



MODEL: SDS1046

DIGITAL SOUND PROCESSOR



USER MANUAL
www.sansui-caraudio.com

|| CONTENTS ||

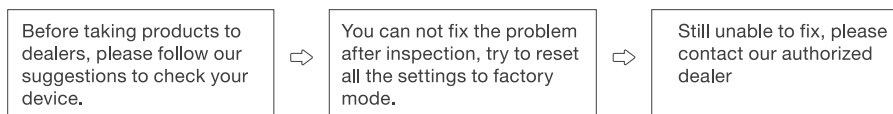
Warning	2 EN
Troubleshooting	2 EN
Packing List	2 EN
Input & Output Panel	3 EN
Software Introduction	4-5 EN
Main Menu Edit Section	
Channel EQ Edit Zone	
High-Pass & Low-Pass Filter Edit Zone	
Sound Stage Location And Time Alignment Adjustment	
Main Volume Adjust Zone	
Mobile Tuning App Instructions	6-7 EN
Home Interface	
Delay Interface	
XOver Interface	
Output Interface	
EQ Interface	
Product Data	8 EN
Product Specifications	
Technical Sheet	
Unit Dimension	9 EN
Fixed Installation Diagram	9 EN

|| WARNING ||

- To prevent short circuit, please keep the device away from water or wet places.
- 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.
- Users are not allowed to dismount the device, please contact our service engineers when if it's necessary.
- Surface temperature of the device could above 80 degree Celsius, please choose a safe installation spot.

|| TROUBLESHOOTING ||

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



Troubleshooting method:

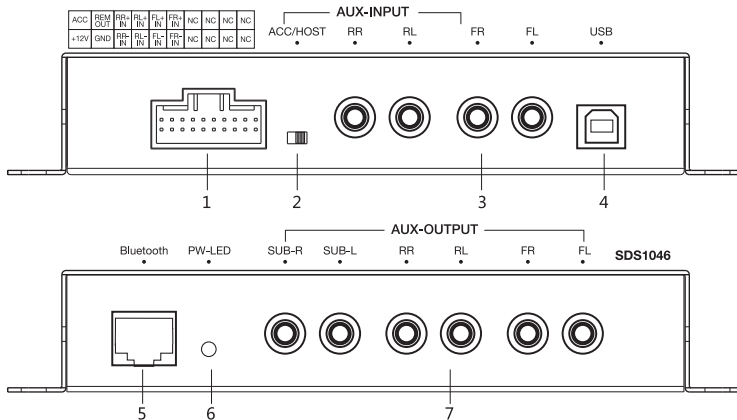
No.	Malfunction	Reason and Solution
1	No Power	A. Check the power connection B. Check the ACC connection
2	No Sound	A. Is it in mute mode B. Have you choose the right input signal channel
3	Unable to connect USB	A. Check the USB connection B. Check if the driver "HID-compliant device" has been installed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

|| PACKING LIST ||

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

SDS1046	1 pc
User Manual	2 pcs (1 Chinese, 1 English)
USB 2.0 Cable (1.5 m)	1 pc
Screws (4x20 mm)	4 pcs
Velcro	2 prs

INPUT & OUTPUT PANEL



1. HIGH LEVEL INPUT PORT

- "+" is positive or positive; "-" is negative or inverted (ground).
- Only the special wire for the special car selected by the original factory, or the user can define the external wiring material by yourself.
- Before connecting the power supply, you must confirm that the power supply meets the power requirements of the device and connect in strict accordance with the device instructions. Failure to do so may result in damage to the equipment and may cause accidents such as fire, electric shock, etc.

ACC	REM OUT	RR+ IN	RL+ IN	FL+ IN	FR+ IN	NC	NC	NC	NC
Power on input cable	Power on output cable	Rear right input	Rear left input	Front left input	Front right input	no			
+12V	GND	RR- IN	RL- IN	FL- IN	FR- IN	NC	NC	NC	NC
Power	Grand	Rear right input	Rear left input	Front left input	Front right input	no			

2. REM INPUT SELECTION SWITCH

Put the switch on "ACC" mode to start the device by ACC, put the switch on "HOST" mode to start the device by high level input signal.

3. AUX LOW LEVEL INPUT PORT

Connect up to 4 channels speaker input

4. USB 2.0 TO CONNECT THE PC TUNING SOFTWARE

No need to download drivers, connect PC tuning software to start installation automatically.

5. EXTERNAL DIGITAL BLUETOOTH INPUT (OPTIONAL)

Connect the 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.

NOTES: Android Phone, APP function only can be used when on Bluetooth mode.

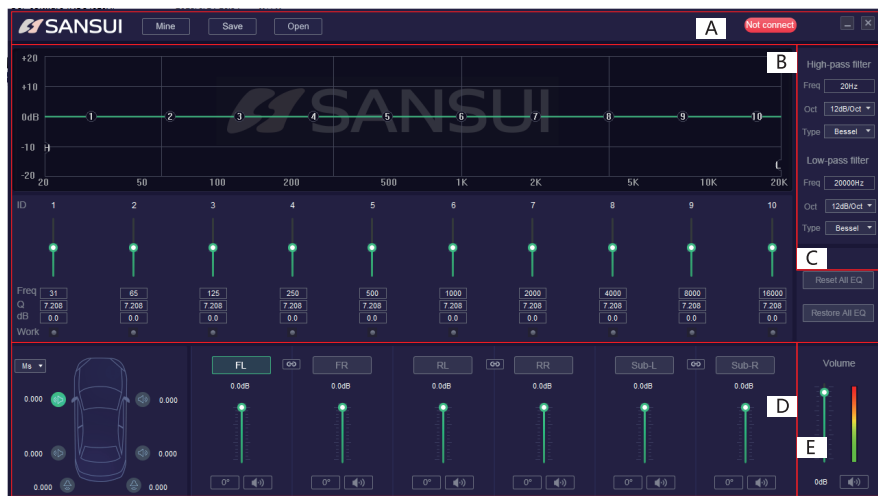
6. POWER INDICATOR

7. AUX LOW LEVEL OUTPUT PORT

Connect up to 6 channels speaker input, Two of them are connected to Subwoofer.

II SOFTWARE INTRODUCTON II

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.



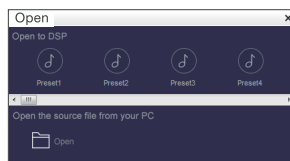
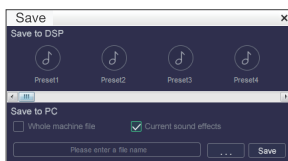
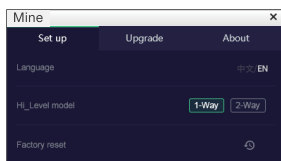
SDS1046 Computer debugging software main interface

A.MAIN MENU EDIT SECTION

Main Function: Mine, Save, Open Presets



- Click [Mine] will pop up a window, here you can see the Chinese-English language switch, High Level Mode, Factory Reset, Firmware Upgrading and detail product model number.
- Click the [Save] pop-up window to save the adjusted sound effects file to the device's 15 preset scenes or computer.
- Click the [Open] pop-up window to open 15 sets of sound files or computer sound files preset by the device.

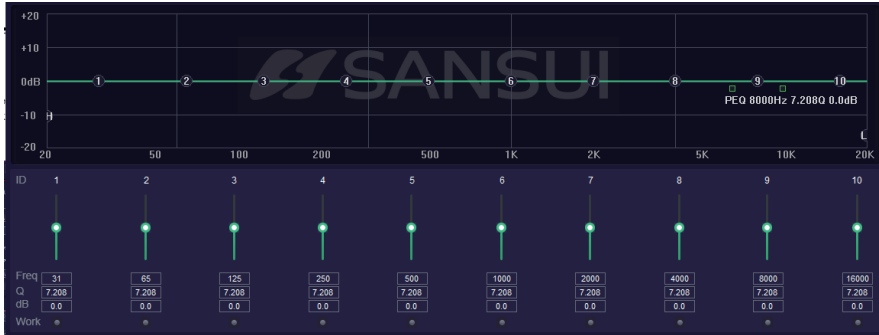


- Click [Not connect] button to connect your PC with the device.

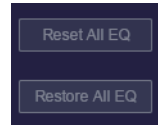


B.CHANNEL EQ EDIT ZONE

Main function Setup: Current output channel EQ setup, 10 bands EQ: Frequency, Q Value (Bandwidth) and gain (increase or decrease the frequency amplitude near the frequency point).

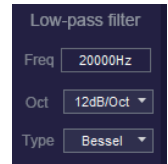
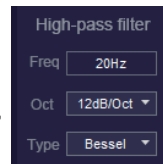


- EQ value: You can directly drag the digital point on the curve to adjust, or drag the slider up and down to adjust.
- Reset All EQ: Reset the 10 bands EQ to factory bypass mode, all the frequency point, Q Value and Gain will be restored to its initial value.
- Restore All EQ: Choose between the current EQ setup and bypass mode, all the gain restored to 0 dB, the frequency point stay the same.



C.HIGH-PASS & LOW-PASS FILTER EDIT ZONE

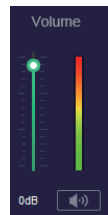
Main Function Setup: Channel High & Low Pass Filter Setup Adjustable: Filter Type, Frequency point and Q Value
The crossover point of Bessel and Butterworth Filter is at -3dB, the crossover point of Linkwitz-Riley Filter is at -6dB.



D.SOUND STAGE LOCATION AND TIME ALIGNMENT ADJUSTMENT



- Delay unit: Switch between [Ms] and [Cm]. Ms range: 0~20; Cm range: 0~692.
- Channel sound adjustment: Slide the scroll bar up and down to adjust the sound size of the channel speaker of the corresponding orientation;
Switch between [Positive Phase] and [Inverted];
The responsive channel can be muted by clicking the speaker button below the slider.
- Output joint adjustment: light the chain link between the left and right channels, and the left and right channels can realize synchronous linkage adjustment data.



E.MAIN VOLUME ADJUST ZONE

You can slide up and down to adjust the total volume, the adjustment range: -59dB ~ 6dB, off; click the speaker button to directly mute the total volume.

MOBILE TUNING APP INSTRUCTIONS



1.HOME INTERFACE

Audio effects are shared and saved to the mobile phone; the device and software information can be viewed to adjust the master volume; the input source and the mix source are selected; the tuning data is encrypted; 15 preset scenes Storage and recall of files.

- A.Connection Status: Gray means not connected, white means connected
- B.Menu: Share and save sound effects, turn on local sound effects, view local information, and exit software operations
- C.Master Volume: Touch the rotary button to adjust the master volume, range: 0~66
- D.Mode Conversion: Switch between [1-way] and [2-way]
- E.Scene Preset: 15 sets of preset scene files, you can slide left and right to select
- F.Advanced Settings: Click [Advanced Settings] to enter the settings of the delay, XOver, Output and EQ interface.

2.DELAY INTERFACE

Sound field positioning output channel delay adjustment

- G.Delay Setting: Slide the dots to the left or right to delay setting the response channel. Adjustment range: 0~20ms, 0~692cm
- H.Unit Switching: Switch between [Ms] and [Cm] Ms range: 0~20; Cm range: 0~692;

3.X-OVER INTERFACE

Channel high-low-pass crossover design with high-low-pass independent filter. Adjustable: filter type, frequency and Q value

- I.Type Selection Choose from Link-Ril, Bessel, Butter-W
- J.Frequency Range: 20Hz ~ 20kHz
- K.Slope Selection 6dB/Oct, 12dB/Oct, 18dB/Oct, 24dB/Oct, 30dB/Oct

MOBILE TUNING APP INSTRUCTIONS



4. OUTPUT INTERFACE

Set the output channel volume. Phase and setting high and low pass filters.

L.Phase Setting:

Switch between [0°] and [180°]

M.Output Channel Volume: You can adjust the volume by sliding the slider left and right. The volume range is 0~60.

Mute by clicking the speaker button

N.Joint Setting: Click on the chain icon and the selection dialog box will pop up.

Front sound field: CH1 or CH2

After sound field: CH3 or CH4

Subwoofer: CH5 or CH6

5. EQ INTERFACE

Corresponding to the adjustment of the output channel EQ curve (gain, Q value & frequency); reset equalization, pass-through equalization or recovery equalization operation to set the mode of the equalizer.

O.Channel Selection: You can select front left, front right, rear left, rear right, left bass, and right bass for tuning.

P.Output EQ Gain Setting:

A total of 10 segments of EQ, left and right sliding screen can be adjusted by EQ.

EQ value: you can drag the slider up and down to adjust

Q.Gain / Q value / Frequency Setting:

Gain: Click on the first row value, range -20dB~+20dB

Q value: Click the second line value, range 0.404~28.852

Frequency: Click on the third line value, range 20Hz~20KHz

R.Reset EQ:

Click [Reset EQ] to restore the parameters of the 10 EQ to the original pass-through mode, the frequency, Q value and gain of the equalizer are restored to the initial values.

S.Restore EQ / Bypass EQ:

When the channel is adjusted, the button displays [Bypass EQ];

Bypass EQ: All values (frequency, Q value and gain) will return to the initial value

Restore EQ: All values (frequency, Q value and gain) will restore the value before the pass-through.

|| PRODUCT DATA ||

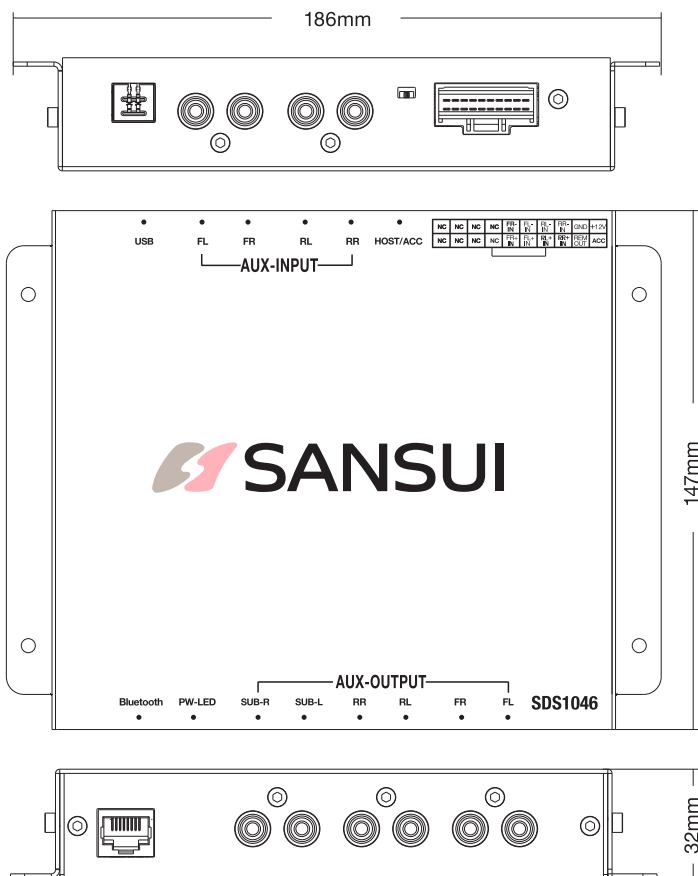
1. PRODUCT SPECIFICATIONS

Dynamic Range (RCA Input)	≥100dB
S/N (RCA Input)	≥90dB
THD	≤0.05%
Frequency Response	20Hz~20KHz
Input Impedance	High Level Input:330Ω; Low Level Input: 12kΩ
Low Level Output Impedance	100Ω
Signal Input & Output Range	RCA Input: 5.5Vpp; High Level: 26Vpp; RCA Output: 5.5Vpp
Power	DC 9V~15V
REM Input	High Level Input Signal: FL+/FL- or ACC control cable
REM Output	+12V Startup Voltage (0.1A)
Standby Power	≤0.1W
Net Weight	Approx . 0.9kg
Product Dimension	187(L) x148(W) x32(H) mm

2. TECHNICAL SHEET

Input Signal Type	4 Channel high level Input, 4 Channel Low Level Input, external digital Bluetooth
Output Signal Type	6 Channel Low Level Output
Output Signal Gain	Gain Range: Mute, -59dB~6dB,
Output Signal EQ	10 Bands EQ for every channel. Frequency Range: 20Hz~20KHz, Resolution 1Hz Q Value(Slope): 0.404~28.85 Gain: -20.0dB~+20.0dB, 0.1dB Accuracy
Output Signal Crossover	Equipped with 2nd order high and low pass filter Professional filter type: Butterworth, Linkwitz-Riley, Bessel Filter Crossover Point: 20Hz~20KHz, Resolution 1Hz Filter Slope Setup: 6dB/Oct~30dB/Oct.
Output Phase & Time Alignment	Adjust phase and time alignment for every output channel. Phase: In Phase or Out Phase (0°/180°) Time Alignment: 0.00 to 20.00ms, 0.00 to 692.00inch
Presets	Save 15 presets into the device.

UNIT DIMENSION



FIXED INSTALLATION DIAGRAM

