

**DICKSON**

# VFC70

## Vaccine Temperature Chart Recorder Operation

### Contents:

Product Applications and Useful Features  
Product Specifications  
Charts & Accessories  
Calibrations  
Operating Instructions / Getting Started  
Troubleshooting  
Warranty / Factory Service & Returns  
Order Form



# Product Applications

The CDC now recommends using continuous, certified and calibrated chart recorders for vaccine storage monitoring. Dickson has designed the VFC70 chart recorder specifically for vaccine storage applications. Easy-to-read charts clearly show when vaccines go out of acceptable temperature range and for how long. This unique chart recorder highlights ranges for standard refrigerator vaccines (35 to 46°F) and freezer vaccines as well (5°F and lower).



## Useful Features

- Calibrated and Certified
- 24/7 Continuous monitoring, even during nights and weekends
- 4" Diameter Easy-to-Read Vaccine Chart
- Circular Bands on Chart Show Acceptable Vaccine Ranges
- Digital Display for Quick Reference
- 0 to +70°F Temperature Range
- Perfect for Refrigerator and Freezer
- Small Compact Size
- Made in the USA

# Product Specifications



<b>Measurement Ranges:</b>	0 to +70°F
<b>Ambient Operating Temperature:</b>	-22 to +122°F (-30 to +50°C); 0-95% RH (non-condensing)
<b>Pen Accuracy:</b>	±2% full scale
<b>Display Accuracy:</b>	±1.8°F (±1°C)
<b>Temperature Sensor:</b>	Precise spiral-wound bi-metallic strip transducer
<b>Power Supply:</b>	One "AA" alkaline battery, up to 3 years average life
<b>Chart Movement:</b>	Battery operated
<b>Average Response Time:</b>	11 minutes to move 63% of full scale
<b>Recording Time:</b>	7 day
<b>Chart Size:</b>	4" DIA
<b>Calibration:</b>	User: none; Factory: zero (no display calibration)
<b>Display Type:</b>	LCD
<b>Resolution:</b>	0.1°F (0.1°C)
<b>Mounting:</b>	Desk or wall mount
<b>Enclosure:</b>	Black ABS & Polycarbonate
<b>Dimensions:</b>	7.0" x 5.5" x 2.5" (17.5 cm x 13.7 cm x 7.0 cm)
<b>Weight:</b>	1 lb., 1 oz (482 g)
<b>Approvals:</b>	CE
<b>Includes:</b>	One "AA" alkaline battery, pen, starter pack of charts, and instruction manual

**DICKSON**

Product  
Applications &  
Useful Features

Product  
Specifications

Charts &  
Accessories

Calibrations

Operating  
Instructions /  
Getting Started

Troubleshooting

Warranty/  
Factory Service  
& Returns

Order Form

# Charts (for current pricing go to [www.dicksonweb.com](http://www.dicksonweb.com) or call 1-800-323-2448)

## Range

0 to +70°F

## 7 Day Chart

C203

# Accessories (for current pricing go to [www.dicksonweb.com](http://www.dicksonweb.com) or call 1-800-323-2448)

## Description

## Order #

NIST Traceable Calibration 1-pt. (new unit)	N100
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

**DICKSON**

Product  
Applications &  
Useful Features

Product  
Specifications

Charts &  
Accessories

Calibrations

Operating  
Instructions /  
Getting Started

Troubleshooting

Warranty/  
Factory Service  
& Returns

Order Form

# 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.

### 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/NCSL 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.

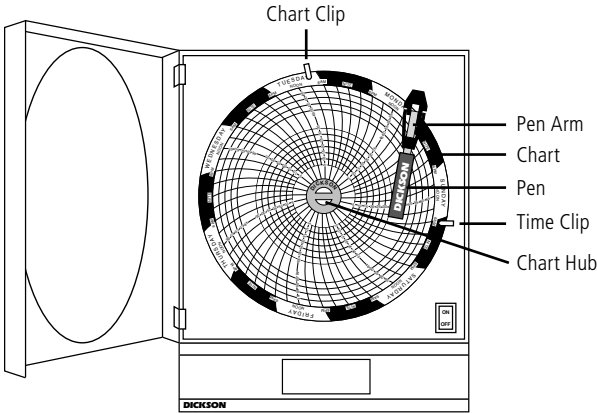
## Getting Started

- Place a new chart on recorder.
- Set time by inserting a coin into chart hub and turning clockwise until the current hour is referenced to the time indicator. (Time Indicator is directly to the right and below the pen tip).
- Remove protective pen cap.

## Battery Replacement

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

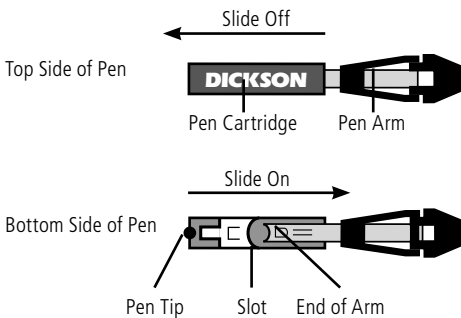
## Chart Replacement (Every 7 Days!)



1. Flip Pen Arm up, away from chart. Lift the Chart off of the Chart Hub, and slide it out from underneath the chart clip and time clip.
2. Put ONE new Vaccine Chart on by sliding it under the chart clip and time clip, and securing the center onto the Chart Hub.
3. Make sure the center of the chart, between Chart Hub, is not torn.
4. Set the time by inserting a coin in Chart Hub and turning clockwise until the current hour is referenced by the Time Clip.
5. Flip Pen Arm down.

**Note:** Unit can remain on (process takes less than 10 seconds).

## Pen Replacement



1. Slide used Pen Cartridge off Pen Arm.
2. Slide new Pen Cartridge on Pen Arm
3. Make sure end of pen arm comes into contact with pen tip.
4. Remove pen cap.

# Troubleshooting

## 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



**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: \$ _____
<b>All Prices in U.S. Dollars ▶</b>			<b>Total: \$ _____</b>

**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.