# Using TandD's TR-4 Series Bluetooth Connected Data Loggers

The TR-4 Series of Bluetooth connected Data Loggers are the simplest wireless devices to set up and use that TandD has ever produced. To get up and running all that is needed is a Data Logger and a Smart Device, such as a Cell Phone or Bluetooth equipped Tablet. Setup can be accomplished in just a few minutes by following these simple steps:



## I) Basic Setup

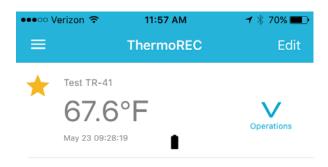
 The first step is to download the ThermoREC App to your Smart Device. This App can be found for FREE in the iOS Store or on Google Play.



- 2. Make sure that Bluetooth is enabled on your Smart Device
- 3. Install the battery in your TR-4 Series Data Logger.
- 4. Open the App on your Smart Device

That's it! A new or initialized logger will autodiscover in just a matter of seconds (if it's in range). At this point the logger will appear in the App and you will be able to see the current reading, as shown on the right.

Only loggers that are in range will show in the App unless they are pinned to the Device. You can pin the logger to the device by tapping the star in the upper left corner of the logger window. Initially the star will be greyed out, but



once you tap it the star will change to gold indicating that the logger is now pinned to your device. This will allow you to view locally archived logger data once it is downloaded, even if the logger itself is not in range of your Smart Device. Downloading as well as other important functions can be accomplished by tapping the Operations Icon at the right side of the logger window.

# II) TandD's FREE Web-Storage Service

Now would be a good time to decide if you will want to upload your logger data to TandD's Web-Storage Service. Once the data is uploaded there you can view it from anywhere with a simple browser, share it with colleagues, archive it, download it for local archiving, print it locally and view the battery status. Opening an account is simple; You can do it here:

https://www.webstorage-service.com/register/.

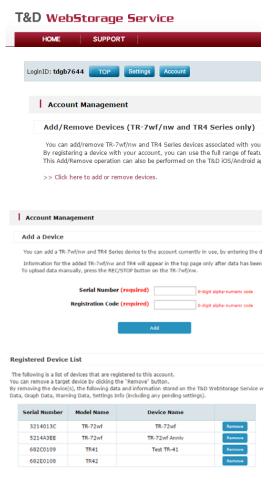
Once you have a User ID and Password, log onto your account and click on the Account button. There you will see a link to Add or Remove Devices. Click on that to add your TR-4 Series logger to the account.

In the Add a Device screen enter the serial number and registration code for your logger(s). This was included in the package with your logger. It is best if you apply it to the back of the unit so as not to lose it for future reference. After doing this click on the Add button.

The logger will then be added to the Registered Device List without a name as shown for the TR-42 on the right (unless you jumped ahead and gave the unit a name using the App). We will show how to add a logger name a little later in this guide.

At this point you may want to find your logger listed on the Top (main) page for your WSS

account. You will not find it there yet. It will not show on the main page until a successful data upload has occurred. We will show how to do this below.



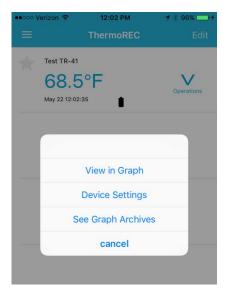
## III) The Operations Menu

As can be seen on the right, there are several functions that can be invoked from the Operations menu:

#### 1) View in Graph

It is this function that will download recorded data to your Smart Device from your logger and, as it says, display it in graph form. At this point there will be no data to view as we have not started recording in the logger. We will do that in the Device Settings menu. Later, when data has been recorded, be patient when you see the graph start to form. BTLE is not all that fast, and downloading a full logger will take a bit.

**Important Note:** It is invoking this function that will auto-upload the recorded logger data to your Web-Storage Service account (if the logger is registered there). This will also cause the logger to start to appear on the WSS Top page.



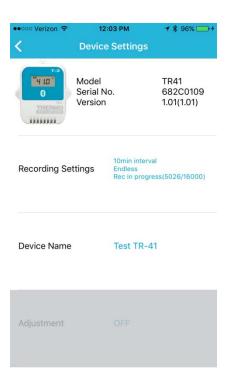
### 2) Device Settings

This is where you can set various parameters for your logger.

Initially you will want to set a <u>Device Name</u> for the logger that is meaningful for your application. After entering the new name tap the blue button below to set it into memory.

Recording Settings is where you will select how you want the logger to record and where you can choose for the readings to be in C or F. This is also where you start the logger recording and can stop it if you so choose.

As of this writing <u>Adjustment</u> is not yet implemented. This will be used to enter a one or two point adjustment factor to be applied to logger readings as a result of calibration error.



The last selection on this page is <u>Lock</u>. This setting prevents unauthorized users from accessing the logger. This can be of concern in some situations due to the auto-discovery attribute of BTLE.

#### 3) See Graph Archives

If you have pinned a logger to your Smart Device, Selecting this option will allow you to see the most recent data set that has been downloaded. The window provides specific information about the download and has buttons for three actions:

<u>View in Graph:</u> which is self-explanatory.

<u>Send as a File</u>: This option will allow you to send a .csv file of the locally archived data as an email attachment.

<u>Delete:</u> Which is also self-explanatory.



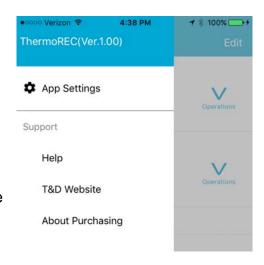
# IV) The Main Menu

In the upper left corner of the main screen you will find the main pull-down menu. "Main" may be a bit of a misnomer, but you will find some useful links here.

App Settings is the first one. Tapping on this will take you to a screen where you can toggle the Current Readings display to either Degrees C or Degrees F.

Below this are links to T&D's website for support. At this point perhaps the most useful would be the Help link. Here you will find another resource for understanding how to use the TR-4 Series Loggers and the ThermoREC App. There is also a link to T&D's main website and one labeled About Purchasing, which will take you to a list of T&D's distributors worldwide.





Not included at the time of this writing, but planned for addition at a later date, will be a toggle for turning Daylight Savings Time on and off.

# V) The Graph Display

The Graph Display is arguably the most important screen of the entire App. There are a number of very useful elements to the screen that may not be obvious at first glance.

The first of these is that just opening the screen will start the monitoring process. It will also initiate automatic uploads to your Web-Storage Service account, if the logger is registered there. The monitoring interval can be adjusted using the bottom slider located at the lower screen. Here the monitoring interval is shown at 5 seconds. Monitoring can be paused by tapping the icon. At the bottom of the screen we can see the Logger name and the current reading.

Of course the main point of this screen is the Graph Display itself. You can pinch in and out to change the graph range, both vertically and horizontally. The upper of the two sliders at the bottom of the screen allows you to set the data range that is shown in the graph.

An important feature that is not obvious is that by pressing and holding for two seconds on the graph display a cursor will appear. The time, date and value of the reading where the cursor is located will appear along the top of the graph. You can slide the cursor to view the exact reading at any point along the horizontal axis.

In a future version of the App you will be able to select up to four devices to view in the graph at one time.

**Note:** This guide is a work in progress, just as is the ThermoREC App itself. As feedback is received, and the App is improved and new features are added this guide will be updated.

**Note:** There may be minor differences between the Android and iOS version of the ThermoRec App.

