



Liebert MiniMate (1-5 Ton) Warranty Inspection Check Sheet

The following information must be fully completed and forwarded to your local Liebert sales office to establish your equipment warranty.

Installer _____ Address _____

Owner _____ Address _____

Owner e-mail address _____

Installation Date _____

Was the unit received in good condition? Yes No

If no, has the carrier been notified? Yes No

Have the manuals been kept with unit? Yes No

PRE-START-UP

MiniMate Evaporator Serial Number: _____

MiniMate Evaporator Model Number: _____

Condenser / Drycooler Serial Number: _____

Condenser / Drycooler Model Number: _____

Compressor Serial Number: _____

Compressor Model Number: _____

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WARNING

Arc flash and electric shock hazard. Open all local and remote electric power disconnect switches, verify with a voltmeter that power is off and wear personal protective equipment per NFPA 70E before working within the electric control enclosure or any hazardous voltage electric connection enclosure. Failure to comply can cause serious injury or death.

With the electric power to the unit OFF check the following items as noted:

- Internal piping clamps tight and secure on Evaporator and Condenser.
- Field piping properly supported and secure.
- Hot Gas line pitched according to User Manual.
- Field piping trapped according to User Manual.
- Field piping properly sized according to the User Manual.
- ALL electrical connections are tight and properly terminated on Evaporator and Condenser.
- Heat Rejection Interlock wiring has been correctly installed between Evaporator and Condenser.
- Equipment is installed level.
- Remove all debris from unit area.
- Water supply line(s), condensate pump, or gravity drain connections are tight and do not leak. Drain lines are open and clear of dirt and debris.
- Duct work is complete, and secured. (If Applicable)
- Filters are installed in the unit?

Filter Size _____ **Quantity** _____

- Blower drive system rotates freely and belts are properly aligned and tensioned?

Main fan HP _____ **Voltage** _____

Motor Sheave _____ **Fan Pulley** _____ **Belt Size** _____

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Evaporator Inspection



WARNING

Risk of electric shock, contact with high speed moving parts and hot surfaces, Can cause serious injury or death. Use extreme caution when working inside the unit cabinet of an energized unit near bare live hazardous voltage terminals, high speed moving parts such as blower wheels and shafts, pulleys, belts, EC fan blades and hot surfaces such as motors, heater elements, hot gas lines, and humidifier bottles.

1. Check voltage at disconnect and record.

L1-L2 _____ (If Applicable) L2-L3 _____ (If Applicable) L1-L3 _____

2. Close all local and remote electric power disconnect switches. Verify with a voltmeter that power is on and the supply voltage matches the marked unit voltage rating.



WARNING

Arc flash and electric shock hazard. Wear personal protective equipment per NFPA 70E before working within the electric control enclosure or any hazardous voltage electric connection enclosure. Use extreme caution when checking the status of live hazardous voltage circuits. Failure to comply can cause serious injury or death.

- Check unit electrical phasing with a phase meter. If phasing is incorrect, change wiring at input source to unit. Do not change any unit or component phasing.
- Check the compressors for proper rotation by bumping the contactors and watching the gauge pressures. If the pressures are equalized and the compressor sounds noisy, then compressor is running backwards.

3. Check and record control voltage transformers for proper output. (Secondary voltage should not be under 23 VAC or exceed 27 VAC under load, change tap if necessary).

T1 _____ Volt

**NOTE: Check operation of each component by utilizing the Test Outputs in the Diagnostics Menu.*

4. Enable Fan and record Main Fan amperage.

L1 _____ L2 _____ (If Applicable) L3 _____

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5. Enable Reheats and record amperage. Disable Reheats after test.

L1 _____ L2 _____ (If Applicable) L3 _____

6. Enable Humidifier and record amperage. Check for leaks at all piping connections. Disable Humidifier after test.



WARNING

Risk of electric shock and contact with extremely hot parts, can cause serious injury or death. Use extreme caution when working near bare live hazardous voltage terminals or energized humidifier bottle.

L1 _____ L2 _____ (If Applicable) L3 _____

7. Check condensate pump for proper operation by filling pump with water. Check for leaks at all piping connections. Record pump amperage. (If Applicable)



WARNING

Risk of electric shock and contact with hot motor surfaces, Can cause serious injury or death. Use extreme caution when working near bare live hazardous voltage terminals or the energized condensate pump motor. Do not remove the condensate pump electric connection terminal cover. Use extreme caution and do not spill water on the motor or the electric connection cover.

L1 _____ L2 _____

Chilled Water Units

- Select Open CW Valve to drive the chilled water valve motor. Check for full valve travel open.
- Select Close CW Valve to drive the chilled water valve motor. Check for full valve travel close.
- Check for leaks at all piping connections.

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Econocycle Units

- Select Open CW Valve to drive the chilled water valve motor. Check for full valve travel open.
- Select Close CW Valve to drive the chilled water valve motor. Check for full valve travel close.
- Check for leaks at all piping connections.

Compressorized Units

- *For self contained units continue with this warranty inspection sheet.*
- *For systems with remote condensers, continue Start-up utilizing the Liebert Small System Condensers (1-5 Ton) Warranty Inspection Check Sheet.*
- *Escape out of the Diagnostics Menu and use the temperature setpoint to operate the compressor.*

8. Enable compressor and allow the system to operate for 10-15 minutes.

9. Check compressor operating pressures and record.

Suction Pressure _____ **Discharge Pressure** _____

10. Check and record superheat (should be between (10-15°F) _____ °F

11. Check and record the compressor amperage.

L1 _____ **L2** _____ (if Applicable) **L3** _____

12. Check and record amperage of compressor crankcase heater. _____

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Water/Glycol Cooled Models

- *If the head pressures recorded above equal **105°F** condensing temperature, no adjustment of the glycol/water regulating valve are required.*
- *If the condensing temperatures are above **110°F**, adjust the glycol/water regulating valve to lower the head pressure. If the system has balancing valves in it, these valves should be adjusted to the required GPM for this piece of equipment.*
- *After the condensing temperature has been set up properly, the system should be allowed to run for 10 to 15 minutes to obtain stable conditions.*

Entering condenser water/glycol temperature _____

Leaving condenser water/glycol temperature _____

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***NOTE:** Adjust all set-points for proper operation after testing. Adjust hot gas bypass to customers load.

Your Start-up is now complete.

Your input is important to us. Did you encounter any factory or field issues? If YES, please check the YES box and supply detailed description below. If NO, please check the NO box; however please feel free to provide any additional comments or suggestions.

YES NO

Comments:

START-UP
PERFORMED BY _____ START-UP DATE _____
(Please print name)

COMPANY _____ PHONE # _____

IMPORTANT:

This form must be properly completed and returned to your local Liebert Sales office. If you do not know who your local Liebert sales office is, call 1-800-Liebert or check our website at:

<https://www.vertivco.com/en-us/products/brands/liebert/>