

Job: C08L140385

Model: FH248C-AAEIS868

Inspector: Leapley

Date: 12/9/2008

Liebert Deluxe System/3

Warranty Inspection Check Sheet

The following information must be fully completed and forwarded to your local Liebert sales office to establish your equipment warranty. If your local Liebert sales office is not known, call 1-800-LIEBERT or check our website at www.liebert.com.

Installer Spectrum Mechanical Inc Address 9700 Research Dr.
Irving Ca. 92618

Owner Cal-Tech Address 1200 E. Cal. Blvd
Pasadena, CA 91125

Contact Name _____

Contact Telephone # _____

Installation Date _____

Unit Model No. FH248C-AAEIS868 Serial No. C08L140385

Condenser/Drycooler Model No. _____

Condenser/Drycooler Serial No. _____

Was the unit received in good condition? Yes

If no, has the carrier been notified? N/A

Have the manuals been kept with unit? Yes

Is this environmental equipment connected to site monitoring or switchover panel? Yes No

If Yes Serial # ✓ Model # ✓

With the Main Disconnect OFF check the following:

- Check internal piping clamps, tight and secure. Field piping properly supported and secure.
- Check belts for correct tension and alignment.
- Check for secure electrical connections; Mate N'Loc connections to electronic boards.
- Remove shipping blocks from compressor(s) / adjust spring tension.
- Remove all debris from unit area.

INSPECT and RECORD

Main fan HP. 5 Voltage 460

- Proper Belt tension and alignment / Belt Size BV-48
- Motor Sheave 2WP75X1 1/8 Fan Pulley 2BK120H
- Filter Size 18-2424 Quantity 4
- Piping Size (Air Cooled Only) Discharge Liquid
- Piping trapped according to installation manual. (Air Cooled)
- Total Equivilant length for discharge and liquid piping.
- #1 compressor Model Serial No.
- #2 compressor Model Serial No.

START-UP

1. Turn ON Main Disconnect
2. Check voltage at disconnect and record.
L1-L2 474.4 L2-L3 474.8 L1-L3 473.6
3. Check all control voltage transformers for proper output. Secondary voltage(s) should not exceed 27 VAC under load. Change tap if necessary. T1 26-1 Volts.
4. Check fan rotation for proper direction. Change wiring at contactor if necessary.
5. Check Main Fan amps and record.

L1 5.0 L2 5.3 L3 5.0 Fuse FBS-2-15

6. Increase Temperature Setpoint to energize reheats. Check and record amperage.

#1 19.1 #2 19.5 #3 19.3 Fuse FRS-R-25

NOTES: Adjust all setpoints for proper operation after testing.

With advanced microprocessor controls, you can use diagnostics to test operation of separate components.

7. Increase humidity setpoint to energize humidifier. Check and record amperage.

L1 5.4 L2 5.6 L3 5.7 Fuse FRS-R-15

Infrared: check water level and adjust high limit float for proper operation

If condensate pump has been supplied, check for proper operation.

- 8. Chilled water and econo coil (glycool) only.
- Decrease temperature setpoint to energize valve motor.
 - Check for full valve travel in cooling mode.
- Adjust controls out of cooling mode. Check for valve closure.

9. Decrease humidity setpoint to call for dehumidification.

-- Check for valve travel in dehumidification mode.

10. Decrease temperature setpoint to energize compressor(s). Check and record compressor amps.

#1 L1 / L2 / L3 / Fuse /
 #2 L1 / L2 / L3 /

11. Check compressor operating pressure and record.

Suction Pressure 1) / Discharge Pressure 1) /
 2) / 2) /

12. Sight Glass clear? 1) / Dry? 1) /
 2) / 2) /

13. Check compressor oil sight glass per operation manual, should be 1/2 to 3/4 full while running. Adjust accordingly.

14. Check superheat on each circuit. Should be approximately 10°-20°.

Circuit 1) / Circuit 2) /

CHECKLIST FOR COMPLETED INSTALLATION

Moving and Placing Equipment

- 1. Unpack and check received material.
- 2. Proper clearance for service access has been maintained around equipment.
- 3. Equipment is level and mounting fasteners are tight.
- 4. If the equipment has been disassembled for installation, unit must be reassembled per instructions.

Electrical

- 1. Supply voltage and phase matches equipment nameplate.
- 2. Wiring connections completed between disconnect switch, evaporator unit and heat rejection equipment.
- 3. Power line circuit breakers or fuses have proper ratings for equipment installed.
- 4. Control wiring connections completed between indoor evaporator and heat rejection equipment.
- 5. All internal and external high and low voltage wiring connections are tight.
- 6. Confirm that unit is properly grounded to an earth ground.
- 7. Control transformer setting matches incoming power.
- 8. Electrical service conforms to national and local codes.
- 9. Check blowers and compressors (scroll only) for proper rotation.

Piping

- 1. Piping completed to refrigerant or coolant loop (if required).
- 2. Piping had been leak-checked, evacuated and charged (if required).
- 3. Piping is properly sized, sloped, trapped as shown in the piping schematics
- 4. Check piping inside and outside of equipment for proper support.
- 5. Ensure that factory clamps have been reinstalled
- 6. Drain line connected and pitched per local code.
- 7. Water supply line connected to humidifier

Other

- 1. Ducting complete (if required), maintain access to filters
- 2. Filters installed
- 3. Check fasteners that secure compressors, reheats, humidifier and motors—some may have become loose during shipment
- 4. Verify water detection is properly installed around all units (recommended)
- 5. Control panel DIP switches are set based on user requirements
- 6. Blower drive system rotates freely and belts are properly aligned and tensioned
- 7. Compressor shipping blocks removed and springs adjusted (see 5.3 - **Semi-Hermetic Compressor Spring Isolation System**).
- 8. Remove rubber band from float in optional infrared humidifier.
- 9. Installation materials and tools have been removed from equipment (literature, shipping materials, construction materials, tools, etc.)
- 10. Locate blank startup sheet, ready for completion by installer or startup technician.

