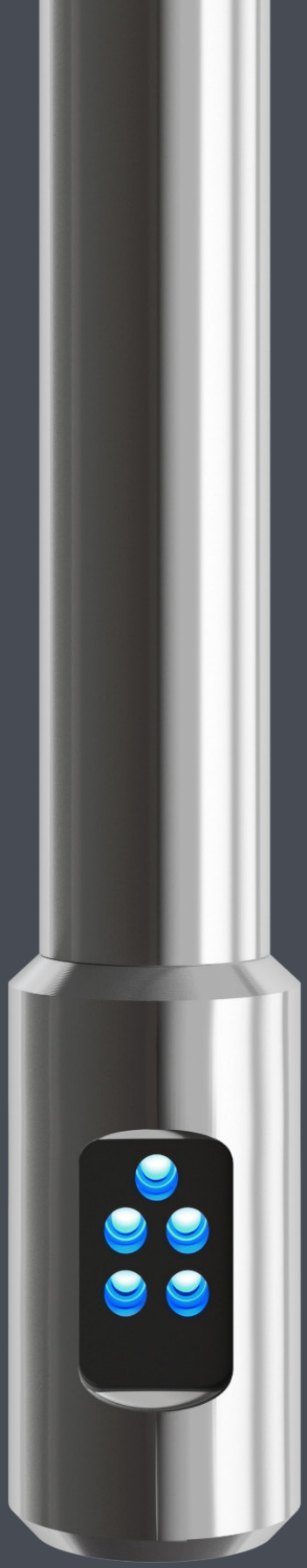
Installation Manual

V6 SERIES DEMAND CONTROL KITCHEN VENTILATION SYSTEM



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Safety Instructions and Notes

Please read and save these instructions for future reference. Read carefully before attempting to install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with these instructions will result in voiding of the product warranty and may result in personal injury and/or property damage.

Follow all local electrical, construction and safety codes, as well as the National Electrical Code (NEC) and the latest edition of the National Fire Protection Agency Standard for Ventilation Control Operations (NFPA 96). Follow the Canadian Electrical Code (CEC) and NFPA 96 if installing this product in Canada. Other codes may apply in your country or territory.

Read and understand instructions provided with any other equipment related to the ECOAZUR® V6 DCKV control system. For more information, concerning your ECOAZUR® V6 DCKV control system, contact your Authorized Service Center .

The ECOAZUR® Demand Control Kitchen Ventilation control bears the UL safety certification mark, per product category numbers (CCN) YYXS and YYXS7 (Ventilation Equipment for Commercial Cooking Appliances, Hood and Duct Accessories). The following conditions must be met to maintain the ECOAZUR® UL listing:

- The hoods in which the system is installed shall be listed to UL 710 Standard or ULC-S646 in Canada). The hoods may be rated for low duty, medium duty heavy duty or extra heavy duty cooking, with or without modulating dampers, and may be produced by any hood manufacturer.
- The hoods must be installed in accordance with the manufacturer's specifications and required airflow.
- When the ECOAZUR® System Controller panel is positioned in a control cabinet at either end of a hood, it must be mounted at a minimum height of 915mm (36") above the cooking surface and have a 25mm (1") minimum air gap between the System Controller and the lateral side of the hood. It is not permissible to mount the System Controller on the top surface of the hood.

All penetrations into the hood shall be sealed with UL Listed (YYXS, or YYXS7 in Canada) fittings.

ECOAZUR® Modulating Dampers are not fire dampers and should solely be used as airflow control devices with an ECOAZUR® system.

Cooking appliance shutoff device integration to ECOAZUR® has not been evaluated to the European Directive on Appliances burning gaseous fuels (2016/426/EU). Cooking appliance shutoff device safety interlock must be implemented by a certified third party system in the European Union (by others). Other codes may apply in your country or territory. For more information, contact your Authorized Service Center.

Hoods shall be sized and configured to provide for the capture and removal of flue gas, smoke, vapors and cooking by-products, considering the cooking appliances below them. Although ECOAZUR® is designed to lower the ventilation rate in the kitchen when partial cooking loads are detected, it cannot resolve issues related to inadequate airflow during maximum ventilation.

If more information is needed, contact an Authorized Service Center or a licensed professional engineer before moving forward.

Warnings caution you about conditions which can result in serious injury or death and/or damage to the equipment. They also tell you how to avoid the danger. The warning symbols are used as follows:

Electricity warning

Warns of hazards from electricity which can cause serious injury and/or damage to the equipment.

General warning

Warns about conditions, other than those caused by electricity, which can result in physical injury and/or damage to the equipment.

Read and understand instructions provided with any other equipment related to the ECOAZUR® V6 DCKV control system. For more information, concerning your ECOAZUR® V6 DCKV control system, contact your authorized service center.

WARNING! The ECOAZUR® system and related equipment should ONLY be installed by qualified personnel. Electrical wiring and connections must be made by a qualified electrician. Commissioning and service must only be performed by personnel that are knowledgeable in the operation of the equipment being controlled and should be aware of general safety precautions.

WARNING! The ECOAZUR® system and related equipment should be properly grounded. Improper grounding can result in a risk of electric shock.

WARNING! More than one circuit disconnect switch may be required to de-energize the equipment before servicing. Dangerous voltage is present when input power is connected to the ECOAZUR® System Controller panel. External wiring can supply dangerous voltages to the terminals of relay outputs (RO1 through RO8).

WARNING! Lock out the electrical power supply to all equipment (ECOAZUR® System Controller panel, hood lights, VFDs, motors, etc.) before hood and duct cleaning procedures.

WARNING! Dangerous voltage is present when input power is connected to VFDs. After disconnecting the supply, wait at least 5 minutes (to let the intermediate circuit capacitors discharge) before removing the cover.

WARNING! Do not expose control panels to any water. Do not allow the electrical components of this system to come in contact with oil, grease, hot surfaces, water or chemicals.

WARNING! Legal regulations and regulations issued by authorities must be observed during installation.

WARNING! The ECOAZUR® system does not include a disconnect device. A means to disconnect input power must be installed between the AC power source and the ECOAZUR® system. The branch circuit protection must :

- Be sized to conform to applicable safety regulations, including, but not limited to, both national and local electrical codes.
- Be locked in the open position during installation and maintenance work.

WARNING! The overall design of the installation must include emergency stop devices and/or any other safety equipment when required by your local jurisdiction. Pressing the STOP key on the ECOAZUR® system keypad does NOT:

- Generate an emergency stop of the system.
- Separate the system from dangerous potential.

Warnings caution you about conditions which can result in serious injury or death and/or damage to the equipment. They also tell you how to avoid the danger. The warning symbols are used as follows:

Electricity warning

Warns of hazards from electricity which can cause serious injury and/or damage to the equipment.

General warning

Warns about conditions, other than those caused by electricity, which can result in physical injury and/or damage to the equipment.

Read and understand instructions provided with any other equipment related to the ECOAZUR® V6 DCKV control system. For more information, concerning your ECOAZUR® V6 DCKV control system, contact your authorized service center.

WARNING! Never pressure wash the ECOAZUR® components, including the optic sensors.

WARNING! It is the responsibility of the installer to make sure both electrical and gas appliances shut down in the event of a fire or a power loss to the building when this sequence is required by the authority having jurisdiction.

WARNING! Verify the site can supply the necessary power for each fan and the control panel.

WARNING! Ensure that all electrical switches and system components (including access doors) are returned to an operable state after the cleaning procedure.

WARNING! The ECOAZUR® system will start up automatically after an input voltage interruption. Dampers and exhaust fans may automatically be energized.

WARNING! The ECOAZUR® device enclosures may only be opened at the manufacturer's site. It does not contain any parts that can be replaced or repaired by the user. Never attempt to repair a malfunctioning ECOAZUR® part, including any other related equipment such as VFDs (Variable Frequency Drives), dampers, motors, fans, etc.; contact your local Authorized Service Center for repair or replacement.

WARNING! Do not stare at the ECOAZUR® optic sensor light.

WARNING! In case of occurrence of any problem please call your local Authorized Service Center.

Receiving

Upon receiving the product, check to ensure all items are accounted for by referencing the delivery receipt or packing list. Inspect each crate or carton for shipping damage before accepting delivery. Alert the carrier of any damage detected. The customer will make a notation of damage (or shortage of items) on the delivery receipt and all copies of the bill of lading, which is countersigned by the delivery carrier. If damaged, immediately contact your Intellinox distributor or representative. Any physical damage to the unit after acceptance is not the responsibility of Intellinox Technologies Inc.

Storage

Units are protected against damage during shipment. If the unit cannot be installed and operated immediately, precautions need to be taken to prevent deterioration of the unit during storage. The user assumes responsibility for the unit and accessories while in storage. The manufacturer will not be responsible for damage during storage.

The ideal environment for storing the hood and hood accessories is indoors, above grade, in a clean, dry atmosphere that is sealed from the elements. While in storage, inspect equipment routinely. If any moisture, dirt or other accumulations are found on the hood or any of the parts, the source should be located and eliminated.

Unpacking

Verify that all required parts and the correct quantity of each item have been received. If any items are missing, report shortages to your Authorized Service Center to arrange for obtaining missing parts.

Remove all other shipping/packing materials.

Prior to Installation

Prior to installation, check with the authorities having jurisdiction on clearance requirements for structures surrounding the hood and other equipment. Consider access for servicing the equipment and the different components when locating the hood and duct accessories.

Electrical components with electrical connections shall be readily inspectable after the exhaust hood installation.

Handling

Units are to be rigged and moved by the lifting brackets provided or by the skid when a forklift is used. The location of brackets varies by model and size. Handle in such a manner as to keep from scratching or denting. A damaged finish may reduce the ability of the unit to resist corrosion.

Preventive Maintenance Program

The ECOAZUR® system requires a yearly inspection and preventive maintenance program to ensure safety and optimal performance. Contact your Authorized Service Center.

Product Disposal (W.E.E.E. Directive)

At the end of their useful life, the packaging and product should be disposed of via a suitable recycling center. Do not dispose of with household waste. Do not burn. All locally valid regulations and requirements must be observed.

Table of Contents

Introduction

The purpose of this Installation Manual is to equip the reader with the essential knowledge required for installing the ECOAZUR® V6 DCKV (Demand Control Kitchen Ventilation) system. Should the need for further information arise, the following reference materials are available:

- Product Specifications (E6PS-EN) – Details on product design characteristics
- User's Manual (E6UM-EN) – Operation and maintenance manual
- Programming Guide (E6PG-EN) – Instructions for parameter setup and navigating interfaces
- ECOAZUR® Electrical Diagrams – Project specific wiring instruction

The ECOAZUR® control system interfaces with third-party devices, such as Variable Frequency Drives, Electronically Commutated Motors, fans, hood fire suppression systems, cooking appliance shutoff devices, and other equipment. It is recommended to consult the manufacturer's specific documentation and instructions for the safe and proper operation and maintenance of these devices.

The installation instructions may indicate typical component locations for reference only. Project specific instructions on the ECOAZUR® Electrical Diagrams must be followed.

Only ECOAZUR® V6NC series network cables may be used to interconnect hood network components.

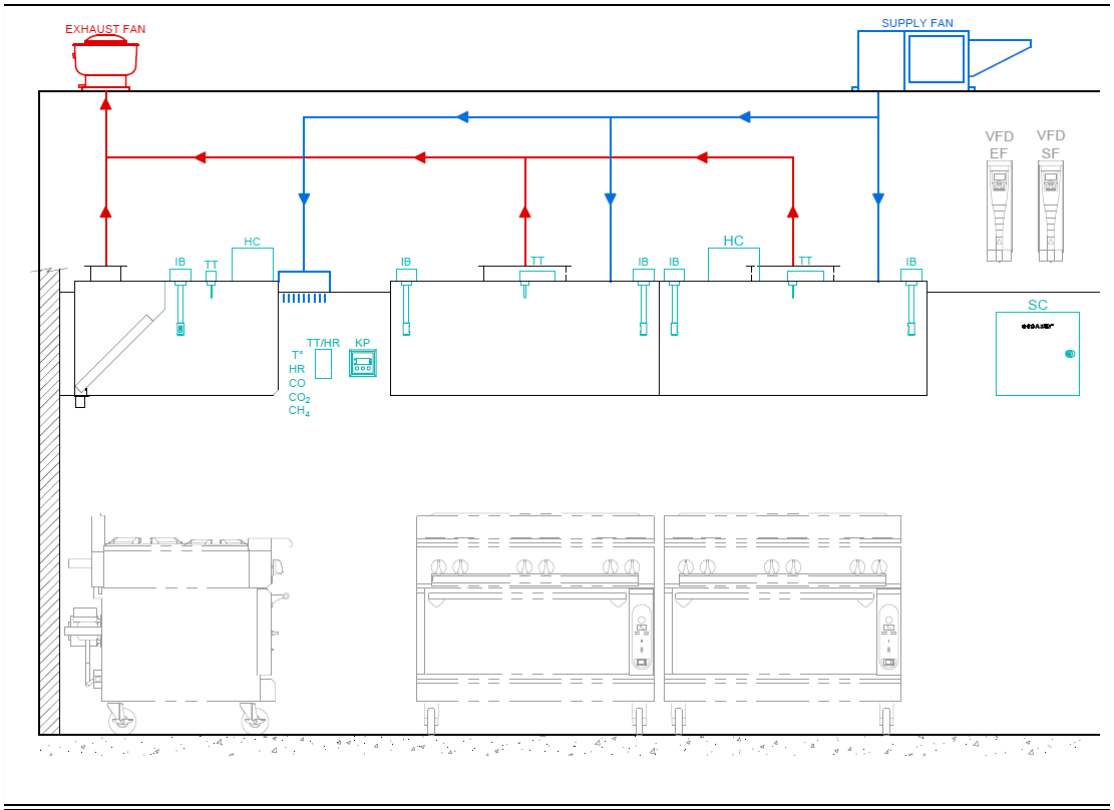
Minimum ECOAZUR® requirements concerning all other low voltage control cables are the following: 18 AWG, 75°C (167°F), shielded and plenum (FT6) rated.

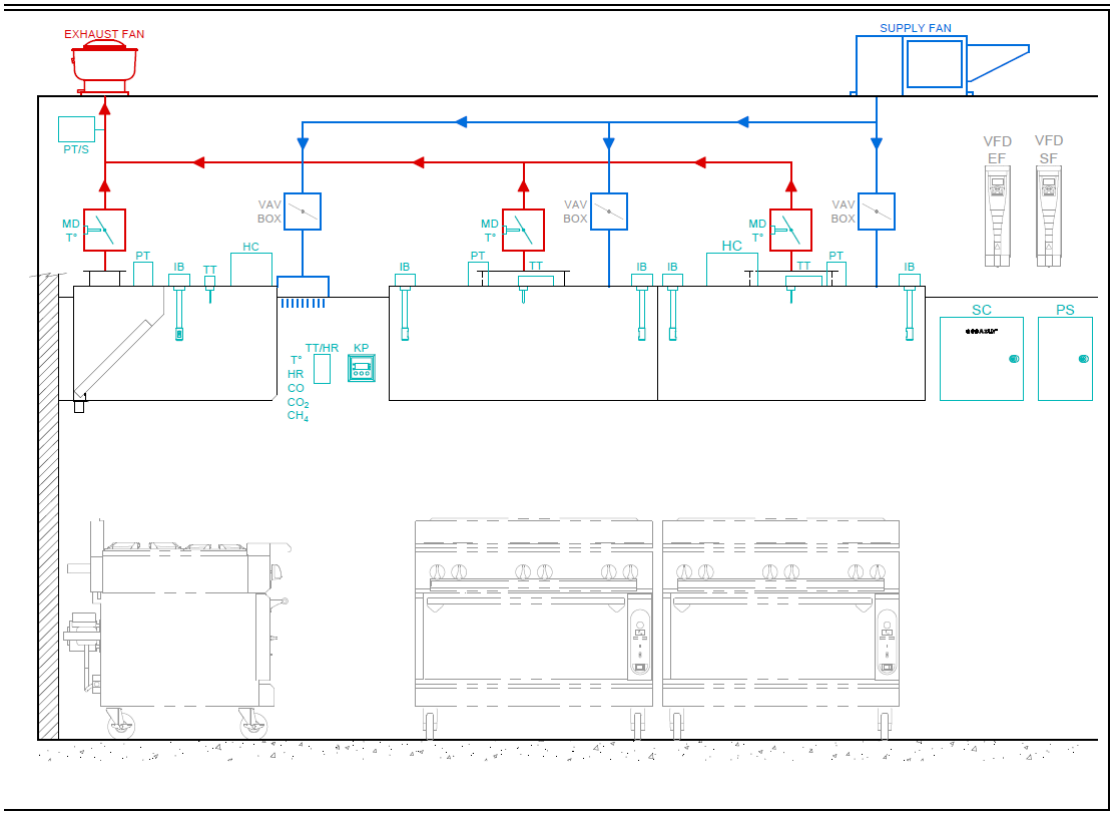
ECOAZUR® components with electrical connections shall be readily inspectable after installation of the exhaust hood.

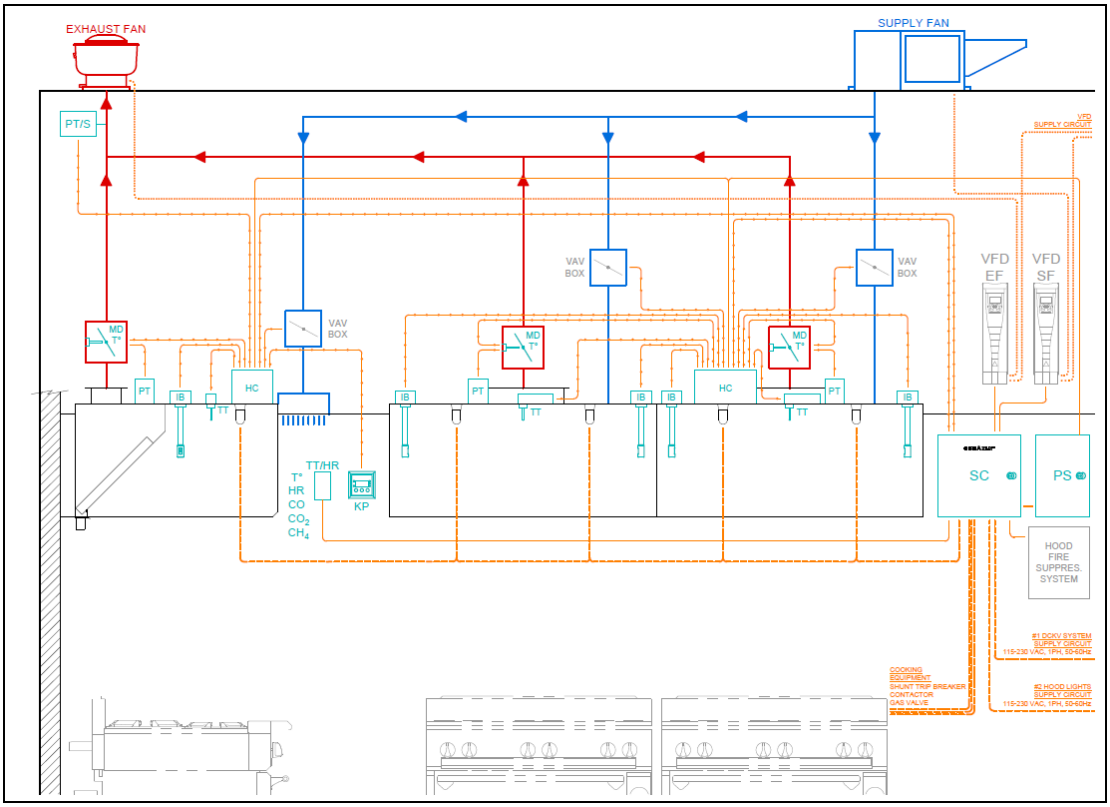
Abbreviations & ECOAZUR® Components

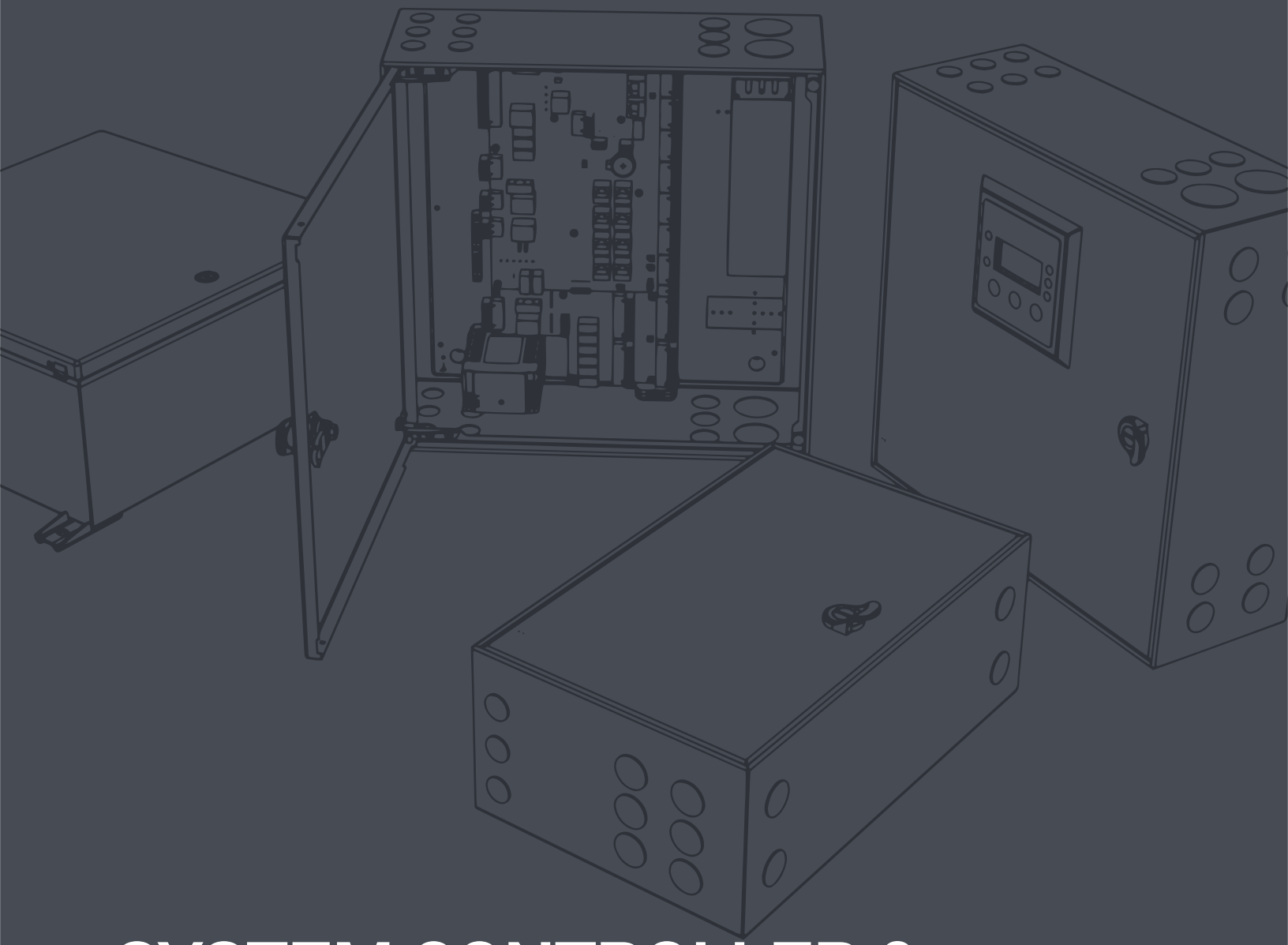
BMS	BUILDING MANAGEMENT SYSTEM
CS	CURRENT SWITCH
DCKV	DEMAND CONTROL KITCHEN VENTILATION
ECM	ELECTRONICALLY COMMUTATED MOTOR
HC	ECOAZUR® HOOD CONTROLLER
IB	ECOAZUR® *IRIS BLEU*® OPTIC SENSOR
KP	ECOAZUR® KEYPAD
MD	ECOAZUR® MODULATING DAMPER
NC	ECOAZUR® NETWORK CABLE
PS	ECOAZUR® POWER SUPPLY
PT	ECOAZUR® PRESSURE TRANSMITTER
RS	ECOAZUR® ROOM SENSOR
RTU	ROOFTOP UNIT
SC	ECOAZUR® SYSTEM CONTROLLER
TT	ECOAZUR® TEMPERATURE TRANSMITTER
VB	VARIABLE AIR VOLUME BOX
VFD	VARIABLE FREQUENCY DRIVE

System Overview Drawings









SYSTEM CONTROLLER & POWER SUPPLY PANEL

V6SC-xxx & V6PS-xxx

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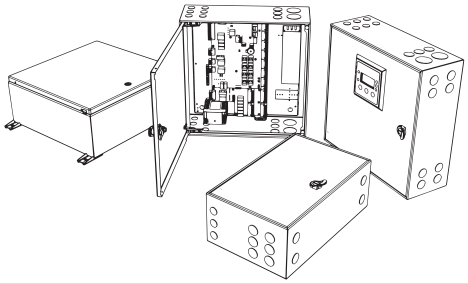
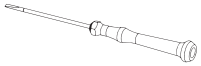


V6SC-xxx & V6PS-xxx

SYSTEM CONTROLLER & POWER SUPPLY PANEL

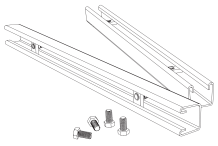
REQUIRED TOOLS

(According to conduits dimensions)



1/8″

HARDWARE



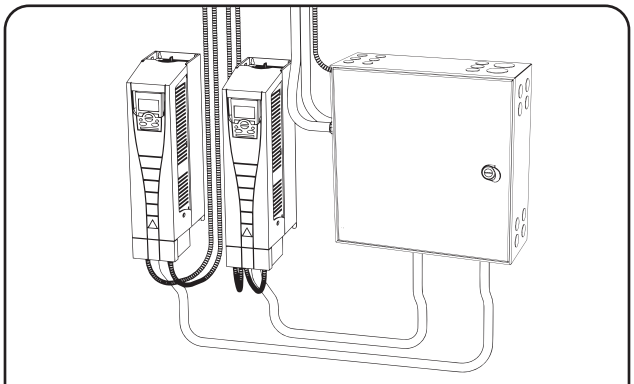
(not included)

⚠ CAUTION! ⚠

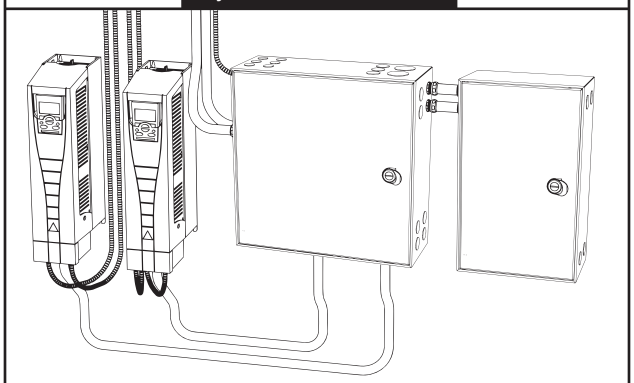
Processor Panel Product Numbers: V6SC-100, -110, -200, -210, -220, -230, -240, -250, -300, -310, -340, -350, -410, -440, -450
Power Supply Panel Product Numbers: V6PS-210, -220, -230, -310, -320, -330, -410, -420, -430
Other components: V6SC-011, -021, -041

1 Mark & Drill

Recommended Locations

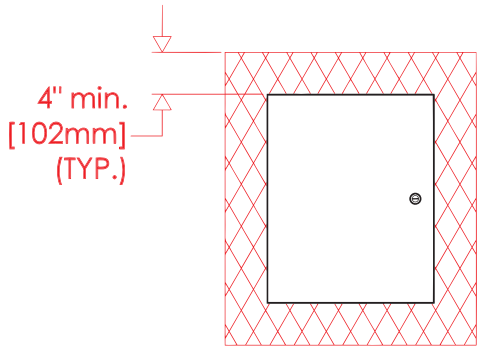


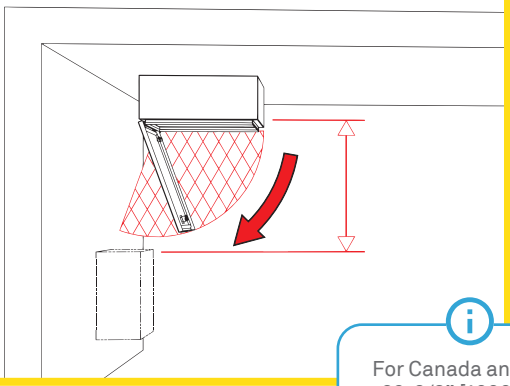
System Controller Panel



System Controller Panel + Power Supply Panel

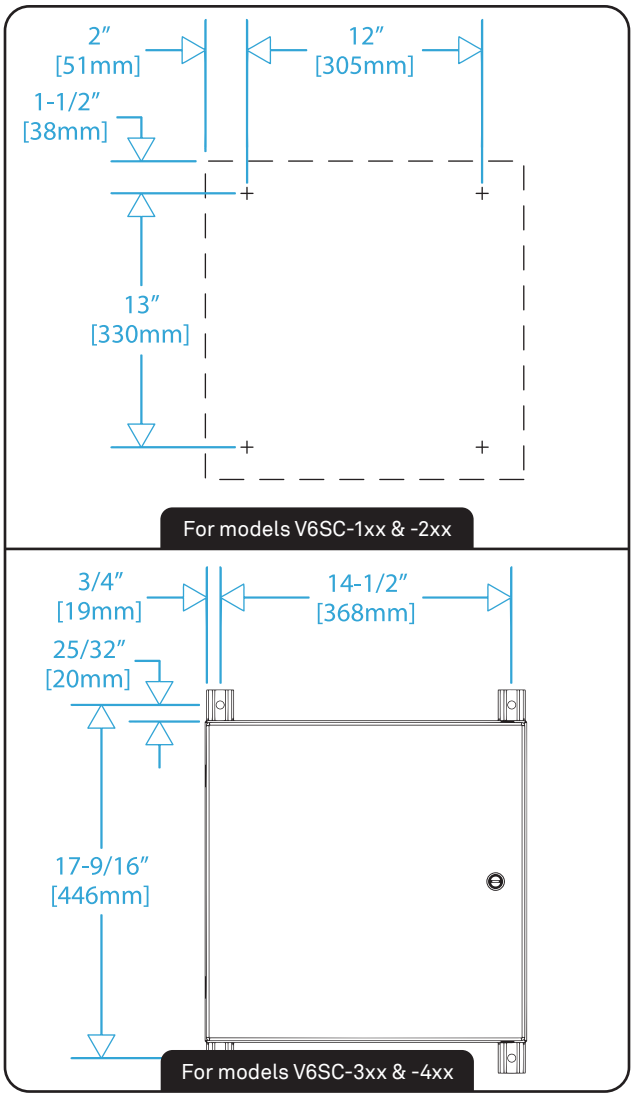
FOLLOW NATIONAL AND LOCAL STANDARDS AND CODES

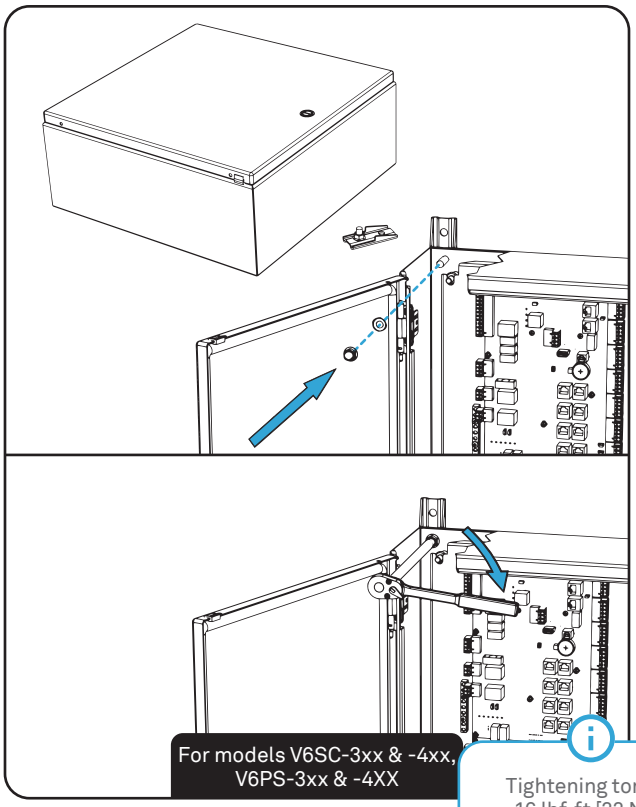


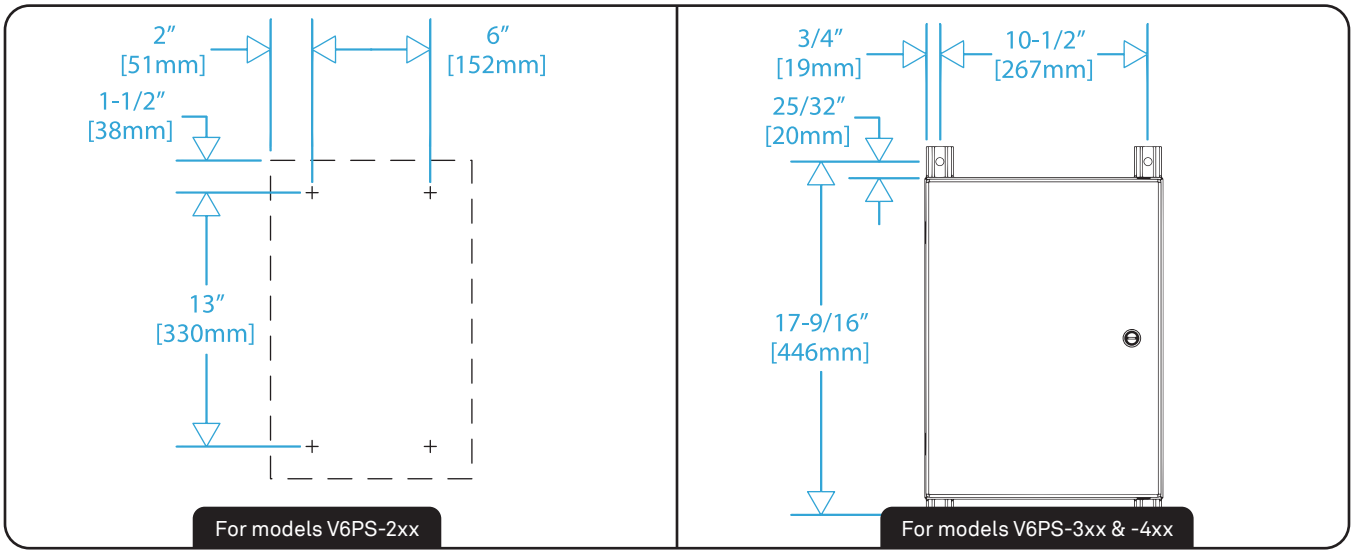


For Canada and USA
39-3/8” [1000 mm]

Mark & Drill (cont'd)

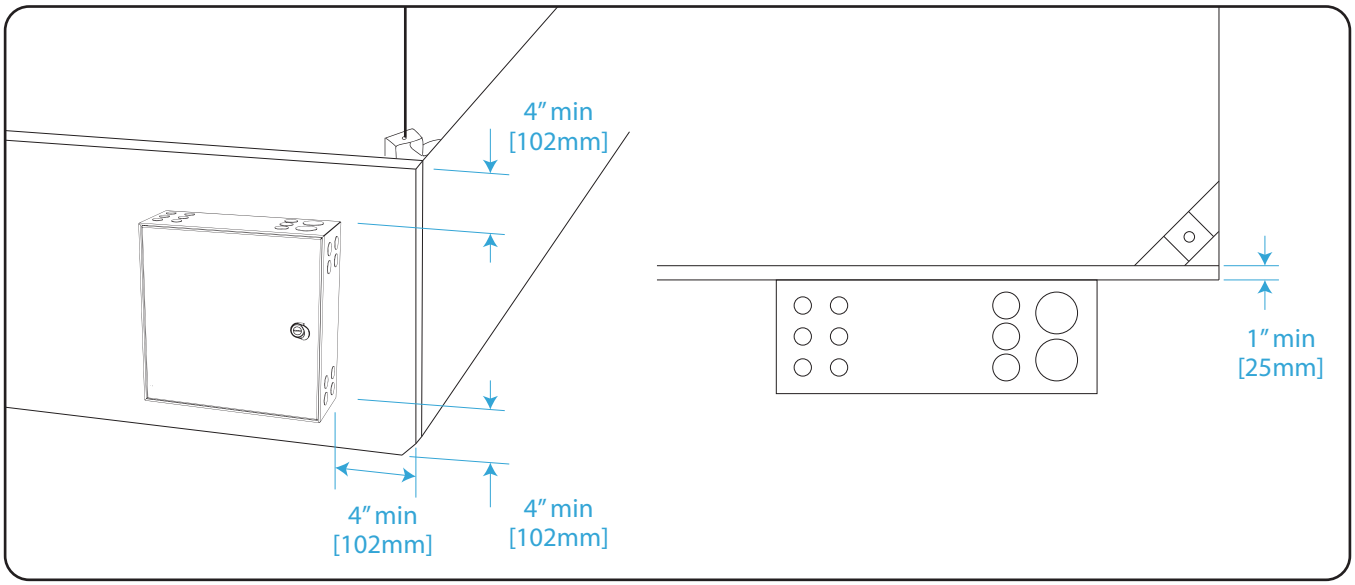


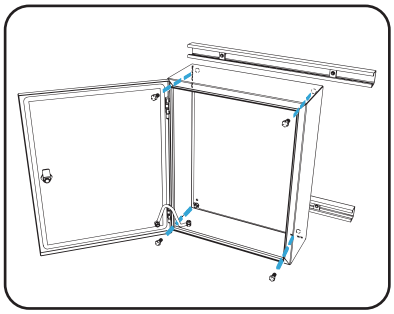


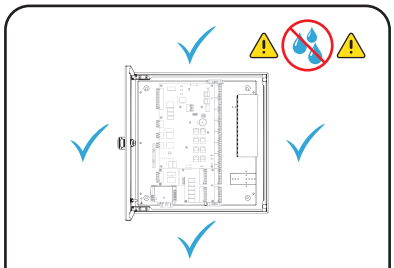


Mark & Drill (cont'd)

Hood Mount

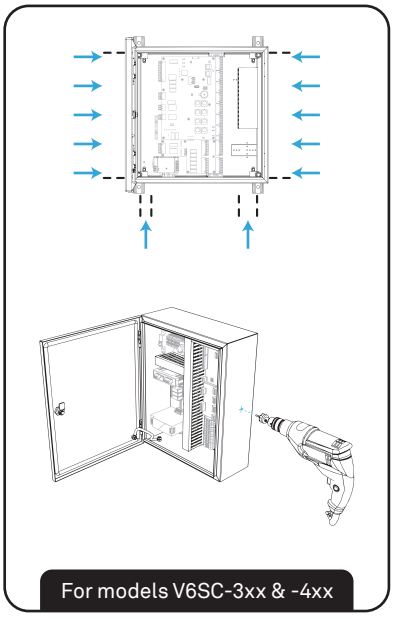






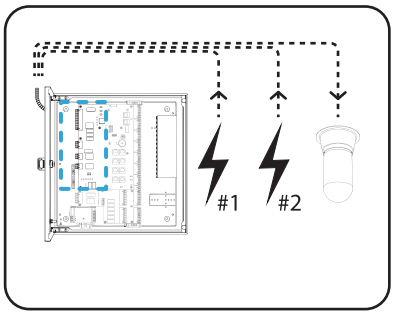
Use any of the following conduits and fittings:
- EMT Ø1/2" or 16mm RMC
- EMT Ø3/4"or 21mm RMC
- EMT Ø1-1/4" or 35mm RMC

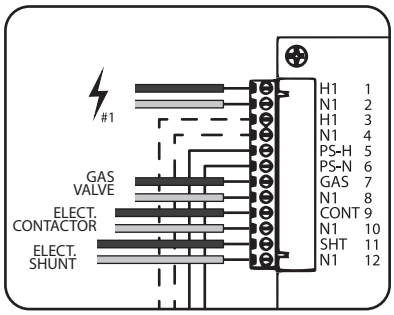
For models V6SC-1xx & -2xx

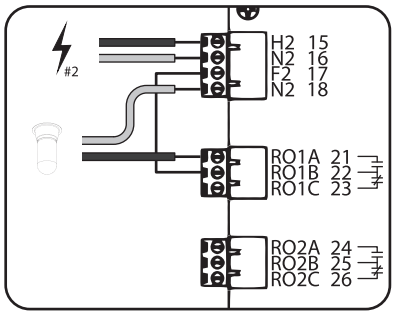


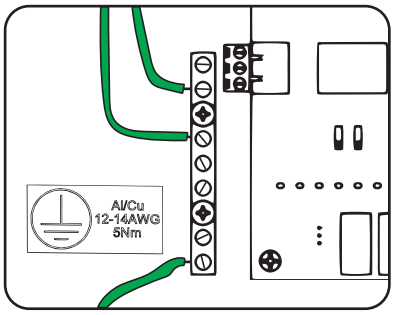
For models V6SC-3xx & -4xx

2 Connect 115/230V Circuits





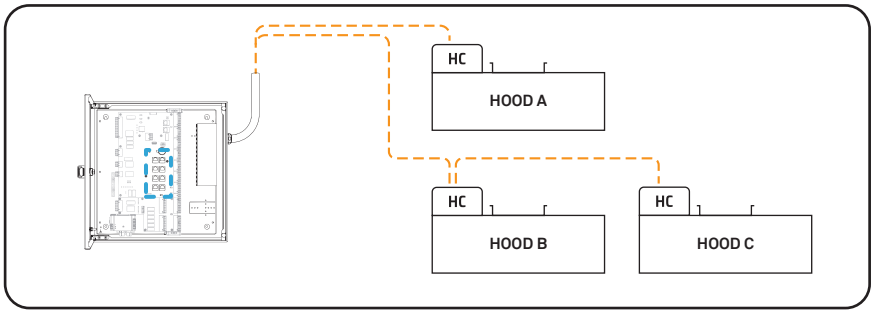


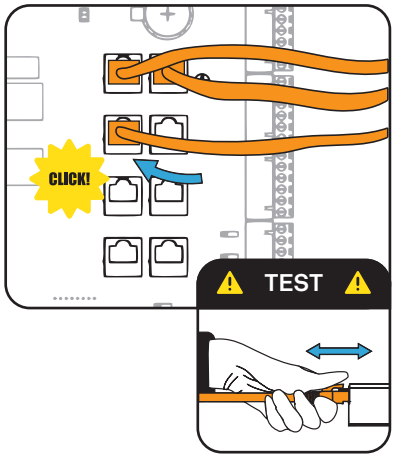


⚠ CAUTION! ⚠

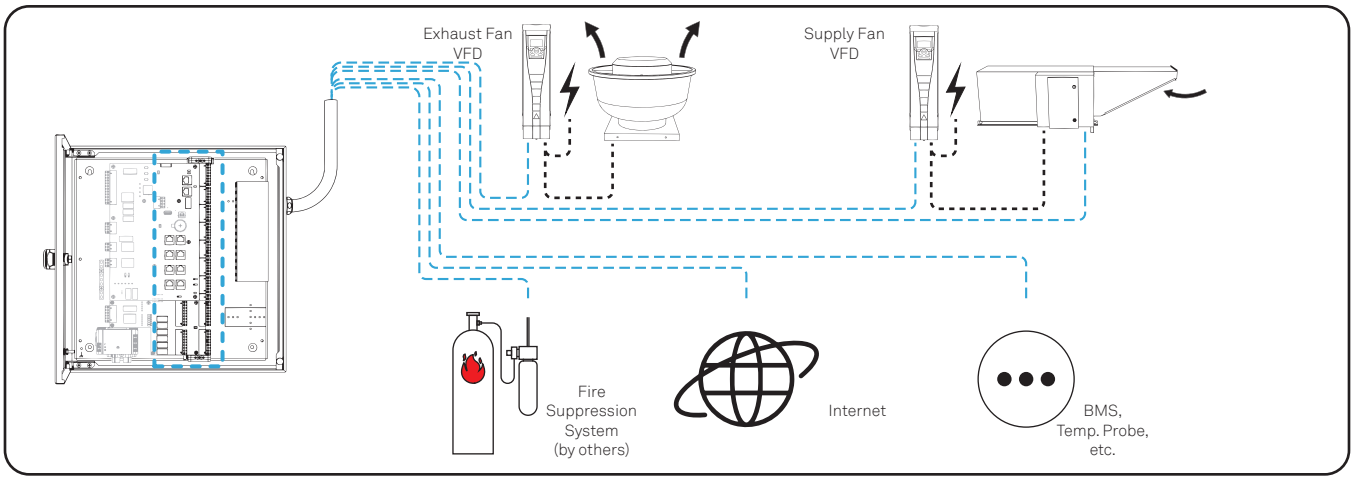
Refer to ECOAZUR® Electrical Diagrams

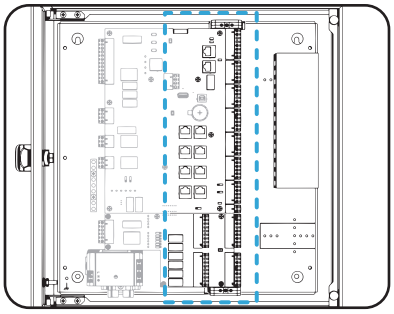
3 Connect Low Voltage Circuits (24V MAX.)

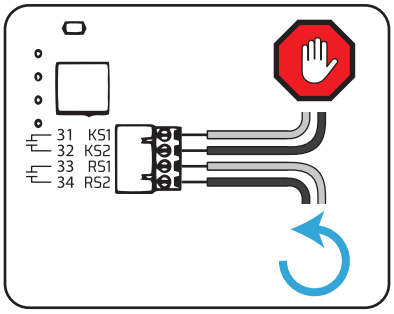




Connect Low Voltage Circuits (24V MAX.) (cont'd)







⚠ CAUTION! ⚠

Refer to ECOAZUR® Electrical Diagrams

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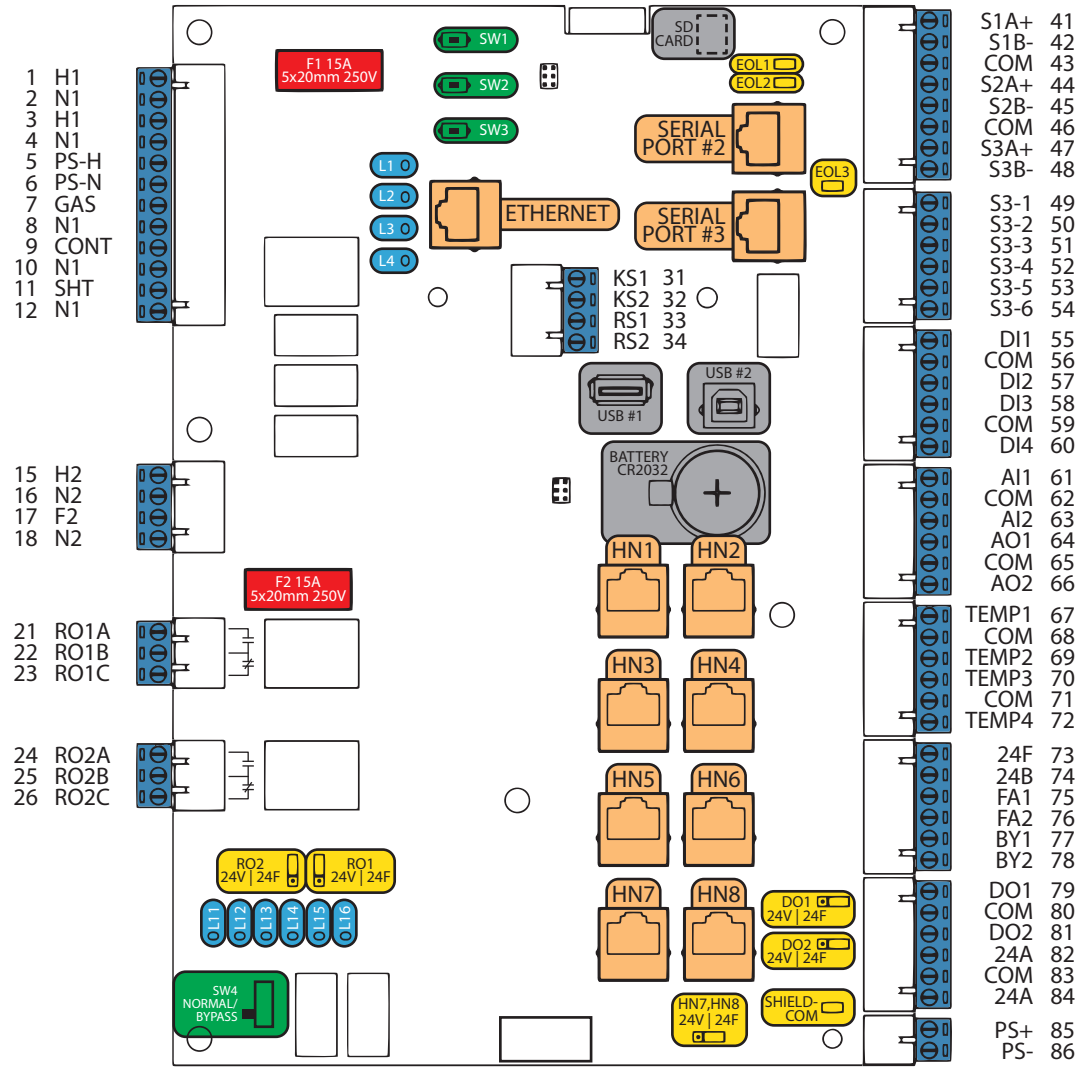
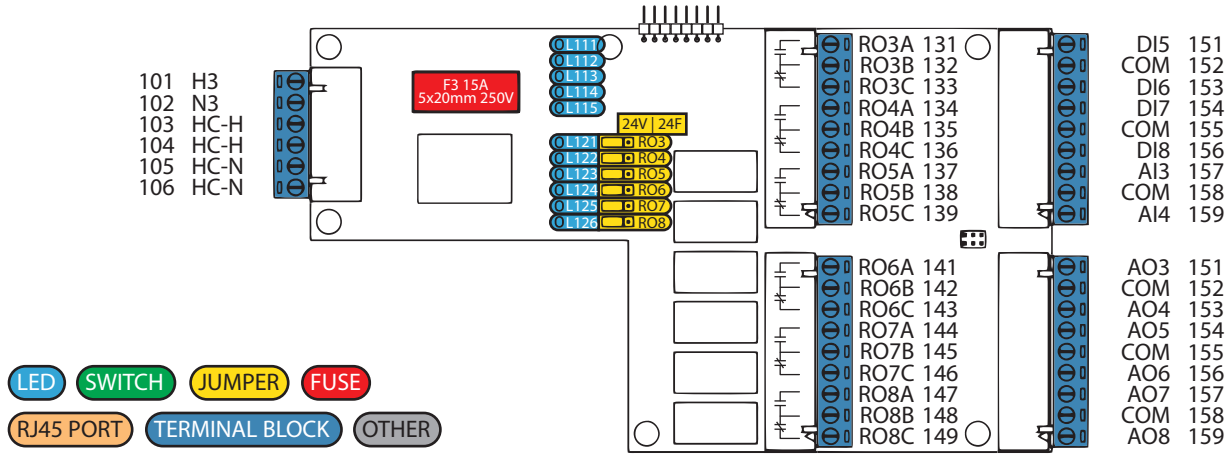
4 Board Configuration

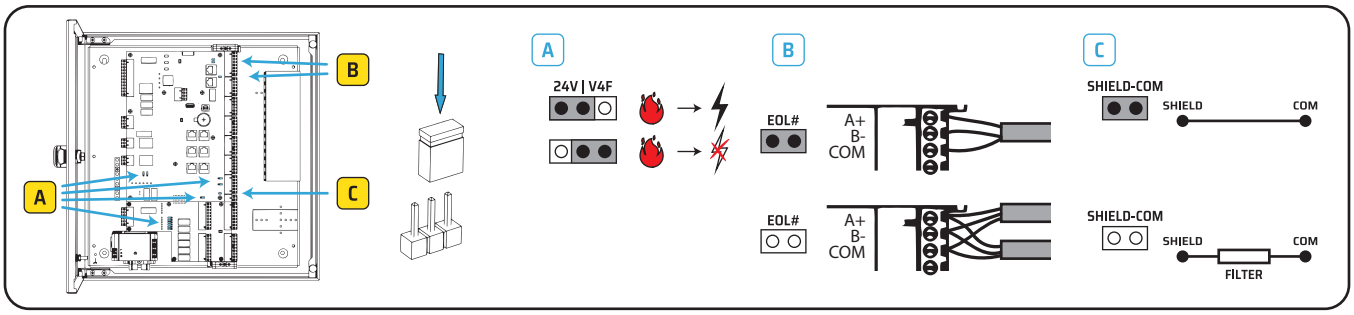
System Controller Board for models V6SC-xxx(V6SC-011)

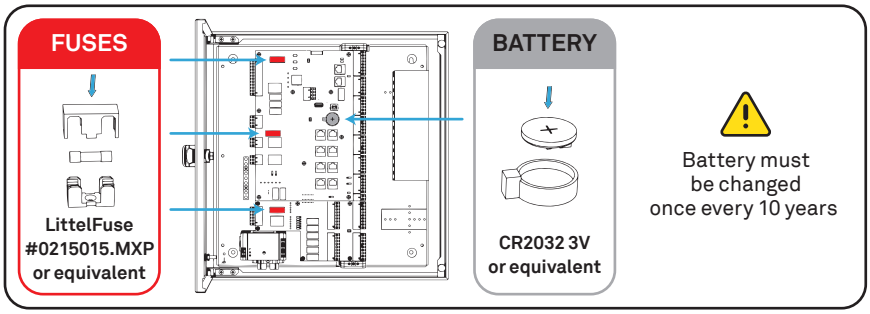


Extension I/O Board for models V6SC-x10, -x30 & -x50 (V6SC-021)



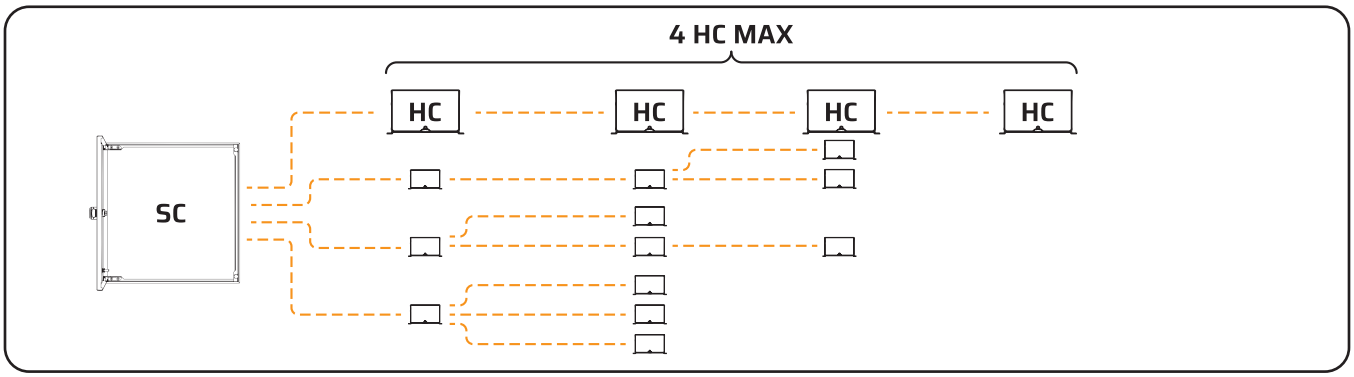
Board Configuration (cont'd)

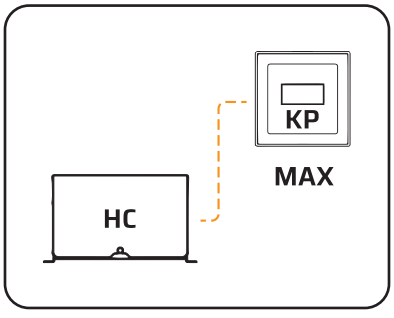




5 System Design Rules

Hood Network





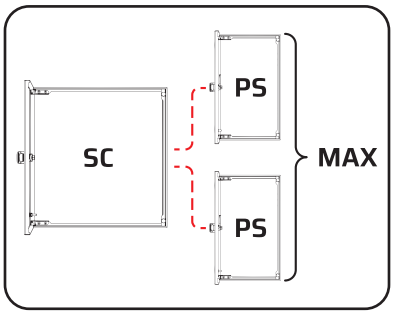
⚠ CAUTION! ⚠

Max. 4 Hood Controllers per System Controller hood network port (HN1 through HN8)

Max. 1 Keypad per Hood Controller

System Design Rules (cont'd)

Power Supply Panels

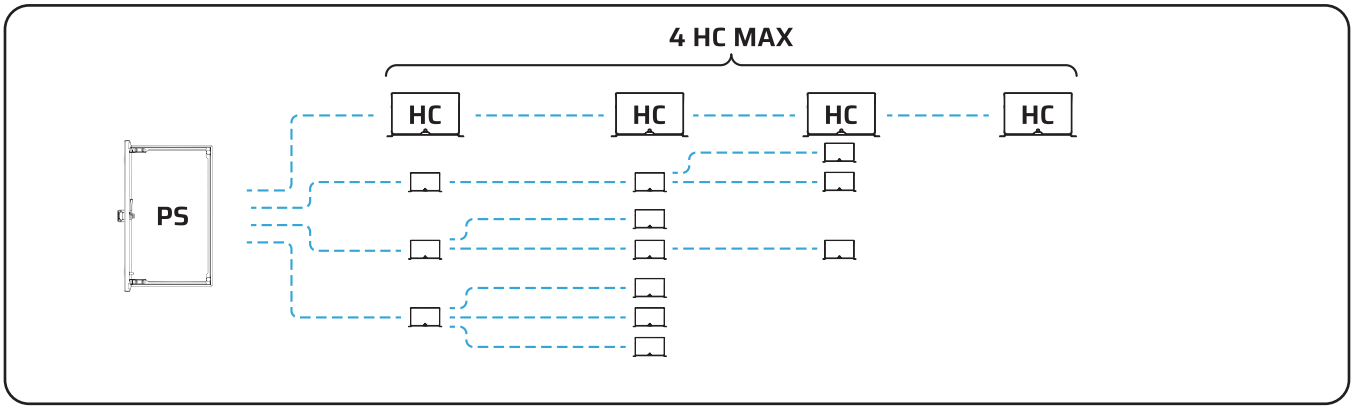


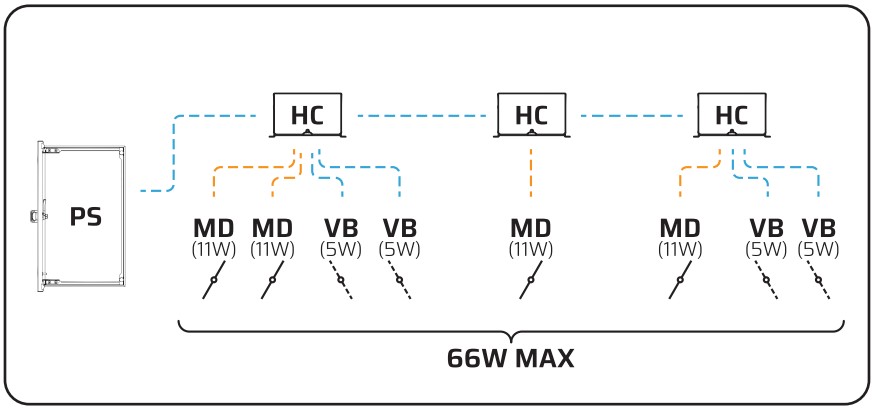
⚠ CAUTION! ⚠

Max. 2 Power Supply panels per System Controller

Max. 2 circuits (24 VDC, 4A) per Power Supply panel (for models V6PS-210, -310 & -410)
Max. 5 circuits (24 VDC, 4A) per Power Supply panel (for models V6PS-220, -320 & -420)

Low Voltage Circuits (24 VDC) connected to Hood Controllers with Modulating Dampers and VAV Boxes





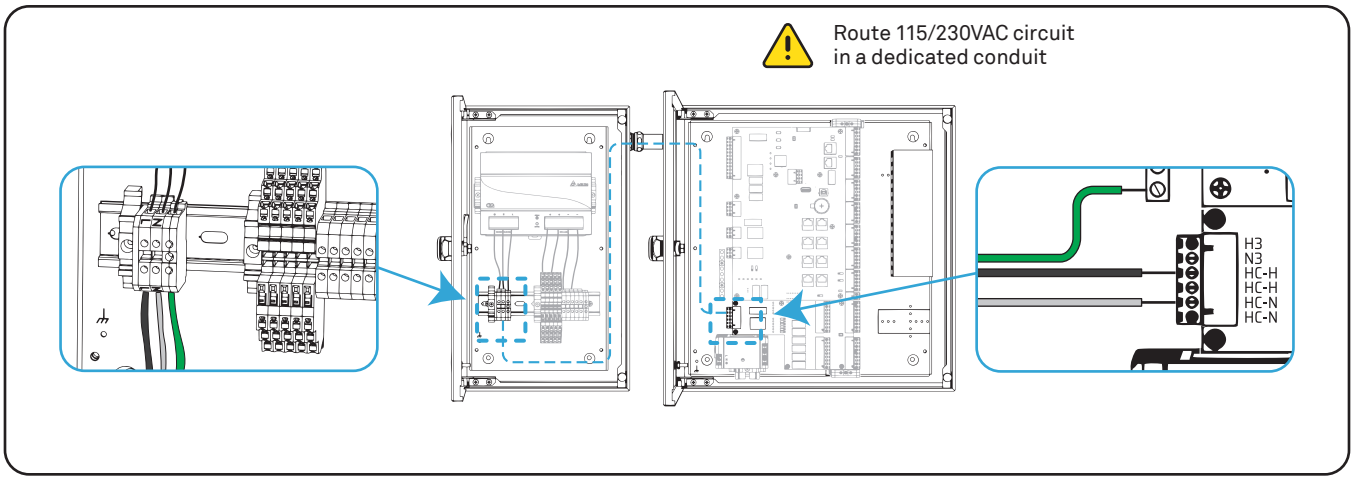
⚠ CAUTION! ⚠

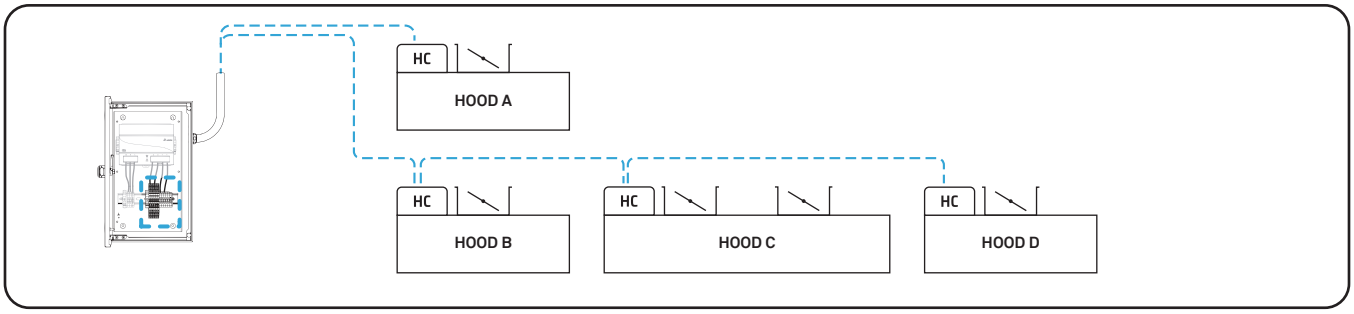
Max. 4 Hood Controllers per Power Supply circuit (24 VDC, 4A)

Max. 11W per Modulating Damper
Max. 5W per VAV Box
Max. 66W total per Power Supply circuit (24 VDC, 4A)

Max. 250mA for external devices connected to "24A" auxiliary terminals per Power Supply circuit (24 VDC, 4A)

6 Connect Power Supply Panel V6PS-xxx (if applicable)





⚠ CAUTION! ⚠

Refer to ECOAZUR® Electrical Diagrams

RECESSED KEYPAD

V6KP-100 & -200

Installation Manual

ecoAzur®

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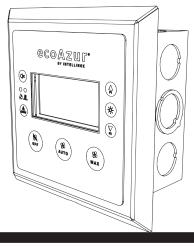
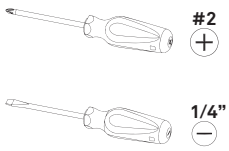


V6KP-100 & -200
RECESSED KEYPAD

REQUIRED TOOLS



HARDWARE

x2

1-1/4" [32mm]

x1

3/4" [19mm]

#8 [M4] Screws

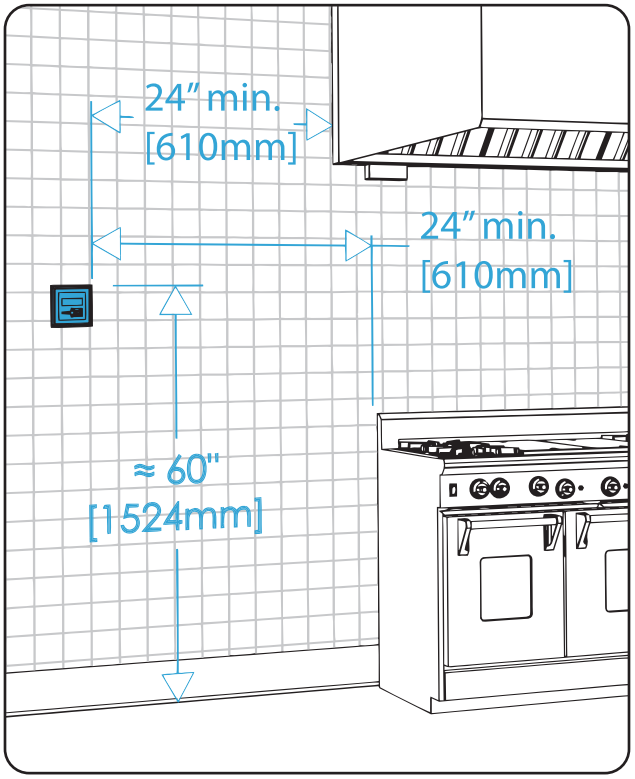
x2

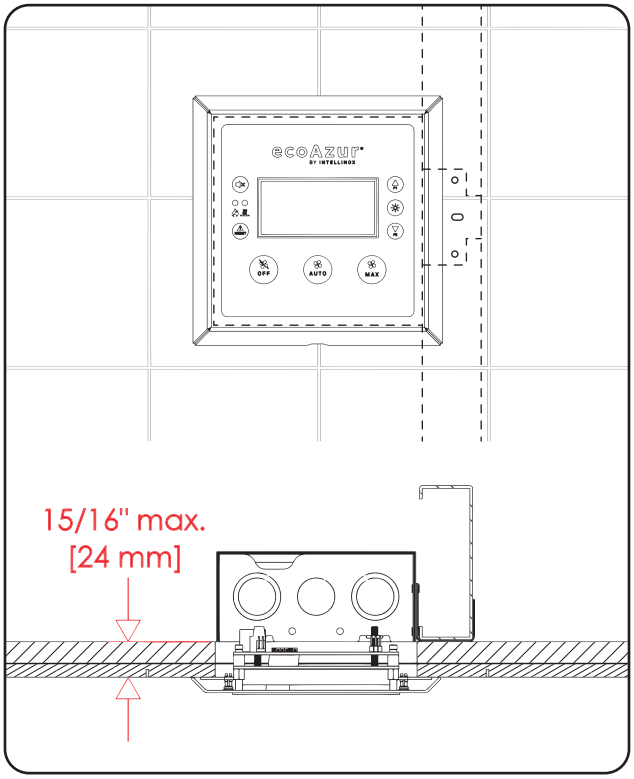
(not included)

⚠ CAUTION! ⚠

1 Mark & Drill

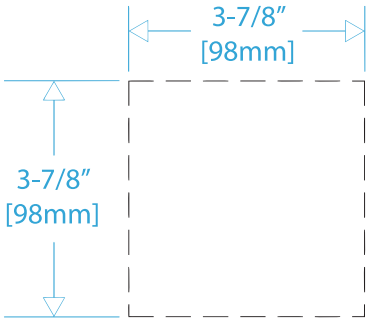
Recommended Location



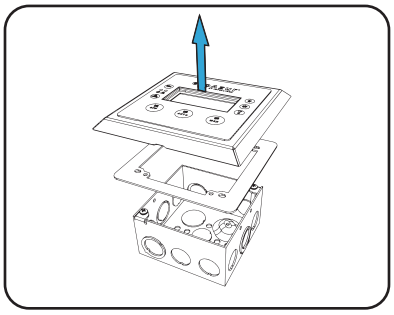


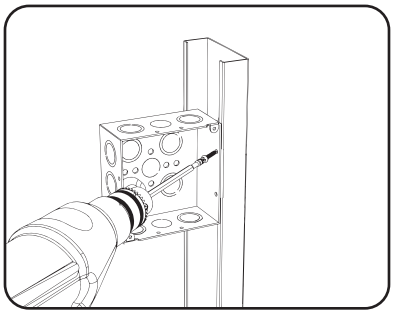
Mark & Drill (cont'd)

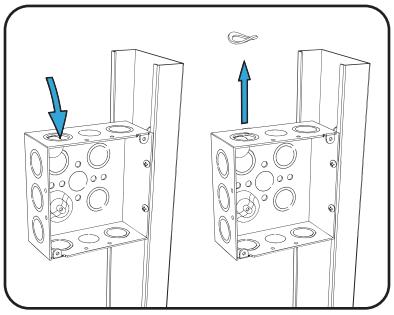
WALL CUTOUT

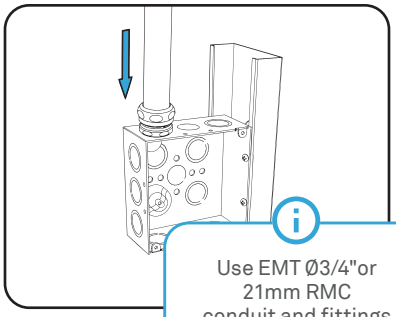


2 Install



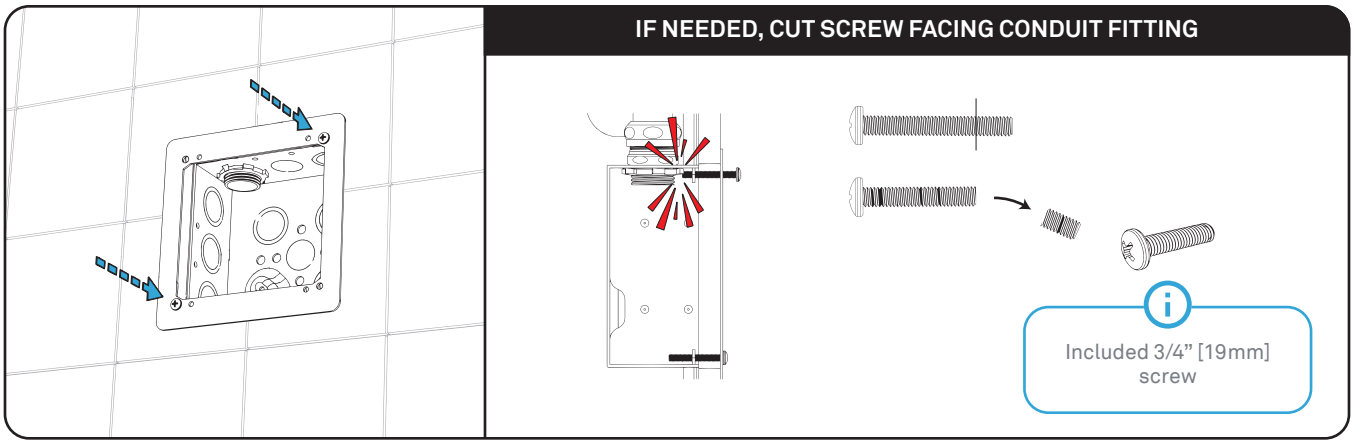






Use EMT Ø3/4"or
21mm RMC
conduit and fittings

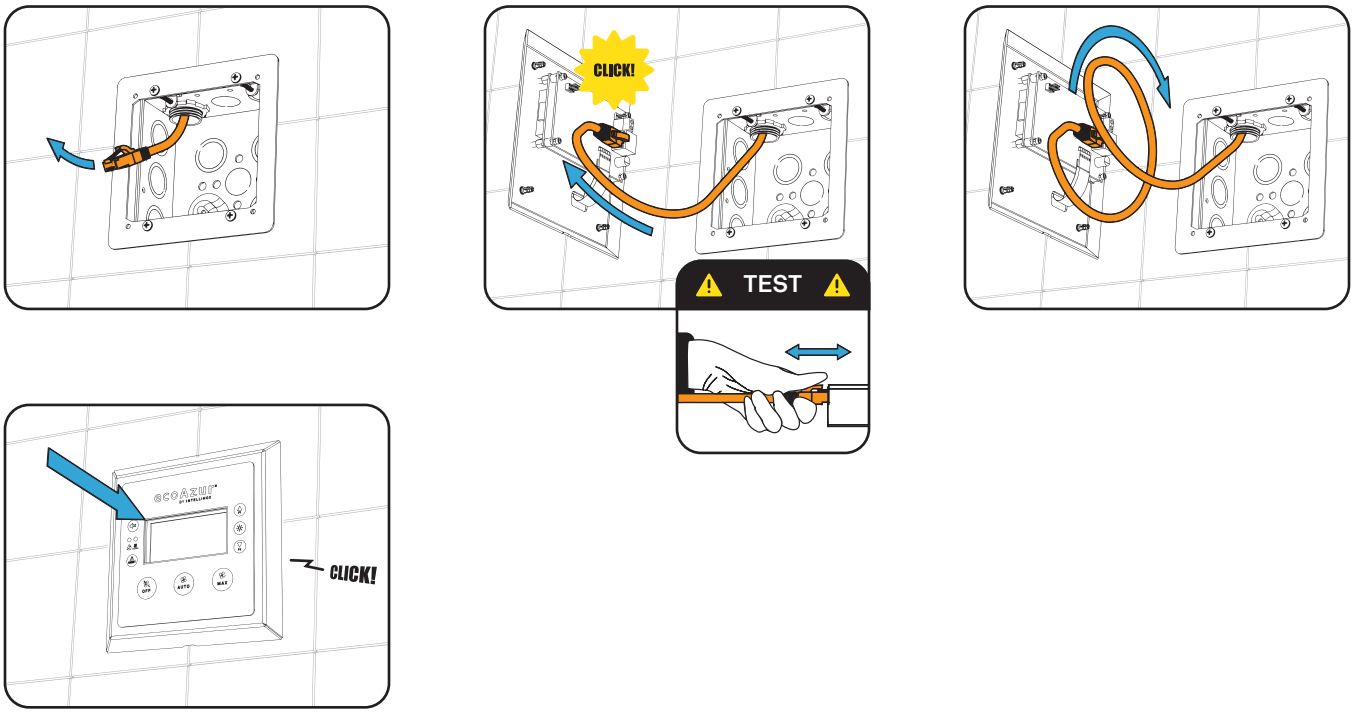
Install (cont'd)



⚠ CAUTION! ⚠

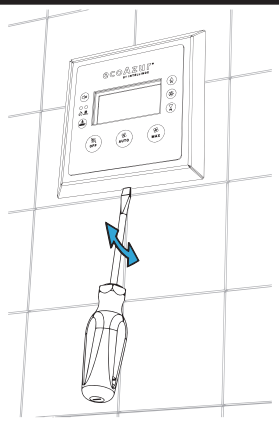
This step must be done after finished wall completion

3 Connect

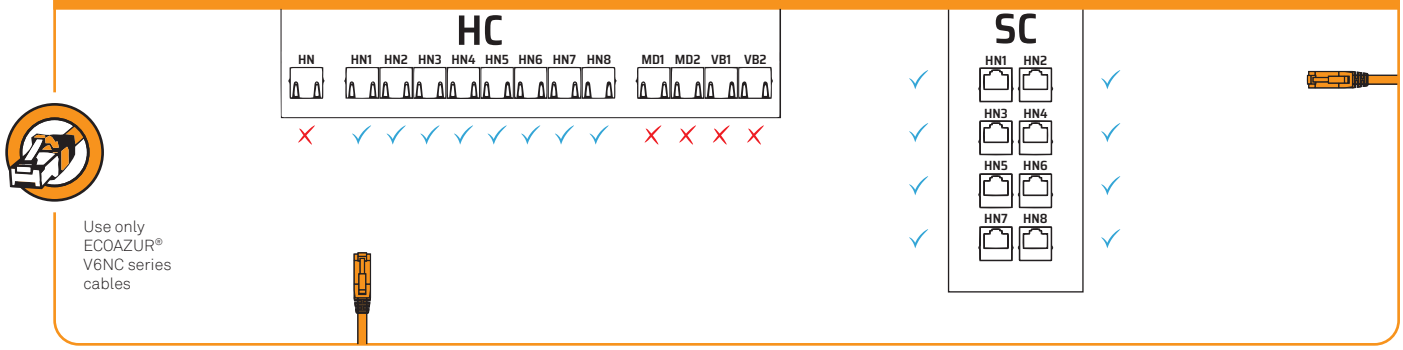


Connect (cont'd)

TO REMOVE KEYPAD

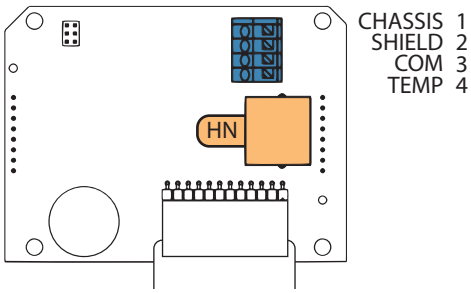


CONNECTIONS

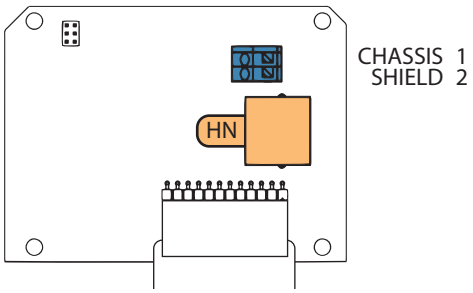


PCBs Layout

Keypad board for model V6KP-100 (V6KP-011)



Keypad Lite board for model V6KP-200 (V6KP-021)



RJ45 PORT TERMINAL BLOCK

RECESSED KEYPAD (Hood Mount)

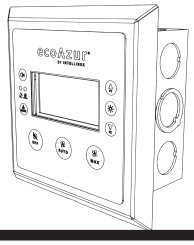
V6KP-100 & -200

Installation Manual

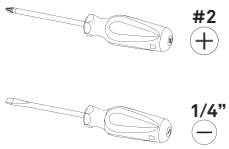
ecoAzur®

V6KP-100 & -200

RECESSED KEYPAD (HOOD MOUNT)



REQUIRED TOOLS



HARDWARE

x2

1-1/4" [32mm]

x1

3/4" [19mm]

#8 [M4] Screws

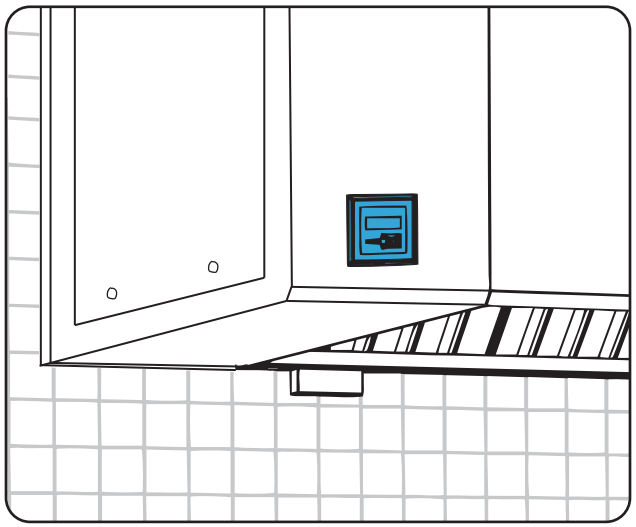
x2

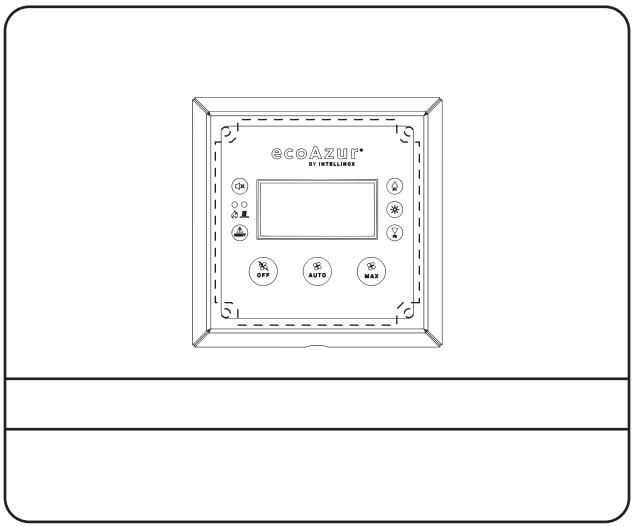
(not included)

⚠ CAUTION! ⚠

1 Mark & Drill

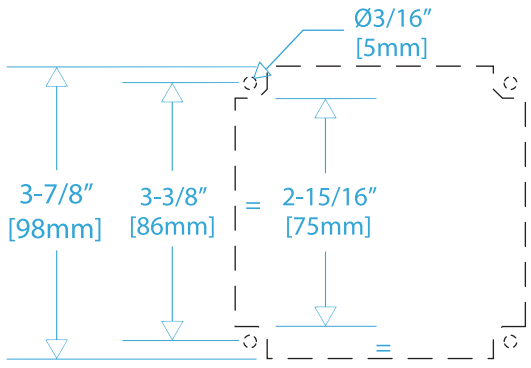
Recommended Location



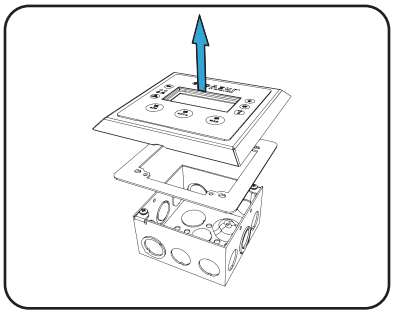


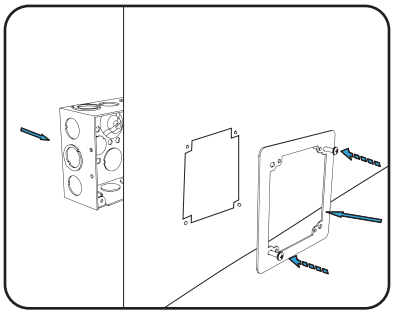
Mark & Drill (cont'd)

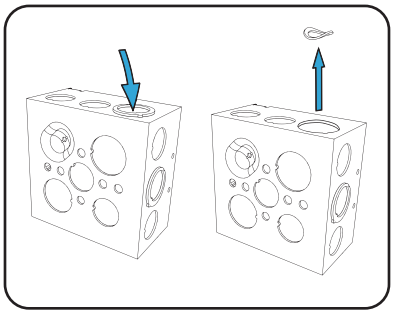
HOOD WALL CUTOUT

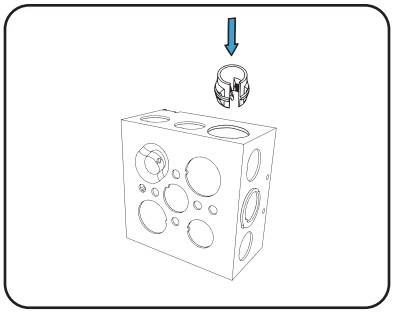


2 Install









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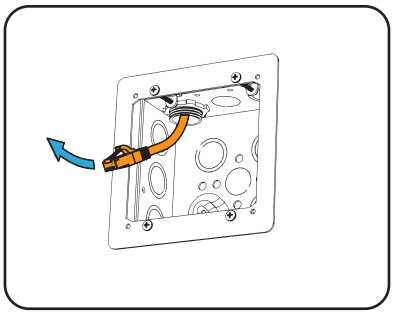
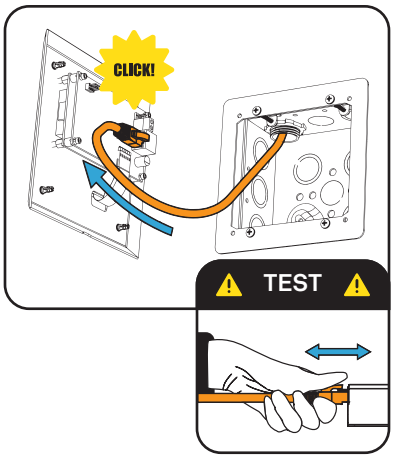
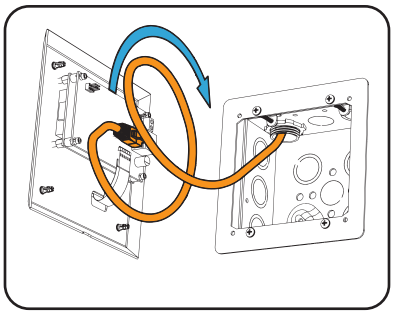
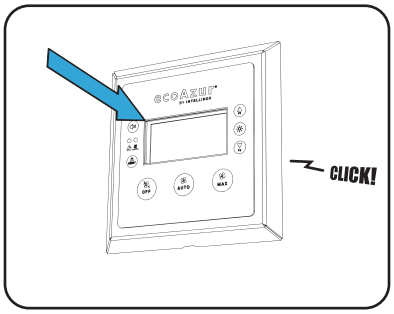
3 Connect

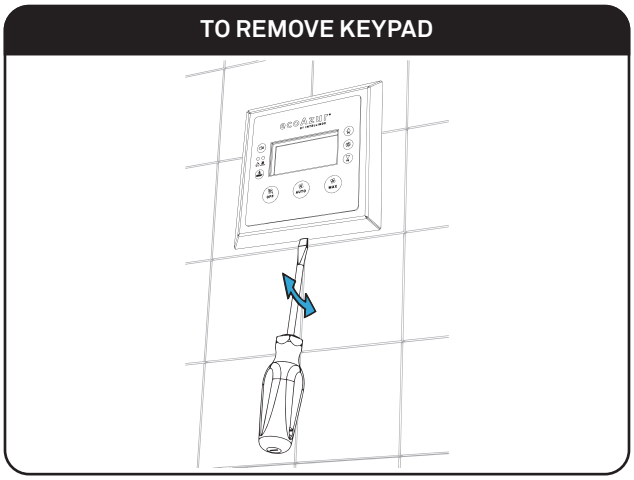




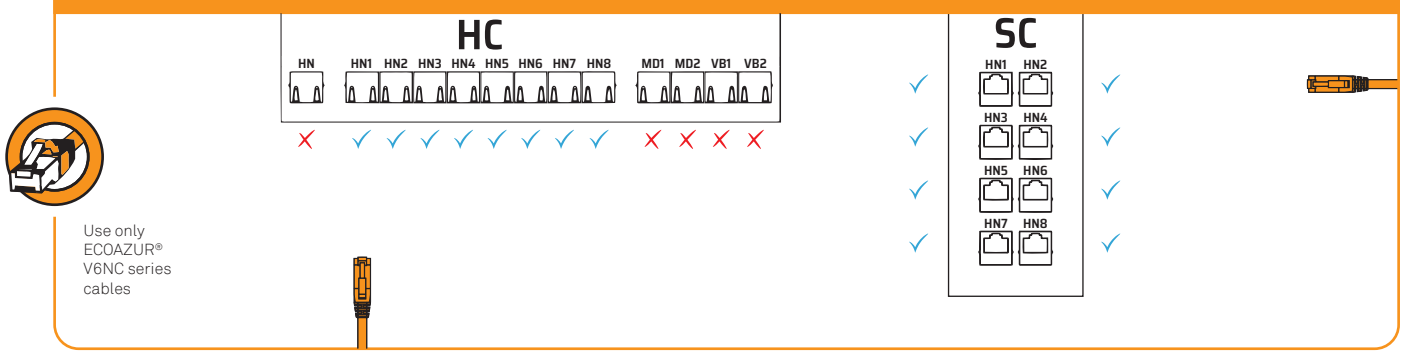




TO REMOVE KEYPAD

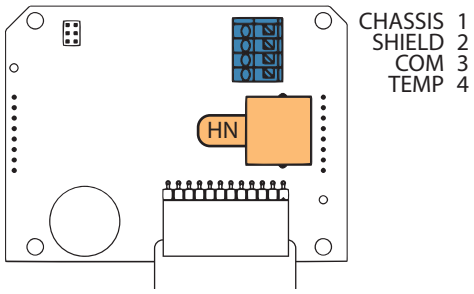


CONNECTIONS

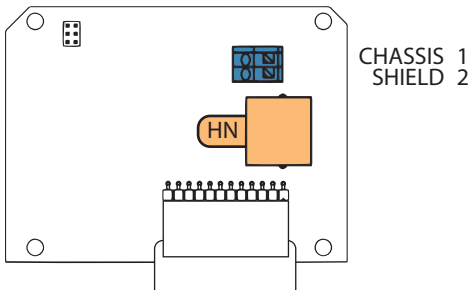


PCBs Layout

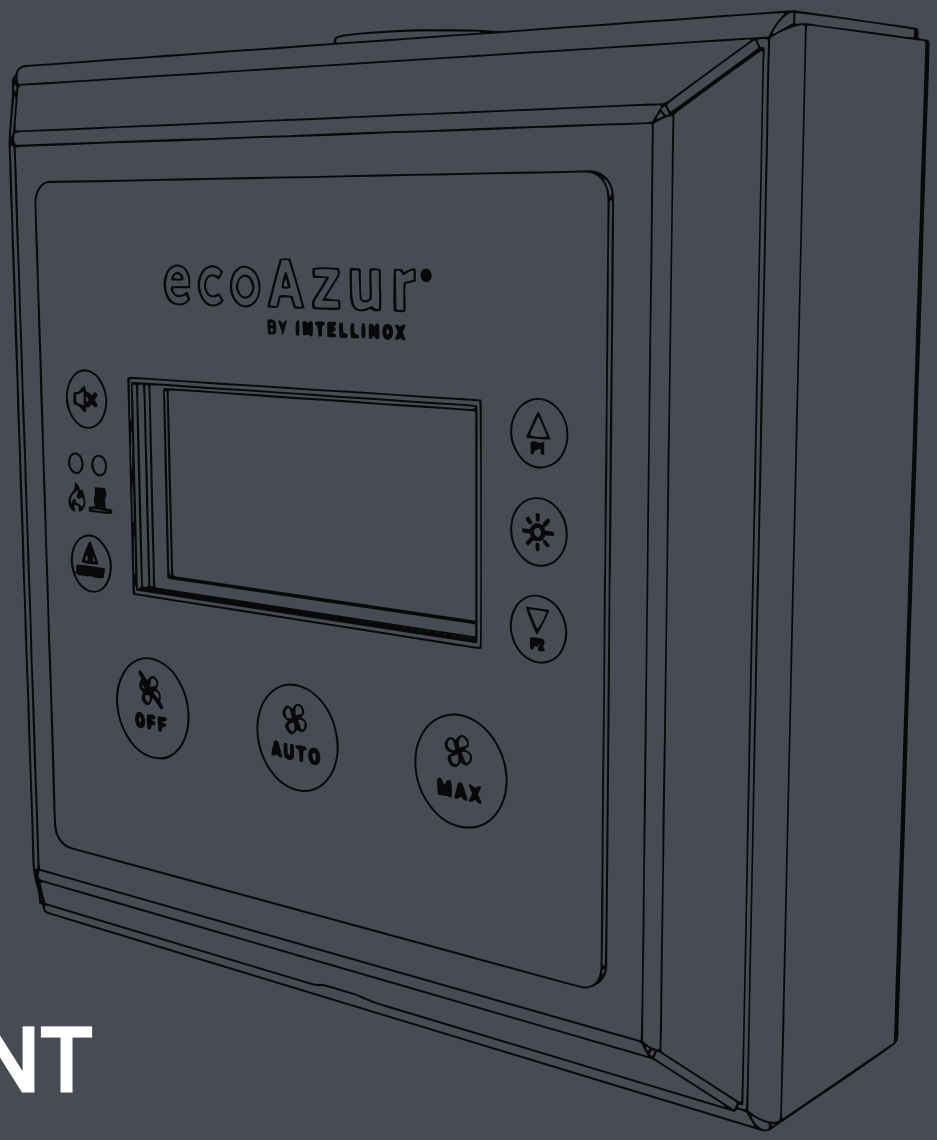
Keypad board for model V6KP-100 (V6KP-011)



Keypad Lite board for model V6KP-200 (V6KP-021)



RJ45 PORT TERMINAL BLOCK



WALL MOUNT KEYPAD

V6KP-110 & -210

Installation Manual

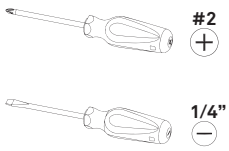
ecoAzur®

ecoAzur®

V6KP-110 & -210

WALL MOUNT KEYPAD

REQUIRED TOOLS



HARDWARE

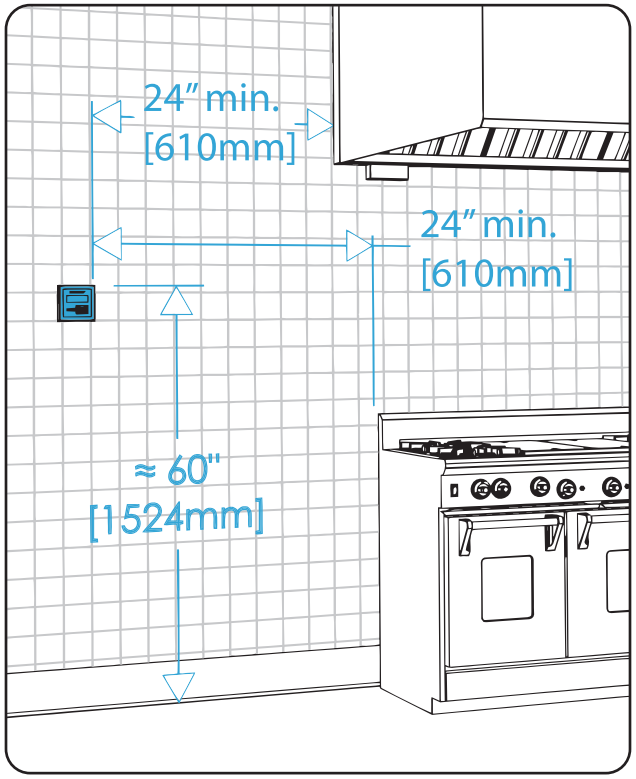
#8 [M4] Screws

(not included)

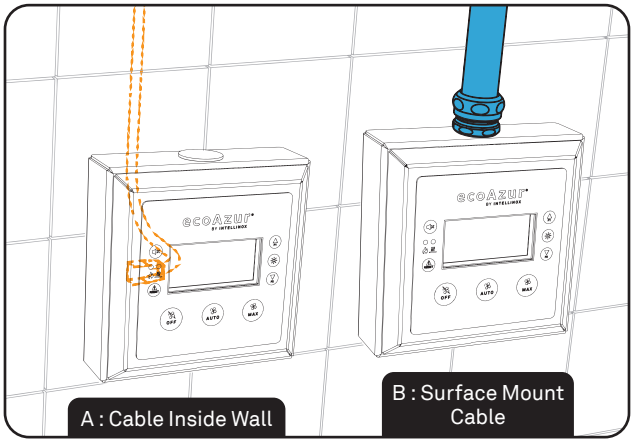
⚠ CAUTION! ⚠

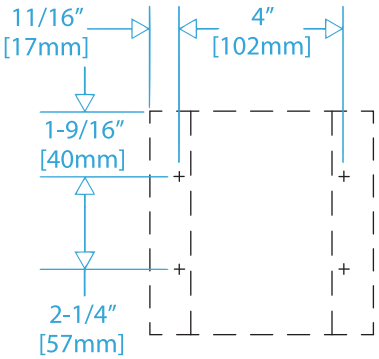
1 Mark & Drill

Recommended Location



Installation Options

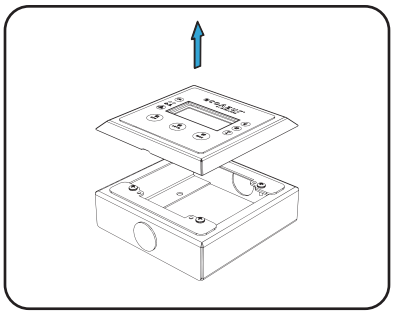


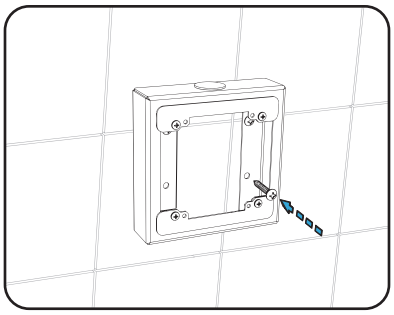


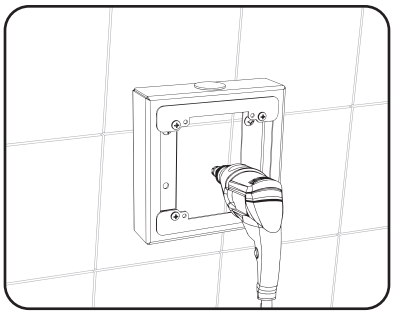
Anchors plugs are recommended to fix the display to the wall (not included)

ecoAzur®

2 Install

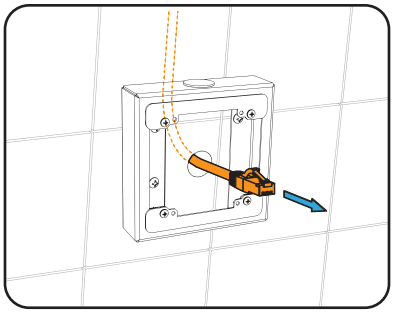


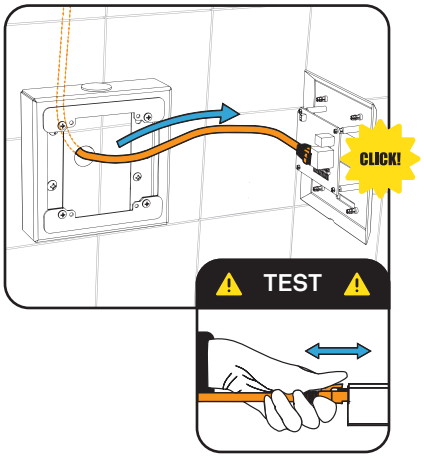


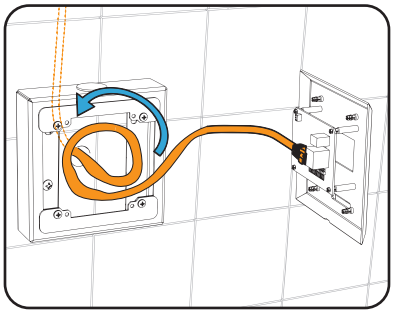


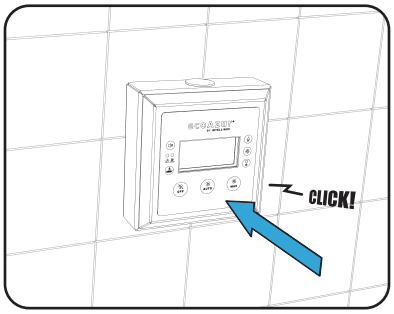
For Option A

3 Connect (option A)









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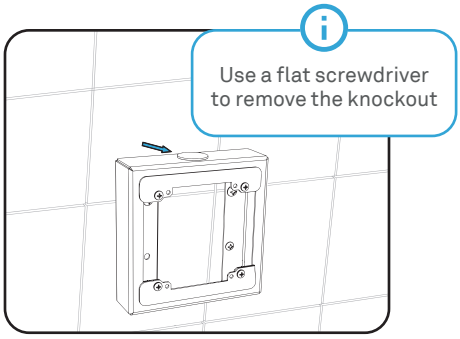
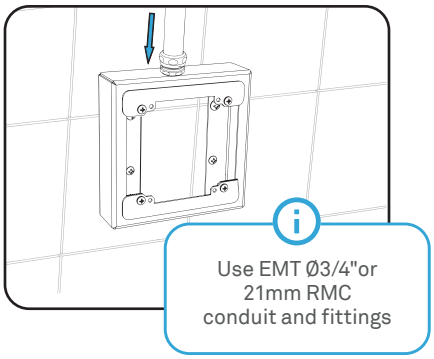
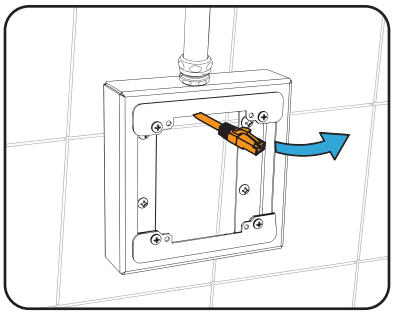
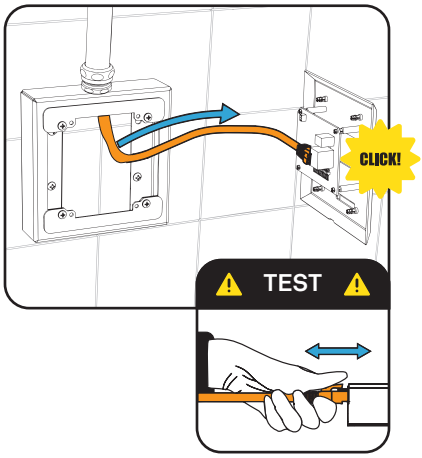
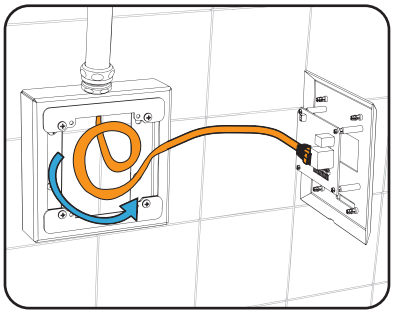
3 Connect (option B)

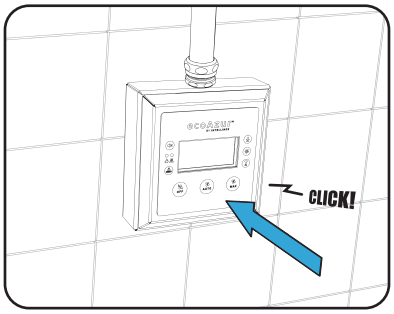




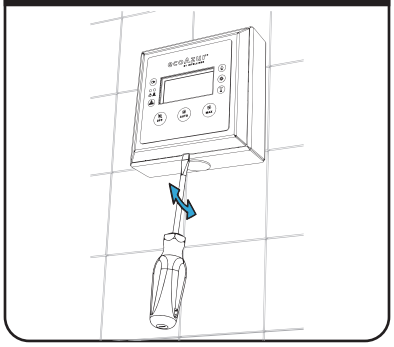




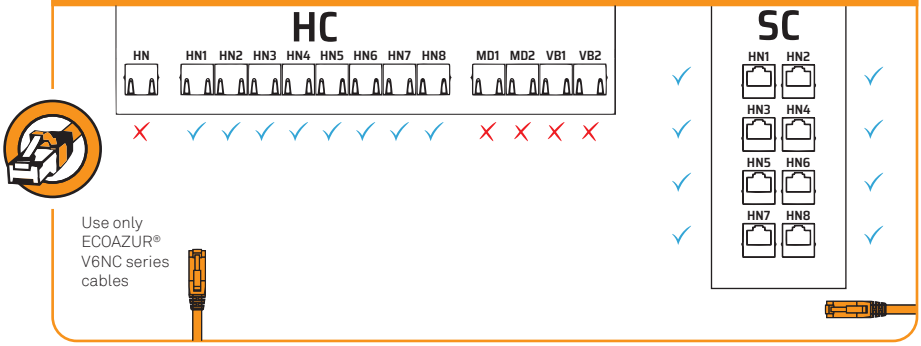




TO REMOVE KEYPAD

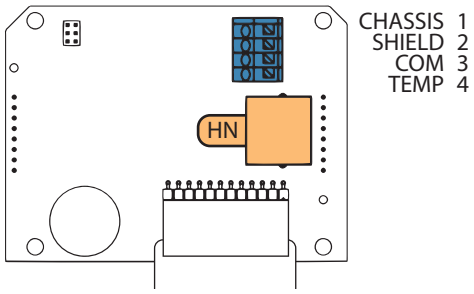


CONNECTIONS

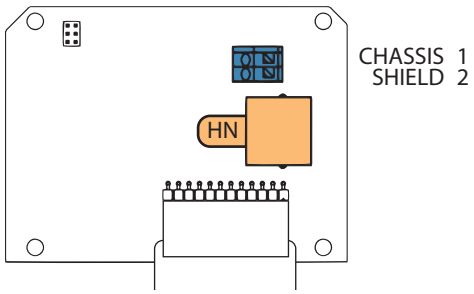


PCBs Layout

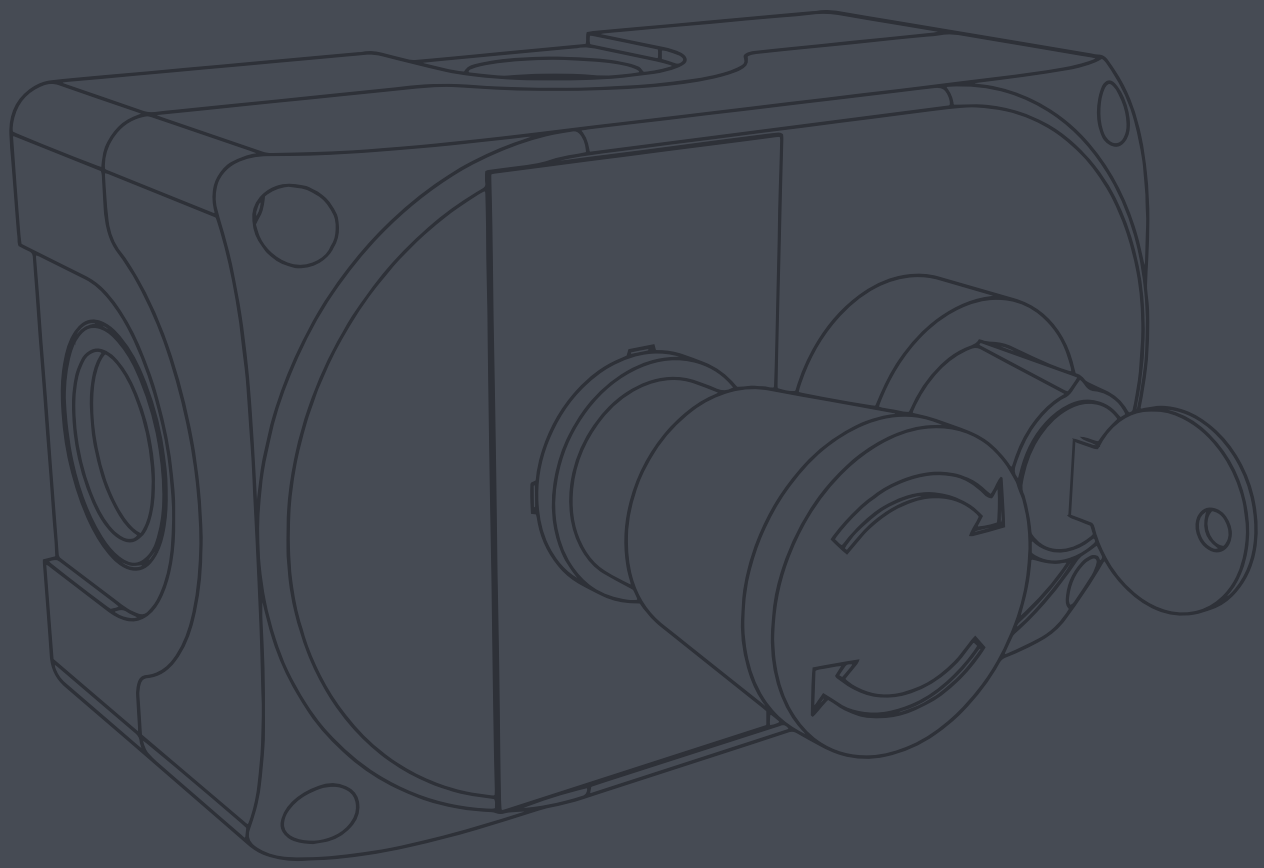
Keypad board for model V6KP-110 (V6KP-011)



Keypad Lite board for model V6KP-210 (V6KP-021)



RJ45 PORT TERMINAL BLOCK



OFF OVERRIDE STATION

V6KP-410

Installation Manual

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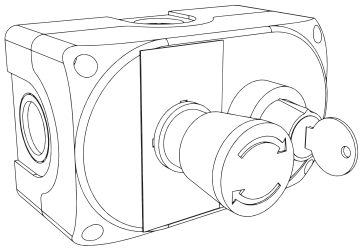
V6KP-410

OFF OVERRIDE STATION



REQUIRED TOOLS

HARDWARE

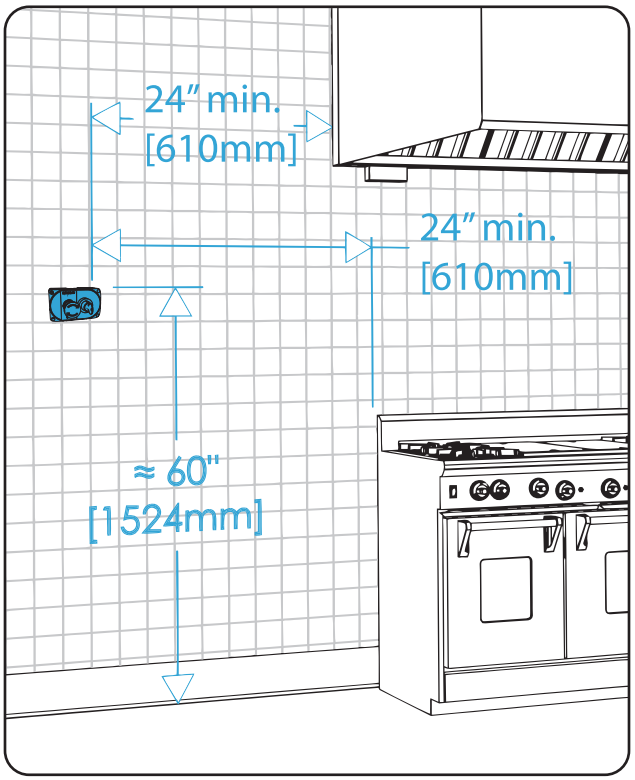
#8 [M4] Screws

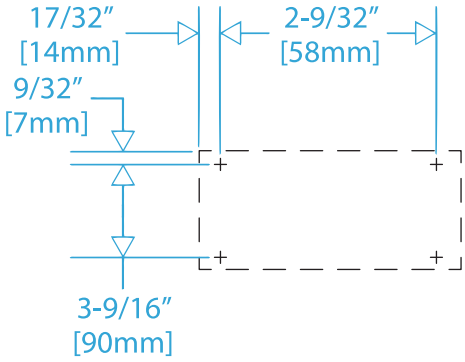
(not included)

⚠ CAUTION! ⚠

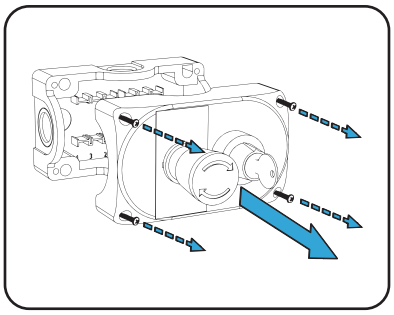
1 Mark & Drill

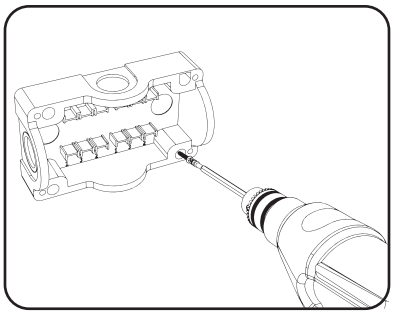
Recommended Location



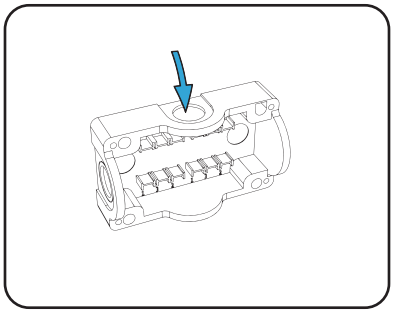


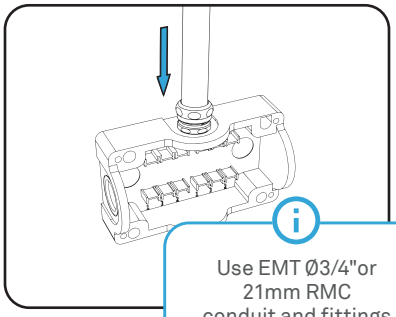
2 Install



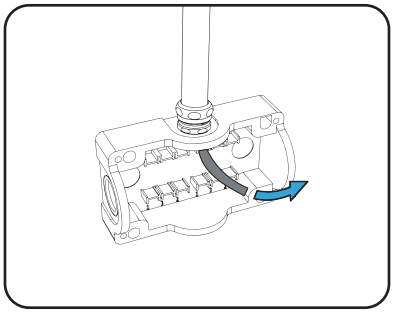


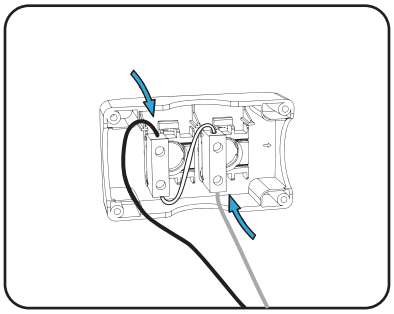
3 Connect

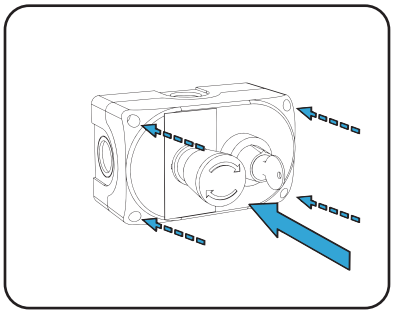




Use EMT Ø3/4"or
21mm RMC
conduit and fittings





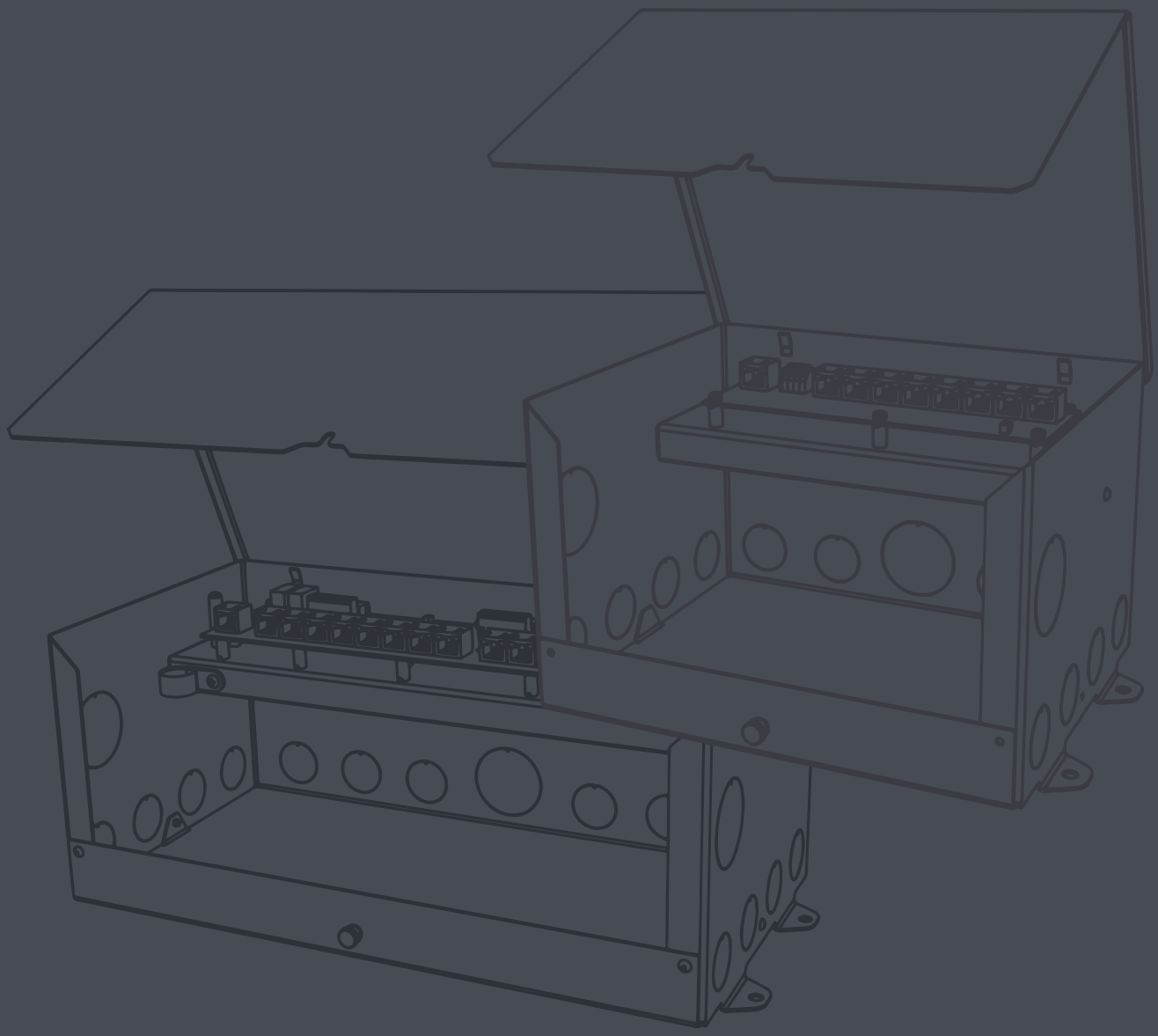


⚠ CAUTION! ⚠

Refer to ECOAZUR® electrical schematics

Minimum Cable Requirements

- Plenum/FT6
- 18 AWG [0.75 mm²]
- Shielded
- 75° C [167° F] rated temp.



HOOD CONTROLLER

V6HC-100 & -2xx

Installation Manual

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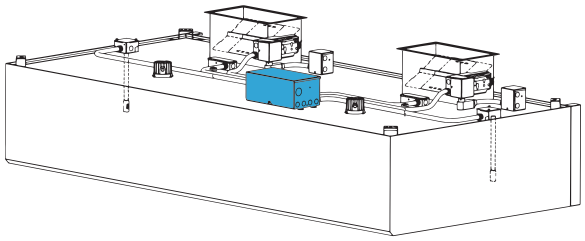
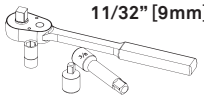
V6HC-100, -200, -210 & -220

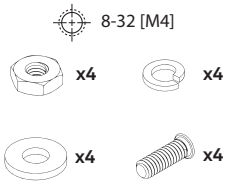
HOOD CONTROLLER



REQUIRED TOOLS



HARDWARE

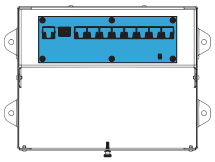


(not included)

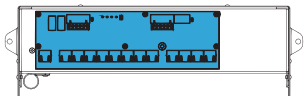
⚠ CAUTION! ⚠

TYPES OF ENCLOSURE

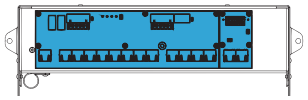
V6HC-100



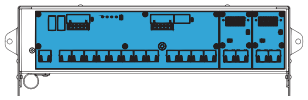
V6HC-200



V6HC-210



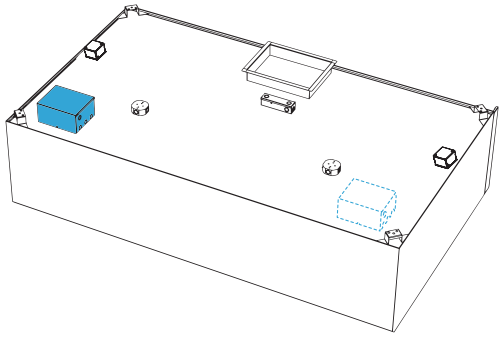
V6HC-220



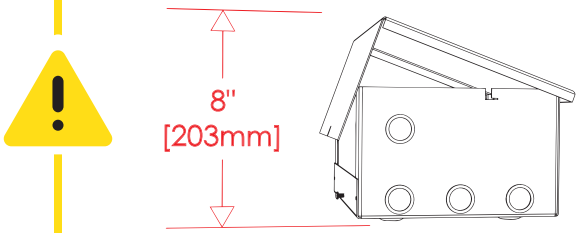
Hood Controller Enclosures: V6HC-100, -200, -210, -220
Other Components: V6HC-011, V6HC-021, V6MD-021

1 Mark

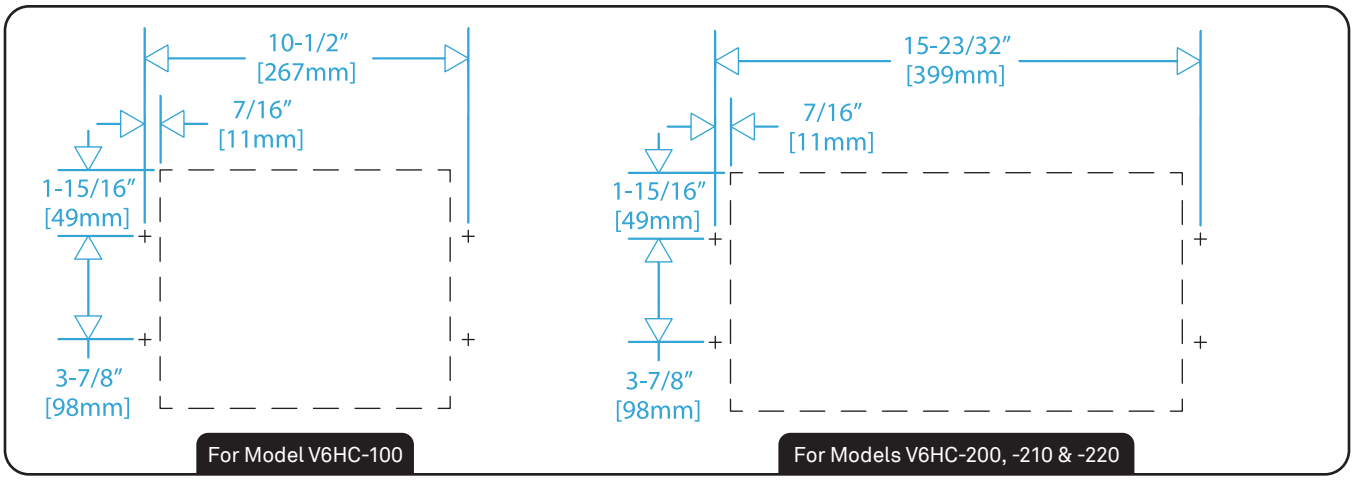
Recommended Locations



REQUIRES 8" [203mm] CLEARANCE OVER HOOD

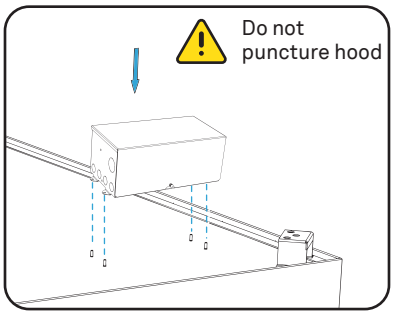


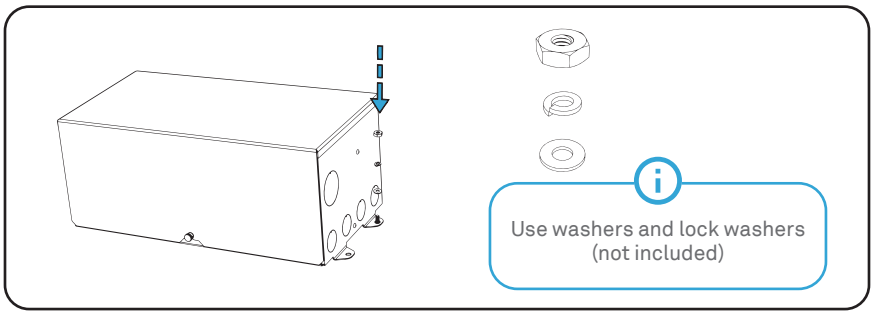
Mark (cont'd)



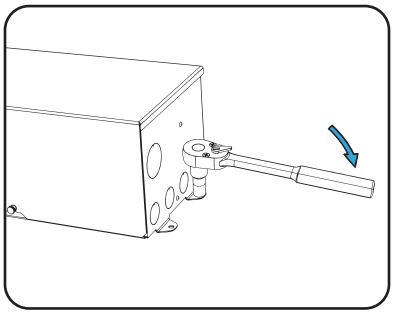
Welded studs 8-32 [M4] are recommended to secure the enclosure on top of the hood (not included)

2 Install



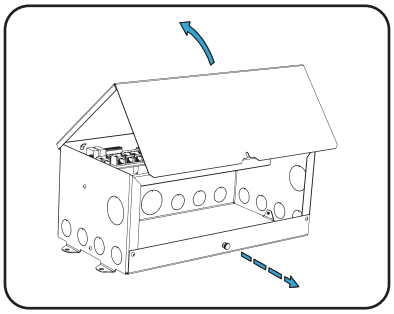


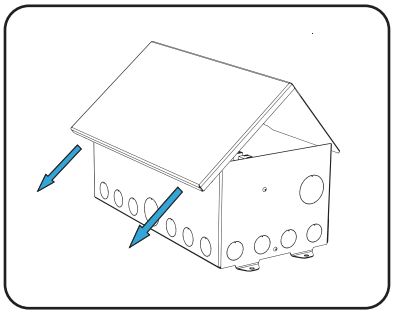
Use washers and lock washers (not included)

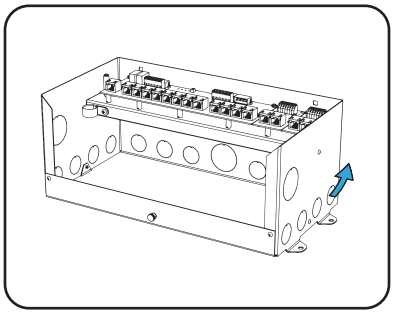


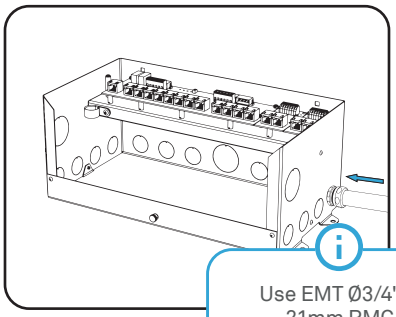
ecoAzur®

3 Connect V6NC Cables

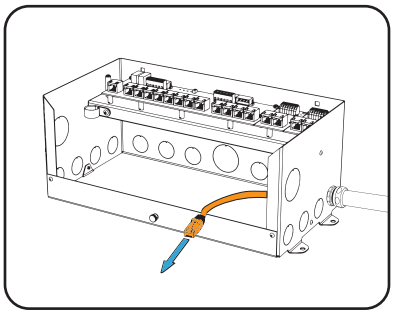


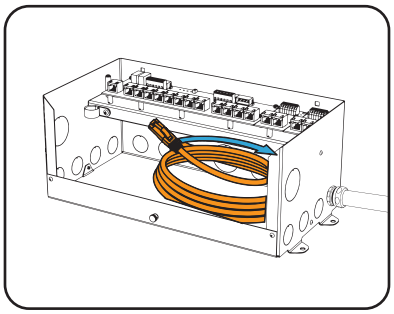


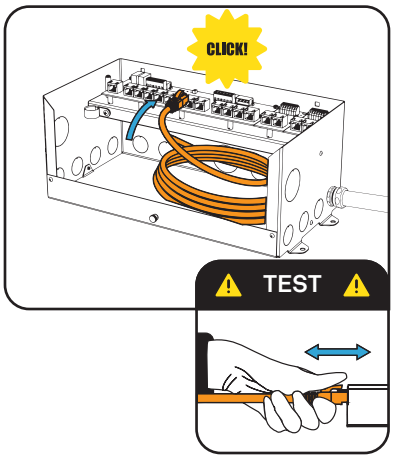


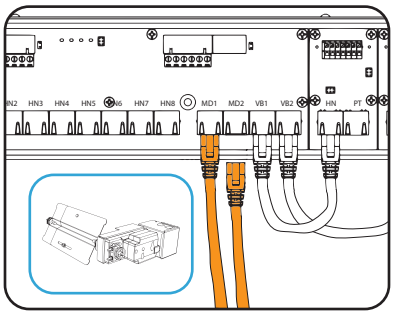


Use EMT Ø3/4"or
21mm RMC
conduit and fittings



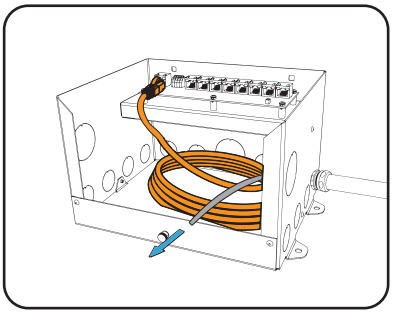


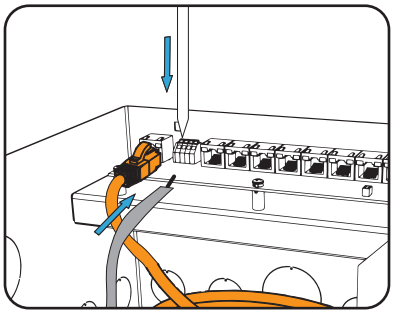




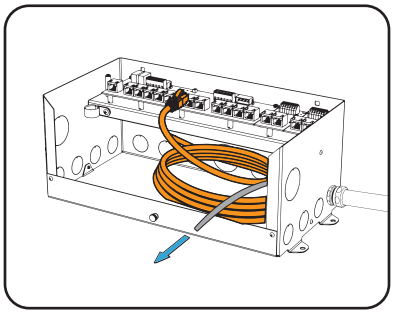
4 Connect Control Cables

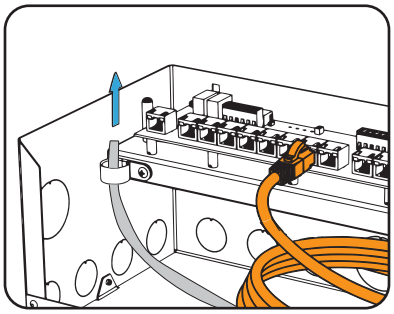
For model V6HC-100

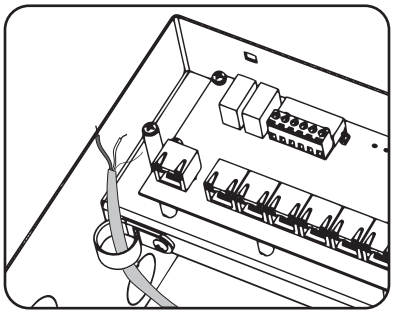


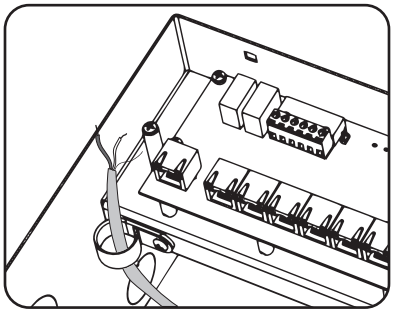


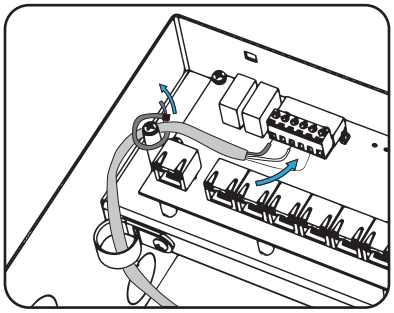
For models V6HC-200, -210 & -220









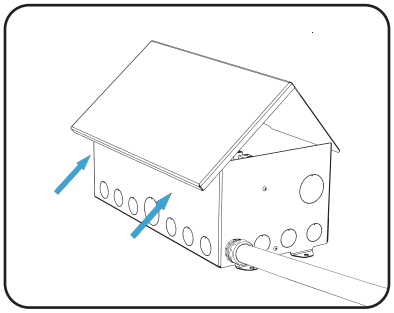


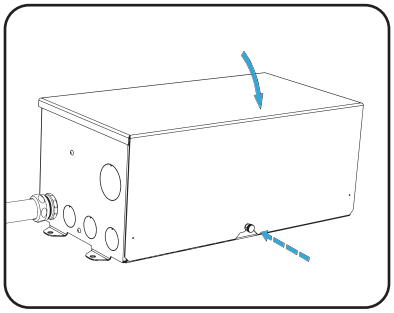
⚠ CAUTION! ⚠

Refer to ECOAZUR® Electrical Diagrams

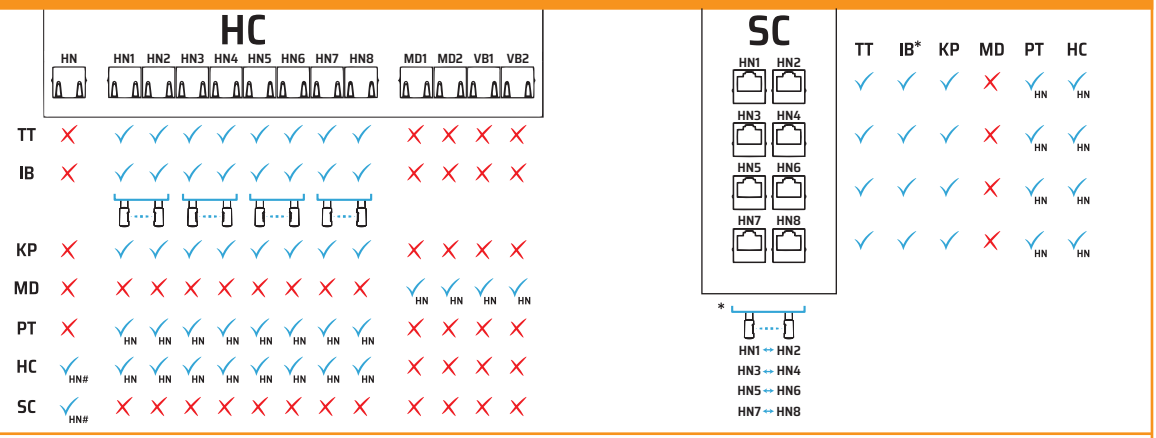
Minimum Cable Requirements

- Plenum/FT6
- 18 AWG [0.75 mm²]
- Shielded
- 75° C [167° F] rated temp.

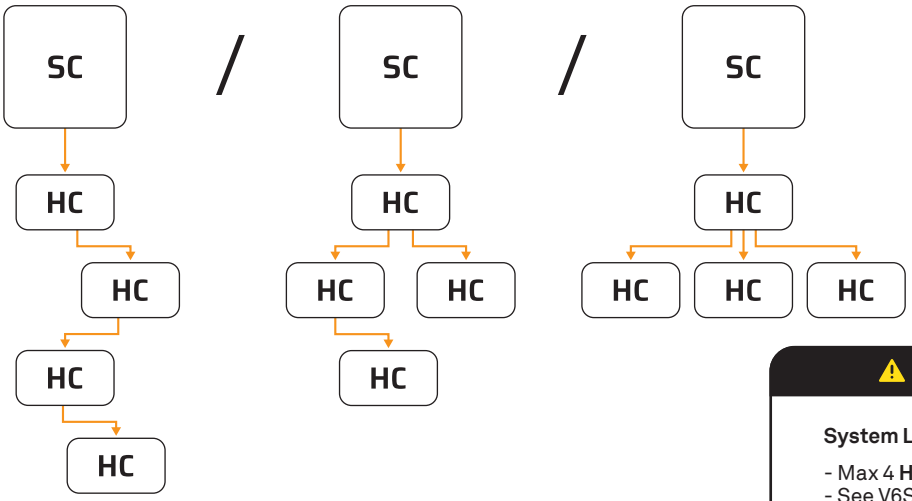




CONNECTION GUIDELINES



Use only ECOAZUR® V6NC series cables



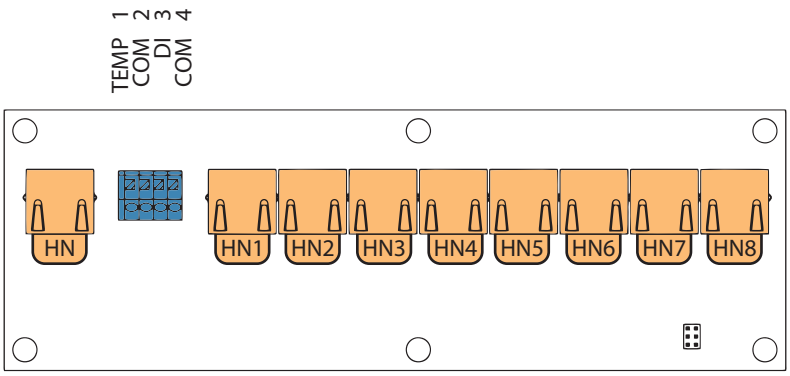
⚠ CAUTION! ⚠

System Limits:

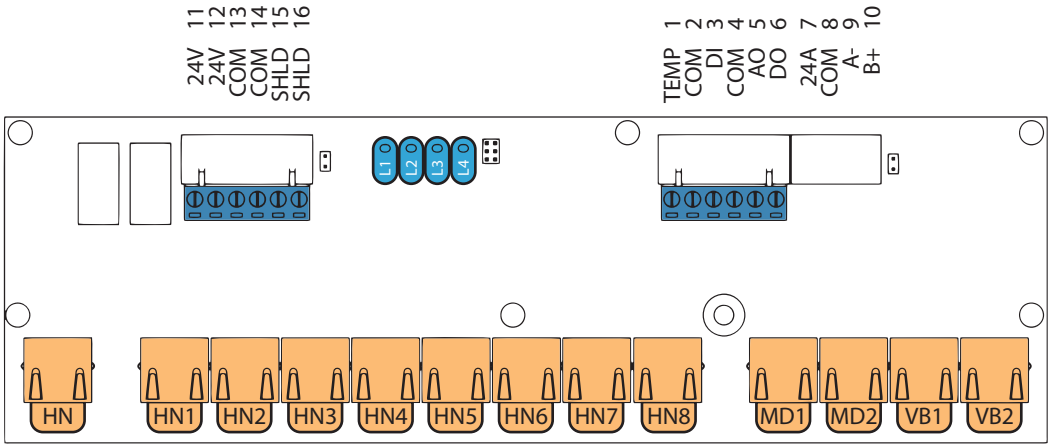
- Max 4 **HC** by **SC** input (HN)
- See V6SC-xxx & V6PS-xxx section for MAX number of devices

PCBs Layout

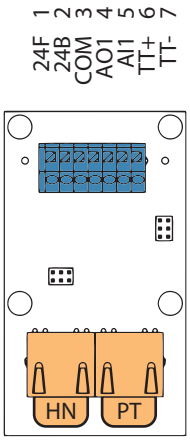
Hood Controller board for model V6HC-100 (V6HC-011)



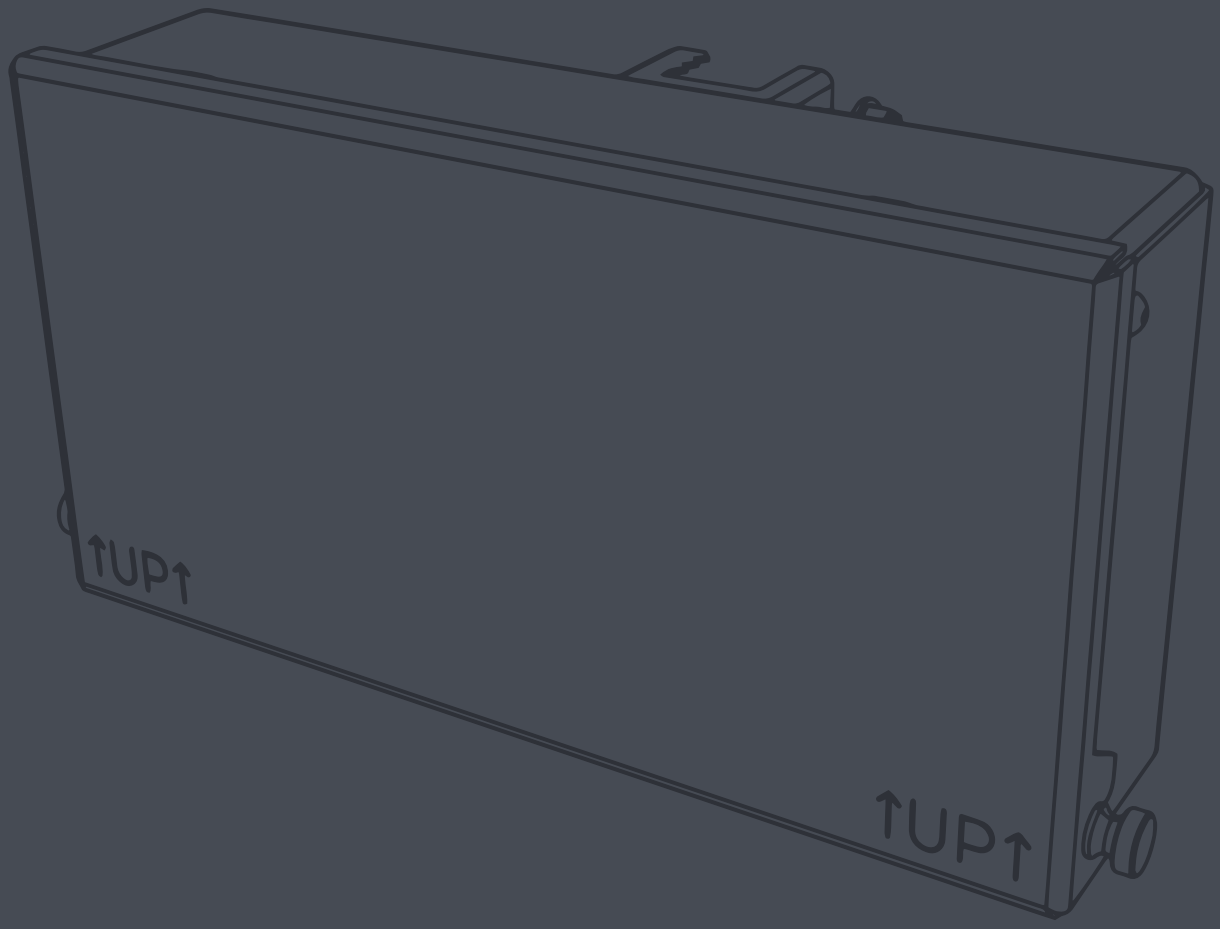
Hood Controller board for models V6HC-200, -210 & -220 (V6HC-021)



Modulating Damper board for models V6HC-210 & -220 (V6MD-021)



LED RJ45 PORT TERMINAL BLOCK



HOOD CONTROLLER (Rod Mount)

V6HC-110

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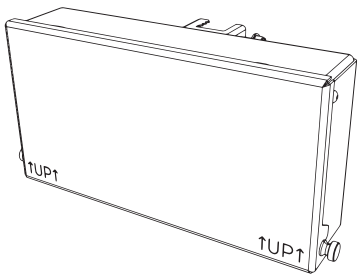


V6HC-110

HOOD CONTROLLER (ROD MOUNT)

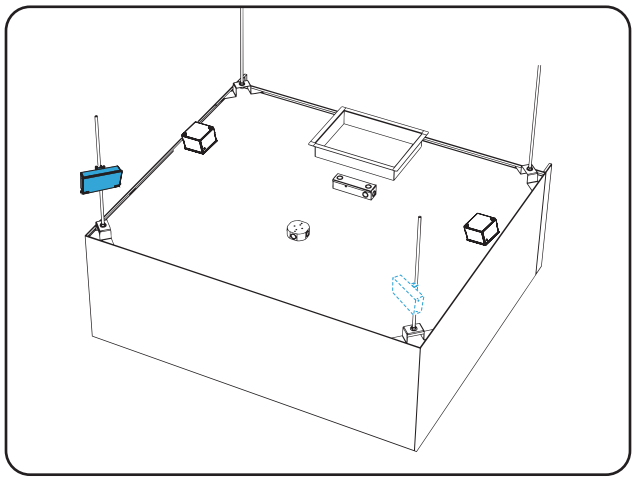
REQUIRED TOOL

⚠ CAUTION! ⚠

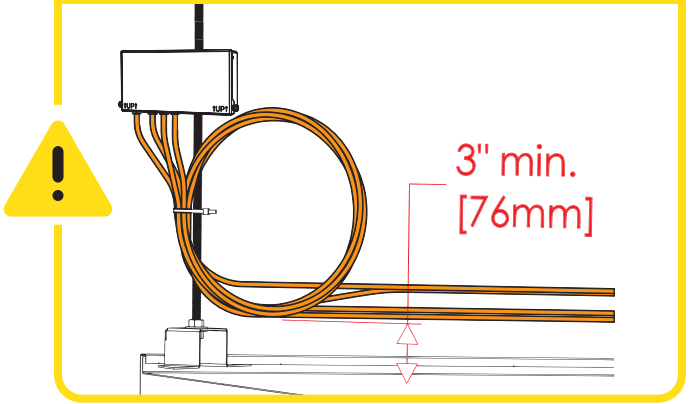
Other Component: V6HC-011

1 Mark

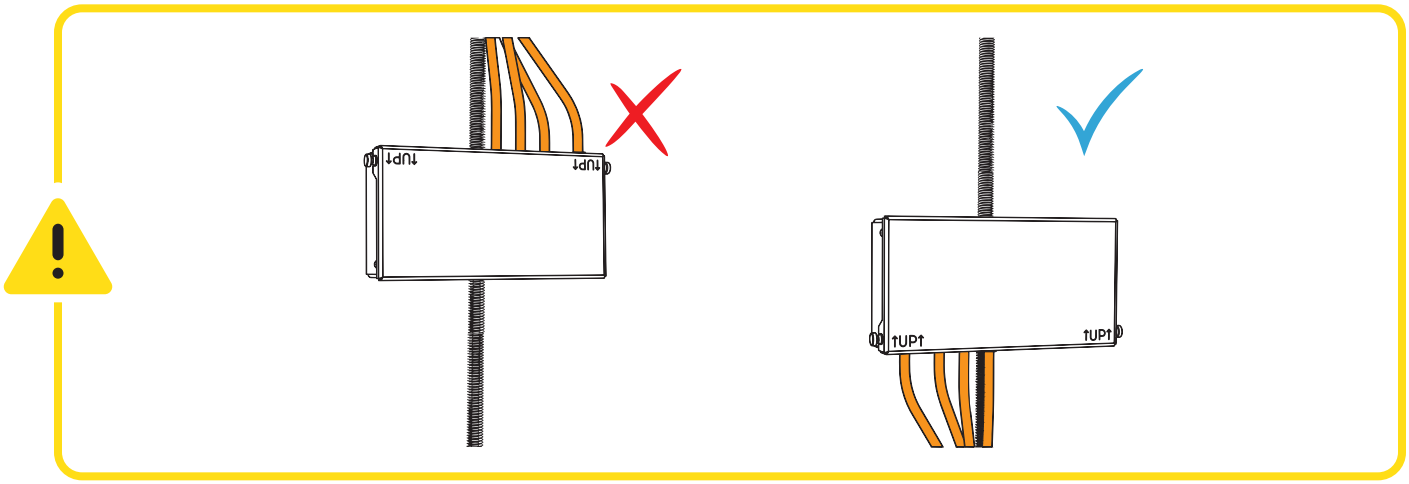
Recommended Locations



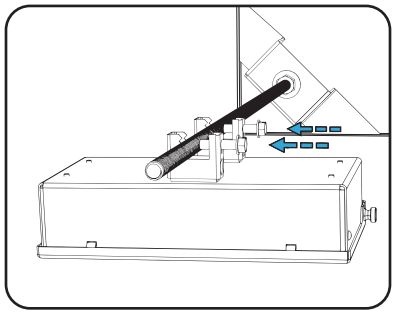
3" [76mm] MIN. BETWEEN BOTTOM OF WIRES WINDING AND TOP OF HOOD



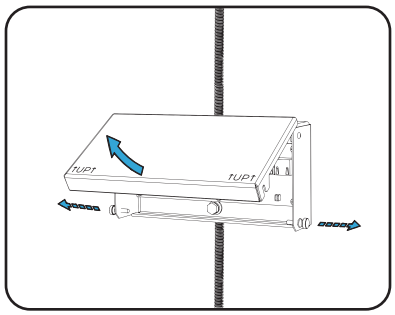
Mark (cont'd)

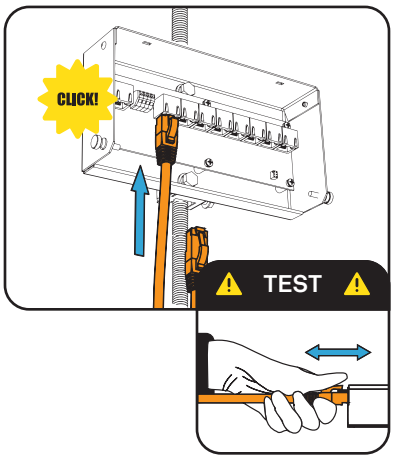


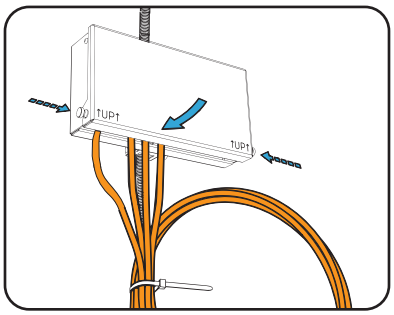
2 Install

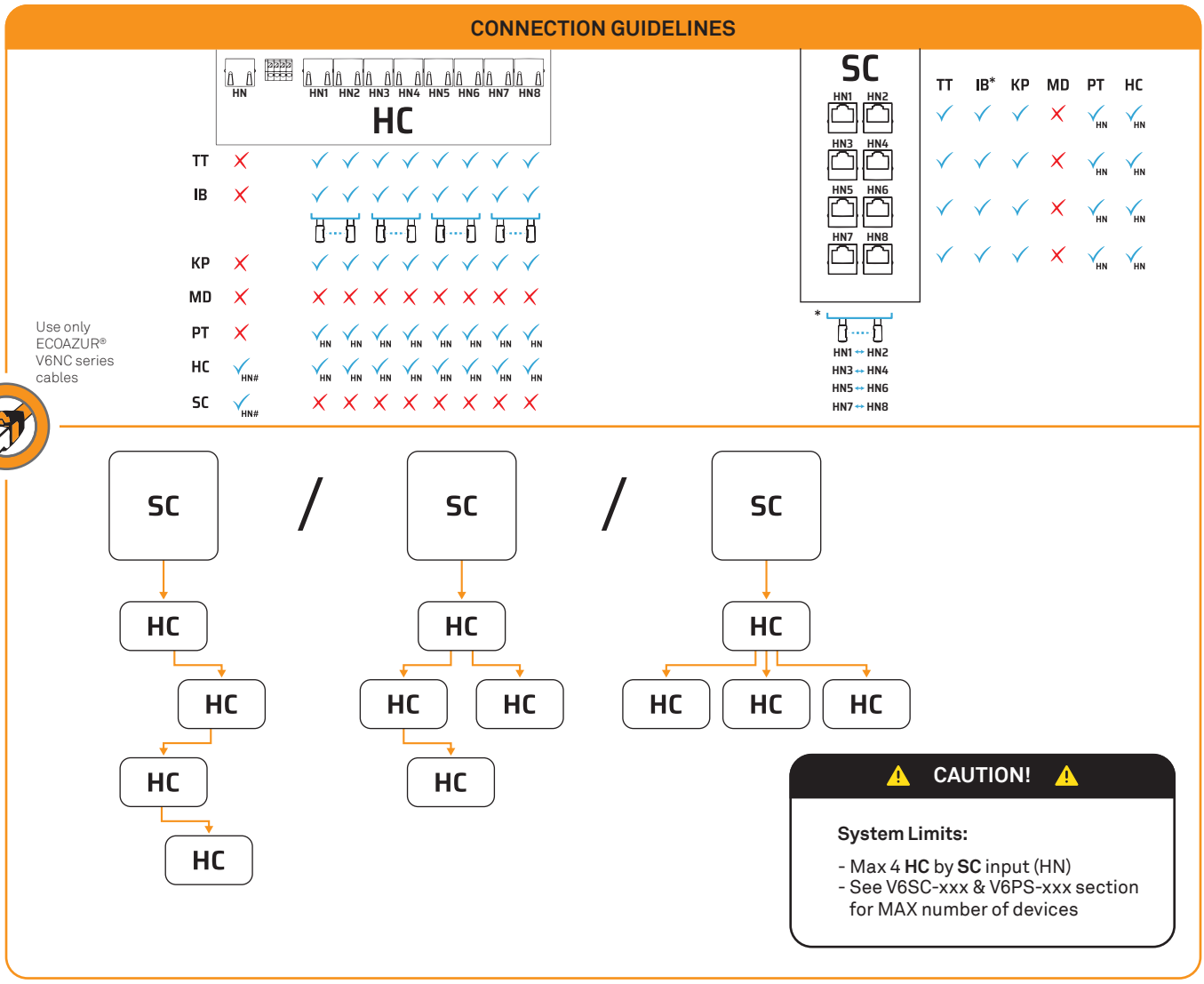


3 Connect



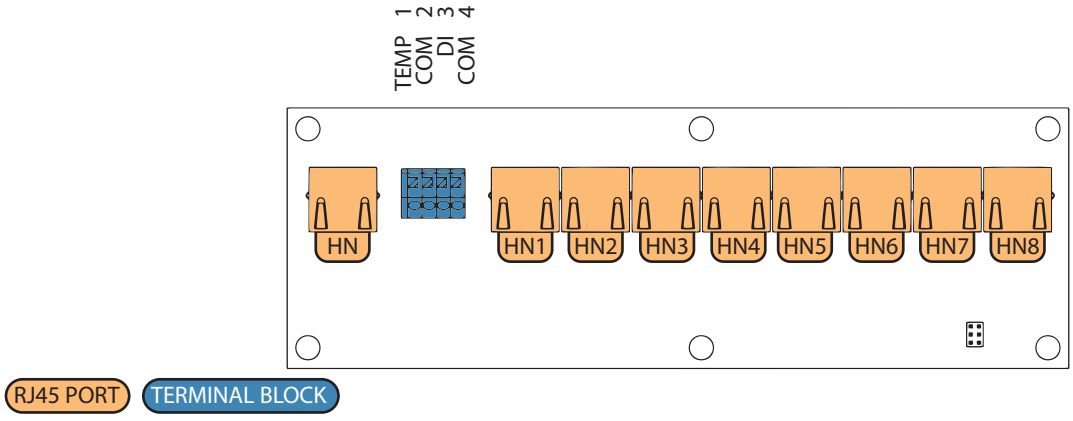


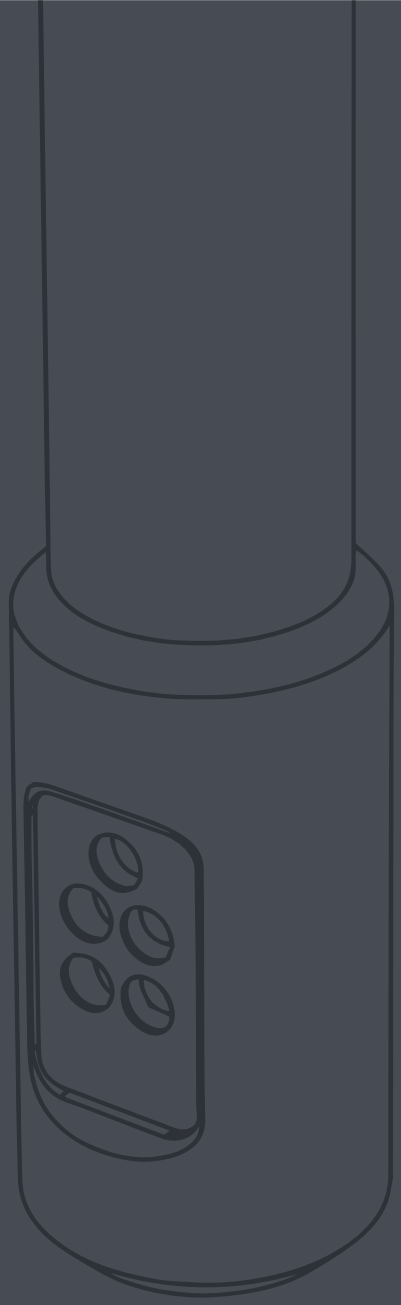




PCB Layout

Hood Controller board (V6HC-011)





IRIS BLEU®
OPTIC SENSOR

V6IB-300 & -310

Installation Manual

ecoAzur®

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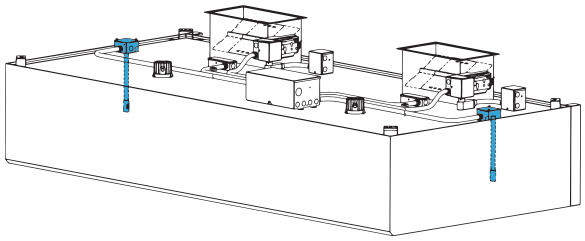
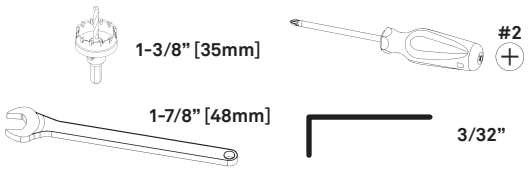


V6IB-300 & -310

IRIS BLEU® OPTIC SENSOR

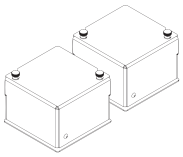
REQUIRED TOOLS



⚠ CAUTION! ⚠

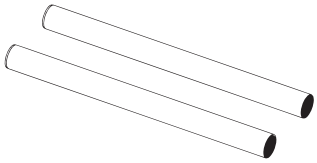
RELATIVE COMPONENTS

2x V6IB-520

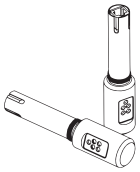


2x V6IB-440

2x V6IB-410 / V6IB-420 / V6IB-430

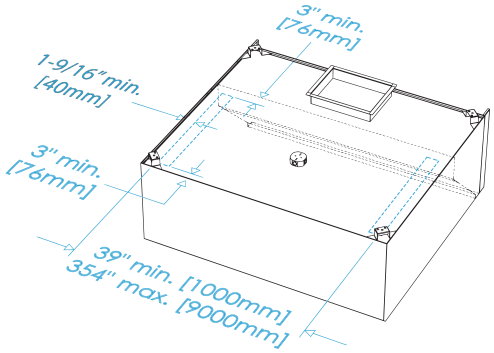


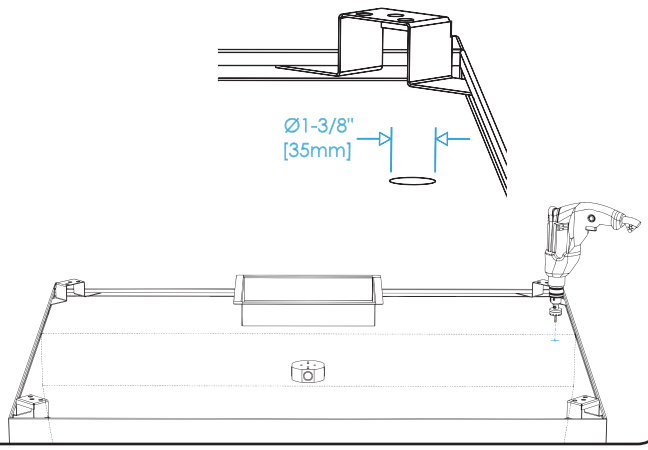
2x V6IB-300 / V6IB-310



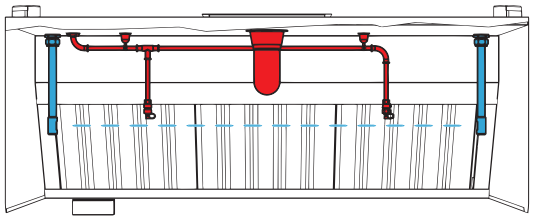
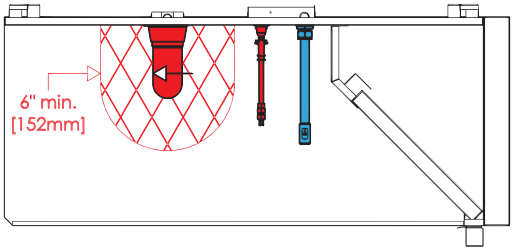
Optic Sensor Components: V6IB-300, -310, -410, -420, -430, -440, -450, -460, -510, -520, -530, -900

1 Mark & Drill

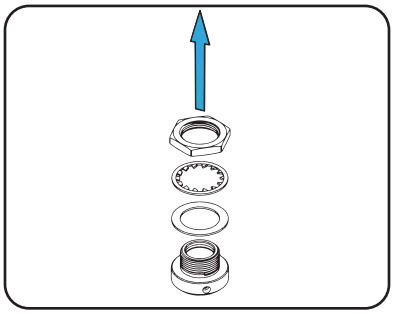


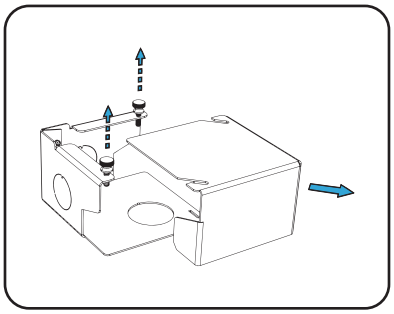


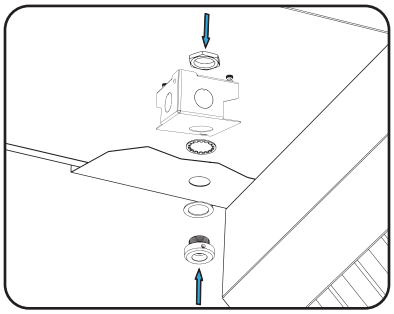
Mark & Drill (cont'd)

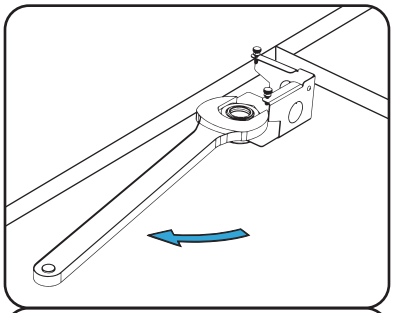
LIGHT BEAM FREE OF ANY OBSTACLE	6" [152mm] MIN. AWAY FROM LIGHT FIXTURE
	

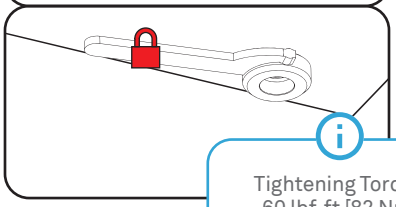
2 Install Compression Seal V6IB-440 & Enclosure V6IB-520











Tightening Torque
60 lbf-ft [82 Nm]

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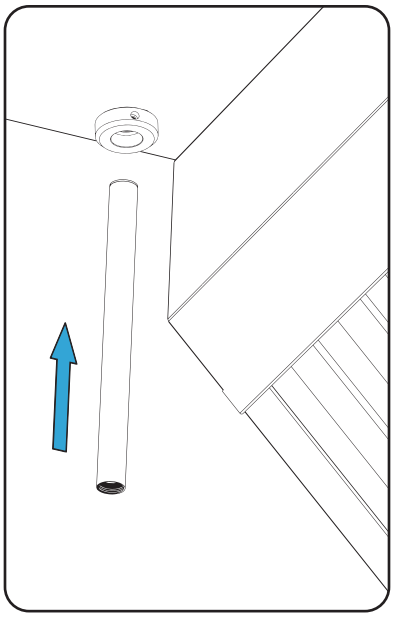
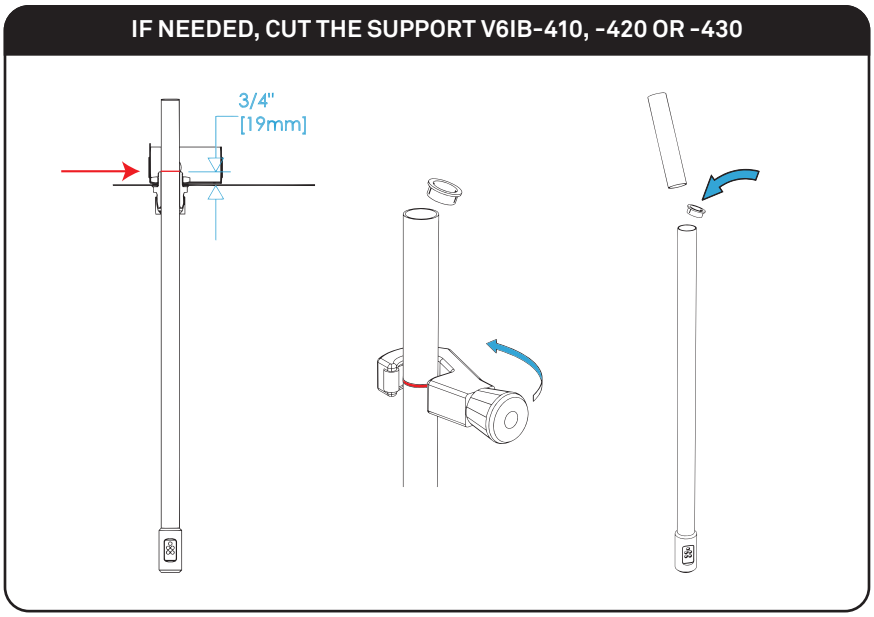
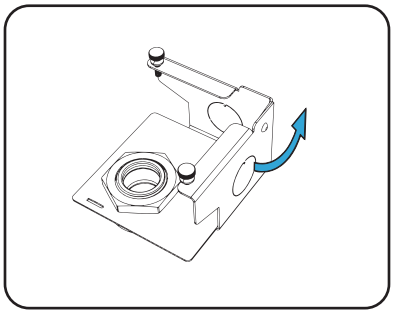
3 Install Support V6IB-410, -420 or -430

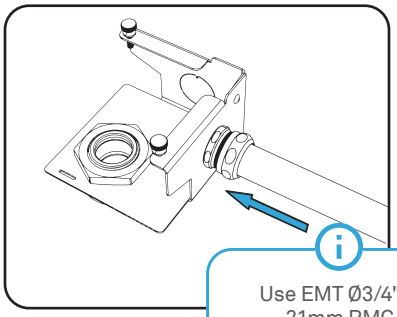




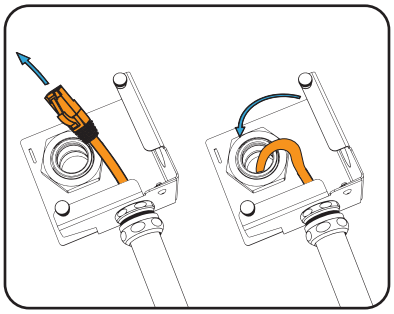
See Section 5 for optional Lateral & Central Brackets V6IB-450 & -460

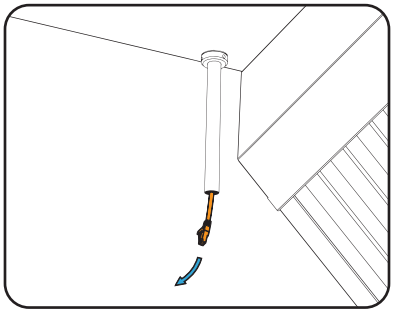
4 Install & Connect Sensor V6IB-300 or -310

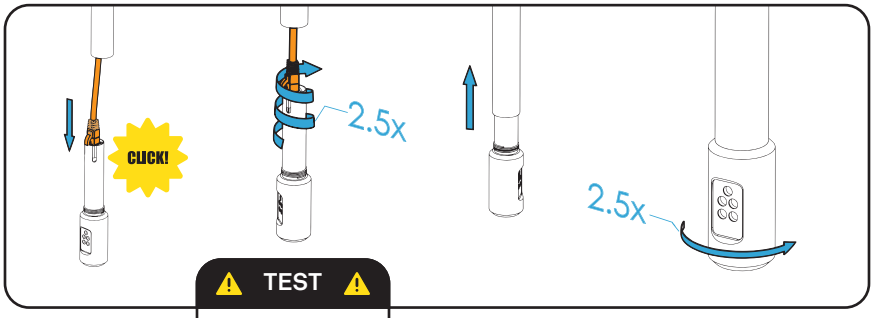




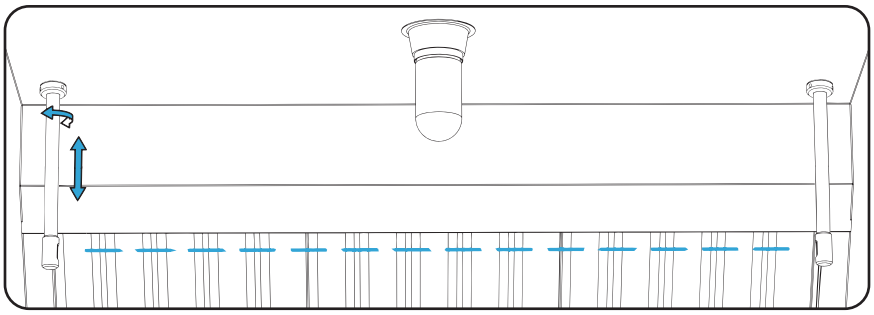
Use EMT Ø3/4"or
21mm RMC
conduit and fittings

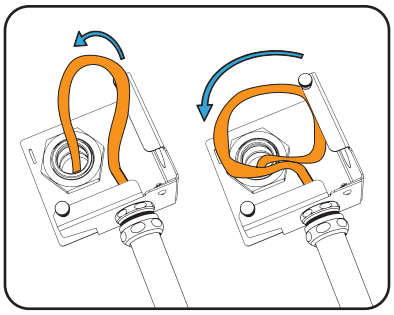


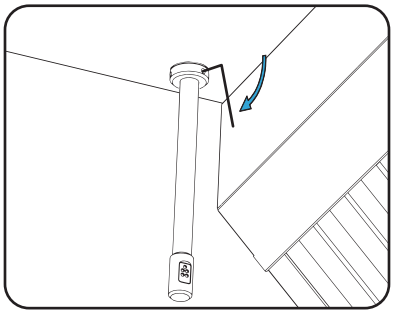


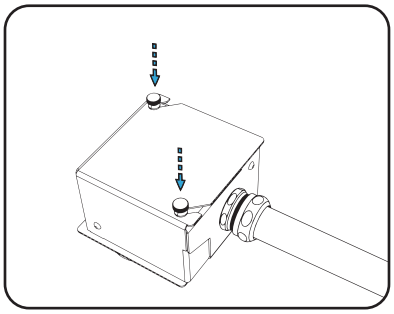


Install & Connect Sensor V6IB-300 or -310 (cont'd)

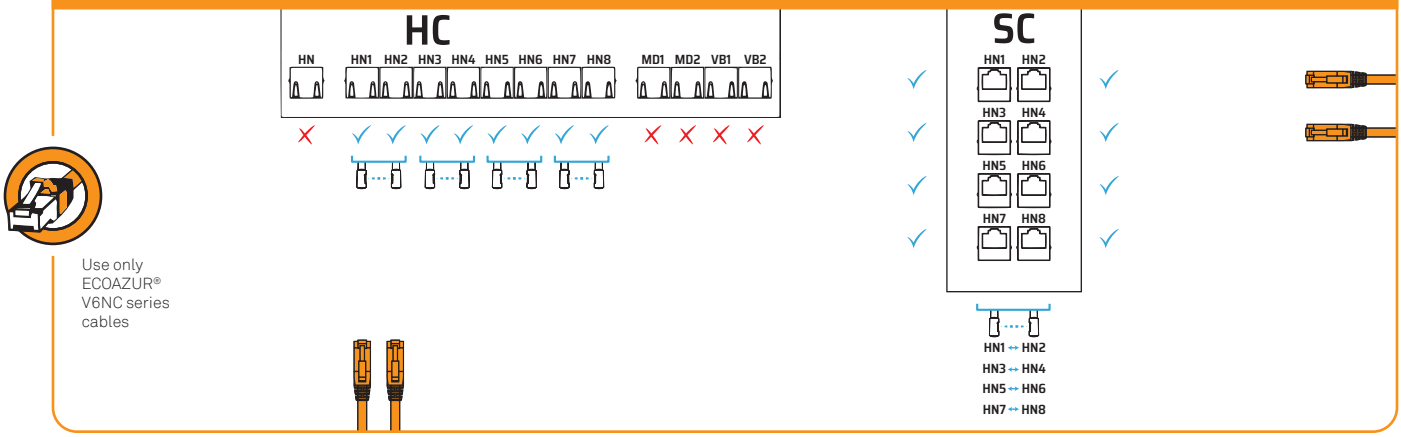








CONNECTIONS



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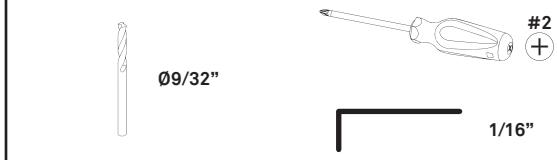
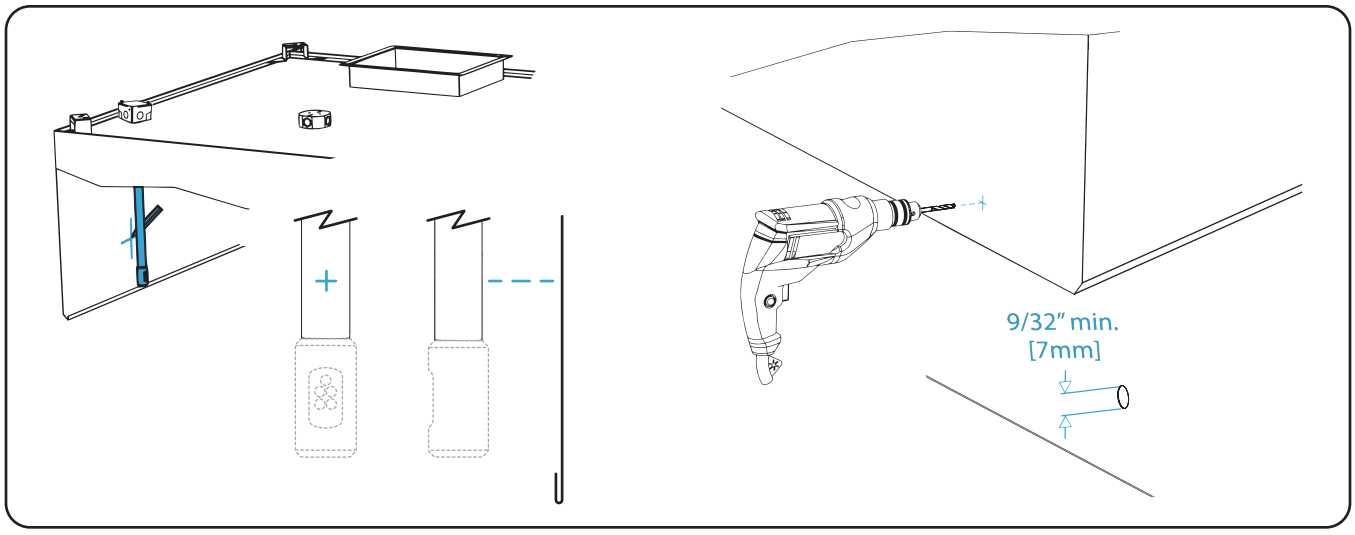
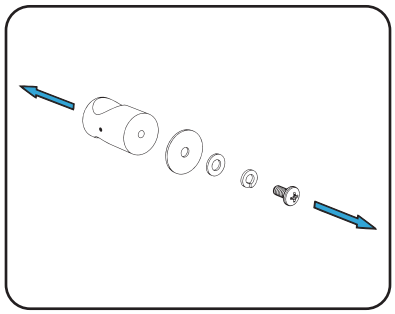
5 Install Lateral or Central Brackets V6IB-450 or -460 (optional)

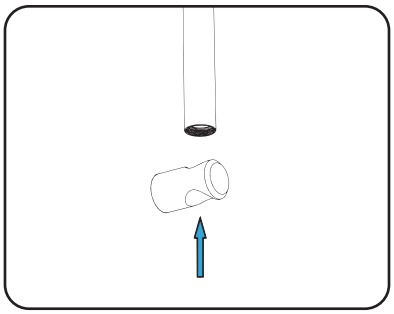
REQUIRED TOOLS

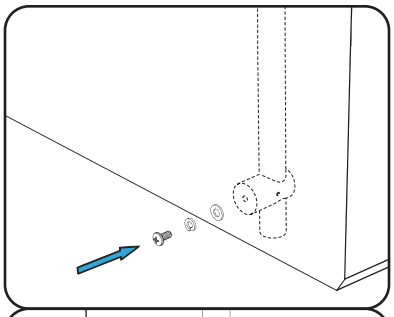


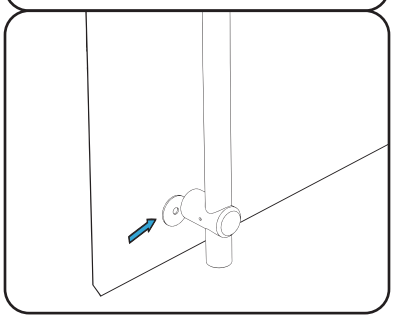
⚠ CAUTION! ⚠

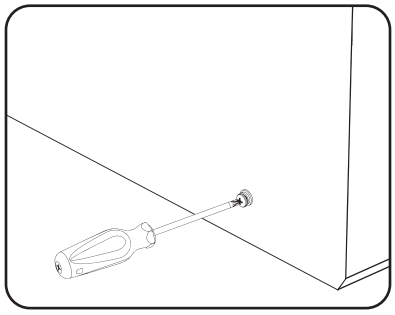


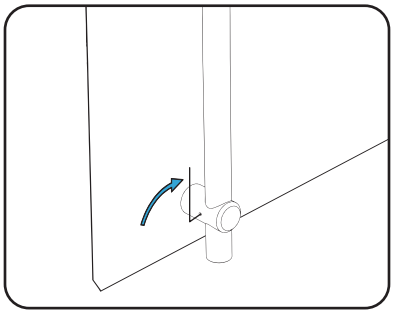












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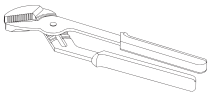
6 Install Passthrough Compression Seal V6IB-530 (optional)

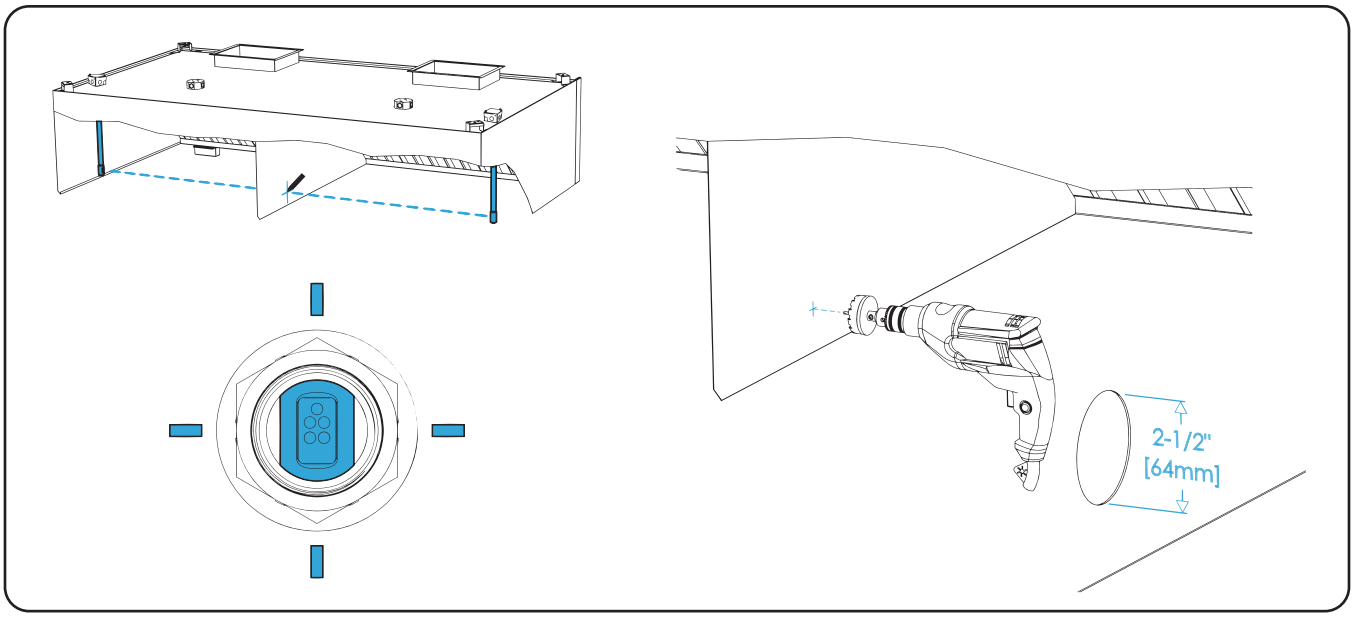
REQUIRED TOOLS

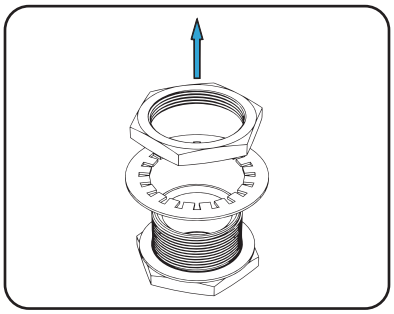
2-1/2" [64mm]

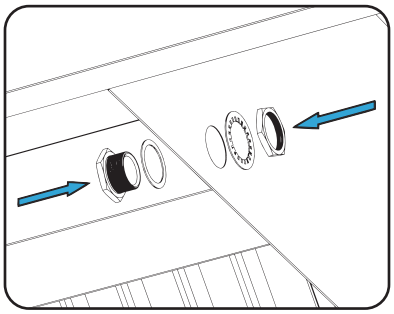


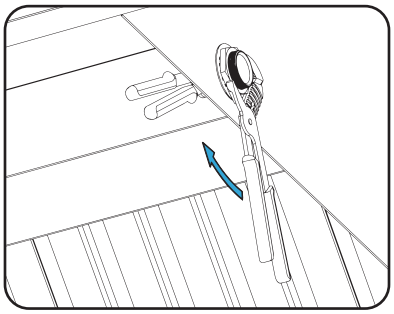
x2

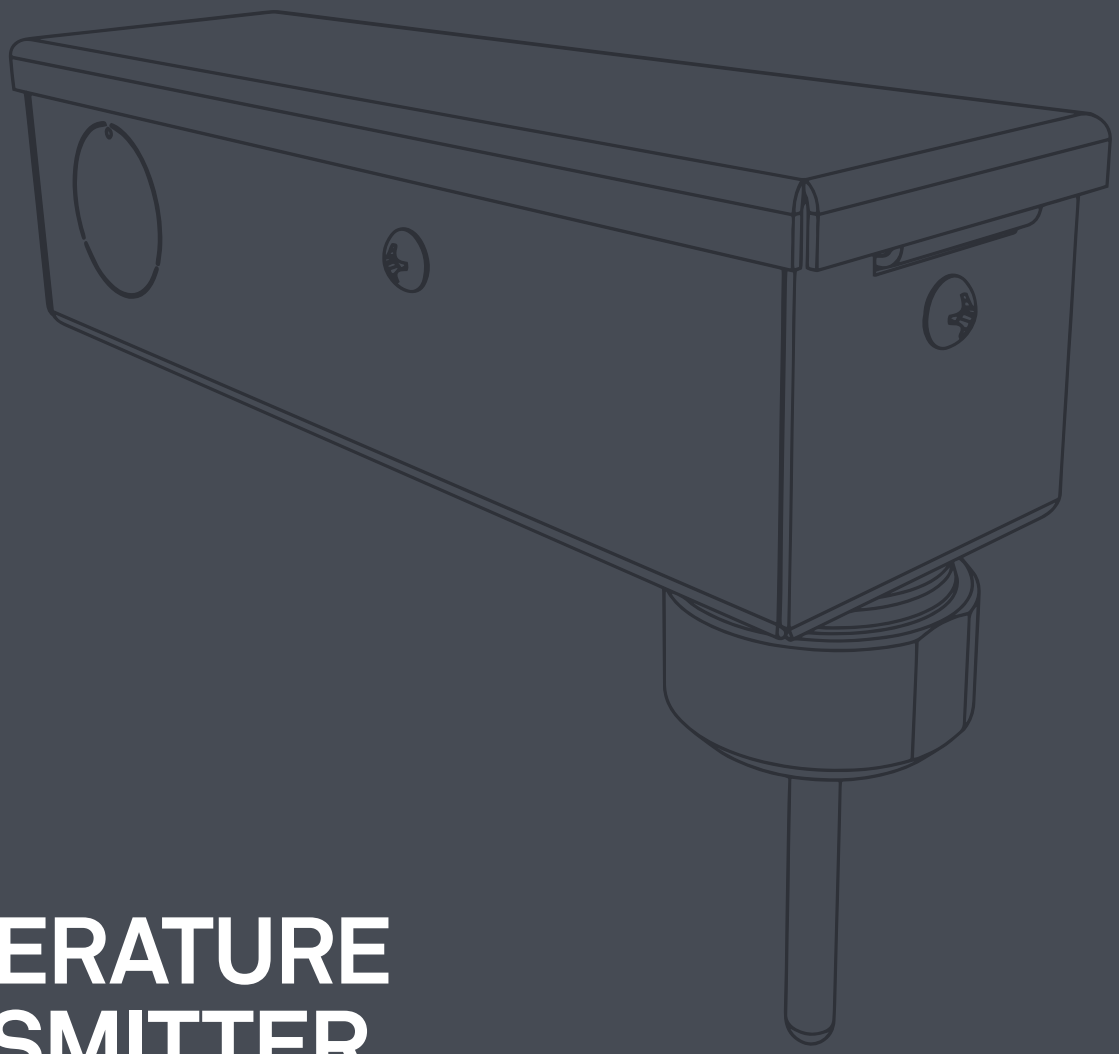
⚠ CAUTION! ⚠











TEMPERATURE TRANSMITTER

V6TT-100

Installation Manual

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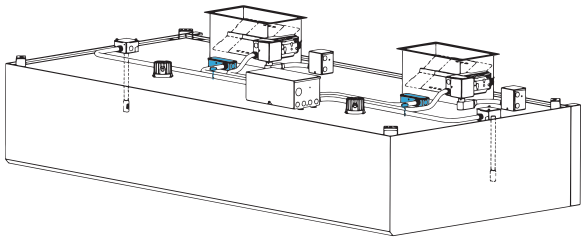
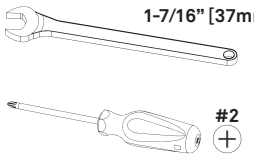


V6TT-100

TEMPERATURE TRANSMITTER

REQUIRED TOOLS

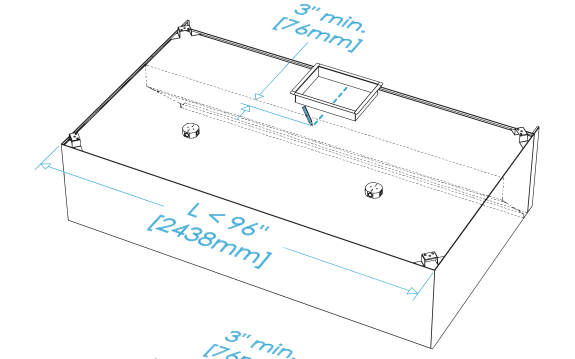


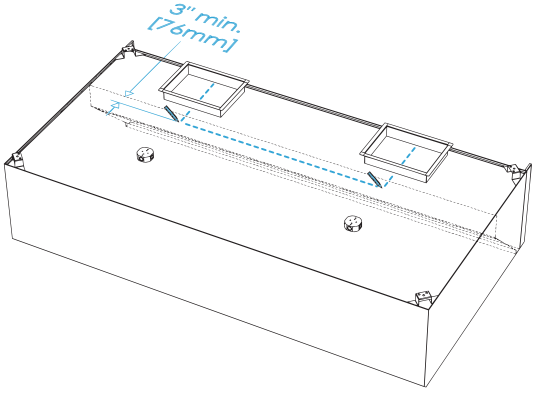
⚠ CAUTION! ⚠

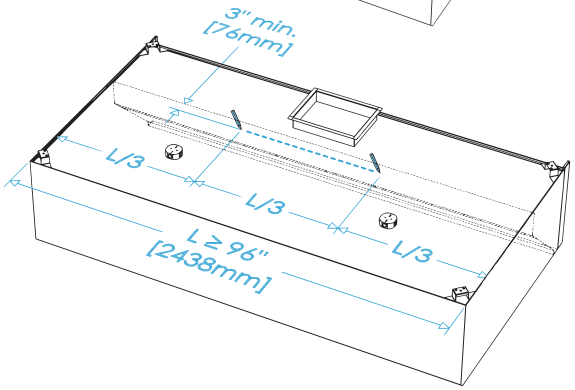
Other Component: V6TT-900

1 Mark & Drill

In front of filters



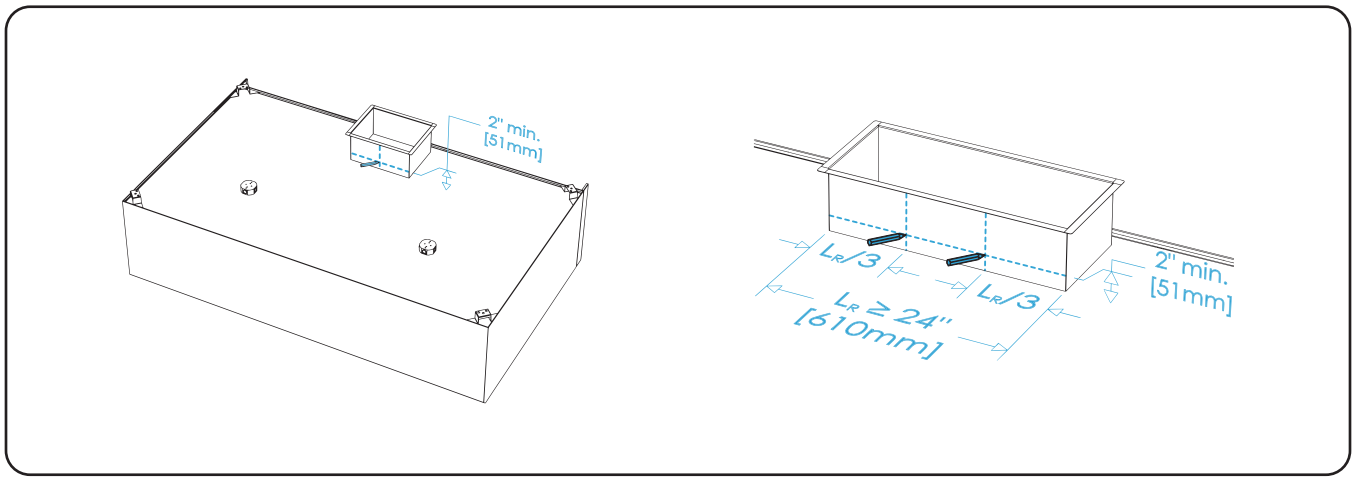




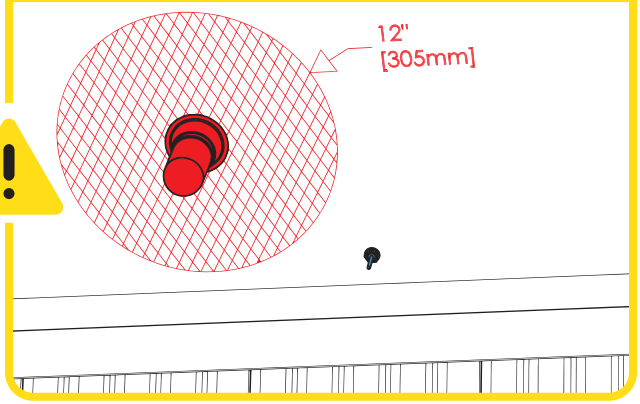
← L →	
96" [2438mm] < L ≤ 144" [3658mm]	2
144" [3658mm] < L ≤ 192" [4877mm]	3

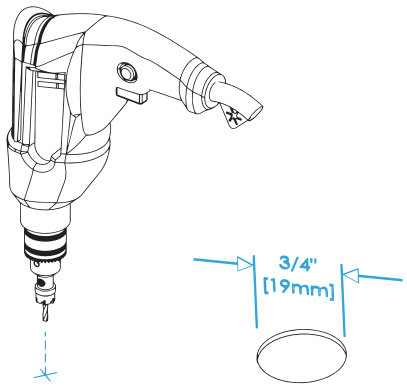
Mark & Drill (cont'd)

In the hood riser

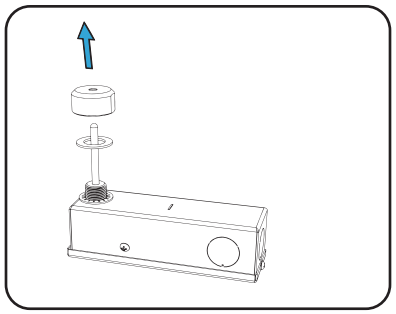


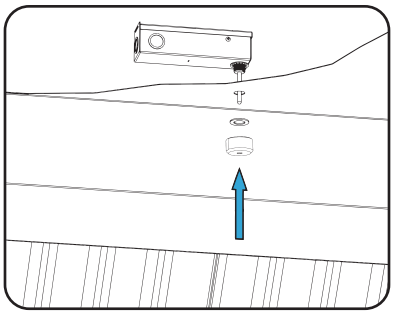
INSTALL MORE THAN 12" [305mm] AWAY FROM A LIGHT FIXTURE

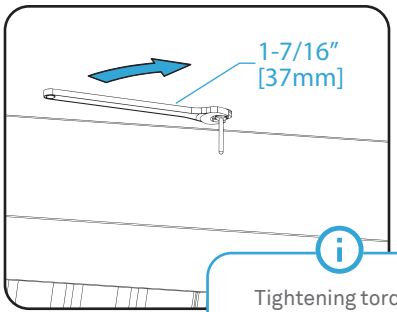




2 Install



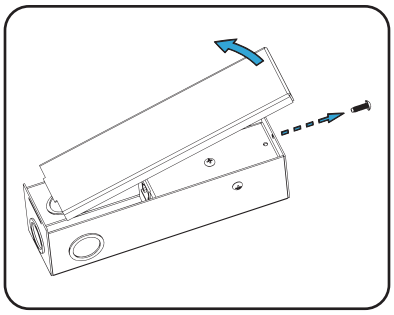


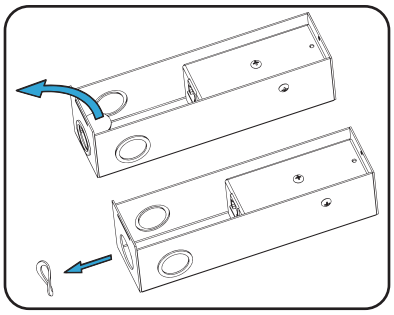


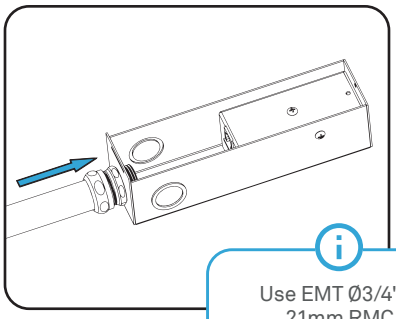
Tightening torque
30 lbf-ft [41 Nm]

ecoAzur®

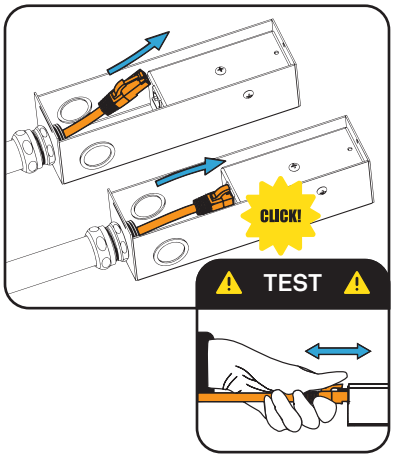
3 Connect

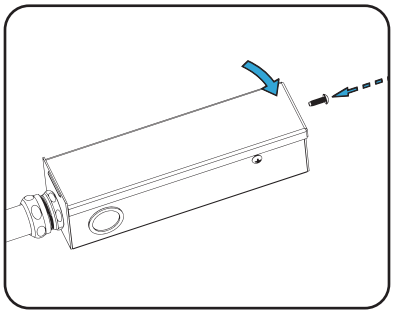




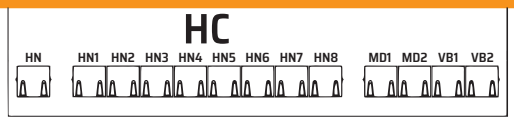


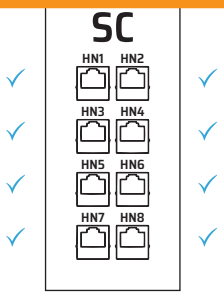
Use EMT Ø3/4"or 21mm RMC conduit and fittings



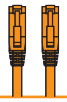


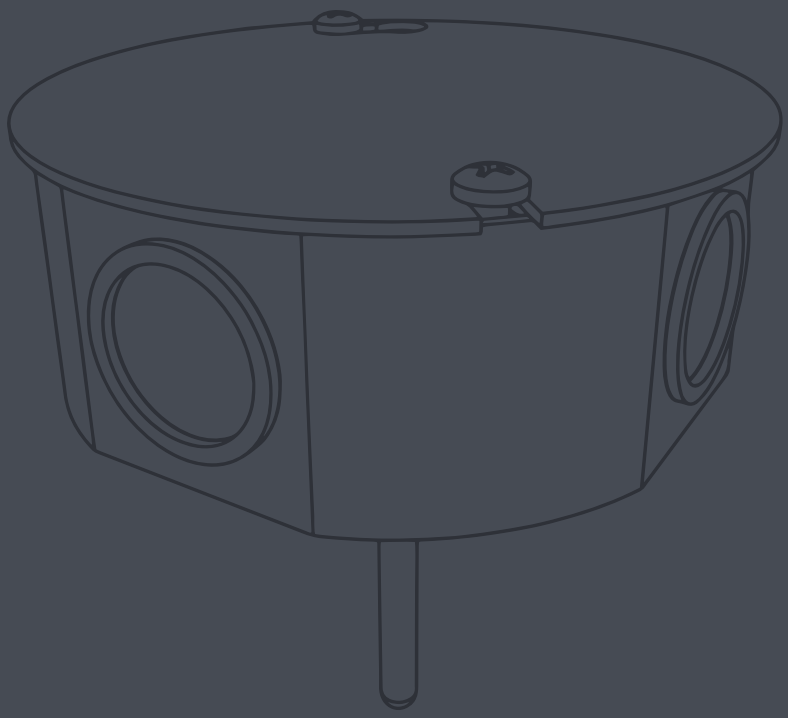
CONNECTIONS





Use only ECOAZUR® V6NC series cables





TEMPERATURE 10K PROBE

V6TT-110

Installation Manual

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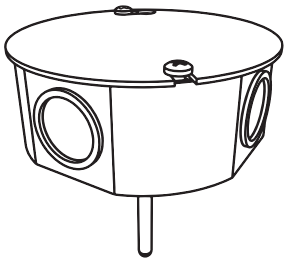
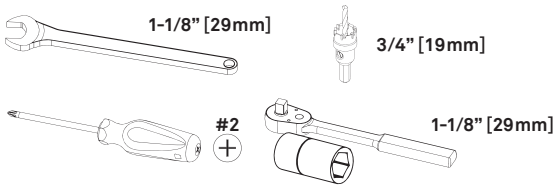


V6TT-110
TEMPERATURE 10K PROBE

REQUIRED TOOLS

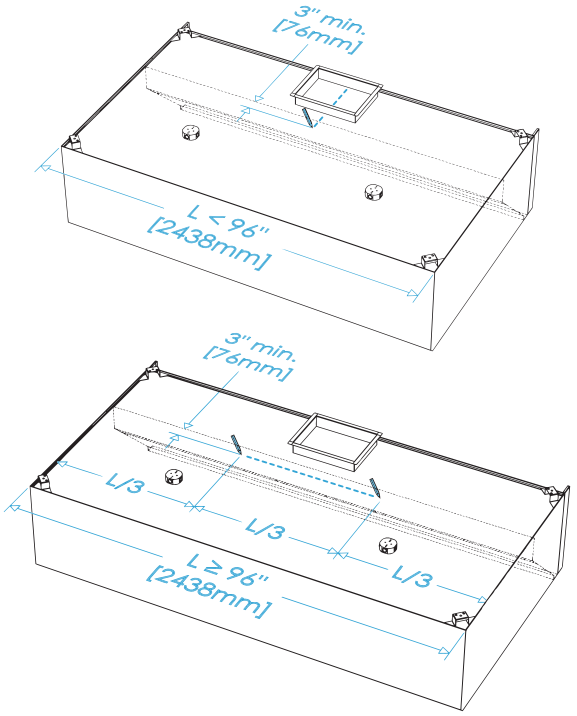


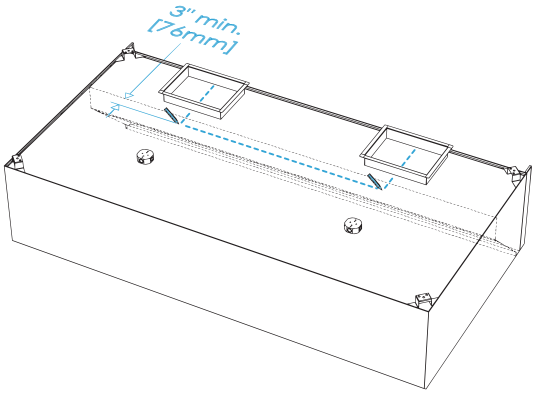
CAUTION!

Other Component: V6TT-900

1 Mark & Drill

In front of filters

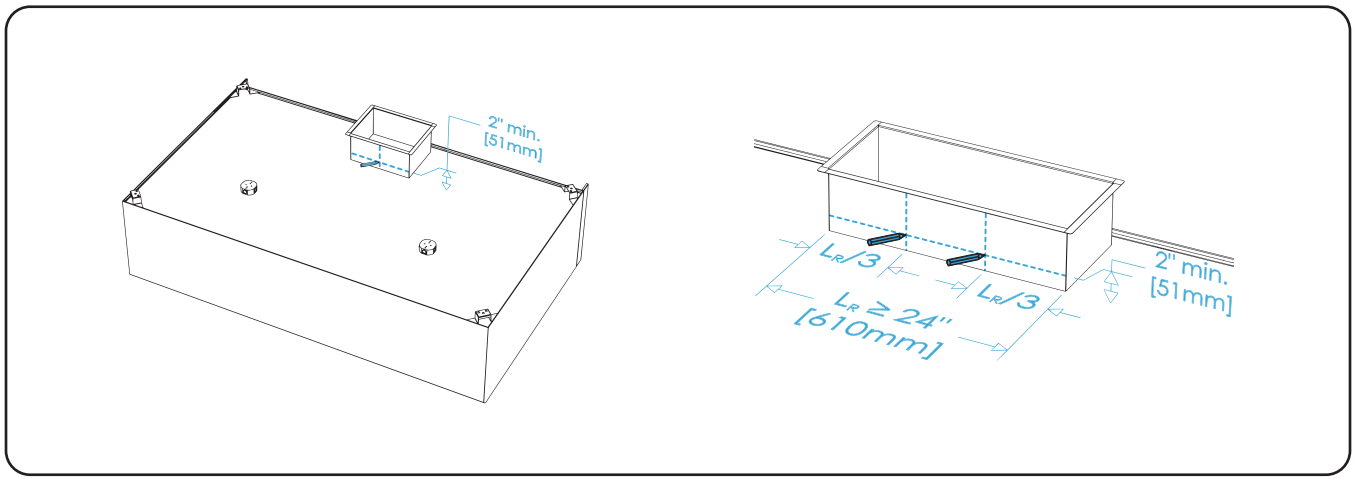




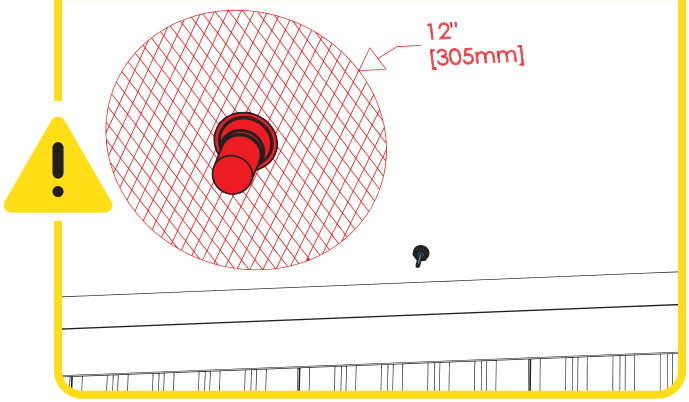
← L →	
96" [2438mm] < L ≤ 144" [3658mm]	2
144" [3658mm] < L ≤ 192" [4877mm]	3

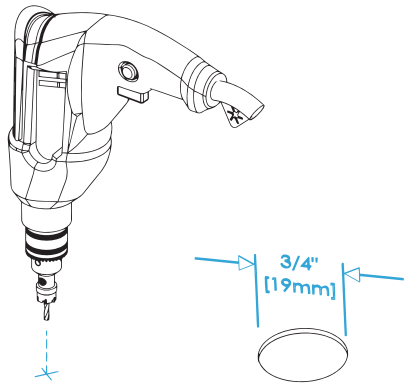
Mark & Drill (cont'd)

In the hood riser

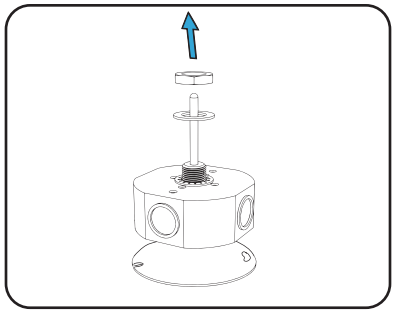


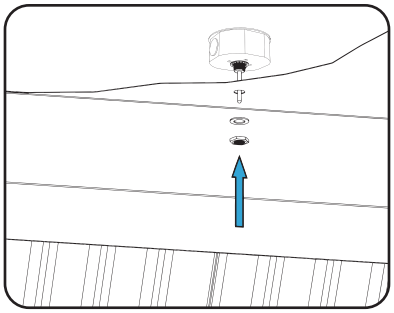
INSTALL MORE THAN 12" [305mm] AWAY FROM A LIGHT FIXTURE

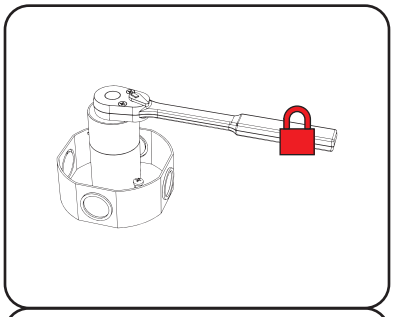


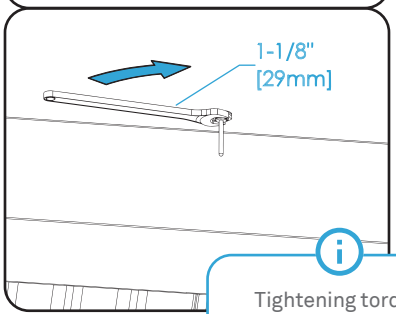


2 Install









Tightening torque
30 lbf-ft [41 Nm]

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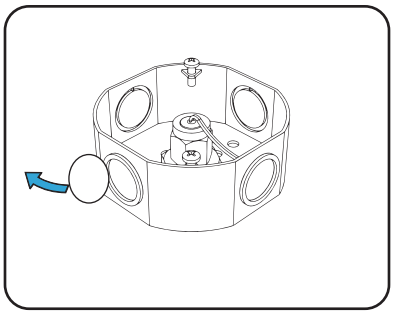
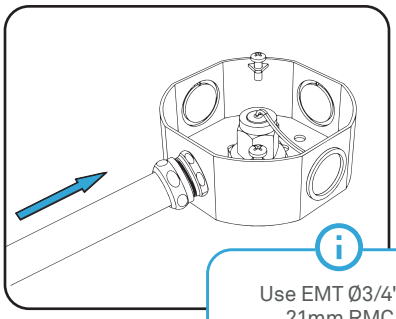
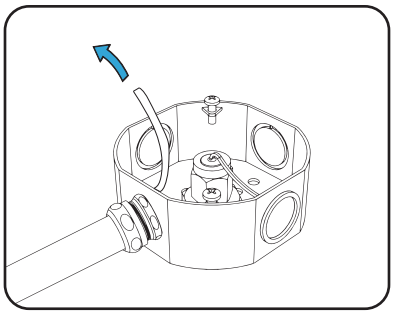
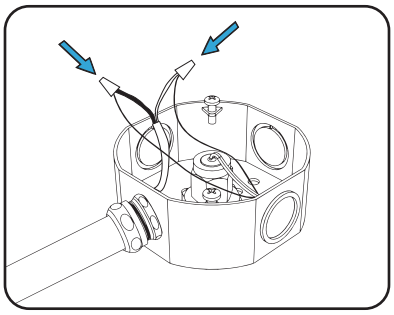
3 Connect

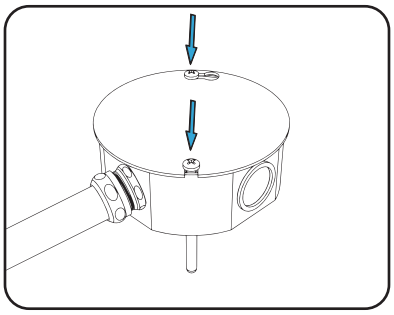




Use EMT Ø3/4"or
21mm RMC
conduit and fittings





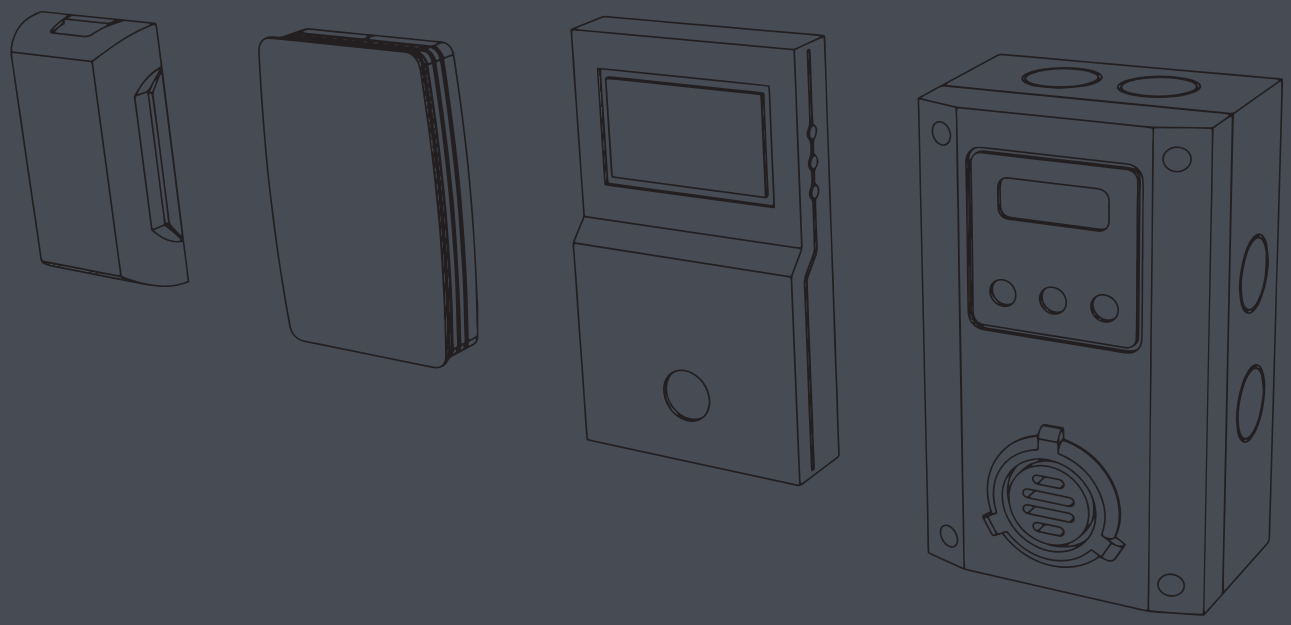


⚠ CAUTION! ⚠

Refer to ECOAZUR® electrical schematics

Minimum Cable Requirements

- Plenum/FT6
- 18 AWG [0.75 mm²]
- Shielded
- 75° C [167° F] rated temp.



ROOM SENSOR

V6RS-xxx

Installation Manual

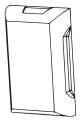
ecoAzur®

V6RS-xxx

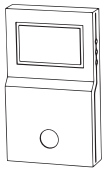
ROOM SENSOR

RELATIVE COMPONENTS

V6RS-110

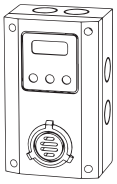


V6RS-210

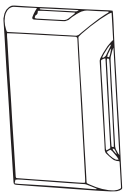


V6RS-120

V6RS-220



Install & Connect Temperature Sensor V6RS-110



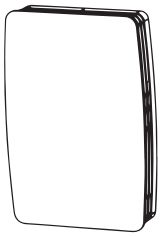
Sensor must be wall-mounted at 48” [1219mm] to 72” [1829mm] from the floor, away from hoods or heat sources

Location must be indicative of average kitchen temperature

⚠ CAUTION! ⚠

Refer to ECOAZUR® Electrical Diagrams

Install & Connect Multi-Sensor V6RS-120



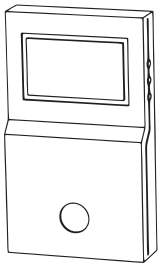
Sensor must be wall-mounted at 48” [1219mm] to 72” [1829mm] from the floor, away from hoods or heat sources

Location must be indicative of average kitchen temperature

⚠ CAUTION! ⚠

Refer to ECOAZUR® Electrical Diagrams

Install & Connect CO Sensor V6RS-210



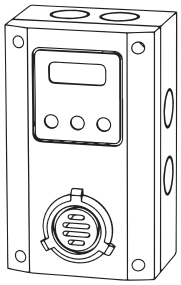
Sensor must be wall-mounted at 48” [1219mm] to 72” [1829mm] from the floor

Location is determined by local codes and jurisdiction

⚠ CAUTION! ⚠

Refer to ECOAZUR® Electrical Diagrams

Install & Connect Natural Gas (CH_4) Sensor V6RS-220

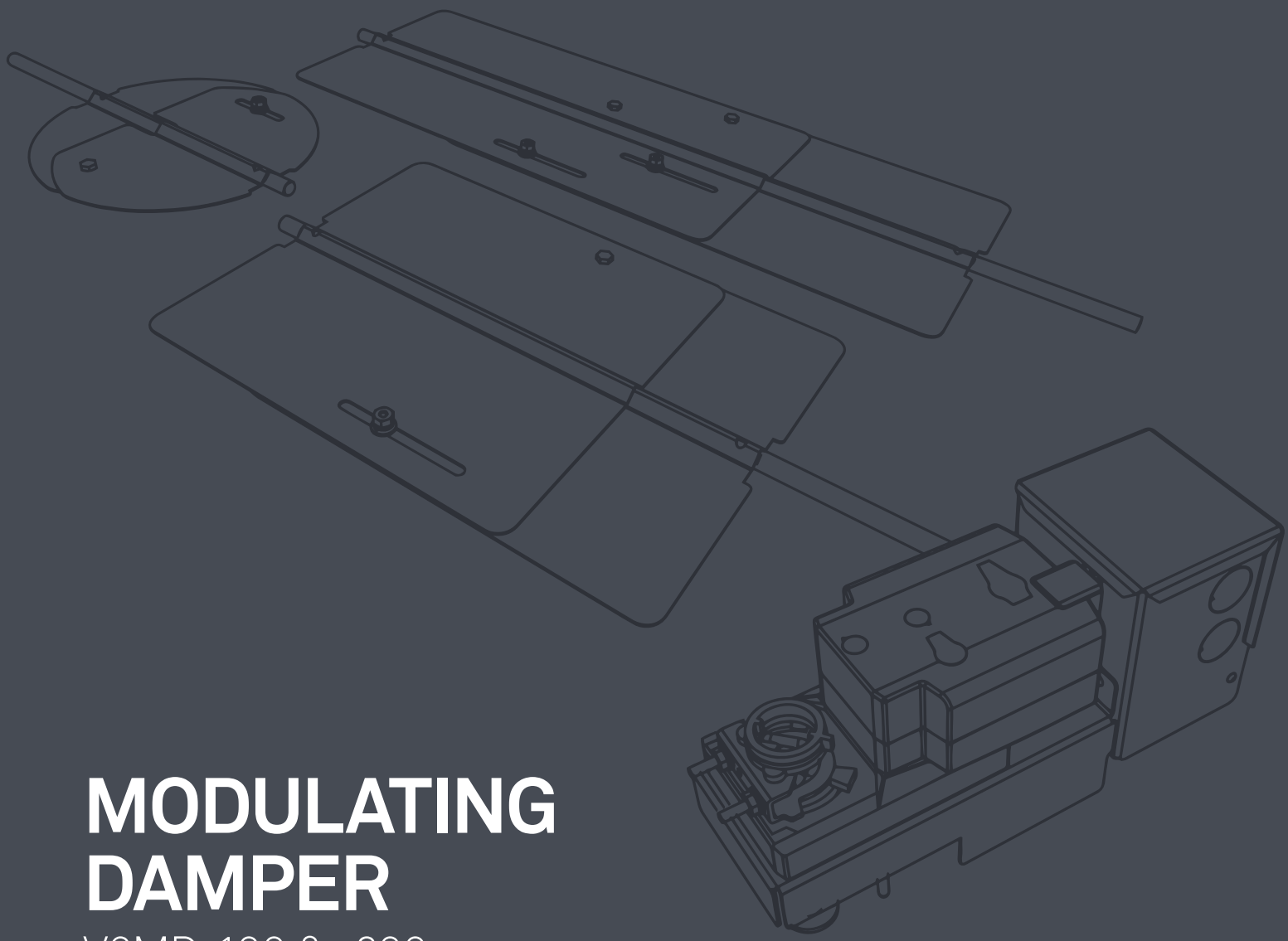


Sensor must be wall-mounted at 6” [152mm] to 18” [457mm] below ceiling

Location is determined by local codes and jurisdiction

⚠ CAUTION! ⚠

Refer to ECOAZUR® Electrical Diagrams



MODULATING DAMPER

V6MD-100 & -200

Installation Manual

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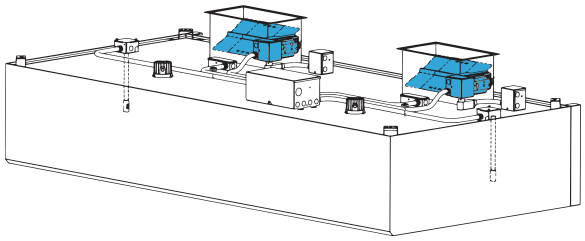
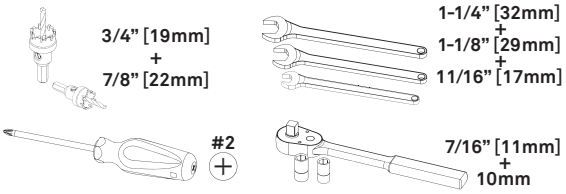


V6MD-100 & -200
MODULATING DAMPER

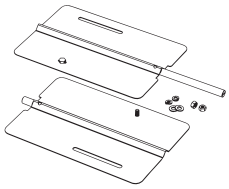
TOOLS REQUIRED



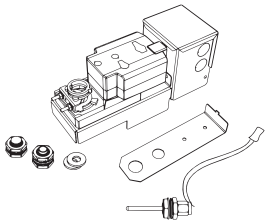
⚠ CAUTION! ⚠

RELATIVE COMPONENTS

1x V6MD-3xx



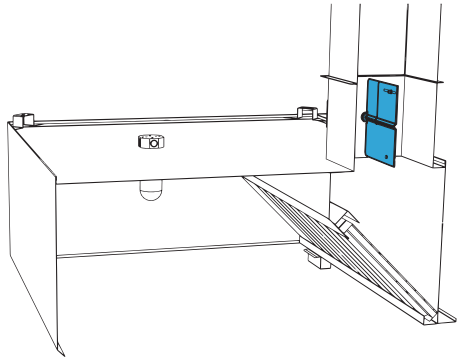
1x V6MD-100 / V6MD-200

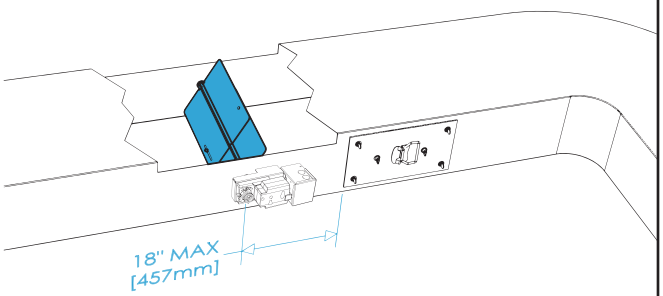


Modulating Damper Components: V6MD-011, 100, -200, -310, -320, -330, -340, -350, -360, -370, -380, -390, -3A0, -410, -420, -430, -510, -520, -530, -900

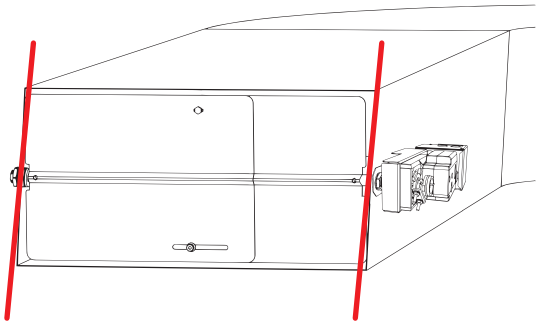
1 Mark & Drill

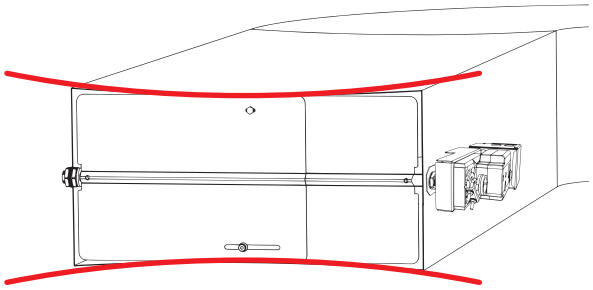
Recommended Locations



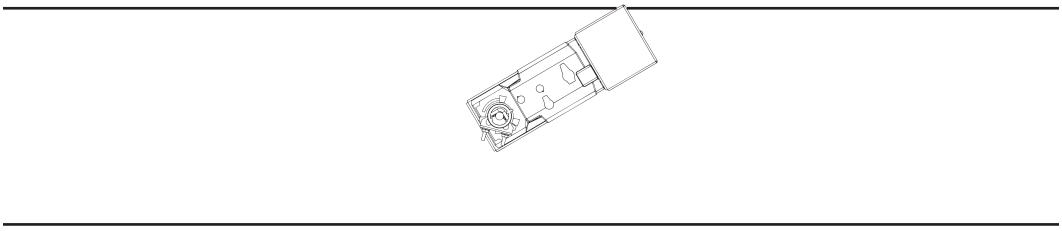


DAMPER MUST BE INSTALLED IN A STRAIGHT DUCT SECTION

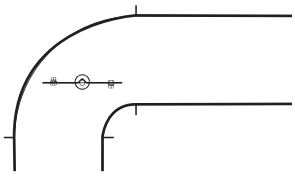


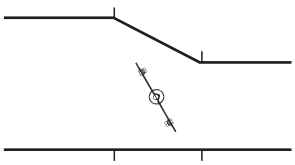


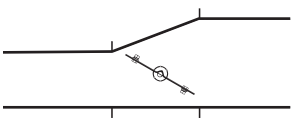
ACTUATOR ORTHOGONAL TO DUCT



DO NOT INSTALL DAMPER IN A CONNECTION PIECE

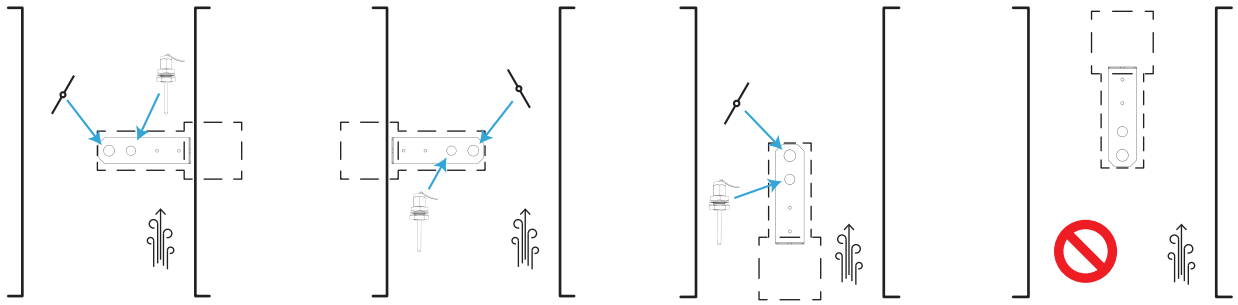


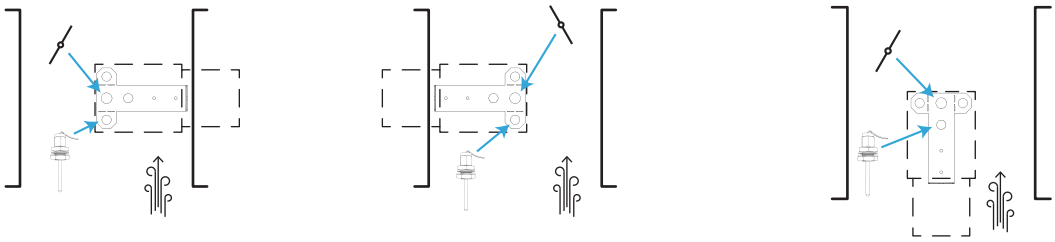


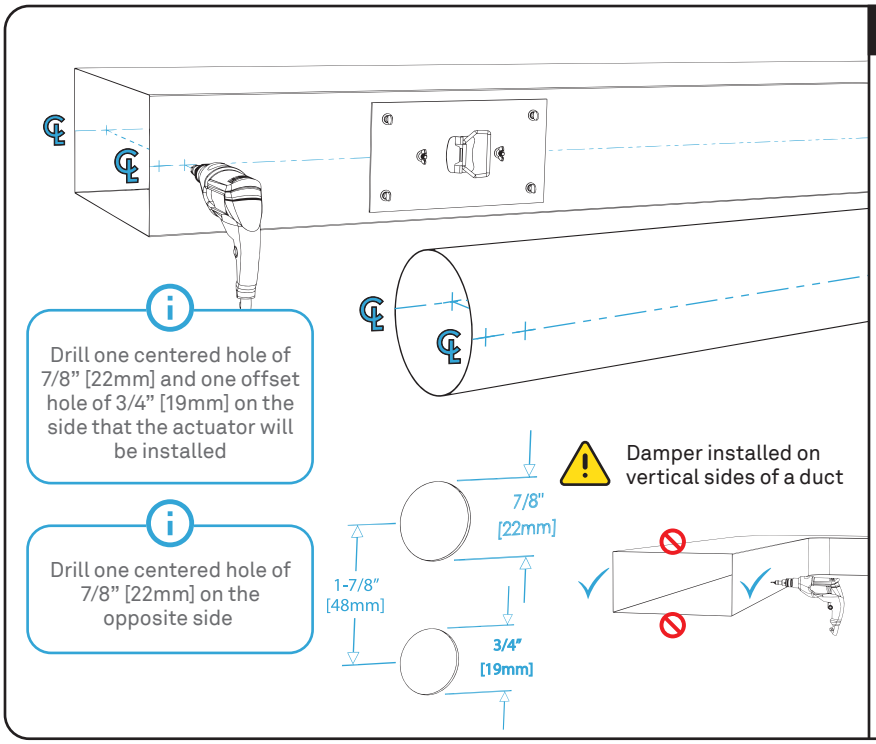


Mark & Drill (cont'd)

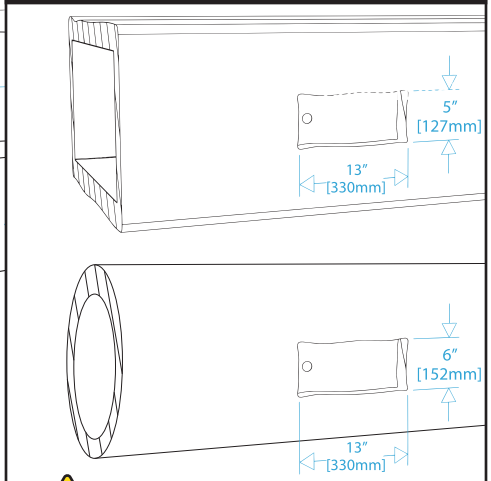
TEMPERATURE PROBE NEEDS TO BE UPSTREAM OF THE DAMPER







INSULATED DUCT



Install actuator more than 18" [457mm] away from a combustible material and more than 3" [76mm] away from a semi-combustible material. Follow any additional local and national standards and codes

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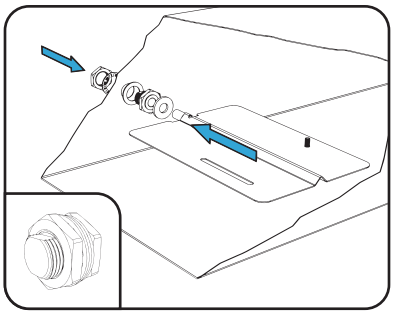
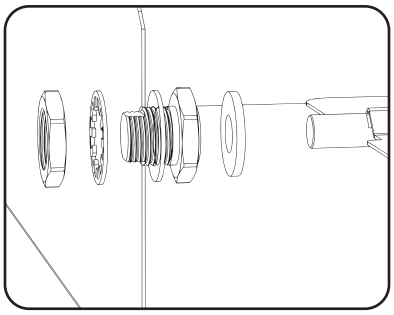
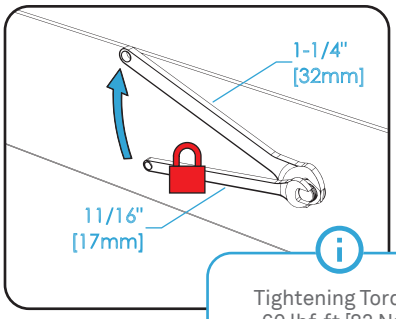
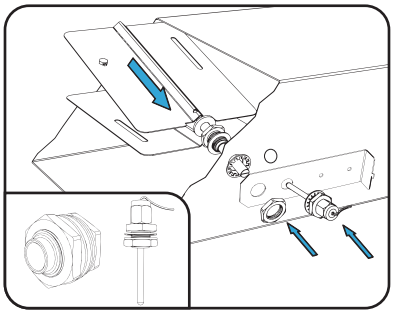
2 Install Damper Blades V6MD-3xx

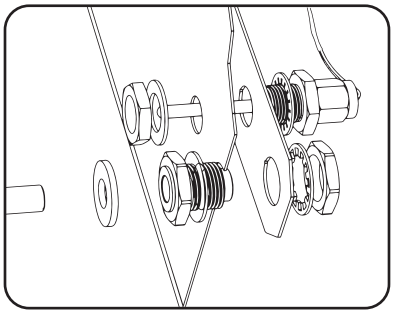


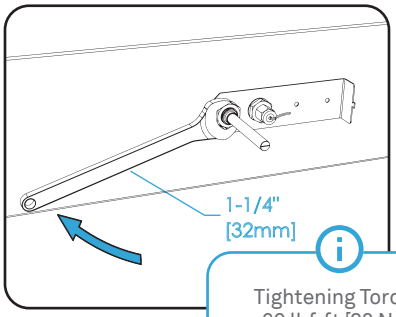




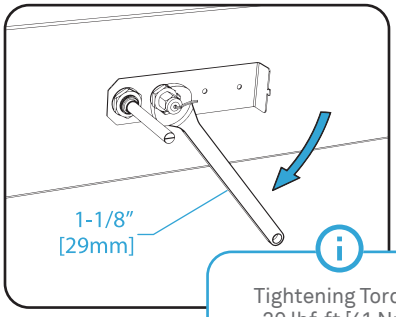
Tightening Torque
60 lbf-ft [82 Nm]



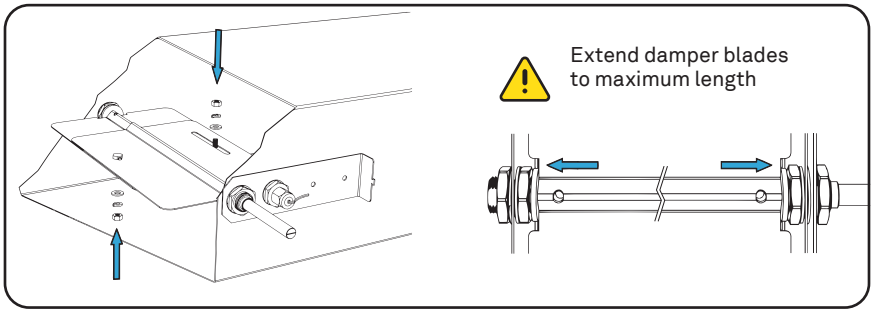


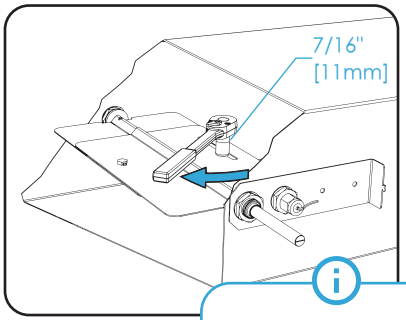


Tightening Torque
60 lbf-ft [82 Nm]



Tightening Torque
30 lbf-ft [41 Nm]





Tightening Torque
15 lbf-ft [20 Nm]

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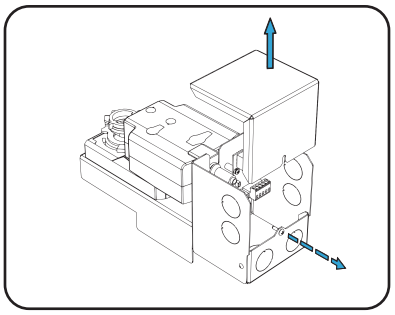
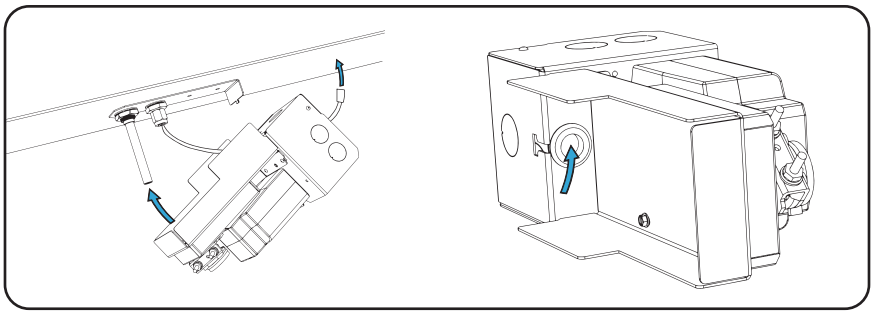
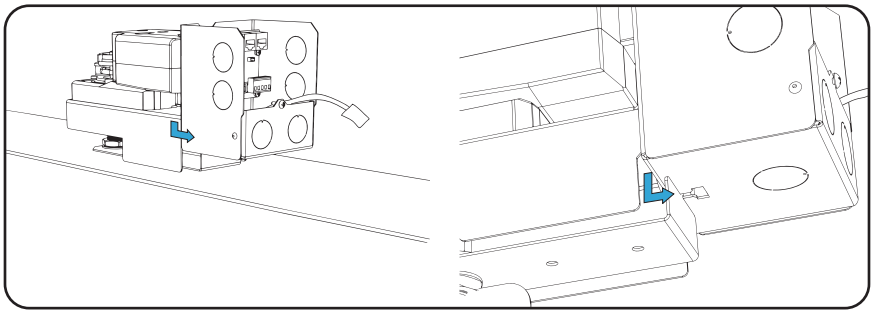
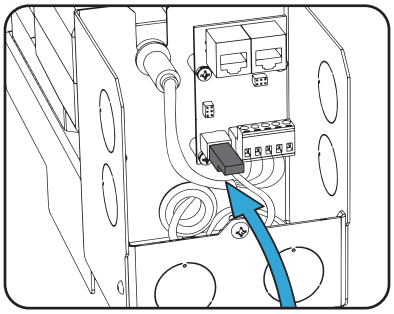
3 Install Actuator Assembly

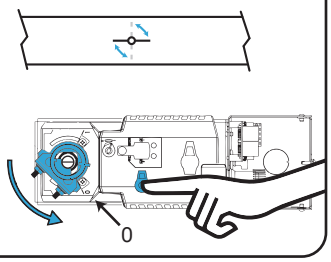


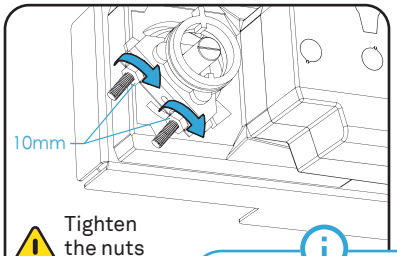






Rotate damper to the open position

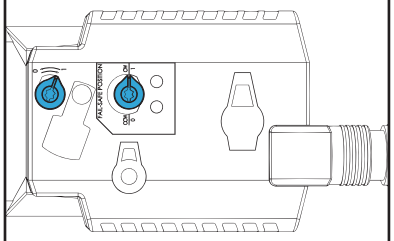




Tighten the nuts alternatively

Tightening Torque
5 lbf-ft [7 Nm]

ACTUATOR CONTROLS



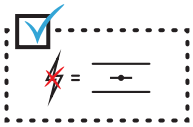
DIRECTION OF ROTATION

FACTORY SETTING

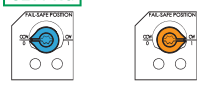
0: Open Position

1: Open Position

FAIL-SAFE POSITION



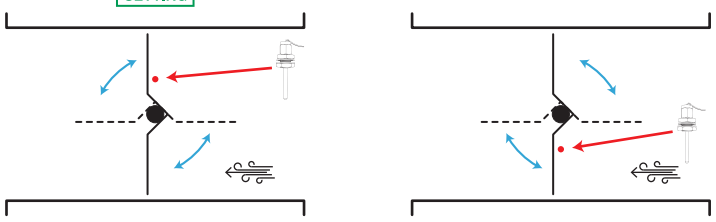
FACTORY SETTING



CCW
0

CW
1

FACTORY SETTING



Damper must rotate in the direction to not hit the temperature probe

Damper face with the rising bend must face towards the hood

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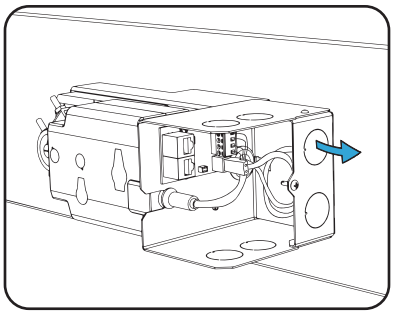
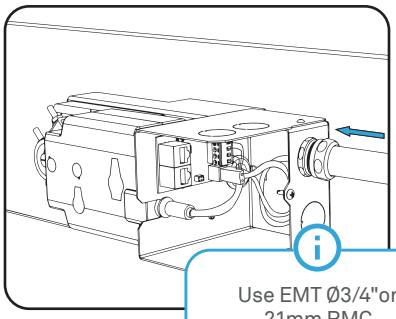
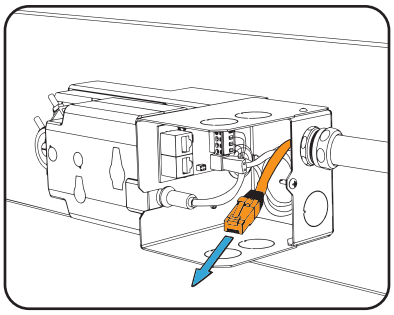
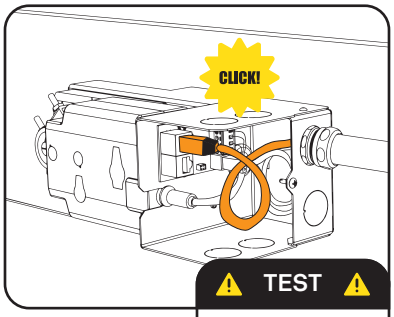
4 Connect

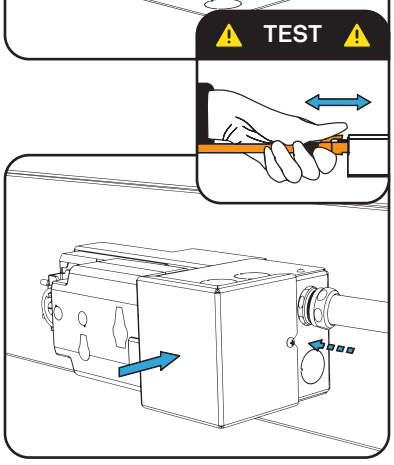


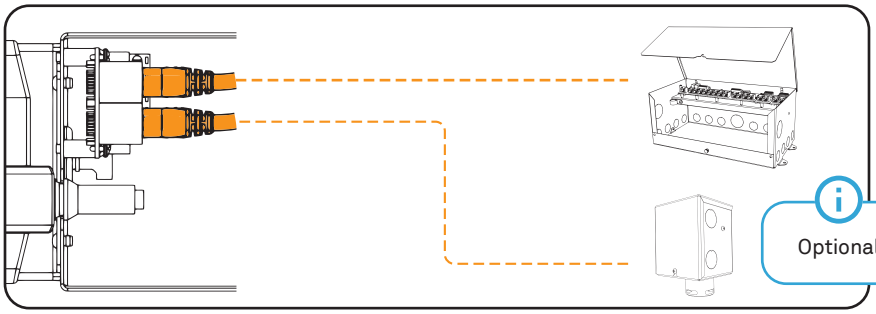


Use EMT Ø3/4"or 21mm RMC conduit and fittings

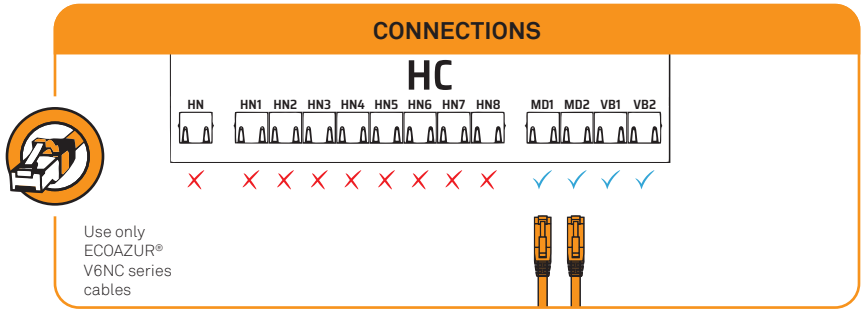






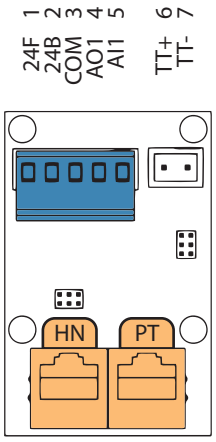


Optional

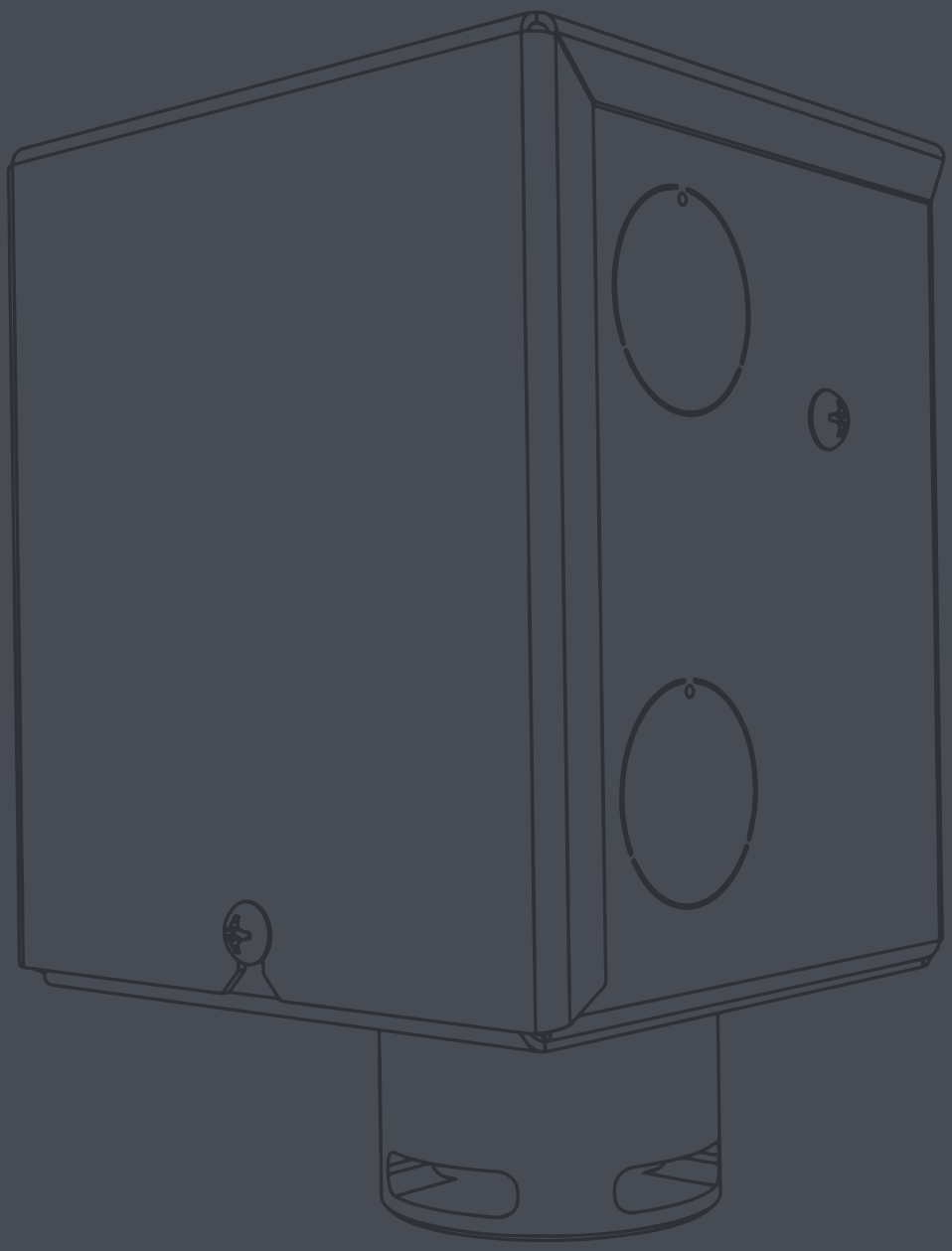


PCB layout

Modulating Damper board (V6MD-011)



RJ45 PORT TERMINAL BLOCK



HOOD PRESSURE SENSOR

V6PT-100

Installation Manual

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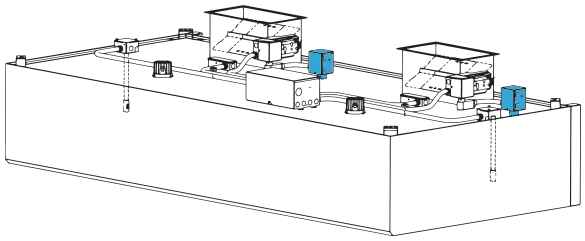
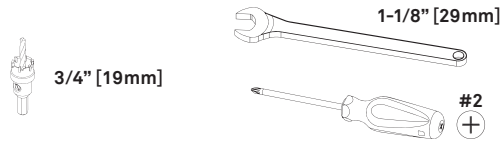


V6PT-100

HOOD PRESSURE SENSOR

REQUIRED TOOLS

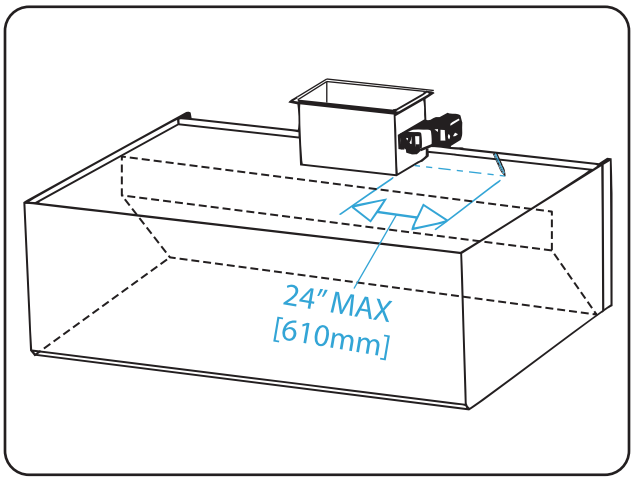


⚠ CAUTION! ⚠

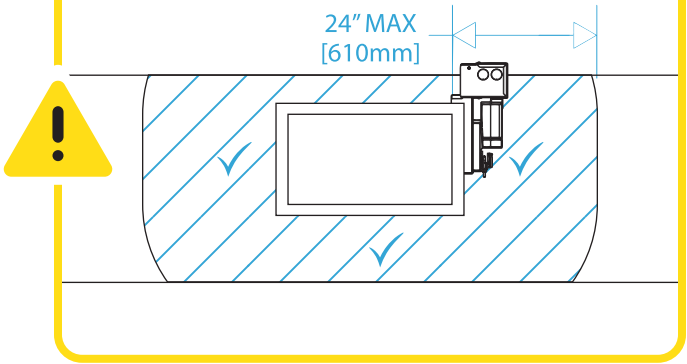
Hood Pressure Sensor Components: V6MD-011, V6PT-021, -100, -900

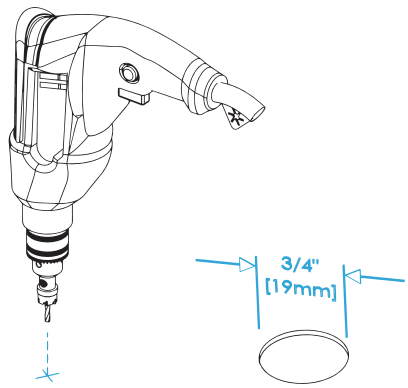
1 Mark & Drill

Recommended Location

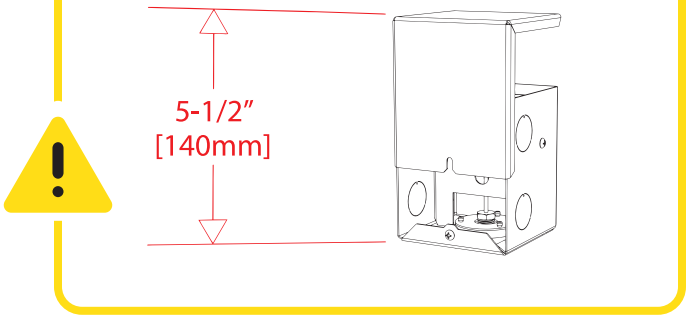


INSTALL NOT MORE THAN 24" [610mm] AWAY FROM THE HOOD RISER





REQUIRES 5-1/2" [140mm] CLEARANCE OVER HOOD



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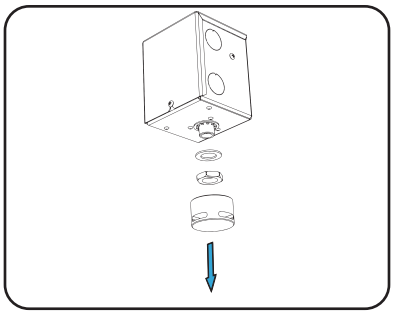
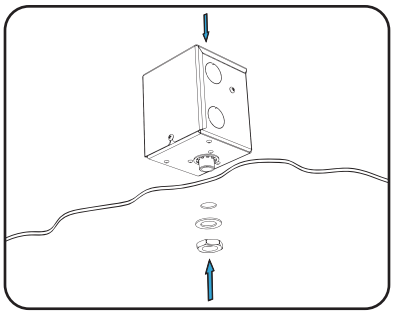
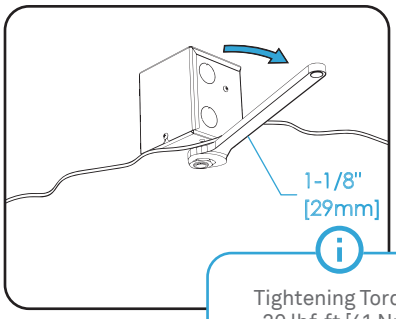
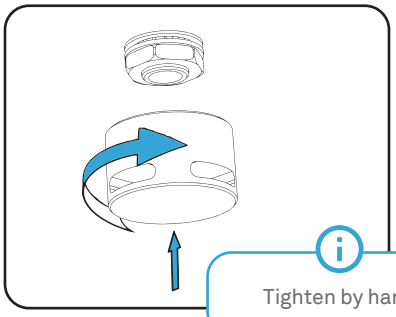
2 Install





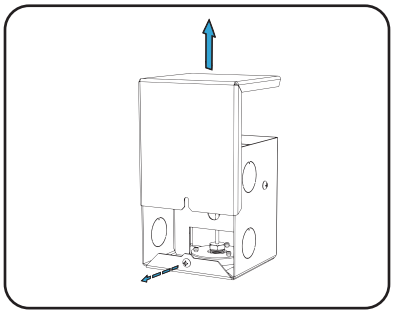


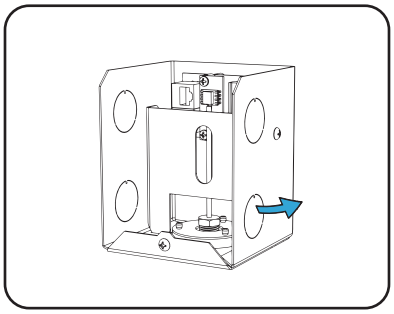
Tightening Torque
30 lbf-ft [41 Nm]

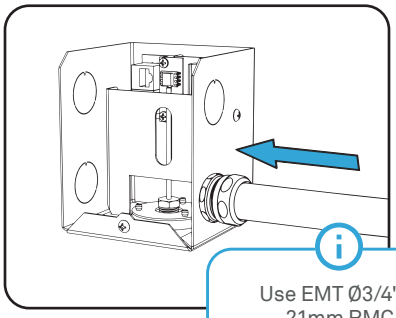


Tighten by hand

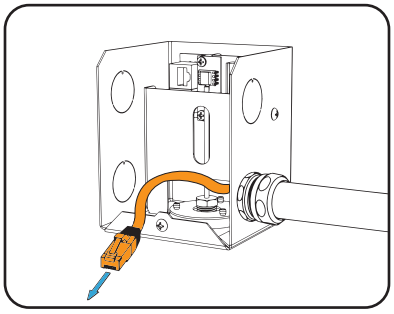
3 Connect

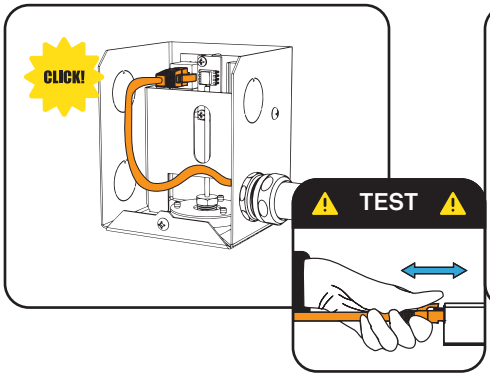


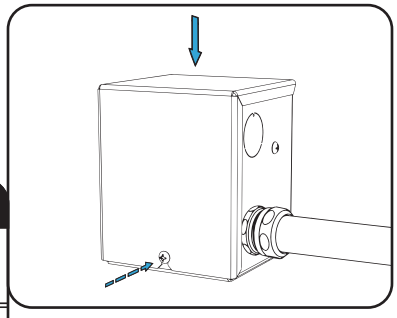


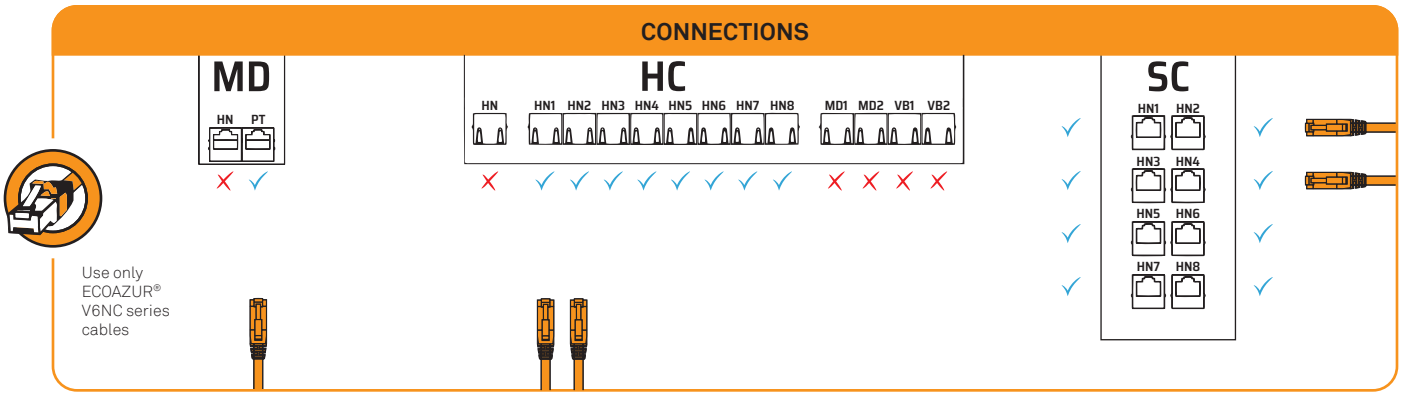


Use EMT Ø3/4"or
21mm RMC
conduit and fittings



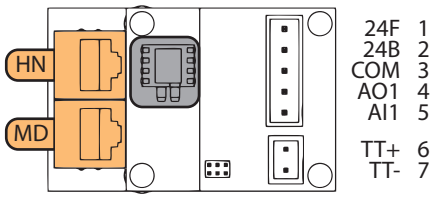




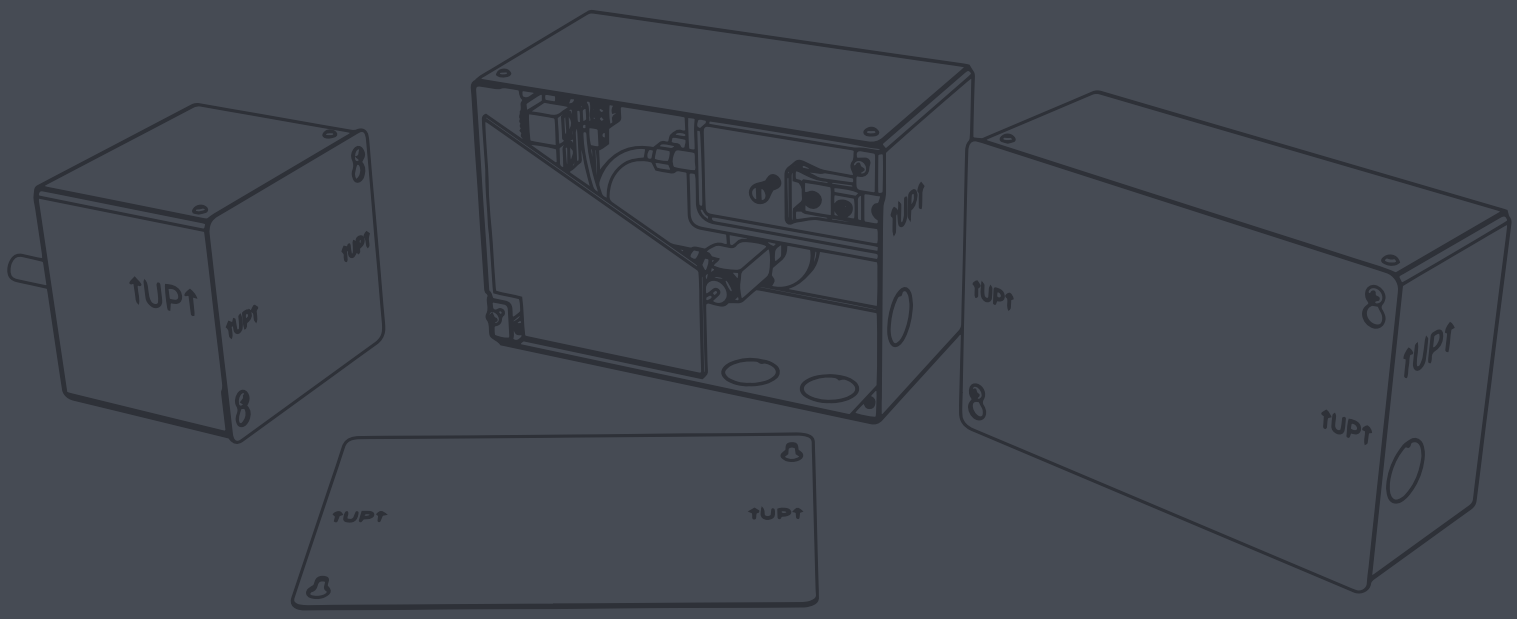


PCB Layout

Hood Pressure Sensor board (V6MD-011 + V6PT-011)



RJ45 PORT PRESS. SENSOR



DUCT PRESSURE SENSOR

V6PT-2xx & -3xx

Installation Manual

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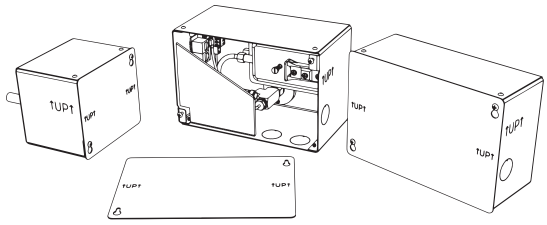
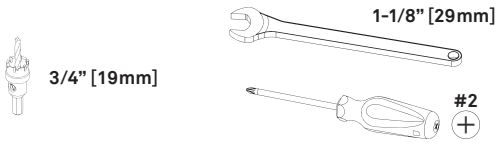
V6PT-2xx & -3xx

DUCT PRESSURE SENSOR



REQUIRED TOOLS

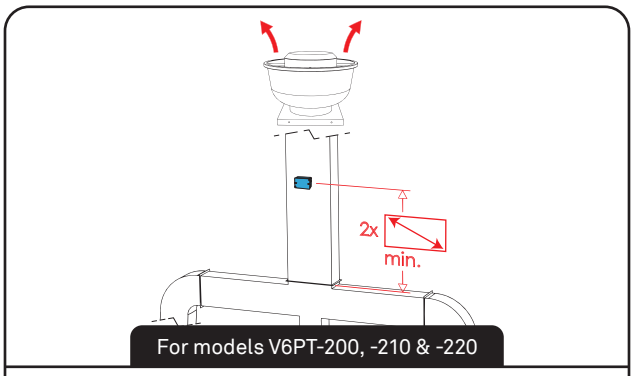


⚠ CAUTION! ⚠

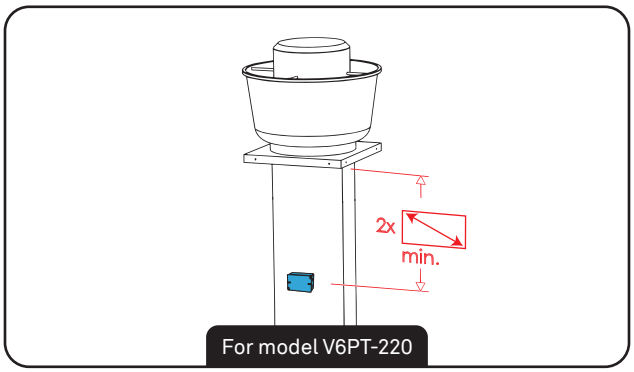
Duct Pressure Sensor Components: V6MD-011, V6PT-021, -200, -210, -220, -300, -310, -320, -900

1 Mark & Drill

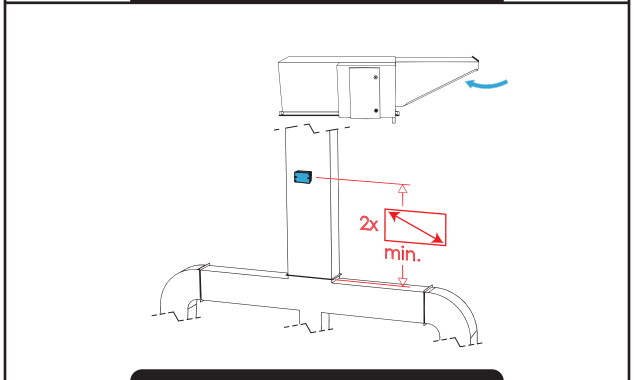
Recommended Location



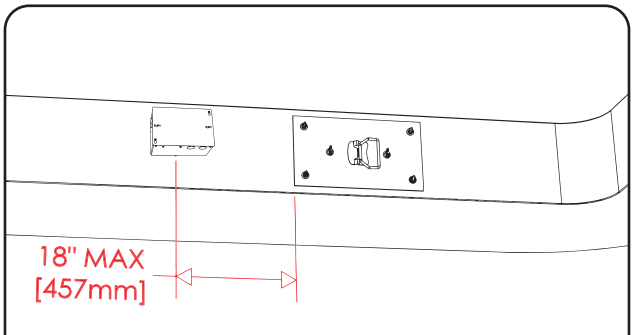
For models V6PT-200, -210 & -220



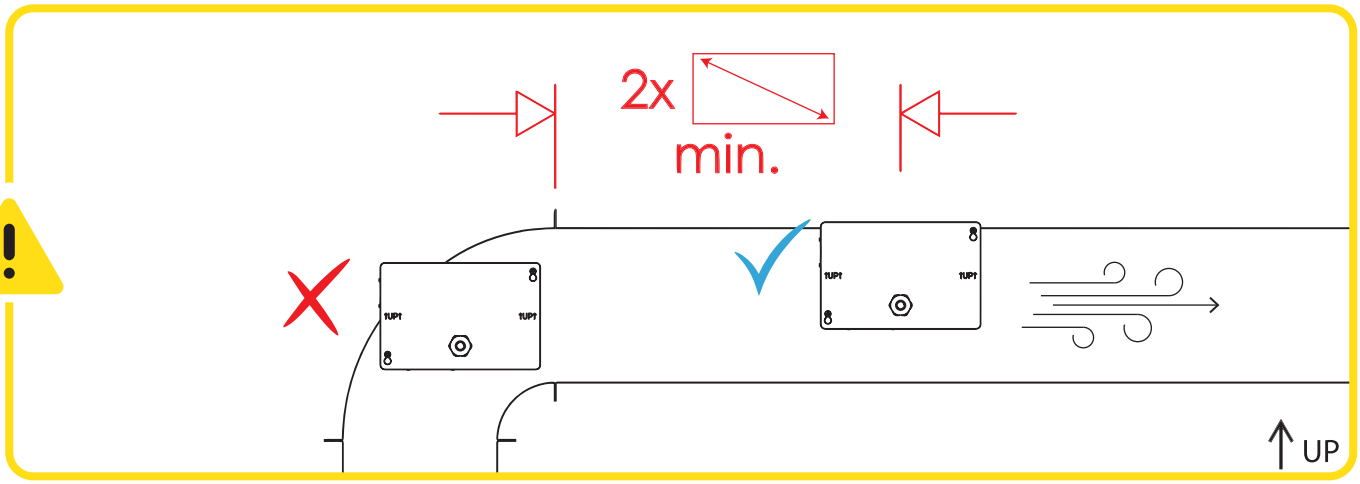
For model V6PT-220



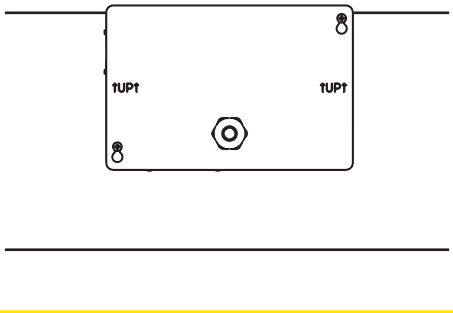
For models V6PT-300, -310 & -320

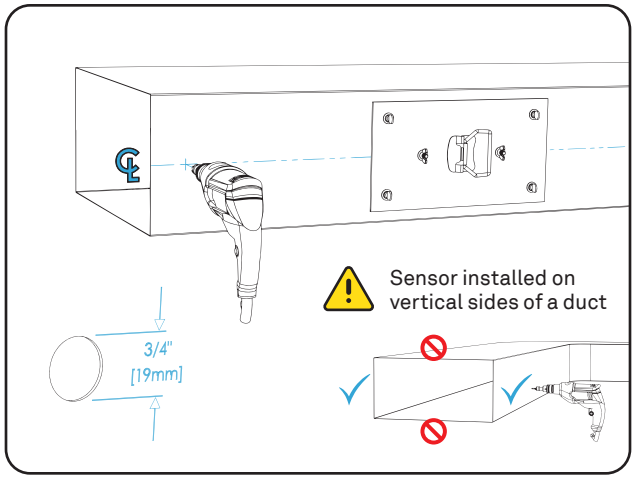


Mark & Drill (cont'd)

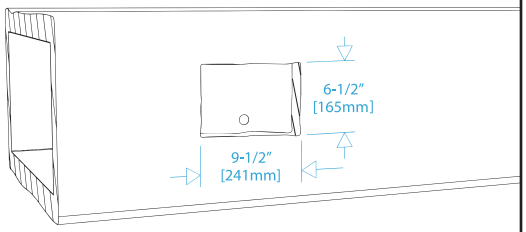


ENGRAVING ON COVER MUST BE ORIENTED UPWARDS

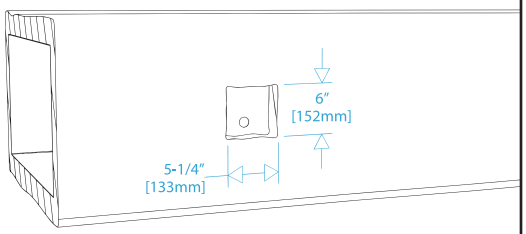




INSULATED DUCT



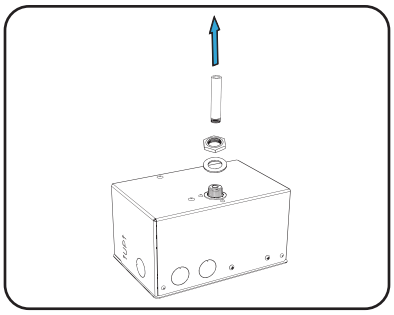
For models V6PT-200, -220, -300 & -320

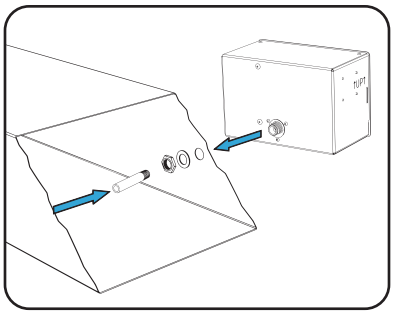


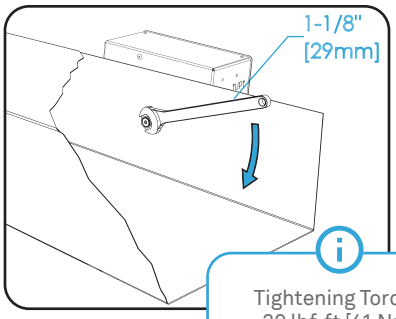
For models V6PT-210 & -310

Install sensor more than 18" [457mm] away from a combustible material and more than 3" [76mm] away from a semi-combustible material. Follow any additional national or local standards and codes

2 Install

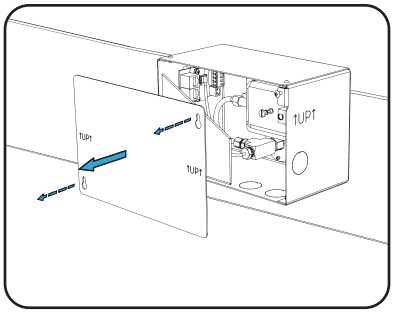


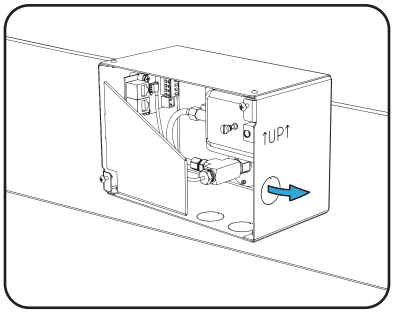


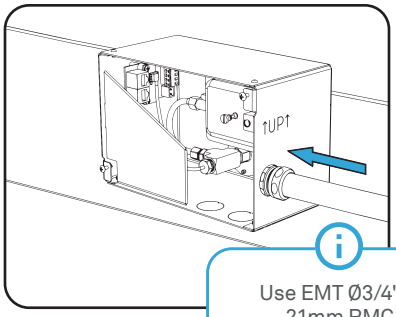


Tightening Torque
30 lbf-ft [41 Nm]

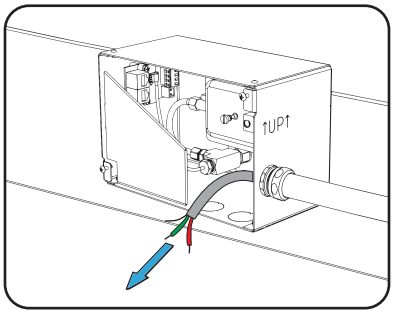
3 Connect Pressure Switch (for models V6PT-200, -220, -300 & -320)

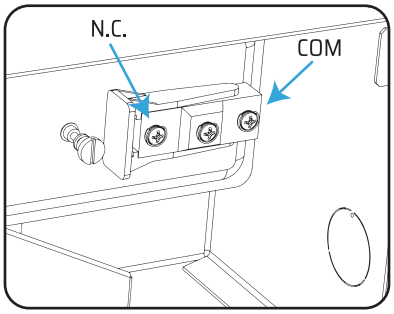






Use EMT Ø3/4"or
21mm RMC
conduit and fittings



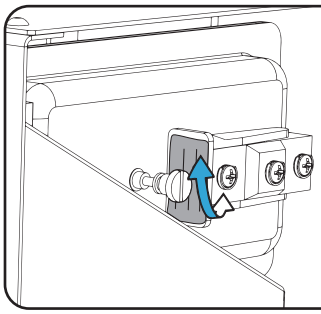


⚠ CAUTION! ⚠

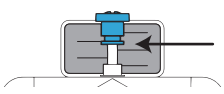
Refer to ECOAZUR® Electrical Diagrams

Minimum Cable Requirements

- Plenum/FT6
- 18 AWG [0.75 mm²]
- Shielded
- 75° C [167° F] rated temp.



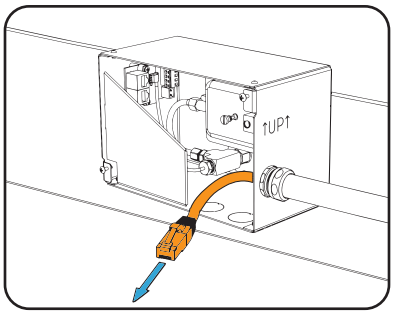
- Factory calibrated at 2” w.c.
- Each full turn represents approxi-mately 1.2” w.c.
- Check the line to confirm setting

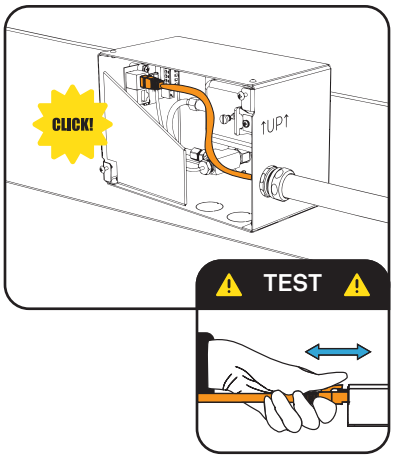


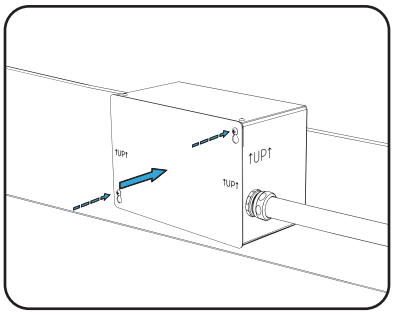
⚠ 24V MAX

ecoAzur®

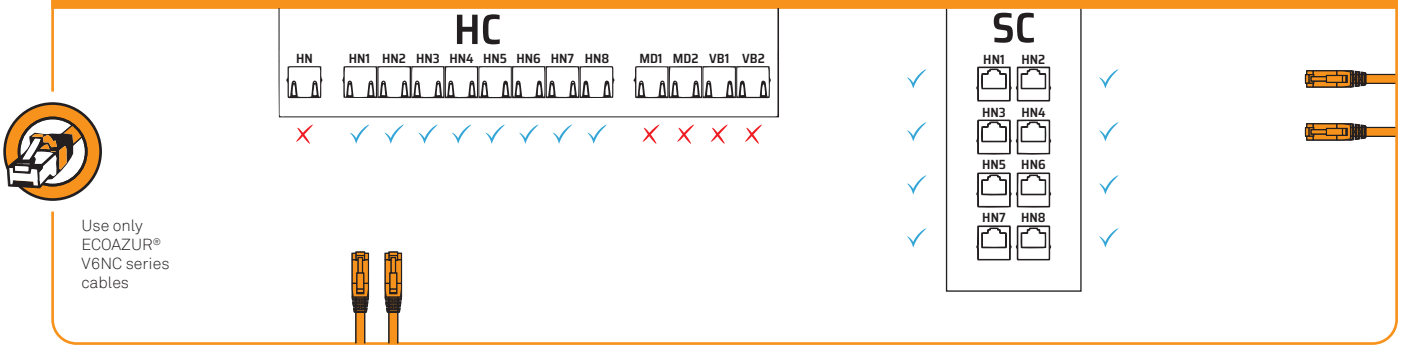
4 Connect ECOAZUR® PCB (for models V6PT-200, -210, -300 & -310)





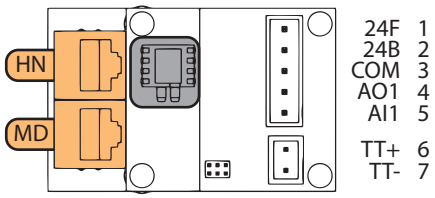


CONNECTIONS



PCB Layout

Duct Pressure Sensor board (V6MD-011 + V6PT-021)



RJ45 PORT PRESS. SENSOR

LIMITED-ACCESS ASSEMBLY

(Alternate Installation Method)

V6LA-xxx

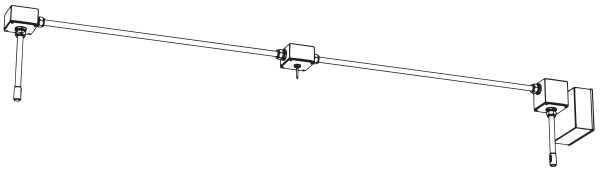
Installation Manual

ecoAzur®

V6LA-xxx

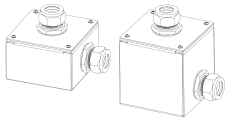
LIMITED-ACCESS ASSY

(ALTERNATE INSTALLATION METHOD)



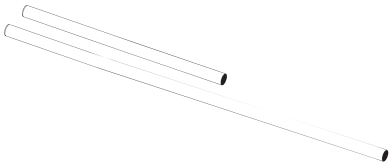
RELATIVE COMPONENTS

V6LA-2xx

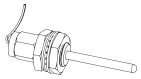


V6LA-4xx

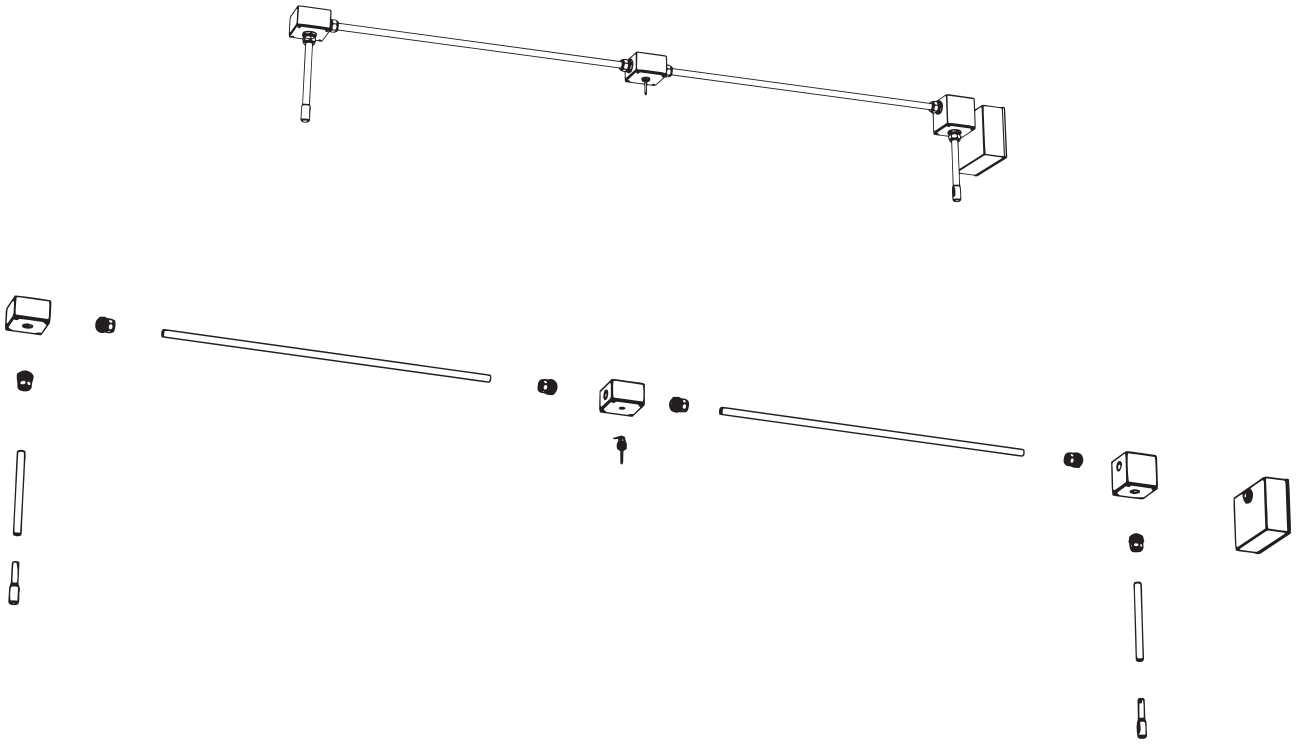
V6LA-3xx



V6LA-510



Limited-Access Assembly Components: V6LA-210, -220, -230, -240, -310, -320, -410, -420, -430, -440, -510



WIRING CHANNEL ASSEMBLY

(Alternate Installation Method)

V6HM-xxx

Installation Manual

ecoAzur®

ecoAzur®

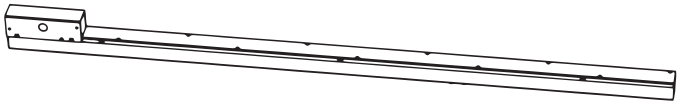
V6HM-xxx

WIRING CHANNEL ASSY

(ALTERNATE INSTALLATION METHOD)

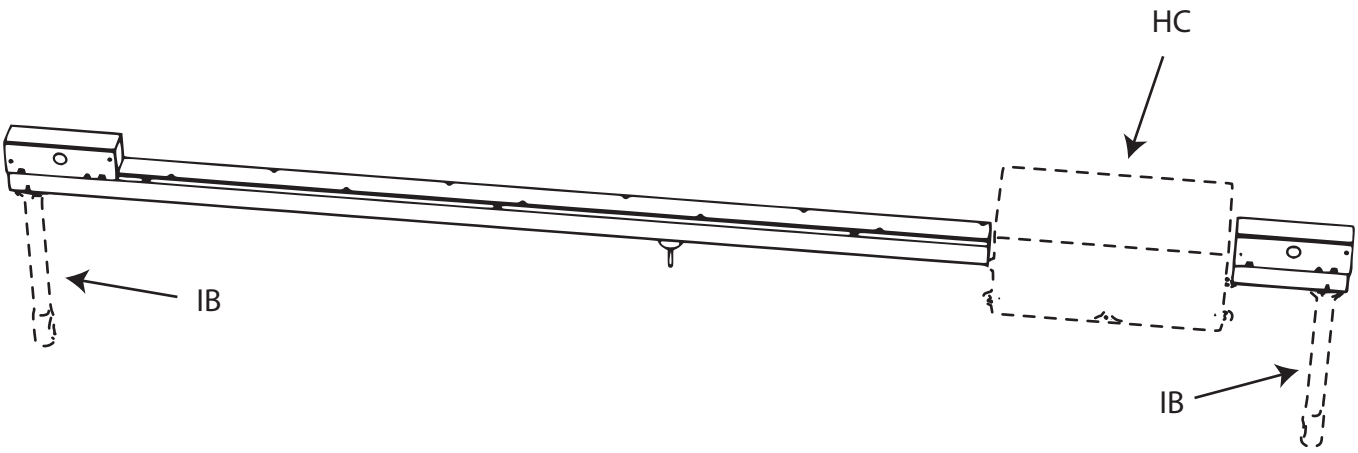
RELATIVE COMPONENTS

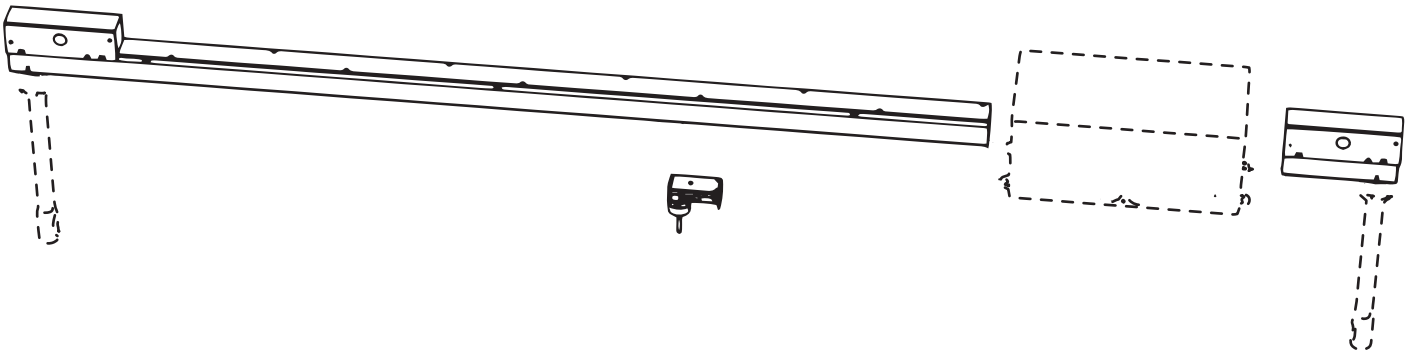
V6HM-110



V6HM-120

V6HM-130





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