TRIPLETT

**RHDL30/RHDL40
PDF Dataloggers**

Display

- **REC**: flashes every second when in logging mode. For Program Start Delay: REC is displayed but does not flash during standby status.
- **T1**: is Air Temperature (T2 is for Probe – N/A on these models)
- **H/L**: High and Low Set Point Limit exceeded Indicator
- **°C/°F** Temperature units of measure
- $\square$ Measured Temperature, Humidity or Pressure. Toggle Rate is every 5 seconds.
- **MXMN**: MAX/MIN Readings
- $\square$ Low battery indicator

Faceplate (Buttons and LED Indicator)

MAX/MIN: Press to view MAX or MIN Values of all logged data.

LED Indicator: LED will flash GREEN every 10 seconds when logging is started and RED if any Low or High alarms have been tripped during a log session

START/STOP: Once batteries are installed. Pressing this button will POWER ON and OFF the logger. After Programming, Pressing and Holding for 5 seconds will Start and Stop the logging. In logging mode a short press will not turn OFF the logger.

MARK: To mark an event manually during the measurement period, press the MARK button for 2 seconds until the measured data flash three times. This MARK function is usually used when there is a transition, from one location to another. At most 8 marks will be identified in the PDF report.

Short press MARK button any time can also display the leftover battery life time as a quick reference. However, precise battery life time is still decided by operation condition & battery brand.

NOTES:

- Use a coin to twist battery compartment to the UNLOCK position and Install (2) CR2032 Batteries observing polarity.
- Adobe Reader Software is required
- Program and generate the reports at Ambient Room Temperature. For example, if removed from a freezer allow stabilization time to room temp before generating the reports.

Step1 Configuring the data logger

- It is possible to make configuration changes at any time before the logging function is started. Once the logger is started, configuration changes cannot be made unless stopping the logging first. If the logger is locked with a Password, the Password is required to make configuration changes.
- - Press ON/OFF to power on the logger
- - Connect the data logger to a PC via the USB port. The green LED is ON while building the connection with computer.
- - Windows file display window will appear.
- - If the correct file folder is not open, click on Folder to view files.
- - Open the file " PDF Logger Configuration Tool. exe".
- - The default language is English. The user may change it to one of several alternate languages. There are English, German, French, Italian, Spanish and Portuguese.
- - To review the instruction manual, you may click "Manual" to open the manual PDF file.
- - The user can check the calibration report for the logger by selecting the PDF file named "Calibration Certificate".
- - User programmable parameters are as follows:
- ★Sampling rate
- Select the sampling interval you need from 30 seconds to 2 hours.
- ★Start delay
- Select the start delay from 0 min to 24 hours. For example: If the delay is 5 minutes, and the sampling rate is 10 minutes, the real time to log the first temperature measurement is 5 minutes after the START button is pressed. All measurements after the first measurement will be at a 10 minute (or selected) interval.

- ★Unit of Measurement (UoM)
- Select the unit that will be displayed on the PDF report and LCD. The selections are Metric or Imperial. In Metric, it is Celsius for temperature and hpa for pressure. In Imperial, it is Fahrenheit for temperature and inHg for pressure.
- ★Password
- The Password function is default OFF. The user may enable it to prevent unauthorized reprogramming prior to pressing the START button. A Password may have up to 16 alpha or numeric characters.
- ★Company Name
- A user defined name, or descriptor, can be input under Company Name. It will be displayed on the PDF report as the Title, with a maximum of 20 characters.
- ★Alarm types
- Regardless of the Alarm Type, if the red LED is triggered, it won't stop even the reading return to normal range or logging is stopped. The way to stop red alarm LED is to plug logger into computer to generate report or power off the logger.
- Single: an alarm is triggered immediately when the measured value exceeds the alarm threshold.
- Cumulative: an alarm is not triggered when the measured value exceeds the alarm threshold, but only once the overall average value during alarm delay duration exceeds the alarm threshold.
- Disable: No alarm function during the logging process
- ★Alarm delay
- The preset alarm delay interval for a single alarm type is always ZERO.
- The adjustable alarm delay interval for a cumulative alarm type can be 5 minutes to 2 hours.
- ★Alarm Limits
- Select the alarm threshold values. For example: if 2 - 8 deg C is selected, it means that an alarm condition will occur below 2 deg C, or above 8 deg C. The programmable alarm limit of each parameter is limited to one decimal. To summarize, to activate a alarm when 30 min average value of hazardous alarm delay period is higher than 8°C, please program the alarm delay as 30 mins, alarm type as cumulative and range as 2~8°C
- ★Time zone

- Before programming the logger the user must assure that the PC is set for the correct time zone. The logger will auto synchronize to the time zone of the PC, when Save is pressed. Time zone changes over the transit distance are not adjusted in the logged data.
- The default value of above parameters are:
- Sampling rate: 5 min   Alarm Type: Disable
- Start delay: 0 min   Alarm delay: 0 min
- Temp. Unit: °C   Alarm Limits:
- Password: disable   Temp. blank
- Company Name: blank   RH: blank
- Language: English   Pressure: blank
- Once all the programming is done, press "Save" to confirm the setting and then you may close the setup window and remove the logger from PC USB port.

Step2   Start logging

- - Press "START" key for 5 seconds when you want to start the logging.
- -"REC" will appear and flash on LCD to indicate the logging is activated. Measured parameters update and interexchange on LCD every 10 seconds.
- - If Logger is programmed as Start delay, after pressing the start key, the "REC" will appear (not flashing) to show the logging is started and in standby status.
- -During the logging, the green LED will blink every 10 seconds if there is no alarm occurred. If any, it turns into flashing red LED.
- -If the red LED is triggered, it won't stop even the reading return to normal range or logging is stopped. The way to stop red alarm LED is to plug logger into computer to generate report or power off the logger.
- - To place a bookmark manually during the delivery transition, long press MARK key until measured reading flashes three times.
- -Press MAX/MIN key any time to review the maximum and minimum data stored in memory.
- -Press MARK key can review the approximate leftover battery life time.

Step3   Download data

- -Press "STOP" key for 5 seconds to stop the logging.
- -Plug logger into PC USB port can also stop the logging.
- - Open the file "PDF Logger Configuration Tool. exe

- - Choose function "Convert to PDF" or "Convert to Excel" to generate the report in preferred format. The default language is English. The user may change it to one of several alternate languages.
- - Select the preference location to save the generated report to.
- - The created excel report contains all data shown in PDF report except the graph.
- NOTE: Note: The generated "excel" file is a tab-delimited ASCII text file which can be easily read by many programs. However, when opening the file in Microsoft Excel, a warning message may be displayed because the file is named ".csv" but the contents are like a ".txt" file. It can be safely opened.

Technical data

Model
RHDL30: Temperature + Humidity logger
RHDL40: Temperature +Humidity +Barometric logger
Temp. & Ext.   By NTC thermistor,
Measurement   -30.0~70.0ºC (-22.0~158.0ºF)
Temp. Resolution   0.1ºC (0.1ºF)
Temp. Accuracy   +/-0.5ºC
Humidity   0.1~99.9%rH
Humidity res.   0.1%rH
Humidity accu.   +/-3% at 25 ºC(10-90%rH), others +/-5%
Pressure   300~1100hpa; 8.9~32.5inHg
Resolution   0.1hpa;0.1inHg
Accuracy   +/-3(0~60ºC), +/-5 (-20~0ºC), the rest is not specified.
Logging Type   Multiple use
Sampling points
RHDL30: 24000 Temp. +24000 Humidity
RHDL40: 16000 Temp.+ 16000 Humidity+ 16000 Baro.
Battery Life   3 months
Operating temp.   -30~70ºC (Logging status); room temp.(PC status)
Operating RH%   Humidity < 80%
Storage temp.   -40~85ºC
Storage RH%   Humidity <90%

Weight   ~90g

Battery   2PC 3.0V CR2032

Sampling Interval 30 seconds, 5, 10, 30, 60, 90, 120 minutes

Start delay   0, 5, 30, 45, 60, 90,120 minutes, 24 hours

Alarm range   Temp: -30.0~70.0ºC   Humidity:1~99%rH

          Baro:300~1100hpa

Alarm delay   0, 5, 30, 45, 60, 90, 120 minutes

Alarm type   Single, Cumulative, Disable

Operation keys   3 Keys, Start/Stop & Mark & MX/Mn

LED indicator   REC, High /Low alarm

Protection class

Model 2:   IP65

Directives   EN12830

Operating System Windows only

Error Codes

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Why?	**In model 2 only.** **External probe is unplugged**
Solution	**Check the contact between probe and logger**
E02	
Why?	**Measured value is below specified range**
Solution	**Put the logger in specified range**
E03	
Why?	**Measured value is above specified range**
Solution	**Put the logger in specified range**
E04	
Why?	**In humidity display of model 3 & 4 only, means temperature is in error mode**
Solution	**Solve the error issue of temp. sensor**
E11	
Why?	**In humidity display of model 3 &4 only, means humidity calibration is fail**
Solution	**Re-calibrate the humidity**
E31	

Why?	Microprocessor is fail
Solution	Contact distributor for after service
E33	
Why?	In humidity display of model 3&4 only, means humidity measuring is fail
Solution	Contact distributor for after service
Why red LED is flashing but recorded data is OK	
Why?	Alarm detection works every 10 seconds but data logging are possibly programmed as every 2 hours. In this condition, if alarm happens between two logging points, it might lead the recorded data is OK but red LED is flashing, especially if the alarm mode is set as "Single".
Solution	To program the alarm function as cumulative can reduce this situation

Warranty Information

Triplett / Jewell Instruments extends the following warranty to the original purchaser of these goods for use. Triplett warrants to the original purchaser for use that the products sold by it will be free from defects in workmanship and material for a period of (1) one year from the date of purchase. This warranty does not apply to any of our products which have been repaired or altered by unauthorized persons in any way or purchased from unauthorized distributors so as, in our sole judgment, to injure their stability or reliability, or which have been subject to misuse, abuse, misapplication, negligence, accident or which have had the serial numbers altered, defaced, or removed. Accessories, including batteries are not covered by this warranty