JHD3510
AM/FM/RBDS/WB/CD/AUX-IN/iPod Ready/SIRIUS Ready Heavy Duty Radio

Installation and Operation Manual
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Features
Features of the Jensen JHD3510 mobile audio system include:

- Full Dot Matrix LCD
- Selectable Amber/Green Backlighting Color
- AM/FM US/EURO Tuner with 30 Presets (12 AM, 18 FM)
- RBDS (Radio Broadcast Data Service) with PTY Search
- SIRIUS Radio Ready
- Single In-Dash CD Player with MP3/WMA Playback Capability
- CD ESP (Electronic Skip Protection) 40 Sec.
- iPod Ready
- Weatherband Tuner with NOAA Weather Alert
- Mute
- Pre-set Equalizer - 5 settings (Flat, Rock, Pop, Classical, Off)
- Electronic Bass, Treble, Balance and Fader Controls
- Output Power 45W x 4
- Clock 12/24 Hour Selectable
- Public Announcement (PA) Feature with Optional Microphone
- IR Wireless Remote Control Ready (sold separately)
- 2-Channel Pre-amp Line Level Outputs
- 2-Wire Power with Non-Volatile Memory and Interior Power Clock/Time Support
- Auxiliary Audio Input (Front 3.5mm Stereo Jack, Rear RCA)

Content List
- Jensen Heavy Duty Radio
- Hardware Kit
- Wire Harnesses
- 15AMP Fuse
- Installation Manual
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 1 LASER PRODUCT. THIS UNIT USES A VISIBLE/INVISIBLE LASER BEAM WHICH COULD CAUSE HAZARDOUS RADIATION IF EXPOSED DIRECTLY. BE SURE TO OPERATE THE MOBILE CD PLAYER AS INSTRUCTED. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT REPAIR BY YOURSELF. PLEASE REFER SERVICING TO A QUALIFIED TECHNICIAN.

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.

DISC NOTES
Depending on the recording status, conditions of the disc, and the equipment used for recording, some CD-Rs/CD-RWs may not play on this unit. For more reliable playback, please adhere to the following recommendations:
• Use CD-RWs with speed 1x to 4x and write with speed 1x to 2x.
• Use CD-Rs with speed 1x to 8x and write with speed 1x to 2x.
• Do not play a CD-RW which has been written more than 5 times.

Compatible Disc Types

<table>
<thead>
<tr>
<th>Disc Type</th>
<th>Logo</th>
<th>Diameter/Playable Sides</th>
<th>Playback Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio CD</td>
<td>![Audio CD Logo]</td>
<td>12 cm single side</td>
<td>74 minutes</td>
</tr>
</tbody>
</table>

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

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 under side of the disc. | Wipe clean from the center to the edge. |

• Be sure to use only round CDs for this unit and do not use any special shape CDs. Use of special shape CDs may cause the unit to malfunction.
• Do not stick paper or tape on the disc. Do not use CDs with labels or stickers attached or that have sticky residue from removed stickers.
• Do not expose discs to direct sunlight or heat sources.

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 subject 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 "Removing the Unit" on page 3.
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.

Removing the Unit

To remove the radio after installation, remove the plastic end caps, 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.

Reconnect Battery

When wiring is complete, reconnect the battery negative terminal.
**View A-A**

14-PIN CONNECTOR, WIRE INSERTION VIEW

<table>
<thead>
<tr>
<th>PIN NO.</th>
<th>WIRE COLOR</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VIOLET/BLACK</td>
<td>RIGHT REAR SPEAKER (-)</td>
</tr>
<tr>
<td>2</td>
<td>GRAY/BLACK</td>
<td>RIGHT FRONT SPEAKER (-)</td>
</tr>
<tr>
<td>3</td>
<td>GREEN/BLACK</td>
<td>LEFT REAR SPEAKER (-)</td>
</tr>
<tr>
<td>4</td>
<td>WHITE/BLACK</td>
<td>LEFT FRONT SPEAKER (-)</td>
</tr>
<tr>
<td>5</td>
<td>BLACK</td>
<td>GROUND</td>
</tr>
<tr>
<td>6</td>
<td>EMPTY</td>
<td>NO CONNECTION</td>
</tr>
<tr>
<td>7</td>
<td>EMPTY</td>
<td>NO CONNECTION</td>
</tr>
<tr>
<td>8</td>
<td>VIOLET</td>
<td>RIGHT REAR SPEAKER (+)</td>
</tr>
<tr>
<td>9</td>
<td>GRAY</td>
<td>RIGHT FRONT SPEAKER (+)</td>
</tr>
<tr>
<td>10</td>
<td>GREEN</td>
<td>LEFT REAR SPEAKER (+)</td>
</tr>
<tr>
<td>11</td>
<td>WHITE</td>
<td>LEFT FRONT SPEAKER (+)</td>
</tr>
<tr>
<td>12</td>
<td>RED</td>
<td>+12VDC SWITCHED</td>
</tr>
<tr>
<td>13</td>
<td>BLUE</td>
<td>POWER ANTENNA</td>
</tr>
<tr>
<td>14</td>
<td>EMPTY</td>
<td>NO CONNECTION</td>
</tr>
</tbody>
</table>

**WARNING!**

Do not connect the RED +12VDC wire to the battery. This wire MUST be connected to the Accessory/Ignition wire or a +12 volts switched power source.
BASIC OPERATION

Power On/Off
Press the rotary encoder POWER button (1) to turn the unit on or off. The unit will resume at the last mode selected (Tuner, Aux, etc.).

Volume Control
To increase the volume, turn the rotary encoder (1) to the right. To decrease the volume, turn the rotary encoder to the left. While adjusting the volume, the LCD displays a bar graph and numerical representation of the level. The maximum volume setting is 40.

Mute
Press the MUTE button (16) to mute the audio output. Press MUTE again to restore the audio output to the previous level.

Mode
Press the MODE button (4) to select a different mode of operation, as indicated on the display panel. Available modes include Tuner (AM/FM), SAT (Sirius) radio, CD, iPod and AUX in (optional Auxiliary Input).

NOTE: CD, IPOD, or Sirius (SAT) mode will be skipped if the module is not installed.

NOTE: Sirius (SAT) mode will be skipped when the Region menu option is set to “EURO”.

Reset
The reset button should be activated for the following reasons:
• initial installation of the unit when all wiring is completed
• function buttons do not operate
• error symbol on the display

Use a ball point pen or thin metal object to press the RESET button (23). This may be necessary should the unit display an error code.

Audio Menu
Press the AUDIO MENU button (3) to access the audio menu. You can navigate through the audio menu items by pressing the AUDIO MENU button repeatedly. Once the desired menu item appears on the display, adjust that option by turning the rotary encoder (1) within 5 seconds. The unit will automatically exit the audio menu after five seconds of inactivity. The following menu items can be adjusted.

Bass Level
Use the rotary encoder (1) to adjust the Bass level range from “-6” to “+6”.

Treble Level
Use the rotary encoder (1) to adjust the Treble level range from “-6” to “+6”.

Balance
Use the rotary encoder (1) to adjust the Balance between the left and right speakers from “12L” (full left) to “12R” (full right).

Fader
Use the rotary encoder (1) to adjust the Fader between the rear and front speakers from “12R” (full rear) to “12F” (full front).
System Menu
1. **Press and hold** the AUDIO/MENU button (3) for more than 2 seconds to enter the system menu. The first menu item, “Beep Tone”, will appear on the display.
2. Press the AUDIO/MENU button repeatedly to navigate the system menu and select the desired item.
3. Use the rotary encoder (1) to adjust the selected menu item.

The following items can be adjusted:
- **Beep Tone (ON/OFF)**: Turn the audible beep ON/OFF (heard when functions/buttons are selected).
- **Region (USA/EURO)**: Set frequency spacing for various regions.
- **Time Zone**: Set the local time zone (used only for Sirius satellite mode).
- **DST (Observed/Not Observed)**: Set for Daylight Savings Time (used only for Sirius satellite mode).
- **Clock (12Hr/24Hr)**: Select 12 or 24 hour display mode.
- **Brightness (Low/Mid/High)**: Adjust LCD brightness.
- **Contrast (Low/Mid/High)**: Adjust LCD contrast.
- **Color (Amber/Green)**: Adjust for desired panel backlight color.
- **Pwr On Vol (0 – 40)**: Select an automatic turn-on volume.
- **iPod Auto (ON/OFF)**: Choose "ON" to automatically detect and playback iPod when connected or “OFF” to use the MODE button to select the iPod source.
- **TA Volume (0-40)**: Adjust for desired Traffic Announcement volume level.
- **WB Alert (ON/OFF)**: Choose “ON” to switch to Weatherband mode when NOAA weather alerts are issued. (See “NOAA Weather Alert” on page 8.)
- **Alert PWR (AUTO/OFF)**: Select “Auto” to turn on the radio when NOAA alerts are issued. This function only works when the +12V switched is on.
- **Default Set (NO/YES)**: Choose “YES” to return the EEPROM to factory default set up values.

**Equalizer**
Press the EQ/LOUD button (11) to choose one of the following pre-defined bass and treble curves: OFF > FLAT > ROCK > POP > CLAS(SIC).

**Loudness**
Press and hold the EQ/LOUD button (11) to toggle loudness on/off. When listening to music at low volumes, this feature will boost the bass and treble ranges to compensate for the characteristics of human hearing.

**Auxiliary Input**
To access an auxiliary device:
1. Connect the portable audio player to either the AUX IN on the front panel (17) or at the rear of the unit.
2. Press the MODE button (4) to select “AUX” mode. The rear AUX audio source will play by default until a device is inserted into the front jack.
3. Press MODE again to cancel “AUX” mode and go to the next mode.

**PA Operation**
- Connect the PA Microphone with a 4-PIN connector to the 4-PIN socket on the rear of the unit.
- The unit will automatically switch to PA mode when the Mic switch is pushed “ON”.
- The PA output level can be adjusted using the rotary volume encoder (1).
- With radio power off, the radio will wake up when PA mic is keyed to make an announcement. Radio will return to off state when PA mic is released.

**Liquid Crystal Display (LCD)**
The current frequency and activated functions are shown on the LCD panel (21).

NOTE: LCD panels may take longer to respond when subjected to cold temperatures for an extended period of time. In addition, the visibility of the characters on the LCD may decrease slightly. The LCD display will return to normal when the temperature increases to a normal range.

**Setting the Clock**
To set the clock to display the current time, turn the vehicle ignition on and turn the radio off. Press and hold the DISP/SCROLL button (12) for more than one second and the time will flash in the display. Press the TUNESEEK button (18) to adjust the hours or the TUNESEEK button (19) to adjust the minutes. When in 12Hr Clock mode, “AM” or “PM” will appear on the display to indicate AM or PM. When no adjustment is made for five seconds, the time will become set and normal operation will resume.

**Scroll**
When the information is too long to be displayed on the LCD, press and hold the DISP/SCROLL button (12) to view the entire title. The information will scroll twice and then return to abbreviated text.

**NOTE:** The front AUX IN jack will override the rear auxiliary audio inputs.
TUNER OPERATION

Select a Band
Press the BAND/WB button (15) to change between three FM bands and two AM bands. 
Press and hold the BAND/WB button to access the Weatherband (WB).

Manual Tuning
Press the TUNE/SEEK >>| or << buttons (19, 18) to seek stations up/down step by step.

Auto Seek Tuning
Press and hold the TUNE/SEEK >>| or << buttons (19, 18) to automatically seek the next or previous strong station.

NOTE: Seek tuning is not available for weather band channels. Use the up or down tuning buttons to manually select any of the seven available weather band channels.

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 (5-10) for two seconds. The preset number will appear on the LCD.

Recall a Station
Select a band (if needed). Press a preset button (5-10) to select the corresponding stored station.

NOTE: Preset buttons are pre-assigned frequencies in weather band mode.

Automatically Store / Preset Scan (AS/PS)

Automatically Store
Select an AM or FM band. Press and hold the AS/PS (14) button for more than 2 seconds to automatically select 18 strong stations (6 for each of the three bands). The new stations replace any stations already stored.

Preset Scan
Select a band. Press AS/PS (14) to scan stations stored in the current band. The unit will pause for 5 seconds at each preset station. Press AS/PS again to stop scanning when the desired station is reached.

RBDS Operation
This unit is equipped to display RBDS (Radio Broadcast Data Service) information when broadcast by the radio station. The following LCD indicators appear when data is received:

- RBDS: The current radio station is broadcasting RBDS data.
- TA: Traffic Alert mode is activated. When a station broadcasting TA is received, the TA icon disappears and the 'Traffic' message displays on the LCD.
- PTY: Program Type data is being sent. When flashing, PTY search is in progress.

NOTE: Radio stations broadcasting RBDS may not be available in your listening area.

Traffic Alert (TA)
While in FM radio mode, press and hold the PTY/TA button (13) to activate Traffic Alert mode and search for a Traffic Alert in your area. From all other modes, press the PTY/TA button to begin the search.

- Radio Mode: If no TA information is being broadcast, the radio will return to the previously tuned station.
- All other Modes: If a Traffic Alert is being broadcast, playback of the current mode will be interrupted and the radio will switch to the FM station issuing the TA. Press the PTY/TA button again to exit TA mode.

Program Type (PTY)

To search for stations in a PTY category:
1. Press the PTY/TA button (13) to view the current PTY category.
2. Use the rotary encoder knob (1) to move through the list of available categories and select the program type you wish to search.
3. After selecting the desired PTY, press and hold the TUNE/SEEK >>| or << button (19, 18) to search the band for broadcasts of this type.

NOTE: Performing a PTY search on “ANY” will Seek Tune and stop on any station broadcasting RBDS, regardless of the program type.
Weather Band Operation

What is the NOAA Weather Radio/Weatheradio Canada?
This is a nationwide system that broadcasts local weather emergency information 24 hours a day. The U.S. network has more than 530 stations covering the 50 states as well as the adjacent coastal waters, Puerto Rico, the U.S. Virgin Islands and the U.S. Pacific Territories. Each local area has its own transmitting station and there are a total of seven broadcasting frequencies used. A similar system is available in Canada under the Weatheradio Canada service administered by Environment Canada.

Tuning to Weatherband
Press and hold the BAND/WB button (15) to access the Weatherband. The indication "WB" will appear on the display panel, along with the current number and channel indication: "CH01", "CH02", "CH03", "CH04", "CH05", "CH06" or "CH07". Use the TUNE/SEEK >>| or <<| buttons (19, 18) to tune to each of the seven channels until you find the weatherband station broadcasting in your area.

How many stations can I expect to receive?
Since the broadcasts are local weather and information, the transmission power is usually very low (much less than standard AM or FM stations) so you will usually receive only one station unless you are on the edge of two or more broadcast signals. The most you will receive will be two or three, and that is rare.

Is it possible I won’t receive any stations?
Depending on where you are located, there is a possibility you will receive only a very weak signal or none at all. Also, similar to AM and FM signals, weatherband signals are subject to surrounding conditions, weather, obstructions of the signal by hills or mountains, etc.

NOAA Weather Alert
The Weather Alert function adds an additional level of user safety by automatically switching from any of the available function modes (Tuner, SAT, CD, iPod, AUX) to weather band for a minimum of 60 seconds if a NOAA warning tone (1050 Hz) is received/detected. If no additional warning tone is received for 60 seconds, the unit will switch back to the last known function mode. See “System Menu” on page 6 to learn how to turn the WB Alert feature on.
Inserting and Ejecting a Disc
Insert a disc, label-side up, into the disc slot (22). The unit will automatically draw the disc in and play the first track on the disc, whether the power was turned on or not. Press the eject ▲ button (20) to stop disc play and eject the disc. The unit does not have to be on to eject the disc.

Controlling Disc Playback
Selecting Tracks
Press the TUNE/SEEK >> | << button (19) or TUNE/SEEK button (18) to advance to the next track on the disc. The selected track number will appear on the display. Press and hold the TUNE/SEEK >> | << button to fast forward or fast reverse through the disc. Disc play starts when the button is released.

Play/Pause Disc Playback
Press the 1/>|| button (8) to suspend disc play. Press the 1/>|| button again to resume disc Play.

Previewing Tracks
Press the 2/INT button (6) 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 (5) during disc play to repeat the current track.
• Press and hold the 3/RPT button to repeat the current folder.
• Press 3/RPT again to stop repeat play.

Random Play
• Press the 4/RDM button (7) during disc play to play all tracks in random, shuffled order.
• Press and hold the 4/RDM button to randomly play all files in the current folder.
• Press 4/RDM again to stop random play.

Folder Navigation (MP3 Only)
Press the 5/DN button (9) to select folder down.
Press the 6/UP button (10) to select folder up.

MP3 Playback
Notes on MP3 Playback
• Any directory that does not include an MP3 file is skipped
• Maximum number of folders: 512 (including skipped directories)
• Maximum number of folder levels: 12
• Maximum number of MP3 files: 999
• Maximum number of characters for MP3 file name and folder name: 32
• Sampling frequency: 16KHz, 22.05KHz, 24KHz, 32KHz, 44.1KHz, 48KHz
• Bit rates: maximum 384 Kbps
• Maximum number of Characters of ID3 Tag:
  • ID3 Tag version 1.0: 32
  • ID3 Tag version 2.x: 32

File Playing Order
When selected for play, files and folders (Folder Search, File Search or Folder Select) are accessed in the order they were written by the CD writer. As a result, the order in which they are expected to be played may not match the order in which they are actually played. You may be able to set the order in which MP3/WMA are to be played by writing them onto a medium such as a CD-R with their file names beginning with play sequence numbers such as "01" to "99".

For example, a medium with the following folder/file hierarchy is subject to Folder Search, File Search and playback order as shown below.
Switching to Sirius Satellite Radio
(Requires optional Sirius tuner)
Press the MODE button (4) to change the mode to Sirius radio mode.

Accessing your Sirius RADIO ID
To display your Sirius radio ID, use the TUNE/SEEK << button to tune to channel “000”. The screen will display “Sirius ID” on the top bar with the SID displayed in the middle of the LCD screen. The Sirius radio ID is 12 characters long.

Selecting a Band
In Sirius mode, press the BAND/WB button (15) to access the Sirius user-preset channel groups in the following order: SR1, SR2, SR3.

Category Tuning
1. Press the S-MOD/ENTER button (2) to access Category mode.
2. While the category is flashing, press TUNE/SEEK << / >> buttons (18, 19) to choose a category.
3. Press the S-MOD/ENTER button to confirm category selection and tune to the first channel in the selected category. The category icon will stop flashing.
4. Press the TUNE/SEEK << / >> buttons (18, 19) to choose desired channels in that category. (The lowest channel number within the chosen category will always be the default first channel tuned.)
5. Press and hold the S-MOD/ENTER button to return to channel tuning mode.

Channel Up/Down Tuning
Press the TUNE/SEEK << / >> buttons (18, 19) to search for a channel. Press and hold the TUNE/SEEK buttons to fast search.

Storing Preset Channels
The preset buttons (5-10) can be used to store 6 channels, allowing convenient access to your favorite channels.

Programming Channels
1. Select the channel you want to store in memory.
2. Press and hold a preset button (5-10) until the corresponding preset button number appears.
3. Repeat steps 1 and 2 to program additional channels.

Preset Recall
Press one of the six preset buttons (5-10) to directly select a preset channel stored in the current band.

Preset Scan
Press AS/PS (14) to scan stations stored in all three user-preset channel groups (SR1, SR2 and SR3). The unit will pause for 10 seconds at each preset station. Press AS/PS again to stop scanning when the desired station is reached.

Preset Tuning
Press and hold the AS/PS button (14) to access Preset Tuning Mode. In Preset Tuning Mode, you can use the TUNE/SEEK << / >> buttons (18, 19) to access all 18 preset stations in sequential order. Press and hold the AS/PS button again to deactivate Preset Tuning Mode.

Alternate Display Mode
Press the DISP/SCROLL button (12) to change the display information between single and dual line text display. In dual line mode, both artist and title are available for viewing.

Satellite Signal Strength
The display will indicate satellite reception strength as shown below.

<table>
<thead>
<tr>
<th>Signal Strength</th>
<th>Strength Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Signal</td>
<td>✗</td>
</tr>
<tr>
<td>Weak</td>
<td>✗</td>
</tr>
<tr>
<td>Good</td>
<td>✗</td>
</tr>
<tr>
<td>Excellent</td>
<td>✗</td>
</tr>
</tbody>
</table>

Channel Lock
While tuned to the channel to be locked, press and hold the MODE button (4) to access the Channel Lock function. “Enter Code” is displayed on the LCD. Using the 1-6 digit buttons, enter your 4-digit code (the default code is 1111). “Channel Locked” appears on the LCD, confirming that the channel has been locked. The next time the channel is sequentially accessed, the “Channel Locked” message will appear, followed by “Enter Code”. To retrieve the locked channel, enter your 4-digit code. To change the channel lock code, press and hold the PTY/TA button (13). Enter Current Code > New Code > Confirm. The LCD will display “New Code Stored”.

Alternate Display Mode
Press the DISP/SCROLL button (12) to change the display information between single and dual line text display. In dual line mode, both artist and title are available for viewing.

Presets Recall
Press one of the six preset buttons (5-10) to directly select a preset channel stored in the current band.

Preset Scan
Press AS/PS (14) to scan stations stored in all three user-preset channel groups (SR1, SR2 and SR3). The unit will pause for 10 seconds at each preset station. Press AS/PS again to stop scanning when the desired station is reached.

Preset Tuning
Press and hold the AS/PS button (14) to access Preset Tuning Mode. In Preset Tuning Mode, you can use the TUNE/SEEK << / >> buttons (18, 19) to access all 18 preset stations in sequential order. Press and hold the AS/PS button again to deactivate Preset Tuning Mode.

Alternate Display Mode
Press the DISP/SCROLL button (12) to change the display information between single and dual line text display. In dual line mode, both artist and title are available for viewing.

Satellite Signal Strength
The display will indicate satellite reception strength as shown below.

<table>
<thead>
<tr>
<th>Signal Strength</th>
<th>Strength Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Signal</td>
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</tr>
<tr>
<td>Weak</td>
<td>✗</td>
</tr>
<tr>
<td>Good</td>
<td>✗</td>
</tr>
<tr>
<td>Excellent</td>
<td>✗</td>
</tr>
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</table>

Channel Lock
While tuned to the channel to be locked, press and hold the MODE button (4) to access the Channel Lock function. “Enter Code” is displayed on the LCD. Using the 1-6 digit buttons, enter your 4-digit code (the default code is 1111). “Channel Locked” appears on the LCD, confirming that the channel has been locked. The next time the channel is sequentially accessed, the “Channel Locked” message will appear, followed by “Enter Code”. To retrieve the locked channel, enter your 4-digit code. To change the channel lock code, press and hold the PTY/TA button (13). Enter Current Code > New Code > Confirm. The LCD will display “New Code Stored”.

Alternate Display Mode
Press the DISP/SCROLL button (12) to change the display information between single and dual line text display. In dual line mode, both artist and title are available for viewing.

Presets Recall
Press one of the six preset buttons (5-10) to directly select a preset channel stored in the current band.

Preset Scan
Press AS/PS (14) to scan stations stored in all three user-preset channel groups (SR1, SR2 and SR3). The unit will pause for 10 seconds at each preset station. Press AS/PS again to stop scanning when the desired station is reached.

Preset Tuning
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iPod OPERATION

This unit is equipped with an iPod ready function that will allow you to control your iPod (if compatible) using the control panel buttons. The following iPod versions are supported:

- iPod 3G (firmware version 2.2 only)
- iPod Mini
- iPod 4G
- iPod Photo
- iPod Nano
- iPod 5G (Video)

**NOTE: iPod and iPod Cable sold separately.**

### Accessing iPod Mode
To enter iPod mode from any other source, press the **MODE** button (4) until “iPod” appears on the display.

### Turning the iPod On/Off
The iPod power turns on automatically when an iPod is connected to the 30-pin iPod cable, as long as the vehicle ignition is turned on. You can turn the iPod off by disconnecting it from the cable or by turning the ignition off. When the ignition is turned off, the iPod will pause and then enter sleep mode after 2 minutes. While the iPod is connected, the power cannot be turned on or off from the iPod itself.

**NOTE: The iPod will continuously recharge when connected to the unit, as long as the vehicle ignition is turned on.**

### Controlling Playback

**Pausing Playback**
During playback, press the **1/>||** button (8) to pause the iPod player. “Pause” will appear on the LCD. Press **1/>||** again to resume playback.

**Repeat Play**
During playback, press the **3/RPT** button (5) to repeat the current song. “Repeat” will appear on the LCD. Press **3/RPT** again to stop repeat playback.

**Random Play**
During playback, press the **4/RDM** button (7) to play all songs in the current category in random order. Random play will begin once the current song has finished playing. “RANDOM” will appear on the LCD. Press **4/RDM** again to stop random playback.

**Selecting Tracks**
During playback, press the **TUNE/SEEK |<< / >>|** button (18, 19) to play the previous or next track in the current category. Press the **TUNE/SEEK |<<** button (18) once to play the song from the start position or press **TUNE/SEEK |<<** twice to play the previous track.

**Alternate Display Mode**
Press the **DISP/SCROLL** button (12) to change the display information between single and double line text display.

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**NOTE: If you press and hold the TUNE/SEEK |<< / >>| button to change the current song to the previous/next song, you will exit fast reverse/forward mode.**
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 vehicles employ this wire and resistor but it may be necessary to check for correct operation.) Another method of suppression is the use of additional noise suppressors. These can be obtained from most professional mobile electronics retailers.

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” or “Run”</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 reverse direction</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>Condensation</td>
<td>Leave the player off for an hour or so, then try again</td>
</tr>
<tr>
<td>No sound</td>
<td>Volume is too low or system is muted</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>The built-in microcomputer is not operating properly due to noise</td>
<td>Press the RESET button</td>
</tr>
<tr>
<td>Sound skips</td>
<td>The 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 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>Check antenna cable</td>
</tr>
<tr>
<td></td>
<td>The signals are too weak</td>
<td>Select a station manually</td>
</tr>
</tbody>
</table>


**SPECIFICATIONS**

**CD**
- Signal to Noise Ratio: ≥ 65 dB
- Channel Separation: More than 50 dB
- Frequency Response: 20 Hz - 20 kHz

**FM Radio**
- Frequency Coverage (USA): 87.5 to 107.9 MHz
- Frequency Coverage (Europe): 87.5 to 108 MHz
- Sensitivity (S/N=30dB): 4 µV
- Image Rejection: > 45 dB
- Stereo Separation: > 25 dB

**AM/MW**
- Frequency Range (USA): 530-1710 kHz
- Frequency Range (Europe): 522-1620 kHz
- Sensitivity (S/N=20dB): 36 dB

**General**
- Operating Voltage: DC 12 Volts
- Grounding System: Negative Ground
- Speaker Impedance: 4-8 ohms per channel
- Tone Controls:
  - Bass (at 100 Hz): ±10 dB
  - Treble (at 10 kHz): ±10 dB
- Power Output: 45W x 4
- Idle/Standby Current: 75mA
- Current Drain: 15 Ampere (max.)
- Dimensions: 80 (W) x 183 (D) x 58 (H)