



UTX-M08

Enhanced Hi-Res Audio Media Player



24 bit
D/A CONVERTER

DSD
Direct Stream Digital



3WAY X-OVER



Product Manual

Precautions

Product cleaning

Clean the product regularly with a soft, dry cloth. The dirt is difficult to remove. Moisten the soft cloth with water only. Any other solvents may dissolve the paint or damage the plastic.

Temperature

Make sure the temperature in the car is between -10°C and 50°C before turning the unit on.

Maintenance

If you experience a problem, do not repair it yourself. Please return the product to your Alpine dealer or a nearby Alpine service center for repair.

Installation location

This Media Player must not be installed in any of the following locations.

- Do not install in direct sunlight or near heat sources.
 - Do not install in areas of high humidity and near water sources.
 - Do not install in dusty places.
 - Do not install in places with strong vibrations.
-

Protecting the USB connector

- This unit has three USB ports on the front and rear to support the connection of USB Storage. When the front and rear ports are connected to the charging device at the same time, the normal operation of this unit is not guaranteed.
 - Only USB Storage can be connected to the USB terminal of this unit. Video operation is not guaranteed with other USB products.
 - When using the USB connector, be sure to use the USB extension cable supplied.
 - Depending on the USB memory device connected, this unit may not work or may not perform some functions.
 - The file systems supported by this unit are FAT / FAT32 / V FAT and FAT.
 - Make sure that the number of tracks in the connected USB Storage does not exceed the total number of tracks that can be played in the front and rear USB. Otherwise, it will not play normally.
 - The audio file formats that can be played are MP3 / WMA / AAC / M4A / WAV / AAC+ / AP3 / SDDS.
 - The unit can display performer name / song name / song album, etc. Some special characters may not be displayed correctly.
-

About using USB memory

Attention

Alpine is not responsible for loss of data, etc. even if such loss occurs while using this product.

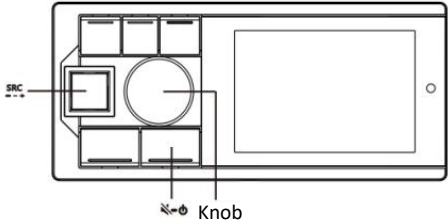
- To prevent malfunction or damage, please pay attention to the following points:
 - Please read through the user manual for the USB Storage.
 - Please do not touch the terminals with your hands or metal.
 - Please do not subject the USB Storage to strong vibrations.
 - Please do not bend, drop, disassemble, modify, or immerse it in water.
- Avoid using or storing the USB Storage in the following places:
 - In a car exposed to direct sunlight or high temperature.
 - Places where high humidity or corrosive objects may be present.
- Do not install the USB Storage in a location where it will not interfere with the driver's ability to operate the vehicle.

- The USB Storage may not operate correctly in high or low temperature areas.
- Only use an approved USB Storage. Please note that even with an approved USB Storage, it may not function correctly depending on the type or status.
- The functions of the USB Storage are not guaranteed. Use it in accordance with the terms of the agreement.
- Depending on the type of USB Storage used, the state of the Storage or the setting of the encoding software, the camera may not work or display correctly.
- Files protected by copy protection (copyright protection) cannot be played.
- It may take some time for the USB Storage to start to playback. If there are special files other than audio in the USB Storage, it may take longer before the files are played or searched.
- This unit can play files with the extensions "mp3", "wma", "acc", "m4a", "wav", "flac", "ape", and "dsd" ("dff" and "dsf").
- Please do not add these extensions to non-audio data. Such non-audio data cannot be recognized. The playback results may contain noise that can damage the speakers and / or amplifier.
- It is recommended that you back up important data on your PC.
- Do not remove the USB device during playback. Change SOURCE to something other than USB, and then remove the USB device to prevent damage to its memory.

• The Bluetooth® word marks and logos are registered trademarks owned by Bluetooth SIG, Inc. and their use by Alpine Electronics is permitted. Other trademarks and their trade names are the property of their respective owners.

• Products bearing the High-Resolution logo conform to the standards defined by the Japan Audio Association (JAA). Alpine Electronics is authorized to use the High-Resolution mark of the Japan Audio Association.

Preparatory Work



List of Parts Included

- Main machine 1
- Power cord 1
- High level input line..... 1
- USB extension cable (1.5m)..... 1
- Controller extension cable (2.5m) 1
- Composite wire 1
- Mounting bracket..... 2
- Self-tapping screw (M4X20) 4
- Mechanical screw (M5X8) 4
- Big & small 3M tape 2
- Quick Start Guide 1

Power on and off

Press any of the buttons on the main machine controller to turn the unit on.

Press and hold for at least 2 seconds to turn this unit off.

Note:

- *Volume starts at level 12 when the power is first turned on.*

Setting mixing mode

This Media Player is preset with a high-quality audio processing chip. You can choose Alpine direct mode to enjoy the high-quality signal source of the Media Player, or you can choose the aux mix mode to listen to the sound of the original equipment (such as navigation), while enjoying the signal source of the Media Player.

Press SRC/ ↵ to toggle the mix mode, as follows, using aux Mix as an example:

AUX Mix-ALPINE Direct

AUX Mix:

When music is played by the Media Player, the music and navigation prompt sound of the original car stereo are mixed in and played together.

ALPINE Direct:

Only playback the music from the UTX-M08.

Notes:

- *When the same sound source is superimposed, the auxiliary sound source will not work. That is, when the current signal source is AUX, the AUX mixing mode will not work.*
- *Before using this function, it is necessary to connect the audio output of the original car audio to the "IN" connector of the Media Player.*

Signal source selection

Press SRC/ ↵ to change the signal source.

USB*¹ (default audio source) ↔ One Bluetooth Music*² ↔ One High ↔ One AUX

*¹ *When three USB memories are connected to this Media Player, the audio files are combined and played back from the same USB audio source.*

*² *Displayed only when "Bluetooth" is connected, see "Connecting Bluetooth".*

Initial System Boot

Press and hold RESET switch for 3 seconds and then the Media Player restarts the main unit.

1. Turn off the power to this Media Player.
2. Press RESET with a ballpoint pen or similar pointed object.

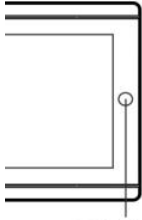


Reset switch

Adjusting volume

Turn the knob to get the desired volume

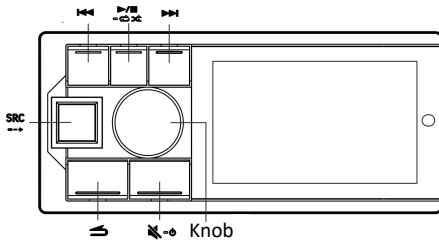
Can be controlled with the optional remote-control.
Use the remote-control device by pointing it at the remote-control sensor.



Remote Control Sensor

Can be connected to a remote-control interface unit.
With the optional Alpine steering wheel remote interface unit, you can control this device using your vehicle's steering wheel controller. Please contact your Alpine dealer for details.

USB Storage (Optional)



Notes:

- When the Media Player is connected to three USBs at the same time, the system will automatically combine the contents of the three USB to play in the same USB sound source.
- Please do not connect two or more charging devices to the USB interface of the Media Player at the same time, otherwise normal operation cannot be guaranteed.

Connecting USB Storage (optional)

If USB Storage is connected to the Media Player, MP3/WMA/AAC/M4A/WAV/FLAC/APE/DSD files can be played.

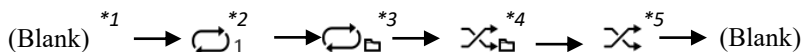
Playback

1. Press SRC/→ to select USB mode by default.
2. Press ◀ or ▶ to select the desired track (file).

Press ◀◀ and ▶▶ hold for fast rewind or fast forward.

3. Press ▶/⏸/⏪/⏩ to pause or play.

Press and hold through the playback mode.



*1 Turn off looped and random playback.

*2 Loop play only the current song.

*3 Only the files in a folder are looped.

*4 Folders are played randomly.

*5 All tracks play randomly.

4. Turn the knob to adjust the volume, increase the volume clockwise, decrease the volume counterclockwise.

Press the knob to enter the track search menu, you can select USB1, USB2, USB3 etc. to select tracks to play, or turn the knob to enter the search list to search for the tracks you want to play.

5. Press ↶ to return to the previous level.

Note:

- Depending on the number of files stored in the USB, it may take some time for playback to start.
- The format of the playback file is displayed on the screen during playback.
- The HR icon is displayed on the screen when playing back high-resolution audio (Hi-Res) files.
- Any files protected by DRM (Digital Rights Management) copy protection cannot be played back on this unit.
- Playback time may not be displayed correctly when playing back VBR (Variable Bit Rate) recorded documents.
- The song name / performer's name / album name is displayed if the tag information is available.
- Unsupported characters are displayed with "□" instead.

Searching for the desired song

The USB Storage can hold many tracks. Find the desired song quickly by searching.

1. Press the knob to enter the song list menu, select "Search" to start search mode.
2. Turn the knob to select "Song", "Album", "File Format", "Artist", "Date" or "File Size" from the category list.

- 1.1 Select Song*¹, and then press to enter the song list.
- 1.2 Select Album*¹, short press to enter the album list, turn the knob to select the desired album, and short press to enter the song list.
- 1.3 Select File Format*¹, short press to enter the file format list, turn the knob to select the desired file format, short press to enter the song list.
- 1.4 Select Artist*¹, short press to enter the Artist list, rotate the knob to select the desired artist, short press to enter the Song list.
- 1.5 Select Date*², press briefly to enter the song list.
- 1.6 Select File Size*³, short press to enter the song list.

*1 Sort by numbers 0 to 9, A to Z in alphabetical order (first by numbers, then by letters, upper and lower-case letters are indistinguishable).

*2 Date is sorted by the actual revision date of the file in the new folder order, no rules for the same time.

*3 File size is sorted according from the largest to smallest storage space occupied, no rule for the same size files.

3. Under the song list, turn the knob to select the desired song, and short press to start playing the selected song.

Notes:

- Press ⏪ to return to the previous level.
 - Empty files or files that do not have a valid playback file will not be displayed.
 - Searching may be slow when there are many tracks stored in the USB.
-

About MP3/WMA/AAC/M4A/WAV/FLAC/APE/DSD

Attention

Except for personal use, copyright laws and international conventions strictly prohibit the copying, distribution, transmission or copying of audio data (including MP3/WMA/AAC/M4A/WAV/FLAC/APE/DSD data), free of charge or for a fee, without the consent of the copyright owner.

What is MP3?

MP3, officially known as "MPEG Audio Layer 3", is a compression standard specified by MPEG, a joint executive body under the ISO (International Organization for Standardization) and IEC. MP3 files contain compressed audio data. The MP3 format has reduced the size of the music file to a tenth of its original size, while still maintaining a sound quality close to that of a CD. The MP3 format achieves such a high compression rate by excluding sounds that could not be heard by the human ear or are masked by other sounds.

What is WMA?

WMA or "Windows Media™ Audio" is compressed audio data, and WMA is similar to MP3 audio data.

What is AAC?

AAC stands for "Advanced Audio Coding", which is a basic audio compression format used by MPEG2 or MPEG4.

What is M4A?

M4A is the file extension of the MPEG-4 audio standard, M4A files contain compressed audio data.

What is WAV?

WAV is a sound file format developed by Microsoft. It conforms to the RIFF (Resource Interchange File Format) file specification, which is used to store audio information resources for the Windows platform and is widely supported by the Windows platform and its applications. This format also supports MSADPCM, CCITTALAW and other compression algorithms as well as a variety of audio digital, sampling frequencies and channels; the standard format of WAV files is the same as CD format with 44.1kHz sampling frequency and 16-bit quantization of the digital, so the quality of the sound file and CDs is similar! It is the closest to a lossless music format, so the file size is relatively large.

What is FLAC?

FLAC, or Lossless Audio Compression Coding, is a famous free audio compression coding that features lossless compression. Unlike other lossy audio codecs like MP3 and AAC, it does not destroy any of the original audio information.

What is APE?

APE is one of the popular lossless formats for digital music. Unlike lossy formats such as MP3, which irreversibly deletes (hearing-insensitive) data in order to reduce the size of the source file, APE is a more refined recording format that reduces the size of the file, restoring the data to the same size as the source file, thus ensuring the integrity of the file.

What is DSD?

DSD music format is a kind of lossless music format, because its encoding is different from normal encoding, it is a kind of digital encoding, which makes it a niche and special music format.

Method of creating MP3/WMA/AAC/M4A/WAV/FLAC/APE/DSD files

Audio data is compressed using software with MP3/WMA/AAC/M4A/WAV/FLAC/APE/DSD codecs. For details on creating MP3/WMA/AAC/ /M4A/WAV/FLAC/APE/DSD files, please refer to the user's manual of the software. The MP3/WMA/AAC/M4A /WAV/FLAC/APE/DSD files that can be played by this unit have the following file extensions.

MP3 : "mp3"
WMA: "wma"
AAC: "m4a"
M4A: "m4a"
WAV: "wav"
FLAC: "flac"
APE: "ape"
DSD: "dsf" or "dff"

Files without extensions cannot be played. WMA Lossless, WMA Professional, protected files, and original AAC files (with the extension ".aac") are not supported. There are many different versions of the AAC format. Make sure that the software you are using conforms to the above acceptable formats. Even if the extension is valid, it may not be a format that can be played. The playback of AAC files encoded in iTunes is supported. APE decoding only corresponds to the ape v2 tag.

Supported playback sampling frequency and bit rate

MP3

Sampling frequency : 48kHz, 44.1kHz, 32kHz, 24kHz, 22.05kHz, 16kHz, 12kHz, 11.025kHz, 8kHz
Bit rate : 8 - 320 kbps

WPA

Sampling frequency : 48kHz, 44.1kHz, 32kHz, 22.05kHz, 16kHz, 11.025kHz, 8kHz
Bit rate : 12 - 193 kbps (stereo) / 0 - 128kbps (mono)

AAC

AAC

Sampling frequency: 48kHz, 44.1kHz, 32kHz, 24kHz, 22.05kHz, 16kHz, 12kHz, 11.025kHz, 8kHz
Bit rate: 8-320kbps

M4A

Sampling frequency: 48kHz, 44.1kHz, 32kHz, 24kHz, 22.05kHz, 16kHz, 12kHz, 11.025kHz, 8kHz
Bit rate: 8-500kbps

WAV

Sampling frequency: 192kHz, 176.4kHz, 96kHz, 88.2kHz, 48kHz, 44.1kHz, 32kHz, 24kHz, 22.05kHz, 16kHz
8bit, 16bit, 24bit

No. of quantized bits:

FLAC 192kHz, 176.4kHz, 96kHz, 88.2kHz, 48kHz, 44.1kHz, 32kHz, 24kHz, 22.05kHz,

Sampling frequency: 16kHz, 12kHz, 11.025kHz, 8kHz

8bit, 16bit, 24bit

No. of quantized bits:

APE 192kHz, 176.4kHz, 96kHz, 88.2kHz, 48kHz, 44.1kHz, 32kHz, 24kHz, 22.05kHz,

Sampling frequency: 16kHz, 12kHz, 11.025kHz, 8kHz

16bit, 24bit

No. of quantized bits:

DSD

Sampling rate: DSD64 2.8224MHz, DSD128 5.6448MHz, DSD256 11.290MHz

Depending on the sampling frequency, the player may not play correctly.

In USB mode, the playback time may not be displayed correctly when playing the files recorded by the port (variable bit rate).

To play MP3/WMA/AAC/M4A/WAV/FLAC/APE/DSD

Prepare MP3/WMA/AAC/M4A/WAV/FLAC/APE/DSD files and store them in USB Storage.

- Maximum number of playable files/folders

USB Storage: 10,000 files / 700 folders (including root folder)

- The maximum nested folder depth is 5 (including the root directory folder).

If the USB Storage exceeds the above limit, playback may not be possible.

Please do not allow the file playback time to exceed 1 hour.

RSA Data Security, Inc. MD5 Message-Digest Algorithm.

Supported Media

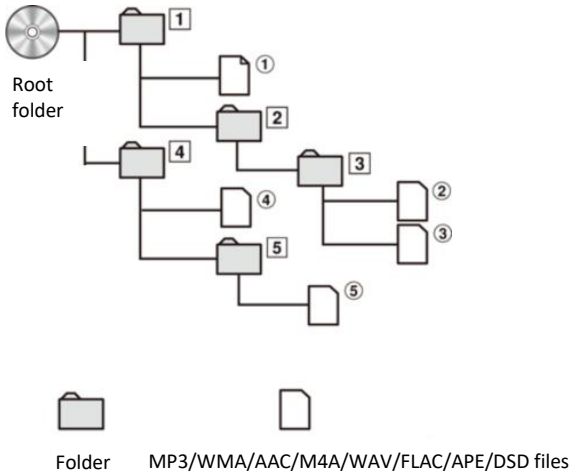
This Media Player can play from USB memory cards.

Corresponding file systems

This Media Player supports FAT16 / 32, NTFS, exFAT USB Storage.

Order of files

The files are played according to the order in which the files / folders are stored in the USB Storage. As a result, the playback order may be different from what you expect. The order in which folders and files are played is as follows:



* If there is no valid play file or the folder is empty, the folder number/folder name will not be displayed.

Terms

Bit rate

This is the "sound" compression ratio specified for coding. The higher the bit rate, the better the sound quality, but the larger the file.

Sampling frequency

This value represents the number of times data is sampled (recorded) per second. For example, music CDs use a sampling frequency of 44.1KHz, so sound is sampled (recorded) at 44,100 times per second. The higher the sampling frequency, the better the sound quality, but the larger the data volume.

Code

Converts music CDs, wave (AIFF) files and other sound files to specified audio compression format.

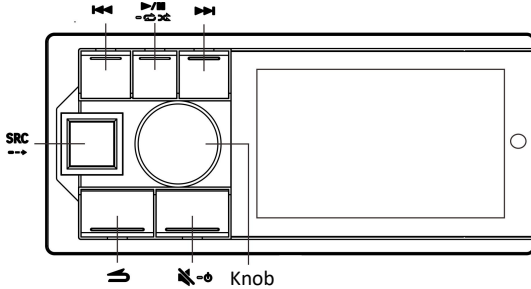
Marker

Write the song information in the file of MP3/WMA/AAC/M4A/WAV.FLAC/APE/DSD, such as song, album, file format, artist, date, file size.

Root Folder

The root folder (or root) can be found at the top of the file system. The root folder includes all the folders and files.

Sound Settings



Audio Setting

You can set up the Media Player according to your preferences and way of using. From the sound settings menu, you can change the audio settings.

Use Steps 1 to 5 to select any setting mode to change. For a detailed description of the selected settings, refer to the applicable sections below.

1. Press and hold the knob for at least 2 seconds to enter the setting menu.

2. Turn the knob to select "Sound Effect Settings", then press the knob briefly.

Preset Equalizer*¹ Sound Effect Settings → Sound Clear Settings → General → Bluetooth

*¹ Adjustment cannot be made when "Sound Clear Settings" is turned on.

3. Rotate the button to select the sound effects setting menu, then press the knob briefly.

Treble⁻² → Bass⁻² → Subwoofer → Parameter Equalizer → BAL → FAD⁻³ → Input Source Volume → Time Correction → Crossover Setting⁻⁴ → Sound Settings Save

*² Any changes made to "Preset Equalizer" or "Parametric Equalizer" are reflected in the settings of the other one.

*³ When "Crossover Settings" is set to "Active 3-way Crossover", adjustment cannot be made. See "About the Crossover" for more information.

*⁴ Depending on the frequency division setting, the settings will be different. See "about crossovers" for more.

4. Turn the knob to change the setting or enter the next layer, and then press the knob briefly.

5. Press SRC / ↵ card to release the setting mode.

Note:

- Press ↵ to return to the previous sound menu mode.

Preset Equalizer

10 typical EQ settings are preset at the factory for use with a wide variety of source material.

Standard (initial setting) → Pop → Rock → Newscast → Jazz → Electronic → Hip-Hop → Light → Country → Classical → Custom.

Note:

- The "Custom" item is displayed when the Bass/Treble or Parametric EQ is adjusted.

Adjusting treble / base level

Treble or bass adjustment level can be selected according to your preference.

Setting items: Treble / Bass

Setting contents: -7 to +7 (Initial value: 0)

Setting subwoofer

Turning the subwoofer on/off

When the subwoofer is on, you can adjust the phase output level of the subwoofer.

Setting item: Subwoofer

Settings: Off / On (initial setting)

Setting the subwoofer phase

The subwoofer phase is set to 0° (positive phase) or 180° (negative phase). To adjust the phase, turn the knob.

Setting item: Subwoofer phase

Setting levels: 0° (initial setting) / 180°

Setting the subwoofer level


When the subwoofer is on, you can adjust the output level of the subwoofer.

Setting item: Subwoofer level

Setting levels: 0 to +15 (Initial value: 9)

Adjusting parameter equalizer curve

The equalizer settings can be modified to make the response curve more in line with your own preferences.

1. After selecting the parameter equalizer via the sound settings, turn the knob to select the desired band, then give the knob a short press.
2. After selecting the frequency, press the knob briefly and turn the knob to select the frequency value.
Press  to exit the frequency setting.
3. Repeat step 2 to adjust the Q value and gain in the selected band.

Adjusting bands

Setting options: Band 1 / Band 2 / Band 3 / Band 4 / Band 5 / Band 6 / Band 7 / Band 8 / Band 9 / Band 10

Adjusting frequency

Adjustable frequency band: 20H ~ 20kHz

Band 1: 20Hz ~ 63Hz(31Hz)

Band 2: 31Hz ~ 125Hz(63Hz)

Band 3: 63Hz ~ 315Hz(125Hz)

Band 4: 125Hz ~ 500Hz(250Hz)

Band 5: 250Hz ~ 1kHz(500Hz)

Band 6: 500Hz ~ 2kHz(1kHz)

Band 7: 1kHz ~ 4kHz(2kHz)

Band 8: 2kHz ~ 7.2kHz(4kHz)

Band 9: 5.8kHz ~ 12kHz(8kHz)

Band 10: 9kHz ~ 20kHz(16kHz)

Adjusting Q value

Adjustable Q-band: 0.404 ~ 28.85 (initial setting: 3.506)

Adjustment Gain

Adjustable gain band: -12dB ~ +12dB (initial setting: 0)

Notes:

- *The frequency setting value of each band shall not exceed that of adjacent bands.*
- *When adjusting the parameter equalizer, the frequency response of the connected loudspeaker should be considered.*
- *When adjusting the parameter equalizer, the preset equalizer that has been adjusted will be invalid.*
- *When the parameter equalizer is adjusted, the preset equalizer displays "custom".*

Adjusting BAL of speaker output

Set items: BAL

Setting Levels : L15 ~ 0 ~ R15 (initial value: 0)

Adjusting FAD of speaker output

Setting items: FAD

Setting levels: F15 ~ 0 ~ R15 (initial value:0)

Adjusting input sound source volume

1. Select the input sound source volume adjustment through the sound effect setting mode, and then press the button briefly.
2. Turn the knob to select the USB sound source, and then press the knob to select it.
3. Turn the knob to adjust the volume, setting range: - 60dB ~ 0dB (initial value: 0dB), press the return key to select the sound source.
4. Repeat step 2 and step 3 to adjust the volume of Bluetooth music, high level and AUX.

Note:

- *In the sound source selection, USB→Bluetooth music→high level→AUX can be selected.*

Adjusting time corrections

Refer to "about time correction" before performing the following steps.

1. Select the adjustment time correction through the sound effect setting mode, turn the knob to select the loudspeaker or time correction unit to be adjusted, and then press the knob briefly.

Front left speaker (F-L)→front right speaker (F-R)→rear left speaker (R-L)→rear right speaker (R-R)→left subwoofer * (SW-L) right subwoofer (SW-R)

* Adjustment is not possible when the subwoofer mode is turned off.

2. Turn the knob to adjust the distance or time correction unit of the selected speaker, then press the knob briefly.

Milliseconds: 0.000ms ~ 10.000ms (0.01ms/level)

Centimeters: 0 ~ 346cm (0.3cm/level)

Inches: 0 ~ 136inch (0.1inch/level)

By setting these values, the sound will reach the listening position at the same time as that of other speakers.

Note:

- *The sum of the adjustment distances for all speakers should be less than 510cm/201in/15ms.*
 - *Selectable time correction units: ms (milliseconds) / cm (centimeters) / inch (inches)*

Adjusting crossover setting

Before performing the following steps, refer to "About Crossover".

1. After selecting the crossover setting via the audio setting mode, turn the knob to select the desired channel, and then press the knob briefly.

Active 2-way crossover frequency

Front speaker ↔ Rear speaker ↔ Subwoofer

Active 3-way crossover frequency

Bass ↔ Midrange ↔ Midrange high pass ↔ Treble

** Adjustments cannot be made when the bass mode is turned off.*

2. Turn the knob to select the desired setting item, then press the knob briefly.

To select the cut-off frequency

Active 2-way crossover frequency

Setting content:

Frequency: 20/25/32/40/50/63/80 (initial setting) /100/125/160/200 (Hz)

Active 3-way crossover frequency

Setting options:

Woofer / Mid-range low-pass speaker*:

20/25/32/40/50/63/80/100/125/160/200/250/315/400/500 (initial setting) /630/800 (Hz)

Mid-range high-pass speaker:

20/25/32/40/50/63/80/100/125/160/200/250/315/400/500/630/800/1k/

1.2k/1.6k/2k/2.5k/3.2k/4k/5k (initial setting)/6. 3k/8k/10k/12. 5k/16k/20k (Hz)

Tweeter:

1k/1.2k/1.6k/2k/2.5k/3.2k/4k/5k (initial setting)/6. 3k/8k/10k/12. 5k/16k/20k (Hz)

** The cut-off frequency setting value of the mid bass speaker cannot be higher than that of the mid-range and high-pass loudspeaker.*

Adjusting the slope

Setting content: 6/12 (initial setting) /18/24/30/36/42/48 (dB/Oct.) or close.

Sound clear settings

When this option is enabled, the preset equalizer and other sound effect related settings will be invalid. Turn off to restore the previous sound settings.

Setting item: Sound clear settings

Setting options: Off (initial setting) / On

Store and recall sound setting parameters

Store sound setting parameters

After purchase and installation of this product by the designated Alpine authorized dealer, professional technicians will debug and store the sound for you and set the relevant parameters for "dealer settings".

In addition to "dealer settings", if you have your own preferences, after setting the preset equalizer, bass, treble, frequency division and other sound parameters, select "custom settings", and long press the knob for more than 2 seconds to store the debugged sound parameters in the "custom settings".

Call the stored sound to set parameters

After selecting "dealer settings" or "custom settings", press the knob briefly to call up the adjusted sound setting parameters.

Notes:

- *The stored contents will not be deleted even when the Media Player is reset, or the battery is disconnected.*
- *Dealer settings: can only be selected and recalled, can only be stored when using the power check mode.*
- *Custom settings: can be called, stored and modified.*

About Time Correction

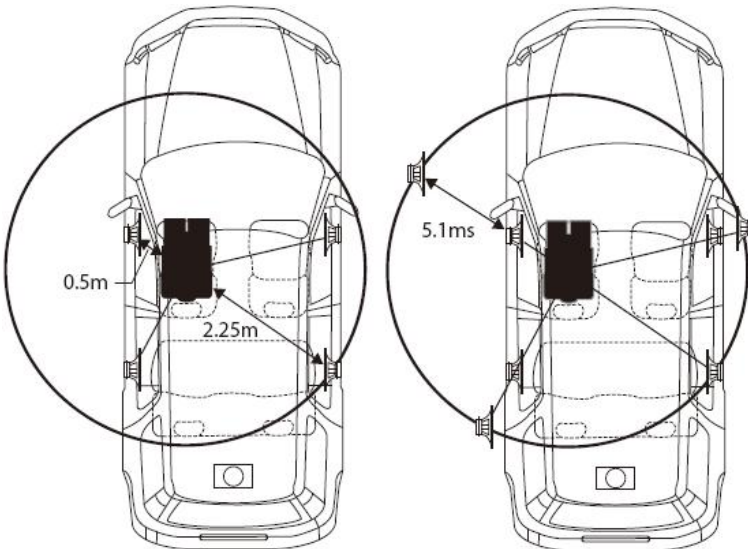
The distance between the listener and the interior speakers can vary greatly due to different speaker placements. This distance difference between the speaker and the listener will cause the deviation of audio and frequency characteristics. This phenomenon is caused by the delay in the arrival of the sound to the listener's right and left ears.

To solve this problem, the unit can delay the audio signal sent to the speaker nearest to the listener. This effectively creates a sense of extended distance for these loudspeakers. The distance between the listener and the left and right speakers should be equal to obtain the best effect. Adjust the loudspeakers with 3.4cm as the level difference.

The following is an example of a listening position:

Example 1: Left front seat

Adjust the time correction level of the left front speaker to a larger value and the right rear speaker to zero or a smaller value.



The listening position and the distance between each speaker are different, so the sound is unbalanced. The difference in distance between the left front speaker and the right rear speaker is 1.75m (68-7/8").

Here we will calculate the time-corrected value of the left front speaker in the above figure.

Conditions:

Farthest speaker - listening position: 2.25m (88-9/16")

Left front speaker - listening position: 0.5m (19-11/16")

Calculation: $L = 2.25\text{m} - 0.5\text{m} = 1.75\text{m}$ (68-7/8")

Time correction = $1.75 + 343 * X 1000 = 5.1$ (ms)

* *Sound speed: 20°. 343m / S (765mph)*

In other words, setting the time correction value of the left front speaker to 5.1ms can make the distance between the left front speaker and the listener be the same as that between the listener and the farthest speaker. Time correction eliminates the difference in time required for the sound to reach the listening position.

The time of the left front speaker is corrected by 5.1ms so that its sound will reach the listening position at the same time as the sound of other speakers.

Example 2: All seats

Adjust the time correction level of each loudspeaker to almost the same.

1. Sit in the listening position (driving position, etc.) and measure the distance (m) between the head and each speaker.
2. Calculate the distance correction difference between the farthest speaker and other speakers.

$$L = (\text{distance from farthest speaker}) - (\text{distance from other speakers})$$

These values are time corrected values for different loudspeakers. By setting these values, each sound can reach the listening position at the same time as the sound from other speakers.

List of Time Corrected Values

Delay no.	Time difference (ms)	Distance (cm)	Distance (inch)	Delay no.	Time difference (ms)	Distance (cm)	Distance (inch)
0	0.00	0.00	0.00	32	0.32	11.07	4.32
1	0.01	0.34	0.10	33	0.33	11.41	4.45
2	0.02	0.69	0.24	34	0.34	11.76	4.59
3	0.03	1.03	0.37	32	0.32	11.07	4.32
4	0.04	1.38	0.51	33	0.33	11.41	4.45
5	0.05	1.72	0.64	34	0.34	11.76	4.59
6	0.06	2.07	0.78	35	0.35	12.10	4.72
7	0.07	2.42	0.92	36	0.36	12.45	4.86
8	0.08	2.76	1.05	37	0.37	12.80	5.00
9	0.09	3.11	1.19	38	0.38	13.14	5.13
10	0.10	3.45	1.32	39	0.39	13.49	5.27
11	0.11	3.80	1.46	40	0.40	13.83	5.40
12	0.12	4.15	1.60	41	0.41	14.18	5.54
13	0.13	4.49	1.73	42	0.42	14.53	5.68
14	0.14	4.84	1.87	43	0.43	14.87	5.81
15	0.15	5.18	2.00	44	0.44	15.22	5.95
16	0.16	5.53	2.14	45	0.45	15.56	6.08
17	0.17	5.88	2.28	46	0.46	15.91	6.22
18	0.18	6.22	2.41	47	0.47	16.26	6.36
19	0.19	6.57	2.55	48	0.48	16.60	6.49
20	0.20	6.91	2.68	49	0.49	16.95	6.63
21	0.21	7.26	2.82	50	0.50	17.29	6.76
22	0.22	7.61	2.96	51	0.51	17.64	6.90
23	0.23	7.95	3.09	52	0.52	17.99	7.04
24	0.24	8.30	3.23	53	0.53	18.33	7.17
25	0.25	8.64	3.36	54	0.54	18.68	7.31
26	0.26	8.99	3.50	55	0.55	19.02	7.44
27	0.27	9.34	3.64	56	0.56	19.37	7.58
28	0.28	9.68	3.77	57	0.57	19.72	7.72
29	0.29	10.03	3.91	58	0.58	20.06	7.85
30	0.30	10.37	4.04	59	0.59	20.41	7.99
31	0.31	10.72	4.18	60	0.60	20.75	8.12

61	0.61	21.10	8.26	106	1.06	36.67	14.38
62	0.62	21.45	8.40	107	1.07	37.02	14.52
63	0.63	21.79	8.53	108	1.08	37.36	14.65
64	0.64	22.14	8.67	109	1.09	37.71	14.79
65	0.65	22.48	8.80	110	1.10	38.05	14.92
66	0.66	22.83	8.94	111	1.11	38.40	15.06
67	0.67	23.18	9.08	112	1.12	38.75	15.20
68	0.68	23.52	9.21	113	1.13	39.09	15.33
69	0.69	23.87	9.35	114	1.14	39.44	15.47
70	0.70	24.21	9.48	115	1.15	39.78	15.60
71	0.71	24.56	9.62	116	1.16	40.13	15.74
72	0.72	24.91	9.76	117	1.17	40.48	15.88
73	0.73	25.25	9.89	118	1.18	40.82	16.01
74	0.74	25.60	10.03	119	1.19	41.17	16.15
75	0.75	25.94	10.16	120	1.20	41.51	16.28
76	0.76	26.29	10.30	121	1.21	41.86	16.42
77	0.77	26.64	10.44	122	1.22	42.21	16.56
78	0.78	26.98	10.57	123	1.23	42.55	16.69
79	0.79	27.33	10.71	124	1.24	42.90	16.83
80	0.80	27.67	10.84	125	1.25	43.24	16.96
81	0.81	28.02	10.98	126	1.26	43.59	17.10
82	0.82	28.37	11.12	127	1.27	43.94	17.24
83	0.83	28.71	11.25	128	1.28	44.28	17.37
84	0.84	29.06	11.39	129	1.29	44.63	17.51
85	0.85	29.40	11.52	130	1.30	44.97	17.64
86	0.86	29.75	11.66	131	1.31	45.32	17.78
87	0.87	30.10	11.80	132	1.32	45.67	17.92
88	0.88	30.44	11.93	133	1.33	46.01	18.05
89	0.89	30.79	12.07	134	1.34	46.36	18.19
90	0.90	31.13	12.20	135	1.35	46.70	18.32
91	0.91	31.48	12.34	136	1.36	47.05	18.46
92	0.92	31.83	12.48	137	1.37	47.40	18.60
93	0.93	32.17	12.61	138	1.38	47.74	18.73
94	0.94	32.52	12.75	139	1.39	48.09	18.87
95	0.95	32.86	12.88	140	1.40	48.43	19.00
96	0.96	33.21	13.02	141	1.41	48.78	19.14
97	0.97	33.56	13.16	142	1.42	49.13	19.28
98	0.98	33.90	13.29	143	1.43	49.47	19.41
99	0.99	34.25	13.43	144	1.44	49.82	19.55
100	1.00	34.59	13.56	145	1.45	50.16	19.68
101	1.01	34.94	13.70	146	1.46	50.51	19.82
102	1.02	35.29	13.84	147	1.47	50.86	19.96
103	1.03	35.63	13.97	148	1.48	51.20	20.09
104	1.04	35.98	14.11	149	1.49	51.55	20.23
105	1.05	36.32	14.24	150	1.50	51.89	20.36

151	1.51	52.24	20.50	196	1.99	68.85	27.03
152	1.52	52.59	20.64	197	2.00	69.19	27.16
153	1.53	52.93	20.77	198	2.01	69.54	27.30
154	1.54	53.28	20.91	199	2.02	69.89	27.44
155	1.55	53.62	21.04	200	2.03	70.23	27.57
156	1.56	53.97	21.18	201	2.04	70.58	27.71
157	1.57	54.32	21.32	202	2.05	70.92	27.84
158	1.58	54.66	21.45	203	2.06	71.27	27.98
159	1.59	55.01	21.59	204	2.07	71.62	28.12
160	1.60	55.35	21.72	205	2.08	71.96	28.25
161	1.61	55.70	21.86	206	2.09	72.31	28.39
162	1.62	56.05	22.00	207	2.10	72.65	28.52
163	1.63	56.39	22.13	208	2.11	73.00	28.66
164	1.64	56.74	22.27	209	2.12	73.35	28.80
165	1.65	57.08	22.40	210	2.13	73.69	28.93
166	1.66	57.43	22.54	211	2.14	74.04	29.07
167	1.67	57.78	22.68	212	2.15	74.38	29.20
168	1.68	58.12	22.81	213	2.16	74.73	29.34
169	1.69	58.47	22.95	214	2.17	75.08	29.48
170	1.73	59.85	23.49	215	2.18	75.42	29.61
171	1.74	60.20	23.63	216	2.19	75.77	29.75
172	1.75	60.54	23.76	217	2.20	76.11	29.88
173	1.76	60.89	23.90	218	2.21	76.46	30.02
174	1.77	61.24	24.04	219	2.22	76.81	30.16
175	1.78	61.58	24.17	220	2.23	77.15	30.29
176	1.79	61.93	24.31	221	2.24	77.50	30.43
177	1.80	62.27	24.44	222	2.25	77.84	30.56
178	1.81	62.62	24.58	223	2.26	78.19	30.70
179	1.82	62.97	24.72	224	2.27	78.54	30.84
180	1.83	63.31	24.85	225	2.28	78.88	30.97
181	1.84	63.66	24.99	226	2.29	79.23	31.11
182	1.85	64.00	25.12	227	2.30	79.57	31.24
183	1.86	64.35	25.26	228	2.31	79.92	31.38
184	1.87	64.70	25.40	229	2.32	80.27	31.52
185	1.88	65.04	25.53	230	2.33	80.61	31.65
186	1.89	65.39	25.67	231	2.34	80.96	31.79
187	1.90	65.73	25.80	232	2.35	81.30	31.92
188	1.91	66.08	25.94	233	2.36	81.65	32.06
189	1.92	66.43	26.08	226	2.29	79.23	31.11
190	1.93	66.77	26.21	227	2.30	79.57	31.24
191	1.94	67.12	26.35	228	2.31	79.92	31.38
192	1.95	67.46	26.48	229	2.32	80.27	31.52
193	1.96	67.81	26.62	230	2.33	80.61	31.65
194	1.97	68.16	26.76	231	2.34	80.96	31.79
195	1.98	68.50	26.89	232	2.35	81.30	31.92

233	2.36	81.65	32.06	278	2.81	97.22	2.81
234	2.37	82.00	32.20	279	2.82	97.57	2.82
235	2.38	82.34	32.33	280	2.83	97.91	2.83
236	2.39	82.69	32.47	281	2.84	98.26	2.84
237	2.40	83.03	32.60	282	2.85	98.60	2.85
238	2.41	83.38	32.74	283	2.86	98.95	2.86
239	2.42	83.73	32.88	284	2.87	99.30	39.00
240	2.43	84.07	33.01	285	2.88	99.64	39.13
241	2.44	84.42	33.15	286	2.89	99.99	39.27
242	2.45	84.76	33.28	287	2.90	100.33	39.40
243	2.46	85.11	33.42	288	2.91	100.68	39.54
244	2.47	85.46	33.56	289	2.92	101.03	39.68
245	2.48	85.80	33.69	290	2.93	101.37	39.81
246	2.49	86.15	33.83	291	2.94	101.72	39.95
247	2.50	86.49	33.96	292	2.95	102.06	40.08
248	2.51	86.84	34.10	293	2.96	102.41	40.22
249	2.52	87.19	34.24	294	2.97	102.76	40.36
250	2.53	87.53	34.37	295	2.98	103.10	40.49
251	2.54	87.88	34.51	296	2.99	103.45	40.63
252	2.55	88.22	34.64	297	3.00	103.79	40.76
253	2.56	88.57	34.78	298	3.01	104.14	40.90
254	2.57	88.92	2.57	299	3.02	104.49	41.04
255	2.58	89.26	2.58	300	3.03	104.83	41.17
256	2.59	89.61	2.59	301	3.04	105.18	41.31
257	2.60	89.95	2.60	302	3.05	105.52	41.44
258	2.61	90.30	2.61	303	3.06	105.87	41.58
259	2.62	90.65	2.62	304	3.07	106.22	41.72
260	2.63	90.99	2.63	305	3.08	106.56	41.85
261	2.64	91.34	2.64	307	3.10	107.25	42.12
262	2.65	91.68	2.65	308	3.11	107.60	42.26
263	2.66	92.03	2.66	309	3.12	107.95	42.40
264	2.67	92.38	2.67	310	3.13	108.29	42.53
265	2.68	92.72	2.68	311	3.14	108.64	42.67
266	2.69	93.07	2.69	312	3.15	108.98	42.80
267	2.70	93.41	2.70	313	3.16	109.33	42.94
268	2.71	93.76	2.71	314	3.17	109.68	43.08
269	2.72	94.11	2.72	315	3.18	110.02	43.21
270	2.73	94.45	2.73	316	3.19	110.37	43.35
271	2.74	94.80	2.74	317	3.20	110.71	43.48
272	2.75	95.14	2.75	318	3.21	111.06	43.62
273	2.76	95.49	2.76	319	3.22	111.41	43.76
274	2.77	95.84	2.77	320	3.23	111.75	43.89
275	2.78	96.18	2.78	321	3.24	112.10	44.03
276	2.79	96.53	2.79	322	3.25	112.44	44.16
277	2.80	96.87	2.80	323	3.26	112.79	44.30

324	3.27	113.14	44.44	369	3.72	128.71	50.56
325	3.28	113.48	44.57	370	3.73	129.05	50.69
326	3.29	113.83	44.71	371	3.74	129.40	50.83
327	3.30	114.17	44.84	372	3.75	129.74	50.96
328	3.31	114.52	44.98	373	3.76	130.09	51.10
329	3.32	114.87	45.12	374	3.77	130.44	51.24
330	3.33	115.21	45.25	375	3.78	130.78	51.37
331	3.34	115.56	45.39	376	3.79	131.13	51.51
332	3.35	115.90	45.52	377	3.80	131.47	51.64
333	3.36	116.25	45.66	378	3.81	131.82	51.78
334	3.37	116.60	45.80	379	3.82	132.17	51.92
335	3.38	116.94	45.93	380	3.83	132.51	52.05
336	3.39	117.29	46.07	381	3.84	132.86	52.19
337	3.40	117.63	46.20	382	3.85	133.20	52.32
338	3.41	117.98	46.34	383	3.86	133.55	52.46
339	3.42	118.33	46.48	384	3.87	133.90	52.60
340	3.43	118.67	46.61	385	3.88	134.24	52.73
341	3.44	119.02	46.75	386	3.89	134.59	52.87
342	3.45	119.36	46.88	387	3.90	134.93	53.00
343	3.46	119.71	47.02	388	3.91	135.28	53.14
344	3.47	120.06	47.16	389	3.92	135.63	53.28
345	3.48	120.40	47.29	390	3.93	135.97	53.41
346	3.49	120.75	47.43	391	3.94	136.32	53.55
347	3.50	121.09	47.56	392	3.95	136.66	53.68
348	3.51	121.44	47.70	393	3.96	137.01	53.82
349	3.52	121.79	47.84	394	3.97	137.36	53.96
350	3.53	122.13	47.97	395	3.98	137.70	54.09
351	3.54	122.48	48.11	396	3.99	138.05	54.23
352	3.55	122.82	48.24	397	4.00	138.39	54.36
353	3.56	123.17	48.38	398	4.01	138.74	54.50
354	3.57	123.52	48.52	399	4.02	139.09	54.64
355	3.58	123.86	48.65	400	4.03	139.43	54.77
356	3.59	124.21	48.79	401	4.04	139.78	54.91
357	3.60	124.55	48.92	402	4.05	140.12	55.04
358	3.61	124.90	49.06	403	4.06	140.47	55.18
359	3.62	125.25	3.62	404	4.07	140.82	55.32
360	3.63	125.59	3.63	405	4.08	141.16	55.45
361	3.64	125.94	3.64	406	4.09	141.51	55.59
362	3.65	126.28	49.60	407	4.10	141.85	55.72
363	3.66	126.63	49.74	408	4.11	142.20	55.86
364	3.67	126.98	49.88	409	4.12	142.55	56.00
365	3.68	127.32	50.01	410	4.13	142.89	56.13
366	3.69	127.67	50.15	411	4.14	143.24	56.27
367	3.70	128.01	50.28	412	4.15	143.58	56.40
368	3.71	128.36	50.42	413	4.16	143.93	56.54

414	4.17	144.28	56.68	459	4.62	159.85	62.80
415	4.18	144.62	56.81	460	4.63	160.19	62.93
416	4.19	144.97	56.95	461	4.64	160.54	63.07
417	4.20	145.31	57.08	462	4.65	160.88	63.20
418	4.21	145.66	57.22	463	4.66	161.23	63.34
419	4.22	146.01	57.36	464	4.67	161.58	63.48
420	4.23	146.35	57.49	465	4.68	161.92	63.61
421	4.24	146.70	57.63	466	4.69	162.27	63.75
422	4.25	147.04	57.76	467	4.70	162.61	63.88
423	4.26	147.39	57.90	468	4.71	162.96	64.02
424	4.27	147.74	58.04	469	4.72	163.31	64.16
425	4.28	148.08	58.17	470	4.73	163.65	64.29
426	4.29	148.43	58.31	471	4.74	164.00	64.43
427	4.30	148.77	58.44	472	4.75	164.34	64.56
428	4.31	149.12	58.58	473	4.76	164.69	64.70
429	4.32	149.47	58.72	474	4.77	165.04	64.84
430	4.33	149.81	58.85	475	4.78	165.38	64.97
431	4.34	150.16	58.99	476	4.79	165.73	65.11
432	4.35	150.50	59.12	477	4.80	166.07	65.24
433	4.36	150.85	59.26	478	4.81	166.42	65.38
434	4.37	151.20	59.40	479	4.82	166.77	65.52
435	4.38	151.54	59.53	480	4.83	167.11	65.65
436	4.39	151.89	59.67	481	4.84	167.46	65.79
437	4.40	152.23	59.80	482	4.85	167.80	65.92
438	4.41	152.58	59.94	483	4.86	168.15	66.06
439	4.42	152.93	60.08	484	4.87	168.50	66.20
440	4.43	153.27	60.21	485	4.88	168.84	66.33
441	4.44	153.62	60.35	486	4.89	169.19	66.47
442	4.45	153.96	60.48	487	4.90	169.53	66.60
443	4.46	154.31	60.62	488	4.91	169.88	66.74
444	4.47	154.66	60.76	489	4.92	170.23	66.88
445	4.48	155.00	60.89	490	4.93	170.57	67.01
446	4.49	155.35	61.03	491	4.94	170.92	67.15
447	4.50	155.69	61.16	492	4.95	171.26	67.28
448	4.51	156.04	61.30	493	4.96	171.61	67.42
449	4.52	156.39	61.44	494	4.97	171.96	67.56
450	4.53	156.73	61.57	495	4.98	172.30	67.69
451	4.54	157.08	61.71	496	4.99	172.65	67.83
452	4.55	157.42	61.84	497	5.00	172.99	67.96
453	4.56	157.77	61.98	498	5.01	173.34	68.10
454	4.57	158.12	62.12	499	5.02	173.69	68.24
455	4.58	158.46	62.25	500	5.03	174.03	68.37
456	4.59	158.81	62.39	501	5.04	174.38	68.51
457	4.60	159.15	62.52	502	5.05	174.72	68.64
458	4.61	159.50	62.66	503	5.06	175.07	68.78

504	5.07	175.42	68.92	549	5.52	190.99	75.04
505	5.08	175.76	69.05	550	5.53	191.33	75.17
506	5.09	176.11	69.19	551	5.54	191.68	75.31
507	5.10	176.45	69.32	552	5.55	192.02	75.44
508	5.11	176.80	69.46	553	5.56	192.37	75.58
509	5.12	177.15	69.60	554	5.57	192.72	75.72
510	5.13	177.49	69.73	555	5.58	193.06	75.85
511	5.14	177.84	69.87	556	5.59	193.41	75.99
512	5.15	178.18	70.00	557	5.60	193.75	76.12
513	5.16	178.53	70.14	558	5.61	194.10	76.26
514	5.17	178.88	70.28	559	5.62	194.45	76.40
515	5.18	179.22	70.41	560	5.63	194.79	76.53
516	5.19	179.57	70.55	561	5.64	195.14	76.67
517	5.20	179.91	70.68	562	5.65	195.48	76.80
518	5.21	180.26	70.82	563	5.66	195.83	76.94
519	5.22	180.61	70.96	564	5.67	196.18	77.08
520	5.23	180.95	71.09	565	5.68	196.52	77.21
521	5.24	181.30	71.23	566	5.69	196.87	77.35
522	5.25	181.64	71.36	567	5.70	197.21	77.48
523	5.26	181.99	71.50	568	5.71	197.56	77.62
524	5.27	182.34	71.64	569	5.72	197.91	77.76
525	5.28	182.68	71.77	570	5.73	198.25	77.89
526	5.29	183.03	71.91	571	5.74	198.60	78.03
527	5.30	183.37	72.04	572	5.75	198.94	78.16
528	5.31	183.72	72.18	573	5.76	199.29	78.30
529	5.32	184.07	72.32	574	5.77	199.64	78.44
530	5.33	184.41	72.45	575	5.78	199.98	78.57
531	5.34	184.76	72.59	576	5.79	200.33	78.71
532	5.35	185.10	72.72	577	5.80	200.67	78.84
533	5.36	185.45	72.86	578	5.81	201.02	78.98
534	5.37	185.80	73.00	579	5.82	201.37	79.12
535	5.38	186.14	73.13	580	5.83	201.71	79.25
536	5.39	186.49	73.27	581	5.84	202.06	79.39
537	5.40	186.83	73.40	582	5.85	202.40	79.52
538	5.41	187.18	73.54	583	5.86	202.75	79.66
539	5.42	187.53	73.68	584	5.87	203.10	79.80
540	5.43	187.87	73.81	585	5.88	203.44	79.93
541	5.44	188.22	73.95	586	5.89	203.79	80.07
542	5.45	188.56	74.08	587	5.90	204.13	80.20
543	5.46	188.91	74.22	588	5.91	204.48	80.34
544	5.47	189.26	74.36	589	5.92	204.83	80.48
545	5.48	189.60	74.49	590	5.93	205.17	80.61
546	5.49	189.95	74.63	591	5.94	205.52	80.75
547	5.50	190.29	74.76	592	5.95	205.86	80.88
548	5.51	190.64	74.90	593	5.96	206.21	81.02

594	5.97	206.56	81.16	639	6.42	222.13	87.28
595	5.98	206.90	81.29	640	6.43	222.47	87.41
596	5.99	207.25	81.43	641	6.44	222.82	87.55
597	6.00	207.59	81.56	642	6.45	223.16	87.68
598	6.01	207.94	81.70	643	6.46	223.51	87.82
599	6.02	208.29	81.84	644	6.47	223.86	87.96
600	6.03	208.63	81.97	645	6.48	224.20	88.09
601	6.04	208.98	82.11	646	6.49	224.55	88.23
602	6.05	209.32	82.24	647	6.50	224.89	88.36
603	6.06	209.67	82.38	648	6.51	225.24	88.50
604	6.07	210.02	82.52	649	6.52	225.59	88.64
605	6.08	210.36	82.65	650	6.53	225.93	88.77
606	6.09	210.71	82.79	651	6.54	226.28	88.91
607	6.10	211.05	82.92	652	6.55	226.62	89.04
608	6.11	211.40	83.06	653	6.56	226.97	89.18
609	6.12	211.75	83.20	654	6.57	227.32	89.32
610	6.13	212.09	83.33	655	6.58	227.66	89.45
611	6.14	212.44	83.47	656	6.59	228.01	89.59
612	6.15	212.78	83.60	657	6.60	228.35	89.72
613	6.16	213.13	83.74	658	6.61	228.70	89.86
614	6.17	213.48	83.88	659	6.62	229.05	90.00
615	6.18	213.82	84.01	660	6.63	229.39	90.13
616	6.19	214.17	84.15	661	6.64	229.74	90.27
617	6.20	214.51	84.28	662	6.65	230.08	90.40
618	6.21	214.86	84.42	663	6.66	230.43	90.54
619	6.22	215.21	84.56	664	6.67	230.78	90.68
620	6.23	215.55	84.69	665	6.68	231.12	90.81
621	6.24	215.90	84.83	666	6.69	231.47	90.95
622	6.25	216.24	84.96	667	6.70	231.81	91.08
623	6.26	216.59	85.10	668	6.71	232.16	91.22
624	6.27	216.94	85.24	669	6.72	232.51	91.36
625	6.28	217.28	85.37	670	6.73	232.85	91.49
626	6.29	217.63	85.51	671	6.74	233.20	91.63
627	6.30	217.97	85.64	672	6.75	233.54	91.76
628	6.31	218.32	85.78	673	6.76	233.89	91.90
629	6.32	218.67	85.92	674	6.77	234.24	92.04
630	6.33	219.01	86.05	675	6.78	234.58	92.17
631	6.34	219.36	86.19	676	6.79	234.93	92.31
632	6.35	219.70	86.32	677	6.80	235.27	92.44
633	6.36	220.05	86.46	678	6.81	235.62	92.58
634	6.37	220.40	86.60	679	6.82	235.97	92.72
635	6.38	220.74	86.73	680	6.83	236.31	92.85
636	6.39	221.09	86.87	681	6.84	236.66	92.99
637	6.40	221.43	87.00	682	6.85	237.00	93.12
638	6.41	221.78	87.14	683	6.86	237.35	93.26

684	6.87	237.70	93.40	729	7.32	253.27	99.52
685	6.88	238.04	93.53	730	7.33	253.61	99.65
686	6.89	238.39	93.67	731	7.34	253.96	99.79
687	6.90	238.73	93.80	732	7.35	254.30	99.92
688	6.91	239.08	93.94	733	7.36	254.65	100.06
689	6.92	239.43	94.08	734	7.37	255.00	100.20
690	6.93	239.77	94.21	735	7.38	255.34	100.33
691	6.94	240.12	94.35	736	7.39	255.69	100.47
692	6.95	240.46	94.48	737	7.40	256.03	100.60
693	6.96	240.81	94.62	738	7.41	256.38	100.74
694	6.97	241.16	94.76	739	7.42	256.73	100.88
695	6.98	241.50	94.89	740	7.43	257.07	101.01
696	6.99	241.85	95.03	741	7.44	257.42	101.15
697	7.00	242.19	95.16	742	7.45	257.76	101.28
698	7.01	242.54	95.30	743	7.46	258.11	101.42
699	7.02	242.89	95.44	744	7.47	258.46	101.56
700	7.03	243.23	95.57	745	7.48	258.80	101.69
701	7.04	243.58	95.71	746	7.49	259.15	101.83
702	7.05	243.92	95.84	747	7.50	259.49	101.96
703	7.06	244.27	95.98	748	7.51	259.84	102.10
704	7.07	244.62	96.12	749	7.52	260.19	102.24
705	7.08	244.96	96.25	750	7.53	260.53	102.37
706	7.09	245.31	96.39	751	7.54	260.88	102.51
707	7.10	245.65	96.52	752	7.55	261.22	102.64
708	7.11	246.00	96.66	753	7.56	261.57	102.78
709	7.12	246.35	96.80	754	7.57	261.92	102.92
710	7.13	246.69	96.93	755	7.58	262.26	103.05
711	7.14	247.04	97.07	756	7.59	262.61	103.19
712	7.15	247.38	97.20	757	7.60	262.95	103.32
713	7.16	247.73	97.34	758	7.61	263.30	103.46
714	7.17	248.08	97.48	759	7.62	263.65	103.60
715	7.18	248.42	97.61	760	7.63	263.99	103.73
716	7.19	248.77	97.75	761	7.64	264.34	103.87
717	7.20	249.11	97.88	762	7.65	264.68	104.00
718	7.21	249.46	98.02	763	7.66	265.03	104.14
719	7.22	249.81	98.16	764	7.67	265.38	104.28
720	7.23	250.15	98.29	765	7.68	265.72	104.41
721	7.24	250.50	98.43	766	7.69	266.07	104.55
722	7.25	250.84	98.56	767	7.70	266.41	104.68
723	7.26	251.19	98.70	768	7.71	266.76	104.82
724	7.27	251.54	98.84	769	7.72	267.11	104.96
725	7.28	251.88	98.97	770	7.73	267.45	105.09
726	7.29	252.23	99.11	771	7.74	267.80	105.23
727	7.30	252.57	99.24	772	7.75	268.14	105.36
728	7.31	252.92	99.38	773	7.76	268.49	105.50

774	7.77	268.84	105.64	819	8.22	284.41	111.76
775	7.78	269.18	105.77	820	8.23	284.75	111.89
776	7.79	269.53	105.91	821	8.24	285.10	112.03
777	7.80	269.87	106.04	822	8.25	285.44	112.16
778	7.81	270.22	106.18	823	8.26	285.79	112.30
779	7.82	270.57	106.32	824	8.27	286.14	112.44
780	7.83	270.91	106.45	825	8.28	286.48	112.57
781	7.84	271.26	106.59	826	8.29	286.83	112.71
782	7.85	271.60	106.72	827	8.30	287.17	112.84
783	7.86	271.95	106.86	828	8.31	287.52	112.98
784	7.87	272.30	107.00	829	8.32	287.87	113.12
785	7.88	272.64	107.13	830	8.33	288.21	113.25
786	7.89	272.99	107.27	831	8.34	288.56	113.39
787	7.90	273.33	107.40	832	8.35	288.90	113.52
788	7.91	273.68	107.54	833	8.36	289.25	113.66
789	7.92	274.03	107.68	834	8.37	289.60	113.80
790	7.93	274.37	107.81	835	8.38	289.94	113.93
791	7.94	274.72	107.95	836	8.39	290.29	114.07
792	7.95	275.06	108.08	837	8.40	290.63	114.20
793	7.96	275.41	108.22	838	8.41	290.98	114.34
794	7.97	275.76	108.36	839	8.42	291.33	114.48
795	7.98	276.10	108.49	840	8.43	291.67	114.61
796	7.99	276.45	108.63	841	8.44	292.02	114.75
797	8.00	276.79	108.76	842	8.45	292.36	114.88
798	8.01	277.14	108.90	843	8.46	292.71	115.02
799	8.02	277.49	109.04	844	8.47	293.06	115.16
800	8.03	277.83	109.17	845	8.48	293.40	115.29
801	8.04	278.18	109.31	846	8.49	293.75	115.43
802	8.05	278.52	109.44	847	8.50	294.09	115.56
803	8.06	278.87	109.58	848	8.51	294.44	115.70
804	8.07	279.22	109.72	849	8.52	294.79	115.84
805	8.08	279.56	109.85	850	8.53	295.13	115.97
806	8.09	279.91	109.99	851	8.54	295.48	116.11
807	8.10	280.25	110.12	852	8.55	295.82	116.24
808	8.11	280.60	110.26	853	8.56	296.17	116.38
809	8.12	280.95	110.40	854	8.57	296.52	116.52
810	8.13	281.29	110.53	855	8.58	296.86	116.65
811	8.14	281.64	110.67	856	8.59	297.21	116.79
812	8.15	281.98	110.80	857	8.60	297.55	116.92
813	8.16	282.33	110.94	858	8.61	297.90	117.06
814	8.17	282.68	111.08	859	8.62	298.25	117.20
815	8.18	283.02	111.21	860	8.63	298.59	117.33
816	8.19	283.37	111.35	861	8.64	298.94	117.47
817	8.20	283.71	111.48	862	8.65	299.28	117.60
818	8.21	284.06	111.62	863	8.66	299.63	117.74

864	8.67	299.98	117.88	909	9.12	315.55	124.00
865	8.68	300.32	118.01	910	9.09	314.51	123.59
866	8.69	300.67	118.15	911	9.10	314.85	123.72
867	8.70	301.01	118.28	912	9.11	315.20	123.86
868	8.71	301.36	118.42	913	9.12	315.55	124.00
869	8.72	301.71	118.56	914	9.13	315.89	124.13
870	8.73	302.05	118.69	915	9.14	316.24	124.27
871	8.74	302.40	118.83	916	9.15	316.58	124.40
872	8.75	302.74	118.96	917	9.16	316.93	124.54
873	8.76	303.09	119.10	918	9.17	317.28	124.68
874	8.77	303.44	119.24	919	9.18	317.62	124.81
875	8.78	303.78	119.37	920	9.19	317.97	124.95
876	8.79	304.13	119.51	921	9.20	318.31	125.08
877	8.80	304.47	119.64	922	9.21	318.66	125.22
878	8.81	304.82	119.78	923	9.22	319.01	125.36
879	8.82	305.17	119.92	924	9.23	319.35	125.49
880	8.83	305.51	120.05	925	9.24	319.70	125.63
881	8.84	305.86	120.19	926	9.25	320.04	125.76
882	8.85	306.20	120.32	927	9.26	320.39	125.90
883	8.86	306.55	120.46	928	9.27	320.74	126.04
884	8.87	306.90	120.60	929	9.28	321.08	126.17
885	8.88	307.24	120.73	930	9.29	321.43	126.31
886	8.89	307.59	120.87	931	9.30	321.77	126.44
887	8.90	307.93	121.00	932	9.31	322.12	126.58
888	8.91	308.28	121.14	933	9.32	322.47	126.72
889	8.92	308.63	121.28	934	9.33	322.81	126.85
890	8.93	308.97	121.41	935	9.34	323.16	126.99
891	8.94	309.32	121.55	936	9.35	323.50	127.12
892	8.95	309.66	121.68	937	9.36	323.85	127.26
893	8.96	310.01	121.82	938	9.37	324.20	127.40
894	8.97	310.36	121.96	939	9.38	324.54	127.53
895	8.98	310.70	122.09	940	9.39	324.89	127.67
896	8.99	311.05	122.23	941	9.40	325.23	127.80
897	9.00	311.39	122.36	942	9.41	325.58	127.94
898	9.01	311.74	122.50	943	9.42	325.93	128.08
899	9.02	312.09	122.64	944	9.43	326.27	128.21
900	9.03	312.43	122.77	945	9.44	326.62	128.35
901	9.04	312.78	122.91	946	9.45	326.96	128.48
902	9.05	313.12	123.04	947	9.46	327.31	128.62
903	9.06	313.47	123.18	948	9.47	327.66	128.76
904	9.07	313.82	123.32	949	9.48	328.00	128.89
905	9.08	314.16	123.45	950	9.49	328.35	129.03
906	9.09	314.51	123.59	951	9.50	328.69	129.16
907	9.10	314.85	123.72	952	9.51	329.04	129.30
908	9.11	315.20	123.86	953	9.52	329.39	129.44

954	9.53	329.73	129.57	978	9.77	338.04	132.84
955	9.54	330.08	129.71	979	9.78	338.38	132.97
956	9.55	330.42	129.84	980	9.79	338.73	133.11
957	9.56	330.77	129.98	981	9.80	339.07	133.24
958	9.57	331.12	130.12	982	9.81	339.42	133.38
959	9.58	331.46	130.25	983	9.82	339.77	133.52
960	9.59	331.81	130.39	984	9.83	340.11	133.65
961	9.60	332.15	130.52	985	9.84	340.46	133.79
962	9.61	332.50	130.66	986	9.85	340.80	133.92
963	9.62	332.85	130.80	987	9.86	341.15	134.06
964	9.63	333.19	130.93	988	9.87	341.50	134.20
965	9.64	333.54	131.07	989	9.88	341.84	134.33
966	9.65	333.88	131.20	990	9.89	342.19	134.47
967	9.66	334.23	131.34	991	9.90	342.53	134.60
968	9.67	334.58	131.48	992	9.91	342.88	134.74
969	9.68	334.92	131.61	993	9.92	343.23	134.88
970	9.69	335.27	131.75	994	9.93	343.57	135.01
971	9.70	335.61	131.88	995	9.94	343.92	135.15
972	9.71	335.96	132.02	996	9.95	344.26	135.28
973	9.72	336.31	132.16	997	9.96	344.61	135.42
974	9.73	336.65	132.29	998	9.97	344.96	135.56
975	9.74	337.00	132.43	999	9.98	345.30	135.69
976	9.75	337.34	132.56	1000	9.99	345.65	135.83
977	9.76	337.69	132.70	1001	10.00	345.99	135.96

About Crossover

Crossover (X-Over):

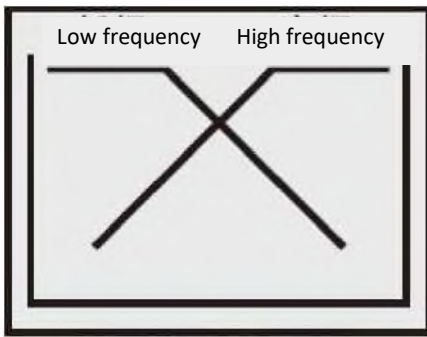
This Media Player is equipped with an active crossover frequency device, which can limit the frequency reaching each output channel. Each channel can be controlled independently. Therefore, each pair of loudspeakers can be driven at a frequency optimally designed for each channel.

The crossover can adjust the HPF (high pass filter) or LPF (low pass filter) of each band, and the slope (the speed of the filter to the high or low point).

It should be adjusted according to the reproduction characteristics of the speakers. Depending on the speaker, a passive network may not be required. If you are unsure about this, please consult your authorized Alpine dealer.

Active 2-way crossover frequency mode

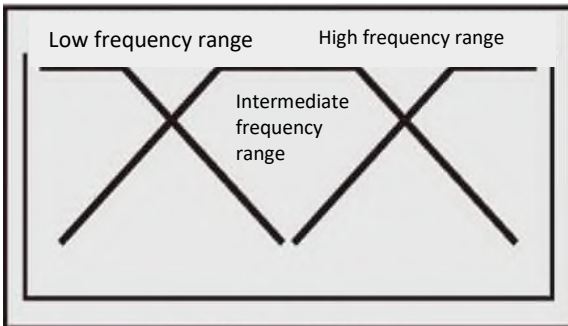
	Cut-off frequency (1/3 octave difference)		Slope	
	High-pass filter (HPF)	Low-pass filter (LPF)	High-pass filter (HPF)	Low-pass filter (LPF)
Subwoofer	-----	20Hz-800Hz	-----	6/12/18/24/30/36/42/48dB/oct.
Rear (high frequency) speaker	20Hz-800Hz	20Hz-20kHz	6/12/18/24/30/36/42/48dB/oct.	6/12/18/24/30/36/42/48dB/oct.
Front (high frequency) speaker	1kHz-20kHz	-----	6/12/18/24/30/36/42/48dB/oct.	-----



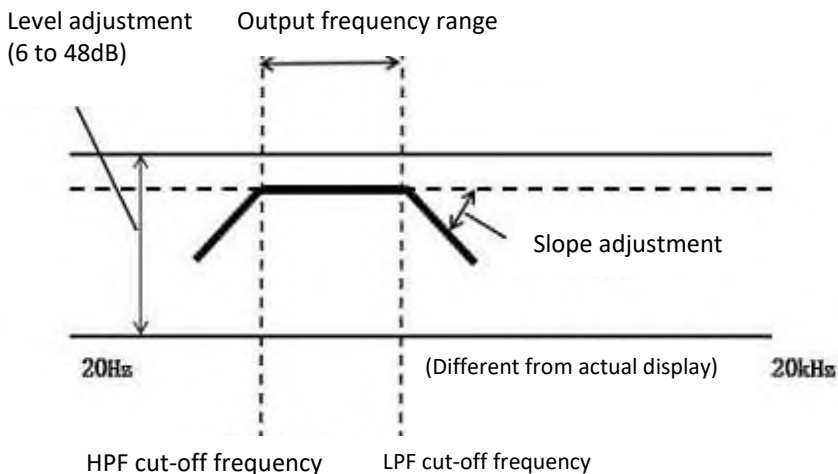
(Different from actual display)

Active 3-way crossover frequency

	Cut-off frequency (1/3 octave difference)		Slope	
	High-pass filter (HPF)	Low-pass filter (LPF)	High-pass filter (HPF)	Low-pass filter (LPF)
Subwoofer	----	20Hz-800Hz	----	6/12/18/24/30/36/42/48dB/oct.
Midrange High-Pass Speaker	20Hz-800Hz	20Hz-20kHz	6/12/18/24/30/36/42/48dB/oct.	6/12/18/24/30/36/42/48dB/oct.
Midrange Low- Pass Speaker	20Hz-800Hz	20Hz-20kHz	6/12/18/24/30/36/42/48dB/oct.	6/12/18/24/30/36/42/48dB/oct.
High-pitch Speaker	1kHz-20kHz	-----	6/12/18/24/30/36/42/48dB/oct.	-----



(Different from actual display)



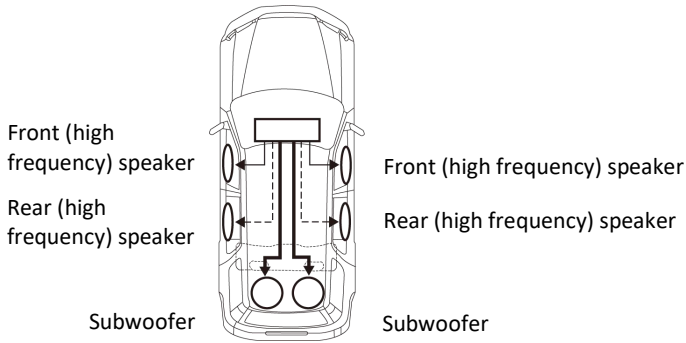
Note:

- *HPF (high-pass filter): intercepts lower frequencies and allows higher frequencies to pass.*
- *LPF (low-pass filter): intercepts higher frequencies and allows lower frequencies to pass.*
- *Slope: the level change (dB) of one octave frequency change.*
- *The larger the slope value, the steeper the slope.*
- *Please do not use a high-pitch speaker that has not got HPF switched on, or has been set to low frequency, otherwise the speaker may be damaged by the low frequency content.*
- *The frequency of the crossover cannot be adjusted to be higher than HPF or lower than LPF.*
- *Adjust the frequency according to the recommended crossover frequency of the connected speakers. Please determine the recommended frequency range for your speakers. Adjusting beyond the recommended frequency range may damage the speakers.*
- *We are not responsible for any damage or failure of the speakers caused by using the crossover beyond the recommended values.*

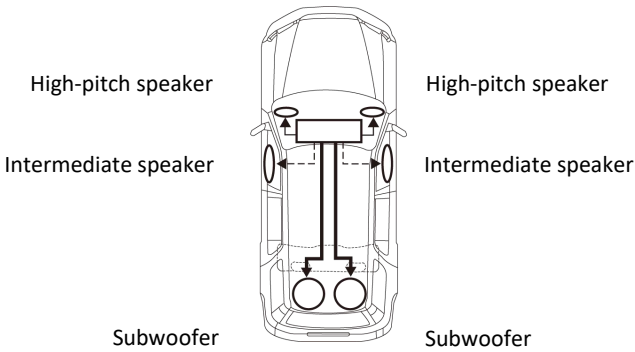
Crossover Settings

1. In the setting menu, press and hold **▶▶**, **▶ / ||**, **◀◀** in turn for more than 2 seconds.
2. Turn the knob to select “Active 3-way crossover frequency” or “Active 2-way crossover frequency” mode.
3. Follow the on-screen prompts, press **▶ / ||** to confirm the selection.

The frequency range is output in such a way that the high frequency belongs to the front/rear speakers, and the low frequency belongs to the mid-woofer.
Active 2-way crossover mode



The frequency range is output in a way that the high/mid frequencies belong to the front speakers, and the low frequencies belong to the subwoofer.
Active 3-way crossover mode



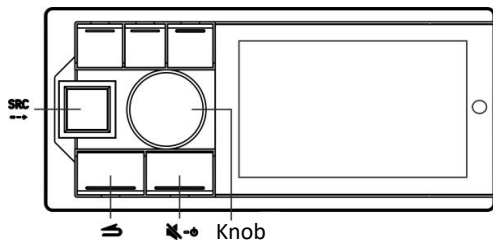
Media Player output:



Note:

- When set to active 3-way mode, the "front/back balance" output cannot be adjusted.

Setting



Setting

You have the flexibility to set the Media Player to suit your preferences and use. From the general settings menu, you can change the general settings, display settings, etc.

Use Steps 1 to 5 to select any setting mode to change. For details on the selected setting items, please refer to the applicable sections below.

1. Press and hold the knob for at least 2 seconds to enter the settings menu.
2. Turn the button to select the desired item, and then press the knob.
Preset Equalizer ↔ Sound Settings ↔ Sound Clear Settings ↔ General ↔ Bluetooth
3. Turn the knob to select General, and then press the knob.
Auxiliary Audio ↔ Language Settings ↔ Dimmer Control ↔ About ↔ Alpine System Matching ↔ Steering Control Learning ↔ Built-in Amplifier ↔ Coax/Fiber ↔ Restore Factory Settings
4. Turn the knob to change the setting, and then press the knob.
5. Press SRC/➔ to release the settings mode.
6. In the settings menu, press and hold ⏪, press and hold the knob, press and hold ⏩ for more than 2 seconds to call up the electrical inspection mode.
Firmware update ↔ Dealer setting ↔ Serial no.

Note:

- Press ⏪ to return to the previous setting mode.

General Setting

Select “General” in the settings main menu.

Auxiliary Audio Source

An auxiliary audio source can be selected as required. The level of main source attenuation is used to determine how much the main source needs to be attenuated when mixing audio sources.

Setting item: Auxiliary audio source

Setting content: Auxiliary audio source selection: Bluetooth music ↔ High-level ↔ AUX ↔ Close

Main audio source attenuation: 0, 30%, 50% (initial setting), 80%, 100%

Language Settings

You can choose a Chinese or English display menu according to your preference.

Setting item: Language settings

Setting content: Simplified Chinese (initial setting) / English

Dimmer Control

When the dimmer control is set to "Manual", the dimming level is adjustable. When the dimmer control is set to "Auto", the illumination level of the host controller will be reduced when the vehicle's headlights are on. This mode is useful if you feel that the backlight of the host controller is too bright at night.

Setting item: Dimmer control

Setting content: Dimming mode: automatic / manual (initial setting)

Dimming level: Level 1 / level 2 / Level 3 (initial setting)

Black screen setting *: Off (initial setting) / On

**When this function is activated, the screen will go black if there is no operation for more than 30 seconds. You can press any key to light it up.*

Device Meta Information

Here you can find about the version and other relevant information of this device. Select "About" to view the following information.

Software version / Device version / Device name

Alpine System Matching

It can be connected to Alpine's vehicle DSP, and only supports products that can be connected to the controller interface, such as PXE-R600, PXE-0850X or PXE-X09.

Setting item: External DSP*

Setting content: Off (initial setting) / On

volume: 0 ~ 35 (initial value: 27)

Main audio source: Digital ↔ High level ↔ Bluetooth ↔ AUX

Auxiliary audio: Digital ↔ High level ↔ Bluetooth ↔ AUX ↔ Close

Subwoofer: -60dB ~ 0dB (initial value: 0dB)

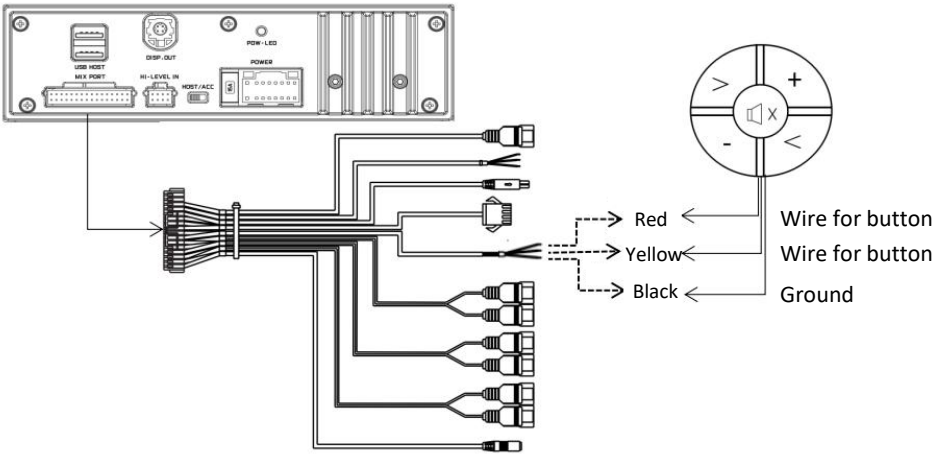
Sound: 6 preset sound effects can be called

** The above external DSP connection PXE-0850X settings are for reference, please contact your Alpine dealer for details.*

Steering Control Learning

Setting item: Steering control learning

Setting content: According to the actual wiring * of different vehicle models, after connecting the host computer, you can teach the steering wheel controller commands. Press "volume +", "volume -", "previous song", "next song", "play / pause", "mute", etc., and wait for the steering wheel button to press to complete the learning; this will allow these functions to be controlled by the controller on the steering wheel.



**Red and yellow are connected to the wires on the steering wheel control, and black is connected to ground, please connect according to the actual model. Please contact your Alpine dealer for details.*

Built-in amplifier

When connected to an external amplifier, the sound quality can be improved by stopping the power supply to the internal amplifier

Setting item: Built in power amplifier

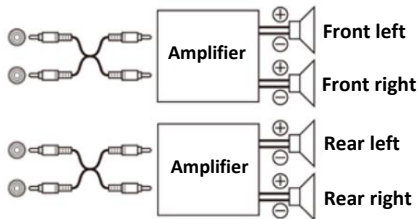
Setting content: Off / On (initial setting)

Off: When using the Media Player to drive an external amplifier, please use this mode to turn off the activation of the built-in speaker.

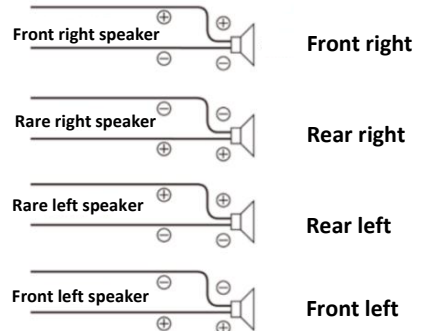
On: The speaker is driven by an internal amplifier.

In this setting, the built-in amplifier of the main unit is off

Off:



On:



Note:

- When the "built-in amplifier" is set to "off", the system will not output any sound.

Coaxial / Optical fiber

This function is enabled when the Media Player is connected to a power amplifier or audio processor.

Setting item: Coaxial / Optical fiber

Setting content: Off / On (initial setting)

Restore factory settings

After the factory settings are restored, all the settings will be restored to the default settings at the factory except for the "dealer settings" mode.

Setting item: Restore factory settings

Check mode

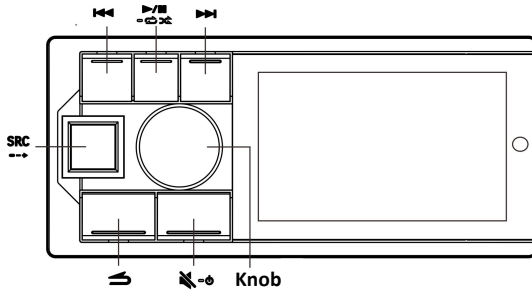
Setting item: Check mode, under the settings menu, press and hold ►►, press and hold the knob, long press and hold ►► to enter the check mode.

Setting content: Firmware update: enter the firmware update menu, select the firmware upgrade file, and then press OK to update the version.

Dealer settings: Short press to save the dealer settings

Serial number: You can view the serial number of the Media Player

Bluetooth



About Bluetooth

Bluetooth is a wireless technology that allows short-range communications between mobile devices or personal computers. This enables data transfer between Bluetooth compatible devices. If the distance between devices is within 10 meters, Bluetooth transmission can be carried out in the unlicensed 2.46 spectrum.

Note:

- *Depending on the Bluetooth version, Bluetooth compatible devices may not be able to communicate with the Media Player.*
 - *It is not guaranteed that this Media Player can work properly with all Bluetooth compatible devices. For the operation of Bluetooth compatible devices, please consult your Alpine dealer or visit the Alpine website.*
 - *Bluetooth wireless connection may be unstable depending on the environment.*
 - *This feature may vary depending on the Bluetooth compatible device connected. Please also refer to the user's manual for the connected device.*
 - *When using Bluetooth on a mobile phone to search for the Media Player, the search name is "UTX-M08-XXXXXX".*

Connecting Bluetooth


When the Media Player is powered on for the first time and Bluetooth is not connected to any device, it is necessary to wait for the mobile phone to make a pairing connection. Directly search for "UTX-M08-XXXXXX" in the Bluetooth menu of the mobile phone for connection. XXXXXX is a 6-digit random code, such as UTX-M08-A00414.

1. Turn on the Bluetooth function on the mobile phone.
2. Search for pairable devices in the mobile phone Bluetooth menu, and select "UTX-M08-XXXXXX" for pairing (no pairing code is required).
3. After successful pairing, press and hold the knob to enter the setting menu→General→Bluetooth (refer to "sound setting" for detailed operation). Press "Bluetooth" to enter the menu and "connected" will be displayed.
4. To disconnect the Bluetooth connection, press the "connected" button for a short time, prompting the user to "Confirm Disconnect Bluetooth", press again to confirm disconnect, after disconnecting, it displays "Not Connected". After disconnection, if you need to connect again, please proceed to step 2.

Note:

- *Only one Bluetooth compatible device can be paired, and two Bluetooth compatible devices cannot be connected at the same time.*

Bluetooth Music

1. Press **SRC/↔** to select Bluetooth music.
2. Press **⏮** to select the previous song.
3. Press **⏭** to select the next song.
4. Press **▶ / ⏸ / -** -  to switch between pause and play.

Note:

- *This operation varies depending on the device connected.*
- *The volume adjustment for the Bluetooth music signal source has an independent memory function.*

Information

Trouble Shooting

If you are experiencing problems, turn off the power and turn it on again. If the Media Player still does not work properly, please check the items in the table below. If the Media Player is malfunctioning, this manual will help you solve the problem. Otherwise, please confirm that your system is connected correctly or consult your Alpine authorized dealer.

Commonly Seen Problems

The device isn't working or no screen is displayed.

- The car's ignition switch is turned off.
- If connected according to the instructions, the Media Player will not operate with the car's ignition turned off.
 - The power cable (red) and battery cable (yellow) are not connected correctly.
 - Check the connections of the power and battery cables.
- The fuse is burnt out.
 - Check the fuse of the Media Player and replace it with an appropriate specification fuse if necessary.
- The internal microcomputer is malfunctioning due to interference, noise, etc.
 - Press the RESET switch with a ballpoint pen or other pointed object.

MP3/WMA/ACC/M4A/WAV/FLAC/APE/DSD

Unable to play 9P3/WMA/ACC/M4A/WAV/FLAC/APE/DSD.

- A write error occurred. MP3/WMA/ACC/M4A/WAV/FLAC/APE/DSD formats are not compatible.
 - Ensure that MP3/WMA/ACC/M4A/WAV/FLAC/APE/DSD is written in the supported format. Refer to "About MP3/WMA/ACC/M4A/WAV/FLAC/APE/DSD", and then re-write in a format supported by the Media Player.

Audio Frequency

Sound is not being outputted from the speaker.

- No signal output from the built-in amplifier.
 - Turn the built-in amplifier switch to "On".

Instructions on USB Storage

USB transmission error

- Communication failure or start-up failure, etc.
 - The problem can be solved by turning ACC off / on.

Overcurrent

- The USB connector device is experiencing abnormal current.
 - The problem can be solved by turning ACC off / on.

Device not supported

- A USB device that is not supported by this Media Player is connected.
 - Connect USB devices supported by this Media Player, such as USB flash disk, mobile hard disk or USB hub.

No response from device

- The USB device is not responding.
 - Please unplug and plug USB in again.

Please plug in USB

- No USB Storage connected.
 - Make sure the USB Storage is properly connected and the cable is not too bent.

No tracks

- No tracks (files) are stored in the USB Storage.
 - Connect the USB memory device after storing tracks (files).

This file format is not supported

- A file that is not supported by this Media Player was used.
 - Use file types that are supported by this Media Player, such as “mp3”, “wma”, “acc”, “m4a”, “wav”, “flac”, “ape”, “dsd” (“dff” and “dsf”) extensions.

Protected files

- A copy-protected WMA file was played.
 - Only files without copy protection can be played.

Bluetooth mode

Device not connected

- No Bluetooth device connected.
 - Connect a Bluetooth device.

No tracks

- There are no tracks in the Bluetooth device.
 - Please download tracks to the Bluetooth device.
-

Specifications

USBt

Connection	USB 2.0
Capacity	Support up to 2TB
Maximum power consumption	1.5A
File system	FAT16/32,NTFS,exFAT
Maximum number of tracks that can be played (total number of tracks in the USB before and after)	10000 tracks
PCM coding	192kHz,16~24bit
MP3 decoding	MPEG Audio Layer-3
WMA decoding	Windows Media™ audio frequency
AAC decoding	“.m4a” file AAC-LC format
M4A decoding	MPEG Audio Layer-4
WAV decoding	Waveform sound file
FLA decoding	Free Lossless Audio Codec
APE decoding	Monkey's Audio
DSD decoding	Direct Stream Digital (DSD64,DSD128,DSD256)

Bluetooth

Supported audio formats	AAC/SBC
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General

System sampling rate	96kHz/24bit
Power requirements	14. 4V DC (allow 9~16V)
Controller screen	2. 4-inch color TFT display (480-320)
Net weight	0.77kg

Main unit dimension

Length	178mm
Width	143mm
Height	50mm

Controller dimension

Length	110mm
Width	50mm
Height	15mm

Note:

Due to the continuous improvement of the products, specifications and design are subject to change without prior notice.

Performance Parameters

Dynamic range	≥110dB
Signal-to-noise ratio	AUX ≥100dB
Background noise	High level≤-75dBu; AUX≤-95dBu
Channel resolution	≥ 80dB
Total harmonic distortion	≤0.01%
Input voltage	High level: 26Vpp: AUX: 8Vpp
Output voltage	12Vpp
Rated power	4CHX25W(4Q, 14.4V,1kHz,10%THD)
Maximum power	4CHX50W(4Q, 14.4V,1kHz,10%THD)
Input / Output sensitivity	AUX≥1:1.5
Frequency response	20Hz ~ 40kHz
Input impedance	High level: 51Q: AUX: 20KQ
Output impedance	51Q
Static current	≤3mA (not power-on state)
Standby power	≤0.1W
REM Boot input	ACC or high level (FL-/FL+)
REM Boot output	12V(0.2A)
Power on time	18s
Operating ambient temperature	-20 ~ 60°C
Storage temperature	-40 ~ 85°C

Harmful Substances

Names of harmful substances contained in the product

Part name	Harmful substance or element					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr(VI))	Polybrominated biphenyls (PBB)	Polybrominated Diphenyl Ether (PBDE)
Circuit board assembly	×	○	○	○	○	○
Housing assembly	○	○	○	○	○	○
Display component	×	○	○	○	○	○
Accessories	×	○	○	○	○	○

This table is prepared in accordance with SJ / T 11364.

○ : indicates that the hazardous substance is present in all homogeneous materials of the part at or below the limit specified in GB/T 26572.

× : indicates that the hazardous substance is present in at least one homogeneous material of the part in excess of the limit specified in GB/T 26572.

For parts marked with "X", the content is exceeded because there is currently no mature substitute technology available in the industry.

Installation and Connection

Before installing or connecting the Media Player, please read the following instructions and refer to the "Operating instructions" to ensure proper use.

Warning

Please make the correct connections.
Improper connections may cause fire or damage to the product.

Please only use in vehicles with 12V negative grounding.
(If you are not sure, please confirm with the agent). Otherwise, it may cause fire and other accidents.

Before wiring, please remove the cable connected to the negative terminal of the battery.
Failure to do so may result in electric shock or injury due to a short circuit.

Do not cut the cable.
Do not supply power to other devices by stripping the cable insulation. Doing so may cause fire or electric shock by exceeding the rated load of the cable.

When drilling, please pay attention not to damage the conduits or wires. When drilling mounting holes in the chassis, take special care not to touch, damage, or obstruct conduits, fuel lines, the fuel tank, or electrical wiring.
Failure to do so may result in fire.

Do not use any of the bolts or nuts on the brake or steering system for grounding connections.
Bolts or nuts used on the braking or steering system (or any other safety-related system), or on the fuel tank,

should never be used to install or connect a grounding wire. Failure to abide by this could cause the vehicle controls to malfunction or cause a fire, etc.

Small objects such as batteries should be kept out of the reach of children.

Swallowing small objects can cause serious injury. In case of accidental swallowing, seek medical attention immediately.

Do not install in a position that interferes with driving, such as near the steering wheel or gear lever.

Doing so may obstruct the view ahead or interfere with driving and cause a serious accident.

Do not allow cables to become entangled with surrounding objects.

Please arrange cables and cords in accordance with the instructions to prevent any obstructions when driving. It is dangerous to allow cables or cords to become obstructed or dangle over the steering wheel, gear lever, brake pedal, etc.

Caution

Please do not install where it will be in direct sunlight.

Otherwise, the screen may be damaged by long-term exposure to direct heat.

Please ask a professional to handle the wiring and installation.

The wiring and installation of this unit requires professional skills and experience. For safety reasons, contact the dealer from whom you purchased the product for installation.

Please use the specified accessories for safe installation.

Be sure to use the specified accessories. The use of other parts may damage the interior of the equipment or not allow it to be firmly installed in place. This may cause parts to be loose, which can cause danger or product failure.

Please arrange the wiring in such a way that it cannot be damaged by sharp metal edges or get caught.

Cables and wires should be installed away from movable parts (such as seat rails) or sharp metal edges to prevent wiring damage. If the wiring must pass through a hole in metal, please cover it with a rubber gasket to prevent the insulation layer of the wiring from being cut by the edge of the metal hole.

Please do not install it in extremely wet or dusty locations.

Avoid installing the Media Player in a location that is susceptible to moisture or dust accumulation. Moisture or dust intrusion into the interior of the Media Player may cause Media Player failure.

Precautions

- Before installing the UTX-M08, be sure to disconnect the cable from the negative (-) terminal of the battery. This will reduce the chance of damage to the unit in the event of a short circuit.
- Be sure to connect the color-coded wires according to the diagram. Incorrect connection may cause the Media Player to malfunction or damage the car's electrical system.
- When connecting to the vehicle's electrical system, pay attention to the factory-installed components (such as the on-board computer). Do not connect these cables to power this unit. When connecting the UTX-M08 to the fuse block, make sure that the amperage of the circuit fuse used for the UTX-M08 is appropriate. Failure to do so may result in damage to the unit and/or the vehicle. If in doubt, consult your Alpine dealer.
- The UTX-M08 uses a recessed RCA type jack to connect to other devices with RCA connectors (such as

amplifiers). You may need an adapter to connect other equipment. Contact your authorized Alpine dealer if you need an adapter.

- Please be sure to connect the speaker (-) cable to the speaker (-) terminal. Do not connect the left and right channel speaker cables to each other or to the body of the vehicle.

IMPORTANT

Please fill in the series number of this Media Player in parentheses for permanent storage. The series number is located on the label at the top of the Media Player.

Serial no.: [

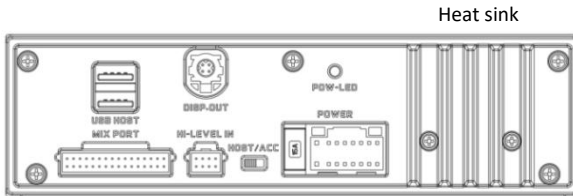
Installation date:]

Installation Technician: [

Place of purchase:]

Installation

Installing the Media Player



Media Player

Note:

Please do not cover the heat sink of the Media Player to avoid affecting the ventilation. If it is blocked, heat will accumulate inside the main unit and may cause combustion.

For detailed instructions on installation of the Media Player, please consult an authorized Alpine dealer.

Installing the Media Player controller

Preparatory work

1. Check accessories

- ① Power cord



- ② High level input line



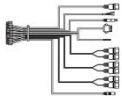
- ③ USB extension cable (1.5 m)



- ④ Controller extension cable (2.5m)



- ⑤ Composite wire



- ⑥ Mounting Bracket



- ⑦ Self-tapping screws (M4X20)



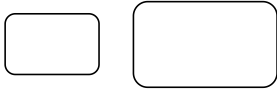
- ⑧ Media Player screws (M5X8)



- ⑨ Media Player Controller Tray (used for inverted mold installation)



⑩ Big & small 3M tape



Used when installing the tray (inverted mold) or directly on the dashboard.

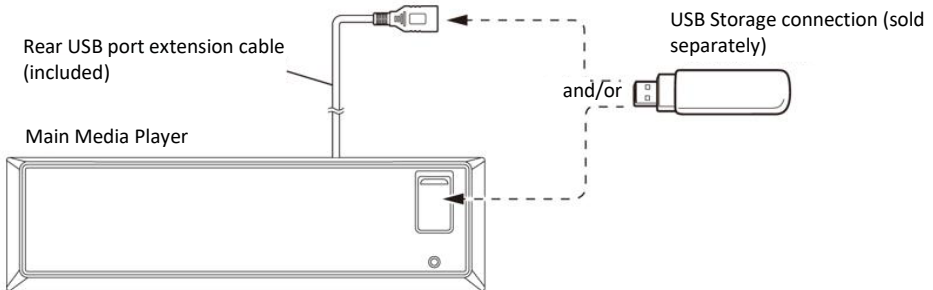
Precautions for Installation of Media Player Controller

- Check whether the cable provided is long enough. Please install the device in a location that will not allow it to get wet.
- Please do not install the device or wire in a position that interferes with driving or the airbag, such as the console or instrument panel.
- Please make sure the Media Player controller is firmly fixed. If it is not fixed properly, the Media Player controller may fall off while you are driving.

USB Storage Connection (sold separately)

Connecting USB Storage

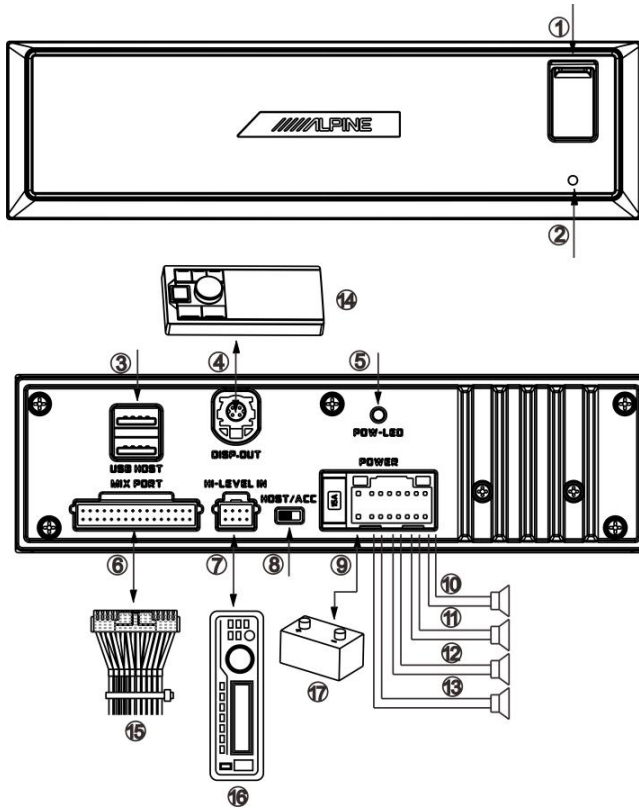
This Media Player has one front USB port and two rear USB ports, you can connect a USB to either port, or connect two or three USBs at the same time, but you cannot connect two or more charging devices at the same time. When connecting to the rear USB port, the included USB extension cable can be used.



Notes:

- *When removing the USB Storage, pull it out straight out.*
- *If no sound is output or the USB Storage is not recognized even when the USB Storage is connected, try removing the USB Storage and reconnecting it.*
- *Keep the USB cable away from other cables.*

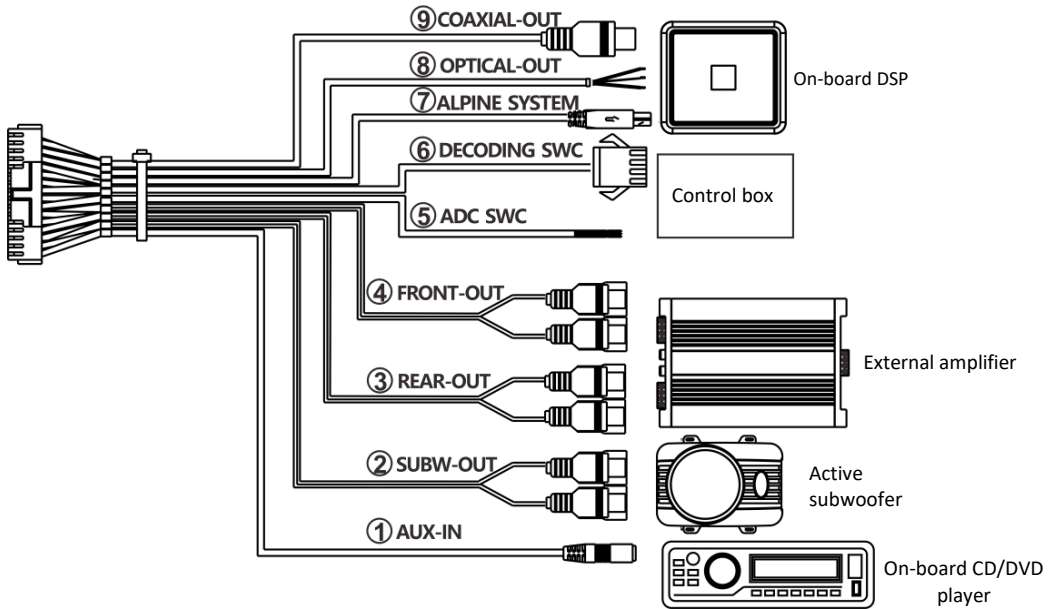
Connections



- 1) Front USB port: for connecting a USB flash drive, portable hard disk or USB HUB.
- 2) Reset switch: Press and hold for 3 seconds to restart the Media Player.
- 3) Rear Dual Interface: Connect a USB flash drive or portable hard disk via the included USB extension cable.
- 4) Controller interface: Connect the controller for playback control, volume adjustment and audio source selection.
- 5) Power display light
- 6) Composite Line Interface: Including one group of 3.5mm audio input interface, three groups of RCA audio output interfaces, optical output interface, coaxial output interface, square control interface and Alpine system matching interface (for DSP product connection).
- 7) High Level Input Connector: Connects to the power output of the car CD/DVD player.
- 8) Input selector switch: When "ACC" is selected, the Media Player will be started by ACC; when "HOS" is selected, the Media Player will be started by FL-/FL+ high level input signal.
- 9) Power output interface: connect to the car battery.
- 10)11),12),13) Power output interfaces: connect to external power amplifier.

- 14) Controller
- 15) Composite wire (see "Composite Wire Connection Instructions")
- 16) Car CD/DVD player
- 17) Car battery

Composite Wire Connection Instructions



- ① AUX-IN: Low level input, can be connected to the car CD/DVD player.
- ② SUBW-OUT: Ultra-low output, can be connected to active subwoofer.
- ③ REAR-OUT: Rear RCA output, can be connected to an external amplifier.
- ④ FRONT-OUT: RCA output of the front sound field, which can be connected to an external power amplifier.
- ⑤ ADC SWC: ADC type steering control interface, supports resistive control of car steering wheel.
- ⑥ DECODING SWC: Decoding steering control interface (temporarily not supported, based on the recent upgrade).
- ⑦ ALPINE SYSTEM: Can be used to connect to the Alpine on-board DSP, only supports the products which can be docked by the controller interface, such as PXE-R600, PXE-0850X, or PXE-X09, etc.
- ⑧ ⑨ OPTICAL-OUT/COAXIAL-OUT: Optical / coaxial interface, can be connected to the car DSP, such as PXE-0850X or PXE-X09 and so on.

In order to prevent external noise interference on the audio system:

- The installation position of this Media Player and the arrangement of wires should be at least 10cm away from the car wiring harness.
- Keep the battery power cord as far away from the other wires as possible.
- Connect the ground wire firmly to the bare metal contact of the vehicle chassis (remove any paint, dirt or grease if necessary).
- If you are attaching an optional noise suppressor, connect it as far away from the unit as possible. Various types of noise suppressors are available from your Alpine dealer; please contact him or her for details.
- Your Alpine dealer is proficient in noise prevention methods, please consult your dealer for details.

<p>China</p>	<ol style="list-style-type: none"> 1. Technical specifications of the product: <ul style="list-style-type: none"> • Operating frequency: 2. 4-2. 4835GHz • Equivalent omnidirectional radiated power (EIRP): <ul style="list-style-type: none"> When antenna gain <10dBi: W100mW or W20dBm • Maximum power spectral density <ul style="list-style-type: none"> When antenna gain <10dBi: W20dBm/MHz (EIRP) • Carrier frequency tolerance: 20ppm • Out of band transmission power (beyond 2. 4—2. 4835GHz) <ul style="list-style-type: none"> W-80dBm/Hz(EIRP) • Spurious emissions, (radiated) power (beyond the corresponding carrier ± 2.5 times the channel bandwidth): <ul style="list-style-type: none"> $\cong -36\text{dBm}/100\text{kHz}(30\text{-}1000\text{MHz})$ $\cong -33\text{dBm}/100\text{kHz}(2.4\text{-}2.4835\text{GHz})$ $\cong -40\text{dBm}/1\text{MHz}(3.4\text{-}3.53\text{GHz})$ $\cong -40\text{dBm}/1\text{MHz}(5.725\text{-}5.85\text{GHz})$ $\cong -30\text{dBm}/1\text{MHz}$ (other 1-12. 75GHz) 2. Do not change the transmitting frequency, increase the transmitting power (including installing additional RF power amplifiers), attach an external antenna or change to another transmitting antenna without permission. 3. Must be used in such a way as not to cause harmful interference to legitimate radio communications services of all kinds; in the event that interference is detected, its use should be stopped immediately, and measures should be taken to eliminate the interference before its use is resumed. 4. The use of micropower radio equipment must endure interference from all types of radio services or radiation interference from equipment for industrial, scientific and medical applications. 5. It shall not be used near aircraft and airports.
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Consultation Counter

Service station information

- For maintenance consultation, please refer to the following "Service station information".
- The name, telephone number and address of the service station may change from time to time.

S/N	Service station	Address	Postcode	Tel no.
1	Beijing service station	Room 609, Building 6, Jugo Business Park, No.3 A Guanzhuang Xili, Chaoyang District, Beijing	100024	010-65750660
2	Shanghai service station	1F, No.12, Lane 158, Tongpu Road, Putuo District, Shanghai	200062	021-62605645
3	Guangzhou service station	No.3 Shanhe Street, Jingxi Road, Baiyun District, Guangzhou	510510	186-6505-9713
4	Zhengzhou service station	3rd Floor, No.7 Yard, Jingbei 1st Road, Zhengzhou Economic and Technological Development Zone	450016	0371-66222388
5	Kunming service station	Shop No.407,408, Taiyang Xincheng, Longquan Road, Kunming	650031	0871-65116201
6	Nanjing service station	Room 108, Building 1, Xingdu Qingxuan Middle, Jingwu Road, Qixia District, Nanjing	210003	025-86630368
7	Hangzhou service station	80-6 Wenjiao Road, Fuyang District, Hangzhou	311400	138-5819-6041 189-5751-6008
8	Xiamen service station	Stores 6, 7, and 8, No. 248, Houdaixi Road, Xiamen	361004	0592-5170118
9	Urumqi service station	308 Qingnian Road, Urumqi	830002	0991-8871299
10	Nanchang service station	Shop front, 1st floor, Chaoyang house, Fengyuan Jiahui, No.98 Xinzhou Road, Nanchang City	330029	0791-86566758
11	Chengdu service station	No. 1333, Area B1, Dongli International Plaza, Simaqiao, Chenghua District, Chengdu	610051	028-84397796

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