

DSP CAR AMPLIFIER

Models: RS-8150.8DSP10

8 channel input 10 channel output. Hi level, Optical, Low, Bluetooth digital audio, USB audio source input. 4*21+6*11 bands EQ, Crossover, Delay. The DSP amplifier is controlled by PC and remote control.

BEFORE YOU START

1.Statement

This manual mainly introduces the product functions, uses and operation methods of DSP auto tuning amplifier. The manual is only used as the user's operation guide, not as the basis for maintenance service. Due to the continuous improvement of the products upgrade, we reserve the right to change the design and specifications without prior notice. The product illustration and appearance effect in the manual are for reference only. Please refer to the actual product.

2.Tips

As part of our quality system control, each product is carefully packed before leaving the factory. After unpacking, please check the product carefully for physical damage. To facilitate future packing and ensure product safety during transporting. Please keep all packing materials and article. In case of physical damage to the machine, please inform us immediately so as to provide formal document for the damage.

3. Accessories

According to the model you purchased, the following accessories should be placed in the packing box. If there is any shortage, please inform the seller or manufacturer as soon as possible:

•	DSP Amplifier	1
•	Wiring Harness(HI IN)	1
•	USB Cable	1
•	External wiring controller(purchased separately)	1
•	Microphone(purchased separately)	1





- 1. THE PURCHASED DEVICE IS ONLY SUITABLE FOR AN OPERATION WITH A 12V ON-BOARD ELECTRICAL SYSTEM OF A VEHICLE. Otherwise fire hazard, risk of injury and electric shock consists.
- 2. PLEASE DO NOT MAKE ANY OPERATION OF THE SOUND SYSTEM, WHICH DISTRACT YOU FROM A SAFE DRIVING. Do not make any procedures, which demand a longer attention. Perform these operations not until you have stopped the vehicle on a safe place. Otherwise the risk of accident consists.
- 3. ADJUST THE SOUND VOLUME TO AN APPROPRIATE LEVEL, THAT YOU ARE STILL ABLE TO HEAR EXTERIOR NOISES WHILE DRIVING. High performance sound systems in vehicles may generate the acoustic pressure of a live concert. The permanent listening to extreme loud music may cause the loss of your hearing abilities. The hearing of extreme loud music while driving may derogate your cognition of warning signals in the traffic. In the interests of the common safeness, we suggest to drive with a lower sound volume. Otherwise the risk of accident consists.
- 4. **DO NOT COVER COOLING VENTS AND HEAT SINKS.** Otherwise this may cause heat accumulation in the device and fire hazard consists.
- 5. **DO NOT OPEN THE DEVICE.** Otherwise fire hazard, risk of injury and electric shock consists. Also this may cause a loss of the warranty.
- 6. REPLACE FUSES ONLY WITH FUSE WITH THE SAME RATING. Otherwise fire hazard and risk of electric shock consists.
- 7. DO NOT USE THE DEVICE ANY LONGER, IF A MALFUNCTION OCCURS, WHICH REMAINS NOT REMEDIED. Refer in this case to the chapter TROUBLE SHOOTING. Otherwise risk of injury and the damage of the device consists. Commit the device to an authorized retailer.
- 8. INTERCONNECTION AND INSTALLATION SHOULD BE ACCOMPLISHED BY SKILLED STAFF ONLY. The interconnection and installation of this device demands technical aptitude and experience. For your own safeness, commit the interconnection and installation to your car audio retailer, where you have purchased the device.
- 9. **DISCONNECT THE GROUND CONNECTION FROM THE VEHICLE'S BATTERY BEFORE INSTALLATION.** Before you start with the installation of the sound system, disconnect by any means the ground supply wire from the battery, to avoid any risk of electric shock and short circuits.
- 10. CHOOSE AN APPROPRIATE LOCATION FOR THE INSTALLATION OF THE DEVICE. Look for an appropriate location for the device, which ensures a sufficient air circulation. The best places are spare wheel cavities, and open spaces in the trunk area. Less suitable are storage spaces behind the side coverings or under the car seats.
- 11. DO NOT INSTALL THE DEVICE AT LOCATIONS, WHERE IT WILL BE EXPOSED TO HIGH HUMIDITY AND DUST. Install the device at a location, where it will be protected from high humidity and dust. If humidity and dust attain inside the device, malfunctions may be caused.
- 12. MOUNT THE DEVICE AND OTHER COMPONENTS OF THE SOUND SYSTEM SUFFICIENTLY. Otherwise the device and components may get loose and act as dangerous objects, which could cause serious harm and damages in the passenger room.



- 13. ENSURE CORRECT CONNECTION OF ALL TERMINALS. Faulty connections may could cause fire hazard and lead to damages of the device.
- 14. **THE MOUNTING HOLES.** If you drill the mounting holes for the installation into the vehicle's chassis, ensure by any means, not to damage, block or tangent the fuel pipe, the gas tank, other wires or electrical cables.
- 15. **DO NOT INSTALL AUDIO CABLES AND POWER SUPPLY WIRES TOGETHER.** Ensure while installation not to lead the audio cables between the head unit and the processor together with the power supply wires on the same side of the vehicle. The best is a areal separated installation in the left and right cable channel of the vehicle. Therewith a overlap of interferences on the audio signal will be avoided. This stands also for the equipped bass-remote wire, which should be installed not together with the power supply wires, but rather with the audio signal cables.
- 16. ENSURE THAT CABLES MAY NOT CAUGHT UP IN CLOSE-BY OBJECTS. Install all the wires and cables like described on the following pages, therewith these may not hinder the driver. Cables and wires which are installed close-by the steering wheel, gear lever or the brake pedal, may caught up and cause highly dangerous situations.
- 17. **DO NOT SPLICE ELECTRICAL WIRES.** The electrical wires should not be bared, to provide power supply to other devices. Otherwise the load capacity of the wire may get overloaded. Use therefor a appropriate distribution block. Otherwise fire hazard and risk of electric shock consists.
- 18. **DO NOT USE BOLTS AND SCREW NUTS OF THE BRAKE SYSTEM AS GROUND POINT.** Never use for the installation or the ground point bolts and screw-nuts of the brake system, steering system or other security relevant components. Otherwise fire hazard consists or the driving safety will be derogated.
- 19. ENSURE NOT TO BEND OR SQUEEZE CABLES AND WIRES BY SHARP OBJECTS. Do not install cables and wires not close-by movable objects like the seat rail or may be bent or harmed by sharp and barbed edges. If you lead a wire or cable through the hole in a metal sheet, protect the insulation with a rubber grommet.
- 20. KEEP AWAY SMALL PARTS AND JACKS FROM CHILDREN. If objects like these will be swallowed, the risk of serious injuries consists. Consult promptly a medical doctor, if a child swallowed a small object.

WARRANTY

This product meets the current South Korea warranty requirements, if purchased in South Korea. To ensure your warranty policy keep your original receipt proofing the date of purchase. Any damage to the product as a result of misuse, abuse, accident, incorrect wiring, improper installation, alteration of date code or barcode labels, revolution, natural disaster, or any sneaky stuff because someone messed up, repair or alteration out side of our factory or authorized service centers and any thing else you have done that you should not have done is not covered. This warranty is limited to defective parts and specifically excludes any incidental or consequential damages connected therewith.



TECHNICAL SPECIFICATIONS

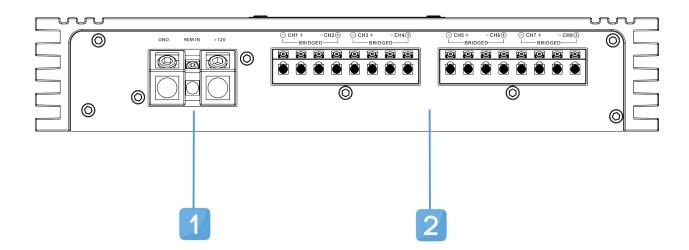
AUDIO	
RMS Power:	150W * 8CH @4Ω
Frequency Response:	20Hz~20kHz
DSP Processor:	Cirrus Logic
Signal Converter A/D :	Cirrus Logic
Signal Converter D/A:	Cirrus Logic
Bluetooth:	Build in Bluetooth 5.0

INPUT AND OUTPUT		
High level speaker input:	8CH	
Low level input:	8CH	
High level speaker output:	8CH	
Low level RCA output:	2CH (RMS 4V)	
High input impedance:	13 Ω	
High input sensitivity:	3-22V	

GENERAL REQUIREMENTS		
PC connections:	USB 2.0	
Software/PC requirements:	Microsoft Window (32/64bit): (XP, Vista, Windows 7, Windows 8, Windows 10)	
Operate temperature range:	-30~70°C	
Size:	252(L)x212(W)x45(H)mm	

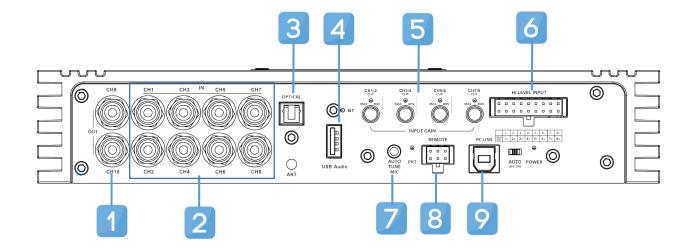


DESCRIPTION OF OPERATION



- POWER IN
 With 12V power in. REM IN.
- SPEAKER OUTPUT CH1-8:
 8-channel speaker output. Connect here speakers (2 4 Ohms) according to your sound system.

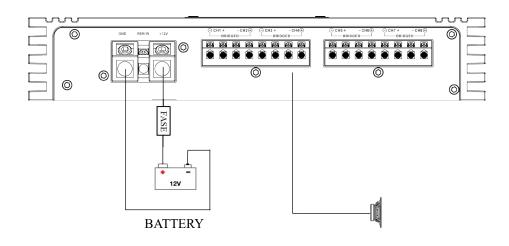
DESCRIPTION OF OPERATION

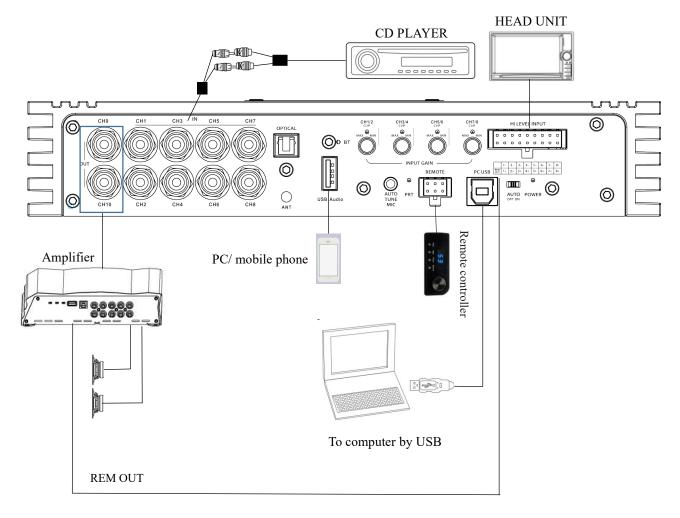


- OUTPUTS
 - Use these 2CH amplifier RCA outputs for driving an additional amplifier or an active powered subwoofer.
- LINE IN
 This 8 connector is suited to manage the low level signal inputs.
- OPTICAL INPUT
 This terminal support optical input.
- USB audio Input
 Sound card supports PC, mobile phone.
- 8 Channel input gain knob, the clip is used to flash red light when the audio source signal is too large
- SPEAKER INPUT
 8-channel high level input. Connector for the enclosed cable harness. Make sure that you only use the original cable that comes with the amplifier to connect the amplifier with your head unit/car stereo.
- AUTO TUNING
 Connector for the enclosed cable harness. Make sure that you only use the original cable that comes with the amplifier to connect the amplifier with your head unit/car stereo.
- REMOTE
 This terminal is connected with the external Remote controller(purchased separately).
- USB
 This USB input is suited for the connection with a PC/laptop computer to manage the functions of the DSP software to set-up the DSP functions of the amplifier.



WIRING DIAGRAM







PC TUNING SOFTWARE

USB connecting with the computer. Open the software, the main page is as follows:



FUNCTIONAL AND MULTILINGUAL

The PC software to control the DSP provides a clear GUI with the most important functions summarized in one menu....,

Rem-out1 and Rem-out2 can be controlled from this location

EXTENSIVE FILTER SECTION

Besides the separately adjustable slope for high and low pass filters, different filter characteristics can be selected. Each channel can also be set separately and the output signal to AUX can be freely configured.

CAR SPEAKER

Select car speaker to choose channel.

MAIN VOLUME

Control main volume, mute, select delay unit and separate full control of all channels including bypass function.

CHANNEL This section of

This section contains the core of the software. Each channel can be processed here individually or linking any channel synchronously. Among other things, the volume or the phase position can be controlled here.

QUICK ADJUSTMENT

This area contains reset EQ, restore EQ, bypass EQ, graphic EQ, reset output, lock output, link channel tuning.

The equalizer section leaves nothing to be desired: graphical real-time display, adjustable Q-factor, Gain and Frequency point.



Auto Tuning Operating Instructions

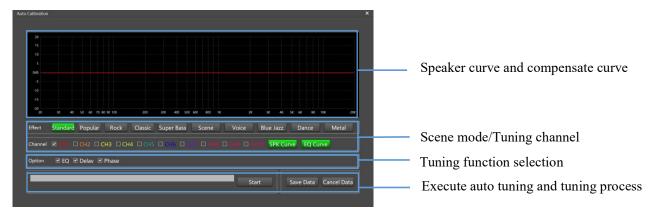
Advanced>>Auto Tuning

1.Connect the microphone to the "Auto In" terminal of the DSP amplifier(The microphone needs to be purchased separately). The harness is connected to the car. Connect the USB cable to the computer through the USB interface of DSP amplifier.

2.After the DSP amplifier is turned on, open the PC software, select the source first. Ensure that the speaker in each channel sound normally. Click the menu "Advanced" >> "Auto Tuning", then it will switch to the auto tuning interface.



3.Description of auto tuning page



Scene mode: Different scene modes can be selected. When auto tuning is completed. The selected scene mode will be superimposed on the tuning effect. If there is no need to add sound effect, select "Standard".

Select channel: Choose your tuning channel. Check the box in front of the channel. The channel you select will participate in auto tuning. After tuning, the speaker curve and compensation curve will display. Click the button will show the curve which you want to see.

Tuning function: According to the needs of auto tuning function. If the check box is selected. It indicates that auto tuning is used to adjust this function. Click "start" after setting. The speaker will make a pink or white noise at this moment. The tuning progress bar will display the total tuning progress. When it prompt "auto tuning complete". At this time, you can check the curve of each channel. If you click save data. This tuning data will be applied to DSP amplifier. Else, the tuning parameter will not work on DSP amplifier.



REMOTE CONTROL (purchased separately)

The remote controller is displayed by three digital tube. LED status indication, multi-functional encoder. Supporting main and subwoofer volume adjustment, mute, scene switching and source selection.



PREVIOUS BUTTON(BLUETOOTH):

Switch to the previous song

NEXT BUTTON(BLUETOOTH):

Switch to the next song

MODE BUTTON:

Mode switching, When the button is short pressed, the current mode is displayed. When the button is long pressed, the up and down buttons can be used to switch modes

SOURCE BUTTON:

Source switching

SHORT PRESS KNOB:

Short press the mute

LONG PRESS KNOB FOR 5 SECONDS:

Enter the switching mode, you can switch the main volume or subwoofer

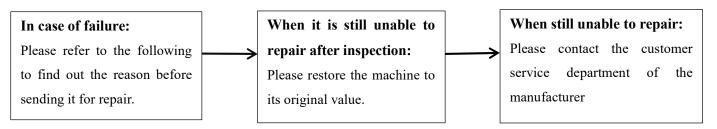
KNOB:

Turn the knob to adjust the volume. The main volume is 0-66 and the subwoofer volume is 0-60.



COMMON TROUBLESHOOTING

Before power on, check whether the connecting wire is normal. All interfaces must be properly connected. Common fault judgment and treatment method:



Troubleshooting

01 NO ELECTRICITY

NO SOUND

02

03

- 1. Is the power connection properly connected?
- 3. Is the mute operation activated?
 - 4. Is the signal input channel selected correctly?
 - BLUETOOTH CANNOT CONNECTED
 - 1. Whether the Bluetooth device searches for a Bluetooth device named "RS-8150.8DSP10".
 - 2. Is the device paired?

