S1 mini Two-way Radio
User Manual

Preface

Welcome to the world of Hytera and thank you for purchasing this product. This manual includes a description of the functions and step-by-step procedures for use.

To avoid bodily injury or property loss caused by incorrect operation, please carefully read the *Safety Information Booklet* before use.

This manual is applicable to the following product:

S1 mini Two-way Radio

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ISED Compliance Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) L'appareil ne doit pas produire de brouillage;

(2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

IC SAR Statement

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The portable device is designed to meet the requirements for exposure to radio waves established by the ISED. These requirements set a SAR limit of 8 W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification for use when properly worn on the body and head.

Cet équipement est conforme aux limites d'exposition aux rayonnements de l'ised pour les environnements non contrôlés. L'utilisateur final doit se conformer à des instructions d'exploitation spécifiques afin de respecter la conformité à l'exposition aux radiofréquences. L'émetteur ne doit pas être au même endroit qu'une autre antenne ou un autre émetteur et ne doit pas fonctionner avec une autre antenne ou un autre émetteur.

L'appareil portatif est conçu pour répondre aux exigences d'exposition aux ondes radio de l'ised. Ces exigences fixent une limite moyenne de SAR de 8 W / kg pour un gramme de tissu. Les valeurs SAR les plus élevées rapportées conformément à la présente norme lorsqu'elles sont portées correctement sur le corps et la tête pendant la certification du produit.

IC Statement

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 standard 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 ISED's occupational/controlled environmental RF exposure limits.

Use of non-approved antennas, batteries, and accessories causes the radio to exceed the ISED RF exposure guidelines.

Contact your local dealer for the optional accessories of the product.

Facteur de cycle nominal ne dépassant pas 50% du temps de transmission. Pour envoyer (appel), appuyez sur la touche Push to talk (PTT).

Pour répondre à un appel, relâchez la touche PTT. Il est important d'émettre 50% ou moins du temps, car la radio ne produit de l'énergie RF mesurable (en termes de mesure de la conformité à la norme) que lorsqu'elle émet.

Maintenez l'appareil radio à une distance minimale de 2.5 cm du visage. Il est important de maintenir la radio à une distance appropriée, car l'exposition aux RF diminue avec la distance de l'antenne. Les antennes doivent être éloignées du visage et des yeux.

Lorsque vous portez la radio sur le corps, placez - la toujours dans un support, un étui, un boîtier ou un harnais de corps approuvé par hytera ou utilisez le clip approprié pour ce produit. L'utilisation d'accessoires non approuvés peut entraîner des niveaux d'exposition dépassant les limites d'exposition aux RF professionnelles / environnementales contrôlées d'ISDE.

L'utilisation d'antennes, de piles et d'accessoires non approuvés peut amener la radio à dépasser les directives d'exposition aux RF d'ISDE.

Veuillez contacter votre distributeur local.

⚠ CAUTION	Device must be restricted to occupational use to satisfy ISEDC RF exposure compliance. See User Manual for specific operating requirements.

Contents

Documentation Information

Documentation Conventions

Instruction Conventions

Icon	Description
TIP	Indicates information that can help you make better use of your product.
NOTE	Indicates references that can further describe the related topics.
CAUTION	Indicates situations that could cause data loss or equipment damage.
WARNING	Indicates situations that could cause minor personal injury.
DANGER	Indicates situations that could cause major personal injury or even death.

Notation Conventions

Item	Description	Example
Boldface	Denotes menus, tabs, parameter names, window names, dialogue names, and hardware buttons.	To save the configuration, click **Apply**.
		The **Log Level Settings** dialogue box appears.
		Press the **PTT** key.
" "	Denotes messages, directories, file names, folder names, and parameter values.	The screen displays "Invalid Battery!".
		Open "PSS.exe".
		Go to "D:/opt/local".
		In the **Port** text box, enter "22".
>	Directs you to access a multi-level menu.	Go to **File** > **New**.
Italic	Denotes document titles.	For details about using the DWS, refer to *Dispatch Workstation User Guide*.
Courier New	Denotes commands and their execution results.	To set the IP address, run the following command: `vos-cmd - m name IP`

Key Operations

Operation	Description
Press	Press and release quickly.
Long press	Press and hold for preset time.
Press and hold	Keep the key pressed.

Key Operations

1. Packing List

Unpack carefully and check that you have received the following items. If any item is missing or damaged, contact your dealer.

Item	Quantity (PCS)	Item	Quantity (PCS)
Radio	1	Earpiece	1
Strap	1	Documentation Kit	1
Custom Label	1	/	/

✎**NOTE**

● Figures in this manual are only for reference.

● Check that the radio label on the back matches the product you bought. If not, contact your dealer.

2. Product Overview

2.1 Product Layout
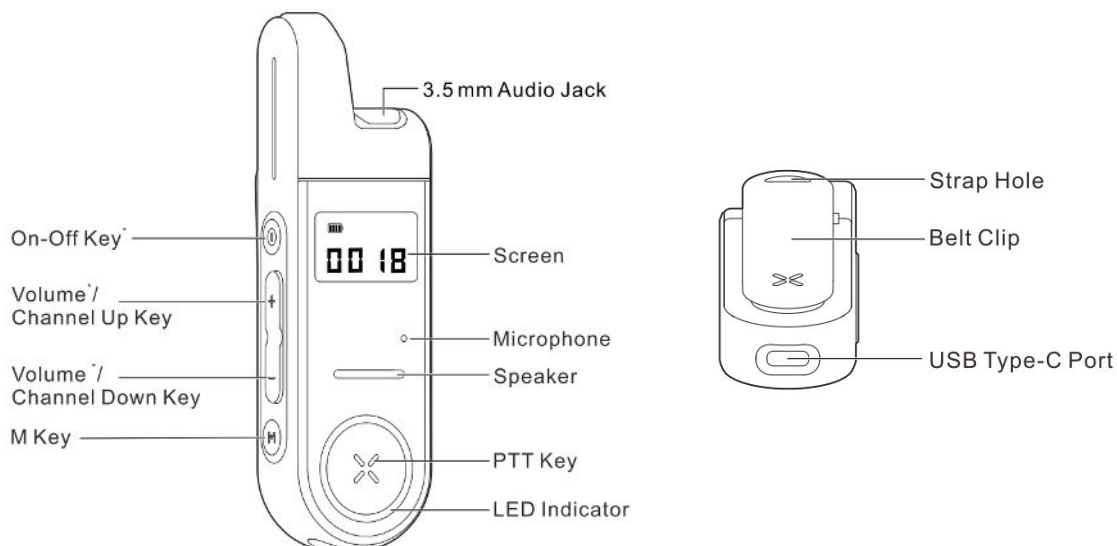
> 🖉 **NOTE**
>
> You can configure the channel or radio alias to be displayed on the screen through the Hytera Radio app.

2.2 Programmable Keys

For convenience, you can assign the **On-Off** key, **Volume/Channel Up** key, and **Volume/Channel Down** key as shortcuts to the following radio features through the Hytera Radio app.

Feature	Description
Monitor	Allows you to switch between Monitor Squelch Mode and Receive Squelch Mode.
Scan	Allows you to enable or disable Scan.
Scrambler	Allows you to enable or disable Scrambler.
Squelch Off	Allows you to enable or disable Squelch Off.
VOX	Allows you to enable or disable VOX.
Channel and Battery Level Broadcast	Allows the radio to audibly convey channel and battery level.
Battery Saver	Allows you to enable or disable Battery Saver.

3. Before Use

3.1 Charge the Battery

> ⚠️ **CAUTION**
> ● 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 the International Air Transport Association (IATA).
>
> ● Charge the radio before initial use.

Use the USB Type-C cable to connect the radio to the power adapter, power bank, or PC.

You can learn about the charging status through the LED indicator.

LED Indicator	Charging Status
Glows red	The battery is being charged.
Flashes red rapidly	The battery fails to be charged.
Glows green	The battery is fully charged.

3.2 Wear the Earpiece

You can rotate the earbud to fit to your left or right ear.
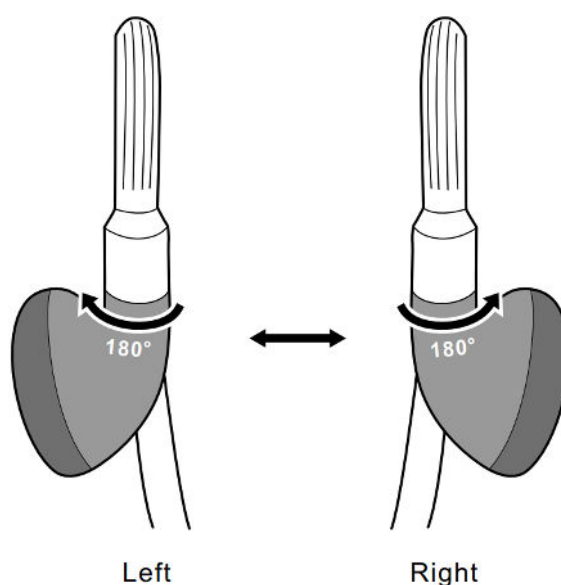
> 🗒️ **NOTE**
> The earpiece is connected to the radio only after you hear a click.

3.3 Use the Custom Label
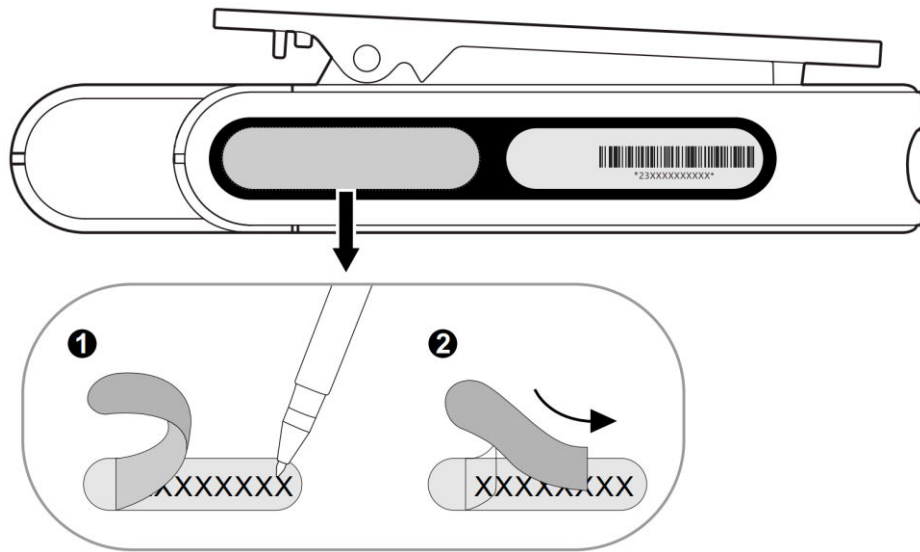
4. Basic Operations

4.1 Turn On or Off the Radio

Long press the **On-Off** key.

4.2 Adjust the Volume

1. (Optional) Press the **M** key to switch the **Volume/Channel Up** and **Volume/Channel Down** keys to volume control mode.

2. Press the **Volume/Channel Up** key to increase the volume, or the **Volume/Channel Down** key to decrease the volume.

4.3 Select a Channel

1. Press the **M** key to switch the **Volume/Channel Up** and **Volume/Channel Down** keys to channel selector mode.

2. Press the **Volume/Channel Up** to switch to the previous channel, or press the **Volume/Channel Down** key to switch to the next channel.

NOTE

- If you do not switch channel within 5s, the **Volume/Channel Up** and **Volume/Channel Down** keys automatically switch to volume control mode.

- You can add, modify, or delete channel through the Hytera Radio app.

4.4 Make a Call

To ensure optimal voice quality on the receiving radio, keep the microphone about 2.5 cm to 5 cm away from your mouth during speaking.

1. Select a channel according to 4.3 Select a Channel.

2. Press and hold the **PTT** key.

5. Operating Status

You can learn the radio status through the LED indicator.

LED Indicator		Radio Status
Glows red		● The radio is transmitting. ● The radio is ready to send clone data.
Glows green		● The radio is receiving. ● The radio is ready to receive clone data.
Flashes green	Once every 0.2s for three times	The radio is being turned on.
	Once every 5s	The radio is scanning.
Flashes red	Once every 0.5s for 1 min	The battery power is low.
	Once every 0.2s	● The radio is being programmed. ● The radio is being written clone data.
	Once every 0.2s for 15s	The radio receives connection request from the Hytera Radio app.
	Once every 0.2s for 5s	The radio is being searched by the Hytera Radio app.

6. Supplementary Services

6.1 Battery Saver

Battery Saver allows you to prolong the battery life significantly.

To enable or disable Battery Saver, press the preprogrammed **Battery Saver** key.

- When Battery Saver is enabled, the radio emits a beep.

- When Battery Saver is disabled, the radio emits two beeps.

> 📝**NOTE**
>   Battery Saver may increase delay for call initiation and establishment.

6.2 VOX

Voice Activated Transmit (VOX) allows the voice to trigger transmission. When the voice detected by the microphone reaches the value to trigger the transmission, the radio automatically transmits the voice without the **PTT** key pressed. VOX Gain preprogrammed through mobile app is used to control the sensitivity of microphone transmission.

To enable or disable VOX, press the preprogrammed **VOX** key.

- When VOX is enabled, the radio emits a beep.

- When VOX is disabled, the radio emits two beeps.

6.3 Scan

Scan allows you to listen to activities on other channels, keeping track of your team members.

To enable or disable Scan, press the preprogrammed **Scan** key.

With Scan enabled, the radio scans according to the scan list preset for the current channel, during which the LED indicator flashes orange once every 5s. When detecting activities on a channel, the radio stays on the channel and the LED indicator glows green.

6.4 Monitor

Monitor allows the radio to receive more signals including weak signals, and helps you to recognize weak voices in the speaker.

To switch between Monitor Squelch mode and Receive Squelch mode, press the preprogrammed **Monitor** key.

- When the radio is switched to Monitor Squelch mode, the radio emits a beep.

- When the radio is switched to Receive Squelch mode, the radio emits two beeps.

6.5 Squelch Off

Squelch Off keeps the speaker unmuted whether carrier exists, during which the radio sounds background noise.

To enable Squelch Off, press the preprogrammed **Squelch Off** key.

- When Squelch Off is enabled, the radio emits a beep.

- When Squelch Off is disabled, the radio emits two beeps.

6.6 Radio Clone

Radio Clone allows you to wirelessly copy configuration data of a radio to another radio. The cloning data do not include radio ID, BT alias, and voice notification files.

Before Clone

🖉 NOTE

It is recommended that only one radio is cloned at a time.

- Prepare radio A (to be cloned) and radio B (to receive the cloned data).

- Make sure the two radios have enough battery power.

- Switch the radio A and the radio B to Radio Clone mode.

Radio	Operation
Radio A	1. Turn off the radio. 2. Press the key combination **Volume/Channel Up** and **On-Off** until the radio turns on and the LED indicator glows red. The radio A enters Radio Clone mode. If no radio clones data from the radio A in five minutes, it automatically exits Radio Clone mode.
Radio B	1. Turn off the radio. 2. Press the key combination **Volume/Channel Down** and **On-Off** until the radio turns on and the LED indicator glows green. The radio B enters Radio Clone mode.

During Clone

When the radio B receives configurations from the radio A, the radio B audibly notifies "Receiving Data", and the LED indicator flashes red rapidly.

After Clone

● When the radio B successfully clones configuration from the radio A, the radio B audibly notifies "Succeeded". Long press the **On-Off** key to turn off the radio B.

● When the radio B fails to clone configuration from the radio A, the radio B audibly notifies "Failed". Long press the **On-Off key** to turn off the radio B. When the radio B restarts, it recovers to the original configuration.

6.7 Channel Copy

Channel Copy allows you to copy channel information from any radio in the same frequency to the S1 mini quickly.

🖉NOTE

● Do not copy information of an empty channel.

● To avoid interference, make sure only one radio can be copied at a time.

● During channel copy, keep the distance between two radios within one meter.

1. Set the S1 mini.

    a. On the S1 mini, select a channel, and then turn off the S1 mini.

    b. Press the key combination **M** and **On-Off** until the S1 mini turns on and the LED indicator flashes green.

       The S1 mini enters Channel Copy mode.

2. Set the other radio.

    a. Turn on the radio.

    b. Select a channel, and then press the **PTT** key.

    The S1 mini searches the other radio, and copies channel information from that radio.

    When channel copy is complete, the radio A dings.

3. (Optional) To copy other channel information:

    a. On the S1 mini, select a new channel.

    b. On the other radio, press the **PTT** key.

4. To exit Channel Copy mode, restart the S1 mini.

6.8 Hytera Radio App

You can program the radio through the Hytera Radio app.

To download and install the Hytera Radio app on your Android phone, scan the QR code.

📝 NOTE

It is recommended that you install the Hytera Radio app on the phone running Android 9.0 or later.

7. Troubleshooting

Phenomena	Analysis	Solution
The radio cannot be turned on.	The battery may have run out.	Recharge the battery.
The keys do not work.	The keys may fail to function temporarily.	Restart the radio.
	The keys may be damaged.	Contact your dealer or technicians of the Company for maintenance.
The LED indicator is abnormal.	The indication may be abnormal.	Restart the radio.
	The LED indicator may be damaged.	Contact your dealer or technicians of the Company for maintenance.
During receiving, the voice is weak, discontinuous, or totally inactive.	The signal may be weak.	Make sure that the radio is within the signal coverage.
	The volume may be low.	Increase the volume.
	The speaker may be blocked or damaged.	Clean the surface of the speaker.
The battery fails to be charged.	The power adapter plug may be inserted into the socket improperly.	Reinsert the power adapter to the socket.
	The USB Type-C cable may be poorly connected.	Reconnect the USB Type-C cable.

If the above solutions cannot fix your problems, or you may have some other queries, please contact us or your local dealer for more technical support.

8. Radio Care

To guarantee optimal performance as well as a long service life of the radio, follow the tips below.

8.1 Care

- Do not disassemble the radio.

- Do not throw, crack, or hammer the radio.

- Do not pierce or scrape the radio, espeically the interfaces.

- Do not expose the radio to the extreme temperature (lower than –20°C or higher than 55°C).

- Keep the radio away from substances that can corrode it.

- Close the audio jack cover when no accessory is in use.

To avoid liquid penetration into the radio, follow the tips below:

- Do not expose the radio to the environment with high humidity.

- Keep the radio away from salty water, ionized water, alcoholic beverage, lotion, or other impure water.

- Before connecting the accessory or power adapter to the radio, ensure the radio and the interface are dry.

If the radio has been wet, follow the tips below:

- Do not turn on the radio.

- Do not connect the accesory or power adapter to the radio.

- Do not dry the radio by microwave, hair dry, or other external heat sources.

- Do not insert the cotton buds or tissue into the interface.

- Use the clean and soft cloth to dry the water on the radio surface, and then put the radio to the well-ventilated place until it is dry.

8.2 Cleaning

⚠ **CAUTION**

- Turn off the radio before cleaning.

- Ensure no external radios are connected to the radio.

- Do not use chemical preparations such as stain removers, alcohol, sprays or oil preparations.

- Do not directly spray the neutral cleanser on the radio.

- Do not use the radio before it is fully dry.

- After cleaning the audio jack, put the cover back in place.

It is recommended to clean the radio regularly. During cleaning, you can check whether the components are damaged. If damages exist, contact the local dealer or the Company.

- Use the non-metal brush to clean up the dust or dirt on the radio surface.

- Use the lint-free cloth with proper neutral cleanser to clean the surface, screen, keys, and interfaces.

- Use another lint-free cloth with proper pure water to clean up the cleanser or residue.

8.3 Sterilizing

⚠ **CAUTION**

- Turn off the radio before sterilizing.

- Ensure no external radios are connected to the radio.

- Do not directly spray the alcohol on the radio.

- Keep the radio away from the power supply and fire.

- Do not use the radio before it is fully dry.

- After sterilizing the audio jack, put the cover back in place.

It is recommended to sterilize the radio regularly. You can sterilize the radio by the following tips:

Use the lint-free cloth with proper rubbing alcohol (density $\geq$ 70%) to clean the radio surface, screen, keys, and interfaces.

8.4 Storing

⚠ **CAUTION**
● Turn off the radio before storage.

● Ensure no external accessories are connected to the radio.

When storing the radio, follow the tips below:

● Keep the radio in the well-ventilated place with the temperature from –30°C to +80°C and the humidity no more than 75%.

● Keep the radio away from the acidic and corrosive substances.

● Keep the radio away from the fire or other heat sources.

● Do not store the radio in direct sunlight.

9. Optional Accessories

⚠ CAUTION

Use the accessories approved by the Company only. Otherwise, we will not be liable for any loss or damage

arising out of the use of unauthorized accessories.

Contact your local dealer for the optional accessories used with the product.

10. Specifications

Item	Description
Model	HYT-S10
Dimension (H x W x D) (with antenna and belt clip)	99 mm x 30 mm x 24.1 mm
Weight	48 g
Screen	0.88 inches
Battery	750 mAh
Operating Voltage	3.8 V
Operating Temperature	0°C to +55°C
Storage Temperature	–30°C to 70°C
Charging Port	USB Type-C
Audio Jack	3.5 mm
BT	● BLE ● LE
Channel	16

11. Abbreviations

Abbreviation	Full Name
IATA	International Air Transport Association
LED	Light-Emitting Diode
PTT	Push-to-Talk