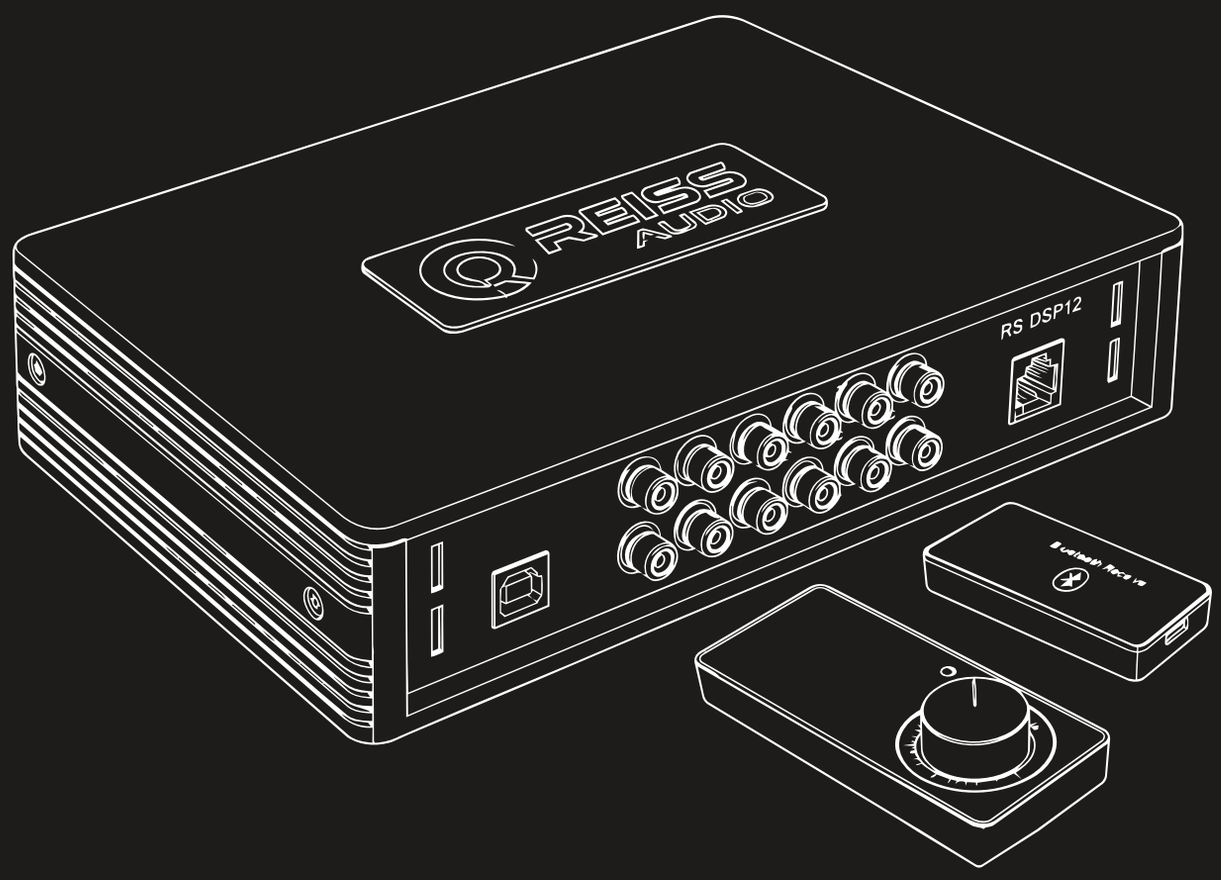
REISS AUDIO

your car hifi specialist

OWNER'S MANUAL

DIGITAL SOUND PROCESSOR
RS-DSP12 V2



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TURKISH ENGINEERING

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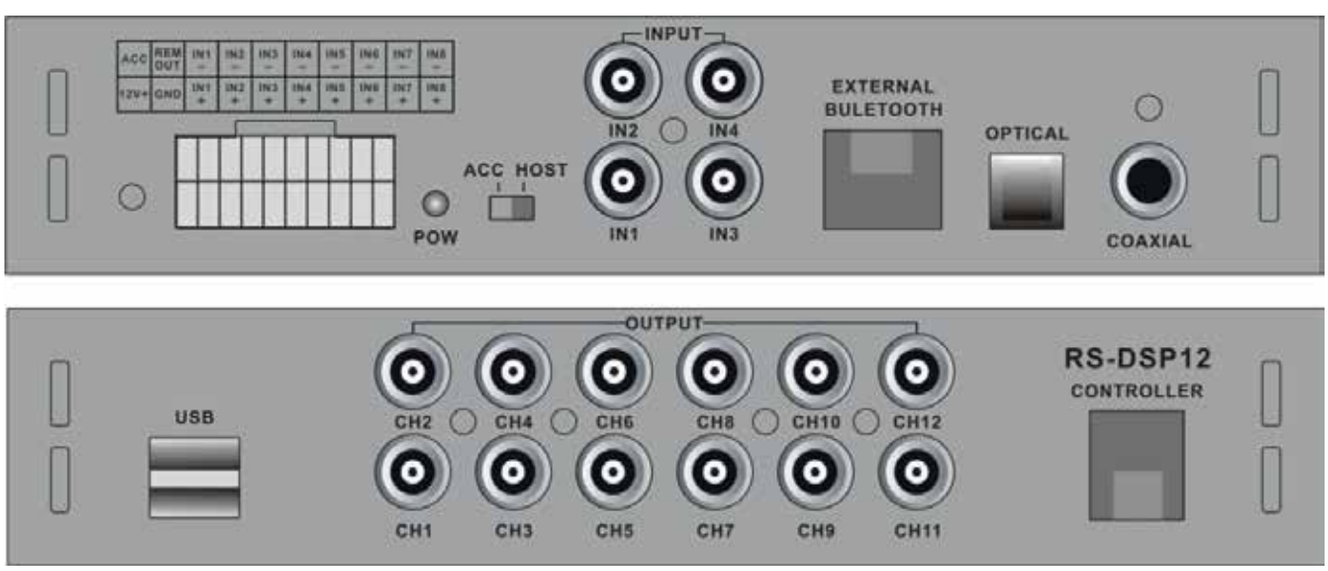


Notice

Warning

1. To prevent short circuit, please keep the device away from water or wet places.

2. If water or any other liquid soak into the device, cut off the power immediately, and call our service engineer of inspection, in case of emergency.

3. Users are not allowed to dismount the device, please contact our service engineers when if it' s necessary.

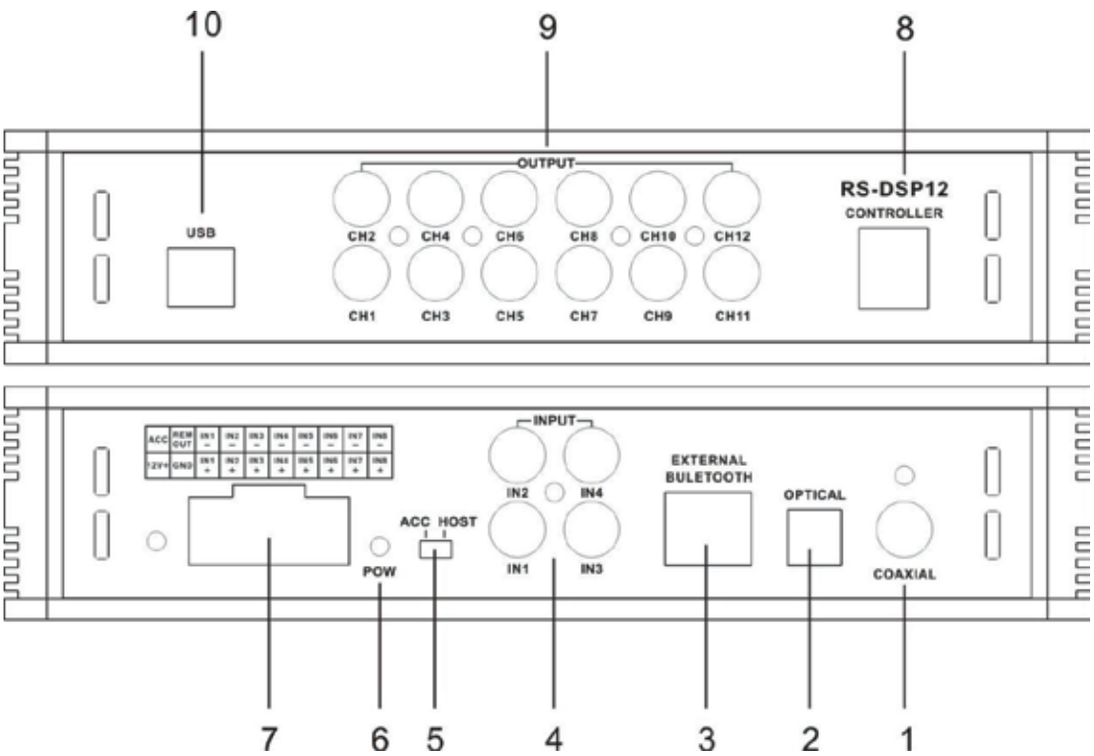
4. Surface temperature of the device could above 80 degree Celsius, please choose a safe installation spot.

What' s in the Box

RS-DSP12	1pcs
User Manual	1pcs
USB2.0 Cable(1.5m)	1pcs
Warranty Card	1pcs
Special Wire Rod	1pcs
Velcro	2pcs

UI Introduction

The machine interface diagram is as follows:



1: coaxial port
Connect the car CD or DVD coaxial cable to switch the machine audio source to digital input to play coaxial digital signals.

2: Fiber port
Connect the car CD or DVD fiber optic cable, switch the machine audio source to digital input, and play the optical digital signal.

3: External Bluetooth, the LED indicator will flash, the indicator will stop flash and will be always on once you have connected your Mobile phone to the device, then you can play music in your phone, and the device will change the high level input to Bluetooth Input.

4: AUX low level input port

5: Machine start mode switch

When the switch is turned to the "ACC" terminal, the machine is started by ACC, and when it is turned to the "HOST" terminal, the machine is started by the high level input signal.

6: Power indicator light

7: High level input and output port

"+" is positive or positive;

"-" is negative or inverted (ground).

Only the special wire for the original car is selected, or the user can define the external wiring material by himself. Before connecting the power supply, you must confirm that the power supply meets the designed power requirements and connect in strict accordance with the equipment instructions. Otherwise, the equipment may be damaged and may cause accidents such as fire, electric shock, etc.

ACC	REM OUT	IN1 -	IN2 -	IN3 -	IN4 -	IN5 -	IN6 -	IN7 -	IN8 -
+12 V	GND	IN1 +	IN2 +	IN3 +	IN4 +	IN5 +	IN6 +	IN7 +	IN8 +

8: the controller port

Data call and total volume adjustment can be performed by the line controller.

9: Low Level Output Port

10: USB Port ,Connect to the computer tuning software.

No need to download the driver installation, connected to the computer sound software installed automatically

Notes: Android Phone, APP function only can be used when on Bluetooth Mode.

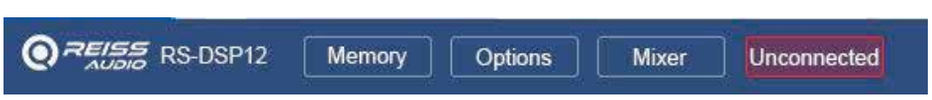
Software Introducton

1: PC Software Operation Introduction

Computer Configuration Requirements: Screen resolution higher than 1280 x 768, otherwise the software UI is incomplete, only suitable for windows operation system laptop, desktop and pads.

Digital sound processor RS-DSP12

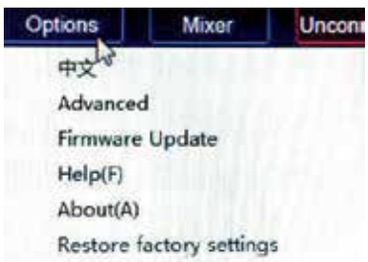
1: Main Menu Edit Section



Main features: Memory, options, mixer and connection operations.

①Click on the "Memory" pop-up window and select to load the Memory file on your computer or save it as a Memory file on your computer.

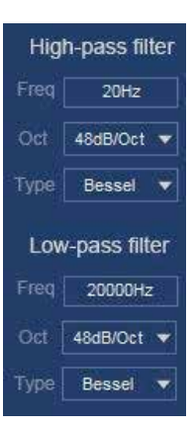
② Click on "Options" to select Chinese and English switching, advanced, firmware update, help, about and restore factory settings.



③Click " Mixer " or "Equalizer" to switch between the mixing interface and the equalizer interface. The equalizer interface is as follows.

④Click the "Not Connected" button to connect to the host with a PC.

2: Channel equalizer editing area



Main function configuration: Equilibrium design of current output channel, 31-band equalization adjustable: frequency, Q value (response bandwidth) and gain (increasing or decreasing the frequency response amplitude near the frequency point).

among

① "Reset all equalization" button: It is used to restore the parameters of the 31-band equalizer to the original pass-through mode (the frequency of the equalizer, the Q value and the gain are restored to the initial value).

② Restore All Equalizations button: Switch between the currently designed equalizer state parameters and the pass-through mode (the gain of all equalization points is restored to 0 dB, the frequency and value are unchanged).

③ "Parametric Equalizer" button: Click the "Parametric Equalizer" button to switch to the "Graphic Equalizer" mode. The frequency, Q value and gain can be adjusted under the "Parameter EQ" interface; only the gain adjustment can be made under the "Graphic Equalizer" interface, and the frequency and Q value are not operational.

④ "Delay Unit" button: Select the delay unit by clicking the left or right arrow, available in milliseconds, centimeters, and inches.

3: Channel divider editing area

Main Function Setup: Channel High & Low Pass Filter Setup

Adjustable: Filter Type, Frequency point and Q Value (Gradient or Slope)

Technical Instruction: The crossover point of Bessel and Butterworth Filter is at -3dB, the crossover point of Linkwitz-Riley Fliter is at -6dB.

4: Output channel adjustment area

Output channel adjustment area, positive and negative phase of each channel, volume adjustment, mute, joint adjustment, etc.

① Output joint adjustment: Click the joint adjustment button to jointly adjust CH1 to CH3, CH4 to CH9 joint adjustment, and CH10 to CH12 joint adjustment.

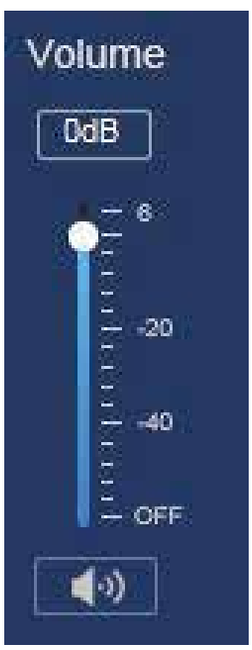
② Sound adjustment: slide the scroll up and down to adjust the sound level of the channel, or input the value or scroll the mouse wheel in the sound input box to adjust

the sound size. Click the horn button to switch between mute.

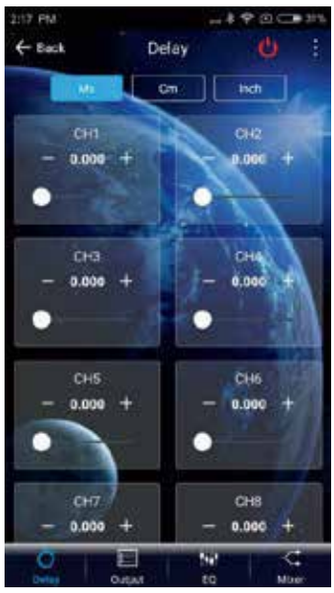
③ Positive phase adjustment: Click [0°] or [180°] to switch between positive phase and reverse phase.

5: Main Volume Adjust Zone

Adjustment Range: On/off, -59dB ~ 6dB. Click the speaker button to mute the main volume.



2、Smart-phone Software Operation Instruction



1. Main interface:

can share sound effects, save audio sound effects, open local sound effects, view the model and version number of the machine and exit the software operation; encrypt the data; store and recall 6 sets of preset scenes.

A · Connection Status:

Red means not connected, green means connected.

B · Menu:

You can share sound effects, save audio effects, turn on local sound effects, view the model number and version number, and exit the software operation.

C · Master volume adjustment:

The main volume can be adjusted by pressing the main volume scale clockwise or counterclockwise by hand. The volume range is 0~66.

D · Advanced settings

Click [Advanced Settings] to enter the settings of the delay interface, channel interface, EQ interface and mixing interface.

E · Scene preset:

There are 1~6 presets to choose from.

2、delay interface:

Sound field positioning output delay adjustment.

F · Delay setting:

Slide the corresponding direction of the dot to the left and right to set the delay for the CH1 to CH12 speakers.

Delay range: millisecond range: 0~20; centimeter range: 0~692; inch range: 0~273

G · Unit switching:

Switch between milliseconds, centimeters, and inches.

Millisecond range：0~20；

Centimeter range：0~692；

Inch range：0~273；

3、Channel interface:

Channel high-low-pass crossover setting with high-low-pass

independent filtering.
Adjustable: Filter type, frequency and Q value (slope or slope).
H · Output channel volume setting:
You can adjust the volume by sliding left and right. The volume range is 0~60. Click the speaker button to mute.
I · Channel type:

Butterworth , Linkwitz-Riley , Besselcan

be selected.

J · Frequency Range ：20Hz~20KHz。
K · Slope selection:
6dB/Oct 12dB/Oct、18dB/Oct、24dB/Oct、30dB/Oct 、 36dB/Oct 、 42dB/Oct 、 48dB/Oct
L · Joint settings:
Click on the joint icon, and the dialog box will pop up to select the channel for the joint adjustment.
M · Channel selection:
8 channels to choose from 20Hz~20KHz.

EQ interface

Corresponding to the adjustment of the output channel EQ curve (gain, Q value and frequency); reset equalization, pass-through equalization or parametric equalization operation settings.

N · EQ display

Edit the display area.

O. Output EQ gain, Q value and frequency settings:
Output EQ gain setting: A total of 31 EQ, left and right sliding screen can select EQ, you can drag the slider up and down. Select the first line value, and drag the slider bar left and right in the pop-up dialog box to adjust the adjustment range: -12dB~+12dB.
Q value: Click the second line value, and drag the slider bar left and right in the pop-up dialog box to adjust, the adjustment range is 0.404~28.852.
Frequency setting: Click the third line value, and drag the slider bar left and right in the pop-up dialog box to adjust it. The adjustment range is 20Hz~20KHz.
P. Reset equalization, restore equalization, pass-through equalization settings:
Click [Reset EQ] to restore the parameters of the 31-band equalizer to the original pass-through mode (the equalizer frequency, Q value and gain are restored to their initial values).
When there is channel adjustment, display[straight-through equalization], click [straight-through equalization], click [OK], all values (frequency, Q value and gain) will return to the initial value. At this time, the [straight-through equalization] button will become [recovery equalization]. Press the button and click [Resume Equilibrium], all values (frequency, Q value and gain) will be restored to the value before the pass-through.

4．Mixing interface:

It can perform 6 high level, 6 low level digital left and digital right, Bluetooth left and Bluetooth right mix selection and adjustment, adjustment range: 0~100.

Technical Sheet

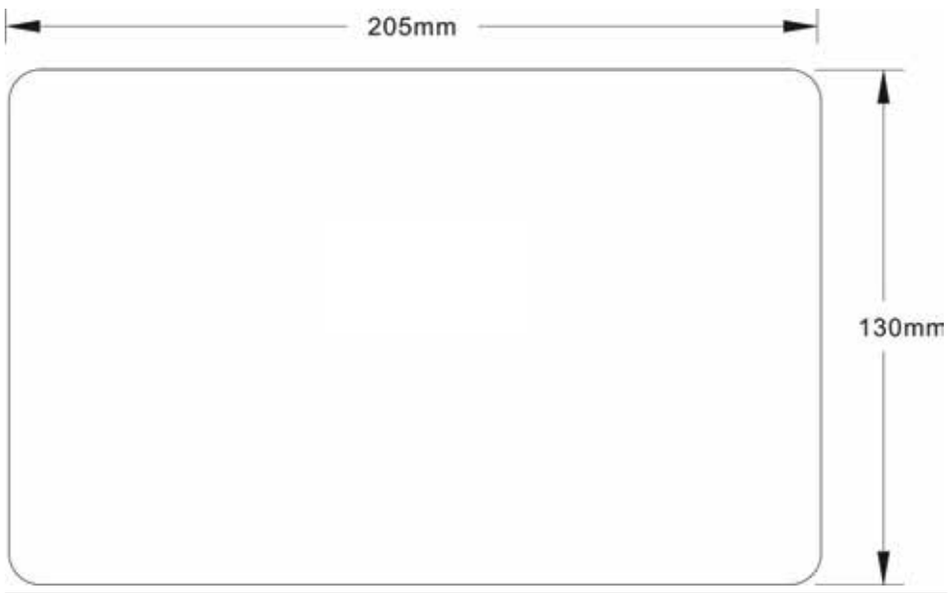
Input Signal Type	6 Channel high level Input, 6 Channel Low Level Input, external digital Bluetooth
Output Signal Type	8 Channel low level output
Output Signal Gain	Gain Range: Mute, ，-59dB～6dB。
Output Signal EQ	31 Bands EQ for every channel 1、 (Frequency Range)： 20Hz～20KHz，1Hz,1Hz Accuracy 2、 3、 Q Value(Slope)： 0.404～28.85。 4、 Gain：-12.0dB～+12.0dB，0.1dB Accuracy
Output Signal Crossover	Equipped with 2nd order high and low pass filter 1、 Type：(Butterworth)、(Linkwitz-Riley)、(Bessel)。 2、 Professional filter type: Butterworth , Linkwitz-Riley , Bessel 3、Filter Crossover Point：：20Hz～20KHz。Resolution 1Hz 4、Filter Slope Setup：12dB/Oct～48dB/Oct。
Output Phase and Time Alignment	Adjust phase and time alignment for every output channel. In Phase or Out Phase（0°/180°）。 Time Alignment：0.000-20.00mm，0-692cm, 0-273inch
Presets	Save 6 presets into the device.

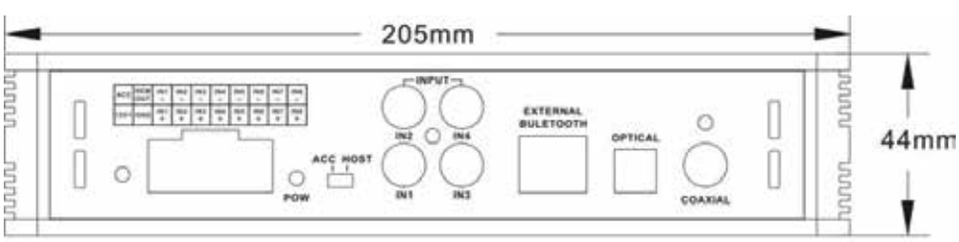
Product Technology Data

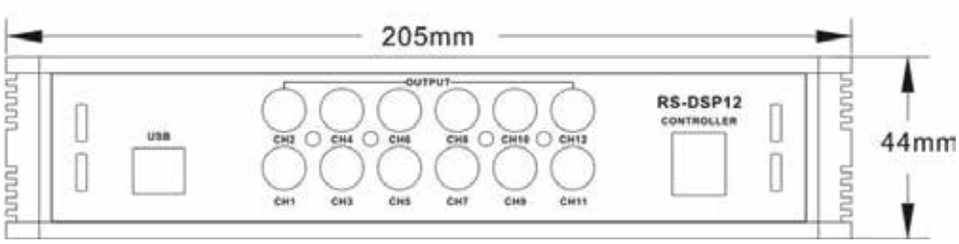
Product Data

Dynamic Range(RCA Input)	≥100dB
S/N (RCA Input)	≥90dB
THD	≤0.05%
Frequency Response	20Hz～20KHz
Input Impedance	Hi level input：240Ω, Low level input：20KΩ
Low Level Output Impedance	100Ω
Signal Input & Output Range	RCA Input：8Vpp； High Level：26Vpp；RCA Output：12Vpp
Working Temperature	-30～70℃
Power	DC 9V～16V
REM Input	High Level Input Signal:CH1+/CH1- or ACC control cable
REM Output	+12V Start up Voltage Output
Standby Power	≤0.1W
Gross Weight	About 1.1kg
Product Dimension	205(L) *130(W) *44(H)mm

Product Dimension as below:







Troubleshooting

Check all the cables and ports all perfectly safe before you switch on the power. Common troubleshooting procedure:

when a fault occurs:
:
Before taking products to dealers, please follow our suggestions to check your device.

→

When it is still not repairable after inspection:
Please return the unit to its initial value.

→

Still unable to repair:
Please consult the manufacturer's customer service department.

No.	Malfunction	Reason and Solution
1	No Power	① Check the power connection ② Check the ACC connection
2	No Sound	① Is it in mute mode ? ② Have you choose the right input signal channel.
3	Unable to connect USB	① Check the USB connection. ② Check if the driver "HID-compliant device" has been installed in your PC.

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