



Washdown Circulation Fan Operators Manual

IMPORTANT: READ AND SAVE THESE INSTRUCTIONS

Read all instructions carefully before attempting to assemble, install, operate or service the product described. Failure to comply with instructions could result in personal injury and/or property damage.

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.

WARNING - TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK:

- The power source must conform to the electrical requirements of the fan.
- The motor must be securely and adequately grounded.
- Do not use this fan with any speed control device.

CAUTION:

ALL ELECTRICAL WORK SHOULD BE COMPLETED BY QUALIFIED ELECTRICIAN AND MEET ALL NATIONAL, STATE AND LOCAL CODES.

INSTRUCTIONS FOR WIRING

Fans not factory wired (customer supplied power cord or hard-wired installations):

- Wiring should only be done by a trained electrician to prevent injury or death.
- Configure internal wires to match supply voltage and wire according to motor nameplate. Test to verify correct rotation.
- Many of the electric motors in our fans are reversible. Make sure the fan is rotating in the proper direction. Follow instructions on the motor label to change rotation if necessary.
- Proper blade rotation: blade must spin clockwise when viewing the fan as shown (viewing the fan with the blade in front and the motor in back)
- Schaefer recommends installing a lockable disconnect switch near each fan.
- Route wire to motor with drip loop and secure. Drip loop will drain accumulated moisture away from the motor.
- Only permit power to unit when motor cover plate and all guards are properly installed to prevent injury.



Blade Rotation

KEEP THIS MANUAL IN A CLEAN, DRY PLACE FOR FUTURE REFERENCE.

All information, illustrations and specifications in this manual are based on the latest product information available at the time of printing. Product specifications subject to change. We reserve the right to make changes at any time without notice.

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 call Schaefer Ventilation Equipment at 800-779-3267 for assistance.

GENERAL SAFETY INFORMATION

- This fan is intended for general use only. Do not use near hazardous or explosive materials or vapors.
- Before operating this fan, check for worn, damaged, or missing parts and replace or repair as needed.
- To avoid risk of fire, electric shock or personal injury, disconnect from power source before servicing.
- Never insert fingers or any other objects through the guards when fan is in operation.
- Never operate fan without guards in place.
- Fan must be located in an area that allows for adequate air flow around the fan.
- Starving the fan of air may cause the motor to overheat and result in damage to the motor.
- Carefully read all safety messages in this manual and on your equipment safety labels.
- Warning labels must be kept in good condition and be replaced if necessary.
- Follow recommended precautions and safe operating practices.

UNPACKING YOUR FAN

- Visually inspect the unit for any damage that may have occurred during shipping.
- Contact your shipper immediately if any damage is found.

INSTALLING YOUR FAN

Schaefer offers a variety of wall mounts and ceiling mounts for permanent installations. Wall and ceiling mounts must be installed on a support structure strong enough for the added weight of the mount and fan assembly. The customer is responsible for determining that their structure is adequate to support these loads.

MOUNTING HARDWARE

The hardware to attach the fan mount to the support structure is not supplied. Hardware must be adequately sized and be the proper type for your installation to safely support the fan. Always follow the fastener manufacturers installation instructions.







ATTACHING THE FAN TO THE MOUNT

Use the supplied hardware that came with your fan to attach it to the mount. The 3/8" hardware installs through the center hole of the motor yoke bracket. The 1/4" hardware fastens through the slot feature. Adjust the fan to the desired angle and securely tighten all mounting hardware.

Fan mount designs may vary. Fan must always be attached to the mount through center hole of the motor yoke bracket using 3/8" hardware.

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

CAUTION: Inspect fan components and fasteners frequently for corrosion. Replace any corroded fasteners or parts.

INCORRECT

WARNING: INCORRECT MOUNTING CONFIGURATIONS

Do NOT mount ceiling brackets horizontally. The ceiling brackets were not designed to be mounted this way. Mounting the bracket and fan this way carries a risk of damage to fan and/or property, and a danger to people and/or animals. Mounting the bracket this way will void the warranty.





Safety Cable: (Safety Cable Kit sold separately.)

A SECONDARY SUPPORT CABLE SHOULD BE INSTALLED ANYTIME THE FAN IS MOUNTED OVERHEAD FOR ADDITIONAL SAFETY.

Safety Cable must go around the Large Diameter Wires of the Front and Rear Guards.

The other end of Safety Cable must be securely fastened to a building joist, truss, or beam near the fan. Take up all unnecessary slack in the cable.

MOTOR DRAIN PLUGS

CAUTION: The fan must be mounted with a condensation drain fitting located at the lowest point of the motor. Damage resulting from failure to follow these instructions will void the warranty.

Naturally occurring condensation from thermal activity will accumulate within the motor and must be allowed to drain.

Your Schaefer washdown duty fan is assembled with the drain fitting(s) installed in the motor opposite of the yoke mount bracket. Recommended fan installation has the motor oriented with the yoke bracket up. You must relocate the drain fitting(s) to the lowest point of the motor if your installation is different than described here.

Condensation drain fittings are installed where indicated below. Quantity, type, and location vary based on motor design.



CLEANING AND MAINTENANCE



- 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.
- Sealed motor bearings are pre-lubricated and do not require servicing.

- Before washing fan assembly be sure:

- Electrical connections are not exposed.
- Motor covers and gaskets are properly installed and securely fastened.

CAUTION: Do NOT focus high pressure water stream directly at the motor condensation drain fittings. Incidental spraying over/across the fittings is permissible.

- After washing fan assembly:

- Inspect fan for loose fasteners or damage of any type.
- Operate fan for 10-15 minutes to dry out any condensation or water that may have entered the motor.

CAUTION: Harsh cleaning solutions may have negative effects on the durability and finish of the fan components. Ensure sufficient rinsing with fresh water after cleaning process.

- Always use caution when using harsh chemicals. Handle and dispose of chemicals properly.

Chloroform

The following chemicals should not be used on polypropylene blades:

 Esters Xylene

Toluene

- Benzene
- Gasoline
- Diethyl Ether Nitric Acid Chlorobenzene
- Liquid Chlorine • Trichloroethylene
 - 1:2 Dichloroethylene

- Mixtures of HNO₃-HCL
- Mixtures of HNO₃-H₂SO₄
- **CORROSIVE ENVIRONMENTS**

The fan should be washed and dried frequently to reduce the effect of corrosive environments.

DAMAGE RESULTING FROM FAILURE TO FOLLOW THESE INSTRUCTIONS WILL VOID THE WARRANTY.

- Sulphuric Acid, fuming
- Chloro-Sulphonic Acid

• Carbon Tetrachloride

HIGH-PRESSURE CLEANING OF WASHDOWN DUTY FANS

Schaefer Ventilation strongly recommends that our washdown duty rated fans <u>are not to be cleaned by high pressure washing while in</u> <u>operation</u>. Pressure washing the fan while it's operating carries the risk of damaging the fan and causing injury to personnel by causing the fan blade to contact the motor or guard surrounding the blade. **Damage caused by blade contact with the motor or guard while pressure washing with the fan running is not covered by Schaefer's warranty**.

After pressure washing the fan, and before reconnecting power:

- Make certain no damage has occurred to the fan blade, guards, or motor.
- Check for deforming of the fan blade wings or spider, broken wires or welds on the guards, or damage to the electrical connection box or power leads on the motor.

If pressure washing the fan while in operation is necessary, Schaefer Ventilation recommends the pressure not exceed 2000 psi, and the pressure washer nozzle be positioned no closer than 3 feet from the fan blade. Damage caused by blade contact with the motor or guard while pressure washing with the fan running is not covered by Schaefer's warranty.

CAUTION: Do NOT focus the high pressure water stream directly at the motor condensation drain fittings. Incidental spraying over/across the fittings is permissible.

TROUBLESHOOTING

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

WARRANTY

Schaefer Limited Warranty Policy

Schaefer Ventilation Equipment, LLC (SVE) provides the following limited warranty from the date of invoice to the initial purchaser of our products or to its customer with a dated proof of purchase:

Models: EWD 1-year, SWD 2-year, VWD 3-year coverage (unless otherwise indicated below) applies to all products, components and assemblies provided by SVE that prove to be defective in material or workmanship. Any such defective product will be repaired or replaced at SVE's option, with the defective product or component returned-upon approval, to SVE, F.O.B Sauk Rapids, Minnesota. This warranty does not cover: failure, damage or malfunction as a result of: Improper installation or installation not in accordance with installation instructions. Operating conditions that vary from SVE's operating instructions. Misuse, abuse, negligence, alteration, or accident. Transporting the product. Improper operation or lack of appropriate or regular maintenance of the product. Loss of time, inconvenience, loss of use of the product or other consequential or incidental damages. Parts that need replacement due to normal wear and tear. Superficial or cosmetic rust or corrosion. Any product whose name plate has been removed.

For full warranty statement may be printed or downloaded from www.schaeferfan.com



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