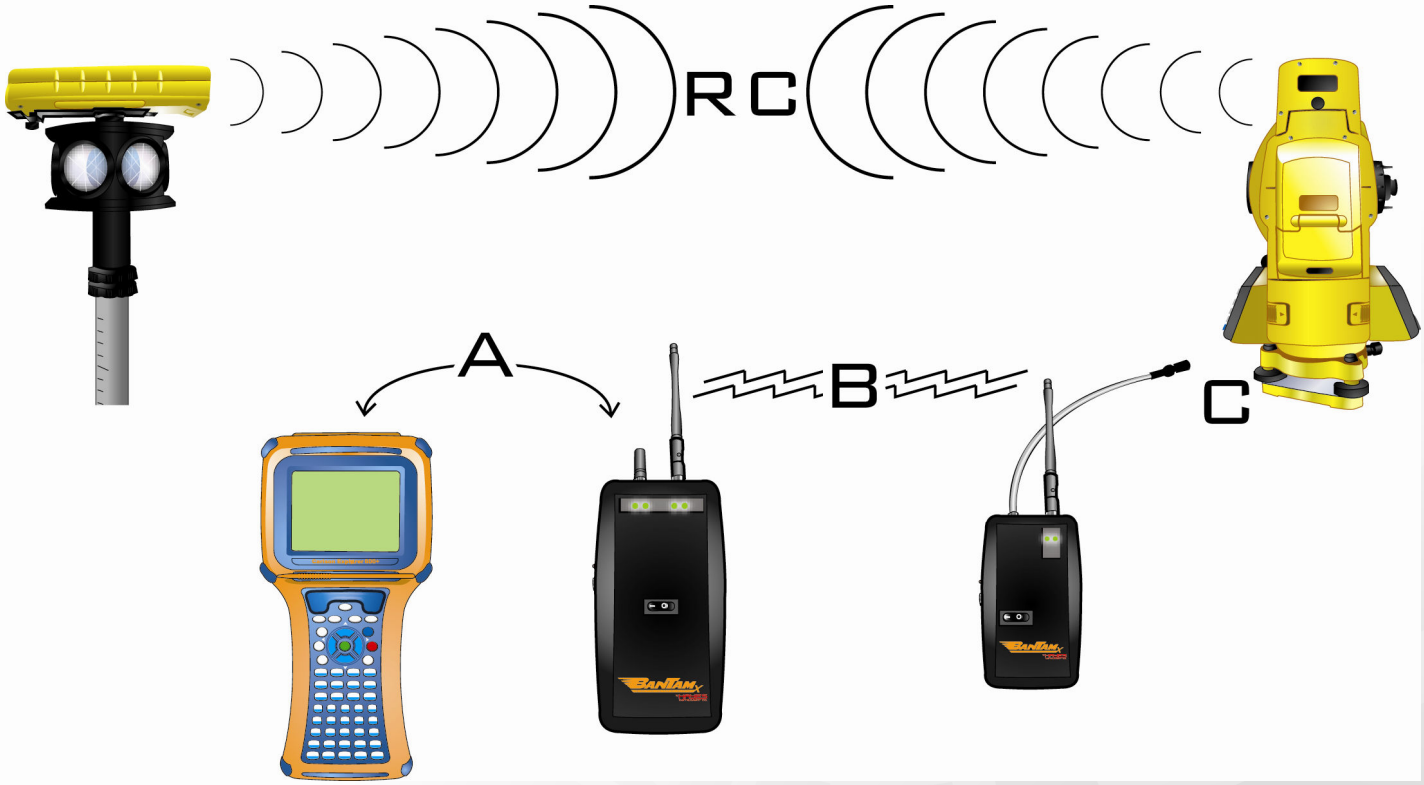
The BanTamX3 Setup Guide for Carlson— Explorer and 800X Series Robot

Concepts— This document outlines the setup instructions to connect the Carlson Explorer to a Topcon 800X Series Robot using the Hayes BanTamX3 Communication System. Many of these steps only need to be done during the initial setup or when the system configuration changes.

There are 4 communication links to setup in addition to the Robotic profile in Carlson: **(A)** Carlson to Rover Radio, **(B)** Rover Radio to Instrument Radio, **(C)** Instrument Radio to Robotic, and **(D)** the RC2II setup used for Quicklock.



Hayes BanTamX Setup Guide

(A) Carlson Explorer to Rover Radio— The link to the Rover Radio is setup through the Microsoft CE Operating System as a standard Bluetooth Connection.

Step 1—Start

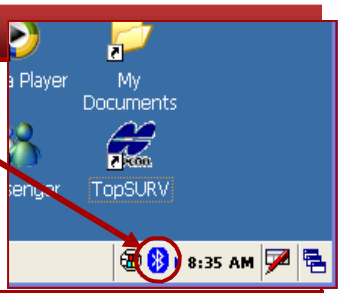
Turn on the BanTamX Rover Radio.
Note* the 1st and 3rd light should be solid, the 2nd and 4th should blink.

Step 2

Exit out of SurvCE and to the main Operating System screen of the Explorer Desktop.

Step 3

Press the Bluetooth icon at the bottom right of the display.
Note* If the icon is missing, install the Bluetooth drivers and/or card.

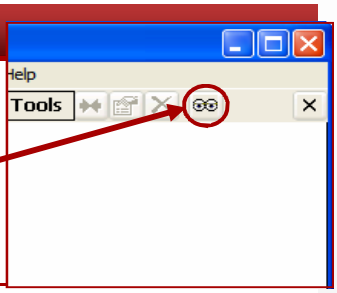


Step 4

Select **[Advanced Features]** then **[Bluetooth Devices].**

Step 5

Press the "eyes" button on the top left of the display.

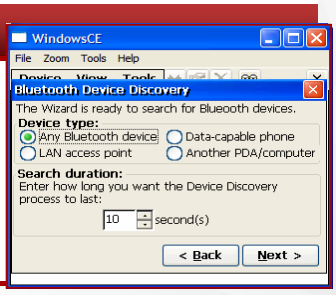


Step 6

Press the **[Next]** button.

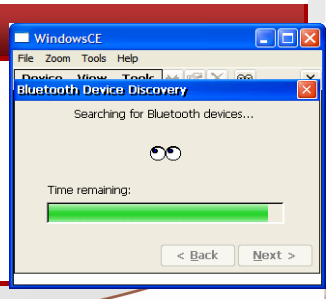
Step 7

Press the **[Next]** button.



Step 8

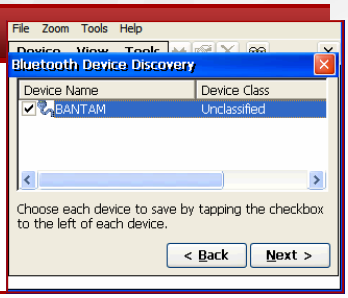
Bluetooth will scan for the BanTamX Rover Radio.



Step 9

The BanTamX will appear in the device table.

Check the box and press **[Next].**

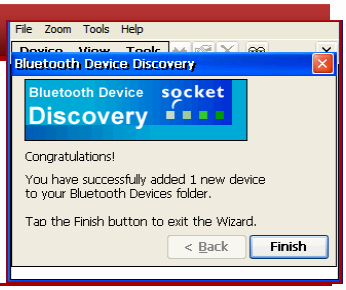


Step 10

The Explorer will create a connection to the BanTamX.

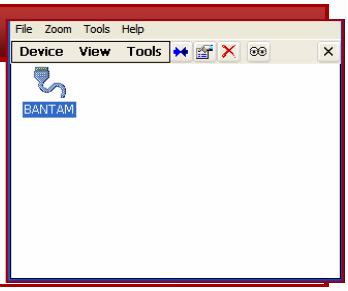
Step 11

Press the **[Finish]** button.



Step 12—Finish

Press the **[X]** in the upper right corner to exit.



(B) BanTamX Rover Radio to BanTamX Instrument Radio Connection.

This connection is predefined and configured at Hayes Instrument Company so that the radio pair will only recognize each other.

The connection is established automatically when both radios are powered on.

The status of the radio connection can be determined by the status of LED lights.

Status light will flash when searching.

Status light will stay solid when linked.

(C) Total Station Setup— The link to the BanTamX Instrument radio is setup on-board the Topcon 800X Robot.

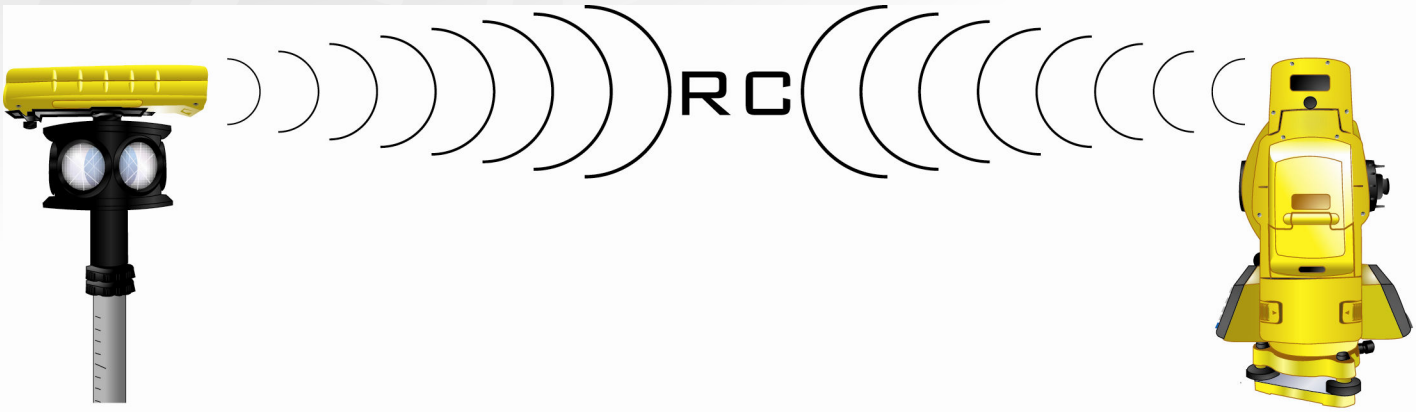
Connect the BanTamX Bluetooth Radio to the total station via the 6-pin hirose radio cable and turn the radio on.

1. From the main total station menu:

- Select the Para Menu **[F6]**
- Select the Communication Menu **[F2]**
- Select Serial Port RS232C/RC **[F1]**
- Select **<RC>** using the **[F3/F4]** keys
- Press Set **[F1]** then YES **[F5]**
- Select Set RC **[F3]**
- Verify the following settings:
  - Channel **[1]**
  - V.Search **[15]**
  - RC **[S]**
  - Retry **[Std]**
  - Delimit **[ETX]**
  - REC-A/B **[B]**
  - NEZ-REC **[Std]**
  - TrkState **[ON]**
  - B.Rate **[4800]**
  - Data.L **[8]**
  - Parity **[None]**
  - Stop Bit **[1]**
- Press SET **[F1]** then YES **[F5]**
- Press **[ESC]** back to the main total station menu.

2. **From the Main Total Station Menu:**

- Press **Prog [F1]** then **MORE [F6]**
- Press **EXT.LINK [F3]**
- Press **2. Setting [F2]**
- Select **1. CABLE/RADIO MODEM/RC [F1]**
- Using the Up/Down **[F3/F4]** arrow keys, select **RADIO MODEM SATEL 3ASd.**
- Press SET **[F1]**
- At the Setting menu, Select **4.PARAMETER (RADIO MODEM) [F4]**
- Select **1.SELECT PARAMETERS [F1]**
- Using the Up/Down arrow keys, select **<REC-B>**. Press **SET [F1]**
- Press **[ESC]**
- Select **1.** Execute **[F1]**



(RC) RC-2II— Quick Lock Setup— The RC-2II can be used as a redundant communication mode (see RC-2II only setup guide) but when used with the BanTamX Hayes Communication System the RC-2II acts as a Quicklock assist to help the gun acquire lock to the prism.

RC-2II

1. Open the battery chamber and remove the batteries. Locate the dip-switch block at the bottom of the battery chamber and verify that dip-switch 3 is to the right. The other switches should be set the to left.
2. Put in fresh batteries if unsure about their age (typical battery life is 40 hrs).

Carlson SurvCE Setup—

This process will set up the Robotics profile in SurvCE.

Step 1—Start

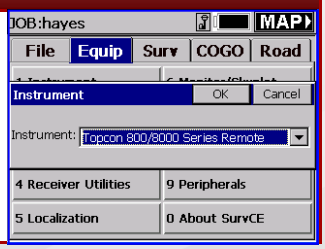
Run SurvCE and open a job for work.

Select {**Equip**}
Select [**1) Instrument**]

Step 2

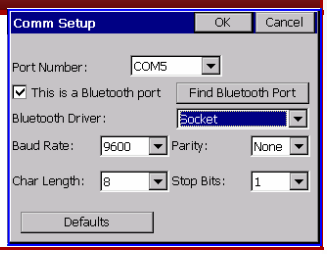
Set the instrument type to <**Topcon 800/8000 series robotics**>

Press [**OK**]



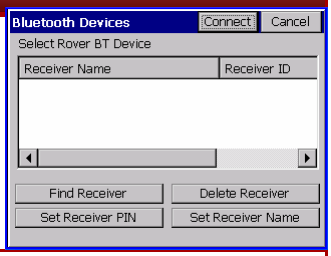
Step 3

Check **[] This is a bluetooth port**.
Press [**Find Bluetooth Port**]
Press [**Defaults**]
Press [**OK**]



Step 4

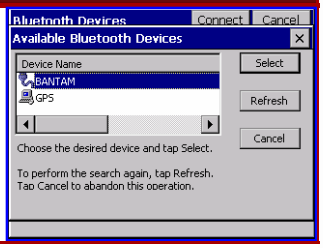
Press [**Find Receiver**]



Step 5

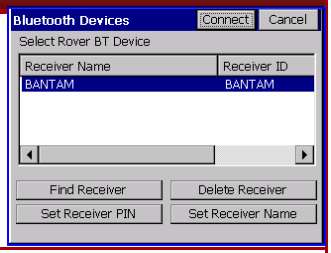
Select [**BANTAM**]

Press [**Select**]



Step 6

Press [**Connect**]



Step 7

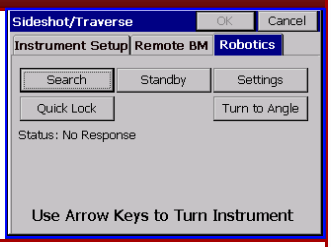
Go to {**Surv**} tab.

Select [**1)Sideshot/Traverse**]

Step 8

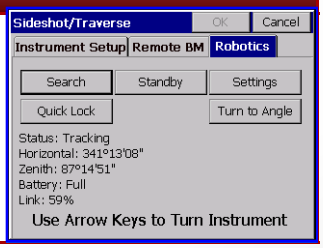
Select {**Robotics**} tab.

Press [**Quick Lock**]



Step 9

The instrument will turn and lock to the prism.



Step 10– Finish

Congratulations. You are now ready to survey.