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FAQ

Scroll Terminal Box

Q: Is the scroll compressor terminal box, found in EliteLINE™ and StreamLINE™ units, serviceable in the field?

A: Unfortunately it is not.

The compressor terminal box is an integral part of the scroll compressor and is not intended for servicing in the field. No attempt should be made to fix it, replace it, or open it. As such, there is no service replacement terminal box part and the entire compressor should be replaced whenever there is external, or suspected internal, terminal box damaged.

✍️ Z. Asprovski

Scroll Compressor Terminal Box



TechTip

Controller “Wake-Up” Mode

On units equipped with a Micro-Link 2 or 2i controller module there is an optional battery pack that, if installed, can allow a user to “wake-up” the controller, when the unit is not connected to a main AC power supply—through initiation of the battery backup mode.

While in this battery mode, the set point and other user selectable function codes can be changed. Initiation of this “wake-up” mode is accomplished by pressing the Battery Power key on the units’ keypad; this presumes that the batteries are sufficiently charged to “latch-in” (connect) to the circuit.

For units equipped with a rechargeable battery pack that is sufficiently drained to prevent this mode from functioning (while away from a main power supply) a standard 9V DC battery can be used by connecting the positive side (+) of the battery to the KA14 and the negative side (-) to KA13 on the front of the controller module.

✍️ P. Laros

TechTip

How to Reduce Auto 2 PTI Run Time

The total time it takes to run the auto 2 pre-trip tests can be reduced by changing the DataCorder logging interval on the unit from 60 minutes (default) to 15 minutes. With the normal 60-minute interval, the total time to completion is about 6 to 8 hours. By changing the logging interval to 15-minutes, this time is reduced to around 3 or 4 hours.

The logging interval can be changed using a laptop with either the DataView (DOS based) or DataLine (Windows based) program. Following are the commands for changing the interval selection once you are in the respective program and are connected to the controller.

Commands for DataView:

- ⌨️ Click on: "T" = System Tools
- ⌨️ "R" = Recorder Utilities
- ⌨️ "I" = Recording Interval
- ⌨️ Select the 15-minute interval

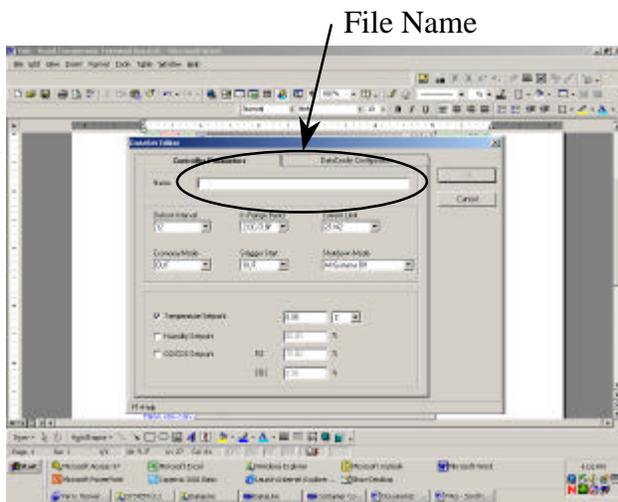
Commands for DataLine:

- ⌨️ Click on: "System Tools"
- ⌨️ "Datacorder"
- ⌨️ Select the 15-minute interval

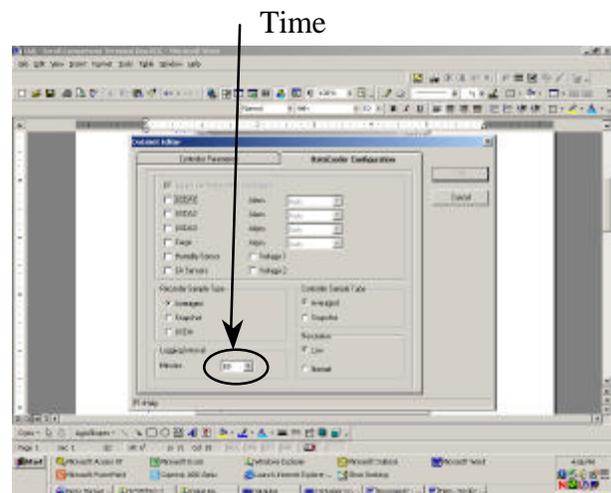
Do not forget to change the time interval back to the desired setting after PTI completion.

You can also program the DataReader for this purpose by using the DataSet function in the DataLine program. Connect the DataReader to the PC and enter the Configuration option in the DataReader. Enter the DataLine program and select the DataSet option. The user will then enter a name for the file in the space provided. (See **Figure A**) Then access the DataCorder configuration screen and select the 15-minute interval at the bottom. (See **Figure B**) Then return to the Controller Parameter screen and click on OK. Now just copy the file to the DataReader.

After connecting the DataReader to the unit, you can change the configuration in the unit by accessing the configuration option in the DataReader Menu. Refer to manual number 62-02575-01 for detailed procedures.



Figure



Figure

General

Spare Parts List – NatureFresh™ Option

The table below lists the parts that are unique to, and recommended for stocking in support of, the NatureFresh™ humidity option, which was detailed in our 2nd quarter 2002 **TechLine** edition for models 69NT40-511-300 and 69NT40-489-100 units.

Item	Part Description	Part Number
1	Humidity Pump	79-01681-01
2	Water Pump Tube	52-00020-21
3	Humidity Sensor	10-00413-00
4	Atomizer	52-00021-00
5	Atomizer Disk	52-00021-01
6	Humidity Pump Relay	66U1-5162-1
7	Humidity Pump Transformer	10-00380-00
8	Drain Cock	40-00572-00
9	Water Heater (WH)	24-02006-00
10	WH Termination Thermostat	12-00424-02
11	Water Level Gauge	12-00441-00

Manual number T-297 Rev A is a Technical Supplement that covers the humidity option only. For servicing the refrigeration part of the unit you will need to order one of the following manuals:

T-285	Operation & Service for Models 69NT40-511-300 & up
T-285PL	Supporting Part Manual
T-305	Operation & Service for Models 69NT40-489-100 & up
T-305PL	Supporting Part Manual

✍✍ P. Hoover

TechTip

Checking Superheat – Scroll Units Make It Easy

The new EliteLINE and StreamLINE units (models 69NT40-531) are equipped with a suction temperature thermistor (CPSS) and a suction pressure transducer (SPT) as a standard equipment feature. Measurement readouts for these can easily be taken, via the display module, from function codes 10 and 12 respectively.

Because of this, checking the superheat is an easy and simple procedure as detailed in the following steps:

1. Set the container box temperature to -18°C (0°F) and allow the unit to run until the pull down conditions stabilize.
2. Take readings of the suction temperature (code select Cd10) and suction pressure (Cd12) every three to five minutes, for a total of five or six readings.
3. Calculate an average reading for each.
4. From an R-134a temperature/pressure chart¹ determine the saturation temperature corresponding to the average value of the pressure readings from above.
5. Subtract this saturation temperature from the average value of the temperature readings from above.

The difference is the superheat of the suction gas, which should be in the range of 4.5 to 6.7°C (8 to 12°F) for these model units.

Remember, before replacing a suspected faulty TXV, be sure to check the superheat first.

✍✍ Z. Asprovski

¹ A copy of this chart is available in the back of the Carrier Transicold Container Refrigeration Worldwide Service Directory. Copies can also be obtained from your local refrigerant supplier and many Web sites on the Internet.



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TechTip

Battery Charger – Reverse Polarity Protection

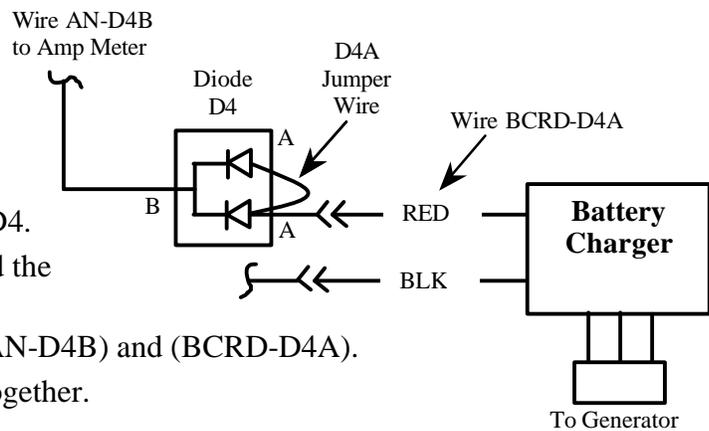
The solid-state battery charger (P/N 30-00416-07), which is currently used in both OEM and replacement applications on the 69UG & RG model generator sets, incorporates an internal reverse battery polarity protection circuit. This circuit protects the charger from shorting out if the battery were to be connected, or jumper cables attached, in reverse polarity.

If this current –07 charger is installed into a unit equipped with a lower part number version (–06 and below), the –07 charger will not operate. The reason for this is that the charging circuit in earlier model Gen-sets utilized a rectifying diode for the reverse polarity protection, which is wired inside the control box. This rectifier in conjunction with the reverse polarity protection inside the –07 charger, prevents the charger from sensing potential voltage that is needed for the charger to work.

When field replacement becomes necessary, the following is required when installing the 30-00416-07 to ensure proper operation of the battery charger.

Be sure to follow all safety cautions as noted in the Gen-set operations manual.

- 1) Remove the control box gauge panel.
- 2) Verify the "D4" diode is wired inside the control box.
(Refer to the Operations and Service Manual for component location)
- 3) Disconnect the wire marked AN-D4B.
- 4) Disconnect the wire marked BCRD-D4A and the jumper wire. Discard the jumper wire.
- 5) Cutoff the terminals from the end of wires (AN-D4B) and (BCRD-D4A).
- 6) Butt splice and heat shrink these two wires together.
- 7) Remove and discard D4 diode.



≡≡ G. Barkowski

General

Training School Schedule

Here is a look at some of the upcoming container training being offered around the world next year. Please refer to the *2003 Worldwide Customer Training* brochure (62-03198 Rev. AJ) for the full schedule, program descriptions, fees, enrollment details, etc.

Date	Program	Location	Class I.D.	Language
JANUARY				
6 – 8	3-Day Container	Miami, FL	737	English/Spanish
8 – 10	3-Day Container	Manila, Philippines	739	English
13 – 14	2-Day CA Update	Miami, FL	740	English/Spanish
15 – 17	3-Day Container	Singapore	741	English
20 – 22	3-Day Container	Hong Kong	742	English
27 – 31	1-Week Container	Long beach, CA	745	English
FEBRUARY				
3 – 7	1-Week Container	Puerto Barios, Guatemala	746	Spanish
17 – 21	1-Week Container	Honolulu, Hawaii	748	English
20 – 21	2-Day CA Update	Santos, Brazil	764	Portuguese
MARCH				
3 - 7	1-Week Container	Montevideo, Uruquay	753	Spanish
3 – 5	3-Day Container	Norfolk, VA	752	English
10 - 14	1-Week Container	Seattle, WA	755	English
12 - 13	2-Day Cont/Genset	Rotterdam, NL	756	English
26 – 28	3-Day Container	Qingdao, China	759	English/Mandarin
3/31 – 4/4	1-Week Container	Pusan, Korea	760	English/Korean