

Note 2:

KM3000/4000 programming notes

The radios sold by the TVRG all have similar features but there are two types of connector with regard to programming:-

KM3000/4000 with Molex connector

KM3000/4000 with RJ45 connector

The programming software is the same for both the KM3000 and the KM4000 types and is available free of charge from the Thames Valley Repeater Group website, which is www.tvrg.org.uk. It is also available on the Reading and District Amateur Radio Club website at www.radarc.org/tvrg.

NOTE:

There are two versions of the programming software, one called "Key Programmer 2022" and the other "Key Programmer 2023". If you have a radio that was bought in 2022 you will need to use the 2022 version and from June 2023 onwards use the 2023 version.

Most KM3000s have green PCB's, but there are some with yellow PCB's. Remove the bottom cover and look inside the radio to determine which type you have. When programming the radio use the relevant channel programme file named (GRN) or (YEL) as appropriate which is bundled in the zip file.

This will run on Windows 7, 8 10 and 11, possibly earlier versions.

You will need a programming lead with an appropriate connector

To program the radio you will need a computer with a RS232 serial COM port (most modern computers have only USB).

Therefore, you will probably need a USB to RS232 serial adaptor lead as well. These are easily available on EBay, Farnell and CPC's websites) for just a few pounds. It will not work with a USB to RS232c (TTL) dongle as the levels are not correct with TTL.

If you have a Molex connector radio, then you have two choices:

- a) You can make up a Molex 15 way to 9 pin D connector RS232 lead and then use a USB to RS232 serial adaptor lead. (*See TVRG Technical note 3*) for more detail.
- b) You can remove and replace the Molex 15 way socket at the back of the radio for a 9 way D connector wiring the pins 2, 3 and 5 to suit diagram "A" below. Then use a USB to RS232 serial adaptor lead.

TVRG has supplied at rallies a number of leads which are not programming leads as they stand. They are a source of the possibly difficult to obtain 15 way MOLEX connector. They will have either a RJ45 connector or 25 way D plugs and a Molex connector on the other. These can be used to make a programming lead.

Note: TVRG can now supply a new MOLEX 15 way plug and pins kit that will match the socket on the back of the radio. Go to www.tvrg.org.uk for current prices. (This is probably the best option to produce a programming lead with little effort).

If you have an RJ45 connector radio, then you have three choices:

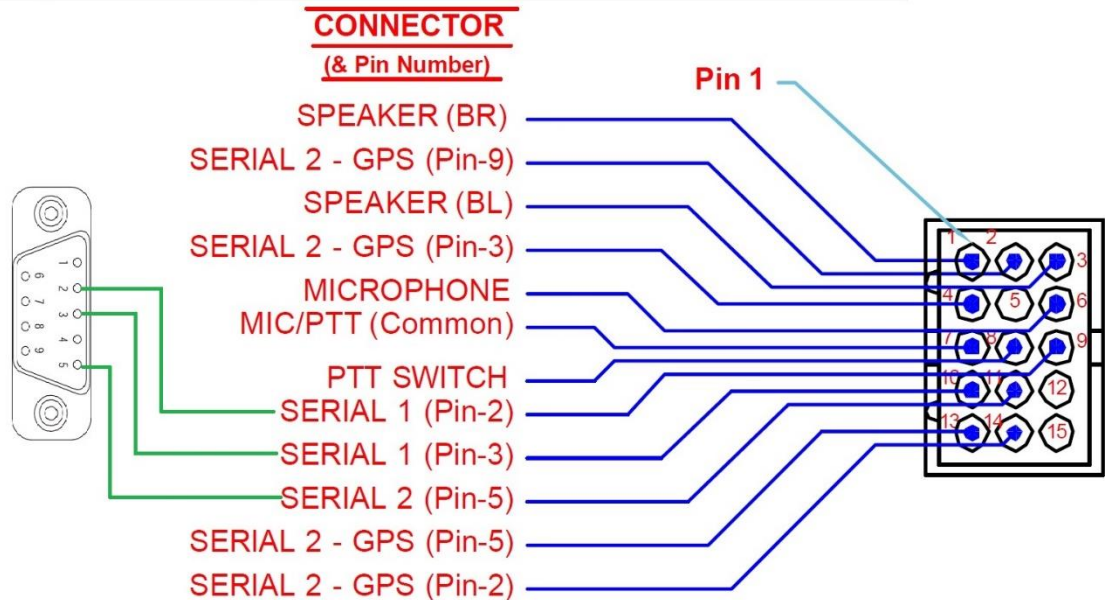
- a) You can use a 9 way D serial (RS232 to CAT 5 RJ45) connector. Then use a USB to RS232 serial adaptor lead. **(See TVRG Technical note 4)** for more detail.

- b) You can make up an RJ45 to 9 way D Type connector as shown in Diagram "B" below, use a back to back female RJ45 adapter. Then use a USB to RS232 serial adaptor lead.

- c) You can remove the RJ45 connector from the pigtail on the radio and wire a 9 way D Type connector onto the other end, wiring the pins 2, 3 and 5 to suit diagram "A" below then use a USB to RS232 serial adaptor lead.

Please note: **The software can only be used for programming channels into the radios**, the other features will not function correctly for the amateur version, which has specific firmware.

Diagrams are shown on the following pages.



KM3000 Molex (15-Pin) Connection Diagram

Diagram "A" above

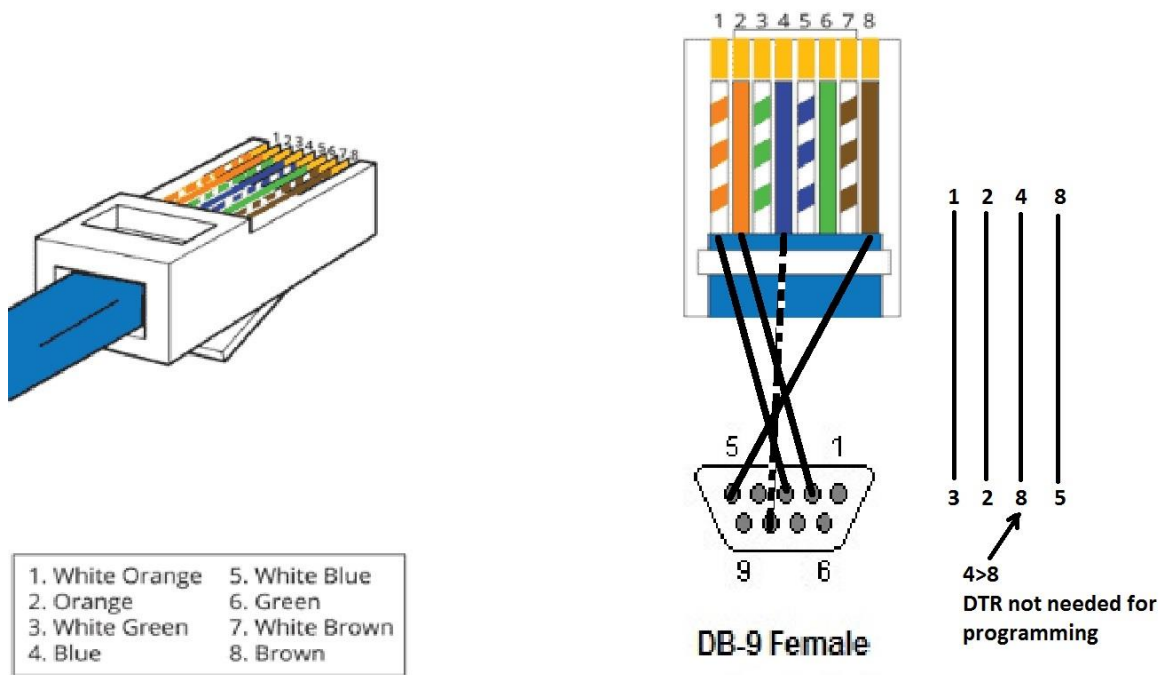


Diagram "B" above

Note 2_KM3000 4000 programming notes

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