

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

SUPPLY VOLTAGE	L1-L2	_____	L2-L3	_____	L3-L1	_____
CIRCUIT 1 COMPRESSOR AMPS	L1	_____	L2	_____	L3	_____
CIRCUIT 2 COMPRESSOR AMPS	L1	_____	L2	_____	L3	_____
INDOOR-FAN AMPS		_____		_____		_____
OUTDOOR-FAN AMPS	NO. 1	_____	NO. 2	_____		_____

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 _____ PSIG
- B DISCHARGE PRESSURE _____ PSIG
- C ENTERING AIR TEMPERATURE _____ °F
- D LIQUID LINE TEMPERATURE AT OUTLET OF REHEAT COIL _____ °F
- E CONFIRM CORRECT ROTATIN FOR COMPRESSOR
- F CHECK FOR CORRECT RAMP-UP OF OUTDOOR FAN MOTOR AS CONDENSER COIL WARMS

- 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° 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 COMPESSOR SYSTEMS

