Manuals+ — User Manuals Simplified.

ALPINE PXE-M640-4 6 Sound Track Audio Processing Amplifier User Manual

PXE-M640-4
6-Sound Track Audio Processing
Amplifier

- For iPhone users, please search "Alpine Music" in APP Store to download and install it; for Android users, please scan the QR code on the right to download and install it directly.
- Or you may use a wired controller sold separately for easy

Alpine Music

https://alpinemusic.cn/appdownload.html

Contents

Operating Instructions

Type 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.
Otherwise, it may result in personal injury or damaged product. Please return the product to the authorized Alpine dealer or nearby Alpine service center for repair.

 The product is only suitable for the 12V negative-grounded vehicles.
Otherwise, it may lead to an accident like fire, etc.

 Please call a professional for wiring and installation
It needs professional expertise and experiences to wire and install the product. Please contact the dealer from whom you bought the product to install it for safety.
Please do not disassemble or refit.
Otherwise, it may result in an accident, fire or electric shock.

 Small items like bolts or screws should be kept out of the reach of child.
If ingested, it may result in severe damage. Once ingested, please seek medical attention immediately.

 Please do not use any function that may distract you during 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.

 During driving, you must maintain the volume at a level such that the noise outside can still be heard.
It is very dangerous not to clearly hear an emergency vehicle alarm and road warning signal (such as a railway crossing) and may result in an accident. Moreover, a too large volume may damage your hearing.

 Caution

 Product cleaning
Please clean the product regularly with a soft dry cloth.
For any dirt difficult to clean, only water can be used to soak the cloth. Any other solvents may lead to dissolution.

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

🚫 **Repair**

In case of problems, please do not repair them by yourself. Please return the product to the authorized Alpine dealer or nearby Alpine service center to repair.

⚠️ **System matching**

When PXE-640E-EL is used with active division mode to assign signals for speakers, please ensure that the frequency division point of high pitch is above 1500 Hz to avoid damage to high pitch speakers

🚫 ⚠️ **Installation site**

The device cannot be installed at the following locations:

- Under direct sunlight and near a hot source.
- With high humidity and near a water source.
- Dusty sites.
- Environments with violent vibration.

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

Tools that may be required (depending on the vehicle)

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

Accessory list
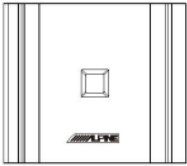
USB 2.0 cable	Mounting bracket × 2	Machine tooth screw × 4
Self-tapping screw ×2	Host machine	

Diagram of device interfaces

Vehicle audio player (sold separately)

POWER

HOST ACC

RR+ RR- RL+ RL- FR- FL- RL- RR- GND +12V
OUT OUT OUT OUT IN IN IN IN

FL+ FL- FR+ FR- FR+ FL+ RL+ RR+ REM ACC
OUT OUT OUT OUT IN IN IN IN OUT

OUTPUT

CONTROLLER

CH-5   CH-6

USB

Wired controller or Alpine
media player (sold separately)

PC

External power amplifier (sold separately)
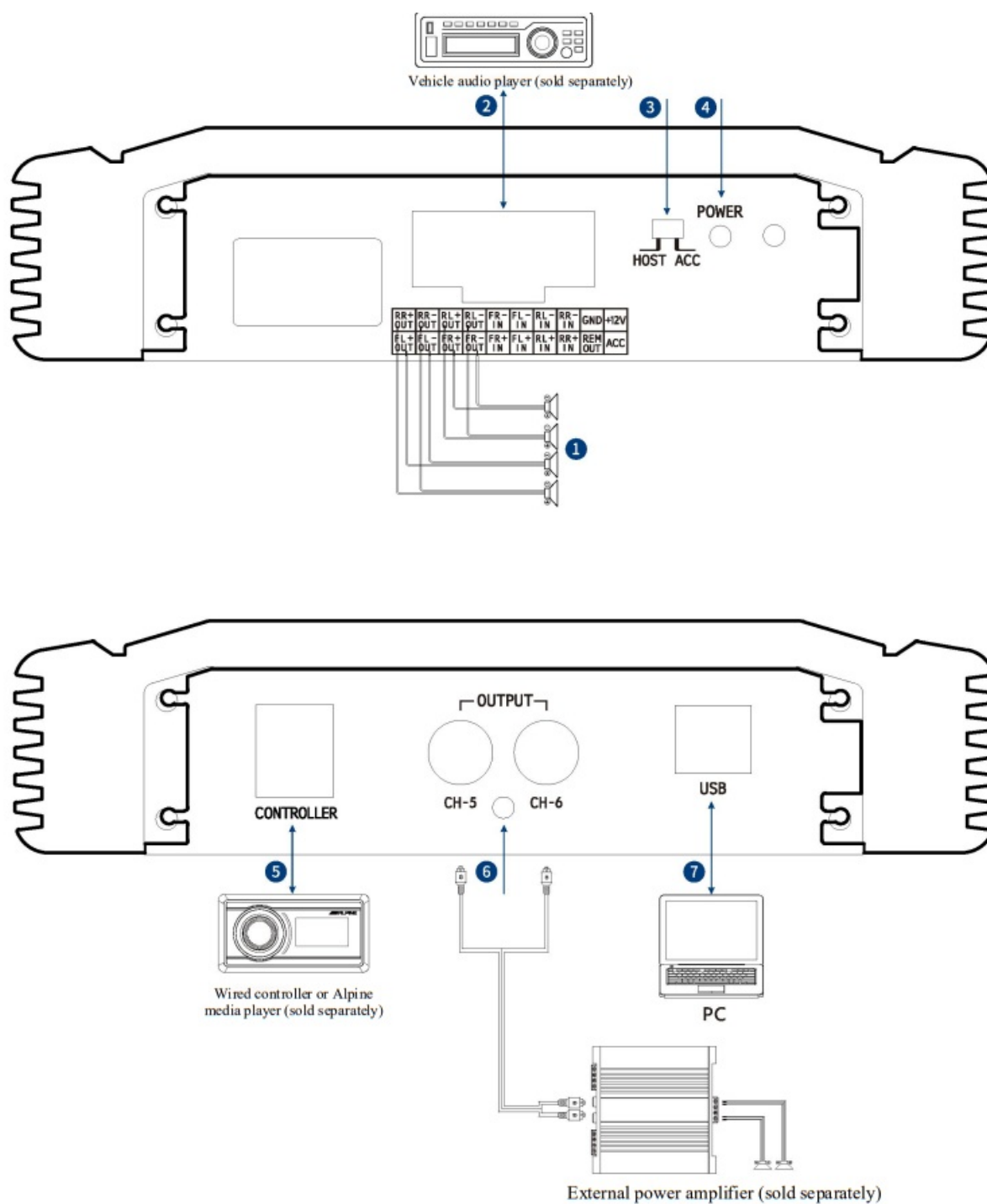
Description of device interfaces and their functions

1, 2	High voltage level input / output and power interface	The high voltage level input is connected to the power output of the vehicle audio player and the high voltage level output is connected to the loudspeaker.
3	Input select switch interface	If the switch is put to "ACC," the device will be started by ACC. If put to "HOST," the device will be started by the high voltage level input signal FL-/FL+.
4	Power lamp	Power lamp.
5	Wired controller interface	System extension interface
6	RCA audio out	One set of RCA audio signal output which can be connected to the external power amplifier.
7	USB 2.0 interface	A USB2.0 cable can be used to connect the computer and perform tone tuning and setting in detail.

Wire pin arrangement

| Pin	Wire	Function
10 / 20	White 20AWG	Front left channel output +
	Purple 20AWG	Rear right channel output +
9 / 19	White / Black 20AWG	Front left channel output -
	Purple / Black 20AWG	Rear right channel output -
8 / 18	Grey 20AWG	Front right channel output +
	Green 20AWG	Rear left channel output +
7 / 17	Grey / Black 20AWG	Front right channel output -
	Green / Black 20AWG	Rear left channel output -
6 / 16	Grey 20AWG	Front right channel input +
	Grey / Black 20AWG	Front right channel input -
5 / 15	White 20AWG	Front left channel input +
	White / Black 20AWG	Front left channel input -
4 / 14	Green 20AWG	Rear left channel input +
	Green / Black 20AWG	Rear left channel input -
3 / 13	Purple 20AWG	Rear right channel input +
	Purple / Black 20AWG	Rear right channel input -
2 / 12	Blue / White 20AWG	REM OUT
	Black 18AWG	GND
1 / 11	Red 20AWG	ACC
	Yellow 18AWG	+12V

Description of mobile APP – General User
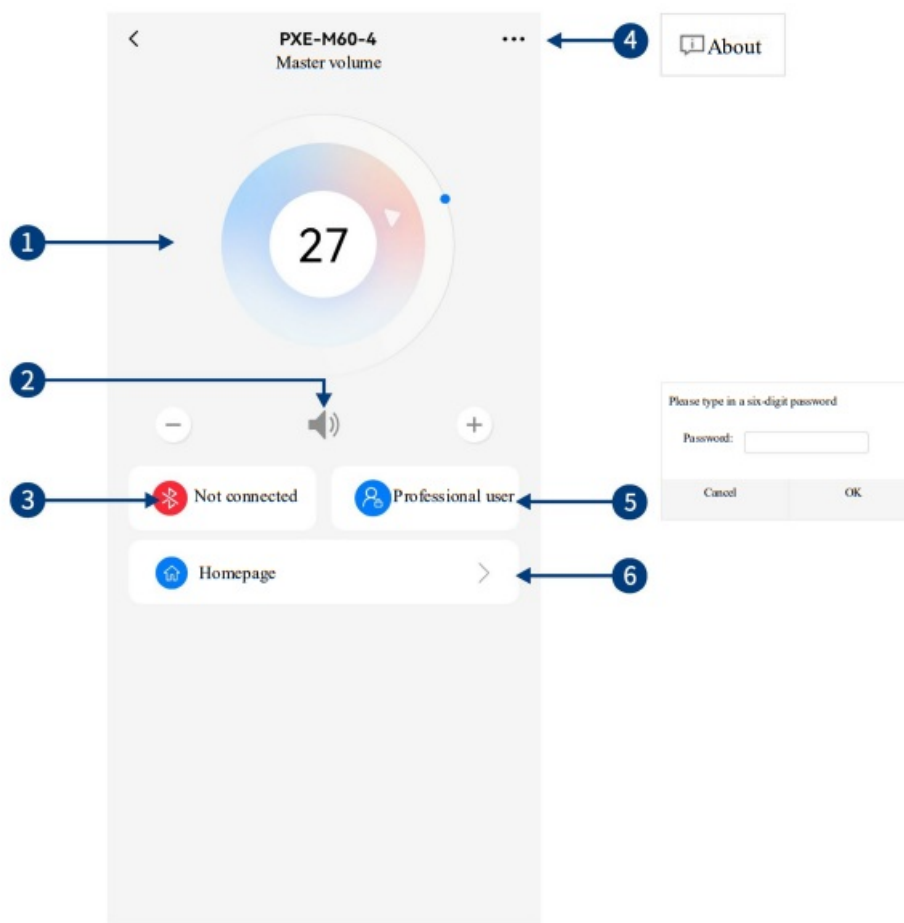
1	Master volume	Drag and rotate the volume adjustment fader or click "+" and "-" to adjust the master volume. The volume adjusting range is 0~35.
2	Mute button	Mute the master volume
3	Connection indicator	When the Bluetooth icon is red, the mobile phone Bluetooth is not connected; when it is green, the mobile phone Bluetooth is connected.
4	Menu bar	Check device version.
5	Mode switch	Switch between General User mode and Professional User mode (General User is selected by default).
6	Homepage	General User mode only supports quick operations including audio source switch, pre-set sound effects recall and saving, and device version check.

Description of mobile APP – Professional User
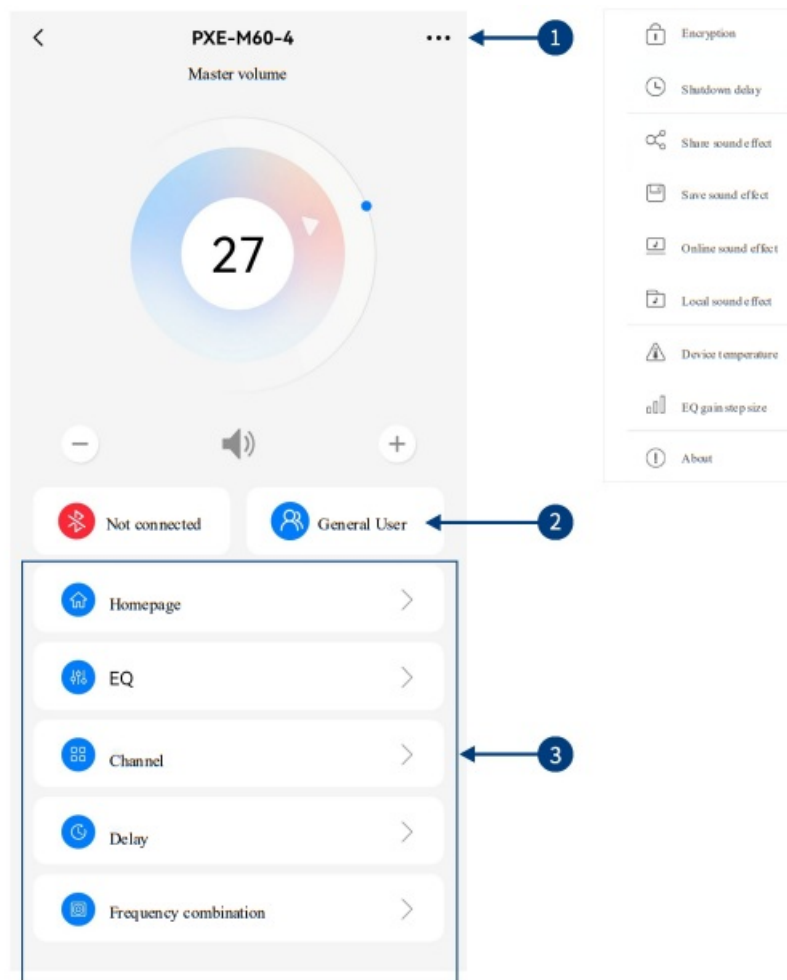
1	Menu bar	You can encrypt data, set shutdown delay, share sound effect, save sound effect, select online effect, select local effect, check device temperature, set EQ gain step, and check version number.
2	Mode switch	Switch between General User mode and Professional User mode. Type in 6-digit password "888888" to enter Professional User mode, which supports professional tuning operation.
3	Interface selection	Profession User mode has 5 pages of different functions of tuning, namely Homepage, EQ, Channel, Delay and Frequency combination.

Description of mobile APP – Homepage
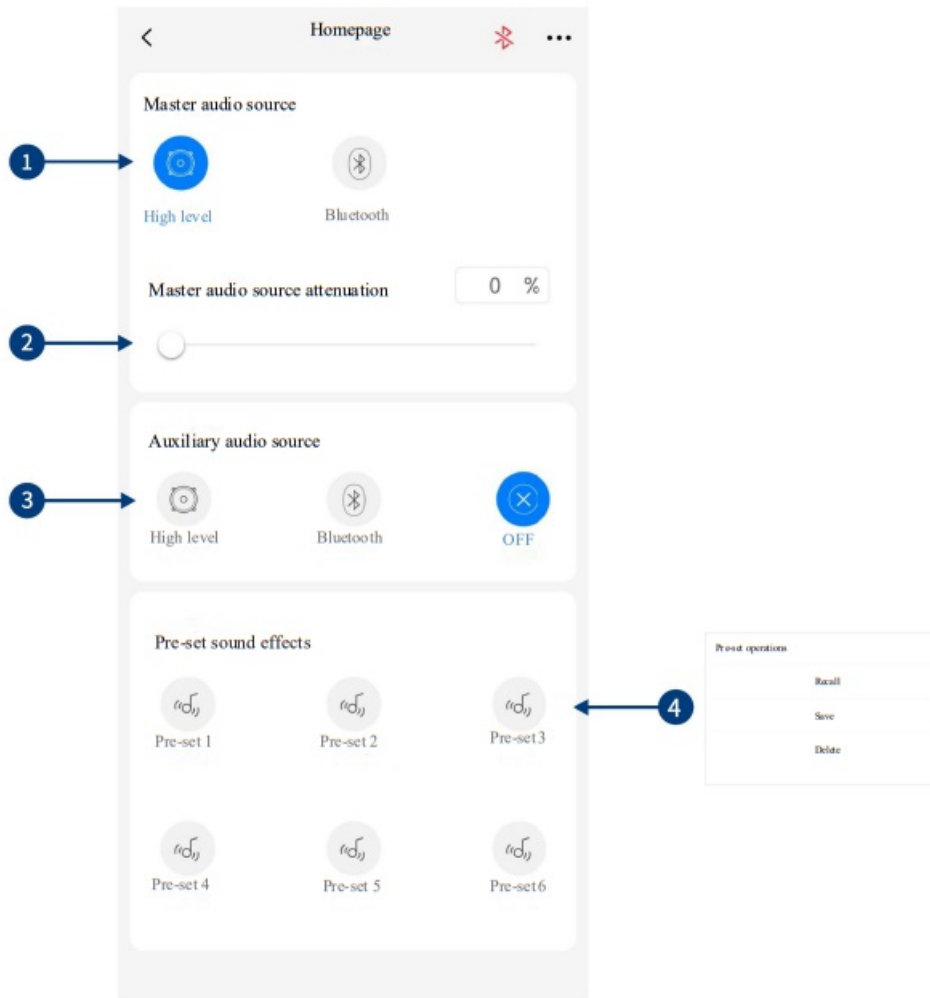
1	Master audio source	Select master audio source (High Level and Bluetooth).
2	Master audio source attenuation	The higher the attenuation of master audio source, the lower the master volume is. The range of attenuation is 0% ~ 100%.
3	Auxiliary audio source	Select auxiliary audio source (High Level, Bluetooth and OFF).
4	Pre-set sound effects	Save or recall multiple pre-set sound effects.

Caution: If the current audio source mode is selected, this mode cannot be superimposed any more. Otherwise, the auxiliary audio source will be invalid.

Description of mobile APP – EQ
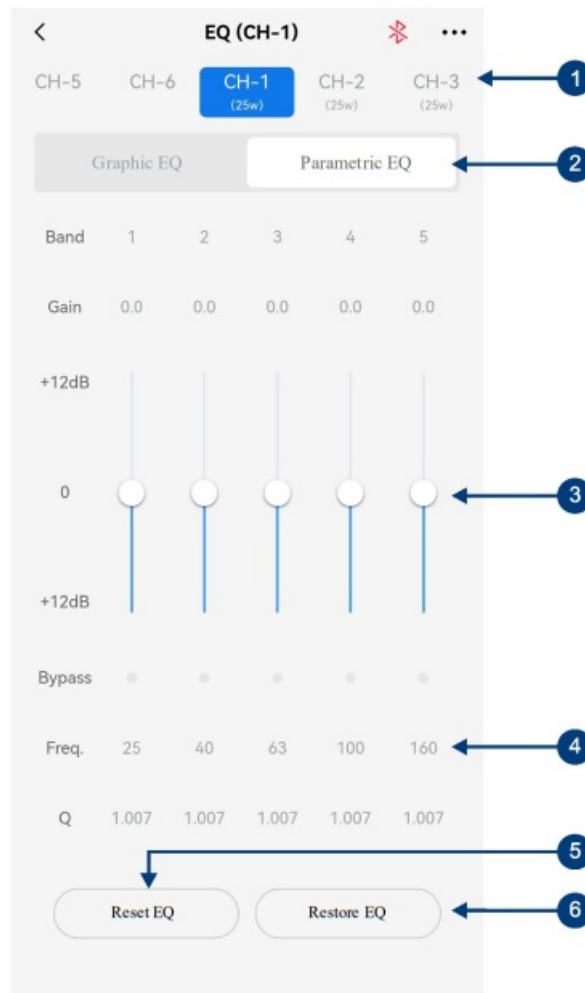
| 1	Output channel	Slide left and right to select the output channel for EQ adjustment. There are 6 channels to choose from.
2	Parametric EQ, Graphic EQ	Switch between Parametric EQ mode and Graphic EQ mode. Mode switch would lead to loss of all settings.
3	Gain	Pull the fader up and down to adjust the gain. The adjustable range is: -12.0dB ~ +12.0dB.
4	Frequency, Q value, Gain	Adjust the frequency, Q value and gain of the output channel. The gain is adjustable but the frequency and Q value are fixed in the Graphic EQ interface. The frequency, Q value and gain are all adjustable in the Parametric EQ interface.
5	Reset EQ	Reset EQ setting.
6	Restore EQ, Direct EQ	Switch the tuned EQ data to direct state, click it again to restore the EQ data before Direct EQ setting.

Description of mobile APP – Channel
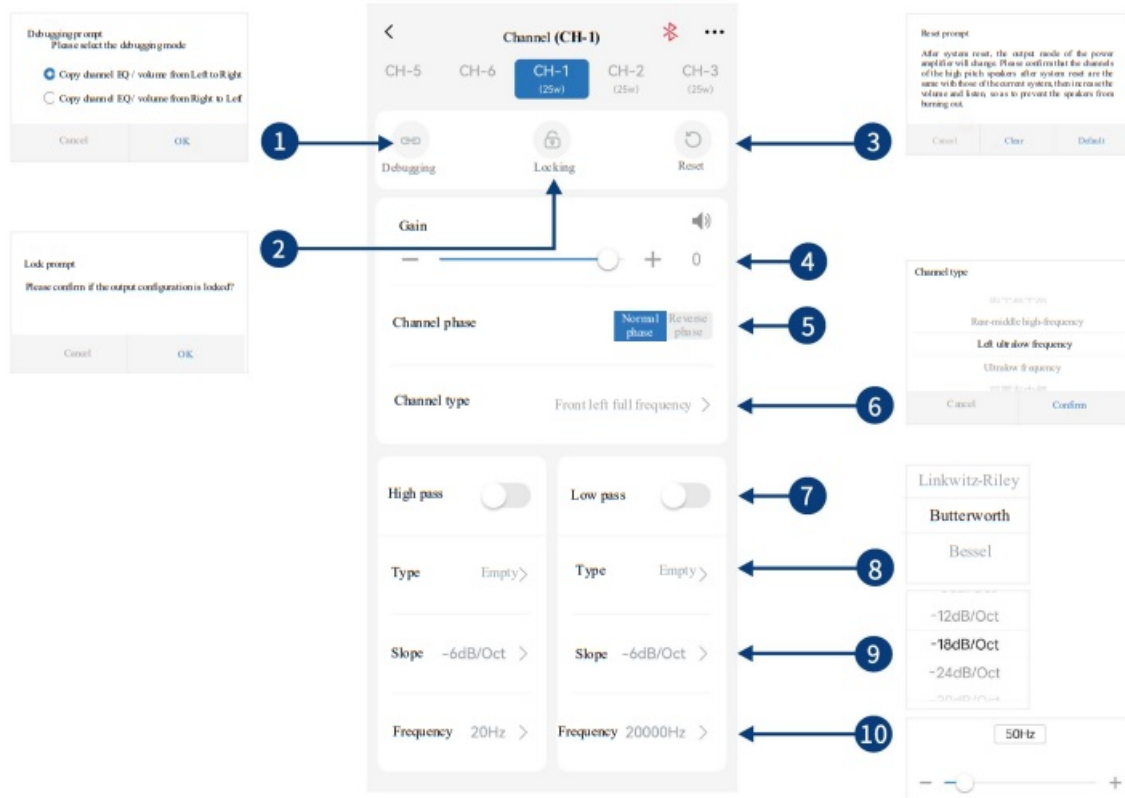
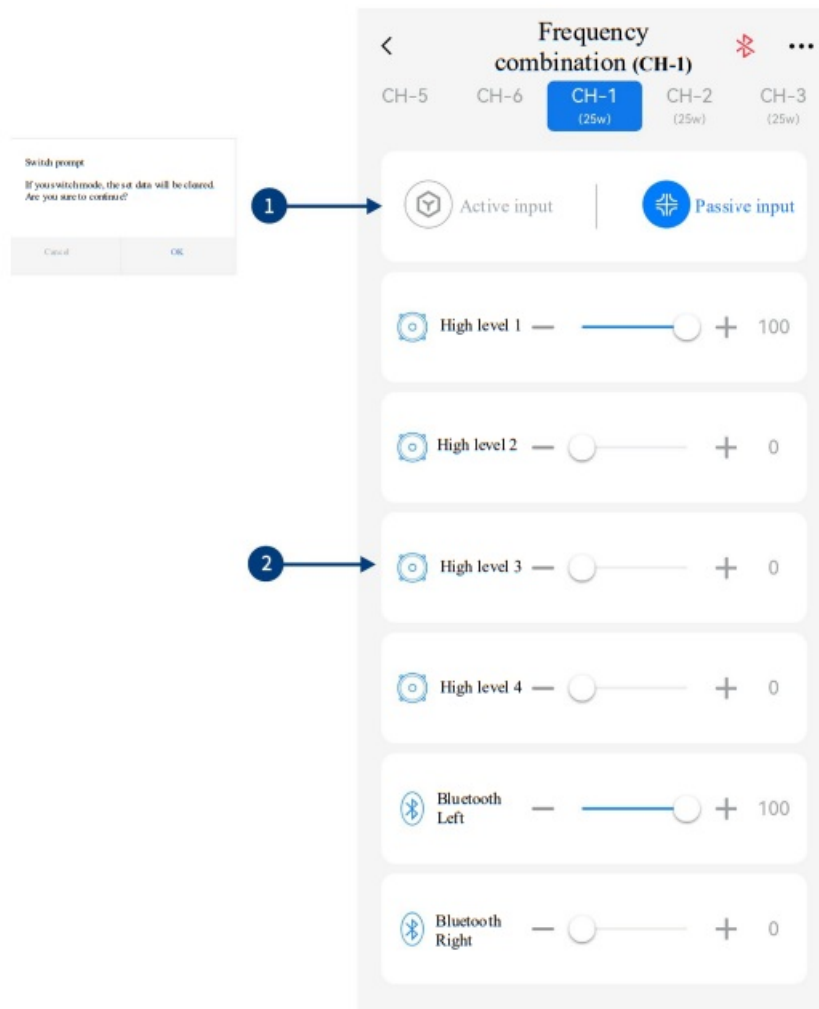| 1	Debugging	The debugging modes to choose from include "Copy channel EQ / volume from left to right" or "Copy channel EQ / volume from right to left".
2	Locking	You can lock the current channel type.
3	Reset channel type	Select "Clear" to set the current channel type as Empty; select "Default" to set the current channel type as Factory setting.
4	Channel gain	Push the fader left and right to adjust the channel volume in the range of -60dB ~ + 6dB; click the speaker button to mute.
5	Channel phase	Select the channel phase (normal phase or reverse phase).
6	Channel type	Select the output channel type in the pop-up window.
7	Divider	Turn on or off the low-pass filter.
8	Filter type	Select filter type (Linkwitz-Riley, Butterworth or Bessel). Caution: If the slope is -6dB/Oct, the type is not settable.
9	Frequency divider slope	Select the divider slope (-6dB/Oct, -12dB/Oct, -18dB/Oct, -24dB/Oct, -30dB/Oct, -36dB/Oct, -42dB/Oct, or -48dB/Oct).
10	Divider frequency	Select the divider frequency (between 20Hz and 20kHz).

Description of mobile APP – Delay
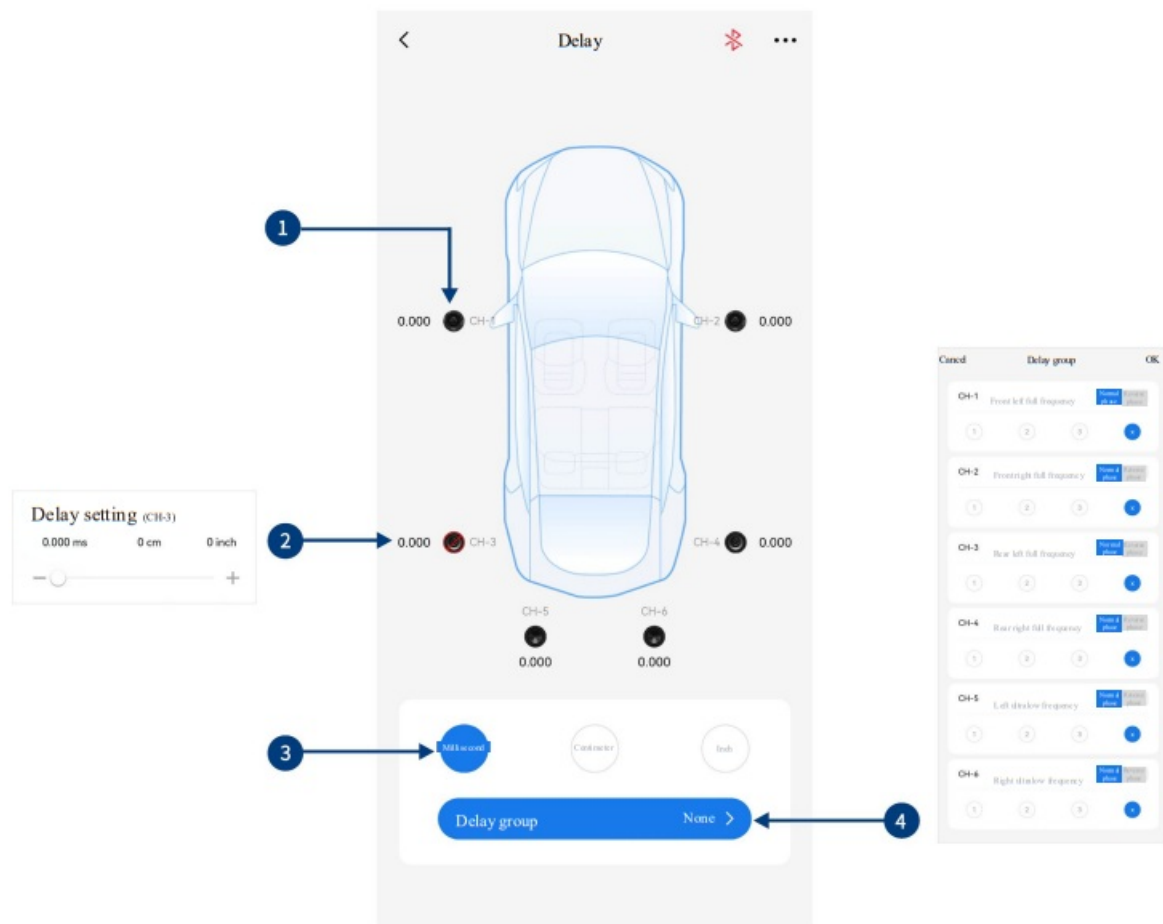
1	Speaker	Select the speaker of the corresponding channel, click the speaker to mute it, click it again to cancel mute.
2	Delay setting	Select the corresponding speaker, push the fader left and right on the pop-up window to adjust the delay, or click "+" and "-" to adjust the delay.
3	Unit of delay	Units of delay to choose from include ms, cm, and inch. Adjusting range: 0.000 ~ 7.3 54 milliseconds, 0 ~ 254 centimeters, and 0 ~ 100 inches.
4	Delay group	There are 3 delay groups to choose from for each channel.

Description of mobile APP – Frequency

CH-5   CH-6   CH-1   CH-2   CH-3
                (25w)   (25w)   (25w)

Switch prompt
If you switch mode, the set data will be cleared.
Are you sure to continue?

Cancel   OK

① → Active input | Passive input

High level 1 — ──────○ + 100

High level 2 — ○ + 0

② → High level 3 — ○ + 0

High level 4 — ○ + 0

Bluetooth Left — ─────○ + 100

Bluetooth Right — ○ + 0

1	Active or passive output	Keep the default setting as "Passive". Warning: if changed, you will lose the sound mixer setting of this channel.
2	Input channel	Push the fader left and right or press "+" and "-" to adjust the volume of each audio source in the channel to achieve the purpose of sound mixing and frequency mixing.

Caution: It is strongly recommended to set the total volume of a channel to 100 to avoid clipping.

Interface of PC software
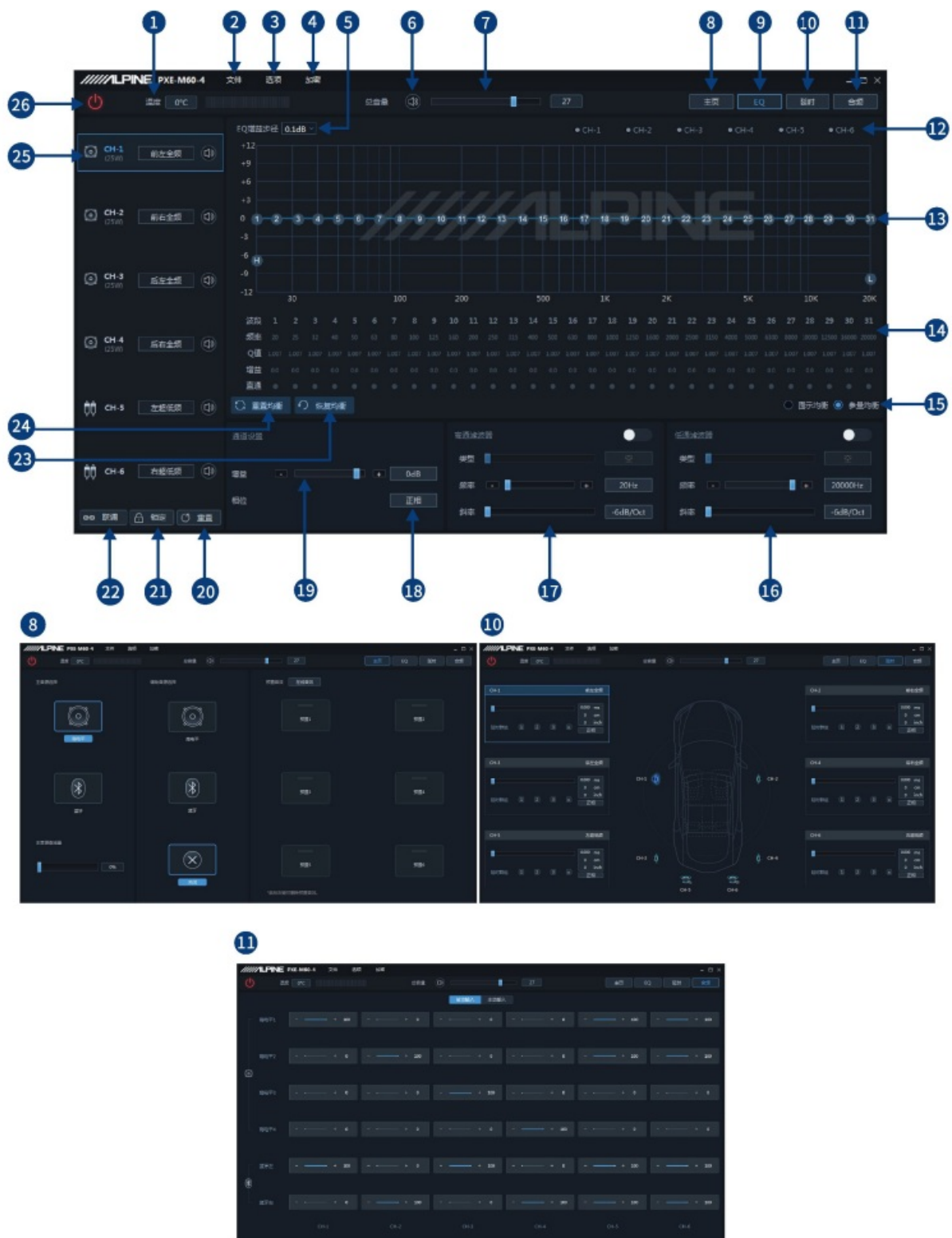
File
Options
Encryption
Temperature
Master volume
Homepage
Delay

Frequency combination
Front left full frequency
Front right full frequency
Rear left full frequency
Rear right full frequency
Left ultralow frequency
Right ultralow frequency
EQ gain step size
Band
Frequency
Q value
Gain
Direct
Reset EQ
Restore EQ
Channel setting
Debugging
Locking
Reset
Gain
Phase
Normal phase
High-pass filter
Type
Frequency
Slope
Empty
Low-pass filter
Graphic EQ
Parametric EQ
Master audio source selection
Auxiliary audio source selection
High level

Bluetooth
Master audio source attenuation
OFF
Pre-set sound effects
Online sound effects
Pre-set 1
Pre-set 2
Pre-set 3
Pre-set 4
Pre-set 5
Pre-set 6
Click the right mouse button to delete pre-set sound effects
Normal phase
Delay group
High level 1
High level 2
High level 3
High level 4
Bluetooth Left
Bluetooth Right
Passive input
Active input

Description of PC software

| 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	Options	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	EQ gain step size	Step size can be chosen from the range: 0.1dB ~ 0.5dB ~ 1.0dB.
6	Mute button	Mute the master volume

7	Master volume	Push the fader left and right to adjust the master volume in the range of 0 ~ 35.
8	Homepage	Master audio source selection (High Level and Bluetooth), auxiliary audio source selection (High Level, Bluetooth and OFF), master audio source attenuation adjustment, pre-set sound effects recall and saving, and recall of multiple sets of online sound effects are supported.
9	EQ	Enter the EQ interface to go to the professional tuning interface.
10	Delay	Enter the Delay interface, set the delay value, unit of delay and delay group.
11	Frequency combination	Enter the Frequency combination interface, Sound mixing and Frequency mixing setting.
12	Output channel display	Display the output channel curve.
13	EQ curve	Display the current EQ curve status, set the frequency, Q value and gain.
14	Frequency, Q value, Gain	Adjust the frequency, Q value and gain of the output channel. The gain is adjustable but the frequency and Q value are fixed in the Graphic EQ interface. The frequency, Q value and gain are all adjustable in the Parametric EQ interface.
15	Parametric EQ, Graphic EQ	Switch between Parametric EQ mode and Graphic EQ mode. Mode switch would lead to loss of all settings.
16	Low-pass filter	Turn on or off the low-pass filter to cut off high frequency. Select filter type (Linkwitz-Riley, Butterworth or Bessel). Select the divider frequency (between 20Hz and 20kHz). Select the divider slope (-6dB/Oct, -12dB/Oct, -18dB/Oct, -24dB/Oct, -30dB/Oct, –36dB/Oct, -42dB/Oct, or -48dB/Oct).
17	High-pass filter	Turn on or off the high-pass filter to cut off low frequency. Select filter type (Linkwitz-Riley, Butterworth or Bessel). Select the divider frequency (between 20Hz and 20kHz). Select the divider slope (-6dB/Oct, -12dB/Oct, -18dB/Oct, -24dB/Oct, -30dB/Oct, –36dB/Oct, -42dB/Oct, or -48dB/Oct).
18	Channel phase	Select the channel phase (normal phase or reverse phase).
19	Channel gain	Push the fader left and right to adjust the channel gain, that it, to adjust the volume of the output channel; the adjustable range is: -60dB ~ +6dB.
20	Reset channel type	Select "Clear" to set the current channel type as Empty; select "Default" to set the current channel type as Factory setting.
21	Locking	You can lock the current channel type.
22	Debugging	The debugging modes to choose from include "Copy channel EQ / volume from left to right" or "Copy channel EQ / volume from right to left".

23	Direct EQ, Restore EQ	Switch the tuned EQ data to direct state, click it again to restore the EQ data before Direct EQ setting.
24	Reset EQ	Reset EQ setting.
25	Output channel	There are 6 output channels to choose from. Configure the type of output channel. Click the speaker button to mute.
26	Connection indicator	Connect the PC and the host machine with a USB cable. Open the software to connect the device. Click it again to turn off the connection.

Specification parameters

Dynamic range	≥98dB
SNR (RCA)	≥95dB
Background noise	High level: 75uVrms; RCA: 12uVrms
Channel resolution	≥75dB
THD	≤0.01%
Input voltage	High level: 28Vpp
Output voltage	High level: 28Vpp; RCA: 6.5Vpp
Rated power	4CHX25W (4Ω, 14.4V, 1kHz, 10%THD)
Maximum power	4CHX50W (4Ω, 14.4V, 1kHz, 10%THD)
Input / output sensitivity	1:1.25 (no power amplification)
Frequency response	20Hz 20kHz
System sampling rate	48kHz/24bit
Input impedance	High level: 20Ω
Output impedance	51Ω
Operating voltage	9 16V

Quiescent current	≤2.3mA (in off state)
Stand-by power consumption	≤0.1W
REM startup input	High level (FL-/FL+) or AAC optional
REM startup output	12V (0.2A)
Startup time	10s
Operating ambient temperature	-20~60°C
Storage temperature	-40~85°C
Net weight	1.2kg
Dimensions	160mmX140mmX38mm
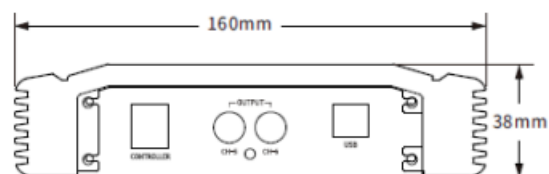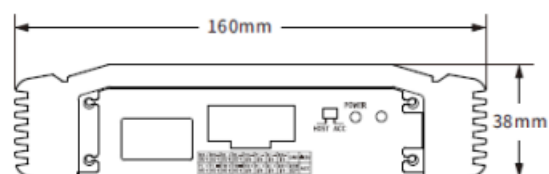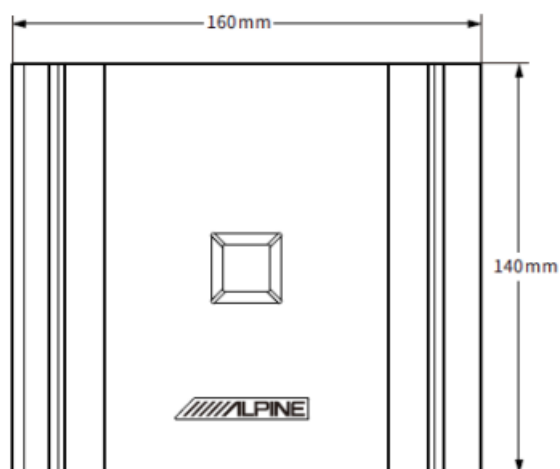
Functional parameters

Input signals	4 channels of high level, high resolution Bluetooth
Output signals	4 channels of high level, 2 channels of RCA audio
Signal gain of output channel	Range: mute, -60dB ~ +6dB
Output signal equalizer	Type: parametric EQ, graphic EQ Frequency: 20Hz ~ 20kHz, resolution: 1 Hz 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 independent multi-order high-pass filter, Filter type: Linkwitz-Riley, Bessel, Butterworth Filter cross-over frequency: 20Hz ~ 20kHz, resolution: 1Hz Filter slope (g radient): -6dB/Oct~-48dB/Oct
Output phase	Normal phase or reverse phase (0°/180°)
Output delay	0.000~7.354ms, 0~254cm, 0~100inch
Pre-set sound effects	Multiple sets of pre-set sound effects data can be saved in the device, cal l of online sound effects is supported

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Documents / Resources

////////ALPINE PXE-M640-4 6-Sound Track Audio Processing Amplifier	**ALPINE PXE-M640-4 6 Sound Track Audio Processing Amplifier** [pdf] User Manual PXE-M640-4 6 Sound Track Audio Processing Amplifier, PXE-M640-4, 6 Sound Track Audio Pr ocessing Amplifier, Track Audio Processing Amplifier, Audio Processing Amplifier, Processing A mplifier, Amplifier
////////ALPINE PXE-M640-4 6-Sound Track Audio Processing Amplifier	**ALPINE PXE-M640-4 6 Sound Track Audio Processing Amplifier** [pdf] Instruction Manual PXE-M640-4, PXE-M640-4 6 Sound Track Audio Processing Amplifier, 6 Sound Track Audio Pr ocessing Amplifier, Track Audio Processing Amplifier, Audio Processing Amplifier, Processing A mplifier, Amplifier

References

- **User Manual**