



CD7416U-OR

CD RADIO / USB MP3 / WMA 12V

OWNER'S MANUAL

- RADIO DATA SYSTEM
- WORLDWIDE TUNER
- CD / MP3 / WMA
- LOUDNESS CONTROL
- LOGIC ON / LOGIC OFF
- BACKUP MEMORY
- USB CONNECT
- AUX IN

Safety Information

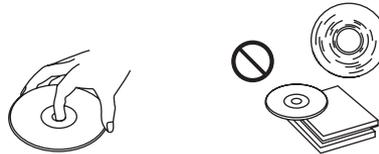
Precautions

- Use only in a 12-volt DC negative-ground electrical system.
- Disconnect the vehicle's negative battery terminal while mounting and connecting the unit.
- When replacing the fuse, be sure to use one with an identical amperage rating. Using a fuse with a higher amperage rating may cause serious damage to the unit.
- DO NOT attempt to disassemble the unit. Laser beams from the optical pickup are dangerous to the eyes.
- Make sure that pins or other foreign objects do not get inside the unit, they may cause malfunctions, or create safety hazards such as electrical shock or laser beam exposure.
- If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.
- Keep the volume at a level you can hear outside warning sounds (horns sirens, etc.).

CD Notes

- Playing a defective or dusty CD can cause dropouts in sound.
- Hold CDs as illustrated.

- Do not touch the unlabeled side.
- Do not attach any seal, label or data protection sheet to either side of a disc.
- Do not expose a CD to direct sunlight or excessive heat.
- Wipe a dirty CD from the center outward with a cleaning cloth.
- Never use solvents such as benzine or alcohol.
- This unit cannot play 3-inch (8cm) CDs. NEVER insert a 3-inch CD contained in the adapter or an irregularly shaped CD. The unit may not be able to eject it, resulting in a malfunction.
- Disc can not have foreign body, the damage caused by the disc with foreign body do not belong to the warranty scope.



Before Operation

- Do not raise the volume level too much, as this will block outside sounds, making driving dangerous. Stop the car before performing any complicated operation.

Contents

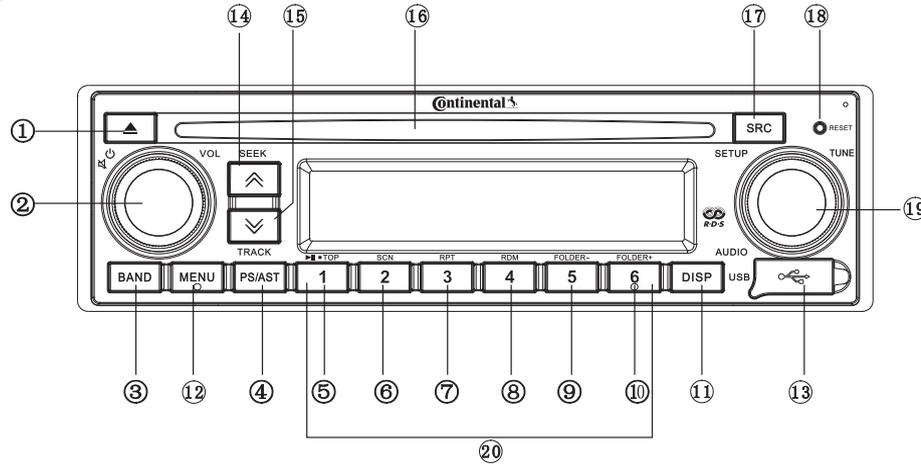
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CAUTION

- DO NOT open covers and do not repair yourself. Consult the dealer or an experienced technician for help.
- * In addition to ordinary CDs, this unit can playback CD - R or CD - RW, MP3.

Note: The system just support the English and number display, not all kinds letters are compatible with the unit.

Panel Controls



1. - Disc eject
2. - Rotate to adjust volume.
- Radio: Mute
- CD/MP3: Pause
- Hold it to power off
3. - Band select
4. - 1-6 preset
- Automatically search and save station
5. - Channel 1/Play/Stop/Top
6. - Channel 2/SCN
7. - Channel 3/RPT
8. - Channel 4/RDM
9. - Channel 5/FOLDER-
10. - Channel 6/FOLDER+

11. - Display play time and clock in the CD state.
- the LCD will display the ID3 TAG information recycle: file name/folder name/ID3 TAG/system time in the MP3 state.
- Display PTY info and system time in the Radio state.
12. - Menu select
13. - USB connector
14. - Seek+/Select the next track
15. - Seek-/Select the previous track
16. - Disc slot
17. - SRC button
Radio

18. - Reset hole
19. - Press to select VOL/BAS/TRE/BAL/LOUD/FAD/AF/TA/PTY, rotate VOL knob to adjust
- RADIO: Rotate to adjust radio tune
- CD /MP3: Rotate to select the previous/next track
20. - 1-6 preset:
Press to tune in a preset station.
Hold for more than 2 seconds to store a desired station.

Operate Guide

Disc Load / Eject

Load : Insert the disc into the slot.
Eject: Press  to eject the disc.

Band Mode

Press the button to change bands:
FM1→FM2→FM3→AM1→AM2→LW

SRC

Press the [SRC] button to switch between and select available sources, the mode as follows: TUNER->CD/MP3/USB->AUX

Auto Memory Store(Radio mode)

Press the [PS/AST] button to scan the preset stations 1-6 for 10 seconds each.
Hold the [PS/AST] button more than 2 seconds, the strongest available stations will be automatically saved in the memory of preset button 1-6 .

Seek Mode

Disc/USB playback: Press the  /  to select the next or previous track.
Hold the  /  to enter fast forward or reverse back mode.

EQ Loud Mode

Press the [TUNE] Knob and rotate to select sound effect EQ OFF→POP→ROCK→CLASSIC→JAZZ→CUSTOM
Press the [TUNE] button and press  /  to select BAS/TRE, rotate the [TUNE] knob to adjust value.

Clock Setting

if RDS clock (CT) doesn't work, you can adjust manually the Clock time.
Long press the [DISP] button to set the time.
Select [CLOCK] with the search buttons.
 / 
Press [TUNE] knob and rotate it to adjust the hours.
Press [TUNE] knob and rotate it to adjust the minutes.
Press the [TUNE] knob to exit the clock setting.

System Setting

On the radio source hold the [DISP] to enter the system setup menu, press the  /  to select: TA→TA RETUN→AF→REG→CT→DX/LO→ST/MONO→CLOCK→12/24H→BEEP→SWRC SET→LOGIC→AREA SET, and rotate the [TUNE] to setting.

BEEP setting: The beep tone feature allows the selection of an audible beep tone to be heard each time the menu is accessed.

SWRC setting: Rotate the [TUNE] knob to select ON or OFF.

DX/LO setting: Rotate the [TUNE] knob to select DX or LO.

CT setting: Rotate the [TUNE] knob to select ON or OFF.

REG setting: Rotate the [TUNE] knob to select ON or OFF.

AF setting: Rotate the [TUNE] knob to select ON or OFF.

TA RETUN setting: Rotate the [TUNE] knob to select RETUNE S or L. Setting for "L", Auto search the TA time space for 180 sec, Setting for "S", auto search the TA time space for 45 sec.

TA setting: Rotate [TUNE] knob to select ON or OFF.

AREA SEL setting: Rotate the [TUNE] knob to select USA, EUROPE, NORTH AFRICA, ASIA, JAPAN.

LOGIC ON/OFF: Logic ON to limit the use of the set to one hour when the car ignition is switched off. Logic OFF to prevent the set from turning on when the car ignition is switched off.

SCROLL setting(CD SRC): Rotate the [TUNE] knob to select ON or OFF.

MIC SEL setting(Bluetooth SRC): Rotate the [TUNE] knob to to choose Microphone EXTERNAL or INTERNAL.

AUTO CON(Bluetooth SRC): To link incoming calls automatically.

Operate Guide

MP3 Track Search

CD/MP3 mode:

Press the [MENU] button to select "TRACK SCH" mode, and press the [TUNE] knob to enter searching mode. Then rotate and press the [TUNE] knob to select a track number which you want, then press the [TUNE] knob to confirm.

RDS(PTY SEEK)

Only the radio region is Europe and on the FM the PTY can be searched. Press the [MENU] button to PTY function, rotate the [TUNE] knob to display the program types, and press [TUNE] to select the desired.

Note: If radio region isn't Europe, RDS and DAB FMLK won't display.

Sound Setting

Press the [TUNE] knob to enter sound effect setting mode. First press shows current EQ. Rotate the [TUNE] knob to changes BEAT EQ in this order:

EQ OFF -> POP -> ROCK -> CLASSIC -> JAZZ -> CUSTOM

Rotate the [TUNE] knob to select CUSTOM, and press the knob, then press the  /  button to select: BAS-G -> TRE-G, rotate the knob to select a value.

BAS-G / TRE-G: (-7)- (+7)

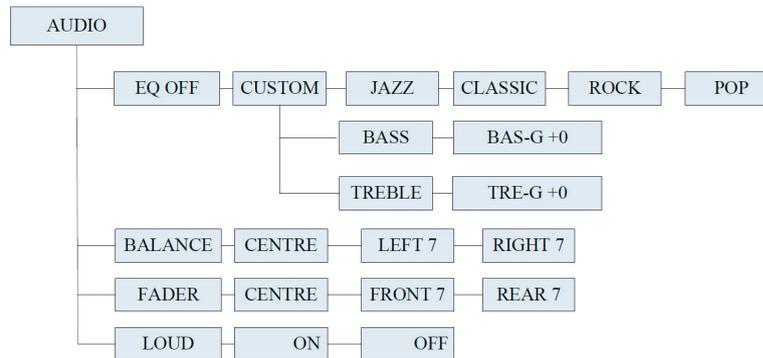
Press the [TUNE] button, and press  /  button to select USER preset:

BALANCE -> FADER -> LOUD, rotate the [TUNE] knob to select a value.

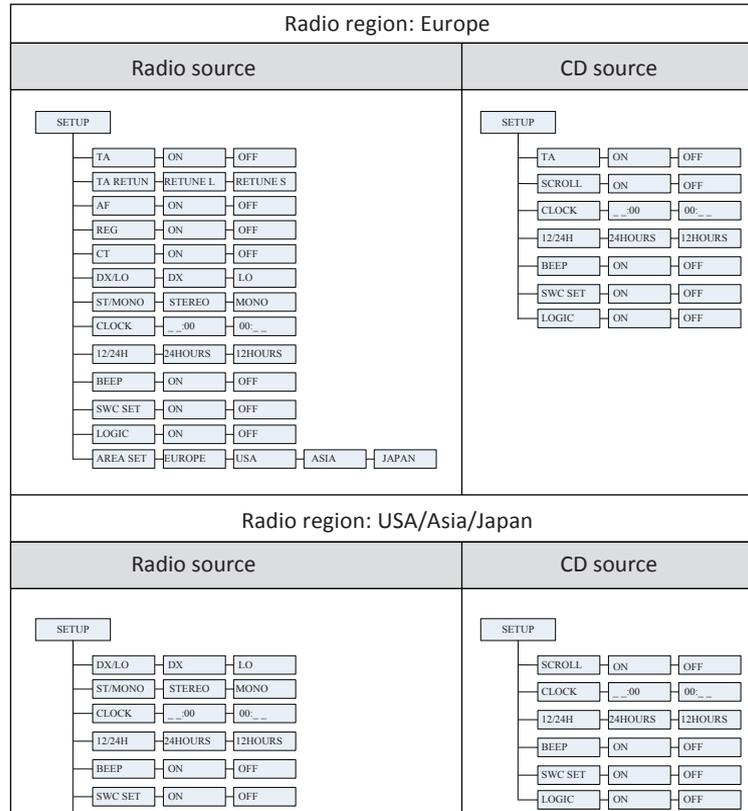
BALANCE: LEFT 1-7->CENTER->RIGHT 1-7

FADER: FRONT 1-7->CENTER->REAR 1-7

LOUD: ON/OFF



System Setting Item List



USB MP3/WMA Overview

Note on MP3

- MP3 is short for MPEG Audio Layer 3 and refers to an audio compression technology standard.
- This product allows playback of MP3 files on CD-ROM, CD-R or CD-RW discs.
- The unit can read MP3 files written in the format compliant with ISO 9660.
However it does not support the MP3 data written by the method of packet write.
- The unit can not read an MP3 file that has a file extension other than ".mp3".
- If you play a non-MP3 file that has the ".mp3" extension, you may hear some noise.
- In this manual, we refer to what are called "MP3 file" and "folder" in PC terminology as "track" and "Album," respectively.
- Maximum number of directory level is 8, including the root directory. Maximum number of files and folders per disc is 256.
- The unit may not play tracks in the order of Track numbers.
- The unit plays only the audio tracks if a disc contains both audio tracks and MP3 files.

- When playing a disc of 8kbps or VBR*, the elapsed playing time in the display window will not be correct and also the intro play may not function properly. *VBR: Variable Bit Rate

Note on creating your own CD-Rs or CD-RWs containing MP3 files

- To enjoy high quality sound, we recommend converting to MP3 files with a sampling frequency of 44.1 kHz and a fixed bit rate of 128 kbps.
- DO NOT store more than 256 MP3 files per disc.
- For ISO 9660 -compliant format, the maximum allowable depth of nested folders is 8, including the root directory (folder).
- When CD-R disc is used, playback is possible only for discs which have been finalized.
- Make sure that when MP3 CD-R or CD-RW is burned that it is formatted as a data disc and NOT as an audio disc.
- You should not write non-MP3 files or unneeded folders along with MP3 files on the disc otherwise it takes a long time until the unit starts to play MP3 files.
- With some CD-R or CD-RW media, data may not be properly written depending on their manufacturing quality.

In this case, data may not be reproduced correctly. High quality CD-R or CD-RW disc is recommended.

- Up to 16 characters are displayed for the name of an Album or a Track. ID3 TAG version 1.x is required.
- Note that the unit may not play Track in the order that you wrote them to the disc.

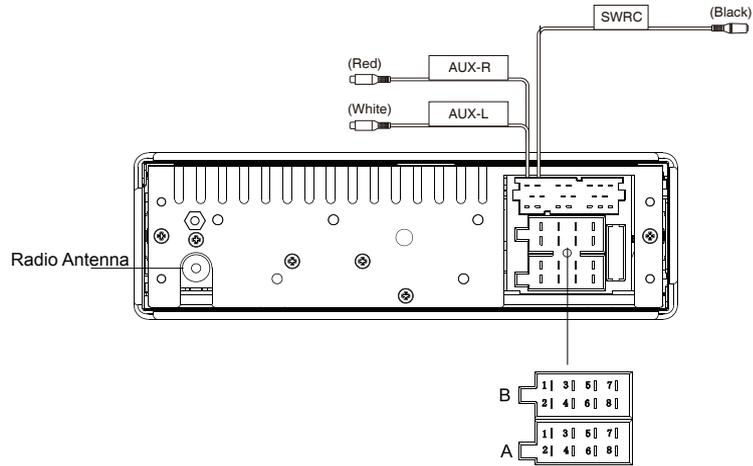
USB Notes

USB functions (flash memory type) MP3 music play.

- (1) USB flash memory 2 in 1 support
- (2) FAT 12/FAT 16/FAT 32 format supported.
- (3) File name: 64 byte/dir name: 64 byte/tag name: 30 byte.
- (4) Tag (id3 tag ver 2.0)
- title/artist/album: 32 byte support.
- (5) USB 1.1 support, USB 2.0 support (For 2.0, speed performance is as USB 1.1)
- (6) Not all USB devices are compatible with the unit.
- (7) USB connector is support maximum work power with 500 mA.

Electrical Connections

Wiring Diagram



Location	Function	Location	Function
A1	No Function	B1	Rear R+
A2	No Function	B2	Rear R-
A3	Telephone Mute Low	B3	Front R+
A4	Ignition	B4	Front R-
A5	Antenna remote	B5	Front L+
A6	ILLumination	B6	Front L-
A7	Battery +	B7	Rear L+
A8	Power Ground	B8	Rear L-

Troubleshooting

If you suspect something is wrong, immediately switch power off. Do not use the unit in abnormal condition, for example without sound, or with smoke or foul smell, can cause fire or electric shock. Immediately stop using it and call the store where you purchased it. Never try to repair the unit yourself because it is dangerous to do so.

Option	Selectable values	Function
General		
No power or no sound	Car's engine switch is not on	Turn your car's key to ACC or ON
	Fuse is burnt	Replace fuse
	Volume is too low	Check volume or mute on / off
	If the above solutions cannot help	Press the RESET button
Disc		
Disc is inside but is no sound	Disc is upside down	Place disc in the correct direction, and the label side up
	Disc is dirty or damaged	Clean disc or change another disc
Disc sound is skips,tone quality is low	Disc is dirty or damaged	Clean CD or change another CD
Radio		
Much noise in broadcasts	Station is too far, or signals are too weak	Select other stations of higher signal level
Error Display Messages		
CD ERR	Disc is upside down	Place disc in the correct direction, and the label side up
	Disc format is not support or file date is wrong	check the disc
	Disc is wrong	Press ▲ button more than 2 seconds to eject the disc. In case that the disc cannot be ejected by pressing ▲ button, press the RESET switch and press the ▲ button 2 seconds to eject the disc. If still not ejecting, consult your dealer.

Note: If the set inserts a non-standard size disc or card.you may long press the ▲ button for 5 second,then it will be ejected forcibly.

Specifications

General

Power supply:	12 V DC negative ground
Maximum power output:	41 W x 4 channels (4 Ω)
Suitable speaker impedance:	4 Ω
ESP:	10 s (CD-DA)/40 s (MP3)
Dimensions(WxDxH):	178x161x50 mm
Weight:	1.33 kg

Note: For different bit-rate MP3, ESP time are different; 40 seconds only for the bit-rate MP3 file of the 128Kbps

FM Stereo Radio

Frequency range:	87.5-108.0 MHz
Usable sensitivity:	< 14 dB μ
Frequency response:	50 Hz - 10 KHz
Stereo separation:	\geq 22 dB (1 KHz)
Image response ratio:	\geq 40 dB
IF response ratio:	\geq 60 dB
Signal/noise ratio:	\geq 50 dB

AM(MW) Radio

Frequency range:	522-1620 KHz
Usable sensitivity(S/N=20dB):	< 35 dB μ

Disc Player

System:	Disc digital audio system
Frequency response:	20 Hz - 20 KHz
Signal/noise ratio:	> 72 dB (dBA)
Total harmonic distortion:	Less than 1% (1 KHz)
Channel separation:	> 55 dB

AREA	BAND	RECEIVED FREQUENCY	AUTO SPACE	CHANNEL SPACE
USA	FM	87.5 - 107.9MHz	200KHz	100KHz
	AM	530 - 1710KHz	10KHz	10KHz
EUROPE	FM	87.5 - 108.0MHz	100KHz	50KHz
	MW	522 - 1620KHz	9KHz	9KHz
	LW	144 - 288KHz	3KHz	3KHz
NORTH AFRICA	FM	87.5 - 108.0MHz	100KHz	50KHz
	MW	531- 1602KHz	9KHz	9KHz
	LW	153 - 252KHz	3KHz	3KHz
ASIA	FM	87.5 - 108.0MHz	50KHz	50KHz
	AM	522 - 1629KHz	9KHz	9KHz
JAPAN	FM	76 - 90MHz	100KHz	100KHz
	AM	522 - 1629KHz	9KHz	9KHz

Note: Specifications and the design are subject to change without notice due to improvements in technology.

FCC

FCC STATEMENT

1. 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.

(2) This device must accept any interference received, including interference that may cause undesired operation.

2. Changes or modifications 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.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body

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