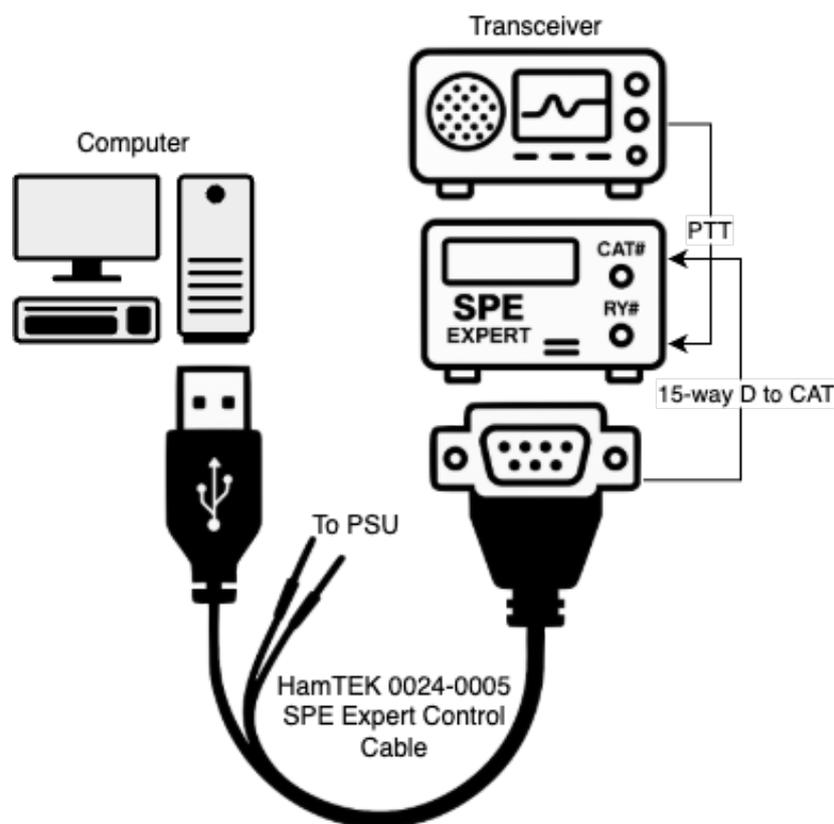


Thank you for purchasing HamTEK products. This guide describes how to use the 0024-0005 SPE Expert amplifier control lead and runs through configuring control software (Thetis) and an SPE Expert linear amplifier to communicate. When configured correctly the SPE Expert amplifier will automatically switch operating bands and tuning ranges (if an -FA tuner option is fitted). The control cable consists of a USB type A plug to connect to a computer and a 15-way D type mail plug to connect to the SPE expert linear amplifier CAT port (either CAT1 or CAT2). Flying leads are included to switch the SPE expert on and off using a 12 to 13.8V power supply.

Cable Connections



The USB plug on the 0024-0005 control cable must plug into a free USB port on the computer. A Serial COM port will be enumerated on the computer. The control software must be configured to use this COM port with 8N1 and the same Baud rate as set in the SPE expert amplifier. Optionally the 0024-0005 control cable power connections can be connected to the shack 13.8V power supply (RED+, BLACK-) to automatically switch the SPE linear amplifier on and off with the shack power. A recommended/tested configuration using Thetis software is shown below, although any control software can be used on any computer (Mac/Linux/Windows). **Please note that a separate PTT connection is required** from the transceiver to the SPE Expert amplifier. A suitable PTT lead may be available from the HamTEK Website <https://hamtek.co.uk>.

Configuring the SPE Expert Amplifier

Navigate the menu system (using SET and UP/DOWN arrows) to set the CAT type to KENWOOD and Baud rate to 38400 (38400 recommended or set any preferred rate if it's set to the same value in the control software) as follows:

```

    EXPERT 1.3K-FA
    Solid State
    Fully Automatic
    Standby

    IN | BAND | ANT | BNK | CAT | OUT | SWR | TEMP
    1 | 40m | 2 | B | KENWD | MID | --.-- | 29°C

    _____ SETUP OPTIONS vs. INPUT 1 _____
    CONFIG          DISPLAY          ALARMS LOG
    ANTENNA         BEEP             On     TUN ANT
    CAT             START           Stby  RX  ANT
    MANUAL TUNE    TEMP/FANS        EXIT

    _____ SET CAT INTERFACE FEATURES _____
    [↑][↓]:SELECT          [SET]:CONFIRM

    _____ SET CAT INTERFACE ON INPUT 1 _____
    NONE              YAESU          ELECRAFT
    ICOM              TEN-TEC        BAND DATA
    KENWOOD           FLEX-RADIO     EXIT

    _____ SET INTERFACE TYPE _____
    [↑][↓]:SELECT          [SET]:CONFIRM

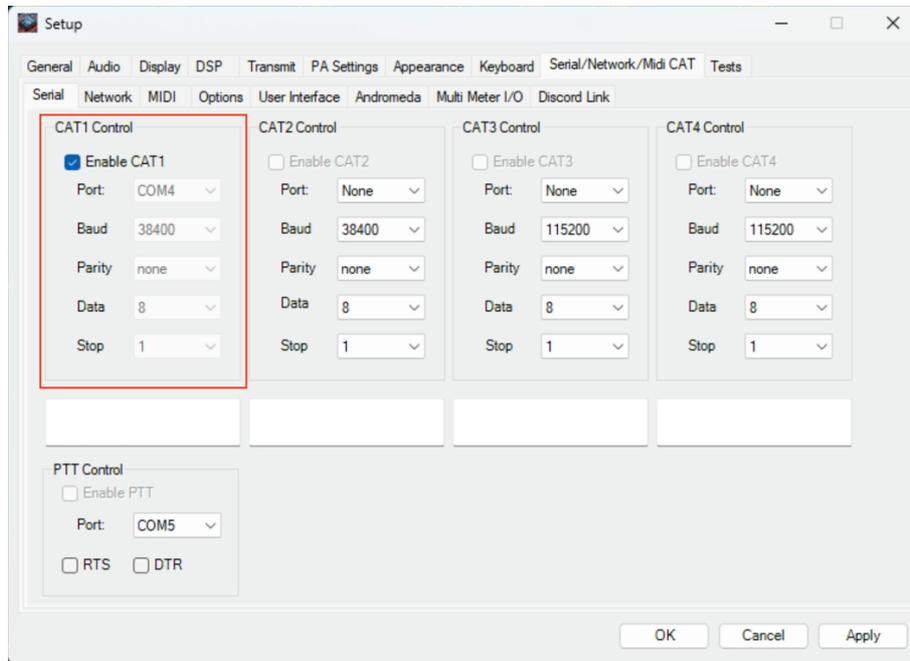
    _____ SET CAT BAUD-RATE ON INPUT 1 _____
    CAT : KENWOOD      |          1200          19200
    TYPE: ALL          |          2400          38400
                     |          4800          57600
                     |          9600          115200

    _____ SET PROPER BAUD RATE _____
    [↑][↓]:SELECT          [SET]:CONFIRM
    
```

Configuring Thetis SDR Software

Setup - Serial/Network/Midi CAT – Serial

Set the CAT1 Port number to the COM port enumerated when connecting the 0024-0005 cable to the PC USB port. Set the baud rate to 38400 (38400 recommended but it must be the same baud rate as the SPE amplifier), then check the Enable CAT1.



Setup - Serial/Network/Midi CAT – Options

Set the ID as a TS-480

