TECSUN

PL-310

FM stereo / SW / MW / LW DSP RECEIVER

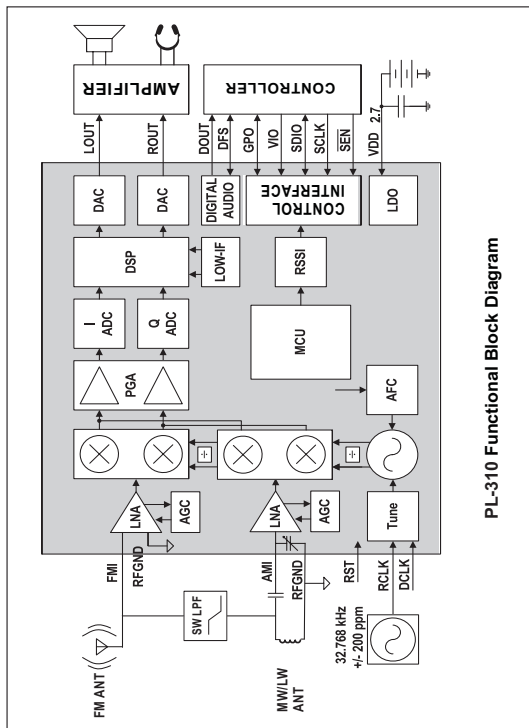**OPERATION MANUAL**
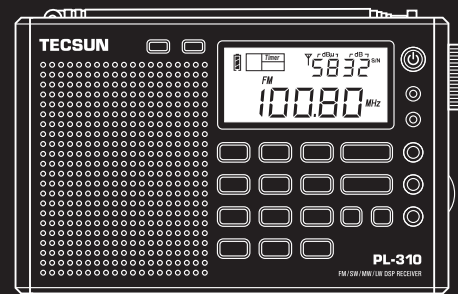
PL-310 Functional Block Diagram

PL-310 is using DSP si4734 Microchips (from Silicon Labs in USA) to digitalize the analog AM/FM broadcasting signal base on the modern software technology and radio principles. It can highly improve on radio's sensitivity, selectivity, S/N ratio and anti-interference.

PL-310 Functional Block Diagram

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

F M (S/N=30dB)	Less than 2 μ V
MW (S/N=26dB)	Less than 1mV/m
LW (S/N=26dB)	Less than 10mV/m
SW (S/N=26dB)	Less than 20 μ V

3. Selectivity

F M	>60 dB
MW	>60 dB
LW	>60 dB
MW	>60 dB

4. FM Stereo crosstalk — Less than 35 dB
5. Memory — 500
6. Output — 350 mW
7. Power — UM3 or AA X 3

USB 5V DC

8. Speaker — Ö57mm, 500mW/16 Ohm
9. Earphone Jack — Ö3.5mm, 8~32 Ohm, Stereo type
10. Dimensions Approx. — 141(W) X 87(H) X 30(D) mm
11. Weight — 187g (Batteries not included)

MEMO

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CONTROL LOCATIONS
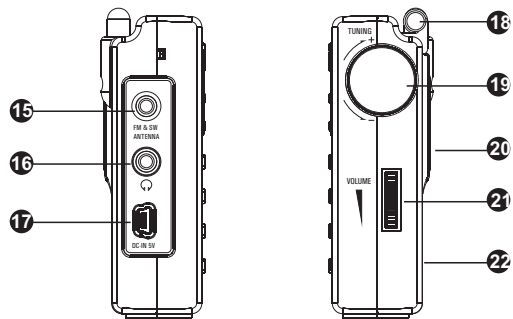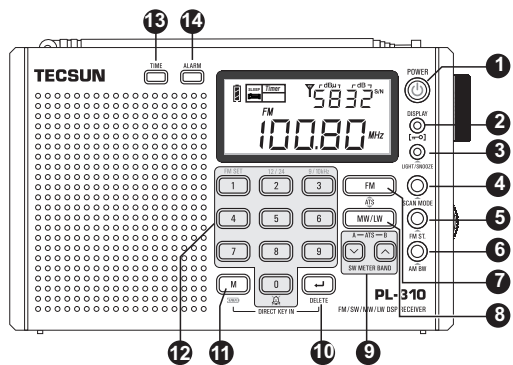
MEMO

Function	Button	Status	Sound	Display
FM	FM	FM	B	" *FM* " in the display
MW (AM) or LW	MW/LW	MW	B	" *MW* " in the display
		LW	B- -	" *LW* " in the display
SW BAND METER BAND	∨ or ∧	SW	B	" *SW* " & SW frequency
		METER BAND	B	Meter band on the right corner
ATS (Auto Tuning Storage)	FM MW/LW SW (∨ or ∧)	ATS on	B	Freq. & memory address are running
		ATS off	B- -	Display 01 memory address and Frequency
Store memory	MEMORY	On	B	Memory address flashing on the top right corner
		Confirmed	B- -	Stopped
Delete memory	DEL ETE	Delete single memory	B	Memory address and " *dEL* " are flashing
		Delete all memory	BB	" *ALL* " & " *dEL* " are flashing
		Confirmed	B- -	Back to Freq. display
Out bound meter band range	TUNING	Tuning into the range	B	Meter band appear on the top right corner
		Tuning out the range	B	Meter band disappear
FM freq. range	FM SET	Select FM freq.	B	87.5-108MHz,64-108MHz, 76-108MHz or 87-108MHz
12/24 format	12/24	Select 12 format	B	" *12H* " in the display
		Select 24 format	BB	" *24H* " in the display
MW(AM) STEP	9/10kHz	Select 9kHz step	B	"9kHz" and " ℃ " in the display
		Select 10kHz step	BB	"10kHz" and " ℉ " in the display
Charge on/off	🔋	On	B	" *On* " in the display
		Off	BB	" *OFF* " in the display
Intelligent lighting on/off	5	On	B	" *On* " in the display
		Off	BB	" *OFF* " in the display
Bi sound on/off	🔔	On	B	" *On* " in the display
		Off	BB	" *OFF* " in the display

1 Power on/off

2 Display & Lock button

3 Light / Snooze button

4 Scan Mode button

5 FM ST. button

6 AM BW button (Band width)

7 FM / ATS button (FM band selector and Auto Tuning Storage)

8 MW / LW button (MW / LW band selector & Auto Tuning Storage)

9 SW/ ATS button (SW meter band selector & Auto Tuning Storage)

10 Enter / Delete button

11 Memory button

12 Numeric keypad

13 Time Set

14 Alarm Set

15 FM & SW Antenna Jack

16 Earphone Jack

17 USB 5V DC-IN Jack

18 FM & SW Telescopic Antenna

19 Multifunctional Tuning Knob

20 Back Stand

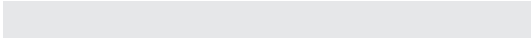21 Volume Knob

22 Battery Compartment

LCD DISPLAY
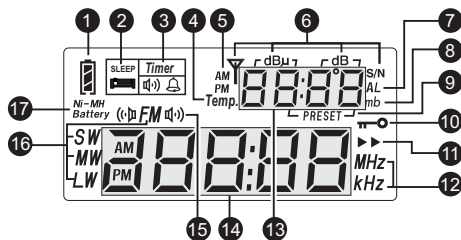
1. Battery consumption indicator
2. Sleep indicator
3. Alarm indicator
   " 📣 " alarm by radio
   " 🔔 " alarm by buzzer
4. Temperature (Temp.)
5. AM, PM indicator for 12-hour format clock
6. Signal indicators
   dBu: signal strength unit
   dB : Signal to Noise Ratio (S/N) unit
7. Alarm indicator
8. Meter band indicator
9. Preset memory address indicator
10. Key-lock indicator
11. Tuning speed:
    " ►► " Slow Tuning
    " ► " Fast Tuning
12. kHz: frequency unit for MW, LW & SW
    MHz: frequency unit for FM
13. 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.
14. Master Digits
    With radio off: local time
    With radio on: frequency display, band display
15. FM-stereo indicator
16. Band indicator
17. Ni-MH Battery Symbol

"Bi" SOUND VIA FUNCTIONS

Function	Button	Status	Sound	Display
Time setting	TIME	Hour setting	B	hour flashing
		Minute setting	BB	minute flashing
		Confirm or Auto confirm	B--	Nothing flashing
Alarm setting	ALARM	Hour setting	B	hour flashing
		Minute setting	BB	minute flashing
		Adjust the length of alarm	BB	1~90 minutes display, 📣 🔔 and 💤 are flashing
		confirmed	B--	Display time
		Select alarm by radio	B	📣
		Select alarm by buzzer	BB	🔔
		Select alarm off	B--	📣 and 🔔 disappear
Radio on or off	POWER	Radio on	B	
		Radio permanently	B--	" 🔛 " display
		Radio off	BB	
Sleep timer Completed	POWER & TUNING KNOB	Rotate at 30, 60, 90, 120 mins.	B	
		Radio permanently	BB	" 🔛 " display
Lock	⊸	Lock	B--	" ⊸ " display
		Unlock	B	" ⊸ " disappear
BACKLIGHT	SNOOZE/ LIGHT	Illuminate short time	BB	Backlight on for 3 seconds
		Illuminate permanently	B--	Backlight on
		Turn off	B	Backlight off
SNOOZE	SNOOZE/ LIGHT	Temporary off	B	" 📣 " or " 🔔 " flashing
View Frequency or view memories	SCAN MODE	Frequency tuning mode	B	Freq. blink for 1 s
		Memory mode	BB	Memory address on the top right corner
AUTO SCAN	SCAN MODE	Frequency tuning mode	B	Auto search
		Memory mode	B	Auto search in Memory
FM STEREO	FM ST.	STEREO	B	" 📶 📣 " display
		MONO.	BB	" 📶 📣 " disappear

QUESTIONS	ANSWERS	SOLUTIONS
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 have travelled to other city where does not have a radio station for your preset frequency.	-Preset your alarm station properly (see the above setting) -Make sure it has radio broadcast in your location. -Or set the alarm by buzzer.
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.

QUICK START GUIDE

TIME SETTING
1. Long press [TIME] button until "hour" is flashing in the display. Rotate the [TUNING] knob to adjust the correct "hour".
2. Short press [TIME] button again, rotate the [TUNING] knob to adjust "minute".
3. Press the [TIME] button again to confirm your time setting.

ALARM SETTING
1. Long press [ALARM] button. Rotate the [TUNING] knob when "hour" is flashing in the display.
2. Short press [ALARM] button again. When the "minute" is flashing. Rotate the [TUNING] knob to adjust the "minute".
3. Short press [ALARM] button again, rotate the [TUNING] knob to select 1 ~ 90 minutes of the Alarm's duration.
4. Finally, short press [ALARM] button again to confirm.

Note:
In ALARM section, [◁»] means ALARM is set to radio-on; [⏰] means ALARM is set to buzzer, or if the display corner remains blank, which means the alarm is off.

LISTEN TO THE RADIO
1. Short press [POWER] button to turn on your radio.
2. Select FM by pressing the [FM] button, MW and LW by pressing the [MW/LW] button, SW by pressing the [∨] or [∧] button sequentially until you have selected the desired meter band (meter band number flashes in the upper right corner of the display) .
3. Turn the TUNING knob to your desired radio station.
4. You can also direct key-in the frequency numbers by pressing the numeric keys.
5. Adjust the volume level by rotating the VOLUME knob.
Note:
Be sure to fully extend the telescopic antenna when listening to SW and FM.

ATS(Auto Tuning Storage) on FM, MW, LW, SW band
1. Turn on the radio, and fully extend the antenna.
2. Short press [FM] button to Select FM band.
3. Long press on [FM] button until frequency number is running on the display. All the available stations will be stored in the memory automatically. It will stop when it is done.
4. Then use the [TUNING] knob to tune around for those stored stations.

MW, LW or SW ATS are as same as the FM ATS.

Special note: There are mode A & mode B for ATS in SW.
Mode A : Auto-searching & storing all the radio stations within all meter bands.
Mode B: Auto-searching & storing all the radio stations within present meter band only.

Special note:
During ATS processing in FM / MW / LW & SW with mode A, pre-stored radio stations would be deleted & covered automatically by the new searched stations. If ATS is interrupted or being turned off during process, for those radio stations without deleted & covered by ATS would still be kept.
With ATS mode B in SW, those existing memories will not be deleted & covered; all the newly found radio stations would be stored in the blank memory addresses.

STORING FREQUENCIES INTO MEMORY
1. Turn on your radio, and tune into your favorite station.
2. Short press [M] button, with the memory address is flashing in the display, press [M] button again to confirm.

LISTEN TO STATIONS IN THE MEMORY
1. Turn on the radio, press and release the [SCAN MODE] button with notice that the PRESET show in the display's upper right corner.
2. Turn the [TUNING] knob to select stored stations.

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 [⊶] 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 long press on the [FM SET] button, short press [FM SET] button again to select 76~108MHz
Received very poor AM in USA	-Because USA is using 10kHz step for AM	-turn off the radio press the [9/10kHz] button to select 10kHz

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 turn 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.

USING THE EXTERNAL ANTENNA SOCKET

The external antenna socket is used to improve shortwave or FM performance.

EXTERNAL FM/ AM ANTENNA

WINDOW   WALL
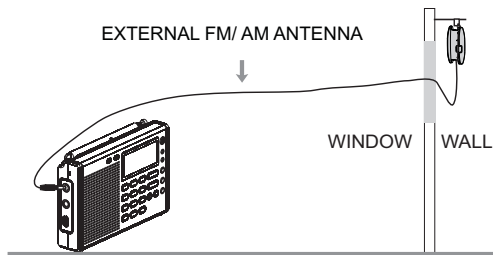
⚠ Caution: Don't install external FM/ AM antenna in the frequent thunder area.

DELETE MEMORY
1. Turn on the radio and press the [SCAN MODE] button, causing PRESET to appear in the display's upper right corner.
2. Use the [TUNING] knob to select the memory that you want to delete.
3. Long press [DELETE] button. " 𝖽𝖤𝖫 " is flashing in the display, press [DELETE] button again to confirm it.

AUTO SCAN STATION
1. Turn on the radio and press the [SCAN MODE] button with frequency flashing.
2. Long press [SCAN MODE] button and it will search all the stations in the band, and stop on each station for 3 seconds.
3. To stop auto search function, simply press any button, except [M] button.

Frequency changing ‑ flashing
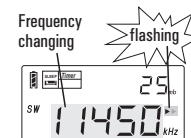
Auto-scan with pre-listening

AUTO SCAN MEMORY
1. Turn on the radio and press the [SCAN MODE] button, switch to memory address status.
2. Long press [SCAN MODE] button and It will search all the stations within the memory, and stop on each station for 3 seconds.
3. To stop auto search memory, simply press any button, except [DELETE] button.

flashing
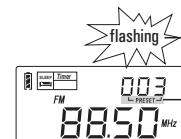
Auto-scan memory with pre-listening

TURN THE RADIO ON OR OFF

1. Installing batteries

   The battery compartment is located on the back of the
   PL-310. To remove the battery compartment cover, apply
   thumb pressure and slide it towards the bottom of the
   radio. Install 3 AA alkaline batteries into the battery
   compartment, observing the battery polarity diagram on
   the back of the radio. Display screen would show battery
   capacity, time, etc.
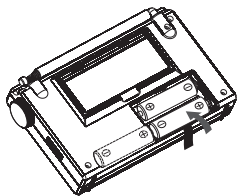
2. Short press on [POWER] button to turn the radio on or off.
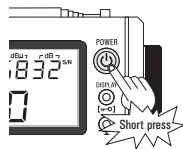
Note:
If the radio is not able to be turned on. Please check if the
batteries were installed correctly, battery capacity is sufficient
or the lock function had been applied with symbol " ⊶ "
displayed on screen.

APPLYING INTELLIGENT CHARGING FUNCTION

(Rechargeable batteries & external power connectors are
sold separately.)

1. Under radio being connected with external power sources,
   installing 3 x UM3 (AA) rechargeable batteries, press &
   hold [▭] key to display symbol " CHR On " & " Ni-MH Battery " ,
   this means the charging function is on.
2. Using any USB 5V external DC power sources to connect
   this radio, symbol " ▐ " will advance from the bottom to top
   during power charging.
   It stops when batteries are fully charged.

**Connect USB 5V to external
power sources**
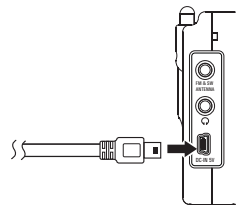
Special note: Using the USB 5V to connect the external
power sources for supplying power to play this radio on
FM.

Notes for charging power:
1. Insisting to apply the batteries until power run out could
   extend the life time of battery and keeping them in good
   conditions.
2. 3 pcs. of batteries to be used as a group and don't
   separate them to other usage. Also don't mix to use
   batteries with different power capacity.

Turn LW on/off
Turn off the radio. Press and hold the [MW/LW] button until
" OFF " or " On " appears in the display，If " OFF " appears
in the display, which means LW is turned off.

Turn off the "Bi" sound
Press and hold the [🔔] button until " OFF " or " On "
appears in the display; If " OFF " appears in the display,
which means "Bi" sound is turned off.

Turn on / off intelligent lighting function
This radio bears the intelligent lighting function which back-
light would automatic be turned on for 3 seconds during
tuning or any key to be pressed.
Press & hold the numeric key " ⑤ ", then symbol " OFF "
being displayed and means this intelligent lighting function
is off. By pressing & hold the numeric key " ⑤ " again,
symbol " On " is displayed and means the intelligent lighting
function is on now.

Special note: After shutting off the intelligent lighting
function, the [LIGHT/SNOOZE] key is still workable for
turning on or off the backlight. $^{Ni-MH}_{Battery}$

Turning on / off the charging function
Press & hold [🔋] key , symbol of " $\mathit{CHR\ On}$ " & " $^{Ni-MH}_{Battery}$ " to
be shown and means rechargeable batteries to be used for
starting the charging. Press & hold [🔋] key, symbol of
" $\mathit{CHR\ OFF}$ " & " $^{Ni-MH}_{Battery}$ " to be lost on screen and means
alkaline batteries to be used and charging function to be off.

Special note: This radio is default to use alkaline batteries
for supplying power. In case of using rechargeable batteries,
you should switch radio to the status of rechargeable
batteries being used. The correct power capacity of
rechargeable batteries would be shown.

LISTEN TO THE RADIO

Short press [POWER] button to turn on your radio, and
select your band by short press on [FM]、[MW/LW]、SW
[∨] or [∧] button. In case of receiving FM/ SW, telescopic
antenna should be pulled out as long as possible. Now, turn
in your favorite station with one of the following methods:

Method 1: Manual tuning
Rotate the [TUNING] knob to select your station.

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

step band	▶ slow tuning mode turning step	▶▶ Fast tuning mode turning step
FM	0.01 MHz	0.1 MHz
MW	1kHz	9 / 10kHz
LW	1 kHz	9 kHz
SW	1 kHz	5 kHz

Method 2: Auto scan stations
1. Short press [SCAN MODE] button with a "BB" sound.
2. Long press [SCAN MODE] button with a "B" sound to
   activate the Auto-scanning function.
   Auto search will stop on each
   available station for 3 seconds
   before it goes on searching for
   the next available station.
3. To stop auto search function,
   simply press any button, except
   [M] button.
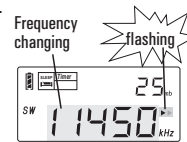
Auto-scan with pre-listening

Note: When the radio search & stop to a station, just press
[M] button once to store it.

Method 3: Direct key-in frequency
Use the numeric keypad to enter the frequency directly.

Note: No need to enter decimal point for FM Band when
input the frequency numbers. For example, FM 89.0 MHz,
just key in 8 9 0 .

Method 4: Manual memory search (see page 12)
Method 5: Auto-scan memory (see page12)
Method 6: Direct key in the station address number (see page 12)

TO STORE STATION

There are total 500 preset memories within PL-310. For FM, MW, and LW, each band has 100 preset memories; and 200 preset memories for SW.

ATS (Auto Tuning Storage) on FM, MW, LW or SW band

1) ATS (Auto Tuning Storage) on FM
1. Turn on the radio, and fully extend the antenna.
2. Short press [FM] button to select FM band.
3. Long press on [FM] button with a "B" sound and frequency is running on the display. All the available stations will be stored in the memory automatically. After the long "B--" sound to be heard, ATS is completed and is in the status of memory address.
4. Then use the [TUNING] knob to tune around for those stored stations.

MW, LW or SW ATS is as same as the FM ATS.

2) ATS (Auto Tuning Storage) on MW or LW
1. Press & release [MW/LW] button to select MW or LW.
2. Press & hold [MW/LW] button and followed a "B" sound and ATS starts to scan the radio stations in MW or LW.

3)ATS (Auto Tuning Storage) on SW
1. Fully extended the antenna, then press and release SW [$\vee$] or [$\wedge$] button to select SW.
2. There are mode A & mode B in SW.
Mode A: press & hold [$\vee$] button to scan all radio stations within all meter bands.
Mode B: press & hold [$\wedge$] button to scan all radio stations in present meter band only.

AM BW (BANDWIDTH) BUTTON

Short press [AM BW] button to choose 6, 4, 3, 2, 1 kHz bandwidth. This may help to reduce interference on some frequencies. Using WIDE usually results in better audio fidelity, while using narrow limits the audio fidelity somewhat. You can use it in MW, LW and SW band.

SYSTEM SETTING

Frequency range setting for FM
Turn off the radio, long press [FM SET] button, until 87.5-108MHz, 64-108MHz, 76-108MHz, or 87-108MHz appears in the display. Quickly keep pressing on the [FM SET] button to select suitable frequency range for your local FM.

Changing the clock format
Turn off the radio, long press [12/24] button, until " l2H "or " 24H " appears in the display. If " l2H " appears in the display, which means the clock system will be in the 12 hour format.

MW(AM) step setting
Turn off the radio, long press [9/10kHz] button until "9kHz" or "10kHz" appears in the display. By long pressing again, the alternative band step would be shown. The temperature is also shown on screen at the same time.
In general practice, the 10kHz is to be used for broadcasting MW(AM) as well as the temperature in the degree of Fahrenheit (℉) for the North America region.
In order to provide convenience to the end users, the "10kHz" is default to be displayed with temperature in the degree of Fahrenheit (℉) and for "9kHz" to be displayed with temperature in the degree of Centigrade (℃) together. If the display shows "10kHz" with degree of Fahrenheit (℉), which means this radio is set to 10 kHz step for MW(AM) with temperature in Fahrenheit (℉).

DISPLAY MODE

OFF status: Short press [DISPLAY] button to view on Temperature, Alarm time.

ON status: Short press [DISPLAY] button to view on Alarm time, Temperature, Local time, signal strength/ SNR.
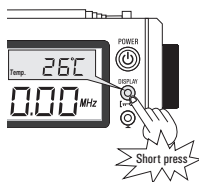
Short press

USING THE LOCK BUTTON

Long press [⌀] button with a long "B- -" sound and the " ⌀ " symbol appears in the display to lock up all keys/ buttons.
Long press [⌀] button again with a "B" sound to unlock it.

USING THE LIGHT BUTTON

Short press [LIGHT] button with a "B" sound, LCD backlight illuminates for 3 seconds.
Long press [LIGHT] button with a long "B- -" sound, LCD illuminates permanently.
Short press [LIGHT] button again with a "BB" sound to turn off it.

FM ST. (FM STEREO) BUTTON

Short press [FM ST.] button when in the FM band to take the radio in or out of stereo reception mode. When it's in stereo mode, " (⇦ ⇨) " appears over the left side of the frequency in the display. As long as you are not using headphones or earphones, it can be left in mono mode.

Special note:
1. During ATS processing in FM, MW, LW and SW with mode A, pre-stored radio stations would be deleted & covered automatically by the new searched stations. If ATS is interrupted or being turned off during process, for those radio stations without deleted & covered by ATS would still be kept.
   With ATS mode B in SW, those existing memories will not be deleted & covered; all the newly found radio stations would be stored in the blank memory addresses.
2. If there is interference found in surroundings area and ATS is not function properly, lower down the telescopic antenna to restart the ATS again. (For Turning the radio body around to other directions in order to receive better in MW / LW).

To store a station manually
1. Turn on your radio, and tune into your favorite station.
2. Short press [M] button with a "B" sound.
3. Short press [M] button again to confirm with a long "B--" sound.

   If [M] button is not to be pressed again within 3 seconds to confirm the storing, this radio would confirm it automatically by a long "B--" sound.

To store station with auto scanning function
1. Short press the [SCAN MODE] button with a "BB" sound into frequency status.
2. Long press [SCAN MODE] button with a "B" sound to activate the Auto-scan function.
3. If you want to store that station, simply press on the [M] button to store the station with a long "B--" sound. Keep store up your stations when auto search is activated until it is done.

Frequency changing

flashing

25 ab

SW

11450 kHz
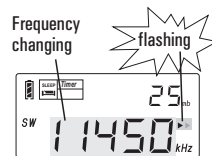
Auto-scan with pre-listening

LISTEN TO STATIONS IN THE MEMORY

Method 1: Manual memory search
1. Short press the [SCAN MODE] button with a "B" sound.
2. Rotate the [TUNING] knob for those stations in the memory.

PRESET

View Memory mode

Method 2: Auto scan memory
1. Short press the [SCAN MODE] button with a "B" sound .
2. Long press the [SCAN MODE] button with a "B" sound to activate the auto scan memory function. It will search all the stations within the memory, and stop on each station for 3 seconds.

flashing

Auto-scan memory with pre-listening

3. To stop auto search memory, simply press any button, except [DELETE] button.
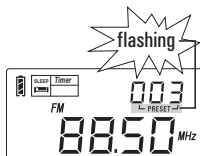
Note: If radio station has been searched & stopped for 3 seconds, Pressing [DELETE] button will delete the stored radio station in current memory.

Method 3: Direct key in the station address number
1. Short press the [SCAN MODE] button with a "B" sound.
2. Use the numeric keypad to key in the memory number in 3 digits. For example, if the desired radio station is in memory number 006, just press 0, 0, 6, and it will go to memory 006.

NOTE: When " - - - - " appeared in the display with a "B" sound after you key in a number of the memory, means there is nothing stored.

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In case of alarm being activated during your listening of the radio, it will switch to the radio station which was set for alarm function.

Note: Please check the volume is at the right level after alarm is set.

Set the alarm by buzzer
1. When the alarm is activated, "BB" sound will continuously alarmed. It will turn off automatically according to your setting.
2. If the alarm is activated, and you are listening to the radio; this radio will automatically turn off, and activate the alarm (only "BB" sound will come out).

To activate the alarm by buzzer

Snooze
After alarm was activated with buzzer or radio broadcasting, press & release [LIGHT / SNOOZE] with a "B" sound. Then the radio would be turned off temporary, it will start to alarm again 5 minutes later.

TO TURN OFF THE ALARM
When the radio is turned on by the alarm function with radio, you can short press [POWER] button to continue listening radio afterwards.
Short press [POWER] again to turn off the radio.

When the radio is on by alarm functions with buzzer, you can short press [POWER] button to turn off the alarm.

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ALARM SETTING

1. Long press [ALARM] button with a "B" sound. Rotate the [TUNING] knob when "hour" is flashing in the display.
2. Short press [ALARM] button again with a "BB" sound, the "minute" flashing. Rotate the [TUNING] knob to adjust the "minute"
3. Short press [ALARM] button again with another "BB" sound and notice the alarm's duration is flashing. Rotate the [TUNING] knob to select 1 ~ 90 minutes of the alarm's duration.
4. Finally, short press [ALARM] button again with a long "B--" sound to confirm.

Note: If [ALARM] button not to be pressed again within 3 seconds for confirming time, it will auto confirm the present display time and following a long "B--" sound.

Select the alarm by radio " 🔊 " or by buzzer " 🔔 "
1. To activate the alarm by radio, short press [ALARM] button with a "B" sound and notice that the " 🔊 " symbol shows up in the Timer display section.
2. To activate the alarm by buzzer, short press [ALARM] button again with a "BB" sound and notice that the " 🔔 " symbol appears in the Timer display section.
3. Short press [ALARM] button again with a long "B--" sound and notice nothing appears in the Timer display section to turn off the alarm.

Set the alarm by radio
1. Turn on the radio, tune into your favorite alarm radio station. Please set the volume at the noticeable level.
2. Short press [M] button with a "B" sound.
3. Short press [ALARM] button with a "B" sound and notice " 🔊 " symbol is flashing for couple seconds. Now this alarm radio station is set.

DELETE MEMORY

Method 1: Delete memory manually
1. Short press the [SCAN MODE] button with a "B" sound.
2. Rotate the [TUNING] knob to the stations that you want to delete in the memory.
3. Long press the [DELETE] button with a "B" sound.
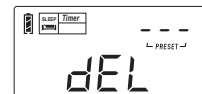4. Short press [DELETE] button again to confirm with a long "B- -" sound.
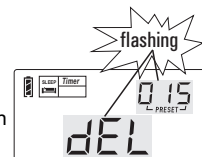
Delete single memory

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

Method 2: Semi auto-delete radio stations
1. Short press the [SCAN MODE] button with a "B" sound.
2. Long press the [SCAN MODE] button with a "B" sound to activate the Auto scan memory function.
3. When it browses & stops into the unwanted stations, simply press [DELETE] button with a long "B--" sound. Afterwards, it restarts to browse again for the next radio station.

Method 3: To delete all memories
1. Short press the [SCAN MODE] button with a "B" sound.
2. Long press [DELETE] button for 3 seconds or longer until a "BB" sound to be heard.
3. Press & release [DELETE] button to confirm deletion with a long "B--" sound followed . All the stored radio stations in that band were deleted from memory.
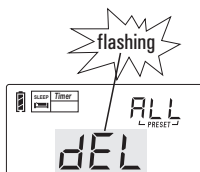

Delete all memories

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

SLEEP FUNCTION

With sleep function, you can adjust the length of time for the radio to turn off automatically. The default setting for the auto-turn off time is 30 minutes since radio being turned on. You could change it in accordance with your requirements.

Long press the [POWER] button with a long "B- -" sound, rotate the [TUNING] knob to select time from 1 ~ 120 minutes for sleep timer within 3 seconds. (select " On " to turn on the radio permanently).
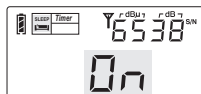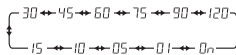
turn on the radio permanently

CLOCK SETTING

The factory has set the clock to function as a 24-hour format clock. If you prefer a 12 hour, AM/PM clock format, see the selection titled **Changing the clock format**.

Method 1:
1. Long press [TIME] button with a "B" sound until you see the "hour" flashing. Rotate the [TUNING] knob to adjust the correct "hour".
2. Short press [TIME] button again with a "BB" sound, the "minute" flashing. Rotate the [TUNING] knob to adjust "minute".
3. Short press [TIME] button with a long "B- -" sound to confirm your time setting.

Method 2:
1. Long press [TIME] button with a "B" sound until you see the "hour" flashing.
2. Enter "hour" and "minute" with numbers directly by pressing numeric keys. (For example, 14:50pm, just enter 1 4 5 0)

Note: If [TIME] button not to be pressed again within 3 seconds, it will auto confirm the present display time and following a long "B--" sound.