

REQUEST FOR START-UP SUPERVISION

In purchasing equipment from Seasons-4, you have placed confidence in us to supply you with equipment designed and constructed to meet your exacting conditions. The equipment start-up and operational check out is the responsibility of the mechanical contractor who purchased the equipment and associated personnel responsible for its operation.

As a continuing effort to support and reinforce the confidence you and your customer have placed in us, a Seasons-4 field technician will supervise the start-up and provide instructions in the operation of the equipment, as well as point out areas of a particular design and service requirement.

In order that we may provide this service the mechanical contractor will be responsible for assuring that the equipment is ready for start-up.

The following items must be completed before arrival of the Seasons-4 field technician.

1. All power and control wiring complete
2. Gas lines complete and purged
3. All sensors installed and terminated in control panel
4. Main power to the unit connected
5. All duct main runs completed
6. All unit control switches "off"
7. Main power on for 12 hours before start-up
8. All items shipped loose installed (**O.A. hoods vent caps, drain traps, etc.**)
9. All shipping blocks removed from blower and compressors (if spring mounted)

The request for start-up must be filed a minimum of 2 weeks before actual start-up date. The mechanical contractor must supply all tools, gauges and instruments as required. The personnel responsible for the operation of equipment MUST be present for the start-up.

▶ NOTE: ONLY ONE TRIP TO JOBSITE HAS BEEN INCLUDED IN THE PRICE OF THE EQUIPMENT. RETURN TRIPS WILL REQUIRE A PURCHASE ORDER NUMBER.

REQUEST FOR START-UP SUPERVISION FORM

Unit Model# _____ S/N: _____

Job Name: _____

Address: _____

Date Start-Up Requested: _____

Person Requesting Start-Up: _____

Phone number to contact for start-up: _____

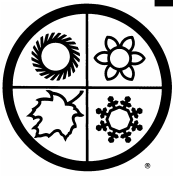
FAX number to be contacted at: _____

Signed By: _____ Date: _____

Use space below for additional information you feel necessary for start-up:

▶ NOTE: Should unit not be ready for start-up when our technician arrives, a Purchase Order must be issued, and approved by Seasons-4, Inc., in order to hold our technician at jobsite

Mail or fax completed form to the attention of Service Dept at the address listed below.
Fax: 770-489-2938 or Mail: Seasons-4 Inc. 4500 Industrial Access Rd. Douglasville, GA 30134-3949



SEASONS•4

COLD WEATHER and FIRST TIME COMPRESSOR START-UP

Cold weather compressor start-up: A cold weather compressor start-up is considered when ever the outside ambient temperature is lower than the temperature in the evaporator section.

This is based on refrigerant will travel to the coldest part of the unit, in this case the coldest part is the compressor. There is also a good chance that the suction line in the condenser section although insulated will also be colder then the evaporator section.

When the compressor is turned on, in conditions of the above, it will start with refrigerant in the crankcase of the compressor. This will instantly wash oil out of the bearings. The longer the compressor runs any liquid refrigerant in the suction line must pass through the compressor and this will prevent or aggravate the lubrication of the bearings. This type of operation will weaken the bearings even if the compressor is shut down very shortly after start-up. Then when spring arrives and there is a cooling call the compressor bearings have been weakened and possibly will seize. When the bearing seize the rotor part of the motor will have additional stress or drag, that could lead to a burn out that will show it's self several weeks or months from the start-up.

Items that should be considered for a cold weather start-up:

1. **COMPRESSOR CRANKCASE HEATER MUST BE ON 24 HOURS BEFORE COMPRESSOR IS TURNED ON. Any exception will void the compressor warranty.**
2. **Before compressor is started verify that the crankcase heater is in operation by taking the amps of the crankcase heater. The crankcase heaters are operated on 110/115 volts and the amps will range between .4 to .9 amps.**
3. **Do not start the compressor if the crankcase heater is not working (pulling amps).**
4. Before turning the compressor on close the suction ball valve and open the discharge ball valve.
5. Before turning on the compressor crack the suction ball valve maybe a ¼ turn. This will slow down any liquid returning from the suction line. It will be necessary to monitor the suction pressure, at the compressor during this phase.
6. If the suction pressure drops to within 20 PSIG of the low pressure switch setting the suction ball valve will need to be opened more. At this time another ¼ turn may be needed, but do not fully open the suction ball valve.
7. If the suction pressure drops again give the suction ball valve a ¼ turn, continue this until the suction ball valve is full open and the suction pressure is stable.
8. If there is an oil sight glass on the compressor it should be monitored and oil level and oil foaming noted. Heavy oil foaming is an indication of liquid flood back. Oil level may drop when the compressor is first turned on, after a short time. This time should not be longer the 5 min, the length of the anti-short cycle timer setting. The correct oil level of ½ to ¾ sight glass should be found before the 5 min period.
9. It may be necessary to close or block off the outside air intake during cold weather start-up. This would allow the warmer building air to circulate through the evaporator and avoiding any chance of flood back during cold weather start-up.

The best defense to avoid compressor damage due to flooded starts is to arrange for start-up when the ambient temperature is above the inside building temperature.

All returned damaged compressors will be inspected and any indication of liquid flood back damage, bearing issues, may not be covered by the compressor warranty.