

PrecisionPower[®]
Absolutely State of the Art Mobile Audio[™]

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PrecisionPower[®]
Absolutely State of the Art Mobile Audio[™]

PHANTOM



Class D Audio Amplifier

Owner's Guide

P600.2 P900.4 P900.5 P1000.1

LIMITED 90-DAY CONSUMER WARRANTY
LIMITED TWO-YEAR CONSUMER WARRANTY WITH PURCHASE AND INSTALLATION BY A PRECISION
POWER AUTHORIZED DEALER

Precision Power promises to the original purchaser, to repair or replace this product with a new or refurbished unit (at Precision Power's sole and absolute discretion) should it prove to be defective in workmanship or material under normal use, for a period of *two-years from the date of purchase from the Precision Power authorized dealer, PROVIDED the product was purchased and installed by a Precision Power authorized dealer. During this *two-year period, there will be no charge for product repair or replacement, PROVIDED the unit is returned to Precision Power, return shipping pre-paid, along with the required proof of installation, the bill of sale or other dated proof of purchase, and the consumer's contact information.

If the unit is installed by anyone other than a Precision Power authorized dealer, the warranty period will be 90-days from the date of purchase. This warranty is non-transferable and does not apply to any unit that has been modified or used in a manner contrary to its intended purpose, and does not cover damage to the unit caused by installation or removal of the unit. During this 90-day period, there will be no charge for the repair or replacement PROVIDED the unit is returned to Precision Power, return shipping prepaid, along with the bill of sale or other dated proof of purchase and the consumer's contact information.

This warranty is void if the product has been damaged by accident or unreasonable use, neglect, improper service or other causes not arising out of defects in materials or construction. This warranty does not cover the elimination of externally generated static or noise, or the correction of antenna problems or weak reception, damage to speakers, accessories, electrical systems, cosmetic damage or damage due to negligence, misuse, failure to follow operating instructions, accidental spills or customer applied cleaners, damage due to environmental causes such as floods, airborne fallout, chemicals, salt, hail, lightning or extreme temperatures, damage due to accidents, road hazards, fire, theft, loss or vandalism, damage due to improper connection to equipment of another manufacturer, modification of existing equipment, or Product which has been opened or tampered for any reason. Units which are found to be damaged by abuse resulting in thermally damaged voice coils are not covered by this warranty but may be replaced at the absolute and sole discretion of Precision Power. Unit must be returned to Precision Power, postage pre-paid, with bill of sale or other dated proof of purchase bearing the following information: consumer's name, telephone number, and address, authorized dealer's name and address, and product description. Please contact Precision Power warranty office at 800-724-1377 or repairs@precisionpower.com to obtain a Return Authorization number prior to shipping the product.

Note: This warranty does not cover labor costs for the removal and reinstallation of the unit. IN ORDER FOR THE TWO-YEAR WARRANTY TO BE VALID, YOUR UNIT MUST BE SHIPPED WITH PROOF OF INSTALLATION BY A PRECISION POWER AUTHORIZED DEALER. ALL UNITS RECEIVED BY PRECISION POWER FOR WARRANTY REPAIR WITHOUT PROOF OF PRECISION POWER AUTHORIZED DEALER INSTALLATION AND PURCHASE WILL BE COVERED BY THE LIMITED 1 YEAR WARRANTY.

BY PURCHASING THIS PRODUCT, ALL WARRANTIES INCLUDING BUT NOT LIMITED TO EXPRESS WARRANTY, IMPLIED WARRANTY, WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, AND WARRANTY OF NON-INFRINGEMENT OF INTELLECTUAL PROPERTY ARE EXPRESSLY EXCLUDED TO THE MAXIMUM EXTENT ALLOWED BY LAW, AND PRECISION POWER NEITHER ASSUMES NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT ANY LIABILITY IN CONNECTION WITH THE SALE OF THE PRODUCT. PRECISION POWER HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING ITS AUTHORIZED DEALERS OR INSTALLERS. BY PURCHASING THIS PRODUCT, THE CONSUMER AGREES AND CONSENTS THAT ALL DISPUTES BETWEEN THE CONSUMER AND PRECISION POWER SHALL BE RESOLVED IN ACCORDANCE WITH CALIFORNIA LAWS IN LOS ANGELES COUNTY, CALIFORNIA. Some states do not allow limitation on how long an implied warranty lasts. In such states, the limitation or exclusions of this Limited Warranty may not apply. Some states do not allow the exclusion or limitation of incidental or consequential damages. In such states, the exclusion or limitation of this Limited Warranty may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights which vary from state to state.

P1000.1 Pre-Amp

1. Remote Level Control Connection

Connect the remote level control to this terminal. The remote level control allows adjustment of the subwoofer level from a remote location in the vehicle.

2. Low Pass Crossover

Adjust the frequency setting of the low pass crossover. The frequency range is 40Hz-220Hz. Frequencies higher than the setting will be filtered out of the audio signal.

3. Subsonic Crossover

Adjust the frequency setting of the subsonic crossover. The frequency range is 20Hz-38Hz. Frequencies lower than the setting will be filtered out of the audio signal.

4. Protection Indicator LED

If the amplifier activates protection mode, this LED will illuminate red. Refer to the Troubleshooting Guide for possible solutions if the amplifier activates protection mode.

5. Power Indication LED

When the amplifier is on and in proper working condition, this LED will illuminate green. Refer to the Troubleshooting Guide for possible solutions if the amplifier will not power on.

6. Level Sensitivity

Adjust the amplifiers pre-amp sensitivity level. The minimum sensitivity level is 200mv, while the maximum level is 6V.

7. RCA Audio Input Connection

Using high quality shielded stereo RCA cables, connect the source signal to the amplifier RCA inputs.

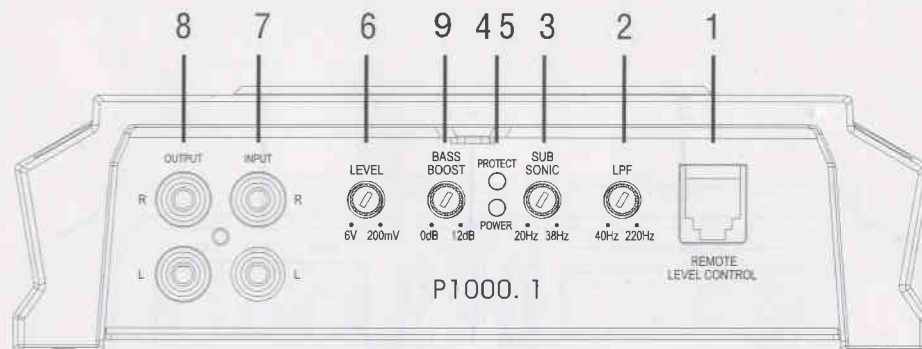
8. RCA Audio Output Connection

Using high quality shielded stereo RCA cables, connect the audio signal to the RCA audio inputs of additional system components.

9. Bass Boost

Adjust the amplifiers 45Hz Bass Boost level up to 12dB.

P1000.1 Pre-Amp Panel



P1000.1 Wire Connections

1. Power Connection Terminal

GND Connect good quality 8ga. ground wire to the nearest vehicle chassis ground. Take a moment to properly prepare the ground location for the best ground.

REM Connect the remote turn-on output of the source unit to the remote terminal.

+12V Connect good quality 8ga. power wire to the vehicle's battery. Always protect the vehicle by using a fuse within 18" from the battery.

2. Fuses

The fuses protect the amplifier from internal electrical damage if overloaded. In the event they fail, replace with similar type and amperage value. Using a higher amperage value may lead to electrical damage and is not considered covered by the limited warranty.

3. Speaker Connection Terminal

Connect the subwoofer(s) to the corresponding (+) & (-) terminals. If only one subwoofer with 1Ω is used, use only one (+) & (-) terminal. If two subwoofers are used with 2Ω each, use one (+) & (-) terminal for each subwoofer.

NOTE: Two subwoofers with 1Ω each CAN NOT be connected to separate (+) & (-) terminals. The woofers should be first series wired together for 2Ω, then use only one (+) & (-)

P1000.1 Specifications

Power Rating

RMS Output Power, 14.4V, 4Ω
RMS Output Power, 14.4V, 2Ω
RMS Output Power, 14.4V, 1Ω

580w @4 ohm
725w @2 ohm
1,000w @1 ohm

RMS Output Power, 12.0V, 4Ω
RMS Output Power, 12.0V, 2Ω
RMS Output Power, 12.0V, 1Ω

395w x 1
525w x 1
785w x 1

Pre-Amp Features

Low Pass Crossover
Subsonic Crossover
Bass Boost
Input Level Sensitivity

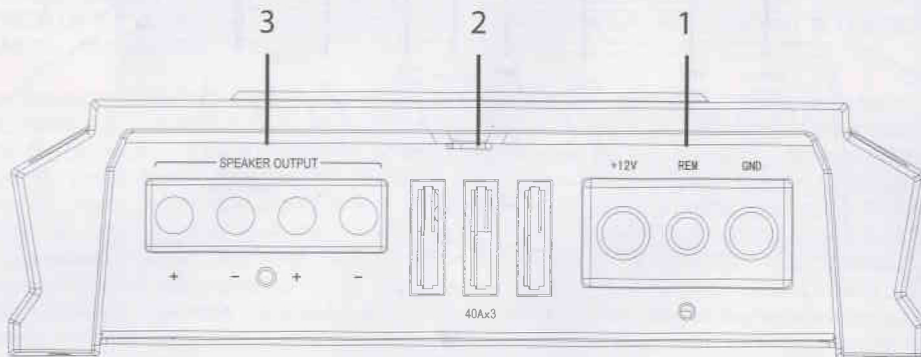
40Hz-220Hz 12db
20Hz-38Hz 12db
45Hz, 0dB-12db
200mV-6V

Technical Specifications

Idle Current Draw
12V Ground Isolation
Damping Factor
Input Impedance
Signal-to-Noise Ratio
Fuse Rating
Dimensions

1.98A
10k Ohm
91
105k Ohm
106dB
40A x 3
328.5LX172WX49.7H(MM)

P1000.1 Wire Connections End Panel



P600.2 Pre-Amp

1. RCA Audio Output Connection

Using high quality shielded stereo RCA cables, connect the audio signal to the RCA audio inputs of additional system components.

2. RCA Audio Input Connection

Using high quality shielded stereo RCA cables, connect the source signal outputs to the amplifier RCA inputs.

3. Level Sensitivity

Adjust the amplifiers pre-amp sensitivity level. The minimum sensitivity level is 200mv, while the maximum level is 6V.

4. Power Indication LED

When the amplifier is on and in proper working condition, this LED will illuminate green. Refer to the Troubleshooting Guide for possible solutions if the amplifier will not power on.

5. Protection Indicator LED

If the amplifier activates protection mode, this LED will illuminate red. Refer to the Troubleshooting Guide for possible solutions if the amplifier activates protection mode.

6. High Pass Crossover

Adjust the frequency setting of the High Pass Crossover. The frequency range is 20Hz-4kHz. Frequencies lower than the setting will be filtered out of the audio signal.

7. Crossover Frequency Multiplier

Use the frequency multiplier to change the High Pass Crossover frequency range x10.

8. Low Pass Crossover

Adjust the frequency setting of the Low Pass Crossover. The frequency range is 50Hz-5kHz. Frequencies higher than the setting will be filtered out of the audio signal.

9. Crossover Frequency Multiplier

Use the frequency multiplier to change the Low Pass Crossover frequency range x10.

10. Crossover Selector Switch

Choose to activate the High Pass Crossover, Low Pass Crossover, or Band Pass Crossover. Band Pass Crossover uses the high pass and low pass crossovers simultaneously.

P600.2 Wire Connections

1. Speaker Connection Terminal

Connect speaker(s) with a minimum impedance of 2Ω to the corresponding (+) & (-) terminals.

If one subwoofer with 4Ω is used, bridge the amplifier using the (R+) & (L-) terminal. If two subwoofers are used with 2Ω each, use one (+) & (-) terminal for each subwoofer.

2. Fuses

The fuses protect the amplifier from internal electrical damage if overloaded. In the event they fail, replace with similar type and amperage value. Using a higher amperage value may lead to electrical damage and is not considered covered by the limited warranty.

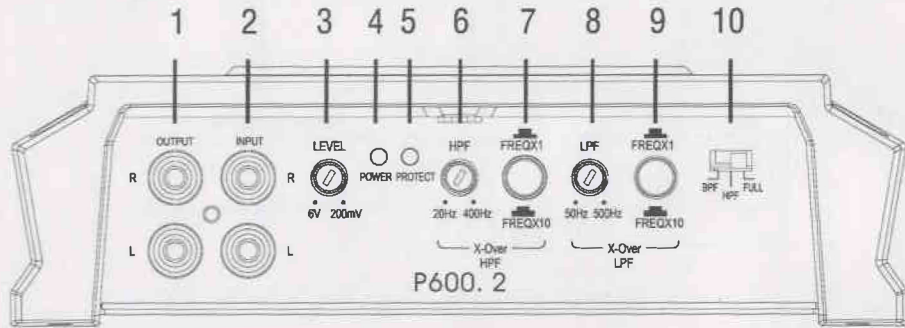
3. Power Connection Terminal

GND Connect good quality 8ga. ground wire to the nearest vehicle chassis ground. Take a moment to properly prepare the ground location for the best ground.

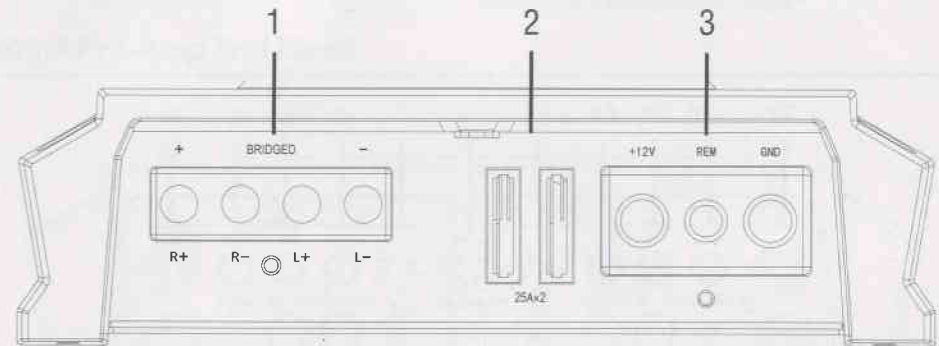
REM Connect the remote turn-on output of the source unit to the remote terminal.

+12V Connect good quality 8ga. power wire to the vehicle's battery. Always protect the vehicle by using a fuse within 18" from the battery.

P600.2 Pre-Amp Panel



P600.2 Wire Connections End Panel



P600.2 Specifications

Power Rating

RMS Output Power, 14.4V, 4Ω
 RMS Output Power, 14.4V, 2Ω
 RMS Output Power, 14.4V, 4Ω Bridged

190w x 2@4 ohms
 300w x 2@2 ohms
 600w x 1@4 ohms Bridged

RMS Output Power, 12.0V, 4Ω
 RMS Output Power, 12.0V, 2Ω
 RMS Output Power, 12.0V, 4Ω Bridged

100w x 2
 200w x 2
 400w x 1

Pre-Amp Features

Low Pass Crossover
 High Pass Crossover
 Input Level Sensitivity

50Hz-5kHz 12db
 20Hz-4kHz 12db
 200mV-6V

Technical Specifications

Idle Current Draw
 Damping Factor
 Input Impedance
 Signal-to-Noise Ratio
 Fuse Rating
 Dimensions

0.93A
 114
 20k Ohm
 94dB
 25A x 2
 208.5LX172WX49.7H(MM)Ⓜ

P900.4 Pre-Amp

1. Front RCA Audio Input Connection

Using high quality shielded stereo RCA cables, connect the source signal to the amplifier RCA inputs.

2. Front Level Sensitivity

Adjust the amplifiers pre-amp sensitivity level. The minimum sensitivity level is 200mv, while the maximum level is 6V.

3. Front High Pass Crossover

Adjust the frequency setting of the High Pass Crossover. The frequency range is 20Hz-4kHz. Frequencies lower than the setting will be filtered out of the audio signal.

4. Front Crossover Frequency Multiplier

Use the frequency multiplier to change the High Pass Crossover frequency range x10.

5. Front Low Pass Crossover

Adjust the frequency setting of the Low Pass Crossover. The frequency range is 50Hz-5kHz. Frequencies higher than the setting will be filtered out of the audio signal.

6. Front Crossover Frequency Multiplier

Use the frequency multiplier to change the Low Pass Crossover frequency range x10.

7. Front Crossover Selector Switch

Choose to activate the High Pass Crossover, Low Pass Crossover, or Band Pass Crossover. Band Pass Crossover uses the high pass and low pass crossovers simultaneously.

8. Input Selector Switch

Choose ST for single stereo input. This allows the front & rear channels to receive signal from only the front RCA inputs. Choose 4CH for 4 channel input. This allows for independent front & rear RCA inputs.

9. Power Indication LED

When the amplifier is on and in proper working condition, this LED will illuminate green. Refer to the Troubleshooting Guide for possible solutions if the amplifier will not power on.

10. Protection Indicator LED

If the amplifier activates protection mode, this LED will illuminate red. Refer to the Troubleshooting Guide for possible solutions if the amplifier activates protection mode.

11. Rear Crossover Selector Switch

Choose to activate the High Pass Crossover, Low Pass Crossover, or Band Pass Crossover. Band Pass Crossover uses the high pass and low pass crossovers simultaneously.

12. Rear Crossover Frequency Multiplier

Use the frequency multiplier to change the Low Pass Crossover frequency range x10.

13. Rear Low Pass Crossover

Adjust the frequency setting of the Low Pass Crossover. The frequency range is 50Hz-5kHz. Frequencies higher than the setting will be filtered out of the audio signal.

14. Rear Crossover Frequency Multiplier

Use the frequency multiplier to change the High Pass Crossover frequency range x10.

15. Rear High Pass Crossover

Adjust the frequency setting of the High Pass Crossover. The frequency range is 20Hz-4kHz. Frequencies lower than the setting will be filtered out of the audio signal.

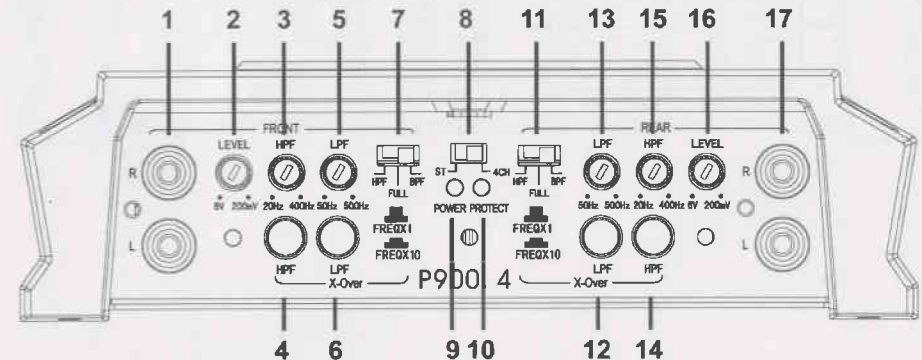
16. Rear Level Sensitivity

Adjust the amplifiers pre-amp sensitivity level. The minimum sensitivity level is 200mv, while the maximum level is 6V.

17. Rear RCA Audio Input Connection

Using high quality shielded stereo RCA cables, connect the source signal to the amplifier RCA inputs.

P900.4 Pre-Amp End Panel



P900.4 Wire Connections

1. Speaker Connection Terminal

Connect speaker(s) with a minimum impedance of 2Ω to the corresponding (+) & (-) terminals.

If one subwoofer with 4Ω is used, bridge the amplifier using the (R+) & (L-) terminal. If two subwoofers are used with 2Ω each, use one (+) & (-) terminal for each subwoofer.

2. Fuses

The fuses protect the amplifier from internal electrical damage if overloaded. In the event they fail, replace with similar type and amperage value. Using a higher amperage value may lead to electrical damage and is not considered covered by the limited warranty.

3. Power Connection Terminal

GND Connect good quality 8ga. ground wire to the nearest vehicle chassis ground. Take a moment to properly prepare the ground location for the best ground.

REM Connect the remote turn-on output of the source unit to the remote terminal.

+12V Connect good quality 8ga. power wire to the vehicle's battery. Always protect the vehicle by using a fuse within 18" from the battery.

P900.4 Specifications

Power Rating

RMS Output Power, 14.4V, 4Ω
RMS Output Power, 14.4V, 2Ω
RMS Output Power, 14.4V, 4Ω Bridged

145w x 4@4 ohms
225w x 4 @2 ohms
450w x 2@4 ohms Bridged

RMS Output Power, 12.0V, 4Ω
RMS Output Power, 12.0V, 2Ω
RMS Output Power, 12.0V, 4Ω Bridged

100w x 4
150w x 4
300w x 2

Pre-Amp Features

Low Pass Crossover
High Pass Crossover
Input Level Sensitivity

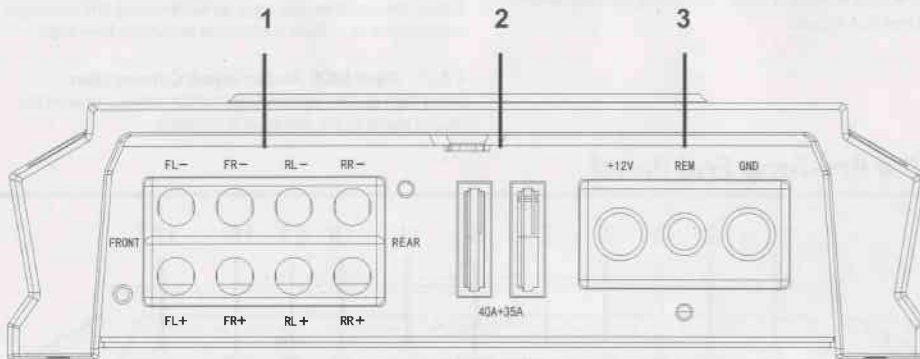
50Hz-5kHz 12db
20Hz-4kHz 12db
200mV-6V

Technical Specifications

Idle Current Draw
Damping Factor
Input Impedance
Signal-to-Noise Ratio
Fuse Rating
Dimensions

1.34A
114
3.3k Ohm
102dB
40A+35AX1
277LX172WX49.7H(MM)☒

P900.4 Wire Connections End Panel



P900.5 Pre-Amp

1. Front RCA Audio Input Connection

Using high quality shielded stereo RCA cables, connect the source's front signal to the amplifier RCA inputs.

2. Rear RCA Audio Input Connection

Using high quality shielded stereo RCA cables, connect the source's rear signal to the amplifier RCA inputs.

3. Remote Level Control Connection

Connect the remote level control to this terminal. The remote level control allows adjustment of the subwoofer level from a remote location in the vehicle.

4. Rear Level Sensitivity

Adjust the amplifiers pre-amp sensitivity level for the rear channels. The minimum sensitivity level is 200mv, while the maximum level is 6V.

5. Rear High Pass Crossover

Adjust the frequency setting of the High Pass Crossover for the rear channels. The frequency range is 50Hz-4kHz. Frequencies lower than the setting will be filtered out of the audio signal.

6. Rear Low Pass Crossover

Adjust the frequency setting of the Low Pass Crossover for the rear channels. The frequency range is 250Hz-4kHz. Frequencies higher than the setting will be filtered out of the audio signal.

7. Rear Crossover Selector Switch

Choose to activate the High Pass Crossover, Low Pass Crossover, or Band Pass Crossover for the rear channels. Band Pass Crossover uses the high pass and low pass crossovers simultaneously.

8. Front Level Sensitivity

Adjust the amplifiers pre-amp sensitivity level for the front channels. The minimum sensitivity level is 200mv, while the maximum level is 6V.

9. Front High Pass Crossover

Adjust the frequency setting of the High Pass Crossover for the front channels. The frequency range is 50Hz-4kHz. Frequencies lower than the setting will be filtered out of the audio signal.

10. Front Crossover Selector Switch

Choose HPF to activate the High Pass Crossover, or select FULL to allow full range audio signal for the front channels.

11. Subwoofer RCA Audio Input Connection

Using high quality shielded stereo RCA cables, connect the source's subwoofer signal to the amplifier RCA inputs.

12. Input Selector Switch

Choose ST for single stereo input. This allows the front, rear, and subwoofer channels to receive signal from only the front RCA inputs. Choose 4CH for 4 channel input. This allows for independent front & rear RCA inputs, and the subwoofer signal is taken from the rear channel input. Select 5CH to use independent signal inputs.

13. Subwoofer Level Sensitivity

Adjust the amplifiers pre-amp sensitivity level for the subwoofer channel. The minimum sensitivity level is 200mv, while the maximum level is 6V.

14. Subsonic Crossover

Adjust the frequency setting of the subsonic crossover. The frequency range is 10Hz-50Hz. Frequencies lower than the setting will be filtered out of the audio signal.

15. Subwoofer Bass Boost

Adjust the amplifiers 45Hz Bass Boost level up to 12dB.

16. Subwoofer Low Pass Crossover

Adjust the frequency setting of the Low Pass Crossover for the subwoofer channel. The frequency range is 45Hz-450Hz. Frequencies higher than the setting will be filtered out of the audio signal.

17. Protection Indicator LED

If the amplifier activates protection mode, this LED will illuminate red. Refer to the Troubleshooting Guide for possible solutions if the amplifier activates protection mode.

17. Power Indicator LED

When the amplifier is on and in proper working condition, this LED will illuminate green. Refer to the Troubleshooting Guide for possible solutions if the amplifier will not power on.

P900.5 Wire Connections

1. Speaker Connection Terminal

Connect speaker(s) with a minimum impedance of 2Ω to the corresponding (+) & (-) terminals.

Connect a subwoofer with a minimum impedance of 2Ω to the corresponding (SUB-) & (SUB+) terminals.

2. Fuses

The fuses protect the amplifier from internal electrical damage if overloaded. In the event they fail, replace with similar type and amperage value. Using a higher amperage value may lead to electrical damage and is not considered covered by the limited warranty.

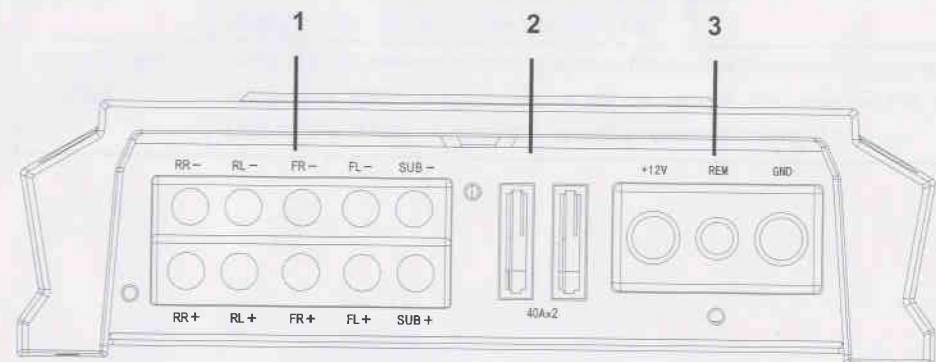
3. Power Connection Terminal

GND Connect good quality 8ga. ground wire to the nearest vehicle chassis ground. Take a moment to properly prepare the ground location for the best ground.

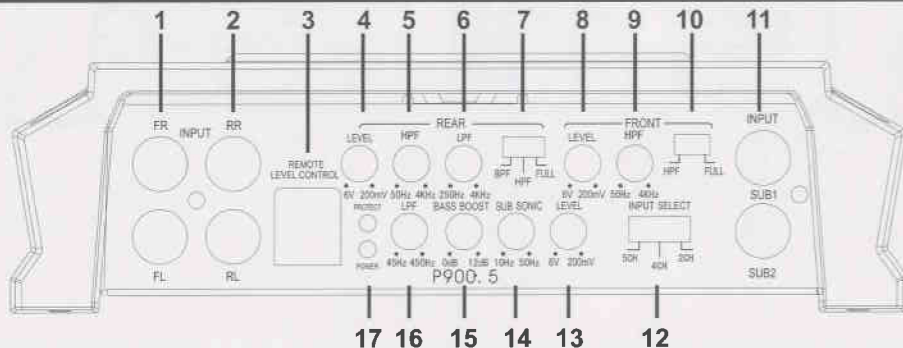
REM Connect the remote turn-on output of the source unit to the remote terminal.

+12V Connect good quality 8ga. power wire to the vehicle's battery. Always protect the vehicle by using a fuse within 18" from the battery.

P900.5 Wire Connections End Panel



P900.5 Pre-Amp End Panel



P900.5 Specifications

Power Rating

RMS Output Power, 14.4V, 4Ω	70w x 4 & 270 x 1@4 ohm
RMS Output Power, 14.4V, 2Ω	115w x 4 & 440 x 1@2ohm
RMS Output Power, 14.4V, 4Ω Bridged	230w x 2 & 440 x 1@4 ohm Bridgd

RMS Output Power, 12.0V, 4Ω	50w x 4 & 185 x 1
RMS Output Power, 12.0V, 2Ω	80w x 4 & 300 x 1
RMS Output Power, 12.0V, 4Ω Bridged	160w x 2

Pre-Amp Features

High Pass Crossover - Front	50Hz-4kHz-3db
High Pass Crossover - Rear	50Hz-4kHz-3db
Low Pass Crossover - Rear	250Hz-4kHz-3db
Low Pass Crossover -CH.SUB	45Hz-450Hz-3db
Subsonic Crossover	10Hz-50Hz
Bass Boost, 45Hz - CH.SUB	0dB-12dB
Input Sensitivity	200mV-6V

Technical Specifications

Idle Current Draw	2.2A
Damping Factor	110
Input Impedance	3.8k Ohm
Signal-to-Noise Ratio	100dB
Fuse Rating	40A x 2
Dimensions	337LX172WX49.7H(MM)☒

PHANTOM Troubleshooting Guide

Symptom	Possible Remedy
Amplifier will not power up	<p>Check to make sure you have a good ground connection.</p> <p>Check that there is battery power on the (+)terminal .</p> <p>Check all fuses, replace if necessary .</p> <p>Make sure that the Protection LED is not illuminated.</p>
Protection LED Comes on	<p>Check for short circuits on speaker leads.</p> <p>Check the speaker load not beyond the minimum load.</p> <p>Remove speaker lead, and reset the amplifier. If the protection LED still Comes on, then the amplifier is faulty and needs servicing .</p>
No output	<p>Check that the RCA audio cables are plugged into the proper inputs.</p> <p>Check all speakers wiring.</p> <p>Check the headunit output and the amplifier level setting.</p>
Low output	<p>Reset the level Control.</p> <p>Check the Crossover Control settings.</p>
High hiss in The speakers	<p>Check the RCA cable is not shorted to power ground at amplifier side.</p> <p>Check the amplifier grounding.</p>
Distorted sound	<p>Check that the Input level control is set to match the signal level of the head unit. Always try to set the Input level as low as possible.</p> <p>Check that all crossover frequencies are properly set.</p> <p>Check for short circuits on the speaker leads.</p>
Amplifier gets Very hot	<p>Check that the minimum load impedance for the amplifier model is correct.</p> <p>Check that there is good air circulation around the amplifier. In some applications, It may be necessary to add an external cooling fan.</p>