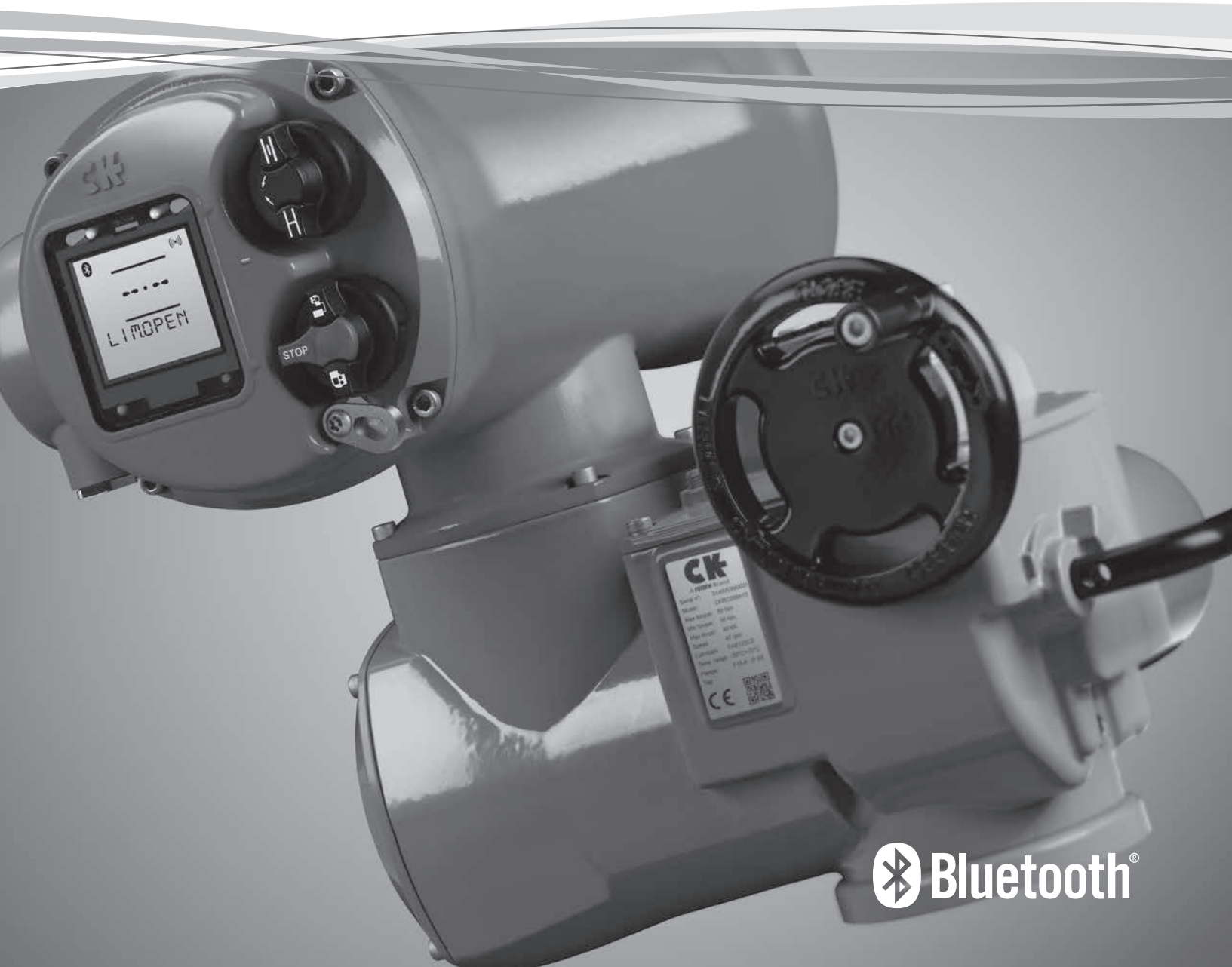# centork®

A **rotork** Brand

CK range

Bluetooth® **Setting Tool**

Bluetooth®

Modular Design Electric Valve Actuators

Contents

Key Functions

The *Bluetooth*® Setting Tool (BST)

Key		Operation
1.	⬆	Navigate to the previous menu / increase value / toggle setting
2.	⬅	Navigate to the previous menu / increase value / toggle setting / delete character
3.	⬇	Navigate to the next menu[1] / decrease value / toggle setting
4.	➡	Navigate to the next menu[1] / decrease value / toggle setting / confirm character
5.		Confirm selection / edit setting / save setting value / stop actuator[3]
6.	➖	Exit to previous menu[2] / exit setting change
7.	➕	Refer to note[2] below
8.		Close actuator[3]
9.		Open actuator[3]
10.		Long press initiates search mode via *Bluetooth*. Short press initiates configured mission.
11.	⦅•⦆	Infrared transmitter window

[1]   Pressing these two arrow keys simultaneously exits the Centronik configuration mode and returns the actuator display to the home screen.

[2]   Pressing these two keys simultaneously exits the *Bluetooth* mode and places the *Bluetooth* Setting Tool into its idle state.

[3]   Only functional when Setting Tool control is enabled within the Centronik configuration.
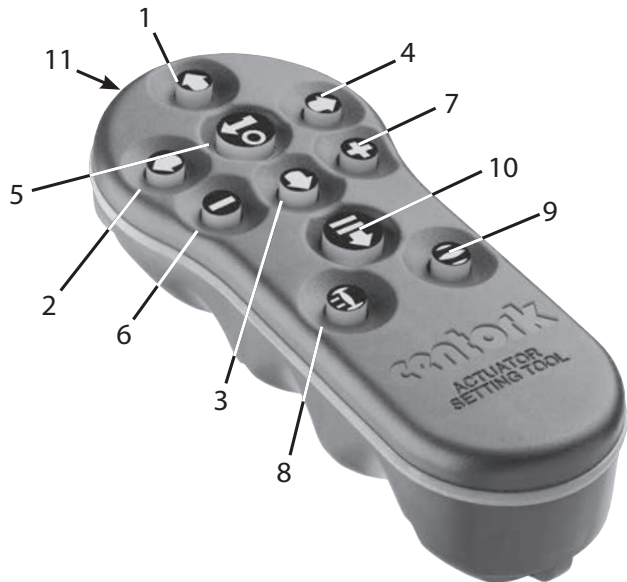
This manual contains important safety information. Please ensure it is thoroughly read and understood before installing, operating or maintaining the equipment.

The *Bluetooth*® **Setting Tool (BST) combines Infrared (IR) communication protocols with the latest** *Bluetooth* **technology. IR support is retained for communication with Centronik controls without the optional** *Bluetooth* **module.**

The BST is able to connect to *Bluetooth*® actuators and related software to setup and complete missions. Missions are configurable programs of instructions that are to be performed by the BST on an actuator and include (but are not limited to) downloading configuration and datalogger files along with uploading specific configurations to the actuator. Different Missions can be programmed into the BST via Accent.

The following instructions apply to the *Bluetooth*® Setting Tool.

Instructions for safe selection, installation, use, maintenance and repair.

1. The equipment is for use in ambient temperatures in the range of -30 to 50 °C and should not be used outside this range.

2. The equipment does not require assembly or dismantling.

3. With regard to safety it is not necessary to check for correct operation.

4. No user adjustment is required.

5. The batteries may be replaced with 'AAA' size batteries.

6. The equipment contains no other customer-replaceable parts.

Mission Function

WARNING: It is important to know what mission has been set in the BST before attempting to connect to an actuator. Failure to do so may render the actuator unusable or unstable. Refer to PAGE 6 for details on identifying and setting the mission.

1   Put the actuator in 'STOP'

If the Mission includes steps to update the actuator's firmware, you must ensure that the actuator is in STOP - otherwise the Mission will fail. If the Mission doesn't include instructions to perform a firmware update, it will not be necessary to put the actuator in STOP, but it is still good practice to do so (if site conditions allow).

WARNING: Before using the BST it is necessary to clear the tool of any previous missions.

To clear the setting tool of all preinstalled missions without using Accent, press and hold the ⬆ Key and ⬇ Key simultaneously for 5 seconds. The 🔄 and 🔄 Key will flash green alternately to indicate the missions have been cleared.

2   Setting Missions and Extracting Files
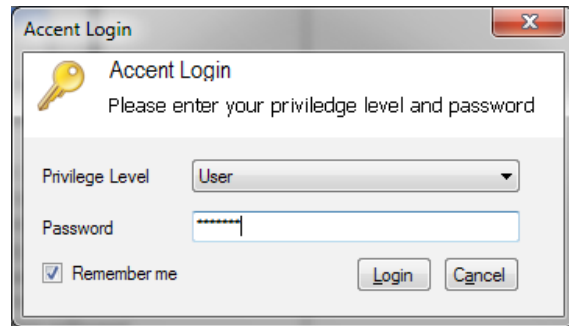

Accent Login

Viewer Mode -   Extract and View information Only
Password -   'CENTORK'

User Mode -   Extract , View and Upload
   configuration changes.

Password -   'CENTORK'

3   BST Slave Mode
(setting missions and extracting files using Accent)

Place the setting tool into its Slave mode, so that it can be found by Accent press and hold the 🔄 and 🔄 buttons simultaneously for at least one second. The blue LED under the 🔄 key will flash slowly to indicate the BST is in Slave mode and can be discovered by the Accent software. Under no circumstances should any other windows programs (i.e. *Bluetooth*® connection software) be used to connect to the setting tool. Accent is the only program that will have secure access to a *Bluetooth*® Setting Tool.
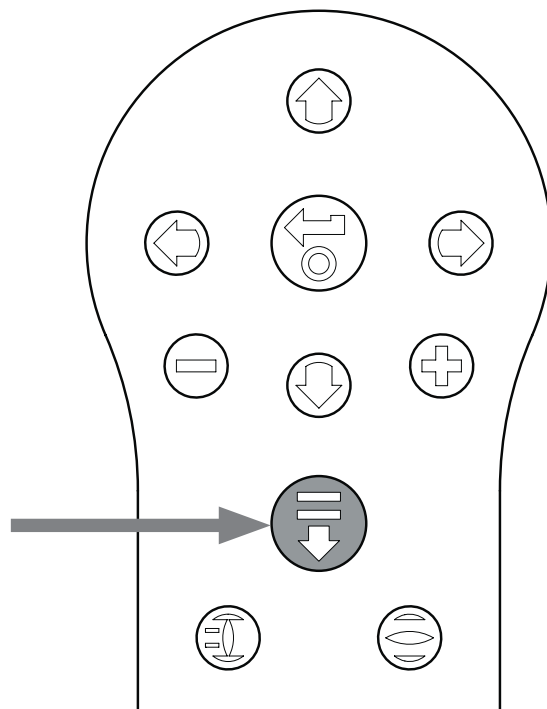
Connecting to the BST

1. Click on the Connection tab and then click discover devices. A few attempts may be required before a device is found – this is normal behaviour.

2. Once the search is complete, any discovered devices will be listed in the left hand (mode) panel under the *Bluetooth* navigation tree.
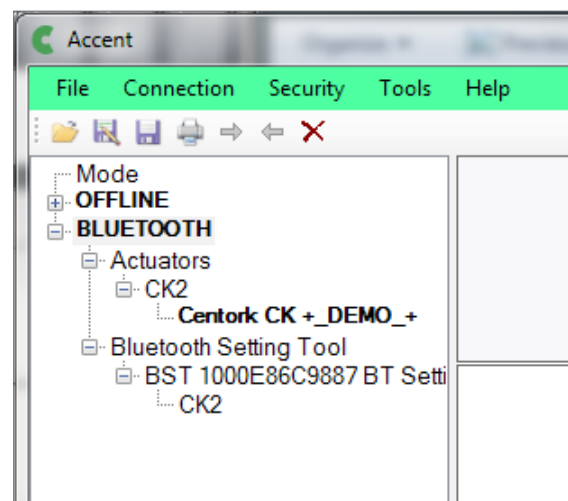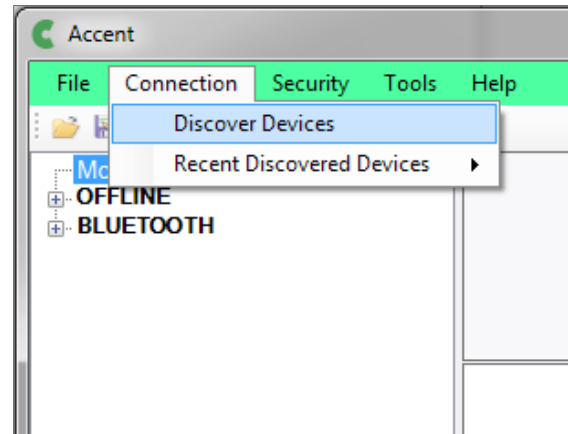

3. Right click the BST entry and click Connect.

4. The blue LED under the 🔘 key should flash rapidly as an indication that the BST has been connected to the Accent software enabled device. A read progress screen will also appear momentarily whilst data is being retrieved from the BST.

At this stage missions can be viewed / edited and data collected can be extracted.
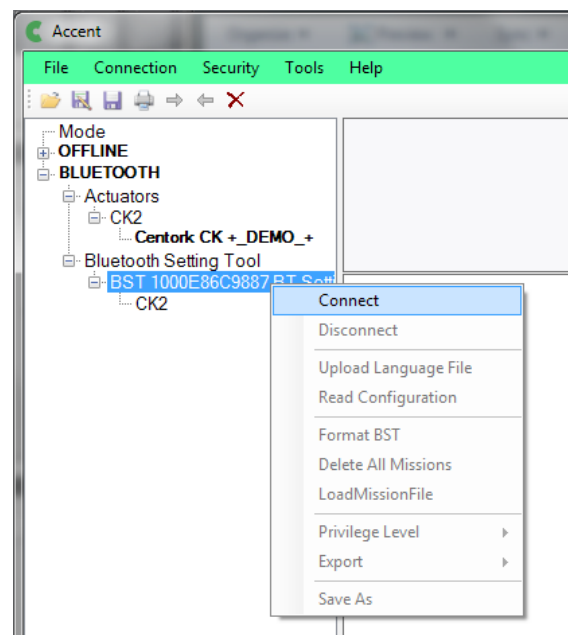
Setting and Editing Missions

⚠ **WARNING: To program a mission successfullly, it is critical that all selections made during the setup process match the appropriate mission type. Extra care is advised when performing the programming steps.**
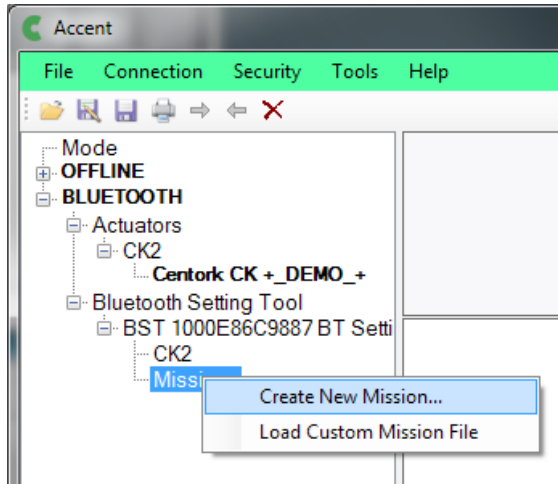

1. To set a mission, right click Missions in the setting tool navigation tree and then click 'Create New Mission'.

2. The Setup Mission window will appear.

3. Using the Mission type drop down box, select the mission you require. For most cases this will be Get configuration and Datalog.
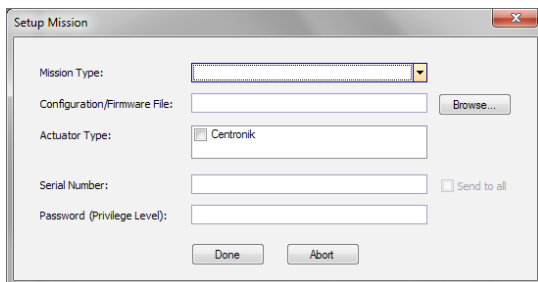

4. Next, select the correct actuator type you wish to send the mission too. Selecting Centronik is a validation step for mission creation.

5. If you only want to extract from one actuator in particular, you can enter it's serial number. If you want to collect files from more than one actuator, click the 'send to all' checkbox.

6. Finally enter the relevant password for the actuator. For configuration and datalogger refer to Appendix A on page 11.
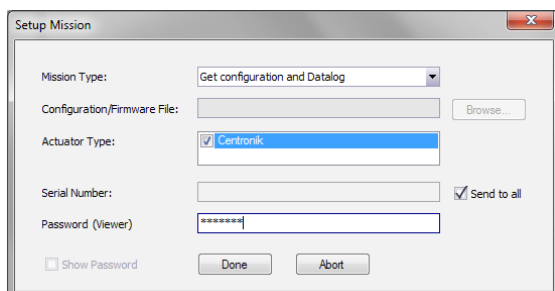
Once the mission has been set, click 'Done' and the navigation tree will be updated to show the mission details.
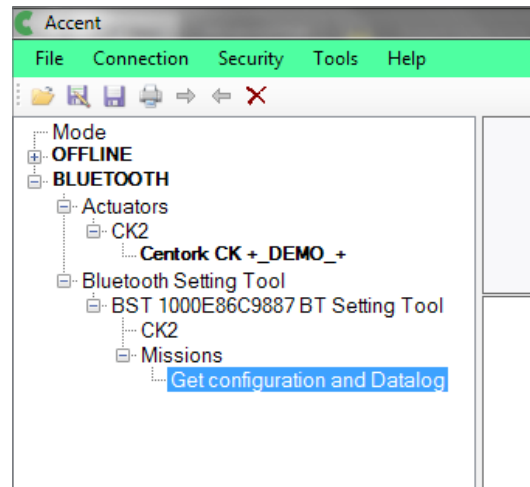
You can also set multiple missions. This would normally include for instance another Configuration download where the actuator uses a different password and the data log is not required. Repeat the same procedure when adding missions and the updated navigation tree will look like this:
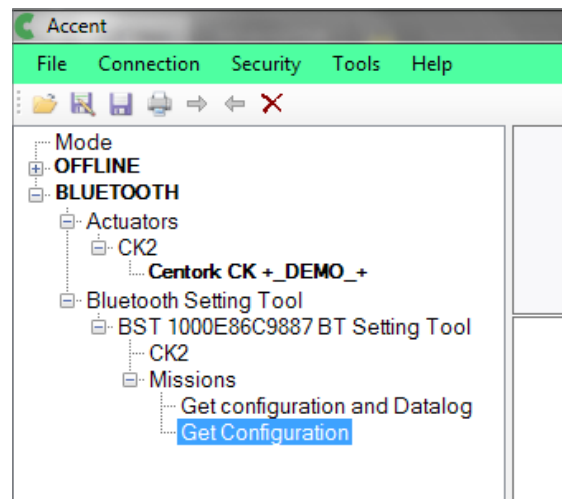

After completing all mission functions, the tool can be disconnected and returned to idle mode either by pressing the ⊕ and ⊖ keys simultaneously or by using the disconnect function in Accent. The mission set can now be executed by following the instructions in the Execute Mission section on page 8.

It is important to note that Accent will not prevent a mission being created with incorrect information (e.g. wrong password). Validation of mission credentials is only performed whilst executing the mission at the actuator.

CK range

1 Searching for *Bluetooth* devices in the immediate area

To search for *Bluetooth* devices in the immediate area, press and continue to hold the Download button ⬇ on the *Bluetooth*® Setting Tool.

Whilst the button is held, the BST will continue to search for devices. As the search is taking place, the LED under the ⬇ button will flash green. Each time a *Bluetooth* device is detected, the LED under the ⬇ button will pulse blue once. It is important to avoid pointing the setting tool at an IR device during the search as it will always try to connect to IR first (either cover up the front of the setting tool or point away from any active IR device). When the operator releases ⬇ , if *Bluetooth* devices have been found, the LED under ⬇ will remain blue. If no devices have been found, the LEDs under ⬇ and ⬇ will alternate red.

2 Selecting the desired device

When the search (step 1 above) is complete and devices have been found, the LED under the ⬇ button will remain illuminated blue. The operator can then select the desired actuator by cycling through the found actuators using ◀ or ▶ arrow keys. Pressing either ◀ or ▶ arrow keys will connect to the first device in the list of found devices.

While the BST is connecting to the next actuator, the LED under ⬇ will flash blue. When the connection is complete, ⬇ and ⬇ LEDs will illuminate solid blue

CK Centronik units will illuminate the blue LED in the display window to confirm *Bluetooth* communication is active.

It is important that you have a clear view of the actuator's *Bluetooth* status LED or LCD display to ensure you are connecting with the correct actuator. If the actuator is not the correct one, simply press the ◀ or ▶ button to select the previous or next actuator.

If the operator wishes to abort the operation, pressing the ➕ and ➖ buttons simultaneously on the *Bluetooth*® Setting Tool returns the tool to its idle state.
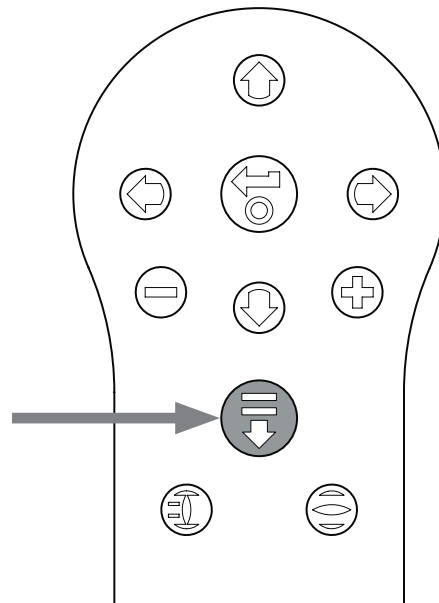
Mission Function

⚠ **WARNING: It is important to know what mission is currently programmed to the BST before attempting to connect to an actuator. Failure to do so may render the actuator unusable or unstable. Refer to page 4 for details on identifying and setting a mission. If in doubt, clear all missions from the tool.**

1   Put the actuator in 'STOP'

If the Mission includes steps to update the actuator's firmware, you must ensure that the actuator is in STOP - otherwise the Mission will fail. If the Mission doesn't include instructions to perform a firmware update, it will not be necessary to put the actuator in STOP, but it is still good practice to do so (if site conditions allow).

2   Execute the Mission

Once the desired actuator has been selected (as in section 2 on page 7), the Mission can be initiated. The blue LED beneath the 🔘 key will be illuminated indicating that an actuator has been selected.

Press the 🔘 key and the 🔘 key will start to flash, press the 🔘 key within 2 seconds to initiate the Mission. If you change your mind let the 🔘 key stop flashing and the Mission will not initiate.

If the Mission completes successfully, the LEDs under the 🔘 and 🔘 keys will alternate green for 5 seconds before returning to the solid blue LED. If the Mission fails, the LEDs under the 🔘 and 🔘 keys will alternate red for 5 seconds.

If the operator wishes to abort the operation, pressing the ➕ and ➖ buttons simultaneously on the *Bluetooth* Setting Tool returns the tool to its idle state.

Extracting Files

Follow the procedure on page 5 to connect to the BST via Accent. This time the tree will indicate the presence of one or more files listed by actuator type.

Double click on the entry you require, Accent will automatically extract and display the file. Once the file has been extracted the navigation tree will expand to show the different items in the file.

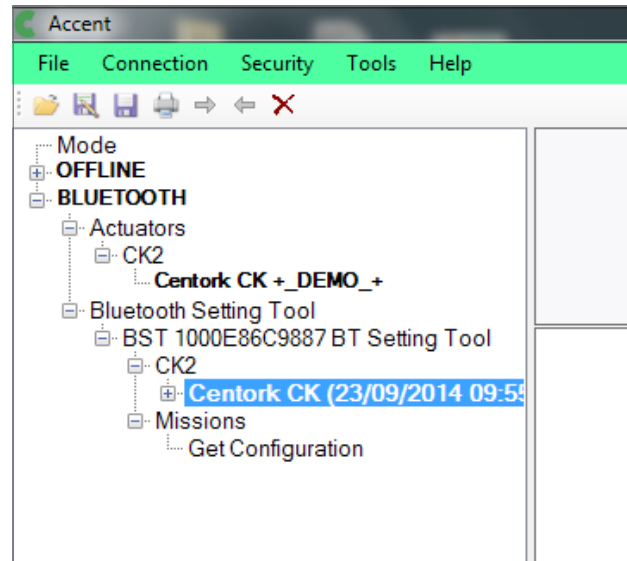Click on the entry you require for access to the settings / log file.

An extracted file within Accent will remain stored on the *Bluetooth* Setting Tool until deleted or the Setting Tool is formatted.

Extracted Files

It is possible to save an extracted file to a local directory on the PC for future use or as a backup file. Technical support may ask for a copy of the unit Configuration file and Data Log file for analysis.

To save a Configuration after extraction, right click the bold name and select "Save As". A window will appear providing the option to save Data Log information if applicable. Configuration files are saved in ICF format and Data Log files are saved in DLF format.

Configuration and Data Log information can also be exported to CSV format for third party analysis. Right click the bold configuration name and select "Export Configuration" or "Export Configuration and Data Logs" depending on the content required*.
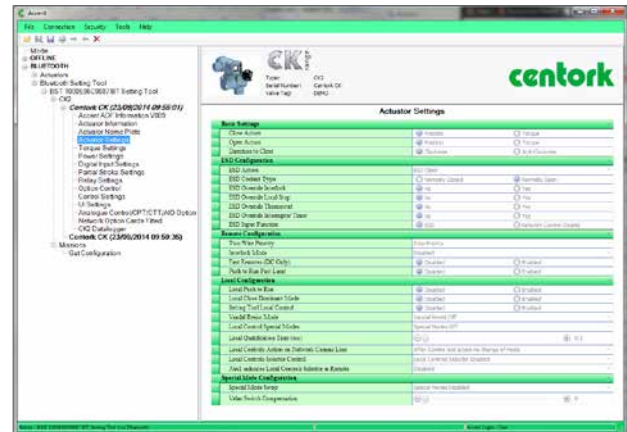
*In order for Data Log information to be present, the appropriate mission must have been performed to extract this data.

Specifications

Enclosure: IP54

Temperature: Tamb = -30 °C to 50 °C

Power supply: 4 x 1.5V AAA Batteries
(supplied and fitted)

Operating range:

Infrared: 0.75m (from actuator display window)
Bluetooth: 3m (from actuator display window)

USA-Federal Communications Commission (FCC)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorientate or relocate the receiving antenna.

- Increase the distance between the equipment and the receiver.

- Connect the equipment to outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CAUTION:
EXPOSURE TO RADIO FREQUENCY RADIATION.

This device must not be co-located or operating in conjunction with any other antenna or transmitter.

Canada – Industry Canada (IC)

This device complies with RSS 210 of Industry Canada.

Operation is subject to the following two conditions:

(1) this device may not cause interference, and

(2) this device must accept any interference, including interference that may cause undesired operation of this device.

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes:

(1) il ne doit pas produire d'interference et

(2) l'utilisateur du dispositif doit être prêt à accepter toute interférence radioélectrique reçue, même si celle-ci est susceptible de compromettre le fonctionnement du dispositif.

CAUTION:
EXPOSURE TO RADIO FREQUENCY RADIATION.

The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website www.hc-sc.gc.ca/rpb

Brazil only

This equipment operates as secondary functionality, that is not entitled to protect from harmful interference, even for stations of the same type, and cannot cause interference to systems operating as primary functionality.

Appendix A

Passwords

	Accent	CK Centronik
View	CENTORK	ROTORK
User	CENTORK	ROTORK

The User password may have been changed from the default ROTORK. When connecting to the actuator or creating missions, the new User password is required.

CK range