

operator's Manual

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CONGRATULATIONS

Congratulations! You have taken advantage of our new Precision Power High Performance Mobile Audio Equipment. In your selection of the 5075DX, you will notice its unique capabilities, high-tech design, and use of "tomorrow's" technology today.

Precision Power is a proven world leader in mobile audio electronics. Specializing in the design, engineering, and manufacturing of our state-of-the-art amplifiers, crossovers, equalizers, and accessories. These products will help to further enhance your personal sound system.

To achieve optimum satisfaction and highest quality performance from your new amplifier, please read this manual thoroughly before installation. Keep the manual in a safe place and refer to it as you continue to refine your system. If you encounter difficulties during or after installation and are unable to resolve the problem, please contact your PPI dealer or call Precision Power during business hours (8am to 5pm MST) at 1-800-62-POWER for further assistance.

CAUTION The use of a high-powered stereo system may cause hearing loss or damage. While Precision Power systems are capable of "concert level" volumes with incredible accuracy, they are designed for you to enjoy the subtleties created by musicians for listening at reasonable sound pressure levels. The use of a high power stereo system may impair your ability to hear traffic sounds, thus may constitute a traffic hazard. PPI advises lower volume levels while driving.

FEATURES

- * 2, 3, 4 Channel Operation
- * Internal Bridging Capabilities
- * 2-way Digitally Controlled Crossover/Phase Corrected
- * Subsonic Filtering/12 dB per Octave
- * Front and Rear Gain Control via RCM-1000 (remote control module)
- * Independent Stereo High and Low Pass Filters
- * Din Input
- * Paralleled Din and RCA Inputs
- * Frequency and Gain Preset 1 and 2
- * Two Year Warranty
- * Manufactured in the USA

GLOSSARY

The following terms are used within this manual. Since they may be unfamiliar, definitions are provided as follows.

Baud Rate	The rate at which each piece of information is transmitted or received.
Bridging	Combining two amplifier channels into one channel.
Fiber Optic Cable	Light conducting cable used to transmit and receive information in the form of light instead of electricity.
Input Sensitivity or Gain	A measure of a device's input signal requirement to produce a desired output. "High" sensitivity implies a low input signal whereas "Low" sensitivity implies a higher input signal requirement.
Gain Control	A control that allows adjustment to the 5075DX output level for varying input levels.
LED	Light Emitting Diode. Usually indicates power on/off and/or signal changes.
Load Impedance	Measurement of speaker(s) resistance/reactance that the amplifier must drive.
Phantom Power	Power supplied to PPI accessories through a Precision Power amplifier via the DIN cables.
Remote Turn-On	Low current automatic switching circuit which is connected to a power antenna lead and to the amplifier(s) via the blue wire on the speaker harness.

SPECIFICATIONS

12dB crossover network

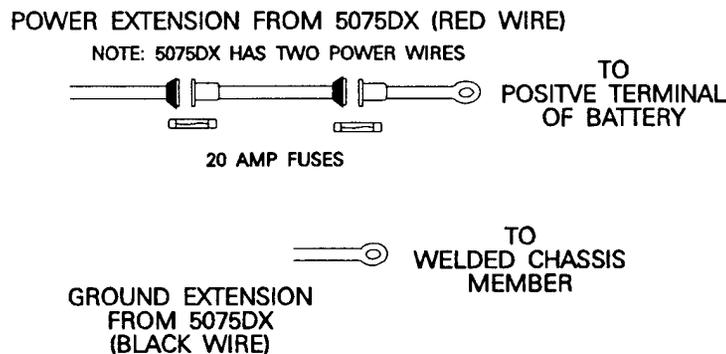
Continuous Power Output (Watts per channel into 4 Ohms @ 12V, Stereo)	50 W Front 75 W Rear
(Watts into 4 Ohms @ 12V, Bridged)	200 W Front 300 W Rear
(Watts per channel into 2 Ohms @ 12V, Stereo)	100 W Front 150 W Rear
Power Bandwidth (±1 dB)	10 Hz - 50K Hz
Total Harmonic Distortion (Per IHF A-202)	0.02%
Signal-to-Noise Ratio (A-weighted)	102 dB
Damping Factor	>500
Stereo Separation	>72 dB
Input Sensitivity	0.30 - 2.0V
Input Impedance	10K Ohms
Output Impedance (Stereo)	2 - 8 Ohms
Output Impedance (Bridged)	4 - 8 Ohms
Low Pass Crossover Frequency	50 Hz - 16K Hz
High Pass Crossover Frequency	50 Hz - 16K Hz
Low Pass Gain	0 dB - -48 dB
High Pass Gain	0 dB - -48 dB
Supply Voltage	10.5 - 16 VDC
Fuse	20 A
Dimensions	2.1"H x 8"W x 19.2"D
Data Transmission Parameters of Fiber Optic Cable	9600 Baud Rate
Fiber Optic Transmission Distance	60 Meters

Precision Power's four channel amplifier, 5075DX, is one of the most flexible and sophisticated units available. It's an amplifier and crossover in one. The amplifier featuring an ADAPTIVE MOSFET switching power supply, over-current protection, internal bridging capabilities, and a fixed input sensitivity. The crossover features two non-volatile presets, low pass and high pass crossover frequencies, low pass and high pass level controls, all are optionally remote controlled.

The adaptive circuit operates when the amplifier senses an impedance load of less than 2 Ohms. The power supply's operational parameters are modified to retain optimum performance. If a load of less than 1.5 Ohms is sensed by the amplifier, the over-current protection responds and the amplifier is temporarily shut down until the problem is resolved. The internal bridging capabilities allows versatility in hosting several different speaker configurations. For further information in this area refer to the Sample Hookup Configurations in this manual.

The crossover section of the 5075DX has two convenient presets to use. The high pass and low pass crossover frequencies and level controls are all preset at Precision Power. A PPI RCM-1000 (remote control module) may be used to change these presets.

FIG. A Wiring of 5075DX



POWER

Disconnect the negative post of the battery before working on the positive terminal to prevent a short to ground. Reconnect the negative terminal only after all connections have been made.

The 5075DX is powered from the vehicle's 12-volt battery or any standard 12-volt DC supply, and a remote switching +12 volt source for turn-on. These connections are color coded as follows:

- +12 Volts Red Wire
- Chassis Ground Black Wire
- Remote Turn-On Blue Wire

The 5075DX is shipped with two 10 gauge red primary power harnesses, which includes four inline fuse holders. Two are mounted near the amplifier and the others near the positive terminal of the battery. (Refer to Fig. A) These offer protection from a short to the chassis and additional protection to the amplifier's internal circuitry. The power harness is terminated with a large ring for connection directly to the positive terminal of the battery. After these connections are made insert the fuses (20 Amps each) to the amplifier and the long powerwires. Route these wires, avoiding sharp corners, creases, and sharp car body parts to the battery fuse holder. Cut off excess wire and slip on the black fuse cap (provided). Using wire strippers (not provided), strip the power wires 1/8 inch. Insert the stripped wire into the silver rivet cap (provided) and solder thoroughly. After the solder cools, clean the remaining flux from the rivet cap and insert the fuse that was provided with your amplifier (20 Amps).

The amplifier(s) now need to be grounded with the 10 gauge black wire that extends from the amplifier's chassis. This wire is also terminated with a ring for easy connection. The ground wire should be connected to a welded chassis member. When connecting, use a #8 sheet metal screw (not provided), being sure to remove any paint from the surrounding metal. **DO NOT** lengthen the ground wire. Failure to adhere to this procedure may result in system noise.

REMOTE TURN-ON

In order for the amplifier(s) to turn on, the Remote Turn-On wire (blue wire located on the speaker harness) must be connected to the power antenna lead. (Refer to Fig. B) If this lead is unavailable a separate switch must be used. This switch will need to be connected to the +12 volts of the battery. This will allow your amplifier(s) to shut on and off with the car.

If the 5075DX does not power up, contact your dealer or Precision Power at 1-800-62-POWER for assistance.

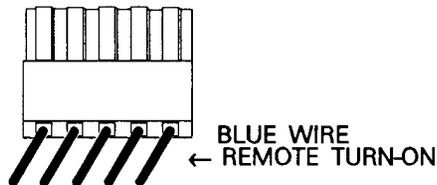
SPEAKER WIRING

All speaker connections are provided with a harness. (Refer to Fig. B) The harness connections are located on the right side panel of the 5075DX. If extra wire is needed, always use 16 gauge or larger wire. **NEVER CONNECT ANY SPEAKER LEAD TO THE CAR CHASSIS OR TO ANOTHER LEAD.**

For optimum performance, speaker impedances should be 4 Ohms or greater, either bridged or stereo. The 5075DX may be used as a four, three, or two channel amplifier. The Sample Hookup Configurations will help to show how this may be accomplished.

FIG. B Speaker Harness

The Remote Turn-On (blue wire) on either speaker harness, front or rear, is connected to the power antenna lead.



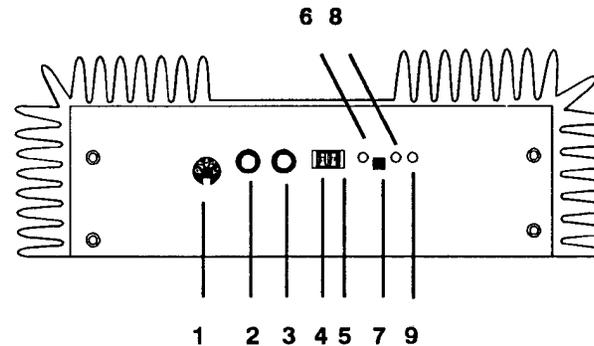
INPUTS

On the left side panel of the 5075DX, (Refer to Fig. D), is a set of RCA-jacks, left and right. A DIN-jack is paralleled to the RCA inputs utilizing PPI's flexibility and convenience. This DIN-jack can be used to Phantom power other PPI accessories, such as our crossovers and equalizers.

REMOTE CONTROL

Located on the left side panel of the 5075DX is a set of fiber optic ports. Refer to Fig. D. The blue port being the receiver and the black port being the transmitter. The 5075DX is shipped with both ports plugged to prevent contamination from dirt and ambient light. If the optional remote control (RCM-1000) is not utilized then leave the optical ports plugged. If they should ever need cleaned use a cotton tipped swab and isopropyl alcohol to remove the dirt.

FIG. D Left Side Panel of 5075DX



- | | |
|----------------------------------|-----------------------|
| 1. DIN Input | 6. Preset 1 Indicator |
| 2. Left RCA Input | 7. Preset Button |
| 3. Right RCA Input | 8. Preset 2 Indicator |
| 4. Receiver Fiber Optic Input | 9. Clip Indicator |
| 5. Transmitter Fiber Optic Input | |

CONTROLS

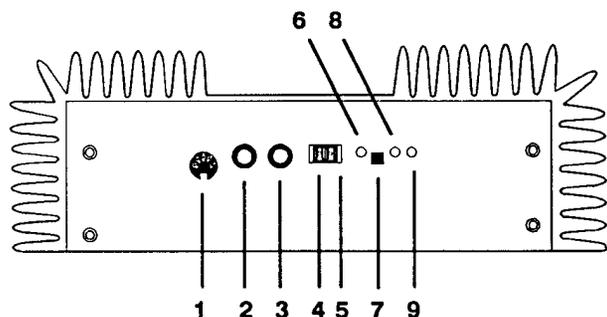
PRESET SWITCH

Located on the left side panel of the 5075DX is a Preset Switch. Refer to Fig. D. There are two factory presets to be utilized. Also located on the left side panel are two indicators to let the consumer know which preset is being used.

OUTPUT CLIP INDICATOR

The output clip indicator is located on the left side panel of the 5075DX. Refer to Fig. D. This indicator is intended to light when the overall system has reached its maximum power level. When the output clip indicator lights the volume level will then need to be adjusted.

FIG. D Left Side Panel of the 5075DX



- | | |
|----------------------------------|--------------------------|
| 1. DIN Input | 6. Preset 1 Indicator |
| 2. Left RCA Input | 7. Preset Button |
| 3. Right RCA Input | 8. Preset 2 Indicator |
| 4. Receiver Fiber Optic Input | 9. Output Clip Indicator |
| 5. Transmitter Fiber Optic Input | |

INPUT SENSITIVITY

The goal of adjusting input sensitivity, is to get the greatest possible signal level without overloading the crossover and amplifier. The 5075DX input sensitivity (gain) is independent for front and rear amplifier sections. Sensitivity levels are preset from PPI at 0 dB. Levels range from -48 dB to 0 dB in 5 dB increments until 10 dB of attenuation (-10 dB) and 1 dB increments until -48 dB. Input sensitivity is adjustable via the PPI RCM-1000 by an authorized Precision Power dealer. The RCM-1000 is an available option for the consumer.

LOW PASS AND HIGH PASS FREQUENCIES

There are two crossover frequencies for the 5075DX, low pass and high pass. The low pass frequency ranges from 50Hz to 16K Hz. Above 16K Hz the crossover will be bypassed. The high pass frequency also ranges from 50Hz to 16K Hz. Below 50 Hz the crossover will be bypassed. The 5075DX is shipped with the frequencies preset from PPI. They are adjustable via the PPI RCM-1000 by an authorized Precision Power dealer. The RCM-1000 is an available option for the consumer.

FACTORY PRESETS

PRESET 1:

Low Pass Frequency	120 Hz
High Pass Frequency	150 Hz
Low Pass Level	0 dB
High Pass Level	0 dB

PRESET 2:

Low Pass Frequency	80 Hz
High Pass Frequency	120 Hz
Low Pass Level	0 dB
High Pass Level	0 dB

If the RCM-1000 is utilized follow the instructions within its manual. Refer to the DISPLAY MENUS for a quick reference of what the 5075DX displays and the RCM functions.

There are five push buttons ("softkeys") located on the front panel of the RCM-1000. (Refer to Fig. E) The controls are as follows:



UP increases the parameter being displayed



DOWN decreases parameter being displayed



PREVIOUS displays menu prior to the one presently displayed



NEXT advances the amplifier/accessory to the next menu



FUNCTION alternates between controlling the amplifier/accessory and controlling the RCM-1000 itself

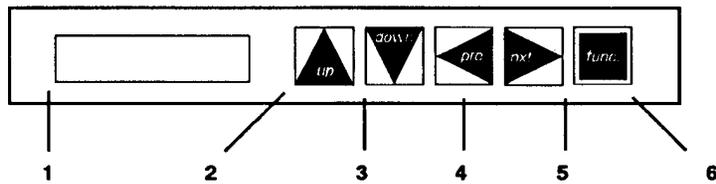
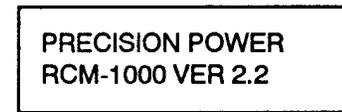


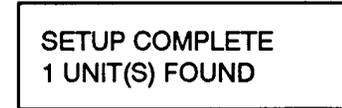
Fig. E Front Panel of RCM-1000

- | | | | |
|-----------------|------|---------------------|------|
| 1. LCD Display | | 4. PREVIOUS softkey | pre |
| 2. UP softkey | up | 5. NEXT softkey | nxt |
| 3. DOWN softkey | down | 6. FUNCTION softkey | func |

The following are the RCM-1000 display menus in the sequence they are displayed upon powering up your unit. When the RCM is shut off and then powered up again the display returns to these menus. The Welcome Screen and Main Menu Display will show the last device that was controlled. The RCM will then display the last function that was called.



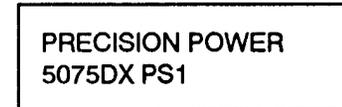
Initial Power Up Display



Configure Screen
For this example, 1 unit(s) found



Welcome Screen
Device RCM is controlling and it's serial number



Main Menu Display
5075DX is at Preset 1
At this stage all controls become operational

DISPLAY MENUS

To change the parameters for the 5075DX, use the **nxt** softkey or **pre** softkey. The **pre** and **nxt** "loops" are shown in numerical order to the left of the display screens.

pre (1)

LH:	RH:
LL:	RL:

Overload Display

Shows # of overloads 5075DX has seen. This can help you to troubleshoot if a problem arises. It will show that you may have too low of impedance at the output so the speaker connections will need to be checked. **Do Not** attempt to fix the 5075DX voiding the warranty.

The **pre** softkey will show the history of overloads the 5075DX has had since being manufactured. The **nxt** softkey does not show this feature.

nxt (1)

HP FREQ	Hz
50 Hz	- 16 kHz

High Pass Frequency Display

Select up or down softkey to change the frequency

nxt (2)

LP FREQ	Hz
50 Hz	- 16 kHz

Low Pass Frequency Display

DISPLAY MENUS

Select up or down softkey to change the frequency

nxt (3)

HP LEVEL	dB
■■■■■■■■■■	—————

High Pass Level Display

Select up or down softkey to change the level

nxt (4)

LP LEVEL	dB
■■■■■■■■■■	—————

Low Pass Level Display

Select up or down softkey to change the level

nxt (5)

SAVE TO PRESET:
UP = 1 DOWN = 2

Preset Display

Select up or down softkey to save changes to desired preset. If using the **pre** "loop" you will need to come back to this display to save parameter changes. The Save display will then show next

CHANGES SAVED

Save Display

nxt (6)

Precision Power
5075DX PS1*

Selection Saved

* This asterisk indicates that current changes were not saved. Will remain in effect until power down, additional changes made and saved, or preset is saved.

PUT INTO MEMORY, STEP TO PRESET 2, THEN SAVE

MOUNTING

So as not to damage the 5075DX while driving, the amplifier should be mounted in a secure place. It may be mounted in any compatible space that is convenient to your needs. Secure with #6 metal screws (not provided).

TOOLS NEEDED FOR INSTALLATION

- * Phillips Screwdriver
- * Wire Cutters
- * Wire Strippers
- * #8 Metal Screw per amp
- * Soldering Iron
- * Flux Cleaner**
- * Solder**
- * 4 Washers and Screws per amp**

** we suggest: water soluble solder, water to clean flux, and #6 Metal Screws for securing amp.

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 dealer or call Precision Power at 1-800-62-POWER for further assistance.

NO SOUND	Is the power LED illuminated?	Check fuses in power wire. Be sure Turn-On lead is connected. Check signal leads. Check gain control. Check source unit's volume level. Clean contacts on fuse holder.
NO SOUND IN ONE CHANNEL	Check Speaker Leads.	Inspect for short circuit or open connection.
	Check Audio Leads.	Reverse Left and Right cables to determine if it is occurring before the amp.
	If problem is with amplifier...	Have your dealer inspect the unit.
AMP TURNING OFF AT LOW VOLUME LEVELS	Check speakers for damage or short.	If an RCM-1000 is being utilized, check the overload display for low impedance failure. Have your dealer inspect the unit.
AMP TURNING OFF AT MEDIUM OR HIGH VOLUME LEVELS	Check speaker load impedance.	If an RCM-1000 is being utilized, check the overload display for low impedance failure. Be sure proper speaker load impedance recommendations are observed. (If you use an ohmmeter to check speaker resistance, please remember that DC resistance and AC impedance may not be the same).

SYSTEM GAIN ADJUSTMENTS

In order to achieve maximum signal-to-noise performance from a high quality auto stereo system, it is desirable to use high signal levels wherever possible in the interconnection 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.

NOTE: The Precision Power RCM-1000 is needed to make these adjustments. If you do not have an RCM you will need to have your Precision Power dealer set the gain adjustments for you.

Adjusting equalizer input gains:

1. Turn the equalizer's volume control to minimum.
2. Turn 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, such as a cassette, CD, or FM station. A loud music selection 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 alternate source unit, if used, and repeat steps 5 and 6.
8. Adjust crossover next.

SYSTEM GAIN ADJUSTMENTS

Adjusting crossover input gains:

1. Adjust all of the crossover's 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 your crossover.
5. Repeat step 4 for any remaining crossovers in the system.
6. Adjust amplifier input gains next.

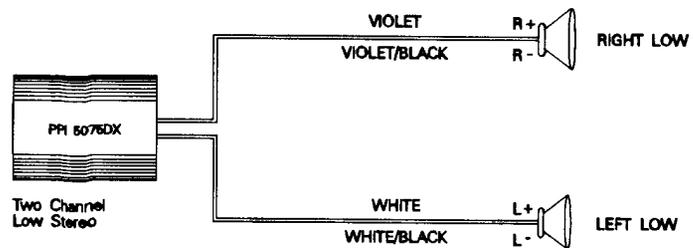
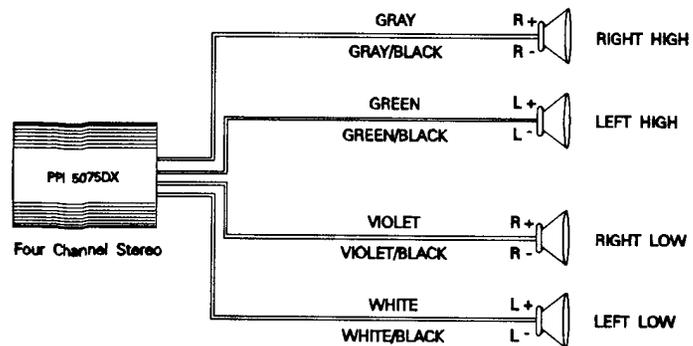
NOTE: In many multi-crossover/accessory systems, the gain of some crossovers/accessories may need to be further decreased to achieve proportional balance.

Adjusting amplifier input gains:

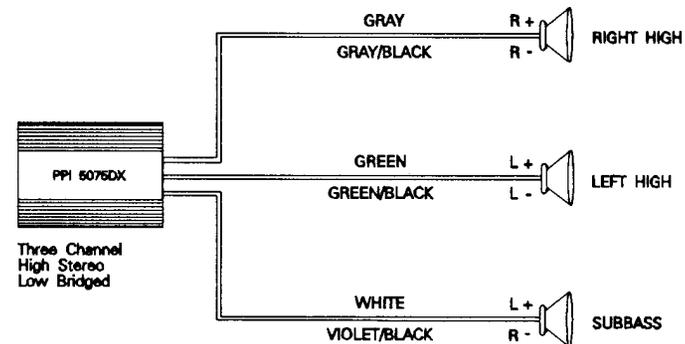
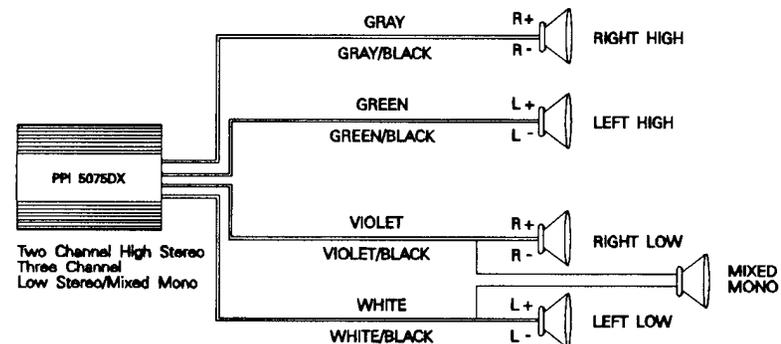
1. Adjust all amplifier gains to 1/2 of maximum sensitivity.
2. Turn the volume knob on the equalizer to a maximum of 3 o'clock.
3. Increase the gains on the amplifier until the onset of audible distortion. Then decrease the gains prior to the immediate point of audible distortion. This setting will minimize system background noise and prevents overloading 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.

SAMPLE HOOKUP CONFIGURATIONS



SAMPLE HOOKUP CONFIGURATIONS



THANK YOU

Thank you again for choosing Precision Power's 5075DX to enhance your system. Your complete satisfaction is important to us. If you have any comments please feel free to write us.

To update your system with our state-of-the-art equipment we invite you to try our other products. Please consult your PPI dealer for further information

Precision Power is the competitive edge.

LIMITED 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 two years from the date of original purchase. The extent and conditions of PPI's Limited Warranty are as follows:

1. PPI warrants that it will either repair or replace at no charge any unit which PPI's examination discloses to be defective and under warranty, provided the defect occurs within two years from the date of purchase, and the product is returned immediately to PPI.
2. The date of purchase 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.
3. 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.
4. PPI does not authorize any other person 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 OF 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.
5. Your unit will be serviced on an in-warranty basis within the warranty period for the correction of warranted defects. Do not return the article to your dealer. Return the article including your name, telephone number, and return address with the description of the problem to:

Precision Power
Warranty Department
4829 S. 38th Street
Phoenix, AZ 85040

TO RETURN ARTICLES OUT OF WARRANTY. Return the article, postage prepaid, in the original protective carton. Include in the package 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. Fifty dollars (\$50.00) labor, plus parts will be charged for all product repairs. The repaired unit will be returned to the customer with an itemized statement, C.O.D.