

## Introduction

The John Willett Oven is a patented, Australian designed and manufactured product. We use only the best methods and materials available and maintain our reputation for excellence through a rigid quality control system.

All of our ovens are designed to bake a full range of products with a top quality result. The unique patented heating system ensures an even bake, minimum operating costs and an optimum working environment. Our digital control system provides a repeatable result.

The oven range includes:

Solitaire	1 x 18" tray per deck
Space Saver	2 x 18" trays per deck
Compact 316	3 x 16" trays per deck
Compact 318	3 x 18" trays per deck
Galaxy 16	4 x 16" trays per deck
Galaxy 18	4 x 18" trays per deck
Big Bake	6 x 16" trays per deck

Our entire range of ovens is available in 1 to 5 decks and can include the following options:

Glass inserts fitted to the fully insulated and sealed doors.

Steam - either live or spray jet.

Tiles in place of grates for continental breads or pizzas.

Optional Crown Heights to accommodate special baking needs.

These options can be fitted to one or more decks.

***To obtain the best results from your "John Willett" deck oven  
please read this operating manual.***

## OPERATING INSTRUCTIONS FOR THE “JOHN WILLETT” OVEN

### **“On/Off” Switch**

To turn each deck on press the red “TEMP” button located directly above the temperature controller. The red button will illuminate to indicate the oven is turned on. To turn the oven off, press the red “TEMP” button.

### ***Temperature Controller***

To set the deck temperature, turn the temperature adjusting knob - clockwise to increase the temperature and anti-clockwise to decrease temperature. Temperature range is 0°C to 4000°C.

Temperature light is situated in the top right hand corner of the controller; the temperature light is illuminated when the oven has not yet reached the set temperature.

### ***Timer***

To set the oven timer for each deck, turn the adjusting knob clockwise to increase time and anti-clockwise to decrease the time. Range is 0 min. to 60 min.

To activate timer press the red “TIME” button. When the set time has been reached, the buzzer will sound. To switch off the buzzer press the red “TIME” button. When you turn the timer back on it will reset to the last time set.

### ***Top and Bottom Settings***

There is a top and bottom setting knob for each deck. The top knob controls all the top heating elements and the bottom knob controls all the bottom heating elements. This gives you the ability to vary the ratio of top to bottom heat on each deck enabling you to obtain the optimum bake for your full range of products.

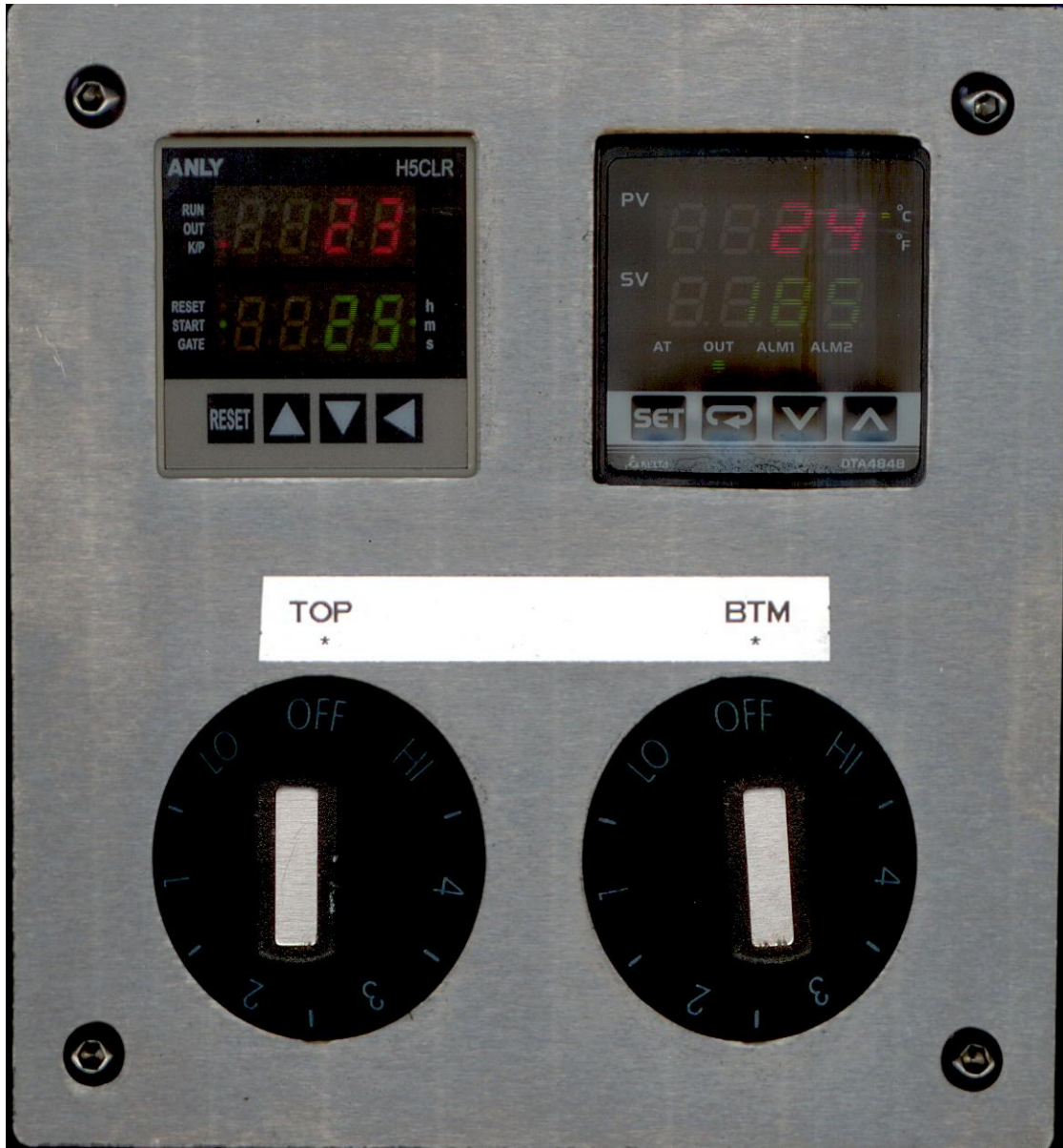
The range available is LO to HI. The elements are on 100% of the time when the setting is HI. With the setting on a low number the heating elements switch on for a shorter period of time and off for a longer period of time, which gives you less heat from those elements. With the setting on a high number the heating elements switch on for a longer period of time and off for a shorter period of time, giving you more heat from those elements. This does not affect the baking temperature only the ratio of top heat to bottom heat within the deck.

If you want to bring your oven up to temperature quickly at the beginning of the day, set the top and bottom settings to HI. This will keep the heating elements on full until the oven reaches the desired temperature. You should then adjust the top and bottom settings to suit the product you are baking

TIME

LIGHT

TEMP



## Temperature Control

### ■ Display, LED & Pushbuttons

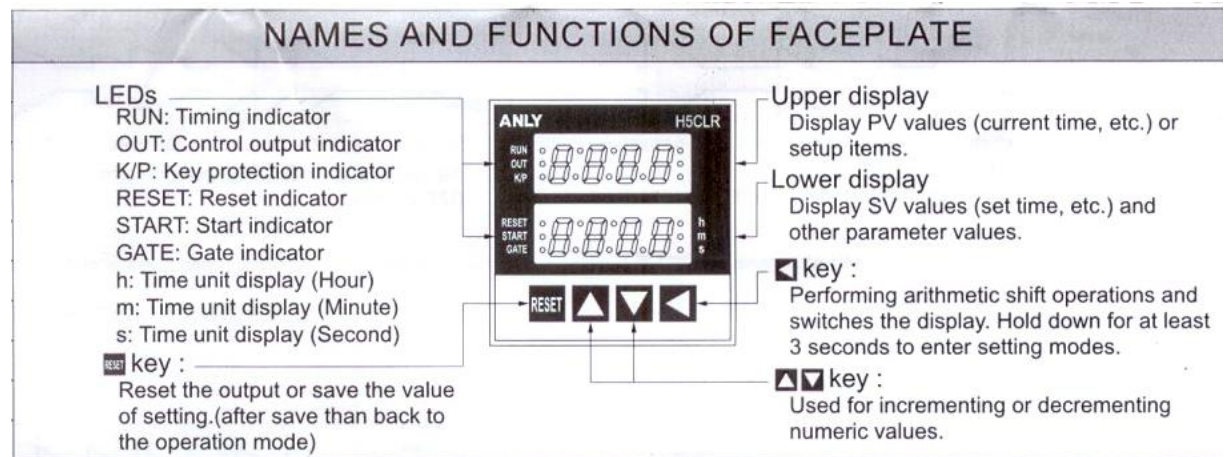


- **PV Display** : to display the process value or parameter type.
- **SV Display** : to display set point, manipulated variable or set value of the parameter.
- **AT** : flashes when the Auto-tuning operation is ON.
- **OUT** : lights when the output is ON.
- **ALM1 / ALM2** : lights when Alarm 1 or Alarm 2 output is ON.
- **SET** : **Function key**. Select the desired function mode and confirm a setting value.

- : **Mode key**. Press this key to set parameters within each function mode.
- : **Up key**. Press this key to increase values displayed on the SV display. Hold down this key to speed up the incremental action.
- : **Down key**. Press this key to decrease values displayed on the SV display. Hold down this key to speed up the decrements

## Timer

### NAMES AND FUNCTIONS OF FACEPLATE



### **Loading Product Into Each Deck**

When loading the product into the oven always make sure there is an even space between each article. This will help ensure an even bake. When fully loading the oven with bread (680g and over), it is advisable to preheat the oven to approximately 10°C above the required baking temperature to allow for temperature loss when large quantities of cold tins and dough are loaded.

After loading the first batch, turn the temperature controller back to the desired baking temperature.

### **Caution**

1. Do not throw oven doors open as damage can occur to doors and door handles.
2. When changing oven lights always switch off power to the oven at the main isolating switch before removing the side panel on the oven. It is recommended that you use a licensed electrician to perform any electrical work.
3. Do not let caustic based oven cleaners or water come in contact with the front or side electrical control panel.
4. Do not block the air vent at the top of the control panel.

### **Electrical Connection**

A three (3) Phase supply with Neutral and Earth is required, Total K.W. and Amps per phase are stamped on the compliance plate located on the front bottom left hand corner of your oven.

The main power supply enters through the bottom right hand side of the oven. A PVC fitting can be found on the underside steel mesh allowing your electrician easy access to the Main Electrical control box positioned on the side of the oven.

## Mk 2 Steam System

### *Water Filter*

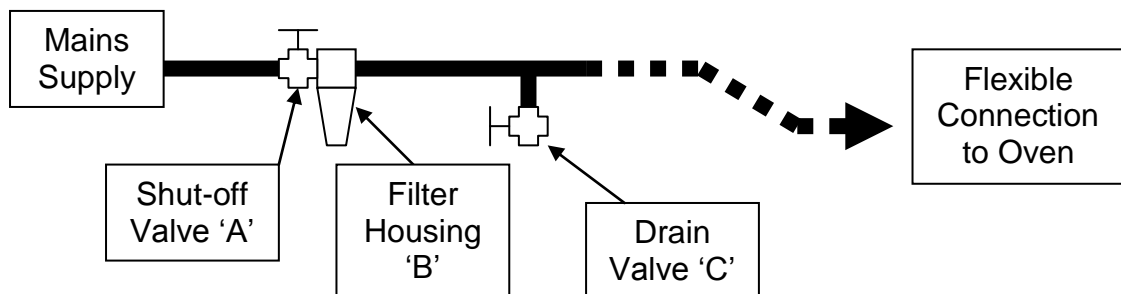
Your oven has our Mk 2 Live Steam fitted to all or some of the decks. To ensure trouble free operation of the system we supply a water softening filter system. This includes a mounting bracket and spanner for cartridge replacement.

The filter eliminates iron and calcium from the water which helps to keep the system clean and free from blockages.

Depending on your water quality, it is advisable to replace the filter cartridge every three (3) months. In all cases the filter should be replaced every six (6) months. Replacement cartridges are available from Bakery Machinery Service. If purchasing a cartridge locally ensure that it is a 'softening' cartridge that removes calcium from the water.

### **To Fit New Cartridge**

1. Close water shut-off valve "A".
2. Open drain valve "C" to relieve water pressure remaining in line.
3. Unscrew filter casing "B" by turning casing anti-clockwise, and replace used cartridge with a new cartridge. The supplied spanner may assist.
4. Fill filter housing "B" with water before refitting.
5. Close drain valve "C".
6. Open shut-off valve "A".
7. After fitting New Cartridge, drain the first 4 litres of water by opening valve "C". Then close valve "C"



## **Installing The Filter Housing**

This water-conditioning filter is easily installed on any standard cold water line. A shut-off valve should be installed before the filter inlet connection to allow for easy installation and replacement of filter cartridges. Warning – the National Plumbing Code requires that an approved back-flow prevention device to Australian Standards be installed at the first point of entry to the filtration system.

When installing your filter allow a minimum of 50mm (2") clearance below the filter bowl for cartridge replacement. The filter connections (inlet/outlet) are 3/4" BSPT connections. Ensure flow direction is as marked on the housing. The supplied mounting bracket must be used for mounting the filter unit to avoid bending the pipework during installation, or when replacing cartridges. Once the filter head has been properly connected to the pipework, place the filter cartridge in the bowl and slowly screw into the head. When fitting the bowl to the filter head allow any air trapped in the bowl to escape by leaving a tap open on the outlet side of the filter. This is important as any air trapped inside the bowl may cause leakage.

Once the filter has been properly installed and has been operating for some time, a reduction in flow and pressure will indicate when the cartridge is nearing the end of its useful life and needs replacing. To maintain your water quality it is essential that you replace your cartridge every six (6) months.

A special plastic spanner is available for each filter unit for changing the cartridge. Do Not overtighten the filter housing.

### **Note:**

1. The Filter is suitable for Cold water only
2. Do not overtighten inlet and outlet connections to the filter housing. Recommended thread sealant is Dow Corning part number 791P. If this is not available, ten to twelve wraps of high quality thread sealant tape should be used.
3. If there are any appliances such as dishwashers or washing machines, or pressure surges in supply to your premises, you must install a "water hammer arrestor" to eliminate "water hammer" which is induced by the quick acting solenoid valves on the equipment mentioned. This can damage the filter housing by causing line pressure in excess of the stated maximum working pressure, the water hammer arrestor is available from your local plumbing supplier.
4. Clean filter housing with soap and warm water.
5. Always fill housing with water when changing filter to eliminate air locks in the system. Always open inlet valve slowly.

## **General Maintenance**

### ***Doors***

Doors should be lubricated every week with Tri-flow Teflon oil. (Do Not Use Normal Lubricating Oils).

With the door closed, lubricate each side of each door boss with 2-3 drops of oil and across the top of the door springs. Open the door and repeat the procedure. Lack of lubrication is one of the major causes of door spring failure.

### ***Oven***

The external Stainless Steel surfaces of your John Willett oven can be maintained using the following products.

To clean the stainless steel apply BMS Oven & Grill Cleaner while the oven is still warm.

When the external surfaces are cool apply BMS Stainless Steel Rub to maintain a clean surface.

All maintenance products are available from Bakery Machinery Service or your local agent.

## **Trouble Shooting**

Your oven has been operated in our factory using a predetermined test procedure for a minimum of four hours. If, however, you feel that the performance has altered please consider some of the following before contacting your service agent.

1. Is the temperature sensor at least 30mm away from the element tubes?
2. Are any of the circuit breakers off? If they are reset them and if they turn off again contact a licensed electrician.
3. If your oven overheats you may have a faulty contactor causing the elements to remain on. You will need to contact a licensed electrician to rectify this fault.
4. If you are getting an uneven bake one phase may have failed on your power supply. Check your switchboard to see if any circuit breakers are off or any fuses have blown.

If you have any problems please contact us.



**Baking Guide  
Time, Temperature, Top and Bottom Settings****SUGGESTED GUIDE FOR BAKING TIMES AND TEMPERATURES.**

<u>ITEM</u>	<u>TIME</u>	<u>TEMP</u>	<u>TOP SIMMERSTAT</u>	<u>BOTTOM SIMMERSTAT</u>
Bread 680 grm	32 min	230°	4½	4½
Tank Bread	25 min	230°	4½	4½
Vienna Bread	20 min	230°	4½	4½
French Sticks	15 min	230°	4½	4½
Bread Rolls	16 min	230°	4½	4½
Buns	12 min	210°	4	4½
Fruit Loaf	16 min	210°	4	4½
500 grm				
Fruit Loaf	28 min	210°	4	4½
750 grm				
Slices	28 min	230°	4½	4½
Sausage Rolls	28 min	250°	4½	LO
Pies	12 min	250°	4½	4½
Sponges 7"	15 min	190°	4½	LO
Sponge Rolls	11 min	190°	4½	2½
Scones	11 min	250°	4½	4½

***We offer these times, temperatures and settings as a guide only***

**Contact Details**

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2 Brewer Street  
Clontarf Qld 4019

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Fax: (07) 3284 6370

Email: [sales@bmsovens.com](mailto:sales@bmsovens.com)

***When ordering spare parts please quote your oven serial number.***