



# Liebert Econo Phase 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**

**EconoPhase Module Serial Number:** \_\_\_\_\_

**EconoPhase Module Model Number:** \_\_\_\_\_

**EconoPhase Pump 1 Model Number**

**EconoPhase Pump 1 Serial Number**

\_\_\_\_\_

\_\_\_\_\_

**EconoPhase Pump 2 Model Number**

**EconoPhase Pump 2 Serial Number**

\_\_\_\_\_

\_\_\_\_\_

# Liebert Econo Phase

## Warranty Inspection Check Sheet

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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:**

- Check internal piping clamps, tight and secure.
- Field piping properly supported and secure.
- Field piping properly sized according to the installation manual.
- Check ALL electrical connections for tightness and proper termination.
- CAN Communication cable run between outdoor unit and EconoPhase module.
- Check to ensure that the unit is installed level.
- Remove all debris from unit area.

### START-UP

1. Check voltage at disconnect and record.

L1-L2 \_\_\_\_\_ L2-L3 \_\_\_\_\_ 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.**

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

T1 \_\_\_\_\_ Volt

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4. Check operation of the pumps by utilizing the Service Menu that is located in the Service Menus on the iCOM Control.
  - a. Set Manual Mode to Yes
  - b. Turn Fans On. Verify the fans are operating at the standard speed via Analog Output 1 (S341)
  - c. Locate EconoPhase menu in the Advanced Menus
  - d. Enter level 4 Password
  - e. Verify pump operation is "Enabled" on line P002
  - f. Navigate to line P015. On this line you can select PB1 Test (Pump 1), PB2 Test (Pump 2) or PB1/PB2 Test (Pump 1 & 2 at the same time. Select what test you would like to run. During the pump test the compressors will operate for about one minute before the pump(s).
  - g. Watch the Pump differential readings. You should see a positive pressure reading. If you have a negative pressure reading, then the pumps are rotating backwards. Turn OFF the Main Disconnect on the EconoPhase module. Change wiring at output of VFD. **Do not change module or component phasing.**
  - h. On line P017, iCOM will give a pass/fail criteria based on whether positive pump differential could be achieved.

**Note:** If one or both of the pump tests fail, you can rerun either that single or both pump test again.

5. Record Pump test results below.

**Pump 1**      **Pass**       **Fail**

If circuit did not pass, give brief explanation.

**Pump 2**      **Pass**       **Fail**

If one or both circuits did not pass, give brief explanation.

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*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:**

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**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/>