Enter Serial No. here

In the event of an enquiry please quote this serial number.



## **OPERATING AND MAINTENANCE MANUAL**

**BX ECOTOUCH Convection Oven** 



#### **CAUTION**

THIS APPLIANCE HAS MULTIPLE SUPPLY CORDS.
DISCONNECT ALL SUPPLY CORDS BEFORE MOVING OR CLEANING/SERVICING

## LABELS ON THE OVEN

WARNING LABEL, TO REDUCE RISK OF FIRE
OR ELECTRIC SHOCK
DO NOT REMOVE COVER (OR BACK)
NO USER SERVICEABLE PARTS INSIDE
REPAIR SHOULD BE DONE BY AUTHORISED PERSONNEL ONLY



## WARNING

RISK OF FIRE OR ELECTRIC SHOCK

DO NOT OPEN



**CAUTION LABEL** 

## CAUTION

THIS APPLIANCE HAS MULTIPLE SUPPLY CORDS.

DISCONNECT ALL POWER SUPPLY CORDS
BEFORE MOVING OR SERVICING.

## **IMPORTANT NOTES**

OVEN IS TO BE SEALED TO STAND, COUNTER OR SECOND OVEN USING A NSF APPROVED SEALANT. APPLY A SMALL CONTINUOUS BEAD AROUND THE PERIMETER OF THE UNIT.

FAILURE TO FOLLOW THE CLEANING AND MAINTENANCE INSTRUCTIONS DETAILED IN THIS OWNER MANUAL COULD AFFECT THE WARRANTY OF THIS OVEN.

"NSF REQUIRES THAT THIS EQUIPMENT IS TO BE INSTALLED WITH ADEQUATE BACKFLOW PROTECTION TO COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES."

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## 1.0 INTRODUCTION

The BX EcoTouch oven is a computerised, compact, electric convection oven with steam capability and a capacity of three 26" x 18" trays.

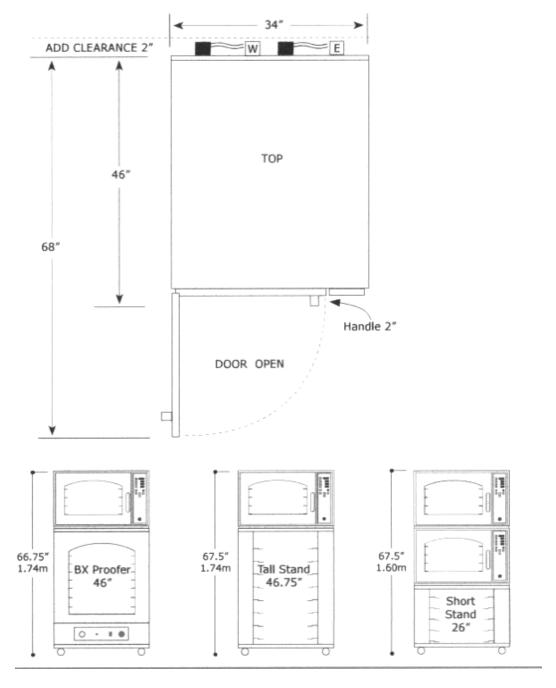
The oven is constructed of stainless steel and features the state of the art Eco-Touch controller with color display and 240 programmable recipes each with up to six steps in which the bake time, temperature, steam time, fan and vent can be controlled.

Designed to be stackable, without the requirement for a separate support.

The high-speed fan and ring element provides efficient air circulation and an even bake across a range of products



## 2.0 DIMENSIONS



#### **EACH OVEN:**

Height:	20.75"	Net weight (1 oven) 370 lbs
Depth, door closed:	46"	Net weight (Short stand) 145 lbs
Width:	34"	Net weight (Tall stand) 206 lbs

<sup>2&</sup>quot; (50mm) clearance is required at the back and sides of the oven to allow adequate circulation of air for cooling.

## 3.0 SPECIFICATIONS

<u>Electric:</u> **208V/220V** Three phase **Power**/120V single phase **control** 

60Hz. 24Amps per phase

Loading: 7kW Ring element

Total Power: 7.5 kW.

<u>0r</u>

Electric: **240V** Three phase **Power**/120V single phase **control** 

60Hz. 24Amps per phase.

Loading: 8kW Ring element

Total Power: 8.5 kW.

POWER Cable: 6 feet of cable with NEMA L15-30P plug supplied. CONTROL Cable: 6 feet of cable with NEMA 5-15P plug supplied.

Fan Drive: Direct to motor

Tray Size: 26" x 18"

Tray Capacity: 3.

Damper: Butterfly type.

Noise Level: Less than 85dB.

Water Supply: 20 PSI Cold water.

For proper operation of the steam system it is recommended that the water supply follows the following specifications:

**Hardness** 0-4 grains per gallon

**PH range** 7.0 to 8.5

**Chloride** concentration 0 –30 ppm

**Calcium** 0-4 ppm

**Magnesium** 0-4 ppm

**Alkalinity** 0-20 ppm

Consult your water treatment company for proper water filtration system information.

"NSF REQUIRES THAT THIS EQUIPMENT IS TO BE INSTALLED WITH ADEQUATE BACKFLOW PROTECTION TO COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES."

### 4.0 SAFETY

To safely use this convection oven, read this owner manual completely and follow the warnings below, as well as all other warnings in this manual.

- The oven is designed for the baking of bread, confectionery and savory products. Do not use it for baking other items without first consulting Belshaw/Adamatic.
- All repairs and maintenance of electrical units must only be carried out by an authorized Belshaw/Adamatic service technician.
- Electrical access panels must not be opened unless the oven power cords are unplugged. (There are two).
- All connections to the oven must be made in accordance with National, State, and local codes and regulations.
- While the oven is in operation, and for some time after use, DO NOT TOUCH the oven window and surrounding area as these surfaces may be hot.
- The oven must be operated as described in this manual.
- Use only original manufacturer spare parts on the oven.
- The construction of the oven must not be changed or altered.
- The owner of the oven is legally obligated to instruct staff using the oven in its
  operation and in these safety regulations. The instructions must be readily
  accessible for the operator.

#### **CAUTION**

THIS APPLIANCE HAS MULTIPLE SUPPLY CORDS.
DISCONNECT ALL SUPPLY CORDS BEFORE MOVING OR CLEANING/SERVICING

## **ATTENTION**





DO NOT BLOCK THE DAMPER VENT ON THE TOP OF THE OVEN

## 5.0 INSTALLATION

#### Water Supply;

"NSF REQUIRES THAT THIS EQUIPMENT IS TO BE INSTALLED WITH ADEQUATE BACKFLOW PROTECTION TO COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES."

It is the customer's responsibility to provide an appropriate water treatment system that will supply water that meets the water specification listed on page 6. The supply must be provided with a shut-off valve, pressure reduction valve and

pressure gauge.



A RUBBER WASHER SHOULD BE FITTED TO ENSURE A FULL SEAL WITH WATER SUPPLY. (Part Number A900-05-261)

#### • AMBIENT TEMPERATURES : -

Maintain ambient temperatures below 115°F (40°C) around the oven.

#### • CLEARANCE:

Provide 2" (50mm) clearance at the back and sides of this oven and 10" clearance at the top to allow adequate air circulation.

#### • INITIAL CLEANING:

Before using the oven for the first time, Carefully wipe the interior and exterior of the oven thoroughly with a clean cloth soaked in warm soapy water.

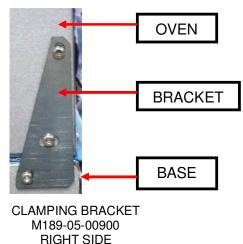
#### • BEFORE USE:

**Fix top sealing ring** M189-01-02000 over top pipe with NSF approved silicone sealant. (as seen on the next page in the illustration for stacking ovens)

• IF A STAND IS USED under the oven, it must be sealed to the oven using a continuous bead of NSF approved sealant around the perimeter and attached by two brackets M189-05-00900 (one each side) at the rear.

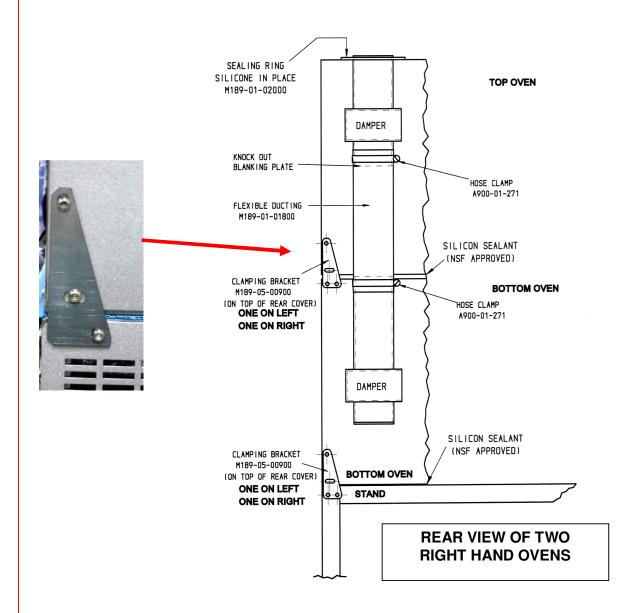


CLAMPING BRACKET M189-05-00900 LEFT SIDE



#### STACKING TWO OVENS

- 1. After applying a small continuous bead of NSF approved sealant around the perimeter of the lower unit, position ovens one on top of the other
- 2. Remove both ovens rear covers.
- 3. Remove blanking plate (fixed with silicone sealant) from damper tube of upper oven.
- 4. Fit end of flexible ducting over top damper tube and attach to lower oven damper tube. Use silicone sealant and worm drive clips to fasten in position.
- 5. Replace both ovens rear covers and fix ovens together using clamping bracket M189-05-00900. (One each side at the rear.)
- 6. **If a stand is used** under the ovens, it **must** be sealed to the oven using a continuous bead of NSF approved sealant around the perimeter **and** attached by two brackets M189-05-00900 (one each side) at the rear.
- 7. Fix top sealing ring M189-01-02000 over top pipe with NSF approved silicone sealant.



## 6.0 ISOLATION

# To stop the oven in an emergency, Unplug the oven from the outlets.

(THERE ARE TWO CABLES)

## 7.0 DAILY CLEANING INSTRUCTIONS

## NOTE: UNPLUG THE OVEN FROM OUTLETS AND ALLOW TO COOL COMPLETELY BEFORE CLEANING

- The equipment is to be cleaned daily using approved chloride free cleaners.
- NEVER USE STEEL WOOL TO CLEAN THE OVEN.
- Sweep any debris (after it has been allowed to cool) from oven interior surfaces, onto the oven removable catch tray and remove for cleaning.
- Wipe oven front, back and sides using a damp cloth that has been soaked in a solution of mild detergent and hot water (do not soak the control panel area)

#### **IMPORTANT**

- 1) NEVER SPRAY THE OVEN DOWN WITH A HOSE.
- 2) TO AVOID ELECTROCUTION OR OVEN DAMAGE –NEVER ALLOW WATER, STEAM, CLEANING SOLUTION, OR OTHER LIQUIDS TO ENTER THE ELECTRICAL PANELS OR CONNECTIONS.
- 3) DO NOT REMOVE THE REAR PANEL INSIDE THE OVEN.THIS ALLOWS ACCESS TO THE FAN ASSEMBLY AND COULD CAUSE INJURY.

## 8.0 WEEKLY CLEANING INSTRUCTIONS

NOTE: UNPLUG THE OVEN FROM OUTLETS (2) AND ALLOW TO COOL COMPLETELY BEFORE CLEANING

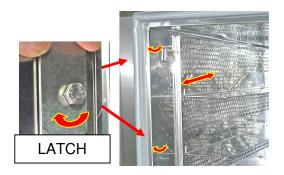
#### Complete daily check then:

The inner door glass is hinged to enable cleaning of internal surfaces. To open, remove the two thumb-screws shown below. The internal surfaces of the door glass can then be cleaned using a suitable glass cleaner.



Remove these thumb-screws to release inner glass for cleaning

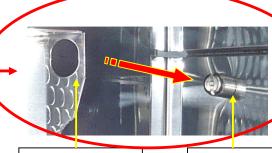
Remove interior side panels by turning the two latch plates in the front of the oven and sliding the side panels out of the doorway. Clean side panels and interior surfaces with mild detergent and hot water using a nylon cleaning brush.



Carefully install interior side panels by aligning the pins in the rear of the oven with slots in the side panel. Ensure that the panel is pushed fully back and turn the latch plates to secure in place.



SLIDE SIDE PANEL OVER LOCATING PINS. TOP AND BOTTOM

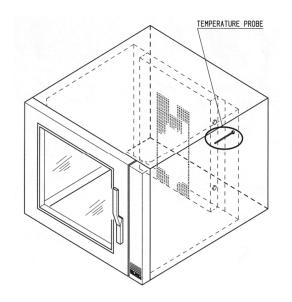


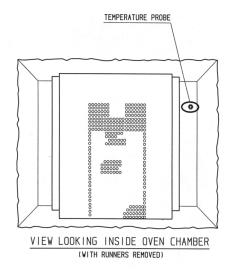
SLOT AT REAR OF SIDE PANEL

PIN AT REAR OF OVEN

#### **IMPORTANT:**

1) WHEN CLEANING INSIDE OVEN, CARE MUST BE TAKEN NOT TO DAMAGE TEMPERATURE PROBE PROTRUDING FROM UPPER CORNER OF CHAMBER REAR WALL. (SEE BELOW)





- 2) TO AVOID ELECTROCUTION OR OVEN DAMAGE –NEVER ALLOW WATER, STEAM, CLEANING SOLUTION, OR OTHER LIQUIDS TO ENTER THE ELECTRICAL PANELS OR CONNECTIONS.
- 3) DO NOT REMOVE THE REAR PANEL INSIDE THE OVEN.THIS ALLOWS ACCESS TO THE FAN ASSEMBLY AND COULD CAUSE INJURY.



# **Section 9**

TOUCH SCREEN OPERATING INSTRUCTIONS

## **BASIC OPERATION**

ALL OPERATIONS ARE ACTIVATED BY PRESSING AREAS ON THE SCREEN, WHICH WILL PASS YOU ON TO THE NEXT INFORMATION PANEL.

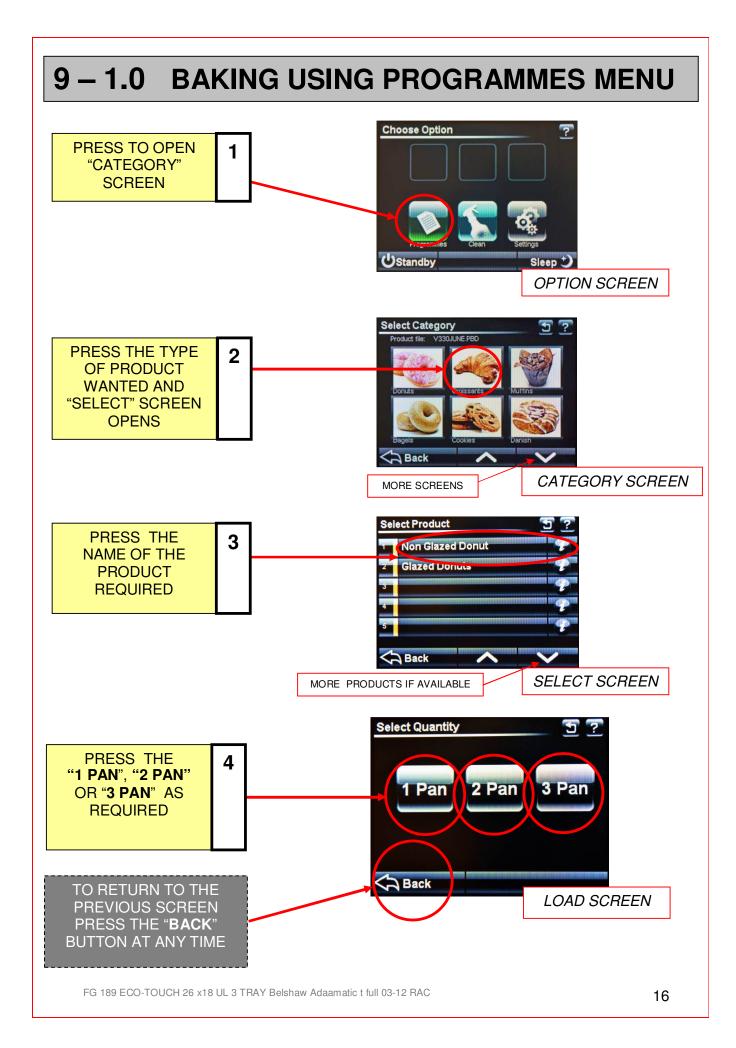
DO NOT USE EXCESSIVE FORCE.

(THE PRESSURE REQUIRED TO OPERATE THE PANEL CAN BE ALTERED IN THE SETTINGS SECTION)

PRESS THE SCREEN ON THE AREA YOU **REQUIRE TO ACTIVATE Choose Option** Programmes Clean Touch to start Belshaw Adamatic Touch Screen To Start SLEEP **STANDBY** 

STANDBY
THE OVEN TURNS OFF.
TOUCH THE SCREEN TO GO
BACK TO THE OPTION SCREEN.

SLEEP
THE OVEN STAYS AT 212F AND
HEATS TO LAST PROGRAM
TEMPERATURE WHEN THE
SCREEN IS TOUCHED.
OPTION SCREEN THEN SHOWS.



# IF THE OVEN IS NOT UP TO TEMPERATURE IT WILL SHOW THE HEATING SCREEN.

# WAIT FOR THE OVEN TO REACH TEMPERATURE

IF THE OVEN IS TOO HOT FOR THE TEMPERATURE CHOSEN, THE SCREEN WILL TELL YOU TO OPEN THE DOOR TO AID COOLING.



WHEN THE OVEN IS AT THE CORRECT TEMPERATURE, THE "READY" SCREEN WILL SHOW.

- 1. OPEN DOOR AND LOAD PRODUCT.
- 2. CLOSE THE DOOR FULLY.
- 3. PRESS "START"

#### **TIP**

TO HELP TO KEEP THE OVEN HOT, TRY NOT TO KEEP THE DOOR OPEN MORE THAN NEEDED



**BAKE PHASE ACTUAL OVEN** (WHEN USED) **TEMPERATURE** THIS SCREEN WILL SHOW WHILE COUNTDOWN THE PRODUCT IS BAKING TIMER TO **TURN PANS** Glazed Donuts 2 3 4 5 6 **SET TEMPERATURE** TEMPERATURE PROFILE BAR BAKE TIME PROGRESS BAR NOTE The actual temperature shown will rise and fall View Stop above and below the set temperature as the oven cools and reheats. This is not a fault BAKE TIME LEFT SEE NEXT PAGE

5

PRESSING "STOP" BUTTON DURING A BAKE WILL SHOW THE "PLEASE CONFIRM" SCREEN. PRESS "OK" TO STOP THE BAKE OR PRESS "CANCEL" TO GO BACK TO THE BAKE IN PROGRESS.

6





AT THE END OF THE BAKE TIME A SOUNDER WILL BE HEARD AND "BAKE OVER" WILL FLASH. PRESS "STOP" AND OPEN THE DOOR TO REMOVE THE PRODUCT.

TO KEEP THE OVEN BAKING FOR EXTRA MINUTES THE "+" BUTTON CAN BE PRESSED. (THIS BAKE EXTENSION TIME CAN BE ALTERED IN SET UP)



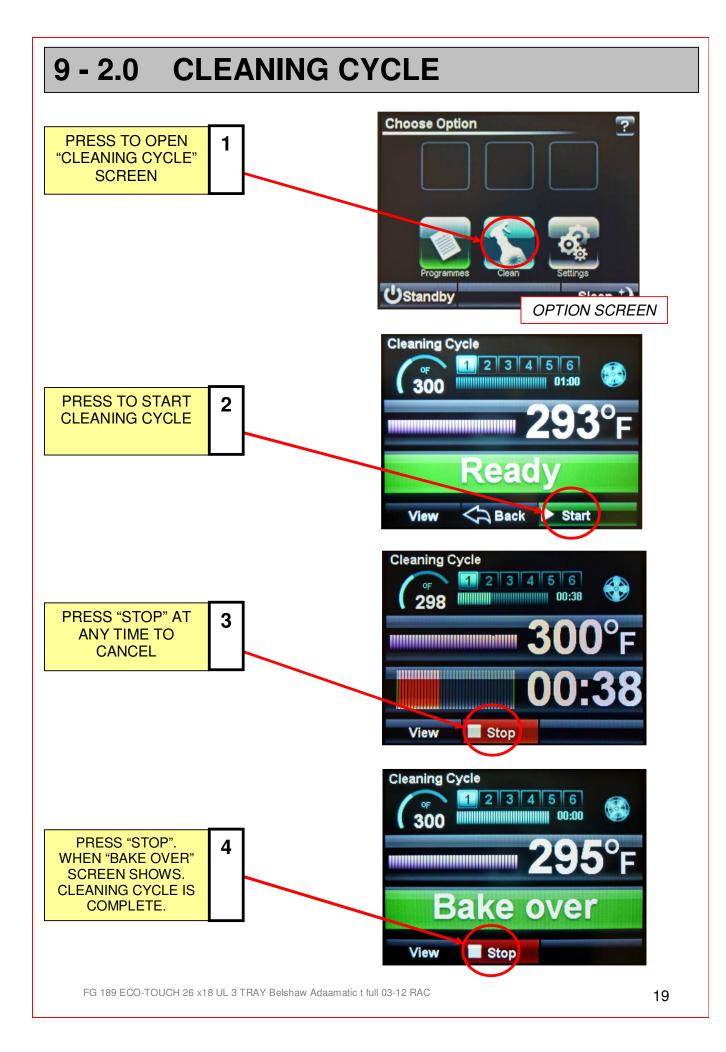
BAKE OVER SCREEN

PRESSING "VIEW" BUTTON DURING BAKE

PRESSING "VIEW" BUTTON
DURING BAKE WILL SHOW THE SETTINGS
FOR THE BAKE IN PROGRESS.
PRESS "CANCEL" TO GO BACK TO THE
PREVIOUS SCREEN.







## 9 - 3.0 **SETTINGS**



**OPTION SCREEN** 

PRESS TO OPEN THE "SETTINGS" SCREEN



PASS CODE SCREEN

ENTER "SUPERVISOR"

PASS CODE AND THEN PRESS OK.

(DEFAULT CODE = 123456)

1



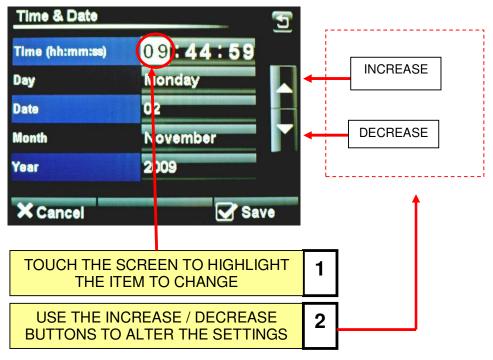
**CHANGE TRAY LAYOUT** 

SETTINGS SCREEN

CHOOSE THE SETTING TO ALTER

2







TIME AND DATE SCREEN

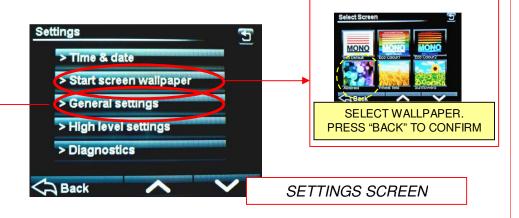
WHEN ALL INFORMATION IS CORRECT,
PRESS "SAVE".
THIS WILL RETURN TO THE SETTINGS SCREEN

3



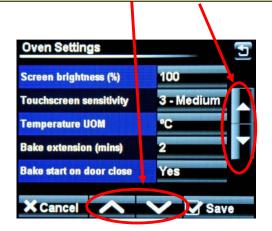
SETTINGS SCREEN





PRESS "GENERAL SETTINGS" AND THE FOLLOWING SCREEN WILL APPEAR.

SCROLL DOWN TO MOVE THROUGH ALL CHOICES AND ADJUST EACH ONE AS REQUIRED, USING THE ARROW KEYS.









#### **OVEN SETTINGS EXPLAINED - GENERAL LEVEL**

#### SCREEN BRIGHTNESS -

Adjusts the brightness of the viewing screen for user comfort.

#### **TOUCHSCREEN SENSITIVITY -**

Adjusts the pressure required to operate the touch screen. (5 settings)

#### **TEMPERATURE UNIT OF MEASURE -**

Centigrade (Celsius) or Fahrenheight

#### **BAKE EXTENSION (mins) –**

Adjusts the extra time at the end of a bake for each "extra time" button press. (10mins max)

#### **BAKE START ON DOOR CLOSE -**

This will start the set bake program as soon as the door closes.

#### SLEEP MODE DELAY -

Oven will go into sleep mode after the set minutes, providing it is up to temperature and has been through at least one bake cycle.

#### **8 HOUR COUNTDOWN TIMER -**

After 8 hours the oven gives a warning and then turns off.

Press any button for an extra hour if required.

#### POWER LEVEL (1-4) -

Set these as required for each level to be used.

#### **CHART INTERVAL -**

Time interval in seconds that the bars show on the heat and bake time progress charts.

#### **SOUNDER SELECT –**

Set as external or onboard.

#### **SOUNDER TONE -**

Select a tone - Voice or Off

#### **SOUNDER VOLUME -**

Adjust to suit the volume required. (onboard sounder only)

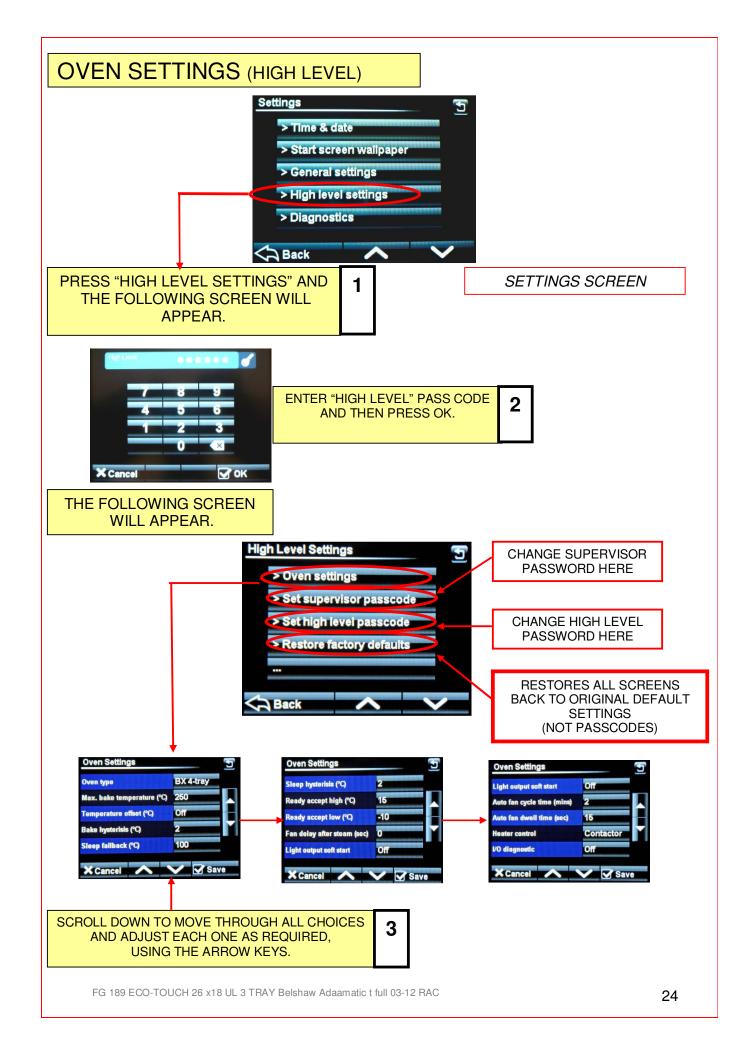
#### **SHORTCUT BUTTONS -**

1 fn 2fn 3fn

Gives the choice of what buttons are active and in which order they appear on the options screen.

Options available = Favourites, Programs, Manual bake, Multi bake,

4fn 5fn 7-day timer . (Settings at 6fn can not be changed)



### **OVEN SETTINGS EXPLAINED - HIGH LEVEL**

#### **OVEN TYPE -**

Set this to the type of oven that the screen is installed on.

#### MAX. BAKE TEMPERATURE -

Can be set up to 500F, (depending on the oven type)

#### **TEMPERATURE OFFSET -**

Can be used to adjust the display to the actual temperature in the oven.

#### **BAKE HYSTERISIS -**

Sets bake temperature cycling around a set point. (Above and below).

#### SLEEP FALLBACK -

Temperature of the oven in "sleep mode" (212F is suggested).

#### **SLEEP HYSTERISIS -**

Sets "sleep mode" temperature cycling around a set point. (Above and below).

#### **READY ACCEPT HIGH -**

Highest temperature for the oven to display "READY"

#### **READY ACCEPT LOW -**

Lowest temperature for the oven to display "READY"

#### **FAN DELAY AFTER STEAM -**

Delay before fan starts after the oven has steamed. (60 seconds max)

#### LIGHT OUTPUT SOFT START -

On/Off Some lights need this for cold start up to stop them blowing.

#### **AUTO FAN CYCLE TIME (MINS) -**

Set time required. Only used in manual and multibake modes.

#### **AUTO FAN DWELL TIME -**

Set time required. Only used in manual and multibake modes.

#### **HEATER CONTROL –**

Contactor or solid state. Defaults to contactor. (solid state not used at the moment)

#### I/O DIAGNOSTIC -

Displays outputs and inputs at the top of the screen to aid fault finding if needed.

## **DEFAULT PASS CODES**

# SUPERVISOR (LOW LEVEL) -- 123456 MANAGER (HIGH LEVEL) -- 654321

MASTER -- 314159 (This is fixed)

## \*\*\*IMPORTANT SUGGESTION\*\*\*

To stop unauthorised changes to the oven setup, it is suggested that this page is removed from this manual and kept in a safe place for future reference.

If tampering could be a problem, It is a good idea to change the pass codes at regular intervals.

## 9 - 3.0 USING THE USB PORT



Ensure the Start screen is showing

1

**Touch Screen To Start** 

START SCREEN



Insert the USB memory stick into the socket on the side of the oven panel. (Rubber plug may have to be removed first).

2

#### NOTE

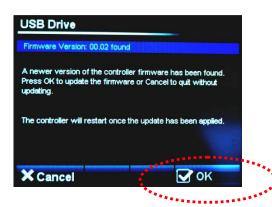
The USB stick will only fit in one way.

<u>Do not force it into the socket.</u>



Wait for the USB symbol to finish moving

3



If new firmware is detected, The firmware version screen will appear.

4

Press "OK" to update firmware <a href="Wait-">-Wait-</a>

Remove USB stick

OR

Press CANCEL to choose other items to update or change. (see next page)

If you pressed "CANCEL" or new firmware was not detected, then the following will appear.



Choose action you would like to do.

5



Select the file required.

6



WAIT FOR CONFIRMATION

7

Press cancel then remove the USB stick

8

## 10.0 MAINTENANCE

- Check for frayed or bare cables.
   The machine must not be used if frayed or bare cables are visible.
- Follow cleaning instructions.

## 11.0 LIGHT BULB REPLACEMENT

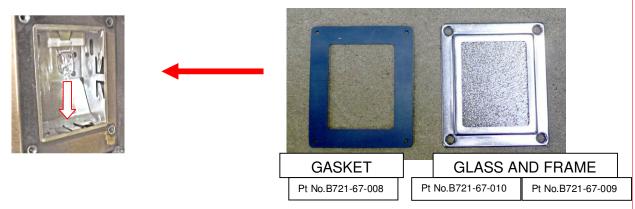
Replacement bulb part number B857-94-008

In the event of a bulb failure, Instructions on how to change a bulb are as follows: -

- Unplug oven from wall outlets (2) and allow oven to cool completely.
- Remove screws and take glass, frame and gasket off lamp unit.



Remove bulb by pulling in direction of arrow and replace with new bulb.



- Refit glass front, taking care that the gasket is in position around the stainless steel frame.
- · Re-connect the oven and test.

#### NOTE:

Bulbs can be ordered from Belshaw/Adamatic as part number **B857-94-008** or

sourced locally as Halogen G9 25w 120v

#### FREQUENTLY ASKED QUESTIONS

Q1: The fan in the oven does not run constantly while running different product programs?

**A1:** The fan is programmed to turn on and off, as well as change rotation, during the bake cycles of various products. This is done to promote an even bake and to create a gentle air flow in the oven.

Q2: The fan does not run at all while running the Non-Glazed Donut program?

**A2:** In the Non-Glazed Donut program the fan is programmed to stay off the entire bake cycle as to not overheat the donuts.

Q3: My glazed donuts don't come out hot?

**A3:** The programs for glazed donuts were developed to only heat the glaze on the donut to 110 F such that the glaze will set and dry clear. It is not intended to raise the core temperature of the donuts.

Q4: My non-glazed donuts don't come out hot?

**A4:** The program for non-glazed donuts was developed to only heat shortening on the surface of the donut so it can be absorbed by the donut. It is not intended to raise the core temperature of the donuts.

Q5: The clean program does not adequately clean the oven?

**A5:** The clean program is there to help the operator clean the oven and does not clean the oven on its own. The clean program sprays hot water for 20 seconds in the oven to start breaking down carbonized glaze to make it easier to wipe out.

Q6: The lights do not stay on at all times.

A6: The lights are programmed to turn on after a product program is selected, i.e while pre-heating (or cooling) and during the bake cycle itself. The lights will turn off when the stop button is pressed at the end of a bake cycle and remain off until another bake cycle is initiated.

Q7: Why am I getting black specks in my glazed donuts?

A7: This is most likely due to lack of cleaning the oven. As glaze collects in the oven it is carbonized by the high temperature in the oven and eventually turns to black dust. Remove the interior side baffles and clean the interior surfaces of the oven as outlined in the Section 8 of this manual.

Q8: Why does the top of the display change colors.

**A8:** The color coding is meant to help the operator now what is going on with the oven. If the bar on the top is red, the oven is pre-heating to a set temperature. If the bar on top is blue, the oven is cooling off to a set temperature. If the bar on top is green, the oven is ready to start a bake cycle. If the bar on top is black the oven is counting down in a bake cycle.

Q9: What can be used to scrap off heavy build-up of carbonized glaze?

A9: Regular cleaning after each session of glazed donuts will prevent the buildup from forming. Use a scotch brite pad to remove the heavy glaze build-up or a stainless steel or non-metallic scraper.

Q10: Who do I call for service?

**A10:** Call the Belshaw Adamatic Bakery Group at 800-578-2547. This is a 24/7 service dispatch call center.



814 44<sup>TH</sup> St. NW Suite 103 Auburn, WA 98001 USA

Tel. 800.526.2807

Fax: 206 322 5425

Web: www.belshaw-adamatic.com

Email: info@belshaw-adamatic.com