REI

AM/FM/RDS/WB/USB/Bluetooth Weatherproof Mini Radio

Installation/ Operation Manual

25W x 2   AW-30

Thank you for purchasing the AW-30 AM/FM/USB/Bluetooth Mini Radio from REI. This product is designed and tested to withstand temperature and vibration extremes. Please read the owner's manual carefully before attempting to install this unit.

REI OFFERS A WIDE RANGE OF PRODUCTS SO IF ADDITIONAL COMPONENTS ARE NEEDED TO COMPLETE YOUR AW-30 RADIO INSTALLATION, CONTACT AN REI SALES REPRESENTATIVE FOR:

OEM /FACTORY WIRING HARNESS ADAPTERS
ANTENNAS & ANTENNA ADAPTERS
SPEAKERS & GRILLES
MOUNTING BRACKETS

FEATURES:
- 12V/24V (10-30V) DC power
- Weatherproof front panel & chassis
- Bluetooth for streaming audio (A2DP)
- Bluetooth hands-free phone calls (HFP) via built-in microphone
  (remote mounted Bluetooth microphone sold separately)
- Bluetooth caller ID phone number for incoming calls
- iPhone/Android charging via rear USB input -Type A
  (Front panel-mount USB input cable sold separately)
- USB input supports MP3/WMA playback
- Displays ID3 information
- 7-channel NOAA weather band tuner
- 30 programmable AM/FM station presets (USA/Euro) with RDS
- 2-channel amplified speaker output (25 watts x 2)
- Rear audio AUX input (RCA)
- Two-wire connection prevents battery drain
- Clock runs up to 30 days when vehicle battery is disconnected
- Station pre-sets saved when vehicle battery is disconnected
- Built-in job site work timer
- Low battery alarm
- Amber LED button backlighting and display
- Universal mounting provisions (AMPS Pattern)
- Regular/overhead mounting bracket and hardware included
- Operating temperature range: −22°F to 185°F / −30°C to 85°C
- Dimensions: 5.2" W x 3.4" H x 1.7" D

CONTROLS AND INDICATORS
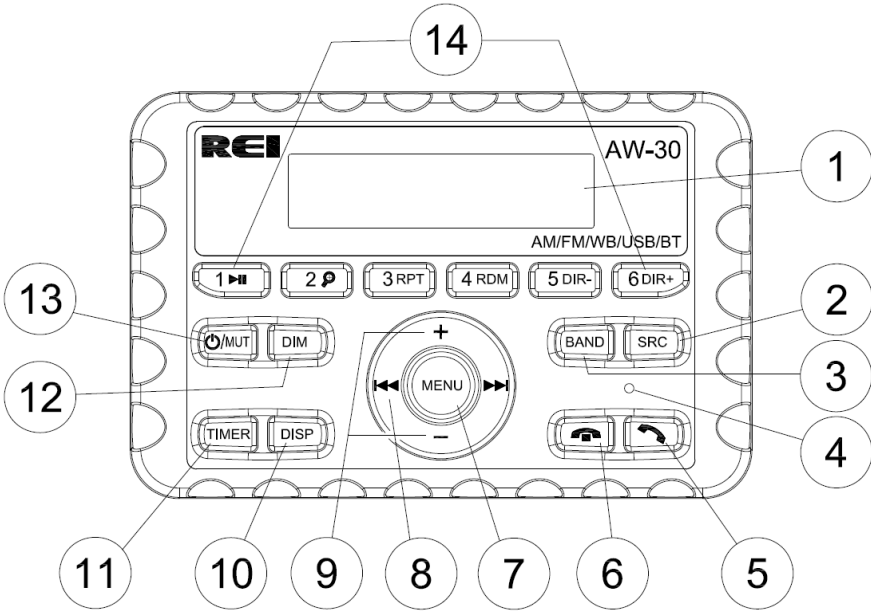
1. Display
2. Source Select Button
3. Band Button
4. Internal Bluetooth Microphone
5. Call Answer/Transfer Button
6. Call End Button
7. Menu Button
8. Tune /Track Buttons
9. Volume/Select Buttons
10. Display Button
11. Timer Button
12. Dimmer Button
13. Power/Mute Button
14. Preset Memory/Recall, Media Control Buttons

OPERATION

Power ON/OFF
Press the POWER/MUTE (13) button to turn the unit ON.

WELCOME

Press and HOLD the POWER/MUTE (13) button to turn the unit OFF.

PWR OFF

While ON, press and POWER/MUTE (13) to MUTE the audio.

MUTE

Setting the Time
To set the current time, press POWER/MUTE (13) button to turn the radio on. Press and HOLD the DISP (10) button until the hour flashes.
• Press + or - to select hour.   Press the DISP (10) until the minute flashes.
• Press + or - to adjust minutes. Press DISP (10) button to exit and save.

When there has not been an adjustment to the time setting, the time will become set and normal operation will resume.

Source control
Press SRC (2) button to navigate between source modes:
TUNE---USB---BT---AUX

Volume control
Press VOLUME UP/DOWN (9) buttons to change the source volume.
The AW-30 stores the last source volume in Non-volatile memory.

Dimmer Control
Press the DIM (12) button to select the level of desired backlight brightness.
The AW-30 is set to High by default.

```
DIM HIG
```

Press the DIM (12) button to select MID.

```
DIM MID
```

Press the DIM (12) button to LOW.

```
DIM LOW
```

Jobsite Timer
To set the clock to display the current time, turn on the ignition of the vehicle,
and turn the radio on. Press DISP (10) button to enter the clock setting menu.
• Press + or - to select hours, minutes, or 12/24-hour format.
• Press + or - to adjust the setting field.

When there has not been an adjustment to the time setting, the time will set and
normal operation will resume.

```
00:00:00
HRS    MIN    SEC
```

Low Battery Alarm
The AW-30 has a built in Low Voltage Alarm. The alarm will beep continually when
the voltage drops to 10.5V (+/- 0.3V) when the unit is on. A visual warning "LOW
BAT" will appear. Press MUTE (13) button to dismiss audible warning or Power the
AW-30 off.

```
LOW BAT
```

TONE MENU

Press the MENU (7) Button to select TONE or press and hold for MENU options
- BASS

Press +/- (9) buttons to change the BASS from +7/-7
- TREBLE

Press +/- (9) buttons to change the TREBLE from +7/-7
- BAL L/R

Press +/- (9) buttons to change the Balance from Left to Right
- EQ (OFF—CLASS—ROCK—POP)

Press +/- (9) buttons to change the EQ setting.   BASS/TREBLE is not available unless set to OFF
- LOUD ON/OFF

Press +/- (9) buttons to change the Balance from Left to Right
NOTE: If there has not been an adjustment to the desired setting for 3 seconds, it will automatically revert to the previous informational display.

SETUP MENU

Press and hold the MENU (7) button for 2 seconds. The LCD will display MENU.
Press MENU (7) to select the option, then press to select:
- MIC INT/EXT

Selects either the Built in INTERNAL Bluetooth mic or an Optional EXTERNAL
- BEEP ON/OFF

Select to turn the audible BEEP conformation ON or OFF
- BT ON/OFF

Select to turn Bluetooth operation ON or OFF.   When set to OFF, pairing is disabled.
- CLOCK 12/24

Select to select either a 12 or 24 clock operation.
- AREA USA/EURO

Select to select either USA or EURO frequency steps.
- LED ON/OFF

Select LED ON or OFF to turn off the LCD Display backlight when the unit is off, and power remains applied.
- RESET NO/YES

Use VOL +/- to select RESET to default YES or NO. When set to YES, the unit resets to factory default settings.

To save and exit MENU mode, let the unit time out after 3 seconds.

To view the current firmware on the unit:
  1) Turn on the unit. Press SRC (2) Button switch to AUX IN mode.
  2) Press and hold the "1" button for 2 seconds. It will display the software version.

TUNER MODE

FM MODE
Press BAND (3) button to select FM1/FM2/FM3

FM 1 98.5

AM MODE
Press BAND (3) button to select AM1/AM2

AM 1 530 CH

Tuning a Station
Press either TUNE (8) buttons to AUTO SEEK in the direction selected to the next strong station.

To manually tune to a specific station, hold either TUNE (8) button for 2 seconds.

MANUAL

Use the TUNE (8) buttons to select desired frequency. After 4 seconds without a TUNE (8) button response, the operation returns to AUTO SEEK automatic operation.

AUTO

RDS (Radio Broadcast Data Service)
During FM Frequency operation, the AW-30 will display RDS Station PS information while broadcast by the radio station.

Preset Stations
Six numbered preset buttons (14) store and recall stations. To store a station, select a station, then press and hold a preset button from 1 – 6 on the number buttons (14) for two seconds. The preset number will appear on the LCD.

Recall a Station
Press a preset button (14) from 1 – 6 on the number buttons to select the corresponding stored station.

WEATHERBAND MODE
NOAA National Weather Radio Broadcasts from over 380 locations throughout the U.S. on seven VHF/FM frequencies. Tune in to receive continuous weather information 24 hours a day on one of the following frequencies.

Use the TUNE (8) buttons to select the desired frequency or select by selecting from the available presets 1-6.

```
WB   162 .400 CH
               1
```
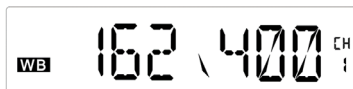
For local station listing see: **https://www.weather.gov/nwr/**

Note: Presets (14) buttons are pre-assigned frequencies in Weatherband mode

Press preset 1 to select weather band channel 1 - 162.400MHZ
Press preset 2 to select weather band channel 2 - 162.425MHZ
Press preset 3 to select weather band channel 3 - 162.450MHZ
Press preset 4 to select weather band channel 4 - 162.475MHZ
Press preset 5 to select weather band channel 5 - 162.500MHZ
Press preset 6 to select weather band channel 6 - 162.525MHZ
Press TUNE UP/DOWN to select weather band channels 7 - 162.550 MHz

CONNECTING A NEW BLUETOOTH DEVICE

Touch the SRC (2) button on the front to access BT. After selecting BT source, the display will say "UNPAIR" if not paired to a Bluetooth device.

To connect the Bluetooth device to the radio, pair the radio with the Bluetooth device first.
It will be necessary to verify that "BLUETOOTH" is set to "ON" (See MENU).

Pairing the mobile device with the Head Unit
Your mobile phone can initiate a search for new devices and pair to the unit. The following paragraph describes the pairing process:

NOTE: Procedures for pairing mobile phones may vary slightly from manufacturer to manufacturer.

1. Verify that the radio is powered up and ON.
2. Set the Bluetooth function of the mobile device to ON.
3. Access the "Look for devices" feature of the mobile device and begin searching. After searching, the radio will appear in the list of devices as **AW-30**. Press to accept.
4. A prompt to pair will appear on your mobile device. Press to accept and continue the process.
5. The mobile device will display a status of connected.
6. The Bluetooth icon on the radio will appear in the upper right-hand corner of the screen.

INCOMING CALL

The phone number of incoming calls will appear on the LCD. The incoming ring will be output through the unit.

```
BT  4023392
```

Answer Call

Press the CALL ANSWER (5) button to receive an incoming call.
The call duration will be displayed.

```
BT  0-00-13
```

Press the CALL ANSWER (5) button to connect with the last number received.

Transfer Call

During the call, press and hold the CALL ANSWER (5) button to transfer the call from the AW-30 to the phone.

End Call

Press the CALL END (6) button to end a call. The unit will return to the previous mode.

```
BT  CALLEND
```

Reject Incoming Call

To reject an incoming call, press and hold the CALL END (6) button.

Outgoing Call

Use the device to place a call. Press and HOLD the CALL ANSWER (5) button to call the last outgoing number.

```
BT  CALLING
```

BLUETOOTH STREAMING AUDIO MODE

The unit enables the playback of audio files from a mobile device using a Bluetooth connection. The radio controls a Bluetooth audio player via Advanced Audio Distribution Profile (A2DP) or Audio/Video Remote Control Profile (AVRCP). Bluetooth audio players and Bluetooth adapters compatible with these profiles are compatible with this radio. Verify the device has a Bluetooth connection, then touch the SRC (2) button on the front to access BT AUDIO.

Press the PLAY/PAUSE (14) button to listen to audio. When the audio plays the following functions are available:

- TUNE TRACK (8) buttons: Touch to play the previous /next track.
- PLAY/PAUSE (14) button: Touch to pause playback. Touch again to resume playback.

Press the DISP (10) button on the radio to display metadata information on the track (artist, track name, etc.). This option is only available on compatible devices.

NOTE: When there is an incoming call the audio play pauses. After the incoming call is complete, the screen will return to the music function screen and playback will continue.

The level of functionality may vary depending on the profile or device used.

<u>**AUX OPERATION**</u>

Press the SRC (2) button on the front panel until AUX IN appears in the display. This mode uses the rear RCA L/R audio inputs. It may be necessary to adjust the VOLUME level of the AUXILARLY input device if too little or too much signal is present.

$$\boxed{\text{AUX IN}}$$

USB OPERATION

Connect a USB storage device to the unit. The radio will automatically switch modes and begin playback after the media loads. Use the TUNE TRACK (8) buttons to change tracks.

`USB` ⎕ **USB**
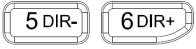
5 DIR- 6 DIR+ Press these buttons to select the desired folder for playback, if available.

3 RPT Press this button to REPEAT ONE/FOLDER/ALL.

4 RDM Press this button to select RANDOM ON/OFF during playback

1 ▶❙❙ Press this button to PAUSE/PLAY the media

2 🔍 Press and hold this button to directly access a media file. Use the TUNE TRACK (8) and VOLUME (9) buttons to select a file. Press MENU (7) to play.

`USB` **NUM SCH**   `USB` **NUM0000**

While playing compatible digital files, the display will alternate between ID3 tag information.

`USB` **FILE**   `USB` **FOLDER**   `USB` **TITLE**

SUPPORTED AUDIO FILES (MP3/WMA using ISO9660 formatting FLAC/AAC/M4A/WAV)

|	Format	Bit rate	Sampling Frequency	Bit count
AAC-LC (.m4a)	MPEG2/4 AAC LC HE-AAC(V1,V2)	8 – 320kbps, VBR	16 – 48 kHz	16 bit
MP3 (.mp3)	MPEG 1/2 Audio Layer 3	8 – 320kbps, VBR	16 – 48 kHz	16 bit
WMA (.wma)	Windows Media Audio Standard L3 profile (Version 7,8,9)	8 – 320kbps	16 – 48 kHz	16 bit
Linear PCM (.wav)	RIFF waveform Audio Format		16 – 192 kHz	16 bit/24 bit
FLAC (.flac)	flac		16 – 192 kHz	16 bit/24 bit

TROUBLE SHOOTING

Problem	Cause	Solution
Unit will not power on	No power to ACC wire, blown 5A main fuse.	Check both ACC & BATTERY voltages with multi-meter, check all fuses.
No sound	Speakers not connected; speakers connected with bad splices; Speakers shorted to ground; speaker load is not within 4-8 Ω.	Connect speakers to harness; check all spliced wires; verify speakers not shorted to chassis; verify total speaker impedance. Check volume level.
Cannot tune radio stations	The antenna cable has no connection. The signal is too weak. The radio is in the wrong frequency AREA.	Connect the antenna cable. Check that the frequency AREA is set to USA.
USB media not playing, or says NO SONG	Media is the wrong file type.	Convert files to a usable format, unit will only play MP3 or WMA file extensions.
Cannot stream Bluetooth audio	The Bluetooth device failed to pair with the AW-30.	Pair the Bluetooth device and retry.
AUX audio has distortion or is low	Aux source audio level is too weak or overdriven.	Adjust the audio level of the auxiliary source then adjust the radio volume.

RADIO DIMENSIONS
Check the opening to verify the radio will fit the following dimensions below.

M4 x 0.7 THREAD

1.84 in. [46.8 mm]

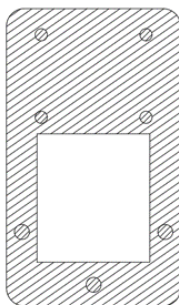1.5 in. [38 mm]
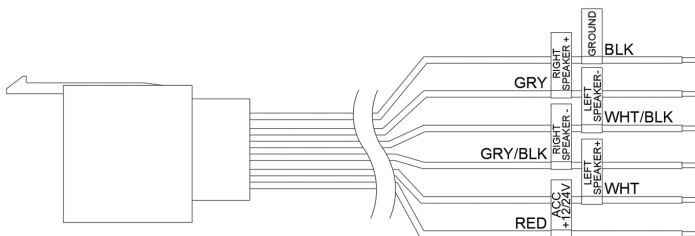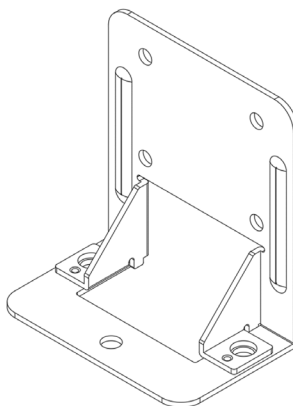
1.1 in. [28 mm]

1.18 in. [30 mm]
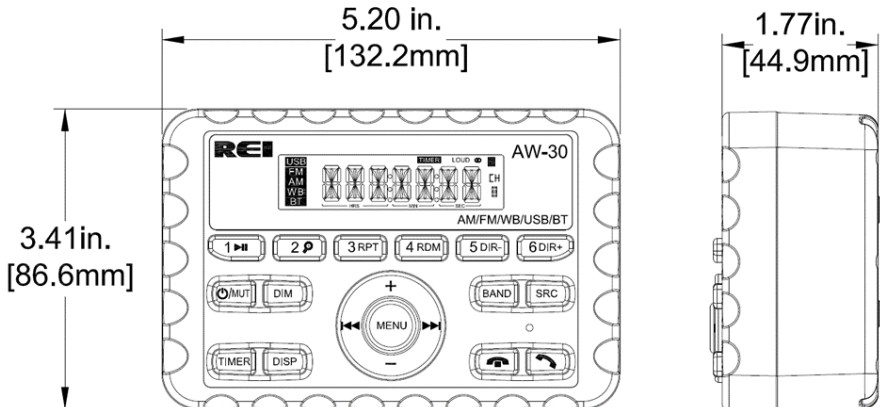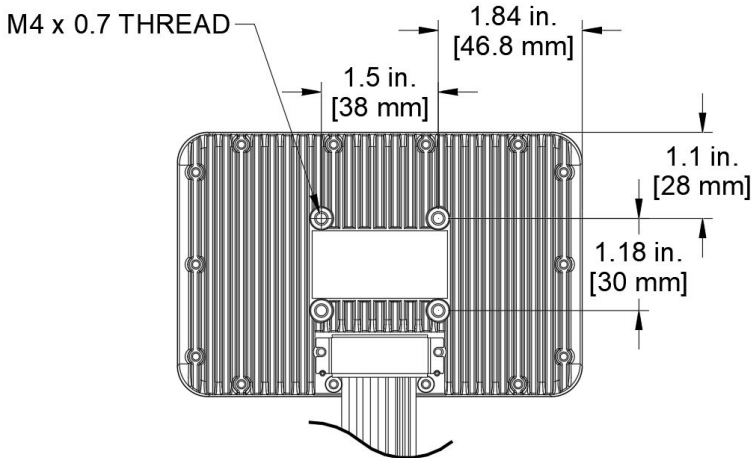
CONTENTS

The AW-30 Mini-Radio, mounting hardware, mounting bracket, self-adhesive pad, 9-Pin female wiring harness.

|	QTY	DESCRIPTION
	4 each	M4 Machine Screw and Ext tooth Lock Washer
	3 each	M5 Machine Screw, Flat washer, and Ext Tooth Lock Nut
	3	Self tapping Screw

RIGHT SPEAKER + — GRY
GROUND — BLK
LEFT SPEAKER- — WHT/BLK
RIGHT SPEAKER- — GRY/BLK
LEFT SPEAKER+ — WHT
ACC +12/24V — RED

Foam Bracket Pad (self adhesive)

INSTALLATION OPTIONS

Use the included QTY 4 M4 x 0.7 screws to attach the AW-30 to the mounting bracket. The screws only need to be hand tightened. Make sure not to overtighten the screws. The universal mounting of the AW-30 follows the AMPS Standard Pattern.

Overhead Mounting

Regular Mounting

Mounting the Bracket

M5 Machine Screw, Flat washer, and Ext Tooth Lock Nut

Self tapping Screw
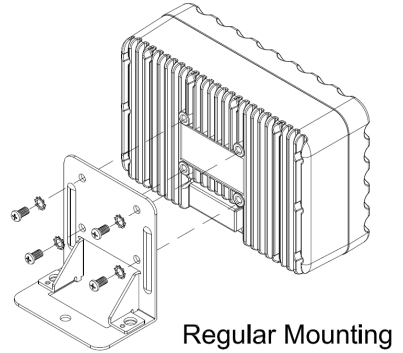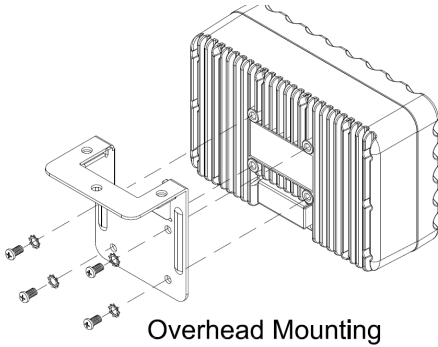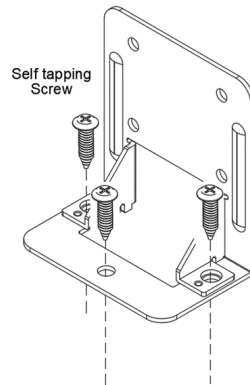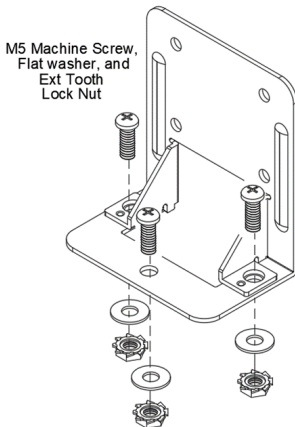
*Suggested mounting hole size is 7/32." Check for clearance and obstructions before drilling.

ELECTRICAL CONNECTIONS

First, disconnect the negative battery terminal. Then follow the wiring diagram during the installation of the AW-30.

SPECIFICATIONS

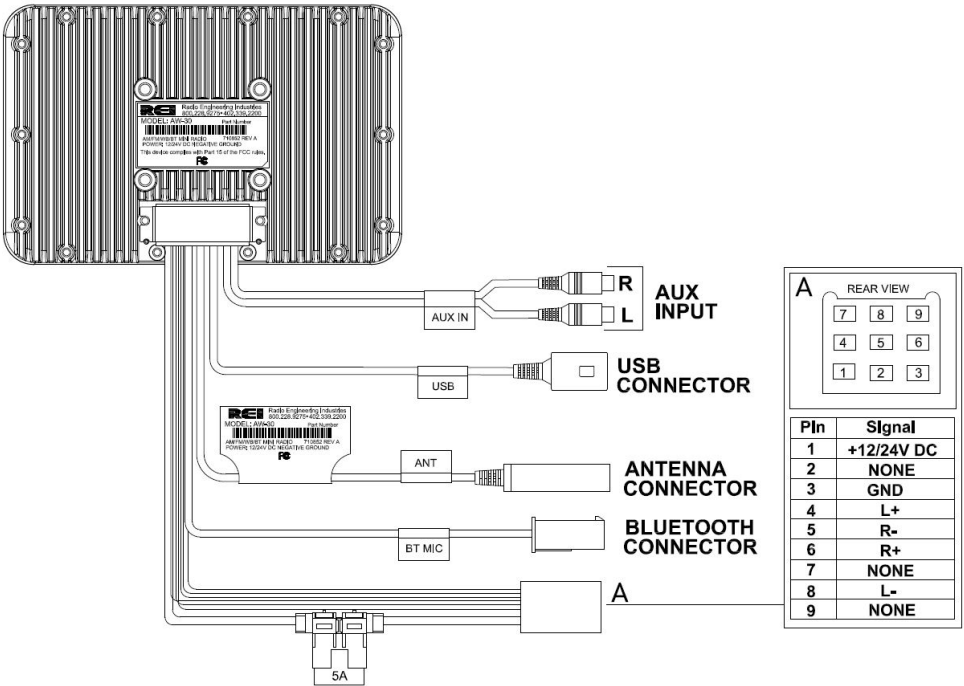### AUDIO SECTION
Power supply voltage (negative ground) ……………….…+12-24V DC (10-30V)
Standby Current….....………………………….…………………. Zero Current Draw
Max Current Consumption….….……………………………….…..………. …..2.5A
Speaker impedance ……………..….…………….……… 4-8 Ohms per channel

Continuous Output into 4Ω, 20 to 20,000 Hz at 10 % THD …..….....…2 x 14Watts
Maximum Power Output (@28.8V)...………………..……………… 2 x 25Watts

FM TUNER
Range ……………………..(USA) 87.5 – 107.9 MHz (EUR) 87.50 – 108.00 MHz
Usable Sensitivity (S/N = 30dB)………………………..7.34dBf.(0.6uV/75ohms)
Signal to noise ratio ………………………………………………...58dB (Mono)
Stereo separation (@ 1K Hz) …………………………..………...………..…42dB

AM TUNER
Range ……………………………(USA)530 – 1,710 kHz (EUR) 522 – 1,620 kHz
Usable Sensitivity (S/N = 20dB)……………………..……....23dBuV (14.4uV)
Signal to noise ratio (LEVEL60dbuV)…….……………...…………………... 60 dB

WEATHER BAND TUNER
Range …………………………………………………..………162.400 –162.550Hz
Usable Sensitivity (S/N20dB)……………..…………...…………..0.7uV(-9dBuV)
Signal to noise ratio (LEVEL40dbuV)…….……………...…………….42dB

USB INTERFACE
USB Standard ……………………………………………...USB1.1/2.0 (High Speed)
Maximum Supply Current …………………………..……..…………5VDC/1A
File System …….……………...……………………………...…………. Fat16/32

BLUETOOTH
Version……………………………………………………..…·Bluetooth 5.1
Frequency Range……………………………………………….2.402 – 2.480 GHz
Output power……………………………………………………+4dBm Max
Profiles Supported…………………………………………...HFP, A2DP, AVRCP

AUXILIARY INPUT
Input Voltage Maximum Voltage…………………………………….....1.0V
Frequency Response …………………………………………....20 to 20,000 Hz
Input impedance……………………………………………………..……10KΩ

DIMENSIONS
Chassis (W x H x D)..…………………5.2"x 3.41"x 1.77" / 132.2 x 86.6 x 45 mm
Weight …………………………………………………………….…1.4 Ib

Due to continuous product improvement, specifications and design are subject to change without notice.

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks is under license.

FCC COMPLIANCE STATEMENT

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

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter. The Bluetooth antenna cannot be removed (or replaced) by user. This equipment complies with FCC/ IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated keeping the radiator at least 20 cm or more away from person's body (excluding extremities: hands, wrists, feet and ankles). Alteration or modifications carried out without appropriate authorization may invalidate the user's right 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 and 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:
• Relocate or reorient 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.

REI LIMITED WARRANTY

What Does This Warranty Cover?
This warranty only covers failures due to defects in materials or workmanship which occur during normal use.

What Does This Warranty Not Cover?
This warranty does not cover damage which occurs in shipment or failures which are caused by products not supplied by REI or failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, faulty installation, set-up adjustment, improper maintenance, alteration, improper antenna, inadequate signal pick-up, maladjustment of consumer controls, modification, line power surge, or damage that is attributable to acts of God, or service by anyone other then a REI Factory Service Center. This warranty does not include service or labor charges connected with the determination or replacement of defective parts or the operation of this equipment. REI is not responsible for any labor charges incurred by any person or company other than REI authorized repair centers.

LIMITS AND EXCLUSIONS
There are no express warranties except as listed above.

REI SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING WITHOUT LIMITATION, DAMAGES TO TAPES OR DISCS. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY, ARE LIMITED TO THE APPLICABLE WARRANTY PERIOD SET FORTH BELOW. Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

What is the Period of Coverage?
REI will repair this product, free of charge, from the date of original purchase in the event of a defect in materials or workmanship as follows:

For ninety (90) days - microphones, speakers, antennas, housings, rechargeable batteries, remanufactured product and all non-warranty repairs (replaced parts and labor only).

For one (1) year - all other manufactured products.

For three (3) years - select manufactured motorcoach products.

For three (3) years - select surveillance equipment.

REI may have contractual agreements which provide REI motorcoach and surveillance products with additional coverage.
Call 877-726-4617 for details.

Any product supplied by REI, but not manufactured by REI, will include the original manufacturers warranty only.

What Will REI Do to Correct Problems?
Once the product is deemed by REI to be a warrantable defect, REI will, at its own discretion, repair or replace the product with new or reconditioned product. All warranty repairs and/or product replacements will include the remaining warranty from the original purchase date.

How Do You Get Service?
For assistance in obtaining service for REI products call toll free 877-726-4617 (Continental United States and Canada only) or 402-339-2200 (outside Continental United States and Canada) between the hours of 7:00A.M. - 5:00P.M. CST Monday thru Friday (excluding Holidays).

Prior to calling REI, customers must have the part number, serial number, VIN number (if it's a motorcoach product) and detailed description of the problem ready to provide to the REI service representative. After providing the proper information to REI, customers will be issued a return authorization number. When the REI service representative provides the return authorization number, they will also give instructions for returning the item. Any discrepancies in following this procedure may cause shipments to be refused or warranty claims to be rejected.

IMPORTANT! REI does not accept product returns for repair or replacement without first issuing a return authorization number. All returns must be sent freight prepaid and insured by the customer. REI will not accept COD shipments.

IMPORTANT! REI does not accept responsibility for lost shipments. It is the customer's responsibility to provide REI with the part number, serial number, return authorization number and shipper tracking number in the event REI does not have record of receiving product for repair or replacement.

Once warranty service has been performed on your product, REI will ship the item freight prepaid to any business address in the Continental United States or Canada. Customers located outside the Continental United States and Canada are responsible for all freight charges. Any duties or fees, if any, are the customer's responsibility.

Any repair deemed non-warranty by REI will be subject to all freight charges, and in some cases inspection fees, to be paid by the customer. These fees may exist regardless of whether the product is repaired. If a customer requires help in trouble shooting a problem, contact REI and request technical assistance before requesting a return authorization number.

What Must You Do To Keep This Warranty in Effect?
KEEP YOUR ORIGINAL PROOF OF PURCHASE AS IT MAY BE REQUIRED IN ORDER TO RECEIVE WARRANTY SERVICE.
Make sure the serial number is not removed, altered or defaced.
Do not attempt to have your product repaired by anyone other then a REI Factory Service Center.
Also, see "What Does This Warranty Not Cover".

REI AUTHORIZED REPAIR FACILITIES:
REI
6534 L Street
Omaha, Nebraska 68117
Phone: 877-726-4617

What if your Product is a Non-Warranty Repair?
All Products sent to REI for repair which are determined, at REI's discretion, to be non-warrantable repair may incur inspection fees regardless of actual repair being performed or will incur repair fees if the product is repaired. All non-warranty repairs include a 90 day warranty for any components that are replaced, if any, and labor performed. Inspection fees apply regardless of whether a product is determined to be non-warrantable prior to shipping to REI. All freight charges, duties or fees associated with non-warranty repair are the customer's responsibility.

Radio Engineering Industries, Inc.
6534 L Street
Omaha, NE 68117
radioeng.com
Rev A.0   Date: 10/23/2023