

TECSUN PL-880

Tecsun PL-880 Portable Digital PLL Shortwave Radio User Manual

Model: PL-880

1. INTRODUCTION

This manual provides detailed instructions for the operation and maintenance of your Tecsun PL-880 Portable Digital PLL Dual Conversion AM/FM, Longwave, and Shortwave Radio with SSB (Single Side Band) Reception. The PL-880 is designed for high-performance reception across a wide range of frequencies, offering advanced features for radio enthusiasts.

2. PACKAGE CONTENTS

Please verify that all items are present in your package:

- Tecsun PL-880 Radio Unit
- External Shortwave Antenna
- Stereo Earphones
- Carrying Pouch
- USB Charging Cable
- 18650 Lithium-Ion Battery (pre-installed or separate)
- Quick Reference Guide
- User Manual (this document)



Image: Tecsun PL-880 radio shown with its included accessories, including the external antenna, earphones, and carrying pouch.

3. PRODUCT OVERVIEW

3.1 Front Panel and Display



Image: Front view of the Tecsun PL-880 radio, highlighting the speaker grille, LCD display, and keypad. The front panel features the main speaker, a large LCD display for frequency and status information, and a numeric keypad for direct frequency entry. Various function buttons are located below the display for mode selection, memory operations, and settings.

3.2 Side Panels and Controls



Image: Right side view of the Tecsun PL-880 radio, showing the power button, tuning knob, fine tuning knob, and volume control.

The right side of the radio houses the primary control knobs:

- **POWER Button:** Turns the radio on or off.
- **TUNING Knob:** For coarse frequency adjustment.
- **FINE TUNING Knob:** For precise frequency adjustment, especially useful for SSB.
- **VOLUME Knob:** Adjusts the audio output level.
- **LIGHT Switch:** Controls the display backlight.
- **TONE Switch:** Adjusts audio tone (Bass/Treble).



Image: Left side view of the Tecsun PL-880 radio, showing the external antenna jack, line out jack, DC-in port, and SW ANT GAIN switch.

The left side of the radio includes various input/output ports and switches:

- **SW ANT Jack:** For connecting an external shortwave antenna.
- **SW ANT GAIN Switch:** Adjusts antenna gain (Local, Norm, DX) for optimal reception.
- **LINE OUT Jack:** For connecting to an external amplifier or recording device.
- **EARPHONE Jack:** For connecting stereo earphones (3.5mm).
- **DC-IN 5V Port:** USB jack for external power supply or charging.

3.3 Rear Panel



Image: Rear view of the Tecsun PL-880 radio with the battery compartment cover open, showing the battery slot and polarity markings. The rear panel primarily features the battery compartment and a kickstand for propping up the radio.

4. SETUP

4.1 Battery Installation

1. Locate the battery compartment on the rear of the radio.
2. Slide the battery compartment cover downwards and lift to open.
3. Insert the provided 18650 Lithium-Ion battery, ensuring correct polarity (+ and - terminals match the markings inside the compartment). The positive (+) end typically has a button top.
4. Close the battery compartment cover securely.



Image: The Tecsun PL-880 radio displayed alongside its 18650 Lithium-Ion battery, illustrating the battery type used.

4.2 Charging the Battery

Connect the supplied USB charging cable to the DC-IN 5V port on the left side of the radio and plug the other end into a USB power adapter (not included) or a computer USB port. The charging indicator on the display will show charging status. A full charge typically takes several hours.

4.3 Connecting External Antenna (Optional)

For improved Shortwave reception, connect the external shortwave antenna to the SW ANT jack on the left side of the radio. Extend the antenna fully and position it for best signal.

5. OPERATING INSTRUCTIONS

5.1 Power On/Off and Volume

- Press the **POWER** button on the right side to turn the radio on or off.
- Rotate the **VOLUME** knob to adjust the audio level.

5.2 Band Selection

Press the dedicated band buttons (**FM**, **AM**, **LW**, **SW**) on the keypad to switch between frequency bands.

5.3 Tuning Methods

- **Manual Tuning:** Rotate the **TUNING** knob for coarse frequency changes. Use the **FINE TUNING** knob for precise adjustments.
- **Direct Frequency Entry:** Enter the desired frequency using the numeric keypad and press the corresponding band button (e.g., for 98.1 FM, press 9-8-1-FM).
- **Auto Scan (ATS):** Press the **ATS** button to automatically scan and store stations in the current band.
- **Memory Recall:** Press the **MEMORY** button, then use the number keys or tuning knob to select a stored station.

5.4 Single Side Band (SSB) Reception

The PL-880 supports SSB reception for amateur radio and utility stations.

- While in SW mode, press the **USB/NORM** or **LSB/NORM** button to select Upper Side Band (USB) or Lower Side Band (LSB).
- Use the **FINE TUNING** knob to precisely tune the signal for clear voice reception. The tuning step for SSB is 10 Hz.

5.5 Bandwidth Filters

The radio features selectable bandwidth filters to improve reception by reducing interference.

- Press the **AM BW** button to cycle through available bandwidths for AM and Shortwave.
- For SSB, there are specific bandwidth filters that can be selected. Refer to the display for current selection.

5.6 Alarm Clock and Sleep Timer

- **Alarm:** Press the **ALARM** button to set the alarm time. The radio features a 24-hour alarm clock.
- **Sleep Timer:** Press the **SLEEP** button (often combined with another function) to activate the sleep timer, which can be set from 0-120 minutes, automatically turning off the radio after the set duration.

6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the radio's exterior. Do not use abrasive cleaners or solvents.
- **Battery Care:** If the radio will not be used for an extended period, remove the battery to prevent leakage. Store the battery in a cool, dry place.
- **Storage:** Store the radio in its carrying pouch in a dry environment, away from extreme temperatures and direct sunlight.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Radio does not power on.	Battery is depleted or incorrectly installed.	Charge the battery or check battery polarity.
Poor reception.	Weak signal, interference, or antenna not extended.	Extend the telescopic antenna fully. Connect an external antenna for SW. Adjust SW ANT GAIN. Move away from electronic devices causing interference.
No sound from speaker.	Volume too low, earphones connected, or mute activated.	Increase volume. Disconnect earphones. Check for mute function.
SSB signal unclear.	Fine tuning not precise.	Use the FINE TUNING knob for micro-adjustments until the voice is clear.

8. SPECIFICATIONS

- **Firmware Version:** 8820
- **Frequency Range:**

- FM: 64-108 MHz
- SW: 1711-29999 KHz
- AM: 520-1710 KHz
- LW: 100-519 KHz

- **Sensitivity:**

- FM <3 μ V
- AM <3mV / m
- LW <5mV / m
- SW <20 μ V
- SSB <3 μ V

- **Selectivity:**

- FM > 35 dB
- AM / LW > 40 dB
- SW > 40 dB

- **S/N Ratio:**

- FM > 65dB
- AM/LW > 40dB
- SW > 45dB

- **Output Power:** > 450 mW

- **Speaker:** Diameter 40mm / Impedance 4 Ohm / Power 3W

- **Earphone Jack:** Diameter 3.5mm

- **Power Supply:** 18650 Lithium-Ion Battery, External adaptor: USB jack, DC 5V, Current >300mA

- **Dimensions:** Approx. 7.5" (W) x 4.5" (H) x 1.25" (D) (19.05 cm x 11.43 cm x 3.18 cm)

- **Weight:** Approx. 1 lb 3 oz (0.54 kg) (battery not included)



Image: The Tecsun PL-880 radio with its approximate dimensions (length, width, height) labeled.

9. WARRANTY AND SUPPORT

The Tecsun PL-880 comes with a **1 Year USA warranty**. For warranty claims or technical support, please contact your authorized Tecsun dealer or visit the official Tecsun support website. Keep your purchase receipt as proof of purchase.