



USER MANUAL G4



This machine must be operated in accordance with this user guide.
Please read this guide before operating the machine.

The mains lead supplied for this machine is a three pin plug. The earth terminal must be connected to ground.

The machine should be sited on a firm level working area.

The machine should be disconnected from the mains supply before removing any guards or opening the machine case.

Only operators who have received the appropriate training should operate the machine.

Only spare parts supplied by Polyair should be used on this machine.

Only film supplied by Polyair should be used on this machine.

This user guide is divided into four parts.

PART 1

Should be read by the **Machine Operator**.

It contains instructions on day to day operation of the machine.

PART 2

Should be read by the **Machine Supervisor**.

It contains instruction on how to:

Change the operational mode of the machine;

Change the default programme;

Change the fixed time running period;

Clear a film jam;

Change the Weld Bar;

Change the Upper Teflon Belt;

Change the Lower Silicone Belt.

PART 3

Should be read by the **Polyair Technician**.

It contains information on how to change configuration parameters for different film types.

PART 4

Should be read by the **Polyair Advanced Technician**.

It contains information on how to change the advanced operational parameters on the machine.

It also contains information on how to perform various maintenance functions on the machine.

PART 1

SWITCH ON

Connect the mains lead to a grounded mains supply.

Ensure the ADMINISTRATOR KEY is not inserted in the machine.

Operate the mains switch.

When the machine is on, the mains switch will glow red.

The initial warm up splash screen will then appear on the HMI for a few seconds.

The next screen that appears will depend on which OPERATIONAL MODE the machine has been configured to run.

LOAD NEW ROLL OF FILM

Push the roll of film fully onto the FILM ROLL HOLDER until it can go no further.

(See picture one)

Make sure the SEAL GAP is next to the upper case.

(See picture two)

Cut the corner off the end of the film at the SEAL GAP.

(See picture three)

Feed the film over the FILM GUIDE PIPE.

(See picture four)

Beware of the cutting blade that is located behind the film guide pipe.

Pull the film towards the DRIVE BANDS until the film just starts to go between the bands.

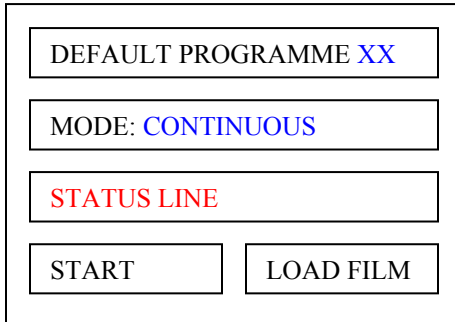
(See picture five)

Beware of the cutting blade that is located behind the film guide pipe.

Refer to the operation descriptions below for full details about the operation of the machine in each OPERATIONAL MODE that can be run.

CONTINUOUS MODE

When the machine is switched on, the start screen appears in the display.



The default programme number **XX** will have been set by your machine supervisor. This programme will suit the film that is running on the machine.

The operational mode **CONTINUOUS** confirms the machine is set to run in Continuous Mode.

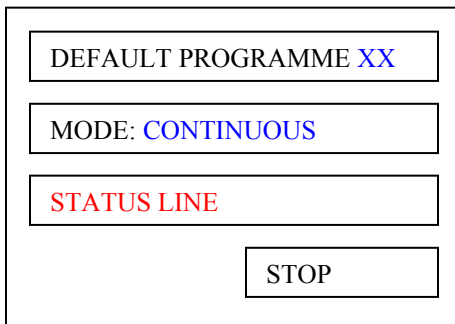
The **STATUS LINE** displays messages to indicate the status of the machine.

Status line messages are shown below.

Press **LOAD FILM** to load the film into the machine before starting production of pillows. Full details how to perform this operation are given in Part 1 of this manual.

Press **START** to start the machine.

The running screen will appear in the display.



Press **STOP** to stop the machine and return to the start screen.

CONTINUOUS MODE (CONTINUED)

Status line messages:

PREPARING FOR: XX

When **START** is pressed the machine prepares for a short period before it starts running. This message shows the time it is preparing.

RAMPING FOR: XX

After the machine has completed its preparation time, it starts to run and ramps up to its normal running speed. This message shows the time it is ramping.

RUNNING TIME: XX

After the machine has completed its ramping time, it will be running at its normal operating speed. This message shows the time it has been running.

The timer is reset to zero when the machine is stopped and restarted.

CLOSE CASE

This error message is displayed when the case is opened.

Close the case and ensure the case locks are securely fastened.

CHECK FILM

This error message is displayed when the machine senses that the roll of polythene is not rotating.

This usually occurs if there is a film break, a jam up, or the roll has finished.

If a break has occurred, load the film as described in part 1 of this manual. Restart the machine to continue normal operation.

If a film jam has occurred, clear the jam as described in part 2 of this manual. Restart the machine to continue normal operation.

If the roll has finished, load a new roll as described in part 1 of this manual. Restart the machine to continue normal operation.

WELD BAR NEEDS SERVICE

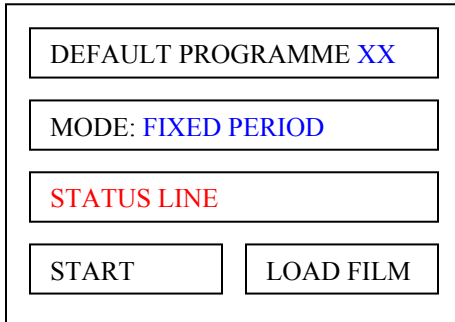
The message is displayed when the machine senses that the weld wire is no longer serviceable. If this message appears, the weld bar must be changed as soon as possible. The machine will continue to run for a short period in this condition before it locks out.

Directions on how to change the weld bar are given in Part 2 of this manual.

The weld bar should only be changed by authorized personnel.

FIXED PERIOD MODE

When the machine is switched on, the start screen appears in the display.



The default programme number **XX** will have been set by your machine supervisor. This programme will suit the film that is running on the machine.

The operational mode **FIXED PERIOD** confirms the machine is set to run in Fixed Period Mode.

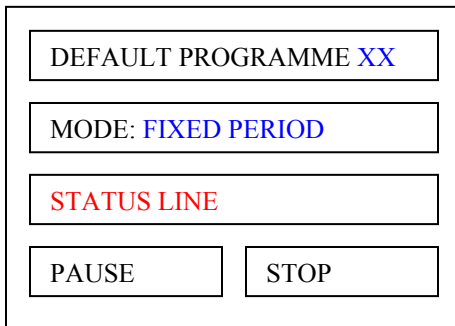
The **STATUS LINE** displays messages to indicate the status of the machine.

Status line messages are shown below.

Press **LOAD FILM** to load the film into the machine before starting production of pillows. Full details how to perform this operation are given in Part 1 of this manual.

Press **START** to start the machine.

The running screen will appear in the display.



Press **STOP** to stop the machine. When the machine is stopped the timer is reset and the start screen appears in the display.

FIXED PERIOD MODE (CONTINUED)

Press **PAUSE** to temporarily stop the machine. The timer is not reset when the machine is paused. When the machine is paused the following screen is displayed.

DEFAULT PROGRAMME XX	
MODE: FIXED PERIOD	
STATUS LINE	
CONTINUE	STOP

Press **STOP** to return to the start screen. The timer is reset.

Press **CONTINUE** to restart the machine. The timer recommences timing again. The running screen will appear in the display.

FIXED PERIOD MODE (CONTINUED)

Status line messages:

RUN TIME: XX

This display informs the user for how long the machine will run. It appears on the start screen.

PREPARING FOR: XX

When **START** is pressed the machine prepares for a short period before it starts running. This message shows the time it is preparing.

RAMPING FOR: XX

After the machine has completed its preparation time, it starts to run and ramps up to its normal running speed. This message shows the time it is ramping.

TIME REMAINING: XX

After the machine has completed its ramping time, it will be running at its normal operating speed. This message shows the time remaining until the fixed period completes.

The timer does not reset to the preset fixed period when operation is paused.

The timer is reset to the preset fixed period when the machine is stopped and restarted.

CLOSE CASE

This error message is displayed when the case is opened.

Close the case and ensure the case locks are securely fastened.

CHECK FILM

This error message is displayed when the machine senses that the roll of polythene is not rotating.

This usually occurs if there is a film break, a jam up, or the roll has finished.

If a break has occurred, load the film as described in part 1 of this manual. Restart the machine to continue normal operation.

If a film jam has occurred, clear the jam as described in part 2 of this manual. Restart the machine to continue normal operation.

If the roll has finished, load a new roll as described in part 1 of this manual. Restart the machine to continue normal operation.

WELD BAR NEEDS SERVICE

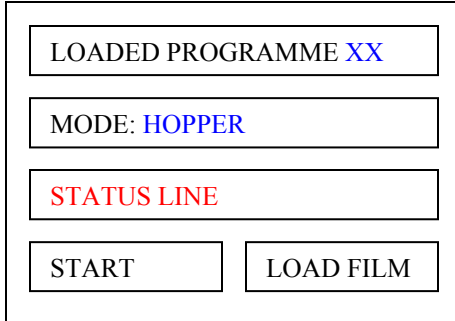
The message is displayed when the machine senses that the weld wire is no longer serviceable. If this message appears, the weld bar must be changed as soon as possible. The machine will continue to run for a short period in this condition before it locks out.

Directions on how to change the weld bar are given in Part 2 of this manual.

The weld bar should only be changed by authorized personnel.

HOPPER MODE

When the machine is switched on the start screen appears in the display.



The default programme number **XX** will have been set by your machine supervisor. This programme will suit the film that is running on the machine.

The operational mode **HOPPER** confirms the machine is set to run in Hopper Mode.

The **STATUS LINE** displays messages to indicate the status of the machine.

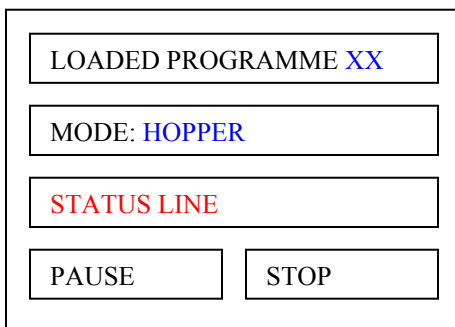
Status line messages are shown below.

Press **LOAD FILM** to load the film into the machine before starting production of pillows. Full details how to perform this operation are given in Part 1 of this manual.

The hopper sensors are not monitored until the machine is started.

Press **START** to commence operation.

The display will change to the following screen:



Press **STOP** to cease operation and return to the start screen.

The hopper sensors are not monitored when the machine is stopped.

HOPPER MODE CONTINUED

Press **PAUSE** to temporarily cease operation.
The hopper sensors are not monitored when the machine is paused.

When **PAUSE** has been pressed the display will change to the following screen:

LOADED PROGRAMME XX	
MODE: HOPPER	
STATUS LINE	
RESTART	END

Press **END** to return to the start screen.
The hopper sensors are not monitored after **END** has been pressed.

Press **RESTART** to restart the machine.
The hopper sensors will now be monitored.

If the lower level sensor is covered and the upper level sensor is uncovered, the machine will run if the previous condition was both sensors uncovered.

If the machine is running and you press **PAUSE**, when you press **RESTART**, the machine will run again when the lower level sensor is uncovered.

If the machine is running and you press **STOP**, when you press **START**, the machine will not run until the lower level sensor is uncovered.

Please note there is a built in time delay of several seconds before the machine starts or stops after a change in sensor status.

HOPPER MODE CONTINUED

Status line messages are:

CHECK SENSOR CABLES

If this message appears check the hopper level sensors are not properly connected.
The machine will not run in this condition.

FULL

This message appears when both the lower and upper level sensors are covered.
The machine will not run in this condition.

EMPTYING

This message appears when the lower level sensor is covered and the upper level sensor is uncovered.
The machine will not run in this condition.

EMPTY

This message appears when both the lower and upper level sensors are uncovered.
The machine runs in this condition.

FILLING

This message appears when the lower level sensor is covered and the upper level sensor is uncovered, but only after the machine has registered empty and needs to fill the hopper.

MACHINE PAUSED

This message appears when the machine operation has been paused.

FAULT

This is displayed when the upper level sensor is covered and the lower level sensor is uncovered.

CLOSE CASE

This error message is displayed when the case is opened.
Close the case and fasten the case locks.

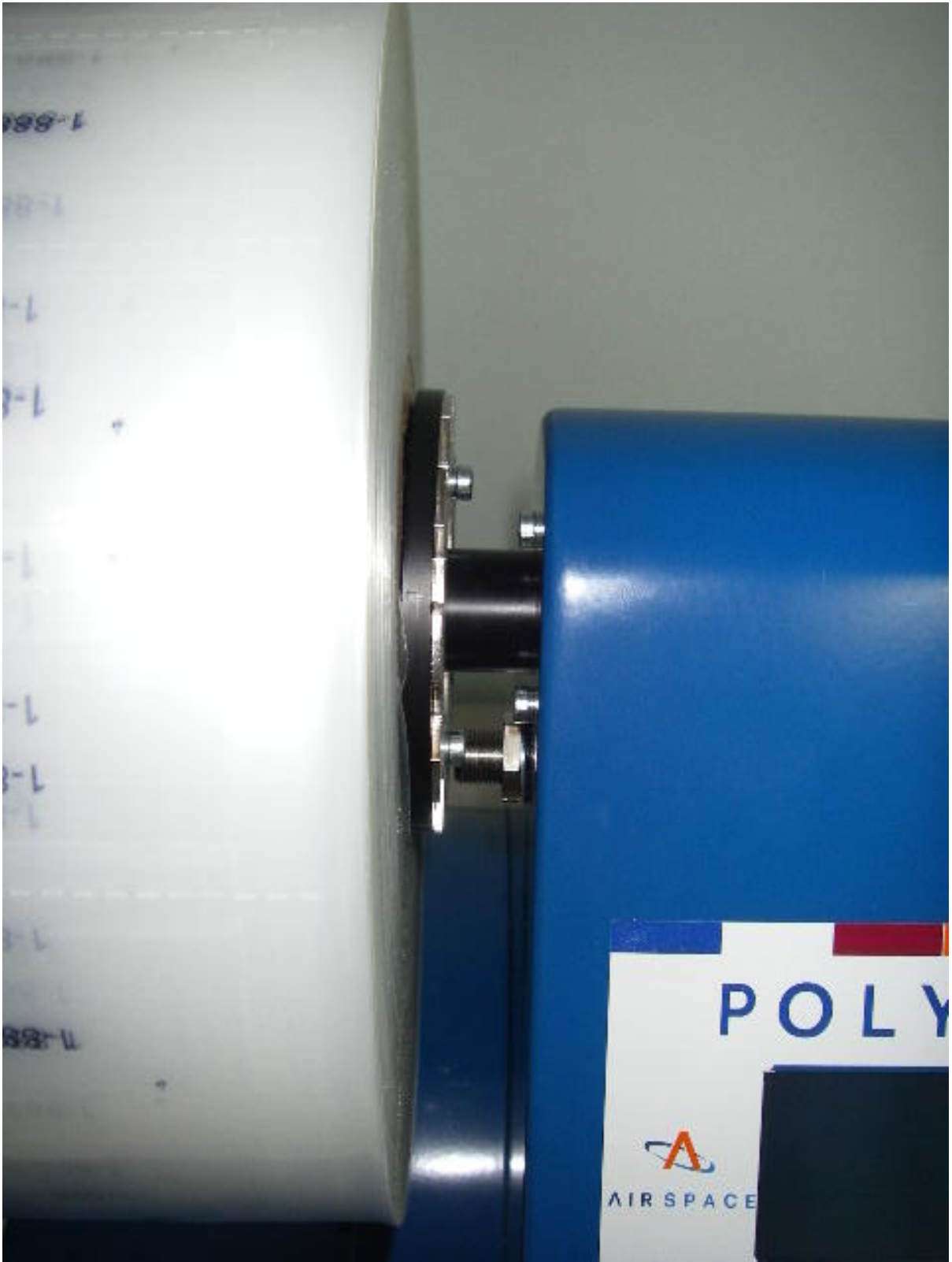
CHECK FILM

This error message is displayed when the machine senses that the roll of polythene is not rotating.
This usually occurs if there is a film break, a jam up, or the roll has finished.
If a break has occurred, load the film as described in part 1 of this manual. Restart the machine to continue normal operation.
If a film jam has occurred, clear the jam as described in part 2 of this manual. Restart the machine to continue normal operation.
If the roll has finished, load a new roll as described in part 1 of this manual. Restart the machine to continue normal operation.

WELD BAR NEEDS SERVICE

The message is displayed when the machine senses that the weld wire is no longer serviceable. If this message appears, the weld bar must be changed as soon as possible. The machine will continue to run for a short period in this condition before it locks out.
Directions on how to change the weld bar are given in Part 2 of this manual.
The weld bar should only be changed by authorized personnel.

PICTURE ONE



PICTURE TWO



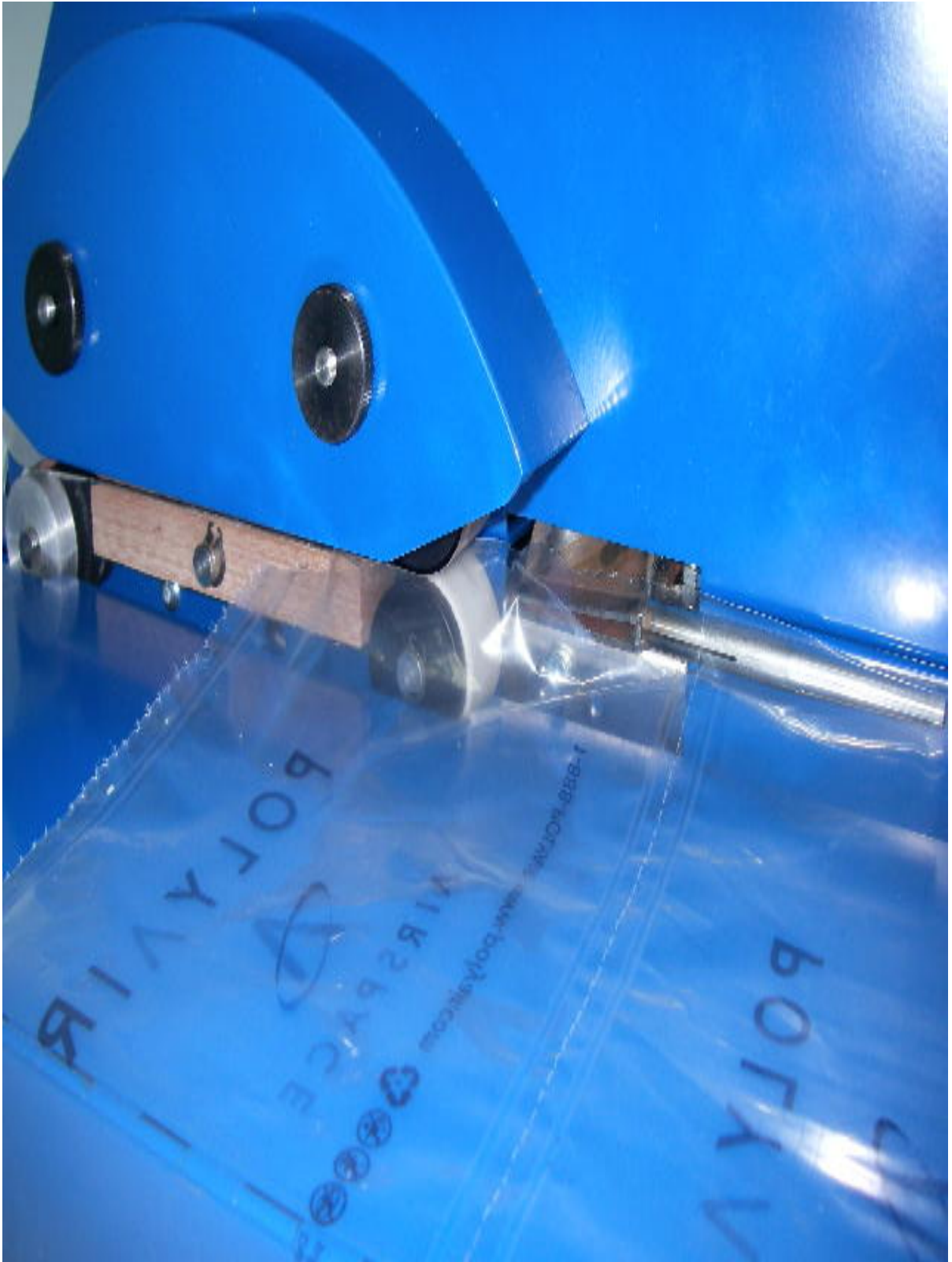
PICTURE THREE



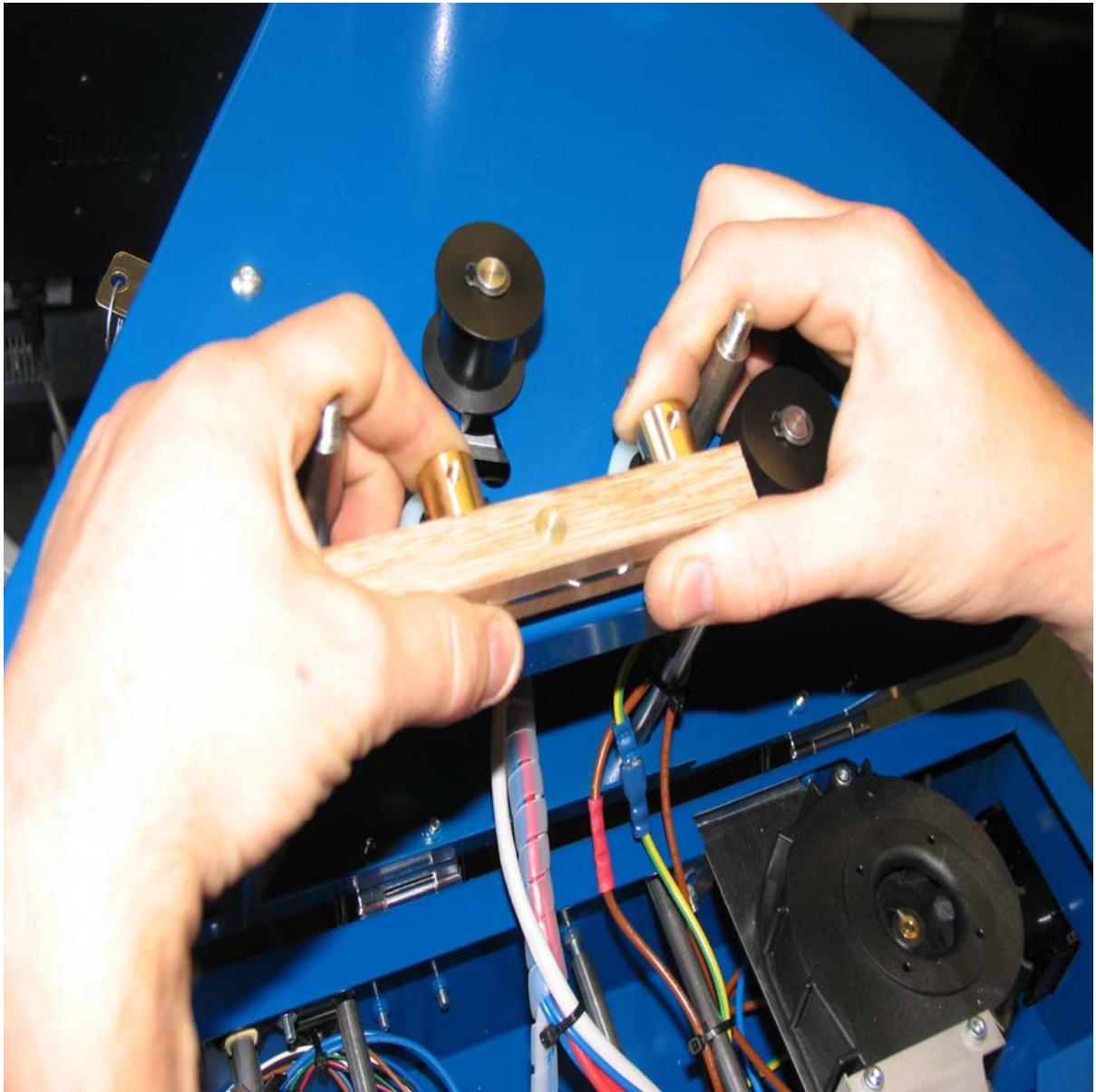
PICTURE FOUR



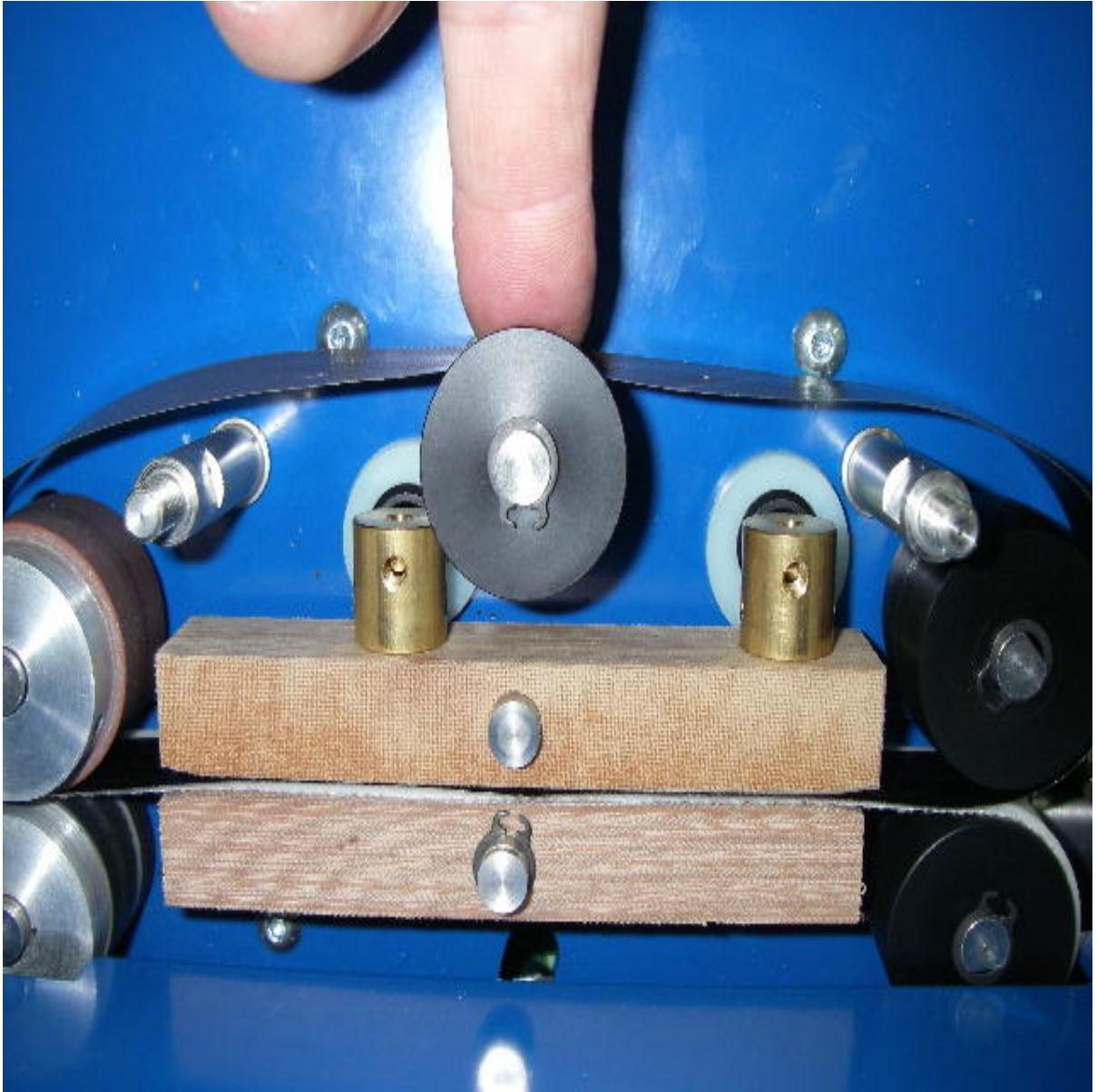
PICTURE FIVE



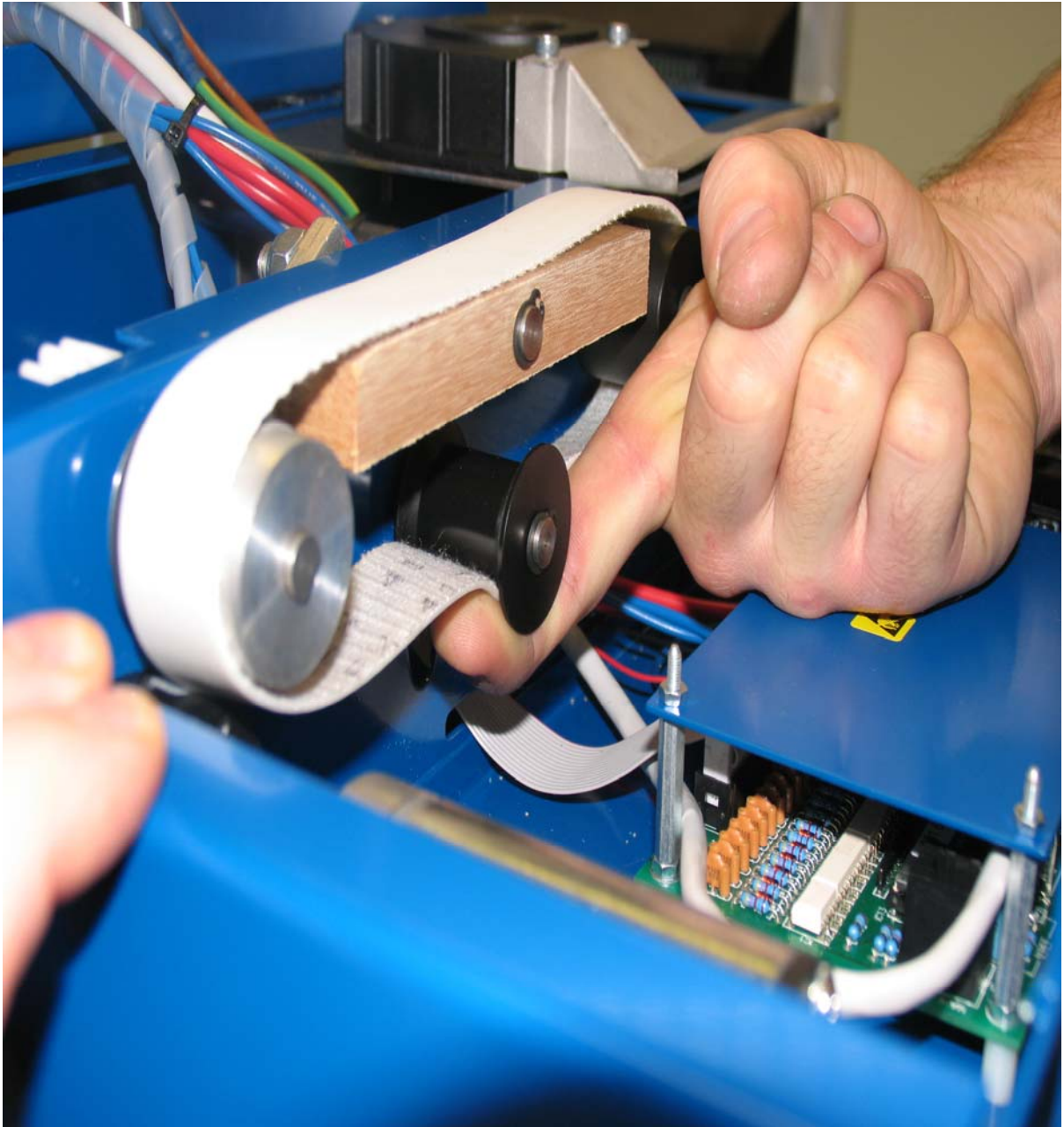
PICTURE SIX



PICTURE SEVEN



PICTURE EIGHT



HOW TO CLEAR A JAM

Only trained personnel should undertake this task.
Beware of the cutting blade located behind the film guide pipe.
Remove the power chord from the input socket to ensure the machine is electrically safe.
Remove the roll of film from the machine.
Remove the two knurled knobs that secure the belt guard in place.
Remove the belt guard.
Release the case locks by lifting and twisting the butterfly flaps, and then unhook the catches.
Open the top case taking care not to permit the machine to topple backwards when it is open.
Remove any polythene that is caught up around the sealing head and belts.
Close the lid and secure the catches.
Refit the belt guard and knurled knobs.
Refit the power lead into the power socket.
Reload the film as described in Part 1 of this manual.
Restart the machine.

HOW TO CHANGE THE WELD BAR

Only trained personnel should undertake this task.
Beware of the cutting blade located behind the film guide pipe.
Remove the power chord from the input socket to ensure the machine is electrically safe.
Remove the roll of film from the machine.
Remove the two knurled knobs that secure the belt guard in place.
Remove the belt guard.
Release the case locks by lifting and twisting the butterfly flaps, and then unhook the catches.
Open the top case taking care not to permit the machine to topple backwards when it is open.
Remove the top Teflon belt as described below.
Grip the weld bar with two hands and pull straight from the machine. (See picture six)
Push the new weld bar into position firmly.
Replace the top Teflon belt as described below.
Close the lid and secure the catches.
Refit the belt guard and knurled knobs.
Refit the power lead into the power socket.
Reload the film as described in Part 1 of this manual.
Restart the machine.

HOW TO CHANGE THE UPPER TEFLON BELT

Only trained personnel should undertake this task.
Beware of the cutting blade located behind the film guide pipe.
Remove the power chord from the input socket to ensure the machine is electrically safe.
Remove the roll of film from the machine.
Remove the two knurled knobs that secure the belt guard in place.
Remove the belt guard.
Release the case locks by lifting and twisting the butterfly flaps, and then unhook the catches.
Open the top case taking care not to permit the machine to topple backwards when it is open.
Whilst holding the top belt tensioner down, slip the belt off the rollers. (See picture seven)
Whilst holding the top belt tensioner down, slip the new belt into place ensuring the light brown side is facing outwards.
Close the lid and secure the catches.
Refit the belt guard and knurled knobs.
Refit the power lead into the power socket.
Reload the film as described in Part 1 of this manual.
Restart the machine.

HOW TO CHANGE THE LOWER SILICONE BELT

Only trained personnel should undertake this task.

Beware of the cutting blade located behind the film guide pipe.

Remove the power chord from the input socket to ensure the machine is electrically safe.

Remove the roll of film from the machine.

Release the case locks by lifting and twisting the butterfly flaps, and then unhook the catches.

Open the top case taking care not to permit the machine to topple backwards when it is open.

Lift the front lid to access the silicone belt.

Whilst lifting the lower belt tensioner, slip the belt off the rollers. (See picture eight)

Whilst lifting the lower belt tensioner, slip the new belt into place ensuring the smooth white surface of the belt is facing outwards.

Shut the front lid.

Close the lid and secure the catches.

Refit the power lead into the power socket.

Reload the film as described in Part 1 of this manual.

Restart the machine.

PART 2

HOW TO ALTER THE OPERATIONAL MODE OF THE MACHINE

Turn the power to the machine off.
Rotate the supervisor key clockwise.
Turn the power back on.

The Supervisor Screen appears in the display.

PRESENT MODE:		
STATUS LINE		
NEXT	CHANGE	END

Press **NEXT** to access the change default programme screen.
(See next section.)

Press **CHANGE** to scroll through the modes of operation:
Continuous
Fixed Period
Hopper
Manual
The selected mode will be displayed on the status line.

Press **END** to confirm the selection shown in the status line.

The restart screen appears in the display:

REMOVE	LEAVE
KEY	KEY
FOR	FOR
RESTART	SETUP

To restart the machine in normal operator mode **REMOVE KEY** then press **RESTART**.

To return to the Supervisor Screen, leave the key in the machine and press **SETUP**.

Access to the change default programme screen was obtained by pressing **NEXT** at the supervisor screen as described above.

The following screen appears in the display:

DEFAULT PROGRAMME: XX		
MOTOR: XX	FAN: XX	
HEATER POWER: XX		
NEXT	CHANGE	END

This screen initially displays the default programme number **XX** that is currently loaded into the machine. The values shown for Motor Fan and Heater Power are the values that have been configured for the programme number displayed.

Press **CHANGE** to scroll through the default programmes 1-10. The displayed values for Motor Fan and Heater Power will change in the display to those configured for each programme.

Press **END** to confirm the selection and go to the restart screen in the previous section.

Press **NEXT** to access the fixed period run time screen below.

FIXED PERIOD RUN			
TIME: XX MINUTES			
NEXT	↑	↓	END

Press ↑ ↓ to change the preset time **XX**. The range is 1-30 minutes.

Press **END** to store the time value and return to the restart screen above.

Press **NEXT** to view the Service DATA SCREEN below

Service data screen.

IPS SERVICE DATA	
SOFTWARE VERSION XX	
TOTAL RUN: XX:XX	
CONTINUE	END

This screen shows the software version number that is loaded in the computer and the total time the machine has been running.

Press **END** to return to the restart screen described above.

Press **CONTINUE** to access the admin password screen.

ADMINPASSWORD:			
0 0 0 0			
↑			
ENTER	→	↑	END

This screen is for use by Polyair technicians only.

Press **END** to exit.

Polyair technicians should refer to **PART3** of this manual.

PART THREE

ADMIN PASSWORD:

0 0 0 0

↑

ENTER → ↑ END

To exit at any time press **END**.
This will return you to the restart screen.

The cursor is initially underneath the first digit.
To change the digit press ↑
To move to the next digit press →
Press **ENTER** to accept the displayed password.

If the password is incorrect the **RETRY PASSWORD SCREEN** is displayed.

ADMIN PASSWORD:

INCORRECT

RETRY END

Press **END** to return to the **RESTART SCREEN**.

Press **RETRY** to return to the **ADMIN PASSWORD SCREEN**

There are four levels of Administration.
Different levels of Administration are selected by entering the password for the desired level.

The four levels of Administration are described below:

LEVEL ONE ADMINISTRATION

Access to this level allows the engineer to change the settings for each of the Default Programmes one to ten.

LOADED PROGRAMME: XX				
MOTOR:XXX FAN: XXX				
HEATER POWER: XXX				
NXT	→	↑	↓	END

Press **END** at any time to return to the RESTART SCREEN

The first programme to be displayed is always programme 1.
To move through successive programmes press **NXT**.
The setting for the field to be amended flashes on and off.
To increase or decrease the set value press **↑** or **↓** respectively.
The Motor and Fan settings can be set to any value between 0 and 255.
The Heater Power setting can be set to any value between 0 and 205.
The Heater Power has been restricted for safety reasons.

Pressing **NXT** after programme ten will access the value for the NO ROLL READ PULSE BEFORE STOP TIME.

ADMIN LEVEL: 1			
NO ROLL READ PULSE			
BEFORE STOP TIME: XX s			
NEXT	↑	↓	END

This value in seconds determines what time will elapse after the roll stops rotating before the machine gives CHECK FILM error message and stops.

Press **END** at any time to return to the RESTART SCREEN
To increase or decrease the set value press **↑** or **↓** respectively.
Any value from 1 to 10 seconds will be accepted.

Press **NEXT** to return to Programme One Settings.

PART FOUR

LEVEL TWO ADMINISTRATION

Access to this level allows the engineer to change the settings for a variety of advanced setup parameters described below:

ADMIN LEVEL 2: XXXXX				
MO:XXX		F:XXX		H:XXX
PARAMATER NAME: XXX				
NEXT	→	↑	↓	END

Press **END** at any time to return to the RESTART SCREEN

Press **NEXT** to scroll from Manual Mode through the ten default programmes and back to Manual Mode.
Press → to scroll through the displayed Parameter.
To increase or decrease the set value press ↑ or ↓ respectively.

An explanation of the Parameters is given below:

HEAT PREP TIME

The period for which the heater is on before the machine starts.

HEAT PREP POWER

The heater power level during the HEAT PREP TIME

M & F RAMP TIME

When the machine is started the motor and fan will ramp up to their set speeds during the M & F RAMP TIME.

MOT RAMP START

The initial motor speed at the start of the ramp period.

FAN RAMP START

The initial fan speed at the start of the ramp period.

HEAT RAMP TIME

When the machine is started the heater will ramp down to its set value during the HEAT RAMP TIME.

HEAT COOL START

When the machine is started from “cold”, the heater will ramp down from HEAT COOL START.

HEAT WARM START

When the machine is started from “warm”, the heater will ramp down from HEAT WARM START.

LEVEL THREE ADMINISTRATION

ADMIN LEVEL 3:			
RESET PARAMATERS TO			
DEFAULT SET: X			
NEXT	↑	SEL	END

Press **END** at any time to return to the RESTART SCREEN

Press **↑** to change the value of the Default Set.

Press **SEL** (SELECT) to accept the value entered for the Default Set.

This will reset all the values of all the parameters to their default values for the respective Default Set.

Press **NEXT** to access the UNIT WARM TIME SCREEN

ADMIN LEVEL 3:			
UNIT WARM TIME:			
XX Minutes			
NEXT	↑	↓	END

Press **END** at any time to return to the RESTART SCREEN

After the machine has been started, it will not be considered “warm” until UNIT WARM TIME has elapsed.

To increase or decrease the set value press **↑** or **↓** respectively between 1 and 30 minutes.

Press **NEXT** to access the UNIT COOL TIME SCREEN

ADMIN LEVEL 3:			
UNIT COOL TIME:			
XX Minutes			
NEXT	↑	↓	END

Press **END** at any time to return to the RESTART SCREEN

After the machine has been stopped, it will not be considered “cool” until UNIT COOL TIME has elapsed.

To increase or decrease the set value press ↑ or ↓ respectively between 1 and 30 minutes.

Press **NEXT** to return to the RESET DEFAULT PARAMATER SCREEN

LEVEL FOUR ADMINISTRATION

ADMIN LEVEL 4:			
MOTOR SPEED CONTROL			
SELECT:		STATUS	
NEXT	↑	↓	END

Press **END** at any time to return to the RESTART SCREEN

The machine can run in open or closed loop speed control.
To change from open loop (off) to closed loop (on) operation press ↑ or ↓.

Press **NEXT** to scroll through the closed loop speed control parameters described as follows:

TIME INTERVAL

The time between reading the motor speed.

RATE OF CHANGE

The rate at which speed errors are corrected.

To increase or decrease the set value press ↑ or ↓ respectively.
The value displayed in the field will be accepted when **NEXT** or **END** are pressed.