F-400T START UP INSTRUCTIONS:

1. Set fuel selector valve according to gas supply to be used

2. Connect construction heater to gas supply with approved hose assembly.

3. Plug the electrical cord into a 15 amp supply.

- 4. Open all gas supply valves.
- 5. Depress the main switch to the "START" position. The fan will start and the burner should ignite.

6. Set the Thermostat to the desired temperature.

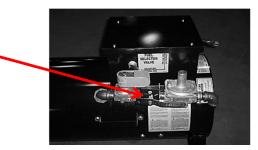
7. If heater fails to ignite after 3 attempts call your supplier for service.

TO SHUT DOWN:

1. Close the main gas supply valve while the heater is operating.

2. Move the main switch to the "OFF" position.

3. Disconnect the heater from gas supply.





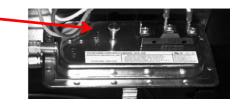
OFF RUN START



F-400T TROUBLESHOOTING ANALYSIS:

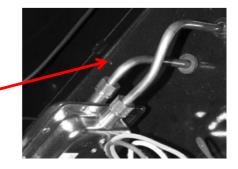
PROBLEM: HEATER WILL NOT LIGHT

- **POSSIBLE CAUSE:** Air switch improperly set.
- REMEDY: Use centre adjusting screw to set air switch. Turn clockwise to increase sensitivity, turn counter clockwise to decrease sensitivity.



POSSIBLE CAUSE: Blockage in copper inlet tubes.

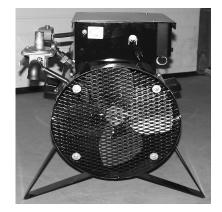
REMEDY: Disconnect tubes from air switch. Use high pressure air to clean any debris that my block the airflow.



- **POSSIBLE CAUSE:** Faulty Switch.
- **REMEDY:** Replace Switch.



- **POSSIBLE CAUSE:** Rear of heater blocked.
- **REMEDY:** Ensure rear of heater is unobstructed and proper rear clearances are maintained. (see approval label)



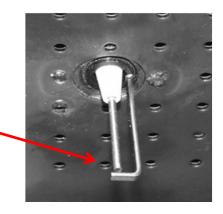
POSSIBLE CAUSE: Faulty Solenoid.

REMEDY: Ensure solenoid is energized. (use volt meter)

> Ensure plunger in the solenoid is being activated. (use manometer at test point after solenoid) (use volt meter)



- **POSSIBLE CAUSE:** Incorrect Gas Supply.
- **REMEDY:** Ensure required gas supply pressures are supplied to the heater. (see approval label)
- **POSSIBLE CAUSE:** Spark Plug.
- **REMEDY:** Ensure gap in spark plug is approx. 3/16". Check spark plug wire connections. Ensure spark plug has good spark. Replace spark plug if necessary.



POSSIBLE CAUSE: Ignition Board

REMEDY: Ensure electrical signals for both spark plug and solenoid are present. (use volt meter)

Ensure ignition board is properly grounded.



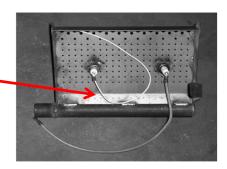
POSSIBLE CAUSE: Thermostat.

REMEDY: Ensure the thermostat is calling for heat.



PROBLEM: HEATER WILL NOT REMAIN LIT AFTER START UP

- **POSSIBLE CAUSE:** Faulty flamerod wire.
- **REMEDY:** Check flamerod wire for any damage.



- **POSSIBLE CAUSE:** Faulty flamerod
- **REMEDY:** Ensure connections are secure. Replace flamerod if necessary.



- POSSIBLE CAUSE: Ignition Board
- REMEDY: Check ground wire for proper connection. Check polarity of extension cord compared to polarity of plug on heater. Replace faulty ignition board.
- **POSSIBLE CAUSE:** Thermostat
- **REMEDY:** Ensure the thermostat is calling for heat.





- **POSSIBLE CAUSE:** Electrical All components
- **REMEDY:** Before replacing an component, all connections must be checked to ensure electrical circuit is complete. (Use volt meter and refer to enclosed wiring diagram)
- **POSSIBLE CAUSE:** Pipe Fittings
- **REMEDY:** When loosened, tightened or replaced, the complete fitting should be removed and approved pipe sealant applied to all male threads before reconnection.

After a heater is serviced, the valve train should be checked for leaks with a soap and water solution or approved leak detector solution.