BlueCAT

Yaesu FT-8x7

Operating Manual

Introduction

Please note BlueCAT is designed for Android and PC/Mac's. Due to restrictions by Apple BlueCAT will NOT work with Apple iPhones/iPads.

Thank you for purchasing your new BlueCat module. We hope you enjoy many years of service. Please read the following instructions to help you get the most from your BlueCAT. For any questions not answered below, please visit http://www.zbm2.com/ for further assistance.

Overview

BlueCAT is an interface device, which allows you to connect the CAT (Computer Aided Transceiver) port of your radio, wirelessly, to Bluetooth enabled devices. It replaces the serial cable (for example YAESU CT62) you may have used to connect to your laptop, and provides new connectivity options, for mobile phones and tablet computers.

BlueCAT was developed to allow the RepeaterBook app for **Android** to connect wirelessly to a FT8x7 radio, allowing a simple touch of a repeaters entry to instantly setup the radio for that repeater.

However, it has proved versatile, and can also be used to wirelessly connect a FT8x7 to laptop computers (with Bluetooth) running many types of logging and computer control software.

Please check the website http://www.zbm2.com/ for a current list of supported devices and applications, and Google Play to download the latest version of the RepeaterBook app.

Physical specifications

Dimensions:

> 60x35x15mm (excluding cable)
> Cable 45 cm long

Electrical:

> Supply voltage – Derived from Radio, no external power required.
> Standby Current 7mA
> Working Current (only whilst communicating) 25-70mA

Radio:

> Bluetooth Class 2, 2.402-2.480 GHz, 2.5mW, ~10m range

Interface:

> Yaesu CAT port, 8 pin mini-DIN, 38400 Baud*

Operating environment:

> -5°C to +55°C, 5% to 95% humidity (non-condensing)
> Sealed to IP42 – Use indoors only, protect from rain

Compatibility:

> BlueCAT connects to the CAT port of your Yeasu FT-817, FT-857 or
> FT-897. If you have purchased the 4800 Baud option, it will also
> connect to the 'Computer' (CAT pass-through) port of an
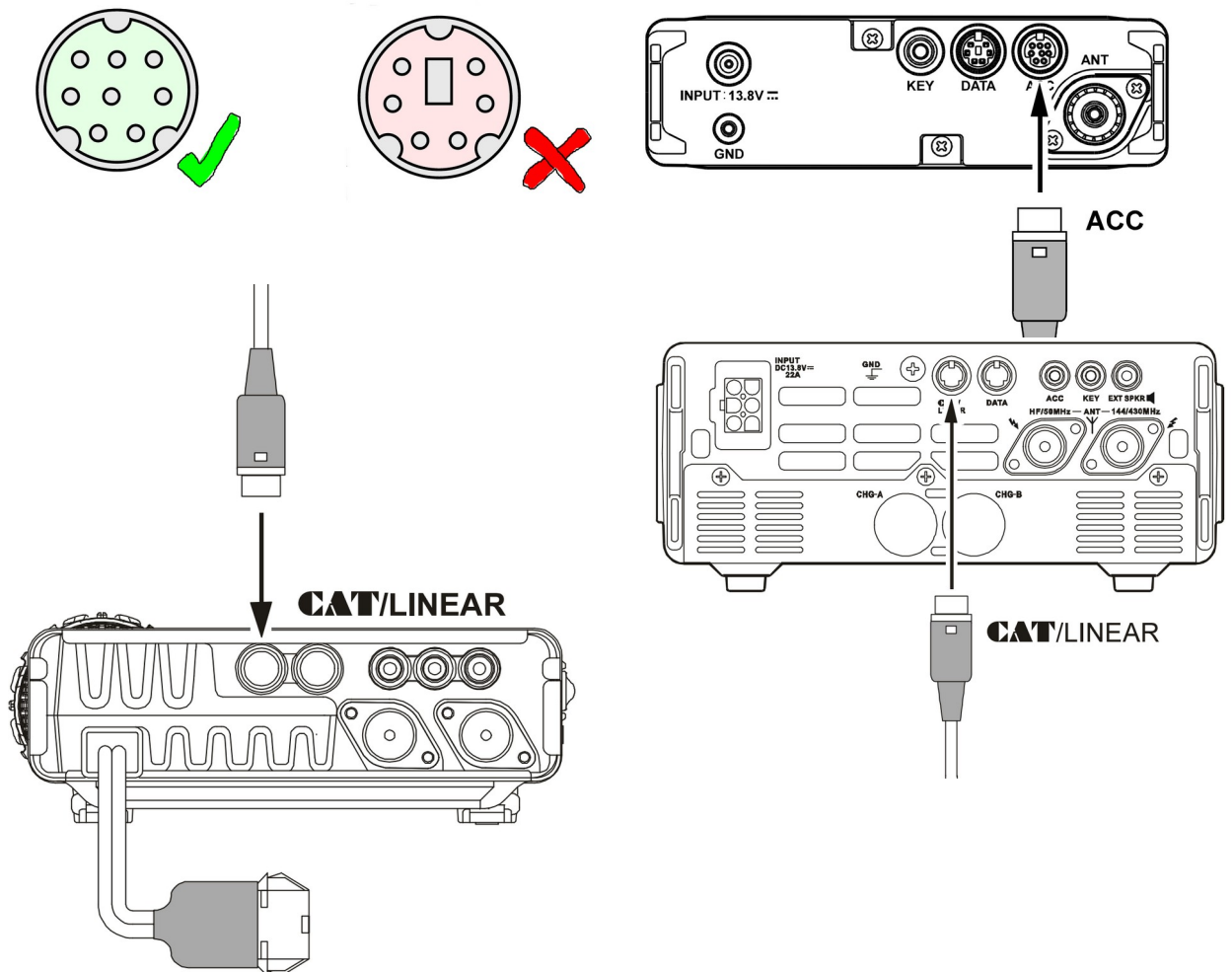> LDG YT100 Autotuner.

*(4800 baud optional)

Setup

Please read through these instructions before setting up.

Please switch your radio OFF

Locate the ACC/CAT port on the rear of your radio.
It is an **8 pin** Mini-DIN socket. Carefully line up the plug of the BlueCAT, and insert. Do not force the plug in, as this may damage it, and your radio. Do not twist the plug! Please check carefully that you are connecting to the correct socket.

If you are unsure as to the location of your CAT port, please consult your radio owner's manual. If you purchased the 4800 baud option, and wish to use BlueCAT with an LDG YT100 Autotuner, please connect BlueCAT to the port marked 'Computer' on the YT100, and connect the YT100 as normal.
Switch your radio ON

For the FT-817

Select menu 14 [CAT RATE]

This sets the transceiver's circuitry for the CAT baud rate.

Options available are 4800/9600/38400 bps

Set it to 38400 bps.

> *N.B. If you purchased the 4800 baud option, set it to 4800bps*

For the FT-857 and FT-897

Select menu 020, [CAT/LIN/TUN]

This selects the device which is connected to the CAT/LINEAR jack on the rear panel.

Options available are CAT/LINEAR/TUNER

Set it to CAT

Select menu 019 [CAT RATE]

This sets the transceiver's circuitry for the CAT baud rate to be used.

Options available are 4800 bps/9600 bps/38400 bps

Set it to 38400 bps.

> *N.B. If you purchased the 4800 baud option, set it to 4800bps*

Select menu 059 [MIC Sel]

Options available are NOR/CAT/RMT used.

Set it to NOR.

Select menu 085 [Tuner/ATAS]

Options available are Tuner/ATAS/OFF

Set it to OFF.

The BlueCAT should now be showing a flashing light, and you are ready to proceed to the next step.

Connecting

When you first switch on you radio, the indicator light inside BlueCat will flash. Once a Bluetooth connection has been made to the unit (pairing) this light will stay permanently lit or change pattern. This shows that the unit has successfully connected to your bluetooth enabled device (Laptop, phone etc.). This is analogous to correctly connecting a CT62 RS232 Cable - the basic link is in place, and that's half the job done.

Once this connection is established, you must instruct your device to contact the radio using the CAT Data Protocol.

For Android Mobile Phones running the RepeaterBook app:

Start the RepeaterBook app
Press menu (Top right)
Select 'Settings' and scroll down to BlueCAT Configuration
Select 'Radio' then chose your Yaesu radio from the list.
Return to the main app screen (Back button)
Press menu (Top right)
Select BlueCat from the menu
Select 'Connect'
Select 'Scan for BlueCAT'
Select your BlueCAT from the list of devices
Enter the PIN 1234 (If requested)
When connected the titlebar will change to a blue background
Now you can just touch a Repeater and your radio will be set.
Once everything has been successfully connected you can select '
Auto Connect' from settings and the phone will automatically
attempt to reconnect to your radio when it app starts.

Troubleshooting

For the latest updates, help and information, visit http://www.zbm2.com/

Problem	Possible Cause	Solution
BlueCAT does not light up, no response	No power	Ensure Radio is supplied with correct operating power, as specified by manufacturer.
	Radio switched off	Switch Radio ON before attempting to use BlueCAT.
Message asking for PIN shows on device	Request to pair device with BlueCAT	Enter the PIN 1234
Unable to pair with BlueCAT	Pairing process has times out after a couple of minutes	Switch BlueCAT off and back on and try connecting again.
	Not connected	Ensure plug is fully inserted into correct port.
	Broken pins	Check plug for broken pins, contact service centre.
	Blown internal fuse in radio	Check voltages at CAT socket, contact radio service centre.
BlueCAT light flashes, no response	Out of range	Move the device you wish to connect closer to BlueCAT. BlueCAT should work up to ~10m.
	Signal blocked	Remove RF blocking obstructions between BlueCat and device you wish to connect.
	Signal corrupted	Remove sources of interference. BlueCAT operates between 2.402-2.480 GHz.
BlueCAT light steady, but no communication	Radio CAT baud rate incorrect	Check baud rate setting matches your unit. 38400bps, unless optional 4800bps unit purchased.
	No request for Bluetooth PIN number is displayed	Pair BlueCAT for the first time using the phone's Bluetooth options.
	CAT/LIN/TUN incorrect	Ensure CAT is selected in menu 020
	Connecting device settings incorrect	Check the baud rate of the device you wish to connect matches the setting on your radio and unit. 38400bps, unless optional 4800 unit purchased.
Yaesu Radio	Incorrect radio	In the app settings ensure you have

displays key lock symbol	selected	selected the correct radio. Manually clear the display lock.

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