



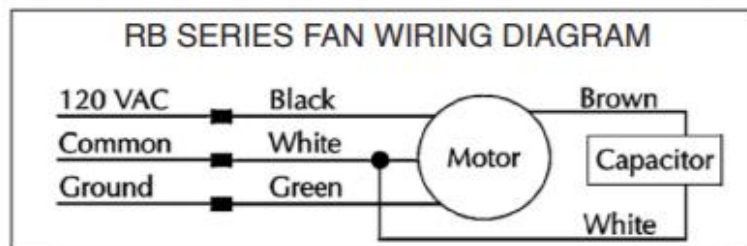
# SPRUCE RV SERIES INLINE FAN WIRING DIAGRAM



Fan Installation & Operating 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!** 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. See RadonAway.com/vapor-intrusion.
2. **NOTE:** Fan is suitable for use with solid state speed controls; however, use of speed controls is not generally recommended.
2. **WARNING!** Check voltage at the fan to ensure it corresponds with nameplate.
3. **WARNING!** Normal operation of this device may affect the combustion airflow needed for safe operation of fuel burning equipment. Check for possible backdraft conditions on all combustion devices after installation.
4. **NOTICE!** There are no user serviceable parts located inside the fan unit. **Do NOT attempt to open.** Return unit to the factory for service.
5. **WARNING!** Do not leave fan unit installed on system piping without electrical power for more than 48 hours. Fan failure could result from this non-operational storage.
6. **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 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.
  - c) Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire rated construction.
  - d) Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent backdrafting. Follow the heating equipment manufacturers' guidelines and safety standards such as those published by any National Fire Protection Association, and the American Society for Heating, Refrigerating and Air Conditioning Engineers (ASHRAE), and the local code authorities.
  - e) When cutting or drilling into a wall or ceiling, do not damage electrical wiring and other hidden utilities.
  - f) Ducted fans must always be vented to outdoors.
  - g) 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.





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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. Note that the fan is not intended for connection to rigid metal conduit.

## 6.0 APPLICATIONS

Suitable for general ventilation, bathroom venting, fresh air supply, duct boosting, building pressurization, etc.  
**Not suitable for kitchen range hood venting.**







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## 7.0 INSTALLATION

**Step 1:** Install Mounting Bracket as shown (Fig. 4). Insert Grommets into slots in Mounting Bracket. Orient the Electrical Box relative to Mounting Bracket as required. Attach the fan to the Mounting Bracket with 3 #10 self-tapping screws, provided. Avoid over tightening screws.



Fig. 4

**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 (Fig. 5).



Fig. 5

**Step 3:** Connect ductwork between fan inlet and area to be vented through inlet grille (Fig. 6). 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. Metal worm drive clamps, spring clamps, and adjustable plastic ratchets are recommended for connection of ducting. Silicon caulk or duct tape may be used for additional sealing. Duct tape should be used to retain insulation.



Fig. 6

**Step 4:** Connect inlet grille(s) (Fig. 7). An optional backdraft 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. Backdraft dampers are highly recommended at each intake grille for bathroom ventilation in all cold climate installations.



Fig. 7

**Step 5:** Connect outlet of fan to outside vent (Fig. 8). 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.



Fig. 8

**Step 6:** Make electrical connection to fan (Fig. 9). Ensure any metal filing used in the installation is properly grounded. A plastic cable connector such as a T&B #3300 may be used to avoid any filing grounding problem. Observe the proper wiring connections (See Section 5.0). Note that the fan is not intended for connection to rigid metal conduit.



Fig. 9

| RB Series Wire  | AC Connection |
|-----------------|---------------|
| Black           | AC Line       |
| White           | AC Common     |
| Green or Grn/Ye | Ground        |

