Morgana **Cardmaster**

DOCUMENT
CREASING / FOLDING MACHINE
OPERATORS MANUAL

ISSUE 2   SEPTEMBER   2007

144-138

Safety Do's & Don'ts

Do - read this operator manual fully before operating the machine.

Do - operate with the designated AC current only. Use an exclusive outlet, as overloading may cause fire or an electric shock.

Do - install the power cord out of the way to avoid a tripping hazard.

Do - beware of finger traps when replacing roller cassette and fold plates.

Do not - install the machine in an unstable place such that it tilts or shakes.

Do not - unplug the plug or unplug the power cord from the outlet with a wet hand, this can cause an electric shock.

Do not - unscrew and remove any covers from the machine, as it can cause an electric shock or injury.

Do not - place receptacles containing liquids on any surface.

Do not - adjust any part of the machine whilst rollers are running

Do not - operate the machine with loose or trailing clothing or loose hair.

Morgana

Morgana
CardMaster

INTRODUCTION AND SPECIFICATION
CardMaster is a registered trade mark of Morgana Systems Ltd. The unique patented creasing and folding system, makes it possible to fold most delicate stocks from150gsm, up to and often above 300gsm. The CardMaster reduces the possibility of scratching, marking or cracking appearing on the substrate, as is often associated with conventional folding machine methods. A maximum paper weight cannot be specified, as this can be governed by the hardness of the substrate.

It is **IMPORTANT** to note that to prevent cracking, when using dry ink or toner based print engines, the material **must** be fully acclimatised for at least 48 hours before putting an Image onto the paper.

IMPORTANT the operating environment should be controlled to a temperature between 16° C and 27° C Maximum.

The CardMaster has up to nine available memory addresses for programmed creasing operations.

Specification
Feeding System .... Bottom suction feed
Max. Sheet Size .... 365mmWIDE x 460mm LONG
Min. Sheet Size .... 100mmWIDE x140mmLONG (dependant on
                                                                         stiffness of paper).
Max. Paper Weight ....300gsm **+** (varies according to hardness,
                                                                         and substrate).
Min. Paper Weight .... 150 Gsm
Max. No. Creases per Sheet 1
Max. No. Folds per Sheet................................. 1
Min. Crease Distance from Leading Edge 65mm
Min. Fold Distance from Leading Edge .... 65mm (depending on paper weight)
Min. Crease Distance from Tail Edge 65mm
Min. Fold Distance from Tail Edge .... 65mm (depending on paper weight)
Repetitive positional tolerance of fold/crease..... +/- 0.8mm

Speed per Hour.
Standard Greetings Card (160 Material) One Crease & One Fold 13,500 sheets

Note: The production speed varies according to the material size.

Dimensions ......................................**.**.......... L: 1770mm H: 1040mm W: 790mm
Weight ....180Kgs (+50Kgs packing)
Power Requirement .... 1 phase 220 / 240v

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DOCUMENT CREASING / FOLDING MACHINE

Key to photograph below

1 Stacker assembly	5 Roller Tilt Knob	9 Rear Side lay
2 Exit Guard	6 Back stop	10 Air Distribution knob
3 Suction Slot Knob	7 Display unit	11 Fuses
4 Paper Gate	8 Front Side lay	12 Control Panel
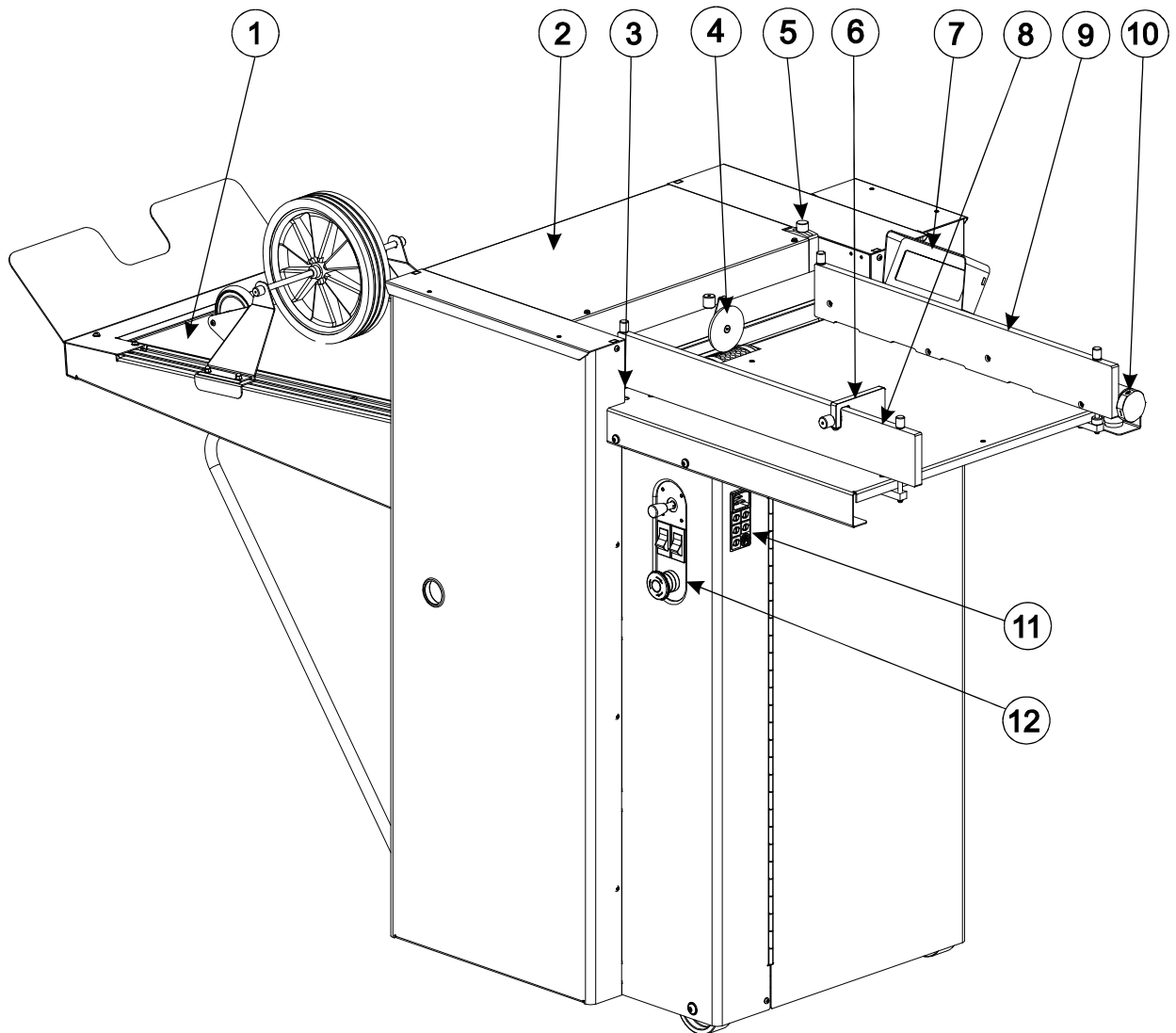
The Display Unit and the Switches on the Control Panel allow the operator to read, edit, create and initiate numerous creasing / folding programs within the memory.

The Control Panel houses the Selection Switch, Compressor switch, System switch, and an industry standard Emergency Stop switch which will stop all power going to the machine when activated.

THE CONTROL PANEL

Selection Switch

Compressor Switch

System Switch

Emergency Stop Switch

CREASING / FOLDING
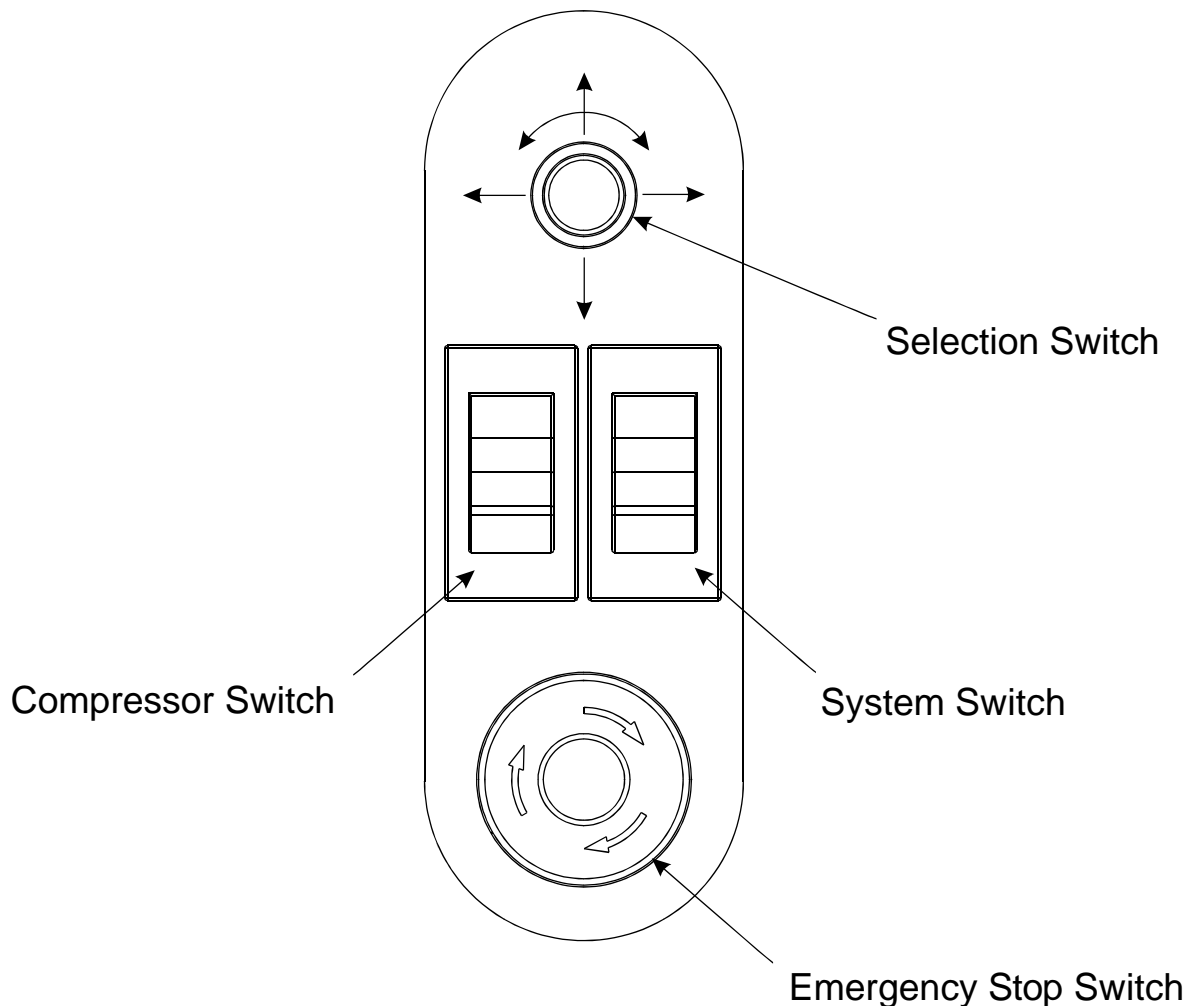
Features on the Control Panel

Selection Switch
Allows the operator to scroll through stored addresses and programs, increase or decrease the batch quantity and set a crease / fold position.

System switch
When activated the system switch will operate the motors in order to begin the creasing sequence.

Compressor switch
Allows the operator to switch off the compressor unit in order to utilise the machine to manually feed sheets.

Setting the machine to operate in automatic mode (Crease & Fold)

1. Set the gap between the paper gate and the vacuum roller to approximately twice the thickness of the stock to be creased.

2. Place the stock to be creased or folded onto the loading table, central about the paper gate.

3. Release the clamps on the rear side lay and slide up to the paper stack, tighten the clamps.

4. Release the clamps on the front side lay and slide up to the paper stack, allowing a gap of approximately 0.5mm (1/64 inch) between the paper and the side lay; tighten the clamps.

5. Position the backstop and slide it up to the paper stack, also allowing a gap (as stated in the above step).

6. Turn the Emergency Stop button clockwise to switch the power on. The display unit is now illuminated, a typical start up display menu is shown below.

```
◄Tools  ▼Feed▼  Setup ►
                  Zero ▲
Batch Off      Total    20
Crease & Fold
```
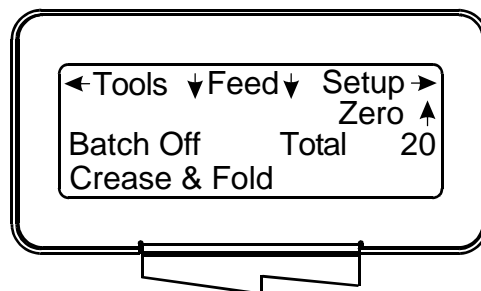
NOTE:-

The arrows on the display denote the direction in which the Selection Switch must be moved in order to access the various sub-menus.

To Set Fold in Half:-

7. Following the arrows on the display unit; move the Selection Switch to the right to select **Setup** (i.e. Setting the crease and fold) a typical display is shown on the next page.

SET JOB TYPE

```
 ↓ Set Type         More →
                    Home ↑

(Fold only)
 → Crease & Fold
```
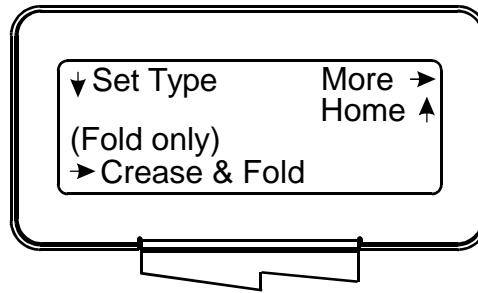
8. Move the Selection Switch down (one click at a time) to highlight the required job type **(Crease & Fold, Fold only, Crease only,** or **Crease & Stack)**. Move the Selection Switch to the right to select **Select**.
    For this Quick Start Guide we will use **Crease & Fold**.

```
 ↓ Set Type         More →
                    Home ↑

(Crease & Fold)
 Fold only
```
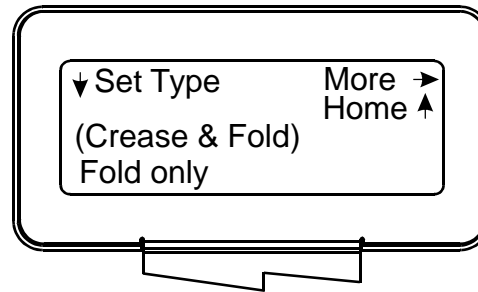
9. Move the Selection Switch to the right to select **More.**

SET SHEET LENGTH

```
 ↓ Set Length   ← More →
                    Home ↑

Sheet is 130.0mm
```
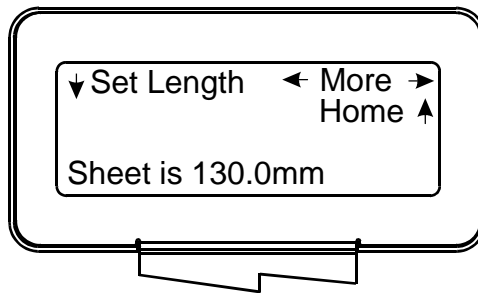
10. Move the Selection Switch down to select **Set Length.**

```
 Set Length        Back ↑
 ← Tens       Decimals →

Sheet is 130.0mm
```
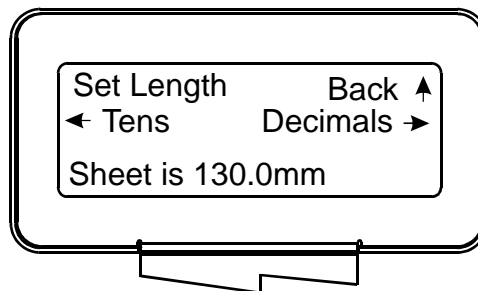
11. Move the Selection Switch to the left to select **Tens** or to the right to select **Decimals**. The **Tens** or **Decimals** (whichever has been selected) can then be adjusted by rotating the Selection Switch, (clockwise to increase or anti-clockwise to decrease).
    Adjust the reading to the length of the material to be used.
    NOTE:-
    Setting the length will automatically set the crease and fold positions to the centre of the sheet.

```
Set Length          Back ▲
◄ Tens       Decimals ►

Sheet is 294.8mm
```

12. Move the Selection Switch up to select **Back**.

```
▼ Set Length   ◄ More ►
                 Home ▲

Sheet is 294.8mm
```
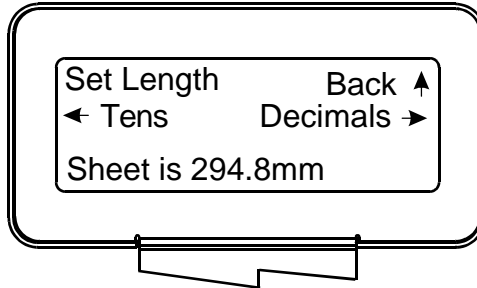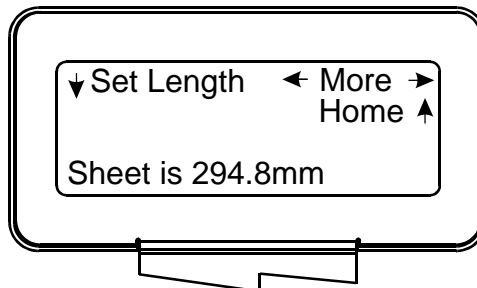
13. Move the Selection Switch to the right to select **More**.

SET BATCH COUNT & BATCH OPTION

```
▼ Set Batch    ◄ More ►
Qty 0            Home ▲

Quantity Not Set
```
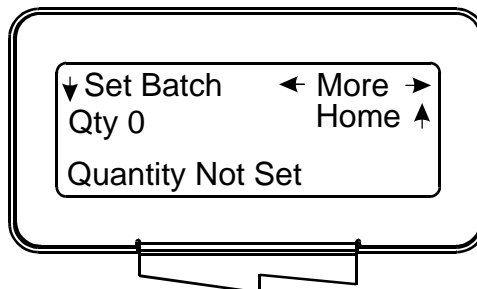
14. To set the batch quantity move the Selection Switch down and then rotate the Selection Switch clockwise to increase the batch quantity or anti-clockwise to decrease the batch quantity (in multiples of 5).

```
▼ Set Batch         Back ▲
  Qty 25
(Manual Re-Start)
Auto Clear
```

15. Move the Selection Switch up to select **Back**.

```
┌─────────────────────────┐
│ ↓Set Batch    ← More →   │
│  Qty 25         Home ↑   │
│ (Manual Re-Start)        │
│  Auto Clear              │
└─────────────────────────┘
```
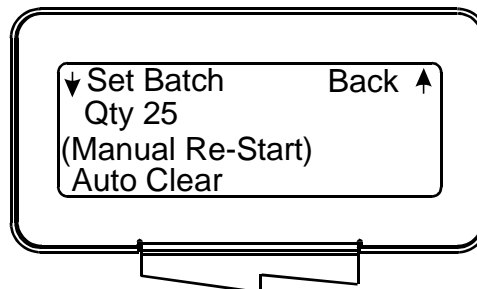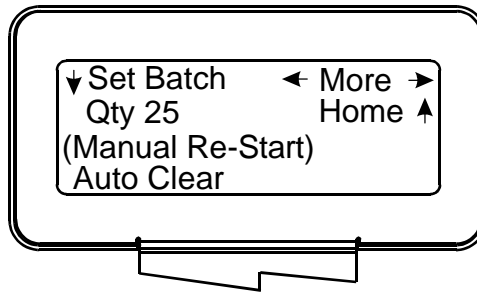
NOTE:-

Definitions of Batching Options:-.

(i) '**Manual Re-Start**' - The machine runs the batch quantity and then stops. To run the next batch quantity move the Selection Switch down to select **Feed**.

(ii) '**Auto Clear**' - The machine runs the batch quantity, the stacker clears the batch to the back of the stacker and then the machine automatically runs the next batch.

(Iii) '**Auto Short Gap**' - The machine runs the batch quantity, the stacker moves the batch a short distance and then the machine automatically runs the next batch.

(iv) '**Auto Long Gap**' - The machine runs the batch quantity, the stacker moves the batch a greater distance than when 'Auto Short Gap' is set and then the machine automatically runs the next batch.

16. Move the Selection Switch to the right to select **More**.

SET CREASE POSITION

```
┌─────────────────────────┐
│ ↓Set Crease   ← More →   │
│                 Home ↑   │
│                          │
│ Crease is 147.4mm        │
└─────────────────────────┘
```
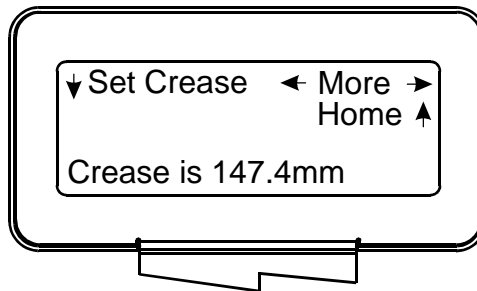
NOTE:-
The default position of the crease is in the middle of the sheet.
To adjust the crease position move the Selection Switch down and then rotate the Selection Switch.

17. Move the Selection Switch to the right to select **More**.

SET FOLD POSITION

```
↓Set Fold      ← More  →
                 Home ↑

Fold is 147.4mm
```
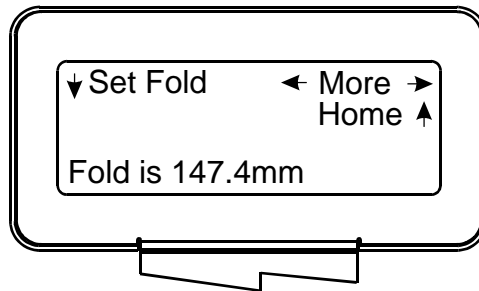
NOTE:-
The default position of the fold is in the middle of the sheet.
To adjust the fold position move the Selection Switch down and then rotate the Selection Switch.

18. Move the Selection Switch to the right to select **More**.

SET STACKER POSITION

```
↓Set Stacker   ← More  →
                 Home ↑
Wheel Position 2
Belt Movement 12
```
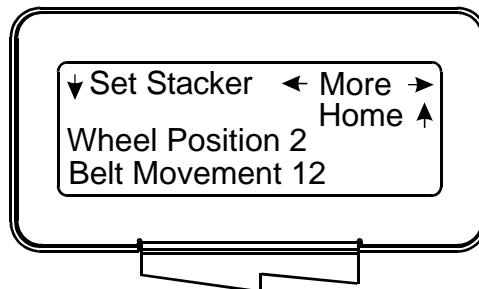
NOTE:-
The stacker position is automatically set relative to the sheet length that has been set, under normal circumstances manual adjustment should not be necessary.

To adjust the **Wheel Position** or **Belt Movement** move the Selection Switch down and then rotate the Selection Switch.

19. Move the Selection Switch to the right to select **More**.

STORE PROGRAM

```
↓Programs        ← More
                 Home ↑
Save Settings
Retrieve Program
```
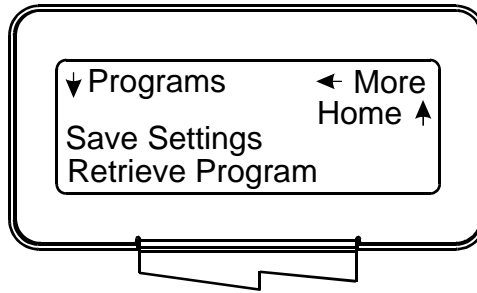
20. Move the Selection Switch down to select **Programs**.

```
↓Programs        Back ↑
                 Select→
Save Settings in 1
Retrieve Program
```
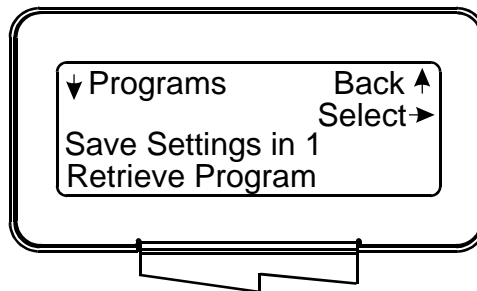
Rotate the Selection Switch to save the settings in the required program number (1 to 9)

21. Move the Selection Switch to the right to select **Select**.

```
          WARNING!
← Yes              No →
          overwrite
         Program 1?
```
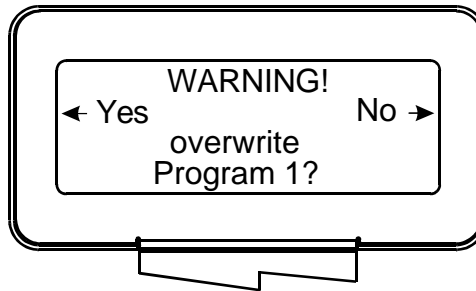
22. Move the Selection Switch to the left or to the right to select **Yes** or **No**.

```
←Tools  ↓Feed↓  Setup→
                Zero ↑
Batch on      Total    20
Crease & Fold
```
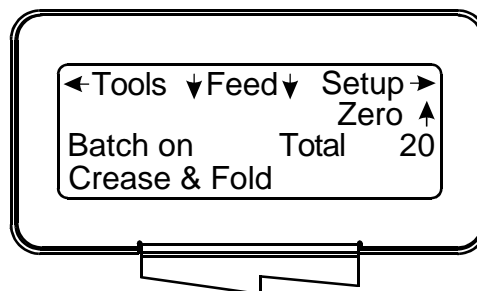
RUN MACHINE

23. Press the Compressor Switch down.

24. Press the System Switch down.

25. Move the Selection Switch down to begin feeding the sheets.

NOTES:-

1. If required the machine can crease only or fold only.
2. Fold only will not be as accurate as Crease & Fold.
3. Crease only will feed stock straight out of the rear opening.
4. To adjust the position of the fold and crease together, select **Tools** from the start up menu; select **Top Flap** and adjust accordingly.

Top Flap

Delivery Rollers

Paper Direction
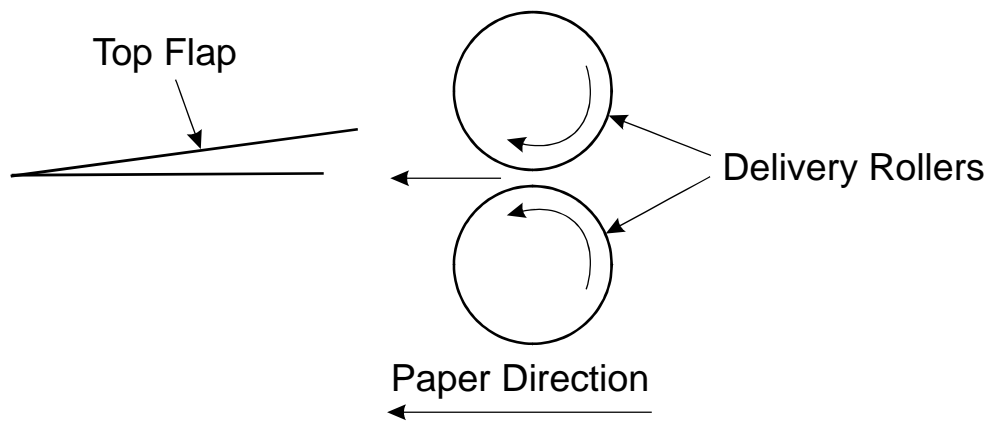
5. When the job type **Crease & Stack** is used, the optional stacker, shown below can be purchased from Morgana Systems.
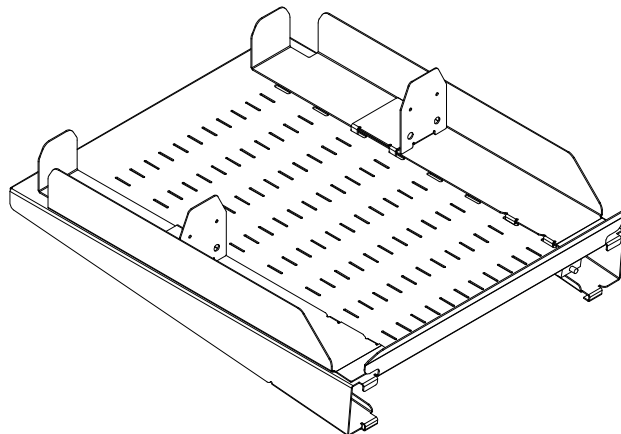
OPTIONAL STACKER
MORGANA PART No. 7-08-14

OUT OF SQUARENESS

IMPORTANT NOTES.

1. If the fold is too near, or on the center line of the crease; the fold will try to fold diagonally across the crease profile and pull the fold out of square to the paper.

   The best fold squareness is achieved when the fold is <u>not</u> on the center line of the crease, it should be to one side of the crease center line as shown below.

   Thus for a crease setting of 100 for example, the fold should be set to a figure slightly smaller or greater than 100.

ideal fold line   ideal fold line

center line of crease
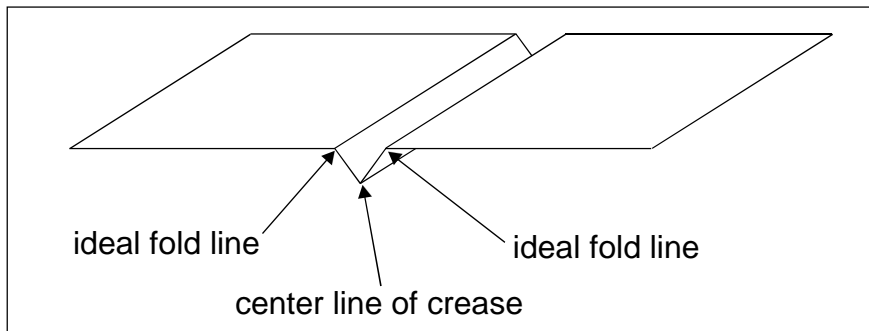
NOTE:-

The above adjustments will not normally be required, because the machine is factory set; but dependant on the stock being used some adjustments may be necessary.

Adjusting the Paper Gate

The standard setting for horizontal adjustment of the paper gate is 6.5mm (1/4") away from the mounting block. Loosen knob K and then turn disc J to make this adjustment, do not tighten knob K at this stage. This setting is only intended as a guide, for instance, sheets with an upward curl will require this setting to be increased. Set the height of the Paper Gate to approximately two thicknesses of paper, by rotating the lever L. An excessive gap is the most likely cause of double sheet feeding. Finally tighten knob K.

K

L

J

Two Thicknesses
of Paper

6.5mm (1/4")

Warning.
Do Not Adjust The Paper Gate
While The Machine is Running
Or The Suction Drum May
Become Damaged
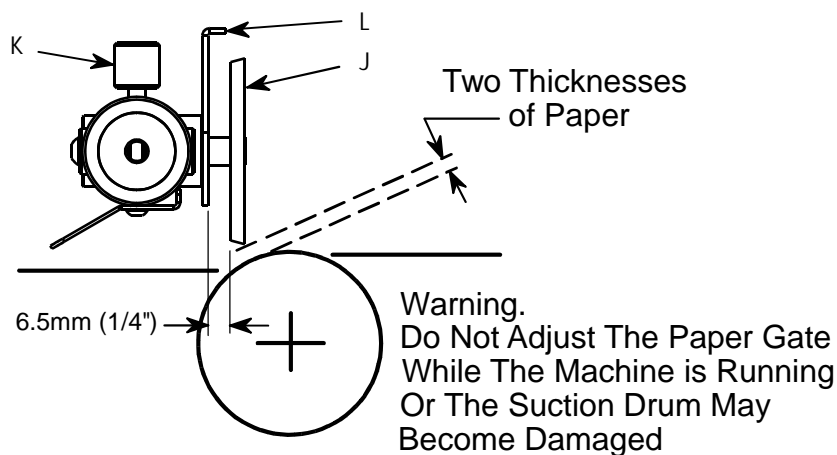
Setting the suction slot

The suction slot is located inside the vacuum roller and can be adjusted by releasing and moving the suction knob horizontally in either direction to the required position.
For light stocks set the knob to the left and for heavier stocks set the knob to the right.

Setting the Side Lays

Place the paper stack central on to the loading table and slide the rear side lay up to contact the stack.
Release the clamps located at each end of the front side lay and slide up towards the paper stack .
Allow a gap of approximately 0.5mm (1/64 inch) between the paper and the front side lay.

Setting the Back-Stop

Slide the back-stop up towards the paper stack allowing a gap (as specified in the above step).

Setting the Air Distribution

Depending on the length of the sheet to be creased, the air distribution knob can be rotated to various positions in order to supply air to different ports. Position 1 is recommended for most sheet sizes. However, a better result may be obtained by using the below settings or by experimentation.

Position   1 – For A5 sheets or 8 inches long, ports 0 and 1 open.
             2 – For A4 sheets or 11 inches long, ports 0 and 2 open.
             3 – For A3 sheets or 17 inches long, ports 0 and 3 open.
             0 – For longer sheets in order to supply air to the centre of the stack, ports
                1 and 2 open.

Note - If small sheets and low stacks of light card are being fed choose position 3 to bleed excess air from the stack.

Port 0   Port 1   Port 2   Port 3

Air Distribution Knob
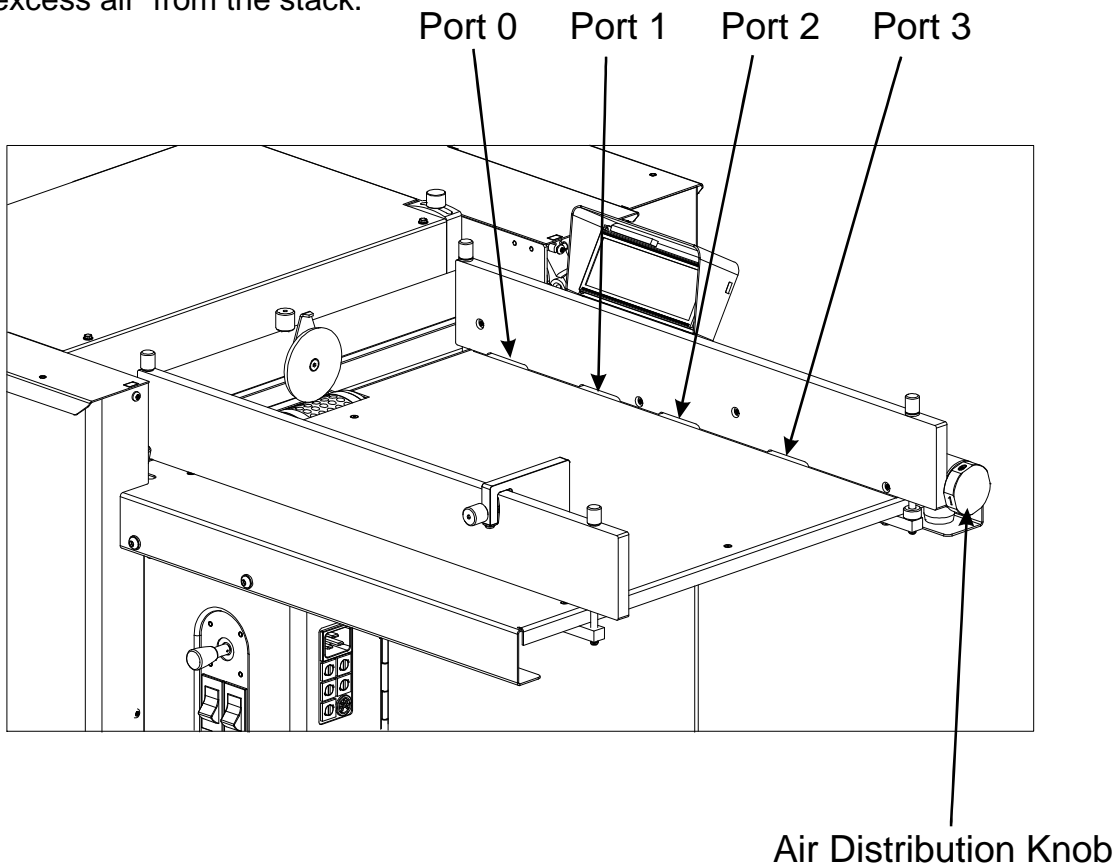
Setting the Roller Tilt Knob

This should be set in the central position as standard, but can be adjusted to correct slight out of squareness of the cut card.
To adjust the tilt, loosen the knurled knob and then slide it to the right to adjust the front flap to the left; or slide the knob to the left to adjust the front flap to the right.

Paper crease out of square.

- Check that the sheets are all square and exactly the same size before loading the stack onto the table.

- Check that the adjustable side lay has been correctly positioned. i.e. No further than 0.5mm from the paper stack.

Paper fold out of square.

- Check that the fold is to one side of the crease center line.

- Check that the roller gap is not too tight and squashing the crease.

- Check that the roller gap is not too large and allowing the paper to slide (Especially so on glossy paper).

- Check that the rollers are not worn on one end.

Paper jamming.

- Check that the leading edge of the paper is not being damaged by the paper gate. If this is occurring, check that the suction slot and the paper gate have been correctly set.

- Check that the first crease / fold position is not too close to the leading edge of the paper. A minimum distance of 65mm is recommended.

Machine will not start.

- Check the power supply to the machine.

- Check that the emergency stop button has been released.

Paper not feeding.

- Check that the paper stack is not too high or too heavy for the feeder. The height of the paper stack should be defined by the weight and the size of the stock being creased.

- Ensure that the side lays are not pressed too tightly against the paper stack. However, if the clearance between the side lays and the paper stack is too great, the air supply will escape instead of blowing through the paper thus making it difficult to feed.

- Check that the clearance between the paper gate and the suction roller is not set too low.

- On digital media, the feeding performance may be improved if the leading edge of the stack is trimmed before loading onto the Cardmaster.

- Check that the air distribution has been correctly set.

Machine not counting.

- Open the top to access the sensors located in between the input rollers and creasing blade/anvil.

- Using a soft brush, clean between the top sensor and bottom paper guide.

Cracking of the Printed Material along the Crease.

Cracking of the material along the crease may be caused by the following:-

- Pressure too heavy on the top blade - reduce pressure. This must be done by a Morgana trained engineer.

- Cracking on one edge caused by misalignment of the anvil and blade - realign blades. This must be done by a Morgana trained engineer.

- When using dry ink or toner based print engines, the material <u>must</u> be fully acclimatised for at least 48 hours before putting an image onto the paper.

Paper marking or scratching.

- Check all roller surfaces are clean and that no dust has accumulated on the feed bed surfaces

No suction.

- If the suction drum is not rotating, check all of the drive belts for cleanliness and splits.

- If the suction drum is not rotating, check on the overload clutch adjustment and tighten the two locknuts if required against the spring washers. This must be done by a Morgana trained engineer.

Paper Jamming.

- In the event of a paper jam occurring whilst the machine is operating the Creasing blade assembly may be released by selecting 'Tools' and scrolling down to 'Release Clutch'.
  This will operate the clutch solenoid which releases the clutch and stops the drive to the rollers thus allowing the paper to be pulled from the machine.
  Switch the machine off at the Emergency stop and open the top cover to allow access to the paper.
  If this is not possible then follow the procedures below.

  THE FOLLOWING PROCEDURES SHOULD BE CARRIED OUT BY A TRAINED PERSON, WITH THE MACHINE ISOLATED FROM THE MAINS.

Paper Jams, general.

- Open the top and rear covers of the machine. disengage the creasing mechanism, now rotate the large flywheel whilst pulling any visible loose end.
  Do not over strain the mechanism, it may be necessary to carry out one of the following.

Jams in the creasing blade.

- If the creasing blade/anvil are jammed with a sheet in a creasing position, then proceed as Jams in general . Proceed to the rear of the machine and manually operate the creasing clutch lever ratchet, this will disengage the clutch and allow the rotation of the creasing mechanism. By rotating the large flywheel at the rear, the mechanism will rotate and the rollers will drive.

  ### <u>Note.</u>
  The mechanism will not rotate backwards unless the key is removed, from the clutch, and should not be forced. This should only be carried out by a trained person.

Error Displayed Messages.

Finished Length - is too long
Error message shown when you try and run the machine and the finished length is longer than the machine can cope with.

Paper Jam - Edge,
Means that the paper is stuck under the lead edge sensor.

Feed Error - Not running
Switch on drive motors as rollers not rotating.
Rotation sensor not running or damaged.
Damaged cable or connector. Pic or PCB faulty.

Feed Error - Didn't arrive
This is the suck timeout message on trying to feed a sheet.

Feed Error - output jammed
Means that there is something blocking the 'clip' sensor on the output of the machine or else the paper did not go past the clip sensor when it should have done. Check the crease only output chute.

Feed Error - Cannot Run
Means that there is something blocking the 'clip' sensor on the output of the machine or else the paper did not go past the clip sensor when it should have done. Check the crease only output chute.

Feed Error - sensor blocked,
Means that there is a piece of paper stuck under the lead edge sensor for too long during the operation of the machine. Probably means the machine has stopped rotating.

Feed Error - wrong length,
Means that the sheet length set is different from the actual length of sheet being fed.
Correct by resetting the length of the sheet length.

Clear Blockage - From Sensor.
Paper under Lead edge sensor or dust covering lense.
Means that there is a piece of paper stuck under the lead edge sensor for too long during the operation of the machine. Probably means the machine has stopped rotating.

Recommended weekly Operator maintenance

- Clean all sensors
- Clean infeed rollers and fold rollers using the Morgana cleaning kit (Morgana cleaning kit part number – 90-018)

Technician Maintenance

It is recommended that your Morgana Cardmaster is fully serviced at least once every six months by a factory trained Service Engineer.

ITEM	PART NUMBER	DESCRIPTION
1	7-08-14	STACKER ASSEMBLY

ACCESSORIES....

    ....May be obtained from your dealer and fitted to your machine using the instructions supplied, or by reading your operators manual.

OPTIONS....

    ....May also be obtained and fitted by your dealer. You should not attempt to fit options as specialist tools and knowledge are required.

PART NUMBER	DESCRIPTION
607-170	DRIVE BELT
609-019	'O' RING Ø30
609-011	'O' RING Ø20
609-014	'O' RING Ø15
142-047-02	LOCK PIN ASSEMBLY - Side Lay
610-030	FOLD BLADE SOLENOID
145-16-01	FOLD KNIFE ASSEMBLY
51-081	CLUTCH ASSEMBLY
613-137	PLUNGER AND SPRING
613-255	SOLENOID COIL
609-013	'O' RING Ø25
613-365	EMERGENCY STOP SWITCH
652-011	SYSTEM SWITCH
652-009	COMPRESSOR SWITCH (UK)
652-010	COMPRESSOR SWITCH (USA)
144-04-01	JOYSTICK AND LEAD ASSEMBLY
144-01-01	CONTROL PCB ASSEMBLY
125-21-02	DUAL STEPPER DRIVE PCB ASSEMBLY
75-210-05	LCD DISPLAY UNIT - 4 LINE
655-011	PSU UNIT 5V/24V
655-015	PSU UNIT - SWITCH MODE - 24V
655-016	PSU UNIT - SWITCH MODE - 48V
654-002	ENCODER DISC
613-494	ENCODER READER
145-18-01	EDGE SENSOR ASSEMBLY
145-18-02	EDGE SENSOR ASSEMBLY
145-18-03	CLIP SENSOR ASSEMBLY
145-18-04	CLIP SENSOR ASSEMBLY
674-105	CAPACITOR
609-022	'O' RING Ø32
145-11-01	BLADE ROLLER ASSEMBLY
145-11-02	ANVIL ROLLER ASSEMBLY
681-015	FUSE T4A
613-023	FUSE F3.15A

PART NUMBER	DESCRIPTION
607-041	Timing Belt - 110XL 037
607-046	Timing Belt - 540XL 037
607-047	Timing Belt - 564XL 037
76-058	Anti-Static Brush - Autocreaser
124-01-27	Roller Pot Lead
128-026-02	Belt - Paper Transport

ITEM	PART NUMBER	QTY	DESCRIPTION
1	144-138	1	OPERATORS MANUAL - CARDMASTER
2	90-018	1	ROLLER CLEANING KIT
3	650-040	1	POWER CORD CE UK C19 3 Pin 16A 2.5m
4	624-018	1	DISPATCH BOX

CREASING / FOLDING

MACHINE CALIBRATION HISTORY

Serial Number:-

Date:-				
Total Count:-x10				
Stretch				
Lead Edge				
Fold Trim				

Date:-				
Total Count:-x10				
Stretch				
Lead Edge				
Fold Trim				

To Display the Total Count
Switch the Machine Off and insert the Engineers plug
into the socket positioned in the fuse panel, beneath the feed table.
Switch Power on, Select Tools and scroll down to M/C Totalx10

To Zero the Total Count
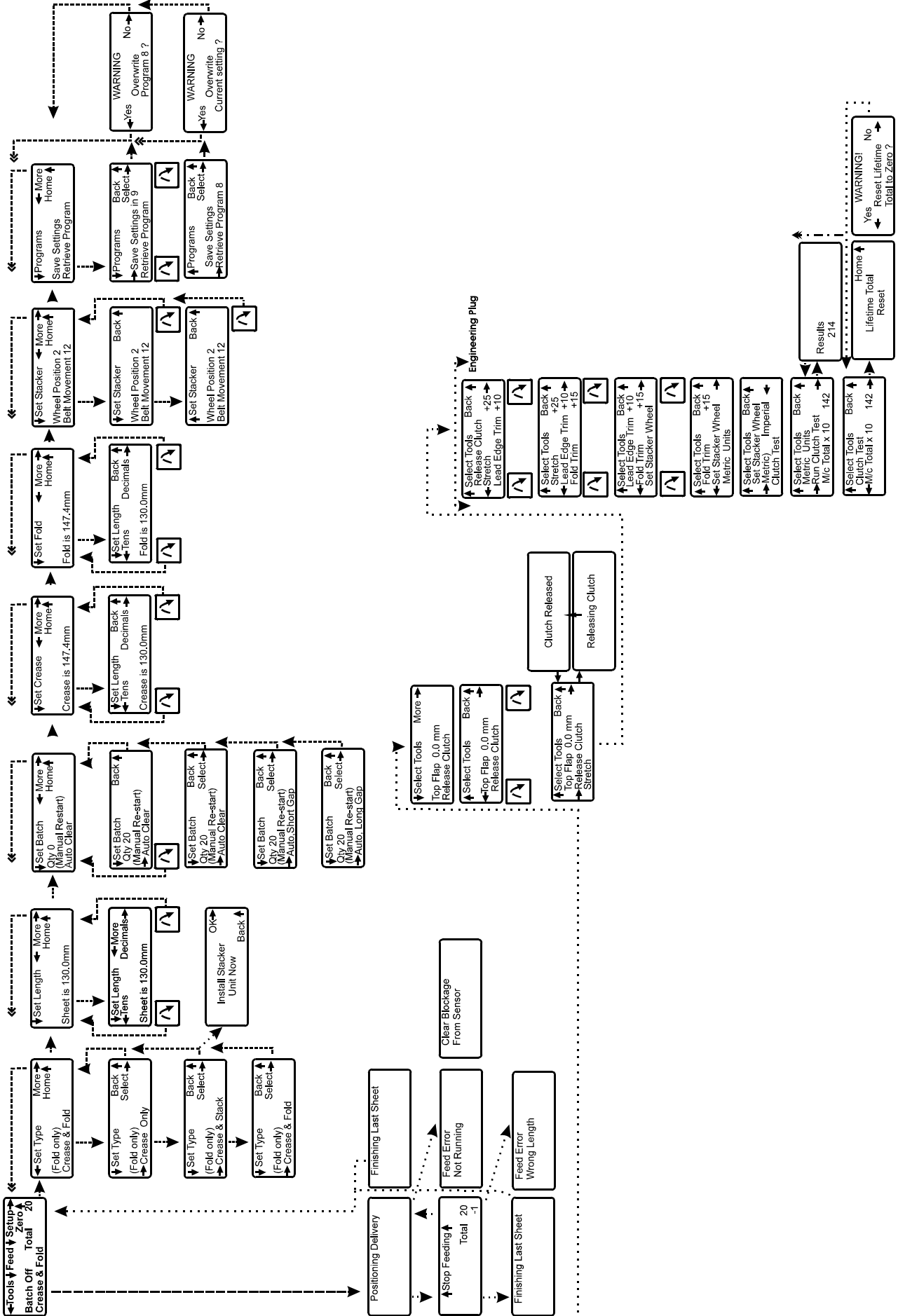With the engineers plug in the socket, select Tools and scroll down to 'm/c Total x 10',
move the selection switch to the left to reset.
Note. - This will reset all settings including the programs and engineer settings to default.
With the machine switched on and engineers socket plugged in
reinstall all the Engineers Settings as recorded above.
Scroll back to the home screen and remove the plug from the socket.

Cardmaster Menu Flow Chart

WARNING
Overwrite Program 8 ?
Yes   No

WARNING
Overwrite Current setting ?
Yes   No

Programs   More Home
Save Settings
Retrieve Program

Programs   Back Select
Save Settings in 9
Retrieve Program

Programs   Back Select
Save Settings
Retrieve Program 8

Set Stacker   More Home
Wheel Position 2
Belt Movement 12

Set Stacker   Back
Wheel Position 2
Belt Movement 12

Set Stacker   Back
Wheel Position 2
Belt Movement 12

Set Fold   More Home
Fold is 147.4mm

Set Length   Back Decimals
Tens
Fold is 130.0mm

Set Crease   More Home
Crease is 147.4mm

Set Length   Back Decimals
Tens
Crease is 130.0mm

Set Batch   More Home
Qty 0
(Manual Restart)
Auto Clear

Set Batch   Back Select
Qty 20
(Manual Re-start)
Auto Clear

Set Batch   Back Select
Qty 20
(Manual Re-start)
Auto Clear

Set Batch   Back Select
Qty 20
(Manual Re-start)
Auto Short Gap

Set Batch   Back Select
Qty 20
(Manual Re-start)
Auto Long Gap

Set Length   More Home
Sheet is 130.0mm

Set Length   More Decimals
Tens
Sheet is 130.0mm

Install Stacker   OK Back
Unit Now

Set Type   More Home
(Fold only)
Crease & Fold

Set Type   Back Select
(Fold only)
Crease Only

Set Type   Back Select
(Fold only)
Crease & Stack

Set Type   Back Select
(Fold only)
Crease & Fold

Tools   Feed   Setup
Batch Off   Zero   20
Crease & Fold   Total 20

Engineering Plug

Select Tools   Back
Release Clutch   +25
Stretch   +10
Lead Edge Trim +10

Select Tools   Back
Stretch   +25
Lead Edge Trim +10
Fold Trim   +15

Select Tools   Back
Lead Edge Trim +10
Fold Trim   +15
Set Stacker Wheel

Select Tools   Back
Fold Trim   +15
Set Stacker Wheel
Metric Units

Select Tools   Back
Set Stacker Wheel
Metric)   Imperial
Clutch Test

Select Tools   Back
Metric Units   142
Run Clutch Test
M/c Total x 10

Select Tools   Back
Clutch Test   142
M/c Total x 10

Results
214

Home
Lifetime Total
Reset

WARNING!   No
Reset Lifetime
Total to Zero ?
Yes

Clutch Released

Releasing Clutch

Select Tools   More
Top Flap   0.0 mm
Release Clutch

Select Tools   Back
Top Flap   0.0 mm
Release Clutch

Select Tools   Back
Top Flap   0.0 mm
Release Clutch
Stretch

Clear Blockage
From Sensor

Finishing Last Sheet

Feed Error
Not Running

Feed Error
Wrong Length

Positioning Delivery

Stop Feeding
Total 20
-1

Finishing Last Sheet

CREASING / FOLDING

PRODUCT RECYCLING & DISPOSAL

European Union

Disposal Information for Commercial Users

Application of this symbol on your equipment is confirmation that you must dispose of this equipment in compliance with agreed national Procedures.

In accordance with European legislation end of life electrical and electronic equipment subject to disposal must be managed within agreed procedures.

Prior to disposal please contact your local dealer or representative for end of life take back information.

Disposal Information for Domestic Users

Application of this symbol on your equipment is confirmation that you should not dispose of the equipment in the normal household waste stream.

In accordance with European legislation, end of life electrical and electronic equipment subject to disposal must be segregated from household waste.

Private households within EU Member States may return used electrical and electronic equipment to designated collection facilities free of charge. Please contact your local disposal authority for information.

In some Member States when you purchase new equipment your local retailer may be required to take back your old equipment free of charge. Please ask your retailer for information.

Other Countries

Please contact your local waste authorities and request disposal information.