

ONKYO®

INSTRUCTION MANUAL



V-M60.4D

CLASS D 4-CH BRIDGEABLE AMPLIFIER



BEFORE USING V-M60.4D

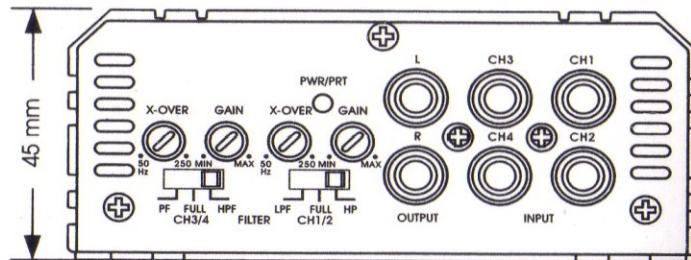
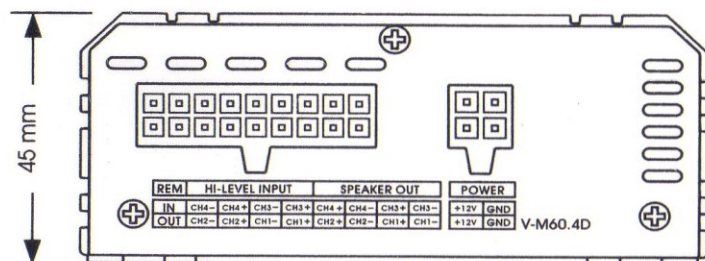
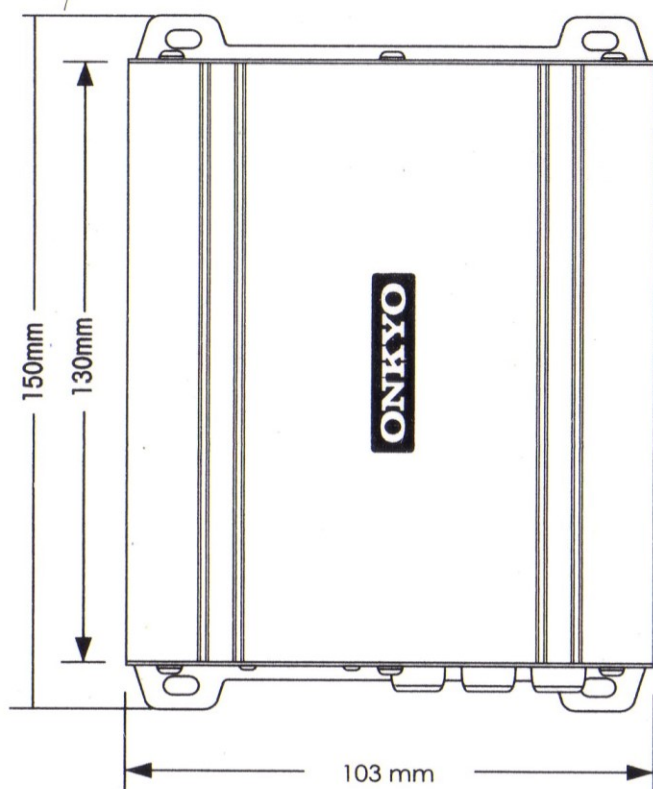
Thank you very much for purchasing an Onkyo Class D AMPLIFIER. Please read this manual carefully before using. Follow the instructions and instructions of this user manual to operate, and you will get the best sound effects and listening enjoyment through the newly purchased audio processor. Please keep this manual in a safe place for future reference.

- In order to prevent electrical short-circuits, do not place the device in rain or damp places.
- Be careful not to splash water or other liquids into the device. If water splashes into the device, the device may be damaged
- If water or other liquids enter the equipment, the power supply should be cut off immediately, and professional maintenance personnel should check and repair it to avoid accidents.
- If the equipment fails, please do not open the cover, please ask a professional to open and repair it.
- Before connecting this device, be sure to turn off your power. If you connect with the power on, the system may be damaged.
- Please place the device on a firm level surface. If it is placed on an inclined surface or placed unsteadily, not only will there be a danger of the device falling, but also its effect will be reduced.

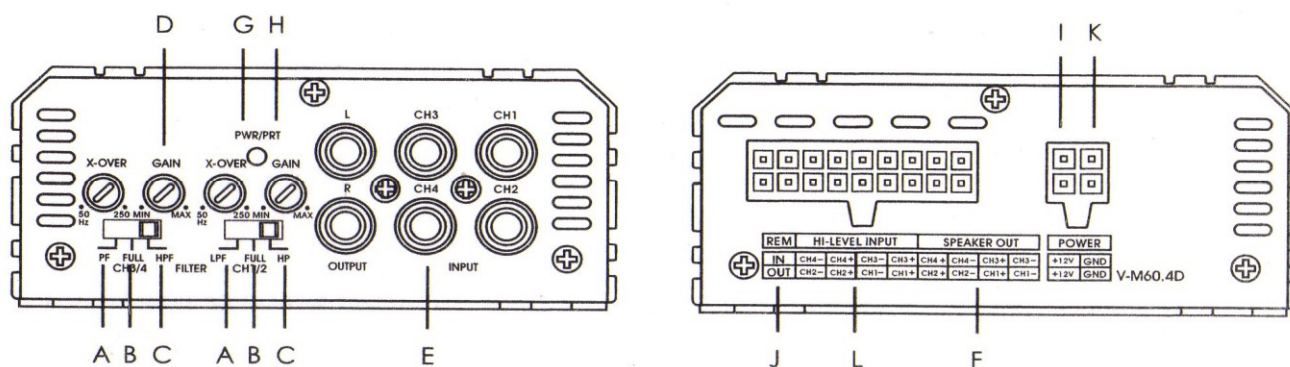
SPECIFICATIONS

RMS Output@4Ω:	60W X 4
RMS Output@2Ω:	75W X 4
MAX Power:	1500W
Signal-to-noise Ratio:	≥90dB
Frequency Response:	40Hz -18KHz
Input Sensitivity, Low Level:	250mV - 6V
Fuse Size:	30A X 1(mini)
Net Weight:	Approx. 0.75kg
Unit Dimension:	150×103×45mm

Accessories:	1x Instruction Manual
	1x Amplifier
	1x Mounting Screw (Ø4x20mmx4pcs)
	1x 30A Fuse
	2x Wire



PANEL CONTROLS AND FEATURES



A. LOW PASS CROSSOVER FREQUENCY

Controls low frequency of the amplifier between 50Hz to 250Hz.

B. CROSSOVER CONTROL

Depending on the selected switch the amplifier will operate at full, high or low pass mode.

C. HIGH PASS CROSSOVER FREQUENCY

Controls high frequency of the amplifier between 50Hz to 250Hz.

D. GAIN CONTROL

The gain control will match the amplifiers sensitivity to the source signal voltage.

E. LOW LEVEL RCA INPUT

These RCA input jacks connect with your source unit RCA low level outputs or via optional adapter with your source unit speaker high level outputs. The use of high quality twisted pair car audio cables is recommended to reduce the possibility of audio signal degradation.

F. SPEAKER CONNECTIONS

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

G. PROTECTION INDICATOR

This red LED will light up and flash if there is fault presenting in the amplifier. Please disconnect the amplifier and resolve the fault before reconnecting the amplifier.

H. POWER INDICATOR

This LED will light up when amplifier works properly.

I. +12V = POWER SUPPLY

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.

WIRING

POWER CONNECTION

The battery terminal (BATT) must be connected directly to positive terminal of the vehicle battery to provide an adequate voltage source and minimize noise. Connecting the battery terminal lead to any other point (such as the fuse block) will reduce the power output and may cause noise and distortion. Use only #8 gauge or thicker (smaller gauge#) wire for this lead and connect it to terminal of the battery after all other wiring is completed.

GROUND CONNECTION

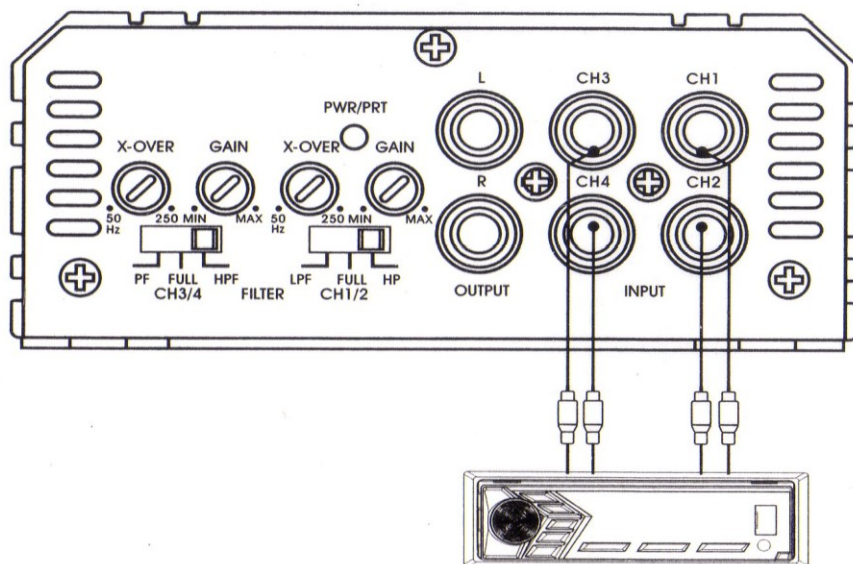
The ground terminal (GND) connection is also critical to the correct operation of the amplifier. Use a wire of the same gauge as the power connection (#8 or thicker) and connect it between the ground terminal (GND) of the amplifier and a metal part of the vehicle close to the mounting location. This wire should be as short as possible and any paint or rust at the grounding point should be scraped away to provide a clean metal surface to which the end of the ground wire can be screwed or bolted.

POWER ON CONNECTION

The input of REM should be connected to the ACC switch line of the host, and the host controls the power on or off.

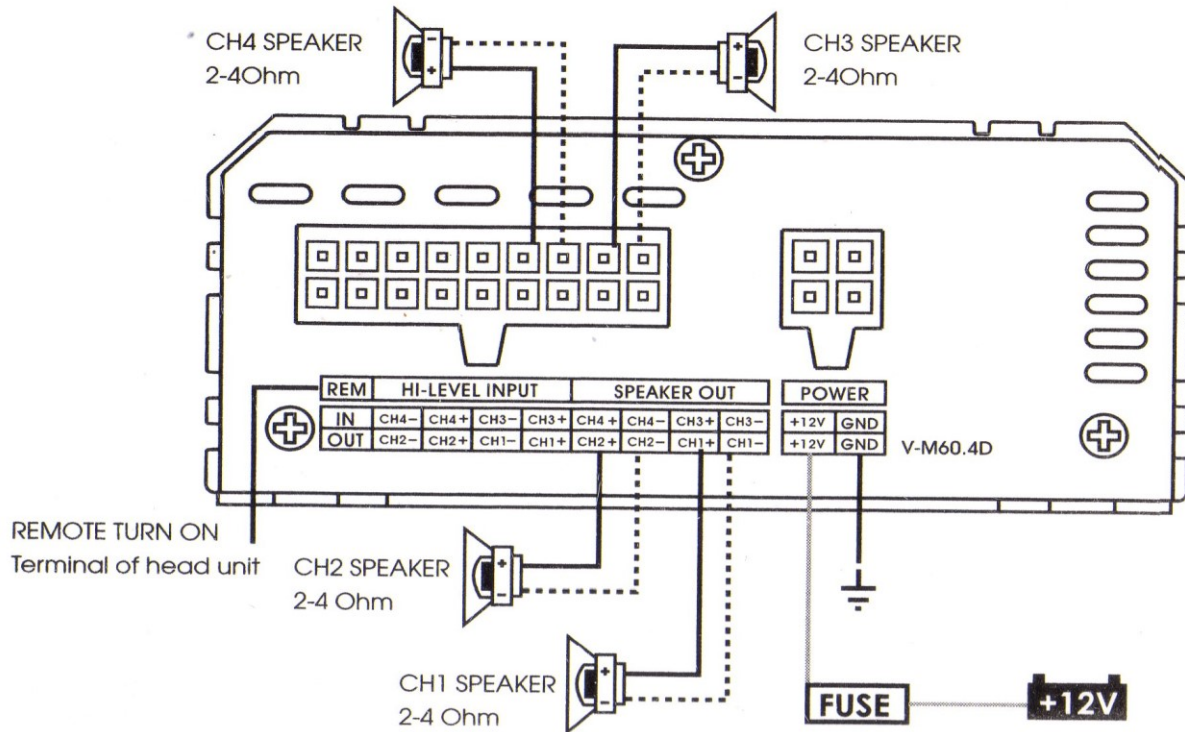
SPEAKER CONNECTIONS

Depending on the type and number of speakers used with amplifier wire them to the speaker terminals as per the appropriate wiring diagram. For most applications #18 gauge wire should be used for the speaker leads but in no case thinner than #20 gauge. For leads in excess of 10 feet #16 gauge is recommended. When wiring the speakers, pay careful attention to the polarity of the terminals on the speakers and make certain they correspond to the polarity of the corresponding terminals on the amplifier. Do not ground any speaker leads to the chassis of the vehicle.

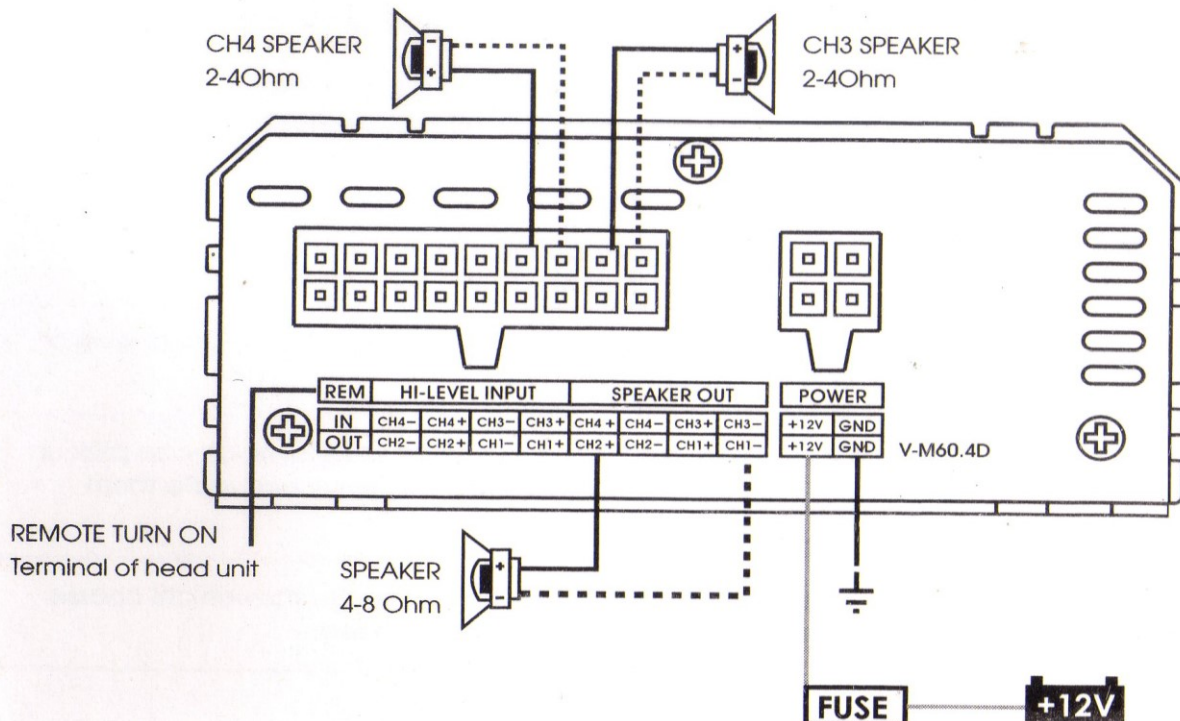


WIRING

4 CHANNEL STEREO



2.1 CHANNEL



TROUBLESHOOTING

If you experience operation or performance problems with this product, compare your installation with the electrical wiring diagram on the previous pages. If problems persist, read the following troubleshooting tips which may help eliminate the problems.

SYMPTOM	POSSIBLE REMEDY
Products Will Not Power Up	1. Check to make sure you have a good ground connection. 2. Check that the Remote Input (Turn-on) has at least 5V DC. 3. Check that there is battery power on the (+) terminal. 4. Check that there is at least 12V. 5. Check all fuse, replace it if necessary. 6. Make sure that the Protection LED is not illuminated. If it is lit shut off the amplifier briefly, and then repower it.
Protection Led Comes On When Amplifier Is Powered Up	1. Turn down the volume control on the head unit to prevent overdriving. 2. Check that there is good air circulation around the amp.
No Output	1. Check that all fuses are OK. 2. Check that unit is properly grounded, 3. Check that the Remote Input (Turn-on) has at least 5V DC. 4. Check that the RCA audio cables are plugged into the proper inputs.
Low Output	1. Reset the Level Control. 2. Check the Crossover Control settings.
High Hiss In The Sound	1. Disconnect all RCA inputs to the power sub's control panel. If the hiss disappears, then plug in the component driving the amplifier and unplug its inputs. If the hiss disappears at this point, go on until the faulty/noisy component is found. 2. It is best to set the amplifie's input level control as low as possible. The best subjective signal-to-noise ratio is achieved in this manner, Try to set the head unit as high as possible (without distortion).
Squealing Noise Is Present	1. Check for improperly grounded RCA interconnects.
Distorted Sound	1. Check that the Input Level Control is set to match the signal level of the head unit.
Engine Noise (Static Type)	1. This is usually caused by poor quality RCA cables, which can pick up radiated noise. Use only the best quality cables, and route them away from power cables.
Engine Noise (Alternator Whine)	1. Check that the RCA grounds are not shorted to the vehicle chassis. 2. Check that the head unit is properly grounded.

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