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**** IMPORTANT ****

**THIS
DOCUMENT MUST BE RETAINED BY THE
USER.**

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1. DESCRIPTION OF COLD ROOM COMPONENTS

(Some of the listed components are optional)

1.1 PRESSURE-RELIEF VALVE

1.1.1 The heated pressure relief valve balances the internal and external pressure of the room. This valve is generally located above the freezer door.



1.2 LIGHTING

- 1.2.1
- Incandescent lighting type may be supplied with a wire cage globe protector (Standard or NSF).
 - The cage protects the glass globe from impacts.
 - The incandescent fixture without globe protection has a plastic protective film that prevents any glass from shattering.
 - Standard domestic light bulbs (Max. 100 watts) or compact fluorescents for exterior purposes may be used.
- 1.2.2
- Fluorescent type lighting can be supplied. The replacement tubes are type T5HO – 54 Watts – 48” long.



Important

The calibration of the thermometers should always be checked by a refrigeration specialist at boot.



1.3 THERMOMETER

- 1.3.1
- A dial thermometer (standard), mounted on the door frame, indicates temperature in Celsius and Fahrenheit.
 - Although this device is calibrated in the factory, an adjustment screw in the center of the dial enables on-site adjustment. You must remove the glass dial face to adjust.
 - The temperature should always be verified.
- 1.3.2
- A digital thermometer is also offered as an option. It is powered by solar energy.
 - A light source must be present to ensure the display on this thermometer.
 - You can change the display from Celsius to Fahrenheit by unscrewing the face plate and switching the lever
 - inside.
- 1.3.3 If cold room is equipped with an Intelligence module, please refer to 1.4 sections.

1.4 IM4 MODULE (OPTIONAL)

1.4.1 This product is capable of lighting control, thermometer and alarm functions. See attached Appendix for a detailed description of all functionality and programming procedures. Note that the intelligence module does not set or control room temperatures.

1.3.1

2. MAINTENANCE

2.1 FREQUENTLY

- 2.1.1 Panels must be cleaned with a soft cloth and soap (**PH level close to 8 cleaner**). Panel must not be in contact with corrosive agents.
- 2.1.2 If a high pressure washer is used, do not apply water jet directly to silicone joints.
- 2.1.3 To avoid deterioration of heater cable, do not shoot water under door sill plate.

2.2 EVERY MONTH

- 2.2.1 Check the pressure-relief valve. The valve comes with an inside flap that opens and closes when a pressure variation occurs within the room.
- 2.2.2 Verify door heater cable on the door perimeter. If cable is functioning normally the door frame will be slightly hot (on freezer door).
- 2.2.3 Verify thermometer precision and adjust if necessary.

2.3 EVERY 6 MONTHS

- 2.3.1 Lubricate hardware (door hardware, etc.). Use white all-purpose grease (preferably lithium base). Door hinges with nylon cams do not require lubrication.
- 2.3.2 Verify if silicone needs replacement, if so, remove old silicone and replace it.

2.4 EVERY 6 MONTHS TO 1 YEAR: MAINTENANCE TO DO BY A REFRIGERATION CONTRACTOR

- 2.4.1 Verify the refrigeration cycle.
- 2.4.2 Verify condenser fins. (Air-cooled unit)
- 2.4.3 Verify evaporator coil fins.
- 2.4.4 Verify evaporator drains line and pan.
- 2.4.5 Regularly verify the proximity of the refrigeration unit to avoid aspiration of dirt in the condenser (air-cooled unit).

3. REFRIGERATION SYSTEM

3.1 SYSTEMS DESCRIPTION

- 3.1.1 The Pro3 : The main feature of this air-cooled refrigeration system is its air diffuser mounted flush with the ceiling. This unit does not require a condensate drain line. **See the unit's User guide for more information.**



- 3.1.2 The conventional air-cooled refrigeration unit can easily be recognized by its condenser coil. **This is the most common refrigeration type and requires adequate ventilation to ensure normal functioning.** This system is to be connected to a separate evaporator coil (located inside cold room).



- 3.1.3 The conventional water-cooled refrigeration unit may be recognized by its coolant coil. This unit must be fed a continuous water supply in order to function properly. It is used in tight and under-ventilated areas. This system is to be connected to a separate evaporator coil (located inside cold room).



- 3.1.4 Conventional refrigeration units may be mounted on top of the cold room, in a mechanical room or outside the building (air-cooled unit only).

3.2 OPERATING ENVIRONMENT AND CONDITIONS

3.2.1 Air-cooled system

3.2.1.1 The customer must provide adequate ventilation around the condenser to evacuate heat rejected from the unit. The condenser intake temperature must not exceed 32°C/90°F.

3.2.1.2 The condenser's heat rejection is the quantity of heat released in the course of cooling the mechanical components and the refrigerant.

3.2.2 Water-cooled system

3.2.2.1 The customer must install all plumbing necessary to supply the system with the required quantity of clean cool water. Water flow and pressure must be sufficient to allow temperature control at the water outlet by adjusting water valve. Water outlet temperature must be a maximum of 35°C/95°F to minimize scaling.

3.3 EVAPORATOR CLEARANCE

- 3.3.1 To ensure adequate ventilation, it is essential that a minimum clearance of 15 cm (6") be respected between the evaporator and the shelves as well as the wall on either side. In addition, do not place anything between the back of the evaporator and the wall behind it. Should these clearances not be provided, the evaporator will not operate properly and will frost up more quickly.



3.3.2 Non-compliance with the above conditions will result in faulty operation of the unit and, ultimately, component damage which will not be covered by the warranty.

3.4 DEVICE ADJUSTMENTS

3.4.1 THERMOSTAT



3.4.1.1 The cold rooms temperature is thermostatically controlled (degrees Fahrenheit or Celsius). This device is placed in one of the following locations: inside, behind the cold room's evaporator, or outside. The thermostat must be adjusted to the right temperature according to the client's needs.

3.4.2 DEFROST CYCLE CLOCK



3.4.2.1 The defrost cycles are programmed by the installer during installation.

3.4.2.2 The refrigerator defrost program is set for three 45-minute defrost cycles, while the freezer defrost program is set for four 1-hour cycles a day. Please note that the preset parameters may be changed to suit actual operating conditions.

3.4.3 INTELLIREF (optional)



3.4.3.1 The intelliref is an electronic, factory-installed module that controls the temperature and the defrost cycle. It replaces the thermostat and the defrost cycle clock.

3.4.3.2 The temperature probe is factory installed at the evaporator air return.

3.4.4 EVAPORATOR DRAIN

3.4.4.1 The condensation formed in the coil of conventional refrigeration systems must be evacuated through a copper drain line that is 13-20mm ($\frac{1}{2}$ " - $\frac{3}{4}$ ") in diameter. This drain line must have a "P" trap to prevent foul sewer odors and humidity from seeping into the cold room. A cleaning outlet must also be provided to enable drain maintenance. Freezer room drain lines must be heated to prevent ice from forming. Care must also be taken to install the "P" trap outside the freezer room since the trap always contains water*.

*Please note that the drain line is not part of the cold room installation package. It must be installed by a plumbing contractor.

4. WARRANTY AND REPAIRS

4.1 WARRANTY

4.1.1 Refer to the attached copy of our warranty.

4.2 REPAIRS

4.2.1 In view of the highly technical nature of the product, it is strongly recommended that the customer contact the proper service company. The contact information of the installer are located outside of the cold room on a sticker.



5. TROUBLESHOOTING



BEFORE CALLING US

CALL THE INSTALLER HEIR NUMBER IS ON A STICKER SHOW IN 4.2.1. IF YOU NEED TO CALL US MAKE SURE YOU HAVE YOUR NORBEC PROJECT THIS NUMBER IS LOCATED NUMBER INSIDE OF THE ROOM BELOW THE DOOR FRAME. (SEE IMAGE)

24 hours Telephone service

1-877-NORBEC1(1-877-667-2321)

Cold-Room Warranty Calls

450-449-1499 (or 1-877-667-2321)

Ext. 2319

Refrigeration Warranty Calls

450-449-1499 (or 1-877-667-2321) E

xt. 2274

PIECES

450-449-1499 Ext. 2232

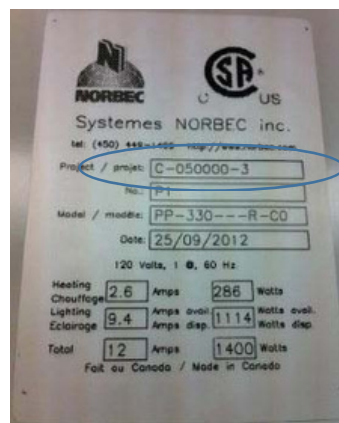
SYSTÈMES NORBEC INC.

97, RUE DE VAUDREUIL
BOUCHERVILLE (QUÉBEC) J4B 1K7

TÉL. : (450) 449-1499

TÉLÉC. (450)-641-4657

TOLL FREE: (877) 667-2321



# Projet / Project #	111	
Tag ident. / ID Tag	P1	
# Modèle / Model #	PP-330	
Date	2016-04-05	
	AMPS	WATTS
Chauffage intégré au Cadre Heating integrated in Frame	0,7	180,8
Disponible pour éclairage externe Available for external Lighting	11,3 MAX	1259,2 MAX
120V, 1 Phase, 60 Hz		

WHAT THE CUSTOMER CAN DO

Cold Room Accessories

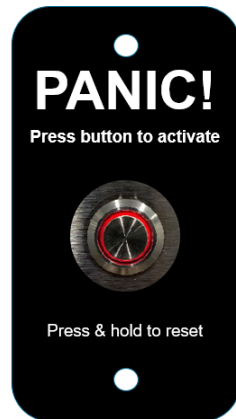
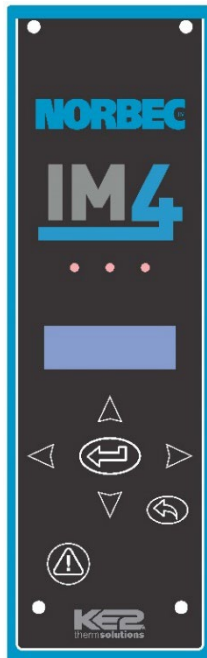
PROBLEMS	CAUSES	POSSIBLE SOLUTIONS
The freezer door jamb ices over.	Door jamb heater cable is not functioning.	The circuit breaker is shut or defective (have it checked by a qualified electrician).
		The heater wire is defective (contact Norbec's Customer Service Department).
The freezer door is hard to open.	Pressure-relief valve is defective or blocked.	Check to see if there is any ice in the valve.
		Check that the valve is connected to a power source.
		Check that the valve is receiving power.
The light burns out often.	Door needs adjusting.	Have the door adjusted by an approved technician (contact Norbec's Customer Service Department).
	Not sealed properly.	Have an electrician check the electrical installation.
	Incorrect type of bulb is being used.	Replace the bulb with the appropriate type.
	Electrical circuit is defective or shorted out.	Have an electrician check the electrical installation.
Water seeps into the lighting fixture's globe.	Lamp casing is damaged.	
	Gasket between the base and the globe is missing or damaged.	Install a new gasket (contact Norbec's Customer Service Department).
	Power cable inlet is insufficiently insulated.	Fill the cable inlet with sealant or insulation material (may be done from inside or outside the cold room).

REFRIGERATION SYSTEM

PROBLEMS	CAUSES	POSSIBLE SOLUTIONS
The cold room temperature is too high.	Thermostat is improperly set.	Change the thermostat setting (see point 3 of the refrigeration system section in this User Manual).
	Condenser's air intake temperature is too high (air-cooled systems).	Check the air cooler's intake temperature with a thermometer. If it is above 32°C / 90°F, install adequate mechanical ventilation to ensure that air intake temperature remains below 32°C / 90°F.
	Defrost Cycle is running.	It is normal for the temperature to rise during defrost cycles. If necessary, change the timing of the defrost cycles (see point 3 of the refrigeration system section in this User Manual).
	Heat source is located too close to the cold room.	The unit is designed to function under normal ambient conditions, i.e. 32°C / 90°F. Remove all heat sources, such as wash stands, stoves and ovens, from the vicinity of the cold room. Increasing ventilation can also help to solve this problem.
	Cold room is subjected to excessive traffic.	While the system's capabilities are designed to take into account frequent traffic, it is possible that the doors remain open too long. Strive to reduce how often and how long the doors are opened.
The evaporator is full of ice.	Cold room contains overly warm products (The temperature of the new order of prepared food which was just received is more than 5°F above the specified temperature).	The cold room is designed to maintain the specified temperature. However, no load is provided for cooling foods at temperatures that are more than 5°F above the specified temperature.
	Refrigerator temperature is too close to freezing.	Change the thermostat setting (See point 3 of the Refrigeration System section in this User Manual).
	Two few defrost cycles were set or cycles are too short.	Add a defrost cycle or lengthen the current cycles (See point 3 of the refrigeration system section in this User Manual).
	Back, sides and/or underside of the evaporator are obstructed.	Remove anything that may be obstructing the evaporator's sides, back or underside.
Water is dripping from the evaporator onto the floor.	Drain is frozen.	Check whether the heater cable is functioning and has been correctly installed.
	Evaporator drain is incorrectly installed.	Check connections for watertightness.
		Check the drainage slope.
	Drain is blocked.	Have the drain cleaned.

Object: [Operating instructions module IM4](#)

1. Operating and Configuring Instructions



1. Up 
2. Down 
3. Left 
4. Right 
5. Enter 
6. Back 
7. Mute Button 

2. Description for Each Feature

Temperature Monitoring and Display

The unit displays the temperature in degrees Celsius (°C) [adjustable, see *Parameter Descriptions*].

Should one or more alarms be present, the display will show the alarms first. If there are no active alarm, the screen displays only the variables.

Lighting Control

The lighting is controlled by detecting the opening of the door, which will turn the lights ON and the closing door will initiate a 5-minute countdown [adjustable, see *Parameter Descriptions*]; 30 seconds before the end of the delay, the lights will blink to indicate that the lights are about to turn OFF. This is to warn anyone inside to move to the exit door before the lights go OFF.

Temperature Alarms

These alarms are activated 45 minutes [adjustable, see *Parameter Descriptions*] after reaching the pre-recorded High and Low temperature levels. An audible alarm (about 95 dB) from the keypad will then occur. The display will show the message HIGH MONITOR TEMP2 ALARM or LOW MONITOR TEMP2 ALARM, [see *Alarm Message Descriptions*]. The dry contact (normally closed) from the alarm relay will activate the external alarm signal (low voltage).

The High and Low temperature alarm settings and the activation delay can be modified in the parameter menu.


Door Open Alarm

If the door remains open for more than 15 minutes [adjustable, see *Parameter Descriptions*], this alarm is triggered and an audible alarm from the keypad will occur. The display will show the message DOOR OPEN ALARM [refer to *Alarm Message Descriptions*]. The dry contact (normally closed) from the alarm relay will activate the external alarm signal (low voltage).

Panic Alarm

This alarm can be triggered when the backlit push button is pressed and held, located inside, near the door opening. When pressing this button, the lights will turn ON and an audible alarm from the keypad will occur and the dry contact (normally closed) from the alarm relay will activate the external alarm signal (low voltage). The display will also show the message HELP. Once this alarm is triggered, the mute button will not work. The push button must be pressed and held for 3 seconds to deactivate the alarm.

Muting an Alarm

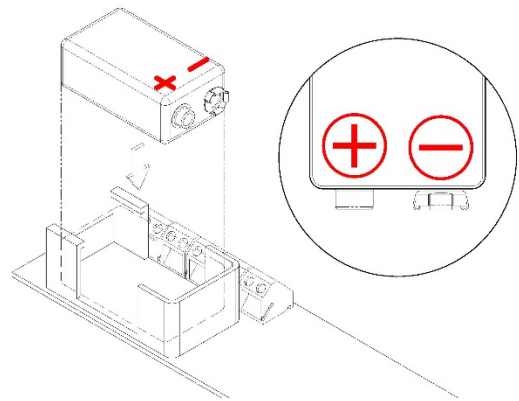
Pressing the "Silent" button  on the keyboard during an alarm will mute the audible signal but the associated alarm message will remain until the alarm condition disappears.

Battery Backup

The 9-Volt battery holder is located inside the controller. In normal condition, this battery should maintain the temperature display and the alarm messages in operation during power outages. The dry contact (normally closed) from the alarm relay will activate the external alarm signal (low voltage).

The rechargeable battery is positioned upside down in the base. It is necessary to reposition it as shown in the diagram below during the first on-site installation.

1. Switch off the module power supply.
2. Unscrew the screws holding the keyboard
3. Lift the keyboard to access the back of the module.
4. Install the battery.





This option allows controlling lighting through two different doors in automatic mode. You must refer to the IM4 wiring diagrams for the proper electrical connection.

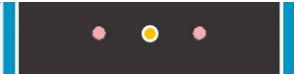
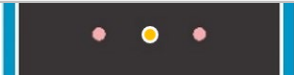
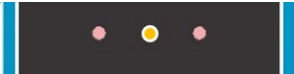
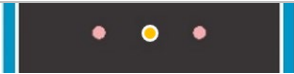
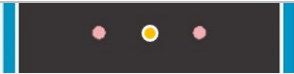

Options


Fan Failure Alarm

When a ventilation system circulates air in concealed spaces around the exterior of walk-in cold rooms, optional sensors can be supplied to monitor the presence of air flow on each blower. With this option, if airflow stops, the system triggers an audible alarm from the keypad, the dry contact (normally closed) from the alarm relay will activate the external alarm signal (low voltage) and the display will show the message EXT ALARM alternating with the actual temperature.



3. Alarm Message Descriptions

Use the  and  buttons to view the active alarms.

Scrolling Display	Lights	Description	Parameter	Value
MONITOR TEMP2 SENSOR		The temperature sensor is shorted.	AUX2 SWITCH STATE	OPEN
MONITOR TEMP2 HIGH ALARM		The temperature is above High temp set point for a period than the time set point.	MON TMP2 HI ALRM	Cooler: 43°F / 6°C Freezer: 10°F / -12°C
			MON TEMP2 AL DLY	45 minutes
MONITOR TEMP2 LOW ALARM		The temperature is lower Low temp set point for a period than the time set point.	MON TMP2 LO ALRM	Cooler: 32°F / 0°C Freezer: -13°F / -25°C
			MON TEMP2 AL DLY	45 minutes
DOOR OPEN ALARM		The door was left open longer than the delay.	DOOR ALARM DELAY	15 minutes
T3 EXTERNAL ALARM		Alarm for fan Failure Novaflow.	AUX3 FUNCTION	Closed, when the fan is running.
HELP		The panic button is activated.		The push button must be pressed and held for 3 seconds to deactivate the alarm.

Once the alarm signal is detected, the buzzer can be muted by pressing the mute button . The alarm message and the dry contact (normally closed) from the alarm relay will activate the external alarm signal (low voltage) will be displayed until the alarm condition is reset.

4. Display Variables

If there is no alarm active, only the variables will be displayed. Use the  and  buttons to view them.


Variables	Description
TEMP 2	The range is -87.7°F to 183.0°F/ -66.1 à 83.8 °C. If there is a sensor failure, value will read 888.8.
DOOR STATE	“DOOR CLOSED” if reads that door is closed. “DOOR OPEN” if reads that door is open.
T3 NO EXTERNAL ALARM	The Novaflow fan works normally.

5. Parameters Setting

1. Enter the Programming Mode by pressing the & and holding for 3 seconds.
The display will show AUX 1 FUNCTION and the green and yellow LED lights will start blinking.
2. Use or to scroll through the different configuration parameters.
Press to display the current value of the parameter.
3. Press and hold for 3 seconds to change the value.
The yellow and red LEDs will start blinking and the parameter can be adjusted.
Use or to scroll through the options.
When the value is a number, a digit starts blinking. Use or to change the value of the digit, use or to move to the next digit.
4. Press and hold for 3 seconds to save the change.
5. Press to return to the Programming Mode.
Repeat steps 2 to 5 to change additional parameter.
Press 3 times to return to the default display.

Parameter Description

Message	MIN VALUE	MAX VALUE	NORBEC DEFAULT VALUE	DESCRIPTION
AUX 1 FUNCTION*	DISABLED	EXTERNAL ALARM	DISABLED	DISABLE / DOOR TEMP / DOOR SWITCH / EXTERNAL ALARM
AUX1 SWITCH STATE*	OPEN	CLOSED	OPEN	State of input for door to be open or external alarm to be active
DOOR TEMP*	-10.0°F	100.0°F	35.0°F	Temperature where heaters are turned on
DOOR TEMP DIFF*	0.1°F	10.0°F	3.0°F	Temperature offset above 'DOOR TEMP' to turn door heater off
HI DOOR ALR OFST*	0.1°F	100.0°F	100.0°F	Temperature offset above 'DOOR TEMP' for high door temperature alarm
LO DOOR ALR OFST*	0.1°F	20.0°F	5.0°F	Temperature offset above 'DOOR TEMP' for low door temperature alarm
DOOR TEMP ALR DLY*	1 minute	1440 minutes	15 minutes	Delay time when door temperature is out of range before setting alarm
DOOR SWITCH STATE	DISABLED	CLOSED	OPEN	State of input for door to be open or disable function (disable, open or closed)
DOOR ALARM DELAY	0 minute	1440 minutes	15 minutes	Time for door to be open before setting door open alarm
LIGHTS OFF DELAY	0 minute	60 minutes	5 minutes	Time after door closes that lights relay is de-energized

Message	MIN VALUE	MAX VALUE	NORBEC DEFAULT VALUE	DESCRIPTION
AUX 2 FUNCTION	DISABLED	EXTERNAL ALARM	MONITOR	DISABLE / ROOM TEMP / DOOR SWITCH / EXTERNAL ALARM/ MONITOR
AUX2 SWITCH STATE	OPEN	CLOSED	OPEN	State of input for door to be open or external alarm to be active
AUX3 FUNCTION (Fan Failure Alarm)	DISABLED	EXTERNAL ALARM	EXTERNAL ALARM	DISABLE / DOOR TEMP / DOOR SWITCH / EXTERNAL ALARM
AUX3 SWITCH STATE	OPEN		CLOSED	State of input for Aux3: Open / Close
MON TMP2 HI ALRM	-60.0°F	90.0°F	Cooler: 43°F / 6°C Freezer: 10°F / -12°C	If monitor temp2 is above this set point for some time, set high temp2 alarm
MON TMP2 LO ALRM	-60.0°F	90.0°F	Cooler: 32°F / 0°C Freezer: -13°F / -25°C	If monitor temp2 is above this set point for some time, set low temp2 alarm
MON TEMP2 AL DLY	1 minute	1440 minutes	45 minutes	Delay time when temp2 is out of range before setting alarm
<i>MON TMP3 HI ALRM*</i>	<i>-60.0°F</i>	<i>90.0°F</i>	<i>35.0°F</i>	<i>If monitor temp3 is above this set point for some time, set high temp2 alarm</i>
<i>MON TMP3 LO ALRM*</i>	<i>-60.0°F</i>	<i>90.0°F</i>	<i>-10.0°F</i>	<i>If monitor temp3 is above this set point for some time, set low temp2 alarm</i>
<i>MON TEMP3 AL DLY*</i>	<i>1 minute</i>	<i>1440 minutes</i>	<i>15 minutes</i>	<i>Delay time when temp3 is out of range before setting alarm</i>
BUZZER MODE	DISABLED	DOOR ALARM ONLY	ENABLED	Function for buzzer DISABLED, ENABLED, DOOR ALARM ONLY
DISP BRIGHTNESS	1	50	18	Dim or brighten display
<i>ADDRESS*</i>	<i>1</i>	<i>5</i>	<i>5</i>	<i>Modbus Adresse</i>
DISP CLEAR ALARM	—	—	—	Press and hold  for 3 seconds, until display changes, to clear alarm set in combo display
<i>DISP FACTORY RST*</i>	—	—	—	<i>Press and hold  for 3 seconds, until display changes, to change set points to factory defaults</i>
TEMPERATURE UNITS	CELSIUS FAHRENHEIT	—	CELSIUS	Temperature units : Fahrenheit, Celsius

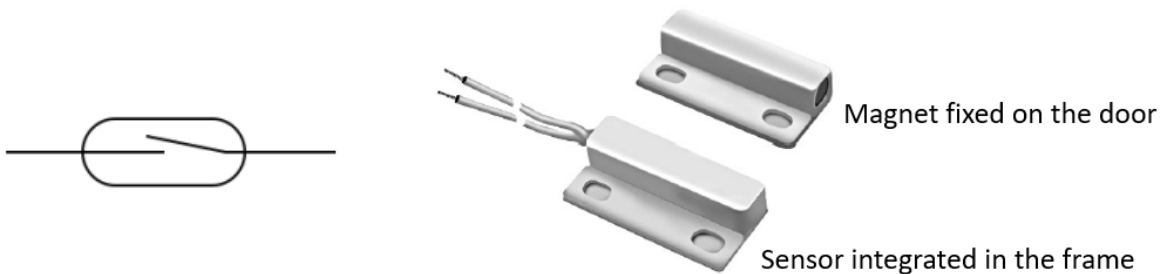
**Disregard for IM4*

APPENDIX 1 – Proximity sensor

PROXIMITY SENSOR OPERATION

NO Contact (Normally open)

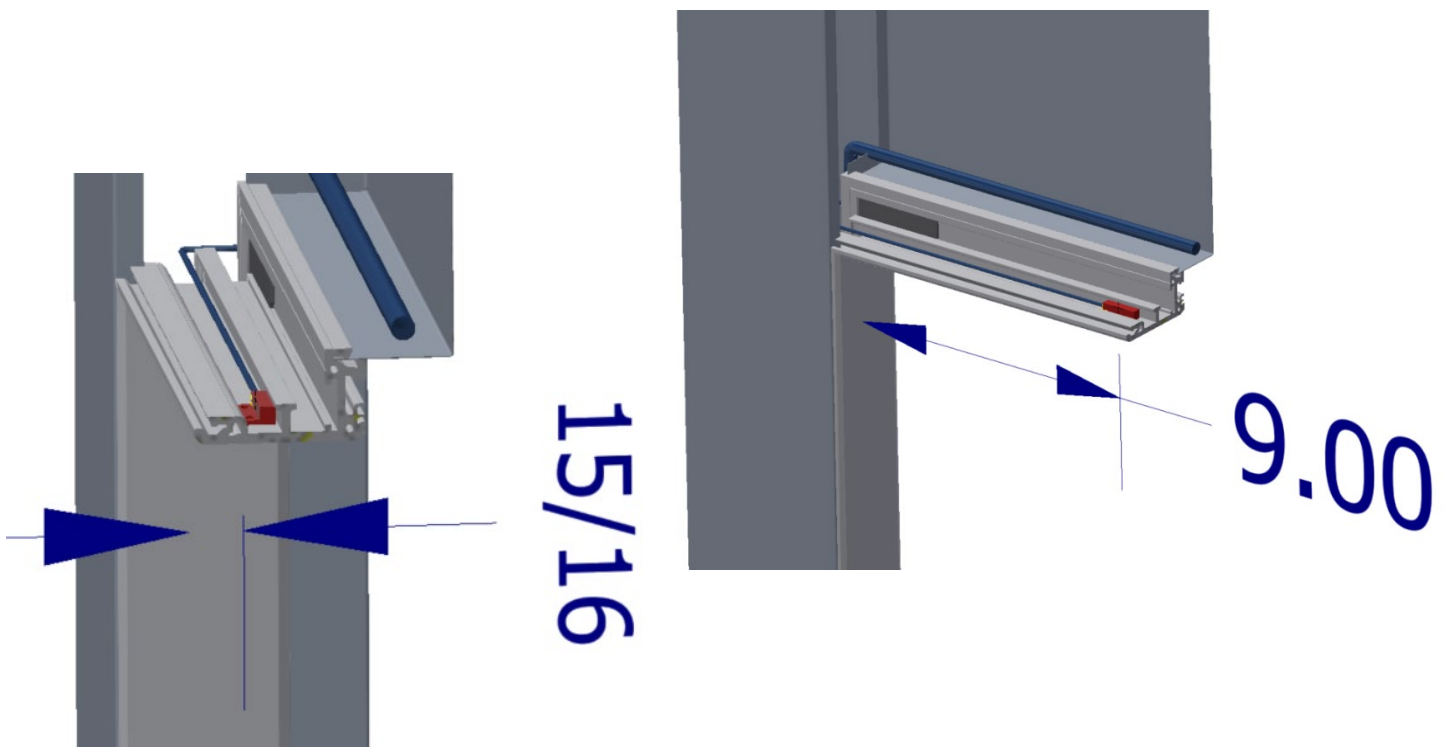
The contact is closed when the magnet is in the operating range. That is the door closed.



DOOR FRAME WITH P340 PROFILE

Position of the proximity sensor in the frame head on the monitor side.

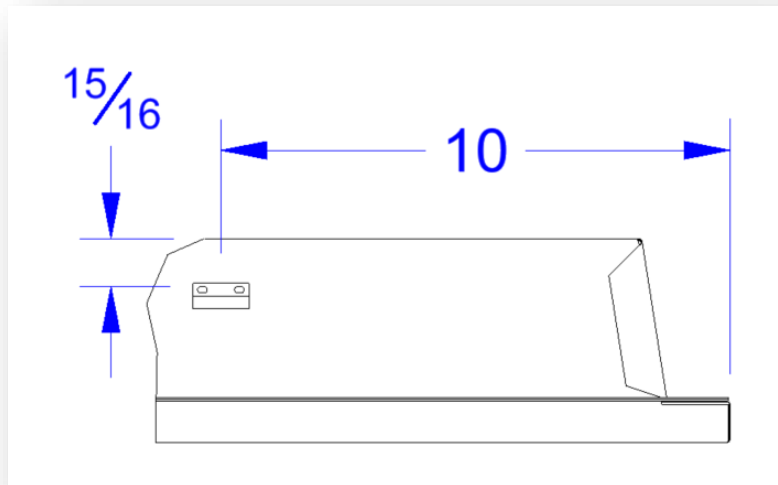
This part is not visible and cannot be moved. It is integrated in the frame



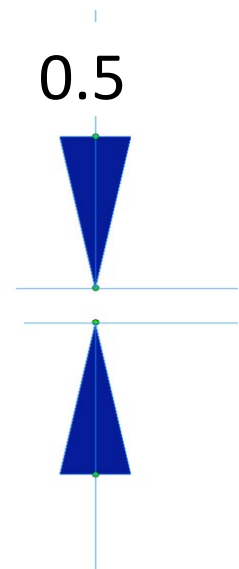
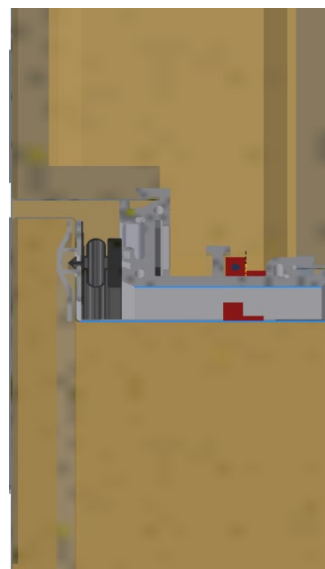
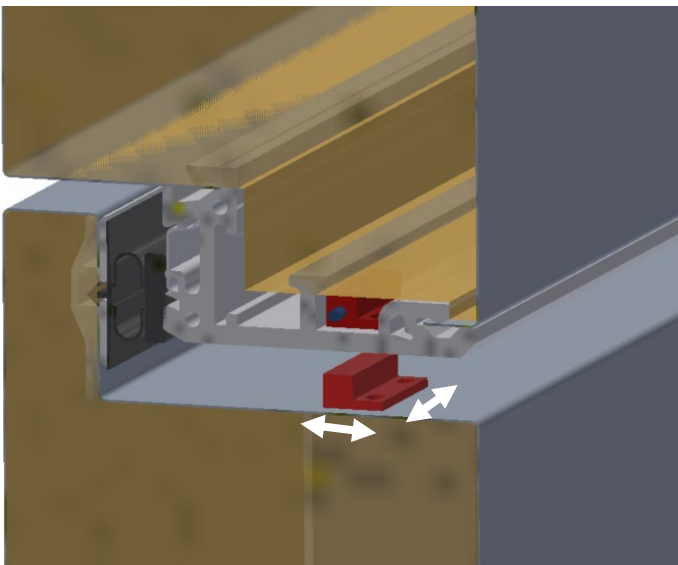
DOOR

Positioning of the magnet to activate the proximity sensor.

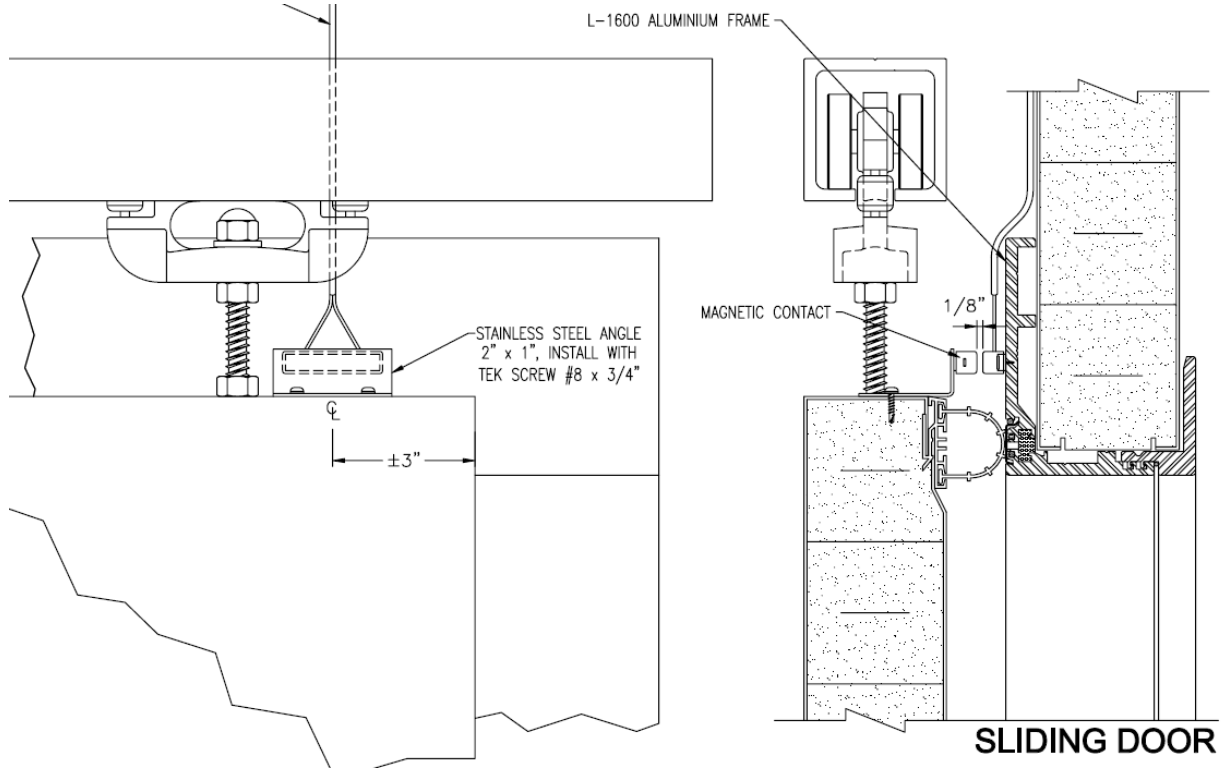
On top of the door, on the monitor side.



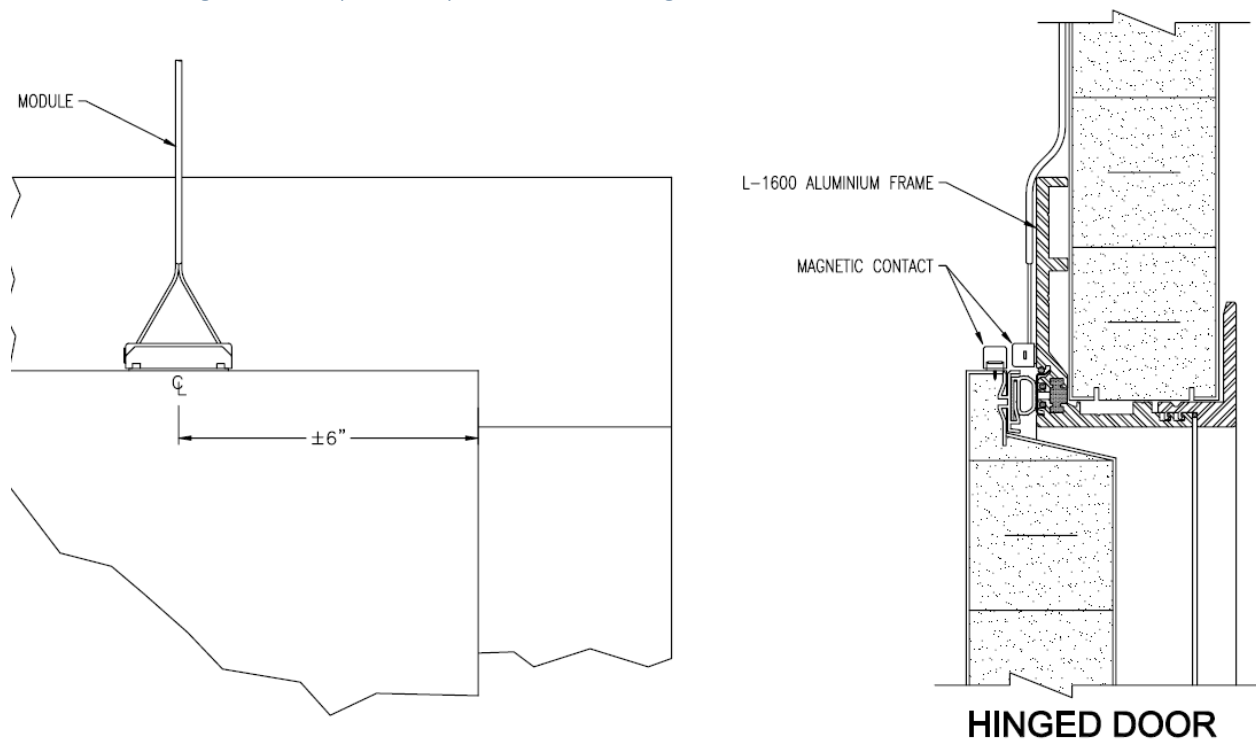
Possible to unscrew the screw to adjust the height and position of the magnet.

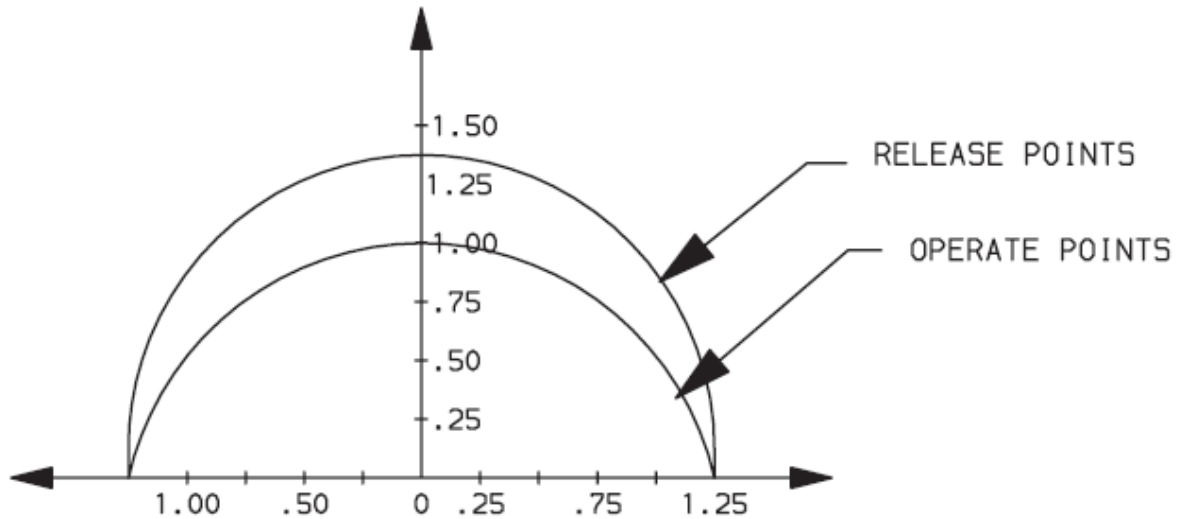


Installation diagram for a proximity sensor on a sliding door: CL-1750



Installation diagram for a proximity sensor on a hinged door: PL-1750





OFFSET OF CENTERLINES AND DISTANCE BETWEEN
FACES OF SWITCH AND MAGNET (INCHES).

ACTUATION CHART

APPENDIX 2 - Installation step : IM4 keyboard

ATTENTION: PRIOR TO BEGINNING THE INSTALLATION MAKE SURE YOU HAVE TURNED OFF THE ELECTRICAL SUPPLY CIRCUIT.

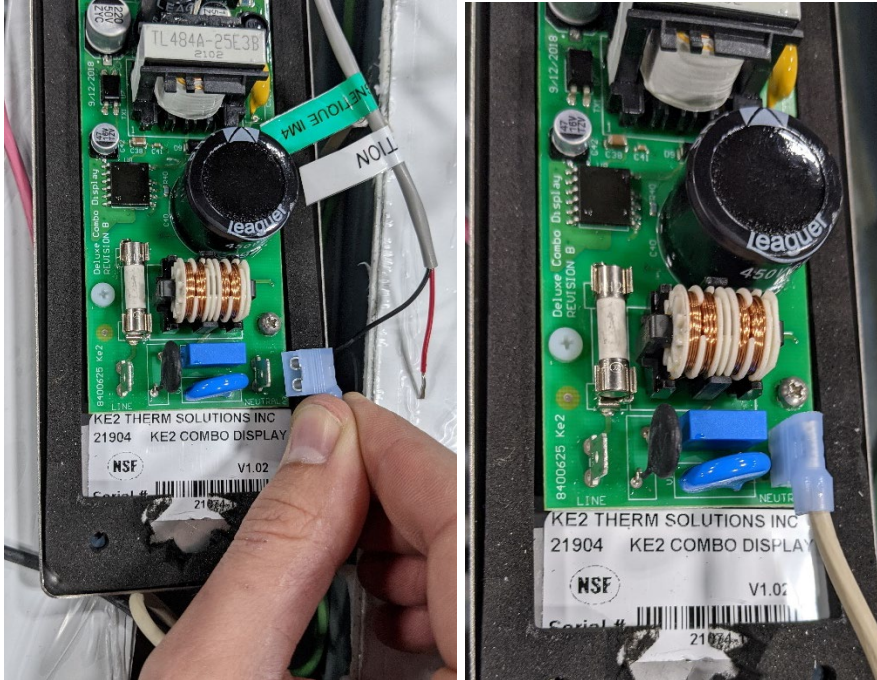


PLEASE REFER TO THE WIRING DIAGRAM FOR THE COMPLETE DIAGRAM.

PLEASE REFER TO THE INSTRUCTIONS MANUAL FOR OPERATING AND CONFIGURATION INSTRUCTIONS.

Keyboard power supply:

1. Connect the white cable connector to the receptacle: « NEUTRAL ».



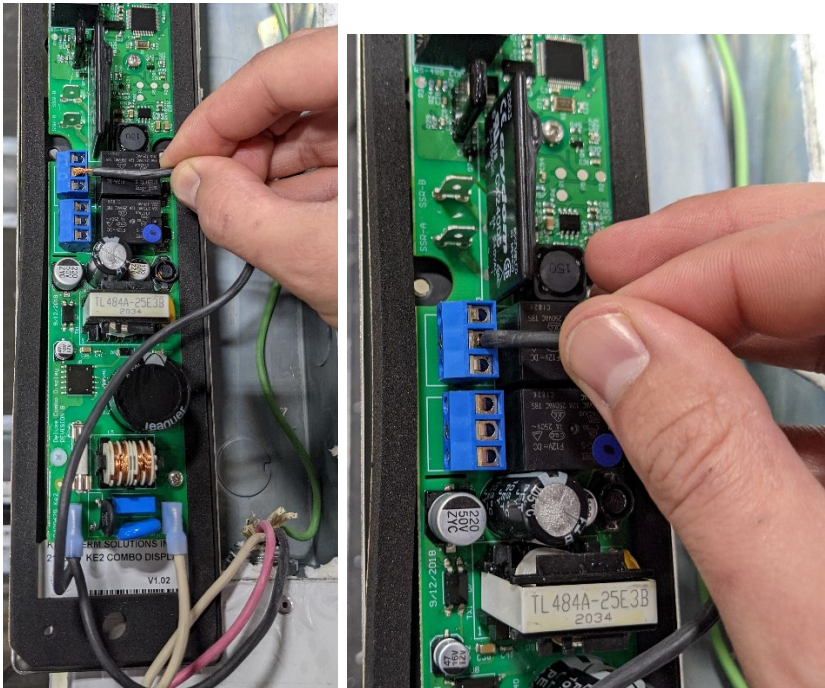
2. Connect the black cable connector to the receptacle: « LINE ».



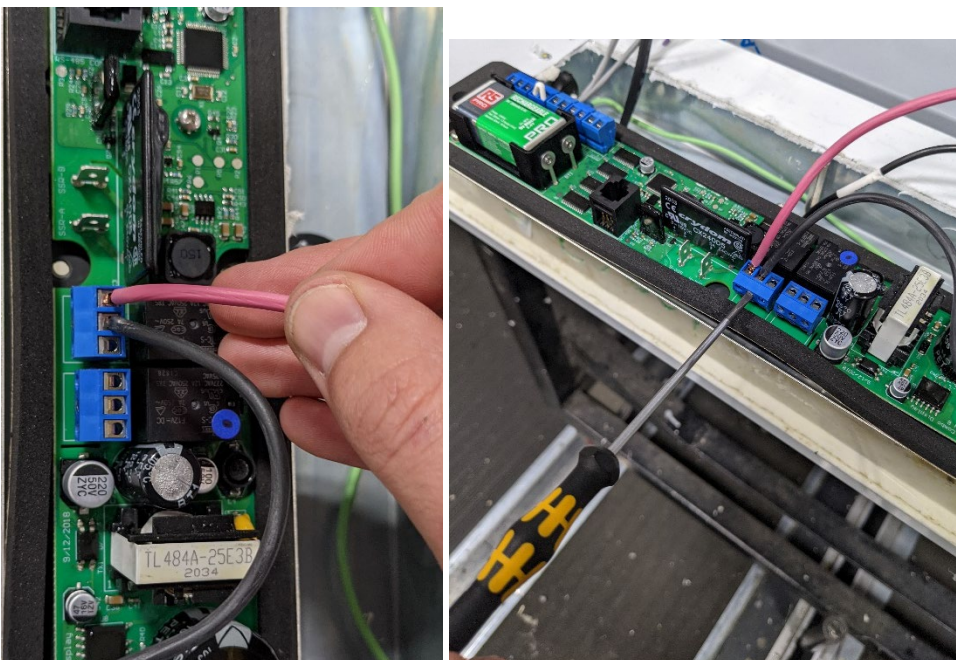
With a 3mm flat screwdriver

Light control:

3. Insert and screw the stripped end of the black cable into the blue terminal block, in the position: COM.

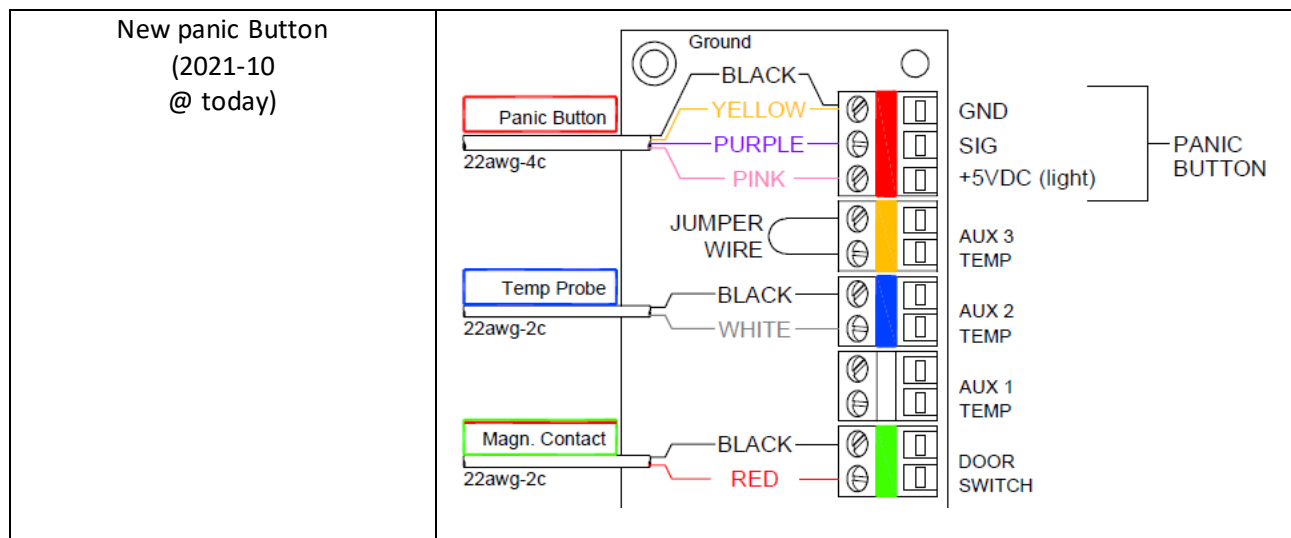
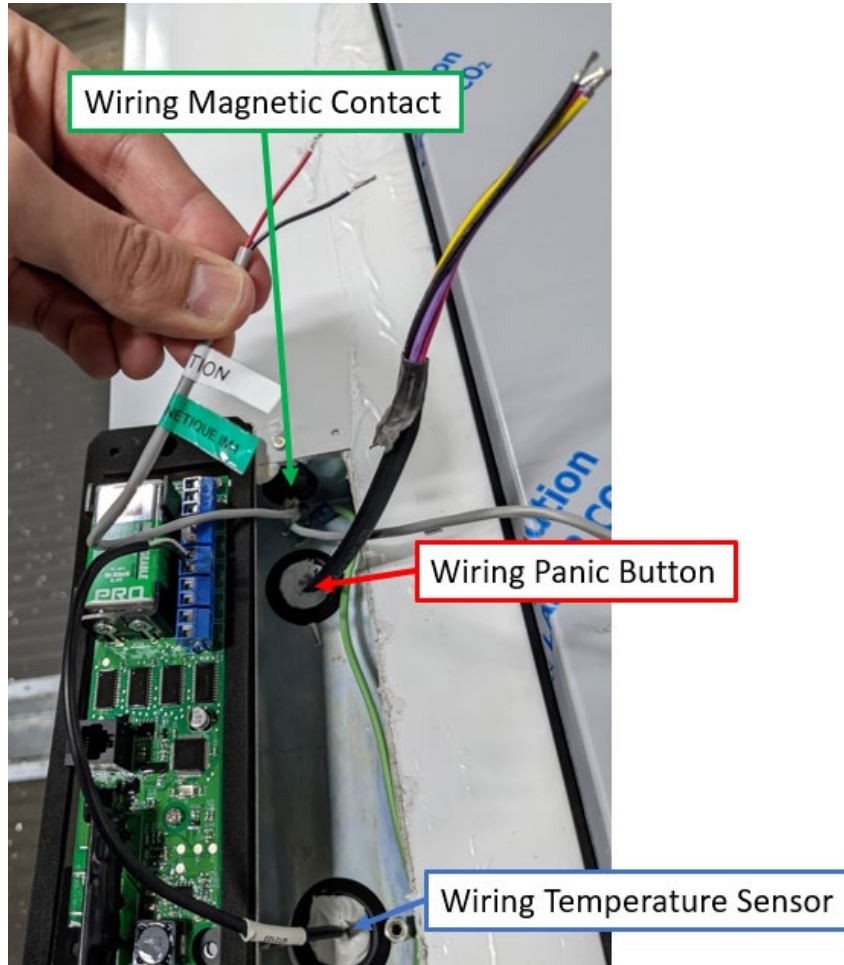


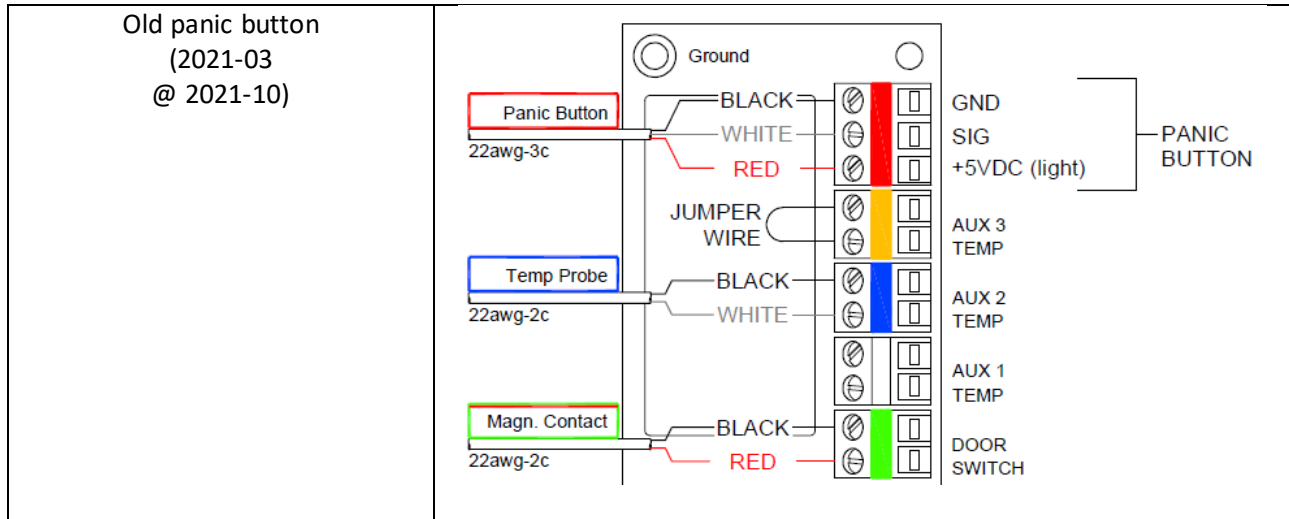
4. Insert and screw the stripped end of the red cable into the blue terminal block, in the position: NO



Panic button, temperature sensor and magnetic contact:

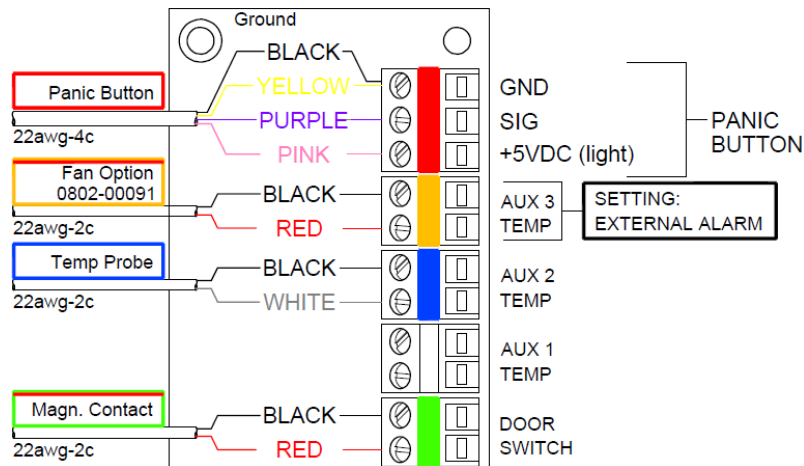
5. Insert and screw the stripped ends of the cables according to the following connection diagram:





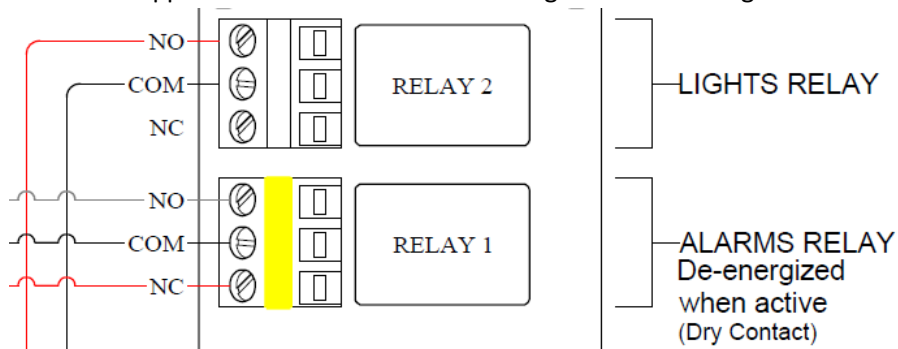
Fan option

- Insert and screw the stripped ends of the cables according to the following connection diagram:

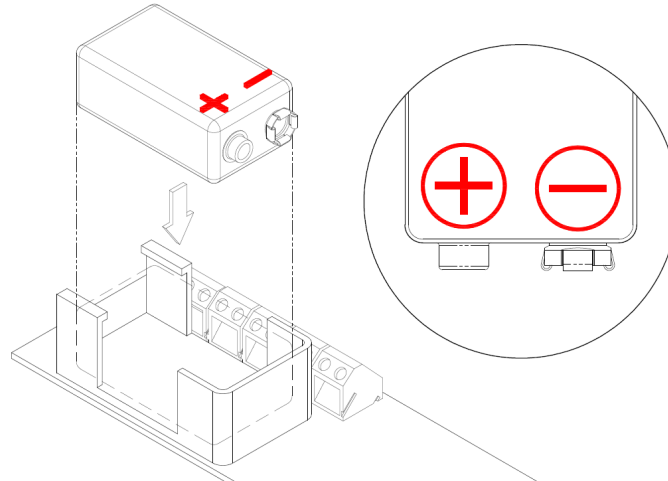


Dry contact option – Alarm relay

- Insert and screw the stripped ends of the cables according to the following connection diagram:



8. Replace the 9v battery :



9. Replace the keyboard, making sure that the cables are not to trap and making sure the gasket is in place.
10. Fix the keyboard with the 6 screws provides

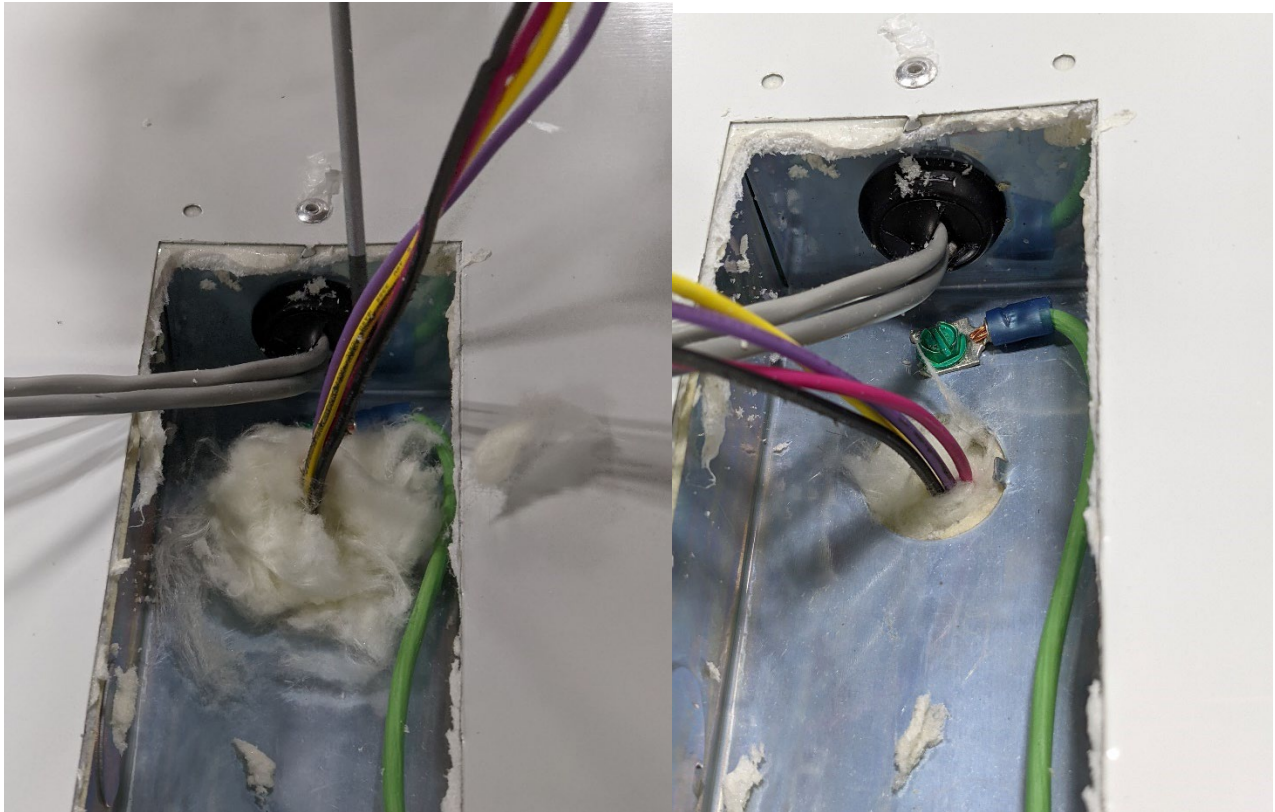
APPENDIX – 3 – Installation step: Panic Button and temperature sensor

On the inside of the room:

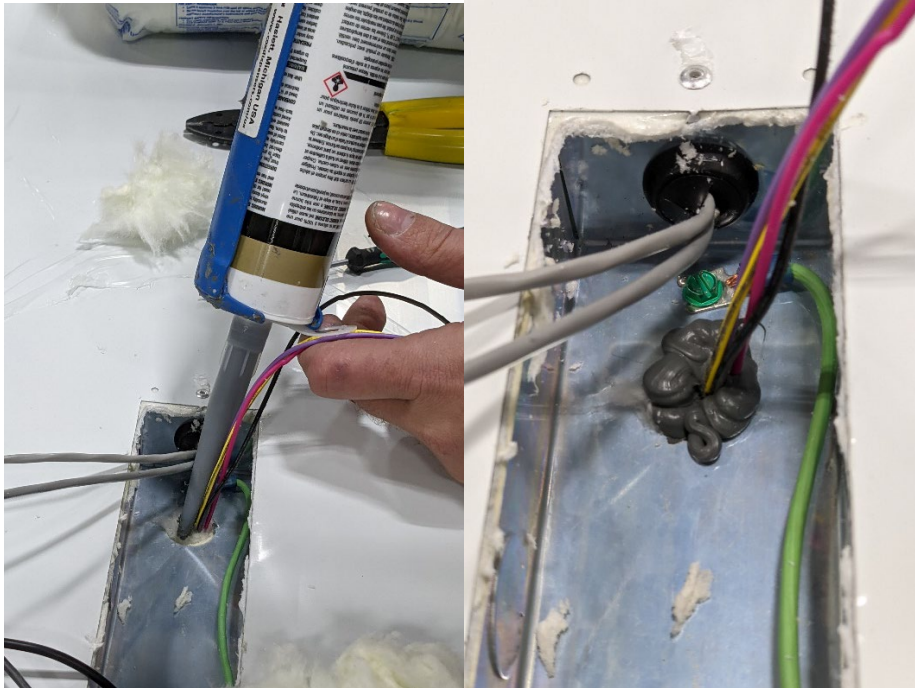
1. Route the panic button assembly wiring trough the top hole to the IM4 junction box.
2. Attache the plate to the inner sheet of the panel, making sure the gasket id in place correctly.

On the outside of the room:

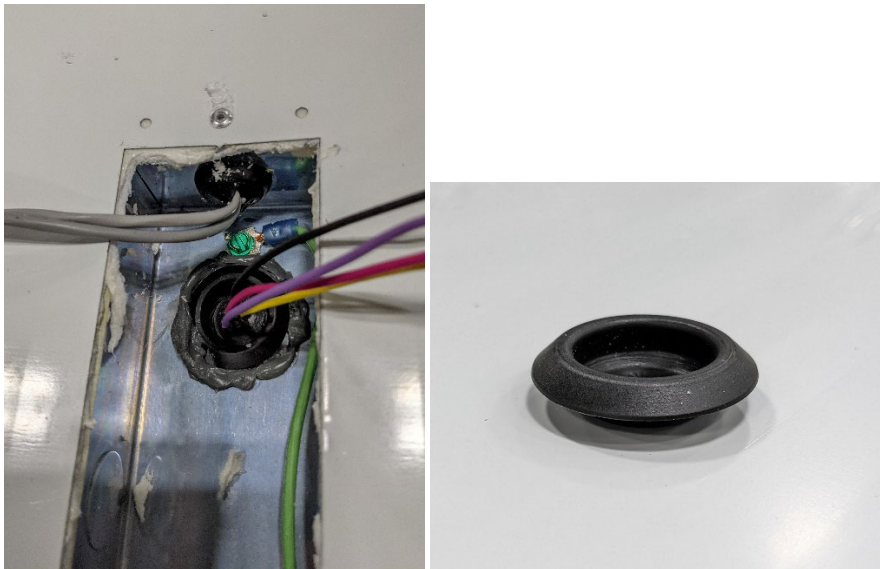
3. Fil the space around the panic button with mineral wool.



4. Seal the hole with silicone.



5. Close the hole with the grommet plug to contain the excess silicone.



6. Connect the panic button wiring to the IM4 monitor terminal block.
7. Repeat steps 3 to 5 for the temperature sensor.
8. Attach the monitor plate to the outer sheet of the panel, making sure the gasket is in place correctly.

ASSEMBLY DIAGRAM

The following figures show the interior views of the panel without insulation.



Figure 1 : View from outside the room.

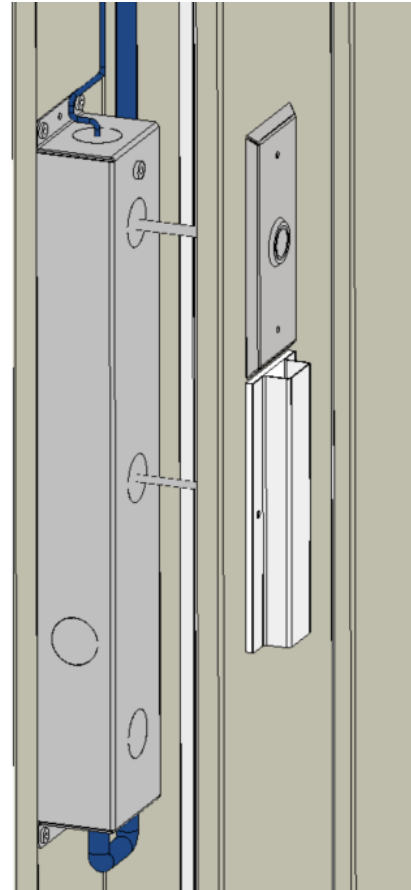
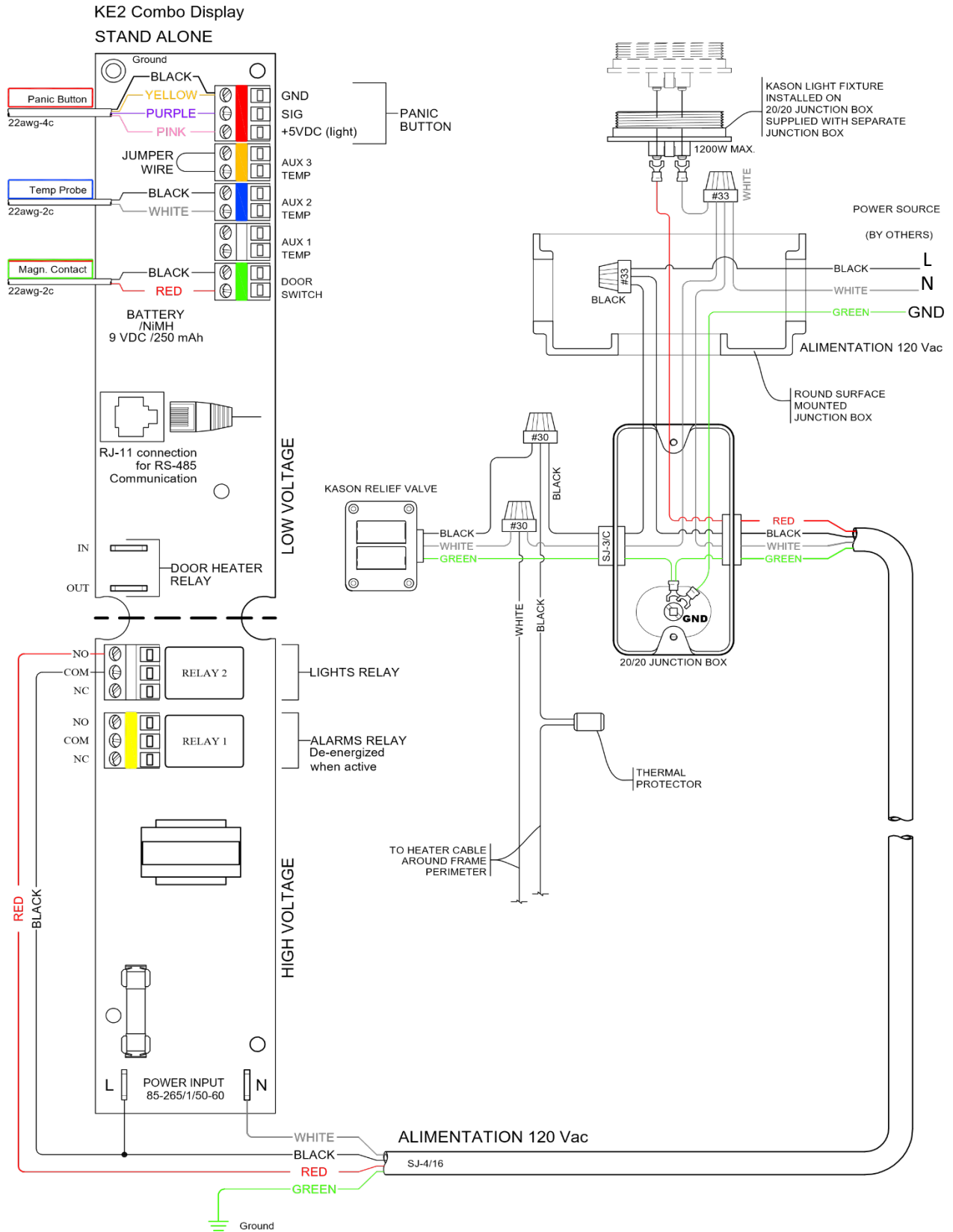
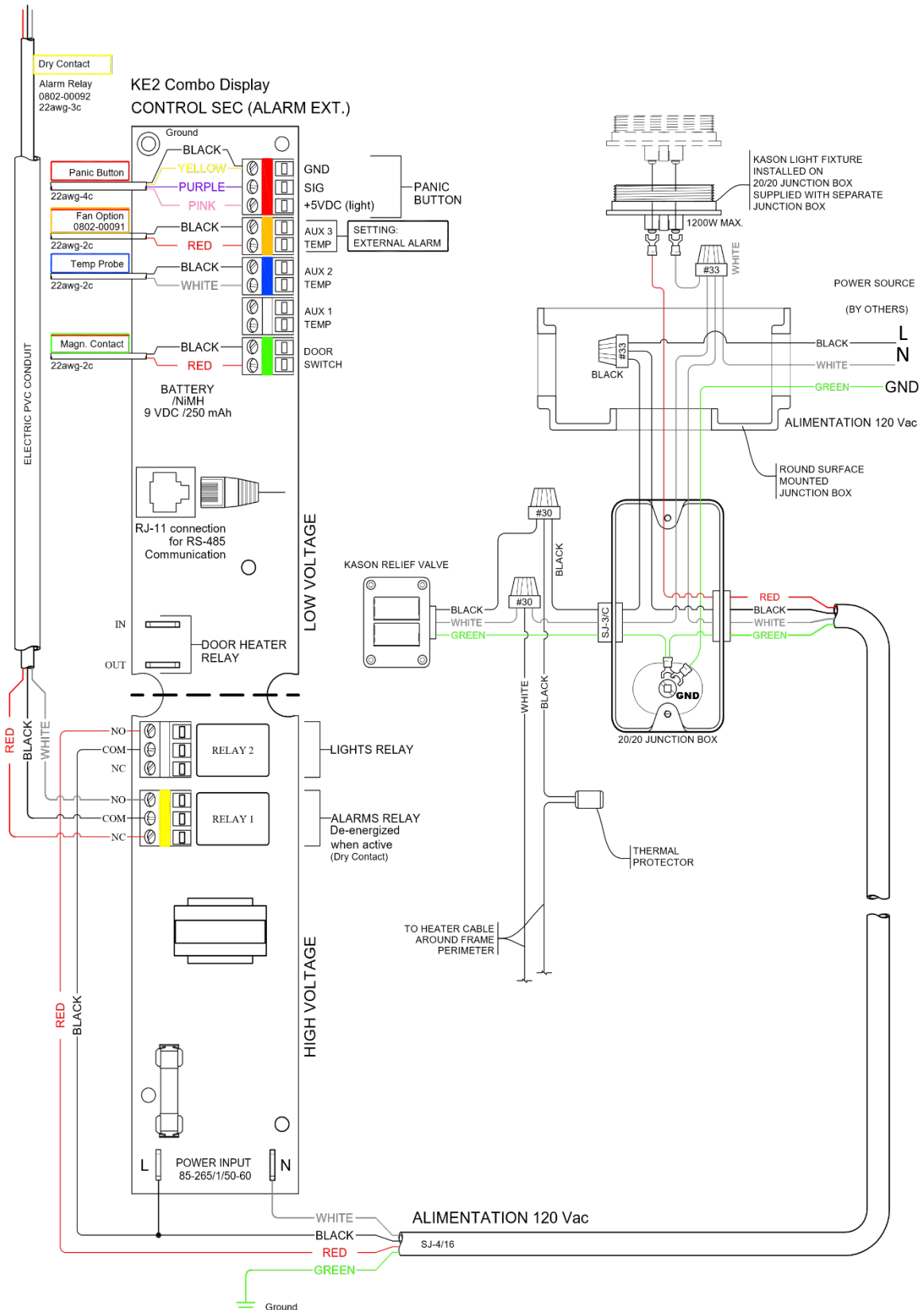


Figure 2 : View from the inside of the room

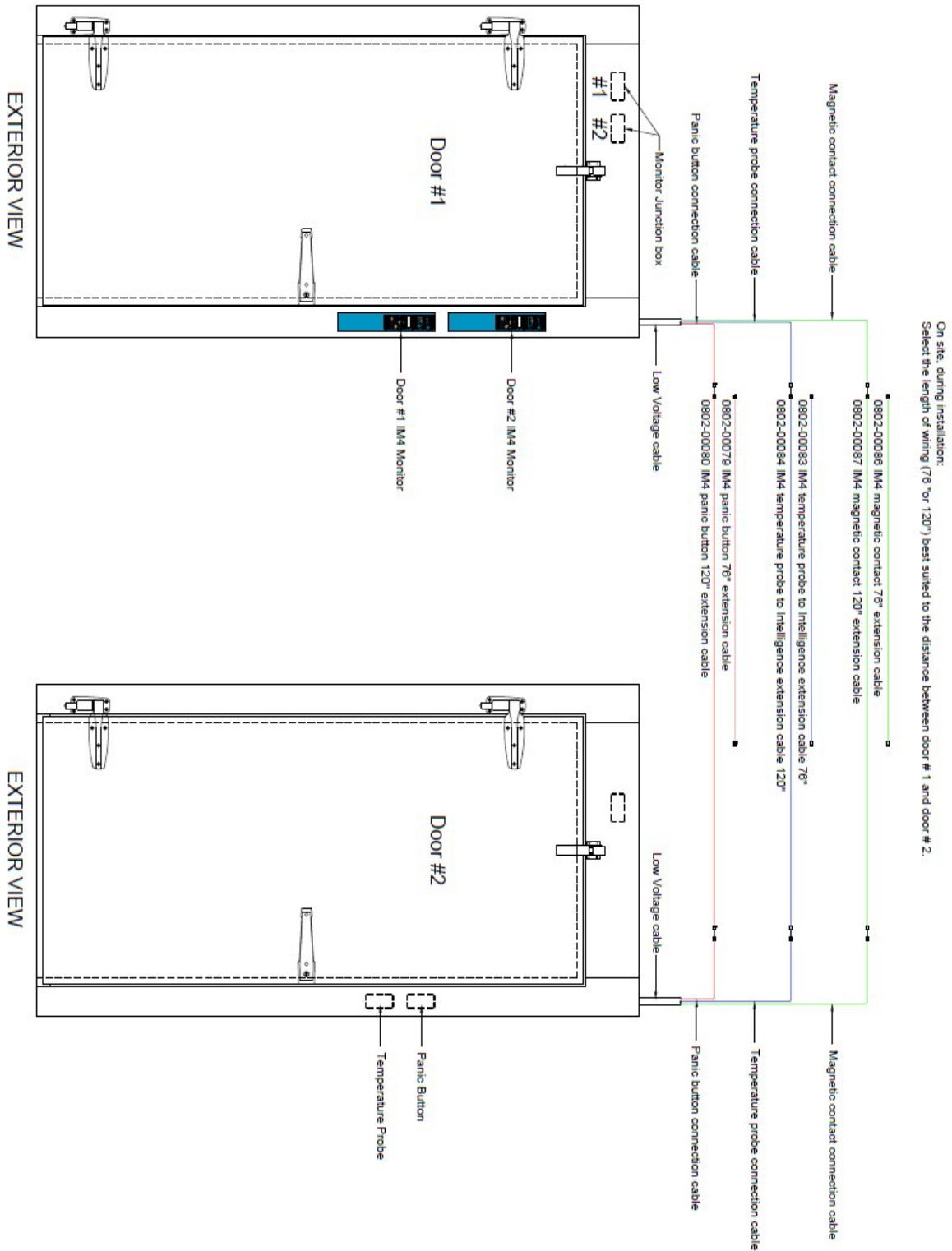
APPENDIX 4 – Wiring diagram Module IM4 – stand alone



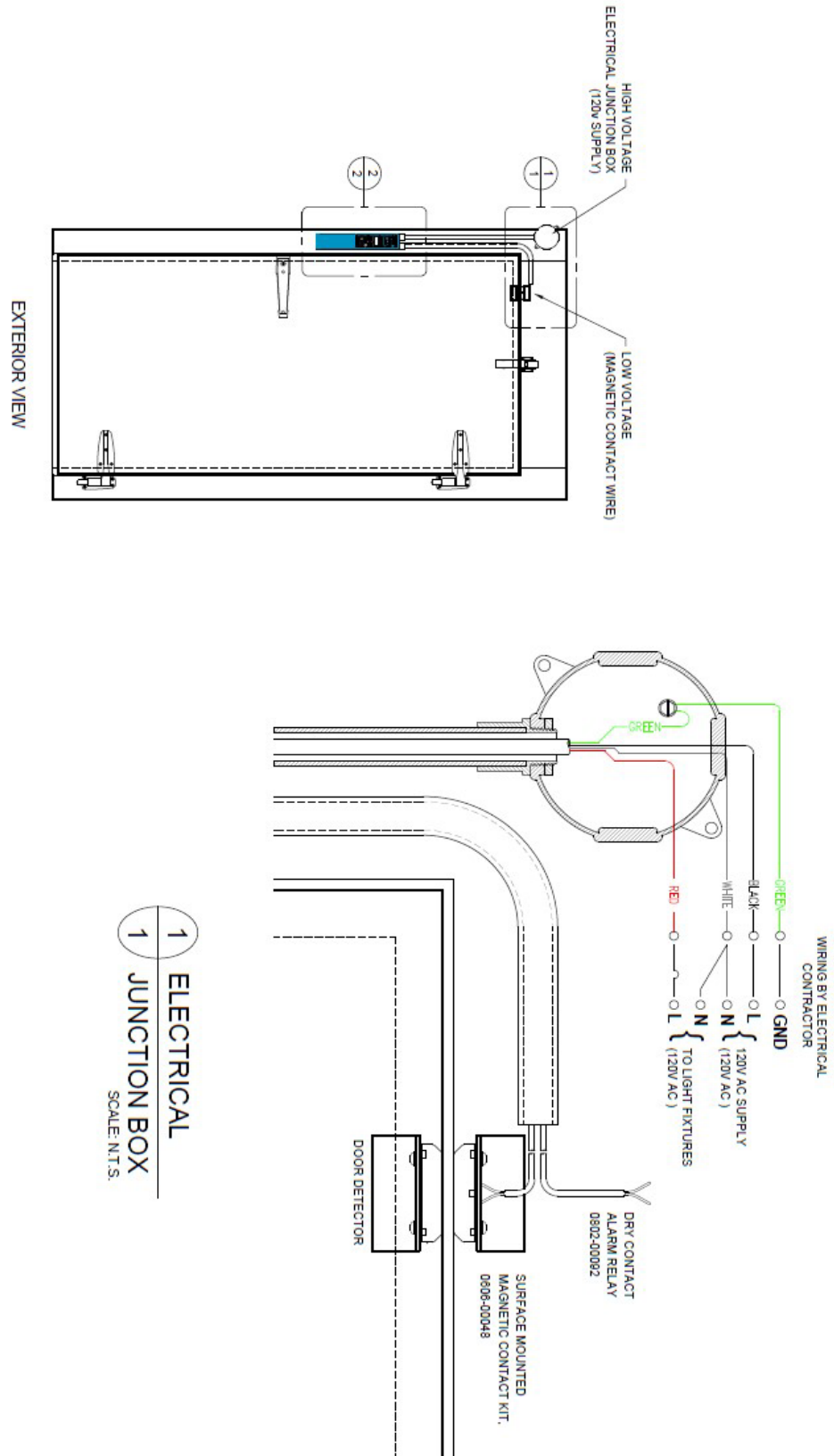
APPENDIX 5 – Wiring diagram Module IM4 – With Option



APPENDIX 6 – Wiring diagram Module IM4 – Remote mounted



APPENDIX 7 – Wiring Diagram Module IM4 – Surface mounted



Preventive Maintenance on Walk-in Cooler/Freezer Refrigeration Systems



 For service :

WARNING
IT IS MANDATORY FOR
REFRIGERATION CONTRACTOR
TO APPLY CONTACT INFORMATION
HERE

NORBEC™ For further assistance
Tel. 1 877 667-2321

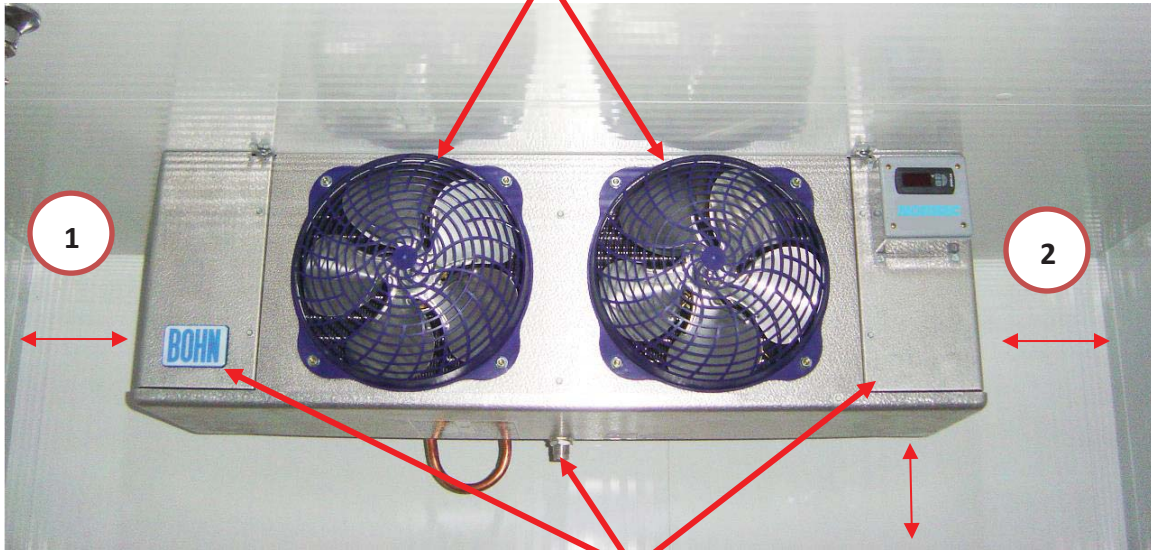


In order to minimize the risk of refrigeration failure and potential food loss, the following procedure should be strictly followed:

1. The temperature of the walk-ins should be monitored daily, both at the beginning and at the end of each working shift.
2. Do not leave door open unnecessarily, specifically when receiving products.
3. Product shall not block air flow from the evaporator fans within the walk-in cooler. There shall be a clearance all around the evaporator (see Note 2 on picture below) in order to prevent ice buildup on the fins in the back.
4. The refrigeration system is factory preset, only a **qualified refrigeration technician** should modify the settings.
5. If the condensing unit is located outside on the roof, it should be inspected a minimum of 6 months to 1 year for dirt or debris accumulation on the fin coil and cleaned by a **qualified technician**. Special attention to the falling leaves during the fall season and cotton wood in bloom during the spring season (See Note 3 on picture below).
6. If the condensing unit is located inside the building, it should be inspected at intervals of 6 months to 1 year (please refer to article 2.4 of the owner's manual).
7. The entire refrigeration system should have preventive maintenance by a **qualified refrigeration technician** on a yearly basis. The original refrigeration installer will gladly offer a service contract.

Maintenance Tips

Note 1: Keep the front completely cleared for proper air flow and to prevent ice build-up.



Note 2: The arrows " ↔ " indicate to keep adequate space for air circulation.

Note 3 (IMPORTANT): If there is water dripping from the drain pan, a service call to the installator is necessary.

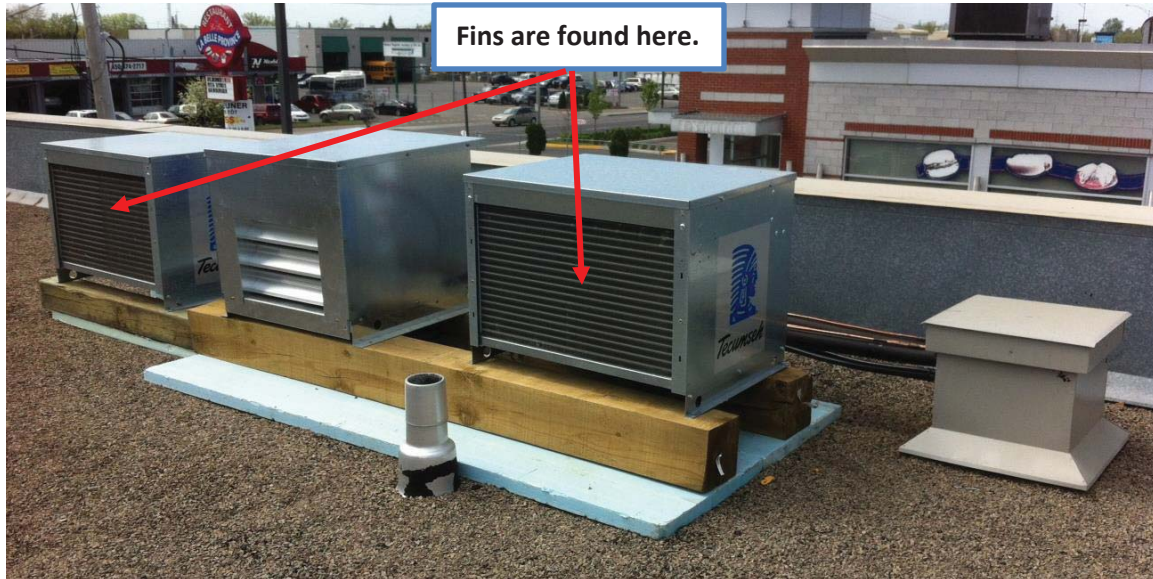
Condenser-Compressor unit

Spring: Cotton wood in bloom.

Fall: Falling leaves.

Condensing unit fins need to be cleaned when required or a minimum of two times a year by a qualified technician.

Important: Failure due to clogged condensing units will void the warranty.



Instructions for Service Calls on Warranty

Prior to contacting Norbec's Customer Support for a temperature rise, the following should be verified:

- The evaporator is not on a defrost cycle, which rise the temperature momentarily (See above picture and instructions for defrost status on display).
- The walk-in door hasn't been left open for a long period of time.
- There is power on the temperature controller inside the walk-in (See if temperature display is "ON" on the evaporator)

In order to prevent food loss while the refrigeration system is in failure, please leave the walk-in door closed until the system is repaired.

During regular business hours 7:30 AM to 5:00 PM, (Eastern Time)

For any failure, please call your installator. **This number is located on the sticker shown at the beginning of this document. After hours, for refrigeration failure only (when product loss is a possibility).**

Only for failure with food loss possibility, please call Norbec Toll free number at 1-877-667-2321 (450-449-1499), and dial **8** to reach Norbec's after-hours service (24 hours/7 days a week). In the unlikely event that there is no return from the above service, the customer is authorized to call the service company of his choice.



QAI Dossier / file #: B1111

**CLASSIFIED BUILDING UNITS (COMPOSITE TYPE)
SURFACE BURNING CHARACTERISTICS**

Classified as to surface burning characteristics in accordance with the standard CAN / ULC-S102 , ASTM-E84 and ULC S138

**UNITÉ DE BÂTIMENT CLASSÉ (TYPE COMPOSITE)
CARACTÉRISTIQUES DE COMBUSTION SUPERFICIELLE**

Classé par caractéristiques de combustion superficielle conformément aux standards CAN / ULC-S102, ASTM-E84 et ULC S138

Classification or rating
Classement ou notation

LISTED / ÉNUMÉRÉS

**Material details
Détails des matériaux**

**Flame spread
Propagation de la flamme**

**Smoke developed
Dégagement de fumée**

**CAN/ULC-S 102
NORBEC**

Finished panels / Panneaux finis
Polyurethane foam core / Noyau en mousse polyuréthane
127 mm maximum

10
265

450
350

**ASTM E-84
NORBEC**

Finished panels / Panneaux finis
Polyurethane foam core / Noyau en mousse polyuréthane
127 mm maximum

Less than 25
Less than 25

Less than 450
Less than 450

**CAN/ULC S138
NORBEC**

With pprinkler / Avec gicleur d'incendie
Temperature rating sprinkler heads: 68°C / Tête de gicleur à déclenchement: 68°C
Minimum flow rate 60 L/min each square meter / Débit minimum 60 L/min. par mètre carré

Insulated building panel for use with sprinkler protection
Polyurethane sandwich panels with the following metal skins:
Painted galvanized steel, Plain galvanized steel or stainless steel,
.018" minimum thickness.

(CAN / ULC S138)

Panneau de bâtiment isolé à utiliser avec gicleur d'incendie
Panneau sandwich de polyuréthane avec fini de métaux suivants:
Acier galvanisé prépeint, Acier galvanisé ou acier inoxydable,
Épaisseur minimum .018"

(CAN / ULC S138)

Systemes Norbec inc. Boucherville, Qc, Canada





97, de Vaudreuil, Boucherville, Quebec, Canada, J4B 1K7
Tel.: (450) 449-1499 Fax: (450) 641-4657
Email: info@norbec.com

MANUFACTURER'S WARRANTY, COLD ROOMS

The warranty described hereinafter cancels and supersedes all other warranties pertaining to the compliance, suitability and durability of the product and its manufacturing materials.

This warranty is granted exclusively to the original purchaser and is, therefore, non-transferable.

SYSTÈMES NORBEC INC., as the product's manufacturer, warrants its product to be free of any defect or faulty manufacture, including delamination, for a period of five (5) years from the date of installation or 45 days after delivery, whichever is the earliest. Accessories, such as handles, hinges, heater wires, thermometers, etc., are covered for a period of one year. All refrigeration material is covered by a separate warranty, if applicable.

Labour required for repair or replacement of parts is under warranty for a period of one year.

All other products or equipment sold by SYSTÈMES NORBEC INC. but manufactured by a third party shall be covered by the warranty of the third party company.

No other warranty or commitment are expressed or implied. This warranty is applicable solely to products manufactured by SYSTÈMES NORBEC INC and installed in Canada. An inspection, satisfactory to SYSTÈMES NORBEC INC., shall determine if a defect becomes a condition to apply this warranty.

This warranty shall not apply in cases where a product is damaged as a consequence of abusive utilization, misuse, improper installation, negligence or modified without the authorization of SYSTÈMES NORBEC INC. This warranty shall not apply in cases where damages to the product result from an act of god or force majeure such as an earthquake, tornado, etc., nor in cases where said damages result from structural problems or events of any nature that are not caused directly by the intrinsic quality of the product under warranty. This warranty shall apply only to the extent that the warranted product has not been altered, changed, damaged nor exposed to conditions that may affect its characteristics.

It is an essential condition to the applicability of this warranty that the installation complies with the assembly details delivered with the panels under warranty, and that said details be strictly adhered to in keeping with the recommendations of SYSTÈMES NORBEC INC., failing which, this warranty will be deemed null and void.

This warranty, if applicable, is and shall be limited to the replacement value of the product under warranty, after depreciation as of the date of replacement, and shall expressly exclude labour costs or expenses, other than those required to replace the defective components, such as but not limited to: labour, travel and living expenses when the product is installed in a remote area, peripheral work related to the replacement, equipment rental expenses or costs relating to any consequential or incidental damages, including but not limited to, loss of revenue, loss of sales, loss of goods or property of any nature whatsoever that shall or may result from a fault or a manufacturing or design defect. In any case, SYSTÈMES NORBEC INC's liability shall not exceed the original purchase price of the sold manufactured equipment.

This warranty shall be interpreted and governed according to the laws applicable in the province of Quebec, Canada. Any litigation shall be submitted in the court of Quebec, district of Longueuil.

THIS WARRANTY COVERAGE IS NON-TRANSFERABLE

Warranty Certificate #:

Contract #:

Effective date:

Sold to:

Beneficiary:



97, de Vaudreuil, Boucherville, Québec, Canada, J4B 1K7

Tél.: (450) 449-1499 Fax: (450) 641-4657
Courriel : info@norbec.com

SUPPLIER WARRANTY ON REFRIGERATION SYSTEMS

The warranty described hereinafter cancels and supersedes all other warranties pertaining to the compliance, suitability and durability of the product and its component materials. This warranty is granted exclusively to the original purchaser and is, therefore, non-transferable.

SYSTÈMES NORBEC INC., as the product's supplier, warrants the refrigeration system sold to be free of any defect or faulty manufacture, for a period of one (1) year from the date of installation or 45 days after delivery, whichever is the earliest. This warranty is applicable only in Canada.

SYSTÈMES NORBEC INC. will supply free of charge any component parts found to be defective for a period of one year. The labour required for replacing any defective parts under warranty is covered by SYSTÈMES NORBEC INC., only if the installation workmanship (either at the factory or on site) is covered in the present scope.

The initial installation workmanship is covered by the warranty for a period of one year, only if included in the present scope.

Should the compressor be subject to and extended 4 years warranty (5 years total) and found to be defective within such period, it will be replaced free of charge. The labour required to replace the compressor during the extended period is not covered by the warranty. The replacement compressor will then be warranted for the remaining period covered by the present warranty, providing that the filter-dryer has proven to be replaced at the same time.

Any claim shall be made within 30 days of the repair. Any parts to be replaced under warranty must be made available in exchange for the replacement part. Should a service call be performed by a service contractor not certified by SYSTÈMES NORBEC INC., warranted service work will be paid according to Norbec's service rates and policies.

No other warranty or commitment are expressed or implied. This warranty is applicable solely to refrigeration products supplied by SYSTÈMES NORBEC INC and installed in Canada. An inspection, satisfactory to SYSTÈMES NORBEC INC., shall determine if a defect becomes a condition to apply this warranty.

This warranty shall not apply in cases where a product is damaged as a consequence of abusive utilization, misuse, improper installation, negligence or modified without the authorization of SYSTÈMES NORBEC INC. This warranty shall not apply in cases where the condensing unit was not properly ventilated, insufficient supply of cooling water or failure to provide regular maintenance and service to the system(s). This warranty shall not apply in cases where damages to the product result from an act of god or force majeure such as an earthquake, tornado, etc., nor in cases where said damages result from structural problems or events of any nature that are not caused directly by the intrinsic quality of the product under warranty. This warranty shall apply only to the extent that the warranted product has not been altered, changed, damaged nor exposed to conditions that may affect its characteristics.

It is an essential condition to the applicability of this warranty that the installation complies with the instructions delivered with the system under warranty, and that said instructions are strictly adhered to in keeping with the recommendations of SYSTÈMES NORBEC INC. A refrigeration system start-up report, completed by a certified technician must be provided to SYSTÈMES NORBEC INC. failing which, this warranty will be deemed null and void.

This warranty, if applicable, is and shall be limited to the replacement value of the product under warranty, after depreciation as of the date of replacement, and shall expressly exclude labour costs or expenses, other than those required to replace the defective components, such as but not limited to: labour, travel and living expenses when the product is installed in a remote area, peripheral work related to the replacement, equipment rental expenses or costs relating to any consequential or incidental damages, including but not limited to, loss of revenue, loss of sales, loss of goods or property of any nature whatsoever that shall or may result from a fault or a manufacturing or design defect. In any case, SYSTÈMES NORBEC INC's liability shall not exceed the original purchase price of the sold manufactured equipment.

This warranty shall be interpreted and governed according to the laws applicable in the province of Quebec, Canada. Any litigation shall be submitted in the court of Quebec, district of Longueuil.

THIS WARRANTY COVERAGE IS NON-TRANSFERRABLE

Certificate of Warranty #:
Contract #:
Effective date:
Sold to:
Beneficiary:

SCOPE OF THE WARRANTY
 Material only
 Material and Installation

COMPRESSOR COVERAGE
 One year
 Five years