



This Outdoor Cover Kit is for NEW OUTDOOR INSTALLATIONS ONLY.

All precautions must be taken to prevent water in the heat exchanger and condensate inside and outside of the boiler from freezing. Outdoor installations of the Mascot ST are intended for locations where freezing temperatures rarely occur. Damage due to freezing water or freezing condensate is not covered by the Mascot ST manufacturers warranty.

This Outdoor Cover Kit must be completed prior to the Mascot ST being installed.

Then the Mascot ST Installation Manual (Doc 1316) must be followed for the remainder of the Installation. Doc 1316 is shipped with the new Mascot ST or can be downloaded at www.laars.com. Follow the installation instructions or the Mascot ST warranty will be void.

The Mascot ST and this Mascot ST Outdoor Cover Kit must be installed by qualified and licensed personnel. Installation must comply with

1. National Electrical Code
2. National Fuel Gas Code
3. In Canada, CSA C22.1 Canadian Electrical Code Part 1, and CGA No. B149 (latest version)
4. Local, state, provincial, and national codes, laws, regulations, and ordinances.
5. In the State of California: The water heater must be braced, anchored, or strapped to avoid moving during an earthquake. Contact local utilities for code requirements in your area.
6. In the Commonwealth of Massachusetts:
 - a. Outdoor units may be used for summer use only.
 - b. The water heater may be used for water heating only and may not be used in a combination of domestic and space heating.

When finished with the installation, be sure to keep the Installation and Operating Instructions nearby for reference purposes.

WARNING

These instructions include information specific to outdoor water heater installations. This information is meant to replace the venting section included in the tankless water heater installation manual. The tankless water heater installation manual includes instructions that will be necessary for the proper installation of all other functions, such as water and gas piping, wall mounting, control programming, etc. Failure to follow these instructions could result in substantial property damage, severe personal injury, or death.

This installation shall be done by a qualified service agency in accordance with these instructions, all applicable codes, and requirements of the authority having jurisdiction. Failure to follow these instructions could result in substantial property damage, severe personal injury, or death.

WARNING

Carefully consider installation when determining water heater location. Please read the entire manual and these kit instructions before attempting installation.

Failure to properly take factors such as piping, condensate removal, freezing, venting, and wiring into account before installation could result in wasted time and money, and possible property damage, personal injury, or death.

This OUTDOOR kit is meant for OUTDOOR installations ONLY. DO NOT install the water heater and this kit indoors as it will result in improper water heater operation and property damage, and could result in serious personal injury or death.

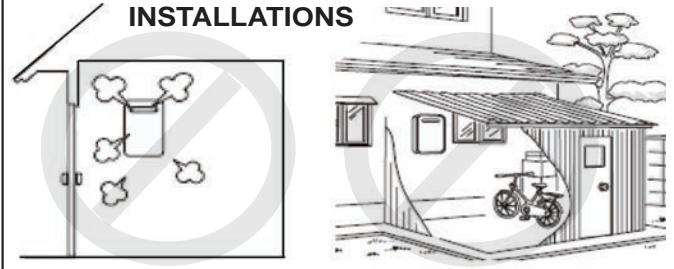
WARNING

Incorrect ambient conditions can lead to damage to the heating system and put safe operation at risk. Ensure that the installation location adheres to the information included in this manual. Failure to do so could result in property damage, serious personal injury, or death. Failure of heater or components due to incorrect operating conditions IS NOT covered by product warranty.

WARNING

The water heater must be installed as described in these instructions: Upright, with the supplied Outdoor Cover in the vertical position. DO NOT attempt to install the water heater in any other orientation. Failure to follow these instructions will result in improper water heater operation and property damage, and could result in serious personal injury or death.

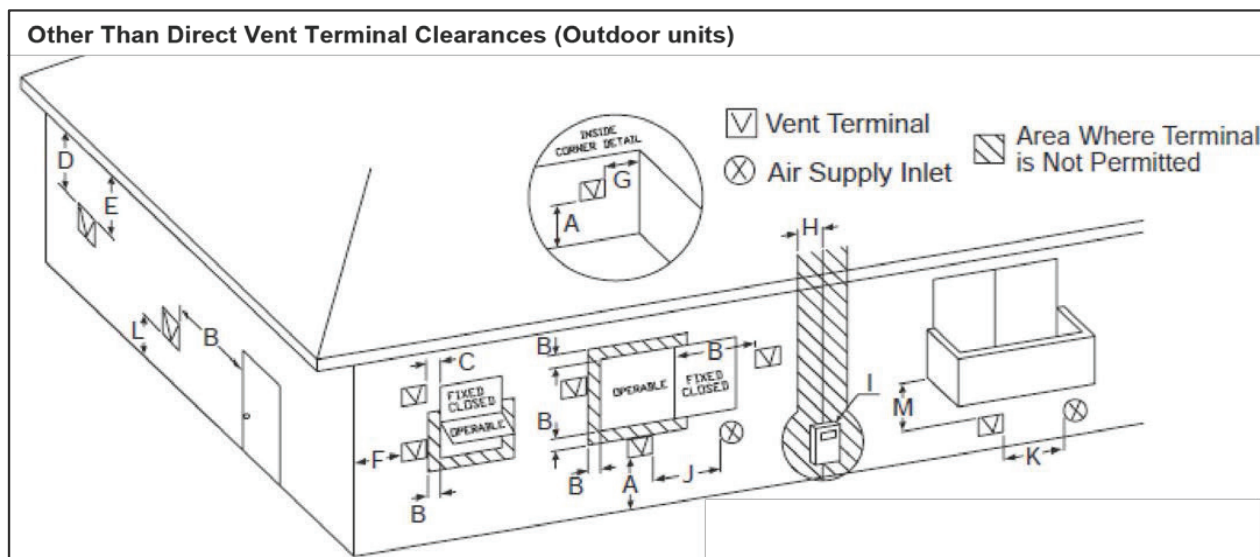
NOT FOR INDOOR INSTALLATIONS



Caution

Do not connect the water heater to any heating systems potable applications.

Do not introduce toxic chemicals, such as antifreeze or water heater treatments, into the water heater or any piping meant for potable purposes.



Vent Termination Clearances

	Description	US (ANSI Z223.1/NFPA 54)	CANADA (CSA B149.1)
A	Clearance above grade, veranda, porch, deck, or balcony	12 in.	
B	Clearance to window or door that may be opened	4 ft. below or to side of opening; 1 ft. above opening	3 ft.
C	Clearance to permanently closed window	*	
D	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet from the center line of the terminal	*	
E	Clearance to unventilated soffit	*	
F	Clearance to outside corner	*	
G	Clearance to inside corner	*	
H	Clearance to each side of center line extended above meter / regulator assembly	*	3 ft. with a height 15 ft. above meter / regulator assembly
I	Clearance to service regulator vent outlet	*	3 ft.
J	Clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other appliance	4 ft. below or to side of opening; 1 ft. above opening	3 ft.
K	Clearance to a mechanical air supply inlet	3 ft. above if within 10 ft. horizontally	6 ft.
L	Clearance above paved sidewalk or driveway	*	7 ft. ¹
M	Clearance under veranda, porch, deck, or balcony	*	1 ft. ²

Table 6 - Vent Termination Clearances

NOTE: For clearances not specified in ANSI Z223.1/NFPA 54 or CAN/CSA B149.1, use clearances in accordance with local installation codes and the requirements of the gas supplier.

*Clearance to opposite wall is 24 in.

¹A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings that serves both dwellings.

²Permitted only if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath floor.

- Outdoor Installation Area Operating Conditions Ensure ambient temperatures are higher than 32°F / 0°C and lower than 104°F / 40°C.
- Prevent the air from becoming contaminated by the products, places, and conditions listed in the water heater installation manual.
- Avoid continuously high levels of humidity.


Check for nearby connections to System water piping, Venting connections, Gas supply piping, Electrical power, and the Condensate Drain.

Check area around heater. Remove any combustible materials, gasoline, and other flammable liquids.

If the heater is to replace an existing heater, check for and correct any existing system problems, such as:

- System leaks.
- Location that could cause the system and heater to freeze and leak.
- Incorrectly sized expansion tank.

Clean and flush system when re-installing a heater.

Qty	Included Kit Component Descriptions	#
1	Outdoor Cover	1
2	Self Tapping Screws 	2
1	Exhaust Pipe	3
1	Exhaust Screen	4
1	Exhaust Adapter	5
1	Replacement Front Cover	6
1	Outdoor Kit Instructions	7

Tools Needed for Kit Installation



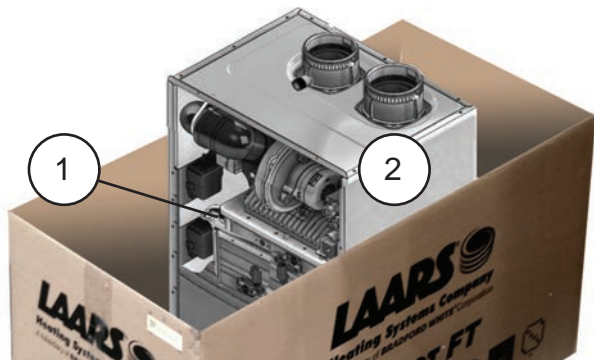
Phillips Head Screw Driver



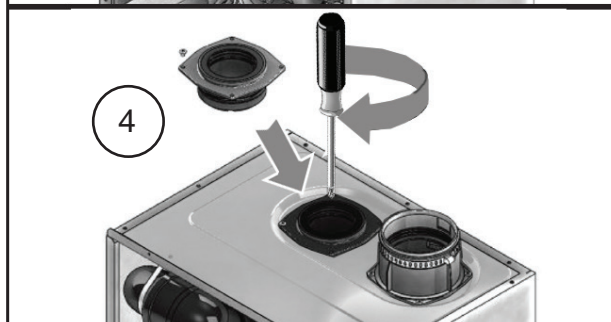
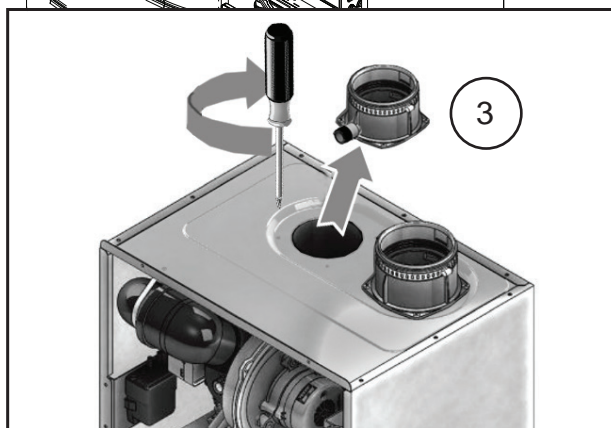
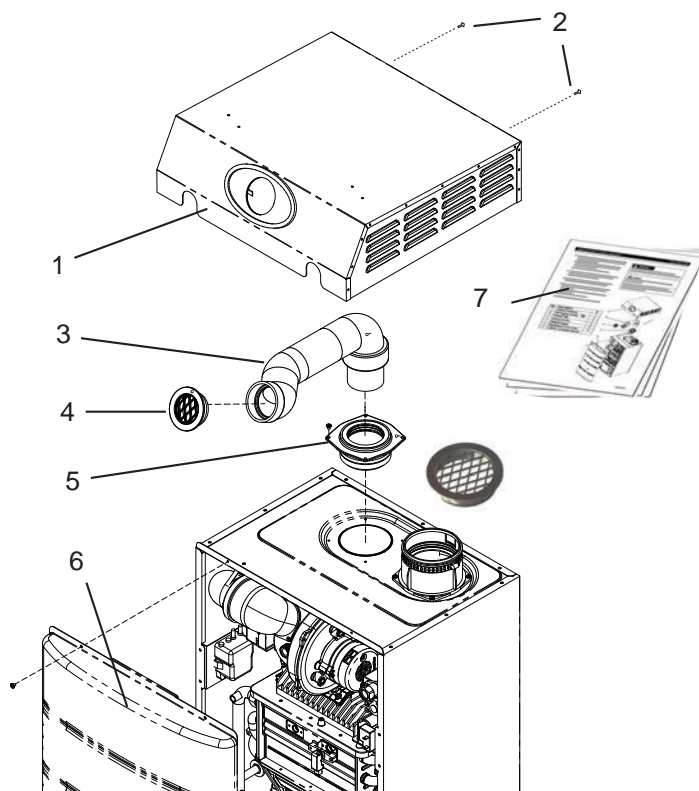
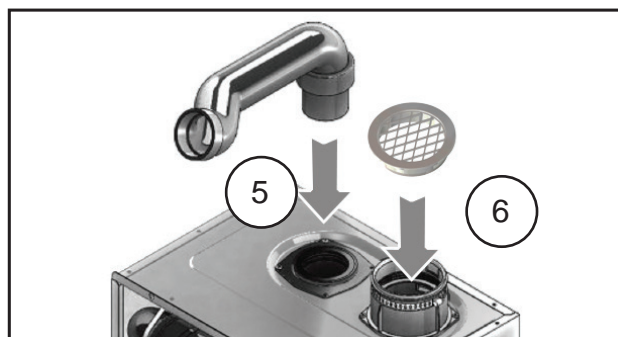
Screw Gun w/ 8mm Socket Drive.

Installing the Outdoor Cover Kit

1. Remove the front cover from the unit. Keep the 4 original screws for re-use. They will be used later to fasten the Replacement Front Cover to the unit. Discard the original front cover as this kit includes a replacement front cover designed for outdoor use.
2. Carefully stand the unit up in the box, using the styrofoam in the box to protect the components on the bottom of the unit. Or set the unit onto one of it's sides on a steady workbench.

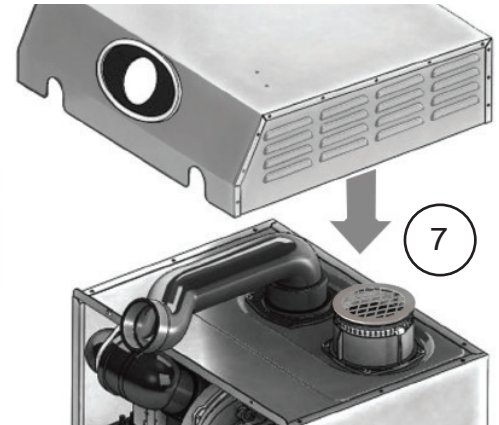
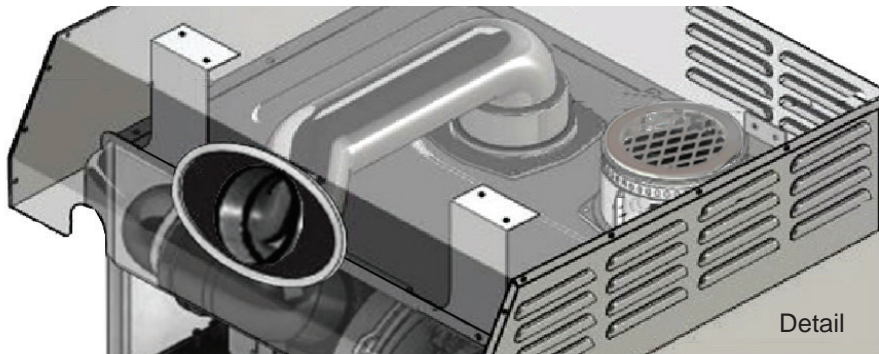


3. Using the phillips screw driver, remove the original vent pipe collar. Save the screws for re-use in Step 4.
4. Place the Exhaust Adapter into the exhaust vent and fasten it into place using the original screws.



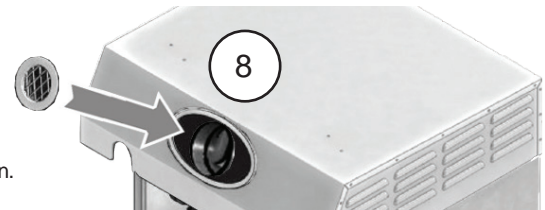
5. Install the Exhaust Pipe into the Exhaust Vent Adapter. Ensure the pipe is positioned as shown.
6. Take one of the Vent Screens from the Mascot ST installation kit and insert it to the intake vent collar as shown. Tighten it down using the clamp on the vent collar.

7. Fit the Outdoor Cover onto the top of the unit. The small brackets on the inside of the cover will fit down onto the top of the unit behind the lip that the front cover hangs over.



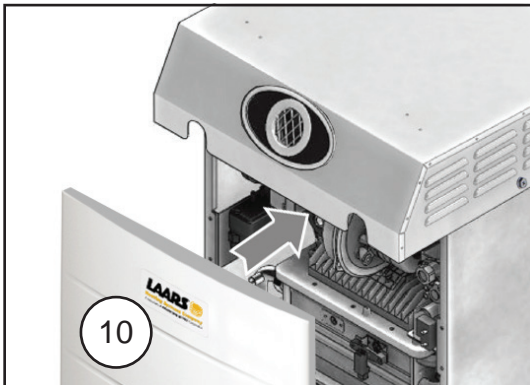
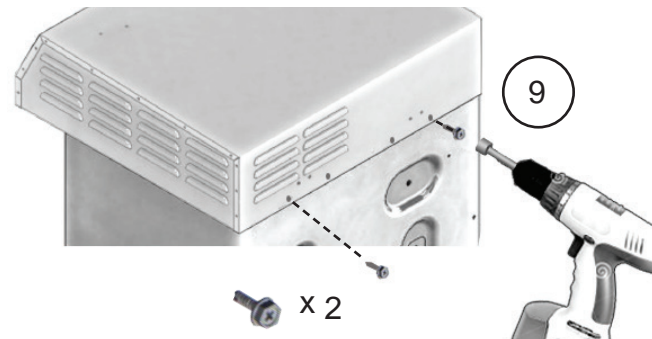
8. Align the Exhaust Screen into the Exhaust Pipe and press it into place.

9. **FROM THE BACK OF THE UNIT.** With the Exhaust Screen in place and the Outdoor Cover sitting flat and level on the top, use the two provided hex-head self-tapping screws and a power drill and fasten the Outdoor Cover to the unit. Of the 4 holes that are on the back of the Outdoor Cover, use the 2 outermost holes as shown.

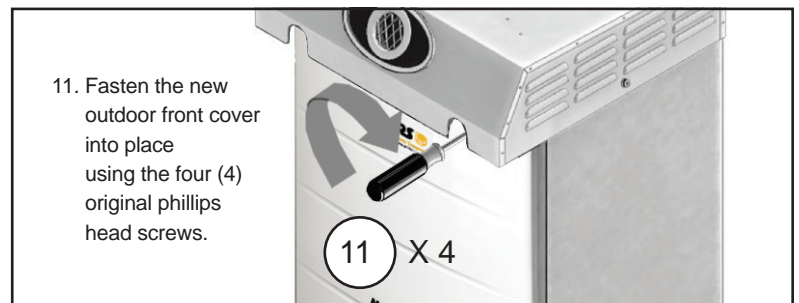


NOTE: At this point, refer to the Mascot ST Installation & Operating Instructions (Doc 1316) to install the unit to its OUTDOOR location. Once the installation of the Mascot ST is complete and is running properly, then proceed to Step 10 of this instruction.

10. Lift the Replacement Front Cover onto the unit. It will fit under the Outdoor Cover and then over the same hanger as the original front cover and the holes for the screws will align.



11. Fasten the new outdoor front cover into place using the four (4) original phillips head screws.



WARNING

The Outdoor Cover for the Mascot ST is not designed to carry heavy weight. Do not stack anything on the water heater. Doing so could result in substantial property damage, personal injury, or death.