

# AKAI

Car radio with USB-port  
Cardreader and Front line-in

ACA10



User manual

Gebruiksaanwijzing

Manuel de l'utilisateur

Manual de instrucciones

Gebrauchsanleitung

Οδηγίες χρήσεως

Brugsanvisning

GB 2

NL 20

FR 39

ES 57

DE 75

EL 94

DA112

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## Copyright notice

Design and specifications are subject to change without notice.

# 1. Safety

## 1.1 Intended use

The Car Radio Music System plays music from USB device, memory card and radio. Read the manual carefully before the first use.



Due to the great variety of products with external memory connection (USB, SD/MMC, etc.) and their sometimes quite manufacturer-specific functions we can neither guarantee that all devices will be recognised, nor that all operating options that are possible in theory will actually work.

## 1.2 Labels in this manual



### WARNING

A warning means that injury or death is possible if the instructions are not obeyed.



### CAUTION

A caution means that damage to the equipment is possible.



A note gives additional information, e.g. for a procedure.

## 1.3 General safety instructions



### WARNING

Do not put force on the appliance. The appliance can fall and can cause serious injury.



### CAUTION

Do not spill any liquid on the appliance.



### WARNING

Do not insert any objects in the ventilation holes.



### CAUTION

Do not block the ventilation holes.

## 2. Preparations for use

### 2.1 Unpacking

- Unpack the appliance carefully.
- Check the package contents as described below. If any item is missing, please contact your reseller.
- Remove the labels from the front panel carefully if present.



We recommend that you retain the original carton and packing materials in case it ever becomes necessary to return your product for service. This is the only way to safely protect the product against damage in transit. If you do dispose of the carton and the packing materials, please remember to recycle with due care to the environment.

### 2.2 Package contents

The following items are included in the received package:

- 1x Car Radio Music System
- 1x Detachable front panel
- 1x Protective carrying case for detachable front panel
- 1x Mounting bracket
- 2x Release keys
- 1x Support strap
- 1x Tapping screw
- 1x Nut M5
- 2x Flat washer
- 2x Spring washer
- 2x ISO Wire Cable
- 1 Operator manual



If any item is missing, please contact your reseller.

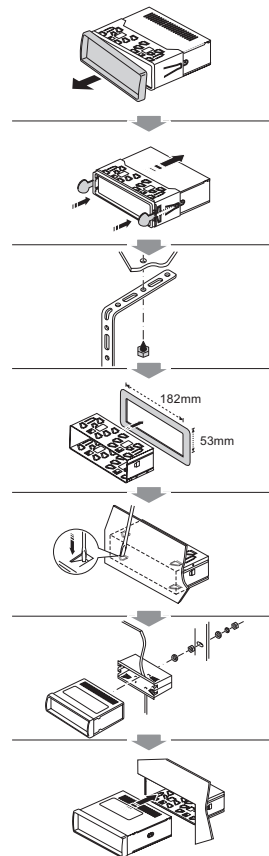
### 3. Installation

This unit can be installed in any dashboard having an opening as shown in the picture. The dashboard should be 4.75 - 5.56 mm thick in order to be able to support the unit. The unit should be installed horizontally in an angle less than 20°.

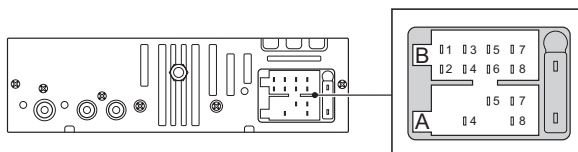


First complete the electrical connections, and then check them for correctness.

- Remove the outer edge from the unit.
- Remove the detachable control panel.
- Insert the release keys to separate the unit from the mounting bracket. Keep the release keys in a safe place for future use.
- If necessary, attach the support strap to the car body using the tapping screw.
- Insert the mounting bracket into the dashboard, and bend the mounting tabs out with a screwdriver.
- Secure the rear of the unit to the support strap, using the bolts, nuts, and washers provided.
- Connect the appliance to the electrical circuit. Read the paragraph "ISO Cable Connection".
- Connect the random equipment to the appliance. Read the paragraph "Connecting random equipment".
- Push the main unit into the mounting bracket until you hear a click.
- Press the RESET button.
- Attach the control panel. Read the paragraph "Detachable control panel" in the chapter "Operation".



## 3.1 ISO Cable Connection



### ISO A CONNECTOR



Depending on the manufacturer, the contacts on your vehicle connection may be assigned differently. This is not a defect of the device but caused by a deviating connector pin assignment by the manufacturer of your vehicle. To provide a connection that conforms to this device, please purchase an appropriate adapter cable from a specialized dealer if required. Please consult a specialist in your area if you have any questions about the connections.

- A4 YELLOW (B+): Connection for +12V operational voltage (diameter at least 2.5 mm) to permanent plus of the vehicle.
- A5 BLUE: To system control terminal of an external amplifier or Automatic Antenna (max. 100mA / 12V<sub>DC</sub>).
- A7 RED ACC (+): Connection for +12V trigger voltage. Connect to ignition key of the vehicle. If contacts A4 and A7 are switched, the device will "forget" the stored stations after the ignition is turned off.
- A8 GND (- /Ground): Attach the connection for the ground (diameter at least 2.5 mm) to the ground of the vehicle.

## ISO B CONNECTOR

Front speaker

B3 Right + (Gray)

B4 Right - (Gray/Black)

B5 Left + (White)

B6 Left - (White/Black)

Rear speaker

B1 Right + (Violet)

B2 Right - (Violet/Black)

B7 Left + (Green)

B8 Left - (Green/Black)

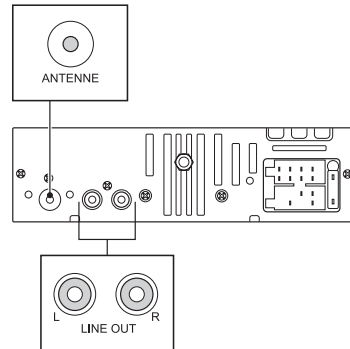
## 3.2 Connecting random equipment

### Audio connections (output)

- Connect a suitable cable to the L/R channels of the LINE OUT connection.

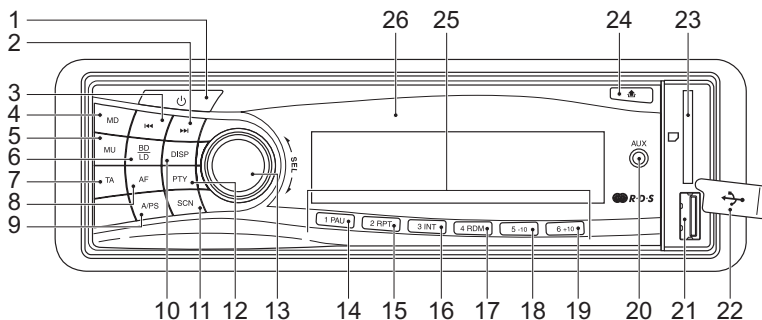
### Cable connection

- Insert the vehicle's antenna cable into the RADIO ANTENNA connection.



# 4. Functions

## 4.1 Control panel

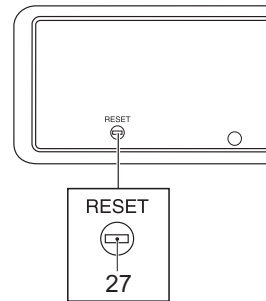


- |                              |                                 |
|------------------------------|---------------------------------|
| 1 POWER button               | 14 PAUSE button                 |
| 2 NEXT button                | 15 REPEAT button                |
| 3 PREV button                | 16 INTRO button                 |
| 4 MODE button                | 17 RANDOM button                |
| 5 MUTE button                | 18 TRACK SEARCH DOWN button     |
| 6 BAND/LOUDNESS button       | 19 TRACK SEARCH UP button       |
| 7 TA button                  | 20 AUX jack                     |
| 8 AF button                  | 21 USB slot                     |
| 9 AUTO SEEK button           | 22 USB slot cover               |
| 10 DISPLAY button            | 23 Memory card slot             |
| 11 SCAN button               | 24 OPEN PANEL button            |
| 12 PTY button                | 25 PRESET STATION [1-6] buttons |
| 13 SELECT button/VOLUME dial | 26 Display                      |



## Behind control panel

27 RESET button



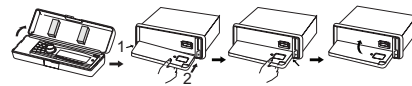
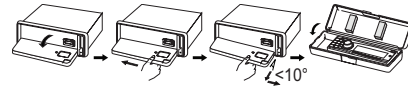
# 5. Operation

## 5.1 Detachable control panel

The control panel can be detached in order to discourage burglary.

### Attaching the control panel

- Insert the left side of the control panel into the main unit.
- Press the control panel right side until the "click" sound is heard.
- Flip the control panel upwards.



### Detaching the control panel

- Switch the power off.
- Press the OPEN PANEL button (24) to release the panel.
- Wait until the control panel is in horizontal position.
- Pull the control panel out.
- Place the control panel into the case and take it with you when you leave the car.



#### WARNING

Do not install or remove the control panel while driving your car.



## CAUTION

- Do not insert the control panel from the right side. It can damage the control panel.
- This control panel is not waterproof. Do not expose it to water or excessive moisture.
- Do not place the control panel on the dashboard or nearby areas where the temperature rises high. Instead, keep the control panel in the protective carrying case.
- To avoid damaging the control panel, do not push it down or place objects on it while it is open.
- The rear connector that connects the main unit and the control panel is an extremely important part. Be careful not to damage it by pressing on it with fingernails, pens, screwdrivers, etc. Do not touch the contacts on the control panel and the main unit, since this may result in poor electrical contact. If dirt or other foreign substances get on the contacts, wipe them off with a clean and dry cloth.

## 5.2 General functions

- To switch on the appliance, press the POWER button (1). To switch off the appliance, press the POWER button (1) again.
- To select the source mode (AUX, TUNER, MP3, USB, SD, MMC), press the MD button (4).
- To adjust the volume level, turn the VOLUME dial (13) until the desired level is set.
- To mute or restore sound, press the MU button (5).
- To activate the loudness: Press and hold the LD button (6) for more than 2 seconds.
- To access the BASS control, press the SELECT button (13) once. To adjust the level, turn the VOLUME dial (13) until the desired level is set.
- To access the TREBLE control, press the SELECT button (13) once again. To adjust the level, turn the VOLUME dial (13) until the desired level is set.
- To access the BALANCE control, press the SELECT button (13) once again. To adjust the level, turn the VOLUME dial (13) until the desired level is set.

- To access the FADER control, press the SELECT button (13) once again. To adjust the level, turn the VOLUME dial (13) until the desired level is set.
- To connect an external audio device, insert the cable plug in the AUX jack (20).



Selection of the USB mode or the memory card mode only works if a USB device or a memory card is placed in the slot.

### 5.3 Radio functions

- To select the radio band, press the BD button (6) to toggle between FM1, FM2, FM3.
- To select a preset radio station, press the appropriate PRESET STATION button (25) shortly.
- To search for a specific frequency, press the PREV button (3) or the NEXT button (2) repeatedly until the desired frequency is set.
- To search automatically, press and hold the PREV button (3) or the NEXT button (2). The appliance searches for the next available station.
- To perform an automatic search for preset radio stations, use the AUTO SEEK function (9). Short press to search for all preset stations in the memory of the current band and stay on each memory station for about 5 seconds. Long press to save the stations with good reception automatically and scan each station for about 5 seconds.
- To perform an automatic scan of preset radio stations, use the SCAN function (8). Press to scan all preset stations in the memory of the current band and stay on each memory station for about 5 seconds.
- To show extra information about a radio station (program type/radio name/radio test), press the DISP button (10).

#### Programming radio stations

Per radio band (FM1, FM2, FM3), 6 radio stations can be preset.

- Search for a radio station.
- Press the PRESET STATION button (25) for more than 1 second to store the station under the desired preset number.

## Using the PTY function

- To search a radio band for a specific program type, press the PTY button (12) prior to start the search:
  - PTY MUSIC: the search is limited to radio stations with program type MUSIC
  - PTY SPEECH: the search is limited to radio stations with program type SPEECH
  - PTY OFF: the search is not limited to a specific program type

Radio stations with the program type MUSIC will be stored under the PRESET STATION buttons as follows:

- 1 POP M, ROCK M
- 2 EASY M, LIGHT M
- 3 CLASSICS, OTHER M
- 4 JAZZ, COUNTRY
- 5 NATION M, OLDIES
- 6 FOLK M

Radio stations with the program type SPEECH will be stored under the PRESET STATION buttons as follows:

- 1 NEWS, AFFAIRS, INFO
- 2 SPORT, EDUCATE, DRAMA
- 3 CULTURE, SCIENCE, VARIED
- 4 WEATHER, FINANCE, CHILDREN
- 5 SOCIAL, RELIGION, PHONE IN
- 6 TRAVEL, LEISURE, DOCUMENT

## Using the AF function

This function can be activated to check the signal strength of the alternative frequencies.

- Press the button (8) switch this function ON or OFF.

## Using the TA function

This function can be activated to receive traffic announcements.

- Press the button (7) switch this function ON or OFF.

When the unit is in TA mode (and if traffic announcement is transmitted):

- The TP symbol appears on the display when a TP station is received
- The unit will switch to radio mode temporarily if it was in another source mode
- The volume level will be increased to the threshold value if it was under the threshold value

## 5.4 USB functions

- To insert a USB device:
  - Open the cover (22).
  - Insert the device in the slot (21).
- Press the MD button (4) until USB appears on the display. Playback will start automatically.
- To remove the device, gently pull it out of the slot. Re-install the cover. During playback, the following functions are available:
  - To select a track, press the PREV button (3) or the NEXT button (2) until the desired track is set. Alternatively, use the VOLUME dial (13) to scroll through the list.
  - To search for a specific point on the track, hold the PREV button (3) or the NEXT button (2) until the point is reached and release the button.
  - To pause playback, press the PAU button (14) once; to resume playback, press the button again.
  - To play the first 10 seconds of each track, press the INT button (16). The display shows the message "INT". Press the button again to cancel the function.
  - Press the RPT button (15) once to repeat the current track. The display shows the message "RPT". Press the button again to cancel the function.
  - Press the RDM button (17) to play all tracks in random order. The display shows the message "RDM". Press the button again to cancel the function.
  - To show extra information about a track (track time, specific track), press the DISP button (10).



Because of the great variety of products with USB ports and their sometimes quite manufacturer-specific functions we can neither guarantee that all devices will be recognised, nor that all operating options that are possible in theory will actually work.

### MP3/WMA playback

- To scroll through the track list, by 10 tracks down or 10 tracks up, press the TRACK SEARCH - button (18) or the TRACK SEARCH + button (19).

## 5.5 SD/MMC functions

- Insert the device in the slot (23).
- Press the MD button (4) until SD/MMC appears on the display. Playback will start automatically.
- Refer to the instructions under "USB functions" for explanation of the functions available during playback.
- To remove the device, gently pull it out of the slot.

## 5.6 Advanced functions

The following advanced functions are available: TA SEEK, PI SOUND, RETUNE, MASK DPI, EON, BEEP, TA VOL, ADJ, AUDIO DSP.

- To enter and navigate through the menu:
  - Press and hold the SELECT button (13) for more than 2 seconds.
  - To select the required function mode, press the SELECT button a number of times until this mode appears on the display.
  - To adjust/set the function, turn the VOLUME dial (13) until the setting is selected.
- To exit the menu at any time, press the DISP button (10), or wait for approx. 8 seconds. After 8 seconds the unit automatically exits the menu.

### TA SEEK

- TA SEEK: when the currently tuned radio station does not receive any TP signal (for traffic announcement), or when the TP signal is too weak, the unit automatically retunes to an alternative frequency with a stronger TP signal.
- TA ALARM: the unit does not automatically retune to an alternative frequency but gives a beep signal.

### PI SOUND

- SOUND: when 2 stations with a different program identification share the same frequency, the radio switches to the new channel for a few seconds and then switches back again.
- MUTE: the radio sound is muted.

**RETUNE**

- RETUNE L: the initial time of an automatic TA search is set to 90 seconds max.
- RETUNE S: the initial time of an automatic TA search is set to 30 seconds max.

**MASK DPI**

- MASK DPI: masks only the alternative frequency which has a different program identification
- MASK ALL: masks the alternative frequency which has a different program identification and does not have an RDS signal with high field strength

**EON**

- Switch this function ON or OFF.

**BEEP**

- ALL: when pressing the buttons of the unit a beep signal is heard
- 2nd: when pressing and holding the buttons of the unit a beep signal is heard
- OFF: when pressing the buttons of the unit no beep signal is heard

**TA VOL**

- Adjust the volume of the traffic announcement.

**ADJ**

- Set the time. Turn the VOLUME dial (13) to the right to set the hour. Turn the VOLUME dial (13) to the left to set the minutes.

**AUDIO DSP**

- Select EQ mode: CLASSIC, ROCK, POP, FLAT, NONE

## 5.7 Resetting the appliance

If any of the buttons on the appliance does not operate or if the error symbol appears on the display, the appliance needs to be reset.

- Press the OPEN PANEL button (24) to release the panel.
- Press the RESET button (27).

## 6. Cleaning and maintenance

### 6.1 Cleaning the cabinet

Wipe with a soft cloth. If the cabinet is very dirty, dampen (not dropping wet) the cloth with a weak solution of soapy water, and then wipe clean.

### 6.2 Cleaning the connector

Use a cotton swab soaked in isopropyl alcohol to clean the socket on the back of the control panel. Be sure to clean them carefully pin by pin and make sure not to damage the connecting points.

### 6.3 Fuse replacement

If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after the replacement, there may be an internal malfunction. In this case, consult your reseller.



#### **CAUTION**

Use the specified amperage fuse for each lead.

Use of a higher amperage fuse may cause serious damage.



## 7. Troubleshooting

Trouble	Action
No power	The car ignition is not on. If the power supply is properly connected to the car accessory, switch the ignition key to "ACC".
No sound	The fuse is blown. Replace the fuse. Volume is at minimum level. Adjust volume to the desired level. Wiring is not properly connected Check wiring connections.
The operation keys do not work	Internal error. Reset the appliance. Front panel is not properly fixed into its place. Install the front panel properly.
Sound skips	The installation angle is more than 20°. Adjust the installation angle to less than 20°. The disc is extremely dirty or defective. Clean the disc or try to play a new one.
The radio does not work	The antenna cable is not connected. Insert the antenna cable firmly.
The radio station automatic selection does not work	The signals are too weak. Select a station manually.

### USB playback

Trouble	Action
No playback	USB device is not installed or installed incorrectly. Insert USB device into slot. Incompatible USB device used. Playback using any USB device cannot be guaranteed. Please try another USB device.

## 8. Technical data

Parameter	Value
Voltage	12 V <sub>DC</sub>
Voltage tolerance	10.8 - 15.6 V <sub>DC</sub>
Power consumption	100 W
Standby power consumption	< 0.14 W
Max power output	25 W x 4
Speaker impedance	4/8 Ω
USB connection	USB 2.0 compatible
Flash memory connection	SD/MMC
Dimensions (W x H x D)	178 x 50 x 85.6 mm
Weight	0.720 kg

### Tuner

Parameter	Value
Frequency range	87.5 - 108 mHz
Sensitivity	2.8 μV
Stereo Separation	30 dB
Signal/Noise Ratio	> 50 dB
Channel step	50 kHz

### MP3 player output

Parameter	Value
Frequency response	20 Hz - 20 kHz
Channel separation	> 50 dB (1 kHz)
Signal/Noise Ratio	50 dB

### LINE OUT

Parameter	Value
Max. output level	1.5 V
Impedance	47 k Ω

### Supported media formats

Parameter	Value
Audio formats	MP3/WMA

## 9. Disposal of used electrical and electronic equipment



The meaning of the symbol on the material, its accessory or packaging indicates that this product shall not be treated as household waste. Please, dispose of this equipment at your applicable collection point for the recycling of electrical and electronic equipments waste. In the European Union and Other European countries which there are separate collection systems for used electrical and electronic product. By ensuring the correct disposal of this product, you will help prevent potentially hazardous to the environment and to human health, which could otherwise be caused by unsuitable waste handling of this product. The recycling of materials will help conserve natural resources. Please do not therefore dispose of your old electrical and electronic equipment with your household waste.

For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

For more information and warranty conditions, please visit: [www.akai.eu](http://www.akai.eu)