# **^>** DOMETIC **MARINE CONTROL UNITS**



**STIIC** 

### **Smart Touch Integrated Intelligence Control (STIIC)**

Installation and Operation Manual.....2

**⚠ WARNING** 

Cancer and Reproductive Harm www.P65Warnings.ca.gov

STIIC Controller Contents

#### **Service Center & Dealer Locations**

Visit: www.dometic.com

Read these instructions carefully. These instructions **MUST** stay with this product.

**Explanation of Symbols and Safety** 

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### **Explanation of Symbols and Safety Instructions**

This manual has safety information and instructions to help you eliminate or reduce the risk of accidents and injuries.

### 1.1 Recognize Safety Information



This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

### 1.2 Understand Signal Words

A signal word will identify safety messages and property damage messages, and also will indicate the degree or level of hazard seriousness.

#### **DANGER!**

Indicates a hazardous situation that, if **not** avoided, will result in death or serious injury.



### WARNING

Indicates a hazardous situation that, if **not** avoided, could result in death or serious injury.



#### A CAUTION

Indicates a hazardous situation that, if **not** avoided, could result in minor or moderate injury.

**NOTICE:** Used to address practices **not** related to physical injury.



Indicates additional information that is not related to physical injury.

STIIC Controller General Information

### 1.3 Supplemental Directives

To reduce the risk of accidents and injuries, please observe the following directives before proceeding to install or operate this appliance:

- Read and follow all safety information and instructions.
- Read and understand these instructions before installing or operating this product.
- The installation must comply with all applicable local or national codes, including the latest edition of the following standards:

#### U.S.A.

- American Boat and Yacht Council (ABYC)
- ANSI/NFPA70, National Electrical Code (NEC)

### 1.4 General Safety Messages

- WARNING: ELECTRICAL SHOCK, FIRE, AND/ OR EXPLOSION HAZARD. Failure to obey the following warnings could result in death or serious injury:
- Use only Dometic replacement parts and components that are specifically approved for use with the appliance.
- Avoid improper installation, adjustment, alterations, service, or maintenance of the appliance. Service and maintenance **must** be done by a qualified service person only.
- Do **not** modify this product in any way. Modification can be extremely hazardous.
- Use care when diagnosing and/or adjusting components on a powered unit.

### 2 General Information

The Dometic STIIC Programmable Logic Controller (PLC) provides a plug and play networking solution for Dometic products. The user-friendly software connects a vessel's Dometic devices and systems, like air conditioning, water makers, ice makers, refrigeration systems, and shipwide ventilation systems, to the STIIC PLC. This technology allows the user to monitor, manage, and troubleshoot the vessel's marine comfort systems from anywhere in the world, using a mobile device or the Internet.

This is a MODBUS and CANBUS networked system. The STIIC PLC is designed to work with unit controllers, not to replace them. While the STIIC PLC allows you to monitor and perform basic actions for the devices enabled in the system, any in-depth diagnostics must be done through the individual device or system.

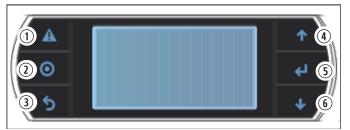


The images used in this document are for reference purposes only. Components and component locations may vary according to specific product models. Measurements may vary ±0.38 in. (10 mm).

General Information STIIC Controller

### 2.1 STIIC PLC LCD Display

The STIIC PLC has an integrated LCD display with six buttons for moving through the menus. This section describes the LCD display buttons.



- 1 LCD Display Buttons
  - (1) Alarm

- 4 Scroll Up
- 2 Program
- 5 Enter
- 3 Escape
- 6 Scroll Down

No.	Button	Description
1	Alarm	Press the button when it is flashing red to display the active alarm screen. See "Using the LCD Display to View Alarms" on page 21.
2	Program	Press this button to display the system menus. Use the scroll buttons to step through the options. Tap the Enter button to select an option.
3	Escape	Press this button to exit the current screen and return to the previous screen.
4	Scroll Up	Press this button to step through available menu options, change values in fields, and move through pages on the screen.
(5)	Enter	Press this button to confirm menu option selections and saves changes.
6	Scroll Down	Press this button to step through available menu options, change values in fields, and move through pages on the screen.

### 2.2 STIIC PLC Touchscreen Display

This section describes the buttons on the touchscreen display.



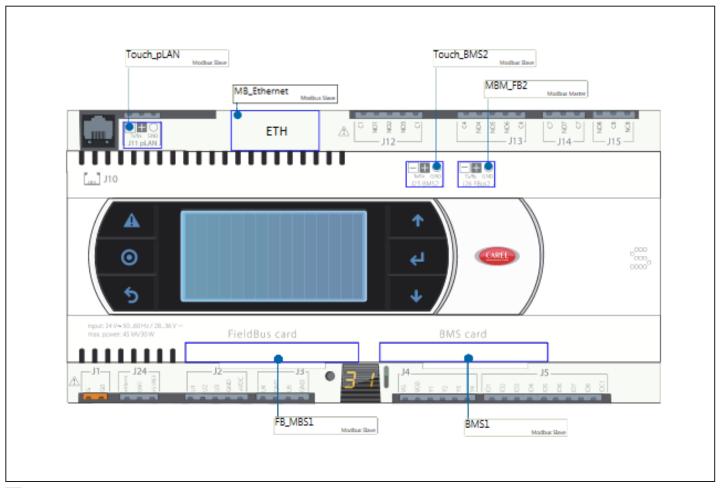
- 2 Touchscreen Display
  - ① STIIC PLC Configuration
- 4 Eskimo Ice Systems
- ② Air Conditioning
- 5 FAMU & SWV
- 3 Refrigeration
- (6) Reverse Osmosis

No.	Button	Description
1	STIIC Configuration	Tap the button to open the configuration menus used for:  • Enabling/disabling devices  • Technical support monitoring through a VNC (Virtual Network Computing) server  • Naming room controls and KRAs (KRA series condensing units)  • Viewing the software version See "Installation and Setup" on page 10.
2	Air Conditioning	Tap the button to open the main page for chiller and room control monitoring and control. See "Managing an Air Conditioning Device" on page 15.
3	Refrigeration	Tap the button to open the main page for monitoring and controlling the KRA coolers and freezers on a vessel. See "Managing a Refrigeration Device" on page 17.
4	Eskimo Ice Systems	Tap the button to open the main page for monitoring and controlling up to three Dometic Eskimo ice makers.
5	FAMU & SWV	Tap the button to open the main page for monitoring and controlling the FAMU (Fresh Air Make-up Unit) and the SWV (Shipwide Ventilation) system.
6	Reverse Osmosis	Tap the button to open the main screen for monitoring and controlling the XTC SeaXchange, ZTC Spotzero, and XZ combination system.

STIIC Controller General Information

### 2.3 Inputs and Outputs

The STIIC PLC allows you to connect different Dometic devices and has outputs to display the information received by the devices. Figure 3 illustrates the STIIC PLC I/O layout.



3 STIIC PLC I/O Layout

### 2.3.1 PLC Inputs

The PLC Input Table describes the inputs for the STIIC PLC.



If a temperature sensor is defective or not connected, the STIIC PLC generates an alarm for that sensor.

### **PLC Input Table**

Input	I/O#	Description	Port Configuration
MBM_FB2	J26	Connection port for Dometic devices to communicate with the STIIC PLC	• Baudrate: 19200 • Data length: 8 • Stop bits: 1 • Parity: None

Intended Use STIIC Controller

### 2.3.2 PLC Outputs

The PLC Output Table describes the outputs for the STIIC PLC.



If a temperature sensor is defective or not connected, the STIIC PLC generates an alarm for that sensor.

### **PLC Output Table**

Output	I/O#	Description	Port Configuration
Touch_ pLAN	J11	Connection to the Touchscreen	<ul><li>Baudrate: 3840</li><li>Data length: 8</li><li>Stop bits: 1</li><li>Parity: None</li></ul>
MODBUS TCP/IP	ETH	MODBUS TCP/IP slave connection	Port: 502
MODBUS slave	J25	MODBUS RTU slave connection	<ul><li>Baudrate: 3840</li><li>Data length: 8</li><li>Stop bits: 1</li><li>Parity: None</li></ul>
MODBUS slave	Fieldbus Card	MODBUS RTU slave connection	• Baudrate: 19200 • Data length: 8 • Stop bits: 2 • Parity: None
MODBUS slave	BMS Card	MODBUS RTU slave connection	• Baudrate: 19200 • Data length: 8 • Stop bits: 1 • Parity: None

### 2.4 STIIC MODBUS Address Layout

The STIIC MODBUS Address Layout Table lists the MODBUS address layout for the various systems that can be controlled by the STIIC PLC.

### **STIIC MODBUS Address Layout Table**

System	Max Units on STIIC	MODBUS Device Add
Platinum Chillers	1	1 (Master PLC)
riadinam Chillers	'	2 (Slave PLC)
VARC Chiller	1	3
XTC Seawater	1	11
ZTC Freshwater	1	13
XZ Combination System	1	15
SWV	1	20
MODBUS Converter	4	30–33
KRA #1	3	40–42
KRA #2	3	43–45
KRA #3	3	46–48
KRA #4	3	49–51
KRA #5	3	52-54
KRA #6	3	55–57
FAMU	1	60

### 3 Intended Use

The STIIC PLC application technology simplifies integration to ship-wide network control systems. This allows one connection point for third-party software developers to communicate with enabled Dometic systems on the network and provides easy monitoring and control access for the user and technicians.

This manual provides the necessary information for the proper installation and operation of the STIIC PLC.

**NOTICE:** Insufficient installation, configuration, or operating parameters could result in unsatisfactory performance and possibly failure.

The manufacturer accepts no liability for damage in the following cases:

- Faulty assembly or connection
- Damage to the product resulting from mechanical influences and excess voltage
- Alterations to the product without express permission from the manufacturer
- Use for purposes other than those described in the operating manual

Dometic Corporation reserves the right to modify appearances and specifications without notice.

STIIC Controller Intended Use

### 4 Specifications

This section describes the display, electrical, environmental, and physical specifications for the STIIC PLC components: Touchscreen display, LCD display, and electric box.

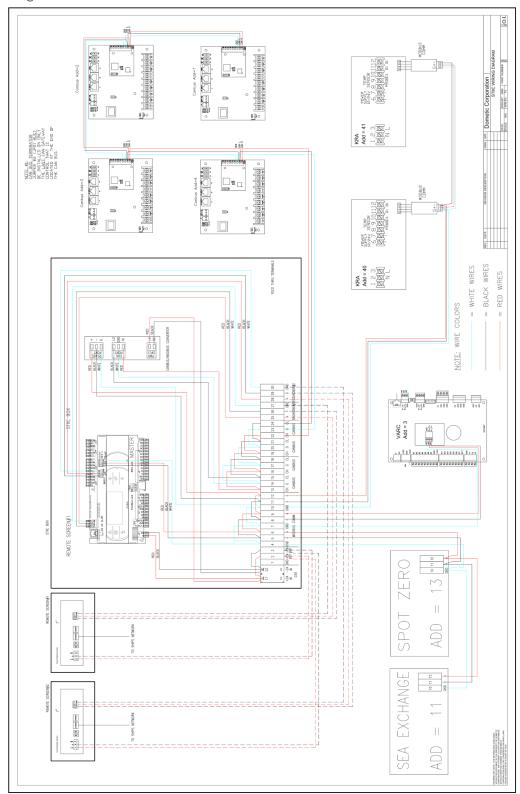
Touchscreen Technical Specifications			
Di	splay		
Туре	LCD TFT		
Resolution	800 x 480 (WVGA)		
Active Display Area	7 in. (178 mm) diagonal 16:9 ratio		
Colors	64 K		
Backlighting	LED		
Brightness Adjustment	Yes		
Ele	ctrical		
Power Supply	• 24 VAC (-15% to +10%) • 50–60 Hz Max • 1.2 A (24 VAC) • 12–30 VDC, ±5% Max • 0–9 A at 12 VDC		
Power Input	12 W (minimum power cable cross-section of 0.5 mm²)		
Fuse	Automatic		
Battery	Not rechargeable, lithium, model BR2330		
Software Class and Structure	A		
Resistance to Heat and Fire	Category D		
Immunity Against Voltage Surges	Category II		
Insulation Class	Class III, incorporate in class I or class III devices		
Environme	ntal Conditions		
Operating Temperature	-4 °F to 140 °F (-20 °C to 60 °C)		
Storage Temperature	-4 °F to 140 °F (-20 °C to 60 °C)		
Operating and Storage Humidity	5% to 85% relative humidity, non-condensing		
Protection Rating	IP65 (front); IP20 (rear)		
Degree of Pollution	Degree II		
Standards of Compliance	Compliant with European EMC and LVD directives; UL Certification		

Physical  Dimensions (H x W x D)  4.4 in. x 8.96 in. x 2.4 in. (110 mm x 227.5 mm x 60 mm)  Assembly  • DIN rail (in accordance with DIN 43880 and IEC EN 50022) • Panel  Environmental Conditions  Operating Conditions  • 4° F to 140° F (-20° C to 60°C) • 90% relative humidity, non-condensing  Storage Conditions  • -22° F to 158° F (-30°C to 70°C) • 90% relative humidity, non-condensing  Ingress Protection  IP20 on the front panel only  Controller Pollution Class  2  Class According to Protection Against Electric Shock  Electrical  Power Supply (VAC)  • 24 VAC (-15% to +10%) • 50–60 Hz Max • 2.5 A T external fuse • 45 VAC  Power Supply (VDC)  • 28–36 VDC (-20% to +10%) • 2.5 A T external fuse • 30 W  Battery  • 3 VDC lithium button battery • .95 in. x .12 in. (24 x 3 mm) • Code CR2430 • 3 VDC lithium button battery • .79 in. x .13 in.(20 x 3.2 mm) • Code BR2032  Software Class and Structure  A  Electric box Dimensions  Height  10.50 in. (267 mm)  Width  15.00 in. (381 mm)  Depth  5.00 in. (127 mm)	PLC Technical Specifications		
Assembly  Polin rail (in accordance with DIN 43880 and IEC EN 50022) Panel  Environmental Conditions  Operating Conditions  -4°F to 140°F (-20°C to 60°C) 90% relative humidity, non-condensing  Storage Conditions  -22°F to 158°F (-30°C to 70°C) 90% relative humidity, non-condensing  Ingress Protection  IP20 on the front panel only  Controller Pollution Class  Class According to Protection Against Electric Shock  Electrical  Power Supply (VAC)  -24 VAC (-15% to +10%) 50-60 Hz Max 2.5 A T external fuse 45 VAC  Power Supply (VDC)  -28-36 VDC (-20% to +10%) 2.5 A T external fuse 30 W  Battery  -3 VDC lithium button battery 95 in. x.12 in. (24 x 3 mm) Code CR2430 3 VDC lithium button battery 95 in. x.13 in. (20 x 3.2 mm) Code BR2032  Software Class and Structure  Electric box Dimensions  Height  10.50 in. (267 mm) Width  15.00 in. (381 mm)	Ph	ysical	
Environmental Conditions  Operating Conditions  -4 °F to 140 °F (-20 °C to 60 °C) 90% relative humidity, non-condensing  Storage Conditions  -22 °F to 158 °F (-30 °C to 70 °C) 90% relative humidity, non-condensing  Ingress Protection  IP20 on the front panel only  Controller Pollution Class  Class According to Protection Against Electric Shock  Electrical  Power Supply (VAC)  -24 VAC (-15% to +10%) 50–60 Hz Max 2.5 A T external fuse 45 VAC  Power Supply (VDC)  -28–36 VDC (-20% to +10%) 2.5 A T external fuse 30 W  Battery  -3 VDC lithium button battery 95 in. x. 12 in. (24 x 3 mm) Code CR2430 3 VDC lithium button battery 79 in. x. 13 in.(20 x 3.2 mm) Code BR2032  Software Class and Structure  Electric box Dimensions  Height  10.50 in. (267 mm)  Width  15.00 in. (381 mm)	Dimensions (H x W x D)		
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(-20 °C to 60 °C) • 90% relative humidity, non-condensing  Storage Conditions  • -22 °F to 158 °F (-30 °C to 70 °C) • 90% relative humidity, non-condensing  Ingress Protection  IP20 on the front panel only  Controller Pollution Class  Class According to Protection Against Electric Shock  Flectrical  Power Supply (VAC)  • 24 VAC (-15% to +10%) • 50–60 Hz Max • 2.5 A T external fuse • 45 VAC  Power Supply (VDC)  • 28–36 VDC (-20% to +10%) • 2.5 A T external fuse • 30 W  Battery  • 3 VDC lithium button battery • .95 in. x .12 in. (24 x 3 mm) • Code CR2430 • 3 VDC lithium button battery • .79 in. x .13 in.(20 x 3.2 mm) • Code BR2032  Software Class and Structure  Flectric box Dimensions  Height  10.50 in. (381 mm)	Environmen	ntal Conditions	
C-30 °C to 70 °C   • 90% relative humidity, non-condensing	Operating Conditions	(-20 °C to 60 °C) •90% relative humidity,	
Controller Pollution Class 2  Class According to Protection Against Electric Shock  Electrical  Power Supply (VAC)  Power Supply (VDC)  Power Supp	Storage Conditions	(-30 °C to 70 °C) •90% relative humidity,	
Class According to Protection Against Electric Shock  Electrical  Power Supply (VAC)  • 24 VAC (-15% to +10%) • 50–60 Hz Max • 2.5 A T external fuse • 45 VAC  Power Supply (VDC)  • 28–36 VDC (-20% to +10%) • 2.5 A T external fuse • 30 W  Battery  • 3 VDC lithium button battery • .95 in. x .12 in. (24 x 3 mm) • Code CR2430 • 3 VDC lithium button battery • .79 in. x .13 in.(20 x 3.2 mm) • Code BR2032  Software Class and Structure  Electric box Dimensions  Height  10.50 in. (267 mm)  Width  15.00 in. (381 mm)	Ingress Protection	IP20 on the front panel only	
Protection Against Electric Shock  Electrical  Power Supply (VAC)  -24 VAC (-15% to +10%) -50-60 Hz Max -2.5 A T external fuse -45 VAC  Power Supply (VDC)  -28-36 VDC (-20% to +10%) -2.5 A T external fuse -30 W  Battery  -3 VDC lithium button battery -95 in. x .12 in. (24 x 3 mm) -Code CR2430 -3 VDC lithium button battery -79 in. x .13 in.(20 x 3.2 mm) -Code BR2032  Software Class and Structure  Electric box Dimensions  Height  -10.50 in. (267 mm) -15.00 in. (381 mm)	Controller Pollution Class	2	
Power Supply (VAC)	Protection Against Electric		
• 50–60 Hz Max • 2.5 A T external fuse • 45 VAC  Power Supply (VDC)  • 28–36 VDC (-20% to +10%) • 2.5 A T external fuse • 30 W  Battery  • 3 VDC lithium button battery • .95 in. x .12 in. (24 x 3 mm) • Code CR2430 • 3 VDC lithium button battery • .79 in. x .13 in.(20 x 3.2 mm) • Code BR2032  Software Class and Structure  Electric box Dimensions  Height  10.50 in. (267 mm)  Width  15.00 in. (381 mm)	Ele	ctrical	
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Electric box Dimensions Height 10.50 in. (267 mm) Width 15.00 in. (381 mm)	Battery	<ul> <li>.95 in. x .12 in. (24 x 3 mm)</li> <li>Code CR2430</li> <li>3 VDC lithium button battery</li> <li>.79 in. x .13 in. (20 x 3.2 mm)</li> </ul>	
Height         10.50 in. (267 mm)           Width         15.00 in. (381 mm)		А	
Height         10.50 in. (267 mm)           Width         15.00 in. (381 mm)	Flectric box Dimensions		
Width 15.00 in. (381 mm)			
	Depth		

Intended Use STIIC Controller

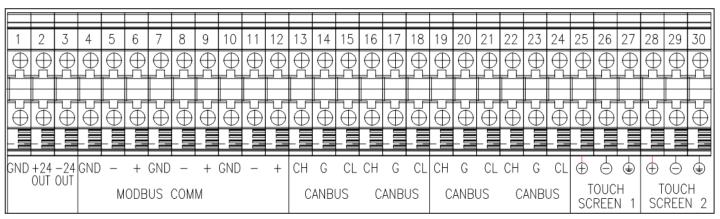
### 5 Wiring Diagram

Figure 4 and Figure 5 provide examples of the wiring diagram and terminal connections used for STIIC PLC.



4 STIIC PLC Wiring Diagram (with 4 Room Controls, 2 KRA units, VARC Chiller, ZTC SpotZero, SeaXchange and 2 Touchscreens)

STIIC Controller Intended Use



Device Terminal Connections

STIIC Controller Installation and Setup

### **Installation and Setup**

This STIIC PLC is set up with basic factory defaults, so the control requires configuration to match the constraints of the devices that are installed in the vessel.

### 6.1 Making Terminal Connections in the Electric Box



### **A** WARNING: ELECTRICAL SHOCK HAZARD.

Exercise extreme care when working around energized equipment. Failure to obey this warning could result in death or serious injury.

The STIIC PLC electric box comes in two different versions, one with a 24 VDC power supply and one without the 24 VDC power supply. The components inside the electric box are powered using 24 VDC. Verify which model is being installed. Figure 6 shows the STIIC PLC electric box without the 24 VDC power supply.



6 STIIC PLC Electric Box

Make the following connections to the electric box:

- 1. Wire the input power to the circuit breaker labeled "CONTROL".
- 2. Wire the three-wire communication cable from the devices installed in the vessel to the appropriate terminal in the STIIC PLC electric box:
  - Wire MODBUS controlled units only to MODBUS feedthroughs.
  - Wire CANBUS controlled units only to CANBUS feedthroughs.

Refer to Figure 5 on page 9 and the "Connection Port Table" on page 10 for information on the correct port to use when connecting Dometic devices to the STIIC PLC.

#### **Connection Port Table**

<b>Dometic Devices</b>	Connection to STIIC PLC
Platinum Chiller	MODBUS Communication
VARC Chiller	MODBUS Communication
Fresh Air Makeup PLC Control	MODBUS Communication
XTC SeaXchange	MODBUS Communication
ZTC SpotZero	MODBUS Communication
XZ Combination	MODBUS Communication
Shipwide Ventilation	MODBUS Communication
Eskimo Ice	CANBUS Communication
Room Controls	CANBUS Communication
KRA	MODBUS Communication

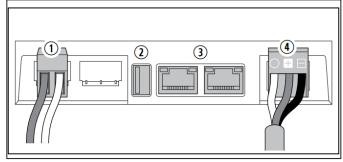
### 6.2 Connecting the Touchscreen



### **WARNING: ELECTRICAL SHOCK HAZARD.**

Verify that all unit power lines are in unison phasing to eliminate the potential for a short circuit. Failure to obey this warning could result in death or serious

Figure 7 shows the available Touchscreen connection ports.



- 7 Touchscreen Connections
  - 1) Power Input (24 VAC)
- 3 Ethernet Connectivity Port
- (2) USB Port
- (4) MODBUS Communication Port (serial port 1)

Make the following connections to the touchscreen:

- 1. Connect a 24 VAC power supply to the power input.
- 2. Connect a three-core communication cable to serial port 1.

10

### 6.3 Configuring the STIIC PLC

Configuring the STIIC PLC is a several step process. To give the STIIC PLC recognition of the devices available for control, you must enable the devices installed on the vessel and disable the devices that are absent from the vessel.

The STIIC PLC supports two types of room control thermostats, each with different features. One of the thermostat differences is the number of fan speeds available. The room controls on the STIIC PLC must be configured for a three-speed or five-speed option, depending on the thermostat installed.

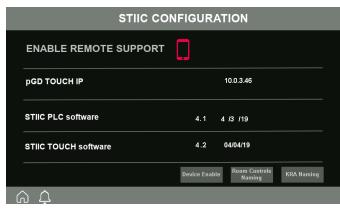
This section describes how to configure the STIIC PLC by updating the status of a device, setting a fan speed option for room controls, and when necessary, setting up a static IP address for network configuration.

### 6.3.1 Using the Touchscreen to Enable/ Disable Devices

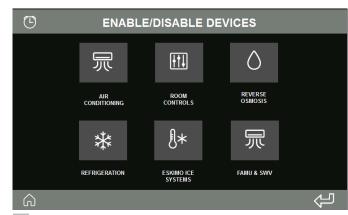
1. On the Main screen, tap **STIIC CONFIGURATION**.



- 8 Touchscreen Main Screen
- 2. The STIIC Configuration screen appears. Tap **Device Enable**



- 9 STIIC Configuration Screen
- 3. Select the type of device to enable.

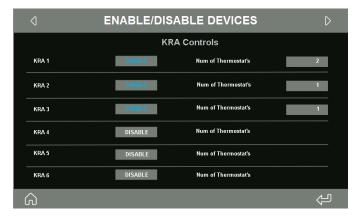


- 10 Enable/Disable Devices Screen
- 4. Tap **Enable** or **Disable** for each device.

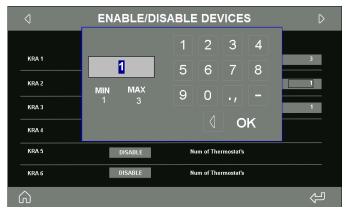


- 11 Refrigeration Enable/Disable Devices Screen
- 5. For KRAs, in addition to enabling/disabling, enter the number of boxes per KRA (max. 3 boxes).

Installation and Setup STIIC Controller



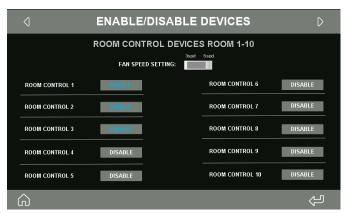
12 KRA Controls Enable/Disable Devices Screen



13 KRA Controls Box Number Entry Screen

### **6.3.2 Using the Touchscreen to Configure Room Controls**

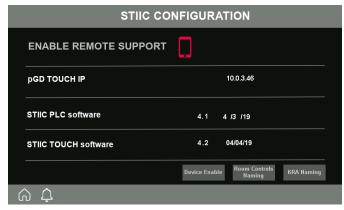
- 1. Perform steps 1–3 in "Using the Touchscreen to Enable/Disable Devices" on page 11.
- Tap the FAN SPEED SETTING switch to select the appropriate fan speed, depending on the room control display.



14 Room Control Fan Speed Setting Switch

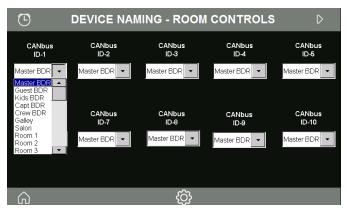
# **6.3.3 Using the Touchscreen for Setting Up Room Controls and KRAs**

- 1. On the Main screen, tap **STIIC CONFIGURATION** to enter the STIIC Configuration screen.
- 2. Tap Room Controls Naming.



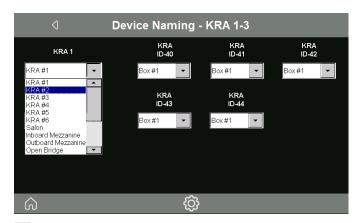
15 STIIC Configuration Screen

3. Verify the room control CANBUS ID# on the room control and use the drop-down menu to change the name based on the ID#.

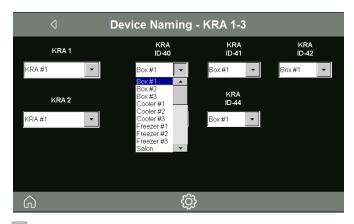


16 Device Naming - Room Controls Screen

- 4. Tap the configuration icon to return to the STIIC Configuration screen.
- 5. Tap **KRA Naming**.
- 6. Use the KRA drop-down menu to select a KRA name.



- 17 KRA Device Naming Screen
- 7. Use the KRA ID drop-down menu to select a name for the KRA box.



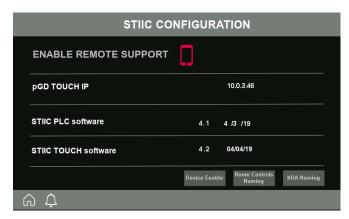
- 18 KRA Box Naming Drop-Down Menu
- 8. Repeat steps 1–7 for each room control and KRA.

## 6.3.4 Using the Touchscreen for Setting up the Remote Support VNC Viewer

The remote support screen allows you to set up the STIIC PLC to be accessed by Dometic technical support.

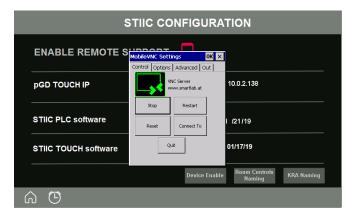
To display the Remote Support screen from the Main screen:

- 1. On the Main screen, tap **STIIC CONFIGURATION**. The STIIC Configuration screen appears.
- 2. Tap the red phone icon next to **Enable Remote Support**.



19 STIIC Configuration Screen

The MobileVNC Settings dialog box appears.



- 20 MobileVNC Settings Dialog Box
- 3. Tap the Control tab.
- 4. Tap **Start** to enable remote access.
- 5. Note the IP address next to the pGD TOUCH IP for use on the VNC Viewer app.
- 6. To end remote access, select **Stop** on the Control tab.

### 6.3.5 Using the LCD Display to Enable/Disable Devices

1. From the Main screen, press Program.



**21** LCD Display Main Screen

Installation and Setup STIIC Controller

 Select STIIC Setup 1 or STIIC Setup 2 to view the devices to enable/disable. If the vessel has more than 10 room controls, additional room controls are enabled through the RoomControl ##-## menus.



- 22 Main Menu Screen
- 3. Press Enter to select and go to the next screen.



- 23 Enable/Disable Screen
- 4. Use the scroll buttons to select a device. Press Enter to update the number (0=disabled, 1=enabled).



- 24 Device Enabled Screen
- 5. Press Escape to go to the Main screen.
- 6. Repeat steps 1–5 to enable or disable other devices.

### 6.3.6 Using the LCD Display to Configure Room Control

1. Press Program to enter the Main menu and scroll to the room controls.



- 25 Main Menu Screen
- 2. Select a Room Control and press Enter.

The first selection in the Room Control screen is to select a fan speed. Verify which model you have to select the appropriate setting.



- 26 Room Control Screen
- 3. Press Enter to update the fan speed value (0=3-speed, 1=5-speed).



- 27 Fan Speed Selection Screen
- 4. Repeat steps 1–3 for each room control.

### 6.3.7 Using the LCD Display to Assign IP Addresses

The STIIC PLC can be setup to have a static IP address for network configurations.

1. Press and hold Alarm and Enter for five seconds or until the screen goes to the PLC menu.



- 28 Main Screen
- 2. Select **SETTINGS**.



- 29 Main Menu Screen
- 3. Select TCP/IP SETTINGS.



30 Settings Screen

By default the DHCP is ON/AutoIP.

4. Scroll Up/Down to change DHCP to Off. Press Enter.



- 31 TCP/IP Settings Screen
- 5. Enter the desired IP Configuration information.
- 6. Enter Yes in **Update Config** to save the information.



32 Update Configuration Screen

### 7 Operation

This section describes the features available for control of the devices tied to the STIIC PLC.

### 7.1 Accessing a Device Type

From the Main screen, select the icon of the type of device you wish to control.



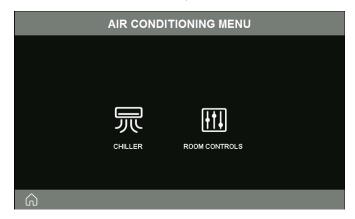
33 Main Screen

# 7.2 Managing an Air Conditioning Device

This section describes how to manage a Chiller or Room Control device enabled on the system.

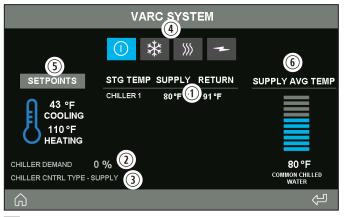
### 7.2.1 Managing the Chiller Control

To access the Chiller system from the Main screen, tap **AIR CONDITIONING** and tap **CHILLER**.



34 Air Conditioning Main Screen

The Chiller Menu displays.



- 35 Chiller Main Menu
  - ① Live Supply and Return Temperature Readings
  - ② Percentage of System Demand
  - (3) Control Type
- Mode of Operation (Off/Cool/Heat/ Electric Heat)
- (5) Temperature Set Points
- **6** Average Supply Temperature

To change the value of the set points:

Tap the set point (Cooling or Heating).
 The keypad appears.

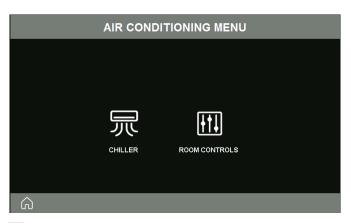


**36** Keypad

2. Enter the temperature within the range specified and tap **OK**.

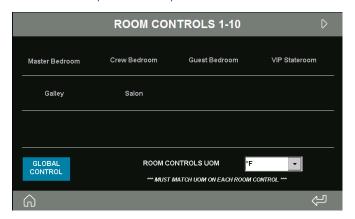
### 7.2.2 Managing the Room Controls

To access the room controls from the Main screen, tap **AIR CONDITIONING** and tap **ROOM CONTROLS**.



**37** Air Conditioning Main Screen

This is the main screen for room controls. Tap the specific room to view details or use Global Control to set the mode and temperature set points for all rooms.



38 Room Control Main Screen

To use the Global Control:

1. Tap Global Control.

The Global Room Control pop-up screen appears.



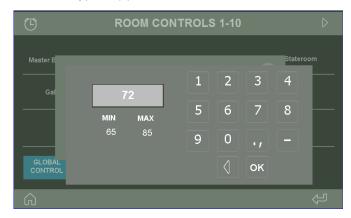
- 39 Global Room Control Pop-Up Screen
- 2. Select a control option:

- Off
- Auto
- Setpoint (manual adjustment)

To manually adjust the setpoint:

a. Tap the **SETPOINT** value box (the initial value reads 0 °F).

A keypad appears.

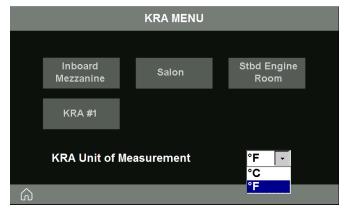


- 40 Keypad
  - b. Enter the setpoint value.
  - c. Tap OK to return to the Global Room Control popup screen.
- 3. Tap Set all Room Controls to apply the change.
- 4. Tap the Home icon to return to the Main screen.

# 7.3 Managing a Refrigeration Device

This section describes how to manage the KRA series condensing units enabled on the system.

1. To access the KRA controls from the Main screen, tap **REFRIGERATION**.

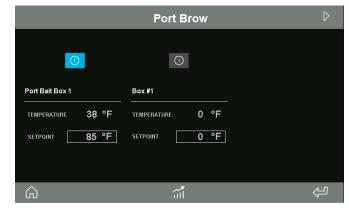


41 KRA Main Menu Screen

The main KRA menu appears listing the enabled condensing units.

- 2. Perform one of the following actions:
- Tap the drop-down menu to change the KRA Unit of Measurement.
- Tap the button for the KRA you wish to monitor.

When a KRA is selected, the settings screen for the KRA appears.



- **42** KRA Settings Screen
- 3. Perform one of the following actions:
- Turn the KRA on or off.
- View the current temperature.
- Change the setpoint (manual adjustment).

To manually adjust the setpoint:

Tap on the rectangle next to the setpoint.
 A keypad appears.

Operation STIIC Controller

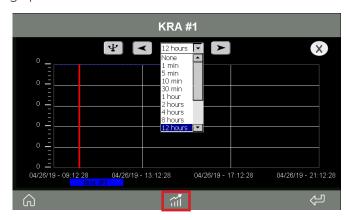


43 Keypad

2. Enter the desired setpoint value.

#### 3. Tap **OK**.

The STIIC PLC records a log of the temperature inside each KRA box. Select the Trend icon to open the trend graph.



44 KRA Trend Graph Screen

Perform one of the following actions:

- Select an option on the drop-down menu to change the interval of data.
- Use the left or right arrows to change the date or time.
- Save the logged temperature data to a USB drive:
  - a. Plug a USB drive into the touchscreen.
  - b. Tap the USB icon.

The system saves the logged data.

### 7.4 Managing an Eskimo Ice Device

This section describes how to manage an Eskimo Ice machine. There is a maximum of three Eskimo Ice machines that can be viewed on the STIIC PLC.

To access the Eskimo Ice controls from the Main screen, tap **ESKIMO ICE**.



45 Eskimo Ice Main Screen

The main Eskimo Ice screen appears listing the available Eskimo Ice machines. Select the machine you want to view.

Perform one of the following actions:

- Turn the machine on or off.
- View the machine status (Full or Filling) while running.
- View the voltage to the ice machine.
- View the current going to the compressor and auger.
- Tap the trend icon next to the current or voltage lines to view trend data.

To manually adjust the setpoint

- Tap on the rectangle next to the setpoint.
   A keypad appears.
- 2. Enter the desired setpoint value.
- 3. Tap OK.

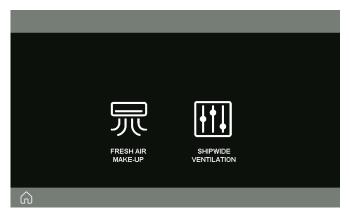
# 7.5 Managing a FAMU or SWV Device

This section describes how to manage a FAMU or SWV control device that has been enabled on the system.

STIIC Controller Operation

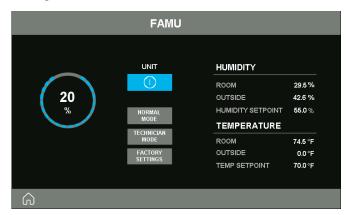
### 7.5.1 Using the FAMU Control

To access the FAMU control from the Main screen, tap **FAMU & SWV** and tap **FRESH AIR MAKE-UP**.



46 FAMU or SWV Main Screen

The FAMU Main screen displays. There are three options available: Normal Mode, Technician Mode, and Factory Settings.



47 FAMU Main Screen

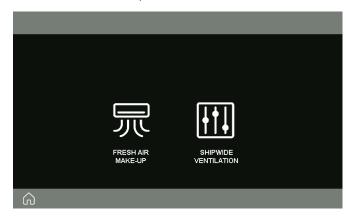
Perform one of the following actions in Normal Mode:

- Turn the machine on or off.
- Monitor the humidity levels.
- Monitor the temperature values.
- View the fan speed and the blower speed percentage.

The technician mode and factory settings options allow a technician to modify the parameters of the system. These options require a password to access. Only Dometic approved technicians can access these options.

### 7.5.2 Using the Shipwide Ventilation Controls

To access the SWV controls from the Main screen, tap **FAMU & SWV** and tap **SHIPWIDE VENTILATION**.



48 Shipwide Ventilation Main Screen

The Shipwide Ventilation Main screen displays. Perform one of the following actions:

- Place the system in Auto or Manual mode.
- Stop the system.
- View the system status.
- View the intake and exhaust fan speeds.
- View the temperature and pressure levels.
- Control the fan speed or place it in reverse mode (Manual mode only).

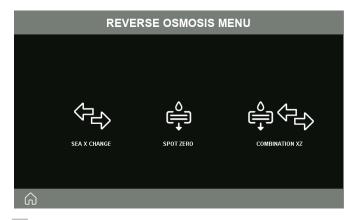
# 7.6 Managing a Reverse Osmosis Device

This section describes how to manage an XTC SeaXchange water maker, ZTC SpotZero freshwater maker, or combination XZ Series device that is enabled on the system.

### 7.6.1 Using the XTC SeaXchange Control

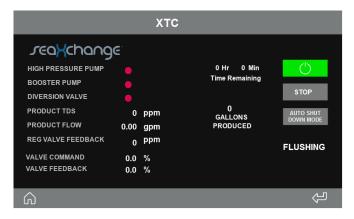
To access the SeaXchange control from the Main screen, tap **REVERSE OSMOSIS** and tap **Sea X Change**.

Operation STIIC Controller



49 Reverse Osmosis Main Screen

The XTC SeaXchange Main screen displays.



50 XTC SeaXChange Screen

Perform one of the following actions:

- Turn the machine on or off.
- Access the Auto Shut Down mode.
- Monitor the pump status.
- Monitor the valve status.
- View the amount of water produced.

### 7.6.2 Using the ZTC SpotZero

To access the SpotZero controls from the Main screen, tap **REVERSE OSMOSIS** and tap **Spot Zero**. The ZTC SpotZero Main screen displays.



51 ZTC SpotZero Main Screen

Perform one of the following actions:

- Monitor the pump status.
- Monitor the valve status.
- View the amount of water produced.

### 7.6.3 Using the XZ Series Combination Control

To access the XZ Series controls from the Main screen, tap **REVERSE OSMOSIS** and tap **Combination XZ**. The XZ Series Main screen displays.



**52** XZ Series Main Screen

The combination XZ system from the STIIC PLC is a combination of the XTC watermaker and the ZTC Spotzero unit. The STIIC PLC screen displays the similar information as the screens for the individual controls, combined onto one screen.

STIIC Controller Alarms

### 8 Alarms

The STIIC PLC provides an alert if any device connected to it has a fault.

## 8.1 Using the Touchscreen to View Alarms

The touchscreen program uses the flashing bell icon to represent that there is a fault. This icon is found on the Main screen and the status screens of any device.



53 Red Alarm Bell Icon

1. Tap the bell icon. The Active Alarms screen appears.



54 Active Alarms Screen

- 2. Perform one of the following actions:
  - View the active alarm names and descriptions.
  - Tap **RESET ALARMS** to clear the active alarm log once the alarm is resolved.
  - Tap the clock icon to view the alarm history screen.

The Historical Alarms screen displays all recorded alarms.



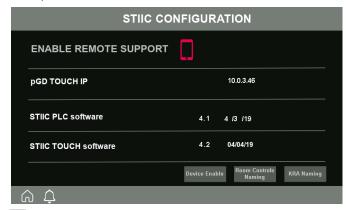
55 Historical Alarms Screen

Perform one of the following actions:

- Use the drop-down menu to change the time interval for the alarm history displayed.
- Select **Back** or **Forward** to move between the pages of history

To access the alarms screen when the system is not in a fault state:

- 1. Select **STIIC Config** from the Main screen.
- 2. Tap the white bell next to **Home**.



**56** STIIC Configuration Screen

# 8.2 Using the LCD Display to View Alarms

Separate actions are needed to view general alarms and Room Control alarms using the LCD display.

To view general alarms:

1. On the Main screen, press **Program** to enter the Main menu.

Disposal STIIC Controller

2. Scroll to **Alarms** and press **Enter**.



57 Main Menu

The Alarms Main menu appears.



58 Alarms Main Menu

- 3. Scroll through the alarms to identify the faulted device.
  - AL on STIIC is a global alarm indicating that at least one system device has a fault.
  - The number zero next to a device indicates that there is no fault.
  - The number one next to a device indicates that there is at least one fault.

To view room control alarms:

 Access the Room Control Main menu. See "Using the LCD Display to Configure Room Control" on page 14.



- **59** Room Control Main Menu
- 2. Select an individual room control from the designated ID list.
- 3. Check the room for an alarm:
  - The number zero next to a room indicates that there is no fault.
  - The number one next to a room indicates that there is at least one fault.

### 9 Disposal



Place the packaging material in the appropriate recycling waste bins, whenever possible. Consult a local recycling center or specialist dealer for details about how to dispose of the product in accordance with all applicable national and local regulations.

### **10 Warranty Information**

Refer to the sections below for information about warranty and warranty support in the US, Canada, and all other regions.

### 10.1 United States and Canada

LIMITED WARRANTY AVAILABLE AT WWW.DOMETIC. COM/WARRANTY.

IF YOU HAVE QUESTIONS, OR TO OBTAIN A COPY OF THE LIMITED WARRANTY FREE OF CHARGE, CONTACT:

DOMETIC CORPORATION
MARINE CUSTOMER SUPPORT CENTER
2000 NORTH ANDREWS AVENUE
POMPANO BEACH, FLORIDA, USA 33069
1-800-542-2477

### 10.2 All Other Regions

The statutory warranty period applies. If the product is defective, please contact the manufacturer's branch in your region (see the back of the instruction manual for the addresses) or your retailer.

For repair and guarantee processing, please include the following documents when you send in the device:

- A copy of the receipt with purchasing date
- A reason for the claim or description of the fault

22 EN



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