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 CIV (Communications Interface-V) port of your ICOM radio, wirelessly, to Bluetooth enabled devices. It replaces the serial cable (for example the ICOM CT17) 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 ‘Repeater’ and ‘RepeaterBook’ apps for Android to connect wirelessly to selected ICOM radios, 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 selected ICOM radios 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 to download the latest software.
Physical specifications

Dimensions:
- 60x35x15mm (excluding cable)
- Cable 45 cm long

Electrical:
- Supply voltage – Derived from Radio via 13 PIN ACC plug, no external power connection 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:
- ICOM CIV port, 3.5mm mono jack plug, 19200 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 ICOM connects to the CIV port (for data) and 13 PIN ACC port (for power) of your ICOM radio. It has been tested with the following ICOM radios -
  - IC-7000
  - IC-7100
  - IC-9100
Setup

Please read through these instructions before setting up.

**Please switch your radio OFF**

Locate the CIV socket on the rear of your radio.

It is a **3.5mm jack plug socket**. Carefully line up the 3.5mm plug of the BlueCAT, and insert. Do not force the plug in, as this may damage it, and your radio. Please check carefully that you are connecting to the correct socket and the plug is fully inserted.

If you are unsure as to the location of the CIV port, please consult your radio owner's manual.

Locate the ACC (ACCESSORY) socket on the rear of your radio.

It is a **13 pin plug socket**. Carefully line up the 13 pin plug of the BlueCAT, ensuring it is correctly orientated, and insert. Do not force the plug in, as this may damage it, and your radio. Please check carefully that you are connecting to the correct socket and the plug is fully inserted.

If you are unsure as to the location of the ACC port, please consult your radio owner's manual.

**Switch your radio ON**

For the IC-7000

**Select menu 48 [Baud]**
This sets the radios Baud rate.

*Set it to 'Auto' or '9600'*

**Select menu 49 [CIV ADDRESS]**
This sets the radios address.

*Set it to 70H*

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 your 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. This shows that the unit has successfully connected to your Bluetooth enabled device (Laptop, phone etc.). This is analogous to correctly connecting a CT17 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 BlueCAT CIV connection.

For Android Mobile Phones running the Repeater or RepeaterBook apps:

Start the Repeater or RepeaterBook app
Press your menu button
Select 'Settings' and scroll down to BlueCAT Configuration
Select 'Radio' then choose your ICOM radio from the list.
Return to the main app screen (Back button)
Press your menu button
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/
<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>BlueCAT does not light up, no response</td>
<td>No power</td>
<td>Ensure Radio is supplied with correct operating power, as specified by manufacturer.</td>
</tr>
<tr>
<td></td>
<td>Radio switched off</td>
<td>Switch Radio ON before attempting to use BlueCAT.</td>
</tr>
<tr>
<td>Message asking for PIN shows on device</td>
<td>Request to pair device with BlueCAT</td>
<td>Enter the PIN 1234</td>
</tr>
<tr>
<td>Unable to pair with BlueCAT</td>
<td>Pairing process has times out after a couple of minutes</td>
<td>Switch BlueCAT off and back on and try connecting again.</td>
</tr>
<tr>
<td></td>
<td>No request for Bluetooth pin number is displayed</td>
<td>Pair BlueCAT for the first time using the phone's Bluetooth options.</td>
</tr>
<tr>
<td></td>
<td>Not connected</td>
<td>Ensure plug is fully inserted into correct port.</td>
</tr>
<tr>
<td></td>
<td>Broken pins</td>
<td>Check plug for broken pins, contact service centre.</td>
</tr>
<tr>
<td></td>
<td>Blown internal fuse in radio</td>
<td>Check voltages at CAT socket, contact radio service centre.</td>
</tr>
<tr>
<td>BlueCAT light flashes, no response</td>
<td>Out of range</td>
<td>Move the device you wish to connect closer to BlueCAT. BlueCAT should work up to ~10m.</td>
</tr>
<tr>
<td></td>
<td>Signal blocked</td>
<td>Remove RF blocking obstructions between BlueCat and device you wish to connect.</td>
</tr>
<tr>
<td></td>
<td>Signal corrupted</td>
<td>Remove sources of interference. BlueCAT operates between 2.402-2.480 GHz.</td>
</tr>
<tr>
<td>BlueCAT light steady, but no communication</td>
<td>Radio CAT baud rate incorrect</td>
<td>Check Radio baud rate menu is set to 'AUTO' or '9600'.</td>
</tr>
<tr>
<td></td>
<td>Incorrect radio selected</td>
<td>In the app settings ensure you have selected the correct radio.</td>
</tr>
<tr>
<td>Yaesu Radio displays key lock symbol</td>
<td>Incorrect radio selected</td>
<td>In the app settings ensure you have selected the correct radio. Manually clear the display lock.</td>
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