



DV720

# **OWNER'S MANUAL**

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# Contents

Thank you for your choosing our product. We hope you will find the instructions in this user manual clear and easy to follow. If you take a few minutes to look through it, you'll learn how to use all the features of your new Unit for maximum enjoyment. After you have finished reading the instructions, please keep this manual in a safe place for future reference.

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NOTE: 1. certain descriptions in this book may differ from the actual unit. 2. Some pictures or icons in the book may differ from actual display.

3. Specifications subject to change without notice.

#### Preparation

Please read all of the instructions before beginning the installation. We recommend having your unit installed by a credible installation shop.

#### Features

- Single DIN size, all-in-one integrated entertainment system.
- Built-in DVD Player, automotive specification slot loading mechanism.
- Built-in RDS FM/AM Tuner.
- High resolution 7" (16:9) TFT color monitor, contrast and brightness adjustment, with LCD dot matrix display.
- Built-in 40W X 4 amplifier, 4.1 channel surround sound output.
- Turn out and slot-in panel structure.
- Smart Touch-screen operation
- Buttons and Encoder operation.
- Steering wheel button operation interface.
- All functions can be operated by included Remote Controls.
- Standby mode.
- · Powerful Graphic User Interface and software update ability.

#### **Tools and Supplies**

You will need these tools and supplies to install your unit.

- Torx type, flat-head and Philips screwdrivers
- Wire cutters and strippers
- Tools to remove existing radio (screwdriver, socket wrench set or other tools)
- Electrical tape
- Crimping tool
- Multimeter
- Crimp connections
- 18 gauge wire for power connections
- 16 18 gauge speaker wire
- Heatshrink tubing
- Soldering iron and solder

#### WARNINGS

- 1. Only connect the unit to a 12-volt negative ground system.
- 2. Never install this unit where operation and viewing could interfere with safe driving conditions.
- 3. To reduce the risk of a traffic accident (except when using for rear view video camera) never use
- the video display function while driving the vehicle. This may be in violation of local laws.

4. To reduce the risk of a traffic accident, never driving with the sound at a level that prevents you from hearing sounds outside around the vehicle.

5. Never disassemble or adjust the unit without the assistance of a professional. For details, please consult your local car stereo specialty shop.

6. To prevent injury from shock or fire, never expose this unit to moisture or water.

7. Never use irregular discs, the only recommended disc size is a 12cm round disc.

8. To prevent damage to the mechanism inside this unit, avoid impact to the TFT monitor.

9. Do not change the fuse on the power wire without professional guidance. Using an improper fuse may cause damage to the unit and result in a fire.

10. The monitor employs an automatic motorized mechanism. To prevent damage to the core mechanism, please do not push, pull or swivel the monitor manually.

# **Disconnecting the Battery**

To prevent a short circuit, turn off the ignition and remove the negative (-) battery cable prior to starting the installation.

**NOTE:** If the unit is to be installed in a car equipped with an on-board drive or navigation computer, do not disconnect the battery cable. If the cable is disconnected, the preset memory may be erased. Under these conditions, use extra caution during installation to avoid causing a short circuit.

NOTE: It is especially important that you read the WARNINGS and NOTES in this manual.

# **Button Operation**



# 1. POWER/VOL

Rotary encoder.

Press the encoder to turn on the unit, press and hold to turn off. Rotate clockwise/counterclockwise to adjust the volume.

Press to enter the audio adjust menu when the unit is on.

#### 2. MUTE

Press the MUTE button to mute the volume, and press the button again to restore the volume. 3. FAST REVERSE

# Fast reverse play the disc content in DVD mode.

Press to tune frequency backward one step in TUNER mode.

#### 4. FAST FORWARD

Fast forward play the disc content in DVD mode

Press to tune frequency forward one step in TUNER mode.

# 5. PLAY/PAUSE

Press to play/pause.

Press to scan radio stations stored in the 6 preset channels in TUNER mode

# 6. STOP

Stop playback in DVD mode.

Select FM/AM band in TUNER mode

# 7. PREVIOUS

Select the previous chapter/track for playback.

Seek an available radio station by decreasing tuning frequency

8. NEXT

### **Controls and Indicators**

#### **Controls and Indicators**

Select the next chapter/track for playback.

Seek an available radio station by increasing tuning frequency

# 9. MODE

Press to select a source.

10. SMART DIAL

Rotary encoder.

Press the encoder to access MAIN menu.

Rotate clockwise/counterclockwise to select a desired item and press to access or confirm.

# 11. RESET

Press to reset system settings (except the DVD setup).

#### 12. EJECT

Press once for disc insertion/ejection.

# 13. INFO/PICTURE

Press to display the playing information on the screen on DVD mode.

If the TFT monitor is closed, DVD playing information will display on the LCD screen. Press and hold to access the picture setup.

### 14. ANGLE+

Press the button to adjust the upward tilt angle of the screen one step at a time. Press and hold this button to continuously adjust the upward tilt.

Press this button to adjust the picture settings in picture setup.

# 15. ANGLE-

Press the button to adjust the downward tilt angle of the screen one step at a time. Press and hold this button to continuously adjust the downward tilt.

Press this button to adjust the picture settings in picture setup.

# 16. TFT DISPLAY

# **17. DISC INDICATOR LIGHT**

It is blue when there is no disc in the slot, otherwise, it is red.

#### **18. DISC SLOT**

### 19. AS/PS (Auto store/program scan)

Press to auto store strong radio stations in the 6 preset channels in the current band.

Press and hold to start to scan radio stations stored in the 6 preset channels in the current band. **20. BAND** 

Press to change among the following bands: FM1, FM2, FM3, AM1, AM2.

#### 21. LCD DISPLAY 22. IR REMOTE CONTROL RECEIVER

# 23. OPEN

Press the button to activate the motorized system and move the TFT monitor into viewing position. Press again to close the TFT.

# 24. DISP

Press the DISP button to display system information on the front LCD screen or on the TFT screen.

# LCD Display / Indicators



1. Main display area, displays the time, tuning frequency and other text information.

- 2. Satellite (SAT) radio indicator.
- 3. Digital audio broadcast (DAB) indicator.
- 4. Loudness indicator, Indicates the LOUD function is activated or not.
- 5. Alternative Frequency (AF) indicator.
- 6. Traffic Announcement (TA) indicator.

- 7. Traffic Program (TP) indicator.
- 8. Program Type (PTY) indicator.
- 9. Local indicator, Indicates the local radio station seeking function is activated or not.
- 10. Stereo broadcasting indicator, Indicates the radio is in stereo mode or not.

# The key Areas of the Touch Screen

The touch key areas are outlined below, for DVD, VCD mode and all other operating modes.



A — Return to MAIN MENU

B — Displays playing information

C — Select previous chapter

- D Select next chapter
- E Display the on-screen control, and different mode displays different menu.
- F on DVD/VCD mode, display the GOTO search menu on the screen directly.

# Remote Control

# **Remote Control**

# Front Zone Remote Control



Name	Ref #	Signal	Function
Stop/Band	10	■/ BAND	Select FM/AM band on Tuner mode Stop playback
Select	11	SEL	Enter the audio settings
ESC	12	ESC	Exit the current menu
Menu	13	MENU	Enter the main menu of system
Picture	14	PIC	Adjust the picture settings
Repeat A—B	15	A→B	Set start point A and end point B to repeat continually
OK	16	ОК	Start or pause playback, confirm the settings
Direction buttons	17	▲ ,	Up/down/left/right to select items for setting
Title	18	TITLE	Also can activate and disable SCAN mode while playing CD
Root	19	ROOT	Enter the main menu of the disc Turn on PBC while playing VCD
Repeat	20	Ð	Repeat playback for current chapter
Next	21		Select the next chapter/track for playback Search an available radio station by increasing tuning frequency on tuner mode
Previous	22	M	Select the previous chapter/track for playback Search an available radio station by decreasing tuning frequency on tuner mode
Fast Reverse	23	₽	Fast reverse the disc content
Fast Forward	24	•	Fast forward the disc content
Audio	25	AUDIO	Change the audio language for disc playback
Zoom	26	ZOOM	Zooming in/out on an image
Angle	27	ANGLE	Play in different angle for a scene scene(if it is applicable)

Language selection for subtitle

SUB Title

SUB•T

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Name	Ref #	Signal	Function
Power	1	Ú	Turn the power on/off
Open	2	OPEN	Open/close the motorized screen
Mute	3	MUTE	Toggle on/off audio output
MODE	4	MODE	Select playing mode
Numeric button	5	12345 67890	Directly access certain chapter / track / preset station in current band
VOL up	6	VOL+	Increase the volume
VOL down	7	VOL-	Decrease the volume
Information	8	INFO	Display playing information
GOTO search	9	SRCH	Position search function on VCD/DVD mode

# Open/Close the TFT Monitor

Press the ( ( ) button on the front panel or the (OPEN) button on the remote control to open/close the monitor.

# **TFT Monitor Auto Open**

If "TFT Auto Open" is "On", when the unit is turned on, the monitor automatically opens to the last viewing position, and closes automatically when the unit is turned off.

If "TFT Auto Open" is "Off", when the unit is turned on, the monitor will not open automatically, but will close automatically when the unit is turned off. You can press the ( ) button on the front panel or the (OPEN) button on the remote control to move the monitor into the desired viewing position. If "TFT Auto Open" is "Manual", when the unit is turned on or turned off, the monitor has no movement.

See "General setting" for details.

# Monitor Tilt Angle Adjustment

The monitor angle can be adjusted for optimum viewing using one of the following methods: Press the ( $\checkmark$ ) or ( $\land$ ) buttons on the front panel to adjust the tilt angle of the screen one step at a time.

Press and hold the ( $\checkmark$ ) or ( $\land$ ) buttons to continuously adjust the tilt angle. Adjust the "Screen Tilt" in the "Screen setting" to adjust the tilt of the screen to the desired degree.

# **Image Setting**

Video Output Format

The table below shows the video output format for each source.

#### Video Output Format

Name	Video Output Format
FM/AM TUNER	RGB Mode
DVD	RGB Mode
AUX IN	CVBS Mode

\*CVBS-- Composite Video Base band Signal

# Adjustable Parameters

While on RGB mode, the only parameter that can be adjusted is brightness (BRIGHT). To access "SHARPNESS" "COLOR" "CONTRAST" "BRIGHTNESS" and "TINT "you must be on CVBS mode.

#### Parameter Adjustment Procedure

1. Enter Picture Quality Setting Mode:

Press the PIC button on the remote or press and hold the INFO button on the front panel of the unit. 2. Select Items to Set:

Press the (  $\blacktriangle$  /  $\blacktriangledown$  ) buttons on the remote or rotate the SMART DIAL button clockwise/anticlockwise to select an item.

3. Set Parameters:

Press the ( $\triangleleft$  /  $\blacktriangleright$ ) buttons on the remote or press the ANGLE button ( $\checkmark$  /  $\land$ ) on the front panel to adjust the selected feature to the desired setting. Rotate the "VOL" on the front panel can also adjust the selected feature.

4. Exit Picture Quality Setting Mode:

Press the PIC button on the remote or press and hold the INFO button on the unit.

# Parking Brake Interlock

 When the "PARKING" lead is properly connected to the brake switch, the display on the TFT monitor will display video only when the vehicle is stopped and the parking brake is applied.
 When the "parking brake interlock" is active, the front monitor displays a caution messsage with a blue background, preventing the driver from watching video while driving to reduce the risk of a traffic accident. Please see "INSTALLATION SECTION" for installation.

# **Monitor Movement Mechanism**

If an obstruction occurs on the monitor path, the motion will stop automatically to prevent damage for the mechanism or monitor.

Normal operation is resumed by pressing the (  $\blacklozenge$  ) button or disconnecting and reconnecting the Power.

# **Operating Instructions**

# Power On / Off

Press the POWER/VOL button to turn the unit on. The buttons on the front of the unit are illuminated and start up message is briefly displayed on the LCD screen, and then displays the current mode status. You can also turn on the unit by pressing the ( $\bigcirc$ ) button on the remote control. Press and hold the POWER/VOL button on the front panel for more than 1 second or press the ( $\bigcirc$ ) button on the remote to power off the unit. The monitor is drawn back into the main compartment and the LCD screen displays "BYE BYE".

**NOTE:** The operating voltage range is  $10.5v \sim 16v$ . The unit will power off automatically to protect itself, when the voltage is out of the operating range.

# **Playing Source Selection**

Press the MODE button on the front panel or the (MODE) button on the remote to select among the available sources: TUNER, Disc, AUX IN. The selected playing mode is displayed on the TFT or LCD screen.

### AUX IN Mode

An external peripheral device can be connected to this unit via RCA cables to the "AUX-IN".

# Volume Adjustment

To increase or decrease the volume level, turn the POWER/VOL on the front panel or press the (VOL+/ VOL-) buttons on the remote control. The volume ranges from "0" to "40". The default volume is "10" when the unit is powered on each time. Default volume memory setup: Rotate Power/VOL knob on the front panel to select volume value and then press and hold the Power/VOL button until you hear a single beep. When you hear the beep, setup is completed.

### Audio Control Menu

The Audio Control feature allows you to easily adjust your audio system to meet the acoustical characteristics of your vehicle, which vary depending on the type of vehicle and its measurements. To get the best possible sound quality from your new system, be sure to adjust the settings for the speakers as well. Proper setting of the Fader and Balance enhances the effects of the cabin equalizer.

#### Accessing the Audio Control Menu

Press the POWER/VOL on the front panel once or press the (SEL) button on the remote control to enter the "Audio" menu.

#### Selecting an Audio Feature for Adjustment

Press the (  $\blacktriangle$  /  $\bigtriangledown$  ) buttons on the remote to select a item to be adjusted. Rotate the "Smart Dial "on the front panel to select a item to be adjusted.

#### Adjusting an Audio Feature

Press the (  $\triangleleft$  /  $\triangleright$  ) buttons on the remote or rotate the POWER/VOL clockwise/counterclockwise to adjust the selected feature to the desired setting.

# **Operating Instructions**

#### Audio Adjustments

Audio Function	Adjustable Range
	User
	Flat
	Jazz
	Рор
	Classical
EQ	Rock
	News
	Urban
	Rave
	Movie
	Techno
BASS	-7 to +7
TREBLE	-7 to +7
FADE	–9 to +9
BAL	–9 to +9
SW	-7 to +7
LOUD	Off,On

**NOTE:** The Bass and Treble levels are only adjustable when EQ is set to "User" mode. The Loudness function compensates for deficiencies in sound ranges at low levels. When the Loud function is on, LOUD is displayed on the screen.

#### Exiting the Audio Control Menu

Press and hold the POWER/VOL button on the front panel to exit the audio control menu or press the escape arrow on the top right corner of the TFT display.

Press the (ESC) button on the remote control to exit the audio control menu.

#### System Reset

To correct a system halt or other illegal operation, use the tip of a pen to press the RESET button located on the front bottom-right corner of the unit. After a system reset, the unit system setup (except the DVD setup and "Radio" in "GENERAL" setup) restores the setting before last power off.

#### Mute

Press the MUTE button on the front panel or the (MUTE) button on the remote to mute the volume from the unit.

**NOTE:** Press the MUTE button again to restore the volume.

Adjusting the volume or using any of the audio set-up features will cancel the mute function.

#### MAIN Menu

There are three methods to access the MAIN menu. •Press the SMART DIAL button on the front panel. •Press the MENU button on the remote control. •Touch the A area on the touch-screen.



1. Touch to access Front-Zone menu.

- 2. Touch to access DVD setup.
- 3. Touch to access General setup.
- 4. Touch to access Screen setup.
- 5. Touch to turn to the previous menu.
- 6. Touch to access the Standby mode.
- 7. Touch to access AUX IN mode.
- 8. Touch to access DVD mode.
- 9. Touch to access Tuner mode.

**Note:** Remote, touch screen operations and buttons on front panel are all useable to select menu and adjust settings. The following instructions will show the different ways to access menus and adjustments.

#### Screen Setup Menu

Accessing the Screen Setup Menu

 $\ensuremath{\mathsf{Press}}$  the SMART DIAL on the front panel or press the (MENU) button on the remote control to access MAIN menu.

Select the 📰 button on the bottom of the screen to access the Screen setup.



# Selecting a Feature for Adjustment

Press the (  $\blacktriangle$  /  $\blacktriangledown$  ) buttons on the remote to select a feature to be adjusted. Rotate SMART DIAL clockwise/counterclockwise to select a feature to be adjusted. Directly touch the options on the screen to select a feature to be adjusted.

# Adjusting a Feature

Setting	Options	Function
Brightiness	-10 to +10	Press the ( ◀/▶ ) buttons on the remote or rotate the SMART DIAL clockwise/counterclockwise to adjust the Brightness to the desired setting.
Screen Tilt	1–6	Press the ( $\triangleleft/\triangleright$ ) buttons on the remote or touch the (1 to 6) number on the screen directly to adjust the tilt of the screen to the desired degree.
Screen Saver	On	Touch to activate/deactivate the Screen Saver.
Screen Saver	Off	Touch to activate/deactivate the Screen Saver.
TS Calibrate	No	Touch "Yes" to enter the touch screen calibrate mode.
	Yes	
Version		The version of this unit.

# **General setup Menu**

Accessing the General Setup Menu

•Select the 🗰 button on the bottom of the touch screen to access the General setup.

17:26
24Hr
Off
English

# Selecting a Feature for Adjustment

Press the direction buttons on the remote control or touch the option directly on the screen to select the feature to be adjusted.

#### Adjusting a Feature

1. Enter the option field for the feature you want to adjust by pressing the (OK) button on the remote or by pressing the SMART DIAL button. A submenu appears in a second row with the selected option.

2. Select a new value by pressing the direction button.

3. Confirm your selection by pressing (OK) button or pressing the SMART DIAL button. The new value setup is complete.

# Adjusting the Clock

1. Access the "Clock" setting under the General Setup menu.

2. Press the direction button on the remote to move the cursor to the "Hour" or "Min" position, and press the (OK) button. You also can touch the "Hour" or "Min" position directly.

3. The numeric keypad will pop up.

4. Press the numeric button on the remote control or touch the numeric keypad on the screen to adjust the hour or minutes.

5. Press the (OK) button on the remote control or on the keypad of the screen to confirm setup.

Return to normal playback

The system will automatically return the previous playback mode that it was in before accessing the setup menu 20 seconds after the last operation.

Setting	Options	Function	
	USA		
Radio	S-America	Select the appropriate setting based on the country in which you reside.	
	Europe		
Clock	(HH:MM)	See "Adjusting the clock" to learn how to set the clock.	
Clock Mode	12Hr	Clock displays 12 hour time using AM and PM.	
CIOCK WIDDe	24Hr	Clock displays 24 hour time up to 23:59	
TFT Auto Open	On	The TFT panel automatically opens when the unit is turned on.	
	Off	You must press the 📥 button on the TFT panel or the OPEN button on the remote to open the TFT.	
	Manual	The monitor does not open or close when the unit is turned on or turned off.	
OSD Menu	English	The menus are displayed in English only.	

# Standby

- 1. Touch the Standby button on the touch-screen to access Standby mode.
- 2. In the standby mode, the unit stands in low-power state with audio output only.
- 3. In the standby mode, you can return to normal screen mode by performing any unit operation.

# System Setup Menu

# **Tuner Operation**

# **Tuner TFT display**



1. Current Source information, touch this area to return to MAIN menu.

2. Display Program Type.

3. Preset Radio Stations: Touch to recall preset stations or touch and hold to store a station. (Total 6 stations per Band you can preset.)

4. Current Radio Band Indicator.

5. Current Preset Station playing Indicator.

6.Current time Indicator.

7. Stereo Broadcast Indicator.

8.Radio Frequency Indicator.

9.System EQ setting.

10.Loud Setting Indicator.

11.Volume Indicator.

12. SCAN : Touch to activate/deactivate Scan Mode.

- 13. 🗪 : Touch to tune up one step.
- 14. 🚾 : Touch to tune down one step.
- 15. Example: Touch to seek up.
- 16. 🕶 : Touch to seek down.

17. Provide the second state of the station of the station of the station of the state of the st

18. **18**. Touch to change among the following bands: FM-1, FM-2, FM-3, AM-1, AM-2.

19. Touch to activate/deactivate TA (Traffic Announcement) function.

20. Touch to activate/deactivate AF (Alternative Frequency) function.

21. Touch to activate/deactivate PTY (Program Type) function.

22.Display PS (Program Service).

**NOTE:** This product features a tuner with RDS function, RDS (Radio Data System) is a system that transmits broadcast station information together with FM programs. You get display of Program Service Name and PTY, tuning to stations broadcasting a desired PTY, automatic tuning to traffic information, and emergency broadcasts and radio text display.

RDS service was not available in AM broadcasting. RDS service availability depends on the FM broadcasting provider.

# Switch to Radio Tuner source

Press the MODE button on the front panel or press the MODE button on the remote control to switch to the Tuner source .you can also access the tuner mode from the MAIN menu directly.

# Select FM/AM Band

Touch the *button* on the screen or press the( *button* on the remote control to change among the following bands: FM-1,FM -2,FM-3,AM-1,AM-2.

# Auto Tuning

Press the button ( ) on remote control or touch the button on the screen to seek the next available channel by increasing the tuning frequency. Press the button again to stop searching. Press the button ( ) on the remote control or touch the dutton on the screen to seek the next available channel by decreasing the tuning frequency. Press the button again to stop searching.

**Tuner Operation** 

# **Manual Tuning**

Touch the **I** or **I** to increase or decrease the tuning frequency one step.

# **Using Preset Stations**

6 numbered preset buttons store and recall stations for each band. 6 stored stations (P01-P06) for the current band appear on the screen, touch the channel directly to select. You can touch the arrow buttons **I** on the screen to select other stations.

# Storing a Station

1. Select a band (if needed), then select a station.

2. Touch and hold an onscreen preset button (3) for three seconds. The preset number appears at the top of the screen.

### Recalling a Station

1. Select a band (if needed).

2. Touch an on-screen preset button (3) to select the corresponding stored station.

# Auto Store (AS) - Shown By Radio Frequency

Press the AS/PS button on the panel or press and hold the Peress button on the screen to automatic scan and store strong radio stations in the 6 preset channels in the current band.

# Auto Store (AS) - Shown By Radio Station Name

Touch [AF] in the screen, then press the AS/PS button on the panel or press the *Parel* button on the screen to automatic scan and store strong radio stations in the 6 preset channels in the current band.

# Program Scan (PS)

1. Press and hold the AS/PS button on the panel or press the Pere button on the screen. Scan the stations in the 6 preset channels in the current band.

2. Touch the screen to automatically scan all stations in current band to preview stations.

3. Press any button to stop scanning and listen to the selected station.

# Seek the PTY (Program Type)

Touch I The screen to enter PTY menu, then touch to select one in the PTY menu, the unit will auto seek the next available PTY by increasing tuning frequency until the program type matches the PTY, if no matched was found ,the tuner will return to original radio and "None" is displayed.

# AF (Alternative Frequency/Auto Following) Function

Touch **TABL** in the screen to activate/deactivate AF function. When AF is activated and a radio signal is too weak, the tuner automatically switches to the best alternative frequency.

Note: During auto switching radio frequency, some interference could be heard. Turn off AF function can cease this issue.

# TA (Traffic Announcement) Function

Touch Tail in the screen to activate/deactivate AF function. When TA is activated, the unit will auto seek an available TP or TA station. After the seeking, no matter if PTY was found, the tuner will auto seek each 1 minutes.

When TA is activated and a traffic announcement is received, the current playing source is overridden by the traffic announcement automatically, if the tuner was last set to the FM band but not if it was last set to the AM band. When traffic announcement is over, the current playing source will be resumed.

# **DVD Player Operation**

**NOTE:** When properly installed, DVD video cannot be displayed on the main TFT screen unless the parking brake is applied. If you attempt to play a DVD while the vehicle is moving, the TFT screen displays caution information with a blue background.

#### **Opening/Closing the TFT Video Screen**

# Opening the TFT Screen

To open the TFT video screen, press the ( ) button on the unit or press the (OPEN) button on the remote control.

#### Closing the TFT Screen

Press the ( ( ) button on the unit or press the (OPEN) button on the remote control again to close the TFT screen.

#### Insert/Eject Disc

#### Inserting a Disc

When inserting a DVD disc, DVD mode is entered and disc play begins.

**NOTE:** If Parental Lock (Rating) is activated and the disc inserted is not authorized, the 4-digit code must be entered and/or the disc must be authorized (see "RATING (Parental Lock) Menu"). You cannot insert a disc if there is already a disc in the unit or if the power is off.

NOTE: CD-R/RW, DVD-R/RW, DVD+R/RW will not play unless the recording session is closed.

#### Ejecting a Disc

Press the button **A** on the unit to eject the disc. The unit automatically reverts to Tuner mode at the same time.

#### Reset the Loading Mechanism

If the disc loads abnormally or does not play properly, press and hold the button  $\blacktriangle$  on the unit to reset the loading mechanism. The disc is ejected and normal operation resumes.

#### Accessing DVD Mode

To switch to DVD mode when a disc is already inserted, press the MODE button on the front panel or press the MODE button on the remote control until DVD appears at the top of the screen.

# **Using the Touch-Screen Controls**



1. Touch to Play/Pause

- 2.Touch to stop
- 3. Touch to fast reverse
- 4. Touch to fast forward

5. Touch to repeat playback

6. Touch to repeat from A to B. Select the repeat point A wherever you want to start and the point B wherever you want to end, then, DVD displays from A to B continually.

7. Touch to choose a language, if the disc is recorded in multiple languages.

# 8. Touch to display Sub-title

9. Touch to return to DVD main menu

# Controlling Playback

# Stopping Playback

Touch the stop button  $\blacksquare$  on the screen or press the (BMO) button on the remote control to stop DVD play and touch the play/pause button  $\blacksquare/II$  on the screen or the (OK) button on the remote control to resume disc play.

# Pausing Playback

Touch the play/pause button on the screen to suspend or resume disc play.

#### Repeat Playback

Press the Repeat button () on the screen or on the remote control to alter repeat mode according to the following:

• DVD: Repeat Title, Repeat Chapter, Repeat Off

• VCD (PBC Off): Repeat Single, Repeat Off

• MP3: Repeat Single, Repeat Folder, Repeat Off

NOTE: For VCD play, the repeat function is not available if PBC is on.

#### PBC (Play back Control) (VCD Only)

For VCD with play back functionality, play back control (PBC) provides additional controls for VCD playback.

Press the (ROOT) button on the remote control to toggle the PBC function "On"/"Off". Once PBC is on, playback starts from track one of the play list.

**NOTE:** When PBC is activated, fast forward, slow playback, and previous/next track are available. Repeat and track selection are not available. When PBC is activated, selecting random, scan, or search playback automatically deactivates PBC.

#### Sectional Repeat Function (A-B)

Use the A-B function to define a specific area of a disc to repeat.

• Press the  $A \rightarrow B$  button on the screen or on the remote control to set the start point (A) of the repeated section.

- Press the  $A \rightarrow B$  button again once you reach the desired end point (B) of the repeated section. The selected portion of the DVD will now repeat continuously.
- Press the  $A \rightarrow B$  button again to cancel the A-B section setting and stop repeat play.

### Accessing the DVD Menu

1.You can touch the area E, and then touch the **button to recall the main DVD menu**. 2.Use the arrow buttons on the remote to select a title from the menu.

3. Press the (TITLE) button on the remote control to select a different title for playback.

4. Press the (OK) button on the remote control or touch the item directly to confirm your selection and begin playback.

# Moving Through Chapters

Press the  $(\downarrow \downarrow)$  button on the remote control to advance to the next chapter on the DVD. Press the  $(\downarrow \downarrow \downarrow)$  button on the remote control to move to the previous chapter on the DVD.

#### Fast Forward/Fast Reverse

Press the ( $\triangleright$ ) button on the remote control or touch the  $\bowtie$  button on the screen to fast forward. Keep pressing or touching and releasing the button to increase the rate from "2X" to "4X", "8X", and "20X".

Press the ( $\triangleleft$ ) button on the remote control or touch the  $\blacksquare$  button on the screen to fast reverse. Keep pressing or touching and releasing the button to increase the rate from "2X" to "4X", "8X", and "20X".

# **DVD Player Operation**

# **DVD Player Operation**

# **GOTO Search**

Т

During DVD or VCD playback, perform the following steps to use the GOTO feature to access a specific location on a disc:

1. Press the "SRCH" button on remote control or touch the F Area on the screen to enter "GOTO" mode.

2. Press the (  $\blacktriangle$  /  $\blacktriangledown$  ) buttons on the remote control to select a category.

• For DVD mode, you can choose Time or Title/ Chapter search.

• For VCD mode, press the "SRCH" button to choose between Track Search and Exit.



DVD Search Time-Go to specific time in current title Title/Chapter-Go to specific chapter in a title

Trac	ck Search	
īme	::	
rack		

# VCD Track Search

**Time-**Go to specific time in the current track **Track-**Go to specific track

# 3. Touch the (------) area on the screen to display a numeric keypad on the touch screen.



4. Enter a time/Track number into the field using the numeric keypad on the remote control or on the screen.

5. Press the OK button on the remote control or on the touch screen to go to the specified location on the disc.

6. Press the "SRCH" button on the remote control or touch the F Area on the screen again to exit.

#### **Direct Chapter / Track Selection**

During DVD, VCD and CD playback, you can use the numeric keypad on the remote control to access a track directly.

#### Viewing an Alternate Picture Angle (DVD Only)

Some DVDs contain scenes that have been shot simultaneously from different angles. For discs recorded with multiple angles, press the (ANGLE) button on the remote control to toggle available angles of the on-screen image.

#### Zooming

Press the ZOOM button on the remote control to enlarge and pan through the video image using the following options: "Q1", "Q2", "Q3", "Q4" and "Qoff".

# Multi-Language Discs (DVD Only)

# Changing Audio Language

If you are watching a disc recorded in multiple languages, press the (AUDIO) button on the remote control to choose a language. You also can touch the area E, and then touch the **button**.

**NOTE:** During VCD playback, press the (AUDIO) button on the remote control to choose between Left Channel, Right Channel, and Stereo.

#### Changing Subtitle Language

If you are watching a disc recorded in multiple languages with subtitles, press the (SUB-T) button on the remote control to choose the language in which you would like the subtitles to appear. You also can touch the area E, and then touch the **even** button.

#### **Playback Information**

During DVD and VCD playback, press the (INFO) button on the remote or press the DISP button on the front panel or touch the area B to display playback information on the screen, including the media playing and current playback time.

#### **DVD Playback Information**

The following information is displayed at the top of the screen during DVD playback:



1.indicates Current playing source.

2. Indicates the fourth of 16 titles on the DVD is currently playing.

3.Indicates the first of 20 chapters on the DVD is currently playing.

4 Indicates the playback time of the current title.

5.Indicates EQ setting.

6.Indicates the Loud Setting.

7.Indicates the current system time.



1.indicates Current playing source.

2. Indicates the forth of 16 tracks on the VCD is currently playing.

3. Indicates the playback time of the current title.

4.Indicates EQ Setting.

5.Indicates the Loud Setting.

6.Indicates the current system time.

# **General Disc Information**

Symbol	12cm Disc Properties	Max Play Time
	Single side single layer (DVD-5) Single side double layer (DVD-9) Double side single layer (DVD-10) Double side double layer (DVD-18)	(MPEG 2 Method) 133 minutes 242 minutes 266 minutes 484 minutes
DIGITAL VIDEO	Single side single layer (VCD)	(MPEG 1 Method) 74 minutes
	Single side single layer	74 minutes

# Disc Symbols

Symbol	Meaning
(8))	Number of voice languages recorded. The number inside the icon indicates the number languages on the disc (maximum of 8).
32	Number of subtitle languages available on the disc (maximum of 32).
9	Number of angles provided (maximum of 9).
16:9 LB	Aspect ratios available. "LB" stands for Letter Box and "PS" stands for Pan/Scan. In the example on the left, the 16:9 video can be converted to Letter Box video.
	<ul> <li>Indicates the region code where the disc can be played.</li> <li>Region 1: USA, Canada, East Pacific Ocean Islands</li> <li>Region 2: Japan, Western Europe, Northern Europe, Egypt, South Africa, Middle East</li> <li>Region 3: Taiwan, Hong Kong, South Korea, Thailand, Indonesia, South-East Asia</li> <li>Region 4: Australia, New Zealand, Middle and South America, South Pacific Ocean Islands/ Oceania</li> <li>Region 5: Russia, Mongolia, India, Middle Asia, Eastern Europe, North Korea, North Africa, North-West Asia</li> <li>Region 6: Mainland China</li> <li>ALL: All regions</li> </ul>

# **DVD Setup Menu**

In "DVD Setup" mode, "LANGUAGE", "VIDEO" and "RATING" (parental lock) are available for setup. This operation can be performed using rotary encoder, the remote control or touch screen.

#### Accessing the DVD Setup Screen

If DVD is selected as the current playing source, you can access DVD setup screen through following methods:

• Press the SMART DIAL on the front panel or touch the area A to access the MAIN menu, and then touch the even to access the DVD Setup Screen.

• Press the (MENU) button on the remote control, press the direction button to select and press the (OK) button to access.

#### Accessing a Menu

To access a menu (LANGUAGE, VIDEO, RATING), press the direction buttons on the remote control to highlight the desired menu. You can also touch the on-screen menu selection to access that menu.

**NOTE:** Once the DVD setup is complete, the settings are memorized. If you want to restore the factory default settings, please adjust the "Load Factory "in the RATING Menu. (See RATING Menu.)

#### Selecting a Feature for Adjustment

Once inside a menu, press the (  $\blacktriangle$  /  $\blacktriangledown$  ) on the remote control or touch the item directly to select the feature to be adjusted.

### Adjusting a Feature

1. Enter the option field for the feature you want to adjust by pressing the (OK) button on the remote or by pressing SMART DIAL. A submenu appears in a second row with the selected option.

2. Select a new value by pressing the (  $\triangleleft$  /  $\blacktriangleright$  ) buttons on the remote control or rotate clockwise or counterclockwise the SMART DIAL.

3. Confirm your selection by pressing the (OK) buttons on the remote control, or press the SMART DAIL. The new setup is completed.

# LANGUAGE Menu

If a DVD supports more than 1 Subtitle or Audio language, all the languages are available for selection during playback. If the selected language is not supported by the DVD, then the default language is used. During playback, press the (SUBT) or (AUDIO) button on the remote control to change the language directly. This will not affect the DVD menu settings.

LANGUAGE	
Subtitle	English
Audio	English
DVD Menu	English
External Subtitle	English
@.• 🚆	10 k

#### LANGUAGE Menu Features

Setting	Options	Function
	English	Select the default language which you would like
Subtitle	Auto	Select the default language which you would like subtitles (if applicable) to display.
	Off	
Audio	English	Select the default language which you would like to listen to (if optional).
DVD menu	English	Select the default language which you would like the DVD menu (if applicable) to display
Subtitle	English	Coloct the default External language which you
	Western European	Select the default External language which you would like the subtitle (if applicable) to display.
	Central European	

### **VIDEO** Menu



Setting	Options	Function
TV Shape (Aspect Ratio)	4:3	Image is presented in wide view with a 4:3 aspect ratio.
	16:9	Image is presented in wide view with a 16:9 aspect ratio.
Angle Mark	On	Angle indicator (if applicable) is shown.
	Off	Angle indicator is not shown.
	FILL	
View Mode	Original	
	H FIT	
	W FIT	
	Fit to Scrn	
	Pan Scan	

**NOTE:** For standard discs not formatted for "widescreen", use of the 16:9 aspect ratio will result in image distortion.

# RATING (Parental Lock) Menu



The DVD system has a built-in parental lock feature to prevent unauthorized persons from viewing restricted disc content. By default, the rating system is unlocked. Once setup, the parental lock is released only by entering the correct password. Once the password is entered, rating is available for setup.

Setting	Options	Function	
Password		Enter a 4-digit password to activate the "Rating" feature.	
	1. Kid Safe		
	2. G		
	3.PG		
Rating	4. PG-13	Select the appropriate rating level for the intended audience. You may override higher ratings by using your password.	
Rating	5. PG-R		
	6. R		
	7. NC-17		
	8. ADULT		
Load Factory	No	Select "Yes" to restore the factory default settings for the DVD setup only (except the password and	
	Yes	parental lock setting).	

To reset the password, access the "RATING" menu and enter the current password. Once the correct password is entered, you can access the "Password" field and enter a new one.

**NOTE:** Record the password and keep it in a safe place for future reference. The rating for each disc is marked on the disc, disc packing, or documentation. If the rating is not available on the disc, the parental lock feature is unavailable. Some discs restrict only portions of the disc and the appropriate content will play. For details, please refer to the disc description.

# **CD/MP3/WMA/JPEG Operation**

Instructions for Insert/Eject, Play/Pause, Stopping Playback, Track Selection, Fast Forward/Fast Reverse, Scan, and Random Play are the same for DVD, CD and MP3 operation. Please see the DVD Player Operation section for information about these topics.

- The file naming formats listed below are compatible with this unit:
- ISO 9660 file name: 12 characters, file extension: 3 characters
- ISO 9660 file name: 31 characters, file extension: 3 characters
- Joliet 64 characters

If the file or folder name does not conform to ISO 9660 file system standards, it may not be displayed or played back correctly.

# **CD Player User Interface**



1. Current source indicator, touch this area to access MAIN menu.

- 2.Disc title
- 3.Track title
- 4.Current time
- 5. **W** : Touch to play/pause
- 6. **I** : Touch to stop disc playback
- 7. **I** Touch to turn to the previous page
- 8. **Set :** Touch to turn to the next page
- 9. Touch to fast backward current track
- 10. Touch to fast forward current track
- 11. som : Touch to activate/deactivate Scan Mode
- 12. Conto activate/deactivate Repeat Single Mode
- 13. Image: Touch to activate/deactivate Random Mode
- 14. [m] : Touch to display the numeric keypad on the screen, and then you can use the numeric
- keypad to access a track directly.
- 15. Current track and total number of tracks on disc
- 16.Elapsed playing time
- 17. User Defined Equalizer Lever
- 18.Loud Setting Indicator
- 19.Volume indicator

#### Playing CD Files

After inserting a CD disc, files will play in the sequence of the all directory. In playing back, you can press the numeric button on the remote control or touch a track on the onscreen directly to play.

#### Previous/Next Page

Touch the screen to navigate through the pages/files.

#### Fast backward/fast forward

Touch the er or the screen to fast backward or fast forward play.

# MP3/WMA Discs

This player allows you to playback MP3 files recorded on CDROM, CD-R, CD-RW, DVD+R/RW and DVD-R/RW. For CD-RW discs, please make sure it is formatted using the full method and not the quick method to prevent illegal disc operation. Use the following settings when compressing audio data for your MP3 disc:

- Transfer Bit Rate: 320kbps
- Sampling Frequency:48kHz

When recording MP3 up to the maximum disc capacity, disable additional writing. For recording on an empty disc up to maximum disc capacity, use the "Disc at once" setting. The touch keys for MP3/WMA CD/DVD playback are described below.



1. Current source indicator, touch this area to access MAIN menu.

- 2.Disc title
- 3.Track title
- 4.Current time
- 5. **Fill**: Touch to play/pause
- 6. **Touch to stop disc playback**
- 7. **ID** : Touch to turn to the previous page
- 8. **I** : Touch to turn to the next page
- 9. 2 : Touch to display previous folder.
- 10. 10. 10 : Touch to display next folder
- 11. **IDENTIFY and SET UP:** 11. **IDENTIFY and SET**
- 12. Conto activate/deactivate Repeat Single Mode
- 13. 13. Touch to activate/deactivate Random Mode

14. 📺 : Touch to display the numeric keypad on the screen, and then you can use the numeric

- keypad to access a track directly.
- 15. Current track and total number of tracks on disc
- 16.Elapsed playing time
- 17.User Defined Equalizer Lever
- 18.Loud Setting Indicator
- 19.Volume indicator

# Playing MP3/WMA Files

After inserting a MP3/WMA disc, files will play in the sequence of the all directory. In playing back, you can press the numeric button on the remote control or touch a track directly to play.

#### Change Directory

Touch the **1014** or **1014** on the screen to navigate through the directories/folders.

Previous/Next Page Touch the screen to navigate through the pages/files.

# CD/MP3/WMA/JPEG Operation

# Troubleshooting

JPEG Discs



1.Stop playback and return to the picture list 2.Rotate picture clockwise 90° 3.Rotate picture anticlockwise 90°

Cause	Corrective Action
Radio Fuse blown	Install new fuse with correct rating
Car battery fuse blown	Install new fuse with correct rating
Illegal operation	Press the RESET button located in the bottom right corner of the front panel
Improper audio output connection	Check wiring and correct
Volume set too low	Increase volume level
Improper "MUTE" connection	Review wiring diagram and check "MUTE" connection
Speakers damaged	Replace speakers
Heavily biased volume balance	Adjust the channel balance to the center position
Speaker wiring is in contact with metal part of car	Insulate all speaker wiring connections
Unauthorized disc is in use	Use original copy
Speaker power rating not compatible with unit	Connect proper speakers
Speaker is shorted	Check speaker connections
"MUTE" wire is grounded	Check that "MUTE" connection is not grounded and that it's properly insulate
Incorrect connection between yellow memory wire and positive battery wire	Check wiring and correct
TFT Auto Open is turned off	Turn TFT Auto Open on
Incorrect connection to parking brake wire	Check wiring and correct
PARKING is activated and parking brake is not engaged	Stop vehicle in safe place and apply parking brake
Improper aspect ratio setup	Use correct aspect ratio setting
Moving path is blocked	Press OPEN key to restart monitor movement
Auto antenna is not fully extended	Connect the auto antenna control cable properly
Auto antenna not properly connected	Connect the auto antenna control cable properly
LOCAL function is activated	Turn LOCAL function off
<u> </u>	<b>—</b>
	Eject current disc and insert new one
	Use disc in good condition
	Clean disc with soft cloth
Disc rating exceeds Parental	Use compatible disc Change Parental Lock settings to lowe restriction
	Radio Fuse blown         Car battery fuse blown         Illegal operation         Improper audio output connection         Volume set too low         Improper "MUTE" connection         Speakers damaged         Heavily biased volume balance         Speaker wiring is in contact with metal part of car         Unauthorized disc is in use         Speaker power rating not compatible with unit         Speaker is shorted         "MUTE" wire is grounded         Incorrect connection between yellow memory wire and positive battery wire         PARKING is activated and parking brake wire         PARKING is activated and parking brake is not engaged         Improper aspect ratio setup         Moving path is blocked         Auto antenna is not fully extended         Auto antenna not properly connected         LOCAL function is activated         Disc already inside unit         Disc is warped or scratched         Disc is dirty or wet         Incompatible disc is used

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# Troubleshooting

Problem	Cause	Corrective Action
Disc does not play	Disc is inserted upside down	Insert disc with label side up
back	Disc region code is not compatible with unit	Use disc with proper region cod
Image blurred, distorted, or dark	Disc is illegally copied	Use original disc
PBC cannot be used during VCD playback	PBC is not available on the disc	
No repeat or searching while playing VCD	PBC is on	Turn PBC off
MP3		
Interruption occurred	Disc is dirty or scratched	Clean disc or replace
during playback	File is damaged/bad recording	Recreate disc with good files
Incorrect playback message displayed	Message is longer than LCD can display	

# Error Messages

Problem	Cause	Corrective Action
Loading	Disc is being read	
	Disc is dirty	Clean disc with soft cloth
No Disc	Disc is upside down	Insert disc with label side up
	Disc not present in loading compartment	Insert disc
	Disc is dirty	Clean disc with soft cloth
Bad Disc	Disc is upside down	Insert disc with label side up
	Disc is scratched and can't be used again	Change a new one
Unknown disc	Disc format is not compatible with this unit	
Region Error	DVD is not compatible with region code of unit	
Error	illegal mechanism operation	Press EJECT key for 5 seconds to reset loading mechanism

# Remote control

Remote control does not function	Battery is covered with insulation tape	Pull out the insulation tape
	Battery depleted	Replace battery with new one
	Battery installed incorrectly	Remove battery and install correctly

1. When using the remote for the first time, you must pull out the insulation tape.



 Remove the battery if the remove control is not used for a month or longer. Remove and dispose of the old battery immediately. Do not store the battery with metallic materials.
 Inserting/Replacing the Battery: Remove the battery holder



Remove the battery from the battery holder



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# Troubleshooting

Install the battery



#### Insert the battery holder



NOTE: Use only one CR2025(3V) lithium battery.

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type. Do not recharge, disassemble, heat or dispose of the battery in fire. Keep batteries away from children to avoid the risk of accident.

#### Suggestions

1. Only use a piece of clean silicone cloth and neutral detergent to clean the front panel or monitor. A rough cloth and non neutral detergent (such as alcohol) may result in scratching or discoloration. 2. Keep off water and other liquid things.

 If the temperature inside the player gets too high, a protective circuit automatically stops playing the disc. And then, please wait for the unit to cool down before operating the player again.
 Never insert anything other than a 5" (12 cm) compact disc into the player as the mechanism can

be damaged by foreign objects.

5. Do not attempt to use a 3" (8 cm) CD-Single disc in this unit, either with or without an adaptor, as it will damage the player and disc. Such damages are not covered by the Warranty on this product.
6. When the vehicle warms up during cold weather or under damp conditions, condensation may appear on the LCD panel. If this occurs, the screen will not operate properly until the moisture has evaporated.

7. We suggest that you should clean the discs used in this unit more frequently than used in your home, because of the environmental conditions of the vehicle.

#### **CEA Power Ratings**

#### **Main Amplifier**

Power Output: 20 watts X 4 channels into 4-ohms @ < 10% THD+N Signal to Noise Ratio: 70dBA below reference. (Reference: 1 watt, 4-ohms) MAX Power: 40 X 4 watts into 4-ohms, all channels driven Frequency Response: 20Hz to 20 kHz, -3dB. Aux input used as source reference Reference Supply Voltage: 14.4VDC

#### **DVD/CD Player**

Compatible formats: DVD-R, DVD-RW, DVD+R, DVD+RW, CD-R, CD-RW, CD-DA, MP3, WMA, HDCD, SVCD, VCD, MPEG, JPEG, MP3/WMA files burned onto a DVD+R/W or DVD-R/W and CD-R/RW Signal to Noise Ratio: 85dBA Dynamic Range: >95dB Frequency Response: 20Hz to 20 kHz, -3dB Channel Separation: > 60dB @ 1kHz D/A Converter(s): 6-channel high performance 24-bit, 192 kHz, Multi-bit Sigma Delta modulation. DAC supports sample rates from 8~192 kHz. Mechanical anti vibration ability: 10~200Hz, X/Y/Z direction: 1.0G

#### Video Section

Format: NTSC, PAL (auto-detection) Output: 1Vp-p (75-ohm), buffered Input: 1Vp-p (75-ohm)

#### **FM** Tuner Section

Tuning Range: 87.5MHz - 108MHz Mono Sensitivity (-30dB): 10dBu Quieting Sensitivity (-50dB): 15dBu Alternate Channel Selectivity: 70dB Signal to Noise Ratio @ 1kHz: 58dB Image Rejection: 60dB Stereo Separation @ 1kHz: 30dB Frequency Response: 30Hz - 15kHz, -3dB

#### AM Tuner Section

Tuning Range: 522kHz - 1629kHz Sensitivity (-20dB): 20dBu Signal to Noise Ratio @ 1kHz: 50dB Image Rejection: 60dB Frequency Response: 50Hz - 2kHz, -3dB

#### **Monitor Section**

Screen Size: 7" (Measured diagonally). Screen Type: TFT Liquid Crystal Display (LCD) active matrix Response Time: 30mSec rise time, 50mSec fall time Resolution, DVD/Composite Video in: 336,960 sub pixels, 1440 (W) X 234 (H) Viewing angle: •45~60 degrees left or right •20~30 degrees up •40~60 degrees down

#### General

Auxiliary Input impedance: 10k Power Supply: 10.5 to 16V DC, negative ground Fuse: 10-amp, mini ATM type DIN chassis dimensions: 178mm x (165+25)mm x50mm \* Specifications subject to change without notice.