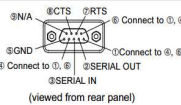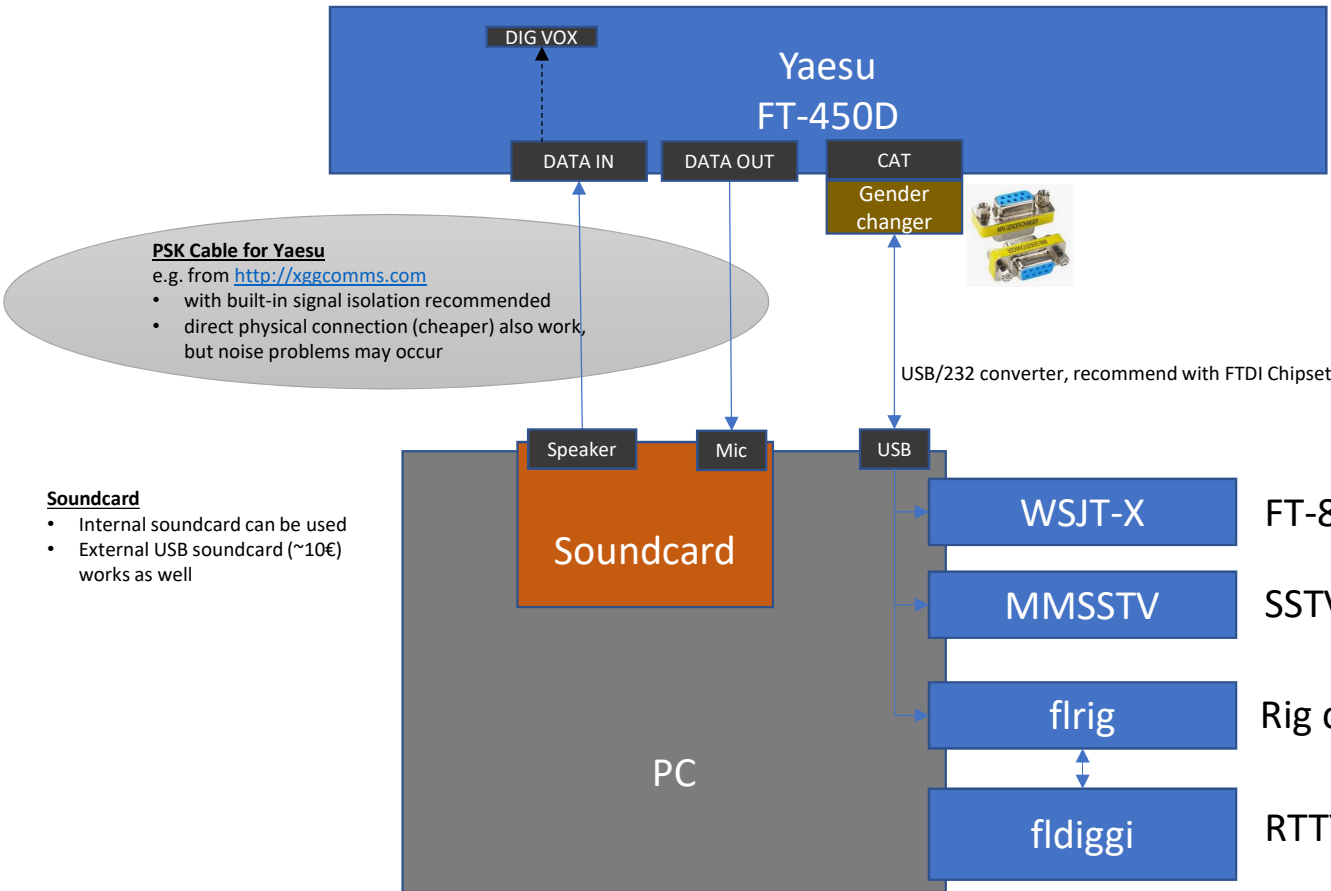# Setup for diggi modes with Yaesu FT-450D

DATA Jack
This 6-pin input/output jack provides receiver audio and squelch signals, and accepts transmit (AFSK) audio and PTT control, from an external packet TNC.

① DATA IN   ② GND
③ DATA PTT   ④ FSK IN
⑤DATA OUT   ⑥SQL OUT
(viewed from rear panel)

CAT Jack
This 9-pin serial DB-9 jack allows external computer control of the FT-450D. Connect a (straight) serial cable here and to the RS-232C COM port on your personal computer (no external interface is required).

②N/A ④CTS ⑦RTS ⑥ Connect to ①, ④
⑤GND ⑧①Connect to ④, ⑥
④ Connect to ①, ⑥ ②SERIAL OUT
③SERIAL IN
(viewed from rear panel)

PACKET SETUP (INCLUDING SUBCARRIER FREQUENCY)

Before operation can commence, change Menu Item "D TYPE" setting to "USER-L" (for LSB-Based Packet Operation) or "USER-U" (for USB-Based Packet Operation), to configure your radio for the data mode to be used.

BASIC SETUP

1. Press the [MODE▼]/[MODE▲] buttons several times to indicate both the "DATA" and "LSB" icons (for LSB-Based Packet) or the "DATA" and "USB" icons (for USB-Based Packet) on the display. Engage the Packet operation.
2. When the "transmit" command is received from the TNC, the transmitter of the **FT-450D** will automatically be engaged. Likewise, the command to return to receive will cause the radio to revert to the receive mode.

ADVICE:
☐ There is no adjustment of the DATA input level and DATA output level of the **DATA** jack on the rear panel; please make any needed level adjustments at the TU side.
☐ During Packet operation via the rear panel's **DATA** jack, the front panel **MIC** jack is cut off, so you won't have a "live microphone" problem during data operation.

NOTE:
If you anticipate making data transmissions of longer than a few minutes, we recommend that you reduce the transmitter power to 1/2 ~ 1/3 of its normal maximum via Menu Item "RFPOWER".

QUICK POINT:
DATA Jack Specifications
☐ DATA IN
  Input Level: 60 mVp-p
  Input Impedance: 600 Ohms
☐ DATA OUT
  Fixed level, does not respond to setting of [AF GAIN] or [SQL/RF GAIN] knob.
  Output Level: 500 mVp-p
  Output Impedance: 600 Ohms

Yaesu FT-450D

DIG VOX

DATA IN   DATA OUT   CAT
Gender changer

PSK Cable for Yaesu
e.g. from http://xggcomms.com
- with built-in signal isolation recommended
- direct physical connection (cheaper) also work, but noise problems may occur

USB/232 converter, recommend with FTDI Chipset

Speaker   Mic   USB

Soundcard
- Internal soundcard can be used
- External USB soundcard (~10€) works as well

Soundcard

PC

WSJT-X — FT-8
MMSSTV — SSTV
flrig — Rig control
fldiggi — RTTY / PSK/ …

Important Menue settings

CAT RTS	ENABLE
CATRATE	4800 / 9600 / 19200 / 38400
D Type	USER-U / USER-L
DIG VOX	1…100

DL9BU, 24. Feb 2020