Start-Up Checklist

START-UP CHECKLIST
(Remove and Store in Job File)

I. PRELIMINARY INFORMATION

MODEL NO.: ___________________________ SERIAL NO.: ___________________________
DATE: ___________________________ TECHNICIAN: ___________________________

II. PRE-START-UP (insert checkmark in box as each item is completed)

☐ verify that jobsite voltage agrees with voltage listed on rating plate
☐ verify that all packaging materials have been removed from unit
☐ verify installation of outdoor air hood
☐ remove all shipping hold down bolts and brackets per installation instructions
☐ verify that condensate connection is installed per installation instructions
☐ verify that flue hood is installed
☐ check refrigerant piping for indications of leaks; investigate and repair if necessary
☐ check gas piping for leaks
☐ check all electrical connections and terminals for tightness
☐ verify gas pressure to unit gas valve is within specified range
☐ check that indoor air return air filters are clean and in place
☐ check that outdoor air inlet screens are in place
☐ verify that unit installation is level
☐ check fan wheels and propeller for location in housing/orifice and setscrew tightness
☐ check to ensure that electrical wiring is not in contact with refrigerant lines or sharp metal edges
☐ check pulley alignment and belt tension per installation instructions
☐ verify that scroll compressors are rotating in the correct direction
☐ verify installation of thermostat
☐ verify that crankcase heaters have been energized for at least 24 hours

III. START-UP (insert value as each item is completed)

ELECTRICAL

<table>
<thead>
<tr>
<th>SUPPLY VOLTAGE</th>
<th>L1-L2</th>
<th>L2-L3</th>
<th>L3-L1</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRCUIT 1 COMPRESSOR AMPS</td>
<td>L1</td>
<td>L2</td>
<td>L3</td>
</tr>
<tr>
<td>CIRCUIT 2 COMPRESSOR AMPS</td>
<td>L1</td>
<td>L2</td>
<td>L3</td>
</tr>
<tr>
<td>INDOOR-FAN AMPS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OUTDOOR-FAN AMPS</td>
<td>NO. 1</td>
<td>NO. 2</td>
<td></td>
</tr>
</tbody>
</table>
BLOWER EXTERNAL STATIC PRESSURE

RETURN AIR STATIC PRESSURE ________________ IN. W.C.
SUPPLY AIR STATIC PRESSURE ________________ IN. W.C.
BLOWER WHEEL RPM ________________ RPM

TEMPERATURES

OUTDOOR-AIR TEMPERATURE _____ DB _____ WB
RETURN-AIR TEMPERATURE _____ DB _____ WB
COOLING SUPPLY AIR _____ DB _____ WB
GAS HEAT SUPPLY AIR _____ DB

PRESSURES (Cooling Mode)

GAS INLET PRESSURE _____ IN. WG
GAS MANIFOLD PRESSURE _____ IN. WG (LOW FIRE) _____ IN. WG (HI FIRE)
REFRIGERANT SUCTION, CIRCUIT 1 _____ PSIG _____ F
REFRIGERANT SUCTION, CIRCUIT 2 _____ PSIG _____ F
REFRIGERANT DISCHARGE, CIRCUIT 1 _____ PSIG _____ F
REFRIGERANT DISCHARGE, CIRCUIT 2 _____ PSIG _____ F

☐ VERIFY THAT 3-PHASE FAN MOTOR AND BLOWER ARE ROTATING IN CORRECT DIRECTION.
☐ VERIFY THAT 3-PHASE SCROLL COMPRESSOR IS ROTATING IN THE CORRECT DIRECTION
☐ VERIFY REFRIGERANT CHARGE USING CHARGING CHARTS

PRESSURES HEATING (HEAT PUMP ONLY)

REFRIGERANT SUCTION CIRCUIT A ________________ PSIG
CIRCUIT B ________________ PSIG
REFRIGERANT DISCHARGE CIRCUIT A ________________ PSIG
CIRCUIT B ________________ PSIG

☐ VERIFY REFRIGERANT CHARGE USING HEAT PUMP CHARGING CHARTS
☐ VERIFY SMOKE DETECTOR UNIT SHUTDOWN BY UTILIZING MAGNET TEST

GENERAL

☐ SET ECONOMIZER MINIMUM VENT AND CHANGEOVER SETTINGS TO MATCH JOB REQUIREMENTS (IF EQUIPPED)

IV. HUMIDIMIZER START-UP

STEP

☐ 1. CHECK CTB FOR JUMPER 5, 6, 7
   JUMPERS 5, 6, 7 MUST BE CUT AND OPEN
☐ 2. OPEN HUMIDISTAT CONTACTS
☐ 3. START UNIT IN COOLING (CLOSE Y1)
OBSERVE AND RECORD

A SUCTION PRESSURE

B DISCHARGE PRESSURE

C ENTERING AIR TEMPERATURE

D LIQUID LINE TEMPERATURE AT OUTLET OF REHEAT COIL

E CONFIRM CORRECT ROTATION FOR COMPRESSOR

F CHECK FOR CORRECT RAMP-UP OF OUTDOOR FAN MOTOR AS CONDENSER COIL WARM

☐ 4. CHECK UNIT CHARGE PER CHARGING CHART

   JUMPER 32LT MOTOR MASTER TEMPERATURE SENSOR DURING THIS CHECK.

   REMOVE JUMPER WHEN COMPLETE

☐ 5. SWITCH UNIT TO HIGH-LATENT MODE (SUBCOOLER) BY CLOSING HUMIDISTAT WITH Y1 CLOSED

   OBSERVE

   ☐ A. REDUCTION IN SUCTION PRESSURE (5 TO 7 PSI EXPECTED)

   ☐ B. DISCHARGE PRESSURE UNCHANGED

   ☐ C. LIQUID TEMPERATURE DROPS TO 50 TO 55°F RANGE

   ☐ D. LSV SOLENOID ENERGIZED (VALVE CLOSES)

☐ 6. SWITCH UNIT TO DEHUMID (REHEAT) BY OPENING Y1

   OBSERVE

   ☐ A. SUCTION PRESSURE INCREASES TO NORMAL COOLING LEVEL

   ☐ B. DISCHARGE PRESSURE DECREASES (35 TO 50 PSI) (LIMITED BY MOTORMASTER)

   ☐ C. LIQUID TEMPERATURE RETURNS TO NORMAL COOLING LEVEL

   ☐ D. LSV SOLENOID ENERGIZED (VALVE CLOSES)

   ☐ E. DSV SOLENOID ENERGIZED, (VALVE OPENS)

☐ 7. WITH UNIT IN DEHUMID MODE CLOSE W1

   COMPRESSOR AND OUTDOOR FAN STOP LSV AND DSV SOLENOIDS DE-ENERGIZED

☐ 8. OPEN W1 RESTORE UNIT TO DEHUMID MODE

☐ 9. OPEN HUMIDISTAT INPUT

   COMPRESSOR AND OUTDOOR FAN STOP LSV AND DSV SOLENOIDS DE-ENERGIZED

☐ 10. RESTORE SETPOINTS FOR THERMOSTAT AND HUMIDISTAT

REPEAT PROCESS FOR 2 COMPRESSOR SYSTEMS