

# **INSTRUCTION MANUAL**

**10000345/10000346/10001810/10001818**

## Specifications

### AUDIO POWER SPECIFICATIONS

Outputs 2/4channel Amplifier

this unit had built-in power regulator which converts the power supplied by the DC12v car battery into high speed pulses

using a MOS-FET semiconductor switch, These pulses are stepped up by the built-in pulse transformer and separated

into both positive and negative power supplies before being converted into direct current again ,this is to regulate fluctuating voltage from the car battery, This light weight power supply system provides a highly efficient power supply

with a low impedance output.

#### **Pulse power supply**

Maximum power output of 300 watts pre channel (at 4 ohm)

This unit can be used as a bridging amplifier with a maximum output of 600 watts.

Direct connection can be made with the speaker output of your car audio if it is not equipped with a line output (High level input connection).

Built-in variable LPF low- pass filter), HPF(high-pass filter)and low boost circuit .

Protection circuit and indicator provided.

Pulse power supply\* for stable, regulated output power.

### Features

300 watts per channel minimum continuous average power into 4 ohms, both channels driven from 20Hz to 20kHz with no more than 0.04% total harmonic distortion per Car Audio Ad Hoc committee standards.

Other specification

#### **POWER OUTPUT AND TOTAL HARMONIC DISTORTION**

2/4 channel Power Amplifier

MAX Power Output:2(300W ) 4(600W)

RMS Power Output:4 25W (4 OHM)

2 25W (4 OHM)

4 90W

2 90W

High Pass:120Hz-3KHz

Low Pass: 50Hz-250Hz

S/N Ration:90dB

Frequency Response:10Hz-30KHz

Low Input Sensitivity/impedance:120mV-1.0V 10K

Load Impedance:2-8

Damping factor>120

Power Supply:DC10.5-15V

Dimension:100 85 40mm

## Troubleshooting Guide

The following checklist will assist in the correction of most problems which you may encounter with your unit. Before going through the connection and operating procedures.

### Problem Cause / solution

The power indicator does not light up. The fuse is loose or blown -- fasten the fuse or change it with a new one

The ground lead is not securely connected -- fasten a metal point of the car

the voltage going into the remote terminal is too low  
the connection master unit is not turned on, -turn on the master unit.

the system employs too many amplifiers.--use a relay.

Check the battery voltage (10.5-15V)

out of, The protection indicator light up in red

The speaker outputs are short -circuited.--Turn off power switch, Rectify the cause of the short -circuit and correct.

The unit heats up abnormally or operating temperature.

Use speakers with suitable impedance--2-8 (stereo), 4-8 (when used as a bridging amplifier)

make sure to place the unit in a well ventilated location.

Alternator noise is heard.

RCA pin cords.--Tidy these connecting leads and keep the leads away from the cords.

The ground lead not securely connected--Fasten

the ground lead securely to a metal point of the car.

Negative speaker leads are touching the car chassis.

--Keep the leads away from the car chassis.

The sound is muffled.

The sound is too low.

## Location and function of controls

### 1. POWER indicator

Lights up in green during operation.

### 2. FILTER selector switch

when the switch is in the LPF position, the filter is set to low-pass. When in the HPF position, the filter is set to high-pass.

### 3. LEVEL adjustment control

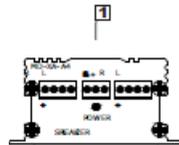
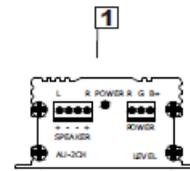
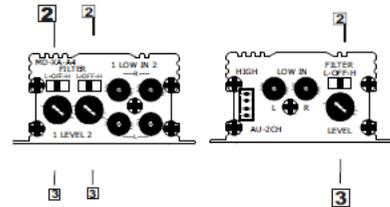
the input level can be adjusted with this control when using source equipment

made by other manufacturers, Turn it to MAX when the output level of the car audio seems low.

The power connecting leads are installed too close to the

The FILTER switch set to the "LPF" position.

The level adjustment control is set "MIN" position.



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## Notes on the power supply

Connect the +12V power supply lead only after all the other leads have been connected. Be sure to connect the ground lead of the unit securely to a metal point of the car. A loose connection may cause a malfunction of the amplifier.

Be sure to connect the remote control lead of the car audio to the remote terminal.

When using a car audio without a remote output on the amplifier, connect the remote input terminal (REMOTE) to the accessory power supply.

Use the power supply lead with a fuse attached (40A).

Place the fuse in the power supply lead as close as possible to the car battery.

Make sure that the leads to be connected to the +12V and GND terminals of this unit are larger than 10-Gauge (AWG-10) or have a sectional area of more than 5 (mm)

## Precautions

This unit is designed for negative ground 12V DC operation only.

Use speakers with suitable impedance.--2 to 16ohm (stereo).

Do not connect any active speakers (with built-in amplifier) to the speaker terminals of the unit.

Avoid installing the unit where:

--it would be subject to high temperatures such as from direct sunlight or hot air from the heater.

--it would be exposed to rain or moisture.

--it would be subject to dust or dirt. If your car is parked in direct sunlight and there is a considerable rise

in temperature inside the car, allow the unit to cool down before use.

When installing the unit horizontally, be sure not to cover the fins with the floor carpet etc.

If this unit is placed too close to the car radio, interference may occur. In this case, relocate the amplifier away from the car radio.

If no power is being supplied to the master unit, check the connections.

This power amplifier employs a protection circuit to protect the transistors and speakers if the amplifier malfunctions.

Do not attempt to test the protection circuit by covering the heat sink or connecting improper loads. Do not use the unit on a weak battery as its optimum performance depends on a good power supply.

For safety reasons, keep your car audio volume moderate so that you can still hear sounds outside your car.

### \*Protection circuit

this amplifier is provided with a protection circuit that operates in the following cases:

--when the unit is overheated

--when a DC current is generated

--when the speaker terminals are short circuited.

The PROTECTOR indicator lights up in red and the unit will shut down.

If this happens, turn off the connected equipment, take out the cassette tape or disc, and determine the cause of the malfunction. If the amplifier has overheated, wait until the unit cools down before use.

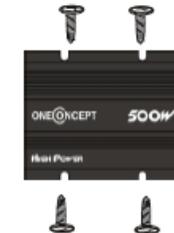
## Installation

### Before installation

Mount the unit either inside the trunk or under a seat.

Choose the mounting location carefully so the unit will not interfere with the normal movements of the driver and it will not be exposed to direct sunlight or hot air from the heater.

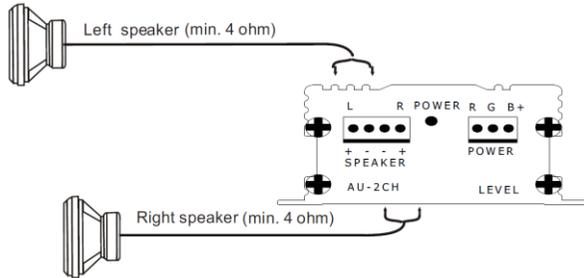
Do not install the unit under the floor carpet, where the heat dissipation from the unit will be considerably impaired.



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## 2-speaker system

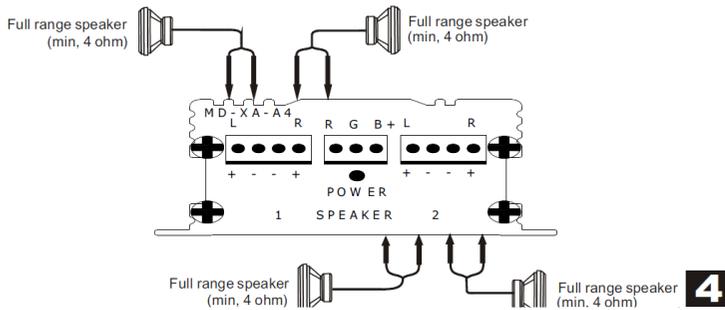
For details on the settings of switches and controls, refer to "Location and function of controls."



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## 4-speaker system

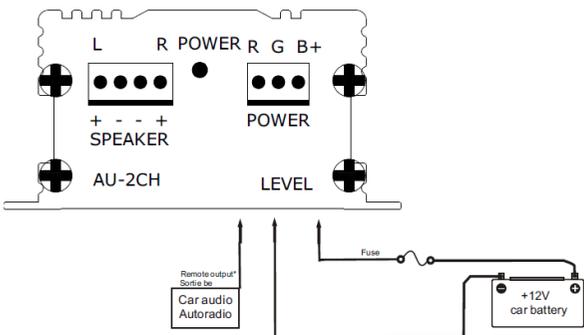
For details on the settings of switches and controls, refer to "Location and function of controls."



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Note  
in this system, the volume of subwoofers will be controlled by the car audio fader control

## power connection leads



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If you have the factory original or some other car audio without a remote out-put on the amplifier, connect the remote input terminal (REMOTE) to the accessory power supply.

## Fuse replacement

If the fuse blows, check the power connection and replace the fuse, If the fuse blows again after replacement,

there may be an internal malfunction, In such a case, consult your nearest goods dealer.

### Warning

when replacing the fuse, be sure to use one matching the amplifier stated above the fuse holder, Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.

### Caution

Before making any connections, disconnect the ground terminal of the car battery to avoid short circuits,

Be sure to use speakers with an adequate power rating, If you use small capacity speakers, they may be damaged.

Do not connect the "-" terminal of speaker system to the car chassis and do not connect the "-" terminal of the

right speaker with that of the left speaker.

In stall the input and output cords away from the power supply lead as running them close together can

generate some interference noise.

This unit is a high powered amplifier , Therefore, it may not perform to its full potential if used with the speaker

cords supplied with the car.

If your car is equipped with a computer system for navigation or some other purpose, do not remove the ground wire from the car battery, If you disconnect the wire, computer memory may be erased, To avoid short circuits when making connections, disconnect the +12v power supply lead until all the other leads have been connected.

### Make the terminal

connections as illustrated below.

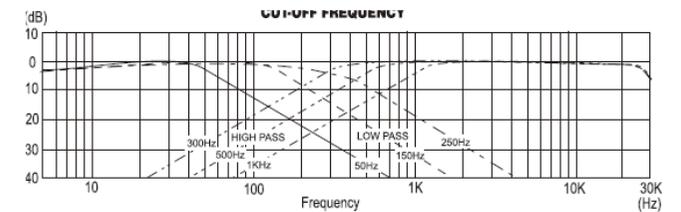
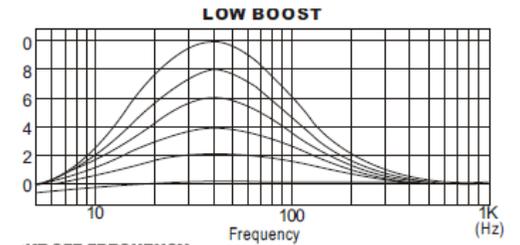
Note

tighten the screws firmly, but be careful not to apply too much force\* as doing so may damage thee screws. the torque value should be less than 1 mm

First, place the unit where you plan to install it, and mark positions of the four screw holes on the surface of the mounting

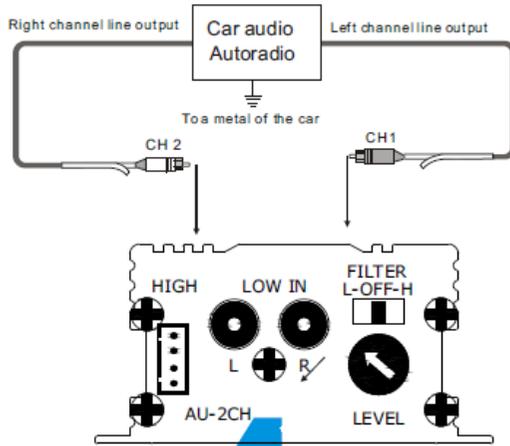
board (not supplied), Then drill the hoes approximately 3mm in diameter and mount the unit onto the board with the supplied mounting screws.

The supplied mounting screws are 15mm long, Therefore, make sure that the mounting board is thicker than 15mm.

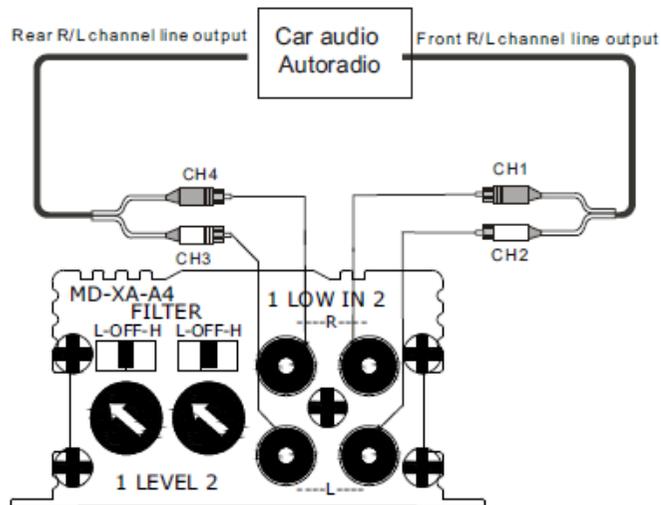


# Input.connections

Line input connection(with speaker connection 3 )



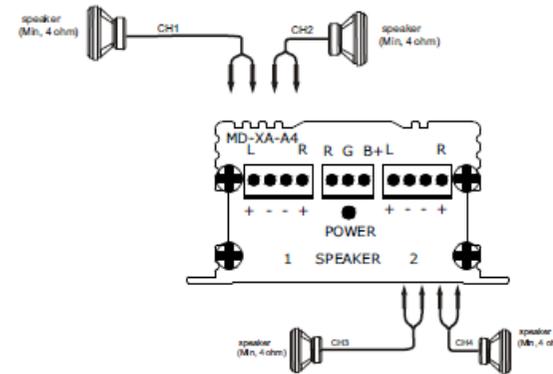
Line input connection (with speaker connection 1, 2 or 4 )



# Speaker.connections

4-speaker system

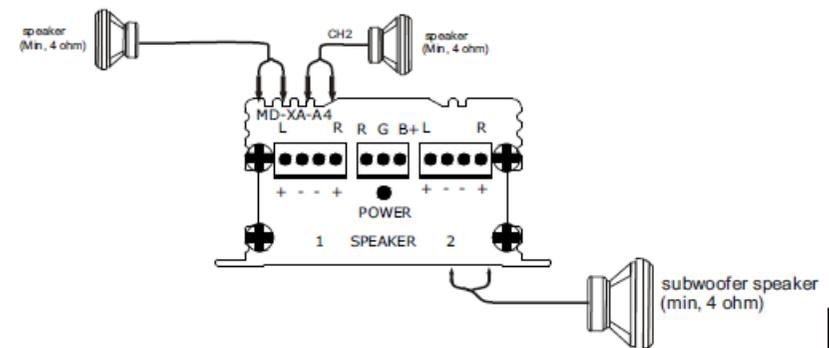
For details on the settings of switches and controls, refer to "Location and function of controls."



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3-speaker system

For details on the settings of switches and controls, refer to "Location and function of controls."



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Notes

in this system, the volume of the subwoofer will be controlled by the car audio fader control.

In this system, the output signals to the subwoofer are a combination of both the REAR L and R INPUT jack or the REAR high level input connector signals.