JMS2012
MARINE AUDIO SYSTEM

Installation and Operation Manual
CONTENTS

Introduction ......................................................................................................... 1
Safety Information .............................................................................................. 1
Installation ........................................................................................................... 2
Wiring ................................................................................................................... 3
Basic Operation .................................................................................................. 4
Tuner Operation .................................................................................................. 6
Sirius Radio Operation ....................................................................................... 8
iPod® Operation ................................................................................................. 9
Care and Maintenance ....................................................................................... 10
Troubleshooting ................................................................................................. 10
Specifications ................................................................................................... 11

“Made for iPod” and “Made for iPhone” mean that an electronic accessory has been designed to connect specifically to iPod or iPhone respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.
INTRODUCTION

System Features
Features of the Jensen JMS2012 mobile audio system include:
• Full Dot Matrix LCD
• AM/FM USA/EUR Tuner with 30 Presets (12 AM, 18 FM)
• RBDS (Radio Broadcast Data Service) with PTY Search
• SIRIUS Radio Ready
• Made for iPod® and iPhone® (Cable Sold Separately)
• Weatherband Tuner
• Mute
• Pre-set Equalizer - 5 settings (Flat, Rock, Pop, Classical, Pop, User)
• Electronic Bass, Treble, Balance and Fader Controls
• Output Power 40W x 4
• Low Battery Alarm
• IR Wireless Remote Control Ready (sold separately)
• 2-Channel Pre-amp Line Level Outputs
• 2-Wire Power with Non-Volatile Memory and Clock/Time Support
• Auxiliary Audio Input (Rear RCA)

Hardware Contents List

MOUNTING STRAP

MOUNTING SCREW COVER x 2

WIRE HARNESS x 1

M5 NUT x 1

SAFETY INFORMATION

When Boating
Keep the volume level low enough to be aware of your surroundings.

Protect from Water
Do not submerge the product directly in water, as this can cause electrical shorts, fire or other damage.

Protect from High Temperatures
Exposure to direct sunlight for an extended period of time can produce very high temperatures inside your vessel. Give the interior a chance to cool down before starting playback.

Do not mount radio within close proximity of engine compartment.

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

WARNING:
• TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT SUBMERGE THIS EQUIPMENT DIRECTLY IN WATER.
• TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK AND INTERFERENCE, USE ONLY THE RECOMMENDED ACCESSORIES.
INSTALLATION

Before You Begin
Before you begin, always disconnect the battery negative terminal.

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 vessel.
• Install the unit where it does not interfere with driving and cannot injure passengers if there is a sudden or emergency stop.
• Avoid installing the unit where it will be subject to high temperatures from direct sunlight, hot air, or where it would be subject to excessive dust, or dirt.

DIN Front Mount
1. Check the dashboard opening size by sliding the radio into it. If the opening is not large enough, carefully cut or file as necessary until the radio slides into the opening. Check that there will be sufficient space behind the dashboard for the radio chassis.
2. Place the radio in front of the dashboard opening so the wiring can be brought through the opening.
3. Follow the wiring diagram carefully and make certain all connections are secure to ensure proper operation.
4. After completing the wiring connections, turn the unit on to confirm operation (vessel 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.
5. Carefully slide the radio into the opening, making sure it is right-side-up.
6. Secure the radio to the dashboard using appropriate screws.
7. Replace the covers on either side of the radio.
8. Attach one end of the perforated support strap (supplied) to the screw stud on the rear of the chassis using the hex nut and spring washer 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.
9. Test radio operation by referring to the operating instructions for the unit.

Removing the Unit
To remove the radio after installation, remove the covers, unscrew the installation screws and pull the radio out.

Reconnect Battery
When wiring is complete, reconnect the battery negative terminal.
BASIC OPERATION

Power On/Off
Press the POWER button (1) to turn the unit on and off. The POWER button is illuminated whenever the +12 VOLTS SWITCHED lead (red wire) is powered, regardless of whether the unit is on or off.

Volume Control
To increase the volume, press the VOL+/UP button (2a). To decrease the volume, press the DOWN/VOL- button (2b).

Mute
Press the MUTE button (17) on the control panel to mute the audio output. Press MUTE again to restore the audio output to the previous level.

Mode
Press the MODE button (20) on the control panel to select a different mode of operation, as indicated on the display panel. Available modes include Tuner, SIRIUS, iPod and AUX In (optional Auxiliary Input).

NOTE: SIRIUS and iPod® mode will be skipped if the module/device is not installed.

Reset
The reset button (18) 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 (18). This may be necessary should the unit display an error code.
You can recover factory default settings using the RESET ALL function located on the system menu. With “Confirm” flashing, press the INFO/ENTER button (4) to activate.

Audio Menu
Press the AUDIO button (3) on the control panel to access the audio menu. You can navigate through the audio menu items by pressing the AUDIO button repeatedly. Once the desired menu item appears on the display, adjust that option by pressing the VOL +/- buttons (2) 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 VOL buttons to adjust the Bass level range from “-7” to “+7”.

Treble Level
Use the VOL buttons to adjust the Treble level range from “-7” to “+7”.

Balance
Use the VOL buttons to adjust the Balance between the left and right speakers from “L12” (full left) to “R12” (full right).

Fader
Use the VOL buttons to adjust the Fader between the rear and front speakers from “R12” (full rear) to “F12” (full front).

System Menu
1. Press and hold the MENU/PTY/CAT button (12) for more than 3 seconds to enter the system menu. The “MENU” icon will appear on the display, along with the first menu item, “KEYBEEP.”
2. Press the VOL +/- buttons (2) repeatedly to navigate the system menu and select the desired item.
3. Press the INFO/ENTER button (4) to adjust the selected menu item.
4. Press the MENU/PTY/CAT button to return to the previous operation immediately or wait for 5 seconds to return automatically.

The following items can be adjusted:
• KEYBEEP (OFF, CLK, BEP): Turn the audible beep ON/OFF (heard when functions/buttons are selected). NOTE: Beep tone off will not affect BAT ALRM audible tone.
• LCDLITE (1-10): Set LCD brightness.
• TUNING (USA/EUR): Set frequency spacing to either USA or Europe.
• PREONLY (ON/OFF): Tune to preset station when tuning/seeking.
• SIRIUS (Firmware, Set Lock, Clr Skip, Skipped)
• IPOD SW (ON/OFF): Choose “ON” to automatically detect and playback iPod® when connected. Choose “OFF” to use the MODE button (20) to select the iPod source.
• AUX IN (ON/OFF)
• BAT ALRM (ON/OFF): Enable battery alarm audible tone.
• BAT OFF (ON/OFF): Monitor voltage on ACC line.
• RESET ALL: Return the EEPROM to factory default set up values and reset the Sirius Tuner Settings. “Confirm” will scroll on the LCD to confirm. Press INFO/ENTER (4) to select.

LOW BATTERY Operation
If BAT ALRM is set to “ON”, a alarm will sound (8 beeps every 30 seconds) when the voltage drops to 10.8V (+/- 0.03V). A visual warning (LOW BATT) will appear every 3 seconds on the LCD display.
Equalizer
Press the EQ/LOUD button (11) to turn on the equalization function and select between five pre-defined bass and treble curves: USER > FLAT > ROCK > CLAS (classic) > POP.

NOTE: “USER” setting is only available if the bass and treble settings are manually set by the user.

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 the AUX IN connectors on the back of the unit.
2. Press the MODE button (20) to select “Auxiliary” mode.
3. Press MODE again to cancel Auxiliary mode and go to the next mode.

Liquid Crystal Display (LCD)
The current frequency and activated functions are shown on the LCD panel (19).

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 numbers on the LCD may decrease slightly. The LCD display will return to normal when the temperature increases to a normal range.

Scroll
When the information is too long to be displayed on the LCD, press the DISP/SCROLL button (21) to view the entire title. The information will scroll twice and then return to abbreviated text.
TUNER OPERATION

Select a Band
Press the BAND/WB button (16) to change between three FM bands and two AM (MW) bands. Press and hold the BAND/WB button to access the Weatherband (WB).

Manual Tuning
Press the SEEK [<< / >>] buttons (13, 14) to seek stations up/down step by step.

Auto Seek Tuning
Press and hold the SEEK [<< / >>] buttons (13, 14) 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 1-6 for two seconds. The preset number will appear in the display.

Recall a Station
Select a band (if needed). Press a preset button 1-6 to select the corresponding stored station.

Automatically Store / Preset Scan (AS/PS)

Automatically Store
Press and hold the AS/PS button (15) for more than three seconds to automatically select strong stations and store them in the current band. The new stations replace any stations already stored in that band.

Preset Scan
Press AS/PS (15) to scan stations stored in the current band. The unit will pause for ten 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.

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

Program Type (PTY)

To search for stations in a PTY category:
1. Press the MENU/PTY/CAT button (12) to view the current PTY category.
2. Use the SEEK [<< / >>] buttons (13, 14) to move through the list of available categories and select the program type you wish to search.
3. After selecting the desired PTY, press the INFO/ENTER button (4) to search the band for broadcasts of this type. “PTY SEARCH” appears on the LCD during the search process. If no station is found you will be returned to the previously tuned station.

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 (16) to access the Weatherband. The indication "WB" will appear on the display panel, along with the current number and channel indication: "WB-1", "WB-2", "WB-3", "WB-4", "WB-5", "WB-6" or "WB-7". The seven frequencies are shown in the following table:

Table 1: WB Frequencies

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>Preset</th>
</tr>
</thead>
<tbody>
<tr>
<td>162.400</td>
<td>2</td>
</tr>
<tr>
<td>162.425</td>
<td>4</td>
</tr>
<tr>
<td>162.450</td>
<td>5</td>
</tr>
<tr>
<td>162.475</td>
<td>3</td>
</tr>
<tr>
<td>162.500</td>
<td>6</td>
</tr>
<tr>
<td>162.525</td>
<td>-</td>
</tr>
<tr>
<td>162.550</td>
<td>1</td>
</tr>
</tbody>
</table>

The above table also shows which preset button will access the frequency. Note that one frequency cannot be accessed using a preset button. The frequency can only be reached using the tuning controls.

Use the SEEK [<< / >>] buttons (13, 14) or the preset buttons 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.
SIRIUS RADIO OPERATION

NOTE: SIRIUS is available in the US for subscribers with addresses in the continental US and is available in Canada for subscribers with a Canadian address. Required subscription plus compatible SIRIUS tuner and antenna are required and sold separately. To subscribe to SIRIUS Satellite Radio on the internet, visit sirius.com, or call 888-539-7474. Have your SIRIUS ID ready (SIRIUS ID is located on the back of the SIRIUS tuner or by tuning to Channel 0). SIRIUS programming is subject to change. Visit sirius.com for the most complete and up-to-date channel lineup and product information. “SIRIUS” and the SIRIUS dog logo and related marks are trademarks of Sirius Satellite Radio Inc. All rights reserved.

Switching to SIRIUS Mode
Press the MODE button (20) to change the mode to Sirius radio mode.

Accessing your SIRIUS ID
1. In Sirius mode, press and hold the INFO/ENTER button (4) to select DIRECT mode.
2. Press the INFO/ENTER button for each digit to enter “000” in the Channel field.
3. Entry of the last digit will display the Sirius ID number for your tuner.
4. The Sirius ID number will scroll twice and then freeze with the first 11 digits on the display. 
   Press the DISP/SCROLL button (21) to display the remaining digit.

Selecting a Band
In Sirius mode, press the BAND button (16) to access the Sirius user-preset channel groups in the following order: SAT 1, SAT 2, SAT 3.

Category Tuning
1. Press the MENU/PTY/CAT button (12) to enter category mode.
2. Press the SEEK/CAT -/+ buttons (13, 14) to change the category.
3. Press the VOL+/ - buttons (2) to view channels within the selected category.
4. Press the INFO/ENTER button (4) to select the desired channel in that category.

Channel Up/Down Tuning
Press the SEEK/CAT -/+ buttons (13, 14) to search for a channel. Press and hold the SEEK/ CAT -/+ buttons to fast search.

Storing Preset Channels
The preset buttons 1-6 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.

Quick Tuning
Press one of the six preset buttons (5-10) to select a preset channel directly.

Channel Direct Access Searching
1. Press and hold the INFO/ENTER button (4) to access Direct Tune mode. “CHANNEL : _ _ _” appears on the display for a few seconds.
2. Use the VOL +/- buttons (2) to select a number for each position.
3. Press the INFO/ENTER button after each entry to confirm the first two digits.
4. Press the INFO/ENTER button after the third digit to tune to the selected channel.

Alternate Display Information
Press DISP/SCROLL button (21) to change the display information in the following order: CATEGORY > SONG TITLE > ARTIST NAME > CHANNEL NAME > CATEGORY.

Satellite Signal Strength
The display will indicate 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>x</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>
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. This unit is made for the following iPod models:

• iPod touch (2nd generation)
• iPod touch (1st generation)
• iPod classic
• iPod nano (6th generation)
• iPod nano (5th generation)
• iPod nano (4th generation)
• iPod nano (3rd generation)
• iPod nano (2nd generation)
• iPod nano (1st generation)
• iPod with video
• iPhone
• iPhone 3G
• iPhone 3GS

NOTE: Earlier model iPod’s are not supported because they do not implement the required control protocol. Also, the iPod Shuffle is not supported because it does not utilize the 30-pin Apple iPod Connector. These unsupported iPod models may be connected to the radio using one of the Auxiliary Inputs.

Accessing iPod Mode

To enter iPod mode from any other source, press the MODE button (20) until “iPod” appears on the lower left corner of the display. If the user connects an iPod containing no songs, the radio will display a message stating “No Songs” when it enters iPod mode.

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 MUTE button (17) to pause the iPod player. “Pause” will appear on the LCD. Press MUTE again to resume playback.

Repeat Play

During playback, press the 1/RPT button (8) to repeat the current song. “RPT” will appear on the LCD. Press 1/RPT again to stop repeat playback.

Intro Play

During playback, press the 2/INT button (6) to play the first ten seconds of each song. “INT” will appear on the LCD. Press 2/INT again to stop intro playback.

Random Play

During playback, press the 3/RND button (5) to play all songs in the current category in random order. Random play will begin once the current song has finished playing. “RND” will appear on the LCD. Press 3/RND again to stop random playback.

Selecting Tracks

During playback, press the SEEK buttons (13, 14) to play the previous or next track in the current category. Pressing the SEEK buttons (13) once to play the song from the start position or press SEEK twice to play the previous track. Pressing the SEEK buttons (13) during the first 2 seconds of a track will play the previous track. After 2 seconds, this action returns to the beginning of the current track.

Press and hold the SEEK buttons (13, 14) to fast reverse/forward the song.

Playlist Search

Press the MENU/PTY/CAT button (12) to access Playlist selection mode. Press the VOL +/- buttons (2) to choose file search by Playlist, Artist, Album, Genre, Song, Audiobook or Podcast. Press the INFO/ENTER button (4) to select the search mode. Use the VOL +/- buttons to search the available files on the iPod. Press the INFO/ENTER button to play the selected song or file.

Alternate Display Mode

Press the DISP/SCROLL button (21) to change the display information in the following order: ALBUM > SONG TITLE > ARTIST > FILE X of Y > ALBUM.
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 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 be received at great distances. 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 vessel’s power is not on</td>
<td>If the power supply is properly connected to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the vessel’s accessory terminal, switch the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ignition key to “ACC”.</td>
</tr>
<tr>
<td></td>
<td>The fuse is blown</td>
<td>Replace the fuse.</td>
</tr>
<tr>
<td>No sound</td>
<td>Volume too low or Mute is on</td>
<td>Adjust volume to audible level.</td>
</tr>
<tr>
<td></td>
<td>Fader is set incorrectly</td>
<td>Press AUDIO button to access menu and adjust</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FADER setting.</td>
</tr>
<tr>
<td></td>
<td>Wiring is not properly connected</td>
<td>Check wiring connections.</td>
</tr>
<tr>
<td>Unit unresponsive</td>
<td>The built-in microcomputer is not operating</td>
<td>Set RESUME in menu.</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>The signals are too weak</td>
<td>Select a station manually.</td>
</tr>
</tbody>
</table>
**SPECIFICATIONS**

**FM Radio**
- Frequency Range (USA): 87.5 to 107.9 MHz
- Frequency Range (Europe): 87.5 to 108 MHz
- Sensitivity (S/N=30dB): 2µV
- 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): 20 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: 40W x 4
- Current Drain: 15 Ampere (max.)
- Dimensions: 178 x 20.5 x 68.5mm