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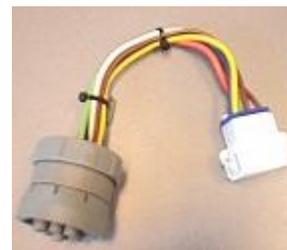
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## TechFact

### Evaporator Motor Adapter

Last year, a new style of evaporator motor, P/N 54-00585 was released (refer to bulletin CTR-SER02-10). To clarify retrofit issues related to the old style evaporator motor, (P/N 54-00548) a bulletin, CTR-SER02-12, was also released describing the procedure that could be used when replacing the new motor with the old style motor. This procedure requires replacement of the plug from the old motor in order to fit with the unit harness plug. Such a procedure is time consuming and has opportunity for miss wiring of the replacement motor.

To make the old motor easier for servicing, Carrier Transicold has introduced a jumper assembly (pig tail), P/N 22-01713-23 shown in the picture below. This pigtail is now available as a service replacement part and allows the old style motor to plug directly into the new style harness plug.

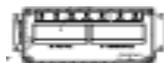


CTD P/N 22-01713-23

□ Z.Asprovski

## TechFact

### LED Display



A new Light Emitting Diode (LED) display is now offered in new equipment (Service P/N 12-00433-02). This will increase the visibility of the displayed values in darkness and from greater distances. It can be used, as a direct drop-in replacement for the LCD display.

The LED display has a higher current draw than the LCD display. Therefore, to reduce the power drain on the battery pack so that it does not compromise USDA recording the following changes will be implemented. The LED display will not illuminate during USDA recording and will not display set point or configuration changes via the battery pack. □ P.Hoover



**TRANSCOLD**

Please circulate this newsletter to all of your support personnel

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**TechFact**

## Extended Life Oil Filter

In 2003, Carrier Transicold started using a new oil filter on both their 69UG and 69RG model gensets. This new oil filter is an extended life full flow filter with an internal bypass. The internal filter media is made of a synthetic material, that increases the amount of debris removal, extending the life of the additives in the oil.

The new oil filter P/N 30-00463-00, (which was installed on all OEM genset engines starting with serial number 2Y2853 and greater), can be used on previously built gensets by removing the original threaded nipple on the oil filter housing and installing a threaded bushing P/N 25-39321-00.



□ G. Barkowski

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**General**

## MicroLink3 Update

Carrier Transicold will introduce the ML3 in the first quarter of next year. We will be covering this in our next edition of **TechLine**.

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**TechFact**

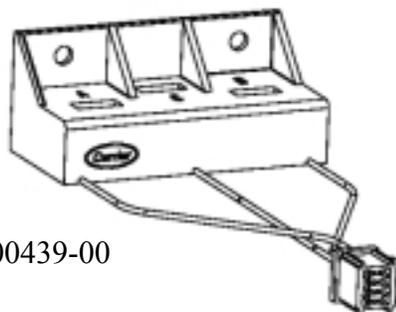
## New Current Sensor

Starting at the beginning of this year, Carrier Transicold introduced a new current sensor,

P/N 10-00439-00 and 01 supersedes previously used current sensors, P/N 10-00366-xx.

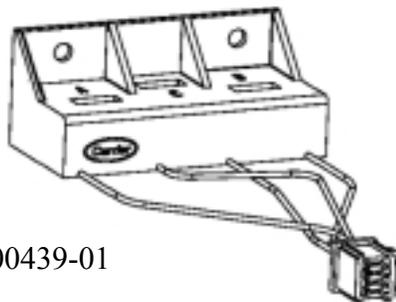
The new sensor eliminates the push-on connections and comes with the MC plug already assembled as shown below.

### Reciprocating Units



P/N 10-00439-00

### Scroll Units



P/N 10-00439-01

Eliminate



If an old current sensor (10-00366-xx) is used as a replacement part for the new sensor, the push-on connections should be replaced with butt splices and heat shrunk afterwards.

□ Z.Asprovski

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## Electrostatic Discharge

Electrostatic damage or ESD is a major cause of failure and malfunctions in today's sophisticated electrical components and systems.

Manufacturers of electronic components and systems may say that ESD is not a problem with their products. This, however, may be very misleading to the unsuspecting technician. Carrier Transicold takes many anti-static precautions when designing our products. However, even the best anti-static designs cannot prevent ESD from affecting sophisticated electronic components when certain precautions are not followed. This is particularly noted when they are disassembled or handled improperly.

Proper education, combined with work-related procedures and precautions, can guard against many of the effects of ESD. This article will help to explain how to guard against its effects.

### Practices That Guard Against ESD

To guard against electrostatic damage, you can:

- Wear a wrist strap that grounds you during work
- Handle sensitive components correctly

**ATTENTION:** to avoid shock or personal injury from accidental contact with line voltage, the ground lead of the wrist strap must provide a high resistance, a minimum of 1 Meg ohm, path to ground.

### Wearing a Wrist Strap

The most important aspect of guarding against ESD is wearing a wrist strap that connects you to a ground in a static-free work area as

mentioned above. A wrist strap usually consists of:

- Elastic wrist strap with snap fastener
- Ground lead with either a banana plug or alligator clip.

Grounding straps that are commercially available have a built-in 1 Meg-Ohm resistor in series to guard against electric shock caused by accidental contact with line voltage.

Whenever performing normal work activities around sensitive components you should wear and use a wrist strap.

Put the wrist strap on before beginning work. Make sure the strap fits snugly.

Make sure the ground lead of the wrist strap is assembled properly and connected securely to ground each time you use it.

Take off the wrist strap as the last thing you do before leaving the work area.

### Handling Components Correctly

Another important issue to consider when guarding against ESD is to always store and carry modules in static shielding containers. This will guard against any static charges that may affect the controllers.

Remove the module from the anti-static package only when the module is being installed into a unit.

**After removing a controller it should be placed in the static bag immediately, this will protect the controller from static damage. This protects the good components for rework or rebuilding when returned.**

## TechFact

**MicroLink 2i / 3 Analyzer**

The MicroLink controller analyzer is now available (pictured below).



**07-00428-00SV**

This analyzer will test both the MicroLink 2i and 3 controllers. This new tool will assist in quickly diagnosing controller failures, allowing you to recover the cost of falsely diagnosed controllers while also allowing you to accurately diagnose unit difficulties and to reduce troubleshooting times.

**Features:**

- Stand alone operation
- No special tools required
- No Special Training
- Dual Voltage operation
- 115/230 VAC
- 50/60 Hz
- Software upgrades via internet
- LED Status Indicators
- DataCORDER interrogation (downloading) ability
- Complete I/O functionality check
- Supports both ML2i and ML3 controllers
- All analysis done with low voltage
- No risk of high voltage contact
- Minimal number of spare parts
- Pre-programmed software card included

*M. Rodgers / P.Hoover*

## TechTip

**Software Programming**

When the wrong software is loaded into a scroll unit (for example 5124 instead of 5313), alarms 23 and 68 will trigger.

*H.Nederveen*

**General****Partlow Replacement**

In many parts of the world today, the repair of products containing mercury is no longer permitted (i.e. Mechanical Partlow). As a result, when replacement of a mechanical recorder is required, it maybe necessary to replace it with a recording device that does not contain mercury. Carrier Transicold offers the Saginomiya recorder (P/N 76-00701-03) as a replacement for all NT units manufactured after 1990.

*P.Hoover*

**General****DataLine** (PN 07-00421-00)

DataLine Service Pak 1.4 is available for downloading from the Internet at:

<http://www.container.carrier.com>



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