

M2A.2000MK2
2 Channel power amplifier

OWNERS MANUAL

M2A.4000MK2
4 Channel 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.

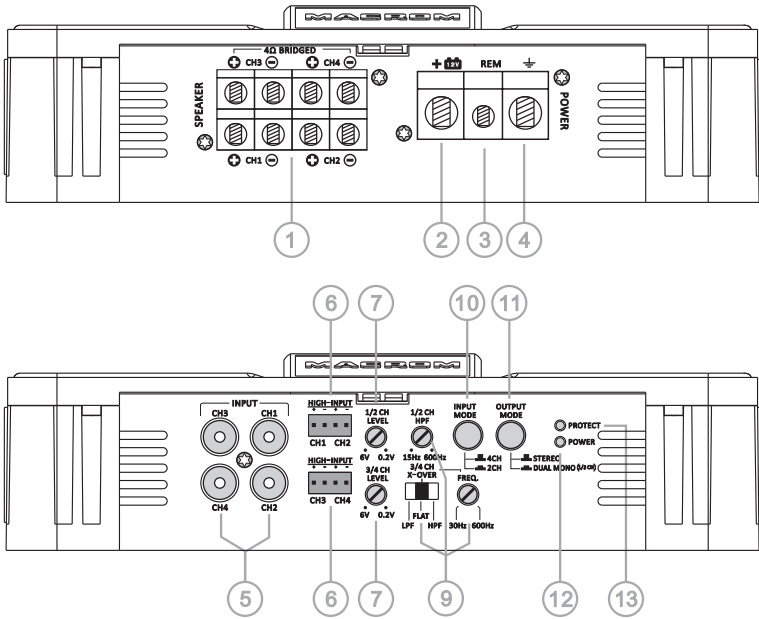
MACROM amplifiers are the result of innovation and the highest quality control standards. When properly installed, they will provide you with many years of listening pleasure. Should your amplifier ever need service or replacement due to theft, Please record your information on the following lines to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

DESIGN FEATURES

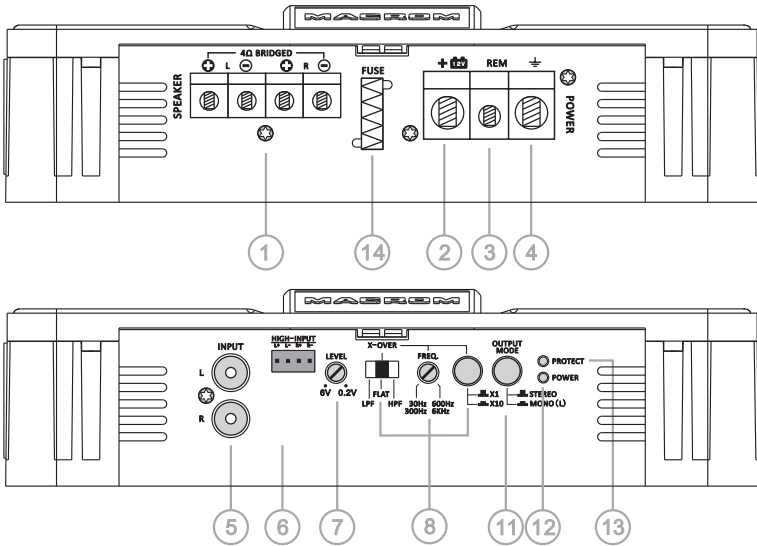
- ☑ High quality SMD components, high accurate resistors and capacitors
- ☑ Double side FR-4 PCB
- ☑ MOSFET and transistor circuit design
- ☑ Super noise rejection circuit
- ☑ Frequency response 10Hz~45000Hz, THD<0.02%
- ☑ Overload, shortcircuit, thermal, low voltage protection
- ☑ Nickel-plated terminals
- ☑ Passed RoHS, E-mark certification

AMPLIFIER FUNCTIONS

M2A.4000MK2



M2A.2000MK2



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. High level inputs

The high level inputs are for use with speaker level wiring. Some source units do not have RCA outputs, so use this terminal for speaker level signal input.

7. LEVEL Control

The level 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. X-over mode and frequency control (M2A.2000MK2)

There is an option for low pass, flat or high pass. In LP mode, the frequency range can be adjusted from 30Hz to 600Hz or from 300Hz to 6KHz when press button out/in for X1/X10. In HP mode, the frequency range can be adjusted from 30Hz to 600Hz or from 300Hz to 6KHz when press button out/in for X1/X10. In flat mode, the filters are "OFF".

9. X-over mode & HPF and frequency control(M2A.4000MK4)

The CH1/CH2 channels only have high pass filter, the frequency range is from 15Hz to 600Hz. The CH3/CH4 channels have low pass, flat and high pass option, In LP mode, the frequency range can be adjusted from 30Hz to 600Hz. In HP mode, the frequency range can be adjusted from 30Hz to 600Hz. In Flat mode, the filters are "OFF".

10. 2CH/4CH Switch(M2A.4000MK2)

This button switch 2ch/4ch input mode. When press in, amplifier works at 2ch input mode, CH3/CH4 input will be paralleled to CH1/CH2, CH3/CH4 input jack will be dummy. When pressed knob out, amplifier will work at 4ch mode.

11. Output Mode Switch

M2A.2000MK2: When press the button out, the L/R audio sources will be set on stereo, the L/R audio sources are Separate entity. the MONO(L) function is working. When press the button in, the R audio source is copy from the L audio source.

M2A.4000MK2: When press the button out, the CH1/2 and CH3/4 audio sources will be set on stereo, the CH1/CH2 audio sources are separate entity, and the CH3/CH4 audio sources are also separate. the MOMO(1/3CH) function is working when press the button in, the CH2/CH4 audio sources are copy from the CH1/CH3 audio sources.

12. Power Indicator

This green 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.

14. Fuse

To protect amplifier when current is more than rated. Never replace a fuse with a higher amp fuse. Never replace a burnt fuse before checking the system when there is a malfunction.

PRE INSTALLATION

- Please prepare sufficiently to layout your car space before installation. We recommend to have the installation done by an Autho rized 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

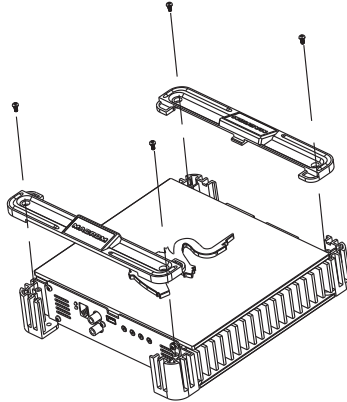
Model	Fuse	Cable
M2A.2000MK2	30 AMP	AWG 8#
M2A.4000MK2	40 AMP	AWG 4-8#

- 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 to 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 being damaged when cables pass through metal, rubber and plastic etc. Don't innstall cables too tight.

- The ground wire 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.

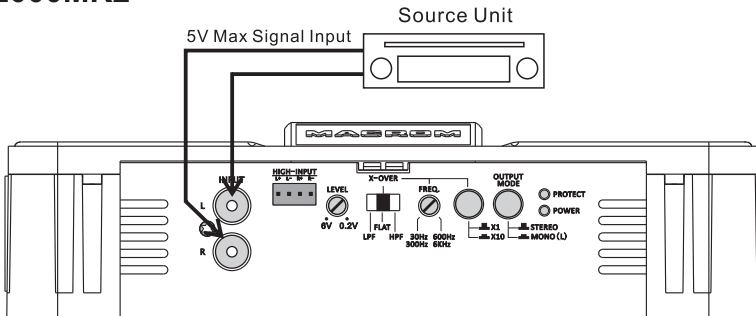
INSTALLATION

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.

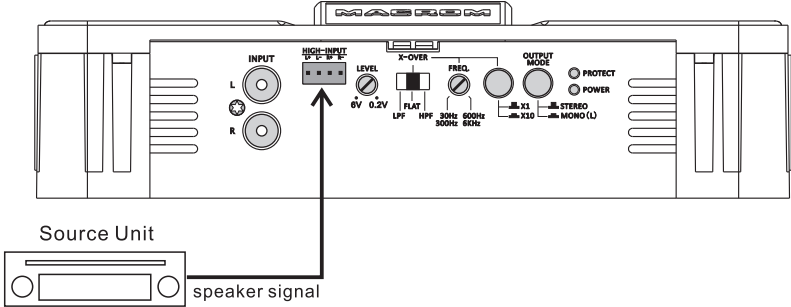


INPUT WIRING CONFIGURATION

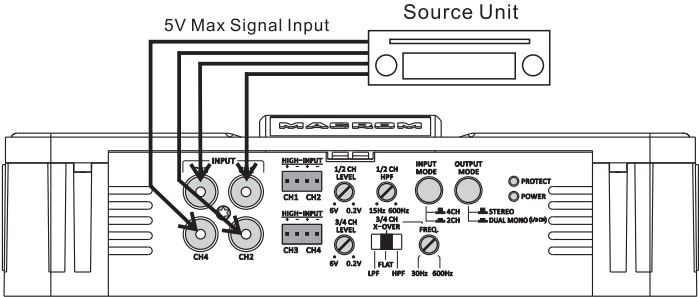
M2A.2000MK2



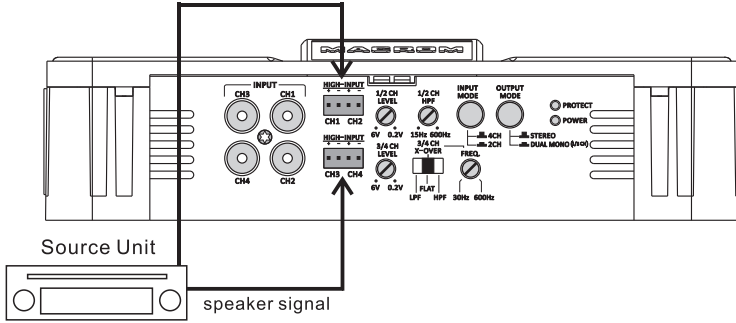
M2A.2000MK2 (High level input mode)



M2A.4000MK2

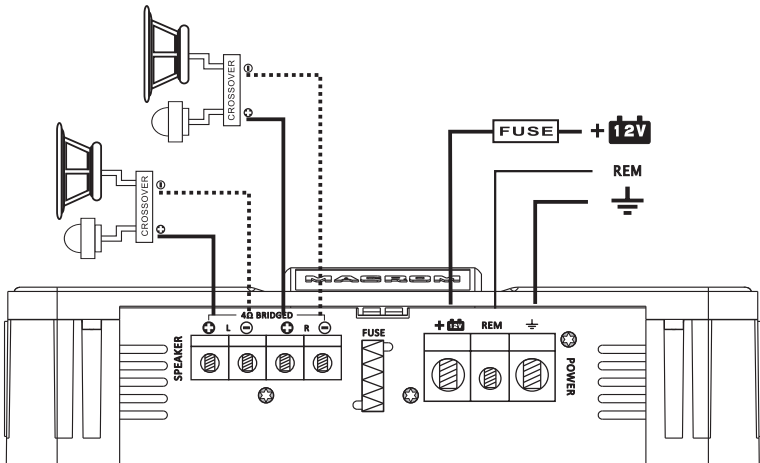


M2A.4000MK2 (High level input mode)



OUTPUT WIRING CONFIGURATION

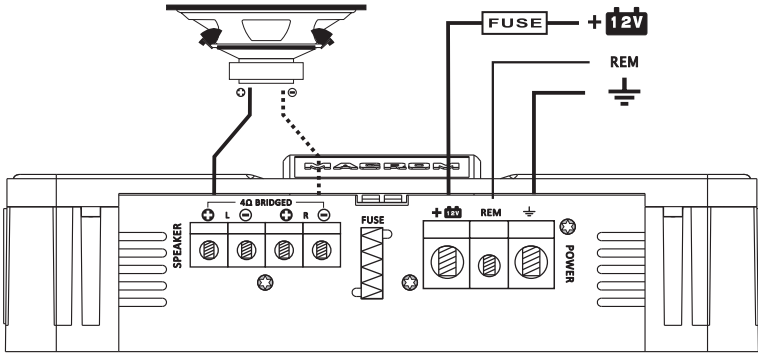
M2A.2000MK2



4ohm stereo speaker configuration

M2A.2000MK2

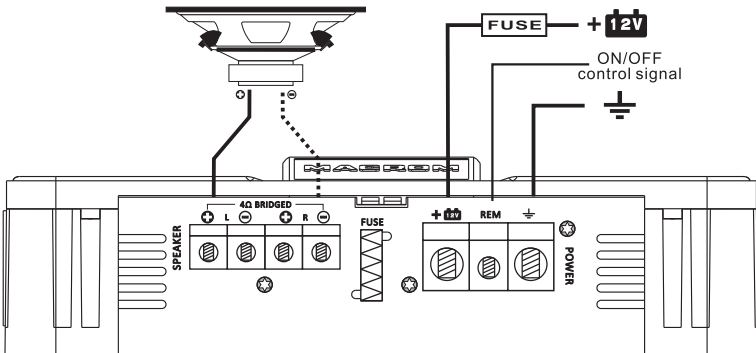
Bridged 4 ohm woofer



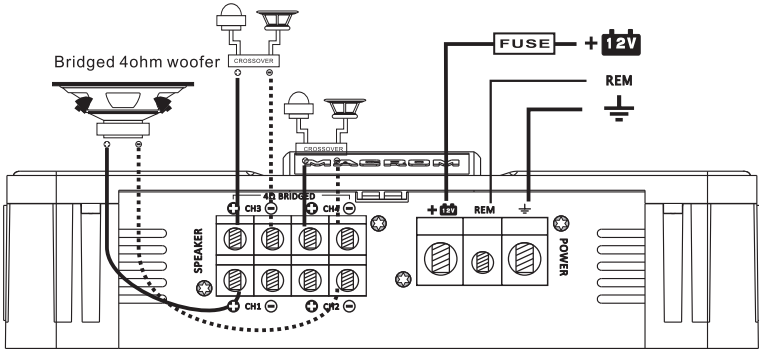
4ohm bridged woofer configuration

M2A.2000MK2 (High level input & bridged mode)

Bridged 4 ohm woofer

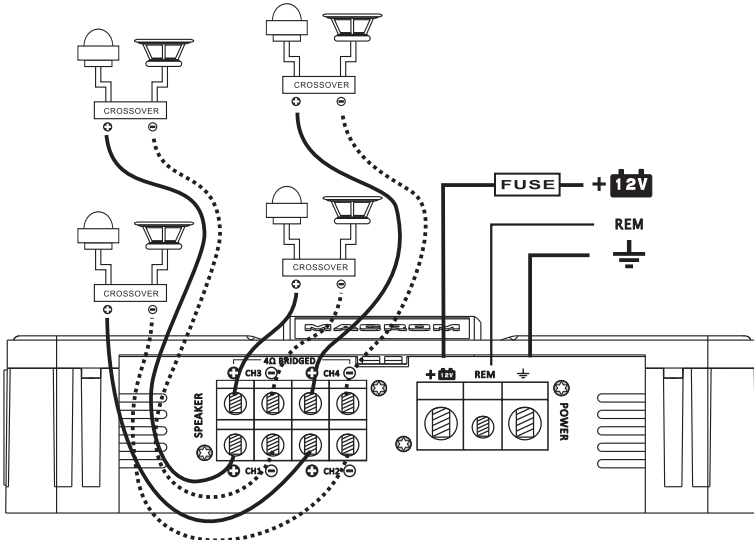


M2A.4000MK2



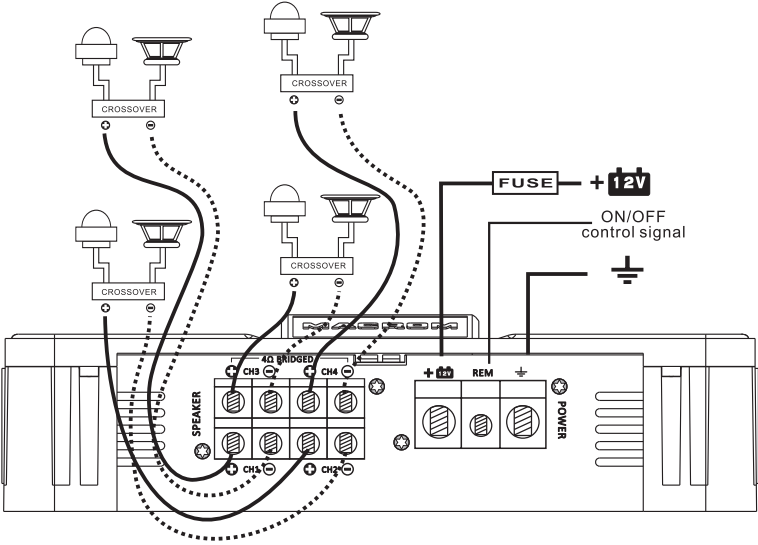
Three channel model

M2A.4000MK2



4ohm 4 channel configuration

M2A.4000MK2 (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 fuse on amplifier and in-line. 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
One Channel no sound	<ul style="list-style-type: none"> Check RCA connections of this channel Check speaker connection of this channel Balance regulator of source unit do not set in middle Speaker of this channel is damage
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 connect right
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"> Speaker is short circuit or damage Amplifier over heat Amplifier overload Battery is low voltage

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

SPECIFICATION

Model	M2A.4000MK2	M2A.2000MK2
RMS @ 4OHM (Power supplier 14.4V)	90Wx4	90Wx2
RMS @ 2OHM (Power supplier 14.4V)	150Wx4	150Wx2
RMS @ 4Ohm Bridged (Power supplier 14.4V)	300Wx2	300Wx1
Input Level	0.2~6V	0.2~6V
High level input	YES	YES
Channel Input Adjust	YES	NA
CH1/CH2 Filter mode	HPF	NA
CH3/CH4 Filter mode	HP-FLAT-LP	NA
CHL/R Filter mode	NA	HP-FLAT-LP
CH1/CH2 HPF	15~600HZ	NA
CH3/CH4 HPF	30~600HZ	NA
CH3/CH4 LPF	30~600HZ	NA
CHL/R HPF	NA	30~600Hz or 300~6KHz
CHL/R LPF	NA	30~600Hz or 300~6KHz
Frequency Response	10~45KHZ	10~45KHZ
THD at 4Ohm load 30% Rated Power	0.05%	0.05%
S/N Ratio	91dB	91dB
Channel seperation	89dB	89dB
Minimum Load	2Ω	2Ω
Overload protect system	YES	YES
Overheat protect system	80C/176F	80C/176F
Components & PCB	SMT&Double side board	SMT&Double side board
HI-END design	YES	YES
DimensionsL xWxHmm	324 x 230 x 52	258 x 230 x 52

ALDINET
S.p.A.

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