

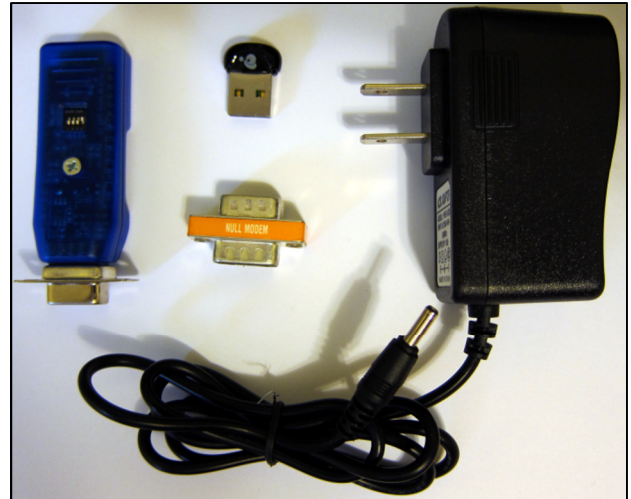
MIDCOM Host Communications - Bluetooth via BlueSnap Adapter

ECount and PCM

1. Setup PCM to Power +5 VDC on Serial1/Host Pin 9: J13 to +5
2. Requires 9M/9M Null Modem Adapter to connect Blue Snap Adapter to “Host/Serial 1” port
3. Requires 5VDC AC/DV Adapter to Setup BlueSnap from PC
4. Requires Bluetooth Adapter for PC (Aftermarket or OEM)
5. Requires Straight 9M/9F cable to connect Host to Serial1/PCM (also to setup BlueSnap)

BlueSnap

1. Download and install *DockLight* software
2. If necessary, Factory Reset BlueSnap via toggling S1
3. Configure DockLight connection
4. Setup Necessary DockLight Commands
5. Set BlueSnap Dip Switches for Communicating to Host
6. Connect via DockLight and Serial Port, Confirm Settings
7. Remove External Power from Bluetooth



Host Bluetooth Connection to BlueSnap

1. Confirm PCM to Power +5VDC BlueSnap on Pin 9 via Jumper J13
2. Connect 9M/9M Null Modem Adapter and BlueSnap to PCM “Serial 1 Host”
3. Connect to BlueSnap Device via Bluetooth Device Manager on PC/Computer
4. Confirm Bluetooth COM Port Number – this is how the Host will Communicate to ECount
5. Powerdown both Bluetooth devices and confirm automatic reconnect on powerup

Test ECount Communications

1. Start Midcom Matrix ECount software
2. Select correct Register # (1 or 2) in lower-left
3. Select Debug Tab
4. Select “J – Get Status”, confirm status is shown in debug window correctly
5. Select “Print Calibration Ticket”, confirm ticket prints correctly.

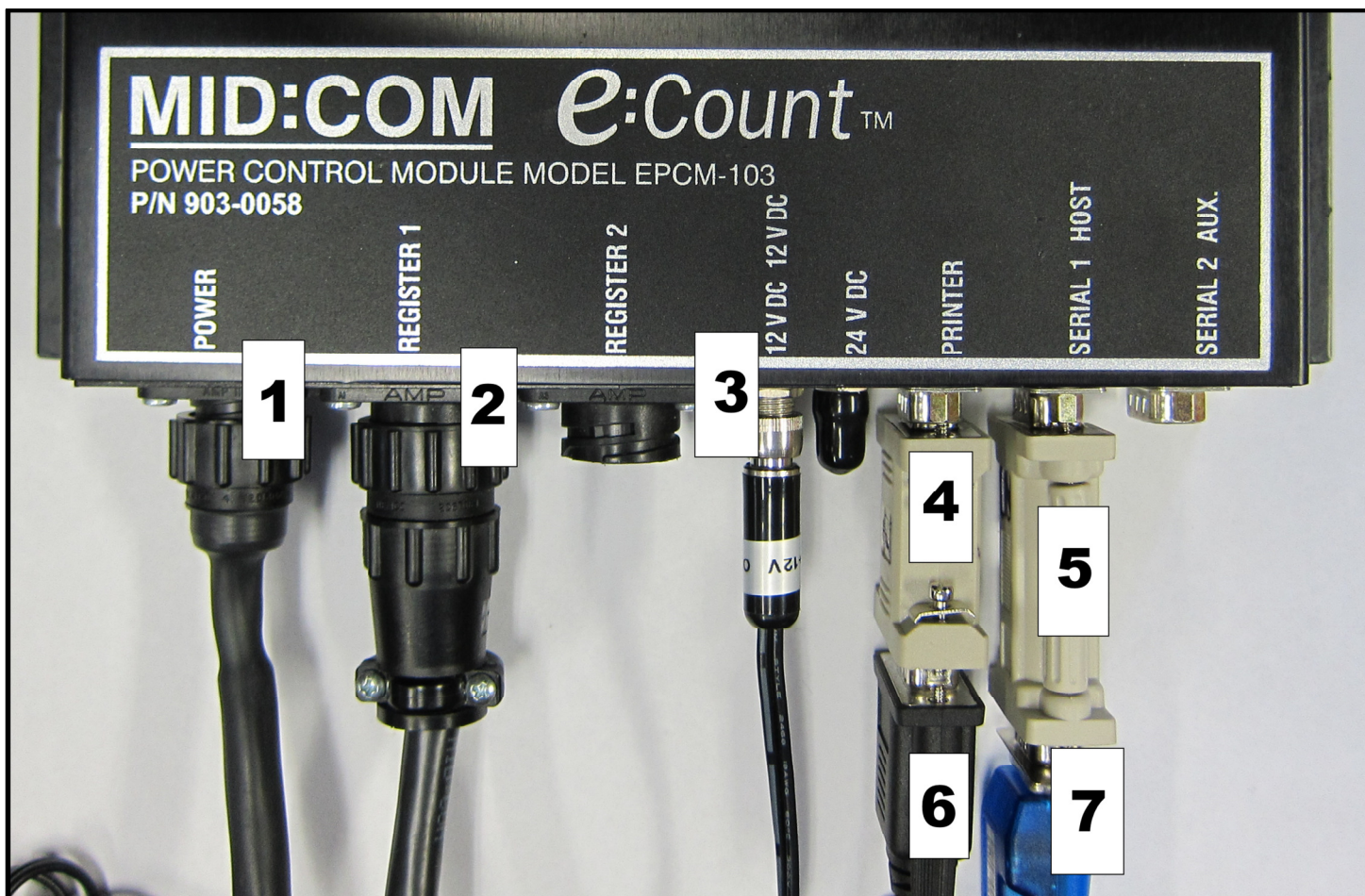
***** If the ticket prints the Host, Serial Cable, Bluetooth adapters, ECount, and Printer are all connected correctly. *****

Contact the MID:COM factory for assistance if necessary

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MID:COM
1605 170t St
PO Box 376
Hampton, IA 50441

bart@midcomcorp.com
641-456-4848 voice
641-456-4600 fax
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MIDCOM ECount PCM Host BlueTooth Connections

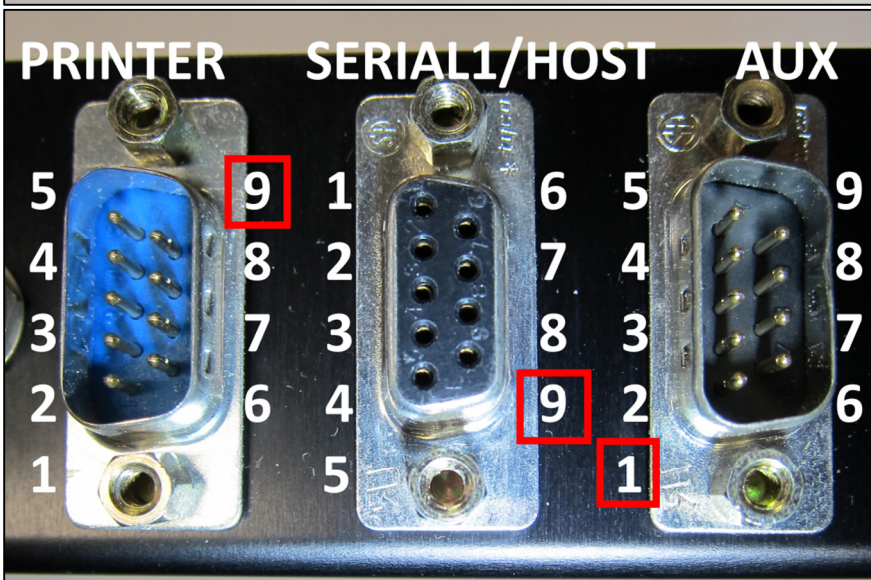
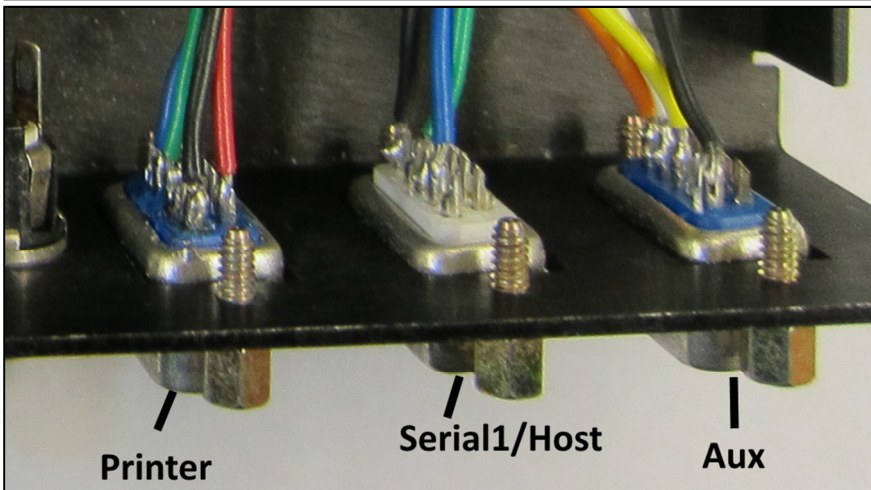
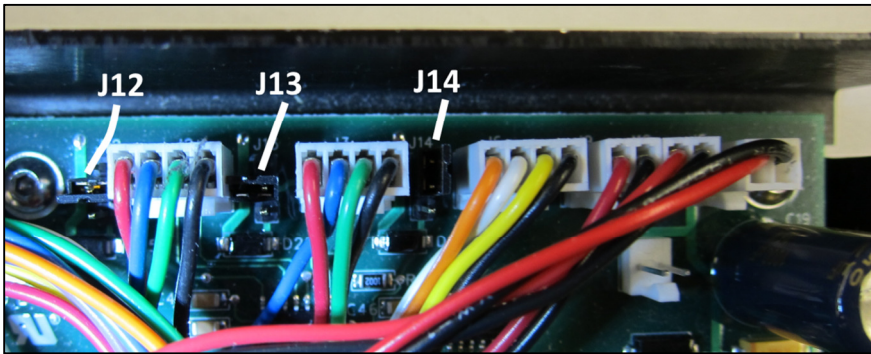


DMM4TE Printer

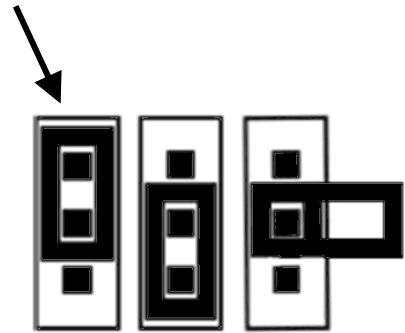
1. ECount Demo Power Cable, **Midcom Part # 702-0028**
2. ECount Demo Register Cable, **Midcom Part # 702-0027**
3. Midcom Custom Power Cable for Datamax DMM4TE, Midcom Part # 702-0123 ****
4. 9M/9F Null Modem Adapter for Printer to PCM-Printer Port Midcom Part # xxx-xxxx ****
5. 9M/9M Null Modem Adapter for BlueSnap to PCM-Host **Midcom Part # xxx-xxxx**
6. Datamax Serial Cable, Datamax Part # 210191-101 (also DB9-FRTANGRJ127NONCOIL) ****
7. BlueSnap Standard Bluetooth Dongle (**Female SPP Only**), **Part # BTM-C1-9F**

**** The specific printer used will determine the necessary Printer Power Cable (#3 above), the specific Printer Serial Cable (#6 above), and any necessary Serial Cable Adapters (#4 above).

Powering Serial Devices Using MIDCOM PCM Serial Port Power Jumpers



+5 VDC (outer pins)



0 V (default)

+12 VDC (inner pins)

J12: Power Output on Pin 9 of PRINTER Port

J13: Power Output on Pin 9 of SERIAL1/HOST Port

J14: Power Output on Pin 1 of AUX Port

+5VDC or +12VDC or NONE

+5VDC or +12VDC or NONE

+5VDC or +12VDC or NONE

To power BlueSnap +5 VDC on Serial1/HOST pin 9 set Jumper 13 (J13) to the +5VDC position

BlueSnap Bluetooth Setup

BlueSnap Setup Instructions

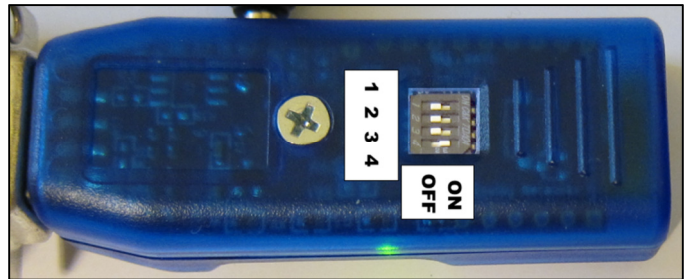
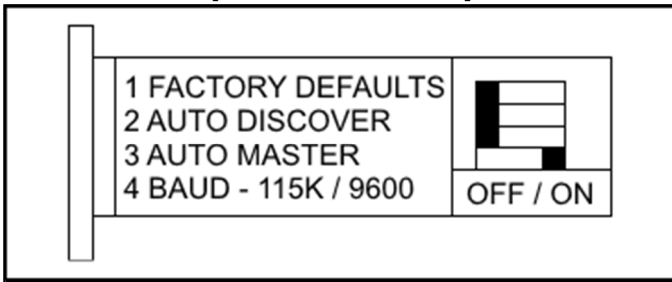
1. Download and install **DockLight** software
 1. Allows ASCII and Hex characters to be sent
 2. **Trial = Free** and is fully functional, however Trail does not allow saving functions
 3. [Docklight V2.0](http://www.docklight.de/download/Docklight.zip) (<http://www.docklight.de/download/Docklight.zip>)

2. Configure DockLight connection
 1. Com Port Settings **9600,N,8,1 + No Flow Control**

3. Setup Necessary DockLight Commands
 1. Connect to BlueSnap **\$\$\$** (3 dollar-signs, no <cr>)
 2. List Basic Settings **D<cr>** (confirm device name)
 3. Disconnect from BlueSnap **- - -** (3 minus-signs, no <cr>)

4. Setup Blue Snap DIP Switches:

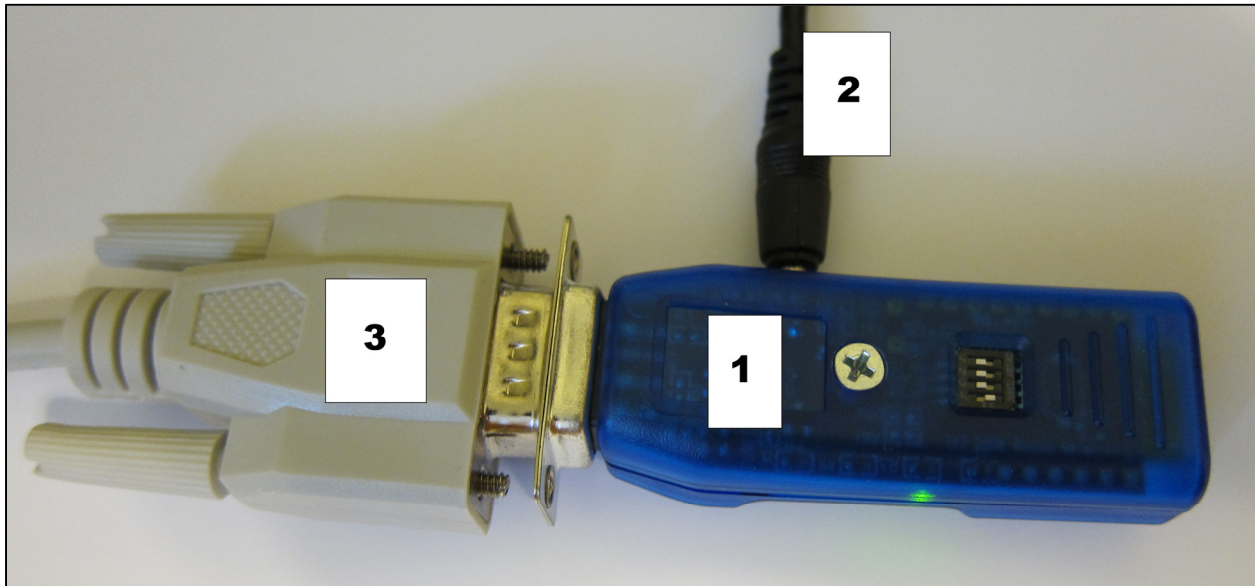
***** Required for Setup and to Be Used with Host Bluetooth:**



1: **Factory Defaults = OFF**
2: **Auto-Discover = OFF**
3: **Auto-Master = OFF**
4: **Baud Rate = ON**

OFF Do not reset to defaults
SLAVE Changed from default
OFF Host=Master, Changed from default
9600 Changed from default

5. Connect & Power BlueSnap for Configuration via PC:



1. BlueSnap Standard Bluetooth Dongle (**Female SPP Only**), **Midcom Part # BTM-C1-9F**
BlueSnap Part # BTM-C1-9F
2. 5V 2A AC/DC Power Supply, 1.35mm x 3.5mm Center Pos., **Midcom Part # xxx-xxxx**
3. 9M/9F Straight Through Cable from PC, **Midcom Part # 707-0100**

- **Connect Straight-Through Cable from PC to BlueSnap**
- **Connect External Power BlueSnap**

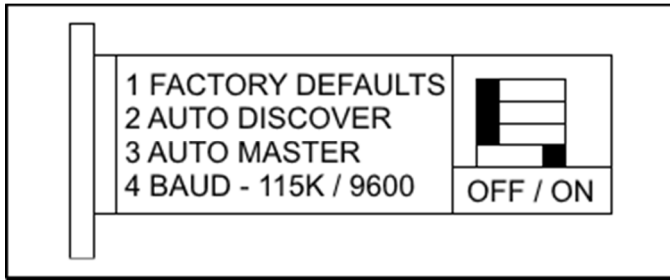
6. If initial Setup Fails, Factory Reset BlueSnap and Start Over

1. Use **Factory Reset DIP Switch = Switch #1**
2. Set this switch ON,
3. Power up the unit,
4. Toggle the switch from ON to OFF 2 times to return the unit to factory settings.

7. Perform Discovery + Connection in Docklight

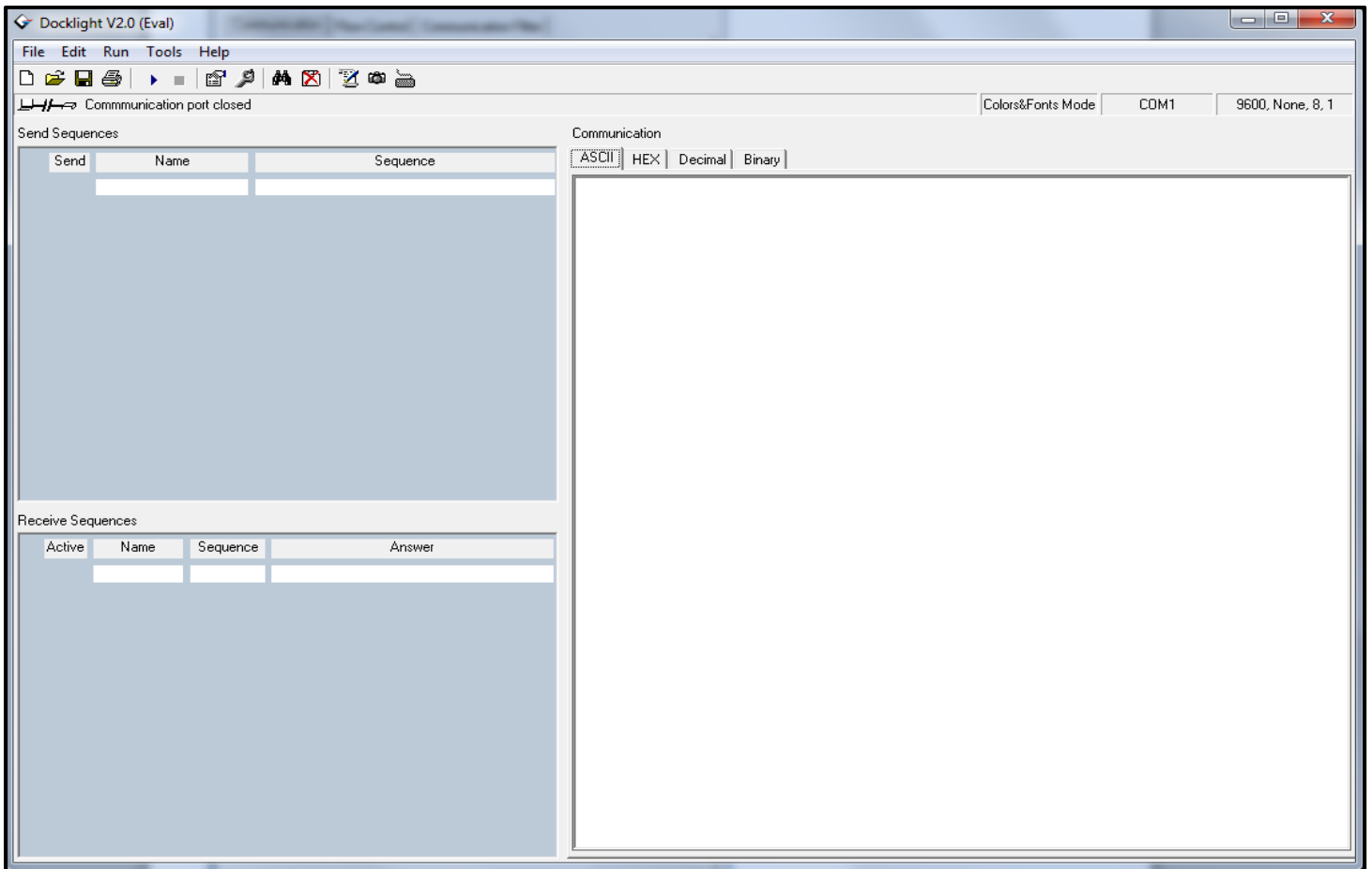
1. **Open DockLight COM Port**
2. **Connect to BlueSnap** (DockLight command)
3. **List Basic Settings** (DockLight command)
4. **Disconnect from BlueSnap** (DockLight command)
5. **Close DockLight COM Port**

BlueSnap Bluetooth DIP Switch Notes

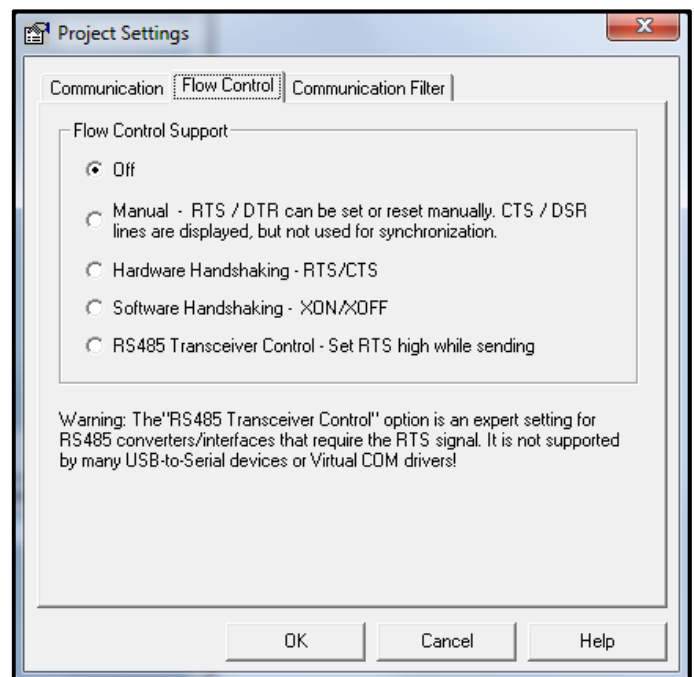
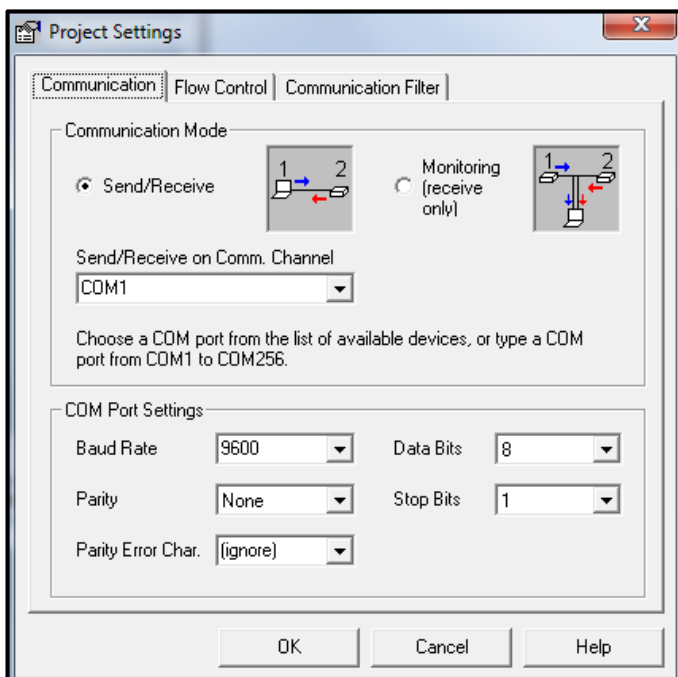


Switch #	Description	Default	Function
1	FACTORY DEFAULTS	OFF	Set this switch ON, power up the unit, and toggle the switch from ON to OFF 2 times to return the unit to factory settings.
2	AUTO DISCOVER MODE	ON	In Slave mode, will set a special class of device which is used by a remote BlueSnap Standard Master to auto connect. IF Switch 3 also SET, the device performs a search, stores, and connects to a remote slave which has this switch 2 set .
3	AUTO MASTER MODE	ON	BlueSnap Standard will act as master, and auto-connect to a stored remote address. You first set the BT address of the device to connect to using the SR command. Or, have BlueSnap Standard auto discover and connect by setting this AND Switch 2.
4	DEFAULT BAUD RATE	OFF	OFF = 115200, ON = 9600, (can override via setup).

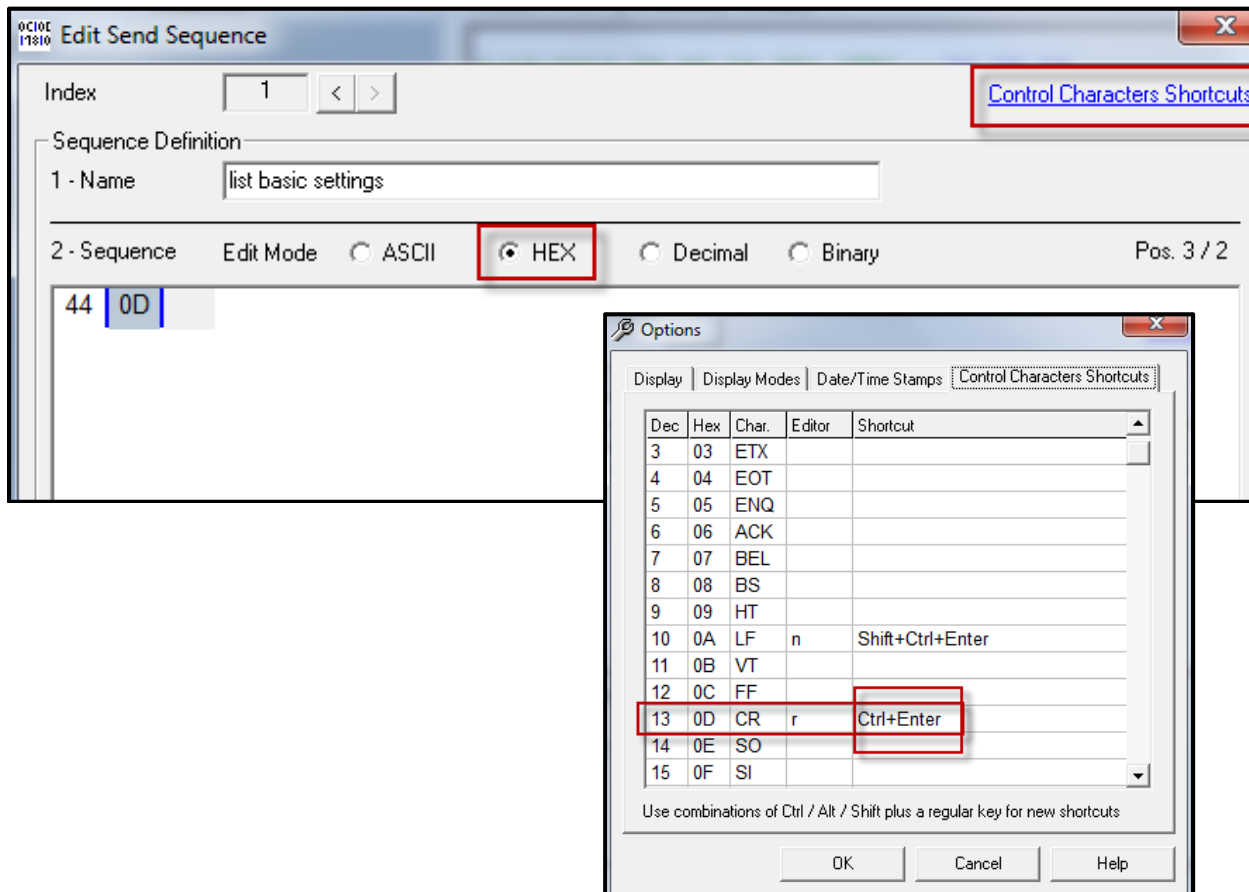
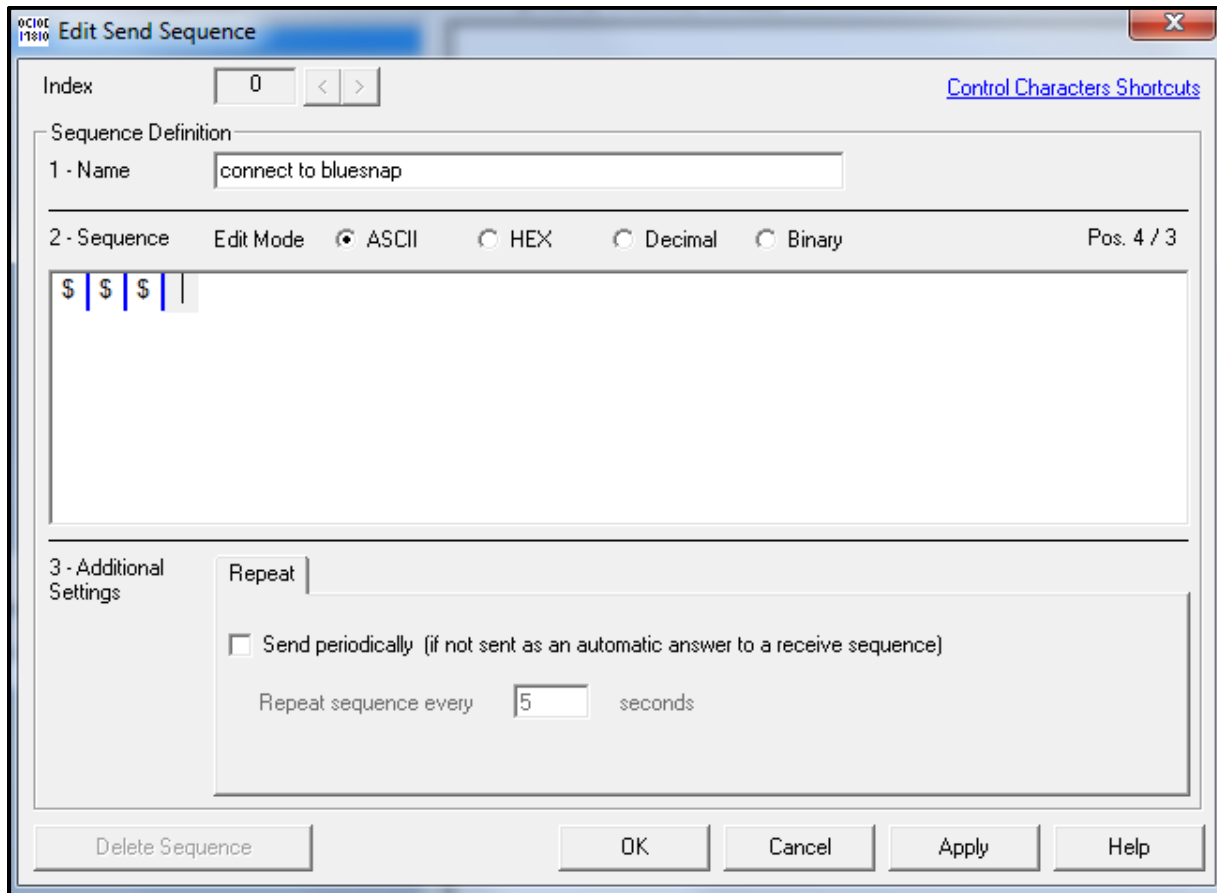
DockLight Terminal Application



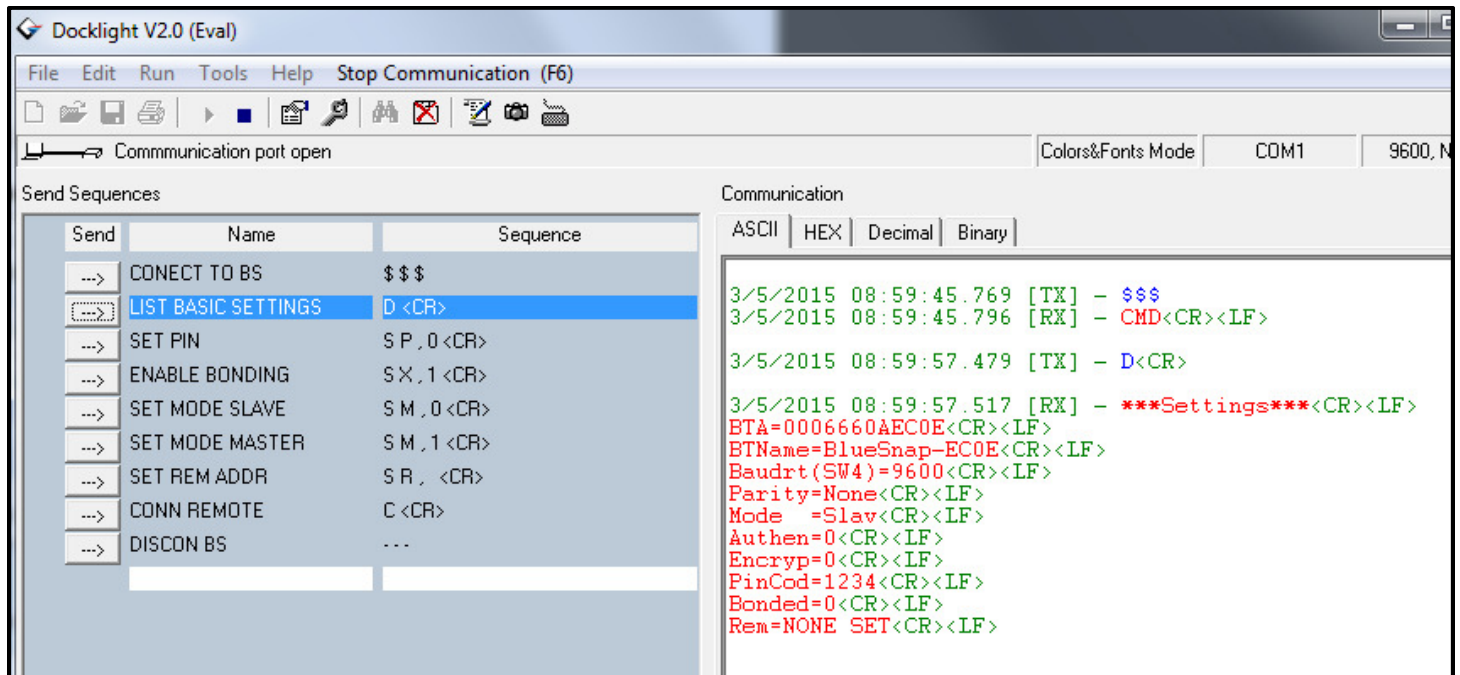
DockLight COM Port Setup



DockLight Command Setup



BlueSnap Configuration via DockLight:



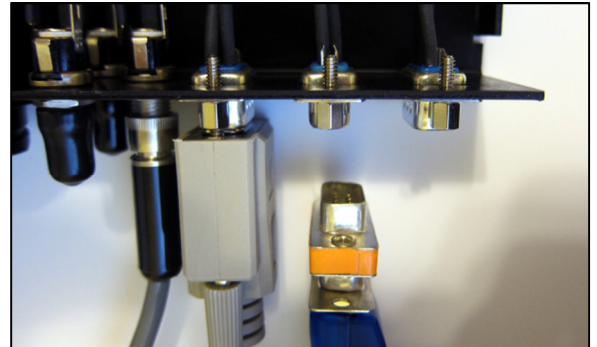
1. Send **\$\$\$** to connect
2. Send **D <CR>** to request settings
3. Make note of **BTName** – above is **“BlueSnap-EC0E”** (EC0E will be last 4 of MAC address).
4. Make note of **PinCod** – above is **“1234”** which is default.
5. Send **- - -** to disconnect
6. Confirm that PCM/Serial1 Jumper is set to provide +5VDC
7. Disconnect External Power from Blue Snap
8. Connect BlueSnap via 9M/9M Null Modem Adapter to PCM/Host Serial 1Port
9. Confirm that Green Light on BlueSnap is Blinking/on (indicates power)

Connect Host Bluetooth Adapter to BlueSnap and Assign COM Port

IMPORTANT: MODT BLUETOOTH DEVICES WILL ONLY AUTO-PAIR AFTER BOTH HAVE BEEN RESET. IF YOUR COMPUTER BLUETOOTH DOESN'T SEE THE BLUESNAP THEN RESET BOTH BLUETOOTH DEVICES BY POWER-CYCLING THEM AT THE SAME TIME.



BlueSnap and Mini 9M/9M Null Modem Adapter on Host PCM Port



ECount PCM Connections with 9M/9M Mini Null Modem Adapter and BlueSnap connected to PCM w/ PCM Internal Power



IOGear Bluetooth In USB Dock Serial Cable, 9M/9M NM Adapter, and BlueSnap connected to PCM with External Power



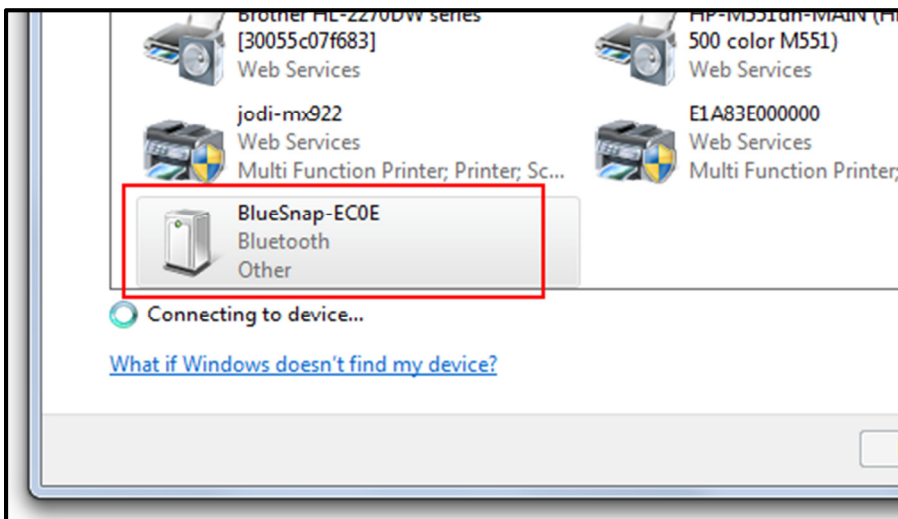
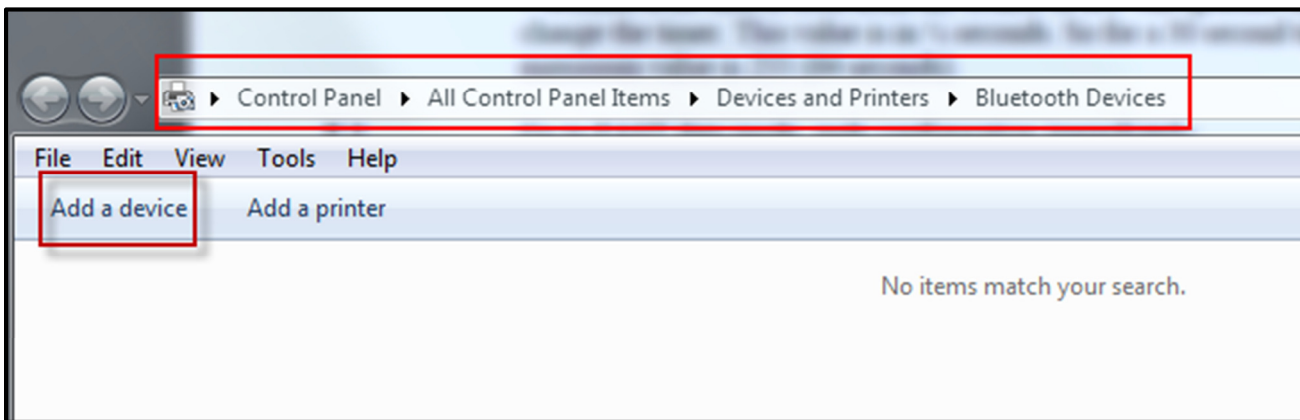
IOGear Mini USB 2.1 Adapter (in dock) Part # GBU421



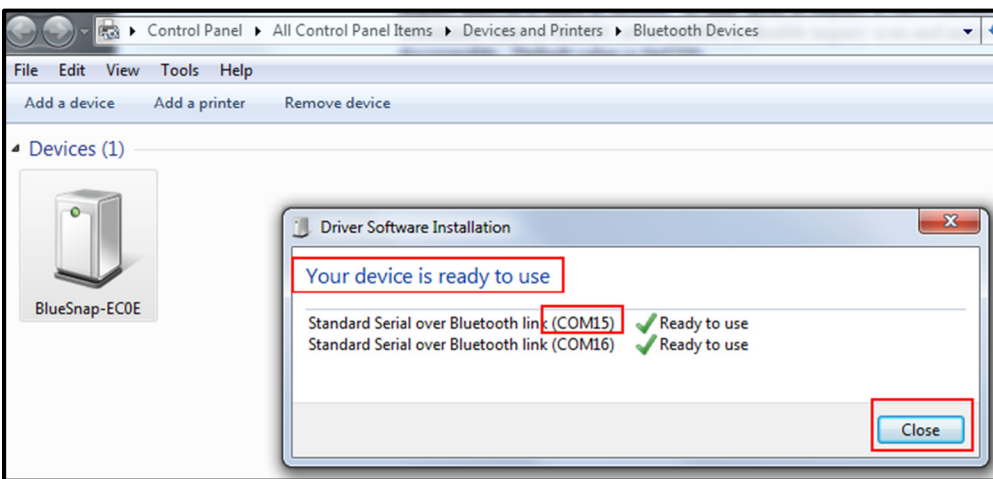
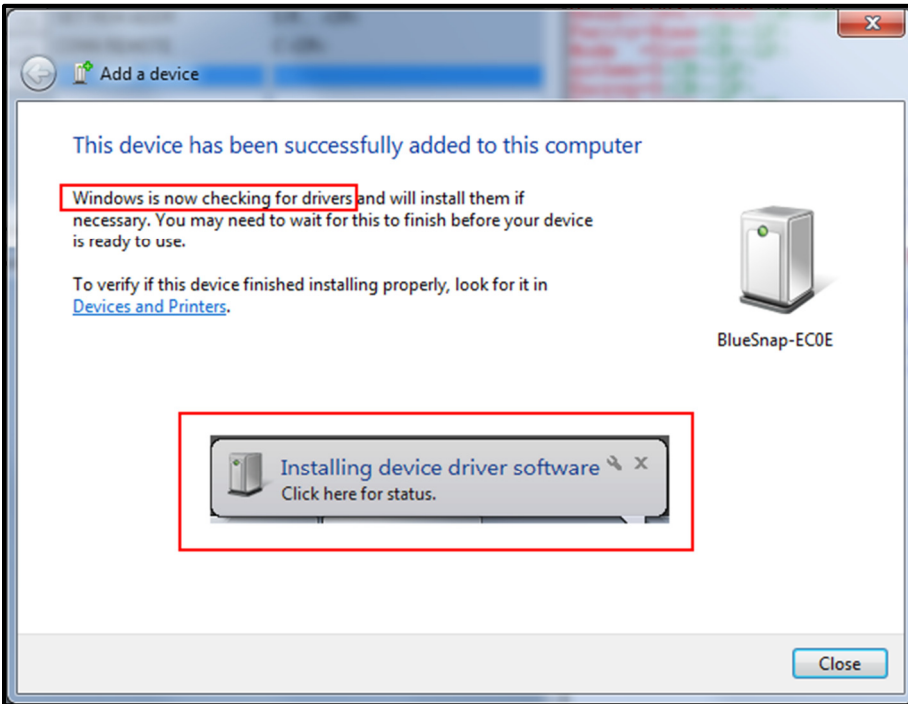
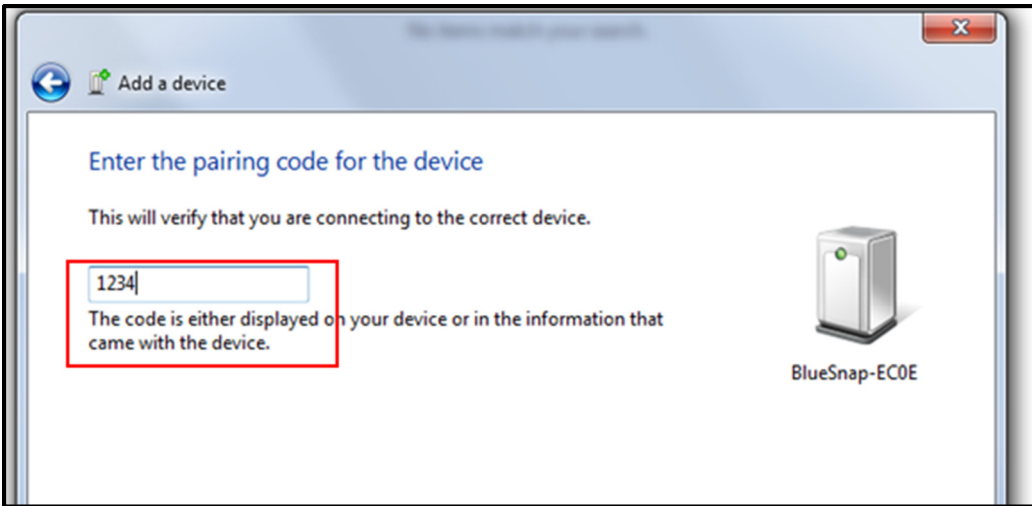
ECount PCM Connections with 9M/9F Straight Cable connected to Mini Null Modem Adapter and BlueSnap connected to PCM w/ PCM External Power

BlueTooth PC/Computer Device Configuration

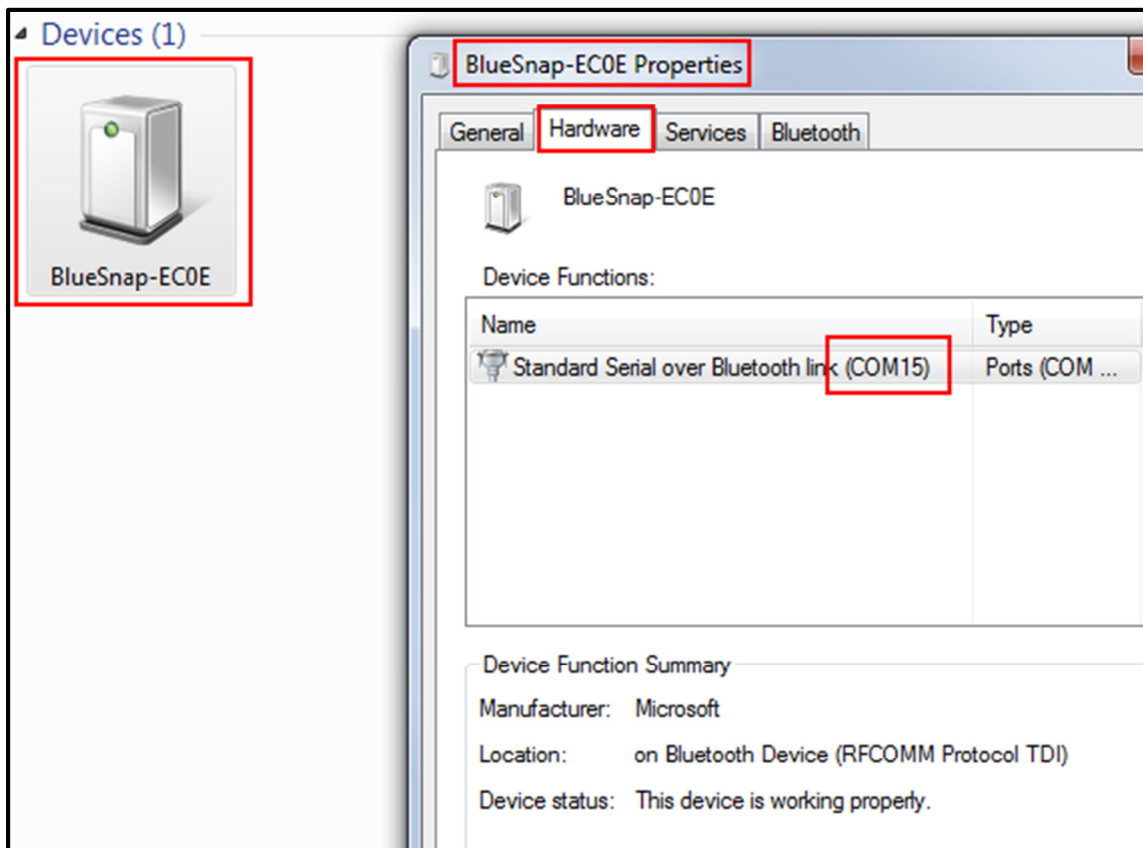
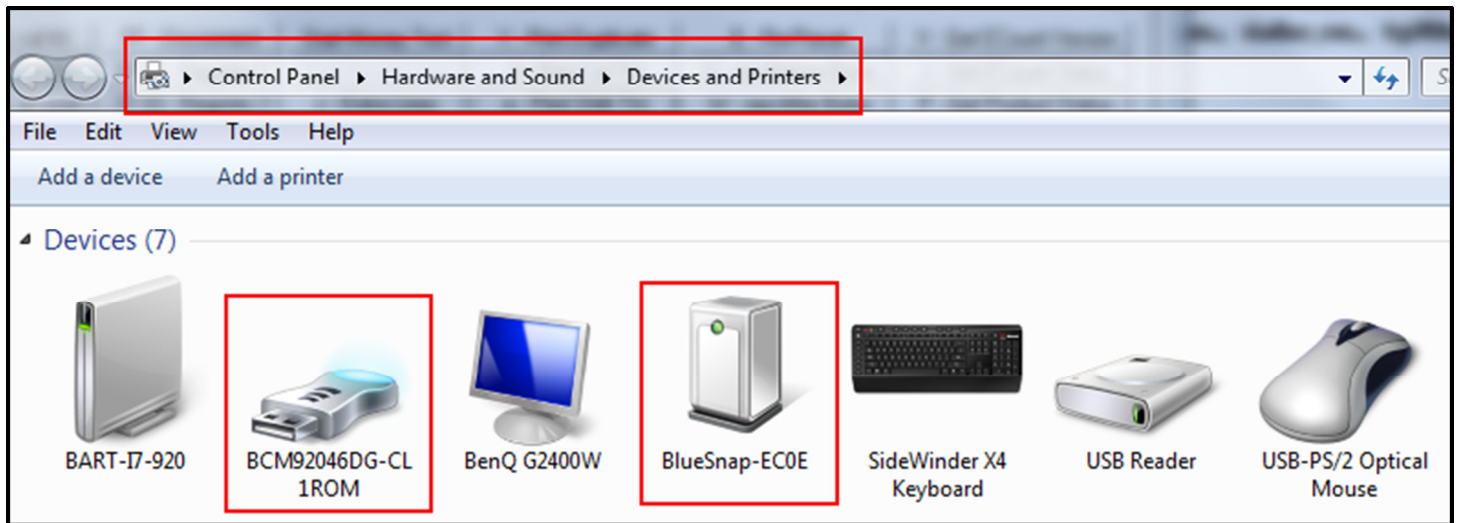
1. Connect Host BlueTooth to BlueSnap
 1. Select BT Device
 2. Select Connect
 3. Select Function
 4. Install Driver
 5. Verify COM Port
2. Verify Master/Slave Auto-connect
 1. Turn Off Host Bluetooth, Turn on and Confirm auto-reconnect (Green BS LED=On)
 2. Turn Off BlueSnap, Turn Back on and Confirm auto-reconnect (Green BS LED=On)
 3. If no auto-connect verify Host & BlueSnap settings



(continued)



(continued)



BlueSnap Female SPP-Only Notes

LEDs

- MODE GREEN LED BLINK
- Configuring Fast, 10 x per second
- Boot up, Remote Configurable 2 times per second
- Discoverable/Idle 1 time per second
- Connected On Solid

The YELLOW Led shows physical state of the data pins, pulse stretched for eye visibility, and blinks when data is TRANSMITTED or RECEIVED on the TX and RX pins.

Power Jack

1.35mm x 3.5mm - Center Ppin is +5V, outer cylinder is GND. Input can be 4VDC or greater, but not greater than 9 VDC. Power draw is 30-50ma when connected depending on data rate, can be as low as 2ma average when not connected depending on parameter settings.

Making a Connection

BlueSnap Standard shows up under Service discovery as .BlueSnap Standard-zpdq. where the zpdq is the last 2 bytes of the Bluetooth address. To connect to BlueSnap Standard, browse for services, you should see: .SPP on BlueSnap Standard .. Default baudrate is 115200, no parity, 8 bits, 1 stop.

BlueSnap Standard uses Serial Port Profile and can be connected to as a Virtual COM port on PCs, Macs, BlackBerries, Palms, Windows Mobile, Symbian and other clients.

NOTE: Only one client can connect to BlueSnap Standard at a time, and there is a limit of 7 total devices in a Bluetooth Piconet network. If authentication is not required, generally you can simply connect to the BlueSnap Standard by clicking on the service shown by your client.

If authentication is required, the default passkey of 1234 - or the passkey that has been configured should be entered.

COMMON BLUESNAP PROBLEMS and QUESTIONS:

My Bluetooth client can see the BlueSnap Standard and its serial service, but I can't connect:

This is most likely caused by a security setting on your client. If a pin code is required, **the default is .1234.** Some clients have these settings off by default, others have them on. To check and disable security:

From **your PC desktop**, click **My Bluetooth Places**, go to the **Bluetooth Device configuration (or Advanced Configuration)** drop down menu, click on the **client applications tab**, **Select the Bluetooth serial port application name**, and click on the **properties button**, if **.secure connection.**, or **authentication.**, or **.encryption.** is checked, uncheck it.

Changing the clients COM port: Widcomm stack, (and others) allows you to connect to BlueSnap Standard using a **.Virtual COM. port mapper**. The software installs with a default COM port, usually COM3, COM4, or COM5. To change this setting:

From **your PC desktop**, click **My Bluetooth Places**, go to the **Bluetooth Device configuration (or Advanced Configuration)** drop down menu, click on the **client applications tab**, **Select the Bluetooth serial port application name**, and click on the **properties button**, then you can change the com port.

Connecting to more than one BlueSnap Standard from the same client at the same time:

Bluetooth allows 7 devices at a time in a piconet. Widcomm stack allows you to create multiple instances of serial port profile and connect to multiple BlueSnap Standards at the same time. To do this:

From **your PC desktop**, click **My Bluetooth Places**, go to the **Bluetooth Device configuration (or Advanced Configuration)** drop down menu, click on the **client applications tab**, and **Select the Bluetooth serial port application name**, and click on the **ADD COM port button**, then you can add another Bluetooth serial port and assign it to another virtual com port (such as COM9).

Connections can be made but during data transfer, no characters flow, or bytes are dropped.

Check to see if your flow control signals are properly connected, and enabled in the serial software you are using. A common mistake is to connect during the boot config timer window, in this case, all characters will be ignored until a \$\$\$ is seen, and no characters are forwarded to the remote device. If remote configuration is enabled, a good way to ensure that the device is not waiting for configuration is to issue **---.<cr>** at the beginning of a connection and before any user data is sent. Another common problem is related to hardware flow control, it is not enough to simply disable flow control in your communications software, the BlueSnap Standard expects to use hardware flow control, so do disable this on the BlueSnap Standard you must either remove the CTS flow control jumper, or short pins 7 and 8 (RTS, CTS) of your cable to permanently enable the flow control.