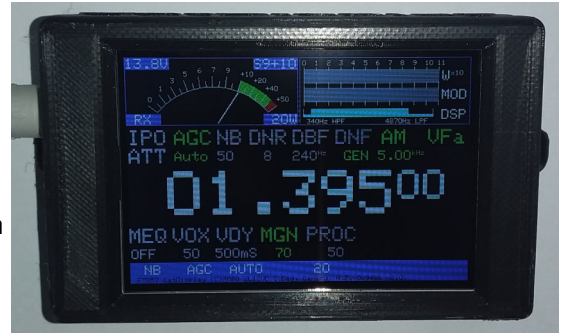


CatDisplay

Thank you for purchasing the original CatDisplay.

CatDisplay is an external screen that plugs into the transceiver CAT port. It is powered by the port, reads data from the transceiver, detects & decodes changes, then updates the display. CatDisplay reads information from the transceiver only. It does not write information to the transceiver and cannot be used to control the transceiver. Some changes you see on the transceiver screen or make with its keys and knobs, are not instantly updated in the transceivers EEPROM. In these cases, you will notice a delay in CatDisplay screen updates.



CatDisplay plugs into the Yaesu CAT port. It does not have a “pass-through” port so you cannot plug another device into it. If you wish to use another CAT connected device and CatDisplay, that device (e.g. tuner) must have a CAT “pass-through” port, it must operate at the same baud rate and it must correctly pass through all CAT commands. Many tuners only feature a rudimentary pass through port and do not interpret the actual traffic on the port. As a result they easily become confused & lock up. The FT-857& FT-897 do have a 2nd, independent microphone CAT port that can be used to combat this issue. FT-817 & FT-818 do not have the 2nd CAT port feature.

CatDisplay is proudly designed, programmed and marketed for Amateur Radio use by ZL1CVD Chris Day, New Zealand. It was not designed for commercial or life saving purposes.

Installation FT-817, FT-817ND & FT-818ND

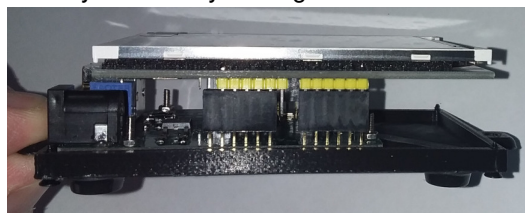
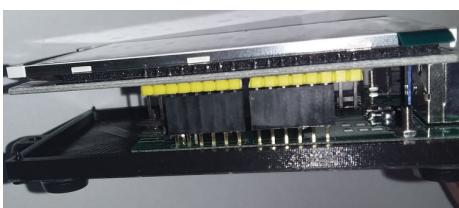
- **Set CAT speed** - On the transceiver, press and hold the FUNC button for one second. With extended menu activated, rotate the SEL knob to menu #014 “CAT RATE”. Rotate the main tuning knob *slowly* until the desired bps is shown (4800, 9600 or 38400). Press and hold the FUNC button for one second to save the setting.
- **Plug CatDisplay into CAT port** - The cable between CatDisplay and transceiver has fragile pins in its plugs. The plugs only go into the sockets one way. Do not force them or you will break the plug, socket or both. Once you plug the CatDisplay into the transceiver, it will automatically communicate and update.

Installation FT-857, FT-857D, FT-897 & FT-897D

- **Set CAT speed** - On the transceiver, press and hold the FUNC button for one second. With extended menu activated, rotate the SEL knob to menu #019 “CAT RATE”. Rotate the main tuning knob *slowly* until the desired bps is shown (4800, 9600 or 38400). Press and hold the FUNC button for one second to save the setting. The CAT speed is the same for both the rear and front microphone CAT ports.
- **If using the rear CAT port:** press and hold the FUNC button for one second. With extended menu activated, rotate the SEL knob to menu #020, “CAT/LIN/TUNER”. Rotate main tuning knob *slowly* until “CAT” selected. Press and hold the FUNC button for one second to save the setting.
If using the microphone CAT port: press and hold the FUNC button for one second. With extended menu activated, rotate the SEL knob to menu #059, “MIC SEL”. Rotate main tuning knob *slowly* until “CAT” selected. Press and hold the FUNC button for one second to save the setting.
- **Plug CatDisplay into CAT port.**
 The cable between CatDisplay and transceiver has fragile pins in its plugs. The plugs only go into the sockets one way. Do not force them or you will break the plug, socket or both. Once you plug the CatDisplay into the transceiver, it will automatically communicate and update.

How the display plugs in

Not all pins on the display are used. It is important to line up the display correctly as pictured. Pay careful attention to the Cat socket orientation. Be gentle with the display and try to always hold it by its edges!



Display Options



The display can be flipped or inverted.

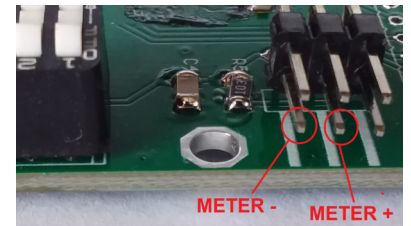
To make changes, turn off CatDisplay, remove the back cover, carefully unplug the display and turn the required switch on or off. Plug the display back in making sure it is correctly located. Reassemble and start the display for changes to apply.

- **SW1 – HUD**
This will invert the display & allows you to see the display in a mirror or other shiny surface. This technique is used for Heads Up Display (HUD) in aircraft, cars, Etc. It could be an option for mounting the CatDisplay at the rear of go-kit. An angled mirror or reflective perspex would be added to view the display.
- **SW2 – FLIP**
This flips the screen so you can change which side the cables enter the case - from right or left.
- **SW3 – 60m Band**
Switch on to disable 60m band on FT817 & older FT857
- **SW3 - Not Used**
This switch is not used and has no effect

External S-Meter

An external analogue small signal S-Meter can be connected to the display.

- The reported signal strength from the transceiver is available as a PWM signal from 0 to 5V on the meter + pin indicated.
- To smooth meter action, add a 0.1uF to 4.7uF capacitor.
- AGC speed also effects meter action.
- To drive a uA or mA meter, add a variable resistor in series (10k, 100k, Etc) & this will allow you to adjust the meter range.
- The meter drive pin connects directly to the display micro-controller. Do not short it out or apply a voltage to it or damage may occur.



Important Notes (All Models)

- **You transceiver must be in VFO mode. Memory mode does not work with CatDisplay and if the transceiver is in this mode, the display will not be incorrect.**
- The display is fragile and can be broken. Treat it with respect and do not place it in direct sunlight. Do not press directly on it, squash it, squeeze it or it will break.
- High RF fields may cause interference.
- Voltage adjust trimmer is at one end between power switch & Cat so you to calibrate the displayed voltage.
- **FT-817 & FT-818 - S-Meter > S9+60dBm:** With any signal above S9+60dBm, S Meter will return to zero. This appears to be a Yaesu program bug.
- **FT-817 & FT-818 - CatDisplay Always On:** The power button on FT-817 & FT-818 does not turn off the CAT port 13.8V. Therefore the display will not turn off when the transceiver is turned off.
- **FT-857 & FT-897 - Transverter Display:** CatDisplay does not show any transverter offset loaded into menu options 089 or 090.
- **Menu & Sub-menu (all models):** menu and sub-menu will not update on CatDisplay until you press and hold the F button for 1 second. Once pressed, the information is written to EEPROM. In some cases, the EEPROM is not updated until a band or mode is changed. This is the nature of Yaesu programming and not a fault of CatDisplay.
- **2x CatDisplay (FT-857 or FT-897):** The CPU in FT-857 & FT-897 is not fast enough to support two CatDisplay's
- **SD Card Slot on display (all models):** The micro SD Card slot on the display is not used.

Thank you for your custom...

...73s de Chris ZL1CVD