Instruction Manual
24" Electric Explosion Proof Fan on Stand – Swivel Casters

Thank you for your purchase of the Larson Electronics EPF-SM-24 explosion proof fan on stand. This fan is completely assembled, tested and ready for installation when shipped from the factory. Please follow the steps below in order to operate and maintain this product.

IMPORTANT

READ CAREFULLY BEFORE OPERATING THIS FIXTURE. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE. THE EPF-SM-24-WC MUST BE OPERATED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL CODES.

FOR PERSONAL SAFETY, ALWAYS CONFIRM THE RATING OF ANY KNOWN HAZARDOUS OR POTENTIALLY HAZARDOUS LOCATION WHERE THE FAN IS TO BE USED.

WARNING: TO PREVENT IGNITION OF A HAZARDOUS ATMOSPHERE, THE SUPPLY CIRCUIT SHOULD BE DISCONNECTED WHEN INSTALLING OR PERFORMING ANY MAINTENANCE ON THIS UNIT.

WARNING: WHEN INSTALLING FAN IN HAZARDOUS LOCATIONS, CHECK THE OPERATING TEMPERATURE LIMITS PRIOR TO INSTALLATION TO BE SURE IT CONFIRMS TO THE ENVIRONMENTAL TEMPERATURE RESTRICTIONS AND NEC CLASSIFICATIONS. CHECK THE NAMEPLATE FOR TEMPERATURE (T) RATINGS.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT US ANY SOLID-STATE SPEED CONTROL DEVICE WITH THESE FANS.

WARNING: OPERATE FAN ONLY AT THE VOLTAGE OF YOUR SPECIFIC SUPPLY CIRCUIT.

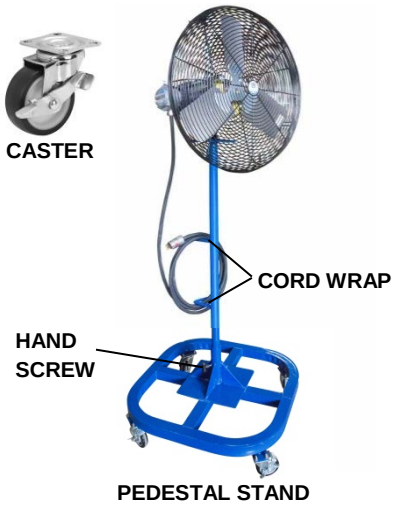
WARNING: SUBSTITUTE COMPONENTS MAY IMPAIR EXPLOSION PROOF SAFETY.

WARNING: BEFORE SERVICING OR CLEANING THE UNIT, SWITCH THE POWER OFF AT THE SERVICE PANEL AND LOCK SERVICE PANEL TO PREVENT POWER FROM BEING SWITCHED ON ACCIDENTALLY.

- USING THIS PRODUCT FOR ANY OTHER PURPOSE THAN IT WAS INTENDED, OR NOT WITHIN THE OPERATING SPECIFICATIONS IN THIS MANUAL WILL VOID THE WARRANTY AND MAY CAUSE DAMAGE TO THE FAN OR SERIOUS INJURY TO PERSONNEL.
- DO NOT EXPOSE FAN TO WATER OR RAIN.

OPERATION

Place fan in a location as close to level as possible. Ensure the fan has no chance of tipping over easily and ensure casters are locked to prevent unwanted movement.



There is a single hand screw toward the base which allows the fan to be rotated 360°. Simply loosen the hand screw, rotate, and tighten hand screw once desired angle is achieved. This also frees the top pole from its base and will allow fan and pole to come out of base. Ensure this hand screw remains tight before transporting.

CAUTION: **Ensure hand screw is tight before transporting fan!**
Use the cord wrap on stand for neatly storing cord when not in use.

WIRING

CAUTION:
ALL ELECTRICAL WORK SHOULD BE PERFORMED BY A QUALIFIED ELECTRICIAN AND MEET ALL NATIONAL, STATE, AND LOCAL CODES.

Be sure the voltage and cycles shown on the motor nameplate correspond to the power supply. Check product nameplate for Ratings and Approvals. This fan is rated for single phase 115V or 208-230V AC 60 Hz operations based on model purchased.

Fans pre-wired with 120V 3-prong power cord:

- The power source must conform to the electrical requirements of the fan.
- The power cord has a 3-prong grounded plug that must be plugged into a compatible circuit.
- Do not alter the plug to remove the grounding prong and never use a two prong adapter.
- Replace damaged or worn power cords immediately.
- Where possible, avoid using extension cords. If one must be used, the cord must be UL listed, be the proper size (Amp rating), and have 3-prong grounded connections.

Before activating fan, inspect to be sure that there are no obstructions or debris that would interfere with the propeller. Check all fasteners for tightness.

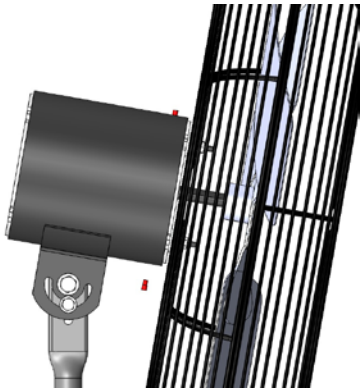
RECEPTACLE OPERATION

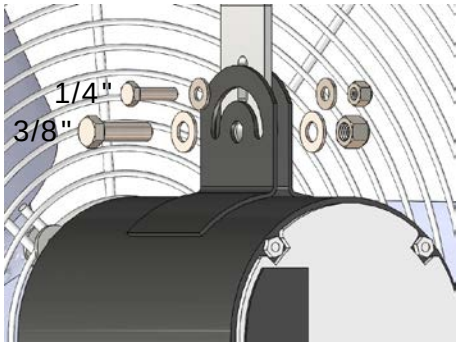
The receptacles are dead-front construction. Electrical connection between it and plug is accomplished after plug fully inserts into receptacle and rotated clockwise.

1. Lift receptacle door and locate polarization on mating plug pin and receptacle face. Insert plug straight all the way into receptacle until it cannot go further.
2. Rotate plug clockwise limit (37º), this closes internal contacts and completes circuit. This also mechanically locks plug into receptacle so it cannot be pulled out.
3. To remove plug, push plug inward and turn to counterclockwise, pull plug straight out.

REMOVE MOTOR DRAIN PLUGS

- After installing the fan, remove the motor drain plug located at the lowest point of the motor.
- Failure to remove the drain plug may allow condensation to build up inside the motor, reducing motor life and will void the warranty.
- Do not remove drain plugs on the top side of the motor.
- Drain plug locations and quantity may vary by motor design.





TILT ADJUSTMENT

The fan can tilt up or down by loosening the fasteners on the motor yoke bracket. Loosen the center 3/8” bolt and 1/4” bolt to adjust the fan to the desired angle and securely tighten all mounting hardware.

CAUTION: Fasteners may loosen over time. It is important to check and tighten fasteners frequently.

MAINTENANCE

WARNING:

DISCONNECT POWER BEFORE CLEANING OR MAINTAINING YOUR FAN IN ORDER TO PREVENT SERIOUS INJURY OR DEATH.

It is recommended that you implement a standard monthly or more frequent preventive maintenance schedule. Safety requires a thorough visual examination of the unit for physical damage that might cause a spark or result in the ignition of hazardous atmospheres.

Maintenance includes a careful examination to ensure at least:

A. The Cable is not frayed and is gripping tightly in all points of cable contact.
B. The Cable Jacket is completely intact and that no internal conductors or conductor insulation is exposed.
C. The Connection Box is not cracked, broken or breeched.
D. The Cord Plug is not cracked or damaged and the Ground Post is intact.

Keeping blades clean and free of material splatter, overspray, and debris during usage will ensure the maximum life of the fan. An accumulation of dirt may cause blade vibration and motor overload. Occasionally check tightness of blade set screws.

NOTE: Handle the propeller carefully as it is factory balanced and aligned to ensure smooth operation.

- Some maintenance procedures may require removal of fan guarding.
- After servicing, guards and other safety devices must be reinstalled per their original condition.
- Excessive dust and debris may cause overheating and reduced fan performance.
- Keep guards, motor and blades clean by vacuuming or wiping with a damp cloth.
- Do not use harsh chemicals or cleaners to clean any part of the fan.
- Pressure washing the unit will void the warranty.
- Sealed motor bearings are pre-lubricated and do not require servicing.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
Fan does not operate	**1.** Fan not plugged in **2.** Blown fuse or tripped circuit breaker **3.** Defective on/off switch **4.** Defective motor **5.** Fan blade contacting housing	**1.** Check power cord connection **2.** Replace fuse or reset circuit breaker **3.** Repair or replace switch **4.** Repair or replace motor **5.** Realign fan blade in fan housing
Insufficient airflow	**1.** Guards excessively dirty **2.** Blade and motor excessively dirty	**1.** Clean inlet and outlet guards **2.** Clean blade and motor
Excessive noise	**1.** Fan blade contacting housing **2.** Defective motor bearings **3.** Loose guards	**1.** Realign fan blade in fan housing **2.** Repair or replace motor **3.** Tighten guard fasteners
Excessive vibration	**1.** Damaged fan blade **2.** Motor shaft bent **3.** Motor loose	**1.** Replace fan blade **2.** Repair or replace motor **3.** Realign if necessary and tighten fasteners

If you need replacement parts, please contact your dealer. Take special care when ordering replacement blades and motors to ensure you get the proper configuration for your fan. If you do not have that information, please contact Larson Electronics by phone 1-800-369-6671 or email sales@larsonelectronics.com for further assistance.

Please visit LarsonElectronics.com for **Warranty** and **Return** information.