



HOTWORK AUSTRALIA PTY LTD ABN 20 105 840 935
12/77 Newton Rd, Wetherill Pk, NSW 2164
Tel 02 9756 1243- Fax 02 9756 1289- Mobile 0408 229540- Hotwork@bigpond.net.au

HOTWORK FLAME CONTROL UNITS **START UP PROCEDURE**

CONNECTIONS

- 1) Connect the **1 ½" FLEXIBLE GAS HOSE** to the 'flame control unit'. **AT THE INLET GAS SIDE OF THE UNIT** next to the gas filter.
- 2) Connect the **2" MAIN GAS HOSE** between the 'flame control unit' and the Hotwork burner.
- 3) Connect the **6" COMBUSTION AIR HOSE** to the Hotwork burner and Fan then secure with the hose clamps.
- 4) Connect the **3/8" PRESSURE SWITCH IMPULSE AIR HOSE ON THE FLAME CONTROL UNIT COMBUSTION AIR PRESSURE SWITCH**, and the Hotwork burner at the air intake .
- 5) Connect the **FIRE-EYE & IGNITION LEADS** to the Hotwork burner from the control unit.
- 6) Connect the **COMBUSTION AIR INTER-LOCK LEAD BETWEEN THE FLAME CONTROL UNIT ON THE SIDE OF THE ELECTRICAL PANNEL, AND THE SOCKET UNDERNEATH THE BLOWER ELCTRICAL BOX.**

ELECTRICITY SUPPLY

- 7) *Open up the electrical cabinet on the **FCU** and make sure that all relay's are nice and tight, and that the circuit breaker inside is in the on position and that the Burner switch and Power switch on the front of the unit are in the **OFF** position , then check to see if the **LFL black box** burner controller is also tight in it's current position and that the purge timer is set to zero mins, if additional purge time is required then the purge timer must be set as per the requirement on the industrial gas submission form.*
- 8) Connect the **240VAC 50HZ, SUPPLY LEAD FROM THE FLAME UNIT** to the electrical main supply.
- 9) Connect the **415V 30AMP 50HZ, ELECTRICAL SUPPLY LEAD** for the combustion air fan to the electrical main supply and check rotation.
- 10) Move the **COMBUSTION AIR** butterfly valve on the burner and set to **75% CLOSED** and then start the blower,

"CHECK THAT ALL CONNECTIONS AND FITTINGS ARE CORRECT AND TIGHT"

START-UP SEQUENCE

- a) Make sure the pilot line **¾ " GATE VALE** and the main line **2" GATE VALVE ARE ALL FULLY CLOSED ON THE UNIT** and that the **¾ " BALL VALVE ON THE PILOT LINE, AND THE 2" BALL VALVE ON THE MAIN LINE, JUST BEFORE THE GAS FILTER ARE FULLY OPEN**, now you are ready to connect the **1 ½ "** gas line to the main supply and turn on the main plant gas supply, once this has been done, a soap test is required on all active gas lines to ensure of any leaks.
- b) Switch the power button on the **FCU** to the **ON POSITION** and the power light should come on, make sure that the Burner switch is in the off position beforehand, if the High/Low gas light is on and the alarm sounds please make sure that you have opened up the gas line to the unit and then press the reset button.

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- c) Press the **START** button on the **FCU**, the **COMBUSTION AIR LIGHT** and **PURGE LIGHT** will come on, and the system will then start an automatic 45-60 sec purge, the purge light will stay on during and after the purge is complete .
- d) After completion of the purge time approx 45-60 seconds, the timer will time out and the burner is **READY** to **START**, if the timer has been set to a specific time other than zero, you will have to wait until that setting has timed out on the timer.

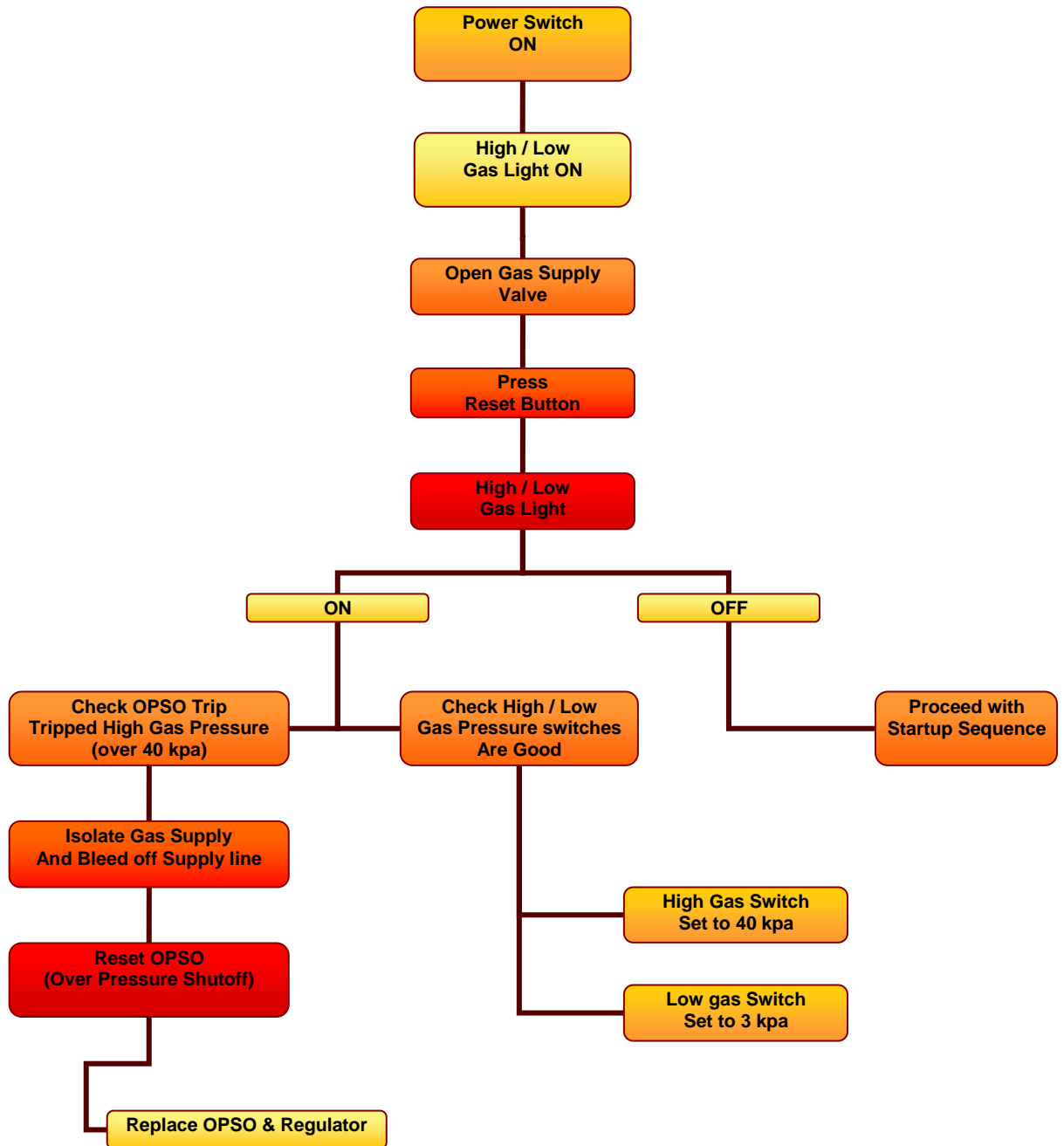
LIGHT-UP SEQUENCE

- e) Move the **BURNER SWITCH** to the **ON POSITION** and this will start the **LFL black box burner controller** to go through the **LIGHTING SEQUENCE**, which will take approx 30 seconds.
- f) Once the **SEQUENCE** reaches the **IGNITION PHASE** the **IGNITION LIGHT** will **COME ON** and provide a spark to the burner for approx 3-5 seconds.
- g) When the **PILOT LIGHT COMES ON** and the burner is **LIT** on **PILOT GAS**, this will then activate the **MAIN GAS OPEN LIGHT** and the **MAIN** gas valves will **OPEN**, if the burner does not establish a pilot flame during the ignition sequence, it will go to flame failure and the alarm will sound, press the black re-set button for the lighting sequence to re-start again.
- h) Once **PILOT** is established **OPEN** up the **BURNER COMBUSTION AIR BUTTERFLY VALVE** to **75% OPEN** this is the maximum setting for the **AIR** so the fan will not overload.
- i) If the burner **FLAME FAILS** for any reason a **RED LIGHT** will come **ON** and the **ALARM** will sound press the **RESET** button and the unit will **RE-LIGHT** after it has gone through it's **SEQUENCE AGAIN** in approx 90 seconds.

✚ **MAIN GAS VALVES RATED AT 200Kpa. PILOT VALVES RATED AT 50Kpa.**
 ✚ **MAIN GAS OPSO REGULATORS ARE SET BETWEEN 20Kpa AND 35Kpa output with a maximum inlet pressure of 600kpa, OPSO trip set at 40kpa**
 ✚ **COMBUSTION AIR PRESSURE SWITCH setting is at 3kpa**
 ✚ **HIGH GAS PRESSURE SWITCH setting is at 40kpa**
 ✚ **LOW GAS PRESURE SWITCH setting is at 3kpa**
IN THE EVENT OF ANY OF THE ABOVE SWITCHES HAVE REACHED THEIR LIMITS THEY WILL SHUT OFF THE BURNER AND ASSOCIATED CONTROL PANEL AND THE ALARM WILL SOUND.

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