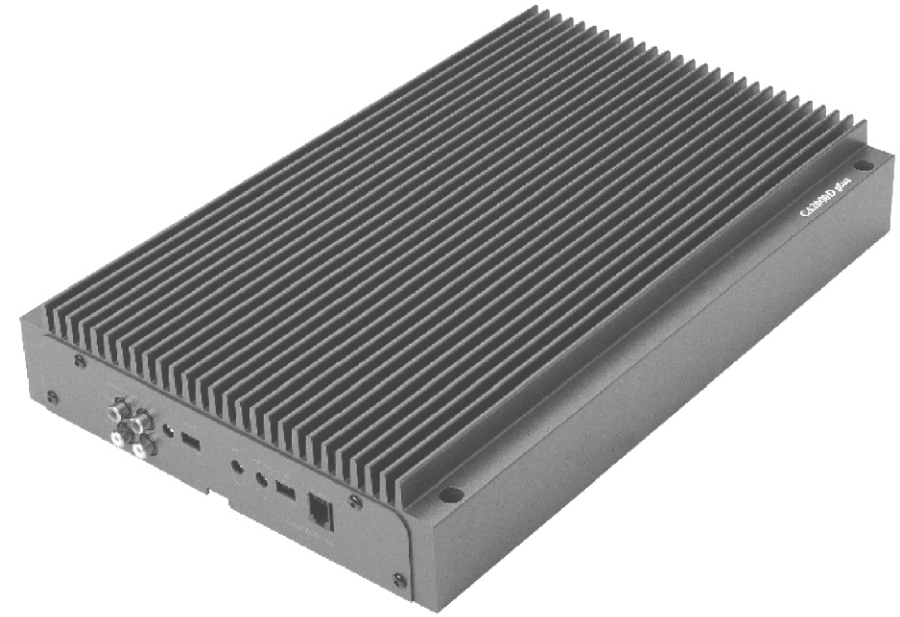
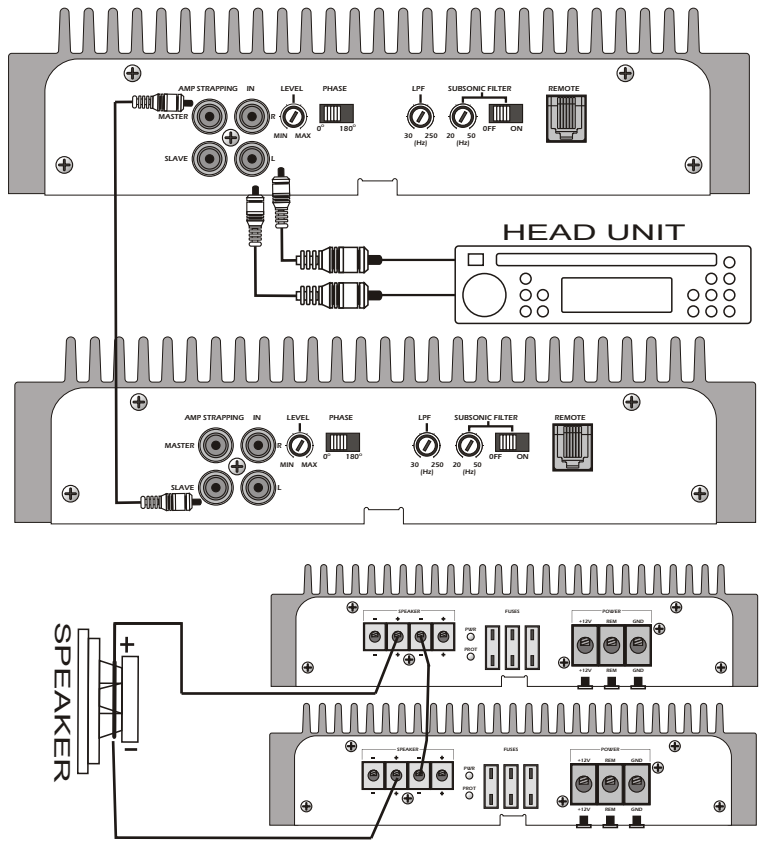
CALIBER

OWNER'S MANUAL



CA 2000D Plus
AMPLIFIER



AMPLIFIER STRAPPING

CA2000D Plus amplifiers are capable of being strapped together to provide twice the power. Only like model amps can be strapped together.

NOTE

2 ohm minimum impedance for CA2000D Plus when strapped.

1) The master amplifier's positive terminal is used for the positive speaker connections.
2) The slave amplifier's positive terminal is used for the negative speaker Connections.
3) The negative speaker terminals on the amplifiers are required to be connected by a minimum of 12 gauge speaker or power cable.
4) For the slave amplifiers, the gain level should be MAX, the low pass filter should be MAX, the phase should be 0 degree and the subsonic filter should be OFF.

INTRODUCTION

Thank you and congratulations on choosing CALIBER product for your amplification needs. CALIBER amplifiers undergo continuous R&D, leading to continuous improvements throughout the years to assure quality and reliability. The latest in technology has been incorporated into every CALIBER product providing you with incredible power and unparalleled sound quality. Our simple, yet highly developed circuitry contributes to low distortion and the ultimate in efficiency. This is why we are sure that your new CALIBER amplifier will provide you with a sound value you will enjoy for years to come.

CALIBER D PLUS amplifiers are mono block car audio amplifiers which are designed for exclusive use with subwoofers .

FEATURES

- ALLOY ALUMINUM/MAGNESIUM DIE CASTING HEAT SINK
- HIGH EFFICIENCY : MORE THAN 90%
- 2 OHM STABLE (CA1500D plus , CA3000D plus)
- I OHM STABLE (CA2000D plus)
- 2 CHANNEL INPUT / MONO CANNEL OUTPUT
- LOW HEAT GENERATION
- HEAVY DUTY HEAT SINK
- POWER / PROTECTION LED
- SUBSONIC FILTER SWITCH
- REMOTE BASS LEVEL CONTROL CIRCUITRY BUILT-IN
- PROTECTION CIRCUITRY AGAINST THERMAL, OVERLOAD, SHORT CIRCUIT AND DC OFFSET

WARNING

High powered audio systems in a vehicle are capable of generating "Live Concert" high levels of sound pressure. Continued exposure to excessively high sound levels may cause hearing loss or damage. Also, operation of a motor vehicle while listening to audio equipment at high volume levels may impair your ability to hear external sounds such as; horns, warning signals, or emergency vehicles, thus constituting to a potential traffic hazard.

MOUNTING

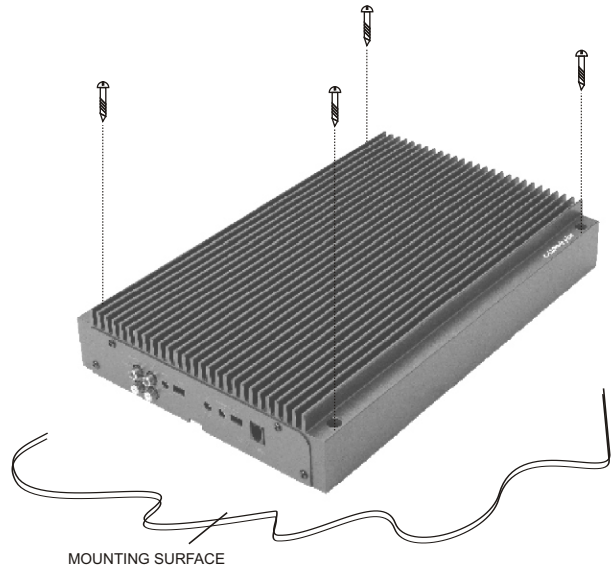
The mounting position of your Amplifier will have a great effect on its ability to dissipate the heat generated during normal operation. It has an ample heat sink for heat dissipation, and also designed with a thermal shut-down (for heat protection) circuit, making it reasonably tolerant of mounting variations. Any configuration which allows moving air to be directed over the cooling fins will improve heat dissipation dramatically. DO NOT enclose the amplifier in a small box or cover it so that air cannot flow around the fins.

Temperatures in car trunks have been measured as high as 175°F(80° C) in the summer time. Since the thermal shut-down point for Amplifier is 185° F (85° C), it is easy to see that it must be mounted for maximum cooling capability. To achieve maximum advantage of convection air flow in an enclosed trunk, mount the amplifier in a vertical position, on a vertical surface.

Cooling requirements are considerably relaxed when mounting inside the passenger compartment since the driver will not often allow temperatures to reach a critical point. Floor mounting under the seat is usually satisfactory as long as there is at least 1 inch (2.5cm) above the Amplifier's fins for ventilation.

a. Select a suitable location that is convenient for mounting, is accessible for wiring, and has ample room for air circulation and cooling.
b. Use the amplifier as a template to mark the mounting holes. Remove the Amplifier and drill 4 holes. USE EXTREME CAUTION, INSPECT UNDERNEATH SURFACE BEFORE DRILLING.
c. Secure the Amplifier using appropriate screws.

Fig 1



TROUBLESHOOTING

No Output
- Confirm that all terminal connections are firmly connected.
- Check in-line and built-in fuses. Both "+12V" and "REM" terminals must have +12Volts to chassis ground.
- Confirm that signal source is connected and is supplying output signal.
- If the Amplifier is hot, cool down the amplifier and try it again.

Noise in Audio
- If noise is a "whine" that goes up and down with engine speed, confirm that Amplifier and any other source unit is properly grounded. Speaker and input wires should not be routed next to wires that interconnect lights and other accessories/equipment.

- If above steps do not improve/clear noise interference, the system should be checked by a professional mobile audio installer.

SPECIFICATIONS

	CA 2000D Plus
Output Power (4 Ohms 13.8V)	450W RMS
Output Power (2 Ohms 13.8V)	750W RMS
Output Power (1 Ohms 13.8V)	1250W RMS
THD (Rated Power)	<0.5%
Input Sensitivity	250mV ~ 7V
Low Pass Filter	30Hz ~ 250Hz 24dB
High Pass Subsonic Filter	20Hz ~ 50Hz 24dB
Signal to Noise Ratio	80dB
Damping Factor	>80
Output Impedance	1-8 Ohm
Fuse Rating	30A x 3
Dimension(W x H x D)	245 x 61 x 340mm

FEATURES AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

1.Signal Input RCA Jacks
Low level inputs through RCA jacks.

2-1. CA1500D+, CA2000D+ : Amp Strapping jacks.
Allows strapping of two amplifiers for two times the output power.
ICaution : In strapping Mode
Check to make sure you've maintained proper impedance.

2-2. CA3000D+ : Line Output RCA jacks
Allows for the connection of additional amplifiers from one signal source.

3. Input Level Control
The input sensitivity of the CA D+ Amplifier can be adjusted to the output voltage of your radio using the input level control.
Optimum setting of the control gives you a sufficiently large regulation zone for your car stereo combination without any distortion or overloading.

4.LPF (variable Low Pass Filter)
Caliber CA D+ is equipped with a variable low pass filter, to filter out unwanted high frequencies .

5.Variable Subsonic Filter
It allows the setting of the high pass frequency for the subwoofer. To filter out ultra low frequency signasl to prevent subwoofer over excursion.
The two-position switch allows for turning the subsonic filter on or off.

6.Remote Control
Socket for connection between Bass Controller and Amplifier, the Remote Controller allows the individual fine-adjustment of the subwoofer level in order to compensate for the variable bass volumes between different audio sources.

7.Phase Switch
This switch changes the phase of the output to the input.

8.Protection indicator (Red)
If the LED is illuminated, one of the built-in the protection circuits has protected the amplifier by shutting it down. Turn the system off and correct the problem before turning the system back on.

9.Power Indicator (green)
Provides a visual indication that the amplifier is turned on, if illuminated.

10.Speaker Terminal
It allows the connection of sub-woofer/s to the amplifier.
Note: The amplifier is a single channel amplifier. Two sets of speaker terminals are provided for wiring convenience only.

11.Fuses
It protects the amplifier and automobile electrical system from fault conditions.

12.Power Supply Connection
It allows the connection of power supply (+12V DC, GND) and remote-turn-on cable (REM).

CONNECTIONS

1. CONNECTING POWER

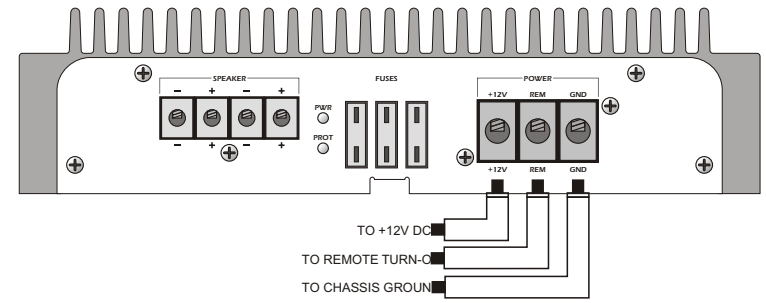
1) Ground : To Vehicle Chassis
To avoid unwanted ignition noise caused by ground loops, it is essential that the Amplifier be grounded to a clean, bare, metal surface of the vehicle's chassis.

NOTE : GROUND WIRE SHOULD NOT BE EXTENDED MORE THAN 3FT.(1METER)

2)+12 Volt (Fused) Constant Power : To Battery (+)
Due to the power requirements of the Amplifier, this connection should be made directly to the positive (+) terminal of battery. For safety measures, install an in-line 40 Amp Fuse Holder (not included) as close to the battery positive (+) terminal as possible.

3)Connect the REM Terminal on the Amplifier to the Remote cable of the head unit.

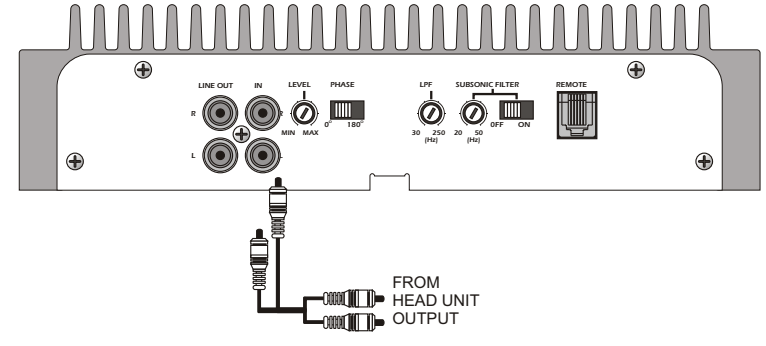
Fig 2



2. CONNECTING SIGNAL INPUT

1)The RCA jacks of your head unit should be connected to the Amplifier.
Connect the Signal cable when the power is off.(It may harm your head unit to connect it when it is on.)

Fig 3



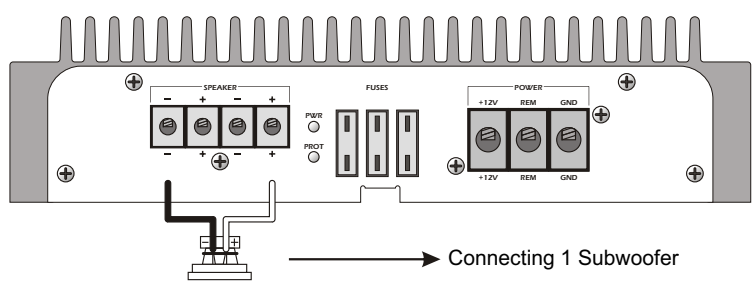
2)Connecting Subwoofer

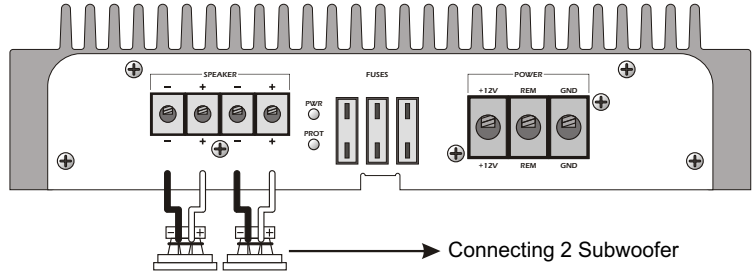
Connect the Subwoofer cable to the speaker terminal.
A pair of speaker terminal is built-in the CALIBER Class D mono amplifier, for the convenient operation of connecting a second (or more) sub-woofer in parallel.
Pay attention in connect your speakers and subwoofer (check if the speaker impedance is correct). Be sure to observe correct speaker output connections and polarity.
Please note that improper polarity causes a loss of bass response.

If you finished installation of sub-woofer, connect the battery terminal, and insert the main fuse in the fuse holder.

CA 2000D Plus

Fig 5





CONTROLS

Before turning on your amp;
1. Adjust to minimize all the level control
2. Turn on the head unit with the low volume.
3. Adjust the tone of a sub-woofer with the built-in controls, turning up the volume.

Recommended Crossover frequency is as below.
Sub-woofer : low pass 70~100Hz, Sub sonic filtering 20~35Hz.

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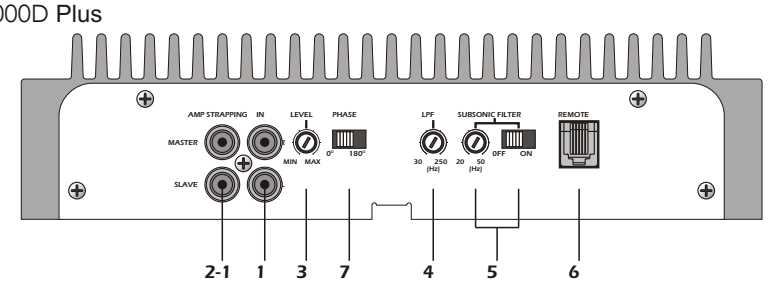

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