



Frymaster, a member of the Commercial Food Equipment Service Association, recommends using CFESA Certified Technicians.

24-Hour Service Hotline 1-800-551-8633

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PRO SERIES系列 ELECTRIC FRYERS电炸锅 Installation & Operation Manual安装操作手册

注意

如果在保固期内，客户在 ENODIS 设备上使用了不是从工厂或指定的服务商购买的新零件或可循环使用的零件、或零件被改造过，那保固将作废。此外，FRYMASTER/DEAN 及各分支机构不会承担由于客户使用改造零件或从非授权服务商购买的零件而产生的任何费用。

注意

此设备只用作专业用途并只能由有相应资格的人来操作。经 FRYMASTER/DEAN 授权的服务机构或其他授权技师可以进行设备的安装、保养和修理。由未经授权的人进行安装、保养和修理将会使保固作废。关于有资格人员的定义见此手册的第一章。

注意

安装此设备必须依照正确的国家和当地的法规。具体请见此手册第 2 章的国家法规要求。

美国客户注意

设备安装必须符合基本的美国建筑管理局的管道设备法规和美国食品和药物管理局的餐饮设备卫生法规。

注意

此手册中的图案和照片用来说明操作、清洁和技术性程序，他们可能与管理人员的操作程序并不一致。

使用带电脑板设备的用户注意

美国

此设备遵循美国通信协议的第 15 部分，操作遵守以下两个条件：1) 此设备不会产生有害的干扰。2) 此设备必须可以承受任何收到的干扰，包括可以产生意外操作的干扰。虽然此设备被检验为 A 级别的设备但它实际显示出为 B 级别。

加拿大

此数字设备发出的无线电噪音不超过加拿大通信部门 ICES-003 标准的 A 或 B 级别。

⚠危险

不正确的安装、调整、保养、维修或未经授权的改造可能导致性能上的损害，人员的伤害乃至死亡。在安装和维修此设备前彻底的阅读安装、操作和维修指导。

⚠危险

设备的前壁架不是踏脚板！请不要站在设备上。接触热油会导致严重的伤害。

⚠危险

在此设备或其他任何设备附近不要放置汽油或其他任何易燃性的气体或液体。

⚠危险

带滤油系统炸锅的碎屑盘必须在每天使用后清理里面的碎屑到一个防火容器中。一些食物粒子如果浸在某些油性物质中，可能会自燃。

⚠警告

不要重击炸篮或炸锅连接带上的其他器具。连接带是用来密封炸槽间缝隙的。重击连接带上的炸篮来驱除残留的油滴会使连接带扭曲。连接带是用来起拉紧作用的，只有在清洁的时候才可以拿掉。



PRO系列电炸锅

Installation and Operation Manual安装操作手册

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PRO SERIES ELECTRIC FRYERS/ PRO 系列电炸锅

CHAPTER 1 INTRODUCTION/第一章:介绍

1.1 General 总体

Read the instructions in this manual thoroughly before attempting to operate this equipment. This manual covers all configurations of FPPH-14, FPPH-17, and FPPH-22 models. The fryers in this model family have most parts in common, and when discussed as a group, will be referred to as “Pro Series Electric” fryers.在试图操作炸锅前仔细阅读本手册。此手册涵盖所有FPPH-14, FPPH-17和 FPPH-22型号的特点。此系列炸锅大多数零件都是通用的，所以在讨论的时候一并称之为“PRO系列电炸锅”


Although similar in appearance to the Footprint III family of Common Electric fryers, the Pro Series Electric fryers feature a significantly different built-in filtration system. Other features, including the deep cold-zones and open frypots with tilt-up elements remain essentially unchanged. Control options include multi-product cooking computers (standard) or optional digital and analog controllers. Fryers in this series come in full- or split-pot arrangements, and can be purchased as single units or grouped in batteries of up to six fryers. 尽管Footprint III家族的炸锅在外观上比较相似，但Pro系列电炸锅在内置滤油系统上截然不同。其他特征，包括深冷区和开口油槽带可抬式加热管等保持不变。控制选项包括多种产品烹炸电脑板（标准）或可选的数字或模拟控制器。此系列的炸锅可以全槽或分割槽，可以单台采购或最多6台炸锅集合采购。


1.2 Safety Information安全信息


Before attempting to operate your unit, read the instructions in this manual thoroughly. Throughout this manual, you will find notations enclosed in double-bordered boxes similar to the one below.在试图操作设备前，应仔细阅读本手册。通过本手册，你可以发现一些如下包含警示标志的文本框：

DANGER危险

Hot cooking oil causes severe burns. Never attempt to move a fryer containing hot cooking oil/shortening or to transfer hot cooking oil/shortening from one container to another.灼热的炸油会导致严重的烫伤事故。不要在炸锅包含热炸油的时候试图移动炸锅或将热炸油从一个油槽输送到另一个油槽

 CAUTION boxes contain information about actions or conditions that *may cause or result in a malfunction of your system*. CAUTION表示小心，包含可能导致故障的行为或状况。

 WARNING boxes contain information about actions or conditions that *may cause or result in damage to your system*, and which may cause your system to malfunction. WARNING 表示警告，包含可能导致设备损坏或导致设备出现故障的行为或状况

 DANGER boxes contain information about actions or conditions that *may cause or result in injury to personnel*, and which may cause damage to your system and/or cause your system to malfunction. DANGER 表示危险，包含导致人身伤害，或导致设备损坏或出现故障的行为或状况。

Fryers in this series are equipped with the following automatic safety features此系列的炸锅包含以下自动安全功能:

1. Two high-temperature detection features shut off power to the elements should the temperature controls fail. 当温度控制出现问题时，两个高温保护会切断加热管的电源以停止加热。
2. A safety switch built into the drain valve prevents the elements from heating with the drain valve even partially open.在泻油阀内置一个安全开关，令泻油阀未完全关闭的状况下，加热管无法加热。

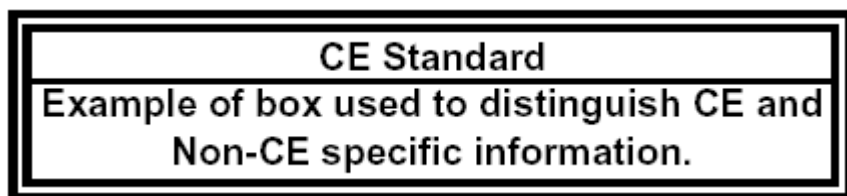
1.3 Computer Information 电脑板信息

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. While this device is a verified Class A device, it has been shown to meet the Class B limits. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of the equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. If necessary, the user should consult the dealer or an experienced radio and television technician for additional suggestions. 本装置遵循FCC规则的第15部分，本装置必须能够接受任何接受的干扰，包括会引起意外操作的干扰。尽管本装置是经过检验的A级装置，但它也满足B级范围。此限制是为在商业运营环境中的设备提供避免人身伤害的保护。此设备发生、使用并可以发送无线频率能量，如果没有按照指导手册进行安装和使用，可能导致有害的无线辐射。如在居民区操作该设备可能导致的有害冲突所产生的改正费用应由用户承担。用户应注意没有遵从由相关部门明确批准的任何修改或改变，可以导致用户丧失对操作设备的资格。如果需要，用户应遵循分销商或资深无线和广播专业技术人员的意见。

The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4. 用户可以遵循一下国家通讯委员会的小册子 "How to Identify and Resolve Radio-TV Interference Problems".此手册可以向U.S.政府印刷局

1.4 European Community (CE) Specific Information CE特别信息

The European Community (CE) has established certain specific standards regarding equipment of this type. Whenever a difference exists between CE and non-CE standards, the information or instructions concerned are identified by means of shadowed boxes similar to the one below. CE已经建立了相关标准。无论何时在CE和非CE标准存在差异，此信息或指导应遵循类似以下带阴影的文本框。



1.5 Shipping Damage Claim Procedure 运输损坏索赔程序

What to do if your equipment arrives damaged 当您的设备到达后发现损坏，您应做什么？：

Please note that this equipment was carefully inspected and packed by skilled personnel before leaving the factory. The freight company assumes full responsibility for safe delivery upon acceptance of the equipment. 此设备在出厂前由熟练的工人检查并妥善包装。运输公司应承担将设备安全运抵及设备验收。

1. File Claim for Damages Immediately—Regardless of extent of damage. 立即填写损坏索赔报告—不管损坏的程度
2. Visible Loss or Damage—Be sure this is noted on the freight bill or express receipt and is signed by the person making the delivery. 可见的丢失或损毁—要注意此点应该在运单/快运单上说明，并由现场运输公司的人员签字确认。
3. Concealed Loss or Damage—If damage is unnoticed until equipment is unpacked, notify the freight company or carrier immediately and file a concealed damage claim. This should be done within 15 days of date of delivery. Be sure to retain container for inspection. 隐蔽的丢失或损毁—如果设备是在拆除包装后才发现有损毁，应立即通知运输公司/快递公司，并且填写隐蔽的损毁索赔报告。此工作应在货物到达后的15日内完成。注意保留包装以便检查。

1.6 Service Information服务信息

For non-routine maintenance or repairs, or for service information, contact your local Frymaster Authorized Service Center (FASC). Service information may also be obtained by calling the Frymaster Technical Services Department (1-800-24FRYER). The following information will be needed in order to assist you efficiently作为非定期保养检修或需要服务信息,请联系当地 Frymaster指定维修商 (FASC)。另外,同样可以拨打Frymaster技术支持部门(1-800-24FRYER), 为了提高为您提供服务的效率, 切记提供以下信息:

Model Number设备型号 _____

Serial Number设备序列号_____

Voltage 电压_____

Nature of the Problem 问题_____

RETAIN AND STORE THIS MANUAL IN A SAFE PLACE FOR FUTURE USE.

请将此手册保存在安全的地方以备今后有用

PRO SERIES ELECTRIC FRYERS/ PRO 系列电炸锅

CHAPTER 2: INSTALLATION INSTRUCTIONS/第二章:安装指导

2.1 General总体

Proper installation is essential for the safe, efficient, trouble-free operation of this appliance. Any unauthorized alteration of this equipment will void the Frymaster warranty.正确的安装是保障设备安全、高效、不发生故障的前提。任何没有经过授权的改造将导致Frymaster所提供保固之失效。

NOTICE 注意

If this equipment is wired directly into the electrical power supply, a means for disconnection from the supply having a contact separation of at least 3-mm in all poles must be incorporated in the fixed wiring.如果此设备直接连接电源，应安装一个开关以便切断电源。

NOTICE 注意

This equipment must be positioned so that the plug is accessible unless other means for disconnection from the power supply (e.g., a circuit breaker) is provided.设备必须位于插头可到达电源位置，有要连接断路器的除外

NOTICE 注意

If this appliance is permanently connected to fixed wiring, it must be connected by means of copper wires having a temperature rating of not less than 167°F (75°C). 如设备永久连接固定线路，电路必须可以承担 167°F (75°C)温度

NOTICE 注意

If the electrical power supply cord is damaged, it must be replaced by a Frymaster/Dean Factory Authorized Service Center technician or a similarly qualified person in order to avoid a hazard.如果电源线损坏，必须由 Frymaster/Dean 工厂指定维修人员或类似具备自己的人员进行更换以避免触电事故。



DANGER 危险

This appliance must be connected to a power supply having the same voltage and phase as specified on the rating plate located on the inside of the appliance door.设备必须按照铭牌上所规定的电压和相数进行接电。



DANGER 危险

All wiring connections for this appliance must be made in accordance with the wiring diagram(s) furnished with the appliance. Refer to the wiring diagram(s) affixed to the inside of the appliance door when installing or servicing this equipment.所有接线必须根据随设备提供的线路图。当安装或维修该设备时要参照线路图



DANGER 危险

Frymaster appliances equipped with legs are for stationary installations. Appliances fitted with legs must be lifted during movement to avoid damage to the appliance and bodily injury. For movable installations, optional equipment casters must be used. Questions? Call 1-800-551-8633. 炸锅所配的腿是用于固定安装，因此在移动过程中必须将炸锅抬起避免炸锅损坏和压伤。如需要可移动的炸锅腿，必须拨打 1-800-551-8633 另外订购



DANGER 危险

Do not attach an apron drain board to a single fryer. The fryer may become unstable, tip over, and cause injury. The appliance area must be kept free and clear of combustible material at all times.不要在单槽炸锅上安装挡板。否则会影响炸锅的稳定性，翻倒导致人身伤害。炸锅在任何时候都必须同易燃物品导致

All installation and service on FRYMASTER equipment must be performed by qualified, certified, licensed, and/or authorized installation or service personnel. 任何Frymaster设备的安装和维修必须由合格或授权的安装和维修人员完成。

Service may be obtained by contacting your local Factory Authorized Service Center.与当地Frymaster工厂授权的服务中心联系，就可以得到维修服务。

In the event of a power failure, the fryer(s) will automatically shut down. If this occurs, turn the power switch OFF. Do not attempt to start the fryer(s) until power is restored.如果出现电力故障，炸锅会自动关闭。如果发生此情况，请将电源开关关闭。在电力恢复供应前不要试图开启炸锅。

This appliance must be kept free and clear of combustible material, except that it may be installed on combustible floors.炸锅除了应不安装在易燃材质的地面上外，应远离易燃品

A clearance of 6 inches (15cm) must be provided at both sides and back adjacent to combustible construction. A minimum of 24 inches (61cm) should be provided at the front of the equipment for servicing and proper operation.炸锅四周距邻近的易燃材料必须保持6 inches (15cm)的间隙，炸锅前方至少要有24 inches (61cm)以便操作和维修。

In Australia在澳大利亚

To be installed in accordance with AS 5601 / AG 601, local authority, gas, electricity, and any other relevant statutory regulations. 按照AS 5601 / AG 601, , 当地煤气、电力标准进行安装。

2.2 Power Requirements 电力要求

MODEL	VOLTAGE	PHASE	WIRE SERVICE	MINIMUM WIRE SIZE AWG (mm)	AMPS (per leg)
FPPH14	208	Single	3	3 (5.83)	68
FPPH14	208	3	3	6 (4.11)	39
FPPH14	240	Single	3	4 (5.19)	59
FPPH14	240	3	3	6 (4.11)	34
FPPH14	480	Single	3	8 (3.26)	30
FPPH14	480	3	3	8 (2.59)	17
FPPH14	220/380	3	4	6 (4.11)	21
FPPH14	240/415	3	4	6 (4.11)	20
FPPH14	230/400	3	4	6 (4.11)	21
FPPH17	208	3	3	6 (4.11)	48
FPPH17	240	3	3	6 (4.11)	41
FPPH17	480	3	3	6 (4.11)	21
FPPH17	220/380	3	4	6 (4.11)	26
FPPH17	240/415	3	4	6 (4.11)	24
FPPH17	230/400	3	4	6 (4.11)	25
FPPH22	208	3	3	4 (5.19)	61
FPPH22	240	3	3	4 (5.19)	53
FPPH22	480	3	3	6 (4.11)	27
FPPH22	220/380	3	4	6 (4.11)	34
FPPH22	240/415	3	4	6 (4.11)	31
FPPH22	230/400	3	4	6 (4.11)	32

NOTICE 注意

If this appliance is permanently connected to fixed wiring, it must be connected by means of copper wires having a temperature rating of not less than 167°F (75°C). 如设备永久连接固定线路，电路必须可以承担 167°F (75°C)温度

 **DANGER 危险**

This appliance must be connected to a power supply having the same voltage and phase as specified on the rating plate located on the inside of the appliance door. 设备必须按照铭牌上所规定的电压和相数进行接电。

 **DANGER 危险**

All wiring connections for this appliance must be made in accordance with the wiring diagram(s) furnished with the appliance. Refer to the wiring diagram(s) affixed to the inside of the appliance door when installing or servicing this equipment. 所有接线必须根据随设备提供的线路图。当安装或维修该设备时要参照线路图

2.3 After Fryers Are Positioned At the Frying Station 当炸锅在工作站中就位后

 **DANGER 危险**

No structural material on the fryer should be altered or removed to accommodate placement of the fryer under a hood. Questions? Call the Frymaster/Dean Service Hotline at 1-800-551-8633. 不能为了配合烟罩的位置任意拆卸或改变炸锅的结构固件。如有问题？致电Frymaster/Dean 服务热线 1-800-551-8633

1. Once the fryer has been positioned at the frying station, use a carpenter's level placed across the top of the frypot to verify that the unit is level, both side-to-side and front-to-back. 一旦炸锅在工作站内就位完毕，要用水平尺在前后左右测量，调节炸锅到水平位置。

To level fryers equipped with legs, the bottom of the legs can be screwed out up to one inch for leveling. Legs should also be adjusted so that the fryer(s) are at the proper height in the frying station. 炸锅腿的高度最高调节1英寸以便调节水平。并且可以通过调节腿的高度令炸锅处于适当高度。

For fryers equipped with casters, there are no built-in leveling devices. The floor where the fryers are installed must be level. When the fryer is leveled in its final position, install the restraints provided with the unit to limit its movement so that it does not depend on or transmit stress to the electrical conduit or connection. Install the restraints in accordance with the provided instructions. If the restraints are disconnected for service or other reasons, they must be reconnected before the fryer is used. 对于带脚轮的炸锅，没有装配内置的调节水平的装置。因此放置炸锅的地方必须保持水平。当炸锅最终定位调节好水平后，应安装所提供的限制器以限制炸锅移动，确保电源管线不会受到拉扯。按照所提供的指引安装限制器。如果由于某种原因导致限制器中断连接，在炸锅使用前必须重新连接好。

NOTE: If you need to relocate a fryer installed with legs, remove all weight from each leg before moving. If a leg becomes damaged, contact your service agent for immediate repair or replacement. 如果需要重新定位带腿的炸锅，在移动前先去炸锅腿上的承重物。如果发现炸锅腿损坏，请联系当地的Frymaster授权维修商立即修理或更换。

 **DANGER 危险**

Hot shortening can cause severe burns. Avoid contact. Under all circumstances, oil must be removed from the fryer before attempting to move it to avoid oil spills, falls and severe burns. This fryer may tip and cause personal injury if not secured in a stationary position. 热炸油会导致严重烫伤事故。在任何情况下都要避免接触热炸油。在移动炸锅前要将热炸油取出，避免热油飞溅导致烫伤。要让炸锅处于固定位置。

2. Close fryer drain-valve(s) and fill frypot with water to the bottom oil level line. 关闭泄油阀，注水到低油位线位置
3. Boil out frypot(s) in accordance with the instructions in Section 5.1.3 of this manual. 根据手册5.1.3指导煮锅
4. Drain, clean, and fill frypot(s) with cooking oil. (See *Equipment Setup and Shutdown Procedures* in Chapter 3.) 排干水，擦干后将炸油注入油槽

PRO SERIES ELECTRIC FRYERS/ PRO 系列电炸锅

CHAPTER 3: OPERATING INSTRUCTIONS /第三章:操作指导

3.1 Equipment Setup and Shutdown Procedures

Setup

DANGER 危险

Never operate the appliance with an empty frypot. The frypot must be filled with water or cooking oil/shortening before energizing the elements. Failure to do so will result in irreparable damage to the elements and may cause a fire. 不要在油槽内没有炸油的情况下操作设备。在对加热管通电前油槽内必须注入水或炸油/起酥油。否则会引发加热管和火灾

DANGER 危险

Remove all drops of water from the frypot before filling with cooking oil or shortening. Failure to do so will cause spattering of hot liquid when the oil or shortening is heated to cooking temperature. 在注入炸油/起酥油前要确保油槽被擦干没有水分残留。否则当炸油被加热到烹炸温度时可能会引发热油飞溅事故。

1. Fill the frypot with cooking oil to the bottom OIL LEVEL line located on the rear of the frypot. This will allow for oil expansion as heat is applied. Do not fill cold oil any higher than the bottom line; overflow may occur as heat expands the oil. 将炸油注入到位于油槽后部的低油位指示线位置，提供当炸油被加热后膨胀所需要的必要空间。不要将冷油加到超过低油位指示线的位置，避免热油溢流。

NOTE: If solid shortening is used, first raise the elements, then pack the shortening into the bottom of the frypot. Lower the elements, and then pack the shortening around and over the elements. It may be necessary to add shortening to bring the level up to the proper mark after the packed shortening has melted. 如果使用固体油，先抬起加热管，将固体起酥油放入到油槽的底部，将加热管放下，用起酥油油将加热管包裹好。如果在融油结束有，视需要添加部分起酥油令油位到达适当位置。

DANGER 危险

Never set a complete block of solid shortening on top of the heating elements. 不要将整块起酥油放在加热管上面。

When using solid shortening, always pre-melt the shortening before adding it to the frypot. If the shortening is not pre-melted, it must be packed down into the bottom of the frypot and between the elements, and the fryer must be started in the melt-cycle mode. 如果使用固体起酥油，应事先将固体起酥油融化后再注入油槽。如果没有预先融化，则应塞入油槽底部，并且包裹好加热管后启动融油模式。

Never cancel the melt-cycle mode when using solid shortening. Doing so will result in damage to the elements and increase the potential for a flash fire. 在使用固体起酥油的时候不能取消融油模式。否则会导致加热管损坏和火灾。

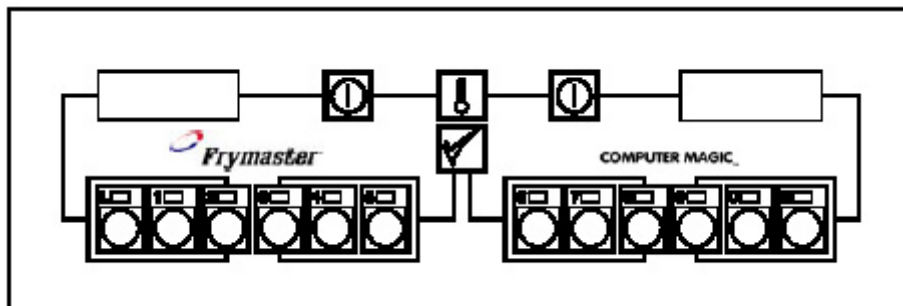
2. Ensure that the power cord(s) is/are plugged into the appropriate receptacle(s). Verify that the face of the plug is flush with the outlet plate, with no portion of the prongs visible. 确认插头插在正确的插座上。
3. Ensure that the oil/shortening level is at the *top* OIL LEVEL line when the oil/shortening is at its cooking temperature. It may be necessary to add oil/shortening to bring the level up to the proper mark, *after it has reached cooking temperature*. 确保炸油加热到烹炸温度后油位到达上油位指示线，并视需要加入适当起酥油令油位线到达正确位置。

Shutdown关闭

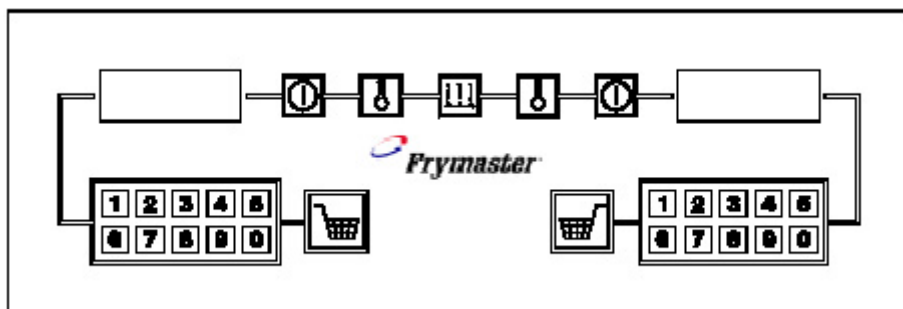
1. Turn the fryer off.将炸锅关闭
2. Filter the cooking oil/shortening and clean the fryers (See Chapters 4 and 5).滤油并清洁炸锅 (见第4第5章)
3. Place the frypot covers on the frypots.将锅盖放在油槽上。

3.2 Controllers控制器

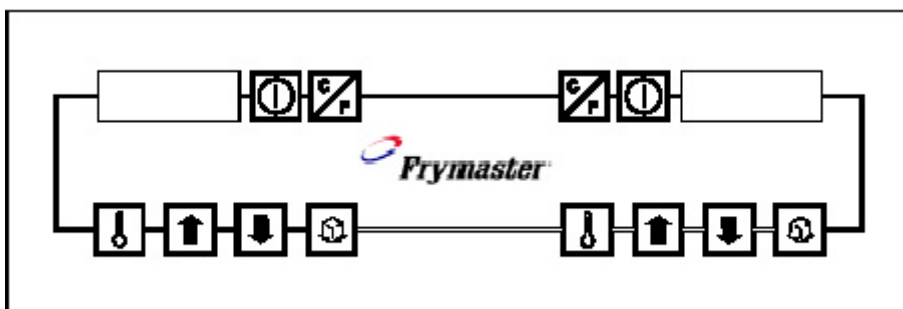
This fryer may be equipped with any of the following controllers炸锅可以装配以下任何一款控制器:



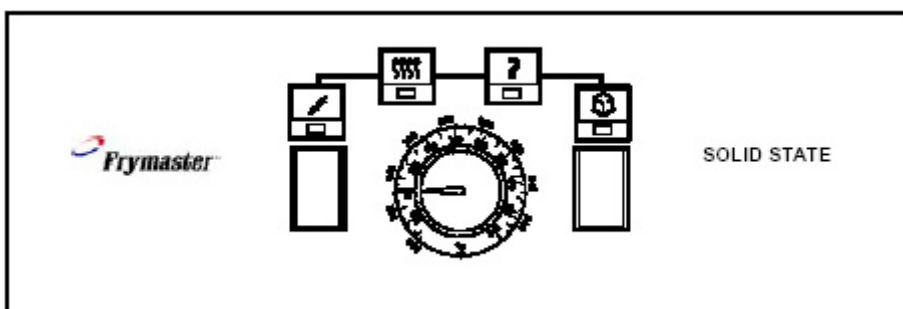
Computer Magic III (CM III) - 魔术 III 号



Basket Lift Timer - 举篮记时器



Digital Controller - 数字控制器



Solid State (Analog) Controller - 固态 (模拟) 控制器



CAUTION 注意

If this is the first time the fryer is being used after installation, refer to the frypot Boil-Out Procedure on Page 5-2.
如果这是炸锅安装后的首次使用，请参照 5-2进行煮锅程序。

Refer to the separate *Frymaster Fryer Controllers User's Manual* furnished with your fryer for the specific controller operating instructions. 参照与您所使用炸锅控制器相关的Frymaster炸锅控制器的使用手册的操作控制章节操作您的炸锅

Refer to Chapter 4 of this manual for operating instructions for the built-in filtration system. 根据第4章内容操作内置滤油系统。

PRO SERIES ELECTRIC FRYERS/ PRO 系列电炸锅

CHAPTER 4: FILTRATION INSTRUCTIONS/第四章:滤油指导

WARNING 警告

The on-site supervisor is responsible for ensuring that operators are made aware of the inherent hazards of operating a hot oil filtering system, particularly the aspects of oil filtration, draining and cleaning procedures.现场的营运主管应提醒操作人员要小心滤油系统，特别是在滤油和清洁时候要避免热油烫伤事故

4.1 Draining and Manual Filtering

WARNING 警告

Draining and filtering of cooking oil or shortening must be accomplished with care to avoid the possibility of a serious burn caused by careless handling. The oil to be filtered is at or near 350°F (177°C). Ensure all hoses are connected properly and drain handles are in their proper position before operating any switches or valves. Wear all appropriate safety equipment when draining and filtering cooking oil or shortening. 滤油时油温接近350°F (177°C)。在进行滤油操作时务必要小心，避免烫伤。要确保所有管路连接正确，在操作任何开关或阀门前要注意滤油把手在正确位置，在泄油和滤油时要穿戴防护衣物。

WARNING 警告

Allow oil/shortening to cool to 100°F (38°C) before draining into an appropriate container for disposal. 在将油泄入适当容器存放前要让油温冷却到100°F (38°C)

DANGER 警告

Do not drain more than one frypot at a time into the built-in filtration unit to avoid overflow and spillage of hot oil/shortening.不要向内置滤油车内倒入超过1个油槽容量的炸油，以避免热油溢流或飞溅。

DANGER 危险

Do not drain more than one frypot at a time into the built-in filtration unit to avoid overflow and spillage of hot oil/shortening.不要向内置滤油车内倒入超过1个油槽容量的炸油，以避免热油溢流或飞溅。

DANGER 危险

When draining oil/shortening into a disposal unit or portable filter unit, do not fill above the maximum fill line located on the container.将炸油倒入废弃容器或便携滤油车的时候，不要把油超过容器内的最高油位线。

If your fryer is not equipped with a built-in filtration system, the cooking oil or shortening must be drained into another suitable container. (For safe, convenient draining and disposal of used cooking oil or shortening, Frymaster recommends using the Frymaster Shortening Disposal Unit (SDU). The SDU is available through your local distributor.) 如果您的炸锅没有内置滤油系统，炸油/起酥油必须倒入其他适合容器（为了安全起见，对于排油，废弃油，Frymaster 推荐使用 Frymaster 起酥油容器（SDU）。此容器可以从当地的经销商处购得）

1. Turn the fryer power switch to the **OFF** position. Screw the drainpipe (provided with your fryer) into the drain valve. Make sure the drainpipe is firmly screwed into the drain valve and that the opening is pointing down. 将电源开关到OFF位置，将泄油管拧到泄油阀上，要确保拧紧。
2. Position a metal container with a sealable cover under the drainpipe. The metal container must be able to withstand the heat of the cooking oil/shortening and hold hot liquids. If you intend to reuse the oil or shortening, Frymaster recommends that a Frymaster filter cone holder and filter cone be used when a filter machine is not available. If you are using a Frymaster filter cone holder, be sure that the cone holder rests securely on the metal container. 将带密封盖的金属容器放到泄油管下面。金属容器必须要可以承受炸油的温度。如果你想重复使用炸油，Frymaster建议您使用滤油漏斗和漏斗架。并且，请注意要确保漏斗架稳固地放在容器上。

3. Open the drain valve slowly to avoid splattering. If the drain valve becomes clogged with food particles, use the Fryer's Friend (poker-like tool) to clear the blockage. 缓缓打开泄油阀，避免飞溅。如果泄油阀被食物碎屑堵塞无法顺利开启，使用Frymaster Friend工具清洁堵塞处。



DANGER 危险

NEVER attempt to clear a clogged drain valve from the front of the valve! Hot oil or shortening will rush out creating the potential for severe burns. 不要试图在泄油阀前方清洁堵塞，否则热油会从泄油阀口喷出造成烫伤。 DO NOT hammer on the drain valve with the cleanout rod or other objects. Damage to the ball inside will result in leaks and will void the Frymaster warranty. 不要去敲泄油阀，如果造成泄油阀内球体损坏会导致泄油阀漏油以及保固失效。

4. After draining the oil/shortening, clean all food particles and residual oil/shortening from the frypot. BE CAREFUL, this material may still cause severe burns if it comes in contact with bare skin. 在泄油完成后，清洁油槽内残留得食物碎屑和残渣。要小心，如果裸露的皮肤接触到滚烫的表面会导致烫伤。
5. Close the drain valve securely and fill the frypot with clean, filtered or fresh cooking oil or solid shortening to the bottom OIL-LEVEL line. 将泄油阀关闭然后注入新油或干净的过滤过的炸油以及固体油到低油位线



DANGER 危险

When using solid shortening, pack the shortening down into the bottom of the frypot. DO NOT operate the fryer with a solid block of shortening sitting in the upper portion of the frypot. This will cause damage to the frypot and may cause a flash fire. 当使用固体油时，要将固体油摁到油槽底部。不要把固体油堆堵在油槽较高处就直接加热。会引发油槽损坏并可能导致火灾。

4.2 Preparing the Built-In Filtration System for Use 准备使用内置滤油系统

The FootPrint Pro filtration system allows the cooking oil or shortening in one frypot to be safely and efficiently filtered while the other frypots in a battery remain in operation. The FootPrint Pro filtration system is available in three different configurations Footprint Pro 滤油系统可以在另一槽正常操作的情况下，安全迅速地滤油，FootPrint Pro 滤油系统包含以下3个不同配置：

Filter Paper – includes crumb tray, large hold-down ring, and metal filter screen.

滤油纸 - 包含碎屑盘，压框和网格

Filter Pad – includes crumb tray, small hold-down ring, and metal filter screen.

滤油板 - 包含碎屑盘，小的压框和网格

Magnasol Filter – includes crumb tray and Magnasol filter assembly.

Magnasol 油车-包含碎屑盘和Magnasol滤油车组件

Section 4.2.1 covers preparation of the Filter Paper and Filter Pad configurations for use. Refer to Section 4.2.2 for instructions on preparing the Magnasol Filter configuration for use. Operation of all three configurations is the same and is covered in section 4.3. Disassembly and reassembly of the Magnasol filter is covered in section 4.4. 第4.2.1部分包括了滤油纸和滤油板的使用准备。第4.2.2包括了Magnasol滤油配置的使用。此三种配置的操作方法是相同的，在第4.3部分给予叙述和说明。而组装/拆卸Magnasol滤油车在第4.4部分中给予说明。

4.2.1 Preparation for Use with Filter Paper or Filter Pad 滤油纸和滤油板使用准备

1. Pull the filter pan out from the cabinet and remove the crumb tray, hold-down ring, filter paper and filter screen. (See Figure 1) Clean all components with a solution of detergent and hot water, then dry thoroughly. 将滤油盘从炉体中拉出, 除去碎屑盘, 压框, 滤油纸和滤油网格(见Figure 1)。用清洁剂和热水清洁所有部件, 并彻底晾干。

The filter pan is equipped with rollers in rails, much like a kitchen drawer. The pan may be removed for cleaning or to gain access to interior components by lifting the front of the pan to disengage the front rollers, then pulling it forward until the rear rollers clear the rails. The pan cover must not be removed except for cleaning, interior access, or to allow a shortening disposal unit (SDU) to be positioned under the drain. 滤油盘是用导轨进行移动, 这同厨房的抽屉类似。在需要清洁或进入到炸锅内部部件的时候可以抬起滤油盘前部以脱离导轨, 然后拉出滤油盘直到后轮顶到轨道。除非做清洁或内部修理, 否则不要移除盘盖。

2. Inspect the filter pan connection fitting to ensure that both O-rings are in good condition. (See Figure 2) 检查滤油盘快接头, 检查2个密封圈是否有损坏或不在正确位置。
3. Then in reverse order, place the metal filter screen in the center of the bottom of the pan, then lay a sheet of filter paper on top of the screen, overlapping on all sides. (See Figure 1) If using a filter pad, ensure the rough side of the pad is up and lay the pad over the screen, making sure that the pad is in between the embossed ridges of the filter pan. 然后按照相反次序将金属网格放到滤油盘底部, 然后将滤油纸放到滤油网格的上面, 要注意四角都留有余地(见Figure 1)。如果使用滤油板, 要确保滤油板在
4. Position the hold-down ring over the filter paper and lower the ring into the pan, allowing the paper to rest on the sides of the filter pan. (See Figure 3) 将压框放在滤油纸上, 放下压框, 滤油纸垫在滤油盘上。

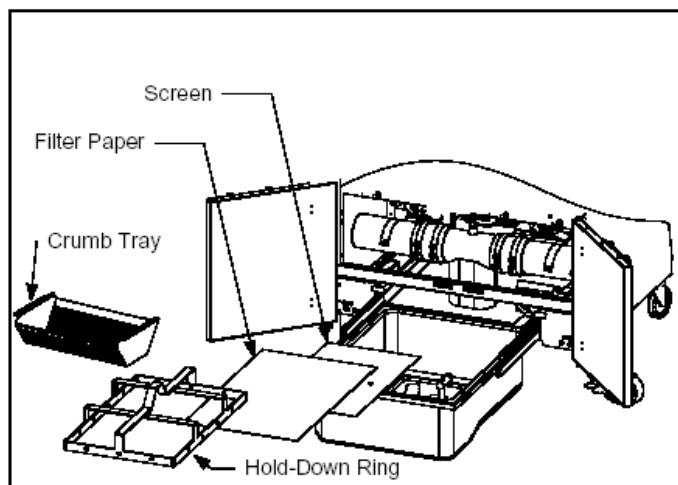


Figure 1

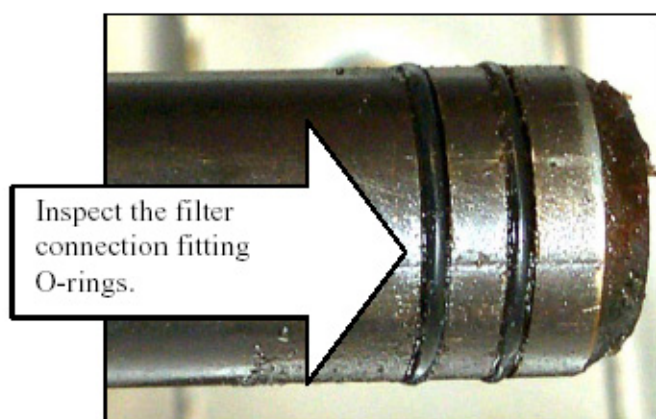


Figure 2



Figure 3

- When the hold-down ring is in position, if using filter paper, sprinkle one cup of filter powder evenly over the paper. (See Figure 4) 当压框到达适当位置后，如使用滤油纸，将1杯滤油粉均匀地倒在滤油纸上（见Figure 4）

If using a filter pad, position the hold down ring on top of the pad. *DO NOT use filter powder with the pad.* 如使用滤油板，将压框放在滤油板的顶上，**不要使用滤油粉。**

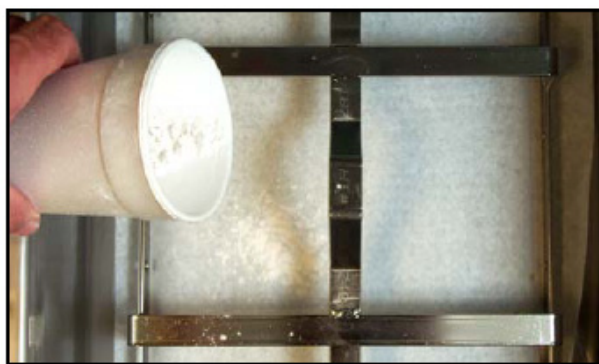


Figure 4

- Replace the crumb tray in the filter pan, then push the filter pan back into the fryer, positioning it all the way to the back of the cabinet. 重新装上碎屑盘，将滤油盘推回炸锅，推到炸锅炉体后部到位为止。

4.2.2 Preparation for Use with the Magnasol Filter Assembly 使用Magnasol滤油组件的准备工作

- Pull the filter pan out from the cabinet and remove the crumb tray and Magnasol filter assembly. (See Figure 5) 将滤油盘拉出，取下碎屑盘和Magnasol滤油组件

The filter pan is equipped with rollers in rails, much like a kitchen drawer. The pan may be removed for cleaning or to gain access to interior components by lifting the front of the pan to disengage the front rollers, then pulling it forward until the rear rollers clear the rails. The pan cover must not be removed except for cleaning, interior access, or to allow a shortening disposal unit (SDU) to be positioned under the drain. 滤油盘装配有道轨，象厨房里的抽屉。在需要进行清洁内部元器件，需要抬起滤油盘令其脱离道轨，然后拉出滤油盘。除非要做清洁，或要把储油器放到泄油阀下，否则不要取出盘盖。

NOTE: Refer to Section 4.4 for instructions on how to disassemble and reassemble the Magnasol filter screen assembly 参考4.4怎样拆卸和重新装配Magnasol滤油网格。



Figure 5

- Inspect the fitting on the bottom of the Magnasol filter assembly to ensure that the O-ring is present and in good condition. (See Figure 6) 检查Magnasol滤油车组件得底部装置，要确保O型圈没有丢失并完好无损。
- Inspect the filter pan connection fitting to ensure that both O-rings are present and in good condition. (See Figure 7) 检查滤油盘连接装置，确保两边的O型圈没有丢失并完好无损。

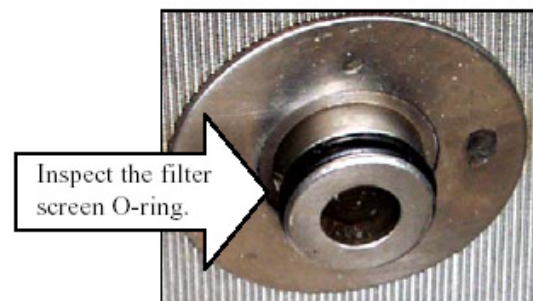


Figure 6

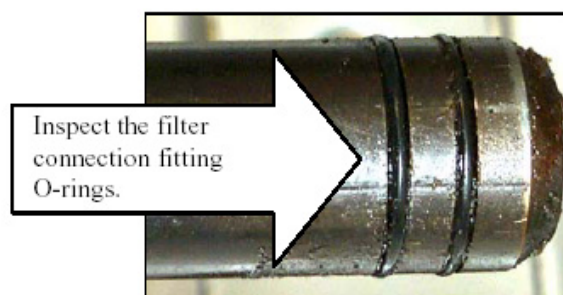


Figure 7

4. Replace the Magnasol filter assembly in the filter pan, ensuring that the fitting on the bottom of the assembly is securely seated in the port in the bottom of the pan. Sprinkle one cup of the Magnasol XL filter powder evenly over the screen. 装上Magnasol滤油车组件，确保组件底部的装置固定于滤油盘底部。将1杯Magnasol XL滤油粉均匀地倒在网格上。
5. Replace the crumb tray, then push the filter pan back into the fryer, positioning it all the way to the back of the cabinet. 装上碎屑盘，将滤油盘塞回炸锅到位。

4.3 Operation of the Filter 操作滤油车

DANGER 危险

Draining and filtering of cooking oil or shortening must be accomplished with care to avoid the possibility of a serious burn caused by careless handling. The oil to be filtered is at or near 350°F (177°C). Ensure drain handles are in their proper position before operating any switches or valves. Wear all appropriate safety equipment when draining and filtering cooking oil or shortening. 由于所滤之油温达到350°F (177°C)，滤油过程中应非常小心，以避免由于疏忽导致的烫伤事故。在操作任何开关或阀门前，确保泄油阀把手在正确位置，在滤油操作过程中要穿戴必要的防护衣物。

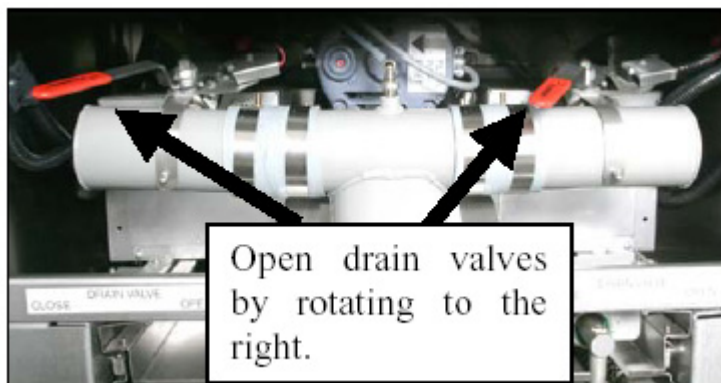
DANGER 危险

NEVER attempt to drain cooking oil or shortening from the fryer with the burners lit! 在加热管处于抬起状态下，不要试图泄油

Doing so will cause irreparable damage to the frypot and may cause a flash fire. 否则可能导致油槽损坏或火灾

Doing so will also void the Frymaster warranty. 此类操作会导致保固失效

1. Turn the fryer power OFF. Drain the frypot into the filter pan by rotating the valves counter clockwise to the right. If necessary, use the *Fryer's Friend* cleanout rod to clear the drain from inside the frypot. 将炸锅电源关闭。将泄油阀按照逆时针方向转到右面，将油从油槽排入滤油盘。如果需要，使用 *Fryer's Friend* 从油槽内部清洁泄油阀。



DANGER 危险

Do not drain more than one frypot at a time into the built-in filtration unit to avoid overflow and spillage of hot oil/shortening. 内置滤油车一次只能过滤1个油槽的油，超量会导致溢流。

DANGER 危险

NEVER attempt to clear a clogged drain valve from the front of the valve! Hot oil or shortening will rush out creating the potential for severe burns. 不要试图从泄油阀正面疏通泄油阀，热油会冲出导致严重烫伤

DO NOT hammer on the drain valve with the cleanout rod or other objects. Damage to the ball inside will result in leaks and will void the Frymaster warranty. 不要用清洁杆敲击泄油阀，否则会损坏泄油阀内部球体，导致漏油并且令保固失效。

2. Install the Power Shower by removing the basket support rack from the frypot. Raise the element assembly to the up position and snap the power shower attachment into position 抬起加热管组件，拿出炸篮支撑网格，安装炸锅淋油器到位。

NOTE: Verify that the Power Shower O-ring and gasket are present and in good condition and that the clean-out screws are installed at each corner. 确认淋油器O型圈和垫圈没有丢失并无损坏，螺丝都在各自位置。



Snap the Power Shower into position.



DANGER 危险

DO NOT operate the filter without the Power Shower in place. Hot oil will spray out of the fryer and cause injury. 不要在淋油器没有到位的情况下操作滤油车，热油会飞溅导致烫伤。

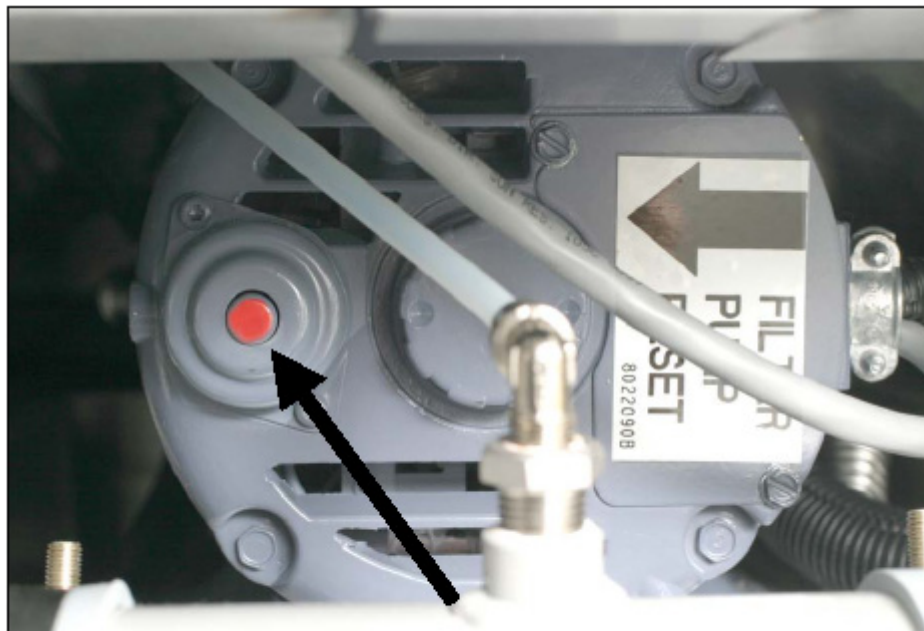
3. After the cooking oil/shortening has drained from the frypot, turn the filter handle to the ON position to start the pump and begin the filtering process. There may be a slight delay before the pump activates 当炸油从油槽里排下后，将滤油车把手开到ON的位置，启动油车泵开始滤油过程。在泵启动前可能会短暂时间的停留。



4. The filter pump draws the cooking oil/shortening through the filter medium and circulates it back up to and through the frypot during a 5-minute process called polishing. Polishing cleans the oil by trapping solid particles in the filter medium. 滤油泵推动炸油在滤油车和油槽里循环，此过程要花费5分钟，被称为抛光。
5. After the oil is filtered (about 5 minutes), close the drain valve and allow the fryer to refill. Let the filter pump run 10 to 12 seconds after the oil/shortening begins to sputter from the Power Shower openings. Turn the filter off, remove the Power Shower and let it drain. 当炸油被过滤后（大概5分钟），关闭泄油阀令油注入炸锅。当淋油器发出劈啪声后，令滤油车泵保持运转10-12秒。关闭滤油车，拆下淋油器。

⚠ WARNING警告

The filter pump is equipped with a manual reset switch in case the filter motor overheats or an electrical fault occurs. If this switch trips, turn off power to the filter system and allow the pump motor to cool 20 minutes before attempting to reset the switch (see photo below). 滤油泵配有一个人工重启按钮，当滤油马达过热或电流错误导致泵停止运转。如果此开关跳起，关闭滤油系统让其冷却20分钟，然后再重启。



Filter Pump Reset Switch

6. Lower the elements into the frypot and reinstall the basket support rack把加热管放回油槽，重新装好炸篮支持网格。
7. Ensure the drain valve is fully closed. (If the drain valve is not fully closed, the fryer will not operate.) Turn the fryer ON and allow the cooking oil/shortening to reach setpoint. 确保泄油阀完全关闭（如果泄油阀没有完全关闭，炸锅不能操作）。打开炸锅电源，令炸油加热到设定温度。

⚠ DANGER危险

The crumb tray in fryers equipped with a filter system must be emptied into a fireproof container at the end of frying operations each day. Some food particles can spontaneously combust if left soaking in certain shortening material. 如果滤油系统装配了碎屑盘，每天操作结束后必须将碎屑倒入防火的废弃容器中。某些食物碎屑在水分挥发后会自燃。

⚠ WARNING警告

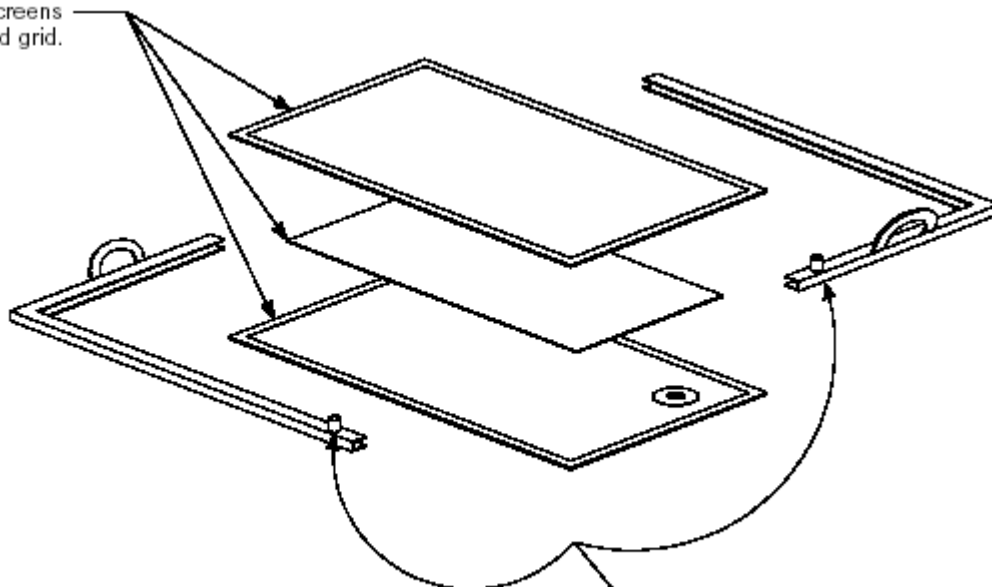
Do not bang fry baskets or other utensils on the fryer's joiner strip. The strip is present to seal the joint between the fry vessels. Banging fry baskets on the strip to dislodge shortening will distort the strip, adversely affecting its fit. It is designed for a tight fit and should only be removed for cleaning. 不要用炸篮或其他容器敲打炸锅系条。此系条是用于密封炸锅容器。用容器敲打会弄歪系条，影响其密封效果。系条只能在清洁的时候拆除。

4.3 Disassembly and Reassembly of the Magnasol Filter 拆卸和组装Magnasol滤油车

Disassembly拆卸

1. Grasp the frame with your thumbs on the handles at the corner of the assembly and pull outward in opposite directions to separate the frame at the corner. Continue to open the frame (it will pivot at the opposite corner) until the outer screens and grid can be removed from the frame.用拇指抓紧框架的各角上的把手，把框架各边角拉出。继续拉开框架，直到外部网格和格子可以从框架中取出。

Step 2 - Separate the outer screens and grid.



Step 1 - Grasp frame with thumbs on these handles and pull frame apart at corner.

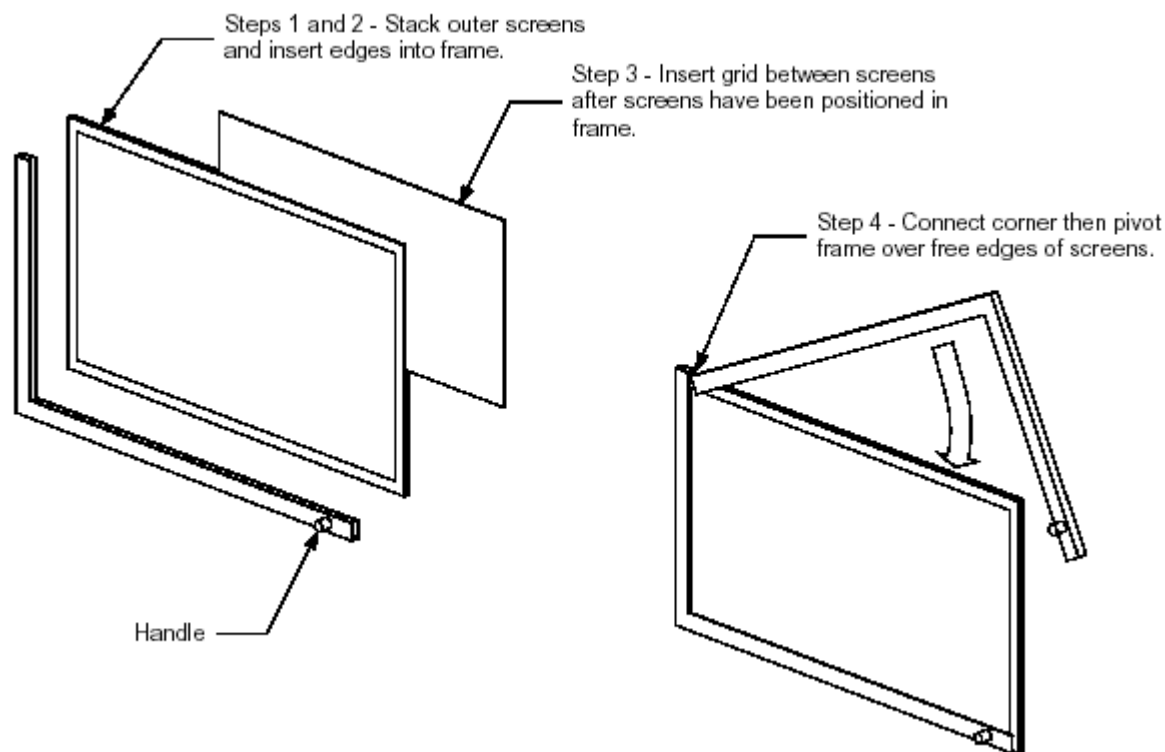
2. Separate the outer screens and grid.分开网格和格子。

Cleaning清洁

1. Clean the two frame pieces, outer screens, and grid using a good quality degreaser and hot water from a spray nozzle. The groove in the seal frame pieces can be cleaned with the edge of a Scotch-Brite™ or similar cleaning pad.用高质量的去油污剂和热水装在喷雾器里，清洁两部分的框架，网格和格子。框架凹槽可以用Scotch-Brite™边缘或类似清洁物品清洁。
2. At each scheduled boil-out, disassemble the leaf filter assembly and place in the frypot being boiled out. Follow the boil-out procedure in Section 5.1.2 of this manual.在定期煮锅程序时，拆除滤油车组件放到油槽里一起煮。具体参见本手册5.1.2部分煮锅程序。
3. Allow all filter assembly components to air dry or thoroughly dry with clean towels before reassembling.在重新组装前，将所有组件晾干或用干净毛巾擦干。

Reassembly组装

1. Place the two outer screens together and align their edges (see illustration on following page).将2个网格装在一起，边缘对齐（见下页插图）
2. Insert the screens into one of the frame halves (it doesn't matter which one). Ensure that the fitting in the bottom screen is on the opposite side of the frame from the handle.将网格塞入框架（无所谓哪一头）。确保网格底部的固定装置在框架的对边。
3. Slip the grid between the screens, ensuring that the grid is centered between the edges of the screens.插入格子，确保格子两边都同网格边缘吻合。
4. Connect the other half of the frame at the corner opposite the handles and pivot the frame onto the free edges of the screen.连接把手对边的另一半的框架，将框架装上网格的空边。



4.5 Draining and Disposing of Waste Oil 泄油和丢弃废油

When your cooking oil/shortening has reached the end of its usable life, drain the oil/shortening into an appropriate container for transport to the disposal container. Frymaster recommends the use of the Frymaster Shortening Disposal Unit (SDU).

NOTE: If using an SDU built before January 2004 the filter pan cover on must be removed to allow the unit to be positioned beneath the drain. To remove the lid, lift up on the front edge and pull it straight out of the cabinet. Refer to the documentation furnished with your disposal unit for specific operating instructions. If a shortening disposal unit is not available, allow the oil/shortening to cool to 100°F (38°C), then drain the oil or shortening into a metal stockpot or similar metal container. When draining is finished, close the fryer drain valve securely. 当你的烹炸油或起酥油到达其使用寿命时，请将废油排到适合容器中并运输到废弃容器。Frymaster建议使用Frymaster提供的废弃油容器SDU。注意：如果需要使用SDU，对于2004年1月前的SDU，必须将滤油盘盖子取下，让SDU可以放在泄油阀下的位置。如要取下盖子，抬起前边，将其拉出炉体。具体参照随SDU所附的文件中的详细步骤。如果没有炸油废弃容器，应待炸油/起酥油冷却到100°F (38°C)，然后将炸油/起酥油冷排到一个金属容器中。当泄油结束，要确保泄油阀关闭。



DANGER 危险

Allow oil/shortening to cool to 100°F (38°C) before draining into an appropriate container for disposal. When draining oil/shortening into a disposal unit, do not fill above the maximum fill line located on the container. 应待炸油/起酥油冷却到100°F (38°C)再将油排到适合容器进行废弃。当将油排入SDU中，不要让油超过最高油位线。

PRO SERIES ELECTRIC FRYERS系列电炸锅

CHAPTER 5: PREVENTATIVE MAINTENANCE维护保养

5.1 Cleaning the Fryer清洁炸锅

DANGER危险

The crumb tray in fryers equipped with a filter system must be emptied into a fireproof container at the end of frying operations each day. Some food particles can spontaneously combust if left soaking in certain shortening material. 如果滤油系统装配了碎屑盘，每天操作结束后必须将碎屑倒入防火的废弃容器中。某些食物碎屑在水分挥发后会自燃。

DANGER危险

Never attempt to clean the fryer during the frying process or when the frypot is filled with hot oil/shortening. If water comes in contact with oil/shortening heated to frying temperature, it will cause spattering of the oil/shortening, which can result in severe burns to nearby personnel.不要在炸锅操作或油槽内满是热油的情况下清洁炸锅。如果水碰到达到烹炸温度的热油会导致热油飞溅，和严重人身伤害。

DANGER危险

Use a commercial-grade cleaner formulated to effectively clean and sanitize food-contact surfaces. Read the directions for use and precautionary statements before use. Particular attention must be paid to the concentration of cleaner and the length of time the cleaner remains on the food-contact surfaces. 使用商业级的清洁剂有效清洁和消毒同食品接触的表面。在使用前详细阅读使用说明。特别注意保持药效时间。

5.1.1 Clean Inside and Outside of the Fryer Cabinet – Daily每日清洁炉体内外

Clean inside the fryer cabinet with a dry, clean cloth. Wipe all accessible metal surfaces and components to remove accumulated oil/shortening and dust. Clean outside the fryer cabinet, with a clean, damp cloth soaked with dishwashing detergent. Wipe with a clean, damp cloth.用清洁的干布清洁炸锅炉体，擦拭所有可以够到的金属表面和原器件，清除凝结的油垢和灰尘。用一块清洁沾有洗涤剂的湿布，清洗炸锅的外面。然后用干净的湿抹布擦拭。

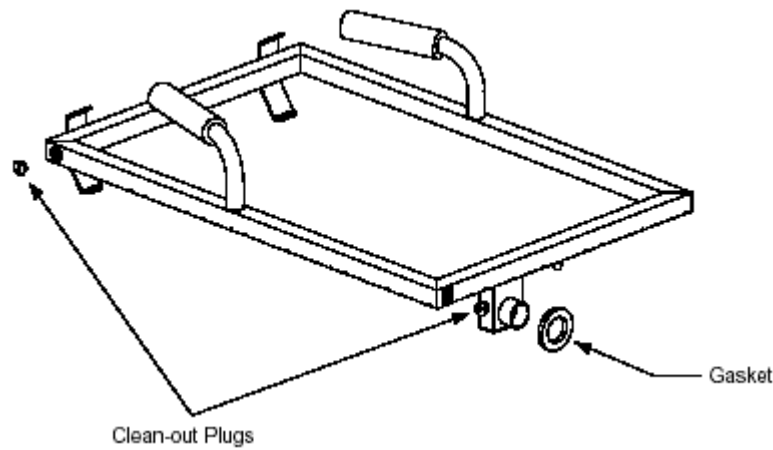
5.1.2 Clean the Built-in Filtration System – Daily 每日清洁内置滤油系统

WARNING警告

Never drain water into the filter pan. Water will damage the filter pump.不要将水排入滤油盘，水导致滤油盘损坏。

There are no periodic preventive maintenance checks and services required for your FootPrint Pro Filtration System other than daily cleaning of the filter pan and associated components with a solution of hot water and detergent. Footprint滤油系统除了每日清洁沾有洗涤剂的湿布清洁滤油盘和相关原器件外，没有对定期保养检查和维修作出特别要求。

Immediately after each use, drain the Power Shower completely. If oil is leaking at the point where the Power Shower plugs into the frypot, verify the gasket on the connection fitting is present and in good condition. If you suspect blockage, unscrew the clean-out plugs at each corner of the frame. Place the frame in a pan of hot water for several minutes to melt any solidified oil/shortening. Use a long, narrow bottlebrush, hot water and detergent to clean inside the frame. If necessary, insert a straightened paper clip or similarly sized wire into the holes in the frame to remove any solidified shortening or other blockages. Rinse with hot water, dry thoroughly, and reinstall the plugs before using.在每次使用完毕应立即排空淋油器。如果在插入淋油器的地方漏油，检查连接部位的垫圈是否完好并在正确的位置。如果发现堵塞，松开淋油器框架上每个角上的插销，使用一个小刷子，蘸热水和洗涤剂清洗淋油器内部，冲洗，彻底干燥，然后在使用前重新装上插销。



DANGER危险

Failure to reinstall the clean-out plugs in the Power Shower will cause hot oil/shortening to spray out of the frypot during the filtering process, creating an extreme burn hazard to personnel.如果重新安装淋油器插销出现错误，可能会导致热油/起酥油在滤油过程中喷出油槽，导致烫伤。

5.1.3 Clean the Frypot and Heating Elements- Weekly 每周清洁油槽和加热管

DANGER危险

Never operate the appliance with an empty frypot. The frypot must be filled with water or cooking oil/shortening before energizing the elements. Failure to do so will result in irreparable damage to the elements and may cause a fire.不要在油槽没油的情况下操作设备。在加热管通电前，油槽内必须注入水或烹饪油/起酥油。否则会导致加热管故障引发火灾。

Boiling-Out the Frypot煮锅

Before the fryer is first used, it should be boiled out to ensure that residue from the manufacturing process has been eliminated. Also, after the fryer has been in use for a period of time, a hard film of caramelized vegetable oil will form on the inside of the frypot. This film should be periodically removed by following the boil-out procedure that follows.在炸锅初次使用前，应进行煮锅以去除生产过程中产生碎屑。并且，在炸锅使用了一段时间后，油槽内部会有油污结垢。因此应该定期煮锅去除这些污垢。

1. Before switching the fryer(s) ON, close the frypot drain valve(s), then fill the empty frypot with a mixture of cold water and dishwashing detergent. Follow instructions on detergent container when mixing.在打开炸锅电源前，关闭泄油阀，在油槽内注入冷水到高油位线，并且放入洗涤剂。在混合的时候遵循洗涤剂容器上的使用说明。
2. Press the fryer ON/OFF switch to the ON position. On fryers equipped with solid state (analog) controllers, set the melt switch to OFF.打开炸锅电源，对于使用模拟控制器，设定融油开关为OFF。
3. For fryers equipped with Computer Magic III computers, program the computer for boil-out as described in the separate Frymaster Fryer Controllers User's Manual. For fryers with digital controllers, set the temperature to 195°F (91°C) as described in the separate Frymaster Fryer Controllers User's Manual.对于配备魔术III号电路板的炸锅，按照Frymaster电路板使用手册设定煮锅程序。对于配备数字控制器的炸锅，按照Frymaster控制器使用手册，设定温度在195°F (91°C)。

For fryers with solid state (analog) controllers, set the temperature control knob to the lowest setting.对于模拟控制器，将温度控制旋钮设定到最低位置。

4. Simmer the solution for 45 minutes to one hour. Do not allow the water level to drop below the bottom oil-level line in the frypot during the boil-out operation. **NOTE:** For units with thermostat controllers, you must turn the fryer on and off periodically during this process to prevent the frypot from boiling over. 将溶液煮45分钟到1小时。不要让溶液的液位低于最低油位线。注意：如果设备配有温控器，必须在煮锅过程中定期开关炸锅，避免溢流。



DANGER危险

Never leave the fryer unattended during the boil-out process. If the boil-out solution boils over, turn the fryer off immediately and let the solution cool for a few minutes before resuming the process.不要在煮锅过程中出现无人照看，如果煮锅溶液沸腾溢流，立即将炸锅电源关闭，并在开始重新煮锅前令溶液冷却几分钟。

5. Turn the fryer ON/OFF switch(s) to the OFF position.将炸锅的开关到OFF位置
6. Add two gallons of water. Drain out the solution and clean the frypot(s) thoroughly.加两加仑的水，排出水并彻底清洁油槽。



WARNING警告

Do not drain boil-out solution into a shortening disposal unit, a built-in filtration unit, or a portable filter unit. These units are not intended for this purpose, and will be damaged by the solution.不要不要把煮锅溶液排入储油器SDU或内置滤油器或滤油车中。这些容器都不是用于储存溶液用途，溶液会导致其损坏。

7. Refill the frypot(s) with clean water. Rinse the frypot(s) twice, drain and dry with a clean towel. Thoroughly remove all water from the frypot and elements before refilling the frypot with cooking oil/shortening.重新注入清水，冲洗油槽两次，排空并用干净的毛巾擦干。在注入烹炸油前，必须彻底擦干加热管和油槽内的水分。



DANGER危险

Remove all drops of water from the frypot before filling with cooking oil or shortening. Failure to do so will cause spattering of hot liquid when the oil or shortening is heated to cooking temperature. 在注入烹炸油前，必须彻底擦干油槽内的水滴。否则当炸油加热到烹炸温度时会导致热油和水飞溅。

5.1.4 Clean Detachable Parts and Accessories – Weekly 每周清洁可拆开的零件和部件

Wipe all detachable parts and accessories with a clean, dry cloth. Use a clean cloth saturated with detergent to remove accumulated carbonized oil/shortening on detachable parts and accessories. Rinse the parts and accessories thoroughly with clean water and wipe dry before reinstalling.用一清洁的干布擦拭所有可拆开的零件和部件。如有油垢，可以蘸清洁剂进行擦除。冲洗干净后干布擦干。

5.2 Check Calibration of Solid State (Analog) Controller Knob – Monthly 每月校准模拟控制旋钮。

NOTE: Required only on fryers equipped with a Solid State (Analog) Controller.只适用于配有模拟控制器的炸锅

1. After the cooking oil/shortening reaches operating temperature, let the heating elements cycle at least four times.在炸油到达操作温度后，令加热管循环至少4次。
2. Insert a thermometer or pyrometer probe near the temperature-sensing probe approximately three inches (7.5 mm) deep into the cooking oil/shortening. When the heating elements cycle on for the fourth time, the thermometer should within $\pm 5^{\circ}\text{F}$ ($\pm 2^{\circ}\text{C}$) of the temperature control knob setting.将一温度计或高温温度计靠近温度探头插入3英寸(7.5mm)深，当到达第4次循环，实际测量温度应在控制旋钮设定温度的 $\pm 5^{\circ}\text{F}$ ($\pm 2^{\circ}\text{C}$)范围内。
3. If the knob requires adjustment, refer to Chapter 4 of the separate *Frymaster Fryer Controllers User's Manual* furnished with your fryer.如果需要进行调整，请参见*Frymaster炸锅控制器使用手册*。

5.3 Annual/Periodic System Inspection 每年/定期检查

This appliance should be inspected and adjusted periodically by qualified service personnel as part of a regular kitchen maintenance program. Frymaster recommends that this appliance be inspected at least annually by a Factory Authorized Service Technician as follows: 作为厨房设备保养计划的一部分，此设备应该由合格人员定期调整 and 检查。Frymaster 建议此设备至少由工厂授权的技术人员每年检查一次。

Fryer

- Inspect the cabinet inside and out, front and rear for excessive oil build-up and/or oil migration. 拆卸下后板，检查电线。清除炸锅背部溢出的油脂
- Verify that the heating element wires are in good condition and that leads have no visible fraying or insulation damage and that they are free of oil migration build-up. 确认加热管线路一切正常，绝缘层没有任何可见的损坏并且没有油脂浸入。
- Verify that heating elements are in good condition with no carbon/caramelized oil build-up. 确认加热管没有积炭和油渍积存，
- Inspect the elements for signs of extensive dry-firing. 检查加热管没有干烧的迹象。
- Verify that the tilt mechanism is working properly when lifting and lowering elements, and that the element wires are not binding and/or chafing. 检查提升和下降加热管系统的运作，加热管电线没有粘连物和积垢。.
- Verify the heating-element amp-draw is within the allowed range as indicated on the appliance's rating plate. 检查加热管电流在允许范围内。
- Verify that the temperature and high-limit probes are properly connected, tightened and functioning properly, and that mounting hardware and probe guards are present and properly installed. 检查温度和高温限制探头是否被妥善连接，紧固并功能正常，支架和探头保护都在正确位置。
- Verify that component box and contactor box components (i.e. computer/controller, relays, interface boards, transformers, contactors, etc.) are in good condition and free from oil migration build-up and other debris. 检查部件盒和接触器盒（指电脑板/控制器，继电器，界面板，变压器，接触器等）在正确的位置并没有油脂浸入和结垢和其他碎屑）
- Verify that component box and contactor box wiring connections are tight and that wiring is in good condition. 检查部件盒和接触器盒线路连接紧密并且线路在正确位置。
- Verify that all safety features (i.e. contactor shields, drain safety switches, reset switches, etc.) are present and functioning properly. 检查所有安全部件（指接触器防护罩，泄油安全开关，重启开关等）都在并功能正常。.
- Verify that the frypot is in good condition and free of leaks and that the frypot insulation is in serviceable condition. 检查油槽在正确位置，没有泄漏现象，并且绝缘良好。
- Verify that all wiring harnesses and connections are tight and in good condition. 检查所有线路套管连接紧固并状态良好。

Built-In Filtration System 内置滤油系统

- Inspect all oil-return and drain lines for leaks and verify that all connections are tight. 检查所有回油/排油管线有无漏油，并且所有连接紧固。
- Inspect the filter pan for leaks and cleanliness. If there is a large accumulation of crumbs in the crumb basket, advise the owner/operator that the crumb basket should be emptied into a fireproof container and cleaned daily. 检查滤油盘是否漏油和清洁。如果在碎屑篮中有大量碎屑，建议设备主人/操作人员碎屑篮应每日清洁，并将其中的碎屑应每日倒入防火容器中。

- Verify that all O-rings and seals (including those on the Power Shower and on quick-disconnect fittings) are present and in good condition. Replace o-rings and seals if worn or damaged.检查所有O型圈和密封圈（包括那些淋油器和快接头）都在并且状态完好。如果出现损坏应更换O型圈和密封圈。
- Check filtration system integrity as follows按照以下步骤检查滤油系统完整性:
 - Verify that filter pan cover is present and properly installed检查滤油盘盖子没有丢失并正确安装.
 - With the filter pan empty, place each oil return handle, one at a time, in the ON position. Verify that the pump activates and that bubbles appear in the cooking oil/shortening (or that gurgling is heard from the Power Shower port) of the associated frypot.在滤油盘空的状态下，依次将回油把手到ON位置。检查泵的启动情况以及是否有气泡出现在炸油/起酥油里（或者在淋油器内发出劈啪声）。
 - Close all oil return valves (i.e., place all oil return handles in the OFF position). Verify proper functioning of each oil return valve by activating the filter pump using the lever on one of the oil return handle microswitches. No air bubbles should be visible in any frypot (or no gurgling should be heard from the Power Shower ports).关闭所有回油阀（就是把所有回油把手到OFF位置）。按回油把手上的微动开关启动回油泵，检查每个回油阀是否功能正常，不允许有气泡出现（淋油器内不能发出劈啪声）。
 - Verify that the filter pan is properly prepared for filtering, then drain a frypot of oil heated to 350°F (177°C) into the filter pan and close the frypot drain valve. Place the oil return handle in the ON position. Allow all cooking oil/shortening to return to the frypot (indicated by bubbles in the cooking oil/shortening or, on units with Power Showers, cessation of oil flow from the Power Shower). Return the oil return handle to the OFF position. The frypot should have refilled in no more than 2 minutes and 30 seconds.检查滤油盘已经准备好滤油，然后将一槽350°F (177°C)的炸油排入滤油盘并关闭泄油阀。将回油阀到ON位置。让所有炸油/起酥油回到油槽（看油槽内油是否冒气泡，或对于装配淋油器的设备，没有油从淋油器排出）。将回油把手到OFF位置。应在2分30秒内完成回油。

PRO SERIES ELECTRIC FRYERS/ PRO 系列电炸锅

CHAPTER 6: INSTALLATION INSTRUCTIONS/第六章:故障排除

6.1 Introduction/简介

This section provides an easy reference guide to some of the common problems that may occur during the operation of this equipment. The troubleshooting guides that follow are intended to help correct, or at least accurately diagnose, problems with this equipment. Although the chapter covers the most common problems reported, you may encounter problems that are not covered. In such instances, the Frymaster Technical Services staff will make every effort to help you identify and resolve the problem. 此部分提供了一些设备操作时发生的常见问题的简单解决指导。故障排除指导是为了解决问题，至少是正确诊断设备发生的问题。尽管此章节包含了大部分常见问题，但您也可能遇到没有包含的问题。在这种情况下，Frymaster 技术服务机构的技术员会尽力鉴别并解决您的问题。

When troubleshooting a problem, always use a process of elimination starting with the simplest solution and working through to the most complex. Never overlook the obvious – anyone can forget to plug in a cord or fail to close a valve completely. Most importantly, always try to establish a clear idea of why a problem has occurred. Part of any corrective action involves taking steps to ensure that it doesn't happen again. If a controller malfunctions because of a poor connection, check all other connections, too. If a fuse continues to blow, find out why. Always keep in mind that failure of a small component may often be indicative of potential failure or incorrect functioning of a more important component or system. 当进行故障排除解决一个问题的时候，总是通过一个由简单到复杂的过程。不要忽视显而易见的错误——任何人都有可能忘记插电源或完全关闭阀门。最重要的是，每次都要形成一种意识——为什么会发生这样的问题。采取措施确保问题不再发生也是解决故障的一部分。如果因为连接不好而使控制板发生故障，那么也要检查其他所有的连接。如果一根保险丝总是被烧断，那么要查出为什么。任何时候都要有这样的概念——某个小部件的故障常常预示一个重要部件或系统有发生故障的可能。

Before calling a service agent or the Frymaster HOTLINE (1-800-551-8633):

在求助服务机构或拨打 Frymaster 服务热线 (1-800-24-FRYER) 之前：

- Verify that electrical cords are plugged in and that circuit breakers are on.
证实电源线已经插上，断路器开启
- Verify that frypot drain valves are fully closed.
证实炸槽卸油阀已经完全关闭。

DANGER/危险

Hot cooking oil/shortening will cause severe burns. Never attempt to move this appliance when filled with hot cooking oil/shortening or to transfer hot cooking oil/shortening from one container to another. 热油会导致严重的烫伤。当炸槽中有热油的时候不要移动炸炉，也不要将热油从一个容器转移到另一个容器中。

DANGER/危险

This equipment should be unplugged when servicing, except when electrical circuit tests are required. Use extreme care when performing such tests. 当维修此设备的时候，一定要将电源拔出，除非要测试电路。当测试电路的时候一定要格外小心。

This appliance may have more than one electrical power supply connection point. Disconnect all power cords before servicing. 此设备可能有二条以上电源连接点。在维修前，要切断所有电源。

Inspection, testing, and repair of electrical components should be performed by an authorized service agent only. 只能由经工厂授权的服务机构来检查、测试和维修电气元件

6.2 Troubleshooting/故障排除

6.2.1 Control and Heating Problems/控制和加热问题

Problem/问题	Probable Causes/原因	Corrective Action/解决方法
Controller won't activate./ 控制板不启动	A. Power cord is not plugged in or circuit breaker is tripped. 电源线没有插入或断路器跳开。	A. Plug power cord in and verify that circuit breaker is not tripped. 插入电源线并确保断路器没有跳开
	B. Controller or power supply component or interface board has failed./控制板、供电部件或接口板出现故障。	B. If any of the components in the power supply system (including the transformer and interface board) fail, power will not be supplied to the controller and it will not function. Determining which component has failed is beyond the scope of operator troubleshooting. Call FASC./如果供电系统(包括变压器和接口板)的任何部件发生故障,电源将不能供给控制板,控制板也就不会工作。确定哪个部件发生故障,超出了故障排除的范围。求助工厂授权的服务机构。
	A. Drain valve is open. 卸油阀打开	A. This fryer is equipped with a drain safety switch, which prevents the heating element energizing if the drain valve is not fully closed./此炸炉安装了卸油安全开关。如果卸油阀没有完全关闭,卸油安全开关将阻止加热管加热。
Fryer does not heat./ 炸炉不加热	B. One or more other components have failed. 一个或多个其他部件发生故障。	B. If the circuitry in the fryer control system cannot determine the frypot temperature, the system will not allow the element to be energized or will de-energize the element if it is already energized. If the contactor, element, or associated wiring fails, the element will not energize. Determining which specific component is malfunctioning is beyond the scope of operator troubleshooting. Call FASC. 如果炸炉控制系统的线路不能测定炸槽的温度,系统将不允许为加热管供电,如果加热管已经加热,系统将会切断加热管供电。如果接触器、加热管或相关配线出现故障,加热管不会被供电。确定哪个具体部件出现故障,超出了操作故障排除的范围,求助工厂授权的服务机构。

Problem/问题	Probable Causes/原因	Corrective Action/解决方法
<p>Fryer repeatedly cycles on and off when first started. 第一次启动时，炸炉重复开、关</p>	<p>Fryer is in melt-cycle mode. 炸炉处于融化油周期模式下</p>	<p>This is normal for fryers equipped with <i>CM III computers, Basket Lift Timers, and Digital Controllers</i>. The default operational mode for these controllers is for the elements to cycle on and off until the temperature in the frypot reaches 180°F (82°C). In CM III computers, CYCL will appear in the display when in the melt-cycle mode. The purpose of the meltcycle is to allow controlled melting of solid shortening to prevent scorching and flash fires or damage to the element. If you are not using solid shortening, the melt-cycle can be cancelled or bypassed. Refer to the separate <i>Frymaster Fryer Controllers User's Manual</i> for the procedure for canceling the meltcycle for the particular controller installed on your fryer.</p> <p>对于安装了魔术 电脑板、举篮定时器和数字控制板的炸炉，此现象是正常的。对于这些控制板，默认的操作模式是使加热管重复开、关直到炸槽温度达到 180 ° F (82 ° C)。对于魔术 电脑板，当处于融化油周期模式时，屏幕会显示 CYCL。融化油周期模式的目的是防止固态油融化时烧焦和打火，或损坏加热管。如果您不使用固态油，融化油周期可以被取消或跳过。要取消安装在炸炉上特定控制板的融化油周期，请参考炸炉控制板用户手册。</p> <p>In fryers equipped with <i>Solid State (Analog)</i> controllers, the meltcycle is controlled manually by means of the rocker switch to the right of the temperature control knob. <i>If not using solid shortening</i>, press the rocker switch to the OFF position to turn off the melt-cycle.</p> <p>安装固态控制板的炸炉，融化油周期可以通过右侧温度控制旋钮的摇臂开关手动控制。如果不使用固态油，将摇臂开关按到关闭位置来关闭融化油周期模式。</p>
<p>Fryer does not heat after filtering. 滤油后炸炉不加热</p>	<p>Drain valve is open. 卸油阀打开</p>	<p>This fryer is equipped with a drain safety switch that prevents the heating element from being energized if the drain valve is not fully closed. Verify that the drain valve is fully closed.</p> <p>炸炉安装了安全控制开关，当卸油阀没有完全关闭的时候，卸油安全开关会阻止为加热管供电。核实卸油阀已经完全关闭。</p>
<p>Fryer heats until high limit trips with heat indicator ON. 炸炉持续加热至高温极限跳开，加热指示灯亮</p>	<p>Temperature probe or controller has failed. 温度探头或控制板发生故障。</p>	<p>Turn fryer off and call FASC. 关闭炸炉并求助工厂授权的服务机构。</p>

Problem/问题	Probable Causes/原因	Corrective Action/解决方法
Fryer heats until high limit trips without heat indicator ON./炸炉加热至高温极限跳开，加热指示灯不亮	Contactors or controller has failed. 接触器或控制板发生故障。	求助工厂授权的服务机构。
Fryer stops heating with heat indicator ON./炸炉停止加热，指示灯亮	The high limit thermostat or contactor has failed. 高温极限或接触器发生故障	Determining which component has failed is beyond the scope of operator troubleshooting. Call FASC. 确定哪个部件发生故障，不在故障排除范围内。求助工厂授权的服务机构。

6.2.2 Error Messages and Display Problems/错误信息和显示问题

Problem/问题	Probable Causes/原因	Corrective Action/解决方法
Basket lift timer display shows HELP 举篮定时器显示“HELP”	Open drain valve or problem with latching circuits 卸油阀打开或闭合电路出现问题	Verify that the drain valve is fully closed. The fryer will not function if the drain valve is not fully closed. If the drain valve is fully closed, the problem is within the latching circuitry and is beyond the scope of operator troubleshooting. Call FASC./核实卸油阀已经完全关闭。如果卸油阀没有完全关闭炸炉将不会工作。如果卸油阀完全关闭了，问题就出在闭合线路上，这超出故障排除的范围，请求助工厂授权的服务机构。
Basket lift timer display shows HOT 举篮定时器显示“HOT”	Frypot temperature is more than 410°F (210°C) or, in CE countries, 395°F (202°C). 炸槽温度高于 410 °F (210 °C) , 欧共体国家为 395 °F (202 °C)	This is an indication of a malfunction in the temperature control circuitry, including a failure of the high limit thermostat. Shut the fryer down immediately and call FASC./这暗示着温度控制线路，包括高温极限出现故障。立即关闭炸炉并求助工厂授权的服务机构。
Basket lift timer display shows PROBE 举篮定时器显示“PROBE”	Problem with the temperature measuring circuitry including the probe./温度感测线路，包括探头出现故障。	This indicates a problem within the temperature measuring circuitry that is beyond the scope of operator troubleshooting. Shut the fryer down and call FASC./这暗示温度感测线路出现故障，并已经超出了故障排除的范围。关闭炸炉并求助工厂授权的服务机构。
CM III display is in wrong temperature scale (Fahrenheit or Celsius)./魔术电脑板显示错误温度范围（华氏或摄氏）	Incorrect display option programmed./编辑了不正确的显示选项	CM III computers may be programmed to display in either Fahrenheit or Celsius. Refer to the separate <i>Frymaster Fryer Controllers User's Manual</i> for instructions on changing the display./魔术电脑可以编程显示华氏或摄氏温度。改变显示类型请参考独立的 Frymaster 炸炉控制板用户手册。
CM III display shows HELP./魔术电脑板显示“HELP”	Open drain valve or problem with latching circuitry./卸油阀打开或闭合电路出现故障。	Verify that the drain valve is fully closed. The fryer will not function if the drain valve is not fully closed. If the drain valve is fully closed, the problem is within the latching circuitry and is beyond the scope of operator troubleshooting. Call FASC./核实卸油阀已经完全关闭。如果卸油阀没有完全关闭炸炉将不会工作。如果卸油阀完全关闭了，问题就出在闭合线路上，这超出故障排除的范围，请求助工厂授权的服务机构。

Problem/问题	Probable Causes/原因	Corrective Action/解决方法
CM III display ShowsHI/ 魔术电路板显示“HI”	Fryer is more than 21°F (12°C) above setpoint./炸炉温度高于设定温度 21°F (12°C)以上	This display is normal if the fryer setpoint has been changed to a lower temperature. The display should revert to the normal four dashes when the frypot temperature cools to the setpoint. If the setpoint has not been changed, this indicates a problem with the temperature control circuitry. Turn the fryer off and call FASC./如果炸炉设定温度变为更低的温度，此显示是正常的。当炸槽的温度冷却至设定温度，显示将会转变为正常的四条线。如果设定温度没有改变，这表示温度控制线路出现故障。关闭炸炉并求助于工厂授权的服务机构
CM III display ShowsHOT/ 魔术电路板显示“HOT”	Frypot temperature is more than 410°F (210°C) or, in CE countries,395°F (202°C)./炸槽温度高于 410°F (210°C) ,对于欧共体国家为高于 395°F (202°C)	This in an indication of a malfunction in the temperature control circuitry, including a failure of the high limit thermostat. Shut the fryer down immediately and call FASC./这表示温度控制线路，包括高温极限出现故障。立即关闭炸炉并求助工厂授权的服务机构。
CM III display ShowsLO/ 魔术电路板显示“LOT”	Frypot temperature is more than 21°F (12°C) below setpoint./炸槽温度低于设定温度 21°F (12°C)以上。	This display is normal when the fryer is first turned on and may appear for a short while if a large batch of frozen product is added to the frypot. If the display never goes out, the fryer is not heating. Look for a decimal in the LED display between digits 1 and 2. If the decimal is present, the computer is calling for heat and is functioning properly. See <i>Fryer Does Not Heat</i> in Control and Heating Problems (Section 6.2.1). If the decimal is not present, the computer is not calling for heat and may be malfunctioning/当炸炉第一次打开出现此显示是正常的，当向炸槽中添加大量冰冻食品时也会出现此显示一段时间。如果此显示总不消失，说明炸炉不加热。看显示屏上数字 1 和 2 之间是否有小数点。如果有小数点，说明电路板正在要求加热，电脑工作正常。请见控制和加热问题（6.2.1）部分的炸炉不加热。如果没有显示出小数点，说明电路板没有要求加热，电路板可能发生故障。
CM III display showsProb/ 魔术电路板显示“Prob”	Problem with the temperature measuring circuitry including the probe./温度感测线路包括温度探头发生故障。	This indicates a problem within the temperature measuring circuitry that is beyond the scope of operator troubleshooting. Shut the fryer down and call FASC./这暗示温度感测线路出现问题，并超出了故障排除的范围。关闭炸炉并求助工厂授权的服务机构。
CM III frypot temperature is displayed constantly./ 魔术电路板显示的炸槽温度不发生变化	Computer is programmed for constant temperature display. 电路板设置为显示温度不变。	The CM III computer may be programmed for constant temperature display or countdown timer display. Refer to the separate <i>Frymaster Fryer Controllers User's Manual</i> for instructions on toggling between these display options./魔术 III 电路板可以设置显示温度不变或显示倒数计秒。要切换两种显示请参考单独的 Frymaster 炸炉控制板用户手册。

Problem/问题	Probable Causes/原因	Corrective Action/解决方法
Digital controller display is in wrong temperature scale (Fahrenheit or Celsius)./ 数字控制板显示错误的温度范围 (华氏或摄氏)	Incorrect display option selected. 选择了错误的显示选项	Digital controllers are manually set to display in one temperature scale or the other. Refer to the separate <i>Frymaster Fryer Controllers User's Manual</i> for instructions on changing the display./数字控制板可以人为设定显示一种温度类型。改变显示类型请参考独立的Frymaster炸炉控制板用户手册。
Digital controller display showsHELP/ 数字控制板显示 “ HELP ”	Open drain valve or problem with latching circuits 卸油阀打开或闭合电路出现故障	Verify that the drain valve is fully closed. If the drain valve is fully closed, the problem is within the latching circuitry and is beyond the scope of operator trouble shooting. Call FASC./核实卸油阀已经完全关闭。如果卸油阀已经完全关闭了，那么问题就出在闭合电路并超出故障排除的范围。求助工厂授权的服务机构。
Digital controller display shows HOT/ 数字控制板显示 “ HOT ”	Frypot temperature is more than 410°F (210°C) or, in CE countries, 395°F (202°C). 炸槽温度高于 410 °F (210 °C) , 欧共体国家为 395 °F (202 °C)	This is an indication of a malfunction in the temperature control circuitry, including a failure of the high limit thermostat. Shut the fryer down immediately and call FASC. 这表示温度控制线路，包括高温极限出现故障。立即关闭炸炉并求助工厂授权的服务机构。
Digital controller display shows Prob/ 数字控制板显示 “ Prob ”	Problem with the temperature measuring circuitry including the probe./温度感测线路，包括探头出现故障。	This indicates a problem within the temperature measuring circuitry that is beyond the scope of operator troubleshooting. Shut the fryer down and call FASC./这暗示温度感测线路出现故障，并已经超出了故障排除的范围。关闭炸炉并求助工厂授权的服务机构。
Solid state controller trouble light ON. 固态控制板故障指示灯亮	Oil temperature above acceptable range or a problem with the temperature measuring circuitry./油温高于可接受的范围或温度感测线路出现问题。	This is an indication of a malfunction in the temperature measuring or control circuitry, including a failure of the high limit thermostat. Determining the specific problem is beyond the scope of operator troubleshooting. Shut the fryer down immediately and call FASC./这表示温度感测或控制线路，包括高温极限出现故障。确定具体故障超出了故障排除范围。立即关闭炸炉并求助工厂授权的服务机构。
Solid state controller trouble light ON and heating mode light ON 固态控制板故障指示灯和加热指示灯亮	Open drain valve or problem with latching circuits 卸油阀打开或闭合线路出现问题	Verify that the drain valve is fully closed. The fryer will not function if the drain valve is not fully closed. If the drain valve is fully closed, the problem is within the latching circuitry and is beyond the scope of operator troubleshooting. Call FASC. /核实卸油阀已经完全关闭。如果卸油阀没有完全关闭炸炉将不会工作。如果卸油阀完全关闭了，问题就出在闭合线路上，这超出故障排除的范围，请求助工厂授权的服务机构。

6.2.3 Basket Lift Problems/举篮问题

Problem/问题	Probable Causes/原因	Corrective Action/解决方法
Basket lift movement is noisy, jerky, or erratic./举篮动作噪音大、断断续续或不稳定	Lack of lubrication on basket lift rods./举篮杆上缺少润滑油	Apply a light coating of Lubriplate™ or similar lightweight white grease to the rod and bushings. 在举篮杆和轴套上摸一薄层Lubriplate™或类似的白色油脂

6.2.4 Filtration Problems/滤油问题

Problem/问题	Probable Causes/原因	Corrective Action/解决方法
Filter pump won't start. 滤油泵不启动	A. Power cord is not plugged in or circuit breaker is tripped./电源线没有插入或断路器跳开。	A. Verify that the power cord is fully plugged in. If so, verify that circuit breaker is not tripped./核实电源线是否完全插入，如果已经插入，确保断路器没有跳开。
	B. Pump motor has overheated causing the thermal overload switch to trip./油泵马达过热导致热控开关跳开。	B. If the motor is too hot to touch for more than a few seconds, the thermal overload switch has probably tripped. Allow the motor to cool at least 45 minutes then press the Pump Reset Switch./如果马达热到无法触摸几秒钟，热控开关可能会跳开。使马达冷却至少45分钟后按油泵复位开关。
	C. Blockage in filter pump. Test: Close the drain valve and pull the filter pan out from the fryer. Activate the pump. If the pump motor hums for a short time then stops, the probable cause is blockage of the pump itself. 油泵阻塞 测试: 关闭卸油阀并将滤油箱拉出炸炉，启动油泵。如果油泵马达响一段时间后停止，则可能的原因是油泵自身堵塞。	C. Pump blockages are usually caused by sediment buildup in the pump due to improperly sized or installed filter paper and failure to use the crumb screen. Call FASC. 油泵堵塞通常是由于错误安装或安装了不正确尺寸的滤纸或没有使用滤网而产生的沉淀物积累造成的。求助工厂授权的服务机构。
Filter pump runs but oil does not return to frypot and there is no bubbling oil or air coming from the Power Shower 油泵运转但油无法回到炸槽中，喷嘴中没有油沫和气泡产生。	Blockage in filter pan suction tube. Test: Close the drain valve and pull the filter pan out from the fryer. Activate the pump. If the air or bubbling oil comes out of the Power Shower, there is a blockage in the filter pan suction tube. 滤油箱抽气管堵塞 测试: 关闭卸油阀并将滤油箱拉出炸炉，启动油泵。如果喷嘴中产生油沫或气泡，说明滤油箱抽气管堵塞。	The blockage may be caused by sediment buildup or, if solid shortening is used, solidified shortening in the tube. Use a thin, flexible wire to remove the blockage. If the blockage cannot be removed, call FASC. 堵塞可能由沉淀物聚积，或者如果使用了固体油，油在抽气管凝固造成的。用一个细的柔韧的线来清楚堵塞。如果堵塞无法清除，求助工厂授权的服务机构。

Problem/问题	Probable Causes/原因	Corrective Action/解决方法
Filter pump runs, but oil return is very slow and bubbling oil comes out of the Power Shower. 油泵运转，但回油特别慢，并有油沫从喷嘴流出。	A. Improperly installed filter pan components. 滤油箱组件安装不正确	A. If using filter paper or pad configuration, verify that filter screen is in bottom of pan with paper or pad on top of screen. Verify that o-rings are present and in good condition on filter pan connection fitting. If using Magnasol filter assembly, verify that o-ring is present and in good condition on filter screen fitting./如果使用了滤纸或滤油垫，确保滤网在滤油箱的底部，滤纸或滤油垫在滤网的上面。确保滤油箱连接处的密封圈没有遗失并且状况良好。如果使用了 Magnasol 滤油总成，确保滤网上的密封圈没有遗失并且状况良好

Problem/问题	Probable Causes/原因	Corrective Action/解决方法
(continued from previous page) 接上页	B. Attempting to filter with oil or shortening that is not hot enough./滤油时油不够热	B. In order to properly filter, the oil or shortening should be at or near 350°F (177°C). At temperatures lower than this, the oil/shortening becomes too thick to pass through the filter medium easily, resulting in much slower oil return and eventual overheating of the filter pump motor. Make sure oil/shortening is at or near frying temperature before draining oil into filter pan./为了正确滤油，油温应该在 350°F (177°C)左右。如果低于此温度，油会变得过于粘稠而不能顺利地通过滤油介质，导致回油慢并最终造成油泵马达过热。在将油卸到滤油箱前，确保有温处于或接近炸制温度。
Power Shower not spraying properly. 喷嘴不能正确喷淋	A. Missing or worn Power Shower gasket. 喷嘴密封圈遗失或损坏	A. Verify that the gasket is present and in good condition. 证实密封圈没有遗失并状况良好
	B. Clogged openings in Power Shower frame. 喷嘴架出口堵塞	B. If the Power Shower is not cleaned on a routine basis, sediment will eventually block the small holes around the edges of the frame. Also, when using solid shortening, if the Power Shower is not allowed to drain completely, the shortening will solidify in the holes and may fill the frame. Completely drain the Power Shower after each filtering and clean regularly in accordance with the instructions in Chapter 5 of this manual./如果喷头没有定期清洁，沉淀物最终会堵塞喷嘴架四周的小孔。并且，当使用固态油时，如果没有将喷嘴中的油完全卸出，油会在小孔中凝固并可能充满框架。每次滤油后将喷嘴中的油完全卸出，并按照此手册第5章的指导定期清洁。



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