

# Installation and use of the CL1 Jr Dragster Data Kit





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# What's In the Box – Racepak Vantage CL1 Jr Dragster Kit

The CL1 Jr Dragster Kit combines the power of mobile technology with Racepak's CL1 data box and external sensors, providing professional level instrumentation and data analysis, all within Racepak's exclusive D3 Circuit app.

Vantage CL1 Data Box	20101-2001
2 RPM / Temperature Harness	29112-2001
Engine RPM Pickup	28112-2001
USB Charging Cable	28118-2001
Charging Cable Adapter	28118-2002
GPS Antenna	81119-2001
4 Rechargeable AA Batteries	89118-2001
Universal Mobile Phone Mounting Bracket	89180-2001
Rubber Isolation Mounting Feet	89112-2001
Under Plug Head Temp Sensor	81111-2001
EGT Sensor	81111-2004
Jackshaft Speed Sensor	81112-2005
Jackshaft Speed Collar	89912-D075



# Installation and Use of the CL1 Data Kit Requires the Following Items:



CL1 Jr Dragster Data Kit



Mobile phone with protective case (not included with standard kit)



.250 / 6.35mm bit for installation of Universal Mobile Phone Mounting Bracket



#8 / 5mm bit for installation of Rubber Isolation Mounting Feet



Phillips screw driver

# Before you Begin, Register your CL1 Data Box

Log onto [portal.racepak.com](http://portal.racepak.com) and register your CL1 Data Box by following the step by step prompts shown online.

Registration of the CL1 data box is provides a number of benefits, to the customer, and is necessary for use of the CL1 product. There are a number of aspects of device registration that should be reviewed, before the registration process.

The screenshot shows a web browser window with the URL [portal.racepak.com](http://portal.racepak.com). The page features the RACEPAK logo at the top, followed by the heading "REGISTER". Below the heading are four input fields: "First Name", "Last Name", "Email", and "Password". At the bottom of the form is a black button with the text "REGISTER" in white. The background of the page is a light gray with a faint image of a person wearing a helmet.

## Register Device

1. **Team:** The creation of a team provides a secure location for all cloud based data, related to that particular team and CL1 data box. This action also provides the ability to define the desired Team from the vehicle mounted mobile device running the CL1 app, for cloud data uploading purpose. Teams are also presented to remote viewers, in order to select the correct team for data review.
2. **Device Serial Number:** 12 digit/letter combination found on the bottom of the CL1 data box.
3. **Subscription:** Available on a monthly or yearly basis, providing the ability for users to remotely view data from any location, utilizing an internet connected mobile device, running the D3 app.

## My Teams

1. Provides ability to add individuals, for remote data viewing. A valid email address is required for each team member.
2. The team "owner" has exclusive access to the team, and as such is responsible for the addition or removal of team members, in order to provide access to, or remove access from, reviewing remote data.

# Step 1. Download and Install the Racepak D3 App

Racepak's exclusive D3 app turns a cellular & Bluetooth enabled smartphone into an on-board instrumentation and data analysis device, while simultaneously uploading data via cellular connection to your secure, personal cloud account. Data is stored locally on the mobile phone for instant data analysis, while live or cloud recorded data can be remotely viewed via the same D3 app installed on any web connected tablet or mobile phone.



1. Search the term Racepak D3 in the Google Play or Apple store, then download onto the mobile device which will be mounted on the vehicle.

2. Install the app per your individual mobile device instructions.



Note: Access to cloud data requires a monthly or yearly subscription fee.



Note: Cellular service is not required to utilize the D3 app on a mobile phone for on-board vehicle instrumentation and data analysis, but is necessary in order to upload data to the cloud.



Note: For suggested mobile phone, tablets and protective cases, please see [www.racepak.com](http://www.racepak.com).

## Step 2. Battery Installation

The CL1 arrives from the factory without the rechargeable batteries installed in the unit. Installation of the batteries is a quick and simple process.



1. Locate the four rechargeable batteries found in the CL1 Data Kit.



2. Remove batteries from packaging.



3. Using a small Phillips screwdriver, completely loosen each of the four screws found on each top corner of the CL1 data box.



4. Turn the CL1 upside down.



5. Grip the mounting pads and gentle wiggle, while pulling the base from the housing.



6. Once removed, install each battery, ensuring the battery + and – are oriented as shown on the battery pack case.

## Step 2. Battery Installation



7. Replace the base.



8. Reinstall the four screws, taking care to not overtighten.



9. Charge the batteries following the Charging the CL1 Data Box Batteries section of this manual.

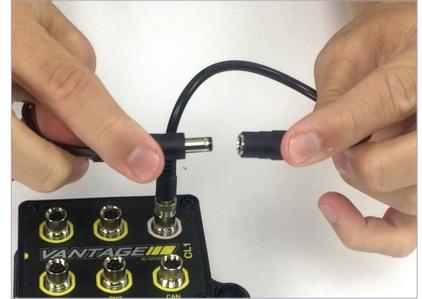
## Step 3. Charging the CL1 Data Box Batteries



1. Locate the USB charging cable and adapter, if the adapter was not attached to the CL1 data box during installation.



2. Connect the short adapter cable to the PWR port of the CL1 data box.



3. Connect the mating single pin male and female on the charging cable and adapter.



4. Power down the CL1 data box.



5. Plug the USB connector into any commonly available USB charger. NOTE: 110v wall adapter is not included with this kit. Shown for illustrative purposes only.



6. Power up the CL1 data box then observe the flashing red LED on the end of the CL1 data box, which indicates charging.



7. When charging is complete, LED flashing will cease and unit will power OFF.



8. IMPORTANT: Remember to power CL1 back ON, before use.



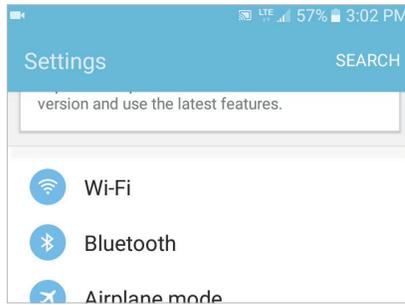
NOTE: DO NOT leave the charger connected to the CL1, when in use on the track!

# Step 4. Pairing of the D3 App with the CL1 Data Box - Android

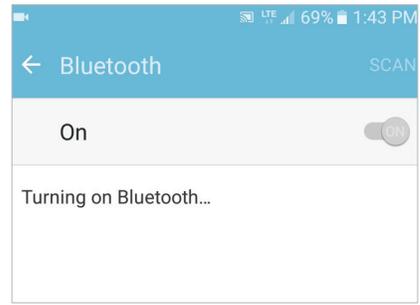
Keeping in mind that the D3 app not only transforms the mobile device into on track instrumentation for the driver, but also functions as the data recorder and uploads data to your optional cloud account, it is necessary to pair the mobile device with the CL1 before use.



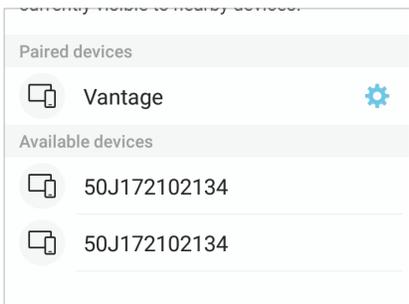
1. Briefly press the power button on the CL1 data box. The LED will turn BLUE.



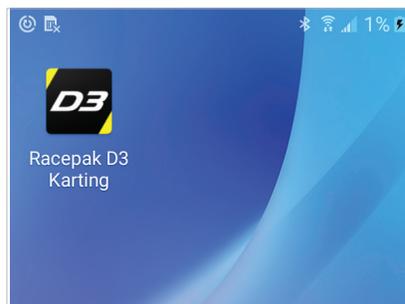
2. Locate Settings in your mobile device, then Bluetooth. For Android, Settings are typically found in Apps on the home page.



3. Turn Bluetooth ON.



4. Vantage should now appear as a device connection option.



5. Open the D3 app.



6. TOUCH and HOLD the mobile device on the CL1 data box.

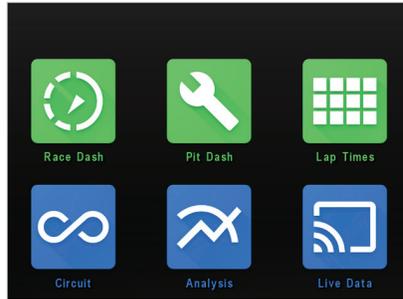


Note: Do not pair from this window!

## Step 4. Pairing of the D3 App with the CL1 Data Box - Android



7. The LED will change from solid BLUE to blinking GREEN, indicated phone and CL1 are paired.



8. The top three icons (Race Dash, Pit Dash and Lap Times) will now change from GRAY to GREEN. This indicates the mobile device and CL1 are now paired.



9. If unit fails to pair, power off CL1, then press and hold the power button until the LED turns PURPLE, and repeat starting at step 6.



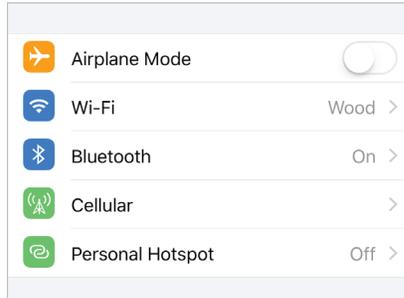
Note: Disable mobile device screen lock, after installation of D3 app.

# Step 4. Pairing of the D3 App with the CL1 Data Box - iOS

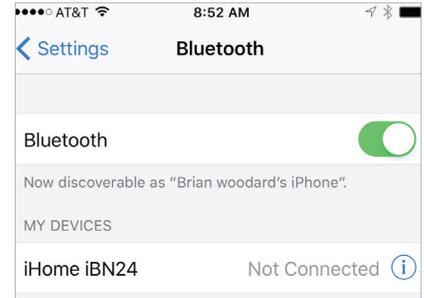
Keeping in mind that the D3 app not only transforms the mobile device into on track instrumentation for the driver, but also functions as the data recorder and uploads data to your optional cloud account, it is necessary to pair the mobile device with the CL1 before use.



1. Briefly press the power button on the CL1 data box. The LED will turn BLUE.



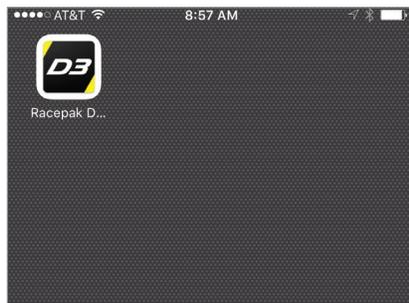
2. Locate Settings in your mobile device, then Bluetooth. For iOS devices, Settings are typically found on the home screen.



3. Turn Bluetooth ON.



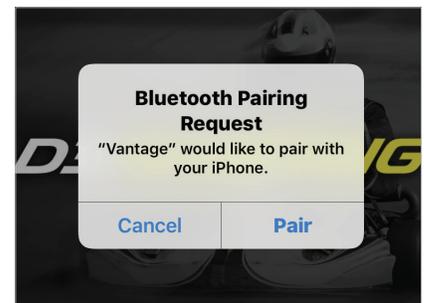
Note: Do not pair from this window!



4. Open the D3 app.



5. TOUCH and HOLD the mobile device on the CL1 data box.

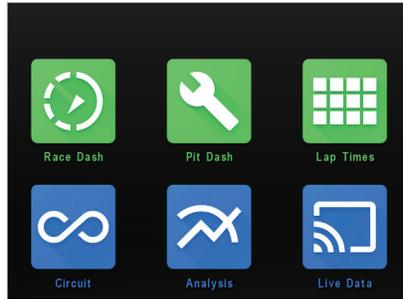


6. Wait for the Bluetooth Pairing Request message. Select Pair.

## Step 4. Pairing of the D3 App with the CL1 Data Box - iOS



7. The LED will change from solid BLUE to blinking GREEN, indicated phone and CL1 are paired.



8. The top three icons (Race Dash, Pit Dash and Lap Times) will now change from GRAY to GREEN. This indicates the mobile device and CL1 are now paired.



9. If unit fails to pair, power off CL1, then press and hold the power button until the LED turns PURPLE, and repeat starting at step 6.



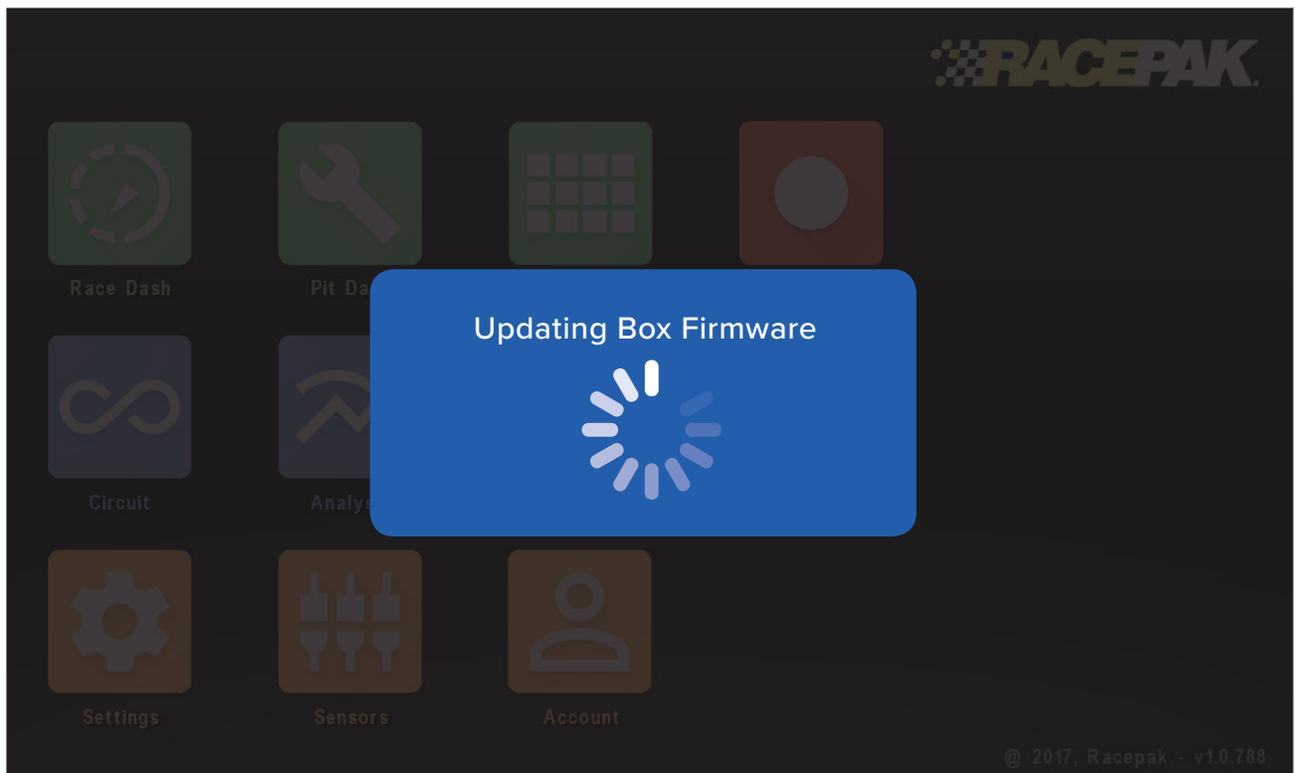
Note: Disable mobile device screen lock, after installation of D3 app.

## Step 5. Firmware Auto-Update Feature

The CL1 data box contains an automated firmware update feature, utilizing the vehicle mounted mobile device. No action is required from the user. Instead, when powering up the mobile device and the CL1, if new firmware is available, the mobile device connects to the server, retrieves the latest firmware and loads to the CL1. The user is alerted to this action by a message on the mobile device display. Once updated, the display on the mobile device will return to the D3 home page indicating the CL1 is ready for use.



Note: Do not power down the CL1 or the mobile device during the update process.



## Step 6. Mounting the CL1 Data Box



1. Avoid mounting near excessive heat and noise sources.



2. Mounting location of the CL1 data box is determined by the length of the GPS antenna cable.



3. The GPS antenna will be mounted horizontal and in view of the open sky.



4. The CL1 Data Box can be mounted in any direction, via the three rubber isolation mounting feet.



5. Ensure the Power / LED Status Indicator and sensor ports are in view and accessible.



6. Racepak suggests mounting the CL1 on the rear cockpit firewall, in an easily accessible location.

## Step 6. Mounting the CL1 Data Box



7. Using a number #8 / 5mm drill and the base of the CL1 data box as a template, drill three mounting holes.



8. Locate the three rubber mount feet.



9. Remove the supplied locknut from the rubber mount stud, drop into the recessed hex mount tab on the bottom of the CL1 housing.



10. Thread the rubber mount stud through the bottom of the mount pad, and tighten by hand. Repeat the process for the remaining rubber feet.

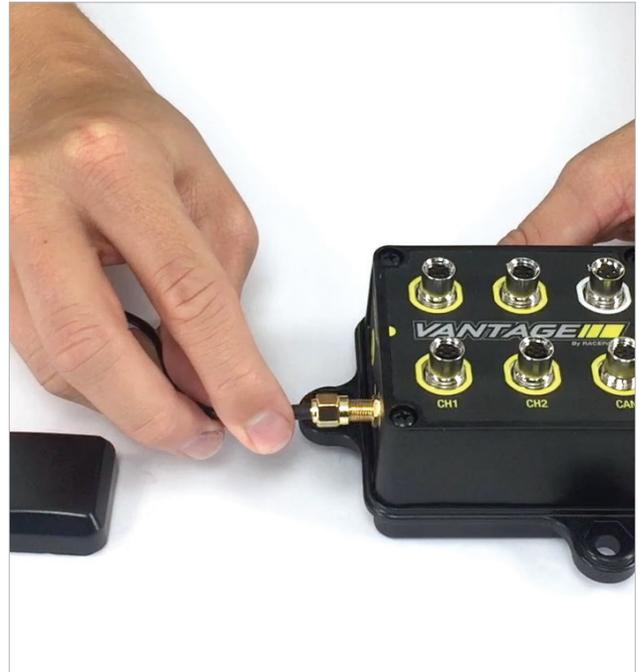


11. Locate the 3 pan head screws and washers, insert through the mount panel, into the rubber feet and tighten.

## Step 7. Connecting the GPS Antenna



1. Locate the GPS antenna and route from mounting location to the CL1 data box.



2. Connect the GPS antenna cable to the GPS connector on the CL1 data box.

## Step 8. Installation of Temperature / RPM Harness

The Temperature / RPM harness provides input for both the engine RPM wire and optional temperature sensor (available from Racepak).



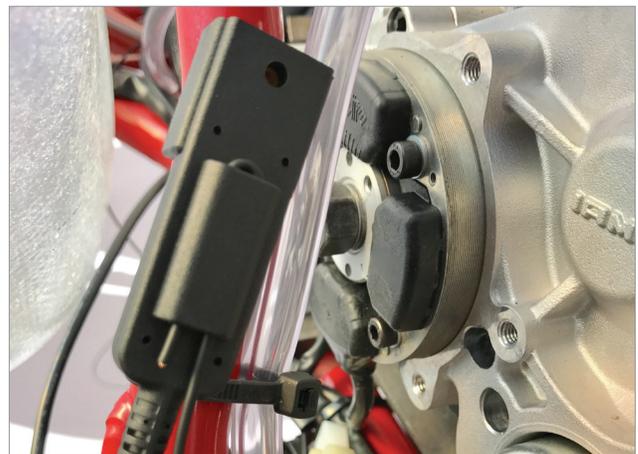
1. Locate the Temperature / RPM Harness and the Tach Signal Wire.



2. Connect the five pin connector to Channel 1 of the CL1 data box.



3. Snugly finger tighten the cable connector to the CL1.



4. Route the opposite end of the cable, containing the molded temperature and engine RPM connector, to a location as close as possible to the motor.

## Step 9. Installation of Tach Signal Wire



1. Locate the 72" / 2 meter, 20 gauge tach signal wire and spark plug wire clip.



2. Observe the top of the molded connector that includes the Racedak logo.



3. Route the 20 gauge wire through the molded horizontal opening, turn 90 degrees and route through the second horizontal opening.



4. Ensure a portion of the end of the 20 gauge wire is exposed, as shown.



5. Route the tach signal wire to the spark plug wire.



6. Locate the clip on tach wire mount.



7. Route the 20 gauge tach wire through the clip on tach wire mount, turn 90 degrees and route back through a second time.



8. Clip the mount onto the spark plug wire.

## Step 10. Installation of EGT Sensor

The CL1 EGT sensor provides accurate exhaust gas temperatures, critical for engine tuning. The CL1 contains four external sensor connectors (Ch 1, Ch 2, Ch 3, Ch 4) which provides input for one RPM and one Analog, per channel connector. Connection of the EGT temperature sensor requires use of a CL1 Temperature/RPM cable, included with the CL1 kit. In the previous section, the Engine RPM was installed, using a Temperature/RPM cables. We will use this same cable for connection of the EGT sensor.



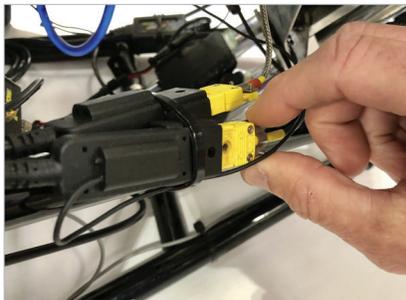
1. Install the EGT weld bung, included in the CL1 kit. The bung should be located at least 4-6" (10-15cm) from the head.



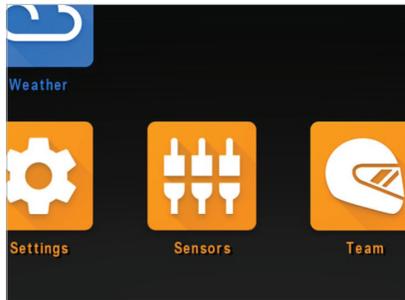
2. Locate the nut and ferrule. Slide the nut and ferrule over the EGT, as shown in the above image.



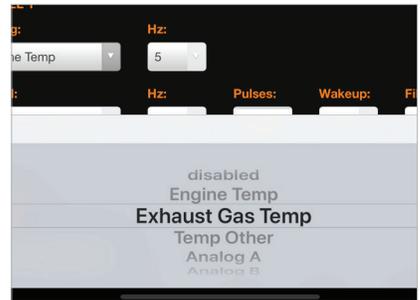
3. Insert the EGT sensor into the weldment, and tighten. Ensure the end of the sensor protrudes no greater than half way into the header tube.



4. Route the two pin yellow connector end of the EGT sensor to the previously installed Temperature/RPM cable, and plug in.



5. Open the D3 app on the mobile device, which will be paired with the CL1, and select the Sensors icon.



6. In the Channel 1 input area, tap the Down arrow found beneath the Analog channel, and select Exhaust Gas Temperature. Programming is now complete.

# Step 11. Installation of Under Plug Head Temp Sensor

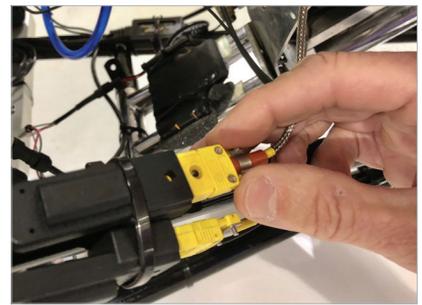
The CL1 head temp sensor provides accurate, under-plug head temperature information, for the CL1. The CL1 contains four external sensor connectors (Ch 1, Ch 2, Ch 3, Ch 4) which provides input for one RPM and one Analog, per channel connector. The previous section outlined installation of the Engine RPM and EGT temperature sensors, utilizing the Channel 1 input of the CL1. For this example installation of the head temp sensor, we will utilize Channel 3.



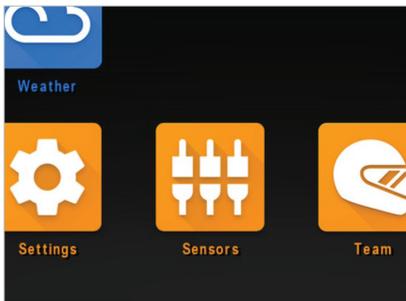
1. Remove the spark plug, place the ring terminal of the head temp sensor on the plug, and reinstall the plug, into the head.



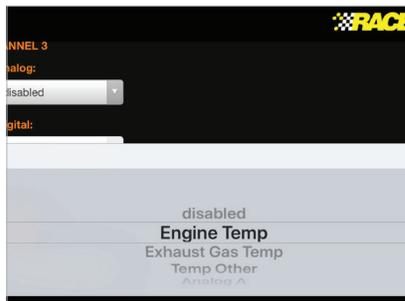
2. Install the second Temperature/RPM cable, route and connect the 5 pin M8 connector to Channel 3 of the CL1.



3. Route the yellow head temp connector and plug into the second Temperature/RPM cable.



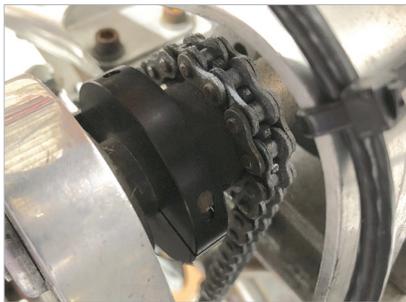
4. Open the D3 app on the mobile device which will be paired with the CL1, and select the Sensors icon.



5. In the Channel 3 input area, tap the down arrow found beneath the Analog channel, and select Engine Temp. Programming is now complete.

## Step 12. Installation of Jackshaft Sensor and Collar

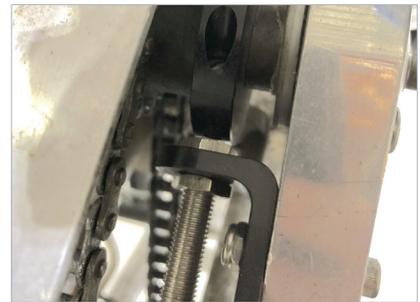
The CL1 jackshaft rpm sensor and collar provides accurate jack shaft rpm for the CL1. The CL1 contains four external sensor connectors (Ch 1, Ch 2, Ch 3, Ch 4) which provides input for one RPM and one Analog, per channel connector. The previous section outlined installation of the Engine RPM and EGT temperature sensors, utilizing the Channel 1 input of the CL1, and installation of the head temp sensor, utilizing Channel 3. For this example installation of the head temp sensor, we will utilize Channel 2.



1. Install the jackshaft RPM collar in a location which will allow for installation and adjustment of the rpm sensor.



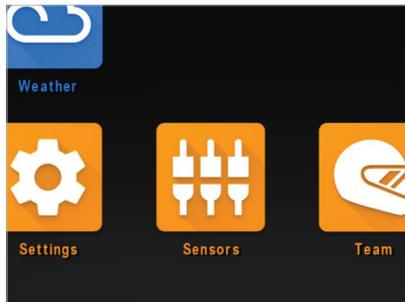
2. Install the jackshaft rpm sensor in a method which will allow for clearance adjustment.



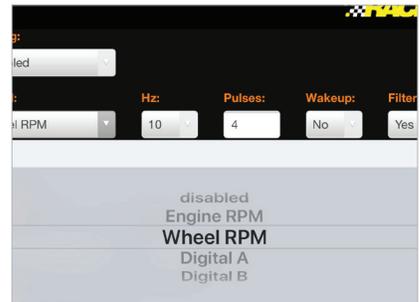
3. Clearance between the rpm sensor and magnetic collar should be set at 1/16".



4. Route the 5 pin M8 connector and connect to Channel 2 of the CL1.



5. Open the D3 app on the mobile device which will be paired with the CL1, and select the Sensors icon.

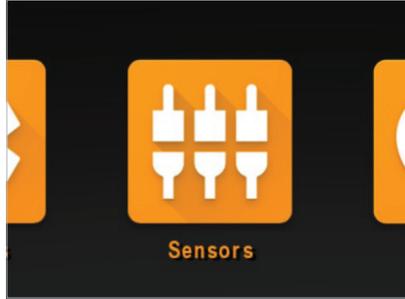


6. In the Channel 2 input area, tap the down arrow found beneath the Digital channel, and select Wheel RPM. Set Pulse at 4 and Wakeup to No. Programming is now complete.

# Step 13. Adding Analog Sensors



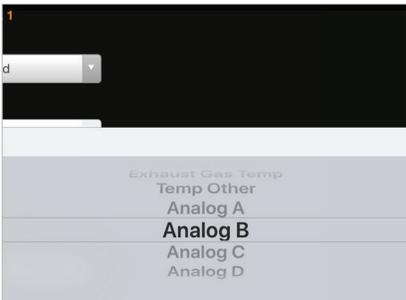
1. Install and connect desired 0-5V analog sensors according to the Adding External Sensors manual found online at [www.cl1.racepak.com](http://www.cl1.racepak.com)



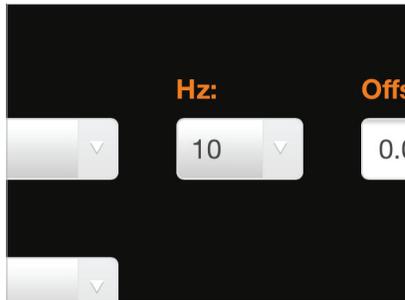
2. Tap the Sensor icon on the home page of the D3 app.



3. Locate the Channel number (1-4) which corresponds with the CH input to which the external analog sensor was connected.



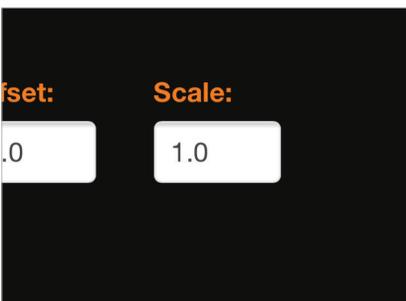
4. Tap Analog, then the desired Analog channel (A-D).



5. Selected the desired sample rate per second (Hz).



6. Offset: Typically remains at 0.0 unless it is desired to move the graphed channel trace up or down, in downloaded graph data.



7. Scale: Divide the maximum range of the sensor by the maximum voltage value of the sensor, and input that value. *See examples to the right.*

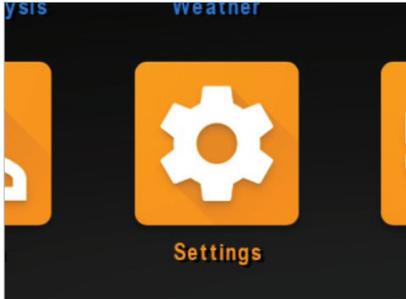
**Example Travel:** A 0-5V string potentiometer. Maximum desired range is 100 (if the throttle is measured as 0% when closed and 100% when open). Maximum signal voltage is 5.  $100 \div 5 = 20$ . 20 is entered as the Scaling Value.

**Example Pressure:** 0-300 PSI pressure sensor. Maximum range is 300. Maximum signal voltage is 5.  $300 \div 5 = 60$ . 60 is entered as the Scaling Value.



Note: Only 1 channel can be utilized for wake up of the CL1 box. Ensure Engine RPM is selected as such.

## Step 13. Adding Analog Sensors



8. When completed, return to the home page and select Settings.



9. Locate the Analog input box corresponding with the recently programmed 0-5V sensor (A-D). Type in the desired channel name. Programming is complete.

# Step 14. Installation of Universal Mobile Phone Mount

The Universal Mobile Phone Mount is designed to mount most commercially available mobile phones to the jr dragster , utilizing a clamp mount on the phone, with a .250” stud securing the phone/mount combination on the jr dragster. Racepak suggested mounting the mobile phone on the driver rear firewall, at a location easily viewable from the rear of the car.



NOTE: The “home” button of the phone must be on the right, as viewed from the rear of the vehicle. The app will not operate in portrait orientation.



1. If the rear firewall does not have an existing mounting hole, a .250” or 6.9mm drill can be utilized to drill a mounting hole.



2. Remove the nylock nut and washers from the stud, place the rubber washer over the stud, and slide the stud through the mounting hole. Next place the steel washer and nylock nut on the back of the mounting plate and tighten.



3. The grooved clamp knob can be positioned at top or bottom, depending upon the mounting location.



4. The phone must be positioned in the landscape (horizontal position) with the home button on the right, as viewed from behind the vehicle.



5. Final securing of the phone is accomplished through use of the flexible rubber tether, fitted through the rear of the clamp mount and stretched to each corner of the phone.

## Step 15. CL1 Data Box Status LED Patterns

A single LED, adjacent to the external GPS connector, provides the current status of the CL1, through a variety of colors and flashing sequences.



**Light Blue, Solid**  
Initializing



**Blue, Solid**  
Ready to connect



**Green, flashing Blue  
once every second**  
Connected, transmitting



**Green, flashing on and off  
every three seconds**  
Connected, waiting (standby)



**Red, flashing on and off  
every three seconds**  
Charging



**Red, solid**  
Powering off



**Purple, solid**  
Reset pairing

## Step 16. First Time Track Use of the CL1 Jr Dragster Data Kit

At this time, the CL1 data kit and mobile device is mounted on the vehicle, with the D3 app installed and paired with the CL1 data box and the CL1 is registered (cloud account not required) to your online account. It is now time to turn our attention to the use of the D3 app. Open the D3 app on the vehicle mounted mobile device. The icons are group by color, based on their function.

**Green:**  
Vehicle information and  
CL1 connection status.



Race Dash



Pit Dash

**Blue:**  
Data analysis functions.



Drag Analysys



Weather

**Orange:**  
Setup functions.



Log In



Settings



Sensors



Team

**Red:**  
Manual record function.



Manual Record

# Step 17. Set Up Prior to First Outing

There are actions that must be taken, in order to ensure the vehicle mounted mobile device is utilizing the track day interface and is transmitting data to the correct device and team cloud account.

## Log In:

**Log In:** From the homepage of the D3 app, tap the Log In icon.

**Email and Password:** Enter the email and password created when registering your CL1 data box.



## Team:

**Driver Name:** Enter the driver name for the upcoming run. This name is part of the data file naming process, so ensure the current driver name is correct for each run, to simplify the post run data analysis process.

**Team receiving the data:** During the CL1 registration process, a team or teams is set up, which provides a specific location to save both local data on the vehicle mounted phone and to the cloud account. Tap the down arrow to select the correct team for the upcoming outing.

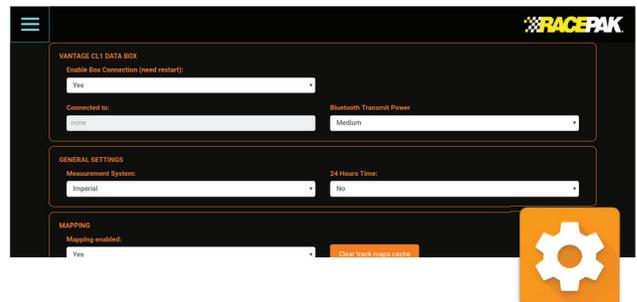
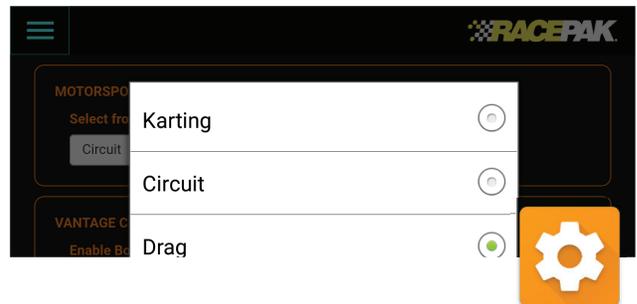
**Cloud Storage:** If a cloud account is in use, tap Yes. If not, tap No.



## Settings:

**Motorsports Type: IMPORTANT!** Tap the down arrow, then tap Drag. If the incorrect type is selected, data will not display correctly.

**Vantage CL1 Data Box:** Enables communication between the vehicle mounted mobile device and the CL1 data box. Tap Yes for the vehicle mounted and CL1 paired device. Tap No when using a mobile device for remote data analysis, as the device should not be paired with a CL1.



# Step 17. Set Up Prior to First Outing

**Connected to:** When paired with a CL1, the CL1 serial number will appear.

**Bluetooth transmit power:** Tap and set to Medium. If there are connectivity issues, a higher setting can be selected. Be aware that higher settings will decrease data bandwidth and possible data issues.

**Hardware Version:** Displays latest hardware version loaded in CL1.

**Bootloader version:** Displays latest bootloader version loaded in CL1.

**No data timeout:** Indicates the time period after the Engine RPM (or wakeup channel) stops, until the CL1 box returns to sleep status.

**Max sleep time:** Indicates the maximum time the CL1 data will remain in sleep mode, without a wakeup signal, before completely shutting off.

**Measurement System:** Defines measurement values (imperial or metric) for sensor data.

**24 Hour Time:** 24 or 12 hour. Time is used in the data file naming process.

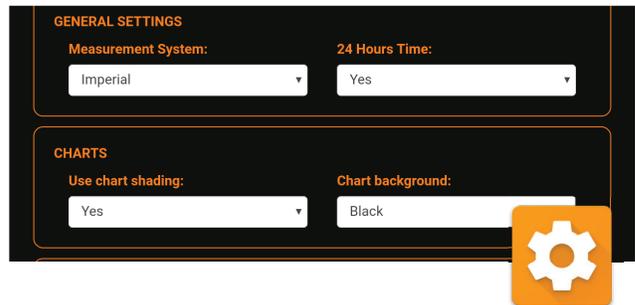
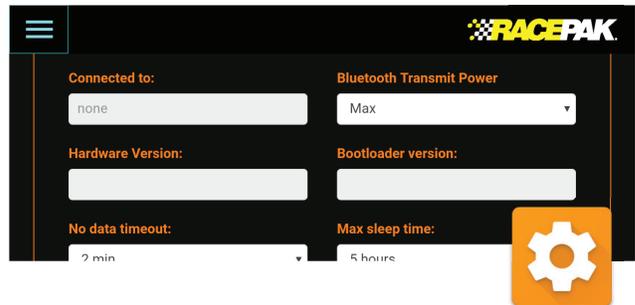
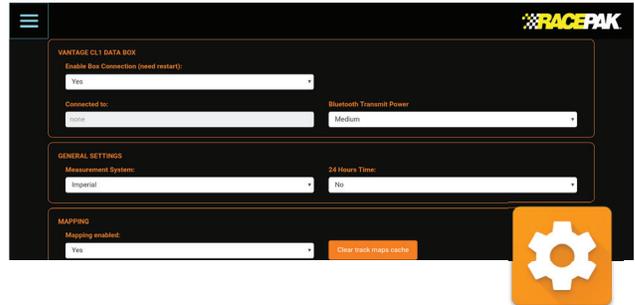
**Use chart shading:** Turns on and off shading graphed data channel traces.

**Chart Background:** Toggles data graph area from black to white.

**Mapping – Mapping Enabled:** Tap Yes to enable track mapping.

**Generic Channel Names:** Text input areas utilized for naming optional analog and rpm sensor channels, as defined in the Sensors input area of the D3 app.

**Sensors input area of the D3 app.**



## Step 18. Pit & On Track Information

Through the use of Engine RPM and GPS speed, the CL1 data box and D3 app detects and automates the display of information based on the needs, at that time.

### Pit Dash:

Upon starting of the engine, the Pit Dash will automatically display or can be manually accessed from the home page of the D3 app. This allows the team to quickly verify the real time values and status of the CL1 and mobile device.

**BOX:** Indicates connection status between CL1 data box and mobile device.

**RED** – No connection.

**GREEN** – CL1 and mobile device are paired.

**GPS:** Indicates GPS status of CL1 data box.

**RED** – No CL1 data box GPS connection (check antenna connection).

**GREEN** – GPS satellites are acquired, with number and strength noticed in the GPS Satellites box.

**Cloud:** Indicates connection between the vehicle mounted mobile device and user's cloud account.

**RED** – No connection

**GREEN** – Mobile device connected to cloud account via cellular service.

**Analog A and Analog B:** Indicates real time values of external analog sensor inputs.

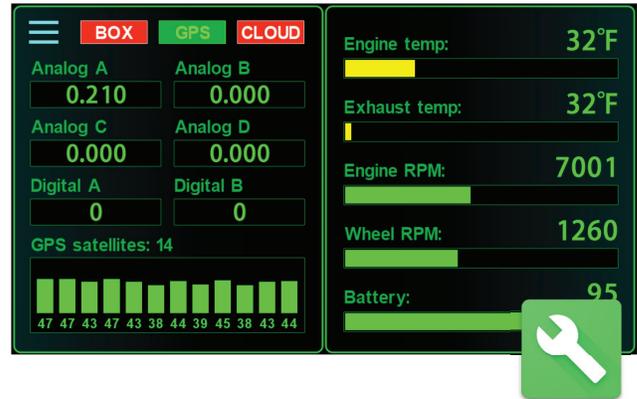
**Digital A and Digital B:** Indicates real time values of external RPM sensor inputs.

**Engine Temp:** Indicates real time values of temp sensor connected to the Temperature / RPM harness. If no sensor is connected, value will display 32°F or 0°C (Based on Imperial or Metric settings).

**Exhaust Temp:** Indicates real time value of EGT sensor. If no sensor is connected will display 32°F or 0°C (Based on Imperial or Metric settings).

**Engine RPM:** Displays real time value of Engine RPM.

**Battery:** Indicates remaining charge of CL1 batteries. NOTE - This is not the status of the mobile device battery.



## Step 18. Pit & On Track Information

### Race Dash page:

Now that all functions are verified, the jr dragster can now proceed to the track. When the engine starts, the Race Dash will automatically display or can be manually accessed from the home page of the D3 app.

**Engine RPM Sweep Tach:** Real time Engine RPM displayed both numerical and on the sweep.

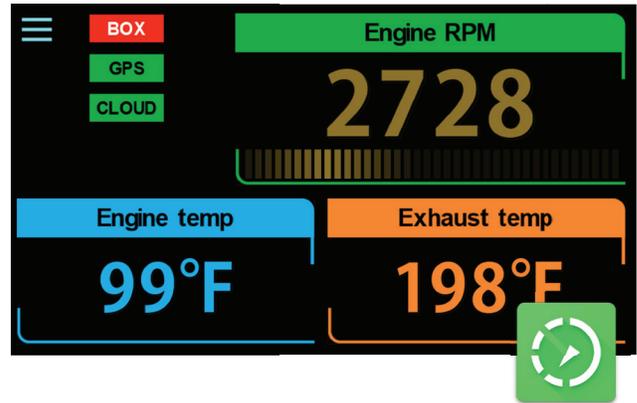
**Engine Temp:** Displays real time values of temp sensor connected to the included Engine RPM/Temp harness.

**ExhaustTemp:** Displays real time values of exhaust gas temperature connected to the secondary Engine RPM/Temp harness.

**BOX:** Indicates Bluetooth paired status between mobile phone and CL1 data box. Red indicates no connection. Green indicates connection.

**GPS:** Indicates GPS status of CL1 data box. Red indicates no connection. Green indicates connection.

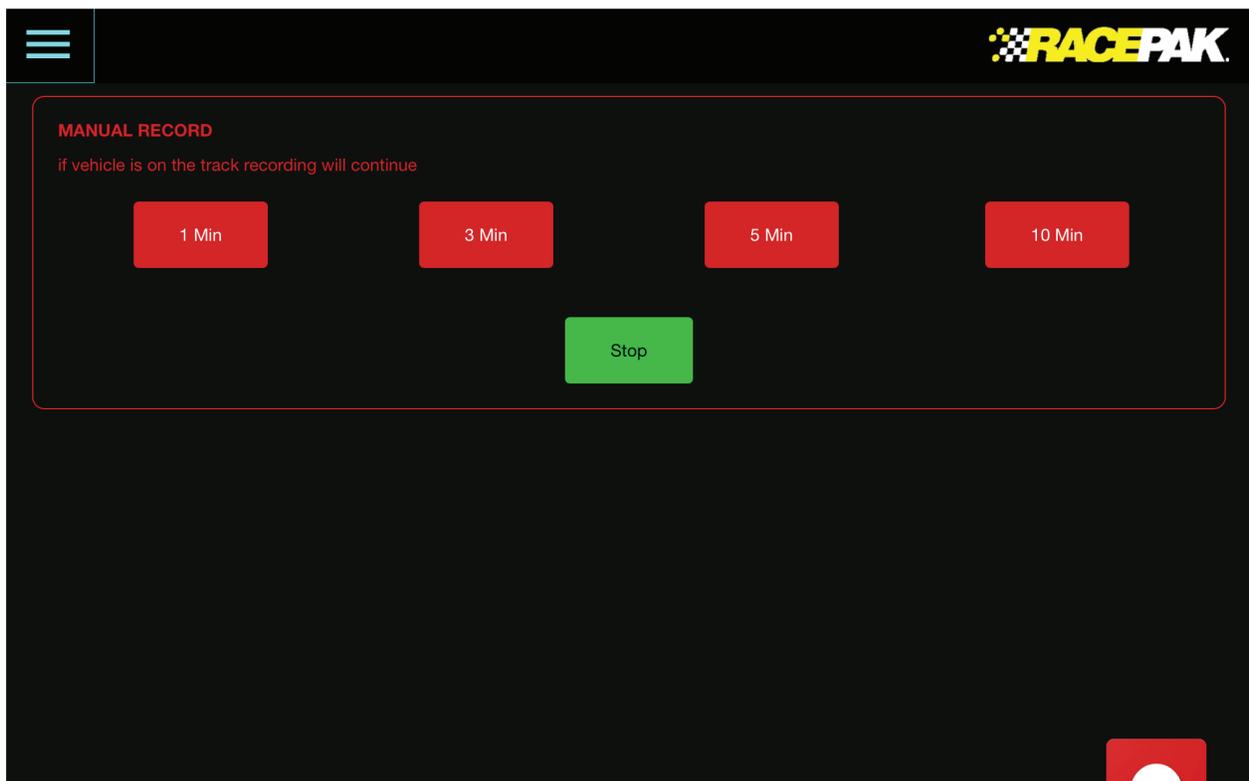
**CLOUD:** Indicate mobile phone is connected to cellular service. Red indicates no connection. Green indicates connection.



# Step 19. Manual Data Streaming

## *Optional Racepak Cloud Service*

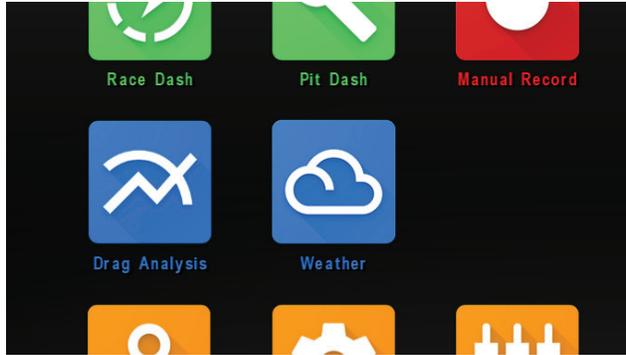
For pit, dyno or other situations requiring streaming of data when, the vehicle is not moving, to the users optional cloud account, a Manual Record feature is available on the home page of the D3 app icon.



1. Tap Manual Record from the D3 app home page.
2. Tap the desired time to upload data to the cloud.
3. Live data can now be viewed on a remote, internet connected device running the D3 app.
4. To stop, select the Manual Record icon again, from the home page of the D3 app.

Note: Always stop manual recording, before starting a run.

# Step 20. Data Analysis Features



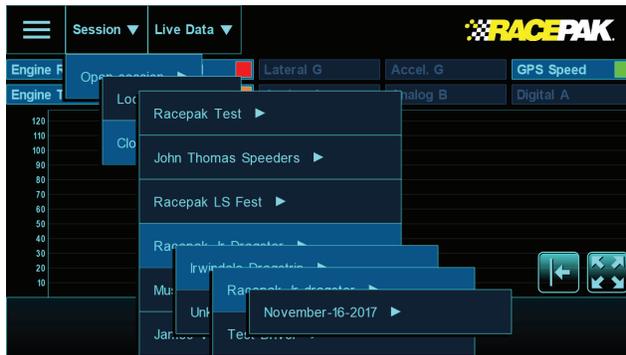
**Analysis:**

The Drag Analysis page of the D3 app provides the ability to view recorded data from either a cloud account or data saved to the actual mobile device. To begin, tap the Drag Analysis icon from the homepage of the D3 app.



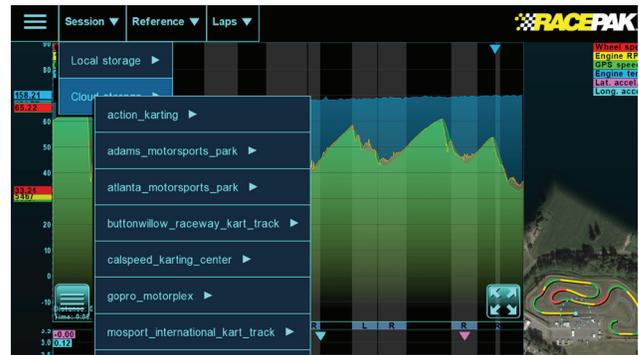
**Graph Area:**

The Drag Analysis page provides the ability to graph, overly and compare data from single or multiple run files.



**To Open a Data File or Files:**

1. Tap Session, then select either either Local or Cloud storage, then Team / Track / Driver / Date / Time of data file. Repeat procedure for additional data files.



**Data Channels:**

Active data channels will be loaded, along with automatic zeroing of the start point of the data.



**Track Map:**

Track Maps are automatically loaded from the Racepak D3 cloud data base, based on the location of the vehicle as determined by the mobile phone mounted on the jr dragster

Vehicle position relative to cursor position in graph area is indicated by a circle, and will move with the movement of the cursor, in the graph area.

# Step 20. Data Analysis Features



**Open or Close Graphed Data Channels:**

1. Tap any active data channel button, on the channel name.
2. Data channel will graph if not open and closed if currently open.



**Change Graphed Channel Color:**

1. On currently graphed data channel, tap color icon on right side of channel button.
2. Touch desired color in now open Channel Color window.



**Zoom:**

1. Touch and pinch graph area data will zoom in and out relative to area pinched.

2. To return to original graph area, tap the icon.

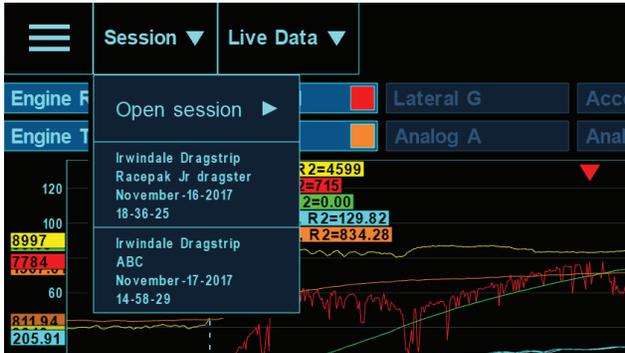


**Min Max Values:**

1. Minimum and maximum data values for graphed channels are noted by colored arrows in the top and bottom portion of the graph area.

2. Maximum values are noted at the top of the graph area, with the arrow color corresponding with the color of the graphed data channel.

# Step 20. Data Analysis Features



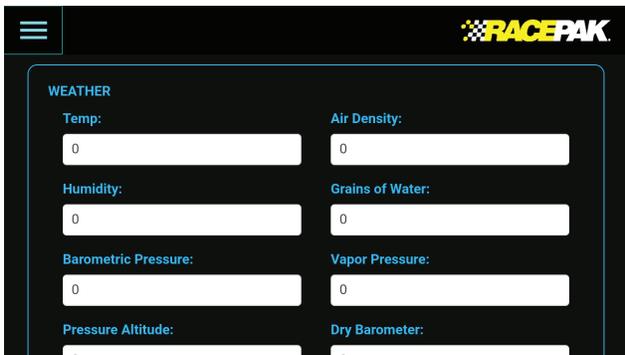
**View Currently Opened Data File Details:**

1. Tap Session on currently open file. Data file details will be presented



**Close or Open Current Data File:**

1. Tap Session, then file details area.
2. Tap Visible to temporarily remove graphed data.
3. Tap Unload to close out currently open file.



**To Enter Weather Information for Current Data File:**

1. Tap Weather icon on D3 app home page.
2. Enter relevant weather data in individual input areas.
3. Weather data will be saved with currently open data file.



**View Weather Information:**

1. Tap Sessions, then file details area of currently open file.
2. Tap Weather.
3. Weather details entered from Weather icon on home page will be presented.

## Step 21. On Track Alerts

For customers utilizing Racepak's optional cloud account services, alerts are automatically sent to all remote devices, which are logged into a valid user account, any time the CL1 linked to that account, starts uploading data to the cloud account. To turn off alerts

### Android:

1. Apps / Settings (from the home screen of the device)
2. Notifications
3. Locate the Racepak D3 app and slide the button to the left.

### iOS:

1. Settings (from the home screen of the device)
2. Notifications
3. Locate the Racepak D3 app and tap.
4. Slide the Allow Notifications button to the left.

