



1

TWO WAY RADIO T-9745  
INSTRUCTION MANUAL

Please read this manual carefully and make sure you know how to properly operate this radio before use.

MODELS COVERED BY THIS MANUAL

UHF IA-2: 16-Channel UHF FM Transceiver. 2W

UHF IA-4: 16-Channel UHF FM Transceiver. 4W

**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.)

2

\*Do not operate the transceiver in a vehicle in the area over the airbag or in the air bag deployment area.

\*Do not operate the transceiver near electronic blasting caps, in a blasting area or in areas posted "Turn off two-way radio".

\*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 period of direct sunlight nor place the transceiver close to heating appliances.

\*Do not place the transceiver in excessively dusty, humid, or wet areas.

\*Do not place the transceiver on unstable surfaces.

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

3

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

## CONTENTS

	UNPACKING AND CHECKING EQUIPMENT	5
	Supplied Accessories	5
	PREPARATION	7
	Charging the LI-ION Battery pack	7
4	Installing/Removing the Battery Pack	10
	Installing the Antenna	11
	Installing the Belt Clip	11
	Installing the Cover over the speaker/Microphone jacks	12
	Installing the Optional Speaker/Microphone	13
	GETTING ACQUAINTED T-9745	14
	UHF IA-2/IA-4 OPERATION	16
	AUXILIARY FUNCTIONS	18
	Time-out Timer	18
	Battery Save	18
	Low Battery Warning	18
	Monitor	19
	Quiet Talk (QT) and Digital Quiet Talk (DQT)	19
	OPTIONAL ACCESSORIES	20
	TROUBLESHOOTING GUIDE	21
	FREQUENCY CHART	23

## 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 your reseller immediately.

### Supplied Accessories

	Item	Quantity
5	Antenna	1
	Battery charger	1
	LI-ION battery pack 7.2V (1 200mAh)	1
	Speaker/ microphone jack cover	1
	Belt clip	1
	Instruction Manual	1

\*Do not place the transceiver in excessively dusty, humid, or wet areas.

\*Do not place the transceiver on unstable surfaces.

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

6

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

## PREPARATION

### Charging the LI-ION 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 battery pack's operating capacity will increase to normal.

7

#### 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 ABTTERY PACK LIFE DUE TO OVERCHARGING

#### Note

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

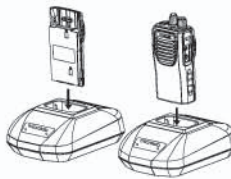
\* Always switch OFF the transceiver equipped with a LI-ION battery pack before charging its battery pack.

\* The battery pack life is over when its operating time decreases even though it is fully and correctly charged. Replace the battery pack

8



Plug the AC charger into an AC outlet.



Slide the LI-ION battery pack or transceiver with a

9

LI-ION battery pack into the charger.

Ensure the battery pack contacts are in contact with the charging terminals.

The charger LED lights and charging begins.

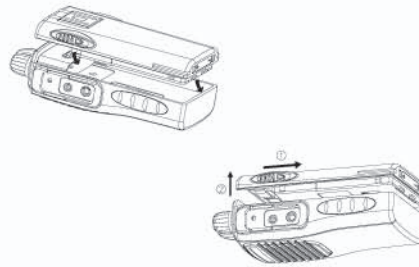
After charging the supplied battery pack for 8 hours, remove it or the transceiver equipped with it from the charger. The charger does not turn OFF automatically after charging is completed.

Unplug the AC charger from the AC outlet.

### Installing/Removing the Battery pack

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

10



#### CAUTION:

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

### 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 not 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.

11

### Installing the Belt Clip



Insert the belt clip to the battery socket until the

belt clip is fixed.

#### 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

### Connecting the Noise Terminator series of headsets.

12

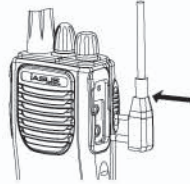
### Installing the Cover over the Speaker/Microphone Jacks



If you are not the Noise Terminator headset, install the cover over the speaker/microphone jacks using the supplied 2.6x6mm screw. Note: To keep the transceiver water resistant, to must cover the speaker/microphone jacks with the supplied cover. Note: The transceiver is not fully water resistant while using the speaker/microphone.

13

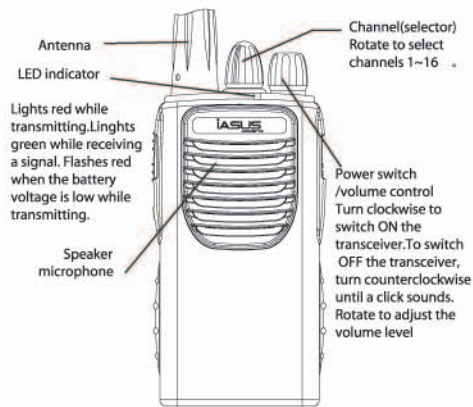
Installing the Optional Speaker/microphone jacks.



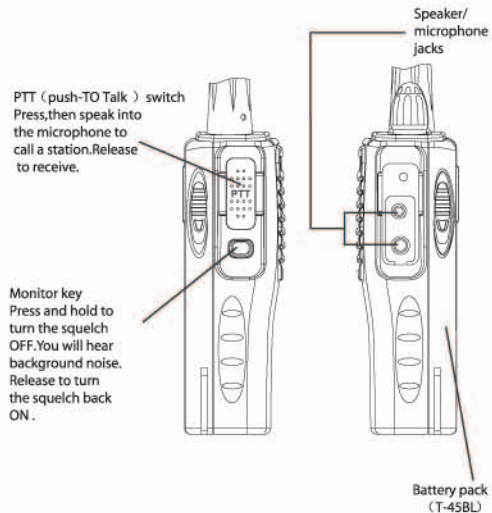
Insert the Noise Terminator plugs into the speaker/microphone jacks.

GETTING ACQUAINTED T-9745

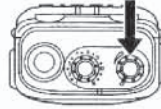
14



15



## OPERATION

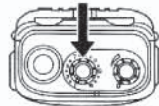


16

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

17



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

Release the PTT switch to receive.

*Note: When the battery pack voltage becomes too low, transmission stops, and the LED will blink red. See "Low Battery Warning" on page 18.*

## 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.

18

### \*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 will stop 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.

19

**\*Quiet Talk ( QT ) and Digital Quiet Talk ( DQT )**

Some channels may have pre-programmed QT/DQT tones. A QT/DQT tone is an inaudible 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-45BL    | Long Life Battery 7.2V/1200mAh   |
| • T-45C     | Regular Battery Charger          |
| • T-SM      | Remote speaker                   |
| • T-45BC    | Belt clip                        |
| • YJSN-3004 | Noise Terminator Sniper headset  |
| • YJGP-3004 | Noise Terminator GP headset      |
| • YJSM-3004 | Noise Terminator Modular headset |

20

**TROUBLESHOOTING GUIDE**

**Problem / Solution**

**No Power**

*\*The battery pack may be dead. Recharge or replace the battery pack.*

*\*The battery pack may not be installed correctly. Remove the battery pack and install it again.*

**Battery power dies shortly after charging**

*\*The battery pack life is finished. Replace the battery pack with a new one.*

**Message Not Transmitted**

*\*PTT button may not have been completely depressed*

*\*Shared channel may be in use. Try another channel.*

*\*Make sure you are using the same frequency and Quiet Talk tone as the other members in your group*

*\*Other group members may be too far away. Make sure you are within range of the other transceivers.*

21

**Message Not Received**

*\*Shared channel may be in use. Try another channel.*

*\*Make sure you are using the same frequency and*

22

*Quiet Talk tone as the other members in your group*

*\*Other group members may be too far away. Make sure you are within range of the other transceivers.*

*\*Obstructions and operating indoors or in vehicles may interfere with communications. Change your location.*

*\*Ensure volume is turned up.*

**Other voices (besides group members) are present on the channel**

*\*Shared channel may be in use. Try another channel.*

*\*Change the Quiet Talk tone. Be sure to change the tone on all transceivers in your group*

**Limited Talk Range**

*\*Structures and obstacles will decrease range. Check clear line of sight to improve range*

*\*Wearing radio close to body may decrease range, Change location of radio.*

**Heavy Static or Interference**

*\*Radios too close. Radios must be at least 5 feet apart. Increase your distance.*

*\*Radios too far apart. Obstacles interfere with transmission.*

23

Frequency Chart

Channel	Transmit Frequency	Frequency Receive	QT/DQT
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

24

**One Year Limited Warranty**

**What this warranty covers**

IASUS Concepts Limited warrants that the UHF FM Transceiver sold by IASUS Concepts or its authorized agents are free from defects in materials and workmanship under normal use for one year. This warranty is only applicable to the original purchaser of the UHF FM Transceiver, when accompanied by a dated sales document receipt and the name of the company from which it was purchased. This warranty is in lieu of and excludes all other warranties, expressed or implied, including any implied warranty of merchantability or fitness, and of any other obligation on the part of IASUS Concepts Limited.

**What IASUS Concepts will do to correct warranty problems**

At our discretion, we will repair or replace the product. We may use functionally equivalent reconditioned/refurbished/pre-owned or new products or parts.

**To get warranty service**

Please contact our customer service department via our website. Once you have done so, you will



receive instructions on how to ship the products to IASUS Concepts or our designated resource. If instructed to ship the product, you must ship them with freight, duties, and insurance prepaid. Regardless of where you are instructed to ship your product, you must include:

\*A copy of your dated sales document receipt

\*A written description of the problem

\*Your name, address, and contact details

\*Payment for any services or repairs not covered by the warranty. This should have been predetermined with your customer service representative.

25

#### **RETAIN YOUR ORIGINAL PROOF OF PURCHASE**

For products we ask you to ship to us, we will ship repaired or replacement products at our expense for the freight and insurance, but at your expense for any duties.

#### **What this warranty does not cover**

\*Damage from improper operation, misuse, neglect such as dropping the product onto hard surfaces, contact with extreme humidity or heat, or acts of nature (lightning, floods, power surges etc)

\*Products that may have been tested, adjusted, installed, maintained, repaired or altered in any

way by persons not expressly approved by IASUS Concepts Limited. Any of these voids the warranty.

\*Rechargeable batteries that are charged by other than IASUS Concepts-approved battery charge specified for charging such batteries, have broken seals or show evidence of tampering, used in equipment other than the Product for which they were specified, or charge/stored at temperatures greater than 60 degrees centigrade. Any of these voids the warranty.

\*Coil cords that are stretched.

\*Products purchased more than 12 months from the current date.

26

\*Products that are not accompanied by a valid proof of purchase.

\*Leased Products

To Register for your warranty

Please visit

**[www.iasus-concepts.com/registration/htm](http://www.iasus-concepts.com/registration/htm)**

to register your product for warranty.

#### **Legal Information**

There is no informal dispute settlement mechanism available. This warranty gives you specific legal rights, and you may also have other rights, which vary geographically. Some areas do not allow

27

limitations on how long an implied warranty lasts and/or do not allow the exclusions or limitations or consequential damages, so the above limitations or exclusions may not apply to you. IASUS Concepts shall not be liable for any special or consequential damages or for loss or expense directly or indirectly arising from use of the product or in inability to use the product in combination with other equipment or from any other cause. IASUS Concepts reserves the right to make changes in the design of the product and to make additions or improvements to it without incurring any obligation to modify any products previously sold.