OWNER'S MANUAL

TM886-USA

Oct. 25, 2005

INTRODUCTION

Your marine transceiver TM-886 represents the state-of-the-art in high-tech engineering. Designed for international operation. This allows you to transmit and receive on all international channels in the VHF marine band, as assigned by the international Union (ITU). This unit is a quality piece of electronic equipment, skillfully constructed with the finest components. It is approved with commercial-grade standards to give you clear, reliable communication.

Your transceiver is designed for many years of reliable, trouble-free performance. It is under control of a microprocessor resulting in enhanced features and performance. The microprocessor controls not only the marine band tuning but also dual watch, memory channels, and a host of other useful features.

Your transceiver has the following features:

Channel 16 Switch ---- provides quick access to channel 16, the universal marine frequently used channel.

PLL (Phase Lock Loop) Controlled Circuitry ---- Provides accurate and stable channel selection.

Squelch Adjustment ---- help eliminate noise between transmissions.

Key Lock ---- lets you lock the keypad in order to prevent the controls from accidental pressing.

High/Low Power Selection ---- lets you save power by selecting a suitable transmitting power for long or short distances.

Battery Level Indicator ---- shows the battery pack's condition.

Supplied Battery Charge Stand ---- lets you conveniently recharge your transceiver's battery pack.

Backlit LCD Display ---- allows you to operate the transceiver in dark environment.

Memory Channels ---- lets you store channels as memory channels.

Dual/Scan Button ---- lets you to select the reception of a programmed channel or scan all the channels for existing channels.

We recommend you record your transceiver's serial number here. This number is on the transceiver's back panel.
Serial Number_____

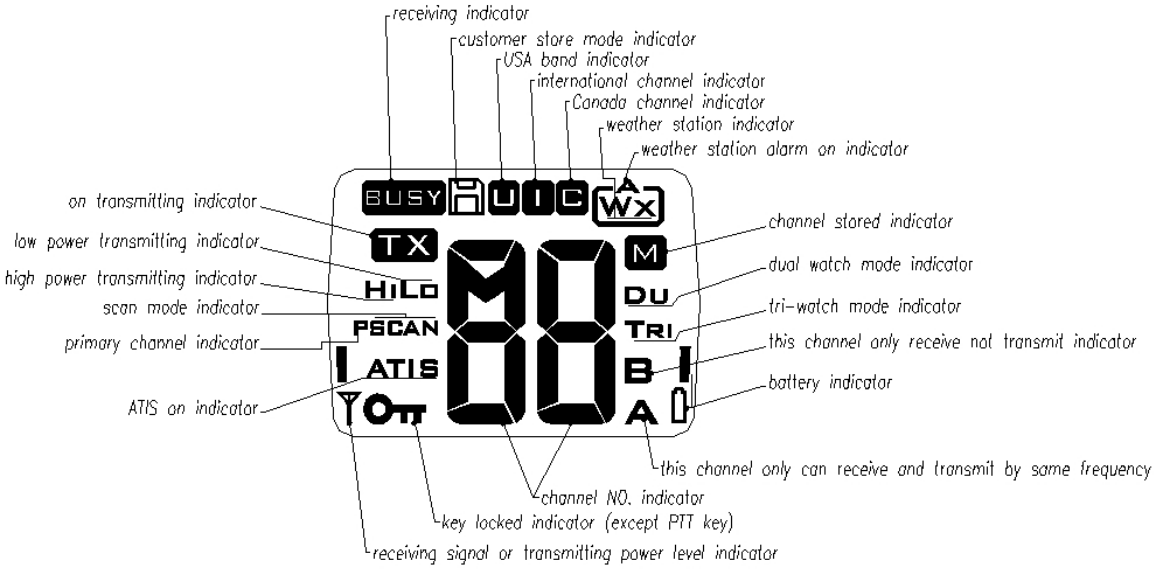
SAFETY INFORMATION

Your hand-held marine VHF radio contains a low power transmitter. When the Push-To-Talk (***PTT***) button is pushed it sends out radio frequency (RF) signals.

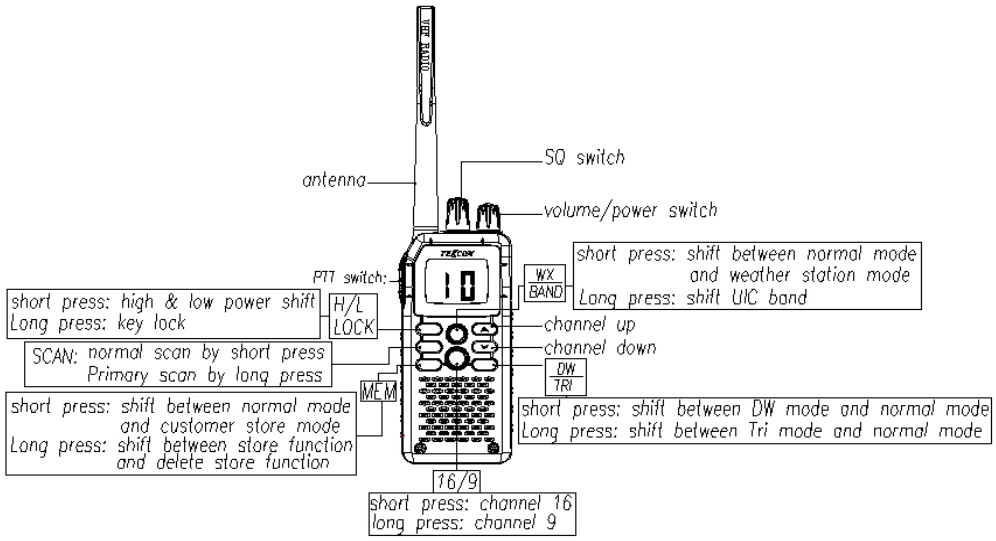
USING THE RADIO

A. DISPLAY

Your radio comes with a multifunctional display.



B. FUNCTION AND LOCATION OF THE CONTROLS



C. BASIC OPERATION

Before operating your transceiver, you should make the following preparations. You should install

the battery pack on to the main unit and fully charge your 7.2/12VDC Ni-MH battery pack or charge it separately before its being attached onto the radio, then you can use it after making sure to attach the antenna on your radio.

Turning On/Off Your Transceiver

Rotate ***VOLUME*** knob to turn the transceiver on or off with an indicating voice of click. And adjust the volume to a comfortable level.

Adjusting Squelch

Rotate ***SQ*** knob to adjust squelch threshold level.
Squelch is used to eliminate static and background noise and allows for silent operation of the TM-886 until a transmission is received. If the squelch is too high, only the strongest transmissions can be heard, and when too low, intermittent static and noise are heard.

Selecting High/Low Power or Lock keypad

Press and release this key to toggle the transmit power between high and low. When the unit is operating at low power, “Lo” appears on LCD and “Hi” appears on LCD when operating at high power.

You also can lock your radio keypad to avoid accidental pressing of keys by activating the key lock. Pressing and holding ***H/L/LOCK*** button until key lock icon will appear on LCD if it is enabled. The function is effective to all other knobs/keys except ***PTT*** and ***H/L/LOCK*** buttons.

Selecting a Channel

Press the ▲/▼ ***(UP/DOWN)*** button to scroll through the available channels.

Note: Not all channel numbers are available in INT bands.

Transmitting and Receiving

Press and hold the Push-To-Talk (***PTT***) key to transmit on the selected channel, then release to receive. The TX indicator appears while transmitting.

Selecting a Weather Channel (If Available)

The US National Oceanic and Atmospheric Administration (NOAA) broadcasts continuous weather reports and severe weather alerts, as needed. If so equipped, your TM886 is programmed to receive10 NOAA weather channels and sound an alarm if a weather alert is received.

Press and release the ***WX/BAND*** button to enter Weather mode. The WX indicator appears.
Press Channel ▲/▼ *(UP/DOWN)* button to change the WX channel 1 through Channel 10.
Press and release *WX/BAND* button again to return to normal operation.

Note:
1. Weather broadcasts can only be heard in the North America.
2. The TM886 can receive these broadcasts only if the unit has been upgraded by the distributor to use WX Channels.
3. During Weather mode, the PTT, SCAN and H/L/LOCK keys are disabled and an error beep sounds if pressed.
4. To ensure compliance with FCC RF exposure guidelines, hold device no closer than 2.5 cm from mouth when transmitting.

SCANNING FEATURES

The TM886 is equipped with three types of scan options: All Scan, Saved(Memory) Scan and Priority Scan. If there are no channels in memory, the default is All Scan. This function

automatically searches for transmissions on the channel set being scanned. If a TX signal is received, the scan stops on the receiving channel as long as it is present and the SCAN indicator flashes. If the signal is lost for five seconds, the radio resumes scanning. During the Scan Modes:

Press the Channel ▲/▼ ***(UP/DOWN)*** button to change the scan direction. UP increments the channel while DOWN decrements it.

Press and release the***SCAN*** button to terminate the SCAN mode. ***DW/TRI*** button do not function and sound an error beep if pressed.

Note: *Scan modes are disabled when the ATIS operation is active.*

All Scan
Press and release the ***SCAN*** button when no channels are stored in memory to activate the All Scan function. The SCAN indicator appears on the LCD during All Scan. In All Scan mode, all channels in the channel set are scanned in sequence, assuming no channels have been stored in memory. After the last channel number has been scanned, the cycle repeats.

Saved (Memory) Scan
Press and release the ***SCAN*** button when there is at least one channel in memory to activate the Saved Scan function. In Saved Scan Mode, the SAVED and SCAN indicators appear on the LCD. In Saved Scan mode, only the channels that have been saved in memory are scanned in sequence. After the last saved channel number has been scanned, the cycle repeats.

Adding Channels to Memory

The TM886 can store any channel (including Private Channels). The stored channels are the ones scanned in the Saved (Memory) Scan mode.

To Add Channels to Memory
1. During normal operation mode, use the UP/DOWN key to select the desired channel for programming.
2. **Press and hold** the **MEM** key for 3 seconds.

The SAVED icon appears to indicate the current channel has been saved in memory. Any number of channels can be saved as memory channels.

To Delete Channels from Memory
1. During the normal mode, use the UP/DOWN key to select the channel to be deleted.
2. **Press and hold** the **MEM** key for 3 seconds.

The selected channel is deleted from memory.

Using the Monitor Modes

The Watch Modes monitor the programmed Priority Channel and other userselected channel(s). The watch is halted when activity is detected on a monitored channel. The TM886 is equipped with 2 types of monitor operations: Dual Watch and Tri Watch.

Note: Monitor modes are disabled when the ATIS operation is active.

Dual Watch
Press and release the ***DW/TRI*** button to activate the Dual Watch mode. The DUAL indicator appears on the LCD. Dual Watch monitors the current working channel and Channel 16 in cycle. Dual Watch is demonstrated in the figure to the left; the sample working channel is CH 72.

Press and release the ***DW/TRI*** button to terminate Dual Watch and return to the previous working channel.
Press and hold the ***DW/TRI*** button to terminate Dual Watch mode and go into Tri Watch mode.
Press and release the **16/9** button to terminate Dual Watch mode and switch to the Priority channel.

Note: During Dual Watch mode, the SCAN and Channel ▲/▼ (UP/DOWN) button are inactive and sounds an error beep if pressed.

Tri Watch
Press and hold the DW/TRI key for 3 seconds to activate Tri Watch mode. The TRI indicator appears on the LCD. Tri Watch monitors in cycle Channel 16, the current working channel and the channel you have set as the Favourite (PLUS) Channel. Tri Watch is demonstrated in the figure to the left; the sample working channel is CH 72.

Press and release the ***DW/TRI*** button to terminate Tri Watch and return to the previous working channel.
Press and release the ***16/9*** button to terminate Tri Watch mode and switch to the Priority Channel.

Note: ***During Tri Watch Mode, the SCAN, and Channel ▲/▼ (UP/DOWN) keys are inactive and sounds an error beep if pressed.***

Resetting the Radio

You can reset many radio settings back to their factory defaults, this will:
• Erase any channels stored in memory
• Return to International channels, if another mode is selected
• Turn OFF the Weather Alert setting, if active
• Return power settings to their original state
To perform the reset:

1. Turn the radio OFF.
2. Simultaneously press and hold the ***SCAN & WX/BAND*** button.
3. While continuing to hold these keys, power the radio ON.

The LCD remains blank for 2 seconds, and then the unit switches to channel 16.

Attaching and Charging Your Battery Pack

Before attaching the pack, you should detach the belt clip first, then alignigly place the pack on the unit and secure it using the supplied screw.

The design of the battery pack let you can charge it either when it is attached on the radio or being detached. You should use the supplied specialized desktop charger to charge it (either 7.2V or 12V Ni-MH battery pack) for 14~15hrs. To charge, plug the charger cable into a standard wall socket and the other terminal to the charger cradle, place the radio/battery pack mounting on the charger pedestal firmly to start the charging, accompanied by lighting of the charging indicator LED.
Note: The charging can not stop itself without prevention, even when the battery pack has been fully charged. Do not forget to take the radio/battery pack out of the charger cradle when it has been fully charged. Overcharging batteries may result in damage to both the battery pack and radio.

Using the Belt Clip

The supplied belt clip lets you easily attach the transceiver to your belt. To attach the belt clip, put it onto the back of your transceiver aligning the fitting groove and use a

standard PHILIP screw driver to secure.

TECHNICAL SPECIFICATIONS

Channels……All International Channels
Frequency Method……Phase Lock Loop
Frequency Range……TX 156.025~157.950 MHz
RX 156.300~163.275 MHz
Antenna Impedance……50 Ohm
Power Supply……7.2VDC
Operating Temperature……-20□ to +55□

Dimensions (HWD)……(With 7.2V Battery Pack) 64mm(W)*16mm(H)*38mm(D)
Weight (with Battery Pack)……(With 7.2V Battery Pack) 435g

TRANSMITTER

Power Output……1 or 5 Watts (Switch Selectable)
Modulation Type……FM
Hum and Noise Attenuation……40dB
Audio Distortion……5%
Spurious Suppression……70dB

RECEIVER

Sensitivity at 12dB SINAD……0.5μV
S/N Ratio (20dB)……0.8μV
Squelch Sensitivity……Threshold –12dBμV(EMF)
Adjacent Channel Rejection……65dB
Audio Power Output……200mW at 10% THD
Spurious Response Attenuation……65dB
Hum and Noise Attenuation……40dB
Modulation Acceptance Bandwidth……+/- 7.0KHz Minimum

Note: *The data are typical, and the practical ones may be varied.*