

Customer: _____

Sales Representative: _____

Model Number: _____

Serial Number: _____

Field Start-Up Sheet

Direct Fired Gas Equipment

Please Print

INITIAL INSPECTION

I. Installer Responsibilities

- Remote Panel: All interconnecting wires run from remote to unit Yes
DFM Cat 5 Cable run in a separate conduit
Temperature control interconnect wires to remote ran in: Shielded Cable Separate Conduit
Remote Panel Location: Inside Wall Outside Wall _____ Feet From Unit (approx.)
NOTE: If the Remote to Main Panel Interconnect Wiring is over 200' Long, Please Consult Factory
- Indoor Return Air Unit: Building Pressure Switch Tubing for "Low-Tap" is run outdoors Yes
- Outdoor Return Air Unit: Building Pressure Switch Tubing for "High-Tap" is run indoors Yes
- Gas supply run connected with proper gas pressure regulator and drip leg Yes
- R-Series Models: Mix tube wiring installed Smoke Dectector wiring installed Discharge Damper wiring installed
- Electrical Supply properly installed to main panel, at the voltage and amperage as stated on the unit nameplate Yes
- Multi-section units: joints caulked at mating frames, all bolts and nuts installed and tightened, seam tape applied Yes
- Upright Units: Legs attached and bolted, shimmed properly so unit does not "rock" Yes
- Duct connections made and sealed properly Yes Return air screen installed at building wall Yes
- Discharge head installed secure, with diffuser blades tightened and in the open position Yes
- All "shipped loose" items installed properly - filters, vibration isolators, smoke detectors, dampers, louvers, service lights supply fan belts, service platform, roof curb, humidistat, CO detector, etc. Yes
- All paint scratches have been properly touched-up Yes

Comments: _____

II. Miscellaneous Items

- Visible Physical Damage? _____ NO IF YES, Specify _____
- Type of Installation: Outdoor Indoor Roof Curb Platform Post Suspended Upright
- Hardware Tight & Secure _____
- Damper Linkages Secure _____

Comments: _____

III. Fan & Motor Sheaves

- ____ Fan & Motor Sheaves Secured Tightly to Shafts
- ____ V-Belts Aligned Properly
- ____ Fan Bearing Set screws Tight
- ____ Fan Motor: Manufacturer _____ HP _____ FLA _____ Frame Size _____
- ____ Fan Hub Set Screws Tight
- ____ V-Belts Tensioned Properly
- ____ Fan Bearing Mounting Bolts Tight

Comments: _____

IV. Burner Inspection

- ____ Spark Igniter Secured Properly
- ____ Flame Rod Secured Properly
- ____ Ignition Wire Attached at Igniter & Transformer
- ____ UV Scanner Secured Properly
- ____ Pilot Line Fittings Tight
- ____ Unions Tight and Secure

Comments: _____

V. Gas Manifold & Vent Piping

1. ___ Manifold Assembly and Individual Components Tight and Securely Mounted
2. ___ Vent Screens Installed If Required
3. ___ Vent Piping Run to Outdoors (Some Indoor Models)
4. ___ Tighten Fittings and Components as Necessary

Comments: _____

VI. Filters

1. ___ Filters Installed Properly
2. Type: Aluminum Pleated 30% Pad & Frame Other _____

Comments: _____

VII. Electric Service

1. Electrical Service Provided to Unit: ___ Volts ___ Phase ___ Hertz ___ Amps
2. Unit Nameplate Electrical Requirement: ___ Volts ___ Phase ___ Hertz ___ Amps
3. Terminal Strip Wires Tight: Main Panel Yes Remote Panel Yes
4. Componentry and Relays Mounted Securely in Place Yes
5. Light Bulbs Installed in Sockets for Control Enclosure Lighting Yes
6. Main Fusing Size: ___ Volts ___ Amps
6. Overload Relay Setting ___
7. The Unit has been grounded by the installer at the main unit panel Yes

Comments: _____

VIII. Gas Service

(See maximum and minimum gas pressure requirements on unit rating plate)

1. Natural Gas LP Gas Service Pressure: ___ " W.C. -or- ___ Oz. -or- ___ Lbs
2. Manual Gas Shut-off Cock in line-of-sight Yes No
3. Handle Present on Manual Shut-off Cock Yes No

VERIFICATION OF OPERATION

**NOTE: Refer to the Sequence of Operation & Wiring Diagram in the Owners Manual for specific data on this unit.
See Factory Start-up & Test Sheet in the Unit Owners Manual to note the unit settings prior to shipment.**

I. Fan Operation

1. The Inlet Damper is fully open when fan comes on Yes NA Discharge Damper operates properly Yes NA
2. The low-temperature limit switch is field set at ___ °F. (Factory set at 40°F.)
3. The low-limit by-pass timer completes its cycle in ___ minutes ___ seconds (normal: 5 minutes)
4. Fan Rotation is in the same direction as the rotation arrow Yes Fan RPM ___
5. Discharge External Static Pressure Rating Plate ___ W.C. Actual ___ W.C.
6. Check the following:

Unit Off

A-B ___ Volts
B-C ___ Volts
A-C ___ Volts

Fan Running (Burner Off)

A-B ___ Volts ___ Amps
B-C ___ Volts ___ Amps
A-C ___ Volts ___ Amps

Verify the motor running
amps does not exceed the
motor nameplate FLA

7. Approximate Outdoor Air Temperature ___ °F

II. Burner Operation

1. The Profile Pressure Drop is ___ " W.C. (Measured using High & Low pressure ports)
2. The Burner Suction Static Pressure is ___ " W.C. (Measured at the manifold pressure tap with unit fan on and gas off)
3. The Burner High Fire Pressure is ___ " W.C. (Measured as above, but with fan and gas on, and unit in forced high fire)

Note: Burner High Fire Pressure plus Suction Pressure = Manifold Pressure (Example: -1.2 + 3.4 = 4.6...ignore signs)

Refer to the unit rating plate for correct high fire manifold pressure and Maxitrol Bulletin in the O&M manual

4. The High Temperature Limit Switch is field set to ___ °F (Maximum recommended setting is 150°F)
5. The Low Gas Pressure Limit Switch is field set to ___ " WC (Factory set at 3" WC)
6. The High Gas Pressure Limit Switch is field set to ___ " WC (Factory set at 1.5" WC above the high fire pressure)

7. Record the High & Low trip point for the airflow switch High _____ Low _____
8. The Pilot Flame should be the approximate size of a baseball Yes (Adjust as needed)
9. Set the burner low-fire gas pressure so there is a continuous "ribbon" of flame approximately 1" wide across face of burner
10. Flame Relay. If a Honeywell model, it should read **1.25 to 5.0 VDC** at terminals marked (+ -) on the flame relay face, if Fireye, it should read **4.0 to 10.0 VDC** at terminals marked (+ -) on the flame relay face
11. Mild Weather Stat (optional) trips the burner when outside air temp is higher than the stat set point Yes, _____°F Set (Factory setting is 65°F)

III. Space Temperature Control Systems (Maxitrol 44 and DFM Series)

1. Modulating Regulator Valve ("MR Valve"): Voltage at Low Fire _____ VDC Voltage at High Fire _____ VDC
2. The Minimum Discharge Temperature is field set at _____ °F (Factory set at 55°F)
3. The Maximum Discharge Temperature is field set at _____ °F (Factory set at 95°F, Maximum setting is 120°F)
4. Burner responds to demand for heat from Room Temperature Selector in remote panel Yes
5. Check calibration of the minimum/maximum discharge temperature control. Adjust if necessary.
6. Operation of Occupied/Unoccupied Switch (if applicable) or time clock verified Yes
7. Is there evidence of temperature hunting? Yes ** No

IV. Discharge Temperature Control Systems (Maxitrol 14 Series)

1. Modulating Regulator Valve ("MR Valve"): Voltage at Low Fire _____ VDC Voltage at High Fire _____ VDC
2. Check calibration of the Discharge Air Temperature Selector. Adjust if necessary.
3. Is there evidence of temperature hunting? Yes ** No

V. Space Temperature Control System (A200)

1. Input signal for A200 0-10 4-20mA

**** Refer to the Maxitrol Troubleshooting Guide in the Owners Manual for further instructions**

VI. Damper Control Options

Manual Pot Control:

1. With the manual pot set to zero (0%), the outdoor air damper is closed and the return air damper is open. Yes
2. With the manual pot set to 100%, the outdoor air damper is open and the return air damper is closed. Yes
3. The manual pot was left set at _____% and the owner was instructed on its operation by me. Yes

Building Pressure Control:

1. The differential setting on the building pressure switch is field set at _____ " WC (Typical is .01 - .03" WC)
2. By opening a building door or turning on an exhaust fan in the building, the unit pressure switch calls for more outside air (OA), causing the OA damper to open, and the return air (RA) damper to close. When the building door is closed, or the exhaust fan turned off, the OA and RA dampers react opposite. Yes

Comments: _____

VII. Variable Frequency Drive Operation

1. Does VFD respond to BPS Pressure Transmitter Manual Pot
2. Does the burner profile stay within airflow parameters when the fan ramps up and ramps down Yes No

VIII. Miscellaneous Operational Checks:

1. With the unit fan and burner operating, all of the circuit check lights are illuminated (except the burner lock-out pilot light and the low temperature switch pilot light) Yes
2. If furnished, the time clock has been programmed per owner instructions, and training provided to him by me Yes
3. If provided, the following temperature control stats have been set by me, and instructions provided to the owner:
 _____ Cycle Stat _____ Cool-down Stat _____ Mild Weather Stat _____ Freeze Stat
4. The electrical drawing and sequence of operation is taped to the enclosure door. Yes
5. The owners manual was reviewed by me with the owner, and placed back inside the unit enclosure Yes

6. The owner was instructed by me on the operation of the following controls and options (check those that apply):

- | | |
|---|---|
| <input type="checkbox"/> Keyed Switches on remote panel | <input type="checkbox"/> Maxitrol 44 Space Temperature Selector |
| <input type="checkbox"/> Remote Reset for Flame Relay | <input type="checkbox"/> Maxitrol 14 Discharge Temperature Selector |
| <input type="checkbox"/> Burner Alarm Horn | <input type="checkbox"/> 3-phase Power Monitor |
| <input type="checkbox"/> Natural Gas/Propane Changeover Switch | <input type="checkbox"/> Smoke Detector |
| <input type="checkbox"/> CO Detector | <input type="checkbox"/> Magnehelic Gauge |
| <input type="checkbox"/> Photohelic Gauge | <input type="checkbox"/> 120V GFI Outlet |
| <input type="checkbox"/> Dirty Filter Light/Alarm | <input type="checkbox"/> Evaporative Cooler |
| <input type="checkbox"/> Fan Bearing Grease Type & Lube Cycle | <input type="checkbox"/> Filter Maintenance |
| <input type="checkbox"/> Exhaust Cycle Operation | <input type="checkbox"/> Internal By-Pass Operation |
| <input type="checkbox"/> Discharge Head Deflection Blade Adjustment | <input type="checkbox"/> Coil Maintenance |
| <input type="checkbox"/> Burner Maintenance | <input type="checkbox"/> Spray/Bake Control Operation |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |

Comments

THE ABOVE START-UP WAS PERFORMED BY

Company Name: _____ Date: _____

Phone Number: (____) - _____ Fax Number: (____) - _____

My Name (Service Tech) _____

- MAKE A COPY FOR YOUR FILES AS NECESSARY

The Owner Representative that I met with and discussed the unit controls and operation was:

NAME: _____ **TITLE:** _____
(Please Print)

CUSTOMER'S AUTHORIZED SIGNATURE

I acknowledge that I have been instructed on the operation of this unit:

Signature _____ Date: _____ Phone No. _____

After Completion, Return this start-up sheet to:

AbsolutAire, Inc.

**5496 North Riverview Drive
Kalamazoo, MI 49004**

Phone (800) 804-4000 Fax (269) 382-5291

website: www.absolutaire.com

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— ABSOLUTAIRE, INC. —