

POWERPLANT AMPLIFIER MANUAL

PP-AM300010

PP-AM200010

PP-AM100010

PP-AM120040

PP-AM60020



FUSION®

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RECORD YOUR PRODUCT DETAILS HERE:

MODEL NUMBER _____ DATE OF PURCHASE _____

AFFIX RECEIPT HERE

AMPLIFIER SPECIFICATIONS

	PP-AM300010 (Monoblock)	PP-AM200010 (Monoblock)
Class	D-Class	D-Class
Max Power Rating	3000 Watts	2000 Watts
Frequency Response	20Hz - 320kHz	20Hz - 320kHz
Dimensions (mm)	436(L) x 278(W) x 60(H)	436(L) x 278(W) x 60(H)
Power Ratings	850 Watts RMS per Channel @ 4 Ohms 1% THD+N 1300 Watts RMS per Channel @ 2 Ohms 1% THD+N 1500 Watts RMS x 1 Channel @ 1 Ohms 1% THD+N	600 Watts RMS x 1 Channel @ 4 Ohms 1% THD+N 900 Watts RMS x 1 Channel @ 2 Ohms 1% THD+N 1000 Watts RMS x 1 Channel @ 1 Ohms 1% THD+N

	PP-AM100010 (Monoblock)	PP-AM120040 (4 Channel)
Class	D-Class	Class AB
Max Power Rating	1000 Watts	1200 Watts
Frequency Response	20Hz - 320kHz	10Hz - 100kHz
Dimensions (mm)	386(L) x 278(W) x 60(H)	546(L) x 278(W) x 60(H)
Power Ratings	400 Watts RMS x 1 Channel @ 4 Ohms 1% THD+N 620 Watts RMS x 1 Channel @ 2 Ohms 1% THD+N	125 Watts RMS per Channel @ 4 Ohms 1% THD+N 165 Watts RMS per Channel @ 2 Ohms 1% THD+N 330 Watts RMS Bridged Channels @ 4 Ohms 1% THD+N

	PP-AM60020 (2 Channel)
Class	Class AB
Max Power Rating	600 Watts
Frequency Response	10Hz - 100kHz
Dimensions (mm)	436(L) x 278(W) x 60(H)
Power Ratings	125 Watts RMS per Channel @ 4 Ohms 1% THD+N 190 Watts RMS per Channel @ 2 Ohms 1% THD+N 390 Watts RMS Bridged Channels @ 4 Ohms 1% THD+N

ACCEPTABLE AMPLIFIER LOADS

Model	4 Ohm	2 Ohm	1 Ohm
PP-AM120040	YES* ¹	YES* ²	NO
PP-AM60020	YES* ¹	YES* ²	NO
PP-AM300010	YES	YES	YES
PP-AM200010	YES	YES	YES
PP-AM100010	YES	YES	NO
* ¹ Per Channel and Bridged Channel[s], * ² Per Channel ONLY			

NB : PP-AM100010 IS NOT 1 Ohm STABLE

AMPLIFIER INSTALLATION

INSTALLATION WARNING

1. Ensure the 12V lead is disconnected from the battery before you connect any new equipment.
2. Ensure the mounting location will not interfere with the gas tank, brake lines or electrical wiring.
3. Ensure the Amplifier is securely fastened to the vehicle to prevent damage in the event of an accident.
4. Ensure all wiring is protected to avoid pinching or crushing which could result in damage to the audio system.
5. Ensure the mounting location has sufficient air flow around the amplifier. If the amplifier is mounted in an enclosed space a 3" fan with ducting should be used to aid in air flow.
6. Do not mount any amplifier on a subwoofer enclosure as extended exposure to vibration may cause malfunction of the amplifier.
7. Ensure you use the recommended gauge wire/cable for all amplifier connections.

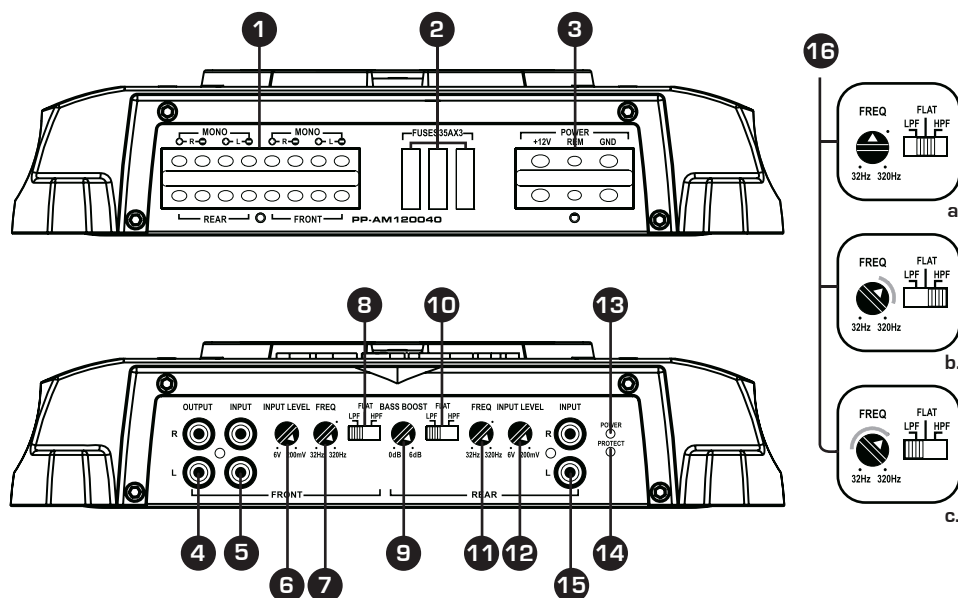
Wiring

Ensure the audio system is turned off before making any connections to the amplifier, speakers or source unit. Failure to do so could result in permanent damage to the audio system.

When wiring the FUSION amplifier ensure that the cable is protected from sharp objects and always use rubber grommets when wiring through metal panels. Ensure all terminals and connections are protected from the vehicle chassis and from each other as failure to do so could result in permanent damage to the audio system.

FOUR CHANNEL AMPLIFIER

PP-AM120040



1. Speaker Output Connections

- Ensure that the speakers are connected observing correct polarity.
- 2 Ohm minimum speaker impedance for stereo operation
- 4 Ohm minimum speaker impedance for bridged operation

2. Fuses

- Ensure fuses are replaced with the same type and rating.

3. Power

- FUSION amplifiers should be connected directly to the 12V battery terminal with an inline fuse or circuit breaker as close to the battery as possible.

Ground

- When grounding/earthing your amplifier ensure that the location is a good source of ground (preferably the floor pan). Make sure the metal is clean of paint etc, as a poor earth could damage your audio system.

Remote Turn On

- This connection turns the amplifier ON and should be connected to the remote turn on lead from the Head Unit. If one is not available a switched 12V source must be used.

4. Output Connectors

- Line level output for connection to an additional amplifier

5. Front Input Connectors

- Choose the correct length RCA interconnects and run them to the RCA outputs of the source unit. Avoid running beside other looms and or power cable.

6. Front Input Level

- This control is used to match the input level of the amplifier to the output level of your source unit
- 1. Turn the amplifier level to zero.
- 2. Turn the volume of the source unit to $\frac{3}{4}$ and the bass and treble to zero.
- 3. Adjust the level control until the desired maximum volume is achieved without distortion.
- 4. Failure to follow these steps may cause permanent damage to the audio system.

7. Frequency Control – Front X-Over

- 12dB/Octave crossover, variable from 32Hz to 320Hz. (For adjustment procedure see 16.)

8. Filter Selector – Front X-Over

- LPF – Select for subwoofer(s).
- Flat – Select for full range speakers.
- HPF – Select for mid/full range speakers when using a subwoofer in the system.

9. Bass Boost Control

- Adjust the Bass Boost to the desired level.

10. Filter Selector – Rear X-Over

- LPF – Select for subwoofer(s).
- Flat – Select for full range speakers.
- HPF – Select for mid/full range speakers when using a subwoofer in the system.

11. Frequency Controller – Rear X-Over

- 12dB/Octave crossover, variable from 32Hz to 320Hz.
- For adjustment procedure see 16.

12. Rear Input Level

- This control is used to match the input level of the amplifier to the output level of your head unit
- 1. Turn the amplifier level to zero.
- 2. Turn the volume of the head unit to $\frac{3}{4}$ and the bass and treble to zero.
- 3. Adjust the level control until the desired maximum volume is achieved without distortion.
- 4. Failure to follow these steps may cause permanent damage to the audio system.

13. Power ON LED

- Amplifier is operational when illuminated.

14. Protection LED

- When illuminated the amplifier is in protection mode due to any of the following fault conditions.
- Short Circuit, Thermal, Output Short, DC Offset.

15. Rear Input Connectors

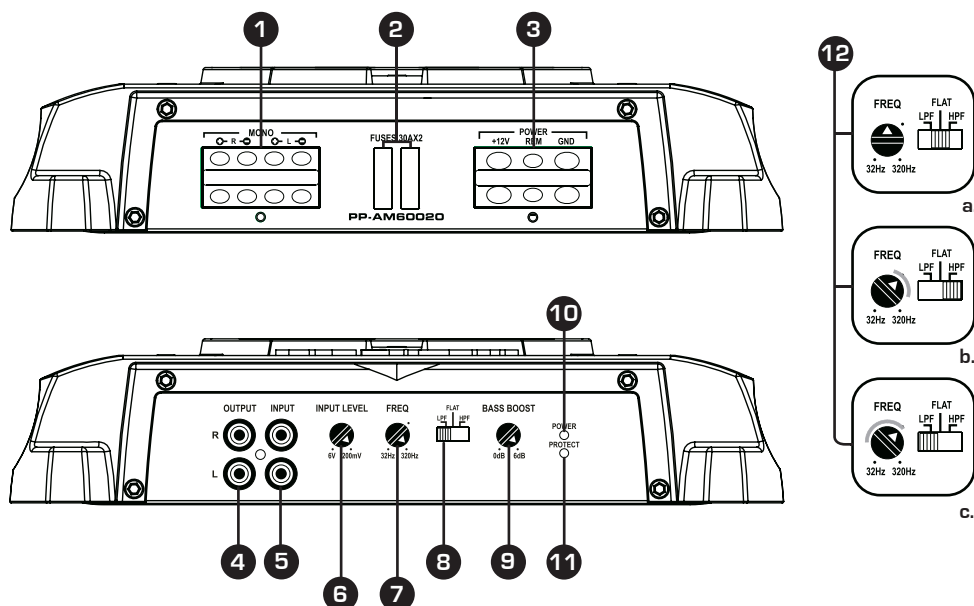
- Choose the correct length RCA interconnects and run them to the RCA outputs of the source unit. Avoid running beside other looms and or power cable.

16. Setting the Crossover

- a. Diagram for crossover settings for 5" or larger full range speakers.
- b. Diagram for crossover settings for mid/full range speakers when using a subwoofer in your system.
- c. Diagram for crossover settings for subwoofers.
- NB: The gray section indicates acceptable frequency ranges.

TWO CHANNEL AMPLIFIER

PP-AM60020



1. Speaker Output Connections

Ensure that the speakers are connected observing correct polarity.

2. Fuses

Ensure fuses are replaced with the same type and rating.

3. Power

FUSION amplifiers should be connected directly to the 12V battery terminal with an inline fuse or circuit breaker as close to the battery as possible.

Ground

When grounding/earthing your amplifier ensure that the location is a good source of ground (preferably the floor pan). Make sure the metal is clean of paint etc, as a poor earth could damage your audio system.

Remote Turn On

This connection turns the amplifier on and should be connected to the remote turn on lead from the Head Unit. If one is not available a switched 12V source must be used.

4. Output Connectors

Line level output for connection to an additional amplifier.

5. Input Connectors

Choose the correct length RCA interconnects and run them to the RCA outputs of the source unit. Avoid running beside other looms and or power cable.

6. Input Level

This control is used to match the input level of the amplifier to the output level of your head unit

1. Turn the amplifier level to zero.
2. Turn the volume of the head unit to $\frac{3}{4}$ and the bass and treble to zero.
3. Adjust the level control until the desired maximum volume is achieved without distortion.
4. Failure to follow these steps may cause permanent damage to the audio system.

7. Frequency Control

12dB/Octave crossover, variable from 32Hz to 320Hz.

(For adjustment procedure see 12.)

8. Filter Selector - Crossover

LPF - Select for subwoofer(s).

Flat - Select for full range speakers.

HPF - Select for mid/full range speakers when using a subwoofer in the system.

9. Boost Control

Adjust the Bass Boost to the desired level.

10. Power ON LED

Amplifier is operational when illuminated.

11. Protection LED

When illuminated the amplifier is in protection mode due to any of the following fault conditions.

Short Circuit, Thermal, Output Short, DC Offset.

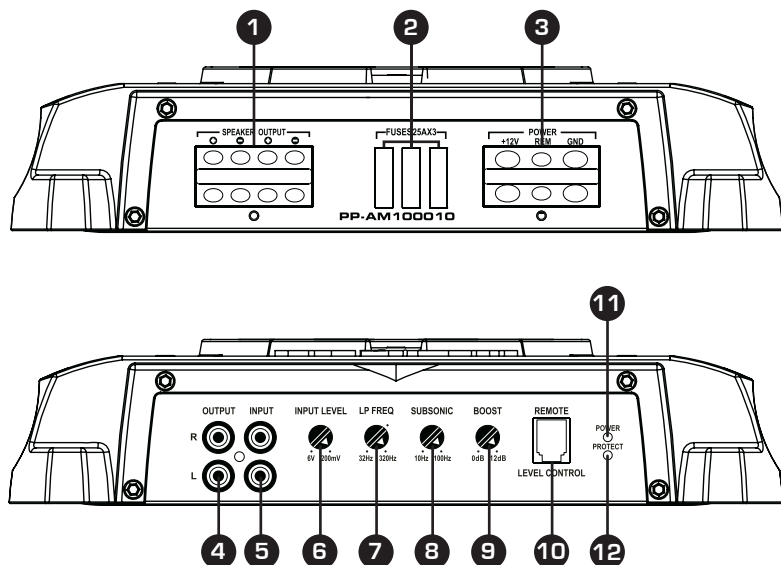
12. Setting the Crossover

- a. Diagram for crossover settings for 5" or larger full range speakers.
- b. Diagram for crossover settings for mid/full range speakers when using a subwoofer in your system.
- c. Diagram for crossover settings for subwoofers.

NB: The gray section indicates acceptable frequency ranges.

MONOBLOCK AMPLIFIERS

PP-AM100010, PP-AM200010, PP-AM300010



1. Speaker Output Connections

Ensure that the speakers are connected observing correct polarity.

2. Fuses

Ensure fuses are replaced with the same type and rating (*PP-AM100010 Pictured Above*).

PP-AM100010	25A x 3
PP-AM200010	40A x 3
PP-AM300010	40A x 4

3. Power

FUSION amplifiers should be connected directly to the 12V battery terminal with an inline fuse or circuit breaker as close to the battery as possible.

Ground

When grounding/earthing your amplifier ensure that the location is a good source of ground (preferably the floor pan). Make sure the metal is clean of paint etc, as a poor earth could damage your audio system.

Remote Turn On

This connection turns the amplifier on and should be connected to the remote turn on lead from the Head Unit. If one is not available a switched 12V source must be used.

4. Output Connectors

Line level output for connection to an additional amplifier

5. Input Connectors

Choose the correct length RCA interconnects and run them to the RCA outputs of the source unit. Avoid running beside other looms and or power cable.

6. Input Level

This control is used to match the input level of the amplifier to the output level of your head unit

1. Turn the amplifier level to zero.
2. Turn the volume of the head unit to $\frac{3}{4}$ and the bass and treble to zero.
3. Adjust the level control until the desired maximum volume is achieved without distortion.
4. Failure to follow these steps may cause permanent damage to the audio system.

7. Frequency Control

12dB/Octave Low Pass crossover, variable from 32Hz to 320Hz.

8. Subsonic Filter

This is a variable control that filters out all sub bass frequencies below the set point at 12dB/Octave.

9. Boost Control (Rear)

Adjust the Bass Boost to the desired level

10. Remote Level Control

Connect the Remote Level Controller using the supplied cable.

11. Power ON LED

Amplifier is operational when illuminated.

12. Protection LED

When illuminated the amplifier is in protection mode due to any of the following fault conditions. Short Circuit, Thermal, Output Short, DC Offset.

TROUBLESHOOTING

PROBLEM	POSSIBLE REASON	SOLUTION
Amplifier not switching on. Power LED not 'ON'	No +12V to power wire	Check fuses and connections to battery
	No power to remote wire	Check Remote Turn ON connection(s) to head unit
	Fuse broken	Replace fuse with correct type and amperage
Amplifier not working, but status LED 'ON'	Fuse on amplifier blown	Replace fuse with correct type and amperage
	Amplifier too hot	- Move amplifier to vented area - Turn head unit down
	Speaker wires shorted	Check that there are no speaker wires shorted to another wire or to the vehicle chassis
No sound	RCA Signal	Check RCA connection to head unit
	Gain control not set up	Ensure you have set up the amplifier gain level control
	Head Unit	Check head unit volume level
	Amplifier	Check all power, remote on and ground connections
	Speakers	Check speakers for wire shorts

NOTES

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. In the center of the page, there is a large, faint, light blue circular watermark. The watermark appears to be a stylized logo or emblem, possibly related to a school or organization, though its details are too faded to discern clearly. The overall appearance is that of a clean, unused piece of stationery.

[illegible]

YOU CAN HELP PROTECT THE ENVIRONMENT!
Please remember to respect the local regulations:
Hand in the non-working electrical equipment
to an appropriate waste disposal center.

The logo for FUSION, featuring the word "FUSION" in a bold, white, sans-serif font. The letters are closely spaced, and the "O" is slightly larger than the others. A registered trademark symbol (®) is located to the upper right of the "N".

FUSION®

Specifications and design are subject to change without notice