# Motor Data Logger



# PRODUCT USER GUIDE

To view the full MadgeTech product line, visit our website at **madgetech.com**.

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# PRODUCT USER GUIDE

### **Product Overview**

The Motor101A measures and records on and off status changes for motors or other equipment drawing up to 200 Amps. The state change occurs when the current switch exceeds the 150 mA set point. This allows for most basic equipment to be monitored.

#### Installation Guide

### **Installing the Interface Cable**

IFC200 (sold separately) — Insert the device into a USB port. The drivers will install automatically.

#### **Installing the Software**

The Software can be downloaded from the MadgeTech website at madgetech.com. Follow the instructions provided in the Installation Wizard.

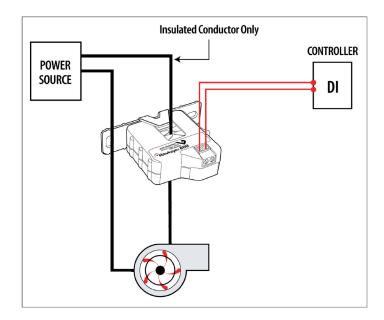
## Wiring the Data Logger

### **Wiring Options**

The Motor101A has a two-position removable screw terminal connection. It accepts 2-wire configurations. The Motor101A measures and records on and off status changes of motors or other equipment drawing up to 200 Amps. The state change, or trip set point, occurs when the current going through the switch exceeds 150 mA's. The split core switch allows for easy installation.

For loads less than the trip point, wrap the wire around the body of the device and through the center to increase the amount of current running through the device until the trip point will be exceeded.

**Warning:** *Note the polarity instructions. Do not attach wires* to the wrong terminals.



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## **Device Operation**

#### **Connecting and Starting the Data Logger**

- 1. Once the software is installed and running, plug the interface cable into the data logger.
- 2. Connect the USB end of the interface cable into an open USB port on the computer.
- 3. The device will appear in the Connected Devices list. Highlight the desired data logger.
- 4. For most applications, select **Custom Start** from the menu bar and choose the desired start method, reading rate and other parameters appropriate for the data logging application and click **Start**.
  - Quick Start applies the most recent custom start
  - Batch Start is used for managing multiple loggers at once
  - **Real Time Start** stores the dataset as it records while connected to the logger
- 5. The status of the device will change to **Running**, Waiting to Start or Waiting to Manual Start, depending upon your start method.
- 6. Disconnect the data logger from the interface cable and place it in the environment to measure.

**Note:** The device will stop recording data when the end of memory is reached or the device is stopped. At this point the device cannot be restarted until it has been re-armed by the computer.

## **Downloading Data from a Data Logger**

- 1. Connect the logger to the interface cable.
- 2. Highlight the data logger in the Connected Devices list. Click **Stop** on the menu bar.
- 3. Once the data logger is stopped, with the logger highlighted, click **Download**.
- 4. Downloading will offload and save all the recorded data to the PC.

#### **Engineering Units**

Engineering units are used to convert one measurement reading to another. The MadgeTech software allows for software level Engineering Units (conversion applied to data after download). Certain devices have device level Engineering Units, which upon download automatically appear in the chosen unit of measure. Please refer to the Engineering Units Video on madgetech.com/resources/ videos for step-by-step setup instructions.

#### **Set Password**

To password protect the device so that others cannot start, stop or reset the device:

- 1. In the **Connected Devices** panel, click the device desired.
- 2. On the **Device** Tab, in the **Information** Group, click **Properties**. Or, right-click the device and select **Properties** in the context menu.
- 3. On the **General** Tab, click **Set Password**.
- 4. Enter and confirm the password in the box that appears, then select **OK**.

#### **LED Indicators**



Green LED blinks: 10 seconds to indicate logging and 15 seconds to indicate delay start mode.



Red LED blinks: 10 seconds to indicate low battery and/or memory and 1 second to indicate an alarm condition.

## **Multiple Start/Stop Mode Activation**

- To start device: Press and hold the pushbutton for 5 seconds, the green LED will flash during this time. The device has started logging.
- To stop the device: Press and hold the pushbutton for 5 seconds, the red LED will flash during the this time. The device has stopped logging.

# NEED HELP?

#### Device Maintenance

### **Battery Replacement**

Materials: Small Phillips Head Screwdriver and a Replacement Battery (LTC-7PN)

- 1. Puncture the center of the back label with the screw driver and unscrew the enclosure.
- 2. Remove the battery by pulling it perpendicular to the circuit board.
- 3. Insert the new battery into the terminals and verify it is secure.
- 4. Screw the enclosure back together securely.

**Note:** Be sure not to over tighten the screws or strip the threads.

#### Recalibration

Recalibration is recommended annually. To send devices back for calibration, visit **madgetech.com**.



## Product Support & Troubleshooting:

• Visit our Resources online at madgetech.com/resources.



## MadgeTech 4 Software Support:

- Refer to the built-in help section of the MadgeTech 4 Software.
- Download the MadgeTech 4 Software Manual at **madgetech.com**.

