

Introduction

TrekView is a cost-effective temperature recorder that indicates if your product has been exposed to unacceptable temperatures that could negatively affect product quality or safety. TrekView Recorders can be tailored for specific applications such as monitoring product core temperatures with a stainless steel probe, or inside validated packaging with a ribbon cable, or extreme cold with a dry ice probe.

FEATURES
Captures data every 60 seconds
Up to eight temperature alarm thresholds
USB and RF interfaces on every recorder
Manage recorders and create reports with TrekView Data Management System (web-hosted) or TrekView Desktop Software

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TrekView Specifications

TrekView Key Specifications			
	Standard	With Probe	Dry Ice Probe
Temperature Measurement Range		-30°C to 75°C -22°F to 167°F	-80°C to 75°C -112°F to 167°F
Temperature Accuracy			
-70°C to -30°C	N/A	N/A	± 3°C
-30°C to 75°C	± 0.5°C	± 1°C	± 1°C
-112°F to -22°F	N/A	N/A	± 6°F
-22°F to 167°F	± 1°F	± 2°F	± 2°F
Threshold Settings	8 configurable excursion thresholds		
Temperature Resolution	0.1°C		
Memory Capacity	4000 logged data points / 16 million histogram temperature readings		
Sampling Interval	1 sample per minute		
Logging Interval	User-programmable		
Programming	Recorders can be sent with a pre-programmed configuration, or they can be configured by the customer.		
Data Retrieval	USB plus RF		
Wireless Technology	Semi-passive RFID		
Packaging	Water-resistant (NEMA 4 / IP 66) - Food-grade packaging		
Product Size	2.28 x 2.28 x 0.07in 5.79 x 5.79 x 0.17cm		
Cable Length	N/A	24in /60.96cm	
Weight		29g	19.50g
Battery Life	Up to 3 years in "Recording" or "Standby" mode (See Appendix B for battery specifications)		
Calibration	Factory-calibrated to 3-Point NIST certification. Certificate of validation is provided for every unit.		
Compliance	TrekView Data Management System: 21 CFR Part 11 TrekView Desktop Software: 21 CFR Part 11 (Reports only)		

Best Practices for Placement

TrekView recorders are compact and durable. They can be used whenever a complete temperature history or temperature breach alert is necessary. As a general rule, the best placement of a monitoring device is as close to the product being monitored as possible.

Accessories and Related Products

TrekView Desktop Readers

The TrekView Desktop reader is available for high-volume applications when TrekView recorders are returned to a central collection site for data management.

Specifications	
Product Size	16.5 x 24.4 x 2cm / 6.5 x 9.6 x 0.8in
Weight	150g
Battery Life	N/A
Power Supply	Input 110V-240V Output 5VDC 1.5 A (UL, CSA, TUV, CE listed)
Read Range	Up to 5.08cm / 2in
Operating Environment	5°C to 60°C 41°F to 150°F
Data Storage	N/A
Compliance	FCC Title 47, Part 15

TrekView Data Management System (DMS) & TrekView Desktop Software

TrekView DMS and the TrekView Desktop Software are used to communicate with TrekView recorders and allow you to manage recorder programming, view recorder status, set alerts, and generate reports.

TrekView DMS Requirements

- Optional Readers:
 - Desktop Reader (DTR):
 - Hardware Version: 1.1.1
 - Firmware Version: 2.2.0
- For configuring Rs: Windows XP, Windows Vista, Windows 7, or Windows 8
- For viewing reports: Firefox 4 and later, Safari 5 and later, Chrome 23 and later, IE 8 and later
- To communicate with the recorders directly using the USB interface you will need sufficient security privileges to install and run the required USB drivers and TrekView recorder drivers
- Connecting with an RF reader requires pre-installed drivers to convert from USB to serial, or the ability to download and install such drivers

With TrekView DMS, data is housed at a Tier 3 data center which provides:

- Redundant internal network distribution
- Daily data backup
- 24-hour disaster recovery
- 99.98% uptime

TrekView Desktop Software System Requirements

- Pentium II 233 MHz processor
- Windows XP (sp2 or sp3), Windows Vista, Windows 7, or Windows 8
- 64 MB RAM / 20 MB free disk space
- One available USB port
- 800 x 600 screen resolution / 256 screen colors

Ordering Information

Part Number	Description
TV44000	TrekView Temperature Recorder
TV44000-SP	TrekView Temperature Recorder - Stainless Probe
TV44000-RP	TrekView Temperature Recorder- Ribbon Probe
TV43900DI-EXT	TrekView Dry Ice - External USB, Ribbon Probe, Single Use
TV43705	TrekView Desktop Reader

Technical Support

If you are unsure of how to use or interpret the TrekView, please contact ShockWatch Technical Support at (800) 527-9497 or (214) 736-4579.

Warranty

If a product fails to conform to the specifications stated in this document, the product may be returned to ShockWatch at any time prior to the product's specified expiration date or, if no expiration date is specified, within one year from the date of shipment. ShockWatch shall either refund the purchase price (without interest), or repair and/or replace the product (or, in the case of services, re-perform such services) at no additional cost. The warranty is void if the defect has resulted from accident, misuse, abuse or misapplication. Any product which is identified as defective during the warranty period and is returned to ShockWatch with a Return Material Authorization (RMA) number (which must be obtained from ShockWatch prior to any return) within thirty (30) days after discovery of the defect with a written description of the defect will be replaced by ShockWatch.



Limitation of Liability

Seller makes no warranty, expressed or implied, except that the Products sold hereunder shall conform to Seller's written specifications for such Products as in effect and provided to Buyer by Seller at the time of sale of such Products to Buyer ("Seller's Specifications").

WARRANTY SET FORTH ABOVE IS EXCLUSIVE AND IN LIEU OF ANY AND ALL OTHER WARRANTIES, REPRESENTATIONS, AND COVENANTS, EXPRESS OR IMPLIED, STATUTORY, UNDER COMMON LAW OR OTHERWISE. EXCEPT AS PROVIDED IN THE SELLER'S TERMS & CONDITIONS., SELLER MAKES NO, AND EXPRESSLY DISCLAIMS, AND BUYER HEREBY EXPRESSLY WAIVES, IN EACH CASE TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL WARRANTIES, GUARANTEES, PROMISES, OR REPRESENTATIONS WITH RESPECT TO THE PRODUCTS, WHETHER WRITTEN, ORAL, EXPRESSED, OR IMPLIED, AND WHETHER IN FACT OR BY OPERATION OF LAW, STATUTORY, OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR SUITABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR ANY WARRANTY OF NON-INFRINGEMENT (INCLUDING PATENT INFRINGEMENT, BOTH DIRECT AND INDIRECT, AND INCLUDING BOTH CONTRIBUTORY AND INDUCING PATENT INFRINGEMENT).

CONDITIONS, BUYER ASSUMES ALL RISK WHATSOEVER, AND SELLER (AND SELLER'S SHAREHOLDERS, DIRECTORS, MANAGERS, OFFICERS, EMPLOYEES, AND OTHER AFFILIATES (COLLECTIVELY, "SELLER'S AFFILIATES")) SHALL NOT BE LIABLE, FOR ANY LOSS, DAMAGE, OR LIABILITY INCURRED BY BUYER OR BY ANY USER OF ANY PRODUCTS ARISING OUT OF THE USE OF SUCH PRODUCTS, WHETHER SINGLY OR IN CONJUNCTION WITH ANY OTHER EQUIPMENT OR PROCESS, AND WHETHER DUE TO THE NEGLIGENCE OF SELLER OR ANY OTHER PERSON OR ENTITY. THE LIABILITY OF SELLER AND SELLER'S AFFILIATES FOR ANY FAILURE OF A PRODUCT TO CONFORM TO SELLER'S SPECIFICATIONS SHALL BE LIMITED EXCLUSIVELY TO, AT SELLER'S ELECTION, EITHER (1) REFUND OF THE PURCHASE PRICE PAID BY BUYER FOR SUCH PRODUCT (WITHOUT INTEREST) OR (2) REPAIR OR REPLACEMENT OF SUCH PRODUCT (OR, IN THE CASE OF SERVICES, REPERFORMANCE OF SUCH SERVICES). IN THE EVENT A COURT OF COMPETENT JURISDICTION SHOULD RULE THAT SELLER OR ANY OF SELLER'S AFFILIATES IS ANSWERABLE IN DAMAGES NOTWITHSTANDING THE LIMITATION OF LIABILITY SET FORTH HEREIN, THE AGGREGATE AMOUNT OF SUCH DAMAGES FOR WHICH SELLER AND SELLER'S AFFILIATES ARE LIABLE SHALL NOT EXCEED THE TOTAL OF ALL PAYMENTS MADE BY BUYER TO SELLER UNDER THE AGREEMENT WITH RESPECT TO THE RELEVANT PRODUCTS. SELLER AND SELLER'S AFFILIATES SHALL IN NO EVENT BE LIABLE TO BUYER OR ANY OTHER PERSON OR ENTITY FOR INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR EXEMPLARY DAMAGES, OR FOR DIMINUTION IN VALUE, LOST PROFITS, OR LOST BUSINESS OPPORTUNITY DAMAGES OF ANY NATURE, ARISING OUT OF OR RELATING IN ANY WAY TO THE PERFORMANCE UNDER OR BREACH OF THE AGREEMENT OR THE PURCHASE OR SALE OR USE OF THE PRODUCTS.

NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, BUYER EXPRESSLY ACKNOWLEDGES THAT SELLER HAS TESTED THE PRODUCTS ONLY AS SET FORTH IN THE SELLER'S SPECIFICATIONS AND NOT FOR USE WITH OR INCORPORATION INTO ANY PARTICULAR APPLICATION, AND BUYER ASSUMES AND BEARS ALL RISK AND RESPONSIBILITY OF DETERMINING THE SUITABILITY OF THE PRODUCTS FOR THE PURPOSE INTENDED BY BUYER OR BUYER'S CUSTOMER. BUYER SHALL NOT MAKE ANY REPRESENTATION TO ANY THIRD PARTY (1) REGARDING THE RELIABILITY OR ACCURACY OF THE PRODUCTS EXCEPT AS EXPRESSLY SET FORTH IN SELLER'S SPECIFICATIONS OR (2) TO THE EFFECT THAT SELLER HAS TESTED THE PRODUCTS FOR THE USE INTENDED BY BUYER OR SUCH THIRD PARTY.

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Appendix A – How to Use TrekView Recorders

The compact design of TrekView Recorders allows you to monitor temperature at the item, case, pallet or truckload level.

While many other temperature recorders limit you to one download before stopping the recording process, TrekView allows you to read the recorded data repeatedly at any point in the cold chain.

Turning the TrekView ON/OFF

In order to use the ON/OFF button on the front of the recorder, the recorder must be placed in standby mode and configured using the TrekView Software or TrekView DMS. (To configure your recorder, please refer to the appropriate manual.) Press the ON/OFF button between your forefinger and thumb. Once a recorder is successfully turned on, the programmed soaking time will begin. After the soaking period has expired, the TrekView will begin recording time and temperature. To stop manually, press and hold the ON/OFF button for one full second.

Checking the Status of a TrekView

To check the current excursion status and recorder mode, press the Status button. If the TrekView's Active LED is solid green upon pressing the Status button, the TrekView is recording. If the Active LED blinks, the TrekView is off, soaking (delayed startup), or in standby mode. A solid red LO or HI LED is representative of a low or high temperature excursion, respectively.

For detailed instructions on how to use TrekView Temperature Recorder, TrekView DMS or the TrekView Desktop Software, refer to the appropriate user manual provided by ShockWatch or your local distributor.

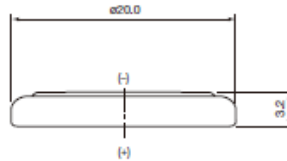
Appendix B – TrekView Battery Specifications

Data Sheet maxell

Coin Type Lithium Manganese Dioxide Battery

CR2032

Model	CR2032
System	Manganese Dioxide–Li/Organic Electrolyte
Nominal Voltage (V)	3
Nominal Capacity (mAh)*	220
Nominal Discharge Current (mA)	0.2
Operating Temperature Range (deg. C)**	-20 to +85
Weight (g)***	3.0
Dimensions (mm)***	
Diameter	20.0
Height	3.2
UL Recognition	MH12568

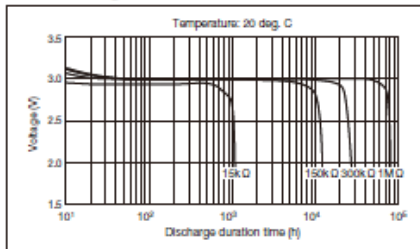


Available Terminals and Wire Connectors

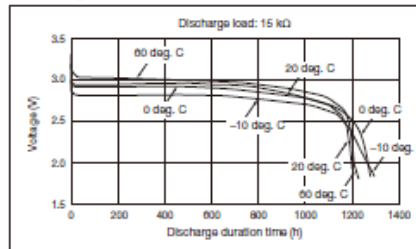
Check http://biz.maxell.com/products/industrial/battery/cr/pdf/cr2032tw_11e.pdf for diagrams of batteries with terminals.

Characteristics

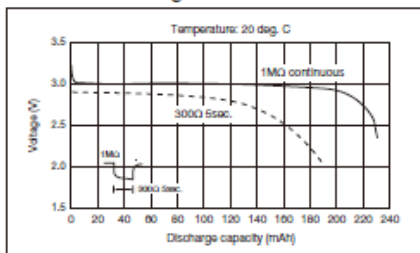
● Discharge Characteristics



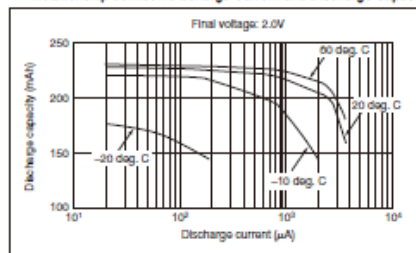
● Temperature Characteristics



● Pulse Discharge Characteristics



● Relationship between Discharge Current and Discharge Capacity



* Nominal capacity indicates duration until the voltage drops down to 2.0V when discharged at a nominal discharge current at 20 deg. C.

** When using these batteries at temperatures outside the range of 0 to +40 deg. C, please consult Maxell in advance for conditions of use.

*** Dimensions and weight are for the battery itself, but may vary depending on terminal specifications and other factors.

Hitachi Maxell Energy, Ltd.

• Data and dimensions are not guaranteed. For further details, please contact us at your nearest Maxell office.
• Contents on this website are subject to change without notice.

Date of issue: April 2011

Appendix C – TrekView Certificate of Conformance (Sample)

SHOCKWATCH® TrekView®

CERTIFICATE OF CONFORMANCE

Product Identification		
Product:	TV43800 INT USB ▼	
Quantity:	0	
Software / Quality Data		
Firmware Version	1.2.0	
Functionality Verified**	<i>This document certifies that the listed products sold by ShockWatch, Inc., a division of MRI, Inc. were produced according to and meet the requirements prescribed by ShockWatch Manufacturing and Quality Standards.</i>	
Calibrated Testing Equipment Used		
Device Description	Serial Number	Calibration Report
Temperature Meter	A79589 ▼	AC10121290-769125
Temperature Probe	769125 ▼	AC10121290-769125
<i>TrekView products are EN12830 certified and are manufactured by validated processes to yield accuracy within ±0.5°C from -30°C to +75°C.</i>		
<i>The units identified above have been verified using calibrated equipment traceable to NIST standards.</i>		
<i>**Functionality Check includes timer, button, LED, communication and temperature accuracy.</i>		
LIST OF APPROVED TAG IDS		
Total =		0

Signature _____
Management Representative

Date _____