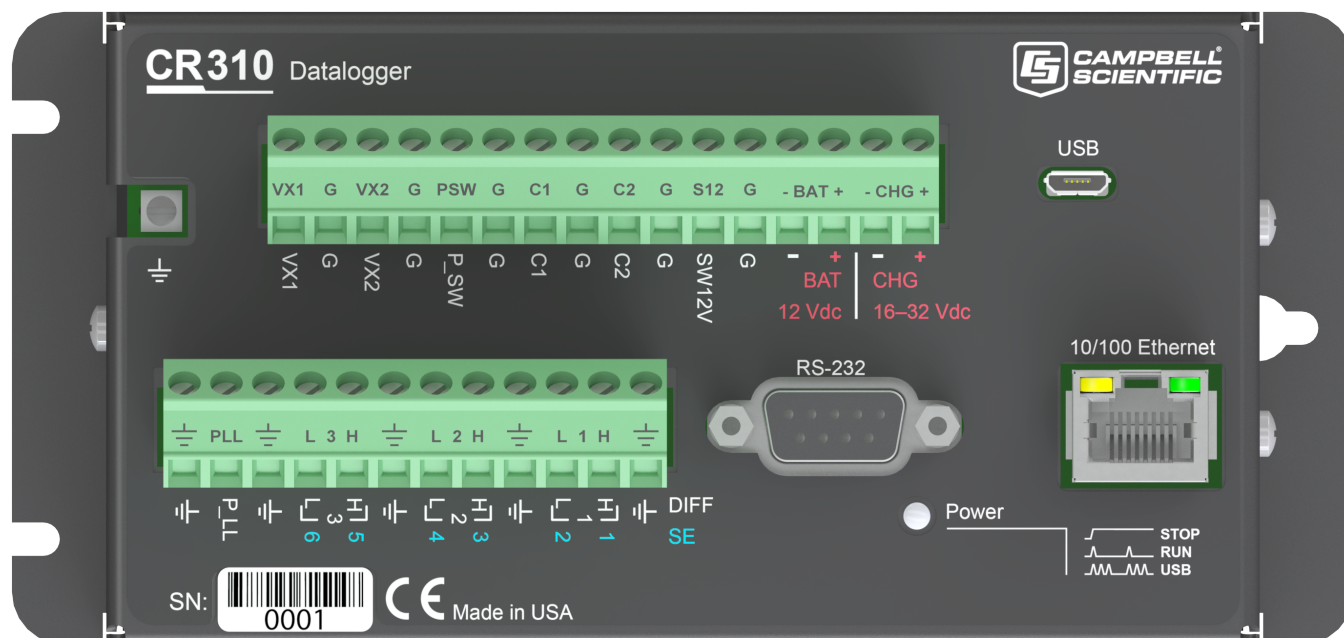




CR300 Series

Compact Datalogger



Guarantee

This equipment is guaranteed against defects in materials and workmanship. We will repair or replace products which prove to be defective during the guarantee period as detailed on your invoice, provided they are returned to us prepaid. The guarantee will not apply to:

- Equipment which has been modified or altered in any way without the written permission of Campbell Scientific
- Batteries
- Any product which has been subjected to misuse, neglect, acts of God or damage in transit.

Campbell Scientific will return guaranteed equipment by surface carrier prepaid. Campbell Scientific will not reimburse the claimant for costs incurred in removing and/or reinstalling equipment. This guarantee and the Company's obligation thereunder is in lieu of all other guarantees, expressed or implied, including those of suitability and fitness for a particular purpose. Campbell Scientific is not liable for consequential damage.

Please inform us before returning equipment and obtain a Repair Reference Number whether the repair is under guarantee or not. Please state the faults as clearly as possible, and if the product is out of the guarantee period it should be accompanied by a purchase order. Quotations for repairs can be given on request. It is the policy of Campbell Scientific to protect the health of its employees and provide a safe working environment, in support of this policy a "Declaration of Hazardous Material and Decontamination" form will be issued for completion.

When returning equipment, the Repair Reference Number must be clearly marked on the outside of the package. Complete the "Declaration of Hazardous Material and Decontamination" form and ensure a completed copy is returned with your goods. Please note your Repair may not be processed if you do not include a copy of this form and Campbell Scientific Ltd reserves the right to return goods at the customers' expense.

Note that goods sent air freight are subject to Customs clearance fees which Campbell Scientific will charge to customers. In many cases, these charges are greater than the cost of the repair.



Campbell Scientific Ltd,
80 Hathern Road,
Shepshed, Loughborough, LE12 9GX, UK
Tel: +44 (0) 1509 601141
Fax: +44 (0) 1509 270924
Email: support@campbellsci.co.uk
www.campbellsci.co.uk

PLEASE READ FIRST

About this manual

Please note that this manual was originally produced by Campbell Scientific Inc. primarily for the North American market. Some spellings, weights and measures may reflect this origin.

Some useful conversion factors:

Area: 1 in² (square inch) = 645 mm²

Length: 1 in. (inch) = 25.4 mm
1 ft (foot) = 304.8 mm
1 yard = 0.914 m
1 mile = 1.609 km

Mass: 1 oz. (ounce) = 28.35 g
1 lb (pound weight) = 0.454 kg

Pressure: 1 psi (lb/in²) = 68.95 mb

Volume: 1 UK pint = 568.3 ml
1 UK gallon = 4.546 litres
1 US gallon = 3.785 litres

In addition, while most of the information in the manual is correct for all countries, certain information is specific to the North American market and so may not be applicable to European users.

Differences include the U.S standard external power supply details where some information (for example the AC transformer input voltage) will not be applicable for British/European use. *Please note, however, that when a power supply adapter is ordered it will be suitable for use in your country.*

Reference to some radio transmitters, digital cell phones and aerials may also not be applicable according to your locality.

Some brackets, shields and enclosure options, including wiring, are not sold as standard items in the European market; in some cases alternatives are offered. Details of the alternatives will be covered in separate manuals.

Part numbers prefixed with a “#” symbol are special order parts for use with non-EU variants or for special installations. Please quote the full part number with the # when ordering.

Recycling information



At the end of this product's life it should not be put in commercial or domestic refuse but sent for recycling. Any batteries contained within the product or used during the products life should be removed from the product and also be sent to an appropriate recycling facility.

Campbell Scientific Ltd can advise on the recycling of the equipment and in some cases arrange collection and the correct disposal of it, although charges may apply for some items or territories.

For further advice or support, please contact Campbell Scientific Ltd, or your local agent.



Campbell Scientific Ltd, 80 Hathern Road, Shepshed, Loughborough, LE12 9GX,
UK Tel: +44 (0) 1509 601141 Fax: +44 (0) 1509 270924
Email: support@campbellsci.co.uk
www.campbellsci.co.uk

Safety

DANGER — MANY HAZARDS ARE ASSOCIATED WITH INSTALLING, USING, MAINTAINING, AND WORKING ON OR AROUND **TRIPODS, TOWERS, AND ANY ATTACHMENTS TO TRIPODS AND TOWERS SUCH AS SENSORS, CROSSARMS, ENCLOSURES, ANTENNAS, ETC.** FAILURE TO PROPERLY AND COMPLETELY ASSEMBLE, INSTALL, OPERATE, USE, AND MAINTAIN TRIPODS, TOWERS, AND ATTACHMENTS, AND FAILURE TO HEED WARNINGS, INCREASES THE RISK OF DEATH, ACCIDENT, SERIOUS INJURY, PROPERTY DAMAGE, AND PRODUCT FAILURE. TAKE ALL REASONABLE PRECAUTIONS TO AVOID THESE HAZARDS. CHECK WITH YOUR ORGANIZATION'S SAFETY COORDINATOR (OR POLICY) FOR PROCEDURES AND REQUIRED PROTECTIVE EQUIPMENT PRIOR TO PERFORMING ANY WORK.

Use tripods, towers, and attachments to tripods and towers only for purposes for which they are designed. Do not exceed design limits. Be familiar and comply with all instructions provided in product manuals. Manuals are available at www.campbellsci.eu or by telephoning +44(0) 1509 828 888 (UK). You are responsible for conformance with governing codes and regulations, including safety regulations, and the integrity and location of structures or land to which towers, tripods, and any attachments are attached. Installation sites should be evaluated and approved by a qualified engineer. If questions or concerns arise regarding installation, use, or maintenance of tripods, towers, attachments, or electrical connections, consult with a licensed and qualified engineer or electrician.

General

- Prior to performing site or installation work, obtain required approvals and permits. Comply with all governing structure-height regulations, such as those of the FAA in the USA.
- Use only qualified personnel for installation, use, and maintenance of tripods and towers, and any attachments to tripods and towers. The use of licensed and qualified contractors is highly recommended.
- Read all applicable instructions carefully and understand procedures thoroughly before beginning work.
- Wear a **hardhat** and **eye protection**, and take **other appropriate safety precautions** while working on or around tripods and towers.
- **Do not climb** tripods or towers at any time, and prohibit climbing by other persons. Take reasonable precautions to secure tripod and tower sites from trespassers.
- Use only manufacturer recommended parts, materials, and tools.

Utility and Electrical

- **You can be killed** or sustain serious bodily injury if the tripod, tower, or attachments you are installing, constructing, using, or maintaining, or a tool, stake, or anchor, come in **contact with overhead or underground utility lines**.
- Maintain a distance of at least one-and-one-half times structure height, or 20 feet, or the distance required by applicable law, **whichever is greater**, between overhead utility lines and the structure (tripod, tower, attachments, or tools).
- Prior to performing site or installation work, inform all utility companies and have all underground utilities marked.
- Comply with all electrical codes. Electrical equipment and related grounding devices should be installed by a licensed and qualified electrician.

Elevated Work and Weather

- Exercise extreme caution when performing elevated work.
- Use appropriate equipment and safety practices.
- During installation and maintenance, keep tower and tripod sites clear of un-trained or non-essential personnel. Take precautions to prevent elevated tools and objects from dropping.
- Do not perform any work in inclement weather, including wind, rain, snow, lightning, etc.

Maintenance

- Periodically (at least yearly) check for wear and damage, including corrosion, stress cracks, frayed cables, loose cable clamps, cable tightness, etc. and take necessary corrective actions.
- Periodically (at least yearly) check electrical ground connections.

WHILE EVERY ATTEMPT IS MADE TO EMBODY THE HIGHEST DEGREE OF SAFETY IN ALL CAMPBELL SCIENTIFIC PRODUCTS, THE CUSTOMER ASSUMES ALL RISK FROM ANY INJURY RESULTING FROM IMPROPER INSTALLATION, USE, OR MAINTENANCE OF TRIPODS, TOWERS, OR ATTACHMENTS TO TRIPODS AND TOWERS SUCH AS SENSORS, CROSSARMS, ENCLOSURES, ANTENNAS, ETC.

Table of Contents

1. Getting started	1
2. USB or RS-232 communications	2
3. Testing communications with EZSetup	4
4. Making the software connection	6
5. Creating a Short Cut data logger program	7
6. Sending a program to the data logger	10
7. Working with data	12
7.1 Default data tables	12
7.2 Collecting data	13
7.2.1 Collecting data using LoggerNet	13
7.2.2 Collecting data using PC200W or PC400	13
7.3 Viewing historic data	14

1. Getting started


Getting Started provides a cursory view of data acquisition and walks you through a procedure to set up a simple system. You may not find it necessary to progress beyond this. However, should you want to dig deeper into the complexity of the data logger functions or quickly look for details, extensive information is available throughout this manual.

This exercise will guide you through the following steps:


- Connecting the data logger to a computer
- Attaching a sensor to the data logger
- Creating a program for the data logger to measure the sensor
- Making a simple measurement
- Storing measurement data on the data logger
- Collecting data from the data logger with a computer
- Viewing real-time and historical data with a computer

In addition to your data logger, the following items are used in this exercise (many are shipped with your data logger and all are available on www.campbellsci.eu). If you do not have all of these items, you can provide suitable substitutes.



- Power supply (if not connecting via USB)
- Type-T Thermocouple, 4 to 5 inches long; one is shipped with the data logger
- For a USB connection:
 - Computer with a USB port
 - USB cable
- For an RS-232 connection:
 - Computer with a nine-pin RS-232 port
 - Serial cable
- Data logger support software

Additional Campbell Scientific publications are available online at www.campbellsci.eu. Video tutorials  are available at <https://www.campbellsci.eu/videos>. Generally, if a particular feature of the data logger requires a peripheral hardware device, more information is available in the help or manual written for that device.

2. USB or RS-232 communications

Setting up a USB or RS-232 connection is a good way to begin communicating with your data logger. Because these connections do not require configuration (like an IP address), you need only set up the communications between your computer and the data logger. Use the following instructions or watch the Quickstart videos at <https://www.campbellsci.eu/videos> 

Initial setup instruction follows. These settings can be revisited using the data logger support software **Edit Datalogger Setup** option .

1. Using data logger support software, launch the EZSetup Wizard.
 - LoggerNet users, click **Setup** , click the **View** menu to ensure you are in the **EZ (Simplified)** view, then click **Add Datalogger**.
 - PC400 and PC200W users, click **Add Datalogger** .
2. Click **Next**.
3. Select your data logger from the list, type a name for your data logger (for example, a site or project name), and click **Next**.
4. If prompted, select the **Direct Connect** connection type and click **Next**.
5. If this is the first time connecting this computer to a CR300 series via USB, click **Install USB Driver**, select your data logger, click **Install**, and follow the prompts to install the USB drivers.
6. Plug the data logger into your computer using a USB or RS-232 cable. The USB connection supplies 5 V power as well as a communications link, which is adequate for setup, but a 12V battery will be needed for field deployment. If using RS-232, external power must be provided to the data logger.

NOTE:

The Power LED on the data logger indicates the program and power state. Because the data logger ships with a program set to run on power-up, the Power LED flashes 3 times every 10 seconds when powered over USB. When powered with a 12 V battery, it flashes 1 time every 10 seconds.

7. From the **COM Port** list, select the COM port used for your data logger.

8. USB and RS-232 connections do not typically require a **COM Port Communication Delay** - this allows time for the hardware devices to "wake up" and negotiate a communications link. Accept the default value of **00 seconds** and click **Next**.
9. The baud rate and PakBus address **must match** the hardware settings for your data logger. The default PakBus address is **1**. A USB connection does not require a baud rate selection. RS-232 connections default to 115200 baud.

NOTE:

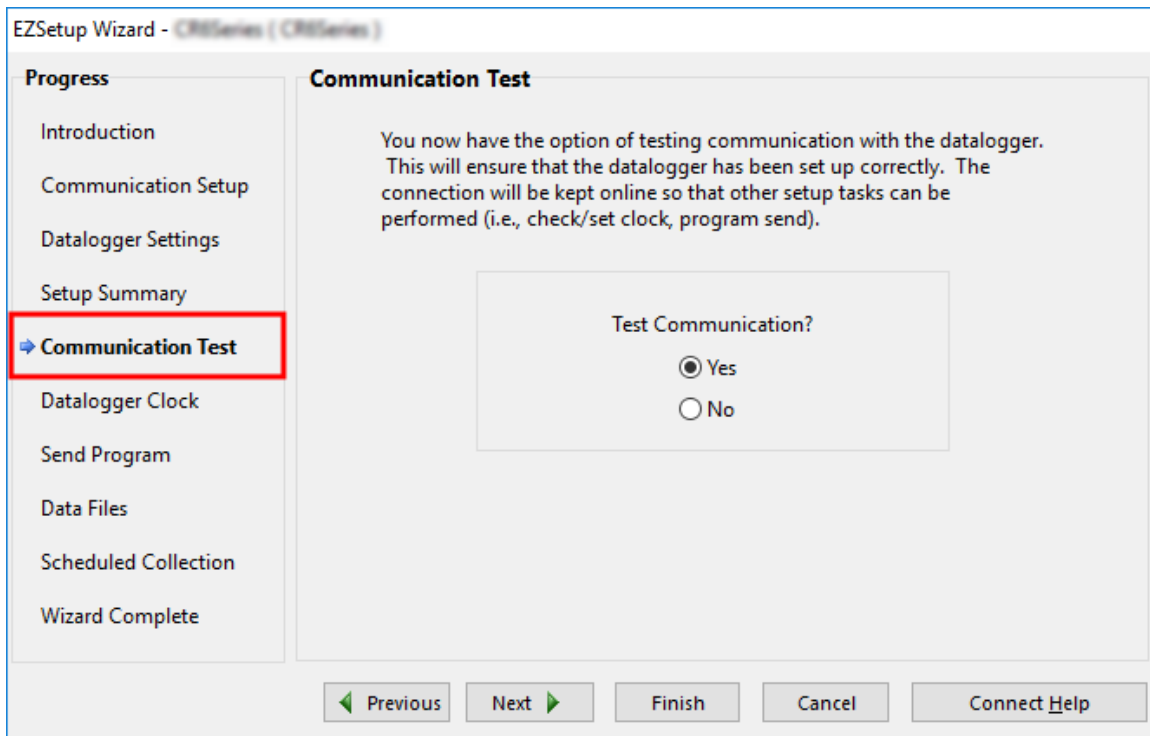
Unlike the RS-232 port on some other Campbell Scientific data loggers that autobaud, the CR300 RS-232 port does not. If the hardware and software settings for baud rate and PakBus address do not match, you will not be able to connect.

10. Set an **Extra Response Time** if you have a difficult or marginal connection and you want the data logger support software to wait a certain amount of time before returning a communication failure error.
11. LoggerNet and PC400 users can set a **Max Time On-Line** to limit the amount of time the data logger remains connected. When the data logger is contacted, communication with it is terminated when this time limit is exceeded. A value of **0** in this field indicates that there is no time limit for maintaining a connection to the data logger.
12. Click **Next**.
13. By default, the data logger does not use a security code or a PakBus encryption key. Therefore, the **Security Code** can be set to **0** and the **PakBus Encryption Key** can be left blank. If either setting has been changed, enter the new code or key.
14. Click **Next**.
15. Review the **Setup Summary**. If you need to make changes, click **Previous** to return to a previous window and change the settings.


Setup is now complete, and the EZSetup Wizard allows you to click **Finish** or click **Next** to test communications, set the data logger clock, and send a program to the data logger. See [Testing communications with EZSetup](#) (p. 4) for more information.

3. Testing communications with EZSetup

1. Using data logger support software EZ Setup, access the **Communication Test** window. This window is accessed during EZ Setup (see [USB or RS-232 communications](#) (p. 2) for more information). Alternatively, you can double-click a data logger from the station list to open the EZ Setup Wizard and access the **Communication Test** step from the left side of the window.






2. Ensure the data logger is connected to the computer, select **Yes** to test communications, then click **Next** to initiate the test.
3. With a successful connection, the **Datalogger Clock** window displays the time for both the data logger and the computer.
 - The **Adjusted Server Date/Time** displays the current reading of the clock for the computer or server running your data logger support software. If the **Datalogger Date/Time** and **Adjusted Server Date/Time** don't match, you can set the data logger clock to the **Adjusted Server Date/Time** by clicking **Set Datalogger Clock**.

- Use the **Time Zone Offset** to specify a positive or negative offset to apply to the computer time when setting the data logger clock. This offset will allow you to set the clock for a data logger that needs to be set to a different time zone than the time zone of the computer (or to accommodate for changes in daylight saving time).
4. Click **Next**.
 5. The data logger ships with a default **QuickStart** program. If the data logger does not have a program, you can choose to send one by clicking **Select and Send Program**. Click **Next**.
 6. LoggerNet only - Use the following instructions or watch the [Scheduled/Automatic Data Collection video](#) :
 - The **Datalogger Table Output Files** window displays the data tables available to be collected from the data logger and the output file name. By default, all data tables set up in the data logger program will be included for collection. Make note of the **Output File Name** and location. Click **Next**.
 - Check **Scheduled Collection Enabled** to have LoggerNet automatically collect data from the data logger on the **Collection Interval** entered. When the **Base Date** and **Time** are in the past, scheduled collection will begin immediately after finishing the EZSetup wizard. Click **Next** twice.
 7. Click **Finish**.

4. Making the software connection

Once you have configured your hardware connection (see [USB or RS-232 communications](#) (p. 2)), your data logger and computer can communicate. You'll use the **Connect** screen to send a program, set the clock, view real-time data, and manually collect data.

- LoggerNet users, select **Main** and **Connect**  on the LoggerNet toolbar, select the data logger from the **Stations** list, then **Connect** .
- PC400 and PC200W users, select the data logger from the list and click **Connect** .

To disconnect, click **Disconnect** .

For more information see the [Connect Window Tutorial](#) .


5. Creating a Short Cut data logger program



You must provide a program for the data logger in order for it to make measurements, store data, or do control. There are several ways to write a program. The simplest is to use the program generator called **Short Cut**. For more complex programming the **CRBasic** editor is used. The program file may use the extension **.CR300**, **.CRB** or **.DLD**.

Data logger programs are executed on a precise schedule termed the scan interval, based on the data logger internal clock.

Measurements are first stored in temporary memory called variables in the Public Table. Variables are usually overwritten each scan. Periodically, generally on a time interval, the data logger stores data in tables. The Data Tables are later copied to a computer using your data logger support software.

Use the Short Cut software to generate a program for your data logger. Short Cut is included with your data logger support software.

This section will guide you through programming a CR300 series data logger to measure the voltage of the data logger power supply, the internal temperature of the data logger, and a thermocouple. With minor changes, these steps can apply to other measurements. Use the following instructions or watch the [Quickstart part 3 video](#) .

1. Using data logger support software, launch **Short Cut**.
 - LoggerNet users, click **Program** then **Short Cut** .
 - PC400 and PC200W users, click **Short Cut** .
2. Click **Create New Program**.
3. Select **CR300 Series** and click **Next**.

NOTE:

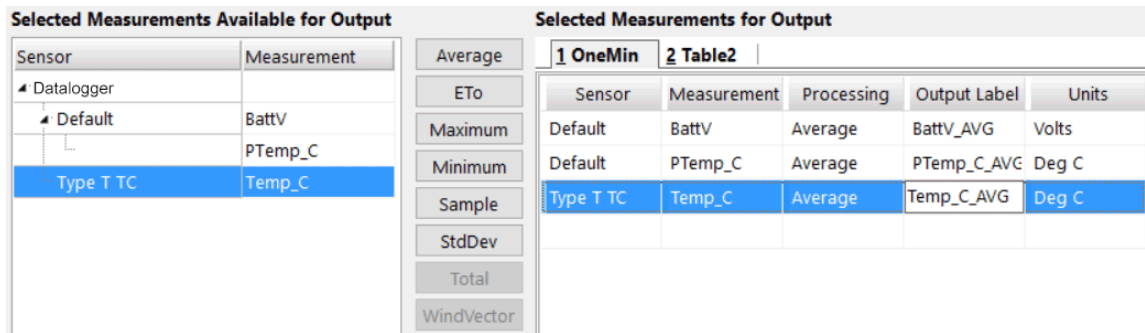
The first time Short Cut is run, a prompt will ask for a noise rejection choice. Select **60 Hz Noise Rejection** for North America and areas using 60 Hz ac voltage. Select **50 Hz Noise Rejection** for most of the Eastern Hemisphere and areas that operate at 50 Hz.

A second prompt lists sensor support options. **Campbell Scientific, Inc. (US)** is usually the best fit outside of Europe.

To change the noise rejection or sensor support option for future programs, use the **Program** menu.

4. A list of **Available Sensors and Devices** and **Selected Measurements Available for Output** display. Battery voltage **BattV** and internal temperature **PTemp_C** are selected by default. During operation, battery and temperature should be recorded at least daily to assist in monitoring system status.
5. Use the Search feature or expand folders to locate your sensor or device. Double-click on a sensor or measurement in the **Available Sensors and Devices** list to configure the device (if needed) and add it to the **Selected** list. For the example program, expand the **Sensors/Temperature** folder and double-click **Type T Thermocouple**.
6. If the sensor or device requires configuration, a window displays with configuration options. Click **Help** at the bottom of the window to learn more about any field or option. For the example program, accept the default options:
 - 1 Type T TC sensor
 - **Temp_C** as the **Temperature** label, and set the units to **Deg C**
 - **PTemp_C** as the **Reference Temperature Measurement**.
7. Click **OK**.
8. Click **Wiring Diagram** on the left side of the window to see how to wire the sensor to the data logger. With the power disconnected from the data logger, insert the wires as directed in the diagram. Ensure you clamp the terminal on the conductor, not the wire insulation. Use the included flat-blade screwdriver to open/close the terminals.
9. Click **Sensors** on the left side of the window to return to the sensor selection window, then click **Next** at the bottom of the window.
10. Type 1 in the **How often should the data logger measure its sensor(s)?** box.
11. Use the **Output Setup** options to specify how often measurements are to be made and how often outputs are to be stored. Note that multiple output intervals can be specified, one for each output table (**Table1** and **Table2** tabs). For the example program, only one table is needed. Click the **Table2** tab and click **Delete Table**.
12. In the **Table Name** box, type a name for the table. For example: **OneMin**.
13. Select a **Data Output Storage Interval**. For example: to 1 minute.
14. Click **Next**.
15. Select the measurement from the **Selected Measurements Available for Output** list, then click an output processing option to add the measurement to the **Selected Measurements**

for **Output** list. For the example program, select **BattV** and click the **Average** button to add it to the **Selected Measurements for Output** list. Repeat this procedure for **PTemp_C** and **Temp_C**.



16. Click **Finish** and give the program a meaningful name such as a site identifier. Click **Save**.
17. If LoggerNet or other data logger support software is running on your computer, and the data logger is connected to the computer (see [Making the software connection](#) (p. 6) for more information), you can choose to send the program. Generally it is best to collect data first; so, we recommend sending the program using the instructions in [Sending a program to the data logger](#) (p. 10).

TIP:

It is good practice is to always retrieve data from the data logger before sending a program; otherwise, data may be lost. See [Collecting data](#) (p. 13) for detailed instruction.

If your data acquisition requirements are simple, you can probably create and maintain a data logger program exclusively with Short Cut. If your data acquisition needs are more complex, the files that Short Cut creates are a great source for programming code to start a new program or add to an existing custom program using CRBasic. See the CRBasic Editor help for detailed information on program structure, syntax, and each instruction available to the data logger.

NOTE:

Once a Short Cut generated program has been edited with CRBasic Editor, it can no longer be modified with Short Cut.

6. Sending a program to the data logger

TIP:

It is good practice is to always retrieve data from the data logger before sending a program; otherwise, data may be lost. See [Collecting data](#) (p. 13) for detailed instruction.

Some methods of sending a program give the option to retain data when possible. Regardless of the program upload tool used, data will be erased when a new program is sent if any change occurs to one or more data table structures in the following list:

- Data table name(s)
- Data output interval or offset
- Number of fields per record
- Number of bytes per field
- Field type, size, name, or position
- Number of records in table

Use the following instructions or watch the [Quickstart part 4 video](#) .

1. Connect the data logger to your computer (see [Making the software connection](#) (p. 6) for more information).
2. Using your data logger support software, click **Send New...** or **Send Program** (located in the **Current Program** section on the right side of the window).
3. Navigate to the program, select it, and click **Open**. For example: navigate to **C:\Campbellsci\SCWin** and select **MyTemperature.CR300**.
4. Confirm that you would like to proceed and erase all data tables saved on the data logger. The program will send and compile.
5. Review the **Compile Results** window for errors, messages and warnings.

6. Click **Details**, select the **Table Fill Times** tab. Ensure that the times shown are expected for your application. Click **OK**.

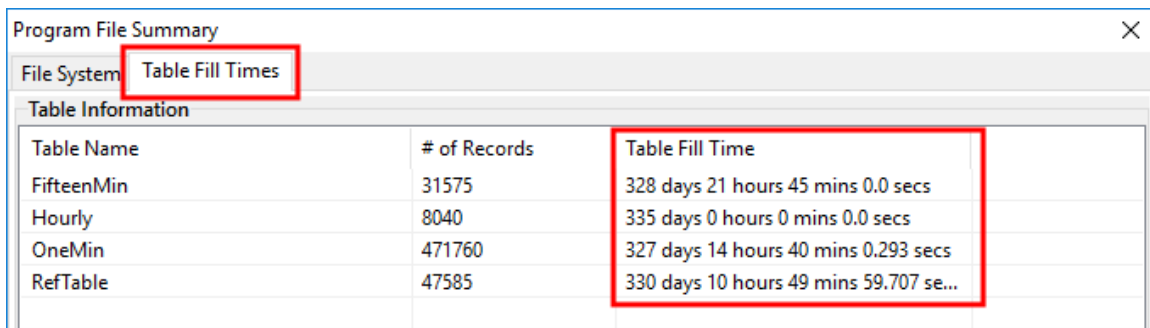


Table Information		
Table Name	# of Records	Table Fill Time
FifteenMin	31575	328 days 21 hours 45 mins 0.0 secs
Hourly	8040	335 days 0 hours 0 mins 0.0 secs
OneMin	471760	327 days 14 hours 40 mins 0.293 secs
RefTable	47585	330 days 10 hours 49 mins 59.707 se...

After sending a program, it is a good idea to monitor the Public Table to make sure sensors are taking good measurements. See [Working with data](#) (p. 12) for more information.

7. Working with data



7.1 Default data tables

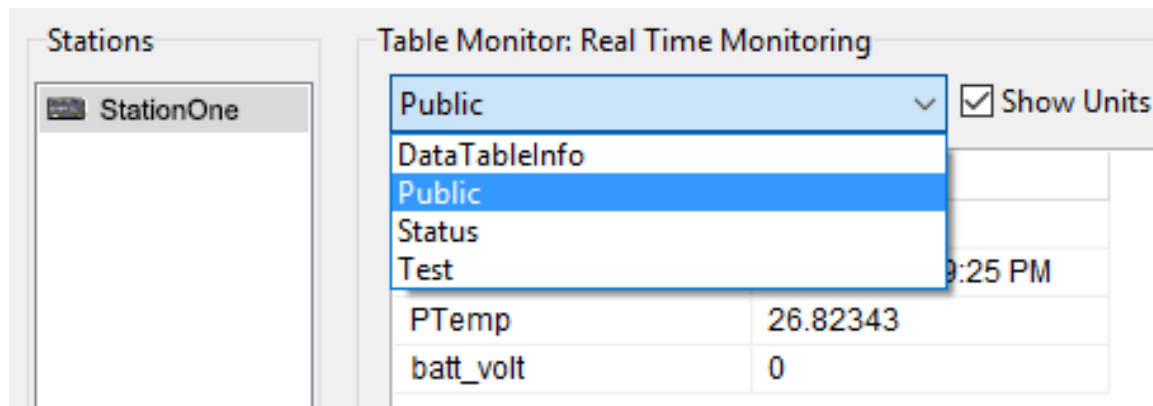
By default, the data logger includes three tables: **Public**, **Status**, and **DataTableInfo**. Each of these tables only contains the most recent measurements and information.



- The **Public** table is configured by the data logger program, and updated at the scan interval set within the data logger program. It shows measurement and calculation results as they are made.
- The **Status** table includes information about the health of the data logger and is updated only when viewed.
- The **DataTableInfo** table reports statistics related to data tables. It also only updates when viewed.
- User-defined data tables update at the schedule set within the program.

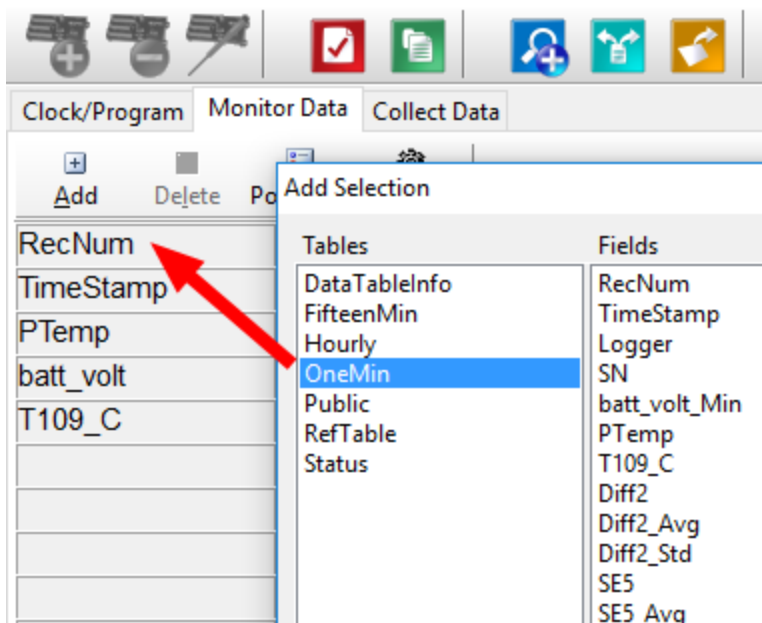
For information on collecting your data, see [Collecting data](#) (p. 13).

Use these instructions or follow the [Connect Window tutorial](#)  to monitor real-time data.


LoggerNet users, select the **Main** category and **Connect**  on the LoggerNet toolbar, select the data logger from the **Stations** list, then click **Connect** . Once connected, select a table to view using the **Table Monitor**.






PC400 and PC200W users, click **Connect** , then **Monitor Data**. When this tab is first opened for a data logger, values from the **Public** table are displayed. To view data from other tables, click **Add** , select a table or field from the list, then drag it into a cell on the **Monitor Data** tab.




7.2 Collecting data

The data logger writes to data tables based on intervals and conditions set in the CRBasic program. After the program has been running for enough time to generate data records, data may be collected by using data logger support software. During data collection, data is copied to the computer and still remains on the data logger. Collections may be done manually, or automatically through scheduled collections set in LoggerNet **Setup**. Use these instructions or follow the [Collect Data Tutorial](#) .

7.2.1 Collecting data using LoggerNet


1. From the LoggerNet toolbar, click **Main** and **Connect** , select the data logger from the **Stations** list, then **Connect** .
2. Click **Collect Now** .
3. After the data is collected, the **Data Collection Results** window displays the tables collected and where they are stored on the computer.
4. Select a data file, then **View File** to view the data. See [Viewing historic data](#) (p. 14)

7.2.2 Collecting data using PC200W or PC400




1. Click **Connect**  on the main PC200W or PC400 window.
2. Go to the **Collect Data** tab.

3. Select an option for **What to Collect**. Either option creates a new file if one does not already exist.
 - **New data from data logger (Append to data files)**: Collects only the data in the selected tables stored since the last data collection and appends this data to the end of the existing table files on the computer. This is the default, and most often used option.
 - **All data from data logger (Overwrite data files)**: Collects all of the data in the selected tables and replaces the existing data files on the computer.
4. By default, all output tables set up in the data logger program are selected for collection.
5. Click **Start Data Collection**.
6. After the data is collected, the **Data Collection Results** window displays the tables collected and where they are stored on the computer.
7. Select a data file, then **View File** to view the data. See [Viewing historic data](#) (p. 14)

7.3 Viewing historic data

Open data files using View Pro. View Pro contains tools for reviewing data in tabular form as well as several graphical layouts for visualization. Use these instructions or follow the [View Data Tutorial](#) .

Once the data logger has had enough time to store multiple records, you should collect and review the data.

1. To view the most recent data, connect the data logger to your computer and collect your data (see [Collecting data](#) (p. 13) for more information).
2. Open View Pro:
 - LoggerNet users click **Data** then **View Pro**  on the LoggerNet toolbar.
 - PC200W and PC400 users click **View Data Files via View Pro** .
3. Click **Open** , navigate to the directory where you saved your tables (the default directory is C:\Campbellsci\[your data logger software application]). For example: navigate to the C:\Campbellsci\LoggerNet folder and select **OneMin.dat**.



Global Sales & Support Network

A worldwide network to help meet your needs



Australia

Location: Garbutt, QLD Australia
Phone: 61.7.4401.7700
Email: info@campbellsci.com.au
Website: www.campbellsci.com.au

Brazil

Location: São Paulo, SP Brazil
Phone: 11.3732.3399
Email: vendas@campbellsci.com.br
Website: www.campbellsci.com.br

Canada

Location: Edmonton, AB Canada
Phone: 780.454.2505
Email: dataloggers@campbellsci.ca
Website: www.campbellsci.ca

China

Location: Beijing, P. R. China
Phone: 86.10.6561.0080
Email: info@campbellsci.com.cn
Website: www.campbellsci.com

Costa Rica

Location: San Pedro, Costa Rica
Phone: 506.2280.1564
Email: info@campbellsci.cc
Website: www.campbellsci.cc

France

Location: Vincennes, France
Phone: 0033.0.1.56.45.15.20
Email: info@campbellsci.fr
Website: www.campbellsci.fr

Germany

Location: Bremen, Germany
Phone: 49.0.421.460974.0
Email: info@campbellsci.de
Website: www.campbellsci.de

India

Location: New Delhi, DL India
Phone: 91.11.46500481.482
Email: info@campbellsci.in
Website: www.campbellsci.in

South Africa

Location: Stellenbosch, South Africa
Phone: 27.21.8809960
Email: sales@campbellsci.co.za
Website: www.campbellsci.co.za

Spain

Location: Barcelona, Spain
Phone: 34.93.2323938
Email: info@campbellsci.es
Website: www.campbellsci.es

Thailand

Location: Bangkok, Thailand
Phone: 66.2.719.3399
Email: thitipongc@campbellsci.asia
Website: www.campbellsci.asia

UK

Location: Shepshed, Loughborough, UK
Phone: 44.0.1509.601141
Email: sales@campbellsci.co.uk
Website: www.campbellsci.co.uk

USA

Location: Logan, UT USA
Phone: 435.227.9120
Email: info@campbellsci.com
Website: www.campbellsci.com