

# MULTI STANDARD PROGRAMMABLE 27 MHz CB MOBILE TRANSCEIVER

**OWNER'S MANUAL** 





# **Declaration of Conformity**

EC Certificate of Conformity (to EC Directive 2014/53/EU, 2011/65/EU)

### **DECLARATION OF CONFORMITY**

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

#### **THUNDERPOLE T-3000**

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

Type of product : CB Transceiver

Details of applied standards: EN 62311:2008

EN 300 433 V2.1.1 EN 301 489-1 V2.2.0 EN 301 489-13 V1.2.1

EN 60950-1:2006+A11:2009+A1:2010

+A12:2011+A2:2013

Manufacturer / Importer: THUNDERPOLE

1 Hartburn Close, Crow Lane Ind Est Northampton, NN3 9UE, England

Tel. +44 1604 402403

E-mail: mail@thunderpole.co.uk

Contact Reference : Alan Crumpton

Tel. +44 1604 402403

E-mail: mail@thunderpole.co.uk

Northampton, 31/01/2019 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.











## Index - Introduction - Contents of the box

dex - Introduction - Contents of the box	. 1
ntrols and operation	- 4
stallation	. 5
equency band selection / table	. 6
er Information	7
ecifications	. 8

## 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 6).

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 welcomed.

The THUNDERPOLE T-3000 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

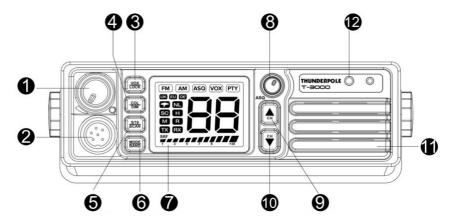
Please check that all the following items are contained in the box:

- Main unit (transceiver)
- DC power cord with fitted plug
- Condenser microphone
- DIN mounting bracket

- Dash mounting bracket
- Mounting accessories (DIN keys and side screws)
- Microphone bracket
- Owner's manual

# Controls and operation

### **Front Panel**



#### 1. 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. To adjust the receiver volume when no signals are being received on the operating channel, open the SQUELCH and then adjust the receiver volume using the background noise as a reference.

## 2. Microphone Connector

Connect the microphone to this connector and turn the connector ring to lock it.

#### 3. VOX / LOCK Button

A short press of this button enters VOX mode, in VOX mode the radio will transmit as soon as your voice is heard on any accessory plugged into the accessory socket (12). Short press again to exit VOX mode.

A long press of this button will enter LOCK mode and LC will be displayed on the screen temporarily, all button presses will be invalid whilst in this mode. To exit LOCK mode long press the button again, or turn the radio off and on again using the ON/OFF/VOLUME Control (1).

#### 4. COL / DIM Button

A short press of this button will change the colour of the LCD backlight, there are seven colours to choose from, to change through the colours keep short pressing the button.

A long press of this button will DIM the display by 50%, long press again to bring the brightness back to 100%.

#### 5. 9/19 / SCAN Button

A short press of this button will change the channel 9, short press again for channel 19 then again to go back to your chosen channel. PTY will be displayed when an emergency channel is selected.

A long press of this button will enter SCAN mode, in this mode the radio will scan until a transmission is found. To change direction of scanning use the Up and Down buttons (9+10). To exit SCAN mode long press again.

# Controls and operation

#### 6. MODE / BAND Button

A short press of this button whilst the radio is programmed to the UK frequency band will change the band between UK, EU(FM) and EU(AM) frequency bands. If the radio is programmed to a different band that allows AM/FM operation, this button will alternate between AM and FM mode.

A long press of this button will enter the band selection mode and the frequency band can be changed using the Up and Down Buttons (9 + 10). To select a band long press again, or short press the PTT button.

A table of frequency bands can be found on page 6.

### 7. LCD Display

Displays the function, channel, mode and band information and also shows the digital signal / power meter. To change the colour or brightness see COL / DIM Button on page 2.

#### 8. ASQ / Squelch Control

When this control is turned fully anti-clockwise (until it clicks) the radio enters ASQ (Auto Squelch) mode, this automatically silences receiver noise, avoiding squelch manual adjustment. As soon as a transmission is received the squelch should automatically open so you can hear it.

If you prefer to manually adjust the squelch level you can turn the control clockwise to exit ASQ mode and enter 'manual squelch' mode, then turn the knob clockwise until the background noise is cut. To listen to the weakest signals turn the knob counter clockwise in order to open the squelch.

When the squelch control is in manual squelch mode, ASQ mode can also be activated using the ASQ button on the microphone (18), see page 4.

#### 9. UP Button

When in normal operation this button increases the channel by 1, if held the channels will scan upwards until the button is released.

When in band selection mode (see page 2) this button allows you to change frequency band.

When in scan mode (see page 2) this button allows you to change the direction of scanning upwards.

#### 10. DOWN Button

When in normal operation this button decreases the channel by 1, if held the channels will scan downwards until the button is released.

When in band selection mode (see page 2) this button allows you to change frequency band.

When in scan mode (see page 2) this button allows you to change the direction of scanning downwards.

### 11. Front Speaker

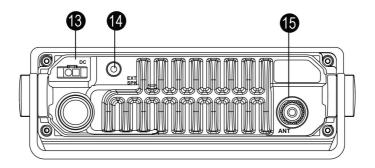
Audio is heard from this speaker by default, unless an extension is plugged into the back of the radio or an accessory is plugged into the accessory socket (12).

### 12. Accessory Socket

Allows the use of a 2-pin KENWOOD wired accessory, such as a hands-free headset. When an accessory is connected, the front speaker (11) will be muted and VOX mode can be enabled (see page 2)

# Controls and operation

## **Rear Panel**



#### 13. DC Power Socket

Power cord input for 12v (13.8v) or 24v connection.

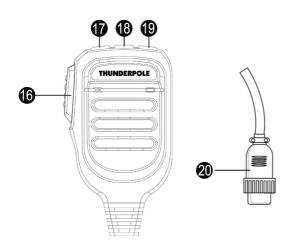
### 14. EXT (External Speaker) Jack

This 3.5mm jack is for connecting an external speaker (optional).

#### 15. Antenna Socket

Antenna connector. Refer to the section INSTALLATION OF THE ANTENNA (Page 5).

## Microphone



#### 16. PTT (Push-to-Talk) Button

Transmitter button. Press the PTT button to transmit and release it to return to the receive mode.

#### 17. Up Button

This button allows you to change the operating channel upwards.

### 18. ASQ Button

(See control (8) on radio - page 2)

### 19. Down Button

This button allows you to change the operating channel downwards.

#### 20. MICROPHONE Plug

6-pin microphone connector with locking ring. Connect it to the microphone connector (2) on the front panel of the radio.

## Vehicle Installation

#### Installation

Before installing the main unit in the vehicle, check and select the most convenient location, in order that the radio will be easy to reach and comfortable to operate, without obstructing any of the vehicles controls. The radio can be mounted using the standard bracket or DIN mounting cage. If mounted in a DIN slot in the vehicle the supplied release keys will need to be used to release the radio.

## Installation of the Main Unit

Before connecting the radio to the vehicles electric system, make sure that radio is switched off, with the ON/OFF/VOLUME (1) knob completely turned counter clockwise to the OFF position. Connect the DC power cable to the vehicles electric system, the radio can be powered from 12v or 24v DC.

#### Installation of the Antenna

A specific 27MHz CB antenna must be used. Please make sure to carefully install the antenna mount on the vehicle with a good connection to ground. Before connecting the antenna to the radio, it is necessary to check the antenna has a low standing wave ratio (S.W.R.), using an SWR meter. If not, the transmitter circuit of the radio could be damaged. The antenna should be installed on the highest part of the vehicle, free from obstacles and as far away as possible from any source of electric or electromagnetic noise. The RF antenna coaxial cable must not be damaged or pressed on its way between antenna and the radio. The correct operation of the antenna and low standing wave ratio (S.W.R.) must be checked periodically. Connect the RF antenna coaxial cable to the antenna connector (15), located on the rear side of the radio.

## **Checking Operation of the Radio**

Once the radio has been connected to the vehicles electric system and to the antenna, the correct operation of the system may be checked. Please proceed as follows:

- 1. Check that the power cable is correctly connected.
- 2. Check that the RF antenna coaxial cable is correctly connected.
- 3. Connect the microphone to the connector (2), located on the front of the radio.
- 4. Ensure the radio is in Manual squelch mode by rotating the SQUELCH Control (8) clockwise until it clicks into manual squelch mode.
- 5. Turn on the radio using the ON/OFF/VOL Control (1) and adjust the volume to the desired level.
- 6. Turn the SQUELCH Control (8) anti-clockwise until it clicks into the ASQ position, or if you prefer to set the squelch manually, turn it clockwise until the background noise is silenced.
- 7. Select the desired channel, using the UP and DOWN buttons (9 + 10) or (17 + 19) on microphone.
- 8. Press the PTT (19) key on microphone to transmit and release it to receive, or alternatively use the PTT button on your accessory plugged into socket (12).

# Frequency band selection / table

## Frequency Band Selection / Programming

Your Thunderpole T-3000 CB radio must be programmed and exclusively used on a frequency band allowed in the country where it is used (see below). When the radio is switched ON, the current programmed frequency band will be displayed on the LCD display (7). To program a different frequency band, proceed as follows:

- 1) Turn ON the radio using the ON/OFF/VOL Control (1).
- 2) Hold down the MODE / BAND Button (6) for approx 3 seconds to enter band selection mode.
- 3) Use the UP and Down buttons (9 + 10) or (17 + 19) on the microphone, to select the band.
- 4) Hold down the MODE / BAND Button (6) for approx 3 seconds to choose that band.

## 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(6). This will switch between the 40 UK FM channels, 40 EU FM and 40 EU AM(European) channels. It will change through the channels as follows:

UK FM 40 Channels > EU FM 40 Channels > EU AM 40 Channels

## **Frequency Band Table**

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

FREQUENCY BAND ID CODE	COUNTRY	SPECIFICATIONS (Channels, Operating Modes, TX Power)
EU	EU/FRANCE	40CH FM 4W / AM (EU)
CE	CEPT	40CH FM 4W (EU)
UK	UNITED KINGDOM	40CH FM UK + 40CH FM / AM EU (EU)
PL	POLAND	40CH AM / FM 4W POLISH FREQUENCIES
10	ITALY	40CH AM / FM 4W
12	ITALY	34CH AM / FM 4W
DE	GERMANY	40CH AM/ FM 4W
IN	GERMANY	27 CH AM/ FM 4W

## User information

**Attention!** This radio has been pre-programmed on the UK frequency band (UK 40CH FM 4W) which is for use in the UK only. For use in other countries, please refer to the frequency band table on page 6.

#### **User Information**

in accordance with art. 13 of the Legislative Decree of 25th July 2005, no. 15 "Implementation of Directives 2002/95/EC, 2002/96/EC and 2003/108/EC, relative to reduction of the use of hazardous substances in electrical and electronic equipment, in addition to waste disposal".



The crossed bin symbol shown on the equipment indicates that at the end of its working life the product must be collected separately from other waste.

The user must therefore take the above equipment to the appropriate differentiated collection centres for electronic and electro technical waste, or return it to the dealer when purchasing a new appliance of equivalent type, in a ratio of one to one.

Appropriate differentiated waste collection for subsequent recycling, treatment and environment-friendly disposal of the discarded equipment helps to prevent possible negative environmental and health effects and encourages recycling of the component materials of the equipment.

Illegal disposal of the product by the user will be punished by application of the administrative fines provided for by the legislative decree no. 22/1997 (article 50 and following of the legislative decree no. 22/1997).

## **IMPORTANT!**

Never attempt to open the cabinet of 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.

# **Specifications**

### General

Channels 80 AM / FM (refer to the frequency band table on page 6)

Frequency range 27 MHz Citizen Band

Frequency control P.L.L.

Operating temp. -10°/+60°C

DC input voltage 13.8 / 24V DC ±5% (Auto Switching) Size 187mm (W) x 56mm (H) x 85mm (D)

Weight 564 gr.

### Receiver

System Double conversion, CPU controlled super-heterodine

IF 1° 10.7 MHz / 2° 450 KHz

Sensitivity 0.5 $\mu$ V (AM), 0.25 $\mu$ V @12dB (FM)

Audio output 3W 8 ohm (10% distortion)

Audio distortion -<5% at 1 KHz

Image rejection 70dB

Adjacent channel more than 60dB

Signal/noise ratio 45dB

Current drain max 800mA (stand-by)

### **Transmitter**

System CPU controlled P.L.L. synthesizer

Maximum RF power 4W at 13.8Vdc/24Vdc 85% to 90% (AM)

 $\begin{array}{ll} \mbox{Modulation} & \mbox{2KHz} \pm 0.2 \mbox{ KHz} \mbox{ (FM)} \\ \mbox{Impedance} & \mbox{50 ohm unbalanced} \\ \end{array}$ 

Current drain max 1800mA

# Notes

