

# T-X

**ADVANCED 27 MHz  
PORTABLE CB  
TRANSCEIVER**

**OWNER'S MANUAL**



**THUNDERPOLE**



## **IMPORTANT !**

Never attempt to open the transceiver. No user serviceable parts inside. Internal modifications or tampering may cause damage to the product, modifying its technical specifications will void all warranty rights.

If service or repair is required, please go to an authorised service centre or specialised technician.

# **Index - Introduction - Contents of the box**

Index - Introduction - Contents of the box .....	1
Controls and operation .....	2 - 7
Frequency band selection / table .....	8
User Information .....	9
Specifications .....	10
Declaration of Conformity .....	11

## **NOTICE !**

Before using this transceiver, please check it has been programmed on the correct frequency band and operating mode allowed by the regulations valid in the country where the product is used. If not, please change the frequency band(see page 8).

**NOTE:** This transceiver is factory pre-programmed on the UK frequency band (UK 40CH FM 4W).

## **Congratulations!**

Congratulations for selecting and purchasing a quality THUNDERPOLE product.

This transceiver includes a number of advanced functions and systems, therefore it is important to carefully read this owner's manual before using the radio. With the correct use of this product in accordance with the operating method described in this manual, the product will offer trouble free use for many years.

THUNDERPOLE is constantly engaged in developing and providing quality products meeting the customers requirements, however any suggestions or comments on this product that might help us to improve quality are warmly welcome.

The THUNDERPOLE T-X is a CB transceiver using advanced hardware and software design, it includes a special multi-standard programmable circuit, which allows you to program the frequency band and operating mode in compliance with the regulations valid in the various European countries. Therefore this product can be used in any country of the European Community.

The radio is delivered factory pre-programmed on the UK frequency band (UK 40CH FM 4W).

## **Contents of the box**

Please check that all the following items are contained in the box :

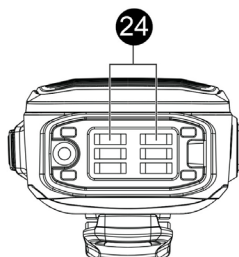
- Main Unit (Transceiver)
- USB-C Charging Cable
- USB Mains Charger
- BNC Antenna
- High Capacity Li-ion Battery
- Mounting Stud
- Adhesive Holder
- Belt Clip
- Printed Owner's manual

## Controls and operation

### Front and Side View



### Base View



## **Controls and operation**

### **1. Belt Clip**

Used to secure the radio to a belt.

### **2. Backlight Button**

A short press of this button illuminates the backlight for a few seconds.

A long press of this button disables the backlight, another long press enables it again.

### **3. Monitor Button**

A short press of this button puts the radio into 'Monitor Mode' which allows all signals (including white noise) to be heard, MON will appear on the display. Another short press turns off monitor mode.

### **4. BNC Antenna**

Always ensure this antenna is attached when using the radio, unless you are using the radio with the vehicle adaptor plugged into the base(24) in which case the top antenna MUST be removed.

### **5. PTT (Push-to-Talk) Button**

Transmitter button, press this button to transmit and release it to return to the receive mode.

### **6. Hi / Lo Power Button**

A long (3 second) press of this button will toggle the transmission power between High (4 Watts) and Low (1 Watt). Low power mode will prolong battery life but the transmission range will be shorter.

### **7. Channel Down Button**

A short press of this button will move the channel down by one.

A long press will allow you to scroll down the channels more quickly.

Please note: This button can also be used to change menu options.

### **8. VOX / Lock Button**

A short press of this button will toggle 'Vox Mode' on and off. In Vox Mode the radio will transmit automatically when a sound is picked up by the microphone (or accessory plugged into 16).

Note: Vox sensitivity can be changed from 1 - 5 in the menu (21).

A long press of this button will put the radio into 'Lock Mode', where the only usable button is the PTT Button (5). Another long press will exit 'Lock Mode'.

### **9. Channel 9/19 (Emergency) / Scan Button**

A short press of this button will change the channel to 9, short press again for channel 19, then again to go back to your chosen channel. Please note: Display will show 'EM' when on Emergency channel.

A long press of this button will toggle 'Scan Mode' and the channels will scan until a transmission is found. Channel Up (17) and Down (7) buttons can be used to change scan direction.

Please note: When in Scan Mode 'SC' will flash on the screen.

### **10. Mode / Band Button**

A short press of this button will switch between FM and AM (and EU Frequency when set to UK Band).

A long press of this button will allow you to change between frequency bands (see page 8 for bands).

### **11. Internal Microphone**

Talk into here when transmitting (unless using external microphone accessory).

### **12. Internal Speaker**

High quality speaker for listening to incoming signals (unless using external speaker accessory).

### **13. On / Off / Volume Control**

Use this knob to switch radio ON and OFF, as well as to adjust the receiver volume to the desired level.

### **14. Indicator LED**

Displays green when receiving a signal and red when transmitting a signal (or when radio is charging).

### **15. LCD Display**

Shows functions of the radio, see page 6 for more information.

### **16. Accessory Socket**

Compatible with 2 Pin (Kenwood wired) speaker and microphone accessories.

### **17. Channel UP Button**

A short press of this button will move the channel up by one.

A long press will allow you to scroll up the channels more quickly.

Please note: This button can also be used to change menu options.

### **18. SQ / ASQ (Squelch) Button**

A short press of this button allows you to change the squelch (SQ) or auto-squelch (ASQ) level using the Up / Down buttons (7 / 17). Lower levels allow weaker signals to be heard.

A long press of this button will toggle the 'Auto Squelch' function on (or off), this automatically silences receiver noise, avoiding squelch manual adjustment, when auto squelch is switched on 'ASQ' will be displayed on the screen.

#### **Squelch (SQ) Levels:**

0 = Squelch off (hear all signals and noise)

25 = Highest Squelch level (hear only the strongest signals)

#### **Auto Squelch (ASQ) Levels:**

1 = Lowest Auto Squelch level (hear weak signals but also maybe noise)

5 = Highest Auto Squelch level (hear no noise but only the strongest signals)

## Controls and operation

### 19. Dual Watch (DW) Button

This button allows you to monitor two channels at once. To use this function, choose the first channel you wish to monitor using the Up and Down buttons (7 and 17), then long press the DW button and when the channel number flashes select the second channel, long press the DW button to set the second channel. Now to monitor both channels short press the DW button. To stop DW function, short press DW again.

### 20. Noise Reduction Circuit (NRC) Button

A short press of this button switches on (or off) the Noise Reduction Circuit. This uses an advanced AI algorithm to extract human voices and cancel out background noise. When on NRC is displayed.

### 21. Menu Button

Short press this button to scroll through the menu options and use the Up/Down buttons (7 and 17) to change the selected menu option:

 **Keypad Tone** (on/off) - emits an audible tone when any button is pressed.

**VOX** (Level 1 to 5) When in VOX mode (8) this allows you to change the sensitivity of the VOX circuit. Level 1 is the most sensitive and a quiet voice will activate VOX, Level 5 is the least sensitive and a loud voice will be needed to activate the VOX.

 **Roger Beep** (on/off) - adds a tone to end of every transmission.

**HI / LO** (Power level) - switches the transmission power between High (4 Watts) and Low (1 Watt). Low power mode will prolong battery life but the transmission range will be shorter. Button (6) can also be used as a shortcut to change the power level.

**DISPLAY** (1 - 4) Choose between 4 different LCD layouts:



## Controls and operation

### 22. USB-C Charging Socket

Allows you to charge the Thunderpole T-X from a standard USB Type C charging cable. Indicator LED (14) will illuminate red whilst the battery is charging and go off to indicate when battery is fully charged. See page 7 for more details on charging your radio.

### 23. Mounting Stud

Allows you to mount the radio on a standard microphone holder, such as the included adhesive holder. Simply remove the belt clip (1) and screw the mounting stud into the back of the radio.

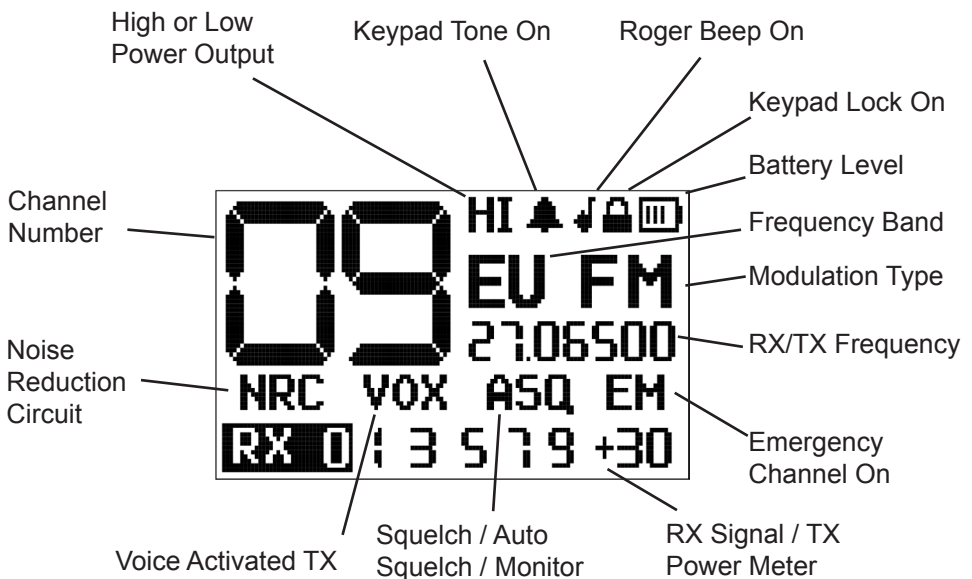
### 24. Vehicle Kit Interface

Allows you to attach the optional vehicle kit which powers (and charges) the radio from a 12v supply and allows use of an external antenna. This will provide a much wider range when used inside a vehicle.

**Please Note:** The BNC Antenna (4) MUST be removed when using the vehicle kit.

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## LCD Display





### **Charging the Battery**

- 1) Plug the supplied USB lead into the supplied mains adaptor (or suitable USB charger capable of supplying at least 1000mA at 5v DC).
- 2) Plug the small USB-C end into the charging socket on the side of the radio (22).
- 3) The charging indicator on top of the radio will light red, and if the radio is powered on the battery indicator on the screen will also show that the battery is charging.
- 4) To charge the battery fully will take approximately 3 - 4 hours and when the battery charging process is complete the indicator will go off to confirm the battery is fully charged.

Please Note: The battery can also be charged by using the optional 12v T-X Vehicle Kit or 12v/24v Vehicle USB adaptor.

**Mains USB Adaptor Input: 240v AC - Output: 5v DC @ 1000mA**

**Vehicle USB Adaptor Input: 12 - 24v DC - Output: 5v DC @ 1000mA**

**Vehicle Kit Input: 12v DC Only**

### **BATTERY INFORMATION!**

- **Do not dispose of battery in fire, also keep the battery away from fire**
- **Never attempt to disassemble the battery pack**
- **Do not directly connect (shortcircuit) the positive and negative terminals**
- **Only use suitable charger**

## ***Frequency band selection / table***

### **Frequency Band Selection / Programming**

This Thunderpole T-X CB radio must be programmed and exclusively used on a frequency band allowed in the country where the product is used (see below). To program a different frequency band, proceed as follows :

- 1) Long press the Mode / Band button (10) until the frequency band ID is flashing on the LCD
- 2) Use the Up / Down buttons (7 and 17) to choose the frequency band required (see table below)
- 3) To select the band short press the Mode / Band button (10).

### **UK/EU Channel Selection (Frequency Band “UK”)**

If the UK Frequency band has been selected, all 80 channels available for UK use can be accessed by short pressing the 'Mode / Band' button (10), this will change the band between UK(FM) -> EU(FM) -> EU(AM) frequency bands.

If the radio is programmed to a different band that allows AM/FM operation, this button will simply alternate between AM and FM mode.

### **Frequency Band Table**

8 programmable frequency bands are available, as per the below table :

<b>FREQUENCY BAND ID CODE</b>	<b>COUNTRY</b>	<b>SPECIFICATIONS (Channels, Operating Modes, TX Power)</b>
<b>UK</b>	<b>UK</b>	<b>40 FM UK CHANNELS 40 FM / AM EU CHANNELS</b>
<b>CE</b>	<b>EUROPE</b>	<b>40CH FM 4W</b>
<b>EU</b>	<b>EUROPE</b>	<b>40CH FM 4W - 40CH AM 4W</b>
<b>IN</b>	<b>EUROPE</b>	<b>27 CH AM / FM 4 W</b>
<b>DE</b>	<b>GERMANY</b>	<b>40CH FM / AM 4W 80CH FM 4W</b>
<b>I2</b>	<b>ITALY</b>	<b>34CH AM / FM 4W</b>
<b>IO</b>	<b>ITALY</b>	<b>40CH FM 4W - 40CH AM 4W</b>
<b>PL</b>	<b>POLAND</b>	<b>40CH FM 4W - 40CH AM 4W</b>

## User information

**Attention !** This radio has been pre-programmed on the UK frequency band (UK 40CH FM 4W) for use in the UK only. For use in other countries, please refer to the frequency band table on page 8.

### Information on the WEEE Directive 2012/19/EU

#### In the UK, European Union, Norway, Iceland and Liechtenstein:

The crossed bin symbol shown on the equipment and/or it's packaging indicates that this product shall not be treated as household waste. Instead it should be taken to an applicable collection point for the recycling of electrical and electronic equipment.



By ensuring this product is disposed of correctly, you will help prevent potential negative consequences to the environment and human health, which could otherwise be caused by inappropriate waste handling of this product.

The crossed-out wheeled bin symbol means that you are legally obliged to dispose of batteries or accumulators separately from unsorted municipal waste, i.e. that they must be disposed of separately from household waste.



This product complies with the REACH regulation EG 1907/2006 and does not contain any substances of the current candidate list according to art. 59 par. 1 of the regulation in an exceeded concentration of 0.1% by weight.

This product complies with the RoHS Directive 2011/65/EU and therefore does not contain any substances listed below in an exceeded concentration:

Lead - less than 0.1%

Mercury - less than 0.1%

Chromium (VI) - less than 0.1%

Cadmium - less than 0.01%

Flame-retardants - less than 0.1%

(These include Polybrominated biphenyls - PBB's and Polybrominated diphenyl ethers - PBDE's)

For more information on Waste Electrical, Electronic Equipment (WEEE) And Battery Recycling please visit...<https://www.thunderpole.co.uk/specialist-waste-and-recycling.html>

#### In Countries Outside the UK, European Union, Norway, Iceland and Liechtenstein:

If you wish to discard this product, including the batteries or accumulators, please contact your local authorities and ask for correct way of disposal.

## Specifications

### General

Channels	421 AM / FM (refer to the frequency bands table on page 8)
Frequency range	26.960 - 27.99125 MHz
Operating temperature	-20° - +60° Celsius
DC input voltage	7.4V±0.4V (Li-Ion Battery)
USB Charge input	5v DC @ 1000mA
Mains Adaptor voltage	240v AC
Battery Size	1800mAh
Size	70 (W) x 154 (H) x 42 (D) mm
Weight	356g (inc. batt & antenna)

### Receiver

Sensitivity	better than 0.25uv@12db
Audio output	1W at 8 ohm
Image rejection	70dB
Adjacent channel	60dB
Frequency Response	300-3000Hz
First IF frequency	10.7MHz
Second IF frequency	450KHz

### Transmitter

Frequency error	±300Hz
Maximum RF power	4W
Spurious transmissions	< 4nW (-54 dBm)
Adjacent channel rejection	60dB
Modulation	80% to 90% (AM)
Deviation	1.7KHz - 2.0 KHz (FM)
Impedance	50 ohm unbalanced
Current drain	1.3A Max

# Declaration of Conformity

EC Certificate of Conformity  
(to EC Directive 2014/53)

## DECLARATION OF CONFORMITY

With the present declaration, we certify that the following products :

### THUNDERPOLE T-X

comply with all the technical regulations applicable to the above mentioned products  
in accordance with the EC Directive 2014/53/EU (RED) and 2011/65/EU (RoHS)

Type of product :	Portable CB Transceiver
Details of applied standards :	EN 62368-1:2014 + A11:2017 EN 300 433 V2.1.1 EN 62311: 2020 EN 301 489-1 V2.2.3 EN 301 489-13 V1.2.1
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Northampton, 19/10/2022	Mr. Alan Crumpton (General Manager)



### NOTICE!

It is recommended to carefully read this owner's manual before using the product. This will also help the user to prevent using the radio in violation of the regulations valid in the country where the product is used, as well as to avoid any possible interference with other services.



**RoHS**  
COMPLIANT

