INSTRUCTIONS

MODEL HFD/HFC SERIES ELECTRIC FRYERS

MODELS

HFD50	*ML-135551*
HFD85	*ML-135553*
HFC50	*ML-135555*
HFC85	*ML-135558*
HFO15	*ML-135558*
HFO21	*ML-135559*

HOBART
CORPORATION

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FORM 35612 (08-03)

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Installation, Operation and Care of MODEL HFD/HFC SERIES ELECTRIC FRYERS

SAVE THESE INSTRUCTIONS FOR FUTURE USE

GENERAL

Hobart HFD/HFC Series Electric Fryers are available in 2 sizes with an array of features and options for a range of commercial fryer applications.

Model	KW	Width Inches / cm	Fry Compound Lb / kg
HFD/HFC50	17	15 1/2 / 39	45-50 / 20-23
HFD/HFC85	24	21 / 53	85-100 / 39-45

Voltage ranges are:
208/240, 3 Phase
220/380, 3 Phase, 4 Wire
240/415, 3 Phase, 4 Wire
480, 3 Phase.

Model HF Series Fryers can be freestanding or arranged in batteries of 2 to 4 fryers. The number preceding the model number of your fryer refers to the number of fryers in a battery. One fryer in a battery can be a Frymate Dump Station (HFO15 for HF50 and HFO21 for HF85) (only one per battery).

Feature options include Basket Lift(s) with Timer(s); Tri, Twin, or Single Baskets; Filter Ready and Battery Interplumbing. Finish options include Casters. S/S Sides and Legs are standard.

Your Hobart fryer is constructed and designed to give long satisfactory service, providing it is properly installed, adjusted and maintained.

The Mobile Filter is covered under a separate Installation and Operation Manual.

HF Series Fryer — Features

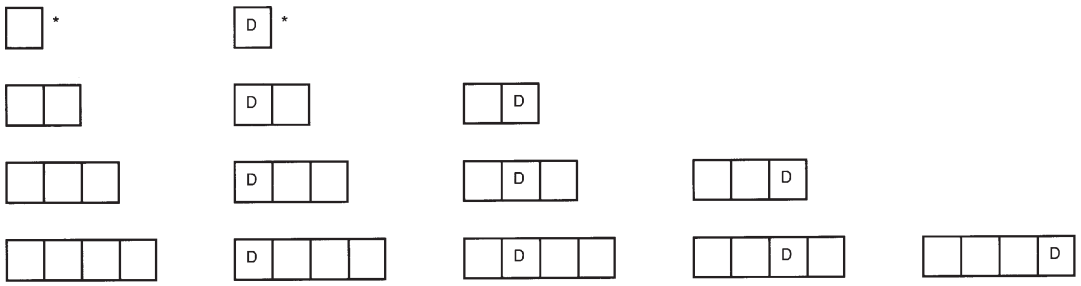
Model	Fat Melt Cycle	Thermostat	Basket Lift(s)	Basket(s)		
				Twin	Single	Tri
HFD50	Std.	Solid State	Opt.	Std.	Opt.	N/A
HFD85		Digital Display		Std.	Opt.	Opt.
HFC50	Std.	Computer	Opt.	Std.	Opt.	N/A
HFC85				Std.	Opt.	Opt.

HF Series Fryer — Construction Features

Model	Filter Ready	Battery Configuration	Battery Interplumbing
HFD50/HFC50	Opt. (Use HMF50)	Opt.	Opt.
HFD85/HFC85	Opt. (Use HMF85)	Opt.	Opt.

BATTERY CONFIGURATIONS

Batteries of up to four fryers wide can be configured with any HF Series Fryer or HFO Frymate Dump Station (either 15½" [39 cm] or 21" [53 cm] wide). Possible configurations showing positions A through E are depicted below:



NOTES:

D = Dump Station; = Fryer.

*Indicates filter interplumbing not available.
A filter dump station can be located under any position in a battery if it has been built without an HFO Frymate.
A filter dump station can be located under any position in a battery if the line-up has been built with an HFO Frymate located at either end of the battery.
When a HFO Frymate is built between two fryers within a battery, the filter dump station is located under the HFO Frymate.
In two-unit batteries utilizing a HFO Frymate, the filter dump station will always be located under the fryer.
All options and accessories can be used with batteried equipment.
HFO15 is used on Model HF50.
HFO21 is used on Model HF85.

Field Installable Accessories	Factory Installed Only
Casters Twin Baskets Single Baskets Tri Baskets (ER85 only) Heat Lamp S/S Vat Cover Batter Tray Tank Skimmer Tank Scoop	Fat Melt Basket Lift S/S Tank S/S Sides Battery Configuration Battery Interplumbing

ERO SERIES FRYMATE (Dump Station)

Model HFO Frymate Dump Station can be configured in batteries with fryers in either 15½" (39 cm)or 21" (53 cm) width. Frymate provides a final prep area where excess oil drains away and product is seasoned, packaged, and kept ready for sale.

HFO Series Frymate — Finish Options

Model HFO15, HFO21	Front Door	Legs
Standard	Stainless Steel	Stainless Steel Legs
Optional	Not Applicable	Casters

*Model HFO15 is for use with the HF50 Series Fryers.
Model HFO21 is for use with the HF85 Series Fryers.

HFO Series Frymate — Features

Heat Lamp	Tops				Side Liners*
	Drain	Solid	Pan Solid	Pan Perforated	
Opt.	Std.	Opt.	Opt.	Opt.	Opt.

*Side liners are not available in batteries with HFO interplumbed Frymates.

INSTALLATION

Before installing the fryer, verify that the electrical service agrees with the specifications on the fryer data plate which is located on the inside of the door panel. If the supply and equipment requirements do not agree, do not proceed with the installation. Contact your dealer or Hobart Corporation immediately.

UNPACKING

Immediately after unpacking the fryer, check for possible shipping damage. If the fryer is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

Do not use the door or its handle to lift or move the fryer.

LOCATION

The fryer may be installed at 0" clearance from the back or side walls. A 16" (40.6 cm) clearance is required between the fryer and any open top flame burner. Position the fryer for easy accessibility for service.

INSTALLATION CODES AND STANDARDS

Your Hobart fryer must be installed in accordance with:

1. State and local codes.
2. The National Electrical Code, ANSI/NFPA No. 70 (latest edition). Copies may be obtained from The National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.
3. NFPA Standard #96.

ASSEMBLY

The fryer must be restrained with adequate ties to prevent tipping when installed in order to avoid the splashing of hot liquid.

Legs

Position fryer in an open space near the final installation area. Tilt fryer on its side, being careful to avoid scratching the finish. Thread legs into mounting holes provided on bottom of fryer by screwing in a clockwise rotation until tight.

Carefully raise fryer to its normal position and place it in the installing location.

Casters (Optional)

It is recommended that casters be installed on all batteried appliances. A strain relief (Fig. 1) is supplied to protect the electrical supply line.

If it is necessary to disconnect the restraint, unplug electrical supply before disconnection. Reconnect the restraint before plugging the electrical supply in and returning the fryer to its installation position.

Instructions for installing casters to the fryer are included with the casters.

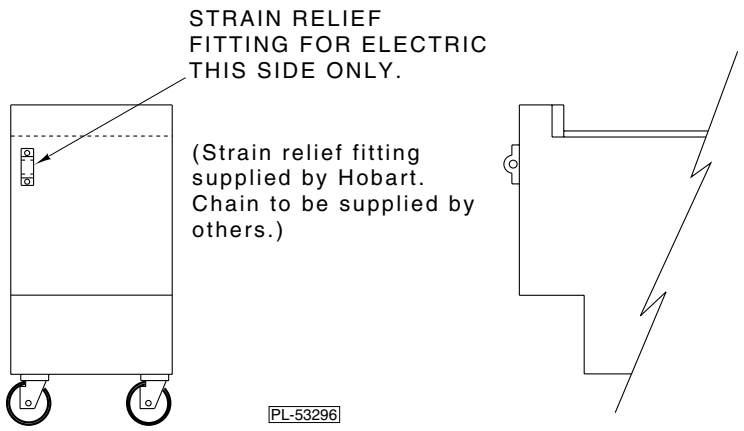


Fig. 1

LEVELING

Place a carpenter's level on top of the fryer and level the fryer front-to-back and side-to-side by turning the adjustable legs or casters.

ELECTRICAL CONNECTIONS

WARNING: ELECTRICAL AND GROUNDING CONNECTIONS MUST COMPLY WITH THE NATIONAL ELECTRICAL CODE AND/OR OTHER LOCAL CODES.



WARNING: DISCONNECT THE ELECTRICAL POWER SUPPLY TO THE MACHINE AND FOLLOW LOCKOUT/TAGOUT PROCEDURES.

WARNING: APPLIANCES EQUIPPED WITH A 120V FLEXIBLE ELECTRIC SUPPLY CORD ARE PROVIDED WITH A THREE-PRONG GROUNDING PLUG. IT IS IMPERATIVE THAT THIS PLUG BE CONNECTED INTO A PROPERLY GROUNDED THREE-PRONG RECEPTACLE. IF THE RECEPTACLE IS NOT THE PROPER GROUNDING TYPE, CONTACT AN ELECTRICIAN. DO NOT REMOVE THE GROUNDING PRONG FROM THIS PLUG.

Place fryer as near to its final position as possible. Connect 3 phase line to X, Y and Z of terminal block. To reach terminal block, remove electric cover plate from fryer.

For each 15 1/2" (39 cm) and 21" (53 cm) section, a 3 phase supply line capable of handling the required KW at the fryer's rated voltage (208, 240, 480) is needed. Refer to the fryer data plate for this electrical information.

If a fan interlock is needed, it should be connected to 1 and 2 on the 4 pole barrier strip. 1 and 2 go to a set of dry contacts on the power switch.

OPERATION

WARNING: HOT OIL AND PARTS CAN CAUSE BURNS. USE CARE WHEN OPERATING, CLEANING AND SERVICING THE FRYER.

WARNING: SPILLING HOT FRYING COMPOUND CAN CAUSE SEVERE BURNS. DO NOT MOVE FRYER WITHOUT DRAINING ALL FRYING COMPOUND FROM THE TANK.

BEFORE FIRST USE

Clean the Fryer and Heating Elements

Do not operate fryer without frying compound or water solution in the tank.

Using a non-corrosive, grease-dissolving commercial cleaner, clean the protective metal oils from all surface parts and the tank interior. Follow the cleaner manufacturer's directions. Rinse thoroughly and drain by opening the drain valve (accessible when the door is opened). After cooling, wipe tank and heating elements completely dry with a soft clean cloth. (See also CLEANING — WEEKLY in this manual.)
NOTE: When cleaning, avoid moving the thermostat bulb or capilary.

Clean all fryer accessories. Rinse all parts thoroughly after cleaning and wipe dry.

FILLING THE FRY TANK WITH SHORTENING

Liquid shortening may be used in all HFD/HFC Series Fryers.

Melting solid shortening without using the melt cycle will damage the heating elements and scorch the shortening. Only fryers equipped with the MELT cycle may use solid shortening. Solid shortening must be gently warmed to the liquid state before heating to frying temperatures. On HFC fryers, the computer must be programmed for MELT ENABLE.

Fill fryer tank to the fill level line on back wall (Fig. 2). Keep shortening at the fill level line in the fry tank. Add fresh shortening as needed. Do not overfill tank.

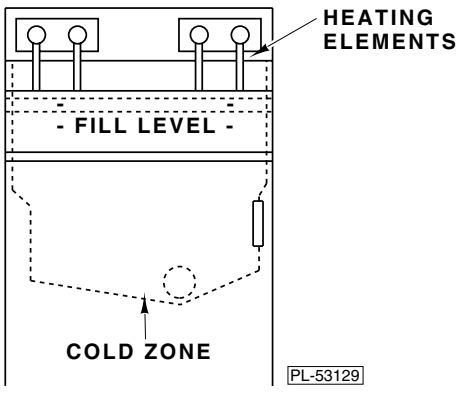


Fig. 2

ADDING SOLID SHORTENING

If replacing shortening, place the block of shortening in the room with the fryer for 1 to 2 hours before using. This will soften the shortening and make it easier to divide.

CAUTION: Failure to remove crumb screens prior to addition of fresh shortening may cause heating elements to overheat, allowing shortening to reach flashpoint.

After draining shortening, allow the tank to cool down before adding all new shortening to avoid scorching new shortening.

Shortening Capacity

Full Vat	50 lb., 85 lb. (22.7, 38.5 kg)

WARNING: Do not set a complete block of solid shortening on top of an electric fryer's heating elements. Doing this may damage the elements and increase the potential for shortening flash fire. If solid shortening is to be used in an electric fryer, remove the baskets and crumb screen(s), raise elements from tank, pack the bottom of the tank completely with solid shortening, lower the elements and then pack the shortening COMPLETELY around over top of the elements. Lay crumb screen(s) in the tank on top of the packed shortening. Follow the Fat Melt instructions in the installation & operation manual. Once all shortening has been melted and the fryer has met the set temperature, fill baskets and resume frying.

Single Vat

1. Remove crumb screens from fryer tank.
2. Lift elements out of each tank area.
3. Chop the solid block of shortening into pieces that can be packed into the bottom of fryer tank.
4. Pack bottom of the tank with shortening chunks.
5. Lower elements back into tank.
6. Pack the remaining chunks of shortening completely around and over top of the elements, then place the screen on top of the shortening.

DAILY SHORTENING ADDITION (All Models)

Add approximately 15% new shortening daily. Keep level of shortening at fill level line in fry tank. Add fresh shortening as needed.

HIGH LIMIT CONTROL

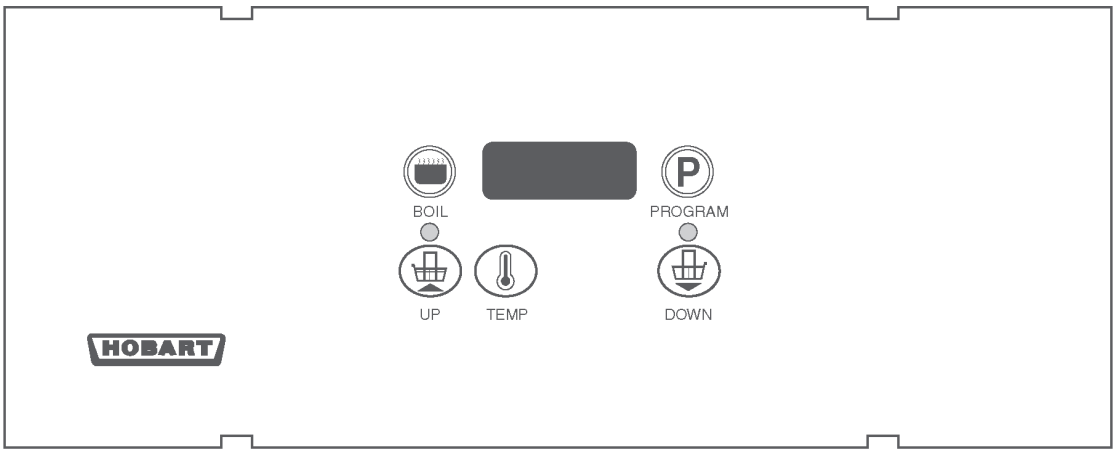
If the shortening becomes overheated, one of the temperature shutoff devices will shut the fryer off. DO NOT turn fryer on until the shortening temperature is below 300°F (149°C).

If the high limit device has shut the fryer system off, push the red reset button on the back of the element head(s) before turning the fryer back on.

If this situation persists, shut fryer down and contact your local Hobart service office.

HFD SERIES
(MANUFACTURED AFTER AUGUST 2003 WITH TDI CONTROLLERS)

CONTROLS —



PL-56430



Control Guide

 — Power switch; for turning the fryer on or off.



— For cleaning purposes when the fryer is filled with water. Temperature is maintained at approxmiately 192°F (89°C).**



— For entering and exiting the program mode. For scrolling through program parameters.



— Raises and lowers left fry basket (optional); Starts and stops the timer; Silences the alarm after the timer times out; For entering temperature and time values in the program mode.



— Raises and lowers right fry basket (optional); Starts and stops the timer; Silences the alarm after the timer times out; For entering temperature and time values in the program mode.



— For viewing actual shortening temperature and set temperature.

****NOTE:** The boil button is used during cleaning for the boil out. Depressing this button will set the thermostat to a simmer point of 198°F. Note that there is a special feature in the controller that will sense water verses oil and automatically send the controller into the boil out mode when water is placed into the vat.

PROGRAMMING

Temperature, time and other parameters must be set before operating. Once these parameters are set, the fryer can be operated at the touch of a button.

Press  to enter the program mode and scroll through the parameters. If the Parameter Lock feature is disabled, program mode is immediate. If the Parameter Lock feature is on, LoC is displayed in the

window and program entry cannot be accessed. To access the program mode while LoC is on, press 

within 6 seconds of pressing (P). To turn the Parameter Lock feature off, see Program Guide below.

NOTE: If the proper sequence is not entered within 6 second, the control will exit the program entry mode.

Programming Guide

Once in the program mode, the parameters are displayed in the order listed below. To exit the program and save changes, press and hold (P) for approximately 2 seconds.

PARAMETER	SELECT	DISPLAY	SCROLL
Left Timer	Press (UP) or (DOWN) to enter time.	LED is lit above the left basket icon. The time value is displayed in window.	Press (P) and scroll to next item.
Right Timer	Press (UP) or (DOWN) to enter time.	LED is lit above the right basket icon. The time value is displayed in window.	Press (P) and scroll to next item.
Set Temperature	Press (UP) or (DOWN) to enter temperature.	The temperature value is displayed in window.	Press (P) and scroll to next item.
Offset Calibration	For service only	**00F** or **-00F**	Press (P) and scroll to next item.
Melt Options: Liquid shortening Solid shortening No melt	Press (UP) or (DOWN) to select melt option.	**CY L** (Liquid shortening) or **CY S** (Solid shortening) or **CY O** (No melt)	Press (P) and scroll to next item.
Energy Source	Press (UP) or (DOWN) to select source of heat.	**gAS** or **ELEC**	Press (P) and scroll to next item.
Parameter Lock	Press (UP) or (DOWN) to lock or unlock program entry.	**LoC** (Unlock Parameter) or **ULoC** (Lock Parameter)	Press (P) and scroll to next item.
Fahrenheit or Celsius	Press (UP) or (DOWN) to select Fahrenheit or Celsius.	**F** or **C**	Press (P) and scroll to next item.

Melt Options (HFD Series)

When using solid shortening in the fryer, the CY S (solid shortening) option must be used. Solid shortening must be gently warmed to a liquid state before heating to frying temperatures. Melting solid shortening without using this option will damage the fry tank and scorch the shortening.

The controller has three options for bring shortening up to temperature:

CY L (Liquid shortening) - For slowly bringing liquid shortening up to temperature.

CY S (Solid shortening) - For slowly melting solid shortening.

CY O (No melt) - For immediately bringing liquid shortening up to fry temperature.

Upon startup, if the CY L or CY S melt option is selected and the shortening temperature is below 135°F (57°C), CY is displayed in the window and the fryer cycles to bring the shortening up to temperature. If the shortening temperature is over 150°F (65°C), HEAT is displayed in the window and the fryer quickly heats up to set temperature.

Temperature (HFD Series)

The temperature is displayed in the window when the fryer has reached the set temperature. After the first initial startup, the fryer always defaults to the last entered melt option.

To display the actual temperature at any time, press 

and hold for 3 seconds. Press 

again to return display to set temperature.

USING THE FRYER (After Startup)

Models Without Basket Lift Option

1. Load the fry basket(s); do not overfill.
2. Carefully lower basket(s) into shortening.
3. Press  to start the left timer. Press  to start the right timer.
4. When the timer times out, a beeper sounds. Press  to silence the left timer beeper. Press  to silence the right timer beeper.

Models With Basket Lift Option

1. Load the fry basket(s); do not overfill.
2. Place the fry basket(s) on the lift arm.
3. Press  to lower the left basket. Press  to lower the right basket. The timer(s) begin counting down.
4. When the timer times out, a beeper sounds and the basket(s) automatically raise. Press  to silence the left timer beeper. Press  to silence the right timer beeper.

SHUTDOWN

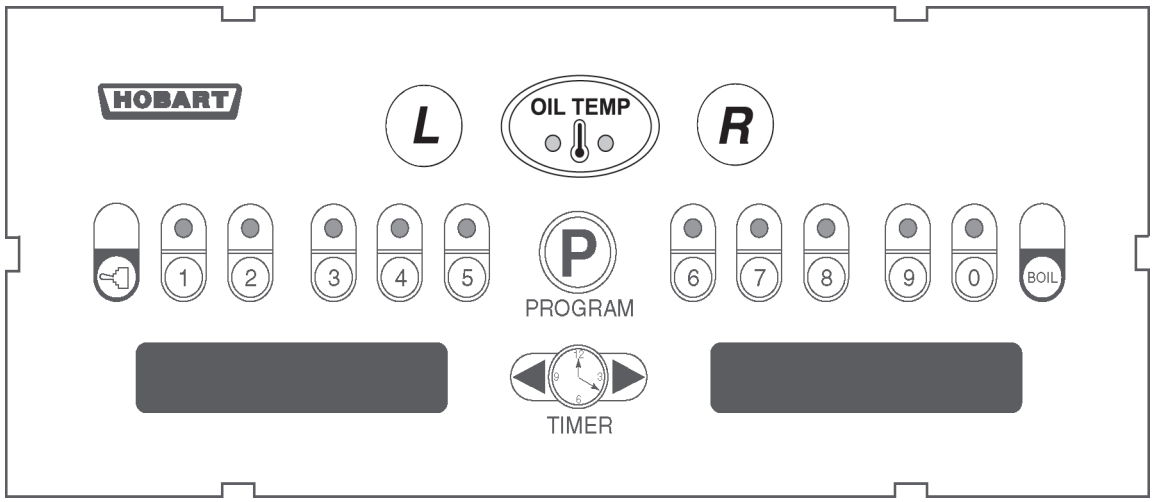
1. Press the power switch off.

EXTENDED SHUTDOWN

1. Drain the fryer.
2. Press the power button off.
3. Turn the main electrical supply line off.

HFC SERIES
(MANUFACTURED AFTER AUGUST 2003 WITH TDI CONTROLLERS)

CONTROLS —



PL-56431

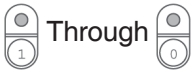


Control Guide

 — Power switch; for turning the fryer on or off.

 — For setting fry temperature. For viewing shortening temperature and set temperature.

 — For entering and exiting the program mode.

 — For selecting program parameters. For setting timers 1 through 0. For entering temperature and time values.

 — For toggling through the selections under program parameters.

 — For setting time on timers 1 through 5 in the program mode.

 — For setting time on timers 6 through 0 in the program mode.

 — For cleaning purposes when the fryer is filled with water. Temperature is maintained at approximately 192°F (89°C). **

****NOTE:** The boil button is used during cleaning for the boil out. Depressing this button will set the thermostat to a simmer point of 198°F. Note that there is a special feature in the controller that will sense water verses oil and automatically send the controller into the boil out mode when water is placed into the vat.

PROGRAMMING

Temperature, time and other parameters must be set before operating. Follow the Program Guide to configure the fryer to your particular operation.

Programming Guide

Press (P) to enter into the program mode, then follow the steps under each parameter to enter the desired information. To exit the parameter and save changes, press (P) . To exit the program completely, press (P) again.

NOTE: To use set back parameter, the fryer must be supplied with basket lifts.

PARAMETER	STEPS	LEFT DISPLAY	RIGHT DISPLAY
Fahrenheit or Celsius	Press 0	SELECT	OPTIONS
	Press 1	DEGREES F or C	F or C
	Press to select Fahrenheit or Celsius.	DEGREES F or C	F or C
	Press (P) when complete.	PROGRAM	
No Password Required	Press 0	SELECT	OPTIONS
	Press 2	SET PASS	NEW PASS
	Press to select NO PASS.	NO PASS	NEW PASS
	Press (P) when complete.	PROGRAM	
Password Required	Press 0	SELECT	OPTIONS
	Press 2	SET PASS	NEW PASS
	Press to select PASS REQ.	PASS REQ	NEW PASS
	Press (P) and enter numeric code.	CODE XXXX	NEW PASS
	Press (P) when complete.	PROGRAM	
Beeper Volume	Press 0	SELECT OPTIONS	OPTIONS
	Press 3	VOLUME #	BEEPER
	Press to select volume.	1, 2 or 3	BEEPER
	Press (P) when complete.	PROGRAM	

Programming Guide (Cont.)

PARAMETER	STEPS	LEFT DISPLAY	RIGHT DISPLAY
Language	Press 0	SELECT	OPTIONS
	Press 4	ENGLISH (Factory Default)	LANGUAGE
	Press ↵ to select a language.	ENGLISH/ESPANOL FRANCAIS/DEUTSCH HOLLAND	
	Press P when complete.	PROGRAM	
Melt Options	Press 0	SELECT	OPTIONS
	Press 5	NO MELT/LIQUID/SOLID	
	Press ↵ to select melt options. (See Melt Options)	NO MELT/LIQUID/SOLID	
	Press P when complete.	PROGRAM	
Recovery Time	Press 0	SELECT	OPTIONS
	Press 6	RECOVERY*	
	Press P when complete.	PROGRAM	
Filter	Press 0	SELECT OPTIONS	OPTIONS
	Press 7	FILTER	PROG 0000
	Press ↵ to scroll through options. (See Filter)	FILTER	PROG 0000 ACT 0000 TIME 00:00
	Press P when complete.	PROGRAM	
Dispose	Press 0	SELECT	OPTIONS
	Press 8	DISPOSE	PROG 00
	Press ↵ to scroll through options. (See Dispose)	DISPOSE	PROG 00 ACT00
	Press P when complete.	PROGRAM	
Set Back To 275°F	Press 0	SELECT	OPTIONS
	Press 9 Enter 11-99 min. of idle time 00=no set back	IDLE SET BACK	PROG 00
	Press P when complete.	PROGRAM	PROG 00

***Recovery** - During a cold start, the controller measures the time the fryer takes to heat from 200°F to 250°F (93°C to 121°C) and compares it with factory default values.

Melt Options (HFC Series)

When using solid shortening in the fryer, the SOLID melt option must be used. Solid shortening must be gently warmed to a liquid state before heating to frying temperatures. Melting solid shortening without using this option will damage the heating elements and scorch the shortening.

The controller has three options for bring shortening up to temperature. Upon startup, the fryer will display the selected melt option in the window when heating:

HEATING	NO MELT - For immediately bringing shortening up to fry temperature.
MELT L	LIQUID - For slowly bringing liquid shortening up to temperature.
MELT S	SOLID - For slowly melting solid shortening.

If the LIQUID or SOLID melt option is selected and the shortening temperature is below 135°F (57°C), MELT L or MELT S is displayed in the window and the fryer cycles to bring the shortening up to temperature. If the shortening temperature is over 135°F (57°C), HEATING is displayed in the window and the fryer quickly heats up to set temperature.

The temperature is displayed in the window when the fryer has reached the set temperature. After the first initial startup, the fryer always defaults to the last entered melt option.

Filter

The Filter parameter can be programed to alert the operator to filter the shortening by counting the number of cook counts. When the actual cook count is the same as the programmed cook count, FILTER flashes in the window. It also can be programmed to time the filtering process.

- PROG 0000 - Enter the number of cook counts you want the controller to count before giving a filter alert (each time a timer times out is equal to one cook count). To disable the filter reminder, enter 9999.
- ACT 0000 - Leave at 0000 unless editing. This is the number of cook counts.
- TIME 00:00 - Enter the amount of time for timing the filtering process. Leave at zero if you do not wish to use the timer.
- Pressing either arrow on  starts the filter timer after the drain valve is opened.
- After the timer times out, FILTER DONE is displayed in the window and a beeper sounds for 5 seconds. The filter prompt and cook count are reset to zero. After the beeper stops, CLOSE DRAIN is displayed in the window (see Daily Filtering on page 31 for more information).

Dispose

The controller can also be programmed to alert the operator to dispose of the shortening by counting the number of times the shortening is filtered. When the filter count is the same as the programmed filter count, DISPOSE is displayed in the window.

- PROG 00 - Enter the number of filter counts you want the controller to count before giving a dispose alert. To disable the dispose reminder, enter 99.
- ACT 00 - Leave at 00 unless editing. This is the number of times the shortening has been filtered.

TEMPERATURE AND TIME PROGRAMMING

Temperature

1. Press P to enter program mode. PROGRAM is displayed in the window.
2. Press OIL TEMP to enter temperature mode. 000°F and TEMP are displayed in the window.
3. Press 1 through 0 to enter desired fry temperature. The fry temperature is displayed in the window.
4. Press P to exit the temperature mode. Press again to exit program mode completely.

Time

There are ten timers with advanced timing features on the HFC fryer for setting fry times on multiple products.

Timers 1 through 5 :

1. Press P and enter the program mode. PROGRAM is displayed in the window.
2. Press ◀ . The LED's on timers 1 through 5 are lit and SELECT PRODUCT is displayed in the window.
3. To select a timer, press one of the lit timer numbers; CK# 00:00 and TIME are displayed in the window.
4. Enter the desired time using keys 1 through 0 . The time is displayed in the window. After entering the time, press P ; SELECT PRODUCT is displayed in the window and the LED's on timers 1 through 5 are lit.
5. Repeat steps 3 and 4 to program the remaining timers, or press P P to exit the program completely.

Timers 6 through 0 :

1. Press P and enter the program mode. PROGRAM is displayed in the window.
2. Press ▶ . The LED's on timers 6 through 0 are lit and SELECT PRODUCT is displayed in the window.
3. To select a timer, press one of the lit timer numbers; CK# 00:00 and TIME are displayed in the window.
4. Enter the desired time using keys 1 through 0 . The time is displayed in the window. After entering the time, press P ; SELECT PRODUCT is displayed in the window and the LED's on timers 6 through 0 are lit.
5. Repeat steps 3 and 4 to program the remaining timers or press P P to exit the program completely.

Advanced Time Features

Each timer has additional timing functions that can be programmed to fit your particular operation.

- DUTY TIME - Notifies the operator during a fry cycle to perform a particular task (shake a basket, flip a product, etc.). When the remaining cook time is the same as the Duty time, a beeper sounds and DUTY # displays in the window. Press the flashing timer number to silence the beeper. The beeper cancels after 5 seconds if not silenced.
- HOLD TIME - Starts after the initial timer beeper is silenced; HD# XX:XX is displayed in the window. After timing out, a beeper sounds. Press the flashing timer number to silence the beeper. The beeper cancels after 5 seconds if not silenced.
- COMPENSATED TIME - Automatically adjusts the time for variations in load sizes.
- STRAIGHT TIME - Does not adjust time for variations; used for regular timing operations.

Setting Advanced Time Features

1. Press  and enter the program mode.
2. Press  for timers  through , or press  for timers  through . The LEDs are lit on the timers available for programming, and SELECT PRODUCT is displayed in the window.
3. Select a timer; the programmed time is displayed in the window.
   A. Duty Time:
      1) Press either arrow on ; DT# 00:00 is displayed in the window.
      2) Enter the desired time using keys  through . The time is displayed in the window.
      3) Continue to the next step or press  to choose another timer.
   B. Hold Time:
      1) Press either arrow on ; HD# 00:00 is displayed in the window.
      2) Enter the desired time using keys  through .
      3) Continue to the next step or press  to choose another timer.
   C. Compensated or Straight Time:
      1) Press either arrow on ; COMP or STRAIGHT is displayed in the window.
      2) Press  to select COMP or STRAIGHT.
      3) Press  to choose another timer or press    to exit program mode completely.

USING THE FRYER (After Startup)

Models Without Basket Lift Option

1. Load the fry basket(s), do not overfill.
2. Carefully lower basket(s) into shortening.
3. Press the desired number to select the product to be timed. Timers  through  are programmed for products. Once the product is selected, select (L) or (R) button to start timing of the product on the left or right side of the fryer.
4. When the timer(s) time out, a beeper sounds, REMOVE # is displayed in the window and the timer number flashes. Press the flashing timer number to silence the beeper.

Models With One Basket Lift Option

1. Load the fry basket(s), do not overfill.
2. Place the fry basket(s) on the lift arm.
3. Press the desired number to start the timer. Timers  through  are programmed for products. Once the product is selected, the timing will start and the single basket lift will lower the product into the oil.
4. When the timer(s) time out, a beeper sounds and REMOVE # is displayed in the window. The timer number flashes and the basket(s) automatically raise. Press the flashing timer number to silence the beeper.

Models With Two Basket Lift Option

1. Load the fry basket(s), do not overfill.
2. Place the fry basket(s) on the lift arm.
3. Press the desired number to select the product to be timed. Timers  through  are programmed for products. Once the product is selected, select (L) or (R) button to start timing of the product on the left or right side of the fryer.
4. When the timer(s) time out, a beeper sounds, REMOVE # is displayed in the window and the timer number flashes. Press the flashing timer number to silence the beeper.

NOTE: To cancel a timer after it has started, press and hold the timer number for 5 seconds.

SHUTDOWN

1. Press the power switch off.

EXTENDED SHUTDOWN

1. Drain the fryer.
2. Press the power switch off.
3. Unplug the fryer.

FRYING (All Models)

Heat shortening to set temperature.

Pieces of product to be fried should be about the same size to ensure the same doneness.

Drain or wipe dry raw or wet foods to minimize splatter when lowering into the hot oil.

Do not overfill baskets.

Recommended maximum capacities are:

Models	Lb / kg of Product (1 Basket)	Total Lb / kg of Product (2 Baskets)	Total Lb / kg of Product (3 Baskets)
HFD50, HFC50	2½ / 1	5 / 2.3	N/A
HFD85, HFC85	3½ / 1.6	7 / 3.1	10½ / 4.8

Carefully lower basket into oil.

When frying doughnuts and fritters, turn product only once during frying.

When cooking French fries or onion rings, shake basket several times in a way that does not splatter the shortening.

Batter-covered foods should be dropped carefully, one by one, into shortening or basket. If you use the basket, first dip basket into shortening to reduce batter build-up on basket surfaces.

When frying is completed, remove basket or product. Hang basket on rear basket hanger. Remove food and season it. Do not salt food over the shortening because salt could cause a chemical change in the oil.

SHORTENING LIFE (All Models)

Shortening life may be extended by following these guidelines:

- Do not salt foods over the fryer.
- Use good quality shortening.
- Filter shortening daily at a minimum.
- Replace shortening if it becomes poorly flavored.
- Keep equipment and surroundings clean.
- Set thermostats correctly.
- Remove excess moisture and particles from food products before placing in fryer.

DAILY FILTERING

Fryers Without Filter Ready Options

Turn power switch off when draining or filling.

Always filter the shortening while liquified. A cold fryer will not drain properly because the shortening under the cold zone tube area will remain hard, even if the heat is on for a few minutes. If necessary, the clean-out rod may be used to carefully stir up hard fat to an area above the cold zone (see Fig. 2) where it will melt. After the cold zone is liquified, turn the fryer thermostat off.

Shortening life will be extended by filtering at least once a day or more often if conditions warrant. A commercial power filter (available from other manufacturers) may be used. Follow the manufacturer's operating instructions for draining, straining, and replacing shortening in the fry tank.

Another way to filter is to drain the shortening from the drain pipe through a filter bag, or cover the receiving container with cheesecloth or other filtering material.

Filtering Procedure (Not Filter Ready)

1. Turn the fryer off.
2. Slowly remove the baskets and raise the elements out of the tank, especially if shortening is hot, to prevent splashing.
3. Open the fryer door and attach the drain pipe to the drain valve.
4. Select a container of sufficient capacity and place it below the drain pipe.
5. If you are using a filter bag, tie it securely to the drain pipe. If other filter medium is used, place it in the container.
6. Open the drain valve carefully so the oil stream is directed through the filter.
7. With a small amount of warm shortening, flush out scraps and sediment in the fry tank. Drain the tank thoroughly and wipe clean.
8. If it is necessary to clean the tank more thoroughly, follow the procedure shown in CLEANING — WEEKLY OR AS REQUIRED in this manual.
9. Close the drain valve.
10. Pour strained shortening back into the tank.
11. Add shortening to the fill level line. If using new solid shortening, refer to fat melt procedures.

Filter-Ready Fryers Only

Follow instructions in the MOBILE FILTER OPERATING MANUAL shipped with the mobile filter. If the manual is not found, contact your local Hobart Service Office to obtain the manual before operating the mobile filter.

Battery Interplumbing (Optional)

A battery of fryers equipped with optional interplumbing connects the fry tanks to a common drain. Each tank has an individual drain valve; these should only be opened one at a time.

Always be sure you have adequate container capacity before opening the drain; monitor draining process.

After oil has filtered into the mobile filter, it is pumped back to the individual tank by (1) closing the drain valve, and (2) opening the valve on the return line (Fig. 4). Only one return valve should be opened at any one time.

After oil is pumped back, close the return valve. Fill tank to the fill level line on the back wall of the fry tank.

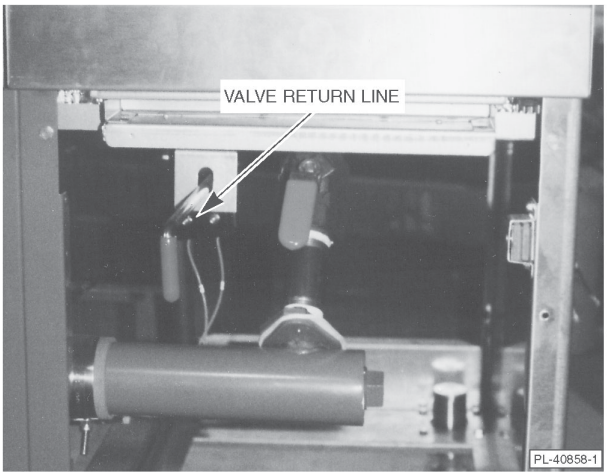


Fig. 4

CLEANING (All Models)



WARNING: DISCONNECT THE ELECTRICAL POWER SUPPLY TO THE MACHINE AND FOLLOW LOCKOUT/TAGOUT PROCEDURES.

Daily

Clean the exterior of your fryer regularly with a damp cloth and polish with a soft dry cloth. If regular cleaning is neglected, grease will be burned on and discolorations may form. These may be removed by washing with any detergent or soap and water. A self-soaping scouring pad may be used for particularly stubborn discolorations. Always rub with the GRAIN in a horizontal direction.

Keeping the fryer exterior clean and free of accumulated grease will prevent stubborn stains from forming. Wash all exterior surfaces at least once daily. Use a cloth with warm water and a mild soap or detergent. Follow with a clear rinse, then dry.

Fingerprints are sometimes a problem on highly polished surfaces of stainless steel. They can be minimized by applying a cleaner that will leave a thin, oily or waxy film.

DO NOT use a scouring pad or harsh cleaners on the computer keypad, especially the display area.

CLEANING (CONTINUED)

Weekly or as Required

1. Once the shortening has been drained, flush out scraps and sediment with a small amount of warm shortening. Allow the tank to drain thoroughly.

2. Close the drain valve and fill the tank with a non-corrosive, grease-dissolving commercial cleaner, following the manufacturer's instructions.

3. Add commercial boil out solution.

4. Set the thermostat at a temperature to 198°F (88°C) and bring the solution to a simmer for about 15 to 20 minutes. Do not allow the solution to boil. Boiling will damage the heating elements and may void the equipment warranty.

5. Drain the cleaning solution from the tank.

6. Close the drain valve and refill the tank with water. Add 1 cup (0.2 L) of vinegar to neutralize alkaline left by the cleaner. Bring the solution to a simmer and allow it to stand for a few minutes.

7. Drain the tank and rinse thoroughly with clear, hot water. All traces of cleaner must be removed. Dry the tank thoroughly.

8. Close the drain valve and add shortening to the fill level line. If using solid shortening, refer to fat melt and adding solid shortening procedures.

The fryer is now ready for use.

TROUBLESHOOTING

ALARMS AND ERROR MESSAGES

Open Probe - If an open probe is detected, the heat demand is disabled and any running cooking cycles are cancelled. All operator buttons are disabled. The control displays the following message:

HFD Models - Prob

HFC Models - OPEN PROBE

The alarm sounds continuously until the fault clears or the fryer is turned off, then back on. If the problem persists, call service.

Shorted Probe - If a shorted probe is detected, the heat demand is disabled and any running cooking cycles are cancelled. All operator buttons are disabled. The control displays the following message:

HFD Models - Hi

HFC Models - SHORTED PROBE

The alarm sounds continuously until the fault clears or the fryer is turned off, then back on. If the problem persists, call service.

Hi Temperature - If the temperature is greater than or equal to 415°F (212°C), the heat demand is disabled and any running cooking cycles are cancelled. All operator buttons are disabled. The control displays the following message:

HFD Models - Hi

HFC Models - SHORTED PROBE

The alarm sounds continuously until the fault clears or the fryer is turned off, then back on. Normal fryer operations resumes when temperature drops below 415°F (212°C). If the problem persists, call service.

MAINTENANCE

WARNING: HOT OIL AND PARTS CAN CAUSE BURNS. USE CARE WHEN OPERATING, CLEANING AND SERVICING THE FRYER.

WARNING: SPILLING HOT FRYING COMPOUND CAN CAUSE SEVERE BURNS. DO NOT MOVE FRYER WITHOUT DRAINING ALL FRYING COMPOUND FROM THE TANK.

LUBRICATION

Motors used on basketlifts are permanently lubricated.

SERVICE AND PARTS INFORMATION

To obtain service and parts information concerning this fryer, contact a Hobart service office in your area.

When calling for service, the following information must be available: model number, device number, serial number, manufacture date (MD) and voltage.

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