MONARCH INSTRUMENT

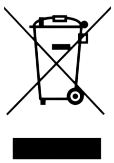
Instruction Manual

Track-It™ Pressure/Temp Vacuum/Temp Data Logger with Display

15 Columbia Drive
Amherst, NH 03031 USA
Phone: (603) 883-3390 • Fax: (603) 886-3300
E-mail: support@monarchinstrument.com
Website: www.monarchinstrument.com

SAFEGUARD AND PRECAUTIONS

1. Read and follow all instructions in this manual carefully, and retain this manual for future reference.
2. Do not open the unit in a high humidity environment; it will cause condensation inside the unit.
3. Do not operate this device in flammable or explosive atmospheres.
4. This device has no power switch. It will be in operation as soon as power is connected or battery is inserted.
5. Do not use this instrument in any manner inconsistent with these operating instructions or under any conditions that exceed the environmental specifications stated.
6. There are no user serviceable parts in this instrument. Refer service to a qualified technician.



In order to comply with EU Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE): This product may contain material which could be hazardous to human health and the environment. DO NOT DISPOSE of this product as unsorted municipal waste. This product needs to be RECYCLED in accordance with local regulations; contact your local authorities for more information. This product may be returnable to your distributor for recycling; contact the distributor for details.

Monarch Instrument's Limited Warranty applies.
See www.monarchinstrument.com for details.

Warranty Registration and Extended Warranty Coverage information is available online at www.monarchinstrument.com.

TABLE OF CONTENTS:

1.0 DESCRIPTION

The Track-It™ Pressure/Temperature or Vacuum/Temperature Data Loggers with Display are battery-powered, standalone, watertight data loggers that can record up to 130.000 samples. They can be set to record both pressure and temperature or vacuum and temperature or pressure alone to maximize data storage space. The onboard data storage is nonvolatile so data will not be lost in the event of a depleted battery. Real-time data, alarms, and min/max information can be displayed on the multiline LCD.

The loggers can be easily configured using the free downloadable Track-It™ DataLogger Software. There is a Mini B USB port on the back of the unit allowing connection to a PC for programming and data upload. Data upload can also be done via USB with an Android™ device using the Transporter App available on the Google Play store. For units with Bluetooth LE capability, Bluetooth can be used as an alternative for all activities allowed with USB connection including configuration and data retrieval.

Configure the unit to record data from 10 times a second up to once a day. The user can initiate the recording immediately, manually via the keypad buttons, at some future preset time, or on an alarm condition.

The display can be programmed to display pressure in various engineering units depending on pressure range. It can also display temperature, minimum and maximum values, percentage of memory used, time and date.

Track-It™ Pressure/Temperature or Vacuum/Temperature Data Loggers with Display can be ordered in several pressure (Absolute or Gauge) or vacuum ranges. The loggers are packaged in a rugged, watertight anodized aluminum and stainless-steel housing and have a standard ¼" NPT fitting for vacuum up to 5800 PSI and ½" NPT for higher pressure ranges. The replaceable internal lithium battery has up to a 1-year life.

2.0 TRACK-IT™ DATALOGGER SOFTWARE INSTALLATION

IMPORTANT: Before using your Track-It Data Logger, you must first download and install the USB Drivers and Track-It™ DataLogger Software. Please refer to the Quick Start Guide that was provided with your Data Logger, or you can download the Quick Start Guide.

The free Track-It™ DataLogger Software gives the user complete control in programming the Logger and allows for the upload, examination, and archiving of data recorded on the Logger.

Advanced features include:

- Real-time data view and data retrieval when connected via USB or Bluetooth® LE
- Delayed recordings, fixed duration recordings by time or number of samples, multiple record times, manual record by button press, record on alarms
- Sample rates from 10 times a second up to 24 hours; instantaneous, average, maximum or minimum values
- Two Alarms: high or low, latched or momentary, and record under these alarm conditions
- Display of data graphically, digitally or tabular formats with alarm indication
- Export user-selected data in CSV formats for import into Excel®; filter data to be exported

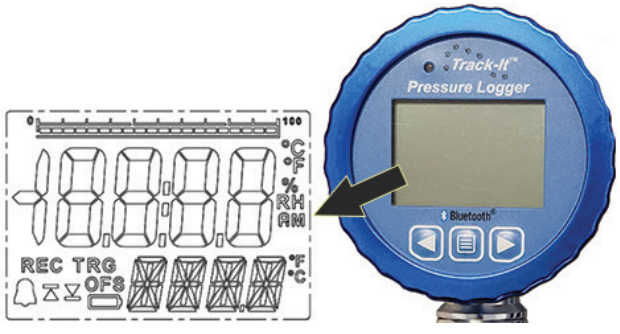
Track-It™ DataLogger Software is available for download:
https://monarchinstrument.com/Software/Track-It_Software.zip

3.0 FRONT PANEL

The front panel has an LED status indicator, liquid crystal display (LCD) that emulates a pressure gauge, and buttons to navigate.

3.1 LCD

The display has 4½ 7-segment digits to show actual values of pressure and temperature. There is also a line of 4 alphanumeric digits used to display ASCII text (e.g., Pressure Units). If the display is off, pressing any button will turn it on for the duration set in the Track-It™ DataLogger Software. The display is



optionally backlit; the backlight is initiated for 5 seconds by pressing any button. The backlight will also flash several times when a Bluetooth LE connection is established with the logger, if applicable.

There is a bar graph at the top of the display (which can be turned off by the user) giving an analog indication of values relative to 100% which is the full-scale value of the sensor. Note that in the Pressure Offset mode, the bar graph indicates the absolute value of the pressure as a function of full scale.

In addition to these values, the display can be scrolled using the ⍰ left or ⍰ right arrow buttons and may show (depending on configuration) minimum and maximum values of pressure and temperature, date as day/month - 24.07 or month/day - 07.24, time in 12 or 24-hour format (12-hour format will be indicated by AM or PM – 08:30 AM), and memory usage as a % of available memory. Values shown are set in the display setup using the Track-It™ DataLogger Software. See below for details.

There are various icon indications on the display that indicate the following:

REC Indicates the unit is currently recording. This icon will blink at a 2 second rate.

TRG Indicates the unit is currently triggered and waiting to record. Record is initiated by time delay or button depending on configuration.

Indicates an Alarm condition;  High Alarm and  Low Alarm

On its own (no Alarm), indicates Maximum value. Visible when scrolling through display if set.

On its own, indicates Minimum value. Visible when scrolling through display if set.

OFS Indicates the reading has been offset and is relative. (Zero mode active.)

If present, this indicates the battery is low and should be replaced. If blinking, it indicates readings may be compromised; unit may shut down and the battery should be replaced immediately.

Bar graph shows percentage of full scale (0 to 100%) of the value indicated. This can indicate Pressure, Temperature or percentage of memory used when recording. Note that in the Pressure Offset mode, the bar graph will show the percentage of full scale of the absolute value not the offset value currently displayed. The bar can be disabled in the menu.

3.2 LED

There is an LED (Light Emitting Diode) above the display to the left. This LED indicates various states of logger operation and is user programmable using the Track-It™ DataLogger Software (see software manual). The LED can indicate that the unit is recording (green blink) or an Alarm condition exists (red blink). It will also blink green when serial communication is taking place through the USB port.

For Bluetooth LE units, if Bluetooth advertising is enabled, the red LED blinks every 2 seconds in a regular fashion to signify that the radio is advertising. If and when the logger becomes connected to another device, then the blinking LED color changes to green for the duration of the connection. If the radio is sleeping between advertising periods, then neither colored LED will blink (unless for other logger state reasons).

3.3 Buttons and MENU

There are 3 buttons on the front panel for scrolling through display values and setting menu options. They are: ◀ left arrow, ☰ MENU, and ▶ right arrow.

Pressing the ◀ left or ▶ right arrow buttons will scroll through the various display values as set in the Track-It™ DataLogger Software. This includes Pressure, Temperature, Date/Time, Memory Usage, Max/Min for Pressure and/or Temperature.

3.3.1 Menu Modes

There are two menu modes: the **Normal** menu and the **Admin** menu. What is visible in each menu is the function of how the device is programmed using the software. See details on the next page. Some menu items are context sensitive.

The **Normal** menu is accessed by pressing the MENU button.

The **Admin** menu is accessed by pressing and holding the ◀ left arrow button then pressing the MENU button.

In the menu mode, the ◀ **left arrow** button is the escape or exit button, the ▶ **right arrow** button is the accept/change button, and the **MENU** button will move to the next menu item. The display will automatically exit back to the real-time display if there is no activity for 10 seconds.

The content of each menu is set up in the Track-It™ DataLogger Software. In addition, the **Admin** menu can be locked; in this situation, the user at the logger cannot enter this menu and will receive a LOCK message.

3.3.2 Menu Options

The following list of menu options is in alphabetical order. Please note that the actual order in which these items appear is dependent on settings set in the Track-It™ DataLogger Software.

Backlight	**BKLT** – AUtO/OFF – In Auto Mode, the backlight will come on for 5 seconds each time a button is pressed. Press ▶ button to toggle auto/off status.
Clear Alarm	**Clr ALRM** – Will clear any pending Alarm. Press ▶ button to clear. (Only visible during Alarm.)
Clear Minimum	**Clr MIN** – Will clear minimum values for Pressure and/or Temperature. Press ▶ button to clear. It depends on whether Pressure or Temperature is displayed when menu is pressed, and if Pressure maximum is selected in the display menu in the Track-It Software.
Clear Maximum	**Clr MAX** – Same as above for Maximum.
Cycle Mode	**CYCL** – On/OFF – If on display will toggle between Pressure and Temperature.
Bar Graph	**BAR** – On/OFF – Turns the bar graph on or off. Press ▶ button to toggle on/off status.
Decimal Point	**DCPT** – AUtO, 0, 1 – Used to set preferred number of decimal places. Auto will use all the digits and adjust the number of digits after the decimal accordingly.

Engineering Units — **Unit** – Used to change the engineering units for the pressure display. The lower line will show the current engineering units. Use the ▶ to scroll through the available units and press ◀ to accept. Not all units are available depending on the full-scale value of the sensor. The choice is limited by the number of digits on the display.

Record On/Off — **rEC** – ON/OFF – Will toggle the record mode of the unit (Only visible if record mode set to "Button Press" in the Track-It™ DataLogger Software). Press ▶ button to toggle on/off status.

Zero Mode — **ZERO – OFF/EnAb** – Will enable the zero offset feature. Available only in the Admin menu. If Off (not enabled) the Zero Set menu item will not display.

Zero Set — **ZERO – SEt/OFF** – Will set the current Pressure value to zero (offset into relative mode). Press ▶ button to toggle between modes. SEt will activate relative mode, OFF will set to absolute mode.

NOTE: When set, the OFS icon will show on the display. This menu item is only visible if the Zero Mode is enabled in the Admin menu and the Admin menu is NOT Locked.

4.0 BACK PANEL

The back panel has a small vent hole, a covered Mini B USB Port, and information about the logger.

Back Panel for non-Bluetooth LE units:

Back Panel for Bluetooth LE units:

4.1 Vent

All loggers have a vent hole in the back panel. This vent is especially important for any gauge (PSIG) sensor to allow ventilation to atmospheric pressure. DO NOT cover or block the vent or the logger may read incorrectly. DO NOT insert anything into the vent hole as it may damage the waterproof membrane and compromise the IP rating.

4.2 USB Connection

All loggers have a Mini B USB port (female) for connection to a PC or Android device. Simply unscrew the cap to expose the USB port. When not in use, make sure the cap over the USB port is screwed on tightly.

5.0 SETUP

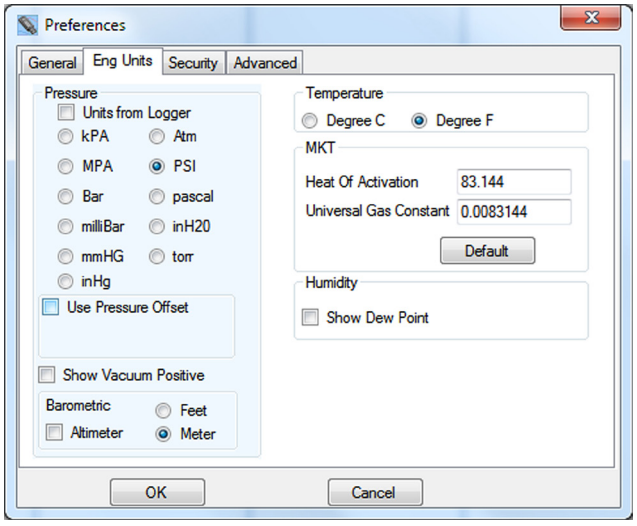
Before using your Track-It Data Logger, you should first program the logger to your desired settings. Connect the logger to a PC using a USB cable and Track-It™ DataLogger Software. Alternatively, your logger can be connected to the software via Bluetooth if your logger is compatible. See the Track-It™ DataLogger Software manual for more details.

6.0 TRACK-IT™ DATALOGGER SOFTWARE - LOGGER SPECIFIC

The operation of the Track-It™ DataLogger Software is described in its own manual which is accessed via the Help – Manual option. However, there are several unique options specifically for this Display Pressure Logger which are covered below.

6.1 Preferences

Select *Preferences* then the *Eng Units* tab. You will see the pop-up box shown right.



These engineering units apply to the data read from the logger and displayed on the graph or in the data table. Select your desired Pressure engineering units.

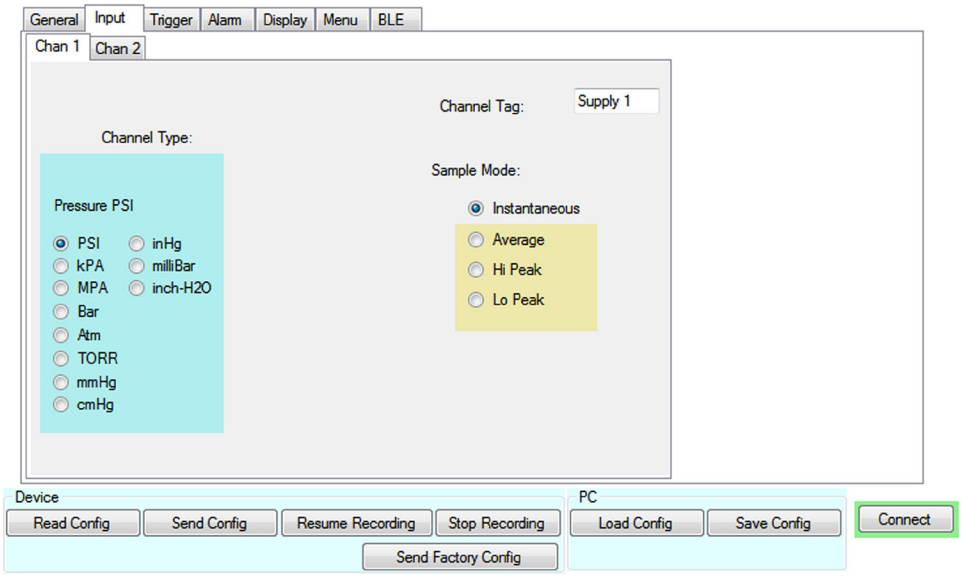
If the *Units for Logger* box is checked, the selection of engineering units here is ignored and the engineering units used will be as set by default in the Logger. If the *Units from Logger* box is unchecked, then the unit selected here will override that set in the logger.

For Absolute pressure ranges, *Use Pressure Offset* can be enabled to mathematically subtract atmospheric pressure providing gauge values. For more information about Absolute versus Gauge measurements, refer to our App Note found here: click to link.

For Vacuum/Temperature Loggers, the user can decide to *Show Vacuum Positive* (or Negative if not checked).

6.2 Input Setup

Under the *Device Setup* tab, select the *Input* tab and the Chan 1 tab.



The Pressure Channel Type will be listed as set in Preferences (see section 6.1 Preferences).

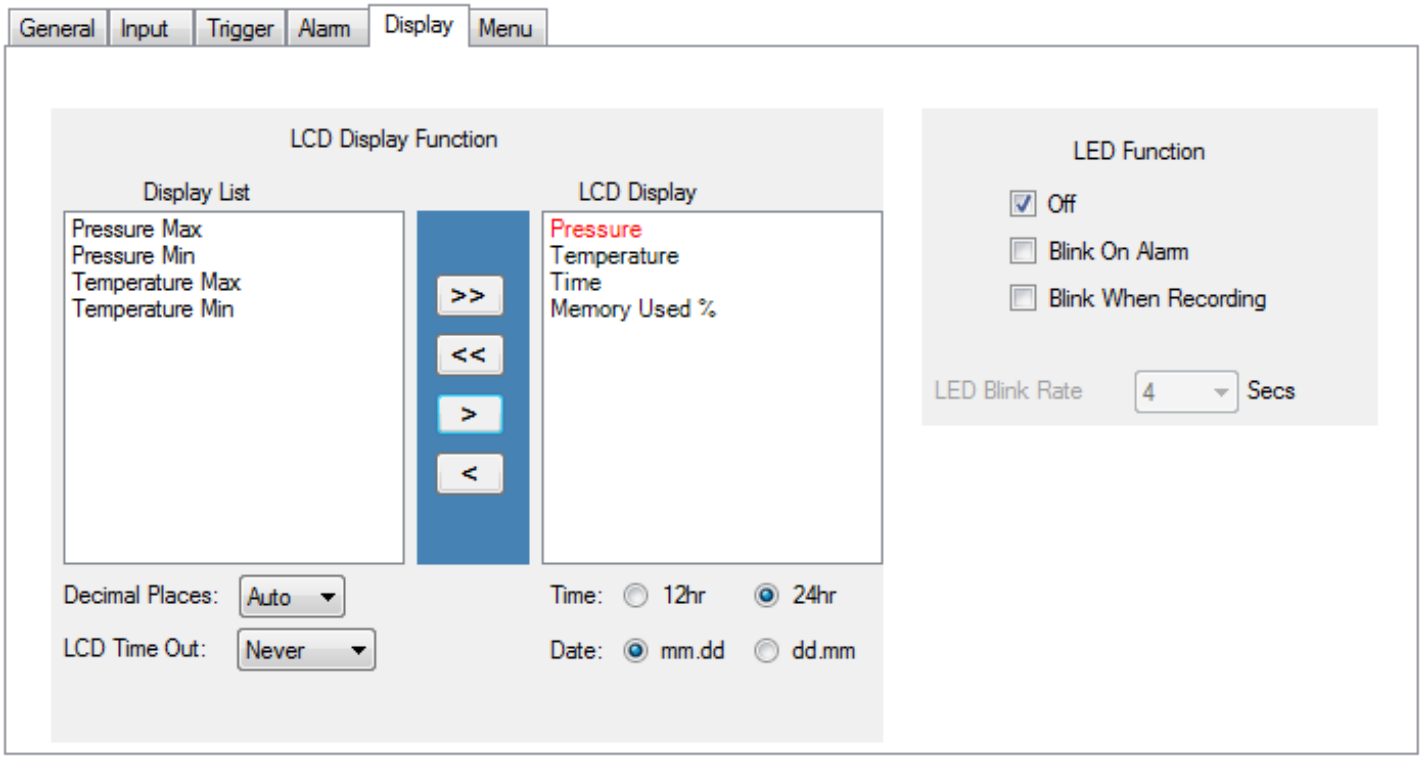
Note that selecting anything other than Instantaneous for Sample Mode (the logger only takes a reading at the Record Rate) will cause the logger to take readings at the highest sample rate and will have an adverse effect on the battery life.

The Chan 2 tab is similar but for the Temperature channel. The Temperature channel can be disabled; in which case, the logger will only record Pressure, not Pressure and Temperature.

6.3 Display Setup

Under the *Device Setup* tab select the *Display* tab.

These settings allow the user to decide what is displayed on the logger LCD and define the function of the LED.



The *Display List* column shows the functions that are available to be displayed on the logger and the *LCD Display* column shows the functions that will be displayed on the logger. The user can move the options between the columns by selecting the option (clicking on it) and using the arrow keys. Note that the Pressure option cannot be removed from the LCD Display column.

Decimal Places: defines how the data is displayed; Auto will always use the maximum number of digits available.

LCD Time Out: determines how long the LCD will be on before blanking. Note that as long as the LCD is on, the logger updates the readings in real-time which has an adverse effect on battery life.

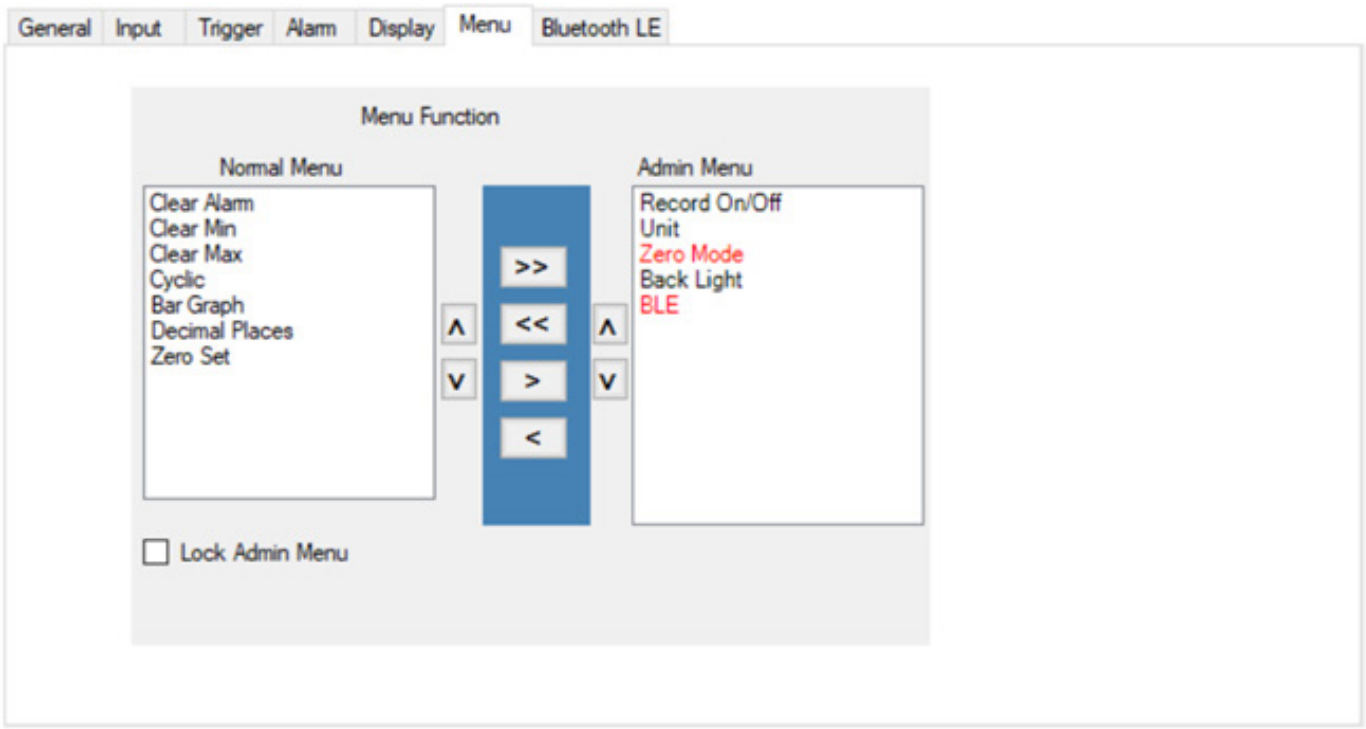
The **Time:** and **Date:** formats can be selected as shown.

LED Function can be set as desired.

6.4 Menu Setup

Under the *Device Setup* tab select the *Menu* tab.

This setting allows the user to determine which menu functions appear in the **Normal Menu** and which appear in the **Admin Menu**. Menu items will appear in the logger menus in the order of top to bottom in the below lists. By highlighting a menu item (clicking on it) the user can manipulate its position using the arrow buttons. The Zero Mode and BLE (Bluetooth LE) cannot be moved from the Admin menu.

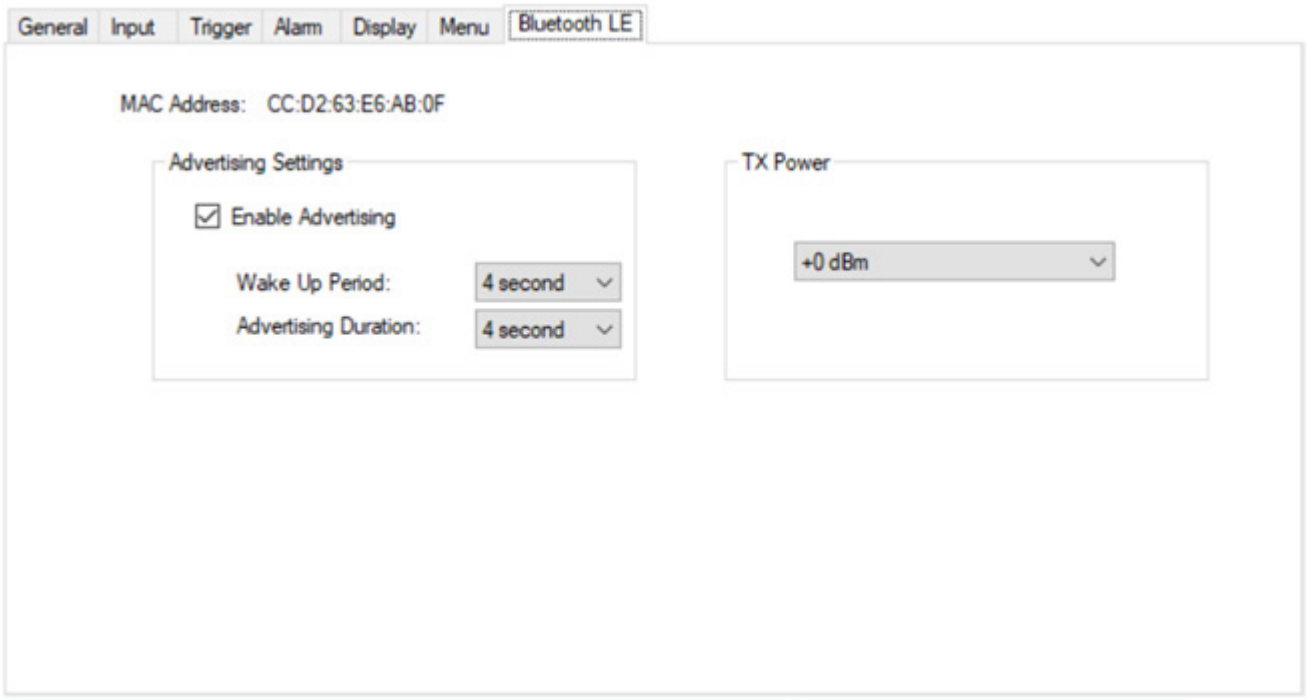


If the **Lock Admin Menu** box is checked, the user will not be able to access the Admin Menu features at the logger, and the *Zero Set* menu option (display offset) will not be available in the Normal Menu.

6.5 Bluetooth LE Setup

If your logger has Bluetooth LE functionality, there are additional settings that can be set.

Under the *Device Setup* tab select the *Bluetooth LE* tab. This tab will not be visible if your logger does not have Bluetooth LE capability.



A Bluetooth logger must be advertising to make a connection with a compatible Bluetooth device. Advertising is useful by allowing devices to find and connect to the logger remotely without needing to access the physical logger. Advertising can also be started directly from the logger, which will allow you to connect without having the advertising enabled. This uses much less battery but requires access to the logger. See section 9.0 Bluetooth® LE Communication for more details.

Enable Advertising: If this checkbox is checked, the logger will actively advertise based on the Wake Up Period and Advertising Duration settings. If this checkbox is not checked, the logger will not advertise unless activated manually.

Wake Up Period: How often the device wakes up and starts advertising.

Advertising Duration: How long the device advertises in each wake up period.

Example: Wake Up Period = 10 seconds
Advertising Duration = 4 seconds

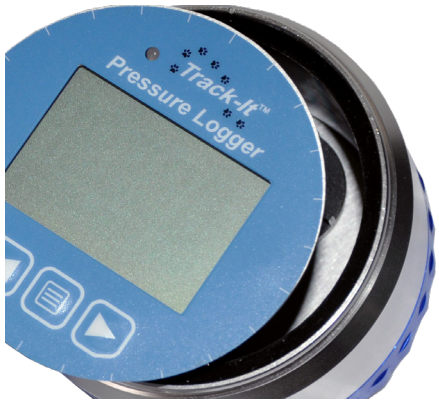
Every 10 seconds, the logger starts advertising for 4 seconds, then goes to sleep for 6 seconds then wakes up and repeats. If the Wake Up Period and Advertising Duration have the same value, the device always advertises. However, this will consume more battery life.

Transmit (Tx) Power: This setting specifies the strength of the advertising signal; the bigger the number, the stronger the signal is, and the more battery is consumed. It is recommended that when commissioning a logger, set the Tx Power at the lowest level that allows for reliable connection but minimizes battery life.

7.0 INSTALLATION

Pressure/Temperature or Vacuum/Temperature Data Loggers with Display can be ordered with various pressure sensors to cover most applications. Pressure ranges up to 5800 PSI have a ¼" male NPT thread intended to screw into the pressure source. Ranges over 5800 PSI use ½" NPT. Make sure to use suitable tape or thread sealant/ dope on the threads before inserting the logger into the port. Use an adjustable wrench on the **SENSOR NUT** to tighten the device into the port and test for leaks. Do NOT tighten by hand turning the display head.

Once installed, the display head can be rotated 300 degrees about the sensor to the intended viewing direction. The gauge face can also be rotated 330 degrees by undoing the blue bezel ring, lifting the front panel and associated electronics, and rotating it to the desired position. Ensure the flat gasket is in place before replacing the bezel ring. Do not stress any of the internal wiring.

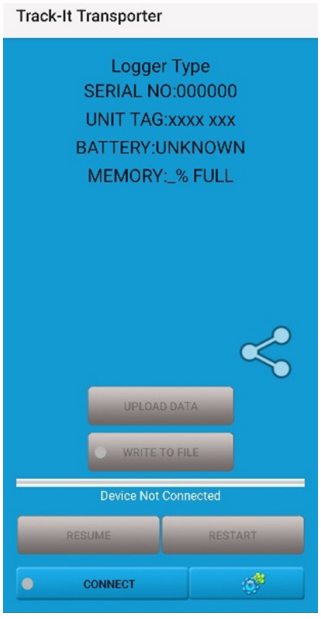


8.0 TRACK-IT™ TRANSPORTER APP

Track-It Transporter is a free Android application that allows you to use your Android device to start and stop recording and transfer data using a USB On-The-Go cable or Bluetooth LE.

To download, scan QR code with your mobile device or use link:
https://play.google.com/store/apps/details?id=com.trackit.transporter

Once you have the Track-It Transporter App installed on your Android device, open the App and you will see the screen shown right:

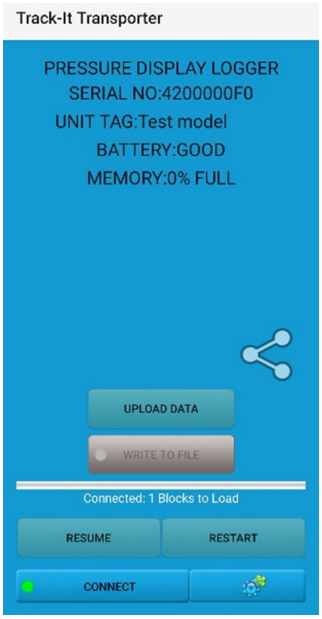


8.1 Connection

Make sure the logger is advertising (for Bluetooth LE connection) or connected via a USB OTG cable (for USB connection) and then select the **CONNECT** button on the bottom left of the App. The App will ask if you want to connect using Bluetooth or USB/OTG.

Select your desired connection type. If connecting with Bluetooth, select the desired device from the list of available Bluetooth devices. The name of the logger will be the Unit Tag as set in *Device Setup, General* in Track-It™ DataLogger Software (see software manual for details). With Bluetooth connection, the logger display backlight will flash a few times and then the green LED will blink to indicate successful connection. With USB/OTG connection, you must accept the USB drivers to continue.

Once connected, the App will display the logger information at the top of the screen, additional buttons will be available, and the CONNECT button will have a green dot as shown below.



To disconnect, select the **CONNECT** button again and once disconnected the green dot will turn to gray.

8.2 Uploading Data

Select **UPLOAD DATA** to transfer the data from the logger to the Android device. If the logger is recording, the App will ask if you want to stop recording. Select **STOP** to continue.

Next select the **WRITE TO FILE** button to save this data to a data file. You will be asked to specify a filename. Keep the default or specify a filename and select **SAVE**.

The default file directory can be changed under Setup.

You may now locate that file on your Android device and share it (email, text, etc.).

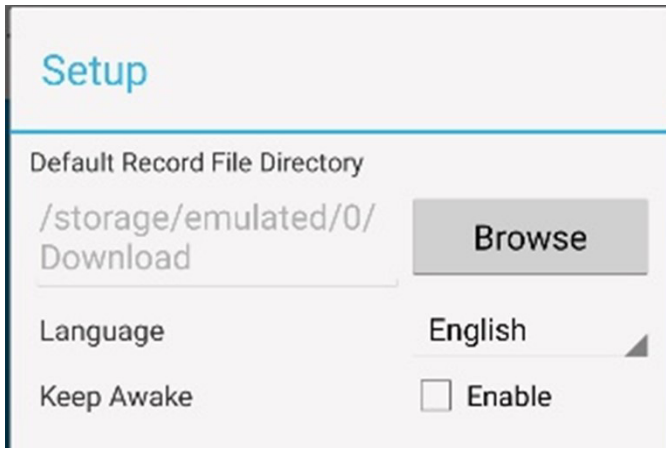
8.3 Start/Stop Recording

Select **RESUME** to continue/start recording.

Select **RESTART** to restart the logger which will stop recording and then restart recording depending on how the logger is set up.

8.4 Transporter App Setup

Select the Setup button on the bottom right of the screen (right) of the App to select the Default File Directory, Default Language, and enable/disable the Keep Awake setting.



Press the green check mark to accept any changes or the red X to exit without saving.

9.0 BLUETOOTH® LE COMMUNICATION

Track-It™ Pressure Data Loggers with firmware revision 3.0 and later support Bluetooth LE communication. Bluetooth connection can be made through an Android device or PC with Windows 10 and later. The PC must have Bluetooth enabled to work with the logger by Bluetooth LE.

A Bluetooth logger connects only during an advertising period. Consistent with Bluetooth LE usage, the logger is usually configured to advertise intermittently on a schedule. The advertising schedule is programmable considering convenience of data access and conservation of battery life. Either end can break the connection manually or automatically in the case of weak signal loss. The logger can be configured to advertise continually, but then a USB power source is recommended.

The advertising schedule may be enabled or disabled as configured in the Bluetooth LE Setup tab in Track-It™ DataLogger Software (see section 6.5 Bluetooth LE Setup). When disabled, the Bluetooth LE radio sleeps perpetually (unless manually awakened to advertise manually, see below).

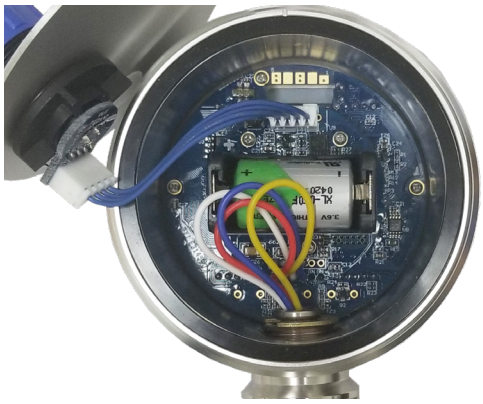
The Bluetooth LE communications can be managed to some degree directly at the logger:

1. The advertising schedule can be enabled or disabled by navigating to the BLE menu option (in Admin menu, see 3.3.1 Menu Modes). Press the ▶ right button to toggle the setting between “dIS” for *disable* advertising or “Schd” for *schedule* advertising. If you enable the advertising schedule, the logger will advertise based on the settings set in Track-It™ DataLogger Software (see section 6.5 Bluetooth LE Setup).
2. If not already connected or currently advertising, Bluetooth advertising can also be turned on manually from the logger by simply pressing any button to initiate a 10 second advertising period after which, if still not connected, the state self-cancels.

If the logger is connected to a device, the connection can be broken manually using the logger menuing. Navigate to the BLE menu option (in Admin menu). Press and hold the ▶ right arrow and then hold the menu button until the connection is broken. Release both buttons.

10.0 BATTERY

The unit operates off a 1/2 AA 3.6V lithium battery located behind the back panel. To access the battery, unscrew the back blue bezel ring and gently lift off the back panel and associated electronics. Gently extract the battery and replace as needed. **NOTE POLARITY WHEN REPLACING** – the unit will not operate if the battery is reversed. Ensure the gasket is in place before replacing the back panel and bezel ring. Do not stress any of the internal wiring.



11.0 ADHESIVE GASKETS

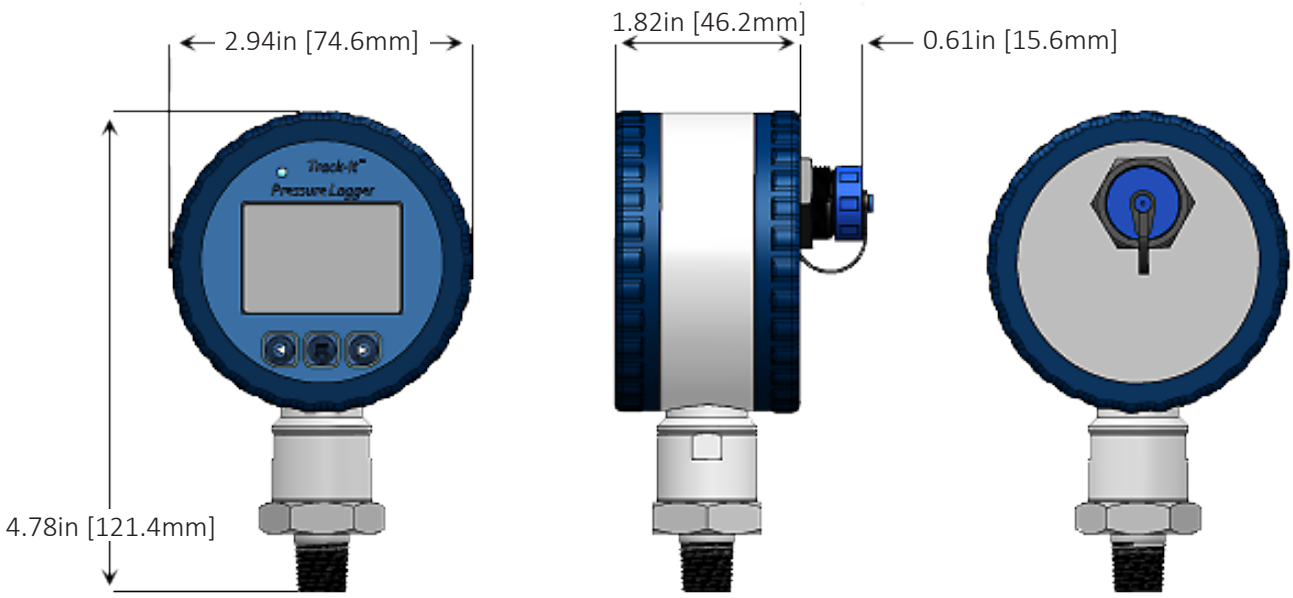
Track-It™ Pressure/Vacuum Temperature Loggers with Display come directly from the factory with high quality adhesive gaskets that have been properly installed. As a user, it is up to you to maintain a functional gasket seal. Make sure to inspect the gaskets regularly for signs of failure (nicks, cuts, gashes, flattening, cracking, discoloration, deformation, etc.). Don't poke, jab, or pry the gaskets with sharp or pointed objects. Don't expose the gaskets to harsh chemicals or pressure/temperature beyond specifications.

11.1 Replacing the Adhesive Gaskets

Remove the blue bezel ring and gently lift the front or rear panel and associated electronics to expose the gasket. Use a small, pointed tool to pry the old gasket out of its groove. Make sure that the gasket groove is free of any dirt or debris. Peel off the adhesive backing of the new gasket, and with the non-adhesive side out, carefully install the gasket into the groove. Position the front or rear panel back on the enclosure and screw the blue bezel ring back on. When replacing the front gasket, make sure the grounding spring is making contact with the inside wall of the case. Make sure to replace the gasket on both sides (if necessary). Do not stress any of the internal wiring

12.0 SPECIFICATIONS

Specifications*	Track-It™ Pressure/Temp Vacuum/Temp Data Logger with Display
General:	
Record: Sample Rates	User-configured 10 times per second up to 1 every 24 hours
Record: No. of Samples	130,000 (dependent upon setup)
Record Trigger:	Two independent triggers Multiple trigger modes: Instantaneous, button control, on alarm, time and date (start and stop), day of week
Record Mode:	Fill to end of memory or cyclic, number of samples, time duration
Display:	Two-line, 4½-digit 7-segment LCD and 4-digit alphanumeric display with custom icons, multi-segment bar graph for 0-100% indication, backlit
Alarms:	2 user-programmable alarms (High or Low)
Communication:	Mini B USB Port or Bluetooth LE (if compatible)
Software:	Track-It™ Software—Program device, view data (historic or real-time), export to spreadsheet.
Battery:	Lithium 1/2AA 1.2Ah Life: Up to 1 year typical @ 1 minute sample rate (LCD off and Bluetooth LE disabled)
Enclosure:	Anodized Aluminum and 316L Stainless Steel
Dimensions:	2.94" (74.6 mm) diameter x 1.82" (46.3 mm) deep x 4.78" (121.4 mm) tall including port threads



Specifications*	Track-It™ Pressure/Temp Vacuum/Temp Data Logger with Display
Measurement:	
Pressure Ranges:	0-35, 0-150, 0-350, 0-550, 0-2000, 0-5800 PSI (Absolute or Gauge) 0-3, 0-8700, 0-14500 PSI (Gauge only)
Vacuum Ranges:	0 to -380 Torr, 0 to -760 Torr, 760 to 0 Torr, 760 to -760 Torr
Accuracy:	±0.25% FS
Resolution:	0.01%
Overpressure Rating:	1.5X max
Port Connection:	¼" NPT male vacuum up to 5800 PSI; ½" NPT male for higher pressure ranges
Temperature Range:	-20 to +85°C /-4 to 185°F
Accuracy:	± 1 °C 0 to 50 °C / 32 °F to 122 °F ± 2 °C -20 to 85 °C / -4 °F to 185 °F
Resolution:	0.1 °C / 0.2 °F

***Specifications are subject to change without notice.**

12.1 Compliance

12.1.1 Battery Compliance

The Lithium battery used in this product meets the requirements of UN DOT 38.3.

Tested by XenoEnergy Co., Ltd (Report Xeno Q110612)

12.1.2 EU Declaration of Conformity

CE Compliant. Please visit our website's Certificate, Regulatory Compliance and CE Declaration page to download our EU Declaration of Conformity for this product.

13.0 ACCESSORIES

For additional accessories and details, see webpage.

PN:	Model/Description	
5396-9906	Replacement lithium 1/2AA 1.2 AH battery (ER14250)	
5396-9908	Replacement O-Ring Seals, 2-pack	
5396-9901	USB Extension Cable, 3 ft.	
5396-9911	Replacement Mini USB Cable USB 2.0 to USB 2.0, 6 ft. cable	
5396-9913	USB on-the-go cable for Android devices	
5396-9902	Track-It™ DataLogger Software on CD	
5396-9915	Track-It™ Pressure Calibration Software	
5396-9918	Kit Case Heavy-duty, watertight, O-ring sealed protective case	
5396-9907	Garden Hose Adapter with brass coupling ¼" NPT	

The Professional's Choice

Monarch Instrument is committed to excellence and quality in manufacturing, sales, and service.

Portable Tachometers

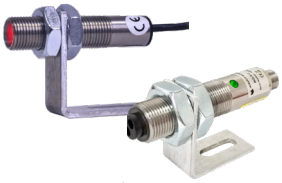
Track-It™ Data Loggers

Panel Tachometers

Fixed Mounted Strobes

Portable Strobes

Frequency Converters



Speed Sensors

DataChart™ Paperless Recorders

MONARCH INSTRUMENT

15 Columbia Drive, Amherst NH 03031 USA
Tel.: (603) 883-3390 // 800-999-3390
Email: support@monarchinstrument.com
Website: www.monarchinstrument.com

Rev. 1.03 0823