

# microlab<sup>®</sup>

**T-9752 (U) : 16-Channel UHF FM Transceiver 400-470MHz**  
**T-9752 (V) : 16-Channel VHF FM Transceiver 130-174MHz**



## Instruction Manual



## SAFETY INFORMATION

Your wireless handheld portable transceiver contains a low power transmitter. When the Push-To-Talk (PTT) button is pressed, it sends out radio frequency signals. The device is authorized to operate at a duty factor not to exceed fifty percent.



## CAUTION

To maintain compliance with the FCC's RF exposure guidelines, hold the transmitter and antenna at least two inches from your face and speak in a normal voice, with the antenna pointed up and away from your face. If you wear the handset on your body while using the headset accessory, use only the supplied belt clip for this product. When transmitting, take it out of the belt to ensure the antenna is at least one inch (2.5cm) from your body. Use only the supplied antenna. Unauthorized antennas, modifications, or attachments could damage the transmitter and may violate FCC regulations.



## THANK YOU!

We are grateful for your purchase of this **microlab** transceiver. We believe this easy-to-use transceiver will provide you with dependable and reliable communications.

**Microlab** We adopt advanced technology & workmanship for this transceiver, we trust our laborative design will make it better & quicker service for you; for correct use, please read this manual before use.

### MODELS COVERED BY THIS MANUAL

T-9752 (U) : 16-Channel UHF FM Transceiver 400-470MHz

T-9752 (V) : 16-Channel VHF FM Transceiver 130-174MHz

### PRECAUTIONS

**Refer service to qualified technicians only.**

**Do not operate the transceiver or charge a battery pack in an explosive atmosphere (gases, dust, fumes, etc.)**

**Turn OFF the transceiver while taking on fuel or while parked in a gasoline service station.**

**Do not modify or attempt to adjust this transceiver for any reason.**

**Do not expose the transceiver to long periods of direct sunlight, nor place it close to heating appliances**

**Do not place the transceiver in excessively dusty, humid, and/or wet areas, nor on unstable surfaces.**

**SAFETY:** It is important that the operator is aware of, and understands, hazards common to the operation of any transceiver.

## SAFETY TRAINING INFORMATION



Your FM 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 FM 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 Potentially Hazardous Electromagnetic Fields – RF and Microwave.



**Restricted to occupational use to satisfy  
FCC RF energy exposure limits.  
See user manual for awareness and  
control info.**

- **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** Icom authorized accessories (antennas, batteries, belt clips, speaker/mics, etc). Use of unauthorized accessories can cause the FCC RF exposure compliance requirements to be exceeded.
- **ALWAYS keep** the antenna at least 2.5cm (1 inch) away from the body when transmitting and only use the belt-clips which supplied when attaching the radio to your belt, etc., to ensure FCC RF exposure compliance requirements are not exceeded. 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 Icom 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.

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## UNPACKING AND CHECKING EQUIPMENT

Carefully unpack the transceiver. We recommend that you identify the items listed in the following table before discarding the packing material. If any items are missing or have been damaged during shipment, file a claim with the carrier immediately.

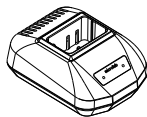
### ■ Supplied Accessories

Item	Antenna T-9752 U/V	Battery charger (T-9752/T-9751)	Ni-MH battery pack (T-9752 only) 7.2V(1600mAh)	Speaker/ microphone jack cover	Belt clip	Screw	Instruction Manual
Quantity	1	1	1	1	1	1	1

Note : A market code (M, M2, or M4) can be found on the label attached to the package box.



Antenna  
T-9752 U/V



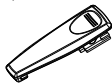
Battery charger



Ni-MH battery  
pack



Speaker/  
microphone  
jack cover



Belt clip



Screw

## PREPARATION

### ■ Charging the Ni-MH Battery pack

The battery pack is not charged at the factory; charge it before use .

Initially charging the battery pack after purchase or extended storage (greater than 2 months ) will not bring the battery pack to its normal operating capacity. After repeating the charge/discharge cycle two or three times , the operating capacity will increase to normal.



#### **CAUTION**

DO NOT RECHARGE THE BATTERY PACK IF IT IS ALREADY FULLY CHARGED .DOING SO MAY CAUSE THE LIFE OF THE BATTERY PACK TO SHORTEN OR THE BATTERY PACK MAY BE DAMAGED.

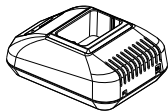
AFTER RECHARGING THE BATTERY PACK ,DISCONNECT IT FROM THE CHARGER. CHARGING THE BATTERY PACK FOR MORE THAN 5DAYS MAY REDUCE THE BATTERY PACK LIFE DUE TO OVERCHARGING.

#### **Note :**

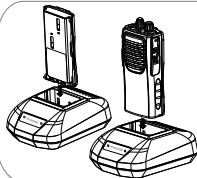
The ambient temperature should be between 41 and 104 F (5 and 40 while charging is in progress. Charging outside this range may not fully charge the battery .

Always switch OFF the transceiver equipped with a Ni-MH battery pack before charging its battery pack will interfere with correct charging. The battery pack life is over when its operating time decreases even though it is fully and correctly charged. Replace the battery pack .





Plug the AC adaptor into an AC outlet.



Slide the Ni-MH battery pack or transceiver with a Ni-MH battery pack into the charger.  
Make sure the battery pack contacts are in contact with the charging terminals.  
The charger LED lights and charging begins.

After charging the supplied battery pack for 8 hours, remove it or the transceiver equipped with it from the charger.  
The charger does not turn OFF automatically after charging is completed.

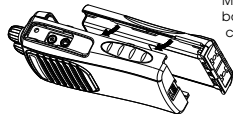
Unplug the AC adaptor from the AC outlet.

#### ■ Installing/Removing the Battery pack

The average life of the supplied Ni-MH battery pack is 8 hours .Average times are calculated using 5% transmit time 5% receive time ,and 90%standby time .



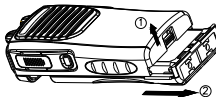
**CAUTION :**  
DO NOT SHORT THE BATTERY TERMINALS OR DISPOSE OF THE BATTERY BY FIRE.  
NEVER ATTEMPT TO REMOVE THE CASING FROM THE BATTERY PACK.



Match the four grooves of the battery pack with the corresponding guides on the back of the transceiver



Slide the battery pack along the back of the transceiver until the release latch on the base of the transceiver locks.



To remove the battery pack , pull back on the release latch and slide the pack away from the transceiver.

#### ■ Installing the Antenna



Screw the antenna into the connector on the top of the transceiver by holding the antenna to its base and turning it clockwise until secure.

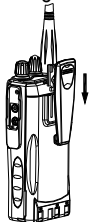
Note: The antenna is neither a handle, a key ring retainer, nor a speaker/microphone attachment point. Using the antenna in these ways may damage the antenna and degrade your transceiver's performance.



#### CAUTION:

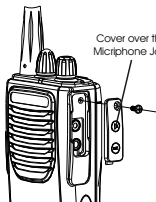
DO NOT USE GLUE WHICH IS DESIGNED TO PREVENT SCREW LOOSENING WHEN INSTALLING THE BELT CLIP AS IT MAY CAUSE DAMAGE TO THE TRANSCEIVER. ACRYLIC ESTER, WHICH IS CONTAINED IN THESE GLUES, MAY CRACK THE TRANSCEIVER'S BACK PANEL.

#### ■ Installing the Belt Clip



Insert the belt clip to the battery slot

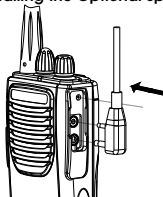
#### ■ Installing the Cover over the Speaker/Microphone Jacks



If you are not using a speaker/microphone, install the cover over the speaker/microphone jacks using the supplied 2.6x6mm screw.

Note: To keep the transceiver water resistant, must cover the speaker/microphone jacks with the supplied cover.

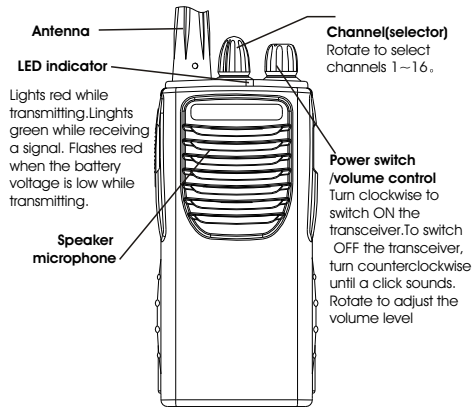
#### ■ Installing the Optional Speaker/microphone jacks.



Insert the speaker/microphone plugs into the speaker/microphone jacks.

Note: The transceiver is not fully water resistant while using the speaker/microphone.

## GETTING ACQUAINTED (T-9752)

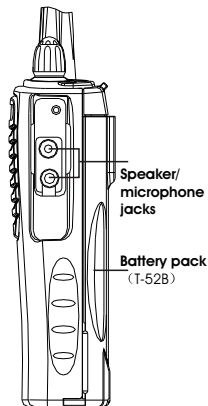
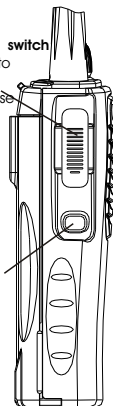


### PTT (push-TO Talk) switch

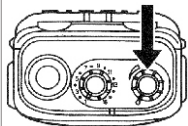
Press, then speak into the microphone to call a station. Release to receive.

### Monitor key

Press and hold to turn the squelch OFF. You will hear background noise. Release to turn the squelch back ON.

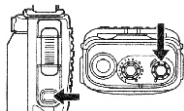


## T-9752 OPERATION

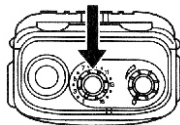


Switch ON the transceiver by turning the Power switch / Volume control clockwise.

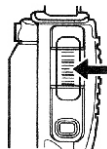
A beep sounds



Adjust the volume by pressing and holding the Monitor key, then rotating the Power switch / Volume control



Rotate the Channel selector to select your desired channel. When you receive an appropriate signal, you will hear audio from the speaker.



To make a call, press and hold the PTT switch, then speak into the microphone using your normal speaking voice. Hold the microphone approximately 1.5 inches (3 to 4CM) from your lips.

Release the PTT switch to receive.

Note :When the battery pack voltage becomes too low ,transmission will stop and the LED will blink red.See "Low Battery Warning"on page 8.

## AUXILIARY FUNCTIONS

### ■ Time-out Timer

The purpose of the Time-out Timer is to prevent any single person from using a channel for an extended period of time .

If you continuously transmit for 10 minutes, the transceiver will stop transmitting and a tone will sound. To stop the tone, release the PTT switch. You can press the PTT switch again to resume transmitting.

### ■ Battery save

The Battery Save function decreases the amount of power used when a signal is not being received and no operations are being performed (no keys are being pressed, and no switches are being turned).

While the channel is not busy and no operation is performed for 10 seconds, Battery Save turns ON. When a signal is received or an operation is performed, Battery Save turns OFF.

### ■ Low Battery Warning

Low Battery Warning alerts you when the battery needs to be recharged.

While transmitting, if the battery power goes below a pre-determined value, the LED will blink red. When a tone sounds, the transceiver stops transmitting. Replace or recharge the battery pack.

### ■ Monitor

When no signals are present, the squelch on the transceiver automatically mutes the speaker so you will not hear background noise. To manually deactivate the squelch, press and hold the Monitor key. This is useful when you want to adjust the volume level, or when you need to hear a weak signal.

The LED indicator lights green while the Monitor key is pressed.

### ■ Quiet Talk ( QT ) and Digital Quiet Talk ( DQT )

Some channels may have pre-programmed QT/DQT tones. A QT/DQT tone is a subaudible tone which allows you to ignore (not hear) calls from other parties who are using the same channel.

When you receive a signal that has a tone different from the one set up in your transceiver, you will not hear the signal. Likewise, signals that you transmit will only be heard by parties whose QT/DQT tone matches the tone set up in your transceiver.

Note : Although using channels set up with QT/DQT tones relieves you from listening to unwanted calls, it does not mean your calls will be private.

## OPTIONAL ACCESSORIES

You can use the following accessories with your transceiver:

- T-52BS: Standard Battery (7.2V/1100mAh)
- T-52B: Long Life Battery (7.2V/1600mAh)
- T-512B: Regular Battery Charger
- T-EP: Head set with VOX (Voice Operated) Transmit
- T-SM: Remote speaker
- T-51BC: Belt clip

## TROUBLESHOOTING GUIDE

Problem	No power	Battery power dies shortly after charging	Cannot talk to or hear other members in your group .	Other voices (besides group members) are present on the channel
Solution	<ul style="list-style-type: none"> <li>●The battery pack may be dead. Recharge or replace the battery pack</li> <li>●The battery pack may not be installed correctly.Remove the battery pack and install it again.</li> </ul>	<ul style="list-style-type: none"> <li>●The battery pack life is finished. Replac the battery pack with a new one.</li> </ul>	<ul style="list-style-type: none"> <li>●Make sure you are using the same frequency and Quiet Talk tone as the other members in your group</li> <li>●Other group members may be too far away.Make sure you are within range of the other transceivers.</li> </ul>	<ul style="list-style-type: none"> <li>●Change the Quiet Talk tone. Be sureto change the tone on all transceivers in your group</li> </ul>

## FREQUENCY CHART

Model Name: T- \_\_\_\_\_

Serial Number: \_\_\_\_\_

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



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