

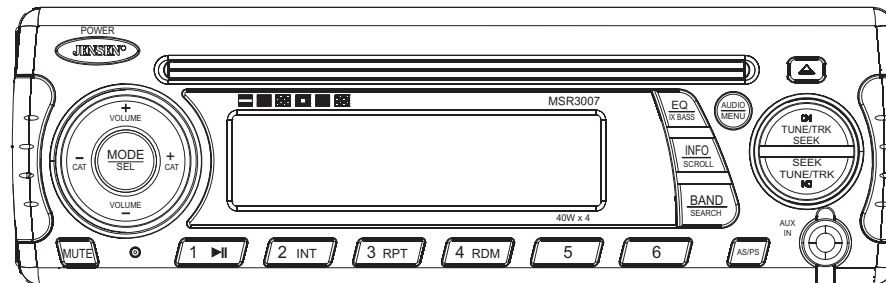


M A R I N E

MSR3007

MARINE AUDIO SYSTEM

Installation and Operation Manual



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|----------------------|
| Playback Time |
|----------------------|

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|------------|
| 74 minutes |
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INSTALLATION

Before You Begin

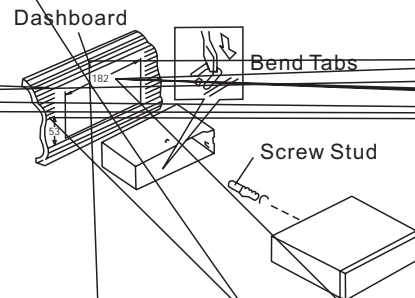
1. **Disconnect Battery**
Before you begin, always disconnect the battery negative terminal.
2. **Remove Transport Screws**

Important Notes

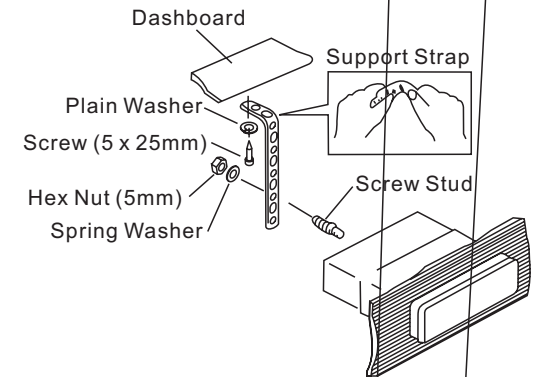
- Before final installation, test the wiring connections to make sure the unit is connected properly and the system works.
- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications to your vessel.
- Install the unit where it does not interfere with driving and cannot injure passengers if there is a sudden or emergency stop.
- If the installation angle exceeds 30° from horizontal, the unit might not give optimum performance.
- This unit is **not waterproof** and is intended for interior mounting applications only. Exterior mounting of the unit requires use of an ASA approved marine housing.
- Avoid installing the unit where it will be subject to high temperatures from direct sunlight, hot air, or from a heater, or where it would be 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 (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.

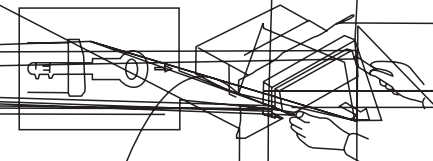


7. Carefully slide the radio into the mounting sleeve making sure it is right-side-up until it is fully seated and the spring clips lock it into place.
8. Attach one end of the perforated support strap (supplied) to the screw stud on the rear of the chassis using the hex nut and spring washer provided. 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. **CAUTION:** The rear of the radio must be supported with the strap to prevent damage to the dashboard from the weight of the radio or improper operation due to vibration.
9. Test radio operation by referring to the operating instructions for the unit.



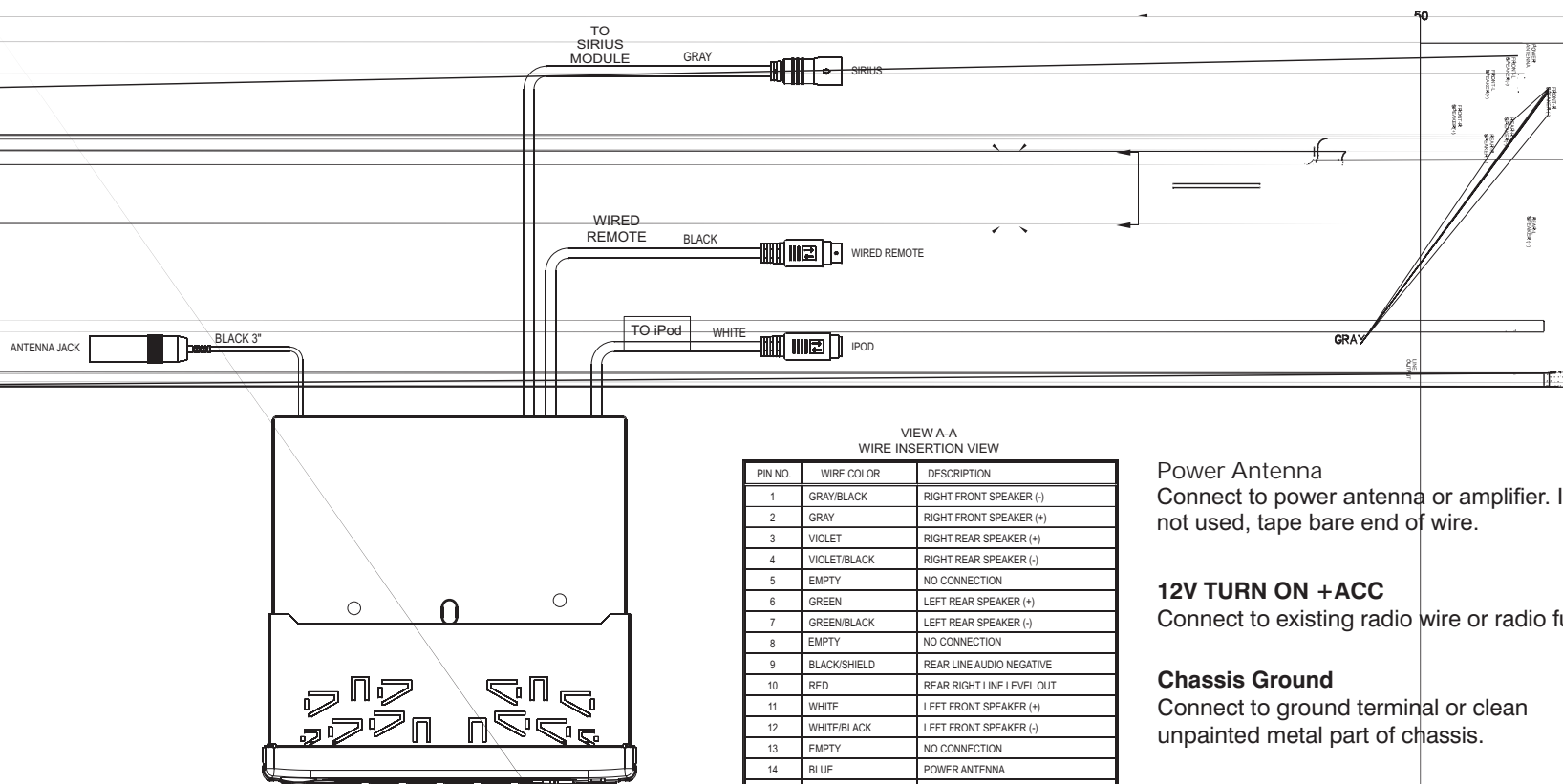
Removing the Unit

To remove the radio after installation, pull back the rubber covers, 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.

WIRING

 VIEW A-A
 WIRE INSERTION VIEW

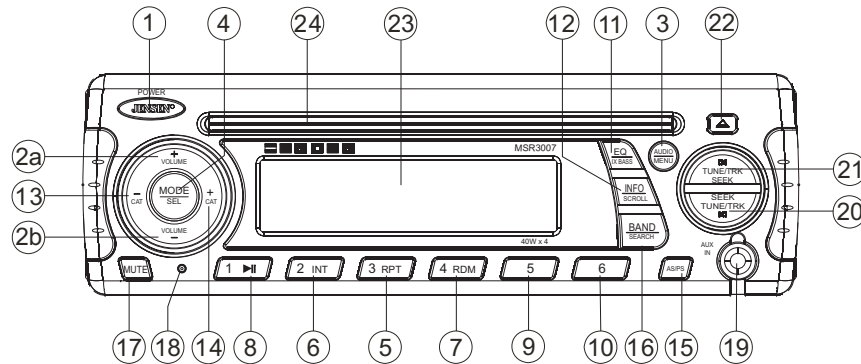
| PIN NO. | WIRE COLOR | DESCRIPTION |
|---------|--------------|---------------------------|
| 1 | GRAY/BLACK | RIGHT FRONT SPEAKER (-) |
| 2 | GRAY | RIGHT FRONT SPEAKER (+) |
| 3 | VIOLET | RIGHT REAR SPEAKER (+) |
| 4 | VIOLET/BLACK | RIGHT REAR SPEAKER (-) |
| 5 | EMPTY | NO CONNECTION |
| 6 | GREEN | LEFT REAR SPEAKER (+) |
| 7 | GREEN/BLACK | LEFT REAR SPEAKER (-) |
| 8 | EMPTY | NO CONNECTION |
| 9 | BLACK/SHIELD | REAR LINE AUDIO NEGATIVE |
| 10 | RED | REAR RIGHT LINE LEVEL OUT |
| 11 | WHITE | LEFT FRONT SPEAKER (+) |
| 12 | WHITE/BLACK | LEFT FRONT SPEAKER (-) |
| 13 | EMPTY | NO CONNECTION |
| 14 | BLUE | POWER ANTENNA |
| 15 | RED | ACCESSORY/IGNITION (+) |
| 16 | BLACK | GROUND |
| 17 | EMPTY | NO CONNECTION |
| 18 | EMPTY | NO CONNECTION |
| 19 | EMPTY | NO CONNECTION |
| 20 | WHITE | REAR LEFT LINE LEVEL OUT |

Power Antenna
 Connect to power antenna or amplifier. If not used, tape bare end of wire.

12V TURN ON +ACC
 Connect to existing radio wire or radio fuse.

Chassis Ground
 Connect to ground terminal or clean unpainted metal part of chassis.

BASIC OPERATION



Power On/Off

Press any button on the front panel to turn the unit on. Press the **POWER** button (1) to turn the unit off.

- If a disc is being inserted when the radio power is off and the ACC (accessory switch) is on, the unit will automatically power up and playback will start.
- If a CD is present, playback resumes at the last position in memory before the ignition was turned off or the **POWER** button was pressed.
- If no CD is present, the unit will resume at the last mode selected (Tuner, Aux, etc.). The **POWER** button is illuminated whenever the IGN lead (red wire) is powered, regardless of whether the unit is on or off.

Volume Control

To increase the volume, press the **VOLUME +** button (2a). To decrease the volume, press the **VOLUME -** 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 (4) on the control panel to select a different mode of operation, as indicated on the display panel. Available modes include Tuner, SIRIUS, CD, iPod and AUX In (optional Auxiliary Input).

NOTE: CD, CDC, IPOD, or SIRIUS mode will be skipped if the module is not installed.

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 pin 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 RESUME function located on the system menu. With "YES" flashing, press the **MODE** 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 **VOLUME +/-** 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 **VOLUME** buttons to adjust the Bass level range from "-6" to "+6".

Treble Level

Use the **VOLUME** buttons to adjust the Treble level range from "-6" to "+6".

Balance

Use the **VOLUME** buttons to adjust the Balance between the left and right speakers from "L12" (full left) to "R12" (full right).

Fader

Use the **VOLUME** buttons to adjust the Fader between the rear and front speakers from "R12" (full rear) to "F12" (full front).

Volume Level

Use the **VOLUME** buttons to adjust the Volume level.

System Menu

1. Press and hold the **AUDIO** button (3) for more than 3 seconds to enter the system menu. "MENU" will appear on the display, followed by the first menu item, "CONTRAST."
2. Press the **TUNE/TRK >>|** or **|<<** button (21, 20) or press the **AUDIO** button repeatedly to navigate the system menu and select the desired item.
3. Press the **VOLUME +/-** buttons (2) to adjust the selected menu item.
4. Press the **AS/PS** button to return to the previous operation immediately or wait for 5 seconds to return automatically.

The following items can be adjusted:

- CONTRAST (0 – 10): Set LCD contrast.
- LOW BATT (ON/OFF): Monitor voltage on ACC line.
- MWR100 (ON/OFF): Enable or disable MWR100 external wired remote operation.
- AREA (USA/LATIN/EUROPE/OIRT): Set frequency spacing for various regions.
- VOL PGM (0 – 46): Select an automatic turn-on volume.
- BEEP TONE (ON/OFF): Turn the audible beep ON/OFF (heard when functions/buttons are selected). *NOTE: Beep tone off will not affect LOW BATT audible tone.*
- RESUME: Return the EEPROM to factory default set up values and reset the Sirius Tuner Settings. "Yes" will blink on the LCD to confirm. Press **MODE** to select.

LOW BATTERY Operation

If LOW BATT is set to "ON", a alarm will sound (8 beeps every 30 sec) when the voltage drops to 10.8V (+/- 0.03V). A visual warning (LOBA) will appear flashing (8 flashes every 30 sec) in the lower left corner of the LCD display.

NOTE: "OFF" is the default setting for LOW BATT. If the audio is muted or the volume is set to 0, the audible beep will not be heard.

MWR100 Operation

If MWR100 is set to "ON", the unit will accept control by the MWR100 external wired remote controller. The default setting is "ON".

Equalizer

Press the **EQ** button (11) to turn on the equalization function and select between five pre-defined bass and treble curves: OFF > POP > JAZZ > CLASSIC > BEAT > ROCK.

iX-Bass

Press and hold the **EQ/iX-BASS** button (11) toggle true 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 on the front panel (19).
2. Press the **MODE** button (4) to select Aux In mode.
3. Press **MODE** again to cancel Aux In mode and go to the next mode.

Liquid Crystal Display (LCD)

The current frequency and activated functions are shown on the LCD panel (23).

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

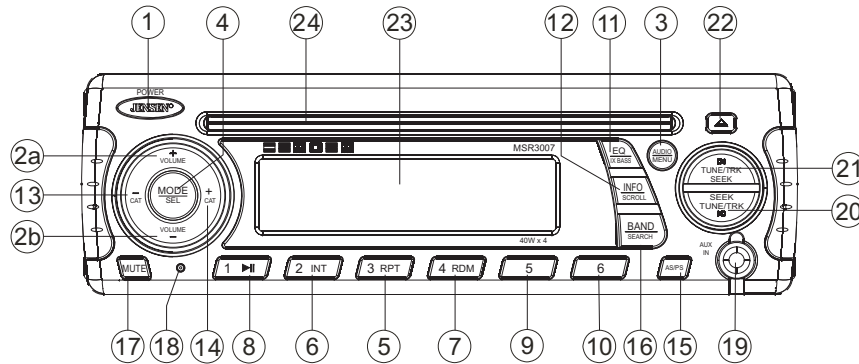
When the information is too long to be displayed on the LCD, press and hold the **INFO/SCROLL** button (12) to view the entire title. The information will scroll twice and then return to abbreviated text.

Quick Exit Hot Key

In the following modes and conditions, press the **AS/PS** button < 3 seconds to quickly exit the current operation without waiting for the system default time out:

- System menu operation
- Searching mode
- Audio menu operation

TUNER OPERATION



Select a Band

Press the **BAND** button (16) to change between three FM bands and two AM (MW) bands.

Manual Tuning

Press the **TUNE/TRK >>|** or **|<<** buttons (20, 21) to seek stations up/down step by step.

Auto Seek Tuning

Press and hold the **TUNE/TRK >>|** or **|<<** buttons (20, 21) 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 (5-10) for two seconds. The preset number will appear in the display.

Recall a Station

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

Automatically Store / Preset Scan (AS/PS)

Automatically Store

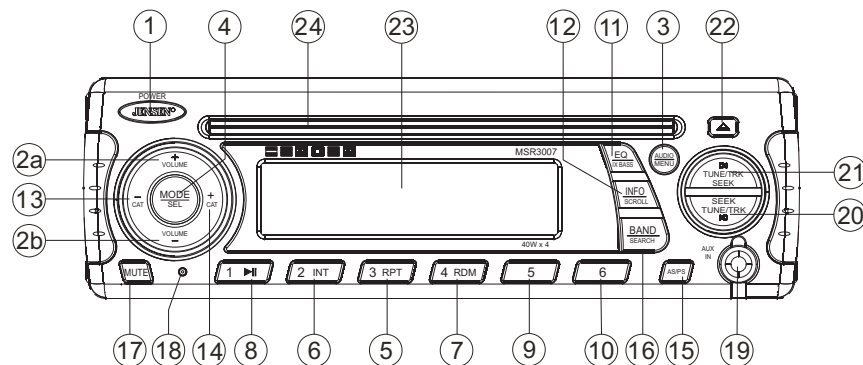
Select a band (if needed). *Press and hold* the **AS/PS** (15) button for more than three seconds to automatically select six strong stations and store them in the current band. The new stations replace any stations already stored in that band.

NOTE: During Auto Store (AS), the tuner will default to "Local" mode while scanning the band initially. After scanning the entire band once, the unit will switch to "Distant" mode for all subsequent Auto Store tuning.

Preset Scan

Select a band (if needed). 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.

CD PLAYER OPERATION



Inserting and Ejecting a Disc

Insert a disc, label-side up, into the disc slot (24) with the unit turned on. The unit will automatically draw the disc in and play the first track on the disc.

Press the eject ▲ button (22) to stop disc play and eject the disc. The unit does not have to be turned on to eject the disc.

Controlling Disc Playback

Selecting Tracks

Press the **TUNE/TRK >>|** (21) or **TUNE/TRK <<|** button (20) to advance to the next track on the CD. The selected track number will appear on the display. *Press and hold* the **TUNE/TRK >>|** or **<<|** button to fast forward or fast reverse through the disc. CD 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.

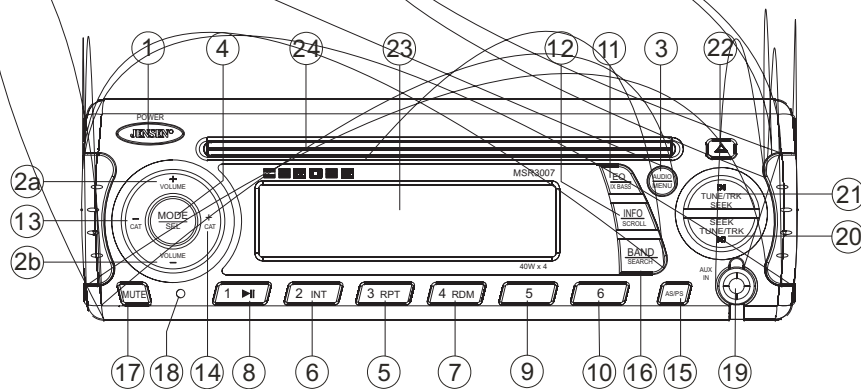
Repeat Play

Press the **3/RPT** button (5) during disc play to repeat play the current track. Press **3/RPT** again to stop repeat play.

Random Play

Press the **4/RDM** button (7) during disc play to play all tracks on a CD in random, shuffled order. Press **4/RDM** again to stop random play.

SIRIUS RADIO OPERATION



Switching to SIRIUS Mode

Press the **MODE** button (4) to change the mode to Sirius radio mode.

Accessing your SIRIUS ID

1. In Sirius mode, *press and hold* the **BAND/SEARCH** button (16) to select DIRECT mode.
2. Press the **MODE** button (4) to activate Direct mode.
3. Press the **MODE** button for each digit to enter "000".
4. Press **MODE** again to confirm. This will display the Sirius ID number for your tuner.
5. The Sirius ID number will scroll twice and then freeze with the first 11 digits on the display. Press the **INFO/SCROLL** button (12) 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: SR-1, SR-2, SR-3.

Category Tuning

1. Press the **CAT -/+** buttons (13/14) to change the category. Each category title and song title will be displayed in increments.
2. While in the category mode, press the **CAT -/+** buttons again to view category names. (The lowest channel number within the chosen category will always be the default first channel tuned.)
3. Press the **MODE** button (4) or the **TUNE/TRK <</>>** buttons (20/21) to choose desired channels in that category.
4. Press the **TUNE/TRK** buttons to select a channel within the chosen category.
5. Press **MODE** to confirm channel selection.

Channel Up/Down Tuning

Press the **TUNE/TRK <</>>** buttons (20/21) to search for a channel. *Press and hold* the **TUNE/TRK** 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.

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 **BAND/SEARCH** button (16) to access Direct Tune mode. "DIRECT-T" appears on the display for a few seconds.
2. Press the **MODE** button (4) to confirm.
3. Press the **TUNE/TRK <</>>** buttons (20/21) to move between the three digits.
4. Use the **VOLUME +/-** buttons (2) to select a number for each position.
5. Press the **MODE** button to confirm each digit.
6. Press the **MODE** button again to tune to the selected file.

Alternate Display Information

Press **INFO/SCROLL** button (12) to change the display information in the following order: ARTIST NAME > SONG TITLE > CATEGORY > CHANNEL NAME.

Satellite Signal Strength

The display will indicate satellite reception strength as shown below.

| Signal Strength | Strength Display |
|-----------------|------------------|
| No Signal | |
| Weak | |
| Good | |
| Excellent | |

IPOD OPERATION

Your iPod will play automatically when the accessory switch is on if connected to the 30 pin connection cable on the back of the unit.

Search Mode

Press and hold the **BAND/SEARCH** button (16) to enter iPod search mode. Press **BAND/SEARCH** again to access Playlist, Artist, Album, Genre, Song, or Composer (consecutively). When search mode is selected, press the **MODE** button (4) to confirm selection. Use the **VOLUME +/-** buttons (2) to navigate through various list selections. Press **MODE** (4) to make your final selection.

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. "Shuffle" will appear on the LCD. Press **4/RDM** again to stop random playback.

Selecting Tracks

During playback, press the **TUNE/TRK |<< / >>|** button (20/21) to play the previous or next track in the current category. Press the **TUNE/TRK |<<** button (20) once to play the song from the start position or press **TUNE/TRK |<<** twice to play the previous track.

Press and hold the **TUNE/TRK |<< / >>|** button (20/21) to fast reverse/forward the song.

NOTE: If you press and hold the TUNE/TRK |<< / >>| button to change the current song to the previous/next song, you will exit fast reverse/forward mode.

Alternate Display Information

Press **INFO/SCROLL** button (12) to change the display information in the following order: ARTIST NAME > SONG TITLE > FOLDER NAME.

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 be received at great distance. This is because broadcasting signals follow the curvature of the earth and are reflected back by the upper atmosphere.

TROUBLESHOOTING

| Symptom | Cause | Solution |
|---|---|---|
| No power | The vessel's accessory switch is not on | If the power supply is properly connected to the vessel's accessory terminal, switch the ignition key to "ACC". |
| | The fuse is blown | Replace the fuse. |
| Disc cannot be loaded or ejected | Presence of CD disc inside the player | Remove the disc in the player and insert the new one. |
| | Inserting the disc in reverse direction | Insert the compact disc with the label facing upward. |
| | Compact disc is extremely dirty or disc is defective | Clean the disc or try to play a new one. |
| No sound | Condensation | Leave the player off for an hour or so, then try again. |
| | Volume is too low | Adjust volume to audible level. |
| The operation keys do not work | Wiring is not properly connected. | Check wiring connections. |
| | Control panel not properly installed | Reinstall control panel. |
| Sound skips | The built-in microcomputer is not operating properly due to noise | Press the RESET button. |
| | The installation angle is more than 30 degrees. | Adjust the installation angle to less than 30 degrees. |
| Cannot tune to radio station, auto-seek does not work | The disc is dirty or defective. | Clean the disc and try to play again or use new disc. |
| | The antenna cable is not connected. | Insert the antenna cable firmly. |
| | The signals are too weak. | Select a station manually. |

SPECIFICATIONS

CD

Signal to Noise Ratio ≥ 75 dB
Channel Separation : More than 50 dB
Frequency Response : 20Hz - 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) $4\mu\text{V}$
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 40W x 4
Current Drain 15 Ampere (max.)
Dimensions 80 (W) x 183 (D) x 58 (H)



ASA Electronics Corporation

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