



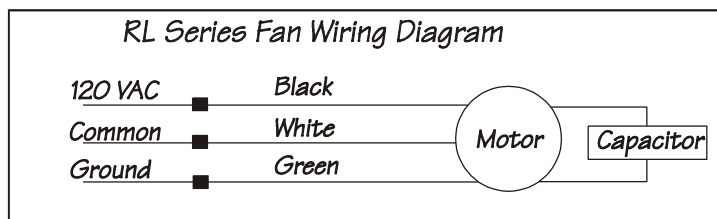
# SPRUCE RL SERIES INLINE FAN WIRING DIAGRAM



**RL Series Commercial/Residential  
Ventilation Fan Installation Instructions**  
Please Read And Save These Instructions.

**DO NOT CONNECT POWER SUPPLY UNTIL FAN IS COMPLETELY INSTALLED. MAKE SURE ELECTRICAL SERVICE TO FAN IS LOCKED IN "OFF" POSITION. DISCONNECT POWER BEFORE SERVICING FAN.**

1. **WARNING – TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:**
  - a) Use this unit only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer.
  - b) Before servicing or cleaning unit, switch power off at service panel and lock the 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.
2. **WARNING – TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:**
  - a) Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire rated construction.
  - b) 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 equipment manufacturers 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.
  - c) When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
  - d) Ducted fans must always be vented to the outdoors.
  - e) If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter) – protected branch circuit.
  - f) NEVER place a switch where it can be reached from a tub or shower.
3. **CAUTION - WARNING - For General Ventilating Use Only. Do Not Use to Exhaust Hazardous, Corrosive or Explosive Materials, Gases or Vapors. See Vapor Intrusion Application Note #AN001 for important information on VI applications. RadonAway.com/vapor-intrusion**
4. **CAUTION - For General Ventilating Use Only. Do not Use to Exhaust Hazardous or Explosive Materials or Vapors**
5. **WARNING - To Reduce The Risk Of Electric Shock, Do Not Expose to Water or Rain.**
6. **WARNING - Check voltage at the fan to insure it corresponds with nameplate.**
7. **CAUTION - To reduce risk of fire and to properly exhaust air, be sure to duct air outside – Do not vent exhaust air into spaces within walls or ceilings or into attics, crawlspaces or garages.**
8. **NOTICE - There are no user serviceable parts located inside the fan unit. Do NOT attempt to open.** Return unit to the factory for service.
9. Fan is suitable for use with solid-state speed controls. If a solid state speed control is used and CSA requirements apply use Pass & Seymour Fan Speed Control 6Amp 120VAC 60Hz 1 Pole Rotary Cat. No. 94601-I.
10. All wiring must be performed in accordance with the National Fire Protection Association's (NFPA) National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician. All wiring must be in accordance with local and national electrical codes.





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## 5.0 Electrical Wiring

All wiring must be performed in accordance with the National Fire Protection Association's (NFPA) National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician. A Ground Fault Interrupter (GFI) circuit is not required in most installations, check your local codes. Ensure that all exterior electrical boxes are outdoor rated and properly sealed to prevent water penetration into the box. A means, such as a weep hole, is recommended to drain the box.

## 6.0 Applications

Suitable for general ventilation, bathroom venting, fresh air supply, duct boosting, building pressurization, etc. Suitable for kitchen exhaust venting.

## 7.0 Installation

**Step 1:** Attach the mounting bracket to the fan unit with (2) #10 x 1/2" screws, provided. Avoid over tightening screws.

**Step 2:** Select location for fan mounting. A location 2/3 along the ducting, a minimum of 10 feet away from the inlet vent to the fan or the Y/T of a multi-intake system will provide the quietest operation. Fan should be mounted vertically to prevent moisture from accumulating in the fan housing. Attach bracket to mounting structure with the 1 1/4" screws provided. Ensure the fan is securely fastened.

**Step 3:** Connect ductwork between fan inlet and area to be vented through inlet grille. Flexible, nonmetallic ducting is recommended for quietest operation and easiest installation. Insulated flexible ducting is **highly recommended** for bathroom ventilation in all cold climate installations.

**Step 4:** Connect inlet grille(s). An optional back draft damper may be installed in the inlet grille to prevent cold air from backing into the inlet, prevent conditioned air from escaping and also prevent condensation from forming inside the ductwork. Back draft dampers are **highly recommended** at each intake grille for bathroom ventilation in all cold climate installations.

**Step 5:** Connect outlet of fan to outside vent. The outside vent may go through the roof, sidewall or soffit as desired. Flexible, nonmetallic ducting is recommended for quietest operation and easiest installation. Insulated flexible ducting is **highly recommended** for bathroom ventilation in all cold climate installations. As the fan is typically outside of the building thermal boundary, and is venting to the outside, installation of insulation around the fan is not required.

**Step 6:** Make electrical connection to fan. A plastic cable connector such as a T&B #3300 may be used to avoid any fitting grounding problem. Observe the proper wiring connections (See Section 4.0). Note that the fan is not intended for connection to rigid metal conduit.



RL Series Wire	AC Connection
Black	AC Hot
White	AC Common
Green	Ground

