Fan The Future
Lead The Way

CONINCO Fans is a leading supplier of high-efficiency, large-scale fans, specializing in providing high-quality HVLS (High Volume Low Speed) fan solutions for various industrial and commercial environments.

Our products are designed to improve air quality and temperature control in workspaces through energy-saving, eco-friendly, and comfortable air circulation. They are widely used in large spaces such as warehouses, production workshops, shopping malls, restaurants, stations, sports venues, and logistics centers.

CONINCO HVLS fans feature advanced technological designs, combined with intelligent control systems and efficient power transmission systems, enabling high airflow with low power consumption. This ensures comprehensive air circulation, significantly enhancing temperature uniformity within spaces while greatly reducing energy consumption.

We are committed to offering customized solutions to meet the unique needs of different clients and have established a strong global service network to ensure the sustained and stable operation of our products, delivering long-term energy-saving benefits.

As an industry leader, CONINCO Fans not only values product quality and innovation but also places a strong emphasis on after-sales service and technical support, striving to provide each client with a professional and reliable service experience.

Our mission is to help customers achieve **"Powering Comfort, Elevating Performance"** while enhancing the overall experience of their spaces through innovative technology and efficient products.

Whether for new construction projects or renovation works,
CONINCO will be your best choice.

CONINCO Technology (Singapore) Pte. Ltd.

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SuperAir Series Fans

Operating Instructions

2025.01

CONINCO

Installation Checklist 

Please complete the following checklist before powering on the fan. Do not operate the fan if any item is incomplete. Contact an authorized CONINCO technician for assistance if needed.

A. Pre-Installation
· □ Check packaging for any signs of damage during transportation
· □ Verify all parts and components match the packing list
· □ Confirm the installation structure meets load-bearing requirements
· □ Ensure personnel are qualified and equipped with proper PPE

B. Mounting & Structure
· □ Mounting bracket is securely installed using proper bolts and fasteners
· □ All connections are tightened with a torque wrench as per specifications
· □ Downrod is installed vertically, fan aligned with center axis
· □ Installation height meets clearance requirements (at least 2.5m from floor)
· □ Anti-vibration washers and lock nuts are in place to prevent loosening

C. Electrical
· □ Cables used are compliant and protected with insulation sleeves
· □ Power connections are correct and grounding is secure
· □ Communication cables between control box and fan are properly connected
· □ Use multimeter to check voltage and resistance before powering on
· □ All electrical work complies with local electrical codes (e.g. NEC/IEC)

D. Blades & Hub
· □ Blades are installed in correct order and orientation
· □ Blade-to-hub bolts are tightened and torque is recorded
· □ Blade spacing is even, no risk of interference
· □ Anti-loosening devices and safety wires are installed properly

E. Final Inspection
· □ All fasteners are double-checked and secure
· □ Adequate clearance from all surroundings (side and top)
· □ Initial power-on test of control system is successful
· □ Fan rotates in correct direction (clockwise or counterclockwise)
· □ Fan runs smoothly with no abnormal noise or vibration

F. Handover
· □ Demonstrate controller functions including start/stop/speed control
· □ Provide user manual and warranty card to customer
· □ Complete installation log and obtain customer signature

✅ Note: This checklist must be signed by the installation supervisor and documented with photos before operation.

Correct Use and Application 

This Operation Manual applies to CONINCO HVLS Industrial Fans (hereinafter referred to as "the product"). The product is specifically designed to provide ventilation and cooling in large spaces such as industrial facilities, warehouses, logistics centers, manufacturing plants, and commercial venues. Please read this manual carefully before installing, operating, or maintaining the product, and keep it for future reference.

Proper Use
This product is intended solely for the purpose of improving air circulation and temperature regulation as described in this manual. Any use beyond the scope of this manual, including operation in flammable, explosive, highly corrosive, or extremely dusty environments, shall be deemed improper and may result in personal injury, equipment damage, or property loss.

Definition of User Responsibility
In this manual, the "user" refers to the individual or legal entity that operates the product, including its employees or designated representatives. In special cases such as leasing or subcontracting, the user is defined as the party responsible for operation and maintenance of the fan under contractual agreement.

The User Must Ensure:
- The fan is used solely for its intended purpose;
- No overloading or improper usage occurs;
- No structural or functional modifications are made without authorization;
- All applicable national and local electrical and construction codes are strictly followed;
- Installation, operation, and maintenance are carried out according to this manual and the Installation Guide;
- All operators have read, understood, and received adequate training on this manual.

Failure to comply with this manual will void the product warranty.
CONINCO reserves the right to deny warranty claims if the product is improperly installed, wired, operated, or serviced by the user or any third party without prior authorization from CONINCO.

Additional Equipment and Modifications
Any installation of accessories or functional upgrades that may affect the fan's performance must be approved in writing by CONINCO. In some regions, local authority approval may also be required. However, such approval does not constitute authorization from CONINCO.

Contents

Preface

Thank you for choosing CONINCO HVLS Fans. This manual is designed to help you understand the safe and effective use of your fan system. It contains essential information regarding installation, operation, maintenance, and safety guidelines to ensure optimal performance and longevity of your fan.

CONINCO is committed to providing high-quality, innovative ventilation solutions for industrial and commercial spaces. Our HVLS (High Volume, Low Speed) fans are engineered for superior efficiency, energy savings, and environmental comfort. Please read this manual thoroughly before installing or operating the fan. Proper understanding and adherence to the instructions will help you maximize the performance and safety of the product.

Should you have any questions or need assistance, please visit our website at www.conincofans.com or contact our customer service team.

We appreciate your trust in CONINCO and wish you a comfortable and productive environment with our fan systems.

Product Description

SuperAir HVLS Fans (Maximum product diameter reaches 7.3m/24ft) is designed to improve air circulation and temperature control in large or challenging spaces. SuperAir HVLS fans efficiently distribute air, creating a more comfortable environment while reducing reliance on HVAC (Heating, Ventilation, and Air Conditioning) systems.

By choosing SuperAir products, customers gain a sustainable, cost-effective, and high-performance solution for airflow and comfort needs.

Application Scenarios:

- **Industrial Environments:** Factories and Warehouses: Address heat and air stagnation issues, enhance employee comfort, and boost productivity.
- **Logistics Centers:** Improve airflow across large areas, reducing temperature and humidity levels.
- **Commercial Environments:** Provide comfortable air circulation, attracting more customers.
- **Sports Arenas and Exhibition Halls:** Cover large areas and enhance airflow efficiency.
- **Schools and Libraries:** Deliver quiet, balanced airflow for large spaces.
- **Agricultural Uses:** Farms and Livestock Facilities: Optimize airflow to reduce moisture, lower disease risks, and increase productivity.

CONINCO Fans stands out as an industry leader in airflow solutions due to its innovative design, reliable performance, and versatile applications.

Technical Specifications

Fan	Diameter	Air volume,m^3/min	Weight(kgs)	Max speed	Input power	Full load current
SA5-73	24ft (7.3m)	13600	234 lb (106kg)	56RPM	1.3kw	5.1A
SA5-61	20ft (6.1m)	12200	223 lb (101kg)	64RPM	1.2kw	3.8A
SA5-55	18ft (5.5m)	12030	205 lb (93kg)	72RPM	0.7kw	2.9A
SA5-50	16ft (5.0m)	9680	194 lb (88kg)	64PRM	0.45kw	2.2A
SA5-45	15ft (4.5m)	9280	190 lb (86kg)	72RPM	0.32kw	1.6A
SA5-40	13ft (4.0m)	8750	185 lb (84kg)	80RPM	0.23kw	1.1A
SA5-35	11ft (3.5m)	8330	179 lb (81kg)	90RPM	0.18kw	0.9A

Installation Requirements:

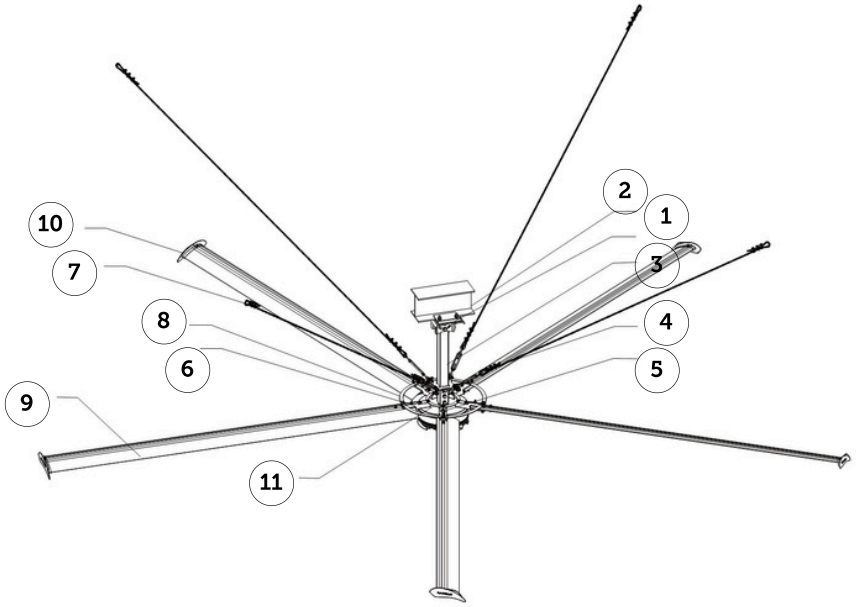
- Building Structure: H-beams, I-beams, steel-concrete square beams, spherical column types, and other structures.
- The minimum safe distance between the fan blades and obstacles is 200mm.

Others:

- Weight: Above weight does not include control cabinet, extension rods, top connection components, etc.
- Fan Diameter: The diameters listed above are standard product sizes; other specifications can be customized.
- Blade Color: The standard color is black, other colors are customizable.
- Input Power: Single-phase 220V $\pm$ 10%.
- Alternative Voltage Specifications Available Upon Request

Fan Diagram

Contact CONINCO if you are missing any parts or hardware needed for installation.



1 **Clamping Plate**

2 **I Beam**

3 **Extension Tube**

4 **Turnbuckle**

5 **PMSM Motor**

6 **Extension Tube**

7 **Steel Wire Rope**

8 **Fan Blade Retainer**

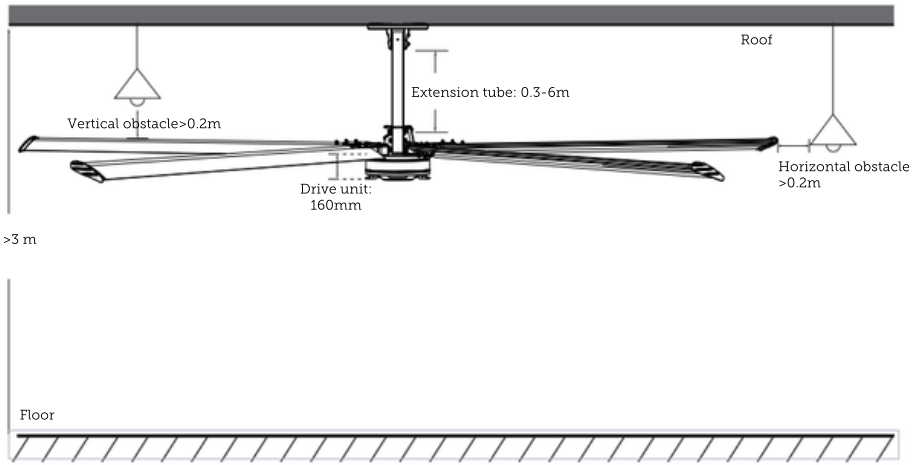
9 **Fan Blade**

10 **Winglet**

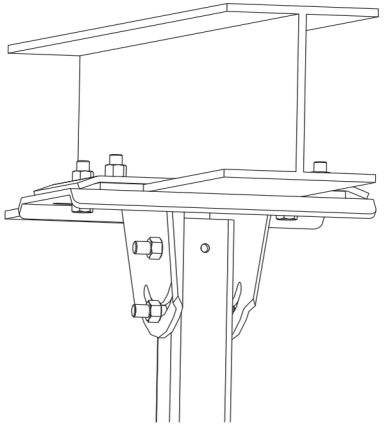
11 **Safety Ring**

Installation Conditions and Types

Roof installation requirement



01 I-Beam Installation



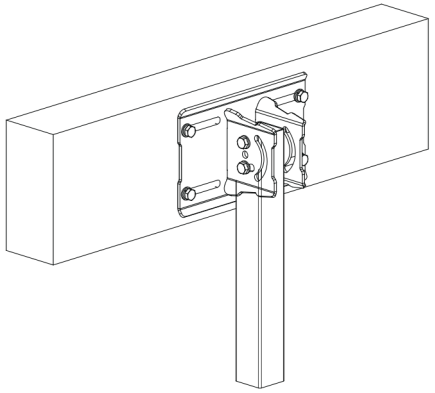
Brief Installation Guide:

Pre-assemble the top plate, shim plate and clamping plate, then install them equidistantly on both sides of the top plate.

The long side of the top plate should be perpen- dicular to the long side of the beam. The shim plate should be close to the I-beam, and the clamp plate should t the beam tightly.

Installation Conditions and Types

02 Concrete Structure Installation

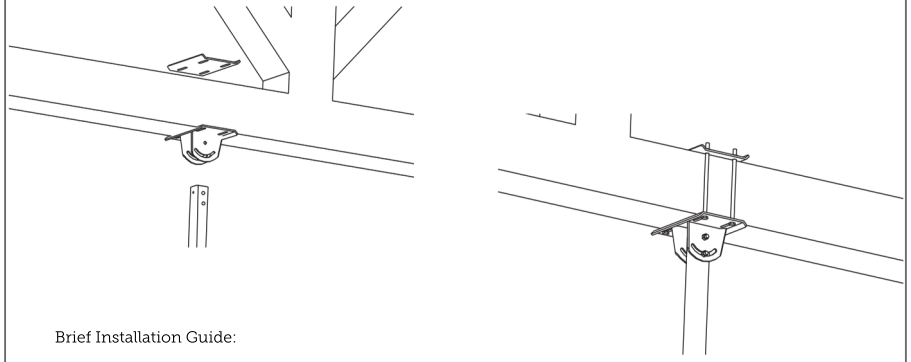


Brief Installation Guide:

Select the appropriate top plate according to the dimensions of the target beam. Position the top plate against the side of the beam and mark the hole locations using a marker.

Then, drill holes with a rotary hammer or impact drill to a depth corresponding to the length of the anchor bolts. Secure the top plate firmly in place using the anchor bolts.

03 Truss/Frame Structure Installation



Brief Installation Guide:

Position the upper plate on top of the beam and the top plate beneath the beam. Align both plates accurately and secure them using four pairs of long bolts. Tighten two nuts on each end of every bolt to ensure a firm and stable connection between the plates and the beam structure.

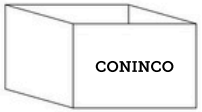
Packing

Please check that all components are present in the fan packaging before beginning installation. If you have ordered multiple fans, make sure to keep the components for each fan separate. The components are rated differently for each fan and are not interchangeable.

Note: Illustrations are not to scale.
(For example, in the case of an I-beam structural configuration)

Packing List
Packing specification
*Taking 7.3m SuperAir fan as an example

No.	Dimension (L*W*H mm)	Volume (m3)	Gross weight (kg)	Remark
1	870x780x530	0.36	147	Motor Crate



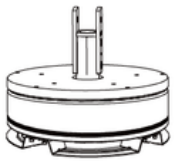
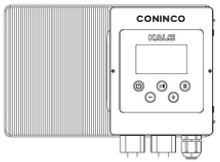
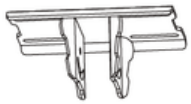
No.	Dimension (L*W*H mm)	Volume (m3)	Gross weight (kg)	Remark
2	3600x440x410	0.65	80	Fan Blades Crate

Installation Tool Requirements

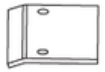
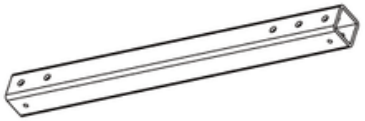
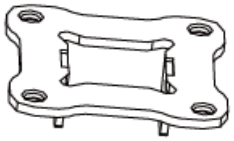
Installation Tool Requirements

NO.	Tool Kit	NO.	Tool Kit	NO.	Tool Kit
1.	Electric Wrench	11.	Tape Measure	21.	Impact Drill
2.	Wire Cutter	12.	Paintbrush	22.	8mm Impact Drill Bit
3.	Stripper	13.	10mm Sleeve	23.	Hand Drill
4.	Level Ruler	14.	18mm Sleeve	24.	Pliers
5.	Electrical Tape	15.	19mm Sleeve	25.	8mm Twist Drill bit
6.	Screw Glue	16.	5mm Allen Wrench	26.	14mm Open-end wrench
7.	Straight Screwdriver	17.	Pistol Drill	27.	18mm Open-end wrench
8.	Straight Screwdriver(Small)	18.	Cable Reel	28.	24mm Open-end wrench
9.	14mm Sleeve	19.	8mm Sleeve	29.	24mm Sleeve
10.	Diastimeter	20.	10mm Sleeve	30.	Cross Screwdriver
				31.	Quick Wrench

Parts List

No.	Part	Qty.	Diagram	Remarks
1	Motor	1		Main component
2	Controller	1		Main component
3	Fan Blade	5		Main component
4	Logo Cover	1		
5	Logo Cover Sealing strip	1		
6	Fan Blade Retainer	5		Safety Component
7	Top Plate	1		Mounting Component

Parts List

No.	Part	Qty.	Diagram	Remarks
8	Clamping Plate	2		Mounting Component
9	Shim Plate	2		Mounting Component
10	Extension Tube	1-2		*Mounting Component, *When the required extension tube length longer than 3 meters, use 2 extension tube
11	Steel Wire Plate	1		Mounting Component
12	Safety Ring	1		Safety Component
13	Steel Wire Rope	40m		Safety Component

Parts List

No.	Part	Qty.	Diagram	Remarks
14	Turnbuckle	4		Used with steel wire rope
15	U-shaped lock buckle	39		Mounting Component
16	Cable	10m +40m		
17	Metal hose	2		

Parts List

Fastener packing list

No.	M6X16 Screw	No.	M12X60 Screw	No.	M12X65 Screw
1		2		3	
No.	M16X35 Screw	No.	M16X65 Screw	No.	M16X130 Screw
4		5		6	
No.	Wall nail	No.	Beam Buckle	No.	User guide
7		8		9	

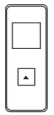
Fan Installation Guidelines

Step 1 Installation tool check

Check the product and accessories to make sure it is correct. Prepare safety equipments, climbing equipments, tools,etc.

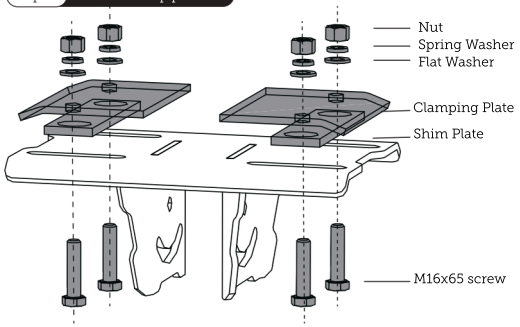

Safety Helmet

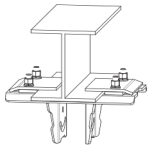

Gloves


Diastimeter


Scissor Lift

Step 2 Install the top plate





Note:
* The shim plate should be matched with the I-beam and the top plate, and the shim plate should not exceed the top plate.
* Select suitable shim plates that fit the thicknes of target beam flange.
* The top plate should be level with the top of the beam with the help of level ruler

STEP1:
① Prepare the top plate, shim plate, clamping plate and M16*65 screw fasteners.
② Place the shim plate and clamping plate on the top plate in turn, and then Pre-tighten them with M16*65 screw set (includes screws&nut, spring& at washer.

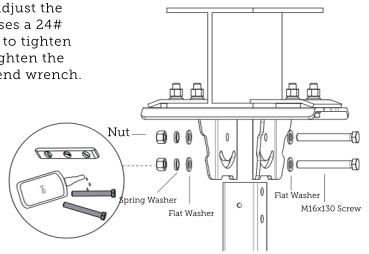
①Two installers lift the pre-tightened plates steadily and place it under the I-beam, and clamp them on lower flange of the I-beam.
②Manually pre-tighten the M16*65 screws of the top plate and ensure that the top plate is in horizontal status.
③ The installer uses an M24 electric sleeve and an M24 wrench to tighten the screws.
④ Confirm whether the screws are tightened, if firmly fixed draw a line mark on screws.
⑤ Drop screw glue (Loctite 648) between the screw bolts and the nuts.

Step 3 Install extension tube

STEP1:
Lift the extension tube and place it into the top plate conn- ector, aligning it with the holes.

STEP2:
Put two M16x130mm screws through the holes, hold up one side of the screws and manu- ally pre-tighten the nuts.

STEP3:
One person uses a level ruler to adjust the verticality, and another person uses a 24# wrench and a 24# electric sleeve to tighten the screws, and then manually tighten the screws further with a 24# open-end wrench.



STEP4:
Confirm whether the screws are tightened, and if firmly fixed draw a line mark on screws.

STEP5:
Drop screw glue (Loctite 648) between the screw bolts and the nuts.

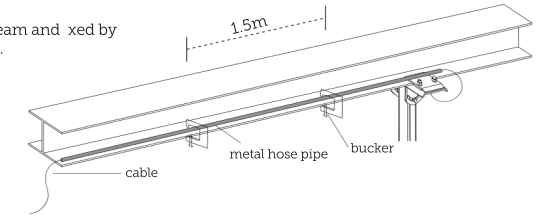
Fan Installation Guidelines

Step4 Metal Hose layout

STEP1:
Use a screwdriver to loosen the screw of buckers and clamp the buckers on the beam. The distance between 2 buckers should be 1.5m.

STEP2:
Arrange the metal hose pipe along the I-beam and xed by buckers, then tighten the screw of buckers.

STEP3:
Repeat steps ①② Until complete the layout of metal hose pipes and cables.

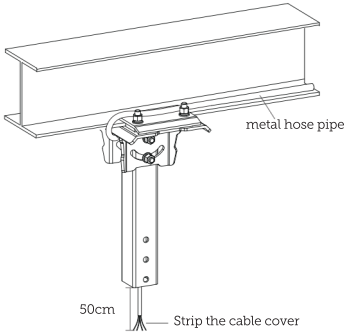


Warning:
Leave 1m long cable out of metal hose cable for controller wiring work.

Step5 Cable wiring

STEP1:
Insert cable into mental hose and leave 1 end of cable out about 50cm, then peel o the cable plastic cover to expose the 4 inner wires.

STEP2:
The cable passes through the top plate and enters from the top of the extension tube. After reaching the bottom of the extension rod, leave 50cm for motor wiring.

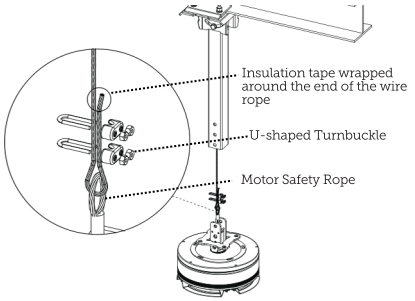


Step6 Motor safety rope connection

STEP1:
The motor connects with the safety rope and the steel wire plate in sequence.

STEP2:
Put the safety rope through the upper end of the extension tube, connect the lower end of the safety rope to the safety rope ring of the motor, and lock it with 2 M6 U-type locks.

STEP3:
Drop screw glue (Loctite 648) to the locked U-shaped turn- buckle and mark it with a marker pen. Wrap the excess wire ends with black insulating tape.



Fan Installation Guidelines

Step7 Motor Installation

STEP 1:
Place 6 M16*35 bolts on the motor and apply screw glue (Loctite 648) .

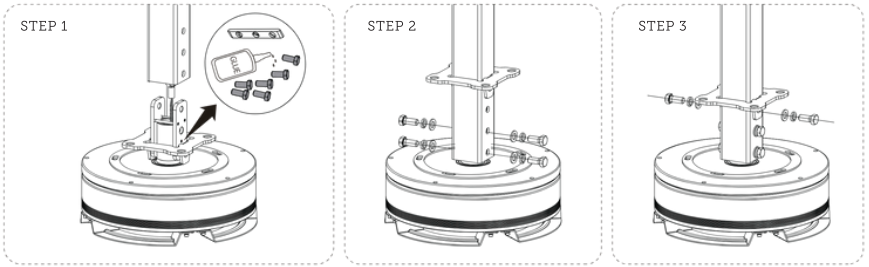
STEP 2:
Position the motor directly below the extension tube, and pass the 4 inner wires through the central shaft hole of the motor, straightening them out.

STEP 3:
Two people hold the motor, insert the shaft into the extension tube and align the mounting holes of motor shaft and extension tube.

STEP 4:
While keeping the motor stable, insert 4 M16*35 bolts into the mounting holes and manually pre-tighten them.

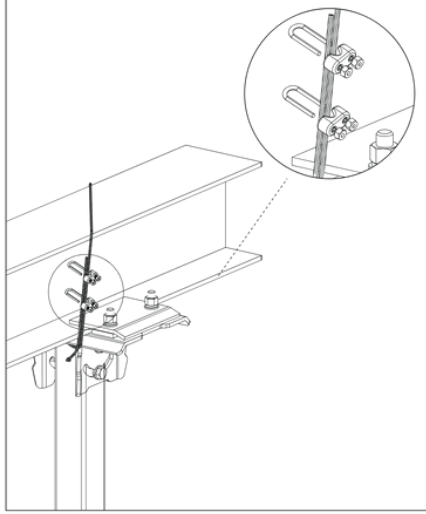
STEP 5:
Align the steel wire plate holes with the extension tube's mounting holes, insert the remaining 2 M16*35 bolts, and manually pre-tighten them.

STEP 6:
Use #24 electric sleeve to tighten the bolts while adjusting the motor, checking the level ruler as you go.



Note: Ensure the bolts are evenly tightened to prevent uneven stress.

Step 8 Safety Rope Mounting



STEP 1:
Pass one end of the motor' s steel wire rope through 2 M6 U-shaped locks.

STEP 2:
Loop the steel wire rope around the steel frame structure, then pass it through the two position holes on surface of the extension rod. Connect both ends of the steel wire rope using the U-shaped locks, then manually pre-tighten them to prevent loosening or falling.

STEP 3:
Use a #10 electric sleeve wrench to tighten the locks, then cut o□ff excess steel wire rope with wire cutters.

STEP 4:
Drop screw glue (Loctite 648) on all locks and check if the locks are securely fastened. After inspection, mark the checked points with a marker.

Fan Installation Guidelines

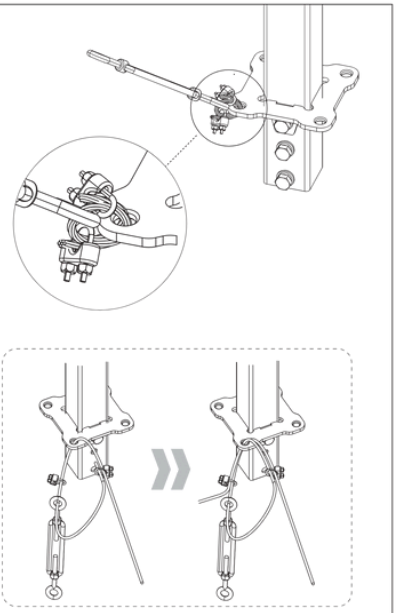
Step 9 Turnbuckle Installation

STEP 1:
Take one end of the steel wire rope and pass it sequentially through 1st U-shaped lock , the steel wire plate positioning hole, 2nd U-shaped lock, and the turnbuckle eyelet. Finally, thread it back through U-shaped clamp 1 to form the rst closed loop.

STEP 2:
After forming the rst closed loop, pass the leading end of the steel wire rope through the steel wire plate positioning hole and 2nd U-shaped lock again, creating a double-layered loop.

STEP 3:
Tighten the steel wire rope, ensuring the turnbuckle is close to the steel wire plate. Use a #10 electric sleeve wrench to secure the U-shaped locks. Leave a 20mm length of wire rope on both ends and cut o the excess.

STEP 4:
Repeat steps 1–3 to secure the remaining three turnbuck- les to the steel wire plate.



Step 10 Main Unit Installation 4 - Tensioning the Steel Wire Rope

STEP 1:
At the steel wire tensioning points, use a pistol drill with an 8mm twist drill bit to create two mounting holes in the ceiling, spaced 60mm apart.

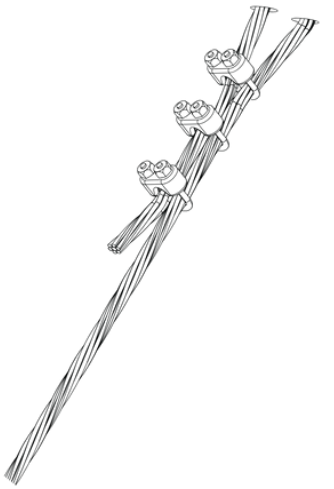
STEP 2:
Take the steel wire rope, pre-bend one end, and pass it through 3 U-shaped locks.

STEP 3:
Pass the pre-bent steel wire rope through the ceiling positioning holes, then thread it back through the 3 U-shaped locks to form a closed loop.

STEP 4:
Adjust the position of the 3 U-shaped locks near the ceiling and tighten them using a #10 electric sleeve wrench.

STEP 5:
Check if the locks are securely fastened, apply screw glue (Loctite 648) adhesive, and mark the inspected points with a marker.

STEP 6:
Repeat steps 1–5 to install and secure the remaining 3 steel wire ropes.



Fan Installation Guidelines

Step 11 Connecting Steel Wire Rope with Turnbuckle

STEP 1:
Align one end of the ceiling traction steel wire rope with the steel wire plate positioning hole. Use wire cutters to trim off any excess rope extending beyond the positioning hole.

STEP 2:
Pass the steel wire rope through 3 U-shaped locks, then thread it through the outer turnbuckle eyelet (with the front side of the turnbuckle eyelet facing up).

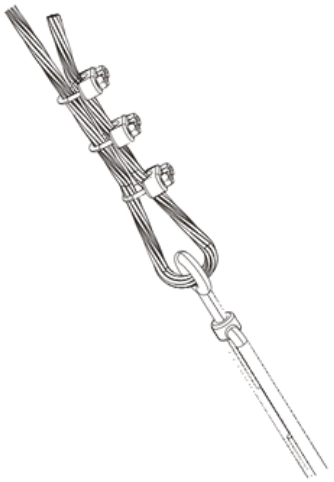
STEP 3:
Bend the steel wire rope back through the 3 U-shaped locks and pretighten the locks nearest to the turnbuckle.

STEP 4:
Pull the steel wire rope upward to tighten the ceiling traction steel wire rope.

STEP 5:
Use a #10 electric sleeve wrench to tighten the U-shaped locks sequentially from the rope's end.

STEP 6:
Repeat steps 1–5 to connect the remaining three ceiling traction steel wire ropes with the turnbuckles.

Note: Loosen the turnbuckle adjustment nut as much as possible beforehand to allow for later ne-tuning of the steel wire rope tension after connection.



Step 12 Adjusting the Motor Level

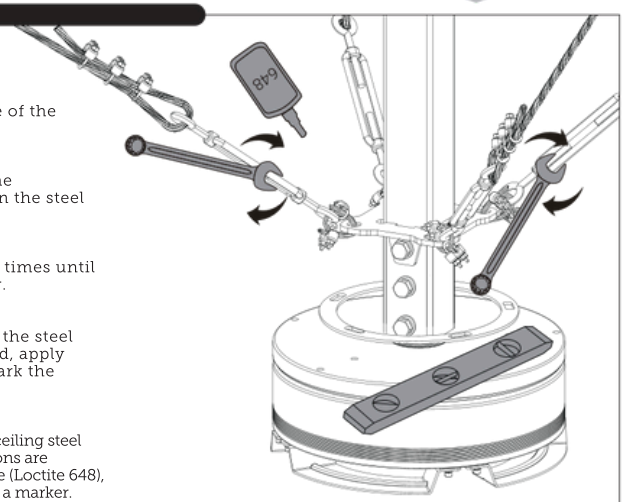
STEP 1:
Place a level ruleron the surface of the motor.

STEP 2:
Two people diagonally adjust the turnbuckles clockwise to tighten the steel wire ropes.

STEP 3:
Adjust the turnbuckles multiple times until the motor is level with oor layer.

STEP 4:
Check if the U-shaped locks on the steel wire plate are securely tightened, apply screw glue (Loctite 648), and mark the inspected points with a marker.

STEP 5:
Check if the U-shaped locks at the ceiling steel wire rope and turnbuckle connections are securely tightened, apply screw glue (Loctite 648), and mark the inspected points with a marker.



Note:Loosen the turnbuckle adjustment nut as much as possible beforehand to allow for later ne-tuning of the steel wire rope tension after connection.

Fan Installation Guidelines

Step 13 Install the Fan Blades

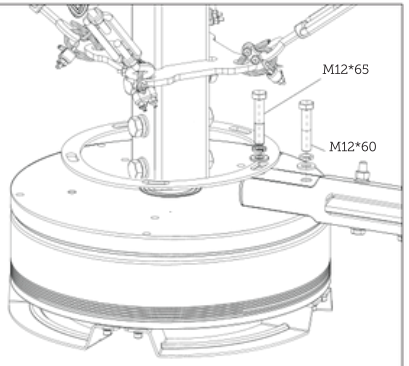
STEP 1:
Sort and count the M12*65 and M12*60 bolts, at washers, and spring washers. Check if the blade winglets are properly installed.

STEP 2:
Two people should lift the fan blade assembly from both ends and align the blade connector holes with the motor mounting holes.

STEP 3:
The person near the blade connectors should pick up the safety ring and align its holes with the inner holes of the blade connector. Insert an M12*65 bolt into the inner hole and an M12*60 bolt into the outer hole, then connect them to the motor and pre-tighten.

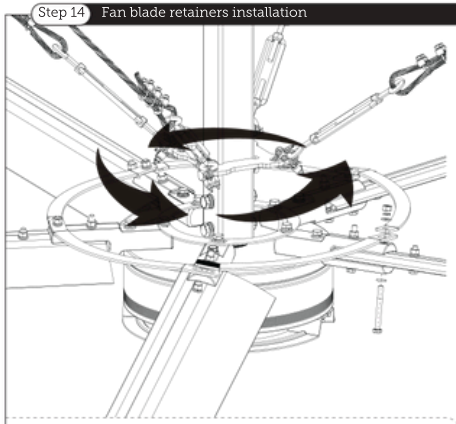
STEP 4:
Use a quick wrench and an #18 electric sleeve wrench to sequen- tially tighten the outer and inner bolts.

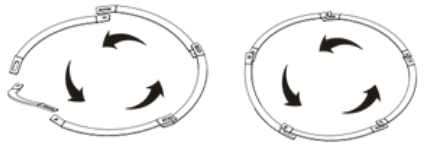
STEP 5:
Repeat steps 1–4 to complete the installation and securing of all fan blades.



Note:Before installation, apply thread adhesive to the bolts in advance. When installing the fan blades, follow a diagonal installation sequence to maintain balance and stability.

Step 14 Fan blade retainers installation





Wrong Correct

STEP 1:
Prepare ve I-shape fan blade retainers.

STEP 2:
Loosen and remove the M10*100 bolts on the outer side of the blade connector. Carefully take out and set aside the at washers, spring washers, and nuts.

STEP 3:
Position the I-shape fan blade retainers with the elongated holes end below the round holes end. Install them sequential- ly from left to right upon the outer bolts of the blade connec- tors.

STEP 4:
Reinsert the at washers, spring washers, and nuts. Use a quick wrench and an #18 electric sleeve wrench to tighten the bolts sequentially.

STEP 5:
Check if the motor bolts and blade connector bolts are securely tightened. Apply 648 thread adhesive, and after inspection, mark the checked bolts with a marker.

Note: When installing the I-shpae fan blade retainers, ensure that the elongated hole end is below the round hole end , with the round hole's end facing the left. The I-shape fan blade retainers should not overlap at the ends, as this may cause movement obstruction and interference between the bent sections of adjacent I-shape fan blades retainers.

Fan Installation Guidelines

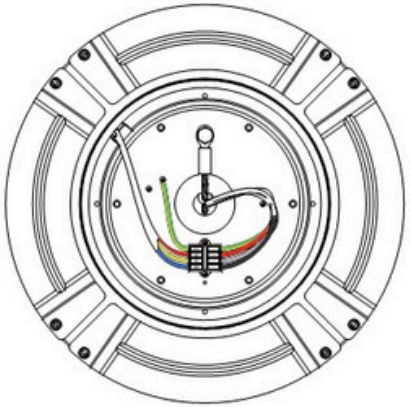
Step 15 Motor Wiring

STEP 1:
Pull the cable out from the bottom of the motor, leaving about 20cm . Use wire cutters to trim o excess part and leave them aside.

STEP 2:
Use wire strippers to remove the insulation cover from the wire ends, exposing about 1.5cm of copper wire. Twist the exposed copper wire into a strand.

STEP 3:
Insert the copper wire into the ports of the wiring terminal block, then press down the pressure plate. Match the four wires (PE/U/V/W) with the ports according to the color of inner wires'insulation cover.

STEP 4:
Gently pull on the four wires to check if the wires are rmly fastened.



U-Red, V-Grey, W-Black

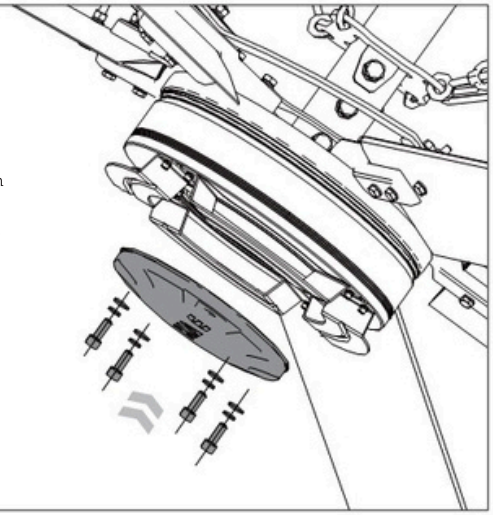
Note: When pulling the cable out of the motor, ensure it is straightened without excessive force to avoid damaging the cable's outer sheath. Check that there are no exposed copper wires at the terminal block ports, otherwise it may results in short circuit. The four wires must be twisted into individual strands and trimmed to the appropriate length.

Step 16 Installing the Logo Cover

STEP 1:
Install the logo cover sealing strip into the groove of the logo cover, ensuring the sealing strip is properly positioned.

STEP 2:
One person should lift the logo cover and align the holes of the cover with the motor mounting holes. The other installer should insert 4 M6*16 hex screws and tighten the logo cover with a 5mm hex wrench.

Note: Clean the bottom of the logo cover before installation.



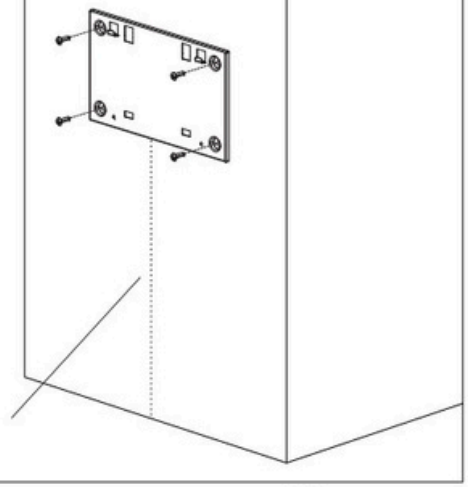
Fan Installation Guidelines

Step 17 Controller Backplate Installation

STEP 1:
Place backplate of Standard Controller at 1.2-1.4m high (speci c height depends on customer requirements and on-site conditions). Use a level ruler to adjust the backplate's horizontal position and mark the positions of four mounting holes.

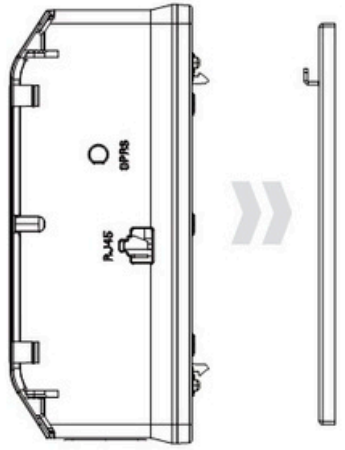
STEP 2:
Use a 4mm pistol drill to make holes at the marked positions. Insert expansion tubes, Place the backplate with a raised hook on top side. Use a cross screwdriver to screw in ST4.8*20 self-tapping screws into the expansion tubes to x the backplate.

STEP 3:
Place the level ruler at the bottom of the backplate to double check the backplate's horizontal position after it has been fixed.



Recommended install height: 1.2-1.4m

Step 18 Standard Controller installation



STEP 1:
Position the upper end of controller 1cm above the backplate and gradually get closer to backplate. Ensure it is aligned both horizontally and vertically. The lower end of the controller's backplate clip will press against the backplate. Press the upper end of the controller to fit it into the top portion of the backplate, then move the controller downwards so that the lower clip slides into the backplate hole. Make multiple adjustments to complete the controller installation.

STEP 2:
Gently pull on the controller to check if it is firmly installed.

Fan Installation Guidelines

Step 19 Standard Controller - Input and Output Cable Wiring

STEP 1:
Use a athead screwdriver to gently pry the recessed area of the panel to open the cover.

STEP 2:
Slide the output cable into the metal hose (cut to the appropriate length). Put one end of the metal hose into the controller's output terminal and secured, xing the metal hose.

STEP 3:
Pull the output cable out of the metal hose and insert it into the wiring compartment. Use wire strippers to strip insulation cover of output cable and then strip 1cm of insulation cover of 4 inner wires.

STEP 4:
Connect the yellow-green, red, grey, and black inner wires with the corresponding terminals（PE/U/V/W）in the wiring compartment and tighten them.

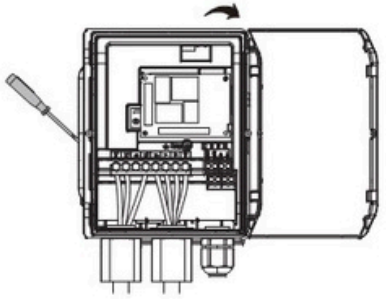
STEP 5:
Repeat Step 2 to secure the input cable's metal hose.

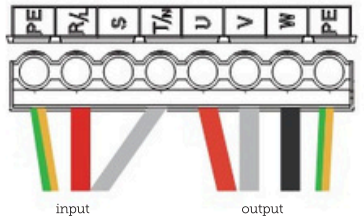
STEP 6:
Pull the input cable out of the metal hose and insert it into the wiring compartment. Use wire strippers to strip insulation cover of input cable and then strip 1cm of insulation cover of 3 inner wires.

STEP 7:
Connect the yellow-green, red, and grey wires to the corresponding terminals（PE/L/N）in the wiring compartment and tighten them.

STEP 8:
Gently pull the seven inner wires to check if the connections are secure.

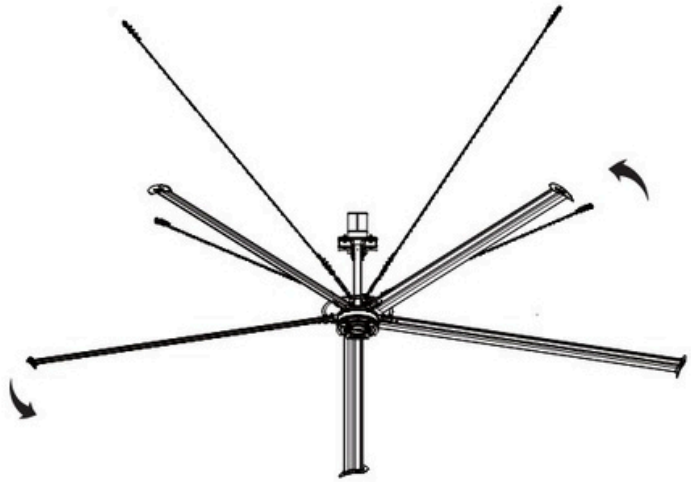
STEP 9:
Gently press and close the wiring compartment cover.





Fan Installation Guidelines

Step 20 Test Run



STEP 1:
After turning on the power, press and hold the controller power button for ≥ 2 seconds to turn on the controller.

STEP 2:
The default setting for the fan speed is level 6. Press the "-" button on controller panel to adjust the level to 1. After confirming that there are no obstacles around the fan blades, press the Run/Stop button to start the fan for testing. Gradually speed up the fan and observe the fan's operation. Run the fan in counterclockwise for more than 15 minutes and check if there is any abnormal noise or vibrations, and make sure that paramters like current, voltage and frequency keep within the rated range. Confirm the distance between the fan and obstacles during the test run. Make sure there is enough clearance surrounding the fan, the distance from the end of the blades to nearest obstacle should ≥30cm.

STEP 3:
If the fan runs in clockwise direction. Firstly cut off the power supply, then swap any two of the three-phase lines connections (U, V, W) at the controller end. After that , Fan will run in the counterclockwise, which is the right direction.

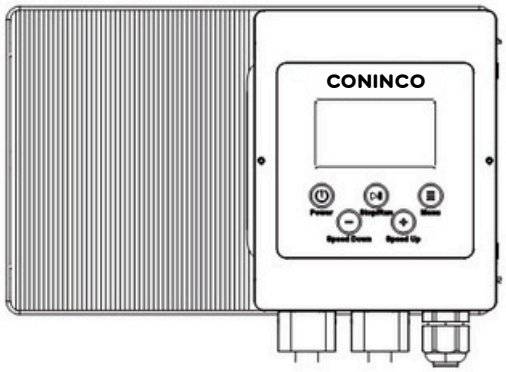
STEP 4:
During the test run, nothing abnormal happens means installation is complete.

Note

The fan speed should be gradually increased (press the "+" button).
Power-on sequence: Main switch → Power supply box connection switch → Controller switch → Controller start/stop switch.
Reverse operation must be permitted by CONINCO Fans.

Fan Installation Guidelines

Tips Functional introduction of Standard controller



Power Button:
Hold down for 2S to turn on/off the controller.
Turn off the fan when fan stopped.

STOP/RUN: Press to run or stop fan operation.

Speed Up/Down

Menu: Press to enter Engineering Interface.

Error Code Description

Error Code	Failure Description	Failure Type
E.SC1 (1)	System failure when acceleration	Failure
E.SC2 (2)	System failure when deceleration	Failure
E.SC3 (3)	System failure during constant speed	Failure
E.SC4 (4)	System downtime failure	Failure
E.OC1 (5)	Overcurrent during acceleration	Failure
E.OC2 (6)	Overcurrent during deceleration	Failure
E.OC3 (7)	Overcurrent at constant speed	Failure
E.OU1 (9)	Overvoltage during acceleration	Failure
E.OU2 (10)	Overvoltage during deceleration	Failure
E.OU3 (11)	Overvoltage at constant speed	Failure
E.LU (13)	Undervoltage during operation	Failure
E.OL1 (14)	The motor is overloaded	Failure
E.OL2 (15)	Inverter 1 is overloaded	Failure
E.OL3 (16)	Inverter 2 is overloaded	Failure
E.OL4 (17)	Inverter 3 is overloaded	Failure
E.ILF (18)	Phrase false in input	Failure
E.OLF (19)	Phrase false in output	Failure
E.OLF1 (20)	U Phrase false	Failure
E.OLF2 (21)	V Phrase false	Failure
E.OLF3 (22)	W Phrase false	Failure
E.OH1 (30)	The rectifier module is overheated	Failure
E.OH2 (31)	IGBT module is overheated	Failure
E.OH3 (32)	The motor is overheated	Failure
E.EF (33)	External faults	Failure
E.CE (34)	Modbus communication failures	Failure
E.HAL1 (35)	U phase zero drift large	Failure
E.HAL2 (36)	V phase zero drift large	Failure
E.HAL (37)	Sum of 3-phase current vectors ≠0	Failure
E.HAL3 (38)	W phase zero drift large	Failure
E.SGxx (40)	Ground-wire short-circuit	Failure
E.FSG (41)	Fan short-circuit	Failure
E.PID (42)	PID line disconnected	Failure
E.COP (43)	Parameter copy failure	Failure
E.PG1 (44)	Incorrect PG parameter setting	Failure
E.PG2 (44)	Encoder Z pulse failure	Failure
E.PG3 (44)	Resolver verification error	Failure
E.PG4 (44)	Resolver breakage	Failure
E.PG5 (44)	ABZ encoder disconnection	Failure
E.PG6 (44)	Main encoder disconnection	Failure
E.PG7 (44)	Main encoder Z pulse error failure	Failure
E.PG8 (44)	Encoder Z pulse logic failure	Failure
E.PG9 (44)	Main encoder Z pulse logic failure	Failure
E.PG10 (44)	Encoder Z pulse disconnection	Failure
E.BRU (50)	Brake module failure	Failure
E.TExx (52)	Parameter self-learning failure(Motor)	Failure
E.IAE1 (71)	Motor angle learning failure 1	Failure
E.IAE2 (72)	Motor angle learning failure 2	Failure
E.IAE3 (73)	Motor angle learning failure 3	Failure
E.PST1 (74)	PMSM Step-out 1	Failure
E.PST2 (75)	PMSM Step-out 2	Failure
E.PST3 (76)	PMSM Step-out 3	Failure
E.DEF (77)	The speed deviation is too large	Failure

Error Code	Failure Description	Failure Type
E.LD1 (79)	Load protection 1	Failure
E.LD2 (80)	Load protection 2	Failure
E.CPU (81)	CPU Timeout failures	Failure
E.LOC (85)	IC failure	Failure
E.EEP (86)	Parameter saving Failure	Failure
E.PLL (87)	Phase-locked loop Failure	Failure
E.BUS1 (91)	Expansion card A disconnection	Failure
E.BUS2 (92)	Expansion card B disconnection	Failure
E.BUS3 (93)	CAN Expansion card failure	Failure
E.BUS4 (94)	Other expansion card failure	Failure
E.BUS5 (95)	Other expansion card failure	Failure
E.BUS6 (96)	Other expansion card disconnection	Failure
E.CP1 (97)	The monitor output 1 failure	Failure
E.CP2 (98)	The monitor output 2 failure	Failure
E.DAT (99)	Parameter setting failure	Failure
E.FA1 (110)	Externally extended reservations 1	Failure
E.FA2 (111)	Externally extended reservations 2	Failure
E.FA3 (112)	Externally extended reservations 3	Failure
E.FA4 (113)	Externally extended reservations 4	Failure
E.FA5 (114)	Externally extended reservations 5	Failure
E.FA6 (115)	Externally extended reservations 6	Failure
E.FA7 (116)	Externally extended reservations 7	Failure
E.FA8 (117)	Externally extended reservations 8	Failure
A.LU1 (128)	Shutdown undervoltage	Warning
A.OU (129)	Shutdown overpressure	Warning
A.ILF (130)	Phrase false in input	Warning
A.PID (131)	PID line disconnected	Warning
A.EEP (132)	Parameter saving warnings	Warning
A.DEF (133)	The speed deviation is too large	Warning
A.SPD (134)	Abnormal frequency warning	Warning
A.GPS1 (135)	GPS device locking	Warning
A.GPS2 (136)	GPS line disconnected	Warning
A.CE (137)	External Warning	Warning
A.LD1 (138)	Load protection 1	Warning
A.LD2 (139)	Load protection 2	Warning
A.BUS (140)	Expansion card disconnection warning	Warning
A.OH1 (141)	Module overheat warning	Warning
A.OH3 (142)	Motor overheat warning	Warning
A.RUN1 (143)	Conflicting directives	Warning
A.RUN2 (158)	Manual terminal start-up protection	Warning
A.RUN3 (159)	Terminal start-up protection	Warning
A.PA2 (144)	External keyboard disconnection warning	Warning
A.COP (145)	Parameter Copy warning	Warning
A.CP1 (146)	The monitor output 1	Warning
A.CP2 (147)	The monitor output 2	Warning
A.FA1 (150)	Externally extended reservations 1	Warning
A.FA2 (151)	Externally extended reservations 2	Warning
A.FA3 (152)	Externally extended reservations 3	Warning
A.FA4 (153)	Externally extended reservations 4	Warning
A.FA5 (154)	Externally extended reservations 5	Warning

Safety Instructions

Prohibitions

- Do not bend or deform the fan blades during installation, adjustment, or cleaning. Doing so may result in damage to the fan or impair its performance.
- Ensure that the fan's input voltage matches the supply voltage before switching on the power.
- Do not perform any maintenance or repairs on the fan while the power is on to prevent the risk of electric shock.
- Unauthorized modifications to the fan's structure or mounting position are strictly prohibited.
- Do not open the electrical control cabinet while it is energized, as this may lead to electric shock hazards.
- Operating damaged equipment is strictly prohibited. Continued use may result in severe equipment failure or personal injury.
- Do not alter the configuration or parameters of the controller without authorization. Improper modifications may cause equipment malfunction or pose a safety risk.
- The fan controller contains high-voltage storage capacitors. When servicing the regulator, wait at least 3 minutes after power is disconnected to allow capacitors to discharge to a safe voltage level.
  Note: The display turning off is not an indication that it is safe to proceed.
- Do not operate the fan in environments where the designated safety clearance is insufficient.
- Installation and wiring must be performed by personnel who have been certified according to our technical qualification standards.

Cautions

- Circuit layout and wiring must be conducted exclusively by professionally qualified technicians authorized by CONINCO.
- Only use parts and accessories specified or approved by CONINCO.
- Do not disconnect the power supply while the fan is operating. Power should only be turned off once the fan has come to a complete stop to prevent potential damage.
- After completing wiring, ensure that conductors are properly separated: the equipment grounding conductor must be placed on one side of the outlet box, and the grounded (neutral) conductor on the other side.
- Do not switch to the reset mode while the fan is running in forward (clockwise) rotation. Doing so may result in mechanical failure.

Troubleshooting

Common Causes of Failures

- The on-site power supply is invalid or not connected properly.
- After turning on the main switch, press and hold the “ON/OFF” button for more than 2 seconds, then press the “RUN/STOP” button. If the fan still fails to operate normally, please contact us immediately.

⚠ Non-professionals must not disassemble the controller!

For any repair or adjustment work, please contact us so that it can be handled by qualified technicians or engineers.

If any abnormal operation or unusual noise is detected, immediately stop the fan, disconnect the power supply, and contact us as soon as possible.

Note: Any damage caused by improper use will void the entire warranty.

CONINCO is not responsible for any personal injury or equipment damage resulting from failure to follow the instructions in this manual.

Importance of After-Sales Service

High-quality after-sales service plays a crucial role in ensuring the long-term and stable operation of fans.

To this end, CONINCO is committed to providing customers with premium products and comprehensive after-sales support.

We have established a global sales and service network to deliver timely, considerate, efficient, and all-around after-sales assistance—ensuring a worry-free experience for all our customers.

Technical Support

During the installation, commissioning, and operation of the fan, CONINCO will provide technical support in the following areas:

Product information, usage instructions, maintenance guidance, and product certifications.You can obtain technical support through the following channels:

- Visit website: www.conincofans.com for the latest technical documents
- Contact our after-sales support team: support@conincofans.com
- Reach out to your designated sales representative

Application Environment

Environment	Requirements
Installation site	Indoor
Operating Temperature	-15°C to +55°C Do not operate the fan in environments with rapid temperature fluctuations.
Humidity	＜95%RH
Altitude Range	＜1000m
Others	The fan should be installed in an environment that meets the following conditions: • No presence of corrosive, flammable, or explosive gases. • Free from airborne metal particles, oil mist, excessive humidity, or other foreign substances. • Minimal exposure to salt spray or corrosive agents.

Warranty & Maintenance

The product is designed to be maintenance-free under standard operating conditions. However, to ensure long-term and stable performance—especially when used in harsh environments—regular maintenance is still recommended. Before performing any maintenance on the fan or controller, always ensure the fan is completely stopped and the controller's power supply is disconnected to ensure personnel safety.

Recommended Maintenance Schedule and Tasks:

During trial operation:
Check for any abnormal noise or vibration during fan operation.

Every 2,500 operating hours:
Clean the controller and fan blades.

Every 5,000 operating hours:
- Inspect all fasteners for signs of loosening.
- Check all cables for any signs of damage.

If noticeable noise or vibration occurs during fan operation, it may indicate mechanical component failure. In such cases, immediately disconnect the power supply and perform a thorough inspection.

Product Warranty Policy

Warranty Period: one (1) year from the date of delivery of the complete unit.

Warranty Claims:
If any product failure occurs within the warranty period, do not attempt to disassemble or repair the product yourself. Please contact your local CONINCO representative as soon as possible. However, CONINCO reserves the right to charge for repair or service under the following circumstances:
- Failure caused by improper installation, handling, or operation;
- Failure resulting from unauthorized modification or alteration of CONINCO products;
- Damage due to natural disasters, fire, or other force majeure events;
- Failure occurring after the expiration of the warranty period;
- Any other malfunction or damage not attributable to CONINCO.

Quality Assurance:
All CONINCO products are manufactured under a strict quality management system. Each unit undergoes comprehensive testing and inspection prior to delivery to ensure reliability and performance.

Display Area	Function Definitions
	**Power Button:** Press and hold for more than 2 seconds to power the fan ON or OFF.
	**Menu Button:** • In User Interface Mode: No function (press and hold for 2 seconds to enter Engineer Interface for parameter display). • In Engineer Interface Mode: Short press (under 2 seconds) to return to User Interface.
	**Start/Stop Button:** **In User Interface Mode:** Short press (under 2 seconds) to start or stop the fan. **In Engineer Interface Mode:** • Short press (under 2 seconds) to toggle monitored variables (e.g., current, voltage). • Press and hold for more than 2 seconds to exit Engineer Interface and return to User Interface.
	**Speed Adjustment Buttons:** Used to increase or decrease the fan speed level.

Safety Instructions

Before operating the fan, please read the manual carefully. Ensure the operating area is free of obstacles and that there is sufficient clearance for safe fan operation.

Warning:

Always disconnect power before performing any electrical or fan maintenance. All maintenance work must be carried out by authorized professionals to avoid risk of electric shock.

Control Cabinet User Manual

Display Area	Function Definitions
	Display of speed level and relevant icons
ON OFF	Operating status indicators
	Fault warning icons
	Engineer mode indicator
8.8.8:8.8 RPM A V Hz	Parameter readings and unit symbols

RUN

- Ensure there are no obstacles or potential hazards in the fan's operating area.
- Confirm that the input power is correct and meets product specifications.
- After powering on the unit, use the "Increase" and "Decrease" buttons to adjust to the optimal operating speed.

STOP

- To stop the fan, press the "Run/Stop" button.
- Do not cut power directly while the fan is in normal operation.