Summary

There are two separate connections regarding the CS 10/15 controller and the GS 10/15 which are cable or Bluetooth. This document is intended for the user to establish a successful Bluetooth connection and/or troubleshoot the connection.
Establishing Bluetooth Connection between CS and GS

Firmware Ver 3.00

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CS 10/15 and GS 10/15

Establishing Bluetooth Communication

Procedure: Bluetooth connection

In the icon at the top of the screen, the instrument icon indicates that the CS is set to connect by a Bluetooth link but has not yet made a successful Bluetooth connection.

To make the connection, go to the main menu in Smartworx. From there Press 3 (Instrument) > 2 (connect to instr.)

Next choose 1 (GS connection wizard) > then choose the GS10/GS15 radio button then press F1 (Next)

Press the Bluetooth radio button then press F1 (Next)

On the Bluetooth connection screen press F4 (Search) for the field controller to search for the active Bluetooth devices available in the area near the receiver.

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Procedure: Bluetooth connection

Please make sure that the GS Sensor is turned on when the search procedure is functioning and the Bluetooth radio in the CS is scanning for the GS receiver.

After the scan is complete a list of Bluetooth devices will appear, the GS receiver address will have the serial number listed to correctly identify it.

Highlight the correct Bluetooth device (GS receiver) address and press F1 (Next)
With a successful Bluetooth bond, a green ‘active sync’ type icon will appear, indicating that the instrument and the antenna are synchronizing.

The instrument will then indicate that the antenna and the field controller are connected. Press F1 (Finish) to return to the main menu.
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Troubleshooting

There are some instances where a Bluetooth connection between the field controller and the antenna seem to not bond correctly. Sometimes the CS and GS are in an area with a great number of devices that have Bluetooth signatures, or that the Bluetooth ID is found but cannot pair with the field controller. The following illustrations and instructions will go through connecting a failed Bluetooth bond.

**Problem:** When attempting to make a Bluetooth pair with the GS receiver and CS field controller, the GS receiver (serial number) is not on the Bluetooth search results list.

**Possible Solutions:**

- The antenna must be turned on during the search procedure.

- The number of Bluetooth devices in the area is too great and even though the field controller successfully found the antenna, it does not display the address due to the fixed number of Bluetooth address that can be displayed in the list box. Turn off or move away from some of the other Bluetooth devices and search again.

- The registry on the GS sensor needs to be reformatted. Please see page 5 to illustrate the button pattern need for reformattting system registry of the GS receiver.

**Problem:** The antenna and the field controller previously had a successful Bluetooth connection. However, now the Bluetooth lights on both the CS and GS are still on but the devices are no longer bonded.

**Possible Solutions:**

- The battery in either the GS receiver or the CS field controller is low and will need to be replaced.

- The system registry on the GS sensor needs to be reformatted. Please see page 5 to illustrate the process for reformattting.

- The field controller and the antenna need to be set back to original condition; please see page 6 for instructions.

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On both the GS 15 and the GS 10 there are two buttons. When each one is pressed separately they have their own purpose. However, pushing the two buttons simultaneously will result in additional functionality that can, in some cases, eliminate connection difficulties.

This additional functionality can produce 4 different results. None of which can be done simultaneously. Each action can only be properly executed when the buttons are released while that portion of the sequence is occurring. This is extremely important for the instrument may not perform the correct function if the buttons are released not at the correct interval.

The four functions are as follows:

- Holding the buttons down for 1 second the ME light will flash red. This will re-initialize the measurement engine and remove the current almanac.

- Holding for an additional 2 seconds the SD card light will flash red. Releasing the buttons will reformat the SD memory card.

- After holding for 10 seconds the ME, SD card, and the two data indication lights will flash red. Release the buttons to format the System RAM of the GS.

- At 15 seconds these four lights will flash red for a second time, giving the user the option to format the system registry.

To format the system registry, the user must hold the two buttons until the four lights flash for the second time. WHILE FLASHING, release the buttons and if done properly, the GS will shut down and turn itself back on; with a formatted system registry.
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Procedure:
Resetting Bluetooth to original configuration

This procedure will go through a proper step by step guide in clearing out the registry on the CS field controller/GS sensor and successfully re-pairing them. First, the GS MUST be reformatted with the CS turned off. Hold the two function keys for 15 seconds as explained on previous page. Once completed the GS must now be shut off and the CS turned back on.

Smartworx embeds the Bluetooth signature into its memory. For this reason it is necessary to change the type of connection from Bluetooth to a cable connection (a cable does not physically need to be connected). Once finished with the wizard and at the main menu, press the <Function> key and then F6 (Exit). This will close SmartWorx completely.

On the desktop, go to Start > Settings > Control Panel.
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Procedure: Resetting Bluetooth to original configuration

On the Control Panel double-tap on the Bluetooth device manager. Tap on one “Trusted” Bluetooth device and press the <- - button to move the device to the “Untrusted” side. Do this for all of the devices on the “Trusted” side. Press the OK button on the upper right hand corner of the window. Then press close the Control Panel window. Press and hold the power button on the controller and press the reset button.

Four options are available. Choose the ‘Reset Windows CE’. The instrument will shut off and reboot to prompt the user to recalibrate the touch screen. After recalibrating, launch SmartWorx and choose 4 (Instrument) and 2 (Connect to instr..)
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Procedure: Resetting Bluetooth to original configuration

Next, select 1 (GS connection wizard) > select the GS10 / GS15 radio button > select the Bluetooth radio button and press F1 (Next)

At this point, turn on the GS unit and once on, press F1 (Next) for the CS to search for the GS receiver.

Highlight the correct antenna (check the serial number) and press F1 (Next). The instrument will then indicate that there is a successful connection. Press F1 (Finish) to go back to the main menu. The Bluetooth connection should now be fully repaired.
Technical Support Contact

If you have questions or comments about the information in this guide, please contact Leica Technical Support at:

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Email: survey.support@leicaus.com

You can also find more information on Leica MyWorld at:

https://myworld.leica-geosystems.com