SERVER®

IxD™ SERIES

Therma+™

HEATED DISPENSER

Model: TSX

Used with up to 10-lb. pouch of cheese sauce with 38 mm Volpak® fitment.

Electronic Dispense

WI-FI

Thank you for purchasing the IxD™ Series THERMA+™ Heated Dispenser. This portion-controlled unit is sealed and sanitary, achieves excellent evacuation and has only a few parts for easy clean-up.

SIMPLIFYING CHEESE SAUCE MANAGEMENT

HOT

Safety

WARNING -

ELECTRICAL SHOCK COULD OCCUR

This unit must be earthed or grounded.

This requires all three prongs (terminals) on cord plug to be plugged into power source.

Patent Pending

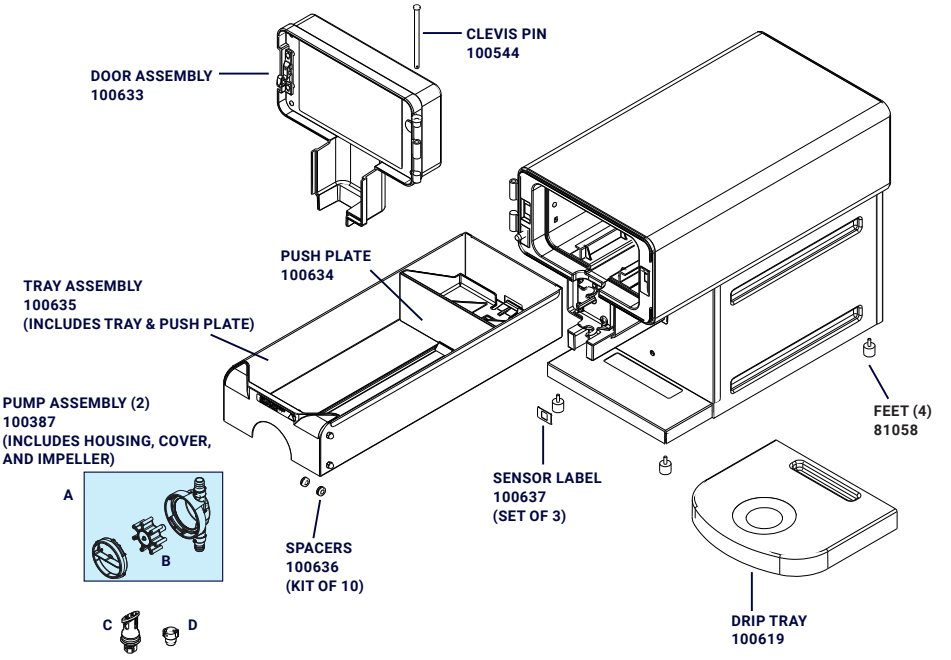
According to food and safety regulations, most foods must be stored and/or served at certain temperatures or they could become hazardous. Check with local food and safety regulators for specific guidelines.

Be aware of the product you are serving and the temperature the product is required to maintain. Server Products, Inc. cannot be responsible for the serving of potentially hazardous product.

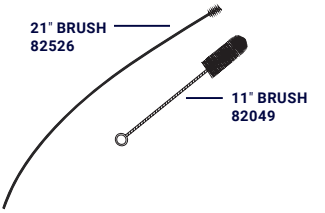
IMPORTANT

Clean, rinse, sanitize, and dry parts daily or regularly to comply with local sanitization requirements.

Parts – Server Therma+™ TSX

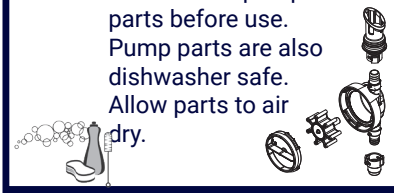


PUMP PARTS & ACCESSORIES
A 100387 PUMP ASSEMBLY, HOUSING, COVER & IMPELLER
B 100386 REPLACEMENT IMPELLER
C 100641 VOLPAK® FITTING (PACK OF 2)
D 100642 REDUCER FITTING (PACK OF 2)

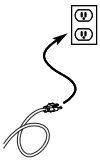


Set-up

1 With supplied brushes, wash, rinse, and sanitize pump parts before use. Pump parts are also dishwasher safe. Allow parts to air dry.



2 Plug cord into power outlet.

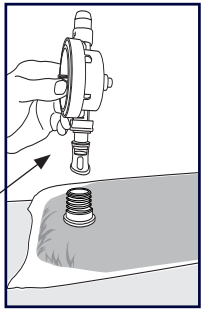


3 Open access door with CAUTION. Parts may be hot. Use oven mitts if necessary. Remove tray and push pouch push plate back until secure.

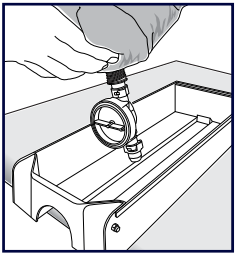
4 Ensure pump is assembled properly with Volpak® fitting (IN) and reducer fitting (OUT) connected to the proper sides of the pump. For best results, apply a small amount of food lube around impeller shaft, impeller face, and inside of pump housing.

Push pump connector into pouch until it fully and securely snaps into the fitment. Listen for a "click".

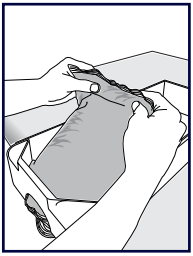
Notice orientation of pump direction.



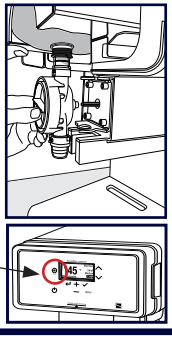
5 Place pouch into tray assembly and guide the attached pump through the opening of the front of the tray.



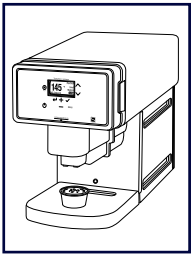
6 Squeeze product toward pump and fold over remaining pouch material.



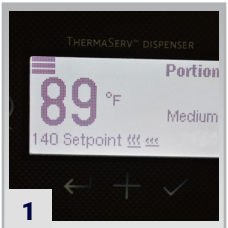
7 Push tray assembly completely into the unit until push plate "snaps" into place. Close the access door and prime pump by pushing manual button 3-4 times or until product comes out.



8 Dispense cheese until the pouch is empty. Replace empty pouch with new pouch. Clean pump per local health department standards.



How to operate

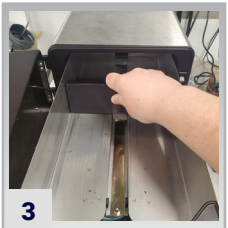


1

Plug in unit. Screen will show current temperature (top) and set-point (bottom) as the unit heats.

2

Open the access door and pull out tray assembly.
Caution: If the unit has been running, the tray assembly will be hot to the touch and oven mitts should be worn.



3

Push the push plate back to the engaged position. You will hear a "snap" when support is engaged.

HOT

Caution: Tray assembly will be hot; use oven mitts.

Caution: Ensure push plate is fully engaged (look and listen for "snap") before letting go of it to avoid it from snapping back.

4

Do not lift pouch by fitment. Remove cap from cheese and carefully press pouch to remove air bubbles.

5

While holding the base of the opening with one hand, place anti choke-off end of pump assembly into pouch fitment with the other. Listen for a "click".

6

Face motor shaft opening side of the pump toward the long end of the pouch. Tip: For best results, use a clean and dry pump.

7

Place pouch into tray assembly. Pump assembly should be facing down.

8

Squeeze cheese toward the front of the pouch where the pump is located and fold the tail over the pouch.

9

Push loaded tray assembly into the unit until the push plate "snaps" into place.

10

Place pump over the shaft and gently turn so shaft and pump fittings align, then snap into clips.

11

Close the access door and prime pump by pushing manual button 3-4 times or until product comes out.

Scraping pouch

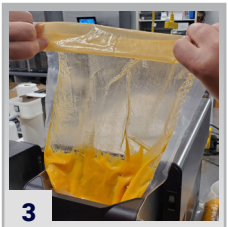
1

When portions become inconsistent, pull the tray assembly out of the unit.

2

Unfold pouch and spread across top of unit.

To achieve the highest evacuation, scrape all cheese toward pump.



3

Fold excess pouch down until you reach remaining product.

4

Fold in corners and tuck into tray assembly. Close the access door.

Replacing pouch

1

When pouch is empty, open access door and unsnap the pump from the motor shaft.

2

Slide tray assembly out until it stops and push the push plate back until it "snaps" into position. **See Caution.**

3

Unsnap the pump from the pouch fitment.

Return to **Page 5** of these instructions for how to install a pouch.

HOT

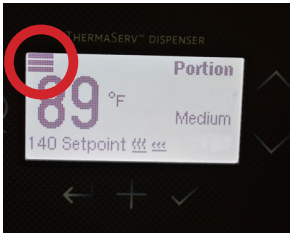
Caution: The tray assembly will be hot to the touch and oven mitts should be worn.

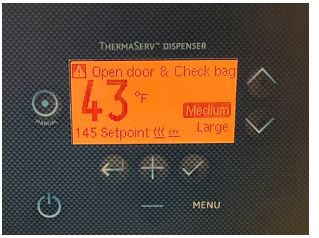
IMPORTANT

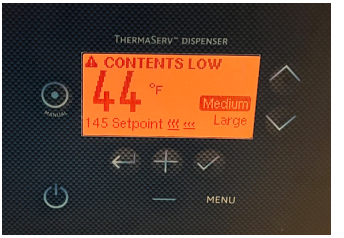
For best results, clean, rinse, sanitize, and dry pump parts after changing out pouch. Refer to page 8 for cleaning instructions.

Contents Low Prompt & Workflow

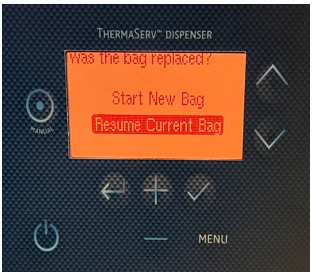
As product is depleted from the pouch, the pouch fill level icon in the upper left hand corner of the user interface screen will show (3) bars going down to (2) and then to (1) bar. When a pouch reaches 10%, the user interface will display the contents low prompt. The screen will rotate between "Open door & Check bag" and "CONTENTS LOW".

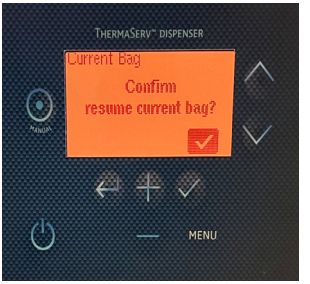




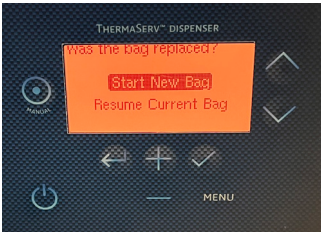


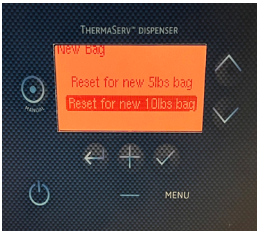
When this prompt occurs and portions become inconsistent, open the door and check the pouch and you can either decide to continue with the existing pouch or go right into the process of changing out the pouch. If you decide to continue with the existing pouch, close the door and a prompt will come up asking you to select either "Start New Bag" or "Resume Current Bag". Select "Resume Current Bag" and then confirm you are resuming with the current bag.

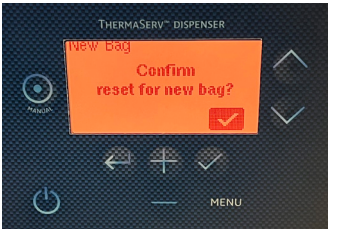




If you decide to replace the pouch, replace the pouch with a full pouch and then shut the door and a prompt will come up asking you to select either "Start New Bag" or "Resume Current Bag". Select "Start New Bag". You'll then select the size of the pouch you are using which is either 10 lbs. or 5 lbs. Then you'll confirm the reset to a new bag.

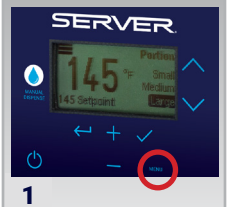






Changing Portion Sizes

The touch-free and manual dispense portions can be modified in the menu screen. To change portions, follow these steps.



1

Push the Menu Access button. It reads "MENU".

2

Push in the code "3601" by pressing the + and - buttons to locate the number then push the check mark button to select.

3

Navigate to "Portion Menu" and then select it.

4

Select either "Touch-free Dispense" or "Manual Dispense".

5

Select the portion size you'd like to change.

6

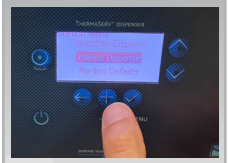
Move the portion size up and down with the + and - button then push the check mark button to select.

7

In order to remove the portion option from the home screen both Touch-free and Manual portions must be set to "Off".

8

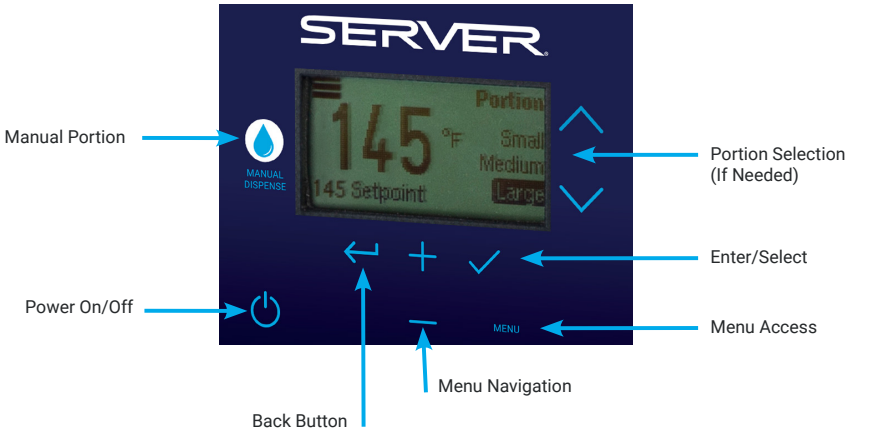
Confirm the set portion amount by pushing the check mark button.



9

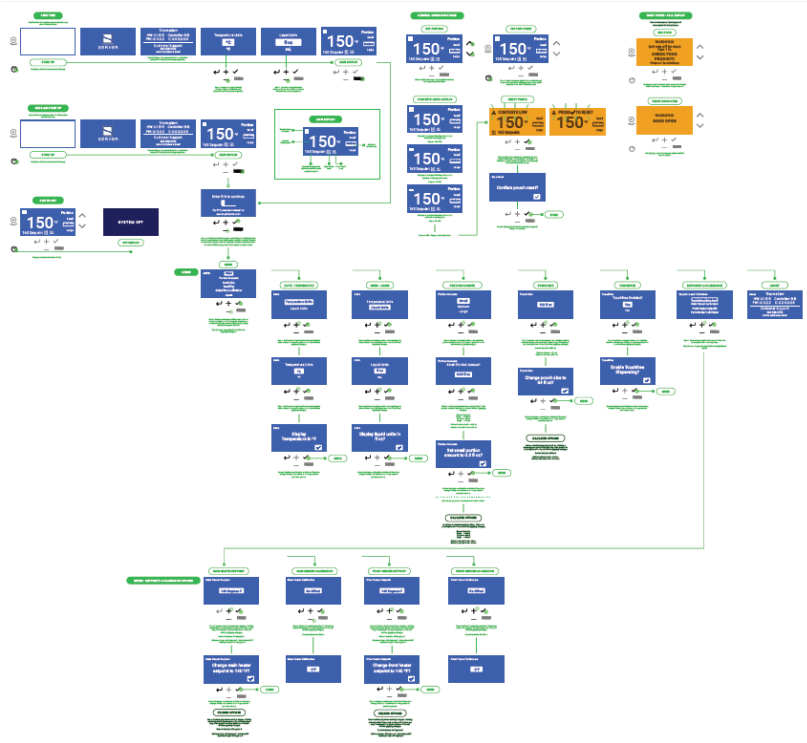
You'll now go back to the screen where you chose between "Touchless" and "Manual" dispense. If done, simply hit the "MENU" button to go back to main screen.

User interface key



User interface flowchart

Need help navigating the screens on the ServerTherma+? Click on the image below for a comprehensive user interface screen flowchart.



Cleaning and pump assembly guide

WARNING – Electrical shock could occur

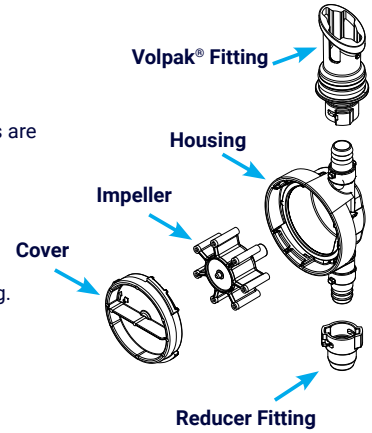
- Electrical components of unit could be damaged from water exposure.
- Never immerse unit into water or any liquid or use any water jet or pressure sprayer on unit.
- Ensure unit is “OFF” and unplugged before cleaning.
- Allow to cool before cleaning.

1 Fully disassemble the pump.

2 Use the supplied brushes to wash, rinse, and sanitize all pump parts, making sure to get inside parts. Pump parts are also dishwasher safe.

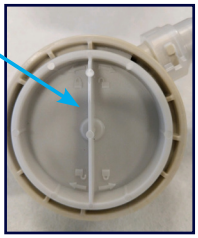
3 Allow parts to air dry.

4 For best results, apply a small amount of food lube around the impeller shaft and any excess should be placed on the impeller face and inside the pump housing.



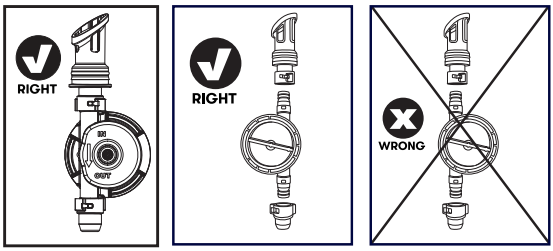
5 Insert the impeller into the pump housing. It is recommended to **replace the impeller (100386) every 6 months.**

6 Place the cover over the impeller. Align the grooves in the cover to the grooves in the housing and **twist tightly into the locked position to secure**.



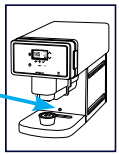
7 Attach the reducer fitting to the end of the housing marked OUT and **twist tightly to secure**.

8 Attach the Volpak® fitting to the side marked "IN" and attach the smaller reducer fitting to the side marked "OUT" and **twist tightly to secure**.



Use a clean and dry pump with each new pouch of cheese.

IMPORTANT!
Periodically clean sensor window with a microfiber cloth to keep it free of debris in order to function properly.



EVERY TIME YOU CHANGE THE POUCH

- Wipe off the tray assembly
- Wipe off the outside of the unit
- Use a clean and dry pump

WEEKLY CLEANING

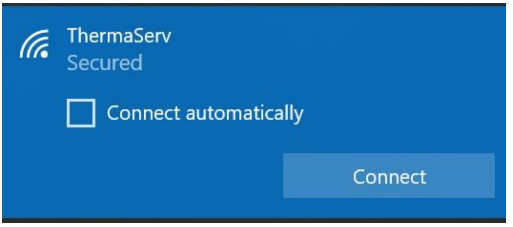
- Face plate behind the door near the motor shaft
- Detail outside of the unit
- Clean underneath the unit
- Detail tray assembly

CLEAN

- Before first use and after use daily. Ensure unit is “OFF” and unplugged.
- Hand wash exterior only with dish washing soap and hot water. Do NOT immerse unit in water.
- Do NOT use abrasive brushes or pads or cleaning products containing acids, alkalines, chlorine, or salt.

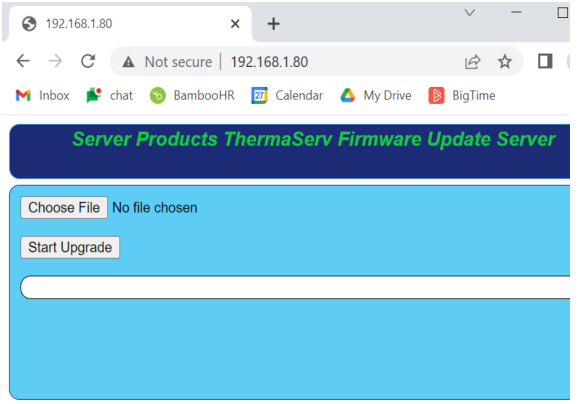
Updating firmware

Firmware updates can be done Over The Air (OTA) using a WiFi connection from a PC, Smartphone, or tablet. When WiFi is turned on in the SmartWares menu option, the unit will become a WiFi Access Point. The SSID will show as "ThermaServ".



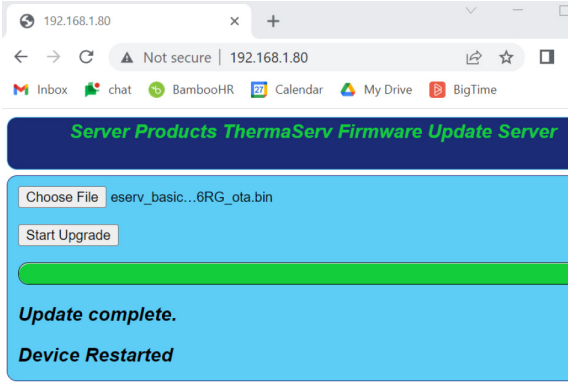
Connect your PC to this access Point using the Passphrase "ServerProducts".

Open a web browser and go to 192.168.1.80



Choose the file that is on your PC, Smartphone, or tablet and push the "Start Upgrade" button. The file will start to upload. The user interface of the unit will note that the Firmware is being updated and to not remove power and that it can take a few minutes.

After the new firmware is loaded, the ServerTherma+ unit is restarted. This will drop the WiFi connection. The connection needs to be reestablished and the web page needs to be reloaded before attempting another update.



Data logging

ServerTherma+™ has a data collection feature that records status and setting information once every 30 seconds. Each record is reported as a single line in a Comma Separated Vector (.csv) file, which can be downloaded to and viewed on a PC as a spreadsheet. The unit can be made aware of the current date and time so it can set a timestamp on each record. If the system is unable to determine date and time, the timestamp will be a simple "seconds since system power-on" counter.

The system is capable of storing one record every 30 seconds for up to 3 weeks. If records have not been downloaded by the end of 3 weeks, recording will continue with the oldest record being replaced with a new one every 30 seconds. Records can be downloaded as often as desired. Only new records since the last download will be available.

Each record contains the following fields:

Record Number	Current Timestamp	Main Temperature setpoint	Main Temperature Reading	Front Temperature Setpoint	Front Temperature Reading	Pouch Size	Pouch remaining	Current Dispense	Total Dispense	System On/Off

- The Record Number increments by one for each 30 second record. It is reset to 1 on a factory reset; otherwise it is manintained across all events including system power cycles and record log download.
- Current TimeStamp is the time at which this record is taken. This field is in Epoch Time (seconds since 00:00:00 UTC on January 1, 1970), which makes it timezone independent and can be converted to local time. If the system's on-board clock has not been set by WiFi or the User, this timestamp will default to seconds since the most recent power cycle.
  Main Temperature Setpoint reports the user-selected setpoint for the main heater in °F.
- Main Temperature Reading is the current temperature for the main heater as displayed on the system display, in °F.
- Front Temperature Setpoint is the user-selected setpoint for the front heater in °F.
- Front Temperature Reading is the current temperature for the front heater in °F.
- Pouch Size is the current user selected setting for the pouch size in ounces.
- Pouch Remaining is the amount of product left in the pouch in ounces.
- Current Dispense is the amount of product which has been dispensed during the current record's 30 second period in ounces.
- Total Dispense is the amount of product which has been dispensed since the last factory reset. The count is maintained across all events including system power cycles and record log download.
- System On/Off reports if the system was On or Off (as set by the front button, not true power disconnect) at the end of the current 30 second record period.

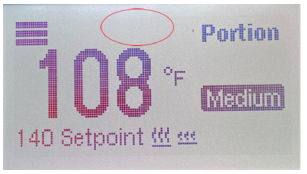
Wifii Modes & Access

In order for the system to automatically recognize the time and date, it needs to be connected to WiFi. ServerTherma+ has two different WiFi access modes: WiFi Station Mode and WiFi Access Point (WiFi AP Mode). The WiFi Station Mode allows the system to connnect to an existing network. When in this mode, the system will constantly attempt to retrieve the current time from that network. The WiFi AP Mode was explained on page 11 in the way to execute Over The Air (OTA) firmware updating. In this mode, the system does not connect to a WiFi network. Rather, the ServerTherma+ presents its own network and the user connects to it. This will allow the user to manually set the system time, download logging records, and to configure a new WiFi mode.

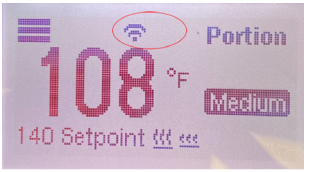
Data logging (continued)

WiFi AP Mode is enabled via the front display. If not enabled and the user has entered WiFi Station Mode configuration information (Network name and password), the system will be in WiFi Station Mode. Otherwise the system's WiFi will be off. This is visually represented via icons on the front display.

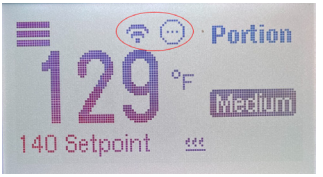
Display with WiFi AP Mode not set and Network name/password not set. This is the factory reset state.



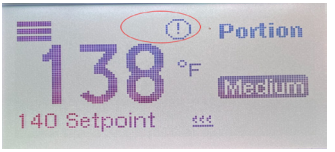
Display with WiFi AP Mode set and Network name/password not set. User goes to this state to configure WiFi settings.



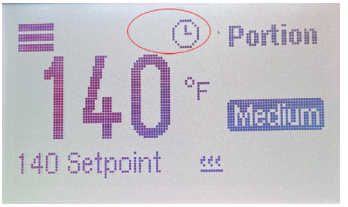
Display with WiFi AP Mode set and Network name/password set. The system is waiting for the user to exit WiFi mode so that it can connect to the selected network and get the current Date and Time.



Display with WiFi AP Mode disabled and Network name/password set. The system is trying to connect to the network. This is normal operation when the network is unavailable.



Display with WiFi AP Mode disabled and Network name/password set. The system is connected to the network. This is normal operation when the netowork is available.

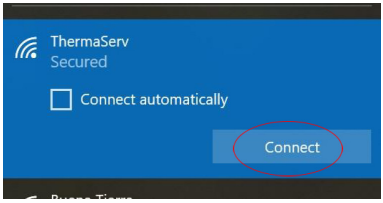


Data logging - Setting Date & Time

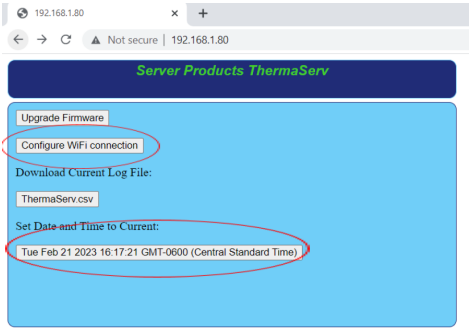
The ServerTherma+™ system hardware does not include a clock which maintains the current time over power cycles. The current time needs to be externally set in order for the timestamps in the records to be valid.

There are two ways to set the system time. Both require accessing the system's configuration web pages with the system in WiFi AP Mode.

When the WiFi AP Mode is turned on in the SmartWares® menu option, the unit will become a WiFi Access Point. The network name (SSID) will show up as ThermaServ. Connect you PC to this Access Point using the Passphrase "***ServerProducts***".

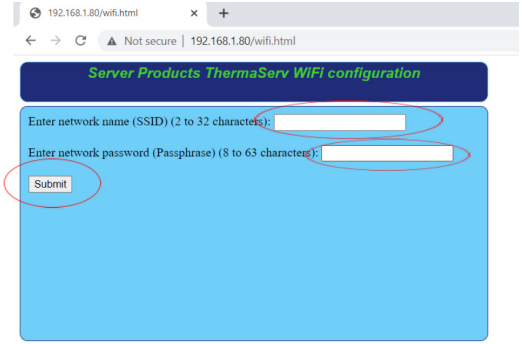


Open a web browser and go to 192.168.1.80



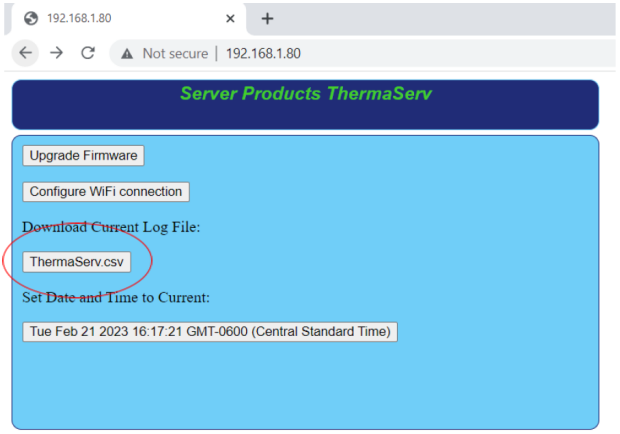
To set the system time manually, simply click on the Time button at the bottom of the page.

To configure the system to connect to a WiFi network and get the time from there (preferred method), click on the "Configure WiFi connection" button and enter the network information. Remember that the system will not actually try to connect to this network unitl the device (laptop) is diconnected from the ServerTherma+.

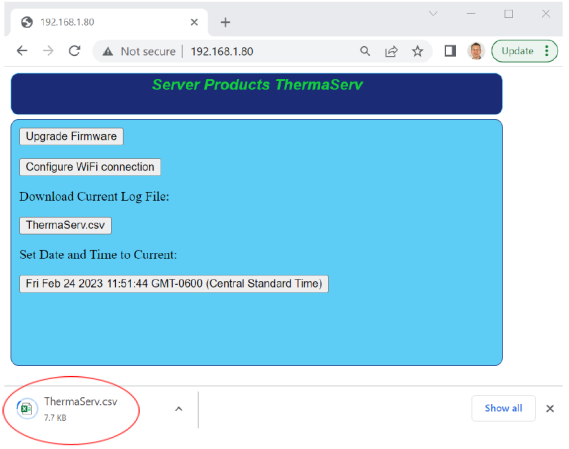


Data logging - Retrieving Records

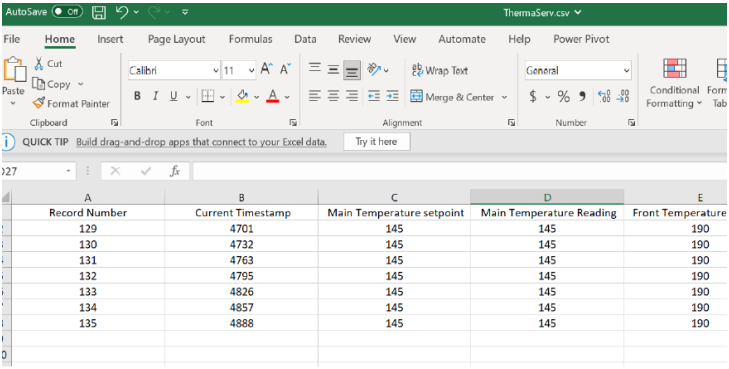
Logging records are downloaded from the system using the "ThermaServ.csv" button on the main menu. The download will start automatically. If there are a lot of records, it may take some time.



Once complete, the file can be opened with a text editor, Excel, Google Sheets, etc.



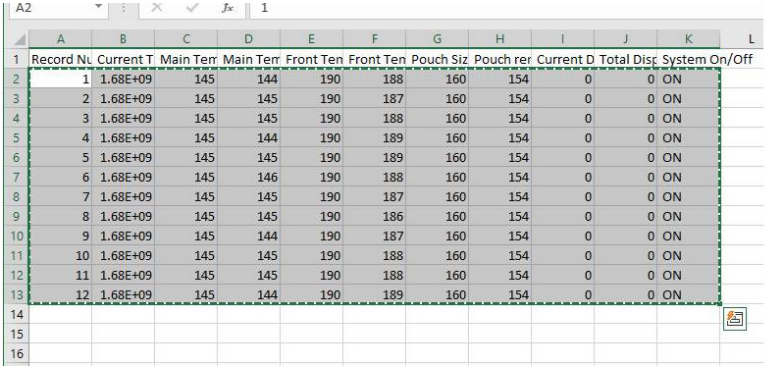
Data logging - Retrieving Records



Record Number	Current Timestamp	Main Temperature setpoint	Main Temperature Reading	Front Temperature
129	4701	145	145	190
130	4732	145	145	190
131	4763	145	145	190
132	4795	145	145	190
133	4826	145	145	190
134	4857	145	145	190
135	4888	145	145	190

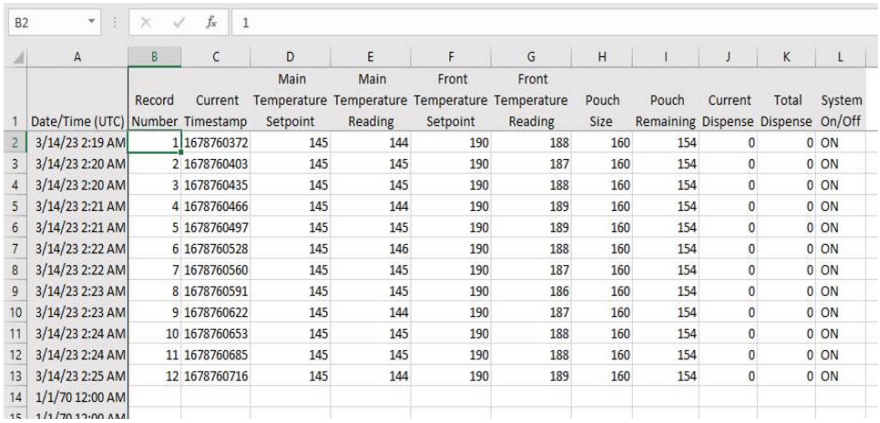
If the time is set, the data will be timestamped. In the spreadsheet, the time needs to be converted from Epoch time to a readable date and time. The simplest and preferred method of accomplishing this is to use a downloadable template from the Server Products website (URL to come). Select, copy and paste the data from the downloaded file into the template and the preset formulas will display the actual date and time.

Select and copy the data in the downloaded .csv file.



Record Nu	Current T	Main Tem	Main Tem	Front Ten	Front Ten	Pouch Siz	Pouch rer	Current D	Total Disp	System On/Off
1	1.68E+09	145	144	190	188	160	154	0	0	ON
2	1.68E+09	145	145	190	187	160	154	0	0	ON
3	1.68E+09	145	145	190	188	160	154	0	0	ON
4	1.68E+09	145	144	190	189	160	154	0	0	ON
5	1.68E+09	145	145	190	189	160	154	0	0	ON
6	1.68E+09	145	146	190	188	160	154	0	0	ON
7	1.68E+09	145	145	190	187	160	154	0	0	ON
8	1.68E+09	145	145	190	186	160	154	0	0	ON
9	1.68E+09	145	144	190	187	160	154	0	0	ON
10	1.68E+09	145	145	190	188	160	154	0	0	ON
11	1.68E+09	145	145	190	188	160	154	0	0	ON
12	1.68E+09	145	144	190	189	160	154	0	0	ON

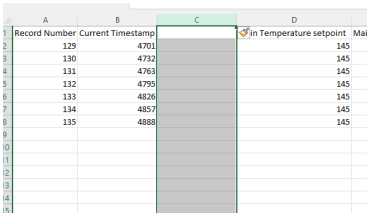
Paste the data into cell B2 of the template and the readable date/time will appear in column A.



Date/Time (UTC)	Record Number	Current Timestamp	Main Temperature Setpoint	Main Temperature Reading	Front Temperature Setpoint	Front Temperature Reading	Pouch Size	Pouch Remaining	Current Dispense	Total Dispense	System On/Off
3/14/23 2:19 AM	1	1678760372	145	144	190	188	160	154	0	0	ON
3/14/23 2:20 AM	2	1678760403	145	145	190	187	160	154	0	0	ON
3/14/23 2:20 AM	3	1678760435	145	145	190	188	160	154	0	0	ON
3/14/23 2:21 AM	4	1678760466	145	144	190	189	160	154	0	0	ON
3/14/23 2:21 AM	5	1678760497	145	145	190	189	160	154	0	0	ON
3/14/23 2:22 AM	6	1678760528	145	146	190	188	160	154	0	0	ON
3/14/23 2:22 AM	7	1678760560	145	145	190	187	160	154	0	0	ON
3/14/23 2:23 AM	8	1678760591	145	145	190	186	160	154	0	0	ON
3/14/23 2:23 AM	9	1678760622	145	144	190	187	160	154	0	0	ON
3/14/23 2:24 AM	10	1678760653	145	145	190	188	160	154	0	0	ON
3/14/23 2:24 AM	11	1678760685	145	145	190	188	160	154	0	0	ON
3/14/23 2:25 AM	12	1678760716	145	144	190	189	160	154	0	0	ON
1/1/70 12:00 AM											

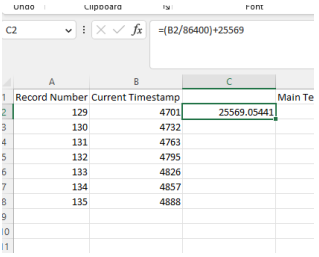
Data logging - Retrieving Records

If the date/time conversion template is unavailable, the conversion can be accomplished by by inserting a column to the right of the Current TimeStamp column.



Record Number	Current Timestamp		Temperature setpoint	Mai
129	4701		145	
130	4732		145	
131	4763		145	
132	4795		145	
133	4826		145	
134	4857		145	
135	4888		145	

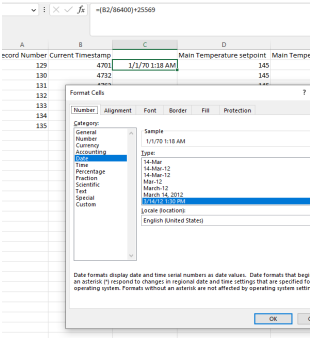
In the cell to the right of the first timestamp, insert this formula: =(B2/86400)+25569.



C2: =(B2/86400)+25569

Record Number	Current Timestamp		Main Te
129	4701	25569.05441	
130	4732		
131	4763		
132	4795		
133	4826		
134	4857		
135	4888		

Format the result cell for date/time.



The result will be in GMT time zone. If you want to change the time zone, you'll need to adjust the formula. Look up the time zone GMT off set in the following link time zone adjustment. For example, the CST time zone is GMT-06:00 (which is just -6 hours). So go back into the formula and insert the off set to the GMT time: =((B2-***6***)/86400)+25569. Copy the result down the rest of the new column to see the actual time and date.

Record Number	Current Timestamp		Main
129	4701	1/1/70 1:18 AM	
130	4732	1/1/70 1:18 AM	
131	4763	1/1/70 1:19 AM	
132	4795	1/1/70 1:19 AM	
133	4826	1/1/70 1:20 AM	
134	4857	1/1/70 1:20 AM	
135	4888	1/1/70 1:21 AM	

Fault Codes

Status/Fault codes are sent from the controller board to the Basic User Interface (UI) board. The Basic UI displays them either in the form of "FAULT:XX" in place of the temperature display, or displays a full error screen as noted below. If more than one fault is being reported, the bit field will be a combination of all the faults.

FAULT CODES

Name	Value	Comment
NO_FAULT	00	Normal operation. Not displayed.
FAULT_HEATER_1_NO_TEMP	01	The main heater thermometer is not working.
FAULT_HEATER_1_BELOW_MIN_TEMP	02	The main heater thermometer is reporting less than 32°F.
FAULT_HEATER_1_ABOVE_MAX_TEMP	04	The main heater thermometer is reporting greater than 224.6°F.
FAULT_BAD_FOOD	08	The unit has been off for more than one hour, so the contents may have gone bad. This is a full display screen that happens only at power on.
FAULT_HEATER_2_NO_TEMP	10	The front heater thermometer is not working.
FAULT_HEATER_2_BELOW_MIN_TEMP	20	The front heater thermometer is reporting less than 32°F.
FAULT_HEATER_2_ABOVE_MAX_TEMP	40	The front heater thermometer is reporting greater than 224.6°F.
FAULT_FRONT_DOOR_OPEN	80	The front door is open, blocking all other functions. This is a full display screen which remains until the door is closed.
FAULT_NO_COM	100	The Basic UI can't talk to the Controller board. Possible hardware fault.

Need help with fault codes?

Server Products Inc.
3601 Pleasant Hill Road
Richfield, WI 53076 USA

Chat with us!
spsales@server-products.com
262.628.5600 | 800.558.8722

Troubleshooting

UNIT DOES NOT TURN ON?

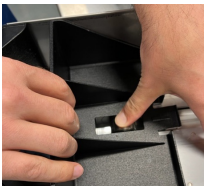
- Ensure power cord is plugged into power source.
- Ensure power is available from source.
- Fully press power button to turn on.
- If still not working, power down the unit, unplug the unit from the power source for 5 seconds, then plug it back in and push the power button. This makes the mechanical and electrical system reset to the start position. Ensure door is securely closed.

UNIT DISPENSES ERRATICALLY

- Ensure sensor window is clean of debris or water and the window film is not damaged or scratched.

PUSH PLATE DISENGAGES FROM TRAY

- Ensure spacers are installed and in good condition.
- To reinstall push plate, place push plate over the spring spool then push spring spool forward with thumb and push the plate down. Then release spring spool to secure into place.



UNIT TRIPS THE BREAKER? (GROUND FAULT INTERRUPTER)

- Never expose electrical components to water or liquid. This may result in damage. Unit may not function.

If electrical components have gotten wet:

- Turn off unit and unplug. Allow unit to dry completely.

UNIT DISPENSES INCONSISTENT PORTIONS

- Ensure pouch is properly installed and scraped if needed.
- Ensure push plate is fully engaged and is push pouch forward.
- Ensure pump is properly assembled with the cover locked in place.

Server Products limited warranty

2 YEAR WARRANTY

This Server product is backed by a two-year limited warranty against defects in materials and workmanship. See Server-Products.com for details.

General service, repair or returns

Before sending an item to Server Products, contact Customer Care to request a **Return Authorization Number and receive instructions on how to process the return through Parts Town.** The RA Number ensures proper processing and a prompt turnaround of a replacement unit.

Need help?

Server Products Inc.
3601 Pleasant Hill Road
Richfield, WI 53076 USA

Chat with us!
spsales@server-products.com
262.628.5600 | 800.558.8722

Please be prepared with your **Model, P/N** and **Series** located on the lid or base of the unit.

Example: