

# ASSEMBLY and INSTALLATION INSTRUCTIONS



## Outdoor Mount Kit

For use with Greenhouse heaters

View these instructions online at [www.lbwhite.com](http://www.lbwhite.com)

### Qualifications for installation:

- You must be able to read and understand all instructions provided with the kit.
- You must have sufficient experience to install the kit.
- You must be able to test the heater for proper operation and place the heater in a constant safe and normal operating condition.

### Tools required:

Standard screwdriver  
Electric Drill  
1/4 in. Drill Bit  
Ratchet with 9/16 in. socket  
9/16 in. Wrench  
Reciprocating Saw or Jigsaw  
1/4 in. Nut Driver  
Level  
Ruler or Tape Measure  
Pencil or Marker

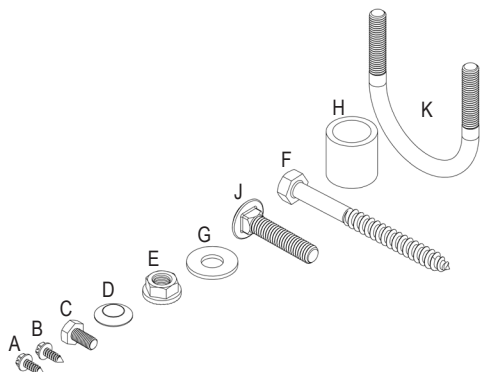
### ATTENTION:

- Installations and applications of L.B. White heaters must meet all applicable local, regional, and national codes. Included are LP gas, natural gas, electrical and safety codes. Your local fuel gas supplier, a local licensed electrician, local fire department, or similar government agency can assist you.
- Mounting the heater may require the assistance of others.
- The heater must be securely mounted on the outside of the greenhouse. The supports must be able to hold the combined weight of the heater and the outdoor mounting kit. Consider the final installed weight to be:
  - o Therma Grow 120: all models 160 lbs. (72.6kg)
  - o Therma Grow 220: all models 185 lbs. (84kg)
- Appropriate mounting hardware is supplied in the outdoor mounting kit for fastening the main supports to 1 1/2" steel pipes or 4 x 4 treated posts.
  - **If the wall studs are further apart than the referenced centers or if the walls are made of other materials, the appropriate mounting hardware and materials must be locally obtained to ensure the heater and its outdoor kit are securely and safely mounted.**
- The heater must be mounted a minimum of 2 ft. (0.61 m) above the ground and at a location so as not to interfere with water, gas, or electrical lines.
- Do not mount the heater and its kit on the side of the building which has exhaust fans.
- The heater must be installed so that its air inlets are not obstructed, and to withstand the effects of adverse weather conditions.
- The heater's duct must be positioned to maintain a minimum of 1/2 in. (1.27 cm) air gap on all sides between the duct and the nearest combustible material.
  - o Any material within 1/2 in. (1.27 cm) of the duct or in contact with the duct must be made of non-combustible material, or be protected with non-combustible insulation.

## A. Getting ready

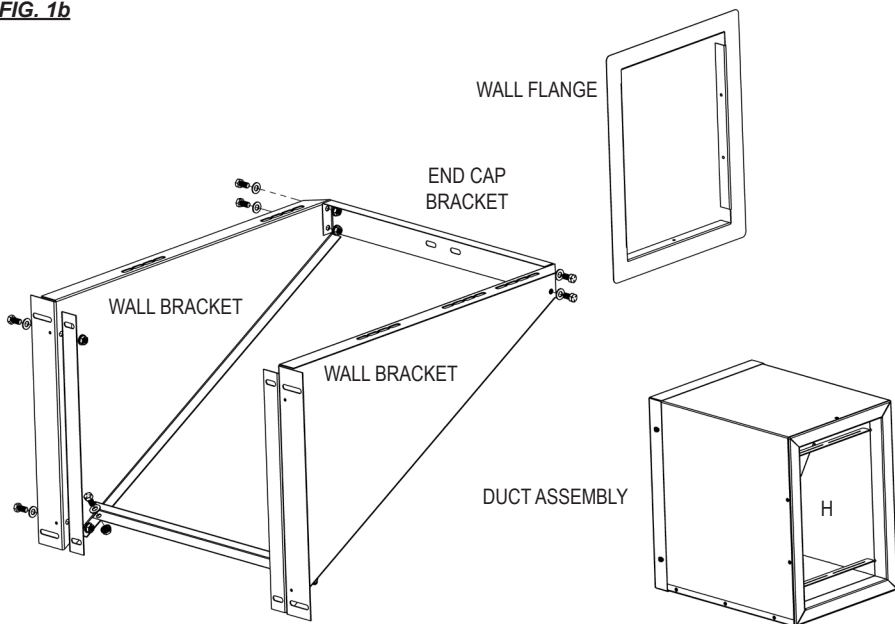
- Determine the location for the heater installation.
- Lay all kit components on a flat area to assist in identification and assembly.
  - o See Figs. 1a and 1b to identify the components used in the assembly process.

**FIG. 1a**



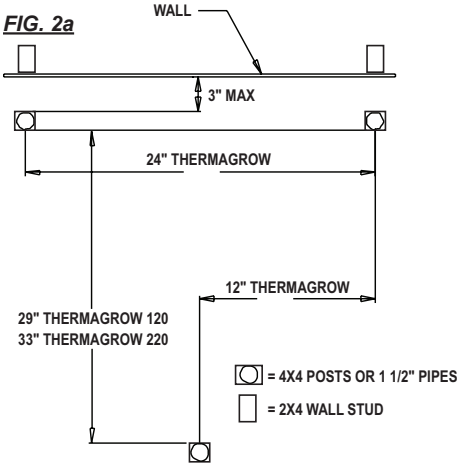
ITEM	DESCRIPTION	QTY
A	Screw, # 8 X 3/8	4
B	Screw, #8 x 1/2, self-drilling	24
C	Bolt, 3/8-16x3/4"	10
D	Plug, Case Top	4
E	Nut, Hex, Lock	14
F	Screw, 4" Lag	4
G	Washer, 1/2"	4
H	Spacer, 1"	4
J	Carriage Bolt	4
K	2" U-Bolt w/saddle & nuts	5

**FIG. 1b**



## B. Installation

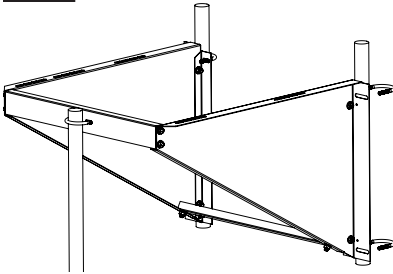
These instructions provide common information for assembly of the kit and mounting the heater to either free-standing supports or directly to the Greenhouse. Regardless of mounting arrangement, the mounting kit with heater must be plumb and level after installation is complete. See FIG. 2a for dimensions.



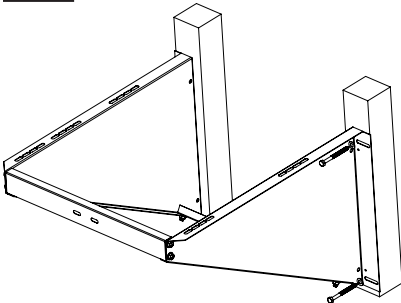
## C. Assembling Kit Components to Supports and Heater

1. Assemble the outdoor mounting kit with hardware as shown in FIG 1b. Tighten all brackets and components securely.
2. For free standing installations, mount the assembly to vertical supports.
  - If using pipe: See Fig. 2b
  - If using posts: See Fig. 2c
  - Secure the assembly to the pipes or posts with appropriate hardware from kit.

**FIG. 2b**

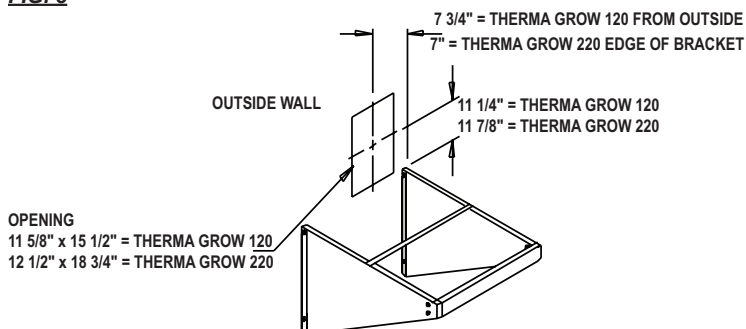


**FIG. 2c**



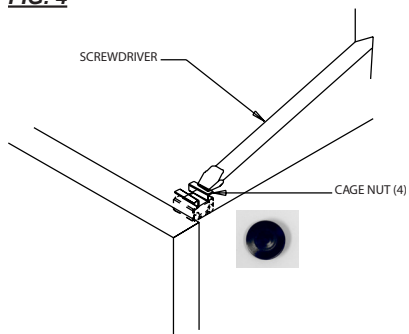
- Cut a rectangular opening in the wall perpendicular to the center of the heater's blower outlet. See Fig. 3

**FIG. 3**



- If the heater has cage nuts installed at the corners; remove and install hole plugs, item D. Press firmly locking plugs into place. See Fig. 4

**FIG. 4**



## Section B: Assembling Kit Components to Heater

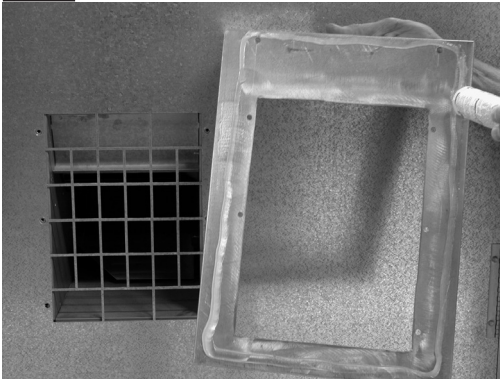
1. Remove the 6 or 8 blower outlet screws. See Fig. 5a.

**FIG. 5a**



2. Apply a bead of provided sealant around back of duct flange. See Fig. 5b.

**FIG. 5b**



3. Attach the duct flange to outlet of heater using the blower outlet screws. Ensure wide margin of flange is at top. See Fig. 5c.

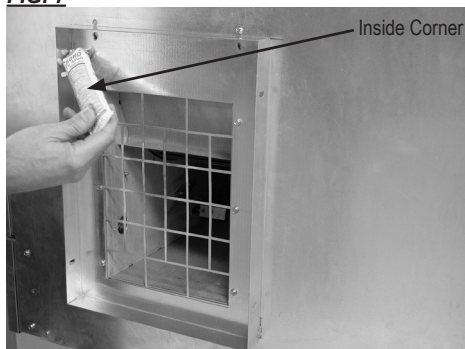
**FIG. 5c**



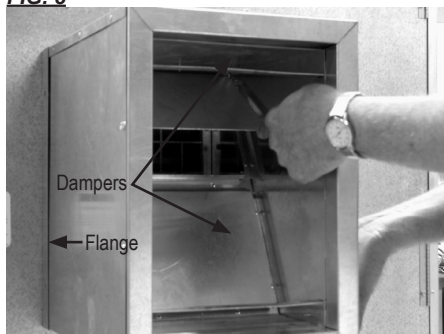
4. Use two Item B, #8 x 1/2 in. self-drilling screws from kit at holes on upper margin of flange. See Fig. 6.  
Note: Holes may be pre-drilled.

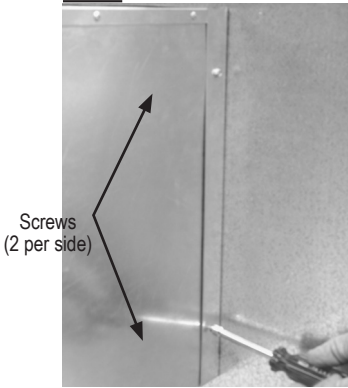
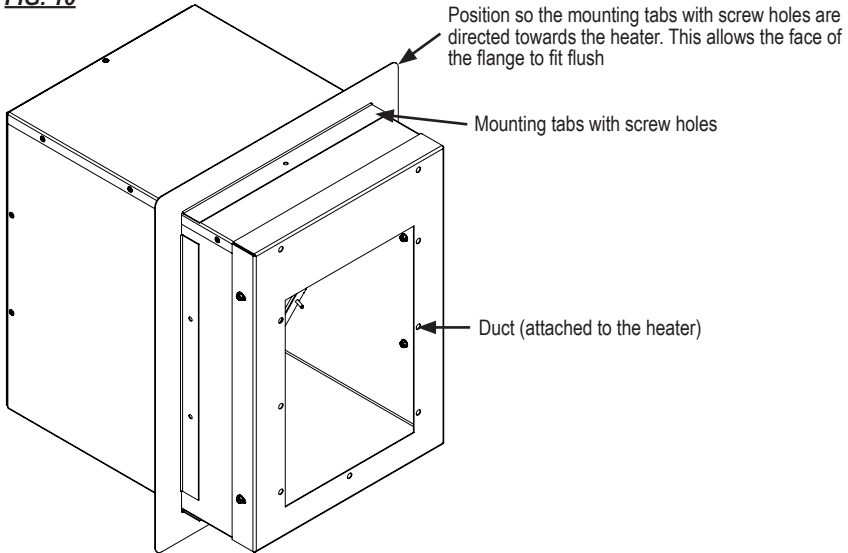
**FIG. 6**

5. Apply a heavy bead of sealant all the way around the inside corner of the mounting flange. See Fig. 7.

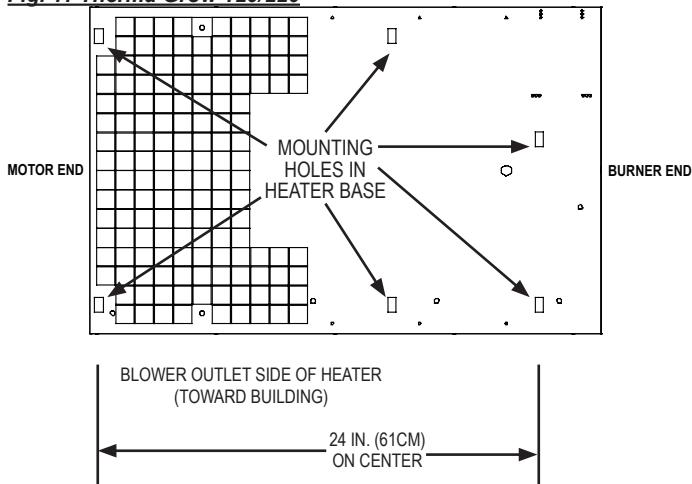
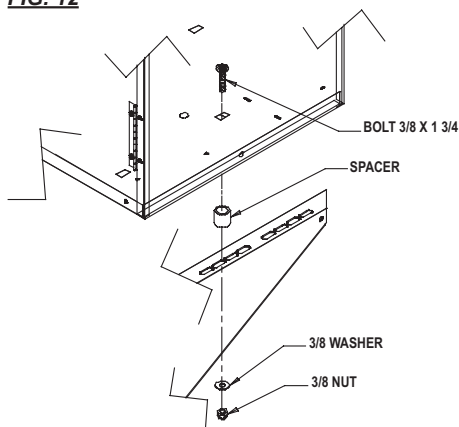
**FIG. 7**

6. Position duct into mounting flange so dampers lift up and away from blower outlet. Push duct firmly against flange. Attach duct to flange using 3/8 in. sheet metal screws at flange sides. See Figs. 8 and 9.

**FIG. 8**

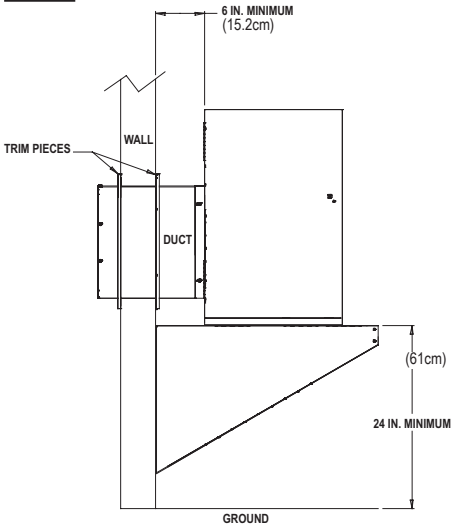
**FIG. 9****FIG. 10**

1. With the assistance of others, lift the heater onto the bracket assembly, and slide the duct assembly through the wall opening.
2. Position the heater so duct is flush with inner wall of building and holes in base align to holes in brackets.
3. Insert spacers between the openings in heater base and holes in brackets. Secure heater to brackets using 4 each Items E, G, H, and J. See Figs. 11.

**Fig. 11 Therma Grow 120/220****FIG. 12**

4. Ensure heater clearances are as shown in Fig. 13.



**FIG. 13**

5. Fill in void around duct with non-combustible insulation.
6. Seal the edges of duct hole at interior and exterior of building. Use waterproof caulk. If desired, install trim pieces. Fold the duct trim frames around the duct assembly at both sides of wall. Attach with 1/2" self drilling screws. See Fig. 2.
7. Connect the heater to its gas and electrical supplies. Check for gas leaks.
8. Start the heater. Test the installation. Dampers must open and close completely when heater is started and stopped.
9. Keep instructions for future reference.

## Service

Contact your local L.B. White dealer for replacement parts and service. You may also call the L.B. White Co., LLC at U.S. & Canada: 1-800-345-7200, Overseas: 001-608-783-5691 assistance, or email us at [customerservice@lbwhite.com](mailto:customerservice@lbwhite.com).

Be sure that you have your heater model number and configuration number when calling.



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