Audiopipe®

Mini Design Class D MOSFET Car Amplifier

Mini Amplificador MOSFET Clase D para Auto

1000W APSM-1300

1500W APSM-1500

2000W APSM-2000

Owner's Manual

Manual Del Usuario

SEMA Specialty Equipment Market Association
Serving the Motor Vehicle Aftermarket
MEMBER

USAC Competition

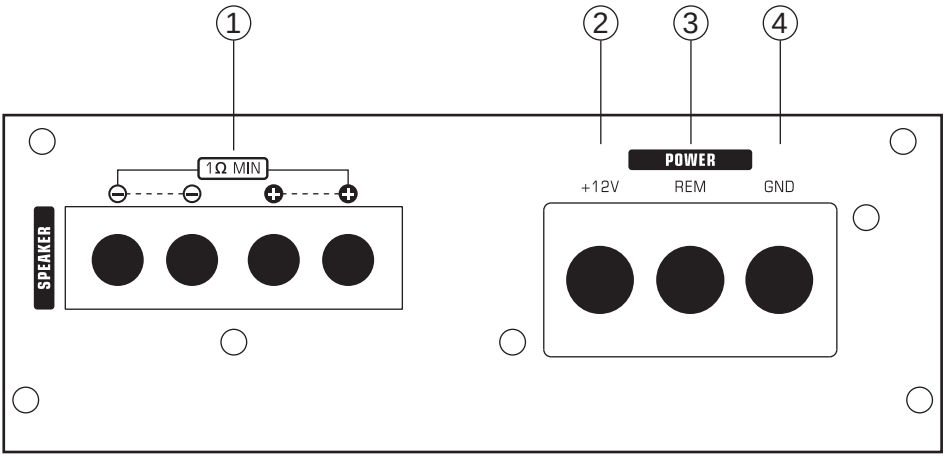
IASCA International Auto Sound Challenge Association

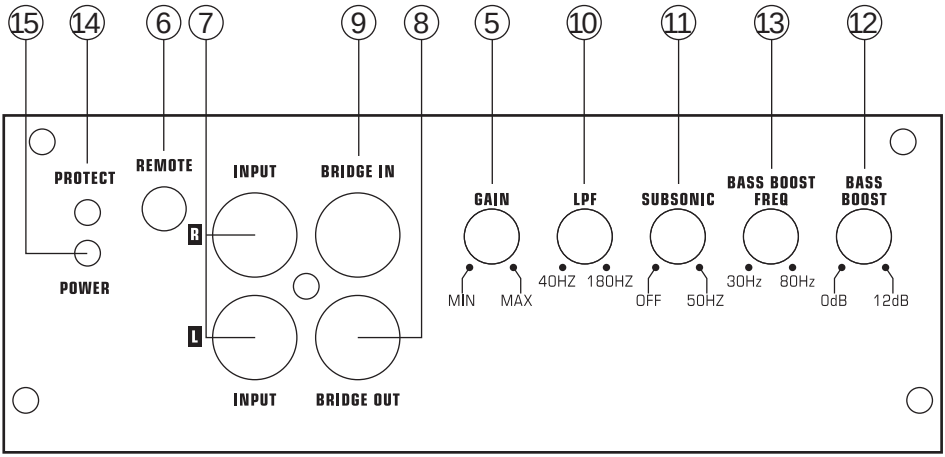
MEMA

CEA Consumer Electronics Association

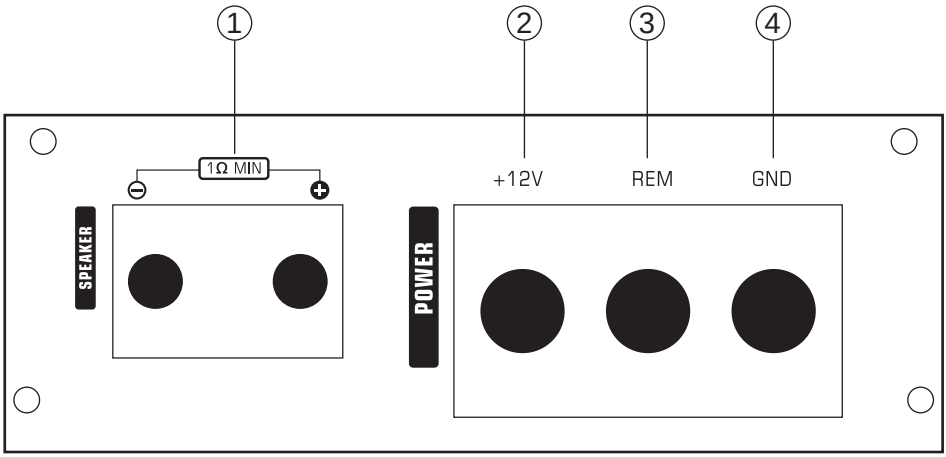
AMPLIFIER FUNCTIONS

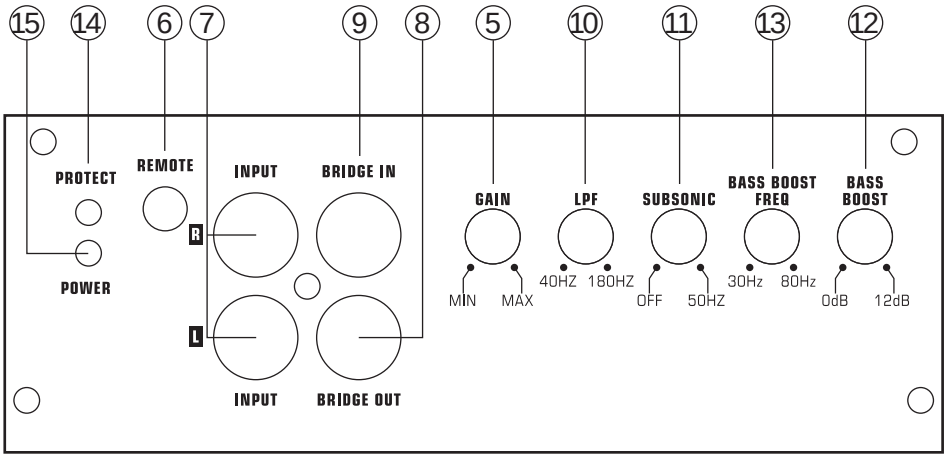
APSM-1300/APSM-1500





APSM-2000


1
2
3
4
1Ω MIN
+12V
REM
GND
SPEAKER
POWER


15
14
6
7
9
8
5
10
11
13
12
PROTECT
REMOTE
INPUT
BRIDGE IN
GAIN
LPF
SUBSONIC
BASS BOOST FREQ
BASS BOOST
POWER
R
L
INPUT
BRIDGE OUT
MIN
MAX
40HZ
180HZ
OFF
50HZ
30Hz
80Hz
0dB
12dB

① **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.

② **BATT+**

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.

③ **REM**

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.

④ **GND**

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

⑤ **Gain**

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% of its minimum volume, 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.

⑥ **Remote Bass Level Control**

When using the remote bass level control you can adjust volume in the driver seat.

⑦ **RCA audio input**

These RCA audio inputs connect with your radio RCA outputs. Please use high quality RCA cables. Keep these cables as short as possible. To avoid electrical disturbances from your car electronics, route RCA cabloes away from other current carrying cables in the car. If your radio has only speaker output, you must use a HIGH LOW LEVEL adaptor.

⑧ **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.

⑨ **Bridge out**

This RCA output sents out bridged signal to another same Class D amplifier in bridging configuration.

⑩ **Low Pass Filter**
Filter out high frequency that the woofer cannot play. Adjust this knob to match the woofer's frequency response.

⑪ **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, 10Hz (OFF) to 50Hz.

⑫ **Bass boost Level**
Adjust the boosted frequency from 0 ~ 12dB, APSM-1300/APSM-1500's boosted frequency is is adjustable.

⑬ **Bass boost Frequency**
Adjust the boosted center frequency. The frequency can be adjusted from 30Hz to 80Hz, use combine with bass boost level adjusting.

⑭ **Protect**
Protection circuit indicator LED.

⑮ **Power**
Power indicator LED.

INSTALLATION

We recommend you have the installation done by an Authorized Audiopipe Dealer. Required power, ground wire and proper external fuse as below:

Model	Fuse	Wire
APSM-1300	80 AMP	4 Gauge
APSM-1500	100 AMP	2 to 4 Gauge
APSM-2000	150 AMP	0 to 2 Gauge

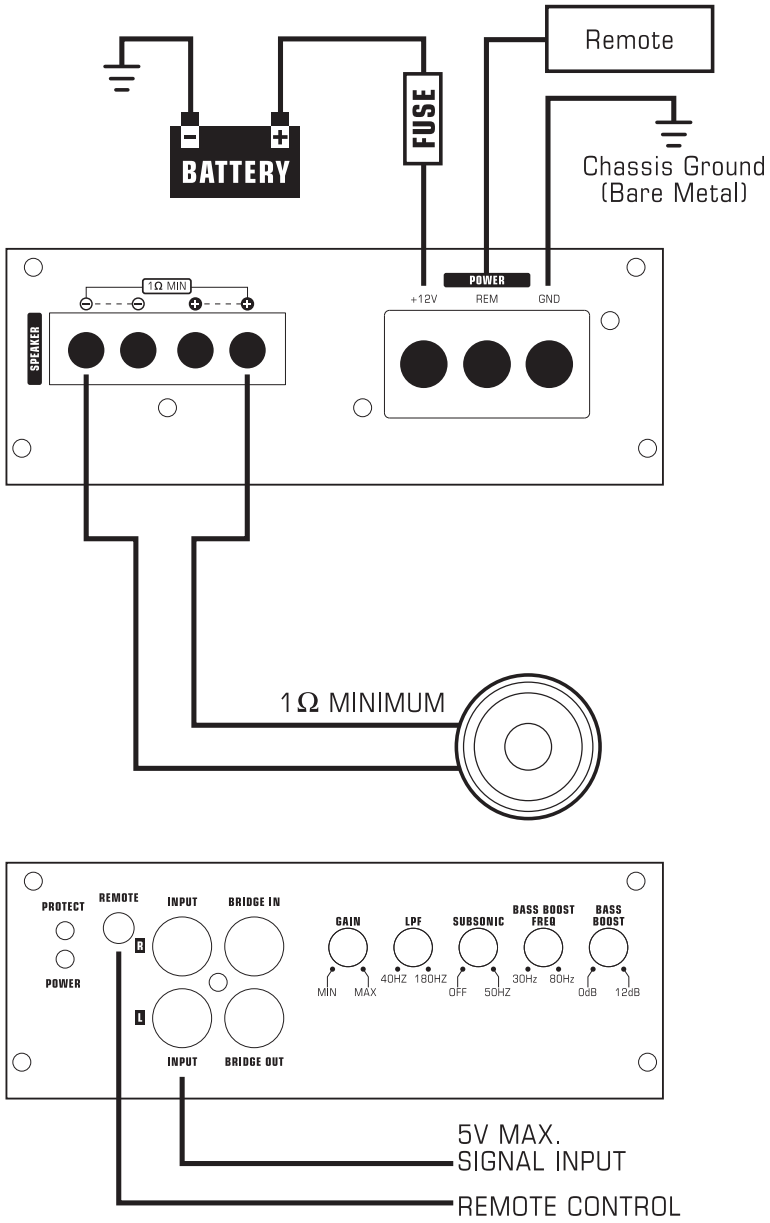
We recommend the fuse should be installed no more than 12 inches from the battery. The ground wire should be connected directly with the chassis of your vehicle which should be metal to metal ground point connection. The amplifier must be mounted securely at a solid, dry and low vibration surface in the trunk or passenger area. Mount the amplifier in an open air area to insure proper heat dissipation. Mount 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:

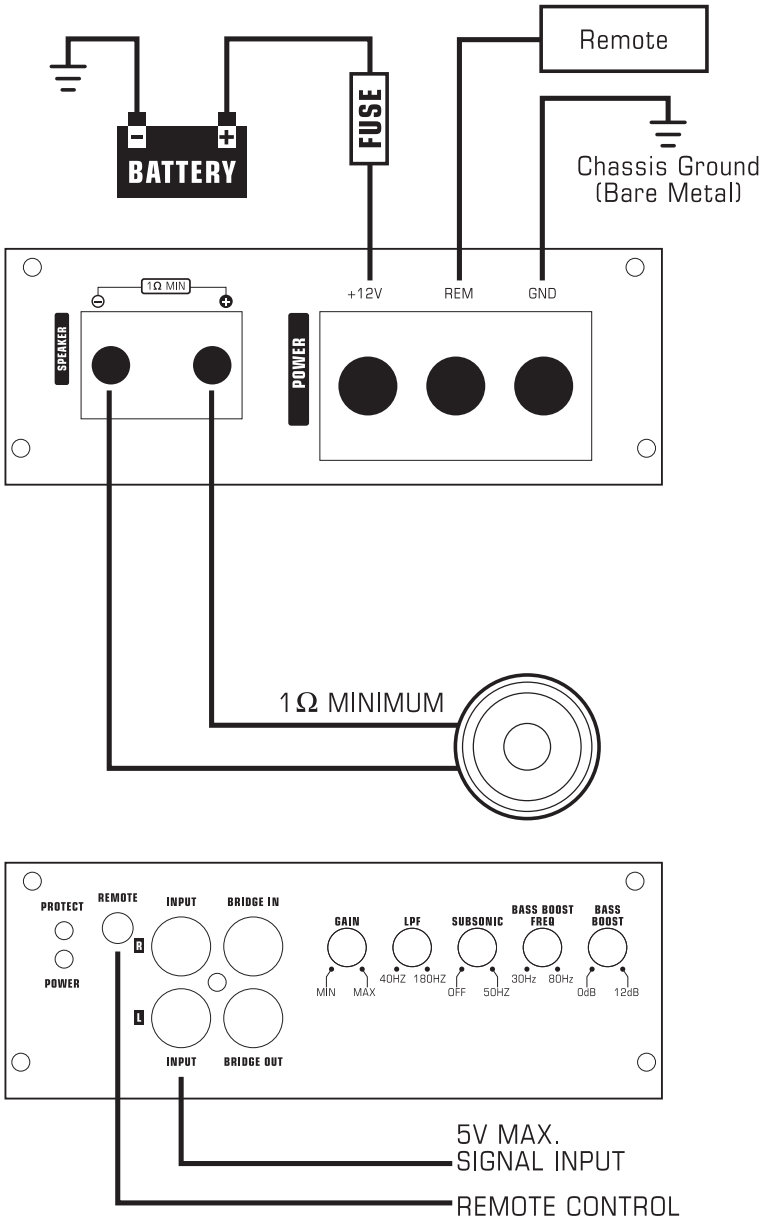
- When bridging two amplifiers please refer the bridging wiring chart.
- When bridging two amplifiers you should use same model amplifiers.
- Please make sure the negative speaker terminal of two amplifiers are connected by the same gauge cables as the positive terminal being used.
- DO NOT connect any 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.

WIRING CONFIGURATION

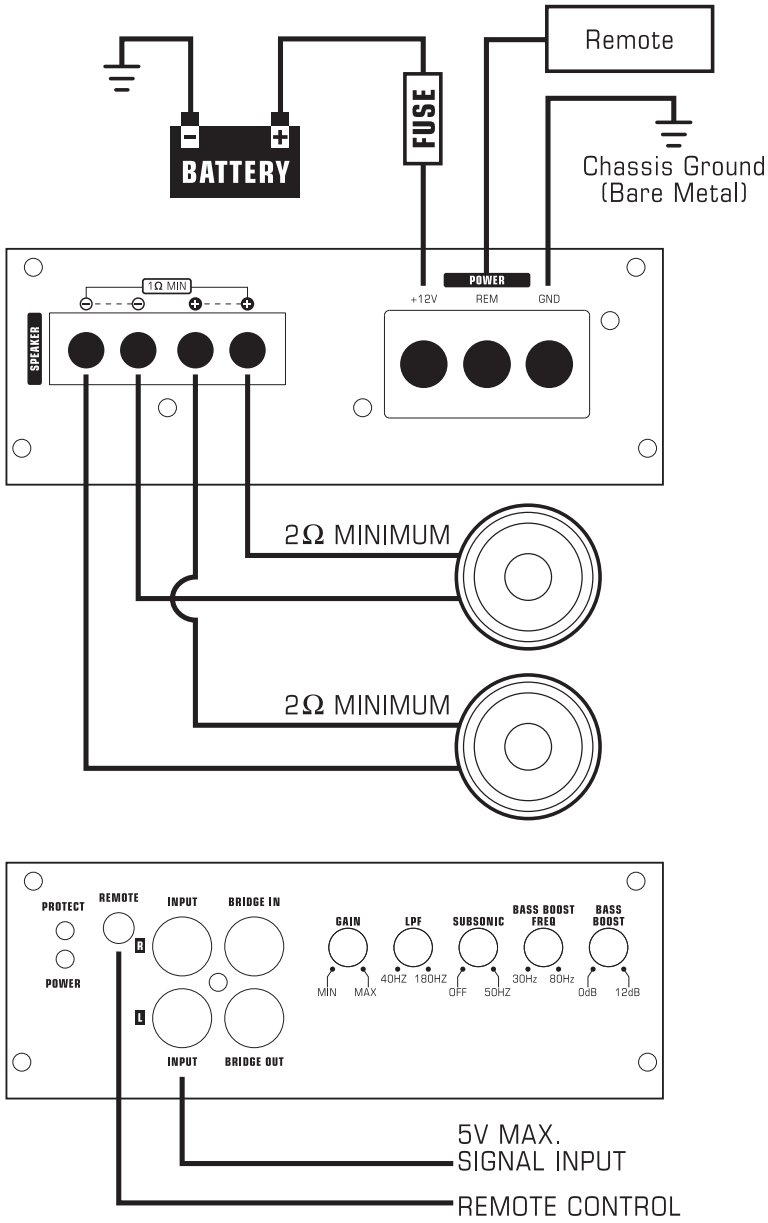
ONE SPEAKER MONO
APSM-1300/APSM-1500



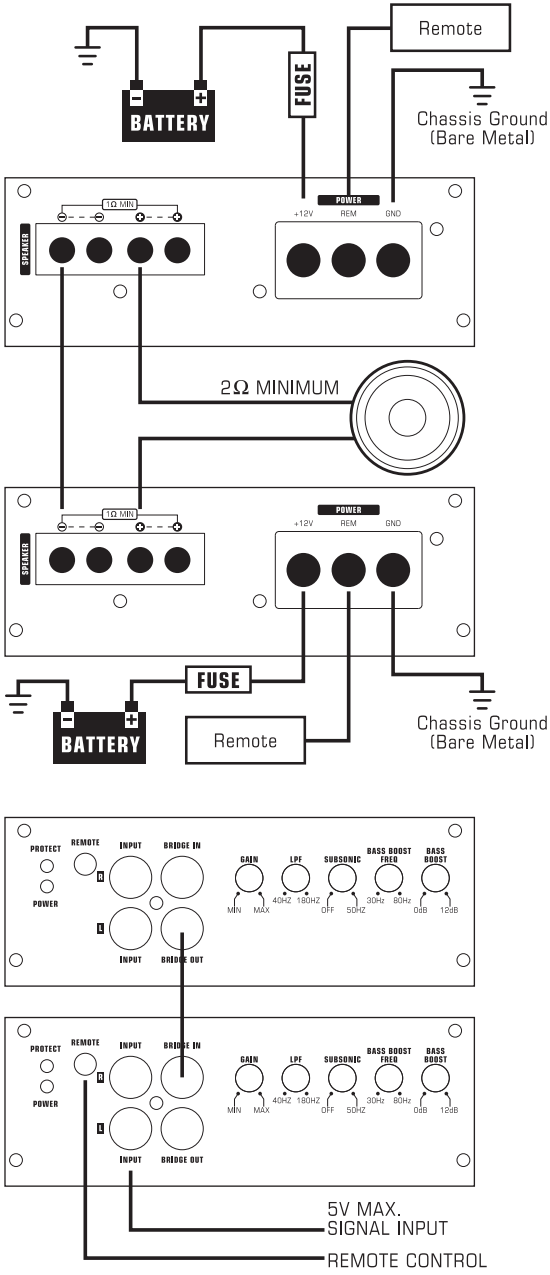
ONE SPEAKER MONO
APSM-2000



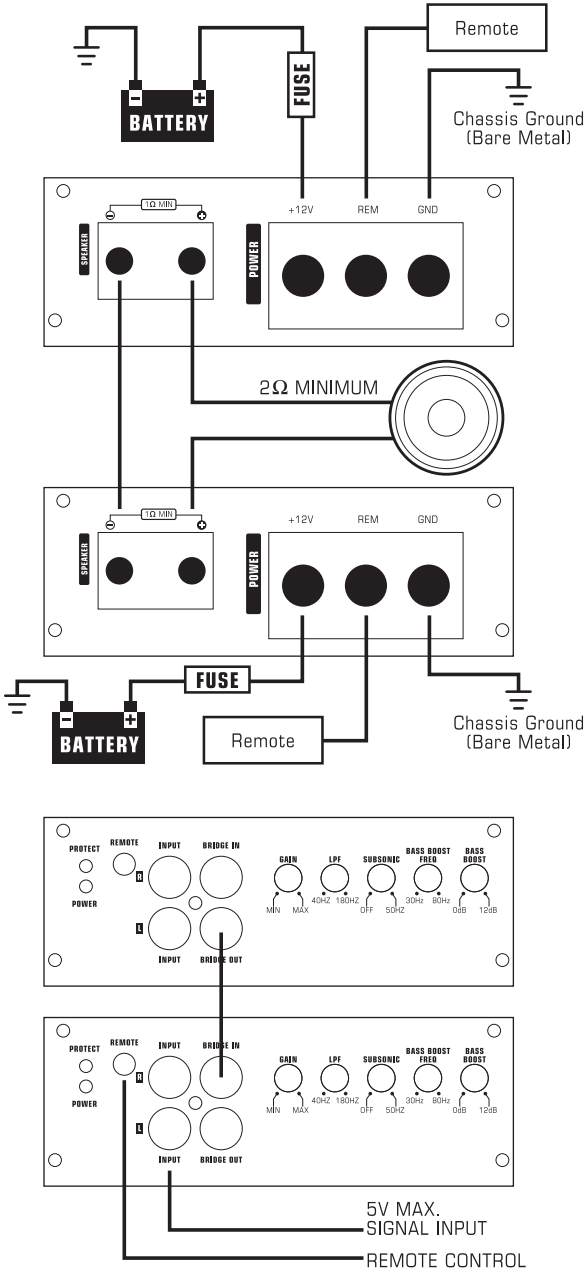
TWO SPEAKER MONO
APSM-1300/APSM-1500



TWO AMPLIFIERS LINKED TO ONE CHANNEL
APSM-1300/APSM-1500



TWO AMPLIFIERS LINKED TO ONE CHANNEL
APSM-2000



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.*

Problem

The amplifier switches on and off.

Solution

- *Check chassis ground connection with amplifier cable terminals and battery terminals connections and check remote turn-on voltage.*

For additional questions please contact your authorized Audiopipe dealer.

PRODUCT SPECIFICATIONS

APSM-1300

RMS @ 4 Ohm (<1% DISTORTION) 400W
RMS @ 2 Ohm (<1% DISTORTION) 600W
RMS @ 1 Ohm (<1% DISTORTION) 1000W
Input Level ..... 0.2 ~ 5V
Frequency Response ..... 8 ~ 180Hz
LPF ..... 40 ~ 180Hz
SUBSONIC Filter ..... 5 ~ 50Hz
Bass Boost Frequency 55Hz
Bass Boost Level ..... 0 ~ 12dB
THD at 4 Ohm load 30% Rated Power ..... <0.15%
Signal Noise Ratio ..... >70dB
Best Efficiency ..... >85%
Minimum Load ..... 1 Ohm
Optional Remote ..... YES
Bridgeable with Same Amplifier ..... YES
Overload Protect System ..... YES
Short Circuit Test (max. power) ..... PASS
Overheat Protect Temperature ..... 80˚C/176˚F
Components & PCB ..... SMT & Double Side Board
Transparent Isolation Connector ..... YES

APSM-1500

RMS @ 4 Ohm (<1% DISTORTION) 600W
RMS @ 2 Ohm (<1% DISTORTION) 950W
RMS @ 1 Ohm (<1% DISTORTION) 1500W
Input Level ..... 0.2 ~ 5V
Frequency Response ..... 8 ~ 180Hz
LPF ..... 40 ~ 180Hz
SUBSONIC Filter ..... 5 ~ 50Hz
Bass Boost Frequency ..... 30 ~ 80Hz
Bass Boost Level ..... 0 ~ 12dB
THD at 4 Ohm load 30% Rated Power ..... <0.2%
Signal Noise Ratio ..... >70dB
Best Efficiency ..... >85%
Minimum Load ..... 1 Ohm
Optional Remote ..... YES
Bridgeable with Same Amplifier ..... YES
Overload Protect System ..... YES
Short Circuit Test (max. power) ..... PASS
Overheat Protect Temperature ..... 80˚C/176˚F
Components & PCB ..... SMT & Double Side Board
Transparent Isolation Connector ..... YES