HYT by Hytera

OWNER`S MANUAL

TC-310 OBR

www.hytera.us

Preface

Thank you for purchasing Hytera's HYT TC-310 On-Site Business Radio. With its unique compact design and crystal clear sound quality the HYT TC-310 OBR is the ideal radio solution for schools, retail locations, hotel management, restaurants, manufacturing and other small to mid-sized organizations looking for quick, easy and dependable communications at a great value.

Note: Read this user guide carefully to ensure you know how to properly operate the radio before use. The information presented herein can help you to derive optimum performance from your radio.

MODELS COVERED BY THIS MANUAL:

TC-310 OBR UHF Two-Way Radio

Icon Information

The following icons are available through this manual:

⚠️ **Warning/Caution:** represents important safety information, to make users aware of misoperations that may cause malfunction of the radio, personal injury or property damage.

📝 **Note:** indicates important information which helps you make better use of your radio.

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Disclaimer

Hytera endeavors to achieve the accuracy and completeness of this manual, but no warranty of accuracy or reliability is given. All the above specifications and designs are subject to change without notice due to continuous development. No part of this manual may be copied, reproduced, translated, and stored in a retrievable system, distributed, or transmitted in any form or by any means, electronic or mechanical, for any purpose without the express written permission of Hytera.

FCC Regulations

Federal Communication Commission (FCC) requires that all radio communication products should meet the requirements set forth in the above standards before they can be marketed in the U.S, and the manufacturer shall post a RF label on the product to inform users of operational instructions, so as to enhance their occupational health against exposure to RF energy.

Operational Instructions and Training Guidelines

To ensure optimal performance and compliance with the occupational/ controlled environment RF energy exposure limits in the above standards and guidelines, users should transmit not more than 50% of the time and always adhere to the following procedures:

- RF energy will be generated only when the radio is transmitting.
- The radio must be at least 2.5 centimeters away from human body when transmitting.

FCC License Information

This device complies with Part 15 and Part 90 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

On-Site business two-way radios operate on radio frequencies that are regulated by the FCC. To transmit on these frequencies, you are required to have a license issued by the FCC. Application is made available on FCC Form 601 and Schedules D, H, and Remittance Form 159. To obtain these FCC forms, request document **000601** which includes all forms and instructions. If you wish to have the document faxed, mailed or have questions, use the following contact information.

Faxed contact the Fax-On-Demand system at:	1-202-418-0177
Mailed call the FCC forms hotline at:	1-800-418-FORM 1-800-418-3676
Questions regarding FCC license contact the FCC at:	1-888-CALL-FCC 1-888-225-5322 Or: http://www.fcc.gov

Before filling out your application, you must decide which frequency (ies) you can operate on. For questions on determining the radio frequency, please contact us or your local dealer for more technical support.

Changes or modifications not expressly approved by Hytera may void the user's authority granted by the FCC to operate this radio and should not be made. To comply with FCC requirements, transmitter adjustments should be made only by or under the supervision of a person certified as technically qualified to perform transmitter maintenance and repairs in the private land mobile and fixed services as certified by an organization representative of the user of those services.

Replacement of any transmitter component (crystal, semiconductor, etc.) not authorized by the FCC equipment authorization for this radio could violate FCC rules.

Usage of this radio outside the country where it was intended to be distributed is subject to government regulations and may be prohibited.

Contents

Safety Information

The following safety precautions shall always be observed during operation, service and repair of this equipment.

- This equipment shall be serviced by qualified technicians only.
- Do not modify the radio for any reason.
- Use only Hytera supplied or approved batteries and chargers.
- To avoid electromagnetic interference and/or compatibility conflicts, turn off your radio in any area where posted notices instruct you to do so.
- Turn off your radio before boarding an aircraft. Any use of a radio must be in accordance with airline regulations or crew instructions.
- 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.
- Turn off your radio prior to entering any area with explosive and flammable materials.
- Do not charge your battery in a location with explosive and flammable materials.
- Turn off your radio before entering a blasting area.
- Do 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.
- Do not expose the radio to direct sunlight over a long time, nor place it close to heating source.
- When transmitting with a portable radio, hold the radio in a vertical position with the microphone 3 to 4 centimeters away from your mouth. Keep antenna at least 2.5 centimeters away from your body when transmitting.

⚠ **WARNING:** If you wear a radio on your body, ensure the radio and its antenna are at least 2.5 centimeters away from your body when transmitting.

Product Inspection

Please unpack the package box carefully and check that all shipped items are received; report any missing or damaged items to your reseller.

Accessories supplied with the radio

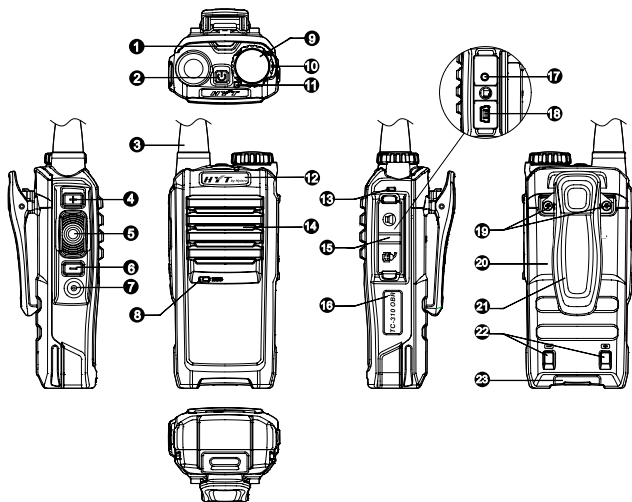| Item	Qty. (PCS)
Antenna	1
Strap	1
Belt Clip	1
Li-Ion Battery	1
Switching Power	1
Owner's Manual	1

Antenna

Li-Ion Battery

Switching Power

Strap

Belt Clip

📝 **Note:** Frequency band is marked on the label of antenna; if not, please refer to the label on the radio unit for frequency band information.

(1) Strap Hole	(13) Charge Indicator
(2) Power On/Off Key	(14) Speaker
(3) Antenna	(15) Accessory Cover
(4) Volume Control Key [+]	(16) Model Label
(5) PTT (Push-to-Talk) Key	(17) Audio Accessory Jack
(6) Volume Control Key [-]	(18) MINI USB Port
(7) Programmable Function Key	(19) Screw for Belt Clip
(8) Microphone	(20) Battery
(9) Channel Selector Knob	(21) Belt Clip
(10) Channel Mark	(22) Charging Piece
(11) Status Indicator	(23) Battery Latch
(12) HYT Logo	

*PTT (Push-to-Talk) Key

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

*LED Indicator

Status indications and alert tones are shown in the table below:

Power On (to enter User Mode)	When the radio is turned on, an alert tone sounds and the Status Indicator flashes orange once. When the radio is currently on a blank channel, it sounds beep tones continuously.
Power Off	When the radio is turned off, the power-off alert tone is heard.
Low Battery Alert	The Status Indicator flashes red, and a low-pitched tone sounds at an interval of 10 seconds.
Transmitting	The Status Indicator glows red. When TOT timer expires, the radio sounds beep tones continuously. A TOT pre-alert tone sounds before the TOT timer expires.
Receiving	The Status Indicator glows green when carrier is present.
Scanning	The Status Indicator flashes green once per second, while scanning is in process. Scan Start Alert (programmable via CPS software with programming cable): one beep is heard. When signals are received on a certain channel, the Status Indicator solidly glows green. Scan End Alert (programmable via CPS software with programming cable): one beep is heard.
VOX	One beep sounds when the feature is enabled. Two beeps sound when the feature is disabled.
Compandor	
Scrambler	
Channel Lock	

*Battery Latch

Used to secure or remove the battery.

*Audio Accessory Jack

Used to connect audio accessories.

Radio Overview

*Mini USB Port

Used to connect accessories such as programming cable, cloning cable and switching power.

Battery Information

Initial Use

New batteries from the factory are not fully charged, so be sure to charge a new battery for at least 5 hours before initial use. Three full charge-discharge cycles would optimize the capacity and performance of your battery. When battery power runs low, it is time to recharge or to replace the battery.

Applicable Battery Packs

Please only use the battery specified by Hytera. Other batteries may burst, causing bodily injury and property damage.

⚠️ **Caution:**
1. Do not dispose of the battery in fire!
2. Recycling and disposal of the battery shall comply with your local regulations.
3. Never attempt to dismantle the battery.

✎ **Note:**
1. Charge the battery at a temperature among 5℃ -40℃ . Violation of the said limit may cause battery leakage or even damage.
2. When charging the battery that is attached to a radio, turn the radio off to ensure a full charge.
3. Never charge a wet battery or a wet radio with battery attached. Please dry it with a soft cloth prior to charge.
4. The battery will eventually wear out. When the operating time of a fully charged battery is noticeably shorter than its normal performance, you need to buy a new one. Please replace it ASAP.
5. If the product shuts off automatically due to low battery, please charge the battery soon, or the battery could suffer damage.
6. If you plan not to use the radio for a long time, please remove the battery from it to avoid any unexpected damage.

7. Do not charge fully charged batteries for an "extra boost". This action will significantly reduce battery life.
8. Do not insert the radio or battery into the charger when it doesn't need to be charged, because continuous charging will shorten the battery life. Note: Never use a charger to hold the radio.

To Prolong Battery Life

1. Battery performance will decrease greatly at a temperature below 0℃. Therefore, a spare battery is necessary in cold weather. However, the replaced battery that fails to function at a low temperature may work at room temperature, so keep it in place for later use.
2. The dust on the battery contact may make the battery work or charge abnormally. Please use a clean and dry cloth to wipe the contacts before charging or attaching the battery to the radio.

Battery Storage

1. If you plan to store a battery for a long time, please fully charge it first to avoid battery damage due to over-discharge.
2. To avoid battery capacity reduction due to over-discharge, recharge a battery after storing it for a certain period of time: 6 months for Li-Ion & Li-polymer batteries.
3. Store your battery in a cool and dry environment at room temperature to reduce self-discharge.

Charging the Battery

When the Status Indicator flashes red, and an alert tone sounds at intervals of ten seconds indicating the battery power runs low, please charge the battery immediately. Only use the charger specified by Hytera. The Charge Indicator will indicate the charging progress.
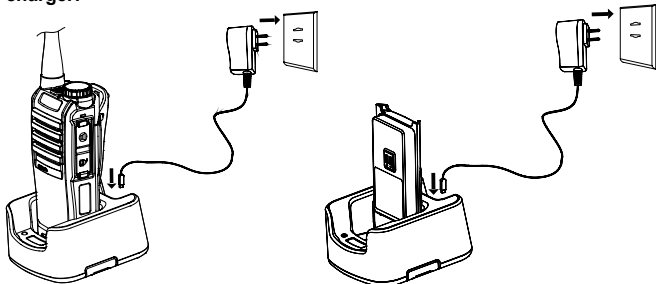
Battery Information

Please follow steps below to charge the radio with switching power:
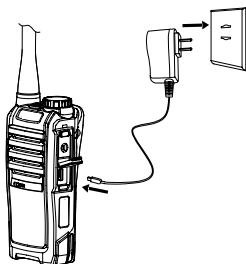
1. Plug the AC connector of the switching power into an AC outlet socket.
2. Plug the Mini USB connector of the switching power into the Mini USB port at one side of the radio unit.
3. Make sure that the battery is in good contact with the switching power. The charging process begins when the Charge Indicator at one side of the radio unit glows orange.
4. When charging is completed, the Charge Indicator glows green. Then you may remove the radio.

Status	Charge Indicator of the Radio
Charging	Solidly glows orange
Fully charged	Solidly glows green

Please follow steps below to charge the radio/battery with a desktop charger:

Battery Information ▐▐▐

1. Plug the AC connector of the switching power into an AC outlet socket.
2. Plug the Mini USB connector of the switching power into the Mini USB port on back of the desktop charger.
3. Place the radio with the battery attached, or the battery alone, into the charger.
4. Make sure that the battery is in good contact with charging pieces of the desktop charger. The charging process begins when the charger LED glows orange.
5. When charging is completed, the charger LED glows green. Then you may remove the radio or battery.

Status	Charger LED
Charging	Solidly glows orange
Fully charged	Solidly glows green

You can also use Hytera Six-Unit Switching Power to charge up to six radios/batteries simultaneously, as shown in Figure 1. Please refer to the Owner's Manual for Six-Unit Switching Power for detailed operation procedures.
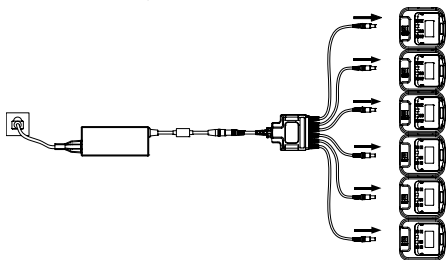

Figure 1 Schematic Diagram of Six-Unit Charger

When multiple desktop chargers are used simultaneously, you may connect the chargers in parallel to create a multi-unit charger.

Assembly Method: Slide the latch of a charger into the slot on the bottom of another charger, as shown in Figure 2.

Battery Information
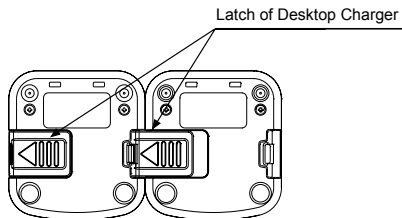
Latch of Desktop Charger

Figure 2 Diagram of Multi-Unit Charger Assembly

Antenna Information

- Stubby antenna is durable and ideal for communication at low transmit power.
- Communication range may vary with terrain and your operating conditions. Rainy days or forest locations may narrow your communication range, so please make full preparations in advance to avoid potential inconvenience.

Assembly and Disassembly

Attaching/Removing the Battery

Attaching the Battery

1. Press the belt clip (in direction of ①) to make its bottom up. Then push the battery (in direction of ②) into the radio. See Figure 1.

Note: Make sure the battery tab is fully inserted into the radio's slot.

2. Press the battery bottom (in direction of ③) gently until a click is heard, which indicates that the battery is properly attached to the radio. See Figure 2.

Note: If the battery is loose or unsecured, please take it down and attach it again.
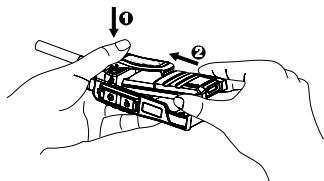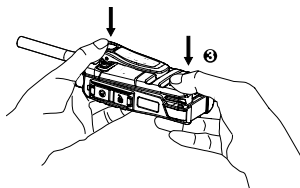
Figure 1

Figure 2

Removing the Battery

1. Make sure the radio is powered off first. Press the belt clip down (in direction of ①) to make its bottom up. Then lift the battery latch (in direction of ②). See Figure 3.
2. When the battery bottom gets tilted, release the latch and remove the battery (in direction of ③) as shown in Figure 4.
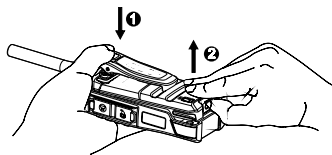

Figure 3

Figure 4

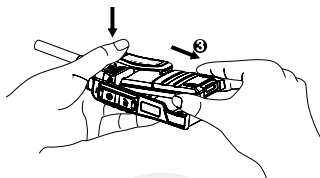## Attaching/Removing the Antenna

Attaching the Antenna

1. Align the threaded end of the antenna with the antenna connector located on the radio's top side.
2. And turn the antenna clockwise to fasten it. See Figure 5.

Removing the Antenna

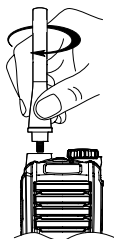Turn the antenna counter-clockwise until you can remove it.

Figure 5
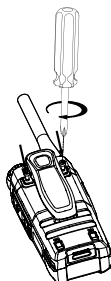
Figure 6

Attaching/Removing the Belt Clip

Attaching the Belt Clip

Unfasten the two screws for belt clip by a screwdriver, then place the belt clip on the radio and align its two holes with two threaded holes of the radio, and secure the two screws again. See Figure 6.

Removing the Belt Clip

Use a screwdriver to loosen the screws and remove the belt clip.

📝 **Note:** Please be careful to avoid missing of screws.

Attaching/Removing the External Earpiece/Mini USB Device

Attaching the External Earpiece

1. Loosen the strap (in direction of ①), and tie it to the strap hole (in direction of ②).
2. Uncover the accessory jack cover (in direction of ③), and insert the earpiece plug into the jack (in direction of ④).
3. Then rotate the other end of the strap into the connector of the earpiece cable (in direction of ⑤).

📝 **Note:** If you want to adjust the connector's position, please hold the connector and draw the cable to avoid cable damage (in direction of ⑥).
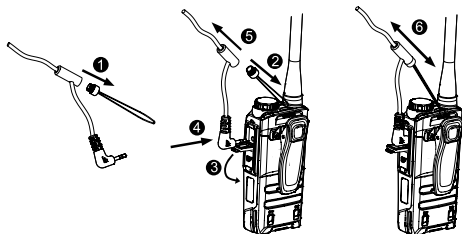
Figure 7

Removing the External Earpiece

Take converse steps to remove the external earpiece.

> **Note:** When the earpiece is not in use, make sure the accessory jack is properly covered to prevent intrusion of dust.

Attaching the External Mini USB Device

Uncover (not remove) the Accessory Cover (in direction of ①), and insert the Mini USB connector into the Mini USB port (in direction of ②). See Figure 8.

Figure 8

Removing the Mini USB Device

Pull the Mini USB connector out and remove it.

> **Note:** When the Mini USB Device is not in use, make sure the accessory jack is properly covered to prevent intrusion of dust.

Basic Operations

Turning the Radio On/Off

Long press the **Power On/Off Key** until an alert tone is heard to turn the radio on/off.

Adjusting the Volume

Press **[+]** to increase or **[-]** to decrease the volume level. During volume adjustment, the radio will sound alert tones at your selected volume level.

Selecting a Channel

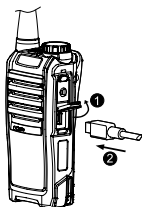Rotate the **Channel Selector Knob** to align your desired channel number with the Channel Mark.

Transmitting

Press and hold down the **PTT** key, and speak into the microphone at your normal voice level. Hold the radio about 2.5 to 5 centimeters away from your mouth.

Receiving

Release the **PTT** key to receive.

Typical Coverage Area

Office Space	Multi-Level
Inside steel/concrete office space buildings	Inside multi-level buildings
Up to 200,000 sq ft	Up to 15 floors

Programmable Auxiliary Functions

Auxiliary functions to the programmable key (with long/short press) can be programmed via programming cable and CPS software.

- None
- Monitor
- Monitor Momentary
- Scan
- Scrambler
- Voice-operated Transmit (VOX)
- Compandor
- Squelch Off

Programmable Auxiliary Functions

- Squelch Off Momentary
- Battery Strength
- Channel Lock (When this function is enabled, your current operating channel will remain unchanged even if you rotate the **Channel Selector Knob**. And this feature always remains valid after PC programming.)

Advanced Operations

The following functions can be programmed via programming cable and CPS software. Contact your retailer for additional information.

CTCSS/CDCSS

You may set up talkgroups with unique CDCSS/CTCSS to prevent unwanted conversations at the same frequency. If CTCSS/CDCSS is set on the current channel, CTCSS/CDCSS match is required for the radio to unmute to an incoming signal. If CTCSS/CCSS is not set, the radio can receive calls from all users operating at the same frequency.

This feature does not mean that your conversation will not be heard by others. Radios with the same CTCSS/CDCSS or with no CTCSS/CDCSS can also receive calls from you.

Battery Save

This feature can reduce power consumption (enabled by your dealer).

If the radio is not operated (no key-press or knob-rotation) in Standby status, it will automatically enter Battery Save mode upon expiration of a preset time (30 seconds by default via programming software). The radio may exit the Battery Save mode and get activated once any key is pressed or any signal is received.

Time-out Timer (TOT)

This feature can prevent users from transmitting on a channel for an extended period of time, and protect the radio from damage caused by prolonged transmission. If the preset time expires, the radio will automatically terminate transmission and keep beeping until the **PTT** key is released.

A pre-alert function to warn you of the TOT expiration in advance can be programmed via programming cable and CPS software.

Battery Strength Indicator

When you intend to know the battery strength, press the programmed **Battery Strength Indication** key to illuminate the Status Indicator and learn the battery strength by different colors. To exit this function, release the key.

Status Indicator of different colors represents different battery strength levels. Refer to the table below:

Battery Strength	Status Indication
70% - 100%	Solidly glows green.
50% - 70%	Solidly glows orange.
30% - 50%	Solidly glows red.
10% - 30%	There is no indication upon press of the programmed **Battery Strength Indication** key. However, the indicator keeps flashing red in operation status.
Less than 10%	There is no indication upon press of the programmed **Battery Strength Indication** key. However, the indicator keeps flashing red in standby status and keeps sounding a low-pitched tone at an interval of 10 seconds. If you press **PTT** at this time, the radio will sound an alarm sound to warn you of the transmission inhibition.

Monitor

● Squelch Off

Purpose: In this mode, the speaker is unmuted in any condition so as to receive any sound on the current channel. When audio signal is received on the channel, audio will be heard. Otherwise, background noise will be heard.

Operation: Press the **Squelch Off** key to enter this mode, and press it again to exit.

● Squelch Off Momentary

Purpose: Refer to **Squelch Off**.

Operation: Hold down the **Squelch Off Momentary** key to enter this mode, and release the key to exit.

- **Monitor**

Purpose: In this mode, the receiving party can receive incoming calls regardless of CTCSS/CDCSS condition. If the carrier condition is not satisfied, the receiving party will fail to receive any incoming calls.

Operation: Press the **Monitor** key to enter this mode, and press it again to exit.

- **Monitor Momentary**

Purpose: Refer to **Monitor**.

Operation: Hold down the **Monitor Momentary** key continuously to enter this mode, and release the key to exit.

Scan

The Scan feature enables a two-way radio to continuously scan each channel for activity. Press the key programmed as **Scan**, scan starts from the current channel and ascends through the channel numbers in scan list. The Status Indicator flashes green during scanning. When signals are received on a certain channel with signaling matches, the Status Indicator solidly glows green. To exit Scan mode, press this key again.

When Scan feature is activated, the radio begins continuous scanning for activity on channels that can be scanned. If any activity is detected, the radio will switch the channel to receive the call (the channel that can be scanned are programmed by your dealer).

No Priority Channel

Suppose there is a scan list of 6 channels and all channels are non-prioritized, the normal scan operation may proceed in the following sequence, as shown in Figure 1.

Priority Channel Scan

Suppose there is a scan list of 5 channels and Channel 2 is prioritized as Priority 1, the scan operation may proceed in the following sequence, as shown in Figure 2.
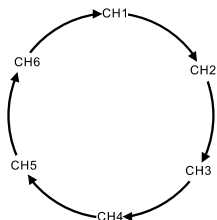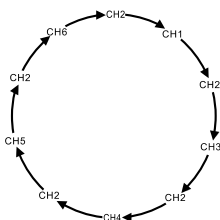
Figure 1 Normal Scan Sequence   Figure 2 Priority Scan Sequence

● **Scan On/Off**

You can enter Scan mode through any of the following two methods:

Key-operated Entry

Press the programmed **Scan** key to enter Scan mode, provided that there are no less than 2 channels in the scan list. Press the **Scan** key again or power the radio off to exit this mode.

Auto Entry

If Auto Scan is enabled on a channel, the radio will automatically enter Scan mode when it switches to this channel. When it switches to other channels or is powered off, the radio will exit from Scan mode.

● **Talk Back**

This option defines whether users can talk back on the channel where scanning pauses.

Checked: When the radio is staying on a scanned channel, it transmits on the scanned channel; when the radio is not staying on a scanned channel, it transmits on a preset channel.

Unchecked: The radio transmits on the preset channel.

● **Priority Scan**

This function enables users to scan the most frequently used channel so that messages will not be missed. The priority channels are programmed by your dealer via programming software. Please contact your local dealer for more information.

Advanced Operations

📝 **Note:** Even though the radio stays on a non-priority channel, activities on the priority channel are still under detection. The radio will switch to the priority channel once any activity is detected.

● **Available Keys in Scan Mode**

PTT key, Volume Control Key **[+]/[-]**, **Squelch Off** key, **Squelch Off Momentary** key, Monitor and Monitor Momentary keys.

Busy Channel Lockout (BCL)

This function can help avoid interference between radios operating on the same channel. When the channel is already in use, the radio will sound a continuous warning tone and return to Receive mode upon **PTT** press. To cancel the tone, release the **PTT** key.

Low Battery Alert

When battery power runs low, the Status Indicator flashes red and a low-pitched tone will sound at an interval of ten seconds to remind users to replace or charge the battery.

Voice-Operated Transmit (VOX)

With the dedicated VOX earpiece, you can enjoy hands-free communication. After this function is enabled, the radio will automatically begin transmitting when you speak, and terminate transmitting when you stop talking, with no need of **PTT** press.

Operation Steps:

1. Push the PTT/VOX switch on the earpiece to VOX.
2. Plug the earpiece into the accessory jack of the radio.
3. Press the programmed **VOX** key to activate the VOX feature.
4. Speak through the microphone on the earpiece to transmit your voice.

Operation Instructions:

1. Press the **PTT** key on you radio to disable the VOX during its operation, and release the key to reactivate this function.
2. Press the programmed **VOX** key to enable/disable the VOX feature, with corresponding alert tone. When it is enabled, the alert tone sounds once; when it is disabled, the alert tone sounds twice.
3. The VOX feature will be disabled automatically after the radio is turned off or programmed.

4. The VOX function will work with a dedicated earpiece.
5. You dealer may set VOX sensitivity or disable the VOX feature through the programming software. The **VOX** key will be null once the VOX feature is disabled.

Compandor

With this feature, you can communicate with clear voice in despite of various noises. It can be enabled/disabled through the programmed key, or set on a definite channel via programming cable and CPS software. When this function is enabled, one beep sounds; when it is disabled, two beeps sound.

Scrambler

This technology can encrypt audio signals, and provide real security for privacy between communication parties. It can enable/disable through the programmed keys, or set on a definite channel via programming cable and CPS software. When this function is enabled, one beep sounds; when it is disabled, two beeps sound.

Note:

1. If you intend to switch between VOX and PTT functions, unplug the earpiece, toggle the switch to VOX or PTT and plug the earpiece again.
2. After the above operations are completed, the radio takes approximately 2-3 seconds to perform auto-detection until it operates normally. During the detection process, do not handle the earpiece; otherwise, it may malfunction due to detection errors.
3. If the earpiece functions abnormally, please pull and plug it again as instructed above.
4. You may select VOX levels according to the operating environment. Too much noise and too high VOX level may cause the radio to transmit continuously.
5. Use only the VOX earpiece specified by Hytera, and properly plug it into the jack; otherwise, the VOX function may not work.

Symptom	Solution
Cannot power on the radio.	• The battery may have run out. Please recharge the battery or replace it with a new one. • The battery may have been improperly installed. Please remove the battery and insert it again.
The fully charged battery runs down quickly.	• The battery may have worn out. Please replace it ASAP. • The battery is not fully charged. Make sure the battery is removed only after the Charge Indicator of the radio or the charger LED glows green.
Cannot communicate with group members.	• Make sure you are on the same channel - check whether the Channel Lock function is enabled and you are operating on an undesired channel. When this function is enabled, your current operating channel will remain unchanged even if you rotate the **Channel Selector Knob**. • Make sure that radios in your group use the same CTCSS/CDCSS signaling and operate on the same channel. • Group members may be too far away from each other. Please make sure that you are within the communication range.
Hear non-group members.	• The CTCSS/CDCSS settings should be changed for all radios in your group via programming cable and CPS software.
No voice or low voice received from the transmitting party.	• Please ensure an adequate volume level is selected. • Or please send the radio to your retailer for microphone examination.
Noises always on.	• In Monitor mode, group members may have been too far away from each other. Please move within the communication range and then re-power the radio on. • Please confirm whether there is strong interference near the radio.

Care and Cleaning

● Do not hold the radio by its antenna or external earpiece directly.
● Do not place the radio 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

Earset with in-line MIC EHS12

Earset with In-Line MIC & VOX EHS09

Six-unit Switching Power PS4001

Belt Clip BC16

Rapid-Rate Charger (for Li-Ion Battery) CH06L01

Programming Cable (USB to Serial Port) PC30

Carrying Case HY1010-3BP

> **Note:** Pictures above are for reference only and may vary from actual product. However, featuring functions shall be held.
> The above items are the main optional accessories of this radio, and please contact your retailer for more other accessories.

Default Frequency List

TC-310U OBR Radio Channel	Frequency Number	Frequency (MHz)	Code (Hz)
1	2	464.5500	67.0
2	8	467.9250	67.0
3	5	467.8500	67.0
4	6	467.8750	67.0
5	10	461.0625	67.0
6	12	461.1125	67.0
7	14	461.1625	67.0
8	9	461.0375	67.0
9	11	461.0875	67.0
10	13	461.1375	67.0
11	1	464.5000	67.0
12	3	467.7625	67.0
13	4	467.8125	67.0
14	7	467.9000	67.0
15	15	461.1875	67.0
16	16	461.2125	67.0

Frequency and Codes Chart

If the default frequencies are not adequate for communication needs, you can re-program your device using the following optional business frequencies via a Customer Programming Cable and Software.

Contact your point of purchase for additional re-programming information.

Table No.	Frequency (MHz)	Table No.	Frequency (MHz)
1	464.5000	46	466.3375
2	464.5500	47	466.3625
3	467.7625	48	467.7875
4	467.8125	49	467.8375
5	467.8500	50	467.8625
6	467.8750	51	467.8875
7	467.9000	52	467.9125
8	467.9250	53	469.4875
9	461.0375	54	469.5125
10	461.0625	55	469.5375

Table No.	Frequency (MHz)	Table No.	Frequency (MHz)
11	461.0875	56	469.5625
12	461.1125	57	462.1875
13	461.1375	58	462.4625
14	461.1625	59	462.4875
15	461.1875	60	462.5125
16	461.2125	61	467.1875
17	461.2375	62	467.4625
18	461.2625	63	467.4875
19	461.2875	64	467.5125
20	461.3125	65	451.1875
21	461.3375	66	451.2375
22	461.3625	67	451.2875
23	462.7625	68	451.3375
24	462.7875	69	451.4375
25	462.8125	70	451.5375
26	462.8375	71	451.6375
27	462.8625	72	452.3125
28	462.8875	73	452.5375
29	462.9125	74	452.4125
30	464.4875	75	452.5125
31	464.5125	76	452.7625
32	464.5375	77	452.8625
33	464.5625	78	456.1875
34	466.0375	79	456.2375
35	466.0625	80	456.2875
36	466.0875	81	468.2125
37	466.1125	82	468.2625
38	466.1375	83	468.3125
39	466.1625	84	468.3625
40	466.1875	85	468.4125
41	466.2125	86	468.4625
42	466.2375	87	468.5125
43	466.2625	88	468.5625
44	466.2875	89	468.6125
45	466.3125	90	468.6625

CTCSS AND CDCSS CODES

CTCSS Codes

CTCSS	Hz	CTCSS	Hz
1	67.0	21	131.8
2	69.3	22	136.5
3	71.9	23	141.3
4	74.4	24	146.2
5	77.0	25	151.4
6	79.7	26	156.7
7	82.5	27	162.2
8	85.4	28	167.9
9	88.5	29	173.8
10	91.5	30	179.9
11	94.8	31	186.2
12	97.4	32	192.8
13	100.0	33	203.5
14	103.5	34	210.7
15	107.2	35	218.1
16	110.9	36	225.7
17	114.8	37	233.6
18	118.8	38	241.8
19	123.0	39	250.3
20	127.3		

CDCSS Codes

CDCSS	Hz	CDCSS	Hz	CDCSS	Hz
1	23	37	223	73	446
2	25	38	225	74	452
3	26	39	226	75	454
4	31	40	243	76	455
5	32	41	244	77	462
6	36	42	245	78	464
7	43	43	246	79	465
8	47	44	251	80	466
9	50	45	252	81	503
10	51	46	255	82	506
11	53	47	261	83	516
12	54	48	263	84	523

CTCSS AND CDCSS CODES

CDCSS	Hz	CDCSS	Hz	CDCSS	Hz
13	65	49	265	85	526
14	71	50	266	86	532
15	72	51	271	87	546
16	73	52	274	88	565
17	74	53	306	89	606
18	114	54	311	90	612
19	115	55	315	91	624
20	116	56	325	92	627
21	122	57	331	93	631
22	125	58	332	94	632
23	131	59	343	95	645
24	132	60	346	96	654
25	134	61	351	97	662
26	143	62	356	98	664
27	145	63	364	99	703
28	152	64	365	100	712
29	155	65	371	101	723
30	156	66	411	102	731
31	162	67	412	103	732
32	165	68	413	104	734
33	172	69	423	105	743
34	174	70	431	106	754
35	205	71	432		
36	212	72	445		

Hytera offers free download CPS software to modify/configure OBR radios per user specific requirements. The software is available on www.hytera.us.

Default Factory Feature List

Key	Default Feature	Note
SK1 (Short Press)	Monitor	Please refer to Monitor for detailed feature description.
SK1 (Long Press)	Scan	Please refer to Scan for detailed feature description.

*Programmable Function Key

The side key can be programmed with long/short press functions via Programming Cable and CPS Software.

Note: Short Press means key press shorter than 1 second, while Long Press means key press longer than 1 second.

Hytera's Limited Warranty for the United States and Canada

HYTERA AMERICA, INC. warrants its manufactured Communication Products against defects in material and workman-ship under normal use and service for a period of time from the date of purchase by end-user as scheduled below:

HYT Brand: TC-310 - OBR	One (1) year

Warranty Exclusions:

Defects or damage resulting from use of the Product other than its normal and customary manner. Defects or damage from misuse, accident, water, or neglect Defects or damage from improper testing, operation, maintenance, installation, alteration, modification, or adjustment. Breakage or damage to antennas unless caused directly by defects in material workmanship of HYTERA AMERICA, INC. or its direct affiliates. A Product subjected to unauthorized Product modifications, disassembles, or repairs (including, without limitation, the addition to the Product of non-HYTERA AMERICA, INC. supplied equipment) which adversely affect performance of the Product or Interfere with HYTERA AMERICA, INC.'s normal warranty inspection and testing of the Product to verify any warranty claim. A Product which has had the serial number removed or made illegible is not covered by this Warranty either. A Product which, due to illegal or unauthorized alteration of the software/ firmware in the Product, does not function in accordance with HYTERA AMERICA, INC.'s published specifications or the FCC type acceptance

labeling in effect for the Product at the time the Product was initially distributed from HYTERA AMERICA, INC.

Rechargeable batteries are likewise not covered by this Warranty if:

i) Any of the seals on the battery enclosure of cells are broken or show evidence of tampering.

ii) The damage or defect is caused by charging or using the battery in equipment or service other than the Product for which it is specified. Freight costs to the repair depot.

iii) Unapproved upgrades or modifications.

Who's Covered

This warranty is not transferable and it only extends to the first consumer purchaser.

For Warranty Service or any additional information please contact your Hytera / HYT point of purchase.

HYT

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