



EARTHQUAKE SOUND

**PowerHouse Series Amplifiers
Owners Manual**

MODELS:

PH800W.2

PH1000W.2

PH2200W.4

PH2000W/D1 • 2-Ohm

PH2000W/D1.1 • 1-Ohm

PH5000W/D1 • 2-Ohm

PH10000W/D1 • 2-Ohm

PH20000W/D1 • 2-Ohm



The Sound That Will Move You.

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Earthquake Sound Corporation • 2727 McCone Avenue Hayward CA, 94545 • Phone: 510-732-1000 Fax: 510-732-1095



Sound That Will Move You.

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THANK YOU

Thank you for choosing Earthquake Sound's high-end line of PowerHouse amplifiers for superior enhancement of your mobile audio system. With proper installation and responsible listening, your amplifier(s) will give you years of near perfect sound reproduction.

We strongly recommend you to have your new amplifier(s) installed by an authorized Earthquake Sound dealer. Installation professionals employed by your dealer have the correct tools and knowledge to install your amplifier(s) neatly and successfully. Also, when your new products are installed by an authorized dealer, your product will include a FIVE YEAR LIMITED WARRANTY (1-Year for Digital models excluding PH2000W/D1). If you choose to perform your own installation, your warranty will be subject to limitations. Dealer policies on handling warranty requests may vary from one dealer to the next. Please read the warranty information in its entirety and use good judgment when making these vital decisions.

CAUTION: Earthquake Amplifiers are capable of generating high sound pressure levels. You should exercise caution when operating these amplifier systems. Long term exposures to high levels of sound pressure will cause permanent damage to your hearing. Sound pressure levels exceeding 85dB can be dangerous with constant exposure. Set your audio system to a comfortable loudness level. Earthquake Sound Corporation does not assume liability for damages resulting from the direct use of Earthquake amplifiers or other Earthquake products, and urges users to play their music at moderate listening levels.

SOUND LEVEL DBA DURATION IN HOURS

90	8
92	6
95	4
97	3
100	2
102	1 - 1 1/2
105	1
110	1/2
115	1/4 or less

THE CHART (ON THE SIDE) SHOWS THE U.S. GOVERNMENT'S OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS WHICH WERE IN EFFECT AT THE TIME OF THIS PUBLICATION FOR PERMISSIBLE NOISE EXPOSURE, PER 29CFR1910.95, TABLE G-16.

WARRANTY

Five (5) years limited warranty: PH800W/2, PH1000W/2, PH2200W/4 PH2000W/D and PH2000W/D1.1:

Earthquake warrants the original purchaser that all Factory Sealed New Audio Products be free from defects in material and workmanship, under normal and proper use, for a period of five (5) years from the date of purchase (as shown on the original bill of sale with serial number affixed/written on it). The five (5) year warranty period is valid only if an authorized Earthquake dealer properly installs the product, and the warranty registration card is properly filled out and sent to Earthquake Sound Corporation. If a non-authorized party installs the product a thirty (30) day warranty period will be applied.

(A) Five (5) years limited warranty plan coverage guidelines:

- First year: Earthquake pays for labor, parts, and ground freight (only in US mainland, not including Alaska and Hawaii) back to customer.
- Second year: Earthquake pays for labor and parts only, customer must pay freight both ways.
- Third, fourth & fifth year: Earthquake pays labor only. Customer must pay for parts and freight both ways.

(B) Warning:

Products (sent for repair) that are tested by Earthquake technicians and deemed to have no problem(s) will not be covered by the five (5) year limited warranty. Customer will be charged a minimum of one (1) hour of labor (ongoing rates) plus shipping charges back to customer.

(C) Earthquake agrees to repair or replace - at our option - all such defective products/parts subject to the following provisions:

- Defective products/parts have not been altered or repaired by other than an Earthquake factory approved technician.
- Products/parts are not subjected to negligence, misuse, improper use, or accident, damaged by improper line voltage, used with incompatible products, or have its serial number or any part of it altered, defaced or removed, or have been used in any way that is contrary to Earthquake's written instructions.

(D) Warranty Limitations:

Earthquake warranty does not cover products that have been modified or abused. Including but not limited to the following:

- Damages to speaker cabinet and cabinet finish due to misuse, abuse, or use of improper use of cleaning materials/methods.
- Bent speaker frame, broken speaker connectors, holes in speaker cone, surround & dust cap, burnt speaker voice coil.
- Fading, deterioration of speaker components & finish due to improper exposure to elements.
- Bent amplifier casing, damaged finish on the casing due to abuse, misuse, or improper use of cleaning material.
- Burnt tracers on PCB.
- Product/part damaged due to poor packaging or abusive shipping conditions.
- Subsequent damage to other products.

WARRANTY

A warranty claim will not be valid if the warranty registration card is not properly filled & returned to Earthquake with a copy of the sales invoice.

(E) Service Request:

To receive product/s service, contact Earthquake service department at (510) 732-1000 and request an RMA number (Return Material Authorization), items shipped without a valid RMA number will be refused. Make sure you provide us with your complete/correct shipping address, a valid phone number, and a brief description of the problem you are experiencing with the product. In most cases, our technicians might be able to resolve the problem over the phone, thus eliminating the need to ship the product.

(F) Shipping Instructions:

Product/s must be packaged in its original protective box(s) to minimize transport damage. Shipper claims regarding items damaged in transit must be presented to carrier. Earthquake Sound Corporation reserves the right to refuse product improperly packed. Original bill of sale must accompany product returned for service. We encourage you to include with the package a written description of the problem. Ship product to: Earthquake Sound Corp. 2727 Mc Cone Avenue, Hayward, CA 94545. Ph (510) 732-1000. You are responsible for the cost of shipping the product to Earthquake Sound Corporation.

(G) Disputes Resolution:

All disputes - between clients and Earthquake Sound Corporation - resulting from the five (5) years limited warranty policy must be resolved according to the laws & regulations of the county of Alameda -California.

NOTE: For warranty guidelines on PH5000W/D1, PH10000W/D1 and PH20000W/D, please see separate warranty provided in packaging.

Please keep this warranty information in your files for future reference if necessary. It is recommended that you stick your serial number here for future reference.

SERIAL NUMBER

SPECIFICATIONS

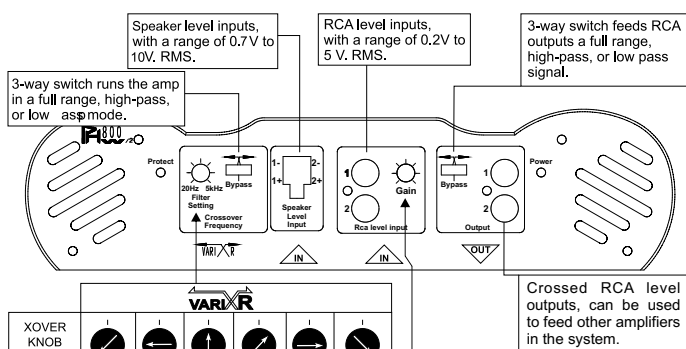
Model	Channels	Max Power	Power 4-Ohm Bridged	Power 1-Ohm	Power 2-Ohm Bridged	Power 4-Ohm Stereo	Weight	Dimensions (HxWxL)
PH800W/2	2	800	1 x 400	N/A	2 x 200	2 x 105	9	2.375" x 10.125" x 8.5"
PH1000W/2	2	1000	1 x 500	N/A	2 x 250	2 x 145	11	2.375" x 10.125" x 10.375"
PH2200W/4	4	1400	2 x 500	N/A	4 x 250	4 x 130	13.5	2.375" x 10.125" x 13.375"
PH2000W/D1	1 (MONO)	1400	MONO	N/A	1 x 1000	1 x 500	13	2.375" x 10.125" x 12"
PH2000W/D1.1	1 (MONO)	1400	MONO	1 x 1000	1 x 700	1 x 450	13	2.375" x 10.125" x 12"
PH5000W/D1	1 (MONO)	5000	MONO	1 x 5000	1 x 3000	1 x 860	16	2.375" x 10.125" x 15"
PH10000W/D1	1 (MONO)	5000	MONO	1 x 5000	1 x 3000	1 x 900	18	2.375" x 10.125" x 16.5"
PH20000WD	2	20000	6000	N/A	1 x 20,000	2 x 3000		4.5" x 12" x 28.625"








*MEASUREMENTS ARE MADE USING RESISTIVE LOAD.






**MEASUREMENTS ARE MADE USING REACTIVE LOAD.

ALL POWER RATINGS ARE PEAK POWER

PH800W.2



						
XOVER KNOB SETTING						
	20Hz	27Hz	45Hz	75Hz	170Hz	5kHz

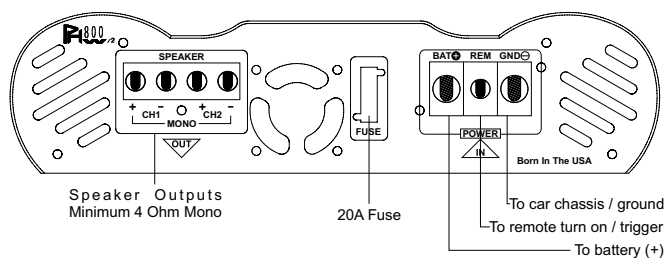
	GAIN KNOB SETTING				
MAX INPUT VOLTAGE BEFORE CLIPPING	 MIN	 9	 12	 3	 MAX
RCA LEVEL	5V	3.5V	0.5V	0.28V	0.20V
SPKR LEVEL	10V	8V	1.5V	0.75V	0.7V

LED INDICATORS

- ☐ GREEN = POWER
- ☐ RED = PROTECTION

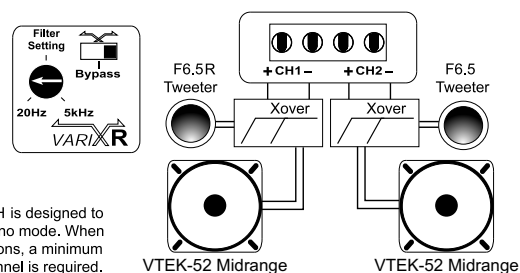
WARNING

The gain knob is not a volume control. It is designed to match the input level of the amp to the output level of the source unit. Over driving-clipping- the input stage of the amp will cause damage to the amplifier (Please refer to table for settings).



FRONT STEREO IMAGES

Set Xover knob to 9 O'clock (27Hz), & set Xover switch to high-pass.

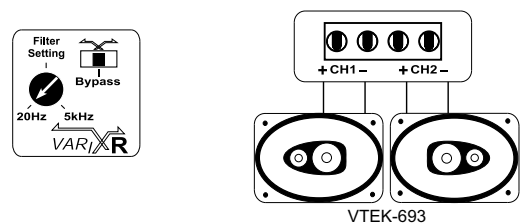


WARNING

WARNING The PH is designed to operate in stereo or mono mode. When used in stereo applications, a minimum load of 2 ohms per channel is required.

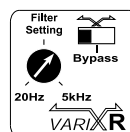
REAR FILL STAGING

Set Xover knob to Minimum (20Hz), & set Xover switch to high-pass.



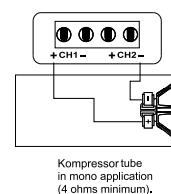
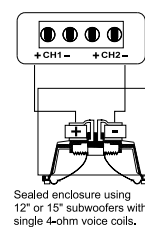
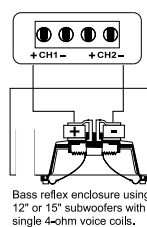
BASS APPLICATIONS

Set Xover knob to 2 O'clock (75Hz), & set Xover switch to low-pass.

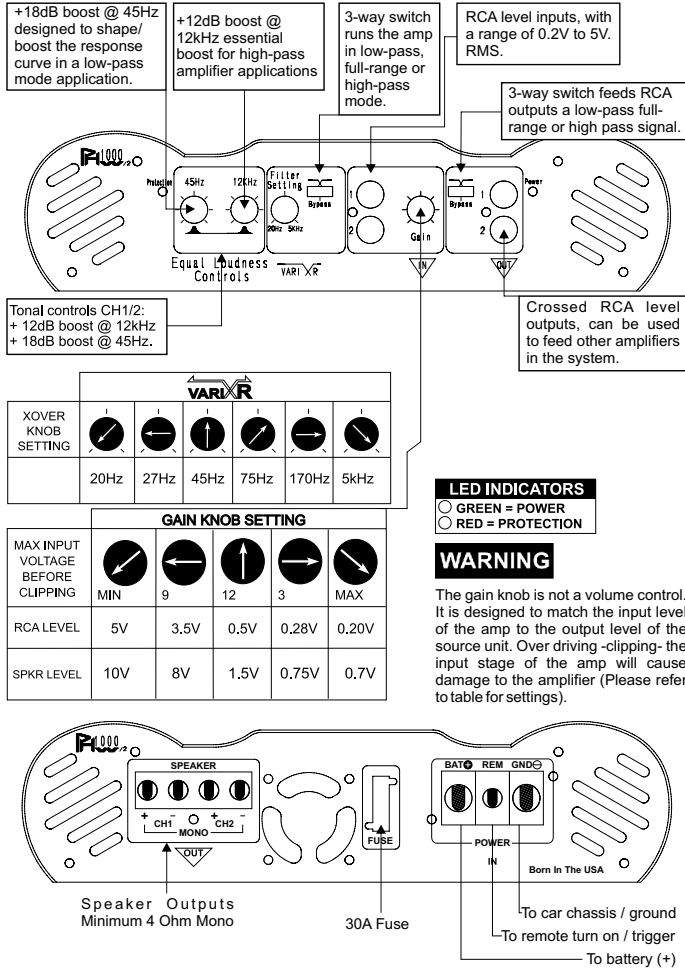


WARNING

WARNING The PH is designed to operate in mono mode. When bridging the two channels, a minimum load of 4 ohms is required.

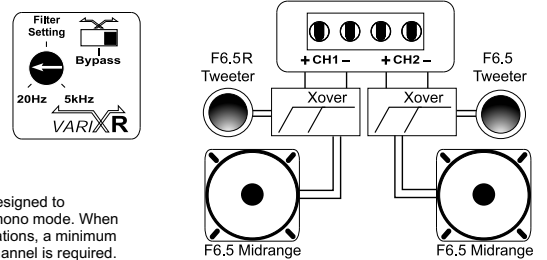


PH1000W.2



FRONT STEREO IMAGES

Set Xover knob to 9 O'clock (27Hz), & set Xover switch to high-pass.

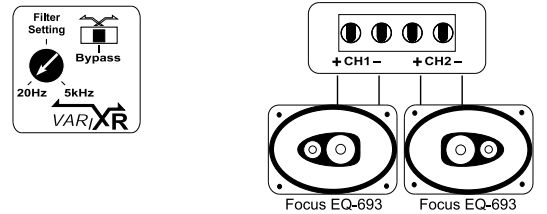


WARNING

The PH1000W/2 is designed to operate in stereo or mono mode. When used in stereo applications, a minimum load of 2 ohms per channel is required.

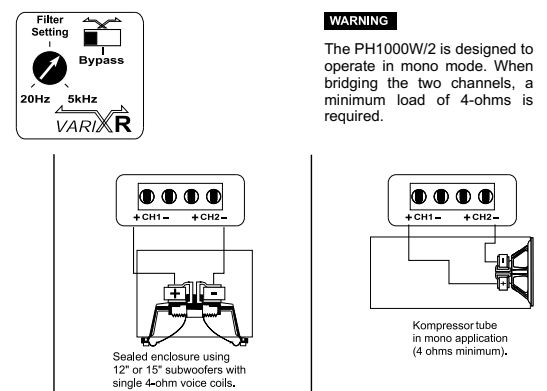
REAR FILL STAGING

Set Xover knob to Minimum (20Hz), & set Xover switch to Full Range



BASS APPLICATIONS

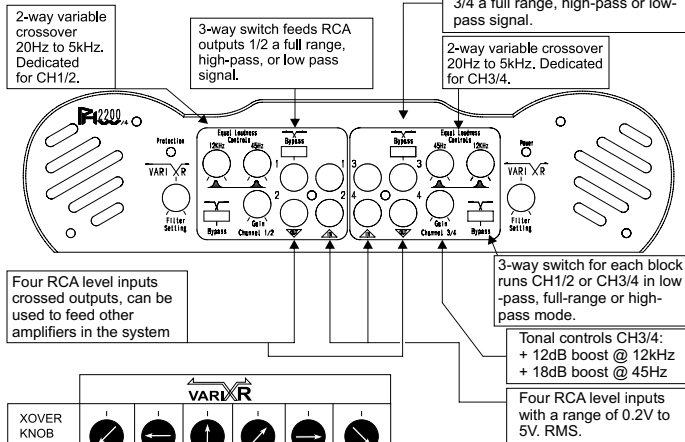
Set Xover knob to 2 O'clock (75Hz), & set Xover switch to low-pass.



WARNING

The PH1000W/2 is designed to operate in mono mode. When bridging the two channels, a minimum load of 4-ohms is required.

PHD2200W.4



XOVER KNOB SETTING					
20Hz	27Hz	45Hz	75Hz	170Hz	5kHz

GAIN KNOB SETTING					
MIN	9	12	3	MAX	

MAX INPUT VOLTAGE BEFORE CLIPPING					
5V	3.5V	0.5V	0.28V	0.20V	

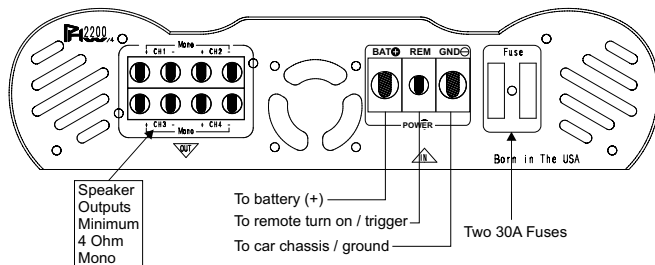
SPKR LEVEL					
10V	8V	1.5V	0.75V	0.7V	

LED INDICATORS

- GREEN = POWER
- RED = PROTECTION

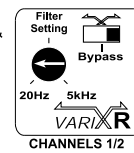
WARNING

The gain knob is not a volume control. It is designed to match the input level of the amp to the output level of the source unit. Over driving -clipping- the input stage of the amp will cause damage to the amplifier (Please refer to table for settings).



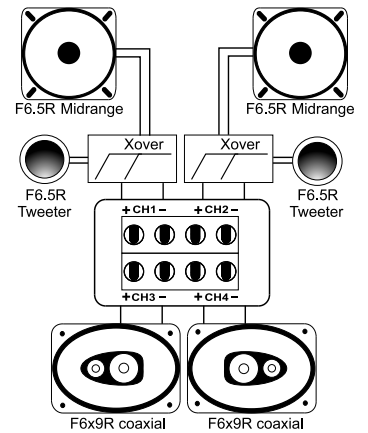
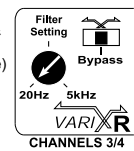
FRONT STEREO IMAGES CHANNELS 1/2

Set Xover knob to 9 O'clock (27Hz), & set Xover switch to high-pass.



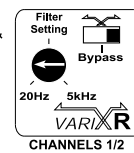
REAR FILL STAGING CHANNELS 3/4

Set Xover knob to Minimum (20Hz), & set Xover switch to by-pass, (full-range)



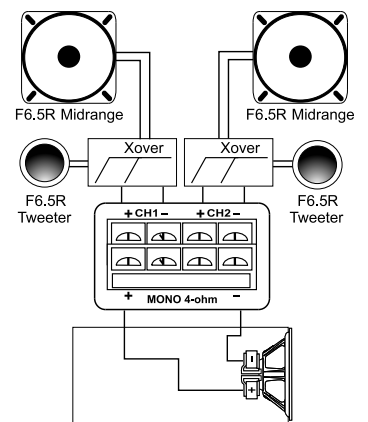
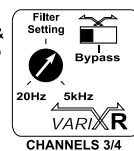
FRONT STEREO IMAGES CHANNELS 1/2

Set Xover knob to 9 O'clock (27Hz), & set Xover switch to high-pass.



BASS APPLICATIONS - CHANNELS 3/4 mono

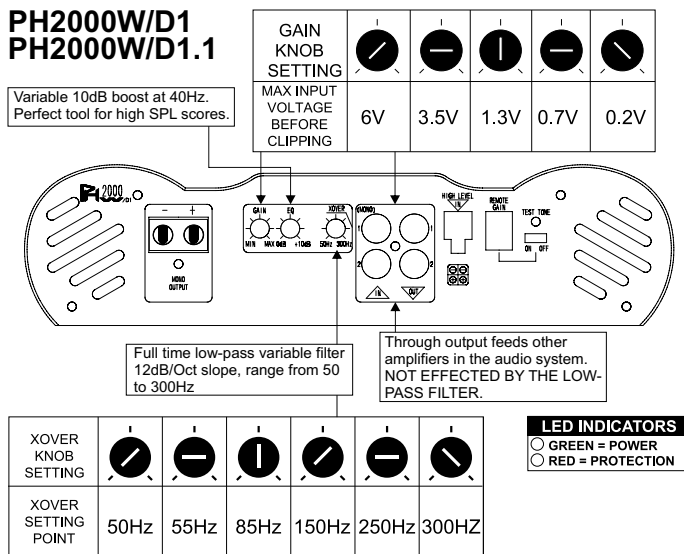
Set Xover knob to 2 O'clock (75Hz), & set Xover switch to low-pass.



Kompressor tube in mono application (4 ohms minimum).

PH2000W/D1 PH2000W/D1.1

Variable 10dB boost at 40Hz.
Perfect tool for high SPL scores.

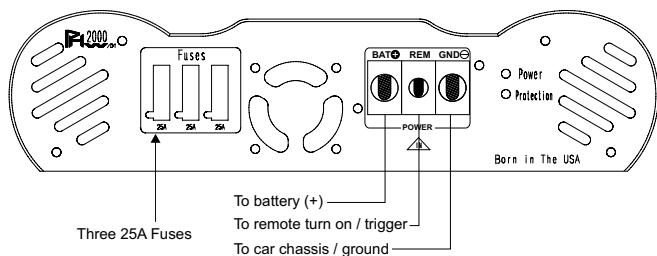


WARNING

Before you install the amp, take note of the following:
 #1. You have to confirm that your power supply can deliver spontaneous power to the amplifier when needed to propel the load.
 #2. Bullet-proof ground: the ground cable must be 4-gauge minimum, it should be very short, and well grounded to the chassis.

WARNING

The gain knob is not a volume control. It is designed to match the input level of the amp to the output level of the source unit. Over driving -clipping- the input stage of the amp will cause damage to the amplifier (Please refer to table for settings).



* Test the alternator output. Factory alternators will produce 60-80 amperes at best. Wear and heat will reduce the output by 40%.

* Alternator ground (-) must be reinforced, use 4-gauge cable instead of the factory 8-gauge.

* Alternator positive (+) to battery (+) must be reinforced. Use 4-gauge cables.

* Check your battery condition. Batteries degrade after a while.

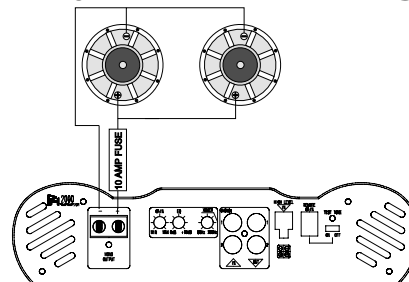
* Battery (+) to amplifier (+) must be a 4-gauge cable.

* Ground amplifier to chassis using 4-gauge cable, keep the cable short (Maximum 2-feet).

* Use 1 farad capacitor to compensate for surges in demand.

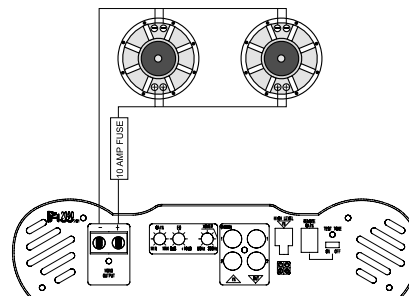
* We recommend the use of one (1) auxiliary battery.

Two Single 4-Ohm Subwoofers @ 2-Ohm



USE THREE 25-AMPERE FUSES TO PROTECT THE AMPLIFIER

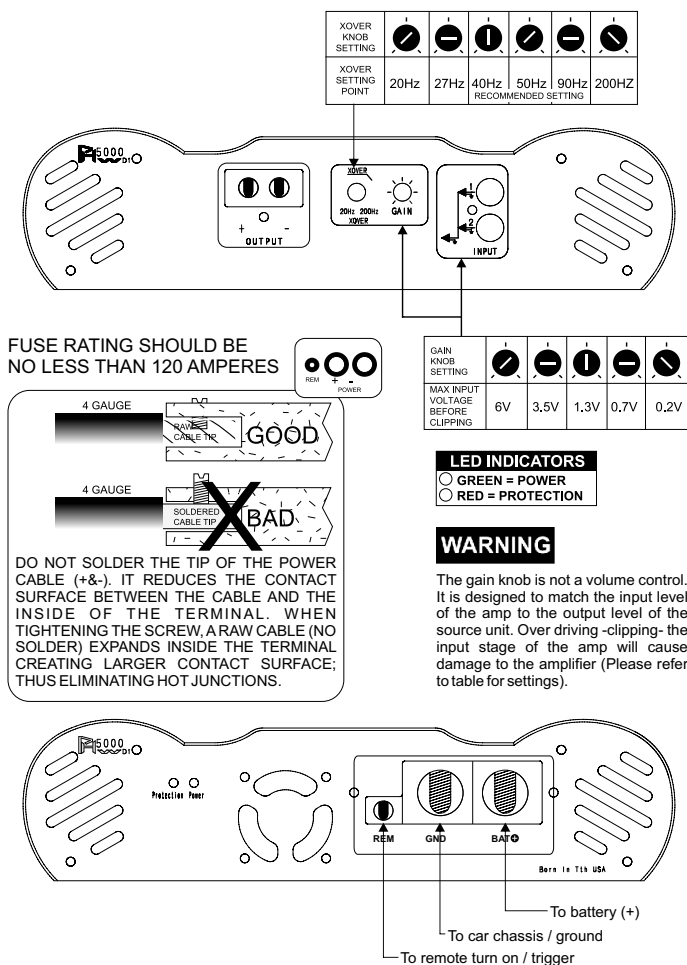
Two Dual 4-Ohm Subwoofers @ 1-Ohm



WARNING

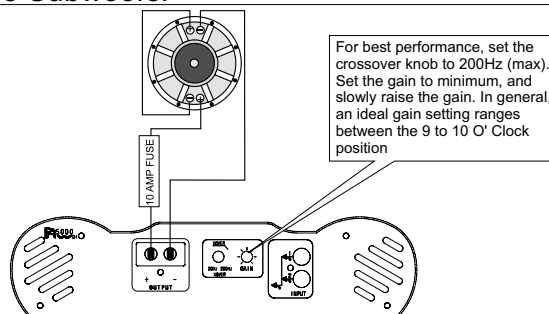
THIS CONFIGURATION IS FOR USE WITH PH2000W/D11 1-Ohm AMPLIFIER ONLY

PH5000W/D1

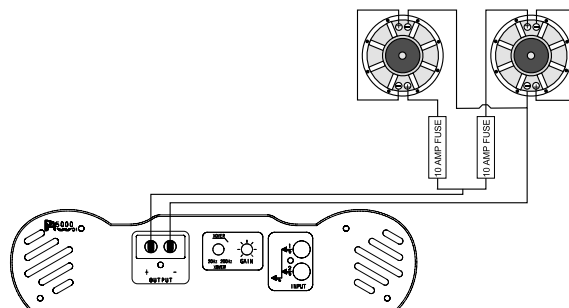


- Test the alternator output. Factory alternator will produce 60 to 80 amperes at best. Wear and heat will reduce the output by 40%.
- Alternator ground (-) must be reinforced, use 4-gauge cable instead of the factory 8-gauge.
- Alternator positive (+) to battery (+) must be reinforced. Use 4-gauge cables.
- Check your battery condition. Batteries degrade after a while.
- Battery (+) to amplifier (+), must be a 4-gauge cable.
- Ground amplifier to chassis using 4-gauge cable, keep the cable short (maximum 2-feet).
- Use 1 farad capacitor to compensate for surges in demand.
- We recommend the use of one (1) auxiliary battery.

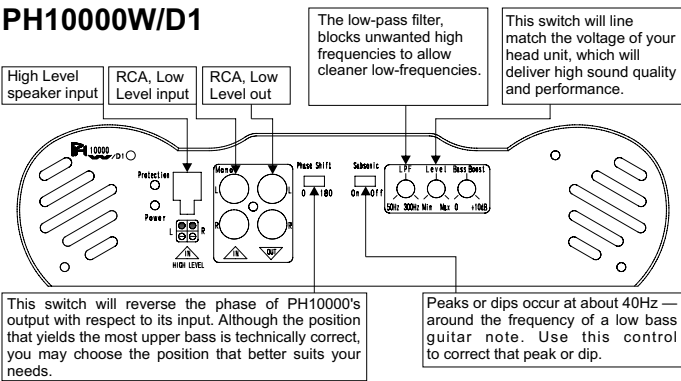
One Subwoofer



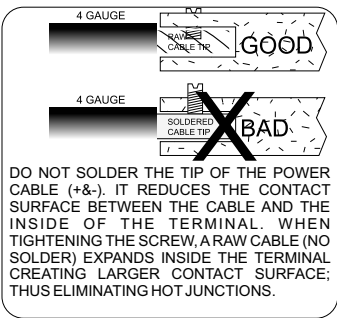
Two Subwoofers



PH10000W/D1



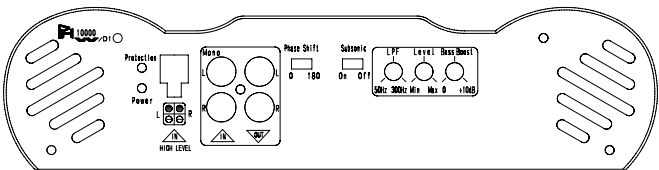
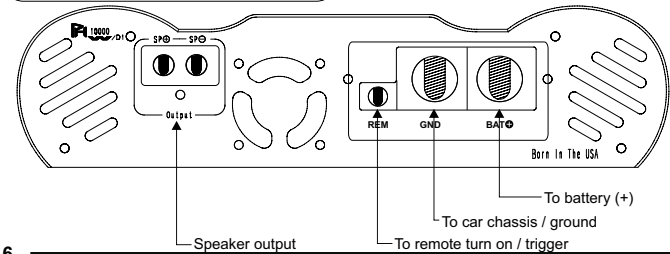
FUSE RATING SHOULD BE NO LESS THAN 120 AMPERES PER AMPLIFIER



LED INDICATORS
GREEN = POWER
RED = PROTECTION

WARNING

The gain knob is not a volume control. It is designed to match the input level of the amp to the output level of the source unit. Over driving -clipping- the input stage of the amp will cause damage to the amplifier (Please refer to table for settings).



"RCA level" audio signal needed to clip the input stage (bass boost at minimum)

Bass Boost	Gain Level	Gain Level	Gain Level	Gain Level	Gain Level
Min	Min	9:00	12:00	3:00	Max
12 Volts	6 Volts	1 Volt	0.7 Volt	0.5 Volt	

"RCA level" audio signal needed to clip the input stage (bass boost at maximum)

Bass Boost	Gain Level	Gain Level	Gain Level	Gain Level	Gain Level
Max	Min	9:00	12:00	3:00	Max
6 Volts	2.7 Volts	0.8 Volt	0.5 Volt	0.2 Volt	

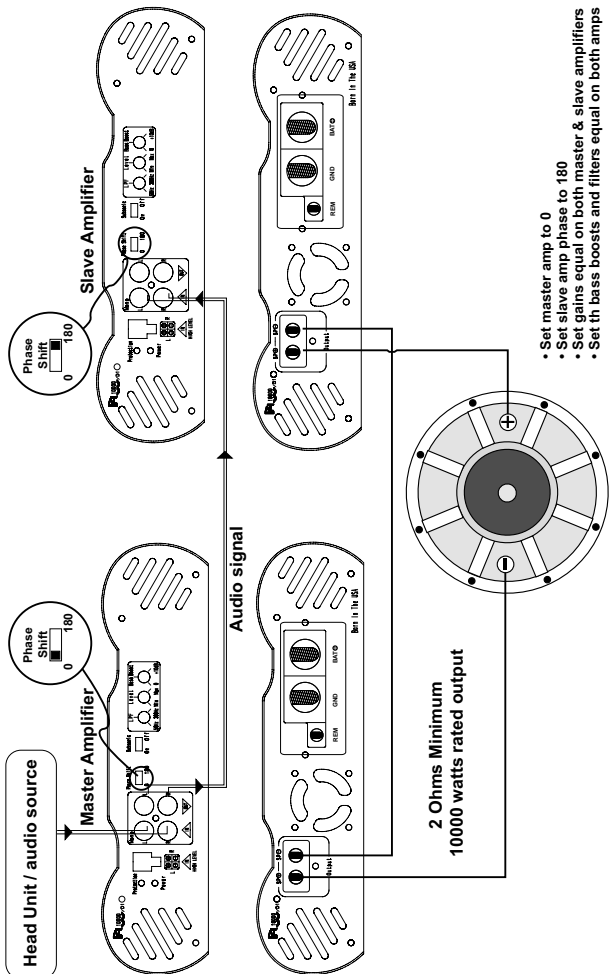
"SPEAKER level" audio signal needed to clip the input stage (bass boost at minimum)

Bass Boost	Gain Level	Gain Level	Gain Level	Gain Level	Gain Level
Min	Min	9:00	12:00	3:00	Max
N / A	16 Volts	8 Volts	4 Volts	3 Volts	

"SPEAKER level" audio signal needed to clip the input stage (bass boost at maximum)

Bass Boost	Gain Level	Gain Level	Gain Level	Gain Level	Gain Level
Max	Min	9:00	12:00	3:00	Max
N / A	14 Volts	4 Volts	2 Volts	1 Volt	

PH10000W/D1



- Set master amp to 0
- Set slave amp phase to 180
- Set gains equal on both master & slave amplifiers
- Set th bass boosts and filters equal on both amps

Installation Example

