

YSF RSC Operation Guide

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RS-2600A with optional stacker

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C O N T E N T S

Introduction

Safety

Feeder Setup

Batch Stacker

Control Panel

Touch Screen

Consumed Spare Parts

Faults Causes Remedies

Introduction

The following sections of this manual describe the operation and maintenance procedures of each machine section.

RS-2600 FULL CNC ROTARY SLITTER CREASER



- Small machine size for space saving
 - Optimized length of feed table. Ensure positive square feed
 - Side guide on one side to hold board straight line.
- (右側照片是舊送紙結構)

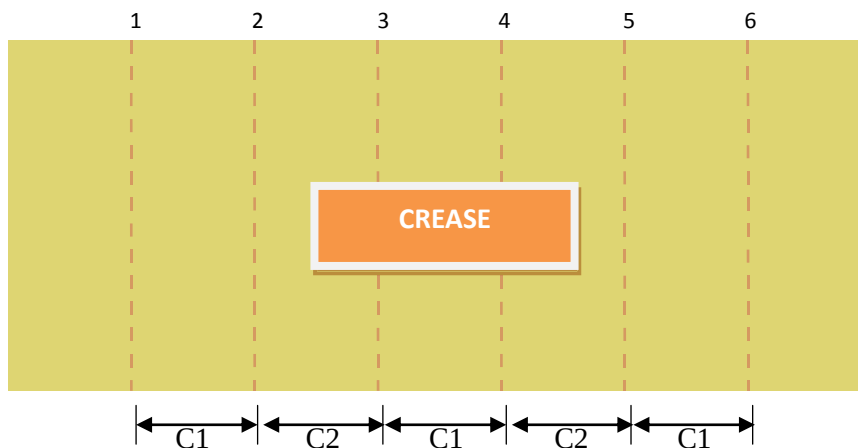
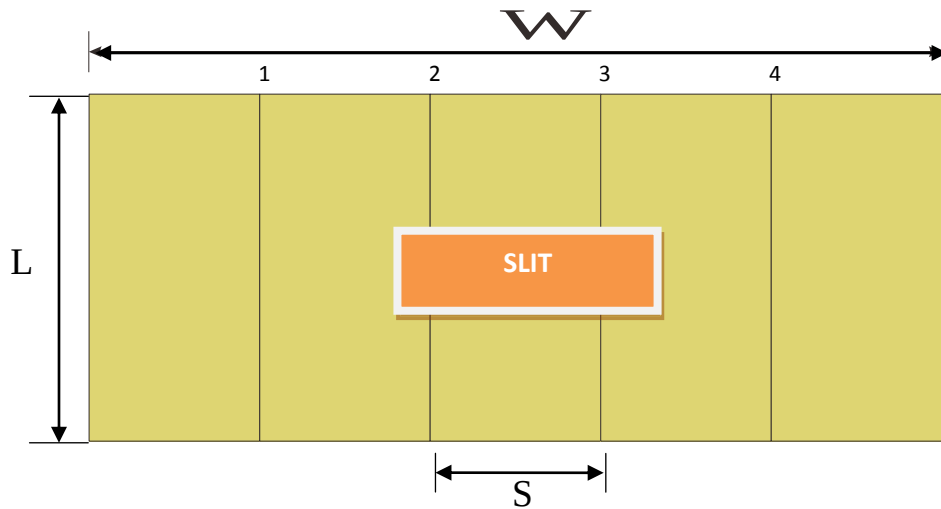


- Latest razor blade (1mm).
- No edge crush, as conventional blade
- Easy to replace wear blade.
- Auto grinding set by timer.



- Low noise level
- Motor Size Optimized
- Machine surfaces coated with a temporary rust preventative
- Machine meet JIS(Japanese Industry Standard)
- All cables/wires are in accordance with CE standard.

❖ YSF Rotary Slitter Creaser ❖

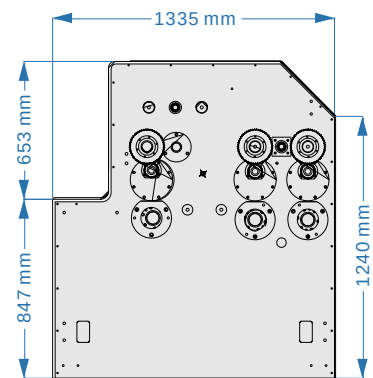
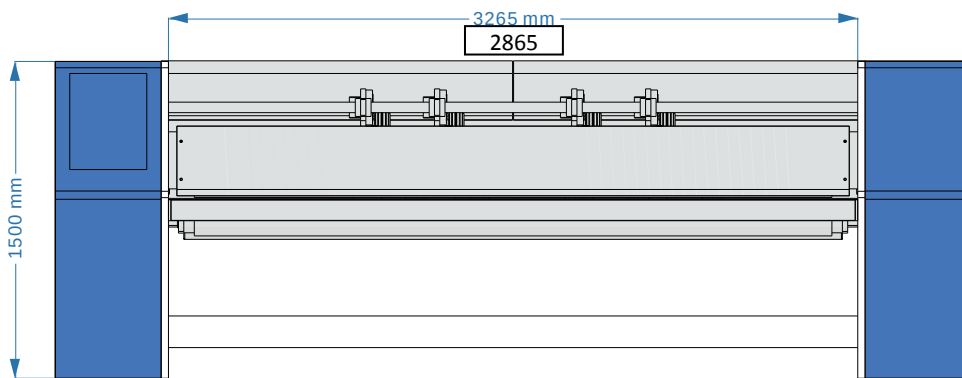
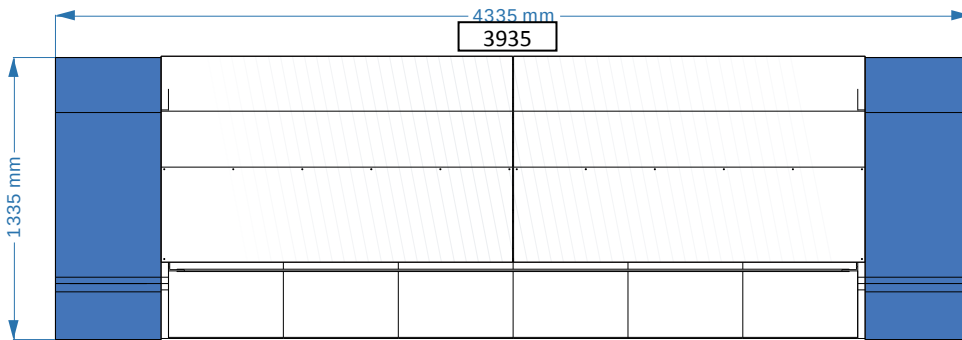


Model		RS-2600
SLIT		4
W x L	Max.	RS-2600 manual feeding: 2600 (W) mm RS-2600 with stacker: 2600 x 2800 mm RS-2600A auto. feeding: 2600 x 2500 mm
	Min.	360 x 500
S	Max.	2320
	Min.	100

CREASE		6
C1	Max.	2015
C1 + C2	Min.	25 + 90

UNIT : mm

❖ YSF Rotary Slitter Creaser ❖



SPECIFICATION

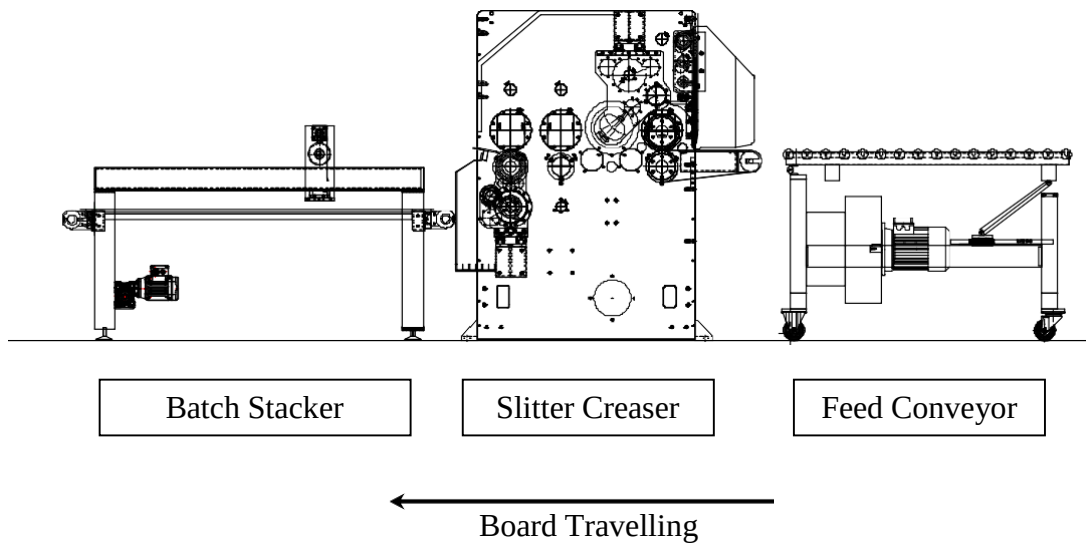
	RS-2600
Power	220V, 5HP
Max. Machine Design Speed	120 M/min
Number of Slitter	4 Blades+
Number of Crease	6 Crease+
Max Slitting Width	2320mm
Min Slitting Width	100mm
Adj. Creasing Height	2-10mm

SAFETY

Overview

The YSF "SELECT" Rotary Slitter Creaser and Stacker is made up of three distinct sections:

- (1) Feed Conveyor
- (2) Slitter Creaser
- (3) Batch Stacker



Safety Signs

The following warning sign and decals are for specific situations that are encountered when operating the machine. They are installed in the following listed areas as reminders. However, if any of the following are not on your machine in the areas listed, are damaged or become illegible for any reason, notify to YSF Machinery and will be supplied to you. The YSF part number is listed below each safety sign or label.



YSF Part No. ZH0020

MANDATORY SIGN – EAR PROTECTION MUST BE WORN

Ear protection is required and is mandatory when machine is in operation



YSF Part No. ZH0021

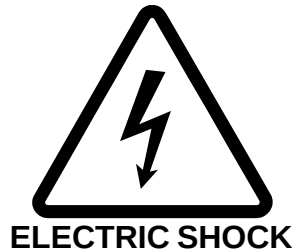
KEEP HANDS AWAY FROM ROLLERS



YSF Part No. ZH0022

KEEP HANDS AWAY FROM BELTS

SAFETY



YSF Part No. ZH0062

Electric Shock

All power must be removed from the machine and locked out before opening any electrical connection boxes. Failure to do so may lead to serious bodily injury

To summarize the above rules and warnings, remember you must not attempt to bypass any safety devices, jumper out safety function, remove guards, covers, etc. that are installed on the machine for your protection.

Do Not run any section of machine in the open position.

Remain alert for your personal safety and the safety of others.

Also, do not take unnecessary risks that may create a hazardous situation.

And, if a safety problem develops, notify your supervisor and / or safety director immediately.

Emergency Stop

Located on top of drive side enclosure.

The Emergency Stop button brings the machine to a quick and complete stop in order to protect life, prevent injury, and avoid imminent damage to machinery.

It is recommended that the employee use the Feed Interrupt and Stop buttons for normal stopping of the machine.

To reset an emergency stop, first twist this button to release it and then press the black Reset button located on machine name plate.



FEEDER SETUP

Feed Gate

Set feed gate gap by turning hand wheel located at operation side
In general set feed gap to 180% of board flute thickness.
For instance, when feeding 3mm of B flute, set feed gate at 5.4mm.



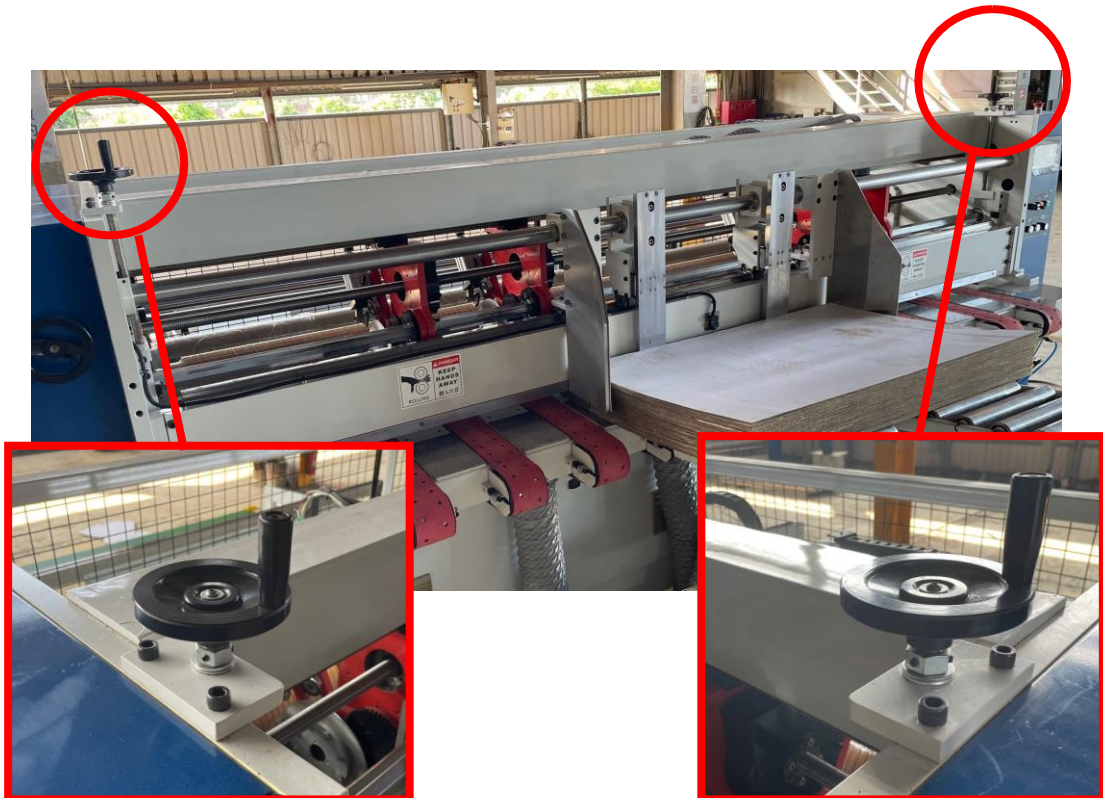
NOTE

Manually move feed gate laterally above the feeding plates between feeding belts

Feed Roll

Minor crush wheels are using on upper feed roll to maintain board strength. Ideally it does not need to adjust for different flutes of infeed board, yet operator is able to set the feed roll gap by using top hand wheels located at operator side and drive side.

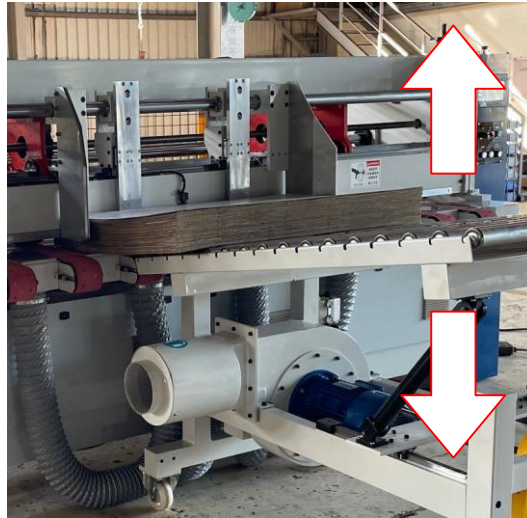
The respective scale rulers on both side are for leveling the feed roll.



FEEDER SETUP

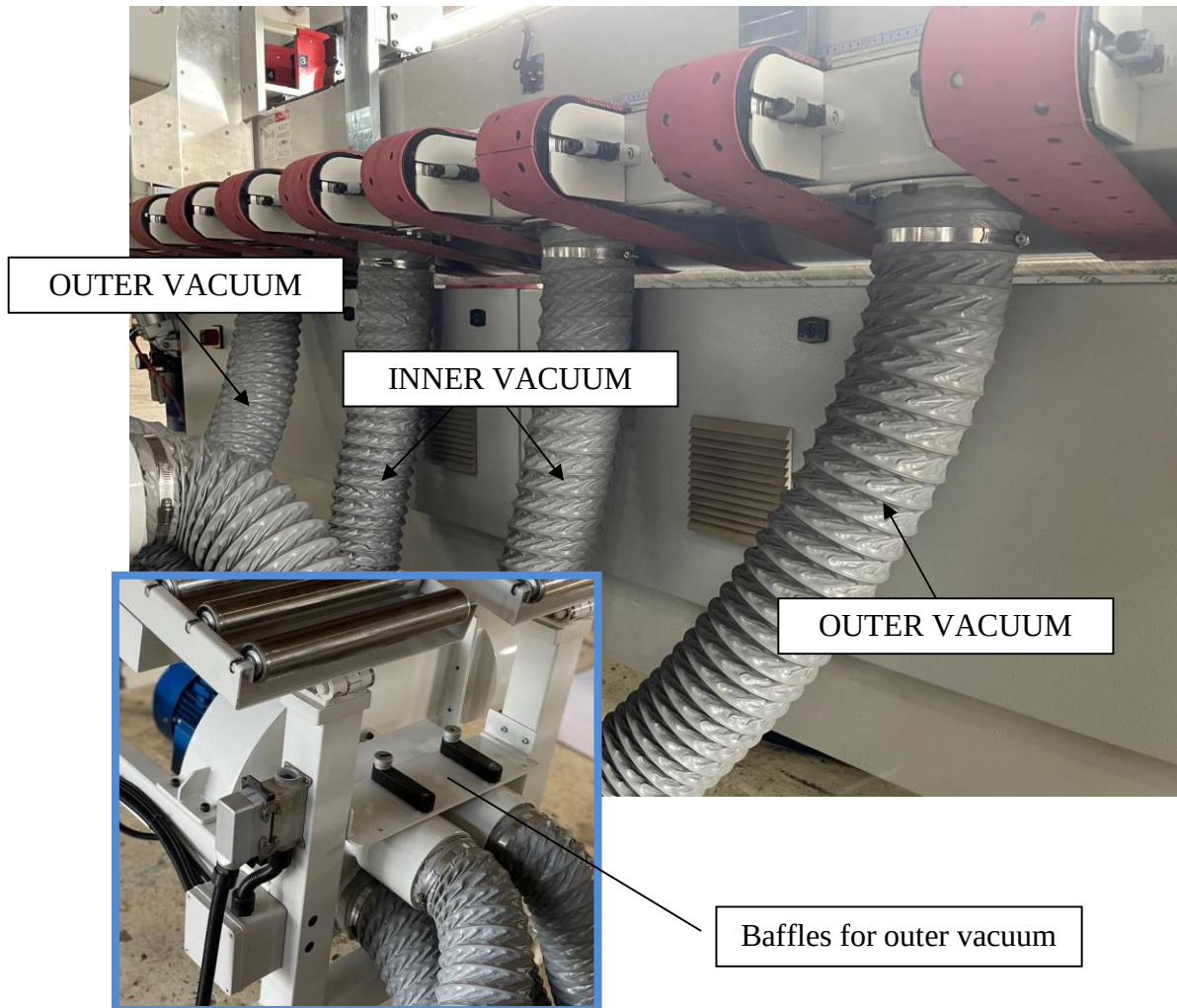
Feeding Conveyor

Feeding conveyor could lift up or down from touch screen to generate a proper angle to help leadege feeing on particular up warp board.



Vacuum

Feeder vacuum blower is located underneath the feeding conveyor table.
4 off Flexible Ducting Vent Pipes are connected to feed table.
Only 2 outer pipes (upper) can be closed by baffles.



To avoid vacuum leaking or for some occasions, operator need to close the 2 outer baffles for concentrating vacuum on central area.

NOTE

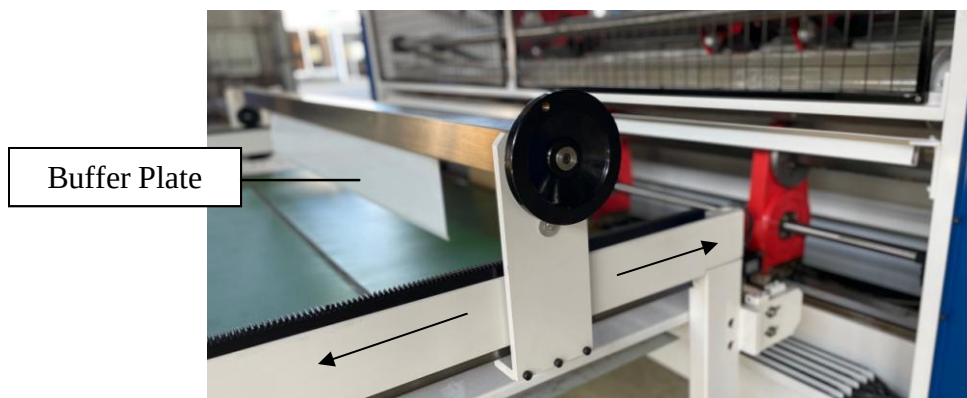
Shut the outer baffles also reduce the vacuum strength, operator may keep baffles open to get maximum vacuum

BATCH STACKER

The non-stop batch stacker made up of two distinct sections, the Buffer Plate and Discharge conveyor belt.



Operator adjust the Buffer Plate by hand wheel toward board exit, generally position the Backstop at 20% less of board length to enable lead edge of exit paper board to hit backstop plate, it is also affected by machine speed.

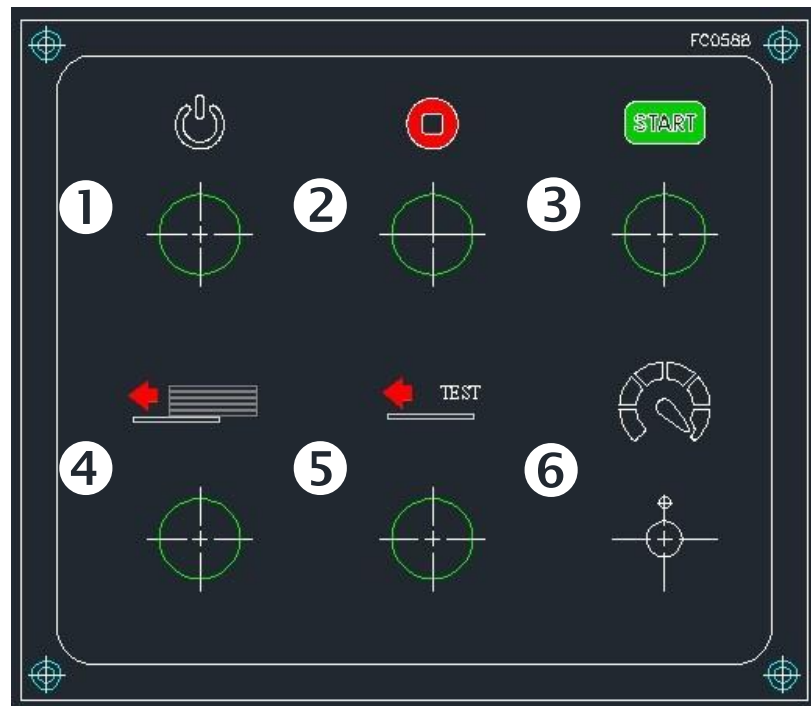


Falling board stack on discharge conveyor, when the cumulative quantity equal to pre-set value which operator set on touch screen, conveyor belt transport board bundle automatically by the board length which auto detected by machine.

NOTE

To stack a neat bundle is not the facts of design of this stacker, yet an extra backstop at exit of conveyor is able to square the outgoing bundle.

CONTROL PANEL



1 On / Off Switch:

Turns power to the machine on and off. Always turn the machine off using this switch before turning of the main circuit breaker to prevent possible damage to electronic components.

2 Stop:

Stopping of the running machine.

3 Start:

Starts the main motor. The button must be pushed and held for 2 seconds before the main motor will start. The main motor cannot be started without board on the feeder and will automatically stop if the feeder becomes empty whilst running.

4 Feed Button:

Press this button to start or stop feeding. Note that the main motor and vacuum fan must be running before feeding can be started. If the vacuum has not been running long

CONTROL PANEL

5

Test Feed Button

Instead continuous feed, this button provide a function to feed only 1 sheet so operator can check product to confirm all of settings before mass production.

6

Machine Speed:

Adjust this **Speed Control Knob** to increase or decrease the machine speed

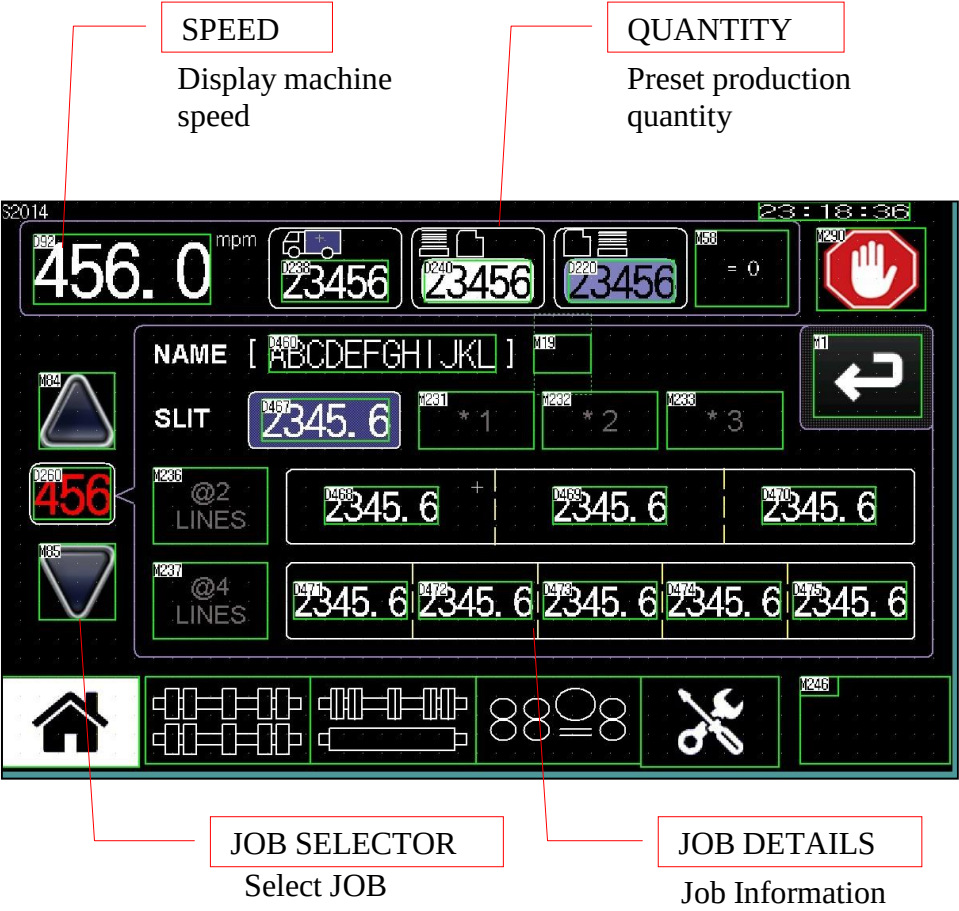
NOTE

After turn on the machine press To reset an emergency stop, first twist this button to re-lease it and then press the blue Reset button located on machine name plate.



TOUCH SCREEN

Home Page

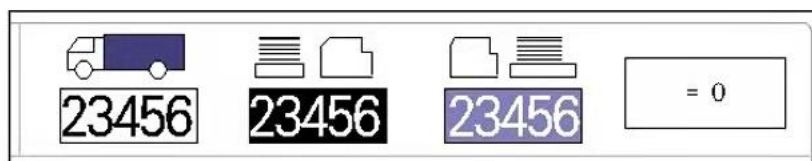


CURRENT SPEED

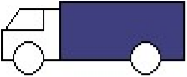
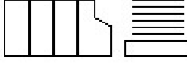
Display current machine running speed in meters per minute (MPM)

TOUCH SCREEN

Job Quantity



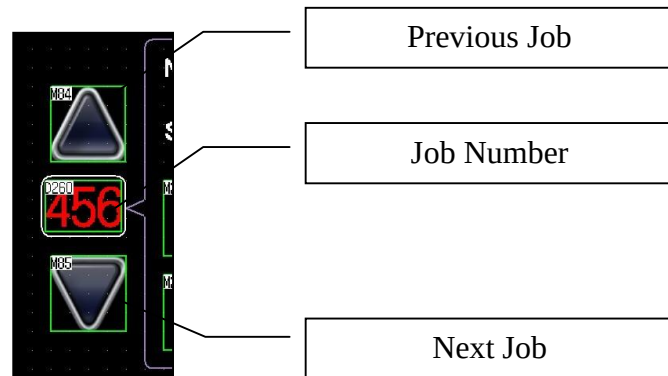
Order Quantity Control

 23456 Pre-set Order Quantity	Enter the number of blanks to be fed for the current order in here.
 23456 Fed Quantity	Displays the number of blanks fed since the last reset.
 23456 Remaining Quantity	Displays the number of blanks still remaining in the current order. When the Blanks Left value equals zero the machine will automatically stop feeding. If the operator wishes to continue feeding he must restart by pressing the Feed On/Off button.
=0 Reset Quantity	Pressing the zero key will reset the total blanks fed to zero. When the blanks remaining equals zero, the machine will automatically stop feeding. If the operator wishes to continue feeding, he needs to press the feed button again.

TOUCH SCREEN

Jobs Selector

Press Upper or Lower arrow buttons to select running job



Jobs Details

Details of each job show on right group box.

NOTE

Any changes made to this details box will save to memory without further confirmation.

The screenshot shows a touch screen interface for job details. The layout is as follows:

- NAME:** A text input field with a 12-character limit, currently showing "ABCDEFGH IJKL".
- SLIT:** A numerical input field showing "2345.6".
- M231:** A field with "* 1".
- M232:** A field with "* 2".
- M233:** A field with "* 3".
- M236:** A field with "@2 LINES".
- M237:** A field with "@4 LINES".
- Input Fields:** Several input fields containing the value "2345.6", some with a "+" sign.
- Back Arrow:** A button with a white arrow pointing left, labeled "M1".

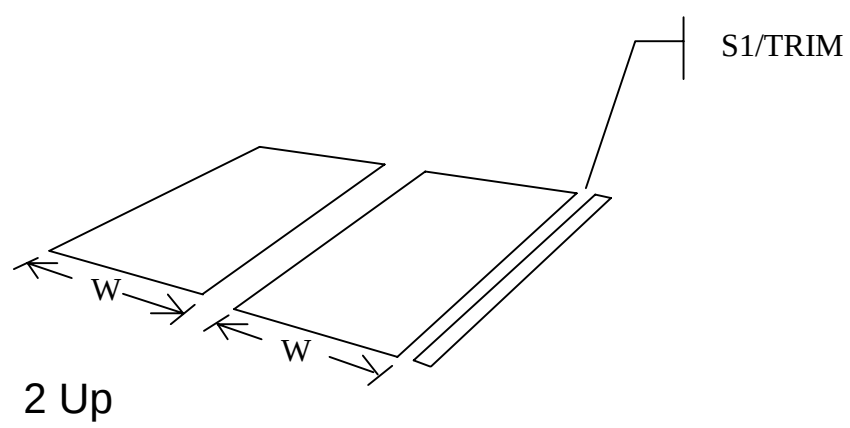
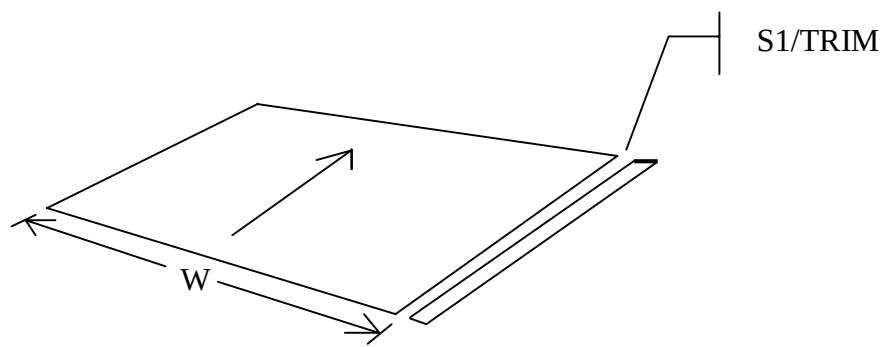
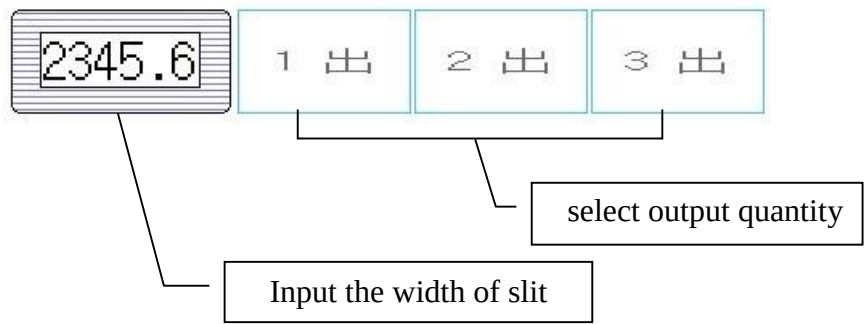
[NAME]

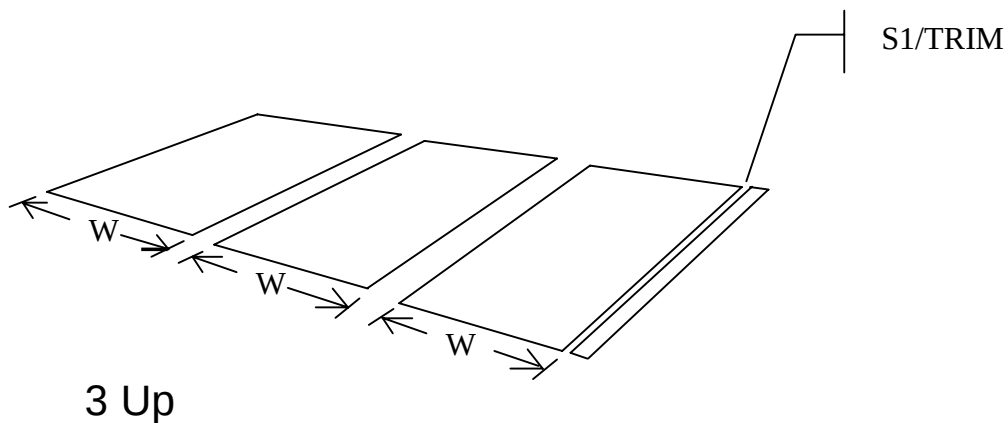
12 characters for Job name

TOUCH SCREEN

[SLIT]

Determine how many slit-outs on one input sheet.



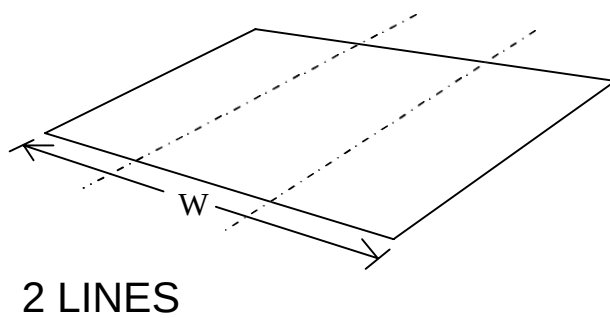


NOTE:

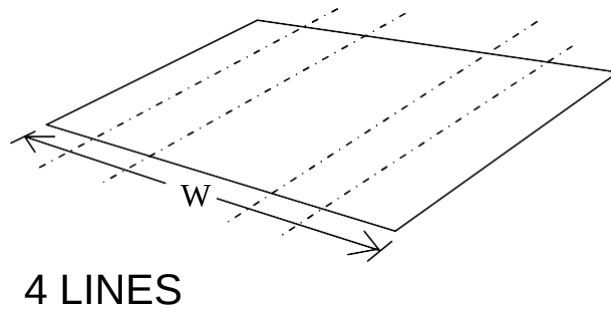
When operator select [*2] or [*3] Slit-Outs, the Crease Lines will be forced to switch to [@2 Lines] if it was at [@4 Lines]

[CREASES]

Determine how many creases on each output slit.



TOUCH SCREEN



NOTE:

4 Lines creases can only apply to [* 1] Slit-Outs

When operator select 4 Lines Creases, the Slip-Outs will be forced to set to [*1]

Jobs Set



Touch this key will only send all of calculated SET-POINT of slits and creases of current job to machine.

Hold this key for 2 seconds then all of slits and creases will start to SET
Screen shift to Auto Setting

When setup this job, the [Selected] icon will show next to job name to remind operator this is the job just set lately.



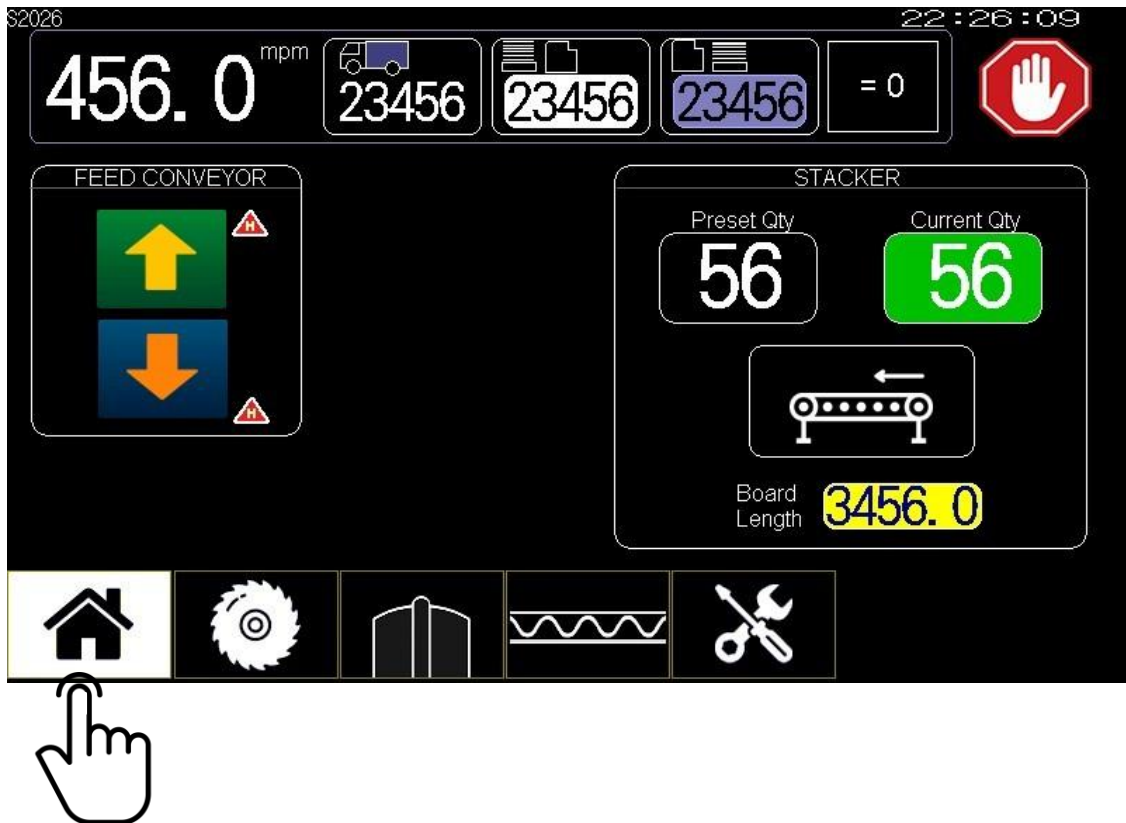
Setup Stop Key

If the machine is automatically setting up and the operator wishes to stop this action for any reason he may touch the key.

This STOP key will only stop all of the axis from auto setting even if they are not in the current screen page..

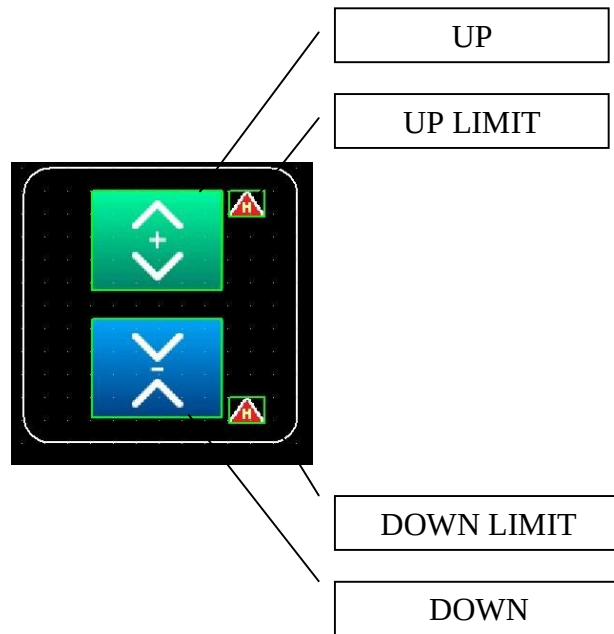
TOUCH SCREEN

Production Control



Press HOME button to shift [HOME PAGE] and [PRODUCTION CONTROL]

Backstop Up / Down

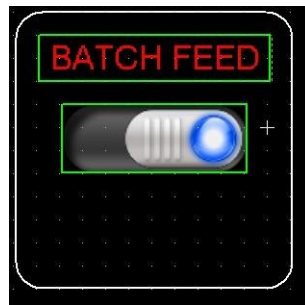


Use [UP]/[DOWN] key to adjust the rear angle of feeding conveyor.
In some occasion, big angle may helpful for making paper board to fully cover feeding belts area.

TOUCH SCREEN

Feed Mode

This machine has only Batch Feed mode.



[BATCH FEED]

Feed belts raise for feeding present paper board and then decline after completed feed to let next paper board drop on feeding plates for next feed.
This repetitive motion may useful for giving more vacuum for wrap paper board.

NOTE

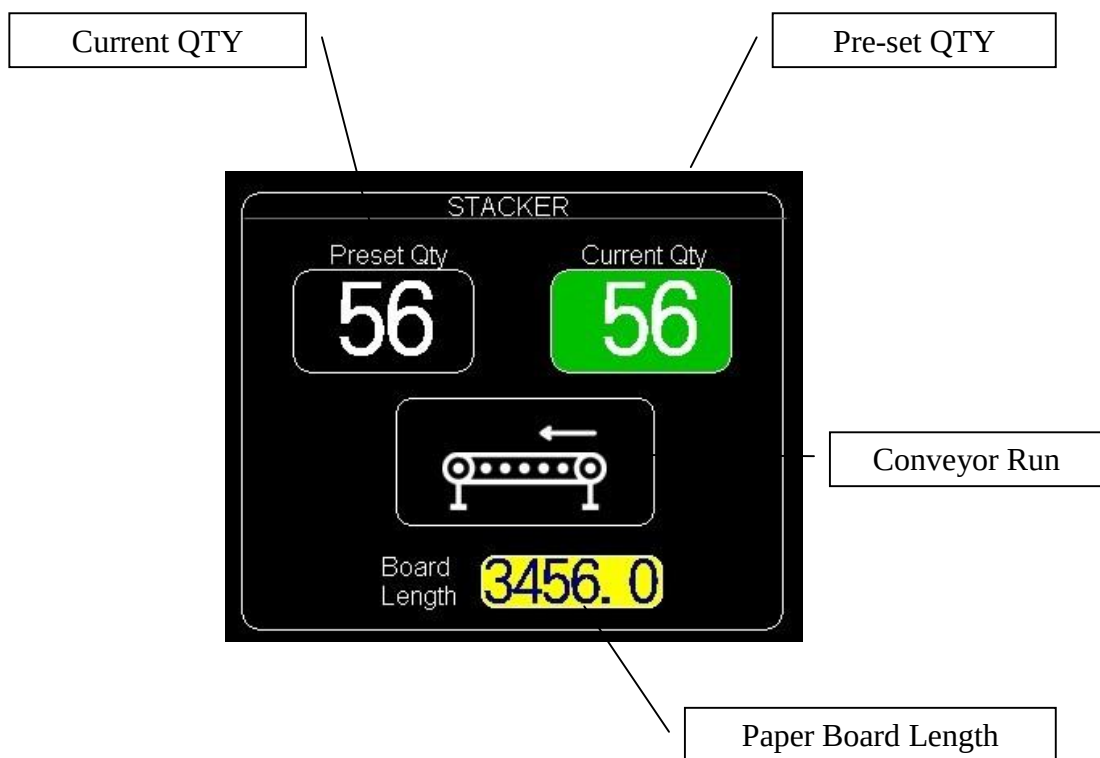
Parameter[1-12/13/14] are for controlling lead edge feeding.
See **Parameter** section

Stacker Setup

This block set batch quantity for stacker.

[Paper Board Length] value is read only detected by machine

[Current QTY] show the current count of batch, operator can change it if he needs to correct counting.



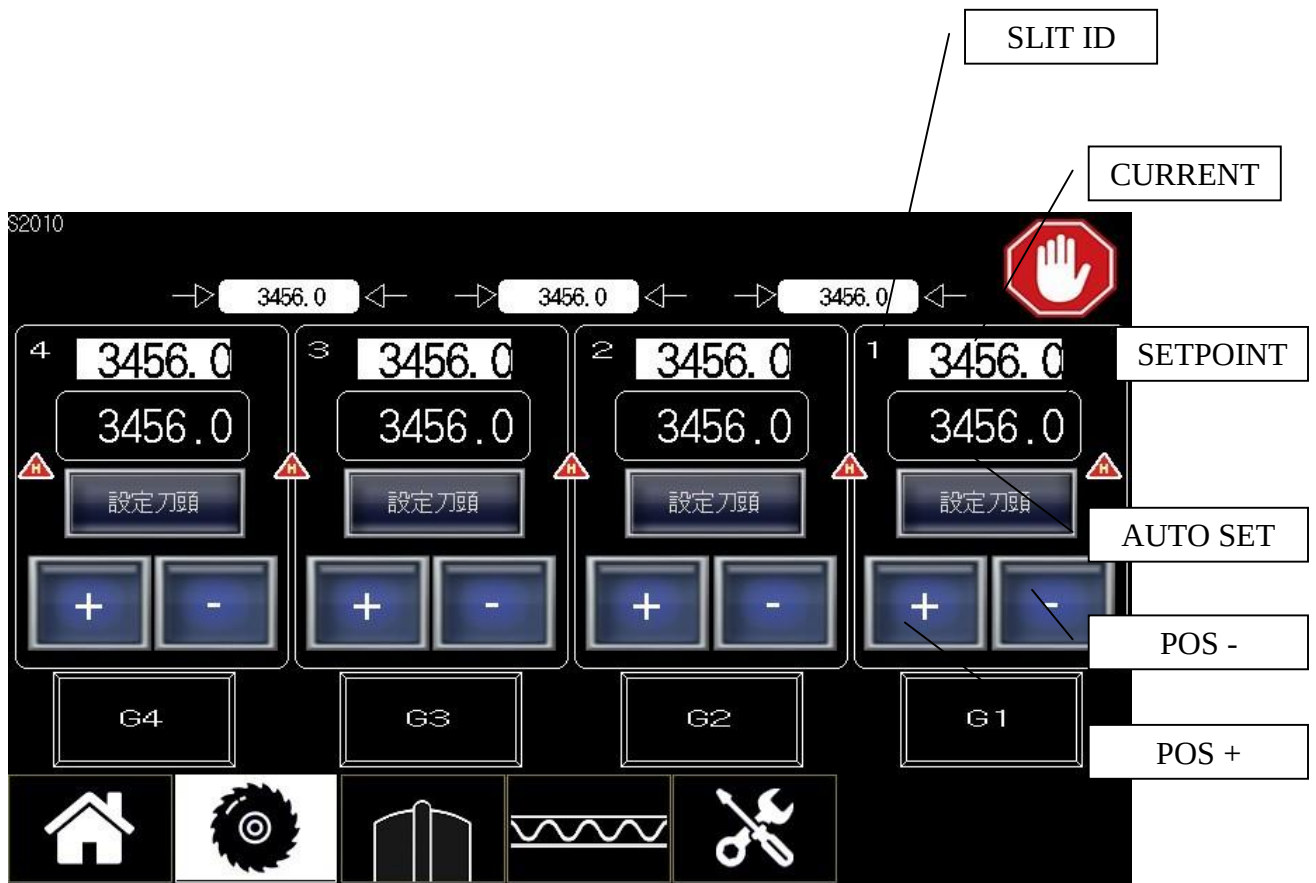
[Conveyor Run] is an override key to run conveyor at any occasion.

NOTE

Paper Board Length is read only value detected by machine automatically

TOUCH SCREEN

Slits Control



Actual slit position is highlighted in the top of each slit control area



To set the slit to a specific position directly, enter the position into the SETPOINT and then touch the Auto Set key.

When setting directly, the number must always be a positive value.

Manual: To move the slit manually, use the toggle switch [POS-] [POS+] on the screen



Offset - The register may be offset by a certain value by entering either a positive or negative number in the offset area and then touching the Offset key.

Interval Distance between Slits

Under Slit Control Blocks, there are 3 numbers indicate interval of creases, operator can use



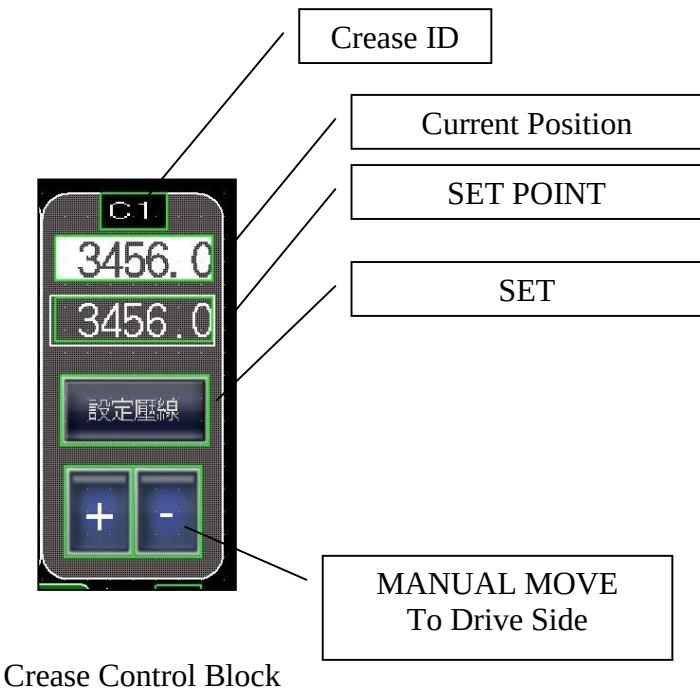
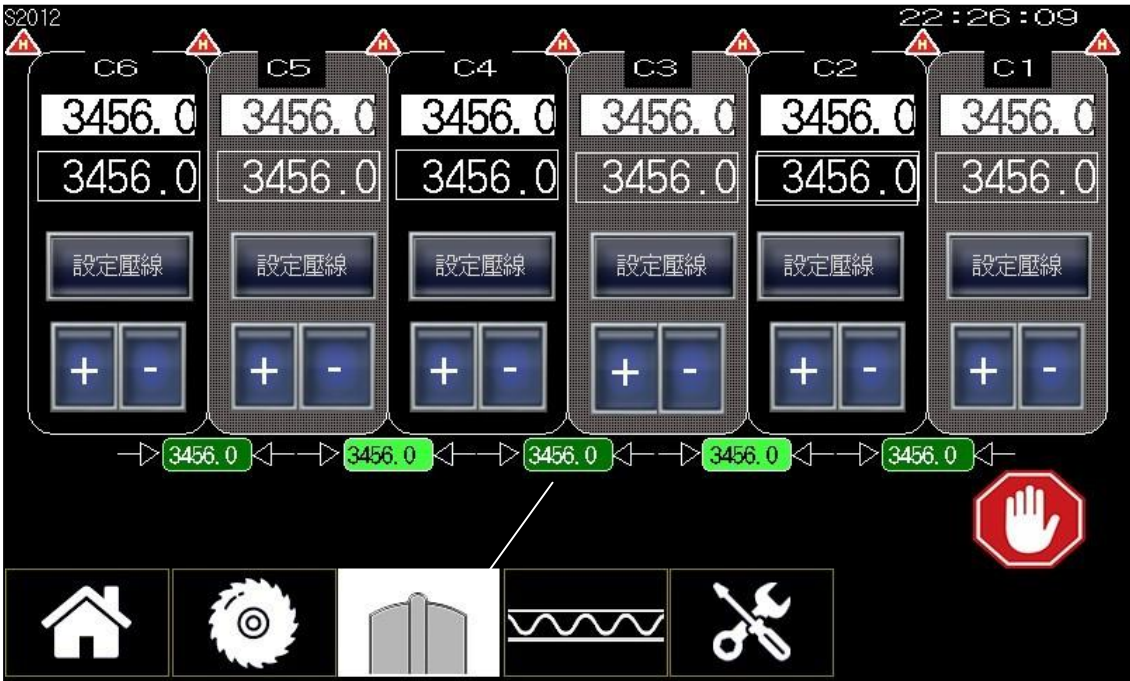
Setup Stop Key

If the machine is automatically setting up and the operator wishes to stop this action for any reason he may touch the key.

The setup stop key will only stop setting up of the axes on therelevant machine section.

TOUCH SCREEN

Creases Control



Interval Distance between Creases

Under Crease Control Blocks, there are 5 numbers indicate interval of creases, operator can use them as a reference for confirmation or calibration



Setup Stop Key

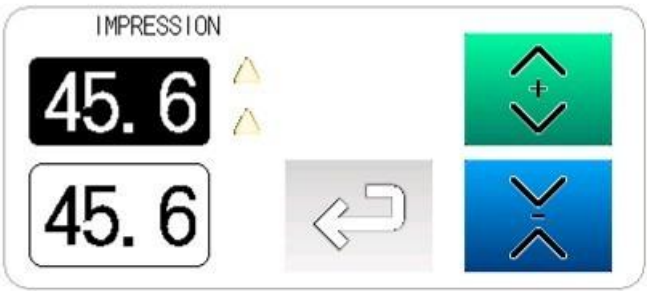
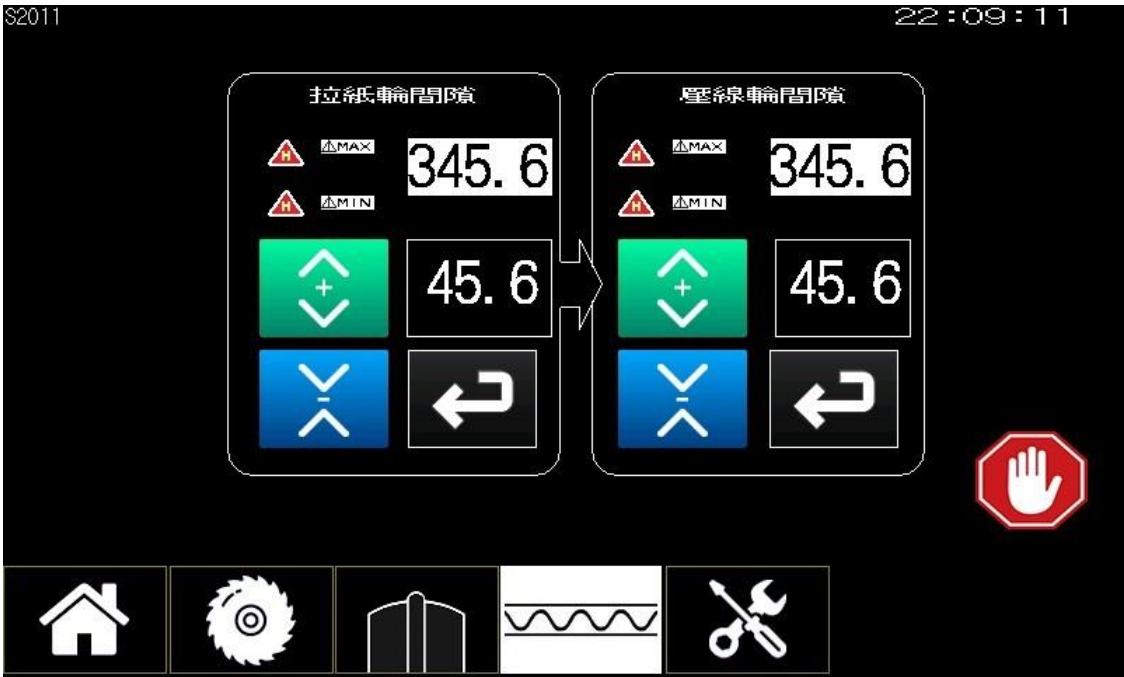
If the machine is automatically setting up and the operator wishes to stop this action for any reason he may touch the key.

The setup stop key will only stop setting up of the axes on the relevant machine section.

TOUCH SCREEN

Callipers

Gap of Pull Roll



Actual Gap is highlighted on the upper left section.



Open -
Press this key to open the gap manually.

TOUCH SCREEN



Close -

Press this key to close the gap manually.

To adjust an axes manually, the operator must continue to touch the desired key. When the operator stops touching the key the axes will immediately stop moving.



SETPOINT

SET KEY

The gap may be set on this screen by inputting the set point value in the lower left section and pressing the enter key.

The value of the gap is theoretically the same as the board caliper.

i.e. If a 4.0mm blank was being run and the Impression gap was set to 4.0mm the printing plate would just contact the surface of the board.

In actual operation it is likely that a value slightly less than the board caliper will need to be set to achieve full print coverage.

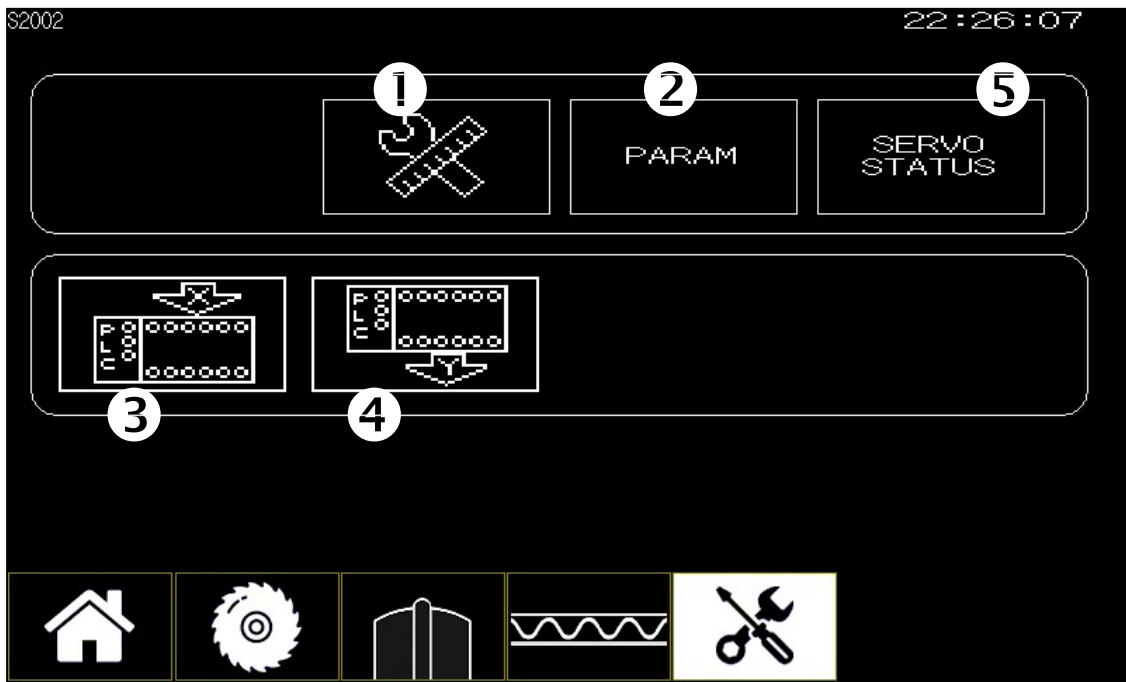
The gap can also be changed manually by touching the open or close keys.

TOUCH SCREEN

System Maintenance

ENTRANCE

This screen provides access to the password protected maintenance areas.

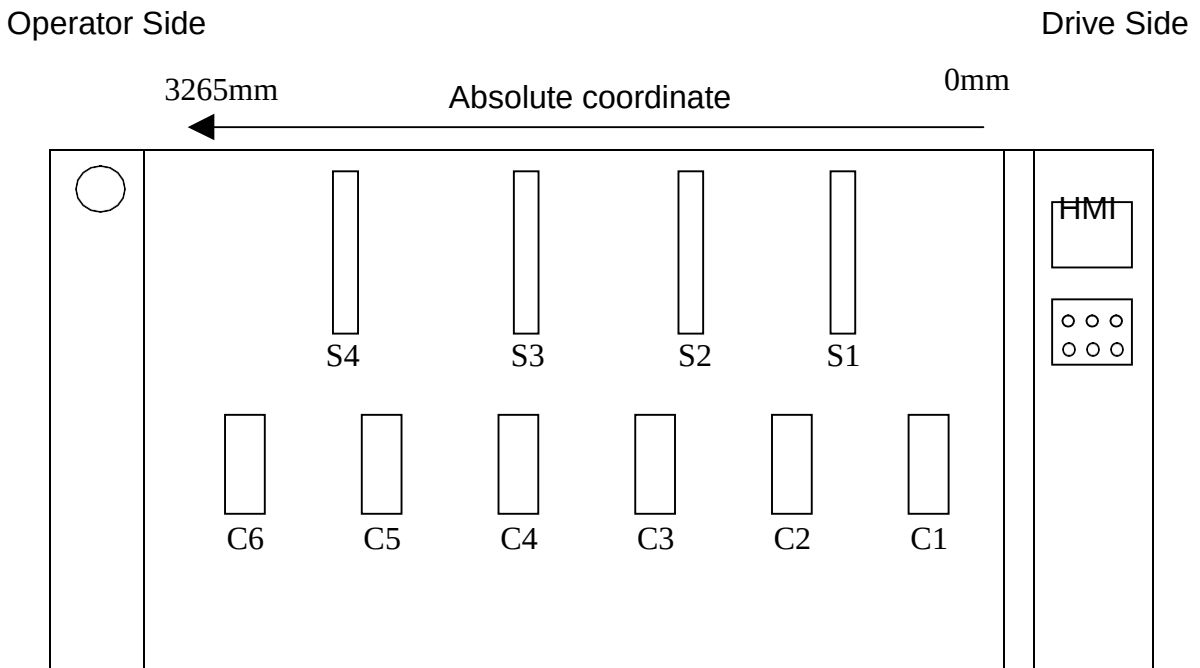


- 1 Calibration:**
After entering the correct password, press this key to enter the calibration screen. The calibration screen is described below.
- 2 Parameters**
Password protected System Parameter Setup Pages.
Only authorized qualified personnel should perform maintenance on this area.
- 3 PLC Inputs:**
Press this key to monitor PLC inputs.
This is not normally used by the machine operator but is included to aid maintenance and fault finding. **No password required.**
- 4 PLC Outputs:**
Press this key to monitor PLC outputs.
This is not normally used by the machine operator but is included to aid maintenance and fault finding. **No Password required.**
- 5 Servo Status:**
Monitor Error code of all of servo drives

TOUCH SCREEN

CALIBRATION

Axis Definition

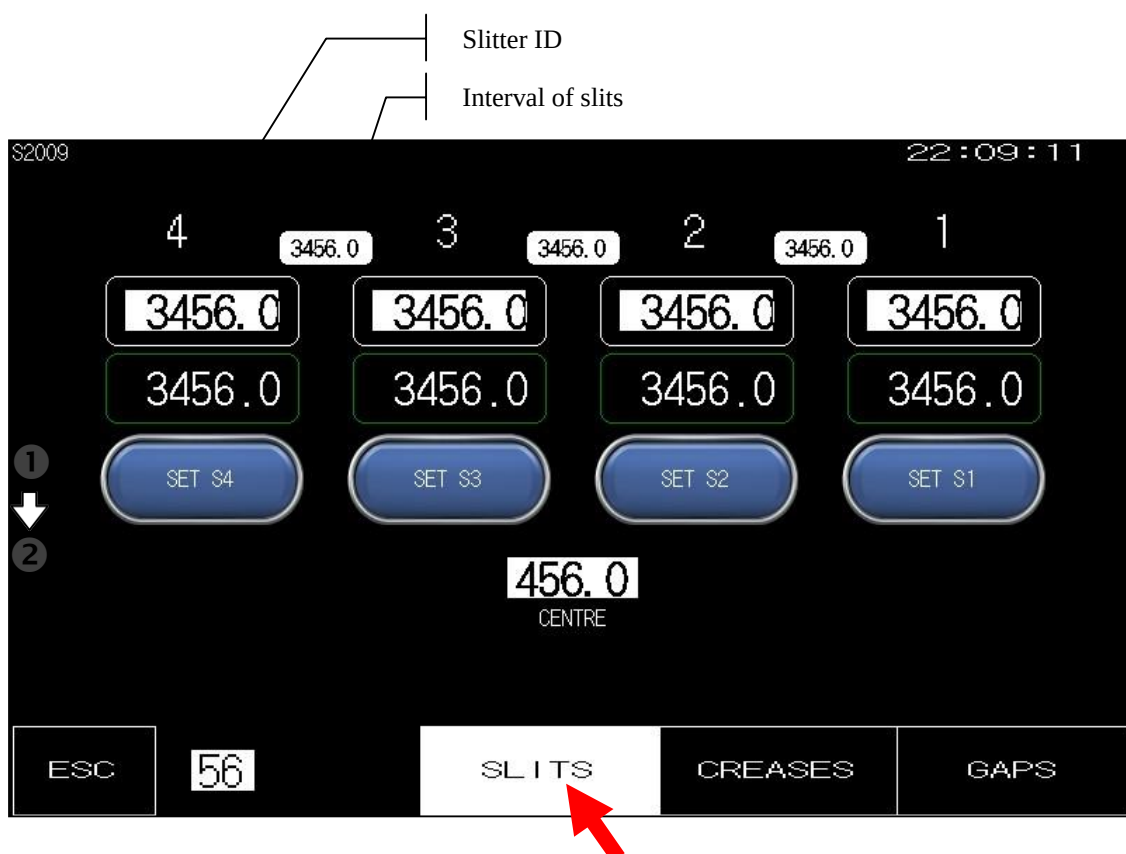


Zero point of the machine starts at inside of drive side frame straight-line to inside of operation side frame.

When calibrate Slits or Crease, operator must measure absolute coordinate.

Centre of Absolute coordinate is **1632.5**

Slits Calibration



- 1 Measure the actual position of the slit from the zero point on Absolute Coordinate and input the value here

NOTE

It is recommended that move slits toward frame as close as it can to shorten the measurement when do the calibration.

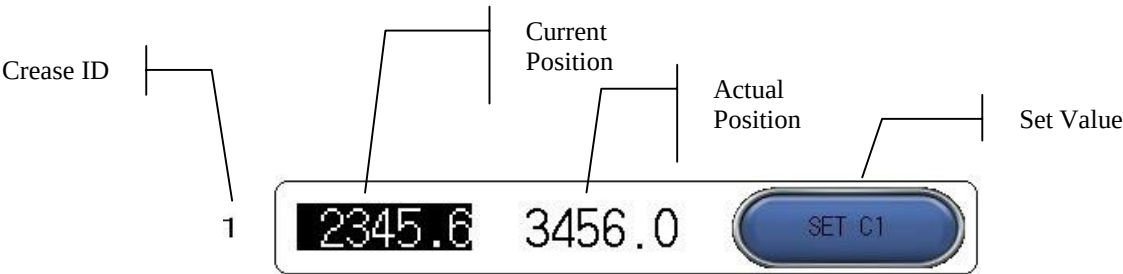
If measuring is from drive side frame then must use 3265 to subtract the result to get correct calibrating value.

- 2 Press [SET S#] to override current number.

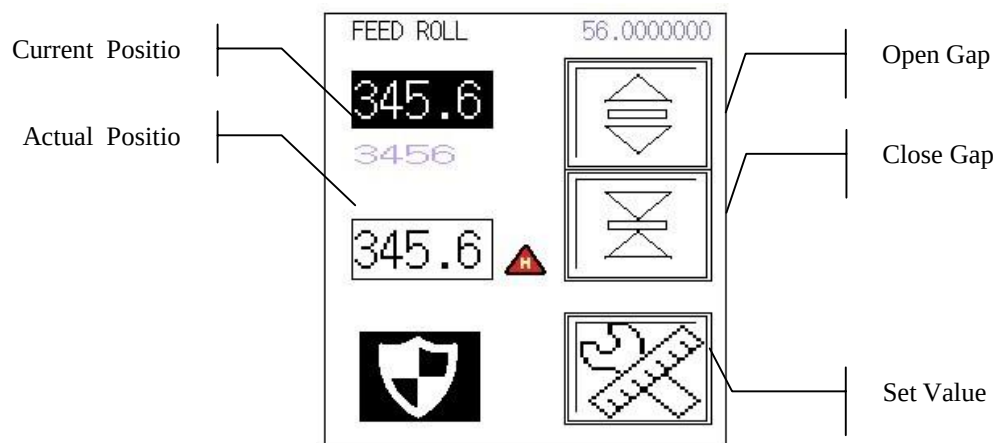
☐ Calibration Completed when current position how the Relative coordinate.

TOUCH SCREEN

Creases Calibration



Callipers Calibration



TOUCH SCREEN

X Inputs

INPUTS						22:08:36	
X0	X1	X2	X3	X4	X5	X6	X7
X10	X11	X12	X13	X14	X15	X16	X17
X20	X21	X22	X23	X24	X25	X26	X27
X30	X31	X32	X33	X34	X35	X36	X37
X40	X41	X42	X43	X44	X45	X46	X47
X50	X51	X52	X53	X54	X55	X56	X57
ESC				INPUTS		OUTPUTS	

Press this key to view the PLC inputs.
This is not normally used by the machine operator but is included to aid maintenance and fault finding.

No Password required.

Y Outputs

OUTPUTS								22:08:36							
Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7								
Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17								
Y20	Y21	Y22	Y23	Y24	Y25	Y26	Y27								
Y30	Y31	Y32	Y33	Y34	Y35	Y36	Y37								
Y40	Y41	Y42	Y43	Y44	Y45	Y46	Y47								
ESC				INPUTS				OUTPUTS							

Press this key to view the PLC outputs.

This is not normally used by the machine operator but is included to aid maintenance and fault finding.

No Password required.

TOUCH SCREEN

Faults

A900

13:38:06

TIME	MESSAGE	REST.
13:38	00. FEEDER NOT LOCKED	13:38
13:38	01. NO BOARD ON FEEDER FOR PC	13:38
13:38	02. TOOL MISSING	13:38
13:38	03. CABLE ARM LIMIT	13:38
13:38	04. YELLOW STOP	13:38
13:38	05. TRACK SAFETY NOT MADE	13:38
13:38	06. TRACK LIMIT ERROR	13:38
13:38	07. MAIN ENCODER ERROR/REVERSED	13:38
13:38	08. SIDE GUIDE REVERSED ERR	13:38
13:38	09. BACKSTOP REVERSED ERROR	13:38

FAULT
RESET

This screen describes any Alert present on the feed section.

When an alert is present, a touch key labeled **Alert** will appear on the default screen and touching the Alert key will switch to this screen so the user can see what faults are present.

The screen describes the TIME the fault occurred, a description of the FAULT and if the fault has since been cleared, the REST column displays the time it was cleared.

This screen displays fault messages for all units in the machine.

FAULT RESET: Has two functions:

- (1) Removes all faults that have been cleared from the list.
- (2) Resets all machine setup faults.

Setup faults occur when an axis is commanded to move, either automatically or manually,

but feedback indicating movement is not received by the PLC.

Once a setup error has occurred, the axis will not move until it the

fault is cleared either by pressing the

FAULT
RESET

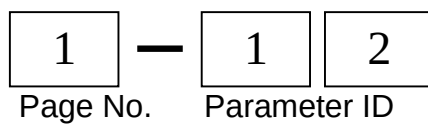
 key or by resetting on the effected units touch screen as described in the following sections.

Parameter

NOTE

Password protected screens
Only authenticated operator can access Parameter Pages
Change parameter may cause machine failure

Parameter encoding rule

**Important****Lead edge Feeder Parameter:**

1-12 : Feed Belts Rising Point for feeding

1-13 : Feed Belts Run Point

1-14 : Feed Belts drop Point

Difference between 1-12 & 1-14 is Feed Stroke

Difference between 1-12 & 1-13 is time for board stay on still feed belts

CONSUMED SPARE PARTS

Feeder

No	Part No	
1	JF001W	Feed Belts
2	JP0191	Feed Pull Roll – Light Crush Wheel

Slits

No	Part No	
1	DD0070	Slits
2	YL0022	Grinder Stone

Stacker

No	Part No	
1	JD0056	Transport Conveyor Belt

FAULTS CAUSES REMEDIES

ALERT

CODE	FAULT	Probable cause - Remedy
10	TOO SLOW TO SHARPEN	Machine speed is too low to active sharpen grinders
16	E STOP	A Red emergency stop has been pressed. To cancel, release the E-Stop button and then press the reset button on the Feeder Name plate. 
17	STACKER IS NOT RUNNING	Stacker is not running
26	LOW BATTERY	Indicates the PLC battery level is low. Please replace the battery within 7 days to prevent PLC memory loss.
28	INVERTER FAULT	Will appear if the machine main motor inverter has an alert. To reset the Alert, turn off the main machine power and wait for 1 minute before turning power back on. This Alert will prevent the main motor from running. For maintenance: This Alert comes from an internal relay in the Main Inverter. The PLC input for this is X10. If the input is OFF then no Alert is present.
30	MOTOR OVERLOAD	This Alert will appear if an motor is overloaded. Please check the overloads to determine which motor has overloaded. When a motor is overloaded a T will appear in a window on the overload. Press the reset button on the overload to reset the Alert. If a motor overloads regularly, call maintenance to determine the root cause of the Alert 