



PXE-X121-12EV

12-Channel High-Resolution Audio Processor Amplifier



- For iPhone users, please search "Alpine Music" in APP Store to download and install the tuning software; for Android users, please scan the QR code on the right to download and install the software directly.







Alpine Music

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Operation Instructions

Types of Precautions

 Prohibited	Indicates a prohibited action (must not be performed).
 Prohibited	Indicates that disassembly is prohibited.
 Mandatory	Indicates a mandatory operation (must be performed).
	Indicates that it should draw your close attention.

Warning

In case of problems, please stop using the device immediately.

Continued use may result in personal injury or damage to the product. Please return the product to the authorised Alpine dealer or nearby Alpine service center for repair.

The product is only suitable for 12V negative-grounded vehicles.

Use within other types of vehicles may create a fire or electrical hazard.

Please contact a professional for wiring and installation.

This product requires professional expertise to wire and install. Please contact the dealer from whom you bought the product to install it safely.

Please do not disassemble or refit.

Doing so may result in product damage, fire or electrical hazard.

Small items like bolts or screws must be kept out of the reach of children.

If ingested, please seek Immediate medical attention to avoid serious injury.

Please do NOT use functions that may distract you while driving.

Any device function that may influence your attention must be used only when the vehicle is stopped completely. To use these functions, make sure to stop your vehicle in a safe area first. Otherwise, it may result in an accident.

While driving, you must maintain the volume at a level that allows outside noise to remain audible.

It is very dangerous not to hear an emergency vehicle alarm or road warning signal (such as a railway crossing) and may result in an accident. Moreover, excessively loud volume may create permanent hearing damage or hearing loss.

Caution

Product maintenance

Please regularly clean the item with a soft, dry cloth. For tough stains, use only water to dampen the cloth as other solvents may result in dissolution.

Temperature

Before starting the device, please ensure that the temperature inside the vehicle is between +60°C and -20°C.

Repair

In the case of a problem, please do not attempt to repair the product yourself. Please return the product to the authorised Alpine dealer or Alpine service center.

System matching

When PXE-X121-12EV is used with active division mode to assign signals for speakers, please ensure that the crossover frequency is above 1500 Hz to avoid damage to tweeters.

Installation environment

The device cannot be installed at the following locations:

- Under direct sunlight or near a source of heat.
- With high humidity or near a source of water.
- Dusty environments.
- Environments with violent vibration.



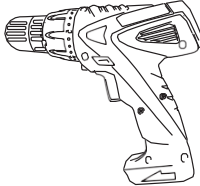

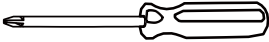
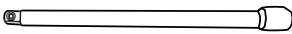
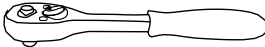
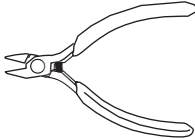



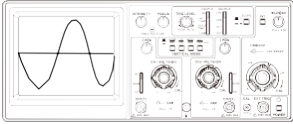
Copyright Notice

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Products bearing the High-Resolution mark meet the standards defined by the Japan Audio Association. Alpine Electronics has obtained authorisation to use the High-Resolution logo from the Japan Audio Association.

* Electronic products should be discarded via an appropriate recycling channel to reduce electronic waste pollution.

Required Tools (Vehicle Installation Specific)

Panel removal tool	Socket	Electric drill	Torx screwdriver
			
Phillips screwdriver	Sleeve wrench	Wrench	Wire cutter
			
Wire crimper	Wire stripper	Spectrum analyzer	Oscilloscope
			

Accessories

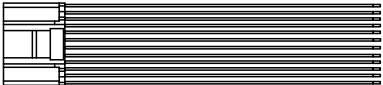
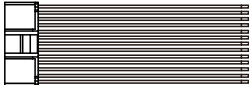
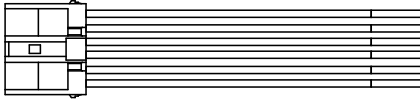

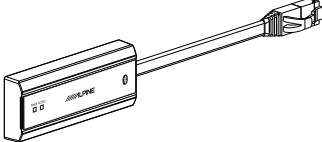


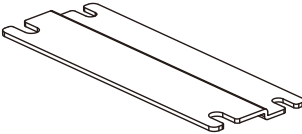

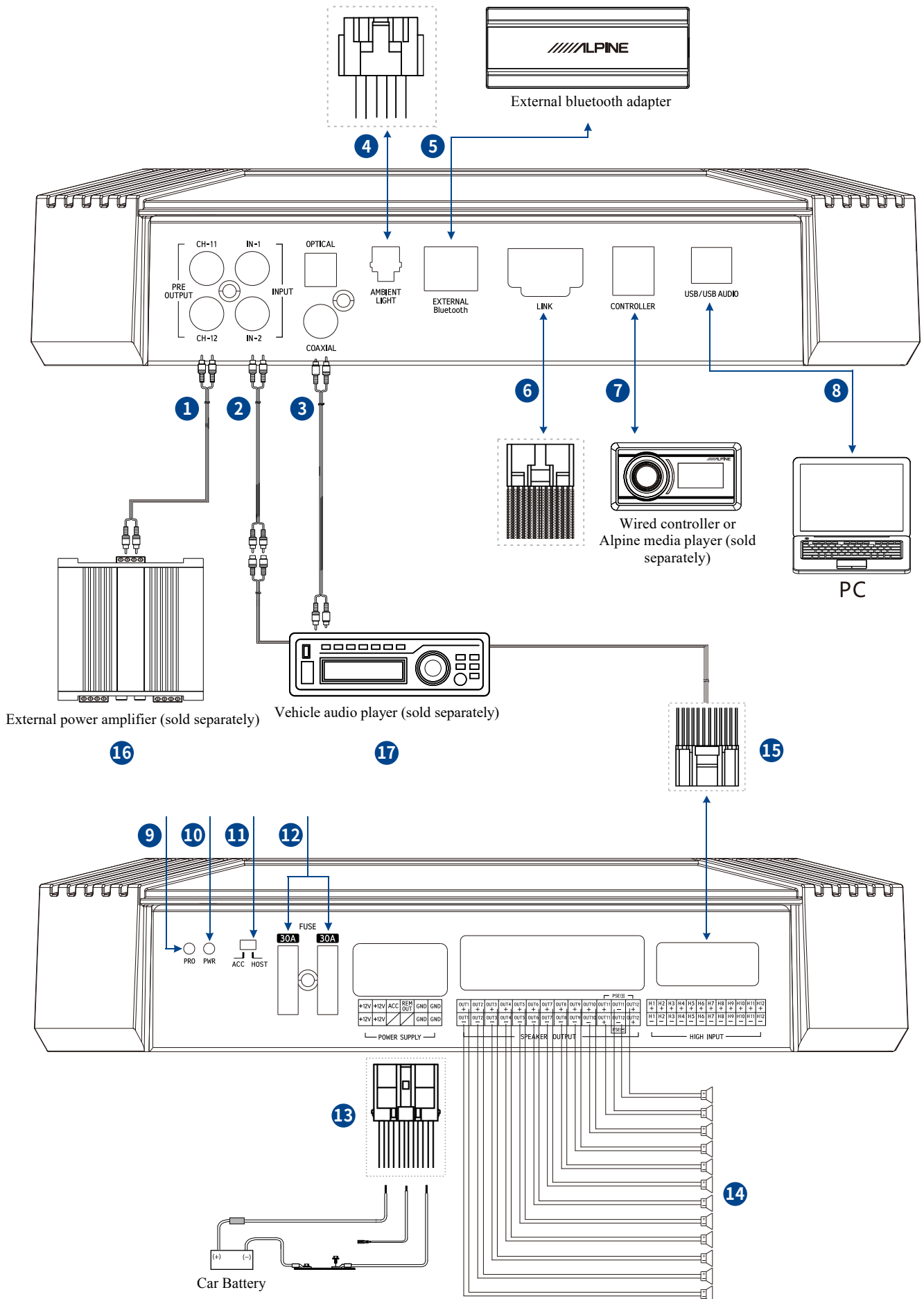
12P Input line (x2)	13P Output line (2x)	6P Power cord (x2)
		
USB 2.0 Cable	Bluetooth adapter	Machine thread screws (x4)
		
Self-tapping screws ×4	Installation bracket (2x)	Host machine
		

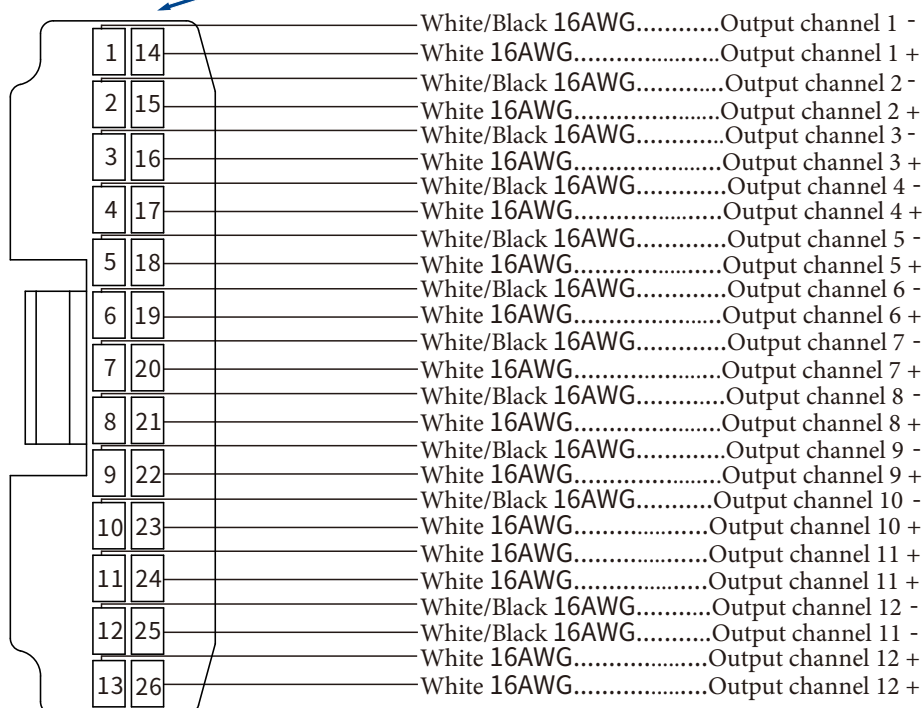
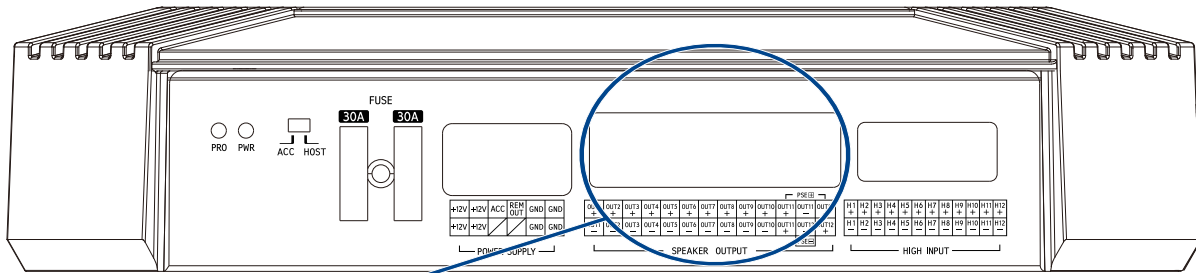
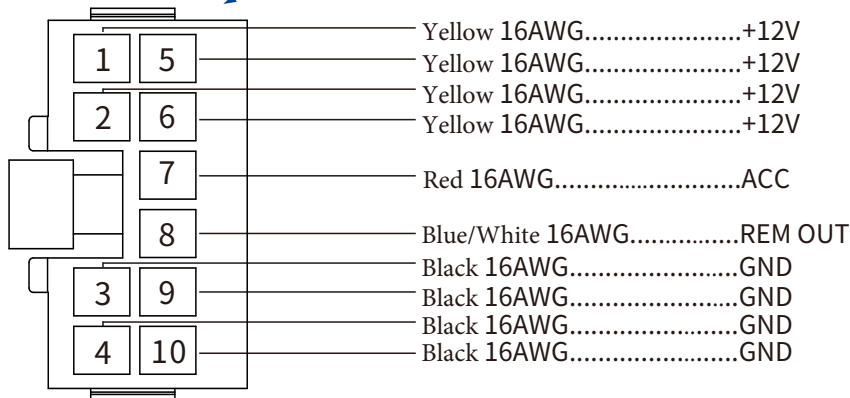
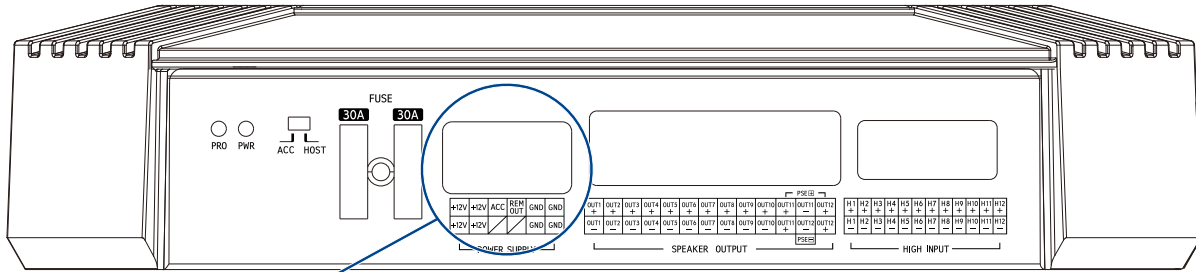
Diagram of Device Interfaces



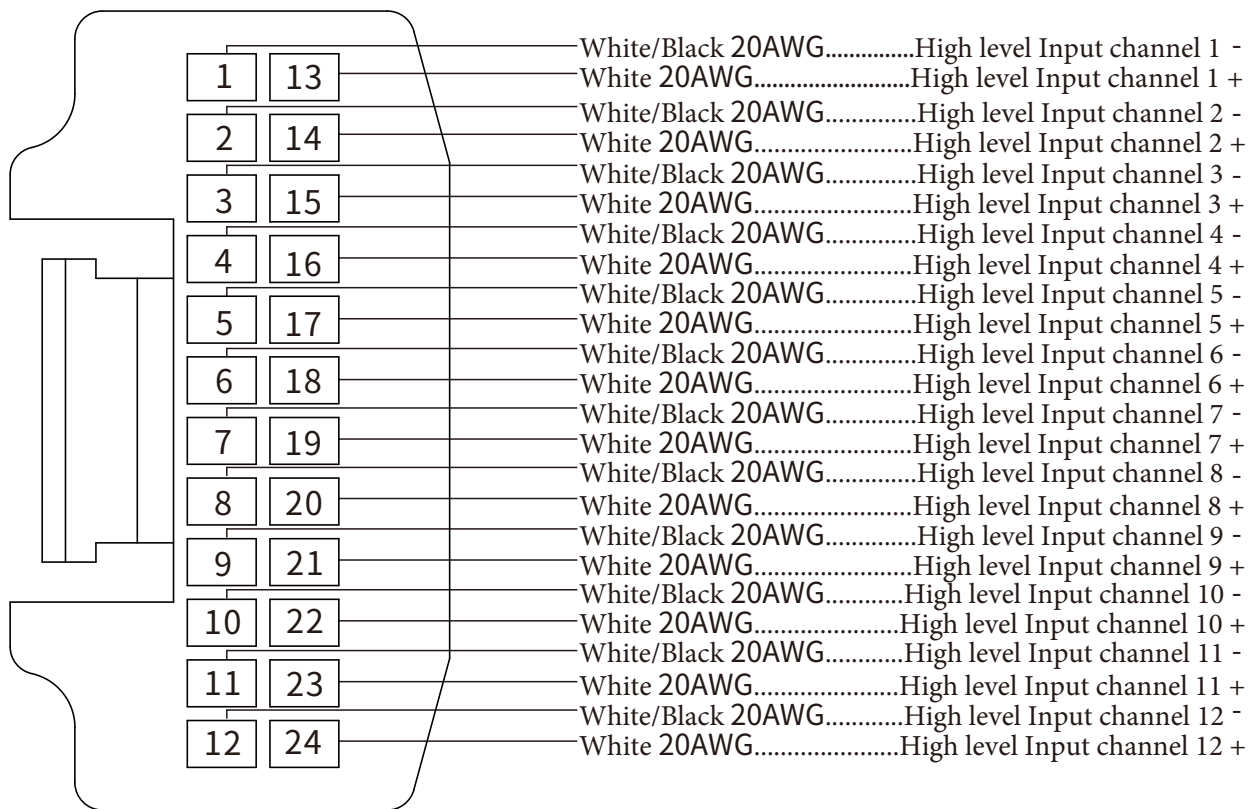
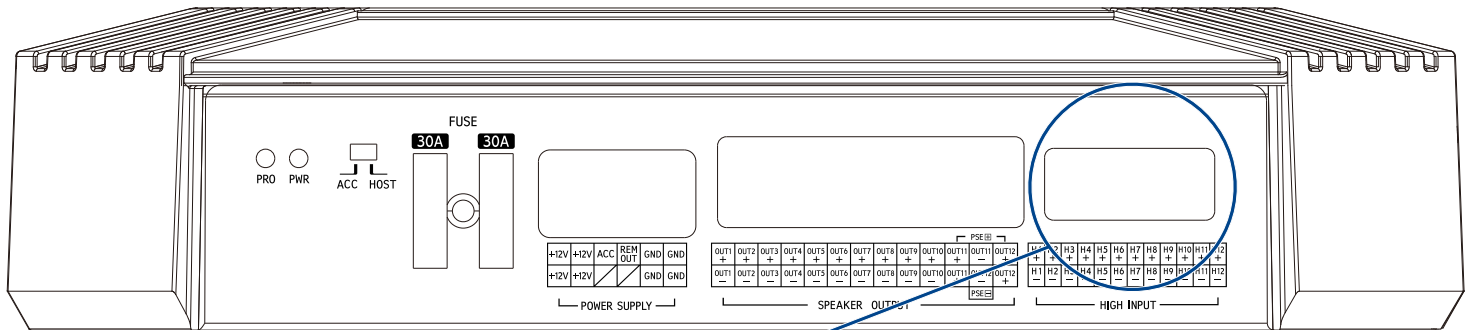
Device Interfaces Functions

1	RCA audio output interface	1 set of RCA audio signal output, can be connected to an external power amplifier.
2	RCA audio input interface	1 set of RCA audio signal input, which can be connected to the RCA audio signal output of a car audio player.
3	Optical fibre/coaxial input interface	Connect the optical cable or coaxial cable of the car audio player, switch the sound source to the digital signal input, and play optical or coaxial digital signals.
4	Ambient light interface	Connect the ambient light interface to control the ambient light options.
5	External Bluetooth input interface	Allows user to install an external Bluetooth adapter to enable HD Bluetooth pairing with PXE-X121-12EV. After the connection is established, Bluetooth is always on.
6	Dual-amp interface	For DSP system expansion, this product supports the linking of two PXE-X121-12EV DSP amplifiers, expanding to a 24-channel system via a linking cable.
7	Wired controller interface	For implementation of a wired controller device.
8	USB/USB audio interface	Connect a computer via USB 2.0 for detailed tuning and operation settings, or use to connect a device for USB Audio playback.
9	Protection indicator light	Protection indicator light.
10	Power indicator light	Power indicator light.
11	Input selection switch	When the switch is turned to "ACC" the amplifier is started by ACC, when the switch is turned to "HOST" the amplifier is started by a high level input signal (H1-/H1+).
12	Fuse socket	Holds two 30A fuses.
13	Power interface	Connect the car battery.
14	High level output	Connect to speakers.
15	High level input	Connect output of your car audio player.
16	External power amplifier	Connect an external power amplifier.
17	Car audio player	Connect your car audio player.

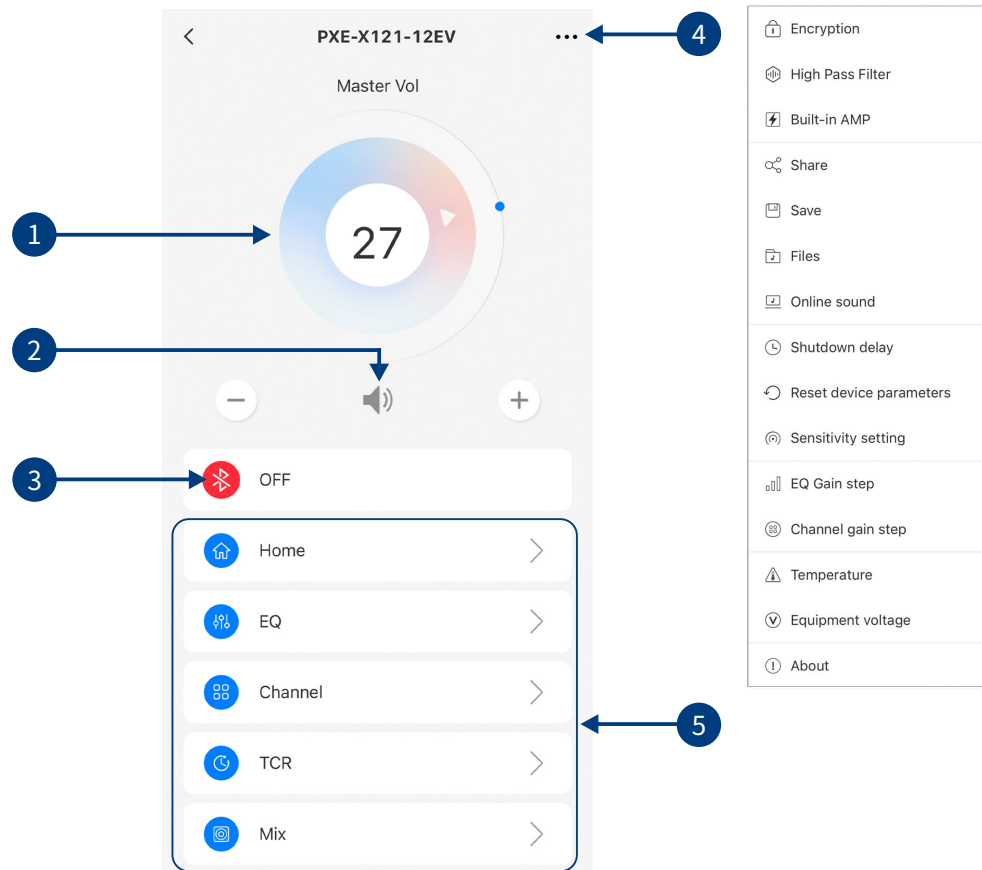
Arrangement of Wire Pins



Arrangement of Wire Pins

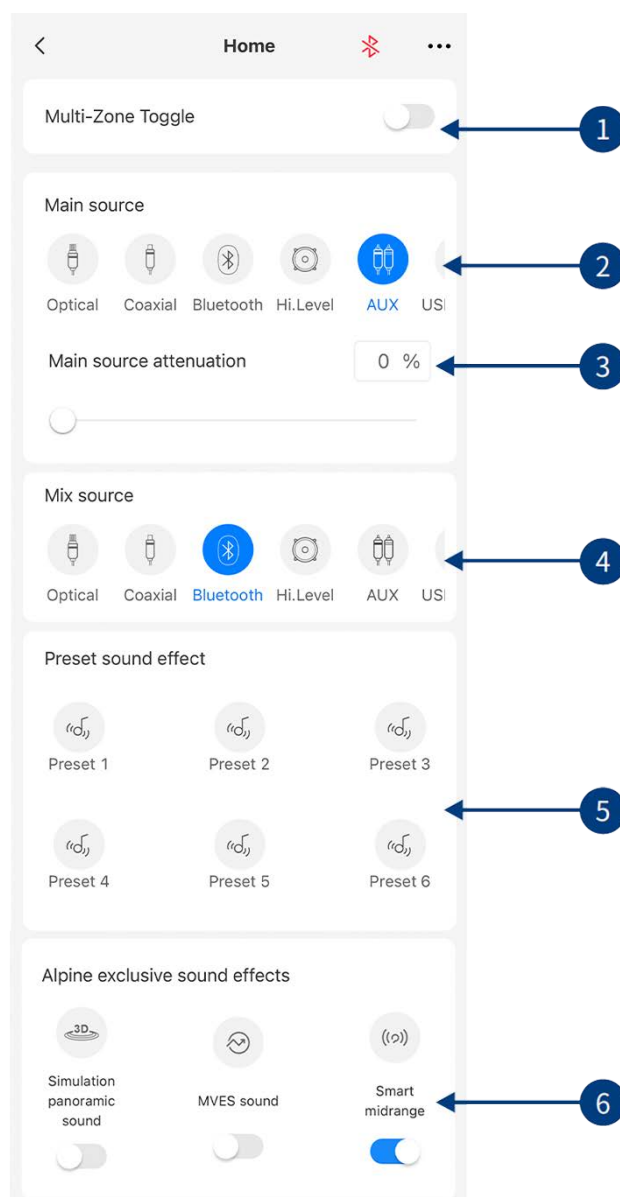


Mobile App Introduction



1	Master volume	Rotate the volume fader to adjust system master volume, you can also press "+" or "-".
2	Mute	Mute master volume.
3	Connection indicator	If the Bluetooth icon is red, this indicates a Bluetooth connection is not established. If the icon is green, your device is connected.
4	Menu bar	Provides access to "Encryption", "High Pass Filter", "Built-in Amp", "Share, Save", "Files", "Online sound", "Shutdown delay", "Reset device parameters", "Sensitivity", "EQ Gain step", "Channel gain step", "Temperature", "Equipment voltage", and "About".
5	Interface selection	Five interface options including "Home", "EQ", "Channel", "TCR", and "Mix".

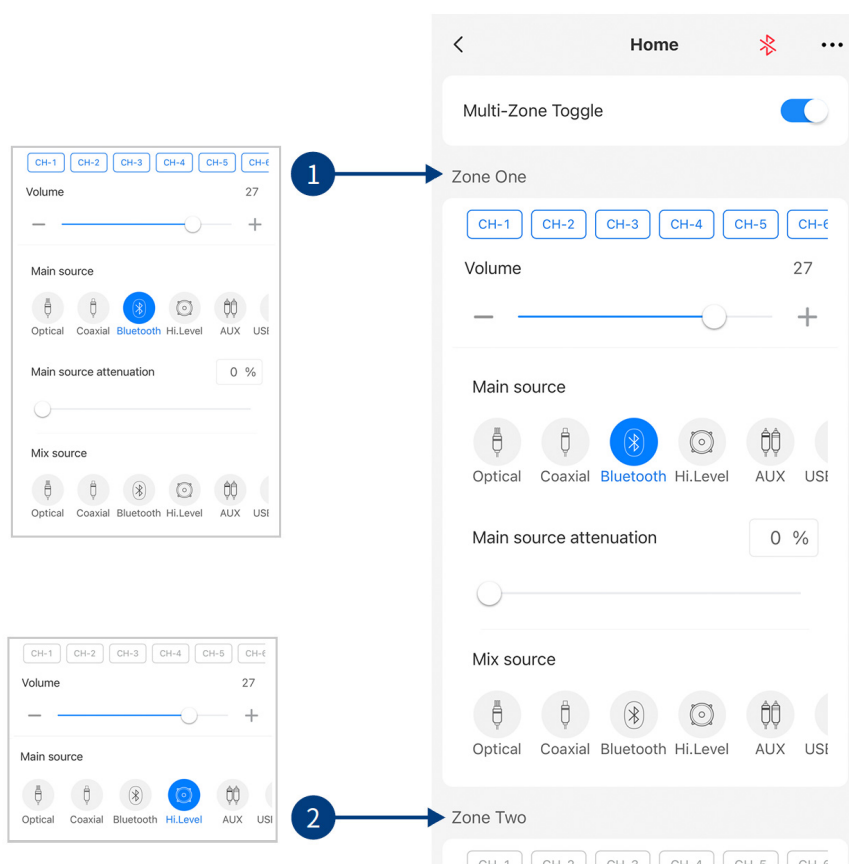
Mobile App Introduction - Home Page



1	Multi-Zone switch	Set Multi-Zone on or off (off by default).
2	Main source	Select main audio source (Optical, Coaxial, Bluetooth, High Level, AUX, or USB).
3	Main source attenuation	Adjust main source attenuation, the higher the attenuation the lower the main volume. Attenuation range is 0-100%.
4	Mix source	Select mix audio source (Optical, Coaxial, Bluetooth, High Level, AUX, or USB).
5	Preset sound effects	Store and recall six preset sound effects.
6	Alpine exclusive effects	Choose from different Alpine exclusive sound effect presets ("Simulated panoramic sound", "MVES sound", and "Smart midrange").

Note: Bluetooth audio sources and USB audio sources are mutually exclusive, and digital signals (Optical and Coaxial) are mutually exclusive and cannot be superimposed.

Mobile App Introduction - Home Page (Multi-Zone)



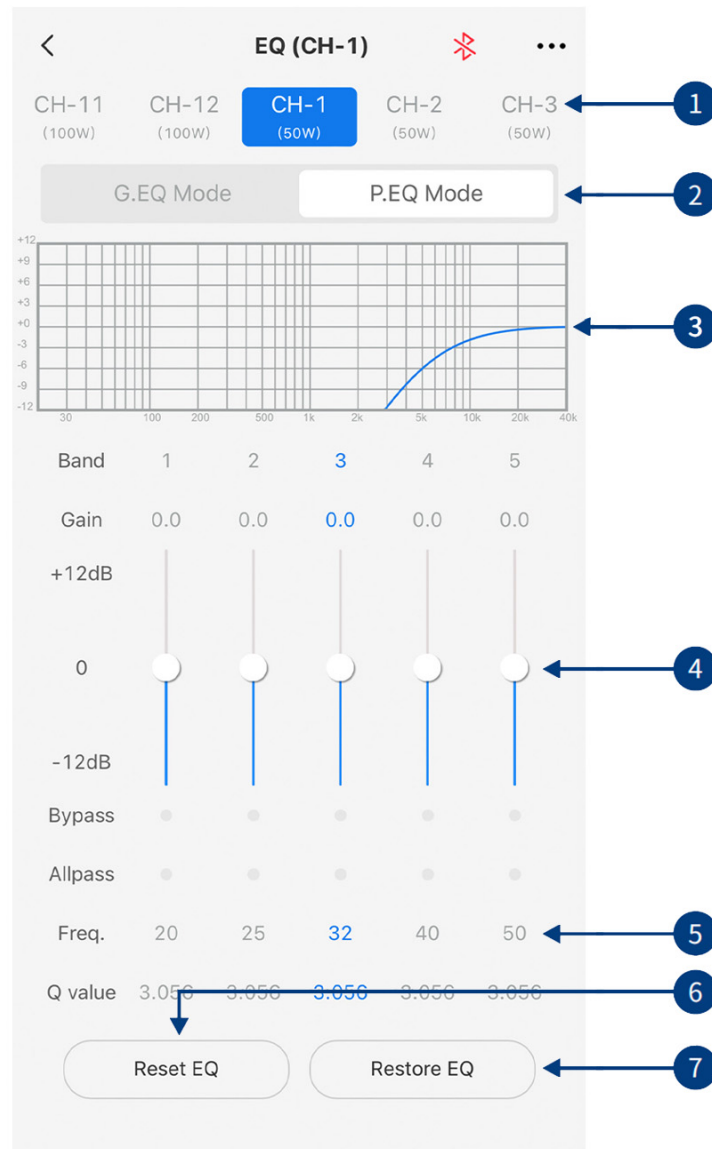
Click the "Multi-Zone Toggle" on the "Home" page interface to open the sound zone setting operation. The front and rear sound sources of Zone One and Zone Two can be matched. For instance, set zone one sound field from CH1-CH6 and select "Hi.Level" as the main source. In zone two, set the rear sound field from CH7-CH12 and select "Optical" as the main source. This means that CH1-CH6 will play high level audio and CH7-CH12 will play through optical input.

1	Sound zone one	Select channels to be adjusted as "Zone One", also choose main source, mix source, volume and attenuation for "Zone One".
2	Sound zone two	Select channels to be adjusted as "Zone Two", also choose main source and volume for "Zone Two".

Note:

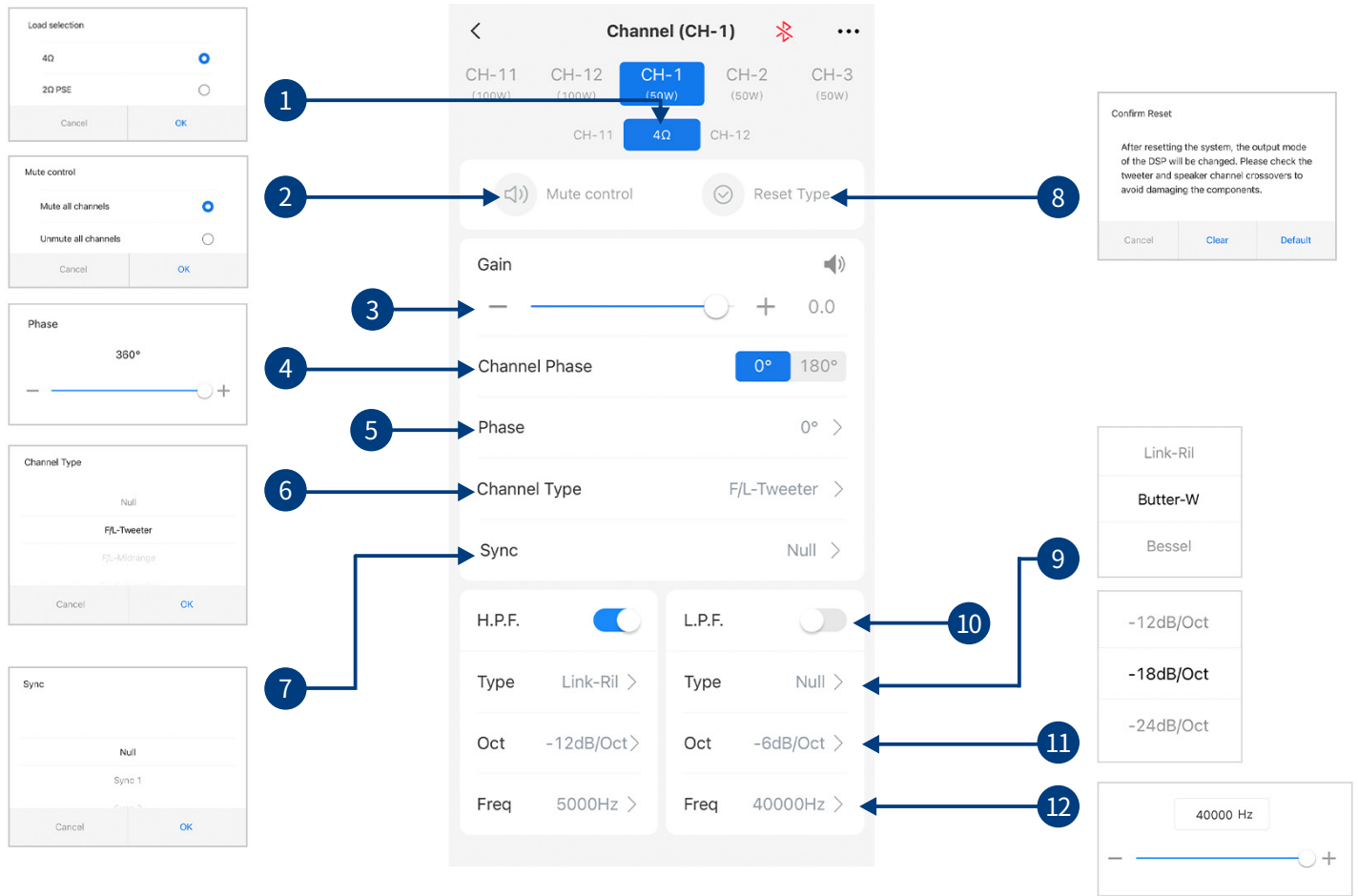
1. In "Zone One" the main source and mix source are mutually exclusive if they are the same. The mix source cannot be superimposed with the current input main source volume, otherwise the mix source sound source will be invalid (Optical and Coaxial are mutually exclusive for Digital, Bluetooth, and USB sound sources).
2. "Zone One" and "Zone Two" channels are mutually exclusive, meaning if "Zone One" channels are set CH1-CH6 the "Zone Two" CH1-CH6 are invalid.

Mobile App Introduction - EQ



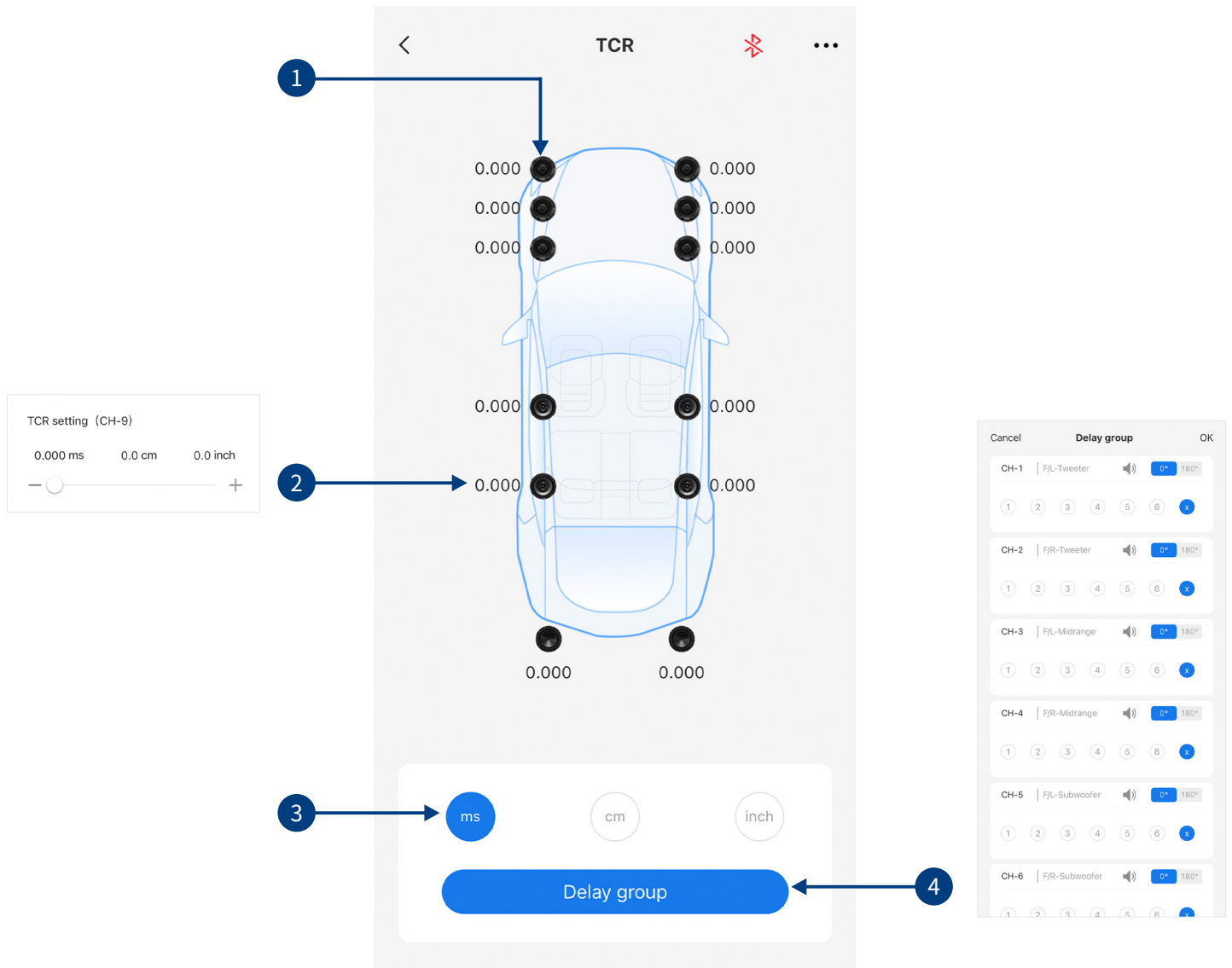
1	Output channel	Select output channel.
2	Parametric EQ, Graphic EQ	Switch between Parametric and Graphic EQ (Switching modes will cause all settings to reset).
3	EQ curve	Displays the current EQ curve status, set frequency, Q value and gain.
4	gain	Push the slider up and down to adjust gain of individual bands (-12dB ~ +12dB).
5	Allpass, Frequency, Q Value, Gain	Frequency, Q Value, and Gain adjustment of the output channel. In the "Allpass" mode, the frequency and Q Value are adjustable. (In "Graphic EQ" mode, Frequency and Q Value are fixed).
6	Reset EQ	Reset EQ settings to default.
7	Restore EQ	Restore previous EQ settings.

Mobile App Introduction - Channel



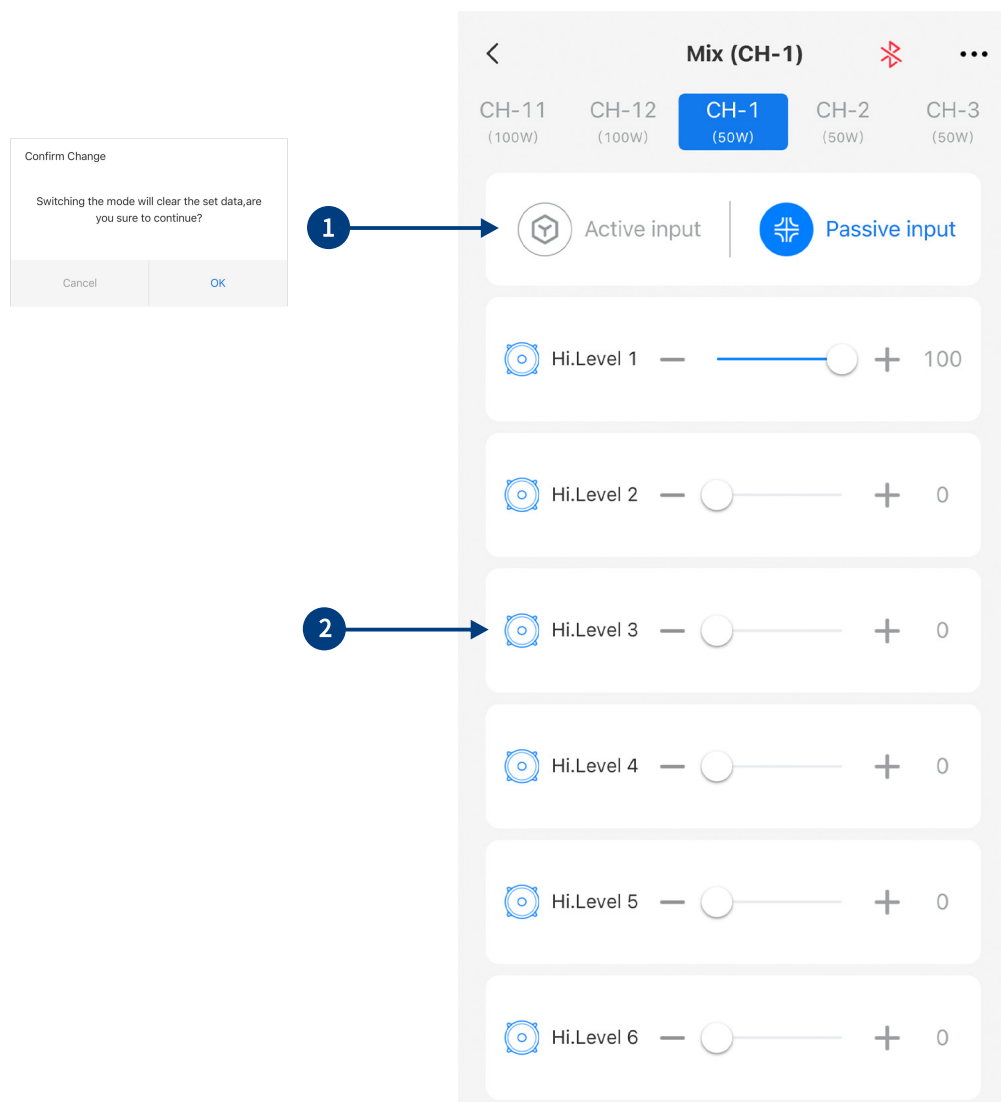
1	Parallel connection	40hm: Supports CH1-CH12 to connect to 40hm impedance speakers. 20hm: Supports CH11-CH12 to connect to 20hm impedance speakers.
2	Silent control	Mute or unmute all channels.
3	Channel colume	Slide fader to adjust channel volume (-60dB ~ +6dB), click the speaker button to mute.
4	Channel phase	Select channel phase.
5	Bass phase	Adjust channel bass phase (0-360°).
6	Channel type	Select output channel type from drop-down menu.
7	Sync	Choose sync setting (from 1-6).
8	Reset type	Reset current channel type to factory state.
9	Filter type	Select filter type (Link-Ril, Butter-W, or Bessel).
10	Crossover	Turn high/low pass filter on or off.
11	Divider slope	Select the crossover slope (-6dB/Oct, -12dB/Oct, -18dB/Oct, -24dB/Oct, -30dB/Oct, -36dB/Oct, -42dB/Oct, or -48dB/Oct).
12	Divider frequency	Select crossover frequency (20Hz~40kHz).

Mobile App Introduction - TCR



1	Speaker	Select speaker to adjust, click the speaker icon to mute/unmute.
2	Delay setting	Select the corresponding speaker, push the fader to the left or right in the pop-up window to adjust the delay, or click "+" and "-".
3	Delay units	Chose delay units from milliseconds, centimeters, and inches. Adjustment range is 0.000~20,000 milliseconds, 0~692cm, or 0~273 inches.
4	Delay group	Each channel has six delay groups to chose from, channel mute and phase adjustment can also be set.

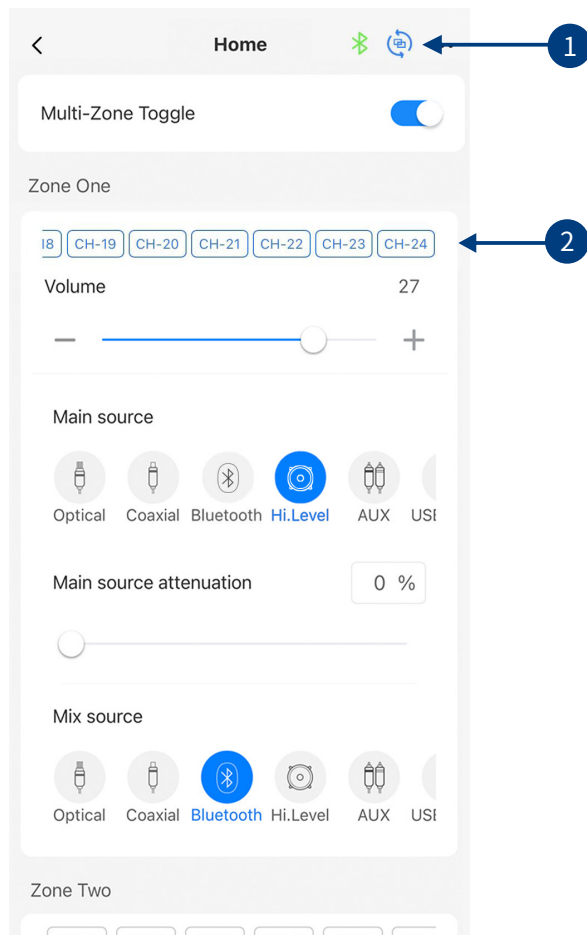
Mobile App Introduction - Mix



1	Active/ Passive input	Select "Passive" or "Active" input. (Default is "Passive"). However, if changed your mixer settings will be lost for that channel.
2	Input channel	Push the fader left/ right or "+"/"-" to adjust the audio volume of each individual channel.

Note: It is strongly recommended that the volume level across all channels equals 100 to prevent clipping.

Mobile App Introduction - Home Page (Multi-Zone) (Dual Amp)

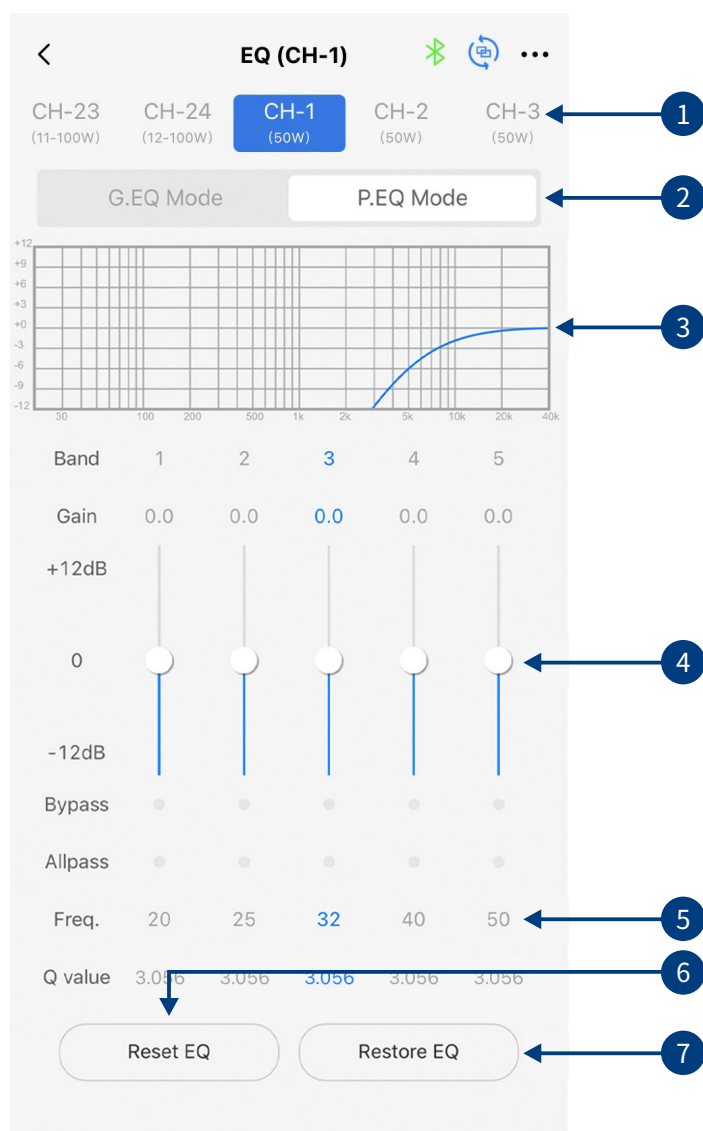


1	Cascade	Use the provided linking cable to connect the two PXE-X121-12EV devices. The DSP at the front end of the connection acts as the host, the software will automatically identify this and display the blue "cascade" icon.
2	Output channel	Swipe left and right to select output channels that you would like to adjust. "Zone 1" and "Zone 2" should now each display CH1-CH24.

Note:

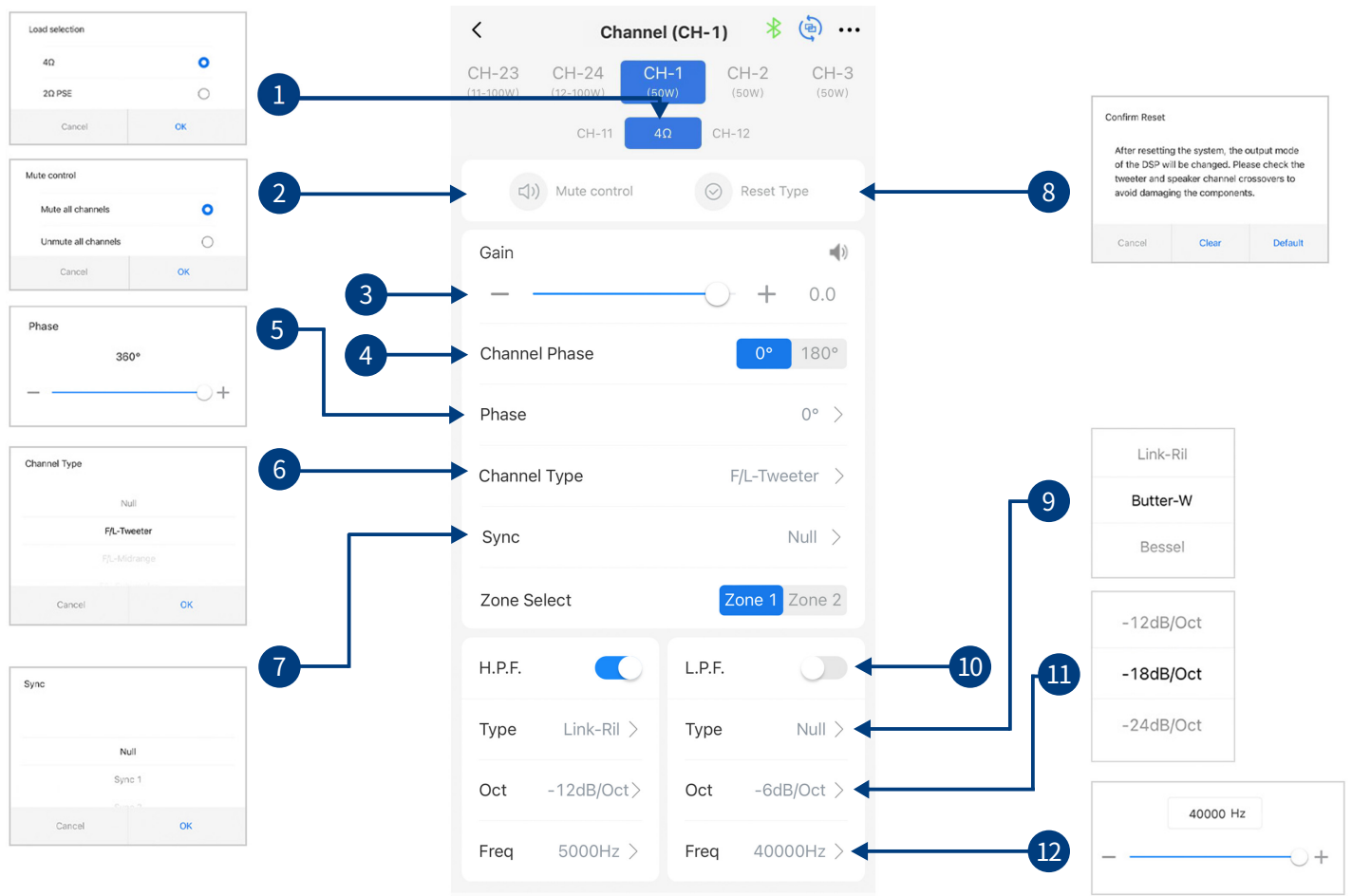
1. After linking, the two machines share Optical, Coaxial, Bluetooth, High-Level, AUX and USB audio sources. Settings applied will be synchronised, so there is no need to add an external audio source as the high level should be expanded to 24 channels.
2. If the two devices become disconnected, the software will automatically restore default settings.

Mobile App Introduction - EQ (Dual Amp)



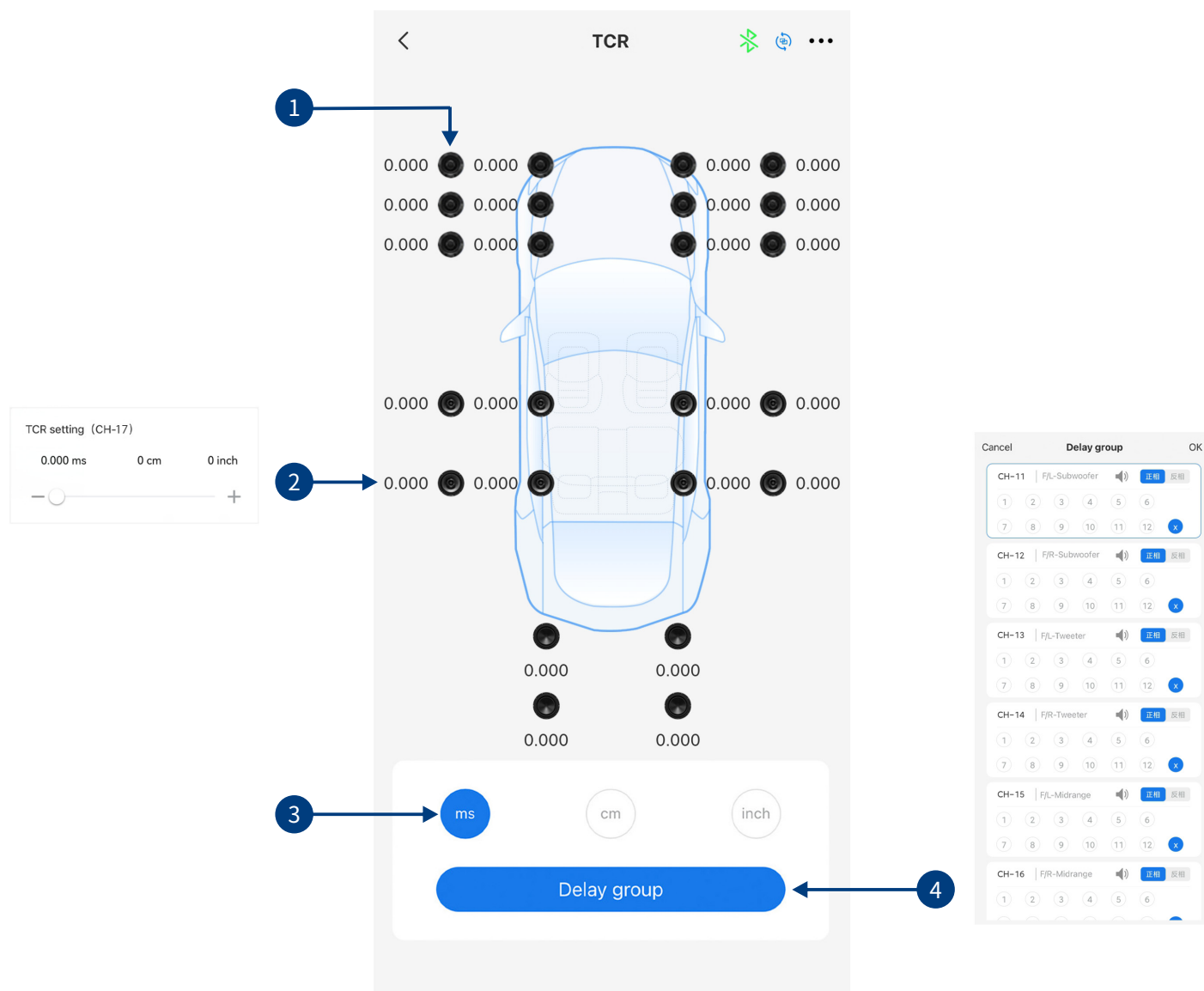
1	Output channel	Select output channel.
2	Parametric EQ, Graphic EQ	Switch between Parametric and Graphic EQ (Switching modes will cause all settings to reset).
3	EQ curve	Displays the current EQ curve status, set frequency, Q value and gain.
4	Gain	Push the slider up and down to adjust gain of individual bands (-12dB ~ +12dB).
5	Allpass, Frequency, Q Value, Gain	Frequency, Q Value, and Gain adjustment of the output channel. In the "Allpass" mode, the frequency and Q Value are adjustable. (In "Graphic EQ" mode, Frequency and Q Value are fixed).
6	Reset EQ	Reset EQ settings to default.
7	Restore EQ	Restore previous EQ settings.

Mobile App Introduction - Channel (Dual Amp)



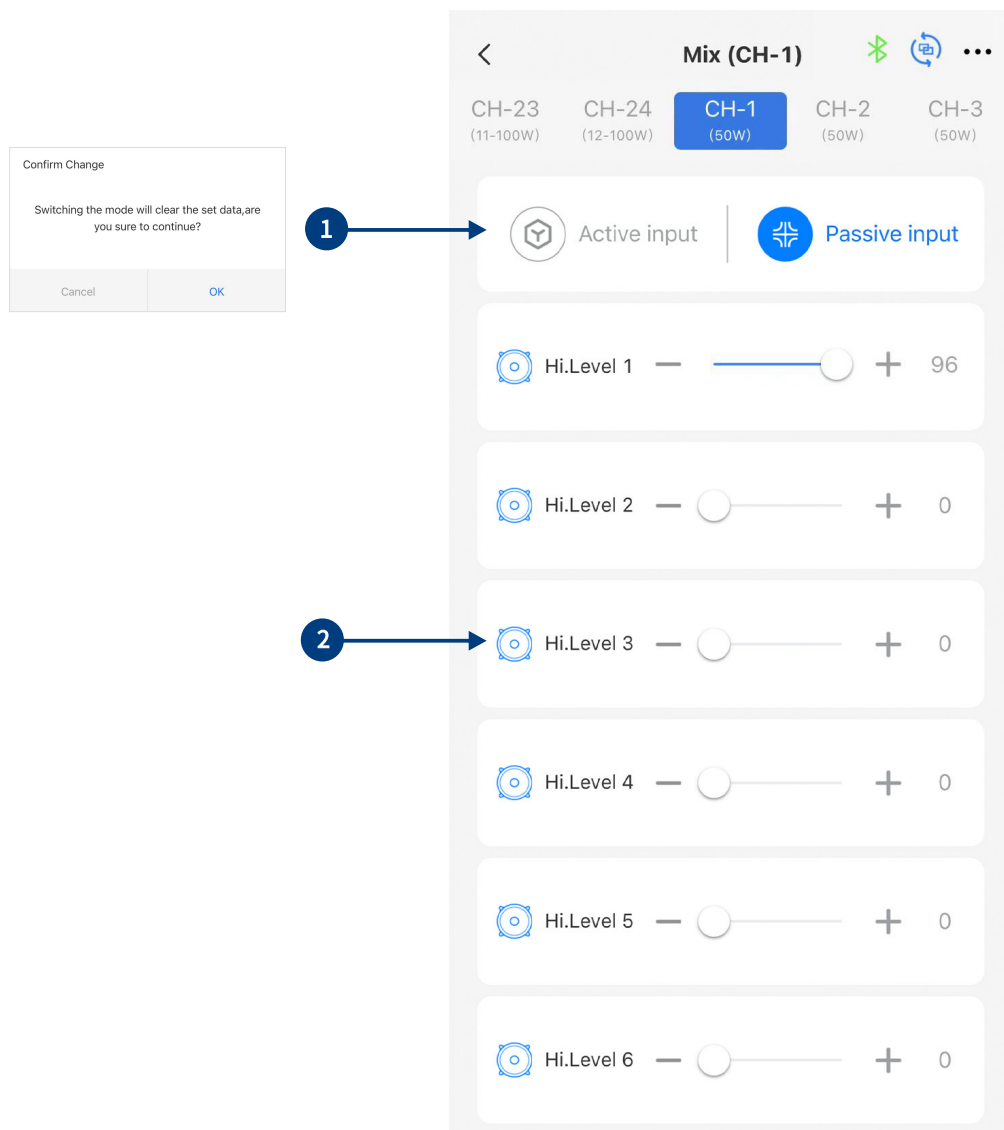
1	Parallel connection	4Ω: Supports CH1-CH24 to connect to 4Ω impedance speakers. 2Ω: Supports CH11-CH12/CH23-CH24 to connect to 2Ω impedance speakers.
2	Silent control	Mute or unmute all channels.
3	Channel volume	Slide fader to adjust channel volume (-60dB ~ +6dB), click the speaker button to mute.
4	Channel phase	Select channel phase.
5	Bass phase	Adjust channel bass phase (0-360°).
6	Channel type	Select output channel type from drop-down menu.
7	Sync	Choose sync setting (from 1-6).
8	Reset type	Reset current channel type to factory state.
9	Filter type	Select filter type (Link-Ril, Butter-W, or Bessel).
10	Crossover	Turn high/low pass filter on or off.
11	Divider slope	Select the crossover slope (-6dB/Oct, -12dB/Oct, -18dB/Oct, -24dB/Oct, -30dB/Oct, -36dB/Oct, -42dB/Oct, or -48dB/Oct).
12	Divider frequency	Select crossover frequency (20Hz~40kHz).

Mobile App Introduction - TCR (Dual Amp)



1	Speaker	Select speaker to adjust, click the speaker icon to mute/unmute.
2	Delay setting	Select the corresponding speaker, push the fader to the left or right in the pop-up window to adjust the delay, or click "+" and "-".
3	Delay units	Chose delay units from milliseconds, centimeters, and inches. Adjustment range is 0.000~20,000 milliseconds, 0~692cm, or 0~273 inches.
4	Delay group	Each channel has six delay groups to chose from, channel mute and phase adjustment can also be set.

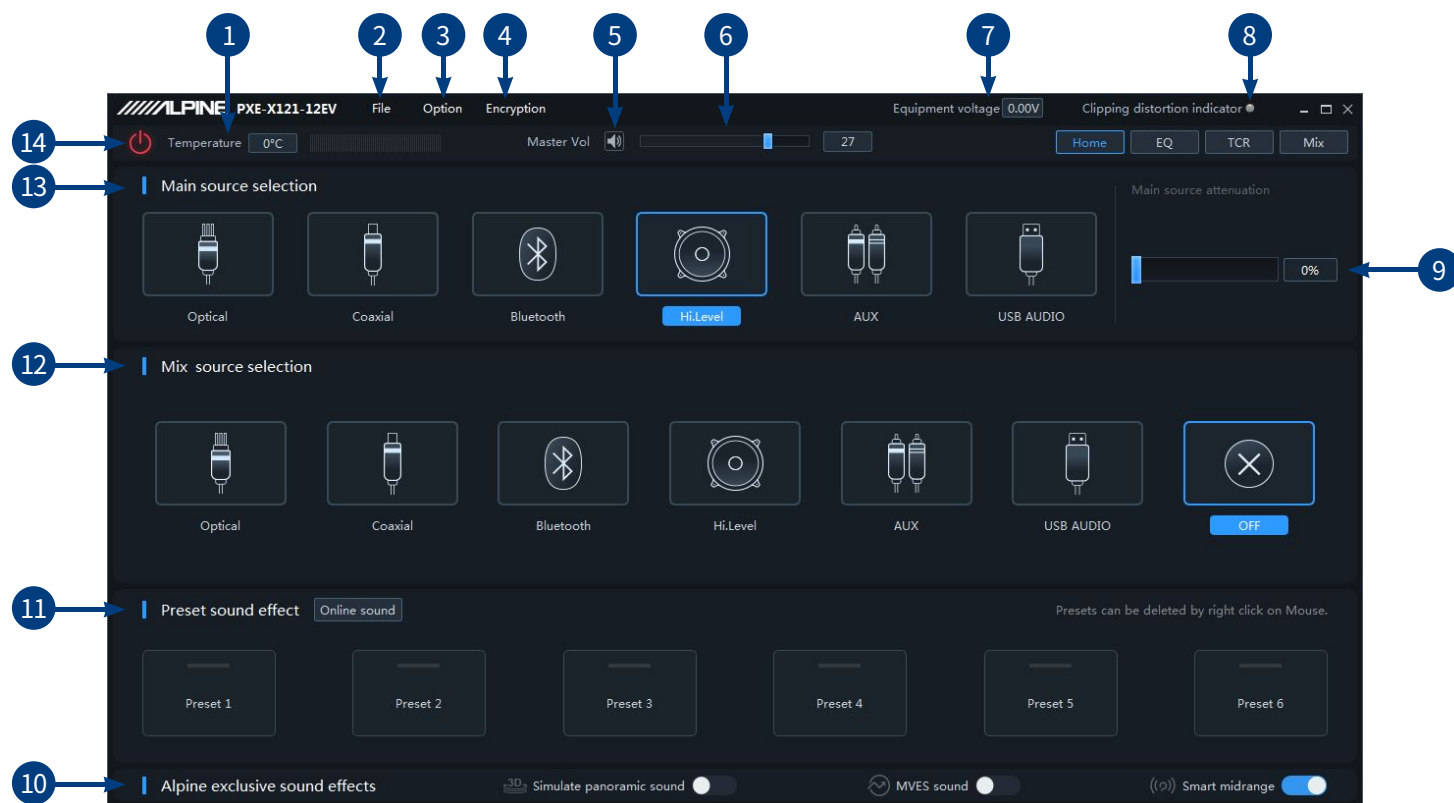
Mobile App Introduction - Mix (Dual Amp)



1	Active/ Passive input	Select "Passive" or "Active" input. (Default is "Passive"). However, if changed your mixer settings will be lost for that channel.
2	Input channel	Push the fader left/ right or "+"/"-" to adjust the audio volume of each individual channel.

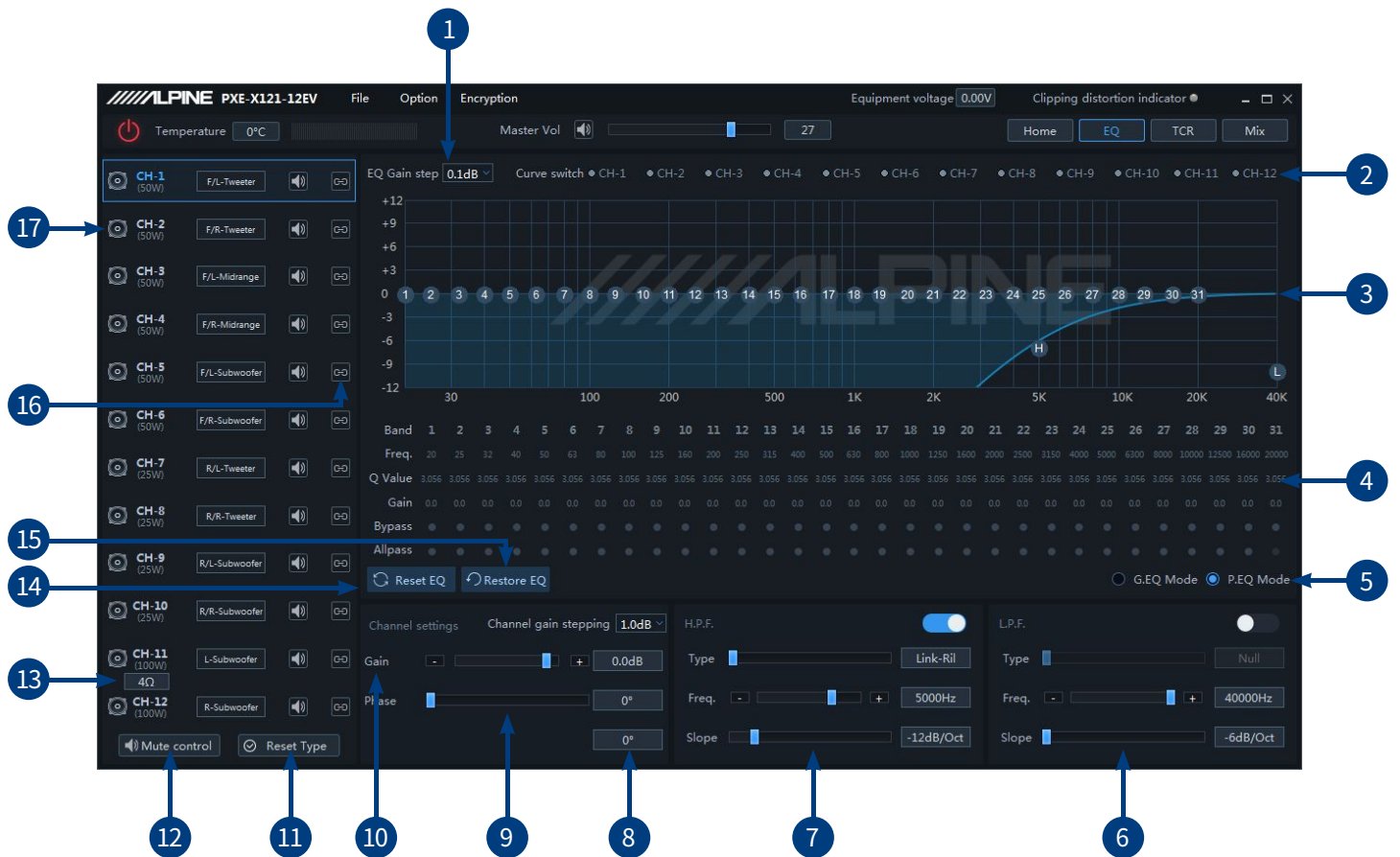
Note: It is strongly recommended that the volume level across all channels equal 100 to prevent clipping.

PC Software Introduction - Home Page



1	Temperature display	Detect the temperature on the device surface.
2	File	Load or save scene files on PC, load or save all scene files.
3	Option	Firmware update, noise gate, restore factory settings, shutdown delay, switch between English and Chinese, check the version number.
4	Encryption	Enter a 6-digit encryption password to encrypt the tuned sound effect data.
5	Mute button	Mute the master volume.
6	Master volume	Push the fader left and right to adjust the master volume in the range of 0-35.
7	Voltage display	Check the system operating voltage.
8	Clipping distortion indicator	When the clipping distortion indicator turns yellow, it is a warning for the user to adjust their sound tuning settings to make a more balanced signal that is distortion free.
9	Main source attenuation	The greater the attenuation of the main sound source, the quieter the main volume. The adjustment range is 0-100%.
10	Alpine exclusive sound effects	Select from Alpine's exclusive sound effects (simulated panoramic sound, MVES sound, smart midrange).
11	Preset sound effects	Supports saving or recalling of multiple sets of effects and online sound effects.
12	Mix source selection	Set the mix audio source (Optical, Coaxial, Bluetooth, High Level, Low Level, USB, off).
13	Main source selection	Select main audio source (Optical, Coaxial, Bluetooth, High Level, Low Level, USB).
14	Connection indicator	Indicates connection to PXE-X121-12EV, connect the computer via USB cable, then open the software to connect, click again to close the connection.

PC Software Introduction - EQ

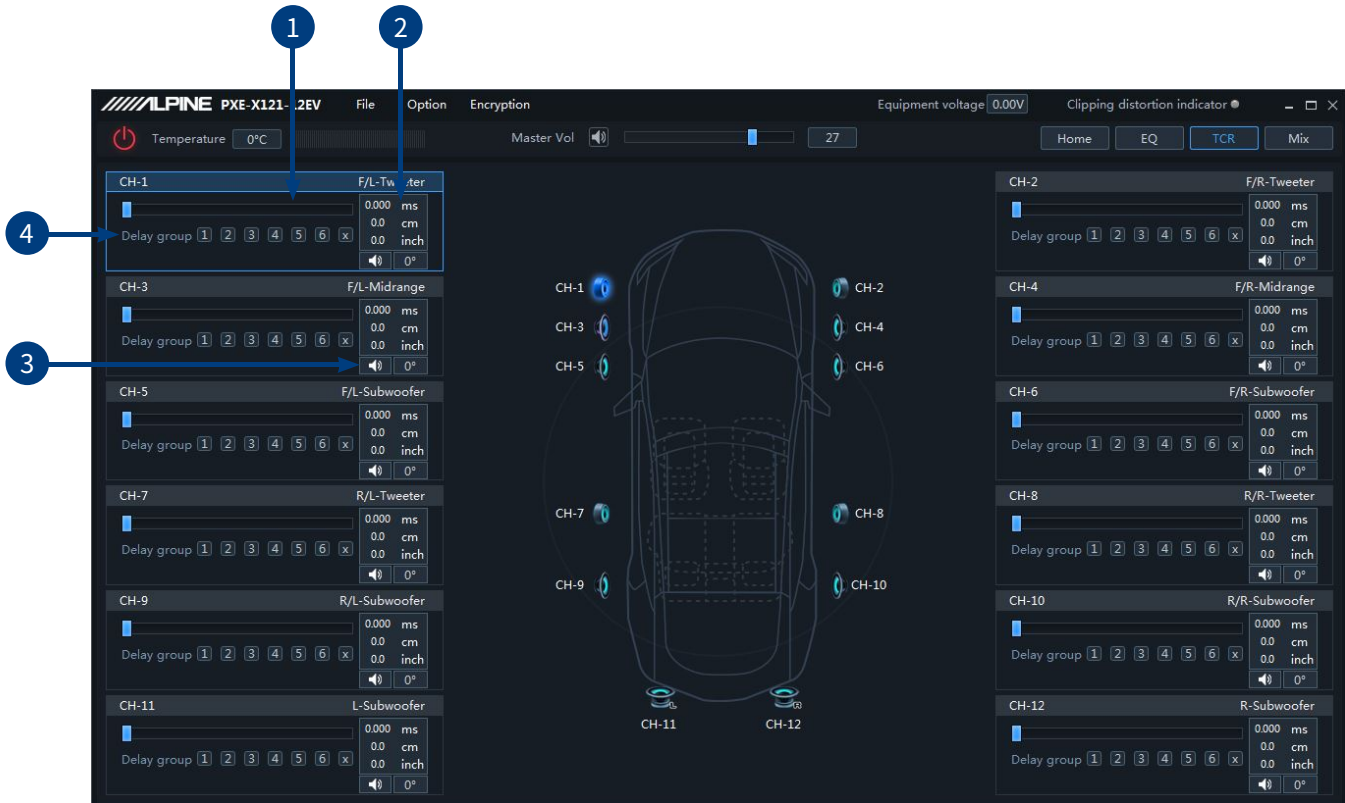


1	EQ gain step size	Step size can be chosen from the range: 0.1dB ~ 0.5dB ~ 1.0dB.
2	Output channel display	Display the output channel curve.
3	EQ curve	Display the current EQ curve status, set the frequency, Q value and gain.
4	Allpass, Frequency, Q Value, Gain	Frequency, Q Value, and Gain adjustment of the output channel. In the "Allpass" mode, the frequency and Q Value are adjustable, whereas in "Graphic EQ" mode Frequency and Q Value are fixed.
5	Parametric EQ, Graphic EQ	Switch between Parametric and Graphic EQ (Switching modes will cause all settings to reset).
6	Low-pass filter	Turn the Low-Pass filter on/off to reduce high frequencies. Select filter type (Link-Ril, Butter-W or Bessel). Select the crossover frequency (between 20Hz and 40kHz). Select the crossover slope (-6dB/Oct, -12dB/Oct, -18dB/Oct, -24dB/Oct, -30dB/Oct, -36dB/Oct, -42dB/Oct, or -48dB/Oct).
7	High-pass filter	Turn the High-Pass filter on/off to reduce low frequencies. Select filter type (Link-Ril, Butter-W or Bessel). Select the crossover frequency (between 20Hz and 40kHz). Select the crossover slope (-6dB/Oct, -12dB/Oct, -18dB/Oct, -24dB/Oct, -30dB/Oct, -36dB/Oct, -42dB/Oct, or -48dB/Oct).
8	Channel phase	Select channel phase (normal or negative)
9	Bass phase	Output channel bass phase adjustment (0-360°)

PC Software Introduction - EQ

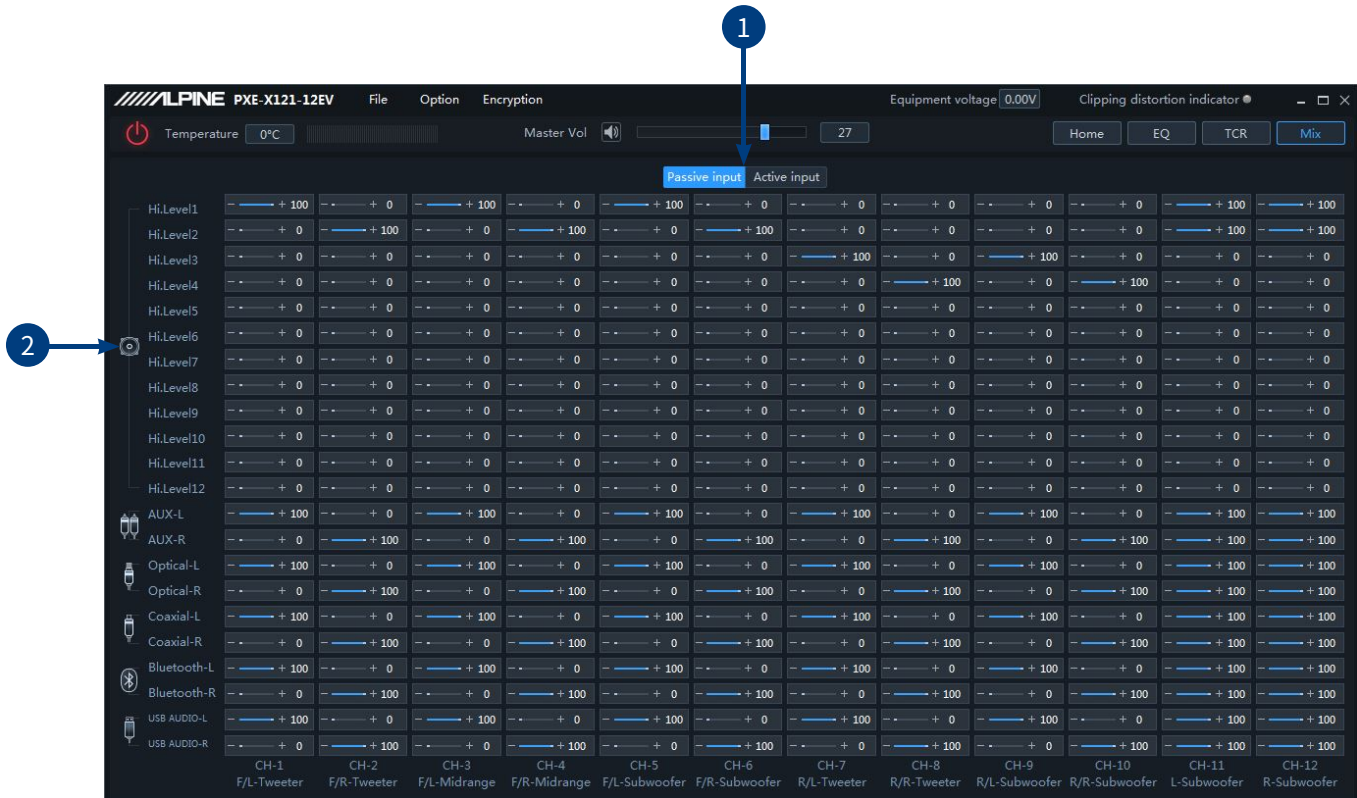
10	Channel gain	Slide the fader or click "+" and "-" to adjust channel volume (-60dB ~ +6dB).
11	Reset channel type	Reset current channel type to factory state.
12	Mute	Mute or unmute all channels with one click.
13	Parallel connection	4Ω : Supports CH1-CH12 to connect to 4Ω impedance speakers. 2Ω : Supports CH11-CH12 to connect to 2Ω impedance speakers in parallel mode.
14	Reset EQ	Reset EQ settings.
15	Restore EQ	Restore previous EQ data.
16	Sync	Choose sync setting (from 1-6).
17	Output channel	There are 12 output channels available, configure the output type and click the speaker button to mute.

PC Software Introduction - TCR



1	Delay	Select a speaker and slide the fader or enter a numerical value to adjust delay.
2	Delay unit	Chose delay units from milliseconds, centimeters, and inches. Adjustment range is 0.000~20,000 milliseconds, 0~692cm, or 0~273 inches.
3	Speaker / phase	Select the speaker of the corresponding channel, click the speaker button to mute, click again to unmute and also adjust phase.
4	Delay group	Pick a delay group for a channel (1-6).

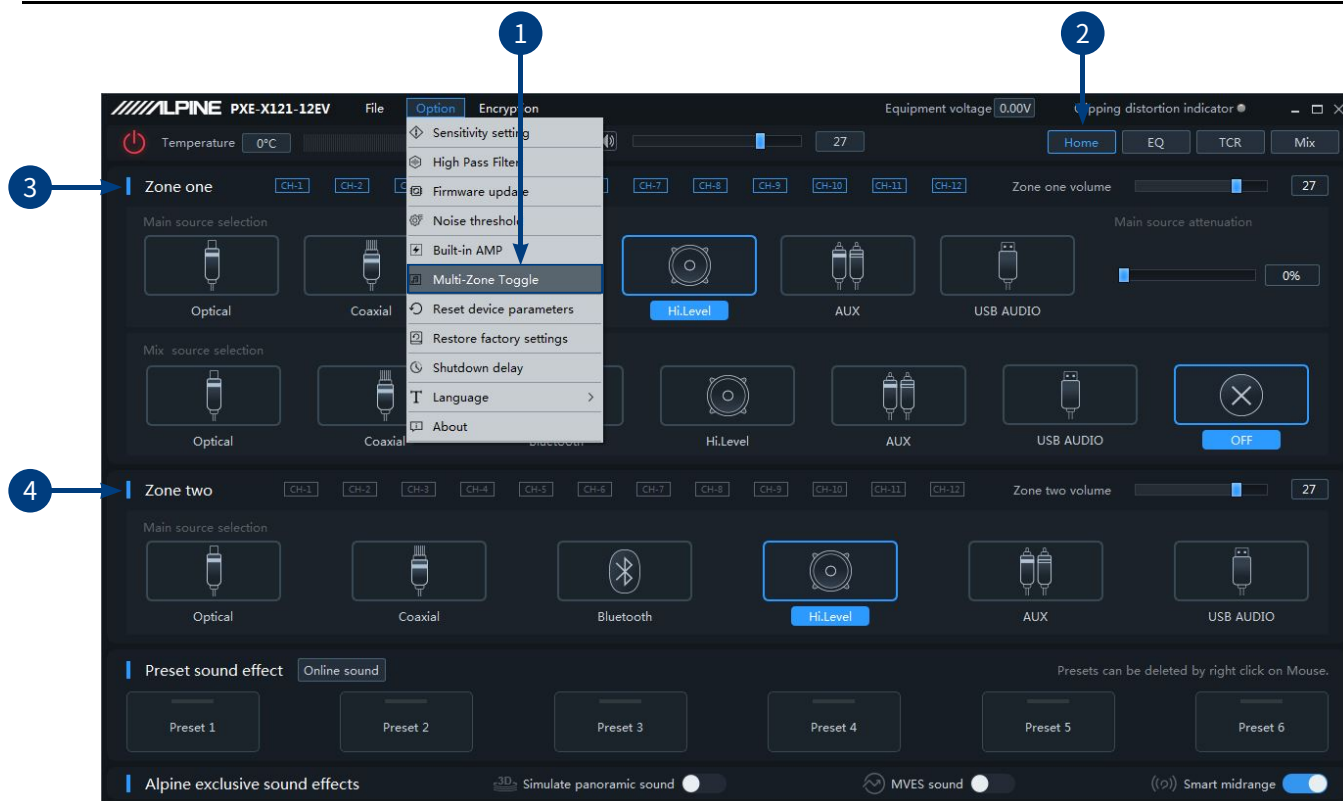
PC Software Introduction - Mix



1	Active/ Passive input	Select "Passive" or "Active" input. (Default is "Passive"). However, if changed your mixer settings will be lost for that channel.
2	Input channel	Push the fader left/ right or "+"/"-" to adjust the audio volume of each individual channel.

Note: It is strongly recommended that the volume level across all channels equal 100 to prevent clipping.

PC Software Introduction - Home Page (Multi-Zone)



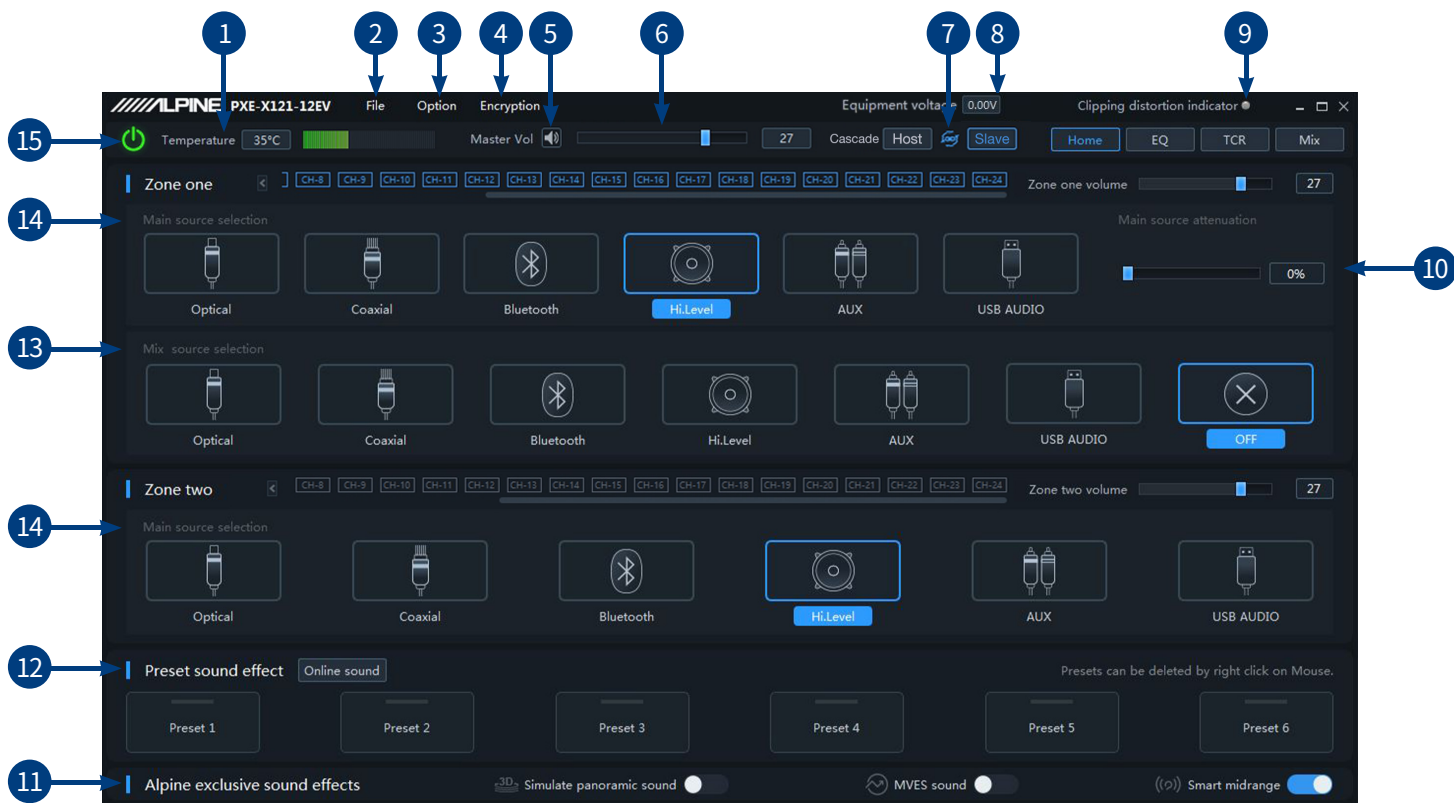
The sound switch setting is turned on, and the sound zone interface is as shown in the picture above.

1	Multi-Zone switch	Turn on the sound zone switch setting to set the sound zone.
2	Home page	The sound sources in the front and rear sound fields of zone one and zone two on the home page interface can be flexibly matched independently. For example, in zone one, set the front sound field CH1-CH6 and select "High level" for the main source. In zone two, set the rear sound field CH7-CH12, and select "Optical" as the main source.
3	Sound zone one	Select channels to be adjusted as "Zone One", also choose main source, mix source, volume and attenuation for "Zone One".
4	Sound zone two	Select channels to be adjusted as "Zone Two", also choose main source and volume for "Zone Two".

Note:

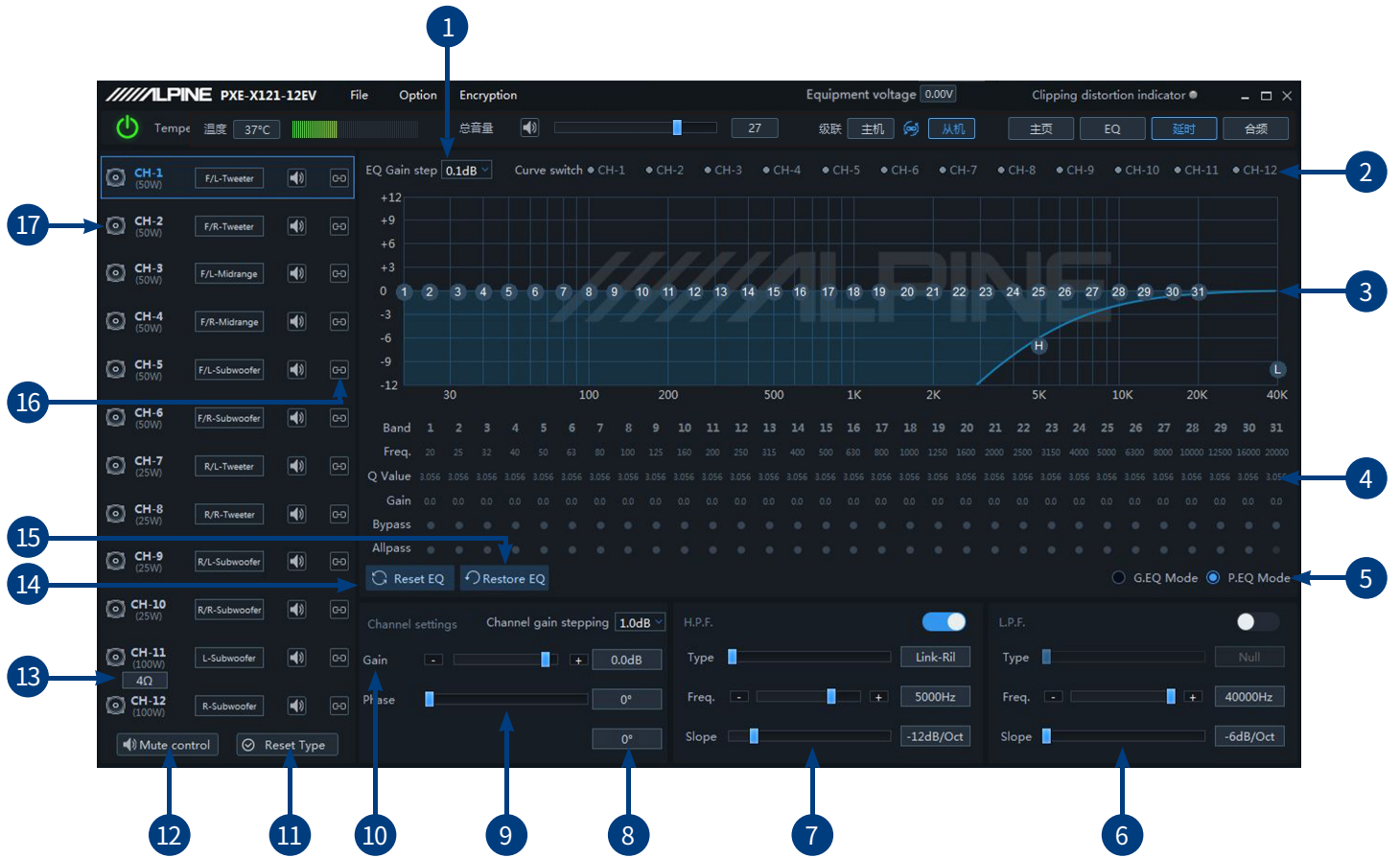
1. In "Zone One" the main source and mix source are mutually exclusive if they are the same. The mix source cannot be superimposed with the current input main source volume, otherwise the mix source sound source will be invalid (Optical and Coaxial are mutually exclusive for Digital, Bluetooth, and USB sound sources).
2. "Zone One" and "Zone Two" channels are mutually exclusive, meaning if "Zone One" channels are set CH1-CH6 the "Zone Two" CH1-CH6 are invalid.

PC Software Introduction - Home Page (Multi-Zone) (Dual Amp)



1	Temperature display	Detect the temperature on the device surface.
2	File	Load or save scene files on PC, load or save all scene files.
3	Option	Firmware update, noise gate, restore factory settings, shutdown delay, switch between English and Chinese, check the version number.
4	Encryption	Enter a 6-digit encryption password to encrypt the tuned sound effect data.
5	Mute button	Mute the master volume.
6	Master volume	Push the fader left and right to adjust the master volume in the range of 0-35.
7	Cascade	Use the provided linking cable to connect the two PXE-X121-12EV devices. The DSP at the main end of the connection acts as the host, the software will automatically identify this and display the blue "cascade" icon.
8	Voltage display	Check the system operating voltage.
9	Clipping distortion indicator	When the clipping distortion indicator turns yellow, it is a warning for the user to adjust their sound tuning settings to make a more balanced signal that is distortion free.
10	Main source attenuation	The greater the attenuation of the main sound source, the quieter the main volume (0-100%).
11	Alpine exclusive sound effects	Select from Alpine's exclusive sound effects (simulated panoramic sound, MVES sound, smart midrange).
12	Preset sound effects	Supports saving or recalling of multiple sets of effects and online sound effects.
13	Mix source selection	Set the mix audio source (Optical, Coaxial, Bluetooth, High Level, Low Level, USB, off).
14	Main source selection	Select main audio source (Optical, Coaxial, Bluetooth, High Level, Low Level, USB).
15	Connection indicator	Indicates connection to PXE-X121-12EV, connect the computer via USB cable, then open the software to connect, click again to close the connection.

PC Software Introduction - EQ (Dual Amp)

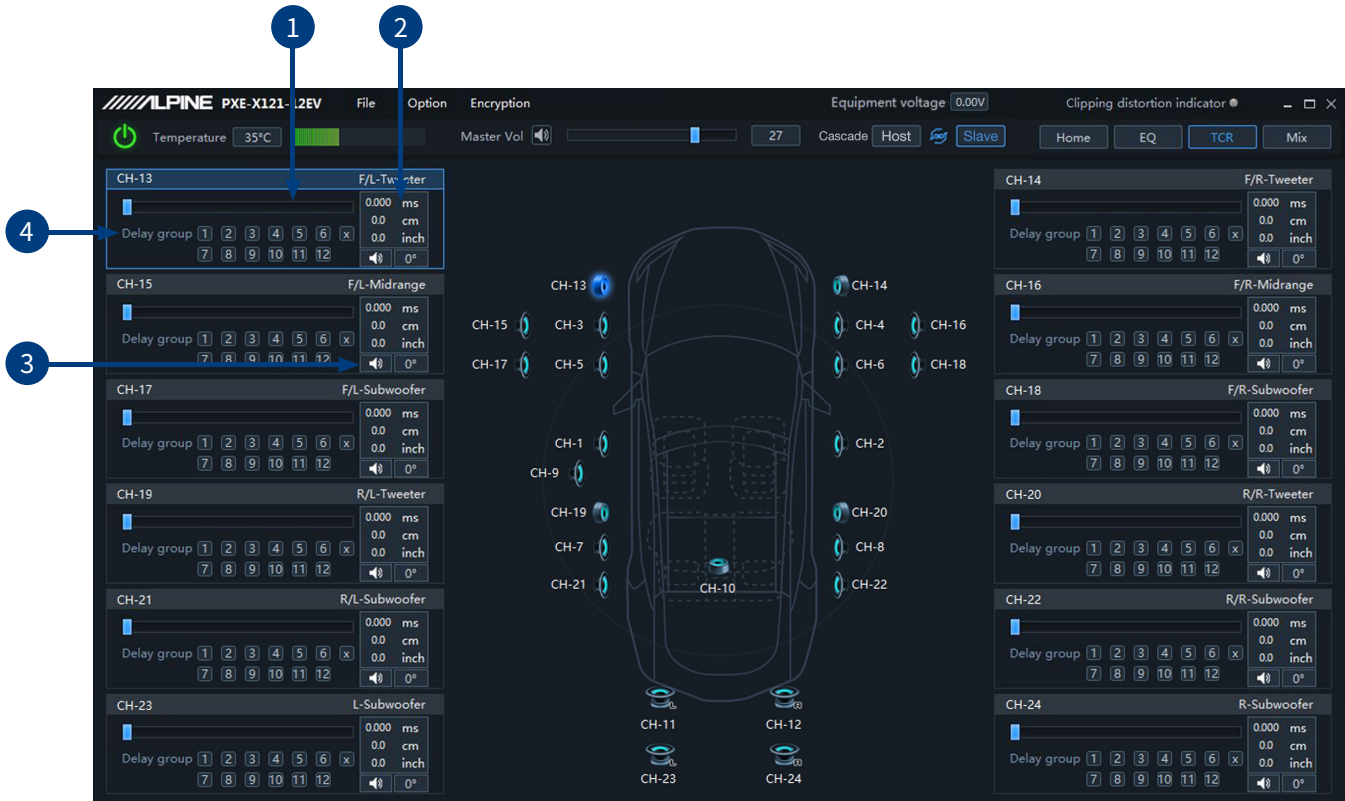


1	EQ gain step size	Step size can be chosen from the range: 0.1dB ~ 0.5dB ~ 1.0dB.
2	Output channel display	Display the output channel curve.
3	EQ curve	Display the current EQ curve status, set the frequency, Q value and gain.
4	Allpass, Frequency, Q Value, Gain	Frequency, Q Value, and Gain adjustment of the output channel. In the "Allpass" mode, the frequency and Q Value are adjustable, whereas in "Graphic EQ" mode Frequency and Q Value are fixed.
5	Parametric EQ, Graphic EQ	Switch between Parametric and Graphic EQ (Switching modes will cause all settings to reset).
6	Low-pass filter	Turn the Low-Pass filter on/off to reduce high frequencies. Select filter type (Link-Ril, Butter-W or Bessel). Select the crossover frequency (between 20Hz and 40kHz). Select the crossover slope (-6dB/Oct, -12dB/Oct, -18dB/Oct, -24dB/Oct, -30dB/Oct, -36dB/Oct, -42dB/Oct, or -48dB/Oct).
7	High-pass filter	Turn the High-Pass filter on/off to reduce low frequencies. Select filter type (Link-Ril, Butter-W or Bessel). Select the crossover frequency (between 20Hz and 40kHz). Select the crossover slope (-6dB/Oct, -12dB/Oct, -18dB/Oct, -24dB/Oct, -30dB/Oct, -36dB/Oct, -42dB/Oct, or -48dB/Oct).
8	Channel Phase	Select channel phase (normal or negative)
9	Bass phase	Output channel bass phase adjustment (0-360°)

PC Software Introduction - EQ (Dual Amp)

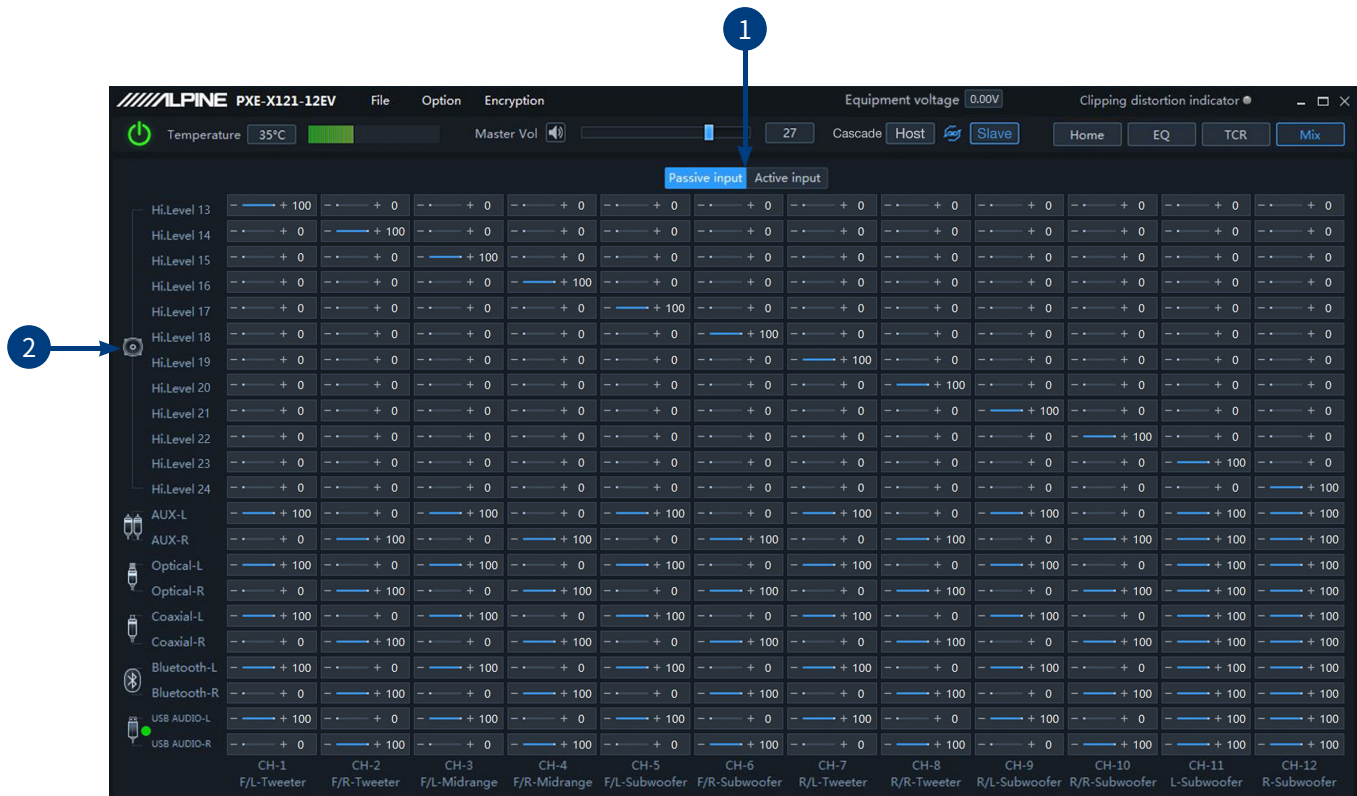
10	Channel gain	Slide the fader or click "+" and "-" to adjust channel volume (-60dB ~ +6dB).
11	Reset channel type	Reset current channel type to factory state.
12	Mute	Mute or unmute all channels with one click.
13	Parallel connection	4Ω : Supports CH1-CH12 to connect to 4Ω impedance speakers. 2Ω : Supports CH11-CH12 to connect to 2Ω impedance speakers in parallel mode.
14	Reset EQ	Reset EQ settings.
15	Restore EQ	Restore previous EQ data.
16	Sync	Choose sync setting (from 1-6).
17	Output channel	There are 12 output channels available, configure the output type and click the speaker button to mute.

PC Software Introduction - TCR (Dual Amp)



1	Delay	Select a speaker and slide the fader or enter a numerical value to adjust delay.
2	Delay unit	Chose delay units from milliseconds, centimeters, and inches. Adjustment range is 0.000~20,000 milliseconds, 0~692cm, or 0~273 inches.
3	Speaker / Phase	Select the speaker of the corresponding channel, click the speaker button to mute, click again to unmute and also adjust phase.
4	Delay group	Pick a delay group for a channel (1-6).

PC Software Introduction - Mix (Dual Amp)

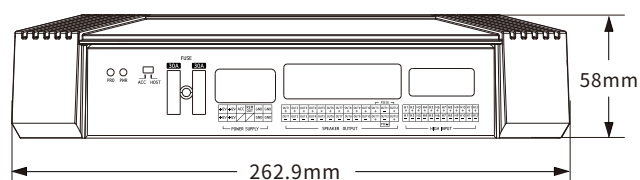
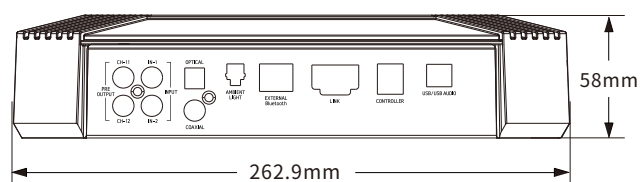
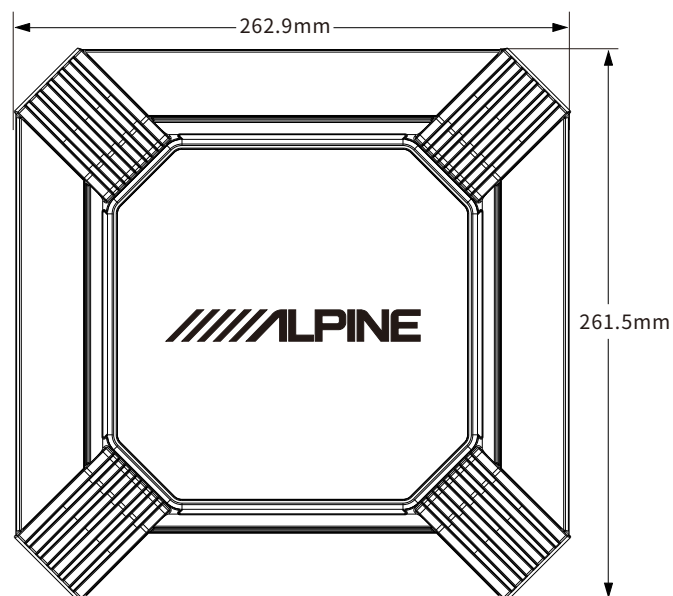


1	Active/ Passive input	Select "Passive" or "Active" input. (Default is "Passive"). However, if changed your mixer settings will be lost for that channel.
2	Input channel	Push the fader left/right or use "+"/"-" to adjust the audio volume of each individual channel.

Note: It is strongly recommended that the volume level across all channels equal 100 to prevent clipping.

Specifications

Dynamic range	≥100dB
Signal-to-noise ratio (RCA)	≥101dB
Noise floor	High level CH1~CH6: 95uVrms, CH7-CH10: 48uVrms, CH11-CH12: 135uVrms: RCA: 5.8uVrms
Channel separation	≥80dB
Total harmonic distortion	≤0.01%
Input voltage	High level: 30Vpp: RCA: 6.5Vpp
Output voltage	High level: CH1~CH6: 40Vpp, CH7~CH10: 28Vpp, CH11~CH12: 58Vpp: RCA: 6.5Vpp
Rated Power	CH1~CH6: 50W, CH7~CH10: 25W, CH11~CH12: 100W (4Ω, 14.4V, 1kHz, 10%THD) Connection CH11~CH12: 1CH×200W(2Ω, 14.4V, 1kHz, 10%THD)
Maximum power	CH1~CH6: 100W, CH7~CH10: 50W, CH11~CH12: 200W (4Ω, 14.4V, 1kHz, 10%THD) Connection CH11~CH12: 1CH×400W (2Ω, 14.4V, 1kHz, 10%THD)
Input/Output sensitivity (RCA)	1:1 (without power amplification)
Frequency response	20Hz~40kHz
System sampling rate	48kHz/24bit
input resistance	High level: 18Ω: RCA: 15kΩ
Output resistance	51Ω
Operating voltage	9~17V
Quiescent current	≤3mA (while off)
Standby power consumption	≤0.1W
REM start input	High level (H1-/H1+), ACC optional
REM start output	12V (0.2A)
Boot time	10s
Use ambient temperature	-20~70°C
Storage temperature	-40~85°C
Net weight	47 kg
Dimensions	262.9mm×261.5mm×58mm



Specifications - Functional Parameters

Input signals	12-channel high-level, 2 channel RCA audio, HD Bluetooth, optical/coaxial, USB
Output signals	10-channel high level, 2-channel RCA audio
Signal gain of output channel	Range: Silent, -60dB~+6dB
Output signal equaliser	Type: Parametric equalisation, Graphic equalisation Frequency: 20Hz~40kHz, resolution 1Hz Q value (slope or gradient): 0.404~28.852 Gain: -12.0dB~+12.0dB, resolution 0.1dB~0.5dB~1.0dB
Output signal frequency divider	Each output channel is equipped with multi-order high and low pass filters. Filter type: Link-Ril, Butter-W, Bessel Crossover point: 20Hz~40kHz, resolution 1Hz 1Hz filter slope (slope): -6dB/Oct~-48dB/Oct
Output phase	Normal phase or reverse phase (0-360°)
Output delay	0.000~20.000ms, 0~692cm, 0~273 inch
Preset sound effects	This machine can save data from multiple sets of preset sound effects and supports online sound effects.