

Legacy 36

**Electric Range** 

## Service Instructions

This book contains many important safety messages.

Always read and obey all safety messages.

F107511-01

www.aga-ranges.com

# WARNING

If the information in this manual is not followed exactly, a fire may result causing property damage, personal injury or death.

#### **WARNING**

The anti-tip device supplied with this range must be correctly fitted when the range is installed. This will reduce risk of tipping of the range from abnormal usage or by excessive loading of the oven door



## **WARNING**

- ALL RANGES CAN TIP
- INJURY TO PERSONS COULD RESULT
- INSTALL ANTI-TIP BRACKET PACKED WITH RANGE
- SEE INSTALLATION INSTRUCTIONS

Disconnect from electricity before servicing. Check appliance is safe when you have finished.

## **Sections**

Diagnostics	5
Servicing Procedures	11
Technical Data	25
Schematic diagram of the Range	26

# SERVICING - WARNING Disconnect from electricity before servicing. Check appliance is safe when you have finished.

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Disconnect from electricity before servicing. Check appliance is safe when you have finished.

## Diagnostics

Checking the Multifunction Oven	6
Checking the Convection Oven	8

## Checking the Multifunction Oven

Check 1	Result	Possible Cause	
Open the oven door and turn on the oven light	Light does not work	<ul> <li>No power to range</li> <li>Light bulb failed (most likely cause)</li> <li>Fault in power supply to switch</li> <li>Faulty switch</li> </ul>	

#### Action

- Are other parts of the range working is the clock on, do the ovens and oven neons work? If not then there is probably no power to the range. Investigate power supply.
- 2 Remove the light bulb (see 'Servicing Procedures'). Check the bulb with a resistance with a meter. The cold resistance should be very approximately 100 ohms. Replace it if it is open circuit.
- 3 & 4 If the bulb is OK then move the range forward (see 'Servicing Procedures') and remove the rear cover. With the meter check the continuity of the wiring to the bulb and the action of the switch. Replace wiring or switch as necessary.

Check 2	)		Result	Possible	Ca	use
Defrost set oven fan st <b>Remembe</b>	tarts to spiner - the cloc	eck that the	Fan does not spin		1 2 3 4 5 6	No power to range Fan blades impeded Fault in power supply to switch Faulty switch Fault in power supply to fan Fan motor faulty
Action	2	If not then there Remove the ove	other parts of the range working - is the clock on, do the oven lights and oven neons work? In then there is probably no power to the range. Investigate power supply. However, the oven inner back and check that the fan is not impeded.			
	3 - 5	If the fan is not impeded, not then move the range forward (see the 'Servicing Procedures' section for the correct method) and remove the rear covers. With a meter check the continuity of the wiring to the fan and the action of the switch. Replace wiring, switch or fan as necessary.				

Check 3	Result	Possible Cause
Remove the oven racks. Turn the oven temperature control to 400F and turn the function control to each setting in turn and check that the elements start to heat up. See the chart opposite.	One element does not heat up.	Burnt out element (most likely cause) Faulty switch Fault in power supply to element
You should be able to feel the heat from the element after few moments by holding your hand close to the element (DON'T TOUCH THE ELEMENTS!).  The bottom element may take slightly longer to heat up.  Turn the controls off when you have finished.	No element heats up	Faulty oven thermostat.(most likely cause) Faulty switch Fault in power supply to elements

#### Action

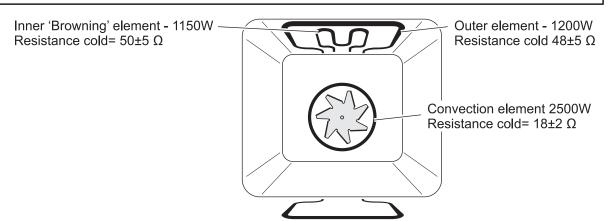
# One element not working Remove the element - see the 'Servicing Procedures' section for the correct procedure. Check it with a resistance meter. Replace with a new element if necessary. If the

element is OK then move the range forward (see the 'Servicing Procedures' section for the correct method) and check the continuity of the wiring and the thermostat.

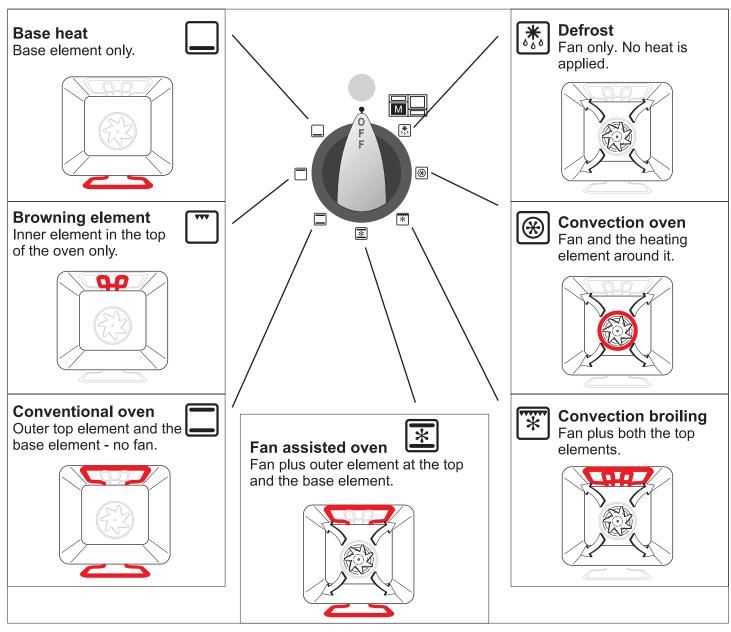
#### **No element working** Remove the range cooktop and check the

thermostat and function switch

## Checking the Multifunction Oven



Base heat element - 1000W Resistance cold=  $56\pm5~\Omega$ 



## Checking the Convection Oven

Check 1	Result	Possible Cause	
Open the oven door and turn on the oven light	Light does not work	<ol> <li>No power to range</li> <li>Light bulb failed (most likely cause)</li> <li>Fault in power supply to switch</li> <li>Faulty switch</li> </ol>	

#### Action

- Are other parts of the range working is the clock on, do the ovens and oven neons work? If not then there is probably no power to the range. Investigate power supply.
- 2 Remove the light bulb (see 'Servicing Procedures'). Check the bulb with a resistance with a meter. The cold resistance should be very approximately 100 ohms. Replace it if it is open circuit.
- 3 & 4 If the bulb is OK then move the range forward (see 'Servicing Procedures') and remove the rear cover. With the meter check the continuity of the wiring to the bulb and the action of the switch. Replace wiring or switch as necessary.

Check 2	Result	Possible Cause
<b>Remember</b> - the clock must be set to the time of day before the oven will work.		
Remove the oven racks. Turn the oven temperature control to 400F and check that the element start to heat up.  You should be able to feel the heat from the element after few moments by holding your hand close to the openings at the top or bottom of the oven inner back. (DON'T TOUCH THE ELEMENT!).	The element does not heat up.	Burnt out element (most likely cause) Faulty switch Fault in power supply to element
Turn the controls off when you have finished.		

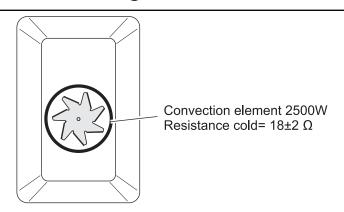
#### **Action**

Remove the element - see the 'Servicing Procedures' section for the correct method.

Check it with a resistance meter. Replace with a new element if necessary.

If the element is OK then move the range forward (see the 'Servicing Procedures' section for the correct method) and check the continuity of the wiring and the thermostat.

## Checking the Convection Oven



# **Servicing Procedures**

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1. To change oven light bulb.	12
2 How to Move the Range for Servicing	12
3. To Remove a Side Panel	13
4. To Lift up the Ceramic Hob	14
5. To replace a hob element.	15
6. To replace the cooktop neon indicator lights pack	15
7. To Remove the Control Panel	16
8. To Remove Oven Light Switch	16
9. To Remove Oven indicator neon Light	17
10. To Remove Electronic Timer	17
11. To Remove a Thermostat	18
12. To Change Cooktop or Broiler Controller	19
13. To Remove an Oven Door	19
14 To Adjust the Oven Door Angle	20
15. To Change Oven Door Outer Panel	21
16 To Remove the Main Oven Door Latch	21
17. To Remove the Oven Door Seal	22
18. To Adjust the Main Oven Door Catch Keeper	22
19. To Replace the Cooling fan	22
20. To Remove an Oven Inner Back	23
21. To Replace an Oven Fan	23
22. To Remove an Oven fan Element	23

Disconnect from electricity before servicing. Check appliance is safe when you have finished.

### Servicing Notes

Disconnect from electricity supply before commencing servicing, particularly before removing any of the following: control panel, side panels, ceramic hob, or any of the electrical components or cover boxes. Before electrical reconnection check that the appliance is electrically safe.

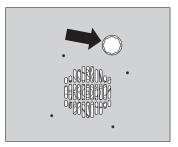
#### 1. To change oven light bulb.



Replacement bulb must be 15w 125-130v lamp, FOR OVENS, heat resistant to 300°C (570°F).

#### Turn off the power at the circuit breaker

Make sure the oven is cool. Open the oven door and remove the oven racks.





Unscrew the bulb cover by turning counter clockwise. It may be very stiff.

Taking care to protect your fingers in case the bulb should shatter, unscrew the old bulb.

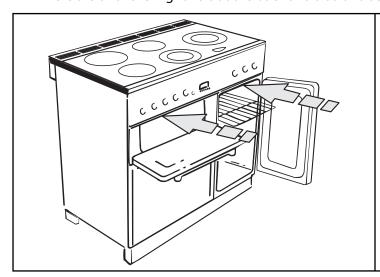
Screw in the new bulb, screw back the bulb cover. Turn on the circuit breaker and check that the bulb now lights.

## 2 How to Move the Range for Servicing Follow these procedures to remove appliance for servicing:

#### Turn off the power at the circuit breaker

The range is very heavy. Take great care. We recommend two people maneuver the range. Ensure that the floor covering is firmly attached, or removed to prevent it being disturbed when moving the range around. You will need the leveling tool.

There are two leveling rollers at the back and also two screw down leveling feet at the front.



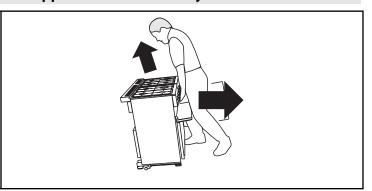
Open the broiler door and right hand oven door so that you can get a good grip on the bottom of the control panel as you move the oven.

#### Disconnect from electricity before servicing. Check appliance is safe when you have finished.

Do not move the range by pulling the door handles or knobs. Lift the front slightly and slide the range forward to disengage from the anti-tip bracket.

Move the range a bit at a time, checking behind it to make sure the electric cord is not caught. Make sure the electricity cable has sufficient slack to move the range forward as you go along

Disconnect electrical supply to appliance and unplug the electrical supply cord.



Reverse procedure to reinstall.

If your range is removed for any reason, make sure the anti-tip device is re-engaged properly when the range is replaced. Failure to take this precaution could result in tipping of the range and cause injury.

#### Replaceing the Range

Reverse procedure to reinstall the range.

Reconnect the power supply

Make sure the anti-tip device is re-engaged properly when the range is replaced. Failure to take this precaution could result in tipping of the range and cause injury.

#### 3. To Remove a Side Panel

# Turn off the power at the circuit breaker. Pull the range forward. Pull off the push fit control panel end caps at each end and remove the end fixing screws under the end cap. Remove the retaining screws for each panel (1 at the front and 2 at the rear). The lower front retaining screws (one each side) are situated beneath the lower edge at the front corners of the side panels Reassemble in reverse order.

Disconnect from electricity before servicing. Check appliance is safe when you have finished.

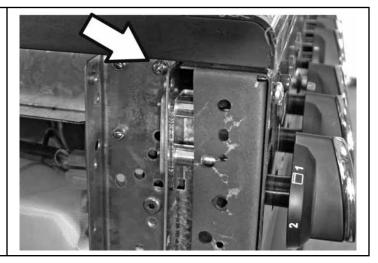
#### 4. To Lift up the Ceramic Hob

Pull the range forward.

Pull off the push fit control panel end caps at each end and remove the end fixing screws under the end cap.

Remove the lower front retaining screws (one each side) situated beneath the lower edge at the front corners of the side panels.

Swing the side panels to gain access to the hob fixing screws (1 each side) at the top front of the side uprights. Remove these screws.



#### **Caution**

The ceramic hob material is much more sensitive to scratches on the underside than the top.

Take care not to touch or scratch the underside of the ceramic as this will weaken the material and cause the top to shatter.

Lift up the ceramic hob at the front and prop in position with a non-metallic prop.



NB the photo shows a Legacy 44 but the 36 is similar.

The main differences apart from the width and number of elements are that the 36 does not have block connectors in the connections to the hob elements and the neon indicator lights are on the right hand side of the hob.

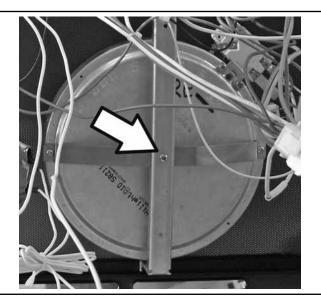
Disconnect from electricity before servicing. Check appliance is safe when you have finished.

#### 5. To replace a hob element.

Lift up the ceramic hob see 4. The elements are now accessible.

Remove the screw in the center of the element and slide it out to the side.

Disconnect wiring from the element – make a note of the wire colors and terminal connections. Refer to the wiring schematic. Fit new elment and reassemble in reverse order. Check that the wiring is correct as shown in the wiring schematic.



#### 6. To replace the cooktop neon indicator lights pack

Lift up the ceramic hob see section 4.

The neon indicator light pack is held to the support bracket by two clips.

Either: -

Release the pack from the support by freeing the pack location clips from the bracket.

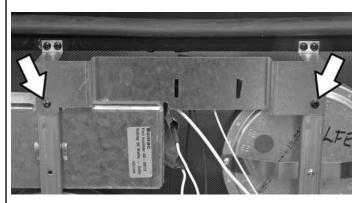
Or

Remove the mounting screws of the support bracket, and release the pack from the support

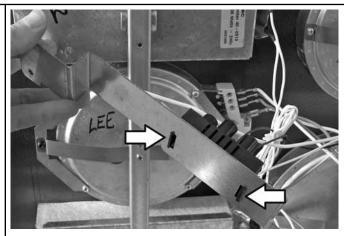
Disconnect the wiring, noting the colors and connection positions.

Fit the replacements pack and reassemble in reverse order.

Check that the replacement lights work.



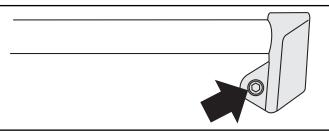
bracket fixing screws



neon pack locaction clips

Disconnect from electricity before servicing. Check appliance is safe when you have finished.

## 7. To Remove the Control Panel Turn off the power at the circuit breaker.



Remove the handrail by first removing the 2 plastic screw cover plugs and then the end bracket fixing screws beneath the plugs.

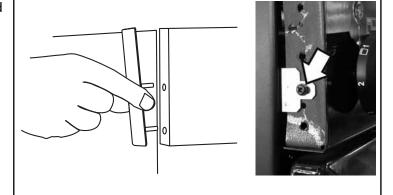
Remove the two screws that were hidden beneath the hand rail end brackets.

Pull off the push fit control panel end caps at each end and remove the end fixing screws under the end cap.

Pull off all the control knobs. Open the broiler and oven doors and remove the control panel fixing screws underneath the control panel. The screws directly below the clock are for the clock fixing bracket - don't remove them at this stage.

Lift the control panel, pull forward and disconnect the wiring from the rear.

Reassemble in reverse order. When replacing leads refer to the wiring diagram. Check operation of timer.



#### 8. To Remove Oven Light Switch

Remove control panel (see 7).

NB The old switch may be destroyed during removal.

Remove switch button and old switch from its bezel by gripping the switch body behind the control panel and twisting sharply

The switch bezel can then be removed by folding back its locking 'wings' and pushing forward. Fit the new bezel to the control panel by first lining up the raised key on its body with the cut-out in the control panel and pushing it in from the front. Assemble the new switch to the bezel by lining up the key sections and pushing home. Fit the new button by pushing in from the front.

Replace control panel in reverse order and test for correct operation.



Disconnect from electricity before servicing. Check appliance is safe when you have finished.

#### 9. To Remove Oven indicator neon Light

Remove control panel (see 7).

NB The old indicator neon may be destroyed during removal.

Disconnect the wires from the rear of the neon. The light can then be removed by folding back its locking 'wings' and pushing forward. Fit the new light to the control panel by first lining up the raised key on its body with the cut-out in the control panel and pushing it in from the front.

Replace control panel in reverse order and test for correct operation.

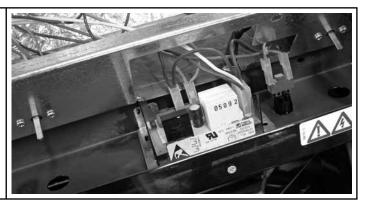


#### 10.To Remove Electronic Timer

#### Turn off the power at the circuit breaker.

Pull off the timer control buttons and remove the control panel (See 7). Remove the timer/mounting bracket assembly from the control panel by removing the two fixing screws. Remove the timer from its mounting bracket by depressing the plastic lugs on the timer case, at the same time pulling the unit forward.

Reassemble in reverse order. When replacing leads refer to the wiring diagram. Check operation of timer.



Disconnect from electricity before servicing. Check appliance is safe when you have finished.

#### 11.To Remove a Thermostat

Lift up the cooktop - see 4. Remove the control panel - see 8 Remove the oven shelves.

Undo the range rear cover screws and lift covers clear.

#### **Right Hand oven**

From inside the oven remove the two fixings that secure the thermostat phial cover. Push the thermostat sensing bulb back to free it from the clips in the oven back panel.

Feed the thermostat capillary out of and clear of the oven noting the routing.

Disconnect wiring from thermostat – make a note of the wire colors and terminal connections - and undo the two screws which secure the control to the mounting plate. Refer to the wiring schematic.

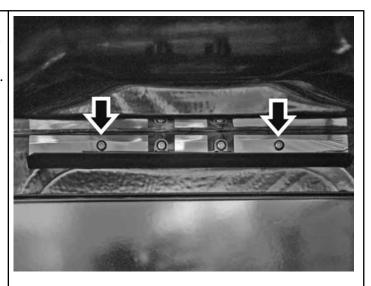
The thermostat is clipped onto the front switch. Pull the thermostat away from the front switch.

Fit the replacement and re-assemble in reverse order.

Check that the wiring is correct as shown in the wiring schematic.

Ensure that the phial is clipped to the oven rear, positioned centrally between the clips.

Check that the thermostat functions correctly.



#### **Left Hand Multifunction oven**

From inside the oven remove the two screws holding the thermostat phial to the oven fan cover at the rear of the oven.

Feed the thermostat capillary out of and clear of the oven noting the routing.

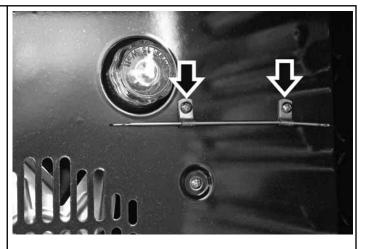
Disconnect wiring from thermostat – make a note of the wire colors and terminal connections - and undo the two screws which secure the control to the mounting plate. Refer to the wiring schematic.

Fit the replacement and re-assemble in reverse order.

Check that the wiring is correct as shown in the wiring schematic.

Ensure that the phial is clipped to the oven rear, positioned centrally between the clips.

Check that the thermostat functions correctly



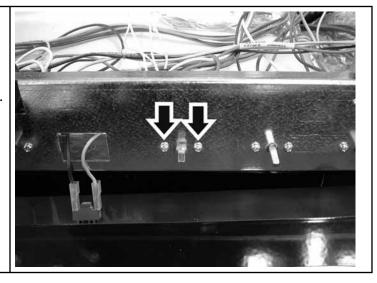
Disconnect from electricity before servicing. Check appliance is safe when you have finished.

#### 12.To Change Cooktop or Broiler Controller

Lift up the ceramic hob top (see 4). Remove control panel (see 8). Disconnect wiring from controller – make a note of the wire colors and terminal connections. Refer to the wiring schematic.

Remove 2 screws holding controller to mounting panel. Fit new controller and reassemble in reverse order. Check that the wiring is correct as shown in the wiring schematic.

Check for correct operation.

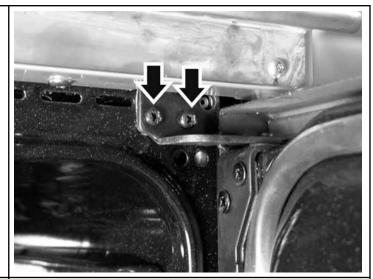


#### 13.To Remove an Oven Door

Door is heavy - take care.

Open oven door and remove Handyrack (where fitted) by springing one side out of the bracket on the door and sliding the other side free.

Loosen the two top hinge screws.



Support the weight of the door and remove the screw nearest the hinge pin. Swing the hinge up and away from the hinge pin on the door.

Lift the door away from the bottom hinge.

Re-assemble in reverse order.

When replacing the door ensure that the nylon hinge bush is in position between the hinge pin and the hinge bracket at the both the bottom and top.

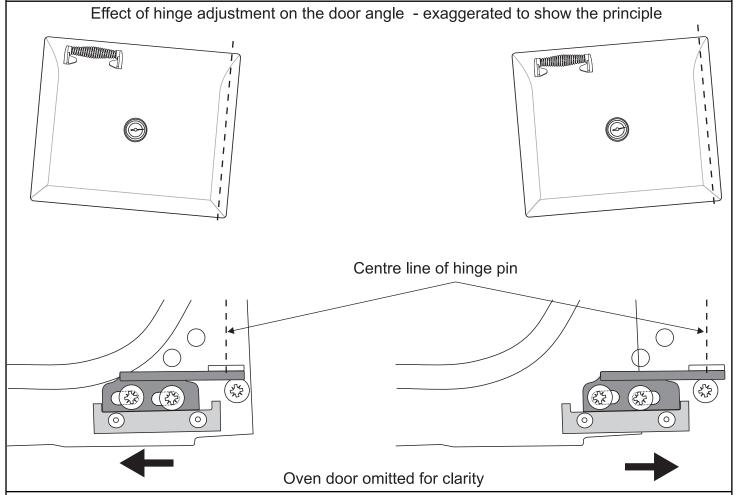


Disconnect from electricity before servicing. Check appliance is safe when you have finished.

#### 14 To Adjust the Oven Door Angle

The oven doors are heavy. Transit of the range can cause the oven doors to move so that they are not correctly aligned.

Both oven doors are fitted with adjustable door bottom hinges. The hinges can be adjusted to alter the angle of the door.



Loosen the bottom hinge fixing screws and use the notch and a flat bladed screwdriver to move the position of the hinge to set the hinge position.

Retighten the hinge screws to hold the door in position.

Disconnect from electricity before servicing. Check appliance is safe when you have finished.

#### 15.To Change Oven Door Outer Panel

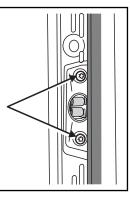
Remove the two plastic blanking plugs from the door handles. Remove the 4mm Hex headed screws holding the handle to the door with the hexagon key tool. Remove two screws from top edge and two from bottom edge of the door. Remove outer door panel - 4 screws. Fit door handle to new panel. Fit the plastic blanking plugs to the fixing holes. The handles should be above the fixings. Fit panel to door. If replacing the outer panel on a right hand door with a Thermodial take care to make sure the sensor of the Thermodial is sealed to the door by the rubber grommet. Reassemble in reverse order.

#### 16 To Remove the Main Oven Door Latch

Remove the oven outer door panel as detailed in Section 18.

Remove the screws that secure the latch assembly to the inner door panel. Fit the replacement catch and re-assemble in reverse order.

Check correct operation of door.



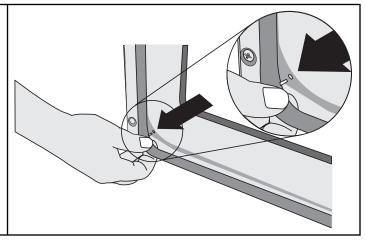
Disconnect from electricity before servicing. Check appliance is safe when you have finished.

#### 17.To Remove the Oven Door Seal

Open oven door. The seal is held in place by small hooks on the rear face. At the corner pull seal diagonally away from the door centre until that hook is released.

Proceed to the next hook and release it in a similar way, and so on. Use force if the hooks are stiff, as the old seal will be discarded.

When fitting new seal, position the seal join at the bottom. Hook the new seal in one of the corner holes of the door, and proceed round the door snapping in each hook in turn.

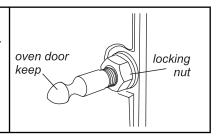


#### 18.To Adjust the Main Oven Door Catch Keeper

Open the oven door and slacken the locknut at the keeper base.

Adjust the keeper inward or outward as required, until the desired door operation is obtained. Check the door seal with a strip of paper.

Re-tighten the locknut.



#### 19.To Replace the Cooling fan

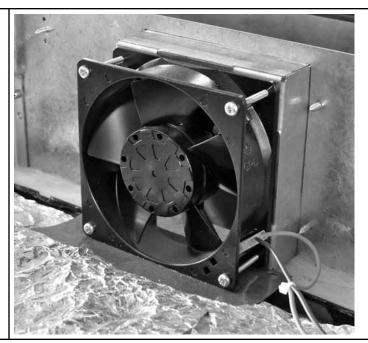
#### Turn off the power at the circuit breaker.

Lift up the cooktop - see section 4

The fan is now accessible under the cooktop at the rear.

Disconnect the electrical connections and unscrew the 4 fan fixing screws.

Reassemble in reverse order.



Disconnect from electricity before servicing. Check appliance is safe when you have finished.

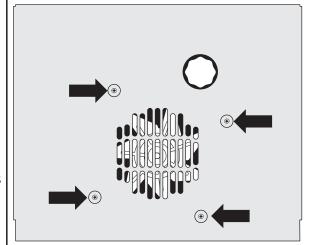
#### 20. To Remove an Oven Inner Back

Open the oven door.

For the left hand oven unscrew the 2 thermostat phial fixing screws. See section 11 'To Remove a Thermostat' for more detail on the thermostat phial fixing screws.

Remove the screws that secure the inner back to the oven rear. Lift the removable panel away.

Re-assemble in reverse order. Ensure that the retaining screws are fully tightened.



#### 21.To Replace an Oven Fan

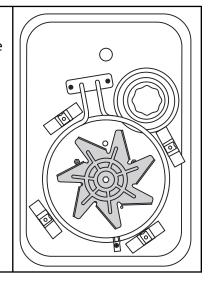
Pull the range forward to access the cover boxes at the rear of the range, see the section 'How To Move the Range for Servicing'.

Remove the screws that secure the rear cover and lift it clear. Remove the fan wiring, noting the colors and connection positions. Remove the inner back as detailed in Section 20.

Hold the fan blades and undo the centre nut (left hand thread), brass washers, fan blade and Circlip.

Undo the nuts that retain the fan and remove it from the cavity rear.

Fit the replacement and re-assemble parts in reverse order. Check that the oven operates satisfactorily.

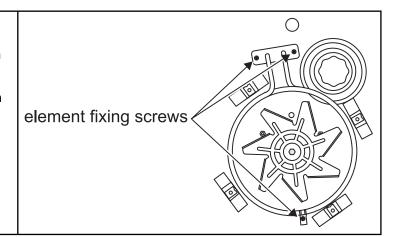


#### 22. To Remove an Oven fan Element

Remove the oven inner back as detailed in Section 20.

Remove the screws that secure the element within the oven and lift the element away carefully.

Disconnect the leads noting the colors and connection positions and connect to the replacement element and re-assemble parts in reverse order.



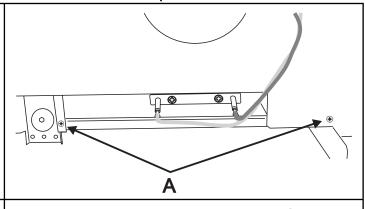
Disconnect from electricity before servicing. Check appliance is safe when you have finished.

#### 23 . To Remove the Left Hand Multifunction Oven Bottom and Top Elements

#### **Bottom Element**

Pull the range forward to access the rear of the range, see the section 'How To Move the Range for Servicing'. Remove the screws that secure the right hand (when viewed from the rear) cover and lift it clear.

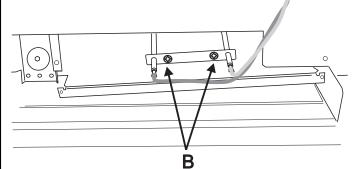
Remove the 2 screws 'A' and allow the plate to drop down.



Remove the 2 screws B, holding the element to the bottom sheet.

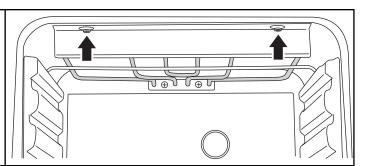
Disconnect the leads, noting the colors and connection positions.

Withdraw bottom element. Fit the new element and re-assemble parts in reverse order.



#### **Top Element**

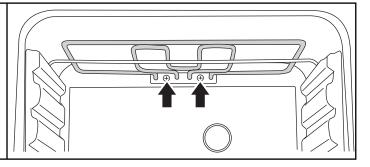
Open the left hand oven door and undo the screws that secure the heat shield and remove the shield.



Remove the top element bracket screws and withdraw element.

Disconnect the leads, noting the colors and connection positions.

Fit the new element and re-assemble parts in reverse order. Check that the oven operates satisfactorily.



Disconnect from electricity before servicing. Check appliance is safe when you have finished.

## **Technical Data**

INSTALLER: Please leave these instructions with the User.

DATA BADGE LOCATION: Under the Main oven. Remove the plinth by pulling forward (it is held in place by magnetic catches) and pull forward on the sheet metal tag under the center of the oven to swing out the badge plate.

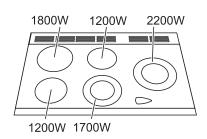
#### **Dimensions**

Overall height (splash not fitted)	minimum 35 3/8" (89.8 cm)	maximum 36 7/16" (92.5 cm)
Overall width	35 1/2" (90cm) See 'Positioning	g the Range'
Overall depth with spacer	28 3/4" (73cm)	
Space for fixing	See 'Positioning the Range'	
Minimum space above cooktop	30" (76cm)	

#### Connections

**Electric:** 208 - 240 V 60 Hz (120volt oven lights / 120volt neons)

#### Ratings



Ovens	Left hand Multifunction Oven	Right hand Fan Oven
Fan element	2500W	2500W
Top element	1200W	
Browning Element	1150W	
Bottom element	1000W	

Broiler 2300W
---------------

Maximum total electrical load at 240V 15500W (appro

15500W (approximate total including oven lights, oven fan etc.)

Recommended power cord rating 50 ampere in line with Nation Electrical code ANSI/NFPA 70

Total current draw approximately 64.6A

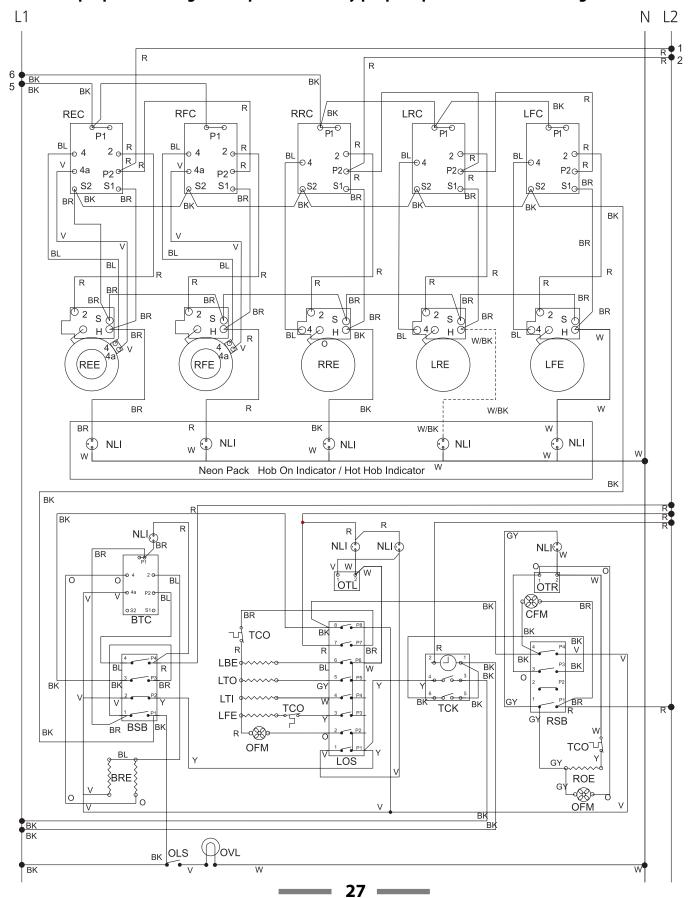
Schematic diagram of the Range
Caution: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

#### AGA Legacy 36 Inch Circuit Key

Code	Description	Code	Color
REC	Right hand end cooktop element controller	BK	Black
RFC	Right front cooktop element controller	BL	Blue
RRC	Right rear cooktop element controller	BR	Brown
LFC	Left front cooktop element controller	GY	Grey
LRC	Left rear cooktop element controller	0	Orange
REE	Right hand end cooktop element - 2200W	R	Red
RFE	Right front cooktop element - 1700W	V	Violet
RRE	Right rear cooktop element - 1200W	W	White
LFE	Left front cooktop element - 1200W	W/BK	White & Black
LRE	Left rear cooktop element - 1800 W	Υ	Yellow
BRE	Broiler Elements	_	
BSB	Broiler Switch Block		
BTC	Broiler Temperature Control	_	
TCO	Temperature Cut Out		
OFM	Oven Fan Motor		
OLS	Oven Light Switch	_	
OVL	Oven Light 120 Volts		
NLI	Neon Light	-	
INLI	incon Light	-	
L2	L2 Supply (Red)		
N	Neutral Supply (White)		
L1	L1 Supply (BlacK)		
OTL	Oven Temperature Control Left		
LBE	Left Oven Bottom Element		
LTO	Left Oven Top Element		
LTI	Left Oven Top Inner Element		
LFE	Left Oven Fan Element		
LOS	Left Oven Switch Block		
TCV	Over Control Clash	_	
TCK	Oven Control Clock	$\dashv$	
CFM	Cooling Fan Motor	4	
OTR	Oven Temperature Control Right	4	
RSB	Right Oven Switch Block	$\dashv$	
ROE	Right Oven Fan element		

## Schematic diagram of the Range

Caution: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.





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