

LIMITED WARRANTY

REALM Audio warrants this product to be free from defects in material and workmanship, for a period of 3 years from date of purchase if installed by an Authorized REALM Audio dealer. REALM Audio offers this warranty for 1 year period from the date of purchase if purchased over the counter from a Authorized REALM Audio dealer. REALM Audio does not honor or warranty any REALM Audio product NOT purchased through an Authorized dealer. This REALM product is sold with the understanding that purchaser has independently determined the suitability of this product. This warranty DOES NOT cover any expenses incurred from the installation, removal, or re-installation of this product, incidental or otherwise. This warranty is offered to the original purchaser of the product only. This warranty does not cover the product if physically damaged, subjected to negligence or misuse, abuse, improper installation, alteration, accident, or an act of God. Also excluded from the warranty are costs from the correction of faulty installation, and elimination of electromagnetic interference (engine noise). The original dated sales slip or proof of purchase will establish warranty eligibility. If the product should prove defective within the warranty period, REALM Audio at its option will repair or replace the product free of charge. In no event shall REALM Audio be responsible for claims beyond the replacement value of the defective product or in any way be liable or responsible for consequential or incidental damages. REALM Audio cannot be held responsible for discrepancies/inconsistencies that may occur due to manufacturing changes or options.



TECH SUPPORT
(800) 450-8324
www.realm-audio.com



D500.1 / D1100.1



CLASS D MONO AMPLIFIER INSTALLATION / OPERATION INSTRUCTIONS

SHARED FEATURES

- D500.1: 2-Ohm Optimized
- D1100.1: 1-Ohm Optimized
- Illuminated Control Dials
- RCA Pass-thru Outputs
- Intelligent LED Status Indicator
- High and Low Level Inputs
- Double Sided Glass-Epoxy Circuit Boards
- Bass Boost Adjustment (0-12dB @ 45Hz)
- Full Differential Inputs
- 24dB Defeatable LP Crossover (40~200Hz)
- Discrete Style Plug Terminals
- Internal Transistor Heat Sinks
- Remote Level Control Included

Realm Audio
1550 Pacific Ave
Oxnard, CA 93033
800.450.8324
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SPECIFICATIONS

D500.1:

- 250 Watts x1 @ 4-Ohms 1% THD
- 500 Watts x1 @ 2-Ohms 1% THD
- RCA Input 150mv-6v
- Speaker Level Input 325m-10v
- Speaker Load Impedance 2 ~ 4 Ohms
- Dimensions (H x W x L) 2.1" x 9.8" x 11.5"

CEA2006 Specifications
 250 Watts x1 at 4 Ohms and 1% THD+N
 90dBA SN at 1 Watt into 4 Ohms
 20Hz - 200Hz Frequency Response (-3dB)



D1100.1:

- 300 Watts x1 @ 4-Ohms 1% THD
- 550 Watts x1 @ 2-Ohms 1% THD
- 1100 Watts x1 @ 1-Ohm 1% THD
- RCA Input 150mv-6v
- Speaker Level Input 325m-10v
- Speaker Load Impedance 1 ~ 4 Ohms
- Dimensions (H x W x L) 2.1" x 9.8 x 14.6"

CEA2006 Specifications
 300 Watts x1 at 4 Ohms and 1% THD+N
 90dBA SN at 1 Watt into 4 Ohms
 20Hz - 200Hz Frequency Response (-3dB)



IMPORTANT!

The quality of the installation can affect the performance and reliability of your REALM audio product. If you have any doubts or questions, contact the REALM Audio Tech Support line at (800) 450-8324.

****READ ALL INSTRUCTIONS BEFORE INSTALLATION!****

BEFORE BEGINNING:

Plan out your installation. Have all necessary supplies, tools, and a general idea of where you are going to install on the vehicle.

TROUBLESHOOTING cont.

PROBLEM	CAUSE	CORRECTION
Amplifier will not turn on or No power (power light not on)	No Voltage on +12V Input.	Use voltmeter to verify voltages at terminals of amplifiers +12V Input should have a minimum of 11.5 volts while ignition of vehicle is ON or OFF.
	No Turn-On from Car Stereo	Use voltmeter to verify voltage at terminal of amplifiers REM input. REM input should have 12 volts while Car Stereo is "ON" and 0 volts While "OFF".
	Bad Connection at Battery or Fuse at Battery	Check main power connection and fuse at battery.
Power but no sound (power light is on)	Bad Connection On RCA Input or Speakers not connected correctly	Check Low level (RCA) connections. Be sure they are connected at Car Stereo and amplifier. Check all Speaker output connections.
Power but no sound (Protection light is on)	Speakers wrong impedance/over load at amplifier.	Disconnect Speaker from Amplifier. Verify speaker impedances with a Digital Volt/Ohm meter. D500.1 output stable at 2 ohms and above. D1100.1 output stable at 1 ohm and above. If you need further assistance with this please call Tech Support 800 450-8324.
Power but no sound (Protection light is on)	Shorted Speaker line or connections.	Check speakers and/or Speaker wiring for shorts using a Digital volt/Ohm meter.
No sound from one channel or entire side	Car Stereo's balance and fader controls set incorrectly.	Check Car Stereo's balance and fader control positions - verify they are centered.
	Bad Connection at Amplifier or Speaker.	Check speaker connections at amplifier and speaker.
	Bad Input Via RCA or Hi level inputs.	Check all input leads at amplifier. Be sure RCA's are connected to Car Stereo and amplifier. Check High level inputs for connection to amp verify connections.
Very low sound level	Car Stereo's balance and fader controls set incorrectly.	Check Car Stereo's balance and fader control positions - verify they are centered.
	Amplifier's input gain control setting is not correct.	Check amplifier's input gain control settings - adjust levels if necessary.
Power amplifier turns on and off repeatedly.	Low Voltage on +12V Input or Connections at Battery.	Check +12V connections at the battery and amplifier inputs.
	Low vehicle Battery Voltage	Verify battery voltage. Voltage should be greater than 11.5 volts DC at amplifier with engine off.
	Bad Connection on Car Stereo or Amplifier	Check Car Stereo and amplifier's ground connections.

INPUT CONNECTIONS



IN
RCA Input: (Recommended)
 Connect to an Available RCA audio output from source unit. Use premium quality twisted pair with multiple shielding. If no RCA is available (Factory radio) then use High level in (see below).



HIGH IN
High Level Input:
 If you have NO available RCA audio outputs from your source unit e.g. Factory Stereo, then use the High Level signal plug. Connect to speaker wiring of source unit.

WIRE COLOR CODES:
 Gray = Right Front Pos. (+) Gray/Black = Right Front Neg. (-)
 White = Left Front Pos. (+) White/Black = Left Front Neg. (-)

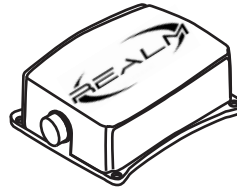
SUB LEVEL



Remote Bass Control: (Optional)
IN: Connect to remote bass adjustment module from front of vehicle.



OUT: Connect to additional amps link multiple amps together. Second amp and any subsequent amplifiers will be controlled by a single knob.



AUDIO LINE OUTPUT

OUT



RCA Output
 Use the Audio output for an easy solution to link multiple amplifiers together without the need for running additional cables from the headunit.



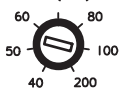
SETTINGS

GAIN



GAIN: (Level Control)
 Use the Gain to match the output level of your source unit or signal processor to the input level of the amplifier.
 Match the input using these steps:
 1. Turn gain (level) control to minimum.
 2. Turn on the source unit and set to 2/3 of max volume while playing music.
 3. Adjust the gain control until desired, maximum volume is achieved without audible distortion.

LP(Hz)



CROSSOVER:
 This dial controls the relative crossover point for the amplifier: 40Hz - 200Hz. Use crossover points recommend by your speakers.

BASS BOOST



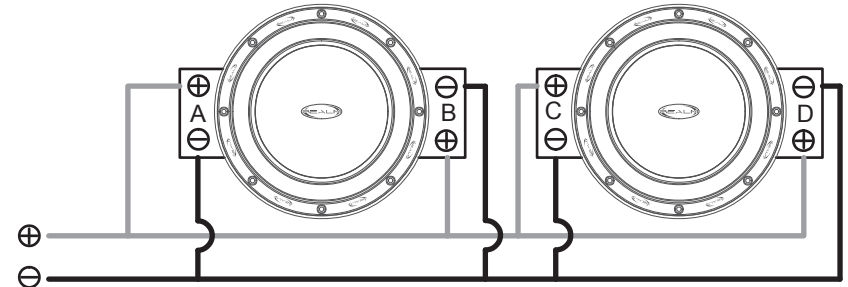
45Hz BOOST:
 This dial controls bass boost from 0-Flat to +12dB centering around 45Hz. Adjust to boost low frequency response. Use caution when adjusting!

CONFIGURATIONS

Both the REALM D500.1 and D1100.1 are single channel, dedicated subwoofer amplifiers. These amplifiers operate as a single channel, therefore one amplifier cannot be bridged by itself. The two sets of outputs terminals are provided strictly for convenience as a cleaner installation option. The two outputs are paralleled internally on the circuit board of the amplifier. The load is the same whether you are using both sets of outputs connected to one driver/voice coil each, or both drivers paralleled on only one +/- connection.

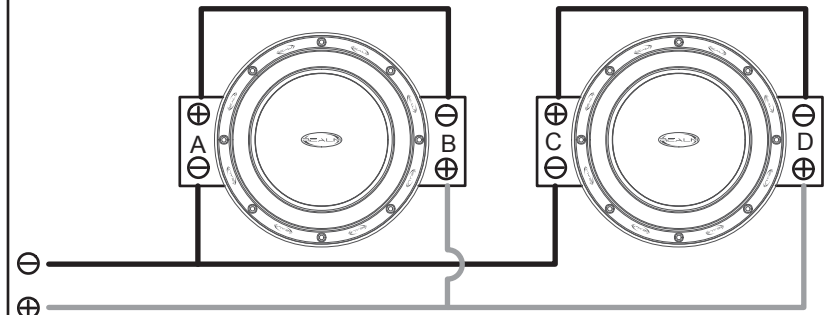
The D500.1 reaches maximum output into a 2 Ohm load while the D1100.1 reaches its maximum output into a 1 Ohm load.

PARALLEL WIRING DUAL VOICE COIL



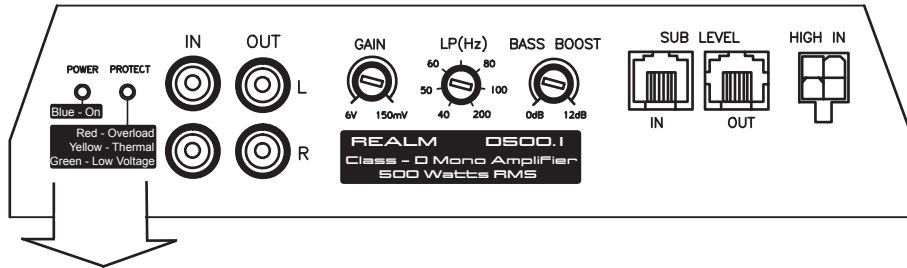
$$\text{Equation: } \frac{(A + B) \times (C + D)}{A + B + C + D} = R$$

SERIES/PARALLEL WIRING DUAL VOICE COIL



$$\text{Equation: } \frac{\sqrt{(A \times B)(C \times D)}}{(A + B) + (C + D)} = R$$

SMART STATUS INDICATORS



POWER LED:

The power LED will illuminate in Blue while amplifier is ON.

PROTECTION MULTI-COLOR LED:

Red: Overload or circuit problem
 Yellow: Thermal problem
 Green: Low Voltage Problem

See **TROUBLESHOOTING**
Next SECTION for detail
information.

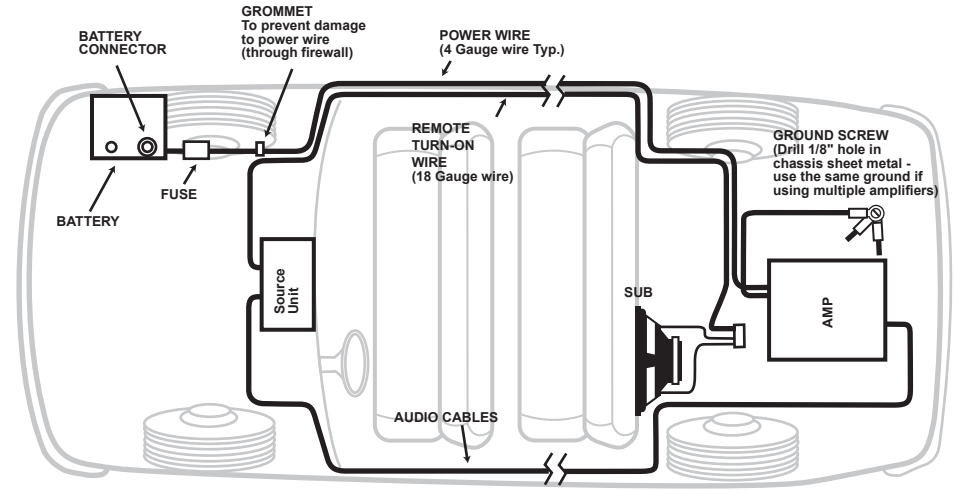
TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
Amplifier turns off during loud or distorted passages or Protection Light comes On. (Before or During use)	Amplifier's input gain control may be set too high or setting is not correct.	Check amplifier's input gain control settings - adjust levels if necessary.
	Low vehicle Battery Voltage	Verify battery voltage. Voltage should be greater than 11.5 volts DC at amplifier with engine off.
	Bad Connection on Car Stereo or Amplifier	Check Car Stereo and amplifier's ground connections.
	Wrong Speaker impedances.	Disconnect Speaker from Amplifier. Verify speaker impedances with a Digital Volt/Ohm meter. D500.1 output stable at 2 ohms and above. D1100.1 output stable at 1 ohm and above. If you need further assistance with this please call Tech Support 800 450-8324.
Amplifier operates. But gets very hot.	Input gain control too high	Lower Gain control
	Wrong Speaker impedances.	Disconnect Speaker from Amplifier. Verify speaker impedances with a Digital Volt/Ohm meter. D500.1 output stable at 2 ohms and above. D1100.1 output stable at 1 ohm and above. If you need further assistance with this please call 800 450-8324.
	Not enough air circulation around amplifier. Amplifier is covered by Carpet or other material.	Verify mounting location allows free air circulation around amplifier.

PRELIMINARY

Routing wire and cables:

Determining the safest place to run wiring and cable in the vehicle. ALWAYS run Power and Audio cables on opposite sides of the vehicle. If they must cross at any point do so at 90 degree right angles to each other. Avoid any moving parts in the vehicle and use grommets when passing through the firewall.



WIRE GAUGE/AMP WIRING KIT CHART

Amplifier Model#:	Power (Watts)	DISTANCE				
		4	8	12	16	20
D500.1 @2Ohms	500	AKPA-41	AKPA-41	AKPA-41	AKPA-41	AKPA-41
D1100.1 @10hm	1100	AKPA-41	AKPA-41	AKPA-41	AKPA-41	AKPA-41

(SCOSCHE-EFX WIRING KIT SKUS)

POWER / OUTPUT CONNECTIONS

