polk®
ULTRAMARINE
C E R T I F I E D

UMC1
Installation and Operation Manual

CONTENTS

www.asaelectronics.com
877.305.0445
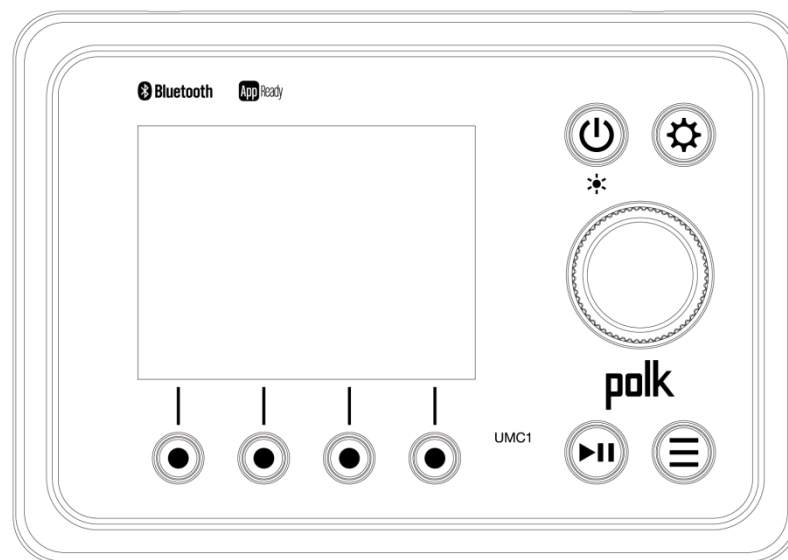
WARNINGS AND COMPLIANCE

Important Safety Instructions

1. READ these instructions.
2. KEEP these instructions.
3. HEED all warnings.
4. FOLLOW all these instructions.
5. If you hear ringing or experience pain or discomfort in your ears during or after using any audio product, that is a sign you are listening too loud. When your ears are exposed to high volumes (in excess of 85dB) for over an hour, you may be permanently damaging your hearing.
6. TURN DOWN your listening device's volume to zero before you turn on the device. Once on, gradually increase the volume to a comfortable, moderate volume.
7. DO NOT install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
8. ONLY USE attachments/ accessories specified by the manufacturer.
9. REFER all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING:

The Occupational Safety Health Administration (OSHA) has issued usage recommendations for maximum daily exposure and sound pressure levels (measured in decibels (dB)). A decibel is a unit of measure of sound, and decibels increase exponentially as sound gets louder. For example, conversational speech is typically around 60dB, and a rock concert in a stadium is often about 110dB.

OSHA Guidelines for Noise Exposure Limits

Sound Pressure Level	Recommended Maximum Exposure Per Day
90dB	8 Hours
92dB	6 Hours
95dB	4 Hours
97dB	3 Hours
100dB	2 Hours
102dB	1.5 Hours
105dB	1 Hours
110dB	30 Minutes
115dB	15 Minutes or less
120dB	Avoid as damage may occur

FCC Notes

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

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

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

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

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

INTRODUCTION

System Features

Features of the Polk UMC1 marine audio system include:

- 2.8" color TFT display
- AM/FM US/EURO Tuner with 30 Presents (12 AM, 18 FM)
- USB Playback of MP3 and WMA files
- Bluetooth (Supports A2DP & AVRCP)
- APP Ready
- Weatherband Tuner with Alerts
- Mute
- Electronic Bass, Treble, Subwoofer, Balance and Fader Controls
- Output Power 50W x 4
- Wired Remote Control Ready (optional PRC100BC, PRC200BC)
- 4-Channel Pre-amp Line Level Outputs (Front & Rear RCA)
- Auxiliary Audio Input (RCA)

Content List

- Polk UMC1 Wired Commander
- 10' Extension Cable
- Quick Reference Guide
- Cutout Mounting Template
- Hardware Kit
    - Rear Mounting Bracket
    - (2x) Mounting Bolt
    - (2x) Lock Washer
    - (2x) Lock Nut

HARDWARE KIT CONTENTS
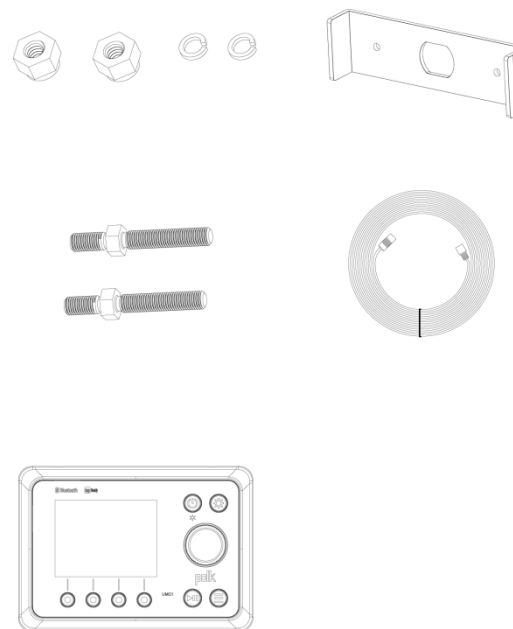
SAFETY INFORMATION

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

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

Protect from the Elements
Use the included cover to protect the wired commander from sunlight, dust, and water while not in use.

Protect from High Temperatures
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.

CAUTION:
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 AND INTERFERENCE, USE ONLY THE RECOMMENDED ACCESSORIES.

INSTALLATION

Before You Begin

Always disconnect the negative battery terminal

Important Notes

- Before final installation, test the wiring connections to make sure the unit is connected properly and the system works.
- 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 operating the vessel and cannot injure passengers.
- Use the included template to cut the installation opening.

Wired Commander Mounting

- Choose a mounting area for the wired commander that is clean and flat, allowing the rear gasket to fully seal to the mounting surface.
- Secure the wired commander using either of the recommended mounting methods detailed below.

Bracket Mount

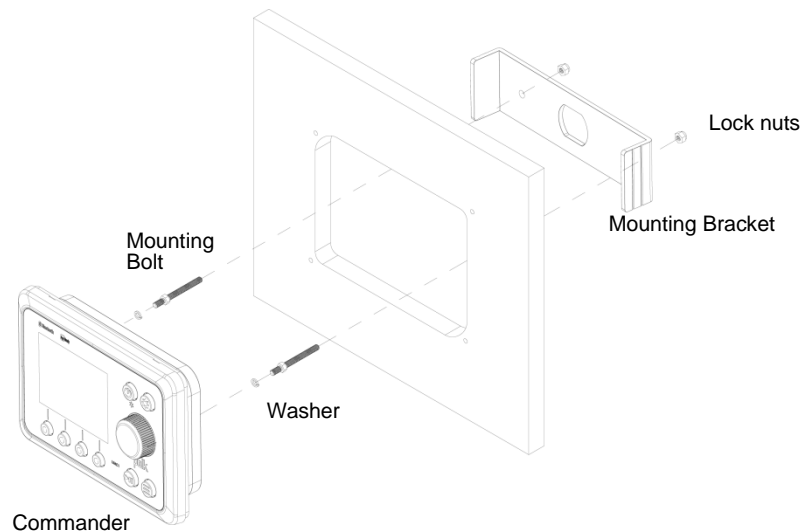- Insert wired commander through cut-out and secure with bracket using included hardware as detailed in the diagram.
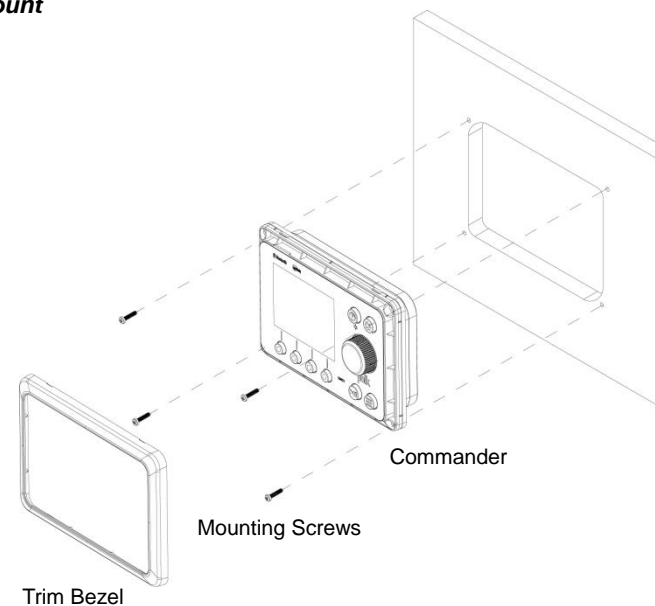
Screw Mount

- Secure the wired commander to the mounting surface using #6 stainless steel pan head screws *(not included)* as detailed in the diagram.

Bracket Mount

Lock nuts

Mounting Bracket

Mounting Bolt

Washer

Commander

Screw Mount

Commander

Mounting Screws

Trim Bezel

WIRING

COMMANDER

10' COMMANDER CABLE
(INCLUDED)

"Y" CABLE
(PRCYC1)

18' EXTENSION CABLE
(PRCEC18)

18' REMOTE CONTROL CABLE
(INCLUDED WITH PRC100BC, PRC200BC)

"Y" CABLE
(PRCYC1)

18' REMOTE CONTROL CABLE
(INCLUDED WITH PRC100BC, PRC200BC)

"Y" CABLE
(PRCYC1)

4-PIN JDAB

"Y" CABLE
(PRCYC1)

To Amplifier
UMPA8,   SubWoofer
UMPA5,
UMPA4,   Zone 1 ~ 4
UMPA1,

UM2DSP   NMEA2000

3rd MFD

PRC100BC/PRC200BC
REMOTE CONTROL

Differential Audio

PRC100BC/PRC200BC
REMOTE CONTROL

4-PIN JDAB

BASIC OPERATION

Power On/Off

Press and hold the **Power** button (1) to turn the unit on/off.
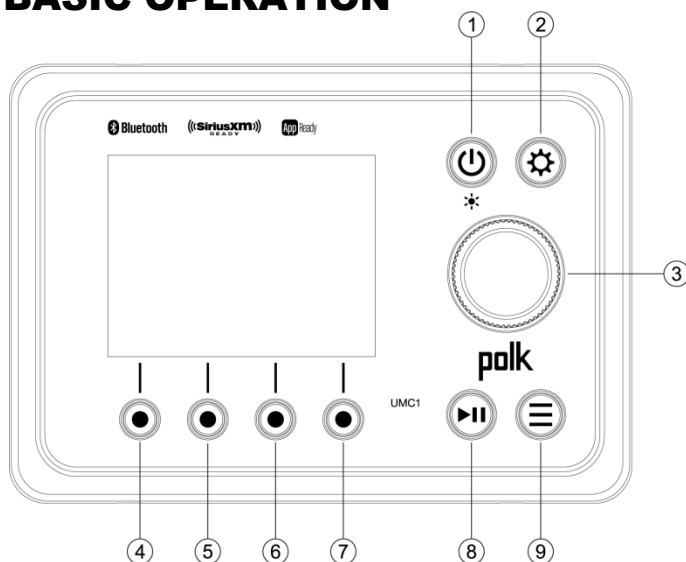
Volume

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

Play/Pause/Mute

Press the ►|| button (8) on the control panel to pause or mute the audio output. Press ►|| button again to unmute or resume the audio.

Mode

Press the **Mode** button (9) on the control panel to enter mode selection display. Rotate the **Encoder Knob** (3) to page through the available playback modes. Press the **Encoder Knob** to enter the desired playback modes.

Audio Settings

Press the **Menu** button (2) on the control panel to access the audio settings. You can navigate through the audio settings menu items by rotating the **Encoder Knob** clockwise or counter-clockwise, and then press 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 Fader between the rear and front speakers from "R12" (full rear) to "F12" (full front).

Sub
Use the **Encoder Knob** to adjust the Sub level range from 0 to 40.

Loudness
Press the **Loud** soft button (4) to toggle loudness on/off. When listening to music at low volumes, this feature will boost the bass and treble ranges.

Zones
The unit connects to UM2DSP using JDAB 4PIN. When Zone Toggle is On, Zone Settings and SUB volume are adjustable (default at 20). Press the **Menu** button (2) on the control panel to access the audio settings menu, and then press the (6) button to enter Zone Settings. Rotate the **Encoder Knob** to select Zone 1-4 and then press the Encoder Knob to enter a Zone. Rotate the **Encoder Knob** to adjust Zone volume. Press the **Encoder Knob** again to confirm the volume level.

Profiles
Press the (5) button to enter Profile Settings: Drive, Chill, Tow-Wake, Tow-Surf, Tow-Ski.

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 **Swoop Arrow** button (7) 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/ Euro)
   • Bluetooth Setup (Sub Menu, only accessible in Bluetooth mode)
      - Bluetooth On/ Off: Turn on and off BT module.
      - Bluetooth Device List (Lock/ Unlock, Disconnect/ Connect, Delete): View, lock and delete from a list of previously paired mobile devices.
      - Bluetooth Pair: Press **Encoder Knob** to confirm selection and put the PA4A/UM2 into pairing mode.
   • Low Battery Alarm (On/ Off)
   • Low Battery Auto Off (On/ Off)
   • Zone Toggle (On/ Off): When Zone Toggle is On, Zone Settings and SUB volume are enabled in Audio Settings, and EQ Settings become Profile Settings. When Zone Toggle is Off, Zone Settings and SUB Settings are disabled in Audio Settings.
   • System Reset: Press **Encoder Knob** once to confirm. (Resets unit to factory default settings)
   • Firmware: Press the **Encoder Knob** to view software version information.

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

Battery Alarm Operation

If Low 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 Low Battery Alarm. If the audio is muted or the volume is set to 0, the audible beep will not be heard.

Auxiliary Input

To access an auxiliary device:
1. Connect the portable audio player to the AUX IN cables routed from the rear of the radio.
2. Press the **Mode** button (9) to enter mode selection display.
3. Rotate the **Encoder Knob** (3) to select auxiliary audio input mode, then press the **Encoder Knob** to enter auxiliary audio input mode.

Back Key (Swoop Arrow)

In various modes and conditions, the swoop arrow option will be available in the (7) button. Press the (7) button to exit the current operation without waiting for the system default time out and returning to the previous menu display.

TUNER OPERATION
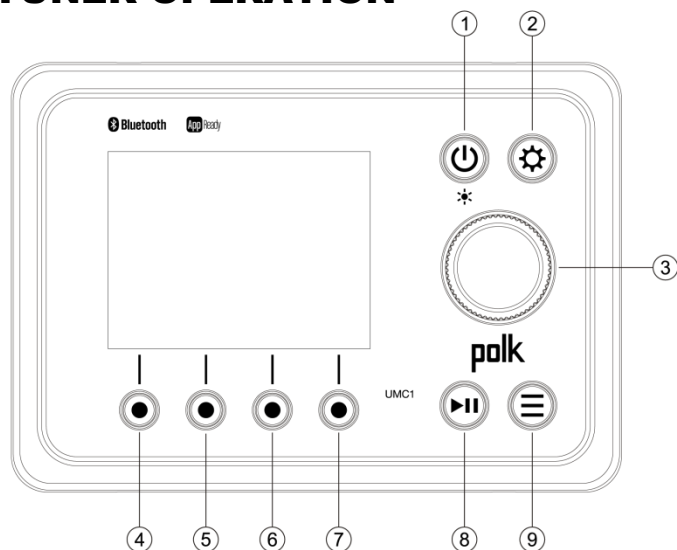
Tuner mode options available are Tune, Band, Preset and PTY.

BAND

Select a Band
Press the **Band** button (6) to change between FM or AM bands.

TUNE

Manual Tuning
Press the **Tune** button (5). Press the |**<<** or **>>|** buttons (4, 5) to decrement/
increment stations down/up step by step.

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

PRESET

Preset mode options available are List, Scan and Autosave.

List
Press the **List** button (4) to display the preset list**.** There are 18 FM and 12 AM
preset locations to store your favorite broadcast stations.

- *Store a Station*
  While tuned to the desired broadcast station, 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 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.

Scan
Press the **Scan** button (5) 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** button (6) 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.

PTY

Press the **PTY** button (7) to access search for stations in your area broadcasting RBDS information.

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

In FM radio mode, press the **PTY** 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 / 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** to navigate through the list of available categories and select the program type you wish to search.
2. Highlight the desired PTY, press the **Encoder Knob** to start search the band or broadcasts of this type. PTY Searching…" will be displayed during the search. If a matching broadcast station is found, it will automatically tune to that station. If none are found, the unit will return to the previously tuned broadcast station.

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

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.
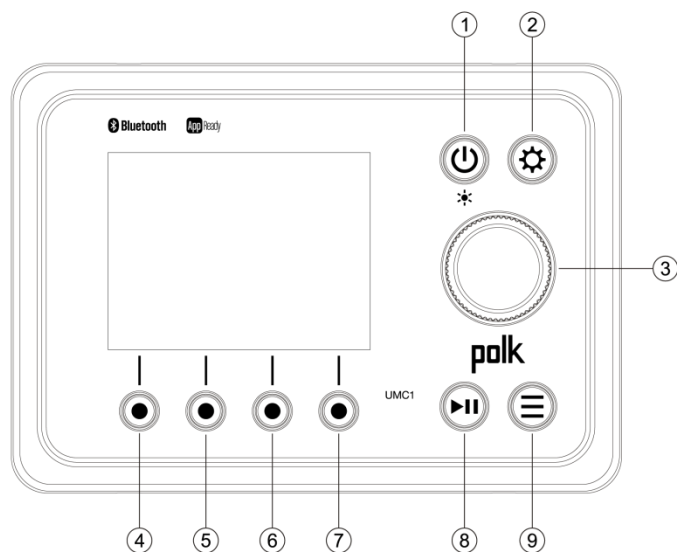
Tuning to Weatherband

Press the **Mode** button (9) to enter mode selection display. Rotate the **Encoder Knob** (3) to select Weather mode, then press the **Encoder Knob** to enter Weather mode (NOAA seven frequency broadcast). The indication "Weather" will appear on the display panel, along with the current number and channel indication: "Weather-1", "Weather-2", " Weather-3", " Weather-4", " Weather-5", " Weather-6" or " Weather-7". Under normal conditions the unit will automatically tune to the strongest station in the area within 10 seconds.

Manual Tuning

Press the **Tune** button and use the |**<<** or **>>**| buttons (4, 5) to adjust station tuning step-by-step.

LIST

Press the **Presets** soft button 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	1
162.425	2
162.450	3
162.475	4
162.500	5
162.525	6
162.550	7

USB MP3 OPERATION
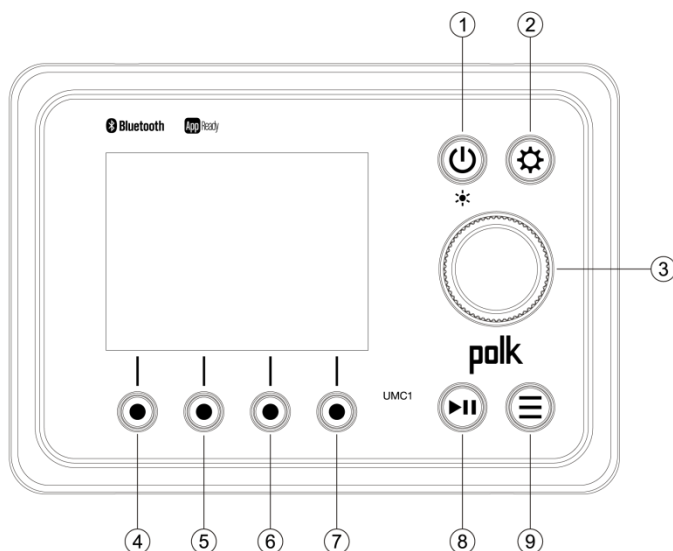
MP3 Specifications

- A 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

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 press the **Mode** button (9) to rotate the **Encoder Knob** (3) to select USB mode and enter USB mode, the display will then show the "Loading…" message. The unit will read the files on the USB device automatically.

Removing a USB Device

Press the **Mode** button 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 to enter mode selection display. Rotate the **Encoder Knob** (3) to select USB mode, then press the **Encoder Knob** to enter USB mode.

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

Selecting Tracks

Press the **|<<** or **>>|** buttons (4, 5) to increment or decrement to the next song file. The selected file name will appear on the display. Press and hold the **|<<** or **>>|** 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** button (7) to reverse navigate the folders and return to the root level directory.

Play/Pause

Press the ►|| button (8) to suspend playback. Press the ►|| button again to resume playback.

RRI (Repeat, Random, Intro)

Previewing Tracks

Press the **Intro** button (6) to play the first 10 seconds of each file in the current

folder sequentially. Press the **Intro** button again to stop Intro Scan and resume normal playback of the current file.

Repeat Play
Press the **Repeat** button (5) during song play to repeat the current file. Press the **Repeat** button again to stop repeat play.

Random Play
Press the **Random** button (4) to play all files in the current folder in random, shuffled order. Press the **Random** button again to stop random play.

BLUETOOTH OPERATION

The UMC1 includes built-in Bluetooth technology that allows you to wirelessly connect Bluetooth devices to this head unit for streaming audio playback.
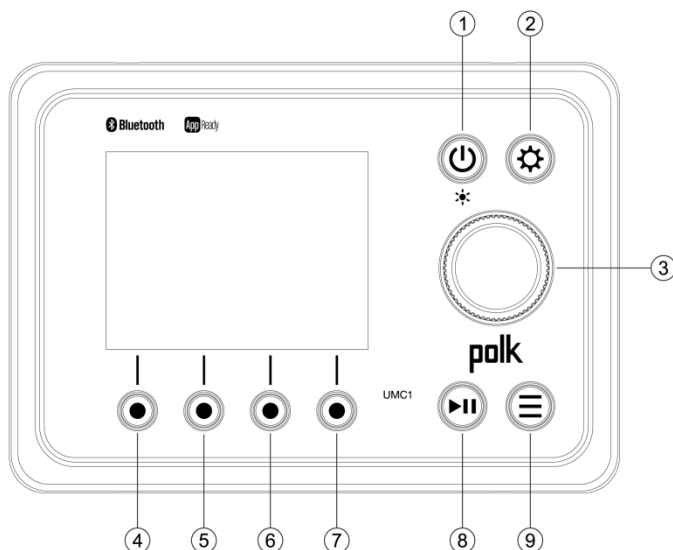
About Bluetooth Technology

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 Bluetooth menu options are only available while the unit is in Bluetooth Audio mode.

Press and hold the **MENU** button (2) to enter system settings menu. 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:

- *Bluetooth On/Off*: Rotate the **Encoder Knob** to choose "BT On" or "BT Off", and then press the **Encoder Knob** button to enter the selection.
- *Bluetooth – Pair Devices*: Press the **Encoder Knob** to display "Pair?" and press the **Encoder Knob** again to start pairing mode.

- *Bluetooth – Paired Devices*: The UMC1 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.

Pairing a Bluetooth Device

Before you begin, consult the owner's manual for the Bluetooth device you want to pair with the UMC1.

Bluetooth Quick Pair:

1. On your personal Bluetooth device, enter the Bluetooth settings list. Make sure your device has Bluetooth turned on and is searching for new devices.
2. Enter Bluetooth mode on the UMC1 by pressing the **Mode** button and selecting Bluetooth. Then press the Pairing button (7) to begin Bluetooth pairing for 120 seconds.
3. On your Bluetooth device, select **PA4A/UM2** once it becomes available to pair and connect your device.
   Enter the pairing password (0000), if requested.

Note: You can alternatively pair from the Bluetooth Menu.

Receiving a Call While Listening to Music

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

Bluetooth Audio (A2DP)

When connected, a Bluetooth enabled device is able to stream audio to the UMC1. To access Bluetooth mode and play songs stored on your phone, press the **Mode** button (9). While in Bluetooth mode, the Bluetooth audio icon illuminates on the LCD.

Selecting Tracks

During playback, press the **|<<** or **>>|** buttons (4, 5) to play the previous or next track.

Pausing Playback

During playback, press the ►|| button (8) to pause the Bluetooth 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 (7) to return to Bluetooth mode and resume mobile phone audio playback.

INFO

Press **Info** button (6) to view the name of the connected device.

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.

APP OPERATION

POLK® Specialty Controller is the ultimate wireless remote control for your POLK stereo system. Store away your old remotes and enjoy the convenience of all the primary functions of your POLK stereo right from your phone or tablet by transforming your mobile device into a functional stereo remote control!

Features

This app controls all of the primary functions of your stereo features including:

- Power on/off
- Volume and mute
- AM/FM radio tuner: access station, recall, store presets, switch songs
- NOAA weather band and alert
- Bluetooth® streaming audio
- File structure visibility, track selection, track audible scan up and down via USB
- Auxiliary audio input control –auxiliary analog 1
- Audio menu controls- bass, treble, balance, fader, subwoofer, volume and speaker selection settings
- Visual display feedback so you can see artist title and album on your mobile screen

Connecting and using Ultramarine app

After downloading and installing Ultramarine app on your apple device, pair your device to the PA4A/UM2 as stated above for Bluetooth pairing. Once your device is paired you can open the app and use with your UMC1 radio.

When Ultramarine is installed on Android operating system, close the app before Bluetooth pairing, otherwise there may be errors on Bluetooth connection.

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) . . . .±10dB

   Treble (at 10 kHz) . . . .±10dB

Power Output . . . . 50W x 4

Current Drain . . . . 15 Ampere (max.)

Tuner/Amp Box Dimension .7.4(L) x 7.4(W) x 2.2(H) Inches

Front Panel Dimensions . . . . 6.8(L) x 5.0(W) x 2.8(H) Inches

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	Replace the 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 **RESET** button located on the back of the Tuner/Amp Module

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