

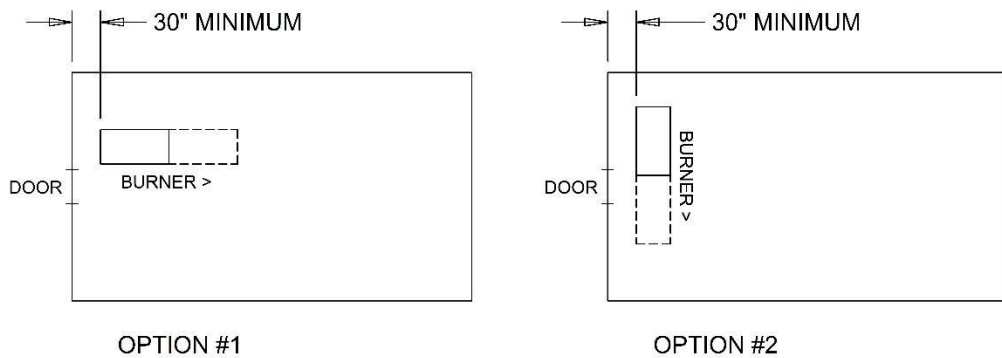
Installation Instructions for GHAF Series

Please read carefully before installing.

- Install the furnace on a solid surface at the lowest part of the greenhouse (usually beside the door) with the burner side facing the center of the greenhouse, as illustrated in option #1 and option #2 below.
- Be sure to allow a minimum of 4 ft. of clearance (indicated by dotted line) in front of furnace.

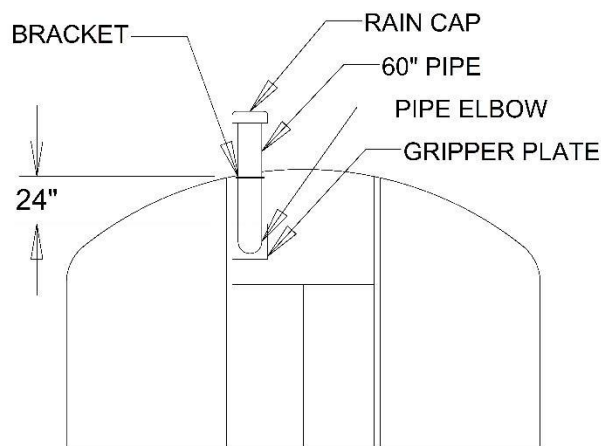
SUGGESTED FURNACE PLACEMENT

OVERHEAD VIEWS



Install B-Vent chimney following these instructions:

1. Attach gripper support to door post.
2. Use wire lock to hold plate to the plastic.
3. The plate should be 24" below the outside hoop of the greenhouse.
4. One 12" or 18" B-Vent pipe should be inserted through the gripper.
5. Add elbow and 60" pipe with rain cap.
6. Cut bracket rod to length needed and attach to top hoop of greenhouse.



GABLE VIEW

Regulator and Gas Line Sizing

Option #1

(Red) First stage regulator of tank.

Run underground line to building.

Install a second stage regulator either (brown or green).

Use ¾" gas line to furnace.

Option #2

2 PSI System

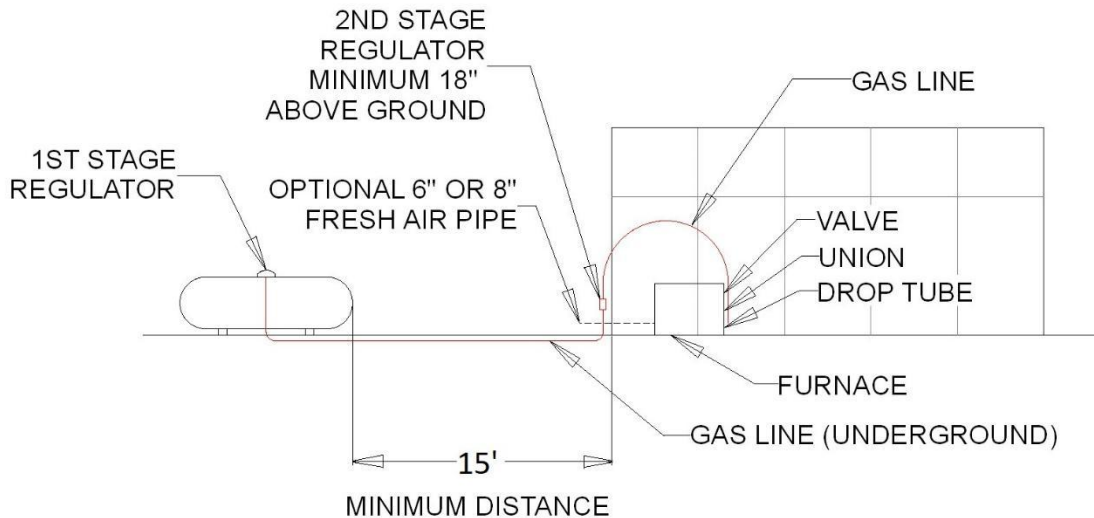
Maximum 100 ft of tubing (1/2" copper tubing

Install (white) 2 PSI at tank to a (gray) low pressure regulator at furnace.

Option #3

(Red) first stage regulator at tank to (blue) regulator at building to (gray) service regulator at furnace.

SIDE VIEW



Gas line installation:

1. Install a shutoff valve inside the greenhouse.
2. Insert gas line through end wall of greenhouse then loop up and over the furnace as illustrated in diagram.
3. Use wire ties or clips to fasten gas line to truss and then run line back to control.
4. Leave enough slack in the gas line so you can pull the burner all the way out with line connected.
5. **If burner needs to be pulled out, orange ignitor wires must first be disconnected.**

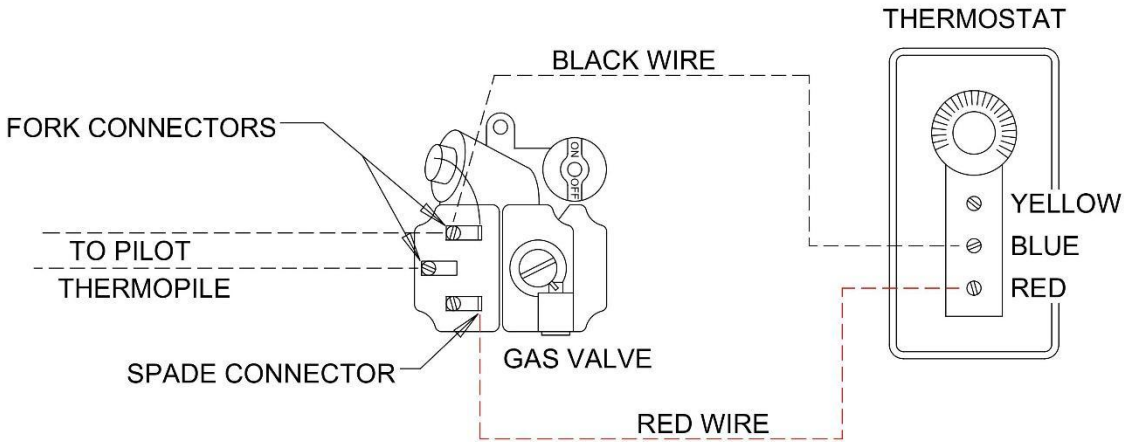
Rear duct boxes:

1. Attach one box to cover the bottom three horizontal tubes.
2. Attach second box to cover the next five tubes. (on the 350 model the top three tubes are uncovered)
3. Add 12" elbows to boxes. Add 12 x 24 pipe vertical as needed.

Thermostat:

1. When facing the furnace, the burner on the left should be the primary control. Use 15 to 20 ft. of thermostat wire.
2. Use up to 45 ft. of wire on the second burner to connect the thermostat wire farthest from the stove.
3. See page 4 for thermostat mounting instructions.

K Kontrol thermostat wiring:



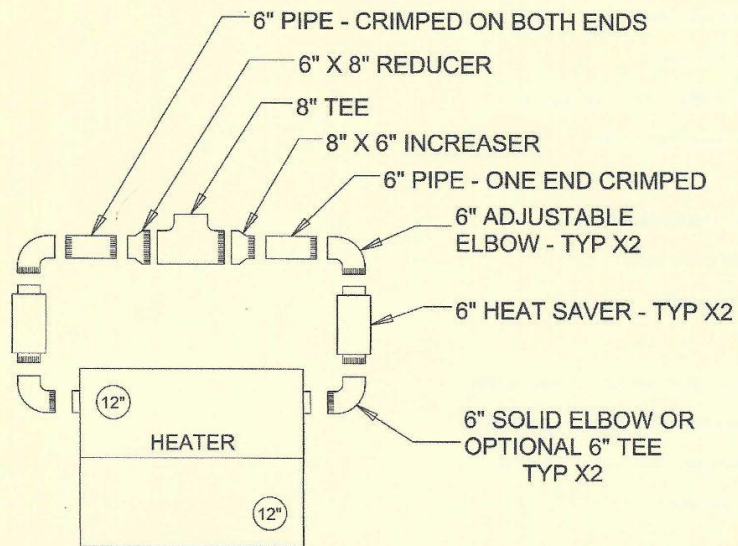
Lighting Instructions

1. Bleed gas line before lighting pilot.
2. To light the gas valve, turn knob to pilot position.
3. Push knob and hold down.
4. Use piezo ignition to light pilot, holding down knob for 30 to 45 seconds.

Note:

1. Check all gas fittings for leaks.
2. Turn thermostat 3-5 deg. difference so the burners light at different time. This will increase efficiency.
3. Turning thermostat on and off quickly will create a flame inside of tube.
4. Primary thermostat placement should be 10 to 12 feet from furnace.
5. Secondary thermostat placement should be approximately 30 ft. from furnace.
6. Never exceed 45 ft. of wire per thermostat.

Instructions for Rear Duct and Heat Saver installation



(Rear Duct Work)

Note: Add 12" elbow and 12" pipe as needed to rear duct boxes.

Trouble Shooting:

Q: Pilot light does not stay lit.

A: Check all wiring. Clean terminals and ensure that there are no spider webs in the pilot.

Pilot must burn into thermopile.

Check for down draft.

Blow air into pilot.

Make sure pilot tube is not clogged.

Possible weak thermopile.

Q: Pilot has a high yellow flame.

A: Check for spider webs.

Blow air into pilot.

Q: Thermostat does not turn on main burner.

A: Check all wiring and temperature setpoint.

Make sure gas valve is in "on" position.

Make sure pilot is lit.

Q: Yellow burner burns dirty

A: Blow on burner tubes

Make sure air mixtures are open.

Note: When finished using furnace at the end of the season remove burner and shrink wrap. This will prevent corrosion and prevent spider webs.