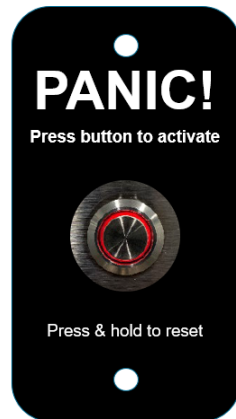
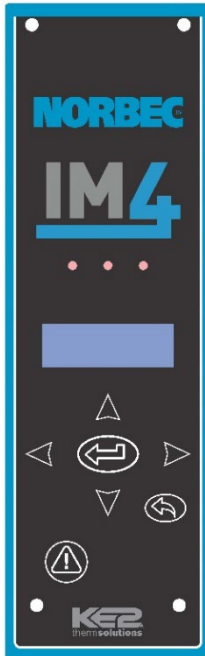


Object: [Operating instructions module IM4](#)

Operating and Configuring Instructions



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

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

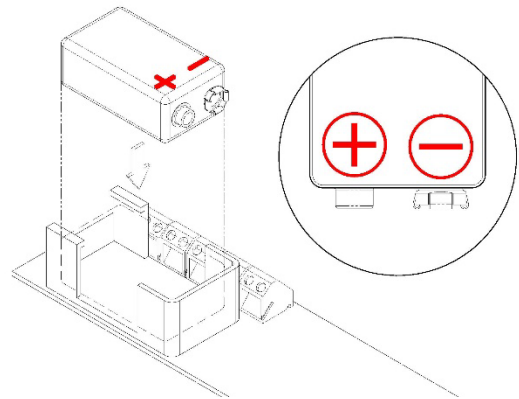
Pressing the "Silent" button  on the keyboard during an alarm will mute the audible signal but the associated alarm message will remain until the alarm condition disappears.

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.



Three-Way Switch for Lighting
















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 keyboard, 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.

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
AUX 2 FUNCTION	DISABLED	EXTERNAL ALARM	ROOM TEMP	DISABLE / ROOM TEMP / DOOR SWITCH / EXTERNAL ALARM

AUX2 SWITCH STATE	OPEN	CLOSED	OPEN	State of input for door to be open or external alarm to be active
Message	Min Value	Max Value	Norbec Default Value	Description
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

Alarm Message Descriptions

Use the and buttons to view the active alarms.

Message	Description
ROOM TEMP2 SENSOR ALARM	Temp 2 input is shorted or open.
HIGH MONITOR TEMP2 ALARM	Temp 2 input is above High Temp Alarm offset for longer than High Temp Alarm Delay.
LOW MONITOR TEMP2 ALARM	Temp 2 is below Low Temp Alarm Offset for longer than Low Temp Alarm Delay.
DOOR OPEN ALARM	Door has been open longer than Door Alarm Delay.
EXTERNAL ALARM 1, 2, Or 3	If input is selected as external alarm, and alarm becomes active.

Silencing Buzzer

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.

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 READING	Toggle between TEMP2 and value read by controller, if 'DOOR SWITCH' selected, 'T2 DOOR CLOSED, T2 DOOR OPEN' if 'EXTERNAL ALARM' selected, 'T2 EXT ALARM ACTIVE, T2 NO EXT ALARM
	The range is -87.7°F to 183.0°F. If there is a sensor failure, value will read 888.8. Will report T2 DOOR CLOSED if reads that door is closed, T2 DOOR OPEN if reads that door is open. Will report T2 EXT ALARM active, T2 NO EXT ALARM if read alarm is inactive ACTIVE if reads that alarm is.
DOOR SWITCH STATE	DOOR CLOSED DOOR OPEN DOOR SWITCH DISABLED
	Will report "DOOR CLOSED" if reads that door is closed; "DOOR OPEN" if reads that door is open; "DOOR SWITCH DISABLED" if door switch function is disabled.