

### IN CAR AV SYSTEM

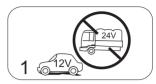
# DVD/VCD/CD/MP3/WMA/MPEG4/USB/SD/MMC PLAYER WITH FM/AM TUNER



# DM-DV9710USB INSTRUCTION MANUAL

### Warnings

1. Only connect this unit to a 12V DC power supply with negative grounding.



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



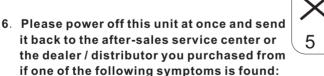
 Never use the video display function in the front when driving to prevent the violation of laws & regulations and also to reduce the risk of traffic accident except using the rear view video camera.



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



 Please don't change the fuse at the back of unit without professional guidance, improper fuse may cause damage to this using unit or even cause fire.





- (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 and comfort level in case of emergency situations.

### **Precautions**

- Never disassemble or adjust the unit without any professional guide.
   For details, please consult any professional car audio shop / dealer for inquiry.
- 2. If the front panel or 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 on the screen.
- 10. During operating the unit, " \( \infty \)" will display if the current 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.

### Declaration

This product incorporates copyright protection technology that is protected by U.S patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision.

Reverse engineering or disassembly is prohibited.

### Contents

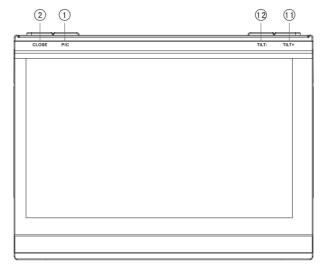
Before using	
Front Panel01 Auxiliary LCD02 Remote Control03	Random playback
Basic operationsPower on/off	DVD MENU and TITLE14 Select subtitle language14 Select multi-angle views14 Select audio channel
Radio mode Select radio as playing source	SD/USB mode Select SD/USB as playing source17 Using the touch screen
Auto tuning	controls
Disc mode Insert a disc	Play the next or previous file18 Repeat playback18 Random playback18
Touch screen controls	Intro playback

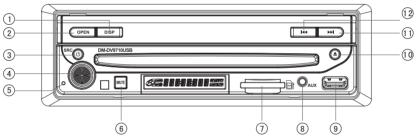
# Contents

Other modes	
AUX	19
Camera	19
Setup	
Setup procedures	20
General	
Language	21
Audio	
Rating	22
Hardware	23
P.VOL	23
TS CAL	23
EQ	24
Troubleshooting	25
Device connection	
Notes of connection	27
Control Cables	28
Parking Brake Cable	
Connections	29
Reverse Drive Cable	
Connections	29

Installation and uninstall	
Notes of installation	30
Unit installation	30
Trim Ring installation	32
Uninstall	32
Specifications	33
Appendix	
Region Code	35
Cautions of disc using	35
Wiring Diagram	36

### **Front Panel**





- 1. [DISP/PIC] Key: Display information / Image setting
- 2. [OPEN/CIOSE] Key: Open / Close the TFT monitor
- 3. [ / SRC] Key: Unit power / Change work mode / Open Source Menu
- 4. **[VOL] Knob**: Adjust volume / Play(pause)
- 5. [Reset] button: Reset the unit
- 6. [MUTE] Key: Mute audio outputs / Hangup(Long press)
- 7. SDHC Slot
- 8. AUX IN jack
- 9. USB Slot

10. [ ▲ ] Key: Eject disc

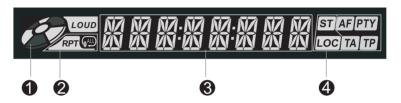
11. [ ►► /TILT+ ] Key: Next / Move cursor to the right

Increase display angle

12. [►► /TILT-] Key: Previous / Move cursor to the left

Decrease display angle

#### **Auxiliary LCD**



#### 1. Disc indicator

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

#### 2. Repeat mode indicator

Light 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.

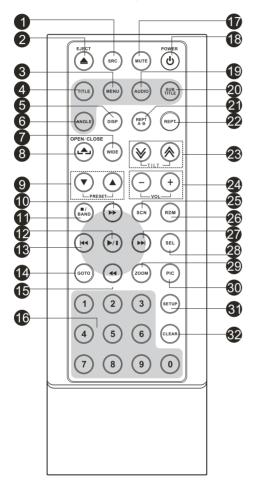
#### 4. Radio status indicators

Stereo indicator lights up when the radio broadcast is a stereo one; Local indicator lights up when the local seeking function is activated.

#### Note:

- ① Most information can be displayed on this LCD only when the TFT monitor is closed.
- ② Only English font support on this LCD.

# 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: Change display mode

 $8. \hbox{[OPEN/CLOSE] Key: Open / Close}\\$ 

the TFT monitor

9.[PRESET▼/▲] Key: Select preset radio station

10.[►►] Key: Fast Forward /
Move cursor up

11.[■/BAND] Key: Select radio band / Stop Playback

12.[▶/II] Key: Play / Pause / Enter

13.[◄] Key: Auto search / Previous /
Move cursor to the 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: Unit 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 to the 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

#### Notes of remote control using

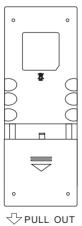
- 1) Aim the remote control at the remote sensor on the unit.
- 2) Remove the battery from the remote control or insert a battery insulator if the battery has not been used for a month or longer.
- 3) DO NOT store the remote control under direct sunlight or in high temperature environment, or it may 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 the risk of accident.

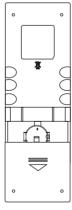
#### **Uninstall Battery**

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

#### **Install Battery**

Use button-shaped lithium battery "CR2025 (3V)" only. Insert the battery to the battery tray with proper direction according to the (+) and (-) poles.





PUSH IN 🗘

### **Basic operations**

#### Power on / off

Press any key on the front panel or the [POWER] key on the remote control to turn on the power under standby mode. The unit goes back to the last status after power on.

Press and hold the [SRC] key on the front panel or press the [POWER] key on the remote control to turn off the power under work mode.

#### Mute

Press the [MUTE] key on the front panel or remote control to mute the volume from the unit

#### Notes:

- ① Doing the operation above again or adjusting volume will release muting.
- ② Mute icon winks on the TFT during muting.

#### Volume adjustment

Turn the volume knob on the front panel or press the [VOL] key on the remote control.

The adjustable range of volume is 0 to 40.

Press the [VOL] key to start/pause playbackl.

### Open SOURCE MENU

Press the [SRC] key on the front panel or remote control or touch the top left corner of the screen to open the SOURCE MENU.

Do the above operation again to return to the original source.

### Playing source selection

Open the SOURCE MENU, and then touch the source you desired or select one source by moving the cursor and then confirm.

#### 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, they cannot be selected.

### Display system time

Press and hold the [DISP] key on the front panel to switch the display information between system time and playing source when the TFT monitor is closed.

### **Basic operations**

### **Using the TFT Monitor**

#### Open / Close monitor

Press the [OPEN/CLOSE] key on the front panel or remote control to push the display panel out or in.

#### Change the monitor tilt 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.

Press the [TILT] key on the display panel or the remote control to adjust the tilt angle one step at a time.

Press and hold the [TILT] key on the display panel or the remote control to adjust the tilt angle continuously.

#### Change aspect ratio

Press the [WIDE] key on the display panel or remote control to adjust the aspect ratio.

#### Image setting

- (1) Enter image setting mode
  - Press the [PIC] key on the remote control.
- (2) Select one item to adjust
  - Press the  $[ \rightarrow ]/[ \leftarrow ]$  keys on the remote control.
- (3) Adjust the value
  - Press the  $[\rightarrow]/[\bowtie]$  keys on the remote control.
- (4) Exit image setting mode
  - To exit image setting mode, repeat the first step or stop operation for a few 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 mode

#### Select radio as playing source

Open the SOURCE MENU and then touch RADIO.

#### Select one radio band

Press the [BAND] key on the display panel or remote control or touch the [BAND] icon on the user interface to select one radio band among FM1, FM2, FM3, AM1 and AM2.

#### **Auto tuning**

Press the [►] / [◄] key on the display panel or remote control or touch the [►] / [◄] icon on the user interface to seek a higher / lower station.

To stop searching, repeat the operation above or press other keys having radio functions.

#### Note:

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' on the TFT or LCD display will be lighted.

#### Manual tuning

During manual tuning, the frequency will be changed in steps. Press the  $[\blacktriangleright ]/[\blacktriangleleft]$  key on remote control or touch the  $[\blacktriangleright ]/[\blacktriangleleft]$  icon on the user interface to tune in a higher / lower station.

Touch the numeric keypad icon( ) and then touch the numeric buttons to input the radio station frequency numbers.

#### Auto save

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

When the monitor is closed, press and hold the [AS/PS] key on the display panel.

When the monitor is opened, touch the [AS] icon on the user interface. To stop auto save, press other keys having radio functions.

#### Notes:

- ① After auto save, the previous saved stations will be overwritten.
- ② The unit has 5 bands, such as FM1, FM2, FM3, AM1, AM2, and Each band can store 6 stations; hence the unit can store 30 stations in all.

### Radio mode

#### Manual save

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

- (1) Press the [MEM] icon on the user interface and the preset menu will be opened.
- (2) Press one preset button among P1~P6.
- (3) If you want to abort, press the [Exit] button.

#### Preview scan

Preview scan searching is such a process that the searching pauses when a station is received and then played for 5~10 seconds. After being played, the unit continues the process until the whole band is detected. When the monitor is closed, press the [AS/PS] key on the display panel. When the monitor is opened, touch the [PS] icon on the user interface. To stop the process, press other keys having radio functions.

#### Recall the stored stations

Press one numeric key among 1 to 6 on the remote control or touch an onscreen station button to select the corresponding stored station.

#### Local seeking

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

To open or close LOCAL function, press and hold the volume knob on the front panel.

#### Notes:

- ① When the local radio station searching is on, the indicator light 'LOC' lights up; whereas the light goes off.
- ② The number of radio stations that can be received will decrease after the local seeking mode is on.

#### Insert a disc

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

#### Notes:

- ① Please confirm whether there is a disc in the unit before you insert another one.
- ② Some recorded discs, such as CD-R, CD-RW, DVD-R, DVD+R, DVD-RW, DVD+RW cannot be played back because of different recording status. Otherwise, the discs without being closed could not be played back.
- 3 About the cautions of disc using, please refer to the appendix.

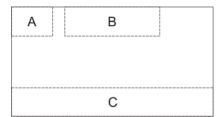
### Eject the disc

Press the [EJECT] key on the front panel or remote control to eject the disc.

You can eject a disc after the unit has been powered off. The unit remains off after the disc is ejected.

#### Touch screen controls

The touch key areas for DVD playback are outlined below:



- A Open SOURCE MENU
- B Display playback information
- C Display onscreen control menu

### **Onscreen control buttons**

Disc type	MP3/WMA	CD	VCD	DVD	MPEG	Picture
<u> </u>	Numeric keypad	Numeric keypad	Numeric keypad	Numeric keypad	Numeric keypad	Numeric keypad
*	Setup menu	Setup menu	Setup menu	Setup menu	Setup menu	Setup menu
<b>&gt;&gt;</b>	/	Fast forward	Fast forward	Fast forward	Fast forward	/
44	/	Fast rewind	Fast rewind	Fast rewind	Fast rewind	/
l44	Previous	Previous	Previous	Previous	Previous	Previous
<b>&gt;&gt;</b> I	Next	Next	Next	Next	Next	Next
<b>▶</b> /I	Play/Pause	Play/Pause	Play/Pause	Play/Pause	Play/Pause	Play/Pause
•	Stop	Stop	Stop	Stop	Stop	Stop
□1/2 □2/2	/	/	A second menu	A second menu	A second menu	/
t	Repeat	Repeat	Repeat	Repeat	Repeat	Repeat
x\$	Random	Random	Random	Random	Random	/
U	/	/	/	/	/	Rotate
Q	/	/	Zoom	/	/	Zoom
EQ	EQ setup	EQ setup	EQ setup	EQ setup	EQ setup	EQ setup
PBC	/	/	PBC	/	/	/
A-B	/	/	A-B repeat	A-B repeat	/	/
Back	/	/	Exit menu	Exit menu	Exit menu	Exit menu
AUDIO	/	/	Channel switching	Dialog Language	Dialog Language	/
SUBTITLE	/	/	/	Subtitle Language	Subtitle Language	/
DISP	/	/	Display information	Display information	Display	Display information
MENU	/	/	/	DVD MENU	/	/
TITLE	/	/	/	DVD TITLE	/	/
DIR+	Next folder	/	/	/	/	Next folder
DIR-	Previous folder	/	/	/	/	Previous folder

#### Suspend playback

Press the  $[ \triangleright / \mathbb{I} ]$  key on the front panel or remote control or open the onscreen control buttons menu and then touch the  $[ \triangleright / \mathbb{I} ]$  button. To resume normal play, repeat the above operation.

#### Stop playback

To stop playback, press the [ $\blacksquare$ ] key on the remote control or open the onscreen control buttons menu and then touch the [ $\blacksquare$ ] button. When the above operation is executed for the first time, the current playback is paused and the break point is memorized and the playback will resume when you start playback again or switch back from other playing sources. The current playback will be cancelled if the above operation is executed twice and the playback will start over when you start playback again.

### Display file list

To display the file list of one recorded disc, stop current playback.

### Fast playback

Press the  $[ \rightarrowtail ]/[ \leadsto ]$  key on the remote control repeatedly or open the onscreen control buttons menu and then touch the  $[ \rightarrowtail ]/[ \leadsto ]$  button repeatedly to change the rate of fast forward/fast reverse.

#### Previous / next

Press the  $[\bowtie]/[\bowtie]$  key on the display panel or remote control or open the onscreen control buttons menu and then touch the  $[\bowtie]/[\bowtie]$  button to play the next or previous file.

### Change folder

Press the [DIR+]/[DIR-] icon on the user interface (you should stop playback first if a video or picture file is played back) to change folder during the playback of one recorded disc containing more than one folder.

#### Repeat playback

Press the [RPT] key on the remote control repeatedly or open the onscreen control buttons menu and then touch the [ ] button repeatedly to alter repeat mode according to the following table.

Disc type	Repeat mode
DVD	Repeat Chapter → Repeat Title → Repeat Off
VCD(PBC off)	Repeat Single → Repeat All →Repeat Off
CD	Repeat Single → Repeat Off
MP3/WMA	Repeat Single → Repeat Folder →Repeat Off
MPEG	Repeat Single → Repeat Folder →Repeat Off
Picture	Repeat Single → Repeat Folder →Repeat Off

#### Notes:

- ① When a VCD is played back, this function is prohibited if the PBC is on.
- ② Turning off the power or switching playing source to other modes and playback 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.

Press the [RPT A-B] key on the remote control or open the onscreen control buttons menu and then touch the [A-B] button to set the start point (A) of the repeated section.

Do the above operation again to set the end point of the repeated section. The selected portion will repeat continuously.

Do the above operation for the third time to cancel this function.

### Random playback

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

Press the [RDM] key on the remote control repeatedly or open the onscreen control buttons menu and then touch the [戊] button repeatedly to alter random playback mode among 'Random', 'Random repeat', 'Repeat Off'.

#### 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.

 $\label{press:eq:pre$ 

Do the above operation again to cancel this function.

#### Direct search

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].

#### **GOTO** search

#### (1) Enter GOTO search mode

Press the [GOTO] key on the remote control to open search menu.

For DVD, you can search according to title, chapter and time.

For VCD, if PBC function is off, you can search according to time; if PBC function is on, you can search according to track, time and Disc time.

For CD, you can search according to track.

For MPEG files, you can search according to track and time.

For record discs containing MP3 and/or JPG files, you can search according to track(file number).

#### (2)Enter search information

Select items by pressing the direction keys on the remote control and enter search information by pressing the numeric keys, such as title, chapter and time.

#### (3)Confirm

Press the [Enter] key on the remote control to confirm.

#### (4)Exit GOTO search mode

Repeat the above operation until the search menu disappeared or touch the [Exit] button on the menu.

#### **DVD MENU and TITLE**

This function is only available for the DVD discs having "MENU / TITLE". Press the [MENU] key on the remote control or open the onscreen control buttons menu and then touch the [MENU] button to open DVD MENU. You can select audio language, subtitle language and so on for playback. Press the [TITLE] key on the remote control or open the onscreen control buttons menu and then touch the [TITLE] button to open DVD TITLE. You can select a different title for playback.

#### Select subtitle language

Press the [SUBTITLE] key on the remote control repeatedly or open the onscreen control buttons menu and then touch the [SUBTITLE] button repeatedly to choose a subtitle language.

#### Select multi-angle views

Press the [ANGLE] key on the remote control repeatedly to choose a shooting angle during the playback of a DVD disc or video file containing multi-angle views.

#### Select audio channel

For DVD containing multi-language audio files, press the [AUDIO] key on the remote control repeatedly or open the onscreen control buttons menu and then touch the [AUDIO] button repeatedly to change dialogue language.

For VCD and CD, press the [AUDIO] key on the remote control repeatedly or open the onscreen control buttons menu and then touch the [AUDIO] button repeatedly to alter audio channel modes among Left vocal, Right vocal, Mono left, Mono right, Stereo.

#### Note:

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

#### **PBC** function

This function is available for the VCD discs with PBC function (Ver 2.0 or higher).

Press the [MENU] key on the remote control to activate this function. Press again to cancel.

#### Notes:

- 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

To zoom in/out the image being played, press the [ZOOM] key on the remote control or open the onscreen control buttons and then touch the [Q] icon.

#### Rotate picture

When one picture file is played back, you can rotate the picture to get proper view angle by pressing the [ $\bigcirc$ ] icon on the onscreen control buttons.

### Playback information

Touch the top center 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.

#### For DVD



- (1) Disc type.
- (2) DVD Title information. "5/8" indicates that this DVD has 8 titles and the title playing back now is the fifth title.
- (3) DVD Chapter information. "2/18" indicates that current title has 18 chapters and the chapter playing back now is the second chapter.
- (4) Elapsed time of the current title.
- (5) "....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.

#### For VCD



- (1) Disc type.
- (2) PBC function indicator. "PBC On" indicates that PBC function has been activated.
- (3) VCD Track information. "6/18" indicates that this VCD has 18 tracks and the track playing back now is the sixth title.
- (4) Elapsed time of the current track.

### SD/USB mode

### Select SD/USB as playing source

#### Method 1:



#### Method 2:

Open the 'SOURCE MENU' and then select 'SD'.

#### Notes:

- ① The unit will switch to SD card mode or USB mode after a SD card or USB device has been inserted.
- ② The unit supports hot swap.

### Using the touch screen controls

The operation is the same as DVD mode.

#### Onscreen control buttons

Onscreen control buttons under SD/USB mode are the same as disc mode.

### Stop playback temporarily

The operation is the same as disc mode.

### Stop playback entirely

The operation is the same as disc mode.

### Display file list

The operation is the same as disc mode.

#### Fast forward/Fast reverse

The operation is the same as disc mode.

### SD/USB mode

### Play the next or previous file

The operation is the same as disc mode.

### Repeat playback

The operation is the same as disc mode.

### Random playback

The operation is the same as disc mode.

### Intro playback

The operation is the same as disc mode.

### Search for a particular file

The operation is the same as disc mode.

#### **GOTO** search

The operation is the same as disc mode.

#### Zoom in/out

The operation is the same as disc mode.

### Rotate picture

The operation is the same as disc mode.

### Select picture slide mode

The operation is the same as disc mode.

### Playback information display

The operation is the same as disc mode.

### Other modes

#### **AUX**

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

To enter AUX IN mode, open the SOURCE MENU and then touch AUX IN.

#### Camera

This player is "camera ready". Before accessing any camera features, you must purchase and install a rear video camera. Once the rear camera is connected and operating properly, the CAMERA source mode will become active. While the camera is not installed, the CAMERA option appears gray, indicating the function is not available.

The playing source will change to 'CAMERA' mode automatically when you reverse your car.

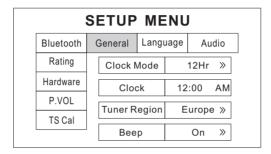
#### Setup procedures

#### (1)Enter setup mode

Press the [SETUP] key on the remote control or touch the setup icon  $[ \times ]$  on the user interface.

The following menu appears after entering the setup mode.

The GENERAL sub-menu is highlighted by default.



#### (2) Select one sub-menu

Press the direction keys on the remote control.

#### (3) Select one item

Press the  $[\blacktriangleright]/[\blacktriangleleft]$  key on the remote control to select one item and then press the  $[\blacktriangleright/n]$  key to confirm.

#### (4)Select one value

Press the  $[\blacktriangleright]/[\blacktriangleleft]$  key on the remote control to select one suitable value and then press the  $[\blacktriangleright/n]$  key to confirm.

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

#### 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 displayed on 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: Background sound of key-press is on.

Off: Background sound of key-press is off.

#### Language

OSD

Select one language of system menu display.

DVD Audio

Select one dialogue language of DVD disc.

#### Note:

If the DVD disc does not contain the selected language, the dialogues you listening to will be in default language.

DVD Subtitle

Select one subtitle language of DVD disc.

#### Note:

If the DVD disc does not contain the selected language, the subtitle will be displayed in default language.

Disc Menu

Select one language of DVD MENU display.

#### Note:

If the DVD disc does not contain the selected language, the DVD MENU will be displayed in default language.

#### Audio

DRC

Set the dynamic range of Dolby digital DVD discs.

On: Playback more dynamic audio with Bass.

Off: Normal output.

Loudness

On: Loud mode is on.

Off: Loud mode is off.

Subwoofer

On: Open the subwoofer speaker.

Off: Close the subwoofer speaker.

• 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.

80Hz, 120Hz, 160Hz are available.

#### Rating

Some DVD discs have built-in parental lock which prevents children to watch some scenes as force or eroticism especially.

Set Password

The original password of the unit is null.

You should set a new password ASAP.

#### Method of changing password:

- (1) Locate the cursor on the 'password' option, press the numeric keys on the remote control or touch the 'Password' option directly to open the onscreen keypad, touch the numeric buttons to enter your password (original password for the first time) and then confirm.
- (2) Repeat the operation above to enter a new 6-digit password and then confirm. The new password becomes effective and the parental lock is closed.
- Rating

The unit has some watching level as followings:

- (1) Kid safe: A movie rating that is condign to children.
- (2) G: A movie rating that allows admission to persons of all ages.
- (3) PG: A movie rating that allows admission of persons of all ages but suggests parental guidance in the case of children.
- (4) PG-13: A movie rating that allows admission of persons of all ages but suggests parental guidance in the case of children under the age of 13.
- (5) PG-R: PG-related.
- (6) R: A movie rating that allows admission only to persons of a certain age, usually 17, unless accompanied by a parent or guardian.
- (7) NC-17: A movie rating that allows admission to no one under the age of 17.
- (8) Adult: A movie rating that is condign to the adult only.

#### Procedures of changing the rating:

- (1) Enter password to unlock the parental lock
  Locate the cursor on the 'password' option, press the numeric keys
  on the remote control or touch the 'Password' option directly to
  open the onscreen keypad, touch the numeric buttons to enter your
  password and then confirm.
- (2) Change the rating Select an appropriate rating from the 'rating' list.
- (3) Close the parental lock
  Repeat the operation of the first step to enter a 6-digit password
  (old or new) and then confirm. The parental lock is closed.

LED color

Red: The LED color turns to red.

Green: The LED color turns to green.

Load Factory

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

#### **Hardware**

TFT Auto Open

Auto: The TFT panel automatically opens when the unit is turned on. Manual: When the ignition is turned off, the TFT panel remains open if it was opened previously.

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

Parking

On: Image displays only after your car has been parked.

Off: Image displays at all times.

#### P.VOL

P.VOL means Programmable Volume.

You can balance the volume among different audio sources using this function.

Source

Select one playing source that you want to set relative volume.

Level

You can set relative volume level from -6 to 6.

#### **TS CAL**

When the touch function is not sensitive or valid, you should calibrate the touch screen by this function.

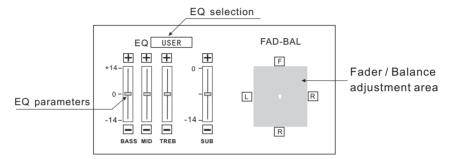
Calibrate the touch screen just following the screen introductions after entering the TS CAL mode.

### EQ

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

#### (1) Enter the EQ setup mode

Press the [SEL] key on the remote control or touch the EQ icon in the user interface and the following interface will display on the screen.



#### (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'.
- 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.

Problem	Cause	Corrective action	
General			
	Unit fuse blown.	Install new fuse with correct rating.	
Unit can not power on	Car battery fuse blown.	Install new fuse with correct rating.	
poweron	Incorrect operation	Reset the unit.	
Remote control	Battery depleted.	Change the battery.	
does not work	Battery installed incorrectly.	Install the battery correctly.	
	Improper audio output connection.	Check wiring and correct.	
	Volume set too low.	Increase volume level.	
No/low audio output	Speakers damaged.	Replace speakers.	
Norlow additional part	Heavily biased volume balance.	Adjust the channel balance to center position.	
	Speaker wiring is in contact with metal part of car.	Insulate all speaker wiring connections.	
Poor sound quality or distortion	Piratic disc is in use.	Use original disc.	
	Speaker power rating does not match unit.	Replace speakers.	
	Wrong connections.	Check wiring and correct.	
	Speaker is shorted.	Check wiring and correct.	
Tel-Mute malfunction	MUTE wire is grounded.	Check the 'MUTE' wiring and correct.	
Unit resets itself when engine is off	Incorrect connection between ACC and BATT.	Check wiring and correct.	
	TFT monito	or	
Monitor does not open automatically	TFT Auto Open is turned off.	Turn TFT Auto Open on.	
Warning information is shown at all times	Parking break wiring is not correct.	Check wiring and correct.	
	The color system of DVD disc does not match the monitor.	Adjust the color system of the DVD disc playing back or the monitor in use.	
Flashing image or interference appears	Piratic disc is in use.	Use original disc.	
on screen	Video cable damaged.	Replace cables.	
	Improper video signal connections.	Check wiring and correct.	

# Troubleshooting

### (Continued)

Problem	Cause	Corrective action	
Disc playback			
Cannot insert disc	A disc inside the unit already.	Eject current disc and insert new one.	
	Disc is warped or scratched.	Use disc in good condition.	
	Disc is dirty or wet.	Clean disc with soft cloth.	
Disc does not	Incompatible disc is used.	Use compatible disc.	
play back	Disc is inserted upside down.	Insert disc with label side up.	
	Disc region code is not compatible with unit.	Use disc with proper region code.	
PBC cannot be used during VCD playback	PBC is not available on the disc.	Use disc with PBC available.	
Repeat or search function is invalid during VCD playback	PBC is on.	Turn PBC off.	
Error messages			
	Disc is dirty.	Clean disc with soft cloth.	
No disc	Disc is upside down.	Insert disc with label side up.	
	No disc inside.	Insert disc.	
Bad disc	Disc is dirty.	Clean disc with soft cloth.	
Bad disc	Disc is upside down.	Insert disc with label side up.	
Unknown disc	Disc format is not compatible with this unit.	Use disc with compatible format.	
Region Error	DVD region code is not compatible with this unit.	Use disc with compatible region code.	

### **Device connections**

#### Notes of connection

- 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 / worn 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 audio shops for inquiry.
- DO NOT connect other equipments with the same power supply to the unit.
- 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  $8\Omega$  impedance.

### **Device connections**

#### **Control Cables**

#### **Auto Brightness Control**

To avoid the display being too bright at night time, if the headlight cable is connected to ILLUMI, turning on the parkinglight will dim the backlight of the TFT LCD and vice versa.

#### **Telephone Mute**

If the MUTE cable is connected to a car phone, other audio outputs mute when one call is received by the car phone.

#### **Reverse Driving**

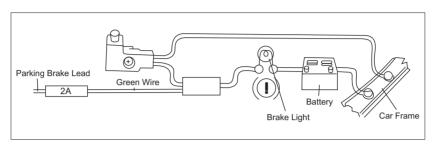
If a rear view camera is connected with the unit, the playing source switches to CAMERA automatically when you start reverse driving. As the reverse driving is done, the playing source switches to the previous.

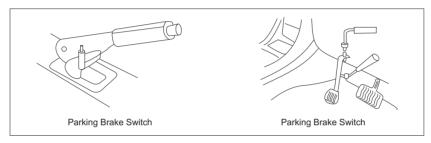
#### **Parking Brake**

- If "PRK SW" cable is connected to hand brake switch, video display on 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 video contents during driving, but the passengers at the rear seat can watch video contents normally, if additional monitors be fitted.

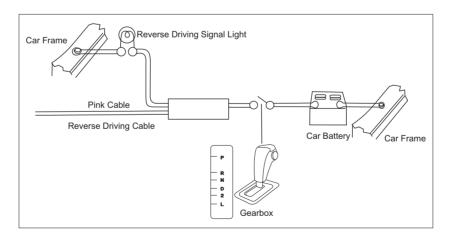
# Device connections

### **Parking Brake Cable Connections**





### **Reverse Driving Cable Connections**



### Installation and uninstall

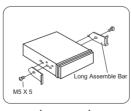
#### Notes of installation

- 1) Before installation, please make sure proper connections are conducted and the unit operates normally. 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. Installing 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.

#### **Unit Installation**

#### Method A

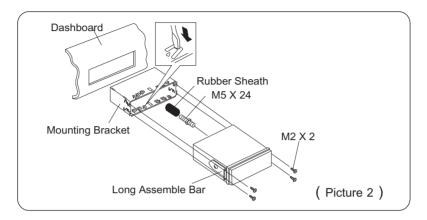
- (1) Insert mounting bracket into dash board, choose appropriate mounting tab according to the gap width, bending the mounting tab outwards with a screwdriver to fix the mounting bracket in place.
- (2)Use 2 pieces of M5 $\times$ 5 cone shaped screw to fix two assemble bars on both sides of the unit(see picture 1)



(Picture 1)

(3)Screw in 1 piece of M5 $\times$ 24 to the hole of the unit back and put on a rubber sheath over the screw.(see picture 2)

### Installation and uninstall

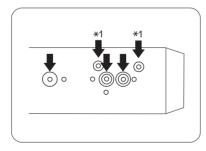


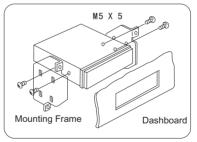
(4)Insert the unit into the bracket, fasten the M4 $\times$ 6 screw to the fireproofing board available at the back of the dashboard, and use 4 pieces of M2 $\times$ 2 screw to lock the assemble bars and the mounting bracket in position.

#### 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.

#### Method B





- (1)Insert this unit directly to the opening of the dashboard.
- (2)Place M4 $\times$ 3, M5 $\times$ 5 cylindrical screw or M5 $\times$ 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.

### Installation and uninstall

### **Trim Ring installation**

Attach the trim ring around the front panel with two indentions on one side facing upwards

#### Uninstall

#### Disassemble trim ring

(1) Push the trim ring upward and pull out the upper part.

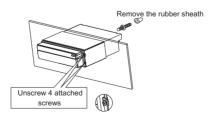


(2) Push the trim ring downward and pull out the lower part.



#### Disassemble the unit

- (1) Unscrew the 4 pieces M2×2 screws.
- (2) Use a screwdriver to bend straight the bended mounting tab and tip out the unit from the mounting bracket.



(3) Pull out the unit from the mounting bracket with both hands.

# Specifications

General	
Reference Supply Voltage	12V(DC)
Operating Voltage Range	10.5~15.8V(DC)
Max Operating Current	
Grounding SystemCar Batte	ry Negative Pole
Installation Dimension(W×H×D)178 mm×50n	nm×(165+25)mm
Installation Angle	0°~30°
Net Weight	2.3kg
FM	
Signal Noise Ratio	
Residual Noise Sensitivity(S/N=30dB)	
Frequency Response(±3dB)	
Station Seeking Level	20~30dBµV
Distortion	1.5%
Stereo Separation(1KHz)	20dB
Antenna Impedance	75Ω
AM	
Residual Noise Sensitivity (S/N=20dB)	
Selectivity (±9KHz)	50dB
DVD Player	
Signal / Noise Ratio	90dB
Dynamic Range	90dB
Distortion(line out)	0.1%
Frequency Response(±3dB)	20Hz~20KHz
Max Output Power	4×45W
Load Impedance	4Ω
AUXIN	
Distortion	0.5%
Frequency Response(±3dB)	20Hz~20KHz
Audio Input Level	0.4Vrms
Audio	
Audio Output Impedance	200Ω
Audio Output Level	
(Under normal audio input level and maximum volu	, ,

# Specifications

Video	
Normal Video Input Level(CVBS)	1.0±0.2V
Video Input Impedance	75Ω
Video Output Impedance	75Ω
Video Output Level	1.0±0.2V
(Under normal video input level)	
TFT Monitor	
Screen Diagonal	7 inches
Usable Display Area	154.1(W) × 87.0 (H)
Resolution	2400 (W) × 480 (H)
Brightness	400cd/m <sup>2</sup>
(Measure the center brightness after 30 minu	utes)
Contrast	300( TYP. )
Response Time	
Rise	
Fall	18ms
Viewing Angle	
From Top	
From bottom	
Horizontally	
LCD Life Cycle	10000 hours(at 25°C)
Environment	
Operating Temperature	10°C~+60°C
Storing Temperature	20°C~+70°C
Operating Humidity	
Storing Humidity	30%~90%RH

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

### **Appendix**

#### Region Code

According to DVD sale region, the whole world is divided into six regions. A DVD disc can be played back only when its region code is compatible with that of the player in use.

- 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.

#### Cautions of disc using

1) DO NOT use irregular shaped disc

#### 2) Disc Cleaning

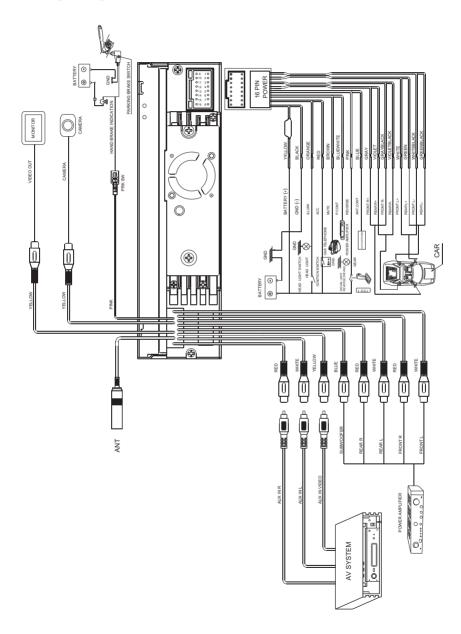
Use a dry, soft cloth to wipe the disc from center to edge, only neutral detergent can be used.

#### 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

### **Wiring Diagram**





CLASS 1 LASER PRODUCT