

CatTouch

CatTouch is an accessory that allows you to see & set important transceiver settings. It uses a resistive touch screen that helps prevent accidental changes. Use the included stylus to make changes.

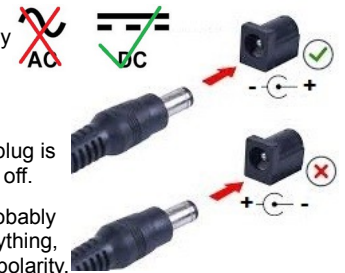
Compatibility

- TTL version works with FT-710 only.
- RS232 version works with FTdx10, FTdx101D, FTdx101MP, FT-991 & FT-991A.
- On all models, you must **make sure your Yaesu transceiver has the latest firmware** installed. In many cases, failure to do this will prevent CatTouch from working correctly.



DC Power

- The **RS232 version requires 7V to 35V DC at around 150mA** to operate. It has a standard 2.1mm DC jack that is wired center pin positive, an industry standard for many plug-packs (wall warts). It requires a power supply with a DC output that does not ramp the voltage up when turned on. If your power supply does ramp up, you may see a white screen until an internal timer kicks in and forces a reset (can take a minute). CatTouch also has DC screw terminals for bare wire connection. The circuit board is marked with + & -
- The **TTL version for FT-710 is powered by CAT** and does not use an external power supply. The CAT cable plug is keyed & only go into the sockets one way. The plug pins are fragile so do not force it or you will break the pins off.
- Once power is connected, turn on CatTouch (for FT-710 turn on the transceiver). The display will start up & probably report "No communication" until you have set up the CAT port on the transceiver. If the display fails to show anything, make sure the on/off pushbutton on the back has been pressed on. If still nothing, you may have reversed the polarity. There is diode protection built in so turn everything off and double check.



CAT Connection & Setup

On RS232 CatTouch, insert the CAT cable plug into CatTouch. Connect the other end to the transceiver RS232 CAT jack. For FT-710, the CAT cable plugs into the transceiver Linear/Tuner jack.

Transceiver	Setting	CAT location
FT-710	OPERATION SETTING → GENERAL → TUN/LIN PORT SELECT → CAT-3 OPERATION SETTING → GENERAL → CAT-3 RATE → 19200bps	 1 TTL CAT
FT-991 FT-991A	Menu 028 → GPS/232C → RS232C Menu 029 → 232C RATE → 19200bps	 5 RS232 CAT
FTdx10	OPERATION SETTING → GENERAL → 232C RATE → 19200bps	 10 RS232 CAT
FTdx101D FTdx101MP	OPERATION SETTING → GENERAL → TUNER SELECT → INT OPERATION SETTING → GENERAL → 232C RATE → 19200bps	 11 RS232 CAT

CatTouch Operation

Visit <https://www.catmeters.com/CatTouch-faq.html> for latest information & instructions on each CatTouch screen.

For the best experience, you should have the technical ability to upload & install updated firmware. The latest version is installed at time of shipping but there could have been a new release while in transit. So always check the bottom of the CatTouch product page at www.CatMeters.com for the latest version.

Important Notes

- You must use the provided resistive touch screen stylus which has a fine hard smooth tip that doesn't scratch. A soft stylus, used with capacitive touch screens, is no good and will not work.
- Only VFO A is used to show frequency, mode and other data.
- For transceivers with a sub receiver like FT-DX101, CatTouch shows the main receiver only.
- FT-991 GPS/CAT Jack cannot be used for GPS while CatTouch is connected. You can manually enter a location into the transceiver as outlined in the FT-991A Operating Manual.
- FTdx101D & FTdx101MP must be set to Internal Tuner for RS232 CAT to work.
- All meters are an indication only and may not be 100% accurate. The CFG page allows you to calibrate each meter to match your transceiver. TX Meters can also be erratic in non-carrier voice modes (SSB) due to the way CAT updates. On the CFG page you can increase the TX meter delay to help resolve this.
- If transceiver dial frequency changes after SWR test, go to transceiver CW setting and set CW FREQ DISPLAY > DIRECT FREQ.
- If the voltmeter is incorrect, adjust it on the CFG page.
- Time is taken from transceiver UTC (Zulu) time which you set up first in the transceiver. Then local time is calculated from the Offset you can adjust on CatTouch CFG page.
- There is no reset button or procedure. Updating firmware restores factory defaults & can be done as many times as you like.
- A firmware update overrides everything. You need to reapply any CFG settings (Zulu, 232C rate, meter offsets, Etc).
- You do not have to upload every sequential firmware version. You can skip firmware versions at any time. To update firmware, download the latest version from the bottom of the CatTouch product page. There is a video here <https://youtu.be/1abxZOfl2c>
- CatTouch uses older style SD cards (& micro cards with adapter). SD card must be SDSC or SDHC, 2GB/4GB/8GB/16GB, with FAT16 or FAT32 format only. It is used for:
 - firmware updates,
 - saving & restoring microphone settings
 - saving & restoring SWR tests
 - displaying JPG images (like awards & QSL cards)
- High RF fields may cause interference. If when transmitting, the display becomes corrupted in any way, this will most likely be due to high RF field which needs to be remedied. The most common cause is poor earth connection, high antenna SWR or very close proximity to the antenna or its feed line.
- CatTouch is a digital device that has an internal oscillator. Even though TDK EMI filters are used in its design, you may experience interference when in close proximity to some transceivers. It can be particularly noticeable if the transceiver has a poor earth or you are using an internal antenna in close proximity. In this instance, it may be necessary to add further RFI suppression techniques. A good article on this is "A Ham's Guide to RFI, Ferrites, Baluns, and Audio Interfacing" by Jim Brown K9YC.
- CatTouch enclosure is 3D printed using biodegradable PLA which is not suitable for direct sunlight or in hot cars. The enclosure STL file can be downloaded from the bottom of the CatTouch product page. You can use this to print your own ABS or PTEG case.
- The display is fragile and can be broken. Treat it with respect and do not place it in direct sunlight. Do not press hard on it, squash it, bang it, squeeze it or it will break.
- CatTouch was not designed for commercial, industrial or life saving purposes.

CatTouch is a closed source accessory designed, programmed & assembled by hand for the Amateur Radio community by ZL1CVD Chris Day, New Zealand. It is sold via my website or eBay listings.

Thank you for your custom...

...73s de Chris ZL1CVD