



ALPINE HDP-D90 14-Channel Audio Processor Amplifier User Guide

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Instructions



Warning

Points for Safe Use

- Please read this manual carefully before using the machine and system components. This manual contains instructions on how to use this product safely and effectively. If failure to follow the instructions in this manual causes malfunctions, Alpine will not assume any responsibility.
- This manual uses various icons to explain how to use this product safely, and reminds you to pay attention to the dangers that may be caused by improper connection and operation. The meaning of these icons will be explained below. A complete understanding of the meaning of these icons is very important for the correct use of this manual and this system.



Warning

- It is very dangerous to operate this system while driving. The user should stop before operating the software.
- Road conditions and laws take precedence over the information displayed on the map: When driving, you should abide by actual traffic restrictions and conditions.
- This software is specially designed for this machine and cannot be used in combination with other hardware.



Warning

This symbol indicates important instructions. Failure to heed these instructions can result in serious injury or even death.

Do not use any features that will distract you while driving

Any function that affects your concentration should only be used after the car has come to a complete stop. To use these functions, please park your vehicle in a safe place first. Otherwise, an accident may result.

Do not disassemble or modify

Otherwise, it may cause an accident, fire or electric shock.

The volume must be maintained at a level where the noise outside the car can be heard while driving

Inaudible emergency vehicle sirens and road warning signals (train intersections, etc.) are very dangerous and may cause accidents. In addition, excessive volume may cause hearing loss.

This product is only suitable for cars with 12V negative grounding. Otherwise, it may cause a fire and other accidents.

Small objects such as bolts or screws should be kept out of the reach of children

Swallowing small objects may cause serious injury. Once swallowed by mistake, please immediately medical.

When replacing the fuse, you must choose a fuse with the correct ampere value

Otherwise, it may cause a fire or electric shock.

Do not block the ventilation holes or heat sink

Otherwise, it may cause internal heat build-up and may cause a fire.

This product can only be used in 12V mobile applications

If used in non-designed applications, it may cause fire, electric shock or other injuries.

Make the correct connection

If it is not connected properly, it may cause fire or product damage.

Before wiring, disconnect the cable from the negative terminal of the battery

Otherwise, it may cause electric shock or injury due to electrical short circuit.

Do not let the cable be entangled with surrounding objects

Arrange the wires and cables in accordance with the requirements of the manual to prevent them from becoming obstructive while driving. Cables or wires that obstruct or hang on the steering wheel, shift lever, brake pedal, etc. are extremely dangerous.

Do not splice cables

Do not cut the cable insulation to supply power to other equipment. Otherwise, the current carrying capacity of the wire will be exceeded, resulting in fire or electric shock.

Do not damage the pipe or wiring when drilling

When drilling holes in the chassis for installation, be careful not to touch, damage or obstruct the pipes, fuel lines, fuel tanks or wires. If you don't pay attention, it can cause fire.

Do not use bolts or nuts in brakes or steering systems for grounding connections

Never use bolts or nuts used in brakes or steering systems (or any other safety-related systems) or fuel tanks for installation or grounding connections. The use of such parts will cause the car controller to fail, resulting in fire and so on.

Do not install on the steering wheel or gear lever, etc., which may hinder the operation of the car

Otherwise, it will obstruct the front line of sight or obstruct moving parts, etc., causing serious accidents.



Notice

This symbol indicates important instructions. Failure to heed these instructions may result in injury or major property damage.

When there is a problem, please stop using it immediately

Otherwise, it may cause personal injury or damage to the product. Please return this product to an authorized Alpine dealer or the nearest Alpine service center for repair.

Ask professionals for wiring and installation

The wiring and installation of this product require professional skills and experience. For safety reasons, please contact the dealer where you purchased the product for installation.

Use designated accessories and install securely

Make sure to use only designated accessories. The use of non-designated parts may cause internal damage to the device, or it may not be securely installed in place. This can cause parts to loosen and cause danger or product failure.

Arrange the wires to avoid crimping or being squeezed by sharp metal edges

The arrangement of wires and cables should be far away from moving parts (such as seat tracks) or sharp edges or corners. This will avoid crimping and damage to the wires. If the wiring passes through a metal hole, a rubber gasket should be used to prevent the wire insulation from being cut by the edge of the metal hole.

Do not install in high humidity or dusty locations

Avoid installing the device in a location with high humidity or dust. Moisture or dust invades the device and can cause product failure.



Precautions

Product cleaning

Please use a dry soft cloth to clean the product regularly. If the dirt is difficult to remove, soak a soft cloth with water only. Any other solvent may dissolve.

Temperature

Before turning on the machine, please make sure that the temperature in the car is between +60°C and -20°C.

Maintain

If you encounter a problem, do not repair it yourself. Please return this product to an authorized Alpine dealer or the nearest Alpine service center for repair.






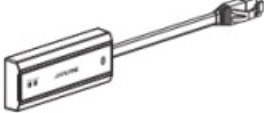

Installation location

- This machine cannot be installed in any of the following places:
- Near direct sunlight and heat sources
- Places with high humidity and near water sources
- Dusty places
- Locations subject to severe vibration

Copyright Notice

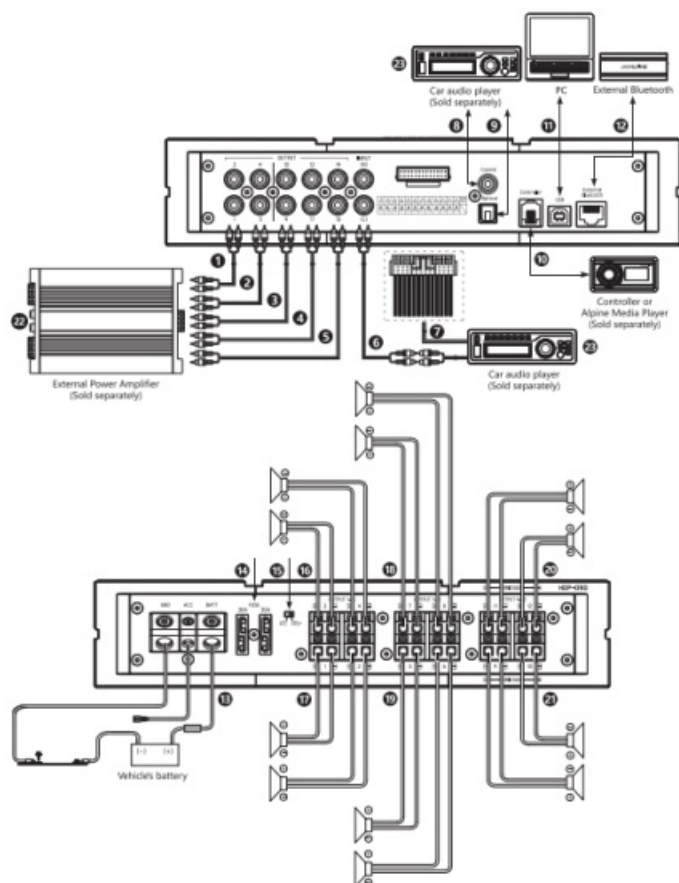
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Accessory List

| | | |
|---|---|---|
| Machine Screw×10 | Self-tapping Screw×4 | Mounting Brackets ×2 |
|  |  |  |
| 2×13P Input Cable | USB 2.0 Cable | External Bluetooth Module |
|  |  |  |
| Main Unit | | |
|  | | |

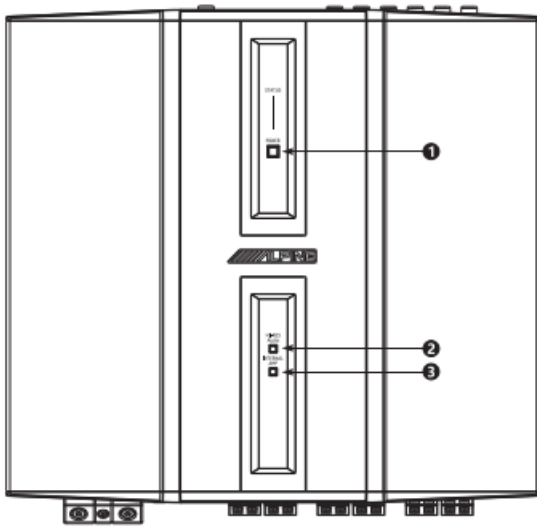
Product Name: External HD digital
Bluetooth
Model: KCE-800BT
Bluetooth Version:V5.0

Connections and Function



- 1,2,3,4,5:Pre-Out Jacks 5 groups of RCA audio signal output, which can be connected to an external power amplifies
- 6: RCA Audio Input Jacks 1 groups of RCA audio signal input, which can be connected to the RCA audio signal output of car audio player.
- 7: High Level Input Connector Connect to the high-level output of the car audio player.
- 8: Coaxial Input Jack Connect the car audio coaxial cable, switch the audio source of the machine to the digital signal input, and play the coaxial digital signal.
- 9: Optical Input Jack Connect the car audio optical fiber cable, switch the audio source of the machine to the digital signal input, and play the optical digital signal.
- 10: Controller Connector System expansion interface.
- 11: USB 2.0 Connector It can be connected to a computer via a USB 2.0 cable for detailed tuning operations and settings.
- 12: External Bluetooth Connector Choose high-definition Bluetooth as the input signal, or connect HDP-D90 mobile phone tuning software. After the connection is successful, the Bluetooth is always on.
- 13: Power Supply Terminal Connect the car battery.
- 14: Fuse Insert two 30A fuses.
- 15: Input Select Switch When the switch is pulled to the “ACC” terminal, ACC starts the machine; when it is pulled to the “HOST” terminal, the machine is started by the high level input signal H1-/H1+.
- 16,17: CH1-4 Speaker Output Terminals The amplifier output of the machine is connected to the speaker.
- 18,19: CH5-8 Speaker Output Terminals The amplifier output of the machine is connected to the speaker.
- 20,21: CH9-12 Speaker Output Terminals The amplifier output of the machine is connected to the speaker.
- 22: External Power Amplifier (Sold separately) Connect an external power amplifier.
- 23: Car Audio Player (Sold separately) Connect the car audio player.

Indicators



1. Power and Protection Indicator Within 2 seconds of booting, the indicator light will show red; In the protection state, the indicator light shows red light; When working normally, the indicator light shows blue light When shutting down, the indicator light is off.
2. Hi-Res Signal Indicator When the optical fiber/coaxial input signal is Hi-Res standard signal, the indicator light is always on (red light); When there is no Hi-Res standard signal for analog input and optical/coaxial input signal, the indicator light is off.
3. Internal Amplifier Indicator When the internal power amplifier is turned on, the indicator light is always on (red light); off, the When the internal power amplifier is turned indicator light goes out.

Specifications

| Performance | | |
|---------------------------|--------------------------|------------------------------------|
| Power Output | Rated: 4Ω, 14.4V, 10%THD | CH1-8: 50W, CH9-12: 80W |
| THD+N | RCA: 1W into 4Ω | 50.% |
| S/N | RCA: A-wt | 100dB |
| Input Voltage | High level | 26Vpp |
| | RCA | 8Vpp |
| Output Voltage | High level | CH1-8: 40Vpp, CH9-12: 50Vpp |
| | RCA | 10Vpp |
| Frequency Response | 1W into 4Ω | 20Hz— 40kHz |
| General | | |
| Input Impedance | High level | 14Ω |
| | RCA | 10kΩ |
| System Sampling Rate | | 192kHz/32bit |
| Operating Voltage | | 9 —16V |
| Standby Power Consumption | | 0.1W |
| REM Start Input | | High level (H1-/H1+), ACC optional |
| REM Start Output | | 12V (0.2A) |
| Weight | | 4.5kg |
| Dimensions | Width | 278mm |
| | Depth | 256mm |
| | Height | 58mm |

Function Parameter

| | |
|----------------------------|---|
| Inputs | 12ch High-level 2ch RCA Optical / Coaxial Digital Signal Bluetooth Audio |
| Outputs | 12ch High-level 10ch RCA |
| Output Channel Signal Gain | Range: -60dB— +6dB |
| Output Signal Equalizer | Type: Parametric / Graphic Equalizer Frequency: 20Hz — 40kHz (1 Hz steps) Q value : 0.404— 28.852 Gain: -12.0dB— +12.0dB (0.1dB steps) |
| Output Signal Divider | Each output channel is equipped with multi-order high and low pass independent filters, Filter type: Link-Ril, Bessel, Butter-W Filter crossover point: 20Hz — 40kHz (1 Hz steps) Filter slope : -6dB/Oct–48dB/Oct |
| Output Phase | Normal phase or reverse phase (0°-360°) |
| Output Delay | 0.000-20.000ms, 0-692cm, 0-273inch |
| Preset Sound Effects | 6 sound data presets |

FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.
Radiation Exposure StatementThe device has been evaluated to meet general RF exposure

requirement in portable exposure condition without restriction.

ISED Statement

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device. The digital apparatus complies with Canadian CAN ICES-3 (B)/NMB-3(B).

This device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS 102
RF exposure, users can obtain Canadian information on RF exposure and compliance.

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment.

The device has been evaluated to meet general RF exposure requirement. This equipment should be installed and operated with minimum distance 0mm between the radiator & your body.

Documents / Resources

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|--|---|
|  | <p>ALPINE HDP-D90 14-Channel Audio Processor Amplifier [pdf] User Guide KCE800BT, 2A38M-KCE800BT, 2A38MKCE800BT, HDP-D90 14-Channel Audio Processor Amplifier, 14-Channel Audio Processor Amplifier</p> |
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