

Part Numbers: P451-FX4, -FX4XL, -FX5XL, -FX6, -FX6XL,  
-FX8, -FX8XL, -FX10XL, and -FX12XL

**▲ WARNING**

If these products are used in a life support ventilation system where failure could result in loss or injury, the user should provide adequate back-up ventilation, supplementary natural ventilation or failure alarm system, or acknowledge willingness to accept the risk of such loss or injury.

Totaline products are designed and manufactured to provide reliable performance, but they are not guaranteed to be 100% free of defects. Even reliable products will experience occasional failures, and this possibility should be recognized by the user.

**▲ WARNING**

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

- A. Use this unit only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer before using the unit.
- B. Before servicing or cleaning unit, switch power off at service panel and lock service panel to prevent from being switched on accidentally.
- 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. The combustion airflow needed for safe operation of fuel burning equipment may be affected by this unit's operation. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local authorities.
- E. When cutting or drilling into wall and ceiling, do not damage electrical wiring and other hidden utilities.
- F. Ducted fans must always be vented to the outdoors.
- G. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application.
- H. NEVER place a switch where it can be reached from a tub or shower.

**GENERAL**

The P451 Series ventilation equipment is compact and may be mounted either vertically or horizontally, or at any angle in between. These units are for general ventilation use only, do NOT use them to exhaust hazardous or explosive material or vapors. Because the unit has rotating parts, be sure to observe

the warnings above during installation, operation and maintenance of this equipment.

For technical assistance, call 1-800-747-1762.

**PRE-INSTALLATION**

Remove the unit from packaging and inspect it for any visible damage. If the unit is damaged, report the damage to Totaline. Do not operate the unit with visible damage to blower or impeller assembly.

Ensure that the centrifugal impeller rotates freely. If the impeller hits the orifice, check the screws holding the motor bracket. Adjustments can be made by loosening the motor bracket screws. Tighten all screws before operating the unit.

**▲ WARNING**

Wear hand protection and stay clear of sharp edges to avoid personal injury.

**INSTALLATION**

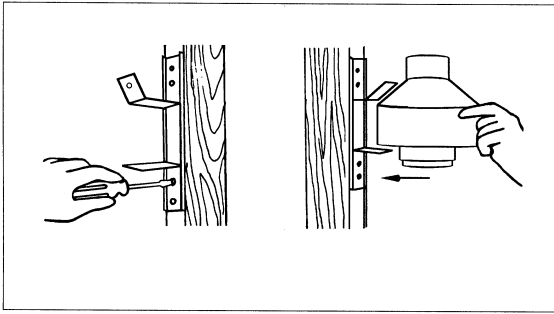
For bracket mounting, refer to Fig. 1. If mounting the fan using suspended hanger straps, refer to Fig. 2. See Fig. 3 for unit dimensions. Use Fig. 4 for wiring reference.

1. Install the fan bracket screws a minimum of 1.1 in. (28 mm) away from the intake collar.
2. Use 1/4 in. sheet metal screws (1/2 in. if using clamps) to secure the duct work to the inlet and outlet flanges. Use duct tape at the inlet and outlet to ensure a good seal. If using clamps, attach the clamps and insert screws through clamp into the inlet and outlet flanges.

**▲ CAUTION**

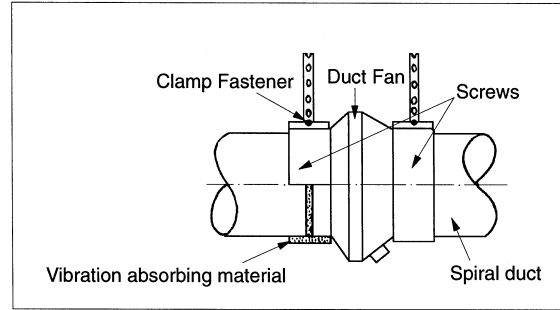
The sheet metal screws should penetrate the metal of the inlet flange without obstructing the impeller. It may be necessary to angle the screws away from the impeller to prevent unit damage.

3. Install screen guards if the fan will be within reach of people, within seven feet of a working area, or when advisable for safety reasons.



NOTE: Fan bracket should be installed, then fan mounted directly to bracket using sheet metal screws.

**Fig. 1 — Bracket Mounting**

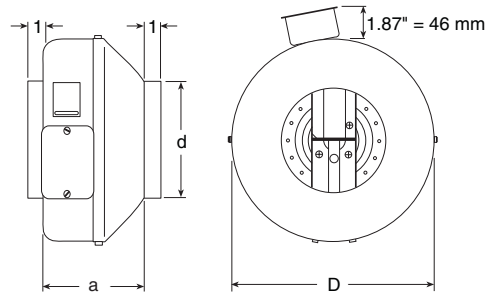


NOTE: Fans may be suspended without special mounting brackets.

**Fig. 2 — Suspended Mounting**

P451-	D	d	a
FX4	8	4	6 1/2
FX4XL	9 1/2	4	6
FX5	8	5	5 1/2
FX5XL	9 1/2	5	4 1/2
FX6	11 1/2	6	5 1/2
FX6XL	13 1/4	6	6
FX8, FX8XL	13 1/4	8	6 1/4
FX10XL	13 1/4	10	7
FX12XL	16	12	8 1/4

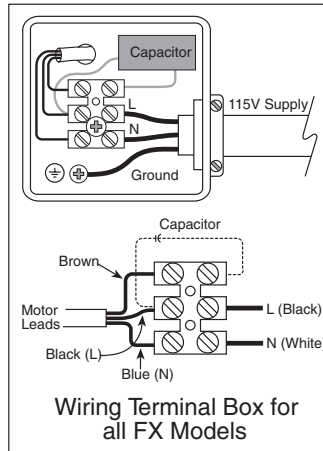
NOTE: Dimension in inches.



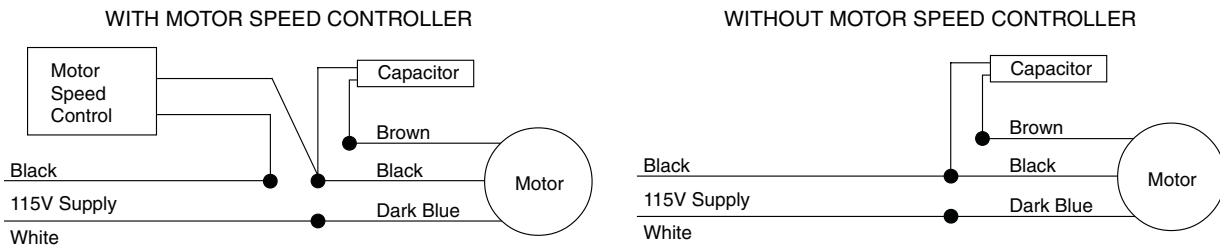
**Fig. 3 — Dimensions**

**⚠ CAUTION**

All installation should be wired according to the following diagrams. Failure to comply will cause the motor to "hum" or not work.



**INSTRUCTIONS FOR ALL FANS**



**Fig. 4 — Unit Wiring**

## TROUBLESHOOTING

If fan fails to operate, please check the following:

1. Consult wiring diagrams included to assure proper connections.
2. To ensure proper contact, check motor lead wiring, incoming supply wiring and capacitor connections.
3. If possible, use a meter to test for continuity between fan leads. Please note that the capacitor will show no reading if tested with meter.

## MAINTENANCE

**Fan Bearings** — Fan bearings are sealed and have been provided with an internal lubricating material, no lubrication is necessary.

**Impeller** — Once a year, remove any airborne particles in the impeller. No other maintenance is required.

### IN-LINE CENTRIFUGAL FAN LIMITED FIVE-YEAR WARRANTY

**FIVE-YEAR WARRANTY** — This CARRIER CORPORATION product is warranted to be free from defects in material and workmanship under normal use and maintenance for a period of five years from the date of original installation. A new or remanufactured part to replace the defective part will be provided without charge for the part itself, through a qualified servicing CARRIER CORPORATION dealer or service, PROVIDED the defective part is returned to our distributor. The replacement part assumes the unused portion of the warranty.

**THIS WARRANTY DOES NOT INCLUDE ANY ADDITIONAL LABOR ALLOWANCE OR OTHER COSTS**, incurred for diagnosis, repairing, removing, installing, shipping, servicing, or handling of either defective parts or replacement parts. SUCH COSTS MAY BE COVERED BY a separate warranty provided by the installer.

**LIMITATIONS OF WARRANTIES** — ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY) ARE HEREBY LIMITED IN DURATION TO THE PERIOD FOR WHICH THE LIMITED WARRANTY IS GIVEN. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON WHATSOEVER.

#### CARRIER WILL NOT BE RESPONSIBLE FOR:

1. Normal maintenance as outlined in the installation and servicing instructions or owners manual including cleaning and/or replacement of filters, media or electronic cells.
2. Damage or repairs required as a consequence of faulty installation or application by others.
3. Failure to start due to voltage conditions, blown fuses, open circuit breakers or other damages due to the inadequacy or interruption of electrical service.
4. Damage or repairs needed as a consequence of any misapplication, abuse, improper servicing, unauthorized alteration, or improper operations.
5. Damage as a result of floods, winds, fires, lightning, accidents, corrosive atmosphere, or other conditions beyond the control of CARRIER CORPORATION.
6. Parts not supplied or designated by CARRIER CORPORATION.
7. CARRIER CORPORATION products installed outside the continental U.S.A., Alaska, Hawaii, and Canada.
8. ANY SPECIAL INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion of incidental or consequential damages, so the above limitation may not apply to you.

Model No. \_\_\_\_\_

Unit Serial No. \_\_\_\_\_

Date of Installation \_\_\_\_\_

Installed by \_\_\_\_\_

Name of Owner \_\_\_\_\_

Address of Installation \_\_\_\_\_

**TOTALINE®**

**Your Assurance of Quality**

**ALL Totaline products are backed with a one-year warranty by Carrier Corporation, the world's largest manufacturer of air conditioning, heating, and refrigeration products.**