

VTX400P

Installation guide



IMPORTANT SAFETY INFORMATION READ AND SAVE THESE INSTRUCTIONS

1. The VTX400P is not explosion proof. Do not use the fans if a potentially explosive situation may exist.
2. Because this unit has rotating parts, safety precautions should be exercised during this phase of installation, operation and maintenance.
3. CAUTION: For General Ventilation Use Only. Do Not Use To Exhaust Hazardous Or Explosive Material and Vapors.
4. The fan motor, capacitor and pressure switch connections are pre-wired from the factory.

WARNINGS

DO NOT CONNECT POWER SUPPLY UNTIL FAN IS COMPLETELY INSTALLED. MAKE SURE ELECTRICAL SERVICE TO THE FAN IS LOCKED IN "OFF" POSITION.

1. TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS - OBSERVE THE FOLLOWING:
 - a. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the factory.
 - b. Before servicing or cleaning, switch power off at service panel and lock service panel to prevent fan from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
 - c. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
 - d. The combustion airflow needed for safe operation of fuel burning equipment may be affected by this unit's operation. Follow the heating equipment manufacturer's guidelines and safety standards such as those published by the National Fire Protection Association (NFPA), the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) and the local code authorities.
 - e. When cutting or drilling into wall or ceiling, do not damage electrical wires or other hidden utilities.
 - f. Check voltage at the fan to see if it corresponds to the motor nameplate.
 - g. **DO NOT USE with heated air in excess 140°F (60°C).**

Pressure switch specification

Pressure Sensing Switch Operation

The VTX400P is equipped with a positive pressure sensing switch which detect positive pressure in the duct and activates the duct booster fan from an independent electrical circuit. The electricity to the duct booster fan is connected in series through a normally closed terminal in the switch. A pressure tap is connected to a fitting on the side of the switch. When the HVAC system begins operation, positive pressure in the duct causes the switch diaphragm to expand, closing the circuit to the duct booster fan. An integral delay-on-break timer in the switch will cycle the fan on for intervals of 10 minutes. This will continue until the HVAC system has stopped and the timer delay period has lapsed.

Air pressure sensing switch Specifications

Set point :

Fixed to operate on pressure rise at 0.05 ± 0.02 "w.c.(1.27 ± 0.508 mm)

Measured media :

Air

Overpressure :

14" W.C.

Operating temperature range :

-40°F to 158°F
(-40.0°C to 70°C)

Life :

100,000 cycles minimum.

Electrical rating :

3 amps @120 Vac 50/60 Hz.

Contact arrangement :

SPST-NO

Sample line connector :

Barbed 1/4" slip-on connector accepts flexible tubing.

Functional specifications

Timing range :

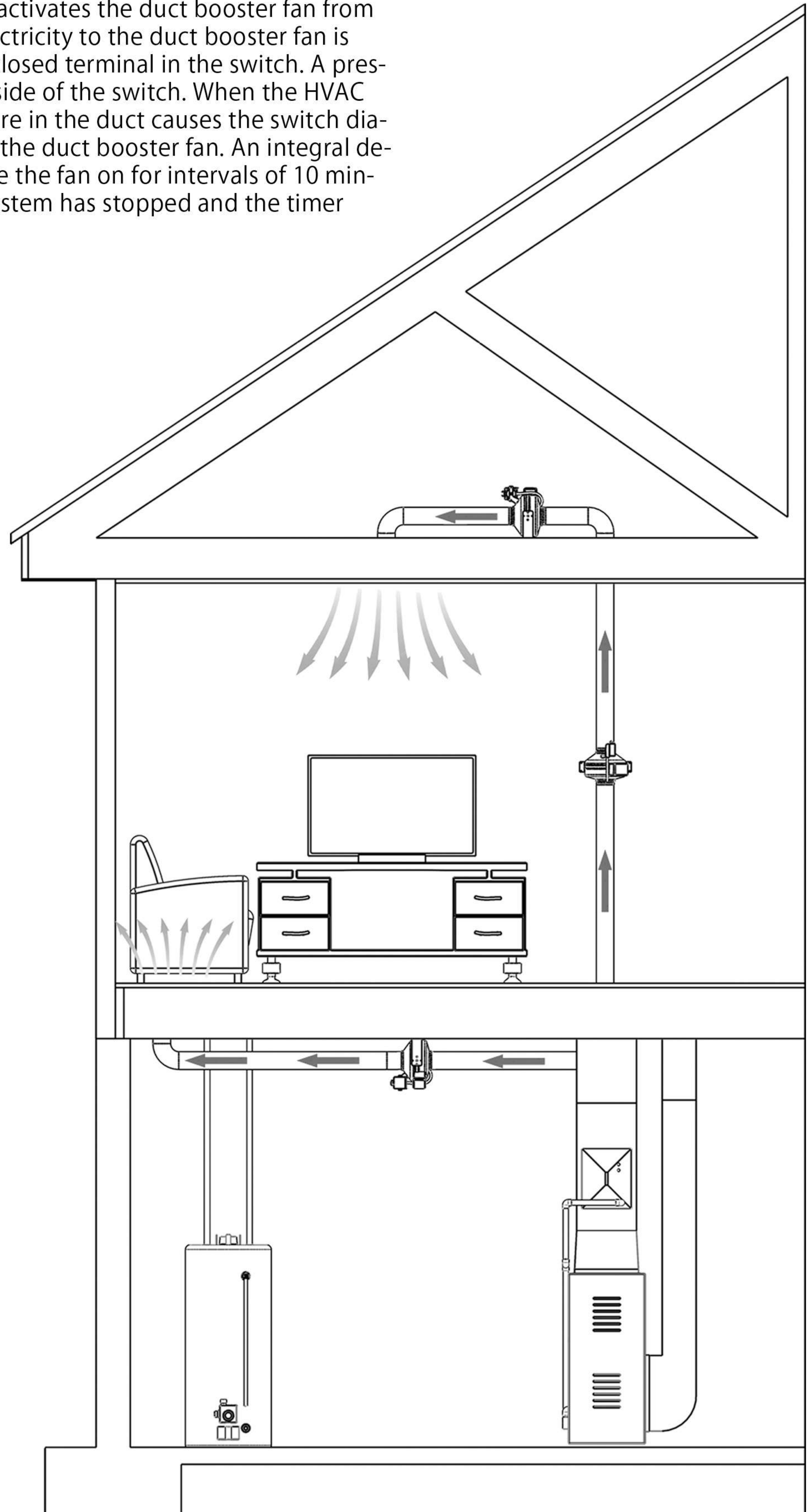
10 minutes ON (600 seconds) $\pm 10\%$
1 minute OFF (60 seconds) $\pm 10\%$

Power :

120 VAC +10%/-15%, 50/60 Hz.

Output :

SPST NO relay rated for 3 amps @120 V



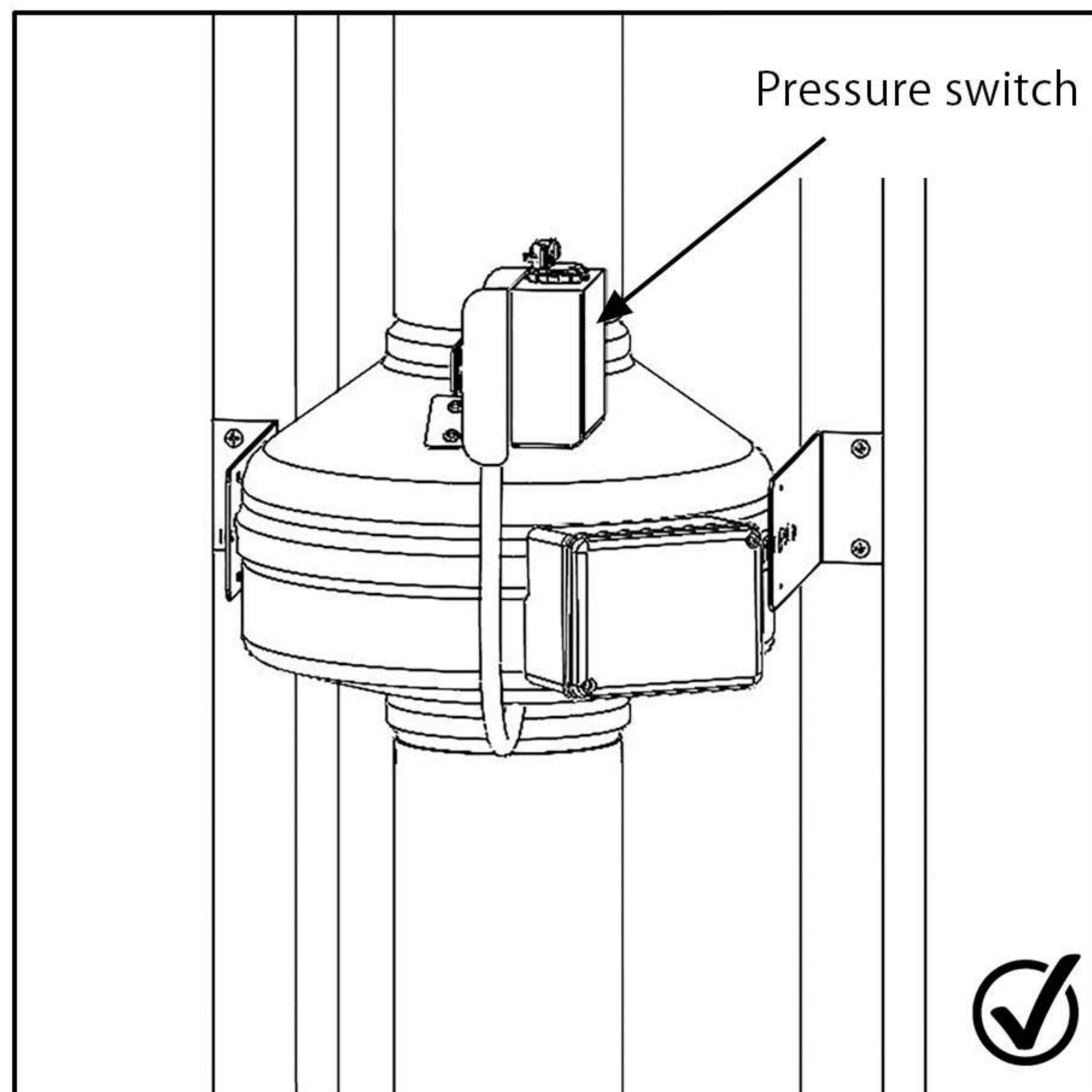
Installation instructions

Pressure Sensing Switch orientation

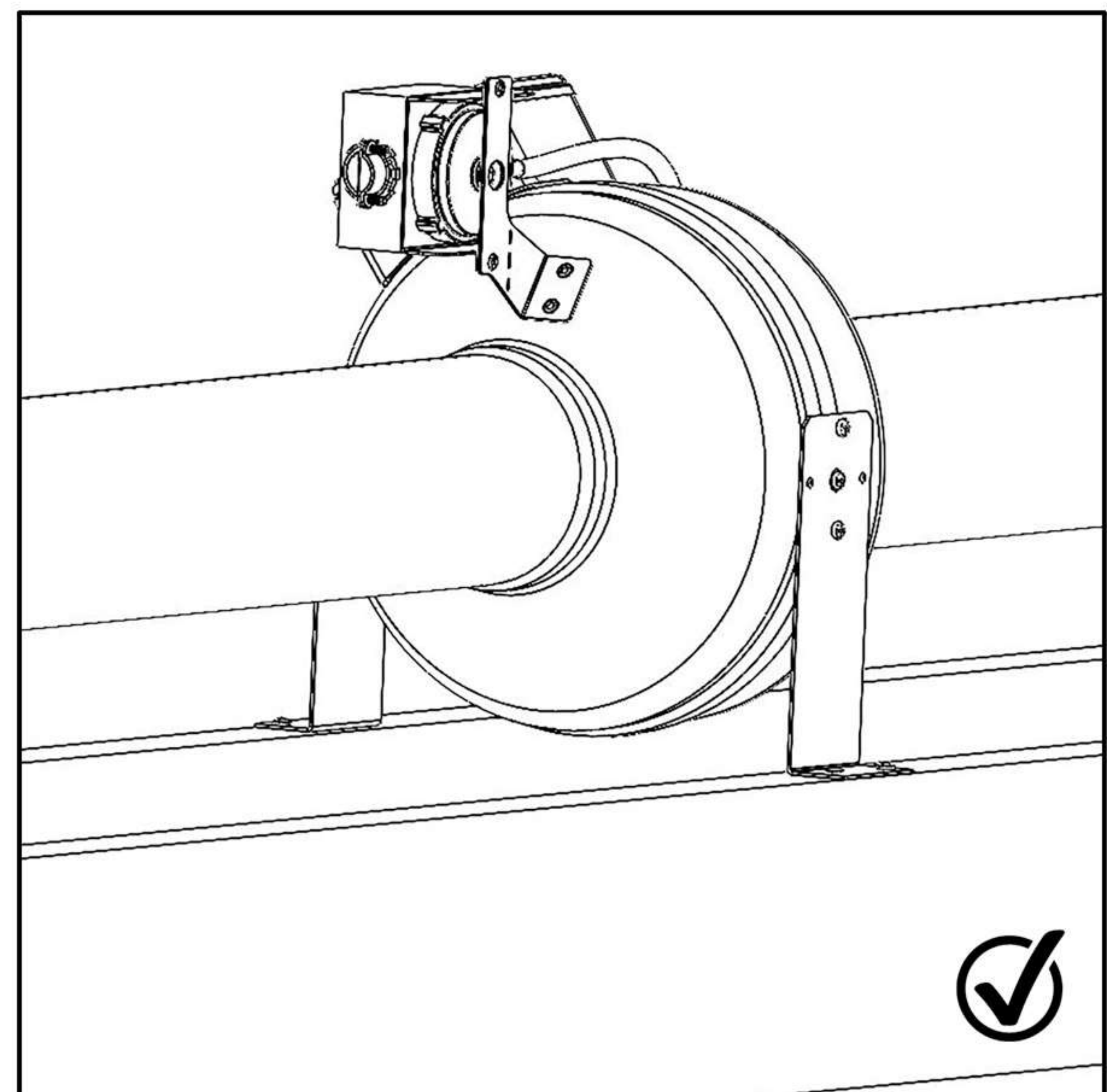


The pressure switch sensibility is factory preset at 0.05" W.C. For proper operation, **the pressure switch shall always be in vertical position.**

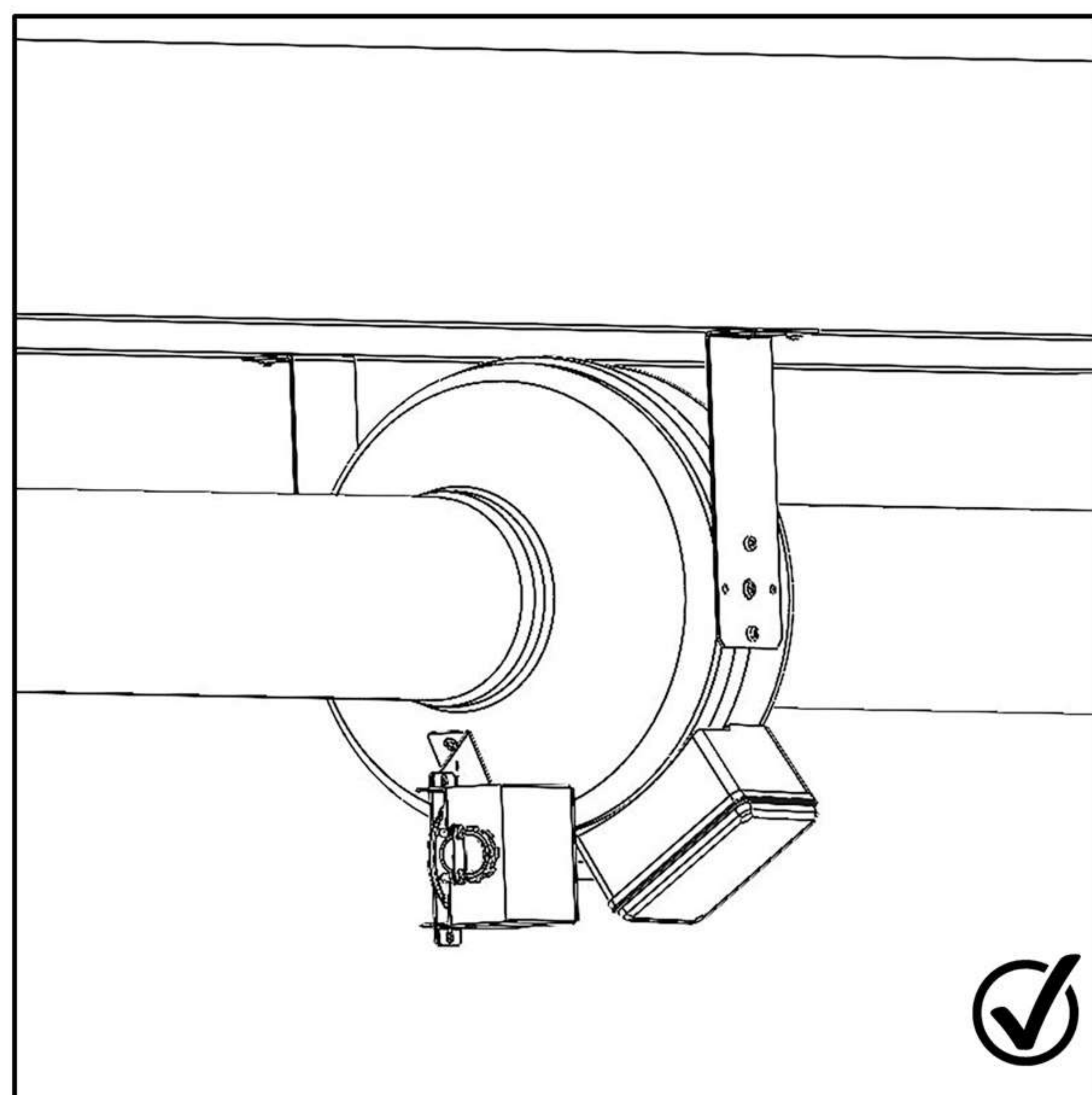
Step 1: Select the fan location and identify the type of mounting between the 4 different types of installation as shown below



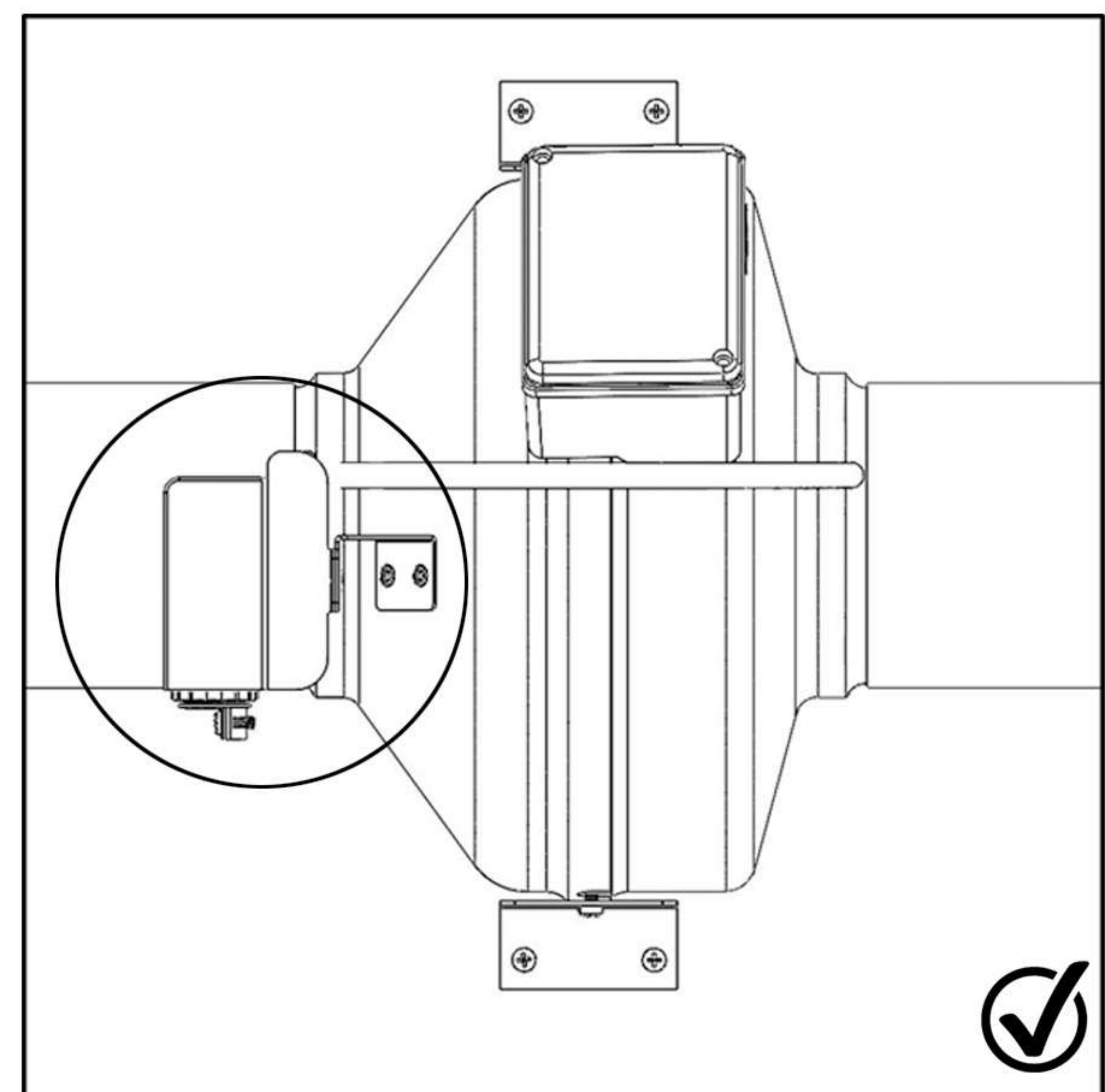
Option 1: Vertical flow wall mounted



Option 2: Horizontal flow floor mounted



Option 3: Horizontal flow ceiling mounted



Option 4: Horizontal flow wall mounted

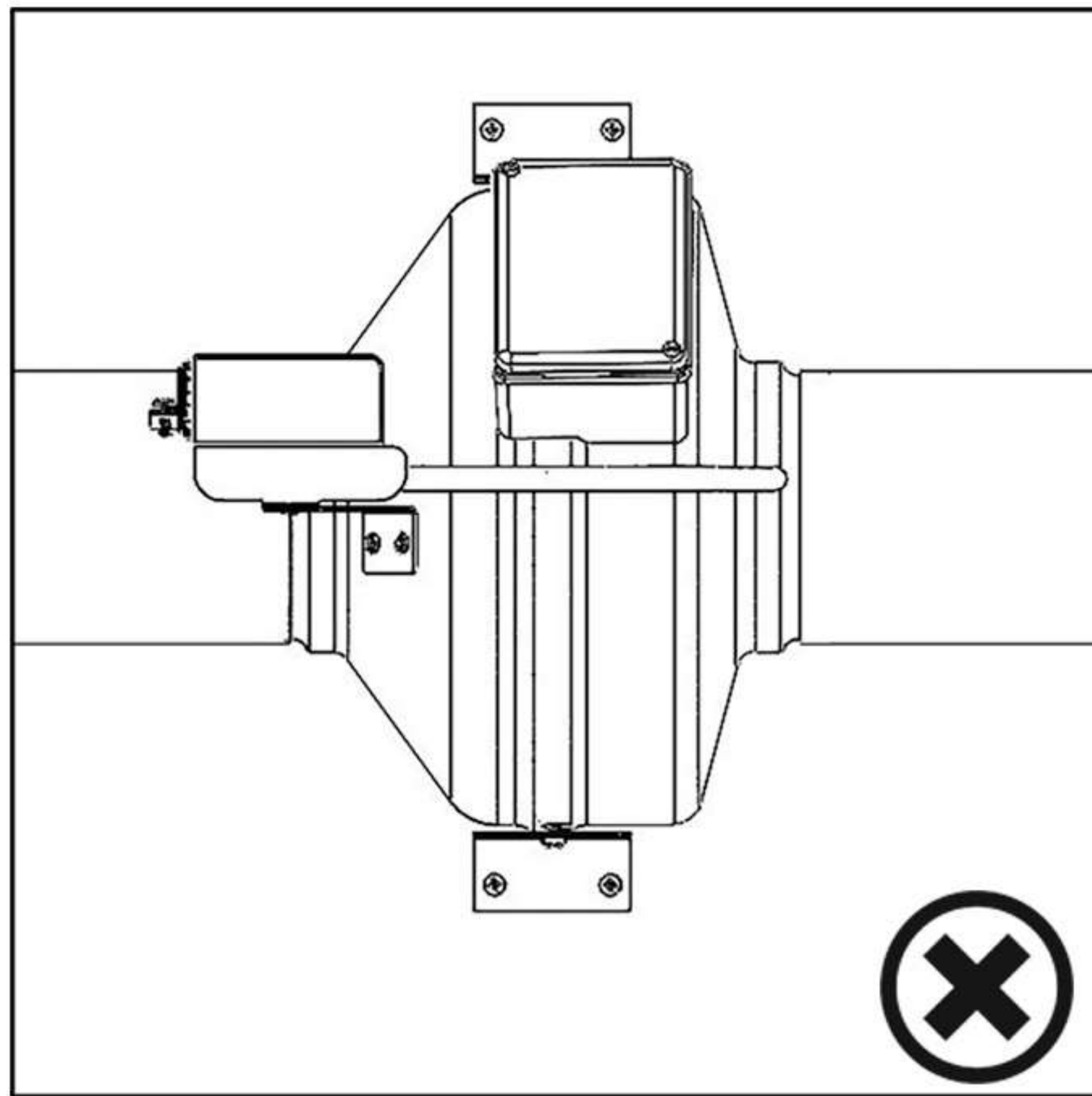


WARNING: To install the fan on the wall with a an horizontal flow, a rotation of the pressure is required to ensure an optimal sensivity please proceed to pressure sensing switch rotation step on next page.

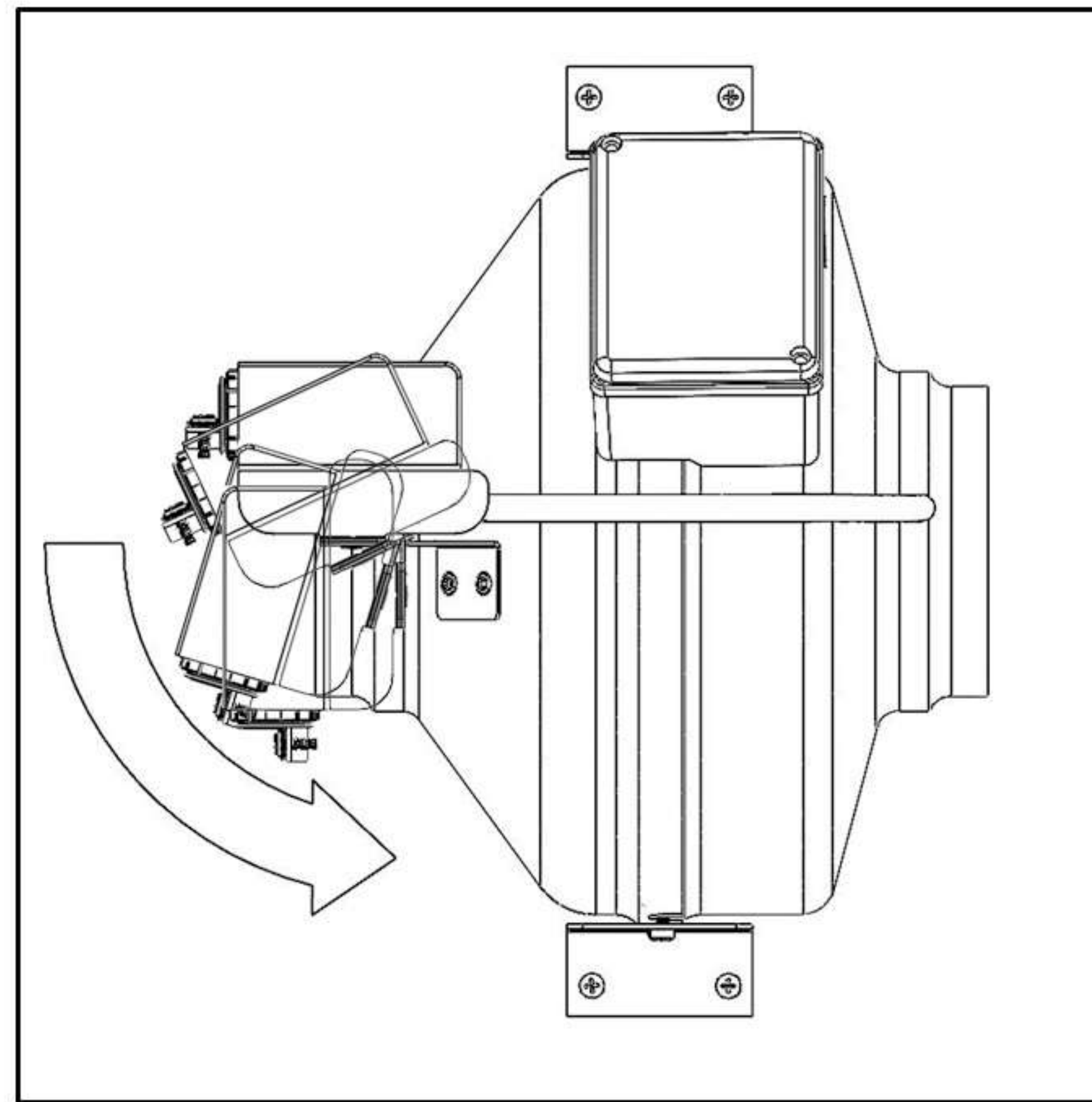
Installation instructions

Pressure Sensing Switch rotation

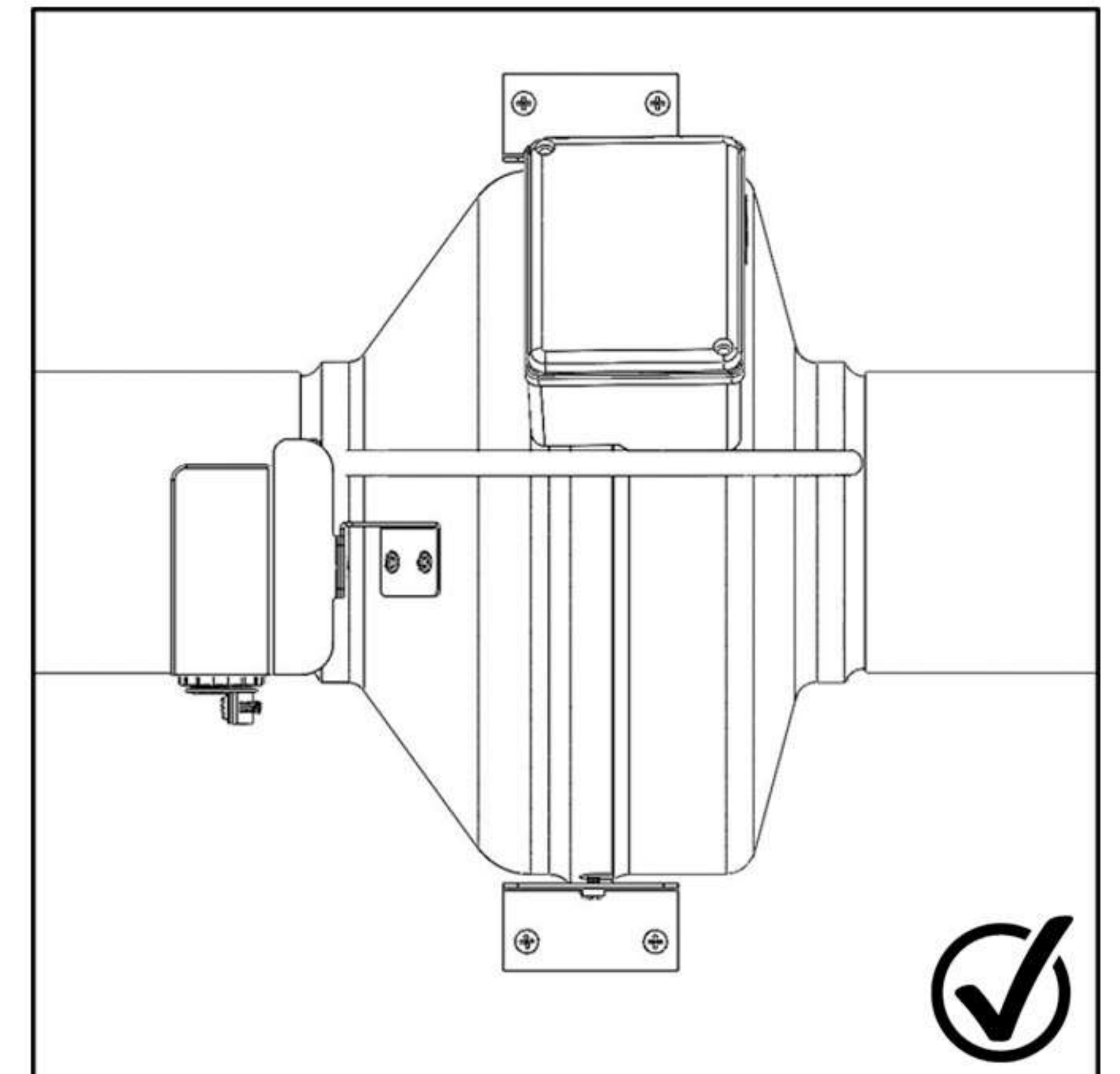
For horizontal flow wall mounted installation the pressure sensing switch shall be rotated by 90 degree



Incorrect

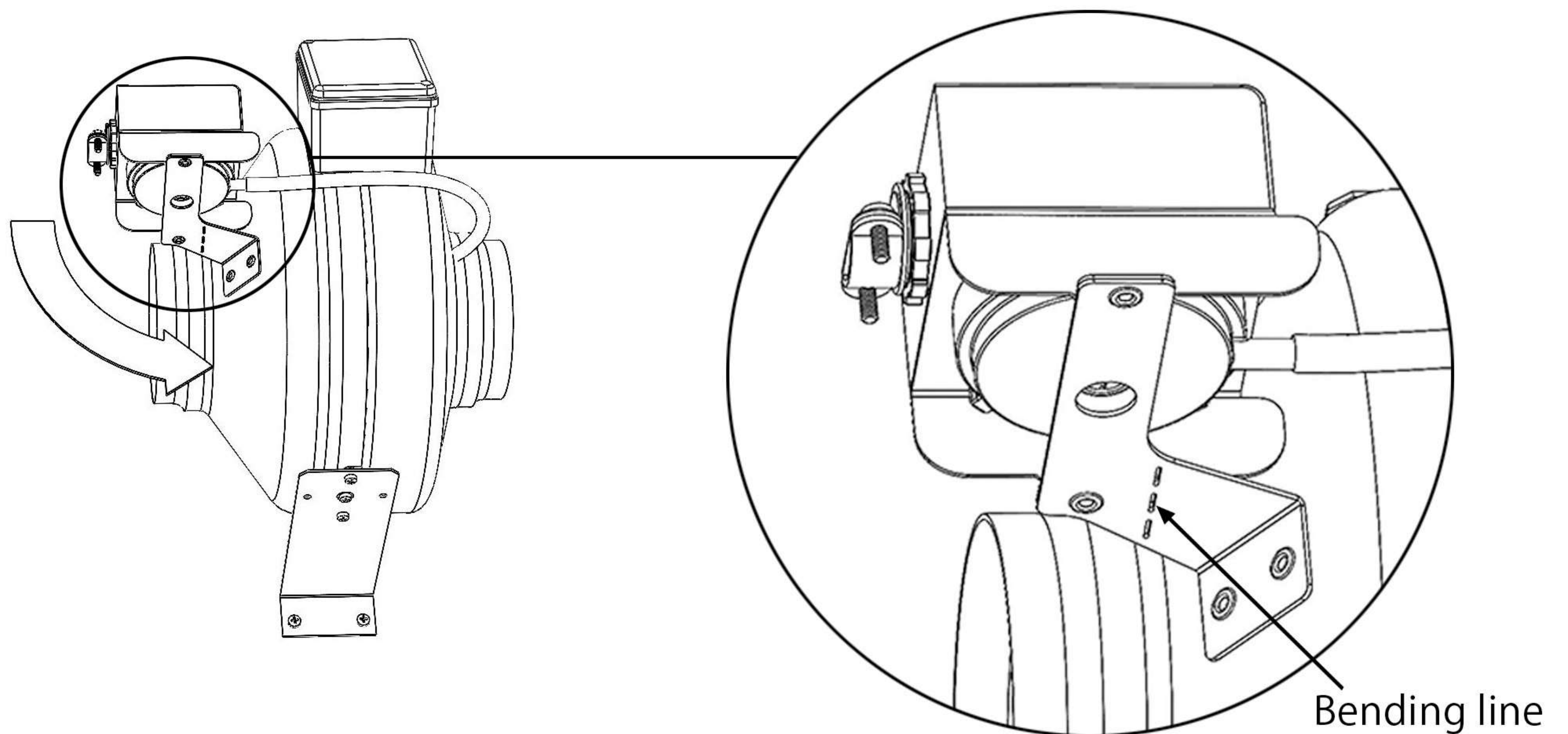


Rotate the pressure switch 90 degree counterclockwise by bending by hand the metal bracket. (see below)



Correct

The pressure sensing switch metal bracket is designed with slots to define the bend region and reduce the force required to bend the part by hand without tool.



Installation instructions

Fan Installation

Step 2. Install the mounting bracket on both side of the fan. (Figure1)

Step 3. Mount the Fan (Figure2)

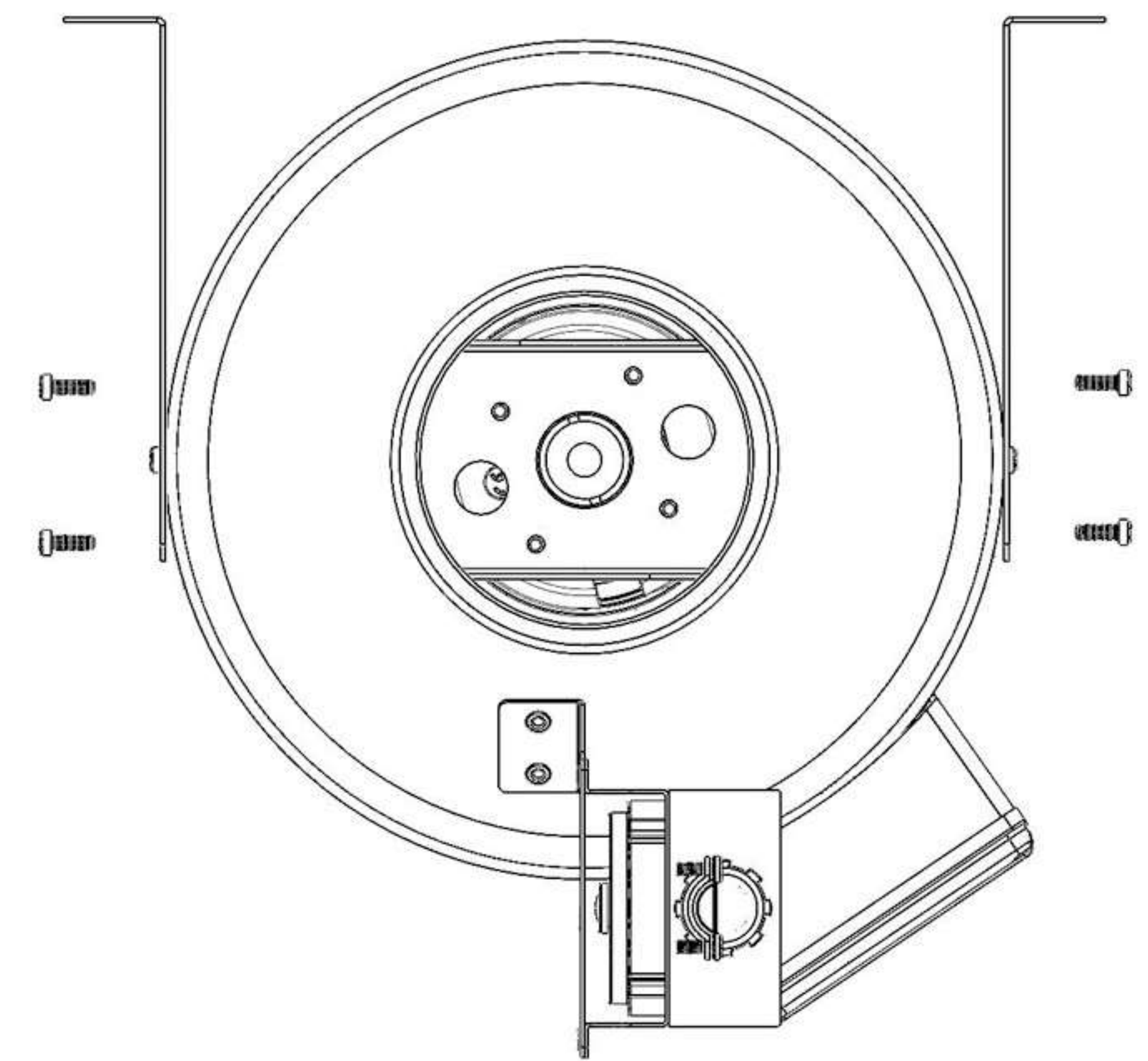
Using wood screws provided, attach the mounting bracket to a support beam at the selected location.

Step 4. Install ducting

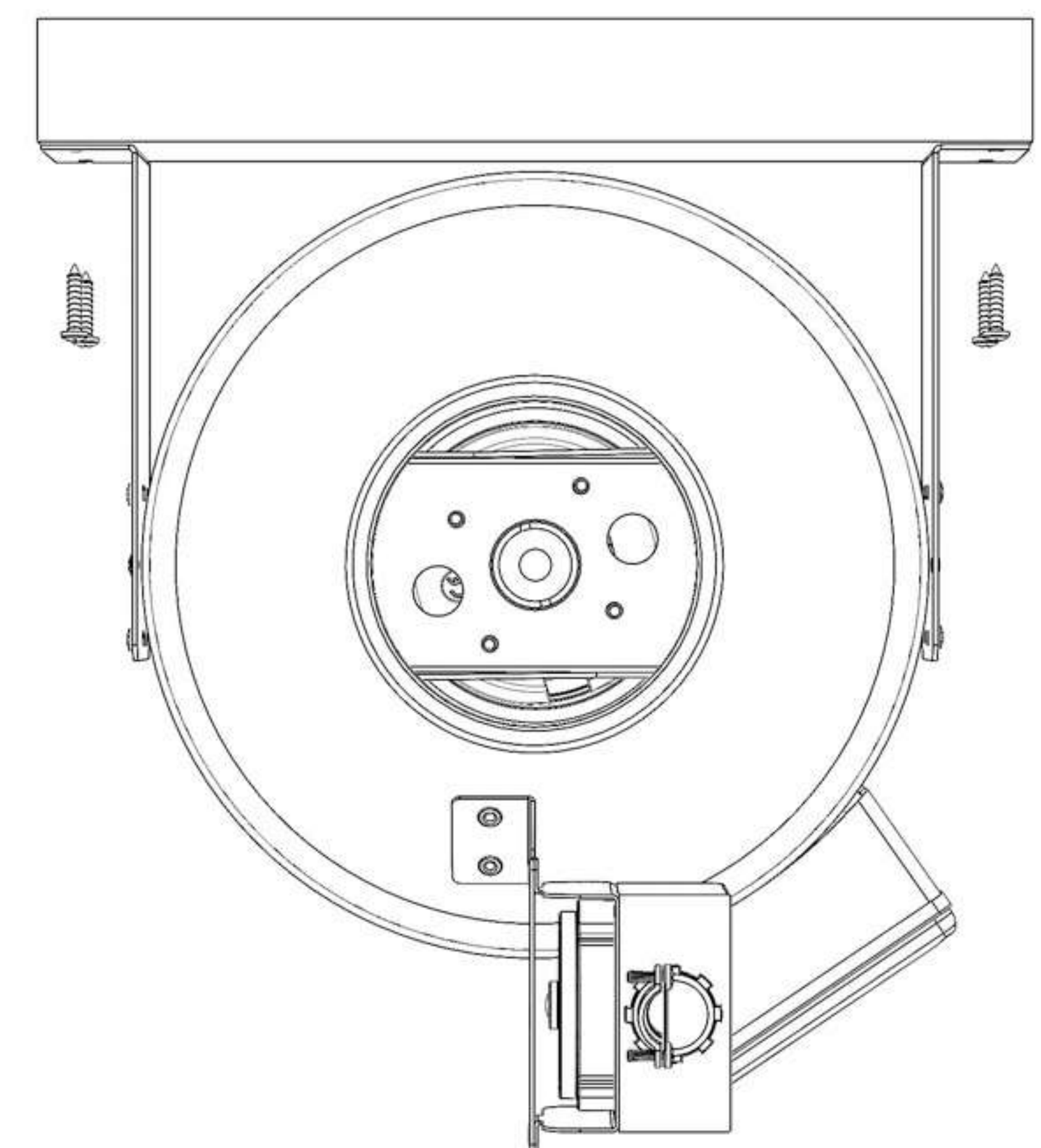
Use either aluminium tape or duct clamp to secure the duct to the fan.

Step 5. Supply power

Plug the power cord in a standard grounded 120V outlet.



(Figure1)



(Figure2)



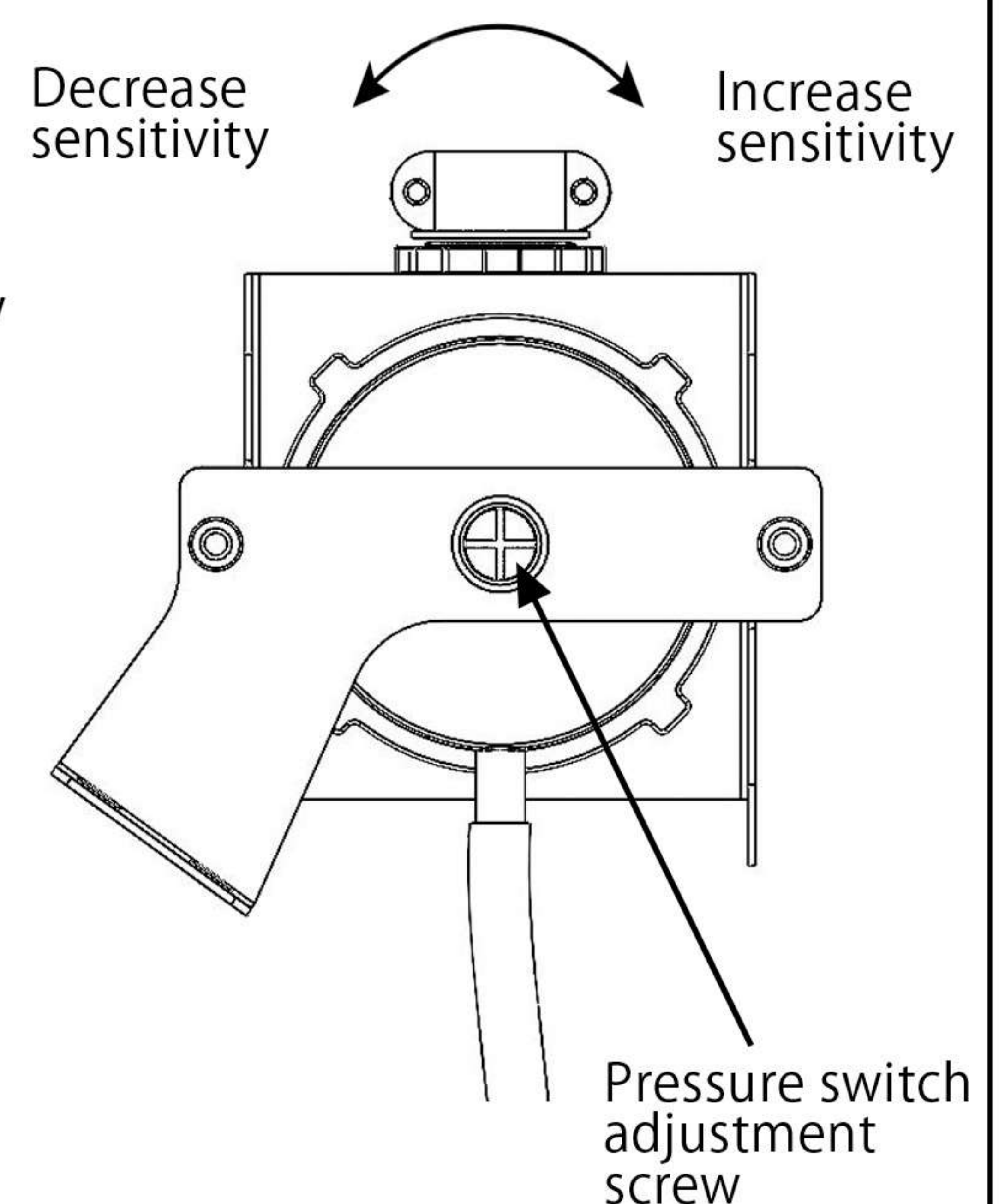
Warning: The step below is intended for qualified HVAC technician equipped with a manometer only.

Pressure sensing switch adjustment

For custom installation that need a specific pressure adjustment. Adjust the pressure switch sensitivity by turning the adjustment screw with a flat screwdriver on the back of the pressure switch as shown in (figure 3)

Turn the adjustment screw clockwise to increase sensitivity or turn t adjustment screw counter clockwise to increase sensitivity.

Important: adjust the sensitivity gradually by rotating the screw a quarter turn at a time and run a test until proper sensitivity is set.



(Figure3)

WARRANTY

Ten (10) Year Warranty This warranty supersedes all prior warranties

DURING ENTIRE WARRANTY PERIOD: Atmosphere will repair or replace any part which has a factory defect in workmanship or material. Product will need to be returned to the Atmosphere factory, together with a copy of the bill of sale and identified with RMA number.

FOR FACTORY RETURN YOU MUST:

- Have a Return Materials Authorization (RMA) number. This may be obtained by contacting Atmosphere at info@atmosphere.com Please have bill of sale available.
- The RMA number must be clearly written on the outside of box or it will be refused.
- All parts and/or product will be repaired/replaced and shipped back to buyer, no credit will be issued.

OR
The Distributor may place an order for the warranty part and/or product and will be invoiced. The Distributor will receive a credit equal to the invoice only after product is returned, prepaid, and verified to be defective.

ATMOSPHERE WARRANTY TERMS DO NOT PROVIDE FOR REPLACEMENT WITHOUT CHARGE PRIOR TO INSPECTION FOR A DEFECT. REPLACEMENTS ISSUED IN ADVANCE OF DEFECT INSPECTION ARE INVOICED AND CREDIT IS PENDING INSPECTION OF RETURNED MATERIAL. DEFECTIVE MATERIAL RETURNED BY END USERS SHOULD NOT BE REPLACED BY THE DISTRIBUTOR WITHOUT CHARGE TO THE END USER, AS CREDIT TO DISTRIBUTORS ACCOUNT WILL BE PENDING INSPECTION AND VERIFICATION OF ACTUAL DEFECT BY ATMOSPHERE.

THE FOLLOWING WARRANTIES DO NOT APPLY:

- Damages from shipping, either concealed or visible. Claim must be filed with freight company.
- Damages resulting from improper wiring or installation.
- Damages or failure caused by acts of God, or resulting from improper consumer procedure, such as:
 1. Improper installation
 2. Improper maintenance.
 3. Misuse, abuse, abnormal use, or accident, and
 4. Incorrect electrical connections.
- Removal or any alteration made on the Atmosphere label control number or date of manufacture.
- Any other warranty, expressed, implied or written, and to any consequential or incidental damages, loss or property, revenues, or profit, or costs of removal, installation or reinstallation, for any breach of warranty.

WARRANTY INVALIDATION

The user must keep a copy of the bill of sale to verify purchase date.

These warranties give you specific legal rights, and are subject to an applicable consumer protection legislation. You may have additional rights which vary from state to state.

LIMITATION OF WARRANTY AND LIABILITY

This warranty does not apply to any Atmosphere product or part which has failed as a result of faulty installation or abuse, incorrect electrical connections or alterations made by others, or use under abnormal operating conditions or misapplication of the product or parts. Atmosphere will not approve any payment for any repair not made by us or our authorized agent without prior written consent. The foregoing shall constitute our sole and exclusive warranty and our sole exclusive liability, and is in lieu of any other warranties, whether written, oral, implied or statutory. There are no warranties which extend beyond the description on the page hereof. In no event, whether as a result of breach of contract, or warranty or alleged negligence, defect incorrect advice or other causes, shall Atmosphere be liable for special or consequential damages, including, but not limited to, loss of profits or revenue, loss of use of equipment or any other associated equipment, cost of capital, cost of substitute equipment, facilities or services, downtime costs, or claims of customers of purchase for such damages. Atmosphere neither assumes or authorizes any person to assume for it any other liability in connection with the sale of product(s) or part(s). Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages so the above limitations and exclusions may not apply to you.