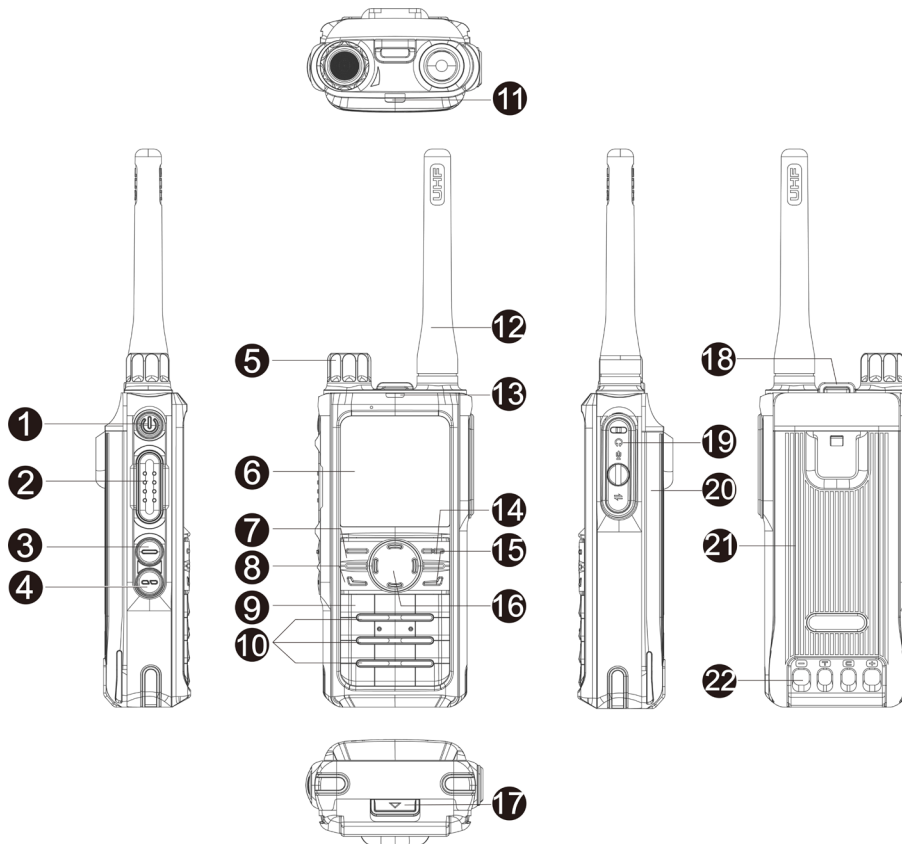


# 1. Product Overview

## 1.1 Product Layout



No.	Part Name	No.	Part Name
1	On-Off Key	12	Antenna
2	Push-to-Talk (PTT) Key	13	Microphone
3	Side Key 1 (SK1)	14	Back/Subgroup Key
4	Side Key 2 (SK2)	15	P2/End Key
5	Smart Knob	16	Navigation Key
6	LCD Display	17	Battery Latch
7	OK/Menu Key	18	Strap Hole
8	P1/Answer Key	19	Accessory connector
9	Numeric Keypad	20	Belt Clip
10	Speaker	21	Battery
11	LED Indicator	22	Charging Piece

---

## 1.2 Programmable Keys

For enhanced convenience, you can request your dealer to program the following keys as shortcuts to radio features: **SK1**, **Sk2**, **P1/Answer** key, **P2/End** Key, **Up** key, and **Down** key. For details, consult your dealer.

# 2. Basic Operations

## 2.1 Charging the Battery

---

 CAUTION

- Use the approved charger to charge the battery.
- Read the *Safety Information Booklet* before charging.
- The remaining lithium-ion battery power is limited to 30% pursuant to the new lithium battery shipment regulation approved by International Air Transport Association (IATA).


Before initial use, charge the battery. You can charge either the standalone battery or the radio with battery attached. It is recommended that the radio remain powered off during charging.

The LED indicator on the charger shows the charging status. For details, see the following table.


LED Indicator	Charging Status
Glows red	The battery is being charged.
Glows orange	The battery is charged to 90% or above.
Glows green	The battery is fully charged.
Flashes red slowly	No battery is placed on the charger.
Flashes red rapidly	The battery fails to be charged.

## 2.2 Turning the Radio On or Off

### 2.2.1 Turning the Radio On

To turn the radio on, long press .

### 2.2.2 Turning the Radio Off

To turn the radio off, long press .

## 2.3 Adjusting the Volume

To increase or decrease the volume, rotate the **Smart** knob clockwise or counter-clockwise.

## 2.4 Selecting the Contact or Channel

To select the contact or channel, press and then rotate the **Smart** knob. If you do not rotate the **Smart** knob after pressing it within 5s or if you press it again within 5s, you can rotate it to adjust the volume.

## 2.5 Locking or Unlocking the Keypad

When the keypad is not in use, it is recommended that you lock it to avoid unintended operations.

- Auto Lock

To allow the keypad to be locked automatically, go to **Menu > Settings > Basic Settings > Keypad Lock** to enable **AutoLock**, and then go to **Timed** to set the auto lock time.

If you do not operate the radio or if the radio receives no call or message within the auto lock time, the keypad is locked automatically.

- Manual Lock or Unlock

» Press the preprogrammed **Keypad Lock** key.

» On the home screen, press the **OK/Menu** key, and then press .

- Keypad Lock Backup

With this feature enabled by your dealer, the radio automatically saves the last settings of keypad lock upon power-off.

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


 **NOTE**

You can go to **Menu > Settings > Basic Settings > Keypad Lock > Optional Key** to set whether the corresponding keys and knobs still work when the keypad is locked.

---

## 2.6 Using the Keypad

You can use the keypad to enter contact aliases and IDs, or edit messages.

- To switch the input method, press .
- To enter special characters, press  in alphabetic mode.
- To enter a space, press  in alphabetic mode.

## 2.7 Switching the Operation Mode

The radio can operate in conventional mode or trunking mode (enabled by your dealer).

- Manual Switch

» Go to **Menu > Mode**, and then select the mode.

» Press the preprogrammed **Operation Mode Switch** key.

» If the Zone/Subgroup Switch Mode feature is enabled, you can switch the operation mode by switching the contact through the menu or the **Smart** knob.

- Auto Switch

The Mode Automatic Switch feature allows the radio to automatically switch the operation mode, so as to guarantee the normal communication of the radios in no-signal coverage areas or when the system fails.

Go to **Menu > Mode** to enable **Auto Switch**, or press the preprogrammed **Mode Auto Switch** key.

## 2.7.1 Conventional Mode

In conventional mode, a zone is a group of channels within the same operational area. The radio receives and transmits data and voice on the selected channel.

### 2.7.1.1 Selecting a Zone

- Go to **Menu > Zone**, select the zone, and then select **Set Default**.
- Press the preprogrammed **Zone Up** or **Zone Down** key.

### 2.7.1.2 Selecting a Channel

A channel is used to receive and transmit data and voice. Before selecting a channel, make sure that the current zone contains the channel.

- Press and then rotate the **Smart** knob.
- Go to **Menu > Zone**, select the zone, and then select the channel.
- Press the preprogrammed **Channel Up** or **Channel Down** key.
- Press the preprogrammed **Preset Channel** key.

---

#### NOTE

If the Voice Notify feature is enabled, the radio automatically announces the current channel upon power-on and channel change.

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## 2.7.2 Trunking Mode

In trunking mode, the radio automatically hunts for available base stations (BS). During hunting, the LCD displays "Hunting...". After registration, the radio can receive and transmit voice and data.

### 2.7.2.1 Selecting a Group or Private Contact

To select a group contact or a private contact, do one of the following:

- Press and then rotate the **Smart** knob.
- On the home screen, press the **Back/Subgroup** key or go to **Menu > Subgroup**, select the subgroup, and then select the group or private contact.
- Press the preprogrammed **Group/Private Up** or **Group/Private Down** key.

### 2.7.2.2 Selecting a Subgroup





















A subgroup consists of multiple groups or private contacts.

To select a subgroup, do either of the following:

- On the home screen, press the **Back/Subgroup** key or go to **Menu > Subgroup**, select the subgroup, and then select **Set Default**.
- Press the preprogrammed **Subgroup Up** or **Subgroup Down** key.

## 3. Status Indications

### 3.1 LCD Icons

Icon	Radio Status
	The fuller the battery bar is, the stronger the battery power remains.
	The battery power is low.
	The battery power runs out. Recharge or replace the battery.
	The radio detects no signal.
	More bars indicate stronger signal strength.
	The radio operates in low power mode.
	The radio operates in high power mode.
	The keypad is locked.
	An accessory is connected.
	The Mode Automatic Switch feature is enabled.
	The radio is scanning or hunting.
	The Voice Operated Transmit (VOX) feature is enabled.
	The radio operates in silent mode.
	The radio operates in profile 1.
	The radio operates in profile 2.
	The radio operates in custom profile.
	The radio is in Emergency mode.
	There is/are missed call(s).
	There is/are new/unread message(s).
	The inbox is full.

For details on other LCD icons, refer to the *User Manual*.

## 3.2 LED Indicator

LED Indicator	Radio Status
Flashes green	The radio is being turned on.
Flashes green slowly	The radio is standby in trunking mode.
Glow green	The radio is receiving.
Glow red	The radio is transmitting.
Flashes red	The radio is establishing a call in trunking mode. This indication is applicable only to the calling radio.
Flashes orange slowly	<ul style="list-style-type: none"> <li>● Conventional mode: The radio is scanning or roaming.</li> <li>● Trunking mode: The radio is hunting.</li> </ul>
Flashes orange rapidly	<ul style="list-style-type: none"> <li>● Conventional mode: The radio is operating in Emergency mode.</li> <li>● Trunking Mode: The radio is establishing a Full Off Air Call Set-up (FOACSU) private call. (This indication is applicable only to the called radio.)</li> </ul>
Glow orange	Call hang time: No voice is being transmitted or received during a call. Within such a period, you can press and hold the <b>PTT</b> key and speak.
Flashes blue every 3s	The BT feature is enabled, but no BT device is connected.
Flashes blue every 1.5s	A BT device is connected.
Flashes blue every 0.1s	The BT feature is being disabled.



## 4. Call Services

When you are speaking during a call, keep the microphone about 2.5 cm to 5 cm away from your mouth. This ensures optimal voice quality on the receiving radio.

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### NOTE

In trunking mode, if the radio is not registered or attached, or an empty group is selected, you cannot initiate a call.

---

### 4.1 Call on Digital Channel

You can initiate or receive the following types of calls on a digital channel:


- Group call: a call from an individual user in a group to all the other members in the group.
- Private call: a call from an individual user to another individual user.

#### 4.1.1 Initiating a Group Call


##### 4.1.1.1 Through Preset Contact

Press and then rotate the **Smart** knob to select the digital channel or group contact, and then press and hold the **PTT** key.

##### 4.1.1.2 Through Contact List

- Conventional mode: Go to **Menu > Contact**, select the group contact, and then press and hold the **PTT** key.
- Trunking mode: Go to **Menu > Subgroup**, select the group contact, and then press  or the **PTT** key.

##### 4.1.1.3 Through Manual Dialing

- Conventional mode: With the group call dial permission enabled by your dealer, on the home screen, enter the group ID, and then press and hold the **PTT** key.
- Trunking mode: On the home screen, enter the group ID, and then press  or the **PTT** key.

---

### NOTE

The group ID must comply with the dialing rules. For details, consult your dealer.

---

#### 4.1.2 Receiving a Group Call

##### 4.1.2.1 Conventional Mode

You can receive a group call without any operation.

##### 4.1.2.2 Trunking Mode

You can receive a group call without any operation.

## 4.1.3 Ending a Group Call

### 4.1.3.1 Conventional Mode

In conventional mode, a group call ends when the call hang time expires.

### 4.1.3.2 Trunking Mode

In trunking mode, a group call ends in any of the following cases:

- The call hang time expires.
- The calling party hangs up.
- The call duration exceeds the preset time.
- The BS signal is lost.
- A pre-emptive call or an emergency call occupies the channel.
- The calling party changes the contact with the Clear Down feature enabled.

## 4.1.4 Initiating a Private Call


### 4.1.4.1 Through Preset Contact

Press and then rotate the **Smart** knob to select the digital channel or private contact, and then press and hold the **PTT** key.


### 4.1.4.2 Through Contact List

Go to **Menu > Contact**, select the private contact, and then press and hold the **PTT** key.

### 4.1.4.3 Through Manual Dialing

- Conventional mode: With the private call dial permission enabled by your dealer, on the home screen, enter the private ID, and then press and hold the **PTT** key.
- Trunking mode: On the home screen, enter the private ID, and then press  or the **PTT** key.

---

 **NOTE**

The private ID must comply with the dialing rules. For details, consult your dealer.

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## 4.1.5 Receiving a Private Call

### 4.1.5.1 Conventional Mode

You can receive a private call without any operation.

### 4.1.5.2 Trunking Mode

The operations vary with the setup mode of the private call.

- FOACSU

When receiving a FOACSU private call, the radio rings and vibrates. To answer the call, press the **PTT** key within the preset time.

- Off Air Call Set-Up

(OACSU):The call is established automatically

## 4.1.6 Ending a Private Call

### 4.1.6.1 Conventional Mode

In conventional mode, a private call ends when the call hang time expires.

### 4.1.6.2 Trunking Mode

In trunking mode, a private call ends in any of the following cases:

- The call hang time expires.
- The calling or called party hangs up.
- The call duration exceeds the preset time.
- The base station (BS) signal is lost.
- A pre-emptive call or an emergency call occupies the channel.
- The calling or called party changes the contact with the Clear Down feature enabled.

## 4.2 Call on Analog Channel

In conventional mode, you can initiate or receive a call on an analog channel with or without signaling.

### 4.2.1 Call Without Signaling

On an analog channel without signaling, you can initiate a call to all the other users on the channel. On the home screen press and then rotate the **Smart** knob to select the channel, and then press and hold the **PTT** key.

### 4.2.2 Call with Signaling

On an analog channel with signaling, you can initiate a call to a specific contact on the channel.

Go to **Menu > Contact > Contact List**, or press the preprogrammed **Contact List** key, select the contact, and then press the **PTT** key or the preprogrammed **One Touch Call** key.

## 4.3 Emergency Call

The Emergency feature allows you to seek help from your companion or the control center in case of emergency. You can initiate an emergency call with the highest priority even when your radio is transmitting or receiving.

This feature is configured and enabled by your dealer.

# 5. Message Services

The radio can send and receive short messages, which are classified into the following types:

- Quick text message: a frequently used text message that can be created, edited, or deleted through the menu.
- Status message: a predefined code that transfers the message content.

## 5.1 Sending New Message

1. Go to **Menu > Message > Msg New > New Msg**.

2. In the recipient text box, enter the contact ID, and then press



to switch the ID type. Alternatively, press the **OK/Menu**

key to enter the contact list, and then select the contact.

3. In the message text box, enter the message content.

Alternatively, select **Insert** to add quick text messages or status messages (trunking only).

4. Select **Send**.

## 5.2 Editing a Message

Go to **Menu > Message > Msg**, select a dialog box, and then do either of the following:

- Select **Reply** to reply to the message.
- Press the **Up** key, select a message, press the **OK/Menu** key, and then do one of the following:
  - » Select **Forward** to forward the message.
  - » Select **Resend** to resend the message.
  - » Select **Delete** to delete the message.
  - » Select **Delete All** to delete all messages with the contact.

For details on more features and operations, please visit our website at

<http://www.hytera.com>.

Restrict use warning:

AT	BE	CY	CZ	DK
EE	FI	FR	DE	EL
HU	IE	IT	LV	LT
LU	MT	NL	PL	PT
SK	SI	ES	SE	UK
BG	RO	HR		

## FCC/ISED Statement

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 accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

This device complies with Innovation, Science and Economic Development Canada licence-exempt RSS standard (s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le onjunc areil est conforme aux CNR d' l'innovation, la science et le développement économique Canada licables aux areils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'areil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, onj si le brouillage est susceptible d'en compromettre le fonctionnement.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Tous les changements ou modifications non expressément approuvée par le responsable de la conformité pourrait vider l'utilisateur est habilité à exploiter l'équipemen.

## RF Exposure Compliance and Control Guidelines and Operating Instructions

To control your exposure and ensure compliance with the occupational/controlled environmental exposure limits, always adhere to the following procedures.

Guidelines:

- Do not remove the RF Exposure Label from the device.
- User awareness instructions should accompany device when transferred to other users.
- Do not use this device if the operational requirements described herein are not met.

Operating Instructions:

- Transmit no more than the rated duty factor of 50% of the time. To transmit (talk), push the Push-To-Talk (PTT) key. To receive calls, release the PTT key. Transmitting 50% of the time, or less, is important because the radio generates measurable RF energy only when transmitting (in terms of measuring for standards compliance).
- Keep the radio unit at least 2.5 cm away from the face. Keeping the radio at the proper distance is important as RF exposure decreases with distance from the antenna. The antenna should be kept away from the face and eyes.
- When worn on the body, always place the radio in a Hytera-approved holder, holster, case, or body harness or by use of the correct clip for this product. Use of non-approved accessories may result in exposure levels which exceed the FCC's occupational/controlled environmental RF exposure limits.

- Use of non-approved antennas, batteries, and accessories causes the radio to exceed the FCC RF exposure guidelines.
- Contact your local dealer for the optional accessories of the product.

## L'exposition aux champs rf de conformité et de contrôle d'orientations et instructions

Pour contrôler l'exposition et s'assurer de la conformité avec les limites d'exposition professionnelle / environnement contrôlé, toujours respecter les procédures suivantes.

Lignes directrices:

Ne pas enlever l'étiquette de l'appareil d'exposition aux radiofréquences.

Sensibilisation des utilisateurs instructions devraient accompagner dispositif lorsque transférés à d'autres utilisateurs.

Ne pas utiliser cet appareil si les exigences opérationnelles décrites ci - après ne sont pas remplies.

Les instructions de fonctionnement:

Transmettre non plus que le facteur d'utilisation nominal de 50% du temps.à transmettre (parler), pousse le pousse à parler (ptt). Pour recevoir des appels, les ptt.50% du temps de transmission, ou moins, est important parce que la radio génère de l'énergie rf seulement lors de la transmission des (en termes de mesure de la conformité aux normes).

Le groupe de la radio continue d'au moins 2,5 cm de la surface.garde la radio à la bonne distance est important, car l'exposition aux champs rf diminue

avec la distance de l'antenne.l'antenne doit se tenir loin du visage et des yeux.

Quand portés sur le corps, toujours place de la radio dans un étui, hytera approuvé titulaire, ou un harnais ou par l'utilisation de la vidéo pour ce produit.utilisation des accessoires non approuvés peuvent entraîner des fac qui dépassent les niveaux d'exposition professionnelle et environnementale contrôlée des limites d'exposition aux rf.

Les opérations doivent satisfaire aux deux conditions suivantes: Ce dispositif peut ne pas causer d 'interférences nuisibles.

Ce dispositif doit accepter toute interférence reçue, Y compris les interférences qui peuvent provoquer des accidents.Operation

Non approuvé des antennes, les piles et les accessoires causes la radio à dépasser les lignes directrices sur l'exposition aux radiofréquences de fac.

Communiquez avec votre distributeur local pour les accessoires facultatifs du produit.

## ISED Statement

The device has been tested and complies with SAR limits, users can obtain Canadian information on RF exposure and compliance

Après examen de ce matériel aux conformité aux limites DAS, et/ou aux limites d'intensité de champ RF, les utilisateurs peuvent sur l'exposition aux radiofréquences et la conformité and compliance d'acquérir les informations correspondantes