

# DATA GRABBER<sup>®</sup>

## INSTRUCTION MANUAL



# DATA GRABBER<sup>®</sup> with Bluetooth<sup>®</sup>

**RAPID RH<sup>®</sup> L6**  
Fast, Accurate Moisture Test for Concrete Floors

The RAPID RH<sup>®</sup> L6 DataGrabber  
is registered under U.S. Patent 9032791 & 11340209

Products Online at:



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# Congratulations!

Your purchase of the DataGrabber® with Bluetooth® gives you the ability to automate the collection of in-situ relative humidity (RH) test data. Because it integrates with the Rapid RH® L6 system, the DataGrabber device can enhance your collection and documentation of Rapid RH L6 data.

Your DataGrabber device automates the data collection process by connecting with a Rapid RH L6 Smart Sensor and then allowing a microchip built into the sensor to store time- and date-stamped RH and temperature readings on a periodic basis—for days, weeks, or even months at a time while you are away from the job site.

## **DATA GRABBER®** Data Logger with Bluetooth® for Rapid RH® L6



Your DataGrabber device is designed to work in conjunction with the DataMaster L6 app (available to download for free in the App Store and on Google Play). With this app, you can configure time intervals for collecting RH test data, keep a running clock of acclimation time, download the time- and

date-stamped readings to your smart device, and generate and send reports.

Your DataGrabber device can be used to collect and store up to 512 time- and date-stamped RH and temperature readings on an L6 sensor. The data you collect can help you gain a better understanding of the drying process as well as the dynamics that may be affecting the concrete drying time. You can also analyze the data for any trends using the DataMaster L6 app.

## INSTALLATION

The installation of your DataGrabber device is fast and easy. Simply insert the device into the green sleeve of the L6 Smart Sensor (previously installed in concrete). Notice that your DataGrabber has nine small protruding metal “connectors” at the base. Be sure to orient the base downward when you insert the DataGrabber into the L6 sleeve. This is required to obtain a connection with the L6 Smart Sensor.

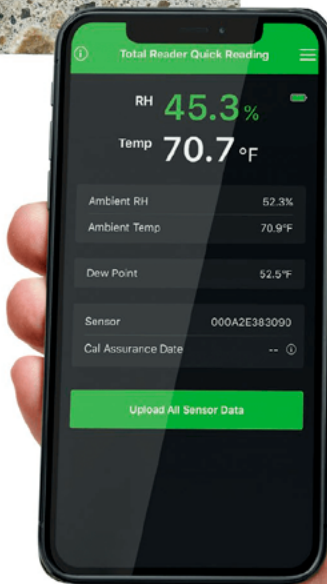
These pictures show what the DataGrabber with Bluetooth looks like when installed correctly.



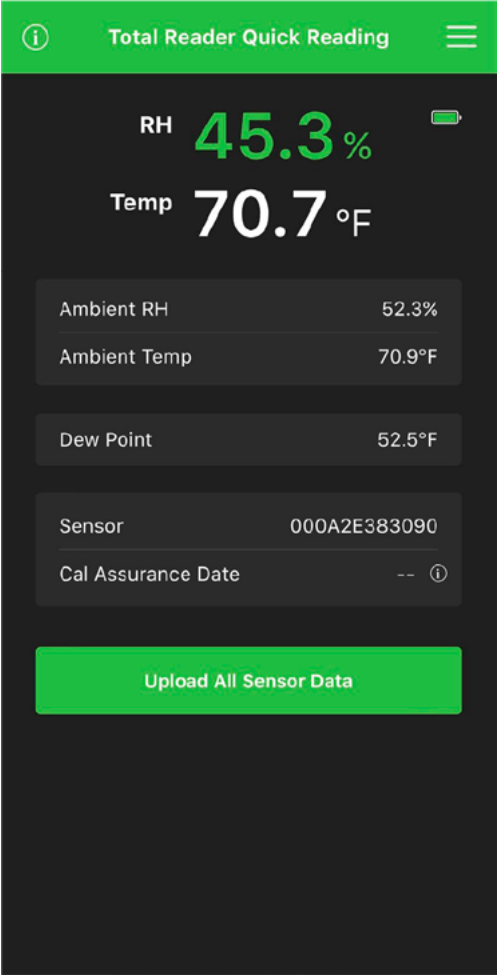
## DATAMASTER L6 APP: GETTING STARTED

It is recommended that you set up an account at [www.F2170reports.com](http://www.F2170reports.com) for use with the DataMaster L6 app. At this site, you can choose a username and password. This also becomes the username and password that you use for logging in to the DataMaster L6 app.

Next, download the free DataMaster L6 app to your smart device. This app is available online in both iOS and Android versions at the Apple App Store and Google Play.



Before using the DataMaster L6 app, make sure you have Bluetooth enabled on your mobile device. When you open the app for the first time, a pop-up window will open giving you the option to watch a video tutorial. It's highly encouraged to watch this tutorial to ensure proper usage, but you can also choose to skip the tutorial, which takes you to the Total Reader Quick Reading screen shown below:



The DataMaster L6 app gives you many options for viewing, saving and attaching your data to reports.

## CONNECTION

After installing your DataGrabber device and downloading the DataMaster app, your next step is to connect the DataGrabber to your mobile device so that you can configure it for the automated collection of time- and date-stamped data.

As described already, for the DataGrabber with Bluetooth, a wireless connection is obtained when it is within Bluetooth range of your mobile device.

### Connection of the Total Reader with the DataGrabber to Get a Reading

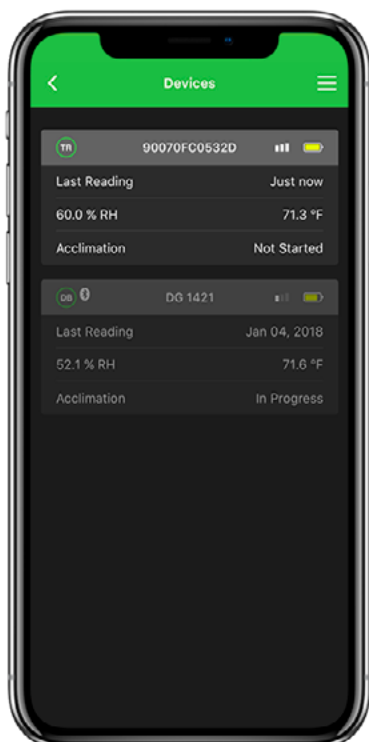


Next, with the DataMaster L6 app open on your mobile device, click on the Menu icon (three horizontal bars) located in the upper right-hand corner of the screen. Then choose Manage Devices to go to the Devices screen.

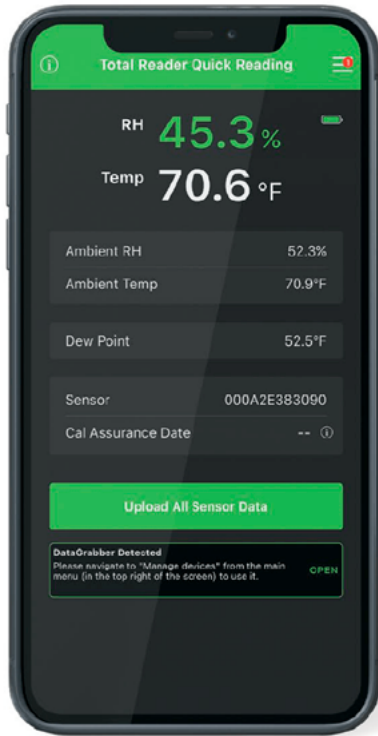
A pop-up window will appear on the RH Reading screen if detecting an installed DataGrabber with Bluetooth device for the first time. In addition, if you are in proximity of any DataGrabber with Bluetooth units installed in L6 sensors, the unit with the greatest signal strength will appear on the Devices screen as the first unit at the top, followed by other DataGrabber units within Bluetooth range. You can begin to configure your DataGrabber units (see the Configuration section).

**NOTE: On the Devices screen, you can easily identify the type of device that is connected to your L6 sensor by the icon to the left of the Device name:**

-  DataGrabber with Bluetooth
-  Total Reader
-  Range Extender



*Example of reading results on DataMaster L6 app*



*Pop-up window will appear if using for the first time*

## CONFIGURATION

**Each DataGrabber device can be configured for Device Name, Acclimation Time, and Log Interval.**

On the Devices screen, select the three bars in the upper right-hand corner of the screen and select Manage Devices to navigate to the Devices screen.

*The DataGrabber is available for configuration if the Settings button is green. If the Settings button is grey, you may need to troubleshoot your device (see the Troubleshooting section on pg 13).*

Next, click the green Settings button. In approximately 20 seconds or less, the Device Settings screen for that DataGrabber will appear, as shown below.

< Device Settings

Battery level

Name of Device  
DG 1421

Acclimation Time 1 Days

Log Interval 4 Hours

Log Duration 21 Days

Write settings to device

Load Defaults

Save Defaults

Acclimation Period

Start Stop

## Device Name

The device name can be up to 12 characters long.

**NOTE:** *There will be a default name present in the Device Name field, but you will likely want to rename it.*

## Acclimation Time

The acclimation time is the amount of time elapsed (in days) before the DataGrabber will automatically capture (grab) a measurement and store it in the L6 Smart Sensor's memory as the acclimated time measurement of both RH and temperature. For instance, if you set an acclimation time of

one day and then press Start, the DataGrabber will wait 24 hours and “grab” a measurement for storage in the L6 Smart Sensor’s memory. In most cases, it is highly recommended to use one day as the acclimation time, given that 24 hours is the minimum equilibration time specified by the ASTM F2170 standard for getting official, documentable RH readings.

***NOTE: Your DataGrabber device is reusable and not limited to use with only one L6 sensor. When transferring a DataGrabber device to another L6 sensor, make sure you allow the device to turn off after removal before inserting it into the next sensor. The device should only take about 5 seconds to turn off.***

## Log Interval

In addition to the reading captured (grabbed) when the Acclimation Time has elapsed (see above), an L6 sensor, through the DataGrabber with Bluetooth, will begin to capture readings at a certain interval, defined as the log (data logging) interval. This data logging of RH and temperature readings begins as soon as the DataGrabber with Bluetooth is inserted into the sensor, and a new set of readings is logged every time the log interval is met. The default and minimum log interval is 1 hour.

## Log Duration

Log duration is the calculation of the total number of days that periodic time- and date-stamped readings will be taken based on the set log interval and the L6 Smart Sensor’s maximum memory storage of 512 data points. Once this limit is reached, the first stored reading will be overwritten.

## Write Settings to Device

Whenever you change the configuration of the DataGrabber, you must click the Write Settings to Device button in order to save the settings.

## Default Settings

If you wish to use the acclimation time and log interval settings as the default settings for one or more additional

DataGrabbers, click the Save Defaults button. This saves the settings displayed as your default settings. Then select another DataGrabber and go to the Settings screen. Click the Load Defaults button. The default settings will now be displayed for this device. Be sure to also click the Write Settings to Device button to save the default settings to this DataGrabber.

## Start and Stop

After you have saved the desired settings and are ready to begin the acclimation period for your RH testing, click the Start button to signal to the DataGrabber to begin the acclimation time.

NOTE: The clock in the DataGrabber will automatically synchronize to the clock on your mobile device.

## UPLOADING/STORING SENSOR DATA

After you have configured your DataGrabber device to collect RH test data for you automatically, you can return to the job site later to upload and store your data on your mobile device.

## Uploading Data

Select your DataGrabber device on the Devices screen of the DataMaster L6 app, then click Save to Map to upload the L6 sensor data to your mobile device and display the entire list of time- and date-stamped RH and temperature data.

## Storing Readings to a Specific Map Location

At the screen displaying the L6 sensor data, you also have the option to Store Readings. This stores the readings to the specific map location, assuming the L6 Smart Sensor has been included on the job map. If no job map has been created or the sensor has not yet been added to the map, you can create the map and add the sensor to the job map if desired.

## REMOVAL

To remove the DataGrabber with Bluetooth from the L6 Smart Sensor sleeve, use the included removal tool as shown to carefully extract your device without damaging it.

### Removal of DataGrabber with Bluetooth



## BATTERY

### Removing and Replacing the Battery

1. Carefully remove the screws near the top with a small Phillips head screwdriver.
2. Tip the DataGrabber with Bluetooth upside down and tap the bottom of the unit carefully to dislodge the battery into your palm.
3. Place the battery (replaceable CR 1/3N) within the well positive side up. (Note: The battery text should be visible.)
4. Insert the battery until it stops. Be careful to avoid using excessive force.
5. Replace the battery compartment cover and carefully re-install the two screws using a small Phillips head screw driver.



## TROUBLESHOOTING

If your DataGrabber device does not appear when viewing the Devices screen of the DataMaster L6 app:

- Check the connection between the device and the L6 sensor and reseal the DataGrabber device within the sensor
- Ensure that the battery is seated properly or replace the battery as needed

## PRODUCT SPECIFICATIONS

### DataGrabber with Bluetooth

- (Replaceable CR 1/3N) Battery Life: 1.5 plus years [although this will vary depending on usage]
- Storage: 512 data points
- Dimensions: 1" (25.4 mm) height, 0.71" (18.12 mm) diameter
- Net Weight: 0.19 oz (5.7 g)