



Active Temperature Controlled Shipper Cold-Chain Transport Device



CATALOG

Or visit our website at:

www.microq.com

Micro Q, LLC

480-380-8595

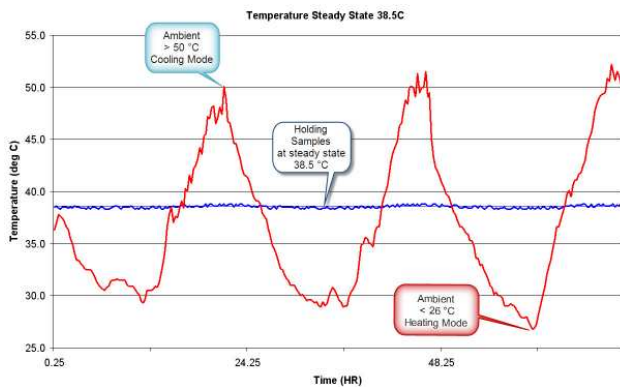
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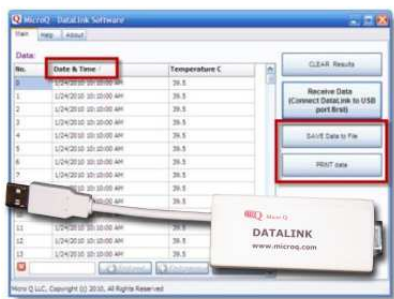
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ACTIVE TEMPERATURE CONTROL

The MicroQ Shipping Device™ is an active temperature maintenance system which will cool or heat the sample chamber to maintain the preset condition desired. The devices are designed to control temperatures in the 4°C to 40°C range with precision accuracy. The duration of thermal integrity varies with the ambient heat load and the user set point temperature. With the standard battery pack arrangement, the Shipping Device set at 5° C run for 72 to 100 hours at an ambient room temperature of 20 ° to 25 ° C. MicroQ Shippers set at 38.5° C run for 120 to 150 hours at an ambient room temperature.



The Shipping Device is a smart refrigerator or incubator keeping the sample at the customer pre-defined temperature which is programmed into the device. Our goal is to provide innovative solutions for the reliable shipment of temperature sensitive materials, pharmaceutical and biological samples for the medical, veterinary markets. MicroQ shipping containers provide precision control at the specified temperature or temperature profile. We are proud to be a premier source for active cold chain shipping devices, and provide customized engineering to solve difficult temperature transit needs. The MicroQ shipping devices are lighter than traditional passive ice-block units and maintain the precise temperature programmed by the user regardless of the ambient conditions for days. This eliminates the need for costly counter-to-counter shipment, and allows for the reliable delivery of sensitive samples by convenient overnight carrier. MicroQ Shippers are cost effective, reusable, and environmentally friendly and deliver strong return on investment.



HIGHLIGHTS

The MicroQ Shipping Device™ is an active, dynamically controlled, battery operated device to provide temperature control at a pre-programmed temperature profile. Temperature fluctuations during transit caused by ambient conditions, fluctuations due to day & night time temperature spikes or the temperature of the transportation vehicle will not affect the sample. The device either heats or cools the sample to maintain the programmed preset.

Features

- Ultra-Efficient Heat Pump to heat or cool
- Temperature Range 4°C to 40°C
- Microprocessor controlled
- Custom Data Port to read MicroQ Smart Chip(s) and DataLink
- MicroQ Smart Chip™ reprogramming feature
- Custom Programming Temperature Protocols Available
- Steady State or Ramp-Down Temperature Protocols Available
- MicroQ DataLink™ Data-logging feature
- 4-Line Alpha-Numeric Digital LCD Display
- 20 Character Custom Customer Display
- Cycle Protocol Indication - Steady State or Ramp-Down Temp. Settings
- Digital Temperature Indicator (0.1°C)
- Battery Power Indicator (%)
- Elapsed Time Indicator (minutes for Ramp-Down)
- Rechargeable Nickel Metal Hydride battery pack - DOT / ATA approved
- Integrated 100-120V (40VA) Charging System
- Tamper resistant on-off switch
- Durable Ballistics Nylon Casing
- Sealable Zippered opening
- Interior Storage Pouch for Documentation
- Ventilation Openings
- Various Payload Configurations – Available

Easy of Use



Charge it



Load it



Ship it

PARTS LEGEND

Charger

Pull and insert into a wall plug (110VAC)

Before shipment, insert cord and wall adapter back into charger cavity.

On-Off Switch

Lockable tamper-resistant switch

0 -off / **I** -on
 Rotate Clockwise to turn on.

Payload Canister

Insert vials into openings.

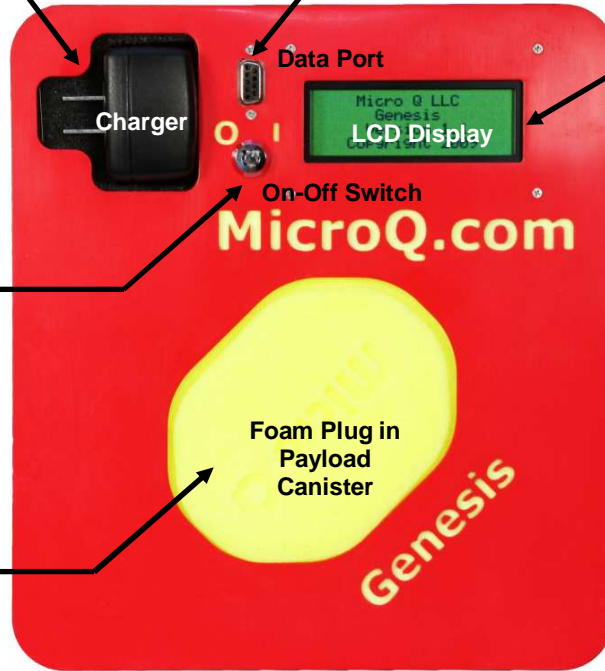
Insert foam plug to secure vials in place.

Data Port

Shipper programming & data retrieval port.
 Custom Data Port for MicroQ Smart Chip & DataLink Only

LCD Display

Follow instructions on screen.
 Screen display may vary.



Zippered Opening

Open to reveal faceplate

Ventilation Openings

DO NOT BLOCK



MICRO Q SHIPPING DEVICE SPECIFICATION

G-4.6L



GENERAL

Temperature Set-point Range:	4°C to 40°C
Temperature Display Resolution:	0.1 +/- °C
Exterior Dimensions:	533 mm x 533 mm x 508 mm (21" x 21" x 20")
Weight:	19.0 Kg (42.0 lb)
Payload Configuration:	4.6 L - 190mm x 190mm x 127mm (7.5"x7.5"x5.0")

TEMPERATURE HOLDING DURATION

Duration (Protocol 38.5°C):	120+ Hours (Ambient 20°C to 25°C)
Duration (Protocol 5.0°C):	72+ Hours (Ambient 20°C to 25°C)

This unit can be custom designed with additional battery capacity to extend the life of the run cycle. Call or email additional information

PROGRAM

Protocols per cycle:	One
Protocol Programs Available:	Unlimited Smart Chip Programs (either Standard or Custom)
Protocol Programs:	Steady State or Ramp-Down Profile
Maximum Ramp-Down Steps:	5 temperature set-point steps
Smart Chip(Reprogramming) Capable:	Custom Flash Drive to reprogram thru MicroQ Data Port
DataLink (Data logging) Capable:	Custom Data log reader & Customer Interface

BATTERY

Battery Type:	Nickel Metal Hydride
Battery Pack:	Rechargeable, Sealed

CHARGER

Charger Type:	Integrated
Charger Input:	AC: 100-120V, 50/60Hz, 40VA

DISPLAY

- 4-Line Alpha-Numeric Digital LCD
- Digital Temperature Indicator
- Battery Power Indicator (%)
- 20 Character Custom Customer Display
- Programmed Cycle Protocol Indicator
- Elapsed Time Indicator for Ramp-Down (minutes)

FEATURES

- Ultra-Efficient Heat Pump
- Durable Ballistics Nylon Casing
- Custom Data Port
- Water-tight Lid
- Tamper-Resistant Key Switch
- Interior Storage Pouch for Documentation
- Handle Strap

MICRO Q SHIPPING DEVICE SPECIFICATION

G-1716



GENERAL

Temperature Set-point Range:	4°C to 40°C
Temperature Display Resolution:	0.1 +/- °C
Temperature Delta:	Cooling D T 34 °C / Heating D T 53 °C
Maximum Cooling Rate:	0.15 °C/minute
Exterior Dimensions:	375 mm x 235 mm x 286 mm (14.75" x 9.25" x 11.25")
Weight:	6.9 Kg (15.2 lb)
Payload Configuration:	(17-1.0 to 1.8 cryo-vials) (16-0.10 auto-sample tubes)

TEMPERATURE HOLDING DURATION

Duration (Protocol 38.5°C):	120+ Hours (Ambient 20°C to 25°C)
Duration (Protocol 5.0°C):	72+ Hours (Ambient 20°C to 25°C)

PROGRAM

Protocols per cycle:	One
Protocol Programs Available:	Unlimited Smart Chip Programs (either Standard or Custom)
Protocol Programs:	Steady State or Ramp-Down Profile
Maximum Ramp-Down Steps:	5 temperature set-point steps
Smart Chip(Reprogramming) Capable:	Custom Flash Drive to reprogram thru MicroQ Data Port
DataLink (Data logging) Capable:	Custom Data log reader & Customer Interface

BATTERY

Battery Type:	Nickel Metal Hydride
Battery Pack:	Rechargeable, Sealed

CHARGER

Charger Type:	Integrated
Charger Input:	AC: 100-120V, 50/60Hz, 40VA

DISPLAY

- 4-Line Alpha-Numeric Digital LCD
- Digital Temperature Indicator
- Battery Power Indicator (%)
- 20 Character Custom Customer Display
- Programmed Cycle Protocol Indicator
- Elapsed Time Indicator for Ramp-Down (minutes)

FEATURES

- Ultra-Efficient Heat Pump
- Durable Ballistics Nylon Casing
- Custom Data Port
- Tamper-Resistant Key Switch
- Interior Storage Pouch for Documentation
- Handle Strap

MICRO Q SHIPPING DEVICE SPECIFICATION
G-1610



GENERAL

Temperature Set-point Range:	4°C to 40°C
Temperature Display Resolution:	0.1 +/- °C
Temperature Delta:	Cooling D T 34 °C / Heating D T 53 °C
Maximum Cooling Rate:	0.2 °C/minute
Exterior Dimensions:	375 mm x 235 mm x 286 mm (14.75" x 9.25" x 11.25")
Weight:	6.4 Kg (14.0 lb)
Payload Configuration:	160 cc (16-10ml vial) (15 mm x 106 mm ea.)

TEMPERATURE HOLDING DURATION

Duration (Protocol 38.5°C):	120+ Hours (Ambient 20°C to 25°C)
Duration (Protocol 5.0°C):	72+ Hours (Ambient 20°C to 25°C)

PROGRAM

Protocols per cycle:	One
Protocol Programs Available:	Unlimited Smart Chip Programs (either Standard or Custom)
Protocol Programs:	Steady State or Ramp-Down Profile
Maximum Ramp-Down Steps:	5 temperature set-point steps
Smart Chip(Reprogramming) Capable:	Custom Flash Drive to reprogram thru MicroQ Data Port
DataLink (Data logging) Capable:	Custom Data log reader & Customer Interface

BATTERY

Battery Type:	Nickel Metal Hydride
Battery Pack:	Rechargeable, Sealed

CHARGER

Charger Type:	Integrated
Charger Input:	AC: 100-120V, 50/60Hz, 40VA

DISPLAY

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|--|---|
| <ul style="list-style-type: none"> • 4-Line Alpha-Numeric Digital LCD • Digital Temperature Indicator • Battery Power Indicator (%) | <ul style="list-style-type: none"> • 20 Character Custom Customer Display • Programmed Cycle Protocol Indicator • Elapsed Time Indicator for Ramp-Down (minutes) |
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FEATURES

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| <ul style="list-style-type: none"> • Ultra-Efficient Heat Pump • Durable Ballistics Nylon Casing • Custom Data Port | <ul style="list-style-type: none"> • Tamper-Resistant Key Switch • Interior Storage Pouch for Documentation • Handle Strap |
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MICRO Q SHIPPING DEVICE SPECIFICATION

G-0150



GENERAL

Temperature Set-point Range:	4°C to 40°C
Temperature Display Resolution:	0.1 +/- °C
Temperature Delta:	Cooling D T 40 °C / Heating D T 56 °C
Maximum Cooling Rate:	1.0 °C/minute
Exterior Dimensions:	375 mm x 235 mm x 286 mm (14.75" x 9.25" x 11.25")
Weight:	5.3 Kg (11.6 lb)
Payload Configuration:	50 cc (1-50 ml vial) (30 mm x 116 mm ea.)

TEMPERATURE HOLDING DURATION

Duration (Protocol 38.5°C):	150+ Hours (Ambient 20°C to 25°C)
Duration (Protocol 5.0°C):	100+ Hours (Ambient 20°C to 25°C)

PROGRAM

Protocols per cycle:	One
Protocol Programs Available:	Unlimited Smart Chip Programs (either Standard or Custom)
Protocol Programs:	Steady State or Ramp-Down Profile
Maximum Ramp-Down Steps:	5 temperature set-point steps
Smart Chip (Reprogramming) Capable:	Custom Flash Drive to reprogram thru MicroQ Data Port
DataLink (Data logging) Capable:	Custom Data log reader & Customer Interface

BATTERY

Battery Type:	Nickel Metal Hydride
Battery Pack:	Rechargeable, Sealed

CHARGER

Charger Type:	Integrated
Charger Input:	AC: 100-120V, 50/60Hz, 40VA

DISPLAY

- 4-Line Alpha-Numeric Digital LCD
- Digital Temperature Indicator
- Battery Power Indicator (%)
- 20 Character Custom Customer Display
- Programmed Cycle Protocol Indicator
- Elapsed Time Indicator for Ramp-Down (minutes)

FEATURES

- Ultra-Efficient Heat Pump
- Durable Ballistics Nylon Casing
- Custom Data Port
- Integrated Charger
- Handle Strap
- Tamper-Resistant Key Switch
- Interior Storage Pouch for Documentation
- Re-Programming & Data-Logging Capable
- Rechargeable Nickel Metal Hydride Battery Pack

MICRO Q SHIPPING DEVICE SPECIFICATION

G-0250



GENERAL

Temperature Set-point Range:	4°C to 40°C
Temperature Display Resolution:	0.1 +/- °C
Temperature Delta:	Cooling D T 37 °C / Heating D T 55 °C
Maximum Cooling Rate:	0.5 °C/minute
Exterior Dimensions:	375 mm x 235 mm x 286 mm (14.75" x 9.25" x 11.25")
Weight:	5.6 Kg (12.4 lb)
Payload Configuration:	100 cc (2-50 ml vial) (30 mm x 116 mm ea.)

TEMPERATURE HOLDING DURATION

Duration (Protocol 38.5°C):	135+ Hours (Ambient 20°C to 25°C)
Duration (Protocol 5.0°C):	96+ Hours (Ambient 20°C to 25°C)

PROGRAM

Protocols per cycle:	One
Protocol Programs Available:	Unlimited Smart Chip Programs (either Standard or Custom)
Protocol Programs:	Steady State or Ramp-Down Profile
Maximum Ramp-Down Steps:	5 temperature set-point steps
Smart Chip (Reprogramming) Capable:	Custom Flash Drive to reprogram thru MicroQ Data Port
DataLink (Data logging) Capable:	Custom Data log reader & Customer Interface

BATTERY

Battery Type:	Nickel Metal Hydride
Battery Pack:	Rechargeable, Sealed

CHARGER

Charger Type:	Integrated
Charger Input:	AC: 100-120V, 50/60Hz, 40VA

DISPLAY

- 4-Line Alpha-Numeric Digital LCD
- Digital Temperature Indicator
- Battery Power Indicator (%)
- 20 Character Custom Customer Display
- Programmed Cycle Protocol Indicator
- Elapsed Time Indicator for Ramp-Down (minutes)

FEATURES

- Ultra-Efficient Heat Pump
- Durable Ballistics Nylon Casing
- Custom Data Port
- Integrated Charger
- Handle Strap
- Tamper-Resistant Key Switch
- Interior Storage Pouch for Documentation
- Re-Programming & Data-Logging Capable
- Rechargeable Nickel Metal Hydride Battery Pack

MICRO Q SHIPPING DEVICE SPECIFICATION
G-0450



GENERAL

Temperature Set-point Range:	4°C to 40°C
Temperature Display Resolution:	0.1 +/- °C
Temperature Delta:	Cooling D T 36 °C / Heating D T 54 °C
Maximum Cooling Rate:	0.3 °C/minute
Exterior Dimensions:	375 mm x 235 mm x 286 mm (14.75" x 9.25" x 11.25")
Weight:	6.0 Kg (13.2 lb)
Payload Configuration:	200 cc (4-50 ml vial) (30 mm x 116 mm ea.)

TEMPERATURE HOLDING DURATION

Duration (Protocol 38.5°C):	120+ Hours (Ambient 20°C to 25°C)
Duration (Protocol 5.0°C):	72+ Hours (Ambient 20°C to 25°C)

PROGRAM

Protocols per cycle:	One
Protocol Programs Available:	Unlimited Smart Chip Programs (either Standard or Custom)
Protocol Programs:	Steady State or Ramp-Down Profile
Maximum Ramp-Down Steps:	5 temperature set-point steps
Smart Chip (Reprogramming) Capable:	Custom Flash Drive to reprogram thru MicroQ Data Port
DataLink (Data logging) Capable:	Custom Data log reader & Customer Interface

BATTERY

Battery Type:	Nickel Metal Hydride
Battery Pack:	Rechargeable, Sealed

CHARGER

Charger Type:	Integrated
Charger Input:	AC: 100-120V, 50/60Hz, 40VA

DISPLAY

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|--|---|
| <ul style="list-style-type: none"> • 4-Line Alpha-Numeric Digital LCD • Digital Temperature Indicator • Battery Power Indicator (%) | <ul style="list-style-type: none"> • 20 Character Custom Customer Display • Programmed Cycle Protocol Indicator • Elapsed Time Indicator for Ramp-Down (minutes) |
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FEATURES

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| <ul style="list-style-type: none"> • Ultra-Efficient Heat Pump • Durable Ballistics Nylon Casing • Custom Data Port • Integrated Charger • Handle Strap | <ul style="list-style-type: none"> • Tamper-Resistant Key Switch • Interior Storage Pouch for Documentation • Re-Programming & Data-Logging Capable • Rechargeable Nickel Metal Hydride Battery Pack |
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MICRO Q SHIPPING DEVICE SPECIFICATION

G-0415



GENERAL

Temperature Set-point Range:	4°C to 40°C
Temperature Display Resolution:	0.1 +/- °C
Temperature Delta:	Cooling D T 40 °C / Heating D T 56°C
Maximum Cooling Rate:	1.0 °C/minute
Exterior Dimensions:	375 mm x 235 mm x 286 mm (14.75" x 9.25" x 11.25")
Weight:	5.3 Kg (11.6 lb)
Payload Configuration:	60 cc (4-15 ml vial) (15 mm x 120 mm ea.)

TEMPERATURE HOLDING DURATION

Duration (Protocol 38.5°C):	150+ Hours (Ambient 20°C to 25°C)
Duration (Protocol 5.0°C):	100+ Hours (Ambient 20°C to 25°C)

PROGRAM

Protocols per cycle:	One
Protocol Programs Available:	Unlimited Smart Chip Programs (either Standard or Custom)
Protocol Programs:	Steady State or Ramp-Down Profile
Maximum Ramp-Down Steps:	5 temperature set-point steps
Smart Chip (Reprogramming) Capable:	Custom Flash Drive to reprogram thru MicroQ Data Port
DataLink (Data logging) Capable:	Custom Data log reader & Customer Interface

BATTERY

Battery Type:	Nickel Metal Hydride
Battery Pack:	Rechargeable, Sealed

CHARGER

Charger Type:	Integrated
Charger Input:	AC: 100-120V, 50/60Hz, 40VA

DISPLAY

- 4-Line Alpha-Numeric Digital LCD
- Digital Temperature Indicator
- Battery Power Indicator (%)
- 20 Character Custom Customer Display
- Programmed Cycle Protocol Indicator
- Elapsed Time Indicator for Ramp-Down (minutes)

FEATURES

- Ultra-Efficient Heat Pump
- Durable Ballistics Nylon Casing
- Custom Data Port
- Integrated Charger
- Handle Strap
- Tamper-Resistant Key Switch
- Interior Storage Pouch for Documentation
- Re-Programming & Data-Logging Capable
- Rechargeable Nickel Metal Hydride Battery Pack

**MICRO Q SHIPPING DEVICE SPECIFICATION
 G-FZ0415**



GENERAL

Temperature Set-point Range:	-5°C to 0°C
Temperature Display Resolution:	0.1 +/- °C
Temperature Delta:	Cooling D T 40 °C
Maximum Cooling Rate:	1.0 °C/minute
Exterior Dimensions:	375 mm x 235 mm x 286 mm (14.75" x 9.25" x 11.25")
Weight:	5.4 Kg (11.8 lb)
Payload Configuration:	60 cc (4-15 ml vial) (15 mm x 120 mm ea.)

TEMPERATURE HOLDING DURATION

Duration (Protocol -4.0°C):	24+ Hours (Ambient 20°C to 25°C)
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PROGRAM

Protocols per cycle:	One
Protocol Programs Available:	Unlimited Smart Chip Programs (either Standard or Custom)
Protocol Programs:	Steady State or Ramp-Down Profile
Maximum Ramp-Down Steps:	5 temperature set-point steps
Smart Chip (Reprogramming) Capable:	Custom Flash Drive to reprogram thru MicroQ Data Port
DataLink (Data logging) Capable:	Custom Data log reader & Customer Interface

BATTERY

Battery Type:	Nickel Metal Hydride
Battery Pack:	Rechargeable, Sealed

CHARGER

Charger Type:	Integrated
Charger Input:	AC: 100-120V, 50/60Hz, 40VA

DISPLAY

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|--|---|
| <ul style="list-style-type: none"> • 4-Line Alpha-Numeric Digital LCD • Digital Temperature Indicator • Battery Power Indicator (%) | <ul style="list-style-type: none"> • 20 Character Custom Customer Display • Programmed Cycle Protocol Indicator • Elapsed Time Indicator for Ramp-Down (minutes) |
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FEATURES

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| <ul style="list-style-type: none"> • Ultra-Efficient Heat Pump • Durable Ballistics Nylon Casing • Custom Data Port • Integrated Charger • Handle Strap | <ul style="list-style-type: none"> • Tamper-Resistant Key Switch • Interior Storage Pouch for Documentation • Re-Programming & Data-Logging Capable • Rechargeable Nickel Metal Hydride Battery Pack |
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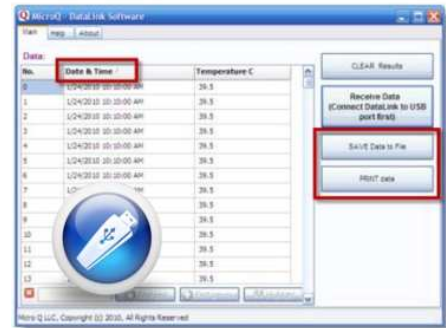
Specifically designed to keep frozen samples frozen for overnight deliveries.

MICRO Q SMART DEVICES

MicroQ DataLink™

The MicroQ Shipping Device™ maintains a constant data-log of the time and temperature of the unit. Downloading the data stored in the device is easy as inserting the MicroQ DataLink into the MicroQ Data Port. First turn the MicroQ Shipping Unit off, Insert the DataLink, then turn the MicroQ Shipping Device back on, the LCD display will register that the device has been found and report when the program download is complete. Turn off switch; pull out the MicroQ DataLink, then insert the MicroQ DataLink USB port into your PC.

Files for the verification of time and temperature are easy to create from the downloaded data.



MicroQ Smart Chip™

The MicroQ Shipping Device™ maintains the preset temperature protocol programmed into the unit. Changing the temperature protocol is as easy as inserting the appropriate Smart Chip into the MicroQ Data Port. First turn the MicroQ Shipping Device off, Insert the Smart Chip, then turn the MicroQ Shipping Device back on, the LCD display will register that the device has been found and report when the program update is complete. Turn off the MicroQ Unit, pull out the MicroQ Smart Chip, and reinitialize the MicroQ Shipping device with the new program by turning the device on again.

Any number of Temperature Protocols can be loaded onto the MicroQ unit. From steady hold temperatures to Custom Ramp-Down Temperature Profiles.

