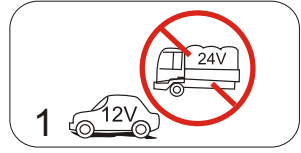


# Warnings

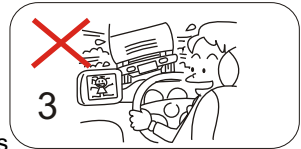
1. Only connect the unit to a 12-volt power supply with negative grounding.



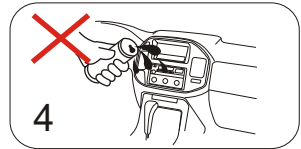
2. Never install this unit where the operation & condition for safety driving is restrained.



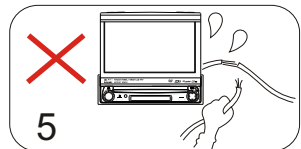
3. Never use the video display function in the front when driving to prevent the violation of laws & regulations and also to reduce the risk of traffic accident except using for rear view video camera.



4. Never expose this unit, amplifier, and speakers to moisture or water for preventing electronic sparks or fires.

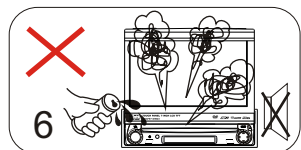


5. Please don't change the fuse on the power cord without professional guidance, using improper fuse may cause damage to this unit or even cause fire.




6. Please power off this unit at once and send it back to the after-sales service center or the dealer / distributor you purchased from if one of the following symptoms is found:

- (a) No audio output;
- (b) No image output;
- (c) Water or other obstacle enters the unit;
- (d) Smoking;
- (e) Peculiar smell.



7. To ensure safe driving, please adjust the volume to a safe & comfort level in case of emergency situations.

## Precautions

1. Never disassemble or adjust the unit without any professional operation. For details, please consult any professional car shop / dealer for inquiry.
2. If the front panel or the TFT monitor is squalid, please use a clean silicone cloth and neutral detergent to wipe off the spot. Using a rough cloth and non-neutral detergent such as alcohol for cleaning may result in scratching or decoloration to the applicant.
3. If any abnormal behavior of the unit is found, please refer to trouble shooting guide of this manual. If no relevant information is found, please press the [RESET] key on the front panel to resume factory default.
4. If you have parked the car in hot or cold weather for a long time, please wait until the temperature in the car becomes normal before operating the unit.
5. Using in-car heater in low temperature environment may result in beads coagulate inside the unit, DO NOT use the unit in this situation, eject the disc and wipe off the bead on the disc. If the unit still doesn't work after a few hours, please contact with after-sales service center.
6. No fierce impact to the LCD monitor when it is in open position for preventing the damage to any mechanisms inside.
7. To prevent the damage to the screen, avoid touching it with sharp objects.
8. The monitor employs auto motorizing mechanism, please don't push, pull, or swivel the monitor manually to prevent damage to the core mechanism.
9. To provide a clear demonstration and an alternative for easy understanding to the operation of this unit, graphic illustrations are used. However, these illustrations are some different from the actual images displayed in the unit.
10. During operation the unit, “” is displayed if the particular operation is not available or illegal.
11. Operate the unit correctly according to this manual to prevent unnecessary problem. The guarantee won't be valid if the problem is caused by inappropriate operation.

# Contents

<b>Button operation explanations</b> .....	1
--	---

## Before using

Front panel & Monitor.....	3
Information display in LCD.....	4
Remote control.....	5
Introduce of key functions.....	5
Notes of remote control using.....	6
Uninstall battery.....	6
Install battery.....	6

## Basic operations

Turn on/off the power.....	7
Mute.....	7
Adjust the Volume.....	7
Playing source selection.....	7
Using the TFT monitor.....	8
Open/close monitor.....	8
Change the monitor tilting angle.....	8
Change the display mode.....	9
Image setting.....	9
Reset the unit.....	9

## Radio Tuner

Select radio tuner as playing source.....	10
User interface of radio.....	10
Select one radio band.....	12
Searching for a station automatically.....	12
Searching for a station manually.....	13
Presetting stations automatically.....	13
Presetting stations manually.....	14

Recall the preset stations.....	14
Preview Scan.....	15
Local radio station searching.....	15

## RDS operations

AF function.....	16
TA function.....	16
PTY function.....	17
PI search.....	17
Program Service (PS).....	17
Region.....	17
CT (Clock Time).....	17
RT (Radio Text).....	17

## DVD player

Insert a disc.....	18
Eject the disc.....	18
Using the touch screen controls.....	18
Onscreen control menus.....	19
Stop playback temporarily.....	20
Stop playback.....	20
Fast forward.....	20
Fast reverse.....	21
Repeat playback.....	21
Repeat A-B.....	21
Random playback.....	22
Intro playback.....	22
Goto the next or previous chapter/track.....	23
Search for a particular chapter/track.....	23
GOTO search.....	24
Using DVD MENU/TITLE.....	25
Select audio channel.....	25
Select subtitle languages.....	26
Select multi-angle views.....	26
PBC function.....	26
Zoom in/out.....	26
Playback information display.....	27
MP3/WMA playback.....	28

# Contents

## iPod

Select iPod as playing source...	29
Music playback.....	29
Photo playback.....	30
Videos playback.....	30
Fast Forward/Fast Reverse...	31
Search Playlist/Artist/ Album/Song.....	31

## Other playback modes

AUX.....	32
Camera.....	33

## Setup

Setup procedure.....	34
User interface .....	35
General.....	35
Clock mode.....	35
Clock.....	35
Tuner Region.....	35
Beep.....	35
Language.....	36
OSD.....	36
DVD Audio.....	36
DVD Subtitle.....	36
Disc Menu.....	36
Audio.....	37
DRC.....	37
Channel.....	37
Sub.W Phase.....	37
Sub Filter.....	37
RDS.....	37
RDS.....	37
CT.....	37
Rating.....	38
Password.....	38
Rating.....	38
Load Factory.....	38
Hardware.....	39
Camera In.....	39
TFT Auto open.....	39
Video input.....	39

P.VOL.....	39
Source.....	39
Level.....	39
TS CAL.....	39

<b>EQ</b> .....	40
-----------------	----

## Troubleshooting

Familiar characters and their meanings.....	42
General problems.....	43
TFT Monitor.....	44
Radio Tuner.....	44
DVD player.....	44
MP3 playback.....	45

## Device connection

Note.....	46
Control Cabels connections	
Auto Brightness Control.....	47
Telephone Mute.....	47
When Reverse Driving.....	47
When parking Brake applied....	47
Parking Brake Cable Connections.....	48
Reverse Drive Camera Display Cable Connections....	48
Electrical Connections Overall Diagram.....	48

## Installation and uninstal








Notes of installation.....	49
Installation.....	50
Uninstall Procedure.....	52

<b>Appendix 1: The ABC of disc and DVD</b> .....	53
--	----

<b>Appendix 2: Specifications</b> .....	55
---	----

# Button operation explanations

- You will do the following button operations during operating the unit, such as Press briefly, Press and Hold, Press repeatedly, Press either one, Press and Hold either one, Press either one repeatedly and Rotate knob. To make explanations simple and easy-to-understand, button operations are mainly explained with the illustration as follows:

Illustration	Button Operation	Illustration	Button Operation
	Press briefly		Press either one
 Press and Hold	Press and Hold	 Press and Hold	Press and Hold either one
 Repeatedly	Press repeatedly	 Repeatedly	Press either one repeatedly
	Rotate knob		

- Some explanations for key operation

You can use the keys on the front panel or the remote control when you want to complete setups by operating keys. The two key operations are described in this manual. Generally, the operation picture showed in the left is corresponding to the front panel and the right is corresponding to the remote control. When some setups can be done by operating the keys on the front panel or the remote control only, we will mark them especially.

# Button operation explanations

## 3. Some frequent operations

### 1) Moving cursor



### 2) Confirm



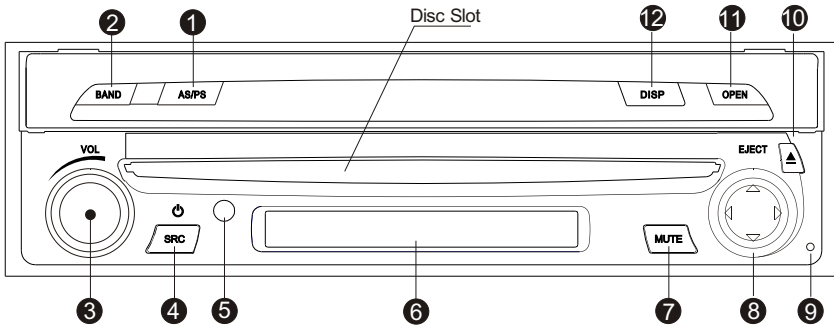
### 3) Restoring the SOURCE MENU

Touch the top left corner of TFT LCD under playing mode.

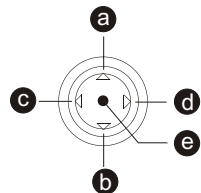
4. Due to the touch screen, you can fulfill most functions not only by pressing the buttons but also by touching the options you desired.

# Before using

## ■ Front Panel & Monitor

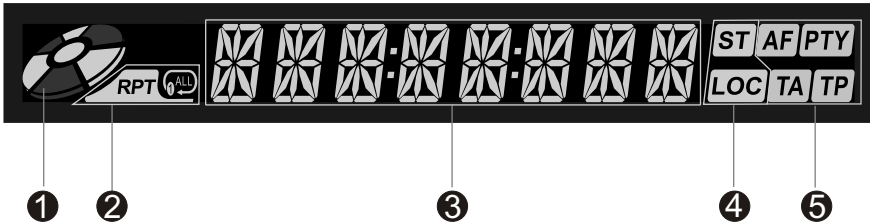


1. **[AS/PS/PIC] Key:** Auto Store / Preview Scan / Image Setting
2. **[BAND/TILT] Key:** Change radio band / Adjust display tilting angle
3. **[VOL] Knob:** Adjust volume / EQ
4. **[⏻/SRC] Key:** Power / Select playing source
5. IR remote control receiving area
6. LCD display
7. **[MUTE] Key:** Mute audio outputs
8. **5-Way joystick**
  - a. Fast Forward / Move cursor up
  - b. Fast Reverse / Move cursor down
  - c. Auto search / Previous / Move cursor left
  - d. Auto search / Next / Move cursor right
  - e. Play / Pause / Enter
9. Reset button
10. **[EJECT] Key:** Eject disc
11. **[OPEN/CLOSE] Key:** Open / Close the TFT monitor
12. **[DISP/WIDE] Key:** Display information / Adjust display mode



# Before using

## ■ Information displayed in LCD



### 1. Disc indicator

Lit up when disc is inside; Light off when no disc is inside.

### 2. Repeat mode indicator

Lit up when repeat mode is on; Light off when repeat mode is off.

### 3. Main display area

Display characters, playback time, tuning frequency, clock and other text information; colon is an accessorial sign.

### 4. Radio status indicator

Stereo indicator is lit up when radio broadcast is a stereo one;  
Local indicator is lit up when local radio station seeking is activated.

### 5. RDS function indicators

AF: Alternative Frequency

PTY: Program Type

TA: Traffic Announcement

TP: Traffic Program

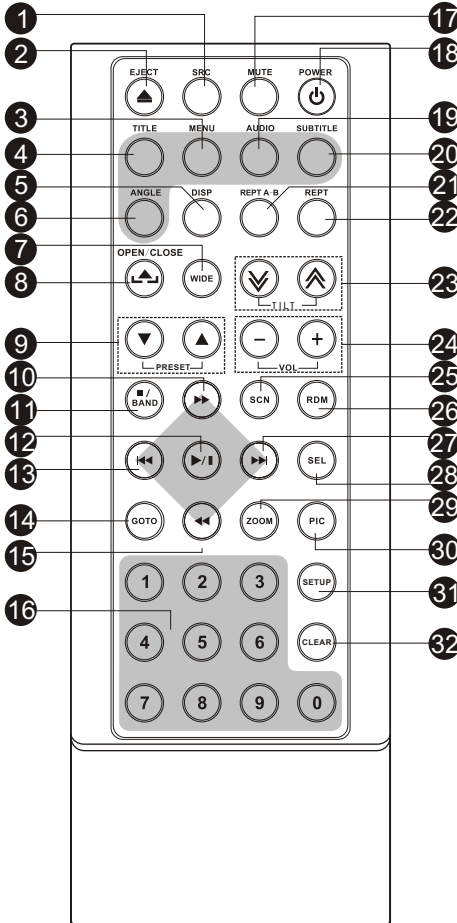
#### Note:

Most information can be displayed only when the TFT monitor is closed.  
Just the disc indicator lights up if there is one disc inside when the TFT monitor is opened.

# Before using

## Remote Control

### ● Introduce of key functions



Note: Your remote control may differ slightly from the one pictured here. The above diagram is for illustrative purpose only.

1. **[SRC]Key**: select playing source
2. **[EJECT]Key**: Eject disc
3. **[MENU] Key**: DVD MENU / PBC
4. **[TITLE] Key**: DVD TITLE
5. **[DISP] Key**: Display information
6. **[ANGLE] Key**: Select view angle
7. **[WIDE] Key**: Adjust display mode
8. **[OPEN/CLOSE] Key**: Open / close the TFT monitor
9. **[PPRESET▼/▲] Key**: Select preset radio station or TV channel /Disc of CD/DVD Changer
10. **[▶▶] Key**: Fast Forward / Move cursor up
11. **[■/BAND] Key**: Select radio band / Stop Playback
12. **[▶/■] Key**: Play / Pause / Enter
13. **[◀◀] Key**: Auto search / Previous / Move cursor left
14. **[GOTO] Key**: GOTO search
15. **[◀◀] Key**: Fast Reverse/ Move cursor down
16. **[0~9] Key**: Numeric keys
17. **[MUTE] Key**: Mute audio outputs
18. **[POWER] Key**: Power
19. **[AUDIO] Key**: Select DVD dialogue language
20. **[SUBTITLE] Key**: Select DVD subtitle language
21. **[REPT A-B] Key**: A-B repeat
22. **[REPT] Key**: Repeat playback
23. **[TILT▲/▼] Key**: Adjusting display tilting angle
24. **[VOL+/-] Key**: Adjust volume
25. **[SCN] Key**: Scan playback
26. **[RDM] Key**: Random playback
27. **[▶▶] Key**:Auto search / Next / Move cursor right
28. **[SEL] Key**: EQ
29. **[ZOOM] Key**: Image zoom in/out
30. **[PIC] Key**: Image setting
31. **[SETUP] Key**: Setup menu
32. **[CLEAR]Key**: Clear information

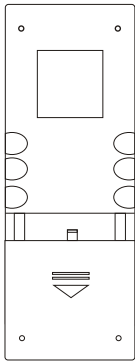
# Before using

- Notes of remote control using

- 1) Aim the remote controller at the remote sensor on the unit.
- 2) Remove the battery from the remote control or insert a battery insulator if the battery has not been used for a month or longer.
- 3) DO NOT store the remote control under direct sunlight or in high temperature environment, or it may not function properly.
- 4) The battery can work for 6 months under normal condition. If the remote control can't work, please change the battery.
- 5) Use “button shaped” lithium battery “CR2025” (3V) only.
- 6) DO NOT recharge, disassemble, heat or expose the battery in fire.
- 7) Insert the battery in proper direction according to the (+) and (-) poles.
- 8) Store the battery in a place where children cannot reach to avoid risk of accident.

- Uninstall Battery

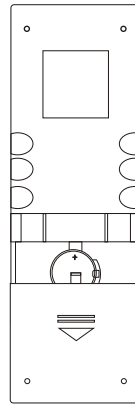
Slide out the battery compartment tray at the bottom on the back of the remote control.



↓ PULL OUT

- Install Battery

Use only “button shaped” lithium battery “CR2025 (3V)”, insert the battery to the battery tray in proper direction according to the (+) and (-) poles.



↑ PUSH IN

# Basic operations

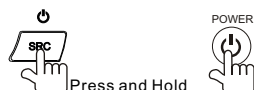
## ■ Turn on / off the power

- Turn on the power

The unit goes back to the last status before turning off after power on.




- Turn off the power

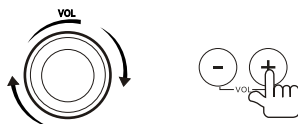


## ■ Mute



- ① Doing the operation above again or adjusting volume will release muting.
- ② The icon “

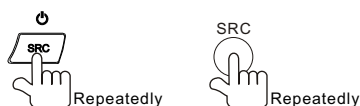
## ■ Adjust the volume



The adjustable range of volume is 0 to 40.

## ■ Playing source selection

Method 1:



Method 2:

Restore the “MAIN MENU”, and then touch the option you desired or select the option by moving the cursor and confirm.

# Basic operations

Notes:

- ① Playing source selection means selecting work mode, such as DVD mode, Radio mode, Camera mode, etc.
- ② When some devices are not ready, you cannot select them.
- ③ The name of playing sources will be displayed on the bottom of TFT or the LCD during the playing sources switch. You should stop switching when the playing source you desired has been selected and wait for some seconds, the unit will auto enter the playing source mode you have selected.

## ■ Using the TFT Monitor

- Open / Close monitor



- Change the monitor tilting angle

Due to the inherent character of LCD, you will get different vision impressions when you watch it from different angles.

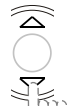
The display angle of this unit can be changed; hence you can select the best angle where you can get the best vision impression.

Method 1: using the keys on the front panel

1



2



Repeatedly

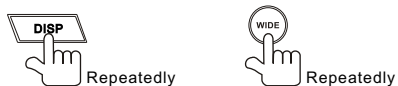
Method 2: using the remote control



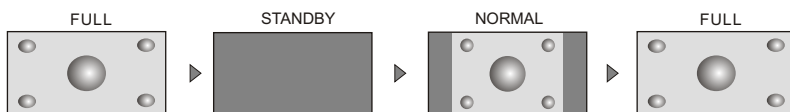
Repeatedly

# Basic operations

- Change the display mode



The display modes will be changed as follows:



- Image setting

- ① Enter the image setting mode



- ② Select one item to adjust



- ③ Adjust the value

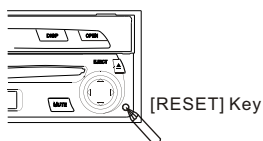


- ④ Exit the image setting mode

To exit the image setting mode, repeat the first step or stop operation for some seconds.

## ■ Reset the unit

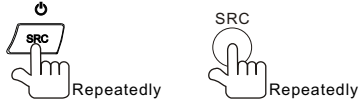
If the unit can not work correctly, you should reset the unit by pressing the [RESET] button on the front panel.



# Radio Tuner

## ■ Select radio tuner as playing source

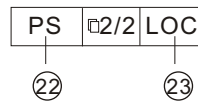
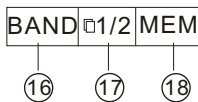
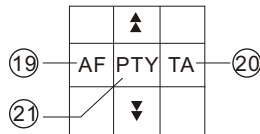
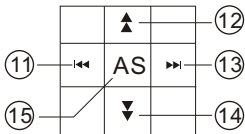
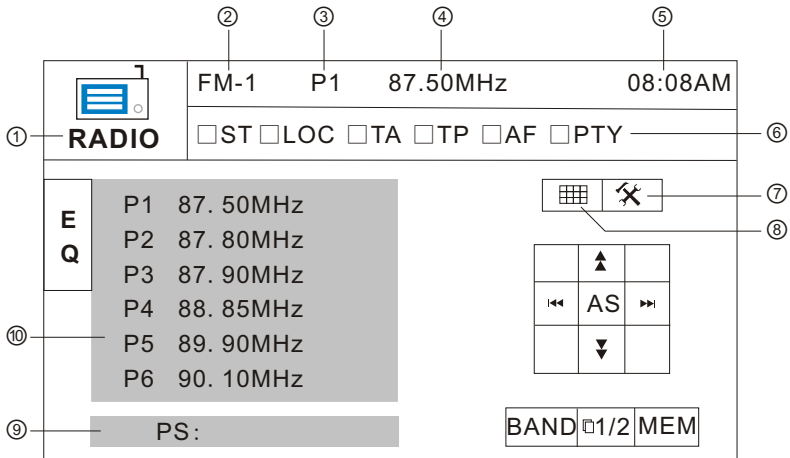
Method 1:



Method 2:

Restore the 'SOURCE MENU' and then select 'RADIO'.

## ■ User interface of Radio



# Radio Tuner

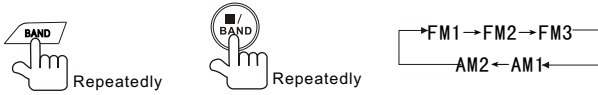
1. Current source name. Touch to open SOURCE MENU.
2. Current radio band indicator
3. Current preset station indicator
4. Current radio frequency indicator
5. Clock
6. Radio function indicators
  - ST: Stereo broadcasting indicator
  - LOC: Strong local signal broadcasting indicator
  - TA: Traffic Announcement indicator
  - TP: Traffic Program indicator
  - AF: Alternative Frequency indicator
  - PTY: Program Type indicator

(\*The last four indicators are RDS function indicators.)
7. Setup. Touch to open setup menu.
8. Numeric keypad
9. Information display bar
10. Preset radio stations
11. Touch to seek backward
12. Touch to tune backward step by step
13. Touch to seek forward
14. Touch to tune forward step by step
15. AS: Touch to Auto Store stations
16. BAND: Touch to change radio bands
17. 1/2 or 2/2: Touch to view a second page of on-screen buttons
18. MEM: Store current station into preset memory
19. AF: Touch to activate / deactivate AF function
20. TA: Touch to activate / deactivate TA function
21. PTY: Program Type indicator (Not touch button)
22. PS (Preview Scan): Touch to scan all available, stopping for 5 seconds at each and continuing until one station is selected
23. LOC: Touch to tune to strong local stations

# Radio Tuner

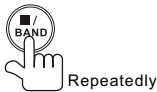
## ■ Select one radio band

- When the TFT monitor is closed.....



- When the TFT monitor is opened.....

Method 1:



Method 2:

Touch the [BAND] icon on the user interface.

Note:

The frequency ranges of FM & AM are different according the radio system. This unit offers different tuning systems; you can choose the proper radio system accordingly.

## ■ Searching for a station automatically

- Searching for a station along the increasing frequencies



- Searching for a station along the decreasing frequencies



Notes:

- ① To stop searching, repeat the operation above or press other keys having radio functions.
- ② When a station is received, searching stops and the station is played. If the unit receives a stereo broadcasting, the indicator light of stereo 'ST' in the TFT or LCD display will be lighted.

# Radio Tuner

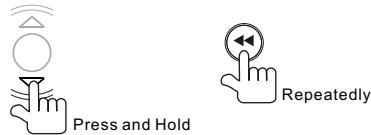
## ■ Searching for a station manually

During the manual searching, the frequency will change in steps.

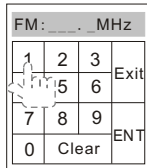
- Searching for a station along the increasing frequencies



- Searching for a station along the decreasing frequencies



- Touch the numeric keypad icon and then touch the numeric buttons to input the radio station frequency numbers



## ■ Presetting stations automatically

Only stations with sufficient signal strength will be detected and stored in the memory.

- When the TFT monitor is closed.....



- When the TFT monitor is opened.....  
Touch the [AS] icon on the user interface.

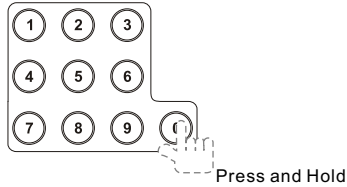
Notes:

- ① To stop automatic presetting, press other keys having radio functions.
- ② After automatic presetting, the previous stations frequency will be overwritten.
- ③ Touch each station once to confirm the setting. Radio frequency will then be changed to radio station name.
- ④ The unit has 5 bands, such as FM1, FM2, FM3, AM1 and AM2. Each band can store 6 stations; hence the unit can store 30 stations in all.

# Radio Tuner

## ■ Presetting stations manually

- When one expected radio station has been detected.....

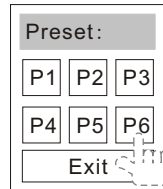


- When the TFT is opened.....

- ① Open preset menu:



- ② Store current station:



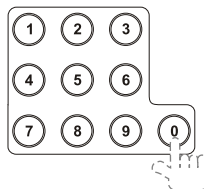
When you has pressed one of the buttons, the menu will be closed automatically.

Notes:

- ① After manual presetting, the previous stations frequency will be overwritten.
- ② Numeric key 1 to 6 corresponds to station P1 to P6. For each band, P1 to P6 can store 1 station.

## ■ Recall the preset stations

Method 1:



Numeric key 1 to 6 corresponds to station P1 to P6.

# Radio Tuner

Method 2:

Touch an onscreen preset button to select the corresponding stored station.

## ■ Preview Scan

Preview scan searching is such a process that the searching pauses when a station is received and played for 10 seconds.

After being played, the unit continues the process until the whole band is detected.

- When the TFT monitor is closed.....



- When the TFT monitor is opened.....

Touch the [PS] icon on the user interface.

To stop scan searching, do the operation above again.

## ■ Local radio station searching

When LOCAL seeking is on, only those radio stations with strong radio signal could be received.

Method 1:



Method 2:



- ① To cancel this function, repeat the operation above.
- ② When the local radio station searching is on, the indicator light 'LOC' lights up; whereas the light goes off.

# RDS operations

The unit provides basic functions of RDS, including PI (Program Identification), station name displaying, RT (Radio Text), CT (Clock Time), AF (Alternative Frequency), TA (Traffic Announcement) and PTY (Program Type) Selection.

## ■ AF function

Alternative Frequencies Lists are used for the same program service and used in conjunction with the PI code (Program Identification code) to assist automatic tuning. Using this information, a radio can automatically search out another station that is playing the same material. This is useful when the station you are listening to is fading out.

To activate AF function.....



To cancel this function, do the operation above again.

Note:

During auto switching radio frequency, some interference could be heard. Turn off AF function can settle this problem.

## ■ TA function

The TA (Traffic Announcement flag) function lets you receive traffic announcements automatically no matter what media source you are playing back. The TA function can be activated for a TP (Traffic Program) station broadcasting traffic information.

### ● Activate TA function

To activate TA function.....



To cancel this function, do the operation above again.

# RDS operations

- Receive traffic announcements under other modes

When TA is activated and a traffic announcement is received, the current playing source will be overridden by the traffic announcement if the current radio band is FM and the 'TA' indicator lights up, indicating that the unit is waiting for traffic announcements.

The unit returns to the original source after the traffic announcement has been received.

## ■ PTY function

PTY is the abbreviation for **Program Type** which is a code defining the type of program being broadcast (eg News or Rock).

## ■ PI search

When RDS signal is lost for a long time, the unit will search a frequency matching with the current station PI per 25 seconds automatically to switch to a station playing the same program.

## ■ Program Service (PS)

Used for receiver displays of an 8 character alpha numeric Program Service name which may use Upper or Lower case characters, eg {BBC\_4\_FM}, {Classic\_}.

## ■ CT (Clock Time)

Some stations broadcast the time and date within the encoded RDS signal. The clock time is automatically adjusted when 'CT' is set to 'On'.

## ■ RT (Radio Text)

When this function is activated, the unit will display short message data transmitted from the provider, such as station information, the name of the current broadcasting song and the artist name.

# DVD player

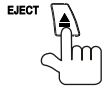
## ■ Insert a disc

Upon inserting a disc, the unit will change to DVD mode automatically.

Notes:

- ① Please confirm whether there is a disc in the unit before you insert the disc.
- ② The unit will exit current playing source and enter DVD mode when one disc is inserted.
- ③ Some discs, such as CD-R, CD-RW, DVD-R, DVD+R, DVD-RW, DVD+RW cannot be played back because of the different status of recording. Otherwise, the discs without being closed could not be played back.

## ■ Eject the disc

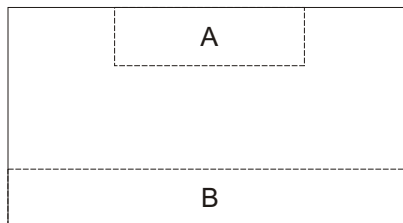


Notes:

- ① After ejecting the disc, the unit reverts to radio mode automatically.
- ② You can eject a disc with the unit powered off. The unit remains off after the disc is ejected.

## ■ Using the touch screen controls

The touch key areas for DVD playback are outlined below:



A-Display playback information

B-Display onscreen control menu

# DVD player

## ■ Onscreen control buttons

Disc Type Icon	MP3/WMA	CD	VCD	DVD	MPEG	Picture
	Numeric keypad	Numeric keypad	Numeric keypad	Numeric keypad	Numeric keypad	Numeric keypad
	Setup menu	Setup menu	Setup menu	Setup menu	Setup menu	Setup menu
	/	Fast forward	Fast forward	Fast forward	Fast forward	/
	/	Fast rewind	Fast rewind	Fast rewind	Fast rewind	/
	Previous	Previous	Previous	Previous	Previous	Previous
	Next	Next	Next	Next	Next	Next
	Play/Pause	Play/Pause	Play/Pause	Play/Pause	Play/Pause	Play/Pause
	Stop	Stop	Stop	Stop	Stop	Stop
	/	/	A second menu	A second menu	A second menu	/
	Repeat	Repeat	Repeat	Repeat	Repeat	Repeat
	Random	Random	Random	/	Random	/
	/	/	/	/	/	Rotate
	/	/	ZOOM	/	/	ZOOM
	EQ	EQ	EQ	EQ	EQ	EQ
	/	/	PBC	/	/	/
	/	/	A-B repeat	A-B repeat	/	/
	/	/	Exit menu	Exit menu	Exit menu	Exit menu
	/	/	Channel switching	Dialog Language	Dialog Language	/
	/	/	/	Subtitle Language	Subtitle Language	/
	/	/	Display information	Display information	Display information	Display information
	/	/	/	DVD MENU	/	/
	/	/	/	DVD TITLE	/	/
	Previous page	/	/	/	/	Previous page
	Next page	/	/	/	/	Next page
	Next folder	/	/	/	/	Next folder
	Previous folder	/	/	/	/	Previous folder

# DVD player

## ■ Stop playback temporarily

When playing.....



To resume normal play, repeat the operation.

## ■ Stop playback

There are two situations:

- Playback is paused and the break point is stored.



When you start playback again, playback starts from where it has been stopped (resume play).

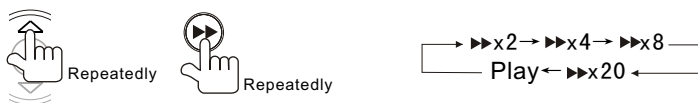
- Playback is cancelled.

To cancel the playback, do the operation twice.

When you start playback again, for DVD, playback starts from the beginning of the last title; for VCD and CD, playback starts from the beginning of the disc.

## ■ Fast forward

- When a DVD, VCD or CD disc is played back.....



- To resume normal playback



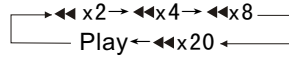
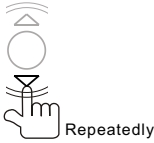
Notes:

- ① When a music CD disc is played back, the audio output remains open if the fast forward playback is applied.
- ② When playing an MP3 or JPEG disc, this function is prohibited.

# DVD player

## ■ Fast reverse

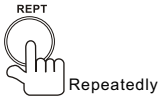
- When a DVD, VCD or CD disc is played back.....



- To resume normal playback



## ■ Repeat playback



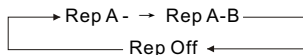
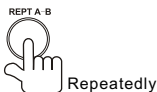
Disc type	Repeat Mode
DVD	Repeat Chapter → Repeat Title → Repeat Off
VCD(PBC Off)	Repeat Single → Repeat Off
CD	Repeat Single → Repeat Off
MP3	Repeat Single → Folder Repeat → Repeat Off

### Notes:

When a VCD is played back, this function is prohibited if the PBC is on. Turning off the power or switching playing source to other modes and back will cancel this function.

## ■ Repeat A-B

When a DVD, VCD or CD disc is played back, you can play back the contents between the time points from A to B repeatedly.



# DVD player

## ■ Random playback

When this function is on, the contents in the disc will be played back randomly.



To cancel this function, repeat the operation above.

- ① If you do the operation of skip searching when this function is on, the unit will play back the next chapter or track randomly.
- ② When a VCD disc is played back and PBC is on, PBC will be off when random playback is available.

## ■ Intro playback

When this function is on, the unit will play back the first 10 seconds of each track of a VCD or CD disc. You can search the file you desired using this function.



To cancel this function, repeat the operation above.

Notes:

- ① When a VCD disc is played back and PBC is on, PBC will be off when random playback is available.
- ② When random playback is on, the Intro playback will be randomly.

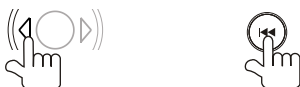
# DVD player

## ■ Go to the next or previous chapter / track

- Go to the next chapter / track



- Go to the previous chapter / track

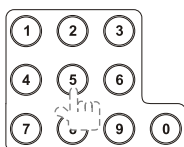


When a CD or MP3 disc is played back and the current track has been played for more than 5 seconds, if you do this operation, the playback will go back to the beginning of the current track; whereas the playback will go to the previous track.

## ■ Search for a particular chapter / track

- Using remote control

When a DVD, VCD or CD disc is played back, you can search for a particular chapter / track by pressing the numeric keys of the remote control. For example, if you want to select the 15<sup>th</sup> track, you should press numerical key [1] and [5].

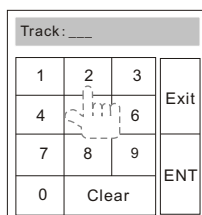


- Using touch screen

Touch the numeric keypad icon on screen to open direct entry menu.

Touch the numeric buttons to enter the number you desired.

Touch [ENT] button to confirm.



# DVD player

## ■ GOTO search

When a DVD or VCD disc is played back, you can use the GOTO search function as following steps.

### ① Enter the GOTO mode

For DVD:



Search	
Time	--:--:--
Title/Chapter	---/---

Time - elapsed playing time of the current title or chapter  
Title / Chapter the title of the disc or the chapter of the title

For VCD:



Track Search	
Time	--:--:--
Track	---/---

Time - elapsed playing time of the current track  
Track the track number of the disc

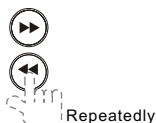
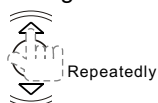
(When PBC function is off)

Repeatedly

Disc Search	
Time	--:--:--
Track	---/---

Time - elapsed playing time of the current disc  
Track the track number of the disc

### ② Select searching item



### ③ Enter numbers and confirm

Ex.:

For DVD:

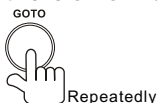
◆ To search for playback time at 1 hour 6 minutes 28 seconds, move the cursor to Time and enter [1], [0], [6], [2], and [8].

◆ To search for title 2, chapter 9, move the cursor to "Title / Chapter" and enter [2] and [9].

For VCD:

◆ To search for playback time at 1 hour 14 minutes 7 seconds, move the blue cursor to Time and enter [1], [1], [4], [0], and [7].

### ④ Exit the GOTO mode

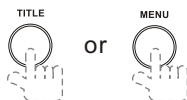


# DVD player

## ■ Using DVD MENU / TITLE

This function is available for the DVD discs which have “MENU / TITLE” only.

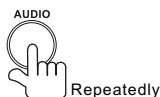
- Enter the DVD MENU / TITLE



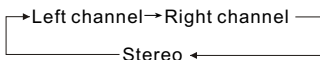
- ① To enter main MENU mode, press [MENU] key of the remote control. You can select the languages, subtitles and etc. to play.
- ② To enter DVD TITLE menu mode, press [TITLE] key of the remote control. You can select the languages, subtitles and etc. to play.

- Select the MENU item  
Move the cursor to the item you desired and confirm.

## ■ Select audio channel

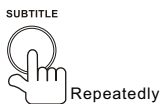


- For DVD:  
You can select the language to listen to if the disc has multiple audio languages.
- For VCD and CD:  
You can select the audio channel to play.



Left channel and right channel cannot work properly if the audio files are not recorded correctly.

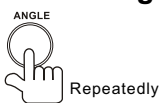
## ■ Select subtitle languages



Note:

This function is invalid if the DVD disc playing without multi-language subtitles.

## ■ Select multi-angle views



Note :

This function is invalid if the DVD disc playing without multi-angle.

## ■ PBC function

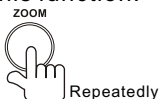
This function is available for VCD with PBC function (Version 2.0 or later).



- ① When PBC is on, playback goes back to the track list and starts from the first track.
- ② When PBC is on, fast motion playback, slow motion playback or skip search is available but repeat playback and searching for a particular chapter or track is prohibited.
- ③ If you do the operation of random playback, scan playback or searching playback when PBC is on, PBC will be off automatically.

## ■ Zoom in/out

When picture or video files are played back, you can zoom in/out the image using this function.

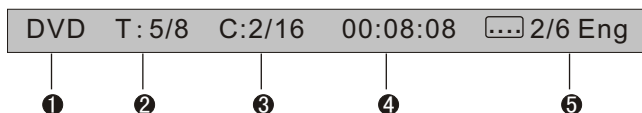


# DVD player

## ■ Playback information display

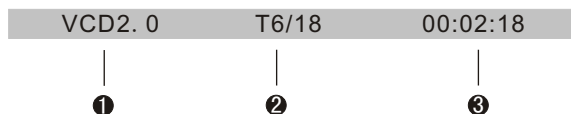
Touch the top centre area of TFT LCD when playing back DVD and VCD discs and the playback information will be displayed on the top area of the TFT.

### ● Playback information display for DVD



- ❶ Disc type.
- ❷ DVD Title information. "5/8" indicates that this DVD has 8 titles and the title playing back now is the fifth title.
- ❸ DVD Chapter information. "2/16" indicates that current title has 16 chapters and the chapter playing back now is the second chapter.
- ❹ Elapsed time of the current title.
- ❺ "... 2 / 6 Eng" indicates that the subtitle of this DVD has been recorded in 6 languages and the language displayed now is the second, that is English.

### ● Playback information display for VCD



- ❶ Disc type.
- ❷ VCD Track information. "6/18" indicates that this VCD has 18 tracks and the track playing back now is the sixth title.
- ❸ Elapsed time of the current track.

# DVD player

## ■ MP3 / WMA playback

When playing back an MP3 or WMA disc, the unit plays back a file according to the sequence as follows: Root directory → Folder → File.

- Search a file

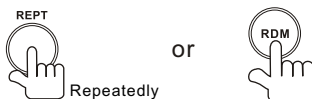
If the current playing file is 🎵 ④ (when random function is off) .....

Do the operation of going to the previous track: 🎵 ④ → 🎵 ③

Do the operation of going to the next track: 🎵 ④ → 🎵 ⑤

Do the operation of going to the particular track: 🎵 ④ → 🎵 X (X stands for numerical keys you have pressed)

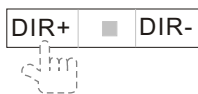
- Select the file play mode



Playing Modes	Results
Normal	Pausing after playing back all files in the disc
Repeat Single	Play back a file repeatedly
Folder Repeat	Play back all files in the current folder repeatedly
Random	Play back all files in the current folder randomly

- Select other folders or files to play back

- ① To change folders



- ② To select a file to play back



You can play back a file by pressing numeric keys of the remote controller or touching the file name directly as well.

## ■ Select iPod as playing source

The unit will switch to iPod mode automatically when an iPod player is plugged into the unit.

To return to the iPod mode from any other source.....



## ■ Music playback

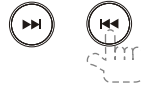
### ① Enter iPod music mode

Method 1:

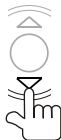


Method 2: Touch the ' 🎵 ' icon in the user interface.

### ② Select one music file



### ③ Play back the music file



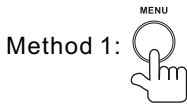
### ④ Return to the previous menu



In the Music mode, the buttons on the iPod are disabled.

## ■ Photo Playback

- ① Enter iPod photos mode



Method 2: Touch the '' icon in the user interface.

- ② Control photo files playback

Use the keys on the iPod to control playback.

- ① To exit PHOTO mode, press the [MENU] button on the iPod.
- ② Pictures can be displayed on the screen just when the picture playback mode of iPod is "slide show".

## ■ Video Playback

- ① Enter iPod videos mode

Method 1:



Method 2: Touch the '' icon in the user interface.

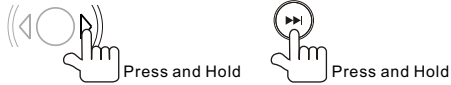
- ② Control video files playback

Use the keys on the iPod to control playback.

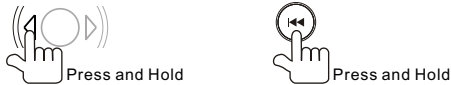
- ① To exit VIDEO mode, press the [MENU] button on the iPod.
- ② To transmit the images (including videos and pictures) from your iPod to the TFT screen, you must set the following options through the iPod video settings menu: TV Out = On, TV Signal = NTSC.

## ■ Fast Forward/Fast Reverse

### ● Fast Forward



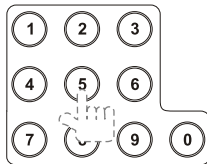
### ● Fast Reverse



- ① To access fast forward or fast reverse playback, you should press and hold for 1 second and continue to hold the corresponding key.
- ② To resume normal play, release them.

## ■ Search Playlist/Artist/Album/Song

### ① Select one directory



### ② Select one music file



### ③ Play the music file



## Other playback modes

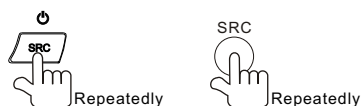
### ■ AUX

External peripheral devices with RCA audio and video outputs could be connected with the unit.

For more details, please refer to < Electrical Connections Overall Diagram >.

To enter AUX IN mode:

Method 1:



Method 2:

Restore the 'SOURCE MENU' and then select 'AUX IN1' or 'AUX IN2'.

Note:

For the operations under AUX IN mode, please refer to 'Basic operations'.

# Other playback modes

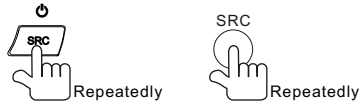
## ■ Camera

The rearview camera can be connected to the unit.

For more details, please refer to <Electrical Connections Overall Diagram>.

To enter camera mode:

Method 1:



Method 2:

Restore the 'SOURCE MENU' and then select 'CAMERA'.

Note:

The playing source will change to “CAMERA” mode automatically when you reverse the car.


# Setup

## ■ Setup procedure

### ① Enter the setup mode

Method 1: using the remote control key



Method 2: Touch the  icon in the user interface

### ② Select one option



### ③ Select one item



### ④ Confirm

### ⑤ Select one value



### ⑥ Confirm

All following settings can be done by touching the option directly.

# Setup

## ■ User Interface

The following menu appears after entering the setup mode.  
The 'General' sub-menu is highlighted.

SETUP MENU				
	General	Language	Audio	Back
RDS	Clock Mode		12Hr	
Rating	Clock		11:18 AM	
Hardware	Tuner Region		USA	
P.VOL	Beep		On	
TS Cal				

## ■ General

### ● Clock mode

12Hr: the clock displays in the type of 12 hours such as 11:18 AM.

24Hr: the clock displays in the type of 24 hours such as 20:18.

### ● Clock

Adjust the clock appearing in the top right corner of the TFT screen.

### ● Tuner Region

The unit provides several radio systems and you can select a correct radio system according to your country.

### ● Beep

On: Key-press prompt sound is on.

Off: Key-press prompt sound is off.

# Setup

## ■ Language

### ● OSD

Select one language that you are similar with to display system menu.

### ● DVD Audio

Select one dialogue language that you are similar with when playing back DVD discs.

Notes:

- ① If the DVD disc has the audio file in the selected language, the dialogues you listened to will be in the selected language.
- ② If the DVD disc does not contain the audio file in the selected language, the dialogues you listened to will be in the default language.
- ③ You can change the language by pressing [AUDIO] key of the remote controller.

### ● DVD Subtitle

Select one language that you are similar with to display DVD subtitles.

Notes:

- ① If the DVD disc has the subtitle file in the selected language, the subtitle will be displayed in the selected language.
- ② If the DVD disc does not contain the subtitle file in the selected language, the subtitle will be displayed in the default language.
- ③ You can change the language by pressing [Subtitle] key of the remote controller.

### ● Disc Menu

Select one language that you are similar with to display DVD menu.

Notes:

- ① If the DVD disc has the selected language, the DVD MENU / TITLE will be displayed in the selected language.
- ② If the DVD disc does not contain the selected language, the DVD MENU / TITLE will be displayed in the default language.

## ■ Audio

### ● DRC

Set the dynamic range of Dolby digital DVD discs.

On: Playback more dynamic audio with Bass

Off: Normal output

### ● Channel

4CH: 4 audio channel mode. The subwoofer output is closed.

4.1CH: 4.1 audio channel mode. The subwoofer output is opened.

### ● Sub. W Phase

0°: Subwoofer output IN phase.

180°: Subwoofer output OUT OF phase.

### ● Sub Filter

You can get different bass effect when you set different cut off frequency of sub filter. According to the acoustics surroundings of your car, select a proper frequency.

## ■ RDS

### ● RDS

On: RDS function is opened.

Off: RDS function is closed.

### ● CT

On: The clock time is on.

Off: The clock time is off.

Note:

For more detail, please refer to 'CT(Clock Time)' of RDS operations.

## ■ Rating

Some DVD discs have built-in parental lock which prevents the unauthorized persons to watch restricted contents and prevents the children to watch some scenes as force or eroticism especially.

### ● Password

The original password of the unit is null. You should change the password ASAP after buying the unit.

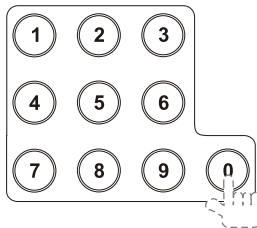
Methods of changing password:

Locate the cursor on the 'password' option, enter a new 4-digit password by pressing the numeric keys on the remote control and then confirm.

### ● Rating

#### ① Procedures of changing the rating:

Enter your password to open the parental lock



Note: The password is cleared after the parental lock is opened.

#### ② Change the rating

Select an appropriate rating from the 'rating' menu.

#### ③ Close the parental lock

Enter a new password and confirm to close the parental lock.

### ● Load Factory

To restore the default settings relating with DVD playback (e.g.: DVD Audio, DVD Subtitle), press the [RESET] option only.

# Setup

## ■ Hardware

### ● Camera In

Normal: Actual scenes shooting by the camera display in the TFT monitor while reverse driving (just like what you are looking).

Mirror: The mirror images of actual scenes display in the TFT monitor while reverse driving (just like looking from the rearview mirror).

### ● TFT Auto open

On: The TFT panel automatically opens when the unit is turned on.

Off: The TFT panel opens only by pressing OPEN button when the unit is turned on.

Manual: When the ignition is turned off, the TFT panel remains open if it was opened previously.

### ● Video input

NTSC: Set the color system of the TFT screen to NTSC.

PAL: Set the color system of the TFT screen to PAL.

AUTO: Set the color system of the TFT screen automatically by the unit according to the input video format.

## ■ P.VOL

P.VOL means Preset Volume. This function is designed for preventing too sharp change when you switch the current playing source to another.

### ● Source

Select one playing source that you want to set the preset volume.

### ● Level

You can set the level of preset volume from 0 to 6.

## ■ TS CAL

When the touch operation is not sensitive or valid, you should calibrate the touch screen through "CAL Screen" function.

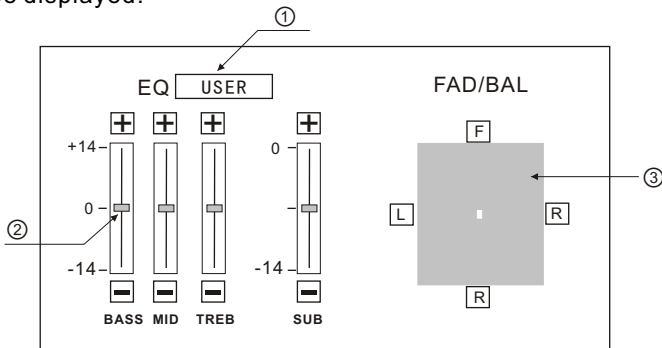
Calibrate the touch screen just following the clew displayed on the screen after entering the "CAL Screen" mode.

Audio control allows you to easily adjust the audio system to get the best possible sound effect.

- 1 Enter the EQ setup mode



or touch the EQ sign in the user interface and the following interface will be displayed.



- 1 EQ selection bar
- 2 EQ parameters adjustment bar
- 3 Fader/Balance adjustment area

- 2 Select EQ mode

Touch the EQ selection bar repeatedly and the EQ mode will change.

- 3 Adjust EQ parameters

To adjust EQ parameters, touch and drag the EQ parameters adjustment bar.

- 4 Adjust Front/Rear/Left/Right fader and balance

You can adjust front/back/left/right balance of the speaker to get larruping listening effect according to the surroundings and your interest.

To adjust Front/Rear/Left/Right fader and balance, touch and drag the small white point in the Fader/Balance adjustment area.

Notes:

- ① The unit has provided some EQ modes: User,Rock,Hip Hop,Dance,Latin, Rave,Urban,Acoustic.
- ② Different EQ reflects in different Bass,Treble and Middle level.  
The parameters of the EQ modes has been preset and you can not change them besides 'User'.
- ③ The EQ mode will change to 'User' automatically when you adjust the value of BASS, TREB or MID under the modes besides 'User'.
- ④ The value of SUB is independent of EQ mode and can be adjusted solely.

# Troubleshooting

What appears to be trouble is not always serious. Please check the following points before calling a service center.

## ■ Familiar characters and their meanings

Characters	Causes	Remedies
No Disc	Disc is too dirty.	Clean the disc or change the disc.
	Disc is inserted upside down.	Insert the disc correctly.
	No disc in the unit.	Insert a disc.
Bad Disc	Disc is extreme dirty.	Clean the disc or change the disc.
	Disc is inserted upside down.	Insert the disc correctly.
Unkown Disc	The disc is not compatible with the unit.	Change the disc.
Region Error	The disc's region code is not the same as the unit's.	Change the disc.

# Troubleshooting

## ■ General problems

Symptoms	Causes	Remedies
The unit cannot be powered on.	The fuse of the unit has been broken.	Install a new fuse with correct rating.
	The fuse of car battery has been broken.	Install a new fuse with correct rating.
	False operations and etc.	Reset the unit.
Remote controller does not work.	Battery has been exhausted.	Change the battery.
	Battery is not installed correctly.	Install the battery correctly.
No sound comes out or it's hard to hear.	Audio output connection is not correct.	Correct the connection according to "Electrical Connections Overall Diagram"
	The volume level is set to the minimum level.	Adjust the volume to the optimum level.
	MUTE connection is not correct.	Correct the connection according to "Electrical Connections Overall Diagram"
	The speakers have been damaged.	Check the speakers.
	The audio channel outputs are not balanced.	Adjust the balance of audio channel outputs. Please refer to "Audio control".
	The speaker cord is contacted with the bodywork.	Use insulating cord for connection.
Poor sound quality or sound distortion.	Piratic disc is used.	Use original copy disc.
	The speakers power rating does not fit into the unit output power.	Change the speakers.
	The speakers are connected incorrectly.	Correct the connections according to "Electrical Connections Overall Diagram"
	The speaker cord is contacted with the bodywork.	Use insulating cord for connection.
Tel-MUTE malfunction	MUTE is grounded.	Check the connection.
User preset information is lost when ACC is off.	ACC and BATT are connected incorrectly.	Correct the connections according to "Electrical Connections Overall Diagram"

# Troubleshooting

## ■ TFT Monitor

Symptoms	Causes	Remedies
Monitor cannot open automatically	"TFT Auto Open" is set to "off".	Set "TFT" Auto Open to "on".
No image appears on the monitor and warning information is shown at all times.	"PRK SW" is connected incorrectly.	Correct the connection according to "Electrical Connections Overall Diagram".
Abnormal display like as pulsatile stripes on the image and so on.	The color system of DVD disc is not suited with the monitor.	Adjust the color system of the DVD disc or the monitor.
	The actual color system is not the same as the marked color system on the label for some piratic discs.	Use original copy disc.
	The video cord is broken.	Change the video cord.
	The video cord is not connected correctly.	Connect the video cord correctly.
Characters are abnormal.	False operations.	Turn off the power and then turn on the power again, or change to other playing source and then go back.

## ■ Radio Tuner

Symptoms	Causes	Remedies
It's hard to receive stations.	Auto antenna is not extended completely.	Correct the connections according to "Electrical Connections Overall Diagram".
	Auto antenna is not connected with the unit firmly.	Correct the connections according to "Electrical Connections Overall Diagram".
	LOCAL function is on.	Close the LOCAL function.

# Troubleshooting

## ■ DVD player

Symptoms	Causes	Remedies
Disc cannot be inserted.	There is a disc in the unit already.	Eject the disc and then insert another one.
Disc cannot be played back.	Disc is scratched.	Change the disc.
	Disc is too dirty or wet.	Clean the disc.
	The pickup is dirty.	Clean the pickup with cleaning disc.
	Disc is not compatible with the unit.	Change the disc.
	Parental lock class is too high.	Change the parental lock class.
	Disc is inserted upside down.	Insert the disc correctly.
The disc's region code is not the same as the unit's.		Change the disc.
Subtitle cannot be shown.	There is no subtitle file in the disc.	Change another disc containing subtitle files.
Audio language / subtitle cannot be changed.	There is only one audio language / subtitle in the disc.	Change another disc containing multi-language audio or subtitle.
View angle cannot be changed.	There is just one view angle in the disc.	Change another disc containing multi-angle.
	Multi-angle view is not available for the segment playing back now.	Select another segment to play back.
Image distortion.	The disc is protected by the copyright.	The unit is compatible with copy system; hence some discs contained the information of copying prohibited cannot be played back.
PBC is invalid when playing back VCD.	The disc does not support PBC.	Change another disc with PBC function.
Repeat playback or GOTO search is invalid when playing back VCD.	PBC is on.	Close PBC function.

## ■ MP3 playback

Symptoms	Causes	Remedies
Disc cannot be played back.	Disc is scratched.	Change the disc.
	Disc is too dirty or wet.	Clean the disc.
	The pickup is dirty.	Clean the pickup with cleaning disc.
	Disc is inserted upside down.	Insert the disc correctly.
Interruption occurred during playback.	Disc is scratched.	Change the disc.
	Disc is too dirty or wet.	Clean the disc.
	Some contents are damaged.	Change the disc.
	Disc is not recorded correctly.	Record the disc again.
MP3's name cannot be displayed correctly.	The name of MP3 is not regular.	Use the regular characters.

# Device connection

## ■ Notes

- This unit is designed to be used in a vehicle with a 12-volt battery and negative grounding. Before installing this unit to a recreational vehicle, a bus, or a truck, make sure the battery voltage is appropriate for this unit to be used, otherwise, install a transformer by professional to convert the output voltage to 12V.
- To avoid short circuit in the electrical system, ensure that the negative battery cable is disconnected before installation.
- To prevent short circuit in the wiring and damaging to this unit, secure all wirings with cable clamp or adhesive tape. Route the wirings in a secured, out of heating place without touching any moving parts such as gear shift, handbrake, and seat rails to prevent the wiring insulation being melted / wore off.
- Never pass the yellow power cord through the installation hole into the engine compartment and connect to the car battery. Otherwise, a high possibility of serious short circuit to the electrical system may be occurred.
- Replacing a new fuse with 10A rating when the old one is broken, using no fuse or fuse with improper rating may cause damage to this unit or even fires. If a proper fuse is installed and electrical problems still occur, please contact with any professional car shops for inquiry.
- Don't connect other equipments with the car battery to avoid battery overheating.
- Please make sure all the wiring connections & the cables of the Speakers are well-insulated. Otherwise, this unit may be damaged by short circuit.
- If there is no ACC available, Please connect ACC lead to the power supply with a switch.
- If an external power amplifier is connected, please don't connect P.CONT lead to the power lead of the external power amplifier, otherwise, electric spark or other damage may be resulted.
- Never ground the speaker output to prevent the damage to the built-in power amplifier.
- The minimum rating of the speakers connected to this unit is 50W with 4 to 8Ω impedance.

## ■ Control cables connections

### ● Auto Brightness Control

To avoid the display being too bright at night time, if the cable for headlight is connected to ILLUMI (for connection details, please refer to <Electrical Connections Overall Diagram>), turning on the headlight dim the backlight of LCD and TFT and vice versa.

### ● Telephone Mute

If the MUTE is connected, other audio outputs mute when a telephone call is received by the car phone (for connection details, please refer to <Electrical Connections Overall Diagram>).

### ● When Reverse Driving

If a rear view camera is connected with the unit, the playing source switches to **CAMERA** automatically when you start reverse driving. As the reverse driving is done, the playing source switches to the last (for connection details, please refer to <Electrical Connections Overall Diagram>).

### ● When Parking Brake applied

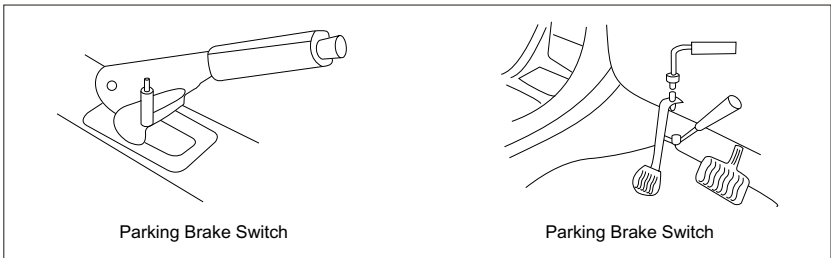
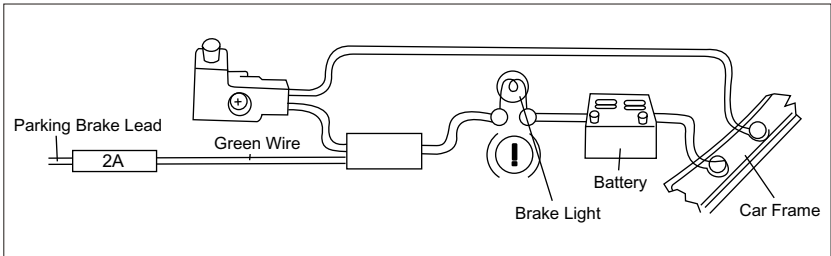
- 1) If "PRK SW" cable is connected to hand brake switch, the video view to the TFT monitor will be controlled by this function. Parking cable function ceases when the playing source is CAMERA.
- 2) The monitor displays the blue screen with warning information to prevent the driver watching other contents during driving, but the passengers at the rear seats can watch normally.

### ● TFT Monitor Protection

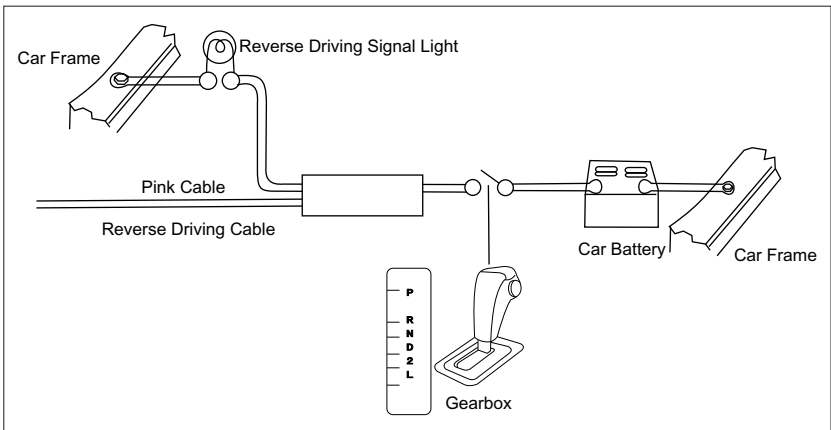
The unit will protect the movement mechanism automatically when the monitor's movement is blocked.

# Device connection

## ■ Parking Brake Cable Connections



## ■ Reverse Driving Cable Connections

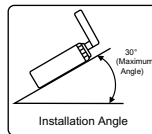


## ■ Electrical Connections Overall Diagram

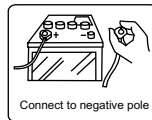
# Installation and uninstal

## ■ Notes of installation

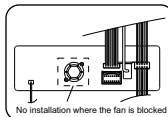
- 1) Before installation, please make sure proper connections are conducted and the unit operates normally. Please refer to "Electrical Connections overall diagram" and improper connection may result in damage to the unit.
- 2) Use only accessories designed and manufactured for this unit and other unauthorized accessories may result in damage to the unit.
- 3) Before installation, please fasten all power cables.
- 4) DO NOT install the unit in the place where close to hot area to prevent damage to electrical components such as the laser head.
- 5) Install the unit horizontally. Install the unit more than 30 degree vertically may result in worse performance.



- 6) To prevent electric spark, connect the positive pole first and then the negative pole.



- 7) DO NOT block the cooling fan exit to ensure sufficient heating dissipation of this unit, or it may result in damage to this unit.

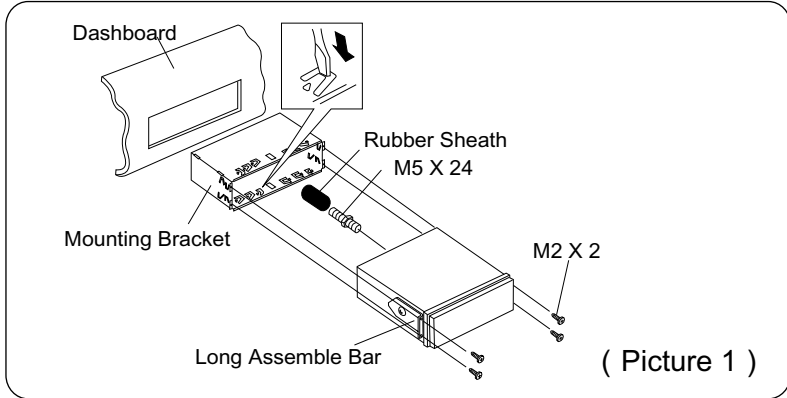


# Installation and uninstal

## ■ Installation

### 1) Main Unit

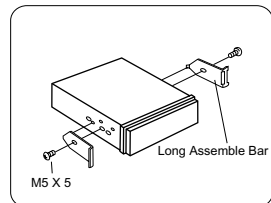
#### Method A:



- 1 Insert mounting bracket into dash board, choose appropriate mounting tab according to the gap width, bending the mounting tab outwards with a screwdriver to fix the mounting bracket in place.
- 2 Use 2 pieces of M5×5 cone shaped screw to fix two assemble bars on both sides of the unit(see picture 2)
- 3 Screw in 1 piece of M5×24 to the hole of the unit back and put on a rubber sheath over the screw.(see picture 1)
- 4 Insert the unit into the bracket, fasten the M4×6 screw to the fireproofing board available at the back of the dashboard, and use 4 pieces of M2×2 screw to lock the assemble bars and the mounting bracket in position.

#### Note:

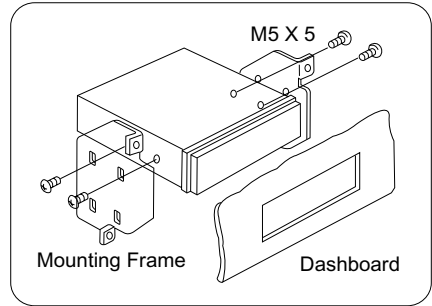
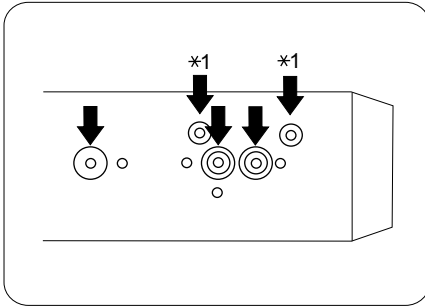
According to the depth of the opening, use different length of assemble bar accordingly. If the opening is too shallow, the monitor may be extended out 10mm from the dashboard.



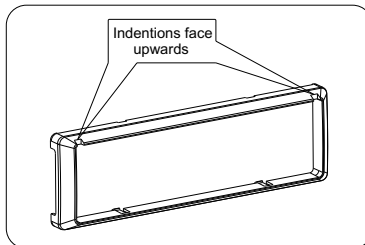
(Picture 2)

# Installation and uninstal

## Method B:



- ❶ Insert this unit directly to the opening of the dashboard.
  - ❷ Place M4×3, M5×5 cylindrical screw or M5×5 cone shaped screw through the holes of the mounting frame located inside the opening to holes of the unit and fasten the screws to left & right.
- 2) Trim Ring
- Attach the trim ring around the front panel with two indentions on one side facing upwards



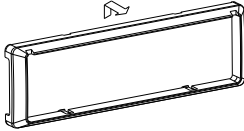
Trim Ring Installation Diagram

# Installation and uninstall

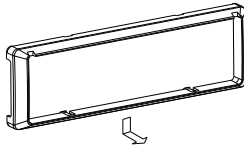
## ■ Uninstall

### 1) Trim Ring

- ➊ Push the trim ring upward and pull out the upper part.

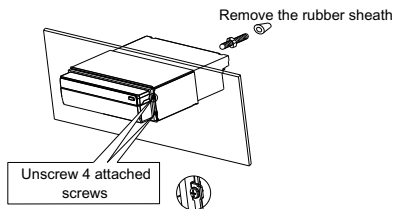


- ➋ Push the trim ring downward and pull out the lower part.



### 2) Main Unit

- ➊ Uninstall the trim ring.
- ➋ Unscrew the 4 pieces M2×2 screws.






- ➌ Use a screwdriver to bend straight the bended mounting tab and tip out the unit from the mounting bracket.
- ➍ Pull out the unit from the mounting bracket with both hands.




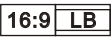

# Appendix 1: The ABC of disc and DVD

## ■ The ABC of disc

### ● Disc icons

Disc icons	Disc Physical Properties	Maximum Playback Time
 	12cm Single Side Single Layer (DVD-5) Single Side Double Layer(DVD-9) 12cm Double Side Single Layer(DVD-10) Double Side Double Layer(DVD-18)	( MPEG 2 Method ) 133 minute 242 minute 266 minute 484 minute
	VCD Disc 12cm Single Side Single Layer(VCD)	( MPEG 1 method ) 74 minute
	CD Disc 12cm Single Side Single Layer	74 minute

### ● Disc symbols Disc Symbols

Disc Symbols	Meanings
	The numbers of audio languages recorded in the disc. This disc has 8 audio languages.
	The numbers of subtitle languages recorded in the disc. This disc has 32 subtitle languages.
	The numbers of view angles recorded in the disc. This disc has 9 view angles.
	Aspect ratios can be selected. "LB" stands for Letter Box and "PS" stands for Pan / Scan.
	Region code of DVD disc.

# Appendix 1: The ABC of disc and DVD

## ● **Region Code**

According to DVD sale region, the whole world is divide into six regions. A DVD disc can be played back only when the DVD region number is the same with the DVD disc.

Region 1: USA, Canada, East Pacific Ocean Islands;

Region 2: Japan, West Europe, North Europe, Egypt, South Africa, Middle East;

Region 3: Taiwan of China, Hong Kong of China, South Korea, Thailand, Indonesia, South East Asia;

Region 4: Australia, New Zealand, Mid & south America, South Pacific Ocean Islands/Oceania;

Region 5: Russia, Mongolia, India, Middle Asia, East Europe, North Korea, North Africa, North West Asia;

Region 6: Chinese Mainland.

## ■ **Caution of disc using**

### 1) **DO NOT use irregular shaped disc**

### 2) **Disc Cleaning**

Use a dry, soft cloth to wipe the disc from center to edge, only neutral detergent can be used.

### 3) **When playing a new disc**

New disc may have some rough spots around the inner and outer edges. If such a disc is used, remove these rough spots with a pencil or ball-point pen, etc.

# Appendix 2: Specifications

## General

Operation Voltage.....	12V(DC)
Operation Voltage Range.....	10.8 ~ 16.0V(DC)
Maximum Operation Current.....	10A
Grounding System.....	Car Battery Negative Pole
Installation Dimension(W×H×D).....	178 mm×50mm×(165+25)mm
Installation Angle	
Vertically.....	0° ~ +30°
Horizontally.....	±15°
Net Weight.....	2.3 kg

## FM

Signal Noise Ratio.....	55dB
Residual Noise Sensitivity(S/N 30dB).....	20dB
Frequency Response(±3dB).....	40Hz ~ 12.5KHz
Station Seeking Level.....	20~30 dBuV
Distortion.....	1.5%
Stereo Separation(1 KHz).....	20 dB
Antenna Impedence.....	75Ω

## AM

Residual Noise Sensitivity(S/N 20dB).....	40dB
Amplitude(±9KHz).....	18dB

## DVD Player

Signal / Noise Ratio.....	90 dB
Dynamic Range.....	90 dB
Distortion(line out).....	0.1%
Frequency Range(±3dB).....	20Hz ~ 20KHz
Maximum Output Power.....	4×45W
Loaded Impedence.....	4Ω

## AUX IN

Distortion.....	0.5%
Frequency Response(±3dB).....	20Hz ~ 20KHz
Audio Input Level.....	1.0 Vrms

# Appendix 2: Specifications

## Audio

Audio Output Impedence.....	100Ω
Audio Output Level.....	≥2.5Vrms
(Under normal audio input level at maximum output volume )	

## Video

Normal Video Input Level:

CVBS.....	1.0±0.2V
RGB.....	700mV
Video Input Impedence.....	75Ω
Video Output Impedence.....	75Ω
Video Output Level.....	1.0±0.2V
(Under normal video input level)	

## TFT Monitor

Screen Diagonal.....	7 inches
Usable Display Area.....	154.08 (W) × 86.58 (H)
Resolution.....	1440 (W) × 234 (H)
Brightness.....	350cd/m <sup>2</sup>
(Measure the center brightness after 30 minutes)	
Contrast.....	350( TYP. )
Response Time	
Rise.....	11ms
Decline.....	22ms
Viewing Angle	
From Top.....	30°
From bottom.....	60°
Horizontally .....	±60°
LCD Life Cycle.....	8000 hours(at 25°C)

## Environment

Operating Temperature.....	- 20°C ~ + 70°C
Storing Temperature.....	- 30°C ~ + 80°C
Operating Humidity.....	45% ~ 80%RH
Storing Humidity.....	30% ~ 90%RH

※Specifications are subject to possible modifications for improvement without further notice.