

## OPERATING INSTRUCTIONS

# CHANCE® WIRELESS TORQUE DATA LOGGER C3031690



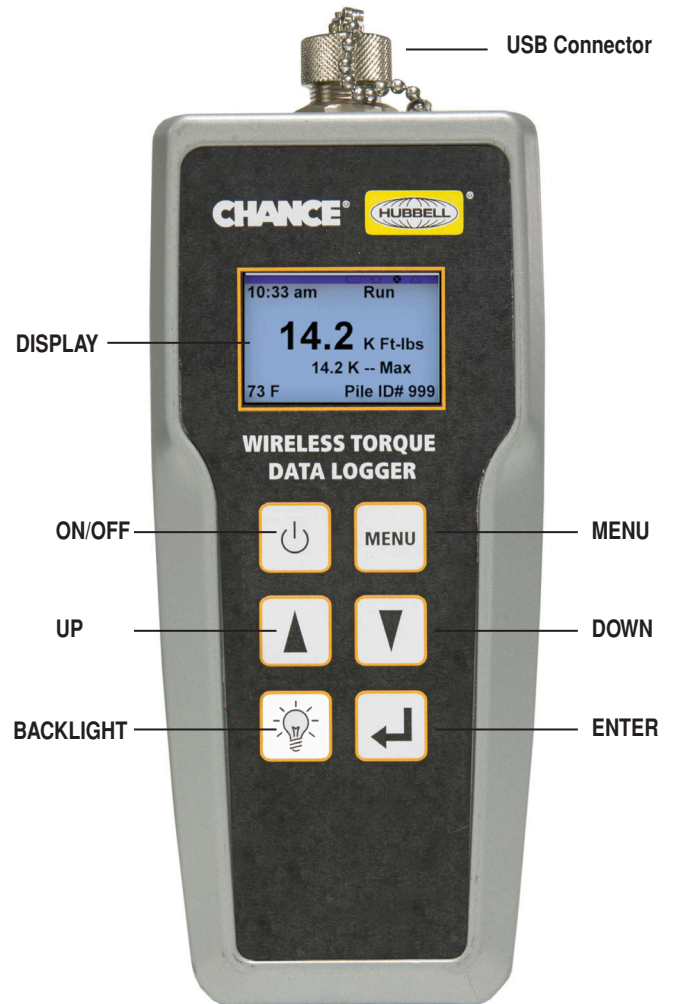
The CHANCE® Wireless Torque Data Logger is designed for use in conjunction with the CHANCE® Wireless Torque Indicator (C3031689) for installation of CHANCE® screw anchors/piles in soils. The Wireless Torque Data Logger can be used to monitor and log torque data received from a linked Wireless Torque Indicator. Logged data records can be downloaded to a computer via a USB connection. These instructions are intended to illustrate the proper use of the C3031690 Wireless Torque Data Logger.

**⚠ CAUTION**

Read all instructions, notices, and cautions before operating this device. Failure to do so could result in voided warranty or damage to device.

## FEATURES

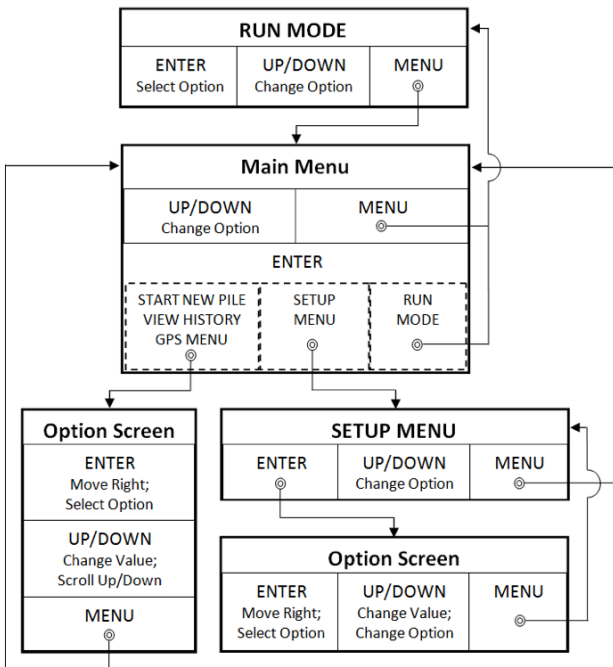
- Radio communication range of at least 50 ft
- Linkable to any CHANCE® Wireless Torque Indicator; multiple data loggers can have links to one indicator simultaneously
- Durable construction; dust proof and water resistant against temporary immersion up to 40 in (1 meter)
- Can withstand drop from 6 ft
- Operating temperature range of -4 F (-20 C) to 158 F (70 C)
- LCD screen with backlight readable in all light conditions
- Replaceable scratch/impact resistant screen protector; one spare included, extras available from Bevins Co.
- Displays current torque reading, time, temperature, and Pile Number; selectable units for torque (ft-lb or N-m) and temperature (F or C)
- Simple user interface with only six buttons; large buttons facilitate use with gloves
- User can set unique identifying numbers for each pile
- Summary of stored pile records viewable on display
- User can log marked records at specific times (e.g., to track installation depth)
- Automatically logs records approximately every 2 seconds
  - Torque; Pile Number; date and time; GPS coordinates; temperature; torque indicator identification information
- 2 GB of internal memory (months of logged records)
- USB connector for downloading records to PC
- Power: Two 9V batteries; user replaceable; hex key included for battery cover removal
- Energy conservation: Auto Power-Off after 20 minutes of no torque indicator signal reception or buttons pressed
- Low battery warning: “LOW BATT” flashes on screen
- Time and date settings preserved during battery changes



## BUTTON DETAILS

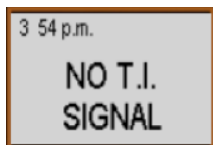
- ON/OFF – Push to turn on; push and hold for 3 seconds to turn off
- MENU – Toggles between Run Mode and Main Menu or moves up a level in the menu structure
- UP – Moves selection up in menu or scrolls up through values in a list
- DOWN – Moves selection down in menu or scrolls down through values in a list
- BACKLIGHT – Turns the backlight on or off
- ENTER – Selects highlighted option or confirms value and moves cursor to right

## MENU STRUCTURE

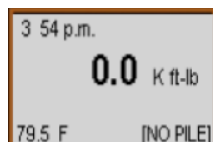


## MENU DETAILS

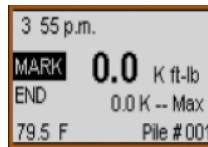
**RUN MODE** – The top level operational screen that is used to monitor torque during installations and mark records at specific times. This screen is displayed automatically when the data logger is turned on. The information displayed on the RUN MODE screen varies depending on whether the data logger is receiving signal from a linked torque indicator and whether a Pile Number has been set.



No Indicator Signal



Indicator Signal; No Pile Number Set



Indicator Signal; Pile Number Set

The Max value displayed is specific to each Pile Number. The MARK function can be used at any time to log a record with a Mark Number attached, and is especially useful for tracking installation depth. The END function clears the Pile Number, so subsequent records will have no Pile Number until a new Pile Number is set.

### NOTICE

The data logger automatically logs records any time it is receiving a signal from a linked torque indicator, but the MARK and END functions are only available when a Pile Number is set.

**START NEW PILE** – Allows the user to set a 3 digit Pile Number to identify records from a specific pile installation. Pile Numbers can be reused, so it is possible to log data for individual piles when installing multiple piles concurrently at a job site. The UP and DOWN buttons are used to scroll through values in each number place. The ENTER button is used to move to the next place to the right. It is not possible to move left to previous places to edit values; however, the MENU button can be pushed to return to the Main Menu and START NEW PILE can be selected again. Once values have been selected in all three places, the ENTER button is used to save the Pile Number.

**VIEW HISTORY** – Displays a list of summarized record logs for the Pile Numbers that have been set. The list is organized chronologically, not according to Pile Number. The summarized log for each pile includes the Max torque value (has “M” in front) and the two most recent marked torque values if two or more records were marked. The UP and DOWN buttons are used to move up and down through the list.

### NOTICE

Records logged with no Pile Number set are not viewable in the VIEW HISTORY screen, but they are stored in memory and can be downloaded to a computer.

**SETUP MENU** – Accesses additional functions and options for configuration of the data logger

- SET DATE/TIME
- INDICATOR LINK – View linked torque indicator serial number and request link to a different indicator
- TORQUE UNITS – Choose ft-lb or N-m for display in RUN MODE
- TEMP UNITS – Choose F or C for display in RUN MODE

**GPS MENU** – Allows the user to view the GPS location of the torque indicator and request updated coordinates. The GPS location coordinates are presented in the standard worldwide WGS84 coordinate system.

## LINK PROCEDURE

To link the Wireless Torque Data Logger with a Wireless Torque Indicator, first ensure that the indicator is off. Turn the data logger on and navigate to SETUP MENU then INDICATOR LINK and select NEW LINK. When “WAITING FOR WIRELESS LINK...” is displayed, start the indicator in Link Mode. Push and hold the MODE button on the back of the indicator. While holding the MODE button, turn on the indicator. Release the MODE button when “rF.” displays on the indicator screen.

### **! CAUTION**

**Do not attempt to establish a link between a torque indicator and multiple other devices simultaneously, as doing so may result in malfunction.**

## DOWNLOADING RECORDS

The CHANCE® Wireless Torque Data Logger Download Tool is a program for Windows XP, 7, and 8 used to view, save, and delete records from the data logger. A USB cable and a flash drive loaded with the download tool installation file are provided in the data logger carry case. To install the download tool, locate the appropriate folder on the flash stick and launch the Deployment file. Follow the prompts in the installation wizard to complete the installation.

To access records on a data logger, open the download tool then turn on the data logger and connect it to the computer with the USB cable. The download tool will automatically detect the data logger and display the number of records stored on it. When Download Records is clicked, the user has the option to download all or a portion of the records. Once the records have been downloaded, the user can save a copy in binary format (.bin) from the File menu or click Export to CSV to save a Log Report in a comma separated value (.csv) format that can be opened with a spreadsheet program such as Excel. The download tool includes options on the menu bar for torque and temperature units and GPS coordinate format in the saved Log Reports.

### **NOTICE**

**The unit settings of the data logger do not determine the units in the Log Reports. The desired settings must be chosen from the download tool menu.**

The downloaded records are not automatically erased from the data logger, and must be manually cleared by selecting Delete Records. Records should be deleted periodically to ensure that the data logger memory does not get full and to keep Log Reports at a manageable size.

### **! CAUTION**

**Delete records periodically using the download tool to ensure that the data logger memory does not become full. In the event of the memory becoming full, the data logger will over-write previously logged records.**

## BATTERIES

The data logger is powered by two (2) 9V batteries. To access or replace the batteries, use the included 3 mm metric hex key to remove the two socket head screws that fasten the battery cover to the back of the device. “LOW BATT” will flash in the top right corner of the screen when the batteries are low. Replace the batteries as soon as possible when the low battery warning displays to prevent loss of function.

### **! CAUTION**

**Replace both batteries at the same time. Do not mix old and new batteries or different types of batteries. Firmly tighten battery cover screws when replacing batteries. To prevent stripping of threads, do not over-tighten screws. Loose or stripped screws can compromise the case seal and allow moisture to penetrate the case.**

The data logger is equipped with an energy conservation feature to extend the life of the batteries, and will Auto Power-Off when no torque indicator signal is received and no buttons are pressed for 20 minutes. After Auto Power-Off, the data logger must be turned on using the ON/OFF switch.

## ENVIRONMENTAL CAPABILITIES

The Wireless Torque Data Logger has a sealed weatherproof case to allow use in all normal work and weather conditions. The seal will provide protection against water penetration during temporary immersion at depths up to 40 in (1 meter), but will not protect against penetration from immersion at depths greater than 40 in or for a prolonged time.

### **! CAUTION**

**Moisture inside case can damage internal parts. Can render the data logger inoperable and will void the warranty. Protect from prolonged immersion and immersion at depths greater than 40 in (1 meter)**

The data logger can be safely stored at temperatures between -22 F (-30 C) and 176 F (80 C). To prevent damage to the device, do not store at temperatures outside this range.

### **! CAUTION**

**Exposure to temperatures outside the storage range can damage internal parts. Can render the device inoperable and will void the warranty. Protect from exposure to temperatures outside the specified storage range.**

## WARRANTY

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One year warranty. There are no internal field serviceable parts. Warranty is void if improper use, storage or transportation has occurred or if outer housing or faceplate seal is broken or any internal part removed. For repair or calibration verification, contact Bevins Company  
www.bevinsco.com  
Office - (918) 627-1273  
Fax - (918) 627-1294  
9903 E. 54th Street  
Tulsa, OK 74146

These instructions do not cover all details or variations in equipment, nor do they provide for all possible conditions to be met with concerning installation, use, maintenance, or storage of this equipment. If further information is desired or if particular problems are encountered which are not sufficiently covered in these instructions, contact Hubbell Power Systems.

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