JDVD1500
DVD / CD / AM-FM RECEIVER
Installation and Operation Manual
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INTRODUCTION
System Features
Features of Jensen JDVD1500 mobile audio system include:
- 3-Wire power (ACC, Batt, Gnd)
- 1-DIN (sleeve-mount) chassis design
- Segmented LCD Display
- White LED panel illumination
- Electronic AM/FM tuner (US / Euro)
- Station presets (18FM, 12AM)
- Auto-Store (AS)/Preset Scan (PS)
- Single DVD / CD player (Plays DVD, CD-A, CD-R/RW Media)
- Plays MP3 and WMA Encoded Discs
- Electronic Skip Protection (ESP) CD (8 Sec) DVD (3 Sec)
- Front panel Aux Video / Stereo Audio input (3.5mm)
- Encoded rotary volume control
- Audio Mute / Loudness
- Preset EQ (Pop, Rock, Classic)
- 2 Stereo Pre-amp Audio Outputs (RCA)
- 2 Composite Video Output (RCA)
- 4x40W Maximum Audio Power Output
- Wireless (Jensen IR Codes) Credit Card size remote control (included)

Content List
- Jensen Radio
- Hardware Kit
- Installation Manual
- Quick Reference Guide

HARDWARE KIT CONTENTS
- KEY
- MOUNTING STRAP
- SPRING WASHER
- MOUNTING SCREW
- BLUNT CUT HARNESS
- MOUNTING BUSHING
SAFETY INFORMATION

When Driving
Keep the volume level low enough to be aware of the road and traffic conditions.

When Washing Your Vehicle
Do not expose the product to water or excessive moisture. Moisture can cause electrical shorts, fire or other damage.

When Parked
Parking in direct sunlight can produce very high temperatures inside your vehicle. Give the interior a chance to cool down before starting playback.

Use the Proper Power Supply
This product is designed to operate with a 12 volt DC negative ground battery system.

Protect the Disc Mechanism
Avoid inserting any foreign objects into the disc slot. Misuse may cause malfunction or permanent damage due to the precise mechanism of this unit.

CAUTION:
THIS MOBILE CD PLAYER IS A CLASS I LASER PRODUCT THAT USES A VISIBLE/INVISIBLE LASER BEAM WHICH COULD CAUSE HAZARDOUS RADIATION EXPOSURE IF IMPROPERLY DIRECTED. BE SURE TO OPERATE THE MOBILE CD PLAYER AS INSTRUCTED.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT ATTEMPT TO REPAIR THE UNIT YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

WARNING:
- TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.
- TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK AND ANNOYING INTERFERENCE, USE ONLY THE RECOMMENDED ACCESSORIES.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. Patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Region Management Information
This Mobile DVD Player is designed and manufactured to respond to the Region Management Information recorded on individual DVD discs. If the Region number described on the DVD disc does not correspond to the Region number(s) supported by this Mobile DVD Player, the disc will not play in this unit.
**DISC NOTES**

### Compatible Disc Types

**DVD Video**

DVDs contain excellent sound and video quality due to Dolby Digital and MPEG2 encoding. A DVD is 12 cm in diameter and can hold more than seven times the data of a CD-ROM. The maximum playing time can be up to 2 hours (a double-sided DVD is up to 4 hours). There are four types of DVD discs: single-layer single-sided (1), two-layer single-sided (2), single-layer double-sided (3), and two-layer double-sided (4).

**CD-DA**

CD-DA discs can play voice data. The playing time of the standard 12 cm CD-DA disc is 74 minutes.

**DTS-CD**

DTS digital surround sound uses 6 digital audio tracks to replace the analog voice tracks in movies.

**HDCC**

HDCC, or “High Definition Compatible Digital,” is a recording/playing technology that improves CD audio quality. Based on full compliance with CD specifications, it can enhance the quality and quantity of digital sounds in the highest scale. It encodes the required messages that were deserted by the CD format, and stores the related commands into the LSB. Without changing the CD format, it is output through the 24-bit D/A converter, which will ultimately enhance the quality of playback.

**MP3/WMA/JPEG**

This unit is compatible with CD-R, CD-RW, and CD-ROM discs containing MP3, WMA, and JPEG tracks.

**CD-R/CD-RW**

This unit is compatible with CD-R and CR-RW discs that support ISO9660 specifications. “.MP3”, “.JPG”, “.JPEG”, “.AC3”, “.PCM”, “.MPG”, “.MPE”, and “.WAV” formats can be included on ISO9660-compatible discs.

**DVD-R / DVD-RW**

This unit is compatible with DVD-R and DVD-RW discs that support UDF specifications. “.MP3”, “.JPG”, “.JPEG”, “.AC3”, “.PCM”, “.MPG”, “.MPE”, and “.WAV” formats can be included on UDF-compatible discs.

### Incompatible Disc Types

- 8 cm disc
- CD ROM
- CDV, CDI, CDG
- LD

**NOTE:** DVD-R and DVD-RW discs will not play unless the recording session is closed and the CD is finalized.

### Table 1: General Disc Information

<table>
<thead>
<tr>
<th>Disc Type</th>
<th>Logo</th>
<th>Diameter/Playable Sides</th>
<th>Playback Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVD Video</td>
<td><img src="image" alt="DVD Logo" /></td>
<td>12cm single/double side (1 layer or 2 layers)</td>
<td>133 minutes (4.7 GB)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>242 minutes (8.5 GB)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>266 minutes (9.4 GB)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>484 minutes (17 GB)</td>
</tr>
<tr>
<td>Audio CD</td>
<td><img src="image" alt="Audio CD Logo" /></td>
<td>12cm single side</td>
<td>74 minutes</td>
</tr>
<tr>
<td>MP3/WMA Disc</td>
<td><img src="image" alt="MP3/WMA Logo" /></td>
<td>CD-Rs or CD-RWs recorded in MP3, MPEG1 or 2, 2.5 Audio Layer 3 and WMA Version 7 and 8. The recorded format must be compliant with ISO9660 Level 1, ISO 9660 Level 2, Romeo, or Joliet.</td>
<td></td>
</tr>
</tbody>
</table>

### Disc Maintenance

A dirty or defective disc may cause sound dropouts while playing. Before playing, wipe the disc using a clean cloth, working from the center hole towards the outside edge. Never use benzene, thinners, cleaning fluids, anti-static liquids or any other solvent.

- Insert label side up.
- Do not bend.
- Never touch the underside of the disc.
- Wipe clean from this center to the edge.

**NOTE:** A disc may become scratched (although not enough to make it unusable) depending on how you handle it and other conditions in the usage environment. These scratches are not an indication of a problem with the player.
INSTALLATION

This unit is designed for installation in vehicle cabs with an existing 1-DIN radio opening. In many cases, a special installation kit will be required to mount the radio to the dashboard. See the dealer where the radio was purchased for kit availability. Always check the kit application before purchasing to make sure the kit works with your vehicle.

**Before you Begin**
1. Disconnect Battery
   Before you begin, always disconnect the battery negative terminal.
2. Remove Transport Screws

**Important Notes**
- Before final installation, test the wiring connections to make sure the unit is connected properly and the system works.
- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications to your vehicle.
- Install the unit where it does not interfere with driving and cannot injure passengers during a sudden or emergency stop.
- If the installation angle exceeds 30° from horizontal, the unit might not give optimum performance.
- Avoid installing the unit where it will be subjected to high temperatures from direct sunlight, hot air, or from a heater, or subject to excessive dust, dirt or vibration.

**DIN Front Mount**
1. Slide the mounting sleeve off of the chassis if it has not already been removed. If it is locked into position, use the removal keys (supplied) to disengage it. The removal keys are depicted in “DIN Rear Mount” on page 4.
2. Check the dashboard opening size by sliding the mounting sleeve into it. If the opening is not large enough, carefully cut or file as necessary until the sleeve easily slides into the opening. Do not force the sleeve into the opening or cause it to bend or bow. Check that there will be sufficient space behind the dashboard for the radio chassis.
3. Locate the series of bend tabs along the top, bottom and sides of the mounting sleeve. With the sleeve fully inserted into the dashboard opening, bend as many of the tabs outward as necessary to firmly secure the sleeve to the dashboard.
4. Place the radio in front of the dashboard opening so the wiring can be brought through the mounting sleeve.
5. Follow the wiring diagram carefully and make certain all connections are secure and insulated with crimp connectors or electrical tape to ensure proper operation.
6. After completing the wiring connections, turn the unit on to confirm operation (vehicle accessory switch must be on). If the unit does not operate, recheck all wiring until the problem is corrected. Once proper operation is achieved, turn the accessory switch off and proceed with final mounting of the chassis.
7. Carefully slide the radio into the mounting sleeve making sure it is right-side-up until it is fully seated and the spring clips lock it into place.
8. Attach one end of the perforated support strap (supplied) to the screw stud on the rear of the chassis using the hex nut provided. Fasten the other end of the perforated strap to a secure part of the dashboard either above or below the radio using the screw and plain washer provided. Bend the strap, as necessary, to position it. Some vehicle installations provide cavity for rear support. In these applications, place the rubber bushing over the screw stud and insert the radio.
   **CAUTION:** The perforated rear support strap or rear rubber mounting bushing must be used in the installation of the radio. Installation without either may result in damage to the radio or the mounting surface and void the manufacturer's warranty.
9. Test radio operation by referring to the operating instructions for the unit.
10. When wiring is complete, reconnect the battery negative terminal.
11. Push the trim plate against the chassis until it is fitted.

**DIN Rear Mount**
This unit has threaded holes in the chassis side panels which may be used with the original factory mounting brackets of some vehicles to mount the radio to the dashboard. Please consult with your local mobile stereo shop for assistance on this type of installation.
1. Remove the existing factory radio from the dashboard or center console mounting. Save all hardware and brackets as they will be used to mount the new radio.
2. Carefully unsnap the plastic trim ring from the front of the new radio chassis. Remove and discard the trim ring.

3. Remove the factory mounting brackets and hardware from the existing radio and attach them to the new radio. Select a position where the screw holes of the bracket and the screw holes of the main unit are aligned (are fitted). Tighten the screws at 2 places on each side. Do not exceed M5 x 9 MM maximum screw size. Longer screws may damage components inside the chassis.

4. Wire the new radio to the vehicle as outlined in the Universal Installation instructions.

5. When wiring is complete, reconnect the battery negative terminal.

6. Mount the new radio assembly to the dashboard or center console using the reverse procedure of step 1.

**NOTE:** The mounting box, outer trim ring, and half-sleeve are not used for DIN rear mount.

### Removing the Unit (DIN Front Mount)

To remove the radio after installation:

1. Insert fingers into the groove in the front of frame and pull out to remove the frame.
   
   (When re-attaching the frame, point the side with a groove downwards and re-attach.)

2. Insert the removal keys straight back until they click, and then pull the radio out. If removal keys are inserted at an angle, they will not lock properly to release the unit.
## Wiring

### Detail A

**PIN NO.** | **DESCRIPTION**
--- | ---
A1 | GROUND
A2 | NO CONNECTION
A3 | +12VDC BATTERY CONSTANT
A4 | NO CONNECTION
A5 | NO CONNECTION
A6 | NO CONNECTION
A7 | AMP REMOTE
A8 | +12VDC SWITCHED
B1 | LEFT REAR SPEAKER (–)
B2 | LEFT FRONT SPEAKER (–)
B3 | RIGHT FRONT SPEAKER (–)
B4 | RIGHT REAR SPEAKER (–)
B5 | RIGHT REAR SPEAKER (+)
B6 | RIGHT FRONT SPEAKER (+)
B7 | LEFT FRONT SPEAKER (+)
B8 | LEFT REAR SPEAKER (+)

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**SEE DETAIL A**

**PA Microphone**

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**15A FUSE**
### VIEW B-B
**WIRE INSERTION VIEW**

<table>
<thead>
<tr>
<th>PIN NO.</th>
<th>WIRE COLOR</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VIOLET/BLACK</td>
<td>RIGHT REAR SPEAKER (-)</td>
</tr>
<tr>
<td>2</td>
<td>VIOLET</td>
<td>RIGHT REAR SPEAKER (+)</td>
</tr>
<tr>
<td>3</td>
<td>GRAY/BLACK</td>
<td>RIGHT FRONT SPEAKER (-)</td>
</tr>
<tr>
<td>4</td>
<td>GRAY</td>
<td>RIGHT FRONT SPEAKER (+)</td>
</tr>
<tr>
<td>5</td>
<td>WHITE/BLACK</td>
<td>LEFT FRONT SPEAKER (-)</td>
</tr>
<tr>
<td>6</td>
<td>WHITE</td>
<td>LEFT FRONT SPEAKER (+)</td>
</tr>
<tr>
<td>7</td>
<td>GREEN/BLACK</td>
<td>LEFT REAR SPEAKER (-)</td>
</tr>
<tr>
<td>8</td>
<td>GREEN</td>
<td>LEFT REAR SPEAKER (+)</td>
</tr>
</tbody>
</table>

### VIEW C-C
**WIRE INSERTION VIEW**

<table>
<thead>
<tr>
<th>PIN NO.</th>
<th>WIRE COLOR</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EMPTY</td>
<td>NO CONNECTION</td>
</tr>
<tr>
<td>2</td>
<td>EMPTY</td>
<td>NO CONNECTION</td>
</tr>
<tr>
<td>3</td>
<td>YELLOW</td>
<td>+12VDC BATTERY CONSTANT</td>
</tr>
<tr>
<td>4</td>
<td>EMPTY</td>
<td>NO CONNECTION</td>
</tr>
<tr>
<td>5</td>
<td>EMPTY</td>
<td>NO CONNECTION</td>
</tr>
<tr>
<td>6</td>
<td>BLUE</td>
<td>AMP REMOTE</td>
</tr>
<tr>
<td>7</td>
<td>BLACK</td>
<td>GROUND</td>
</tr>
<tr>
<td>8</td>
<td>RED</td>
<td>+12VDC SWITCHED</td>
</tr>
</tbody>
</table>
BASIC OPERATION

**Power On/Off**
Press the button (1) to turn the unit ON or OFF.

**Volume Control**
To increase the volume, rotate the volume control knob (3) clockwise. To decrease the volume, rotate the volume control knob counter-clockwise. The maximum volume setting is “40”. While adjusting the volume, the unit will display the numerical representation of the level.

**Mute**
Press the MUTE button (5) to mute the audio output. “MUTE” will appear on the display. Press MUTE again to restore the audio output to the previous level.

**Mode**
Press the MODE button (15) to select a different mode of operation, as indicated on the display panel. Available modes include Tuner, DVD, AUX IN and BT.

**Equalizer**
Press the EQ/LD button (16) to choose one of the following pre-defined bass and treble curves: FLAT > POP > CLAS > ROCK.

**Loudness**
Press and hold the EQ/LD button (16) to toggle loudness on/off. “LOUD ON” will appear on the display. When listening to music at low volumes, this feature will boost the bass and treble ranges to compensate for the characteristics of human hearing.

**Display Selector**
This unit can display either the clock time or radio frequency/CD player functions. Press the DISP button (7) to display the time. The correct time of day can be set by pressing and holding the DISP button.

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**Setting the Clock**
To set the clock, perform the following steps:
1. Press the DISP button (7) to display the clock.
2. Press and hold the DISP button until the time display flashes.
3. Within 5 seconds, turn the volume control knob (3) to adjust the hour to the desired setting.
4. Press and hold the DISP button to move to the minutes field.
5. Turn the audio control knob to adjust the minutes to the desired setting.
6. Press the DISP button again to return to radio frequency or disc play and normal operation will resume automatically.

**Auxiliary Input Operation**
You can connect another audio system to the unit through the AUX IN terminals on the back (AUX IN) of the unit. Once the device is connected, press the MODE button (15) on the front panel or the SOURCE button on the remote control to select “AUX” mode.

**PA**
PA function is available if the user has already installed a microphone.

**Reset**
Use a pencil or any non-metallic object to press the RESET button (19) for 5 seconds to reset the main unit. The unit will return to the factory default settings.

**Audio Menu**
Press the volume control knob (3) to access the audio menu. You can navigate through the audio menu items by pressing the volume control button repeatedly. Once the desired menu item appears on the display, adjust that option by turning the volume control knob within 5 seconds. The unit will automatically exit the audio menu after 5 seconds of inactivity. The following menu items can be adjusted.

- **Bass Level**
  Rotate the volume control knob (3) to adjust the Bass level range from “-7” to “+7”.

- **Treble Level**
  Rotate the volume control knob (3) to adjust the Treble level range from “-7” to “+7”.

- **Balance**
  Adjusting Balance controls the relative level between the left and right speakers in each pair. Rotate the volume control knob (3) to adjust the Balance between the left and right speakers from “R 7” (full right) to “L 7” (full left). “0” represents an equal balance between the right and left speakers.

- **Fader**
  Adjusting Fade controls the relative level between the front and rear speaker pairs. Rotate the volume control knob (3) to adjust the Fader between the rear and front speakers “R 7” (full rear) to “F 7” (full front). “0” represents an equal balance between the front and rear speakers.
System Menu

Press and hold the **volume control knob** (3) to access the System Menu. And then you can navigate through the System Menu items by pressing the volume control button repeatedly. Once the desired menu item appears on the display, adjust that option by turning the **volume control knob** (3) within 10 seconds. The unit will automatically exit the System Menu after 6 seconds of inactivity. The following menu items can be adjusted.

**RCA out**
- Rotate the **volume control knob** (3) to adjust RCA out: FIXED or VARI

**Radio area**
- Rotate the **volume control knob** (3) to adjust radio area to be USA or EUR.

**BT**
- Rotate the **volume control knob** (3) to turn Bluetooth on or off.

**PRE-VOLUME**
- Rotate the **volume control knob** (3) to set volume level after powering on.

**RESET**
- Press the **seek knob** (17), The Unit will return to the factory default settings.
TUNER OPERATION

Select a Band
Press the BAND button (6) on the control panel (or the SOURCE button on the remote control) to change between three FM bands and two AM bands.

Manual Tuning
Turn the seek knob (17) to the left or right (or the TUNE+ or TUNE- button on the remote control) to seek stations up/down step by step.

Auto Seek Tuning
Turn and hold the seek knob for more than 3 seconds (or press and hold the TUNE+ or TUNE- button on the remote control) to automatically seek the next or previous strong station.

Preset Stations
Six numbered preset buttons store and recall stations for each band.

Store a Station
Select a band (if needed), then select a station. Press and hold a preset button (8-13) for 3 seconds. The preset number will appear in the display.

Recall a Station
Select a band (if needed). Press a preset button (8-13) to select the corresponding stored station.

Automatically Store / Preset Scan (AS/PS)

Automatically Store
Select a band (if needed). Press and hold the AS/PS button (14) for more than 3 seconds to automatically select strongest stations (12 for AM, 18 for FM) and store them in the current band. The new stations replace any stations already stored in that band.

Preset Scan
Select a band (if needed). Press AS/PS (14) to scan stations stored in the current band. The unit will pause for 10 seconds at each preset station. Press AS/PS again to stop scanning when the desired station is reached.

Stereo
The unit will automatically pick up a stereo signal, when available. When in stereo mode, the “ST” icon appears in the display. When no stereo signal is available, the unit will automatically revert to mono operation, and no icon will be displayed.
MP3/WMA OPERATION

MP3 and WMA (Windows Media Audio) music files are digital audio files that are compressed to allow more files on a single CD. This unit can play MP3/WMA directly from files contained on a CD-R/RW using the buttons on the receiver (or optional remote) as described below. Many types of software are available for converting audio files into MP3/WMA formats. Jensen recommends Nero, MusicMatch Jukebox or Roxio Easy CD Creator. Depending on the media type and recording method, some CD-R/RW’s may be incompatible with this unit. The unit supports playback of MP3/WMA and CDDA (CDA), Mixed-Mode CDs and CD-Extra (including multisession discs), but discs on which the session has not been closed will not play.

Notes on MP3/WMA Play

This unit can play MP3 (MPEG1, 2, 2.5 Audio Layer 3) and WMA ver. 7 and 8. However, the MP3 recording media and accepted formats are limited. When writing MP3/WMA, pay attention to the following restrictions.

Acceptable Media

The MP3/WMA recording media acceptable to this unit are CD-ROM, CD-R and CD-RW. When using CD-RW, use full format rather than quick format to prevent malfunction.

Acceptable Medium Formats

The following formats are available for the media used in this unit. The maximum number of characters used for file name including the delimiter (".") and three-character extension are indicated in parentheses.

- ISO 9660 Level 1 (11 characters)
- ISO 9660 Level 2 (31 characters)
- Joliet (31 characters)

Up to 128 characters can be displayed in the long file name format. For a list of available characters, see the instruction manual of the writing software. The media reproducible on this unit has the following limitations:

- Maximum number of nested folders: 8
- Maximum number of files per disc: 1506
- Maximum number of folders per disc: 521
- Maximum number of sessions per disc: 5

MP3/WMA written in formats other than those listed above will not play successfully and their file names or folder names will not be displayed properly.

MP3/WMA Encoder and CD Writer Settings

Use the following settings when compressing audio data in MP3 data with the MP3 encoder:

- Transfer bit rate: 32 - 320 kbps
- Sampling frequency: 32,44.1,48 kHz (WMA) 16,22.05,24,32,44.1, 48kHz (Mp3)

When using a CD writer to record MP3/WMA up to the maximum disc capacity, disable additional writing. To record an empty disc up to the maximum capacity at once, select the “disc at once” option.

Entering ID3 Tag

This unit supports ID3 tag versions V1 and V2.

Controlling Disc Playback

When a video monitor is installed, a screen similar to the following will appear when an MP3 disc is played.

Audio Photos Video

Select one of these icons to access the corresponding media on your disc. If the media type is not present, the icon will not be selectable.

Play/Pause Disc Playback

Press the ►/|| button (4) on the control panel (or ►/|| on the remote control) to suspend disc play. Press the ►/|| button again to resume disc play.

Repeat Play (3/RPT)

Press the 3/RPT button (10) on the control panel (or the RPT button on the remote control) during disc play repeatedly to activate Repeat Mode:

- Press 3/RPT once to turn repeat off.
- Press 3/RPT twice to repeat play the current track.
- Press 3/RPT three times to repeat play the current folder.
- Press 3/RPT four times to repeat play the whole disc.

Random Play (4/RDM)

Press the 4/RDM button (11) during disc play to play all files on a disc in random, shuffled order. Press 4/RDM again to turn random play off.

Track Select

Rotate the seek knob (17) (or press the NEXT or PREV button on the remote control) for less than one second to advance to the next track on the CD. The selected track number will appear on the display. Rotate and hold the seek knob to fast forward or fast reverse through the disc.
File Select
Press the 5/F-DN button (12) to access a lower folder level.
Press and hold the 6/F-UP button (13) to access a higher folder level.
**DISC OPERATION**

**CD OPERATION**

**Insert and Eject Disc**
Insert a disc into the disc slot (20), label-side up, with the unit turned on. The unit will play the first track on the disc. Press the eject button (2) to stop disc play and eject the disc. The unit does not have to be turned on to eject the disc.

**Controlling Disc Playback**

**Track Select**
Rotate the seek knob (17) (or press the NEXT or PREV button on the remote control) for less than one second to advance to the next track on the CD. The selected track number will appear on the display. Rotate and hold the seek knob (17) (or press and hold the NEXT or PREV button on the remote control) to fast forward or fast reverse through the disc.

**NOTE: When the last track finishes playing, the unit will automatically play the CD again.**

**Play/Pause Disc Playback**
Press the ►|| button (4) on the control panel (or ►|| button on the remote control) to suspend disc play. Press the ►|| button again to resume disc play.

**Intro Scan**
Press the 2/INT button (9) on the control panel to play the first 10 seconds of each track sequentially. Press 2/INT again to stop Intro Scan and resume normal play at the current track.

**Repeat Play**
Press the 3/RPT button (10) on the control panel (or the RPT button on the remote control) during disc play repeatedly to activate Repeat Mode:
- Press 3/RPT once to turn repeat off.
- Press 3/RPT twice to repeat play the current track.

- Press 3/RPT three times to repeat play the whole disc.

**Random Play**
Press the 4/RDM button (11) during disc play to play all tracks on a CD in random, shuffled order. Press 4/RDM again to stop random play.

**DVD/VCD OPERATION**

Once a DVD disc is inserted into the unit, the unit will automatically start playback from the beginning of the disc. Once the preview tracks have been played, the DVD MENU, ROOT or TITLE of the DVD disc will appear on the TFT monitor and “ROOT” will be displayed on the LCD panel.

**DVD Menu Button Functions**
During DVD playback, you can use the following buttons to navigate the DVD, Root, or Title menu of the disc.

**Control Panel**
- Rotate the seek knob (17) forward to move through introductory chapters and access the DVD menu.
- Press the ►|| button (4) to choose the highlighted item on the menu.

**Remote Control (see "Remote Control Operation" on page 17)**
- Use the directional buttons (◄, ►, ▲, and ▼) on the remote control to navigate the menu.
- Press the ENTER button (24) to confirm the selected item.

**Controlling Disc Playback**

When viewing the DVD or Root Menu, press the ►|| button (4) to choose the highlighted item on the menu. Once playback begins, the LCD will display the Chapter: Playback Time in the following format: “00:00:03”.

**Play/Pause Disc Playback**
Press the ►|| button (4) on the control panel (or the ►|| button on the remote control) to suspend disc play.

**Stop Disc Playback**
Press the ■ button (8) on the control panel (or the ■ button on the remote control) to enter “RESUME STOP MODE.” Press the ►|| button to resume playback from the previous location. Press the ■ button (8) twice to clear stop mode. With stop mode cleared, if the ►|| button is pressed, the disc will resume playback from the beginning of the disc.

**Chapter Select**
Rotate the seek knob (17) on the control panel (or the NEXT or PREV button on the remote control) to advance to the next or previous chapter on the disc.

**Fast Forward/Reverse**
Rotate and hold the seek knob (17) on the control panel (or press the << or >> button on the remote control to fast forward or fast reverse through the disc.)
Remote Control Direct Track Entry

For single digit entries, press the single digit track/chapter number (e.g. Press “5” for track 5.)
For two/three digits entries, press the 10+ button twice / three times to get the desired digit in the hundreds/tens place, then press 0~9 digit button for the last digit.

NOTE: When playback of the last track has completed, the unit will automatically enter “STOP” mode. Press the >|| or 1/>/|| button to start playback again.

Repeat Play

Press the 3/RPT button (10) on the control panel (or the RPT button on the remote control) to select the repeat mode as follows:
DVD: RPT OFF > RPT CHAPTER > RPT TITLE > RPT ALL
VCD/CD: RPT OFF > RPT ONE > RPT ALL
- Select CHAPTER to continuously repeat the current chapter.
- Select TITLE to continuously repeat the current title.
- Select TRACK to continuously repeat the current track.
- Select ALL to continuously repeat all chapters/tracks on the current disc. After playing the last chapter/track, the unit will stop and display the elapsed time.

NOTE: The REPEAT feature does not support VCD 2.0 (with PBC ON).

Title Menu Function (DVD Only)

If the DVD has multiple titles recorded on the disc, you can select a specific title from the title menu from which to start playback.
1. Press the TITLE button on the remote control during playback to display the title menu.
2. Select the preferred title using the remote control arrow keys (24) and confirm by pressing the ENTER button.

Play Back Control (PBC) (VCD Only)

For VCDs with play back functionality, play back control (PBC) provides additional controls for VCD playback.
Press the MENU button on remote control to toggle the PBC function “On”/”Off”. Once PBC is on, playback starts from track one of the play list.

NOTE: During VCD playback you can press the LANG button on the remote control to switch the sound between mono and stereo sound in the following order: MONO LEFT > MONO RIGHT > MIX MONO > STEREO.

Remote Control Direct Track Entry

For single digit entries, press the single digit track/chapter number (E.g. Press “5” for track 5.)
For two/three digits entries, press the 10+ button twice / three times to get the desired digit in the hundreds/tens place, then press 0~9 digit button for the last digit.

Goto Search

Perform the following steps to use the GOTO feature to access a specific location on a disc:

DVD Title/Chapter Search
To play a specific title/chapter:

1. Press the GOTO button. The on-screen display information will appear with the CHAPTER number highlighted (CHAPTER 00/00).
2. Use the arrow (◄, ►, ▲, and ▼) buttons to move the cursor between the TITLE and CHAPTER fields.
3. Use the numeric buttons on the remote control to enter the desired title/chapter number.
4. Press the ENTER button.

DVD Time Search
To enter an exact playback starting point:

1. Press the GOTO button. The on-screen display information will appear with the playback time on the top right (hh:mm:ss).
2. Use the arrow (◄, ►, ▲, and ▼) buttons to move the cursor through the TIME field (00:00:00).
3. Use the numeric buttons on the remote control to enter the playback starting point.
4. Press the ENTER button.

CD/VCD Track/Time Search
Press the GOTO button. The on-screen display information will appear with the track number highlighted (TRK 00/00) and the playback time (00:00:00).
Use the arrow (◄, ►, ▲, and ▼) buttons to move the cursor through the track field (00/00) or time field (00:00:00). Use the numeric buttons on the remote control to enter the track number or the playback starting point and then press the ENTER button.

Programmed Playback

1. Press the PROG button (7) on the remote control to access the programmed playback screen:

   | PROG |
   | 1 |
   | 2 |
   | 3 |
   | 4 |

   5  6  7  8  9  10  11  12  13  14  15  16

   PLAY CLEAR

2. Use the◄, ►, ▲ or ▼cursor buttons (16) on the remote control to access the fields on the “PROG” screen.
3. Use the number buttons on the remote control to enter a track number in each field.
4. Press the ►|| button (18) on the remote control or highlight “PLAY” on screen and then press the ENTER button (5) to begin playback in the numbered order indicated.
To delete the list, highlight “CLEAR” and then press ENTER. Press PROG to exit the programmed playback screen.

**DVD Playback Features**

The following remote control features, along with many others, are available during DVD playback (see “Remote Control Operation” on page 17 for complete functionality):

- **LANG**: Press to choose an alternate audio language, if available,
- **SUBTITLE**: Press to select an alternate subtitle language, if available,
- **ANGLE**: Press to select an alternate viewing angle, if available.
- **ZOOM**: Press to zoom the picture at ZOOM 2, ZOOM 3, ZOOM 4, ZOOM 1/2, ZOOM 1/3 or ZOOM 1/4, or select OFF to return to normal view.

**NOTE**: Feature availability is dependent upon DVD embedded information.

**Playback Information**

During DVD and VCD playback, press the button (11) on the remote control to display playback information on the screen, including the media playing and current playback time. Press the button (11) additional times to display additional information, as indicated below.

**DVD Playback Information**

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

<table>
<thead>
<tr>
<th>DVD</th>
<th>TT</th>
<th>5/8</th>
<th>CH</th>
<th>2/16</th>
<th>-00:33:34</th>
</tr>
</thead>
</table>
| 1/5 ENG | 5.1 CH | 1/4 | ENG | OFF

- TT 5/8 – “5 / 8” indicates the fifth of 8 titles on the DVD is currently playing.
- CH 2/16 – “2 / 16” indicates that the second of 16 chapters on the DVD is currently playing.
- Press repeatedly to view the following information for elapsed/remaining playing time:
- 00:02:18 – total elapsed playing time of the current chapter;
- C – 00:34:37 – remaining playing time of the current chapter;
- T 00:02:18 – total elapsed playing time for disc;
- T – 00:34:37 – remaining playing time for disc.
- 1/5 ENG – English is the selected audio language out of 5 possible choices;
- 5.1 CH – The current language is recorded in 5.1 surround sound;
- 1/4 ENG – English is the selected subtitle language out of 4 possible choices;
- OFF – There are no alternate angles recorded for this scene.

**VCD Playback Information**

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

<table>
<thead>
<tr>
<th>VCD</th>
<th>TRK</th>
<th>1/18</th>
<th>-00:33:34</th>
</tr>
</thead>
</table>

- TT ###/## – “1 / 18” indicates the first of 18 tracks on the VCD is currently playing.
- PBC: Indicates when PBC (Playback Control) is turned on
- “X” indicates repeat play is OFF, “1” indicates repeat track, “D” indicates repeat directory, and “A” indicates repeat disc.
- Press repeatedly to view the following information for elapsed/remaining playing time:
- 00:02:18 – total elapsed playing time of the current track;
- T 00:02:18 – total elapsed playing time for current disc;
- C – 00:34:37 – remaining playing time of the current track.
BLUETOOTH OPERATION

The JDVD1500 includes built-in Bluetooth technology that allows you to connect this head unit to Bluetooth-enabled devices for streaming audio playback.

About Bluetooth Technology

Bluetooth wireless technology is a short-range wireless radio protocol. Operating in the 2.4 GHz range, it transmits audio and data at speeds up to 2.1 Mbit/s over a range of up to 10 meters.

Bluetooth Menu Options

NOTE: Please note that some Bluetooth menu options are only available while the unit is in Bluetooth Audio mode.

Press and hold the volume control knob (3) to enter system adjustment mode. Repeatedly press the volume control knob (3) to access the “BT ON/OFF” menu function. Rotate the volume control knob (3) to select BT ON. The following menu options are available when the unit is in BT mode.

- **BT Pair**: Press the seek knob (17) to start pairing with a Bluetooth enabled device.
- **BT Device**: Press the seek knob (17) to view a list of previously paired mobile phone device models. Rotate the seek knob (17) to view devices from the list. You cannot delete a device that is actively connected. Press the seek knob (17) to select the device. Rotate the seek knob (17) to navigate through Lock/Unlock or Disconnect/Connect for this device. Press the seek knob (17) to select.
- **Lock/Unlock**: The JDVD1500 can store up to 5 devices for BT connection. The devices are stored in FIFO (First In First Out) order. To prevent a device from being bumped from the list when more than 5 devices are used, you must lock the device. To Lock/Unlock a device, press the seek knob (17) to display/change the Locked or Unlocked icon.
- **Disconnect**: To disconnect a paired device, press the seek knob (17) to temporarily remove the BT link. The link can be re-established through your phone menu by selecting the JDVD1500 for connection.
### REMOTE CONTROL OPERATION

<table>
<thead>
<tr>
<th>REF</th>
<th>BUTTON</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 POWER</td>
<td>Turn the unit ON or OFF</td>
</tr>
<tr>
<td>2</td>
<td>⊘ EJECT</td>
<td>Eject the disc</td>
</tr>
<tr>
<td>3</td>
<td>&gt;&gt; TRACK</td>
<td>Go to the next track/chapter</td>
</tr>
<tr>
<td>4</td>
<td>▼</td>
<td>Stop disc playback</td>
</tr>
<tr>
<td>5</td>
<td>◊/◊</td>
<td>Play/pause the disc (for disc play mode)</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Go to the previous track/chapter</td>
</tr>
<tr>
<td>7</td>
<td>VOL▲</td>
<td>Increase the volume level</td>
</tr>
<tr>
<td>8</td>
<td>VOL▼</td>
<td>Decrease the volume level</td>
</tr>
<tr>
<td>9</td>
<td>AUDIO</td>
<td>Select the desired adjustment mode (BASS, TREBLE, BALANCE, FADE)</td>
</tr>
<tr>
<td>10</td>
<td>SOURCE</td>
<td>Change between tuner, disc (DVD / VCD / CD / MP3) play mode, AUX IN and BT mode</td>
</tr>
<tr>
<td>11</td>
<td>PROG</td>
<td>Display statistical disc information during playback</td>
</tr>
<tr>
<td>12</td>
<td>TUNE +</td>
<td>Display programmed playback screen, allowing you to enter tracks to play in programmed order</td>
</tr>
<tr>
<td>13</td>
<td>TUNE -</td>
<td>Tune up one step</td>
</tr>
<tr>
<td>14</td>
<td>RPT</td>
<td>Repeat current track/chapter</td>
</tr>
<tr>
<td>15</td>
<td>AS/PS</td>
<td>Press and hold to save 18 strongest stations in your area. Press to automatically scan through the stored channels</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>Change the SBTITLE language on multi-subtitle language DVD discs</td>
</tr>
<tr>
<td></td>
<td>17 ANGLE</td>
<td>Change the viewing angle on multi-angle DVD discs</td>
</tr>
<tr>
<td></td>
<td>18 MENU (PBC)</td>
<td>Display the root menu stored on DVD discs / Switch between PBC ON and PBC OFF on VCD discs</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Display the SETUP menu</td>
</tr>
<tr>
<td></td>
<td>20 Zoom</td>
<td>Increase the picture size</td>
</tr>
<tr>
<td></td>
<td>21 10+</td>
<td>Feature not used on this model</td>
</tr>
<tr>
<td></td>
<td>22 10/0</td>
<td>Enter number 0 or 10 directly</td>
</tr>
<tr>
<td></td>
<td>23 ◄►▲▼</td>
<td>Select item left/right and ahead/back in menu mode</td>
</tr>
<tr>
<td></td>
<td>24 ENTER</td>
<td>Confirm selection of track/chapter</td>
</tr>
<tr>
<td></td>
<td>25 LANG</td>
<td>Change the audio sound track on multi-audio sound track DVD discs. Change the sound mode of VCD discs</td>
</tr>
<tr>
<td></td>
<td>26 TITLE</td>
<td>Display the TITLE menu stored on DVD disc</td>
</tr>
<tr>
<td></td>
<td>27 TUNE -</td>
<td>Tune down one step</td>
</tr>
<tr>
<td></td>
<td>28 &lt;&lt; TRACK</td>
<td>Search in reverse rapidly</td>
</tr>
<tr>
<td></td>
<td>29 &gt;&gt; TRACK</td>
<td>Search forward rapidly</td>
</tr>
<tr>
<td></td>
<td>30 0-9</td>
<td>Enter track/chapter number directly. Use GOTO to search</td>
</tr>
<tr>
<td></td>
<td>31 GOTO</td>
<td>Use with numerical buttons to search disc</td>
</tr>
<tr>
<td></td>
<td>32 ◐</td>
<td>Press to mute/resume audio</td>
</tr>
</tbody>
</table>
SETUP MENU

Press the SETUP button (19) on the remote control to access the SETUP menu. Use the arrow (◄, ►) buttons (23) to choose between from the following menu categories:

- **System Setup**
- **Language Setup**
- **Audio Setup**
- **Video Setup**
- **Digital Setup**

While in the setup menus, use your directional arrows to select and change settings.

1. Use ▲ or ▼ button to select the setting to be change.
2. Press ENTER to cycle through each possible option or display a list of the options. When a list of options appears, press the ▲ or ▼ button to move among the displayed options.
3. Press ENTER again to choose the option and change the setting.

**System Setup**

The System Setup menu controls the following features:

- **TV System**: This item is used to select a TV signal system to match your TV set. Select one of the following options: NTSC, PAL60, PAL or AUTO.
- **Screen Saver**: Turn Screen Saver feature On/Off.
- **TV Type**: Select one of the following picture formats: 4:3PS, 4:3 LB or 16:9. 4:3 is a letterbox selection, and 16:9 is wide screen.
- **Password**: This item allows the selection of a new four-digit code to use for security purposes.
- **Rating**: Select the parental control level for all DVD play. The security password is required to make changes to this feature.
- **Default**: Use this item to restore default settings at any time.

**Language Setup**

The Language Setup menu controls the following features:

- **On-Screen Display (OSD) Language**: Set the OSD language to one of the following: English, German, Spanish, French, or Portuguese.
- **Audio Language**: Set the audio language to one of the following: English, Japanese, French, Spanish, Portuguese, German or Latin.
- **Subtitle Language**: Set the subtitle language to one of the following: English, Japanese, French, Spanish, Portuguese, German or OFF.
- **Menu Language**: Set the menu language to one of the following: English, Japanese, French, Spanish, Portuguese, German or Latin.

**Audio Setup**

The Audio Setup menu controls the following features:

- **Key**: This item changes the audio output key.
**Video Setup**

The Video Setup menu controls the following features:

- **Brightness**: Adjust the brightness of the screen from the following levels: 12, 10, 8, 6, 4, 2 or 0.
- **Contrast**: Adjust the contrast of the screen from the following levels: 12, 10, 8, 6, 4, 2 or 0.
- **Hue**: Adjust the hue of the screen from the following levels: +6, +4, +2, 0, -2, -4 or -6.
- **Saturation**: Adjust the saturation of the screen from the following levels: 12, 10, 8, 6, 4, 2 or 0.
- **Sharpness**: Adjust the sharpness of the screen from the following levels: 8, 6, 4, 2 or 0.

**Speaker Setup**

The Speaker Setup menu controls the following features:

- **Downmix**: Choose LT/RT, STEREO or VSS.
- **Front**: Choose LARGE or SMALL.

**Digital Setup**

The Digital Setup menu controls the following features:

- **OP Mode**: Select LINE OUT or RF REMOD.
- **Dynamic Range**: Select FULL, 6/8, 4/8, 2/8 or OFF.
- **Dual Mono**: Select STEREO, MONO/L, MONO/R or MIX MONO.
CARE AND MAINTENANCE

- Keep the product dry. If it does get wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.
- Keep the product away from dust and dirt, which can cause premature wear of parts.
- Handle the product gently and carefully. Dropping it can damage circuit boards and cases, and can cause the product to work improperly.
- Wipe the product with a dampened cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the product.
- Use and store the product only in normal temperature environments. High temperature can shorten the life of electronic devices, damage batteries, and distort or melt plastic parts.

Ignition

The most common source of noise in reception is the ignition system. This is a result of the radio being placed close to the ignition system (engine). This type of noise can be easily detected because it will vary in intensity of pitch with the speed of the engine.

Usually, the ignition noise can be suppressed considerably by using a radio suppression type high voltage ignition wire and suppressor resistor in the ignition system. (Most vessels employ this wire and resistor but it may be necessary to check them for correct operation.) Another method of suppression is the use of additional noise suppressors. These can be obtained from most CB/A radio or electronic supply shops.

Interference

Radio reception in a moving environment is very different from reception in a stationary environment (home). It is very important to understand the difference.

AM reception will deteriorate when passing under a bridge or when passing under high voltage lines. Although AM is subject to environmental noise, it has the ability to receive at great distance. This is because broadcasting signals follow the curvature of the earth and are reflected back by the upper atmosphere.

TROUBLESHOOTING

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>No power</td>
<td>The vehicle’s accessory switch is not on</td>
<td>If the power supply is properly connected to the vehicle’s accessory terminal, switch the ignition key to “ACC”.</td>
</tr>
<tr>
<td></td>
<td>The fuse is blown</td>
<td>Replace the fuse.</td>
</tr>
<tr>
<td>Disc cannot be loaded or ejected</td>
<td>Presence of CD disc inside the player</td>
<td>Remove the disc in the player and insert the new one.</td>
</tr>
<tr>
<td></td>
<td>Inserting the disc in upside down</td>
<td>Insert the compact disc with the label facing upward.</td>
</tr>
<tr>
<td></td>
<td>Compact disc is extremely dirty or disc is defective</td>
<td>Clean the disc or try to play a new one.</td>
</tr>
<tr>
<td></td>
<td>Temperature inside the vehicle is too high</td>
<td>Wait until the ambient temperature returns to normal.</td>
</tr>
<tr>
<td></td>
<td>Condensation</td>
<td>Leave the player off for an hour or so, then try again.</td>
</tr>
<tr>
<td>No sound</td>
<td>Volume too low</td>
<td>Adjust volume to audible level.</td>
</tr>
<tr>
<td></td>
<td>Wiring is not properly connected</td>
<td>Check wiring connections.</td>
</tr>
<tr>
<td>The operation keys do not work</td>
<td>Control panel is not properly installed</td>
<td>Reinstall control panel.</td>
</tr>
<tr>
<td></td>
<td>Built-in microcomputer is not operating properly due to noise</td>
<td>Press the <strong>RESET</strong> button.</td>
</tr>
<tr>
<td>Sound skips</td>
<td>Installation angle is more than 30 degrees</td>
<td>Adjust the installation angle to less than 30 degrees.</td>
</tr>
<tr>
<td></td>
<td>The disc is dirty or defective</td>
<td>Clean the disc and try to play again or use a new disc.</td>
</tr>
<tr>
<td>Cannot tune to radio station, auto-seek does not work</td>
<td>The antenna cable is not connected</td>
<td>Insert the antenna cable firmly.</td>
</tr>
<tr>
<td></td>
<td>Signals are too weak</td>
<td>Select a station manually.</td>
</tr>
<tr>
<td>ERROR</td>
<td>Mechanism Error</td>
<td>Press the eject button to correct the problem. If the error code does not disappear, consult your nearest service dealer.</td>
</tr>
<tr>
<td>Disc Error</td>
<td>Disc is dirty / scratched / upside down</td>
<td>Replace the disc.</td>
</tr>
</tbody>
</table>
**SPECIFICATIONS**

**DVD/CD**
- Signal to Noise Ratio: \( \geq 90 \text{ dB} \)
- Dynamic Range: \( \geq 90 \text{ dB} \)
- Frequency Response: \( 20 \text{ Hz} - 20 \text{ kHz} \pm 3 \text{ dB} \)
- Channel Separation: 2 Channel (Stereo) > 60dB @ 1 kHz

**Video**
- Color System: NTSC / PAL
- Video Output: Composite 1.0 Vp-p (+/- 0.2) 75 - ohm
- Video Input: Composite 1.0 Vp-p (+/- 0.2) 75 - ohm

**Audio**
- Max Output Power: \( 40 \text{ W} \times 4 \text{ channels Load Impedance} \)
- Line Out Level/Load: \( 400 \text{ mV} / 10 \text{ k ohm load} \)
- Line Out Impedance: \( 200 \text{ ohm} \)

**Auxiliary Input**
- Frequency Response: \( 20 \text{ Hz} - 20 \text{ KHz} \pm 3 \text{ dB} \)
- Input Maximum Voltage: \( 1200 \text{ mV} \)
- Input Impedance: \( 4.7 \text{ k ohm} \)

**FM Radio**
- Frequency Coverage (USA): \( 87.5 \text{ to } 107.9 \text{ MHz} \) (200 kHz Space)
- Usable Sensitivity (S/N=30dB): \( \leq 15 \text{ dB} \) at S/N 30 dBu
- Stereo Separation: \( \geq 25 \text{ dB} \) at 1 kHz
- S/N Ratio: \( \geq 50 \text{ dB} \)

**AM/MW**
- Frequency Range: \( 530\text{-}1710 \text{ kHz} \) (10 kHz Space)
- Usable Sensitivity (S/N=30dB): \( \leq 40 \text{ dB} \) at S/N 20 dBu
- S/N Ratio: \( \geq 40 \text{ dB} \)

**General**
- Operating Voltage: DC 11 - 14 Volts
- Grounding System: Negative Ground
- Fuse: 15-Amp Mini ATM Type
- Operating Temperature: \( 0^\circ \text{C} \) to \( 50^\circ \text{C} \)
- Unit Mounting Angle: \(< 30^\circ\)

**FCC Notes**

**WARNING!** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.