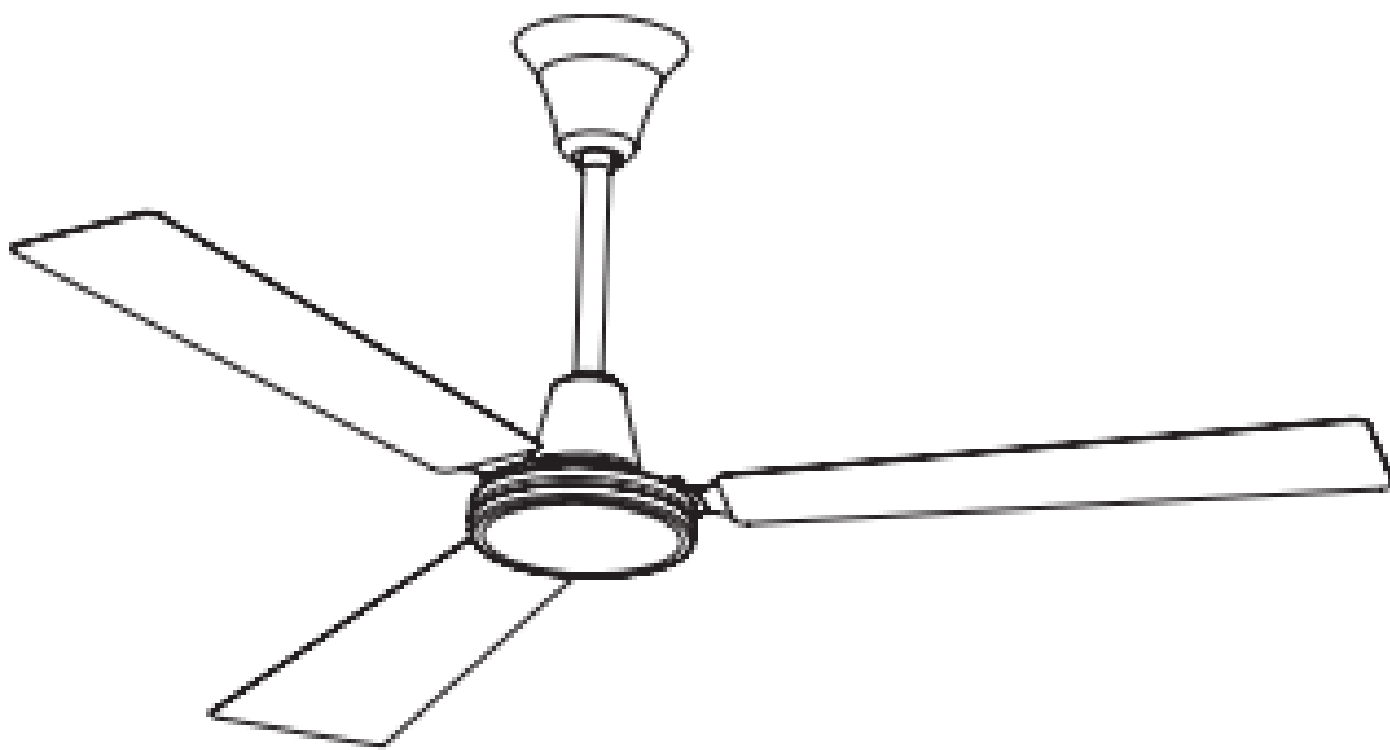


# CEILING FAN INDC PLUG & PLAY

Product Manual



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## PRODUCT NUMBERS

| Model Number        | NetSuite Number | Product Description   |
|---------------------|-----------------|---|
| <b>INDC600DP-DC</b> | 117702          | Fan, 60" Ceiling, 120V, 1PH, 60Hz, 3 Poly Blades, DC Motor, Outdoor, 24" Down rod, w/Plug, w/Wall Control |
| <b>DC Control</b>   | 117905          | Wall Control, Industrial Fan, DC Motor, 120V,60 Hz,200 Wb F/R, 5 Speed, 4 Fans                            |

## FAN HIGHLIGHTS

This VES-Artex ceiling fan is a high-efficiency, industrial ceiling fan. It is designed to create air velocity and a cooling effect at high speed. The lower speeds can be used for reduced velocity or heat de-stratification. The low speed gently de-stratifies the air giving a constant room temperature. This fan is outdoor rated, UL/CUL Certified and comes with wall control. This ceiling fan style that can be installed outdoors with a certified GFI electrical branch. It is connected to a plug and is available in white with a 60" diameter. The down rod for this fan is 24" (0.61m) and utilizes a J-hook for installation.

## FAN FEATURES & CERTIFICATIONS

- Use the ceiling fan all year long with reverse movement during the colder winter months.
- Easy J-hook installation for commercial and industrial environments.
- Great to use for ceiling heights from 10' to 30'.
- Comes with a 24" stainless steel safety cable.
- Each high-efficiency ceiling fan is designed to create air velocity and to de-stratify air.

Motors are  Listed &  Certified 

## TARGET AUDIENCE

This guide provides information for the following audiences:

| Information<br>(see chapter) | Target audience |           |                   |      |
|------------------------------|-----------------|-----------|-------------------|------|
|                              | Shipping agent  | Installer | Maintenance staff | User |
| Transport and storage        | x               |           |                   |      |
| Assembly and installation    |                 | x         |                   |      |
| Commissioning                |                 | x         | x                 | x    |
| Maintenance                  |                 |           | x                 | x    |
| Troubleshooting              |                 | x         | x                 | x    |
| Decommissioning              |                 | x         |                   |      |

## SAFETY PRECAUTIONS

Read and understand this manual before installing or servicing your VES-Artex product.

For the safe handling of VES-Artex products, you will find the following safety words: DANGER, WARNING, CAUTION, and NOTICE throughout this manual. These will identify safety levels as described below. Failure to obey the safety measures may result in death, serious injury, or damage to the product.

Use best industry practices when handling tools and equipment. When handling VES-Artex products follow all federal, state, and local safety codes as it is related to the work being performed.

Please follow all warning guidelines, failure to do so could result in serious injury or death. Qualified professionals should carry out the assembly and installation of the fan.

### SAFETY ALERT KEY

#### DANGER

Indicates an imminently hazardous situation that, if not avoided could result in death or serious injury.

#### WARNING

Indicates a potentially hazardous situation that, if not avoided could result in death or serious injury.

#### CAUTION

Indicates a potentially hazardous situation that, if not avoided could result in minor injury or product damage.

#### NOTICE

Used to address practices not related to personal injury.

### GENERAL SAFETY

#### DANGER

1. Disconnect electrical power before installing, inspecting, or servicing equipment to prevent possible electric shock or damage to equipment.
2. All electrical wiring must be done by a qualified electrician in accordance with all Local and National electrical and safety codes, as well as the National Fire Protection Agency (NFPA) where applicable.
3. Failure to properly ground the unit could result in severe electrical shock or death.

#### CAUTION

1. Follow all maintenance procedures enclosed.
2. Follow all federal, state, and local safety codes as it relates to the work being performed.

4. Verify lifting equipment is safe before fan handling.

**WARNING**

1. Read and follow instructions carefully. Failure to comply with instructions could result in fire, electric shock, injury to persons, and damage to equipment.
2. Keep hands and objects away from rotating fan blades.
3. Fans with blades rotating below 7 feet (2.3 meters) must be fastened with guards.
4. Heavy load. Handle fans with a safe and secure method.
5. Falling damage. Mount fans with VES-Artex-approved hardware.
6. Always wear personal protective equipment when installing and servicing VES-Artex products.

**NOTICE**

During transportation parts on the fan may become loose and need to be checked before, during, and after installation.

1. Ensure all hardware is tight and secure.
2. Ensure the alignment of the pulleys is correct.
3. Ensure proper belt tension is maintained.
4. Ensure fan(s) are not damaged before installation.
5. Ensure all fan parts are accounted for before installation.

## UNPACKING

### GENERAL

#### CAUTION

1. Use extreme care when unpacking the fan.
2. Do not remove zip ties (if present) during transportation and installation to prevent equipment damage or personal injury.

#### NOTICE

1. Once a VES-Artex product is received, inspect the product for any damage. It is recommended that inspection occurs immediately. If any damage is detected, file a claim with the freight carrier.
2. Use VES-Artex recommended handling techniques when moving VES-Artex products. Products damaged during installation are not covered under warranty.
3. Be sure to assemble attachments on the pallet before hoisting. Hoisting should be done with the fan still secured to the pallet.

### Recommended Tools

- Lift or ladder if applicable
- Flathead screwdriver
- Philips screwdriver
- 9/16" open wrench or adjustable wrench
- 3/8" open wrench or adjustable wrench
- 2-4 wires nuts

### Instructions

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

## HANDLING

### GENERAL

#### DANGER

1. Ensure the fan and chains are secure to prevent falling.
2. Verify lifting equipment is safe before fan handling.

#### WARNING

1. Heavy load. Handle fans in a safe and secure method.
2. Always wear eye protection when installing and servicing VES-Artex products.

#### NOTICE

1. Be sure zip ties (if present) are removed before operation to prevent equipment damage.
2. Be aware of obstacles in the area when positioning the fan.
3. Remove the pallet from the fan after mounting is complete.

Use best industry practices when hoisting the fan to the mounting location.



## MECHANICAL INSTALLATION

### WARNING

1. To reduce the risk of personal injury, do not bend the blade brackets when installing the brackets, balancing the blades, or cleaning the fan.
2. Do not insert foreign objects in between rotating fan blades.
3. Make certain crimps on the safety loop are secure. Make certain the safety cable is attached properly to the hook or a structural member. Failure to comply with instructions could result in personal injury and/or property damage.

### NOTICE

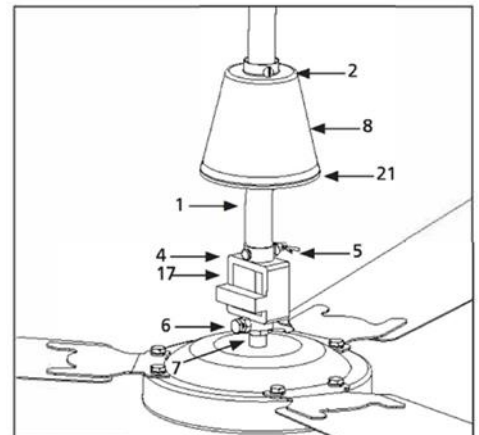
Be sure to follow all dimensions listed in the manual or the warranty will be void. Contact VES-Artex if you are unsure of the dimensions listed.

## SAFETY INSPECTION

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

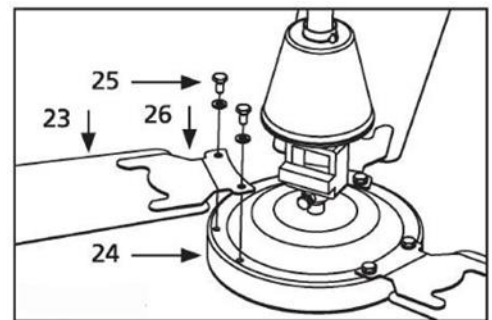
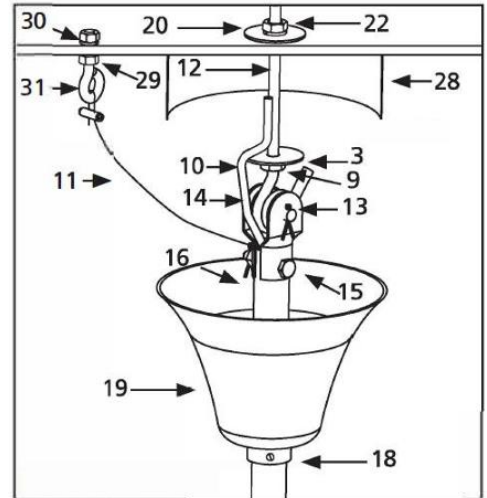
## FAN HANGING

1. Wind one nut (9) down to the bottom of the J-hook (12) towards the curve.
2. Add a lock washer and then a flat washer (3) on top of the nut (9).
3. Drill a 5/32" pilot hole for the safety hook (31) within a 12" radius of the J-hook (12) as support for the fan.
4. Wind one nut (29) down to the bottom of the safety hook towards the loop.
5. Add a lock washer (30) and slide the safety hook through the pilot hole.
6. Slide the lock washer (30) on the top side of the safety hook and add a nut (29).
7. Tighten so the lock washer on the top and bottom of the structure are secure.
8. Drill a 1/2" pilot hole for the J-hook.
9. Put the J-hook (12) through the pilot hole in the joist.



## Ceiling Fan INDC Plug & Play

10. Add a flat washer then a lock washer (20) and a nut (22). Do not tighten completely until the fan is put in place on the J hook. A lubricant should not be used on the single mounting screw and the pilot hole should not be drilled larger than the diameter of the mounting screw thread. At least 38mm (1-1/2") of the threaded part of the mounting screw should be secured into a structural joist to provide secure mounting.
11. Loosen the set screw (18) on the top canopy (19) on the fan's down rod (1) and lower the canopy to make room to place the rubber grommet (14) onto the mounting hook.
12. Tighten the top nut (22) on the J-hook to raise the fan into the proper installation position.
13. Ensure power to the outlet box is off before hooking up the wiring (10).
14. Wire the fan according to NEC, CEC, and local electrical codes.
15. After making the wire connections, the wire 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.
16. Raise the top canopy (19) up the down rod to cover the hook.
17. Leave a 1/8" gap between the top canopy (19) and the hanging surface while maintaining the down rod's centered position. The gap between the canopy and the mounting surface ensures the fan's vibrations are not transferred to the mounting surface.
18. Tighten the set screw (18).
19. Attach blades (23) to the motor (24) with the blade bolts (25). The blade (24) should be positioned below the blade arm bracket (26) when attaching to the motor to ensure proper airflow and direction.

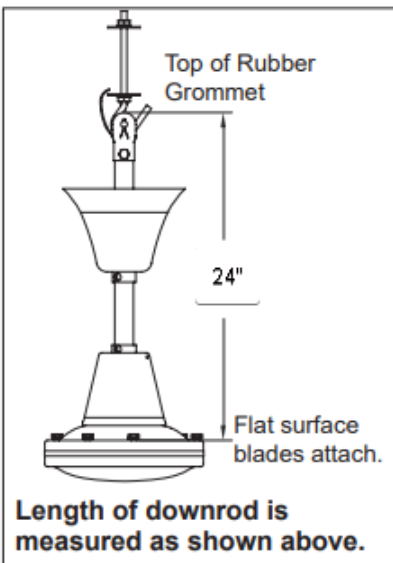


Note: When installed properly, the blades will hang 10' above the floor level. The J-hook and nut adjustment must be done so that the blades will be a minimum of 12" from the ceiling. If your ceiling is less than 12' then the hook and down rod must be recessed into the ceiling so that the blades are mounted 10' above the floor level to meet OSHA standards. These fans are designed to have the blades at a height greater than 10' from the floor and should never be mounted with the blades lower than the 7' OSHA standard for unguarded fans.

## 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 the wall control as shown in Figure.
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.

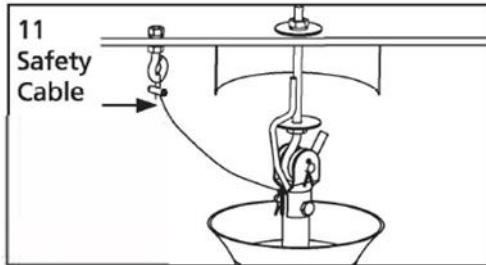


## CHANGING THE DOWN ROD LENGTH

1. Loosen and remove the bolt, cotter pin, and nut (16).
2. Slide the top canopy (19) and the lower canopy off the down rod (1) and over the wires and safety cable.
3. Loosen the set screw (4), remove the cotter pin (5), and slide the down rod (1) over the wires and safety cable.
4. Take the replacement down rod and complete the previous three steps in reverse order.
5. Slide the replacement down rod over the wire and safety cable and insert it into the yoke (17).
6. Insert cotter pin (5) through the yoke and down rod making certain you do not damage the wires.
7. Once the cotter pin is in place, re-insert the split pin and bend the longer side backward so the cotter pin will not slide out.
8. Tighten the set screws (4) to 10 ft/lbs. of torque.
9. Slide the lower canopy (8) over the wires, safety cable (11), and down rod (1) until it sits on top of the yoke (17) and tightens the set screw (2).

## Ceiling Fan INDC Plug & Play

10. Slide the top canopy (19) over the wires, safety cable, and down rod. Do not tighten the set screw (18).
11. Attach the rubber grommet (14) and support bracket (15) to the top of the down rod using the bolt, cotter, and nut (16). Make certain you do not damage the wires inside the down rod.
12. Tighten the nut to 10 ft/lbs. of torque and then re-insert the split pin and bend the longer side backward so the pin will not slide out.
13. Return to the assembly and installation instructions to complete installation.



Note: The J-hook and nut adjustment must be done so that the blades will be a minimum of 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. These fans are designed to have the blades at a height greater than 10' from the floor and should never be mounted with the blades lower than the 7' OSHA standard for unguarded fans.

## ELECTRICAL INSTALLATION

### DANGER

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

### NOTICE

1. Disconnect the power supply before wiring connections are made to prevent possible electric shock or damage to the equipment.
2. 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.

## MOTOR LABEL

|                         |  |
|-------------------------|--|
| <b>VES-ARTEX</b>        |  |
| Ceiling Fan             | <br><b>Intertek</b><br><b>5013370</b>  |
| Model:IND-C60-OD-P-CONT |  |
| 120V~ 60Hz 0.46A        |  |
| Date code:11/23         |  |
| Made in China           |  |
|                         | <b>CONFORMS TO UL STD.507</b><br><b>CERTIFIED TO CSA STD.C22.2 NO.</b><br><b>60335-1 &amp; 60335-2-8</b><br><b>MPEDANCE-PROTECTED</b><br><b>PROTECTION PAR IMPÉDANCE</b> |

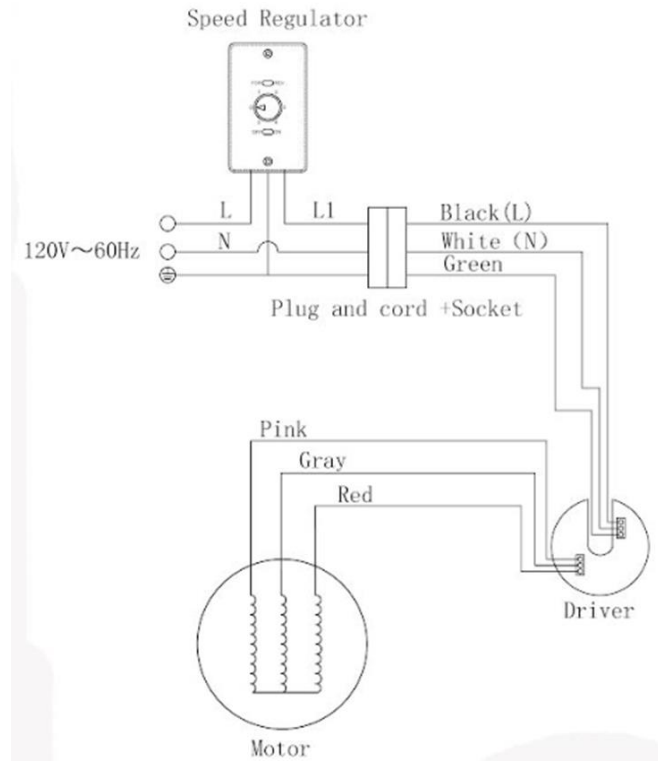
## MOTOR WIRING

VES-Artex does not supply the motor-to-control interconnecting wires. These must be supplied by the installer.

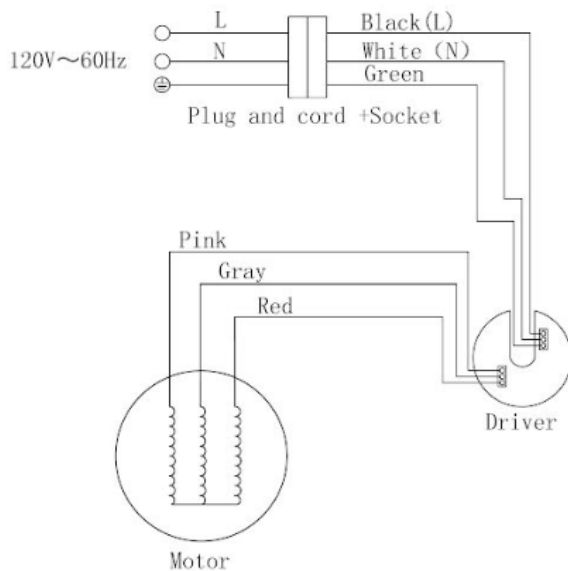
All Electrical work must be completed by a licensed electrician in accordance with all Local and National electrical and safety codes, as well as the National Fire Protection Agency (NFPA) where applicable. Check and make sure all electrical power supplied to the motor is disconnected before completing any work on the fan.

- Ensure that the power to be supplied to the motor matches what is specified on the motor nameplate.
- Remove the motor access cover and follow the wiring diagram located on the motor nameplate or the inside of the motor access cover. If the motor is dual voltage, please follow the wiring instructions that are associated with the power to be supplied to the motor.

### Plug and Cord with Wall Control Circuit Diagram



### Plug and Cord without Wall Control Circuit Diagram



#### **DANGER**

Any work on the device must only be carried out in a de-energized state and by qualified and skilled personnel.

#### **WARNING**

Be sure to create a drip loop in the power line to prevent water from being introduced to the controller from the fan.

## OPERATION

- For optimum performance, use the ETL / CETL-approved speed control to adjust the speed and direction of your fan from the wiring.
  - Follow the instructions from the control for minimum speed setting and operation.
- The forward/reverse control will allow you to adjust the speed and direction of the fan.
  - On the forward or downdraft direction you can blow air down at high speed for cooling or low speed for heat de-stratification.
  - The reverse mode is idle for heat de-stratification or creating air movement without direct airflow.

## MAINTENANCE SCHEDULE

### DANGER

1. Before any further action is taken, ensure the power is disconnected from the fans requiring a blade switch.
2. Handle fan blades with more than one person due to the risk of serious injury.

### CAUTION

1. Take caution in removing and installing fans. Make sure all work platforms are stable before working on the fans.
2. If you see noticeable vibration, wobbling or wear the fan should be removed from service and repaired or replaced by a qualified maintenance technician or electrician.

### WARNING

1. Do not use gasoline, benzene, thinner, harsh cleaners, etc. They are dangerous and will damage the ceiling fan.
2. Do not place fingers or objects in the ceiling fan while the motor is connected to the power source.
3. Do not attach foreign objects to the blades of the ceiling fan.

| Component        | Timeline | Task   |
|------------------|----------|--|
| <b>Fan</b>       | Daily    | Check that all fans are working.   |
|                  | Monthly  | Start up all the fans and check for irregular noise or vibration.  |
| <b>Blades</b>    | 6 Months | General cleaning: Wipe blade surfaces.   |
|                  |          | <div style="background-color: #f4a460; text-align: center; padding: 5px;"><b>WARNING</b></div> To avoid shock injury or catastrophic electrical damage to VES-Artex products, do not use pressurized water on the motor. Introducing pressurized water will void the warranty. |
| <b>Motor Hub</b> | 6 Months | General cleaning: Wipe motor hub surfaces.   |
|                  |          | <div style="background-color: #f4a460; text-align: center; padding: 5px;"><b>WARNING</b></div> To avoid shock injury or catastrophic electrical damage to VES-Artex products, do not use pressurized water on the motor. Introducing pressurized water will void the warranty. |

Note: The maintenance schedule should include repeating the product inspection procedure and the fan hanging procedure.

## MAINTENANCE GUIDELINES

These fans are rated for industrial use and are very durable under normal circumstances. It is still necessary to inspect the fans carefully, especially before spring start-up, for any loose, bent, or missing parts.

- Inspection should be every 3500 running hours or every 6 months.
- Report any discrepancies to your local dealer so replacement parts can be ordered and installed.
- Ensure that the wiring is sound and has not been impacted.
- Check carefully that no animals, personnel, or machinery can interfere or come in contact with the equipment during normal operation.

## ROUTINE MAINTENANCE

Check all fasteners/hardware regularly.

Make drive inspections periodically:

- High temperatures are harmful to motor performance. For this reason, avoid tight-fitting mounting and safety guards that may obstruct the ventilation openings.
- Prevent obstructions from fan inlets and outlets that haven't been designed by VES-Artex.



## REPAIR GUIDELINES

Replace the fan if a part defaults or breaks. Be sure to review the warranty information to determine warranty qualifications. Purchase new parts from a VES-Artex supplier by reviewing our **list of certified dealers**.

## DISPOSAL

If pollutants are not disposed of properly, they may cause long-term damage to human health and the environment. Electrical and electronic equipment must be collected separately from unsorted municipal waste to be recycled or disposed of properly.

Dispose of eWaste with specialized waste management companies. More detailed information on disposal can be obtained from the corresponding specialist firms and the competent authorities.

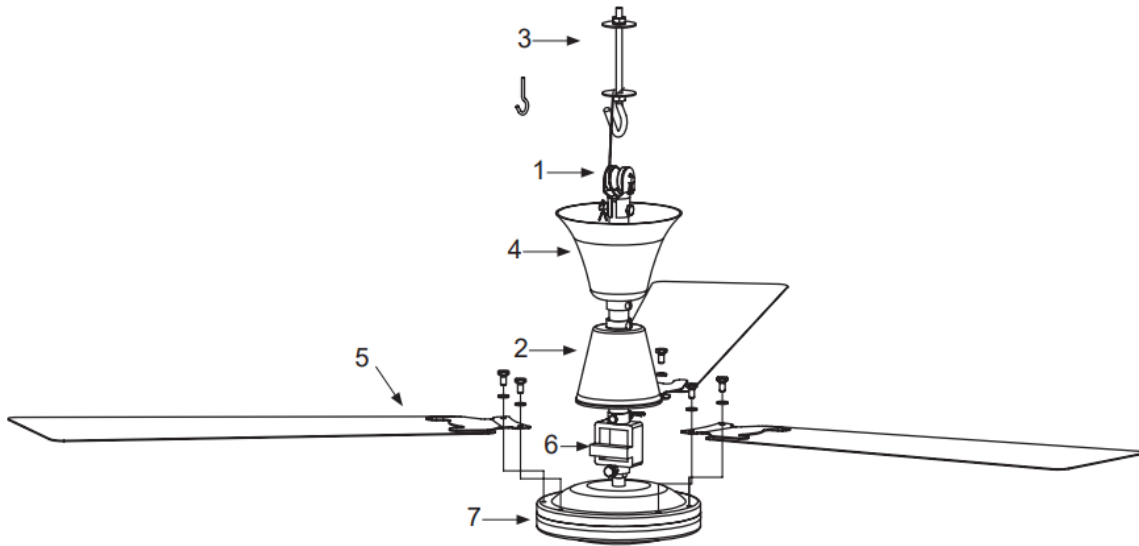
Dispose of packaging separately. Recycle paper, cardboard, and plastics.

## TROUBLESHOOTING

| Symptom                     | Cause                             | Solution  |
|-----------------------------|-----------------------------------|---|
| <b>FAN WILL NOT START</b>   | Blown/bad fuse or circuit breaker | Check fuses and circuit breakers.   |
|                             | Bad connection                    | Check wire connections to the fan.  |
|                             |                                   | Check lower canopy wiring connections.  |
|                             | Over or under-voltage             | Check the fan connection voltage.   |
| <b>FAN TOO FAST/SLOW</b>    | Over or under-voltage             | Adjust the trim set screw in the fan wall control if using the optional wall control. If the minimum setting is too low the fan may shut off with voltage fluctuations. Increase minimum. |
|                             | Setting not correct               | Check environmental control settings.   |
|                             | Blades not secure                 | Ensure the blades are attached to the motor to reduce the speed.  |
| <b>FAN MAKES NOISE</b>      | Loose hardware or attachments     | Check the motor case to ensure all visible screws are snug.   |
|                             |                                   | Check to make certain that all blade bracket screws are tight.  |
|                             |                                   | Check to make sure the fan is secure, and the upper canopy is at least 1/8" from the ceiling.   |
|                             |                                   | Check for labels or wire nuts that could be rubbing.  |
|                             | Bad/worn bearing or bent shaft    | Check the bearing shaft to ensure the blade spins freely without noise.   |
|                             | Debris                            |   |
| <b>FAN WOBBLER/VIBRATES</b> | Loose hardware                    | Check that all blade brackets are screwed firmly to the motor case.   |
|                             |                                   | Make certain that hanging hooks are secured tightly to the ceiling.   |
|                             | Damaged blades<br>Debris          | Run the fan without the blade. If the motor does not wobble, the motor is not defective, but the blades may be damaged.   |
|                             |                                   | If blades get bent during installation, re-adjust them so that all blades travel on the same plane. Gently bend up or down until all distances are the same.                              |
|                             | Incorrectly mounted fan           | Ensure the upper canopy is 1/8" from the ceiling.   |

Note: Allow a 30-day break-in period which normally eliminates any residual noise other than troubleshooting recommendations.

## PART OVERVIEW



| Item Number | Description                  | Quantity |
|-------------|------------------------------|----------|
| 1           | Rubber Wheel                 | 1        |
| 2           | Lower Canopy Moisture Resist | 1        |
| 3           | Support Hook                 | 1        |
| 4           | Upper Canopy                 | 1        |
| 5           | Blade Set (3 Blades per set) | 1        |
| 6           | Capacitor                    | 1        |
| 7           | Motor Housing with Yoke      | 1        |
| Not Shown   | Control                      | 1        |

## REPLACEMENT PARTS

Replace the fan if a part defaults or breaks. Be sure to review the warranty information to determine warranty qualifications. Purchase new parts from a VES-Artex supplier by reviewing our **list of certified dealers**.

## GLOSSARY

| Abbreviation/Term | Meaning   |
|-------------------|---|
| " (in)            | Inch (= 25.4 mm)  |
| °                 | Degrees (indication of angle)                                   |
| °C                | Degrees Celsius   |
| A                 | Ampere (amperage)   |
| AIE               | Error acknowledgment ("Acknowledge in Error")                   |
| Cm                | Centimeter  |
| g                 | Gram  |
| Kg                | Kilogram  |
| kPa               | Kilopascal  |
| Kw                | Kilowatt  |
| m                 | Meter   |
| minus             | Minute  |
| Mm                | millimeter  |
| mm <sup>2</sup>   | Square millimeters  |
| mm <sup>3</sup>   | Cubic millimeters   |
| OFF state         | Signal status of the safety sensor when it triggers or responds |
| QSP               | Quick stop  |
| s                 | Second  |
| VFD               | Variable Frequency Drive Control                                |
| V                 | Volt (voltage)  |

## WARRANTY

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*LIMITED WARRANTY & RETURN POLICY  
THERE ARE NO WARRANTIES THAT EXTEND  
BEYOND THE DESCRIPTION ON THE FACE HEREOF.*

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See any updated warranty and policy information on the VES-Artex website: [www.ves-artex.com/ves-artex-warranty/](http://www.ves-artex.com/ves-artex-warranty/).