NEMESIS AUDIO

POWER CLASS D CAR AMPLIFIERS



NA-2.5KD NA-3.5KD NA-5KD

User's Manual

PRODUCT SPECIFICATIONS

NA-2.5KD

RMS/MAX @ 4 Ohm (<1% DISTORTION) .....600/1000 W
RMS/MAX @ 2 Ohm (<1% DISTORTION) .....1000/1500 W
RMS/MAX @ 1 Ohm (<1% DISTORTION) ..... 1500/2500 W
Frequency Response.....10~180Hz
Signal to Noise Ratio.....90 dB
Bass Boost Level.....0 ~ 12 dB
Bass Boost Frequency.....30 ~ 80 Hz
Input Sensitivity Level.....0.2 ~ 6V
Total Harmonic Dist.....<1%
Subsonic Filter.....10 ~ 50 Hz
LPF.....40 ~ 180 Hz
Dimensions (LxWxH).....13.27" x 6.50" x 2.32"

NA-3.5KD

RMS/MAX @ 4 Ohm (<1% DISTORTION) .....675/1350 W
RMS/MAX @ 2 Ohm (<1% DISTORTION) .....1185/2370 W
RMS/MAX @ 1 Ohm (<1% DISTORTION) .....1815/3500 W
Frequency Response.....10 ~ 180Hz
Signal to Noise Ratio.....90 dB
Bass Boost Level.....0 ~ 12 dB
Bass Boost Frequency.....30 ~ 80 Hz
Input Sensitivity Level.....0.2 ~ 6V
Total Harmonic Dist.....<1%
Subsonic Filter.....10 ~ 50 Hz
LPF.....40 ~ 180 Hz
Dimensions (LxWxH).....15.75" x 6.50" x 2.32"

NA-5KD

RMS/MAX @ 4 Ohm (<1% DISTORTION) .....825/1650 W
RMS/MAX @ 2 Ohm (<1% DISTORTION) .....1525/3050 W
RMS/MAX @ 1 Ohm (<1% DISTORTION) .....2500/5000 W
Frequency Response.....10 ~ 180 Hz
Signal to Noise Ratio.....90 dB
Bass Boost Level.....0 ~ 12 dB
Bass Boost Frequency.....30 ~ 80 Hz
Input Sensitivity Level.....0.2 ~ 6V
Total Harmonic Dist.....<1%
Subsonic Filter.....10 ~ 50 Hz
LPF.....40 ~ 180 Hz
Dimensions (LxWxH).....17.68" x 6.50" x 2.32"

TROUBLESHOOTING

Problem
Run indicator doesn't light up.

Solution
- Check all fuses on the amplifier.
- Check main fuse near the battery.
- Check plus and minus battery cables.
- Check remote voltage.

Problem
Run indicator is on but no sound.

Solution
- Check volume control on the radio.
- Check GAIN regulator on the amplifier.
- Check RCA cables and connections.
- Check speaker cables and connections.

Problem
Bass response is low.

Solution
- One speaker cable could be disconnected the bass control on the radio is set on low an active cross over is adjusted wrong.

Problem
The amplifier switches on and off.

Solution
- Bad chassis ground connection with amplifier cable terminals and battery terminals are oxidized low voltage from the battery remote wire is connected wrong.

For additional questions please contact your authorized **Nemesis Audio** dealer.

INTRODUCTION

Congratulations on purchasing your **Nemesis Audio** Class D amplifier for your car audio system. Please read this manual thoroughly to ensure proper installation of your new amplifier for maximum performance.

- 1 Ohm load stable.
- Double side FR-4 PCB, high quality SMT components.
- Full MOSFET circuit design.
- Subsonic adjustable.
- Low pass filter adjustable.
- Bass boost frequency and level adjustable.
- Phase adjustable.
- Overload, short circuit, thermal, low voltage protection.
- Easy bridging operation.
- Remote bass level control.

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AMPLIFIER FUNCTIONS

Bass Boost Frequency
Adjust the boosted center frequency. The frequency can be adjusted from 30 Hz-80 Hz use combine with bass boost level adjusting.

Bass Boost Level
Adjust the boosted frequency from 0 ~ 12dB.

Battery + 12V Input
Battery + terminal. The +12 Volt power cable must be connected with a fuse in line near the battery + terminal. Please see the table of cable and fuse selection.

Bridge In
This RCA jack receives signal from the master amplifier when this amplifier is bridged as slave. DO NOT use input jacks when the amplifier is working as slave. All the functions will be adjusted by the master amplifier.

Bridge Out
This RCA output sent out bridge signal to another same Class D amplifier in bridging configuration.

Gain Control
Gain control regulates the sensitivity of the amplifier to match the signal output voltage of your source unit. The gain control is not a volume adjustment. Use high quality CD music and increase the volume of your source unit to 75% posit, set the gain at the minimum and then increase gain slowly (clockwise). Stop at the first sign of distortion, then lower the gain a little (counter clockwise) to achieve clear undistorted music at the maximum level.

Ground Input
Chassis ground terminal. The chassis ground cable must be connected very tight on a nearby massive and electric conductive place.

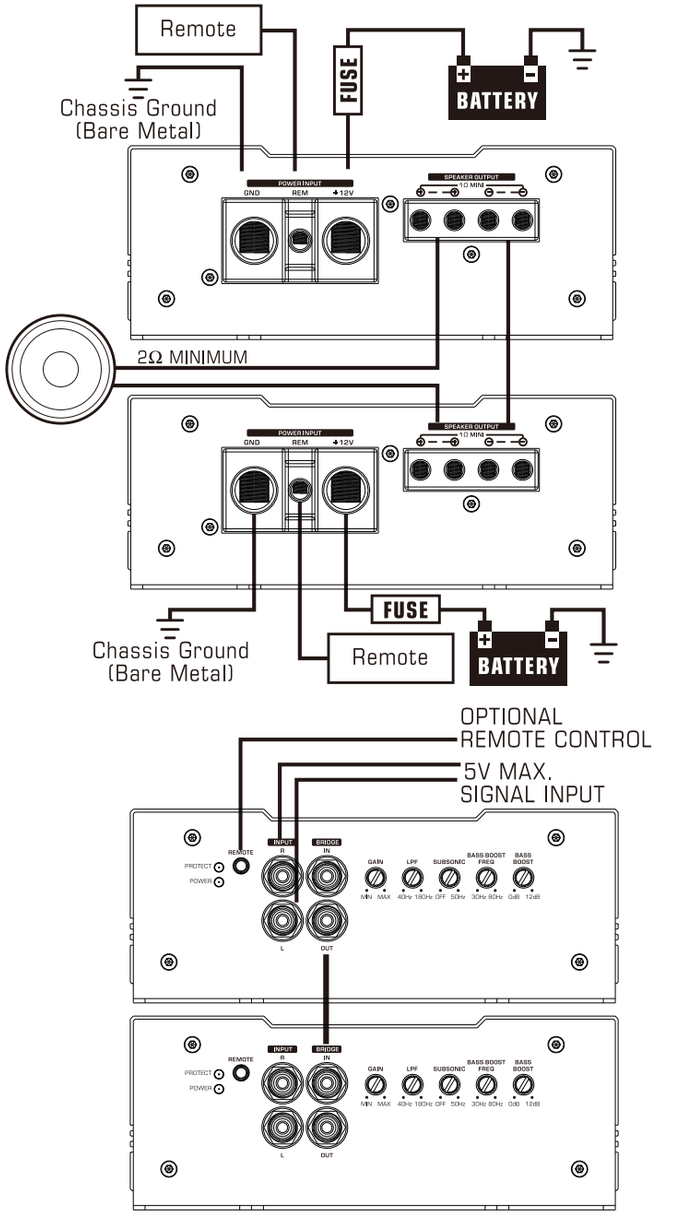
Low Pass Filter
Filter out high frequency that the woofer can't play. Adjust this knob to match the woofer's frequency response.

Power LED Indicator
This LED will light up when amplifier work properly, it will flash or shut down once amplifier in self-testing or malfunction.

Protection LED Indicator
When this LED light up, the amplifier may in self-test mode (when power up) or malfunction. Shut down the amplifier immediately can find the reason before power up amplifier again.

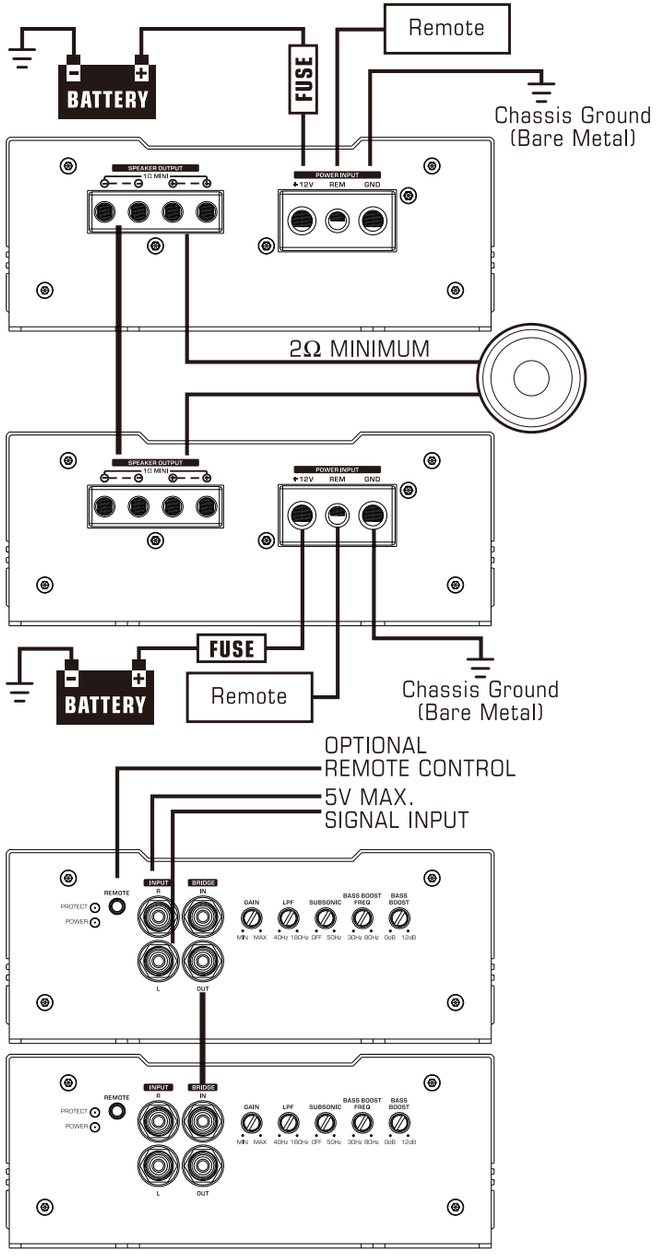
RCA Audio Input
These RCA audio inputs connect with your radio RCA outputs. Please use car audio RCA cables, otherwise it nay be disturbed. Keep these cables as short as possible. To avoid disturbances from your car electronics, please don't close the existing car cables when you install the RCA cables. If your radio has only one set output, please use a suitable Y-RCA adaptor. If your radio has only speaker output, you must use a HIGH LOW LEVEL adaptor.

TWO AMPLIFIER LINKED TO ONE CHANNEL
NA-3.5KD/NA-5KD



TWO AMPLIFIER LINKED TO ONE CHANNEL

NA-2.5KD



Remote Bass Level Control
When using the remote bass level control you can adjust volume in the driver seat.

Remote Turn-On Input
Remote terminal. The remote cable must be connected with the radio remote terminal so that the amplifier will switch on and off automatically with the radio.
If there are two or more amplifiers installed together, it might be necessary to add an additional relay. Please consult your dealer.

Speaker Connection
Never connect the speaker cables with the chassis ground. This may destroy your amplifier. Check that your speakers are connected correctly which means plus to plus and minus to minus.
We recommend speaker cable from 2.25 mm to up. The connection ways are shown in the attachment.

SUBSONIC
Filter out unwanted too low frequency. This function will increase the power handing of your woofer's. It can adjust the frequency filter from, 5Hz (OFF) to 50Hz.

PRE INSTALLATION

We recommend to have the installation done by an authorized **Nemesis Audio** Dealer. Required power, ground wire and proper external fuse as below:

Model	Fuse	Wire
NA-2.5KD	100AMP	4 Gauge
NA-3.5KD	120AMP	2 to 4 Gauge
NA-5KD	150AMP	0 to 2 Gauge

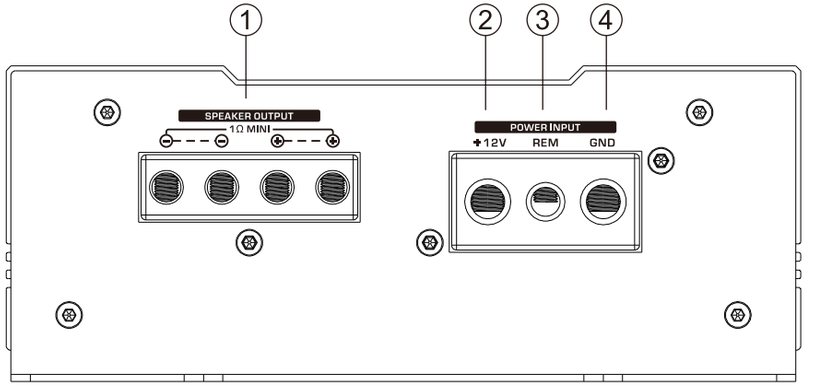
We recommend a fuse should be installed away 0.2m from the battery. The ground wire should be connected directly with the chassis of your vehicle which should be metal to metal ground point connection. The amplifier must be mounted securely at a solid, dry and low vibration surface in the trunk or passenger 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 the input controllers. Install all amplifier cables as far as possible from car electrical cables such as the car ignition cable.

IMPORTANT:

- When bridging two amplifiers please refer the bridging wiring chart.
- When bridging two amplifiers you should use same model amplifiers.
- Please make sure the negative speaker terminal of two amplifiers are connected by the same gauge cables as the positive terminal being used.
- DO NOT connect any signal cables with the input RCA jacks when bridged as slave unit.
- The LPF, Input level and remote functions will be disabled on slave amplifier when bridged.
- All the functions of the slave amplifier will be adjusted by the master amplifier.

POWER AND INPUT CONNECTIONS

NA-2.5KD

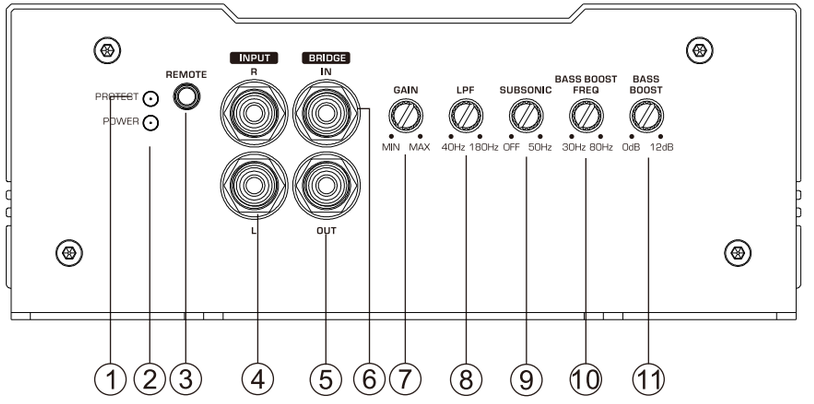


1.Speaker Connection

2.Battery +12V Input

3.Remote Turn-on Input

4.Ground Input



1.Protection LED Indicator

2.Power on LED Indicator

3.Remote Bass Level Control

4.RCA Input Jacks

5.Bridge Output

6.Bridge Input

7. Gain Control

8. Low Pass Filter Control

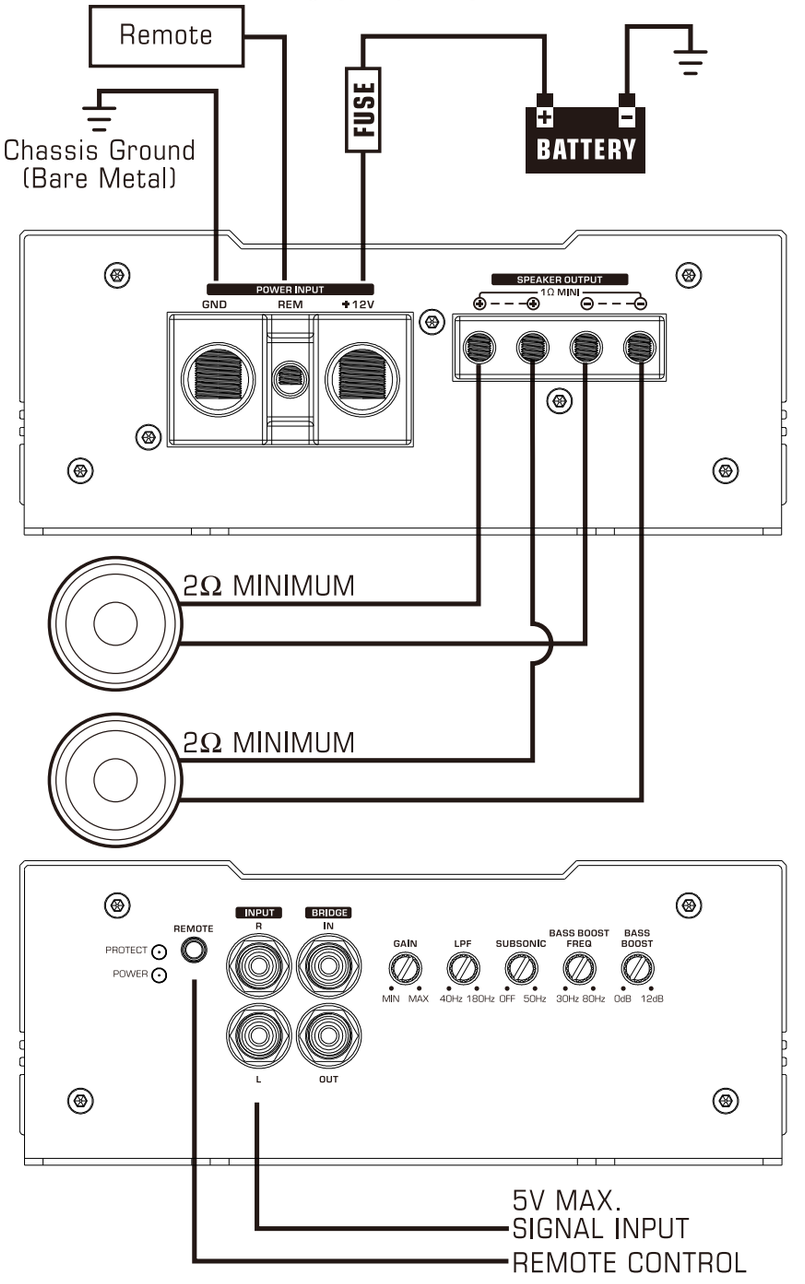
9. Subsonic Filter

10.Bass Boost Frequency Control

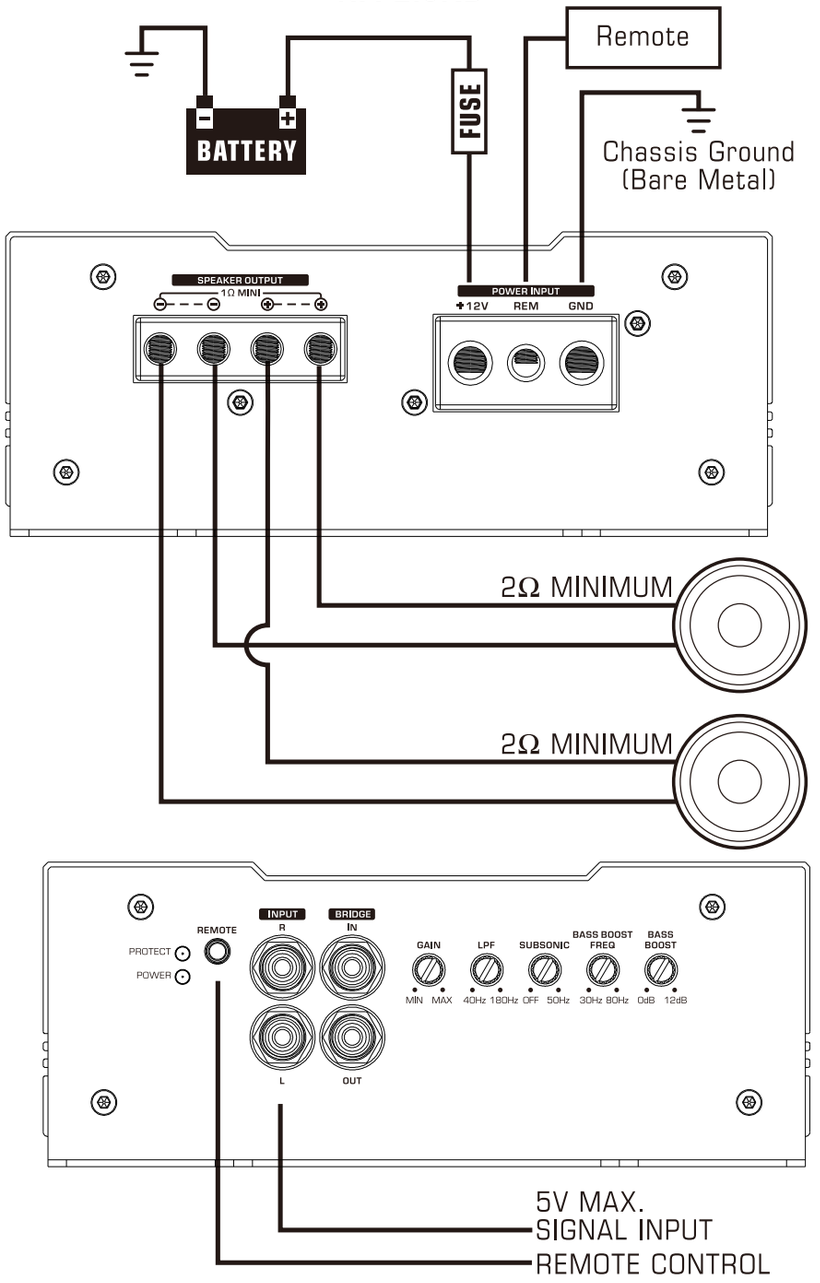
11.Bass Boost Level

TWO SPEAKER MONO

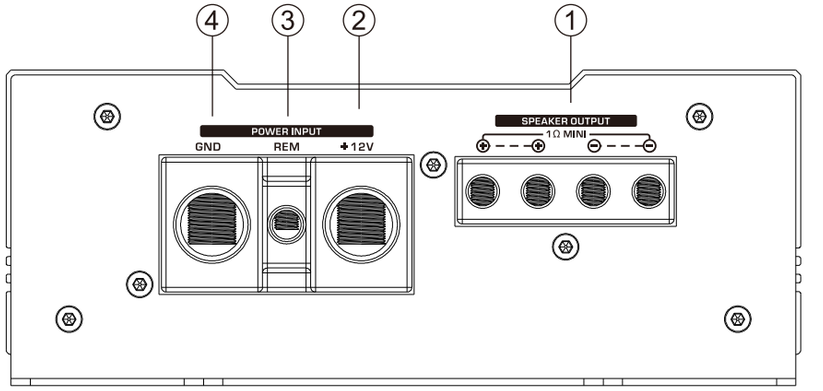
NA-3.5KD/NA-5KD



TWO SPEAKER MONO
NA-2.5KD



POWER AND INPUT CONNECTIONS
NA-3.5KD/NA-5KD

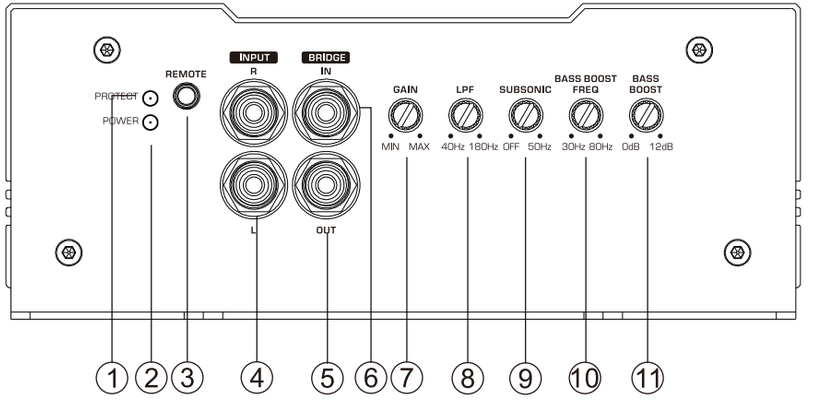


1.Speaker Connection

2.Battery +12V Input

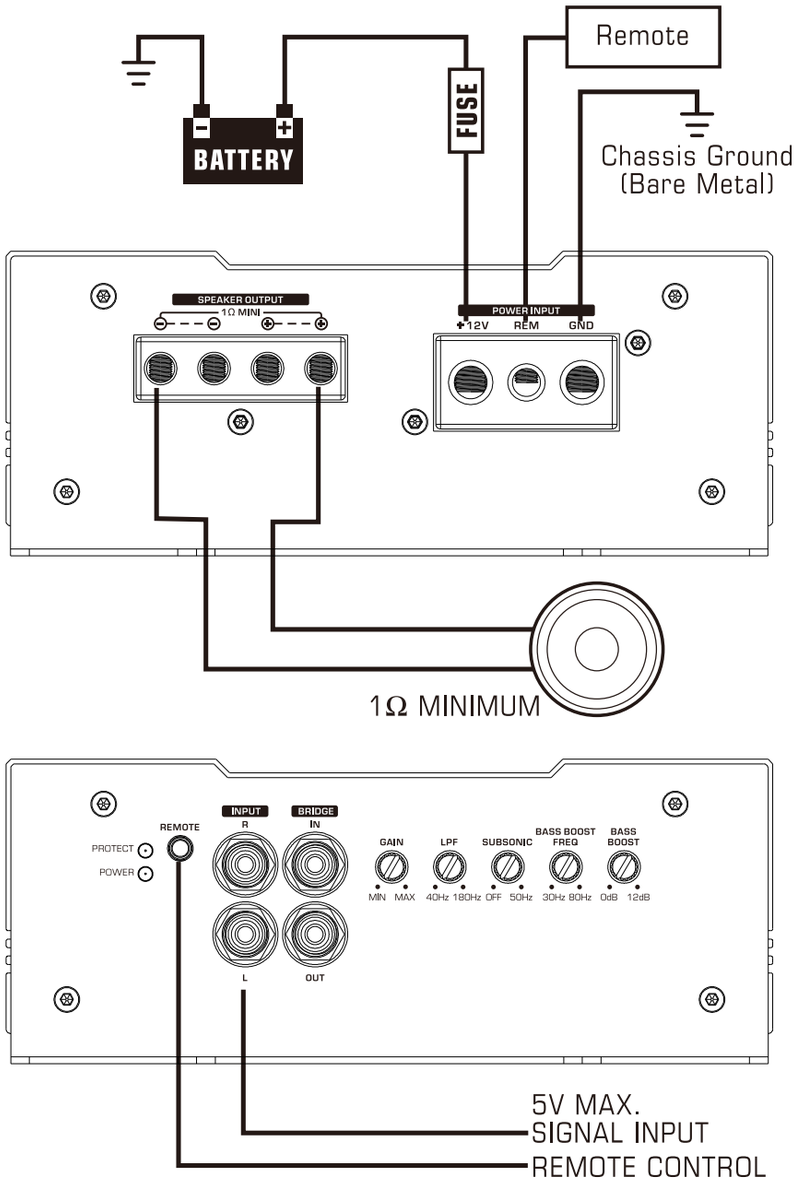
3.Remote Turn-on Input

4.Ground Input



1.Protection LED Indicator
2.Power on LED Indicator
3.Remote Bass Level Control
4.RCA Input Jacks
5.Bridge Output
6.Bridge Input
7. Gain Control
8. Low Pass Filter Control
9. Subsonic Filter
10.Bass Boost Frequency Control
11.Bass Boost Level

ONE SPEAKER MONO
NA-2.5KD



ONE SPEAKER MONO
NA-3.5KD/NA-5KD

