

DICKSON

SK4/SL4

Temperature Chart Recorder Operation

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SK4



SL4

Product Applications

These units are self-contained temperature recorders. The SK4 & SL4 recorders are portable, easy-to-use and provide a permanent record of temperatures. These recorders have an ON/OFF switch, locking door and built-in slot for an optional tie-down cable and lock.

The SK4 was designed for use in applications where recording long term temperature trends is most important. The SL4 was built to give you the best of both worlds: a permanent record of long term temperature recording combined with an easy-to-read, digital display.



SL4



SK4

Useful Features

- Battery Powered, operates on a single AA battery for up to 3 years
- 2.5 more readable than a 3 inch chart recorder
- Totally self-contained and easy-to-use (place directly in the environment to be monitored)
- External On/Off switch and battery access
- Portable and compact
- SL4 features easy to read LCD display

Product Specifications



SK4



SL4

Measurement Ranges:	-20 to +120°F, 0 to +100°F, +45 to +90°F, -30 to +50°C
Ambient Operating Temperature:	-22 to +122°F (-30 to +50°C); 0-95% RH (non-condensing)
Pen Accuracy:	±2% full scale
SL4 Display Accuracy:	±3.6°F (±2°C)
Temperature Sensor:	Precise spiral-wound bi-metallic strip transducer
Power Supply:	One "AA" alkaline battery, up to 3 years average life
Chart Movement:	Battery operated
Average Response Time:	11 minutes to move 63% of full scale
Recording Times:	24 hour or 7 day
Chart Size:	4" DIA
Calibration:	User: none; Factory: zero (no display calibration)
Display Type:	LCD
Resolution:	0.1°F (0.1°C)
Mounting:	Desk or wall mount
Enclosure:	Black ABS & Polycarbonate
Dimensions:	5.2" x 5.2" x 2.4" (13.2 cm x 13.2 cm x 6.1 cm)
Weight:	0.65 lbs (295 g)
Approvals:	CE
Includes:	One "AA" alkaline battery, pen, starter pack of charts, and instruction manual

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Product Applications & Useful Features

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Charts (for current pricing go to www.dicksonweb.com or call 1-800-323-2448)

Range	24 Hour Chart	7 Day Chart
-20 to +120°F	C015	C017
0 to +100°F		C012
+45 to +90°F		C070
-30 to +50°C		C181

Accessories (for current pricing go to www.dicksonweb.com or call 1-800-323-2448)

Description	Order #
NIST Traceable Calibration 3-pt. (new unit)	N300
A2LA Accredited Calibration 3-pt. (new unit)	N400
Pens (6 red)	P222
Carrying Case	A708
Waterproof Pouch	A711

Calibration Services - New Units

N100 - NIST Traceable Calibration 1-Point: Includes documentation to one Dickson pre-selected point on new units only.

N300 - NIST Traceable Calibration 3-Point: Includes documentation of three Dickson pre-selected points (a high, medium, and low) on new units only.

N400 - Deluxe A2LA Accredited NIST Traceable Calibration 3-Point: ISO Guide 25/A2LA Documentation of 3 pre-selected points of as found data before and after calibration for Dickson temperature and/or humidity instrumentation on new units only.

N995 - NIST User Selected Temperature Points: Documentation of one customer specified point. Should be selected in addition to one of the above calibration options.

The Importance and Benefits of Regular Calibrations

Once you begin to use your precision Dickson instrumentation, regular calibrations are necessary to ensure accurate readings.

The following Calibration Services are available:

N150 - NIST Traceable Calibration 1-Point: Includes documentation to one Dickson pre-selected point after re-calibration.

N350 - NIST Traceable Calibration 3-Point: Includes documentation of three Dickson pre-selected points (a high, medium, and low) after re-calibration.

N450 - Deluxe A2LA Accredited NIST Traceable Calibration 3-Point: ISO Guide 25/A2LA Documentation of 3 pre-selected points of as found data before and after calibration for Dickson temperature and/or humidity instrumentation.

N995 - NIST User Selected Temperature Points: Documentation of one customer specified point. Should be selected in addition to one of the above calibration options.

Why should I recalibrate my instrumentation?

Over time dirt, dust and normal handling can throw your precision instrumentation out of calibration. Regular calibrations ensure that you receive the most accurate readings possible.

How often should I recalibrate my instrumentation?

Depending on the environment your instrument is used in and how often it is handled you will want to recalibrate your instrument every 6 to 12 months. Instruments in environments where there are extreme temperatures, wide temperature ranges, humidity or pressure variations, high condensation, dirt, dust and other debris will require calibration at least every 6 months. Instruments that are frequently moved or in locations with heavy machinery that cause vibrations should also be calibrated at least every 6 months.

Why should I return my instrument to Dickson for calibration?

Dickson calibrates your instrument at the factory using proprietary production/calibration software that guarantees proper calibration.

Our Capabilities

Dickson is the first manufacturer of humidity and temperature instrumentation to receive A2LA accreditation. We are also NIST Traceable; our procedures conform to MIS-STD-45662A, ANSI/NCCL 2540-1-1994, ISO/IEC Guide 25 and ISO10012. We are experts in the manufacture and calibration of humidity and temperature instruments.

Fast Service: Our turnaround time is 3 days or less so you receive not only expert service but fast service as well.

Easy: We make it easy for you! No phone calls for Return Authorization Numbers are required. We remind you when your instrument is due for calibration. You simply send in the completed Calibration Order Form with your unit for calibration with freight prepaid to Dickson.

Getting Started

- Set the switch on the back of the unit to the appropriate motor speed: 7 day or 24 hour.
- Place a new chart on the recorder.
- Set the time by inserting a coin into the chart hub and turning clockwise until the current hour is referenced by the time indicator. (Time Indicator is directly to the right and below the pen tip.)
- Remove protective pen cap.

Pen Replacement

- Slide the used pen cartridge off and slide the new one on. Typical pen life is one year.

Battery Replacement

- The battery compartment is located on the back of the unit. The recorder uses a standard "AA" battery for up to three years of battery life.
- Insert new battery with positive end up.

Troubleshooting

Pen Tension

- If the pen is not touching the paper, bend the pen arm down slightly near the top of the pen arm.
- Make sure there is not excessive tension on the chart from the pen as this may cause slowed chart rotation.

Chart Does Not Rotate

- If the chart is not rotating make sure the center strip of the chart is inserted properly into the black center hub of the recorder making sure the chart is not torn or ripped.
- If the chart is properly installed and there is still no rotation, please call Customer Service for a Return Authorization Number (RA#).

Warranty

Dickson warrants that the products it sells will be free from defects in material and workmanship under normal use and service for a period of twelve months after delivery. In the event of a claim under this warranty, the product or part must be returned to the factory for repair or replacement (shipping pre-paid) with a Return Authorization Number (see Return Information above). It will be repaired at Dickson's option without charge. This warranty DOES NOT cover routine calibration, pen, chart and battery replacement. The foregoing warranty and remedy are exclusive and in lieu of all other warranties either expressed or implied. Dickson shall not be liable for consequential or incidental damages resulting from failure or malfunction of its products. Dickson makes no warranty for products not manufactured by it or for any products modified by buyer, or subject to misuse or neglect.

Factory Service & Returns

Contact the factory (630-543-3747) for a Return Authorization (RA) Number before returning any instrument. The model number, serial number and a purchase order number will be requested before an RA number is issued.

- Carefully repack the instrument, label the outside of the box with the RA# and return the instrument (freight pre-paid) to Dickson.
- All instruments that do not have the RA# clearly marked on the outside of the box will be refused. When returning instruments for credit, please include all accessories in shipment.
- Calibration/Freight charges are non-refundable.

NOTE: Dickson shall not be liable for consequential or incidental damages resulting from failure or malfunction of its products.

Customer Satisfaction

Dickson takes pride in providing you, the customer, with the highest quality instrumentation. We welcome the opportunity to help you in any way possible. Whether it be a question or a new idea in documentation, the Dickson Company would like to hear your response. Please call our Customer Service Department at 1-800-323-2448 or (630) 543-3747 (in Illinois).

Software Return Policy

IMPORTANT-Read your Software License Agreement carefully before installing software. Dickson will accept returns for replacement of defective disks and CDs only.

DICKSON

930 South Westwood Avenue
Addison, Illinois 60101

Phone: (630) 543-3747 • E-mail: DicksonCSR@dicksonweb.com

Fax to: 1-800-676-0498 Mail to: Dickson, 930 S. Westwood Ave, Addison, IL 60101

Step 1 - Bill To:

Name _____
 Company _____
 Address _____
 City _____
 State _____ Zip _____
 Phone () - _____
 Email _____




Step 2 - Ship To (if different than above)

Name _____
 Company _____
 Address _____
 City _____
 State _____ Zip _____
 Phone () - _____
 Email _____

Step 3 - Ordering Information

Order #	Quantity	Price/Unit	Total
_____	_____	\$ _____ /each	\$ _____
_____	_____	\$ _____ /each	\$ _____
_____	_____	\$ _____ /each	\$ _____
_____	_____	\$ _____ /each	\$ _____
			Subtotal: \$ _____
In Illinois, add 7.5% sales tax ▶			Tax: \$ _____
			Freight: \$ _____
All Prices in U.S. Dollars ▶			Total: \$ _____

Step 4 - Payment Method

Check: Check # _____
 Money Order
 Credit Card:   
 Credit Card Number: _____ Expires: (mm/yy) _____
 _____ / _____

 _____ Signature _____
 Purchase Order: P.O.# _____ (Net 15 days for established customers)
 Customer #: _____

U.S.A. Freight Charges

Total Order	UPS 2nd Day	UPS Next	UPS Ground
\$0-100	\$16	\$33	\$10
\$101-400	\$20	\$42	\$15
\$401-700	\$28	\$57	\$18
\$701-1,000	\$37	\$60	\$26
\$1,001-1,500	\$56	\$77	\$39
\$1,501-2,000	\$74	\$97	\$46

\$2,001-over Please call Dickson Customer Service
 All shipments UPS 2nd day unless otherwise requested.

DICKSON
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 Charts & Accessories
 Calibrations
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Order Form