

# turbofan<sup>®</sup>

## Turbofan Convection Oven

30 Series

### Installation Manual

E32D4, E32D5

Electric Convection Oven

Digital Control



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## General information

The drawings and diagrams in this manual are representative only and not to scale. They supplement the written instructions and specifications that they refer to.

## Copyright

### ❗ IMPORTANT

The reproduction or copying of any part of this manual by any means whatsoever is strictly forbidden unless authorised previously in writing by Moffat Limited.

## Warranty requirements

### ❗ IMPORTANT

Installations must be carried out by a certified or licensed service person only. Failure to comply will void any written or implied warranty.

### ❗ IMPORTANT

Unauthorised alterations to the oven may void warranties and approvals.

## Intended use and restrictions

### ❗ IMPORTANT

This appliance is designed and engineered for commercial use only. It is not intended to be used in residential, outdoor, or marine environments.

- This oven must not be used by minors or adults with limited physical, sensory, or mental abilities.
- This oven must only be used by operators who are adequately trained in the purpose, limitations, and hazards of its operation. To avoid the risk of accidents or damage, operators should be regularly trained.

**Product disposal**



This symbol on the oven indicates that this oven should not be treated as domestic or regular commercial waste, but must be correctly disposed of in order to prevent any negative consequences for the environment and human health. For further information on the recycling of this oven, contact your local city office or your waste disposal service.

- ☑ The oven is built with common electrical, electromechanical, and electronic parts. No batteries are used.
- ☑ The owner and operator are responsible for the proper and safe disposal of the oven.

**Safety information**

Read the safety messages in this manual and follow the instructions carefully. Review them frequently.

Safety messages cannot cover every potential cause of injury or equipment damage but can highlight common causes of hazards. Read and understand all instructions in this manual prior to installing or servicing the oven and seek advice before operating the oven in a manner other than that described in this manual. Consult your authorised service technician before performing maintenance.

- Ensure that you and all operators of this appliance understand every safety message.
- Know and observe all safety rules that may apply to your work situation and your work site.
- Replace the user manuals and safety labels immediately if they are missing or damaged.

**Recognize safety information**



Safety alert symbol.

When you see this symbol in the manual or on the oven, pay special attention to the instructions.



Read the instructions before using the oven.



Risk of electric shock.



Risk of burns—hot surface.



Equipotential bonding terminal—must be connected to equipotential bonding system.



Risk of burns—hot liquid products above height level.

This manual uses the following safety symbols to indicate the level of caution required when using the oven.

**⚠ DANGER**

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.

**⚠ WARNING**

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.

**⚠ CAUTION**

Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

**NOTICE**

Indicates information considered important, but not hazard-related (for example, messages relating to property damage).

**General safety**

**⚠ WARNING**

Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death. Read the installation, operation, and maintenance instructions thoroughly before installing or servicing this oven.

**⚠ DANGER**

Fire hazard. Do not use gasoline or other flammable substances in the vicinity of this oven. Do not spray aerosols in the vicinity of this oven while it is in operation.

**⚠ WARNING**

Fire hazard. The oven operator shall take great care to use the oven safely and guard against risk of fire. The oven must not be left unattended during use.

**NOTICE**

The oven shall be regularly inspected by a competent service person to ensure that it is in safe and correct order for operation.

## Warranty

Moffat warrants all equipment supplied by Moffat against defects in material and workmanship for a period of 12 months from the date of purchase or 18 months from the date of manufacture, whichever comes first.

Visit [www.moffat.com](http://www.moffat.com) for warranty terms and conditions or contact our Customer Care team.

# SPECIFICATIONS

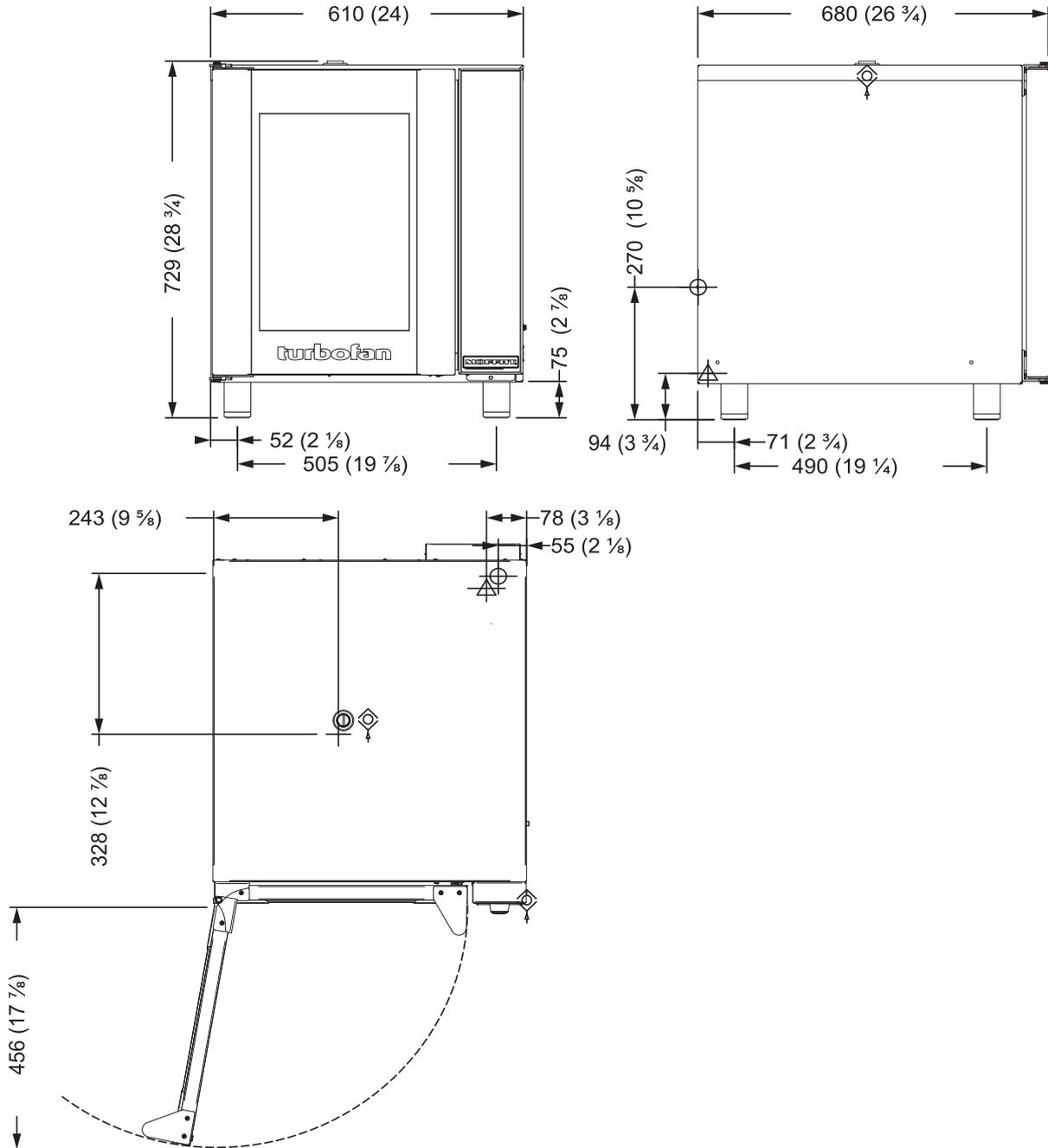
## Dimensions

☑ All dimensions are in mm (inches).

⊕ Air vent

⚡ Electrical supply entry point

⊕ Water supply entry point



## Product information

	E32D4	E32D5
REGION	NOT FOR USA / CANADA / MEXICO	FOR USA / CANADA / MEXICO
CAPACITY	4 shelves	5 shelves
TRAY CAPACITY	460 x 660 mm ( 18 x 26 inches) full-size sheet pan capacity 600 x 400 tray capacity US full pan	460 x 660 mm ( 18 x 26 inches) full-size sheet pan capacity 600 x 400 tray capacity US full pan
TRAY SPACING	110 mm (4 3/8 inches)	85 mm (3 1/3 inches)
NET WEIGHT	98 kg	100 kg

## Supply requirements

### Electrical supply

	E32D4	E32D5
REGION	NOT FOR USA / CANADA / MEXICO	FOR USA / CANADA / MEXICO
ELECTRICAL SUPPLY SPECIFICATIONS	208-220 V, 50/60 Hz, 6.5 kW 230 -240V, 50/60 Hz, 6.5 kW 380 V, 50 Hz, 3P+N+E, 6.5 kW	208 V, 50/60 Hz, 6.5 kW 220-240 V, 50/60 Hz, 6.5 kW

### Water supply

MAXIMUM WATER INLET PRESSURE	80 psi (550 kPa)
CONNECTION SIZE	3/4 inch BSP male (with 3/4 inch GHT adaptor included)
WATER QUALITY	
HARDNESS	60-90 ppm
PH	Greater than 7.5
CHLORIDES	Less than 30 mm

## Clearances

Position the oven with the following minimum clearances:

TOP	200 mm (8 inches)
LEFT	50 mm (2 inches)*
RIGHT	75 mm (3 inches)*†
REAR	50 mm (2 inches)
FRONT (RECOMMENDED)	600 mm (23 inches)*

\* Door-side clearance. If the oven is fitted with a right-hand side door (RMD), swap the left- and right-hand side clearances.

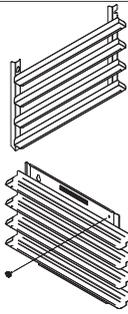
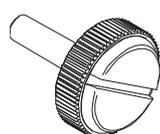
† Fixed installations require at least 500 mm (20 inches) clearance on right-hand side of the oven for service access.

## Accessories

### Main accessories

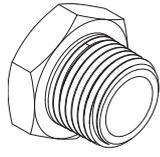
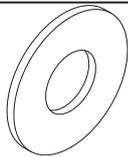
#### Supplied accessories (fitted)

These accessories are supplied fitted with your oven, depending on your oven model and region.

	PART NO.	DESCRIPTION	QUANTITY	REGION
	234658	Side Rack LH 5 Tray	1	FOR USA / CANADA / MEXICO
	234659	Side Rack RH 5 Tray	1	
	234656	Side Rack LH 4 Tray	1	NOT FOR USA / CANADA / MEXICO
	234657	Side Rack RH 4 Tray	1	
	238410	Side Rack LH 4 Tray (400 x 600)	1	
	238411	Side Rack RH 4 Tray (400 x 600)	1	
	235260	Side Rack LH 5 Tray GN	1	
	235263	Side Rack RH 5 Tray GN	1	
	234660	Side Rack LH 3 Tray	1	
	234663	Side Rack RH 3 Tray	1	
	233552	Thumbscrew (for side rack)	1	
-	235262	Fan Baffle for GN Racks (not shown)	1	

#### Supplied accessories (unfitted)

These accessories are supplied unfitted with your oven. See [Assembling the oven on page 12](#).

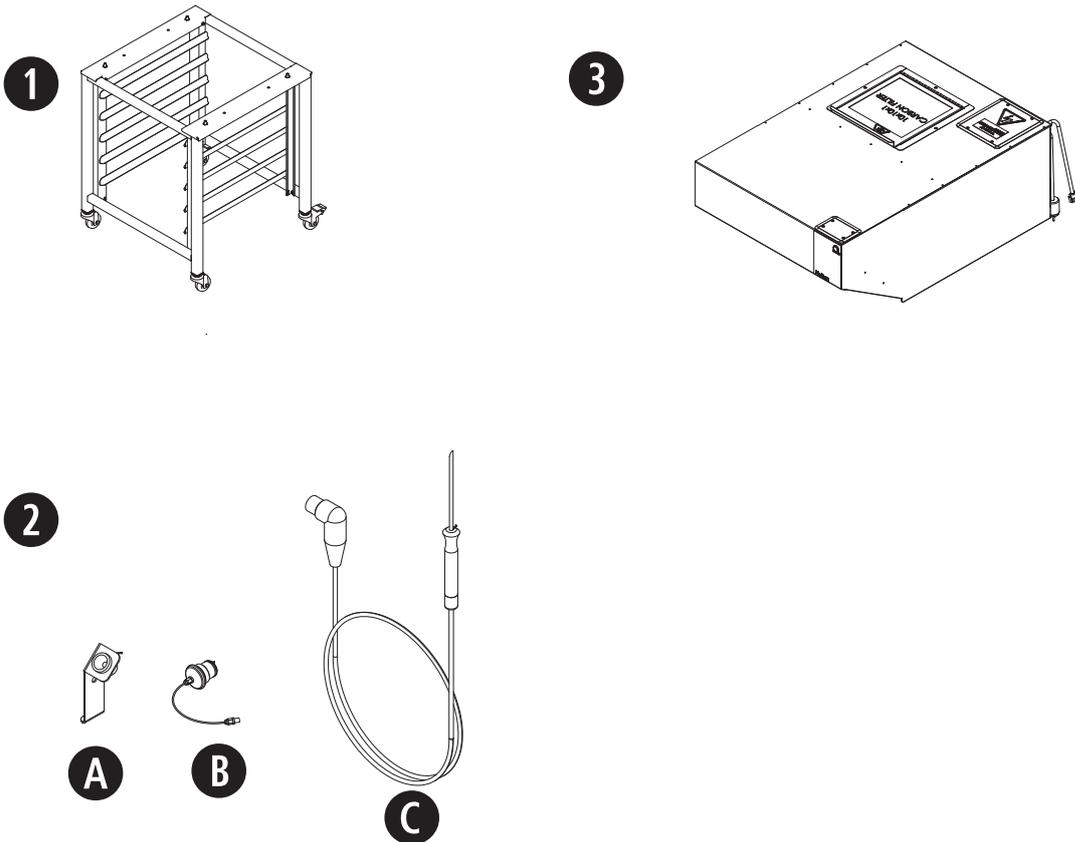
	PART NO.	DESCRIPTION	QUANTITY
	232379	Adjustable Leg 3 inches (76 mm)	4
	025922	3/4 inch GHT Adapter (USA / Canada / Mexico only)	1
	021527	Washer for GHT Adapter (USA / Canada / Mexico only)	1

**Supplied accessories (optional)**

These accessories may be optionally supplied, unfitted, with your oven.

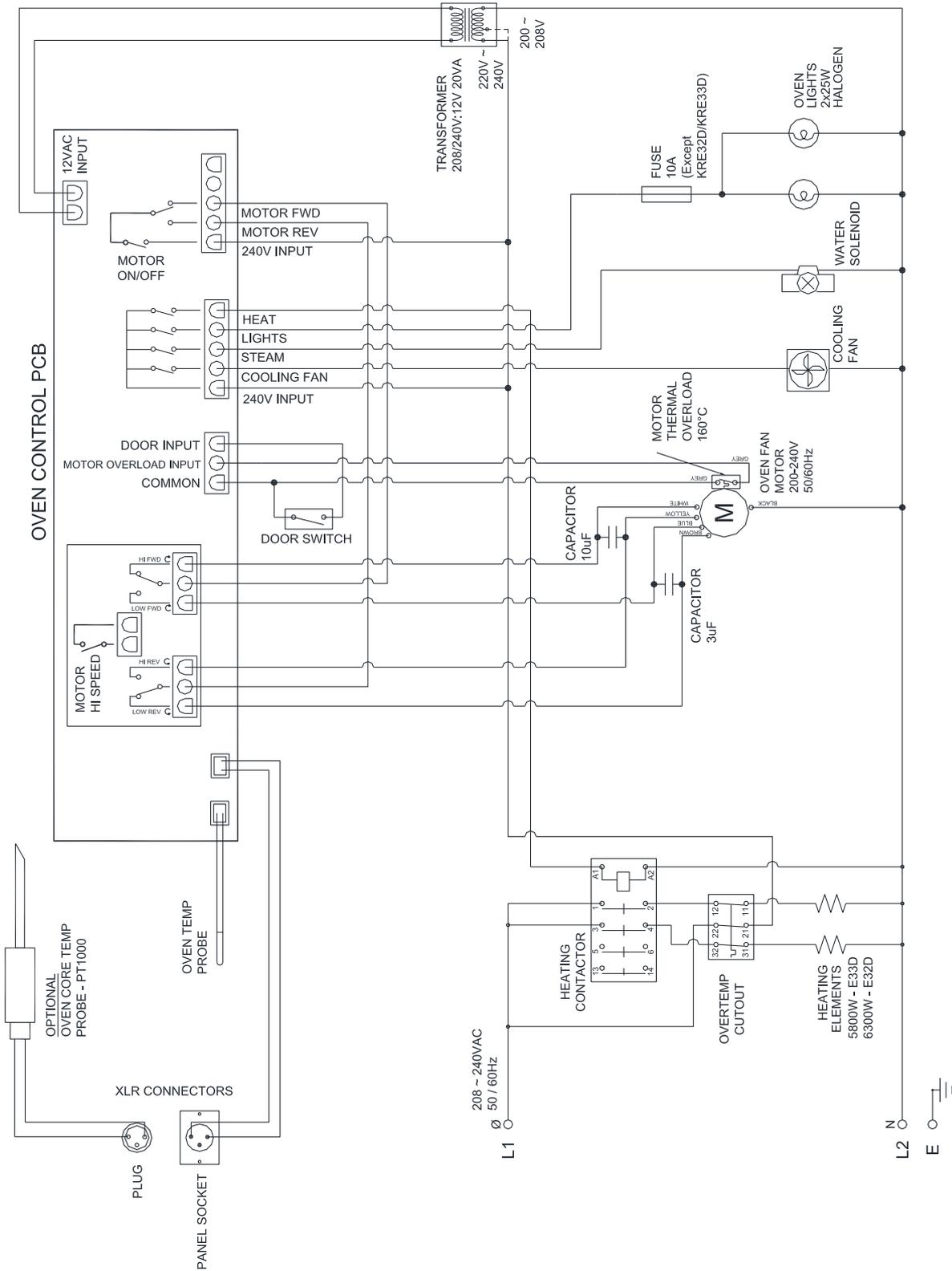
	PART NO.	DESCRIPTION	QUANTITY
	233649	Rack	4 (or 5)

**Accessories (add-on)**

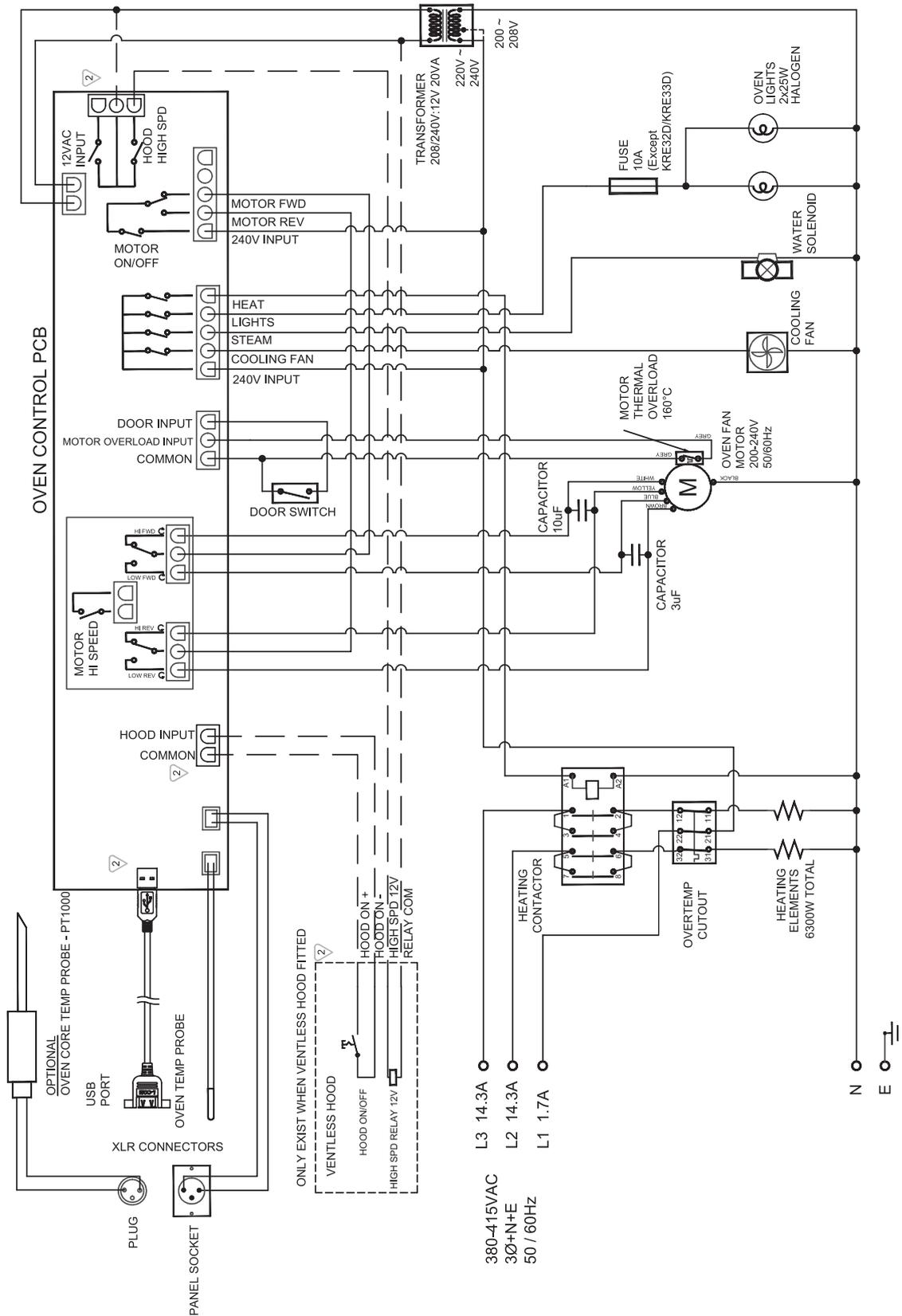


	PART NO.	DESCRIPTION
1	SK32	Stand
2	236060	Core Temperature Probe Kit
3	–	Ventless Hood
<i>Not shown</i>	DSKE32C	Double Stacking kit - Fitted With Castors
<i>Not shown</i>	DSKE32	Double Stacking kit - Fitted With Adjustable Feet

# Electrical schematic 200-240 V



380-415V



# INSTALLATION AND SETUP

Your oven is designed to provide years of satisfactory service, and correct installation is essential for the best performance, efficiency, and trouble-free operation. It is of utmost importance that this oven is installed correctly and that operation is correct before use.

**⚠ WARNING**

Installations must be carried out by qualified service persons only. Failure to install equipment to the relevant codes and the manufacturer's specifications in this manual will void the warranty.

**⚠ WARNING**

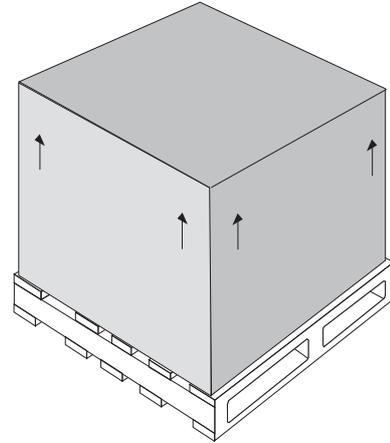
Components that are paint-sealed during manufacture shall only be adjusted by an authorised service technician. They shall not be adjusted by the installer.

**⚠ WARNING**

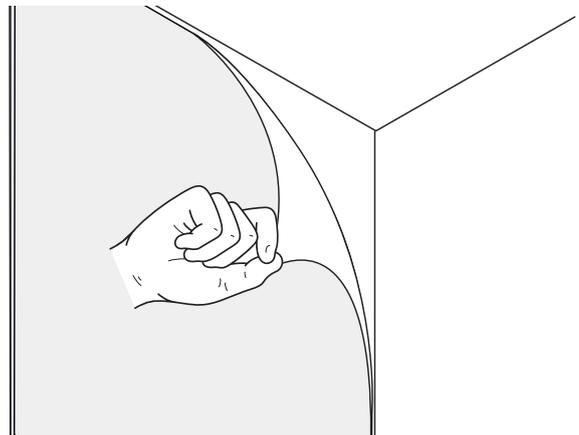
The oven installation must conform to national installation codes and local and national codes for fire safety.

Australia and New Zealand AS/NZS 3000	Wiring Rules
United Kingdom BS 6173 BS 5440 1 & 2 BS 7671	Installation of Catering Appliances. Installation Flueing & Ventilation. Requirements for Electrical Installation.
US and Canada ANSI / NFPA70 CSA C22.2	National Electrical Code. Canadian Electrical Code.

## Unpacking the oven



- Carefully remove all packaging and transit protection from the oven, including all protective plastic coating from the exterior stainless steel panels.
  - ☑ Do not discard the carton and other packaging material until you have inspected the appliance for transit damage and have tested it for proper operation.
- Remove the protective film from the stainless steel panels, taking care not to scratch the surface if using a blade or shim.

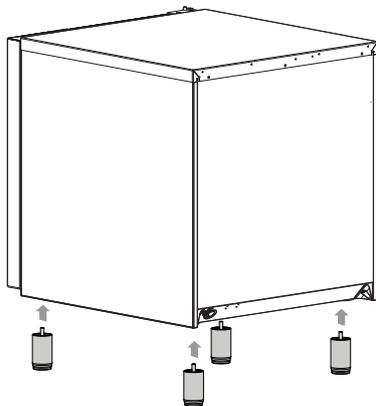


- Check equipment and parts for damage. Report any damage immediately to carrier and distributor.
- Check that the supply specifications on the rating plate are correct for your location and installation requirements.

- Check that the correct accessories have been supplied with the product. See [Accessories on page 7](#).

## Assembling the oven

### Fit the legs



### Positioning the oven

#### ⚠ CAUTION

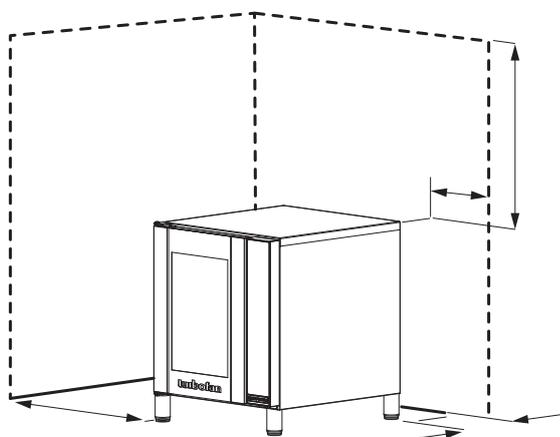
Position the oven so that the control panel and oven cooking area is easily reachable for loading and unloading.

#### NOTICE

Do not place the oven close to a heat source. A minimum distance of 300 mm (12 inches) from the appliance sides and the heat source is required.

#### ⚠ WARNING

Do not block or obstruct the vent at the top of the oven.



## Clearances

Position the oven with the following minimum clearances:

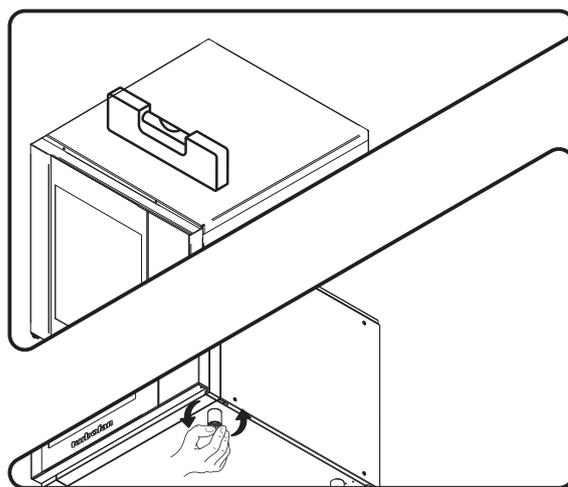
TOP	200 mm (8 inches)
LEFT	50 mm (2 inches)*
RIGHT	75 mm (3 inches)*†
REAR	50 mm (2 inches)
FRONT (RECOMMENDED)	600 mm (23 inches)*

\* Door-side clearance. If the oven is fitted with a right-hand side door (RMD), swap the left- and right-hand side clearances.

† Fixed installations require at least 500 mm (20 inches) clearance on right-hand side of the oven for service access.

## Levelling the oven

Correctly locate the oven into its final operating position and, using a spirit level, adjust the oven feet so that the oven is level and at the correct height.



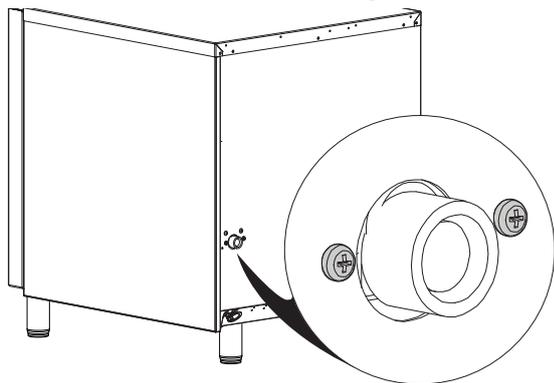
## Connecting the water supply (if required)

To activate steam-assisted cooking or baking for this oven it must be permanently connected to the mains water supply.

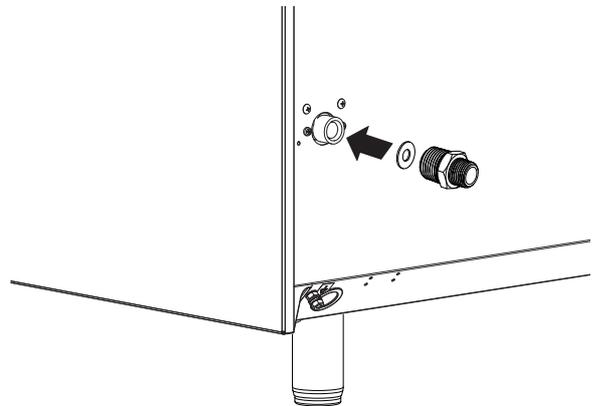
**NOTICE**  
 Water connection shall be installed in accordance with local water regulations in force and the applicable standard or code (for example, PCA in Australia, EN 1717 in UK / IE, and so on).

**NOTICE**  
 The water supply shall meet the requirements for use in Convection Oven systems. See [Supply requirements on page 6](#).

1. Tighten the two screws securing the water connection at the rear of oven.
  - ☑ The securing screws are unfastened during manufacture to prevent damage to the water connection during transit.



2. (USA / Canada / Mexico only) Fit the supplied 3/4 inch GHT adapter and washer to the water inlet.



3. Connect a cold water supply (R 3/4 inch connector) to the water connection on the oven.
4. Turn on the water supply and check for leaks.

## Connecting the electrical supply

### ⚠ WARNING

The oven must be earthed (grounded).

### ⚠ WARNING

If the power supply cord is damaged, it must be replaced by a suitably qualified person in order to avoid a hazard.

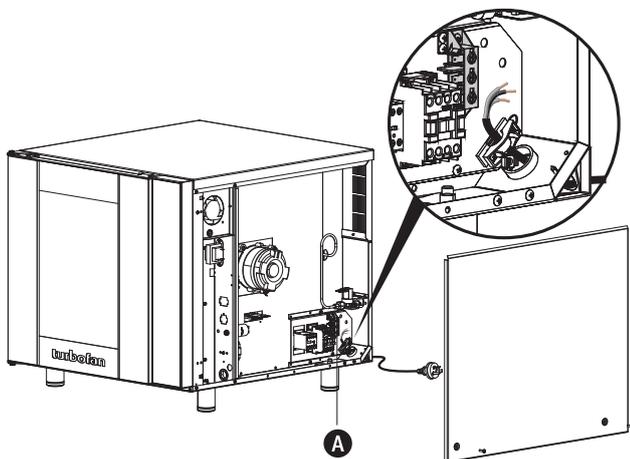
### ⚠ WARNING

An isolation switch must be mounted adjacent to, but not behind the oven and must be readily accessible to the operator. This switch must be clearly marked and readily accessible in case of fire.

### NOTICE

Each oven should be connected to an adequately protected power supply with an appropriate power cord.

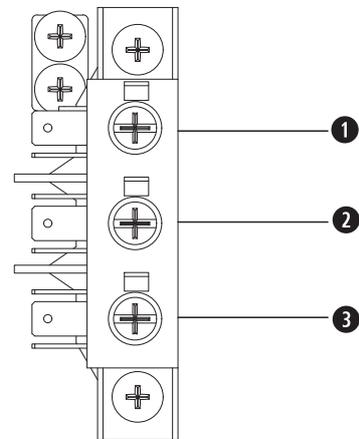
- ☑ Check that the electricity supply is correct as shown on the oven's rating plate.
- ☑ RCD (Residual Current Device) / GFCI (Ground-Fault Circuit Interrupter) protection of the power supply to this appliance is recommended.



1. Remove oven right hand side panel.
2. Bring the supply cable through the compression gland at the back of oven.
3. Connect the mains supply to the appropriately marked terminals on the terminal block (A).
4. Connect supply plug to mains outlet.

5. Turn on the mains supply and ensure that the controller is powered-up.

### Terminal block wiring connection



- |   |              |   |    |
|---|--------------|---|----|
| 1 | Earth/Ground | 2 | L2 |
| 3 | L1           |   |    |

## Adjustment and calibration

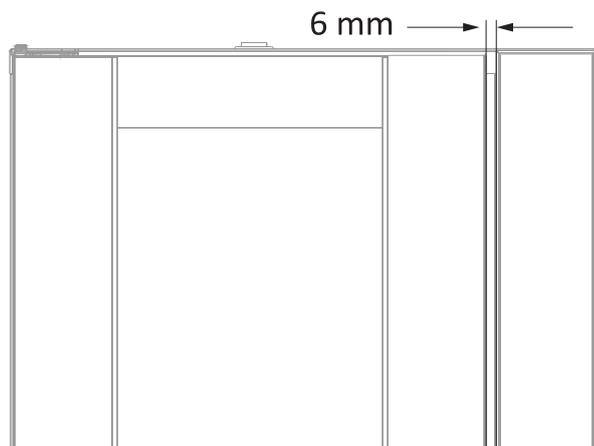
**⚠ WARNING**

Always turn off the electrical power at the mains supply before you access the oven's internal components.

### Adjusting the door

#### Align the door with the chassis

- ☑ A correctly aligned door has a nominal gap of 6mm from the edge of the door to the side of the control panel.

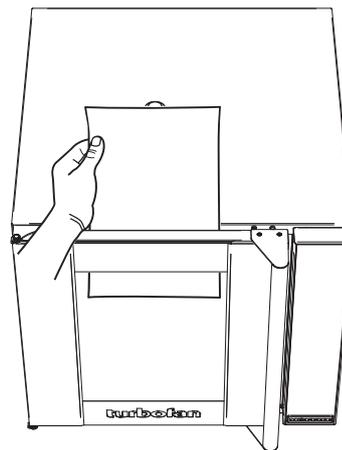


1. Loosen the screws from the upper and lower hinge plates.
2. Adjust the position of the door horizontally and vertically until it is correctly aligned.
3. Fasten the screws at the hinge plates and ensure that the door closes correctly.

#### Adjust the door catch

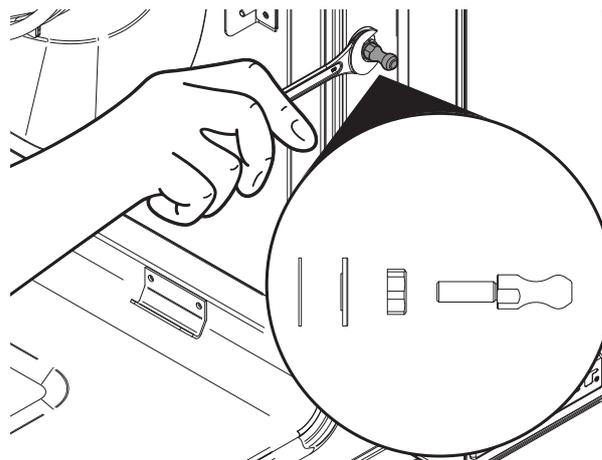
To check that the door seals correctly when it is closed:

1. Place a sheet of paper between the door and the seal.
2. Close the door on the paper and attempt to withdraw the paper by firmly tugging on the paper.  
The paper should just pull out with some resistance but without tearing.



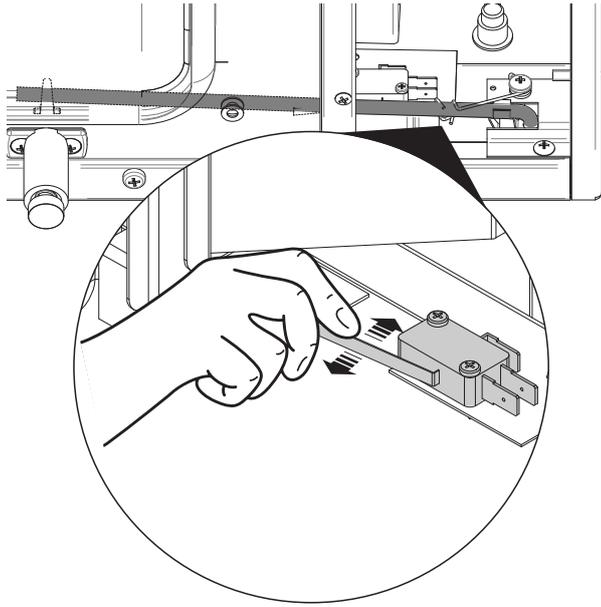
To adjust the door catch:

- If the paper withdraws easily, screw the door catch in by a ½ turn and repeat the test above until the door is adjusted correctly.
- If the paper cannot be withdrawn and the door springs open, screw the door catch out by a ½ turn and repeat the test above until adjusted correctly.



#### Adjusting the door micro-switch

1. Remove the control panel.
2. Bend the micro-switch arm to adjust the micro-switch operation.
3. Open and close the oven door and check that the micro-switch operates correctly.



## COMMISSIONING

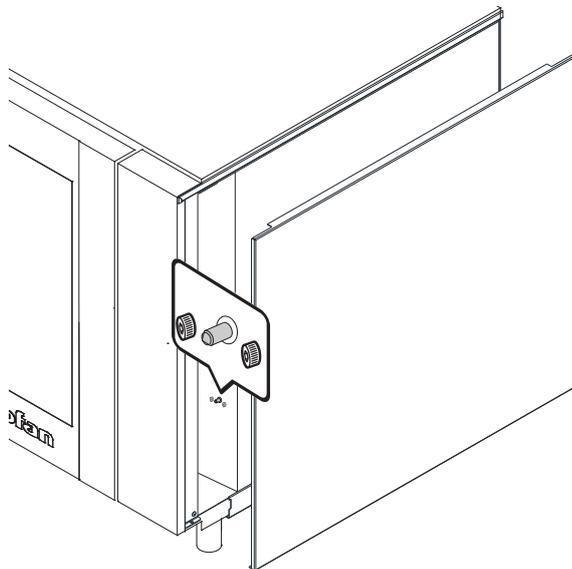
### First use

#### ⚠ CAUTION

Ensure that all packaging material has been removed from inside the Convection Oven oven before using it for the first time.

Before using your new oven, operate the oven for about one hour at 200 °C (400 °F) to remove any fumes or odours which may be present.

- ☑ If the oven does not start on initial start-up, check that the over-temperature thermostat has not tripped during transit. Remove the side panel on the controller-side of the oven and press the over-temperature thermostat reset button.



## Commissioning checklist

Before leaving the new installation, check that the oven functions in accordance with the operating instructions specified in the Use and Care manual. Complete the following checklist.

If the appliance does not operate correctly, turn off the oven, disconnect the power supply at the mains and contact the supplier of this appliance.

**DATE** \_\_\_\_\_

**INSTALLER** \_\_\_\_\_

### Pre-installation

- Delivered intact with all parts and accessories.
- No noticeable damage to the interior or exterior of the oven.

### Installation

- Positioning and fitting
  - Adequate separation and/or isolation from other appliances and/or heat sources.
  - Adequate ventilation in installation area.
  - Correct door alignment including seals and hinges.
  - The oven is level with respect to the floor.
- Electrical connection
  - Adequate supply voltage.
  - Correctly grounded outlet.
  - Correct current draw and loading.
- Water connection
  - Adequate water supply pressure.
  - Water supply quality meets requirements.
  - Correctly sized water connector.

### Operation

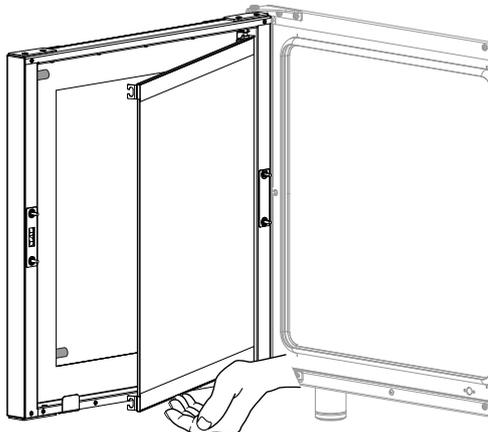
- Functionality
  - The oven lights work.
  - Thermostat functions correctly.
    - Check that the oven stops heating when it reaches the set temperature.
  - The oven controller operates correctly.
  - The door sensors function correctly.
    - Open the oven door and ensure that the controller displays *dor*; close the door and ensure that the controller returns to normal operation.
    - With the oven operating at a set temperature, open the door and check that the oven stops heating and the heating fan is off.
  - The oven heats to the set temperature.
    - Check that the oven set temperature matches the actual temperature.
  - The heating fan operates correctly.
  - The oven door seals correctly.
  - The oven door is correctly aligned.
- Operator training
  - The operator has been instructed in correct operation and safe shutdown of the oven.

## REVERSING THE DOOR

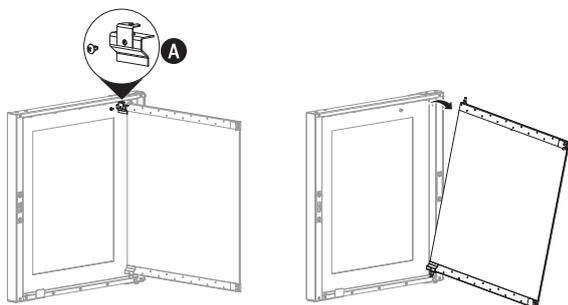
You can reverse the door orientation so that it opens from the right-hand side instead of the left-hand side of the oven.

Remove the door inner glass.

1. Open the inner glass door.



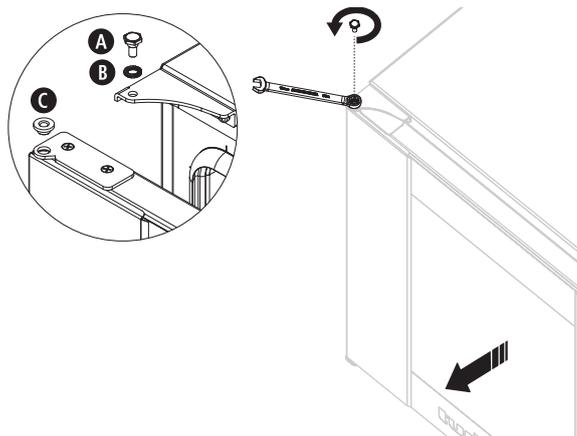
2. Remove the screw securing the inner glass retaining clip and remove the clip (A).



3. Tilt back and remove the inner glass door.

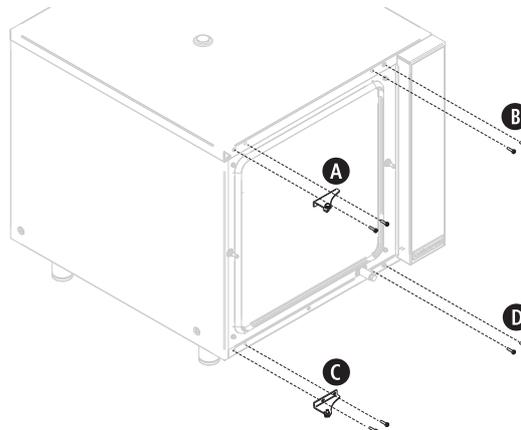
Remove the door.

1. Support the door and use a wrench to unfasten and remove the bolts from the top and bottom hinges. Retaining the pivot bolt (A), washer (B), and pivot brush (C).

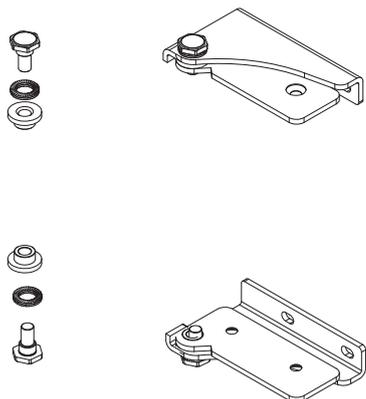


2. Lift the door off the bottom hinge.
3. Gently tap the hinge pivot bushes (C) from the top and bottom of the door to remove them.
4. Remove the door and lay it on a flat surface or workbench.

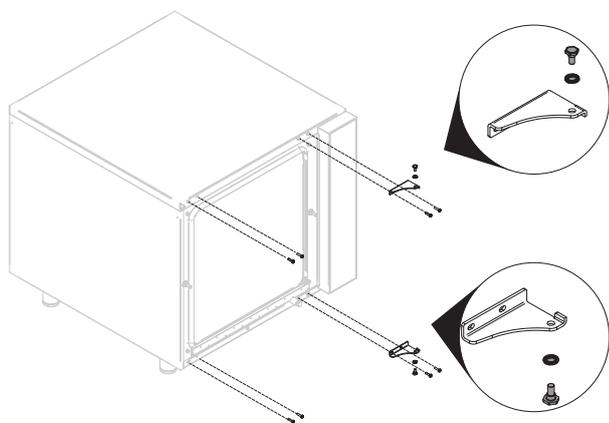
Remove the door hinges.



1. Remove the two screws that secure the top hinge bracket (A) to the oven.
2. Remove the top hinge.
3. Remove the two screws that secure the bottom bracket (C) and remove the bracket.
4. Remove the blanking screws (B, D) from the opposite side of the door opening.  
 The door hinge assembly is available as complete door hinge replacement kit or as bolt, washer, and pivot bush.

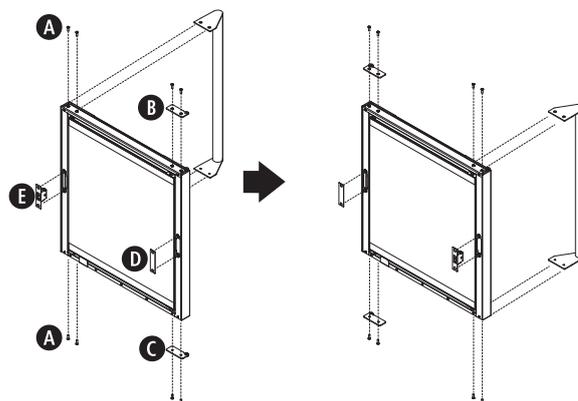


Fit the door hinges to the opposite side.



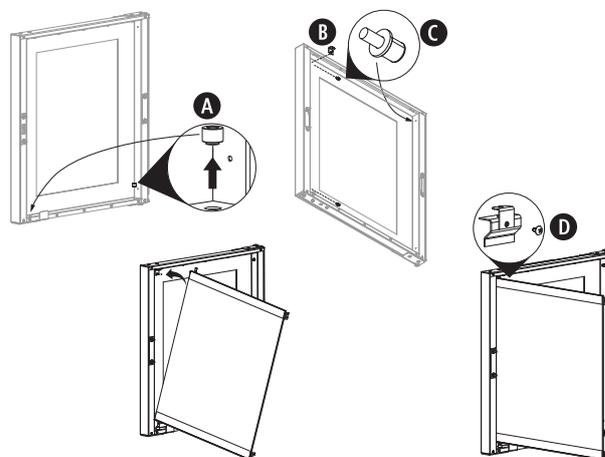
1. Fit the blanking screws from the opposite side of the door opening to where the hinge brackets were removed.
2. Turn the top hinge bracket over 180°.
3. Fit the top hinge bracket to the bottom right-hand side of the door opening and secure it with the two screws and washers.
4. Turn the bottom hinge bracket over 180°.
5. Fit the bottom hinge bracket to the top right-hand-side of the door opening and secure it with the two screws and washers.

Reverse the door joinery.



1. Unfasten the screws securing the door handle (A) at the top and bottom of the door and remove the door handle.
2. Unfasten the screws securing the top (B) and bottom (C) hinge mounting plates and remove them.
3. Fit the bottom hinge mounting plate (C) to the top corner of the door where the door handle was removed.
4. Fit the top hinge mounting plate (B) to the bottom corner of the door where the door handle was removed.
5. Remove the door roller catch (E) and blanking plate (D) from the inside of the door and swap their positions.
6. Fit the door handle to the side where the door hinges were removed with the screws (A).

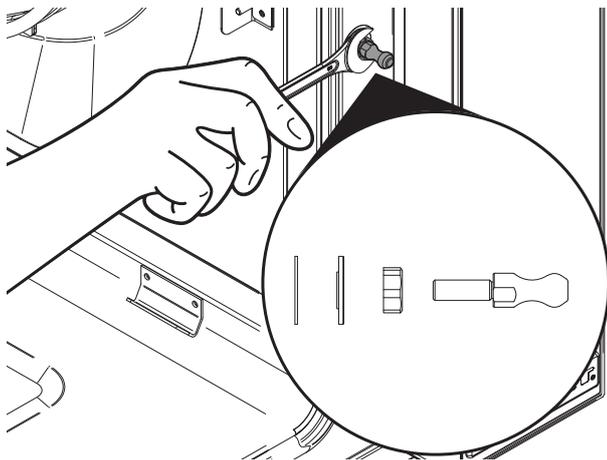
Reverse the orientation of the door's inner glass.



1. Remove the lower pivot spacer (A) and fit it to the hole on the opposite side.
  - ☑ Remove the black plastic plugs before inserting the pivot spacers and fit them into the holes where the pivot spacers were removed from.
2. Remove the two inner glass latches (B) and fit them to the opposite side of the door.
3. Remove the two inner glass latching studs (C) and fit them to the opposite side of door.
  - ☑ Apply a medium-strength threadlocking adhesive (for example, Loctite 243) to secure the studs.
4. Fit the inner glass door into the pivot spacer and tilt it into the inner door frame.
5. Locate the top pivot of inner glass door into the top of the inner door and secure it in position with inner glass retaining clip (D).
6. Lift the inner glass up onto the locking catch to lock glass into position.

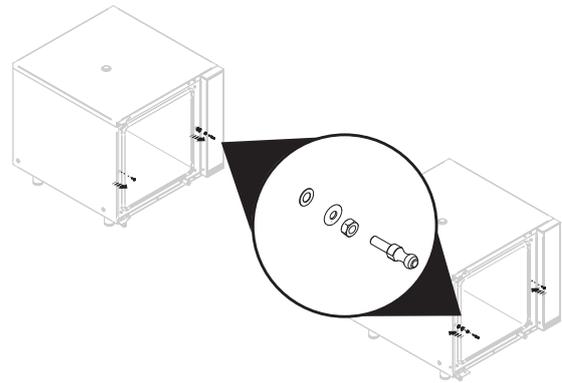
**! IMPORTANT**  
 Ensure that the inner glass door is fitted correctly and that the glass pivots at the hinge-end of the door and not the handle end.

Remove the door catch



1. Unfasten the locking nut.
2. Unscrew the locking dog.
3. Remove the locking dog, locking nut, and washers.

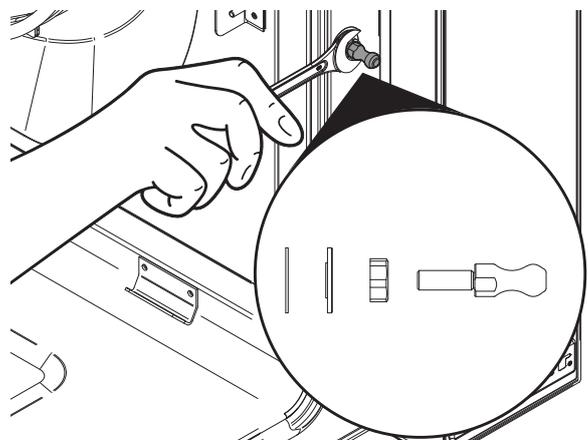
Reverse the door catch



1. From the opposite side of the oven door frame, remove the centre cap screw.
2. Fit the locking dog, nut, and washer to the opposite side of the door frame. See Fit the door catch below.
3. Fit the cap screw that was removed in Step 1 to cover the slot where the door catch was removed.

Fit the door catch

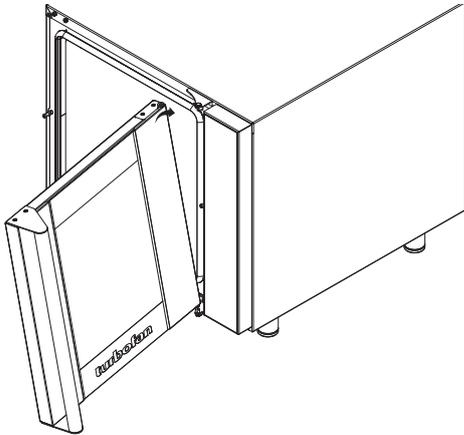
1. Fit the locking dog, nut, and washer to the door frame.
  - ☑ Apply a suitable metal adhesive (for example, Permabond 1042) to the threads of the locking dog.
2. Screw the locking dog into the door frame and hand-tighten it as far as it will go.
  - ☑ Ensure that the fibre washer is seated against the door frame and the stepped washer is seated over the fibre washer.



3. Slam the door shut and ensure that the door is not loosely sealed around the door frame. Adjust the locking dog if required. See [Adjustment and calibration on page 15](#).
4. Tighten the lock nut.
5. Ensure that the door micro-switch operates correctly. See [Adjustment and calibration on page 15](#).

Fit the reversed door to the oven

1. Fit the bottom of the door to the bottom pivot bolt.
2. Fit the top of door into the top hinge plate and secure it with the top pivot bolt.





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