

OUTPUT POWER (max) @ 14.4V / 4Ω / 2 Channel	800 W x 2 CH
Distortion (T.H.D)	<0.03%
Signal to Noise Ratio	102dB
Channel Separation	56dB
Input Sensitivity	200mV - 6.0V
LOW PASS FILTER / slope	50 Hz - 5000Hz/12dB
HIGH PASS FILTER / slope	20Hz - 4000Hz/12dB
FUSE RATING	25A x 3
DIMENSION (L x W x H)in/mm	11"/280mm x 6.7"/170mm x 1.7"/45mm
Nominal Current draw:100W/ 4 OHM	40A
Max current draw	90A

NOTE: Specification & design subject to change without notice for improvements.

WARRANTY INFORMATION

This unit is warranted to be free of defects in material and workmanship for a period of one year. Warranty is subject to proper installation and operation within the published specifications. Except as provided below, Poly Planar will repair or replace, at its discretion, any product returned prepaid to our facility and determined to be defective. Poly Planar is not liable for consequential damages

LIMITS OF LIABILITY

Poly Planar warranty does not cover damage occurred in transit, accident, abuse, misuse, negligence, fire, flood, lightning or unauthorized service. This warranty assumes no responsibility for damages incurred during installation of this equipment. This warranty covers normal consumer use only. In no event shall Poly Planar be liable for special, incidental, or consequential damages. To obtain service under this warranty, please call Poly-Planar for a RETURN AUTHORIZATION NUMBER.

poly-planar, inc.
Maryland USA
(410) 761-4000
www.polyplanar.com

ME-400D OWNER'S MANUAL

4 CHANNEL CLASS D POWER AMP

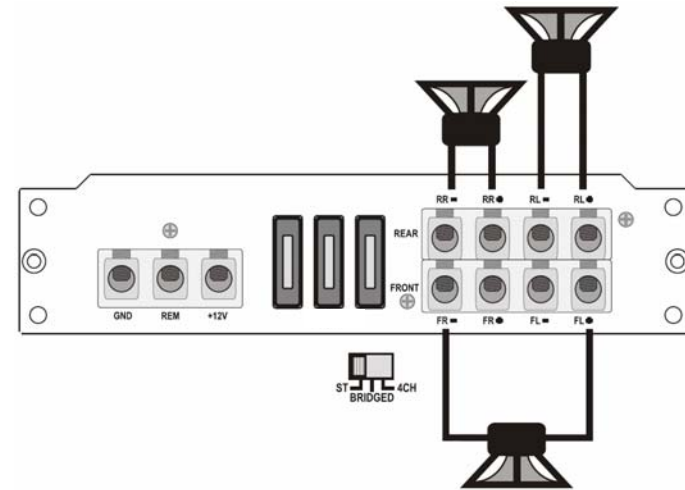


PRECAUTIONS : READ FIRST!

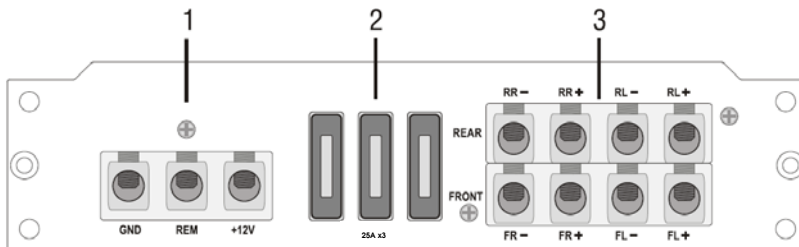
- The negative battery terminal must be disconnected before any electrical connections are made.
- If after reading the directions you feel uncomfortable about installing the amplifier in your vessel, or not equipped or competent to do so, you should have the amplifier installed by an authorized installer
- Be sure to choose a location that provides substantial ventilation for the amplifier. The location chosen should provide at least 2 inch of clearance above the amplifier for adequate ventilation.
- If the amplifier is to be mounted vertically be sure that it is in a place where adequate air will flow along the length of its heat sink fins for cooling.
- NEVER mount the amplifier up side down, this will cause the heat to rise back into the amplifier causing thermal shutdown or possible permanent damage.
- Be sure to mount the amplifier to a strong, solid surface which will not give way under the stress of waves pounding the hull.
- Make sure that the mounting screws will not penetrate through the hull or into wiring or control cables.
- NEVER ground the speaker leads and NEVER allow the speaker leads to come in contact with each other. The speaker wire should be at least 16 gauge or lower.
- NEVER operate the amplifier without the proper power and ground wire 10 gauge minimum.

- NEVER operate the amplifier without proper fusing. Fuse holder must be located within 2 feet from the battery. This fuse is to protect the vessel, not the electronics. In case of a short, the fuse will blow instead of the wire burning up. Using other than the recommended fuse ratings at the battery and at the amplifier may cause damage to the amplifier and will void your warranty.
- To help minimize interference, it is best to run the power cables along the side opposite of the audio (RCA) cables.
- Whenever wires pass through metal, rubber or plastic grommets must be used to prevent the metal from wearing through the installation and causing a short.
- Whenever possible, use cable ties, mounting clamps and similar wiring aids. Adding stress relief loop to wiring is also advisable to prevent straining or breakage.
- The amplifier operates with any vehicle using a 12 volt negative ground system
- Remote turn on wire must be switched by the radio. If the radio does not have a remote turn on or antenna output, connect to wire that has a positive 12 volt output when the key is turned to the accessory position. If the amplifier does not turn off the battery will die.
- **WARNING!** Amplifiers may produce sound pressure levels that exceed the threshold at which hearing loss may result. Practice safe listening when listening to your audio system. When the amplifier works in particularly hard conditions it can reach operating temperatures above 90°C/194°F. Be careful to check the case temperature before touching it. This amplifier is developed for marine use and has been carefully designed to resist corrosion and exposure to humidity. Please do not expose this Amplifier to liquid water at any time. Make sure the amplifier is mounted in a clean/dry location.

3-CHANNEL CONFIGURATION



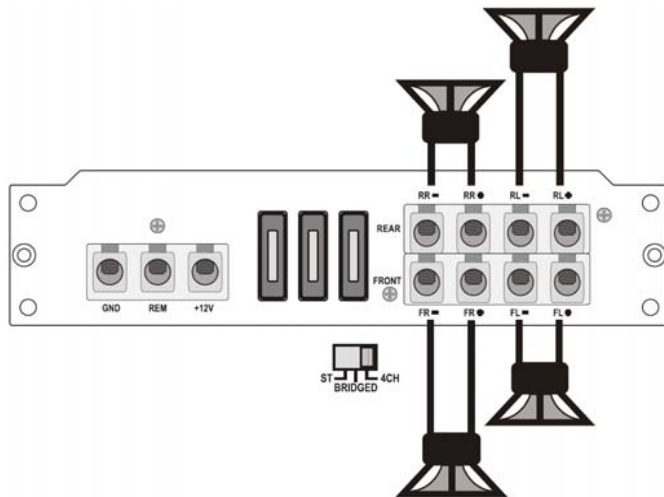
FRONT PANEL



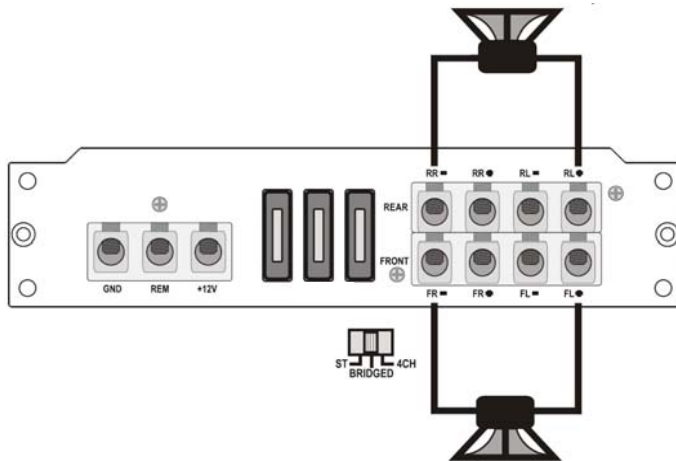
TECHNICAL SPECIFICATIONS

POWER SUPPLY	SPECIFICATION
Power Supply Voltage	11-16 VDC
Idling Current	0.8 A
Idling Current when off	<0.001 mA
AMPLIFIER	
OUTPUT POWER (RMS) @ 14.4V / 4Ω	125 W x 4 CH
OUTPUT POWER (RMS) @ 14.4V / 2Ω	200 W x 4 CH
OUTPUT POWER (RMS) @ 14.4V / 4Ω / 3 Channel	125 W x 2 CH + 400 W x 1 CH
OUTPUT POWER (RMS) @ 14.4V / 4Ω / 2 Channel	400 W x 2 CH
OUTPUT POWER (max) @ 14.4V / 4Ω	250 W x 4 CH
OUTPUT POWER (max) @ 14.4V / 2Ω	400 W x 4 CH
OUTPUT POWER (max) @ 14.4V / 4Ω / 3 Channel	250 W x 2 CH + 800 W x 1 CH

4-CHANNEL CONFIGURATION



2- CHANNEL CONFIGURATION



1. POWER TERMINAL

When the power supply lead or ground lead are extended, use AWG5 or larger automotive grade cable which will withstand friction and heat to safe grade against fires occurring as a result of short-circuiting.

- It is important to have good quality power and ground connections. Remember, to complete an electrical circuit, the ground connection is just as important as the positive power connection.
- Before any power connections are made, disconnect the ground cable at the battery.

GND: Connect the proper gauge ground wire to the amplifier "GND" terminal and run the cable to the battery's negative (-) terminal. Please use a 10 gauge cable or bigger.

REM: Connect the remote wire (power antenna output) from the head unit to the remote turn-on wire of the amplifier. If the head unit is not equipped with a remote/antenna output, locate a wire that is controlled by the accessory position of the ignition key or perhaps run to a separate breaker on battery distribution panel. It is important to have the amplifier turn off with the radio or key/breaker. If the amplifier remains on, the result will most likely be a dead battery.

BATT+: connect the proper gauge power wire to the amplifier "+12V" terminal and run wire to the battery's positive (+) terminal. Please use a 10 gauge cable or bigger. Remember always protect this wire by installing a fuse within 2 feet of the battery terminal connection. The fuse is to protect the safety of the vessel in the case of a short.

2. FUSES

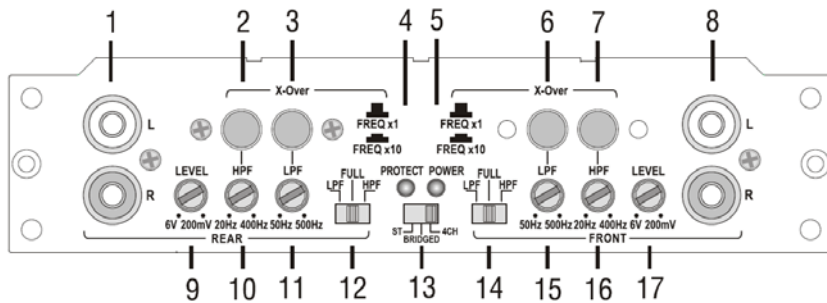
The fuses protect the amplifier against internal electrical damage. When changing a fuse please make sure to only change them with same value of fuse.

3. SPEAKER TERMINAL

Connect the channels FL and FR to the front speakers left and right. Be sure to observe the correct polarity. Use only the output FL+ and FR- to bridge the channels. Be sure of right selection of the Input Selector switch (refer REAR PANEL, point 13). Connect the channels RL and RR to the rear speakers left and right. Be sure to observe the right polarity. Be sure of correct selection of the Input Selector switch (refer REAR PANEL, point 13).

WARNING! *The minimum impedance for stereo operation is 2 ohms per channel. The minimum impedance for bridged operation is 4 ohms per channel.*

REAR PANEL



1. **REAR RCA INPUTS** -for rear left and rear right channel
2. **LOW PASS FREQUENCY RANGE SWITCH (REAR)** -switches the rear low pass frequency range from 50-500Hz to 500-5000Hz.
3. **HIGH PASS FREQUENCY RANGE SWITCH (REAR)** -switches the rear high pass frequency range from 50-500Hz to 500-5000Hz.
4. **PROTECT LED** -the LED will turn red if the amplifier is in safety mode.
5. **POWER LED** -the LED will turn green if the amplifier is in use.
6. **HIGH PASS FREQUENCY RANGE SWITCH (FRONT)** -switches the front high pass frequency range from 50-500Hz to 500-5000Hz.
7. **LOW PASS FREQUENCY RANGE SWITCH (FRONT)** -switches the front low pass frequency range from 50-500Hz to 500-5000Hz.
8. **FRONT RCA INPUTS** -for front left and front right channel
9. **LEVEL CONTROLLER (REAR)** -allows adjustment of amplifier to match the incoming audio level so it can be adjusted for either low level or high level input.
10. **HPF FREQUENCY CONTROLLER (REAR)** -controls the high pass frequency of the rear channels between 20Hz and 4000Hz. Applicable only if the Crossover switch is in LPF position.

11. **LPF FREQUENCY CONTROLLER (REAR)** -controls the low pass frequency of the rear channels between 50Hz and 5000Hz. Applicable only if the Crossover switch is in LPF position.

12. **CROSSOVER SWITCH (REAR)** -switches the rear channels in full range, low pass or high pass mode.

13. INPUT SELECTOR:

- 4CH** :4-channel input (FL/FR/RL/RR)
- Bridged** :2-channel input for dual mono mode (FL/RL)
- ST** :2-channel input for 4-channel or 3-channel mode (FL/FR)

14. **CROSSOVER SWITCH (FRONT)** -switches the front channels in full range, low pass or high pass mode.

15. **LPF FREQUENCY CONTROLLER (FRONT)** -controls the low pass frequency of the front channels between 50Hz and 5000Hz. Applicable only if the Crossover switch is in LPF position.

16. **HPF FREQUENCY CONTROLLER (FRONT)** -controls the high pass frequency of the front channels between 20Hz and 4000Hz. Applicable only if the Crossover switch is in LPF position.

17. **LEVEL CONTROLLER (FRONT)** - allows adjustment of amplifier to match the incoming audio level so it can be adjusted for either low level or high level input.

SPEAKER WIRING DIAGRAM

This amplifier can operate in two, three or four channel mode. The minimum impedance for stereo operation is 2 ohms per channel. The minimum impedance for bridged operation is 4 ohms.

Connect right and left speaker wire to corresponding speaker output terminals of the amplifier.

Be sure to have the positive wire from the speaker connected to the positive speaker terminal of the amplifier.

Reversing any of these connections will result the speaker cones moving out of phase which causes bass cancellation.