



# OWNER'S MANUAL

(Includes Operation, Maintenance and Parts)



***DATA & TOUCH SCREEN  
WARMING CABINET  
MODELS***



## STAINLESS WARMING CABINETS

Read this manual before starting to work! This information is necessary for safe and efficient operation of the equipment.

Model Identification: The identification tag is located inside the upper chamber at the center of the backside near the top. Record your Model Number and Serial Number below. For prompt service, please have your model and serial number ready when contacting SKYTRON for assistance.

Model # \_\_\_\_\_ Serial # \_\_\_\_\_

Distributed by:

SKYTRON  
5085 Corporate Exchange Blvd. S.E.  
Grand Rapids, MI 49512 (616) 656-2900  
[www.skytron.us](http://www.skytron.us)



Manufactured by:

MAC Medical, INC.  
820 South Mulberry Street  
Millstadt, IL 62260 (618) 476-3550  
[www.macmedical.com](http://www.macmedical.com)

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If a current document is required, contact your local SKYTRON representative or contact SKYTRON directly at the distributor address listed above.

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### 1-1. Special User Attention

Prior to use, all personnel that will operate the Warming Cabinet must be instructed in the correct usage and operation.

A routine program must be implemented by the facility for proper usage instructions for all personnel that may operate the Warming Cabinet.

All hospital personnel should be aware that sensible care must be exercised to maintain patient safety and keep the Warming Cabinet functioning at peak efficiency.

The design of the SKYTRON warming cabinet does not utilize internal user serviceable parts or procedures. Service must be performed by SKYTRON authorized service representatives using SKYTRON authorized replacement parts and service techniques.

### 1-2. Safety Messages

The following is a summary of WARNINGS and CAUTIONS indicated throughout this manual. These precautions are found where applicable. Carefully read this section before operating the equipment.



#### WARNING

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

**Explosion or Fire Hazard: DO NOT use Warming Cabinet in the presence of flammable anesthetics or solvents. Loading any item that could introduce flammable agents into the cabinet atmosphere can cause a fire or explosion.**

**Injury or Burn Hazard: DO NOT use liquids on or inject in living tissue unless actual temperature has been measured as acceptable. The temperature of the warming cabinet content may be hotter than displayed. For patient safety, in accordance with optimal practice, always verify liquid temperature prior to using.**

**The USB port should only be used for downloading temperature history data. DO NOT connect USB wireless devices due to potential EMI conditions.**

**Explosion Hazard: DO NOT exceed 150° F (66 °C) for non-vented closures; screw caps, crimp seals, plastic pouches, etc. DO NOT exceed pre-sterile solution manufacturer's temperature requirements.**

**Injury and Burn Hazard: Disconnect the AC power cord and allow the warmer to cool before performing preventative maintenance.**



#### CAUTION

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

**Explosion or Fire Hazard: The Warming Cabinet is intended for warming non-flammable solutions and blankets made of Muslin, 100% cotton or wool, ONLY. Operating the Warming Cabinet with flammable items could result in explosion or fire.**

**Burn Hazard: Use personal protective equipment when loading contents into cabinet. Avoid contact with hot surfaces that may cause burns.**

**Injury and Burn Hazard: Use personal protective equipment when unloading Warming Cabinet. Internal surfaces are hot, glass may shatter when cooled suddenly and solution bags or bottles may burst when picked up.**

**Burn Hazard: DO NOT raise the setpoint to increase heating rate. On dual chamber models, do not exceed 30° F (16.7 °C) higher than an upper chamber. Example: Upper chamber 110° F (43 °C) lower chamber must not exceed 140° F (60 °C). This could overheat contents leading to possible patient burns.**

**The temperature limit, as recommended by ECRI, for warming solutions is 110° F (43 °C). Solutions warmed above 111° F (44 °C) can cause second degree burns. Recommended ECRI temperature limit for blankets is 130° F (54 °C). Even slightly higher temperatures have been associated with patient burns.**



*Continued*

**Injury Hazard: The Warming Cabinet design allows limited user serviceable parts or procedures. For optimal product usage, safety and durability, service must be performed by a SKYTRON authorized service technician using SKYTRON authorized replacement parts and service techniques.**

*CAUTION without the safety alert symbol, indicates a possibility of damage to equipment not related to personal injury.*

Avoid damage to the touch screen. DO NOT use sharp or metallic objects and make sure hands are free of oils or other chemicals when touching the screen.

All files are saved to internal memory (not USB). To avoid loss of data, do not unplug internal memory card when the interface is powered up.

Once files are deleted, they are gone and can not be retrieved. Do Not edit, move, or delete other files, doing so can cause internal memory to malfunction.

Any parts or assemblies not listed in this section must be serviced or replaced by SKYTRON authorized service personnel only. This is necessary to avoid any possibility of damage to the equipment.

### **NOTICE**

*Indicates important information not related to personal injury.*

**2-1. Intended Use****CAUTION**

**Explosion or Fire Hazard: The Warming Cabinet is intended for warming non-flammable solutions and blankets made of Muslin, 100% cotton or wool, ONLY. Operating the Warming Cabinet with flammable items could result in explosion or fire.**

The SKYTRON Warming Cabinets are designed to store and warm blankets, hospital linens, irrigation fluids, and/or injection fluids in accordance with recommended warming temperatures and storage time guidelines provided by the manufacturers of such products.

**2-2. Recommended Settings**

SKYTRON does not recommend chamber set points for any items that are to be warmed. For appropriate heating temperatures, please contact the item manufacturers. For more information, please contact your SKYTRON service representative.

For blankets, follow blanket manufacturer's instructions for the set point.

For intravenous and irrigation fluids, follow temperature guidelines printed on the container or contact your supplier for temperature and expiration periods.

**2-3. Installation**

The SKYTRON Set-up Instructions specify the unpacking, installation, and testing of the Warming Cabinet. Prior to starting the installation, review the Set-up Instructions and local electric codes including the Occupational Health and Safety Act for any requirements pertaining to the proper installation of this equipment.

Contact your SKYTRON representative for seismic calculations and tie-down hardware if applicable.

**2-4. Environmental Conditions**

DURING TRANSPORT AND STORAGE (IN ORIGINAL PACKAGING MATERIALS)

- AMBIENT TEMPERATURE: -40° - 159° F (-40° - 70° C)
- RELATIVE AIR MOISTURE: 10% - 100%, INCLUDING CONDENSATION
- AIR PRESSURE: 14 inHg - 31.3 inHg (500 hPa - 1060 hPa)

DURING USE - FOR DRY LOCATIONS

- AMBIENT TEMPERATURE: 60° - 85° F (15° - 30° C)
- RELATIVE AIR MOISTURE: 30% - 60% NON CONDENSING
- AIR PRESSURE: 20.7 inHg - 31.3 inHg (700 hPa - 1060 hPa)

The Warming Cabinet is intended for use in a stable environment, with an ideal ambient temperature of 72° F (22°C) or less. The Warming Cabinet should never be located next to any appliance that may produce heat, such as an autoclave. If the Warming Cabinet must be located next to a heat producing appliance, action must be taken to prevent heat transfer.

**2-5. Certification**

## 2-6. Equipment Labels

1

### OPERATING INSTRUCTIONS:

#### 1. To apply power to the system:

- Press the power switch to the ON position

#### 2. To change the setpoint:

- Press SET
- Press the arrow keys to alter the setpoint either up or down
- Press SET again

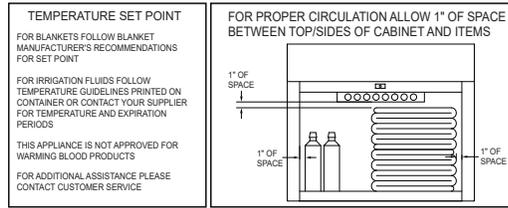
#### 3. To silence the alarm:

- Press ALARM RESET

### DOWNLOADING DATA:

1. To retrieve warmer data insert flash drive into USB port.
2. The digital display will change from displaying temperature to displaying this code 
3. Once the transfer of data is complete the digital display will return to displaying cabinet temperature.
4. Remove the flash drive.

2 (W0227-SK)



3

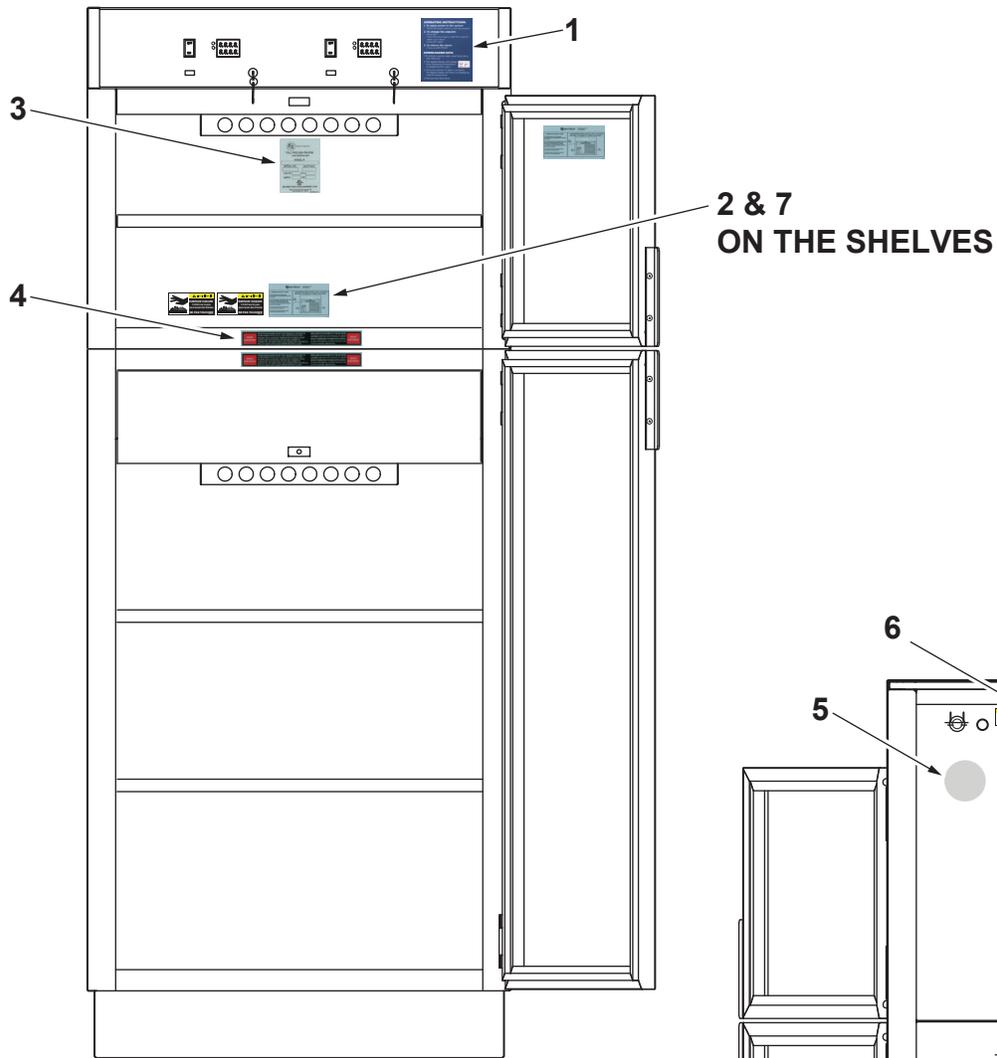
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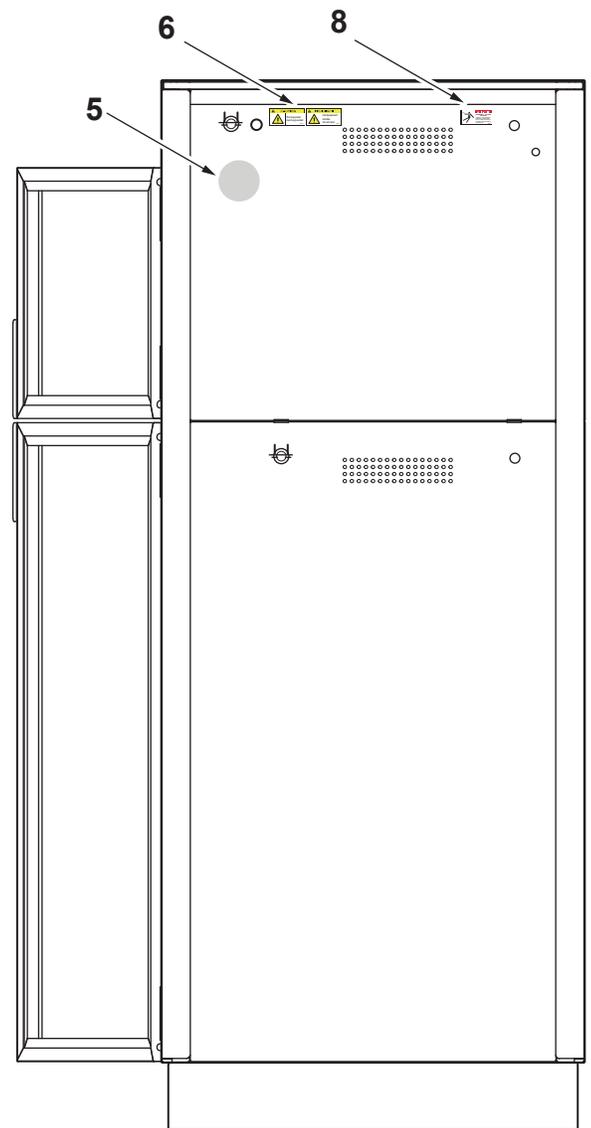
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7

8



FRONT



BACK

2-7. Exterior Interior Dimensions - inches (millimeters)

MODEL #	OUTER DIMENSIONS H" x W" x D", [mm]	UPPER / SINGLE CHAMBER DIMENSIONS H" x W" x D", [mm]	UPPER / SINGLE CHAMBER VOLUME	LOWER CHAMBER DIMENSIONS H" x W" x D", [mm]	LOWER CHAMBER VOLUME	BLANKET CAPACITY	1 LITER BOTTLE CAPACITY	POWER (kWh)	AMPS (A)	BTU/hr
W1-252421	24.5 x 24 x 20.5 [622 x 610 x 521]	15.25 x 20 x 17 [387 x 508 x 432]	3 ft³ [85L]	N/A	N/A	9	8	120V, 50/60 Hz., 1 Ph [.23 kWh]	2.9	785
W1-253021	24.5 x 30 x 20.5 [622 x 762 x 521]	15.25 x 26 x 17 [387 x 660 x 432]	3.9 ft³ [110L]	N/A	N/A	18	8	120V, 50/60 Hz., 1 Ph [.45 kWh]	5.7	1535
W1-252427	24.5 x 24 x 26.5 [622 x 610 x 673]	15.25 x 20 x 23 [387 x 508 x 584]	4.06 ft³ [115L]	N/A	N/A	9	12	120V, 50/60 Hz., 1 Ph [.45 kWh]	6.3	1535
W1-253027	24.5 x 30 x 26.5 [622 x 762 x 673]	15.25 x 26 x 23 [387 x 660 x 584]	5.27 ft³ [149L]	N/A	N/A	18	20	120V, 50/60 Hz., 1 Ph [.45 kWh]	6.3	1535
W1-362421	36 x 24 x 20.5 [914 x 610 x 521]	25 x 20 x 17 [635 x 508 x 432]	5 ft³ [142L]	N/A	N/A	16	20	120V, 50/60 Hz., 1 Ph [.23 kWh]	5.7	785
W1-363021	36 x 30 x 20.5 [914 x 762 x 521]	25 x 26 x 17 [635 x 660 x 432]	6.39 ft³ [181L]	N/A	N/A	32	36	120V, 50/60 Hz., 1 Ph [.45 kWh]	5.7	1535
W1-362427	36 x 24 x 26.5 [914 x 610 x 673]	25 x 20 x 23 [635 x 508 x 584]	6.7 ft³ [190L]	N/A	N/A	16	25	120V, 50/60 Hz., 1 Ph [.45 kWh]	6.3	1535
W1-363027	36 x 30 x 26.5 [914 x 762 x 673]	25 x 26 x 23 [635 x 660 x 584]	8.65 ft³ [245L]	N/A	N/A	32	40	120V, 50/60 Hz., 1 Ph [.45 kWh]	6.3	1535
W1-652421	64.75 x 24 x 20.5 [1645 x 610 x 521]	49.5 x 20 x 17 [1257 x 508 x 432]	9.74 ft³ [276L]	N/A	N/A	32	48	120V, 50/60 Hz., 1 Ph [.47 kWh]	6.5	1604
W1-653021	64.75 x 30 x 20.5 [1645 x 762 x 521]	51 x 26 x 17 [1295 x 660 x 432]	13.05 ft³ [370L]	N/A	N/A	66	72	120V, 50/60 Hz., 1 Ph [.41 kWh]	6.3	1400
W1-652427	64.75 x 24 x 26.5 [1645 x 610 x 673]	51 x 20 x 23 [1295 x 508 x 584]	13.6 ft³ [385L]	N/A	N/A	80	120	120V, 50/60 Hz., 1 Ph [.41 kWh]	6.5	1604
W1-653027	64.75 x 30 x 26.5 [1645 x 762 x 673]	51 x 26 x 23 [1295 x 660 x 584]	17.65 ft³ [500L]	N/A	N/A	80	120	120V, 50/60 Hz., 1 Ph [.41 kWh]	6.5	1604
W1-752421	74.5 x 24 x 20.5 [1892 x 610 x 521]	61 x 20 x 17 [1549 x 508 x 432]	12 ft³ [340L]	N/A	N/A	32	60	120V, 50/60 Hz., 1 Ph [.47 kWh]	6.5	1604
W1-753021	74.5 x 30 x 20.5 [1892 x 762 x 521]	61 x 26 x 17 [1549 x 660 x 432]	15.6 ft³ [442L]	N/A	N/A	80	72	120V, 50/60 Hz., 1 Ph [.47 kWh]	6.5	1604
W1-752427	74.5 x 24 x 26.5 [1892 x 610 x 673]	61 x 20 x 23 [1549 x 508 x 584]	16.24 ft³ [460L]	N/A	N/A	80	120	120V, 50/60 Hz., 1 Ph [.47 kWh]	6.5	1604
W1-753027	74.5 x 30 x 26.5 [1892 x 762 x 673]	61 x 26 x 23 [1549 x 660 x 584]	21.1 ft³ [598L]	N/A	N/A	80	120	120V, 50/60 Hz., 1 Ph [.47 kWh]	6.5	1604
W2-652421	64.75 x 24 x 20.5 [1645 x 610 x 521]	43.5 x 20 x 17 [343 x 508 x 432]	2.65 ft³ [75L]	24.5 x 20 x 17 [622 x 508 x 432]	4.82 ft³ [137L]	26	36	120V, 50/60 Hz., 1 Ph [.65 kWh]	8.9	2218
W2-653021	64.75 x 30 x 20.5 [1645 x 762 x 521]	43.5 x 26 x 17 [343 x 660 x 432]	3.45 ft³ [98L]	24.5 x 26 x 17 [622 x 660 x 432]	6.27 ft³ [178L]	50	54	120V, 50/60 Hz., 1 Ph [.60 kWh]	8.3	2047
W2-652427	64.75 x 24 x 26.5 [1645 x 610 x 673]	43.5 x 20 x 23 [343 x 508 x 584]	3.59 ft³ [102L]	24.5 x 20 x 23 [622 x 508 x 584]	6.52 ft³ [185L]	52	80	120V, 50/60 Hz., 1 Ph [.60 kWh]	8.3	2047
W2-653027	64.75 x 30 x 26.5 [1645 x 762 x 673]	43.5 x 26 x 23 [343 x 660 x 584]	4.67 ft³ [132L]	24.5 x 26 x 23 [622 x 660 x 584]	8.48 ft³ [240L]	52	96	120V, 50/60 Hz., 1 Ph [.65 kWh]	8.9	2218
W2-752421	74.5 x 24 x 20.5 [1892 x 610 x 521]	38.7 x 20 x 17 [387 x 508 x 432]	2.65 ft³ [75L]	34.5 x 20 x 17 [876 x 508 x 432]	6.79 ft³ [192L]	32	48	120V, 50/60 Hz., 1 Ph [.82 kWh]	8.9	2218
W2-753021	74.5 x 30 x 20.5 [1892 x 762 x 521]	38.7 x 26 x 17 [387 x 660 x 432]	3.45 ft³ [98L]	34.5 x 26 x 17 [876 x 660 x 432]	8.82 ft³ [250L]	52	72	120V, 50/60 Hz., 1 Ph [.82 kWh]	8.3	2047
W2-752427	74.5 x 24 x 26.5 [1892 x 610 x 673]	38.7 x 20 x 23 [387 x 508 x 584]	4.06 ft³ [115L]	34.5 x 20 x 23 [876 x 508 x 584]	9.18 ft³ [260L]	52	80	120V, 50/60 Hz., 1 Ph [.82 kWh]	8.9	2218
W2-753027	74.5 x 30 x 26.5 [1892 x 762 x 673]	38.7 x 26 x 23 [387 x 660 x 584]	5.28 ft³ [150L]	34.5 x 26 x 23 [876 x 660 x 584]	11.93 ft³ [338L]	52	120	120V, 50/60 Hz., 1 Ph [.90 kWh]	12.5	3071

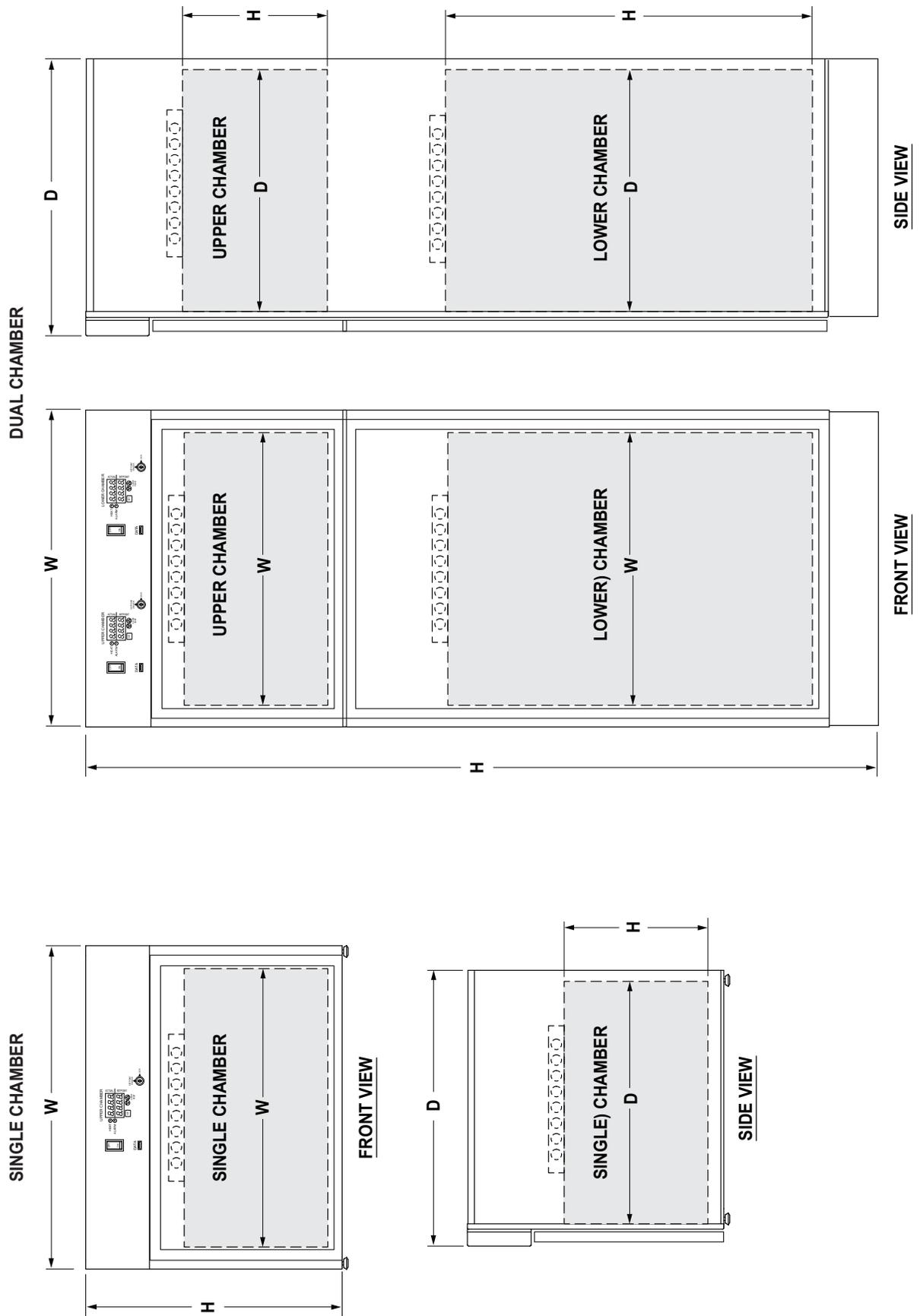


Figure 1. Cabinet Dimensions

### 3-1. Introduction

SKYTRON offers many models of Warming Cabinets to meet each facility's unique needs:

- Compact size with one warming compartment (Figure 2).
- Mid size for areas that need more than a counter top version but less than a full size unit (Figure 3).
- Full size with a single warming compartment (Figure 4).
- Dual chamber with upper and lower compartments for maintaining different heated goods at different temperature settings (Figure 5).

The Warming Cabinets are designed to provide heated storage of blankets, sterile water and saline solutions used in the care of patients by healthcare facilities. The warming cabinet body is double walled stainless steel with insulation for increased heating efficiency. Doors are double panned; stainless steel or tempered glass, framed with extruded aluminum.

Heated air is circulated over the contents by fan(s) providing an even heat distribution. Once a set temperature is selected and obtained it will be controlled throughout within  $\pm 3^{\circ}\text{F}$  ( $1.7^{\circ}\text{C}$ ) of the selected temperature. From a cold start, each compartment's loaded contents will be evenly heated to a setpoint within 8 to 12 hours. In the event of power loss the warmer will resume normal function once power is restored.



Figure 2. Compact Model

### 3-2. Power Requirements

The warming cabinet requires a properly grounded 120VAC, 50/60Hz 15Amp electrical power supply. The cabinet is equipped with a 7 foot (2.3 m) long, 14-3 SJT power cord with a 120V (NEMA 15P)

hospital grade plug. The power cord is located at the rear of the cabinet in the upper left hand corner. The main power ON/OFF switch/circuit breaker is located on the front control panel next to the display.

Dual-chamber cabinets with standard controls have individual ON/OFF switches for each chamber. Each switch is clearly labeled UPPER and LOWER for the dual chamber cabinet. Models with optional touch screen control have a single ON/OFF switch for all chambers.



Figure 3. Mid Size Model

### 3-3. Start-Up Procedure



#### WARNING

**Explosion or Fire Hazard: DO NOT use Warming Cabinet in the presence of flammable anesthetics or solvents. Loading any item that could introduce flammable agents into the cabinet atmosphere can cause a fire or explosion.**

Plug power cord into a properly grounded 120VAC electrical outlet. Press the ON/OFF Switch, on the front control panel, to the ON position. For dual-chamber models press the ON/OFF Switch to the ON position for each chamber. The display should illuminate with the current chamber temperature (Actual) and the setpoint temperature.



Figure 4. Full Size Model

## 3-4. Turning Warmer On.

 **WARNING**

**Explosion or Fire Hazard: DO NOT use Warming Cabinet in the presence of flammable anesthetics or solvents. Loading any item that could introduce flammable agents into the cabinet atmosphere can cause a fire or explosion.**

1. Make sure power cord is plugged into a properly grounded 120VAC electrical outlet.
2. Press switch to the ON position. Display shows the actual chamber temperature.



Figure 5. Dual Chamber Model

## 3-5. Loading Warming Cabinet

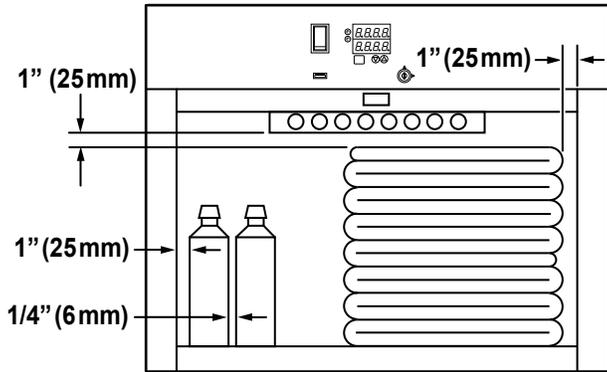
 **CAUTION**

**Burn Hazard: Use personal protective equipment when loading contents into cabinet. Avoid contact with hot surfaces that may cause burns.**

SKYTRON recommends personal protective equipment while loading or unloading contents.

Load only sterile water, saline solutions, or (Muslin, 100% cotton or wool) blankets. Do not warm synthetic blend fabrics or items containing plastic, rubber, or metal snaps, studs, hooks etc. Check that the shelf is on its' supports prior to loading. The blanket shelf is perforated to facilitate even heating and must be used to hold blankets.

Contents should be loaded to allow for a minimum of one inch from the top, back and sides of the compartment. Minimum spacing of one quarter inch between fluid containers is recommended for evenly distributed heating (Figure 6).



**Figure 6. Content Spacing**

For efficiency, bagged solutions should be placed on shelves, stacking fluid bags increases the heating time required to achieve set temperature.

Blankets must be folded and stacked to allow a one inch minimum space from the sides, back and top of the compartment or shelf above. Stacked blankets are not to protrude past the front edge of the shelf.

In case of power failure the unit will resume normal operation when power is restored. Follow the fluid manufacturer’s guidelines for unused solutions that have cooled or been removed from heated storage.

**CAUTION**

**Injury and Burn Hazard: Use personal protective equipment when unloading Warming Cabinet. Internal surfaces are hot, glass may shatter when cooled suddenly and solution bags or bottles may burst when picked up.**

Rotate warmed contents on a first-in first-out basis, failure to do so may cause cold or discolored contents.

**WARNING**

**Injury or Burn Hazard: DO NOT use liquids on or inject in living tissue unless actual temperature has been measured as acceptable. The temperature of the warming cabinet content may be hotter than displayed. For patient safety, in accordance with optimal practice, always verify liquid temperature prior to using.**

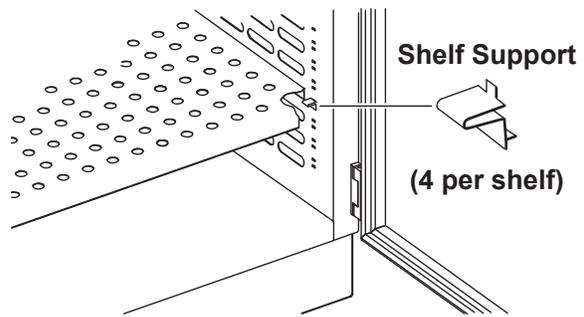
**3-6. Maximum Warming Temperature Limit for Patient Safety**

The table below shows maximum warming temperatures as recommended by the Emergency Care Research Institute (ECRI).

Items to be Warmed	Max Temperature Limit
Liquid Solutions for use on living tissue.	110°F [43°C]
Blankets	130°F [54°C]

**3-7. Adjusting Shelf**

1. Turn power OFF to the heating chamber.
2. Allow to cool, unload contents and remove shelf.
3. Remove four shelf supports by compressing the support and twisting the bottom outward toward the middle of the chamber (Figure 7).



**Figure 7. Shelf Support**

4. Insert top tab into upper slot of the new position, compress the support and rotate downward until the bottom tab snaps into the lower slot.
5. Count the mounting locations at each corner of the chamber to be sure the shelf will be level and install the remaining supports.
6. Install shelf with notches aligned with the supports. Pull shelf outward to insure it is secured.

### 4-1. Standard Controls

The controls are located on the upper panel on the front of the cabinet. For dual-chamber cabinets there are individual controls for each chamber. Each control is clearly labeled UPPER and LOWER for the dual chamber cabinet (Figure 8).



Figure 8. Standard Data Control Panel

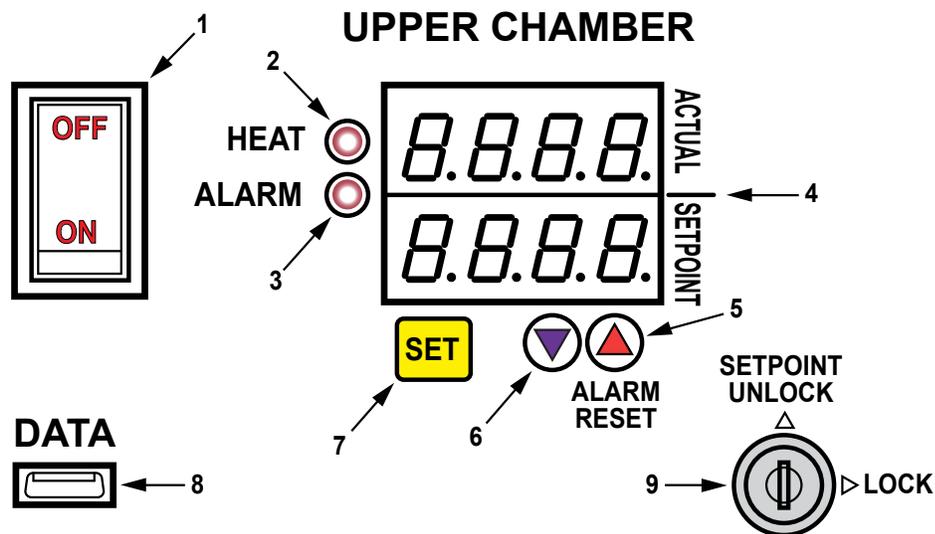


Figure 9. Control Components

1. ON/OFF Switch/Circuit Breaker – provides power to the warming compartment and control.
2. HEAT light – visual indicator that the heating system is active
3. ALARM light – visual indicator of an overhear condition.
4. Display – shows the current chamber temperature (Actual) and the setpoint temperature in Fahrenheit (F) or Celsius (C). The display also provides Loss of Power and the Overheat (alarm). The overheat alarm is an audible and visual display 'HI'.
5. Up ▲ – used to adjust the setpoint of the chamber and silence the audible overhear alarm.
6. Down ▼ – used to adjust the setpoint of the chamber.
7. SET Button – press to use the Up/Down arrows to change the setpoint temperature and press again to lock the new value.
8. DATA port – USB port used to retrieve temperature values for a set period of time.
9. Key switch – used to lock out any changes to the control.

#### 4-1-1. Setpoint Temperature Range

**! CAUTION**

**Burn Hazard: DO NOT raise the setpoint to increase heating rate. On dual chamber models, do not exceed 30° F (16.7 °C) higher than an upper chamber. Example: Upper chamber 110° F (43 °C) lower chamber must not exceed 140° F (60 °C). This could overheat contents leading to possible patient burns.**

Temperature settings for fluids vary depending on use or manufacturer. Always refer to AORN guidelines and the fluid manufacturer's recommendations for proper temperature settings.

**! WARNING**

**Explosion Hazard: DO NOT exceed 150° F (66 °C) for non-vented closures; screw caps, crimp seals, plastic pouches, etc. DO NOT exceed pre-sterile solution manufacturer's temperature requirements.**

All warming chambers setpoint temperature range are preset to minimum 90° F (32 °C) and maximum 160° F (71 °C).

All loads should be allowed time to stabilize at the Setpoint temperature:

Solutions - Approximately 8 to 12 hours

Blankets - Approximately 6 to 8 hours

#### 4-1-2. Selecting Temperature Setpoint

1. Press the temperature control SET button. The setpoint temperature will change and the last digit will flash.

**! CAUTION**

**The temperature limit, as recommended by ECRI, for warming solutions is 110° F (43 °C). Solutions warmed above 111° F (44 °C) can cause second degree burns. Recommended ECRI temperature limit for blankets is 130° F (54 °C). Even slightly higher temperatures have been associated with patient burns.**

2. Use Up arrow to raise setpoint or Down arrow to lower setpoint to desired temperature.

If the setpoint is more than 10° below the actual temperature, the HI temperature alarm will activate. Press ALARM RESET (▲ up arrow) until it quits. Turn off the chamber and wait for the contents to cool adequately.

3. To prevent adjustment to the setpoint, lock the control with the Key switch.

#### 4-1-3. Shutdown Procedure

All SKYTRON warmers are equipped with a monitoring program that stores actual chamber temperatures in 30 minute intervals. The information may be down loaded to a USB drive at any time.

1. Insert the SKYTRON flash drive (W0600-S) or equivalent into the USB port marked DATA, on the front face of the control panel.
2. The display will change from actual temperature to displaying a code (Figure 10).



**Figure 10. Data Download Code**

3. Once the transfer is complete, the display will return to normal operation.
4. Remove the flash drive.

The information may be accessed on any PC that has an Excel compatible program.

## 4-2. Touch Screen Controls

The touch screen is located in the center of the upper panel at the front of the cabinet. A single touch screen controls single or dual chamber cabinets (Figure 11).

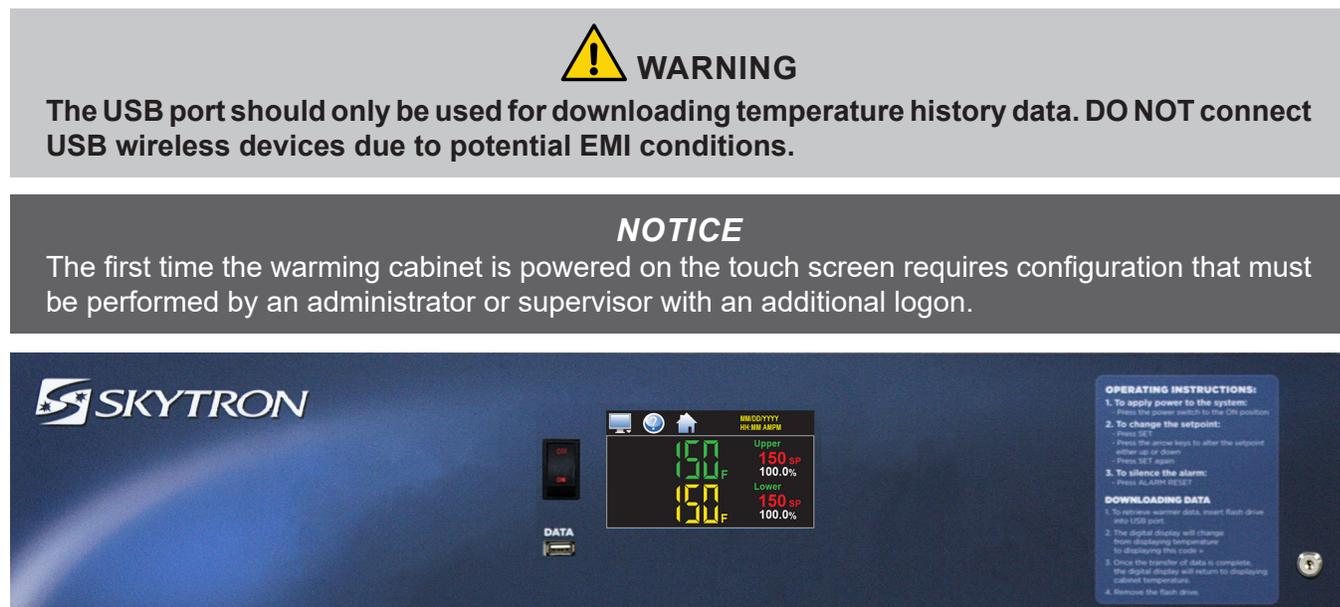


Figure 11. Touch Screen Control Panel.

### 4-2-1. Touch Screen Interface

The touch screen display (Figure 12).

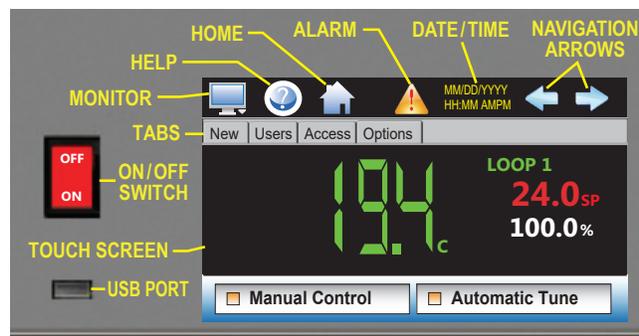


Figure 12. Touch Screen Controls

### CAUTION

Avoid damage to the touch screen. DO NOT use sharp or metallic objects and make sure hands are free of oils or other chemicals when touching the screen.

Monitor icon opens the main menu for navigating to different screens: security, data, setup, etc.

Help icon displays instructions for current screen.

Alarm icon appears and flashes when an alarm occurs. Touch icon to open alarm monitor screen.

The Left/right Navigation Arrows scroll to additional information, charts or program entry screens. Up/down arrows scroll through lists (touch swiping is also provided). Tapping an arrow will scroll to the next item, touching will continue scrolling until released.

The touch screen provides both text based PC style menus and icon based/slide page navigation menus. Either type can be selected at any time from the Navigation screen (Figure 13).

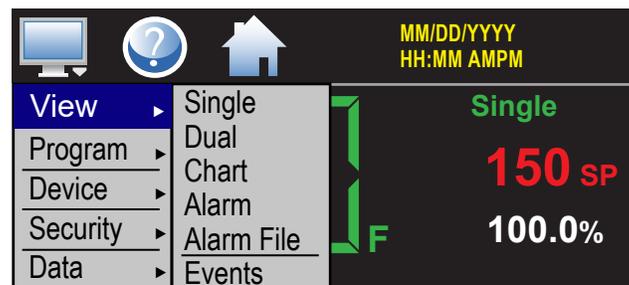


Figure 13. PC Style Navigation Menu

### 4-2-2. User Login/Log Off

1. LOG ON. Touch: (1)Home (2)Monitor (3)swipe left-to-right, touch (4)Login (Figure 14).

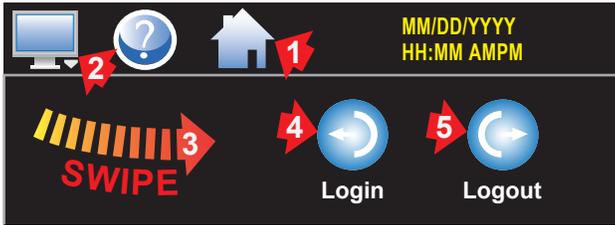


Figure 14. Login Icon

2. Touch keypad User box, key (1)User name. Touch keypad Pwd box, key (2)Password. Touch (3)Done. (Figure 15).



Figure 15. Touch Keypad

3. LOG OFF. Touch: (1)Home (2)Monitor (3)swipe left-to-right, touch (5)Log Off. A pop-up will ask if you want to log off. Select YES to log off or NO to abort (see Figure 14).

### 4-2-3. Touch Screen Navigation Style

Select text based PC style menus or icon based/slide page navigation menus (see Figure 13).

1. Touch: (1)Home (2)Monitor (3)swipe left-to-right, touch (4)Settings (5)Navigation (Figure 16).

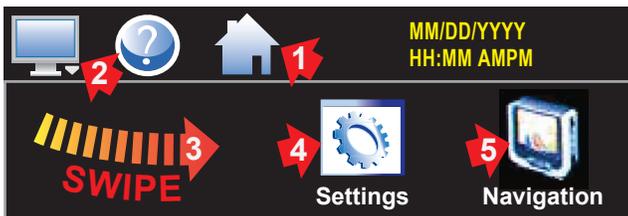


Figure 16. Settings & Navigation Icons

2. Touch menu type, indicator will illuminate to indicate current selection (Figure 17).

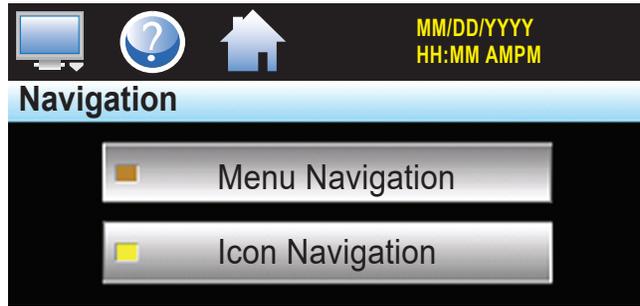


Figure 17. Navigation Selection Screen

### 4-2-4. Audit Trail

The audit function records all user changes (set point, start/stop data logging, alarm set point, etc.) for a day. Audit files can be stored for a year or longer based on history storage. If no changes occurred, an audit file will not be created for that day

Actions recorded include: date/time, occurrence and user (if logged in). If not logged in, the default user is "Device Manager".

The Email icon allows a copy of the currently opened audit trail file to any user configured in the controller.

1. Touch: (1)Home (2)Monitor (3)swipe screen left-to-right, touch (4)Audit icon (Figure 18).

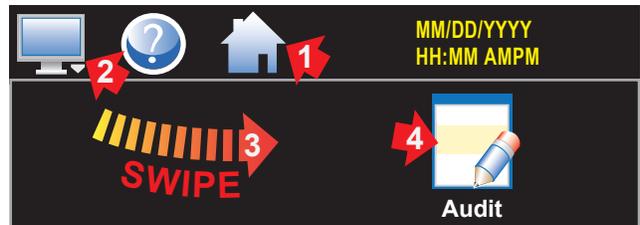


Figure 18. Audit Icon

2. Audit File screen, touch (1)Open (2)select file (1)Open. To Email a copy of the opened file, touch (3)Email icon (4)select recipient from the Select Email Address pop-up. Touch (5)Send (Figure 19).



Figure 19. Audit File Screen

#### 4-2-5. Notifications

Current settings, operational conditions and the current logged in user can be quickly viewed.

Touch: (1) yellow time/date to open a drop-down list. Swipe (2) down-up to view the whole list. Touch (1) time/date to close the list (Figure 20).

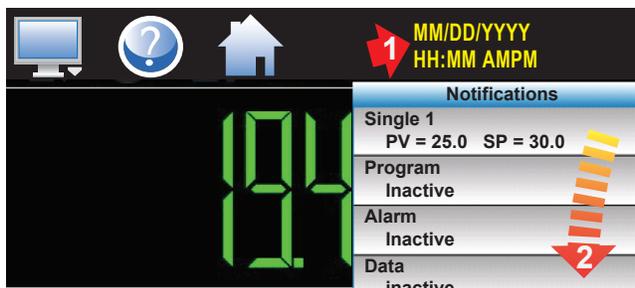


Figure 20. Notifications List

#### 4-2-6. Temperature Setpoints

All warming chambers setpoint temperature range are preset to a minimum 90° F (32 °C) and maximum 160° F (71 °C).

Temperature settings may be changed at any time. An alarm will activate if the setpoint is changed more than 10° below the actual temperature.

All loads should be allowed time to stabilize at the Setpoint temperature:

- Solutions - Approximately 8 to 12 hours
- Blankets - Approximately 6 to 8 hours

Temperature settings for fluids vary depending on use or manufacturer. Always refer to AORN guidelines and the fluid manufacturer's recommendations for proper temperature settings.

 **CAUTION**

**Burn Hazard: DO NOT raise the setpoint to increase heating rate. On dual chamber models, do not exceed 30° F (16.7 °C) higher than an upper chamber. Example: Upper chamber 110° F (43 °C) lower chamber must not exceed 140° F (60 °C). This could overheat contents leading to possible patient burns.**

 **WARNING**

**Explosion Hazard: DO NOT exceed 150° F (66 °C) for non-vented closures; screw caps, crimp seals, plastic pouches, etc. DO NOT exceed pre-sterile solution manufacturer's temperature requirements.**

Home screen shows current temperature - green, setpoint - red, output percent - white (Figure 21 & Figure 22).

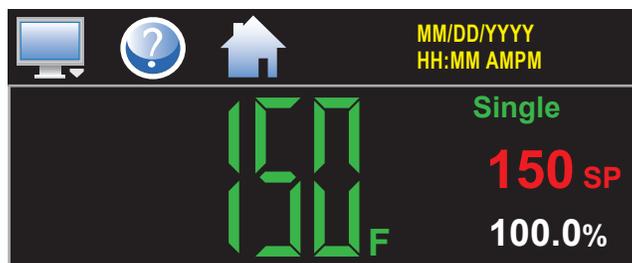


Figure 21. Single Chamber Home Screen

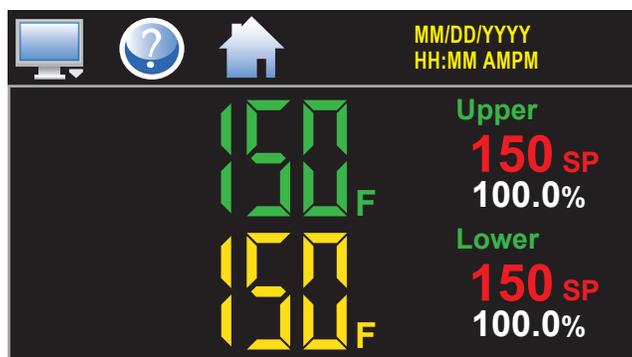


Figure 22. Dual Chamber Home Screen

Change setpoint: touch red set point(s) to open keypad (Figure 23). Key new set point, touch Done. New set point appears on screen.

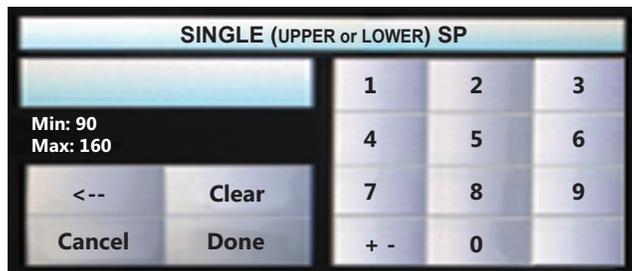
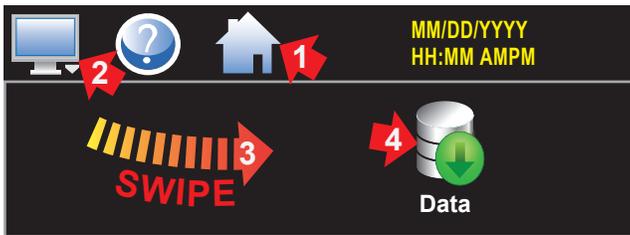


Figure 23. Setpoint Keypad

**4-2-7. Data File**

**–Data File Naming**

1. Touch: (1)Home (2)Monitor (3)swipe screen left-to-right, touch (4)Data (Figure 24).

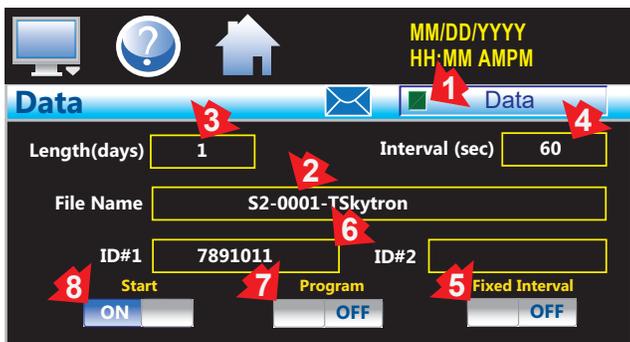
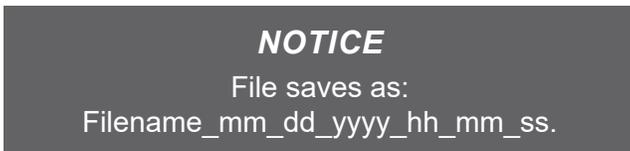


**Figure 24. Data Icon Screen**

2. Data screen, Touch: (1)Square in Data box, turns dark green to allow input (2)File Name box opens keypad—see Figure 15. Key file name - max 16 characters, touch Done

**–Data Logging**

1. Touch: (3)Length(days) box opens keypad—see Figure 26. Key 1-to-31 days to be logged—once elapsed a new file is started (Figure 25).



**Figure 25. Data Screen**

2. Touch: (4)Interval (sec) opens keypad (Figure 26). Key 2-to-1860 seconds, duration data will be logged (5)Fixed Interval must be OFF.



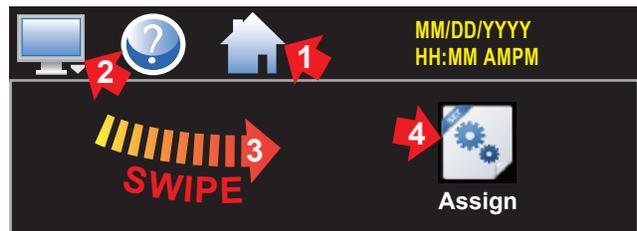
**Figure 26. Interval (secs) Keypad**

3. Touch: (6)ID#1 or #2 for added file identification. If: (5)Fixed Interval is ON, interval is based on Length(days) with 1 day equal to a 1 minute interval, 7 days, the logging rate is every 7 minutes. (7)Program OFF. Touch (8)ON automatically turns on data logging (see Figure 25).

**–Data Logging Variables**

Variables must be assigned to the data file. Choose which data points are to be logged by touching the Assign icon.

1. Touch: (1)Home (2)Monitor (3)Swipe left-to-right, touch (4)Assign icon to open Assign screen (Figure 27).



**Figure 27. Assign Icon**

2. At Assign screen, Slide ON: (1)Upper Temp PV (2)Upper Temp %Out (3)Lower Temp PV. Touch (4)Save, Data file settings have been saved pop-up, touch OK (Figure 28).



**Figure 28. Assign Screen - Dual Chamber**

**4-2-8. Chart Setup**

**–Real-time charts**

Display PV, SP and %Out. Vertical axis determine range horizontal axis determine time period maximum of 24 hours.

1. Touch: (1)Home (2)Monitor (3)Swipe left-to-right, touch (4)Chart (Figure 29).

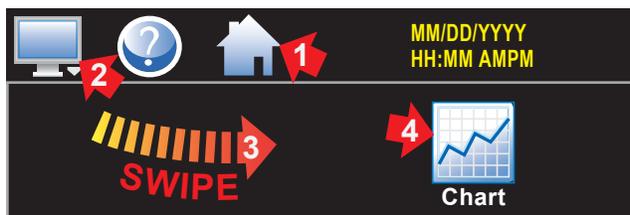


Figure 29. Chart Icon Screen

- At Chart screen, touch (1)Labels to verify color and values (2)Scroll arrows cycle through each chart. Touch and draw a box around an area and pull back to zoom in. Touch (3)X or Y axis to return to previous setting. Zoom normal for full display. Touch (4)Set to open setup (Figure 30).

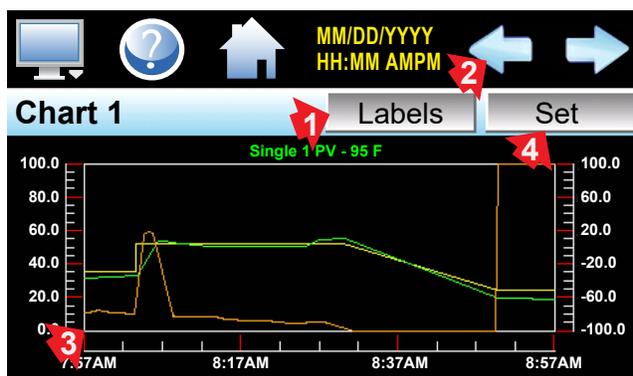


Figure 30. Chart Screen

- At Chart screen, touch (1)On/Off for data points required. Select (2)data point, then (3)On/Off for Left or Right axis. Touch (4)Save (5)Axis to adjust time and range. Right axis will not show if nothing is assigned to it (Figure 31).

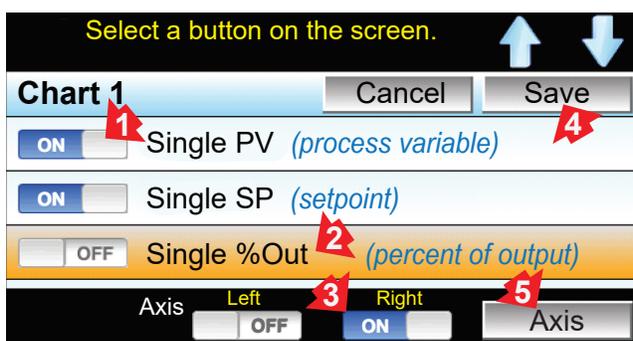


Figure 31. Chart Set Up Screen

- Touch box to open keypad. Key: (1)Time Period (minutes) key 4 to 1440 minutes (2)Maximum (3)Minimum – range of vertical axis. Slide: (4) On/Off Automatic Scale to automatically adjust vertical axis as needed. Input Right values if required (5)Return (Figure 32).

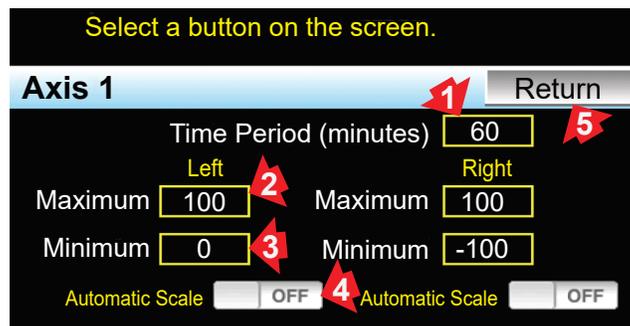


Figure 32. Vertical Axis Range

### -USB File Transfer

- Copy from and import files to internal memory. Insert USB into cabinet front. Touch: (1)Home (2)Monitor (3)swipe left-to-right, touch: (4)Data (5) Monitor (6)USB icon (Figure 33).

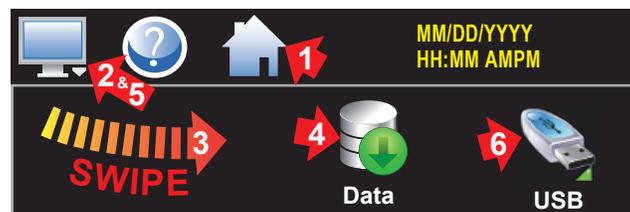


Figure 33. Data Menu - USB Icon

### CAUTION:

All files are saved to internal memory (not USB). To avoid loss of data, do not unplug internal memory card when the interface is powered up.

- Touch: (1)Export Type drop-down arrow. Select: Program, Alarm, Audit, or Data. (2)slide ON: Copy, or Copy/Delete, or Import. Files copy to/ from USB with progress bar (Figure 34).

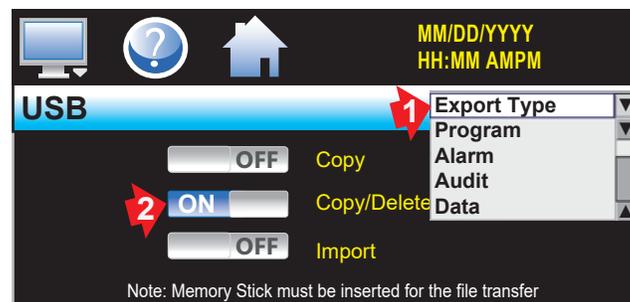


Figure 34. USB Screen

**CAUTION:**

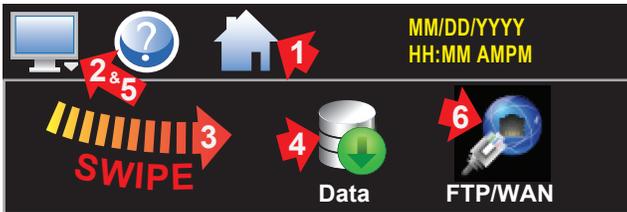
Once files are deleted, they are gone and can not be retrieved. Do Not edit, move, or delete other files, doing so can cause internal memory to malfunction.

The Import function copies program files from the USB stick to the internal memory. A directory is created for each file type:

- Programs\_mm\_dd\_yyyy-hh\_mm\_ss.
- Alarm Files\_mm\_dd\_yyyy-hh\_mm\_ss.
- Audit Files\_mm\_dd\_yyyy-hh\_mm\_ss.
- Data Files\_mm\_dd\_yyyy-hh\_mm\_ss.

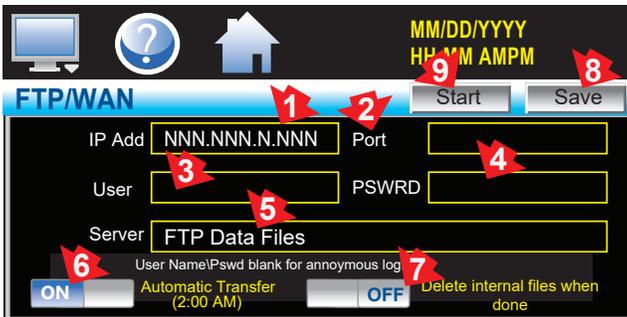
**-FTP/WAN Backup**

1. FTP/WAN automatically backs up data log, alarm, and audit trail files at 2:00 AM each day, and deletes files from the internal memory. Touch: (1)Home (2)Monitor (3)swipe left-to-right, touch: (4)Data (5) Monitor (6)FTP/WAN icon (Figure 35).



**Figure 35. FTP/WAN Icon**

2. Touch: (1)IP Add box opens keypad. Key: IP address (2)USER name (3)Password (4)Server address. Slide ON/OFF: (5)Auto Transfer (6)Delete Internal Files. Touch: (7) Save (Figure 36).



**Figure 36. FTP/WAN Screen**

Touch: (8)Start at any time to perform a manual data back-up. If the FTP site is down, an alarm message on will indicate a transmission failure.

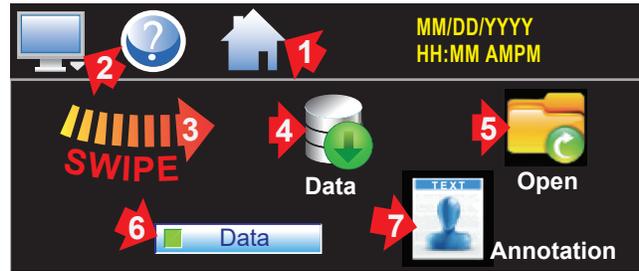
**NOTICE**

Signature screen is not available if security is disabled. System security must be enabled to digitally sign data log files.

**-Annotation**

Add messages to a data file or view messages linked to a history file. Data logging must be activated.

1. Touch: (1)Home (2)Monitor (3)swipe left-to-right, touch: (4)Data (2)Monitor (5)Open list, select file. Touch: (6)Data ~ turns light green (2) Monitor (7)Annotation (Figure 37).

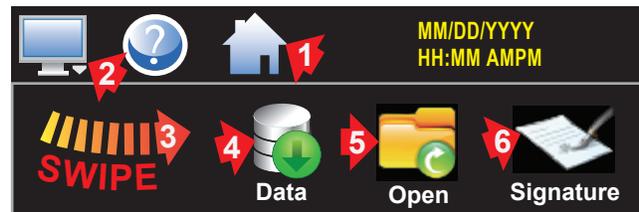


**Figure 37. Start Data Logging Icons**

2. To add an annotation, touch Entry field to open keypad. Key up to 16 characters,touch.
3. Touch the ADD button to add message to the file. A history file annotation will show immediately.

**-Digital Signature**

1. Viewsignature.Touch:(1)Home(2)Monitor(3)swipe left-to-right(4)Data(2)Monitor(5)Open, select: file~ trend file pop-up, YES opens chart, Touch: Return (2)Monitor (6)Signature (Figure 38).



**Figure 38. Signature Icon**

2. Verify digital signature. Touch: (1)Signature (2)Verify - system indicates signature is valid if historical data file is intact and not altered or invalid if data has been altered (Figure 39).

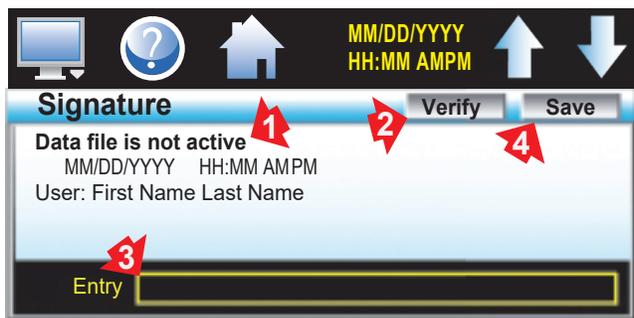


Figure 39. Signature List

3. Add signature, touch (3)Entry box, key signature, comment line and date/time ~ up to 16 characters. Touch: (4)SAVE (see Figure 39).

#### 4-2-9. Alarms

When an alarm icon flashes. Touch: (1)Alarm icon to view message. Silence alarm, touch (2)Reset. Correct the condition - only non active alarms can be cleared. Touch: (3)Alarm Message to open File (4)Clear to remove from list (Figure 40).

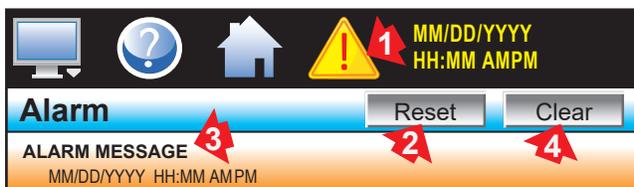


Figure 40. Flashing Alarm Notification

Alarm files are stored for one year or longer depending on volume. Files can be Emailed to any user in the system.

1. Touch: (1)Home (2)Monitor (3)swipe left-to-right, touch (4)Alarm File icon (Figure 41).

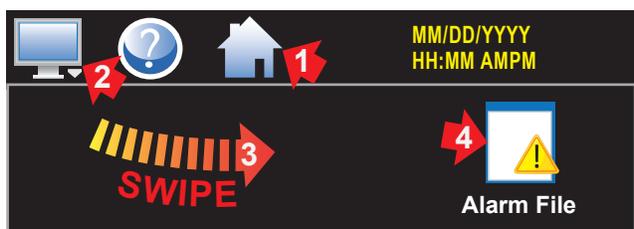


Figure 41. Alarm File Icon

2. Touch: (1)File from list (2)Open to view (3)Email icon (4)select recipients from the Select Email Address pop-up (5)Send (Figure 42).

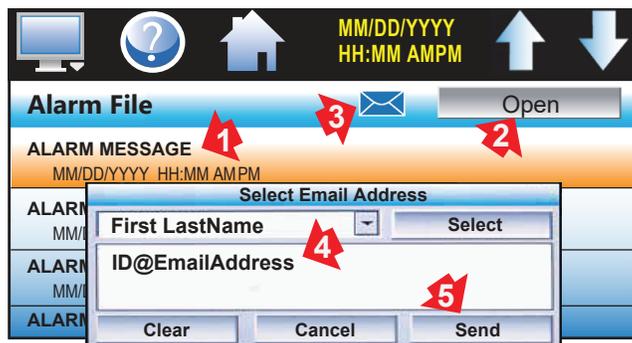


Figure 42. Alarm File Screen

#### 4-2-10. E-mail

Messages can be sent to users configured in the server. When an alarm occurs, messages can be sent to email or text addresses.

1. Touch: (1)Home (2)Monitor (3)swipe left-to-right, touch (4)Settings (5) Monitor (6)Email (Figure 43).

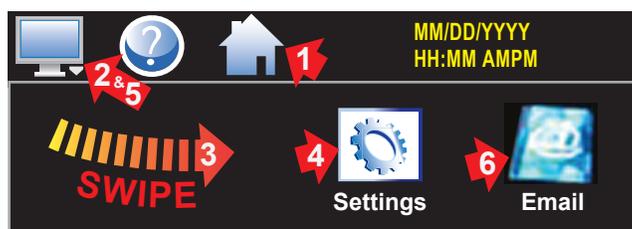


Figure 43. Email Icon

2. Add an address, touch: (1)NEW tab (2)Name (3)Email Address (4)SMS number - max 50 characters (5)On/Off - to specify Email or SMS Alarm. Touch (6)Create (Figure 44).

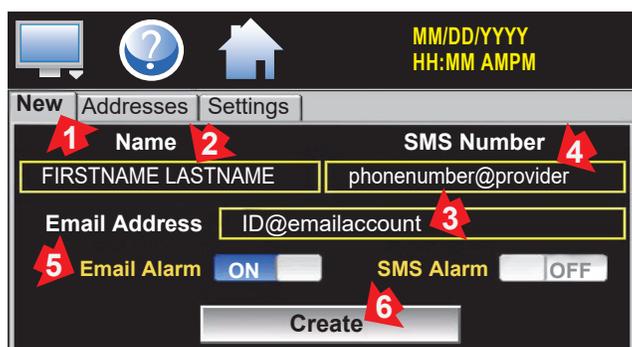


Figure 44. Add New User

#### NOTICE

The SMS Number is a unique address specific to the service provider. Contact the service provider for the proper address format.

3. View address. Touch: (1)Addresses tab - User listed. Delete a user, touch: (2)User listing (3) Delete button (Figure 45).

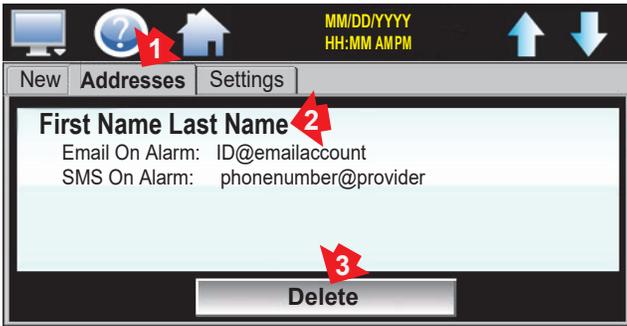


Figure 45. View & Delete User Email

4. Email Settings, touch: (1)Settings tab (2) Login box opens keypad, Key name (3)Return Address - for security/anti-spam. (4)Password (5)Address - email server. Touch (6)Subject box, Key alarm description, touch (7)Save button to store the settings. (Figure 46).

**NOTICE**

Enter something in the subject box because spam filters will block messages without subject lines.

Touch (7)Save button to store the settings. If the server is down or system not connected, an alarm screen will indicate a failure.

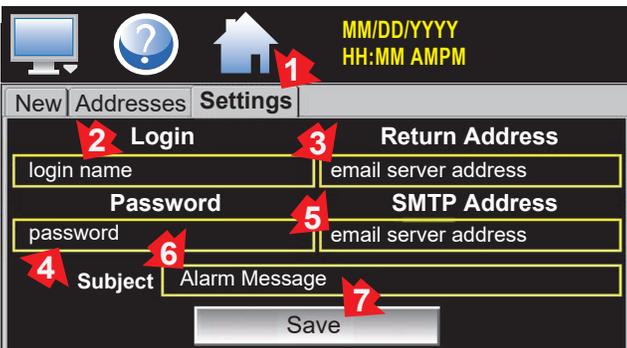


Figure 46. Email Server Configuration

5. Send messages to others in the server. Touch Message icon from the Settings screen, Email menu. Touch (1)Compose button to create a message (100 characters max). When finished, touch the Done key. The completed message (2) will be shown in the message window. Touch (3) Send button and select the recipients. Touch (3)Send button (Figure 47).

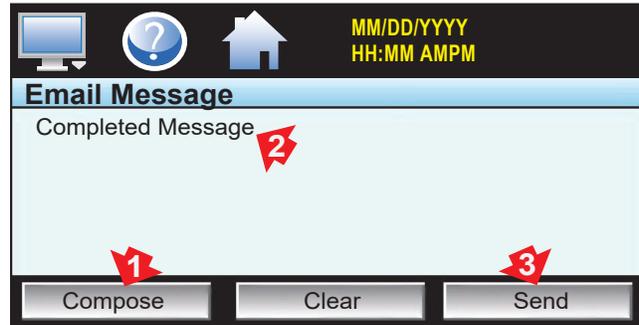


Figure 47. Compose & Send Email

#### 4-2-11. Touch Screen Administration

The touch screen requires configuration that must be performed by an authorized systems administrator or supervisor.

Administrators should reference the Administrator's Manual for information on configuring the touch screen for tasks such as but not limited to:

- Creating user accounts
- Setting user access
- Changing passwords
- Selecting temperature units
- Calibrating the unit
- Reset alarms

### 5-1. Cleaning

Clean all exterior and interior surfaces of the warming cabinet as needed with a damp towel and a mild non-abrasive detergent. Rub surfaces in a back and forth motion in the direction of the grain, do not wipe in a circular motion or perpendicular to the grain.

### 5-2. Sterilization



#### WARNING

**Explosion Hazard: DO NOT exceed 150° F (66 °C) for non-vented closures; screw caps, crimp seals, plastic pouches, etc. DO NOT exceed pre-sterile solution manufacturer's temperature requirements.**

Always follow current AORN Journal Guidelines to ensure proper cleaning and disinfection procedures.

### 5-3. Operator Maintenance



#### CAUTION

**Injury Hazard: The Warming Cabinet design allows limited user serviceable parts or procedures. For optimal product usage, safety and durability, service must be performed by a SKYTRON authorized service technician using SKYTRON authorized replacement parts and service techniques.**

Users are responsible for the thorough inspection of the equipment prior to and after each use. Should any problems or deficiencies arise the results must be reported to the facilities maintenance personnel. The safety of personnel and patients relies on the proper and routine maintenance of this equipment.

It is recommended to perform preventative maintenance on the SKYTRON Warming Cabinets every six months or when any service is performed.



#### WARNING

**Injury and Burn Hazard: Disconnect the AC power cord and allow the warmer to cool before performing preventative maintenance.**

Every six months the following must be completed:

1. Turn off the power and unplug the warmer from the power source.
2. Use a damp cloth and mild non abrasive detergent wipe all surfaces in a back and forth motion in the direction of the grain, do not wipe in a circular motion or perpendicular to the grain.
3. Clean all exterior surfaces
4. Remove all contents and clean all shelving, all interior chamber walls, floor and ceiling starting at the top and working your way down
5. Restore power to the warmer and allow temperatures to stabilize prior to loading solutions and blankets.

**5-4. Preventative Maintenance**

Warming Cabinet preventative maintenance must be performed by SKYTRON authorized service personnel using SKYTRON certified replacement parts and service techniques. Preventative maintenance contracts are available; to obtain SKYTRON authorized service or a preventative maintenance contract, contact your SKYTRON representative or write or call:

**SKYTRON**  
**5085 Corporate Exchange Blvd.**  
**Grand Rapids, MI 49512**  
**616-656-2900 FAX 616-656-2906**  
**www.skytron.us**

The specific items listed in the Warming Cabinet Maintenance Matrix shall be inspected and repaired or replaced as necessary.

<b>Warming Cabinet Maintenance Matrix</b>	
<b>Component</b>	<b>Inspection Interval</b>
Air Circulation Fan	6 months Replace every 2 years
Heating Element	3 years
Temperature Controller	2 years
Thermal Switch	3 years
Door Switch	1 year
Thermocouple	5 years

The suggested time intervals are intended as a guideline only and will vary by use and conditions. For optimal usage, safety and durability of the product, service must be performed by a SKYTRON authorized service technician using SKYTRON authorized replacement parts and service techniques.

SKYTRON Maintenance Manuals are available upon request, however SKYTRON requires facility service personnel to complete applicable service training. For a syllabus, schedule, availability, cost and overview; logon [www.skytron.us](http://www.skytron.us) and click TRAINING. If you are interested in attending a training session, contact your SKYTRON representative for sponsorship.

**5-5. End Of Useful Life And Disposal**

The end of the useful life for the SKYTRON Warming Cabinet is 10 years under normal operating conditions, service parts are available for this period.

Contact your SKYTRON representative for disposal instructions regarding the Warming Cabinet or parts in accordance with current environmental regulations for medical products.

Environmental Protection: Ensure the proper disposal methods whenever disposing of old or damaged parts. Always follow Federal, State and Local regulatory standards.

The following alert messages and operating conditions will occur when the warming cabinet is operating outside of acceptable conditions.

### 6-1. Standard Controls Troubleshooting Guide

ALERT/CONDITION	ACTION REQUIRED
<i>Er 1</i>	Reversed Thermocouple Connection ± check connection first then replace and calibrate.
<i>Er 2</i>	Temperature Probe Sensor Type Mismatch or Open RTD
<i>Er 3</i>	Temperature Probe Sensor Type Mismatch
<i>Er 4</i>	Open Thermocouple, Bad Connection, Broken Wire – check connection first then replace and calibrate.
<i>Er 5</i>	Electrical Noise
Blank Display	Control is Inoperable – check connection first then replace and calibrate.
<i>HI</i> with audible alarm	Cabinet temperature is 10° F (5.5 °C) higher than setpoint – silence the alarm by pressing ALARM RESET (Up ▲ arrow) and open door(s) to allow chamber to cool.
<i>LLLL</i>	Input temperature is lower than input range – check temperature probe and connections. See below for additional troubleshooting
<i>HHHH</i> with audible alarm	Input temperature is higher than input range – check temperature probe and connections. See below for additional troubleshooting
<i>OPEn</i> with audible alarm	Temperature probe is in fault – check connection, then replace and calibrate.
<i>JIC</i> continuous or flashing	Control failure – check connection first then replace and calibrate.
Unit will not power up	<ol style="list-style-type: none"> <li>1. Check outlet for power</li> <li>2. Check if warmer is plugged in</li> <li>3. Check if the ON/OFF switch/circuit breaker is turned on</li> <li>4. Check the fuse on the incoming supply</li> <li>5. Check for power at the junction box in the control panel</li> <li>6. Contact your SKYTRON authorized service representative</li> </ol>
Chamber does not heat	<ol style="list-style-type: none"> <li>1. Is the power turned on?</li> <li>2. Is temperature set above chamber ambient temperature?</li> <li>3. Is the circulation fan operational? Open the door and press in on the door switch</li> <li>4. Is there voltage on the output terminal of the controller?</li> <li>5. Is the thermal overload "OPEN" ?</li> <li>6. Is the door(s) closed?</li> <li>7. Contact your SKYTRON authorized service representative</li> </ol>
Over temperature alarm <i>HI</i> is activated	<ol style="list-style-type: none"> <li>1. Is the circulating fan operational?</li> <li>2. Are the contents loaded properly?</li> <li>3. Has the chamber set temperature been lowered</li> <li>4. Temperature of the lower chamber cannot be in excess of +30°F (+16 °C) above the upper chamber</li> <li>5. Contact your SKYTRON authorized service representative</li> </ol>

#### Overheat Alarm (HI) Condition

When chamber temperature exceeds the setpoint by 10° F (5 °C) or set temperature is lowered by more than 10° F (5 °C), the display will read HI and the audible alarm will sound. Turn the chamber off and press Alarm Reset button until it quits.

Wait for contents to cool to unload, then reload the contents. Turn the chamber on and monitor performance. If it continues to overheat to an alarm (HI) condition, turn off the chamber and contact your SKYTRON authorized service personnel.

## 6-2. Touch Screen Controls Troubleshooting Guide

Alarm Description	Explanation/Corrective Action
Over Temperature Alarm is Activated	<ol style="list-style-type: none"> <li>1. Is the circulating fan operational?</li> <li>2. Are the contents loaded properly?</li> <li>3. Has the chamber set temperature been lowered?</li> <li>4. Lower chamber temperature cannot be in excess of +30° F (+1.1 °C) above an upper chamber.</li> </ol> <p>When cabinet temperature exceeds the setpoint by 10° F (5 °C) or the set temperature is lowered by more than 10° F (5 °C), the display will flash the Alarm icon and an audible alarm will sound.</p> <p>Turn off the chamber and wait for the contents to cool adequately. Unload the contents using personal protective equipment to avoid injury. Reload contents using proper loading guidelines stated in this manual.</p> <p>Turn on the chamber and monitor performance. If the chamber continues to overheat and the alarm sounds, turn off the chamber and contact your authorized service personnel.</p>
"Tagname" A to D Converter Failure	(error code 40) Indicates that the analog to digital converter in the data series controller indicated by "tagname" has failed. Return to factory for repair or replace.
Auto Tune Failed for "Tagname"	(error code 26) Indicates that auto tune was unable to execute properly for the data series controller indicated by "tagname" Verify that PB>0 and TI>0 before starting auto tune. Try manual tuning instead of auto tuning if the process has a very slow response.
"Tagname" Cold Junction Failure	(error code 30) Indicates that the cold junction compensation in the data series controller indicated by "tagname" has failed. Return to factory for repair and replace.
Communications Error with "Tagname". Check Cable.	Check communication wiring between COM2 of the system touch screen and the data series controller indicated by "tagname" Verify that the data series control has the proper communications address and communications settings.
"Tagname" EEPROM Failure	(error code 29) Indicates that the memory in the data series controller indicated by "tagname" has failed. Return to factory for repair or replace.
Email Error! Check Cable or Server Down.	Indicates that system was unable to send an alarm message through the mail server. Verify that system is properly connected to the network and that the email settings and addresses are valid.
FTP! Check Cable or Server Down.	Indicates that the FTP back-up attempt of the data files failed. Verify that system is properly connected to the network and that the FTP settings are valid. If system is not connected to a network, disable the FTP data back-up to prevent seeing this alarm.
NTP Ping Failed. Check Cable	Indicates that system was unable to synchronize its clock with the selected national time server. Verify that system is properly connected to the network and the selected time server is accessible. If system is not connected to a network, disable the NTS clock to prevent seeing this alarm.
"Tagname" Outputs 1 and 2 Incorrectly Configured.	(error code 4) Indicates that the control data series configuration for the data series controller indicated by "tagname" is not valid and must be corrected to clear the alarm. Check and correct setup values of output 2, PB, TI and output 1. If output 2 is required for cooling control, the control should use PID mode (PB > 0, TI > 0) and output 1 should use reverse mode (heat action), otherwise don't use output 2 for cooling control.
Program Run Error. "loop 1" and "loop 2" are Not Synchronized.	<p>Alarm applies to dual systems only and indicates that the running program (in each control) is operating with a difference of more than 1 minute between the steps programmed for each system.</p> <p>NOTE: This alarm does not affect program operation. To clear alarm, stop the program. If alarm will not clear, but the program indicates it is off, select "Stop" from the Program menu and try to clear the alarm again.</p> <p>The timing accuracy of the system data points controls is + 30 seconds per month. This may cause one system control to execute the program slightly faster than the other. For programs with long term operation, weeks of months, one system may get significantly ahead of the other causing it to begin its next ramp or soak step ahead of the other affecting product or test results.</p> <p>Verify that the program end set point configuration for each system is set to the same function. Verify that the event input functions (if used) are configured for the same function.</p>
"Tagname" Sensor Break	Check sensor wiring for the system controller indicated by "tagname". Verify lead connections. If sensor requires power, verify power to sensor.

NOTES

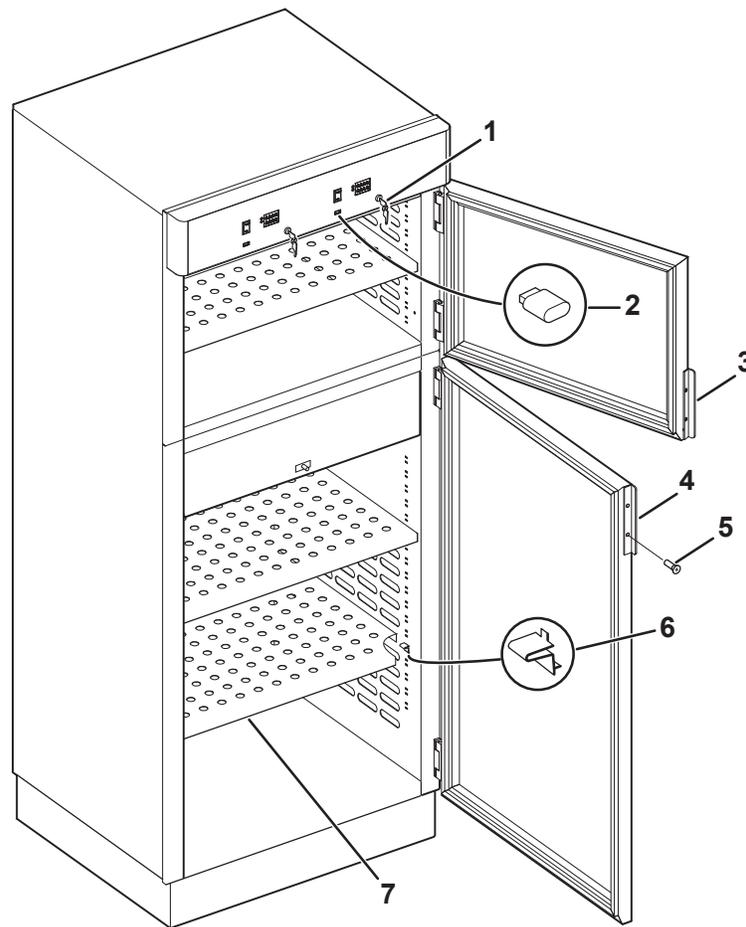
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Warming Cabinet replacement parts listed in this section have been identified by SKYTRON as serviceable by facility personnel and are available for purchase. Replacement parts shown below refer to both single and dual chamber models. To obtain SKYTRON certified parts and authorized service, contact your SKYTRON representative.

**CAUTION**

Any parts or assemblies not listed in this section must be serviced or replaced by SKYTRON authorized service personnel only. This is necessary to avoid any possibility of damage to the equipment.

7-1. SINGLE AND DUAL CHAMBER REPLACEMENT PARTS



Item	Part No.	Description	Qty.
1	W0102-KEY	Key Only - Key Lockout, two (2) keys per set.....	AR
2	W0600-S	USB Drive, Data Retrieval.....	AR
3	W0050	HANDLE, Stainless Steel Door, LH Upper, RH Lower.....	1
	W0050-CH	HANDLE, CuVerro antimicrobial, Steel Door, Dual Chamber, Upper.....	1
	W0053	HANDLE, Glass Door.....	1
	W0053-CH	HANDLE, CuVerro antimicrobial, Glass Door, Dual/Single Chamber.....	1
	4	W0051	HANDLE, Stainless Steel Door, LH Lower, RH Upper.....
4	W0051-CH	HANDLE, CuVerro antimicrobial, Steel Door, Dual Chamber, Lower.....	1
	W0053	HANDLE, Glass Door.....	1
	W0053-CH	HANDLE, CuVerro antimicrobial, Glass Door, Dual/Single Chamber.....	1
	W0052-CH	HANDLE, CuVerro antimicrobial, Steel Door, Single Chamber.....	1
	5	H0006-01	8-32 X 1/2", flat undercut, use with W0050 51, three (3) per handle.....
H0008-01		8-32 X 1/2", use with W0053, two (2) per handle.....	4
6	W0043	Clip, Shelf, four (4) per shelf.....	4
7	SMW0360	Adjustable Shelf 24"W x 21"D Cabinet.....	AR
	SMW0057	Adjustable Shelf 30"W x 21"D Cabinet.....	AR
	SMW0294	Adjustable Shelf 24"W x 27"D Cabinet.....	AR
	SMW0055	Adjustable Shelf 30"W x 27"D Cabinet.....	AR

## SECTION 8. REVISION HISTORY

Date	Revision	History
07/10/2018	0	Initial release.
03/27/2020	1	Reformatted document to current Skytron standards. Revised "Intended Use" on page 5. Added section "Recommended Settings" on page 5. Added section "Maximum Warming Temperature Limit for Patient Safety" on page 12. Added USB warning to section 4-1 "Standard Controls" on page 13 and section 4-2 "Touch Screen Controls" on page 15.
01/09/2023	2	Pg 29 Added W0050-CH, W0051-CS, W0042-CS, and W0053-CH

