

Installation Guide – Exhaust Fan (54”)

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Pre-Installation Checklist

- I have verified the order information and all components are accounted for.
- I have read this Installation Manual carefully before operating the unit.
- I have checked the voltage requirement before using the fan.
- I have verified that the fan will be used in a flat surface that free from unauthorized objects.
- I am aware with the local safety regulations and features of the fan.
- I am aware to check the troubleshooting if there is any problem during installation process.
- I am aware to contact AMA Tech if there is any failure during installation process.

Important Safety Instruction: Please Read & Save These Instructions

To reduce fire hazard, electric shock or personal injury, please observe the following points:



1. Before repairing or cleaning unit, please turn off the power to the control unit, and lock the repair cut-off device in order to prevent accidental power-on. If the repair cut-off device cannot be locked, please fix warning sign on control unit (refer to label).
2. To reduce fire hazard, electric shock or personal injury, brushless large fan must be installed with control unit (compatible model is marked on package) provided with helicopter fan collectively. Other components cannot be replaced.
3. During cleaning and repairing of tester, there could be risk of fire, electrical shock or personal injury! Please turn off fan power before repairing.
4. Please stay alert and use common sense during installation. Do not install fan if fatigued or under the influence of drug, alcohol, or medicine. Any carelessness during installation will cause serious personal injury.
5. This unit is not suitable for persons (including children) with reduced physical, sensory or mental capabilities or lack of relevant experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance in a safe way by those who are responsible for their safety. Children should be supervised at all times to ensure they will not misuse the unit.
6. If the unit swings unnaturally, please stop operation immediately and contact your dealer or manufacturer.
7. This unit is to be used for commercial or industrial purposes only.

8. This unit to be used for safe and general ventilation purposes only. Do not use this unit to expel hazardous, explosive, or gaseous chemicals.



1. All installations and wire connections must be conducted by qualified personnel in accordance with national regulations and standards.
2. When cutting or drilling holes into walls, do not damage wires or other hidden water and electrical wiring.
3. Use this unit only in a manner instructed by the manufacturer. If you have any questions, please contact your dealer or manufacturer.
4. Installation of brushless large fan must be in accordance with requirements specified by this installation guide and abide by the requirements of National Electrical Code (NEC) and all local regulations. Finally, guaranteeing compliance is the users responsibility. Not abiding by relevant regulations may cause personal injury or property loss.
5. When the units are powered on, please be cautious and use common sense. Please do not connect fan to unsafe or dangerous power supply. Please do not try to resolve circuit issues by unauthorized technicians. Please contact your dealer or manufacturer concerning issues about installation.
6. Any safety equipment that needs to be dismantled or cut during maintenance or component replacement, must be reassembled and returned to its original position.
7. Please do not bend the fan blades throughout the installation, maintenance, and/or repair procedures. Do not insert any obstruction that may prevent the unit from operation manually.
8. Some power tools will be required during installation. Please follow the safety regulations for every

tool. Do not use the tools for any purpose other than those specified by the manufacturer.

9. Warranty of brushless large fan does not cover equipment damage caused by improper installation.
10. Do not use this unit in conditions where there is exposure to harmful chemicals, salt water, acid rain or other corrosive elements, excessive humidity, snow, sleet, and/or strong winds.

Please Keep This Manual!

Specifications & Components

Fan specifications:

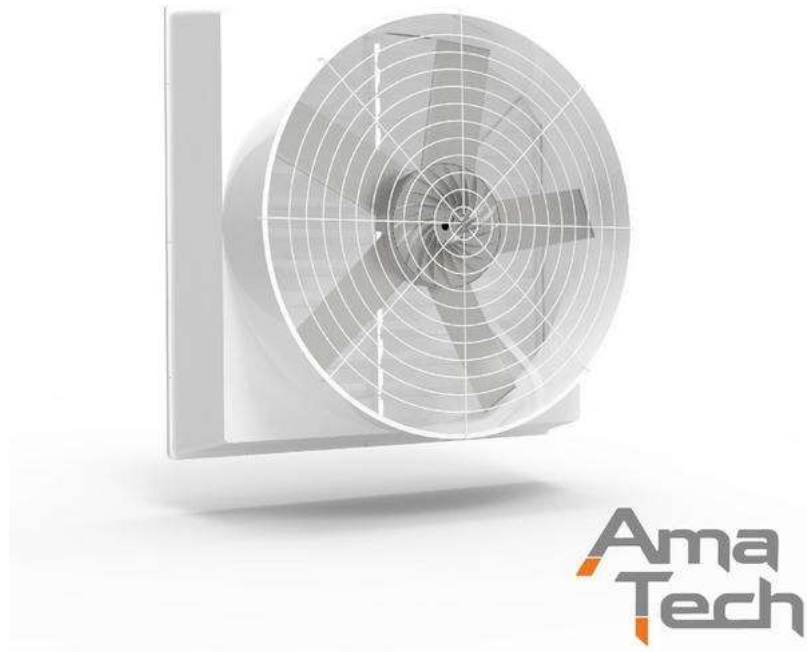
Model	Exhaust Fan 54"
Dimension (mm)	1460X1460X580
Max. Speed (RPM)	550RPM
Load Current (A)	3±0.8
Single Phase Voltage(V)	220(V)
Wind Volume at Max. Speed (m3/min)	406
No. of fan blades	5
Weight (kg)	75

Fan components:

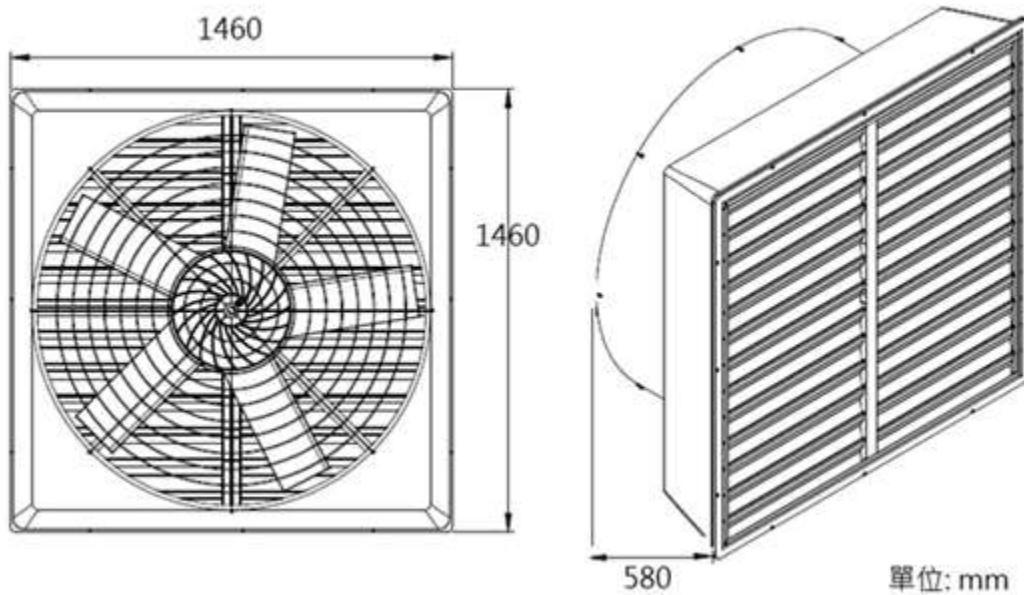
- 1. Protective Cover: Protects fan and user;**
- 2. Fan blades: Five;**
- 3. Louver: Rain Protection;**
- 4. Exterior Shell: Unibody FRP fiberglass;**

Product Overview

Kindly refer to below for the overview picture if you have successfully installed our product:



Dimensions



Front View

Side View

Assembly

Please refer to below for the required components to install our product:

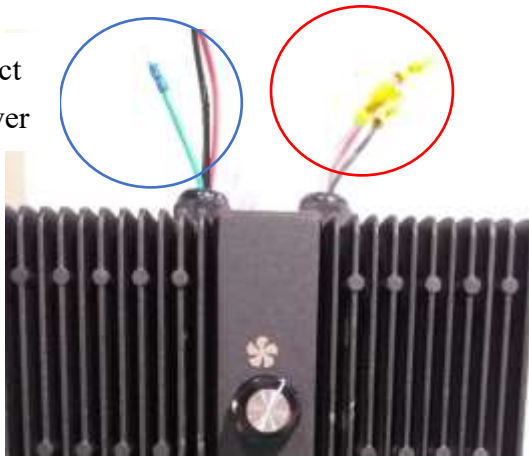
NO	Components	Quantity
1	Louver	1
2	Rectangular support bar	1
3	Exterior Shell	1
4	NT3T15N0CN (Product number)	1
5	Protective cover (wire mesh)	1
6	Hex bolt (M10x1.25xL80)	4
7	Washer (M10)	8
8	Nyloc nut (M10x1.25)	4
9	Nyloc nut (M12x1.25)	2
10	Washer (M12)	4
11	Spring washer (M12)	4
12	Hex socket head cap screw (M12x1.25xL75)	2
13	Self-tapping machine screw (M4xL 16)	20
14	Spring washer (M10)	8

Control Unit Connection:

Connect BLUE terminal to distribution board. RED and BLACK terminals can be connected freely. The GREEN terminal is ground wire.

Connect the YELLOW terminal to the motor. WHITE, RED, and BLACK terminals can be connected freely. If the fan exhibits air suction (instead of air output), swap ANY TWO of the three connections (e.g., WHITE, RED, BLACK).

Connect
to Power



Connect
to Motor



Installation Instructions

After assembly, secure the fan unit with appropriate supports and fixtures. Please ensure that the installation is in accordance with local safety regulations. All electrical installation must be performed by a qualified electrician and comply with all local, state, and national regulations.

• Motor Support Installation

1. Use an M12 drill to drill through the performed hole on the exterior casing of the exhaust fan.



2. Align the cross-shaped support bar over the drill hole on the exterior casing of the exhaust fan, and embed it securely.



3. Use an (M10*80) screw through a plain washer and a spring washer, and tighten it accordingly.



• Motor Fantail Installation

1. Secure fantail at the end of the fan blade and tighten with M4 self-tapping machine screw.



- **Note:** Tapped hole = **TOP** side, untapped hole = **BOTTOM** side.
2. Lie fan blade flat and align with motor, secure and tighten with M12*60 screw.



• Securing The Motor

1. Slide the motor's shaft through rectangular support bar, and ensure to align performed hole.



2. Slide M12*75 screw through rectangular support bar's preformed hole.



3. Use power tool to secure and tighten motor and support bar.



• **Front & Rear Protective Cover (Wire Mesh) & Louver Installation**

1. Install protective cover(s) by tilting and reversing clasp on exterior casing of the exhaust fan.



2. Tighten protective cover and exterior casing with M4 self-tapping machine screw.



3. With the flat side of the louver facing up, and the uneven side facing down, embed the louver into exterior casing of the exhaust fan.

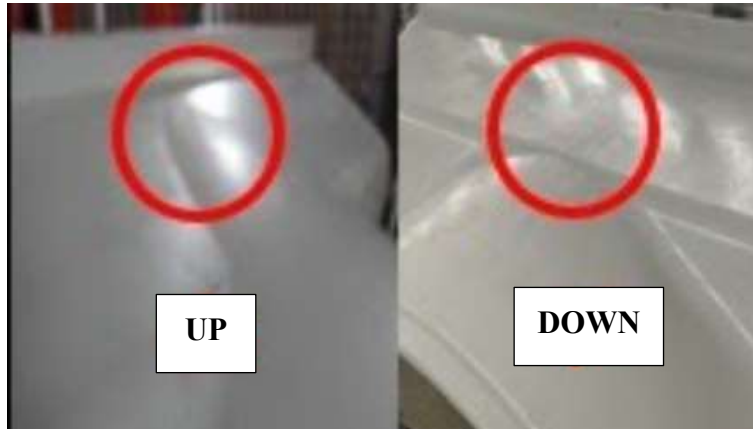


4. Ensure all four edges of louver are securely in place on the exterior casing.
Tighten the four edges with M4 self-tapping machine screws.



- **Caution**

1. Of the four edges on the exterior casing, only one is flat. When positioned front and upright, the base of the exhaust fan should be flat (i.e., not curved).



2. When executing Step 3-1, ensure to pass wire from the motor through rectangular support bar.



3. When positioned front and upright, ensure that the air outlet/shutter on the louver points DOWNWARDS. This will safeguard the air outlet/shutter in the event of a malfunction.



Operating Conditions

Our tank fan will be working on optimal condition within below conditions:

Environment	Conditions
Installation Site	Indoor
Environmental Temperature	0~40°C (=32-104 F) To increase product reliability, please refrain from using this product where temperature fluctuation is high
Humidity	Below 90%RH
Environment	Avoid corrosive chemicals and/or flammable gas
Altitude	Below 1000m

Operating Instructions

Please read manual carefully before operating the unit. Clear all obstacles in the vicinity of the unit to ensure safe distances and efficient ventilation.

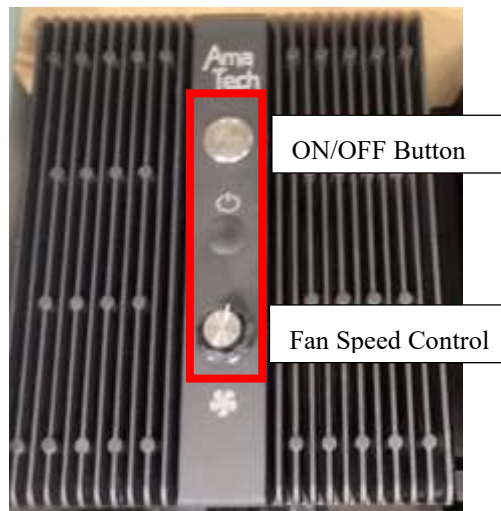


1. Disconnect all power before maintenance. All maintenance operations are to be conducted by authorized technicians only.
2. Standard model has a ground wire (GREEN color) in the control unit. Please connect the ground wire to prevent electric shock, leakage current, or malfunction.



1. When the unit is powered on, please be cautious and use common sense. Please do not connect fan to unsafe or dangerous power supply. Please do not try to resolve circuit issues by unauthorized technicians. Please contact your dealer or manufacturer concerning issues about installation.
2. Please only use the unit in accordance with the instructions provided in the manual. Product warranty does not cover equipment damage caused by improper installation. If you have any questions, please contact your dealer or manufacturer.

Operating Instructions (cont.)



(I) Power button: Turns the unit ON/OFF

1. Ensure that there are no obstacles or potential hazards in the operating space.
2. Check mains electricity and unit specification are compatible.
3. Ensure that the fan speed dial is set on slow (speed dial pointing towards bottom left).
4. Press Power Button to start the unit.
5. To turn OFF the unit when it is on, press Power Button.
6. Do not disconnect power supply when unit is operating. Turn ON or turn OFF the unit by pressing Power Button only.
7. Do not turn ON unit until the fan blade have completely stopped.

(II) Fan Speed Control

1. Fan speed is adjustable after the unit has been turned ON for at least TWO minutes.
2. After TWO minutes of operation, user can adjust fan speed.

Maintenance Instructions

CAUTION: Disconnect all power supply before conducting maintenance.

WARNING: If the units is suspected to be defective, please turn OFF control unit and then disconnect power supplies. Contact your dealer or manufacturer promptly.

WARNING: All maintenance operations are to be conducted by authorized technicians only. Do not attempt to perform maintenance without authorization.

Maintenance Checks:

- ✓ Regular checks on units 'cleanliness. Ensure no debris or obstruction is near the air inlet or outlet.
- ✓ Use a soft damp cloth to clean dust of the unit. Do not use cleaning agents to avoid damage to treated surfaces.
- ✓ Regular checks on the stability of the fan.

Troubleshooting

Please read the following self-help troubleshooting guides before contacting your dealer or manufacturer.

Issues	Troubleshooting
Fan exhibits air suction (instead of air output)	This normal when the unit is turned on as the motor stator needs to adjust its rotation automatically. A slight vibration upon activation is normal, and will not affect the operation of the fan.
The fan does not start	Please check the following: <ol style="list-style-type: none"> 1. Power supplies are normal. 2. Power connections are normal. 3. Power cord is plugged into power socket. If the issue persists, please contact your dealer or manufacturer.
Excessive loud noise	Please record video (with audio) of incident and contact your dealer or manufacturer.

If your issue cannot find the solution for the problems that happened, kindly contact AMA Tech's local dealer through email or phone-call sales1@amatg.com.tw /+886-02-2268-0565.

New Unit Warranty

AMA Tech will ensure to replace any defective part(s), component(s), unit(s) within 7-21 working days from the arrival date as per the freight forwarder's shipping details.

The terms and conditions are as follow:

1.1 Return Merchandise Packaging

A "Re-packaging fee" will be incurred if the contents are not returned in its original packaging.

1.2 Dead on Arrival (DOA)

1.2.1 Units are deemed DOA if the defect(s) are not the result of improper operation, damage during freight transport, or, unauthorized repair.

1.2.2 AMA Tech has full authority to determine whether a defect is of natural causes, misuse, unauthorized modification or repair, or external forces (e.g., power interference, motor failure, improper installation, incorrect wire connection, etc....) at our discretion.

These cases or alike shall be processed as standard unit maintenance service cases, and abide by the procedures pertaining to as such.

1.3 Freight Charge

1.3.1 If the goods are deemed DOA, AMA Tech will arrange and cover the two-way freight charge.

1.3.2 If the defect is not deemed DOA, it shall be processed as standard unit maintenance service and repair, thus, standard charges will apply, and the two-way freight charges are to be covered by the dealer/buyer.

1.4 Maintenance Fee

An invoice will be issued in advance to the dealer/buyer should such service be required.

Repair

1.1 Return Merchandise Packaging:

Please ensure that all returned items are packaged correctly and in its original.

1.2 Warranty and Maintenance:

No additional maintenance charge will be incurred for units that are within one year of purchase as per invoice date.

1.2.1 AMA Tech may still offer maintenance service when the warranty period expires or that the damage is not covered by the warranty. In such cases, standard maintenance service and repair charges apply.

The returned item(s) will not be eligible for replacement or free service if the damage or defect is caused by any of the following conditions:

- a) Power interference.
- b) Defect as the result of external forces.
- c) Improper installation pertaining to incorrect power settings.
- d) The unit was misused, abused, or incorrectly installed.
- e) Wiring error.
- f) Unit failure is caused by natural disasters or force majeure.
- g) Damage caused during transportation due to lack of proper padding or original packaging.
- h) No Fault Found (NFF).

1.2.2 Freight Charger:

The dealer/buyer is responsible for the freight charge of returning the unit to AMA Tech.

Out of Warranty Repair

Ama Tech may still offer maintenance service even when the warranty period expires or that the damage is not covered by the warranty. In such cases, standard maintenance service and repair charges apply.

1.1 Repair Charge:

An invoice will be issued in advance to the dealer/buyer should such service be required.

1.2 Freight Charge:

For out-of-warranty repairs, the dealer/buyer is responsible for the two-way freight charge.