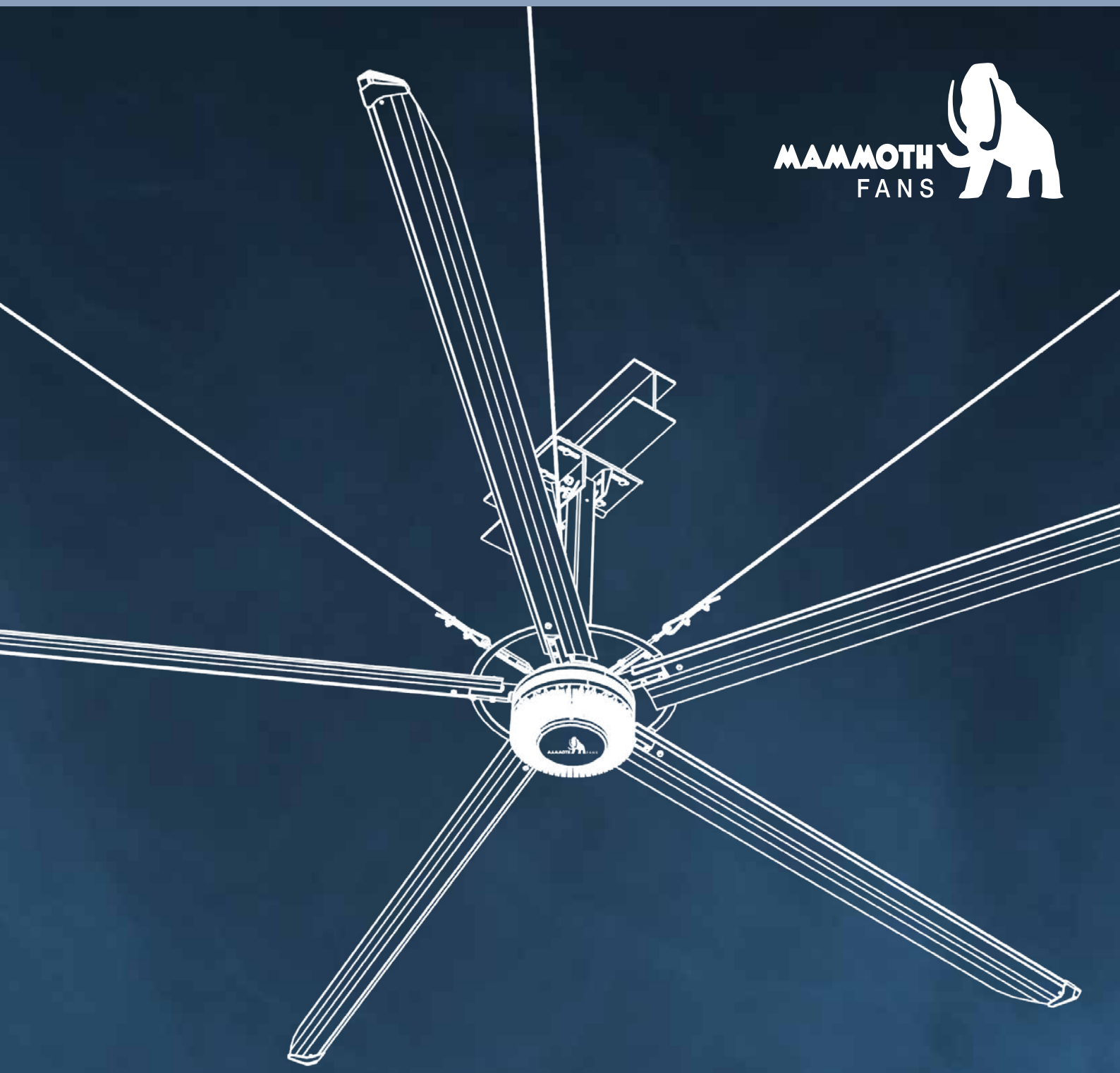
INSTRUCTION MANUAL



MAMMOTH FANS

INDUSTRIAL SERIES

SKU 211400 & 211416 & 211401

⚠ CAUTION

Read instructions carefully for safe installation and fan operation.

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PREFACE

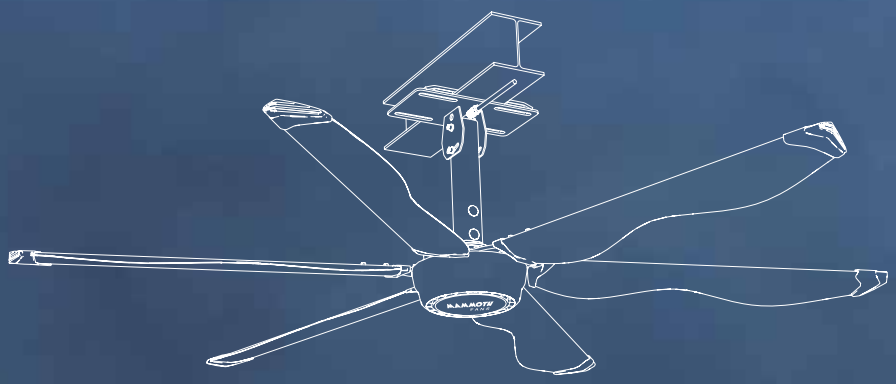
Congratulations on your purchase of a Mammoth Fan. The Mammoth fan range features world class Permanent Magnetic Synchronous (PMSM) technology and precision-led aeronautical design in Mammoth proportions.

With energy efficiency, design, ultimate performance and Australian conditions in mind, Mammoth Fans have been designed as the latest in high-volume, low speed (HVLS) ceiling fans for Commercial and Industrial spaces. Their market leading features of supreme efficiency, low noise, minimal maintenance and easy installation are backed by expert advice and a 5-year warranty.

Whether it's a commercial space such as a gym, stadium, shopping mall or industrial areas like distribution centres, warehousing, logistics or aiding livestock, Mammoth fans are the perfect solution for your project.

The Mammoth fan you have purchased is a sophisticated electrical device, all care must be taken to ensure the fan is kept clean and not mistreated as issues arising will not be covered under the warranty.

1 PRODUCT SERIES INTRODUCTION



The Mammoth Industrial Series is a brand new fan series developed using PMSM (permanent magnet synchronous motor) technology. The product combines a series of cutting-edge technologies such as aerodynamics, transmission dynamics, pulse width modulation control technology, mechanical mechanics, simulation technology, communication control, industrial design, etc. and is manufactured by advanced precision processing equipment.

It can promote the circulation of airflow in the space with extremely high efficiency, greatly improve environmental comfort, and is perfect for public and commercial places such as gym, stadium, shopping mall or industrial areas like distribution centres, warehousing, logistics or aiding livestock.

1.1 TECHNICAL INFORMATION

SKU#	211400	211416	211401
Diameter	7.3m (24ft)	6.1m (20ft)	5.5m (18ft)
Rated voltage	220-240V~ 50Hz	220-240V~ 50Hz	220-240V~ 50Hz
Rated power	1500W / 1.5kW	1100W / 1.1kW	1000W / 1kW
Full load current	4.9A	4.4A	4.2A
Max. Speed	54RPM	62RPM	68RPM
Air volume at max. speed	14800m3/min	12900m3/min	12200m3/min
IP Rating	IP55	IP55	IP55
Weight	124kg	120kg	112kg

1. **Weight:** the weight doesn't contain control cabinet, top connection parts, etc.
2. **Input power:** 220V/1PH±l0%.
3. **Motor: PMSM** (Permanent-magnet synchronous motor).

SAFETY PRECAUTIONS 2

1. Always ensure the power is turned OFF before installing, maintaining, cleaning or adjusting the fan.
2. Must be assembled and installed by a licensed electrician. All wiring and installation of the fan must adhere to the latest local and national wiring rules such as the AS/NZS 3000:2018, electrical installations.
3. The appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.
4. Children should be supervised to ensure that they do not play with the appliance.
5. An all-pole disconnection switch must be incorporated into the fixed wiring in accordance with local wiring rules.
6. The structure to which the fan is to be mounted must be capable of supporting 2 times the weight of the product and its own structural loading. Check with a structural engineer if unsure.
7. Please do not alter the structure of the install site without prior advice from a structural engineer.
8. The fan should be mounted so that the blades are at least 3.5m above the floor.
9. This fan is suitable for covered alfresco use.
10. The fan must be installed with the electrical control box supplied.
11. During installation, adjustment, and cleaning, ensure the blades are not bent as this will drastically impact the performance of the fan.
12. Please make sure the fan's input voltage and supply voltage are the same before operating.
13. Please do not open the electrical control box without first isolating the power as electrical shock may occur.
14. Please do not operate the fan if you notice any damage to or noises from the fan.
15. The control box is a sophisticated controller designed specifically for your Mammoth Fan. No modifications to the controller are permitted and failure to follow this advice could cause injury or death.
16. Within the electrical control box is a high-voltage storage capacitor. When you operate the fan, please wait for 3 minutes to let the voltage discharge to prevent electric shock.
17. Ensure sufficient clearance around the fan and NO obstructions before starting up the fan. Failure to do so will cause significant damage and will not be covered under the warranty.
18. Do not cut power to the fan while it is in operation. Please stop the fan first and then isolate the power.

WARNING

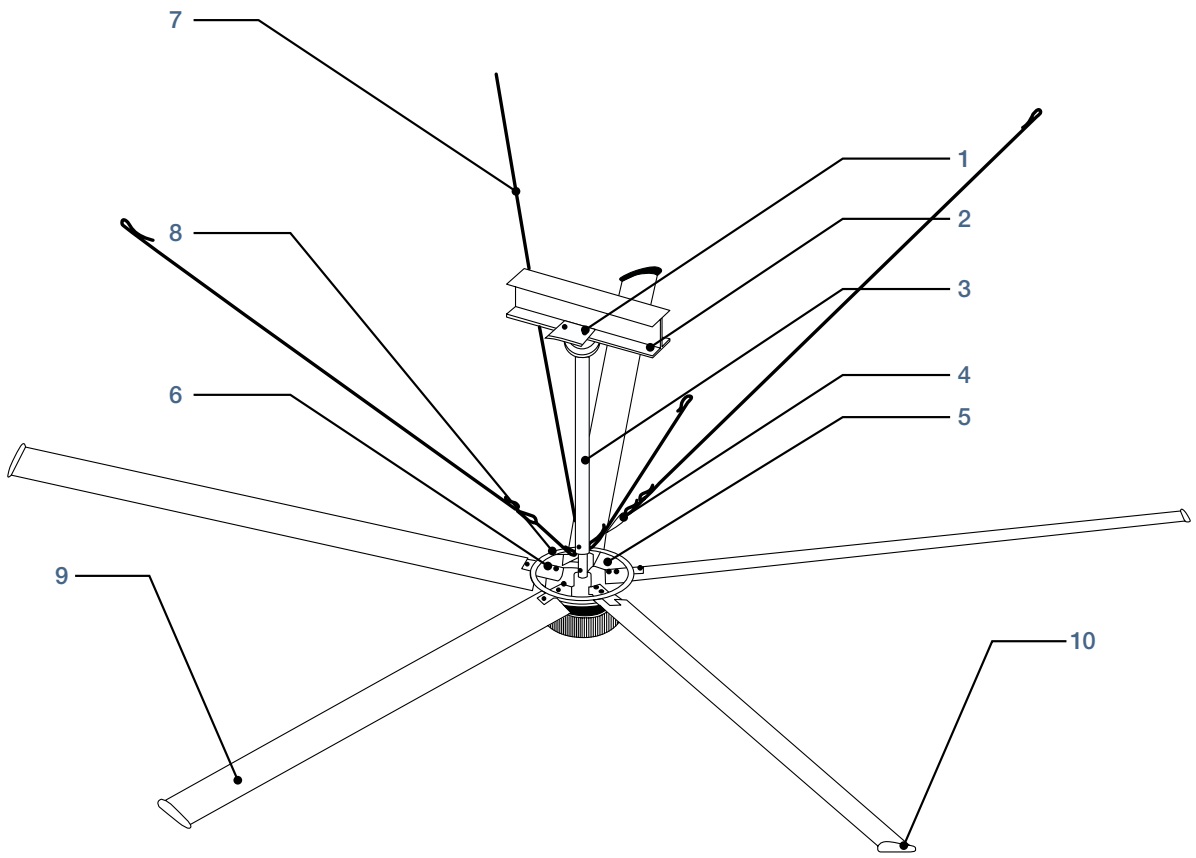
Please read the instruction manual before operation.

Ensure the fan is clear of all obstructions before operation. If the fan is unbalanced or noisy, immediately shut it down and contact Mammoth Fans support. Ensure the power is isolated before any maintenance work is carried out on the fan or controller.

NOTE: Always start the fan on low speed.

3 PRODUCT COMPONENTS

3.1 | General components*



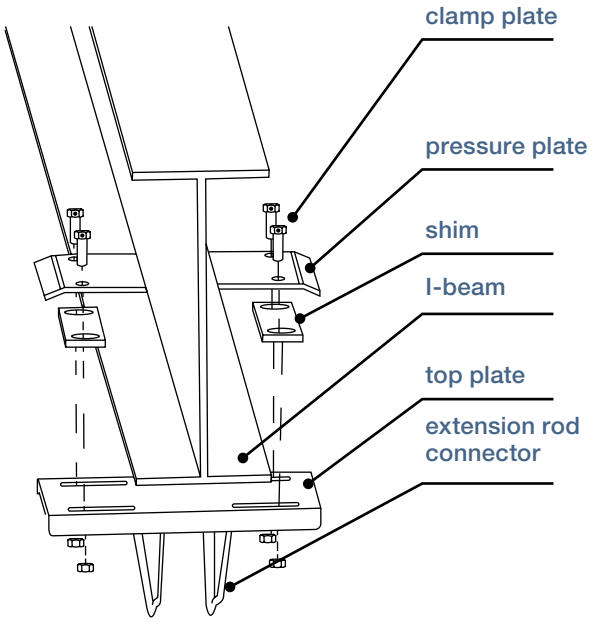
* Please note that the top bracket pictured may vary slightly to those supplied.

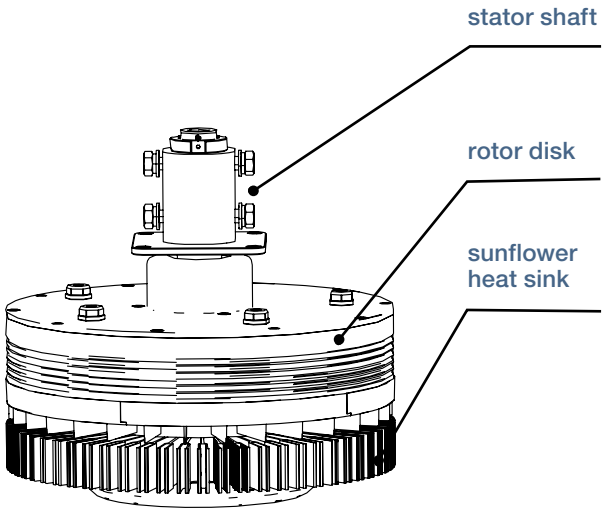
1. Clamp plate
2. I-beam steel structure
3. Extension tube
4. Turnbuckle and clamps
5. PMSM Motor
6. Connector
7. Steel wire
8. Blade retainer
9. Fan blade
10. Winglet

3.2 | Packing specifications

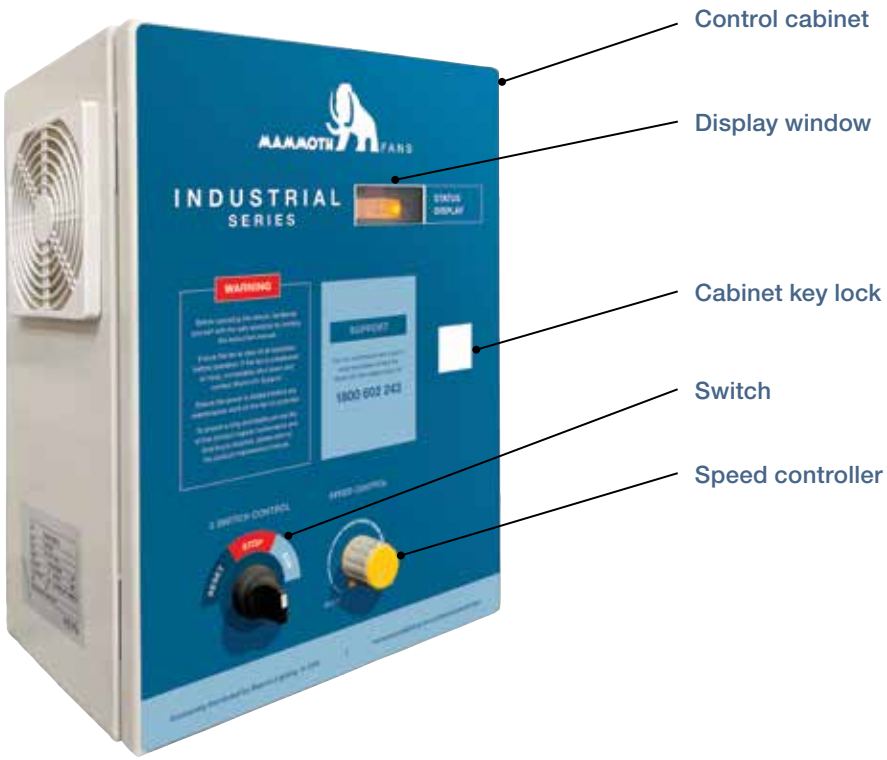
CASE NO	DIMENSIONS (LxWxHcm)	Volume (m^3)	Gross weight (kg)	Remark
1	87 x 78 x 53	0.36	160	Main body crate
2	359 x 43 x 42	0.65	130	Fan blade crate

3.3 | Standard component introduction



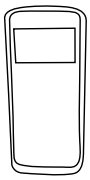
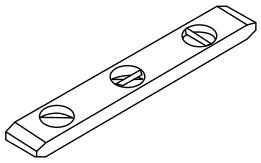
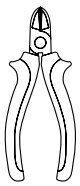
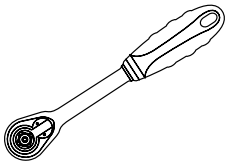
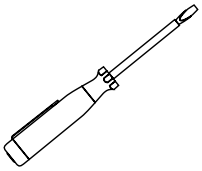


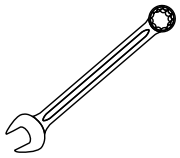
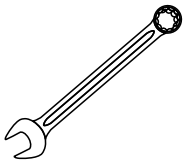
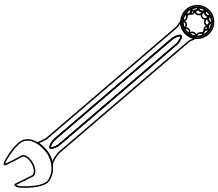
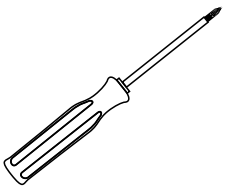
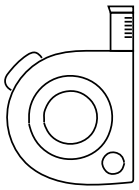
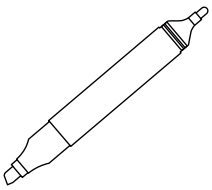
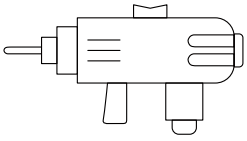
3.4 | Control unit system structure



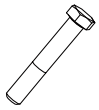
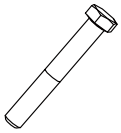
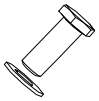
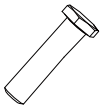
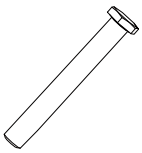
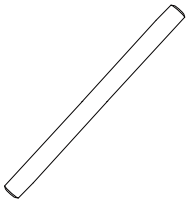
3 PRODUCT COMPONENTS

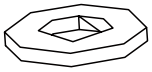
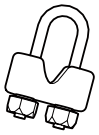
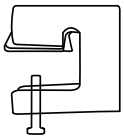
3.4 | Installation tools required

NO.	COMPONENTS	DIAGRAM
1	5mm Allen wrench	
2	Diastimeter	
3	Level Ruler	
4	Screw glue	
5	Wire-cutter	
6	Pliers	
7	Quick Wrench	
8	Flat Head screwdriver	

NO.	COMPONENTS	DIAGRAM
9	14mm Open End Wrench	
10	18mm Open End Wrench	
11	24mm Open End Wrench	
12	Philips Head Screwdriver	
13	Tape Measure	
14	Paintbrush	
15	Impact Drill	

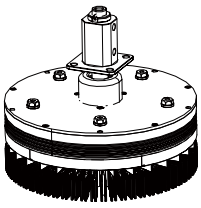
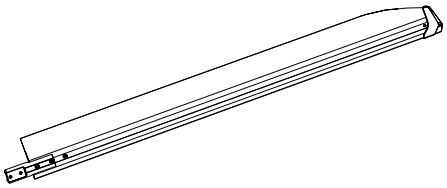
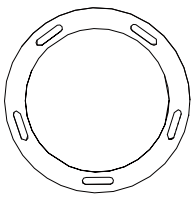
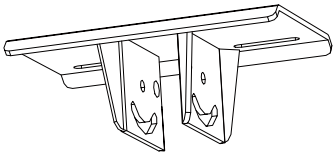
3.5 | Fastener packaging list

NO.	COMPONENTS	DIAGRAM
1	M12 x 75mm Hex Head Cap Screw	
2	M12 x 85mm Hex Head Cap Screw	
3	M16 x 30mm Hex Head Cap Screw	
4	M16 x 65mm Hex Head Cap Screw	
5	M16 x 140mm Hex Head Cap Screw	
6	M16 x 1000mm Threaded Rod	
7	12mm Spring Washer	
8	12mm Flat Washer	

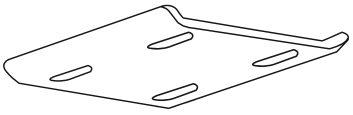
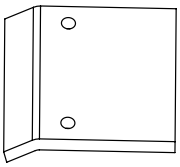
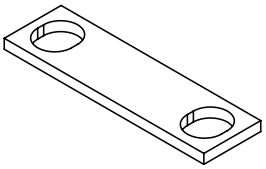
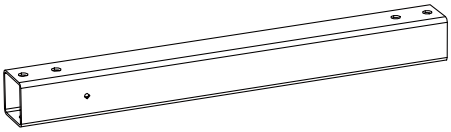
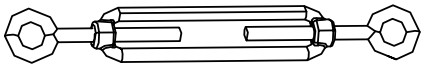
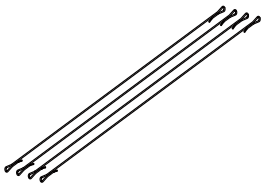
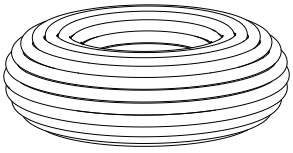
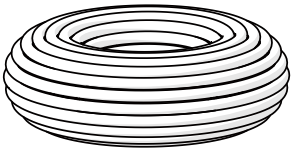
NO.	COMPONENTS	DIAGRAM
9	16mm Spring Washer	
10	16mm Flat Washer	
11	M16 Nut	
12	Wire Rope Grip	
13	Buckle On Beam (Set)	
14	Buckle For Cable Pipe & Expansion Tube & Drywall Screws	
15	M5 x 12mm Stainless Steel Round Head Screws	

3 PRODUCT COMPONENTS

3.6 | Parts List

NO.	COMPONENTS	PIECES	DIAGRAM	NOTES
1	PMSM motor	1		Main component
2	Control cabinet	1		Main component 295mm x 190mm x 395mm
3	Fan blade assembly	5		Main component
4	Motor bottom cover	1		Mounting component
5	Fan blade retainer	1		Safety component
6	Fan blade retainer 2	5		Safety component
7	Top plate	1	*Please note that the top bracket pictured may vary slightly to those supplied. 	Mounting component 400mm x 200mm

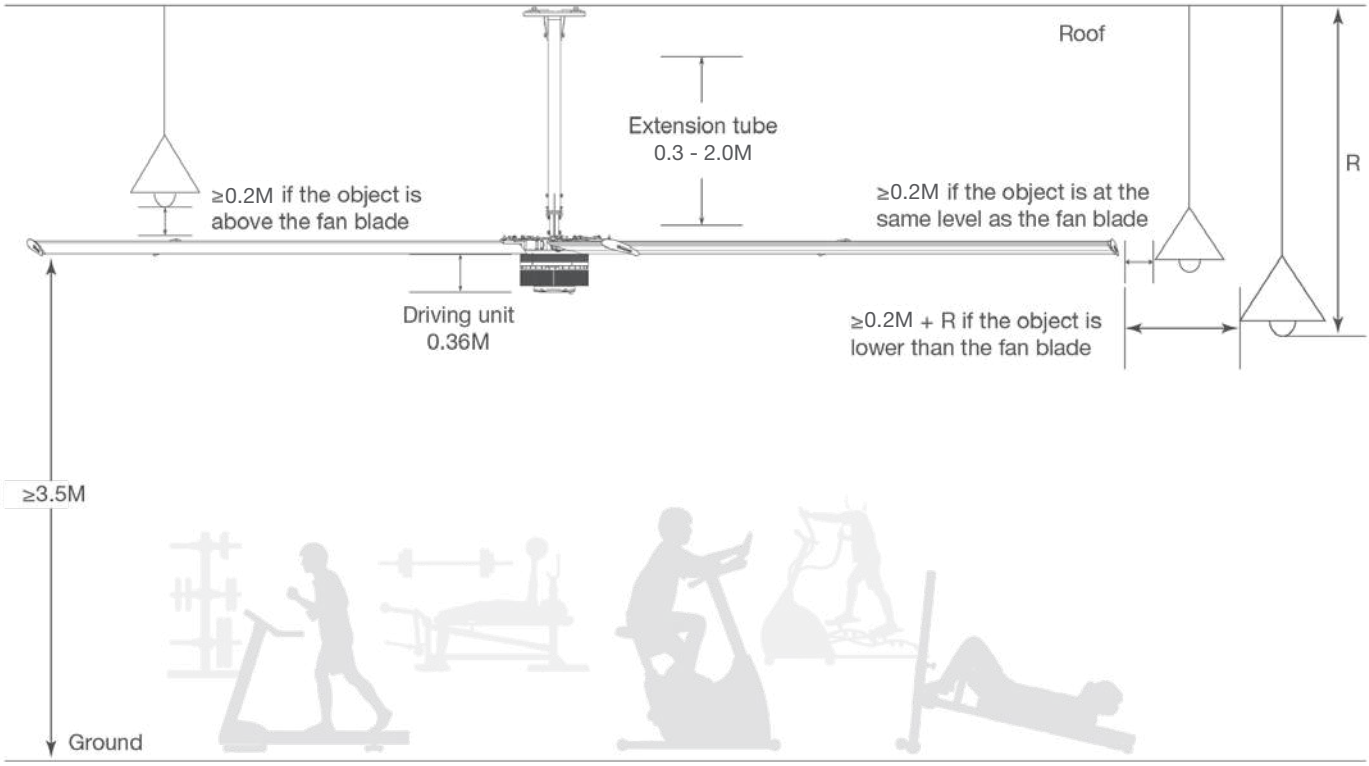
3.7 | Parts List

NO.	COMPONENTS	PIECES	DIAGRAM	NOTES
8	Upper Plate	1		Mounting component 400mm x 200mm
9	Clamp plate	2		Mounting component
10	Shim plate	2		Mounting component
11	1m Extension tube	1		Mounting component
12	Turnbuckle (O-O type)	4		Mounting component
13	Wire Rope	4		40m
14	Cable	1		4-core 1.5mm - 20m 3-core 2.5mm - 15m
15	Metal Hose	2		20m

4 INSTALLATION REQUIREMENTS

4.1 | Roof installation requirement

The Mammoth Fan must be installed in a location where the blades have enough space between the fan and the nearest objects or walls (refer to the below diagram for detailed spacing requirement). Secure the hanging bracket to the ceiling joist or structure with provided bolts and nuts. Ensure there are 3-4 threads left on the bolt after tightening the nut. The structure to which the fan is to be mounted must be capable of supporting 2 times the weight of the product and its own structural loading. Check with a structural engineer if unsure.

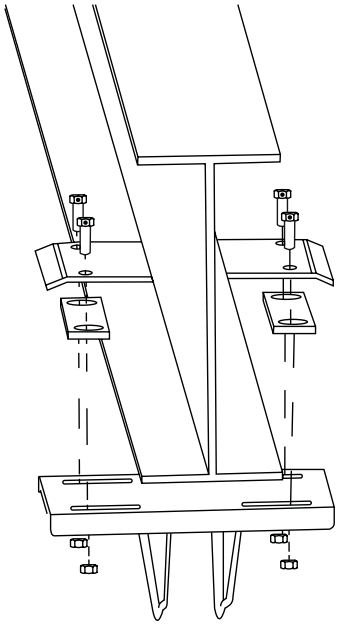


WARNING

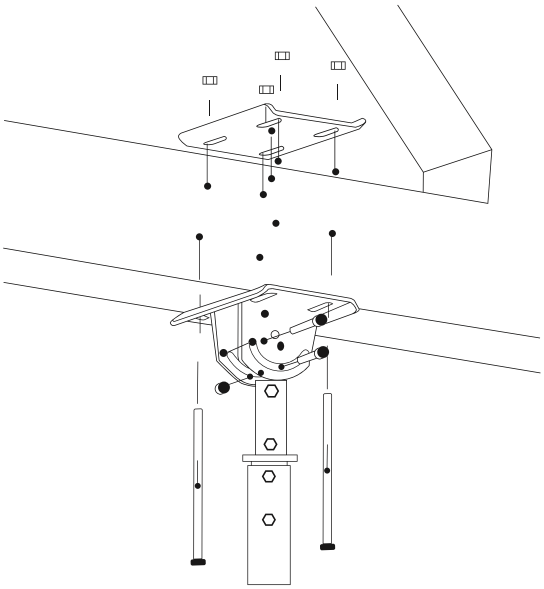
Notice

Be cautious of items like light fittings which may swing into the path of the spinning fan. Ensure appropriate clearance is maintained.

4.2 | Mounting Options



I-Beam Steel structure (Included as standard)



Steel, concrete or timber beam structure
Example of how to install to a truss setup.

4.3 | Product working conditions

ENVIRONMENT	CONDITION
Installation space	Interior and protected outdoor spaces
Environment temperature	-15°C~55°C To improve reliability, use the product where the temperature does not change sharply.
Humidity	Less than 95% RH
Environment	Non-corrosive, flammable gases, metal powder, oil, water and other foreign bodies will not enter the controller inside the place. Less salty.
Altitude	Less than 1,000m

5 FAN INSTALLATION PROCEDURE

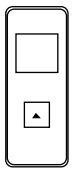
STEP 1 | INSTALLATION READINESS CHECK

Check the product and accessories to make sure they are correct.

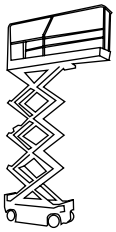
Prepare safety measures (such as harness, safety helmets, etc.), climbing equipment, tools, etc.

Safety helmet

Gloves



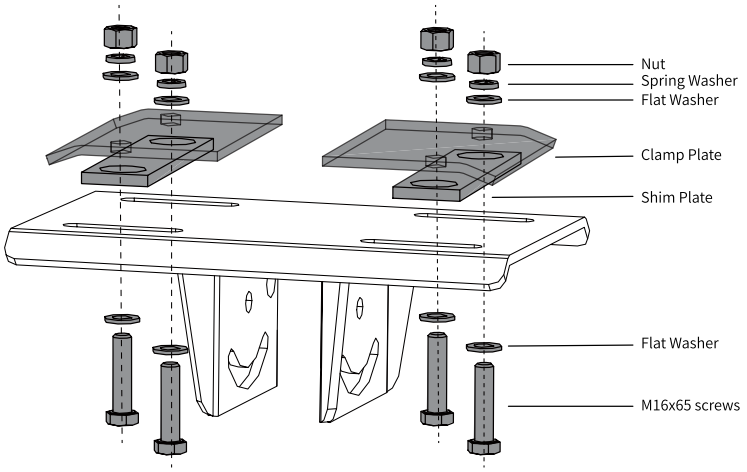
Diastimeter



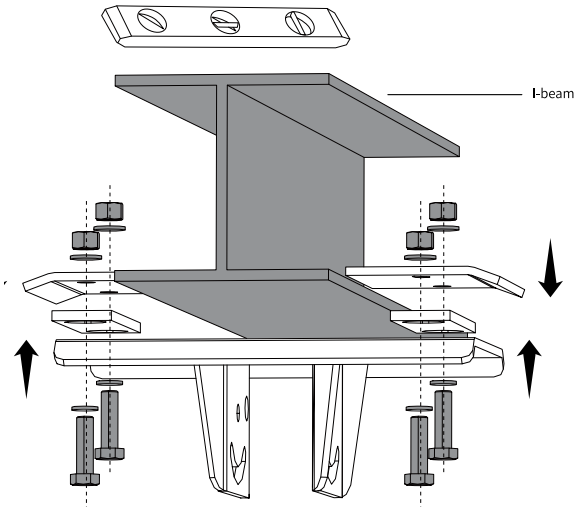
Ladder truck

STEP 2 | INSTALL THE TOP PLATE*

Before Installing the top plate, place the shim plate and clamp plate on the top plate in sequence on the ground. Pre-tighten the M16 x 65mm screws with 24mm wrench and 24mm socket to ensure it does not loosen or fall off, and leave a certain gap to facilitate the installation of the clamp and top plate clamp on the I-beam. Fully attach the top plate to the I-beam, make sure the top plate is vertical to the I-beam, pre-tighten the top plate screws to prevent falling. and tighten the screws last.



* Please note that the top bracket pictured may vary slightly to those supplied.



WARNING

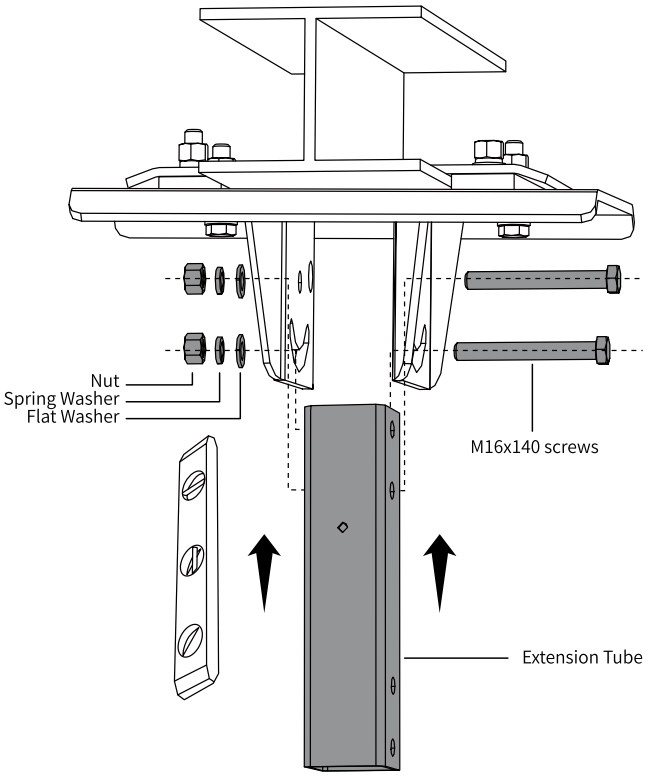
Notice

Before installing the top plate, you need to measure across the width of the I-beam to see if it is horizontal, and choose the right top plate specifications and accessories.

STEP 3 | INSTALL THE EXTENSION TUBE*

Put the extension tube in the top plate connector, align the holes, fix the extension tube to the top plate with M16 x 140mm screws, adjust the verticality with a level, pre-tighten the screws with a 24mm socket and a wrench, and finally tighten them with a quick wrench.

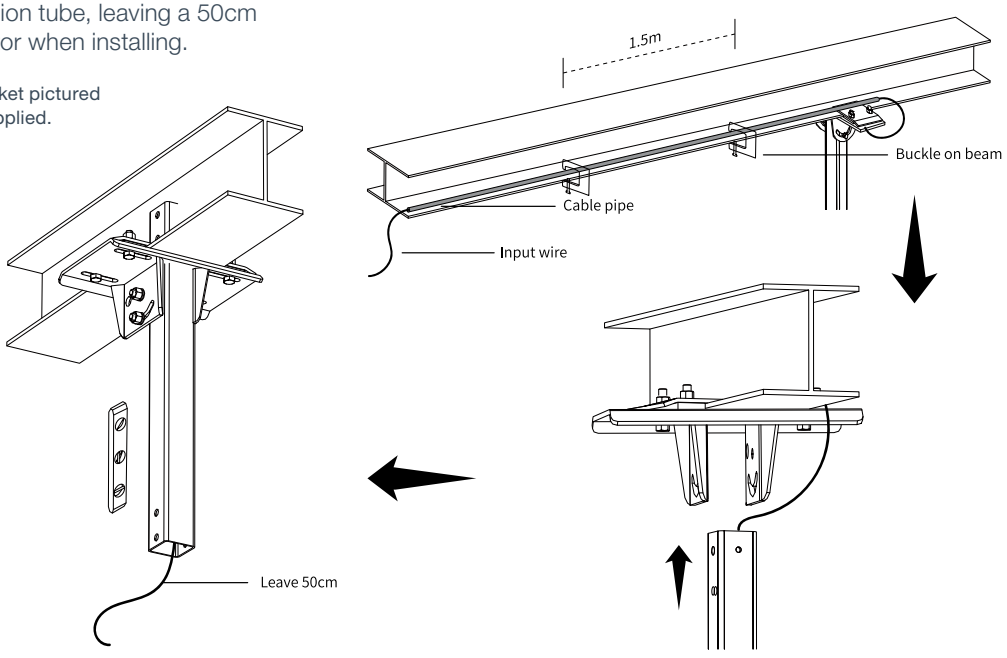
* Please note that the top bracket pictured may vary slightly to those supplied.



STEP 4 | THREADING THE CABLE WIRES*

Install mounting bracket to beam. Feed cable down through the extension tube, leaving a 50cm tail to connect to the motor when installing.

* Please note that the top bracket pictured may vary slightly to those supplied.

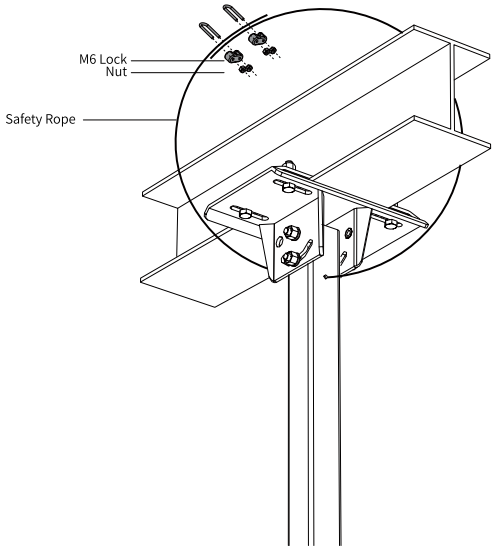


5 FAN INSTALLATION PROCEDURE

STEP 5 | INSTALL THE SAFETY ROPE*

Wrap the wire rope around the beam through the top plate ring hub. Set aside the wire rope as a backup, and use the wire rope grip to connect the two ends of the wire rope (the wire rope grip has two M6 x 5mm) and manually pre-tighten to prevent slipping. Use a 10mm socket to tighten the wire rope grip screws.

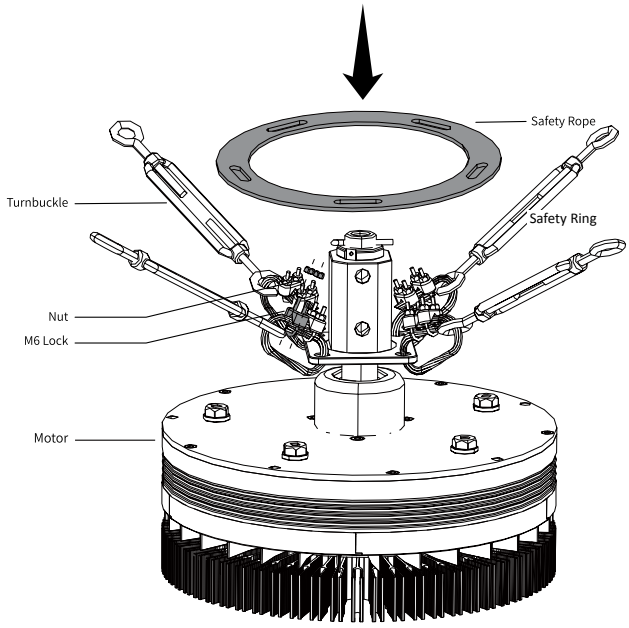
* Please note that the top bracket pictured may vary slightly to those supplied.



STEP 6 | INSTALL TURNBUCKLE

Insert the 2 wire rope grips into the steel wire rope, and the rope ends into the steel wire coil of the motor, connect with the turnbuckle, then wrap around and put them back into the wire rope grips, and pre-tighten them by hand.

Repeat the above steps to complete the installation of the four wires of the motor. Use a quick wrench, a 10mm socket, hold the wire rope grips tightly in one hand and a tool in the other hand to tighten the wire rope grips. After all the wire rope grips have been tightened. Put the safety ring on the motor.



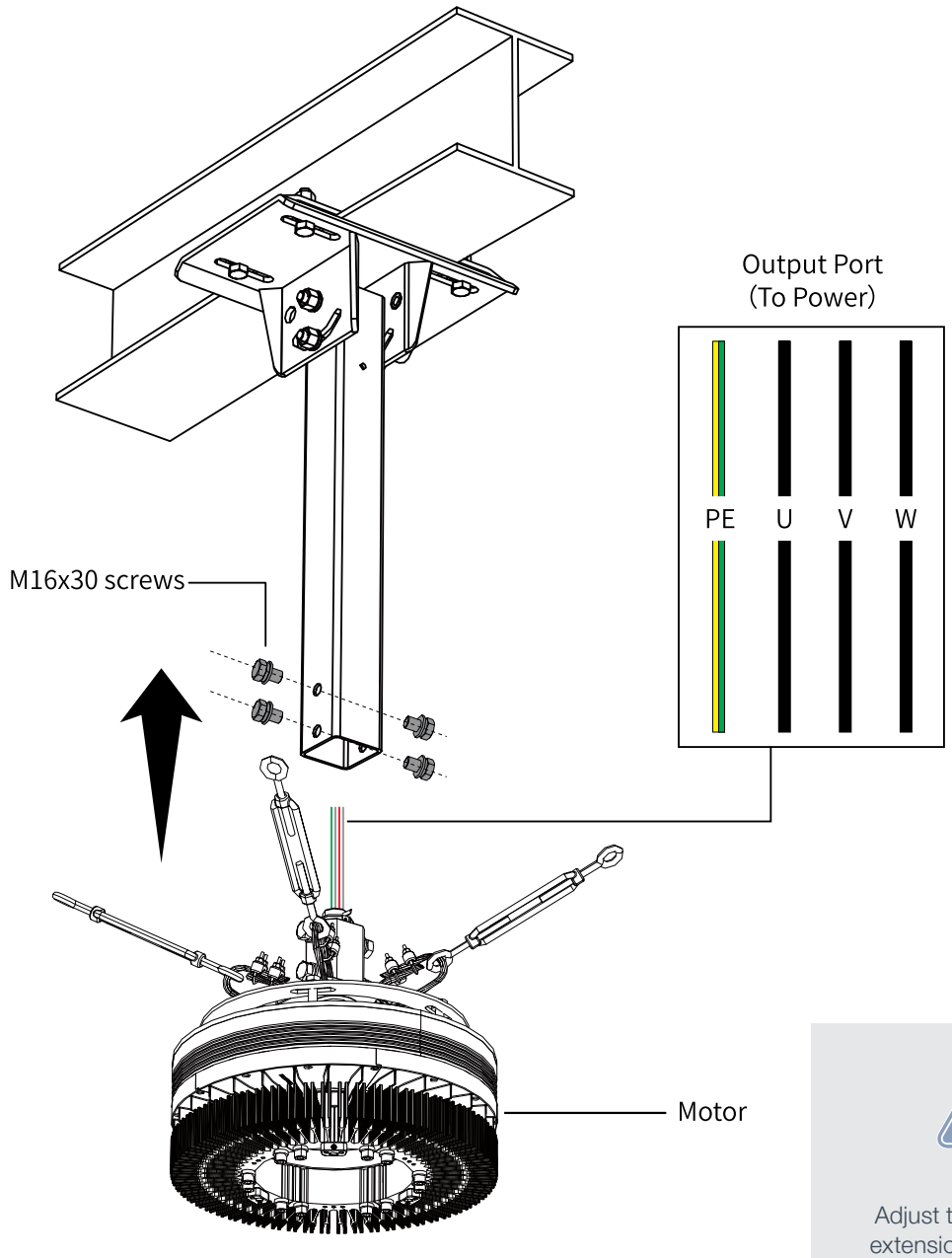
WARNING

Notice

The U-shaped end of the buckle is in contact with the end of the rope to prevent the main rope from being squeezed and damaged.

STEP 7 | INSTALLING THE MOTOR

Connect the cable, connect the safety rope, align the upper end of the motor with the hole at the bottom of the extension tube, and install the motor to the extension tube with M16 x 30mm screws. Tighten the screws with a 24mm Allen wrench.



Notice

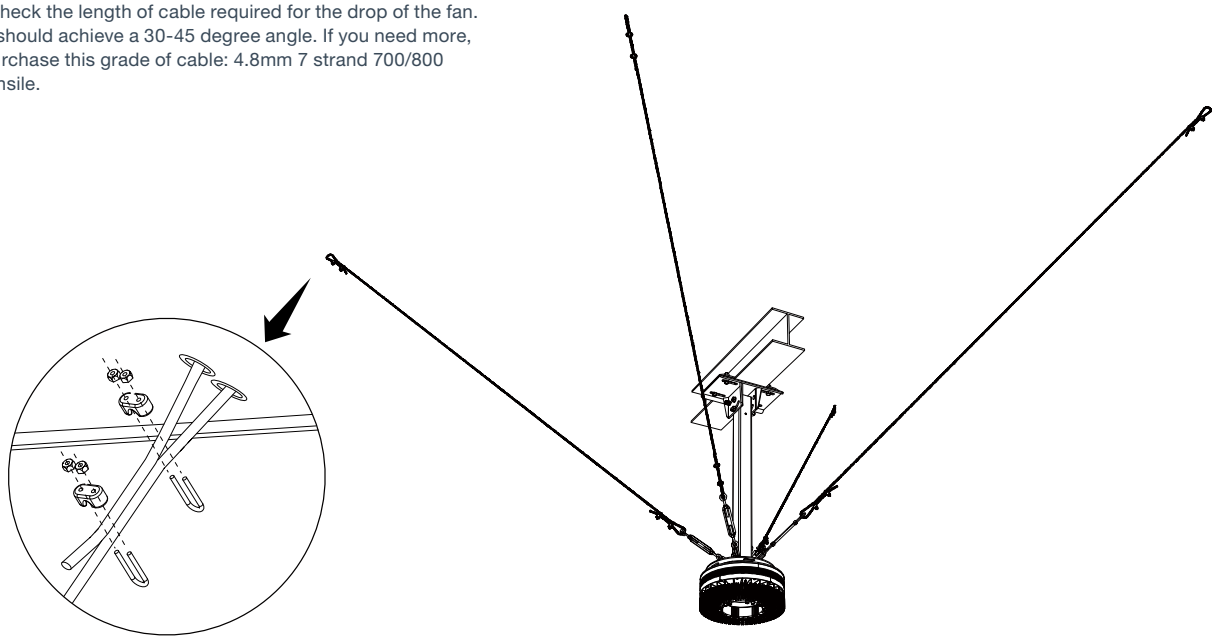
Adjust the wires in the extension tube and the wires of the motor in the same direction. When installing the motor, have two people work together to lift the motor to prevent the motor from sliding sideways.

5 FAN INSTALLATION PROCEDURE

STEP 8 | INSTALLING THE WIRE ROPE

At the pulling point, the wire rope will be passed through the hole and then manually fixed and pre-tightened using the wire rope grip. Finally, tighten the wire rope grip with a quick wrench and 10mm socket.

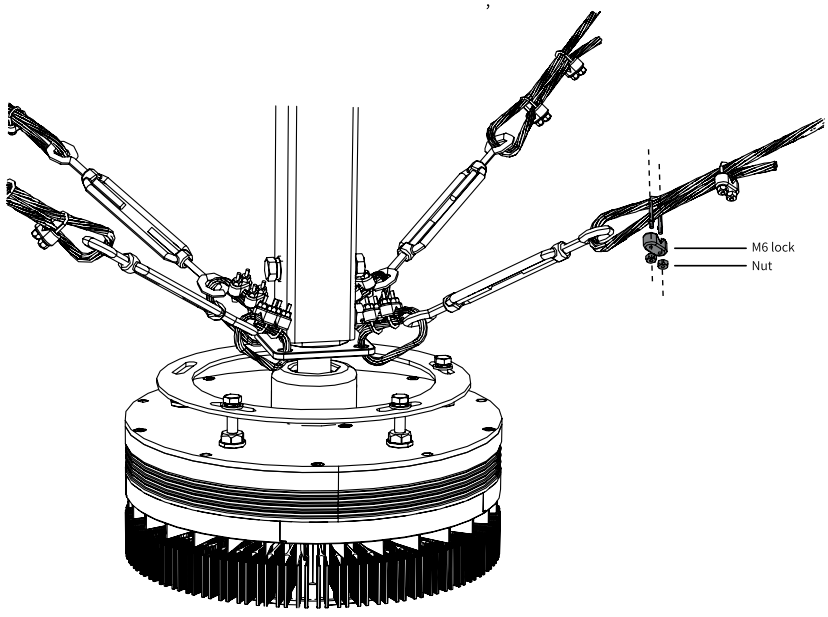
*Check the length of cable required for the drop of the fan. It should achieve a 30-45 degree angle. If you need more, purchase this grade of cable: 4.8mm 7 strand 700/800 tensile.



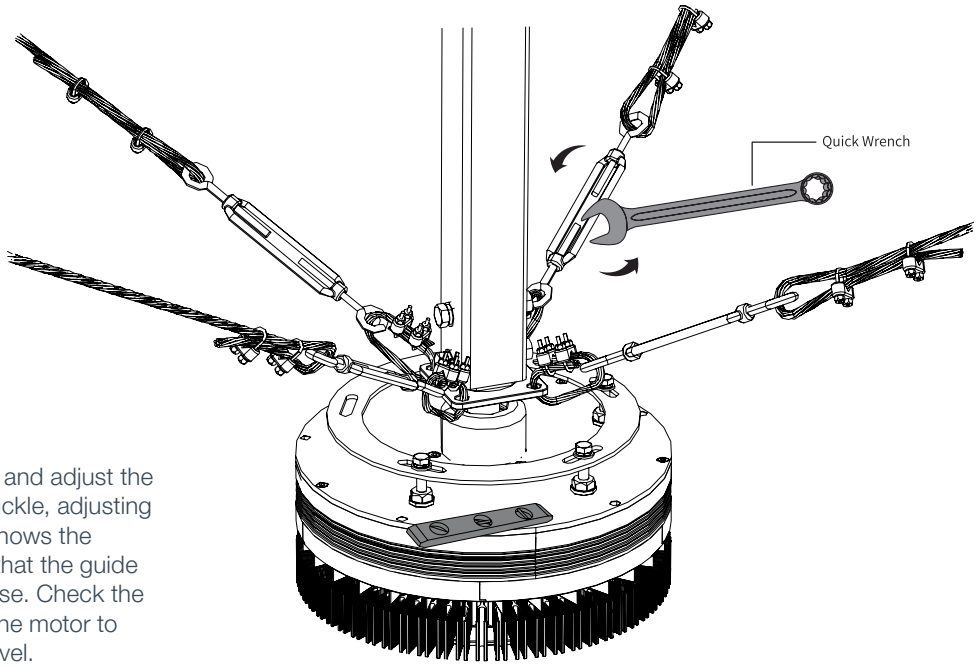
STEP 9 | CONNECT THE WIRE ROPE TO THE MOTOR

Pull the other end of the wire rope to the turnbuckle end of the motor. After confirming the length (the end of the rope just touches the lower end of the extension tube), cut the wire rope, pass it through the turnbuckle, tighten the wire rope, and use the wire rope grip to manually tighten. Use the quick wrench and the 8mm socket to tighten the turnbuckle, and repeat the above steps to pull all 4 wire supports.

Wire Rope Clip
Below is a diagram showing proper wire rope grip installation. It is imperative that you install the saddle on the live end of the wire rope.



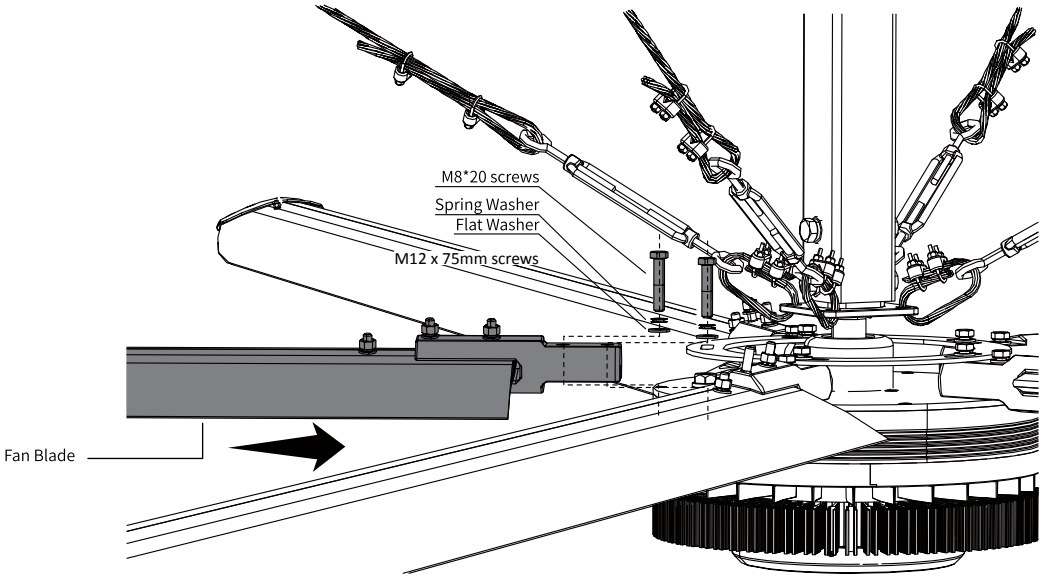
STEP 10 | ADJUST THE MOTOR TO A BALANCED POSITION



Place a level on the motor and adjust the guide ropes via the turnbuckle, adjusting each buckle unit the fan shows the bubble level. Also, check that the guide wires are tight and not loose. Check the level at several points on the motor to ensure that the motor is level.

STEP 11 | INSTALL THE FAN BLADES

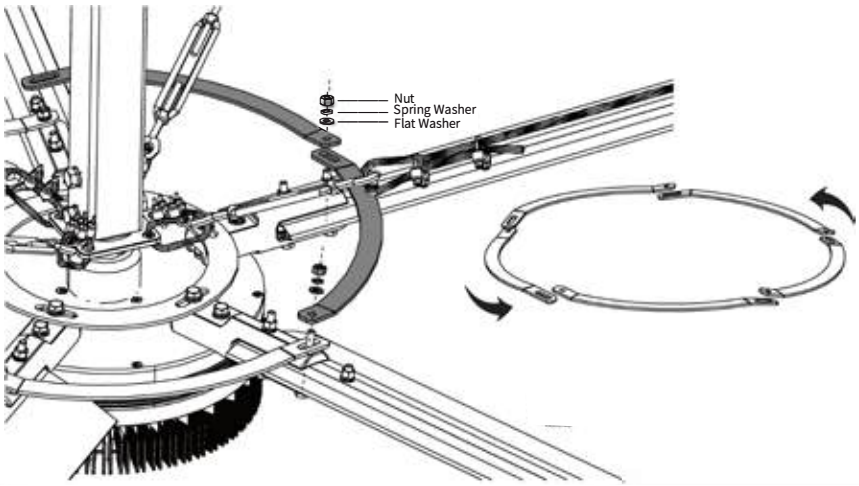
Prepare 5 fan blades, ensure that the tail fins are installed, and tighten the screws with an 8mm socket and a quick wrench. Install the fan blades diagonally to keep the centre of gravity balanced. Lift the safety ring and align the screw holes then put the M12×75 screw into the first hole, and pre-tighten it. Insert the M12×85 screw into the second hole and pre-tighten it. Then tighten the screw with a 18mm socket and quick wrench. Repeat this step 4 time to intsall the 5 blades.



5 FAN INSTALLATION PROCEDURE

STEP 12 | INSTALL THE FAN BLADE RETAINER

Remove the nut, spring washer and flat washer from the first M10 × 120mm screw connecting the fan blade and the plug-in. Put each fan blade retainer on one by one to form a ring shape. Ensure the fan blade retainer waist hole is on the bottom, and the round hole is on the top. Put in the flat washer, spring washer and nut onto the M10 x 120mm screws and use a quick wrench to tighten the screws.

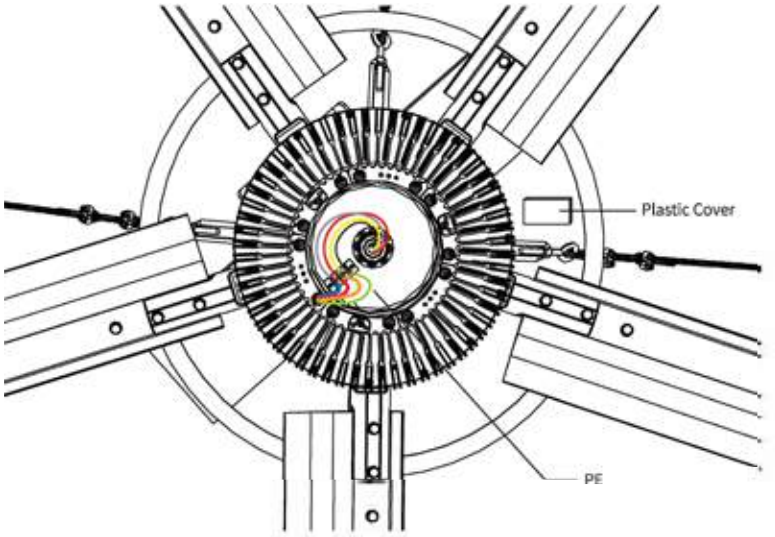


Notice

1. The orientation of the round hole should be consistent with the direction the fan rotates.
2. The round hole presses on top of the long hole.

STEP 13 | WIRING THE MOTOR

Loosen the wiring ends of the motor using a screwdriver, and connect the wiring ports one by one according to the corresponding color. Connect the earth cable first, than connect other cables in turn.

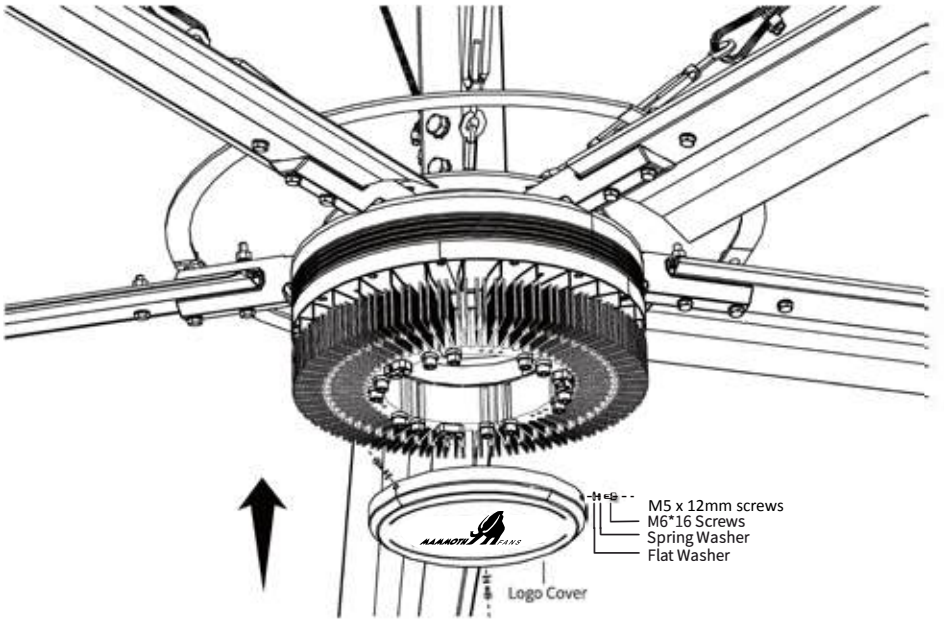


Notice

1. Straighten the cable from the bottom of the motor, do not pull it hard to avoid breaking the skin of the cable.
2. Check whether the copper wire is exposed of the wing port which may lead to short circuit.
3. The terminal must be covered with a plastic cover after finishing the wiring.

STEP 14 | INSTALL THE LOGO COVER

Hold the logo cover in place and align it with the mounting holes. Fasten the three screws using a Phillips screwdriver.



STEP 15 | INSTALL THE CONTROL CABINET

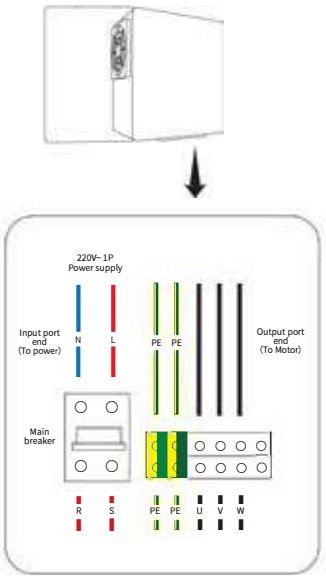
Install the control cabinet at the location specified by the customer. Measure to level with a level ruler. The bottom of the control cabinet should be 1.2m to 1.3m from the ground (although the actual height can be installed according to the customer's requirements), mark the fixed hole position with a marker pen, use an impact drill with an 8mm impact drill bit to make holes, align the 4 holes, use a Phillips head screwdriver to screw drywall nails into the wall to fix the control cabinet.

5 FAN INSTALLATION PROCEDURE

STEP 16 | CONTROL CABINET WIRING

The Output and Input ports cables are clearly marked in the picture shown to the right.

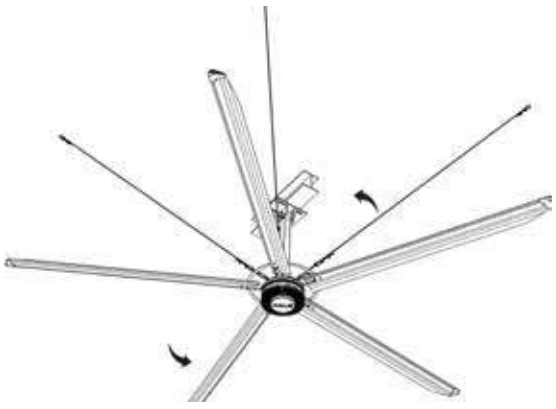
Strip the cable and crimp the bullet terminals supplied to the cable. Connect the corresponding cable to the control wiring.



STEP 17 | CHECK AND TEST RUNNING

After the main power supply is powered on, the fan control cabinet power is powered on, and the fan starts running at a low speed, gradually increase the fan operating speed to the highest value. Check whether the fan is running normally and whether there is any abnormal noise. If any problem is found, stop the fan immediately.

NOTE:
Use a spirit level and ensure blades are level before switching on. Run the fan for 15 minutes and observe, whether it is spinning in the correct direction (anti-clockwise), listen for any abnormal noise, ensure there is no movement in the support cables. Check the current is within the rated range.



STEP 18 | DEBUGGING

Each Mammoth Fan is tested prior to leaving the factory. If there seems to be a problem, double check all electrical connections, and contact the Mammoth support team.

STEP 19 | HANDOVER

Ensure the customer is instructed on how to operate and isolate the fan.

OPERATING INSTRUCTIONS 6

1. Please read the Safety Precautions on page 5 very carefully before operating.
2. Confirm the wiring has been connected correctly, then turn the main knob to “ON”. Now it’s powered on.
3. Press the ‘start speed switch’ twice to use the ‘start speed switch’ to control the rotation speed.
4. Press the ‘rotation button’ twice to stop the motor. Then turn the main knob to OFF to completely stop the rotation.

Main switch:
When the switch points to OFF, it is powered off; when the switch points to ON, it is powered on.

LCD display:
If the interface isn’t used within 1 minute, the LCD screen will turn from bright to dark. The brightness is restored after input.

Rotation speed button:
multi-function knob. Please check the below table for details.

Function	Adjust rotation speed	Start, stop button	Malfunction reset
Definition	Rotate the rotation speed button clockwise to increase speed and anti-clockwise to decrease speed.	Press the rotation speed button once to start and stop.	When ‘malfunction’ appears on the LCD display, press the rotation speed button once to reset it. If this doesn’t work, contact Mammoth following the guide shown on screen.

Note:
Short press of the rotation speed button: press for less than 2 seconds
Long press of the rotation speed button: press for more than 2 seconds

How to START / STOP

WARNING: Before operation, please read the manual very carefully. Remove obstacles in the operating area to ensure that the fan runs with safe distance. Before commencing any maintenance, please make sure you have already turned off the power supply. The operation must be done by professionals to avoid being injured.

START

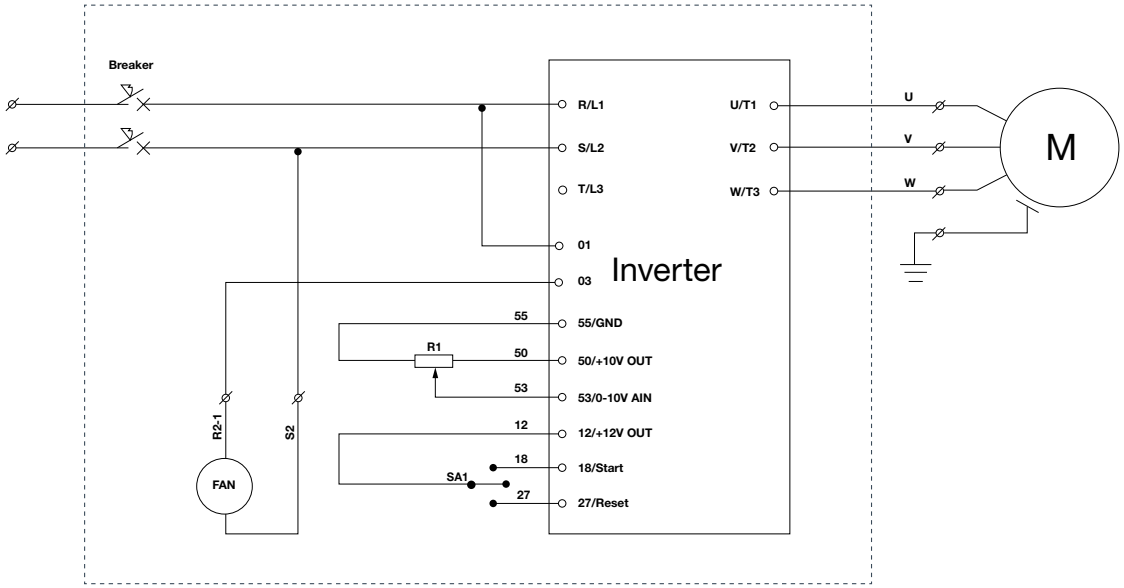
1. Make sure that there are no obstacles and potential hazards in operating space.
2. Make sure that the input power is correct and meets the product.
3. Make sure that the speed knob points to the minimum position.
4. Start the equipment and turn the switch from “stop” to “run”.
5. After the fan runs, adjust the rotation speed knob to achieve the best effect.

STOP

1. Stop the equipment and shut down the controller strictly according to the operating instruction.
2. Please do not cut the power off during the running.

7&8 ELECTRICAL WIRING DIAGRAM & CONTROL PANEL AND DISPLAY

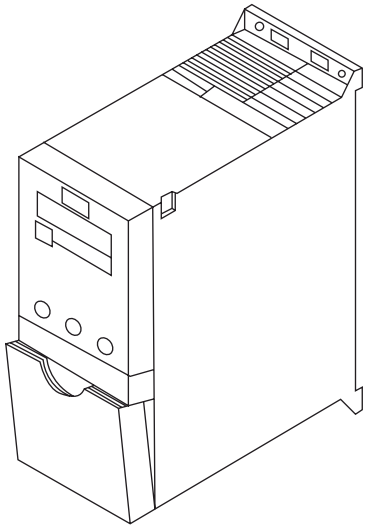
7 | Electrical wiring diagram

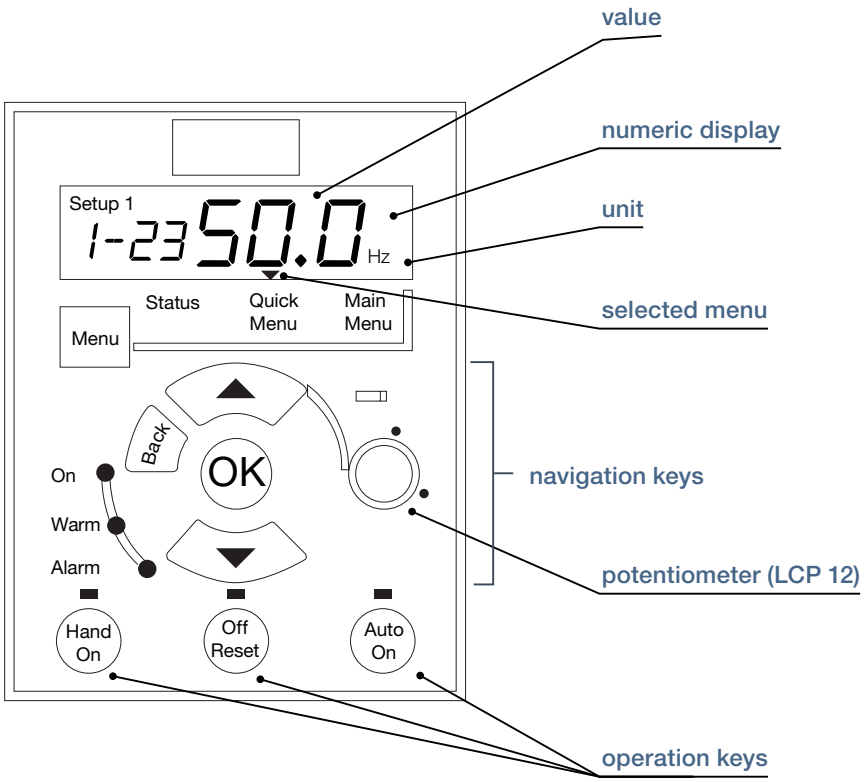


CONTROL BOX

NOTE:
Make sure the fan is running in the correct direction - anti-clockwise.
If the direction is incorrect, just exchange any 2 of the 3 UVW wires in the control system.

8 | Control panel and display





9 | Cleaning

Cleaning & maintenance

Please ensure the power to your Mammoth Fan is isolated before completing any cleaning and maintenance work. Also ensure you follow all local regulations in regards to safe working at heights. Periodic cleaning of your ceiling fan is the only maintenance required.

1. Use a soft brush or lint-free cloth to avoid scratching the paint finish.
2. A damp cloth can be used to wipe down the blades, however, ensure that excess water doesn't enter any wiring connections as this could damage the fan and cause a safety issue.
3. Ensure that the fitting does not come in contact with any organic solvents or cleaners.
4. The motor has a permanently lubricated ball bearing which does not require maintenance or re-oiling.

10 | Repair and maintenance

Our product design is maintenance-free, but in order to ensure the fan's long life and normal operation, the fan should also be maintained, especially for applications in harsh environments. For any maintenance on the fan or inverter controller, please make sure that the fan stops running and cut off the power supply of the controller to protect personnel.

TIME INTERVAL	RECOMMENDED MAINTENANCE WORK CONTENT
Trial run	- Check the fan for abnormal running sound or vibration - Frequency conversion controller dust removal
Every 2500 hours of work	- Fan blade dust removal
Every 5000 hours of work	- Check mechanical fasteners to ensure that there is no looseness - Check the wire cable to make sure there is no damage

If the fan produces severe noise or vibration during abnormal operation, it indicates that a mechanical part is damaged. At this time, it should be shut down immediately and a thorough inspection should be done.

11 TROUBLESHOOTING

Common causes for malfunctioning operation

1. The external power supply of the control box is not within the range appropriate for the controller
2. Ensure there is power to the controller box, turn speed dial to Minimum setting (SLOW), Turn the control dial to Run. If this doesn't work return the control dial to reset, then return dial to Stop, and finally to Run.
3. If on start up you notice any unusual sounds coming from the fan or the controller immediately return the control dial to Stop and contact the Mammoth Support team.
4. Equipment damage due to the improper use is not covered by the warranty. Mammoth Fans will not be responsible for personal injuries and equipment damages for failure to comply with the contents of this manual.

Explanation of the error codes on control unit:

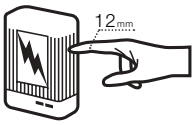
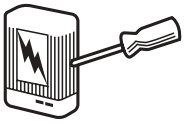
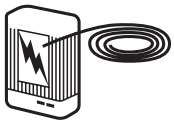
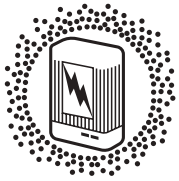
NO.	Description	Warning	Alarm	Trip Lock	Error	Cause of Problem
2	Live zero error	X	X			Signal on terminal 53 or 60 is less than 50% of value set in 6-10 Terminal 53 Low Voltage, 6-12 Terminal 53 Low Current and 6-22 Terminal 54 Low Current.
4	Mains phase loss1)	X	X	X		Missing phase on supply side, or too high voltage imbalance. Check supply voltage.
7	DC over voltage1)	X	X			Intermediate circuit voltage exceeds limit.
8	DC under voltage1)	X	X			Intermediate circuit voltage drops below "voltage warning low" limit.
9	Inverter overloaded	X	X			More than 100% load for too long.
10	Motor ETR over temperature	X	X			Motor is too hot due to more than 100% load for too long.
11	Motor thermistor over temperature	X	X			Thermistor or thermistor connection is disconnected.
12	Torque limit	X				Torque exceeds value set in either par. 4-16 or 4-17.
13	Over current	X	X	X		Inverter peak current limit is exceeded.
14	Earth fault	X	X	X		Discharge from output phases to ground.
16	Short circuit		X	X		Short-circuit in motor or on motor terminals.
17	Control word timeout	X	X			No communication to frequency converter.
25	Brake resistor short-circuited		X	X		Brake resistor is short-circuited, thus brake function is disconnected.
27	Brake chopper short-circuited		X	X		Brake transistor is short-circuited, thus brake function is disconnected.
28	Brake check		X			Brake resistor is not connected/working.
29	Power board over temp	X	X	X		Heat-sink cut-out temperature has been reached.
30	Motor phase U missing		X	X		Motor phase U is missing. Check the phase.

NO.	Description	Warning	Alarm	Trip Lock	Error	Cause of Problem
31	Motor phase V missing		X	X		Motor phase V is missing. Check the phase.
32	Motor phase W missing		X	X		Motor phase W is missing. Check the phase.
38	Internal fault		X	X		Contact local Danfoss supplier.
44	Earth fault		X	X		Discharge from output phases to ground.
47	Control voltage fault		X	X		24 V DC may be overloaded.
51	AMA check Unom and Inom		X			Wrong setting for motor voltage and/or motor current.
52	AMA low Inom		X			Motor current is too low. Check settings.
59	Current limit	X				VLT overload.
63	Mechanical Brake Low		X			Actual motor current has not exceeded “release brake” current within “start delay” time window.
80	Drive Initialised to Default Value		X			All parameter settings are initialized to default settings.
84	The connection between drive and LCP is lost				X	No communication between LCP and frequency converter.
85	Button disabled				X	See parameter group 0-4* LCP
86	Copy fail				X	An error occurred while copying from frequency converter to LCP or vice versa.
87	LCP data invalid				X	Occurs when copying from LCP if the LCP contains erroneous data - or if no data was uploaded to the LCP.
88	LCP data not compatible				X	Occurs when copying from LCP if the data are moved between frequency converters with major differences in software versions.
89	Parameter read only				X	Occurs when trying to write to a read-only parameter.
90	Parameter database busy				X	LCP and RS485 connection are trying to update parameters simultaneously.
91	Parameter value is not valid in this mode				X	Occurs when trying to write an illegal value to a parameter.
92	Parameter value exceeds the min/max limits				X	Occurs when trying to set a value outside the range.
nw run	Not While RUNning				X	Parameter can only be changed when the motor is stopped.
Err.	A wrong password was entered				X	Occurs when using a wrong password for changing a password-protected parameter.

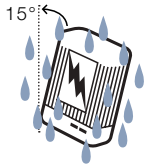
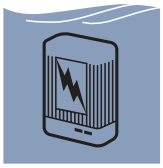
[1)] These faults may be caused by mains distortions. Installing Danfoss Line Filter may rectify this problem.

12 IP (INGRESS PROTECTION) RATING GUIDE

SOLIDS

1		Protected against a solid object greater than 50 mm such as a hand.
2		Protected against a solid object greater than 12.5 mm such as a finger.
3		Protected against a solid object greater than 2.5 mm such as a screwdriver.
4		Protected against a solid object greater than 1 mm such as a wire.
5		Dust protected. Limited ingress of dust permitted. Will not interfere with operation of the equipment. Two to eight hours.
6		Dust tight. No ingress of dust. Two to eight hours.

WATER

1		Protected against vertically falling drops of water. Limited ingress permitted.
2		Protected against vertically falling drops of water with enclosure tilted up to 15 degrees from the vertical. Limited ingress permitted.
3		Protected against sprays of water up to 60 degrees from the vertical. Limited ingress permitted for three minutes.
4		Protected against water splashed from all directions. Limited ingress permitted.
5		Protected against jets of water. Limited ingress permitted.
6		Water from heavy seas or water projected in powerful jets shall not enter the enclosure in harmful quantities.
7		Protection against the effects of immersion in water between 15 cm and 1 m for 30 minutes.
8		Protection against the effects of immersion in water under pressure for long periods.

Rating Example:

WARRANTY CONTACT INFORMATION 13

THIS WARRANTY IS VALID IN AUSTRALIA ONLY

In the event of service being required, please call the **Mammoth Fans Support Hotline on 1800 602 243** between **9am and 5pm (AEST) Monday to Friday.**

Every Mammoth Fan is thoroughly inspected and tested before being released for sale. In addition to any warranty rights or conditions under statutory regulations, Mammoth Fans warrant all of its ceiling fans against defective workmanship and faulty materials for 5 years from the date of purchase. Mammoth Fans undertake, at its option, to repair or replace, free of charge, each product or part thereof on condition that;

1. The fan or relevant part has not been subjected to misuse, neglect, or been involved in an accident.

2. The repairs are not required as a result of normal wear and tear.

3. The product was installed by a licensed electrical contractor and to the guidelines outlined in the manual.

4. A copy of the original receipt of purchase is presented.

To make a warranty claim, go to our Mammoth Fans website, or call the Warranty Hotline:

Website: www.mammothfans.com.au/support-and-warranty

Warranty Hotline: 1800 602 243

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

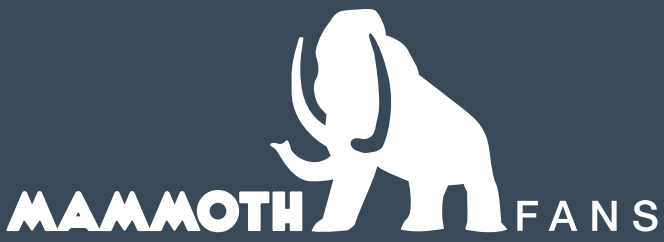
Mammoth Fans cannot be held responsible for any repair other than those carried out by it or one of its Authorised Service Agents. Please keep this warranty information in a safe place. This information must be produced in the event of service being required.

Distributed by:

Beacon Lighting

140 Fulton Drive,
Derrimut, Victoria, 3026,
Australia

Ph **1800 602 243**
Email: **warranty@beaconlighting.com.au**



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