Clarion

DTX1001T 6-Channel DSP Car Amplifier

Owner's Manual

Safety Instructions

- For your safety, please read this Owner's Manual thoroughly before use and operate the unit correctly.
- After reading, store this manual in an easily accessible place (e.g., glove box) for future reference.

⚠ WARNING

- Do not disassemble or modify this unit. Failure to comply may lead to accidents, fire or electric shock.



- Stop using the unit immediately if issues such as no sound occur; continued use may cause accidents, fire or electric shock. Contact your authorized dealer or local Clarion service center for inspection and repair.



- Cease operation right away if foreign objects enter the unit, water intrusion, smoke emission or abnormal odor is detected. Consult your authorized dealer or nearest Clarion service support window promptly.



- All installation and reinstallation work requires professional expertise. For safety, please entrust the work to your purchasing dealer or Clarion service center.



- Disconnect the vehicle battery negative terminal before any wiring work. Failing to do so may create short circuits, resulting in electric shock or bodily injury.



- When drilling mounting holes on the vehicle body, confirm the routing of pipes, fuel tank and electrical wiring to avoid contact or damage to these components. Damaged pipelines may trigger fire or vehicle malfunctions.



⚠ CAUTION

- Complete all wiring connections in accordance with official specifications. Incorrect wiring may cause fire or safety accidents.



- Only use the supplied accessories in the designated manner. Use of non-specified parts may damage internal components or lead to insecure mounting, resulting in malfunctions or safety hazards.



- After finishing cable connections, secure all cables with cable clamps or insulating tape. Friction between loose cables and vehicle body panels can wear insulation and trigger short circuits, which may lead to accidents or fire.



To Authorized Dealers

This booklet serves as both the Owner's Manual and Warranty Certificate. Please fill in the purchase date, store name, address and contact phone number completely before handing it over to the customer.

WARRANTY CERTIFICATE In-Store Service

※ Warranty Period	Purchase Date Year Month Day	1 Year

※ Customer Information	Address Name Telephone ( )

※ Fields marked with ※ are mandatory; incomplete entries will render this certificate invalid.

If the product malfunctions within the warranty period, present this warranty document and visit the original dealer store for repair service.
If you cannot reach the original dealer due to relocation, gift transfer or other reasons, please contact us separately for support solutions.

※ Dealer Information	Store Name & Address TEL. ( )

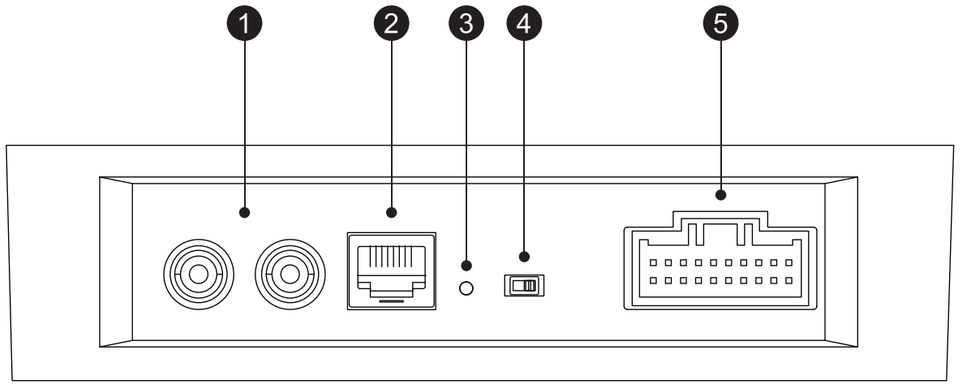
Free Repair Terms (Please Read Carefully)

1. If the product malfunctions under normal operation in compliance with all instructions specified in the Owner's Manual and warning labels affixed to the unit, free repair service shall be provided within the warranty period at the store of purchase or our authorized service network.
2. To apply for free warranty repair within the valid warranty term, please bring the product together with this Warranty Certificate to your original dealer store.
3. If relocation, gift transfer or other reasons prevent you from visiting the registered original dealer for repair, refer to the Clarion Authorized Service Network Directory included with the unit, then consult the nearest official service center.
4. Repair service will be chargeable even within the warranty period for the following cases:
   a. Malfunction or damage caused by improper operation, unauthorized maintenance or modification of the unit.
   b. Faults or damage resulting from collision, dropping or impact after installation in the vehicle.
   c. Damage or breakdown induced by fire, salt fog, chemical corrosion, earthquake, typhoon, flood, lightning strike, other natural disasters or public incidents.
   d. Failures arising from long-term commercial use, or operation outside standard passenger vehicles (such as marine vessels, household mains power supply, etc.).
   e. This Warranty Certificate is incomplete, missing mandatory information including purchase date, customer name and authorized dealer name.
   f. Natural wear, abrasion, aging of consumable parts under regular use, as well as tape-related malfunctions.
5. Replacement copies of this Warranty Certificate will not be issued; please keep it properly.

Repair Record	

※ This Warranty Certificate only provides free repair service subject to the terms and conditions stated herein, without limiting your statutory consumer rights. For inquiries regarding post-warranty repair matters, please contact your original dealer or Clarion official support.

Unit Port Introduction



1. RCA Output Port
2. PC/USB Tuning Interface
3. Power Indicator Light
4. Unit Power Switch
5. High-Level Input /

   Output & Power Terminal Block

RR+	RR-	RL+	RL-	FR-	FL-	RL-	RR-	GND	+12V
SPEAKER OUT				SPEAKER IN				REM OUT	ACC
FL+	FL-	FR+	FR-	FR+	FL+	RL+	RR+		

Specifications

DSP Chip	AK7755EN，TDA7851L
Amplifier Class	Class AB
Input	4-channel High-Level Input, Built-in Bluetooth Input
Output	4-channel High-Level Output, 2-channel Low-Level Output
Power Output	4×70W
EQ Bands	31 Bands
Max Time Alignment Delay	10ms
Sampling Rate	192kHz/24Bit
ADC/DAC Conversion	10–192kHz, 24-Bit
Frequency Response	20Hz–20kHz
Unit Dimensions	145mm × 145mm × 36mm

PC Screen Configuration

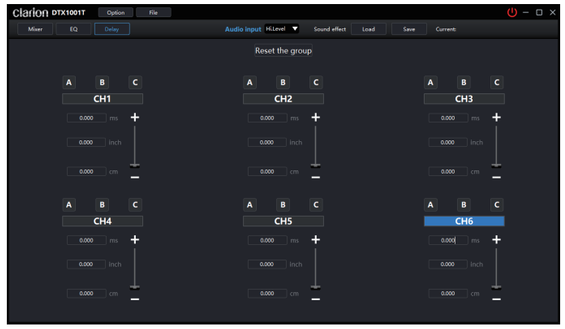
[Main]



[Mixer Setting] Sub-window 1



[Time Alignment] Sub-window 2



Possible to control an audio effect for each speaker at Main Screen
Realize a sophisticated sound according to adjusting a detailed sound effect on Sub-windows

Handle with Care

- Download this software into laptop equipment on hand, connect with DTX1001T by using the included USB cable
- Do not control this application while driving
- Require a car-audio expertise to maximumly use an adjustment function

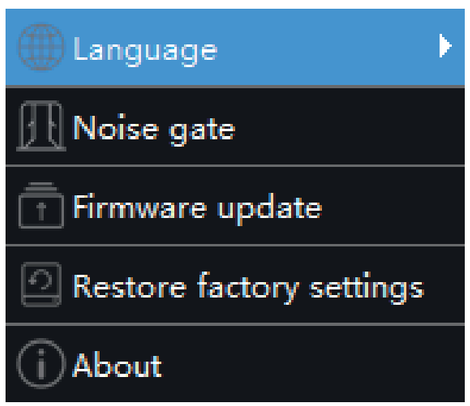


① Device Model

Displays the model number of the currently connected power amplifier unit.

② Settings Button

Click to open the comprehensive settings interface, which integrates functions including noise gate configuration, UI language switching, firmware upgrade and other system utilities.



← UI language switching, Chinese and English available

← Noise threshold setting

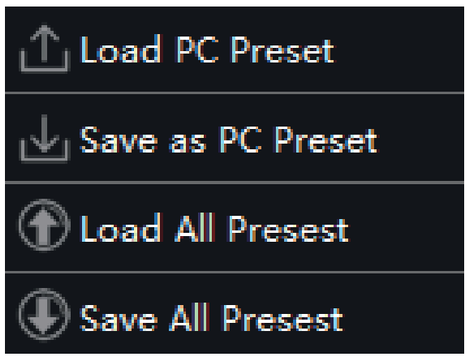
← Firmware update

← Restore factory settings

← View current version number

③ Preset Memory Function Area

For saving and loading full-unit audio tuning parameters



← Load PC Preset

← Save as PC Preset

← Load All Presest

← Save All Presest

④ Main Audio Source Function

For saving and loading full-unit audio tuning parameters



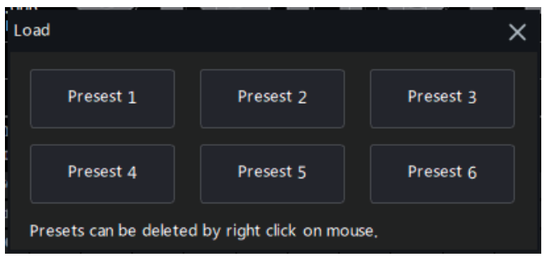
← High-Level Input

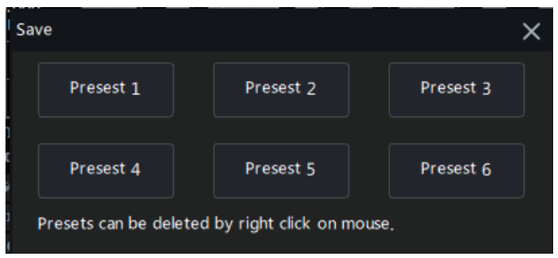
← Auxiliary Low-Level Audio Input

← Bluetooth Wireless Audio Input

⑤ Local Preset Sound Effect Load & Save Area

Up to 6 groups of preset parameters can be loaded or stored.





⑥ Connection Status

Displays the current connection status of the amplifier unit



When the indicator light is red: No device connected.

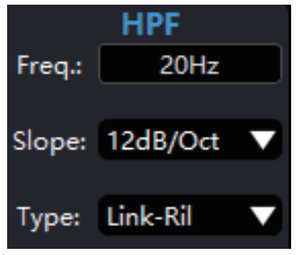


When the indicator light is green: Device connection established successfully.

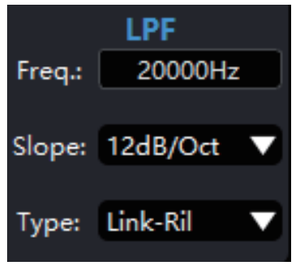


① **Crossover Filter**

View current configuration parameters of crossover filters



High-Pass Filter



Low-Pass Filter

Freq: Crossover Cutoff Frequency

Adjustment range: 20Hz – 20kHz

Slope: Filter Attenuation Slope

Available slopes for each filter type:

Butterworth: -6/-12/-18/-24/-30/-36/-42/-48dB/Oct

Bessel: -6/-12/-18/-24/-30/-36/-42/-48dB/Oct

Linkwitz-Riley: -12/-24/-36/-48dB/Oct

Type: Filter Algorithm Type

Three selectable filter algorithms: Butterworth, Bessel, Linkwitz-Riley

② **Equalization Curve View**

Displays equalization adjustment curves of all output channels

③ **Single Channel EQ Curve Preview**

Call up and view the equalization curve of the designated channel in the chart

④ **Reset EQ Parameters**

Click the reset button to restore factory default EQ values for the current channel

⑤ **EQ Bypass Switch**

Click the Bypass button to temporarily disable all equalization effects of the active channel

⑥ **Banded EQ Parameter Table**

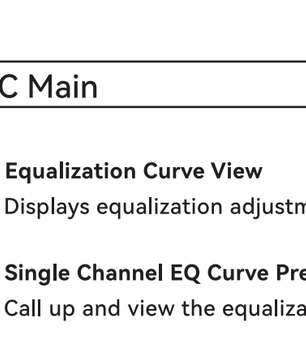
Adjust independent equalization gain parameters for each separate frequency band

⑦ **DSP Volume – External Source Volume Control**

Regulate input volume of external audio sources including Bluetooth & high-level signal; adjustable range: 0–66 dB

⑧ **Channel Setting Panel**

For managing EQ parameters and selecting output channels to be adjusted



a: Speaker Type Selection

Assign the matched speaker type and input signal channel for this output channel

b: Channel Mute Toggle

Independently enable or disable each individual output channel

c: Phase Polarity Switch

Adjust phase state of the corresponding output channel

0° Normal Polarity 180° Reverse Polarity (180° Phase Flip)

d: Channel Parameter Link Group



Synchronize and copy the full set of tuning parameters from linked channels
When link grouping is activated, EQ settings of bound channels will be copied directly to the current channel

NoGroup No link synchronization

GroupA Link synchronization under corresponding group

e: Trim Gain Slider

Fine adjustment control for output gain level

f: solo

Single-channel isolated audition mode

PC Mixer Setting



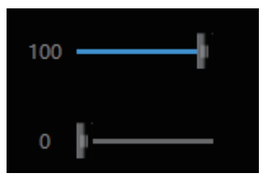
① High-Level Input Signal

② External Auxiliary Input Signal

③ Bluetooth Audio Input Signal

④ Mixing Channel Assignment

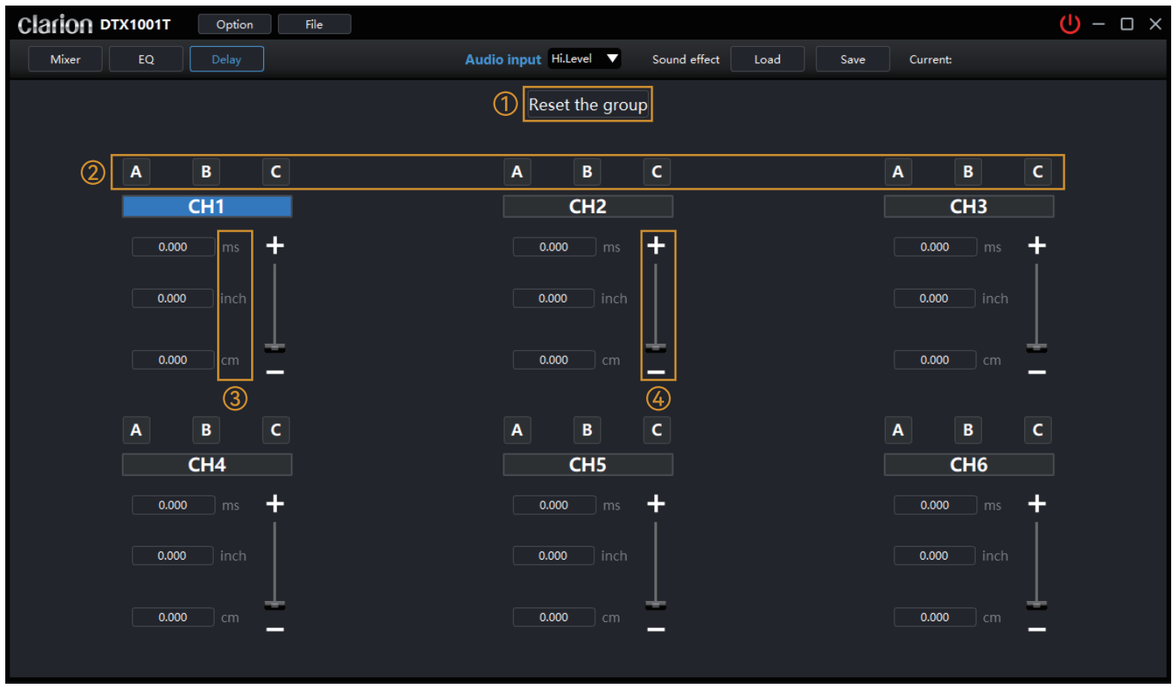
Assign corresponding input audio sources to each output channel



Mix Level Adjustment

Adjust the volume proportion of the selected input source routed to the output channel;
Adjustable range: 0 ~ 100

PC Time Alignment

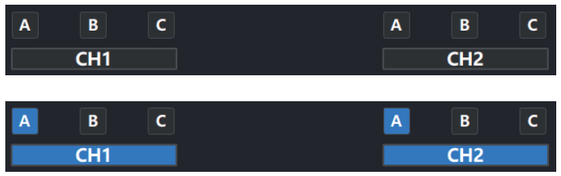


① Reset Time Alignment Settings

One-click reset for all previously configured delay parameter values

② Delay Group Linkage

Synchronize and duplicate delay parameters with other output channels;
When linkage is activated, delay values within the same group will be copied synchronously;
Available groups: Group A / Group B / Group C



No parameter synchronization between channels

Channels bound to Group A share identical delay values

③ Delay Unit Selector

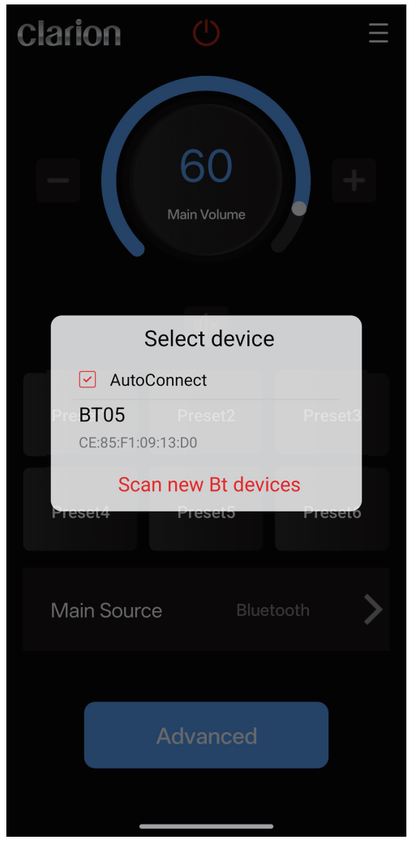
Select the measurement unit for delay values

Available units: cm (centimeter), inch, msec (millisecond)

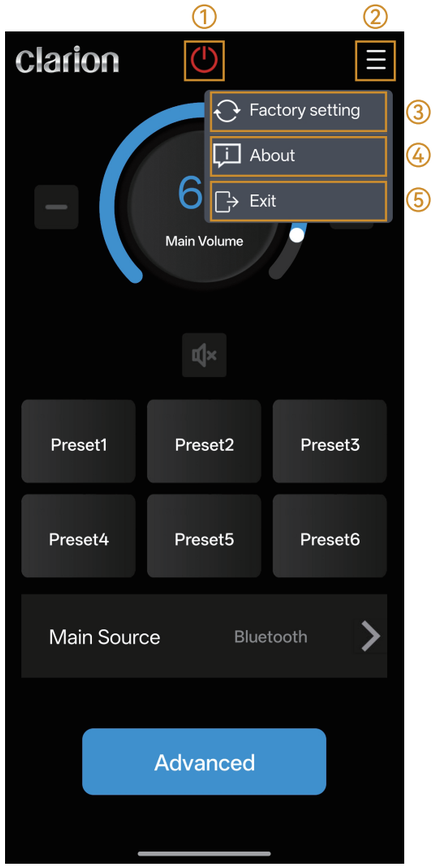
④ Delay Value Adjustment

Slider control for acoustic time alignment compensation

Adjustment range: 0 ~ 685.88 cm / 0 ~ 270 inch / 0 ~ 20 msec



Connect DSP Amplifier Device on the Initial Interface



Menu & System Settings

First-Time Device Connection

1. Device Preparation

Ensure the DSP unit is powered on and operating normally.

2. Bluetooth Pairing

Enable Bluetooth on your mobile phone, search and pair the Bluetooth device named BT05 (or the amplifier model number). Launch the DTX1001T APP once pairing completes.

3. APP Connection

After opening the APP, a pop-up window "Select a device to connect" will appear automatically. Check the "Auto Connect" option, then select the corresponding device (e.g. BT05 with MAC address CE:85:F1:09:13:D0). Wait for the prompt "Reading device profile" to finish, indicating successful connection.

① Device Connection Status

Click to view current device connection status

Red indicator light: No device connected

Green indicator light: Device connection established successfully

② Menu Button

Click to open the system settings panel

③ Restore Factory Settings

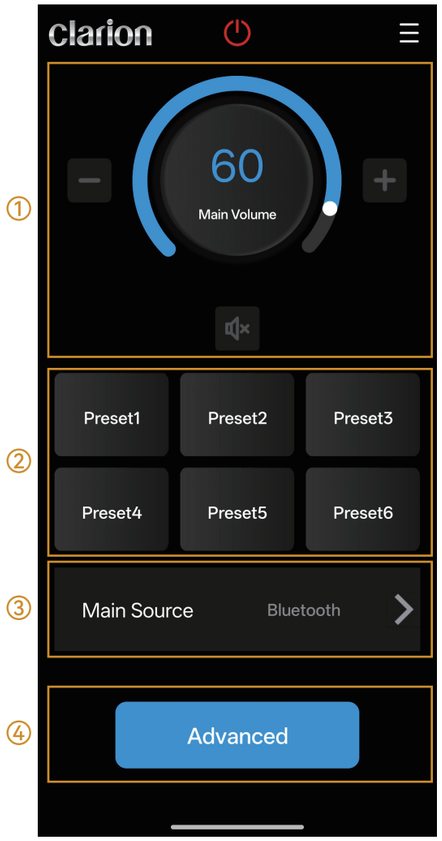
Reset all audio tuning parameters to factory default values

④ About

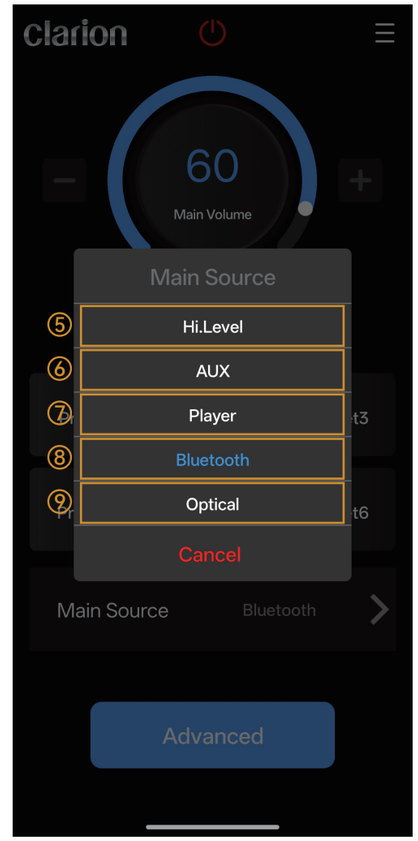
View information including device model and firmware version

⑤ Exit

Close the APP and disconnect the amplifier device



APP Main Interface



Audio Input Source Menu Interface

① Master Volume Control

The master volume knob is located at the center of the interface.
Current value displays 60, with an adjustable range of 0–100.
Tap the +/- buttons or drag the slider to adjust the overall system volume.

② Preset Mode

The interface provides 6 preset buttons (Preset 1–Preset 6) for storing distinct audio tuning profiles. Tap any button to instantly switch sound effect modes.

③ Audio Input Source

Tap to enter the audio source selection menu interface (Bluetooth audio input is selected in the current state).

④ Advanced Settings

Tap to access the professional tuning interface, which includes four functional modules: Mixer, Crossover Filter, Time Alignment Correction, and Channel Management.

⑤ High-Level

Factory head unit speaker signal input

⑥ Low-Level

External auxiliary audio source input

⑦ Player

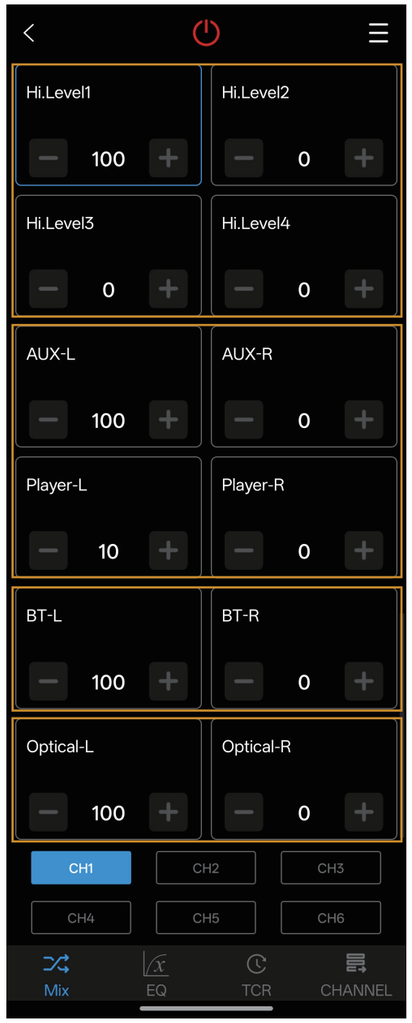
External media player signal input

⑧ Bluetooth

Mobile phone wireless Bluetooth audio input

⑨ Optical

Digital fiber optic audio signal input



Mixer Settings

① **High-Level Input Signal**

② **External Auxiliary Input Signal**

③ **Bluetooth Input Signal**

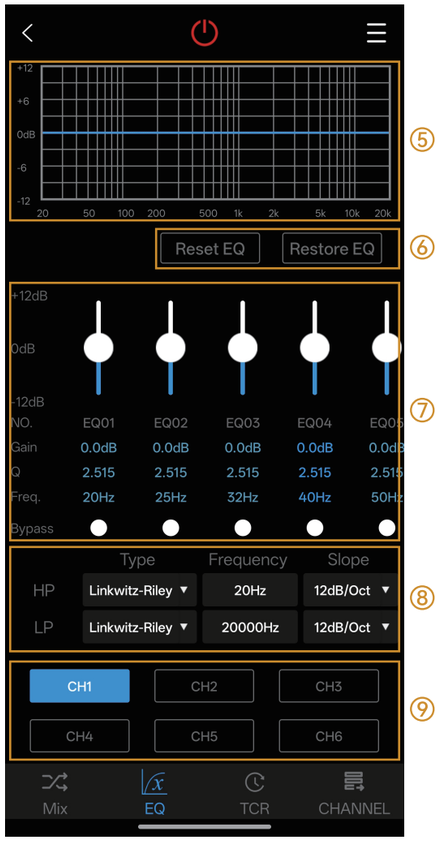
④ **Optical Input Signal**



Mix Level Adjustment
Adjust the volume proportion of the corresponding input source routed to the output channel; adjustable range: 0–100.

⑤ **Equalization Curve View**
Displays EQ adjustment curves for all output channels

⑥ **Reset EQ Parameters**
Click the reset button to restore factory default EQ values for the selected channel



Crossover Filter

⑦ **Banded EQ Parameter Table**
Adjust independent equalization gain for each separate frequency band

⑧ **Current Crossover Filter Parameter Configuration**
Filter Type Selection
Three filter algorithms available:
Butterworth, Bessel, Linkwitz-Riley

Cutoff Frequency Adjustment
Tune the crossover point frequency; adjustable range: 20 Hz ~ 40 kHz

Filter Attenuation Slope Adjustment
Set the attenuation magnitude per octave for the filter, available options as follows:
Butterworth: [-6, -12, -18, -24, -30, -36, -42, -48 dB/Oct]
Bessel: [-6, -12, -18, -24, -30, -36, -42, -48 dB/Oct]
Linkwitz-Riley: [-12, -24, -36, -48 dB/Oct]

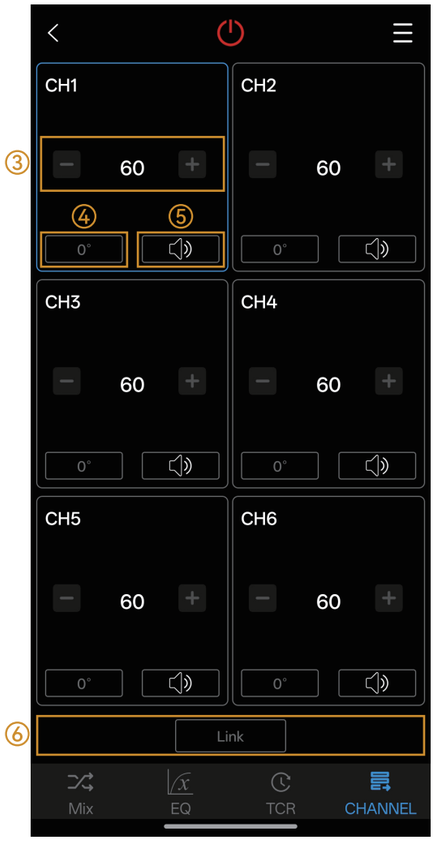
⑨ **Channel Setting Panel**
Configure parameters individually for each output channel; Refer to section ⑧ when setting output crossover slope, crossover frequency and filter type.



Time Alignment Correction

① **Channel Speaker Type Display**
Shows the number of the currently selected output channel and its matched speaker type

② **Delay Unit Selection**
Available measurement units for delay value:cm , inch, msec



Channel Settings

③ **Trim Gain Control Buttons**
Adjustment buttons for fine increasing or decreasing output gain level

④ **Phase / Reverse Phase Toggle**
Set the phase polarity mode for the active output channel

⑤ **Output Channel Mute Switch**
Independently enable or disable each single output channel

⑥ **Parameter Link Synchronization**
Copy all tuning parameters of the current channel to other linked output channels

Function Parameter Table

Input	4-channel high-level input, external Bluetooth audio input
Output	4-channel high-level speaker output, 2-channel RCA low-level output
Output Gain	Gain range: Mute, -60dB ~ +6dB
Output Equalizer (EQ)	31-band graphic EQ 1. Frequency range: 20Hz~20kHz, 1Hz adjustment step 2. Q factor: 0.429~16.052 3. Gain: -20.0dB ~ +20.0dB, 0.1dB adjustment step
Output Crossover Filter	Independent multi-order filter per channel 1. Filter types: Link-Riley, Butterworth, Bessel 2. Crossover point: 20Hz~20kHz, 1Hz adjustment step 3. Filter slope: Off / 6dB/Oct ~ 48dB/Oct
Output Phase & Time Alignment	Phase: 0° / 180° switchable Delay: 0.0000~20.0000ms, equivalent to 0~692cm (0~272 inches)

Main Features

- Professional processing architecture with 5 ADC + 4 DAC, supporting 24BIT high-resolution audio. Equipped with 64K QFP high-speed interface for more efficient signal processing capacity.
- Multi-channel signal capture delivers greater flexibility for audio tuning, enabling seamless control over high-end sound systems.
- 31-band fine EQ adjustment with abundant frequency points for delicate tuning, accurately matching various vehicle models and listening preferences.
- Built-in DSP technology achieves precise audio signal processing, reducing noise and restoring sound fidelity.
- Compact dimensions of only 145×145×36mm, easy to install and compatible with mounting spaces of most vehicle models.
- Cross-platform mobile APP support, compatible with both Android and iOS systems, allowing convenient sound tuning anytime and anywhere.

Troubleshooting

■ APP Fails to Connect Unit

Check if DSP power supply is normal and power indicator light is illuminated
Confirm mobile Bluetooth is enabled and not occupied by other devices
Power cycle DSP and restart mobile Bluetooth, re-pair and reconnect

■ No Sound After Connection

Confirm master volume is not set to 0 or mute state
Verify selected input source matches your actual wiring (switch Bluetooth mode if using wireless playback)
Check if channel gain is set to mute or value 0

■ Delay / Crossover Settings Have No Effect

Confirm correct output channel (CH1–CH6) is selected before adjusting parameters
Check if filter is set to "Off" bypass mode; disable bypass for adjustments to take effect

■ Tuning Parameters Cannot Be Saved

After adjusting parameters, tap the "Preset Save" button to store current configuration
Confirm single channel parameter edit is completed before saving preset file

After-Sales Service

- The warranty period of this product is 1 year starting from the date of purchase. Within the warranty period, we will provide free repair service if the product malfunctions under normal operating conditions.
  In case of any malfunction, please contact your dealer store or the nearest official service support center of our company.
- For faults occurring after the expiration of the warranty period, please consult your purchasing dealer or the nearest official service support center of our company for relevant solutions.