

ASSEMBLY and INSTALLATION INSTRUCTIONS



Outdoor Mount Kit For use with Greenhouse heaters

View these instructions online at 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
3/8 in. Drill Bit
Ratchet with 7/16, 1/2, and 9/16 in. Sockets
7/16, 1/2, and 9/16 in. Wrenches
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, and 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

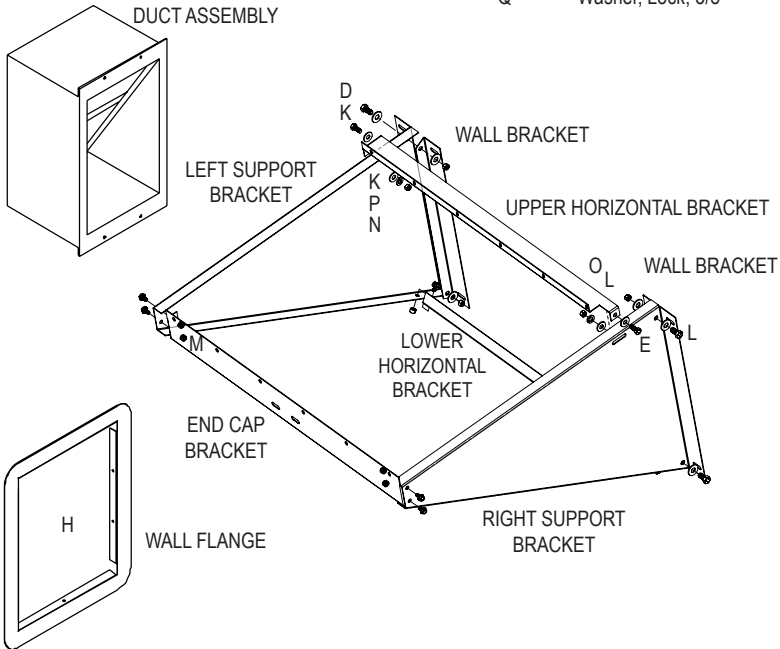
- Determine the location for the heater installation.
- Lay all kit components on a flat area to assist in identification and assembly.
 - o See Figs. 1a and 1b to identify the components used in the assembly process.

FIG. 1a



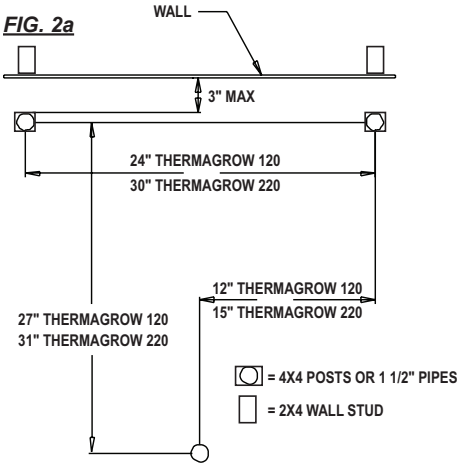
ITEM	DESCRIPTION	QTY
A	Screw, 3/8 Sheet Metal	2
B	Screw, 8 x 1/2 Self Tapping	12
C	Bolt, 1/4 -20 x 1/2	6
D	Bolt, 5/16-18 x 3/4	2
E	Bolt, 3/8-16 x 3/4	4
F	Bolt, 3/8-16 x 4 1/2	8
G	2" U-Bolt w/saddle & nuts	5
H	Wall flange	2
I	Duct assembly	1
J	Plug, Button	4
K	Washer, Flat, 5/16	4
L	Washer, Flat, 3/8	20
M	Nut, Hex, Lock, 1/4-20	6
N	Nut, Hex, 5/16-18	2
O	Nut, Hex, 3/8-16	12
P	Washer, Lock, 5/16	2
Q	Washer, Lock, 3/8	12

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

- Assemble the outdoor mounting kit with hardware as shown in FIG 1b. With design upgrades, it may be necessary to drill a 3/8 in. hole in each support bracket for mounting the upper horizontal bracket. Finger tighten the bolts, item D from kit. Tighten all other brackets and components securely.
- 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

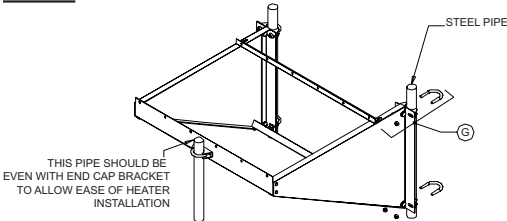
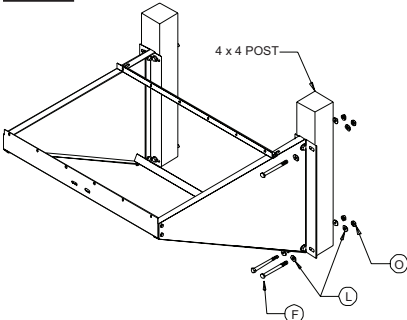


FIG. 2c



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

FIG. 3

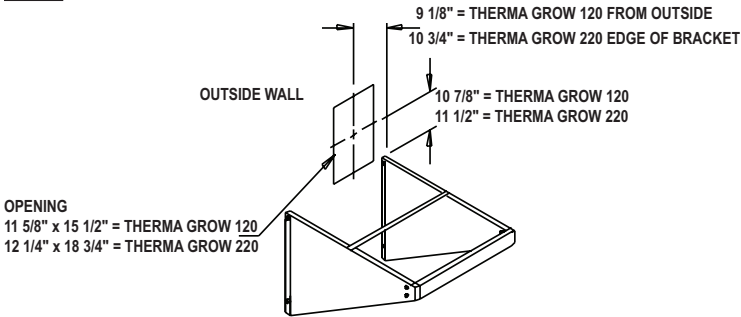
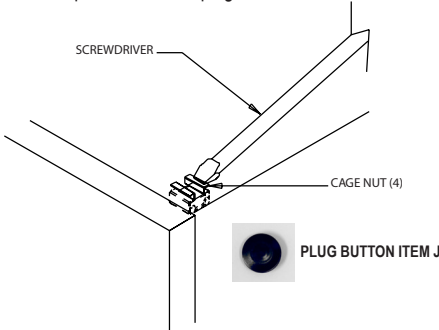


FIG. 4 THERMA GROW 120 ONLY

- Use a screwdriver to remove the 4 cage nuts from the corners on the top of the case assembly. Replace with the 4 plug buttons from kit.



- Remove two screws directly above the blower outlet, and only those screws at the base of the front and the back of the heater. (Note: Therma Grow 120 has 4 screws, Therma Grow 220 has 6 screws). See Fig. 5a & 5b. Note the two vacant screw holes directly below blower outlet. These will be used to mount the ducting.

FIG. 5a

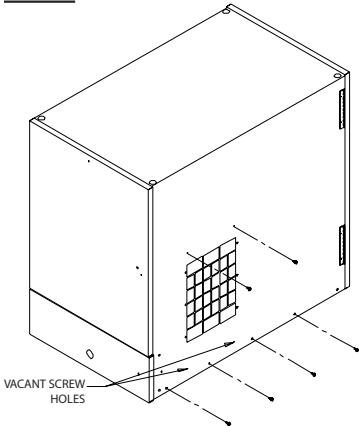
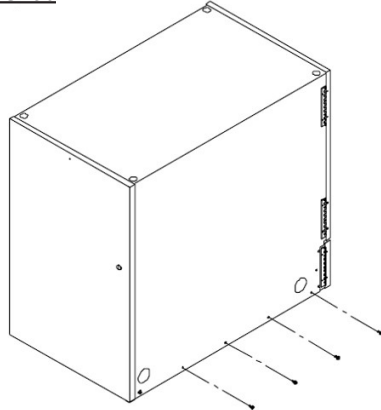
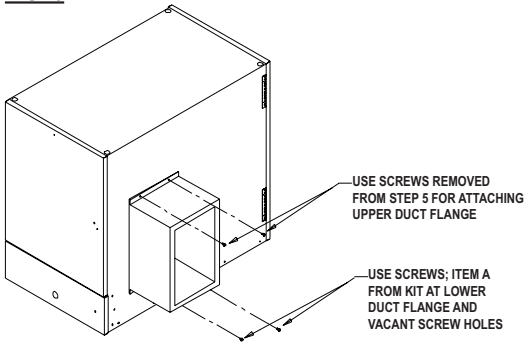


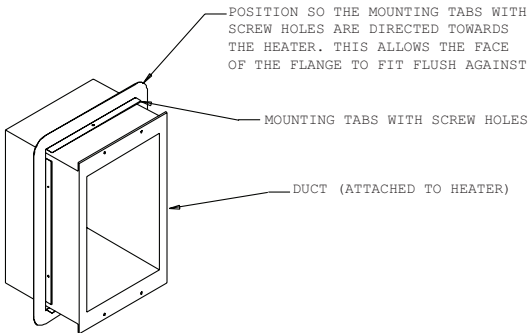
FIG. 5b



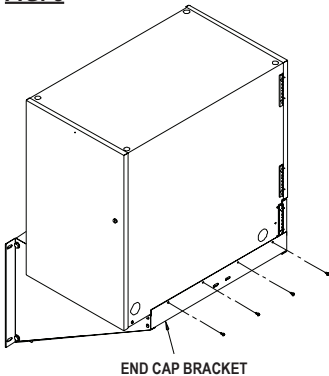
6. Attach the duct to blower outlet on the heater, test dampers by hand prior to attaching. The holes on the upper and lower duct flanges align with the holes in case front. Secure in place with 3/8 in. sheet metal screws. See Fig. 6.

FIG. 6

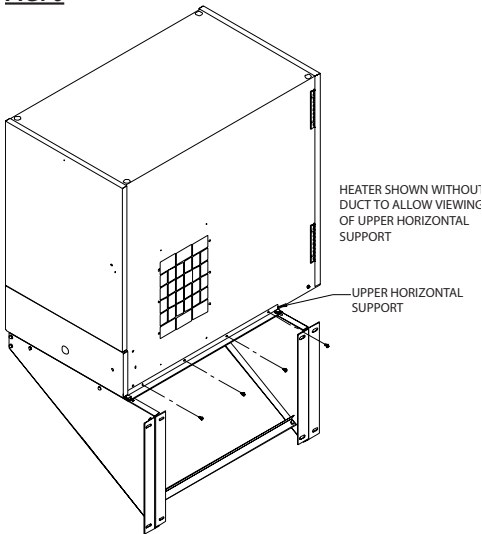
7. Position wall flange around duct. Mounting tabs of flange must be toward heater. See Fig. 7.

FIG. 7

8. Lift the heater over end cap bracket and onto main mounting brackets. Position heater so:
- Duct slides into greenhouse opening.
 - Holes in base at the back of heater align with holes in end cap bracket. See Fig. 8.
 - Secure the heater to end cap bracket with screws removed from step 5b.

FIG. 8

9. Position upper horizontal bracket to the base on the front of heater. Fasten heater to bracket with 3/8 in. screws removed in step 5a. See Fig. 9. Tighten the bracket bolts securely.

FIG. 9

10. Position outer duct flange tightly up to exterior of building and fasten to duct using 3/8 in. self-tapping screws: item B from kit. Repeat same process for interior duct flange on inside of greenhouse. Ensure mounting tabs with screw holes are directed towards the interior of the greenhouse. This allows the face of the mounting flange to fit flush against the inside wall. See Fig. 10a and 10b.

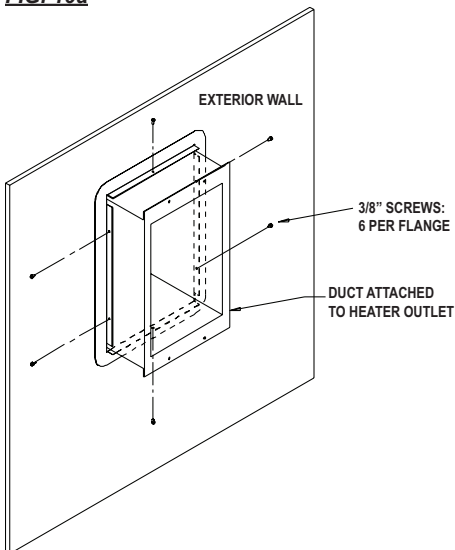
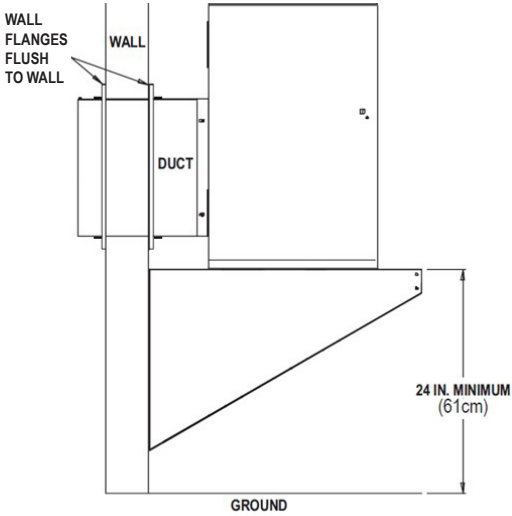
FIG. 10a

FIG. 10b

D. Completion

11. Connect the heater to its gas and electrical supplies. Check for gas leaks.
12. Start the heater. Test the installation. Dampers must open and close completely when heater is started and stopped.
13. 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.

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



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