REISS

USER MANUAL



RS-W600.1D/RS-W1000.1D/RS-W1500.1D/RS-W2000.1D

1 CHANNEL DIGITAL AMPLIFIER

HIGH EFFICIENCY POWER AMPLIFIER

CAR AUDIO SYSTEM

PLEASE READ CAREFULLY BEFORE INSTALLING OR OPERATED THIS UNIT

WARNING

Make sure you choose a suitable place to mount the unit. The position should be completely dry with a good circulation of air, and from a mechanical point of view very stable.

www.**reissaudio**.com.tr

8. POSSIBLE FAULTS AND THEIR SOLUTIONS

Avatar amplifiers are high-quality and technically perfect products. The problems often arise due to improper use, faulty connection of components or lack of power supply of the on-board network.

1) The amplifier does not turn on.

Problem solution: Check all the contacts and the presence of 9-15 V at the amplifier terminals. Check whether the control input of the amplifier "REM IN" receives the positive potential of +12 V.

2) Power turns on, but goes into protection (protection indicator lights up)

Problem solution: Check if there is a short circuit (fault) on the amplifier output which is connected to the speakers or subwoofers. Make sure that commutation of the voice coils of the subwoofer is correct. The rated impedance of the voice coils should not be lower than the permissible rated load impedance of the amplifier. Check the supply voltage of the amplifier. It must be within the range of 9-15 V.

3) The amplifier turns on but at a high volume it goes in to protection. Problem solution: The amplifier may lack power. Make sure that the rated current of the alternator and the battery capacity is enough to power this amplifier.

Check the amplifier for overheating. Check the load impedance.

4) The amplifier is turned on, but there is no sound from the speakers or subwoofer.

Problem solution: Check the connection of the amplifier, the integrity of the interconnecting cable, HU, the speakers or the subwoofer.

9. BOX CONTENTS

1. Amplifier – 1 pc.
2. Owner's manual – 1 pc.
3. Warranty card – 1 pc.
4. Remote control – 1 pc.
5. Mounting kit – 1 pc.

10. WARRANTY PERIOD, AFTER-SALES SERVICE AND SERVICE LIFE INFORMATION

Each AVATAR product is warranted to be free from defects in materials and workmanship under normal use and service.

The warranty period for the product is 12 (twelve) months from the date on which the product is transferred to the consumer (this date shall be deemed to be the date on which the consumer starts using the product).

During the warranty period, defective parts will be repaired or replaced at the discretion of the manufacturer provided that there are grounds for doing so under the laws of the consumer's country. The defective product must be returned to the dealer from whom it was purchased together with the duly filled out warranty certificate, complete, with original packaging.

Our company shall not be liable for any damage caused by transportation. Our company shall not be liable for any expenses or lost profits arising out of or in connection with the use or inability to use the product or any other incidental or indirect costs, expenses, or damages incurred by the customer. The warranty is valid in accordance with the laws currently in force. For more information, please visit our company website and refer to the warranty card.

The manufacturer reserves the right to change the design and specification of the product without prior notice.

The service life of the product is 12 (twelve) months from the date on which the product is transferred to the consumer (this date shall be deemed to be the date on which the consumer starts using the product).

The product or any part (component) of the product must not be used in any way (including, but not limited to use for intended or any other purpose, transportation, storage, modification/alteration/improvement/upgrade) after the expiry of the service life.

At the end of its service life, the product must be disposed of.

11. INFORMATION ON DISPOSAL OF THE ELECTRICAL AND ELECTRONIC EQUIPMENT (FOR THE EUROPEAN COUNTRIES WITH SEPARATE WASTE COLLECTION)

Items marked "crisscrossed wheeled bin" are not allowed to be disposed of together with usual household waste. These electrical and electronic products should be disposed of in special reception centers, equipped for recycling such products and components. For information about the location of the nearest disposal / recycling spot and the rules of delivery of waste please contact your local municipal office. Recycling and proper disposal helps to protect the environment and prevent harmful effects on health.

7. SPECIFICATIONS

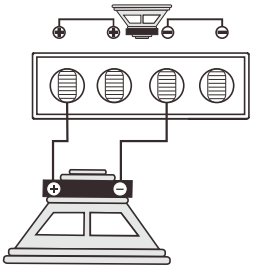
Model	RS-W600.1D	RS-W1000.1D	RS-W1500.1D	RS-W2000.1D
Power RMS 4 Ohm* (W)	230	450	580	780
Power RMS 2 Ohm* (W)	370	700	930	1250
Power RMS 1 Ohm* (W)	600	1000	1500	2000
Crossover (dB/Oct)	12	12	12	12
High pass filter (Hz)	-	-	-	-
Low pass filter (Hz)	50-300	50-300	50-300	50-300
Subsonic filter (Hz)	10-50	10-50	10-50	10-50
Phase shifter (degrees)	0-180	0-180	0-180	0-180
Bass level adjustment (dB)	0-12	0-12	0-12	0-12
Bass frequency adjustment (Hz)	45	45	45	45
Frequency response (Hz)	10-300	10-300	10-300	10-300
Input sensitivity (V)	0.2-6	0.2-6	0.2-6	0.2-6
Signal to noise ratio (dB)	>90	>90	>90	>90
Damping factor	>180	>180	>180	>180
Input terminal connection (AWG/mm^2)	4 / 21.15	4 / 21.15	4 / 21.15	4 / 21.15
Output terminal connection (AWG/mm^2)	10 / 5.26	10 / 5.26	10 / 5.26	10 / 5.26
Working voltage (V)	9 - 16	9 - 16	9 - 16	9 - 16
The minimum permissible load impedance (Ohm)	1	1	1	1
Size (LxWxH), mm	188 x 182 x 49	228 x 182 x 56	258 x 182 x 56	278 x 182 x 56
Size (LxWxH), inch	7.40 x 7.17 x 1.93	8.97 x 7.17 x 2.20	10.15 x 7.17 x 2.20	10.94 x 7.17 x 2.20

*RMS Power at 14.4 V, THD 1%

SPEAKER CONNECTIONS

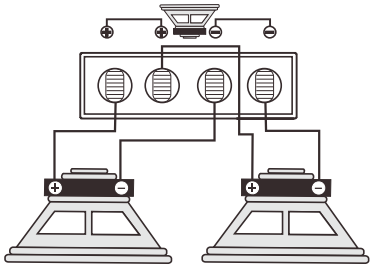
SINGLE VOICE

4 Ohms Load



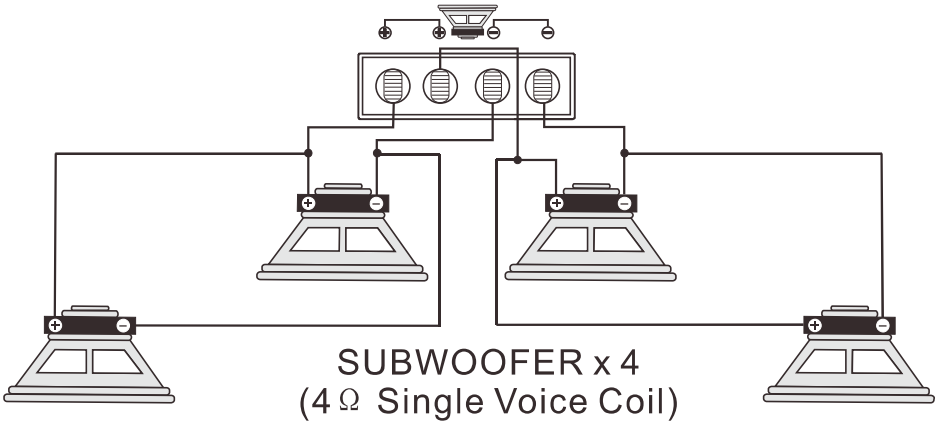
SUBWOOFER
(4 Ω Single Voice Coil)

2 Ohms Load

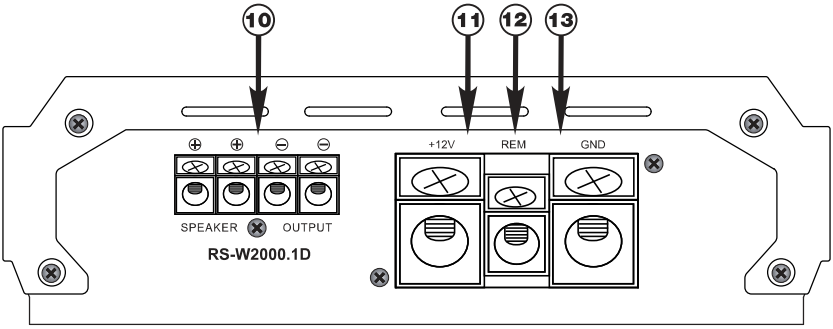


SUBWOOFER x 2
(4 Ω Single Voice Coil)

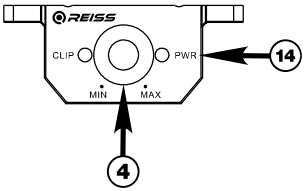
1 Ohm Load



SUBWOOFER x 4
(4 Ω Single Voice Coil)

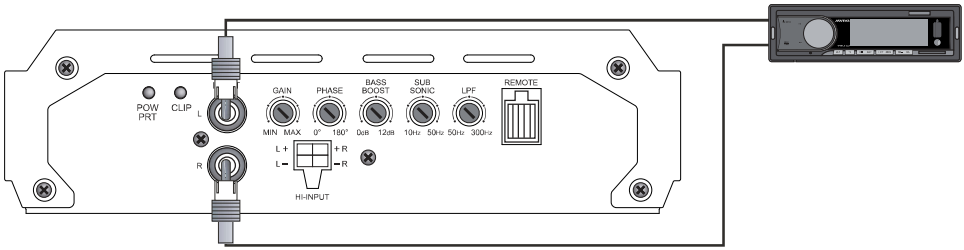


1. POWER/PROTECT – LED for operation (blue)/LED for protection (red)
2. CLIP – LED on the clip (orange)
3. INPUT – signal input, RCA jacks
4. GAIN – input signal level adjustment (0.2 V – 6 V)
5. PHASE – Phase shifter (0˚-180˚)
6. BASS BOOST – bass level adjustment (0 - 12 dB at 45 Hz)
7. SUBSONIC – subsonic frequency filter (10 Hz - 50 Hz at 12 dB/Oct)
8. LPF – low pass filter (50 Hz – 300 Hz at 12 dB/Oct)
9. REMOTE – input for connection of the bass remote control
10. SPEAKER OUTPUT – subwoofer connection terminals
11. +12V – power supply terminal (+12V)
12. REM IN – connector of remote activation of the amplifier
13. GND – grounding supply terminal «-»
14. POWER – LED for operation (blue)

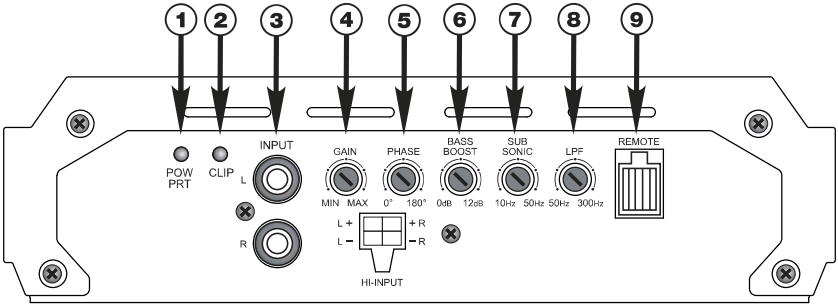


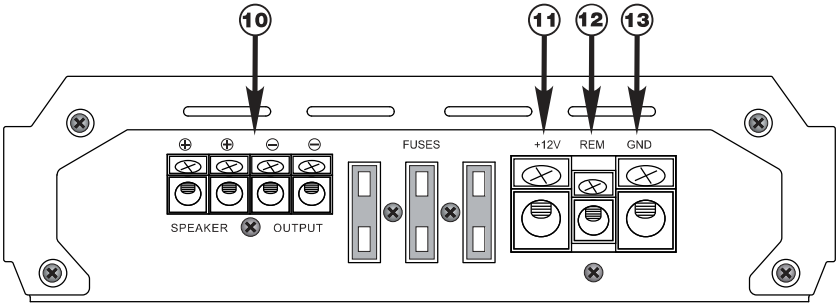
Standard wiring diagram of mono amplifier to head unit

Step 1. Connect one end of the RCA cable to the RCA output terminals at the HU and the second end to the amplifier RCA input terminals marked with INPUT.



Application of connectors and controls

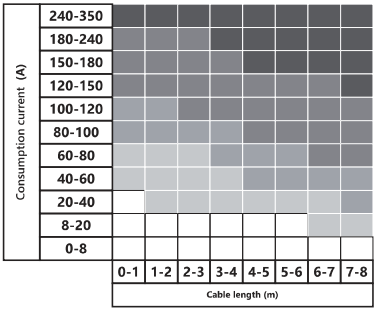




4. SELECTION OF THE DIAMETER OF POWER CABLES AND SPEAKER CABLES

Selection of the diameter of the power cables

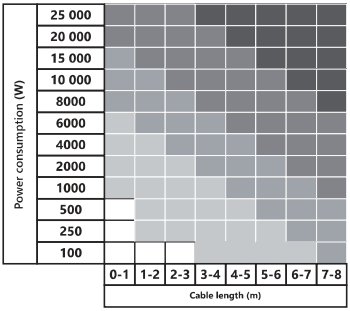
Use the table below to select the desired diameter based on the length and the current consumption.



Diameter	
A.W.G	mm²
1/0	53,5
2	33,6
4	21,2
8	8,4
10	5,3
12	3,3
14	2,1
16	1,3
18	0,8

Selection of the diameter of the speaker cables

Use the table below to select the desired diameter based on the length and the power consumption.



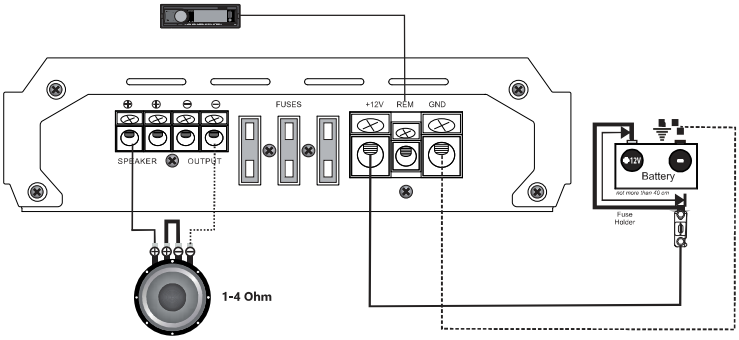
Size	
A.W.G	mm²
5	16,8
8	8,37
10	5,26
14	2,08

5. WIRING DIAGRAMS

Connect the speaker cables from the positive and negative terminals of the speakers to the respective outputs of the amplifier terminal marked with SPEAKER OUTPUT, as shown at the diagram. To connect the power wire supply it is necessary to use special power cables. The fuse is placed in the holder and fixed in the cable cut. One end of the cable is connected to the positive terminal of the battery, the second one – to the amplifier terminals marked with + 12V. Be sure to use a fuse with the parameters sufficient for use in the system. The length and diameter of the grounding cable must conform to the length and diameter of the cable + 12V. Connect one end to the negative terminal of the battery and the other end of the grounding cable to the terminals marked with GND. Connect the head unit (HU) to low-level inputs of the amplifier using RCA cable.

Standard wiring diagram of four-channel amplifier to two speakers, to one subwoofer and to battery

Step 1. Connect the speaker cable from (+) terminal of the amplifier to (+) terminal of the subwoofer.
Step 2. Connect the speaker cable from (-) terminal of the amplifier to (-) terminal of the subwoofer.
Step 3. Connect one end of the power cable from (+) terminal of the battery and the second end to the amplifier terminal marked with + 12V. Do not forget to protect positive power cable with appropriate fuse.
Step 4. Connect one end of the power cable from (-) terminal of the battery and the second end of the grounding cable to the terminals marked with GND.
Step 5. Repeat the installation sequence for each power terminal step 3 and step 4.
Step 6. Connect one end of the cable to the Remote output terminal at the HU and the second end to the amplifier terminal marked with REM IN.



Caution!!! The minimum permissible connection load impedance at single channel is 2 ohm.
For models RS-W600.1D , RS-W1000.1D , RS-W1500.1D the operating voltage is 9-15V.

1. INTRODUCTION

Thank you for purchasing of this Reissaudio product! Our company is committed to the creation of extremely loud sound systems with no loss of quality.

To ensure proper use, please carefully read through this manual before using this product. It is especially important that you read and observe caution's in this manual. Please keep the manual in a safe and accessible place for future reference.

2. SAFETY INSTRUCTIONS

1. Make sure that your vehicle has a 12V DC electrical system with negative grounding. Before installing the amplifier in cars, trucks or buses, check the battery voltage.
2. Check the state of on-board power supply of your vehicle, the battery and the alternator. When the engine is running, depending on the ambient temperature, the voltage to be outputted by the alternator must be within the range of 14 to 14.7 V. Open circuit voltage (OCV) of the battery must be within the range of 12.5 to 13 V. Make sure that the rated current of the alternator and the battery capacity is enough to provide increased consumption.
For example, for the power of the amplifier 1000 W, the rated current of the alternator is required at the rate of 1000 W / 13 V = 77 amperes. A more powerful amplifier requires a more powerful alternator as well as an additional battery.
3. Do not place the amplifier in the engine compartment and also in the places exposed to water, moisture, dust or dirt.
4. Never stretch the cables outside of the car and near the moving parts of the car. This can lead to destruction of the insulating layer, short circuit and fire.
5. The amplifier should be installed in areas of the car where the temperature varies from 0 °C (32 °F) to 55 °C (131 °F). The amplifier should be in a place with a good air circulation. The horizontal position of the amplifier is the best way to install.
6. During the operation the amplifier may be heated up to 80 °C (176 °F). Before you touch it, make sure it is not overheated that may be dangerous.
7. To improve the cooling of the amplifier, it is recommended to clean periodically the heatsink from dust. When cleaning the heatsink strong solvents should not be used as they may damage the amplifier. Do not use compressed air, because solids can penetrate inside the amplifier. Cleanings best done with wet towels or cloth.
8. Make sure that the location of the amplifier does not violate the proper operation of mechanical and electrical devices of the vehicle.
9. Make sure that during the installation and connection of the battery, the power cables are not shorted.
10. When performing plumbing, drilling or cutting works with the car, make sure that there is no wiring, brake lines, fuel pipe or other structural elements under the place of work. Follow the safety rules! Use protective glasses and gloves.
11. To protect the wires use rubber gaskets if the wire passes through a hole in the plate, or other similar materials if it lies close to the parts exposed to heat.
12. Make sure that all the cables are fixed over the entire length. Also make sure that their outer protective shell is non-combustible. Use a clamping screw to secure the positive and negative cables next to the appropriate terminals of the amplifier.
13. Select a diameter of the power cable in accordance with the power of the amplifier and the recommendations provided here. Power cables are extremely important since they directly affect the system damping factor and sound quality. The cables to the battery must be in the copper crimp terminals pressed with the help of a hydraulic press, and well fixed to the battery terminals.
14. To avoid accidental damage, keep the amplifier in its original packaging prior to installation.
15. Use high-quality copper speaker and power cables.

CAUTION!!! High sound pressure can damage your health!
Please use the common sense when controlling volume!

3. TYPICAL INSTALLATION SEQUENCE

1. Before installing the amplifier disconnect the battery from the electrical system.
2. To connect the amplifier it is necessary to stretch the power cable from the location of the battery to the place of installation of the amplifier. Select the power cable with the appropriate regulations in AWG (see Table: Selection of the diameter of the power cables)
3. Connect the power supply with the correct polarity. Connect all (+) terminals of the amplifier to the cables stretching from the positive terminal of the battery and all (-) terminals of the amplifier – to the cables stretching from the negative terminal of the battery.
4. Place the fuse holder for each positive cable within 40 cm from the positive terminal of the battery and connect one end of the power cable to the holder after connecting the other end to the amplifier. Do not install the fuse(s).
5. Route all signal cables next to each other and separately from the power cables.
6. Connect the wires of RCA input. The input signal power must be between 0.2 V and 6 V.
7. To connect the power wire supply is necessary to use special power cables.
8. Fasten the amplifier properly when installing it in the vehicle. If the component is disconnected during driving, it may cause serious damage to the passengers of the vehicle or another vehicle. It is not recommended to screw the amplifier directly to the metal it can lead to distorsions at the signal outputs.
9. After installation is complete, check the wiring of the system and make sure that all connections have been made correctly. Before installing the fuses, disconnect the positive lead from the battery and then install the fuse in the fuse holder. Using the light bulb 12 V 21 W, connect the positive lead to one contact of the bulb and the other contact of the bulb to the positive terminal of the battery.
When properly connected, the bulb must briefly light up and go out. Now you may connect the positive lead to the (+) of the battery. If the light does not go out, then something is wrong. This will prevent damage to the amplifier in case of reverse polarity and unwanted sparks when connecting. Install the rest of the fuses.
10. To activate the amplifier, it is necessary to apply the positive potential of 12 volts to the control input of the amplifier (REM IN) through a switch or a corresponding control output (REMOTE OUT) with the head unit (HU).
11. LED indicator on front of the amplifier turns blue to indicate that the amplifier is turned on. If the indicator does not light up see chapter "Possible faults and their solutions" for more information.
12. The sound level is calibrated by adjusting the volume of the source up to 3/4 of its maximum level. Then, adjust the sensitivity level of the amplifier up until you hear distortions.

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2. Safety instructions
3. Typical installation sequence
4. Selection of the diameter of power cables and speaker cables
5. Wiring diagrams
6. Application of connectors and controls
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8. Specifications
9. Possible faults and their solutions
9. Box contents

Warranty period, after-sales service and service life information

Information on disposal of the electrical and electronic equipment (for the European countries with separate waste collection)

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