# OWNER'S GUIDE

Shearwell Automatic Drafting Crate

Thank you for purchasing a Shearwell automatic drafting crate. This user manual will help you install and connect the components for safe, trouble-free operation. Please read through the instructions carefully before starting the installation process.

Supplied equipment

☑ SDL 130 - Intelligent Reader
☑ Tru-Test 3000 weigh scale
☑ SDL drafting crate
☑ Dual panel reader
☑ Main control box
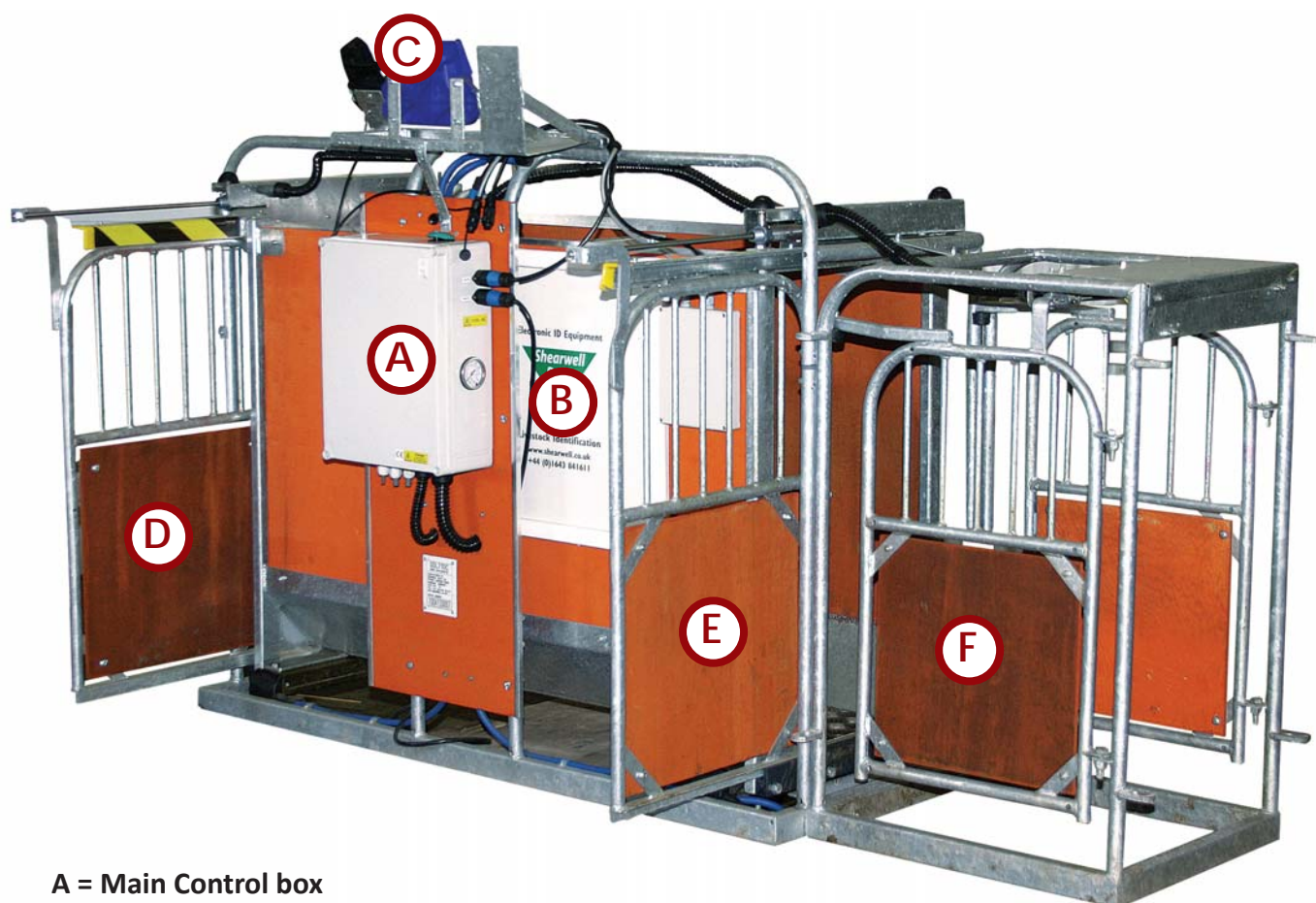
A = Main Control box
B = Dual panel reader
C = Mounts for weigh scale, stock recorder and SDL 130
D = Back gate (in gate)
E = Front gate (out gate)
F = Left and right sorting gates

Table of contents

Pre-installation requirements

Electrical requirements:
» The main control box (A) and the air compressor both need a mains power supply. We recommend the air compressor be connected to a separate circuit on your electrical panel. An air compressor draws a significant amount of power which can affect the performance of the other components.

Air pressure requirements:
» The drafting crate gates are operated by air pressure of about 40 PSI. You will need an air compressor and enough air hose to connect the compressor to the control box.

» Ice crystals in the air hoses can stop your drafting crate from working properly. For cold weather operation (below -15°C) ask your Shearwell representative for the best practice in your area.

Environmental requirements:
» The crate must be installed on firm, level ground to get accurate weights. Provide a solid base about 3.5 metres (12') long by 1.2 metres (4') wide. The area should be level from front to back, and from side to side. Weigh something with a known weight, like a bag of feed, to check for accuracy after installation.

» The crate should be installed in a location protected from the weather. Do not allow snow to accumulate on the unit. The electronic components (stock recorder, SDL 130 and the Tru-Test weigher) should be stored in a warm environment when not in use: connectors must have their covers and caps in place to keep out moisture.

Setting up the crate

1. Set the SDL 130, the Tru-Test weigh scale and the stock recorder into their mounting brackets.

2. Connect the SDL 130. Two cables come from the plate readers and another supplies power.

The two top cords are from the plate reader - one is grey and the other is black. They are male with different ends - one has five pins and the other has three pins. The two plate reader cords will not plug into any outlet except their own. The power cord is female and connects at the bottom.

3. Connect the Tru-Test weigh scale by connecting the two blue leads and the small black power cord.

4. Attach an air line to the fitting on the Main Control box.

Two blue cables from the load bars under the crate connect to the weigh scale. The third cord is black with a threaded collar that fits into a smaller socket. Tighten all connections.

5. Plug the Main Control box into a power supply. Push the rocker switch on the Main Control box to the On position. The red light will come on.
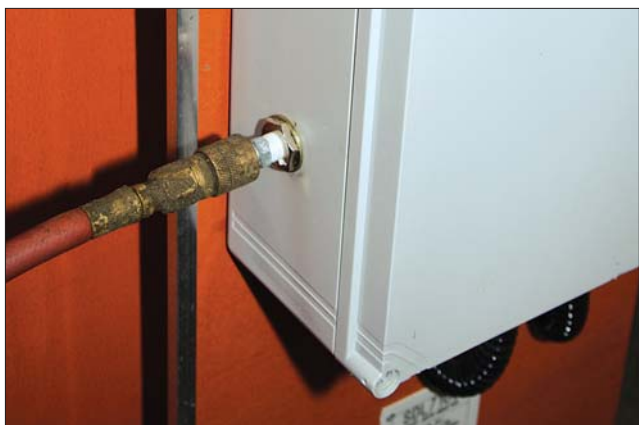

6. Push the green rocker switch on the SDL 130 to ON. The red light comes on and stays on. The green light will flash once and go off.

7. Turn on the air compressor. Be careful - the gates may move unexpectedly!

8. The drafting crate should now be fully powered on and ready to work.

The fitting for the air hose is at the bottom left-side of the main control box. The gates may move once the air is hooked up. The unit must be supplied with a minimum of 40 PSI. This is then regulated to a preset level within the main control box.

9. Start FarmWorks on the stock recorder. Refer to the instructions for establishing Bluetooth links with the different components.
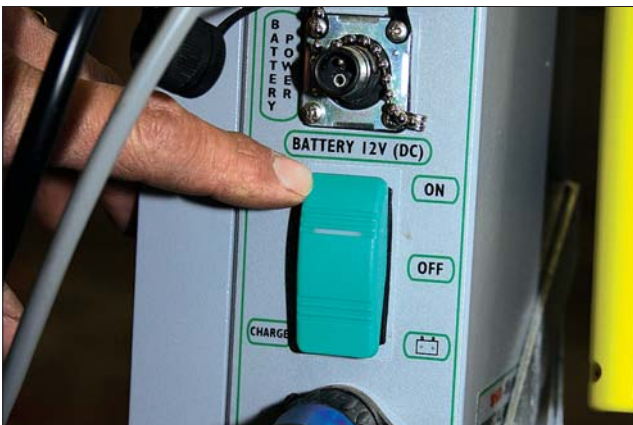
Bluetooth connection to the SDL130 Dual Panel Reader

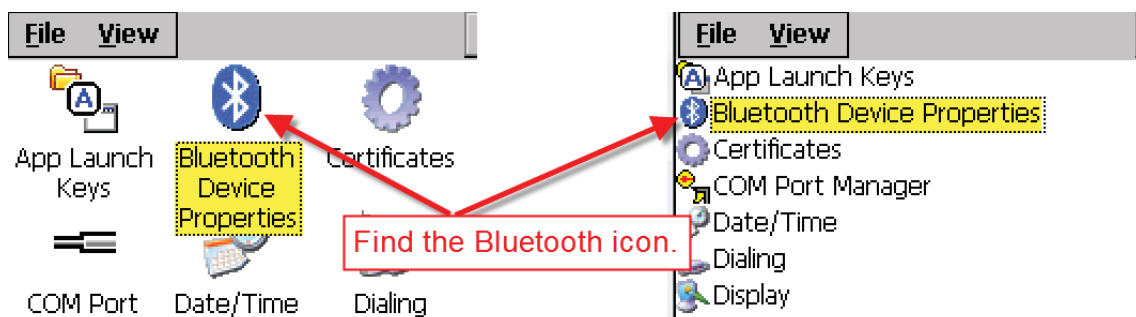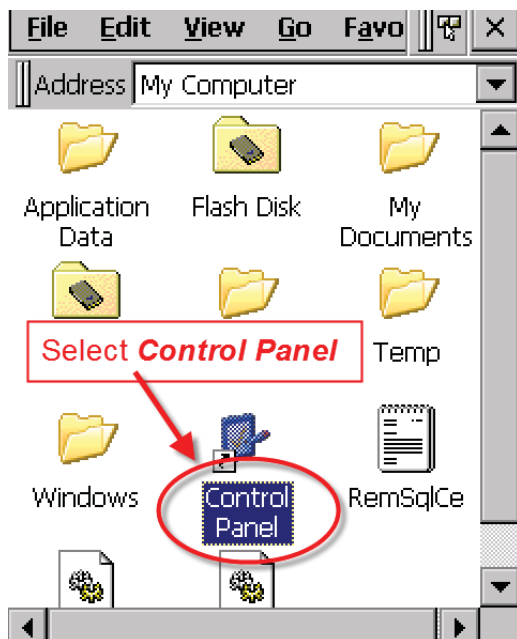A = SDL 130
B = Panel reader

Connecting the SDL 130

1. Connect the SDL 130 to the panel reader.
2. Connect the power cord.
3. Push the rocker switch to the on position.
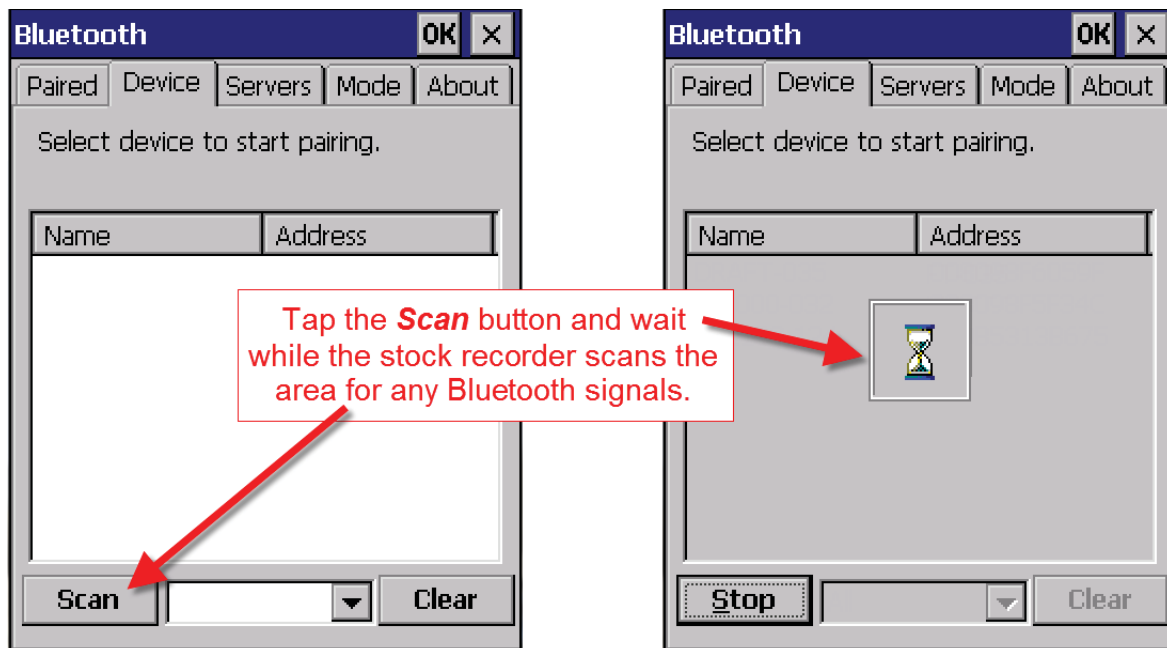4. The red light comes on and stays on. The green light will flash once and go off.

Pairing the stock recorder with the SDL 130 panel reader

* If the Bluetooth Manager on your stock recorder looks different than what is pictured here you might have an older version - see the appendices at the back of this guide to find the right procedure.
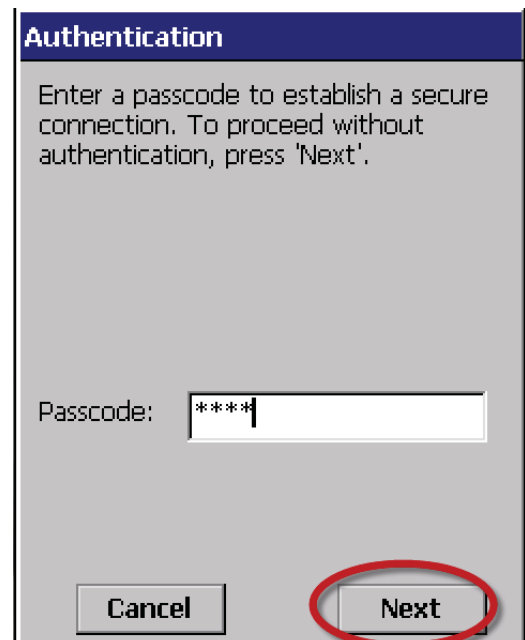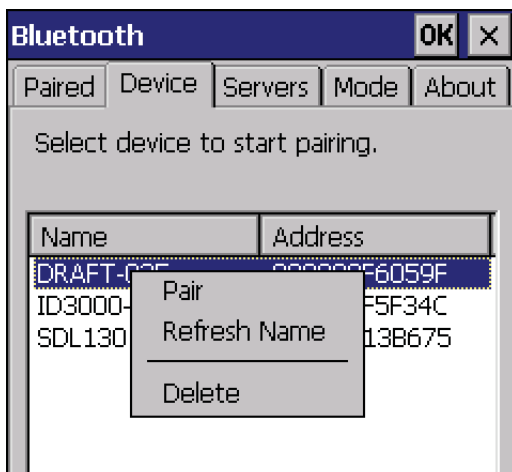
1. Turn on the SDL 130 you are trying to link to the stock recorder. Make sure it is close by.
2. On the stock recorder desktop find the computer icon. It may be called **My Device** or **My Computer**. Double tap the icon to open it.
3. A shortcut to the Bluetooth Manager is to tap the BT icon on the bottom taskbar.
4. Open **Control Panel**.
5. Find the Bluetooth symbol. It may be an icon or it may be in a list of folders. Double-tap to open **Bluetooth Device Properites**.

Select **Control Panel**

Bluetooth icon

Double-tap this icon as a shortcut to the Bluetooth Manager.
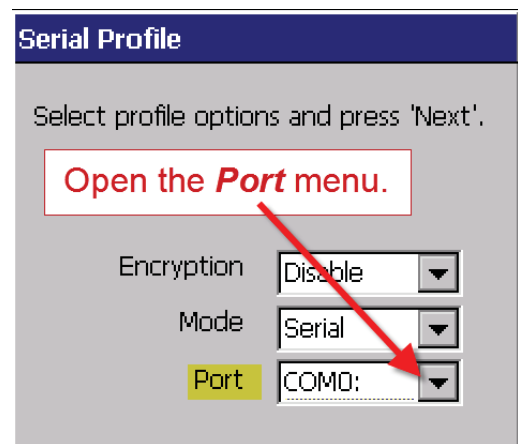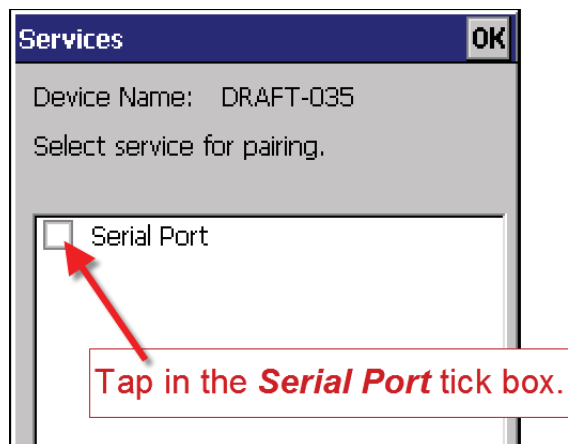

Find the Bluetooth icon.

6. On the devices tab press **Scan**. Now the stock recorder tries to find all the Bluetooth devices in the area. This may take a few minutes - be patient!


Tap the *Scan* button and wait while the stock recorder scans the area for any Bluetooth signals.

7. When scanning is complete the screen will show all the Bluetooth devices in the area, including mobile phones.
8. Highlight **SDL130** and tap **Pair**.
9. The Authentication screen opens. All Shearwell products use 1111 as the default PIN. Type in the PIN and tap **Next**.

1. The **Services** screen will open. Tap in the **Serial Port** tick box.
2. The **Serial Profile** screen will open. Leave **Encryption** disabled. Leave **Mode** as serial.

Tap in the Serial Port tick box.

Open the Port menu.

3. Open the **Port** menu. On the list find the next available BSP after BSP 1. Make a note of the BSP number.
4. The Serial Profile screen opens again. Tap **Next**. On the Services screen tap **Done**.

**Select the next BSP number after BSP1.**

Tap Next

Tap Done
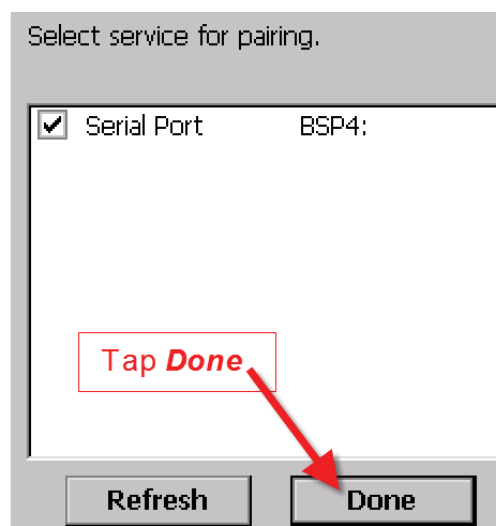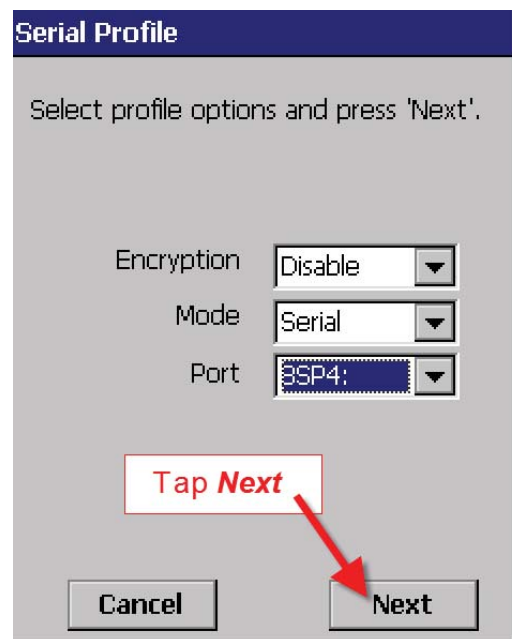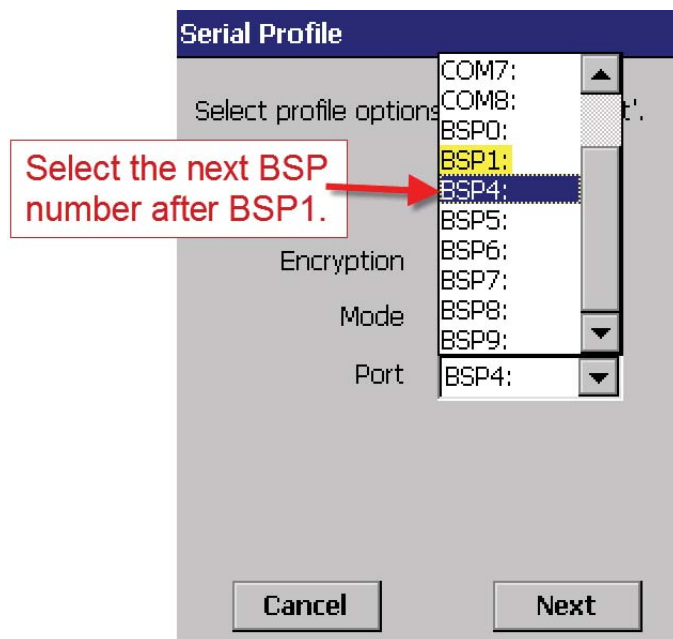
Set up FarmWorks on the stock recorder to receive tag numbers from the SDL 130

1. Open FarmWorks on the stock recorder.
2. Select **Options**, then **RF Reader**.
3. Select **SDL 130R.**
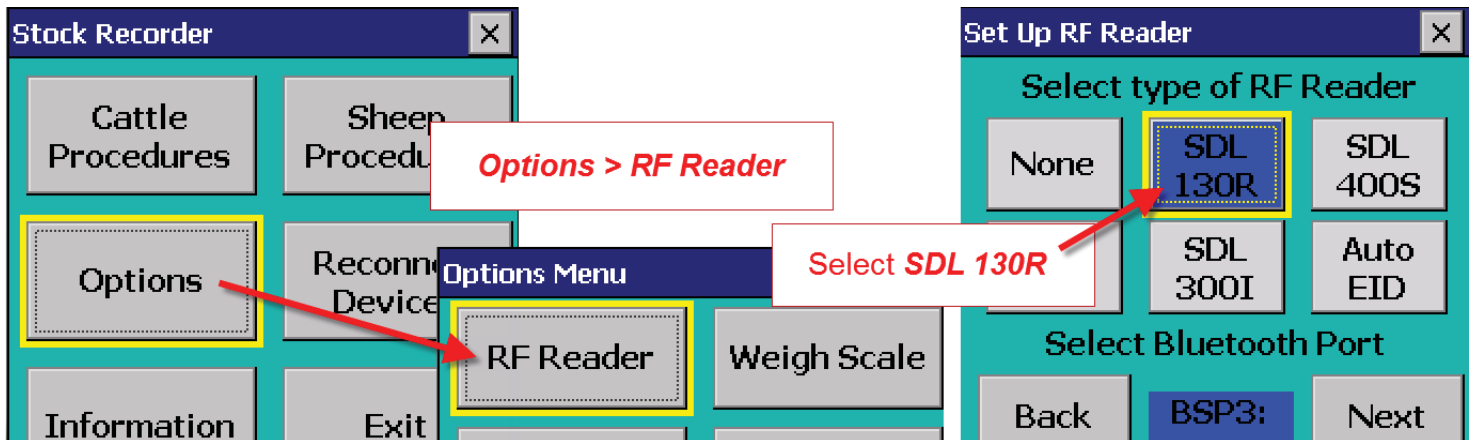
Options > RF Reader

Select SDL 130R

4. Select the correct Bluetooth port number - the BSP number from the Bluetooth Manager. Click backwards and forwards using the **Back** and **Next** buttons until you find the right BSP number.

Select the right Bluetooth port using the **Back** and **Next** buttons.
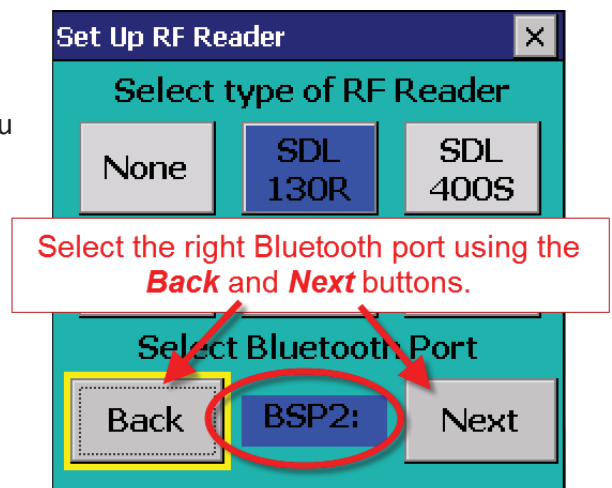
5. Click **Test Connection**.
6. The message **Connection Established** means the stock recorder and SDL 130 have been successfully connected.
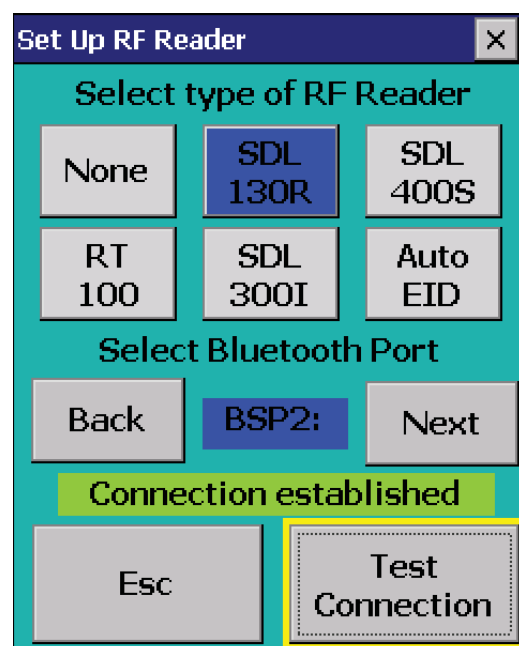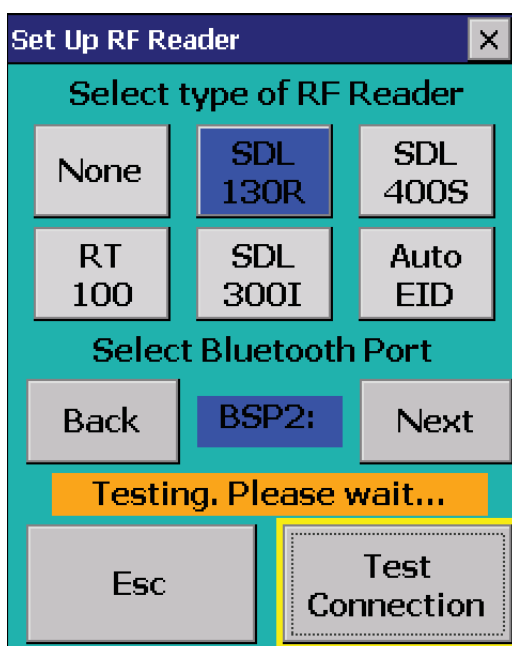
Bluetooth connection to Tru-Test 3000 weigh scale

A = Tru-Test weigh scale

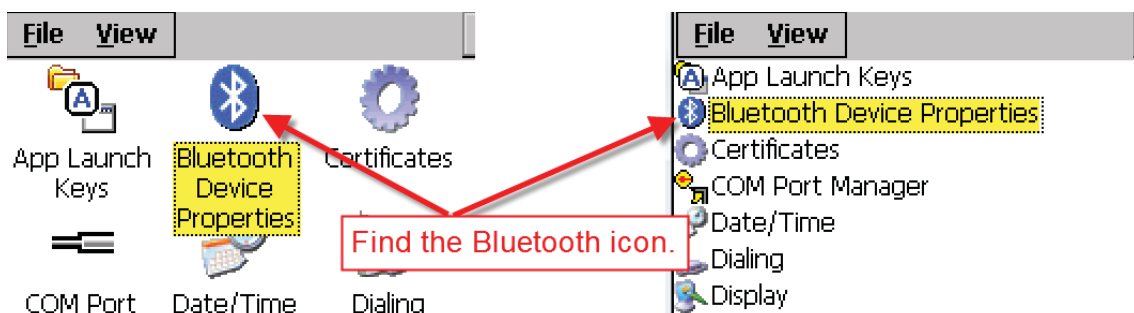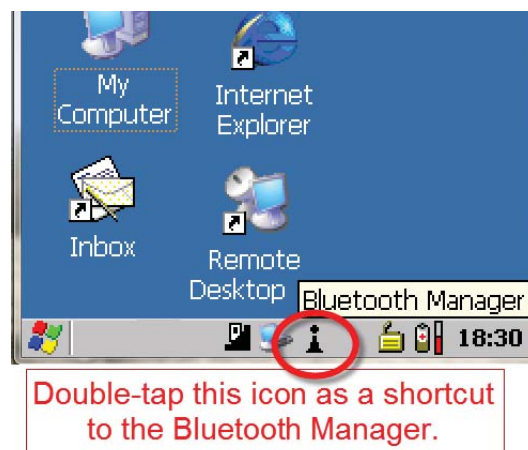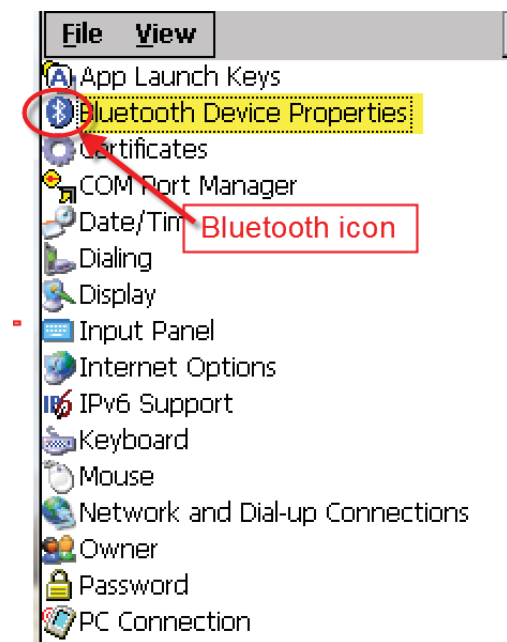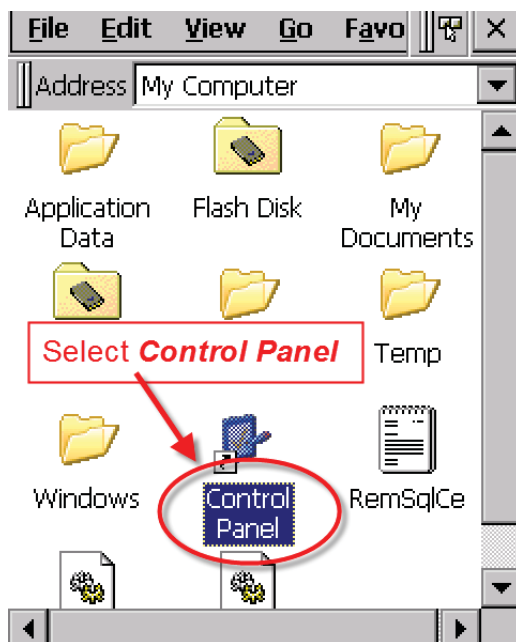## Connecting the Tru-Test 3000

1. Connect the two blue cables and the power lead to the ports on the bottom of the weigh scale.
2. Switch it on by pushing the power button.
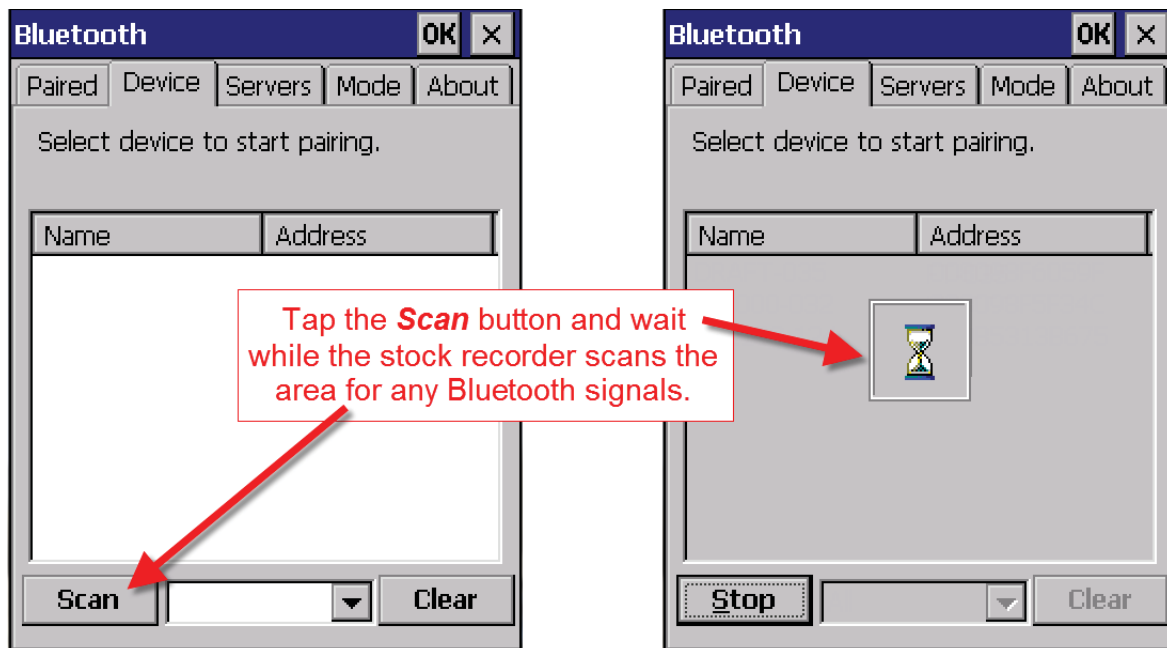

Power button

Pairing the stock recorder with the Tru-Test 3000

* If the Bluetooth Manager on your stock recorder looks different than what is pictured here you might have an older version - see the appendices at the back of this guide to find the right procedure.
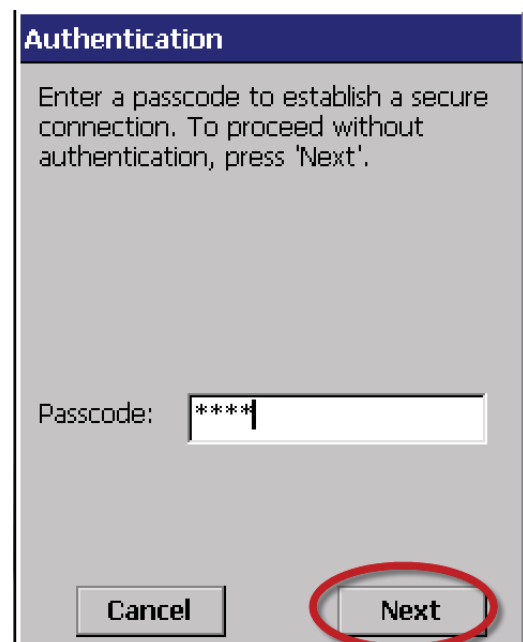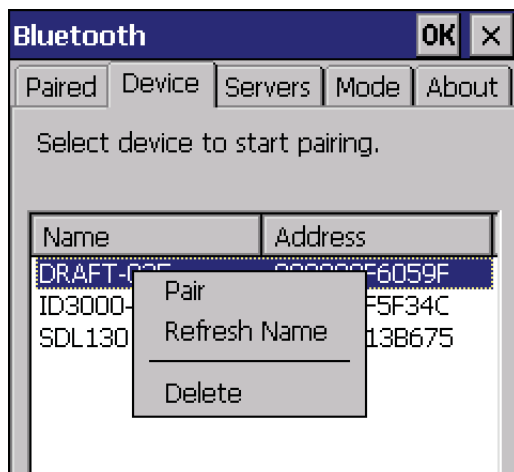
1. Turn on the weigh scale you are trying to link to the stock recorder. Make sure it is close by.
2. On the stock recorder desktop find the computer icon. It may be called **My Device** or **My Computer**. Double tap the icon to open it.
3. A shortcut to the Bluetooth Manager is to tap the BT icon on the bottom taskbar.
4. Open **Control Panel**.
5. Find the Bluetooth symbol. It may be an icon or it may be in a list of folders. Double-tap to open **Bluetooth Device Properites**.
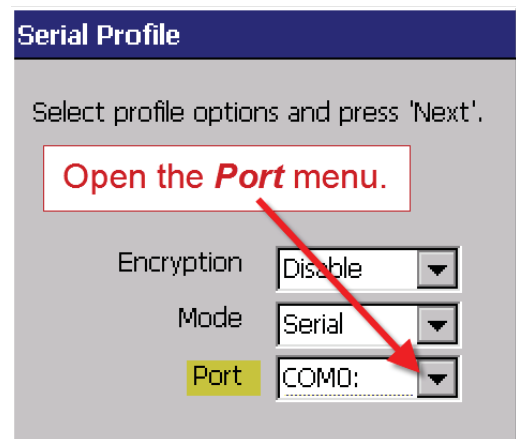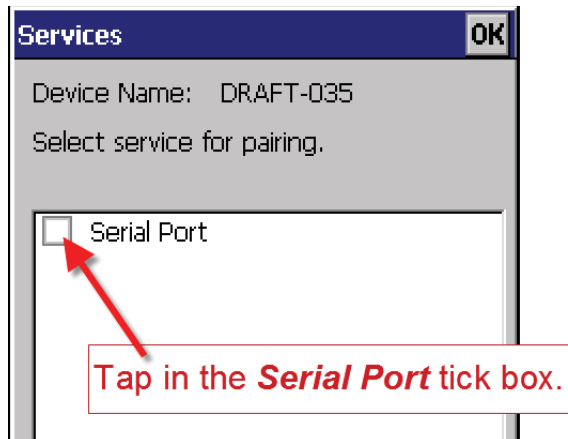

Select **Control Panel**

Bluetooth icon

Double-tap this icon as a shortcut to the Bluetooth Manager.

Find the Bluetooth icon.

6. On the devices tab press *Scan*. Now the stock recorder tries to find all the Bluetooth devices in the area. This may take a few minutes - be patient!


7. When scanning is complete the screen will show all the Bluetooth devices in the area, including mobile phones.
8. Highlight the ID3000 and tap *Pair*.
9. The Authentication screen opens. All Shearwell products use 1111 as the default PIN. Type in the PIN and tap *Next*.

1. The **Services** screen will open. Tap in the **Serial Port** tick box.
2. The **Serial Profile** screen will open. Leave **Encryption** disabled. Leave **Mode** as serial.

Tap in the **Serial Port** tick box.

Open the **Port** menu.

3. Open the **Port** menu. On the list find the next available BSP after BSP 1. Make a note of the BSP number.
4. The Serial Profile screen opens again. Tap **Next**. On the Services screen tap **Done**.

Select the next BSP number after BSP1.

Tap **Next**

Tap **Done**
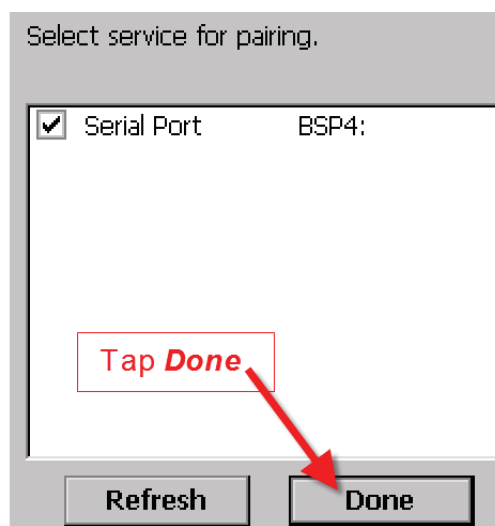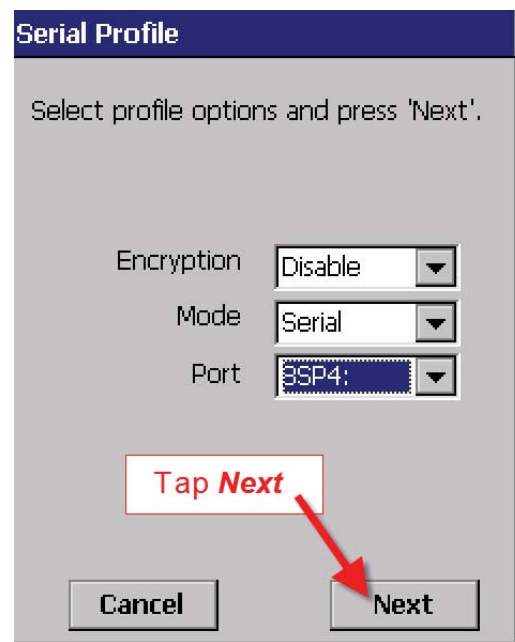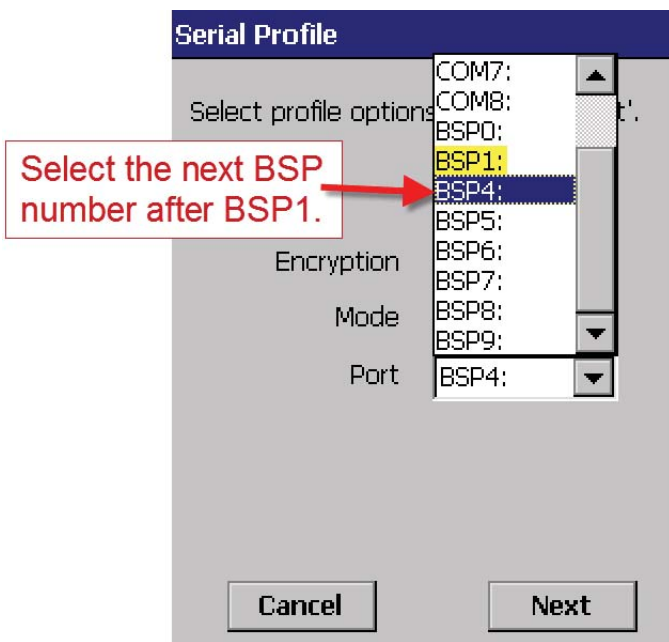
Set up FarmWorks on the stock recorder to receive weights from the Tru-Test 3000

1. Open FarmWorks on the stock recorder.
2. Select *Options*, then *Weigh Scale*.
3. Select *JR3000*
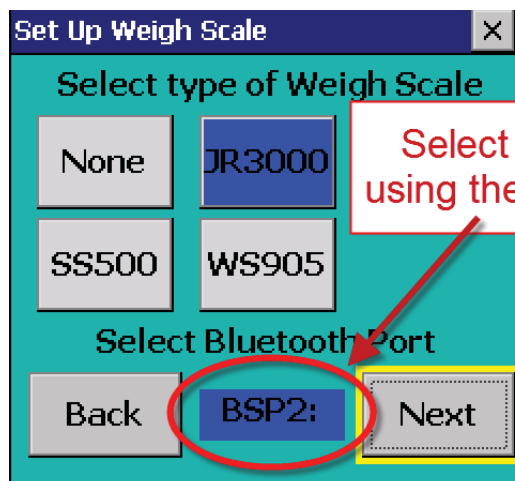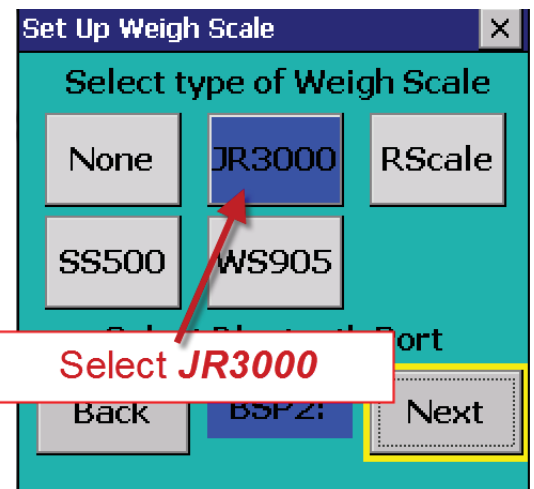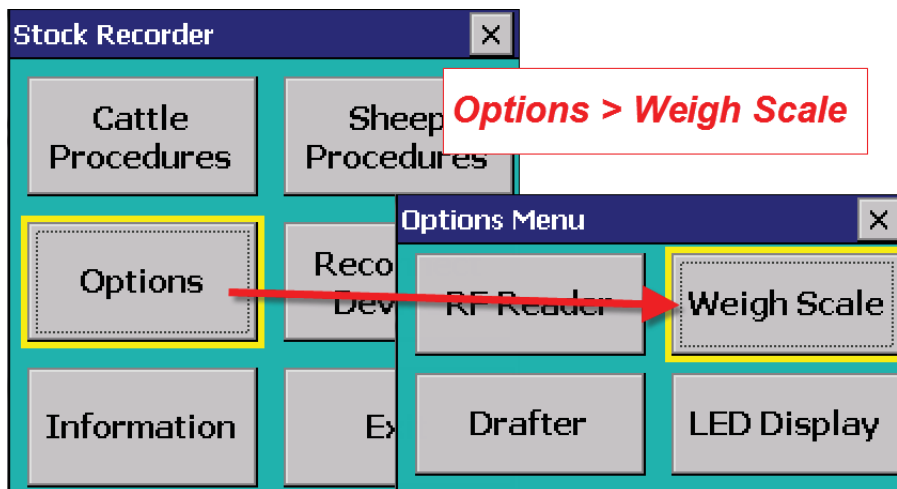
4. Select the correct Bluetooth port number - the BSP number from the Bluetooth Manager. Click backwards and forwards using the *Back* and *Next* buttons until you find the right BSP number.

5. Tap *Test Connection*. The message *Connection Established* means the stock recorder and your Tru-Test 3000 have been successfully connected.
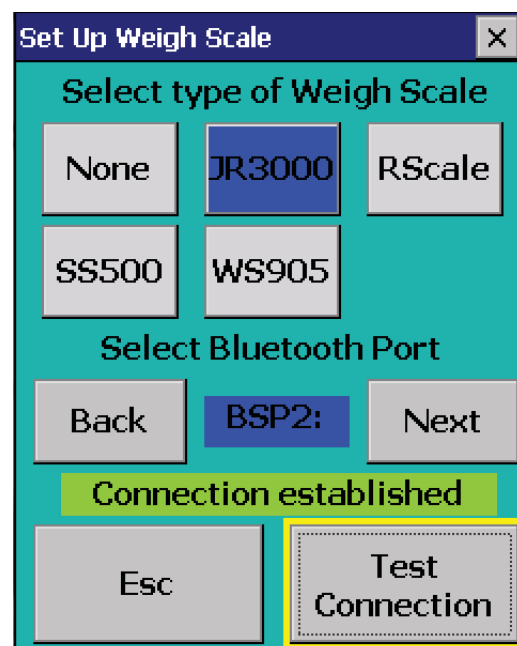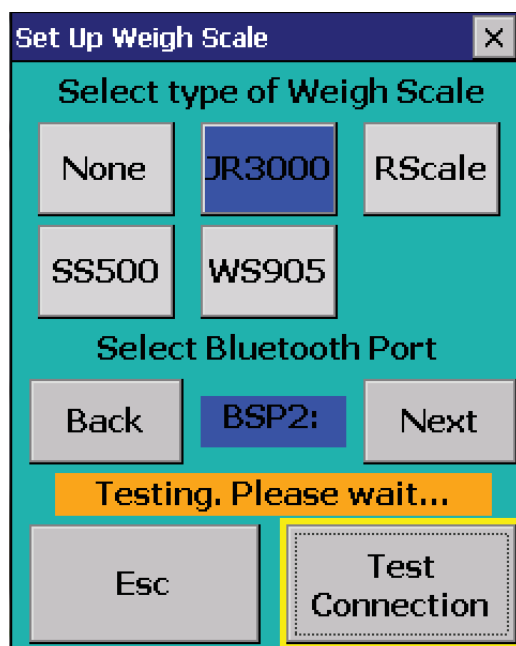
Bluetooth connection to the 3-Way Drafter

Preparing the 3-Way Drafter

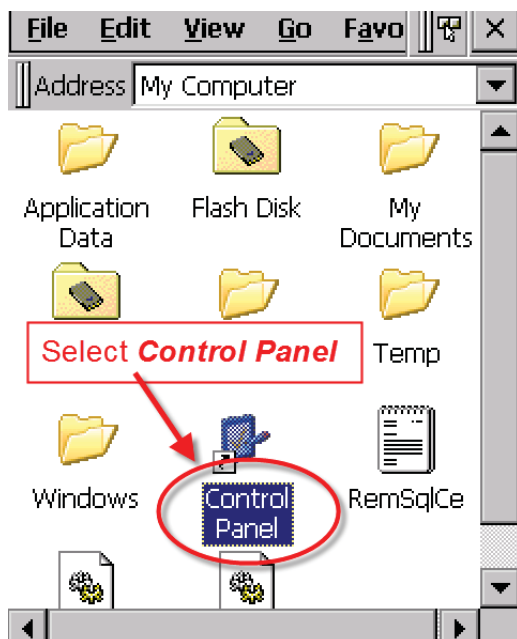1. Connect the Main Control box to a power supply.
2. Attach an air line from the air compressor to the Main Control box.
3. Check for 40 psi on the air gauge.
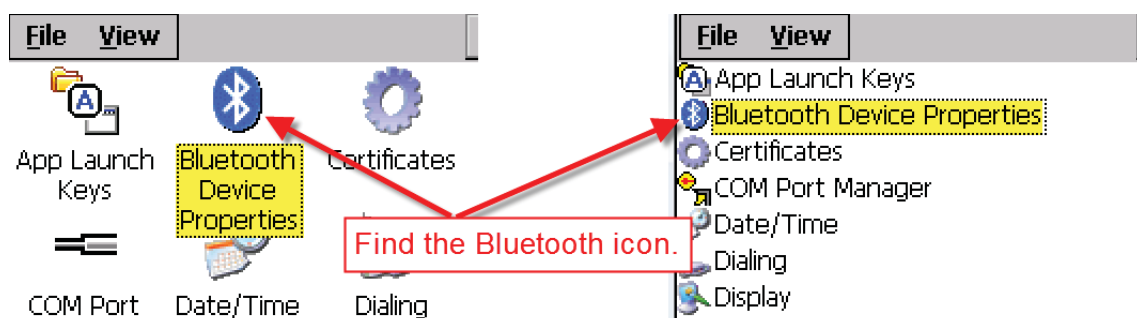4. Push the rocker switch to the ON position.

Pairing the stock recorder with the 3-Way Drafter

* If the Bluetooth Manager on your stock recorder looks different than what is pictured here you might have an older version - see the appendices at the back of this guide to find the right procedure.

1. Turn on the drafter you are trying to link to the stock recorder. Make sure it is close by.
2. On the stock recorder desktop find the computer icon. It may be called **My Device** or **My Computer**. Double tap the icon to open it.
3. A shortcut to the Bluetooth Manager is to tap the BT icon on the bottom taskbar.
4. Open **Control Panel**.
5. Find the Bluetooth symbol. It may be an icon or it may be in a list of folders. Double-tap to open **Bluetooth Device Properites**.

6. On the devices tab press **Scan**. Now the stock recorder tries to find all the Bluetooth devices in the area. This may take a few minutes - be patient!

Tap the **Scan** button and wait while the stock recorder scans the area for any Bluetooth signals.

7. When scanning is complete the screen will show all the Bluetooth devices in the area, including mobile phones.
8. Highlight **Draft-035** and tap **Pair**.
9. The Authentication screen opens. All Shearwell products use 1111 as the default PIN. Type in the PIN and tap **Next**.

1. The **Services** screen will open. Tap in the **Serial Port** tick box.
2. The **Serial Profile** screen will open. Leave **Encryption** disabled. Leave **Mode** as serial.

Tap in the **Serial Port** tick box.

Open the **Port** menu.

3. Open the **Port** menu. On the list find the next available BSP after BSP 1. Make a note of the BSP number.
4. The Serial Profile screen opens again. Tap **Next**. On the Services screen tap **Done**.
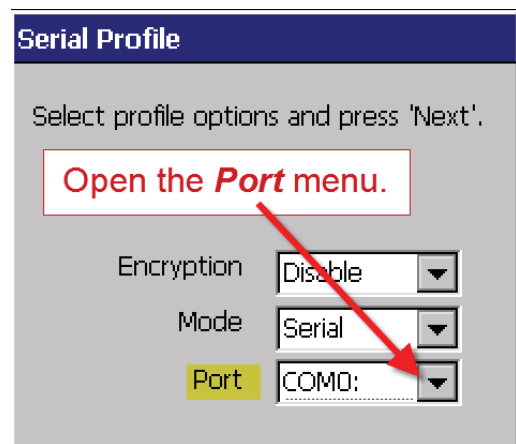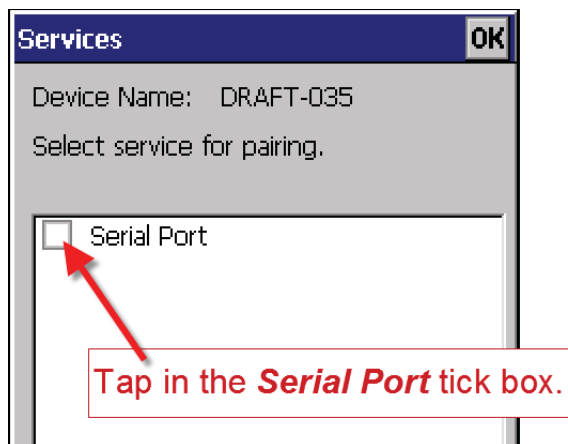
Select the next BSP number after BSP1.

Tap **Next**

Tap **Done**
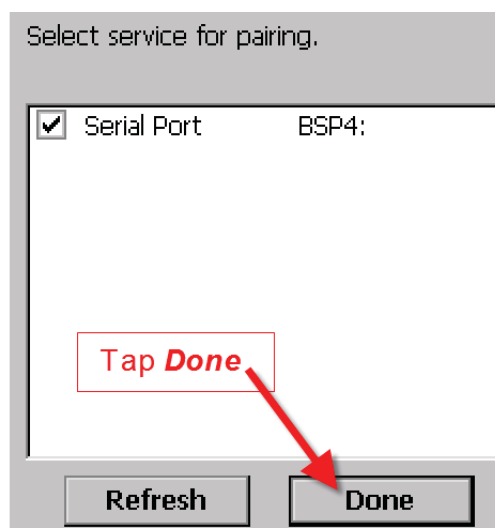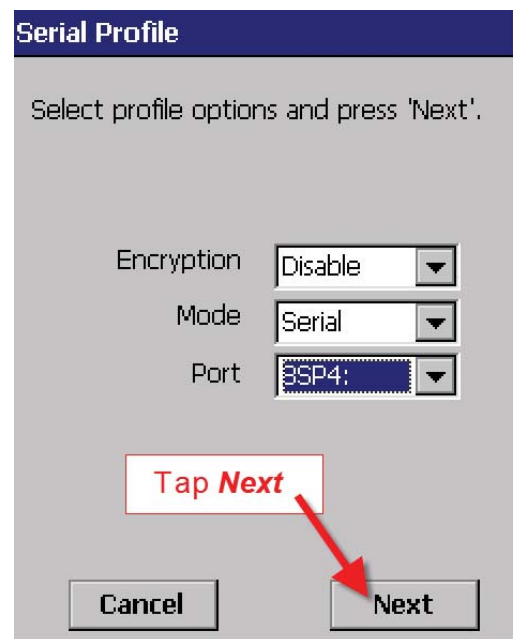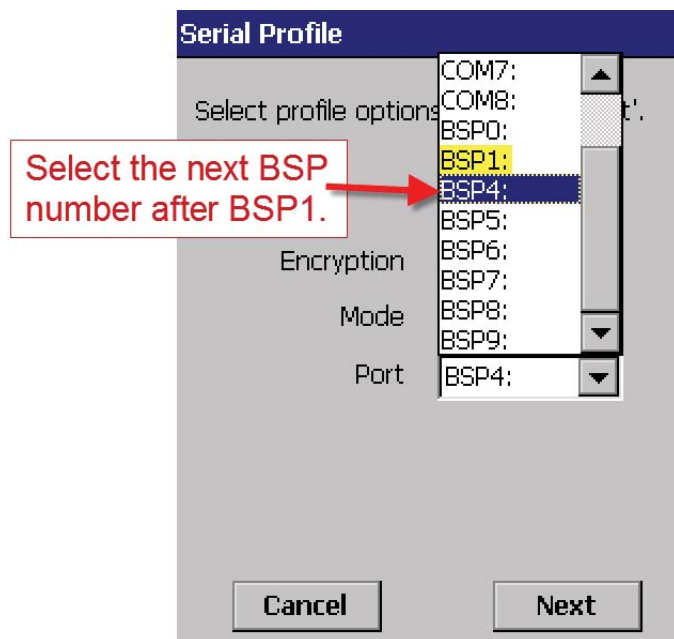
Set up FarmWorks on the stock recorder to operate the 3-way drafter

1. Open FarmWorks on the stock recorder.
2. Select *Options*, then *Drafter*.

3. Select *3-Way*
4. Select the correct Bluetooth port number - the BSP number from the Bluetooth Manager. Click backwards and forwards using the *Back* and *Next* buttons until you find the right BSP number.
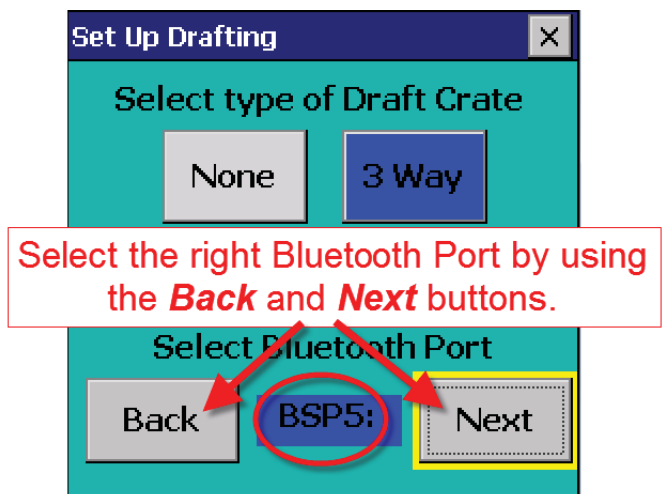
5. Click *Test Connection*. The message *Connection Established* means the stock recorder and 3-way drafter have been successfully connected.
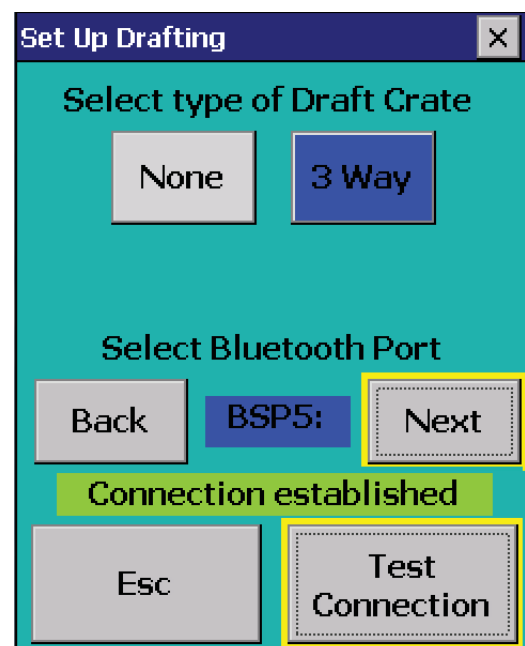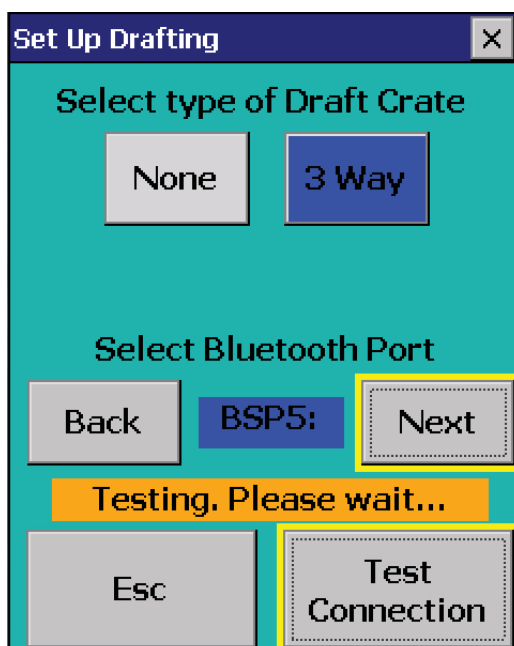
Operating the drafting crate

Read the instructions for setting up the Bluetooth connections before starting. This section deals with the actual operation of the crate after the initial installation.

1. Open *FarmWorks* on the stock recorder*,* then *Options*, then *RF Reader.*
2. Change RF Reader to *SDL 130R*
3. Test connection. Tap *Escape*.
4. In *Options* menu open *Weigh Scale.*
5. Change Weigh Scale to *JR3000*
6. Test connection. Tap *Escape*.
7. In *Options* open *Drafter.*
8. Change Drafter to *3 Way*
9. Test connection. Continue to *Sheep Procedures* then *Drafting*.

This is the procedure for using the stock recorder and auto drafter to weigh and sort animals based on their weight. If you want to draft animals based on other criteria, like sex or breed, or if you want to separate animals into special groups, then you must do that through a Drafting Setup in FarmWorks on the computer. See the FarmWorks User Guide for specific instructions on drafting setups.
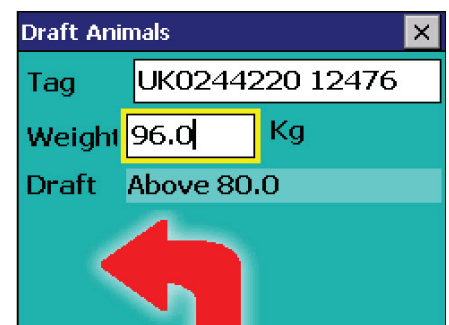
Draft by Weight

This option reads the EID tag and records a weight against each animal before drafting three ways. The three drafts can also be named as management groups, which will be imported into FarmWorks during the next data transfer.

1. On the stock recorder go to *Sheep Procedures > Drafting*.
2. Select *Draft by Weight*.
3. You can choose to save the weight of each animal - Yes or No.
4. You can choose to save the drafted animals into management groups - Yes or No. Tap *Next*.
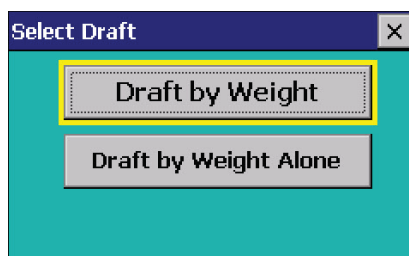
5. Set the weight parameters and select the gates - Left (**L**), Right (**R**) or Forward (**F**). Tap *Next*.
6. If you chose to save into management groups then you must type in a name for each group. Make unique names that will be easy to find in FarmWorks. Tap *Next*.
7. The in-gate (back gate) of the drafting crate will open for the first sheep to enter, and close behind it.
8. The EID number will appear in the Tag field, the weight will show, the appropriate management group is named and an arrow shows the direction of the gate opening.
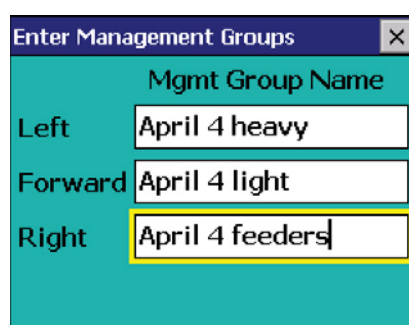
Operating the drafting crate

Draft by Weight Alone

This option does NOT record any animal information. It only weighs and then drafts in three different directions depending on your weight parameters.

1. On the stock recorder go to **Sheep Procedures > Drafting**.
2. Select **Draft by Weight Alone**.
3. Set the weight parameters and select the gates - Left (**L**), Right (**R**) or Forward (**F**). Tap **Next**.
4. The in-gate (back gate) of the drafting crate will open for the first sheep to enter, and close behind it.
5. **Awaiting Next Animal** appears in the Tag field, the weight will show, and an arrow shows the direction of the gate opening.

Manual drafting with the stock recorder

Occasionally you may want to stop the auto drafter and operate the gates manually using the stock recorder. Note that if you are drafting into management groups, NO data will be recorded about an animal that is drafted manually. The 3-way drafter must have a Bluetooth connection to the stock recorder before starting.

1. On the stock recorder go to **Sheep Procedures > Drafting**.
2. Select any of the drafting options and prepare to draft.
3. There is an option to switch to **Manual** drafting at the bottom of the screen.
4. Use the buttons to open and close any of the drafting gates. To revert to automatic drafting, tap **Auto**.
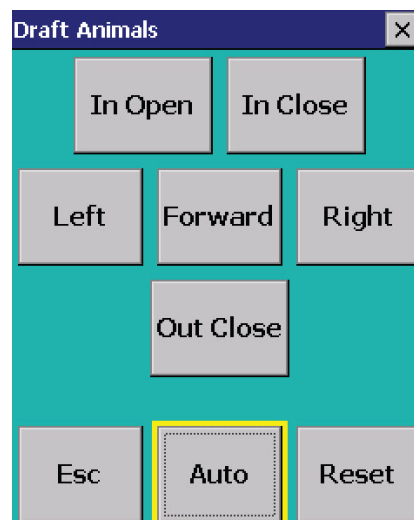
Operating the drafting crate

Using the remote control

The remote control can be used to operate the gates for manual drafting of animals. This can be done independently of the stock recorder, or used in conjunction with the stock recorder for recording treatments, movements, etc when animals are not being automatically drafted.

1. On the stock recorder, go to *Options > Drafter*, and select *None* as the draft crate.

2. Connect the remote control to the Main Control box. The port is above the air line connection.

3. Use the four buttons to open the front, rear, left and right gates.

Trouble-shooting Guide

The back gate of the crate will not open automatically.

1. Go to **Reconnect Devices** on the stock recorder. Test the connection.
2. Check the remote control is not connected. If it is then power off the Main Control box, unplug the remote control cable and switch the Main Control box back on. Go back to **Reconnect Devices** and test connections.
3. Check the stock recorder has the **3 Way Drafter** selected. (**Options > Drafter**)
4. The right Bluetooth port is BSP _____. (Check your Quick Connect guide.)
5. Is the airline connected and showing 40 PSI on the gauge?

Stock recorder is not receiving weights.

1. Go to **Reconnect Devices** on the stock recorder. Test the connection.
2. Check the Tru-Test is connected and powered on.
3. Check the stock recorder has the weigh scale **JR3000** selected. (**Options > Weigh Scale**)
4. Select the right Bluetooth port - BSP _____. (Check your Quick Connect guide.)

Error message on stock recorder...
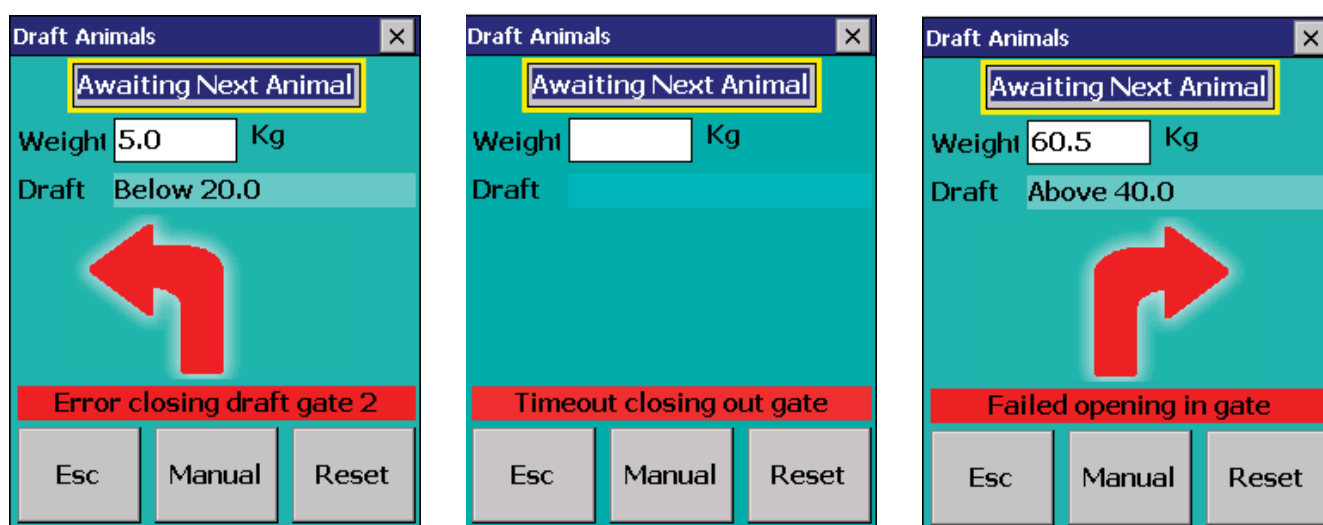
These errors can indicate that Bluetooth ports are cross-linked, or else the Bluetooth connection to the stock recorder has been broken. If the Psion switched off or was moved out of range it will lose the Bluetooth connection.

1. Check that the Bluetooth port for each device is correct and none are shared.
2. Go to **Reconnect Devices** on the stock recorder. Test the connection.
3. Check the Main Control box still has power (light is on).
4. Check that all cords and plugs are secure. If the power fails for even a second the Bluetooth connection will be broken.
5. If none of these resolve the problem there may be a fault in the control box. Please contact your distributor.

Trouble-shooting Guide

Stock recorder is not receiving tag numbers.

1. Try a test tag. Does the green light flash?
2. Go to **Reconnect Devices** on the stock recorder. Test the connection.
3. Check the SDL 130 is connected and powered on. (Is the red light on?)
4. Check the stock recorder has the RF reader **SDL 130R** selected.
(**Options > RF Reader**)
5. Select the right Bluetooth port - BSP _____. (Check your Quick Connect guide.)
6. Move radios, fans, laptops, etc. away if they could interfere with the Bluetooth signal.

Error message on stock recorder...

The in-gate (or back gate) closes when there is weight on the scale. This message results when the in-gate can not close because of an obstruction, commonly by two sheep trying to enter together. The gate is programmed to try two times to close, then it stops to allow you to clear the obstruction.

1. Check there is nothing preventing the gate from closing. Press **Reset**. The gate should now close when a weight is in the crate.
2. If there are no obvious obstructions then check how quickly the gate is closing. If the gate is taking too long to close then it thinks there is a blockage. Check the compressor is running and there is enough air pressure to close the gate quickly enough.
3. If there is no blockage and sufficient air pressure, then there may be a fault with either the sensor which detects that the gate is closed, or inside the drafting control box. Please contact your distributor.

Contacting support

Technical support in the UK

Shearwell Data Ltd

Putham Farm, Wheddon Cross

Minehead

Somerset

Tel: 01643 841611

Fax: 01643 841628

Email: support@shearwell.co.uk

Technical support in Canada

Shearwell Canada Support

Erona Farms Ltd

Barrhead, Alberta

Tel: 780 674 9564

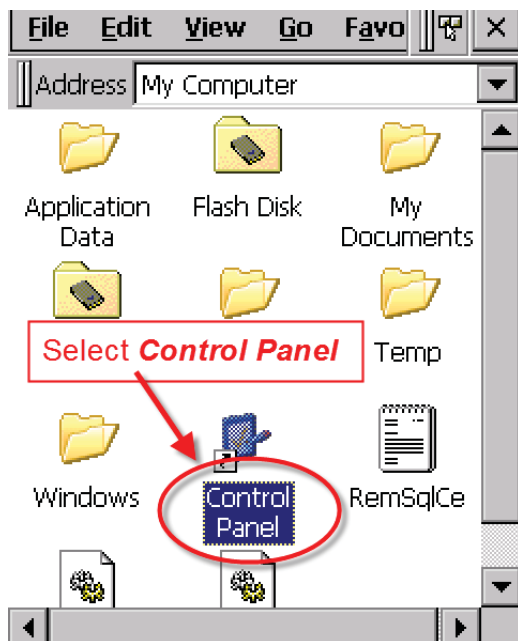**Email: casupport@shearwell.co.uk**

www.eronafarms.ca

Appendix A

 G2 Bluetooth connection to the SDL130 Dual Panel Reader

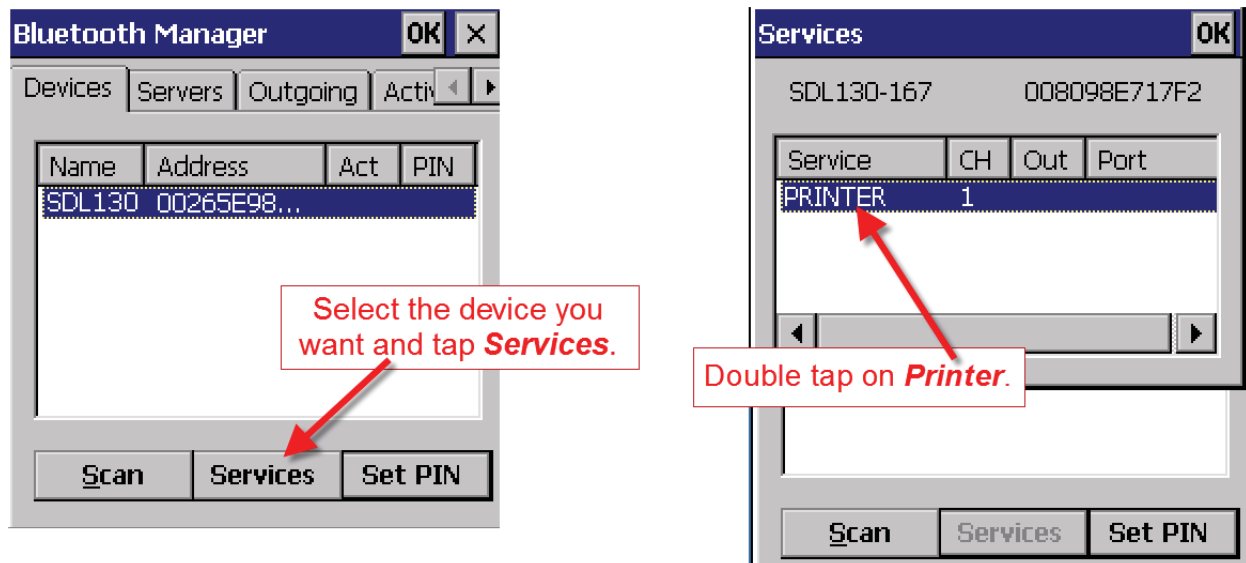## Pairing the stock recorder to the SDL 130

1. On the stock recorder desktop open **My Device**, go to **Control Panel**.
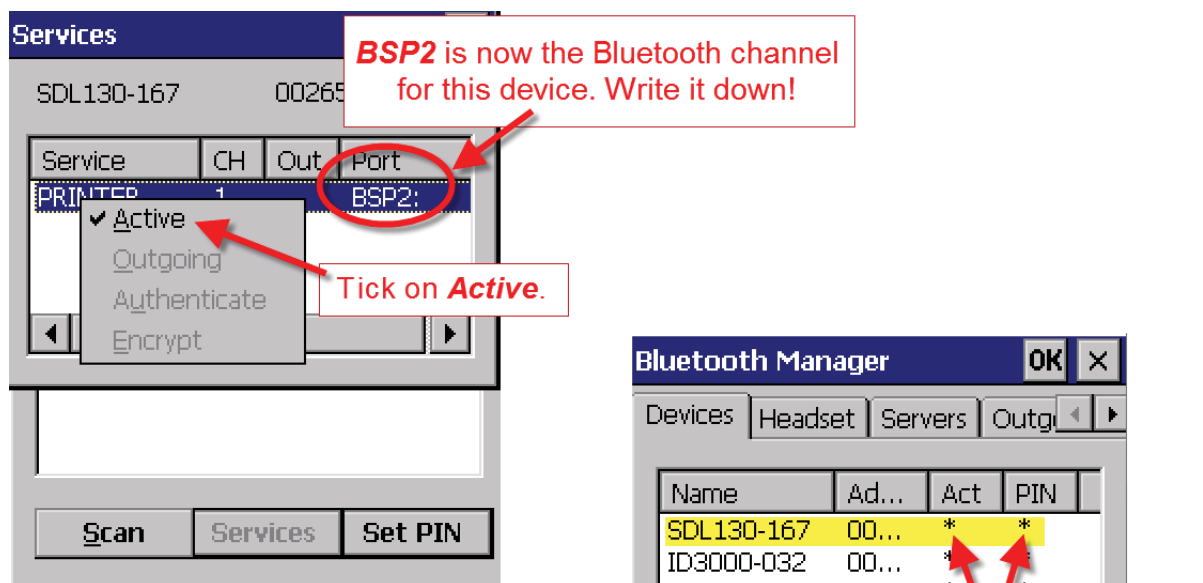2. Open **Bluetooth Devices**.

3. On the devices tab select the SDL 130. If the SDL 130 is not visible on the list click **Scan** and the stock recorder should find it.
4. Highlight the SDL 130 and tap the **PIN** button. Enter in the default PIN - 1111. Click **OK**.
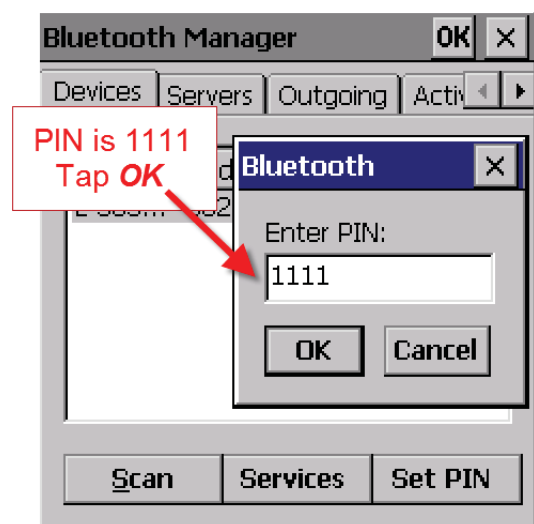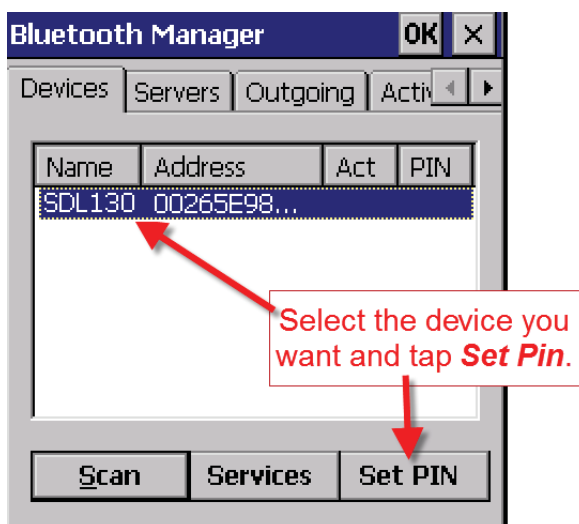
5. Click the **Services** button and wait for a window to pop up. It may take a few seconds.
6. Double tap **PRINTER**.

Select the device you want and tap **Services**.

Double tap on **Printer**.

7. From the drop-down menu select **Active**.
8. On the Services page you should see a port number i.e. BSP3 or some other BSP number. **Remember this number for your panel reader**!
9. Click OK and close all the windows.

BSP2 is now the Bluetooth channel for this device. Write it down!

Tick on **Active**.

Two stars show that the SDL 130 is ready to link with the stock recorder.

10. Your stock reader is now paired to the SDL 130.
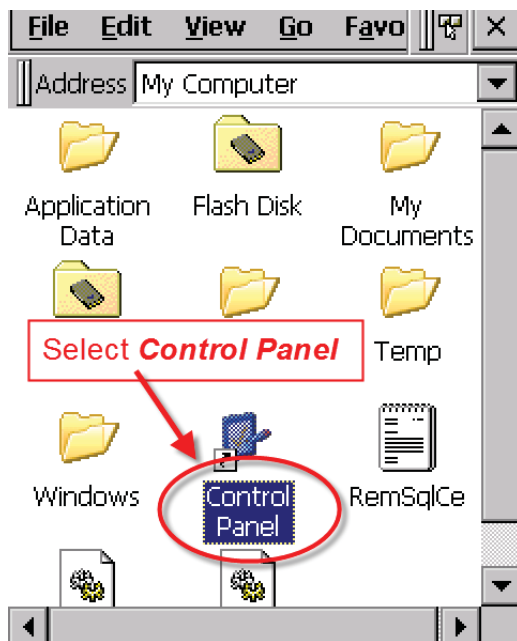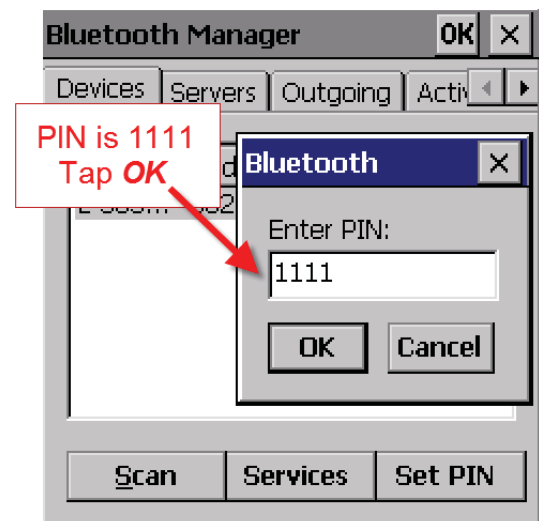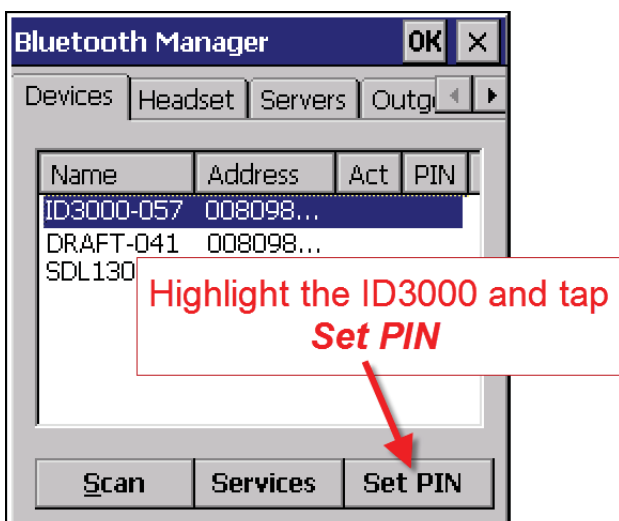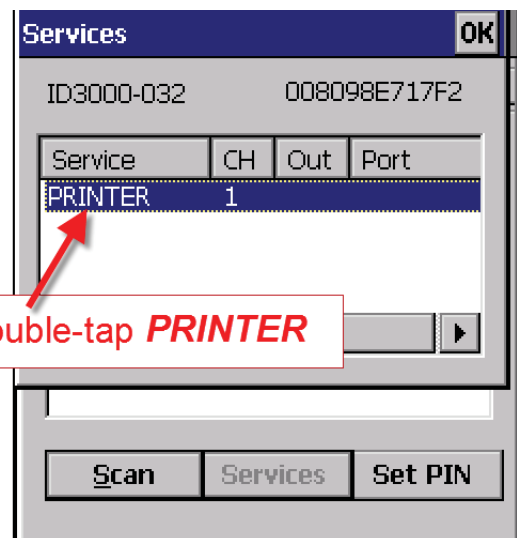
Appendix B

 G2 Bluetooth connection to the Tru-Test 3000
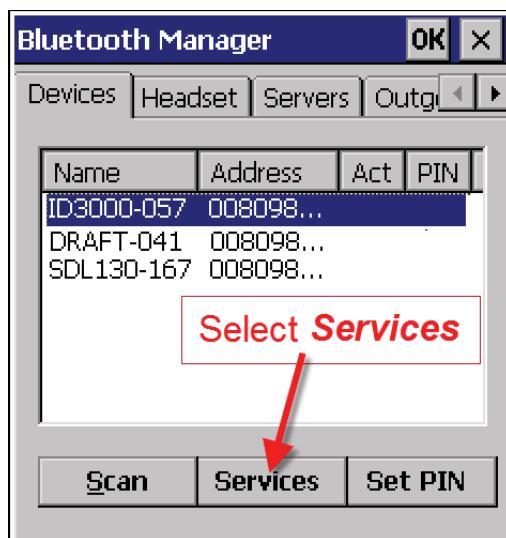
Pairing the stock recorder with the Tru-Test 3000

1. On the stock recorder desktop open *My Device*, go to *Control Panel*.
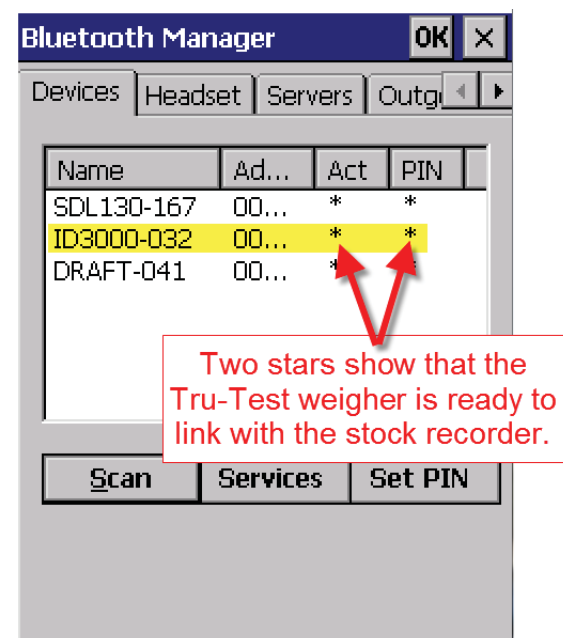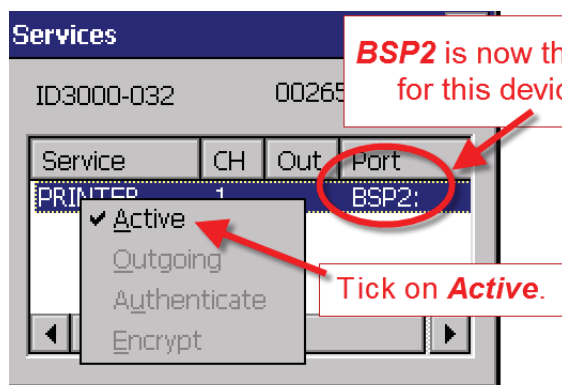2. Open *Bluetooth Devices*.
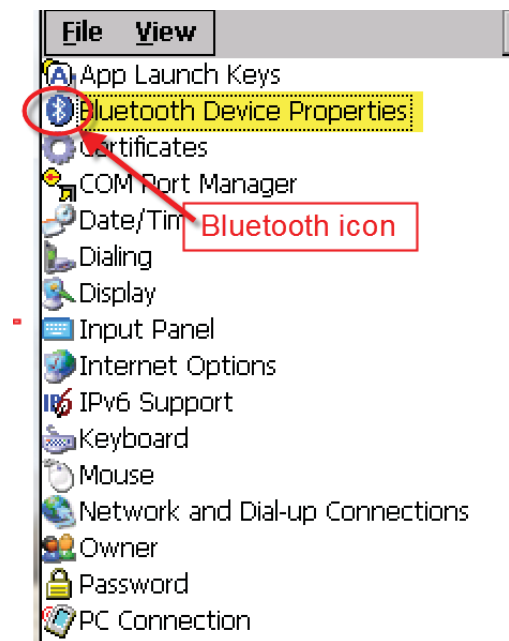
3. On the devices tab select the ID3000. If the ID3000 is not on the list click *Scan* and the stock recorder should find it.
4. Highlight the ID3000 and tap the *PIN* button. Enter in the default PIN - 1111. Click *OK*.

5. Click the **Services** button and wait for a window to pop up. It may take a few seconds.
6. Double tap **PRINTER**.

7. From the drop-down menu select **Active**.
8. On the Services page you should see a port number i.e. BSP3 or some other BSP number. **Remember this number for your weigh scale**!
9. Click OK and close all the windows.
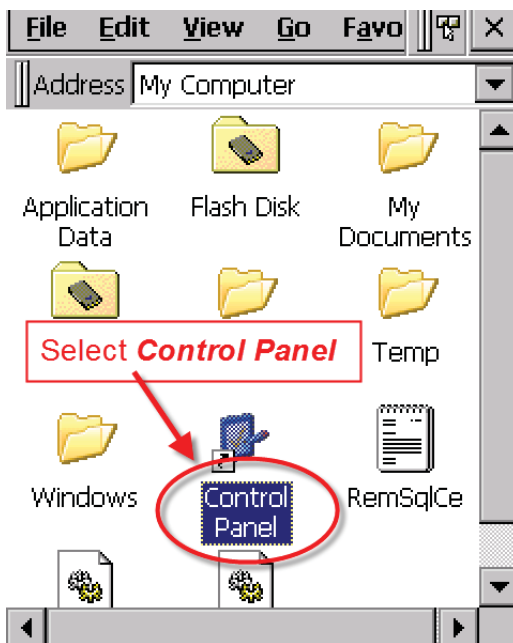10. Your stock recorder is now paired to the Tru-Test weigh scale.

Appendix C

 G2 Bluetooth connection to the 3-Way Drafter
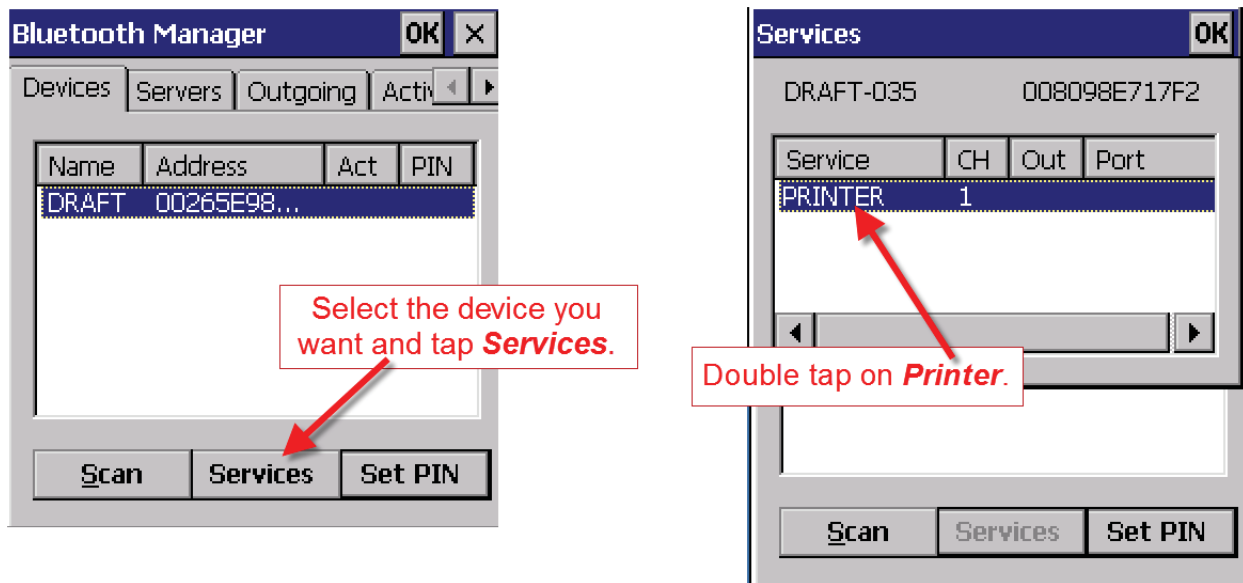
Pairing the stock recorder to the 3-Way Drafter

1. On the stock recorder desktop open *My Device*, then go to *Control Panel*.
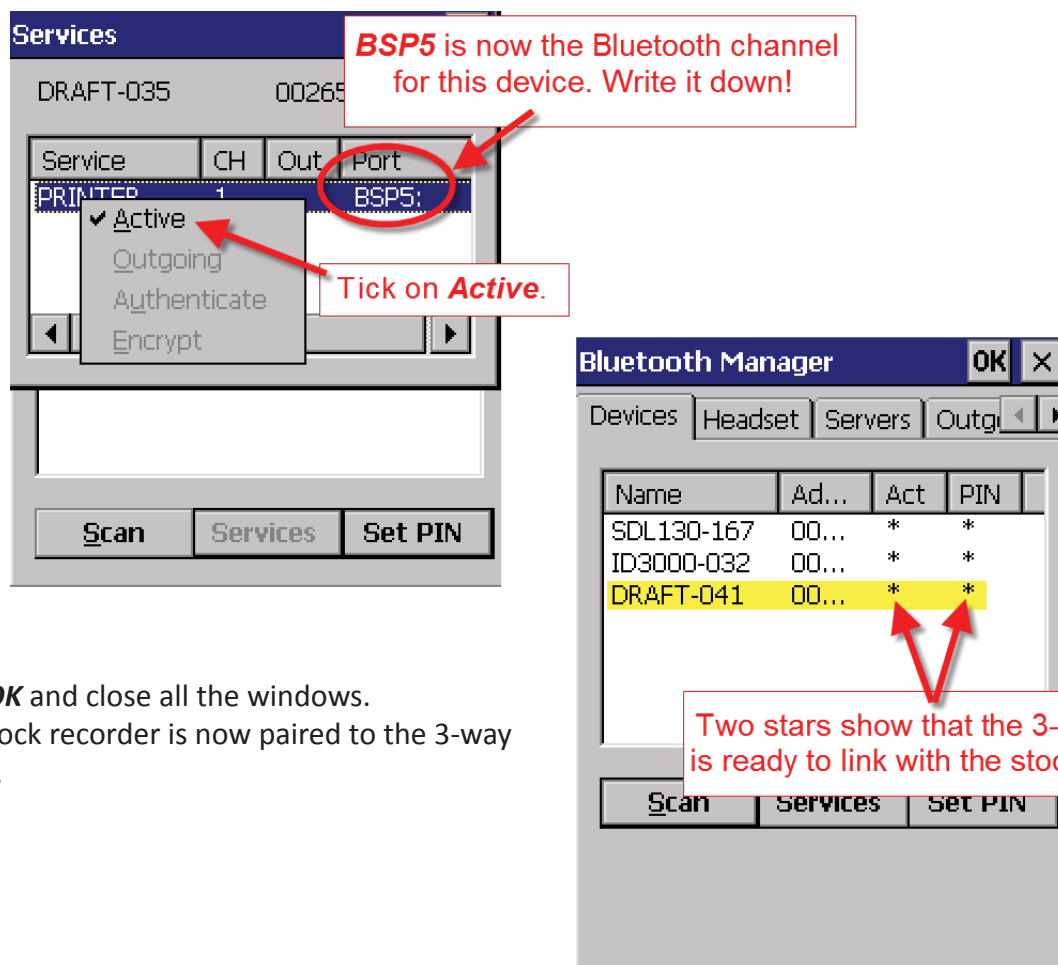2. Open *Bluetooth Devices*.

3. On the devices tab select *Draft*. If the drafter is not visible on the list click *Scan* and the stock recorder should find it.
4. Highlight *Draft* and tap the *PIN* button. Enter in the default PIN - 1111. Click *OK*.
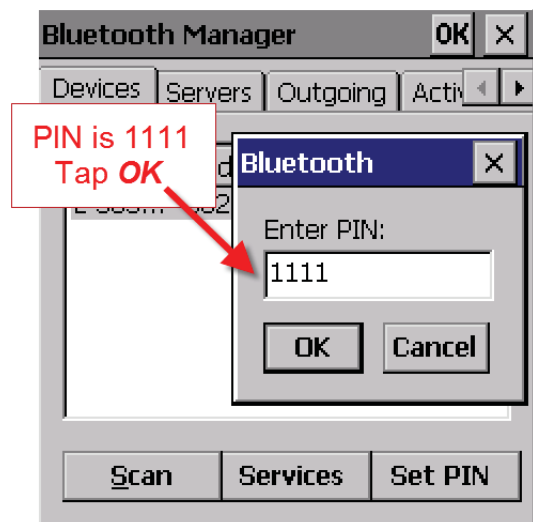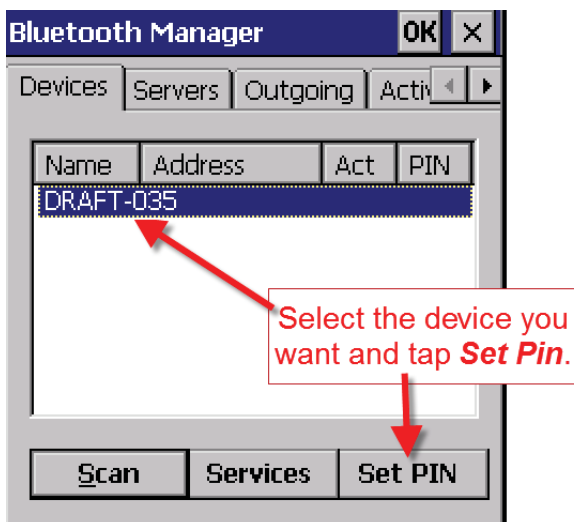
5. Click the *Services* button and wait for a window to pop up. It may take a few seconds.
6. Double tap *PRINTER*.

Select the device you want and tap *Services*.

Double tap on *Printer*.

7. From the drop-down menu select *Active*.
8. On the Services page you should see a port number i.e. BSP3 or some other BSP number. *Remember this number for your 3-way drafter*!

BSP5 is now the Bluetooth channel for this device. Write it down!

Tick on *Active*.

Two stars show that the 3-way drafter is ready to link with the stock recorder.

9. Click *OK* and close all the windows.
10. Your stock recorder is now paired to the 3-way drafter.