Enter Serial No. here.

MANUAL No.Y-OM-03E

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

Store this document safely and ensure it is available at all times. Non-availability may affect the service / repair of your machine.





OPERATING AND MAINTENANCE MANUAL

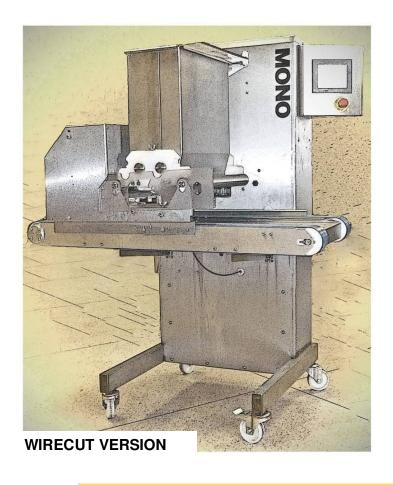
"OMEGA PLUS"

INCLUDING WIRECUT VERSION DEPOSITOR (400, 450,)

-DEC	<u>LARATION OF CONFORMITY-</u>
We hereby de	clare that this machine complies with the essential health and safety requirements of:-
Th	e Machinery Directive 2006/42/EC
The	e Low voltage Directive 2006/95/EC
	The requirements of the tromagnetic Compatibility Directive 004/108EC,91/263/EEC,92/31/EEC
	General Safety of Machinery and processing Standards applicable
	Signed: (G.A.Williams: Quality Manager)
	Date:
Machine Code FG	Machine Serial No
A technical co	onstruction file for this machine is retained at the following address: MONO EQUIPMENT Queensway, Swansea West Industrial Park, Swansea SA5 4EB UK
REGISTERED IN ENGLAND	A BUSINESS NAME OF AFE GROUP LTD ND. 3872673 VAT REGISTRATION NO.923428136 15, Bryggen Road, North Lynn Industrial Estate, Kings Lynn, Norfolk, PE30 2HZ

Omega PLUS

Failure to adhere to the cleaning and maintenance instructions detailed in this booklet could affect the warranty of this machine.



FOR SAFE WORKING, PAY SPECIAL ATTENTION TO ITEMS MARKED

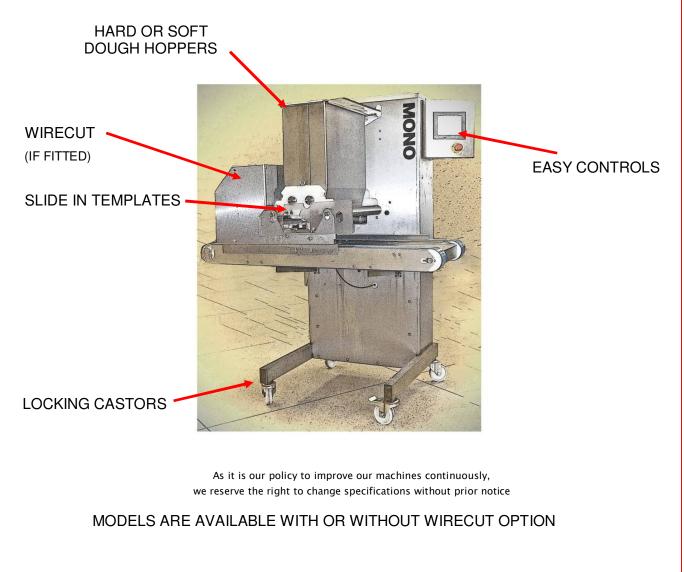


	CONTENTS	Omega PLUS
1.0	- INTRODUCTION	
2.0	- DIMENSIONS	
3.0	- SPECIFICATIONS	
4.0	- SAFETY	
5.0	- INSTALLATION	
6.0	- ISOLATION	
7.0	- CLEANING INSTRUCTIONS	
8.0	- OPERATING CONDITIONS	
9.0	- PREPARING FOR OPERATION	
	9A – FITTING THE HOPPER	
	9B – FITTING A TEMPLATE	
10.0	- OPERATING INSTRUCTIONS	
1	– SELECT PRODUCT TYPE	
2	- SELECT SAVED NAME OF PRODUCT TYP	E
3	– CONFIRM SETUP	
4	- OPERATOR SCREEN	
5	– EDIT SCREEN	
54	A – TRAY SETUP	
6	– COPY	
7	– DELETE	
8	– PASSWORDS	
9	– ENGINEERING SETTINGS	
10		
11.0	- MAINTENANCE CHECK AND MAINTENANCE	E SCHEDULE
12.0	- SPARES AND SERVICE	
13.0	- SPARES LIST	
14.0	- ELECTRICAL INFORMATION	



1.0 INTRODUCTION

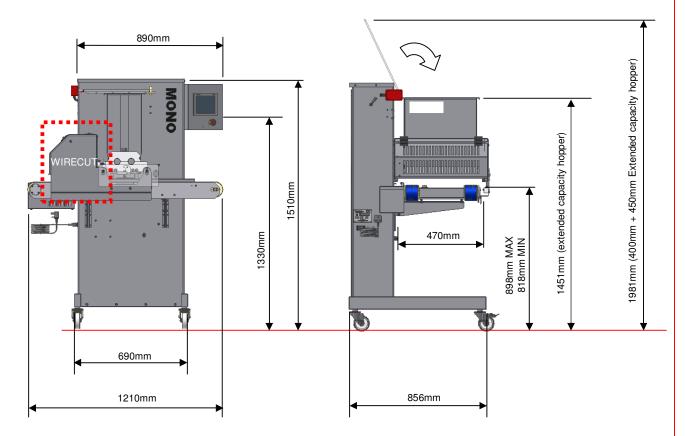
- The innovative "five axis deposit" design of MONO's "Omega PLUS" and "Omega PLUS with wirecut" depositor allows it to recreate most of the hand movements of the Master confectioner. This makes the "Omega PLUS" capable of exceptional accuracy of product weight, size and shape.
- Maintenance is kept to a minimum and the smooth body design makes daily cleaning quick and easy.
- Easy to use computer software gives access to 650 programs, which are stored in the memory and easily recalled for use or modification. Control is via a colour touch screen with graphically represented products, already installed, that can be created or edited to the required product.
- It is available with soft and hard dough hoppers. There is also a large selection of templates and nozzles.





2.0 DIMENSIONS

MODELS ARE AVAILABLE WITH OR WITHOUT WIRECUT OPTION







Omega PLUS

3.0 SPECIFICATIONS

Omega PLUS

	<u>SOFT</u>	SOFT DOUGH		HARD DOUGH	
MODEL (Nom. hopper width (mm))	400	450	400	450	
Weight (with hopper fitted) (kg)	: 196	210	216	235	
Standard hopper Capacity (litre) :	20	22.5	21	24	
Extended hopper Capacity (litre) :	36	41	31	35	
Power: MAX RATING	Single phase, 13A max load.Suitable for 200v, 220v, 230v, and 240v, 50-60 Hz supply. 2.5kW single phase fused at 13A				
Cycles per minute Min distance between trays Max vertical travel Max program storage Number of languages Noise level Electronics	= Less than	onal in future) 185dB processor contr	olled		

NOTE:

The minimum deposit that can be made depends on several factors - recipe, mixing method, template size, nozzle size and deposit speed.

As a guide the following is the minimum that should be attempted:

Macaroons	6g,
Meringues	3g,
Choux Paste	5g,
Viennese	4g,
Sponge Drops	4g.

However, consult **Mono Equipment** if intended product falls outside the above general machine specification to determine the exact capabilities of the "Omega" with any specific product. As it is our policy to improve our machines continuously, we reserve the right to change specifications without prior notice



Omega PLUS

- 1 Never use a machine in a faulty condition and always report any damage.
- 2 Only trained engineers may remove parts that need a tool to remove them.
- 3 Always ensure hands are dry before touching any electrical appliance (including cable, switch and plug). **NEVER move machinery by pulling on the power cords or cables.**
- 4 Ensure that the floor area around the OMEGA is clean to avoid slipping especially if carrying heavy hopper and template components to and from the machine.

5 All operatives must be fully trained.

4.0 SAFETY

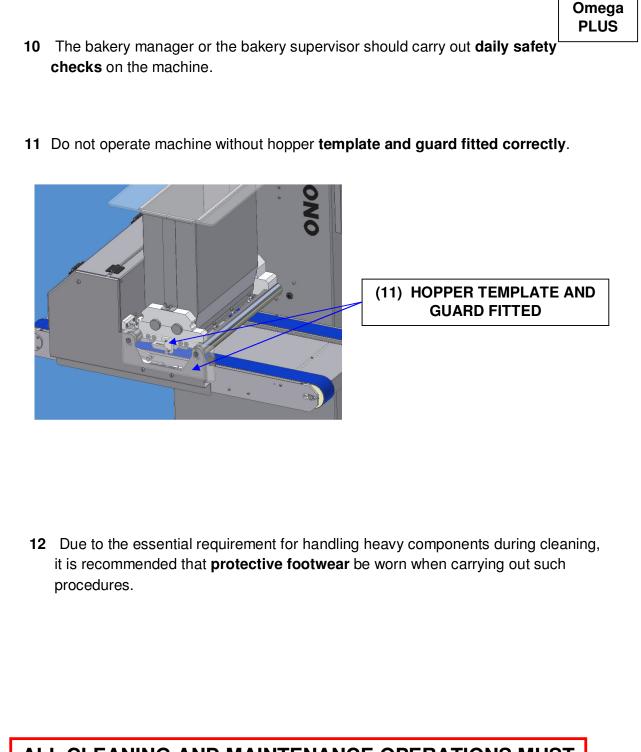
Use of the machine can prove dangerous if:

- the machine is operated by untrained or unskilled staff
- the machine is not used for its intended purpose
- the machine is **not operated correctly**

All safety devices applied to the machine during manufacture and the operating instructions in this manual are required to operate this machine safely. The owner and the operator are responsible for operating this machine safely.

- 6 People undergoing training on the machine must be under **direct supervision**.
- 7 Do not operate the machine with any panels or guards removed.
- 8 No loose clothing or jewellery should be worn while operating the machine.
- **9** Switch off power at the mains isolator when machine is not in use and before carrying out any cleaning or maintenance.





ALL CLEANING AND MAINTENANCE OPERATIONS MUST BE MADE WITH THE MACHINE DISCONNECTED FROM THE POWER SUPPLY.

5.0 INSTALLATION

- 1 Ensure that the depositor is connected to correct electric supply, as specified on the serial number plate on the side of the machine.
- 2 Ensure that the correct fuse rating is fitted in the electrical supply

6.0 ISOLATION



▲ IN AN EMERGENCY, SWITCH OFF AT THE ELECTRICAL MAINS WALL ISOLATOR, OR PUSH THE EMERGENCY STOP BUTTON.

To release the emergency stop button, turn clockwise.



FG079 –OMEGA TOUCH INCL WIRECUT 09/12 RAC



Omega

PLUS

Omega PLUS

7.0 CLEANING INSTRUCTIONS

NOTE:

- Cleaning must be carried out by fully trained personnel only.

- Isolate machine from mains supply before carrying out any cleaning.

- Do not steam clean or use a jet of water.

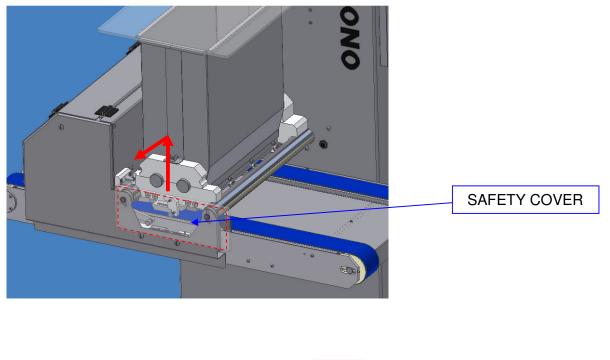
-Do not use any form of caustic detergent or abrasive cleaners. -

All the outer surfaces of the machine should be wiped over daily with warm soapy water.

HARD AND SOFT DOUGH HOPPERS BETWEEN PRODUCT MIX CHANGES

The feed hopper, pump assembly, template, nozzles etc. should be removed from the machine and dismantled for thorough cleaning between product mix changes.

- 1. Open top safety guard and remove excess mixture remaining in the feed hopper.
- 2. Lift off front see-through safety cover.

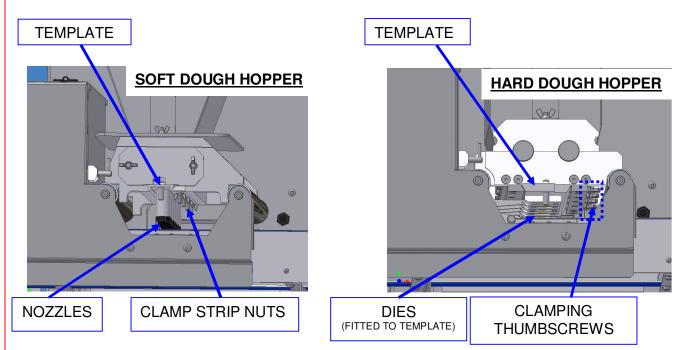




3. <u>Slacken</u> template clamp strip nuts or thumbscrews (depending on type of hopper) Remove fitted template from pump assembly by sliding out to avoid subsequent damage.

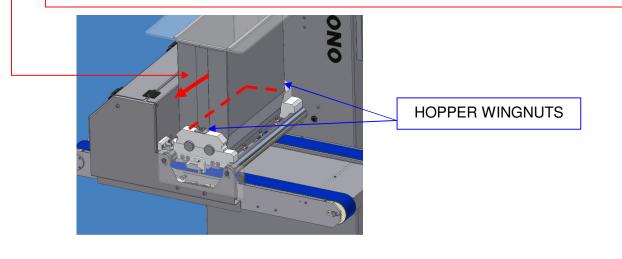
NOTE.

Thumbscrews only need to be released slightly to allow the template to slide away from the pump assembly. If loosened too much, the template will have to be supported.



4 To reduce weight and bulk, separate and remove empty feed hopper from pump assembly, whilst still on the machine, by unscrewing the wing nuts.

To gain access to the inner wing nut, slide the complete hopper away from the machine body slightly (keep on support bars) - this will also disengage the pump assembly from the drive shaft.



Ensure that the nuts are placed where they will not be lost.

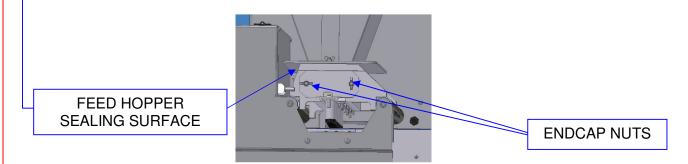


SOFT DOUGH HOPPER

CAUTION:

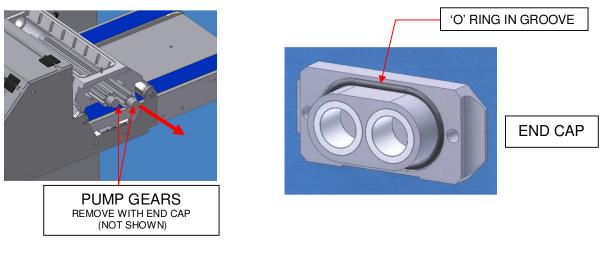
The feed hopper and pump assembly exceeds 25kg and will need to be lifted off by two people, or dismantled into smaller components while still on the machine.

- Take care to avoid damage to the sealing surface of the feed hopper during removal, cleaning, assembly and storage.
- 1. After removing the feed hopper, check condition of feed hopper seal.
- 2. Unscrew the end cap retaining nuts from the accessible side of the pump assembly. *[Ensure that the nuts are placed where they will not be lost.]*



3. Withdraw the end-cap with the pump gears.

Ensure that the 'O' sealing ring on the inside of the end cap is not damaged during cleaning.



4. Remove remainder of pump assembly from the machine and remove remaining end-cap to fully dismantle pump assembly components for cleaning.



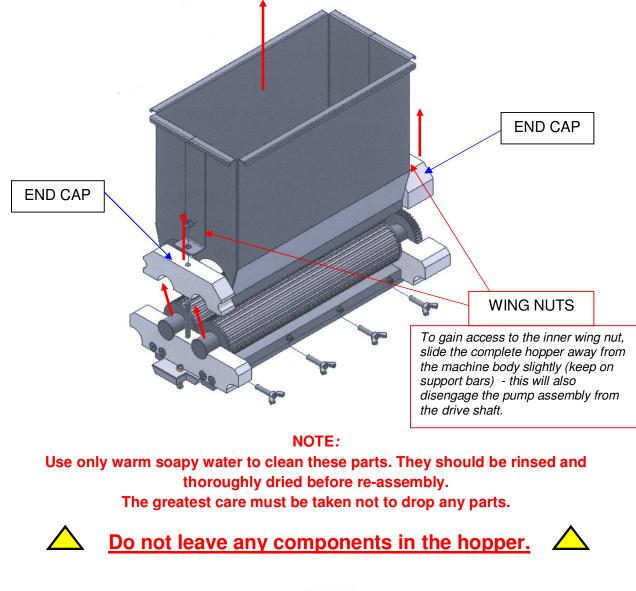
HARD DOUGH HOPPER

CAUTION:

The feed hopper and pump assembly exceeds 25kg and will need to be lifted off by two people, or dismantled into smaller components while still on the machine.

To reduce weight and bulk, separate and remove empty feed hopper from pump assembly, whilst still on the machine, by unscrewing the wing nuts. *(Ensure that the nuts are placed where they will not be lost.)* The pump assembly will now be lighter and more easily removed.

- 1. Lift off both upper plastic end-caps.
- 2. Remove both gears from the assembly, one at a time, by lifting vertically.
- 3. Remove remainder of pump assembly from the machine for cleaning.





8.0 OPERATING CONDITIONS

Omega PLUS

To obtain the best product results and consistent operation,

- ✓ Make sure the depositor is used on a level floor.
- ✓ Ensure flat trays of consistent length, width, material and edge dimensions are used.
- ✓ Ensure undamaged nozzles and templates are used.
- ✓ Keep the machine **clean**.

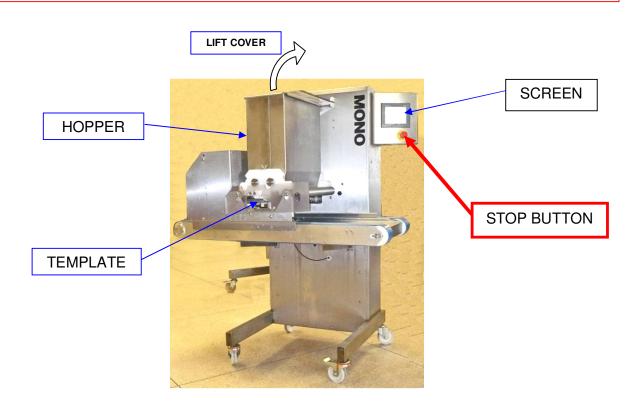




9.0 PREPARING FOR OPERATION

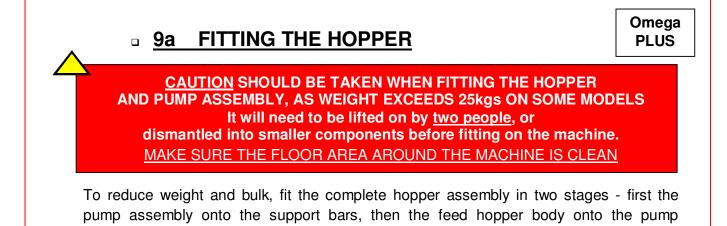
1 Select template and nozzles (and finger frame, if wirecut is to be used) and fit as section 9a & 9b (following pages). Fill hopper with mix and close hopper cover.

It is recommended that when heavy mixes are used, the inside of the hopper should be coated with vegetable oil; for lighter mixes such as meringue, dampen with water. The oil or water will help the mix to settle down the hopper walls and prevent air being sucked in.

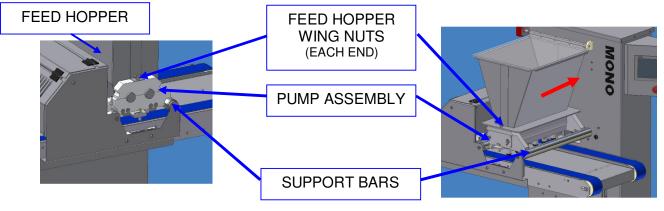


- 2 Connect power cable to electrical supply. Make sure stop button is in released position (turn clockwise if required).
- **3** Select an existing program or create a new program through the on-screen menus. (see section 10 operation)
- 4 The machine is now ready for operation.





- **1** By hand, align pump assembly drive gear roller with drive shaft on machine.
- 2 Fit hopper to pump assembly and secure with wing nuts.
- 3 Slide hopper on support bars until fully up against machine.

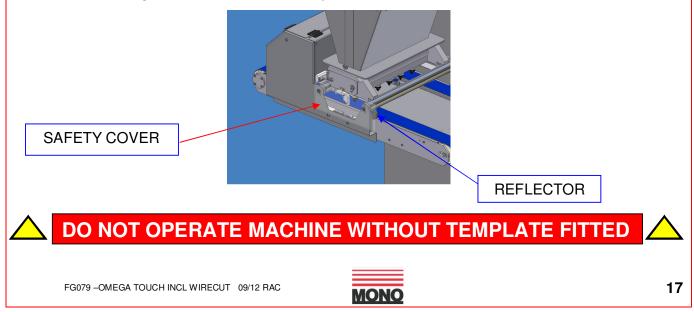


HARD DOUGH

assembly.

SOFT DOUGH

4 After the hopper is fitted, the safety cover **MUST BE** replaced with the reflector facing towards the machine body.



Omega PLUS 9b FITTING A TEMPLATE Soft dough Non-rotary templates can be fitted with nozzles. This requires screwing the nozzles into the threaded holes provided. Rotary templates can have plastic nozzles screwed into nozzle holders (straight or offset). OR Metal nozzles secured in place by a separate nut. Select template and nozzles required. 1 (Nozzles are not required for sheeting, staggered or stub templates) 2 Attach nozzles to template body: RECESS FOR TEMPLATE TEMPLATE BODY GED **NOZZLES CLAMP STRIP NUTS**

- **3** Slide the template into the matching recess at the base of the pump assembly until the stop is in position.
- 4 Tighten the nuts on the clamp strip (on underside of pump assembly) to secure template.

NOTE. If the nuts are not securely tightened, leakage of mix will occur, affecting deposit weights.

DO NOT OPERATE MACHINE WITHOUT TEMPLATE FITTED

BEFORE USING STRAIGHT & OFFSET NOZZLE HOLDERS "O" RINGS MUST BE FITTED

Nozzle holders provide the means of attaching standard plastic nozzles to the soft dough rotary templates and the sealing rings need to be fitted before using and may need replacing occasionally to ensure correct operation. "O" RING PART NUMBER = A900-12-010 (SUPPLIED IN BAGS OF 20)



LOOP FIRST RING OVER END



- Hay

SLIDE RING DOWN TO GROOVE

FIRST RING IN CORRECT POSITION



LOOP SECOND RING OVER END





SLIDE RING DOWN TO SECOND GROOVE, PASSING OVER FIRST RING

SECOND RING IN CORRECT POSITION



• Hard dough

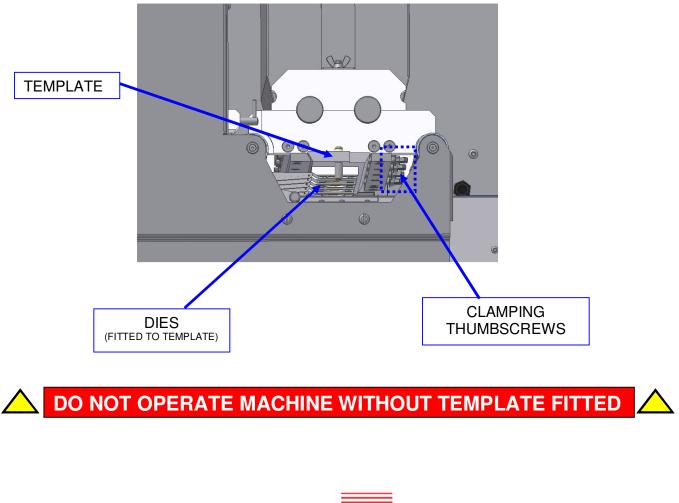
Non-rotary templates that can be fitted with nozzles require them to be secured in place with a separate nut. Nozzles are not required for sheeting or wirecut templates.

Rotary templates require nozzles to be secured in place with a separate nut.

- 1 Select wirecut template or template and nozzles required.
- 2 Attach nozzles (if required) to template body using special nut:
- 3 Slide template into position and hand-tighten thumbscrews.

NOTE.

Thumbscrews only need to be released slightly to allow the template to slide away from the pump assembly. If loosened too much the template will have to be supported while the screws are tightened.



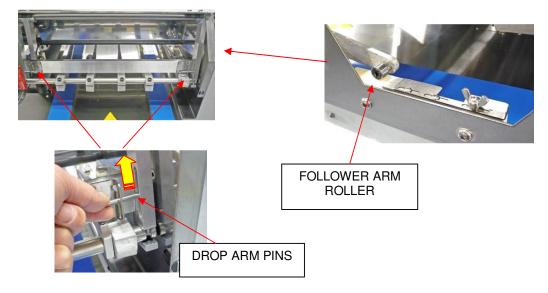
MONO



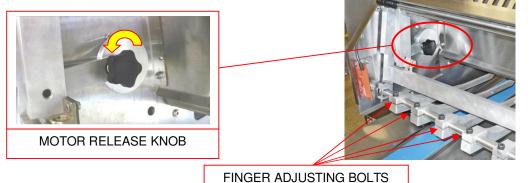
IF WIRECUT FITTED

FITTING WIRECUT FINGERS

- 1. Select wirecut fingers that suit the chosen template to be used.i.e. the correct number to match the number of dies across template.
- 2. Remove drop arm pins and insert finger frame into arms. Ensure that the follower arm roller is positioned on the cam track.



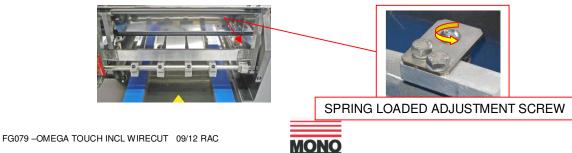
- 3. Replace drop arm pins.
- 4. Disconnect motor release knob and push fingers forward in order to line up the wire with the dies.



5. Adjust individual finger bolts to raise the wire to touch the bottom surface of the dies used in the template.

OR

Adjust the spring loaded screw to raise or lower all fingers at the same time.

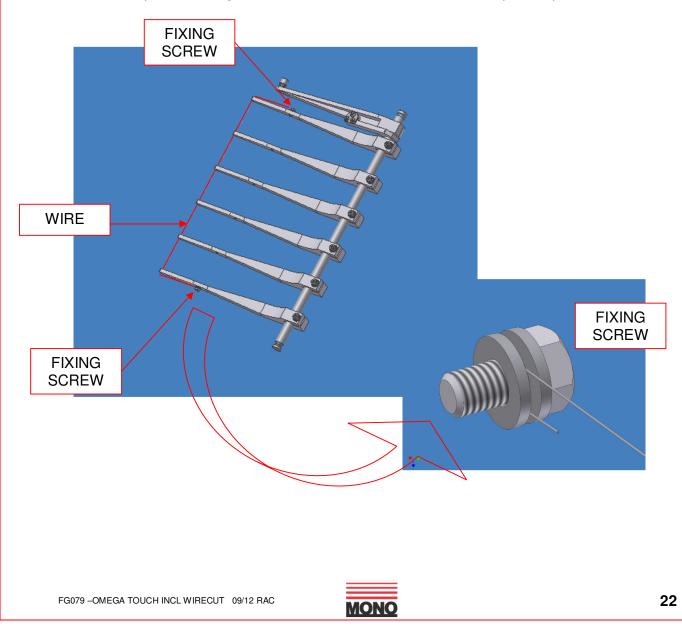


IF WIRECUT FITTED

REPLACING BROKEN WIRE

MAKE SURE THAT ALL PIECES OF WIRE HAVE BEEN FOUND BEFORE OPERATING MACHINE AFTER A WIRE REPLACEMENT.

- 1. Remove fingers from the machine.
- 2. Remove broken wire
- 3. Feed new wire round screw between washers and tighten screw.
- 4. Feed the wire through the eyehole in the end of each finger.
- 5. Feed new wire round other screw between washers. Pull tight and tighten screw. (wire should be like a guitar string).
- 6. Replace the fingers back in the machine and check set up and operation.



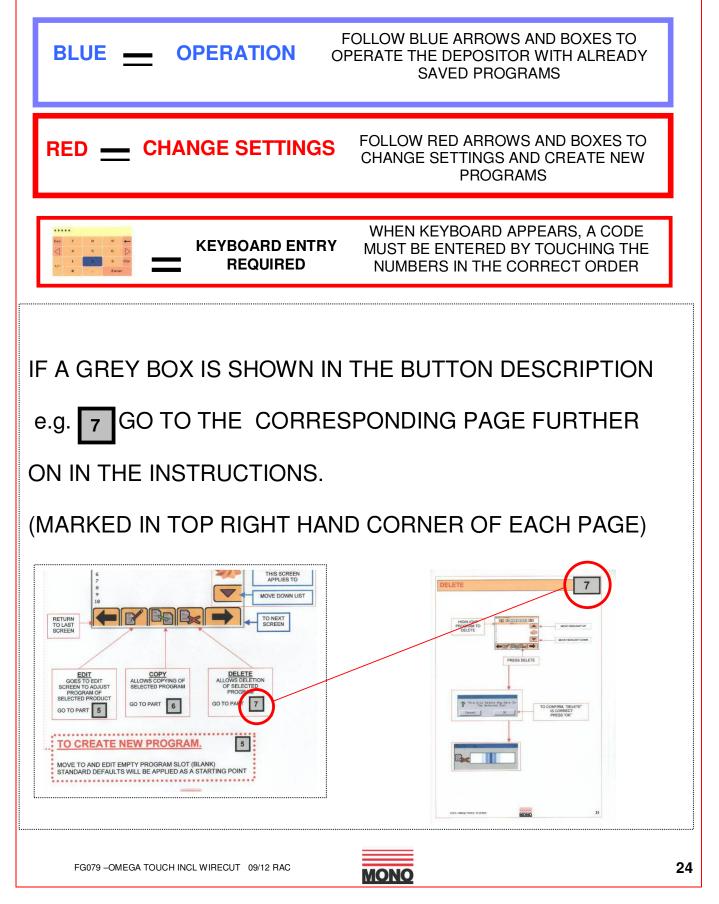
10.0 'OMEGA PLUS' OPERATION

Omega PLUS

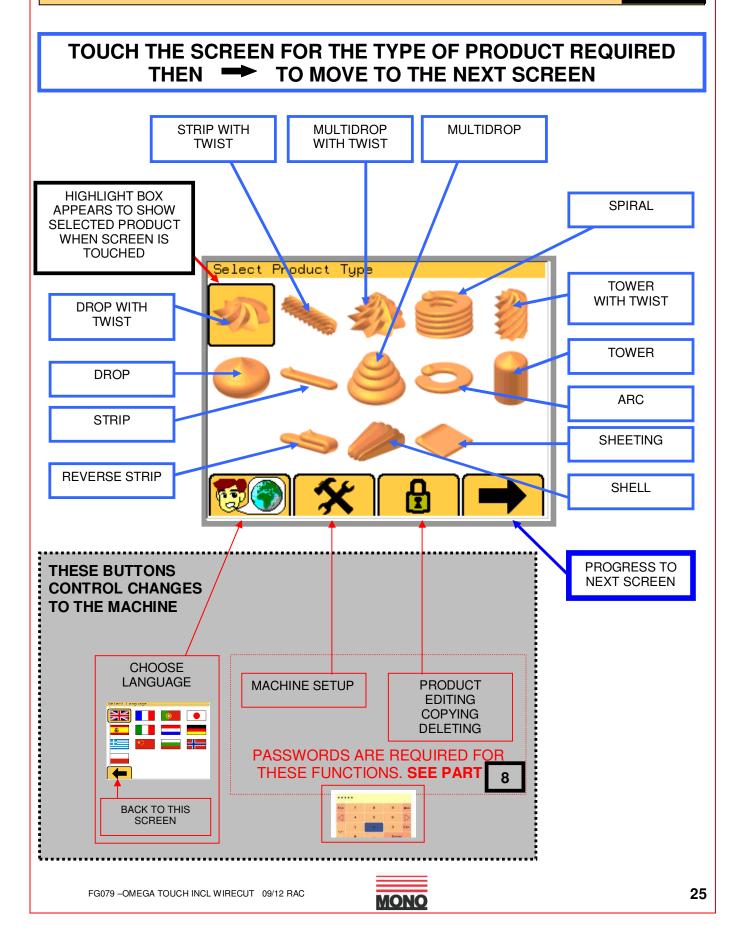


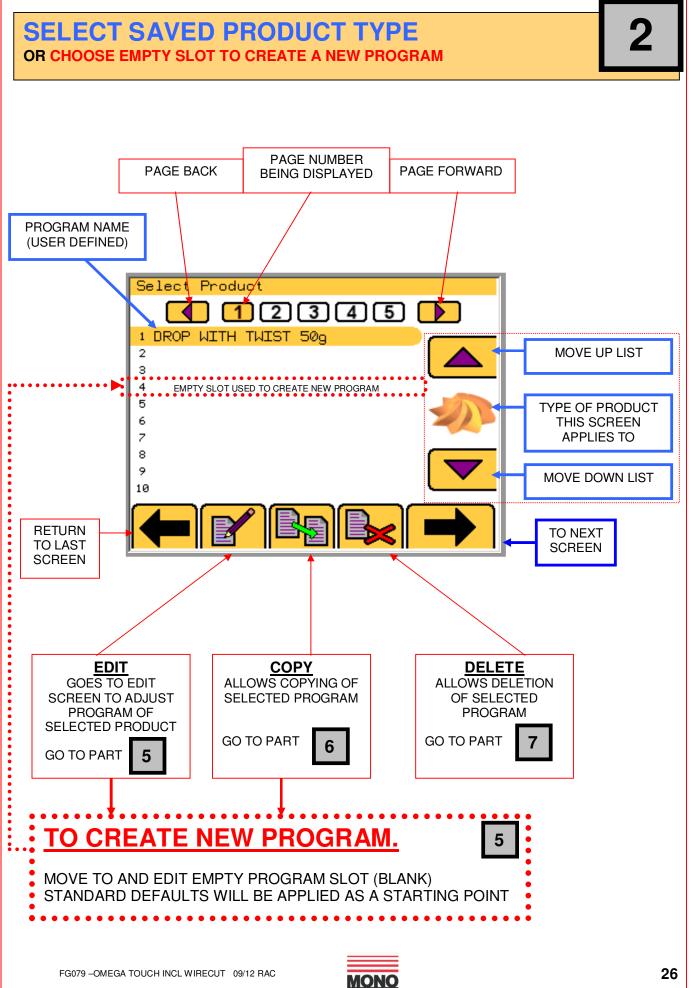


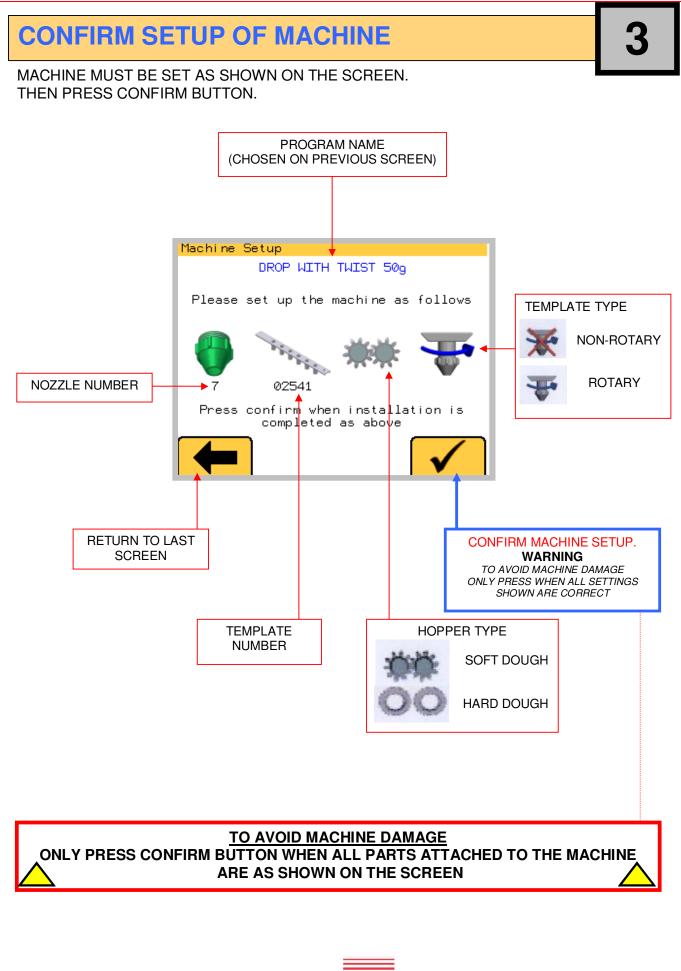
OPERATING KEY FOR FOLLOWING INSTRUCTIONS



SELECT PRODUCT TYPE SELECT PRODUCT TO DEPOSIT OR TO CREATE A NEW PROGRAM



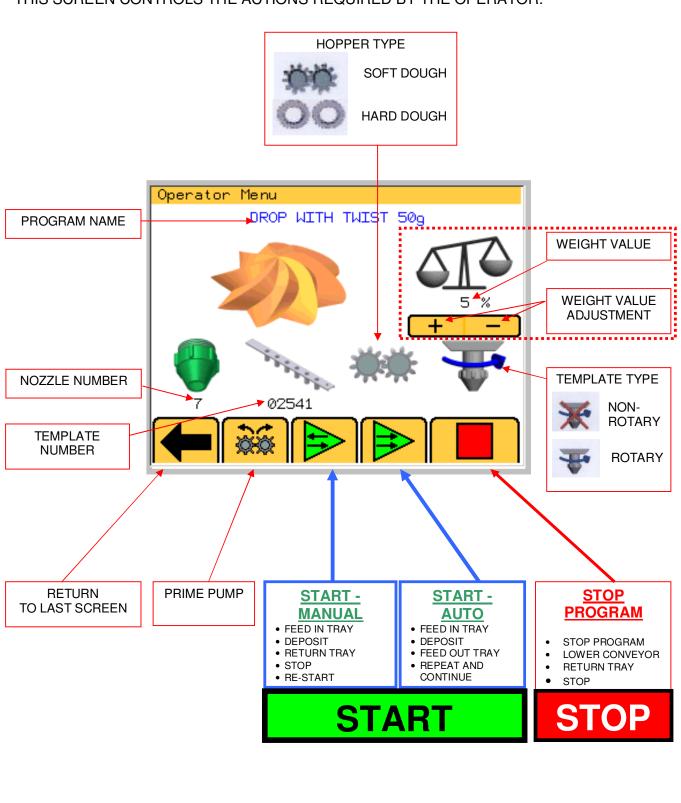






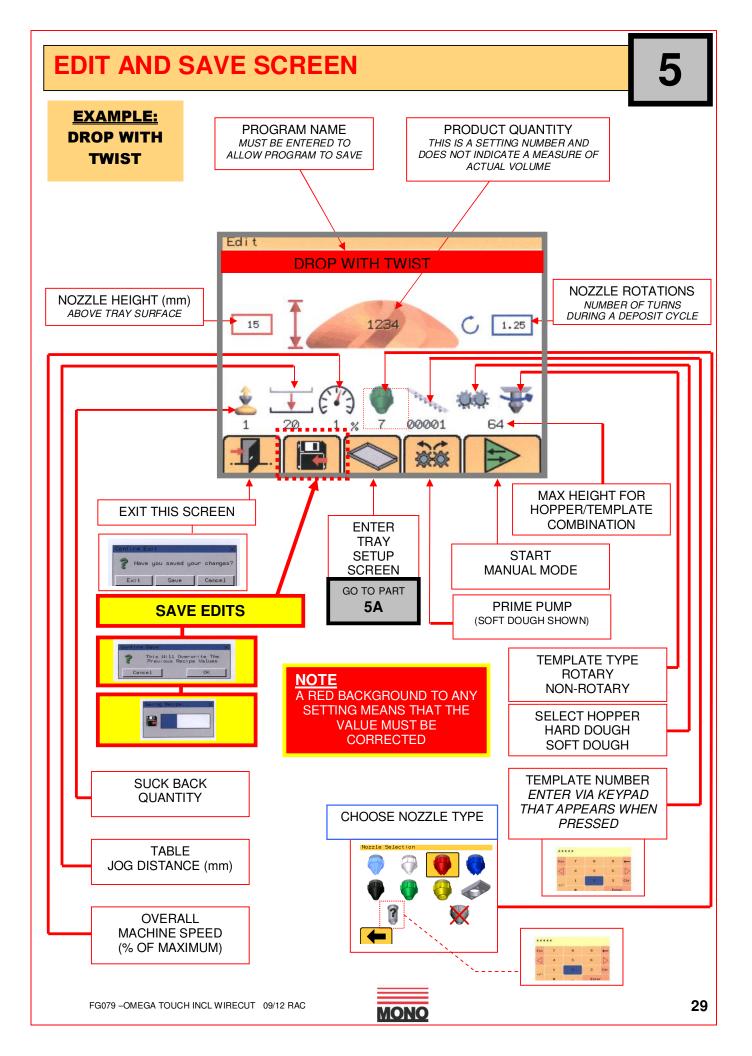
OPERATOR SCREEN

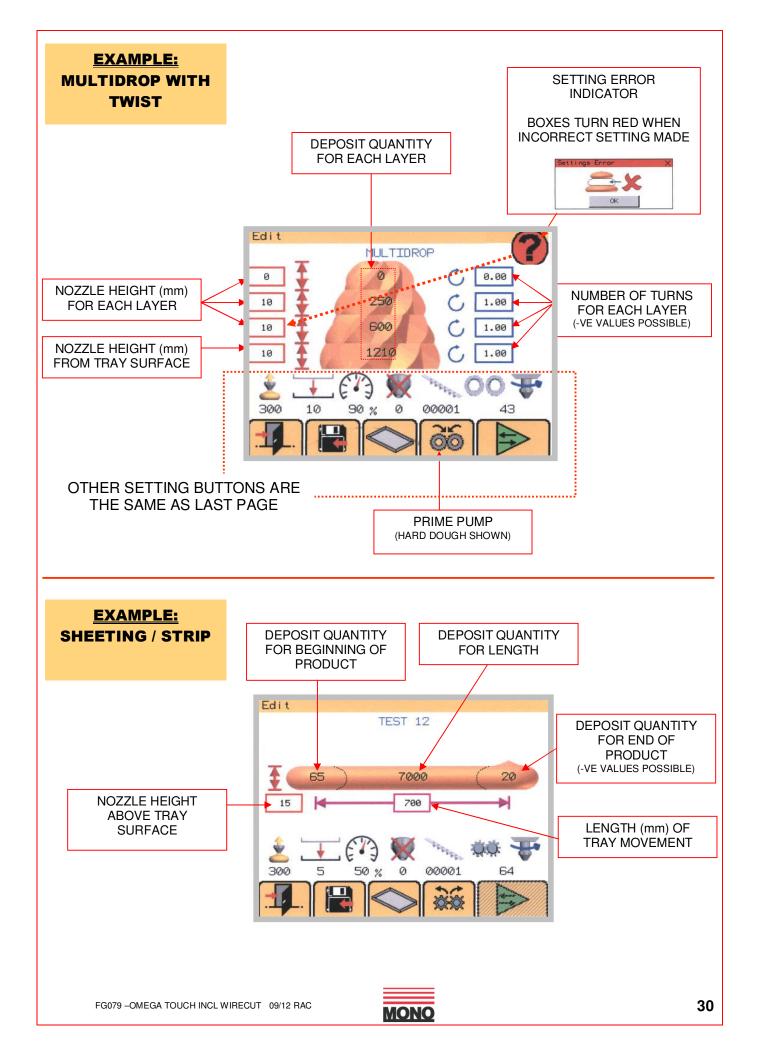
MACHINE IS SET AS SHOWN ON THE SCREEN. THIS SCREEN CONTROLS THE ACTIONS REQUIRED BY THE OPERATOR.

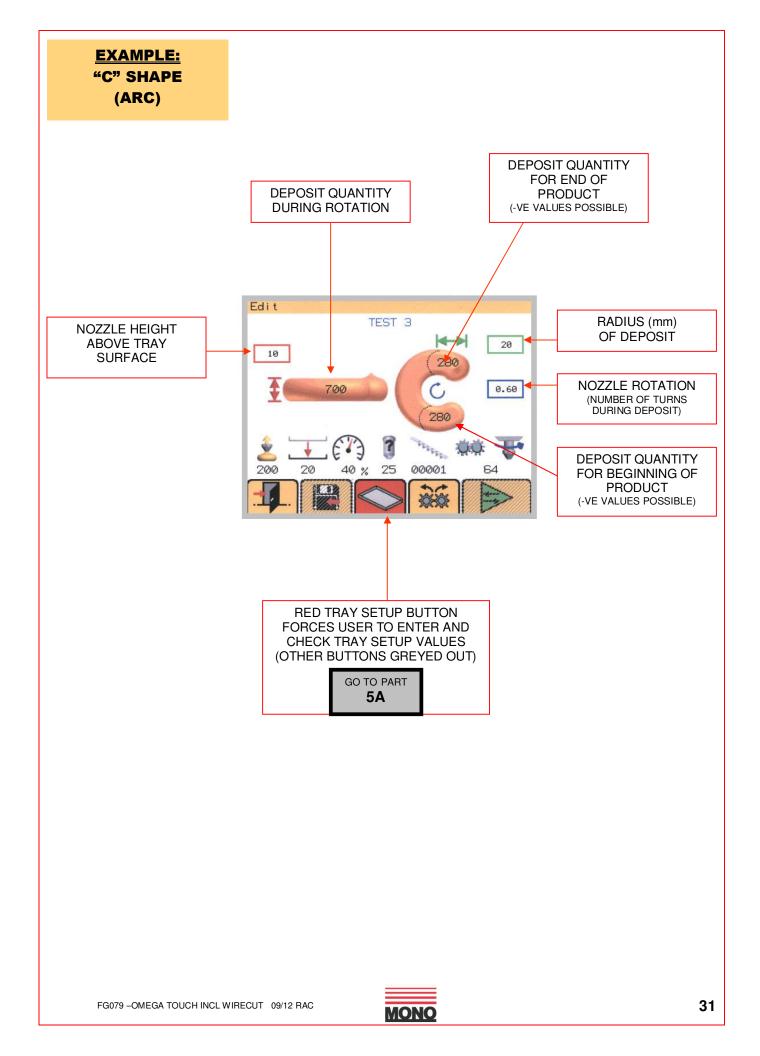


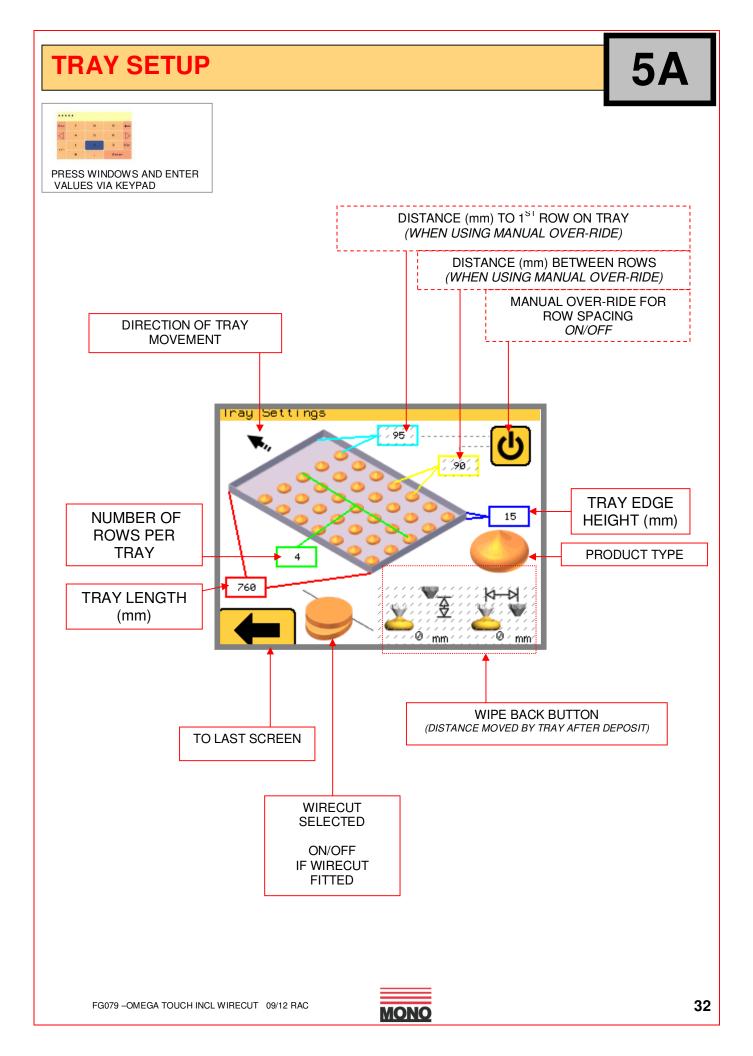


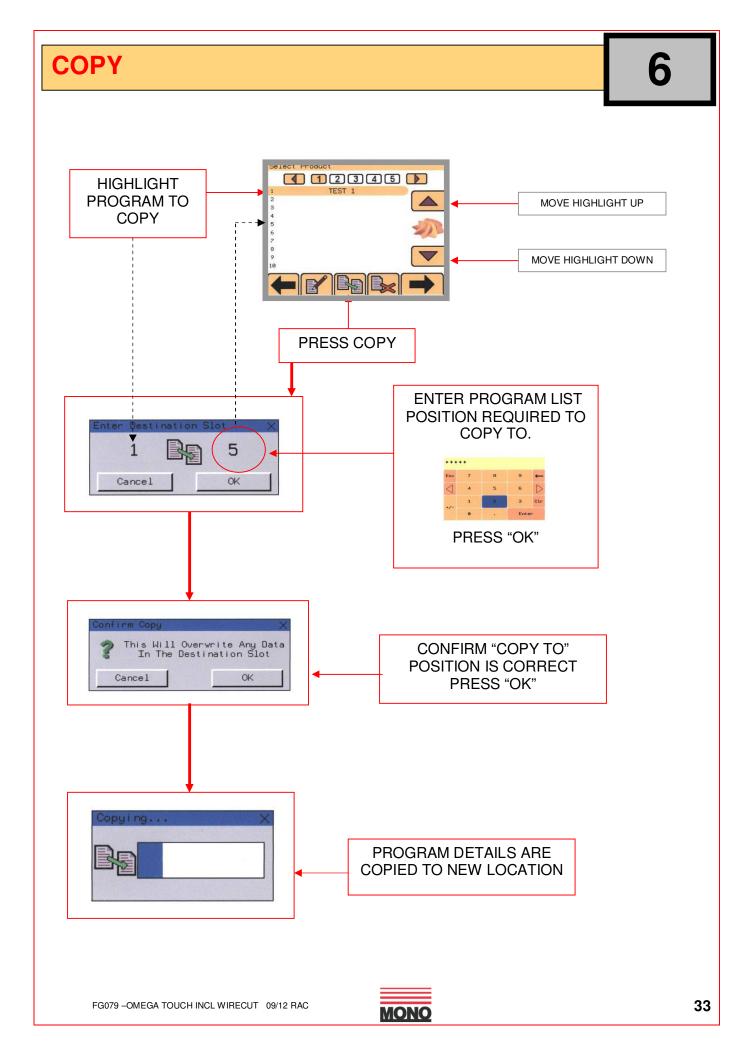
4

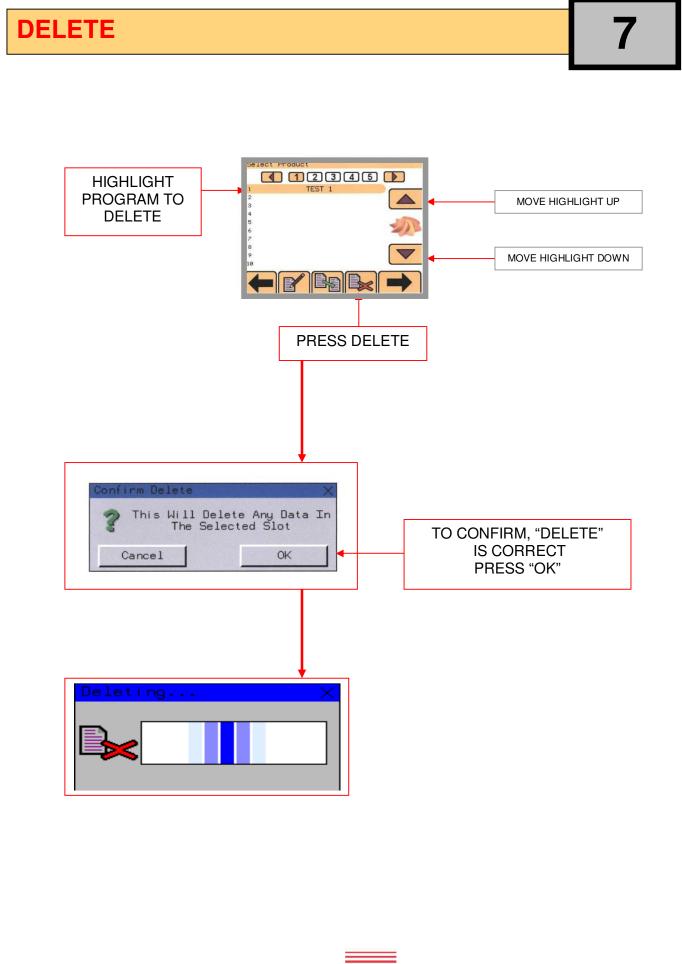




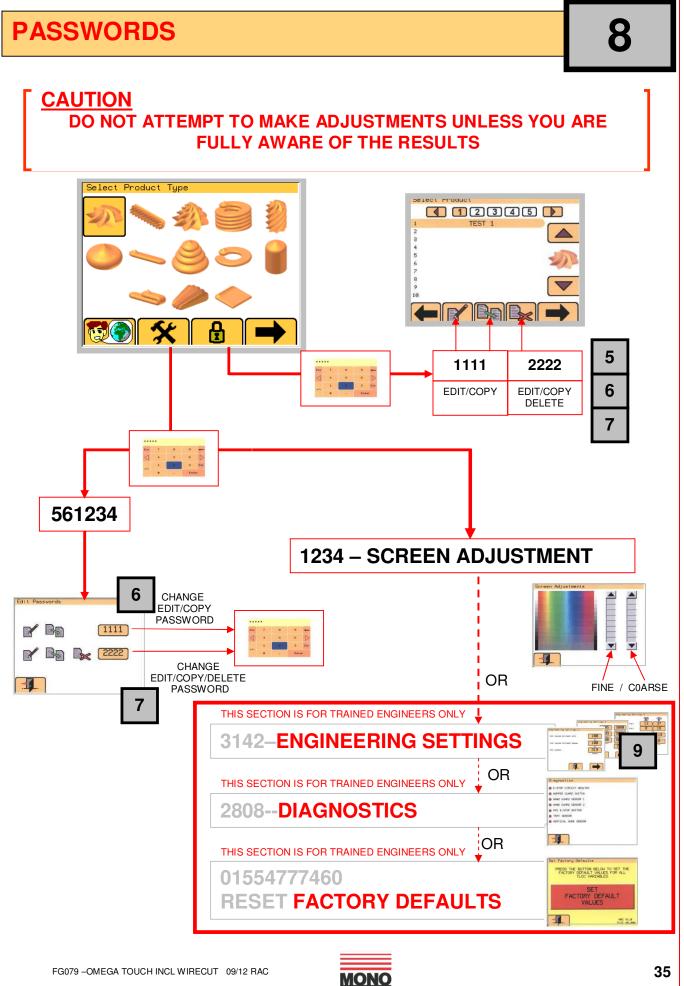


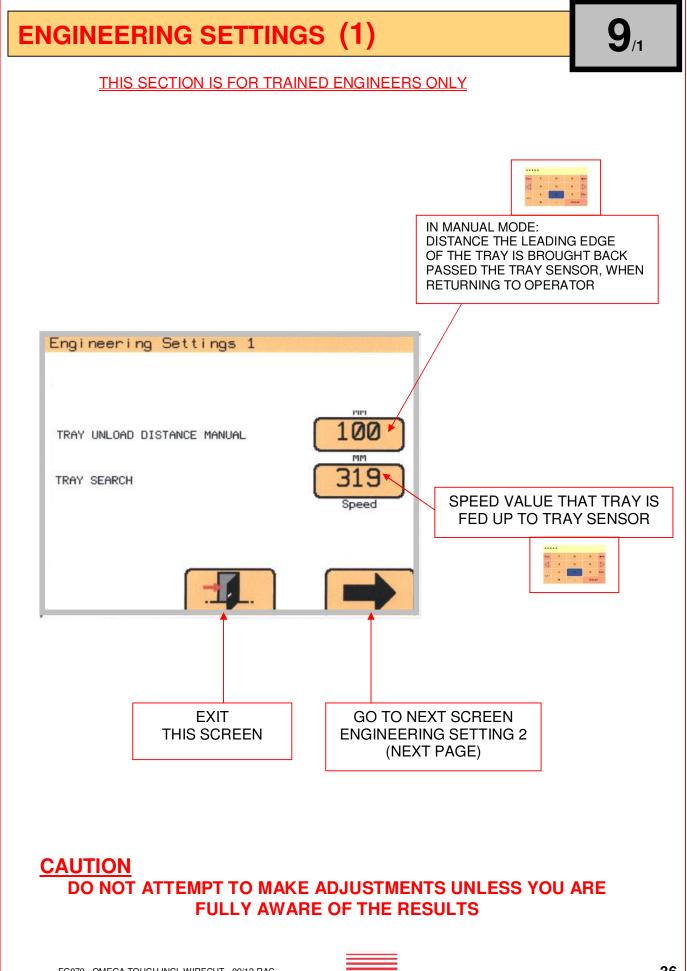




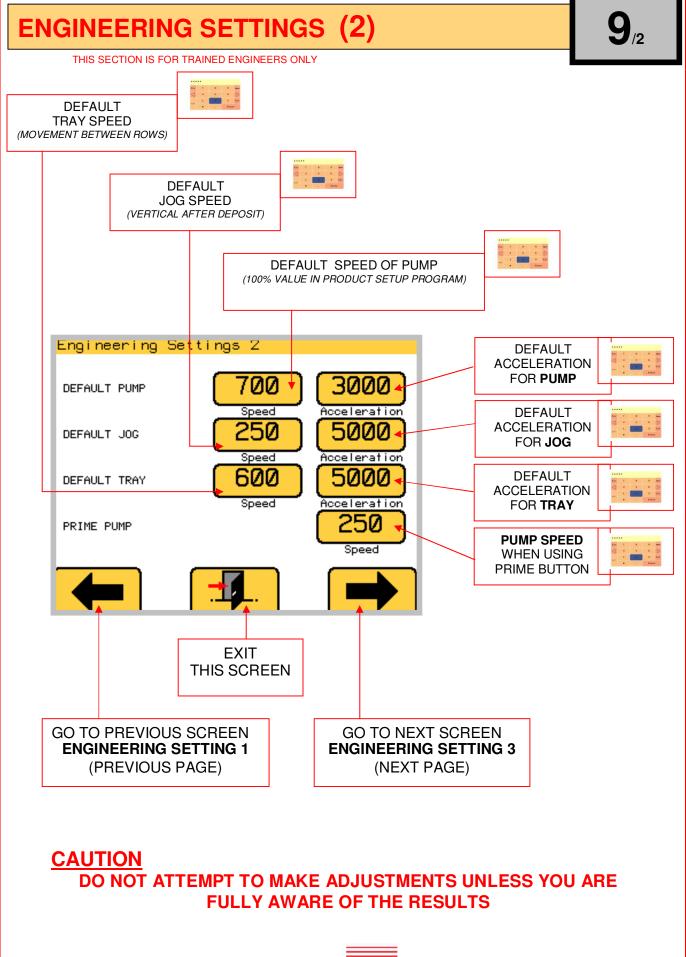




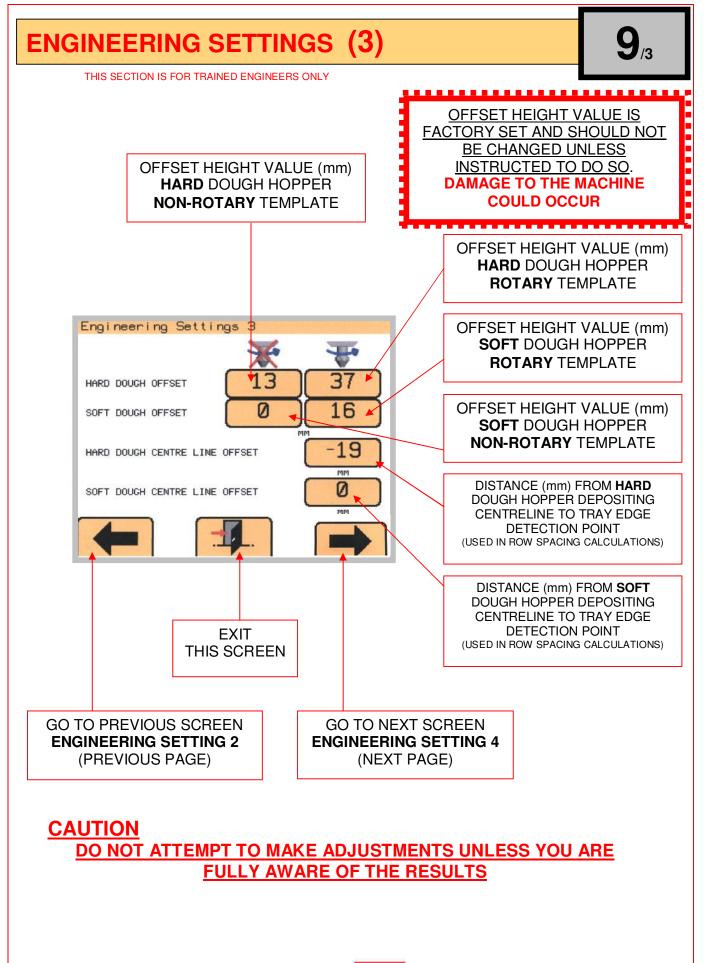




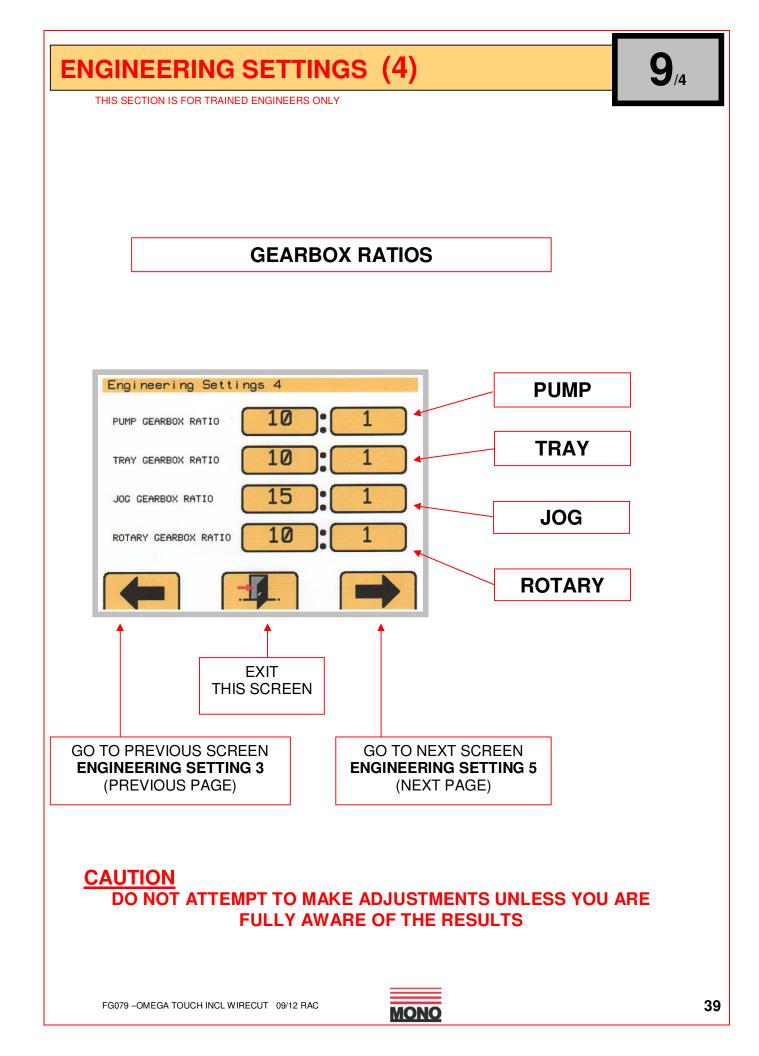


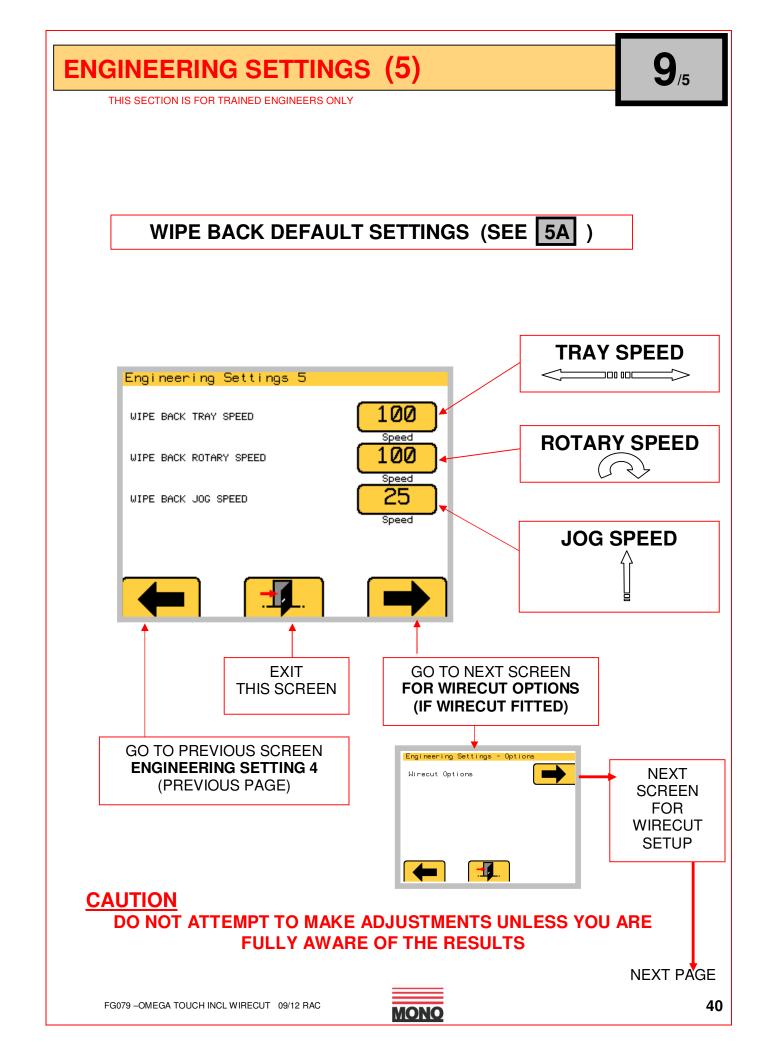


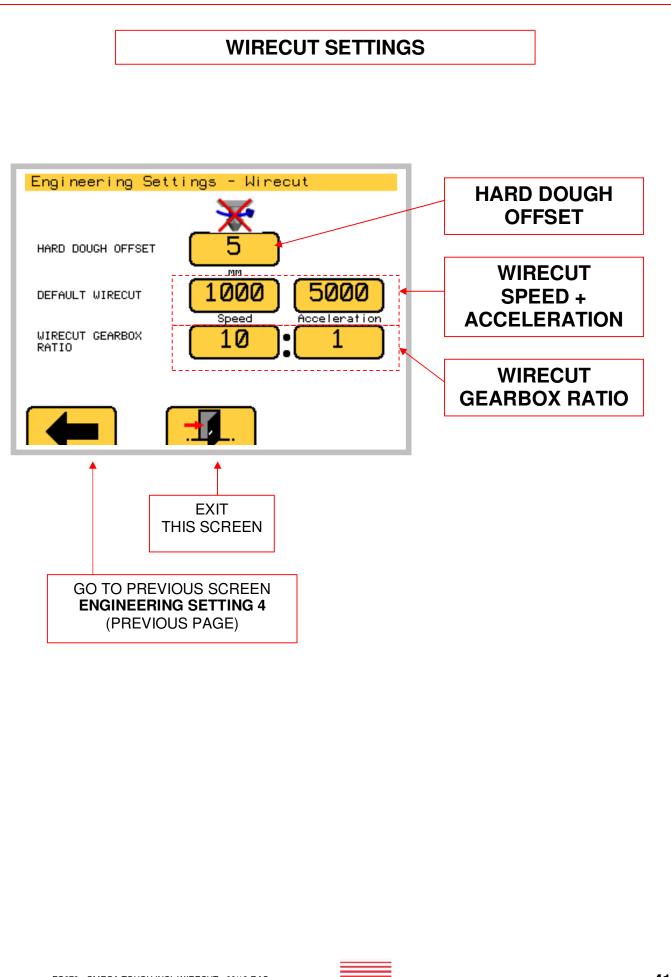




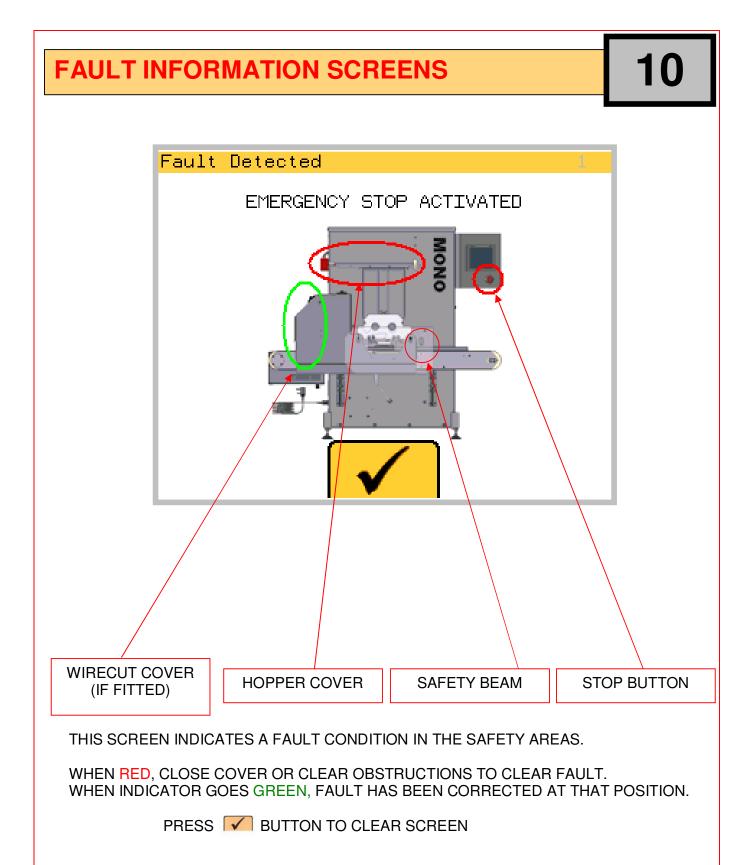








FG079 -OMEGA TOUCH INCL WIRECUT 09/12 RAC

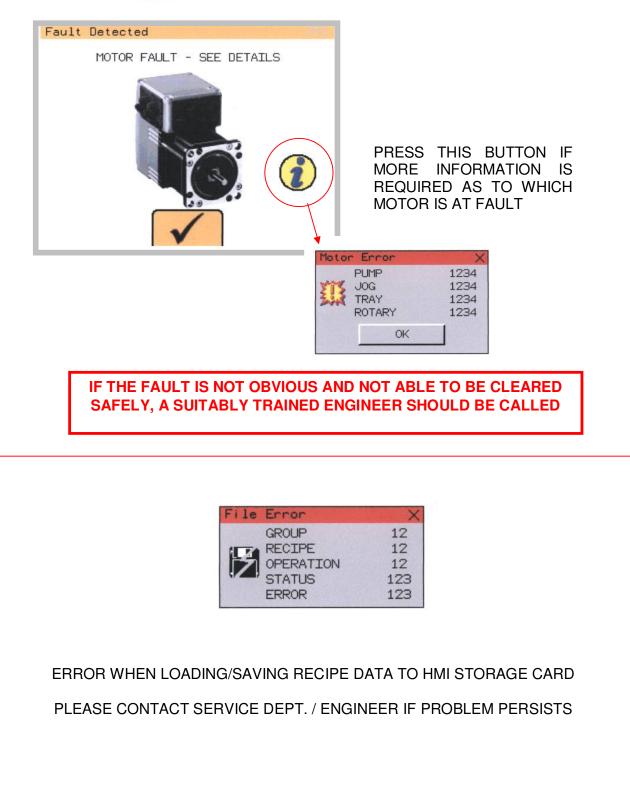


CAUTION DO NOT ATTEMPT TO MAKE ADJUSTMENTS UNLESS YOU ARE FULLY AWARE OF THE RESULTS

FG079 –OMEGA TOUCH INCL WIRECUT 09/12 RAC



IF THE FOLLOWING SCREEN APPEARS, CHECK THAT THE TABLE MOVEMENT ETC. IS NOT JAMMED WITH SOMETHING. IF IT IS, CLEAR THE OBSTRUCTION AND PRESS **TO PROCEED**.





11.0 MAINTENANCE

Under most conditions the machine only needs to be kept clean and used as instructed in this manual.



WARNING: DO NOT UNDER ANY CIRCUMSTANCES USE A WATER HOSE OR PRESSURE WASHER TO CLEAN THIS MACHINE.



Mono Omega Touch

Check and Maintenance Schedule

Operation	Daily	weekly	3 monthly	Yearly
Clean depositor as per instructions in manual	*			
Check condition of supply lead and plug	*			
check fit of guards	*			
Clean under conveyor belts		*		
Check hopper seals		*		
Check end cap seals		*		
Check condition and tension of conveyor, adjust / replace as required			*	
Check end cap bearings			*	
check alignment of sensors on guards			*	
Check tray sensor is secure			*	
Check condition of idle roller bearings				*
Check condition of drive shaft bearings				*
Check condition and tension of chain and grease as required				*
Grease slides as required				*
adjust eccentric guide rollers as required				*
adjust concentric guide rollers as required				*
Check and grease all slide plates as required				*
Check all motor mounts are tight				*
inspect electrical connections and tighten as required				*

Under no circumstances should maintenance or cleaning of this machine be done with the power connected



SPARES AND SERVICE

12.0

If a fault arises, please do not hesitate to contact the Customer Service Department, quoting the **machine serial number** on the silver information plate of the machine and on the front cover of this manual

UK SERVICE, SPARES and OVERSEAS SUPPORT:



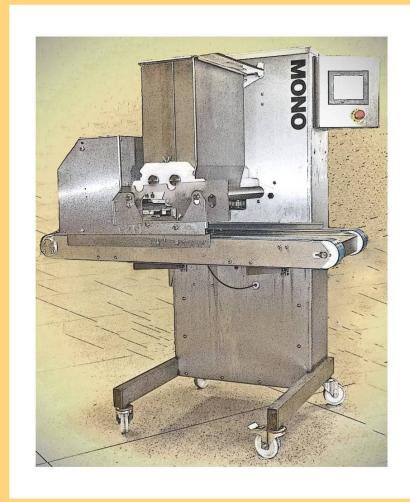
Queensway Swansea West Industrial Estate Swansea. SA5 4EB UK

email:spares@monoequip.com Spares Tel. +44(0)1792 564039 Web site:www.monoequip.com

> Main Tel. 01792 561234 Fax. 01792 561016



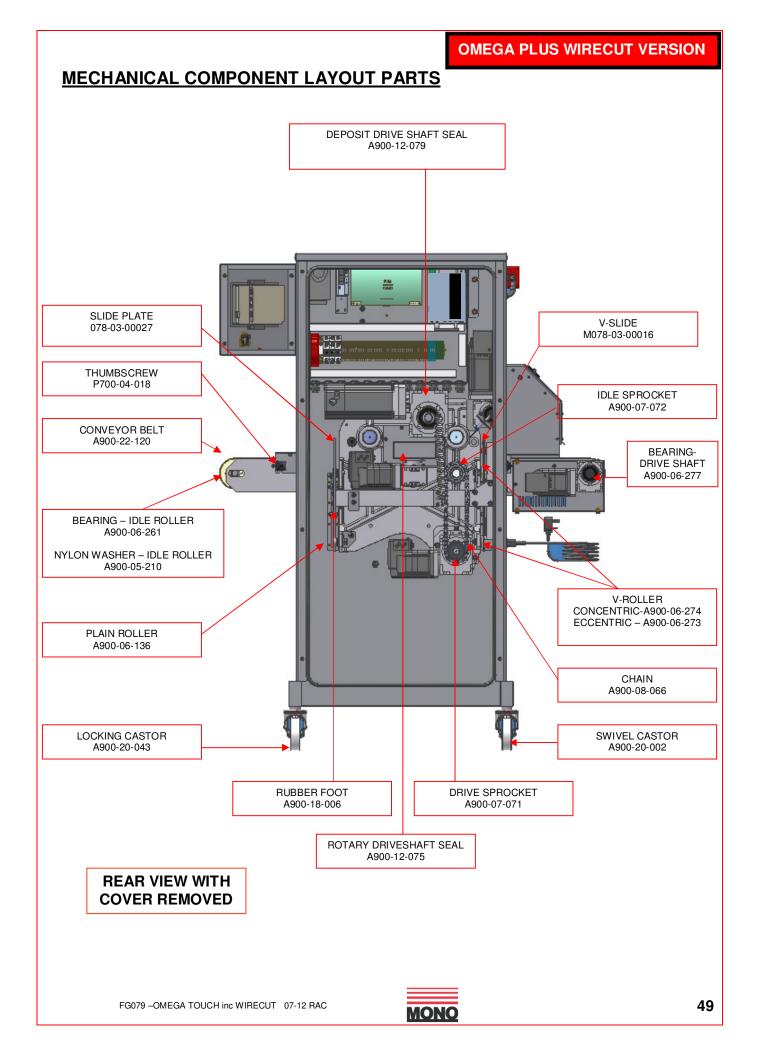
13.0 SPARES OMEGA PLUS (INCLUDING WIRECUT VERSION)

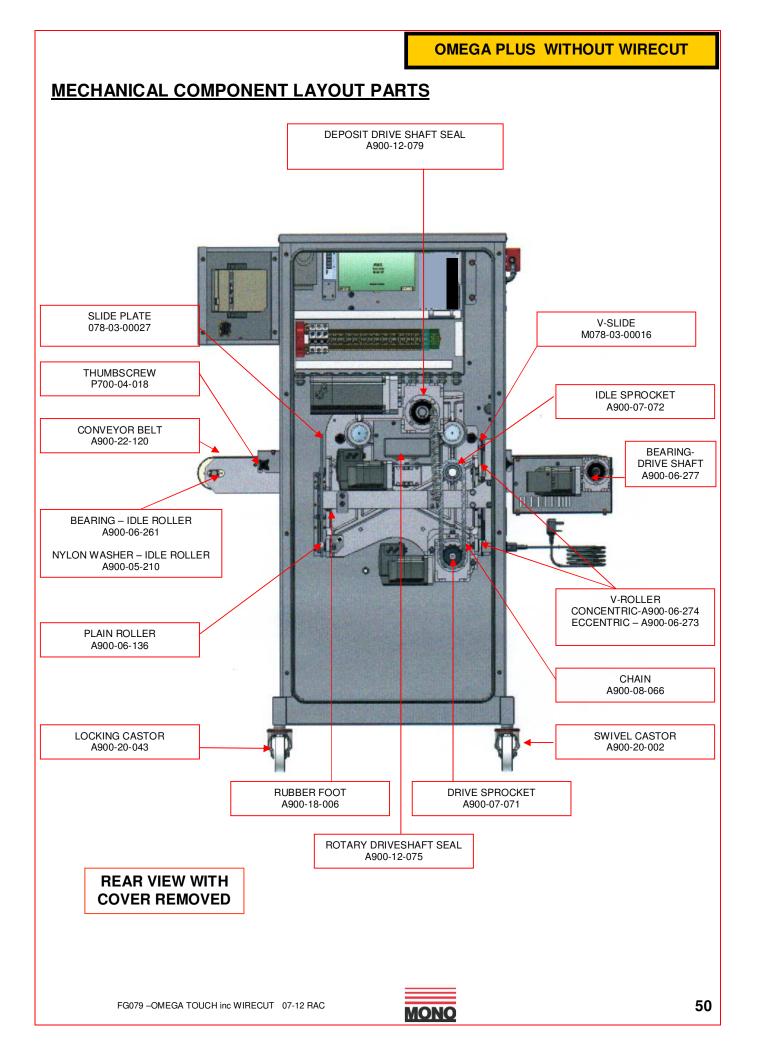


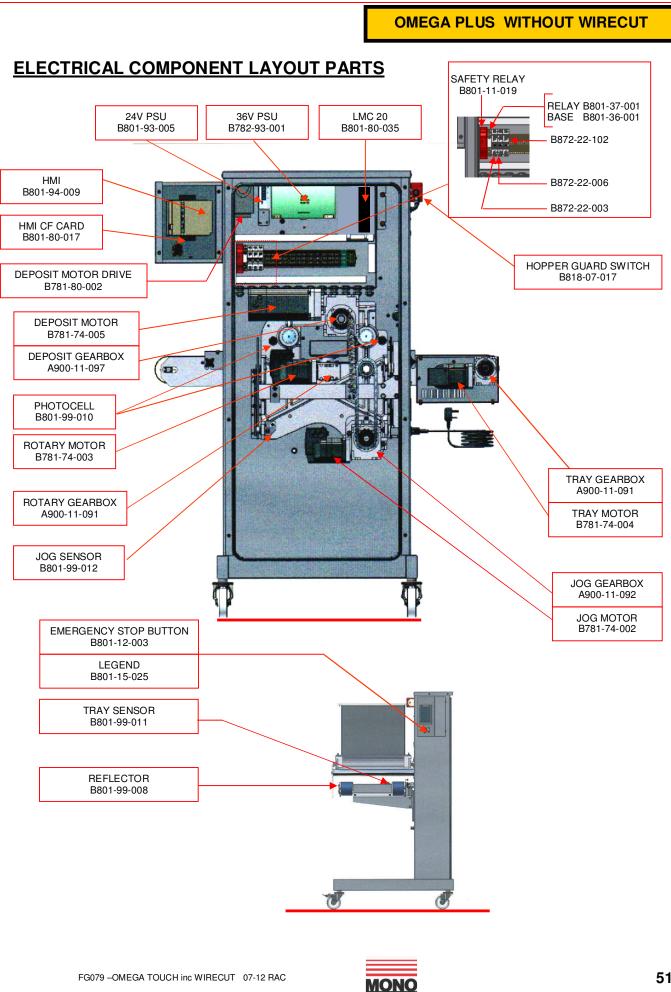
ELECTRICAL COMPONENT LAYOUT PARTS SAFETY RELAY B801-11-019 RELAY B801-37-001 24V PSU 36V PSU BASE B801-36-001 LMC 20 B782-93-001 B801-93-005 B801-80-035 B872-22-102 HMI B872-22-006 B801-94-009 -B872-22-003 HMI CF CARD HOPPER GUARD SWITCH B801-80-017 B818-07-017 DEPOSIT MOTOR DRIVE WIRECUT MOTOR B781-74-009 B781-80-002 2 WIRECUT GEARBOX DEPOSIT MOTOR A900-11-096 B781-74-005 DEPOSIT GEARBOX A900-11-097 (TP) GUARD SWITCH B801-07-005 PHOTOCELL WIRECUT SENSOR B801-99-010 B801-99-012 ROTARY MOTOR B781-74-003 TRAY GEARBOX A900-11-091 ROTARY GEARBOX TRAY MOTOR A900-11-091 B781-74-004 JOG SENSOR B801-99-012 JOG GEARBOX A900-11-092 JOG MOTOR EMERGENCY STOP BUTTON B781-74-002 B801-12-003 LEGEND B801-15-025 TRAY SENSOR B801-99-011 REFLECTOR B801-99-008 đ

OMEGA PLUS WIRECUT VERSION







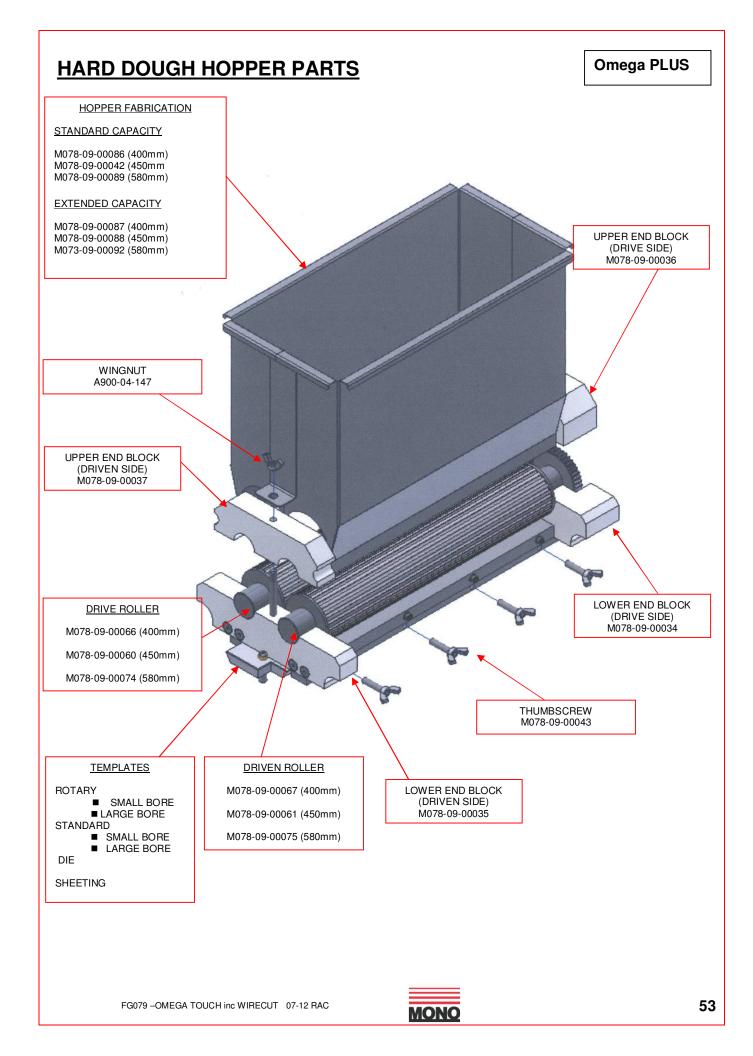


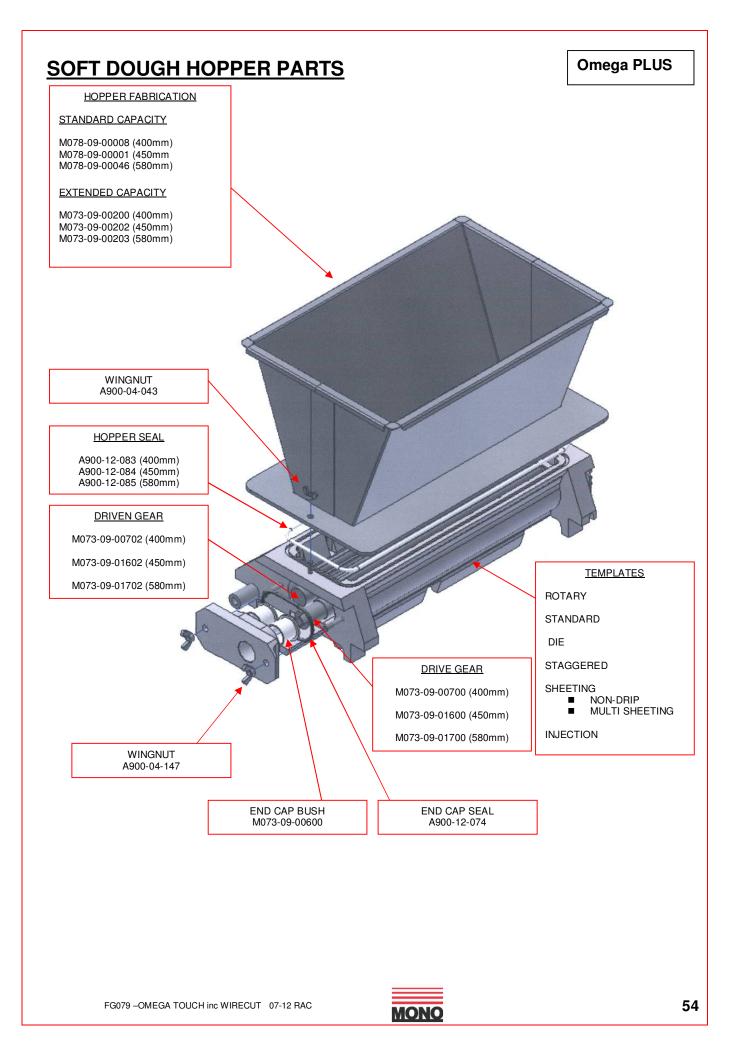
Omega PLUS

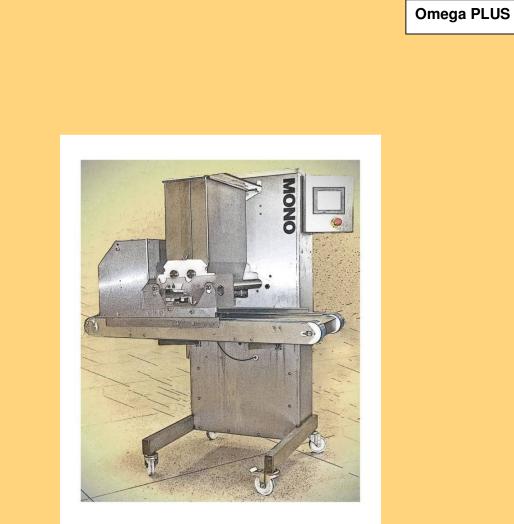
BASE MACHINE SPARES LIST (with wirecut)

Spares Item Description	Mono Part No.	Qty Req. per M/C
Deposit Gearbox Jog Gearbox Rotary Gearbox Tray Gearbox	A900-11-097 A900-11-092 A900-11-091 A900-11-091	1 1 1
Concentric Guide Roller	A900-06-274	2
Eccentric Guide Roller	A900-06-273	2
V Slide	078-03-00016	1
Slide Plate	078-03-00027	1
Jog Drive Chain	A900-08-066	1
Simplex Sprocket 16T 1/2" Pitch	A900-07-071	1
Idler Sprocket 16T 1/2" Pitch	A900-07-072	1
Circlip-Ext Metric 14mm Dia	A900-01-280	1
Circlip-Ext Metric 24mm Dia	A900-01-193	1
Drive Shaft – Hopper	078-03-00015	1
Rotary Drive Shaft	078-03-00011	1
Drive Gear - Rotary Template	078-03-00010	1
Lip Seal (Rotary Drive Shaft)	A900-12-075	1
Lip Seal (Deposit Drive Shaft)	A900-12-079	1
Top Guard 400mm/450mm Hopper	078-09-00005	1
Top Guard 580mm Hopper	078-09-00044	1
End Guard	078-11-00020	1
Retainer – End Guard	078-11-00002	2
Seal-Rear Cover	A900-25-309	1

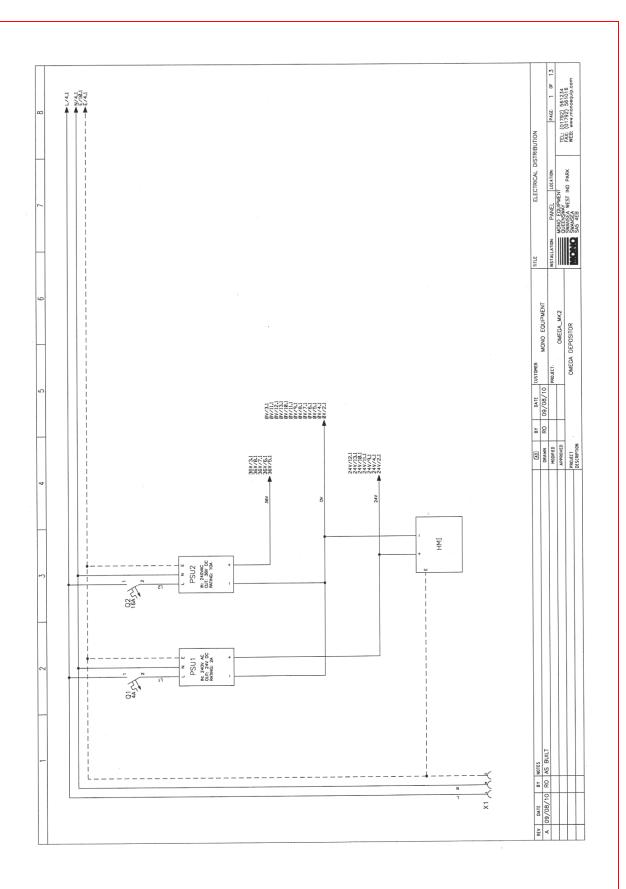




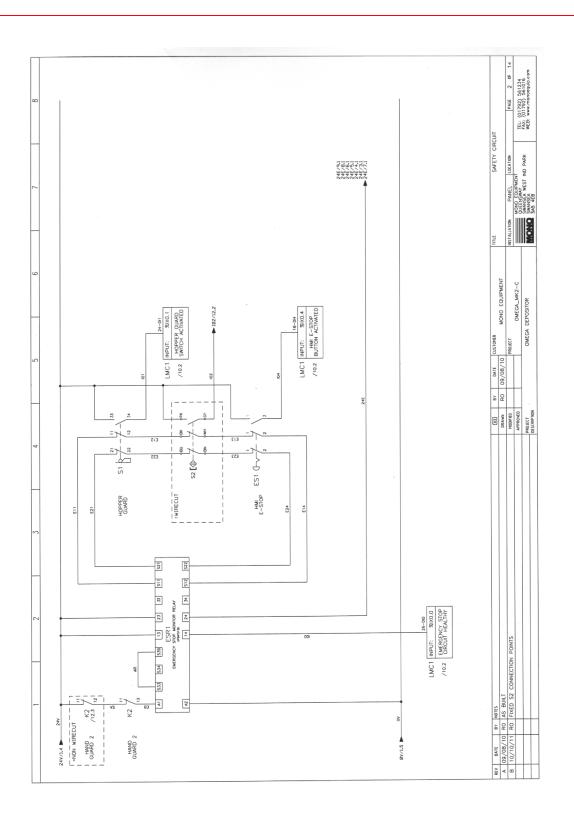




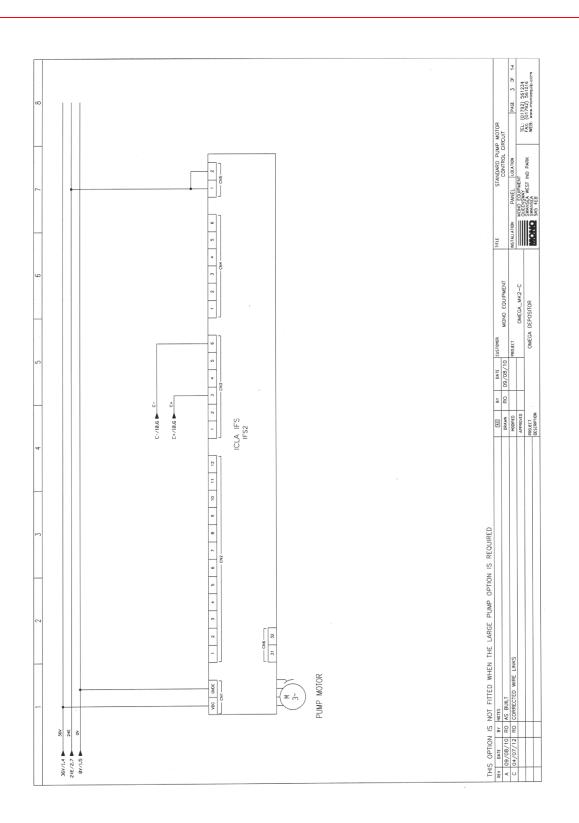
14.0 ELECTRICAL INFORMATION



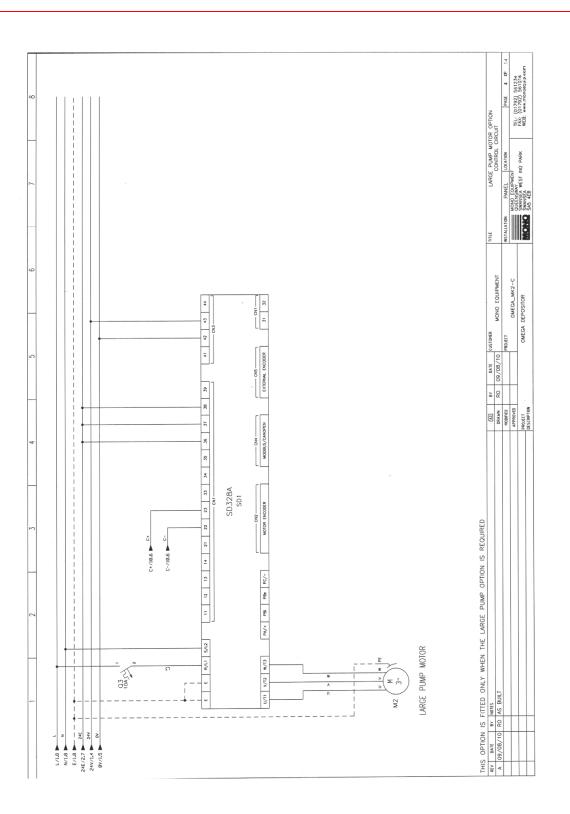




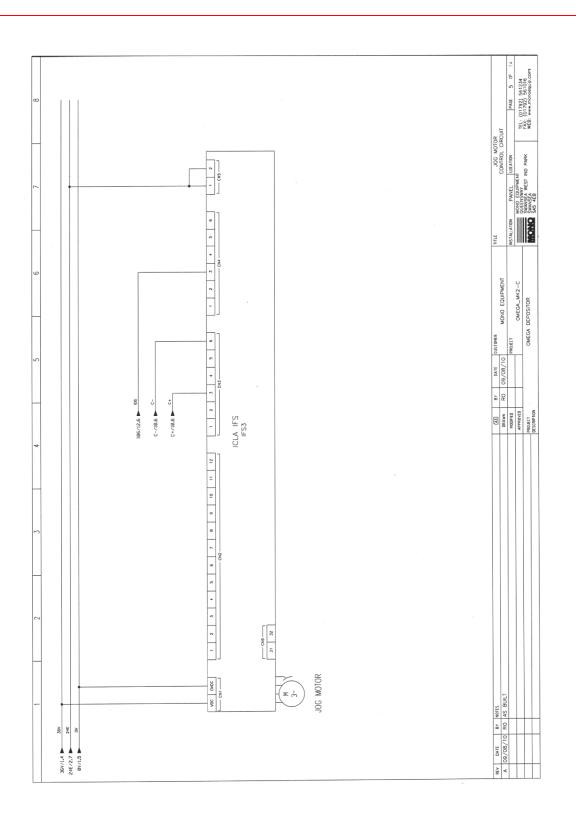




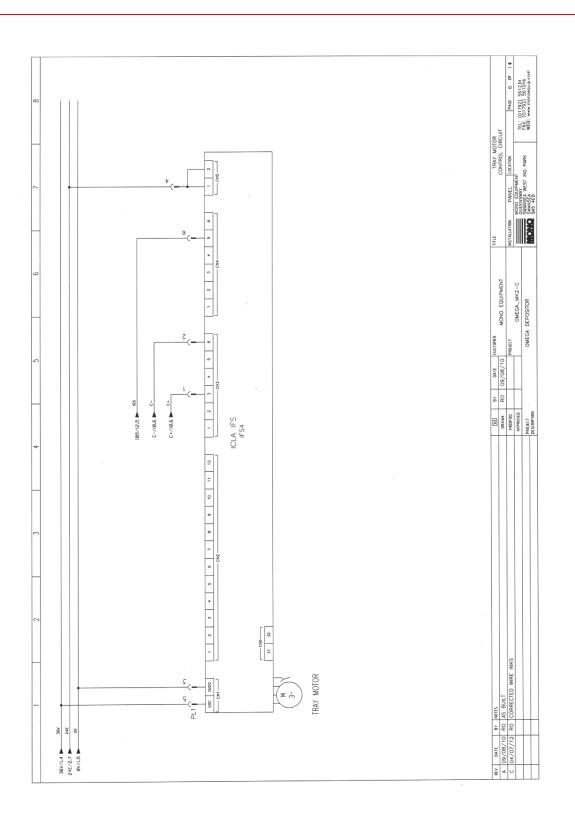




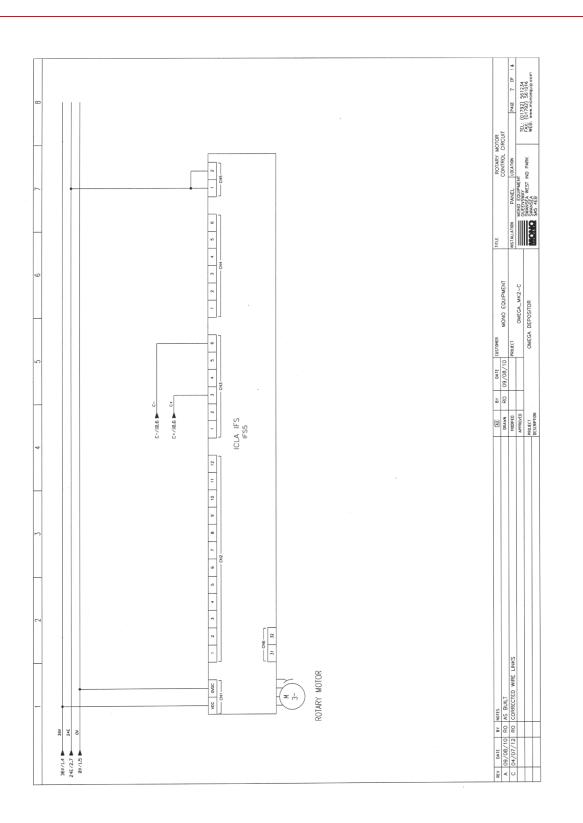




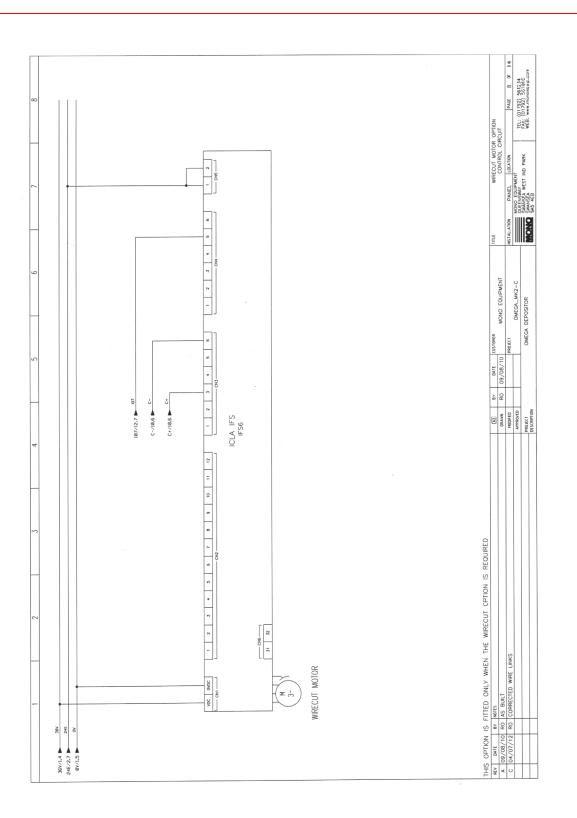




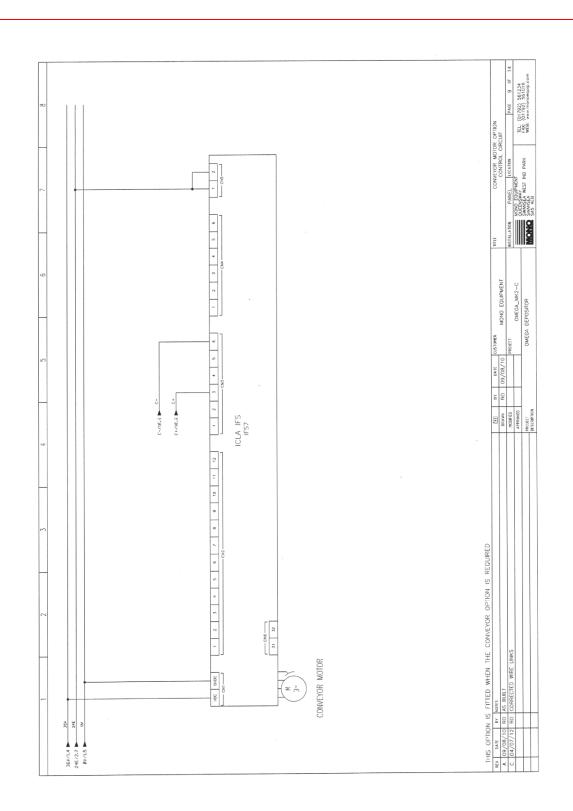




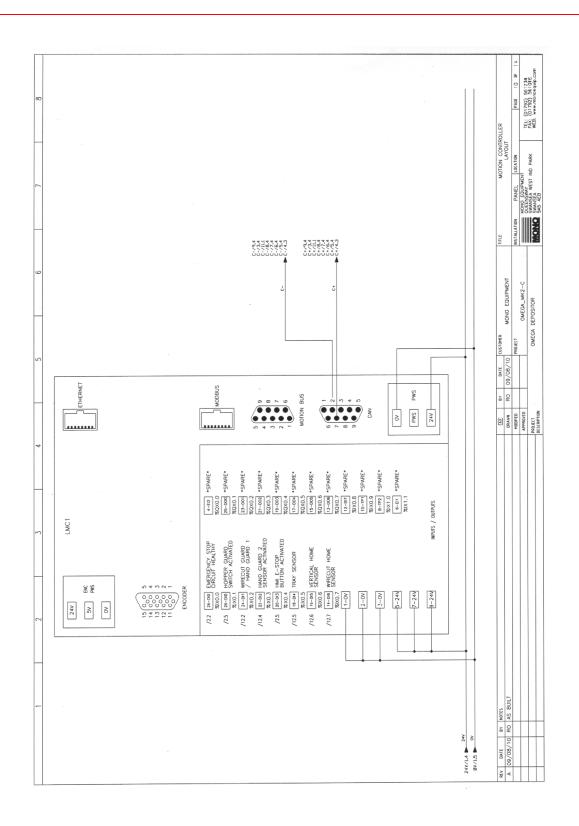




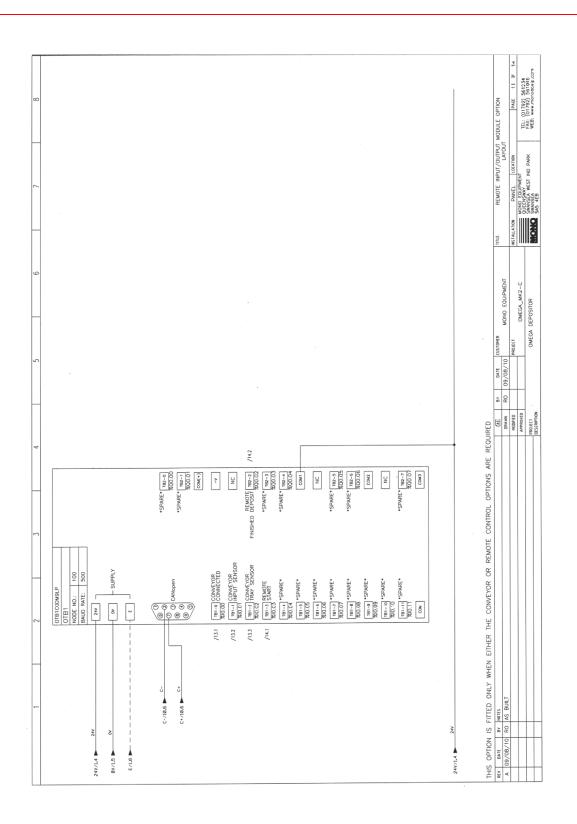




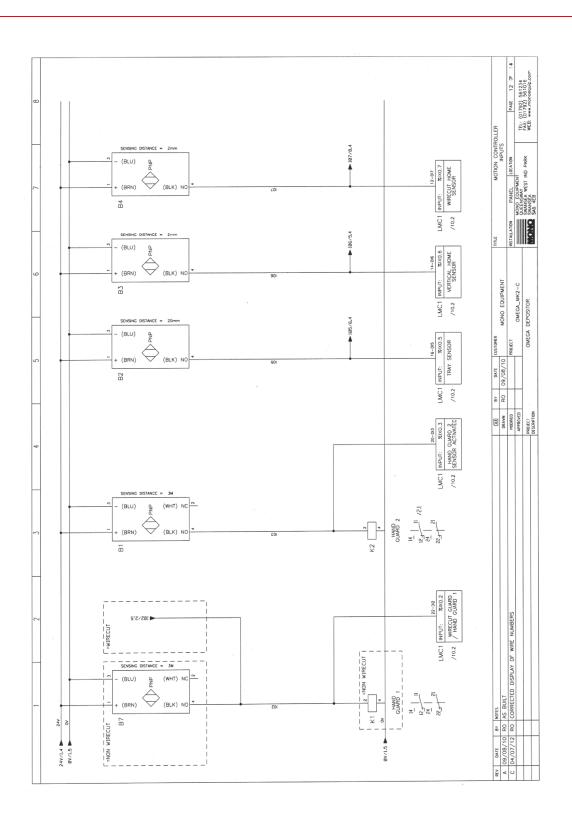




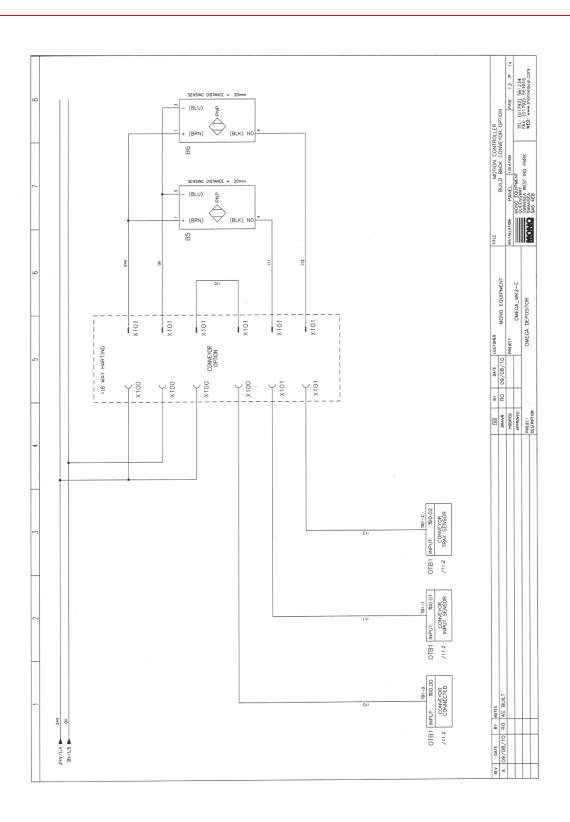




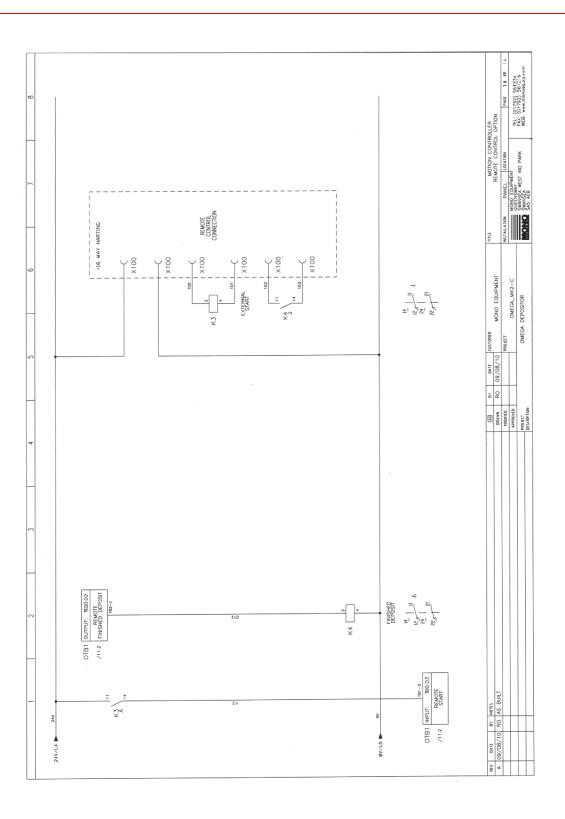














The equipment mentioned in this manual has CE accreditation.

As it is our policy to improve our machines continuously, we reserve the right to change specifications without prior notice



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DISPOSAL

Care should be taken when the machine comes to the end of its working life. All parts should be disposed of in the appropriate place, either recycling or other means as the law permits at the time.

