T-2000

MULTI STANDARD PROGRAMMABLE 27 MHz CB MOBILE TRANSCEIVER

OWNER'S MANUAL

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THUNDERPOLE

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-2000

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
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Northampton, 19/12/2018	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.

CE ⓘ CH RoHS COMPLIANT

Index - Introduction - Contents of the box

Index - Introduction - Contents of the box 1
Controls and operation . . . . . 2 - 4
Installation 5
Frequency band selection / table 6
User Information 7
Specifications 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 welcome.
The THUNDERPOLE T-2000 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).

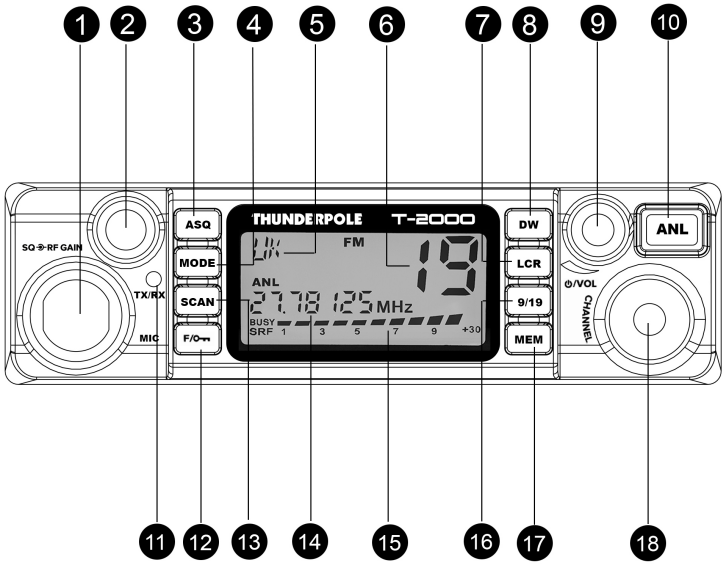
Contents of the box

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

- Main unit (transceiver)
- DC power cord with fuse holder and fuse
- Condenser microphone
- Car mounting bracket
- Car mounting bracket accessories (hardware, knobs, etc.)
- Microphone bracket
- Owner's manual

Controls and operation

Front Panel



1. Microphone Connector

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

2. Squelch Control (Inner)

The SQUELCH control allows you to silence the receiver by cutting out the background noise when no signals are being received. Turn the knob clockwise until the background noise is cut. Turn the knob counter clockwise (SQUELCH opening) in order to listen to the weakest signals

RF Gain Control (Outer)

This transceiver uses a high sensitivity and selectivity receiver circuit. The receiver gain is adjustable with the RF GAIN knob. By rotating the knob anticlockwise, the receiver gain is reduced. It is convenient to reduce the receiver gain in case of very strong signals from local stations.

3. ASQ Button (Automatic Squelch)

The ASQ function allows you to automatically silence the receiver, avoiding SQUELCH manual adjustment. To enable the ASQ function, press this button once, to disable it press it a second time.

Note: When ASQ is enabled ASQ will be displayed on the LCD display.

4. Mode Button

The Mode button allows you to change between AM and FM modes (on bands that allow both).

Note: When the unit is set to the UK band the Mode button switches between UK and EU bands.

5. Band Indicator

This transceiver can operate on a number of frequency bands (please see page ### for instructions on how to change band). This indicator displays the band the T-2000 is currently set to.

6. Channel Display

This shows the channel number the T-2000 is currenty working on.

7. LCR Button (LCD Colour)

This button changes the colour of the LCD display, there are 7 colours to choose from (or off).

8. DW (Dual Watch)

This button allows you to monitor two channels at once. To use this function, choose the first channel you wish to monitor using the Channel Selector (18), then press the DW button and select the second channel, then press the DW button a second time. The T-2000 will not monitor both channels until a signal is received.

9. 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.

10. ANL (Automatic Noise Limiter)

This button switches the automatic noise limiter on or off. This feature is helpful if the received signal is especially noisy.

11. TX/RX Indicator

This lights green when the radio is in receive mode, and red when the radio is in transmit mode.

12. Function / Keylock Button

Press this button for a few seconds until the keylock symbol appears on the display. When the radio is in keylock mode all buttons are disabled apart from the PTT button on the microphone. To disable keylock mode press and hold the button again until the keylock symbol dissapears.

13. Scan Button

Press this button to scan through all the channels on the the current frequency band until a transmission is found. When a transmission is found the radio will exit scan mode and go back to normal receive mode. If you want to stop scanning before a signal is found, simply press the scan button again.

14. Frequency Display

This is the current frequency of the selected channel.

15. S / RF Meter

This displays the strength of the transmitted or received signal.

16. 9 / 19 Button

This button gives you quick access to priority channel 9 or 19. By pressing this button the radio will scroll through channel 9, 19 and the selected channel.

17. MEM (Memory) Button

The T-2000 has 10 memory locations for you to save frequently used channels.

To program memory locations:

a) Select the channel to be stored with the channel selector (18) or up / down keys (23 + 25)
b) Press the MEM key (17) - 'ME' will blink in the display and the memory location will be displayed (1-10)
c) Choose the memory location (1-10) then press the MEM key (17) again to store the channel.

To recall memory locations:

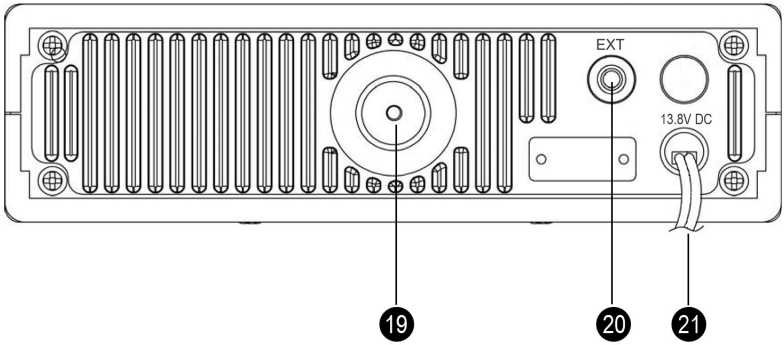
a) Press the F key (12) then the MEM key (17), 'RD' will be shown in the display.
b) Choose the memory location to be recalled, then press the MEM key (17)
c) The display will now show the recalled memory location and 'M' in the display.

Note: the channel number is not displayed, however the frequency of the stored channel can be seen.

18. Channel Selector Knob

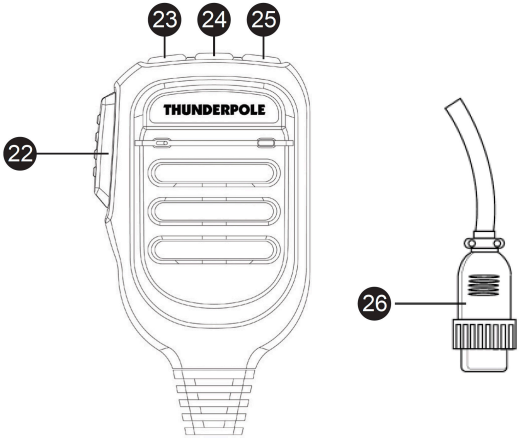
Use this to select the required channel when in normal use. Please note: you can also use this knob to select the operating band when in band selection mode, see page 6 for more information.

Rear Panel



19. Antenna Connector
Antenna connector. Refer to the section INSTALLATION OF THE ANTENNA (Page 5).
20. EXT (External Speaker) Jack
This 3.5mm jack is for connecting an external speaker (optional).
21. Power Cord
Power cord input for 12v (13.8v) or 24v connection.

Microphone



22. PTT (Push-to-Talk) Button
Transmitter button. Press the PTT button to transmit and release it to return to the receive mode.
23. Up Button
This button allows you to change the operating channel upwards.
24. ASQ Button
(See button 3 on radio - page 2)
25. Down Button
This button allows you to change the operating channel downwards.
26. MICROPHONE Plug
6-pin microphone connector with locking ring. Connect it to the microphone connector (1) on the front panel of the radio.

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. Use the supplied bracket and hardware to install the radio. The car mounting bracket can be installed over or below the radio and the radio may be inclined as desired(whether under dashboard or truck cabin roof installation).

Installation of the Main Unit
Before connecting the radio to the vehicles electric system, make sure that radio is switched off, with the OFF/VOLUME (9) knob completely turned counter clockwise at OFF position. The DC power cable (21) of the radio is complete with a fuse holder with fuse located on the red positive (+) wire. Connect the DC power cable to the vehicles electric system, with special attention to correct polarity. Connect the red wire to the positive (+) pole and the black wire to the negative (-) pole of the vehicles electric system. Make sure that the wires and terminals are firmly and stably connected, in order to prevent cables from disconnecting or causing short circuits.

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 correct operation of the antenna with 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 the low standing wave ratio (S.W.R.) must be checked periodically. Connect the RF antenna coaxial cable to the antenna connector (19), 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 (1), located on the front side of the radio.
4) Rotate the SQUELCH (2) knob counter clockwise.
5) Turn the radio on using the ON/OFF/VOL (9) knob and adjust the volume to the desired level.
6) Select the desired channel, using the channel selector (18) (or buttons 23 and 25 on mic).
7) Rotate the SQUELCH (2) knob clockwise, to cut the background noise.
8) Press the PTT (22) key to transmit and release it to receive.

Frequency band selection / table

Frequency Band Selection / Programming
This Thunderpole T-2000 CB radio must be programmed and exclusively used on a frequency band allowed in the country where the product is used (see below). When radio is switched ON, the current programmed frequency band will be displayed in the top left of the LCD display (5).
To program a different frequency band, proceed as follows :

1) Turn OFF the radio.
2) Whilst pressing the F(12) and MEM(17) buttons together, turn on the power using the ON/OFF/ VOLUME Control (9).
3) Use the Channel Selector(18) or UP and Down buttons (23 + 25) to select the band.
4) Turn the radio off and then on again, now the display will show the programmed band, and you will be working on the band you selected.

UK/CE Channel Selection (Frequency Band "UK")
If the UK Frequency band has been selected, all 80 channels available for UK use can be accessed by pressing the Mode Button(4). This will switch between the UK channels and CE (European) channels.

Note: To use AM on the European channels, follow instructions 1 to 4 above and choose EU band, then press the Mode Button(4) to switch to AM.

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)
UK	UK	40CH FM UK + 40CH FM EU (CE)
CE	CEPT	40CH FM 4W
EU	EU/FRANCE	40CH FM 4W - 40CH AM 4W
d2	GERMANY	40CH FM 4W
dE	GERMANY	80CH FM 4W
I2	ITALY	36CH AM / FM 4W
EI	SPAIN	40CH AM/ FM 4W
PL	POLAND	40CH AM / FM 4W POLISH FREQUENCIES

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	40 AM / FM (refer to the frequency band table on page 6)
Frequency range	27 MHz Citizen Band
Frequency control	P.L.L.
Operatine temperature	-10°/+55°C
DC input voltage	13.8 / 24V DC ±5% (Auto Switching)
Size	160 (W) x 44 (H) x 146 (D) mm
Weight	860 gr.

Receiver

System	Double conversion, CPU controlled super-heterodine
IF	1° 10.695 MHz / 2° 455 KHz
Sensitivity	0.5µV (AM), 0.25µV (FM)
Audio output	1.5W 8 ohm (10% distortion)
Audio distortion	-<5% at 1 KHz
Image rejection	65dB
Adjacent channel	more than 60dB
Signal/noise ratio	45dB
Current drain	220mA (stand-by)

Transmitter

System	CPU controlled P.L.L. synthesizer 4W at 13.8Vdc/24Vdc
Maximum RF power	85% to 90% (AM)
Modulation	2KHz ±0.2 KHz (FM)
Impedance	50 ohm unbalanced
Current drain	2000mA (no modulation)

Notes

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