THANK YOU!

We are grateful for your purchase of HYT product. We believe this easy–to-use radio will provide you with dependable and reliable communications. This HYT portable two-way radio is a precision device. Treat it with care, and you will enjoy years of reliable operation.

Contents

FCC   Information

FCC RF EXPOSURE COMPLIANCE REQUIREMENTS FOR OCCUPATIONAL USE
ONLY

◇ The Federal Communications Commission (FCC), with its action in General Docket 93—62,November 7,1997,has adopted a safety standard for human exposure to Radio Frequency (RF) electromagnetic energy emitted by FCC regulated equipment. HYT subscribes to the same safety standard for the use of its products. Proper operation of this radio will result in user exposure far below the Occupational Safety and Health Act(OSHA) AND federal Communications Commission limits.

◇ This radio is NOT approved for use by the general population in an uncontrolled environment. This radio is restricted to occupational use, work related operations only where radio operator muse have the knowledge to control the user's exposure conditions for satisfying the higher exposure limit allowed for occupational use.

◇ When transmitting, hold the radio in a vertical position with its microphone 2 inches (5 cm) away from your mouth. The radio is transmitting when the red LED on the front of the radio is illuminated. You can cause the radio to transmit by pressing the PTT bar on the radio.

◇ DO NOT transmit for more than 50% of total radio use time 50% duty cycle). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded. These are required operating configurations for meeting FCC RF exposure compliance. Failure to observe these restrictions mean violation.

◇ This equipment complies with the FCC RF Exposure Limits for controlled environments.

User Safety Information

READ THIS IMPORTANT INFORMATION ON SAFE AND EFFICIENT OPERATION BEFORE USING YOUR HYT PORTABLE TWO-WAY RADIO.

◇ Only qualified technicians are allowed to maintain this product.

◇ To avoid electromagnetic interference and/or compatibility conflicts, turn off your radio in any place where posted notices instruct you to do so. Hospitals or health care facilities may be using equipment that is sensitive to external RF energy. When on aircraft, turn off your radio when airline crew instruct you to do so.

◇ When in vehicles with an airbag, do not place a portable radio in the area over an airbag or in the airbag deployment area.

◇ Turn off your radio prior to entering any area with a potentially explosive atmosphere. Do not remove, install, or charge batteries in such areas.

◇ To avoid possible interference with blasting operations, turn off your radio when you are near electrical blasting caps.

◇ Do not use any portable radio that has a damaged antenna. If a damaged antenna comes into contact with your skin, a minor burn may result.

◇ Do not expose the radio in direct sunlight for a long time nor place it close to a heating source.

◇ When transmitting with a portable radio, hold the radio in a vertical position with its microphone about 5 centimeters away from your mouth.

◇ If you wear a portable two-way radio on your body, ensure that the antenna is at least 2.5 centimeters from your body when transmitting.

◇ The maximum SAR value is 2.180mW/g.

Product Inspection

Thank you for your use of HYT portable two-way radio. Before use, you are recommended to inspect the product as follows.

First check the shipping carton for any signs of damage. If any damage has occurred, please contact your dealer immediately. Confirm the supplied product against the packing slip to assure accuracy.

Available Accessories

Item	Qty. (pcs)
Antenna	1
Charger	1
AC Adapter	1
Ni-MH Battery Pack	1
Belt Clip	1
Strap	1
Owner's Manual	1

*Antenna Mark：

400-420MHz: Red;

450-470MHz: White;

136-150MHz: Blue;

150-174MHz: Green.

Battery Information

Battery Charging Information

The battery is not charged by the manufactory. Charge the newly purchased battery or out of use for more than 2 months battery before use. The battery capacity will be optimum only after being charged/discharged for two or three times. When the battery power is lower, please charge it or replace it with a new one.

Notices:

Do not short out the battery terminals or dispose of the battery by fire.

Turn off the radio when charging the battery inside the radio.

Remove the radio and the battery from the charger when charging cycle is over. Overcharging will shorten the battery life.
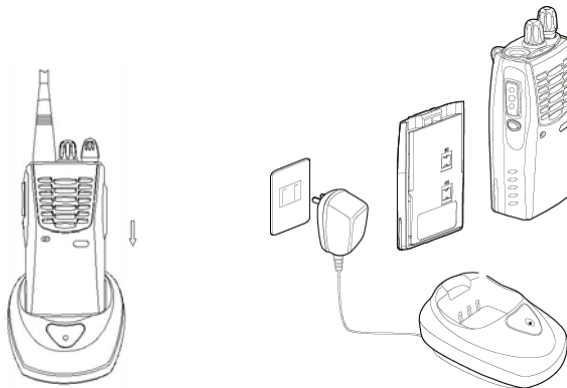
Do not continue charging the battery if it is already fully charged. Or the battery life will be shortened.

Store the battery in a place about 25℃. Charging the battery in less than 10℃ temperature will cause the electrolyte leakage and damage the battery.

Charging the battery in over 35℃ temperature will affect the battery capacity.

Battery Charging

Insert the battery or the radio with battery in the charger, and make sure they connect well. Charging begins, red LED glows. The battery is fully charged in about 8 hours. If the battery is charged while the radio is turned on, fully charging time will prolong.

Accessory Installation

Attach the Battery

1. Insert the tabs, at the bottom of the battery, into the slots at the bottom of the radio chassis.

2. Press the top of the battery towards the radio until a click is heard. (See figure 1)
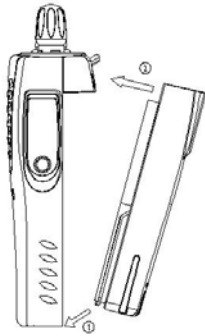
Figure 1

Remove the Battery

1. Turn off the radio.

2. Push the battery latch on the back panel towards the top of the radio.

3. Pull the top of the battery away from the radio chassis, and lift the battery from the radio. (See figure 2)
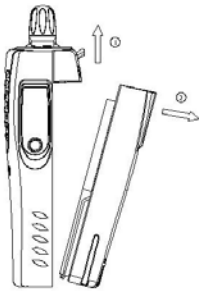

Figure 2

Attach the Antenna

1. Align the threaded end of the antenna with the radio's antenna connector.

2. Turn the antenna clockwise to tighten. (See figure 3)

Removing the Antenna

1.Turn the antenna counter-clockwise until you can remove it. (See figure 3)
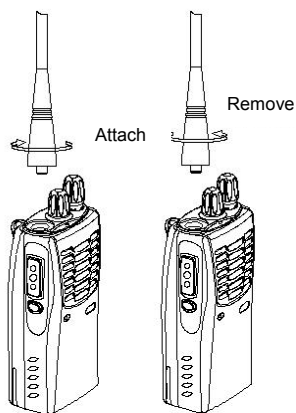

Remove

Attach

Figure 3

Attach the Belt Clip

1. Align the grooves of the belt clip with those of the battery.

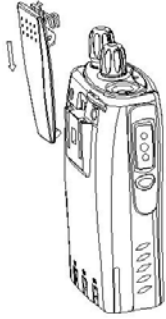2. Press the belt clip down until a click is heard. (See figure 4)

Figure 4

Remove the Belt Clip

1. Pull the belt clip tab away from the battery.

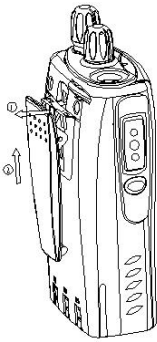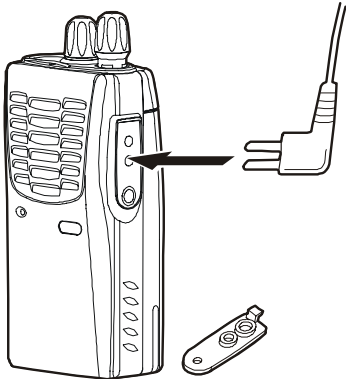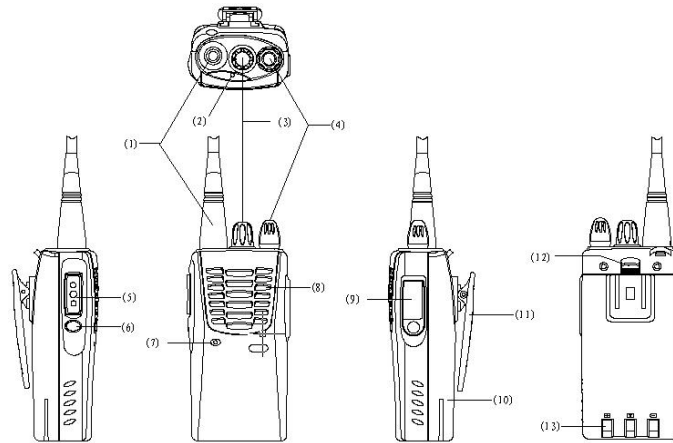2. Slide the belt clip upwards to remove it. (See figure 5)

Figure 5

External Earphone (Optional)

Remove the earphone cover and insert the earphone into the earphone jack.

Getting Started

1. Antenna
2. LED indicator

The light will glow red during transmission. The light will glow green during receiving. The light flashes red when the battery voltage is low.

3. Channel selector knob

Turn the channel selector knob to select from channels 1-16 (Channel 16 can be programmed by your dealer as scan function).

4. Power/Volume control knob

Rotate the Power/Volume Knob clockwise until a "click" is heard to turn the radio on, fully counter clockwise until a "click" is heard to turn the radio off. When the radio is on, turn the knob to adjust volume.

5. PTT key

Press and hold PTT key to talk, release to receive.

6. Monitor key

In receive mode, press Monitor key to monitor activity on the current channel.

7. Microphone

8. Speaker

9. External jack

Remove the jack cover and insert an earphone; or insert programming cable into the jack to programme the radio via programming software.

10. Battery

11. Belt clip

Used to clip radio on your belt.

12. Battery latch

Used to fasten and remove the battery.

13. Charging connectors

Connect the charging connectors with that on the charger to begin charging.

Features and Operation

Basic Operations

1. Turn on the radio: Turn the POWER/VOL knob clockwise until a click is heard.
2. Turn off the radio: Turn the POWER/VOL knob counter clockwise until a click is heard.
3. Adjust the volume: Turn the POWER/VOL knob to adjust the volume while holding down the Monitor key.
4. Select Channel: Rotate Channel Selector knob to select your desired channel.
5. Transmit: Press and hold PTT, speak into the microphone with normal voice. Keep microphone about 5cm away from your mouth.
6. Receive: Release PTT, the radio returns to receive mode.

Time-out Timer

Time-out Timer is used to prevent one from using the same channel for a long time and to prevent the radio from damage due to continuous transmission.

If the transmission exceeds preset time (it's set by your dealer), transmission will be stopped and a beep will sound. To stop the beep tone, release PTT. Press PTT again to transmit.

TOT (Time-out Timer) Reset Time

When this feature is disabled, TOT is immediately reset after transmission stops. When enabled, TOT won't reset until preset time (it's set by your dealer) elapses, even if transmission has stopped.

TOT Rekey Time

The feature is used to set the duration until transmission is allowed after returning to receive by TOT. When enabled, transmission will be prohibited until preset time elapses (it's set by your dealer).

TOT Alert Time

This timer can be set by your dealer from 1 to 255 seconds in 1 second step. When this feature is enabled, the radio will call an alert at the set time. Transmission will be prohibited by TOT after this time.

Battery Save

When there is no activity on the channel and no operation is performed for 10 seconds, Battery Save feature is turned ON. When a signal is received or an operation is performed, Battery Save feature is turned OFF automatically.

Low Battery Alert

Low Battery Alert alerts you to recharge or replace the battery.

During transmission, when the battery voltage goes below a preset value, the light will flash red. When the alert tone sounds, the radio stops transmitting. Please recharge or replace the battery.

Monitor

Press and hold Monitor key to monitor activities on the current channel. This operation is especially useful for adjusting volume level or receiving a weak signal.

The light will glow green while the Monitor key is held down.

CTCSS & CDCSS

CTCSS/CDCSS allows you to ignore unwanted calls from other parties using the same channel.

When CTCSS/CDCSS is set, the user can only receive the calls on the same channel with same CTCSS/CDCSS.

The dealer can preset CTCSS/CDCSS signaling on certain channels.

Note: Although using CTCSS/CDCSS enables you to avoid hearing unwanted calls, it does not mean your calls will be private.

Channel Scan (This feature can be disabled by your dealer)

Turn channel selector knob to the position "16", the radio will automatically detect those channels which have been programmed as scan items in channel 1-15 (your dealer can set any channel as scan item or non-scan item). When any activity is detected on one channel, the radio will stop on the active channel for communications.

Priority Channel Scan

Any programmed channel may be set as the priority channel. The radio will detect the priority channel periodically while stopping on a non-priority channel. When there is any activity on the priority channel, the radio will turn to the priority channel for communications.

Scan Revert Channel

When the radio is scanning, press the PTT key, it will transmit in pre-programmed revert channel.

Revert channel can be programmed by your dealer.

Busy Channel Lockout

If the current channel is set by your dealer as "busy channel lockout", and this channel is being used by other users, press PTT, the radio sounds a beep and will not transmit the signal. To stop the beep, release PTT.　When this channel is free, press PTT to transmit.

Troubleshooting Guide

Trouble	Solution
No power	*Battery may be used up. Please recharge or replace the battery. *The battery may not be properly installed. Remove the battery and attach it again.
Power doesn't last long even if fully charged	*Battery life is over, please replace it with a new one.
Can't talk to or hear group members	*Make sure you are using the same frequency and same CTCSS/CDCSS as your group members. *Your group members may be out of the communication range.
Other voice (non-group members) are present on the channel	*Change CTCSS/CDCSS tone. Make sure your group members all change to the same tone.

Care and Cleaning

* Do not carry your radio by the antenna or remote microphone;
* Wipe the battery contacts with a lint-free cloth to remove dirt, grease, or other material that may prevent good electrical connection;
* When not in use, keep the accessory jacks covered with the protective caps;
* Clean the shell, controls and keys of your radio with neutral detergent and warm water after a long period of usage. Avoid using strong chemicals.

Optional Accessories

Leather Case PT-28
Remote Speaker Microphone SM-06M
Antenna
Earphone 158M-G1
Earphone 158M-S1

Specification

General	
Frequency range	450 MHz ~470 MHz
Channel capacity (simplex)	16
Channel spacing	12.5KHz
Antenna impedance	50Ω
Microphone impedance	2KΩ
Operation voltage	6 VDC
Transmitter	
Carrier frequency error	±2.5×10-6
Carrier output power	4.0W
Modulation sensitivity	8±2mV
Modulation distortion	≤5%
Modulation limiting	≤2.5KHz
Conducted spurious emission	≤7.5μW
Current drain	≤1.8A
Receiver	
Reference sensitivity	≤0.28μV
Unsquelch sensitivity	≤0.4μV
Audio power	500mW (4Ω)
Audio distortion	≤5%
Blocking	≥85d B
Adjacent channel selectivity	≥65 d B
Spurious response rejection	≥60 d B
Current drain	Receive: 250mA
	Standby: 30mA

Frequency Chart

Model: _____

Serial Number: _____

Channel	Transmit Frequency	Transmit CTCSS/CDCSS	Receive Frequency	Receive CTCSS/CDCSS
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

HYT endeavor to achieve the accuracy and completeness of this manual, but cannot guarantee its accuracy at all times. All the above specifications and design are subject to change by HYT without notice.

All the reproduction and translation of this manual without authorization of HYT is not allowed.