



## Changes to the Radio-Laptop stations by WB4EHG

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- ✚ **Pairing:** To decrease the time needed to configure and set up for contests and events, I have paired a laptop with each radio, they are treated as one unit.
  - They are not to be un-paired because doing so causes the Com port numbers to change requiring the software to be changed.
  - There is a label on each radio saying what laptop it is paired with and a label on each laptop saying what radio it is paired with.
- ✚ **RTSystems CAT cable:** I installed an RTSystems CAT (CI-V) USB cable in addition to the CAT/audio USB cable to each radio-laptop pair. This allows the logging program to be configured separately from the RTTY/PSK/FT-8 program. The "RTS" part of the label identifies that cable as being the CAT cable from RT Systems. All 3 of our radios use the same RTS cable but that does not guarantee that it will be assigned the same COM port number by Windows.
  - This cable is USB on the laptop side but is NOT USB on the radio side. On the radio it is a serial port similar to the old COM ports using a RS-232 connector,
  - At the radio the cable has cable is a 3.5mm connector and connects into the connector labeled "Remote" on the Icom radio.
  - This CAT (CI-V) cable port is assigned to the logging program so that the logger can read the band and mode from the radio and is not dependent on the applications software such as MMTTY and FT8 to get the band and mode.
    - That is mostly correct. If we are operating RTTY and the radio is in RTTY mode then the logger will read it correctly. If we are operating AFSK (Audio Frequency Shift Keying), then the radio is set to LSB mode and the operator has to edit the log to indicate mode is RTTY. On the air FSK and AFSK are identical. In FSK mode the radio sets it's receive



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filter bandwidth to two very narrow widths which makes it harder to tune in a RTTY signal. In AFSK the filter is not set that way.

✚ **Second USB connector:** Each Icom has a USB connector.

- The IC-7300 has a USB "B" connector using what used to be called the "Printer" USB cable. Properly it is a USB A-B cable.
- The IC-7100 has a USB "Mini" connector.
- In both cases, this connector has a virtual CAT (for PTT) and virtual Audio port. It will be used with RTTY/PSK (using MMTTY or similar), FT8, etc. for audio and PTT.

✚ **Each USB cable has a label that matches the label on the laptop's keyboard panel. Moving any USB cable to another USB connector causes the COM port numbers to change requiring the software to be changed.**

- The "RTS" part of the label identifies that cable as being the CAT cable from RT Systems. All 3 CAT cables are the same RTS part number **but that does not mean that they will be assigned the same COM port number by Windows on each laptop.**

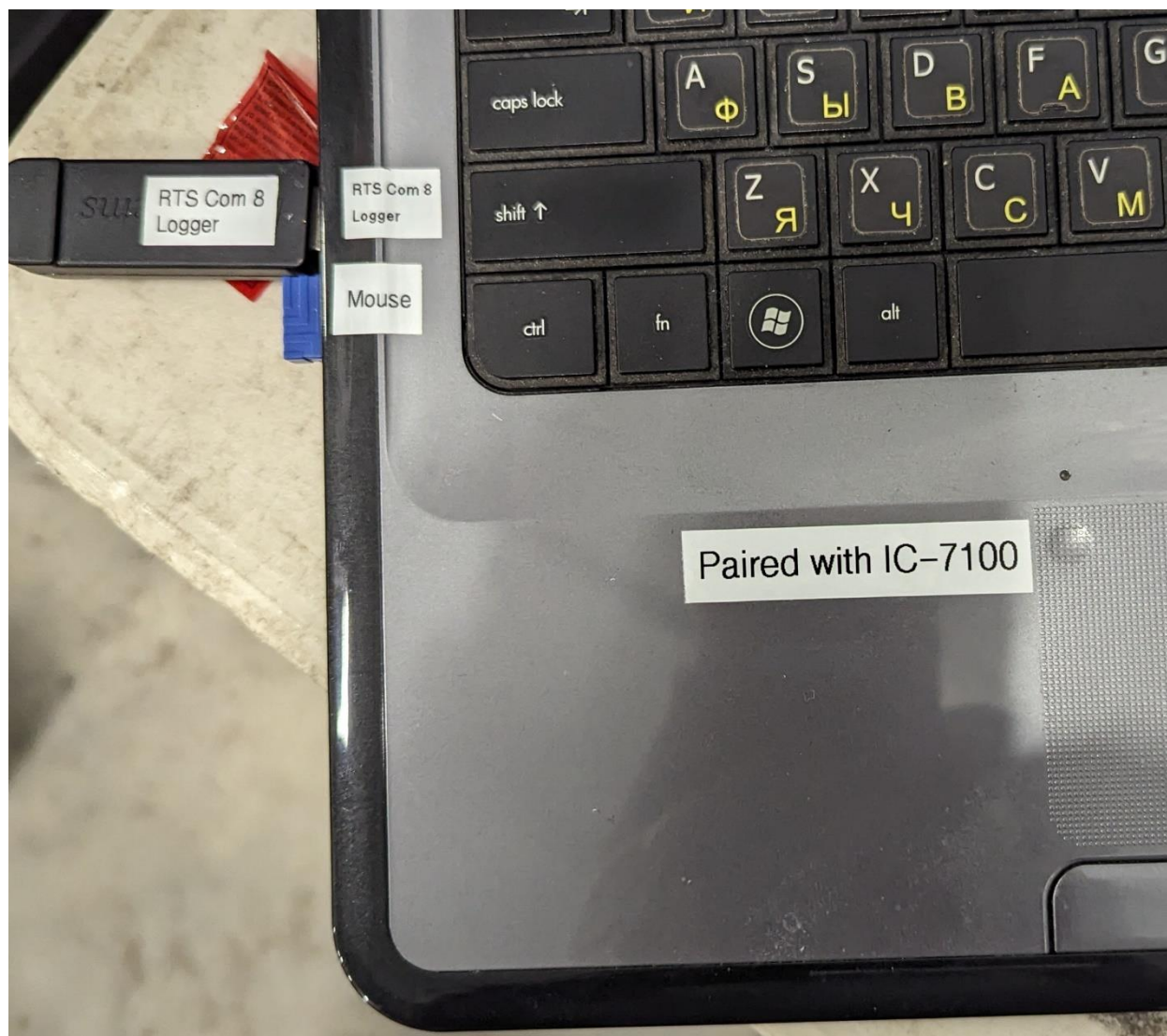
✚ The cables must remain in the designated USB connector on the laptop. Changing to a different USB connector causes the COM port numbers to change requiring the software to be changed.

- Refer to the photo below.



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