

Direct Gas Make-Up Air Quick Start Guide - 120 Honeywell Pilot with Micro

This quick start document is intended to help with getting the initial unit startup completed, but does not replace the IOM. Please read the IOM for all safety information and precautions before performing any work on the equipment. Complete pre-start checks and blower start-up prior to this procedure.

Pre-Start Information: Locate wiring diagram on the inside of control center door (*field-wired connections are indicated by dashed lines on diagram*):

1. Enable the unit
 - a. Connect terminals R to G on unit terminal strip.
 - b. On initial power up, navigate to UNIT ENABLE and set the unit to ENABLED.
 - c. Verify blower rotation is correct. To reverse the rotation on three phase units, disconnect and lock out power, then interchange any two power leads going to the motor.
2. Determine Unit Airflow Configuration -Constant volume (CV), Variable Volume (VAV), Recirculating (RECIRC) Scan IOM QR code on document for further explanation of airflow configurations, if needed.
 - a. Navigate to the CTRL VARIABLES > ADVANCED> LOGIN and enter password 1000. After pressing enter, this will return you to the Advanced menu.
 - b. Scroll down to the MANUAL OVERRIDES and press enter. Check enable overrides box. Scroll down to supply fan and change to manual 100%, press enter.
 - c. Check motor amp draw and compare to motor nameplate FLA – reduce fan speed if amp draw is greater than FLA.
3. Check burner pressure differential (**Fig. 1**)
 - a. Connect manometer to outer sensing probes (**Fig. 1**)
 - b. See **Fig 2** for acceptable pressure differential for each gas type and unit configuration
 - c. Adjustment (if needed) - Test and balance should be completed prior to unit start-up. If T&B has not been completed, fan speed should be adjusted to achieve desired pressure differential. To increase pressure differential, increase fan speed. To decrease differential, decrease fan speed. If pressure differential can't be achieved through fan speed adjustment, reference IOM for further setup instructions (Scan QR code on top).
4. Verify Inlet gas pressure
 - a. Inlet gas pressure needs to be equal to or greater than the “minimum for maximum output”, but not to exceed the “maximum gas pressure” listed on the unit gas pressure label.
5. Perform Heating Start-up
 - a. To enable the heating, navigate to the Ctrl Variables > Advanced > Manual Overrides > DG Burner and set override to manual and command to on to enable heating.
 - b. Connect digital manometer to pilot test port. Zero manometer while connected to test port and fan in operation. Set pilot gas pressure to 1.5-3.0 in wg.
 - c. Check pilot flame signal by closing main hand valve. Set meter to VDC and measure flame signal (**Fig 3**). Signal should be ≥ 1.25 vdc.
6. High/Low Fire Set-up
 - a. Locate gas label on exterior of unit and determine design temp rise.
 - b. High Fire - Increase DG Burner demand to 100%. Use outside air and supply air temperatures shown on override menu to determine temperature rise (Temp Rise = Outside Air Supply Air - Outside Air). Adjust gas valve to achieve design temperature rise (**Fig 4 & 5**).
 - c. Minimum Fire - Set DG Burner demand to 0%. View burner flame through factory sight glass. Adjust minimum firing rate (**Fig 4 & 5**) to achieve desired minimum temperature rise while maintaining a small ribbon of continuous blue flame across the burner.
 - d. Cycle the call for heat to make sure the burner can light at this low fire setting.
7. Cycle unit power off and back on to remove any overrides.

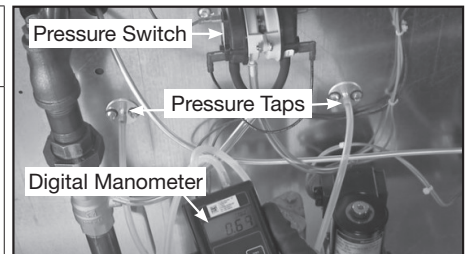


Fig. 1 Measuring the Pressure Drop

Pressure Differential		
	NG	LP
Constant Volume	.6 - .7	.8 - .9
Variable Volume	.5 - .8	.7 - 1.0
Recirculation	.5 - .8	.7 - 1.0

Fig. 2
(Values shown as in. wg)



Fig. 3 DC Voltmeter and Flame Amplifier

Remove cap to access
maximum firing rate
adjustment

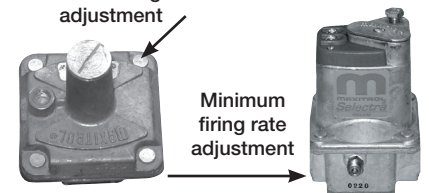


Fig. 4 Separate Regulator & Modulating Valves

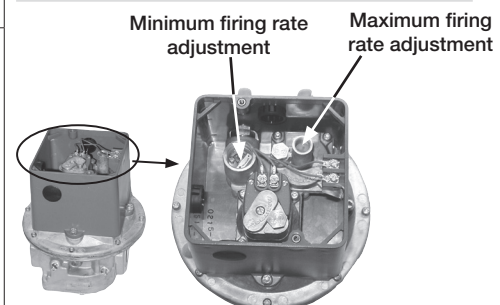


Fig. 5 Combined Modulating Regulator