WASP
Wireless Acceleration Sensor Puck

- Acceleration, Velocity & Temperature
- 64 WASPs Communicate with NEST
- Discrete Warnings & Shutdowns Outputs
- Data Logging
- CSA Class I Div 2
- ATEX Zone 1 Pending

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WARNING
READ THIS MANUAL BEFORE OPERATING THIS DEVICE.

WARNING
TO PREVENT EQUIPMENT FAILURE AND/OR DAMAGE AND/OR PERSONAL INJURY, REGULAR CALIBRATION AND INSPECTION OF THIS DEVICE IS REQUIRED.

WARNING - EXPLOSION HAZARD
SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS 1 DIVISION 2.

WARNING - EXPLOSION HAZARD
DO NOT RECONNECT POWER IN A HAZARDOUS ENVIRONMENT.
**Introduction**

The BossPac WASP is a wireless acceleration, velocity, and temperature sensing device. It features a 3 axis accelerometer, with frequency range of 2 to 1600 Hertz and amplitude of +/- 16 G.

With a mounting point temperature range of -40 °C to +185 °C the WASP can be mounted directly to valve caps of reciprocating gas compressors or to other surfaces allowing the measurement of acceleration, velocity, and temperature.

With the ability to monitor up to 64 WASPs, the BossPac NEST (Network Electronic Service Terminal) can be used to monitor multiple locations on equipment from just one receiver.

**Installation**

The BossPac WASP is shipped with an attachable antenna and a pre-determined number of wireless sensors.

**Attaching the Antenna**

To attach the antenna you must remove the back plate from the BossPac NEST™ Receiver Gateway.

**WARNING - EXPLOSION HAZARD**

DO NOT CONNECT OR DISCONNECT THE ANTENNA IN A HAZARDOUS ENVIRONMENT
Carefully screw in the antenna to the receptacle located on the WASP circuit board. See photo below.

![Antenna being attached to circuit board](image)

**Figure 1: Attach Antenna to NEST Circuit Board**

**Assembling and Placement of Wireless Sensor Pucks**

Each sensor puck is shipped with a separate battery circuit board. The battery circuit board contains a non-removable long lasting lithium battery.

**WARNING - EXPLOSION HAZARD**

DO NOT CONNECT THE BATTERY BOARD TO THE SENSOR UNIT IN A HAZARDOUS ENVIRONMENT.
To turn on and activate each sensor puck you must carefully attach the battery board to the sensor unit. Plug the pins on the battery board into the corresponding sockets on the sensor puck housing. See photo below.

**Battery Alignment**

It is important that the Battery Board and the WASP Sensor is oriented correctly. Failure to orient the battery with the WASP can cause damage to the battery pins and will damage the Sensor. This is done be lining up the Silver mark on the WASP Main Housing with the largest cutout on the battery board as show below.
After the battery is installed, place the gasket on before installing the top screws.

Once the pins make contact a LED on the battery module board will turn on to indicate power on. During this time, the WASP device performs a power-on self test (POST). If all is well, the LED will flash quickly for a couple of seconds and then turn off.

**NOTE:** Do not remove the screws from bottom of the sensor puck. Doing so will void the product's warranty.

### WASP LED Flash Codes

Should the POST fail, the device locks up and flashes the LED in discernable patterns to help diagnose the source of the problem. See the section at the end of this manual on troubleshooting for details on the LED flash codes.

### WASP Mounting

The sensor pucks can be attached to the desired equipment by the supplied magnet or optional epoxy or stud mounted.

The supplied magnets have an effective operating range of -40°C to 185°F

**Note:** To ensure effective wireless transmission between the sensor pucks and the receiver it is recommended that there is a direct line of sight between the units.
Installation of WASP Sensors

It is recommended that the surface is prepped for the installation of the WASP sensors.

1. Ensure the surface is clear of debris and excess paint.

2. Ensure the magnetic base is screwed securely to the stud on the bottom of the WASP.

3. **Ensure the top screws are tightened to a maximum of 15 ft. lb or 1.7 N m**

4. It is recommended to fill the center section of the magnetic base plate with a small amount of SILICON HEAT TRANSFER COMPOUND in order to facilitate the most efficient heat transfer from the mounting surface into the sensor.

5. Carefully set the sensor into place. Avoid snapping with the magnet base as it can damage the magnet.

---

**WARNING**

The rare earth magnetic base plate has in excess of 50 lbs. of force and can cause harm if care is not taken.

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**Thermal Calibration of WASPs**

To ensure the greatest accuracy of the monitored variables, it is optional to do thermal calibration of each WASP unit. The process of thermal calibration is as follows:

1. Ensure the machinery for which the WASP is to be attached is at operating temperature.

2. Place the WASP(s) units at their desired mounting points using thermal paste. Allow 15 minutes for the temperature to stabilize.

3. Using a thermometer gun, record the temperature value at the valve cap at the mounting point of the WASP unit.

4. At the receiver, adjust the display temperature to match the value of the thermometer gun using the temperature offset function. (See the section on temperature calibration in...
the “Setting Temperature Warning and Critical Alarm Thresholds” section of this manual).

NEST RECEIVER MOUNTING

The BossPac NEST™ receiver may be installed into existing panels or into an enclosure mounted anywhere within 25 meters (100’) of the WASPs. There are four screw holes for mounting and a foam gasket on the flange of the receiver. A cutout mounting template is also included with the receiver.

Circuit Board Terminal Block

The NEST circuit board has a 10 pin terminal block. A diagram of the terminal block is shown to the left.

INPUT 1 and INPUT 2 have not been enabled on the WASP system.

OUTPUT 1 and OUTPUT 2 are assigned for critical error and warning signals respectively.

RS485 + and RS485- are assigned for MODBUS connections.

CANBUS LOW and CANBUS HIGH have not been enabled on the WASP system.

Figure 3: NEST Terminal Block
Interface

The touch screen interface on the BossPac NEST™ displays important current information throughout all of its screens. The name of the current screen is displayed at the top center. The current time and date are displayed at the bottom right. Current ambient temperature, critical error count, and warning count are displayed in the bottom left of the interface. These information sections, top bar and bottom bar, of the touch screen are not interactive and are only intended to provide current system statistics to the viewer.

NOTE: Warnings indicate a sensor(s) has reached a warning limit pre-determined in the Sensor Setup screen. Critical Alarms indicate a sensor(s) has reached a pre-determined shutdown limit and a shutdown signal has been issued. See the section of this manual on Sensor Setup for details about setting warning and critical alarm limits.
System Status Screens

When activating the BossPac WASP™ system for the first time the BossPac NEST receiver will automatically detect all sensor pucks within the working radius (assuming battery modules are attached to the sensors).

The default screen when turning on the Bosspac NEST™ receiver or when waking the screen from sleep mode is the *SYSTEM STATUS* screen. The *SYSTEM STATUS* screen displays the number of sensors attached to the system as well as any current critical or warning alarm. The screen also cycles through the critical screen and warning screen when the top haft of the screen is tapped. The max values displayed are the current max values of the entire sensor array.

Tapping on the SENSOR STATUS will take you to the sensor status grid screen. Further tapping on a sensor square will take you to a status screen for individual sensor. Tapping on NEXT will cycles through available status grid pages.

Each individual sensor status screen will display the name of the sensor along with its current status. Tapping on the bottom half of the screen will cycles the screen through more status data and settings of the sensor. Tapping on the top haft of the screen will cycles the screen through the available sensors. To configure a sensor, tap on the SETUP. The following section describes on how to configure an individual sensor.

*Note: if no limits have been set, zeros will be displayed beside the parameter.*
Configuring Individual Sensors

To configure individual sensor, one can tap **SETUP** from the **SENSOR STATUS** screen to access the **SENSOR SETTINGS** screen. The **SENSOR SETTINGS** screen allows the user to configure the warning alarm threshold, critical alarm threshold for the supported parameters.

To set a threshold on an individual parameter you can scroll up/down to the desired threshold/parameter by tapping either top or bottom part of the screen and press **SELECT**.

Setting Temperature Warning and Critical Alarm Thresholds

After selecting the desired temperature threshold from the **SENSOR SETTINGS** screen you will be directed to the specific threshold screen (the screen to the left displays the **TEMP WARNING THRESHOLD** screen).

Select the desired temperature in Celsius or Fahrenheit (see the section on setting temperature units) by tapping the up/down left/right arrows. The up/down arrows select the number between and the left/right arrow select the digit by moving the underscore below the numbers. Once the number has been selected press **OK** to save or **CANCEL/BACK** to cancel the editing and return to the **SENSOR SETTINGS** screen.

Temperature Calibration

From the settings screen, one scroll to and select **TEMP CALIBRATION** to calibrate individual sensor reading to a reference reading. Using the up/down and left/right arrows to enter the reference reading from an external device such as thermometer gun. Tap on **OK** to save the calibration or tap on **CANCEL BACK** to return to the settings screen.
Example: If the WASP reads 23 °C and the thermometer gun you are reading reads 26 °C, set the \textit{REF} point to 26 °C for that sensor. This automatically applies a preset multiplier to the sensor ensuring accuracy.

**Setting Acceleration Warning and Critical Alarm Threshold**

After choosing the desired acceleration threshold from the \textit{SENSOR SETTINGS} screen you will be directed to the relevant threshold screen (the screen to the left displays the \textit{ACCEL WARNING THRESHOLD} screen).

Using the arrow buttons, select the desired limit (in G's) and tap \textbf{SAVE} to save or \textbf{CANCEL/BACK} to return to the \textit{SENSOR SETTINGS} screen.

**Setting Velocity Warning and Critical Alarm Thresholds**

After selecting the desired velocity threshold from the \textit{SENSOR SETTINGS} screen you will be directed to the specific threshold screen (the screen to the left displays the \textit{Velocity Warning Threshold} screen).

Select the desired velocity (in millimeters per second) by using the up/down left/right arrows. The up/down arrows select the number between and the left/right arrow select the digit by moving the underscore below the numbers. Once the limit has been selected press \textbf{SAVE} to save or \textbf{CANCEL/BACK} return to the \textit{SENSOR SETTINGS} screen.

**Temperature Multiplier**

Temperature multiplier is a predetermined factor – \textbf{DO NOT ADJUST.}
Binding and Ignoring Sensor Pucks

When first configuring the WASP systems it is necessary to bind the sensors to the receiver. To bind a sensor to the receiver, you can select a sensor from the free sensor list and bind it to the receiver. The free sensor list can be accessed following these steps: MAIN MENU > SENSOR LISTS > FREE.

The free sensor list displays all sensors which have been seen by the receiver. Each sensor in the list is displayed with list index, sensor serial number, and the elapsed time since last update.

Example: “1: 1366, 3S” means the receiver received the last data update 3 seconds ago from the sensor with serial number 1366.

To bind a sensor, you first scroll up/down the free list to find the sensor that you would like to bind to this receiver. Once a sensor is found, you tap SELECT to move to BIND/IGNORE screen. BIND will add this sensor to this receiver’s database. IGNORE will ignore the sensor allowing another receiver to pick up that sensor. This is useful in large installations where you may have overlap between the effective range of sensors and receivers.

After bind action is selected, you need to select an input to attach the sensor to. The attaching to an input would allow the information to be pulled for that individual sensor via MODBUS.

The receiver will jump back to the free list after the confirmation screen allowing the process to be repeated.
Repeat this process until all the sensors you would like to bind are bound to the receiver.

If you happen to bind a sensor that you should not have - go to SENSOR LISTS. Then to BOUND, scroll to find the sensor that should not have been bound. Select it - then choose to IGNORE or REMOVE.

IGNORE places the sensor on the ignored list - it can be bound at a later time.

REMOVE- removes the sensor entirely from the system (until the next packet of information is received) allowing another sensor to take its place. The functional limit of the system is 64 sensors – however there maybe more than 64 sensors in the area meaning the remove feature should be used to give the wanted sensor a chance to get on the list.

System INFO

The System Info screen displays 3 options: VERSION, UPTIME, and RADIO.

Version

Selecting VERSION displays the current NEST firmware version. The screen also displays the firmware compile date/time as well as the revision number. Tap CANCEL BACK to return to the SYSTEM INFO screen, or MAIN MENU to return to the MAIN MENU screen.

Uptime

The uptime screen simply displays how long the NEST has been active.

Radio

Highlighting and selecting RADIO from the SYSTEM INFO screen will access the PROTOCOL STATUS screen.

This screen displays the number of data packets received by the NEST from
active connected sensor pucks. RADIO RESETS displays the number of times the NEST has reset its internal radio. CRC MISMATCHES displays the number of packets received that contain incomplete or bad data.

System Settings

You can access the SYSTEM SETTINGS screen from the MAIN MENU screen. Highlight SYSTEM SETTINGS and tap SELECT. The SYSTEM SETTINGS screen displays a number of options.

Set Time/Date

To set the time and date on the NEST select the Set Time/Date option from the SYSTEM SETTINGS screen. Firstly, set the time using the arrows to navigate the digits and enter the correct time. Once the time has been entered, tap SET DATE and use the arrows to input the correct date. Once both the time and date have been entered, choose DONE to save new time and date and return to the SYSTEM SETTINGS screen.

Set Password

You can setup a system password by selecting SET PASSWORD from the SYSTEM SETTINGS menu. Once in the SET/CHANGE PASSWORD screen you can choose a 4 digit password by using the up/down and right/left arrows. Click SAVE to save the new password.
Set Modbus Parameters

To configure MODBUS parameters, select SET MODBUS PARAM from the SYSTEM SETTINGS selection screen. A submenu will display the parameters to select: RTU address, BAUD rate, or stop bits. If the direct output option was enabled you would be asked to disable it before modifying Modbus parameters.

RTU Address

Configure the RTU address of the receiver by using the arrow keys to navigate and input the digits.

BAUD Rate

Configure the BAUD rate of the receiver to either 9600 or 19200 by using the arrows on the right of the screen and choosing SELECT.

Stop Bits

Configure the stop bits of the receiver to either 1 or 2 by using the arrows on the right of the screen and choosing SELECT.
Set Temperature Unit

You can set the units of temperature to either Celsius or Fahrenheit by selecting **SET THERM UNITS** from the **SYSTEM SETTINGs** menu. Simply choose the unit of measurement and press **SELECT**.

Set Velocity Units

You can set the units of velocity to either mm/s or IPS (inch-per-second) by selecting Set VEL Units from the **SYSTEM SETTINGs** menu. Simply choose the unit of measurement and press **SELECT**.

Clearing All Sensors

You can clear all sensors from the NEST’s memory by choosing **Clear Sensors** from the System menu. Once in the **SENSOR SETTINGs> CLEAR ALL** screen tap **OK** to clear the sensors or **CANCEL** to go back to the System screen.

**WARNING**

CLEARING ALL SENSORS WILL REMOVE THE SENSORS AND ALL SETTINGS FROM THE NEST’S MEMORY. BE SURE THIS IS WHAT YOU INTEND TO DO BEFORE CLICKING OK.
Set Auto Attach

The auto-attach option, when it is enabled, will bind all sensors within the connecting range to the maximum of 64. If there are more than 64 sensors within the receiver’s connecting range it binds the first 64 automatically. You can later remove any unwanted ones. Auto attaching will select the first (lowest) input available in the table and administer that to the sensor.

You can set auto-attach option by choosing SET AUTO ATTACH from the SYSTEM SETTINGS menu. Once in the SET AUTO ATTACH screen simply choose DISABLED or ENABLED and tap on SELECT.

Log Data Out Direct

Log data out direct option allows you to either log bound sensor data on the internal non-volatile memory or stream live data over RS485 port to an external device. The stream live data option is for use with the optional data logger or the accompanied NEST software on personal computer.

You can set log data out direct option by choosing LOG OUT DATA DIRECT from the SYSTEM SETTINGS menu. Once in the LOG OUT DATA DIRECT screen simply choose LOG FILE ONLY or RS485 ONLY and tap on SELECT.

Adjust Brightness

The adjust brightness option allows you to change the brightness of the screen to improve the readability of the screen under different lightning conditions. Please note
that the higher level of brightness would increase the current consumption.

You can set adjust the screen brightness by choosing ADJUST BRIGHTNESS from the SYSTEM SETTINGS menu. Once in the ADJUST BRIGHTNESS screen you can use up/down arrow to change the brightness level and tap on DONE to save the level.

**Reset System Settings**

The reset system settings option allows you to restore the receiver to its default setting.

You can restore the receiver default setting by choosing RESET SYS SETTINGS from the SYSTEM SETTINGS menu. Once in the RESET SYS SETTINGS screen you can tap on OK to authorize the system setting reset.

**Logs**

The BossPac NEST System has extensive logging capabilities. To access the Logs screen, select LOGS from the MAIN MENU screen. This will bring up the main LOG screen with 3 options available: VIEW LOGS, UPLOAD LOGS, and CLEAR LOGS. To choose an action, tap on SELECT. Each option has a sub menu which displays a selection of the type of logs for each action. Tap on up/down arrow to scroll to the log type and tap on action (VIEW, UPLOAD, or CLEAR) to perform the action. For upload and clear action, you need to tap on OK at the confirmation screen to authorize the action.

Upon view action, the receiver displays records of specific type of log which were recorded in the internal non-
volatile memory.

Upon upload action, the receiver sends records of specific type of log over the RS485 port to an external device.

Upon clear action, the receiver erases records of specific type of log from its internal non-volatile memory.

**View Logs**

System events are displayed with the time, date, and log ID on the top half of the information area. The details of an event is displayed on the bottom half of the information area. For the critical and warning alarm events, the details include the sensor ID or name, type of the alarm, and the data associate with the alarm such as temperature, acceleration, or velocity.

24-hr data records are displayed with similar time stamp and log ID on the top half of the information area. The details of a record are displayed on the bottom half of the information area. For the 24-hr data records, the details include sensor ID or name, battery level, temperature, acceleration, and velocity.

Daily data and weekly data are displayed in similar format. The details of a record include sensor ID or name, average temperature, peak temperature, average acceleration, and average velocity.

**Record Information Legend**

B = battery level in volts
T = temperature in Celsius or Fahrenheit, according to the temperature unit setting
TP = peak temperature in Celsius or Fahrenheit
A = acceleration in G
V = velocity in mm/s or IPS, according to the velocity unit setting

**Upload Logs**

All records in the selected type of logs are sent sequentially over the RS485 port to an external device. This feature is for use with the accompanied software on a personal computer.

**Clear Logs**

All records in the selected type of logs are erased permanently from the internal non-volatile memory.

**Troubleshooting WASP LED Flash Codes**

The following table contains a brief description of all flash codes reported by the device:

<table>
<thead>
<tr>
<th>FLASH CODE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Flash - Accelerometer Failure</td>
<td>Device cannot communicate with the accelerometer</td>
</tr>
<tr>
<td>2 Flashes - Battery Failure</td>
<td>Device battery is either too low or too high. Valid regions are 3.00 V to 4.00 V</td>
</tr>
<tr>
<td>3 Flashes - Temperature Sensor Failure</td>
<td>Temperature sensor readings are outside of the acceptable start-up temperature window, from -40 °C to +100 °C</td>
</tr>
<tr>
<td>4 Flashes - Radio Failure</td>
<td>Device cannot communicate with the onboard radio</td>
</tr>
<tr>
<td>5 Flashes - Regulator Failure</td>
<td>The regulated voltage is outside of the allowable window, yet the MCU is still able to operate. For safety and reliability, the device only accepts regulated voltages between 2.00 and 2.40 V.</td>
</tr>
</tbody>
</table>
What To Do When An Error Is Reported?

Accelerator Failure (1-Flash)

This is indicative of an electrical failure: either the accelerometer isn’t receiving power or the device has lost electrical connectivity between the MCU and the accelerometer. In either event, the device is inoperative. Recommend replacing the processor board.

Battery Failure (2-Flash)

Recommend removing and reconnecting the battery as sometimes the power connectors do not mate evenly. If the problem still persists, replace the battery board.

Temperature Sensor Failure (3-Flash)

Assuming that the device isn’t powering up in extreme temperatures, this is indicative of an electrical fault. Recommend replacing the processor board.

Radio Failure (4-Flash)

Much like accelerometer failure, this is indicative of an electrical failure. The problem is much more severe in this instance as device cannot communicate. Recommend replacing the processor board.

Regulator Failure (5-Flash)

This is indicative of an electrical failure. Replace processor board and retry.

Maintenance

Replacing Batteries

The BossPac NEST™ Receiver can run on 6 AA batteries as a backup supply. These batteries should be replaced regularly to ensure a strong charge.

When replacing the batteries do so one side at a time so that the unit can remain running if no outside power source is present.

WARNING
DO NOT CONNECT OR DISCONNECT BATTERY UNLESS AREA IS KNOWN TO BE NON-HAZARDOUS.
WARNING
DO NOT CHARGE BATTERY UNLESS AREA IS KNOWN TO BE NON-HAZARDOUS.

WARNING
USE ONLY BATTERIES DESIGNED FOR THE ENVIRONMENT THE BOSSPAC BLUEBOX™ IS OPERATING IN.

Support
Support is available by contacting BossPac Engineering & Technology at 866-616-1226.

WARNING
TO PREVENT EQUIPMENT FAILURE AND/OR DAMAGE AND/OR PERSONAL INJURY, REGULAR CALIBRATION AND INSPECTION OF THIS DEVICE IS REQUIRED.

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BossPac WAS NEST DESKTOP APPLICATION User Guide

After successful installation of the Desktop Application, follow these steps to import Logs and Generate graphs.

1. From your Desktop –Select and open

2. Nest Home Screen (below)

3. Create a NEW Database
   1. Select FILE
   2. Select NEW
   3. Input the File Name
      a. Be clear and concise on the file name as this database can be imported to multiple times to generate a long term databases
   4. Select Save
4. **Import Logs from NEST Receiver**
   1. Connect the supplied **MODBUS** to **USB** cable from Receiver to your Computer
   2. On the Desktop application
      a. Confirm the Communications is active with the USB cable by
         i. Selecting **Settings** on Desktop application
   b. Select the **SERIAL PORT TAB**
   c. Select **COM PORT**
      i. Select Com Port that is labeled- (USB Serial Port (COMX))
         1. This will be the Com Port that the Receiver is connected to
   d. Select **FINISH**
3. Select **File**
4. Select **Import Logs**
   
   *Computer is ready and waiting to accept LOGS from NEST*
   *This is on a Read Out/Time Out so move quickly to the next step!*
5. On the NEST/Receiver-
   a. MAIN MENU select LOGS
   b. Scroll to and select UPLOAD LOGS
   c. Select ALL
   d. Select OK (ensure USB cable is connected) and OK again

Logs will automatically begin streaming from the NEST to the computer. If you have waited too long the computer will read **NOTHING WAS RECEIVED FROM DEVICE**. There are two options at this point- first, let the receiver finish its upload cycle or second, cycle the power and start again from step 1.

6. When the Records/Sec goes to 0/sec the LOGS have completed uploading
7. Close the Download from Device Window

**The Database has been imported to your computer and you must now create templates to view the data.**

**Overview**

The **BossPac WASP Desktop Application** allows the user to create templates to view specific data in graphical format. Possibilities include:

- Viewing Specific WASPs and/or all WASPS
- View
  - Temperature- Thermal RTD- measured in Celsius or Fahrenheit
  - Vibration- Acceleration
    - measured in G’s
  - Vibration- Velocity
    - measured in- mm/s or inches/s
  - Battery Voltage of the Sensor
    - measured in Volts
To Create a Graph
1. Open the desired Database (File/Open)
2. Select New Template
3. Give the Template a title
4. Add the sensors you would like to view
   a. Select them (you can select all by left clicking your mouse and dragging down to high light)
   b. Click the Left Arrow to move to the selected WASPs from the available (right hand side) to the selected (left hand side)
5. Add the Data Trace to be viewed
   a. Highlight the required Data trace and then hit the left arrow button. When all data traces have been selected and all WASP Sensors of interest have been added, hit **SAVE**
To view the Chart

1. Highlight the Template ID and Title that you wish to view
2. SINGLE CLICK Generate CHART
   NOTE: Only select this once! With large files it will take a few moments to generate.
3. If the Database is in excess of 20,000 records- you will be asked if you would like to reduce the timeframe of the data file to be opened.

   NOTE: if a data file has been added to multiple times over many weeks/months you have the option to select the data range that you would like to view
Navigating the Chart

1. Numerical Value

   Y Axis
   Displays a numerical value that relates to the data logged for all data traces allowing Temperature, Battery Voltage, Velocity, and Acceleration to be displayed on the same graph

   X Axis
   Covers the entire timeframe in the uploaded database
   As the Database is expanded or as the chart is zoomed, a scroll bar will appear allowing the user to scroll through the time period

2. Date, Time, Value Point

   Left clicking on a specific point on the graph generates a red ‘crosshair’ that intersects a specific point on the graph
   The Date and Value at that point on the graph is displayed on the lower left hand corner of the screen
3. Highlight/Moving Average

Select the sensors that you would like to highlight to make them stand out from the others in the graph.

To apply a moving average, input the number of readings you would like to average and select the sensor to apply.