

***Frymaster***<sup>®</sup>



A **WELBIT** Company



# Service Bulletin

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Date: 10/27/1997

## **SUBJECT: Modified FootPrint III Filtration System**

In late August 1997 a redesigned FootPrint III Filtration System was fielded in H50 Series fryers. Operation of the system did not change, but several of the component parts were changed and a set of new, one-piece manifolds was added.

Attached is a supplement to the H50 Series Service Manual, which addresses the modification.

# Modified FP III Supplement to SERVICE AND PARTS MANUAL

## H50 SERIES GAS FRYERS



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# H50 SERIES GAS FRYERS REDESIGNED FOOTPRINT III FILTRATION SYSTEM SUPPLEMENT

## Introduction

In August 1997, **Frymaster** began production of a redesigned FootPrint III Filtration System for the H50 Series Gas Fryer. *The modified FP-III is distinguishable from original-design units by the absence of casters on the filter base assembly.* The modification incorporated a redesigned oil return system that allows oil/shortening to drain back to the filter pan when the filter system is turned off, eliminating the need for most heated oil return compo-

nents. Additionally, one-piece, welded oil return manifolds eliminate the many couplings in the original design. The changes are summarized in the accompanying table.

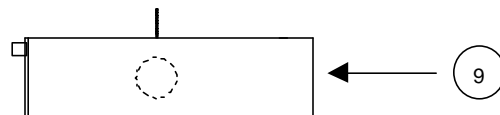
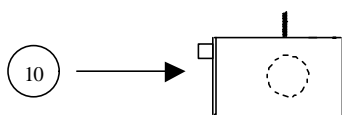
Operation of the modified FP-III system is the same as for the original design. Specific changes in the major sub-systems of the filtration system are discussed in the following sections. Numbers in the illustrations refer to Item Numbers in the Abbreviated Parts List at the end of this supplement.

<b>ORIGINAL VS REDESIGNED FP-III FILTRATION SYSTEM</b>	
<b>Original System</b>	<b>Redesigned System</b>
Oil return manifolds assembled from ½" NPT piping and fittings.	One-piece, welded oil return manifolds.
Return lines and manifolds wrapped with silicone strip heaters and aluminum tape.	No heater strips or aluminum tape on return lines or manifolds.
Filter base assembly connected to unit with a black, heated return hose beneath the filter.	Non-heated Teflon hose with a swivel joint connects the filter base assembly to the unit above the filter.
Filter base assembly equipped with swivel casters.	Filter base assembly has no casters.
Operator-removable filter base assembly. (Filter base assembly stoplocks in cabinet can be rotated to remove tray.)	Filter base assembly is not removable except by a qualified service technician. (Filter base assembly stoplocks fitted with a screw and nut to prevent filter removal.)
Oil/shortening remains in return lines when filter system is turned off.	Oil/shortening gravity-drains back to the filter pan when filter system is turned off, leaving no oil or shortening in return lines or manifolds.

## Square Drain Sub-System

The only change to the square drain sub-system is the addition of a ¼" NPT vent coupling to the leftmost end sections to allow attachment to a vacuum-breaking solenoid. The new end

sections may also be used on the original-design filtration system by plugging the vent port with a ¼" NPT pipe plug coated with sealant. All other square drain components remain unchanged.



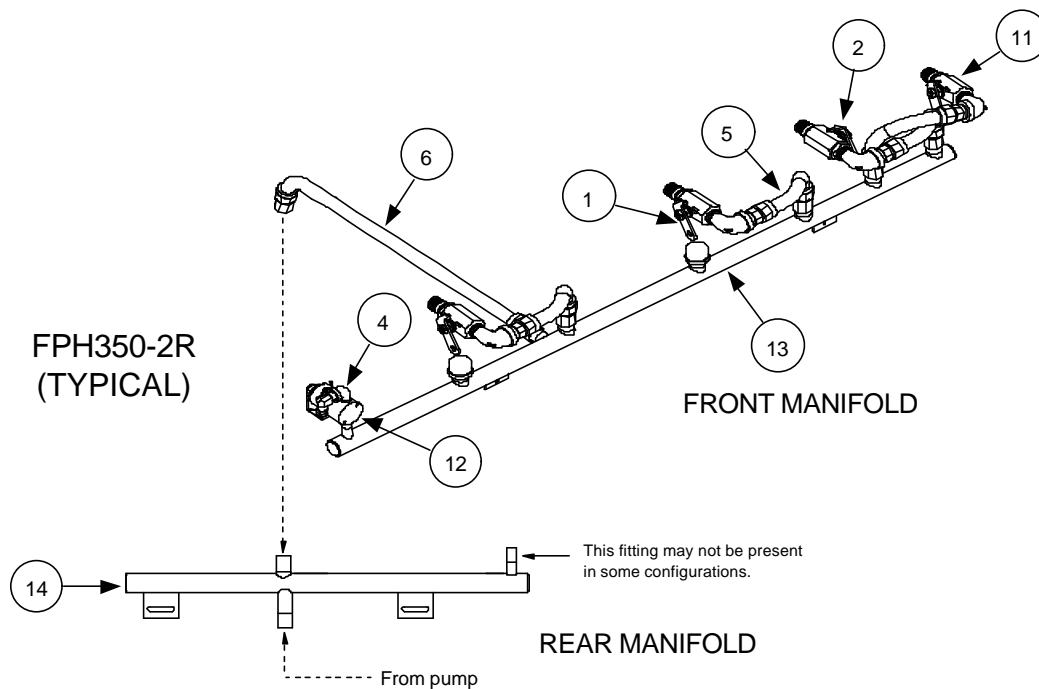
# H50 SERIES GAS FRYERS REDESIGNED FOOTPRINT III FILTRATION SYSTEM SUPPLEMENT

## Power Shower Sub-System

One-piece, welded front and rear manifolds and Dormont stainless steel flexlines replace the various pieces of 1/2" NPT piping, flexline, and heater-strips used on the original-design filtration system. A solenoid vent valve, designed to prevent vacuum-lock of the system as oil/shortening drains back to the filter pan when the unit is turned off, is mounted on the left end of front the manifold. The solenoid valve is connected to the square drain sub-system by a clear : " O.D. Teflon tube and threaded fittings. The Gemini ball valve used on the manifold is the same as that used on the earlier design. Eight and one-half-inch stain-

less steel Dormont flexlines replace the flexlines that connect the manifolds to the valves. Standard, 1/2" X 1/2", 90° black metal street elbows are used to make the connections.

An additional manifold is attached to the rear of the leftmost two frypots. This manifold replaces the oil return hose bracket found at the left front of the fryer in original-design units. A 22-inch Dormont stainless steel flexline, running above the filter assembly, connects the front manifold assembly to the new rear manifold. This replaces the previous stainless steel tubing that ran from the front manifold oil return to the hose bracket at the left front of the cabinet.



## Filter Base Assembly and Pump Sub-System

Casters are not present on the new-design filter base. In addition, the filter base assembly has been redesigned to prevent its being taken out of the cabinet without removing a set of ma-

chine screws and nuts. The filter pan is unchanged and is completely removable.

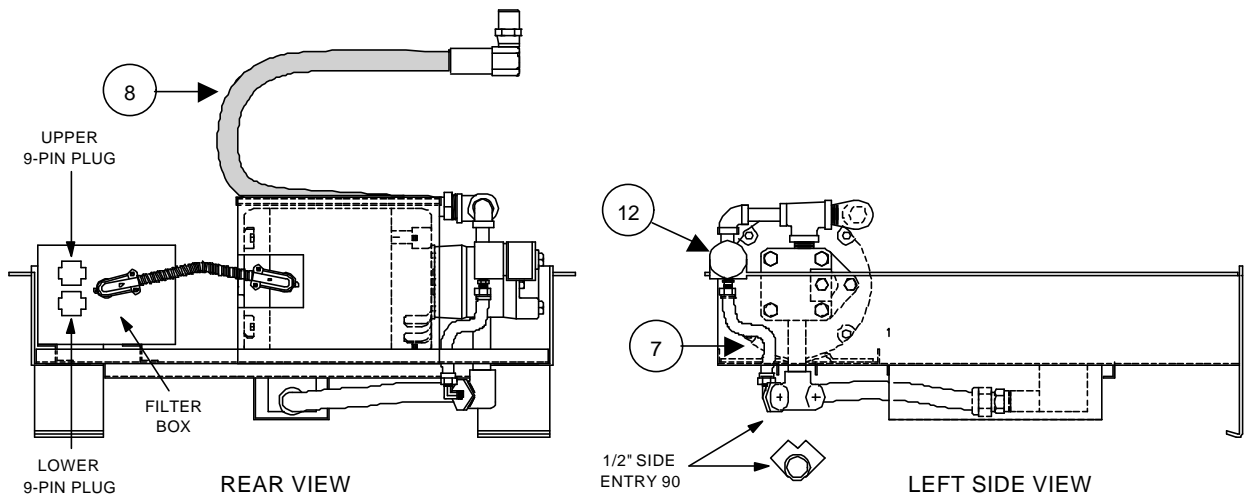
A new Teflon hose with a braided stainless steel covering connects the pump to the rear manifold and replaces the heated hose running from the pump discharge under the unit to the Power Shower plumbing. The new hose is

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fitted with a 90° swivel at the manifold end and a straight swivel at the pump end to prevent kinking.

The pump plumbing has been changed by the addition of a solenoid valve at the pump discharge, a ¼" I.D. Dormont stainless steel flex-line that connects the solenoid valve to the pump inlet fittings, and miscellaneous standard

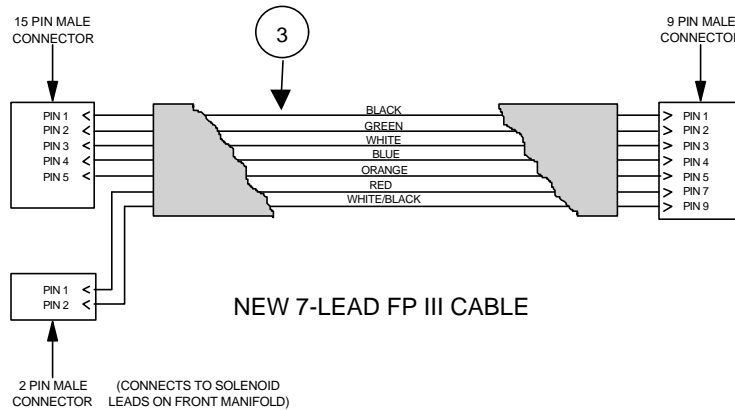
black metal fittings for connections. This design allows oil/shortening to bypass the pump as it drains from the oil return lines back into the filter pan when the system is turned off. Bypassing the pump expedites draining of the lines. The pump solenoid leads are connected to Pins 7 and 9 of the upper 9-pin plug assembly.



## Filter Wiring Box

The original-design 5-lead cable connecting the filter assembly to the filter wiring box has been replaced with a new, universal 7-lead cable to accommodate the solenoid mounted on the front manifold. The two new leads

have a separate connector for attachment to the solenoid. When a filter cable is ordered for either filtration system configuration (original or redesigned), the new 7-wire cable will be sent. The two extra wires and connector will not interfere with the original filtration system or its operation.



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REDESIGNED FOOTPRINT III FILTRATION SYSTEM  
SUPPLEMENT**

**Fryer Heat Shield**

The front heat shield between the leftmost two frypots has been modified by the addition of a hole at the lower end to allow routing of the Dormont stainless steel flexline that connects the front manifold to the rear manifold.

**Verifying Solenoid Operation**

Proper operation of the 24 VAC manifold and pump solenoids can be verified by removing the pump motor lead from terminal 4 of the pump motor relay in the filter wiring box and then activating the oil return lever. Proper solenoid operation will be evidenced by an audible “click” or vibration of both the pump solenoid and the manifold solenoid.

**Abbreviated Parts List**

ITEM	COMPONENT	PART #
1	Arm, Power Shower Oil Return Valve, Left	901-0883
2	Arm, Power Shower Oil Return Valve, Right	902-0883
3	Cable, Filter, H50	810-1062
4	Fitting, 90° (for use with Teflon vent tube P/N 812-1373)	810-1372
5	Flexline, Dormont, S.S., ½” X 9½” (to Power Shower valve)	810-1399
6	Flexline, Dormont, S.S., ½” X 22” (front manifold to rear manifold)	810-1400
7	Flexline, Dormont, S.S., ¼” X 6” (pump bypass)	810-1373
8	Hose, Teflon w/Stainless Braiding (pump to rear manifold)	810-1404
9	Square Drain Section, End, Left, Long (for full vat)	823-2445
10	Square Drain Section, End, Left, Short (for dual vat left)	823-2444
11	Valve, Gemini, W/O Handle (Power Shower valve)	810-0278
12	Valve, Vent, Solenoid, ¼” NPT (for use on manifold and pump)	807-2484
*	Vent Tube, Teflon, : ” O.D.	810-1373
<b>Manifold, Power Shower Oil Return</b>		
*	H250	810-1361
13	H350	810-1358
*	H450	810-1379
14	Manifold, Rear, H50 Power Shower	810-1381
* Not illustrated.		