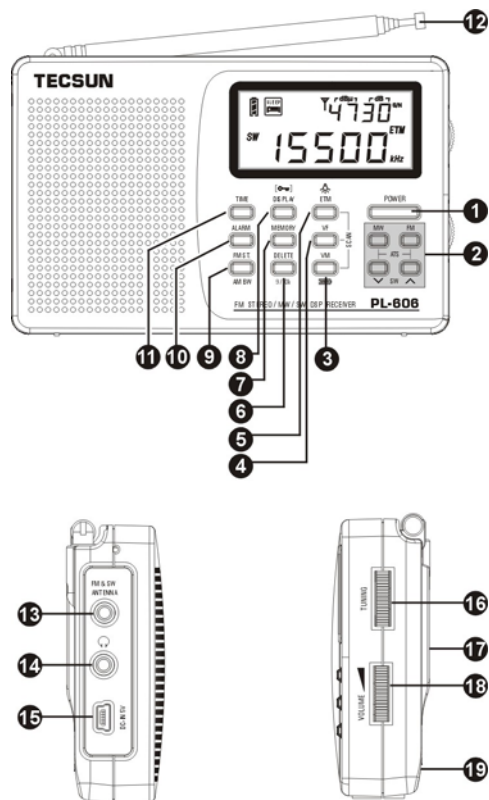# PL-606

FM stereo / SW / MW / LW DSP RECEIVER

**OPERATION MANUAL**

www.tecsunradio.com

CONTROL LOCATIONS

1. Power
2. Band* & ATS
3. VM & SCAN
4. VF & SCAN
5. ETM (Easy Tuning   Mode)
6. Delete
7. Memory
8. Display & Lock & Snooze
9. FM ST. & AM BW
10. Alarm
11. Time
12. FM & SW Telescopic Antenna
13. FM & SW Antenna Jack
14. Earphone Jack
15. USB 5V DC-Jack
16. Multifunctional Tuning Knob
17. Stand
18. Volume Knob
19. Battery Compartment

The unit is shut down the long-wave band before out of the factory.If you want to open the long-wave band in the off state, press MW button 10 seconds.

LCD DISPLAY
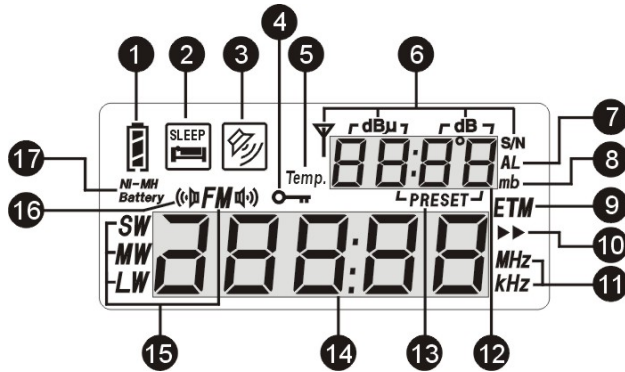
1. Battery consumption indicator / Charging indicator
2. Sleep timer indicator
3. Alarm on/off indicator
4. Key-lock indicator
5. Temperature (Temp.)
6. Signal indicators

   dBu: signal strength unit

   dB : Signal to Noise Ratio (S/N) unit
7. Alarm time indicator
8. SW meter band indicator
9. ETM　indicator
10. Tuning speed:

    " > "　Slow Tuning

    " >> "　Fast Tuning
11. kHz:　frequency unit for MW, LW & SW

    MHz: frequency unit for FM
12. Digital number display (4 Digits)

    With radio off: world time, alarm time, temperature

    With radio on: word time, signal strength / SNR, alarm time, temperature, local time, memory address, meter band.
13. Preset memory address
14. Digital number display

    With radio off: local time

    With radio on: frequency display, band display
15. Band indicator
16. FM stereo status indicator
17. Rechargeable batteries indicator

HOW TO TURN ON/OFF THE RADIO

1. Open the battery compartment located on the back of the unit, install 2x AA alkaline batteries observing the battery polarity diagram on the back of the radio. Close the battery door.

Installing batteries

2. Press the [POWER] button to turn on/off the radio.

Note:

If the radio is unable to be turned on. Please check if the batteries were installed correctly, battery capacity is sufficient or the lock function had been applied with " 🔒 " displays on screen (press & hold the [🔒] button to unlock.)

TUNE IN STATIONS

Press the [POWER] button to turn on your radio, then select your desired band by pressing the [FM], [MW]、SW[⌄] or [⌃] button. In case of receiving FM/ SW broadcasting, fully extend the telescopic antenna for a better reception. When receiving MW(LW) broadcasting, please rotate the radio or change it's location to achieve optimum reception. You can rotate the [VOLUME] knob to adjust to appropriate volume from 0 to 30 levels.

Now, you can turn into your favorite stations with any of the below tuning methods:

METHOD 1:   ETM (EASY TUNING MODE)

ETM is the unique tuning method designed by Tecsun. It skillfully combines the reception circuitry & control procedure to pre-select the suspected radio station and temporarily auto stores them into the ETM memory (not the regular 550 memories). This highly enhances the efficiency when tuning into radio stations. Employing ETM to tune preferred

frequencies. you can easily tune into your desired stations from those preferred frequencies.

1. Press the [ETM] button with [ETM] shows on screen to enter Easy Tuning Mode.

2. Press & hold the [ETM] button until the frequency start running to auto scan and store stations into ETM memory, within the present band.

3. When the frequency stop running, turn around the [TUNING] knob to select those stored stations.

闪烁

优选电台数量

E041

FM 107.50 MHz ETM

ETM优选电台时的状态

Notes: While operating ETM to search for stations, a few stations might be missed if there is interference in the surrounding. In this case, you can simply key-in the frequency, then press the [ETM] button to manually store it into ETM memory.

Tips:

FM station: When you are in a different city or country, you should perform the ETM function again in stead of using ATS function, because this will not delete any of the stations already stored within the memory.

MW station: It is recommendable to perform the ETM function during night time, because there are usually many stations starting broadcasting at night.

SW station: It is recommendable to perform the ETM function in the morning, afternoon as well as night time, because the transmitting signal of SW is very unstable and usually there are more stations that start broadcasting in the late afternoon.

METHOD 2:   MANUAL TUNING

Frequency searching: Press the [VF] button to switch into frequency mode, and then rotate the [TUNING] knob to select your desired station.

FAST/SLOW tuning is shown in the chart below for each band.

Step Band	⟩ Slow tuning mode	⟫ **Fast tuning mode**
	Turning step	**Turning step**
FM	0.01MHz	**0.1MHz**
MW	1kHz	**9/10kHz**
LW	1kHz	**9kHz**
SW	**1kHz**	**5kHz**

Memory searching: Press the [VM] button to switch into memory mode, and then rotate the [TUNING] knob to select those stored stations.

METHOD 3:   AUTO BROWSE STATION

1.Turn on the radio and press the [VF] button to switch into frequency mode.

频率变化   闪烁

dBμ dB S/N
5326

FM 88.50 MHz
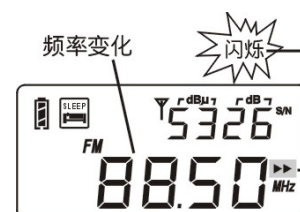
自动浏览电台状态

2.Press & hold the [VF] button with [⟫] advancing to scan from one station to another, staying on each station for about 5 seconds.

3.To stop the auto browse function, simply press the [VF] button.

Note: While operating the "Auto Browse Station" function, you can press the [M] button anytime to store the station into memory, and the radio will keep on auto browsing the next available station.

WORKING WITH STATION MEMORIES

There are total 550 preset memories within the unit. 100 preset memories for each FM, MW, and LW band, and 250 for SW.

FM ATS:

1. Fully extend the telescopic antenna and press the [FM] button to select FM band.

2. Press & hold the [FM] button with "PRESET " flashing and the frequency start running, then you can scan and store your desired stations within the present band. When the frequency stop running, it means the ATS operation has been completed; then rotate the [TUNING] knob for those scanned and stored stations.

搜存好的
电台数量

闪烁

003

FM

87.50 MHz

PRESET

自动搜索存台状态

MW/LW ATS:

Press the [MW] button to select MW/LW band, then follow step 2 of FM ATS.

SW ATS:

Fully extend the telescopic antenna and press the SW[⌄] or [⌃] button to select SW band.   There are two modes for SW ATS tuning:

Mode A: Press & hold the [⌄] button to ATS the stations within all meter bands

Mode B: Press & hold the [⌃] button to ATS the stations within present meter band only.rotate the radio for better location (MW & LW).

Notes:

1. During ATS process in FM, MW / LW or SW (mode A), pre-stored radio stations will be replaced automatically by the new searched stations.

2. With ATS in SW (mode B), those existing memories will not be replaced; all the newly found radio stations would be stored in the blank memories addresses.

3. If there is too many interference in you surrounding or many mirror/blank station being stored during ATS, you should contract the telescopic antenna (FM & SW) or rotate the radio for better location (MW & LW).

METHOD 2:   MANUAL STORING STATON

1.   Select band and tune to your desired station.

2. Press the [MEMORY] button with "preset" flashing
3. Press the [MEMORY] button again to store the station into memory.
   You can also wait for 3 seconds to auto store the station into memory.

METHOD 3: SEMI-AUTO STORING STATION

While operating the "Auto Browse Station" function, you can simply press on the [MEMORY] button to store the station into memory to avoid storing unwanted stations and
interfering signals.

1. Press the [VF] button to switch into frequency mode.
2. Press & hold the [VF] button with " >> " advancing to auto browse from one station to another.
3. While tuning to your favor station, press the [M] button with "PRESET " flashing to direct store the station into the next available memory. The unit will keep on browsing until you deactivate it by pressing on the [VF] button again.

LISTENING TO STORED STATIONS

METHOD 1:   MANUAL MEMORY TUNING

Press the press [VM] button to enter the frequency mode, then rotate the [TUNING] knob to tune into the stored station one by one.
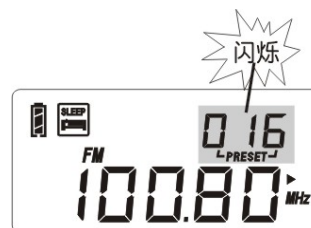
METHOD 2:   AUTO BROWSE MEMORY

1. Press the [VM] button with memory page shows in the upper right corner to enter the frequency mode.
2. Press & hold the [VM] button until "PRESET " flashing to auto scan from one memory to another, staying on each station for about 5 seconds.
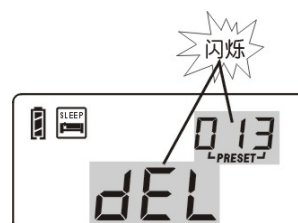
To stop auto search memory, simply press the [VM] button.

自动浏览预存电台状态

DELETE MEMORY

METHOD 1: MANUAL DELETE SINGLE MEMORY

1. Press the [VM] button to enter the memory mode.
2. Rotate the [TUNING] knob to select the memory that you want to delete.
3. Press & hold the [DELETE] button with "dEL" flashing; then press the [DELETE] button to remove the unwanted memory address.

删除单个电台时的状态

Note: If "dEL" is flashing more than 3 seconds without confirmation, it will exit the

delete function automatically.

METHOD 2: SEMI-AUTO DELETE MEMORY
Feature: using the Auto-Browse function of memory to quickly delete unwanted station.

1. Press the [VM] button to enter the memory mode.
2. Press & hold the [VM] button with [PRESET] flashing to auto scan from one memory to another, staying on each station memory for about 5 seconds.
3. Once previewing your unwanted station, simply press the [DELETE] button with "dEL" shows on display to delete the station, then keep on browsing other stations.

半自动删除电台时的状态

METHOD 3: MANUAL DELETE ALL MEMORY WITHIN THE BAND
1. Press the [VM] button to enter the memory mode.
2. Press & hold the [DELETE] button for 3 seconds and notices "ALL" flashing in the upper right corner of display.
3. Press the [DELETE] button again to delete all memory within the selected band.
**Note:** If the [DELETE] button has not been pressed within 3 seconds to confirm, it will exit the delete function automatically.
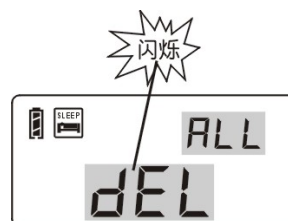
删除所有电台时的状态

SLEEP FUNCTION
1. Press & hold the [POWER] button with " SLEEP " and "30" symbols show on the display.
2. Rotate the [TUNING] knob immediately to select sleep timer from 1 ~ 120 minutes or select permanently " On ", then wait till the radio auto turn on to confirm the setting.
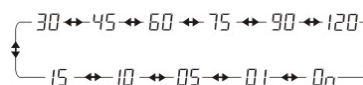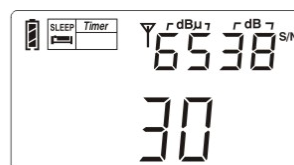
Note:
The default setting of the auto-turn off time is 30 minutes.

30 ↔ 45 ↔ 60 ↔ 75 ↔ 90 ↔ 120
15 ↔ 10 ↔ 05 ↔ 01 ↔ On

Sleep time range

CLOCK SETTING
1. Press & hold the [TIME] button with hour flashing, then rotate the [TUNING] knob to adjust the hour.
2. Then press the [TIME] button with minutes flashing, and then rotate the [TUNING] knob to adjust the minute.
3. Press again the [TIME] button to confirm the setting.
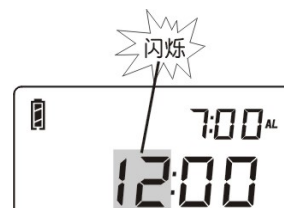
※ If the [TIME] button has not been pressed again within 3 seconds, the unit will automatically confirm the setting.

进入正常时间调整状态

WORKING WITH ALARM

SETTING THE ALARM TIME

1. Press & hold the [ALARM] button with hour flashing in the upper right corner, then rotate the [TUNING] knob to adjust the hour.
2. Press the [ALARM] button with minutes flashing, then rotate the [TUNING] knob to adjust the minute.
3. Press the [ALARM] button again, then rotate the [TUNING] knob to select from 1 ~ 90 minutes to set the Auto Alarm Off Timer.
4. Press the [ALARM] button to confirm the setting.
5. To turn off the alarm, press the [ALARM] button repeatedly with "📳" disappears.

※ If the [ALARM] button has not been pressed again within 3 seconds, the unit will automatically confirm the alarm setting.

HOW TO SET ALARM BY RADIO

You can preset the alarm station following below steps:

1. Turn on the radio, then tune into your favorite station for alarm by radio and adjust your desired alarm volume level.
2. Press the [MEMORY] button with " *PRESET* " flashing, then immediately press the [ALARM] button and notice "📳" shows on the display to confirm the preset alarm station.

HOW TO TURN OFF WHEN ALARMING

Press the [POWER] button once to continuously listen to the radio; press it twice to turn it off.

Note: If the preset alarm is activated when you are listening to the radio, it will auto switch to the preset alarm station.   The unit will auto turn off after alarming.

SNOOZE FUNCTION

When the preset alarm is activated, you can press the [DISPLAY] button to temporarily turn off the alarm, the unit will start alarming again 5 minutes later.

HOW TO CHANGE THE DISPLAY MODE

With radio OFF: Repeat pressing the [DISPLAY] button to view Temperature or Alarm time display.

With radio ON: Press the [DISPLAY] button to view Local time, Alarm time, Temperature or Signal strength/ SNR showing on the upper right corner of the display.

KEY-LOCK FUNCTION

Press & hold the [🔓] button with " 🔒 " symbol appears on the display to activate the key lock function.

Press & hold it again with the " 🔑 " symbol disappears to deactivate the locking

function.

FM ST. (FM STEREO)

While listening to FM stereo stations, press the [FM ST.] button with " ((◖ ◗)) " appears in the display to activate the "STEREO " listening. If the received FM broadcast signal is too weak, it is recommendable to turn off the stereo function by pressing the [FM ST.] button again with " ((◖ ◗)) " disappears.

Note: The stereo function will not be activated if the FM station is not stereo broadcasting.

AM BW (BANDWIDTH)

Repeat pressing the [AM BW] button to select your desired 6, 4, 3, 2, 1 kHz bandwidth.
Wide band: It has better audio fidelity when receiving strong signals or local stations.
Narrow band: It is suitable to receive weak & long distant station as narrow band is able to limit the interference from adjacent strong signal and reduce the background noise.

SYSTEM SETTING

SETTING FM FREQUENCY RANGE: In radio off mode, press & hold the [FM] button until 87.5-108MHz, 64-108MHz, 76-108MHz, or 87-108MHz appears in the display. Quickly keep pressing on the [FM] button to select suitable frequency range for your local FM.

TURN ON/OFF THE LW: With radio off, press & hold the [MW] button until "LW ON" or "LW OFF" appears in the display to turn ON or OFF the LW respectively.

HOW TO TURN ON/OFF THE INTELLIGENT LIGHTING
本机具有智能照明功能，在使用按键和旋钮时，显示屏照明灯都会点亮 3 秒钟。
　　您可以根据需要关闭或开启智能照明功能：长按[☼]键，照明灯闪烁数次，显示"OFF"表示关闭智能照明功能；再长按[☼]键，照明灯闪烁数次，显示" ON"符号，表示开启智能照明功能。

SETTING MW(AM) TUNING STEP: With radio off, press & hold [9/10kHz] button until "9kHz" or "10kHz" appear in the display to select your desired AM tuning step

TEMPERATUE:　When the AM tuning step is 10 kHz, the temperature displays will auto switch to Fahrenheit (℉). When the AM tuning step is 9 kHz, the temperature displays will auto switch to Centigrade (℃).

**TURN ON/OFF THE CHARGING FUNCTION & EXCHANGE THE BATTERY CONSUMPTION DISPLAY:** With radio off, press & hold the [▭] key with "*CHR On*" & "*Ni-MH Battery*" show up to activate the consumption display of rechargeable batteries and the built-in charging system. Press & hold the [▭] key with "*CHR OFF*" shows up and "*Ni-MH Battery*" disappears to activate the consumption display of regular batteries and turn off the built-in charging function.

Note: This radio is default to use regular batteries for power supply. In case of using rechargeable batteries, you should switch the radio system to rechargeable batteries mode in order to show the correct power capacity.

INTELLIGENT CHARGING FUNCTION

With radio off, install 2 x UM3 (AA) rechargeable batteries & then press & hold the [▭] key with "*CHR On*" and "*Ni-MH Battery*" display to activate the built-in charging function.

Use 5V external adaptor with USB plug to connect with the radio. The symbol "*Ni-MH Battery*" will advance from the bottom to top during power charging. It stops when batteries are fully charged.
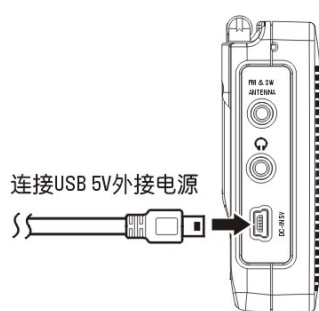
Notes:
1. Insist to use up all power of rechargeable batteries before charging again. This could extend the life time of battery and keep them in good conditions.
2. 2 pcs of batteries to be used as a group and don't separate them for other usage and mix to use batteries with different power capacity.
3. Don't charge on any non-rechargeable batteries in the radio, this will cause a hazard or damage to your radio.

HOW TO IMPROVE FM / SW RECEPTION
方法一：利用接驳式拉杆天线提高调频/短波接收能力将随机附送的接驳式拉杆天线固定在收音机拉杆天线上并拉长，见下图。

接驳式拉杆天线套　　接驳式拉杆天线

旋紧

旋紧
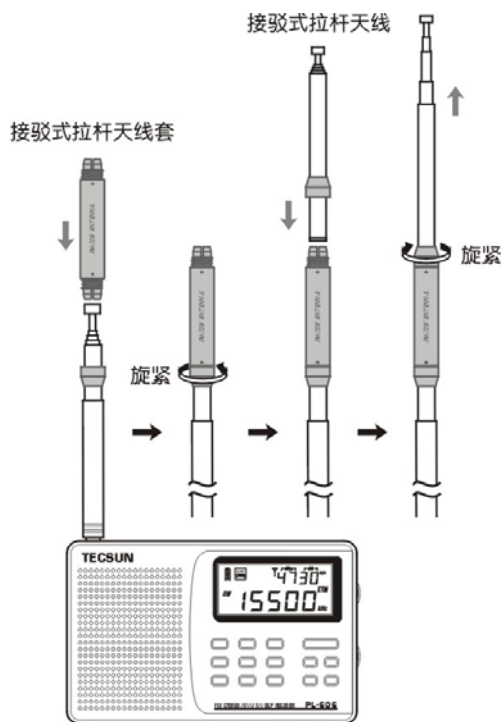
METHOD 2:

Plug in the external wire antenna to the [FM & SW] antenna jack of this radio, and then hang its end outside the window for better reception of FM and SW.
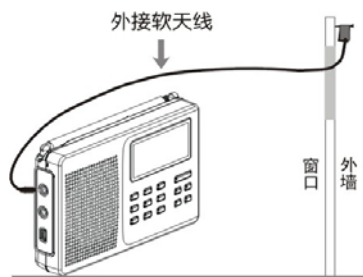

外接软天线

窗口　外墙

⚠ 注意：多雷雨地区切勿安装室外外接天线！

IMPORTANT MATTERS FOR USING BATTERIES

1. If no battery has been installed inside for long time, clock of radio would stop to work. However, pre-stored frequencies are still kept. Clock would work again after new batteries being re-installed inside.

2. When the battery power is low, the " ▯ " symbol in the display will flash to alert you for changing new batteries. Besides it will turns off automatically when the power is gone.

3. Mix using the used & new batteries would cause damage of radio and also display the

capacity of power incorrectly.

4. In case of radio not to be used for a long period, draw out the batteries for preventing liquid leakage and damaging the parts of radio.

TROUBLE SHOOTING

QUESTIONS	ANSWERS	SOLUTIONS
Can not turn on the radio.	-No power with the batteries. -Didn't install the batteries properly. -Power button is locked.	-Replace the new batteries. -According to "+" or "-" sign to install the batteries again. -Press the [O━┳] button to unlocked.
Radio goes off when you are listening.	-No power with the batteries. -Sleep timer is activated.	-Replace the batteries. -Turn on the radio again.
Can not store some stations using ATS Some station store with noise using ATS.	-Frequency of stations are too weak. -There are interference near by your area.	-Search the station manually. - Low down the antenna or move to other location and try again.
Only limited FM stations can be received in Japan.	-FM frequency is 76~90MHz for Japan.	-Turn the radio off and press & hold the [FM] button，press [FM] button again to select 76~108MHz.
Received very poor AM in USA.	-USA is using 10kHz step for AM.	-Turn off the radio press the [9/10kHz] button to select 10kHz.
When the alarm activated (alarm by radio), there is only noise with the broadcast.	-Did not set the proper radio station for the alarm. -Or there are no broadcasting at that radio station. -Or you are in another city where does not have a radio station for your	-Preset your alarm station properly (see the above setting). -Make sure it has radio broadcast in your location.

	preset frequency.	
radio malfunction.	This may caused by interference, and the computer microchip not function properly.	Remove the battery, then you can reload. If it is still not able to work, please contact your nearest dealer for customer service.

SPECIFICATIONS

1. Frequency range

    FM   87~108   MHz

                                  Russia   64~108MHz

                                  Japan 76~108 MHz

                                  Eu, USA 87.5~108 MHz

     MW   522~1620 (USA 520~1710)   kHz

     LW   153~513 kHz

     SW   2300~21950 kHz

2. Sensitivity

     FM   (S/N=30dB)   Less than 3µV

     MW (S/N=26dB)   Less than 1mV/m

     LW (S/N=26dB)   Less than 10mV/m

     SW (S/N=26dB)   Less than 20µV

3. Selectivity

     FM $>$60 dB ($\pm$150kHz)

     MW $>$60 dB   (BW=3kHz, $\pm$9kHz)

     LW $>$60 dB   (BW=3kHz, $\pm$9kHz)

     SW $>$60 dB (BW=3kHz, $\pm$5kHz)

4. FM Stereo crosstalk   Less than 25 dB

5. Memory   550

6. Output (Distortion 10%)

     Speaker $\geqslant$230 mW

     Earphone $\geqslant$20 mW

7. Power   UM3 or AA X 2

                                 USB 5V DC

8. Speaker   φ57mm,   250mW/8 Ohm

9. Earphone Jack   φ3.5mm, 32 Ohm, Stereo type

10. Dimensions Approx.   127(W) X 82(H) X 28(D) mm

11. Weight   175g   (Batteries not included)