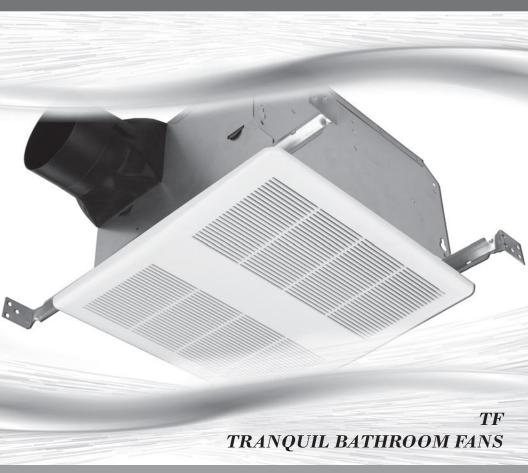
# *better* AIRFLOW *by* DESIGN<sup>™</sup>

# Installation & Maintenance

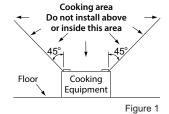


**READ AND SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE** 

# SAFETY INSTRUCTIONS

**NOTICE** TF Tranquil bathroom fans are not explosion proof and should not be used when a potentially explosive situation exists.

- 1. Ensure that the electrical service to the fan is locked in the "OFF" position. Do not re-establish power supply until fan and activation device are completely installed.
- 2. Not suitable for use in cooking areas (Figure 1).
- 3. This product is designed for installation in ceilings up to a 12/12 pitch (45 degree angle). Duct connector must point up. Do not mount this product in a wall.
- 4. This unit has rotating parts! Safety precautions must be exercised during installation, operation and maintenance.



- 5. For general ventilation use only. Do not use to exhaust hazardous or explosive materials and vapors.
- 6. 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 factory.
  - b. A qualified person(s) must perform installation work and electrical wiring in accordance with all applicable codes and standards, including fire-rated construction.
  - c. 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 guidelines and safety standards as published by the National Fire Protection Association (NFPA), the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), and local code authorities.
  - d. When cutting or drilling into walls or ceilings, take care not to damage electrical wires or other hidden utilities.
  - e. Ducted fans must always be vented to the outdoors when used to exhaust moist/humid air.
- 7. Check voltage at the fan to see that it corresponds to the motor nameplate.
- 8. TF Tranquil bathroom fans are suitable for installation over a shower or tub when installed in a GFCI (Ground Fault Circuit Interrupter) protected branch circuit.
- 9. This unit must be grounded.
- 10. The fan must not be installed in a ceiling that is thermally insulated to a value greater than R40.

**WARNING** To reduce the rist of fire or electric shock, do not use this fan with any solid-state speed control device.

### **TF TRANQUIL BATHROOM FANS**

#### MODELS: TF80 & TF110

The delivery set includes:

- Housing & motor/blower assembly -1
- Duct connector 2 (1- 4" & 1 6")
- Hanger bar 4
- Grille 1



### LIGHTED MODELS: TF80L & TF110L

The delivery set includes:

- Housing & motor/blower assembly -1
- Duct connector 2 (1- 4" & 1 6")
- Hanger bar 4
- Lens 1
- Grille 1



**NOTE:** The fan, light, and night-light can be operated separately using a 3-function wall control. See page 6 for wiring details.

# **FAN INSTALLATION**

**M** WARNING Disconnect and lock out power supply before performing any installation work. Working on or near energized equipment could result in death or serious injury.

### **STEP 1. FAN LOCATION**

Position the housing assembly against the joist. With a pencil, trace an outline of the housing assembly onto the ceiling. Set the housing aside and cut the opening for the fan.

### **STEP 2. INSTALL HOUSING**

Follow the appropriate instructions for installing the housing either (A) to a joist or (B) with the hanger bars:

### A) Install to Joist

To install the housing to a joist, position the housing in the opening so the bottom edge is flush with the finished ceiling. Secure the housing to the joist with four (4) screws as shown in Figure 2.

### **B) Install Using Hanger Bars**

Hanger bars allow the housing to be positioned anywhere between the framing. The sliding bars span up to 24 inches and can be used on all types of framing: I-joist, standard joist, and truss construction.

To install the housing with hanger bars, slide hanger bars onto the housing and adjust to fit between the framing as shown in Figure 3a. Position the tabs of hanger bars level with bottom of framing and secure the hanger bars. Select a hole and secure the hanger bars together using flange screws as shown in Figure 3b.



The ducting from this fan to the outside of the building has a strong effect on the airflow, 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.

Snap the damper/duct connector onto the fan housing as shown in Figure 4. The connector must be flush with the top of the housing, and the damper flap should fall closed.

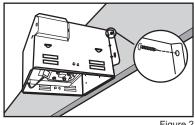


Figure 2

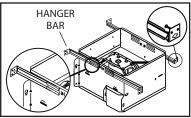


Figure 3a

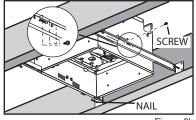


Figure 3b

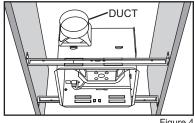
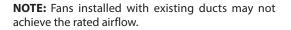


Figure 4

# **FAN INSTALLATION**

Connect the round ductwork to the damper/duct connector as shown in Figure 5, and run ductwork to a roof or wall cap. Using duct tape, secure all ductwork connections so they are air tight. Insulated flexible duct is recommended to optimize fan performance. If using rigid duct, a short (1-3 feet) section of insulated flexible duct will ensure quiet operation. Insulation around the ducts can reduce energy loss and inhibit mold growth.



### **STEP 4. CONNECT WIRING**

Refer to wiring diagrams on page 6. Reattach all electrical box covers before applying power.

#### **STEP 5. INSTALL GRILLE**

#### A) Models: TF80 & TF110

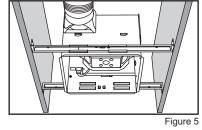
Pinch the springs on the sides of grille and insert the springs into the slots in the housing. Firmly push the grille against the ceiling to secure as shown in Figure 6.

#### B) Lighted Models: TF80L & TF110L

Insert the light plug from the grille assembly into the wire panel. Pinch the grille springs on the sides of the grille, and position the grille into the housing with the grille springs into the slots in the housing. Push the grille toward the ceiling to secure as shown in Figure 7.

Carefully remove the light lens by inserting a small, flathead screwdriver between the grille and lens.

Install a 26W maximum fluorescent bulb and a 4W incandescent night-light bulb. Replace the lens.



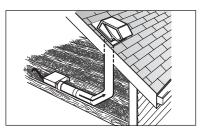




Figure 6

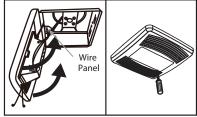
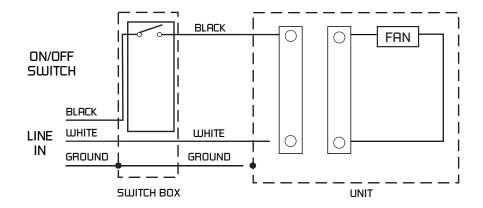


Figure 7

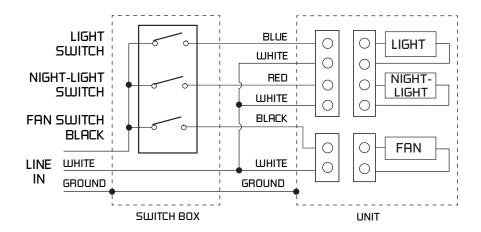
### WIRING DIAGRAM

#### MODELS: TF80 & TF110



# WIRING DIAGRAM

#### LIGHTED MODELS: TF80L & TF110L



# TROUBLESHOOTING

**WARNING** Only qualified personnel should work on electrical equipment. Working on or near energized equipment could result in death or serious injury.

- 1. If the fan fails to start, consult wiring diagram to ensure proper connection.
- 2. Check the incoming supply for proper voltage.
- 3. Ensure that the electrical service to the fan is locked in the "OFF" position.
- 4. Use a meter to test for continuity across the fan motor leads.
- 5. If the motor leads show continuity, rewire the fan.
- 6. Turn on the electrical supply and restart.
- 7. If the fan fails to start, please contact factory.

# **RECOMMENDED MAINTENANCE**

**WARNING** Disconnect and lock out power supply before performing any maintenance. Working on or near energized equipment could result in death or serious injury.

- 1. The motor is permanently lubricated. No additional lubrication is necessary.
- 2. Periodic inspection, based upon usage, should be performed to ensure that the fan impeller is not obstructed. The fan should be inspected a minimum of every six (6) months.
- 3. Excessive fan noise or vibration may indicate an obstructed impeller.
- 4. To inspect and clean impeller:
  - a) Remove the grille from the fan and remove any obstruction from the impeller.
  - b) Vacuum the interior of the unit.
  - c) Reconnect the grille to the fan.
  - d) Turn power supply on.

### **ACCEPTANCE CERTIFICATE**

### The TF fan has been duly certified as serviceable.

TF80	TF110
TF80L	TF110L
Manufactured on (date):	
Date of sale:	
Sold by:	
CONNECTION CERTIFICATE	
Company name:	

Electrician name: \_\_\_\_\_

Date: \_\_\_\_\_\_Signature: \_\_\_\_\_\_

Due to constant product improvements, some models may differ slightly from those portrayed in this manual.

Continental Fan Manufacturing Inc. 203 Eggert Road Buffalo. New York 14215 **Continental Fan Canada Inc.** 12-205 Matheson Blvd E Mississauga, Ontario L4Z 3E3 ontinental Fan Manufacturing Inc. 6274 Executive Blvd. Dayton, Ohio 45424

TF FANS-I&M-1612

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