

CEILING FAN INDB-DC

Product Manual



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SAVE THIS MANUAL FOR FUTURE REFERENCE

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Ceiling Fan INDB-DC

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PRODUCT NUMBERS

Model Number	NetSuite Number	Product Description
INDB56MR4LP-DC	117698	Fan, 56" Ceiling, 120V, 1PH, 60Hz, 3 Poly Blades, DC Motor, Moisture Resist, HO, F/R, 18" Down rod, White
	117699	Fan, 56" Ceiling, 120V, 1PH, 60Hz, 3 Poly Blades, DC Motor, Moisture Resist, HO, F/R, 18" Down rod, Black
INDB60MR4LP-DC	117700	Fan, 60" Ceiling, 120V, 1PH, 60Hz, 3 Poly Blades, DC Motor, Moisture Resist, HO, F/R, 18" Down rod, White
	117701	Fan, 60" Ceiling, 120V, 1PH, 60Hz, 3 Poly Blades, DC Motor, Moisture Resist, HO, F/R, 18" Down rod, Black
DC Control	117905	Wall Control, Industrial Fan, DC Motor, 120V,60 Hz,200 Wb F/R, 5 Speed, 4 Fans

FAN HIGHLIGHTS

VES-Artex offers commercial and industrial-grade ceiling fans. Our moisture-resistant fan is designed for damp locations with a certified GFI electrical branch. This style is available in both 56" and 60" sizes in white and matte black and utilizes a J-hook for installation.

FAN FEATURES & CERTIFICATIONS

- Moisture-resistant construction allows usage indoors and in covered outdoor applications.
- 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'.
- The forward and reverse movement option is standard on all moisture-resistant fans.
- Designed to create air velocity and to de-stratify air.

Motors are  Listed &  Certified 

FAN SPECIFICATIONS

	INDB56MR4LP-DC*	INDB60MR4LP-DC*
Size	56"	60"
Voltage	120 V	120 V
Hertz	60 Hz	60 Hz
Amps	0.46	0.46
Wattage	85	90
RPM	290	260
Speed	Variable	Variable
Connectivity	3 Wires	3 Wires
Movement	Forward/Reverse	Forward/Reverse
Down rod Length	18"	18"
Damp Rated	Yes	Yes

*Denotes color variations are available.

TARGET AUDIENCE

This guide provides information for the following audiences:

Information (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.
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.

CAUTION

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

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

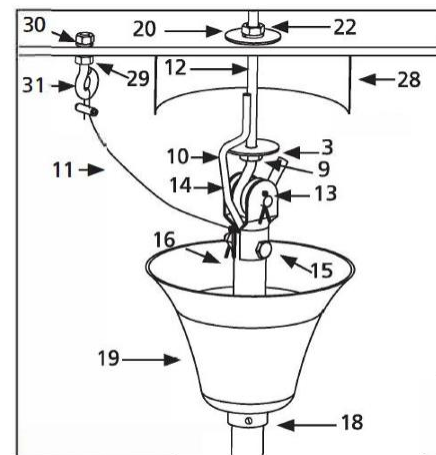
1. Once a VES-Artex product is received, inspect the product for any damage. It is recommended that inspection occurs immediately. If any damage is detected, file a claim with the freight carrier.
2. Use VES-Artex recommended handling techniques when moving VES-Artex products. Products damaged during 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. Remove all ceiling fan parts from the box.
2. Note that #28 in the figure references the end user's existing junction box, if applicable.
3. Install a junction box to contain the wiring of the fan.
 - a. For installation to open the web steel joist, use the threaded J-hook as supplied.
 - b. For wood joist construction, use a J-hook with lag threads.
 - c. For attachment in concrete, drill concrete anchors into the concrete as specifically applicable to NEC, CEC, and local regulations.



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

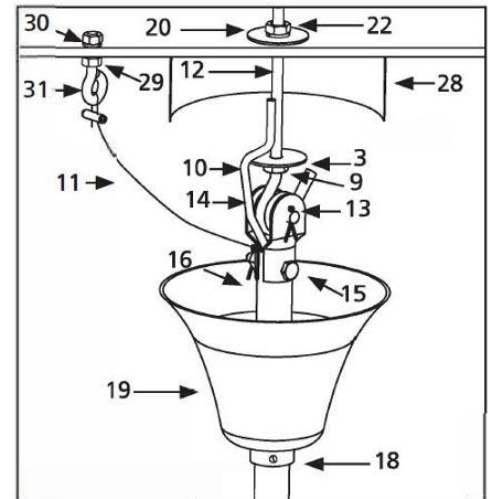
1. To reduce the risk of personal injury, do not bend the blade brackets when installing the brackets, balancing the blades, or cleaning the fan.
2. Do not insert foreign objects in between rotating fan blades.
3. Make certain crimps on the safety loop are secure. Make certain the safety cable is attached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

NOTICE

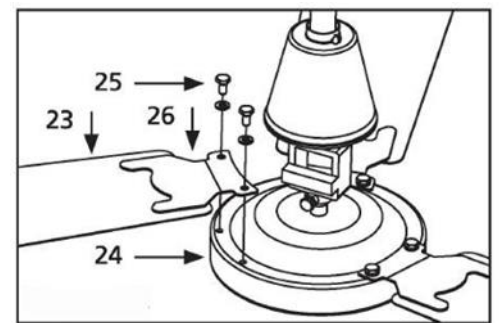
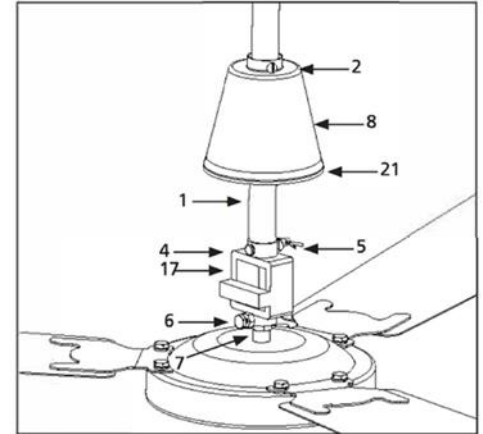
Be sure to follow all dimensions listed in the manual or the warranty will be void. Contact VES-Artex if you are unsure of the dimensions listed.

FAN ASSEMBLY & INSTALLATION

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.
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.



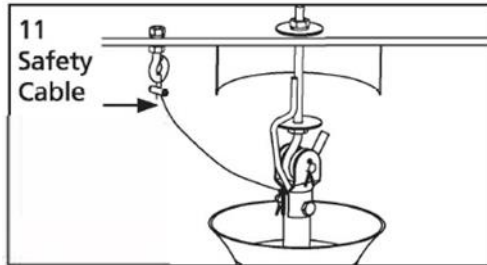
Note: When installed properly, the blades will hang 10' above the floor level. The J-hook and nut adjustment must be done so that the blades will be a minimum of 12" from the ceiling. If your ceiling is less than 12' then the hook and down rod must be recessed into the ceiling so that the blades are 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.

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).

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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.

CAUTION

Follow all maintenance procedures enclosed.

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.

MOTOR LABEL

56" Fan Models

VES-ARTEX		
Ceiling Fan Model:IND-B56-MR-3L 120V~ 60Hz 0.46A Date code:11/23 Made in China	 Intertek 5013370	CONFORMS TO UL STD.507 CERTIFIED TO CSA STD.C22.2 NO. 60335-1 & 60335-2-8 IMPEDANCE-PROTECTED PROTECTION PAR IMPÉDANCE

60" Fan Models

VES-ARTEX		
Ceiling Fan Model:IND-B60-MR-3L 120V~ 60Hz 0.46A Date code:11/23 Made in China	 Intertek 5013370	CONFORMS TO UL STD.507 CERTIFIED TO CSA STD.C22.2 NO. 60335-1 & 60335-2-8 IMPEDANCE-PROTECTED PROTECTION PAR IMPÉDANCE

MOTOR WIRING

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

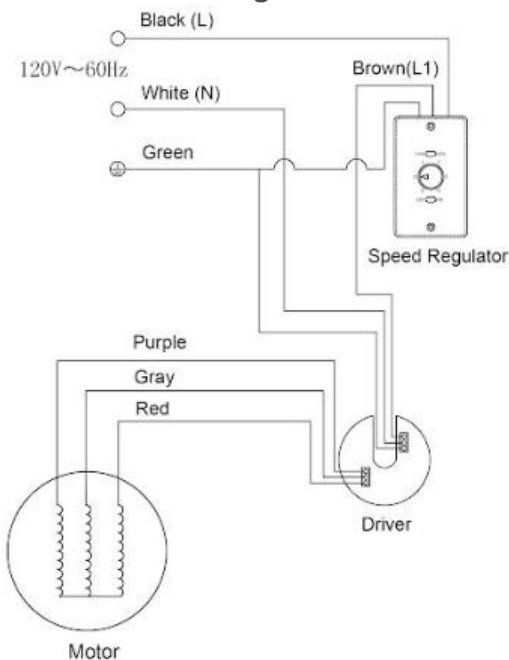
All Electrical work must be completed by a licensed electrician in accordance with all Local and National electrical and safety codes, as well as the National Fire Protection Agency (NFPA) where applicable. Check and make sure all electrical power supplied to the motor is disconnected before completing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

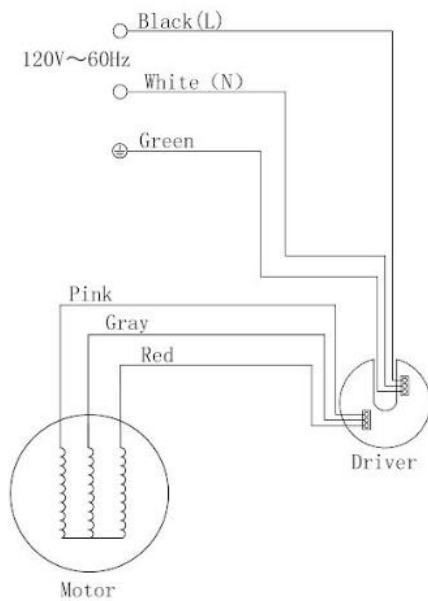
Fan Control Wiring



Fan-to-Control Wiring



3 Wires 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

Take caution in removing and installing fans. Make sure all work platforms are stable before working on the fans.

Component	Timeline	Task
Fan	Daily	Check that all fans are working.
	Monthly	Start up all the fans and check for irregular noise or vibration.
Blades	6 Months	General cleaning: Wipe blade surfaces.
		<p style="text-align: center;">WARNING</p> <p>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.</p>
Motor Hub	6 Months	General cleaning: Wipe motor hub surfaces.
		<p style="text-align: center;">WARNING</p> <p>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.</p>

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.

- 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.

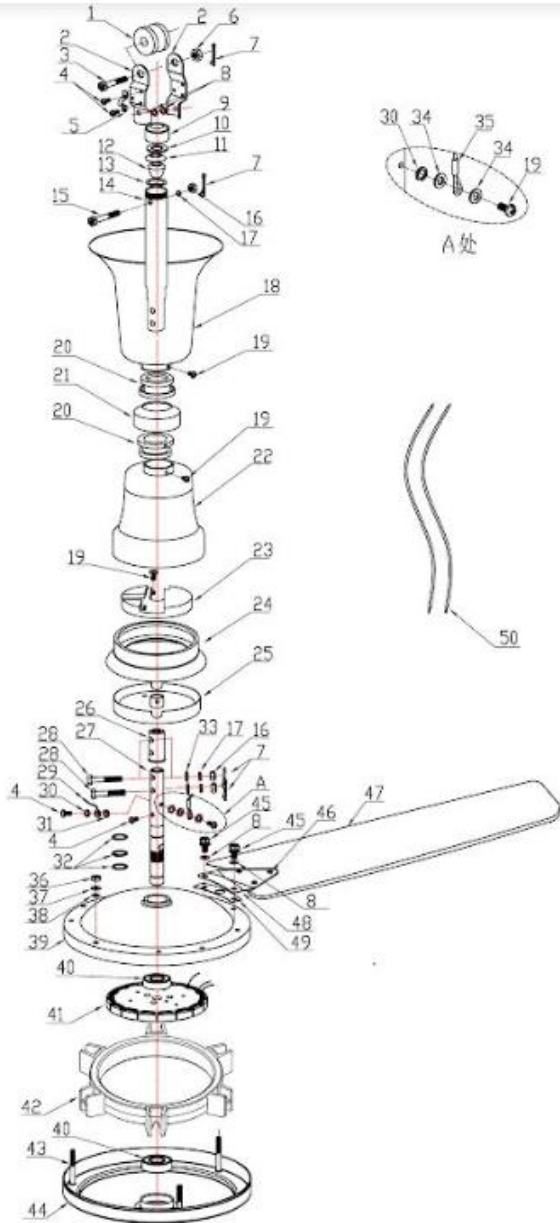
Dispose of packaging separately. Recycle paper, cardboard, and plastics.

TROUBLESHOOTING

Symptom	Cause	Solution
FAN WILL NOT START	Blown/bad fuse or circuit breaker	Check fuses and circuit breakers.
	Bad connection	Check wire connections to the motor.
	Over or under-voltage	Check the voltage at the fan connection.
FAN TOO FAST/SLOW	Over or under-voltage	Check the voltage at the motor. Ensure the motor is wired for the correct voltage.
	Setting not correct	Check environmental control settings.
	Blades not secure	Ensure the blades are attached to the motor to reduce the speed.
FAN MAKES NOISE	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	
FAN WOBBLER/VIBRATES	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 Debris	Run the fan without the blade, if the motor does not wobble, then 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	Rubber Wheel Bracket	2
3	M8X38mm Bolt	1
4	M4X8 Screw	4
5	Wire Clip	1
6	M8 Nut	1
7	Cotter Pin	4
8	φ10 Rubber Washer	8
9	Down Rod Screwcap	1

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10	φ23 Rubber Washer	1
11	Washer 1	1
12	Rubber Cap	1
13	Washer 2	1
14	φ26.5 Down Rod	1
15	M6 45mm Bolt	1
16	M6 Nut	3
17	φ6 Spring Washer	3
18	Upper Canopy	1
19	M4X10 Bolt	4
20	Rubber Ring	2
21	Waterproof Rubber Ring	1
22	Lower Canopy	1
23	Driver	1
24	York Cover Rubber Ring	1
25	Steel Plate	1
26	Shaft Sleeve	1
27	Shaft	1
28	M6X35 Shaft	2
29	Ground Wire	1
30	φ4 Spring Washer	2
31	Start Washer	1
32	φ Shaft Circlip	3
33	φ6 Flat Washer	2
34	φ4 Flat Washer	2
35	Safety Cable	1
36	M5 Nut	3
37	φ5 Flat Washer	3
38	φ8 Rubber Washer	3
39	Upper Motor Housing	1
40	Bearing	2
41	Stator	1
42	Rotor	1
43	M5 Bolt	3
44	Lower Motor Housing (with spring/flat washer)	1
45	M6X12 Screw	6
46	Blade Rivet	9
47	Blade	3
48	Blade Bracket	3
49	Fiber Washer	3
50	Wire	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 ²	Square millimeters
mm ³	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

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

See any updated warranty and policy information on the VES-Artex website: **www.ves-artex.com/ves-artex-warranty/**.