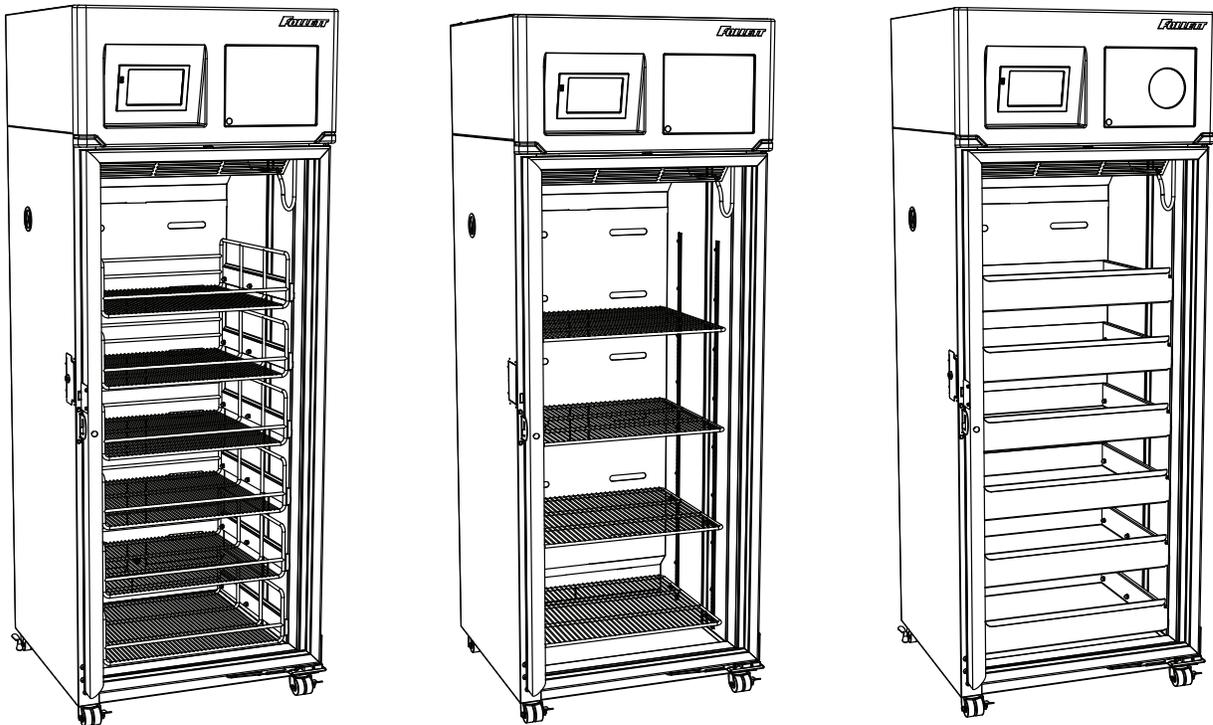


## Installation Guide After serial number J62764

Please visit <https://www.follettice.com/technicaldocuments>  
for the Operation and Service manual for your unit



### Welcome to Follett Products LLC

Follett Products equipment enjoys a well-deserved reputation for excellent performance, long-term reliability and outstanding after-the-sale support. To ensure that this equipment delivers that same degree of service, review this guide carefully before you begin your installation.

Should you need technical help, please call our Technical Service group at (877) 612-5086 or (610) 252-7301.

Please have your model number, serial number and complete and detailed explanation of the problem when contacting Technical Service.

### Getting Started

After uncrating and removing all packing material, inspect the equipment for concealed shipping damage. All freight is to be inspected upon delivery. If visible signs of damage exist, please refuse delivery or sign your delivery receipt “damaged.” Follett Customer Service must be notified within 48 hours. Wherever possible, please include detailed photos of the damage with the original packaging so that we may start the freight claim process.

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## Welcome to Follett

Follett equipment enjoys a well-deserved reputation for excellent performance, long-term reliability and outstanding after-the-sale support. To ensure that this product delivers that same degree of service, we ask that you take a moment to review this manual before beginning the installation. Should you have any questions or require technical help at any point, please call our technical service group at (877) 612-5086 or +1 (610) 252-7301.

## Before you begin

After uncrating and removing all packing material, inspect the equipment for concealed shipping damage. If damage is found, notify the shipper immediately and contact Follett LLC so that we can help in the filing of a claim, if necessary.

Check your paperwork to determine which configuration you have. Follett configuration numbers are designed to provide information about the type of refrigerator you are receiving.

Specifications						
	REF20-LB	REF25-LB	REF20-PH	REF25-PH	REF20-BB	REF25-BB
Capacity	19.7 cu ft (558 L)	24.6 cu ft (697 L)	19.7 cu ft (558 L)	24.6 cu ft (697 L)	19.7 cu ft (558 L)/ 280 bags (450ml)	24.6 cu ft (697 L)/ 360 bags (450ml)
Storage system	(4) epoxy-coated shelves	(4) epoxy-coated shelves	(6) epoxy-coated baskets	(6) epoxy-coated baskets	(6) stainless steel drawers	(6) stainless steel drawers
Exterior width	29.75" (76 cm)					
Exterior depth	29" (74 cm)	35" (89 cm)	29" (74 cm)	35" (89 cm)	29" (74 cm)	35" (89 cm)
Exterior depth with handles	30.5" (78 cm)	36.5" (93 cm)	30.5" (78 cm)	36.5" (93 cm)	30.5" (78 cm)	36.5" (93 cm)
Exterior height with casters	79.5" (202 cm)					
Interior dimensions (w x d x h)	24" x 22.5" x 56" (61 cm x 58 cm x 143 cm)	24" x 28.5" x 56" (61 cm x 73 cm x 143 cm)	24" x 22.5" x 56" (61 cm x 58 cm x 143 cm)	24" x 28.5" x 56" (61 cm x 73 cm x 143 cm)	24" x 22.5" x 56" (61 cm x 58 cm x 143 cm)	24" x 28.5" x 56" (61 cm x 73 cm x 143 cm)
Crated weight	395 (180 kg)	430 (196 kg)	450 (205 kg)	485 (220 kg)	475 (216 kg)	525 (239 kg)
Max. heat rejection	950 BTU/hr	1050 BTU/hr	950 BTU/hr	1050 BTU/hr	950 BTU/hr	1050 BTU/hr

Standard features – all models	
Door	Dual pane, low-E glass, condensation free to 80 F (27 C) air/60% RH
Door handle	ADA-compliant, full length handle with integral lock
Interior/exterior material	Heavy-duty, corrosion resistant stainless steel
Casters	(4) dual-wheel swiveling casters with toe locks
Insulation	2.75" (7 cm) thick, CFC-free foam insulation throughout
Lighting	(2) full length side LED lights
Air circulation system	Ducted air through 12 back plenum openings with front face return
Temperature probe	Stainless steel RTD (resistance temperature detectors) top, bottom probe standard on - BB models, available as option on -LB, -PH models, immersible with panel quick-disconnect

## Refrigeration System

The REF20/25 series refrigeration system is designed to give many years of trouble-free service. Except for routine cleaning of the air-cooled condenser and related parts, the refrigeration system requires no service or maintenance. The system uses a capillary tube metering device and is critically charged. Access fittings are not provided.

Temporary piercing valves are required to work on the refrigeration system. Follett recommends that if hoses are ever connected to the refrigeration system for service, the refrigerant should be recovered, permanent access valves should be installed and the system evacuated, and recharged by weighing in the correct refrigerant charge (refrigerant R134a, 11.4 oz (322g)).

Note: Do not charge the system by pressures.

## Ambients

Intended for indoor use where ambient temperature, measured at the condenser inlet, does not exceed 80 F (27 C) and ambient relative humidity does not exceed 60% RH. A heated door is recommended for higher humidity ambients.

## Clearances

The top of the refrigerator must have 10 inches (25.4 cm) of clear space above the refrigerator to ensure proper ventilation of the refrigeration system.

The back of the refrigerator should have 1 inch (2.5 cm) of clearance to allow for power cord clearance on unit and an additional 1 inch (2.5 cm) if the unit is to be plugged in directly behind the refrigerator.

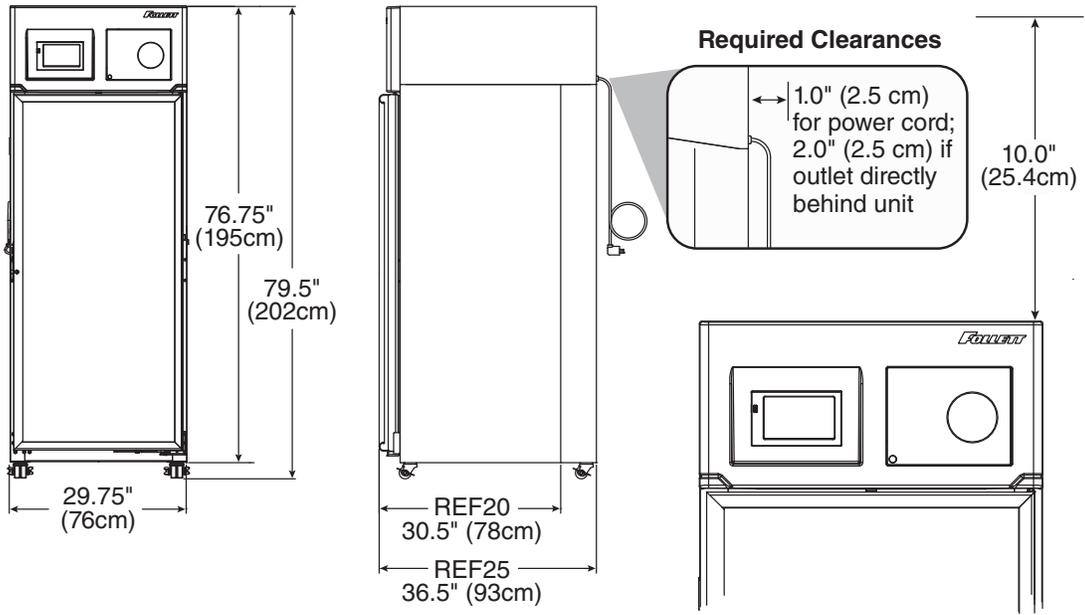
## Electrical specifications

- 115 V, 60 Hz, 1 phase
- Running load amps: 8.4A without heated door; max 9.7A with door heater energized 100% (adjustable)
- Full load amps (90% maximum continuous current per UL 471 at 40 C): 10.5A
- Minimum circuit ampacity: 15A dedicated circuit
- **Maximum size of branch circuit overcurrent device: 15A dedicated circuit**
- Follett recommends circuit be protected by GFCI breaker

## Refrigeration specifications

- Refrigerant R134a, 11.4 oz (322 g)
- Compressor amperage: RLA - 7.6A, LRA - 44.5A
- Compressor winding resistances: C-S (5.2Ω - 5.9Ω), C-R (1.2Ω - 1.3Ω)
- Evaporator fan motor amperage: FLA - 0.22A
- Condenser fan motor amperage: FLA - 0.46A
- Condenser inlet air temperature: 75 F (23.9 C)
- Discharge pressure (psi): 126
- Suction pressure (psi): 11

**Detail drawing**



## Installation

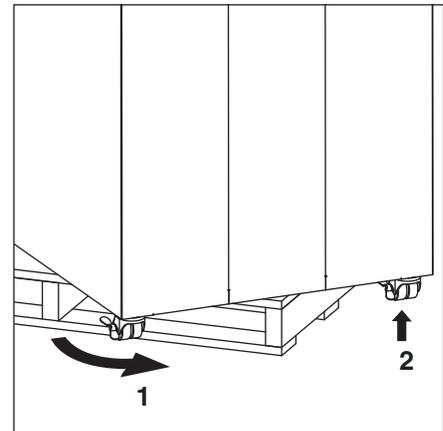
### DANGER



- **Do not tilt any unit further than 30° off vertical during uncrating or installation**
- **Refrigeration module area contains mechanical, moving parts. Keep hands and arms clear of this area at all times. If access to this area is required, power to unit must be disconnected first.**

1. Remove key taped to side of refrigerator cabinet and unlock door.
2. Remove casters from box packed inside refrigerator.  
**Note:** California facilities requiring wall and floor anchors – refer to wall anchor kit instructions (#00938241) packed with seismic kit before proceeding with caster installation.
3. Unbolt refrigerator from pallet.
4. Rotate refrigerator on pallet to install casters (**Fig. 1.1**).
5. Install casters by hand one at a time using channel locks to tighten, until caster meets against the bottom of cabinet (**Fig. 1.2**).
6. Peel protective film from exterior walls of stainless cabinet.

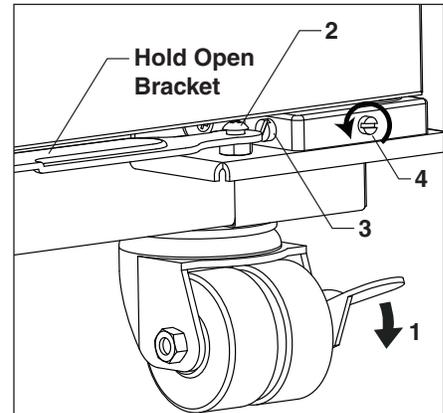
Fig. 1



## Adjust self-closing door

1. Roll refrigerator to desired location and lock as many casters as possible (**Fig 2.1**).
2. If the door appears to be sagging, remove the philips screw (**Fig. 2.2**) holding the Hold Open Bracket to the Hinge Bracket to gain access to the Sag Adjustment Screw (**Fig. 2.3**). Turn the Sag Adjustment Screw to align the door squarely with the freezer cabinet. When finished, reinstall the Hold Open Bracket.
3. Check door for closing tension and adjust if necessary. To check closing tension, open door 1" and turn screw (**Fig. 2.4**) counterclockwise until you achieve positive close. (Light will go out) Then, turn another half turn counterclockwise.

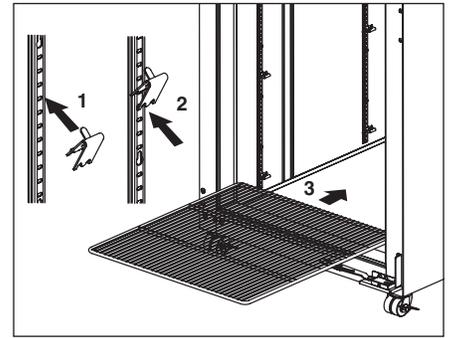
Fig. 2



## Install shelves (if equipped) and power up

1. If refrigerator is equipped with shelves, remove bag containing shelf supports and position them in desired locations on each pilaster and insert shelves (**Fig. 3**).
2. Plug refrigerator into a 115 V 60 Hz 15A dedicated outlet.

Fig. 3



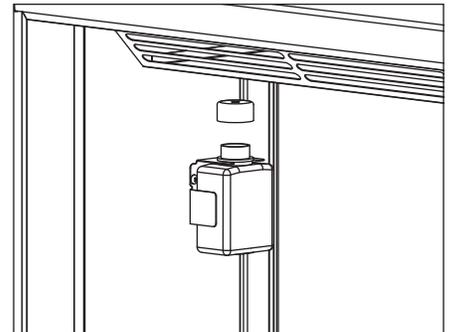
## Fill product bottle

### ATTENTION INSTALLER

- It is imperative that the top/bottom probe bottle be filled with a solution that your facility uses to ensure proper operation of unit.
- Units are equipped with a third-party monitor installation port. Customers are required to refer to CDC Vaccine and Handling Toolkit ([cdc.gov](http://cdc.gov)) for proper placement of the probe within the cabinet to ensure proper performance.

1. Remove probe and cap from the top bottle and fill with glycerine supplied with unit (e.g., 50% glycerine and 50% water) (**Fig. 4**). Replace cap and reinsert probe sensor.
2. If equipped with a bottom probe, perform same procedure for bottom bottle.
3. Adhere supplied probe wire clips (x4, packaged with manual) to inside wall leading to the probe bottle.
4. Route probe wire into clips and close the clips.

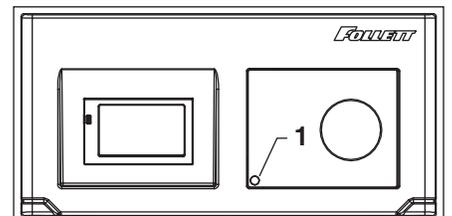
Fig. 4



## Power the Unit

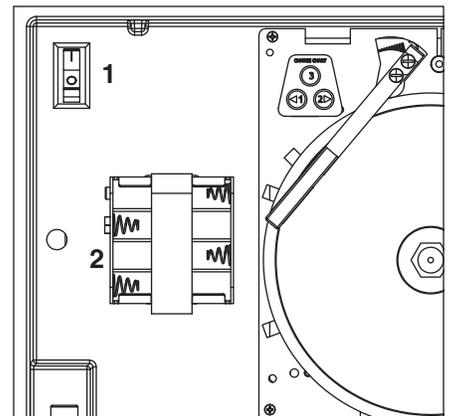
1. Press lower left corner of front facade door to access power switch inside (**Fig. 5.1**).

Fig. 5



2. Press power switch to turn unit on (**Fig. 6.1**).
3. Connect wiring harness to back-up battery pack and connect 9 V chart recorder back-up battery (if equipped).

Fig. 6



# Controller Operation

## Use and care of the LCD touchscreen

The LCD touchscreen utilizes capacitive touch technology. This will allow you to engage the functionality by touching the screen with your fingers, even while you are wearing latex or cotton gloves. Functionality will not engage by touching with an inanimate object, such as a pen or stylus.

- To preserve optimal touch sensitivity, keep the screen clean by using a clean, dry cotton cloth.
- Do not expose the screen to liquids or excessive dust, heat or humidity.

Control function icons and navigation buttons engage functionality of the user interface. Status indicators alert the user to a change of status.

### Home screen

The Home Screen consists of three primary information areas: the temperature display, control function display zone and system status display.

Control Functions	System Status	Functions and Settings
Settings	Compressor is running	USB download available (downloading when blinking)
Alarming	Evaporator fan is running	Refrigeration set points
Light	Door is open	Sleep functions
Information log	Defrost cycle is in process	Centrigrade to Fahrenheit
Help		Probe set points
		Alarming functions
		Alarm mute
		Reset

- Product temperature is displayed in the upper right corner.
- Current selected display probe above temperature readout.
- Primary control function icons are displayed in the lower left corner.
- System status icons will display in lower right corner to indicate a condition has been activated.

### High and low temperature display

From the home screen touch the temperature display in the upper right corner. The high/low temperatures will appear below the temperature display. To the left of the high/low temperature, a time and date stamp will be displayed.

### View the bottom probe temperature and min/max temperature log

1. Press the Temperature Display in the upper right hand corner of the display
  - Will initially display MIN/MAX temperature of Top probe.
2. Press a second time to prompt a reset Top probe MIN/MAX.
3. Press a third time to display HIGH/LOW alarm settings.
4. Press a fourth time to display current Bottom probe temperature.
5. Press a fifth time to display Bottom probe MIN/MAX temperature.
6. Press a sixth time for prompt to reset Bottom probe MIN/MAX temperature log..

Fig. 7



Fig. 8



Fig. 9



### Reset the high and low temperatures

Touch the temperature display a second time and the reset function ⓘ will appear under the high and low temperature. Touch the reset icon and a yellow message box will appear. Press ✔ to confirm reset or ✘ to cancel.

### Alarm set point display

From the home screen touch the temperature display three times. The High and low alarm set point will appear under the temperature.

### Help

- Help is available at any time by touching the ⓘ icon at the bottom of the screen.
- Help is screen-specific; touching the ⓘ icon will display an explanation of the functionality and use of the screen you are currently viewing.
- Touch ✔ to exit help screen.

### Settings ⚙

- Refrigeration Set Point ❄
  - Touch the number displayed in the box to the right of the Set point label and use the keypad or **UP** and **DOWN** arrows to select product temperature. Press ✔ to accept or ✘ to cancel.
- Sleep Temperature Display 🌙
  - Toggle **ON** to hide the temperature reading immediately on the home screen.
- Set the Sleep Delay 🌙
  - To automatically hide the temperature after 0-600 seconds of inactivity, touch the box to the right of the delay (0-600) box. Use keypad or **UP** and **DOWN** arrows to select from 0-600.
- Temperature C/F 🌡
  - Toggle between **F** and **C** to select Fahrenheit or Celsius.
- Brightness 💡
  - Touch the number displayed in the box to the right of the Brightness ⓘ icon and use the keypad or **UP** and **DOWN** arrows to select from 1-10. Press ✔ to accept or ✘ to cancel.

### System Information

- Touch the System Info icon ⓘ to display the model number, unit serial number and software version. Touch the checkbox icon ✔ in the lower right corner of the box to clear.

Fig. 10



Fig. 11

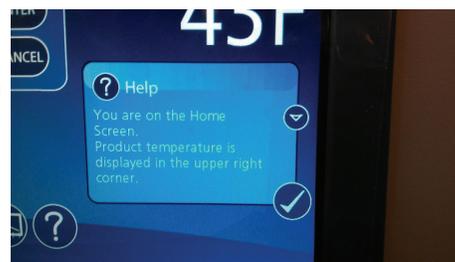


Fig. 12



Fig. 13



Fig. 14



## Alarm or Alert Notifications

- If an alarm or event condition is detected and an alarm is engaged, an alert notification will appear in the left center of the screen with an explanation of the alert condition and a checkbox  at the bottom right of the alert box.
- No further action can be taken on the User Interface until the alert condition is acknowledged and cleared by touching the checkbox .
- Mute 
  - Touch the  icon to mute audible alarm for 15 minutes.

## Door Switch

- This unit is equipped with a door switch that is located in the façade, and a magnet located on the top of the door. With the door closed, the switch reads closed. When the door is opened, the switch contacts open and turn on the LED lights.

## Door Alarm

- This unit is equipped with a door ajar alarm that is factory set for 1 minute. In the event the door switch reads open for longer than 60 seconds (default) an audible and visual alarm will occur. The alarm will clear when the door is closed. The door alarm activation time can be changed from 0-600 seconds in the Advanced Settings Menu under Door Open Alarm Delay.

## Power Alarm

- This unit is equipped with a Power Alarm that will sound if the unit loses power for more than five minutes. The Power Loss Alarm box will display every five minutes, then the screen will sleep. An audible alarm will sound every 30 seconds during the power failure. An alarm box will be displayed when power is restored. The event log will record the exact time and date of the power loss and when the power was restored.

## Start-up alarm delay

This unit has a 120 minute time delay between when the unit is energized to when the temperature alarms become active. This delay can be changed in parameters in the controller under **Alarm Startup Delay**.

## Setting Alarms

- Alarming Settings control the conditions and timing of event and alarm conditions that result in audible and/or visual alerts.
- To change the high alarm set point, touch the number displayed in the box to the right of the  icon and use the keypad or **UP** and **DOWN** arrows to select an alarm value. Press  to accept or  to cancel.
- To change the low alarm set point, touch the number displayed in the box to the right of the  icon and use the keypad or **UP** and **DOWN** arrows to select alarm value. Press  to accept or  to cancel.
- Audible Alarm 
  - Toggle between **ON** and **OFF** to engage and disengage the audible alarm function.
- Mute 
  - Touch the  icon to mute audible alarm for 15 minutes.

Fig. 15



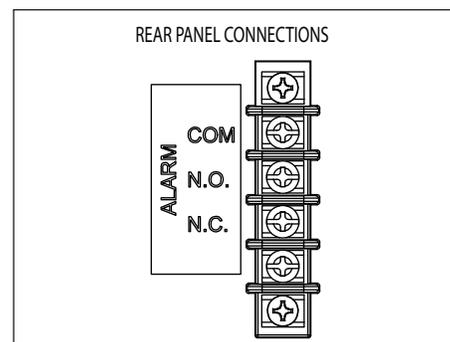
Fig. 16



### Alarming Contacts

This unit is equipped with dry contacts that may be connected to a third party monitoring system. The contacts are located on the back of the facade. Touchscreen units utilize Alarm 1. Each set of dry contacts has a Common, a Normally Open and a Normally Closed connection point. By default, Alarm Relay 1 is set to activate with any of the following alarms: Alarm 1 High temp, Alarm 1 Low temp, Door Open Alarm, and Power Loss Alarm.

Fig. 17



### Probe calibration

The temperature probes can be offset  $-9.9$  to  $+9.9$  in the Advanced Menu settings to deliver a more precise temperature reading.

1. Select Settings
2. Select Advanced settings and enter code 1,1,1,1. Confirm with Check mark
3. Using the DOWN arrow, scroll through Advanced Settings to Calibrate screen and select Calibrate
4. Place desired probe (P1-control, P2-Defrost, P4-Top probe, P5-Bottom probe) in an ice bath and allow 3-5 minutes for temperature stabilization.
5. Press "Offset" and use the UP/DOWN arrows to offset the probe reading to the proper value.

**Note: In the event of a factory reset, the offset value will return to 0.**

### Screen saver

The screen saver will replace the home screen and display a blank screen, time and date, or the temperature. When the screen is touched or the unit has an alarm or event, it will return to the home screen. The screen saver can be changed in the advanced setting.

**Screen saver function:** blank, time and date, or temperature.

**Screen saver time (sec):** 0—600 seconds between the last touch of the screen to the activation of the screen saver.

## Information Logs

- All available graphs, data logs and event logs are accessed through the Information Logs function. The home screen in the Information Logs section displays the product (P4) temperature graph with one week's data. Date and time information is displayed on the horizontal axis.
- This unit comes factory set to display only the product temperature (P4) on the graph. All of the probes can be viewed on the graph if desired. Probes can be added to the graph through the advanced setting under DATALOG. P1 and P5( if equipped) can be added by selecting the probe and changing the parameter from No to Yes. The selected probe will now display on the graph.
  - P1 control, P4 (Top Probe), P5 (Bottom Probe)
- Zoom in (+) or Zoom out (-) on an event/temperature on the home screen will change the time scale.
- Using the left and right arrows below the graph will scroll the graph. All the stored temperature data on the graph is viewable.
- Temperature Log – to display a chronological listing of logged temperatures (latest logged temperature will display first), touch the **Temperature Log** label to the left of the screen. Use the **UP** and **DOWN** arrows to the right of the screen to scroll through the logged temperatures.
- Event Log – to display a chronological listing of events (including errors, alarms and alerts), touch the **Event Log** label to the left of the screen. Use the **UP** and **DOWN** arrows to the right of the screen to scroll through the logged temperatures.

## Data logging

- The controller is capable of storing up to 50,000 readings per probe. The factory setting for the sample rate is every 15 minutes, which will provide enough storage for 520 days. The sample rate can be change to provide data logging for a longer or shorter time interval by changing the **Sample Rate (Min)** in the advanced settings menu. **0 = off and 360 minutes maximum.**

Fig. 18

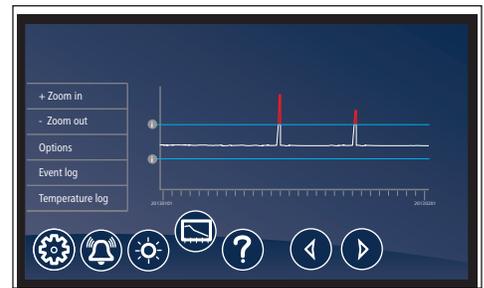


Fig. 19



Fig. 20



## Data Storage

- Data can be captured different ways. The factory default is for the data to overwrite itself when the memory is full. This can be changed in the advanced setting under **Data storage overwrite**. When this parameter is set to **No**, the system will display an alert when the memory is 75% full. To clear the alert the data must be downloaded.

## Data duration alarm

- A reminder can be set to download the data in the **Data duration alarm** in the advanced setting. The data duration can be set from **1 to 180 days**. If the data duration alarm is used, then the **Alarm on data full** parameter in the advanced setting must also be set to **Yes**.

## Downloading data

- The touchscreen has the capability of downloading the temperature data and event log via a USB port on the left side of the user interface. The file is a CSV format and is suitable for import directly into Microsoft Excel.

- Insert the storage device in the USB slot located to the left of the Touchscreen.
- Select the Graph icon along the bottom of the Touchscreen.
- Select the USB icon in the lower right hand corner.
- A yellow alert box with **downloading data** will appear.
- Press  to accept or  to cancel.
- After the unit is done downloading a second yellow alert box will appear asking if you want to **Erase log**.
- Press  to accept or  to cancel.

**Note:** If you chose to erase the data, the data duration timer and the data full alarm will reset. It will also erase the information that is stored on the graph.

**One of the two files below will be downloaded depending on which screen is being viewed:**

**EL XXXX YY - Event Log**

**TL XXX YY - Temperature Log**

XXXX = last 4 digits of serial number

YY = 0-99 number of downloaded file

## Data download reminder and data full alarm

- If you plan or are required to download data for a certain time period, you can set a **download data reminder** on the Performance Plus unit. Download data reminder can be found in the advanced setting under **Data duration** and can be set from **1 to 180 days**.

## Follett Keypad Lock – (Optional)

For units equipped with the electronic lock accessory option, a keypad will be displayed on the left side of the touchscreen. In order to gain access to the storage area, a user code must be entered.

- User default code is factory set to 1,2,3,4,5,6 and is stored in memory slot 01.

Fig. 21

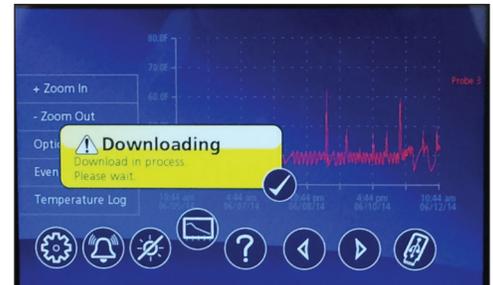


Fig. 22

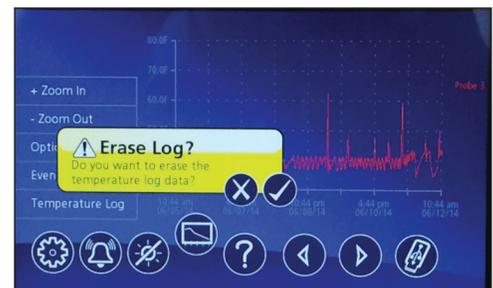


Fig. 23



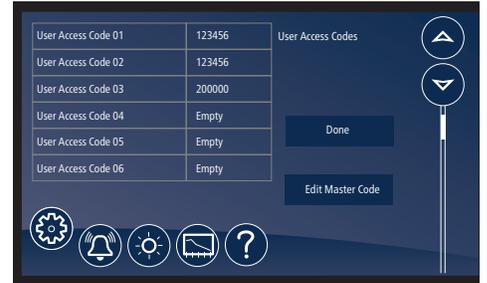
### Changing and Adding the User Codes

1. Touch Settings  icon.
1. Touch **Advanced Settings**, enter your 4-digit user access code (factory default is 1 1 1 1) in the keypad that appears, and touch the checkmark icon  to access advanced settings screens.
2. Time and date will be displayed. Scroll using the **UP** and **DOWN** arrows until **Change Access Code** is displayed in the Display Setup screen.
3. Touch **Change Access Code** and enter the master code [ENTER]. (By default, the master code is 1 2 3 4 5 6.)
4. Touch the screen to the right of the user code 2 to 40 to overwrite or add the user code.
5. Enter the new code. Press  to accept or  to cancel.
6. Enter the new code again. Press  to accept or  to cancel.
7. Press **DONE** when finished entering access codes.

Fig. 24



Fig. 25



### Electronic Lock Override

- Insert key, turn lock.
- Remove panel.
- Depress plunger with screwdriver.

### Light

- To turn the interior light on (or off), touch the Light icon or the Light Off icon.
- Light timer is in advanced settings.
- The light will also come on when the door is open.

### Time and Date

- To set time and date, press the Settings  icon.
- To display options, touch **Advanced Settings**, enter your 4-digit user access code in the keypad that appears, and touch the checkmark icon  to access advanced settings screens (factory default is 1111).
- Time: touch displayed time and use the keypad to enter the time. Press  to accept or  to cancel.
- AM/PM: touch displayed value to toggle between AM and PM.
- Month: touch number displayed and use the keypad to enter the month. Press  to accept or  to cancel.
- Day: touch number displayed and use the keypad to enter the day. Press  to accept or  to cancel.
- Year: touch number displayed and use the keypad to enter the year. Press  to accept or  to cancel.

Fig. 26



### Advanced Settings

- Touch **Advanced Settings**, enter your 4-digit user access code in the keypad that appears, and touch the checkmark icon  to access advanced settings screens (factory default is 1111).

## Chart recorder set up (if so equipped)

The chart recorder is mounted in the front right of the facade behind the door (**Fig. 27**). A package of 50 charts that record in C is included with your refrigerator. If you have changed your display to show temperatures in F, you will need different charts. Please call Follett at (877) 612-5086 or +1 (610) 523-9361 to order part number 00967729.

The chart recorder is powered by the controller and has its own battery back up. An LED provides battery status info: Steady green = battery okay, Flashing green = low battery or no power to the controller.

### Chart recorder calibration

If desired, calibration should be done at the same time as probe calibration by pressing either the left or right arrow keys to correspond with the calibrated product display temperature.

1. Press **Left #1** or **Right #2** arrow button for 5 seconds until pen begins to move.
2. Continue to press **#1** or **#2** button to move pen to record same temperature as probe.

### Changing the chart paper

1. Press and hold **#3** button until pen begins to move off chart.
2. Once the pen moves completely off chart, unscrew knob (counter-clockwise) at center of chart.
3. Remove old chart and place new chart in position so that correct time coincides with time line groove on recorder.
4. Reinstall knob.
5. Press and hold **#3** button for approximately (1) one second until pen begins to move back onto chart.
6. Make sure pen is marking paper. If not, carefully adjust arm so that pen makes contact with paper.

### Replacing the pen

1. To replace pen, press and hold the **#3** button until pen starts to move off chart.
2. Once pen has moved completely off chart, carefully lift pen up and unsnap the "U" clip part to remove pen from metal pen arm.
3. Position new pen on metal pen arm and snap "U" clip underneath pen around arm to secure.
4. Press and hold **#3** button for approximately (1) second until pen begins to move back onto chart.
5. Make sure pen is marking. If not, carefully adjust arm so that pen makes contact with paper.

## Removing drawers

1. Pull drawer forward to stop (**Fig. 28.1**).
2. Lift drawer front to free front rollers from slides (**Fig. 28.2**).
3. Still lifted, pull drawer forward to free back rollers from slides.

Fig. 27

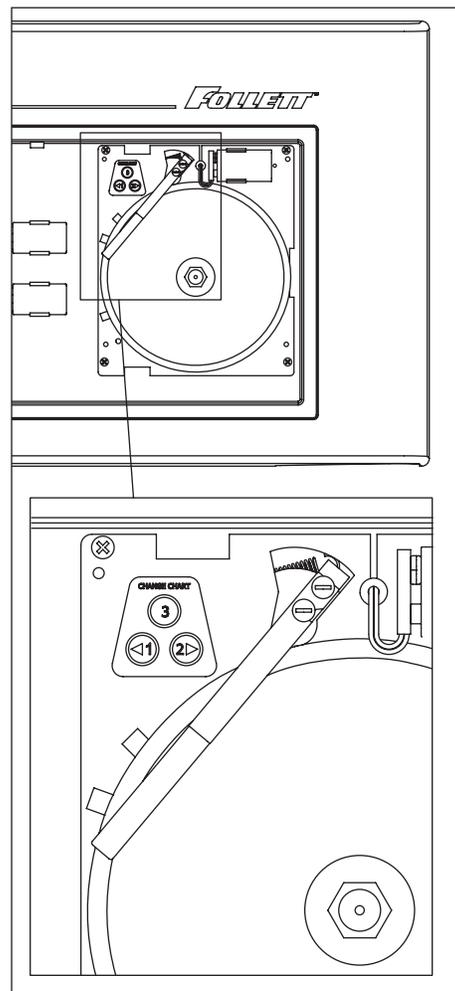
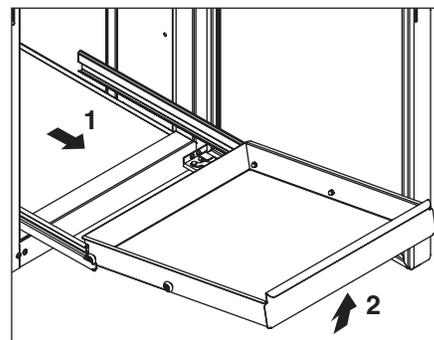


Fig. 28



## Removing slides

1. Push slides all the way back.
2. Swing bottom of slide away from refrigerator wall and lift slide off rollers.

## Network Enabled Device

For assistance with Network Enabled Devices, please refer to literature included with your unit (P/N 01280296).

## Cleaning

Use non chlorine-based cleaners. Cleaners containing chlorine can cause staining and pitting of the stainless steel.

Disconnect power to unit by turning the power switch off, located on the upper front facade panel, and removing the power cord from the receptacle.

## Interior cleaning

Using a sponge or soft cloth, clean unit with a non-abrasive, non-chlorinated, all-purpose detergent. Note: The air plenum should be removed to clean it, as well as behind it (**Fig. 29, 30**). In addition the shelves, baskets, drawers and slides should be cleaned as well.

## Exterior cleaning

Wipe stainless steel exterior with a soft cloth in the direction of grain as needed. Stainless steel polish may be used to enhance the finish of the unit. The glass door and exterior parts may be cleaned with a soft cloth, window cleaner or other non-abrasive cleaner.

Fig. 29

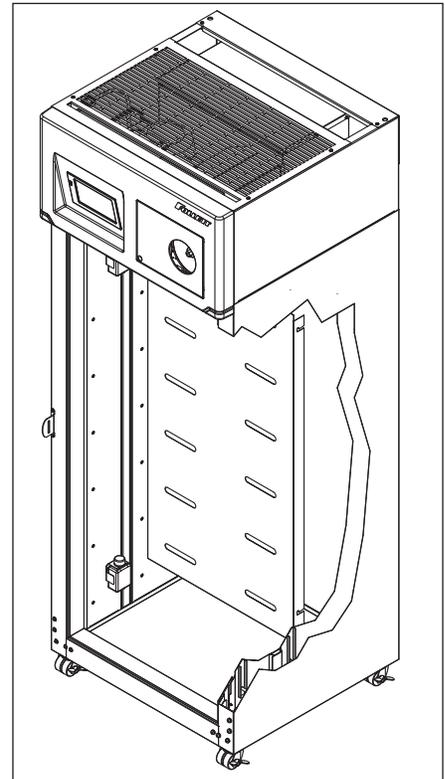
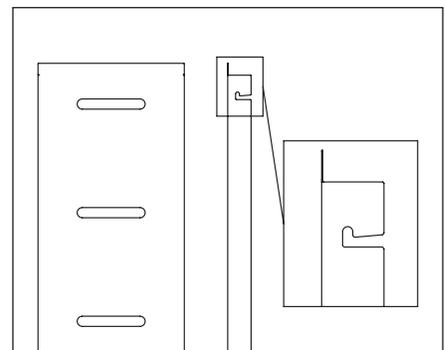


Fig. 30

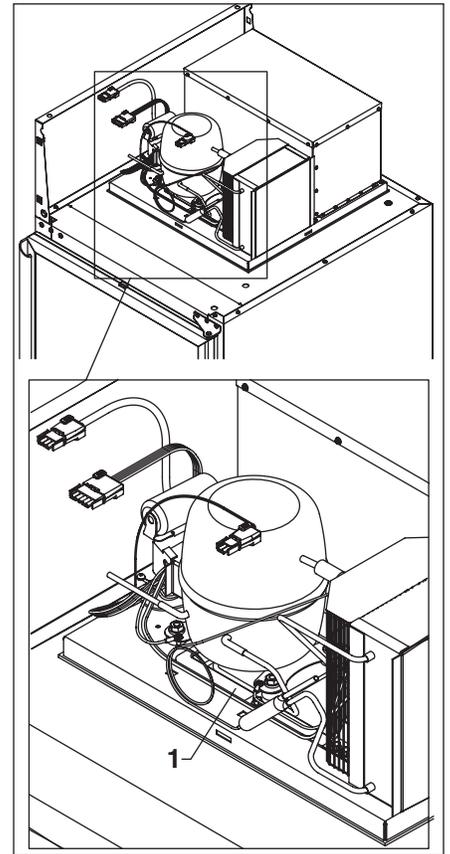


## Annual cleaning

Removal of dust and other particulates from air intake areas and the condenser is important for proper operation. Environments with large amounts of dust may require more frequent cleaning.

1. Disconnect power to unit by turning power switch off (located on upper front facade panel) and removing power cord from receptacle.
2. The condenser can be accessed from top for cleaning. The side panel in front of condenser may be completely removed for easier cleaning by disconnecting facade and removing upper side panel. See Face Removal for facade removal instructions.
3. Inspect drain pan for any debris or obstruction in condensate pan (**Fig. 31.1**).
4. Use a vacuum cleaner with brush attachment to clean condenser, compressor and related parts.
5. Reinstall upper side panel and facade if removed.

Fig. 31



## Defrosting

REF20/25 series upright refrigerators do not require manual defrosting. The evaporator defrosts automatically when the refrigeration unit is in the OFF cycle. The evaporator fan will run continuously.

## Service - System Controls

The temperature controller and evaporator probe (P1-control) indicate when the refrigeration system is required to turn on and off.

The refrigeration system removes heat from the cabinet and rejects it into the surrounding room air.

When the evaporator probe (P1-Control) reaches its predetermined cut-in value (Advanced settings, Viewable), the probe signals the controller to turn on the refrigeration system. The controller sends a 12VDC signal to the normally open compressor relay. The relay then closes, energizing the compressor and condenser fan.

When evaporator probe (P1-control) reaches its predetermined cut-out value (Advanced Settings-Viewable), the controller interrupts the 12 VDC signal to the compressor relay, de-energizing the compressor and condenser fan. The evaporator fan runs continuously.

## Controller Operation

The controller displays product temperature in degrees C (default) or F to 1 decimal point.

The controller is pre-programmed with the following setpoints: 3.3 C (38 F) for -BB models, and 4.4 C (40 F) for -LB and -PH models. The controller allows for the set point to be adjusted as low as 2 C (36 F) and as high as 10 C (50 F) to meet your desired product storage requirements.

All set points operate with a +2.2 C (+4 F) differential offset along with a 10 C (18 F) differential. The differential offset, in conjunction with the set point and differential, determine the cut-in and cut-out points of the cooling system. For instance, a unit running with a defaulted set point of 3.3 C (38 F) will have the cooling system cut-in at 5.5 C (42 F) and cut-out at -4.5 C (24 F) according to the P1 control probe located within the evaporator coil. Cut-in and Cut-out parameters are Viewable in via the Advanced Settings Menu.

### **ATTENTION**

***Cabinet temperature adjustments can be made by simply modifying the temperature control setpoint. Modifications to the factory default settings for the control differential or evaporator offset parameters will result in excessive compressor cycles that may lead to premature compressor/start component failures. Component failures caused by adjusting these critical control operating parameters may void the equipment warranty.***

## Sensor Readings/Temperature Display

The Touchscreen is defaulted to display the P4-Top probe which reads the solution temperature of your product simulation bottle. For ease of troubleshooting, the Touchscreen can be toggled to display the P1-control probe to view the refrigeration cycle. To toggle the display for your desired probe, Access Advanced Settings>Display Probe and select the desired probe.

**Note:** After service is complete it is recommended to restore the display to the P4-Top Probe.

## Heated door (option)

Heated doors are factory installed. An unheated door cannot be retrofitted to a heated door in the field. Factory default for the heated door and fascia heater cycle is set to 10 minutes off and 10 minutes on.

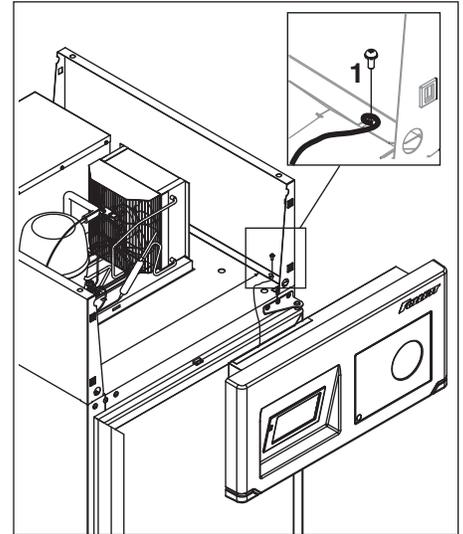
Should the need arise, the door schedule can be changed in Advanced Menu>Door Heater.

## Facade removal

The facade is removed by loosening the top left and right Phillips screws on the back of the facade to allow the securing clips to rotate away from the side panels. The facade can simply pull off of the front by pulling it out of the bayonet mounts that secure it to the upper left and right panels. If the facade will be completely removed, the electrical plugs should be disconnected. The ground wire should be removed from the top right grounding screw on the cabinet box, not from the facade (**Fig. 32.1**).

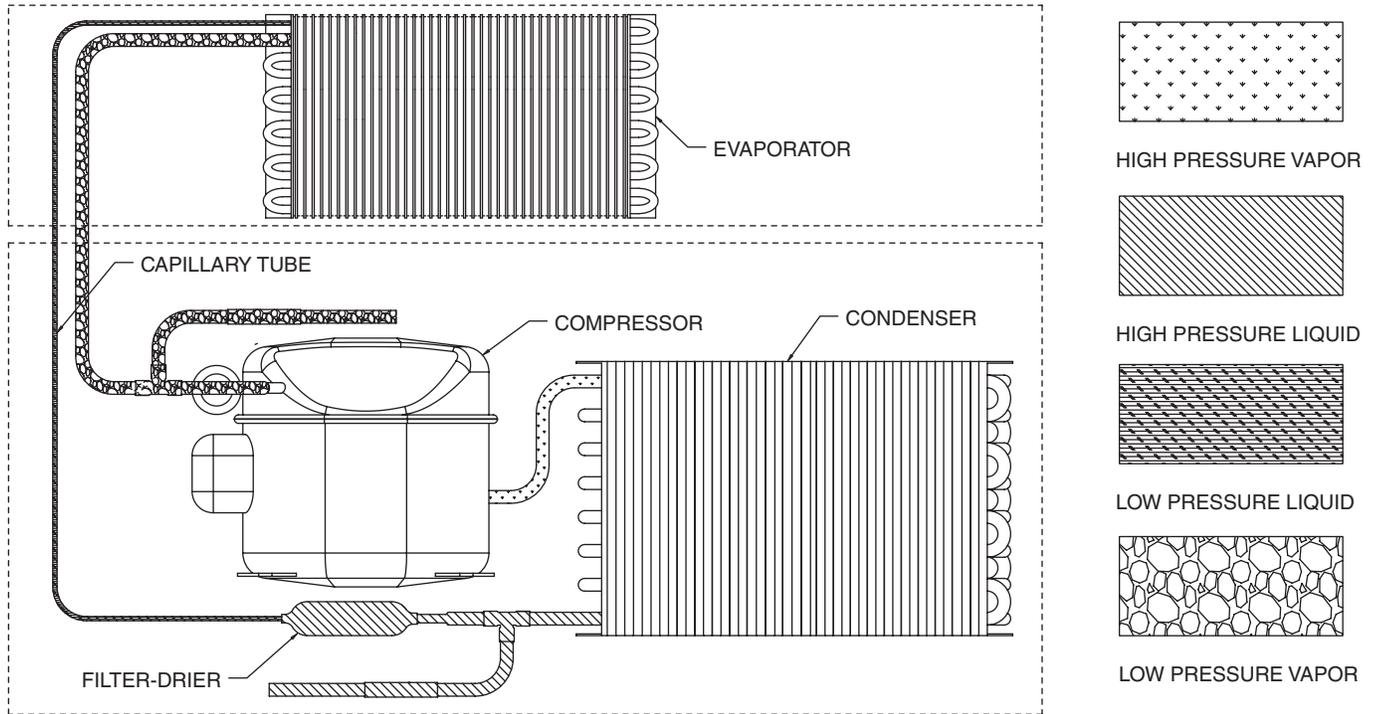
**Note:** Be sure to reinstall the ground wire.

Fig. 32





# Refrigeration System







## Warranty Registration and Equipment Evaluation

Thank you for purchasing Follett Products LLC equipment. We hope you find that our equipment meets or exceeds your expectations, as our goal is to deliver high value products and services that earn your complete satisfaction!

Please review the enclosed installation and operations manual. It is important that the installation be performed to factory specifications, so your equipment operates to its maximum efficiency.

Follett Products LLC will not be liable for any consequential damages, expenses, connecting or disconnecting charges or any losses resulting from a defect of the machine.

For full warranty details, visit our website [www.follettice.com/productwarranties](http://www.follettice.com/productwarranties).

Warranty registration and equipment evaluation is important to help us keep track of our equipment and to record the machine's performance.

We request that you register Follett equipment warranties on our website [www.follettice.com/support](http://www.follettice.com/support) and choose Warranty Registration and Equipment Evaluation. It's simple to do; please take a moment to register today. There is also space on the form to provide us with comments and feedback. Please let us know about your experience so we can capture it for our continuous improvement efforts.

We pride ourselves on producing outstanding equipment and we work hard to back it up with outstanding customer and technical support. Please let us know what else we can do to assist you. We would be happy to answer your questions.

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