

# KEY RADIO KM3000/4000 VHF RADIO

TVRG (Thames Valley Repeater Group) have a number of VHF Key Radio mobiles for sale. These are programmed for 2m frequencies as detailed in the separate document KM channel plan.pdf. These radios are all working prior to sale and are sold "as seen."

The basic specification is as follows:-

Power input:- 12VDC 6Amp max

Power output: 15W

Maximum of 256 channels, 182 in use. Set up for 12.5kHz channel spacing specification and the appropriate deviation.

A speaker microphone and mounting cradle are included. A power lead is available free with the first radios to be sold.

The radios are programmed to function as follows:-

## **FRONT PANEL CONTROLS**

On/Off (press) and volume control for the speaker microphone.

Microphone socket.

## **REAR PANEL**

PL259 type flying lead for the antenna.

Flying lead for power, terminating in a 2 pin connector.

Either a 15 Way Molex connector or RJ45 female, used for programming.

## **FRONT PANEL DISPLAY**

The display, which is backlit, displays the channel number and if the channel is simplex, the frequency or if the channel is a repeater channel, the callsign. The radio is programmed for all U.K. 2m analogue amateur repeaters as listed on the ETCC website in June 2022, together with simplex channels.

The lower line of the display gives an indication of the received signal strength. This is shown as "blocks" on the LHS of the display and a relative number indication on the RHS.

## **MICROPHONE CONTROLS**

LEFT/RIGHT arrows – change channels. If you press and hold either button, the channels will change quickly, stopping when the button is released.

END – stops/starts scan. Note: when a signal is detected the scan remains stopped for 10 seconds or less if the signal disappears and then resumes scanning. An "S" is displayed in the lower RHS of the display.

Some microphones may be labelled 1, 10, 100. 1 and 10 are Up/Down channels and 100 is Scan.

All the repeater channels are programmed with CTCSS encode and decode. This is because there are digital repeaters throughout the UK, and these will be annoying if the receive is not protected by CTCSS. If you want to disable the CTCSS decode, then press and hold the Scan button and at the same time briefly push the PTT. The radio will not transmit but will show "D" in the lower RHS of the display. Repeat this procedure to resume normal CTCSS decode operation.

#### **CHANNEL PROGRAMMING AND SCAN:**

The radio is capable of holding 256 channels.

The first 15 channels are programmed with simplex channels in use below 145MHz, including the APRS frequency. Channels 16 to 47 accord with the V numbers for simplex channels, i.e., V16 – V47. The remainder of the channels are repeater channels, terminating in the simplex ISS channel of 145.800MHz.

In order to provide a radio that can be used anywhere in the U.K., we have programmed every U.K. 2m analogue repeater as a separate channel with their specific CTCSS frequency. The repeaters are listed alphabetically by callsign, which is shown on the display.

To scan every repeater would take a long time and to minimise this the radios have been programmed as follows:-

It scans the most used simplex channels and one of each of the 16 repeater channels. These repeater channels have been chosen to be those in the central south eastern and south western areas of the country. This is because of where the radios are initially being sold. However, if you live outside these areas and see a repeater on one of those channels, you can disable the CTCSS decode and identify which repeater this is, and then move to that channel, which has been programmed. The chances are you that you will know your local repeaters and their frequencies.

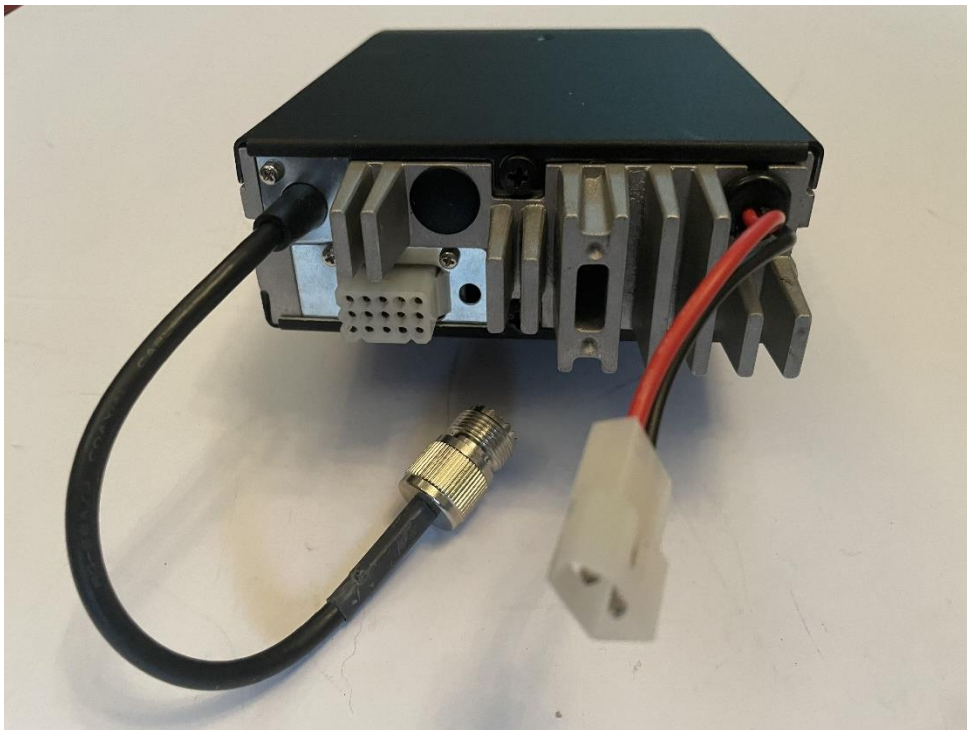
You can stop scanning by pressing any of the microphone buttons or PTT.

When the radio is switched off and on, it will return to the last used channel.

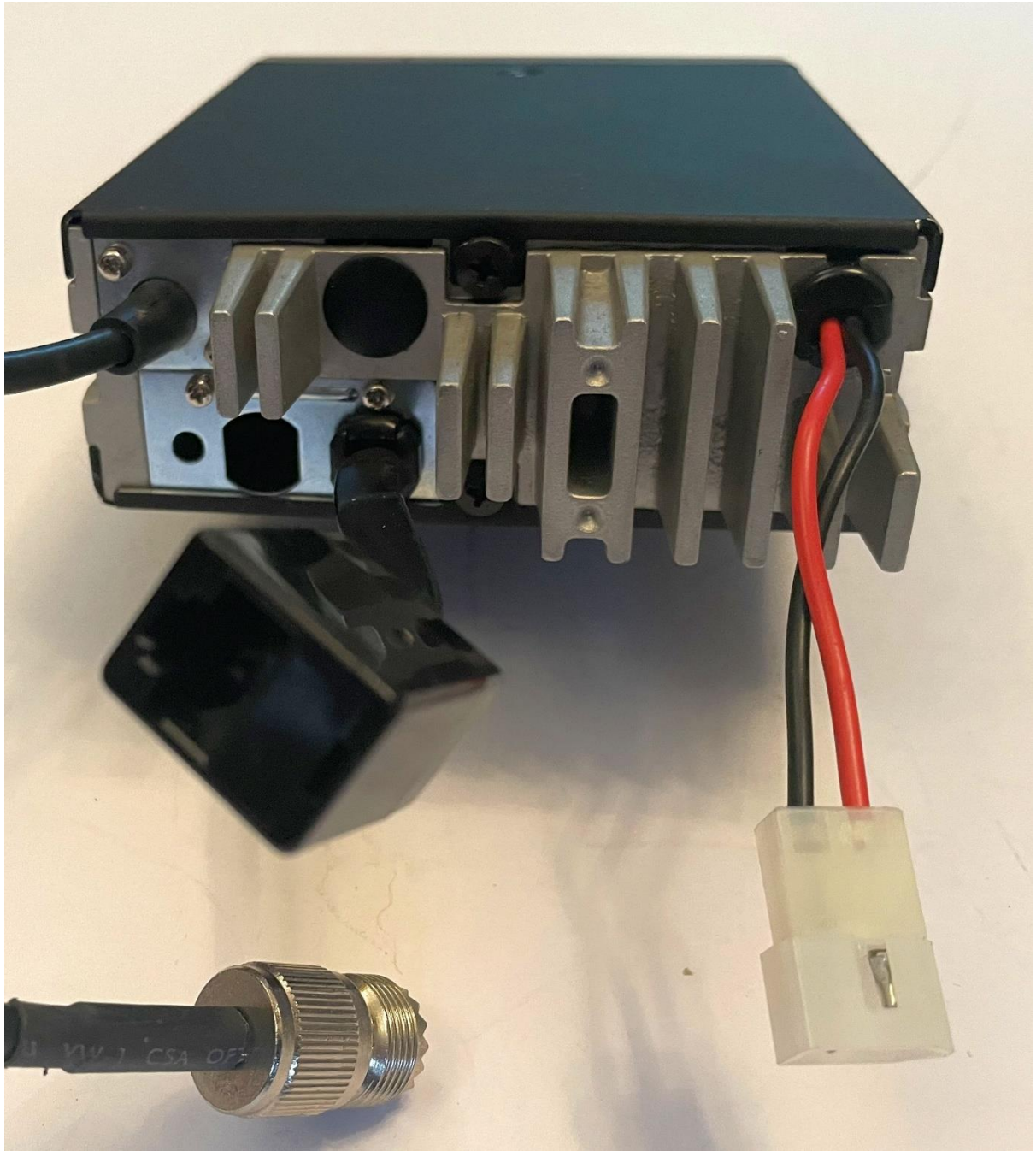
Photographs of the radio are on the following page.



**FRONT VIEW**

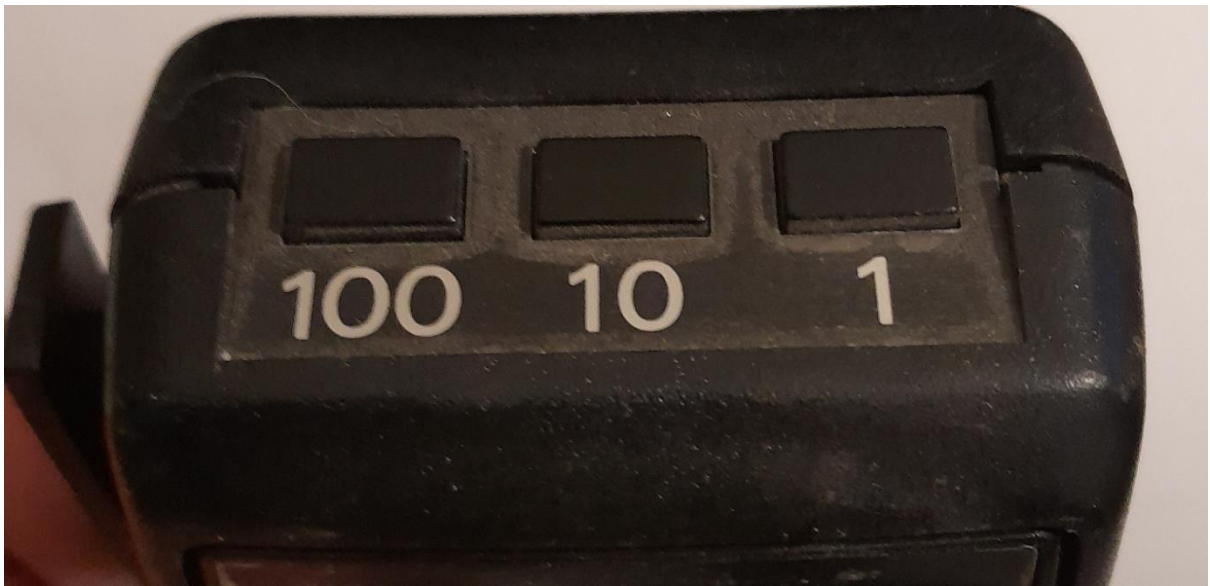


**BACK VIEW (MOLEX VERSION)**



**BACK VIEW (RJ45 VERSION)**





**MICROPHONE BUTTONS**