



TRANE®

General Service Bulletin

Tracer CH530

Electronic Modules (LLID) Failures

Order Number: CTV-SVB05A-EN

DATE: September 10, 2003

NOTICE: Warnings and Cautions appear at appropriate sections throughout this literature. Read these carefully.

⚠ WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

CAUTION: Indicates a situation that may result in equipment or property-damage only accidents.

Introduction

The purpose of this bulletin is to explain the corrective action of suspect or failed CH530 Electronic modules, also known as Low Level Intelligent Devices (LLIDs). Suspect electronic modules are identified in table 1 by description and date codes.

This is a Chiller reliability issue, not SAFETY HAZARD because the Main Processor (Dyna View) and Starter module are not included.

Product Models

CVHE, CVHF, CVHG, CVGF, CDHG, CDHF

Symptoms

- Loss of communication with a specific LLID.
- Loss of communication to most or all LLIDs (where the failed LLID is pulling down the entire communication buss).
- Service LED went on with magnet, but did not stay on when removed magnet.



- Unable to bind device.
- Bound okay, but then lost binding. May or may not rebound.
- If rebound, possible loss of binding at a future time (check date code).
- Service LED or output goes on and off on its own.
- A power cycle seems to make the failure go away for a while. It will most likely fail again with time. Could be a non-recoverable failure at some point.
- Corrupted memory data such as a hardware part number or LLID date code with all zeros or random data (as viewed using TechView).

Previous experience shows that the microprocessor most often fails on initial startup, of the controls, typically within the first few hours after power application. If you experience these symptoms follow the troubleshooting procedures below.

Sales Orders Affected

Potential affected Chillers shipped during March of 2003 through June of 2003.

⚠ WARNING

Live Electrical Components!

During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

Corrective Action

- Determine if your unit has symptoms.
- Is it an affected sales order/serial number?
- Review LLID Date Codes via Binding View.
- Identify which LLIDS meet the criteria.

Two criteria must be met in order for a LLID to be considered suspect.

1. First the LLID date code must be within the range shown in Table 1. If this is true then continue with step 2.
2. The microprocessor date code must have a date code of 0305.

Note: That there are large quantities of microprocessors with a date code of 0305 that are perfectly okay. Again, both the LLID date code and the microprocessor date code must be looked at to determine if this is a suspect LLID.

Table 1: LLIDs and Corresponding Date Codes

Trane X Code found on device(LLID)	Pride Part #	Description	TechView Min Date Code	TechView Max Date Code	LLID Date Code Label (White Sticker on LLID)
X13650726-06	SEN00981	Temperature Sensor, standard	1031100000	1031400483	0311-0314
X13650910-02	SEN01068	High Temperature Sensor	1031100002	1031200022	0311-0312
X13650728-04	BRD02096	Dual binary input	1031300000	1031400263	0313-0314
X13650729-03	BRD02103	Dual high voltage binary input	1031100000	1031300100	0311-0313
X13650731-04	BRD02095	Dual analog I/O	1031200000	1031200209	0312-0312
X13650733-05	BRD02098	Dual relay output	1031100000	1031300133	0311-0313
X13650734-04	BRD02097	Dual triac output	1031100173	1031300488	0311-0313
X13650806-03	BRD02099	Quad relay output	1031100347	1031400461	0311-0314
X13650902-01	MOD01214	High power relay output	1031200001	1031300053	0312-0313

Replacing Suspect LLIDs

Use TechView version 7.02, and JAVA JRE 1.4.1_02

- LLIDs with red status in binding view are not communicating and need to be checked for proper IPC buss connections and replaced as necessary.
- LLIDs with Green status: Check the date code using the service tool.

If a LLID is currently communicating, and has the suspect date code/serial number, we will have you UN BIND it first, then remove from the BUSS and replace it.

NOTE: If you fail to UN BIND the LLID before installation of the replacement LLID, the new LLID date code will not be shown in TechView.

Those parts **not** affected include:

DynaView, Starter, pressure transducers, Rockwell/Trane AFD communications card, Triple winding temperature input, Comm 4, Comm 5, Inlet Guide Vane Actuator, and power supply.

TechView

If the component has suspect LLID code then check the microprocessor part for date code 0305 and replace the LLID only if it has both (suspect LLID and 0305 microprocessor). If the suspect LLID meets this criteria then:

1. Note the device name (function in this application)
2. UNBIND the LLID
3. Power down IPC buss
4. Remove and replace LLID
5. Power up buss
6. Reconnect (boots DV to Converter mode and rebuilds BV)
7. Bind installed LLID
8. Note the new date code for replacement LLID

Figure 1: Tech View - Binding View

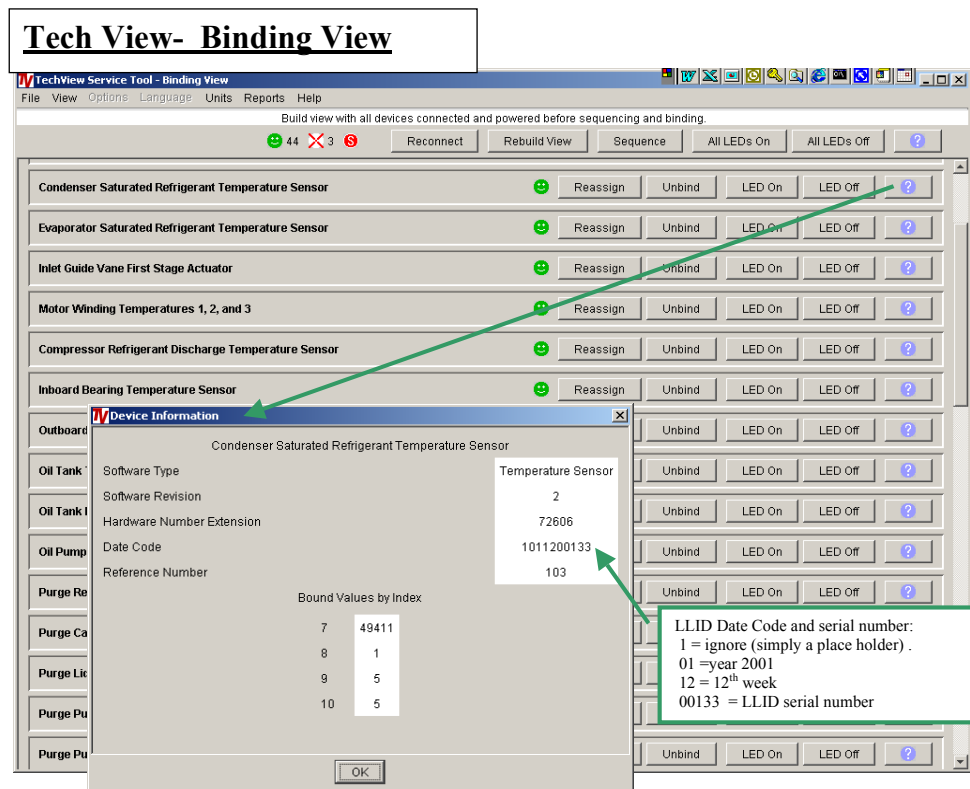


Figure 1 provides an example of TechView Binding View using the device information button (?).

Note that the date code is viewable. Check this date code with Table 1 to determine if LLID is suspect.

Parts Ordering Information

- Obtain the required parts from your local Trane Parts Center.
- Temperature sensors will require an IPC buss kit KIT 07957 to facilitate the installation of the new temp sensor. (This kit consists of two connector assemblies, a 2 foot section of unit wiring bus cable, four buss end caps and adhesive.)
- After June 3, 2003 all parts that have been shipped from the La Crosse warehouse are outside of the suspect date codes.

Questions

For general questions contact the CTV Technical Service department in La Crosse at 608-787-3943 or e-mail at TechService@trane.com.



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Supersedes	New
Stocking Location	Electronic Only

Trane has a policy of continuous product data and product improvement and reserves the right to change design and specifications without notice. Only qualified technicians should perform the installation and servicing of equipment referred to in this bulletin.