OPERATING MANUAL

LM Transit

Little Master Series Data Logger
Model LM-T

Mother Nature tells you everything

g-tek ™
Record it...
Control it...
Perfect it.

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3   INTRODUCTION

LM Transit is a onetime use data logger capable of storing 4000, 8000, 16000 and 32000 data records respectively in selected variants at a prefixed interval. This logger comes pre-programmed from factory and user just needs to pull the tap to start recording data. The associating LMView software helps to download the stored data and review them by PC.

3.1   HOW TO CONNECT LM-TRANSIT WITH PC: -

1. Remove the USB cover from the head of LM.

Figure 1 LM Transit view after open USB cover

2. Connect the USB LM head Directly to the PC or Connect Through The USB extension.

Figure 2 Connection of LM Transit Through PC

3. Put the USB cover on LM after removing the LM from cable or PC

4 BATTERY SAVING MODE

The battery life of LM Transit is about 1 Year at 25°C Temperature if the data is stored at the interval of 15 minutes and downloaded once every month. The data is updated in LM at every Store Interval. LM goes in battery saving mode between reading Intervals. While communicating with PC, it starts running on USB power supply. Until you disconnect the USB Cable it will run in normal mode with USB power supply, and it again switches back to the battery saving mode after disconnecting.

5 REPLACING BATTERY

The typical life of the battery is about 1 Year.

Note: - If the data is sampled more frequently at Sub Zero Temperature then the battery life will be considerably reduced.

5.1 HOW TO REPLACE BATTERY:-

1. Open sensor of LM to remove battery.

Figure 3 Open sensor cover of LM to replace the battery

2. Slide out the old battery from LMTransit.

3. Replace the battery with correct polarity (+ marked near the +ve terminal of Battery).

Figure 4 Close tightly sensor cover after replacing battery

4. Close sensor cover of LM tightly.

Note: -

The data is retained in the Nonvolatile memory and even after replacing the battery user can download the previously stored data.

Use only CR2032 Lithium battery and follow the regulations prevailing, while disposing the used battery.

6 FEATURES

Little Master Transit (LM Transit) series are one-time use portable temperature data loggers.

Ideal for recording temperature during shipping and transport, LM Transit series are easy to use, accurate and affordable solutions for your requirements. Waterproof (IP65) ensures that you can place them in the most demanding of environments. **EN 12830** compliance assures you the quality and the reliability.

The bright fluorescent like color makes it easy to identify at destination for easy retrieval.

Key Features:

- Easy to Use
- Indication for start of logging
- Cost Effective, single use data logger
- Memory available in set of 4000/8000/16000/32000 data records.
- Storage resolution 0.1

7 SPECIFICATION

Table 1 Specifications

Model	LM - T
Display and Operator Panels	
Display Type	None
Status Indicator	Red LED for Device working Blue LED for Batch Start / Stop
Panel Keys	None
Memory	
Data Storage	Yes
Memory	4000/8000/16000/32000 Data Records
Memory Type	Flash, Non-volatile, Data Retention up to 100 years
Analog Input Details	
No. Of Channels	1 (Temperature Input)
Temperature Measurement Accuracy	± 0.1% FSR
Sensor Details	
Temperature	10K Thermistor; NTC; Internal to the device
Temperature Range	-30 to + 60 °C (-22 to +140 °F)
Sensor Response Time	30 min for step change of 50 Deg C
Sensor Accuracy	± 0.5 °C (± 0.9 °F)
Sensor Resolution	0.01
Batch Details	
Start/Stop	Immediate on pulling TAB
Batch Stop	When Memory is full
Delayed Start	No
Logging Interval	Refer to order code
Download Batch	Intermediate after any time the batch started/After the Batch is completed
Environmental	
Temperature	*(Operation)*-30˚C to 60˚C
	*(Limiting) -35˚C to 70˚*C
	*(Storage) -35˚C to 70˚*C
Humidity	*(Operation)* 0 to 100% RH
Power Requirement	
Supply Voltage (Battery Operated)	3.0 V 240mAH; CR2032 Panasonic Coin Cell Battery; User Replaceable
Battery Life	>1 Year, at 25˚C and 15min Store Interval
Battery Reverse Polarity	Protected
General	

User Calibration Feature	Factory Calibrated
Reusability	None. One time use, Disposable
Online Feature	Power saver mode when USB connected, Online Batch with Current Data Display using LmView software on PC
Confirmatory Standards	
Product	EN 12830
EMI-EMC	EN 61326 Class A
Pollution Degree	II
Installation Category	IV
Vibration	2g Peak (10Hz-150Hz)
Shock	IEC 61010-1
IP Rating	IP65
Communication	
Connectivity	USB 2.0, USB 3.0 Compatible
Data Download Time	≈ 3 sec for 32000 data records
Overall Dimension	
Dimension (mm)	120 (L) x 40 (W) x 25 (H)
Mounting	From the Clip provided on the cap

8 ORDERING CODE

Table 2 Ordering Code

LT = LM Type	Display	ST = Sensor Type	I/X = Sensor Internal/External	-	M = Memory	I = Store Interval

LT		D		ST		I/X		-	M		I	
4	LM Transit	0	No Display	0	Temp.	0	Internal Sensor	-	0	4000	0	Pl. Specify
		1	Display						1	8000	1	5 min
									2	16000	2	10 min
									3	32000	3	15 min
											4	30 min
											5	45 min
											6	60 min
											7	120 min

g-tek™
tells you everything

Record it...
Control it...
Perfect it.

ISO 9001:2000

RANGE OF PRODUCTS:

Circular Chart Recorder:
• New Improved international look
• Available in 4"; 6"; and 11" format
• Up to 4 Pen recording
• Wide variety of inputs
• Various options and configurations
• User friendly

Strip Chart Recorder
• X-Y recording format
• Up to 3 Pen recording
• Wide variety of inputs
• Various Chart Speeds to suit any application
• Various options and configurations
• User friendly

Scanner
• Up to 24 Channels
• 4x20 Character blue over white LCD display
• Individual High and Low alarm setting
• Up to 8 individually configurable relays
• High resolution and faster data rate
• PC and Printer connectivity
• AqWire1.2 - 21 CFR Part II compliant software

Little Master Series
• For Temperature and % RH measurement
• Data storage up to 32000 readings
• User programmable storage time
• High battery life
• EN12830 Compliant
• One time use data logger also available

CE

RoHS

| Circular Chart Recorders | Strip Chart Recorders | Hygro-Thermographs | Scanners & Data Loggers
| Temperature & % RH Data Loggers | Transit Series One-Time use Temperature Data Loggers