



DYNAGENTM

RapidCoreTM **Configuration Software**

User Manual



CONNECT. CONTROL. PROTECT.

Revision History

VERSION	DATE	NOTES
A	09/2022	Document rebranded and contact information updated.

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1 Introduction

The DynaGen RapidCore™ Configuration Software is used in conjunction with TOUGH Series controllers to perform a number of tasks, including changing the settings, viewing the event log, or updating firmware.

System Requirements

- Windows XP (SP3), Windows Vista (SP1 and above), Windows 7, Windows 10
- Pentium 1 GHz or more
- 512 MB Ram or more
- Minimum Disk Space:
 - 600 MB (32-bit)
 - 1500 MB (64-bit)



CAUTION

BEFORE INSTALLING RAPIDCORE, ENSURE THAT YOUR COMPUTER HAS THE MOST UP-TO-DATE SOFTWARE BY USING WINDOWS UPDATE.



About Screen of the DynaGen RapidCore Configuration Software



2 Installation

There are two different ways to install RapidCore.


The first one is the “Web Installer” which is a smaller initial download but requires connectivity to the internet to download any necessary files your computer may need.

The second way is the “Standalone Installer” which is a larger download but does not require the same internet connectivity as the Web Installer. This package contains all the necessary files to install RapidCore while offline.

Below are the installation instructions on both versions of the installer.

Web Installer Instructions

1. Download and save the installer from the following website:
<https://www.cattron.com/products/dynagen/tough-series/rapidcore/>
2. Double-click the file to run the installer. The following window should pop up.

	WARNING WHEN INSTALLING RAPIDCORE, YOU MAY GET A SECURITY WARNING. ALLOW RAPIDCORE TO CONTINUE INSTALLATION.
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3. Click the “Install” button to begin.
4. Once the installation is complete, RapidCore should start automatically.

Standalone Installer Instructions


1. Download and save the installer from the following website:
<https://www.cattron.com/products/dynagen/tough-series/rapidcore/>
2. Extract the .zip file using Windows or a third party program such as WinZip (www.winzip.com) or WinRAR (www.rarlab.com).
3. Double-click the “ConfigInstaller” file to run the installer.
4. Click the “Install” button to begin.
5. Once the installation of RapidCore is complete, click “Launch” to run the software.

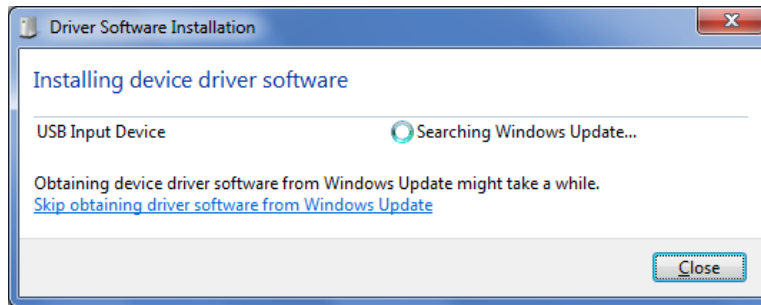


3 Connecting a Controller

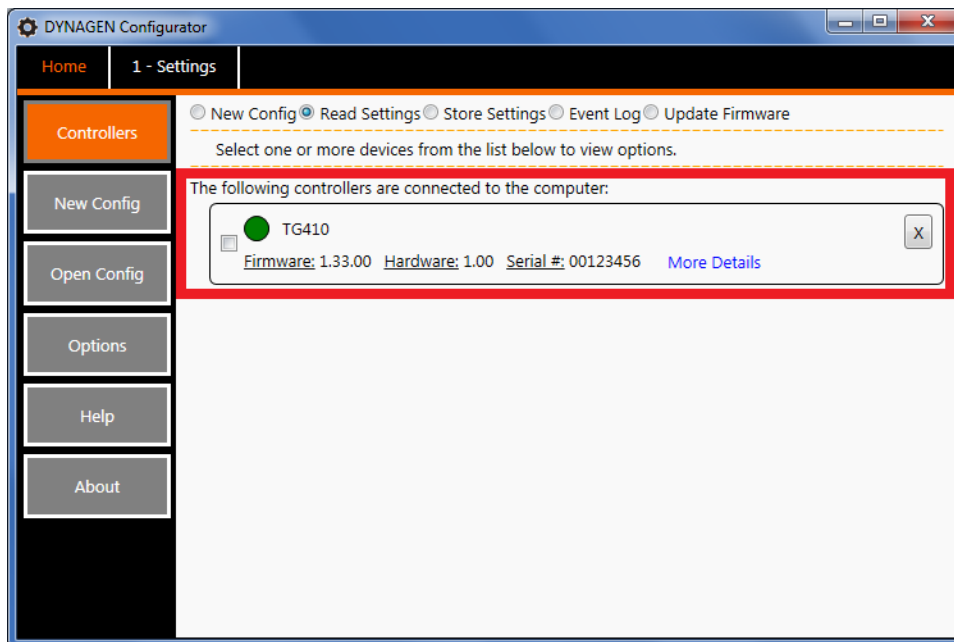
When first connecting your controller to a computer, it must first install drivers. A screen similar to the one below will appear. Wait until the drivers have been installed.

If using Windows XP, the “Install New Hardware Wizard” will pop up. Select “Install Software Automatically.”




	CAUTION
THE CONTROLLER IS REQUIRED TO BE POWERED WHEN USING RAPIDCORE. IT DOES NOT GET POWER THROUGH THE USB CONNECTION.	



From the Home screen of RapidCore, you will see a list of controllers connected to the computer. It will display the current firmware version, the hardware version, and the serial number.



The following table provides information about the various controller states.

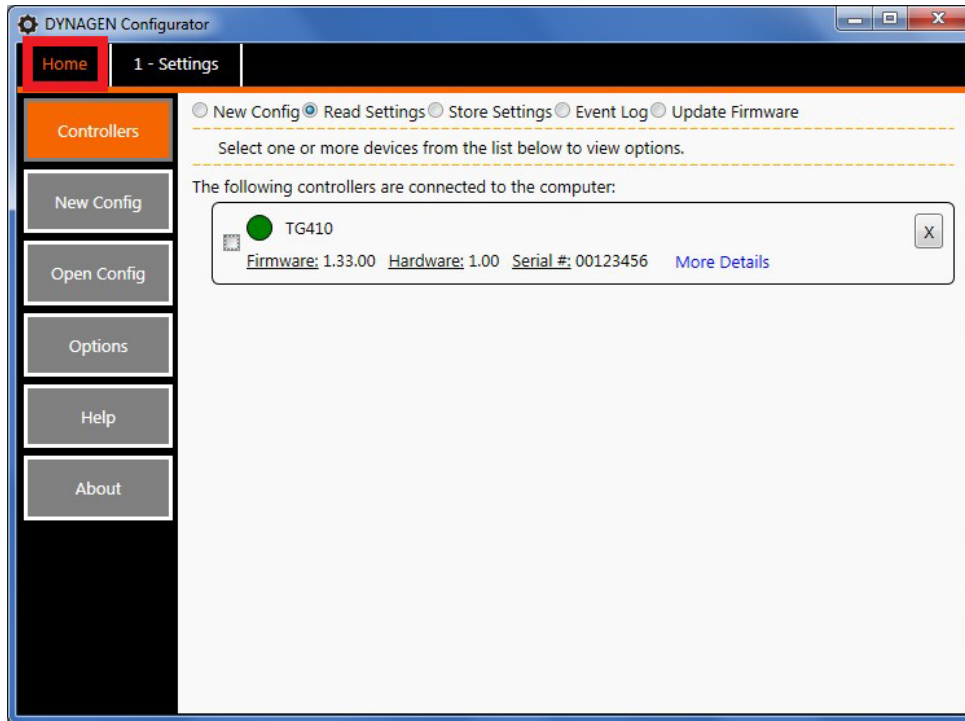
Symbol	Controller State	Description
	Connected	The controller is connected and ready to go.
	Unknown	Refer to the Troubleshooting section for more information.
	Disconnected	The controller has been disconnected. Click the 'X' button on the right side to remove it from the list.



4 Using RapidCore

RapidCore is very easy to use software. This section and the following sections give information on how to perform certain tasks while using RapidCore.

Shown below is the “Home” screen. Clicking on the “Home” tab (highlighted in red below) will bring you back to this screen. From here you can perform many different tasks ranging from creating configuration files to reading the Events History.



On the left hand side of the Home screen is a column with selectable tabs. The following table describes what tasks can be performed while selecting those tabs.

Function	Description
Controllers	Read and store settings, update firmware, and view the Events History.
New Config	Create a new configuration file.
Open Config	Open a previously created configuration file.
Options	Change the time and date storage settings and measurement units.
About	Information about the DynaGen RapidCore Configuration Software.



4.1 Creating a Configuration

RapidCore will allow you to create configuration files for any controller, but it will not allow you to load them to the controller if they are not compatible. There are two ways to create a new configuration file, as follows:

Method #1

1. From the Home screen, click the “New Config” button.
2. Click on the check box for your type of controller.
3. Click on the check box for the firmware version for which you want to create a configuration.
4. Select the configuration file from the list and click “Create.”

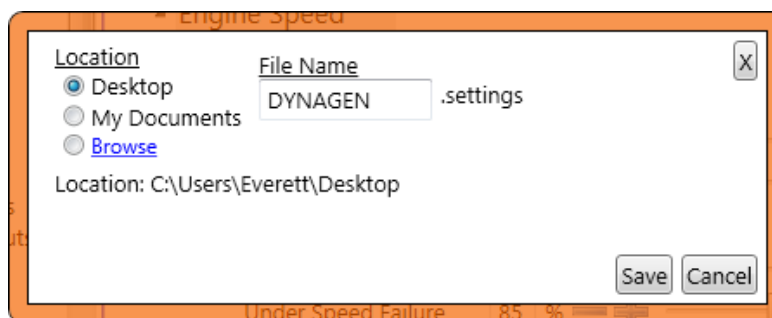
Method #2

1. From the Home Screen, click the “New Config” radio button.
2. Click on the check box for the controller for which you want to create a new configuration.
3. Click the “Open” button. This will automatically create a new configuration compatible with your controller and firmware version.

4.2 Saving a Configuration

Saving a configuration file is used to store settings that you have already created so that a new configuration doesn't have to be created every time. This is especially useful if you have multiple controllers that require the same configuration. The following steps must be taken to save a configuration file:


1. Create a new configuration file and make changes to the settings.
2. From inside that configuration file, click the “Save To File” button.
3. A box will pop up as shown in the following image.
4. Select a location and a file name for your configuration file and click “Save.”
5. The configuration file is now saved and can be re-opened through the “Open Config” button on the Home screen.

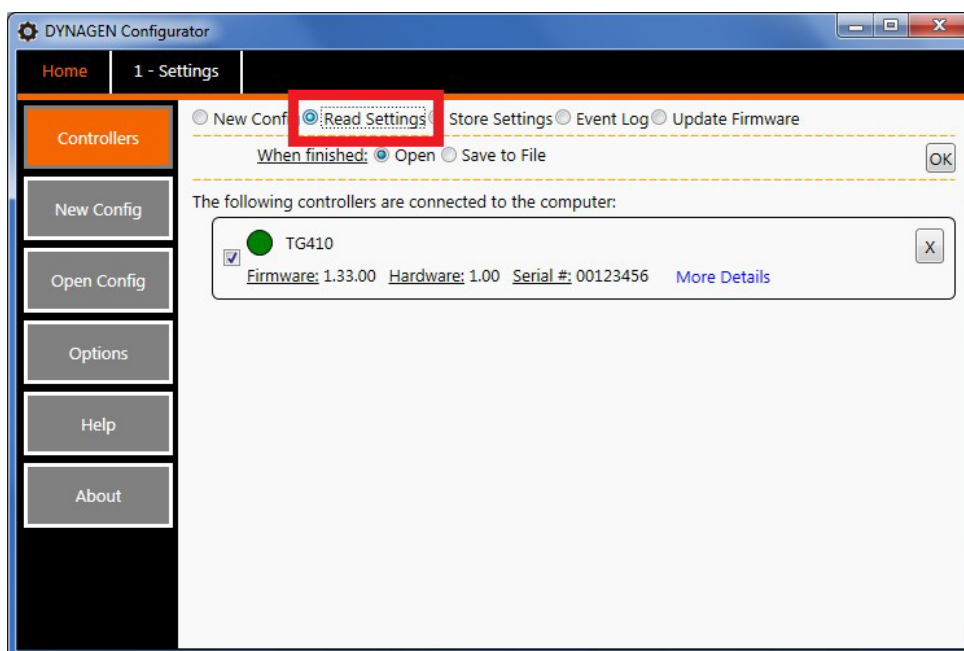


4.3 Reading Settings

The following steps must be taken to store the settings to the controller:

1. From the Home screen under Controllers, click on the radio button labelled “Read Settings.”
2. Click the check box of the controllers from which you want to read.
3. Click the OK button to begin reading the settings from the controller.
4. A new settings tab will be opened that is linked to the controller.

	<p>WARNING STORING SETTINGS TO THE CONTROLLER WILL OVERWRITE ANY PREVIOUS SETTINGS THAT MAY HAVE BEEN STORED. READ AND SAVE YOUR SETTINGS FIRST TO BE USED AS A BACKUP.</p>
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4.4 Storing Settings

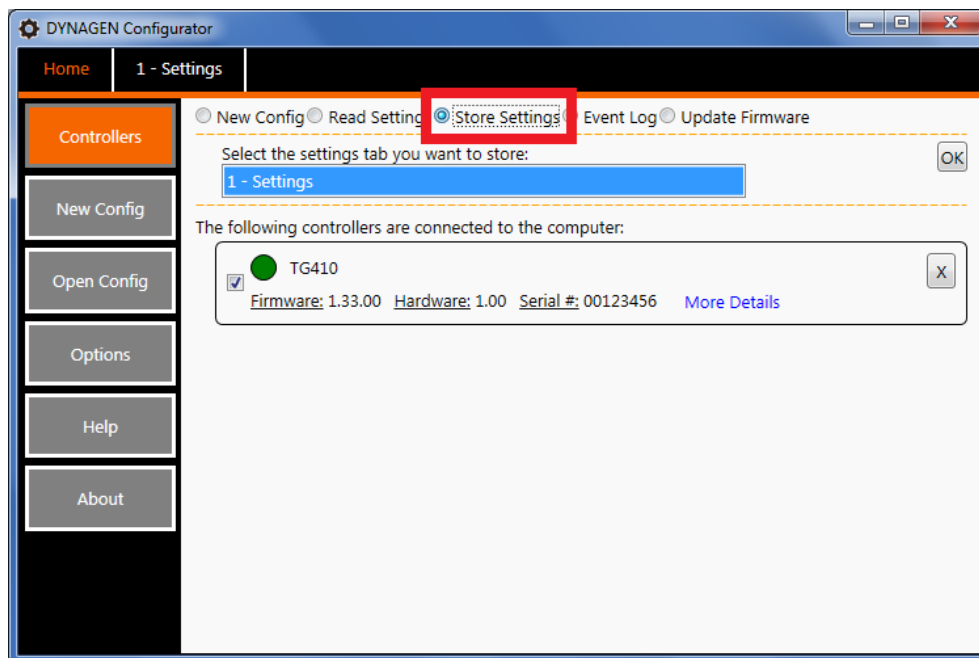
The following steps must be taken to store the settings to the controller:

1. From the Home screen under Controllers, click on the radio button labelled “Store Settings.”
2. Select the Settings tab you want to store from the drop-down menu.
3. Click the check box of the controllers to which you want to store settings (multiple controllers can be selected).
4. Click the OK button to begin saving the settings to the controller.
5. The controller will reset once all the settings are stored.



WARNING

STORING SETTINGS TO THE CONTROLLER WILL OVERWRITE ANY PREVIOUS SETTINGS THAT MAY HAVE BEEN STORED. READ AND SAVE YOUR SETTINGS FIRST TO BE USED AS A BACKUP.



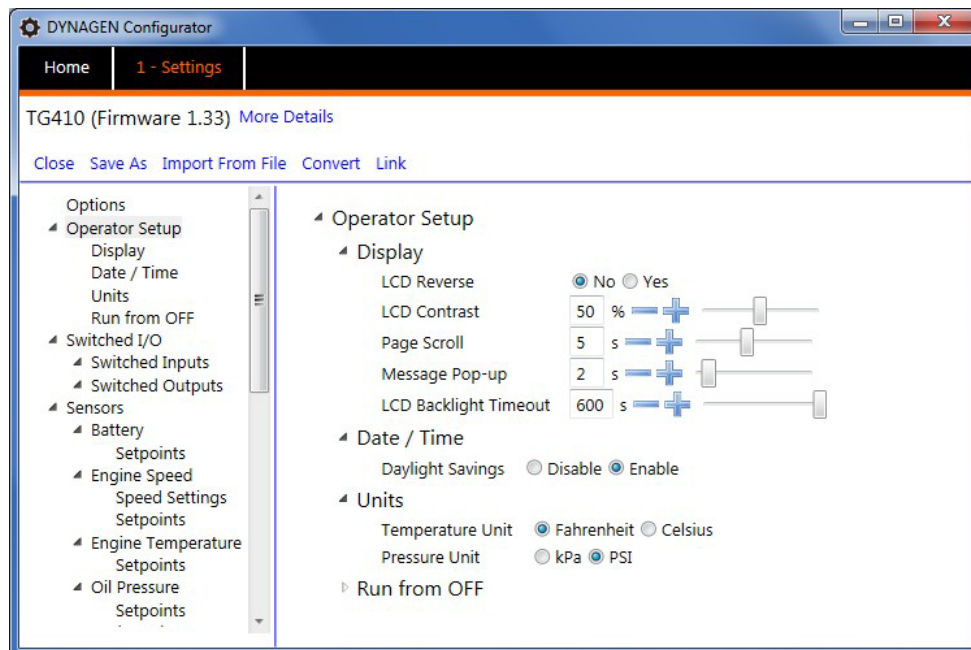
4.5 Editing Settings

Changing the settings in a configuration file changes the way the controller works. There are some items such as [Custom Sender Tables](#) that can only be edited by using RapidCore. There are three main components to the settings screen:

- Top Bar - this is used for closing, saving, or seeing more details about the configuration file
- Settings Tree - this is a “Table of Contents” of settings areas that can be selected and to which the user can navigate
- Display Window - this is where the settings are displayed and changed

There are typically four different kinds of “methods” for changing a setting. Examples of these methods can be viewed in the following image.

- Drop-down Menu - these are used to select settings that are in list form
- Check Box - these are used on settings that are Enabled and Disabled only
- Entry Box - these are used if a numerical value or text must be entered manually
- Slider Bar - these can be used instead of the Entry Box as a second way to enter data



WARNING

IF AN INVALID VALUE HAS BEEN ENTERED, THE SETTING WILL TURN RED.



4.6 Events History

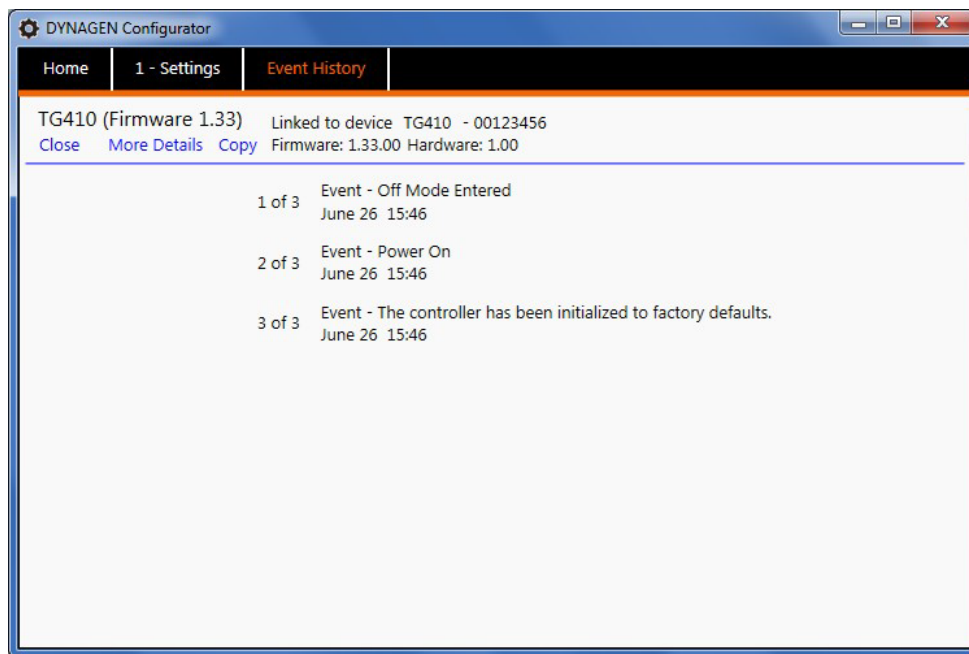
The Events History of the controller can be viewed by RapidCore. The event's name, number, time, and date can all be read. Perform the following steps to read the Events History.

1. From the Home screen under Controllers, click on the radio button labelled “Event Log.”
2. Click the check box of the controller to select it.
3. Click the “Read Event Log” button to begin.
4. The Events History should now appear, and a tab has been created called Event History.

Saving the Events History

To save the Events History to a file for future reference, you must follow these steps:

1. Download the Events History from the controller.
2. Under the Event History tab, click the “Copy” button.
3. Open up a document editing program such as WordPad or Microsoft Office.
4. Right-click and click “Paste” to insert the Events History text into the document.
5. Save the file to the desired location.



CAUTION

IF A NEW EVENT IS RECORDED AND THERE ARE ALREADY THE MAXIMUM NUMBER OF EVENTS IN THE LOG, THE OLDEST RECORDED EVENT WILL BE DELETED.



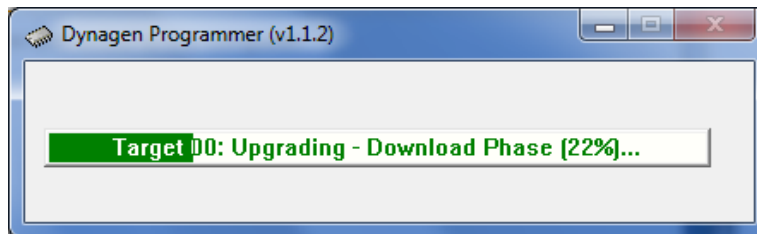
4.7 Updating Firmware

Updating firmware makes sure that your controller has the most up to date version of firmware available. It is important to check the website (<https://www.cattron.com/products/dynagen/tough-series/rapidcore/>) on a consistent basis for updates. When updating the firmware, RapidCore performs the following actions:

- Sets Time and Date
- Reads Settings
- Updates Firmware
- Reloads Settings

It reads and loads the settings to make sure that your settings are not lost while updating the firmware. The following steps must be taken to update the firmware in the controller:

1. From the Home screen under Controllers, click on the radio button labelled “Update Firmware.”
2. Click the check box of the controller to select it.
3. Select a firmware update file (.dfu) by clicking the “Select Firmware File” button. The most up-to-date firmware can be found on the following website:
<https://www.cattron.com/products/dynagen/tough-series/rapidcore/>
4. Click the OK button to begin updating the firmware.
5. The controller will reset once the firmware is updated, and the settings are stored.



WARNING

DO NOT DISCONNECT THE USB CABLE FROM THE CONTROLLER WHILE UPDATING THE FIRMWARE. DOING THIS MAY RESULT IN CORRUPTED FIRMWARE AND THE CONTROLLER WILL HAVE TO BE SENT BACK TO CATTRON FOR REPROGRAMMIN.



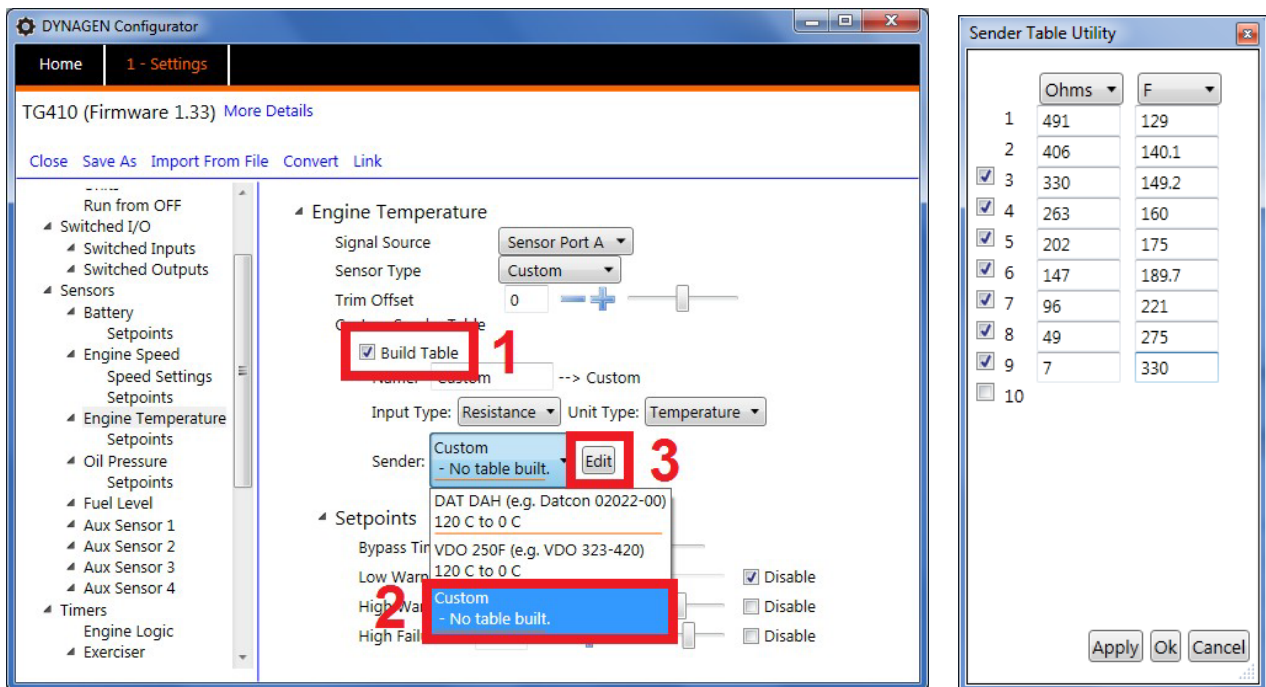
5 Custom Sender Tables

Custom Sender Tables are created when using a sensor that is not supported by Cattron. RapidCore has the ability to create these custom tables, allowing the controller to properly read the sensor data.

Parameter	Description
Name	The label that will be displayed in the controller (Engine Temp, Oil Pressure, etc.)
Input Type	Choose resistance, voltage, or current based on the sensor type. All sensor ports are resistive type with the exception of Sensor Port D.
Unit Type	Choose temperature, pressure, voltage, current or percentage based on the sensor. This defines the unit of measurement that will be displayed on the front panel (F, PSI, V, A, %).

The following steps are an example of how to create a custom sender table.

1. Navigate to the sensor that will be using your custom sender table.
2. Select a Name, Input Type, and Unit Type for the controller (as defined in the table above).
3. Click the check box next to “Build Table” (Image Step 1).
4. From the “Sender” drop-down menu, select “Custom” (Image Step 2).
5. Click the “Edit” button next to the drop-down menu (Image Step 3).
6. Enter the sensor values. Once entered, click Apply and then OK.



6 Troubleshooting

If you are having issues with RapidCore, please refer to the table below for a solution before contacting technical support at www.cattron.com/contact.

Issue	Solution
Devices does not appear in list	<ol style="list-style-type: none"> 1. Is the USB cable plugged in? 2. Is the controller powered? 3. Remove power to the controller for 5 seconds and then reconnect. 4. Unplug the USB cable for 5 seconds and then reconnect.
Device appears as yellow triangle	<p>Firmware and Hardware Version are listed:</p> <ol style="list-style-type: none"> 1. Download the most recent RapidCore version from the following website: https://www.cattron.com/products/dynagen/tough-series/rapidcore/ <p>Firmware and Hardware Version are not listed:</p> <ol style="list-style-type: none"> 1. Remove power to the controller for 5 seconds and then reconnect. 2. Unplug the USB cable for 5 seconds and then reconnect.
“Error” message when reading or storing settings	<ol style="list-style-type: none"> 1. Remove power to the controller for 5 seconds and then reconnect. 2. Unplug the USB cable for 5 seconds and then reconnect.
Settings do not appear when trying to store settings	<ol style="list-style-type: none"> 1. Are any compatible settings tabs opened?



7 Technical Support

For remote and communication control systems support, parts and repair, or technical support, visit us online at:
www.cattron.com/contact.



Due to continuous product improvement, the information provided in this document is subject to change without notice.

Cattron Wireless Automation and Control Solutions Support

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www.cattron.com/contact

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