

	Unit Model No.	
	Sales Order #	
	Unit Serial No.	

PCA-F35 TESTING PROCESS CONTROL FORM

This form is to be filled out and signed by the person performing the testing procedure. A completed copy of this form must be returned to the job folder.

The following is a list of items to be completed every time these systems are run tested.

NOTE: If the system you are testing only has one circuit, fill in Circuit 1 below and omit Circuit 2.

NOTE: If an item below is not relevant to the unit being manufactured, enter N/A on the lines.

Circuit 1	Circuit 2	
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- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Connect proper voltage leads to unit's line power distribution block or breaker per name plate. (Refer to schematic)
Temporary install Distribution block cover. |
| <input type="checkbox"/> | <input type="checkbox"/> | Connect the condensate drain hose to the system, if needed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Make sure there is no continuity from L1, L2 or L3 to ground. |
| <input type="checkbox"/> | <input type="checkbox"/> | Program evap and/or condenser fan drives with appropriate program (if equipped). |
| <input type="checkbox"/> | <input type="checkbox"/> | Power up high voltage to unit. |
| <input type="checkbox"/> | <input type="checkbox"/> | Check to make sure all items power up properly. |
| <input type="checkbox"/> | <input type="checkbox"/> | Check crankcase heater for operation. |

PCA-F35 TESTING PROCESS CONTROL FORM con't.

Circuit 1

Circuit 2

Manually push evaporator fan contactor in to check fan motor rotation.

Connect shop computer to unit's controller and upload the correct program to the controller.

Programming is now complete and the computer can be disconnected.

Cycle high voltage power.

Program CPY Controller.

Check temp sensors for an accurate reading against digital temperature meter and adjust as needed.

Check for any alarms and troubleshoot as needed.

Set Time and Date on controller.

NOTE: The internal clock in PCO3 controller is a 24 hour clock.

Be sure it is set correctly.

(Optional) Connect PGD/Touch display to unit and program.

Turn switch to "ON" and check start up operations.

Check fan rotation and proper operation.

Raise set point 10 degrees above current display temp. When heating starts take an amp reading on the heater contactors load side to ensure heater is functioning. Let heat run full out for five minutes.

NOTE: If more than one stage heat, take Amp reading on all stages.

PCA-F35 TESTING PROCESS CONTROL FORM con't.

Circuit 1

Circuit 2

Lower the set point 5 degrees below current house temp. Cooling will start.

Check for proper condenser fan operation and rotation.

Calibrate pressure gauges and connect them to the high and low side ports. Check to make sure display is reading pressures accurately. Calibrate as needed to correct minor differences.

Discharge psi _____ Suction psi _____

Adjust ORI head pressure valve to maintain appropriate PSI and head pressure as needed. For the refrigerant used record:

Setting _____ PSI

Turns from factory setting _____

Verify hot gas is set to correct setting (if equipped)

_____ PSI

Disconnect the gauges from the compressor service valves and now connect them to the liquid and suction line ports located in the evaporator section.

Using the clamp on type temperature probes connect one to the liquid line and one to the suction line next to the pressure ports.

Verify sub cooling of approx. 10° or more @ TXV inlet.

Liquid line psi _____ Converted to temp _____

Liquid line temperature _____ Actual subcooling _____

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Circuit 1 Circuit 2

 Check the superheat at the suction line of approx. 10-12° and adjust the TXV stem as needed.

 Suction psi _____ Converted to temp _____
Suction line temperature _____ Actual superheat _____

 Remove all testing pressure gauges and temp probes from the unit.

 Verify all pressure port caps and service valve caps are seated and tight, including receiver service valve.

 Condenser Air Temp inlet: Side 1 _____ Side 2 _____

Condenser Air Temp out: Side 1 _____ Side 2 _____

Condenser Air Delta T: Side 1 _____ Side 2 _____

 Evaporator Air Temp Supply Side 1 _____ Side 2 _____

Evaporator Air Temp Return: Side 1 _____ Side 2 _____

Evaporator Air Delta T: Side 1 _____ Side 2 _____

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Circuit 1

Circuit 2

Take the load side amp draw reading of all components listed on the nameplate label and record below:

<u>NAMEPLATE RATING</u>	<u>SIDE 1</u>	<u>SIDE 2</u>
_____ Compressor 1	_____	_____
_____ Compressor 2	_____	_____
_____ Evaporator Fan 1	_____	_____
_____ Condenser Fan 1	_____	_____
_____ Condenser Fan 2	_____	_____
_____ Heater 1	_____	_____
_____ Heater 2	_____	_____
_____ Heater 3	_____	_____

Troubleshoot differences as needed

Comments on AMP readings:

Let the unit continue to run for minimum of 2 hours. Periodically checking for any alarms, troubleshoot if needed.

Set the set point back to default setpoint.

Turn unit off from the ON/OFF switch.

PCA-F35 TESTING PROCESS CONTROL FORM con't.

- Shut off power, unplug power cord and disconnect high voltage leads. Snug screws on distribution block and ground lug back up once leads are removed.
- Remove protective plastic sheets and install the distribution block cover.
- Print the appropriate nameplate label on the shop computer using Brady Label Maker program. Be sure to select correct file and print onto the proper labels. Update serial number on nameplate label. Attach label to the lower left inside panel of electrical door.
- Attach digital compressor controller information sheet to inside of electrical door, next to unit nameplate label, if required.
- Sign appropriate location on form FOP7501-006-72.

Comments:

Name: _____ Date: _____