



**FRYMASTER®**

Your Growth Is Our Goal

# UHCTHD Touch Holding Cabinet

## Service Manual

This manual is updated as new information and models are released. Visit our website for the latest manual.



8 1 9 7 6 6 9

Part Number: FRY\_SM\_8197669 02/2021

Original Instructions



## Safety Notices

### **⚠ Warning**

Read this manual thoroughly before operating, installing or performing maintenance on the equipment. Failure to follow instructions in this manual can cause property damage, injury or death.

### **⚠ Caution**

Use caution when lifting the UHCTHD. The unit weighs 195.6 pounds (88.7 Kg). Three to four people, using standard safe lifting practices, will be necessary to handle the cabinets.

### **⚠ Caution**

DO NOT operate the UHCTHD unless it has been properly installed and checked.

### **⚠ Warning**

Use Caution when setting up, operating, or cleaning the UHCTHD to avoid contact with heated surfaces.

### **⚠ Caution**

The UHCTHD is not suitable for outdoor use. When operating this unit, it must be placed on a horizontal surface.

### **NOTICE**

IF, DURING THE WARRANTY PERIOD, THE CUSTOMER USES A PART FOR THIS FRYMASTER FOOD SERVICE EQUIPMENT OTHER THAN AN UNMODIFIED NEW OR RECYCLED PART PURCHASED DIRECTLY FROM FRYMASTER, OR ANY OF ITS AUTHORIZED SERVICE CENTERS, AND/OR THE PART BEING USED IS MODIFIED FROM ITS ORIGINAL CONFIGURATION, THIS WARRANTY WILL BEVOID. FURTHER, FRYMASTER AND ITS AFFILIATES WILL NOT BE LIABLE FOR ANY CLAIMS, DAMAGES OR EXPENSES INCURRED BY THE CUSTOMER WHICH ARISE DIRECTLY OR INDIRECTLY, IN WHOLE OR IN PART, DUE TO THE INSTALLATION OF ANY MODIFIED PART AND/OR PART RECEIVED FROM AN UNAUTHORIZED SERVICE CENTER.

### **⚠ Caution**

DO NOT position the UHCTHD near the steam or heat exhaust of another appliance.

### **⚠ Caution**

DO NOT operate the UHCTHD unless all service and access panels are in place and properly secured.

### **⚠ DANGER**

Do not install or operate equipment that has been misused, abused, neglected, damaged, or altered/modified from that of original manufactured specifications.

### **⚠ DANGER**

Keep power cord AWAY from HEATED surfaces. DO NOT immerse power cord or plug in water. DO NOT let power cord hang over edge of table or counter.

### **⚠ Warning**

Authorized Service Representatives are obligated to follow industry standard safety procedures, including, but not limited to, local/national regulations for disconnection / lock out / tag out procedures for all utilities including electric, gas, water and steam.

### **⚠ Warning**

DO NOT store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance. Never use flammable oil soaked cloths or combustible cleaning solutions, for cleaning.

### **⚠ Warning**

Operation, installation, and servicing of this product may expose you to chemicals/products including [Bisphenol A (BPA), glass wool or ceramic fibers, and crystalline silica], which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### **⚠ Warning**

Do not use electrical appliances or accessories other than those supplied by the manufacturer.

### **⚠ Warning**

Use caution when handling metal surface edges of all equipment.

### **⚠ Warning**

This appliance is not intended for use by children under the age of 16 or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision concerning use of the appliance by a person responsible for their safety. Do not allow children to play with this appliance.

**⚠ Warning**

DO NOT use this product near water – for example, near a kitchen sink, in a wet basement, near a swimming pool, or similar locations.

**⚠ Warning**

DO NOT attempt to repair or replace any component of the UHCTHD unless all power to the unit has been disconnected.

**NOTICE**

This appliance is intended for professional use only and it is to be operated by qualified personnel only. A Frymaster Authorized Servicer (FAS) or other qualified professional should perform installation, maintenance, and repairs. Installation, maintenance, or repairs by unqualified personnel may void the manufacturer's warranty.

**NOTICE**

This appliance is intended to be used for commercial applications, for example in kitchens of restaurants, canteens, hospitals and in commercial enterprises such as bakeries, butcheries, etc., but not for continuous mass production of food.

**⚠ Warning**

DO NOT use water jets or a steam cleaner to clean this equipment or installed in an area where a water jet can be used

Proper installation, care and maintenance are essential for maximum performance and trouble-free operation of your equipment. Visit our website [www.frymaster.com](http://www.frymaster.com) for manual updates.

# Table of Contents

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## Section 1 General Information

<b>Model Numbers .....</b>	<b>1-1</b>
<b>Serial Number Information .....</b>	<b>1-1</b>
<b>Service Personnel .....</b>	<b>1-1</b>

## Section 2 Operation

<b>Power Switch .....</b>	<b>2-2</b>
<b>User Interface .....</b>	<b>2-2</b>
Password .....	2-2
Press & Go Screen Icons .....	2-2
Press & Go Screens .....	2-2
Tray Specifications.....	2-3
Changing Day Parts .....	2-4
Changing Language.....	2-4
ECO Mode Screen.....	2-4
Turning Off Slots.....	2-4
Temperature Screen .....	2-4
Menu Screens.....	2-5
Setting Screens .....	2-8
Cabinet Settings Screen .....	2-8
Date & Time Screen.....	2-8
Language Screen .....	2-9
Daypart Screen .....	2-9
Zone Diagnostics Screens.....	2-9
Sound & Screen Tests .....	2-10
Errors Log Screen .....	2-10
Password Settings Screen.....	2-10
System Information Screen.....	2-11
Utilities Screen .....	2-11
ECO Mode Options .....	2-11
Loading Country Specific Menu File .....	2-11

## Section 3 Maintenance

<b>Component Identification .....</b>	<b>3-1</b>
Replacing a Heater Pad.....	3-2
Replacing a Touch Screen.....	3-3
Replacing Components in the Electronics Box .....	3-3
Updating Software.....	3-3
Exporting Files.....	3-3
Importing File .....	3-5

**Section 4  
Troubleshooting**

**Troubleshooting..... 4-1**  
Zone Diagnostics ..... 4-1  
Power Issues Troubleshooting..... 4-2  
Communication Issues Troubleshooting..... 4-3  
Temperature Too Low/Self Temp Low Issues Troubleshooting ..... 4-4  
Temperature Too High Issues Troubleshooting ..... 4-5  
Display Issues Troubleshooting ..... 4-6  
**Service Procedures..... 4-7**  
Power Supply Test ..... 4-7  
RTD Test..... 4-7  
IO Board Test ..... 4-7  
Heater/RTD Troubleshooting ..... 4-7  
Shorted Triac..... 4-7  
Heater Plate Test ..... 4-7  
Display Meanings..... 4-8

**Section 5  
Wiring Diagrams**

**UHCTHD Wiring ..... 5-1**

# Section 1

## General Information

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### Model Numbers

Models	Description
UHCTHD6	6-slot
UHCTHD3	3-slot

### Serial Number Information

UHCTHD holding cabinet serial and model numbers are located on the data plate. Data plates are located on the top right rear of the unit.

**Always have the serial number of your unit available when calling for parts or service.**

### Service Personnel

All service on Frymaster equipment must be performed by qualified, certified, licensed, and/or authorized or service personnel.

Qualified service personnel are those who are familiar with Frymaster equipment and who have been authorized by Frymaster to perform service on the equipment. All authorized service personnel are required to be equipped with a complete set of service and parts manuals, and to stock a minimum amount of parts for Frymaster equipment. A list of Frymaster Factory Authorized Servicicers (FAS's) is located on the Frymaster website at <http://www.Frymaster.com/Service>. Failure to use qualified service personnel will void the Frymaster warranty on your equipment.

## Section 2 Operation

### **⚠ DANGER**

The on-site supervisor is responsible for ensuring that operators are made aware of the inherent dangers of operating this equipment.

### **⚠ DANGER**

Do not operate any appliance with a damaged cord or plug. All repairs must be performed by a qualified service company.

### **⚠ DANGER**

Never stand on the unit! They are not designed to hold the weight of an adult, and may collapse or tip if misused in this manner.

### **⚠ Warning**

Do not contact moving parts.

### **⚠ Warning**

All covers and access panels must be in place and properly secured, before operating this equipment.

### **⚠ Warning**

Do not put heat sealed containers or plastic bags in holding cabinet. Food or liquid could expand quickly and cause container or bag to break. Pierce or open container or bag before heating.

### **⚠ Warning**

Racks, utensils, rack guides, and holding cabinet surfaces may become hot during or after use. Use utensils or protective clothing, like pan grips or dry oven mitts, when necessary to avoid burns.

### **⚠ Warning**

DO NOT use the cavity for storage. DO NOT leave paper products, cooking utensils, or food in the cavity when not in use.

### **⚠ Caution**

DO NOT cover racks or any other part of the holding cabinet with metal foil.

The Frymaster UHCTHD Holding Cabinet has been designed to afford food service operators the ability to cook menu components in advance and then gently store that product in the holding bins until an order is received. Once that order has been placed, the crew can assemble the order using hot and fresh menu components from the holding bins. This allows for operators to serve to order, helping increase speed of service while maintaining high product quality standards.

The UHCTHD is ready for operation out of the box, with the touch screen configured for routine menu configurations.

### **Power Switch**

The power switch is located on the front of the cabinet. Flip the power switch to turn the unit on or off.



**Power Switch on Front**

### **Cabinet Operation**

1. Turn the power switch ON.
2. The displays will light and show yellow pre-heat screens, changing to gray product names when the cabinet is at temperature.
3. Load product in the appropriate row and press the associated timer button.

**User Interface**

**PASSWORD**

- A user can access all necessary screens for daily operation without a password.
- The factory default manager password is 1955.

**Press & Go Screen Icons**

On the press and go screen are five icons:

- Home
- Row Management
- Clean
- Language
- Temperature

**Press & Go Screen Five Icons**



Select the home icon to bring up the home screen.



**Home Screen**

From the home menu selecting the Press & Go icon to return to the press and go screen.

**Press &Go**



**Press & Go Screen**

**PRESS & GO SCREENS**

When the unit is turned on zone pre-heating will begin. The press and go screen will be displayed.



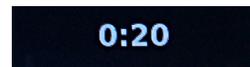
**Press & Go Screen Pre-Heating**

The unit will beep signaling that all holding zones are at set-point and ready for use.

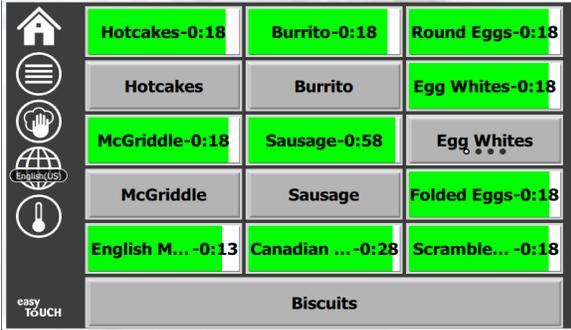


**Press & Go Screen**

As the trays are loaded, press the product button associated with the location. Pressing the product button again within two (2) seconds while it is highlighted black, will reduce the time by 5 (five) minutes, each time the button is pressed. This is useful when transferring products to another location.

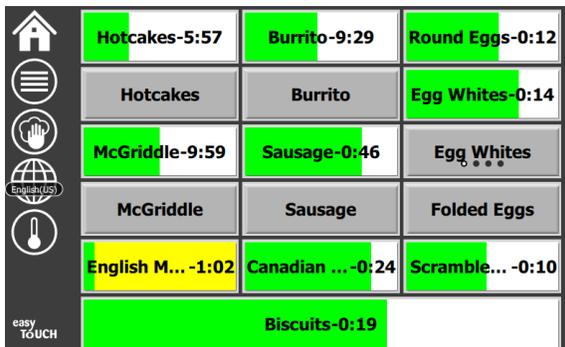


The numbers on the display are associated with the locations of the cabinet. They will be highlighted in green and the product timer will start.



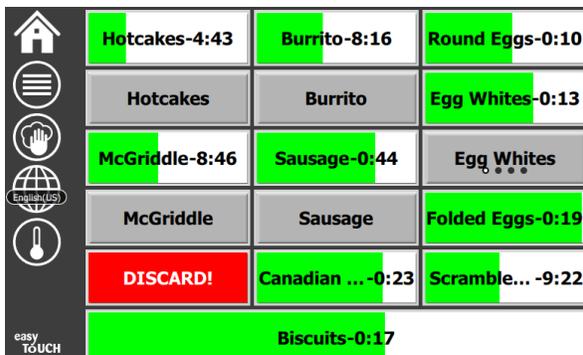
**Press & Go Screen with Active Timers**

The colored portion of the tray timer represents the remaining time. Each menu item has a programmed warning time. When the warning time is reached the elapsed time will start to fill in with yellow and the alarm will beep.



**Timer Reaches the Warning Time**

Each menu item has a programmed hold time. When the timer expires, the corresponding tray timer will turn red, the alarm will beep and DISCARD! is displayed.



**Product Hold Timer Expires**

The alarm will beep for 10 seconds. The timer displays time

the product is being held past the programmed hold time. Tray and food should be removed. Reset the expired tray timer by selecting it.

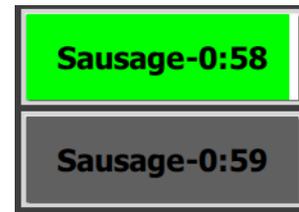
When necessary to cancel or reset a timer before the hold time has expired, select a tray timer to reset. The question Reset? will pop up. Select the green check to reset. Select the red X to resume.



**TRAY SPECIFICATIONS**

**Use First For Identical Products**

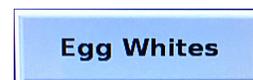
When two identical products are active, the one with the least time remaining will be highlighted in green, the others in gray. There is no change in countdown or timer behavior. When the first item is canceled or reset, the next one in order will turn green.



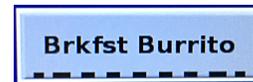
**Use Highlighted Tray First**

**False Bottom Requirements**

- No line below the product name means no false bottom or wire racks are used in the tray.



- A dashed line below the product name means a wire rack or a false bottom is used in the tray.



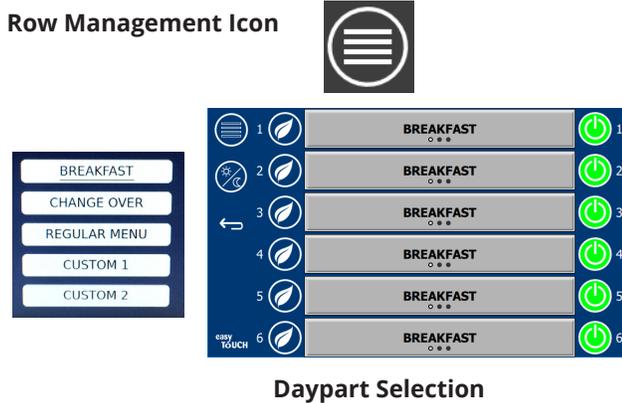
**A Group in the Menu**

A product in the menu is part of a group if there are dots underneath it. Swipe a product with dots to choose another item from the group.



### CHANGING DAY PARTS

Touch the row management icon and slide left or right across the dots, under the daypart menu selection, to choose a daypart menu by row. There are five dayparts available (Breakfast, Change Over, Lunch, and two others). Pressing the daypart icon changes all rows to the same daypart. When complete, press the back button.



Daypart Selection

Active timers are carried over into the new menu. Once the item is reset the new product will show up. Waiting is displayed when the menu changes and the zone temperature is changing but there is still an active timer in the zone at the old temperature. The shelf is waiting to warm up to the new temperature until all active timers at the old temperature are cleared.

MGrd-0:17	Waiting	Waiting	1
10:1	10:1	10:1	2
Mush	GrCk	GrCk	3
Burr-0:18	Waiting	Waiting	4
Waiting	Waiting	Scrm-0:18	5

New Menu with Active Timers from Last Menu Highlighted

### CHANGING LANGUAGE

Touch the language to change language. The language is displayed on the language icon.

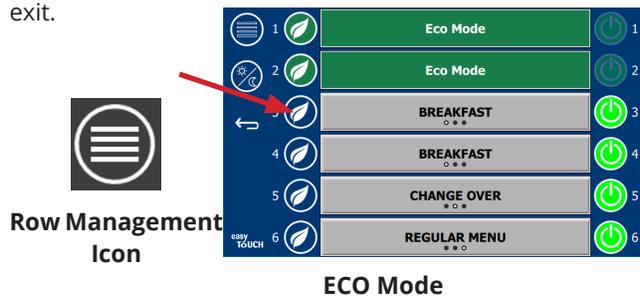


Language Icon

### ECO MODE SCREEN

The individual slots can be put into an ECO mode, which temporarily lowers the heating temperature, when not in use

Touch the row management button and touch the ECO button to put the slot into ECO mode. Press the ECO button again to exit ECO mode. Press the back button to exit.

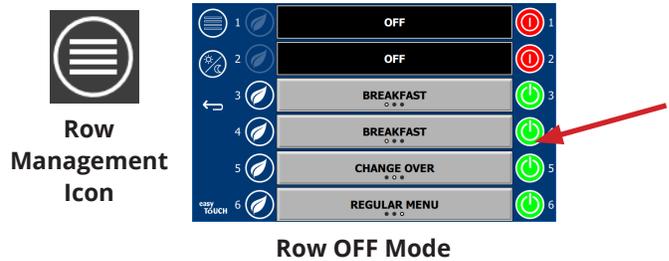


ECO Mode

### TURNING OFF SLOTS

The individual slots can be turned off.

Touch the row management button and touch the button to the right of the slot to turn off the slot. Press the button again to turn on the slot. Press the back button to exit.



Row OFF Mode

### TEMPERATURE SCREEN

Touch the temperature button to display the upper and lower temperatures of the slots.



Temperature Icon

### MENU SCREENS

From the home screen selecting the menu icon brings up the menu screen.



Menu Icon

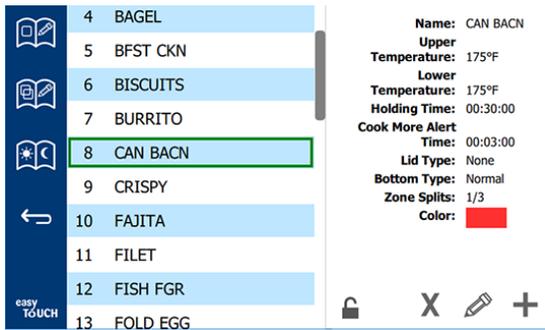
On the menu screen are navigation icons.

- The first icon returns to the product list screen.
- The second icon accesses the group list screen.
- The third icon accesses the day part edit screen.
- To return to the home screen select the back arrow.



#### Menu, Group, Day Part & Home Navigation Icons

The menu screen lists the products saved in the hot holding unit. 100 products can be saved.



Menu Screen

To make changes on the three menu pages the passcode **1955** must be entered. Select the lock on the bottom left of the screen. Enter the passcode **1955** on the pop-up number pad. If the passcode is accepted the lock icon will appear unlocked. To return to the home screen select the back arrow.

If the pages are unlocked, the delete, edit and add icons will display on the menu screen.



Unlocked, Delete, Edit & Add Icons

### Delete a Product

Select the unwanted product and then the delete icon by pressing the X button. A confirmation window will pop up. Select the green check to delete the product. Select the red X to return to the menu screen.



Delete Product Confirmation Window

### Edit or Adding a Product

To add a product, select an unused product location in the list and press the + button.

To edit a product, select the product and press the pencil icon.

When a product is edited or added, required specifications include:

- Name: Product Name

Click inside the name box and a keyboard will appear. When the name is added or edited select the return key (bottom right).

If other languages have been set up, swiping the space key left or right will allow use of other language keyboards.

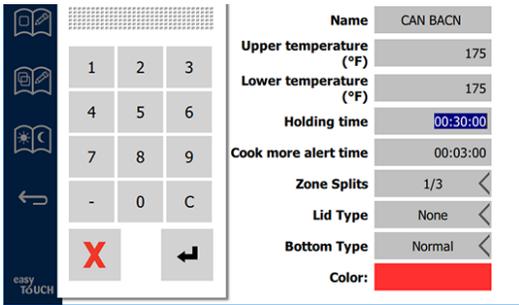
#### Pop Up Keyboard



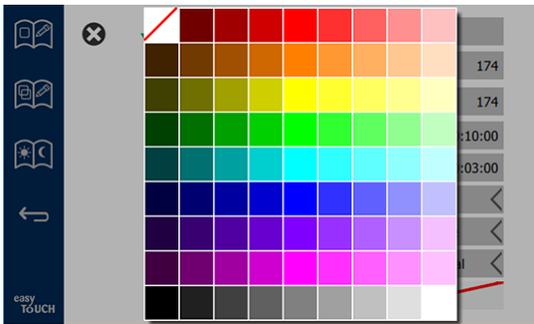
- Upper Temperature: tray temperature maintained  $\pm 5^{\circ}\text{F}$
- Lower Temperature: tray temperature maintained  $\pm 5^{\circ}\text{F}$
- Holding time: maximum time product can be held & served. Enter time in hours, minutes and seconds 00:00:00.
- Cook more alert time: alarm will sound when the tray has this length of time *remaining*. The elapsed time on the timer bar changes color from green to yellow.
- Zone Splits: 1/3 = 1/3 size pan, 1/2 = 1/2 size pan, 2/3 = 2/3 size pan and 1/1 = a full row or a full size pan.
- Lid type: None, Solid or Vented
- Bottom type: Normal or False (with a tray or trivet)
- Color: Allows a color to be assigned to a product if enabled in settings.

To edit a field select the field.

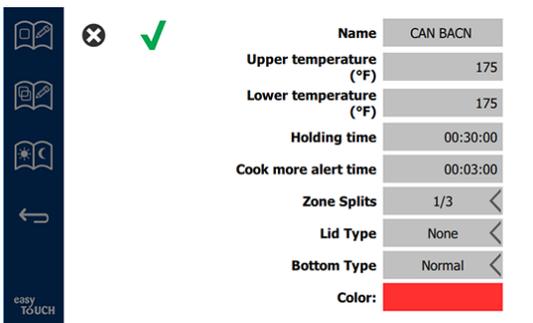
Editing temperatures and times uses the touch pad. When finished press the return arrow to exit to last screen.



If choosing a timer color, click on the color field, choose a color from the color pallet, or if no color is desired, choose the option in top left corner with a red line through it.



Save the edit or product addition by selecting the check. Select the X to cancel edits and return to product list.



**Product Edit or Addition Screen**

**Edit or Adding Groups**

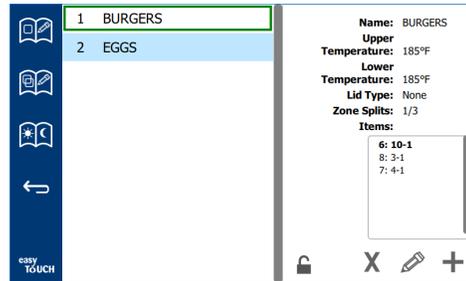
Groups of products can be defined. The products must have the same lid type, zone split and hold temp. Hold time, warning time and product temp and can vary within a group.

From the menu screen, select the group icon. The group page lists programmed groups. For the highlighted group, group ID, group name, hold temperature, zone split, lid

type and products included in the group are listed.



**Group Icon**



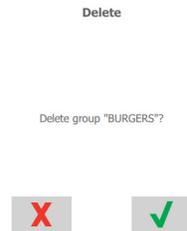
**Group Screen**

If the group page is unlocked, the delete, edit and add icons will display on the group screen.



**Unlocked, Delete, Edit & Add Icons**

Select the unwanted group and then the delete icon, X. A confirmation widow will pop up. Select the green check to delete the group. Select the red X to return to the group screen.



**Delete Group Confirmation Window**

Select the group to be edited and the edit icon, a pencil. In the pop up window the group will appear. The group name can be edited and products can be added or removed.

Click inside the name box and a keyboard will appear. When the group name is edited select the return key (bottom right).



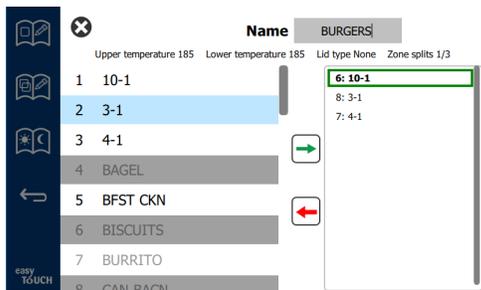
**Pop Up Keyboard**

Under the name are the group specifications. Only

products that match will be highlighted and available for adding.

- Select a new product for the group and the green arrow to add it.
- Select an existing product in the group and the red arrow to remove it.
- To select the default product for the group (product to be displayed when the day part is selected), press and hold that product button for three seconds.
- While the unit is in the Press & Go mode the names can be scrolled from left to right in the same order as they are listed in the group top to bottom. Delete products and add them back in to create the desired order.

When the edits are complete return to the group screen by selecting the X in the top left corner.



To add a group, select the group page add icon, +. A pop up window will appear. Click inside the name box and use the keyboard to enter the group name. Select the return key (bottom right) and the keyboard will close.

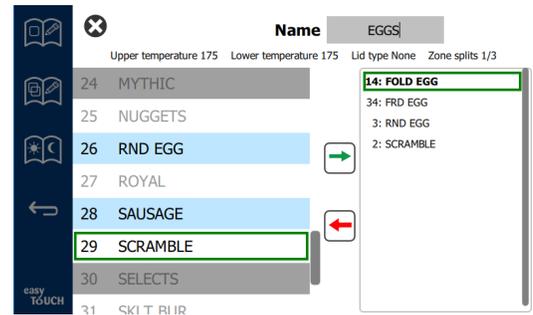
NOTE: Name groups so they are recognizable as groups, perhaps starting with G or Group. When editing the day parts to add the group, the name is all that is displayed in the scrolling list. If it does not stand out as a group it will appear as just another product.



Pop Up Keyboard

Select a product for the group and the green arrow to add it. That first product will determine the group specifications, listed under the group name. Going forward product with the wrong specifications, not available to be added to the group, will be grayed out. Continue to add products to the group. To remove a product, select it and the red arrow.

When the group is complete save it and return to the group screen by selecting the X in the top left corner.



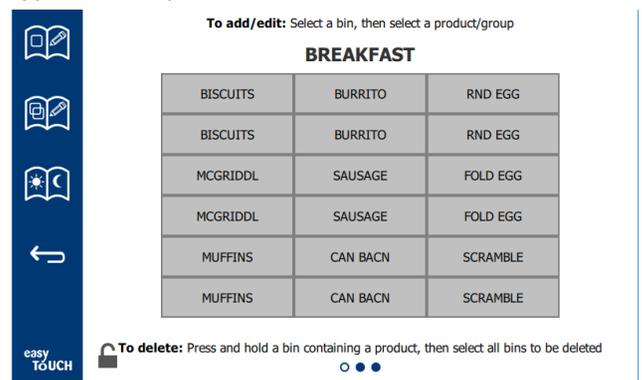
**Edit or Adding Dayparts**

On the menu screen are navigation icons. Next to the back arrow is the day part edit icon.



Day Part Edit Icon

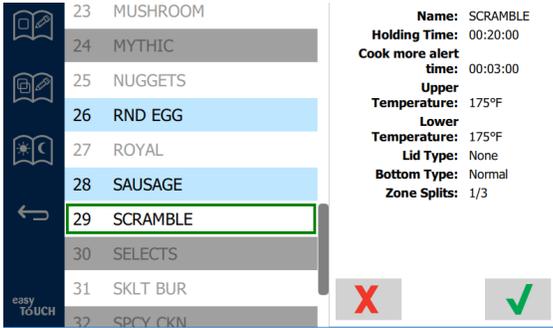
Select the day part edit icon and the breakfast products appears first. Swipe the screen to move between different dayparts (example: breakfast to lunch/dinner).



Breakfast Products

To delete a product from a zone press and hold the product button for three seconds. A pop-up window confirms the request to delete. Products delete from right to left.

Select a hot holding zone by quickly pressing the empty zone to add a product or change the product. From the pop up window select the product to be added to the zone. Groups can also be added. Zone split and zone temperatures will eliminate certain products. Products not available will be grayed out. Select the green check to save and return.



Selecting A Product For Breakfast

**SETTING SCREENS**

From the home screen selecting the settings icon brings up the preferences screen. This is the first of eleven setting screens. There are eleven solid dots across the bottom of the service screens, the empty circle represents the current page. Touch the dots to bring up a menu. Select and navigate to a specific screen from the menu. Navigate between the screens by swiping the screen to the right or left.

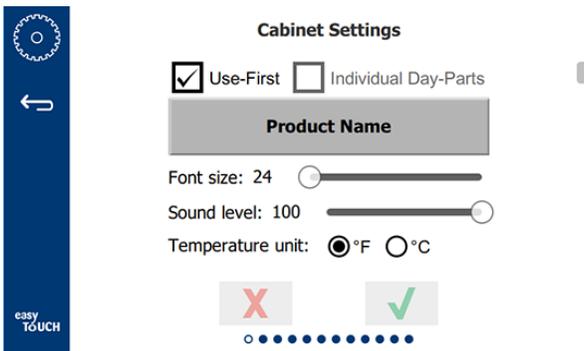


Settings Icon



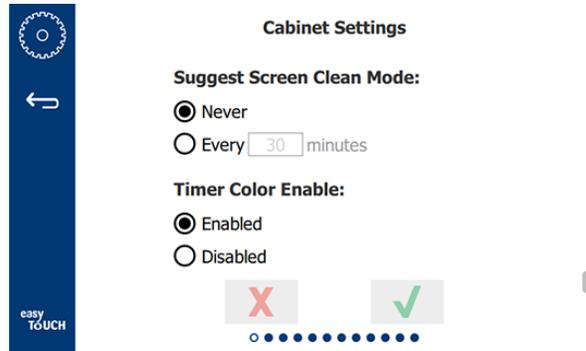
Row of Dots

**CABINET SETTINGS SCREEN**



- Use First – When checked the first tray of common product will be highlighted in green, second tray will be gray until the first tray is gone or time runs out. Unchecked, both trays of the common product will be green.
- Font size can be adjusted between 24-48.
- Volume can be adjusted between 10-100.
- Temperature unit - Select Fahrenheit or Celsius

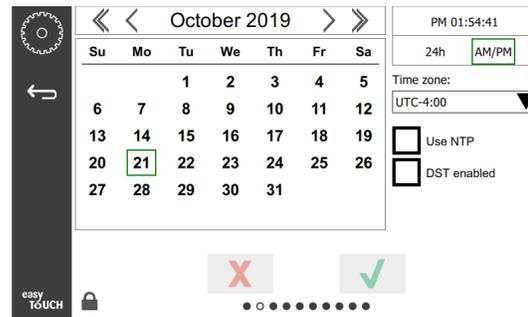
Using the slider button on the right side of the display, scroll down to the next set of settings.



- Suggest Screen Clean Mode if enabled can prompt at a required amount of time to clean the screen. If the function is set to Never, the function won't prompt.
- Timer Color Enable if enabled, allows product buttons to be color coded for easier selection. Once enabled, product colors can be selected in Edit or Adding a product function. Choose Disabled to disable the function.
- Select the green check to implement changes, red cross to discard.

**DATE & TIME SCREEN**

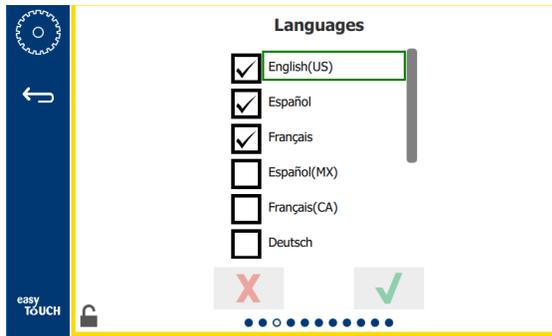
To make changes on the this screen a passcode must be entered. Select the lock on the bottom left of the screen. Enter a passcode on the pop-up number pad. If the passcode is accepted there will be a yellow ring around the screen.



Date & Time Screen

- If the NTP box is checked and the UHCTHD unit is connected to the internet, the date and time will be set automatically. Be sure to set the UTC to the appropriate setting (i.e. Eastern Standard time is UTC -5:00, Central Time is UTC -6:00).  
If the UHCTHD unit is not connected to the internet or if the NTP box is unchecked the time and date will need to be set manually.
- Top right of the screen provides the choice between a 24hr/military and AM/PM civilian time display.
- Select the month and year by the arrow heads and the date via the calendar.
- If the DST enabled box is checked the time on the clock will be moved ahead by 1 hour. If the box is checked and then unchecked the time on the clock will move back one hour. Proper use of this feature is to check the box on the first day of daylight savings time and uncheck the box on the day after daylight savings time ends.
- Time Zone - Use the drop down box to select the time zone the equipment is being used in. This only has an effect on the date and time setting if the Use NTP box is checked.

**LANGUAGE SCREEN**

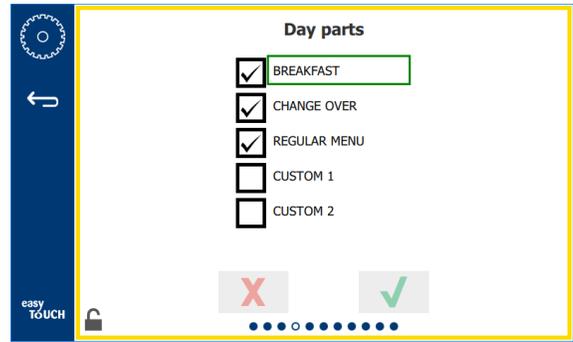


**Language Screen**

Available languages are listed to choose from. Store or company created menu items will not change to the new language. Only the headings and descriptions will change to the new language (i.e. service page titles, calendar month names, product parameters, and menu page titles).

Check the desired languages from this list to allow multiple languages to be toggled from the language icon on the main screen.

**DAYPART SCREEN**



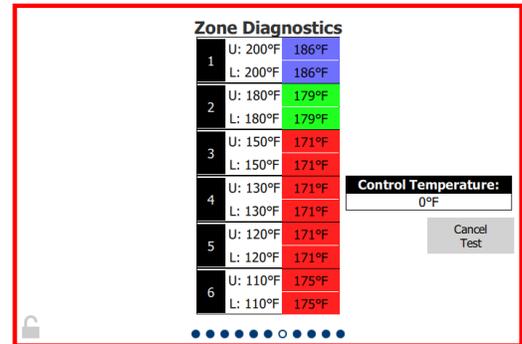
**Daypart Screen**

Available dayparts are listed to choose from. Ensure the dayparts desired are checked. Press the green check when finished.

**ZONE DIAGNOSTICS SCREENS**

Holding cabinet temperatures can be monitored on this screen, no password is required to observe current heating element temperatures.

To run service tests on this screen, a service passcode must be entered. Select the lock on the bottom left of the screen. Enter a service passcode on the pop-up number pad. If the passcode is accepted there will be a yellow ring around the screen.



**Zone Diagnostics Screen**

Zone diagnostic screen shows set temperature and current unit temperature for each heating element. Current temperature will be highlighted green if +/- 5°F (+/- 3°C) of the set temperature. Current temperatures are highlighted red if hotter than set temperature and blue if colder than set temperature.

1. Test the machine by changing set temperatures. The screen will have a red border while the testing.
  - Select Service Test to change the set temperatures to factory determined test temperatures.

OR

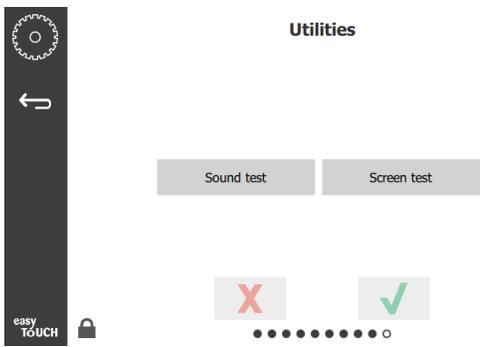
- Touch the a zone set temperature, highlighted in white. On the displayed numeric key pad, enter the desired temperature then touch the green check.

Note: Entering a temperature of 360 deg F or higher will cause the heating element to be ON all the time. Entering a temperature of zero deg F will turn the heating element OFF. The set temperature of both heating elements in the zone will be set to the same temperature.

2. Select Cancel Test when complete, the screen border will change to yellow.

**SOUND & SCREEN TESTS**

This screen does not require a passcode.

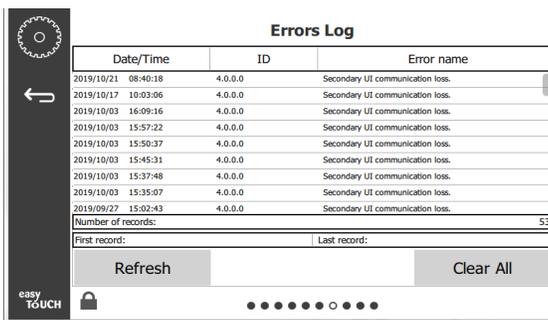


**Sound & Screen Tests**

Screen is for testing sound and screen function. Three beeps should sound when the speaker icon is selected. When the screen icon is selected three screens will cycle to help diagnose screen function. UI Customization button not available to users.

**ERRORS LOG SCREEN**

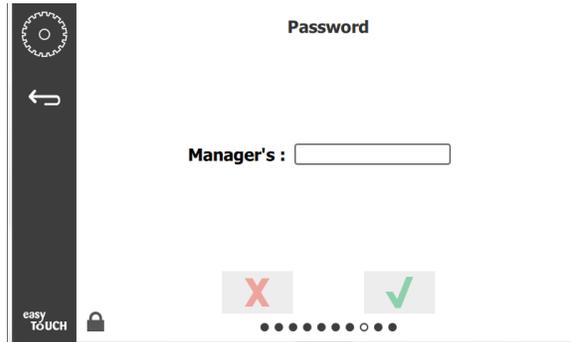
This screen does not require a passcode.



**Errors Log Screen**

Clear all button removes all entries on the errors log screen. Clearing the error log requires a service passcode. Touching the Refresh button will update the error list. Swiping away from this page and then swiping back will also refresh the error log list with any new errors.

**PASSWORD SETTINGS SCREEN**



**Password Settings Screen**

There is a factory default manager passcode 1955. It can be changed on the password service screen. Select the open box after Manager's: and a new pin # number pad will pop up. Enter the new manager's passcode and the green check to confirm.



**New Pin # Number Pad**

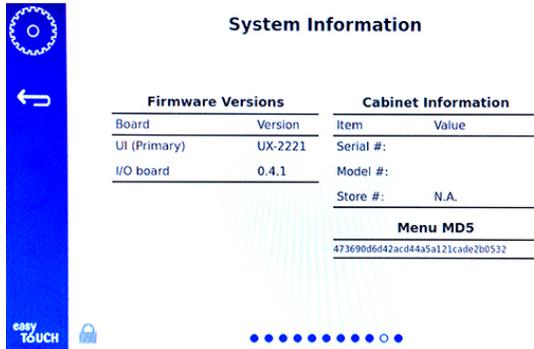
To reset the passcode back to the factory default quickly touch the easy touch logo 10 times in a row in any of the settings screens. At the end of 5 taps the menu bar will turn black, continue to tap. A pop up display will confirm the manager's pin # was reset.



**Easy Touch Logo**

**SYSTEM INFORMATION SCREEN**

This screen does not require a passcode, there are no actions available on this screen.



**System Information Screen**

This screen lists the cabinet serial number, model number and current firmware versions.

**UTILITIES SCREEN**

To run demo mode on the utility screen a service passcode must be entered. Select the lock on the bottom left of the screen. Enter a service passcode on the pop-up number pad. If the passcode is accepted there will be a yellow ring around the screen.

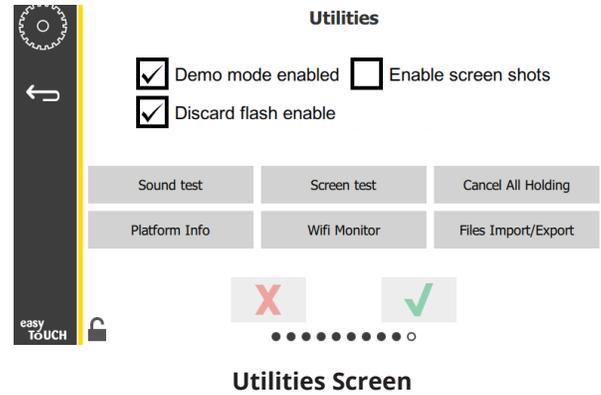
The demo mode will turn off all heaters and simulates operation at a lower amp draw. The unit will continue in Demo mode until returned to normal operation via this screen, regardless of being powered off and on.

Export Menu Files - Remove the USB port cover. Plug a USB drive into the master/external port. Press the Export Menu Files button. Restart unit.

Import Menu Files - Remove the USB port cover. Plug a USB drive with exported menu files into the master/external port. Press the Import Menu Files button. Unit will only look for and import a file type that was exported from the utilities screen.

Cancel All Holding - If a tray with an active timer is removed and not returned to the unit, the active timer information will be stored in memory. Service may push the Cancel All Holding button to clear unnecessary information from the memory.

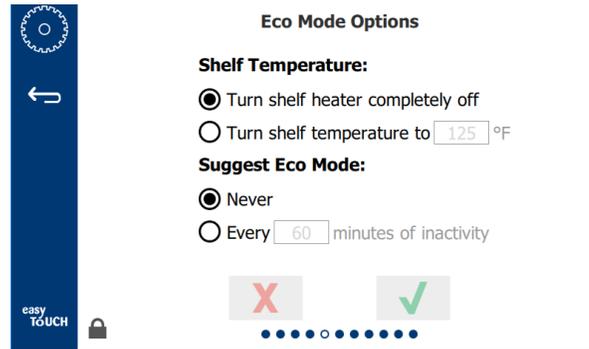
Platform Info - A pop up screen lists firmware specifications including Linux kernel and board support package, etc.



**Utilities Screen**

**ECO MODE OPTIONS**

This screen allows various options for ECO Mode. To make changes on the this screen use the manager passcode. Select the lock on the bottom left of the screen. Enter a passcode on the pop-up number pad.



**Eco Mode Options Screen**

**LOADING COUNTRY SPECIFIC MENU FILE**

This allows a country specific menu file to be loaded.

1. Press the HOME button.
2. Press the USB button.
3. Press the lock button in bottom left corner.
4. Enter 159357 and press check.
5. Press and hold refresh button for three (3) seconds.
6. Scroll to the desired country menu and with it highlighted, press the check.
7. When the menu file is imported, press the Close button.
8. Press the back button to exit.

## Section 3 Maintenance

### **⚠ DANGER**

All utility connections and fixtures must be maintained in accordance with Local and national codes.

### **⚠ DANGER**

Failure to disconnect the power at the main power supply disconnect could result in serious injury or death. The power switch DOES NOT disconnect all incoming power.

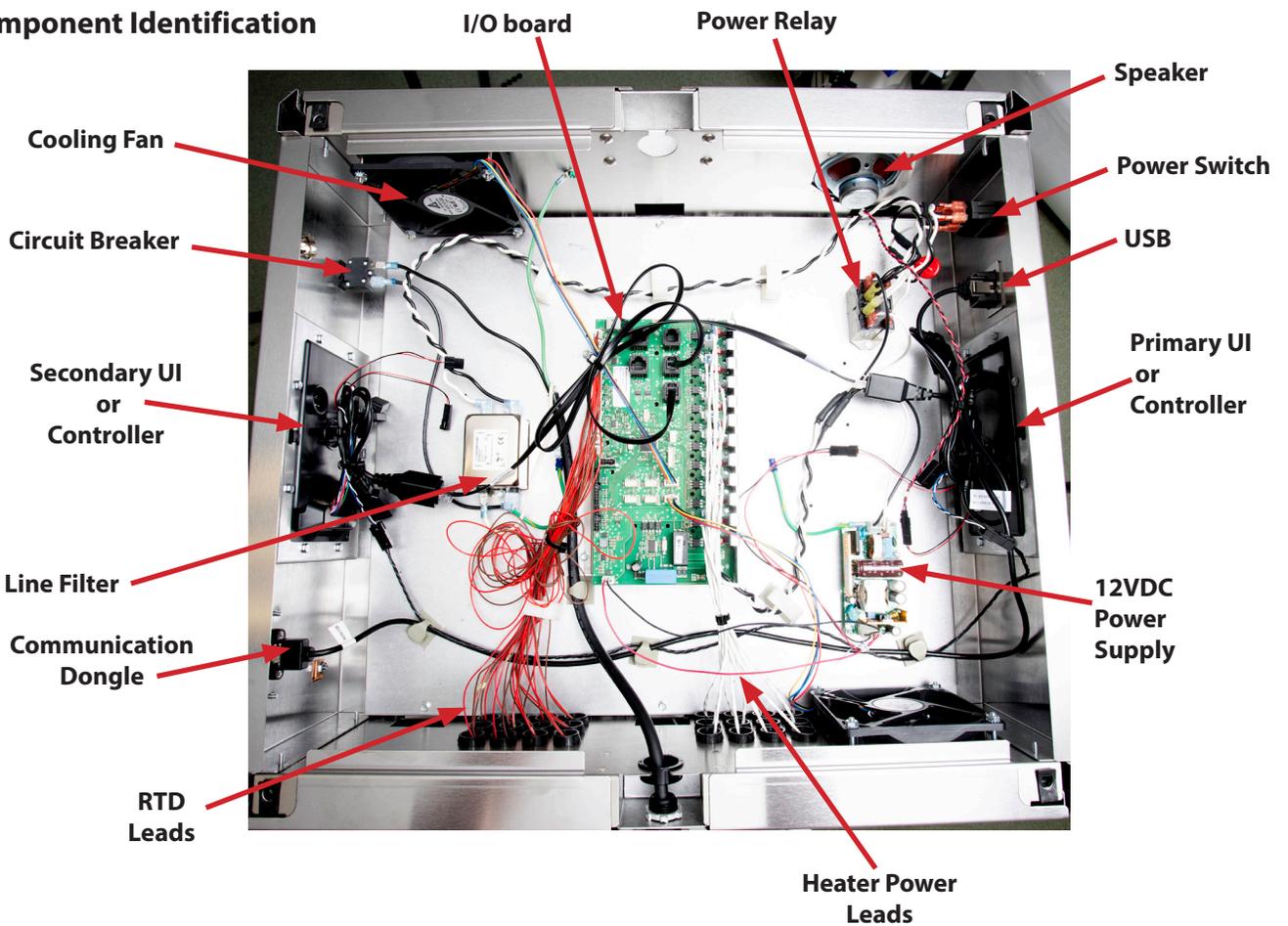
### **⚠ DANGER**

Disconnect electric power at the main power disconnect for all equipment being serviced. Observe correct polarity of incoming line voltage. Incorrect polarity can lead to erratic operation.

### **⚠ Caution**

Maintenance and servicing work other than cleaning as described in this manual must be done by an authorized service personnel.

### Component Identification



**INSTRUCTIONS FOR REPLACING A HEATER PAD**

Pad heater probes are located in the heater pad assembly.

**NOTE : Failed RTD's require a heater pad replacement.**

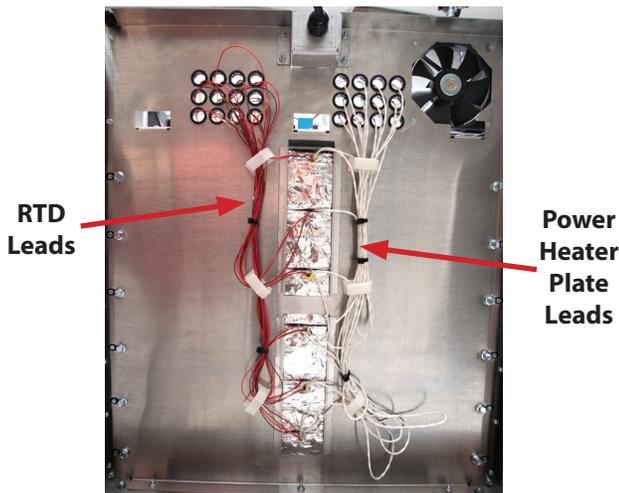
1. Disconnect the power.
2. Remove the four (4) screws that attach the top of the cabinet.



3. Remove both sides, by removing the two (2) Phillips head screws at the bottom of the each side panel and sliding up and away from the cabinet.



4. The power and RTD wires are visible on the left side.



5. Bolts secure the framework that holds the heater plates; Allen screws secure the bezels. The complete slot assembly must be removed to replace the heater plate.



6. A third fastener, a small screw also secures the bezel. It must be removed to get to the heater plate.



7. RTD probe connections (brown and red) are at the bottom of the IO board. Heater plate connections (white and blue) are at the top of the IO board. Mark plugs for reassembly. Pay close attention to their placement. Unplug heaters and probes associated with the slot.
8. Raise heater plate and slide out the insulation under the plate to gain access to heater pad.
9. Route the power coupling through the cabinet interior.
10. Pull the heater plate out carefully.
11. Flip the aluminum plate over. Peel the old heater pad off and attach the new one.
12. Reverse the steps to reassemble the cabinet.

**INSTRUCTIONS FOR REPLACING A TOUCH SCREEN**

1. Disconnect the power.
2. Remove the top of the cabinet.
3. Disconnect any cables or wires from the rear of the touch screen, marking their position for reassembly
4. Remove and replace the faulty touch screen.
5. Remove the SD card from the failed controller by gently pushing in on the SD card and releasing until it is SD card is ejected. The SD card is held in by a spring lock.
6. If the new controller has an SD card in place, remove it and insert the SD card removed from the failed controller in previous step and insert with contact down towards the board. Gently push the SD card into the SD card slot until it locks in place.
7. Reattach any cables or wires and attach the top of the cabinet.
8. Reconnect power.
9. Perform a setup by entering the serial, model and store number into the controller.

**INSTRUCTIONS FOR REPLACING AN IO BOARD, FAN, RELAY, SWITCH, SPEAKER, POWER SUPPLY, LINE FILTER OR OTHER COMPONENTS IN THE ELECTRONICS BOX**

1. Disconnect the power.
2. Remove the top of the cabinet.
3. Mark wires and harnesses locations for easy reassembly.
4. Disconnect wires and harnesses.
5. Remove the existing parts.
6. Carefully reattach all wires and harnesses.
7. Replace the cabinet top.
8. Reconnect to power to return to service.

**INSTRUCTIONS FOR UPDATING SOFTWARE**

1. With the cabinet powered up and fully booted up, slide the USB cover open and insert the USB drive in the front of the cabinet.
2. After 30-60 seconds the software update starts.
3. When the software update is complete the controller displays **Firmware Update Successful, Please Restart the Equipment** when complete.
4. Remove the USB from the front of the cabinet.
5. Power cycle the entire cabinet.

6. Press the  button. Press the  button. Swipe two times to the right to **System Information**. Verify the UI and IO Board software versions are correct on both displays.
7. Press the  button.
8. Press the  button.

**INSTRUCTIONS FOR EXPORTING/IMPORTING FILES USING A USB DRIVE**

**EXPORTING FILES**

1. Select the home icon to bring up the home screen.

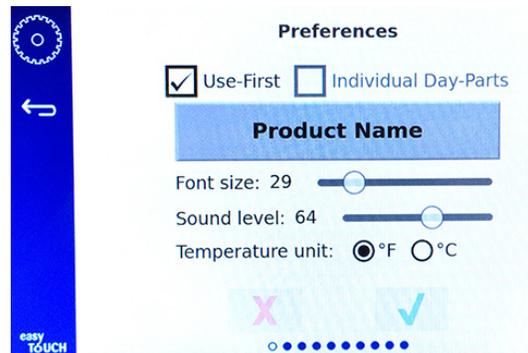


**Home Screen**

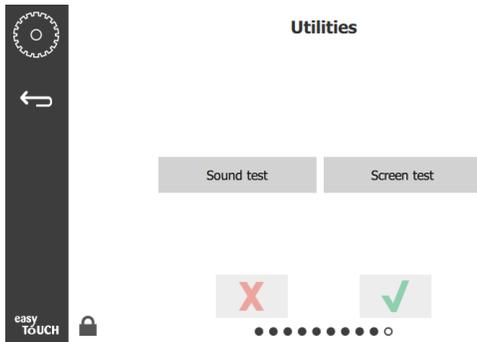
2. From the home menu select the settings icon.



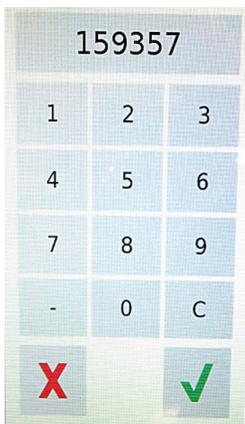
The preferences screen is displayed.



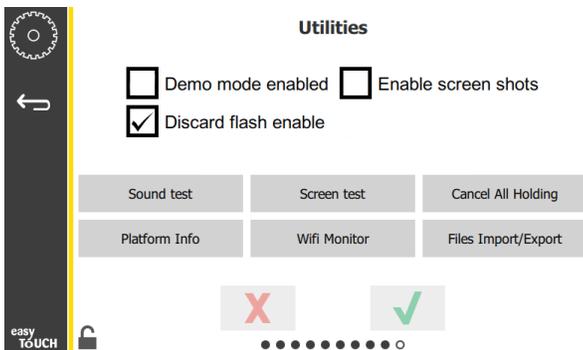
- 3. Swipe once to the right to the Utilities screen.



- 4. Press the lock icon in the lower left corner.

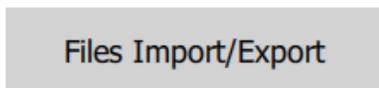


- 5. Enter **159357** on the keypad and press the check button.

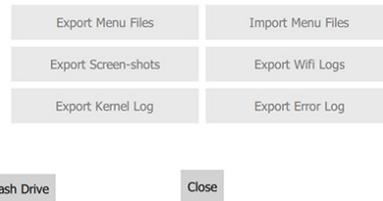


Note the icon changed to unlocked.

- 6. Press the Files Import/Export button.



Files Import/Export



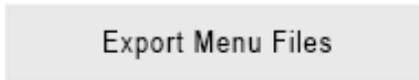
- 7. Slide open the USB port behind the Frymaster logo.
- 8. Insert a blank USB drive into the USB port.



- 9. Press the Check Flash Drive button.



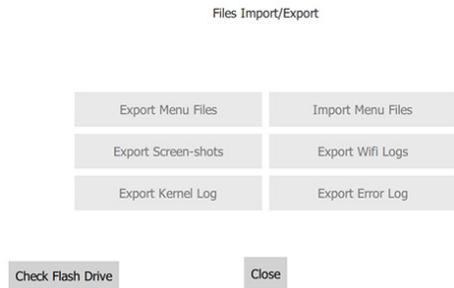
- 10. Press the Export Menu Files button.



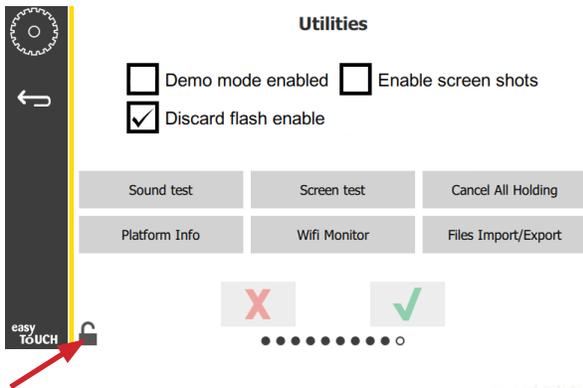
The screen displays **Menu files exported!**

- 11. Press the Close button.





12. Press the Close button again.



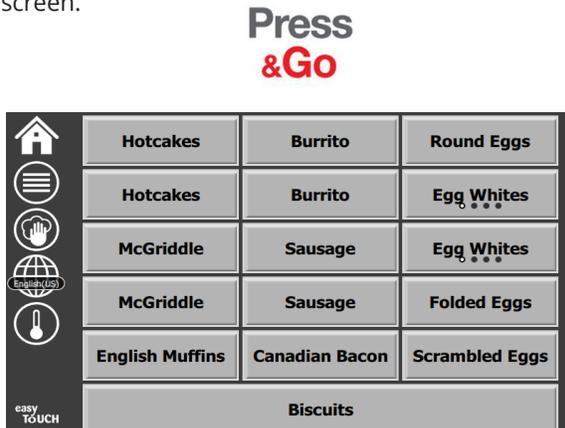
13. Press the unlock button in the lower left corner to lock the screen.



14. Press the back button.



15. Press the Press & Go icon to return to the press and go screen.



**IMPORTING FILES**

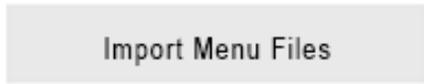
1. Follow steps 1-7 in the preceding section.
2. Insert a USB drive with files exported from a UHCTHD cabinet into the USB port.



3. Press the Check Flash Drive button.

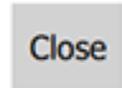


4. Press the Import Menu Files button.



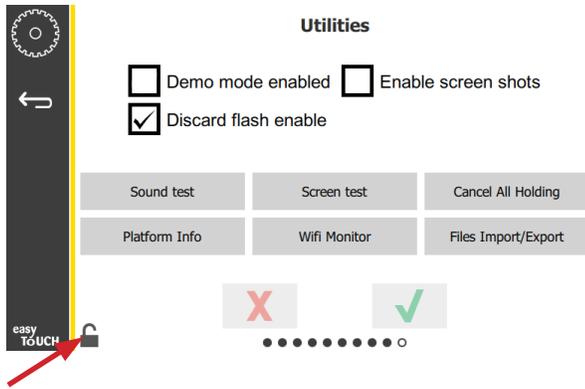
The screen displays **Menu files imported!**

5. Press the Close button.



6. Press the Close button again.





7. Press the unlock button in the lower left corner to lock the screen.



8. Press the back button.



9. Press the Press & Go icon to return to the press and go screen.

**Press  
&Go**



# Section 4 Troubleshooting

The software shall track the state of each thermocouple and the state of the thermocouple reading compared to the set point. If the software finds an error, it will begin to time it. When the timer reaches 15 minutes, an error code(s) will display (flash) on the screen. This shall continue indefinitely until the zone is +/- 5 degrees of the set point or the unit is power cycled off and the 15 minute time starts again. If an error is still present, it will be displayed until corrected.

## Zone Diagnostics

### Zone Diagnostics can show temperatures and issues

1. Ensure the cabinet is powered on, fully booted up and the main screen is displayed (see Figure 1).
2. Press the tools icon (gear) from the home screen (see Figure 2).
3. On the next screen press the row of dots at the bottom of the screen (see Figure 3).
4. The tools options menu is displayed. Press the Zone Diagnostics button (see Figure 4).
5. After the unit has been running for about 15 minutes the temperatures should cycle from hot (RED) to normal (GREEN) to cool (BLUE). Any temperature errors are displayed with “+++” on the affected zone (see Figure 5).
6. Press the “return” arrow to return to the home screen (see Figure 6).
7. Press the Press & Go button to view the products (see Figure 1).



Figure 1

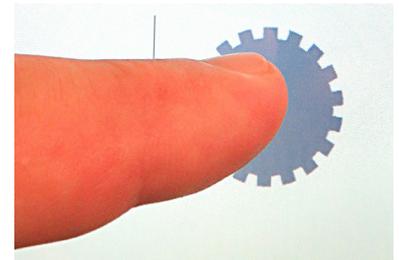


Figure 2



Figure 3

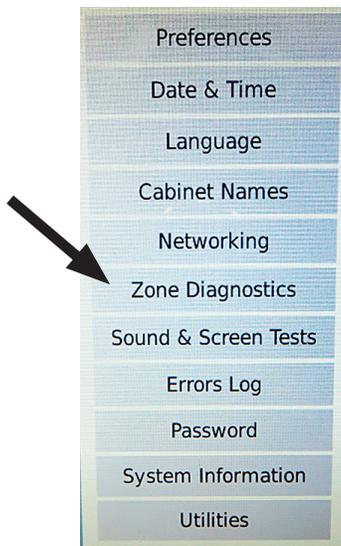


Figure 4

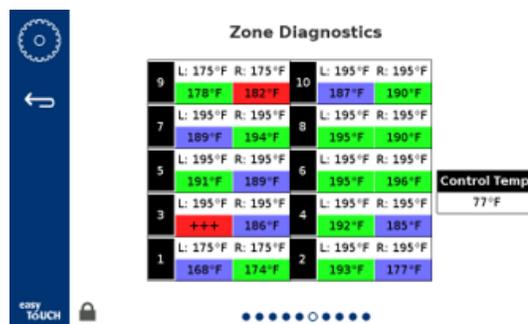
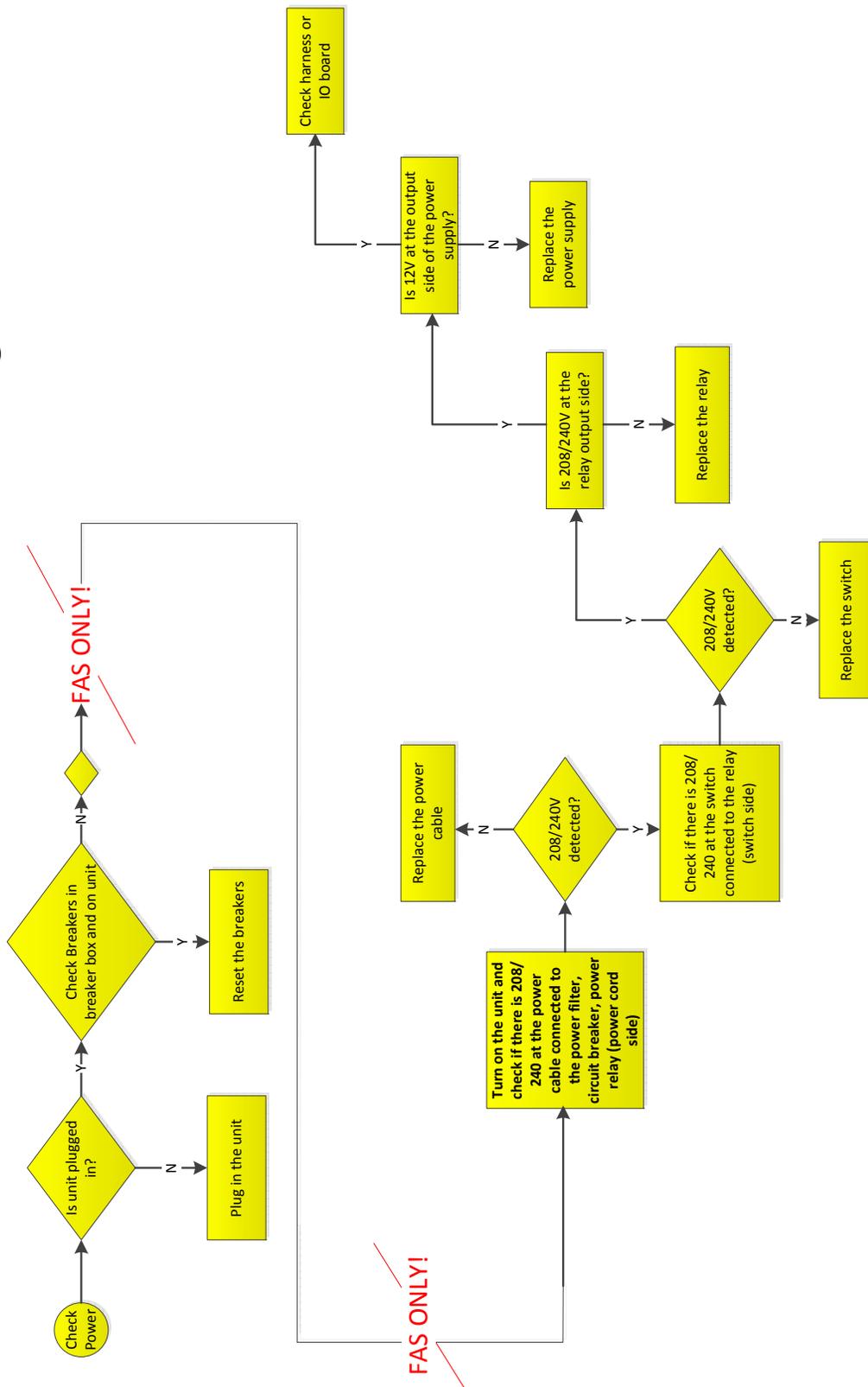
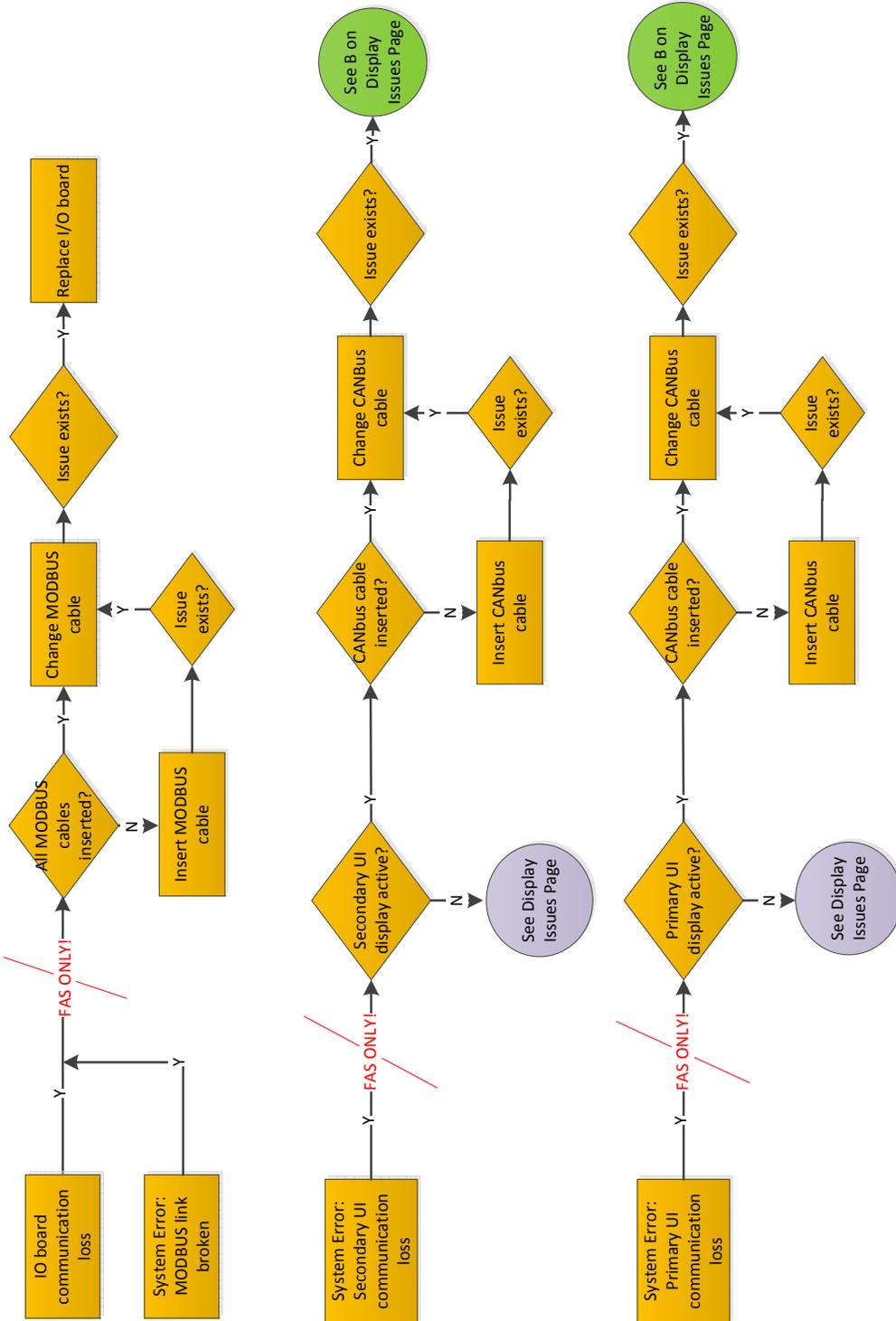


Figure 5

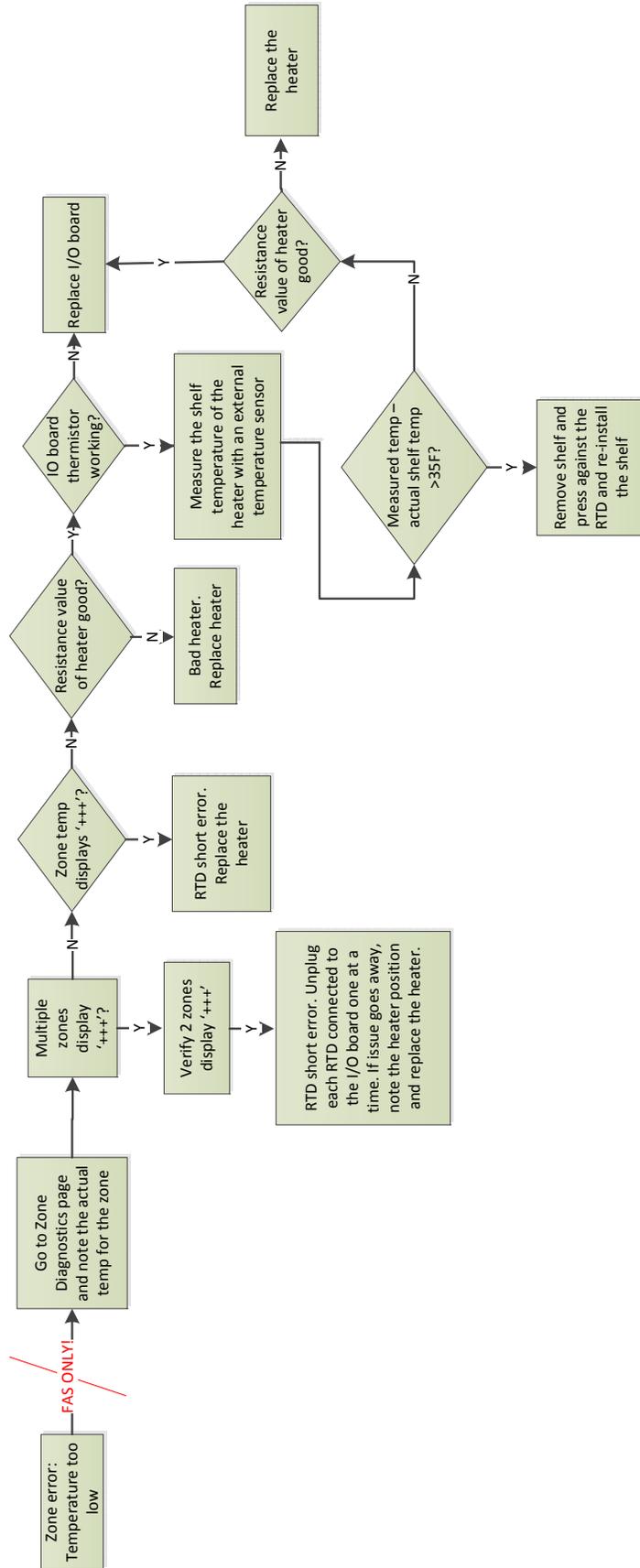
# Power Issues Troubleshooting



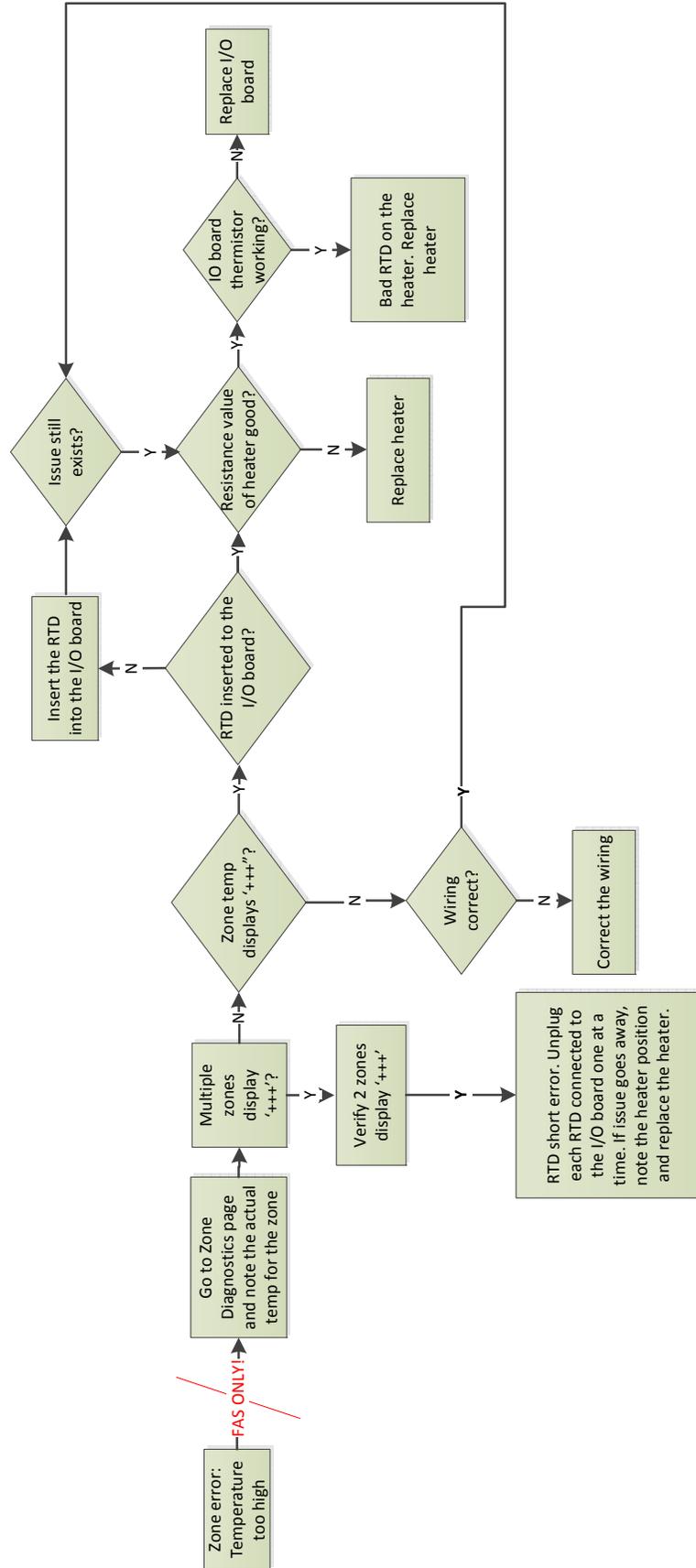
# Communication Issues Troubleshooting



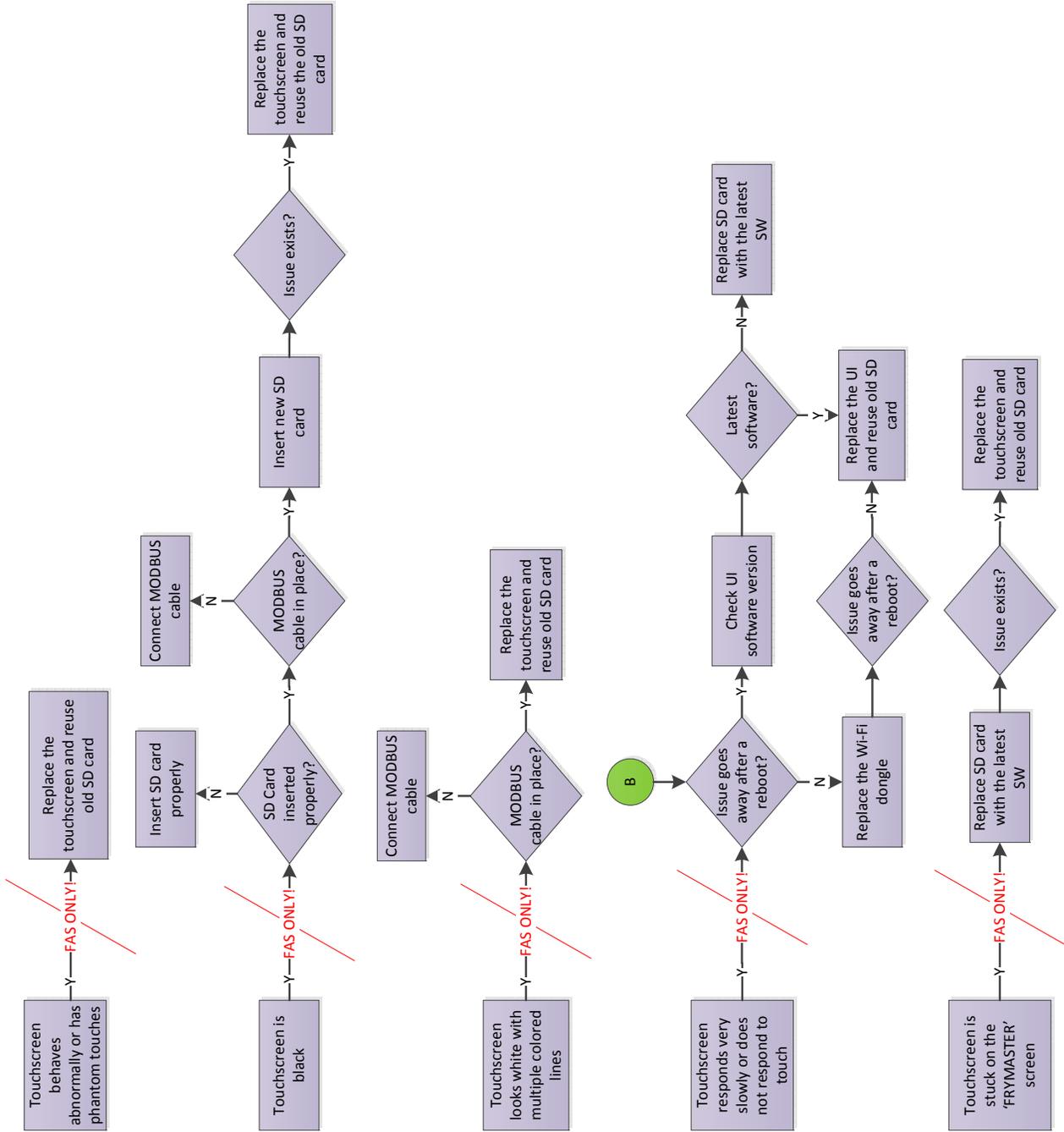
# Temperature Too Low/Shelf Temp Low Issues Troubleshooting



# Temperature Too High Issues Troubleshooting



# Display Issues Troubleshooting



## Service Procedures

**DANGER: FAILURE TO DISCONNECT POWER FROM THE UNIT BEFORE SERVICING COULD RESULT IN SERIOUS INJURY OR DEATH. THE CABINET POWER SWITCH DOES NOT DISCONNECT ALL INCOMING POWER TO THE CABINET**

### Tests

#### Power Supply

1. Disconnect power and check all terminals and connections for loose or disconnected wires.
2. Apply power and check for 208VAC/240 VAC input and 12VDC out for controls and IO board.

#### RTD

1. Remove the leads from the suspect RTD and test for resistance. Selected temperatures and resistances are show in chart below.

**NOTE: After testing, reconnect all leads to their original positions.**

#### RTD Resistance Chart

Sensor (°F)	Resistance	Sensor (°C)
60	106.065	15.55
70	108.224	21.11
80	110.380	26.66
90	112.532	32.22
100	114.680	37.77
110	116.825	43.33
120	118.966	48.88
130	121.104	54.44
140	123.239	60.00
150	125.369	65.55
160	127.496	71.11
170	129.620	76.66
180	131.740	82.22
190	133.856	87.77
200	135.969	93.33
210	138.078	98.88
220	140.184	104.44
230	142.286	110.00
240	144.385	115.55
250	146.480	121.11
260	148.570	126.66

#### IO Board

1. Check for +12VDC at the power-in terminals and the connector for the power supply.

**NOTE: After testing, reconnect all connections to their original positions.**

#### Heater/RTD Troubleshooting

##### RTD Reading is Below or Above Set Point - Zone Error is displayed on screen

1. Document all temperature readings for unit, each zone, upper and lower.
2. If the zone probes are switched, there will be two errors, one high and one low.
3. Check the I/O board where the probes with errors are connected. Ensure the probes are plugged in properly.
4. Heater outputs could be swapped, there will be two errors.
5. The I/O board triac could be shorted or open. An orange LED is associated with each triac, it signals if the triac should be on or off.
6. Isolate each triac wire and check the amperage.
  - If the triac is supposed to be open and there is no current, the problem could be a heater. Check continuity through heating element.
  - If the triac light does not match the amperage, the triac is failing and the I/O board needs to be replaced.
  - Check input and output of triac, this could signal an I/O board failure.

##### Shorted Triac

1. Turn the suspect row off and unplug the heater cables and measure voltage on the IO board. With the row off, there should be no line voltage. If the triac is shorted, you will measure AC line voltage. If the triac is half waving, you will get DC voltage of approximately one-half the line AC voltage.

##### Heater Plate

1. Disconnect power to the cabinet. Remove top panel and left side. Disconnect the heater leads (black and white) and the RTD leads (brown and red) of the suspect plate from the IO board. Measure resistance of the heater across the the black and white leads. Resistance should be 140-150 ohms.

2. Measure resistance across the brown and red RTD leads. Resistance must be within a range of 104-148 ohms. Resistance at room temperature is approximately 107 ohms. See chart to the left for resistance at different temperatures. If either resistance is incorrect, replace the heater plate.

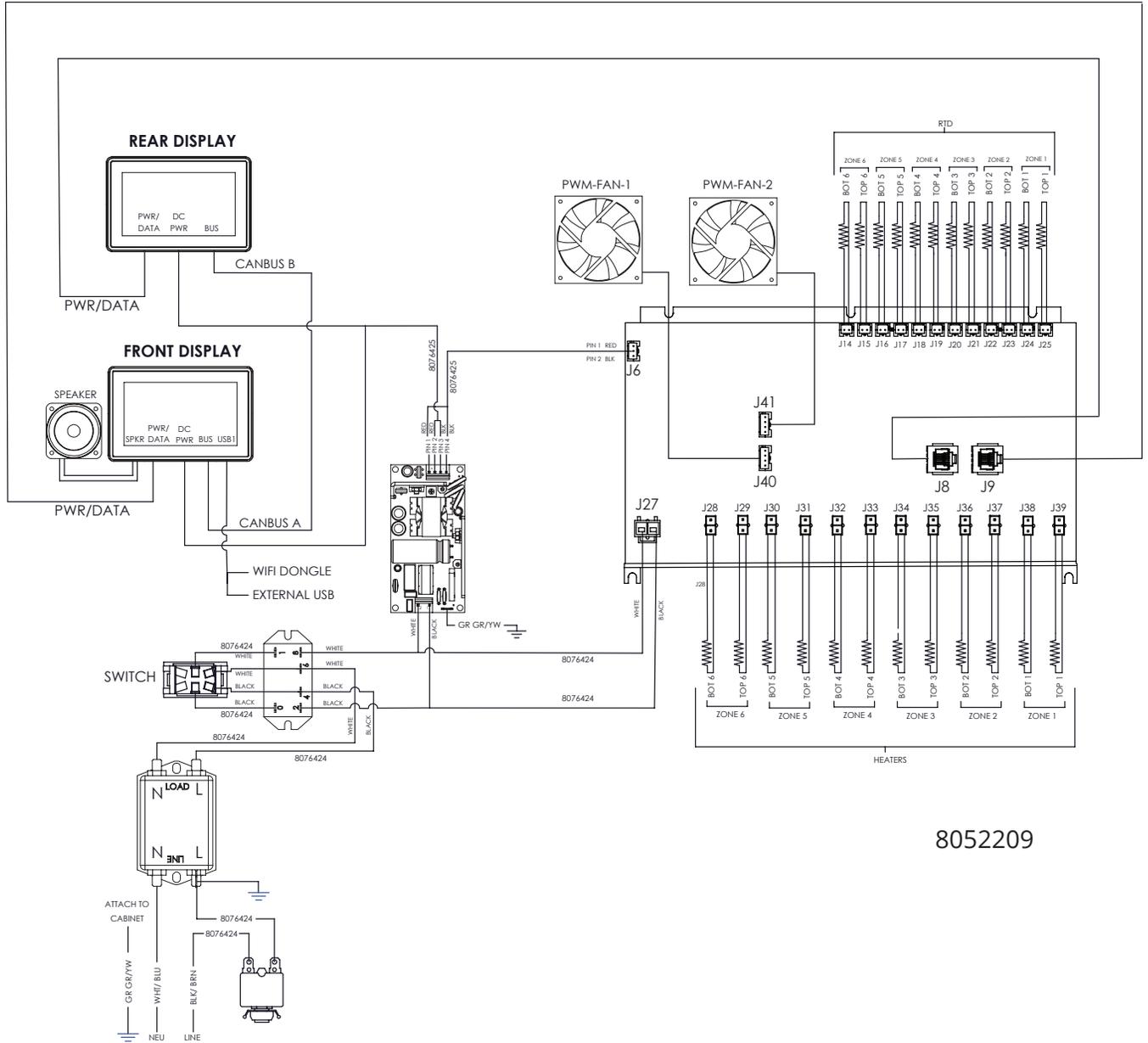
### Display Meanings

Problem	Cause	Correction
Display has cross hatch in heating zone/ disabling timer	Heating pad connectors are loose. or defective	Ensure the heater pad wires are securely connected to the IO board. If so, and heater readings are out of range, replace heater pad.
	RTD wire connections are loose or defective.	Ensure the RTD wires are securely connected to the IO board. If so, and RTD readings are out of range, replace heater pad.
	Heating pad has failed.	Replace heater pad.
	Heating pad I/O circuit board is defective.	Replace I/O board.
	Shorted RTD wire to chassis.	Replace heater pad.
	Open RTD wire.	Replace heater pad.

Problem	Cause	Correction
Too many failed attempts. Call Service.	Incorrect password was entered too many times.	Press close. Turn the unit off and back on again. Ensure the correct password is used.

# Section 5 Wiring Diagrams

## UHCTHD Wiring



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