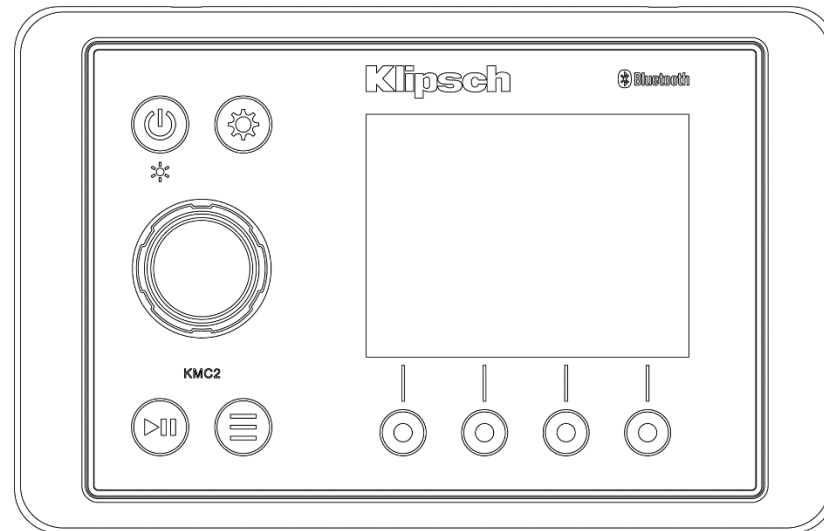


# Klipsch®

## KMC2

### Installation and Operation Manual



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**WARNINGS AND COMPLIANCE**

**Important Safety Instructions**

- To ensure full satisfaction with the product, please read the entire instruction manual.
- Keep instructions for future reference.
- Follow all operation guidelines and adhere to all safety warnings and cautions to ensure safe use.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Only use attachments/accessories specified by the manufacturer.
- Never use harsh cleaning agents. Clean only with a dry cloth.

***When Operating Vessel***

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

***Protect from Submersion***

- Do not submerge, as this can cause electrical shorts, fire or other damage.

***Protect from High Temperatures***

- The space behind the chosen mounting location should allow room for the radios heatsink to dissipate heat generated under normal use. Do not mount the radio within close proximity of the engine compartment.

***Use the Proper Power Supply***

- This product is designed to operate with a 12 volt DC negative ground battery system.

**WARNING:**

- DO NOT OPEN, DISASSEMBLE OR ALTER THE UNIT IN ANY WAY. Doing so may result in fire, electric shock or product damage.
- USE THE CORRECT AMPERE RATING WHEN REPLACING FUSE. Failure to do so may result in fire, electric shock or product damage.
- DO NOT INSTALL IN LOCATIONS THAT MIGHT HINDER VEHICLE OPERATION. Doing so may obstruct vision or hamper movement which can result in a serious accident.
- INSTALL THE WIRING SO THAT IT IS NOT CRIMPED OR PINCHED BY SCREWS OR SHARP METAL EDGES. Route the cables away from moving parts or sharp pointed edges. This will prevent crimping and damage to the

wiring. If the wiring must pass through a metal hole, be sure to use a rubber grommet to prevent the wire's insulation from being cut by the metal edge of the hole. It is also recommended to apply sealing caulk to any opening that may potentially allow water to enter. Be sure to choose a location that is flat and has clearance above the unit to prevent any damage, as well as allow for ventilation.

- Before drilling any holes, carefully inspect the area underneath and behind the mounting surface where the device will be mounted to make sure it will not interfere with existing wires, fuel lines, the fuel tank or any other objects that could be damaged.
- Always disconnect the vehicle negative battery terminal during installation to prevent accidental shorting.

**Compliance with FCC Rules (U.S.A Only)**

This device complies with Part 15 of the FCC rules. Operation is subjected to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**NOTICE**

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.

**FCC 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.

## **INTRODUCTION**

### **System Features**

Features of the Klipsch KMC2 marine audio system include:

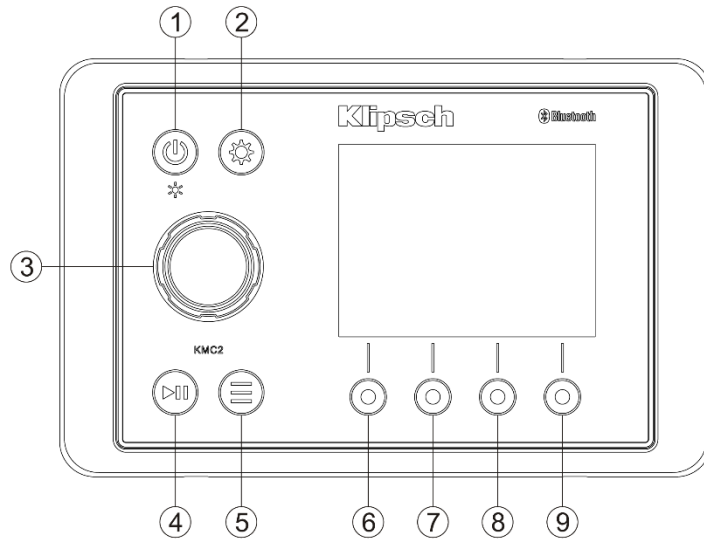
- 2.8" color TFT display viewable in direct sunlight
- W-profile flush-mount design with panel and U-bracket fastening options
- Detachable trim ring for front mounting.
- AM/FM US/EURO Tuner with 30 Presets (12 AM, 18 FM)
- NOAA 7-Channel Weather band
- USB Playback of MP3 and WMA files
- Bluetooth (Supports A2DP & AVRCP)
- Weatherband Tuner with Alerts
- Mute
- Pre-set Equalizer – 5 settings (User, Flat, Pop, Classical, Rock)
- Bass, Treble and Balance adjustments
- Output Power 26W RMS x 4 (Peak 50W x 4)
- Wired Remote Control Ready (*optional* KMC1RC)
- 4V Differential audio output

### **Content List**

- Klipsch KMC2 Tuner/Amp Module
- Klipsch KMC2 Wired Commander
- Wire Harness
- Quick Reference Guide



## BASIC OPERATION



### Power On/Off

Press the **POWER** button (1) to turn the unit on. *Press and hold* to turn the unit off.

### Dimming Feature

Press the **POWER** button (1) when the unit is on to switch between user set day/night setting. Day/night setting is located in the system settings.

### Volume

To increase the volume, rotate the **Encoder Knob** (3) clockwise. To decrease the volume, rotate the **Encoder Knob** counter-clockwise.

### Mute

When in live audio mode (AM/ FM/ Weatherband), press the **▶||** button (4) on the control panel to mute the audio output. Press **▶||** button again to restore the audio output to the previous level.

### Mode

Press the **MODE** button (5) on the control panel to enter mode selection display. Rotate the **Encoder Knob** (3) to desired mode and press to make selection.

### Audio Menu

Press the **MENU** button (2) on the control panel to access the audio menu. You can navigate through the audio menu items by rotation the **Encoder Knob** and pressing the **Encoder Knob** to make selection. The unit will automatically exit the audio menu after 10 seconds of inactivity. The following menu items can be adjusted.

#### **Bass Level**

Use the **Encoder Knob** to adjust the Bass level range from “-6” to “+6”.

#### **Treble Level**

Use the **Encoder Knob** to adjust the Treble level range from “-6” to “+6”.

#### **Balance**

Use the **Encoder Knob** to adjust the Balance between the left and right speakers from “L12” (full left) to “R12” (full right).

#### **Fade**

Use the **Encoder Knob** to adjust the Fade between the front and rear speakers from “F12” (full front) to “R12” (full rear).

#### **Subwoofer**

Use the **Encoder Knob** to adjust the Subwoofer level range from “0” to “40”.

#### **Loudness**

Press the **LOUD** soft button to toggle loudness on/off. When listening to music at low volumes, this feature will boost the bass and treble ranges.

#### **Zones**

*This unit may come from the factory in various Zone configurations or without zone capabilities. Settings may vary based on factory configuration.*

The unit connects to KMC1DSP using the JDAB 4 pin and Differential 6 pin connectors. Press the **Menu** button (2) on the control panel to access the audio settings menu, and then press the (7) button to enter Zone Settings. Rotate the **Encoder Knob** to select Zone and then press the Encoder Knob to select a Zone. Rotate the **Encoder Knob** to adjust Zone volume. Press the **Encoder Knob** again to confirm the volume level.

## System Menu

1. Press and hold the **MENU** button (2) for more than 3 seconds to enter the system menu. "SYSTEM SETTINGS" will appear on the display, followed by the first menu item, "Key Beep."
2. Rotate the **Encoder Knob** (3) to navigate the system menu and highlight the desired item.
3. Press the **Encoder Knob** to select the item and rotate the **Encoder Knob** to adjust the selected menu item.
4. Press the **Encoder Knob** again to enter your selection and return to the menu list.
5. Press the **back arrow** soft button (9) to return to the previous operation.
6. The following items can be adjusted:
  - Key Beep (On/ Off)
  - LCD Backlight (1 – 10)
  - LCD Backlight Night (1 – 10)
  - LCD Contrast (1 – 10)
  - Button Backlight (1 – 10)
  - Button Backlight Night (1 – 10)
  - Power Button Backlight (1 – 10)
  - Tuning Region (USA/ Europe)
  - Bluetooth Setup (Sub Menu, only accessible in Bluetooth mode)
    - BT ON/OFF: Choose "BT ON" or "BT OFF".
    - BT PAIR (ON/OFF): Choose "YES" to automatically pair a previously paired device.
    - BT DEVICE (Lock/Unlock, Disconnect/Connect, Delete): View, lock and delete from a list of previously paired mobile devices.
  - Battery Alarm (On/Off)
  - Battery Auto Off (On/Off)
  - Firmware: Press the Encoder Knob to view software version information.
  - Reset to Defaults: Press **Encoder Knob** once to confirm. (Resets unit to factory default settings)
7. The system will automatically exit this menu after 10 seconds of inactivity.

---

**NOTE: BT Pair and BT Device menu options are only available while in the BT mode.**

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## Battery Alarm Operation

If Battery Alarm is set to "ON", an alarm will sound (3 beeps every 30 sec) when the voltage drops to 10.8V (+/- 0.3V). A visual warning (Battery Low) will appear flashing on the LCD display.

---

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

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## Liquid Crystal Display (LCD)

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

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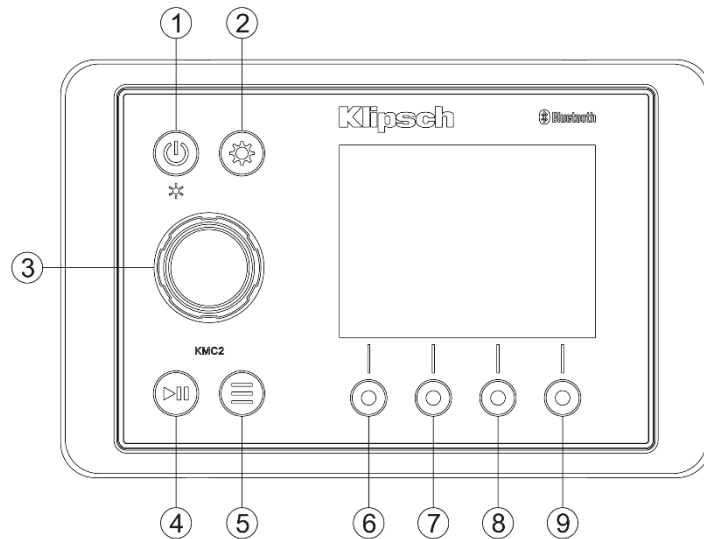
**NOTE: LCD panels may take longer to respond when subjected to cold temperatures for an extended period of time. In addition, the visibility of the numbers on the LCD may decrease slightly. The LCD display will return to normal when the temperature increases to a normal range.**

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## Back Key (swoop arrow)

In various modes and conditions, the swoop arrow option will be available in the lower right soft button. Press button to exit the current operation without waiting for the system default time out and returning to the previous menu display.

## TUNER OPERATION



Tuner mode options available are TUNE, BAND, PSET and PTY.

### BAND

#### Select a Band

Press the **BAND** soft button (8) to change between FM or AM bands.

### TUNE

#### Manual Tuning

Press the **TUNE** soft button (7). Press the **<<** or **>>** soft buttons to decrease/increase stations down / up step by step.

#### Seek Tuning

Press and hold **<<** or **>>** soft buttons to automatically seek the next or previous strongest broadcast station.

### PRESETS

Press the **PRESET** soft button (6) to access List, Scan, and Autosave.

#### LIST

Press the **LIST** soft button (6) to display the preset list. There are 18 FM and 12 AM preset locations to store your favorite broadcast stations.

#### SCAN

Press the **SCAN** soft button (7) to scan stations stored in the current band list. The unit will pause for ten seconds at each preset station. Press **SCAN** again to stop scanning when the desired station is reached.

#### AUTOSAVE

Press the **AUTOSAVE** soft button (8) to automatically select strongest stations and store them in the preset list for the selected Band. The new stations replace any stations already stored in that band.

#### Store a Station

While tuned to the desired broadcast station, press the **PRESET** soft button (6) and then the **LIST** soft button. Rotate the **Encoder Knob** (3) to navigate the preset list and highlight the desired preset memory location. Press and hold the **Encoder Knob** for 3 seconds or press the **SAVE** soft button (6) to store the station. The station frequency will appear in the display adjacent to the preset memory location number.

#### Recall a Station

Rotate the **Encoder Knob** to navigate the preset list and highlight the desired preset memory location. Press the **Encoder Knob** to select and tune to the corresponding stored station.



**PTY**

Press the **PTY** soft button (9) access search for stations in your area broadcasting RBDS information.

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

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In FM radio mode, press the **PTY** soft button to list the following Program Type (PTY) options: ANY / News / Information / Sports / Talk / Rock / Classic Rock / Adult Hits / Soft Rock / Top 40 / Country / Oldies / Soft / Nostalgia / Jazz / Classical / R&B / Soft R&B / Foreign Language / Religious Music / Religious Talk / Personality / Public / College / Weather / Emergency Test / Emergency!!

To search for stations in a PTY category:

1. Rotate the **Encoder Knob** control to navigate through the list of available categories and elect the program type you wish to search.
2. Highlight selecting the desired PTY, press the **Encoder Knob** control to start search the band or broadcasts of this type. PTY Search..." will be displayed during the search. If a matching broadcast station is found, it will automatically tune to that station. If none is found, the unit will return to the previously tuned broadcast station.

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***NOTE: Performing a PTY search on "ANY" will Seek Tune and stop on any station broadcasting RBDS, regardless of the program type.***

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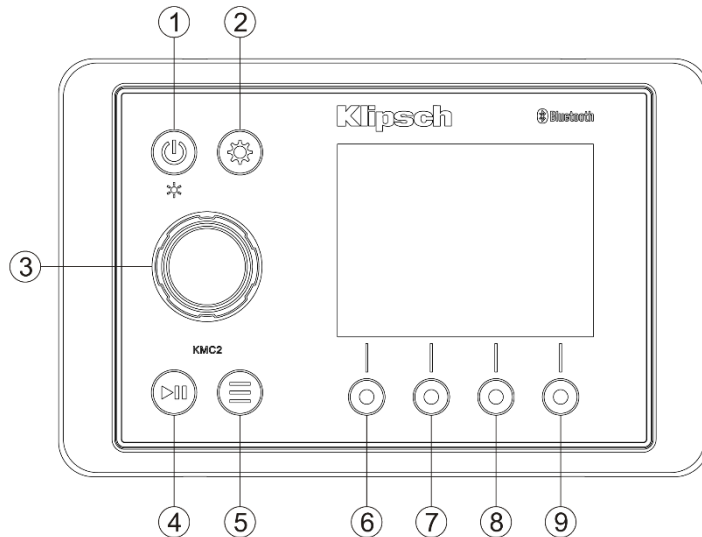
**Stereo (ST)**

The unit will automatically pick up an FM 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.

## WEATHER BAND OPERATION

### What is the NOAA Weather Radio/ Weatheradio Canada?

NOAA (National Oceanic and Atmospheric Administration) is a nationwide system that broadcasts local weather emergency information 24 hours a day via the National Weather Service (NWS) network. 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 the **MENU** soft button (5) and select Weather with the **Encoder Knob** (3) to access the weather band (NOAA seven frequency broadcast). The indication "Weather" will appear on the display panel. Under normal conditions the unit will automatically tune to the strongest station in the area within 10 seconds.

### Manual Tuning

Press the |<< or >>| soft buttons to adjust station tuning step-by-step.

#### LIST

Press the **PRESET** soft button (9) to display the preset list.

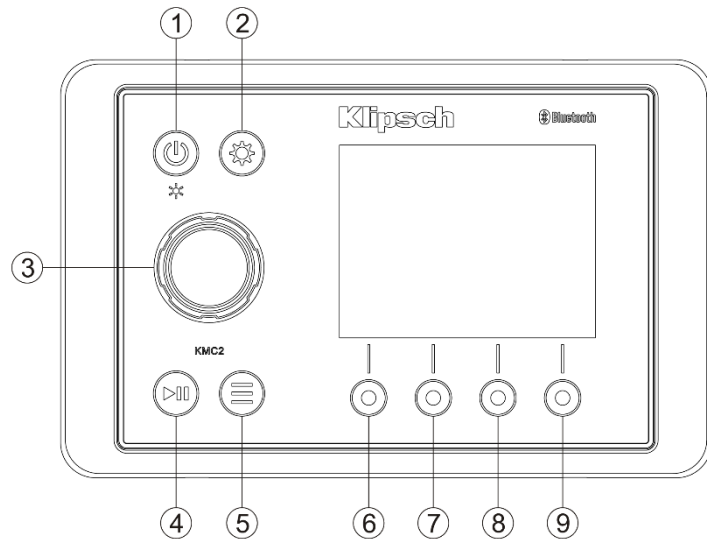
### Recall a Station

Rotate the **Encoder Knob** (3) to navigate the preset list and highlight the desired preset memory location. Press the **Encoder Knob** to select and tune to the corresponding stored station. Note that the presets are assigned and cannot be changed by the user

Weatherband Frequencies

Frequency (MHz)	Preset
162.400	2
162.425	4
162.450	5
162.475	3
162.500	6
162.525	7
162.550	1

## USB MP3 OPERATION



### MP3 Specifications

- A directory that does not include an MP3 file is skipped.
- Maximum number of folders: 207 (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

**NOTE: USB flash drives with a capacity of up to 64 GB are supported.**

### Inserting and Removing a USB Device

#### Inserting a USB Device

Insert the USB device into the USB jack and display will show the “Loading...” message. The unit will read the files on the USB device automatically.

#### Removing a USB Device

Press the **MODE** button (5) to select another mode and then remove the USB device from the USB connector.

**NOTE: After loading a USB device, files and folders are accessed in the order in which they were written to the device. Therefore, the playing order may not be the same as the order in which they are expected to be played.**

### Accessing USB Mode

#### Switching to USB Mode

Press the **MODE** button (5) to enter mode selection display. Rotate the **Encoder Knob** (3) to navigate to USB mode.

USB mode options available are |<<, >>|, RRI and LIST.

#### Selecting Tracks

Press the |<< or >>| soft buttons to increase or decrease to the next song file.

The selected file name will appear on the display. *Press and hold* the |<<, >>| soft buttons to fast forward or fast reverse through the current file. Playback begins when the button is released.

### LIST

#### Browse Files/Folders

Rotate the **Encoder Knob** (3) to navigate and view the list of all files/folders.

Press the **Encoder Knob** button to select the highlighted file/folder. Press the **BACK** soft button to reverse navigate the folders and return to the root level directory.

#### Play/Pause

Press the ▶|| button (4) to suspend playback. Press the ▶|| button again to resume playback.

### RRI (Repeat, Random, Intro)

#### Previewing Tracks

Press the **INTRO** soft button to play the first 10 seconds of each file in the current folder sequentially. Press the **INTRO** soft button again to stop Intro Scan and resume normal playback of the current file.

***Repeat Play***

Press the **REPEAT** soft button (1) during song play to repeat the current file.

Press the **REPEAT** soft button again to stop repeat play.

***Random Play***

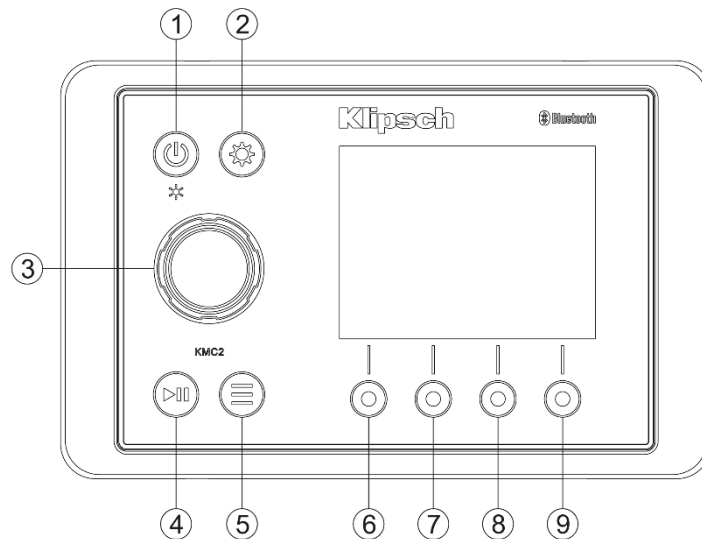
Press the **RANDOM** soft button to play all files in the current folder in random, shuffled order. Press the **RANDOM** soft button again to stop random play.

## BLUETOOTH OPERATION

The KMC2 includes built-in Bluetooth technology that allows you to wirelessly connect Bluetooth devices to this head unit for streaming audio playback.

### About Bluetooth Technology

Bluetooth is a short-range wireless radio protocol. Operating in the 2.4 GHz range, it transmits voice 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 BT menu options are only available while the unit is in BT Audio mode

Press and hold the **MENU** button (2) to enter menu adjustment mode. Rotate the **Encoder Knob** (3) to navigate the menu list to “Bluetooth Setup” and press the **Encoder Knob** to access the following Bluetooth Menu options:

- **BT ON/OFF:** Rotate the **Encoder Knob** to choose “BT ON” or “BT OFF”, and then press the **Encoder Knob** button to enter the selection.
- **BT DEVICE LIST:** Press the **Encoder Knob** button to view devices from the list. Rotate the **Encoder Knob** to view a list of previously paired mobile devices. Press the **Encoder Knob** button to select the device. Rotate the

**Encoder Knob** to choose Lock/Unlock, Disconnect or Delete for this device. You cannot delete a device that is actively connected.

- **LOCK/UNLOCK:** The KMC2 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 **Encoder Knob** button to display/change the Locked or Unlocked icon.
- **DISCONNECT:** To disconnect a paired device, press the **Encoder Knob** button to temporarily remove the BT link. The link can be re-established through your phone menu by selecting the KMC2 for connection.
- **DELETE:** To delete a device from the list, press the **Encoder Knob** button.
- **BT PAIR:** Rotate the **Encoder Knob** to choose “Pair?”, then press the **Encoder Knob** button to start pairing mode.

### Pairing a Bluetooth Device

Before you begin, consult the owner’s manual for the Bluetooth device you want to pair with the KMC2.

Make sure the device you intend to pair with is on and ready to pair.

1. First, put the KMC2 into Bluetooth mode.
2. Press the **PAIR** soft button (6) to start Bluetooth pairing process.
3. The KMC2 will display “Pairing...” and will be available to pair for 120 seconds.
4. In your device Bluetooth settings, select “KMC2” to pair and connect.

### Receiving a Call While Listening to Music

When answering a call using a connected phone, BT AUDIO will pause. After hanging up from the call, BT AUDIO will continue on some phones. It may be necessary to press the play button to resume BT AUDIO.

### BT Audio (A2DP)

When connected, a Bluetooth enabled device is able to stream audio to the KMC2. To access Bluetooth mode and play songs stored on your phone, press the **MODE** button (5). While in BT mode, the BT AUDIO icon illuminates on the LCD.

### Selecting Tracks

During playback, press the |<< or >>| soft buttons to play the previous or next track.

***Pausing Playback***

During playback, press the ►|| button (4) to pause the BT AUDIO player. “||” will appear on the LCD. Press ►|| again to resume playback.

If you change to another mode, the mobile phone audio will pause. Press the **MODE** button (5) to return to BT mode and resume mobile phone audio playback.

***INFO***

Press **INFO** button to view the name of the connected device.

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***NOTE: If a Bluetooth device is disconnected due to the power being turned off or if the device is disconnected inadvertently, the unit will automatically search for the matching Bluetooth device when the power is restored.***

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**SPECIFICATIONS**

**FM Radio**

Frequency Coverage (USA) . . . . . 87.5 to 107.9 MHz  
 Frequency Coverage (Europe) . . . . . 87.5 to 108 MHz  
 Sensitivity (S/N = 30dB) . . . . . 4uV  
 Image Rejection . . . . . >45 dB  
 Stereo Separation . . . . . >25 dB

**AM/MW**

Frequency Coverage (USA) . . . . . 530-1710 kHz  
 Frequency Coverage (Europe) . . . . . 522-1620 kHz  
 Sensitivity (S/N = 20dB) . . . . . .36dB

**General**

Frequency band(s) (for Bluetooth). . . . . 2.4~2.4835GHz  
 Maximum radio-frequency power transmitted (for Bluetooth). . . . . 4 dBm  
 Operating Voltage . . . . . DC 12 Volts  
 Grounding System . . . . . Negative Ground  
 Speaker Impedance . . . . . 4-8 ohms per channel  
 Tone Controls:  
     Bass (at 100 Hz) . . . . . ±6 dB  
     Treble (at 10 kHz) . . . . . ±6 dB  
 Power Output . . . . . 50W x 4  
 Current Drain . . . . . 15 Ampere (max.)  
 Chassis Dimensions . . . . . 182(L) x 52.2(W) x 173(H)  
 Front Panel Dimensions . . . . . 148(L) x 95(W) x 21(H)

**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"
	Fuse is blown	Fuse may be blown. Replace with 15 AMP ATP fuse.
No sound	Volume is too low	Adjust volume to audible level
	Wiring is not properly connected	Check wiring connections
The operation keys do not work	Wired commander is not properly installed	Check wired commander installation and connection
	Built-in microcontroller is not operating properly	Press the <b>RESET</b> button located on the back of the Tuner/Amp Module
Cannot connect or pair a Bluetooth Device	Already connected to another device	Check the radio to ensure not connecting to any Bluetooth devices. Refer to page 8 for disconnect the Bluetooth device.

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