

**DICKSON**

**SC3**

**Temperature Chart Recorder Operation**

**Contents:**

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



Rev. 10/07

**DICKSON**

Product Applications & Specifications

Getting Started, Charts & Accessories

Calibrations

Troubleshooting Warranty & Returns

Spanish

French

German

Italian



<b>DICKSON</b>
Product Applications & Specifications
Getting Started, Charts & Accessories
Calibrations
Troubleshooting & Warranty & Returns
Spanish
French
German
Italian

## Product Applications

The SC3 sets a new standard for compact recorders while providing the accuracy and resolution required for regulatory compliance and quality control. The reusable SC3 is rugged enough to withstand the rigors of transportation and storage applications. Best of all, its unbeatable low price makes temperature recording affordable for virtually any application.

## Useful Features

- Rugged case ideal for transportation and storage applications
- F/C Switchable, 24 hour/7 day Switchable
- Easy user calibration
- Security slots for recorder security
- Special ranges for refrigerators, freezers, incubators and ambient conditions
- Optional tamper seals can be used to insure the integrity of the chart
- Compact (less than 4" tall/wide) and durable
- Operates for up to 2 years on a single "AA" battery
- Direct sensing, no remote probe, compact enough to be placed almost anywhere

## Product Specifications

<b>Temperature Sensor:</b>	Precise spiral wound bi-metallic strip transducer
<b>Recorder Accuracy:</b>	±4°F (±2.5°C) over full scale
<b>Ambient Operating Temperature:</b>	-22 to +122°F (-30 to +50°C)
<b>Response Time:</b>	11 minutes to move 63% of full scale in air moving 5' per second
<b>Temperature Ranges:</b>	(°F or °C depending on chart installed) -14 to +32°F (-25 to 0°C), +4 to +50°F (-15 to +10°C), +22 to +68°F (-5 to +20°C), +50 to +96°F (+10 to +35°C), +76 to +122°F (+25 to +50°C)
<b>Recording Time:</b>	24 hour or 7 day
<b>Power Supply:</b>	Single "AA" battery, up to 2 years average life
<b>Resolution:</b>	Not less than 1" per +55°F in 1°C or 2°F steps
<b>Mounting:</b>	Free standing, wall mounted or suspended
<b>Chart Size:</b>	3" (75mm) DIA
<b>Dimensions:</b>	3.667" x 3.667" x 2.232" (93mm x 93mm x 57mm)
<b>Weight:</b>	0.5 lbs. (227 g)
<b>Includes:</b>	Battery, pen and instruction manual

Rev. 10/07

## Getting Started

- Place chart on recorder
- Set time by inserting a coin into chart hub and turning clockwise until the current hour is referenced to the time index clip. (Time index clip is directly to the right and below the pen tip).
- Remove protective pen cap. The chart movement is self-starting and runs continuously. Allow unit to stabilize in environment for 15 minutes.

## 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 recorder. The recorder uses a standard "AAA" battery for up to two years of battery life.
- Insert new battery with the positive end down

## Chart Rotation Speed

The unit has a switchable clock, you can change the speed from a 7 day to a 24 hour rotation and from a 24 hour to a 7 day rotation. Make sure the right chart is selected for your rotation. Simply move the switch located on the back of the unit to the speed that fits your application.

## Charts (

°F and °C Switchable Range	7 Day °F Chart	7 Day °C Chart	24 Hour °F Chart	24 Hour °C Chart
-14 to +32°F / -20 to 0°C	C302	C310	C301	C309
+4 to +50°F / -15 to +20°C	C304	C312	C303	C311
+22 to +68°F / -5 to +20°C	C320	C318	C319	C317
+50 to +96°F / +10 to +35°C	C306	C341	C305	C313
+76 to +122°F / +25 to +50°C	C308	C316	C307	C315

## Accessories

Description	Order #
NIST Traceable Calibration 3-pt. (new unit)	N300
A2LA Accredited Calibration 3-pt. (new unit)	N400
Pens (6 red)	P222
Locking Wall Mount Case	A715
Waterproof Pouch	A711

Rev. 10/07

**DICKSON**

Product Applications & Specifications

Getting Started, Charts & Accessories

Calibrations

Troubleshooting Warranty & Returns

Spanish

French

German

Italian

## 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.

## 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.

### 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/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

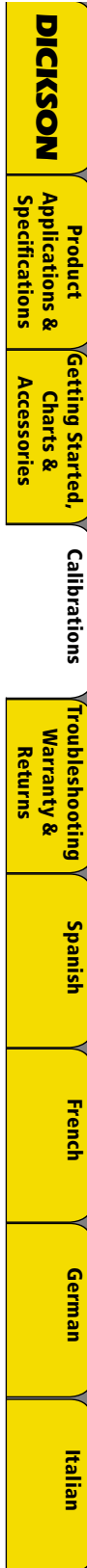
Order Form with your unit for calibration with freight prepaid to Dickson.

## Calibration

Periodically check accuracy with a test gauge. If pen adjustment is required, use the adjusting screw located inside the door on the upper left corner of the dial plate. Check two points on the scale when adjusting the pen to make sure recorder calibration is maintained.

**Note:** When no signal (no pressure) is being applied to the recorder, the pen may not rest exactly on the zero chart line. It is possible for the allowable 2% of scale error to occur at zero, while upscale readings are increasingly more accurate.

Rev. 10/07



## Troubleshooting

For troubleshooting information, click here for the technical support page.

## 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.

## 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**

Rev. 10/07



# SC3

## 3" teledetección de temperatura.

### Arranque rápido

1. Este registrador se entrega con una pila AA instalada.
2. Ajuste el interruptor en la parte posterior de la unidad a la velocidad adecuada del motor: 7 días ó 24 horas.
3. Reemplace el papel para gráficos con un gráfico nuevo.
4. Ajuste el tiempo insertando una moneda en el concentrador de gráficos y girando en el sentido de las agujas del reloj hasta que la hora correcta se referencia en el temporizador. (El temporizador se encuentra directamente a la derecha y por debajo de la punta del estilete).
5. Quite la tapa protectora del estilete.
6. El movimiento del gráfico es de arranque automático y funciona en forma continúa. Permita que la unidad se estabilice en el entorno durante 15 minutos.

### La garantía Dickson

Garantía: Dickson garantiza que el SC3 no presentará defectos de material y de mano de obra en el uso y servicio normales durante un periodo de doce meses posteriores a la entrega.

Rev. 10/07

**DICKSON**

Product  
Applications &  
Specifications

Getting Started,  
Charts &  
Accessories

Calibrations

Troubleshooting  
Warranty &  
Returns

Spanish

French

German

Italian

# SC3

## 3" Enregistreur de pression

### Débuter

1. Cet enregistreur est livré avec une pile AA installée.
2. Réglez le commutateur à l'arrière de l'unité selon la vitesse appropriée du moteur: 7 jours ou 24 heures.
3. Remplacez le graphe en papier par un nouveau graphe.
4. Réglez l'heure du graphe en insérant une pièce dans la fente du connecteur de graphe et en tournant dans le sens des aiguilles d'une montre jusqu'à arriver à l'heure correcte. (L'indicateur horaire est à droite et en dessous du bout du stylo.)
5. Retirez le bouchon protecteur.
6. Le mouvement du graphe est à démarrage autonome et fonctionne continuellement. Laissez l'unité se stabiliser dans l'environnement pendant 15 minutes.

### La garantie Dickson

Garantie: Dickson garantit que la ligne SC3 d'instruments sera sans défauts en matériel et en fabrication sous un usage normal et sera sous service pour une période de douze mois après la livraison.

**DICKSON**

Product  
Applications &  
Specifications

Getting Started,  
Charts &  
Accessories

Calibrations

Troubleshooting  
Warranty &  
Returns

Spanish

French

German

Italian

Rev. 10/07

# SC3

## 3" Druckaufzeichnungsgerät

### Schnellstart

1. Bei diesem Aufnahmegerät ist 1 AA Batterie bereits vorinstalliert.
2. Stellen Sie den Schalter auf der Rückseite der Geräteeinheit auf die angemessene Motorendrehzahl ein: 7 Tage oder 24 Stunden.
3. Ersetzen Sie das Diagrammpapier mit einem neuen Diagramm.
4. Stellen Sie die Zeit ein, indem Sie eine Münze in die Diagrammnabe einfügen und dann solange im Uhrzeigersinn drehen, bis die korrekte Stunde durch den Zeitanzeiger angegeben wird (Zeitanzeiger befindet sich unmittelbar rechts unterhalb der Stiftspitze).
5. Entfernen Sie die Schutzkappe des Stifts.
6. Die Diagrammbewegung startet eigenständig und verläuft fortlaufend. Gewähren Sie der Geräteeinheit 15 Minuten, um sich gemäß der Umgebung zu stabilisieren.

### Die Dickson Gewährleistung

Gewährleistung: Dickson gewährleistet für die Dauer von 12 Monaten nach der Auslieferung Dienstleistungen und dass der/die/das SC3 bei normaler Benutzung frei von Material- und Verarbeitungsmängeln ist.

**DICKSON**

Product  
Applications &  
Specifications

Getting Started,  
Charts &  
Accessories

Calibrations

Troubleshooting  
Warranty &  
Returns

Spanish

French

German

Italian

Rev. 10/07

# SC3

## 3" Registratore di pressione

### Avvio veloce

1. Questo registratore è fornito con una batteria AA installata.
2. Impostare il selettore a tergo dell'unità sull'idonea velocità del motore: 7 giorni o 24 ore.
3. Sostituire il foglietto diagramma con un diagramma nuovo.
4. Impostare l'ora inserendo una moneta nel perno del diagramma e ruotando in senso orario fino all'indicazione dell'ora corretta nell'indicatore dell'ora. (L'indicatore dell'ora si trova direttamente a destra e sotto la punta del pennino.)
5. Togliere il cappuccino protettivo del pennino.
6. Il movimento del diagramma inizia da solo e continua ininterrottamente. Consentire all'unità di stabilizzarsi nell'ambiente per 15 minuti.

### La garanzia Dickson

Garanzia: Dickson garantisce che SC3 sarà privo di difetti di materiale e manodopera nelle condizioni normali d'uso e di servizio per il periodo di dodici mesi dalla consegna.

**DICKSON**

Product  
Applications &  
Specifications

Getting Started,  
Charts &  
Accessories

Calibrations

Troubleshooting  
Warranty &  
Returns

Spanish

French

German

Italian