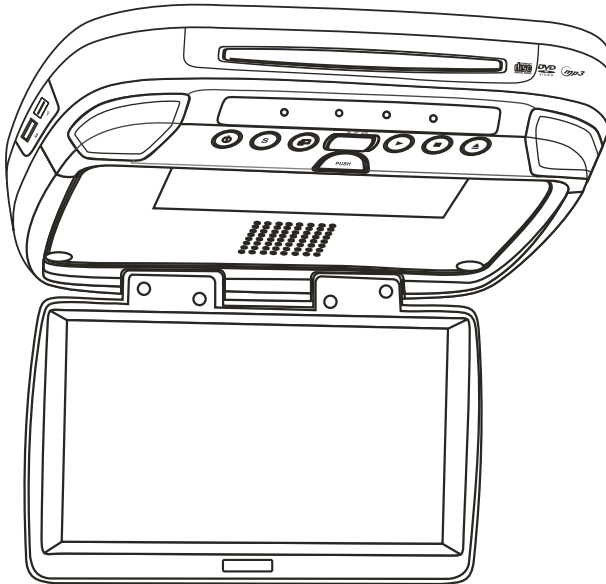


# ***ODM90902CR***

***9" OVERHEAD TFT LCD MONITOR  
WITH BUILT-IN DVD PLAYER***



***Owner Manual / Installation Guide***



### Important Notice

An LCD panel and/or video monitor may be installed in a motor vehicle and visible to the driver if the LCD panel or video monitor is used for vehicle information, system control, rear or side observation or navigation. If the LCD panel or video monitor is used for television reception, video or DVD play, the LCD panel or video monitor must be installed so that these features will only function when the vehicle is in "park" or when the vehicle's parking brake is applied.

An LCD panel or video monitor used for television reception, video or DVD play that operates when the vehicle is in gear or when the parking brake is not applied must be installed to the rear of the driver's seat where it will not be visible, directly or indirectly, to the operator of the motor vehicle.

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# FEATURES & SPECIFICATION

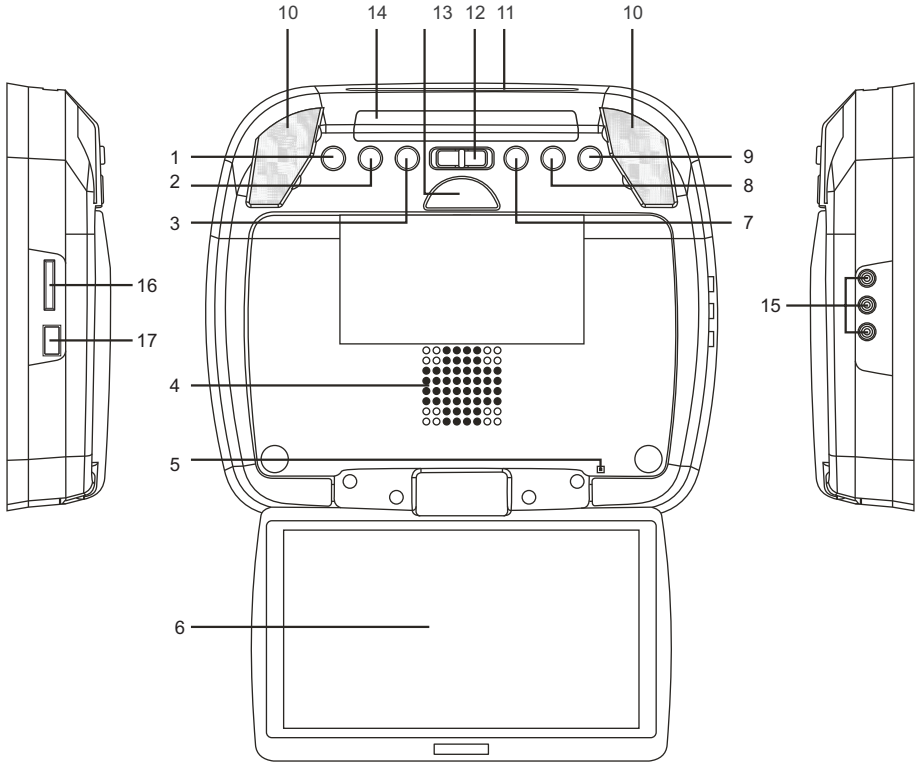
## **FEATURES:**

- 9" Digital TFT(Thin Film Transistor) Active Matrix LCD Monitor.
- OSD (On Screen Display).
- Playing DVD, CD and MP3 disc.
- Three Audio / Video Source inputs (DVD/USB/SD, AV & AUX).
- Dome Lights with Built-in Three Way Switch.
- Built-in 16 Channel Wireless FM Modulator.
- Screen Mode select (4:3, 16:9).
- Full Function Remote Control.
- Backlight Controls.
- USB 2.0 Port.
- Last Position Memory for DVD.
- AV Output via RCA Cable.
- Integrated IR Transmitter.

## **SPECIFICATIONS:**

Resolution	2400 x 480
Pixels	1,152,000
Operation Temperature	32~ 131° F (0. ~ 55° C)
Storage Temperature	-4 ~ 176° F (-20 ~ 70° C)
Backlight life	10,000 Hours
Video Display System	NTSC/PAL
Video Output	1.0Vp-p @ 75 ohms
Power Source	12V DC
Dimensions	W x H x L 235 x 46 x 275mm

# CONTROLS AND INDICATORS DIAGRAM



## CONTROLS FUNCTION DESCRIPTIONS

- 1. POWER Button**  
Used to turn the DVD and monitor system on/off. Bright red when the system is on, dim when off.
- 2. Source Select**  
Use to select one of the three sources: DVD/SD/USB, AV, AUX.
- 3. Screen Mode Button**  
Allow the user to change the screen format (Aspect Ratio 4:3 or 16:9).  
**Note:** *only available in AV and AUX mode.*
- 4. Ventilation Openings**
- 5. Monitor Cut Off Switch**  
Used to turn off the monitor backlight when in the closed position.
- 6. Drop Down Panel**
- 7. PLAY Button**  
This button is used to start playback of a disc for DVD.
- 8. STOP Button**  
This button is used to stop playback of a disc for DVD.
- 9. EJECT Button**  
This button is used to eject the disc for DVD.
- 10. Dome Light**  
Provide additional interior illumination.
- 11. DVD disc insertion slot**  
For loading and removing discs.
- 12. Three Position Dome Light Switch**  
**ON** - Turns on the dome light.  
**OFF** - The dome light will not turn on in this position.  
**AUTO** - Automatically switches on the dome lights in conjunction with the vehicle's interior illumination.
- 13. PUSH Button**  
Push to release the screen for monitor.
- 14. Infrared Transmitter and Sensor**  
Use to transmit audio to the wireless headphones. Also allows the remote control to operate the unit and to control other accessories in the system.

**15. Auxiliary Audio / Video Input**

**16. SD Card Reader**

Allow to read the contents (Audio, Photo, Video) data on the Secure Digital Card (SD card), Multimedia Card (MMC), Memory Stick (MS).

**17. USB 2.0 Port**

# REMOTE CONTROL OPERATION

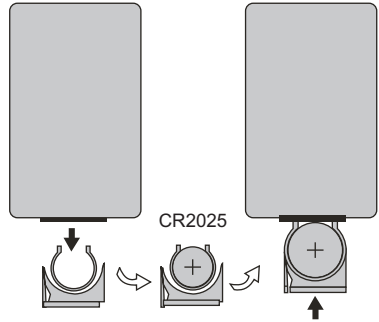
## INSTALL BATTERY IN REMOTE CONTROL

### Initial Use

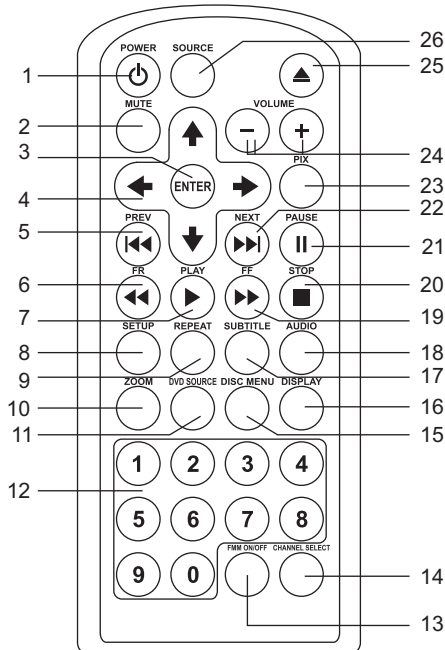
When purchased the remote control has a battery installed with a Pull Tab to prevent battery discharge. Remove the Pull Tab before attempting to use the remote control.

### Battery Replacement

1. Remove the battery holder.
2. Insert the battery into the battery holder and insert battery holder into the remote control. Be sure to observe the correct polarity.
3. Align the battery holder with the remote control and push until the holder clicks.



## REMOTE CONTROL OPERATION





## 1. POWER

Press this button to turn "ON" and "OFF" on unit.

## 2. MUTE

Press to mute the audio. Press it again to restore the sound to the previously set level.

## 3. ENTER

Press to implement selected settings.

## 4. CURSOR (▲▼◀▶)

Use these buttons to access menu selections on the screen.

## 5. PREVIOUS (⏮)

Press to return to the previous chapter or track.

## 6. SCAN BACKWARD (⏪)

Press to search in a backward direction. Press repeatedly to change the search speed from 2,4,8,16 times the normal speed.

## 7. PLAY

Press to activate the play mode while a disc is loaded in the disc compartment.

## 8. SETUP

Press to display the SETUP Menu which allows the user to change the DVD player option such as TV DISPLAY, OSD LANGUAGE, PARENTAL CONTROL etc. (refer to settings and adjustments section for more information).

## 9. REPEAT

Allow the user to repeat the playback in various options.  
Press repeatedly to change the options.

## 10. ZOOM

Press this button to enlarge the picture when playing a DVD disc.

### Press ZOOM button

Once  
Twice  
Thrice  
4th

### DVD Player perform

Enlarge the picture 2 times of the original size.  
Enlarge the picture 3 times of the original size.  
Enlarge the picture 4 times of the original size.  
Picture is returned to original size.

## 11. DVD SOURCE

This button is select key only can be active when remote control is in DVD mode function. Each time the button is pressed one of the source DVD, Card Reader and USB will be selected. If the Card Reader and USB not apply on the unit, it will remain on DVD Source.

## 12. NUMBERS

Allow the user to ENTER the numbers 0-9 for selection of the tracks, titles chapters or password setting.

## 13. FMM ON/OFF

Turns the FM Modulator power on/off.

## 14. CHANNEL SELECT

Select the wireless FM Modulator Frequency:

(**CH1** 88.1MHz, **CH2** 88.3MHz, **CH3** 88.5MHz, **CH4** 88.7MHz, **CH5** 88.9MHz, **CH6** 89.1MHz, **CH7** 89.3MHz, **CH8** 89.5MHz, **CH9** 89.7MHz, **CH10** 89.9MHz, **CH11** 90.1MHz, **CH12** 90.3MHz, **CH13** 90.5MHz, **CH14** 90.7MHz, **CH15** 90.9MHz, **CH16** 91.1MHz)

## 15. DISC MENU

Allow the user to access the disc menu.

## 16. DISPLAY

Press to display the current disc information while the disc is playing.

## 17. SUBTITLE

Touch to display and select the subtitle language in DVD mode. Each time you press the "SUB.T", the subtitle language changes.

*Note: The type and number of languages for subtitle vary from disc to disc.*

## 18. AUDIO

Touch to display and select Audio language in DVD mode. Each time you touch the "AUDIO", the language changes.

*Note: The available languages vary from disc to disc.*

## 19. SCAN FORWARD (▶▶)

Press to search in a forward direction. Press repeatedly to change the search speed from 2,4,8,16 times the normal speed.

## 20. STOP (■)

Play to STOP playback.

## 21. PAUSE (||)

Press to pause playback.

## 22. NEXT (▶▶)

Press to skip to the next chapter or track.

### 23. PIX (Picture Select)

Each time of this button is pressed, on screen picture adjustment displays the "Adjustment bar" for BRIGHTNESS, CONTRAST, COLOR, TINT(For NTSC only) or RESET.

Once the desired adjustment bar is displayed, use the VOLUME+/-VOLUME- button to adjust the setting.

The display will automatically turn off if no adjustments are made within 6 seconds.

**Remark:** DVD Source will only allow user to adjust BRIGHTNESS, CONTRAST & COLOR.

### 24. VOLUME UP (+) or DOWN (-)

Press to increase or decrease the level of the picture adjustment. The volume use to adjust the picture setting level after the picture select button is pressed.

**Note:** volume not in use in this model, (+) and (-) only use in adjust pix select setting.

### 25. EJECT (▲)

This button is used to eject the disc.

### 26. SOURCE\*

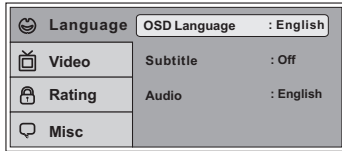
Video signals from video equipment connected to the audio / video input can be displayed on the monitor by pressing this button. Each time the button is pressed, the audio/video source will switch between DVD, AV and AUX.

## SETTING AND ADJUSTMENTS

The Setup Menu contains features and options that let you customize your DVD player. For example, you can set a language for the on-screen display or prevent DVD playback for children.

### Using the Setup Menu

1. Press the SETUP button on the remote. The Setup Menu appears on the screen as shown per diagram.
2. In order to set the desired option, move the highlight into the setup area using the cursor button ►.
3. After entering the setup area, highlight the desired option using the cursor button ▲ or ▼.
4. Press ► to move the highlight to the different options for the selected item. Press ▲ or ▼ to select the desired options, and then press ENTER to confirm the selection.
5. Repeat steps 3~4 to continue setting the options that reside on the same Setup Page.
6. To change to another Setup page, press ◀ until the highlight moves back to the icon on the top part of the Setup Menu. Then, repeat steps 2~5.



### Exiting the Setup Menu

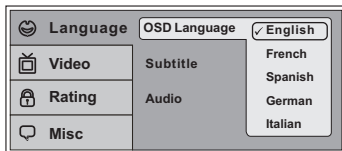
Press the SETUP button again only.

## LANGUAGE SETUP

### Language for On-Screen Display

OSD MENU: The OSD MENU setup allows you to select the language for the on-screen display.

The user can either select English, French, Spanish, German or Italian for the OSD language.



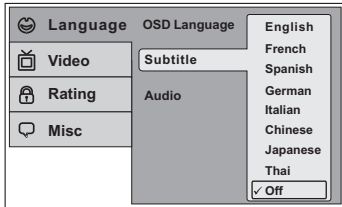
## **SUBTITLE SETUP**

Select "SUBTITLE" using ▲▼button, then press ►button to enter the Sub menu. Select the subtitle you

desire using ▲▼button, then press "ENTER" to confirm the setting. Press ◀button to return.

*Note: The subtitle selection is only available for discs that are recorded in the above listed languages. If the selected,*

*language is not available, the player will play and display on the screen the original language contained in the disc.*

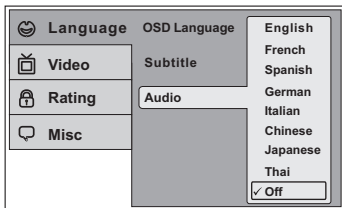


## **AUDIO SETUP**

Select "AUDIO" using ▲▼button, then press ►button to enter the Sub menu. Select the audio you desire using ▲▼button, then press "ENTER" to confirm the setting.

Press ◀button to return.

*Note: The audio selection is only available for discs that are recorded in the above listed languages. If the selected,language is not available, the player will play and display on the screen the original language contained in the disc.*



## **VIDEO SETUP**

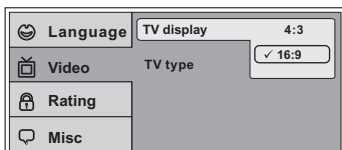
### **TV Display**

The TV DISPLAY setup allows you to adjust screen setting (aspect ratio).

4:3 This displays the wide picture with black bands on the upper and lower portions of the screen.

16:9 This displays a wide picture with black bands on the upper and lower portion of the screen.

The bandwidth will vary, depending on the aspect ratio of the disc.



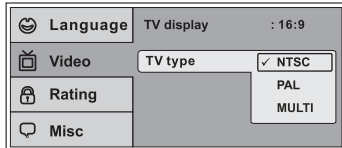
## TV Type

The TV TYPE setup allows you to select the system to fit to the color system of the TV to be connected.

NTSC - Select this type for NTSC TV

PAL - Select this type for PAL TV

MULTI - Select this type for multi-system TV

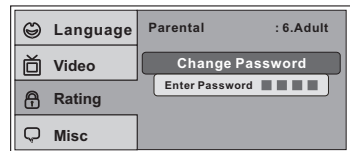
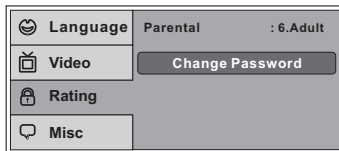


## RATING SETUP

### Rating

This item allows you to limit the content of movie playback from G to Adult. The lower the value, the more strict the control.

1. G
2. PG
3. PG – 13
4. R
5. NC – 17
6. Adult



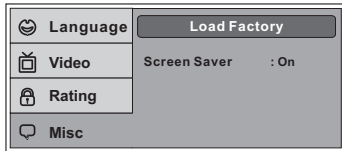
The rating level can only be changed when the displayed lock is open. For first time use to change parental

control, using cursor ► button to enter parental mode, key in the default password (3308) and press ENTER. Press ENTER button again to Select the parental level, select the level and press ENTER. To change the password to your own password press "Change Password" mode and enter the default password (3308) and press ENTER. Press ENTER button and again and key in a new four digit password. After complete press the rating level can only be changed when the displayed lock is open. For first time use to change parental control, using cursor ► button to enter parental mode, key in the default password (3308) and press ENTER. Press ENTER button again to button to end the process.

**Note:** The Default Password is 3308. This password is always effective even after you have selected your own password and changed it. To avoid the possibility of others using the default password to set the parental level and change the password, you can record this default password in another area and delete it from this manual. Some discs can be limited depending on the age of users while some discs cannot.

## Misc SETUP

Select "MISC" using ▲▼button, then press ►button to enter the Misc menu. Select the subtitle you desire using ▲▼button, then press "ENTER" to confirm the setting. Press ◀button to return.



### Load Factory

Load Factory allows you to reset all options to factory settings.

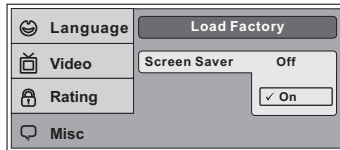
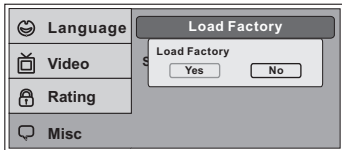
\* This function will not affect the Rating control settings.

### Screen Saver

ON -Screen saver will appear

OFF -Screen saver will not appear

*Note: The DVD player will enable the Screen Saver mode if the unit is inactive for approximately 2 minutes.*



## Playing DVDs

1. Press the DISPLAY button on the remote control to display the status banner. The banner includes title, chapter, angle, audio, subtitle and time.
2. **Title Selection**  
Press numeric(0~9) buttons to initiate a change of title selection. Then press ENTER to implement the selection.
3. **Chapter selection**  
Press numeric(0~9) buttons to initiate a change of chapter selection. Then press ENTER to implement the selection.

As you toggle through the options, the repeat option changes at that time. The track, for example, repeats once that track has ended. The selected repeat option loops repeatedly until you turn it off.

## Playing MP3 Discs

MP3 is a format for storing digital audio. An audio CD-quality song can be compressed into the MP3 format with very little loss of quality, while taking up much less space. CD-R discs that have been encoded in MP3 format can be played on your DVD player. The DVD player plays the songs in the order they were burned on to the disc. When playback is started the elapsed time of the track that is playing will be displayed.

## Selecting Folders and Songs

When a device containing MP3 files is loaded in the player, the navigation menu appears automatically.

1. Press ▲ or ▼ to move the highlight to the desired folder (if present) on the left side of the menu and press ENTER. The songs in the folder will be displayed on screen.
2. Press ▲ or ▼ to move the highlight to the desired track containing the song and Press ENTER to begin track playback.

## Skipping Songs

Use the Next (▶) button on the remote control to move to the next song.

Use the Previous (◀) button to move to the previous song.

## Selecting a Play Mode

### Filter (For MP3 & JPEG only)

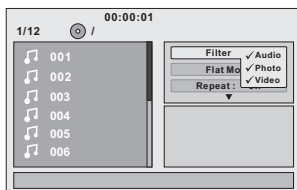
Filter Mode enables or disables the display of files contained on the media based on their file extension.

The filter function applies to the following formats:

**Audio** - Audio data format (MP3, WMA)

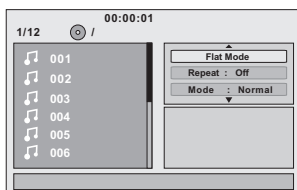
**Photo** - Photo data format (JPEG)

**Video** - Video data format (MPEG I, II)



### Flat Mode: play the entire disc

This mode is always on (default). During the Flat Mode, all the data folder with MP3, JPEG & movies will be played in sequence. If the Flat Mode function is off, it will only play the selected folder; other folders are disabled.





## Repeat: play repetitively

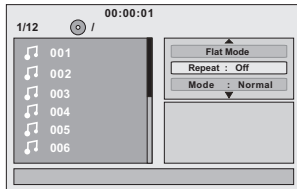
Repeat function has 4 options : Off, Single, Folder, All. Move cursor to Repeat function and press ENTER, Off/Single/Folder/All are displayed in that order. Repeat default is Off.

**Off** Turn off repeat function

**Single** Repeat the song being played until STOP is pressed.

**Folder** Play all songs in a folder repetitively

**All** Play all songs on the disc repetitively



## Mode: play mode

The Mode function has 4 options: Normal, Shuffle, Random and Music Intro.

Move cursor to the desired Mode function and press ENTER. Normal/ Shuffle/ Random/ Music Intro are selected in that order.

The Mode function default status is Normal.

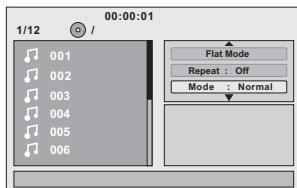
**Normal:** Play all songs in folder once

**Shuffle:** Play songs in a folder in a shuffle order. Each song in the folder is played only once.

**Random:** Play songs in a folder in a random order.

**Music Intro:** Play each song in order in the folder for 10 seconds

**Remark**– The purpose of the Music Intro function is to provide the user with a sample of each song for 10 seconds, thereby making it easy to select and listen to a favorite song.



## Add to program

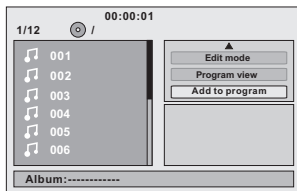
**Method:** To add the selected songs into Browser view, make sure disc playback is off. Move cursor to Edit mode function and press ENTER.

After Edit mode is selected, move cursor to songs list and select the songs which will be compiled and press ENTER.

A check mark appears to the left of the selected song; to add the selected songs to the program, move cursor to the “Add to program” function and press ENTER.

The selected songs is added into a new program list and the check mark will disappear on play list, move cursor to “Program view” function and press ENTER to browse the songs in the program. Press play button to play the selected songs.

**Notice:** Edit mode, Program view or Add to program functions are relationship related when select the preferred song add to the songs list.

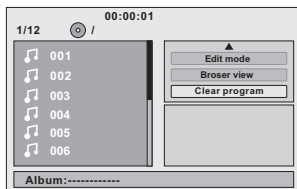


## Clear program

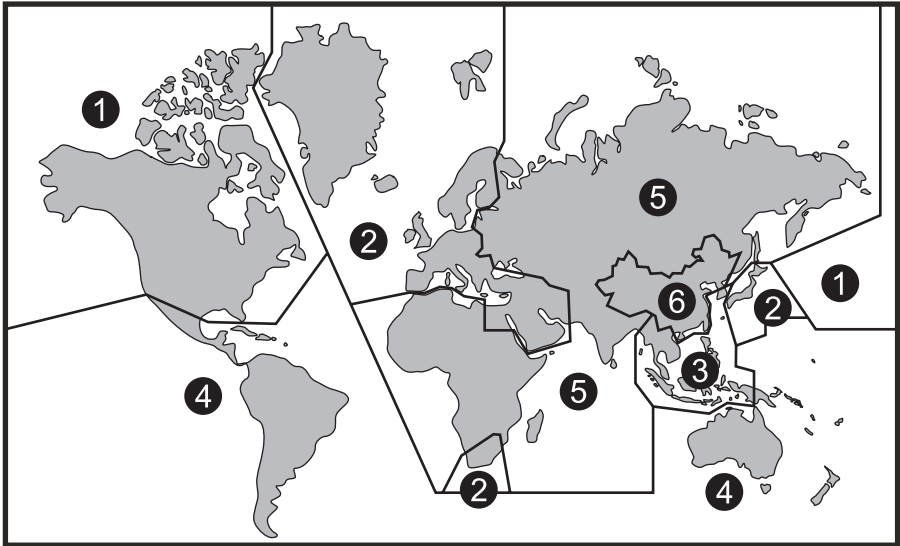
**Method:** To clear the selected songs program file, double press stop button to the playback mode, move cursor to Edit mode function and press ENTER.

After Edit mode is selected, move cursor to selected songs list and select the songs which you want to delete; press ENTER and a check mark will appear to the left of the selected song, move cursor to clear program and press ENTER, the selected songs will be deleted and disappear on the play list.

**Notice:** Edit mode, Browser view or Clear program functions are relationship related when delete the selected song at the songs list.



## DVD REGIONAL CODE



Region 1- USA, Canada

Region 2- Japan, Europe, South Africa, Middle East, Greenland

Region 3- S. Korea, Taiwan, Hong Kong, Parts of South East Asia

Region 4- Australia, New Zealand, Latin America (including Mexico)

Region 5- Eastern Europe, Russia, India, Africa

Region 6- China

### **DVD Area Code**

The DVD player is preset to a region code at the factory depending on where the DVD player is sold. DVDs from a different region cannot be played in this unit and the unit will display "WRONG REGION".

### **DVD Basics**

To get the optimum use out of the DVD section, make sure you read this section completely.

## **Types of Discs your DVD will play**

- DVD\* disc - DVD discs which contain video.
  - Audio discs - Audio CDs contain musical or sound content only.
  - Mp3 discs - A disc that contains audio files (for example, a CD-R with downloaded MP3 files).
- \* This system is capable of playing most recordable DVD formats. However, due to the variety of disc manufacturers and software, playback cannot be guaranteed.

## **Loading and Playing Discs**

Before you load a disc, make sure that it is compatible with the player. Insert the disc with the label facing the headliner.

**Note:** *the following Discs **CANNOT** be used with this player :*

- *MiniDisc*
- *Laserdisc*
- *CD-1, CD-ROM, DVD-ROM, Super Audio CD (SACD), DVD Audio, JPEG(KODAK).*

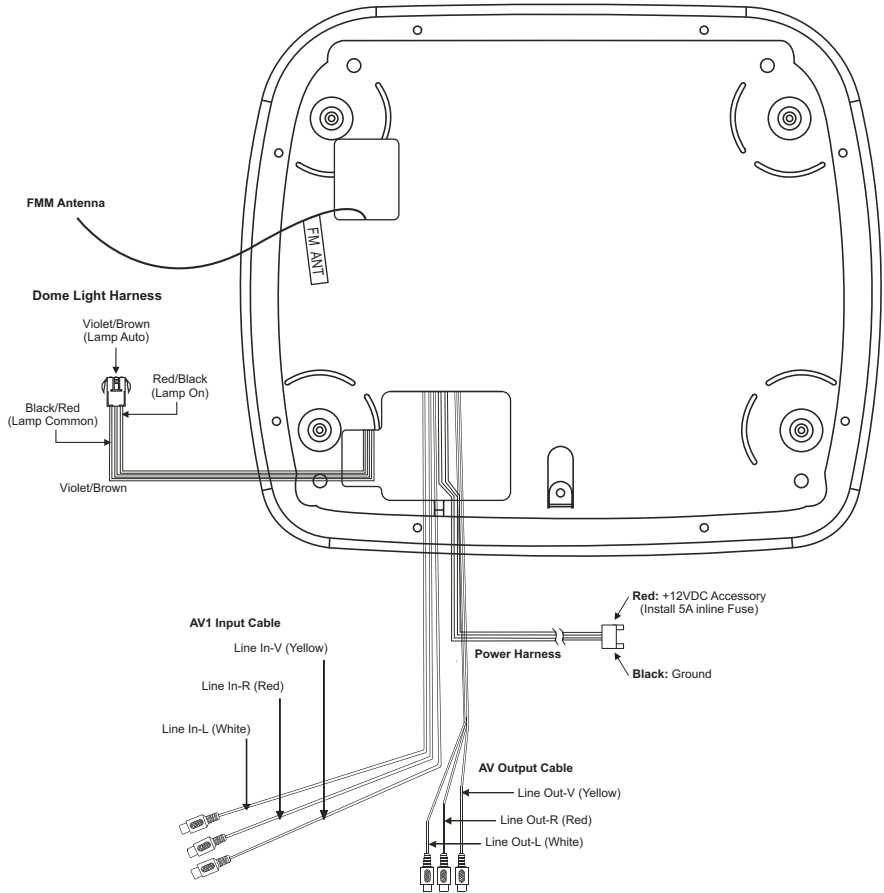
## **To load and Play a Disc**

Press the Power button to turn the unit ON. Select DVD mode and insert the disc (Label facing headliner) into the disc compartment.

## TROUBLESHOOTING

PROBLEM	SOLUTION
IR remote inoperative	<ul style="list-style-type: none"> <li>• Verify that the batteries in the remote are fresh.</li> <li>• Verify that the remote sensor eye is not obstructed.</li> </ul>
Disc won't play	<ul style="list-style-type: none"> <li>• Insert a disc with the label side facing upwards.</li> <li>• Check the type of disc you put into disc tray. This DVD only plays DVD, audio CD and Mp3.</li> <li>• Both the unit and the disc are coded by region. If the regional codes don't match, the disc can't be played.</li> </ul>
Play starts, but then stops immediately	<ul style="list-style-type: none"> <li>• The disc is dirty. Clean it.</li> <li>• Condensation has formed. Allow player to dry out.</li> </ul>
No sound or distorted sound	<ul style="list-style-type: none"> <li>• Make sure your DVD is connected properly. Make sure all cables are securely inserted into the appropriate jacks.</li> <li>• If you are using the IR headphones, make sure you turn on the IR headphone power.</li> </ul>
Can't advance through a movie	<ul style="list-style-type: none"> <li>• It can't advance through the opening credits and warning information that appear at the beginning of movies because the disc is programmed to prohibit that action.</li> </ul>
⊘ Not allowed at the moment	<ul style="list-style-type: none"> <li>• The feature or action cannot be completed at this time because:               <ol style="list-style-type: none"> <li>1. The disc's software restricts it.</li> <li>2. The disc's software doesn't support the feature (e.g., angles)</li> <li>3. The feature is not available at the moment.</li> <li>4. 4 requested a title or chapter number that is out of range.</li> </ol> </li> </ul>
Picture is distorted	<ul style="list-style-type: none"> <li>• The disc might be damaged. Try another disc.</li> <li>• It is normal for some distortion to appear during forward or reverse scan.</li> </ul>
No forward or reverse scan	<ul style="list-style-type: none"> <li>• Some discs have sections that prohibit rapid scanning or title and chapter skip.</li> <li>• If you try to skip through the warning information and credits at the beginning of a movie, you won't be able to. This part of the movie is often programmed to prohibit</li> </ul>

# WIRING DIAGRAM



- 1) Connect the Power Harness to the mating connector on the Video Monitor.
- 2) Connect the power harness to the vehicle's electrical system through an In-Line 5-Ampere fused by tapping into an accessory hot line. Also connect the Black wire to a good chassis ground.
- 3) Connect the AV input cable to the AV Source output equipment ( VCD, Game, DVD Player etc).
- 4) Connect the AV output cable to other AV Source input equipment.
- 5) Verify all functions of the system before final mounting of the finished assembly.

## DOMELIGHT CONNECTING

The dome lights in the video monitor require three connections to the vehicle's wiring. There are two common types of dome light circuits used, positive or negative switched system. Positive switched systems supply voltage to the interior lights to turn on, negative switched systems apply ground to illuminate the bulbs.

To determine which system you have to locate the wires at the dome light:

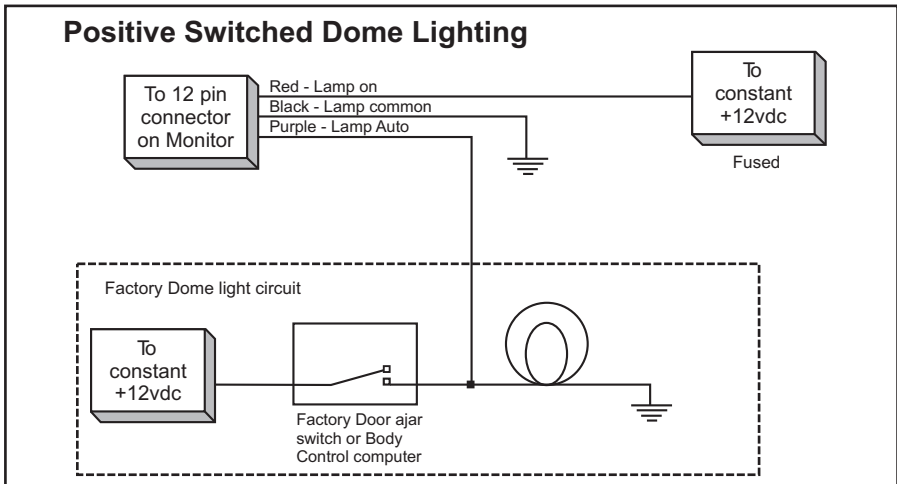
On a positive switched system, with all the doors closed and the lights out, both wires at the dome light will rest at ground. When the light is activated, one of these wires will switch to +12 vdc. This is the vehicle's switching wire.

On a negative switched system, with all the doors closed and the lights out, both wires at the dome light will rest at + 12vdc. When the light is activated, one of these wires will switch to ground. This is the vehicle's switching wire.

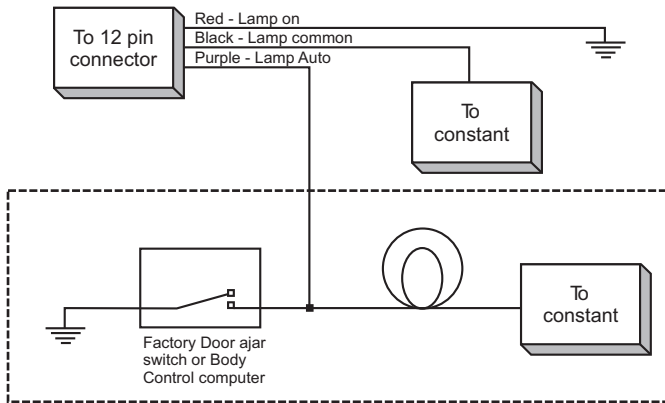
For positive systems, connect the violet / brown (Lamp auto) wire to the vehicle's switched wire. Then connect the red / black (lamp on) wire to a fused constant 12 volt source and the black / red (lamp common) wire to a good ground. Positive systems are commonly found on Ford vehicles.

For negative systems, connect the violet / brown (Lamp auto) wire to the vehicle's switched wire. Then connect the red / black (lamp on) wire to a good ground and the black / red (lamp common) wire to fused constant 12 volt source. Negative systems are commonly found on General Motors and import vehicles.

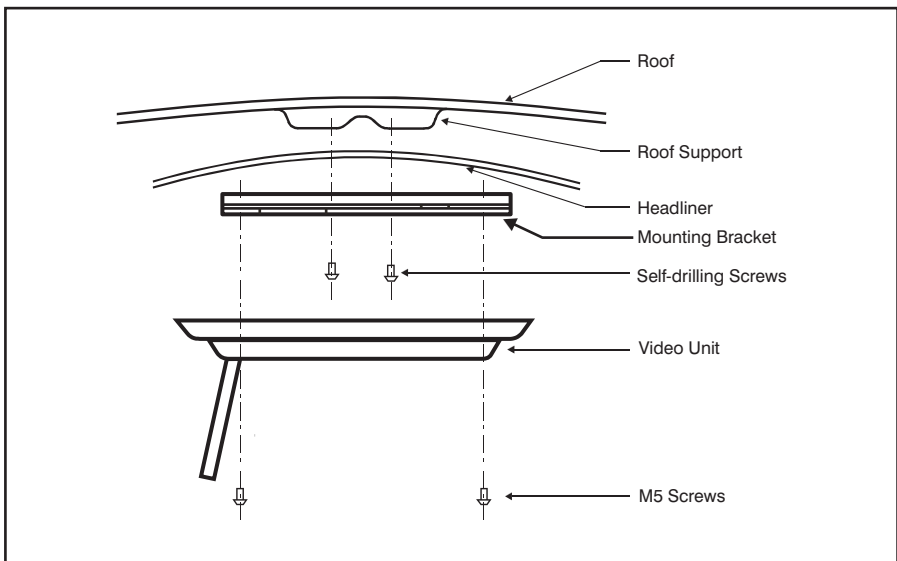
**Note:** Some vehicles which incorporate transistorized control of the dome light circuit, such as the 1999 Dodge Caravan, may require that the violet / brown (Lamp auto) wire be connected to the door pin switch wire, as the additional current draw of the monitor's lights may not be supported by the output of the vehicles body control computer.



## Negative Switched Dome Lighting



## MOUNTING THE TRIM RING

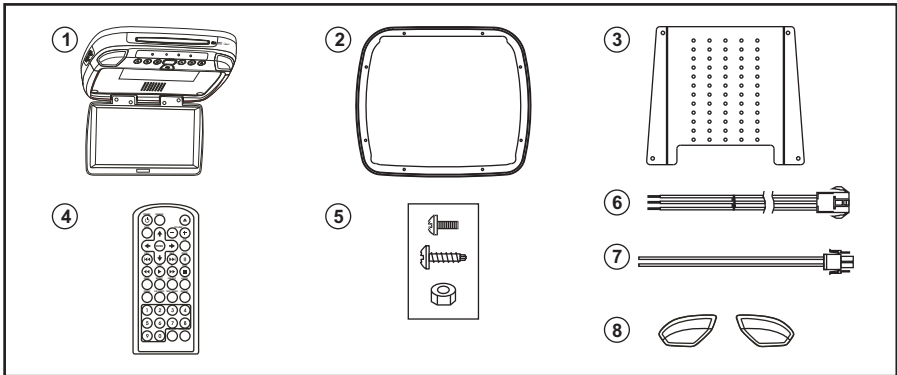




## MATERIAL INCLUDED

### MATERIALS INCLUDED IN THIS PACKAGE:

- |  |          |
|--|----------|
| 1) 9" Wide Screen LED Backlit Monitor / DVD Player | - (1pc)  |
| 2) Trim Ring                                       | - (1pc)  |
| 3) Universal Mounting Bracket                      | - (1pc)  |
| 4) Remote Control                                  | - (1pc)  |
| 5) Hardware Kit                                    |          |
| ISO 3 x 6 RD+                                      | - (8pcs) |
| Self Drilling Screws (10mm)                        | - (4pcs) |
| M5 Flange Nut                                      | - (4pcs) |
| 6) Dome Light Harness                              | - (1pc)  |
| 7) 2 Pin Power Harness                             | - (1pc)  |
| 8) Dome Light Cover                                | - (2pcs) |



### TOOLS REQUIRED:

- #2 Phillips Screwdriver
- #1 Phillips Screwdriver
- Utility or Razor Knife or Shears
- Wire Strippers
- Upholstery hook tool (for removal of panels as necessary)
- Electrical Tape
- Masking Tape
- Multimeter (to verify 12 volt DC and continuity: Do not use a test light or logic probe)
- Marker pen – to mark headliner
- Scribe (to mark trim ring if used)
- Misc. electrical connectors (to connect to vehicle power source). Requirements will vary from vehicle to vehicle)
- DVD Movie (to verify system operation after installation)

Notice : The changes or modifications not expressly approved by the party responsible for compliance could void the user' s authority to operate the equipment.

IMPORTANT NOTE: To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user' s authority to operate the device.