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Congratulations and thank you.....

for choosing *PrecisionPower* audio equipment. At *PrecisionPower* we proudly design, engineer and manufacture audio products at our facility in Phoenix, Arizona. Our award winning engineering team utilizes innovative technology to consistently deliver Absolutely State of the Art™ performance, sound quality, reliability, and value. This *PrecisionPower* product reflects our commitment to offer you unparalleled versatility and quality for years of dependable service and listening enjoyment.

Service



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

FOR YOUR RECORDS:

Model _____

Serial Number _____

Purchase Date _____

Caution!



The extended use of a high powered audio system may result in hearing loss or damage. While *PrecisionPower* systems are capable of "Concert Level" volumes with incredible accuracy, they are also designed for you to enjoy at more reasonable levels all of the sonic subtleties created by musicians. Please observe all local sound ordinances.

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FEATURES / SPECIFICATIONS

3-Way Active Crossover
12dB/octave Slopes
Low Pass Level Control
Input Attenuation Switch
Detented Frequency Selection Controls
Gold RCA Input and Output Connectors
PowerLock Power, Ground and Remote Connector
PWM Power Supply
Designed and Handcrafted in the USA

Specifications



Signal-to-Noise Ratio	>102dB
Total Harmonic Distortion (1KHz, 1VRMS)	0.002%
Input Impedance	10 k Ω
Maximum Output (10 k Ω Load)	8 VRMS
Supply Voltage	11-15 VDC
Crossover Slopes	12 dB/octave
Crossover Frequencies:	
Low Pass	40Hz to 500Hz
Front High Pass	40Hz to 5kHz
Rear High Pass	40Hz to 500Hz
Dimensions	6.813" W 0.995" H 3.805" D

MOUNTING

Mounting

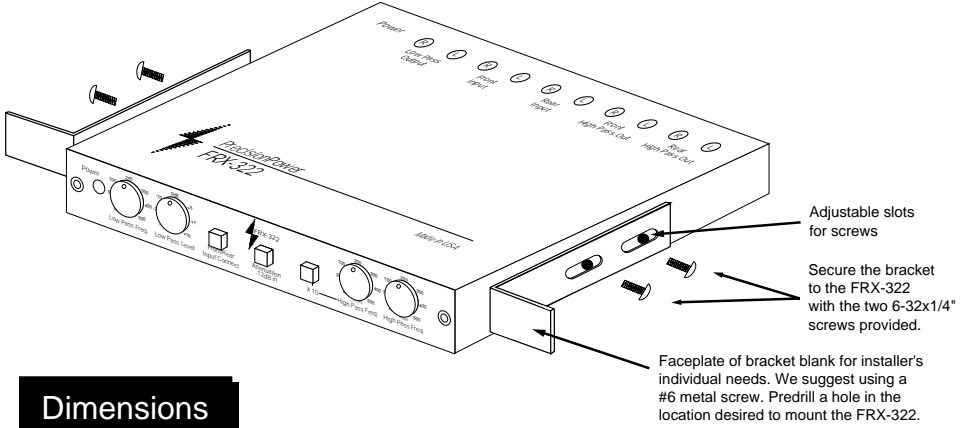


To prevent damage to the **FRX-322** while driving, mount it in a secure place. Choosing the appropriate location will depend upon your vehicle and the complexity of your system design. Typical mounting locations for your new **FRX-322** would be in the dash or center console. Never mount the component in a location that would subject it to immersion or exposure to water.



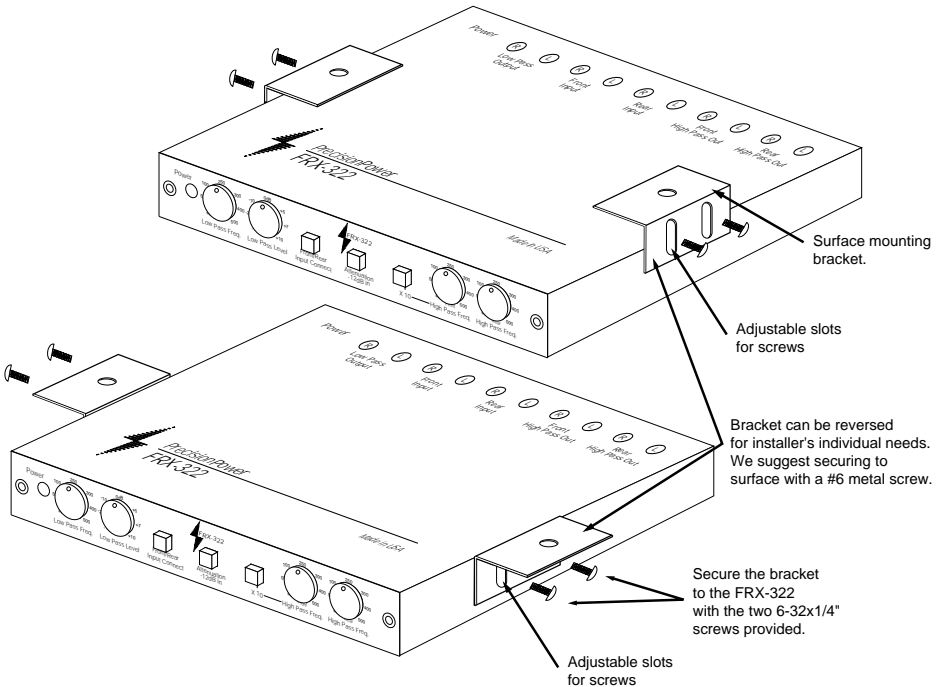
Once a location has been chosen, securely mount the **FRX-322** using the two supplied brackets. There are two different sets of brackets included with your **FRX-322**. One set is used to flush mount the **FRX-322**, as shown above. The other set is used to surface mount, as shown on the next page. The brackets are connected to the equalizer/preamp by two 6-32 x 1/4" socket head cap screws. We have made the brackets adjustable to compensate for the uniqueness of each vehicle. Be Careful! Inspect the area underneath to be sure you are not drilling into wires, etc. that could be damaged by the drill bit or screws.

MOUNTING

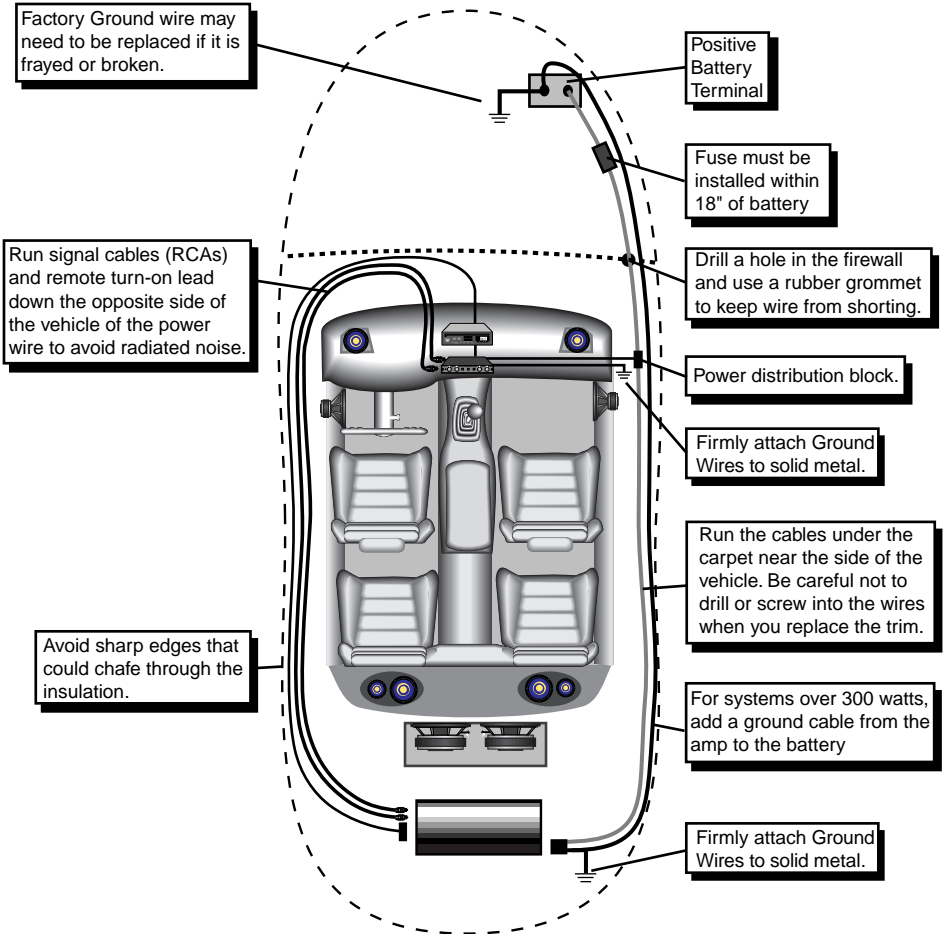


Dimensions

6.813"W
0.995"H
3.805"D



WIRING



NOTE



Before beginning, disconnect the negative (-) terminal of the battery prior to working on the positive (+) terminal to prevent a short to ground. This is important, unless you want to spend the rest of your life with a nickname like "Sparky," or "Smokey." Reconnect the negative terminal only after all connections have been made.

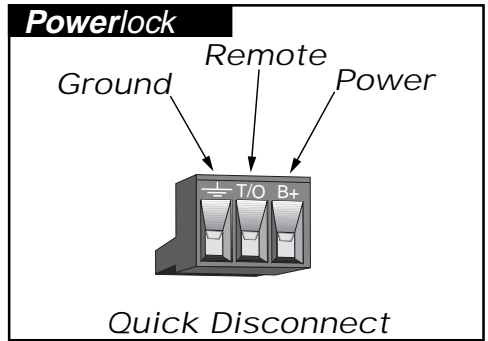
WIRING

The next step is to connect the Power, Ground, and Remote wires to your **FRX-322**. The power wire should run from the mounting location through the vehicle to the battery or power distribution block. Avoid sharp corners, creases, and sharp body parts. When passing through any metal wall (i.e. firewall etc.), a grommet must be used to prevent the wire from chaffing and shorting 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.

Find a location near the crossover 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 are not 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/or soldering this connection. After the connection is complete, coat the area with silicone or some similar material to prevent rust from developing.

Finally, the remote wire needs to run to the power antenna (or amplifier remote) lead of the head unit. This wire supplies a 12 volt signal to the **FRX-322** when the main system is activated. Once you have routed the power, ground, and remote wires through



the vehicle, it is time to connect the wires to the **FRX-322**. Be sure that you have not reconnected the ground cable to the negative post of the battery.

Cut off excess wire and, using wire strippers, strip the power, ground and remote cables about 1/8 inch. Locate the power, ground, and remote **Powerlock** connector (supplied). On the top of the connector are three slotted screws. With a small flat-bladed screwdriver, loosen the screws before attempting to insert the cables. After you have inserted the stripped end of each cable into the connector, secure it by tightening the associated screw. Check that each connection is tight. If the wires are secure, the connector may be plugged into the **FRX-322**.

FUNCTIONS

1. Power

After connecting the Power, Ground and Remote wires, plug in the **PowerLock** connector here.

2. Low Pass Output

Plug the RCA cables from the FRX to the Low Pass amplifier inputs.

3. Front Input

Plug the RCA cables from the front channel output of the headunit to the FRX Front Input RCAs.

4. Rear Input

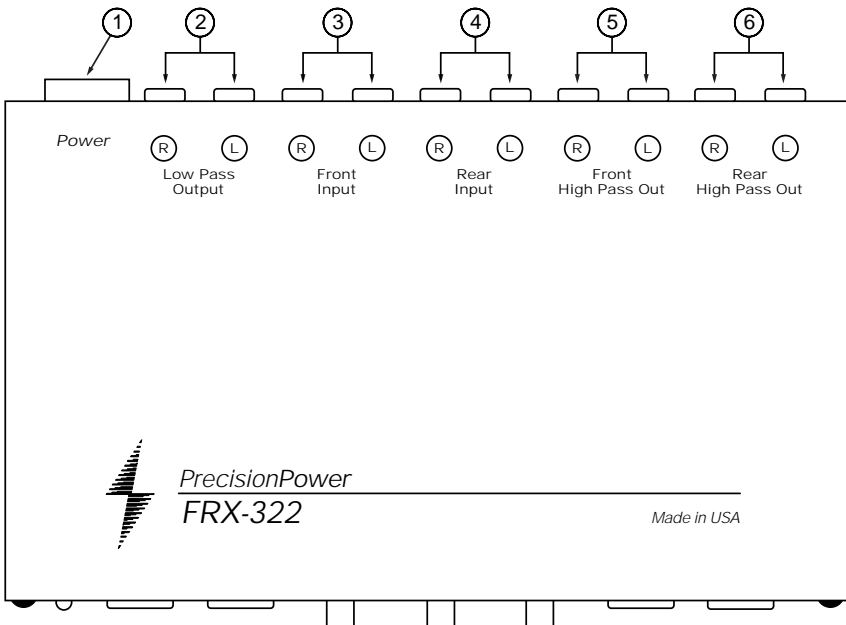
Plug the RCA cables from the rear channel output of the headunit to the FRX Rear Input RCAs.

5. Front High Pass Out

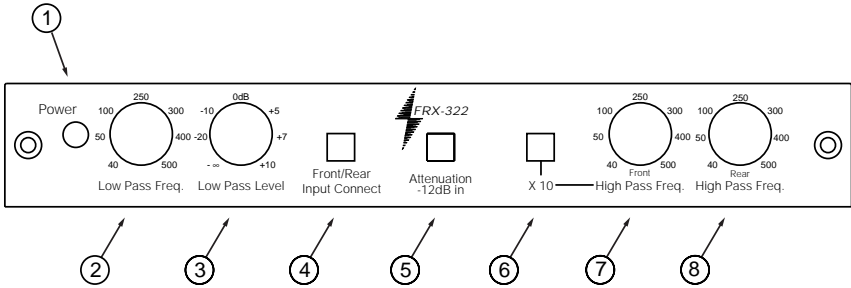
Plug the RCA cables from the FRX to the Front High Pass amplifier inputs.

6. Rear High Pass Out

Plug the RCA cables from the FRX to the Rear High Pass amplifier inputs.



FUNCTIONS



1. Power LED

Red light indicates power on.

2. Low Pass Frequency

Used to set the Low Pass Frequency (40 Hz - 500 Hz)

3. Low Pass Level

Low Pass Level can cut or boost the Low Pass Frequency ($-\infty$ to +10dB)

4. Front/Rear Input Connect

Push this switch IN to connect front and rear channels together when using one input.

5. Attenuation -12dB in

Push this switch IN for attenuation if the line level is over 6 volts.

6. X10

Push this switch IN to multiply the Front High Pass frequency range by 10.

7. Front High Pass Frequency

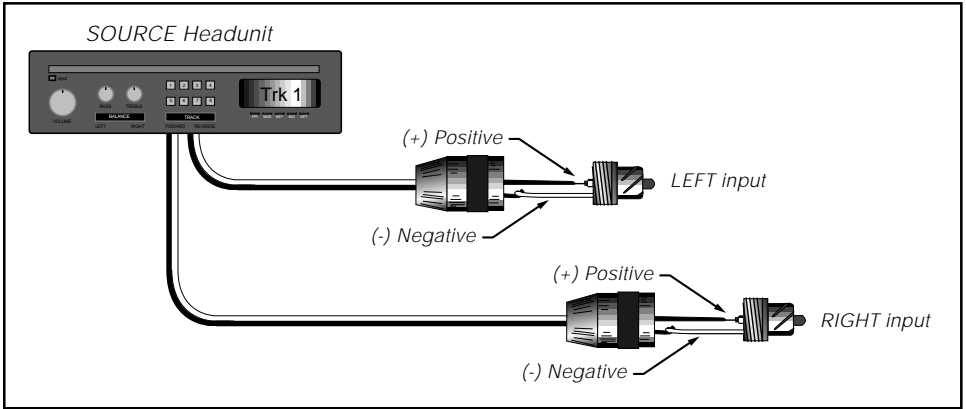
Used to set the Front High Pass Frequency (40 Hz - 5 kHz)

8. Rear High Pass Frequency

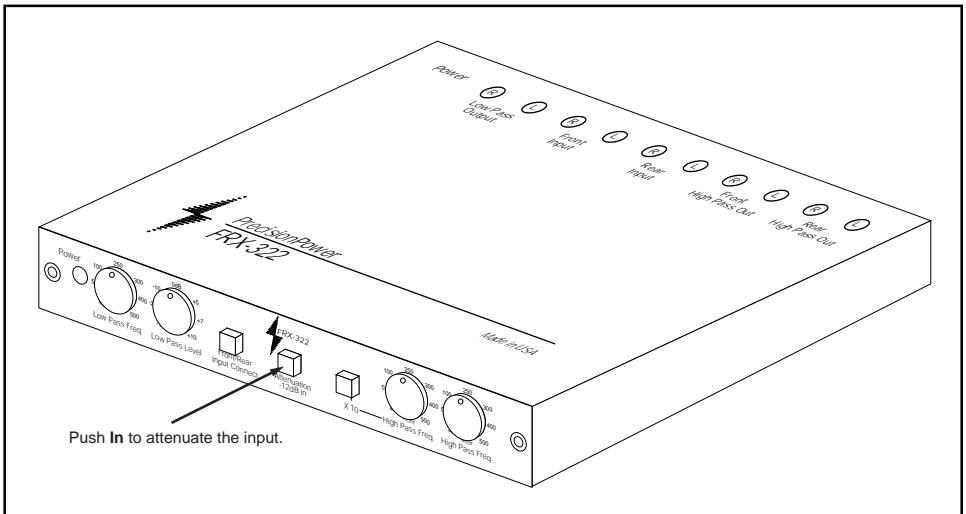
Used to set the Rear High Pass Frequency (40 Hz - 500 Hz)

INPUT

To use Speaker Level Inputs (common ground headunits only), connect RCA plugs to the front or rear speaker leads as shown, and push IN the Attenuation switch.



WARNING: If you are using a source unit with bridged high powered (or "floating ground") speaker outputs, a suitable high to low level adapter must be used. If you are unsure about your head unit see your local **PPI** dealer or call **1-800-62POWER**.



TROUBLE SHOOTING

NO SOUND

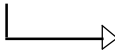
Is the LED lit?

YES

Check Input cables for signal by connecting them straight to the Subwoofer amplifier

NO

Check Power and Remote turn-on wire for voltage. Make sure Ground wire is secure.



ANY SOUND NOW?

YES

Problem is in the Crossover. See your local Authorized *PrecisionPower* Dealer or call 1-800-62**POWER**.

NO

Problem is elsewhere in the system. Check head unit and amplifiers.

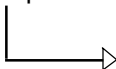
SOUND IN ONE CHANNEL ONLY

Reverse left and right RCA outputs for one band (i.e. subwoofers).

SOUND IS NOW IN

OPPOSITE CHANNEL

Reverse RCA inputs



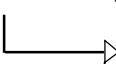
SOUND IS NOW IN

SAME CHANNEL

Problem is in the amplifier, speakers or associated wiring of the silent channel.

OPPOSITE CHANNEL

Reverse RCAs at head unit (Check Balance control)



SOUND IS NOW IN

SAME CHANNEL

Problem is in the Crossover. See your local Authorized *PrecisionPower* Dealer or call 1-800-62**POWER**.

OPPOSITE CHANNEL

Problem is in the head unit

SAME CHANNEL

Problem is in the RCA cables

LOW OUTPUT FROM ONE BAND

Check gain control on the affected amplifier(s).

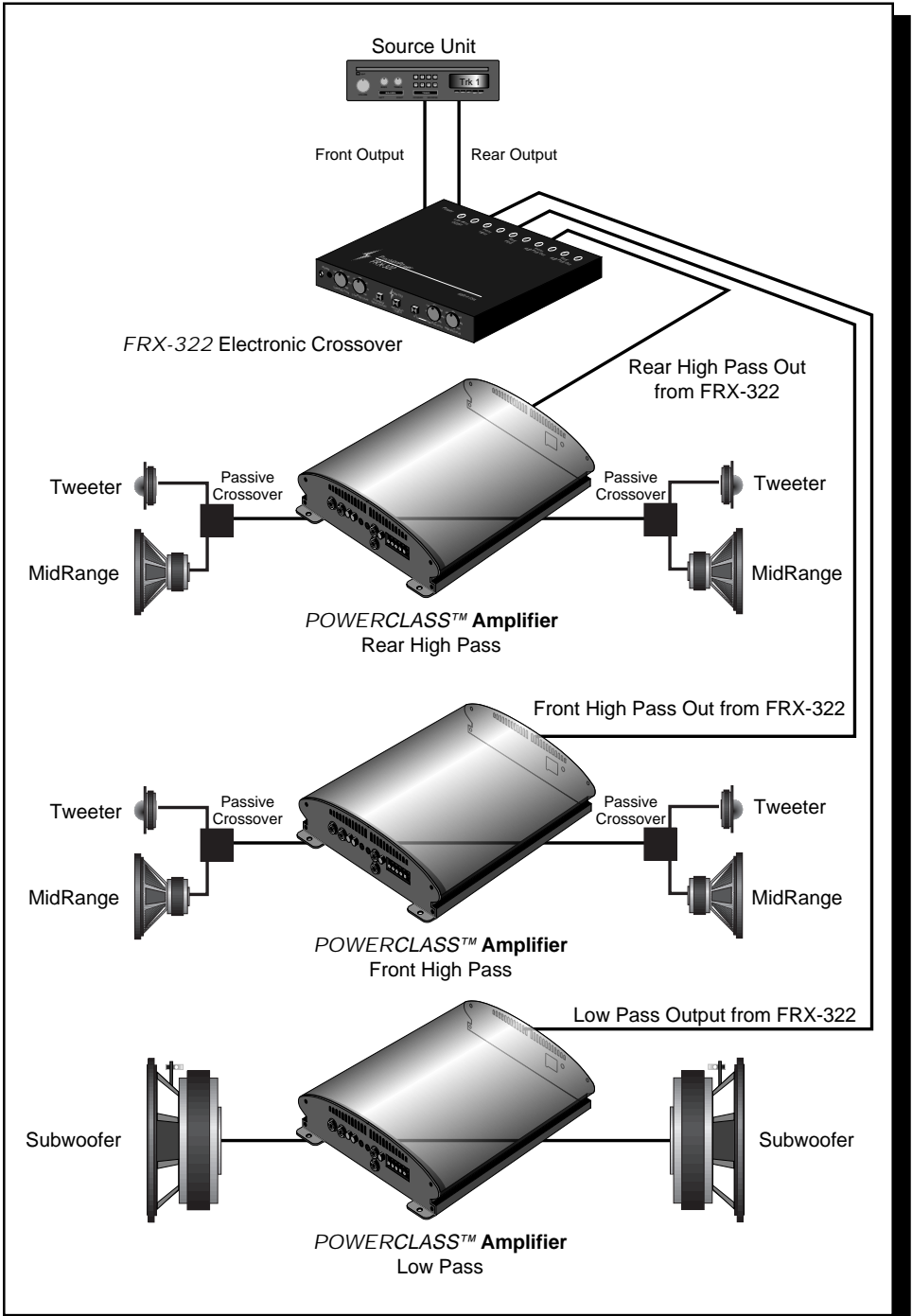
STILL LOW OUTPUT - See your local Authorized *PrecisionPower* Dealer or Call 1-800-62**POWER**.

FREQUENCY CHART

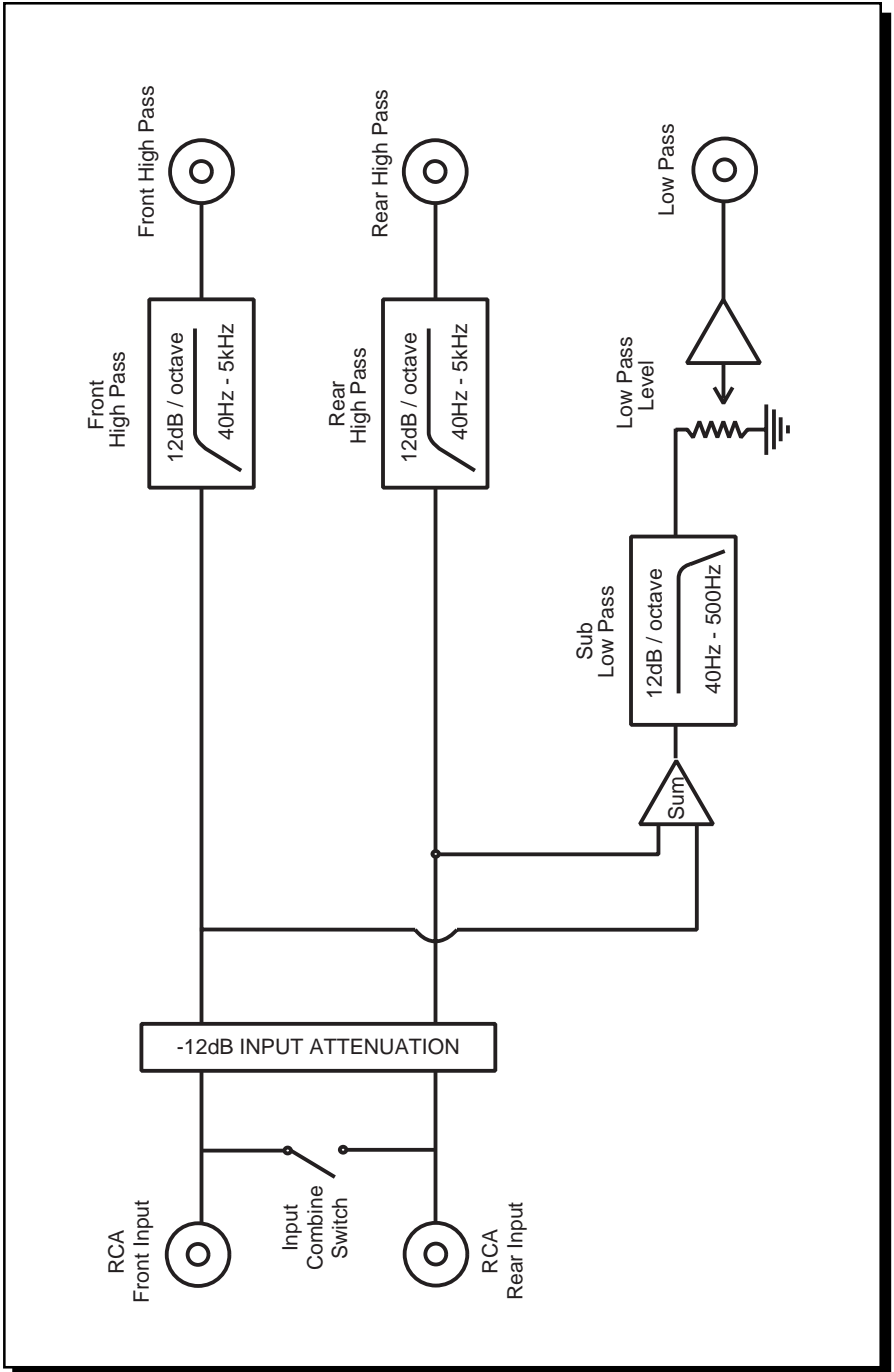
All crossover frequency controls are detented. Each "click" counted from the full counterclockwise position corresponds to a specific frequency. Refer to this chart and page 6 for set-up instructions.

Detent	Low Pass	High Pass	High Pass X10
1	40 Hz	40 Hz	420 Hz
2	46 Hz	40 Hz	420 Hz
3	46 Hz	40 Hz	420 Hz
4	47 Hz	40 Hz	420 Hz
5	48 Hz	42 Hz	428 Hz
6	51 Hz	44 Hz	460 Hz
7	54 Hz	46 Hz	484 Hz
8	58 Hz	50 Hz	524 Hz
9	62 Hz	52 Hz	556 Hz
10	67 Hz	58 Hz	604 Hz
11	73 Hz	62 Hz	652 Hz
12	80 Hz	68 Hz	708 Hz
13	89 Hz	74 Hz	812 Hz
14	99 Hz	84 Hz	876 Hz
15	114 Hz	94 Hz	1.00 KHz
16	131 Hz	110 Hz	1.19 KHz
17	147 Hz	124 Hz	1.34 KHz
18	159 Hz	136 Hz	1.44 KHz
19	167 Hz	142 Hz	1.50 KHz
20	173 Hz	148 Hz	1.56 KHz
21	182 Hz	156 Hz	1.58 KHz
22	192 Hz	166 Hz	1.72 KHz
23	202 Hz	174 Hz	1.86 KHz
24	214 Hz	184 Hz	1.93 KHz
25	226 Hz	196 Hz	2.05 KHz
26	240 Hz	208 Hz	2.18 KHz
27	256 Hz	222 Hz	2.36 KHz
28	276 Hz	240 Hz	2.52 KHz
29	298 Hz	258 Hz	2.72 KHz
30	320 Hz	282 Hz	2.96 KHz
31	350 Hz	306 Hz	3.22 KHz
32	378 Hz	334 Hz	3.54 KHz
33	414 Hz	368 Hz	3.86 KHz
34	440 Hz	394 Hz	4.13 KHz
35	460 Hz	410 Hz	4.32 KHz
36	480 Hz	430 Hz	4.51 KHz
37	500 Hz	450 Hz	4.72 KHz
38	514 Hz	456 Hz	4.83 KHz
39	526 Hz	468 Hz	4.91 KHz
40	530 Hz	468 Hz	4.92 KHz
41	530 Hz	500 Hz	5.00 KHz

3-WAY SYSTEM DIAGRAM



BLOCK DIAGRAM



WARRANTY

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. **PrecisionPower** 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: **PrecisionPower** will either repair or replace at no charge, to the original purchaser, any unit which **PrecisionPower'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 **PrecisionPower**. This warranty is not transferable.

2. Non-Authorized Dealer Installed Products: **PrecisionPower** will either repair or replace at no charge, to the original purchaser, any unit which **PrecisionPower'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 **PrecisionPower**. 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 PrecisionPower 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 **PrecisionPower** product found to have the original factory serial number removed or defaced. All products received (by **PrecisionPower**) 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 **PrecisionPower** 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 **PrecisionPower's** owner's manual. Nor shall this warranty apply to any part which has been subject to misuse, neglect, or accident.

6. PrecisionPower 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 **PrecisionPower** product should occur, contact your Authorized Dealer for assistance with the return and factory repair of your **PrecisionPower** 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:

PrecisionPower, Inc.
Service Department
4829 S. 38th Street
Phoenix, AZ 85040-2964

TO RETURN PRECISIONPOWER 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 **PrecisionPower** 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.

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