BlueCAT

ICOM

IC-7000, IC-7100, IC-9100

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 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 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. 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 chose 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/

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.
	No request for Bluetooth pin number is displayed	Pair BlueCAT for the first time using the phone's Bluetooth options.
	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 Radio baud rate menu is set to 'AUTO' or '9600'.
	Incorrect radio selected	In the app settings ensure you have selected the correct radio.
Yaesu Radio displays key lock symbol	Incorrect radio selected	In the app settings ensure you have selected the correct radio. Manually clear the display lock.