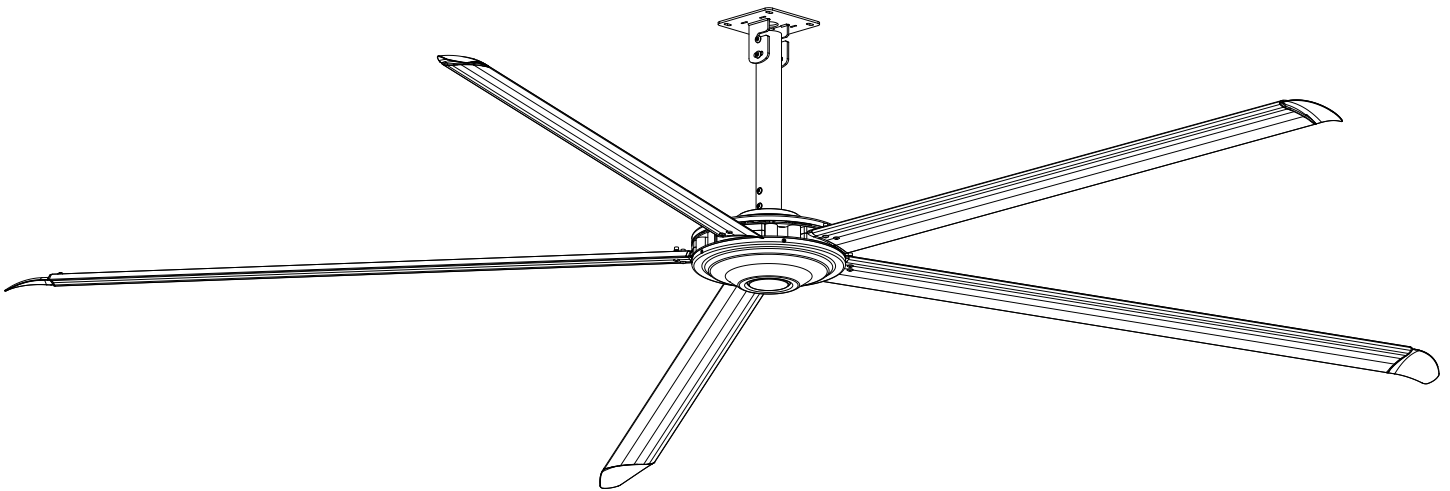


# ENTREMATIC Commercial HVLS Fans



This manual applies to fans manufactured beginning October 2015 with the serial number C61174800 and higher.

**▲ WARNING**

*Do not install, operate or service this product unless you have read and understand the Safety Practices, Warnings, and Installation and Operating Instructions contained in this User's Manual. Failure to do so could result in death or serious injury.*

## User's Manual

Installation, Operations,  
Maintenance and Parts

Part No. 6016083A

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## INTRODUCTION

Welcome and thank you for choosing this C-CLASS commercial fan from Entrematic

This User's Manual contains basic information that you need to safely install and operate your fan. Please read and keep this User's Manual before using your new fan. For more information, please consult website at [www.entrematicfans.com](http://www.entrematicfans.com).

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## SAFETY SIGNAL WORDS

You may find safety signal words such as DANGER, WARNING, CAUTION or NOTICE throughout this User's Manual. Their use is explained below:



*This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.*

### **▲ DANGER**

*Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.*

### **▲ WARNING**

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

### **▲ CAUTION**

*Indicates a potentially hazardous situation which, if not avoided may result in minor or moderate injury.*

### **NOTICE**

*Notice is used to address practices not related to personal injury.*

---

# SAFETY PRACTICES

## **⚠ WARNING**

**READ AND SAVE THESE INSTRUCTIONS.**

**READ THESE SAFETY PRACTICES BEFORE INSTALLING, OPERATING OR SERVICING THE FAN. Failure to follow these safety practices could result in death or serious injury.**

**READ AND FOLLOW THE OPERATING INSTRUCTIONS IN THIS MANUAL BEFORE OPERATING THE FAN. If you do not understand the instructions, ask your supervisor to teach you how to use the fan.**

## **⚠ DANGER**

**To reduce the risk of fire, electric shock and injury to persons, HVLS fan motor assemblies must be installed with the blade assemblies that are marked on their cartons to indicate the suitability with this model. Other blade assemblies cannot be substituted.**

**Be certain to follow the instructions in this manual. If you do not understand the instructions, ask your supervisor to explain them to you or call your authorized local distributor.**

## **INSTALLATION AND OPERATION:**

Installation of the equipment must comply with local and national electrical codes and must be in accordance with ANSI/NFPA 70 clauses 400.7 and 400.8.

Do not use this commercial fan until you have received proper training. Improper use could result in property damage, bodily injury and/or death. Read and follow the complete OPERATING INSTRUCTIONS on page 20 before use. If you do not understand the instructions, ask your supervisor to explain them to you or call your local distributor.

DO NOT USE THE FAN IF IT APPEARS DAMAGED OR DOES NOT OPERATE PROPERLY. Inform your supervisor immediately.

Do not operate the fan until all personnel, building structure and moveable equipment are clear of all moving parts. Install guards as required.

Do not install the fan unit onto structure of insufficient strength. Consult a professional engineer or registered architect. Improper installation of the fan could result in death or serious injury.

For fans that will be subjected to high cross winds (open bay doors or air conditioning diffuser ducts) the fan must be at least one fan diameter (as measured from the end of the winglet) from open bays or A/C ducts mounted below the blade plane or there must be at least one fan diameter (as measured from the end of the winglet) for A/C ducts mounted at or above the blade plane.

## **MAINTENANCE AND SERVICE:**

### **⚠ DANGER**

**Before service, inspection, or cleaning make certain that the power is disconnected and properly locked off.**

If the fan does not operate properly using the procedures in this manual, **BE CERTAIN TO REMOVE POWER FROM THE UNIT AND LOCK-OUT THE DISCONNECT ON THE POWER CIRCUIT.** Call your local distributor for service.

Keep your body clear of moving parts at all times.

All electrical troubleshooting and repair must be done by a qualified technician and meet all applicable codes.

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## OWNER'S RESPONSIBILITIES

The owner's responsibilities include the following:

The owner should recognize the inherent danger of the interface between the commercial fan and shop worker. The owner should, therefore, train and instruct operators in the safe use of the commercial fan.

Nameplates, cautions, instructions and posted warnings shall not be obscured from the view of operating or maintenance personnel for whom such warnings are intended. Warnings which are worn or non-legible should be replaced.

Manufacturer's recommended periodic maintenance and inspection procedures in effect at date of shipment shall be followed, and written records of the performance of these procedures should be kept.

Commercial fans that are structurally damaged or have experienced impacts from external sources, shall be removed from service, inspected by the manufacturer's authorized representative, and repaired as needed before being placed back in service.

The owner shall see that all nameplates and caution and instruction markings or labels are in place and that the appropriate operating and maintenance manuals are provided to users.

Modifications or alterations of commercial fans shall be made only with written permission of the original manufacturer.

## PACKING KIT

1. Blade Box – 5 blades
2. Fan Motor Box
  - a. Motor assembly with cover.
  - b. Remote control.
  - c. Controller box.
  - d. Mounting hardware.
  - e. Power and communication cables.

## REQUIRED TOOLS

- Wrenches: 9/16
- Sockets: 1/2, 9/16
- Spirit level, short
- Torque wrench: 15-60 Ft-lbs (for use with sockets)
- Tape measure
- T-15 Torx (included)
- T-40 Torx (included)

## NOTICE

### PRIOR TO FAN INSTALLATION:

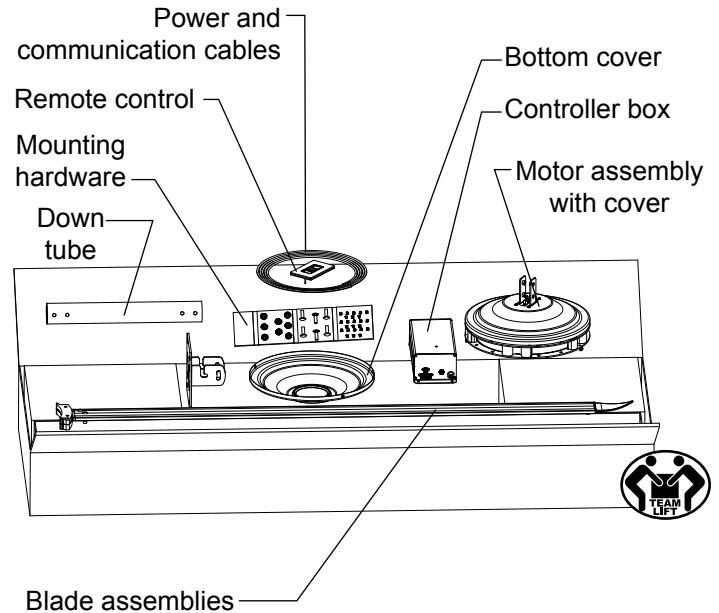
1. Ensure blade length matches fan model size.
3. Ensure all mounting hardware is present.

### NATIONAL FIRE PROTECTION ASSOCIATION STANDARD

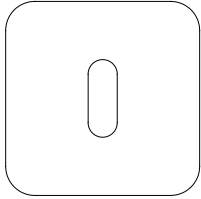
In accordance with NFPA 13 Standard from the National Fire Prevention Association as referenced in sections 12.1.4 and 11.1.7: High Volume Low Speed (HVLS) Fans: The installation of HVLS fans in buildings equipped with sprinklers, including ESFR sprinklers, shall comply with the following:

- The maximum fan diameter shall be 14 feet (4.3 m).
- The fan shall be approximately centered between four adjacent sprinklers.
- The vertical clearance from the fan to sprinkler deflector shall be a minimum of 3 feet (0.9 m).
- All fans shall be interlocked to shut down immediately upon receiving a water flow signal from the alarm system in accordance with the requirements of NFPA 72- National Fire Alarm and Signaling Code.

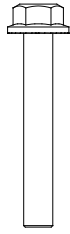
Fig. 1



# HARDWARE

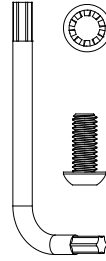


**Fan mount**  
6017852 (x4)  
Clamp plate



**Fan mount**  
6017873 (x4)  
3/8-16UNC x 2-1/2" hex bolt  
grade 5  
serrated head

6015118 (x4)  
3/8-16UNC hex nut  
grade 5  
serrated head



**Motor mount hardware**  
6017838 (x4)  
5/16" lock washer  
  
6017835(x4)  
5/16-18UNC x 3/4" Torx screw  
grade 5  
  
6017872 (x1)  
T40 Torx wrench

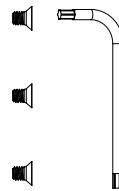


**Down tube mount**  
6017748 (x2)  
3/8-16UNC x 3-1/4" hex bolt  
grade 5  
serrated head

6015118 (x2)  
3/8-16UNC hex nut  
grade 5  
serrated head



**Blade hardware**  
6017837 (x10)  
5/16-18UNC x 1-3/4" hex bolt  
grade 5  
serrated head



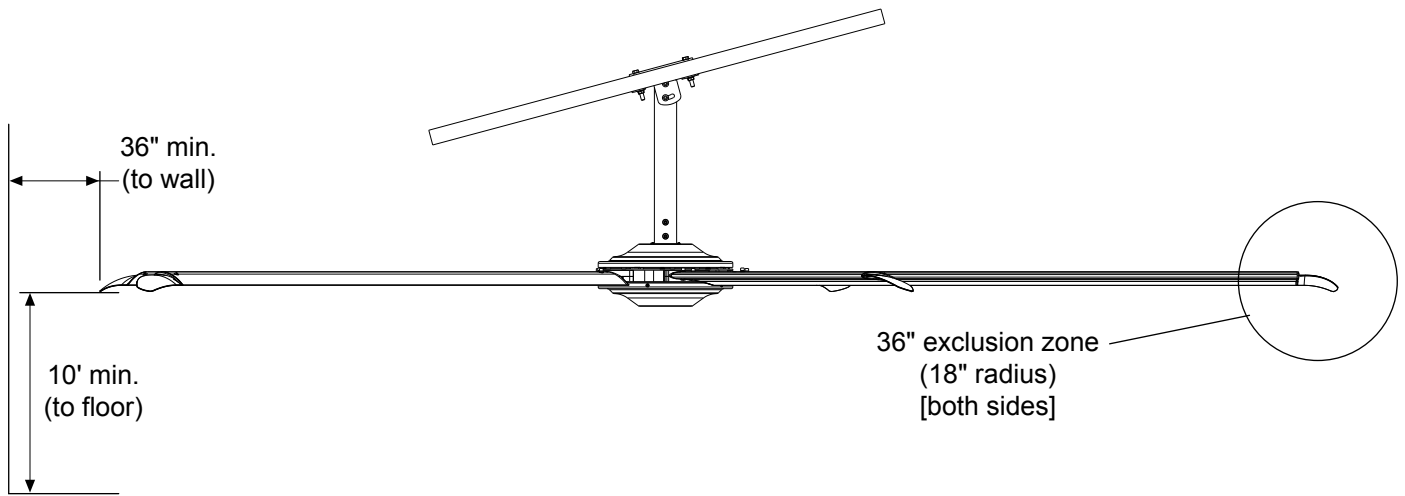
**Bottom cover hardware**  
6017870 (x3)  
8-32UNC x 1/4" Torx screw  
  
6017871 (x1)  
T15 Torx wrench

# INSTALLATION CONSIDERATIONS

**⚠ WARNING**

*Do not mount directly under or within exclusion zone or in line with HVAC supply discharge vent.*

Fig. 2



**NOTE:**

Angle mount has 45° of motion. The extension lengths shown are minimum recommendations only, based solely of roof pitch and fan diameter. Other considerations must be evaluated when determining extension requirements, such as placement of lights, sprinkler systems, HVAC systems, etc. In addition, OSHA requirements state that fan blades must be a minimum of 10' above the floor.

Fan Size	Extension size (Ft)	Max Roof Angle Allowable (degrees)
6Ft	1.5	17
6Ft	2	20
6Ft	3	35
6Ft	4	40
8Ft	1.5	10
8Ft	2	15
8Ft	3	25
8Ft	4	32
10Ft	1.5	10
10Ft	2	12
10Ft	3	19
10Ft	4	28
12Ft	1.5	8
12Ft	2	10
12Ft	3	17
12Ft	4	25
14Ft	1.5	6
14Ft	2	8
14Ft	3	15
14Ft	4	21

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# INSTALLATION CONSIDERATIONS, continued

## PLACEMENT AND SPACING

Consult your local distributor to help you plan the most efficient installation of your fans.

Ensure fan placement is such that the fans blades are a minimum of 10' from any manned working surface (floor or mezzanine)

Ensure fan blade does not extend into exclusion zone. Extensions are available if required. See Fig. 2.

Avoid mounting fans directly under lights or skylights to avoid visual strobing affect.

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### NOTE:

If the fan is part of a networked system, ensure placement is in accordance with the building layout.

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### NOTE:

Be certain to comply with all local and national codes during installation.

### **▲ WARNING**

*For fans that will be subjected to high cross winds (open bay doors, outdoor applications or air conditioning diffuser ducts) the fan must be at least one fan diameter (as measured from the end of the winglet) from open bays or A/C ducts mounted below the blade plane or there must be at least one fan diameter (as measured from the end of the winglet) for A/C ducts mounted at or above the blade plane.*

*In addition, all outdoor mounted fans must be protected from exposure from the elements. Consult your local distributor for outdoor patio applications.*

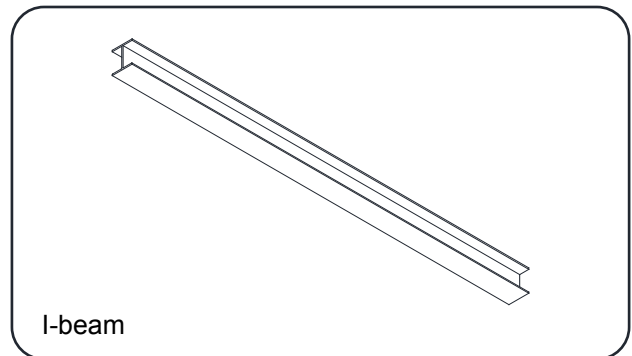


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## FAN MOUNT (TYPICAL MOUNTING TYPES)

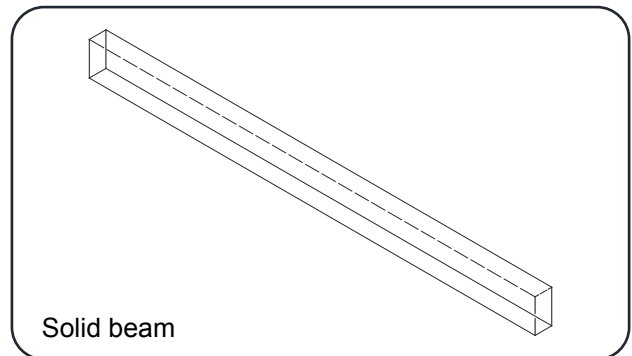
### I-BEAM MOUNTED

See page 9 for I-beam mounting instructions.



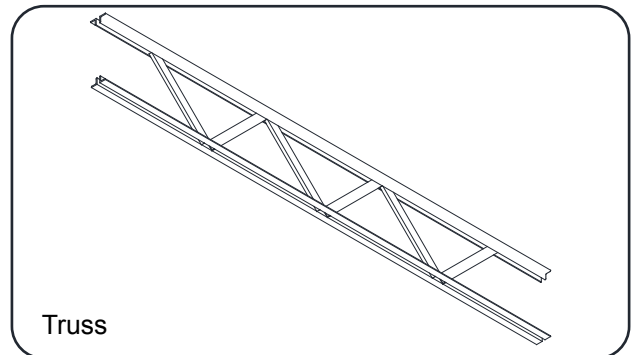
### SOLID BEAM MOUNTED

See page 9 for solid beam mounting instructions.



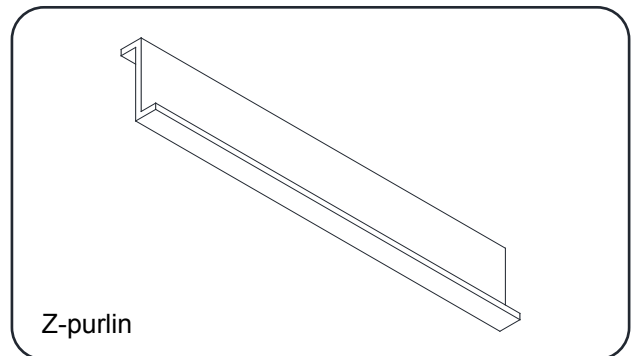
### TRUSS MOUNTED

See page 10 for truss mounting instructions.



### Z-PURLIN MOUNTED

See page 10 for z-purlin mounting instructions.



## FAN MOUNT (TYPICAL MOUNTING TYPES), continued

### NOTICE

If building support beam is not level, ensure proper fan clearance using the mounting information shown on page 6 or add mounting extensions as required to ensure clearance. See Fig 2.

### I-BEAM MOUNTING

1. Locate fan centered square to the bottom flange of the I-beam.
2. Locate and secure the clamp plates (6017852) using the provided 3/8-16UNC hex serrated flange nuts and 3/8-16UNC X 2 1/2" long bolts. See Fig. 3.

### NOTE:

Ensure that the clamp plates overlap the I-beam flange by at least 30%.

3. Torque the nuts to 20-28 ft-lbs.

### SOLID BEAM MOUNTING

(6018175 — CONCRETE; 6018026 — WOOD)

1. Locate the beam bracket (6018108). Ensure that the bottom flange of the bracket is below the bottom of the beam and square to the beam.

### NOTE:

The vertical flange of the beam bracket must be square with respect to the floor. Shim as required.

2. Using the holes in the beam bracket as a template, mark and drill at least four (4) 9/16" dia. holes through the beam. Space the holes as widely as practical. See Fig. 4.
3. Locate both beam brackets with respect to the holes and fasten using 3/8" dia. grade 5 bolts (not provided). Torque to 20-28 ft-lbs. Locking hardware (nuts and washers) required.

### ▲ WARNING

Do not use lag bolt style fasteners to secure the solid beam bracket.

Fig. 3

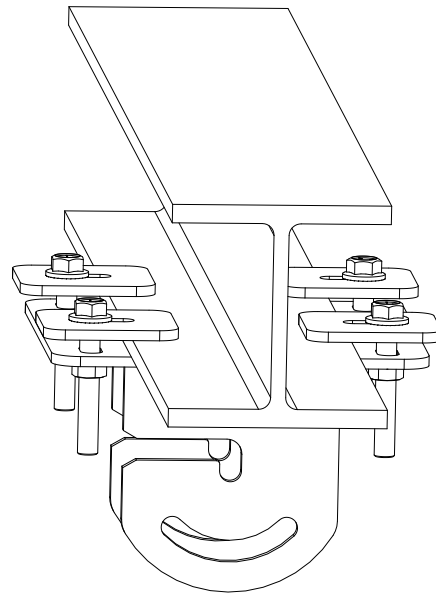
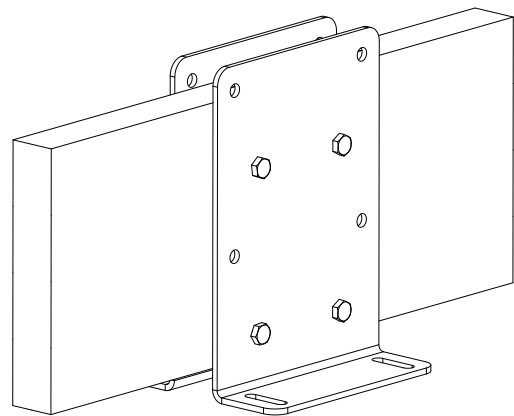


Fig. 4



# FAN MOUNT (TYPICAL MOUNTING TYPES), continued

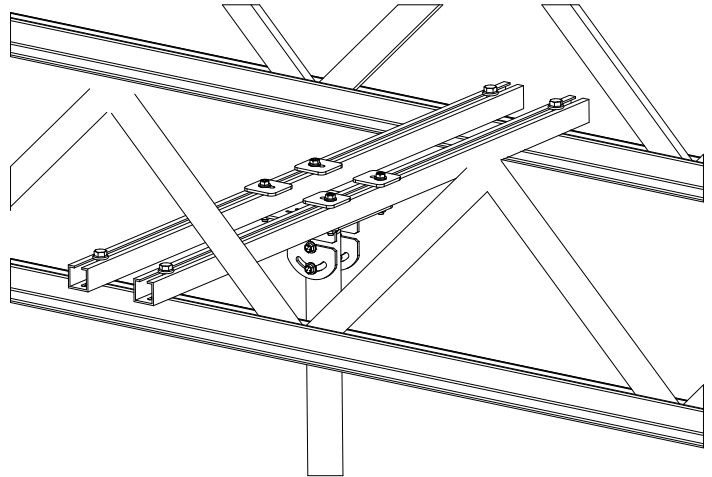
## TRUSS MOUNT INSTALLATION

### NOTE:

The recommended additional structural material for truss mounting is 1-5/8" x 1-5/8" strut channel beams and hardware. Other structural materials may be used but consult factory prior to use.

1. Size the strut channel beams to ensure at least 3" of overlap at each end on adjoining building truss members.
2. Locate the mount bracket at the desired location (center preferred) on the strut channel beams and fasten using the provided 6017873 and 6015118 3/8" dia. grade 5 hardware. Use 6017852 clamp plates as required. Torque to 20-28 ft-lbs.
3. Locate beam/mount assembly on building truss system. See Fig. 5. (top mounting preferred)
4. Fasten strut channel beams to building truss system using 3.8" dia., grade 5 hardware (not provided). **DO NOT** use spring loaded strut channel beam hardware. Locking hardware (nuts and washers) required.

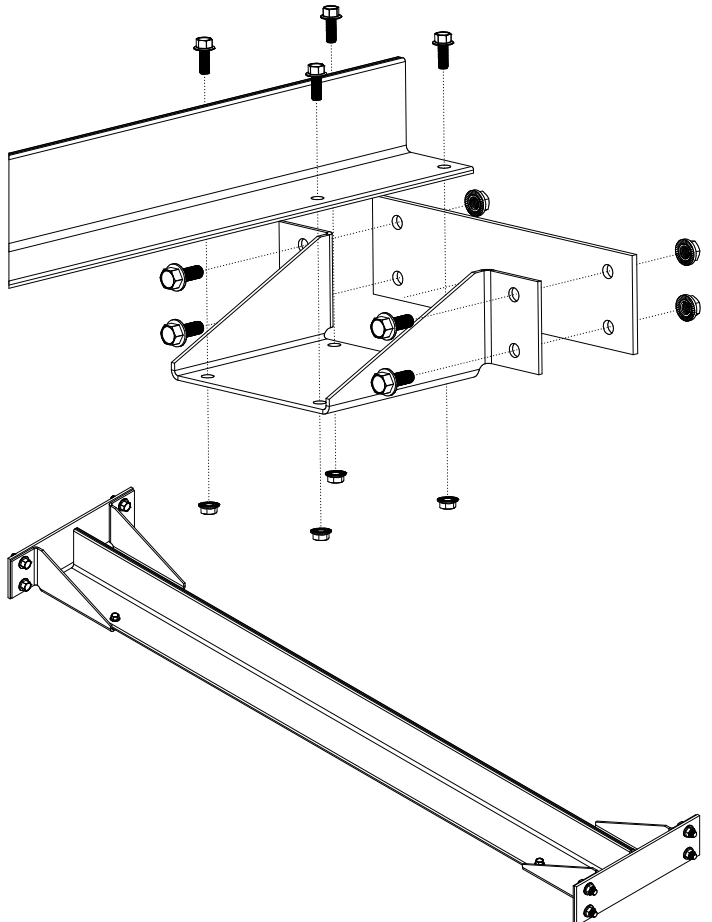
Fig. 5



## Z-PURLIN MOUNT INSTALLATION – (OPTIONAL KIT 6017945)

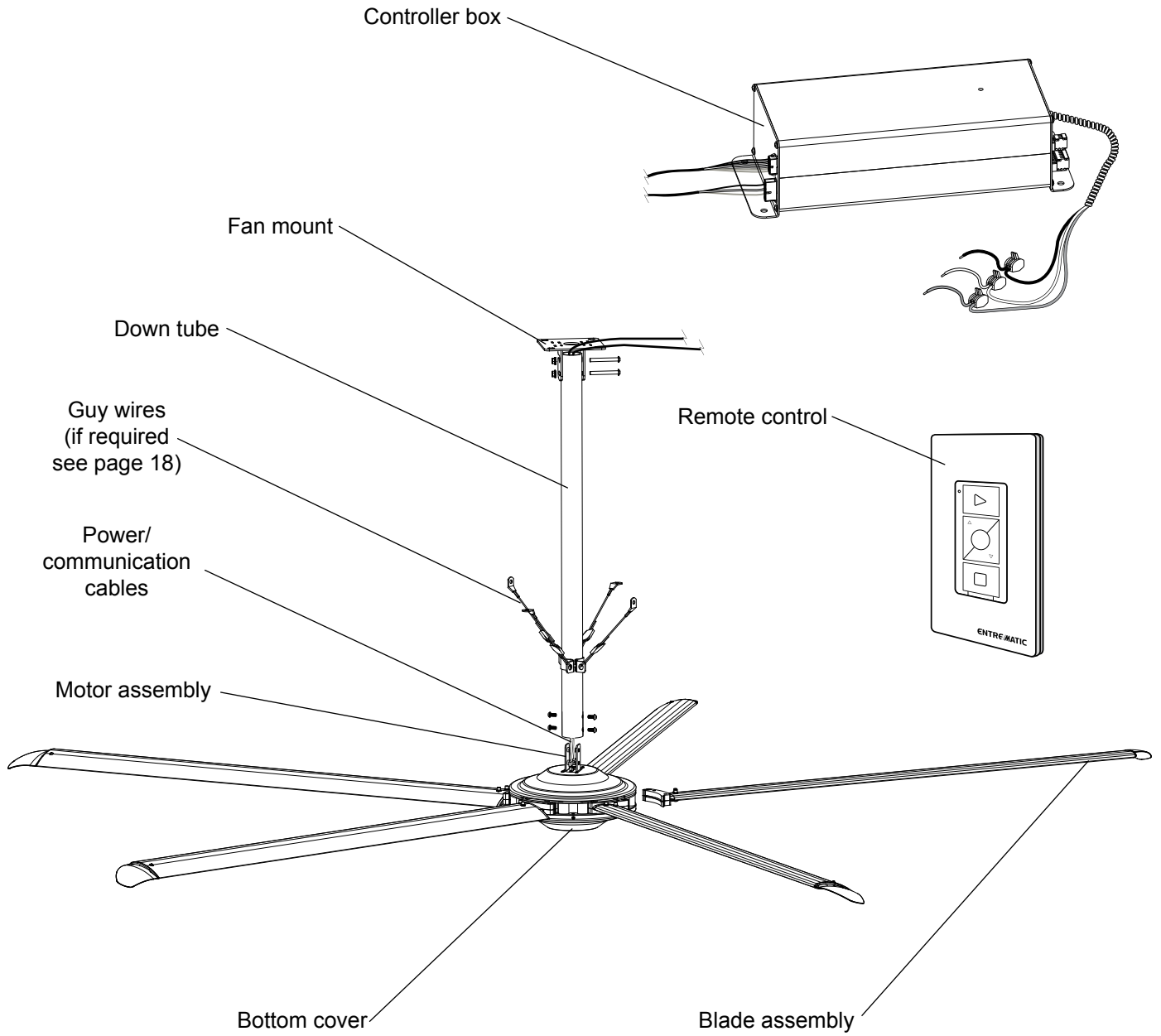
1. The z-purlin mounting kit is available from Entrematic. Consult a structural engineer prior to installation.
2. Using the z-purlin backer plate as a template, locate and mark the holes in the z-purlins for both opposing mounts.
3. Attach the z-purlin brackets to the z-purlins. Torque to 20-28 ft-lbs. See Fig. 6.
4. Cut angle irons to required length and install, spanning the z-purlin mounts using the supplied hardware. Torque to 20-28 ft-lbs. See Fig. 6.
5. Using the fan mount as a template, mark and drill four 7/16" dia. holes into the spanned angle irons.
6. Mount bracket to the angle irons using the supplied 3/8" x 1" grade 5 screws and nuts. Torque to 20-28 ft-lbs. See Fig. 6.

Fig. 6



# COMPONENTS

Fig. 7



# INSTALLATION

## DOWN TUBE ASSEMBLY

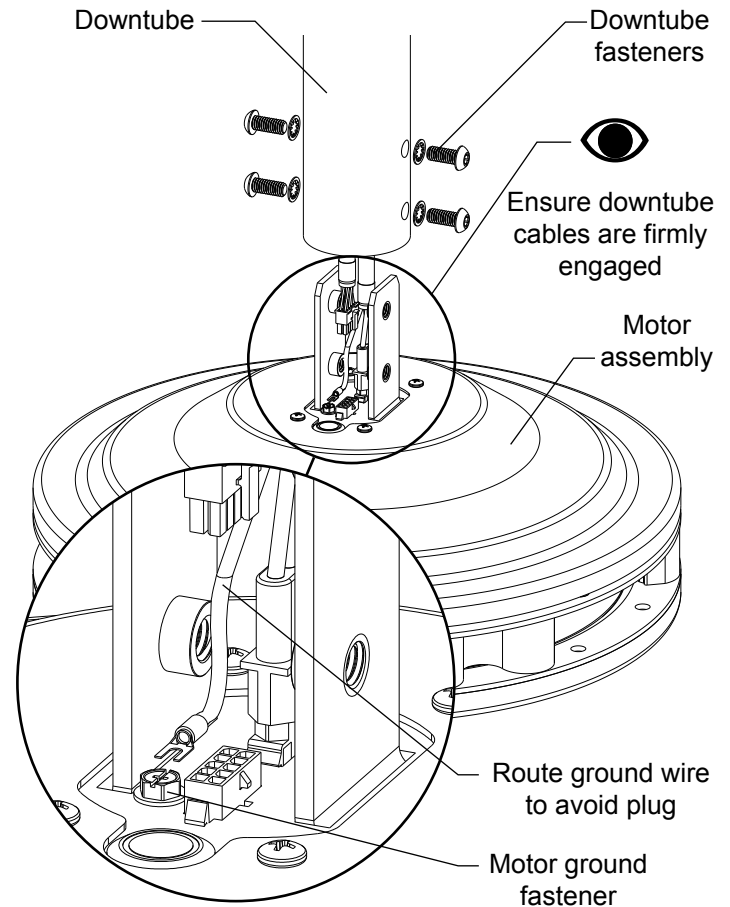
1. Route the power and communication cables through the down tube.
2. With the down tube located next to the motor assembly, install the cable connections to the top of the motor assembly. See Fig 8. Use the support materials contained in the shipping package to support motor assembly to prevent damage.
3. Install the ground cable connector to the terminal located on the top of the motor assembly. Ensure that the cable is oriented to prevent interference with the down tube. See Fig 8.

### NOTICE

**Ensure proper connection of the power and communication cables. Failure to properly connect the cables can lead to operating issues.**

4. Slide the down tube over the motor assembly mount bracket ensuring that the cables are not pinched or placed into a bind. Align the down tube so that the holes in the down tube align with the holes in the motor assembly mount bracket.
5. Attach the down tube to the motor assembly mount bracket using the 6017838 5/16" dia. Torx screws and 6017838 washers supplied. Tighten the Torx screws using the provided 6017872 Torx wrench.

Fig. 8



## INSTALLATION, continued

### HANG THE MOTOR

1. In the top hole of the down tube, install a supplied 6017448 3/8" dia. x 3-1/4" bolt and 6015118 nut loosely. Ensure that the screw does not pinch or bind the power and communication cables. See Fig 9.
2. Using the bolt installed in the previous step, hang the motor and down tube assembly on the fan mount. Ensure that the power and communication cables are free of binding or pinching. See Fig 10.
3. Loosely install the second 6017448 3/8" dia. x 3-1/4" bolt and nut in the bottom hole at the top of the down tube. Ensure that the bolt does not pinch or bind the power and communication cables. See Fig 11.
4. Using a spirit level, ensure that the down tube is plumb.
5. Tighten the 3/8" dia x 3-1/4" bolts to 20-28 ft-lbs.

Fig. 9

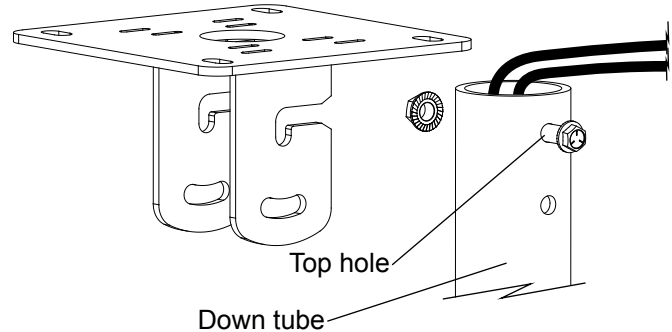


Fig. 10

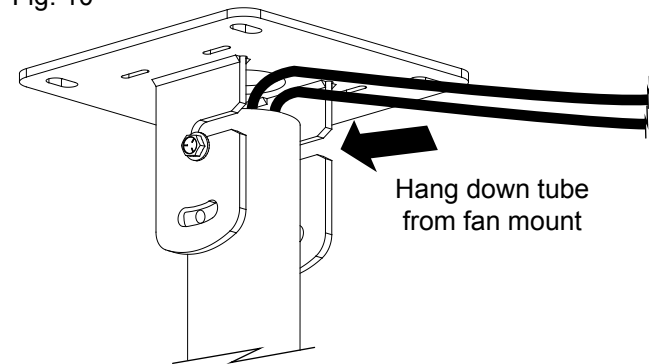
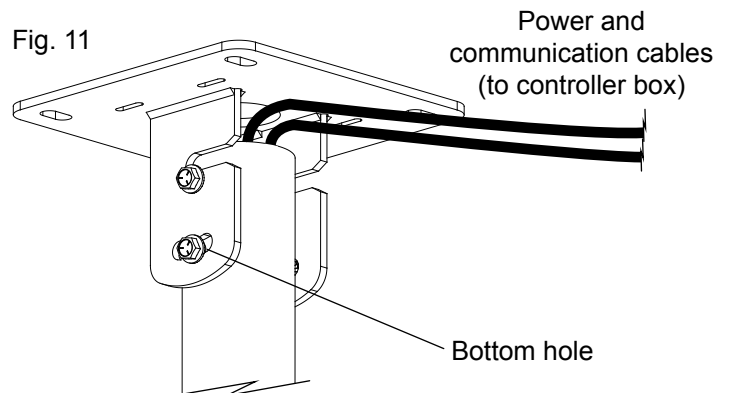


Fig. 11



## CONTROLLER INSTALLATION

### **▲ DANGER**

**Before doing any electrical work, make certain the power is disconnected and properly tagged or locked off. All electrical work must be done by a qualified technician and meet all applicable codes. USE EXTREME CAUTION. Touching wires could result in electrical shock, death or serious injury.**

**On 120V fan, never allow more than 130 volts incoming power to be connected to the controller box. Damage to the fan and serious personal injury or death may result.**

### **NOTE:**

The controller box should be located outside of the blade arc where possible and oriented such that the connections at either end are accessible.

1. Install the controller box to building structure such that the box is secure against movement. Fasteners not included.
2. Route the power and communication cables from the fan mounting location to the controller box. Ensure that the cables are routed clear of the fan blades and supported throughout their run.
3. Connect the power and communication cables from the fan to the controller box. See Fig. 12.

### **NOTICE**

**Ensure proper connection of the power and communication cables. Do not alter factory supplied cables. Failure to properly connect the cables can lead to operating issues.**

4. Connect controller box power cord to building power. See Fig. 13.

### **NOTE:**

If fire alarm option is not being used, ensure fire alarm jumper is in place to ensure proper operation. See page 24.

Fig. 12

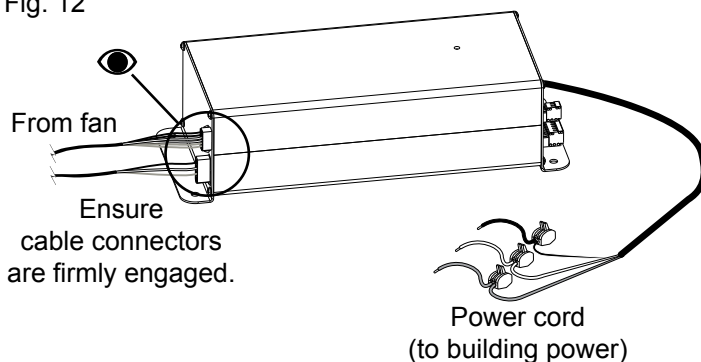


Fig. 13

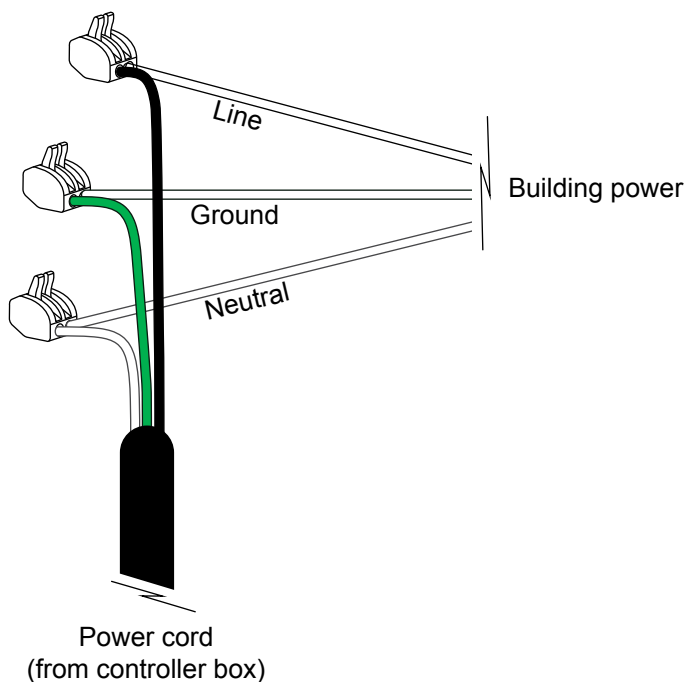
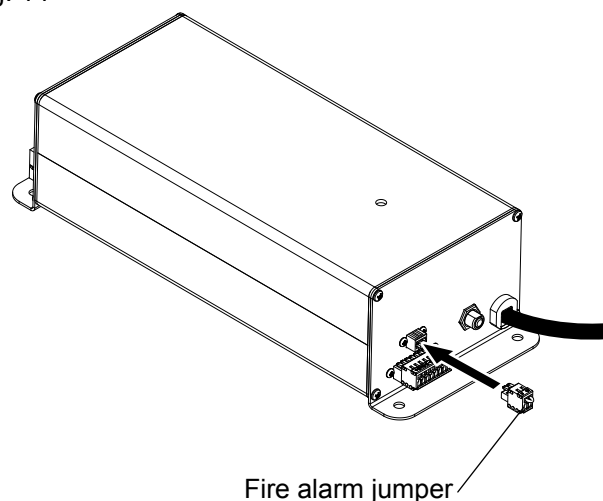


Fig. 14



# INSTALLATION, continued

## INSTALL BLADES

1. Position mounting end of blade assembly in an open blade pocket on the motor assembly rim as shown. Angle the blade approximately 45° downward and rotated approximately 15° forward. See Fig 15. This will position the forward tang of the blade mount between the two steel mount rings on the motor assembly.
2. Rotate the blade backward and upward to allow the mount end of the blade to slide into the blade pocket on the motor assembly rim. Position the forward tang of the mount in the forward end of the blade pocket.
3. Rotate in the same plane as the hub to seat the blade mount into the blade pocket.
4. Insert two 6017837 5/16" dia x 1-3/4" long fasteners from below through the hub mount ring and blade mount. Tighten enough to hold the blade in place but do not fully tighten at this time.
5. Repeat installation steps 1 through 4 for each of the remaining blades.
6. Fully torque the blade mount fasteners to 12-17 ft-lbs.

Fig. 15

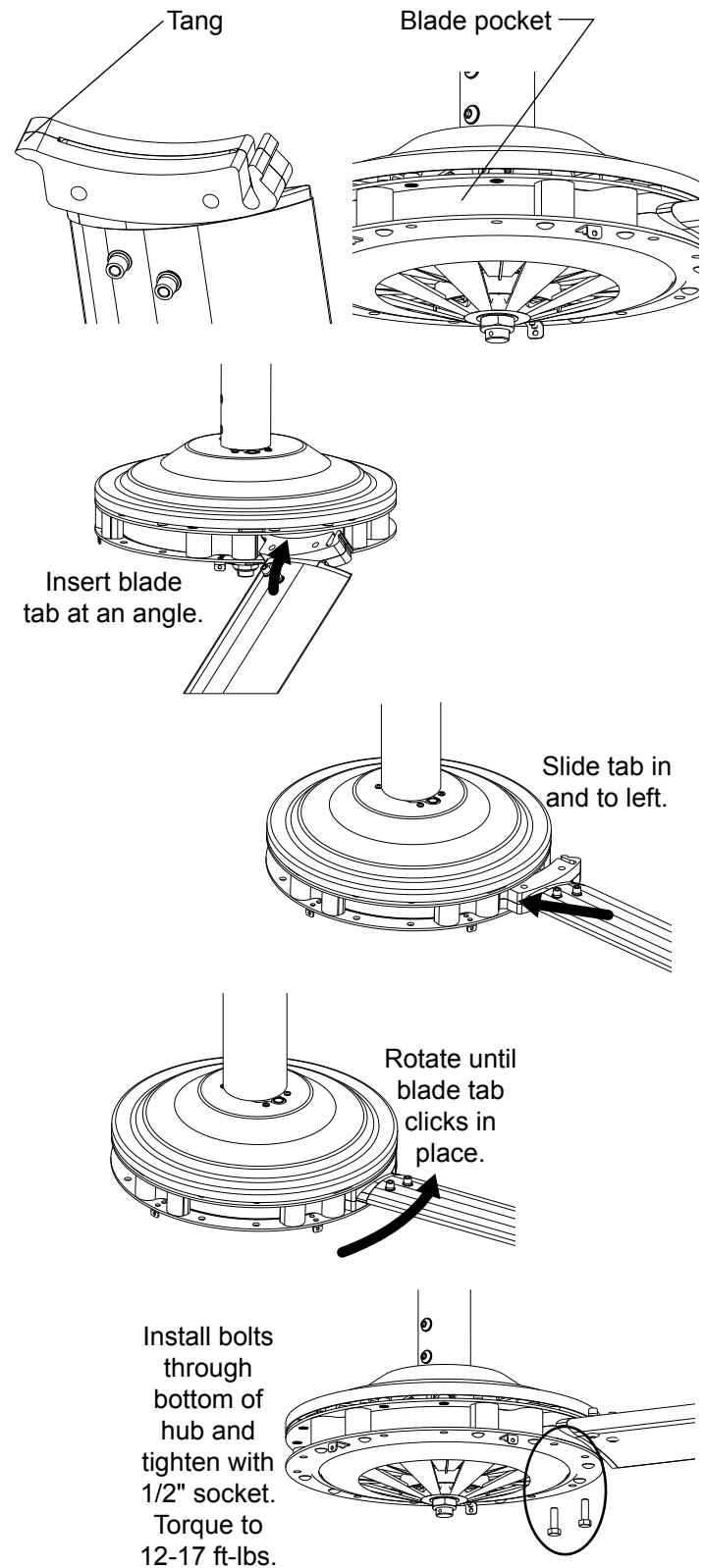
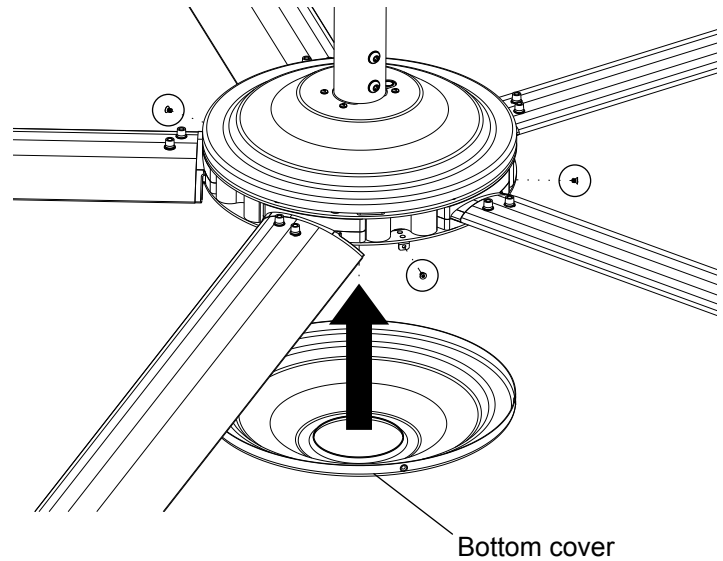




Fig. 16

### INSTALL BOTTOM COVER

1. Align the mounting holes on the bottom cover with the mounting holes on the motor assembly. Install the three 6017870 #8 dia Torx fasteners supplied. Firmly tighten the fasteners using the 6017871 Torx tool provided. See Fig 16.



# INSTALLATION, continued

## OPTIONAL GUY WIRE KIT (6016307)

### NOTE:

Guy wires are required on all fan installations where the down tube is greater than 4' in length. Guy wires are designed to constrain lateral movement of the fan while in operation. This movement may be due to impacts on the fan or winds impinging on the blades that would cause the fan to sway.

### NOTICE

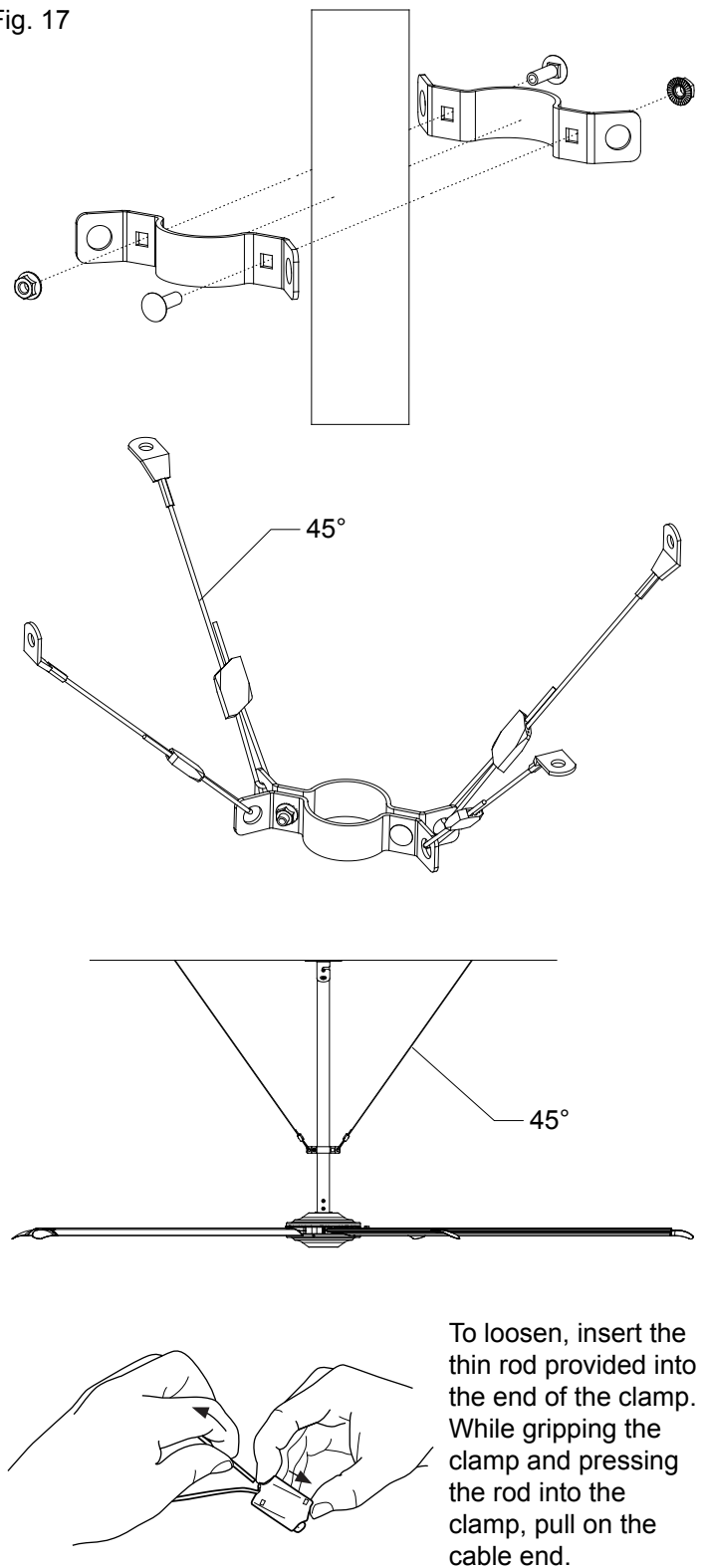
**Failure to attach guy wires may result in loss of warranty.**

### ⚠ WARNING

**Ensure that the proper guy wire length is accompanying the extension used. Ensure that the angle formed by the guy wire with the roof structure is less than 45 degrees. See Fig 17. Avoid any sharp edges or corners to reduce fatiguing and fraying of the guy wires. Failure to attach guy wires may result in severe injury or death.**

1. Remove parts from package and inventory. Package contents include: 4 cables, 4 gripple cable clamps, 2 5/16-18 x 1" serrated flanged hex nuts, 2 guywire clamp brackets and 1 Gripple release tool.
2. Locate the down tube clamp bracket on the down tube. The clamp bracket should be located approximately halfway between the mounting bracket and the motor assembly.
3. Fasten the halves of the down tube clamp bracket with the 5/16" dia x 1" carriage bolts supplied. Torque to 12-17 ft-lbs.
4. Attach each cable to the building structure by either looping the cable through the cable eyelet and around a beam/truss or other secure building structure (preferred method) or by using 3/8" dia. grade 5 fasteners and lock-washers (not provided) to secure to structure. Tighten fasteners to 20-28 ft-lbs.
5. On each cable assembly, slide one Gripple cable clamp approximately 12" on the cable. See Fig 17.
6. Loop one cable assembly through each lug on the down tube clamp bracket using the free end of the cable.
7. Thread the free end of each cable assembly back through the Gripple cable clamp. Leave loose.

Fig. 17



# INSTALLATION, continued

- 8. Using a spirit level on the down tube, tighten the cable assemblies by pulling the cable through the Gripple cable clamp as required to achieve a taut cable set while maintaining the down tube plumb. Either secure the loose cable ends or trim.

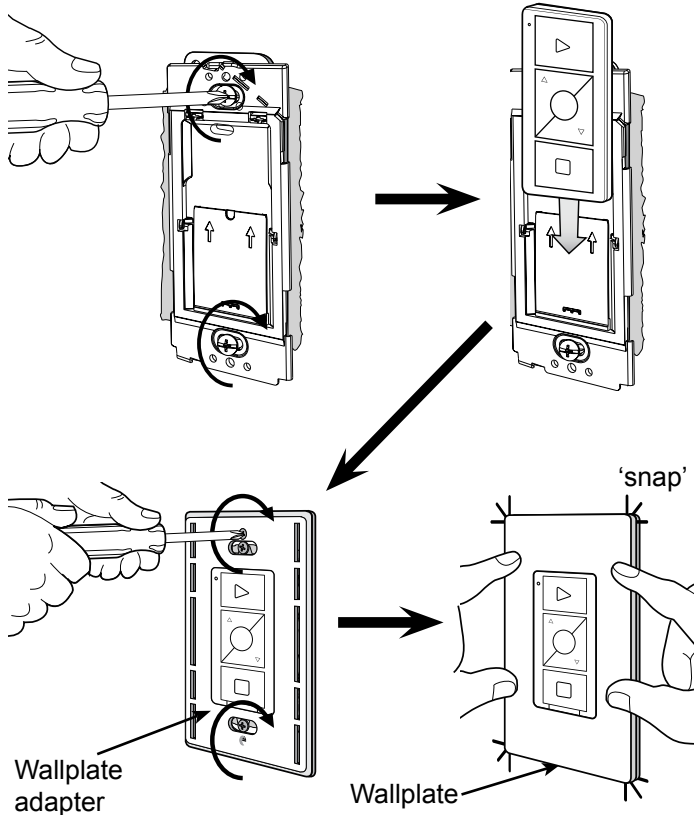
### INSTALLING THE REMOTE

- 1. The fan remote may be mounted directly into a standard wall junction box or directly to a wall surface using mounting tape. Locate the remote within 50' of the fan. See Fig 18.

**NOTE:**

A clear sight line between the fan and the remote is preferred in order to maximize the remote's effective distance.

Fig. 18



# OPERATING INSTRUCTIONS

## ⚠ WARNING

Before operating the fan, read and follow the Safety Practices, Warnings and Operating Instructions in this manual. Use by untrained personnel could result in death or serious injury.

## VERIFY PRIOR TO OPERATION

1. Power supplied to fan.
2. Obstruction clearance.
3. Safety cables (optional) properly installed.
4. All fasteners are properly torqued.

## STARTING THE FAN

### NOTE:

Pressing the **POWER ON** button once, while the fan is running will set fan to full speed.

Visually inspect the fan to ensure that there are no obstructions or personnel in the movement area.

1. Press the **FAVORITE** button. The fan will start and spin up to approximately 2/3 full speed.
2. Adjust the speed by pressing either the **INCREASE SPEED** or **DECREASE SPEED** buttons. Each press of the buttons will adjust the fan speed by approximately 5%.

## STOPPING THE FAN

1. Press the **POWER OFF** button once to stop the fan.

## PROGRAMMING THE FAVORITE BUTTON

### NOTE:

The fan ships from the factory with the **FAVORITE** button pre-programmed to approximately 2/3 full speed.

1. With the fan running, adjust the speed of the fan using either the **INCREASE SPEED** or **DECREASE SPEED** button to achieve desired speed. See Fig. 19.
2. Once desired speed is achieved, press and hold the **FAVORITE** button for 10 seconds. This speed now becomes the new **FAVORITE** speed.

## CHANGING DIRECTION

1. The fan direction control is located on the top of the motor assembly. To reverse direction, stop the fan and press the button. See Fig. 20.

Fig. 19

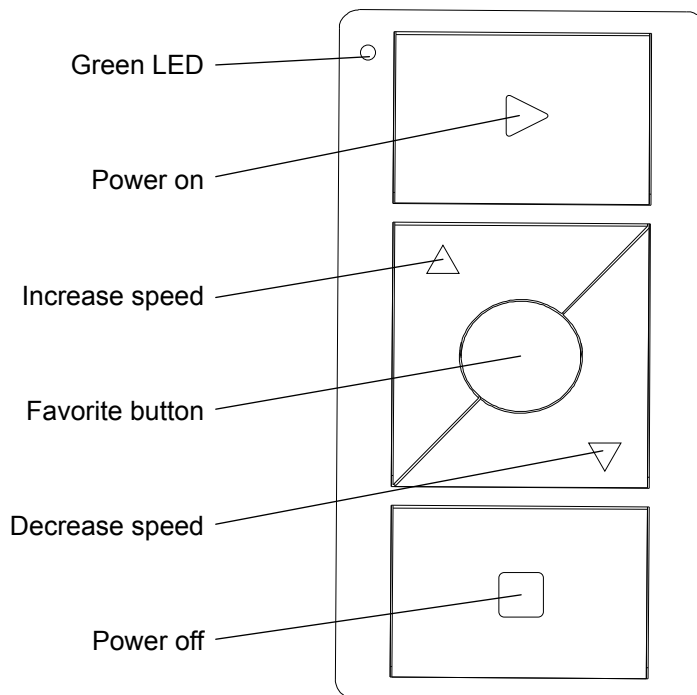
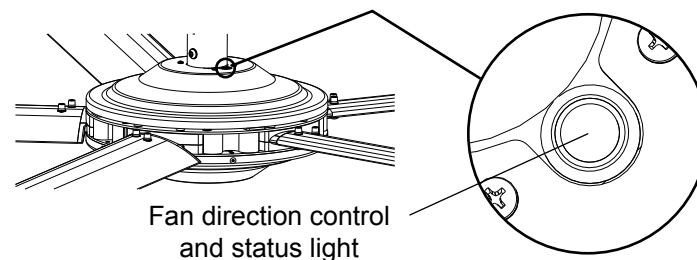


Fig. 20



# PLANNED MAINTENANCE

**⚠ DANGER**

Before service, inspection, or cleaning make certain that the power is disconnected and properly locked off.

**⚠ WARNING**

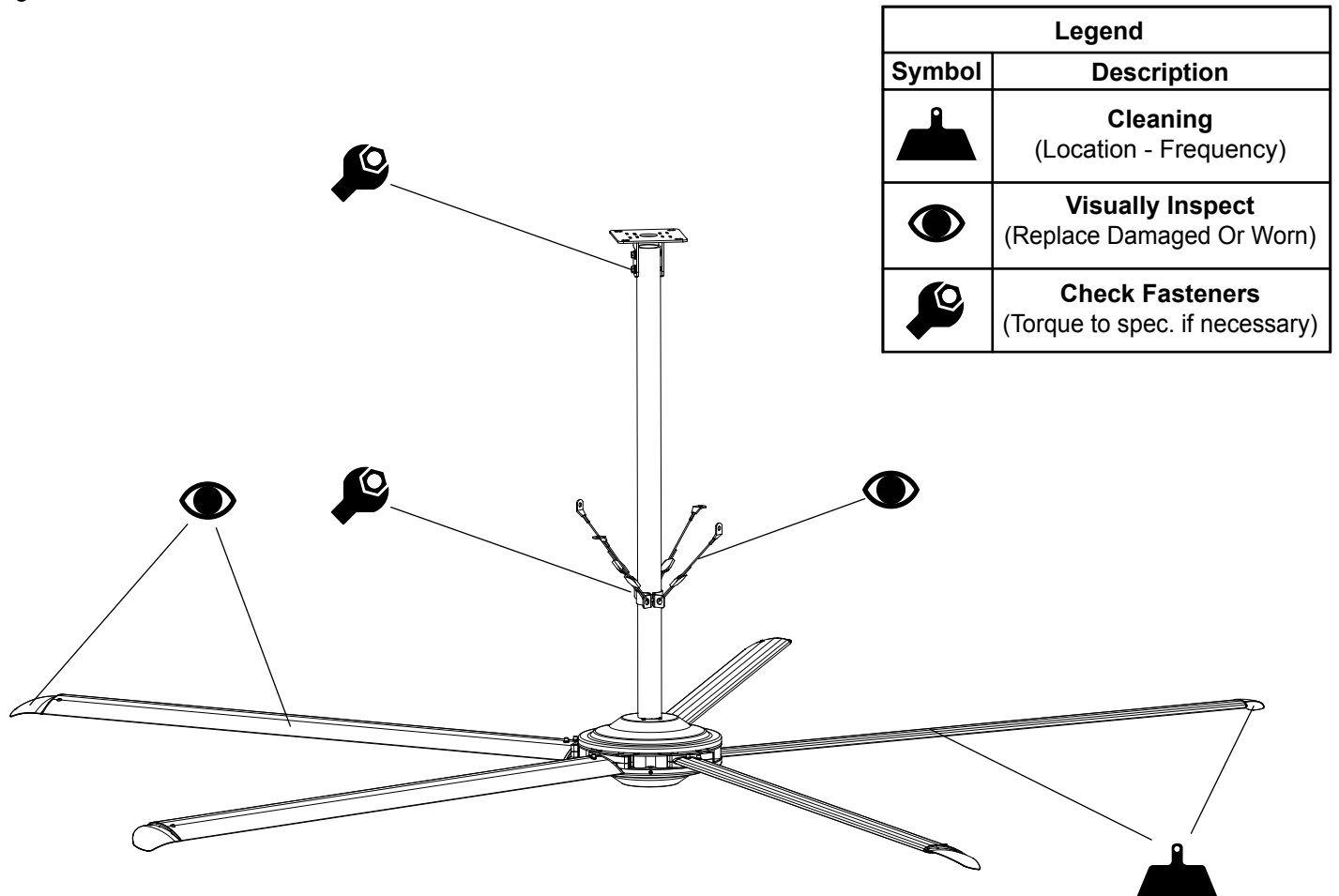
Before servicing the fan, read and follow the Safety Practices on page 3 and the Operation section in this manual. Failure to do so could result in death or serious injury.

To ensure the continued proper operation of your fan, perform the following planned maintenance procedures.

**ANNUALLY**

1. Inspect blade mounting hardware and tighten as required. Torque to 20-28 ft-lbs.
2. Inspect guy wires for chaffing or wear. Ensure wires are taut. Re-tighten cables as required and ensure all cable mounting hardware is secure. Maintain plumb attitude of downtube. Torque to 12-17 ft-lbs.
3. Inspect fan blades and winglets. Clean fan blades as required. Use a soft dry cloth. If necessary, use a mild detergent to clean surfaces. Do not use harsh cleansers.

Fig. 21



# TROUBLESHOOTING

## ⚠️ WARNING

Before servicing the fan, read and follow the Safety Practices on page 3 and the Operation section in this manual. Failure to do so could result in death or serious injury.

Use the Troubleshooting Guide if the fan fails to perform properly. Find the condition that most closely matches your situation and make the recommended adjustments.

## ⚠️ DANGER

Before service, inspection, or cleaning make certain that the power is disconnected and properly locked off. Before doing any electrical work, make certain the power is disconnected and properly locked or tagged off. Failure to do so may result in death or serious injury. All electrical troubleshooting and repair must be done by a qualified technician and meet all applicable codes. Failure to do so could result in electrical shock, death or serious injury.

Problem	Possible Cause	Solution
1. No blue light, no fan movement	<ul style="list-style-type: none"> <li>a) No power to fan</li> <li>b) Circuit breaker on controller box tripped</li> <li>c) Communication cable loose</li> <li>d) Remote is not programmed</li> <li>e) Bad remote</li> <li>f) Issue inside controller box</li> </ul>	<ul style="list-style-type: none"> <li>a) Check incoming power</li> <li>b) Reset circuit breaker See Fig. 22.</li> <li>c) Ensure communication cable is firmly attached at each end.</li> <li>d) Program remote. See page 23.</li> <li>e) Replace and program new remote</li> <li>f) Consult technical service</li> </ul>
2. Fast blink (approx. 2 blinks/sec.) blue light, no fan movement	<ul style="list-style-type: none"> <li>a) Power cable loose</li> </ul>	<ul style="list-style-type: none"> <li>a) Ensure power cable is firmly attached at each end</li> </ul>
3. Fast blink blue light, fan movement.	<ul style="list-style-type: none"> <li>a) Bad communication cable</li> <li>b) Encoder cable loose</li> <li>c) Motor power lead loose</li> <li>d) Issue inside controller box</li> </ul>	<ul style="list-style-type: none"> <li>a) Replace cable</li> <li>b) Consult technical service</li> <li>c) Consult technical service</li> <li>d) Consult technical service</li> </ul>
4. Slow blink blue light, no movement	<ul style="list-style-type: none"> <li>a) Fire alarm jumper issue</li> </ul>	<ul style="list-style-type: none"> <li>a) Ensure jumper wire is in place</li> </ul>
5. Solid blue light, sustained shuddering movement	<ul style="list-style-type: none"> <li>a) Issue inside controller box</li> </ul>	<ul style="list-style-type: none"> <li>a) Consult technical service</li> </ul>
6. Fan runs but makes noise or vibrates	<ul style="list-style-type: none"> <li>a) Bad motor bearing</li> <li>b) Missing or damaged winglet</li> <li>c) Loose or damaged blade</li> <li>d) Loose or damaged guy wires</li> </ul>	<ul style="list-style-type: none"> <li>a) Check if fan rotates freely by hand without binding</li> <li>b) Check winglets</li> <li>c) Ensure blades are firmly attached and mounting fasteners are tight</li> <li>d) Ensure guy wires are taut and properly installed</li> </ul>

## TROUBLESHOOTING, continued

### PROGRAMMING THE REMOTE

#### NOTE:

The fan ships from the factory with the remote pre-programmed and ready to use. To program or reprogram the remote, access to the controller box will be required. Ensure that the fan is not running and there is power to the controller box.

1. Locate the controller box and ensure that there is access to the top cover.
2. On the top cover, locate the remote program access hole. See Fig 22.
3. With a small dowel or other blunt object, **gently** depress the programming button for 10 seconds.
4. On the remote, press and hold the power off button for 6 seconds. Release the button when the green LED on the remote begins to flash to show that the wireless remote has been associated with the controller. See Fig 23.

### CHANGING THE BATTERY IN THE REMOTE

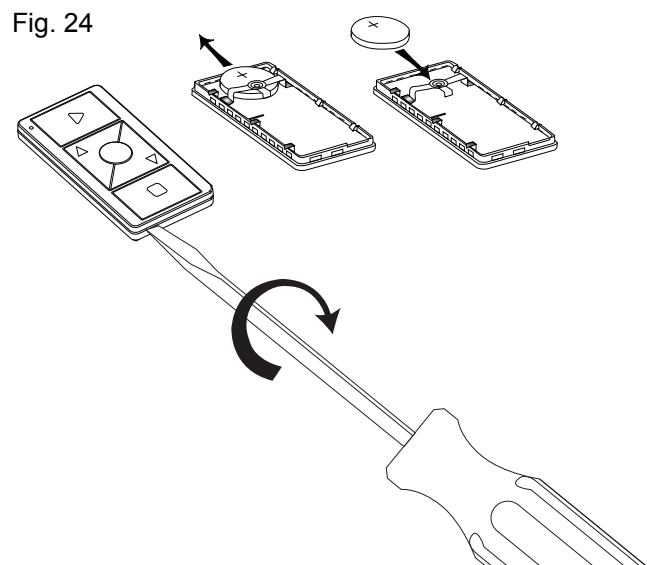
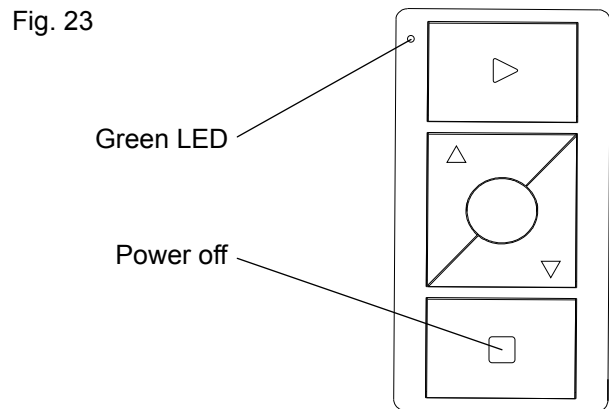
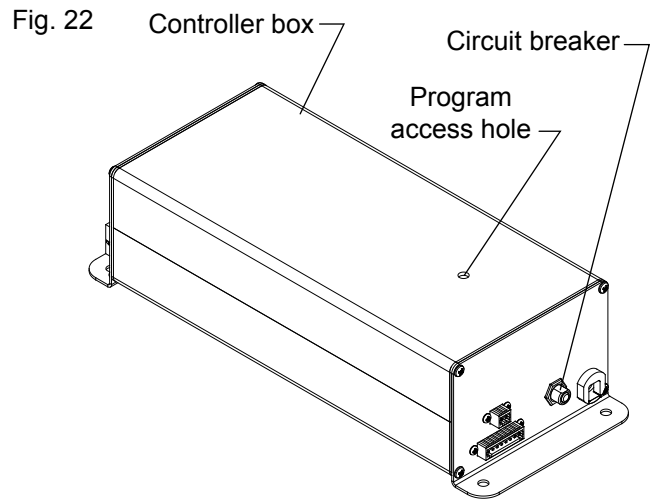
#### ⚠ WARNING

**Burn hazard. To avoid the risk of fire, explosion or burns, DO NOT recharge, disassemble, crush, puncture or incinerate the battery. DO NOT heat the battery above 212°F (100°C).**

#### NOTE:

A dead battery must be replaced promptly in order to retain programming.

1. Remove the wireless remote from the faceplate assembly.
2. Place a flathead screwdriver into the slot at the bottom of the remote. Twist to open. **DO NOT** press buttons without back enclosure on. See Fig. 24.
3. Slide the battery out, toward the top of the remote.
4. Slide a new CR2032 battery underneath the contact strap, with the (-) terminal toward the front of the remote.
5. Replace the back enclosure.
6. Ensure proper fan operation. If the remote fails to control the fan, re-program the remote using the process described above.
7. Re-install remote into faceplate as required.



## FIRE CONTROL SYSTEM FAN SHUTDOWN — OPTIONAL

This fan includes a fire alarm jumper for a building fire control systems option that allows the fan to be shut down by the fire control system in case of a fire emergency.

### NOTE:

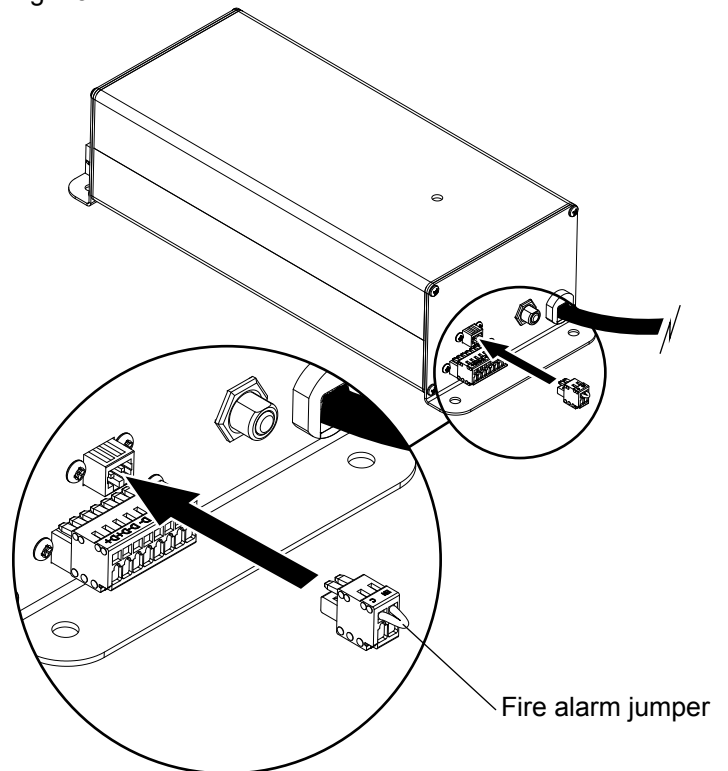
Ensure that the fire alarm jumper is in place or the building fire control system is connected and jumper removed.

1. The normally closed (NC) contacts must be dry contacts. They open in the event of an active fire alarm.
2. The fire control system fan shutdown option is not enabled when shipped. To enable the fire control system fan shutdown option, remove jumper and route a pair of conductors to a set of customer supplied N.C. contacts in the building's fire alarm panel. See Fig. 25.
3. To test the fire control system fan shutdown operation remove the wire from the NC contact at the building fire control panel. The fan should coast to a stop.

### NOTICE

*If the jumper is left installed the fan will not shut down due to fire control system contacts.*

Fig. 25



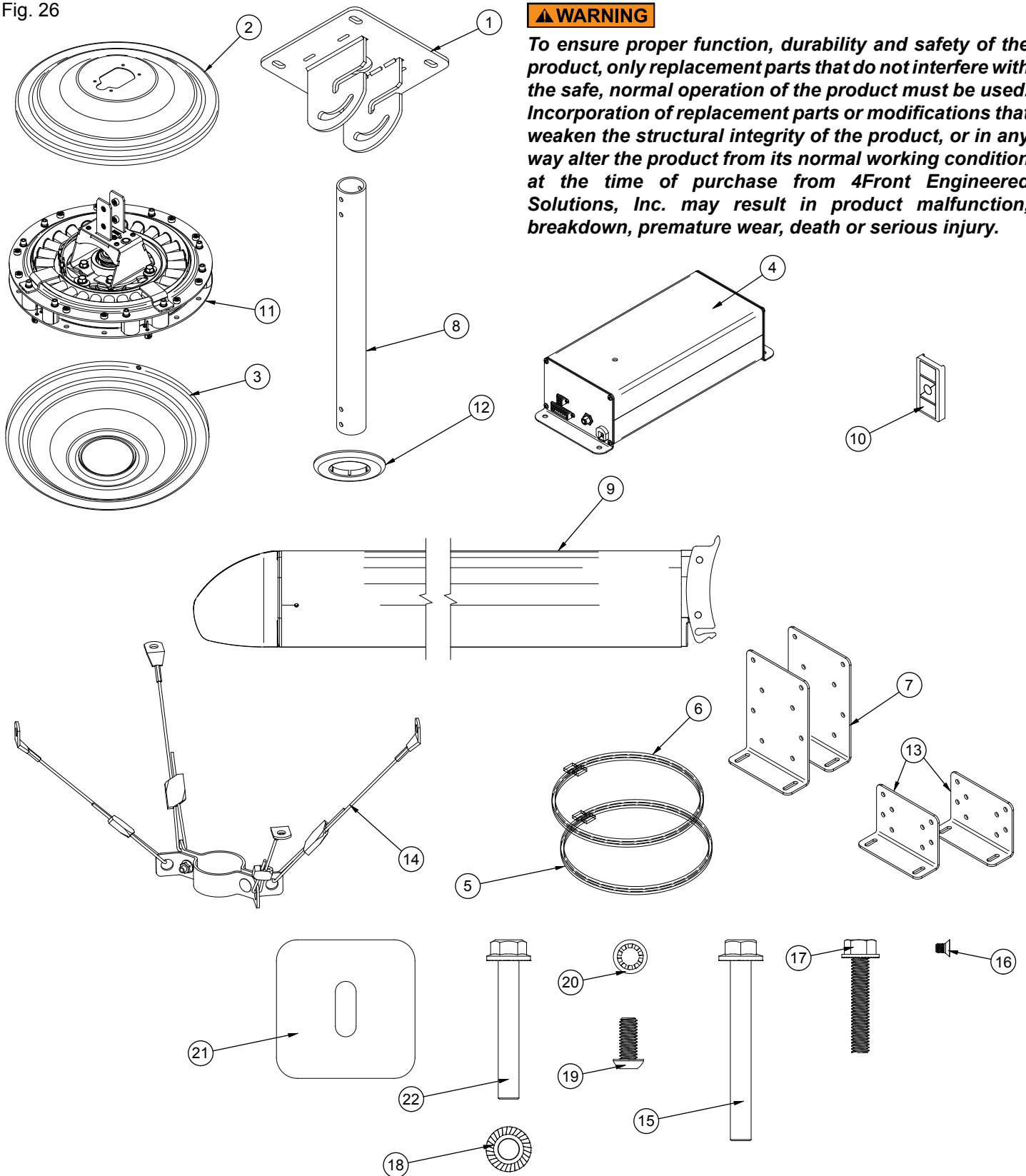


# PARTS LIST

Fig. 26

**▲ WARNING**

*To ensure proper function, durability and safety of the product, only replacement parts that do not interfere with the safe, normal operation of the product must be used. Incorporation of replacement parts or modifications that weaken the structural integrity of the product, or in any way alter the product from its normal working condition at the time of purchase from 4Front Engineered Solutions, Inc. may result in product malfunction, breakdown, premature wear, death or serious injury.*



# PARTS LIST

Item	Quantity	Description	Part Number
1	1	MOUNT, 45°	6018002
2*	1	UPPER COVER - SILVER	6016269
3*	1	LOWER COVER - SILVER	6017786
4	1	CONTROLLER	6016210
5	1	POWER CABLES - 132"	6016279
6	1	CONTROL CABLES - 132"	6017645
7	1	CONCRETE BEAM MOUNT — OPTIONAL	6018175
8*	1	DOWN TUBE - SILVER - 18"	6017726
9*	1	BLADE ASSEMBLY — 6FT - SILVER BLADE ASSEMBLY — 8FT - SILVER BLADE ASSEMBLY — 10FT - SILVER BLADE ASSEMBLY — 12FT - SILVER BLADE ASSEMBLY — 14FT - SILVER	6017580 6017581 6017582 6017583 6017584
10	1	REMOTE	6016233
11	1	MOTOR ASSEMBLY	6016280
12	1	CEILING COVER PLATE	6017848
13	1	WOOD BEAM CLAMP — OPTIONAL	6018026
14	1	EXTENSION GUY WIRE KIT, 3-5' EXTENSION GUY WIRE KIT, 6-10' EXTENSION GUY WIRE KIT, 11-15'	6016307 6017765 6017766
15	2	3/8-16UNC X 3 1/4", FLNG SERTD HEX BOLT, GRD-5	6017748
16	3	8-32UNC X1/4 LG FLT HD SCREW-TORX, ZP	6017870
17	10	5/16-18UNC X 1 3/4", FLGD SRTD HEX BOLT,GRD-5, ZP	6017837
18	6	3/8-16UNC HEX SERRATED FLANGE NUT	6015118
19	4	5/16-18UNC X 3/4 LG TORX SOC HD SCREW, GRD 2, ZP	6017835
20	4	5/16 INT TOOTH LOCK WASHER	6017838
21	4	CLAMP PLATE, COMM FAN	6017852
22	4	3/8-16UNC X 2 1/2", FLNG SERTD HEX BOLT, GRD-5	6017873

\*Consult factory for colors other than silver.

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# WARRANTY

THIS LIMITED WARRANTY IS ENTREMATIC'S SOLE AND EXCLUSIVE WARRANTY WITH RESPECT TO THE HVLS FAN AND IS IN LIEU OF ANY OTHER GUARANTEES OR WARRANTIES, EXPRESS OR IMPLIED. THIS LIMITED WARRANTY APPLIES ONLY TO THE ORIGINAL PURCHASER OF THE HVLS FAN AND CANNOT BE TRANSFERRED.

ENTREMATIC warrants that this HVLS FAN will be free from flaws in material and workmanship under normal use for a period of one (1) year from the earlier of 1) 60 days after the date of initial shipment by ENTREMATIC, or 2) the date of installation of the HVLS FAN by the original purchaser, provided that the owner maintains and operates the HVLS FAN in accordance with this User's Manual.

In the event that this HVLS FAN proves deficient in material or workmanship within the applicable Limited Warranty period, owner shall so notify ENTREMATIC, and Entrematic will, at its option:

1. Replace the HVLS FAN, or the deficient portion(s) thereof, without charge to the owner; or
2. Alter or repair the HVLS FAN, on site or elsewhere, without charge to the owner.

In addition, ENTREMATIC warrants the HVLS FAN for an additional nine (9) years for replacement parts only.

**This Limited Warranty does not cover any failure caused by improper installation, abuse, improper operation, negligence, or failure to maintain and adjust the HVLS FAN properly. Parts requiring replacement due to damage resulting from impact, abuse, or improper operation are not covered by this warranty. ENTREMATIC DISCLAIMS ANY RESPONSIBILITY OR LIABILITY FOR ANY LOSS OR DAMAGE OF ANY KIND (INCLUDING WITHOUT LIMITATION, DIRECT, INDIRECT, CONSEQUENTIAL OR PUNITIVE DAMAGES, OR LOST PROFITS OR LOST PRODUCTION) arising out of or related to the use, installation or maintenance of the HVLS FAN (including premature product wear, product failure, property damage or bodily injury resulting from use of unauthorized replacement parts or modification of the HVLS FAN). ENTREMATIC's sole obligation with regard to a HVLS FAN that is claimed to be deficient in material or workmanship shall be as set forth in this Limited Warranty. This Limited Warranty will be null and void if the original purchaser does not notify ENTREMATIC's warranty department within ninety (90) days after the product deficiency is discovered.**

**THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF, INCLUDING, BUT NOT LIMITED TO, A WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH ENTREMATIC HEREBY DISCLAIMS.**

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Please direct questions about your fan to your local distributor.

Your local distributor is:

Corporate Head Office:

1612 Hutton Dr. Suite 140

Carrollton, TX. 75006

Tel. (972) 466-0707

Fax (972) 323-2661

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