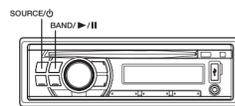


USB memory (Optional)



Controlling USB memory (Optional)

A USB memory device may be connected to this unit. With USB memory connected, playback of files on the device is controlled from this unit.

- The controls on this unit for USB memory operation are operative only when a USB memory is connected.
- CDE-110UB does not support WMA.

Note

Playing MP3/WMA Files with the USB memory (Optional)

If you connect a USB memory containing MP3/WMA, you can play these files on this unit.

- Press **SOURCE/** to switch to the **USB AUDIO** mode.
 - The mode will change every time the button is pressed.

RADIO → CD-1 → USB-1 → AUX → RADIO

- ¹ Displayed only when a disc has been inserted.
- ² Displayed only when USB memory is connected.

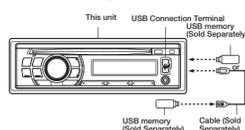
- To pause playback, press **BAND/**.
 - Pressing **BAND/** again will resume the playback.

- The root folder is displayed as "ROOT" in the Folder Name Search mode.
- This unit plays back files on a USB memory device with the same controls and modes as playback of CDs containing MP3/WMA. For details, refer to "CD/MP3/WMA".
- Before disconnecting USB memory, be sure to change to another source or set to **PAUSE**.
- The playback time may not be correctly displayed when a VBR (Variable Bit Rate) recorded file is played back.

USB Memory Connection (Optional)

Connect USB memory

- Open the cover of the USB connection terminal.
- Connect the USB memory directly to the USB connection terminal, or via the USB cable.



Remove USB memory

- Carefully, pull out the USB memory from the USB cable or the USB connection terminal.
- Close the cover of the USB connection terminal.

- Change to a source other than the USB memory mode, then remove the USB memory. If the USB memory is removed in the USB memory mode, data may be damaged.
- When removing USB memory, pull it off straight.
- If sound is not output or USB memory is not recognised even when USB memory is connected, remove USB memory once, then connect it again.
- Route the USB cable away from other cables, etc.
- After removing the USB memory, close the cover of the USB connection terminal to prevent dust or foreign objects from entering and causing a malfunction.

About MP3/WMA File of USB Memory

Playing back MP3/WMA

MP3/WMA files are prepared, then stored to a USB memory. This unit can recognise at least 999 folders (including root folder) and 255 files per folder stored to USB memory. Playback may not be performed if a USB memory exceeds the limitations described above.

Do not make a file playback time more than 1,000 minutes.

Media supported

This device can play back USB memory media.

Corresponding File Systems

This device supports FAT 12/16/32 for USB memory device.

Information

In Case of Difficulty

If you encounter a problem, please turn the power off, then on again, if the unit is still not functioning normally, please review the items in the following checklist. This guide will help you isolate the problem if the unit is at fault. Otherwise, make sure the rest of your system is properly connected or consult your authorized Alpine dealer.

Basic

- No function or display.**
 - Vehicle's ignition is off.
 - If connected following instructions, the unit will not operate with the vehicle's ignition off.
 - Improper power lead (Red) and battery lead (Yellow) connections.
 - Check power lead and battery lead connections.
 - Blown fuse.
 - Check the fuse of the unit; replace with the proper value if necessary.

Radio

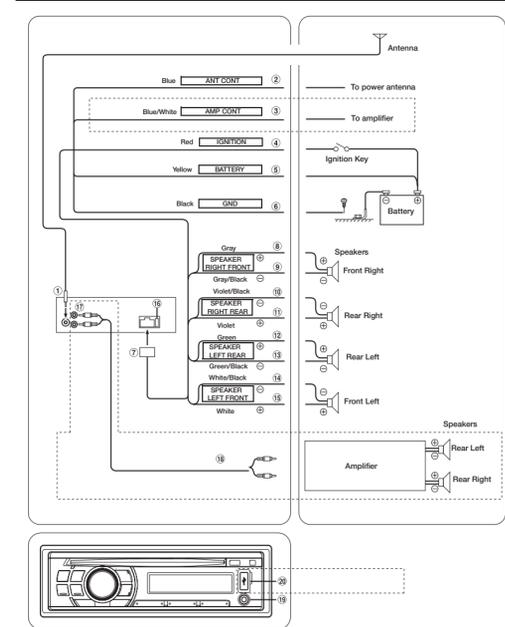
- Unable to receive stations.**
 - No antenna or open connection in cable.
 - Make sure the antenna is properly connected; replace the antenna or cable if necessary.
 - If sound is not output or USB memory is not recognised even when USB memory is connected, remove USB memory once, then connect it again.

- Unable to tune stations in the seek mode.**
 - If the area you are in is a primary signal area, the antenna may not be grounded and connected properly.
 - Check your antenna connections; make sure the antenna is properly grounded at its mounting location.
 - The antenna may not be the proper length.
 - Make sure the antenna is fully extended. If broken, replace the antenna with a new one.

- Broadcast is noisy.**
 - The antenna is not the proper length.
 - Extend the antenna fully; replace it if it is broken.
 - The antenna is poorly grounded.
 - Make sure the antenna is grounded properly at its mounting location.

- MP3, WMA is not played back.**
 - Writing error occurred. The MP3/WMA format is not compatible.
 - Make sure the MP3/WMA has been written in a supported format. Refer to "About MP3/WMA", then rewrite in the format supported by this device.

Connections



- Antenna Receptacle**
- ANT CONT Lead (Blue)**
Connect this lead to the remote turn-on lead of your amplifier or signal processor.
- AMP CONT Lead (Blue/White)**
Connect this lead to the +B terminal of your power antenna, if applicable.
- Switched Power Lead (Ignition) (Red)**
Connect this lead to an open terminal on the vehicle's fuse box or another fused power source which provides (+) 12V only when the ignition is turned on or in the accessory position.
- Battery Lead (Yellow)**
Connect this lead to the positive (+) post of the vehicle's battery.
- Ground Lead (Black)**
Connect this lead to a good chassis ground on the vehicle. Make sure the connection is made to bare metal and is securely fastened using the sheet metal screw provided.
- Power Supply Connector**
- Right Front (+) Speaker Output Lead (Gray)**
- Right Front (-) Speaker Output Lead (Gray/Black)**
- Right Rear (-) Speaker Output Lead (Violet/Black)**
- Right Rear (+) Speaker Output Lead (Violet)**

- To prevent external noise from entering the audio system.**
 - Locate the unit and route the leads at least 10 cm away from the car harness.
 - Keep the battery power leads as far away from other leads as possible.
 - Connect the ground lead securely to a bare metal spot (remove any paint, dirt or grease if necessary) of the car chassis.
 - If you add an optional noise suppressor, connect it as far away from the unit as possible. Your Alpine dealer carries various noise suppressors; contact them for further information.
 - Your Alpine dealer knows best about noise prevention measures so consult your dealer for further information.

Indication for CD Player

CD ERR1

- The disc is dirty or upside down.
- Press the **EJECT** button and eject the CD.
- If not ejecting, consult your Alpine dealer.

CD ERR2

- The disc has scratches.
- Press the **EJECT** button and eject the CD.
- If not ejecting, consult your Alpine dealer.

CD ERR3

- Mechanism error.
- Consult your Alpine dealer.

CD ERR4

- A sampling rate/bit rate not supported by the unit is used.

CD ERR5

- A copy-protected WMA file was played back.
- You can only play back non-copy-protected files.

Indication for USB memory

USB ERR1

- No song file is stored in the USB memory.
- Measure conversion in the CD Module.
- A USB device that is not supported by the unit is connected.
- Connect a USB device that is supported by the unit.

USB ERR2

- Abnormal current is run to the USB connector device (an error message may be displayed if the USB device that is not compatible with the unit is connected).
- Disconnect the USB memory device and turn off the power and turn on Connect another USB memory.

USB ERR3

- Communication error.
- Turn the ignition key off, and then set to ON again.

USB ERR4

- A sampling rate/bit rate not supported by the unit is used.

USB ERR5

- A copy-protected WMA file was played back.
- You can only play back non-copy-protected files.

Specifications

FM RADIO SECTION

Tuning Range	87.5-108.0 MHz / 87.7-107.9 MHz (CDE-110C/110E/110UB) / (CDE-110)
Usable Sensitivity	5 dBµV (SN 30 dB)
Frequency Response	30-15,000 Hz (±3 dB)
Alternate Channel Selectivity	75 dB
Stereo Separation	30 dB
Image Rejection Ratio	70 dB
IF Rejection Ratio	100 dB
Signal-to-Noise Ratio	62 dB

AM RADIO SECTION

Tuning Range	531-1,602 kHz / 530-1,710 kHz (CDE-110C/110E/110UB) / (CDE-110)
Usable Sensitivity	28 dBµV (SN 20 dB)

CD PLAYER SECTION

Sampling Rate	8 times oversampling
D/A Converter	1 bit DAC System
Pick-up Type	3-beam Photo Detector Pick Up
Light Source	Semiconductor laser
Wavelength	780 nm
Laser Power	0.2JMSI
Frequency Response	20-20,000 Hz (±1 dB)
Signal-to-Noise Ratio	96 dB
Total Harmonic Distortion	0.01% (±1 kHz)
Wow & Flutter	Below measurable limits
Channel Separation	65 dB

USB SECTION

USB requirements	1.1, 2.0 Full Speed
Maximum Supply Compatibility	500 mA

Front AUX Input

Input Impedance	10 kOhms
Allowable external input Connector	2.0 V 3 mm φ Stereo mini-pin

GENERAL

Power Requirement

12V DC (11-16V allowable), Test voltage 14.4 V, Negative ground

Current Consumption

Less than 2.1 A (CD mode, 0.5 W x 4)

Maximum Power Output

50 W x 4 (±1 kHz) volume control maximum

Power Output

18 W x 4 (1 kHz, 1 %, 4 ohms)

Speaker Impedance

4-8 ohms

Pre-Output Voltage*

2 V (CD mode, 1 kHz, 0dB)

Pre-Output Impedance*

200 ohms

Dimensions (W x H x D)

187 x 50 x 160 mm

Weight

1.2 kg

* Due to continuous product improvement, specifications and design are subject to change without notice.

Installation and Connections

Caution

BEFORE INSTALLING OR CONNECTING THE UNIT, PLEASE READ THE FOLLOWING AND "OPERATING INSTRUCTIONS" OF THIS MANUAL THOROUGHLY FOR PROPER USE.

Warning

MAKE THE CORRECT CONNECTIONS.

Failure to make the proper connections may result in fire or product damage.

USE ONLY IN CARS WITH A 12 VOLT NEGATIVE GROUND.

(Check with your dealer if you are not sure.) Failure to do so may result in fire, etc.

BEFORE WIRING, DISCONNECT THE CABLE FROM THE NEGATIVE BATTERY TERMINAL.

Failure to do so may result in electric shock or injury due to electrical shorts.

DO NOT ALLOW CABLES TO BECOME ENTANGLED IN SURROUNDING OBJECTS.

Arrange wiring and cables in compliance with the manual to prevent obstructions when driving. Cables or wiring that obstruct or hang up on places such as the steering wheel, shift lever, brake pedals, etc. can be extremely hazardous.

DO NOT SPLICE INTO ELECTRICAL CABLES.

Never cut away cable insulation to supply power to other equipment. Doing so will exceed the current carrying capacity of the wire and result in fire or electric shock.

DO NOT DAMAGE PIPE OR WIRING WHEN DRILLING HOLES.

When drilling holes in the chassis for installation, take precautions so as not to contact, damage or obstruct pipes, fuel lines, tanks or electrical wiring. Failure to take such precautions may result in fire.

DO NOT USE BOLTS OR NUTS IN THE BRAKE OR STEERING SYSTEMS TO MAKE GROUND CONNECTIONS.

Bolts or nuts used for the brake or steering systems (or any other safety-related systems), or tanks should NEVER be used for installations or ground connections. Using such parts could disable control of the vehicle and cause fire, etc.

KEEP SMALL OBJECTS SUCH AS BATTERIES OUT OF THE REACH OF CHILDREN.

Swallowing them may result in serious injury. If swallowed, consult a physician immediately.

DO NOT INSTALL IN LOCATIONS WHICH MIGHT HINDER VEHICLE OPERATION, SUCH AS THE STEERING WHEEL OR SHIFT LEVER.

Doing so may obstruct forward vision or hamper movement etc. and result in serious accident.

IMPORTANT

Please record the serial number of your unit in the space provided below and keep it as a permanent record. The serial number or the engraved serial number is located on the upper of the unit.

Caution

BEFORE WIRING AND INSTALLATION DONE BY EXPERTS.

The wiring and installation of this unit requires special technical skill and experience. To ensure safety, always contact the dealer where you purchased this product to have the work done.

USE SPECIFIED ACCESSORY PARTS AND INSTALL THEM SECURELY.

Be sure to use only the specified accessory parts. Use of other than designated parts may damage this unit internally or may not securely install the unit in place. This may cause parts to become loose resulting in hazards or product failure.

ARRANGE THE WIRING SO IT IS NOT CRIMPED OR PINCHED BY A SHARP METAL EDGE.

Route the cables and wiring away from moving parts (like the seat rails or sharp or pointed edges). This will prevent crimping and damage to the wiring. If wiring passes through a hole in metal, use a rubber grommet to prevent the wire's insulation from being cut by the metal edge of the hole.

DO NOT INSTALL IN LOCATIONS WITH HIGH MOISTURE OR DUST.

Avoid installing the unit in locations with high incidence of moisture or dust. Moisture or dust that penetrates into this unit may result in product failure.

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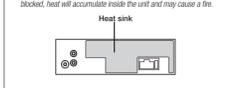
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Installation

Caution

Do not block the unit's heat sink, thus preventing air circulation. If blocked, heat will accumulate inside the unit and may cause a fire.



Caution

When you install this unit in your car, do not remove the detachable front panel. If the detachable front panel is removed during installation, you might press too hard and warp the metal plate that holds it in place.

Caution

The main unit must be mounted within 30 degrees of the horizontal plane, back to front.

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