

## Installation, Operation and Maintenance Manual

Please read and save these instructions for future reference. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with these instructions will result in voiding of the product warranty and may result in personal injury and/or property damage.



Model SP-L is a direct drive wall/ceiling exhaust fan designed for clean air exhaust applications. Installation options include wall mount frame construction and ceiling mounts. Accessories are available, see catalog and CAPS for selections. The motor is designed for continuous use and is thermally protected. A backdraft damper is standard on the outlet of the fan to stop backdrafts when the fan is not in use and a grille with mounting screws is provided for quiet, rattle-free operation. Capacities range from 50-80 cfm and 0.75 in. wg. The SP-L is UL/cUL Listed for above bathtub or shower with GFCI branch protected circuit.

### General Safety Information

Only qualified personnel should install this fan. Personnel should have a clear understanding of these instructions and should be aware of general safety precautions. Improper installation can result in electric shock, possible injury due to coming in contact with moving parts, as well as other potential hazards.

1. Follow all electrical and safety codes, as well as the National Electrical Code (NEC) and the National Fire Protection Agency (NFPA) where applicable. Follow the Canadian Electrical Code (CEC) in Canada.
2. The rotation of the wheel is critical. It must be free to rotate without striking or rubbing any stationary objects.
3. Motor must be securely and adequately grounded.
4. Verify the power source is compatible with the equipment.

## Read and save these instructions

### WARNING

**To reduce the risk of fire, electric shock, or injury to persons, observe the following:**

- Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- Before servicing or cleaning unit, switch power off at service panel and lock service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
- Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
- Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) and the local code authorities.
- When cutting or drilling into wall or ceiling, do not damage electrical wiring or other hidden utilities.
- Acceptable for use over a bathtub or shower when installed in a GFCI protected branch circuit.
- Never place a switch where it can be reached from a tub or shower.
- Ducted fans must always be vented to the outdoors.
- These fans are not recommended for cooking exhaust applications. They are designed primarily for low temperature, clean air applications only. The diagram shows the minimum distance these fans should be placed in relation to cooking equipment.
- Install the fan at least 5 ft. (1.5 m) above the floor and the fan must be installed above a counter or major appliance that serves as a barrier.
- To reduce the risk of fire or electrical shock do not use this fan with any solid state speed control device.

### CAUTION

- For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.

## Veillez lire et conserver ces instructions

### AVERTISSEMENT!

**Pour réduire le risque d'incendie, de choc électrique ou de blessure corporelle, respecter ce qui suit:**

- Utiliser cet appareil exclusivement comme prévu par le fabricant. En cas de questions, communiquer avec le fabricant à l'adresse ou au numéro de téléphone figurant dans la garantie.
- Avant tout entretien ou nettoyage de l'appareil, couper l'alimentation sur le tableau électrique et verrouiller le dispositif de sectionnement pour empêcher toute mise sous tension accidentelle. Si le dispositif de sectionnement ne peut pas être verrouillé, attacher un moyen de mise en garde bien visible, tel qu'un panneau, au tableau électrique.
- La pose et le câblage électrique doivent être effectués par des personnes qualifiées en conformité avec les codes et normes en vigueur, y compris pour la résistance au feu du bâtiment.
- Une quantité d'air suffisante est nécessaire pour la bonne combustion et l'extraction des gaz brûlés par le conduit d'évacuation (cheminée) d'appareils à combustible afin d'éviter le refoulement. Veiller à suivre les indications du fabricant du matériel de chauffe, les normes de sécurité telles que celles publiées par la National Fire Protection Association (NFPA) et l'American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) et la réglementation en vigueur.
- Lors de la découpe ou du perçage de murs ou plafonds, ne pas endommager les câbles électriques et autres conduites masquées.
- Pose admissible au-dessus d'une baignoire ou d'une douche sous réserve de raccordement à un circuit de dérivation à protection GFCI (disjoncteur différentiel).
- Ne jamais placer d'interrupteur à un emplacement à portée d'une baignoire ou d'une douche.
- Les caissons d'extraction à gaine doivent toujours être évacués vers l'extérieur.
- Ces caissons ne sont pas conseillés pour les applications d'aspiration de vapeurs de cuisson. Ils sont conçus essentiellement pour l'aspiration d'air propre à basse température. Le schéma indique la distance minimale de placement de ces caissons par rapport à l'équipement de cuisson.
- Installer le caisson à au moins 1,5 m (5 pi) au-dessus du sol et installer le caisson au-dessus d'un comptoir ou d'un gros appareil qui fait office de barrage.
- Pour réduire le risque d'incendie ou de choc électrique, ne pas utiliser ce caisson avec un quelconque dispositif de régulation de vitesse à semi-conducteurs.

### ATTENTION!

- À utiliser pour la ventilation générale uniquement. Ne pas utiliser pour l'aspiration de matières et vapeurs dangereuses ou explosives.

## Receiving

Upon receiving the product, check the bill of lading to ensure all items were received. Inspect each crate for shipping damage before accepting delivery. Alert the carrier of any damage detected. The customer will make a notation of damage (or shortage of items) on the delivery receipt and all copies of the bill of lading which is countersigned by the delivering carrier. Any physical damage to the unit after acceptance is not the responsibility of Manufacturer.

## Unpacking

Verify that all required parts and the correct quantity of each item have been received. If any items are missing, report shortages to your local representative to arrange for obtaining missing parts. Sometimes it is not possible that all items for the unit be shipped together due to availability of transportation and truck space. Confirmation of shipment(s) must be limited to only items on the bill of lading.

## Storage

Fans are protected against damage during shipment. If the unit cannot be installed and operated immediately, precautions need to be taken to prevent deterioration of the unit during storage. The user assumes responsibility of the fan and accessories while in storage. The manufacturer will not be responsible for damage during storage. These suggestions are provided solely as a convenience to the user.

The ideal environment for the storage of fans and accessories is indoors, above grade, in a low humidity atmosphere which is sealed to prevent the entry of blowing dust, rain or snow. Temperatures should be evenly maintained between 30° to 110°F (-1° to 43°C) (wide temperature swings may cause condensation and “sweating” of metal parts). All accessories must be stored indoors in a clean, dry atmosphere. Remove any accumulations of dirt, water, ice or snow and wipe dry before moving to indoor storage. To avoid “sweating” of metal parts allow cold parts to reach room temperature. To dry parts and packages, use a portable electric heater to get rid of any moisture buildup. Leave coverings loose to permit air circulation and to allow for periodic inspection.

The unit should be stored at least 3½ in. (89 mm) off the floor on wooden blocks covered with moisture proof paper or polyethylene sheathing. Aisles between parts and along all walls should be provided to permit air circulation and space for inspection.

## Inspection and Maintenance During Storage

While in storage, inspect fans once per month. Keep a record of inspection and maintenance performed.

If moisture or dirt accumulations are found on parts, the source should be located and eliminated.

## Removing From Storage

As fans are removed from storage to be installed in their final location, they should be protected and maintained in a similar fashion until the fan equipment goes into operation.

## IMPORTANT

Installation, troubleshooting and parts replacement is to be performed only by qualified personnel. Consult and follow all applicable national, state and local codes. They will supercede this document.

## Installation

1. For best performance, choose a location with the shortest possible duct run and minimum number of elbows. Do not mount near cooking equipment. As shown in Figure 1.

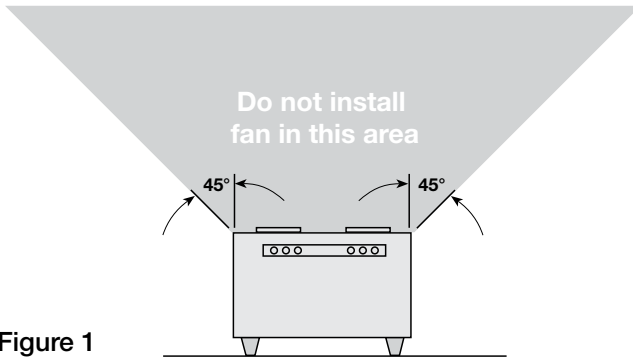


Figure 1

2. See fan nameplate for power ratings. Check that they are compatible with power ratings in building.
3. Fold down mounting brackets so they are perpendicular to the fan housing at a 90 degree angle as shown in Figure 2.

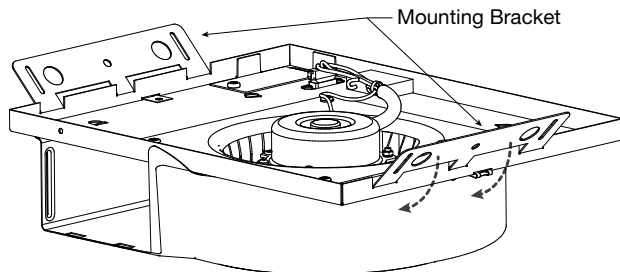


Figure 2

4. Remove a wiring knockout from junction box by bending it back and forth to break tabs. See Figure 3.

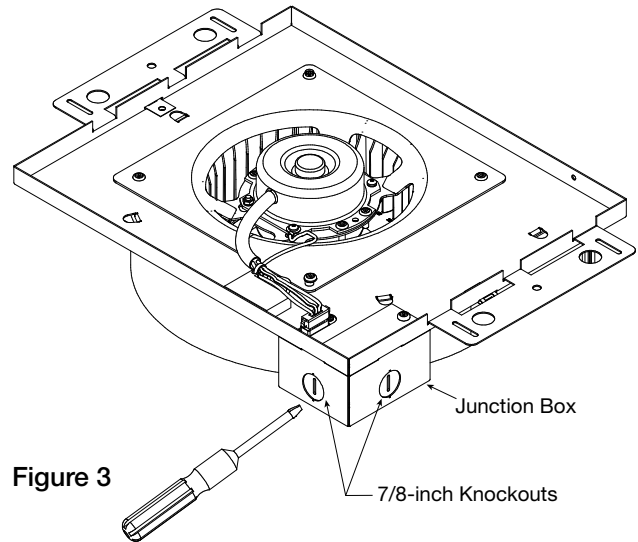


Figure 3

5. Snap the metal discharge on to the fan housing as shown in Figure 4-A and 4-B. Using provided screw, secure the outlet to the housing Figure 4-C.

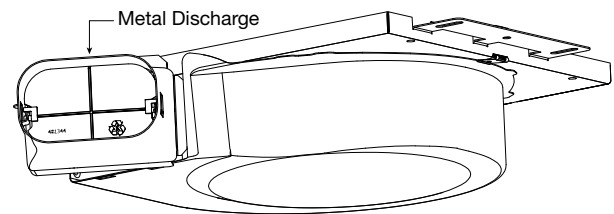


Figure 4-A

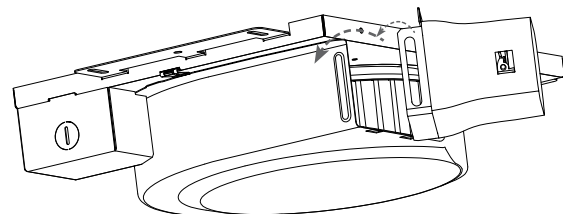


Figure 4-B

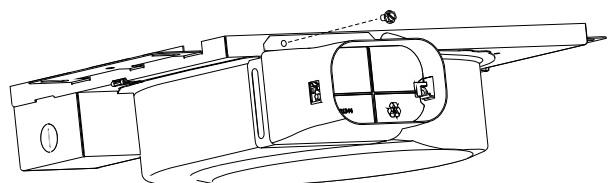


Figure 4-C

6. Install fan into wall or ceiling using one of the following methods:

### Wall Mount Frame Construction

- a. Position between studs with the discharge pointing up.
- b. Fasten fan to studs using screws (supplied by others) as shown in Figure 5.

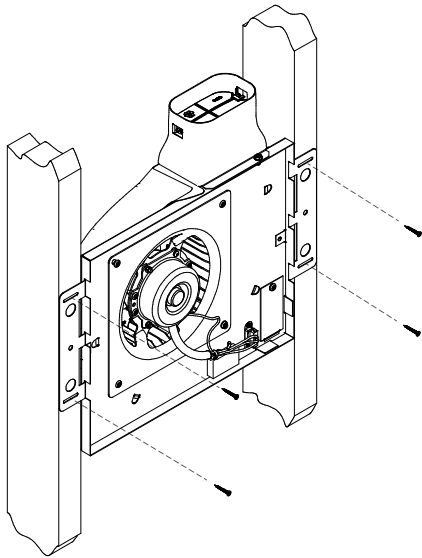


Figure 5

### Ceiling Mount Hanging Installation

- a. Use Greenheck's optional vibration isolation kit. Using the fold down mounting brackets and 1/4-20 threaded rod (by others) to hang unit as shown in Figure 6.

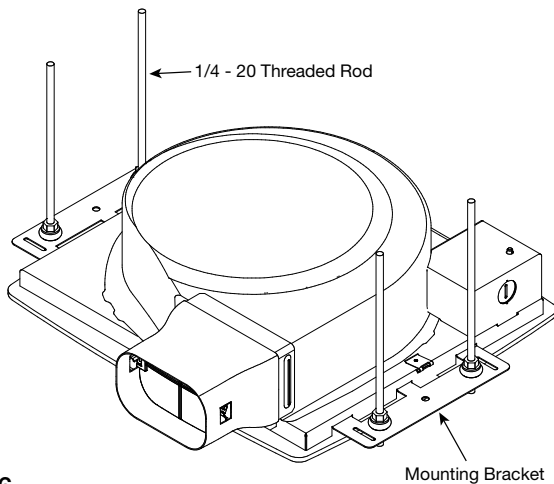


Figure 6

7. For wiring the fan remove wiring cover. Bring field wiring into the junction box. Using proper wiring connectors, wire the fan as shown in Figure 7. Push all wiring back into the fans junction box and replace wiring cover.

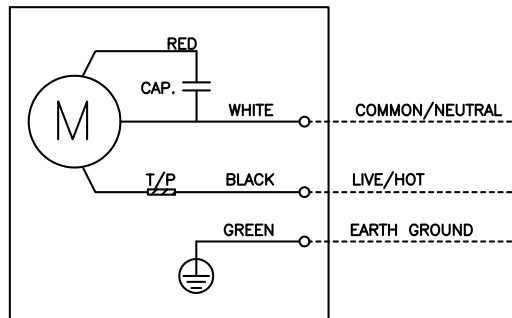


Figure 7

8. Connect ductwork by squeezing ductwork and sliding over the fans discharge, see Figure 8. Attach the ductwork to the discharge by using a clamp and seal with approved tape.

### NOTE

A 4-inch round rigid metal outlet duct is recommended for best results.

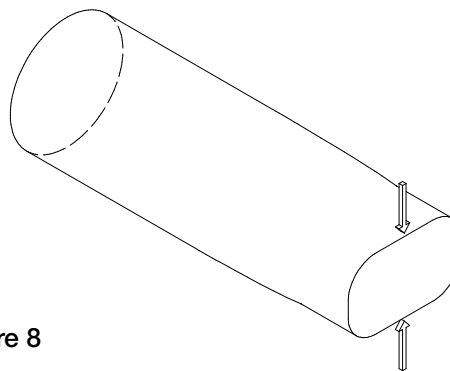


Figure 8

9. Attach the grille after the drywall is installed. Use the two screws provided to screw the grille into the housing. Make sure not over tightening as this will damage the grille. Slide attached screw covers over the attachment screws to conceal. See Figure 9.

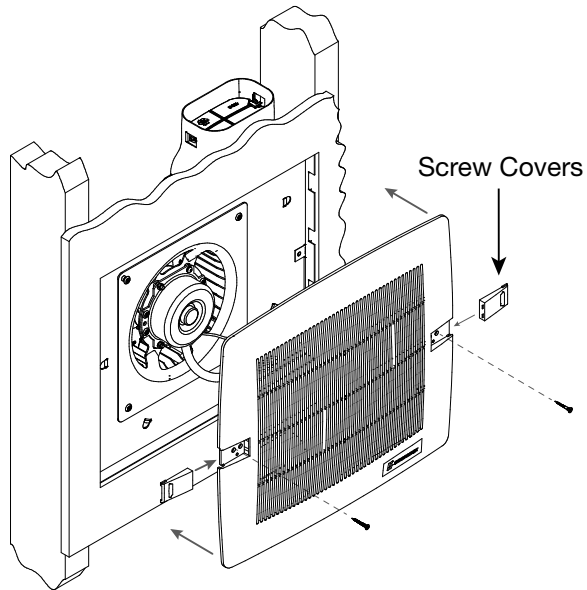


Figure 9

10. Turn on power and check fan operation.
11. **Optional:** A cardboard insert is supplied with every fan to protect the inner components of the fan during the construction process. This insert is found between the grille and the housing in the package. See Figure 10.

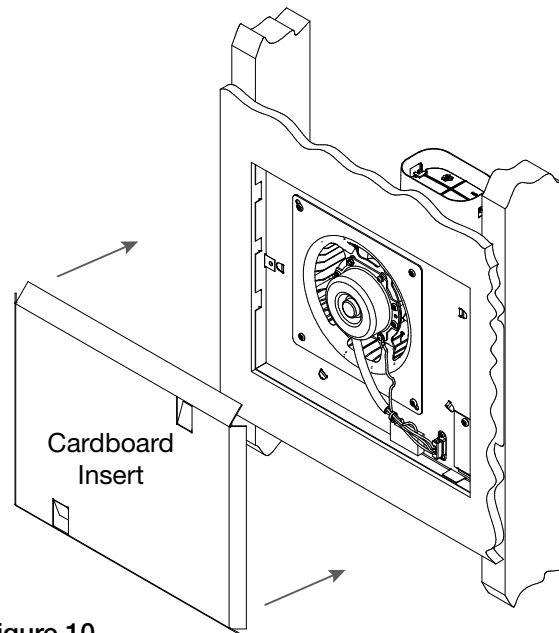


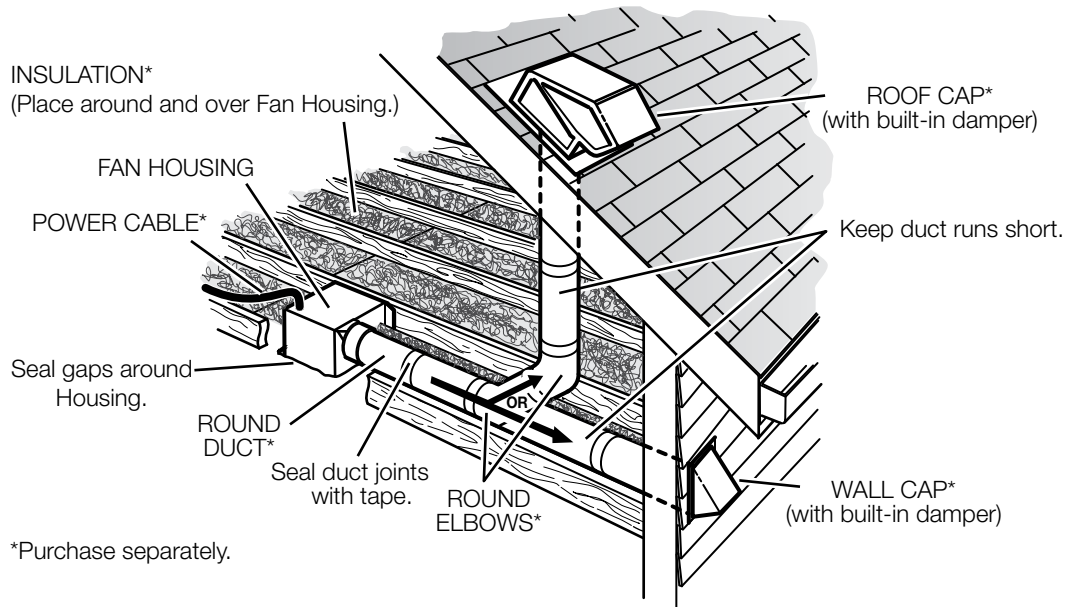
Figure 10

## General Maintenance Suggestions

Model SP-L wall/ceiling exhaust fans require very little maintenance. But since small problems over time left unchecked could lead to loss of performance or early motor failure, we do recommend that the unit be inspected periodically (once or twice a year).

The fan motor and wheel should be checked for dust and dirt accumulations. Dirt buildup can lead to loss of performance and motor overheating. Cleaning can be accomplished by brushing off any dust that may have accumulated.

## Typical Residential Installation



### NOTE

- A 4-inch round rigid metal outlet duct is recommended for best results.
- The ducting from this fan to the outside of the building has a strong effect on the air flow, noise and energy use of the fan. Use the shortest, straightest duct routing possible for best performance, and avoid installing the fan with smaller ducts than recommended. Insulation around the ducts can reduce energy loss and inhibit mold growth. Fans installed with existing ducts may not achieve their rated air flow.

## Our Commitment

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*As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.*

Specific Greenheck product warranties are located on [greenheck.com](http://greenheck.com) within the product area tabs and in the Library under Warranties.

Greenheck's Centrifugal Ceiling and Cabinet Exhaust Fans catalog provides additional information describing the equipment, fan performance, available accessories, and specification data.

