

M2A.1000MK2
1Channel power amplifier

OWNERS MANUAL

INTRODUCTION:

CONGRATULATIONS !

You now own a MACROM M2A-series amplifier, the product of an uncompromising design and engineering philosophy. We suggest you take a moment to document the information below, which will be helpful in the event of theft or if service is needed. Please retain this manual and your sales receipt for future reference.

MACROM amplifiers are the result of innovation and the highest quality control standards. When properly installed, they will provide you with many years of listening pleasure. Should your amplifier ever need service or replacement due to theft, Please record your information on the following lines to refer to in the event that you may need it later.

DESIGN FEATURES

- ☑ Double side FR-4 PCB, high quality SMD components
- ☑ High power, High efficiency design
- ☑ Full MOSFET circuit design
- ☑ Low pass filter and subsonic adjustable
- ☑ Bassboost level adjustable
- ☑ Optional remote gain control
- ☑ Overload, shortcircuit, thermal, low voltage protection
- ☑ Passed RoHS, E-mark certification

1. SPEAKERS

Connect speakers/subwoofers to these terminals. Be sure to check wire for proper polarity. Never connect the speaker cables to chassis ground.

2. +12 Volt Power

Connect this terminal through a FUSE or CIRCUIT BREAKER to the positive terminal of the vehicle battery or the positive terminal of an isolated audio system battery. Warning: Always protect this power cable by installing a fuse or circuit breaker of the appropriate size within 18 inches (45cm) of the battery terminal connection.

3. Remote Turn On

This terminal turns on the amplifier when (+)12 volt is applied to it . Connect it to the remote turn on lead of the head unit or signal source.

4. GND

Connect this cable directly to the frame of the vehicle. Make sure the metal frame has been stripped of all paint down to the bare metal. Use the shortest distance possible. It is always a good idea to replace the factory ground at this time with a larger cable equal to the new amplifier power cable or larger. **CAUTION:** Do not connect this terminal directly to the vehicle battery ground terminal or any other factory ground points.

5. RCA input jacks

These RCA input jacks are for use with source units that have RCA outputs. A source unit with a minimum level of 200mV is required for proper operation. The use of high quality twisted pair cables is recommended to decrease the possibility of radiated noise entering the system.

6. REMOTE

Connect the remote controller to control the subwoofer amplifier volume from the driver seat location, for ease of adjustment during playing.

7. Gain Control

The Gain control will match the amplifiers sensitivity to the source units signal voltage. The Operating range is 6V to 200mV. This is NOT a volume control!

8. Low Pass Filter Control (Mono block)

This control is used to select the desired low pass x-over frequency. The frequency can be adjusted from 30Hz to 300Hz for all bass mono models.

9. Subsonic Filter Control (Mono block)

This control can filter out unwanted low frequency from 10Hz (OFF) to 50Hz. This function will increase the power handling of your woofers.

10. Bass Boost

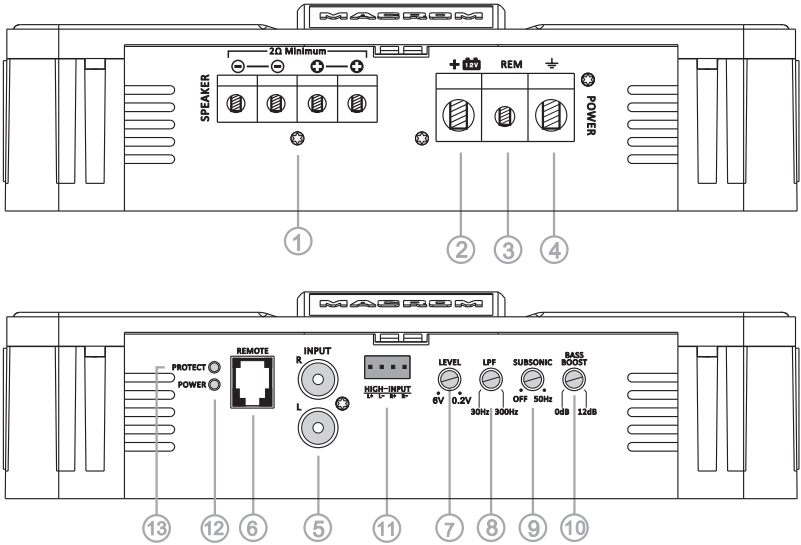
It can be adjusted from 0 to 12dB. you can accurately match the amplifier performance to woofer response.

11. Hi level input

The high level inputs are for use with speaker level wiring. Some source units do not

AMPLIFIER FUNCTIONS

M2A.1000MK2



have RCA outputs, so use this terminal for speaker level signal input. CAUTION: Never use high level input when RCA inputs available.

12. Power Indicator

This LED will light up when amplifier works properly.

13. Protection Indicator

The red LED will light up if there is a fault presented to the amplifier. Please disconnect the amplifier and resolve the fault before reconnecting the amplifier.

PRE INSTALLATION

- Please prepare sufficiently to layout your car space before installation. We recommend to have the installation done by an Authorized MACROM Dealer.
- Use good insulated power cable to endure longterm use with high electric current. The +12 Volt power cable must be connected with a fuse in line near 20cm of battery+ terminal. Required current, power cable and proper external fuse listed as following.

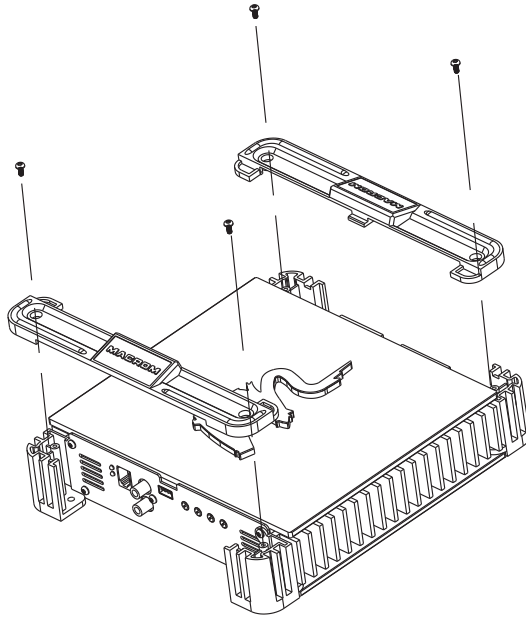
Table 1

Model	Fuse	Cable
M2A.1000MK2	40 A	AWG 6#

- Please use car audio RCA cables, otherwise it may be disturbed. Keep these cables as short as possible. To avoid disturbances from your car electronics, please don't close the existing car cables when you install the RCA cables.
- Don't expose any cables out of car. Please take care insulated cables to avoid be damaged when cables pass through metal, rubber and plastic etc. Don't install cables too tight.
- The ground cable should be connected directly with the chassis of your vehicle which should be metal to metal ground point connection.
- The amplifier must be mounted securely at a solid, dry and low vibration surface in the trunk or passenger area. Fix the amplifier in an open air area to insure proper heat dissipation. Fix the amplifier in a place where can access easily to set input controllers.

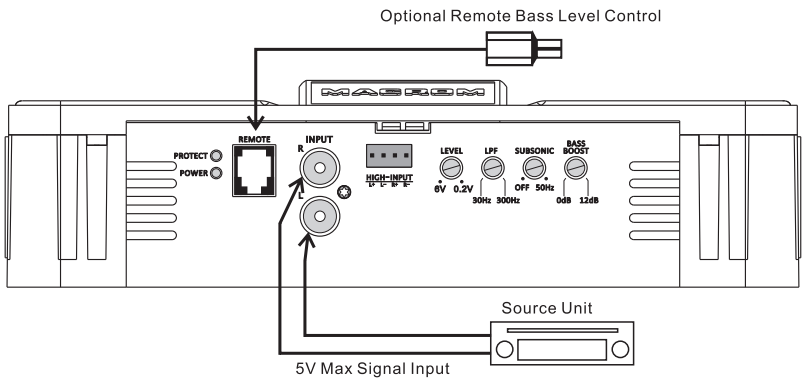
INSTALLATION

1. Choosing a flat and good condition for heating place to install amplifier.
2. Using attached TORX wrench to remove the end cap on the amplifier as below picture showing.
3. Using attached screws to fix the amplifier to the chosen place.
4. Connecting power and speaker referring to Output Wiring Diagram.
5. Reset the end cap to the amplifier.

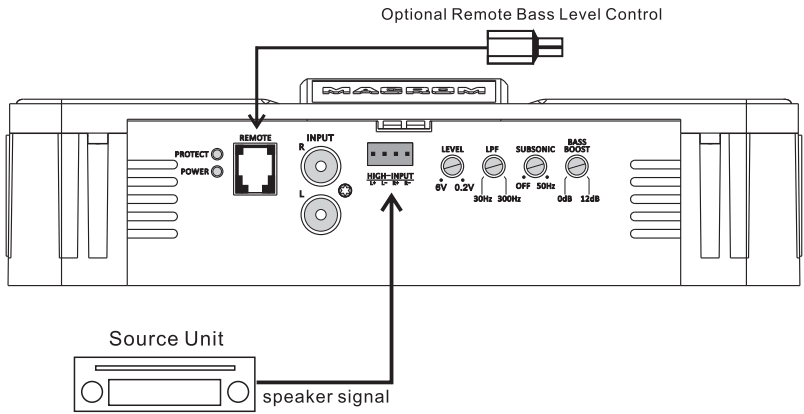


INPUT WIRING CONFIGURATION

M2A.1000MK2

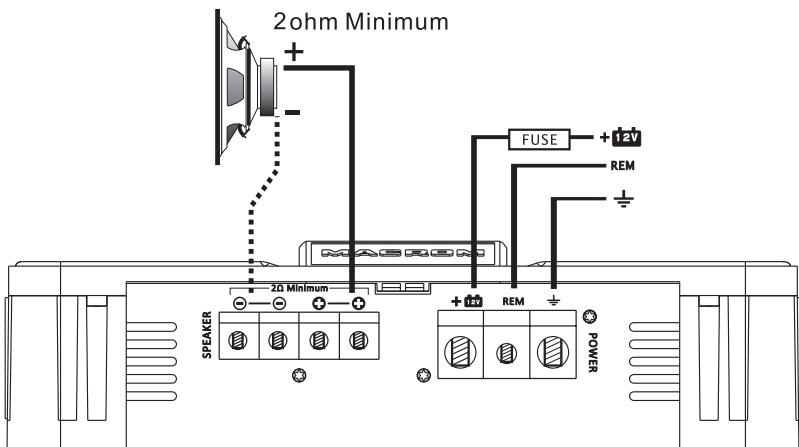


M2A.1000MK2 (High level input)



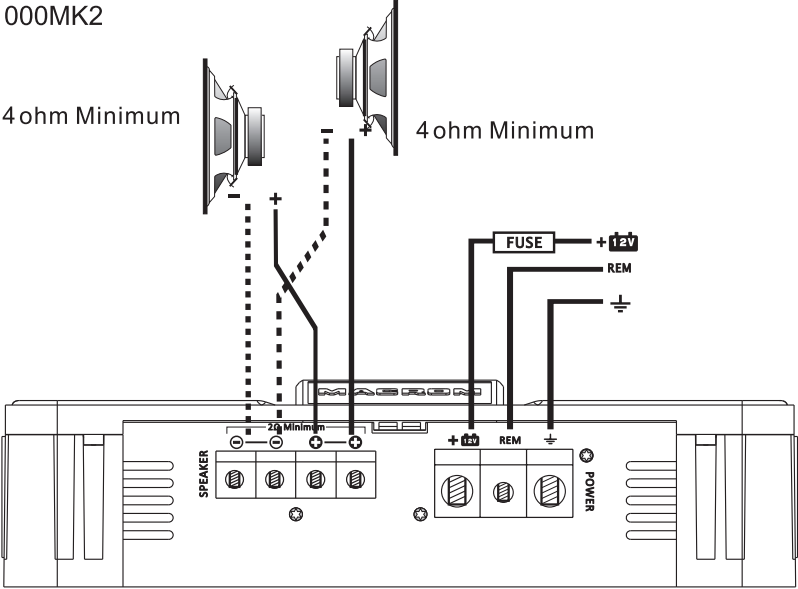
OUTPUT WIRING CONFIGURATION

M2A.1000MK2



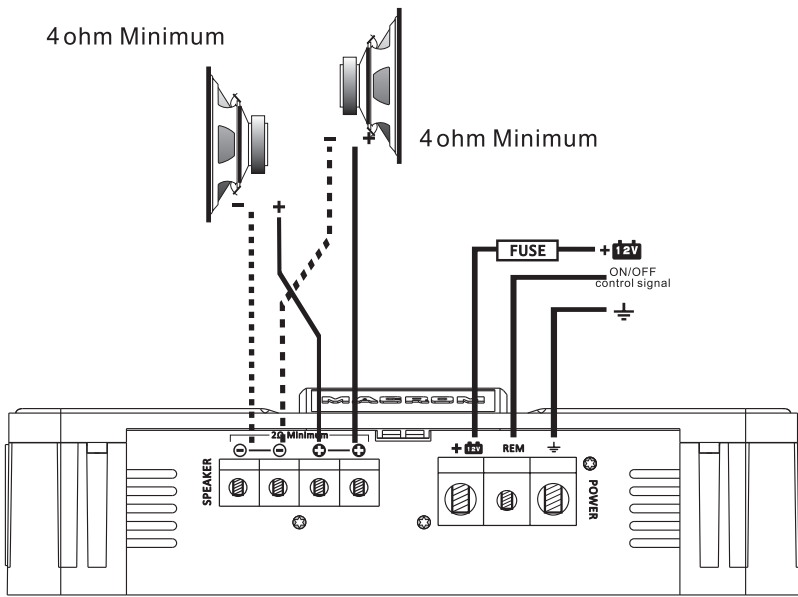
One Subwoofer Wiring

M2A.1000MK2



Two Subwoofers Wiring

M2A.1000MK2 (High level input)



TROUBLE SHOOTING

MALFUNCTION	SOLUTION
Power LED off	<ul style="list-style-type: none"> Check connections both at amplifier and at other ends Check positive and negative battery cables Check all fuse on amplifier Check remote voltage
No Output (Power LED on)	<ul style="list-style-type: none"> Check volume control on the source unit Check GAIN regulator on amplifier Check RCA cables and connections Check speaker cable and connections
Bass is weak	<ul style="list-style-type: none"> Subwoofers connected out of phase Dual voice coils on subwoofer wired out of phase Bass control on source unit is set on low Bad speaker connections
Amplifier switches on and off	<ul style="list-style-type: none"> Check chassis ground connection with amplifier Check cable terminals and battery terminals Low voltage from battery Check remote wire connection
Distorted Output	<ul style="list-style-type: none"> Source unit gain set too high Amplifier gain set too high Speaker(s) blown
No Output (Protect LED on)	<ul style="list-style-type: none"> Subwoofer short circuit or damage Amplifier over heat Amplifier overloaded Battery low voltage

If your amplifier is still malfunction after checking through the troubleshooting section, please contact our authorized MACROM dealer.

SPECIFICATION

MODEL	M2A.1000MK2
RMS @ 4 OHM (<1% DISTORTION)	340W
RMS @ 2OHM (<1% DISTORTION)	600W
RMS @ 1OHM (<1% DISTORTION)	NA
RMS @ 0.5OHM (<1% DISTORTION)	NA
Input Sensitivity	0.2~6V
LPF	30 - 300Hz
Frequency Response	10- 300Hz
Subsonic Filter	10~50Hz
BassBoost Frequency	NA
BassBoost Level	0- 12dB
THD at 4Ohm load 30% Rated Power	<0.15%
S/N Ratio	>90dB
Efficiency	>88%
Minimum load	2 Ω
Optional remote control	YES
Bridging	YES
Protection system	YES
Overheat temperature protection	80C/176F
Components & PCB	SMT& Double side board
Dimensions (LxWxH) mm	258 x 230 x 52

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