

Frymaster

Model numbers BIELA14-T & BIGLA30-T
LOV – Low Oil Volume

Daily maintenance tasks

- FR 5 D1 Cleaning fryer
- FR 5 D2 Maintenance Filter

Weekly maintenance tasks

- FR 5 W1 Clean Behind fryer

Bi-weekly maintenance task

- FR 5 B1 Calibrate fryer

Monthly maintenance task

- FR 5 M1 Calibrate fryer recovery time
- FR 5 M2 Clean Oil Sensor

Quarterly maintenance tasks

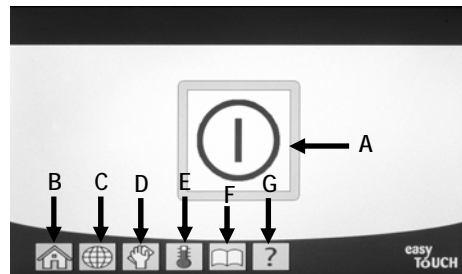
- FR 5 Q3 Deep Clean, Front Dispose system
- FR 5 Q4 High Limit Check
- FR 5 Q5 O-Ring inspection
- FR 5 Q6 Clean Combustion Air Blower Assembly

Annual maintenance tasks

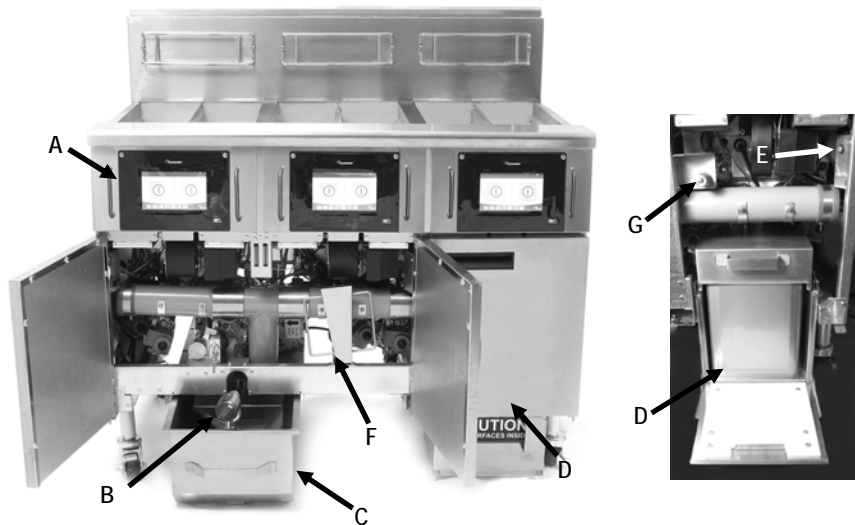
- FR 5 A1-T Servicer inspection (Electric fryers only)
- FR5 A2-T Service inspection (Gas fryers only)

Computer model M4000

A. ON/OFF Button, B. Home Button, C. Language Change Button Product Buttons, D. Filter Button, E. Temperature Button, F. Menu Button, G. Information Button



Model BIGLA30-T



A. M4000 controller, B. Filter Pre-Screen, C. Filter pan, D. Top Off (Itto Can) oil reservoir, E. Top Off Reset Button F. Itto Dispose Attachment G. Itto Dispose Attachment Connection

⚠ Hazards

These icons alert you to a possible risk of personal injury.






▨ Equipment alerts

Look for this icon to find information about how to avoid damaging the equipment while doing a procedure.

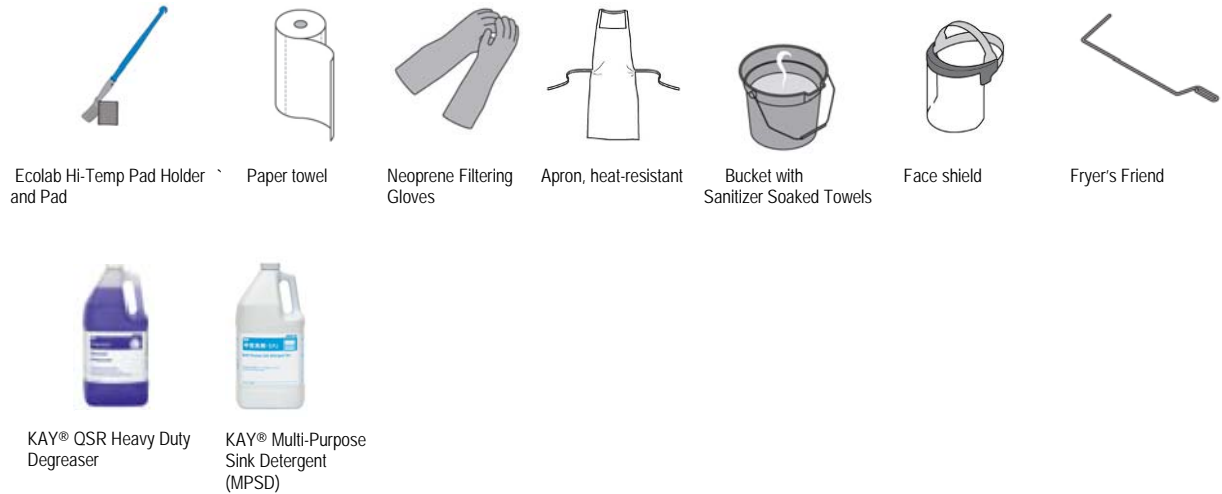
★ Tips

Look for this icon to find helpful tips about how to do a procedure.



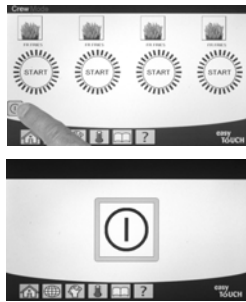
Why	Removed caramelized oil from fryer and clean element hub.	
Time required	5 minutes to prepare	15 minutes to complete (5 minutes per pot)
Time of day	Low-volume periods	For 24-hour restaurants: overnight or during low-volume periods
Hazard icons	 Hot Oil  Hot Surfaces  Sharp Objects/Surfaces  Electricity  Chemicals	

Tools and supplies



Procedure


- 1 Turn fryers off.
Turn all fryer power switches to the off position.



- 2 Put on protective gear.
Use all McDonald's approved safety equipment, including heat-resistance apron, face shield and neoprene gloves.



This procedure should be done for only one vat at a time.

 Hot Oil
Hot oil can cause severe burns

- 3 Clean front and topside area of heating element hub (electric only).
Wearing heat resistant gloves, place covers on fry-pots ensuring they are square with the frypot.



 Hot Oil  Hot Surfaces

Use a Hi-Temp pad (electric only).
Use Hi-Temp pad to clean around the element hub and surrounding housing area.



Once area has been cleaned, wipe off excess with a sanitizer soaked towel. **Ensure the towel is not dripping** with solution around hot oil.

Daily Cleaning of Fryers (continued)

Remove frypot cover and remove basket rack using a fryer's friend, set aside. Lift elements using fryer's friend.



Replace frypot covers and wipe excess oil from the elements with paper towel.



4 Clean underside area of heating element hub (electric only).

Use a Hi-Temp pad.

Use Hi-Temp pad to clean the underside of the element hub and surrounding housing area.



Once area has been cleaned wipe off excess with a sanitizer soaked towel. **Ensure the towel is not dripping** with solution around hot oil.

Remove frypot cover. Using a fryer's friend, lower the elements and replace the basket rack.

5 Wipe down surfaces.

Spray a clean, sanitizer-soaked towel with Heavy Duty Degreaser solution to thoroughly wipe down all surfaces of the fryer to remove grease and soil build-up. Ensure the towel is not dripping with solution around hot oil. Allow surface to air dry.



Oil in fryer may be very hot.



When wiping down equipment, always be careful not to drip water into electrical components.

6 Repeat for remaining frypots.

Why Cleans the vat of crumbs and filters the oil thoroughly to prolong the life of the oil

Time required 5 minutes to prepare 10 minutes per vat to complete

Time of day During low volume hours.

Hazard icons Chemicals Electricity Hot Liquids/Steam Hot Oil Hot Surfaces
 Manual Handling Moving Parts Sharp Objects/Surfaces Slippery Floors

Tools and supplies



Gloves, filtering



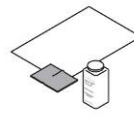
Face shield



Apron, heat-resistant



Ecolab Hi-Temp Pad Holder & Pad



McFiltering Kit for built-in filtering system



Ecolab Hi-Temp Detail Brush



KAY® Multi-Purpose Sink Detergent (MPSD)

Procedure

1 Press FILTER button
 Make sure fryer is on and oil is hot to get the best results from filtering. Press the filter button at the bottom of the screen to enter the filter menu.
 This procedure should be done for only one vat at a time.



2 Select Maintenance Filter
 Select and press MAINTENANCE FILTER from the list.



3 Press ✓ button
 The controller displays MAINTENANCE FILTRATION?
 Press the ✓ button to continue.
 Press the X button for NO and the controls return to normal operation.



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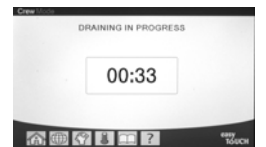
4 Put on protective gear
 Use all McDonald's approved safety equipment, including heat-resistance apron, face shield and neoprene gloves.
 Press the ✓ button.
Hot Oil
 Hot oil can cause severe burns.



5 Check filter pan
 Ensure the filter pan and pan cover are properly in place.
 Press the ✓ button.
 The oil drains from the vat.



★ Tip
 If the filter pan is not properly in place, a "P" is displayed in top right corner.



continued ▶

Maintenance Filter (continued)

- 6 Lift elements (electric only)**
Once oil has drained, raise the hinged elements.



Use protective gloves when lifting elements or burns could result.



Be careful not to damage the probe in center of elements

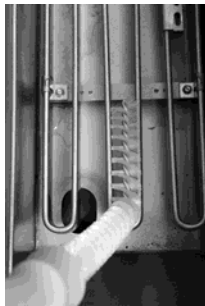


- 7 Scrub inside vat**
Use the Hi-Temp Pad Holder, pad to scrub the walls, corners and bottom of the inside of the vat. Use the Hi-Temp Detail Brush to remove debris build up from elements (electric only), corners of vats and other hard-to-reach areas.



Be careful not to damage the probes.

Press the ✓ button when complete.



- 8 Clean around and scrub the oil sensors.**
Use the Hi-Temp Pad and fryer cleanser to remove the caramelized oil from the oil sensor (gas fryers only). Wipe down with paper towels to remove any residue.

Clean the sediment from around the AIF and ATO sensors (all fryers). Use a screwdriver or other similar object which allows access around the probe. Use caution to ensure that the probe is not damaged.

Press the ✓ button when complete.



continued ►

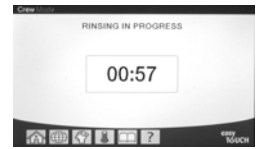
- 9 Washing**
The controller displays WASH VAT?. Lower the elements (electric only) and press the ✓ button. The controller displays WASHING IN PROGRESS while oil is flushed through the vat.



- 10 Wash again**
Once wash cycle is complete, the controller displays WASH AGAIN?. If the vat is clean, press the X button. If the vat is not clean, press the ✓ button and step 9 is repeated.



- 11 Rinsing**
The controller displays RINSING IN PROGRESS while the vat fills with oil and then drains to rinse the vat.



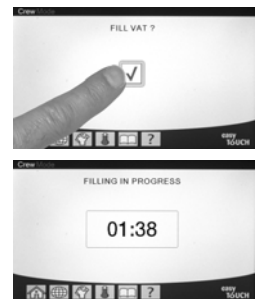
- 12 Rinse again**
Once the rinse is complete, the controller displays RINSE AGAIN?. If the vat is clean press the X button. If the vat is not clean, press the ✓ button and step 11 is repeated.



- 13 Polish**
The controller displays POLISH?. Press the ✓ button for YES. The controller displays POLISHING alternating with the countdown timer while the oil is circulated through the filter system for 5 minutes.



- 14 Fill vat**
Once the polish cycle is complete, the controller displays FILL VAT?. Press the ✓ button and the vat fills with oil.



continued ►

Maintenance Filter (continued)

- 15 Is Vat Full?**
Once the vat is full, the controller displays IS VAT FULL?. Press the **X** button to run the pump again if the vat is **NOT** full. Press the **✓** button once the vat is full.



- 16 Turn power on**
Press the power button to turn the controller on and return the fryer to normal operation.



Tip

If the filter pad or paper has not been changed, the controller displays “CHANGE FILTER PAD?”. Press the **✓** button to cancel the message, but it reappears every 4 minutes until the filter pad or paper has been changed.



- 17 Pull-out filter pan**
Open the door and pull the filter pan out from the cabinet slightly and wait until the dripping stops before completely removing the pan.

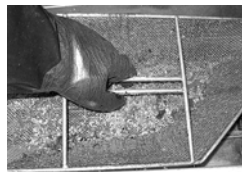


Hot Surfaces

The filter pan may be hot! Use protective gloves, or severe burns may result

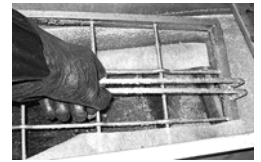


- 18 Remove crumb basket**
Lift the crumb basket from the filter pan. Wipe the oil and crumbs from the crumb basket. Clean the crumb basket with soap and water, and thoroughly rinse with hot water.

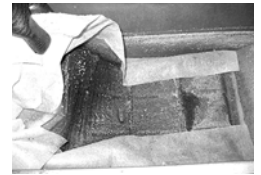


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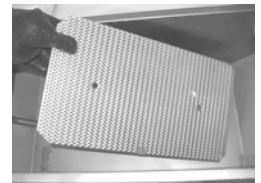
- 19 Remove filter pad or paper hold down ring**
Remove the filter pad or paper hold down ring and clean with hot Multi-Purpose Sink Detergent (MPSD) solution at the compartment sink. Rinse **thoroughly** with hot water.



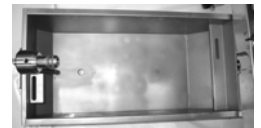
- 20 Remove filter pad or paper from pan**
Pull the filter pad or paper from the pan and discard pad.



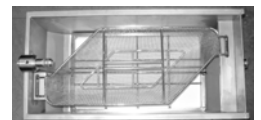
- 21 Remove bottom inner screen**
Pull the bottom inner screen from pan and clean thoroughly with hot Multi-Purpose Sink Detergent (MPSD) solution at the compartment sink. Rinse **thoroughly** with hot water.



- 22 Clean filter drain pan**
Wipe the oil and crumbs from the filter pan.



- 23 Reassemble**
Reassemble in reverse order, placing the bottom screen into the filter pan first, followed by the filter pad with rough side facing up, hold down ring and the crumb basket.



Tip

Ensure the filter pan, bottom screen, crumb basket, and the hold down ring are thoroughly dry before placing filter pad into pan as water will dissolve the filter pad.

Why To ensure high-quality fried products and reduce the possibility of a fire near the fryer

Time required 5 minutes to prepare 45 minutes to complete

Time of day After close For 24-hour restaurants: overnight or during low-volume periods

Hazard icons  Electricity  Hot Oil  Hot Surfaces  Manual Handling  Sharp Objects/Surfaces
 Slippery Floors

Tools and supplies




Procedure

- 1 Turn fryers off.
Turn all fryer power switches to the off position.



- 2 Remove and empty grease trough and cup.
Remove the grease trough from the exhaust hood. Remove the grease cup from the hood. The trough and cup are located beneath the hood filters. Pour oil in the trough and cup into the removal cart.

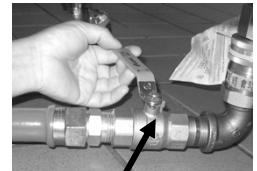


 **Hot Oil**
Oil in trough and cup may be hot. Use gloves.


continued ►

- 3 Shut off and disconnect gas.
If the fryer is not a gas fryer, skip this step.

If the fryer is a gas fryer, use the manual gas shut-off valve to shut off the gas supply. The manual gas shut-off valve is located on the supply line before the quick disconnects. Then disconnect the gas line from the fryer via the quick disconnect.



Manual shut-off

 **Equipment Alert**
Use only the manual shut-off valve to shut off the gas. *Do not use the quick disconnects.*

continued ►

Clean area behind fryers (continued)

- 4 Prepare fryer for cleaning.
Release the locks on the fryer wheels.

If the fryer has a capping piece, lift the front of the capping piece far enough to let the backsplash clear the filter shelf. Roll the fryer carefully away from the firewall, just until the capping piece clears the filter shelf.

Secure the capping piece, if there is one. Place vat covers on all vats.

Roll the fryer farther away from the firewall, far enough to clean behind the fryer.



Oil in fryer may be very hot. Roll the fryer slowly to avoid splashing the oil. Use gloves.

- 5 Disconnect fryer from electricity.

Unplug the fryer's electrical cord from the outlet by pulling on the electrical plug's body. You may need to twist the plug to remove from the outlet.

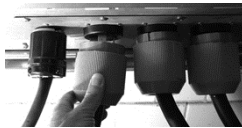
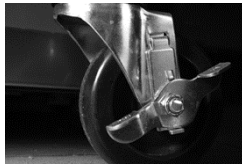


- 6 Clean fryer filters.

Remove the fryer filters from the exhaust hood. Take the filters to the three-compartment-sink and soak them in KAY® Multi-Purpose Sink Detergent (MPSD).



KAY® Multi-Purpose Sink Detergent (MPSD).



continued ►

- 7 Scrape area behind fryer.
Use a putty knife to scrape off all soft grease and hard carbon from the area behind the fryer. Clean the following areas in this order: the parts of the stack you can reach, the back of the exhaust hood, the sides of the exhaust hood, and the fryer filter recess area.

On an electric fryer, next use the putty knife to scrape all soft grease and hard carbon from all sheet metal around the fryer, the standoff piece, and the fryer stand. Skip to step 8 after these areas are cleaned.

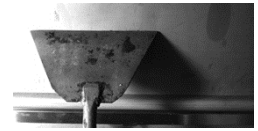
On a gas fryer, next use the putty knife to scrape all soft grease and hard carbon from these areas in this order: the flue restrictor, all sheet metal around fryer, the removable gravity blade, the seal angle, the stand-off piece, and the fryer stand.

On a gas fryer, be careful not to drop any soft grease or hard carbon into the fryer flue passage while cleaning.

Equipment Alert

Do not break the fire protection fusible link in the lower area of the stack. Breaking the link will activate the fire extinguishing system.

continued ►



Clean area behind fryers (continued)

- 8 Clean area behind fryer.**
Use a nylon pot brush, a hi-lo deck brush, and a bucket of hot KAY® Multi-Purpose Sink Detergent (MPSD) solution to scrub all of the areas you scraped in step 7. Clean the areas in the same order that you scraped them in step 7. Then use the hi-lo deck brush to scrub the floor around the fryer.



Wipe all areas with paper towels until they are clean and dry.



Slippery Floors

The floor may be wet where you have scrubbed it.

- 9 Ask manager to inspect.**
Ask a manager to inspect your work and approve the cleaning. Repeat any cleaning as your manager directs.

- 10 Wash fryer legs and casters.**
Use a nylon pot brush and a bucket of hot KAY® Multi-Purpose Sink Detergent (MPSD) solution to wash the legs and casters of the fryer. Wipe dry with paper towels.



- 11 Mop floor around fryer.**
Use a mop and a bucket of hot KAY® Multi-Purpose Sink Detergent (MPSD) solution to mop the entire floor around the fryer.



Slippery Floors

Floor may be wet from mopping.

continued ►

- 12 Allow surfaces to dry.**
Allow all fryer, wall, and floor surfaces to air dry.



- 13 Reconnect fryer to electricity.**
Roll the fryer slowly toward the electrical outlet until it is close enough to connect the plug. Plug the fryer into the outlet.



Electricity



Hot Oil

Oil in fryer may be very hot. Roll the fryer slowly to avoid splashing the oil.

- 14 Prepare fryer for use.**
Roll the fryer forward carefully until it is close to the filter shelf. Remove the vat covers from all vats. Lift the front of the capping piece until the backsplash clears the filter shelf, and roll the fryer carefully into its normal position.



- 15 Reconnect fryer to gas supply.**
If the fryer is an electric fryer, skip this step.



Check both ends of the quick disconnect for grease. Wipe the quick disconnect clean if necessary. Reconnect the gas line coupling.

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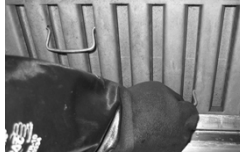


Equipment Alert

Be sure the gas quick disconnect is fully engaged and interlocked before turning on the gas supply.

Clean area behind fryers (continued)

- 16** Reinstall fryer filters and grease trough.
Lock wheels into place. Reinstall the fryer filters and the grease trough in the exhaust hood.





- 17** Turn on gas supply.
If the fryer is an electric fryer, skip this step.



Turn the manual gas shut-off valve to the on position. Turn the computer on to verify burners will re-light. Once the burners have been re-lit you can turn the computer off.

- 18** Clean area behind other fryers.
Repeat steps 1 through 17 for all remaining fryers.



Why	To maintain food safety standards	
Time required	1 minute to prepare	5 minutes to complete, once fryer has reached cooking temperature. Cook temperature should be reached in approximately 45 minutes.
Time of day	At open	For 24-hour restaurants: during low-volume periods
Hazard icons	 Hot Oil  Hot Surfaces	

Tools and supplies



Pyrometer with fry vat probe



Neoprene Gloves

Procedure

- 1 Calibrate pyrometer.**
Fill a hot beverage cup with ice and then add cold water from the drink tower up to the top of the ice. You should have 50 percent ice and 50 percent water.



Place probe in water

Place the probe in the ice water and stir continuously until the temperature readout stabilizes.

Read temperature

The readout should be 32°F (0°C), plus or minus 2°F (1°C). If not, you need to calibrate, repair, or replace the pyrometer. For calibration, follow the calibration, checking, and adjusting procedures supplied by the manufacturer of your pyrometer.

- 2 Turn on fryer and heat oil.**
Press the on/off button to turn the fryer on. Set the fryer for the product to be cooked. Allow the oil in the fryer to reach cooking temperature and then cycle off.



continued ►

- 3 Check oil level.**
Check the oil level when the oil has reached cooking temperature. If the oil is above the “Oil Level” line, remove oil until the oil is at the line by draining oil into pan or disposal unit. If the oil is below the “Oil Level” line, add oil until the oil reaches the line.



Oil in the fryer is very hot. Use gloves.

- 4 Cycle vat.**
Allow the vat to cycle on and off three times. The heat indicator will come on when the fryer is heating.



continued ►

Calibrate fryer (continued)

- 5 Read oil temperature.
Insert the fry vat probe of the pyrometer into the hot oil to within 1 inch (2.5 cm) of the probe's tip. The tip should be approximately 3 inches (7.6 cm) below the surface of the oil. Allow the temperature reading to stabilize.



- 6 Display temperature on fryer.
Press the temperature button for the vat where you took the pyrometer reading. The display will show the temperature for the vat.



- 7 Compare temperature readings.
Compare the temperature reading on the pyrometer with the corresponding temperature on the display.



If the two temperatures are less than 5°F (3°C) apart (either plus or minus), you do not need to adjust the temperature setting.

If the two temperatures are more than 5°F (3°C) apart (either plus or minus), call a service technician to report the problem.

- 8 Repeat for other side of split-vat.
If the vat you tested was a full vat, skip this step and go to step 9.

If the vat you tested was one side of a split-vat, repeat steps 5 through 7 on the other side of the split-vat.





continued ►

- 9 End calibration check.
When you have finished steps 5 through 7 for the vat (including both sides of a split-vat), press the on/off button to end the calibration check for the vat.

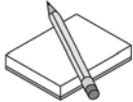


- 10 Calibrate remaining fryers.
Repeat steps 1 through 9 for all remaining fryers.



Why	To maintain food safety standards for fried products	
Time required	1 minute to prepare	5 minutes to complete,
Time of day	At opening	For 24-hour restaurants: in the morning
Hazard icons	 Hot Oil  Hot Surfaces	

Tools and supplies



Paper and pencil

Procedure

1 Turn fryer on.
Press the on/off button to turn the fryer on. The display will show “PREHEAT” or “START”



2 Check most recent recovery time.
The fryer automatically records the fryer’s recovery time each time the vat temperature rises from 250°F (121°C) to 300°F (149°C).



Press the “?” button.
Press the RECOVERY button. The display will show the most recent recovery time in both displays. Write down the recovery time.



NOTE: If the fryer is using solid shortening, the shortening should be stirred after the fryer exits melt temperature and prior to the fryer reaching 250F (121C) to eliminate the large masses of solid shortening from increasing the recovery times.

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3 Compare most recent recovery time to acceptable recovery time.

The acceptable recovery time for electric fryers is less than 1:40 (one minute, forty seconds). The acceptable recovery time for gas fryers is less than 2:25 (two minutes, twenty-five seconds).

If the recovery time you wrote down is less than the fryer’s acceptable recovery time, the fryer’s performance is acceptable. Skip to step 5.

If the time you wrote down is more than the fryer’s acceptable recovery time, the fryer’s performance is not acceptable. Go to the next step.



continued ►

Calibrate fryer recovery time (continued)

4 Adjust fryer, if necessary.

If the fryer's recovery time is not acceptable, check the following items on the fryer. If you find any problems, correct them as described.



For electric fryers only, confirm that the large power plug is properly plugged in. Adjust as necessary.

For gas fryers only, check the seal angle, gravity blade, and standoff. Adjust their placement if necessary.

For gas fryers only, check the air flow and combustion air blower. Adjust as necessary.

For gas fryers only, check the condition of the radiant burners.

Refer to troubleshooting guide in Operators manual.

5 Recalibrate all remaining fryers.





Repeat steps 1 through 4 for all remaining fryers.



6 Check recovery time again.

If *Recovery Time* is not achieved in the proper time, call the Frymaster Service Hotline for assistance at 1-800-551-8633.



Why	Removed caramelized oil from oil sensor to prevent heating failure.	
Time required	5 minute to prepare	15 minutes to complete (5 minutes per pot)
Time of day	During low volume periods.	
Hazard icons	 Hot Oil  Hot Surfaces  Chemicals  Hot Liquids/Steam	

Tools and supplies

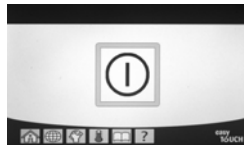


Procedure

- 1 Prepare for cleaning the Oil Sensor and turn fryer off. Put on neoprene gloves, a heat-resistant apron, and a face shield. You must wear this equipment throughout this procedure.

This procedure should be done for only one vat at a time.

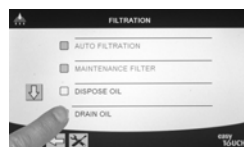
Press the on/off button to turn the fryer off.



- 2 Press FILTER button. Press the filter button at the bottom of the screen to enter the filter menu.



- 3 Select Drain Oil. Select and press DRAIN OIL from the list.



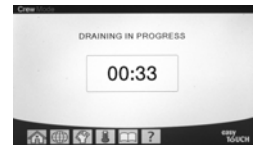
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- 4 Press the YES (✓) button. The controller displays “DRAIN OIL TO PAN?”.

Press YES (✓) button to continue.



- 5 Draining. The oil drains from the vat.



- 6 Press the YES (✓) button. Once the vat is empty, the controller displays “IS VAT EMPTY?”.

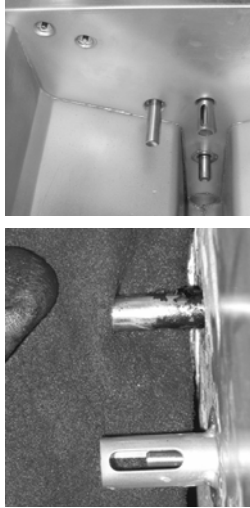
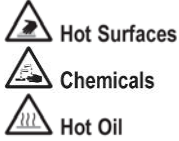
Press YES (✓) button to continue.



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Clean Oil Sensor (continued)

- 7 Scrub the oil sensor.
Using the Hi-Temp Pad to remove the caramelized oil from the oil sensor. Wipe down with paper towels to remove any residue.

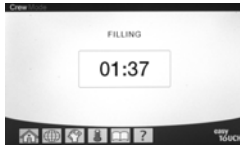


- 8 Press the YES (✓) button.
The controller displays “FILL VAT FROM DRAIN PAN”.

Press YES (✓) button to continue.



- 9 Filling
The oil returns to the vat.



- 10 Press the YES (✓) button.
The controller displays “IS VAT FULL?”.

Press YES (✓) button.



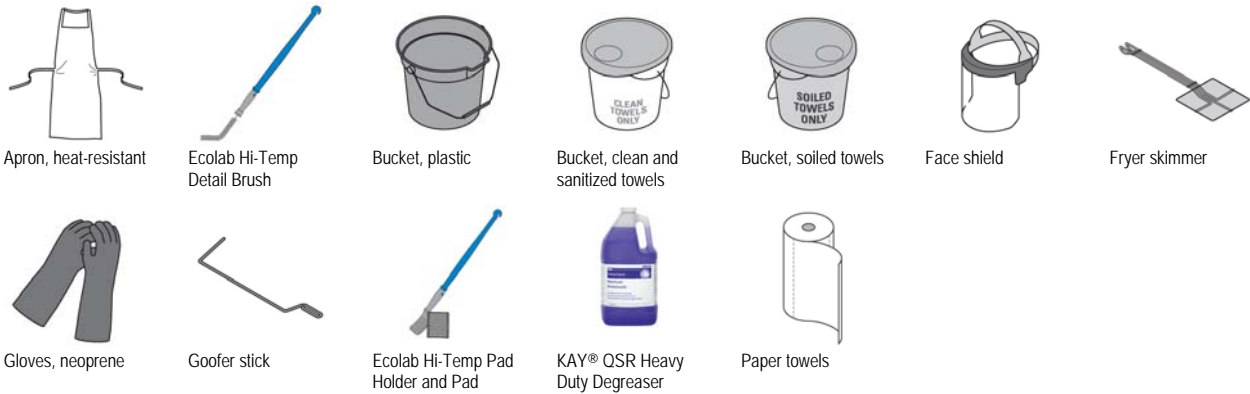
- 11 Press the YES button.
Press YES if full. If the vat isn't full, press NO and return to step 9.



- 12 Repeat for remaining frypots.

Why	Removes caramelized oil from elements (if electric) and frypot.	
Time required	5 minutes to prepare	15 minutes to prepare; 60 minutes per pot to complete
Time of day	This task can be performed one pot at a time or on multiple vats. You will be able to serve customers with remaining pots.	For 24-hour restaurants: This task can be performed one pot at a time or on multiple vats. You will be able to serve customers with remaining pots.
Hazard icons		

Tools and supplies



Procedure *The Deep Cleaning follows procedures developed by Kay Chemical. Their instructions are needed in addition to this PM.*

1 Prepare for Deep Clean and turn fryer off.

Put on neoprene gloves, a heat-resistant apron, and a face shield. You must wear this equipment throughout this procedure.

This procedure should be done for only one vat at a time.

Confirm that the fryer filters are in place. Turn at least one exhaust fan on. The fan must stay on for the entire procedure.

Make sure the basket support rack is in place in the vat.

Press the on/off button to turn the fryer off. The display will show "OFF."



Equipment Alert
Avoid accidentally activating the fire extinguishing system by keeping an exhaust fan on and the fryer filters in place during the entire procedure.



continued ▶

2 The Fryer is OFF.



3 Press FILTER button
Press the filter button at the bottom of the screen to enter the filter menu.



This procedure should be done for only one vat at a time.

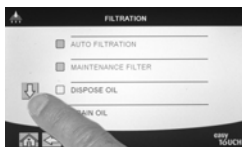
4 (Split Vats Only) Select Vat
Select and press the vat to be cleaned.



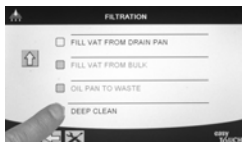
continued ▶

Deep Clean Mode Front Dispose System (continued)

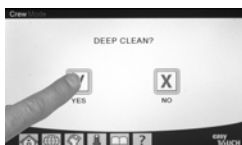
- 5 Press the Down Arrow
Press the Down Arrow to scroll to next screen.



- 6 Select Deep Clean
Select and press DEEP CLEAN from the list.



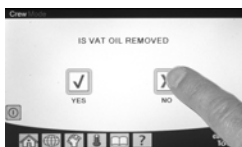
- 7 Confirm Deep Clean - Press ✓ button
The controller displays DEEP CLEAN?



Press the ✓ (YES) button to continue.

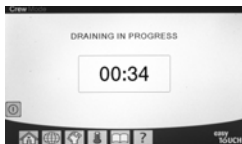
Press the X button for NO and the controls return to filter menu.


- 8 Confirm Oil is Removed.
The controller displays IS VAT OIL REMOVED.
Oil-Filled Vat: Press the X (NO) button if oil is in the vat.



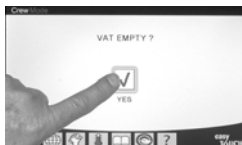
Empty Vat: Press the ✓ (YES) button if the vat is empty. Skip to Step 18.

- 9 Oil Drains.
The oil begins to drain. Push any pieces of fried food or other sediment into the drain valve, so they drain out. The controller displays DRAINING IN PROGRESS changing to IS VAT EMPTY?



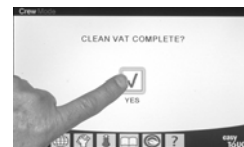
 **Hot Oil**
The oil may be very hot. Avoid splashing oil.

- 10 Confirm Pot Status.
Press the ✓ (YES) button when the vat is empty.

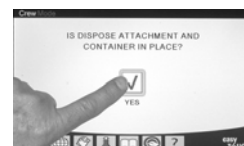


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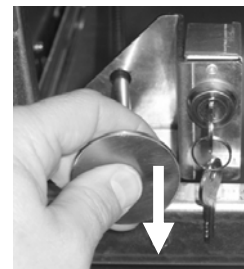
- 11 Confirm Pot Clean
Clean the vat with a scrub brush and press the ✓ (YES) button.



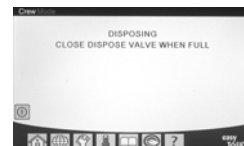
- 12 Confirm Dispose Attachment and Container is in place
Attach the dispose attachment and ensure that the METAL disposal can is in place under the discharge nozzle. Press the ✓ (check) button to continue.



- 13 Open dispose valve.
The controller displays OPEN DISPOSE VALVE. Unlock the valve and pull the dispose valve handle completely forward to start disposal.



- 14 Disposing
The controller displays DISPOSING CLOSE DISPOSE VALVE WHEN FULL while the pump is running. Close the dispose valve by pushing the valve handle completely toward the rear of the fryer until it stops. Lock the handle.



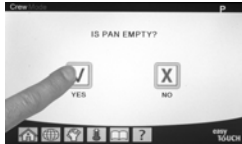
continued ▶

Deep Clean Mode Front Dispose System (continued)

- 15 Remove filter pan.
The controller displays REMOVE PAN.
Remove the filter pan and ensure the pan is empty.
If empty remove crumb basket, hold-down ring, filter pad and screen.



- 16 Is pan empty?
The controller displays IS PAN EMPTY?.
Remove the filter pan and ensure the pan is empty.
Empty Pan: Press the ✓ (YES) button.
Oil in Pan: Press the X (NO) button. The pump runs for an additional four minutes.



- 17 Replace filter pan.
The controller displays INSERT PAN. Place filter pan with all internal components removed in the fryer cabinet.




continued ▶

- 18 Add degreaser and hot water to vat.
Pour KAY® QSR Heavy Duty Degreaser carefully into the vat. Use 2/3 gallon (2.52 liters) of degreaser if you are cleaning a full vat. Use 1/3 gallon (1.26 liters) of degreaser if you are cleaning one side of a split vat. Finish filling the vat with hot water. Solution should be 1 inch above fill line.



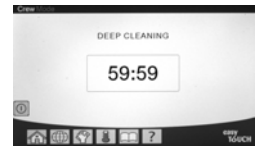
Refer to Kay Chemical instructions Fryer Deep Clean Procedure for additional instructions.

 **Chemicals**
KAY® QSR Heavy Duty Degreaser


- 19 After adding Cleaning Solution
Controller displays SOLUTION ADDED?.
Press the ✓ (YES) button.



- 20 Start Deep Clean
Controller displays DEEP CLEAN alternating with a countdown timer for one hour. The solution will reach a temperature of 195°F (91°C). The solution should be at a soft, rolling simmer. Complete steps 19 through 21 while the timer is running.



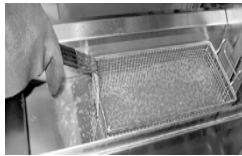
continued ▶

 **Hot Liquids/Steam**
The solution should never come to a rolling boil, or it may boil over. If unit starts to boil over cancel deep clean by pressing and holding the power button for three seconds.

Never leave the fryer unattended during deep clean.

Deep Clean Mode Front Dispose System (continued)

- 21 Clean fry baskets. Place the fry baskets into the cleaning solution. Have another crew person remove them when clean and take them to the three-compartment-sink. Rinse and dry them thoroughly.



Equipment Alert

Do not place any aluminum parts in the boiling solution. The solid metal basket hangers are made of aluminum.

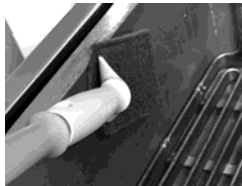
- 22 Clean basket support rack. Use the goofer stick to remove the basket support rack from the vat. Have another crew person take the rack to the three-compartment-sink, and rinse it thoroughly in hot water. Dry thoroughly.



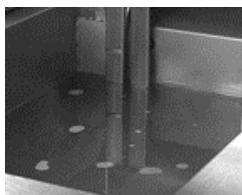
Hot Surfaces

The basket support rack is very hot.

- 23 Scrub inside of vat. Scrub the side, front, and back walls of the vat with the Hi-Temp Pad Holder and pad to remove any remaining deposits.



- 24 Clean Done After one hour, the controller displays CLEAN DONE and sounds an alarm. the ✓ (YES) button to silence alarm.



continued ▶

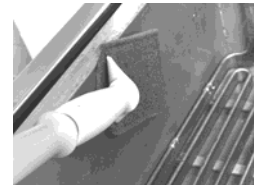
- 25 Drain solution from vat. The controller displays IS SOLUTION REMOVED?. Follow Kay Chemical Deep Cleaning Procedure to remove solution. Once the solution is removed press ✓ (YES) button.



Hot Liquids/Steam

The solution will be very hot. Avoid splashing.

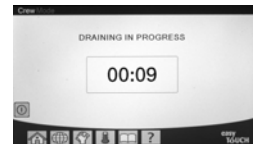
- 26 Scrub inside of vat. The controller displays SCRUB VAT COMPLETE?. Use the Hi-Temp Pad Holder, pad and scrub the side, front, and back walls of the vat with the Hi-Temp Pad Holder and pad. Remove any remaining deposits. Use the Hi-Temp Detail Brush to scrub in between and underneath coils, corners of vats and any other hard-to-reach areas.



Once the vat is scrubbed press ✓ (YES) button.



- 27 Draining The controller displays DRAINING to drain the small amount of solution from the vat.



Hot Liquids/Steam

The solution will be very hot. Avoid splashing.

- 28 Rinse vat with water. Rinse the vat thoroughly with warm water (100°F or 38° C). Be sure to have the filter pan inserted to catch rinse water. Repeat with more clean, warm water.



continued ▶

Fymaster BIELA14 -T and BIGLA30 -T – LOV Fryer

Deep Clean Mode Front Dispose System (continued)

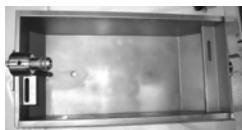
29 Rinse Complete
 The controller displays RINSE COMPLETE?.
 Press the ✓ (YES) button when the rinse is complete.



30 Remove filter pan.
 The controller displays REMOVE PAN.
 Remove the filter pan.
 Hot Surfaces




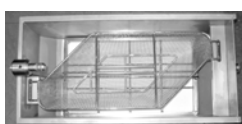
31 Dry Vat, Clean and Dry Pan
 Wipe the vat down with a clean, sanitized towel.
 Thoroughly dry the inside of the vat with paper towels.
 Clean and dry the filter pan.



32 Vat, Pan Dry
 The controller displays VAT AND PAN DRY?.
 Press the ✓ (YES) button once the vat and pan are dry and ready to return to service.



33 Replace filter pan.
 The controller displays INSERT PAN. Reassemble it with its components and install a clean filter pad or paper. Place filter pan with all internal components removed in the fryer cabinet.
 Hot Surfaces



continued ►




34 Fill the vat with oil.
 The controller displays MANUALLY FILL VAT.
 Fill the vat with the appropriate amount of oil.
 Press the ✓ (YES) button when the vat is filled to the bottom oil level line.



 Manual Handling

35 Return to OFF.
 The controller returns to OFF.



Why	If the high-limit is not working properly it could lead to a serious equipment failure and unsafe conditions. Never operate a fryer that has a malfunctioning high-limit. Conduct this test when the fryer will not be needed for one hour and the oil is due to be changed. Discard the oil after completing this test.	
Time required	45 minute fryer warm up time	25 minutes per pot 1 hour for oil to cool down before disposal.
Time of day	After closing. Conduct this test when the cooking oil is due to be changed.	For 24-hour restaurants: during low-volume periods when oil is scheduled to be changed
Hazard icons	 Hot Liquids/Steam  Hot Oil  Hot Surfaces	

Tools and supplies



Neoprene Gloves

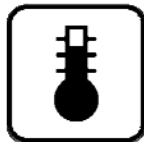
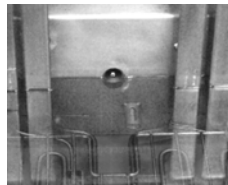
Procedure

- 1 Prepare for tests.**
Confirm that the oil in the fryer is scheduled to be changed. The oil must be discarded at the end of the procedure.

Check the oil level in the fryer. It should be at the upper "Oil Level" line.


Ensure the fryer is ON. Check the temperature of the oil by pressing the temperature button. The oil temperature should be above 180°F (82°C).

Confirm that the hood grease filters are in place, and turn the exhaust fans on. The fans must stay on for the entire procedure. During this procedure, the oil in the fryer is heated to very high temperatures. The oil may smoke slightly, and it will be extremely hot.



continued ►

- 2 Turn Controller Off**
Press off button.

 Hot Surfaces
- 3 Press the Home Button**
Press the Home Button.
- 4 Press the Service Button**
Press the Service Button.
- 5 Press the Crew Button**
Controller displays Level 1 Program.



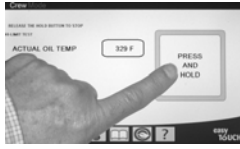
continued ►

Verify high-limit controls (continued)

- 6 (Split Vats Only) Select Vat
Select and press the vat to be tested.



- 7 Press and hold button
The controller displays PRESS AND HOLD. Press and hold the Press and Hold button to begin high limit test. The controller displays the vat temperature during the test.



- 8 Vat heats
The controller displays HOT HI-1, when the vat reaches 410°F±10°F (210°C±12°C). In controllers used in the European Union (those with the CE mark), the temperature is 395°F (202°C).



- 9 Press and hold button
The controller displays PRESS AND HOLD. Continue pressing the Press and Hold button.



- 10 High limit opens
The controller displays HELP alternating with HI-2, when the high limit opens between 423°F to 447°F (217°C to 231°C).



- 11 High limit fails
If the high limit fails to open, the controller will display HIGH LIMIT FAILURE DISCONNECT POWER. If this occurs, disconnect power immediately and call for service.



continued ►

- 12 Once oil cools exit to off.
When the vat cools below 400°F (204°C), press the power button to exit and return to OFF.



- 13 Dispose of oil.
Dispose of the oil after a high limit test. If using a bulk oil system follow the proper procedures to dispose of oil.

- 14 Verify high-limit controls for all remaining fryers.
Repeat steps 3-13 for all remaining fryers.

Why	To keep the fryer's filter pump in working order	
Time required	2 minutes to prepare	5 minutes to complete
Time of day	At opening; the fryer must be cool	For 24-hour restaurants: During a low-volume period when the fryer can be turned off

Hazard icons  Hot Oil  Hot Surfaces

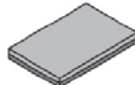
Tools and supplies



O-rings for the filter pump



Flat tip screwdriver



No-scratch pad

Procedure

1 Prepare fryer for procedure.
Check to make sure the fryer is cool. This procedure should be done only when the fryer is cool and the filter pan is empty.



2 Remove filter pan.
Pull the filter pan out of the cabinet.



3 Replace O-ring.
Remove the O-ring from the pan nozzle. Replace the O-ring with a new O-ring. O-rings can be purchased from your local authorized servicer.



continued ►

 **Equipment Alert**

Use only the manufacturer's replacement O-ring. These rings are manufactured specifically for use with hot cooking oils. Generic O-rings cannot be used for this purpose.

4 Clean pickup tubes.
Clean the male and female pickup tubes with a no-scratch pad.



5 Reinstall filter pan.
Reinstall the pan into the fryer cabinet.



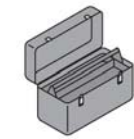
Why To keep the fryer in working order.

Time required 45 minutes per blower to complete.

Time of day After hours. For 24-hour restaurants:
During a low-volume period when the fryer can be turned off.

Hazard icons  Hot Surfaces  Electricity  Chemicals  Sharp Objects/Surfaces

Tools and supplies



Tools supplied by technician



KAY® QSR Heavy Duty Degreaser











Paper towels

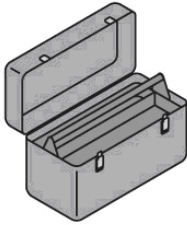
Procedure

- 1 Clean combustion air blower.** Clean the combustion air blowers. Follow the cleaning procedure in the operator's manual.



Why	Frymaster recommends that a Factory Authorized Service Technician inspect this appliance at least annually. This will help ensure the equipment is in safe working order and operating at peak performance.
Time required	N/A 1 hour per fryer to complete inspection
Time of day	The inspection should be scheduled by the store to ensure business is not interrupted and to give the servicer adequate access to the equipment.
Hazard icons	 Chemicals  Electricity  Hot Oil  Hot Surfaces  Manual Handling  Moving Parts  Sharp Objects/Surfaces  Slippery Floors


Tools and supplies



Tools supplied by technician

Procedure

QUALIFIED TECHNICIANS ONLY

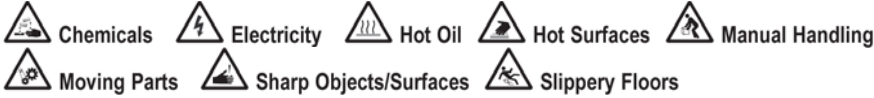
- 1 **Cabinet inspection**
Inspect the cabinet, inside and out, front and rear, for excessive oil buildup.
 **Hot Surfaces**
- 2 **Element inspection**
Verify that heating elements are in good condition with no carbon/caramelized oil build up. Inspect the elements for signs of extensive dry firing.
- 3 **Tilt inspection**
Verify that the tilt mechanism is working properly when lifting and lowering elements and that the element wires are not binding and/or chafing.
continued ►
- 4 **Check fryer recovery time.**
Check the fryer's most recent recovery time on all vats, using the procedure in FR5 M1. The most recent recovery time should be less than 1:40 (one minute, forty seconds).

If the fryer's recovery time is less than 1:40 (one minute, forty seconds). The procedure is complete for this vat. Go to step 6
- 5 **Adjust fryer, if necessary.**
If the fryer's recovery time is not acceptable, check the following items on the fryer. If you find any problems, correct them as described.

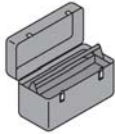
For electric fryers only, confirm that the large power plugs are properly plugged in. Adjust as necessary. Continue to step 6.
- 6 **Amp-draw check**
Verify the heating element amp-draw is within the allowed range as indicated on the appliance's rating plate.
continued ►

Annual Inspection (electric fryers only) (continued)

- 7 Probe check**
Verify that the temperature, AIF, ATO, Oil Level Sensor (OIB) and high-limit probes are properly connected, tightened and functioning properly, and that mounting hardware and probe guards are present and properly installed.
- 8 Electrical component inspection**
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 build up or other debris.
- 9 Wiring connection inspection**
Verify that component box and contactor box wiring connections are tight and that wiring is in good condition.
- 10 Safety device check**
Verify that all safety features (i.e. contactor shields, drain safety switches, reset switches, etc.) are present and functioning properly.
- 11 Frypot examination**
Verify that the frypot is in good condition and free of leaks and that the frypot insulation is in serviceable condition.
- 12 Wiring harness inspection**
Verify that all wiring harnesses and connections are tight and in good condition.
- 13 Oil line inspection**
Inspect all oil-return and drain lines for leaks and verify that all connections are tight.

Why	Frymaster recommends that a Factory Authorized Service Technician inspect this appliance at least annually. This will help ensure the equipment is in safe working order and operating at peak performance.
Time required	1.5 hours to complete
Time of day	The inspection should be scheduled by the store to ensure business is not interrupted and to give the servicer adequate access to the equipment.
Hazard icons	

Tools and supplies



Tools supplied by technician

Procedure

QUALIFIED TECHNICIANS ONLY

1 Cabinet inspection

Inspect the cabinet, inside and out, front and rear, for excessive oil buildup.



2 Check regulated gas pressure.

Contact the local gas company or a service agency to check the gas pressure out of each of the fryer's gas regulator.

For natural gas, the pressure must be 3.0 in. W.C. (76 mm W.C.) For propane gas, the pressure must be 8.25 in. W.C. (210 mm W.C.)

If the pressure does not meet these standards, ask the service agency or gas company to adjust the pressure to meet the standard.

3 Probe check

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.

4 Clean and Replace gas valve vent tube.

Clean and replace the gas valve vent tube. Follow the cleaning procedure in the service manual.

continued ►

5 Clean combustion air blower.

Clean the combustion air blowers. Follow the cleaning procedure in the service manual.

6 Check fryer recovery time.

Check the fryer's most recent recovery time on all vats, using the procedure in FR5 M1. The most recent recovery time should be less than 2:25 (two minutes, twenty-five seconds).

If the fryer's recovery time is less than 2:25 (two minutes, twenty-five seconds) the procedure is complete for this vat. Go to step 9.

continued ►

Annual Inspection (gas fryers only) (continued)

7 Check combustion.

If the fryer's recovery time is less than 2:25 (two minutes, twenty-five seconds) skip this step.

Connect the multimeter in series with the white flame sensor wire on the igniter. Allow the burner to operate for at least one minute after the melt cycle is completed. After 1 minute, the reading on the multimeter should typically produce a current between 0.3 μ A and 0.9 μ A on Capable Control modules or between 3.0 μ A and 8.0 μ A on Honeywell modules. Any other reading is not acceptable.

After 90 seconds of continuous operation, check the color of the burner. The burner should glow bright orange-red. Use the Burner Color Comparison Chart inside the door of the fryer to identify the correct color. A blue flame or dark spots on the burner face are not acceptable.

8 Adjust combustion air blower, if necessary.

If the fryer's recovery time is less than 2:25 (two minutes, twenty-five seconds) skip this step.

If either the multimeter reading or the burner color is not acceptable, adjust the combustion air blower intake plate.

Loosen the locking nuts on the intake plate with a small adjustable wrench. Open or close the plate to adjust the airflow while watching the multimeter reading and the color of the burner. A blue flame usually means the burner isn't receiving enough air. Dark spots on the burner usually mean the burner is receiving too much air.

When the microamp reading is in the acceptable range and the burner color is bright orange-red, hold the blower intake plate in place. Then tighten the blower intake plate locking nuts.

9 Safety device check

Verify that all safety features (i.e. drain safety switches, reset switches, etc.) are present and functioning properly.

10 Frypot examination

Verify that the frypot is in good condition and free of leaks and that the frypot insulation is in serviceable condition.

11 Wiring harness inspection

Verify that all wiring harnesses and connections are tight and in good condition.

continued ►

12 Oil line inspection

Inspect all oil-return and drain lines for leaks and verify that all connections are tight.

13 Repeat steps on remaining fryers.

Repeat steps 2 through 12 for each remaining vat in the fryer.