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INSTALLATION INSTRUCTIONS FOR INDUSTRIAL, COMMERCIAL AND HEAVY-DUTY CEILING FANS

Description

High efficiency ceiling fans are ETL certified for US and Canada. All models are suitable for use with solid state speed controls.

Unpacking

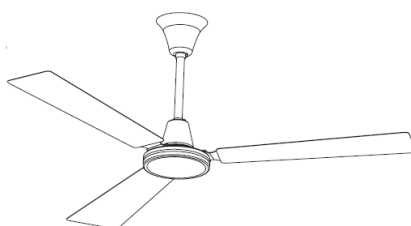
1. After opening carton, look for concealed damage.
2. If concealed damage is found, immediately file claim with carrier.

IMPORTANT: READ AND SAVE THESE INSTRUCTIONS. 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 instructions could result in personal injury and/or property damage! Retain instructions for future reference.



Water and Dust Resistant Models

Grade	Model	TYPE	SIZE	VOLTS/HZ	AMPS	WATTS	RPM	Down-Rod
Industrial	E-56CF	Reversible	56"	120V/60HZ	0.7	85	290	18"
Industrial	E-60CF	Reversible	60"	120V/60HZ	0.7	90	260	18"



General Safety Information

⚠ WARNING Disconnect power supply before wiring connections are made to prevent possible electric shock or damage to equipment.

⚠ WARNING Read and follow instructions carefully. Failure to comply with instructions could result in fire, electric shock, injury to persons and/or damage to equipment.

⚠ CAUTION Follow all maintenance procedures enclosed.

⚠ WARNING Failure to properly ground unit could result in severe electrical shock or death.

1. All wiring should conform to the National Electrical Code ANSI/NFPA 70-1999 (NEC) in the United States, CEC and local regulations.
2. Do not mount in an area which will allow the ceiling fan to come in contact with moisture.
3. Make certain the entire installation is grounded as a precaution against possible electrical shock.
4. Do not exceed maximum amperage rating of the ceiling fan as overloading can result in damage to ceiling fan and control.
5. When wiring an electrical appliance or device follow all electrical and safety codes, as well as the most recent NEC, CEC and local regulations and the Occupational Safety and Health Act (OSHA).
6. Suitable for use with solid state speed control.

Assembly

1. Remove all ceiling fan parts from the box.
2. Tools and supplies needed – Flat and Phillips screwdriver – 9/16" and 3/8" open wrench or adjustable wrench, 2-3 wire nuts.
3. Install a junction box to accept the wiring of the fan. In many cases, a qualified electrician will be required to install the outlet box keeping with local electrical codes or to meet the NEC, CEC and local regulations.
4. For installation to open web steel joist – use threaded J-hook as supplied. For wood joist construction – use J-hook with lag threads. For attachment in concrete-drill concrete anchors into the concrete as per specification applicable to NEC, CEC and local regulations.

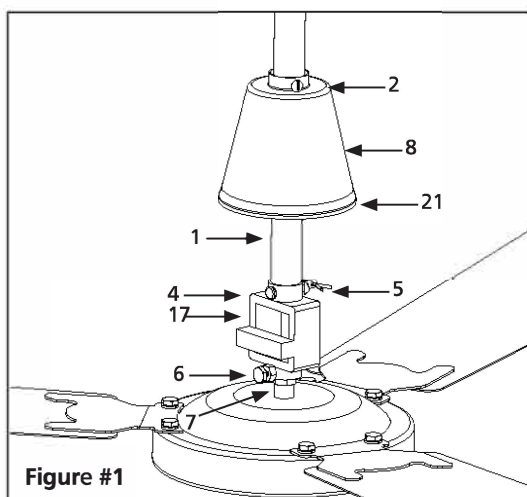


Figure #1

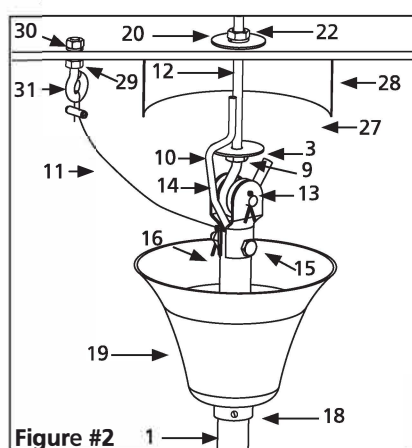


Figure #2

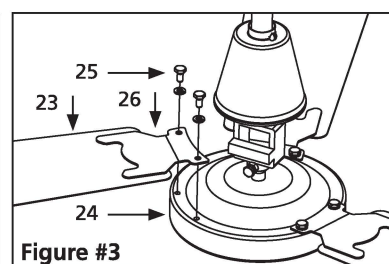


Figure #3

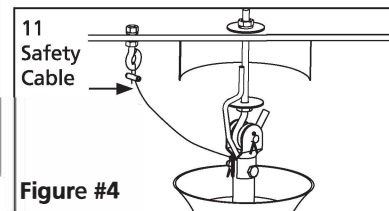


Figure #4

Installation

Safety Product Inspection of Fan Prior to Installation (Figure #1 and #2)

⚠ WARNING *To reduce the risk of personal injury, do not bend the blade brackets when installing the brackets, balancing the blades or cleaning the fan. Do not insert foreign objects in between rotating fan blades.*

1. Make certain set screw (4) is tight to ascertain wobble free operation.
2. Make certain cotter pin (5) is in place and secure.
3. Make certain lock-nut (7) is tight and set screw (6) is in place and secure.
4. Slide lower canopy (8) down over rubber gasket (21) to create a tight seal.
5. Make certain lower canopy set screws (2) are tight on down rod (1).
6. Make certain cotter pin (13) is in place and secure.
7. Make certain bolt, cotter pin and nut (16) are tight.

Hanging of Fan (Figure #1 and #2)

1. Wind one nut (9) down to bottom of J hook (12) towards the curve. Add a lock washer and then flat washer (3) on top of the nut (9).

⚠ WARNING *Make certain crimp on safety loop is secure (See Figure #4). Make certain safety cable is attached properly to hook or structural member. Failure to comply with instructions could result in personal injury and/or property damage.*

2. Drill a 5/32" pilot hole for safety hook (31) within a 12" radius of J hook (12) support for fan. Wind one nut (29) down to bottom of safety hook towards the loop. Add a lock washer (29) and slide safety hook through

pilot hole. Slide lock washer (30) on top side of the safety hook and add nut (30). Tighten so lock washer on top and bottom of the structure are secure.

3. Drill a 1/2" pilot hole for J hook. Put J hook (12) through pilot hole in joist. Add flat washer and then lock washer (20) and nut (22). Do not tighten completely until fan is put in place on J hook. A lubricant should not be used on the single mounting screw; and the pilot hole should be drilled no larger than the minor diameter of the mounting screw threads, and at least 38 mm (1-1/2") of the threaded part of the mounting screw should be secured into a structural joist to provide secure mounting.
4. Loosen set screw (18) on top canopy (19) on fan down rod (1) and lower the canopy to make room to place rubber grommet (14) onto mounting hook.
5. Tighten top nut (22) on J hook to raise fan into proper installation position.
6. Ensure power to outlet box is off before hooking up wiring (10). Wire the fan according to NEC, CEC and local electrical codes (see Figure #5 or 6). After making the wire connections as outlined in Figure #5, the wires should be spread apart with the grounded conductor and the equipment-grounding conductor on one side of the outlet box and the ungrounded conductor on the other side of the outlet box. Splices should

be turned upward and pushed carefully up into the outlet box.

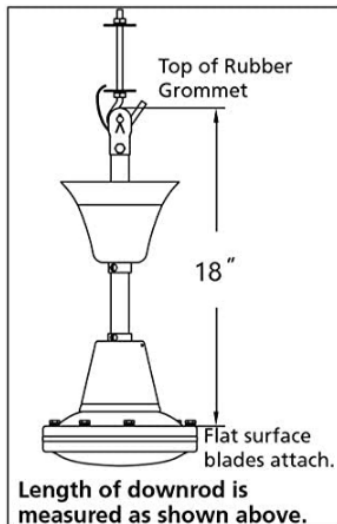
7. Raise top canopy (19) up the down rod to cover hook. Leave 1/8" gap between top canopy (19) and hanging surface (so down rod does not move off center which could make fan wobble or vibrate and transmit motor noise to ceiling surface). Tighten set screw (18).
8. Attach blades (23) to motor (24) with blade bolts (25). (Figure #3) The blade (24) should be positioned below the blade arm bracket (26) when attaching to the motor to get proper air flow and direction.

Wall Control Installation

The wall control switch has been investigated and found acceptable for use as a speed control switch.

1. Connect the fan supply (black) wire to the black wire from wall control as shown in Figure #5.
2. Connect the neutral fan (white) wire to the white neutral household wire.
3. Connect the two green fan ground wires located on the down rod and hanger bracket, to the household ground wire.
4. After connecting the wires, spread them apart so the green and white wires are on one side of the outlet box and the black wire is on the other side.
5. Turn the wire connecting nuts upward and push the wiring into the outlet box.

Note: (28) references an existing or customer supplied junction box.



⚠ WARNING When installed properly the bottom of the ceiling fan must be a minimum 10' above the floor level. It is critical that the "J" hook and nut adjustment is done so that the blades will be a minimum 12" from the ceiling. If your ceiling is less than 12' then the hook and down rod must be recessed into the ceiling so that the blades are mounted 10' above the floor level to meet OSHA standards.

Operation

For optimum fan performance, use the TPI controls to adjust speed and direction of your fan (see figure #5 for wiring). Follow the instructions included with the control for minimum speed setting and operation. The forward/reverse control will allow you to adjust the speed and direction of the fan. The forward/downdraft direction blows air down on high speed for cooling or low speed for heat de-stratification. The reverse direction is idle for heat de-stratification or creating air movement without direct air flow.

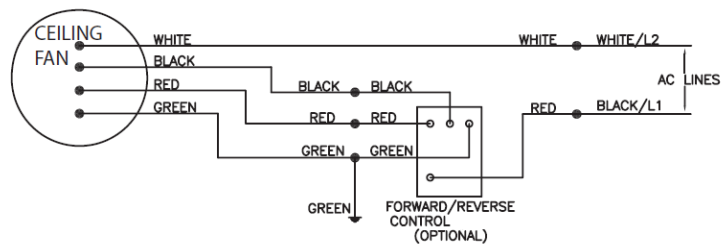


Figure #5 - Wiring diagram for Forward/ Reverse Models with optional control

Troubleshooting Chart

TPI Commercial Ceiling Fan is tested before it leaves the factory, resulting in an extremely low rate of returns. However, due to shipping and installation procedures, occasionally a fan will need a minor adjustment to run satisfactorily. If this should happen, we recommend that you identify the problem and try the simple suggestions listed below.

⚠ CAUTION

Turn off power at main circuit breaker before checking!

Fan will not start	a) Check fuses and circuit breakers. b) Check wire connections to fan. c) Check wiring connection in lower canopy. d) Check voltage at fan connection.
Fan too fast / slow	a) Adjust the trim set screw in fan wall control if using optional wall control. If minimum setting is too low the fan may shut off with voltage fluctuations. Increase minimum. b) Check voltage at fan connection. c) Blades must be attached to motor to reduce the speed.
Fan makes noise	a) Check motor case to make certain all visible screws are snug. b) Check to make certain that all blade bracket screws are tight. c) Check for labels or wire nuts that could be rubbing. d) All ceiling fans may have a slight motor noise known as the "60 cycle hum" when used with solid state infinite speed controls. Especially on lower speeds. This hum will not affect the fan performance. e) Make certain upper canopy is at least 1/8" from ceiling f) Allow a 30 days break in period which normally eliminates any residual noise other than a), b), c), d) or e).
Fan wobbles	a) Check that all blade brackets are screwed firmly to motor case. b) Check distance from tip of blades to ceiling. If blades get bent during installation, you must re-adjust them so that all blades travel on same plane. Gently bend up or down until all distances are the same. c) Make certain upper canopy is 1/8" from ceiling. d) Make certain that hanging hooks are secured tightly to ceiling. e) Run fan without blade, if motor does not wobble, then motor is not defective but the blades may be bent.

⚠ DANGER

⚠ WARNING

⚠ WARNING

⚠ WARNING

⚠ WARNING

CAUTION

- Below is the maintenance schedule that must be followed and filled out to be eligible for warranty and ensure safe operation.
- Inspection should be every 3500 running hours or every 6 months.
- Maintenance schedule should include repeating the product inspection procedure and the fan hanging procedure.

Maintenance Schedule

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LIMITED WARRANTY

Products manufactured by TPI Corporation are warranted to the original consumer to be free from defects in material and workmanship for twelve (12) months from the original purchase date.

The TPI limited warranty does not cover products that have been modified outside of our factory, damage or failure caused by acts of God, abuse, misuse, connected to or placed on other than rated voltage, abnormal usage, fault, installation, failure to follow suggested maintenance procedures enclosed with the product, improper maintenance or any repairs other than those provided by an authorized TPI service center.

There are no obligations or liabilities on the part of the Corporation for consequential damages arising out of or in connection with the use or performance of the product or other indirect damages with respect to loss of property, revenues, profit, costs of removal installation, or reinstallation.

All implied warranties with respect to TPI products, including implied warranties for merchantability and implied warranties for fitness, are limited in duration to twelve (12) months from original date of purchase, except those products or parts of products which are warranted for long periods thereon.

Some states do not allow the exclusions or limitation of incidental or consequential damages and some states do not allow limitations on how long an implied warranty lasts. The above exclusions or limitations may not apply to you.

During the warranty period, TPI Corporation will, at its sole option, repair or replace any defective parts or products returned, freight prepaid, to the TPI Corporation factory or such other locations as TPI Corporation may designate. Returned products must be packaged carefully and TPI Corporation shall not be responsible for damage in transit.

When returning parts, the owner must provide the model number of the product and nature of difficulty being experienced. This warranty does not obligate TPI Corporation to bear the cost of labor in replacing any assembly, unit or component part thereof, nor does the company assume any liability for secondary charges, expenses for installing or removal, freight or damages. There will be charges rendered for product repairs made after the warranty period has expired. Proof of purchase, including date, must accompany request for in-warranty service. In any event, TPI Corporation's maximum liability shall not in any case exceed the list price for the product claimed to be defective. This warranty gives to you specific legal rights and you may have other rights, which may vary from state to state. For the name of your nearest authorized TPI Corporation service center, please write to TPI Corporation, P.O. Box 4973, Johnson City, TN 37602.

Heating Products Warranty Coverage

Elements in Baseboards	10 Years
All Other Heating Products	1 Year
Thermostats and Controls	2 Years

Ventilation Products Warranty Coverage

Series HD or HDH Fans	5 Years
Series UHP or IHP Fans	3 Years
All other Ventilation Products	5 Years



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America's Comfort Conditioning Company