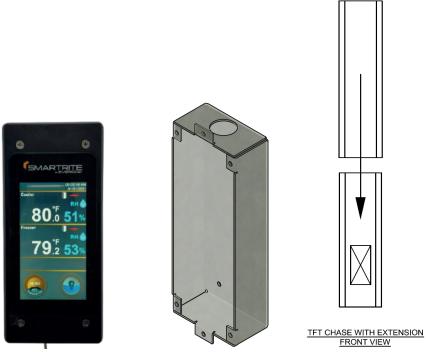


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The SMRT-100 consists of a factory installed low-voltage 5" high-resolution color touchscreen display, mounted on the front panel of the walk-in beside the door, a power/device wiring base installed in a weather-proof non-metallic box mounted on top of the walk-in or on a side wall if outdoor installation, a single combination sensor for measuring both temperature and %RH inside the walk-in and a magnetic door switch to turn the lights on and/or automatically turn the evaporator coil blower fans off at entry. With connection of an optional second sensor, the SMRT-100 can continuously monitor and display information for up to two separate rooms simultaneously. The system may be enhanced by adding an optional SmartRite low-voltage pushbutton light switch installed on the same front panel as the SMRT-100, inside or outside of the walk-in room(s), and an optional SmartRite panic pushbutton installed inside the walk-in to activate an alarm in case of entrapment or other operator emergency. The SMRT-100 also has the capability to use an optional interior mounted low-voltage motion sensor to control the lights in the cold room, and has the capability for switching lights on and off from multiple door locations with the use of the low-voltage SmartRite switches (no 3 or 4-way required). The SMRT-100 can also modulate door jamb and view-port window heat as a percentage of time-on and time-off to save energy.

Supplied Standard Components:



TFT (Thin Film Transistor Display / Touchscreen), Flush Mount Galvanized Wiring Box (Factory installed in Stainless Steel Chase with multi-conductor cable for connection to Power Module) and Stainless Steel Chase Cover/Extension

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Supplied Standard Components (cont'd):



Battery (Factory installed in TFT enclosure)



Door Switch (Shipped Loose, Field Installed)



Air/ %RH Sensor

(Field installed on wall/ceiling of cold room)



Power Base / Enclosure

(Field installed on roof of cold room)

Optional components:



E-Light Switch



Panic Switch

(Both supplied in weatherproof enclosures with ½" Non-Metallic Liquidtite conduit for field install on interior of door jamb)

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Motion Switch

(Supplied in weatherproof enclosure with $\frac{1}{2}$ " Non-Metallic Liquidtite conduit for field install on interior of door jamb)

Stainless Steel Chase Cover (with TFT and Wiring Box) mounting:

The Stainless Steel Chase Cover with pre-mounted TFT Galvanized Wiring Box for the TFT is to be located on the exterior latch side of the main entry (unless otherwise specified) door jamb, $52\ 3/8$ " up from bottom and maximum $1\ \%$ " over from edge of existing door. The Stainless Steel Chase Cover Extension is to be mounted over the top of the base chase cover, extended to roof level and mounted with the stainless steel screws provided (see SmartRite Retrofit Kit Installed Elevations SMRT100RK-ELEV).

Magnetic Door Switch Contacts mounting:

The Door Switch Magnet (no wires) is to be located and mounted on the edge of the exterior latch side of the main entry (unless otherwise specified) door, and the Door Switch (with wires) mounted to the stainless steel chase cover in alignment with the Magnet. Both magnet and switch will mount using the double-sided tape provided, and should be located as near as possible to the top corner of the door (see SmartRite Retrofit Kit Installed Elevations SMRT100RK-ELEV). Dry contact wires from door switch unit are to be routed through the provided ½" grommet into the stainless steel chase cover and up to the roof for connection to Power Module (see SmartRite 100 Wiring Diagram SMRT100WDA).

Optional Interior Flush Mount External Light Switch Box mounting:

The weatherproof Wiring Box for the optional External Light (E-Light) Switch is to be located on the interior latch side of the main entry (unless otherwise specified) door jamb, 48" up from bottom and 3" over from the edge of the opening (see SmartRite Retrofit Kit Installed Elevations SMRT100RK-ELEV). The Switch is supplied with ½" Non-Metallic Liquidtite Conduit and low-voltage cable for routing through the ceiling and to the Power Base Module.

Optional Interior Flush Mount Panic Switch Box mounting:

The weatherproof Wiring Box for the optional Panic Switch is to be located on the interior latch side of the main entry (unless otherwise specified) door jamb, 36" up from bottom and 3" over from edge of opening (see SmartRite Retrofit Kit Installed Elevations SMRT100RK-ELEV). The Switch is supplied with ½" Non-Metallic Liquidtite Conduit and low voltage cable for routing through the ceiling and to the Power Base Module.

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Optional Motion Switch Box mounting:

The weatherproof Wiring Box for the optional Motion Switch is to be located on the interior latch side of the main entry (unless otherwise specified) door jamb, as close as practical to the ceiling for maximum sensor coverage (see SmartRite Retrofit Kit Installed Elevations SMRT100RK-ELEV). The Switch is supplied with ½" Non-Metallic Liquidtite Conduit and low voltage cable for routing through the ceiling and to the Power Base Module.

Power Base Module Mounting and Installation:

Locate the SmartRite Power Base module with non-metallic weatherproof enclosure on the roof of the walk-in in a readily accessible location and as near as possible to the low voltage cable wiring stubs from the top of the stainless steel chase cover extension. Each cable should be routed across the top of the ceiling panel and to the Power Base enclosure for connection to the Power Base.

Drill three each 7/8" diameter holes through the side of the non-metallic Power Base enclosure – one for device and sensor wiring, one for power wiring and one for light wiring (if applicable). Install a ½" conduit size membrane cable seal fitting where the device cables will pass through and into the enclosure. ½" conduit fittings and associated conduit are to be installed from the power supply and light wiring stub as applicable. Once the device cables are routed and secured with adequate slack to prevent damage and are inserted through the fitting and into the enclosure, components are ready to be wired to the Power Base.

Temperature / RH Sensor Mounting and Installation:

The Temperature and RH sensor should be mounted on the wall behind and to the left of the evaporator coil. They are each provided with 30' of lead wire for connection to the Power Base. The sensor housing may be adhered to the wall using double-sided adhesive tape, and the lead wires may be routed along the ceiling for exit through the top corner of the doorway, or lead wires may be routed through a small ¼" diameter hole drilled through the ceiling panel and sealed with RTV Silicone sealant. Sensor leads should be routed to the non-metallic Power Base enclosure just as for the device leads.



Component wiring

1) TFT Display

Connect the 4-conductor low voltage color-coded cable (r-red, gr- green, w- white, bk-black) from the SMRT-100 TFT display to the corresponding color-coded terminals marked "DISPLAY", terminals 60, 59, 58 and 57 (see SmartRite 100 Wiring Diagram SMRT100WDA).

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2) Temperature and RH Sensor Wiring

Connect the 4-conductor low voltage color-coded lead (r-red, gr- green, w- white, bk-black) from the Temperature and RH Sensor to the corresponding color-coded terminals marked "SENSOR1", terminals 56, 55, 54 and 53.

*Also note that up to two rooms may be monitored with the use of an optional second sensor mounted in the second room and connected to terminals marked "SENSOR2", terminals 52, 51, 50 and 49 (see SmartRite 100 Wiring Diagram SMRT100WDA).

3) Door Switch

The low-voltage (NO LINE VOLTAGE) magnetic door switch, supplied with the SmartRite Monitor/ Alarm Retrofit Kit activates the lighting, "door open" alarm, and may be wired to turn the evaporator fan off momentarily, as applicable, upon entry. Connect the 2-conductor low voltage color-coded cable (w-white, bk-black) from the door switch to the corresponding color-coded terminals marked "DSw1", terminals 48, and 47 (see SmartRite Retrofit Kit Installed Elevations SMRT100RK-ELEV and SmartRite 100 Wiring Diagram SMRT100WDA).

* Also note that up to two doors may be monitored with the use of a second magnetic switch mounted on the second door and connected to terminals marked "DSw2", terminals 46 and 45 (see SmartRite 100 Wiring Diagram SMRT100WDA).

4) External Light Switch (if applicable)

Locate the conduit stub through the ceiling containing the 3-conductor low voltage color-coded cable (r-red, w- white, bk-black) from the external SmartRite push button light switch. Route the cable across the top of the ceiling panel to the Power Base wiring enclosure and connect the three wires to the corresponding color-coded terminals marked "ELgt", terminals 25, 24 and 23 (see SmartRite 100 Wiring Diagram SMRT100WDA).



* Please note that up to three individual SmartRite light switches may be connected to the Power Base for control of lights from any of three rooms (R1, R2 and R3 - see SmartRite 100 Wiring Diagram SMRT100WDA).

5) Panic Switch (if applicable)

Locate the conduit stub through the ceiling containing the 4-conductor low voltage color-coded cable (r-red, gr- green, w- white, bk-black) from the Panic push button switch. Route the cable across the top of the ceiling panel to the Power Base wiring

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enclosure and connect the four wires to the corresponding color-coded terminals marked "PANIC", terminals 32, 31, 30 and 29 (see SmartRite 100 Wiring Diagram SMRT100WDA).



* Please note that up to three individual SmartRite panic switches may be connected to the Power Base for panic alarm activation from any of three rooms (R1, R2 and R3 - see SmartRite 100 Wiring Diagram SMRT100WDA).

6) Motion Switch (if applicable)

Locate the conduit stub through the ceiling containing the 3-conductor low voltage color-coded cable (r-red, gr- green, bk-black) from the Motion Switch. Route the cable across the top of the ceiling panel to the Power Base wiring enclosure and connect the 3-conductor low voltage color-coded cable (r-red, gr- green, bk-black) to the corresponding color-coded terminals marked "MOT", terminals 28, 27, and 26 (see SmartRite 100 Wiring Diagram SMRT100WDA).

* Please note that up to three individual motion detector switches may be connected to the Power Base for motion activation of all lighting from any of three rooms (R1, R2 and R3 - see SmartRite 100 Wiring Diagram SMRT100WDA).



Power Wiring

Connect the 120VAC power wiring from a 15 Amp overcurrent protected supply circuit directly to the Power Base terminals marked "POWER", terminals 1 (BK-L), 2 (WH-N) and 3(GR-G) (see SmartRite 100 Wiring Diagram SMRT100WDA).

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Light Wiring (if applicable)

Connect the 120VAC wiring from the room lights, if applicable (field-installed, wiring and conduit from lights run by field electrician) to the Power Base terminals marked "LIGHT", terminals 6 (*BK-LGHT), 7 (WH-N) and 8(GR-G) (see SmartRite 100 Wiring Diagram SMRT100WDA).

*Please note that this must not be a switched leg, but must be direct from the line side of the light fixture wiring).

Jamb Heater Wiring (if applicable)

Connect the 120VAC wiring from the jamb heater(s) (individual wires must be stubbed out for each heater into a junction box adjacent to the Power Base enclosure) to the Power Base terminals marked "DOOR 1 H" (terms 12, 13) and "DOOR 2 H" (terms 14, 15) (see SmartRite 100 Wiring Diagram SMRT100WDA).

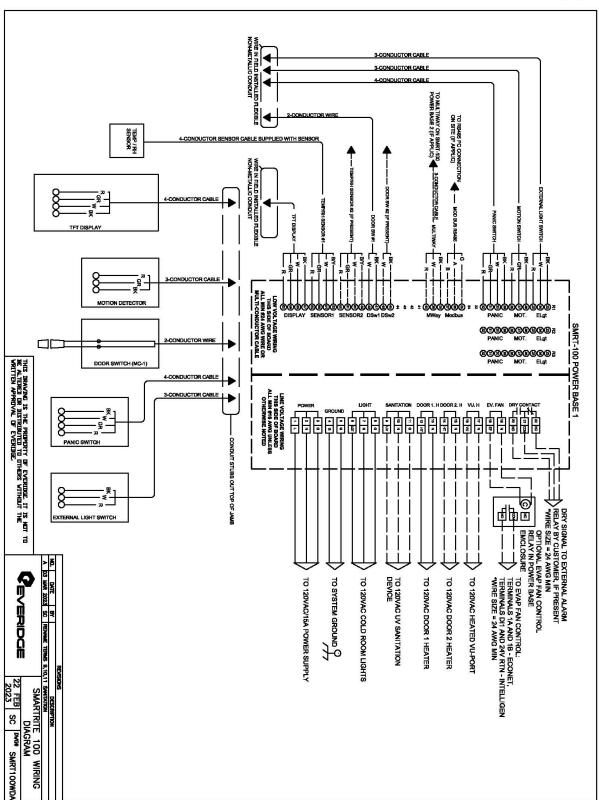
Vu-Port Heater Wiring (if applicable)

Connect the 120VAC wiring from the door Vu-Port (individual wires BK, WH must be stubbed out for each heater into a junction box adjacent to the Power Base enclosure) to the Power Base terminals marked "VU. H" (terms 16, 17) (see SmartRite 100 Wiring Diagram SMRT100WDA).

UV Sanitation Device Wiring (if applicable)

Connect the 120VAC wiring from the UV Sanitation Device receptacle to the Power Base terminals marked "SANITATION", terminals 9 (*BK-UV), 10 (WH-N) and 11 (GR-G) (see SmartRite 100 Wiring Diagram SMRT100WDA).

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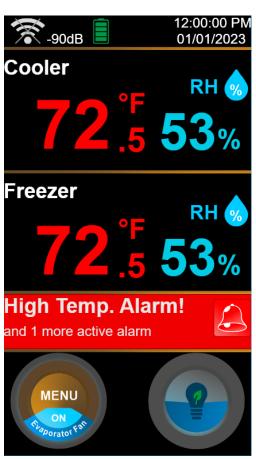


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SMRT-100 Startup and Operation

Apply 120VAC, 60hz, 15amp power. After a few seconds, the display will indicate room temperature(s) and %RH corresponding to the room(s) where the sensor(s) are mounted. The SMRT-100 is set to "English" as the default language. If Spanish is the preferred language, it may be selected from the "Main Menu," "Select Language" setting. To access the settings menu, touch the "Menu" button at the lower left of the display. You will be prompted for a password; enter the default password <u>1 2 3 4</u> after which you will have access to the Main Menu Settings.

The SMRT-100 will display a red bar message "High Temp. Alarm!", and the alarm will sound. To stop the alarm beeper, press the red bar and the display will display the alarms at that moment, see photos below.





Press the red squares to stop the beeping and the squares turn white. This silences and resets the alarm beeper, however the visual alarm(s) will still be displayed as long as the temperature(s) remain above the high temperature setpoint. Touch the "Home" button at the lower right corner of the screen to go back to the main screen. The main "Home" screen will display the current room temperature(s) and %RH, and will continue to display the alarm icons until all alarm parameters have been satisfied and conditions are within the setpoint ranges.

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Setup

Press Menu

Prompt	Default	Confirm
Enter Password (use DEL key to correct errors)	1234	ОК

Main Menu Settings

Settings Menu

Date and Time Setup

- Hour advance < > to current, AM or PM
- Minute advance < > to current
- Month, Day, Year advance < > to current
- Time Zone advance < > to current (Default = UTC 4:00 Atlantic Time)
- Daylight Savings Time < > to "Yes" or "No" (Default = Yes)
- Press "Save", then "Back"



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Room Types Menu

- Room #1 Type < > to "Cooler", "Freezer", or "Auto"* (Default = Cooler)
 * Auto setting will automatically detect room type after "Autodetect time"
 Press "Save", then "Back"
- Autodetect time <> to set 1 to 12 hours for SMRT-100 to automatically detect room type accordingly (Default = 1 hour)
 Press "Save", then "Back"
- Room #2 Type (only available if 2 sensors selected in Technician Menu) Repeat procedure as for Room #1 Type



Alarms Parameters

- Room #1 Alarms
 - (Cooler) or (Freezer) alarm high advance < > to desired temperature (Default = 45°F)
 - Press "Save", then "Back"
 - (Cooler) or (Freezer) alarm low advance < > to desired temperature
 (Default = 33°F)
 - Press "Save", then "Back"
 - Humidity alarm high advance < > to desired % Relative Humidity
 (Default = 80%)
 - Press "Save", then "Back"
 - Humidity alarm low advance < > to desired % Relative Humidity (Default = 30%)
 - Press "Save", then "Back"

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Room #2 Alarms (only available if 2 sensors selected in Technician Menu) –
 Repeat procedure as for Room #1 Alarms





Heaters Setup

- Door #1 Heater
 - Enabled < > to Yes or No (Default = Yes)
 Press "Save", then "Back"
 - Percentage < > to desired % of time heater operates (Default = 50%)
 Press "Save", then "Back"
 - Start Air Temperature < > to desired temperature below which heater operates (Default = 45°F)
 Press "Save", then "Back"
- Door #2 Heater (only available if 2 sensors selected in Technician Menu) –
 Repeat procedure as for Door #1 Heater

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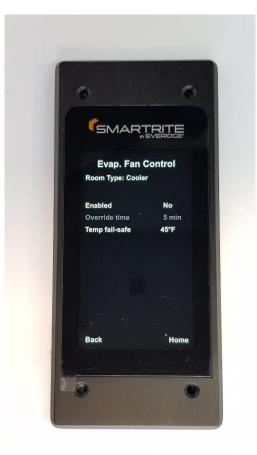
- VU Heater (VuPort Window)
 - Enabled < > to Yes or No (Default = No)
 Press "Save", then "Back"
 - Percentage <> to desired % of time heater operates (Default = 75%)
 Press "Save", then "Back"
 - Start Air Temperature < > to desired temperature below which heater operates (Default = 45°F)
 Press "Save", then "Back"



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Evap Fan Control Setup

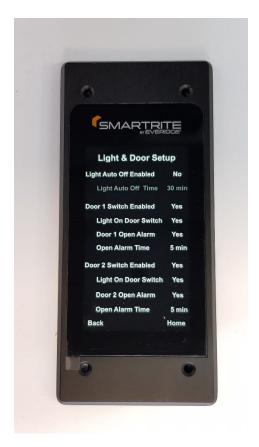
- Enabled < > to Yes or No (Default = No)
 Press "Save", then "Back"
- Override time < > to minutes of fan "OFF" duration, after which fan automatically turns back "ON" (Default = 5 min)
 Press "Save", then "Back"
- Temp fail-safe < > to desired temperature at which fan automatically turns back "ON" (Default = 45°F)
 Press "Save", then "Back"



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Light & Door Setup

- Light Auto Off Enabled < > to Yes or No (Default = Yes)
 Press "Save", then "Back"
 - Light Auto Off Time < > to desired minutes after which light automatically turns "OFF" (Default = 15 min)
 Press "Save", then "Back"
- Door 1 Switch Enabled < > to Yes or No (Default = Yes)
 Press "Save", then "Back"
 - Light On Door Switch < > to Yes or No (Default = Yes)
 Press "Save", then "Back"
 - Door 1 Open Alarm < > to Yes or No (Default = Yes)
 Press "Save", then "Back"
 - Open Alarm Time < > to desired minutes of delay before Door Open Alarm activates (Default = 5 min)
 Press "Save", then "Back"
- Door 2 Switch Enabled (Default = No) If Yes, Repeat procedure as for Door 1 Switch.



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Technician Menu

Temperature Unit – <> to °F or °C (Default = °F)
 Press "Save", then "Back"



Probes Adjust:

- Probe 1 Adjust
 Probe Adjust –desired temperature reading offset if necessary (Default = 0.0°F
 - Press "Save", then "Back"
- Probe 2 Adjust (only available if 2 Probes selected) Repeat as for Probe
 1 Adjust



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- Panic Switch Enabled < > to Yes or No (Default = No)
 Press "Save", then "Back"
- Motion Detector Switch < > to Yes or No (Default = No)
 Press "Save", then "Back"
- Number of Probes < > to 1 or 2 (Default = 1)
 Press "Save", then "Back"



- Sanitation Cycle Setup:
 - Sanitation Cycle Start < > to Yes or No (Default = No), if user selects Yes:
 - Cycle #1:
 - Start Time < > to desired time of day cycle starts;
 - Duration < > to number of minutes cycle lasts
 Press "Save", then "Back"
 - Cycle #2 #30 Repeat as for Cycle #1

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Sanitation Cycle		Sanitation Cycle		Sanitation Cycle				
Sanitation	Cycle Start	Yes						
Cycle# 1	12:01 AM	00:00	Cycle#11	10:00AM	00:00	Cycle#21	08:00PM	00:00
Cycle# 2	01:00 AM	00:00	Cycle#12	11:00 AM	00:00	Cycle#22	09:00PM	00:00
Cycle# 3	02:00AM	00:00	Cycle#13	12:00PM	00:00	Cycle#23	10:00PM	00:00
Cycle# 4	03:00AM	00:00	Cycle#14	01:00PM	00:00	Cycle#24	11:00PM	00:00
Cycle# 5	04:00AM	00:00	Cycle#15	02:00PM	00:00	Cycle#25	12:00AM	-
Cycle# 6	05:00AM	00:00	Cycle#16	03:00PM	00:00	Cycle#26	12:00AM	-
Cycle# 7	06:00AM	00:00	Cycle#17	04:00PM	00:00	Cycle#27	12:00AM	-
Cycle# 8	07:00AM	00:00	Cycle#18	05:00PM	00:00	Cycle#28	12:00AM	-
Cycle# 9	MA00:80	00:00	Cycle#19	06:00PM	00:00	Cycle#29	12:00AM	-
Cycle# 10	09:00AM	00:00	Cycle#20	07:00PM	00:00	Cycle#30	12:00AM	-
Back	Next	Home	Back	Next	Home	Back		Home

Display Brightness - < > to % TFT Brightness (Default = 75%)
 Press "Save", then "Back"



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WiFi Enabled - < > to Yes or No (Default = Yes)
 Press "Save", then "Back"



 Sleep Mode – < > to Yes or No (Default = No) (Select Yes during shipment or other extended off periods to conserve battery)



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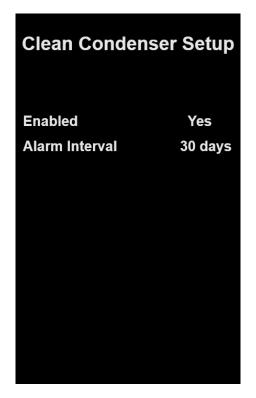
Logger Frequency - < > to frequency, in minutes, for data collection (Default = 15 min)

Press "Save", then "Back"



- Clean Condenser Setup"
 - Enabled < > to Yes or No (Default = Yes)
 Press "Save", then "Back"
 - Alarm Interval < > to number of days between cleanings (Default = 30)
 Press "Save", then "Back"

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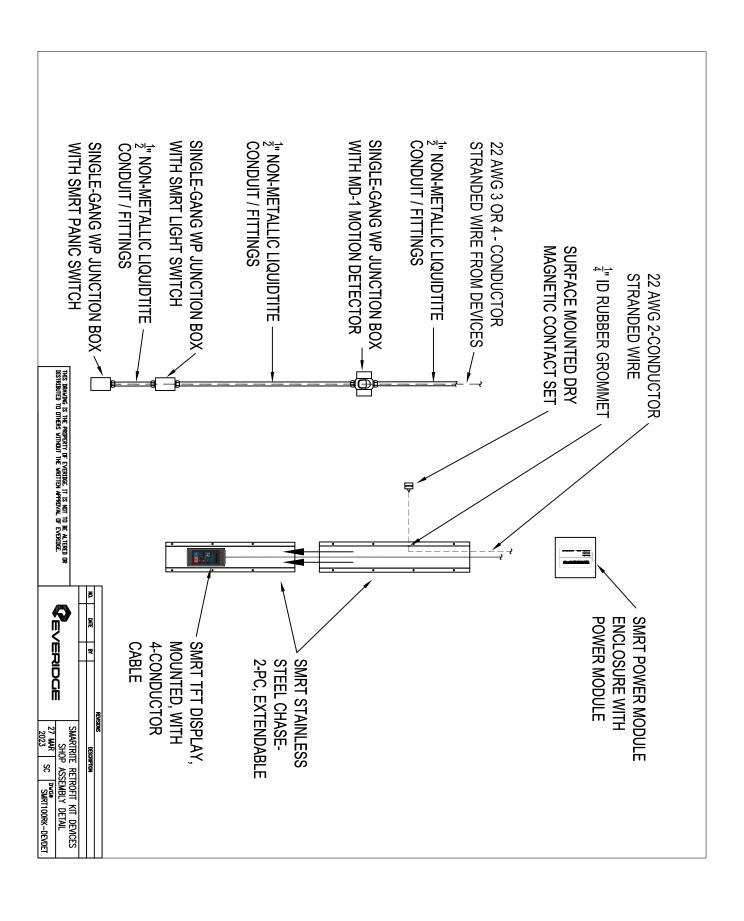


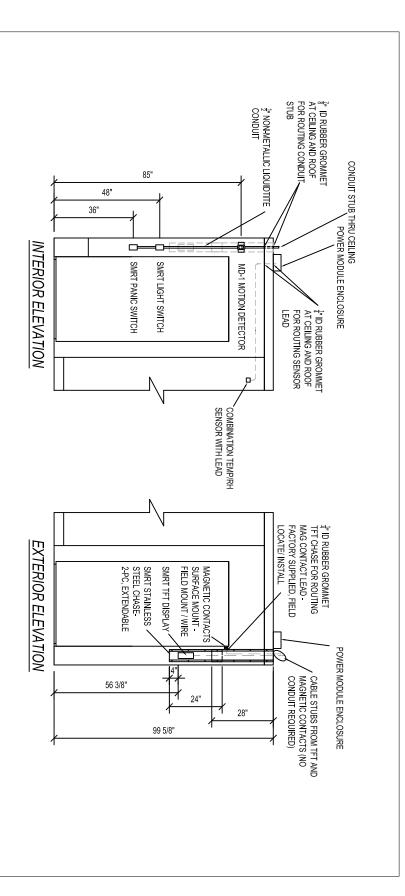
Change Password – for customization of password (Default = 1234):

- Enter old password, "OK"
- Enter new password, "OK"
- Confirm new password, "OK"
 Password Saved, automatically returns to Main Menu Settings Screen

Select Language:

< > to English or Spanish (Default = English)
 Press "Save", then "Back"





- MATERIALS TO BE SUPPLIED BY EVERIDGE: 1 EA 2-PC STAINLESS STEEL CHASE WITH SMRT-100 TFT MOUNTED AND WIRE STUBBED OUT
- 18 EA #10 X ₹* STANLESS STEEL PAN HEAD SCREWS
 16 EA #10 X ₹* STANLESS STEEL PAN HEAD SCREWS
 15 MAGNETIC CONTACT SET (MAGNET AND RECEIVER) SURFACE MOUNT, WITH MOUNTING TAPE
 16 MAGNETIC CONTACT SET (MAGNET AND RECEIVER) SURFACE MOUNTACT WIRRING
 16 F #22 AWG 2-COUNDUCTOR STANDED WIRE FOR MAGNETIC CONTACT WIRRING
 16 AS MRTI-100 POWER BASE MODULE MOUNTED IN NON-MIETALLIC ENCLOSURE

- 3 EA ‡* ID RUBBER GROMMETS (2 FOR INTERIOR CEILING, 1 FOR MAG CONTACT WIRE THRU CHASE)
 1 EA SMARTRITE PANIC BUTTON MOUNTED IN WEATHERPROOF JUNCTION BOX WITH NON-METALLIC LT CONDUIT AND 4-CONDUCTOR WIRE STUB
 1 EA SMARTRITE LIGHT SMITCH MOUNTED IN WEATHERPROOF JUNCTION BOX WITH HON-METALLIC LT CONDUIT AND 3-CONDUCTOR WIRE STUB
 1 EA MC-I MOTION DETECTOR MOUNTED IN WEATHERPROOF JUNCTION BOX WITH HON-METALLIC LT CONDUIT AND 3-CONDUCTOR WIRE STUB
 1 EA COMBINATION TEMP! %RH SENSOR WITH 25 FOOT LEAD AND PLASTIC WIRE TIE FOR MOUNTING

- FACTORY SCOPE OF WARK:

 1) SEE DRAWING SMRTOK-DEVDET FOR DEVICE SHOP ASSEMBLY DETAILS.

 2) MOUNT 16 64, 64 LYMNZED TH' ENCLOSURE BEHIND CUTOUT IN BOTTON PORTION OF STAINLESS STEEL CHASE.

 2) MOINE #22:24 4-CONDUCTOR CABLE TO REAR OF SMRTI-100 TH' DISPLAY

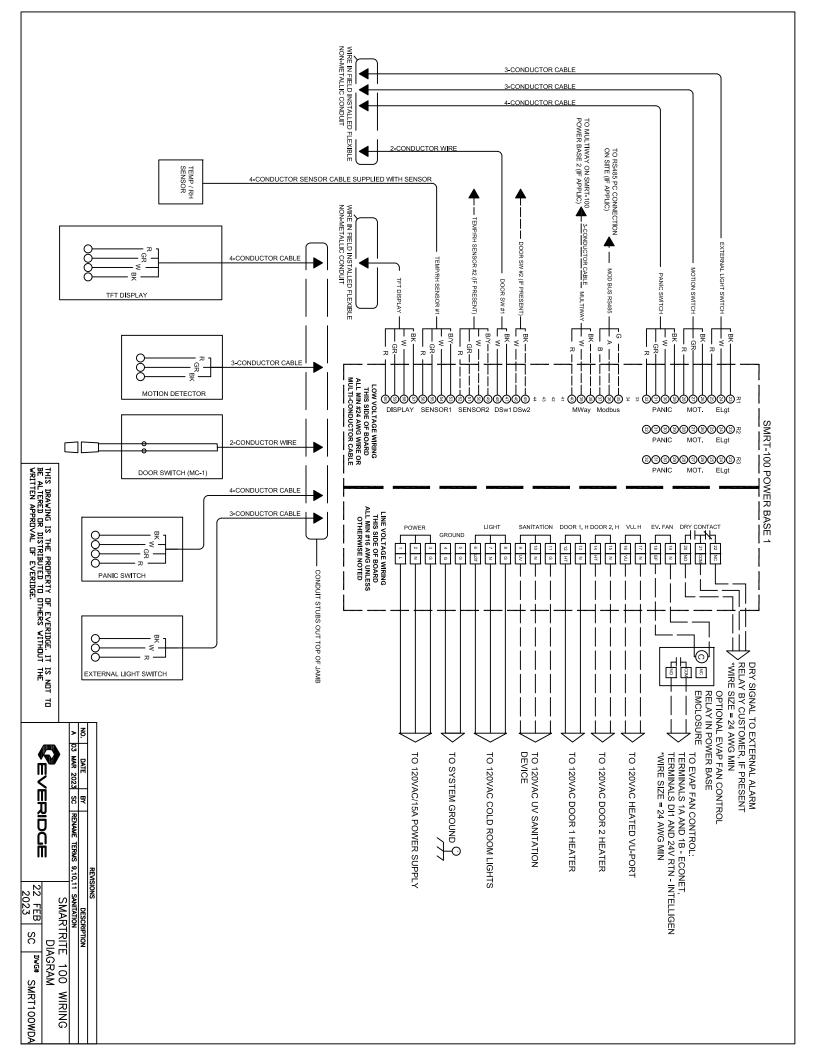
 3) WIRE #22:24 4-CONDUCTOR CABLE TO REAR OF SMRTI-100 TH' DISPLAY

 4) MSTALL SMRTI-100 TH' DISPLAY MITO ENCLOSURE MITH 25 FOOT 4-WIRE CABLE STUBBED OUT TOP THROUGH RUBBER GROMMET.

 5) ASSEMBLE WEATHERPROOF L'UNCTION BOXES FOR PAVIC AND LIGHT SWITCHES AND MOTION DETECTOR WITH CONDUIT AND WIRING BETWEEN AND STUBBED OUT TOP OF MD-1 AS INDICATED.
- 6) INSTALL AND WIRE DEVICES IN WEATHERPROOF JUNCTION BOXES AS INDICATED, WITH 25 FOOT 3 OR 4-WIRE CABLE STUBBED OUT TOP OF CONDUIT STUB.
- 7) INSTALL SMRT-100 POWER BASE INSIDE NON-METALLIC ENCLOSURE WITH BACK MOUNTING PLATE AND SCREW COVER.
 8) PACKAGE 2-PIECE STAINLESS STEEL CHASE WITH TFT ASSEMBLED, PANICLIGHT/MID-1 DEVICES ASSEMBLED WITH BOXES AND
- CONDUIT, TEMP/ %RH SENSOR, SURFACE MOUNTED MAGNETIC CONTACT SET, 3 GROMMETS , 16 EA STAINLESS STEEL SCREWS AND ONE SET OF FIELD INSTALLATION INSTRUCTIONS FOR SHIPMENT TO CUSTOMER.

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S S	NSTALLE	MARTRITE	DESCRIPTION
DWG# SMRT100RK-ELEV	NSTALLED ELEVATIONS	SMARTRITE RETROFIT KIT	

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