



INSTALLATION & OPERATION MANUAL

GHF SERIES HEAVY DUTY RANGE MATCHING GAS FRYERS

MODELS

GHF91
GHF90

ML-135503
ML-135504



For additional information on Vulcan-Hart or to locate an authorized parts and service provider in your area, visit our website at www.vulcanhart.com

IMPORTANT FOR YOUR SAFETY

THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL GAS EQUIPMENT, WHO SHOULD PERFORM THE INITIAL FIELD START-UP AND ADJUSTMENTS OF THE EQUIPMENT COVERED BY THIS MANUAL.

POST IN A PROMINENT LOCATION THE INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL GAS SUPPLIER.

IMPORTANT

IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNITS AT MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

WARNING

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.

Installation, Operation and Care of MODEL GHF91 GAS FRYERS

PLEASE KEEP THIS MANUAL FOR FUTURE REFERENCE

GENERAL

Your Vulcan-Hart Gas Fryer is produced with quality workmanship and material. Proper installation, usage and maintenance will result in many years of satisfactory performance.

It is suggested that you thoroughly read this entire manual and carefully follow all of the instructions provided.

OPTIONAL FIELD INSTALLABLE ACCESSORIES

Tank Brush	4' (1.21 m) Quick Disconnect Hose
Tank Cover	(2) Twin Fry Baskets
(4) Casters	Single Basket

INSTALLATION

Before installing the fryer, verify that the type of gas (natural or propane) agrees with the specifications on the fryer data plate which is located on the inside of the door. Also be sure the fryer is built for the installation elevation.

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

UNPACKING

This fryer was carefully inspected before leaving the factory. The transportation company assumes full responsibility for safe delivery upon acceptance of the shipment. 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.

ITEMS PACKAGED WITH FRYER

Crumb Screen	Basket Hanger	Warranty and Service Pack
Drain Pipe	(2) Twin Fry Baskets	
(4) Legs	Manual	

LOCATION

CAUTION: The equipment area must be kept free and clear of combustible substances.

Installation clearances:

	COMBUSTIBLE CONSTRUCTION	NONCOMBUSTIBLE CONSTRUCTION
Back:	6" (152 mm)	0"
Right Side:	6" (152 mm)	0"
Left Side:	6" (152 mm)	0"

The installation location must allow adequate clearances for servicing and proper operation. A minimum front clearance of 36" (914 mm) is required.

There must be at least 16" (406 mm) clearance between the fryer and any open top flame units. Adequate clearances for servicing and proper operation must be allowed.

Install the fryer in an area with sufficient air supply for combustion of the gas at the fryer burners. Provide adequate clearance for air openings into the combustion chamber. Do not obstruct the flow of combustion and ventilation air.

Do not permit fans to blow directly at the fryer. Wherever possible, avoid open windows next to the sides or back of the fryer. Avoid wall-type fans which create air cross currents within the room.

INSTALLATION CODES AND STANDARDS

In the United States of America:

1. State and local codes.
2. National Fuel Gas Code, ANSI/Z223.1/NFPA #54 (latest edition). Copies may be obtained from The American Gas Association, Accredited Standards Committee Z223 @ 400 N. Capital St. NW, Washington, DC 2001 or the Secretary Standards Council, NFPA, 1 Batterymarch Park Quincy MA 02169-7471.

NOTE: In the Commonwealth of Massachusetts,

All gas appliances vented through a ventilation hood or exhaust system equipped with a damper or with a power means of exhaust shall comply with 248 CMR.

3. Vapor Removal From Cooking Equipment, NFPA #96 (latest edition). Copies may be obtained from The National Fire Protection Association, Batterymarch Park Quincy MA 02169-7471.
4. National Electrical Code, ANSI/NFPA-70 (latest edition). Copies may be obtained from The National Fire Protection Association, Batterymarch Park, Quincy MA 02169-7471.

In Canada:

1. Local codes.
2. CSA B149.1 Natural Gas and Propane Installation Code.
3. CSA C22.2 Canadian Electrical Code.

The above are available from the Canadian Standard Association, 5060 Spectrum Way, Suite 100, Mississauga, Ontario, Canada L4W 5N6.

ASSEMBLY

Legs

Position fryer in an open space near the final installation area. Tilt fryer back, being careful to avoid scratching the finish. Thread front legs clockwise into mounting plates provided on the bottom of the fryer until seated. Tilt to front and thread back legs similarly. Carefully raise fryer to its normal position and place it in the installing location.

Fryers Mounted on Optional Casters

Fryers mounted on casters must use a flexible connector (NOT SUPPLIED BY VULCAN) that complies with the Standard for Connectors of Movable Gas Appliances, ANSI-Z21.69 • CSA6.16 and a quick-disconnect device that complies with the Standard for Quick-Disconnect Devices for Use With Gas Fuel, ANSI-Z21 • CSA6.9.

In addition, adequate means must be provided to limit the movement of the appliance without depending on the connector and the quick-disconnect device or its associated piping to limit the appliance movement. Attach the restraining device to the rear of the fryer as shown in Fig. 1.

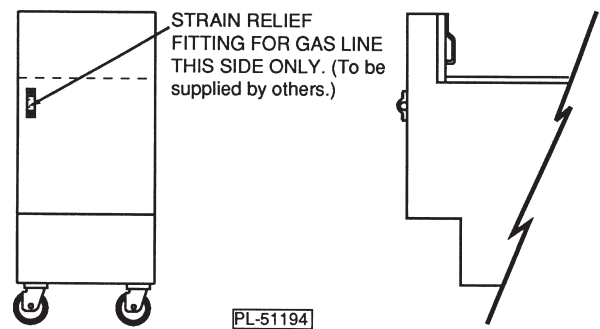


Fig. 1

If it is necessary to disconnect the restraint, turn off the gas supply before disconnection. Reconnect the restraint before turning the gas supply on and returning the fryer to its installation position.

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

LEVELING THE FRYER

Stand Alone Installations

Once gas connections have been made, place a spirit level on top of the fryer. Adjust the legs to ensure that the fryer is level front-to-back and side-to-side in the final installed position.

Battery Installations

When the fryer is part of a battery lineup, line the fryer up front-to-back and side-to-side with adjacent battery equipment. Equipment front tops and manifold pipes must be aligned with adjacent equipment. Once the fryer is in its exact location in the battery lineup, place a spirit level on top of the fryer. Adjust the legs to ensure that the fryer is level front-to-back and side-to-side in the final installed position.

GAS CONNECTIONS

CAUTION: All gas supply connections and any pipe joint compound used must be resistant to the action of propane gases.

WARNING: PRIOR TO LIGHTING, CHECK ALL JOINTS IN THE GAS SUPPLY LINE FOR LEAKS. USE SOAP AND WATER SOLUTION. DO NOT USE AN OPEN FLAME.

Rear Gas Connection for Stand Alone Installations

The gas inlet is located at the lower left rear.

Codes require that a gas shutoff valve be installed in the gas line ahead of the fryer.

The gas supply line must be at least the equivalent of $\frac{1}{2}$ " (12.7 mm) iron pipe. If using the optional quick-disconnect flex hose, $\frac{3}{4}$ " (19 mm) iron pipe must be used unless $\frac{3}{4}$ " (19 mm) to $\frac{1}{2}$ " (12.7 mm) reducing fittings are used. Make sure the pipes are clean and free of obstructions, dirt, and piping compound.

After piping has been checked for leaks, all piping receiving gas should be fully purged to remove air.

Front Gas Connection for Battery Installations

Codes require that a gas shutoff valve be installed in the gas line ahead of the fryer and battery of equipment.

The gas manifold of a battery lineup of which the fryer is a part, must be installed using a regulator design-certified by a nationally recognized testing lab to the applicable ANSI standard (regulators available from Vulcan-Hart). The pressure regulator must have a maximum regulation capacity to handle the total connected load and must have an adjustment range for manifold pressure marked on the equipment rating plate(s). If the manifold pressure of the connected equipment is not the same, a separate regulator must be supplied for all devices operating under different manifold pressure ratings.

Set all fryers in line with each other and adjacent ranges (16" [40 cm] clearance required between fryer and open top flame units). Remove control panels for access to union connections or manifold pipes. Screw each union finger-tight to adjoining connection. Do not overtighten. Tighten each union, ensuring that the gas manifold is not pulled to the left or right by overtightening the unions. When all fryers in the battery are connected finger-tight, then tighten with a pipe wrench. Always use pipe joint compound that is resistant to the action of liquid petroleum gases on unions.

TESTING THE GAS SUPPLY SYSTEM

When test pressures exceed $\frac{1}{2}$ psig (3.45 kPa), the fryer and its individual shutoff valve must be disconnected from the gas supply piping system.

When test pressures are $\frac{1}{2}$ psig (3.45 kPa) or less, the fryer must be isolated from the gas supply system by closing its individual manual shutoff valve.

FLUE CONNECTIONS

DO NOT obstruct the flow of flue gases from the flue located at the rear of the fryer. It is recommended that the flue gases be ventilated to the outside of the building through a ventilation system installed by qualified personnel.

Adequate ventilation must be provided and must comply with NFPA Standard #96 (latest edition), and with local codes.

Never make flue connections directly to the fryer.

The fryer must be located under a hood which has an adequate connection to an exhaust duct. The hood must extend 6" (152.4 mm) beyond fryer sides.

Clearance above fryer should be adequate for products of combustion to be removed efficiently. An 18" (457 mm) minimum clearance should be maintained between the flue vent and the filters of the hood venting system.

Information on the construction and installation of ventilating hoods may be obtained from the standard for "Vapor Removal from Cooking Equipment," NFPA No. 96 (latest edition), available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

Adequate air should be provided in the kitchen to replace air taken out by the ventilating system. This will prevent fryer function from being affected by a reduced atmospheric pressure.

OPERATION

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

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

Tank warranty may be voided by improper operation. Turn gas valve off when draining or filling.

BEFORE FIRST USE

Cleaning

Using a non-corrosive, grease-dissolving commercial cleaner, clean the protective metal oils from all surface parts and the fry tank interior. Follow the cleaner manufacturer's directions. Drain through the valve in the bottom. Rinse thoroughly and drain. Be sure to remove all traces of cleaner; it can affect the food taste. Wipe fry tank completely dry with a soft clean cloth.

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

Seasoning

Light seasoning of the backsplash area is required to avoid possible surface corrosion. With a soft, lint-free cloth, apply a thin layer of cooking oil over entire backsplash area. This should also be done after every cleaning.

FILL FRY TANK WITH LIQUID SHORTENING

CAUTION: Before turning the burners on, the fry tank must be filled with liquid shortening. If this is not done, the tank walls can be damaged. Warpage can cause leaks.

DO NOT melt solid shortening in the fry tank. The fry tank will be damaged and the shortening will be scorched. Melt solid frying compound in a separate container, being careful to just melt and not overheat it; then carefully pour into fry tank.

Keep shortening between the MIN and MAX lines in the fry tank. **DO NOT** add shortening beyond the MAX line.

Shortening expands when heated. Adding shortening beyond the MAX line may cause an overflow of hot shortening.

Add fresh liquid frying compound as needed.

LIGHTING THE PILOT

1. Turn thermostat OFF. Thermostat is located behind the door (Fig. 2).
2. Turn gas control valve knob to OFF/PILOT (Fig. 3). Wait 5 minutes for unburned gas to vent.
3. Push gas control knob in (Fig. 3).
4. While still holding knob in, light the pilot with a lit taper. Continue to depress knob for 30 seconds, then release the knob. Pilot should remain lit when knob is released.

If pilot does not remain lit, repeat Steps 2, 3, and 4.

5. Turn gas control knob to ON (Fig. 4).
6. If gas supply is interrupted, repeat Steps 1-5.

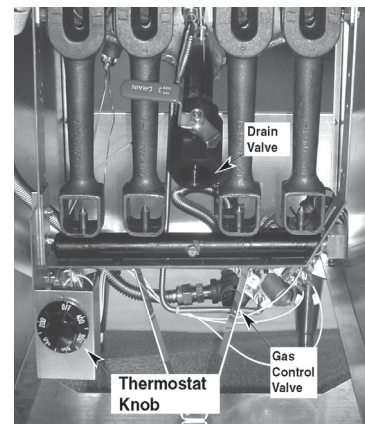


Fig. 2



Fig. 3



Fig. 4

TURNING THE FRYER ON

To turn the fryer on, set the thermostat knob to the desired temperature. After the set temperature has been reached, the gas control shuts off gas flow to the burners. The pilot remains lit. The burners will cycle on and off, maintaining the set temperature.

TURNING THE FRYER OFF

1. Turn the thermostat OFF.
2. Turn the gas control valve knob to PILOT. In this position the pilot will remain lit.
3. To shut off all gas to the system, including the pilot, turn the gas control valve knob to OFF.

EXTENDED SHUTDOWN

1. Turn the manual gas shutoff valve OFF.
2. Turn the thermostat knob OFF.
3. Turn the gas control valve knob to OFF.

HIGH LIMIT DEVICE

A high limit device will shut the fryer down if the oil overheats. **DO NOT** relight pilot until oil temperature has lowered to at least 350°F (176°C). If the situation persists, contact your local Vulcan-Hart authorized servicer.

DAILY FILTERING

Turn the gas valve off when draining or filling the fryer.

Allow frying compound to cool before draining or filling.

If you have used melted solid frying compound, always filter the frying compound when the cold zone area under the tubes is hot and liquefied. A cold fryer heated up will not drain properly because the frying compound under the cold zone tube area will remain solid. If necessary, the drain stick may be used to carefully stir up solid frying compound to an area above the tubes where it will melt. After the cold zone is liquefied, turn the fryer thermostat and gas valve OFF.

Open the filter bag and slip it over the end of the drain valve nipple. Tie it securely in place behind the ring on the drain valve nipple so it won't slide off. Place receptacle under the bag and carefully open the drain valve.

When the fry tank is empty, flush out scraps and sediment in the fry tank with a small amount of warm oil. Allow fry tank to drain thoroughly.

Remove filter bag, dispose of crumbs, and wash filter bag.

If it is necessary to clean the fry tank more thoroughly, follow the procedures shown in **CLEANING — WEEKLY OR AS REQUIRED**.

Close drain valve and pour filtered frying compound back into fry tank.

FRYING COMPOUND MAINTENANCE

Frying compound life may be extended by following these procedures:

- Do not salt foods over the fryer.
- Use good quality frying compound.
- Filter frying compound daily at a minimum.
- Replace frying compound if it becomes poorly flavored.
- Keep equipment and surroundings clean.
- Set thermostats correctly. Do not use excessively high temperatures.
- Remove excess moisture and particles from food products before placing in fryer.
- Dip out several cups of frying compound from the fry tank every day and add fresh frying compound to replace it.

CLEANING

CAUTION: Do not spray with hose or steam cleaner. Doing so will cause extensive damage (not covered under warranty).

Daily

Clean your fryer regularly. If regular cleaning is neglected, grease will be burned on and discolorations may form. These may be removed by washing with detergent or soap and water. Particularly stubborn discolorations may be removed with a self-soaping scouring pad or a paste made of water and a mild scouring powder applied with a plastic open pad or sponge. Do not use standard steel wool on stainless steel finishes. Pieces of the steel wool will adhere to the stainless steel and cause rusting.

Always rub in the direction of the polish lines on the stainless steel front to preserve the original finish.

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.

Weekly or as Required

1. Drain and strain frying compound into a clean container and refrigerate if necessary.
2. Close drain valve and fill tank with hot water. Add a good grade of non-corrosive, grease-dissolving commercial cleaner.
3. Set thermostat to 300°F (148°C) and bring to a boil. Boil long enough to loosen all "varnish" and "carbon" (15-20 minutes). If necessary, scrub inside of the tank with a long-handled pot brush. Do not leave fryer unattended.
4. Drain cleaning solution from the fry tank slowly so you can clean side walls as exposed.
5. Open the drain valve completely and thoroughly rinse tank with clean water. Be sure to remove all traces of cleaner.
6. Close drain valve and refill tank with clean hot (minimum 140°F [60°C]) water. Add 1 cup (237 ml) of vinegar to neutralize alkaline left by the cleaner. Bring solution to a boil and allow it to stand for a few minutes.
7. Drain tank and rinse thoroughly with clear hot water. All traces of cleaner must be removed; it can affect the food taste. Thoroughly dry fry tank.
8. Close the drain valve.
9. Add liquid frying compound to the proper level.

Cleaning Stainless Steel

Stainless steel may be cleaned with ordinary soap or detergent and water. To prevent water spots and streaks, rinse equipment thoroughly with warm water and wipe dry with a soft clean cloth. The addition of a rinsing agent will also help prevent spotting.

Fingerprints

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. Wipe cleaner on and remove excess with a soft dry cloth. After using, subsequent fingerprints will usually disappear when wiped lightly with a soft cloth containing a little of the cleaner. If the surface is especially dirty to start with, wash first with soap or detergent and water.

Burned On Foods and Grease

Soaking with hot soapy water will help greatly to remove burned on foods and grease. Stubborn deposits can be removed with scouring powder mixed into a paste and applied with stainless steel wool or sponges.

Precautions

When scraping off heavy deposits of grease or oil from stainless steel equipment, never use ordinary steel scrapers or knives. Particles of ordinary steel may become embedded in, or lodge on, the surface of the stainless steel. These will rust, causing unsightly stains. Where it is necessary to scrape, use stainless steel, wood, plastic, or rubber tools, or stainless steel wool.

MAINTENANCE

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

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

VENT

Annually, when the fryer is cool, check the flue and clear any obstructions.

SERVICE AND PARTS INFORMATION

To obtain service and parts information concerning this model, contact the Vulcan-Hart Service Agency in your area (refer to our website, www.vulcanhart.com for a complete listing of Authorized Service and Parts depots).

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