

Service Instruction Nº CE574

Issue: 4 Date: 7/17

WESTINGHOUSE

# ELECTRIC & DUAL FUEL UPRIGHT & UNDERBENCH 90cm COOKERS

CONTENTS	PAGE Nº
CONTENTS	2
CONTROL PANELS	2
FAULT CODES KRONOS 2	Refer CEB060
FAULT CODES KITE	4
DEMO/DEMONSTRATION MODE	5
TEMPERATURE COMPLAINTS	6
MEASURING THE TEMPERATURE SENSOR	6
FAN MOTORS	7 - 8
FAN ELEMENTS	8
CONTROL PANEL REMOVAL	9
HOB REMOVAL	10 - 11
IGNITION BOX	11
CLEAN HEAT ELEMENT	12
INSTALLATION OF THE APPLIANCE	13 - 19
WIRING REQUIREMENTS	20
INSTALLING THE GAS COOKER	21
LPG CONVERSION	22
TESTING THE OPERATION OF THE GAS COOKER	23
CIRCUIT DIAGRAMS	24 - 25

# **Control Panels**

### WFE912S - 3 Button Clock



WFE914S - 3 Button Touch Controlled Clock



# WFE916S - Kronos 2 Controller



### WFE946S - Kite Controller



# WFE946S & WVE916S - Kronos 2 Controller



# Fault Codes - Kite

### WFE946S

Fault Code	Comment	Fix
EO	Wrong configuration for power board HOC2010.	<ol> <li>Disconnect the appliance from the mains for 30 sec. If alarm still occurs</li> </ol>
		2. Replace user interface.
		<ol><li>If 1 &amp; 2 fail replace the power board.</li></ol>
E1	Wrong configuration on User interface	<ol> <li>Disconnect the appliance from the mains for 30 sec. If alarm still occurs</li> <li>Replace user interface.</li> </ol>
E8	Communication/ wiring power board to User interface interrupted. Centre wire of RAST2.5 plug defect.	<ol> <li>Check wiring between power board and the user interface (Centre wire) or short circuit in RASt2.5 plug, if necessary replace.</li> <li>If 1 fails, replace user interface. If only the left zones show the alarm on 68cm hobs with 2 user interfaces replace left user interface.</li> <li>If 1 &amp; 2 fail, replace the power board.</li> </ol>
E9	User interface touch system defect.	<ol> <li>Disconnect the appliance from the mains for 30 sec. if alarm still occurs after 1 min of operation replace user interface.</li> </ol>

### **Demo/Demonstration Mode**

For display purposes, the appliance has a demonstration mode to enable demonstration of oven functionality without consuming power. In demonstration mode, the display, the light and the fans only are operational.

### <u>OVEN</u>

WFE916S WFE946S & WVE916S

When the appliance is in demonstration mode and the display is switched on, the clock symbol will be on.

To activate/deactivate demo mode

- 1. Ensure the oven is off by pressing the On/Off button.
- 2. Press and hold the On/Off button until the display turns On then Off and a single 'beep' is heard. Immediately press and hold the "Timer" and "-" buttons simultaneously, until a triple beep sounds to confirm the operation.

# <u>HOB</u>

### **WFE946S**

- 1. Press and hold On/Off until the display lights and returns to standby mode, 2 x beeps will confirm.
- 2. Press and hold the ceramic glass 35mm to the right of the right rear indicator, 1 x beep will confirm correct location.



- 3. 'd' will display for non demo mode 'do' will display when demo mode is activated.
- 4. To activate/de-activate demo mode press the '+' button.
- 5. To view the software version press X 'S' will display, press '+' to view version.
- 6. To view the last 5 fault codes pressX 'E' will display press '+' to see any previous faults

### Temperature Complaints.

- Check the fan baffle is screwed securely to the oven liner as hot air can be blown on to the sensor causing lower oven temperatures.
- Check the door seal is fitted correctly, not perished or broken and the door is closing properly.
- Check the oven sensor protrudes 40mm into the oven cavity, more can result in lower temperatures. NOTE: 1 – 2mm will result in approximately 1º difference.



#### 6.2 Measuring the temperature sensor

If a failure at the temperature sensor is assumed, the resistance can be checked by means of an ohmmeter.

The resistance of the temperature sensor should be 500 – 600 ohms at room temperature. Make sure to measure the insulation resistance between the metallic housing and each connection g a terminal.

The resistance should be higher than 2 MOhms.

ature.



Page 6 CE574-4

# Fan and Motor.

Twin fans Left and Right handed.



The right hand fan is clearly marked and has 2 flats across the centre hole. A brass right handed nut is used to lock the fan to the motor shaft.





The left hand fan has 1 flat across the centre hole. A chrome left handed nut is used to lock the fan to the motor shaft.





Page 7 CE574-4

# Fan and Motors.

Part numbers are located on the side.



Right hand side motor has a brass spacer/stop, different cast alloy body and as per the fan, 2 x flats on the motor shaft.



# Fan Elements.

2 x 1200w elements. These must not be replaced by a standard 2200w element. Part number and element wattage is marked on the mounting plate.



# **Control Panel Removal.**

- 1. Hold the panel and apply some light force away from the oven.
- 2. Insert a flat bladed screwdriver into the slots on the underside of the panel This will disengage the clips.
- 3. Continue to apply the light force and repeat for the remaining 3 clips.



# <u>Hob Removal</u>

1. Remove screws from burner cups.



2. Remove 2 x screws from the rear of the hob. **NOTE:** Same method used on electric.



3. Gently slide the hob back approximately 20mm to disengage the front clips. **NOTE:** Same method used on electric.



Underside of hob showing clip



4. Lift the front of the hob to access the screws which hold the hob to the manifold.



Once the hob is removed access to thermocouples, spark plugs, ignition box etc can be had.



# Ignition Box.

The ignition box is clipped into 2 slots. A flat bladed screwdriver can be used to gently lever the end of the box out of the slots.



# Clean Heat Element.

- 1. The back panel should be removed.
- 2. Remove enough screws from the rear lower brace to lower one side down as shown below.
- 3. Remove the 3 screws from the clean heat cover.
- 4. Slide the clean heat element out with or without the clean heat element cover.



When re-fitting the element ensure it is located correctly within the clean heat cover.

- Through the slots at the front.
- Located within the hooks at the back.



#### INSTALLING SPLASHBACK (MODELS WITH HOB ONLY)



Fit splashback to rear of hob with three screws provided.

#### CABINET REQUIREMENTS

Models WFE912, WFE914, WFE916, & WFE946 are designed to fit into a 900mm wide gap between standard kitchen cabinets. The appliance integrates with the kitchen cabinets by matching the height, depth and kick panel. The cooker may also be installed at the end of a line of benches or with a free space either side. In addition, a slot-in type installation is catered for allowing a continuous cabinetry kick panel to be used. Model WVE916 is designed to be built into cabinetry either below a benchtop or into a vertical cabinet.

# MARNING

- The cooker must be installed and serviced only by an authorised person
- A Certificate of Compliance MUST be supplied to be kept by the customer
- The packing materials must be removed before you install the cooker
- The surrounding kitchen cabinets must be able to withstand 85°C. Electrolux WILL NOT accept responsibility for damage caused by installation into kitchen cabinets which cannot withstand 85°C.
- The pipes used for installation MUST have sufficient loops so the cooker can be moved for service (gas models).
- The vents, openings and air spaces MUST NOT be blocked.
- The anti-tilt brackets and chain or front stops MUST be installed to avoid accidental tipping (freestanding and slot-in models)
- You MUST NOT lift or pull the cooker by the door handle
- The cooker MUST be checked every five years

#### GAS MODEL CLEARANCE REQUIREMENTS MODELS WFE912, WFE914 & WFE946

- Ensure the appliance is installed in accordance with clauses 6.2.5 and 6.10.1.1 of AS/NZS 5601.1 or clauses 6.9.1 and 6.9.5 of AS/NZS 5601.2 with regard to clearances to combustible surfaces and materials, and clearances to rangehoods and exhaust fans, to ensure clearances of 200mm from burners to vertical combustible surfaces observe the minimum dimension of 100mm from each side of the cooker to combustible surfaces.
- Clearances to combustible surfaces may be reduced if combustible surfaces are protected in accordance with clause 6.10.1.2 of AS/NZS 5601.1, or clause 6.9.2 of AS/NZS 5601.2.
- When setting the cooker height, ensure the top of the cooker is at least 10mm higher than the level of the benchtop.



#### FREESTANDING INSTALLATION



is no clearance requirement to adjacent side cabinets. To ensure cooker stability, the anti-tilt brackets must be installed, and the end of chain attached to the appliance must be placed onto hook attached to the rear wall.



#### INSTALLATION OF ANTI-TILT BRACKETS AND HOOK

The anti-tilt brackets must be secured to the floor at • rear of cavity with an appropriate fastener according to dimensions in diagram



- The hook is to be secured to the back wall in the ۲ location shown above with an appropriate fastener capable of withstanding a 10kg load Connect services to the appliance prior to placing
- into cavity
- To locate appliance, slide into cavity and ensuring the rear left and right foot of appliance are captured by the anti-tilt brackets Before the appliance is fully pushed into position, place the chain attached to the rear of appliance
- onto the wall hook



Chain installed

#### SLOT-IN INSTALLATION



#### SLOT IN CONVERSION

SLOT IN CONVERSION To convert the free standing appliance to a slot in installation the kick panel provided on the appliance is removed and the appliance is mounted on a plinth. This enables a continuous cupboard kick board to be installed, giving a more integrated appearance. There is no clearance requirement between oven and adjacent side cabinets.



#### TO REMOVE THE APPLIANCE KICK PANEL

- Remove all loose parts ie. Burner crowns & caps, . trivets, oven shelves
- Carefully lay down the appliance onto one side onto foam packaging and remove the screws as shown from each corner bracket



#### INSTALLATION OF ANTI-TILT BRACKETS AND STOPS

- The brackets are to be secured to the back wall with appropriate fasteners
- Two stops are to be screwed to the plinth in locations as shown (stops provided). The stops locate into slots in the base of the appliance to prevent the product from being pulled forward when installed.
- Measurements from the rear wall are to be adjusted if there are tiles etc. that come between the appliance and the wall.
- Once services are connected, product can be lifted onto the plinth and pushed back carefully, ensuring the appliance engages into both brackets at the rear and the front stops.
- If the product requires removal for service, it must be lifted at the front approximately 5mm to clear the front stops prior to being pulled forward.



Front stops

#### INSTALLATION SEQUENCE FOR FREESTANDING or slot in installation

- Check that the required services are correctly positioned (see electrical & gas services requirements)
- Ensure cabinetry has the correct details
- Install anti-tilt brackets and chain hook or front stops as appropriate
- Remove all packaging from cooker, remove all loose parts ie. Trivets, burner crowns, oven shelves.
   Fit splash back to cooker
- Slide cooker into position to check fitment to anti-tilt bracket. For freestanding installation, check the height and level of the cooker. Adjust cooker feet as required.
- Connect gas and electrical services
- Place into position
- Complete Certificate of Compliance.

# **BUILT-IN INSTALLATION**

### CABINET CONSTRUCTION FOR BUILT IN OVEN

For the best integration within a kitchen, install this appliance in a cupboard that gives a flush fit with the surrounding cupboard fronts. A recess of 20mm is ideal.

NOTE: Your appliance must be mounted on a flat surface for the full width and depth of the product.



**Oven Dimensions** 



#### UNDERBENCH INSTALLATION

Your underbench oven looks best when the control panel is directly under the benchtop. An upper infill panel may be added if the cooktop placed above the benchtop is too deep. \*Refer to cooktop installation instructions for required clearance between cooktop and oven.

#### VERTICAL CABINET INSTALLATION

The oven can be built into a vertical cabinet in the same manner as an underbench. The required cavity dimensions are the same and the product is secured to the cabinet in the same way.



NOTE: If a power point is fitted it must be accessible with the appliance installed.

## WIRING REQUIREMENTS

The cooker MUST be installed in compliance with:

- wiring connections in AS/NZS 3000 Wiring Rules local regulations, municipal building codes and other statutory regulations
- For New Zealand Only: The cooking range must be connected to the supply by a supply cord fitted with the appropriately rated plug that is compatible with the socket-outlet fitted to the final sub-circuit in the fixed wiring that is intended to supply this cooking range.
- Supply cord size required WFE912/WFE914/WFE916/WVE916 1.5mm<sup>2</sup> WFE946 6.0mm<sup>2</sup>

Data plate	gives information about rating
	is located behind the bottom of the oven door
Circuit diagram	is located on the back panel of the appliance

- A functional switch MUST be provided near the appliance in an accessible position (AS/NZS 3000 - Clause 4.7.1).
- Wiring MUST be protected against mechanical failure (AS/NZS 3000 - Clause 3.9).
- The cooker requires a means of all pole disconnection incorporated into the fixed wiring. This MUST have a disconnection gap of 3mm. The cooker MUST be properly earthed.
- NOTE : When connections are made to a multi-phase 230/240V supply, the bridge piece MUST be removed from between the active connections.

# **TIPS & INFORMATION**

BEFORE YOU COOK IN YOUR NEW OVEN IT IS IMPORTANT THAT THE PROTECTIVE OILS USED IN THE MANUFACTURE OF THE PRODUCT BE REMOVED.

- Make sure that the room is well ventilated (to allow smoke to escape).
- Run the grill on high for 30 minutes without grill dish.
- Then run the oven on 220°C for 1 hour.

#### CONNECTING TO SERVICES AND COMMISSIONING

This appliance must be installed by an authorised person, according to all codes and regulations of:

- Electrical supply authorities.
- Building regulations
- Local government and council authorities. AS/NZS5601.1(particular attention to 6.10.1 and figure 6.3, and clause 6.10.1.11).
- AS/NZS 3000 (particular attention to clause 4.3.11 and clause 3.9).

#### HARD WIRING DETAIL

- Remove terminal cover plate from rear panel of 1. appliance.
- Fit wires through hole in cover plate and make 2. connections to terminals.
- 3. Engage wires into plastic clip. Secure plastic clip with two long silver screws (supplied in separate bag).
- Replace cover plate onto rear panel. 4



**ELECTRICAL CONNECTION LOCATION - MODEL WVE916** 



### INSTALLING THE GAS COOKER

#### MODELS WFE912, WFE914, WFE916 AND WFE946



#### **GAS PRESSURES**

The following table shows the supply and operating pressures for various gases.

GAS TYPE	NATURAL GAS	UNIVERSAL LPG
Supply pressure at inlet to appliance regulator (if fitted)	1.13 (kPa) Minimum	2.75* (kPa)
Operating pressure at appliance test point	1.00 (kPa)	2.75 (kPa)

\*If the regulator is placed upstream of the cooker inlet, as is normal for cookers operating on LPG, then the supply pressure and operating pressure are the same.

The following table shows the injector sizes for each burner.

INJECTOR ORIFICE	NATURAL GAS	UNIVERSAL LPG
Low heat burner	1.00mm	0.55mm
Medium heat burner	1.35mm	0.70mm
High heat burner	1.60mm	0.90mm
Intense heat wok burner	1.75mm	1.00mm

#### CHECKING PIPING SIZE

To work out a suitable pipe size for connection use: The information in this table

GAS TYPE	NATURAL GAS	UNIVERSAL LPG
WFE912 & WFE914	49.6 MJ/h	40.9 MJ/h
WFE916	58.6 MJ/h	47.4 MJ/h

Information about the length of run, number of elbows, tees and bends, the available service pressure and the supply requirements.

NOTE: AS/NZS5601.1 will help you with this matter.

#### **GAS CONNECTION**

Read these points before connecting to the gas supply:

- The appliance is preset for natural gas use, if LPG is to be used see Conversion to LPG section.
- Gas installation must be made in accordance with AS5601, the local gas fitting regulations, municipal codes and other statutory regulations.
- The gas connection point is a ½" BSP external thread located at the rear of the appliance as shown.
- A regulator is supplied which must be fitted to the appliance. Ensure that when fitted the pressure test point of regulator is accessible.
- The regulator is to be fitted to the appliance connection point, then fit hard piping from the regulator to the consumer hard piping. Ensure the installation allows the withdrawal of the appliance.

# LPG CONVERSION MODELS WFE912, WFE914 & WFE916

This appliance is supplied set up to for Natural Gas usage. A conversion kit is included with the product for Universal LPG usage. The conversion kit contains 6 injectors and 1 LPG sticker.

Please follow the procedure below if a conversion to suit UNIVERSAL LPG is required.

- Remove the hotplate trivets, burner caps and burner crowns to access the hotplate injectors. Replace the factory fitted injectors with the appropriate injectors, as supplied. Refer to injector orifice table for injector sizes. The injector size is stamped on the side of the injector.
- Unscrew the hex nut from the regulator. The hex nut, brass washer and nylon insert will disengage as an assembly.
- 3. Unclip the nylon insert from the nut assembly by rotating the insert 1/4 turn, and pulling it free.
- 4. Turn over the insert, and clip back into position.
- Refit the hex nut assembly to the regulator ensuring that it is fully screwed down. The regulator is now set for connection to LPG.
- Turn on the gas supply and at each new connection check for leaks using soapy water: each hotplate valve should be turned on, one at a time, and the injector hole blanked off for several seconds.
- The operation of the regulator can be confirmed by connecting a manometer to the pressure test point located on the side of the regulator body adjacent to the outlet.

With the appliance operating check the outlet pressure

- when all burners of the appliance are operating at maximum,
- when the smallest burner of the appliance is operating at minimum.

Under these conditions the outlet pressure should not vary from the nominal outlet pressure of 2.60kPa by more than  $\pm 0.52$ kPa.

- If the regulator appears to not be performing satisfactorily then check the following points.
  - If the outlet pressure is consistently too low then the inlet pressure may be too low and adjustment of an upstream regulator may be needed, or an upstream regulator or valve with insufficient flow capacity may be present in the gas supply line. If this is suspected then it may be necessary to repeat the checks whilst measuring both the inlet and outlet pressure to determine if the inlet pressure is in the range 2.75 – 7.00kPa.
  - Check that the insert has been fitted correctly.
  - Check that the turret screw is fully screwed down.
  - Check that the regulator has been fitted to the gas supply line in the correct orientation, the arrow on the base of the body indicates the direction of gas flow.

Once these checks have been completed, if the regulator still fails to perform in a satisfactory manner it should be replaced.

- One by one, turn the knobs to minimum and screw in the bypass screw (accessible when the knob is removed) until a small stable flame results. Turn the knob to maximum and then back to minimum to ensure that the correct minimum flame is maintained.
- Attach the LPG sticker to the cooker, near the gas supply inlet. Cover the Natural Gas label that is factory fitted.



# TESTING THE OPERATION OF THE GAS COOKER

NOTE: You MUST test the cooker after installation, before you hand it over to the customer. You MUST have a manometer and a connecting tube.

#### CHECKING GAS SUPPLY

- 1. Check the manometer zero point is correct.
- 2. Connect the manometer to the cooker pressure test
- point. This is located on the regulator or LPG inlet fitting.
   Turn on the gas supply and the electricity and try to ignite the gas.

NOTE: It will take additional time to light the gas for the first time as air needs to be purged from the pipes.

4. Check the operating pressure for the particular gas type.

#### CHECKING THE FUNCTION OF THE REGULATOR

With the appliance operating check the outlet pressure:

- when all burners of the appliance are operating at maximum,
- when the smallest burner of the appliance is operating at minimum.

Under these conditions the outlet pressure should not vary from the nominal outlet pressure by more than  $\pm 20\%$  of the nominal outlet pressure (ie  $\pm 0.20$ kPa for Natural Gas).

If the regulator appears to not be performing satisfactorily then check the following points.

- If the outlet pressure is consistently too low then the inlet pressure may be too low and adjustment of an upstream regulator may be needed, or an upstream regulator or valve with insufficient flow capacity may be present in the gas supply line. If this is suspected then it may be necessary to repeat the checks whilst measuring both the inlet and outlet pressure to determine if the inlet pressure is in the range 1.13 – 5kPa.
- Check that the regulator has been fitted to the gas supply line in the correct orientation, the arrow on the base of the body indicates the direction of gas flow.

Once these checks have been completed, if the regulator still fails to perform in a satisfactory manner it should be replaced.

#### TESTING THE COOKER FEATURES

 Observe the flame appearance on each burner. If it is much smaller or larger than expected, then the injector size needs checking.

NOTE: When flame is unsatisfactory, then refer to the Electrolux Technical Publications and correct the fault, if possible.

When maximum flame appearance is correct, then check the turn-down setting on each burner. If the settings appear to be incorrect, proceed as follows:

- Adjust the bypass screw mounted on the body of each hotplate control cock. This is accessible when the control knob and the control panel are removed.
- 2. Check the ignition on all burners both separately and in combination.
- Check the operation of the electrical components, if applicable.
- If you are satisfied that the cooker is operating correctly, then turn it off and show the customer how to use it. Make sure you ask the customer to operate the clock and controls.

NOTE: If the cooker cannot be adjusted to perform correctly, then inform the customer of the problem and put a warning notice on the cooker. If the problem is dangerous, then disconnect the cooker. If there is a fault, then the customer should be advised to contact the manufacturer's local service organisation or the retailer.



### WARNING

IT IS ILLEGAL FOR PERSONS OTHER THAN LICENSED ELECTRICAL MECHANICS OR PERSONS AUTHORISED BY LEGISLATION TO WORK ON THE FIXED WIRING OF ANY ELECTRICAL INSTALLATION. PENALTIES FOR CONVICTION ARE SEVERE.

### **IMPORTANT SAFETY NOTICE**

This diagram has been prepared for use by electrically qualified service technicians. Electrolux cannot be held responsible for the interpretation of its service publications nor for any injury or damage that may occur in connection with their use.



### WARNING

IT IS ILLEGAL FOR PERSONS OTHER THAN LICENSED ELECTRICAL MECHANICS OR PERSONS AUTHORISED BY LEGISLATION TO WORK ON THE FIXED WIRING OF ANY ELECTRICAL INSTALLATION. PENALTIES FOR CONVICTION ARE SEVERE.

### **IMPORTANT SAFETY NOTICE**

This diagram has been prepared for use by electrically qualified service technicians. Electrolux cannot be held responsible for the interpretation of its service publications nor for any injury or damage that may occur in connection with their use.