

IAQH-QC

TOOLS REQUIRED:

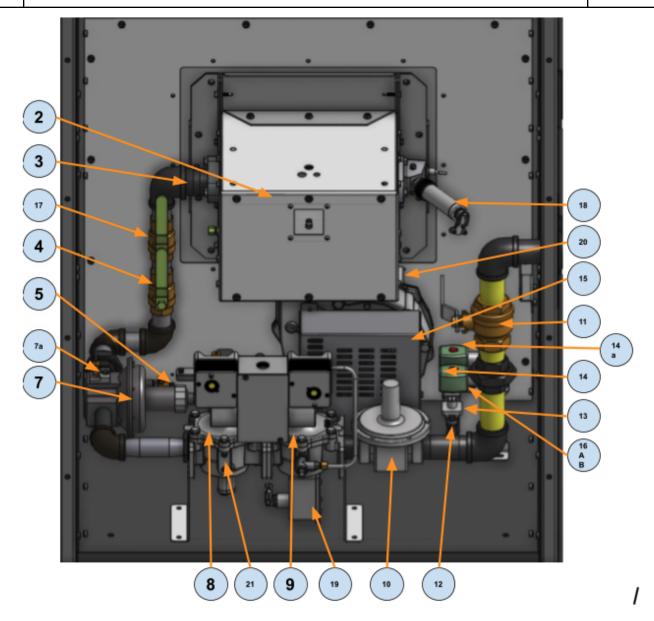
- MANOMETER
- MULTIMETER
- PIPE WRENCH
- CRESCENT WRENCH
- SHORT FLATHEAD SCREWDRIVER

- LONG FLATHEAD SCREWDRIVER
- 7/16 COMBO WRENCH
- 5/16 COMBO WRENCH
- 3/16 ALLEN WRENCH
- COMBUSTION ANALYZER

STEP	DESCRIPTION	INITIAL	
1	VISUAL CHECK		
2	CONNECT POWER, GAS, AND INSTALL CHIMNEY		
3	CHECK VOLTAGE @ DISCONNECT - 208VAC		
4	INSTALL HOSE BARBS & CAPS ON ALL TEST POINTS (ITEMS 3, 5, 12, 14, 21)		
5	OPEN AIR DAMPER (ITEM 20)		
6	TURN ON GAS SUPPLY, THEN PURGE GAS LINE @ ITEM 12		
7	CHECK STATIC INLET PRESSURE - LESS THAN 14 INWC GREATER THAN 10 INWC (ITEM 12)		
9	OPEN PILOT AND MAIN VALVES, CHECK THAT ORIFICE IS SET TO CORRECT FUEL GAS POSITION - ITEM 17		
10	TURN ON DISCONNECT & WATLOW TOGGLE SWITCH		
11	TURN ON ALL BREAKERS		
12	SET WATLOW TO MANUAL COMMISSIONING MODE → HOME SCREEN (△) → MENU (≡)→ LOGIN → ENTER PASSWORD "GASPOWER" → HOME SCREEN (△) → TEMP CONTROL OPTIONS (TOP RIGHT 3 DOTS [∶]) → SET TO MANUAL		
13	TURN ON CONTROLLER "HEAT ENABLE" & "FAN DELAY". SET BURNER CONTROL TO LOW FIRE - 3.1%		
14	TUNE PILOT - ITEM 13 EBM Burner Blower Motor Fasco Burner Motor NG: 1.5 INWC NG: 5.7 INWC LP: 1 INWC LP: 5.2 INWC NOTE: THERE IS A SHORT TIMEFRAME TO SET THIS PRESSURE		
15	CHECK LOW FIRE - ADJUST LOW FIRE BYPASS (IF EQUIPPED) SO ALL HOLES FILLED WITH CLEAN FLAME - ITEM 7A		
16	ADJUST BURNER CONTROL TO HIGH FIRE - 100% (Note only leave machine in this set point for a maximum of 30 seconds during this test and then turn down to avoid overheat, watch air temperatures during the test.		
17	CHECK INLET PRESSURE & PRESSURE DROP - 1 INWC PRESSURE DROP (APPLIANCE MAX - 10 INWC)		
18	CHECK RATIO ADJUSTMENT - ITEM 5 NG: 0.9 INWC @ 2 INWC LOAD LP: 0.4 INWC @ 2 INWC LOAD NOTE: ADJUST BURNER CONTROL (BETWEEN 50-70%) TO REACH 2 INWC LOAD (AT RATIO TEST PORT)		
19	Turn to automatic mode, and test combustion. If a detailed combustion check must be accomplished at different load steps you many manually do this, however use caution high heat can cause equipment damage or high limit trips O2: 3-5% CO2: 8.5-10% CO: LESS THAN 100 PPM EXHAUST TEMPERATURE: LESS THAN 550°F		
20	CHECK COMBUSTION ANALYSIS @ 3.1% BURNER CONTROL O2: 16-18.5% CO: LESS THAN 400 PPM		



21 RESET WATLOW CONTROLLER TO AUTOMATIC MODE & REPLACE ALL TEST PORT PLUGS



Flgure GT1



Item#	Part #	Description
1	2120-01	Control Box
2	2101-01	Burner Housing
3	NA	Main Gas Manifold Pressure Tap
4	NA	Manual Firing Valve
5	NA	Ratio Regulator AIr Pressure Tap
7	8614-04	Dungs FRG Ratio Regulator
7a	NA	Low Fire Bypass
8	8402-42	Main Gas Solenoid 1
9	8402-42	Main Gas Solenoid 2
10	8416-05	Main Gas Regulator
11	8404-67	Main Manual Gas Shutoff Valve
12	N/A	Supply Gas Pressure Tap
13	8400-00	Pilot Gas Regulator
14	NA	Pilot Gas Manifold Pressure Tap
14A	N/A	Pilot manual shutoff valve
15	2117-10	Variable Speed Blower
16A/B	8402-37	Pilot Solenoid Valve
17	NA	NG LP Gas Selection Valve
18	NA	UV Scanner
19	NA	Proof of Closure System
20	NA	Free Air Adjustment
21	NA	Main Regulator Test Port