possible. Locate an area near the amplifier that is metal (the floor is ideal) and clean an area about the size of a quarter to bare metal. Drill a pilot hole in the middle of this area. **Be Careful!** Inspect the area underneath to be sure you aren't drilling into wires, brake or fuel lines, etc. Terminate the

wire with a ring connector and attach it to the bare metal using a # 8 sheet metal screw and washer (not supplied). We suggest crimping and soldering this connection. Insulate the connection with heat shrink. It is important that this connection be solid. After the connection is complete, coat the area with silicone or some similar material to prevent rust from developing.

Once you have run both the power and ground wires, it's time to connect the cable to the amplifier. Be sure that you have not reconnected the ground cable to the negative post of the battery. Cut off excess wire and terminate the wire with a spade connector. We suggest crimping and soldering this connection. Insulate the connection with heat shrink. Locate the power and ground connector (rear end plate). With a small flat bladed or Phillips head screw driver, loosen the terminal screw marked: **Ground and +12 Volts**. Insert each spade connector and secure it by tightening the associated screw. Be sure each connection is tight.

Remote Turn-On

In order for the amplifier to turn on, a remote turn-on wire must be connected to a switched 12 volt source. Typically, the source unit provides a power antenna (remote) turn-on lead which will turn on the amplifier when the source unit is activated. If this is unavailable, a switched 12 volt source must be used.

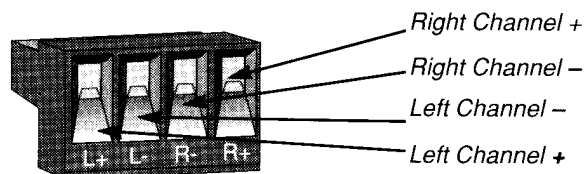


Run a wire from the amplifier location through the vehicle to the switched 12 Volt source. Observe the same precautions for routing this cable that you followed for running the power cable. Cut off excess wire and terminate the wire with a spade connector. We suggest crimping and soldering this connection. Insulate the connection with heat shrink. It is important that this connection be solid. **If you are connecting to a 500iX**, locate the **Speaker / Remote turn-on connector** and with a flat bladed or Phillips head screw driver, loosen the terminal marked "**Remote**" (center tap). **If you are connecting to a 50, 100iX, 200iX, 430iX, or 460iX**, locate the **Power / Ground / Remote turn-on connector**. With a small flat bladed or Phillips head screw driver, loosen the terminal screw marked "**Remote**". Insert the spade connector into the appropriate location and secure it by tightening the associated screw. Be sure the connection is tight.

Speaker Connection for the 50, 100iX, 200iX, 430iX, & 460iX

Run the speaker wires from the amplifier location through the vehicle to the speak-

ers. Observe the same precautions for routing these wires that you followed for running the power and remote turn-on cables. It is important to use 16 gauge or larger wire for proper signal transfer. Cut off excess and, using wire strippers, strip 1/4 inch. Locate the speaker connector. Loosen the four screws on the underside of the connector. Insert the speaker leads, one at a time, into the end of the connector. Check to make sure you've maintained proper polarity before securing each wire. If inserting larger gauge wire presents a problem, tinning the wire with solder may help. Be sure the connection is tight. The connector may now be plugged into the amplifier.



Speaker Connection for the 500iX

Run the speaker wires from the amplifier location through the vehicle to the speakers. Observe the same precautions for routing these wires that you followed for running the power and remote turn-on cables. It is important to use 16 gauge or larger wire for proper signal transfer. Cut off excess wire and terminate the wire with a spade connector. We suggest crimping and soldering this connection. Insulate the connection with heat shrink. Locate the speaker connector. Loosen the four screws on the connector. Insert the speaker leads, one at a time, into the end of the connector. Check to make sure you've maintained proper polarity before securing each wire. Be sure the connection is tight.

Bridging

All Sedona amplifiers are capable of being bridged into a mono output due to the internal design of the amplifier. This feature permits the creation of a mono channel for a subwoofer or center channel. Also, bridging adds flexibility of operation. Any of the Sedona two-channel amplifiers can be used in a one channel (mono), two channels stereo, or 3 channels - 2 channels stereo and one channel mono configuration. The Sedona four-channel amplifiers can be used as 2 mono channels, 3 channels - 2 channels stereo and one channel mono, 4 channels - 2 channels front and rear, 5 channels - 4 channels stereo and one channel mono, or 6 channels - 4 channels stereo and 2 channels mono.

Deriving the mono channel is accomplished by using the left channel positive wire as the positive speaker wire and the right channel negative wire as the negative speaker wire. It is important that a minimum 4 Ohm impedance is observed.

The ability to run stereo satellites while simultaneously running a mono output from the same output stage is accomplished simply by running the stereo speakers normally and tapping into the appropriate wires for the 'Mixed Mono' channel (left channel positive wire as the positive speaker wire and the right channel negative wire as

the negative speaker wire). Again, speaker impedance should not be lower than 2 Ohms on the stereo channels and 4 Ohms on the mono channel.

Inputs

On the front end plate of the 50, 100iX, 200iX, and 500iX are a set of RCA low-level signal input jacks. The 430iX and 460iX have 4 RCA inputs which are labeled Input 1 and Input 2. Connect a source unit (head unit, equalizer, crossover, etc.) to these inputs.

It is important to note that the input signal on the 100iX, 200iX, 500iX, 430iX, and 460iX may be routed through the amplifier's internal crossover. Engaging the internal crossover is accomplished through the two switches located next to the RCA inputs. Refer to the section labeled **Adjusting the Internal Crossover** for more detailed information.

Gain Control

On the front end plate, next to the inputs, is the gain control. It can be adjusted using a small flat blade screwdriver. **Upon installation of the amplifier, the gain control must be adjusted.** This can be done by first turning the gain all the way down (counter clockwise). Turn the volume on the source unit up two thirds. Then adjust the gain control until the desired volume is obtained without audible distortion.

Adjusting the Internal Crossover

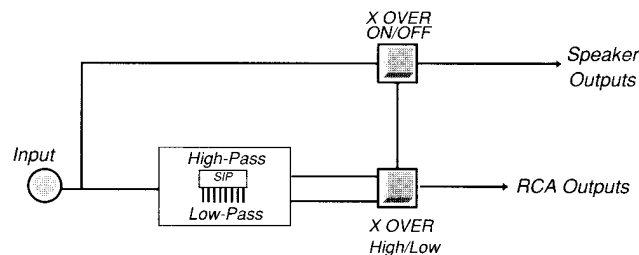
The 100iX, 200iX, 500iX, 430iX, and 460iX have an integrated two-way electronic crossover. The integrated crossover allows the 100iX, 200iX, & 500iX to be operated in three modes: 2 channels full-range, 2 channels high-pass, or 2 channels low-pass. The 430iX and 460iX may, also, be operated in three modes: 4 channels full-range, 2 channels high-pass / 2 channels low-pass, or 4 channels high-pass. Integral to the design of these five amplifiers is a set of RCA line level outputs. These outputs are always active and available to send either a low-pass or high-pass signal (100iX, 200iX, & 500iX) or a low-pass signal (430iX / 460iX) to another amplifier or signal processor.

The crossover features 12 dB per octave slopes and is shipped with a 90 Hz crossover SIP installed. The crossover frequency may be changed by removing and replacing the resistor 'SIP' found on the front end plate. The crossover resistor 'SIPs' are available (from your authorized Precision **Power** dealer) in the following frequencies: 20 Hz, 30 Hz, 60 Hz, 70 Hz, 90 Hz, 110 Hz, 130 Hz, 160 Hz, 190 Hz, 230 Hz, 320 Hz, 390 Hz, 590 Hz, 880 Hz, 1300 Hz, 1600 Hz, 2700 Hz, 3200 Hz, 4000 Hz, 5300 Hz, 6000 Hz, and 9000 Hz.

Operation / Set-Up of the internal crossover in the Sedona two-channel iX amplifiers differs from that of the four-channel iX amplifiers, and we have divided this section to address each product group separately. Please refer to the appropriate section for your particular amplifier.

100iX, 200iX, and 500iX

As previously mentioned, the two-channel Sedona iX amplifiers offer three modes of operation: 2 channels full-range, 2 channels high-pass, or 2 channels low-pass. The two buttons labeled: **X Over (On/Off)** and **X Over (High/Low)**, located on the front end plate, control the operation of the internal crossover. The **X Over (On/Off)** routes the amplifier's input signal to either the internal crossover or direct to the output stage of the amplifier. In the 'Off' (out) position, the input signal bypasses the internal crossover and the amplifier's output is full-range. When this switch is in the 'On' (in) position, the input signal passes through the internal crossover, and the **X Over (High/Low)** switch determines if the amplifier will produce a high-pass or low-pass output.



100iX, 200iX, & 500iX Signal Flow Chart

The RCA outputs are connected to the internal crossover and are always active. Their signal (high-pass or low-pass) is controlled by the **X Over (High/Low)** switch. It is important to note that the signal available at the RCA outputs is always opposite of that set for the internal amplifier. For example: If the **X Over (High/Low)** switch is set to High, the amplifier will produce a high-pass signal and the RCA outputs will deliver a low-pass signal. Conversely, if the **X Over (High/Low)** switch is set to Low, the amplifier will produce a low-pass signal, and the RCA outputs will deliver a high-pass signal.

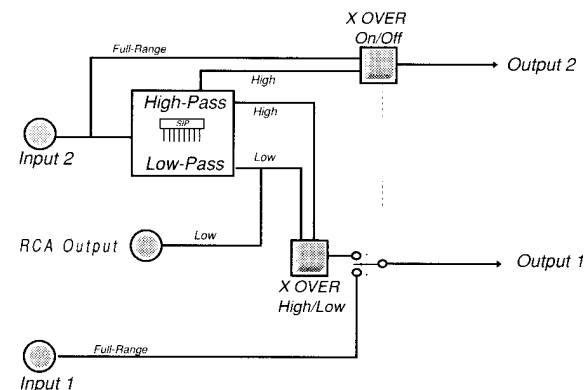
Please Note: When the 100iX, 200iX, or 500iX are set to operate in the full-range mode (**X Over (On/Off)** switch in the Out position), the RCA outputs can deliver either a low-pass or high-pass signal depending upon the position of the **X Over (High/Low)** switch.

The following chart represents the various modes of operation and the associated crossover switch positions for the 100iX, 200iX, and 500iX. We suggest that you refer to this chart prior to setting up your system.

100iX, 200iX, & 500iX Modes of Operation			
X OVER Switches		O u t p u t	
On/Off	High/Low	Amplifier	RCA
OUT	OUT	Full-Range	High-Pass
OUT	IN	Full-Range	Low-Pass
IN	OUT	Low-Pass	High-Pass
IN	IN	High-Pass	Low-Pass

430iX & 460iX

The 430iX and 460iX may be operated in three different modes: 4 channels full-range, 2 channels high-pass and 2 channels low-pass, or 4 channels high-pass. The two buttons labeled: **X Over (On/Off)** and **X Over (High/Low)** located on the front end plate control the operation of the internal crossover. The **X Over (On/Off)** routes the amplifier's input signal to either the internal crossover or direct to Output 1 and 2 of the amplifier. In the 'Off' (out) position, the input signal bypasses the internal crossover, and all four channels of the amplifier's output are full-range.



430iX and 460iX Signal Flow Chart

When this switch is in the 'On' (in) position, only Input 2 is used for the input signal source. The input signal passes through the internal crossover, and the **X Over (High/Low)** switch determines whether Output 1 will deliver a high-pass or low-pass output signal. It is important to note that when the **X Over (On/Off)** switch is in the 'On' position, Output 2 will only produce a high-pass signal. The RCA outputs are connected to the low-pass section of the internal crossover and are always active.

NOTE: When you want to Fade using input 1 and input 2, be sure that the **X OVER (On/Off)** switch is in the Out or Off position.

The following chart represents the various modes of operation and the associated crossover switch positions for the 430iX and 460iX. We suggest you refer to this chart prior to setting up your system.

430iX / 460iX Modes of Operation				
X OVER Switches		O u t p u t s		
On/Off	High/Low	Output 1	Output 2	RCA
OUT	OUT	Full-Range	Full-Range	Low-Pass
OUT	IN	Full-Range	Full-Range	Low-Pass
IN	OUT	Low-Pass	High-Pass	Low-Pass
IN	IN	High-Pass	High-Pass	Low-Pass

Changing the Crossover Frequency

The 100iX, 200iX, 500iX, 430iX, and 460iX are shipped from the factory with a 90 Hz Crossover Frequency Module (CFM) installed. To change this frequency module ('SIP'), simply remove the resistor 'SIP', located on the front end plate. Replace it with the appropriate 'SIP' value to achieve the desired frequency.

The following chart details PPI's CFM part number, 'SIP' value, and the associated frequency value. Please refer to this chart before setting up your system.

SIP Value / Frequency

8x - 2 - 563

The last three digits indicate the value of the SIP. Reference these numbers to the chart below to determine the frequency.

PPI Part #	SIP Value	Frequency
CFM.0020	564	20 Hz
CFM.0030	334	30 Hz
CFM.0060	184	60 Hz
CFM.0070	154	70 Hz
CFM.0090	124	90 Hz
CFM.0110	104	110 Hz
CFM.0130	823	130 Hz
CFM.0160	683	160 Hz
CFM.0190	563	190 Hz
CFM.0230	473	230 Hz
CFM.0320	333	320 Hz
CFM.0390	273	390 Hz
CFM.0590	183	590 Hz
CFM.0880	123	880 Hz
CFM.1300	822	1300 Hz
CFM.1600	682	1600 Hz
CFM.2700	392	2700 Hz
CFM.3200	332	3200 Hz
CFM.4000	272	4000 Hz
CFM.5300	202	5300 Hz
CFM.6000	182	6000 Hz
CFM.9000	122	9000 Hz

System Tuning

In order to achieve maximum signal-to-noise performance from a high quality mobile sound system, it is desirable to use high signal levels wherever possible in the inter-connection cables. High signal levels will reduce the effect of induced noise. The peak level of an audio signal is usually determined by the clipping level of electronic components. The following procedure should be used as a guide when the system installation is complete.

Adjusting Equalizer Input Gains:

1. Turn the equalizer's volume control to minimum.
2. Turn the source unit volume 1/2 to 3/4 of maximum. If available on your unit, set the output level to maximum. Some units may have a switch.
3. If available, set selector switch to either input 1 or input 2.
4. Adjust all equalizer input gains to minimum.
5. For the chosen input, play the respective music source. A loud music passage is desired.
6. For the chosen input, increase the left input gain control until the onset of audible distortion. Then decrease the gain prior to the immediate point of audible distortion. This setting will minimize system background noise and prevents overloading of the equalizer. Adjust, for the same input, the right input gain control for proper left / right balance.
7. Set selector switch to the alternative source unit, if used, and repeat steps 5 and 6.
8. Adjust crossover next.

Adjusting Crossover Input Gains:

1. Adjust all crossover gain controls to 0 dB, 1/2 of maximum sensitivity.
2. Adjust all amplifier gains to 1/2 of maximum sensitivity.
3. Turn the volume knob on the equalizer to a maximum of 3 o'clock.
4. Increase the gain of the crossover until the onset of audible distortion. Then decrease the gain prior to the immediate point of audible distortion. This setting will minimize system background noise and prevents overloading of the crossover.
5. Repeat step 4 for any remaining crossovers in the system.
6. Adjust the input gains next.

NOTE: In many multi-crossover/accessory systems, the gain of some crossover and accessories may need to be further decreased to achieve proportional balance.

Adjusting the Amplifier's Input Gain:

1. Adjust the amplifier's input gain to 1/2 maximum sensitivity.
2. Turn the volume knob on the equalizer to a maximum of 3 o'clock.

3. Increase the gain (clockwise) until the onset of audible distortion. Then decrease the gain counterclockwise prior to the immediate point of audible distortion. This setting will minimize system background noise and prevents overloading of the amplifier.
4. Repeat step 3 for any remaining amplifiers in the system.

NOTE: Depending on the sensitivity of the system's preamp (s), the gain of the amplifier (s) may not need adjustments. Also, in many multi-amplifier systems, the gain of some amplifiers may need to be further decreased to achieve proportional balance.

Troubleshooting

If for some reason your system fails to operate properly, please refer to this guide. If you are unable to resolve the problem, consult your Authorized **PPI** Dealer or call **1-800-62-POWER**.

NO SOUND

Is the power LED illuminated?

Check fuses in power wire.

Be sure turn-on lead is connected.

NO SOUND IN ONE CHANNEL

Check speaker leads and inspect for a short to ground or an open connection.

Check pre-amp leads. Reverse left and right leads to see if the problem is before the amplifier.

Check Mono Bridge and Bi-Amp crossover switches on other units prior to the amp.

If the problem is in the amp, have your **PPI** Dealer inspect the unit.

AMP TURNING OFF

Is the amp able to cool properly?

Check speakers for shorts or damage.

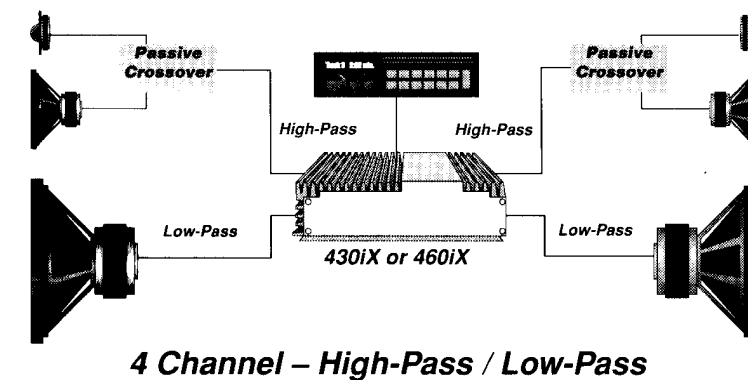
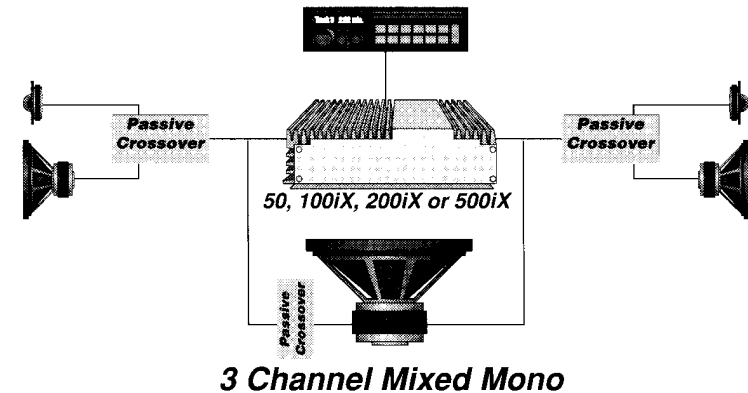
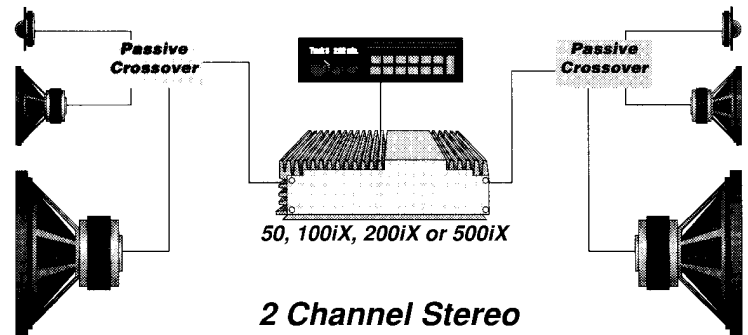
Make sure power and ground are secure.

Locate proper ground potential with a meter.

Have **PPI** Dealer inspect amp.

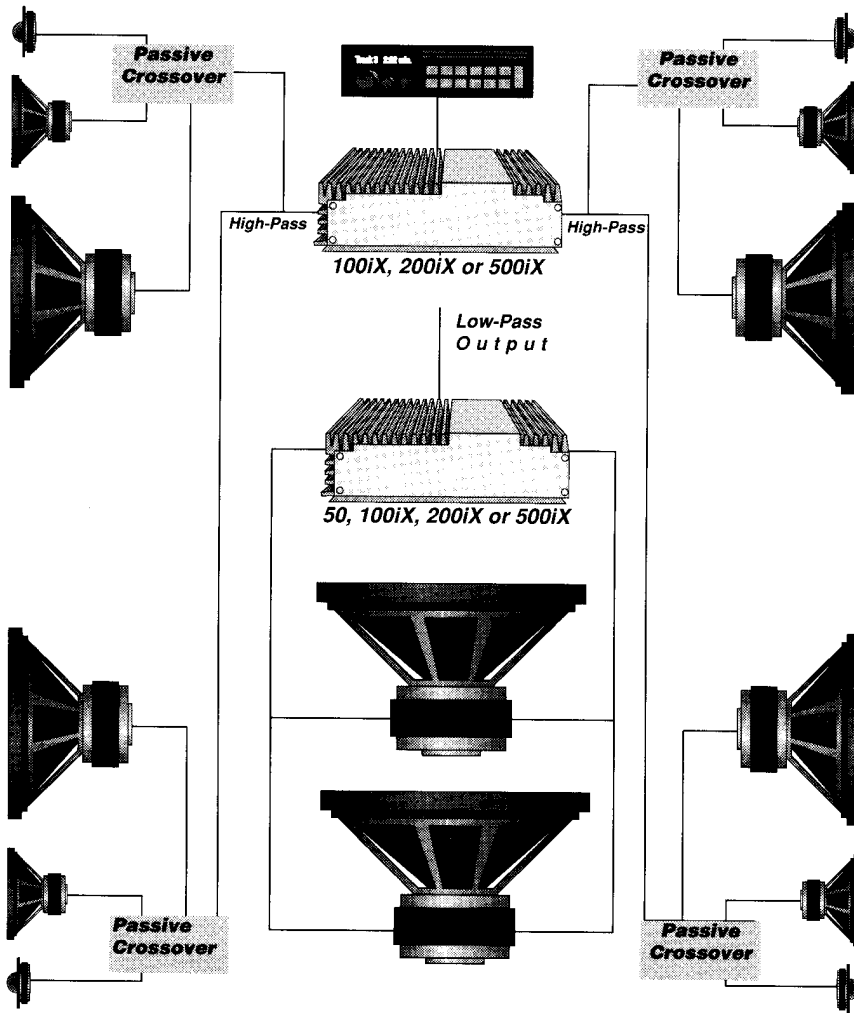
System Design

Sedona 2 & 4 Channel Amplifiers



System Design

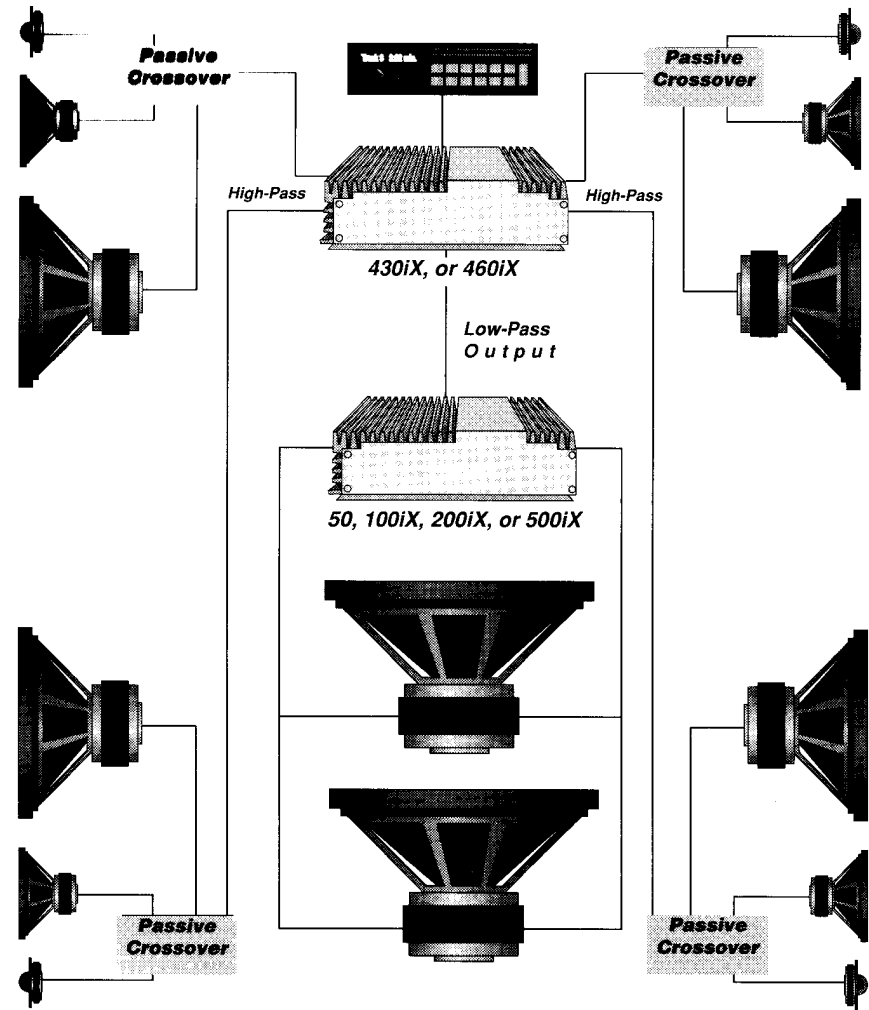
Sedona 2 Channel Amplifiers



Bi-Amp System Design utilizing the Internal Crossover and Low-Pass Output

System Design

Sedona 4 Channel Amplifiers



Bi-Amp System Design utilizing the Internal Crossover to create 4 High-Pass Channels and 2 Low-Pass Channels via the Low-Pass Output

Three-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. Precision**Power**, Inc. (**PPI**) warrants its amplifiers and accessories 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 Precision**Power** Dealer. Non-Authorized Dealer installed products carry a one (1) year parts and ninety (90) days labor limited warranty. The extent and conditions of **PPI's** Limited Warranty are as follows:

1. Authorized **PPI** 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 purchase when the unit is installed by an authorized **PPI** dealer and the product is returned immediately to **PPI**. This warranty is not transferable.

2. Non-Authorized **PPI** 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** amplifier and / or accessory 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** unit 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.

5. The provisions of this warranty shall not apply to any **PPI** unit 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 **PPI** APPLICABLE TO ITS PRODUCTS. ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLICABLE TO **PPI'S** AMPLIFIERS AND OR ACCESSORIES IS LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY. **PPI** 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 unit 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 **PPI** Dealer for assistance with the return and factory repair of your **PPI** product. If none 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

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.