THANK YOU!

Thank you for your purchase of the HYT TC-700 radio - the choice for professionals. This easy-to-use radio will deliver you secure, instant and reliable communications at peak efficiency. Please read this manual carefully before use. The information presented herein will help you to derive maximum performance from your radio.

MODELS COVERED IN THIS MANUAL

TC-700 VHF Two-way Radio

TC-700 UHF Two-way Radio

Contents

Safety and General Information **Product Inspection** Battery Antenna **Accessory Information** Attaching the Battery Removing the Battery Attaching the Antenna Removing the Antenna Attaching the Belt Clip Removing the Belt Clip Attaching the Earpiece/Microphone **Getting Started** Programmable Auxiliary Functions **Basic Operations Advanced Operations** Call1/Call2 Emergency Lone Worker Lone Worker Backup Man Down (optional) Man Down Backup (optional) Monitor/Squelch Off Squelch Level Check / Selectable Squelch Level (SQL) Scan Scan Backup Scrambler Talk Around

Output Power Check/Adjust Power Level Whisper Whisper Backup **Battery Power Indicator** Rental Timer Indicator **Channel Annunciation Temporary Enable Channel Annunciation Auto Contact** Auto Contact Temporary Delete TX Low Power Mode Enable TX Low Power Temporary Enable **Channel Lock** Patrol Event Select Transmit Confirm **Background Operations** Time-out Timer (TOT) Busy Channel Lockout (BCL) **Battery Save** Low Battery Alert Safety Check CTCSS/CDCSS DTMF $\text{2-Tone/HDC1200/HDC2400}^{\mathsf{TM}}$ Signalling Logic BOT ID and EOT ID (PTT ID)

Troubleshooting

Care and Cleaning

Optional Accessories

Channel Frequency Table

Safety and General Information

The following general safety precautions as would normally apply, should be observed during all phases of operation, service and repair of this equipment.

- ♦ This equipment should be serviced by qualified technicians only.
- ♦ Do not modify the radio for any reason.
- ♦ Only accessories approved by HYT may be used.
- Use only the supplied or an approved antenna.
- ♦ Don not use any portable radio that has a damaged antenna. If a damaged antenna comes into contact with your skin, a minor burn can result.
- ♦ For vehicles with an air bag, do not place a radio in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a radio is placed in the air bag deployment area and the air bag inflates, the radio may be propelled with great force and cause serious injury to occupants of the vehicle.
- Turn off your radio prior to entering any area with a potentially explosive atmosphere.
- ♦ To avoid possible interference with blasting operations, turn off your radio when you are near electrical blasting caps, in a blasting area, or in areas posted: "Turn off two-way radio." Obey all signs and instructions.
- ♦ Do not charge your battery in a potentially explosive atmosphere.
- Do not expose the radio to direct sunlight over a long time, nor place it close to heating source.
- When using your radio, hold the radio in a vertical position with the microphone 3 to 4 centimeters away from your lips.
- ♦ Body-worn operations are restricted to belt-clips, holsters or similar accessories that have no metallic component in the assembly and that provide at least 1.5 cm separation between the device, including its antenna, and the user's body."

Product Inspection

Before unpacking the TC-700 portable radio, please inspect the packaging for signs of damage and report any damage to your dealer.

Upon unpacking of the TC-700 portable radio, please ensure that all items shipped were received, report any missing or damaged items to your dealer.

Accessories

Item	Qty. (PCS)
Antenna	1
Belt Clip	1
Screws	2
Strap	1
Battery	1
Charger	1
Adapter	1
Power Cable	1
Warranty Card	1
Owner's Manual	1
Declaration of Conformity	1

Note: Frequency band is marked on the label of antenna, if not, identify the frequency band according to the color circle, red indicates UHF, green indicates VHF. Please refer to the label on the radio unit for detailed frequency band information.

The radio unit is shipped with screws mounted from the factory.

Battery

Safety Precautions

The battery option is shipped uncharged from the factory. Please charge a new battery or battery that has not been used for a long time prior to use. The maximum capacity of the battery is achieved only after 2 or 3 charging and discharging cycles. When the battery power runs low, please recharge the battery or replace with a refresh one.

Initial Use

The HYT approved battery is shipped not fully charged at the factory. Prior to using a new battery, please charge it for 12 hours, which applies for Ni-Cd, Ni-MH and Li-Ion battery charged with slow or rapid rate charger. It is recommended to take this step for the first three times of use. When the battery power runs low, please recharge the battery.

Applicable Battery Packs

To reduce the risk of injury, charge only the battery specified by the manufacturer. Other batteries may burst, causing bodily injury and damage.

Caution:

- Do not short circuit the battery terminals or discard the battery in fire. Never attempt to disassemble the battery.
- 2. The battery should be charged at 5° C ~ 40° C, temperature out of this range could result the battery not fully charged.
- 3. When charging a battery attached to a radio, turn the radio off to ensure a full charge.
- 4. Do not cut off the power supply or remove the battery when charging a battery.
- If the operation time will not increase even though the battery is properly charged, this means the battery life cycle is over, please replace with a new one.
- 6. Do not return fully charged batteries to the charger for an "extra boost". This action will significantly reduce battery life.
- 7. Never charge a battery that is wet. Please dry it with soft cloth prior to charge.

 All batteries can cause property damage and/or bodily injury such as burns if a conductive material such as jewelry, keys, or beaded chains touch exposed terminals. The conductive material may complete an electrical circuit (short circuit) and become quite hot.

Exercise care in handling any charged battery, particularly when placing it inside a pocket, purse, or other container with metal objects.

To Prolong Battery Life

- ♦ Battery performance will be greatly decreased at a temperature -20°C below. Please use back-up battery in cold weather. The cold battery unable to work in this situation may work under room temperature, so keep it for later use.
- ♦ The dust on the battery contact may affect battery life. Please use clean dry cloth to wipe it before the attaching the battery to the radio.

Battery Storage

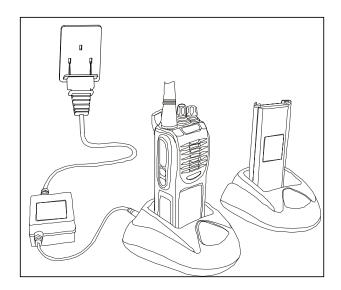
- 1. Considering the battery's self-discharge characteristics, fully charge the battery prior to long time storage, to avoid battery damage due to over-discharge.
- 2. Recharge the battery after 6 months' storage, to avoid reducing battery capacity due to over-discharge.
- 3. Notice the ambient humidity and temperature for the battery storage. Please store it in cool dry area under room temperature, to reduce self-discharge capacity.

Charging the Battery

When the LED flashes red and three beeps sound every 30 seconds indicating the battery power runs low, please recharge the battery.

Only the charger specified by the manufacturer may be used. The charger's LED indicates the charging progress.

Status	Charger LED	Remarks		
Standby (no-load)	Red LED flashes slowly	Intelligent rapid-rate charger		
	(0.2s on/3s off)	only		
Battery is charging	Red LED solidly glows			
Battery is fully charged	Green LED solidly glows			
Error	Red LED flashes rapidly	Intelligent rapid-rate charger		
	(0.2s on/0.2s off)	only		



Please follow these steps:

- 1. Plug the power cable into the adapter.
- 2. Plug the DC connector of the adapter into the DC socket on the back of the charger.
- 3. Place the radio with the battery attached, or the battery alone, in the charger.
- 4. Plug the AC connector of the adapter into the AC outlet socket.
- 5. Make sure the battery is in well contact with the charging terminals, the charging process initiates when the red LED lights.
- 6. The greed LED lights about 3 hours later indicating the battery is fully charged. Then remove the radio with the battery attached or the battery alone from the charger.

Note:

- a) It is normal that the LED flashes before placing the battery into the charger.
- b) Do not place another battery into the charger until the charger LED is stabilized.
- c) After the battery is placed properly, the LED solidly glows red indicating the battery is charging, or flashes indicating the battery is damaged or the ambient temperature is over high/low.

Troubleshooting (intelligent rapid-rate charger only):

When troubleshooting, always observe the color of the LED:

No LED Indication?

1. Make sure that the power cord is plugged into an appropriate AC outlet.

Red LED flashes rapidly (0.2s on/0.2s off)?

- 1. Remove the battery from the charger, and:
 - a) make sure that it is a HYT authorized battery. Other batteries may not charge.
 - b) Remove power from the battery charger and, using a clean dry cloth, clean the gold metal, charging contacts of the battery and charger.
- 2. The battery temperature may be above 45° C.
- 3. Defective battery, please replace it with a new one.
- Power up the charger and place the battery back into the charger pocket. If the LED indicator continues to flash red, replace the battery.

Note:

- Rapid charging outside of the stated temperature limits (5℃~40℃) can drastically reduce the life expectancy of the battery.
- When the battery charger detects the proper battery conditions, rapid charging begins automatically (steady red LED).
- If the battery temperature is above 45°C, the charger will report the fault by flashing red LED rapidly (0.2s on/0.2s off), and will not charge until the battery temperature is below 45°C, with red LED solidly glows (Ni-MH battery only).

Antenna

Stubby antennas are ideal for communication within limited range. Fine and long antennas optimizes communication coverage, ideal when the radio is worn on the belt because they are flexible and soft.

Rainy days or forest locations may narrow your communication range, please prepare in advance to avoid potential inconvenience.

Accessory Information

1. Attaching the Battery

Align the battery with the guide rails on the radio unit, slide the battery upwards until you hear a "click" and the battery latch on the bottom of radio locks the battery. (Shown as Figure 1)

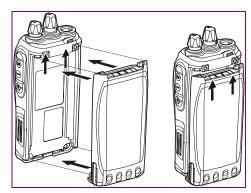


Figure 1

2. Removing the Battery

With the radio off, slide the battery latch away from the battery, slide down the battery for 1 to 2 centimeters, then remove the battery from the radio unit. (Shown as Figure 2)

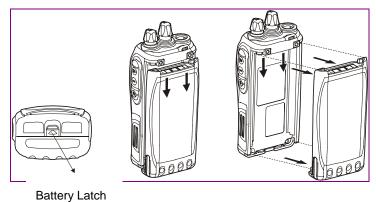


Figure 2

3. Attaching the Antenna

With the radio off, turn the antenna clockwise to attach it. (Shown as Figure 3)

4. Removing the Antenna

With the radio off, turn the antenna counter-clockwise to remove it. (Shown as Figure 3)

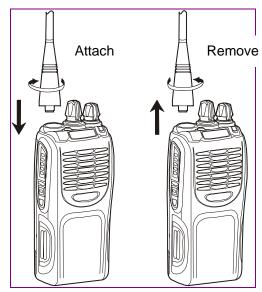


Figure 3

5. Attaching the Belt Clip

Remove the screws that locking the belt clip to the radio unit, match the screw hole on the metal holder with that on the aluminum chassis, then secure it using the screws. (Shown as Figure 4)

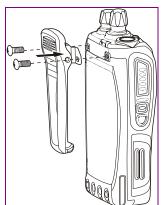


Figure 4

6. Removing the Belt Clip

Remove the screws to remove the belt clip. (Shown as Figure 5)

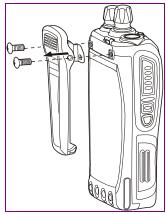


Figure 5

7. Attaching the Earpiece/Microphone

Open (not remove) the accessory cover, plug the audio accessory firmly into the accessory jack, then secure the screw using your hand or a coin. Please loosen the screw prior to removing the audio accessory. (Shown as Figure 6)

Note: Using the radio with audio accessory may affect the waterproof performance of the radio.

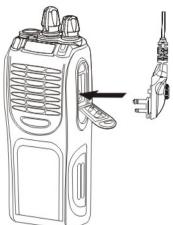
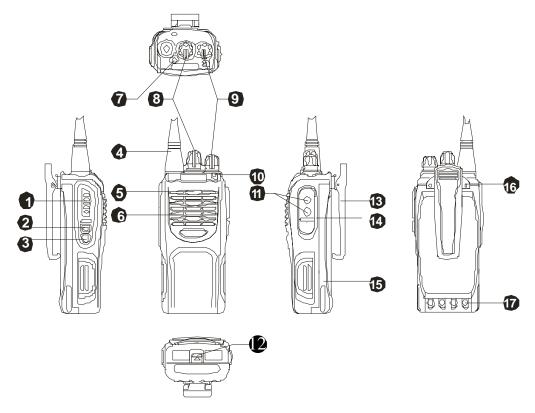


Figure 6

Getting Started



1. PTT (Push-to-Talk) Key

Press and hold down the PTT key to transmit, release it to receive.

- 2. SK1 (Side Key 1) (programmable)
- 3. SK2 (Side Key 2) (programmable)
- 4. Antenna
- 5. Microphone
- 6. Speaker
- 7. TK (Top Key) (programmable)
- 8. Channel Selector Knob

Rotate the knob to select from channel 1 to 16.

9. Radio On-Off/Volume Control Knob

Rotate the knob clockwise to turn the radio on, rotate the knob fully counter-clockwise until a "click" is heard to turn the radio off.

Turn the knob clockwise to increase the volume, or counter-clockwise to decrease the volume.

10. LED Indicator

Table below explains the functions of the LEDs and beeps.

		T		
Wired S	Source radio: Turn the source radio on while	The orange LED flashes		
Clone	nolding down the PTT and SK2.	twice.		
S	Slave radio: Rotate the On-Off/Volume			
С	Control knob clockwise to turn the slave			
ra	adio on.			
s	Source radio (power on the slave radio and	1) LED solidly glows red		
C	connect the cloning cable, then press the	when cloning progress;		
P	PTT of source radio to initiate cloning.)	2) LED goes out when		
		cloning is finished;		
		3) LED flashes red when		
		cloning fails.		
s	Slave radio	1) LED solidly glows green		
		when cloning progress;		
		2) LED goes out when		
		cloning is finished.		
Wireless T	Furn on both the source radio and slave	The orange LED flashes		
Clone	adio while holding down the PTT and SK1.	once.		
В	Both radios are required to be on the same			
C	channel for cloning.			
S	Source radio (turn on both the source radio	LED solidly glows red when		
а	and slave radio while holding down the PTT	cloning progress.		
а	and SK1, then press the PTT of source radio			
w	while both radios are on the same channel to			
ir	nitiate cloning.)			
s	Slave radio	1) LED solidly glows green		
1		when cloning progress;		
		when cloning progress,		
		LED flashes green and		
		2) LED flashes green and		
		LED flashes green and radio sounds beep tone,		

Power On	The green LED flashes once.		
Low Battery Alert	LED flashes red, and radio		
	sounds three beeps every 30		
	seconds.		
Transmitting	LED glows red		
Receiving	LED glows green when carrier		
	presents.		
Scanning	Green LED flashes once		
	every 1 second.		
Programming	Reading: LED glows red;		
	Writing: LED glows green.		
Encoding (DTMF/PTT ID/2-Tone/HDC1200/HDC2400 TM)	1) LED glows red while		
	transmitting;		
	LED glows orange when transmission ends.		
Decoding (2-Tone/HDC1200/HDC2400 TM)	Orange LED flashes after the		
	signalling is successfully		
	decoded.		
Select Power Level	1W: One beep is heard;		
	2W: Two beeps are heard;		
	4W/5W: Three beeps are		
	heard.		
Function Key Press	One beep to enable, two		
	beeps to disable.		

- 11. Accessory Jack
- 12. Battery Latch
- 13. Belt Clip
- 14. Accessory cover
- 15. Battery
- 16. Screw
- 17. Electrode Piece

Programmable Auxiliary Functions

Your dealer may program the TK, SK1, SK2 (long or short press) keys with one of the following auxiliary functions respectively.

- None
- Call1/Call2
- Emergency
- Emergency Cancel
- Lone Worker
- Lone Worker Backup
- Man Down (optional)
- Man Down Backup (optional)
- Monitor
- Monitor Momentary
- Nuisance Channel Temporary Delete
- Nuisance Channel Delete
- Squelch level Check
- Selectable Squelch Level (SQL)
- Scan
- Scan Backup
- Scrambler
- Scrambler Backup
- Squelch Off
- Squelch Off-Momentary
- Talk Around
- Output Power Check
- Adjust Power Level
- Whisper
- Whisper Backup
- Battery Power Indicator
- Rental Time Indicator
- Channel Annunciation Temporary Enable
- Channel Annunciation

- External Scrambler (optional)
- External Scrambler Backup (optional)
- Auto Contact
- Auto Contact Temporary Delete
- TX Low Power Mode Enable
- TX Low Power Temporary Enable
- Channel Lock
- Patrol Event Select
- Transmit Confirm

Basic Operations

- Rotate the On-Off/Volume Control knob clockwise to turn the radio on, green LED flashes once.
 - A beep is heard if alert tone is set by your dealer.
- Press the programmed Monitor key or Squelch Off key to hear activities on the current channel, then rotate the On-Off/Volume Control knob clockwise to adjust the volume.
- 3. Rotate the Channel Selector knob to select a desired channel. If the Channel Annunciation feature is enabled by your dealer, your radio will automatically report the current channel number when the selector is positioned to a channel.
- 4. To transmit, press and hold down the PTT key, speak into the microphone at your normal voice level.
 - Hold the radio about 2.5 to 5 centimeters away from your mouth.
- 5. Release the PTT key to receive.

Advanced Operations

The following functions are programmable by your dealer.

Call1/Call2

Press the programmed Call1/Call2 key to transmit the stored DTMF code, 2-Tone, HDC1200 or HDC2400TM signalling.

Emergency

Press the programmed Emergency key to emit emergency alarm, or send ENI (Emergency Number Identity) / background tone to a pre-defined person or the dispatcher (selectable via programming software). You may long or short press the function key to cancel the emergency procedure.

Lone Worker

The feature provides added security and safety for individuals who work remotely from their team. Press the programmed function key to activate the Lone Worker feature, the radio is set up to request a response from a user at regular intervals. Should a user not press any key as response to a regular warning tone, then a defined emergency procedure is activated.

The Lone Worker status will not be memorized once radio power off.

Lone Worker Backup

The feature provides added security and safety for individuals who work remotely from their team. Press the programmed function key to activate the Lone Worker feature, the radio is set up to request a response from a user at regular intervals. Should a user not press any key as response to a regular warning tone, then a defined emergency procedure is activated.

The Lone Worker status will be memorized after radio power off and on.

Man Down (optional)

Press the programmed function key to activate the Man Down mode, horizontally or inversely position the radio will activate an alert tone, a defined emergency procedure is activated if the radio is horizontally or inversely positioned for a certain length of time. Place the radio vertically to cancel the emergency procedure.

The Man Down status will not be memorized once radio power off.

Man Down Backup (optional)

Press the programmed function key to activate the Man Down mode, horizontally or inversely position the radio will activate an alert tone, a defined emergency procedure is activated if the radio is horizontally or inversely positioned for a certain length of time. Place the radio vertically to cancel the emergency procedure.

The Man Down status will be memorized after radio power off.

Monitor/Squelch Off

Monitor

Press the Monitor key to open signalling squelch. Press it again to close.

Monitor Momentary

Press the Monitor Momentary key to open signalling squelch. Release it to close.

Squelch Off

Press the Squelch Off key to open noise squelch. Press it again to close.

Squelch Off Momentary

Press the Squelch Off Momentary key to open noise squelch. Release it to close.

Squelch Level Check / Selectable Squelch Level (SQL)

Upon long press the programmed Squelch Level Check key, the radio reports the squelch level set on the current channel.

Short press the Adjust Squelch Level key to change the squelch level, the squelch increases by 1 level upon every press of the function key (level 9~0 cycle, select level 0 activates a beep tone with the squelch always open), then save your change.

Scan

Press the programmed Scan key to initiate radio scanning from the current channel, and ascends through the channel numbers in scan list. The green LED flashes when scanning proceeds, and solidly glows when a signal is received with signalling match on a channel. Press the Scan key again to exit radio scanning. The Scan status will not be memorized once radio power off.

Nuisance Channel Temporary Delete

■ When scan pauses on an unwanted channel such as a noise channel, press the

programmed Nuisance Channel Temporary Delete key to temporarily delete the channel from the scan list.

- The priority channel can be deleted temporarily only.
- If there's only one or two channels in the scan list, one of them cannot be deleted.
- Once radio exits from the scan mode, or power off and on, the temporarily deleted channel will turn back to the scan list.

Nuisance Channel Delete

When scan pauses on an unwanted channel such as a noise channel, press the programmed Nuisance Channel Delete key to permanently delete the channel from the scan list. The deleted channel will not turn back to the scan list one radio exits from the scan mode, or power off and on.

- The priority channel can be deleted temporarily only.
- If there's only one or two channels in the scan list, one of them cannot be deleted.

Scan Backup

Press the programmed Scan key to initiate radio scanning from the current channel, and ascends through the channel numbers in scan list. The green LED flashes when scanning proceeds, and solidly glows when a signal is received with signalling match on a channel. Press the Scan key again to exit radio scanning.

The Scan status will be memorized after radio power off and on.

Scrambler

The feature includes scrambler and scrambler backup.

In order for members of your own group to understand your call while you are using the Scrambler, all other members must also activate the Scrambler on their radios. When activated, any other party listening on your channel will be unable to understand your conversation.

■ Scrambler

Press the programmed function key to activate the Scrambler feature. When activated, any other party listening on your channel is prevented from eavesdropping your

conversation.

The Scrambler status will not be memorized once radio power off and on.

■ Scrambler Backup

Press the programmed function key to activate the Scrambler Backup feature. When activated, any other party listening on your channel is prevented from eavesdropping your conversation.

The Scrambler status will be memorized after radio power off and on.

External Scrambler (optional)

The external scrambler is controlled from the programmed External Scrambler key.

The External Scrambler status will not be memorized once radio power off and on.

■ External Scrambler Backup (optional)

The external scrambler is controlled from the programmed External Scrambler key.

The External Scrambler status will be memorized after radio power off and on.

Talk Around

Press the programmed function key to activate the Talk Around feature. When activated, the Rx frequency is used in place of the Tx frequency when transmitting.

Output Power Check/Adjust Power Level

Upon long press the programmed Output Power Check key, the radio reports the output power level set on the current channel, with one beep for low power level, two beeps for medium power level, or three beeps for high power level.

Short press the Adjust Power Level key to change the power level, the power increases by 1 level upon every press of the function key (low~med~high cycle). You change is saved.

Whisper

Press the programmed function key to activate the Whisper feature. When activated, you can speak quietly into the radio and still be heard clearly. Press the key again to exit from the feature. The Whisper status will not be memorized once radio power off and on.

Whisper Backup

Press the programmed function key to activate the Whisper feature. When activated, you can speak quietly into the radio and still be heard clearly. Press the key again to exit from the feature. The Whisper status will be memorized after radio power off and on.

Battery Power Indicator

Upon press the programmed Battery Power Indicator key, the radio sounds "1", "2", "3", or "4" to indicate the current battery level.

Audible Indicator	Battery Level
"1"	Very Low
"2"	Low
"3"	Satisfactory
"4"	High

Rental Timer Indicator

Upon press the programmed Rental Time Indicator key, the radio sounds "1", "2", "3", "4", or "5" to indicate the remaining time that the user is allow to use the radio. The Rental Time is programmable by your dealer.

Channel Annunciation Temporary Enable

Press the programmed Channel Annunciation Temporary Enable key, may activate the following two situations :

a) If the current channel number is heard:

Press the function key, if two beeps are heard, the Channel Annunciation will be temprorily canceled. Upon re-turn on radio, the current channel number will be heard.

If one beep is heard, the Channel Annunciation will be temprorily enabled. Upon re-turn on radio, the current channel number will be heard.

b) If the current channel number is not heard:

Press the function key, if two beeps are heard, the Channel Annunciation will be temprorily canceled. Upon re-turn on radio, the current channel number will not be heard.

If one beep is heard, the Channel Annunciation will be temprorily enabled. Upon re-turn on radio, the current channel number will not be heard.

Please select the volume level as "1", when using an earpiece.

Channel Annunciation

Press the programmed Channel Annunciation key, if two beep are heard, the Channel Annunciation will be canceled. Upon re-turn on radio, the current channel number will not

be heard.

If one beep is heard, the Channel Annunciation will be enabled. Upon re-turn on radio, the current channel number will be heard.

Please select the volume level as "1", when using an earpiece.

Auto Contact

When a group of radios are set with Auto Contact, the radio will automatically emit alert tone if the user is out of communication range.

Auto Contact Temporary Delete

Press the programmed Auto Contact Temporary Delete key to temporarily delete the selected ID from the current Auto Contact List.

TX Low Power Mode Enable

Press the programmed TX Low Power Mode Enable key, if one beep is heard, the TX Low Power is enabled. If two beeps are heard, the TX Low Power is disabled.

TX Low Power Temporary Enable

Press the TX Low Power Temporary Enable key to transmit a contact signal for determining the transmit power level.

Channel Lock

When the Channel Lock feature is activated, rotate the channel selector is invalid.

Patrol Event Select

After a patrol message is received, press the programmed Patrol Event Select key to select an appropriate patrol event.

Transmit Confirm

Press the programmed Transmit Confirm key to transmit the selected patrol event to the dispatcher.

Background Operations

Time-out Timer (TOT)

The feature allows for more efficient use of channels by limiting the maximum time of each transmission. Once a continuous transmission exceeds the preset time (programmable by your dealer), the transmission is automatically terminated and alert tone is heard. Release the PTT to cancel the alert tone.

Your dealer may program the alert tone sounds before the TOT timer nearly expires.

Busy Channel Lockout (BCL)

When the BCL feature is enabled, you are prevented from transmitting on a channel that is already in use. Press the PTT on a channel that is already in use, the radio will sound alert tone and turn back to the receive mode.

Carrier: If BCL is set on the current channel, press the PTT while the channel is already in use, the radio will sound beeps.

CTCSS/CDCSS: If CTCSS/CDCSS and BCL are set on the current channel, press the PTT while the channel is already in use, the radio will sound beeps without transmission.

Optional Signalling: If 2-Tone/HDC1200/HDC2400[™] signalling and BCL are set on the current channel, press the PTT while the channel is already in use, the radio will sound beeps without transmission.

Battery Save

When enabled, the Battery Save feature is automatically activated once the situation that no activity on the channel and no operation performed, lasts for 12 seconds.

Pressing any key or receiving a signal will restore the radio to normal operation and exit from Battery Save.

Low Battery Alert

For extra convenience, the red LED flashes and the radio emits three beeps at every 30 seconds, to alert the user to recharge the battery should the battery level run low.

Safety Check

Once radio receives a safety check signal, an alert tone sounds requesting the user to

make some operation (pressing any key). Should the user not respond to a safety check signal then a defined emergency procedure is activated.

CTCSS/CDCSS

If CTCSS/CDCSS is set on the current channel, causes a CTCSS/CDCSS match to be required on an incoming signal for radio to unmute. Radios that set with the same CTCSS/CDCSS, or no CTCSS/CDCSS, can receive from you.

Your dealer may program the current channel with CTCSS/CDCSS, to prevent unwanted conversations on the same frequency.

The radio will not unmute to an incoming call that with invalid CTCSS/CDCSS. This feature does not mean that your conversation will not be heard by others.

DTMF

The DTMF signalling can be enabled/disabled by your dealer. If DTMF signalling is set on the current channel, press the programmed Call 1/Call 2 key to transmit DTMF code.

■ Red LED solidly glows while encoding, and goes out when encoding ends.

2-Tone/HDC1200/HDC2400TM

The 2-Tone/HDC1200/HDC2400TM signalling can be enabled/disabled by your dealer. If 2-Tone/HDC1200/HDC2400TM signalling is set on the current channel, press the programmed Call 1/Call 2 key to transmit 2-Tone/HDC1200/HDC2400TM signalling. The preset function will be performed when radio receives an incoming signal that with match 2-Tone/HDC1200/HDC2400TM. Radios that set with match 2-Tone/HDC1200/HDC2400TM, can receive from you.

- Red LED solidly glows while encoding; orange LED solidly glows until the preset time expires after encoding ends.
- Green LED solidly glows while decoding; orange LED flashes until the preset time expires after successfully decoded.

Signalling Logic

CTCSS/CDCSS "AND" / "OR" 2-Tone/HDC1200/HDC2400[™]

"AND: Radio unmute upon both the CTCSS/CDCSS and 2-Tone/HDC1200/HDC2400[™] conditions are matched.

"OR": Radio unmute upon either the CTCSS/CDCSS or 2-Tone/HDC1200/HDC2400™

condition is matched.

BOT ID and EOT ID (PTT ID)

Your dealer may configure whether to transmit Connect ID (BOT ID) or Disconnect ID (EOT ID), when connecting or disconnecting a repeater or telephone system.

If the BOT ID is selected, press the PTT to transmit BOT ID.

If the EOT ID is selected, release the PTT to transmit EOT ID.

If Both is selected, transmit both BOT ID upon each press of PTT, and EOT ID upon each release of PTT.

Troubleshooting

Symptom	Solution				
	The battery is run out. Please recharge the				
Cannot newer on the radio	battery or replace it with a fresh one.				
Cannot power on the radio.	The battery is not properly installed. Please				
	remove and reinstall the battery.				
The operation time will not increase	The battery life cycle is over, please replace with				
even though the battery is properly	a new one.				
charged.					
Cannot talk to or hear group	Confirm radios have the same channel, and				
members.	CTCSS/CDCSS settings.				
	Make sure you are within their communication				
	range.				
Hear non-group members	Please change your CTCSS/CDCSS settings,				
	and so as your group members.				

Care and Cleaning

- Do not place the repeater in a dusty or dirty environment.
- Clean the radio with a lint-free cloth to remove dirt or grease, to avoid poor contact due to excessive dust.
- Clean the radio using a lint-free cloth moistened with clean water and a mild dishwashing liquid.
- Avoid subjecting the radio to corrosives, solvents or spirits.

Optional Accessories

Antenna	Multi-unit Rapid-rate Charger (for Li-Ion Batteries) MCL07	Remote Speaker Microphone SM08M3	Receive-only Earpiece (for use with Remote Speaker Microphone) ESS01
Receive-only Earpiece with Transparent Acoustic Tube (for use with Remote Speaker Microphone) ESS04	Earbud ESM03	Earset with Boom Microphone EHM05	Earset with in-line Microphone EHM06
	A Park of the Park		
Leather Carrying Case LCBN12	Transparent Waterproof Bag LCBY03	Ni-MH battery (1800mAh) BH1801	

Channel Frequency Table

Model:	
Serial No.: _	

Channel	Tx Frequency (MHz)	Tx CTCSS /CDCSS	Tx 2-Tone	Tx ANI/DTMF	Rx Frequency (MHz)	Rx CTCSS /CDCSS	Rx 2-Tone
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							

HYT endeavors to achieve the accuracy and completeness of this manual, but no warranty of accuracy or reliability is given. All the above specifications and design are subject to change without notice due to continuous development.

No part of this manual may be copied, reproduced, translated, stored in a retrieval system, distributed, or transmitted in any form or by any means, electronic or mechanical, for any purpose without the express written permission of HYT.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must except any interference received, including interference that may cause undesired operation.

SAFETY TRAINING INFORMATION



Your HYT radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as "Occupational Use Only", meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards. This radio is NOT intended for use by the "General Population" in an uncontrolled environment.

This radio has been tested and complies with the FCC RF exposure limits for "Occupational Use Only." In addition, your HYT radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

- FCC OET Bulletin 65 Edition 97-01 Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
- American National Standards Institute (C95.1–1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
- American National Standards Institute (C95.3–1992), IEEE Recommended Practice for the Measurement of Potential y Hazardous
 Electromagnetic Fields— RF and Microwave.



To ensure that your exposure to RF electromagnetic energy is within the FCC allowable limits for occupational use, always adhere to the following guidelines:

 DO NOT operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed FCC RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or an antenna specifically authorized by the manufacturer for use with this 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. The radio is transmitting when the "TX indicator" lights red. You can cause the radio to transmit by pressing the "PTT" switch.
- ALWAYS use HYT authorized accessories (antennas, batteries, belt clips, speaker/mics, etc). Use of unauthorized accessories can cause the FCC RF exposure compliance requirements to be exceeded.

Body-worn operations are restricted to belt-clips, holsters or similar accessories that have no metallic component in the assembly and that provide at least 1.5 cm separation between the device, including its antenna, and the user's body. To provide the recipients of your transmission the best sound quality, hold the antenna at least 5 cm (2 inches) from mouth, and slightly off to one side.

The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to assure that this radio operates within the FCC RF exposure limits of this radio.

Electromagnetic Interference/Compatibility

During transmissions, your HYT radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. **DO NOT** operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

FOREWORD

Thank you for purchasing the TC-700 transceiver.

READ ALL INSTRUCTIONS carefully and completely before using the transceiver.

SAVE THIS INSTRUCTION MANUAL-This instruction manual contains important operating instructions for the transceiver.

INSTALLATION NOTES

- Body-worn operations are restricted to belt-clips, holsters or similar accessories that have no metallic component in the assembly and that provide at least 1.5 cm separation between the device, including its antenna, and the user's body
- If you wear a portable two-way radio on your body, ensure that the antenna is at least 2.5 centimeters (1 in.) from your body when transmitting.

IMPORTANT

R CAUTION! NEVER hold the transceiver so that the antenna is very close to, or touching exposed parts of the body, especially the face or eyes, while transmitting. The transceiver will perform best if the microphone is 2 to 4 in. (5 to 10 cm) away from the lips and the transceiver is vertical.

R CAUTION! NEVER operate the transceiver with a headset or other audio accessories at high volume levels.

R CAUTION! NEVER short the terminals of the battery pack.

DO NOT push the PTT when not actually desiring to transmit.

AVOID using or placing the transceiver in direct sunlight or in areas with temperatures below +14°F (-10°C) or above +122°F (+50°C).

The basic operations, transmission and reception of the transceiver, are guaranteed within the specified operating temperature range (depending on version). However, the LCD display may not be operate correctly, or show an indication in the case of long hours of operation, or after being placed in extremely cold areas.

DO NOT modify the transceiver for any reason.

KEEP the transceiver from the heavy rain, and **Never** immerse it in the water. The transceiver construction is **water resistant**, not waterproof.

The use of non-HYT battery packs/chargers may impair transceiver performance and invalidate the warranty.

