SPRINT MAJOR
with DIGITAL CONTROLLER

OPERATOR INSTRUCTIONS
PARTS LISTING
CIRCUIT DIAGRAMS
INSTALLATION DETAILS

Designed and manufactured by:

OPEN DATE EQUIPMENT LIMITED
PUMA TRADE PARK,
145 MORDEN ROAD,
MITCHAM,
SURREY, CR4 4DG.
UNITED KINGDOM.

Tel: +44 (0)20 8655-4999
Fax: +44 (0)20 8655-4990
Email: sales@opendate.co.uk
Web site: www.opendate.co.uk

SPRINT MAJOR (DIGITAL) INDEX.

Declaration of Conformity

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions carefully. Follow all warnings and instructions marked on the product.
2. Always disconnect the printhead and controller from the mains electricity and air supply before attempting to clean or service it.
3. Never operate the printhead unless it is installed within the mounting frame supplied. When installed correctly the gap between the printer and print base should not be greater than 4mm (see page 8.1).
4. Do not use the product near water. Never spill liquid of any kind on to the product.
5. Do not place this product on an unstable stand, table or machine. It may fall causing serious damage to the product or injury to the operator.
6. Never insert objects of any kind into this product through any openings or gaps as they may touch dangerous voltage points or short circuit parts that could result in fire or electric shock.
7. This product should only be operated from the type of electrical supply as indicated on the rear of the printhead control unit (see page 3.2).
8. Ensure that the printhead connection cable is fully secured to the printhead with the screws attached to the "D" connector cover. Failure to do this will result in the machine not being properly earthed.
9. Use only the power cable supplied with the product. The cable supplied is three core, utilising one wire as a grounding conductor. This must be connected to a suitable earthing point at the electrical supply This is a safety feature. If any doubt arises in trying to connect the power cable, please contact the manufacturer or agent who supplied the product.
10. Do not allow anything to rest on the power cable. Do not locate the product where persons will walk on the cable.
11. If an extension cable is used with this product, make sure that the total ampere ratings of the equipment plugged into the extension cable does not exceed the extension cable ampere rating. Also make sure that the total rating does not exceed the fuse rating.
12. Do not service this product yourself as opening or removing guards may expose you to dangerous voltage points, major burns and other risks. Refer all servicing to qualified personnel.
13. Do not attempt to use to use this product in areas where explosive gases or substances are present.
14. Once the product is under normal working conditions, care must be taken when removing the type holder as you can easily burn yourself. There is a yellow warning sign on the type holder access door indicating a danger. Open the door by gripping it at the side. The type holder should be held by its plastic handle only. Never touch metal parts as temperatures could be as high as 220 degrees C.
15. Disconnect the product from the electrical and air supplies and refer servicing to qualified personnel under the following conditions.
    a. If the power cable is damaged or frayed.
    b. If the air pipes are damaged in any way.
    c. If liquid has been spilled into or if the product has been exposed to rain or water.
    d. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the instructions. Improper adjustment may result an damage needing qualified technicians to restore the product to normal operating conditions.

Operating Instructions

Digital Control Unit (refer to page 6)

On / Off.
Acts as the mains switch (does not isolate the internal circuitry of the printer or control box). Leave switched on to maintain operating temperature.

Temperature Adjustment.
To adjust the temperature setting, press and hold down the temperature button and use the up/down arrow keys to the left of the display to increase or decrease the set point.

Range:- Minimum 80ºC (176ºF), Maximum 250ºC (482ºF).

Note! When operating modes 2, 4 or 6 are selected, the printer will not operate on the external trigger until the temperature has reached the pre-programmed set point.

In normal operation, the temperature will fluctuate by up to±4ºc from the set point.

Print Dwell Adjustment.
To adjust the print dwell setting, press and hold down the print dwell button and use the up/down arrow keys to the left of the display to increase or decrease.

This adjustment controls the time the type/die face is in contact with the substrate. Higher numbers indicate longer dwell times.

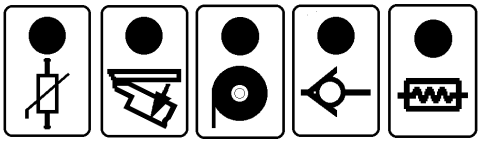
Range:- 10 to 750 milli–seconds.

Print Switch.
1. Switches the print signal between external trigger (automatic print cycle) and the test button feature (manual operation).
2. Switches the audible alarm off when a system fault occurs whilst operating from an external trigger (automatic print cycle).

Note! The Print LED (green) is illuminated when switched for external trigger (automatic print cycle).

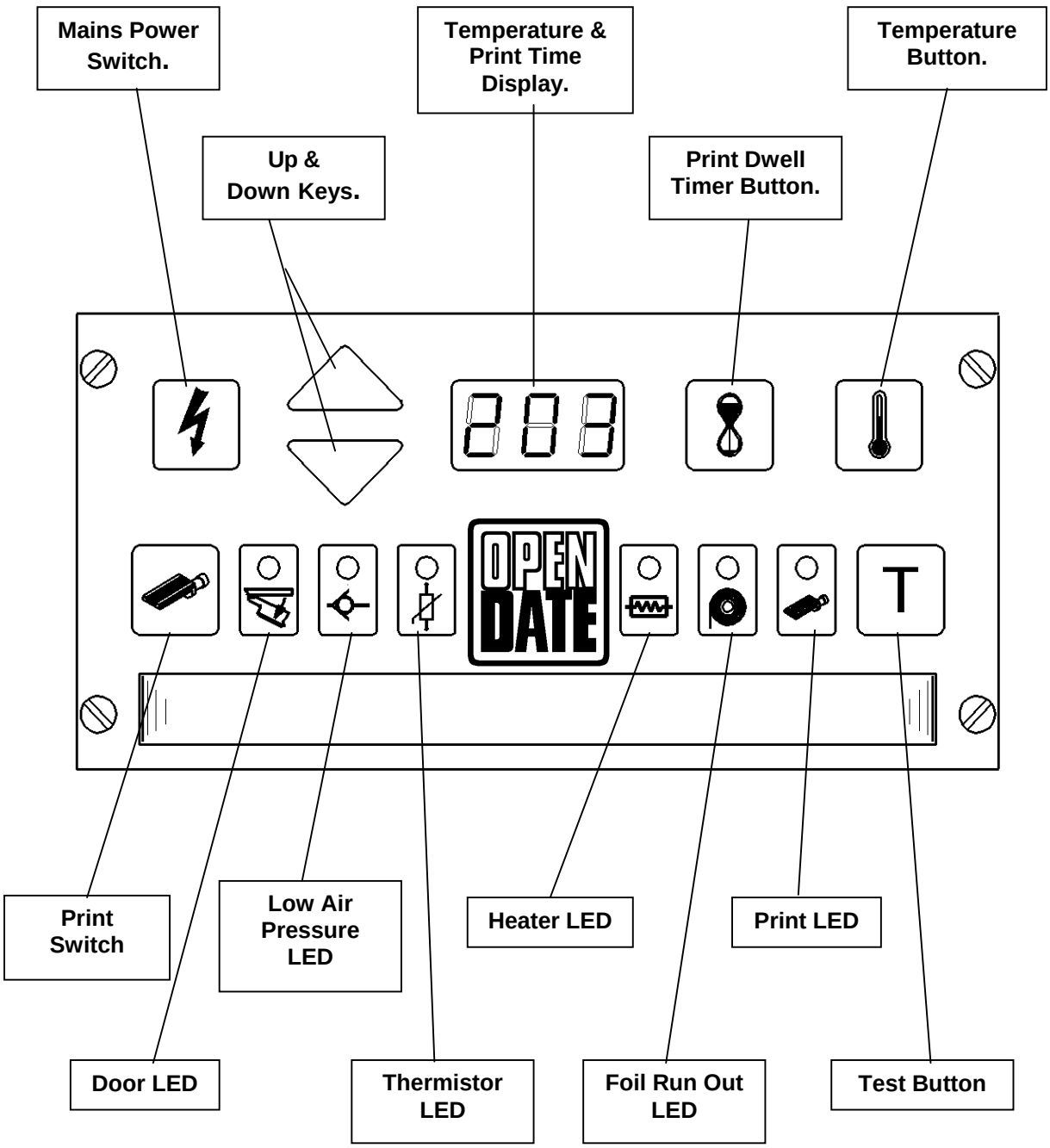
Test Button.
Manually operates the printer (will not operate whilst the Print LED is on).

Fault LED's.



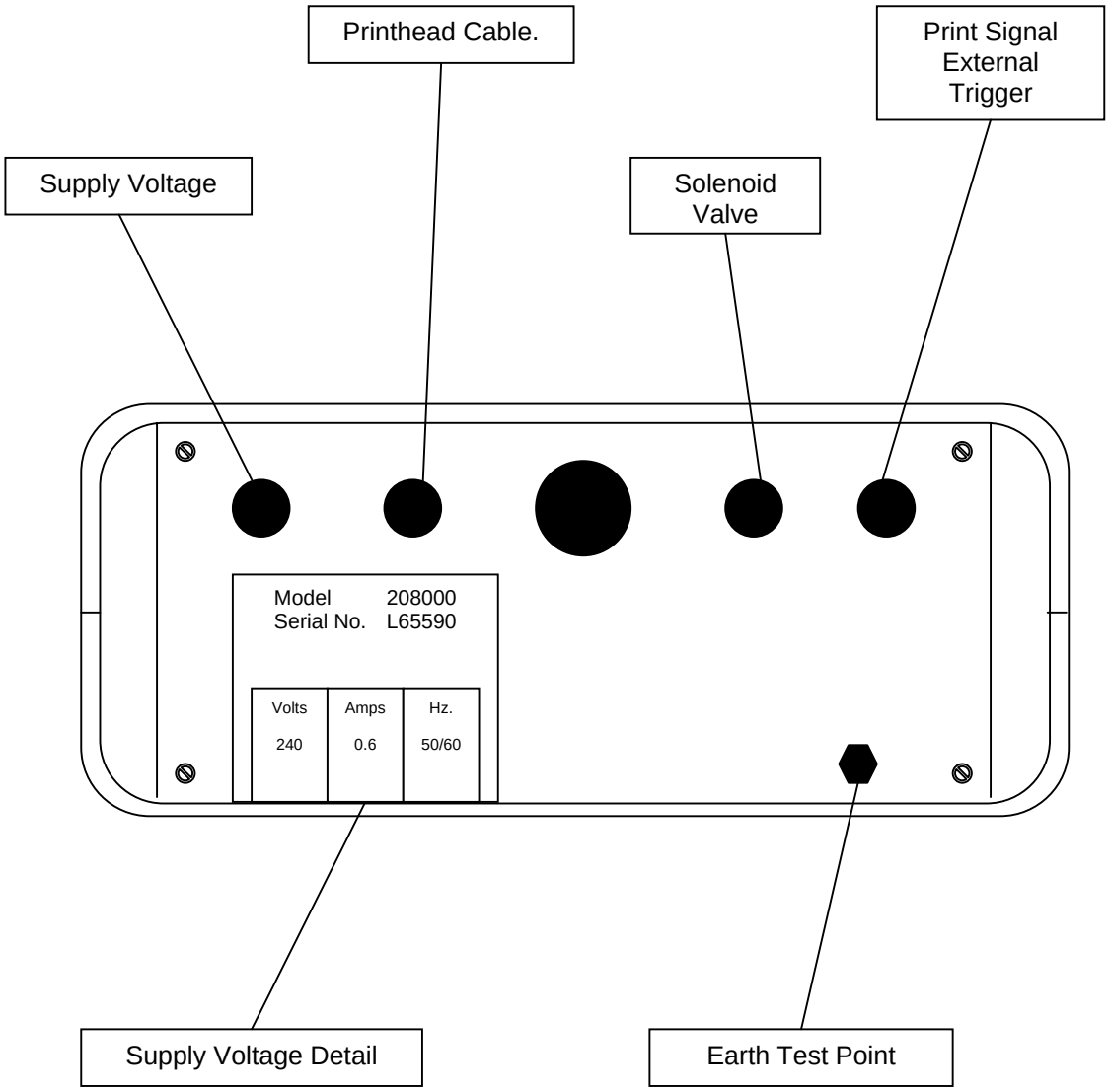
Refer to pages 25 & 26 for system faults.

Digital Control Unit Front Panel



Digital Control Unit Rear Panel

(Cables excluded for clarity.)



Operating Instructions

FOIL THREADING (refer to pages 9 & 35)

(I) Fit an empty foil core onto the rewind mandrel.
(II) Disengage pinch drive roller.
(III) Remove label from a new roll of foil.
(IV) Fit new roll of foil onto take-off mandrel (note unwind direction as shown on threading diagram).
(V) Thread foil around all rollers as shown on threading diagram.
(VI) Attach end of foil to empty core on rewind mandrel, gloss side facing inwards.
(VII) Wind foil on a few turn to track and tension it.
(VIII) Engage pinch drive roller.

FITTING TYPE/DIE HOLDER

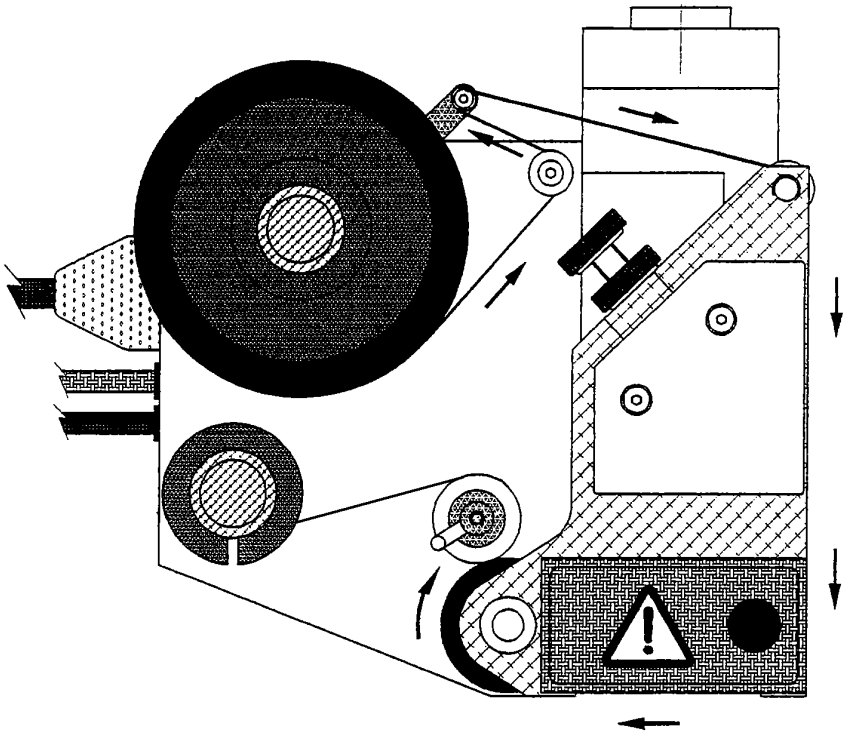
NEVER ASSUME THAT A TYPE/DIE HOLDER IS COLD.

Only pick up the type/die holder by its handle. Ensure that the face of the magnetic catch is clean, open the red type holder access door (the alarm will sound unless the print switch is off), align the type/die holder within the two side locators and slide in until the magnet catches on the keep plate. Close the door.

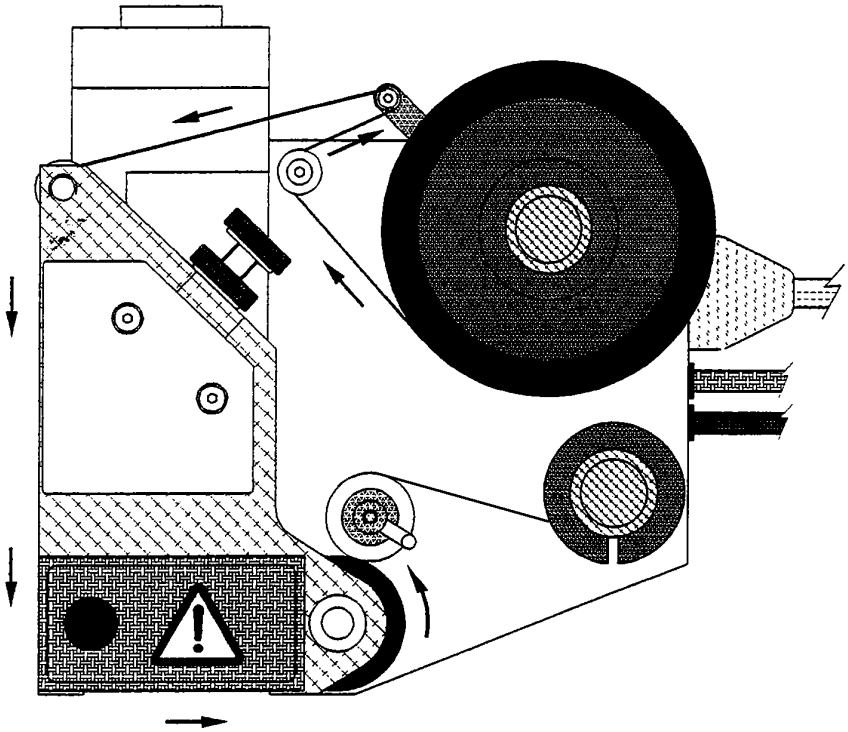
FOIL FEED ADJUSTING SCREW (refer to page 35)

This adjusts the amount of foil used per print and is located at the front of the printer, above the red type holder door. Winding in reduces the foil pull. Ensure that the locking nut is fully tightened after adjustment. A gap of 1 or 2mm is recommended between each portion of used foil.

Printhead Foil Threading Diagrams



RIGHT HAND PRINTER



LEFT HAND PRINTER

Initial Setting Procedure

1. Ensure that printing foil and substrate are compatible. If in doubt, contact foil supplier for assistance.
2. Remove Type Holder from printhead.
3. Ensure that rubber print base is clean, undamaged and securely retained in position under printer.
4. Set air pressure regulator. 4 to 7 Bar is recommended (60 to 100 PSI).
5. Switch controller on.
6. Set print dwell time to 120 milli-seconds and temperature to 125ºc (257ºF). 3 to 4 minutes should be allowed for printer to reach working temperature.
7. Load type or die into holder, centrally if possible and fasten securely. Make sure that typeface is clean.
8. Load type/die holder into printer and close door. If cold, allow 3 to 4 minutes for holder to heat up before printing.
9. Ensure that **PRINT** switch is off.
10. Place a sample of substrate material under printer and press **TEST** button. Inspect resulting print.
11. Adjust print levelling screws until a light, uniform print impression is achieved. Lock levelling screws.
12. Adjust foil metering screw for economic foil use as detailed previously and
13. tighten thumb nut.
14. Press the **PRINT** switch for automatic operation.

Print Orientation

To rotate the printer and therefore turn the overprint through 90 degrees, unscrew the clamping handle until the location square on top of the printhead is clear of the top rails, turn it to the required position, tighten the clamping handle.

Temperature Adjustment (refer to page 6)

- Normal setting is about 125ºc. (257ºF).
- Should the print not fully adhere to the substrate then a higher setting may be used.
- Small, fine detail print generally requires a lower temperature.
- Thermoplastic films and especially polyethylene generally require a lower temperature.
- Aluminium foils, paper and untreated polyester require a higher temperature.

See pages 21 & 22 for temperature mode & calibration

Initial Setting Procedure

Print Timer Adjustment (refer to page 6)

- Normal setting is about 120 milli-seconds.
- Generally, the larger the print, the higher the setting.
- Should the print not adhere fully to the substrate, a higher setting may be used.
- Remember, the printhead can only operate during the stationary cycle of the web, if the print time is longer than this the web may break.
- Should the dwell time have to be decreased to accommodate higher production speeds, it may be necessary to compensate by increasing the temperature setting.

Air Flow Controls (refer to page 12 & 13)

The airflow restrictors are usually attached to the solenoid valve exhaust ports. They work by regulating the speed at which air is exhausted from the air cylinder.

Turning the adjusting screws will alter the exhaust airflow and consequently the print ram velocity, it will also affect noise levels.

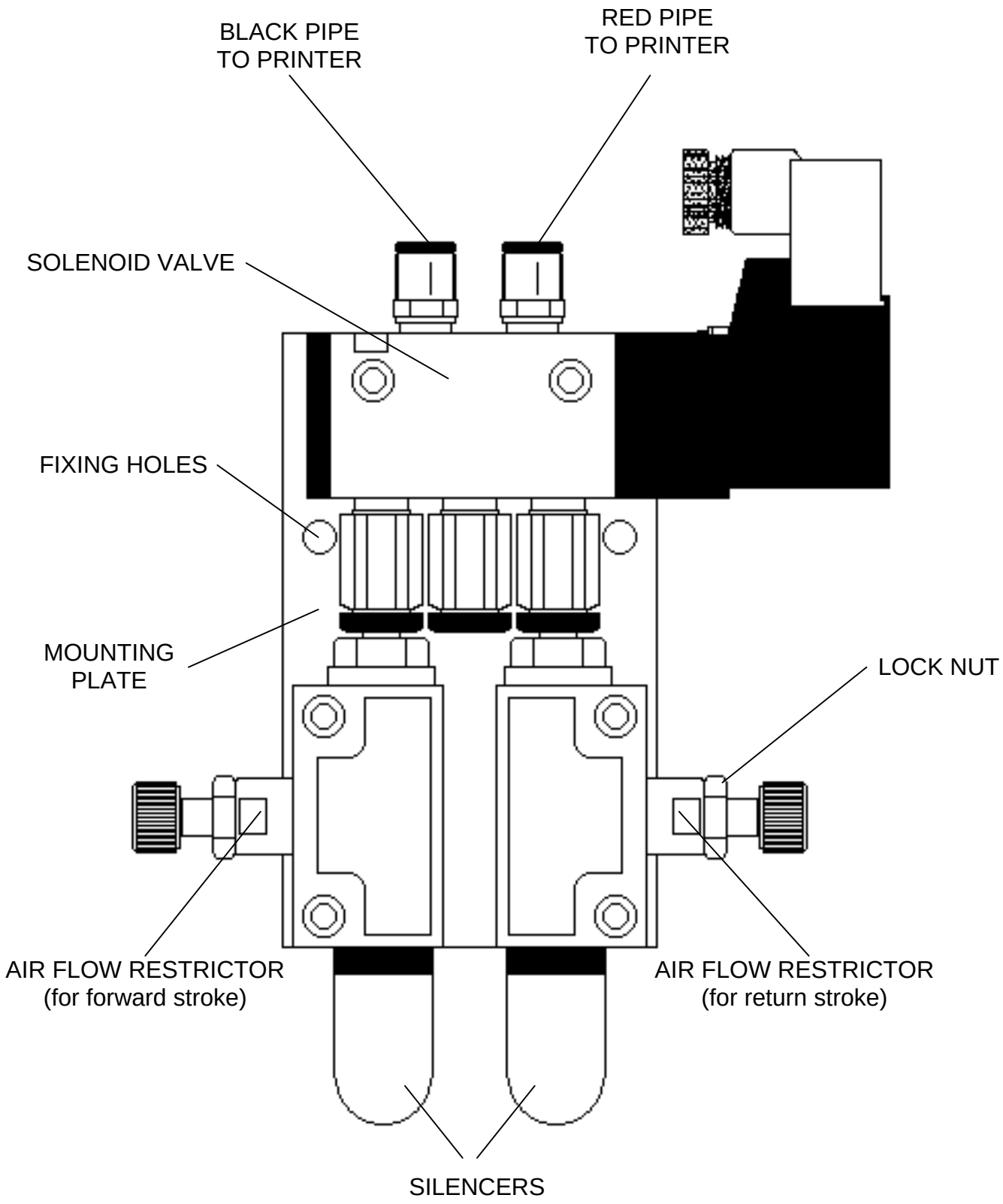
Increasing the exhaust airflow from the forward stroke of the print ram will increase the print pressure. Decreasing the exhaust airflow will reduce print pressure and the resulting print will be lighter.

The drive for the printing foil is taken from the return stroke of the print ram. Increasing the exhaust airflow will speed up the foil feed. To ensure efficient foil feeding, the return stroke should be as gentle as possible.

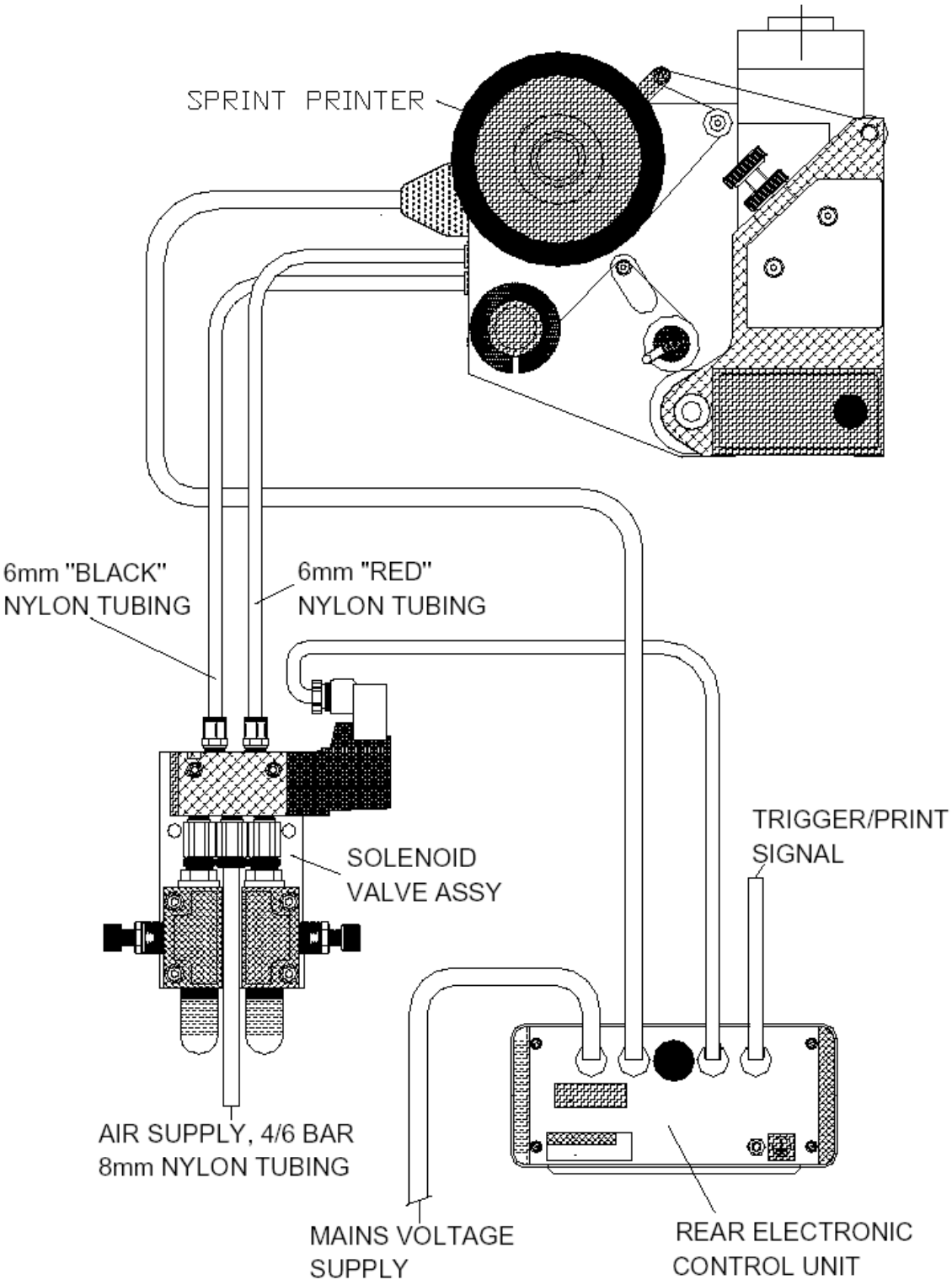
For higher speed operation, the exhaust airflow from both the forward and return strokes will have to be increased.

Note, it is very important that the print ram returns fully before the next print cycle commences.

Solenoid Valve Details

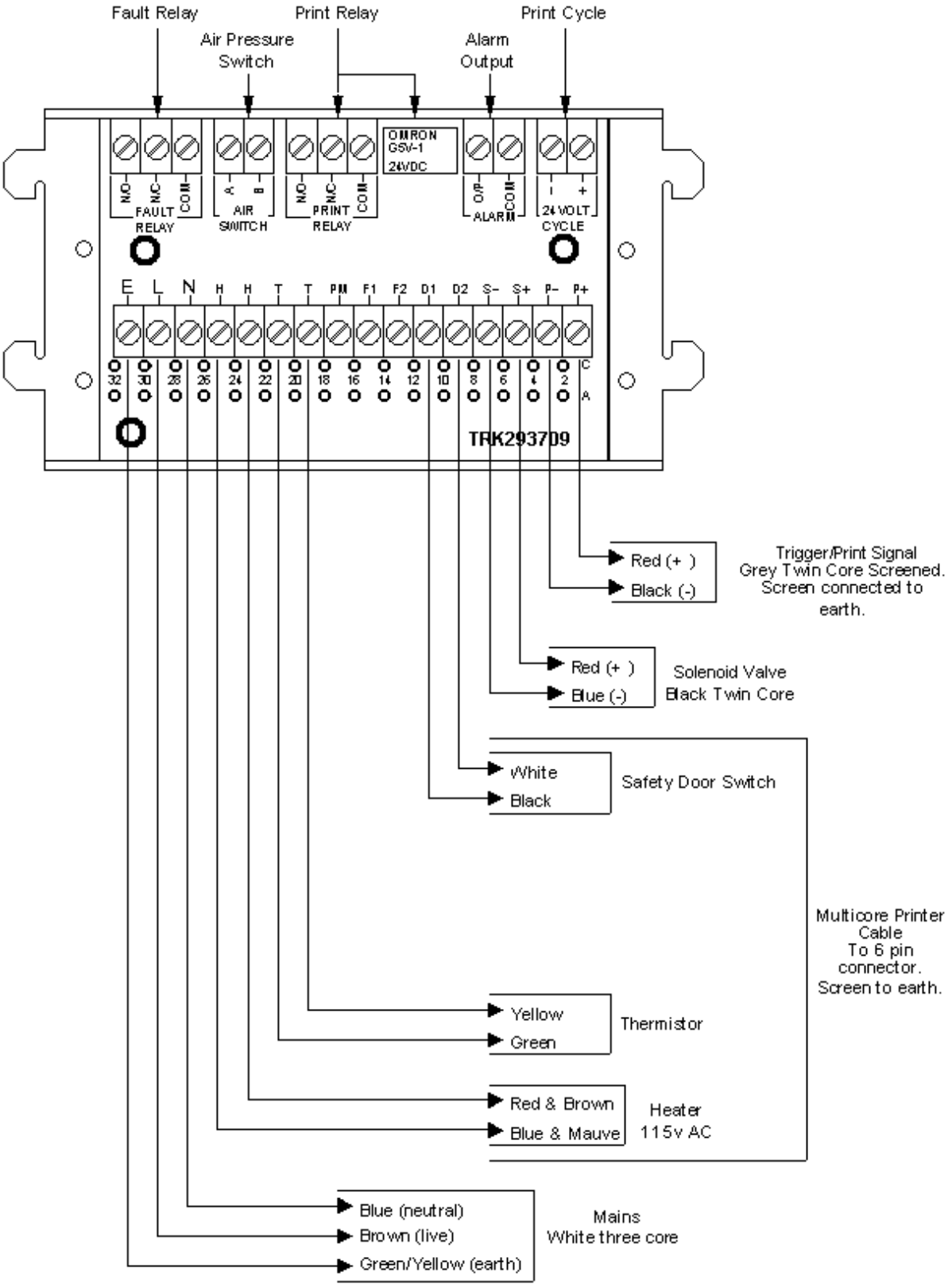


Sprint Series Connection Details



Connection Details

Shown from rear of control unit.



Connection Details - Row “c”

Trigger signal - Grey twin core screened.

P+.	Red	External trigger input. + volts connection.
P-.	Black	External trigger input. – volts connection. (See page 4.16 for trigger signal selection)

Solenoid valve - Black twin core.

S+	Red	Solenoid output. + volts connection.
S-.	Blue	Solenoid output. – volts connection.

Printer - Multicore screened to 6 pin connector.

			Connector pins.
D2.	White	Type holder door safety switch return.	Pin F
D1.	Black	Feed to the safety switch & foil sensor, –12v dc.	Pin E
T.	Yellow	Thermistor connection.	Pin C
T.	Green	Thermistor connection.	Pin D
H.	Red & Brown	Heater element.	Pin A
H.	Blue & Mauve	Neutral ac heater element.	Pin B

Mains cable - Three core white.

N.	Blue	Neutral.
L.	Brown	Live.
E.	Yellow/Green	Earth.

Output Connection Details

Earth wire connected to the chassis. Do not remove safety electrical earth bond.

Terminal Connections Row “a”.

Alarm Relay.
Connect link 5 to give an output suitable for older type control box housings. See page 17 for further details.

Fault Relay

Relay RL2. Will energise when the temperature reaches the set point and there are no system faults. Normally-open, normally-closed contact (SPDT). **Rated 1amp at 24vdc only**.

Print Relay.
Relay RL3. Enabled when in automatic print cycle mode, external trigger (green LED on.) This in turn energises the relay mounted on the termination board, with the facility of using normally-open or normally-closed contacts. (SPDT) **Rated 1amp at 24vdc only.**

Air Switch.
Low air pressure switch connection A & B. See Page 18.

Notes : **The illustrations below are set using volt free contacts. Rated 1amp at 24vdc max.**

Linking the system fault and print relays will increase security. If the print switch is switched off or any system fault occurs, the return signal will be switched off (high going low) as figure 1. Alternatively, the relays can be used as individual output signals as figure 2. Either can be used as inputs to a PLC, or to energise interface relays.

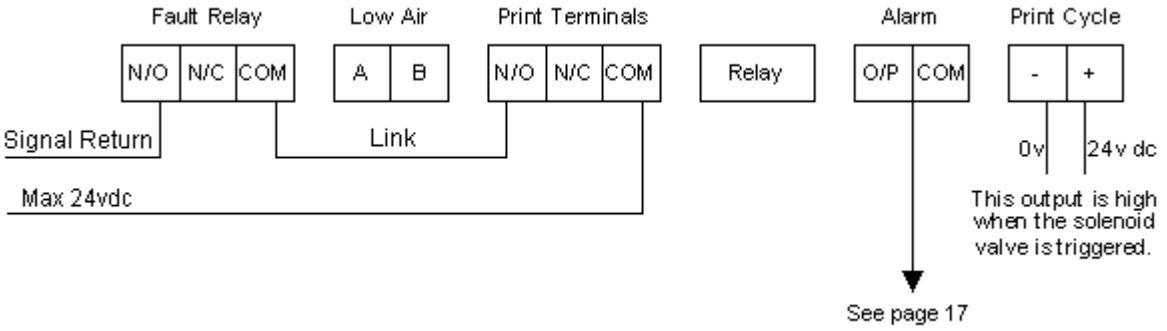
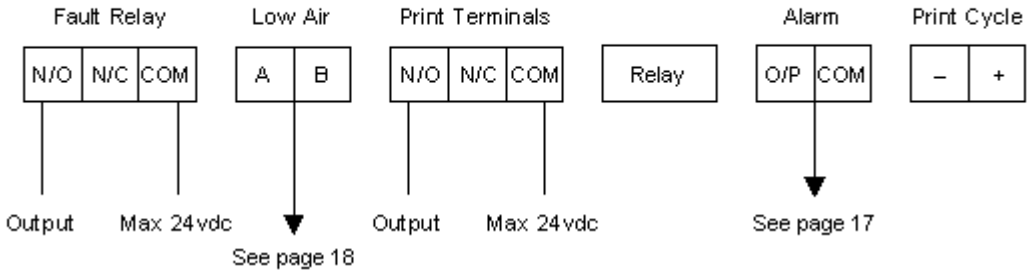


Figure 2. Outputs shown using normally-open contacts.



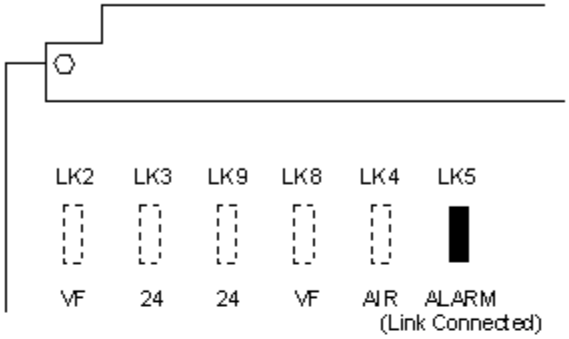
Alarm / Alert Output Details

Alarm output. Makes on any system fault when in print cycle.

This option has been retained to be compatible when replacing the earlier non digital control units, and or when retaining an existing control box housing. This is the only output function available with the old type housing.

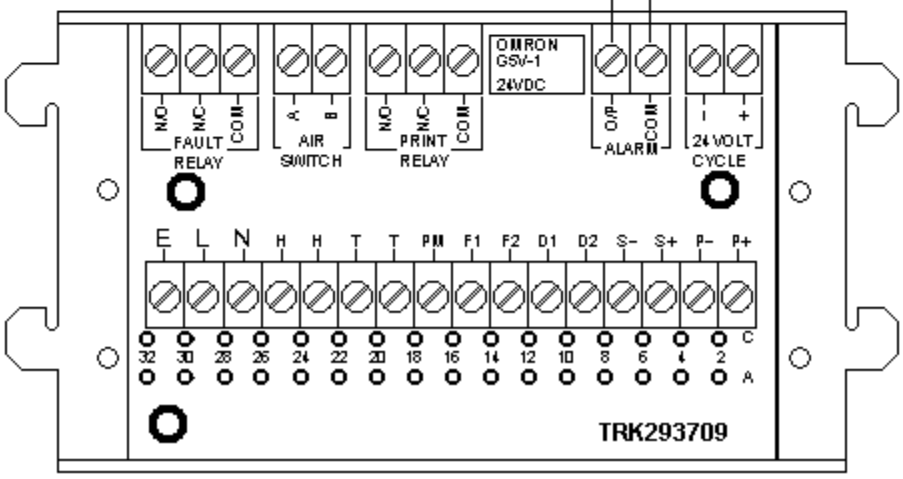
Factory Default Link 5 Connected.

fig 1
Old Housing



For links 2, 3, 9 & 8 see page 20. For link 4 see page 18.

Use with a new housing
Configured as Fig 1. See page 16 for other options.
Alarm output 0vdc
24vdc print switch

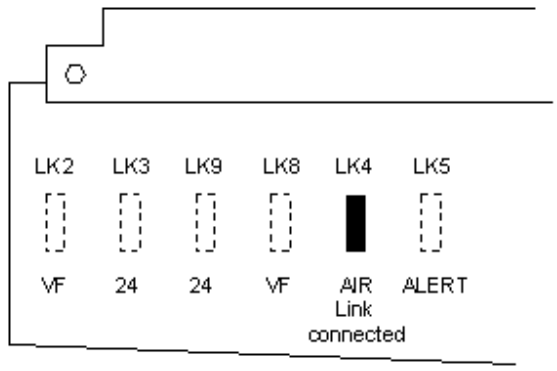


Low Air Pressure Option

As supplied, the board is configured to disable the low air pressure input (link 4 connected) as fig 1.

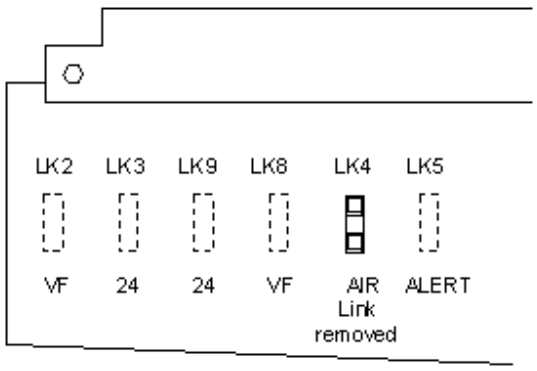
To enable this option remove link 4 as fig 2.

figure 1



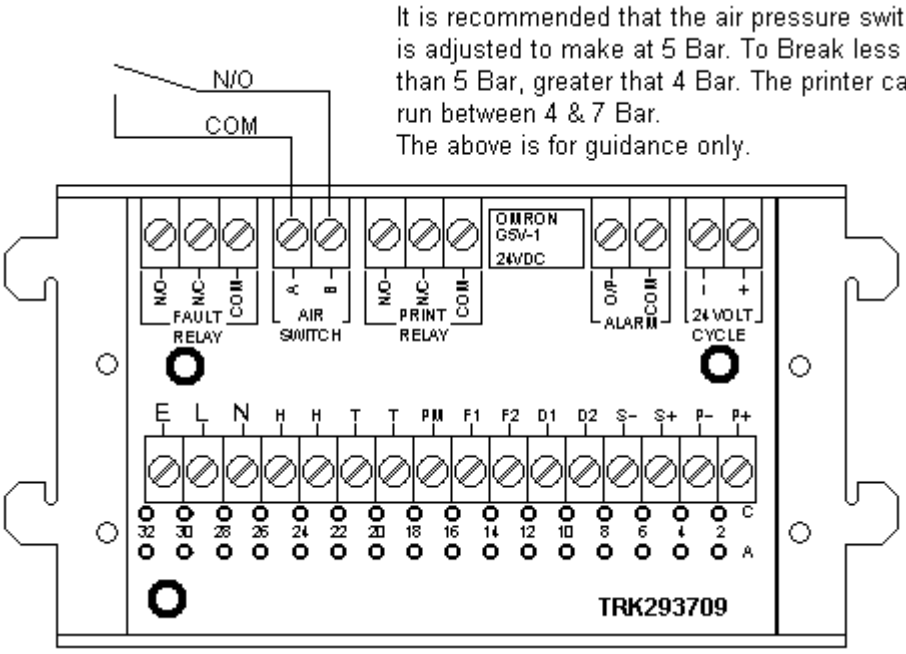
Links 2, 3, 9 & 8 see page 20.

figure 2

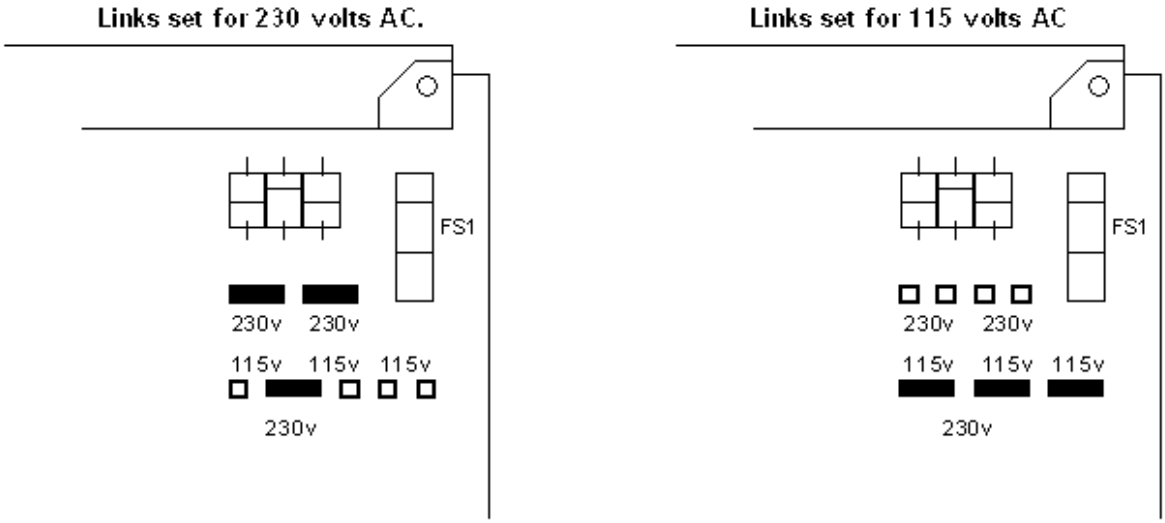


Link 5 see page 17.

Note:
The low air pressure switch connections are to “Air Switch”, “A” and “B” which can be found on the terminal board mounted in the rear section of the enclosure. See page 14.

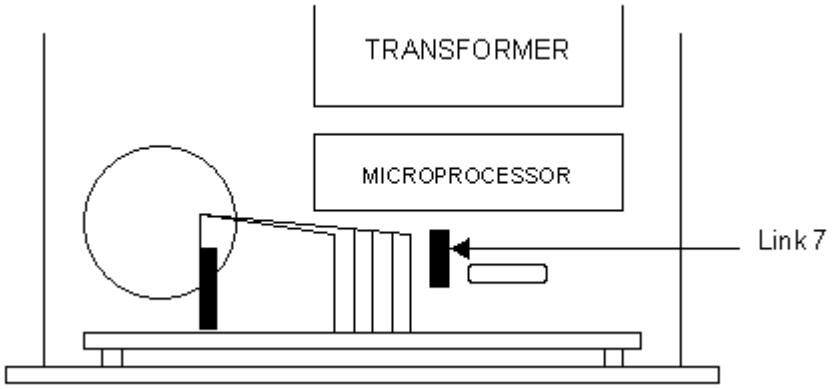


Voltage Selection



Centigrade/Fahrenheit Selection

As supplied, the digital controller is configured to display the temperature in Centigrade. To convert it to display Fahrenheit, remove link 7 (positioned in front of the microprocessor).



Trigger Signal Selection

The print cycle can be initiated by either voltage free (normally open) contacts or a 10 to 50 volt input (polarity unimportant).

1. For triggering from a normally open, voltage free contact source such as a relay, microswitch or foot switch, connect links LK2 and LK8. See fig. 1

2. For triggering from a 10 - 50v dc source such as a PLC, connect links LK3 and LK9. See fig 2.

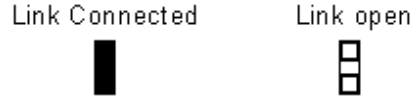
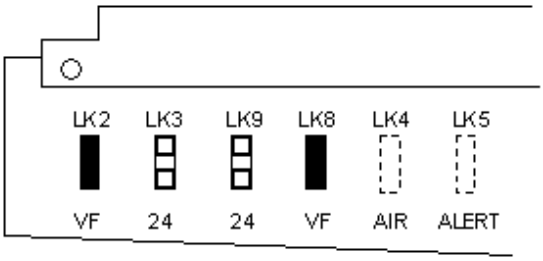
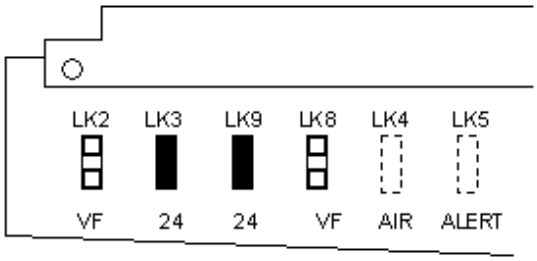


Fig 1



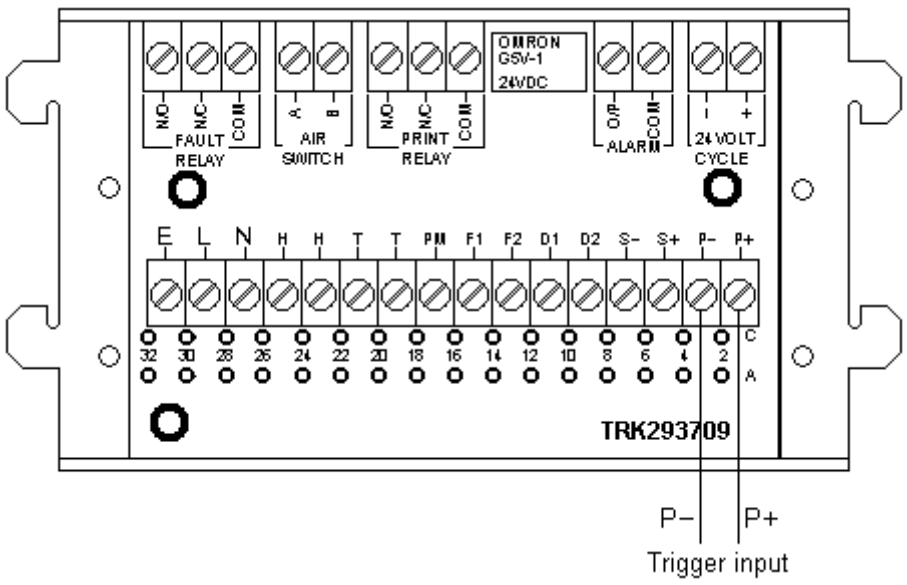
Links set for volt free contacts print signal.

Fig 2



Links set for 10 to 50 volts DC print signal.

Note:
The trigger signal cable connections are on (“c2”) P- and (“c4”) P+ on the terminal board mounted in the rear section of the enclosure. See pages 14 and 17.



Mode Settings for Temperature Tolerance Ranges

Mode 1 - Default

Temperature range: -5% to +10% of the set point.
Printer operates on all temperatures.
Fault relay functions within -5% to +10% of the set point.

Mode 2

Temperature range: -5% to +10% of the set point.
Printer only operates when within -5% to +10% of the set point.
Fault relay functions when within -5% to +10% of the set point.

Mode 3

Temperature range: -5% to +5% of the set point.
Printer operates on all temperatures.
Fault relay functions when within -5% to +5% of the set point.

Mode 4

Temperature range: -5% to +5% of the set point.
Printer only operates when within -5% to +5% of the set point.
Fault relay functions when within -5% to +5% of the set point.

Mode 5

Temperature range: -10% to +10% of the set point.
Printer operates on all temperatures.
Fault relay functions when within -10% to +10% of the set point.

Mode 6

Temperature range: -10% to +10% of the set point.
Printer only operates when within -10% to +10% of the set point.
Fault relay functions when within -10% to +10% of the set point.

Mode Selection

1. With the mains power switch on, switch the incoming mains off. Hold the test **"T"** button and switch the incoming mains back on.

2. The LED display shows **1** indicating mode 1.

3. Using the up/down arrow keys changes the mode. Select the mode required.

4. To save the mode setting, press the Temperature and Dwell keys together.

Note.
When the controller is set to modes 1, 3 or 5, the printer will continue to print when it is outside of the temperature range.

Digital Control Calibration

Set the MODE required before Calibration.

To ensure accurate temperature readings it is recommended that the controller is calibrated to suit the printer's Thermistor.

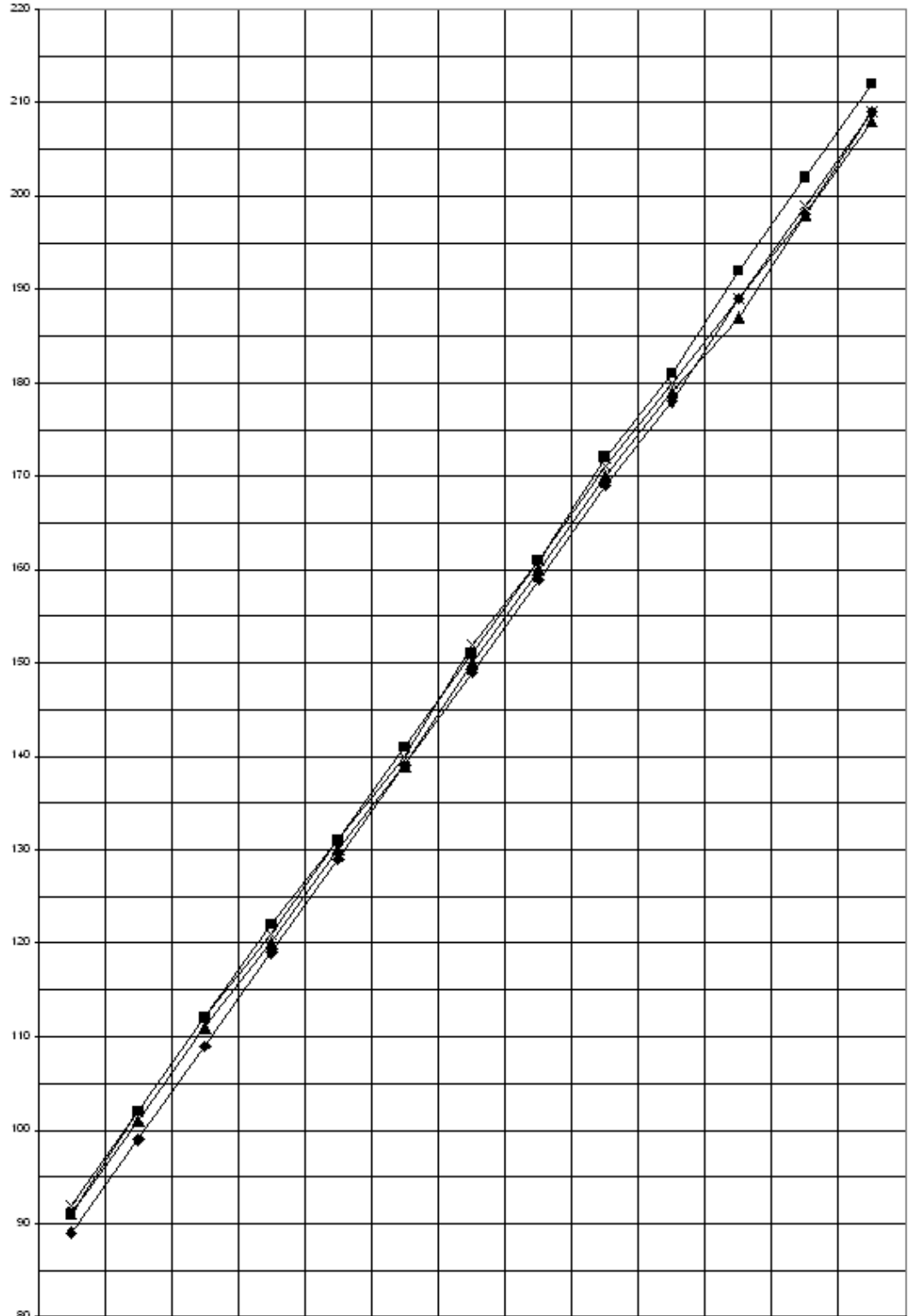
External Calibration Method

1. Switch the control unit on and adjust the temperature setting to 160ºc or 320ºF.
2. Leave on for 10 to 15 minutes, allowing the temperature to stabilise.
3. Measure the temperature at the type face using a temperature probe.
4. Allow the temperature probe to stabilise before noting the reading.
5. Adjust the controller's set point to match the temperature probe reading.
6. Press the both the up and down arrow keys at the same time, then press the print switch.

   The controller is now calibrated.

Note. For temperatures above 180ºc or 356ºF Calibrate at 210ºc or 410ºF.

Static Temperature Results. Calibrated at 160ºC



	selp 90	selp 100	selp 110	selp 120	selp 130	selp 140	selp 150	selp 160	selp 170	selp 180	selp 190	selp 200	selp 210
display low	89	99	109	119	129	139	149	159	169	178	189	198	209
display high	91	102	112	122	131	141	151	161	172	181	192	202	212
probe low	91	101	111	120	130	139	150	160	170	179	187	198	208
probe high	92	102	112	121	131	140	152	161	171	180	189	199	209

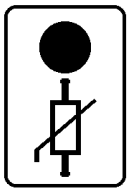
System Faults

Thermistor

Thermistor short circuit; the LED is on and digital display reads similar to or the same as that shown (the figures may change).

The heater is switched off.

Internal bleeper is sounding.



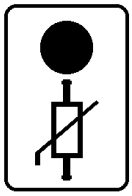
2.7.1

Thermistor

Thermistor open circuit, the LED is on and the display reads similar to or the same as that shown (the figures may change).

The heater is switched off.

Internal bleeper is sounding.

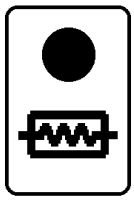


. . 5

Heater

Heater is open circuit, the LED is on.

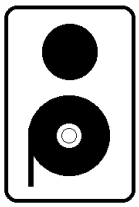
Internal bleeper is sounding.



Foil Run Out

At end of foil roll, the LED is on.

Internal bleeper is sounding.

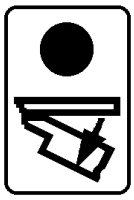


Type Holder Door Opened

Type holder door is open, the LED is on.

Print & Test trigger signals, are disabled.

Internal bleeper is sounding.



Low Air Pressure Switch (If connected)

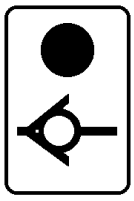
When air pressure is low, the LED is on.

External Pressure switch required.

See separate wiring detail.

Internal Bleeper is sounding.

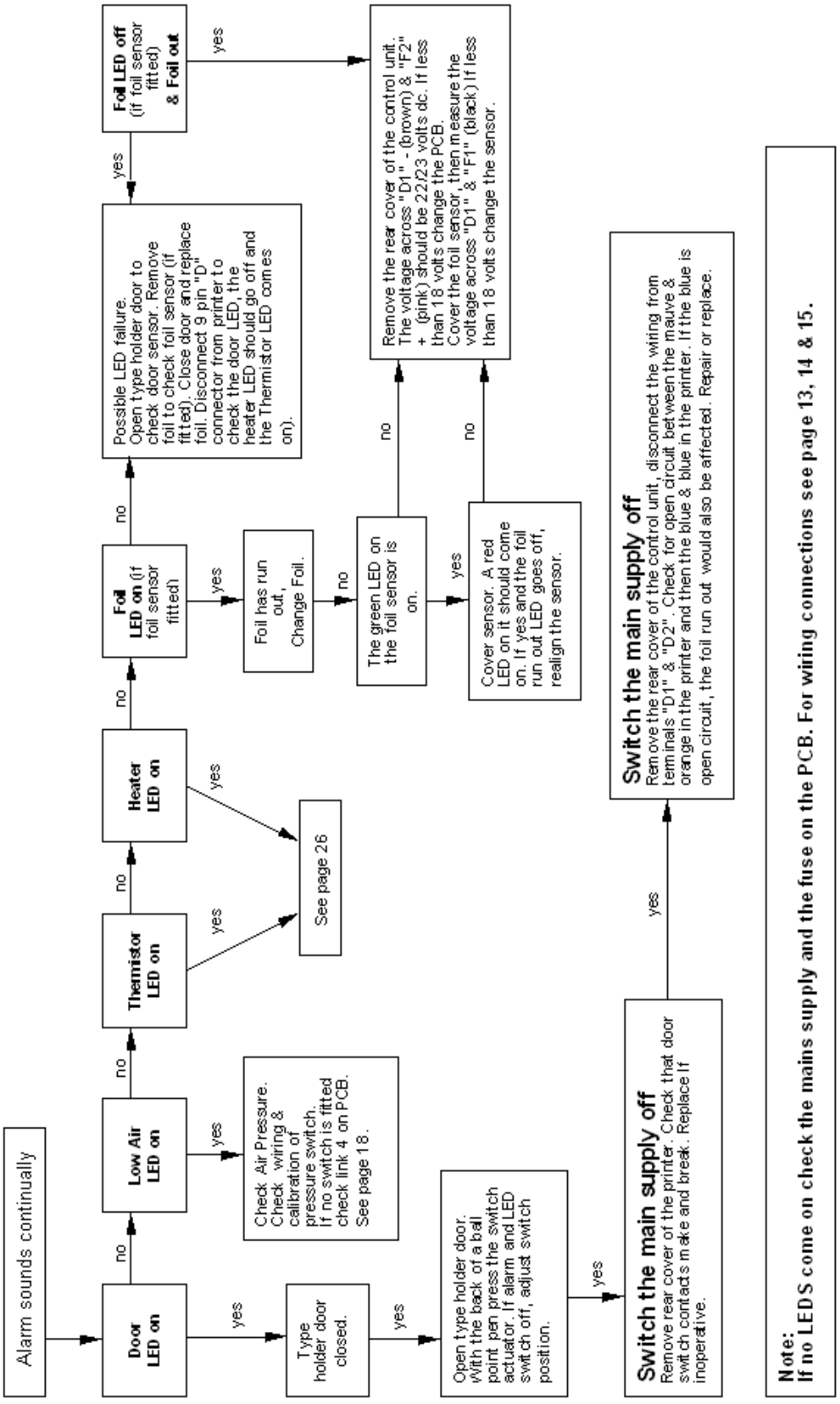
Remove Link 4 to enable this function.



In any of the above fault conditions, the fault relay will be de-energised. See pages 14 and 16 for connection details.

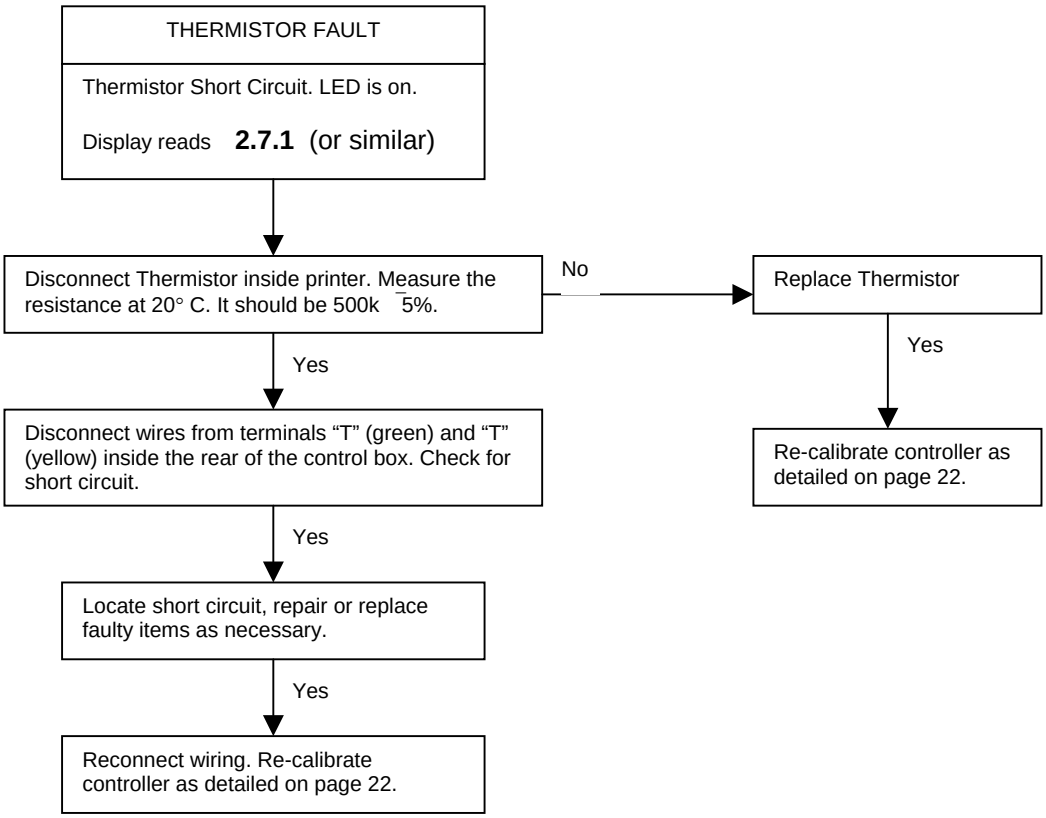
System Faults

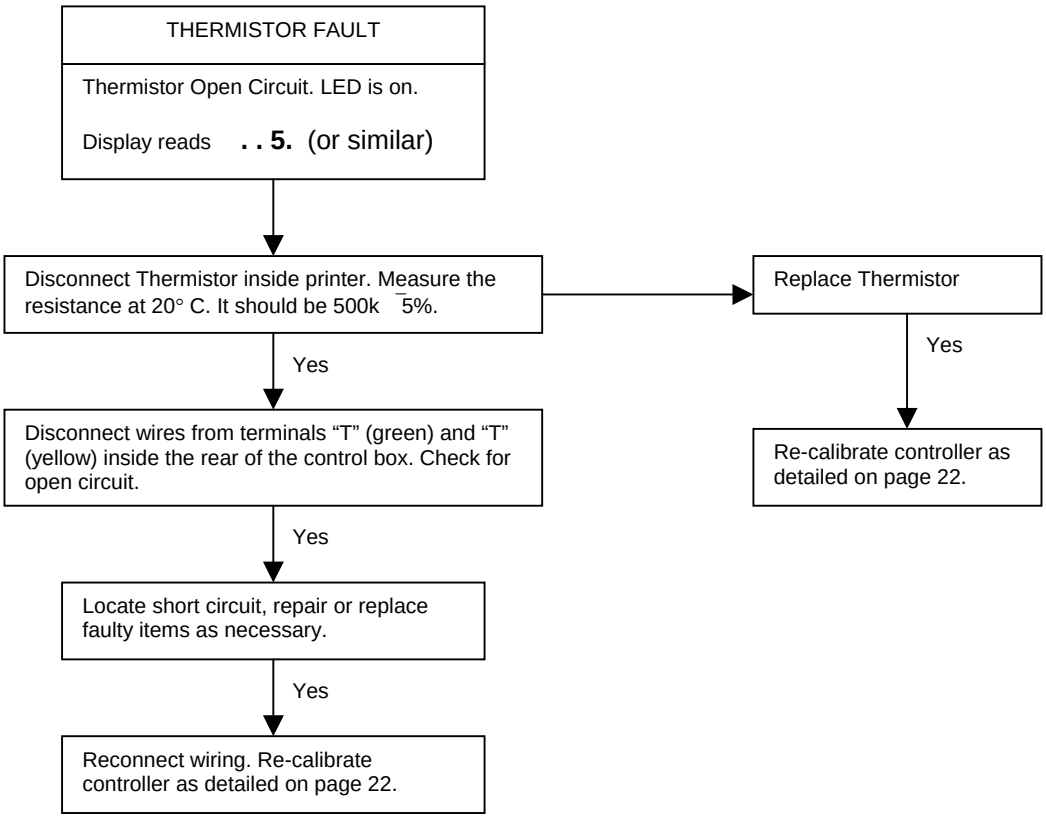
If no LED's are on, check the mains supply and the fuse on the PCB. For wiring connections see pages 14, 16 and 17.



Thermistor Faults

Covering:- all Hot Foil printers with digital display controllers.





Mechanical Fault Finding

FAULT	POSSIBLE CAUSE
Insufficient foil pull.	Foil adjusting screw wound in too far. Pinch roller not engaged. Foil feed air flow restrictors incorrectly set. Clutch bearing failure in gear or body. Drive roller damaged or dirty.
Solenoid operates but printer does not.	No air. Air pipe damaged.
Printer operates but does not print, i.e. impression but no print.	Printing foil exhausted. Printing foil not being driven through. Printing foil not suitable for substrate. Little or no heat.
Printing foil tracks over to one side.	Brake arm loose. Pinch roller misaligned with drive roller.
Foil rewind is loose.	Green Drive Belt worn out or dirty. Foil feed too rapid (slow down return stroke of piston, see page 10). Foil retaining discs mis-aligned.
Printer is sluggish.	Insufficient air pressure. Faulty valve.

Print Quality Deterioration.

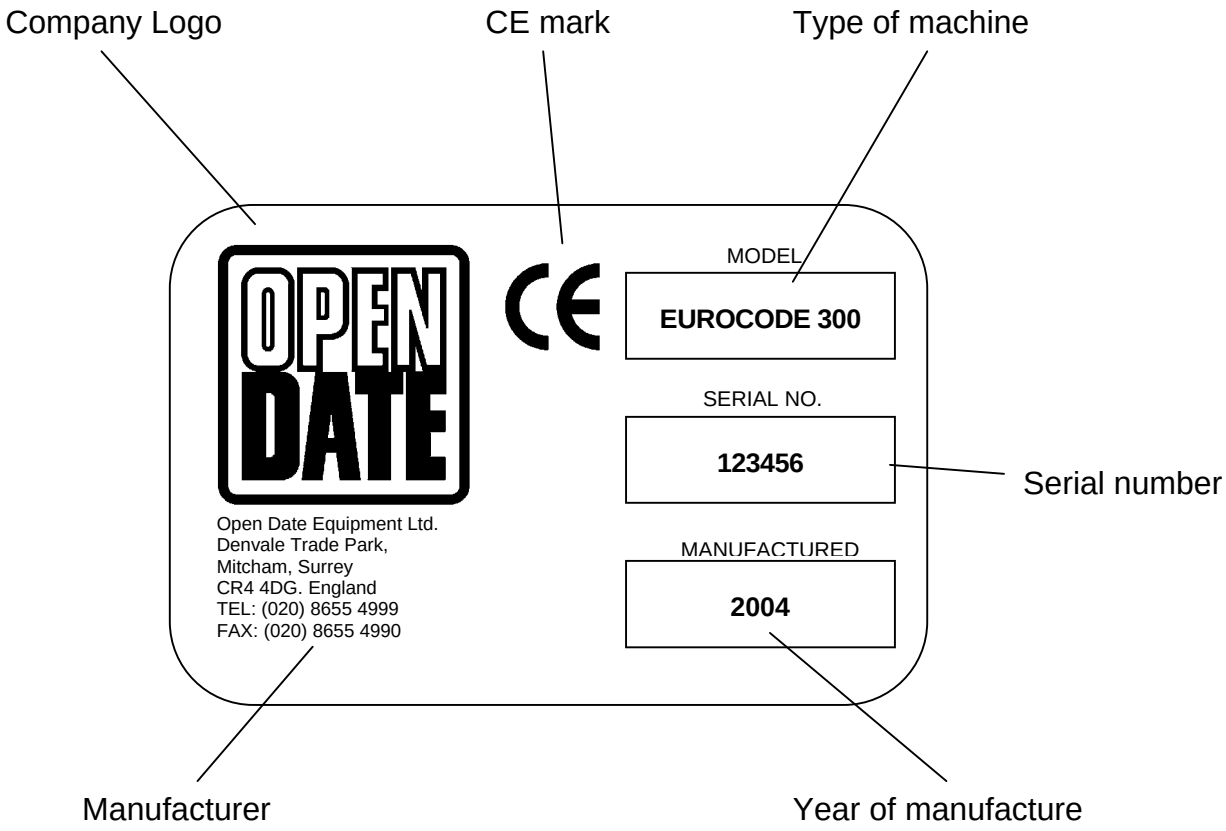
Print quality deterioration can be attributed to any of the following causes;

POSSIBLE CAUSE	CURE
Insufficient foil pull	See above.
Insufficient air pressure.	Check pressure regulator setting. See that pipes are not damaged.
Printer not level with print base.	Adjust levelling screws.
Too much or too little heat.	Check that settings are correct.
Dirty, worn or damaged dies or type.	Clean or replace.
Damaged or out of position print base rubber.	Replace or re-position.
Printing foil not compatible with substrate.	Contact foil supplier.
Substrate surface altered, i.e. different coating.	Contact substrate or foil supplier.
Print ram not completing full stroke.	Open forward flow restrictor (where fitted). Increase print dwell time.
Substrate moving before print head is clear.	Reduce print dwell time.
Print Dwell incorrectly set.	Adjust as necessary.

Machine Serial Number Identification

The identification label can be found on the outside of the printer, usually on the rear guard.

Always quote the model and serial number when ordering spare parts.



Recommended Spares List

Covering:

SPRINT MAJOR (DIGITAL)

	MECHANICAL		STOCK REF
	1.	Spring Set	SPR180075
	2.	Drive Belt	DRI180071
	3.	Drive Roller	DRI180003
	4.	Fork End Roller Assembly	FOR185115
	5.	Brake Strap	BRA180026
	6.	Grey Self Adhesive Print Base 300 x 450mm sheet	SABASE
or	7.	White Silicone Rubber Print Base 300 x 300 x 3mm thick sheet	SRBASE

ELECTRICAL

1.	Cartridge Heater (240v)	HEA501512
2.	Thermistor Probe	THE500501
3.	Microswitch for Door	SWI395008
4.	Plug-In Digital Card (240v)	CPC293500
5.	Pack of Fuses (5)	FUS395301
6.	Solenoid Valve without fittings	VAL510517

Note. The stock reference for the plug-in control card listed above (item 4) refers to the 240v, horizontal (box mount) unit. Other variations are available which your printer may have been supplied with. If in doubt, please advise the serial number of your existing unit to our sales office.

This list covers machines supplied after 1st January 1999 for the first two years of operation only.

Sprint Major Parts List

MECHANICAL

Item numbers refer to those on the assembly drawing. When ordering spare parts please use the Stock Reference.

	ITEM	DESCRIPTION	STOCK REF.	QTY	NOTES
	1	Main Body	N/A	1	
	2	Mounting Bracket	N/A	1	
	3	Drive Roller	DRI180003	1	
	4				
	5	Hub Assembly	HUB185066	2	Includes item 6.
	6	Hub Spindle	SPI180006	2	
	7	Drive Boss	DRI180007	1	
	8	Timing Pulley	PUL180008	1	
	9	Pulley	PUL180009	1	
	10	Drive Roller Shaft	SHA180010	1	
	11	Washer	WAS180011	1	
	12	Timing Pulley Assembly	PUL185075	1	For R/H printer only. Includes item 67.
or		Timing Pulley Assembly	PUL185076	1	For L/H printer only. Includes item 67.
	13	Main Shaft	SHA180013	1	For R/H printer only.
or		Main Shaft	SHA180104	1	For L/H printer only.
	14	Pinch Roller Shaft	SHA180014	1	
	15	Pinch Roller Assembly	PIN185080	1	Includes item 69.
	16	Dancing Bar	DAN180016	2	
	18				
	17	Roller	ROL180017	2	
	19	Lever	LEV180019	1	
	21	Roller	ROL180021	1	
	22	Spindle	SPI180022	1	
	23				
	24	Dancing Arm	DAN180024	1	For R/H printer only.
or		Dancing Arm	DAN180025	1	For L/H printer only.
	25				
	26	Brake Strap	BRA180026	1	
	27	Spring Post	SPR130024	1	
	28				
	29	Manifold Assembly	MAN185100	1	For R/H printer only.
or		Manifold Assembly	MAN185105	1	For L/H printer only.
	30	Spring Post	SPR130024	1	
	31	Spring Post	SPR180031	1	
	32				
	33	Spring Post	SPR180033	1	
	34				
	35	Stop	STO120039	2	
	36	Seal Retainer	RET180036	1	For R/H printer only.
or		Seal Retainer	RET180120	1	For L/H printer only.
	37	Guide Pin	GUI180037	1	
	38	Main Piston	PIS180038	1	Piston/Seal Assembly PIS185110
	39	Cylinder Barrel	BAR180039	1	
	40	Piston Lock Nut	NUT180040	1	
	41				
	42	Fork End Assembly	FOR185115	1	Includes items 43, 44.
	43	Fork End Roller	N/A	1	Part of item 42.
	44	Dowel		1	Part of item 42.
	45				
	46	Cam	CAM180046	1	
	47	Mounting Plate	PLA180047	1	
	48	Insulator Plate	INS180048	1	
	49	Heater Block	HEA180049	1	
	50	Magnet Clamp	CLA180050	1	
	51	Side Locator	SID180051	2	
	52	Door Assembly	DOO185130	1	Includes items 53, 64, 66.
	53	Hinge Block	HIN180053	1	Part of item 52.

Sprint Major, Mechanical Parts List cont'd.

	ITEM	DESCRIPTION	STOCK REF.	QTY	NOTES
	54				
	55	Roller Shaft	SHA180055	2	
	56	Roller	ROL180056	2	
	57	Washer	WAS180057	2	
	58				
	59				
	60	Brake Hub	BRA180060	1	
	61	Back Guard	GUA180061	1	For R/H printer only.
or		Back Guard	GUA180062	1	For L/H printer only.
	62	Pan Head Screw		5	M4x8
	63				
	64	Handle	HAN530502	1	Part of item 52.
	65	Cap Screw		2	M3x 10
	66	Dowel		2	3 dia x 10. Part of item 52.
	67	Clutch Bearing	BEA521503	2	Part of item 12.
	68				
	69	Needle Bearing	BEA521005	6	Part of item 15.
	70	Grub Screw		2	M5x8
	71	Drive Belt	DRI180071	1	Part of spring set.
	72	Grub Screw		2	M5x6
	73	Cap Screw		3	M3x12
	74	Csk Screw		1	M4x10
	75	Microswitch Assembly	SWI395008	1	
	76	Cap Screw		2	M2x10
	77	Csk Screw		6	M4x8
	78	Pan Head Screw		4	No.2-56 x 1/4"
	79	Cap Screw		4	M8x50
	80	Plug		4	1/8" BSP
	81	Grub Screw		2	M4x5
	82	Lever	LEV130020	1	
	83	Circlip		1	
	84	Ball Bearing	BEA520504	6	
	85	Csk Screw		1	M4x10
	86	Cap Screw		2	M3x10
	87	Button Screw		3	M4x10
	88	Button Screw		12	M3x6
	89	Cap Screw		1	M5x6
	90	Button Screw		2	M3x6
	91	Cap Screw		1	M6x30
	92	Hex Nut		1	M6
	93	Extension Spring	SPR530021	1	Part of spring set.
	94				
	95	Hex Nut		2	M3
	96	Washer		4	3mm
	97				
	98	Cap Screw		4	M3x16
	99	Cap Screw		1	M3x20
	100	Terminal Block	CON398105	1	
	101	Extension Spring	SPR530018	1	Part of spring set.
	102	Grub Screw		1	M3x4
	103	Timing Belt	BEL522511	1	
	104	Nose Seal	SEA512024		
	105	Cap Screw		1	M6x16
	106	Pot Magnet	MAG531001	1	
	107	Button Screw		2	M4x10
	108	Cap Screw		4	M3x10
	109	Oilite Bearing	BEA520013	1	
	110	O-Ring	O-R512027	1	
	111	O-Ring	O-R512026	1	
	112	Main Piston Seal	SEA512025	1	
	113	Nose Bearing	BEA520014	1	
	114	Oilite Bearing	BEA520002	1	
	115	Csk Screw		3	M3x10
	116	Cap Screw		4	M4x30

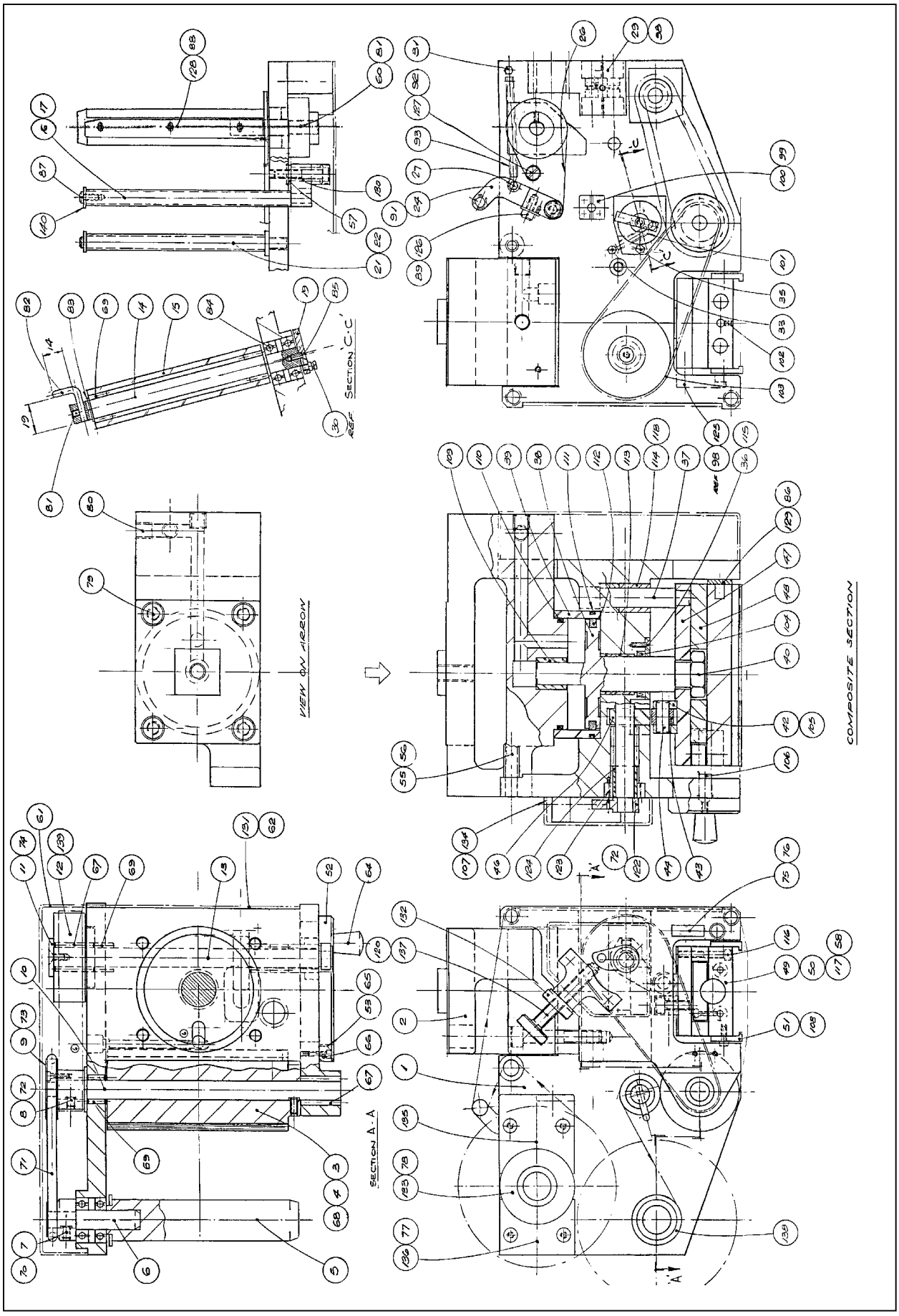
Sprint Major, Mechanical Parts List cont'd.

	ITEM	DESCRIPTION	STOCK REF.	QTY	NOTES
	117	Cap Screw		2	M3x12
	118	Oilite Bearing	BEA520006	1	
	119	Pot Magnet	MAG531004	1	
	120	Roll Pin		1	3 dia x 20
	121	Cap Screw		2	M3x20
	122	Lever	LEV120028	1	
	123	Torsion Spring	SPR530023	1	Part of spring set. For R/H printer only.
or		Torsion Spring	SPR530022	1	For L/H printer only.
	124	Spacer	SPR180124	1	
	125	Bracket	BRA180123	1	
	126	Brake Strap Clamp	CLA180126	1	
	127	Brake Strap Support	SUP180127	1	
	128	Core Spring	SPR180128	4	
	129	Heater Clamp	CLA180129	1	
	130	Pivot Bush	BUS180130	1	
	131	Side Guard	GUA180131	1	
	132	Thumb Nut	THU120023	1	
	133	Back Disc	DIS130005	1	
	134	Front Guard	GUA130006	1	
	135	Back Pad	BAC130008	1	
	136	Back Pad	BAC130025	1	
	137	Adjusting Screw Assembly	ADJ130003	1	
	138	Back Disc	DIS121009	1	
	139	Spacer	SPA180139	4	
	140	Washer	WAS130068	3	

ADDITIONAL SPARE PARTS AND REPAIR KITS

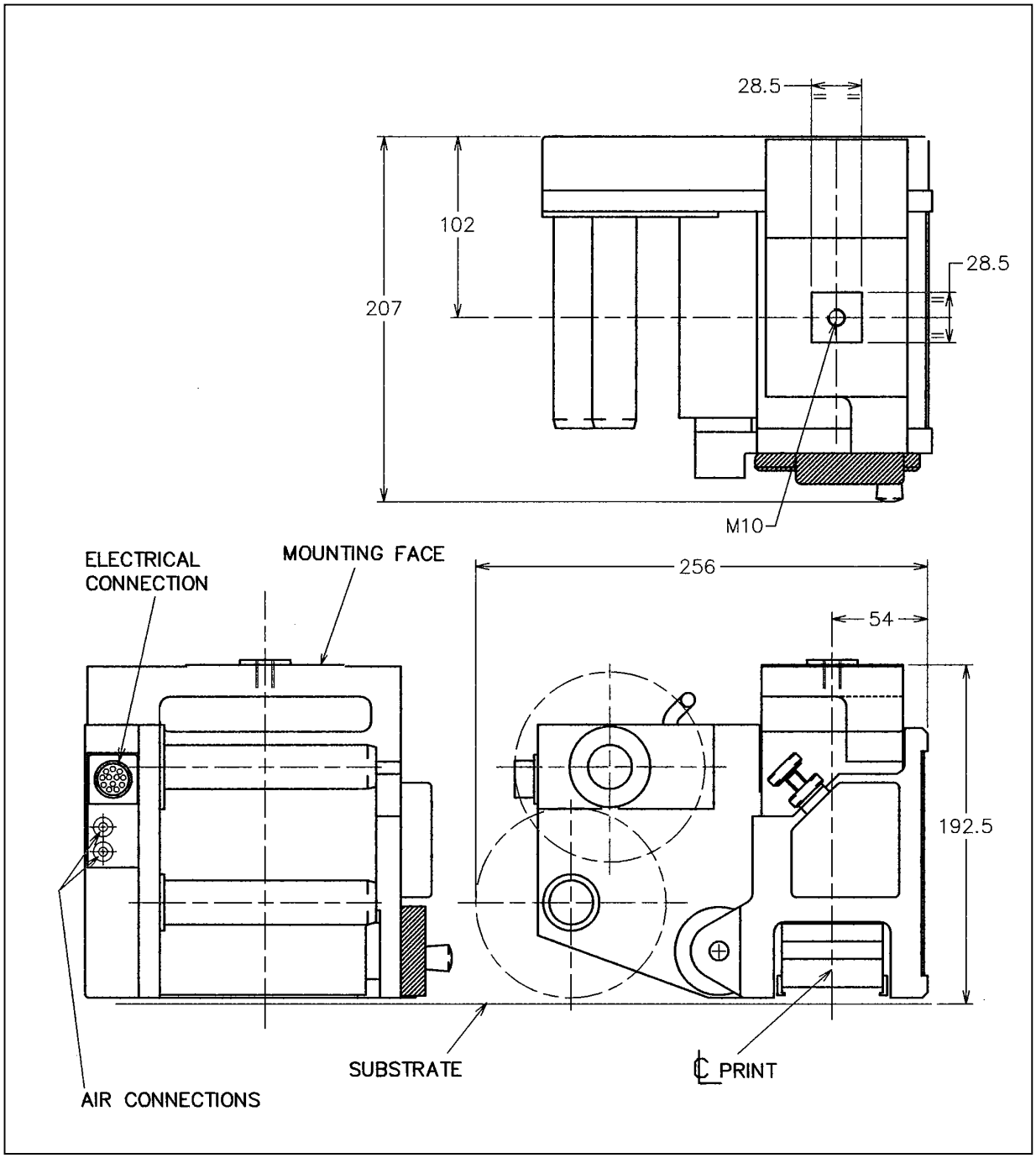
PNEUMATIC	
Solenoid valve without fittings.	VAL510517
ELECTRONIC	
Cartridge heater, 240v, 250w. 2 per machine.	HEA501502
Thermistor probe.	THE500501
Safety microswitch for door.	SWI395008
"End of foil alarm" sensor (if fitted).	PHO505612
Plug-in digital control card, 240v, box mount (horizontal).	CPC293500
For other control card variants please contact the sales office.	
REPAIR KITS	
Spring set containing all springs plus drive belt.	SPR180075

Printer Details

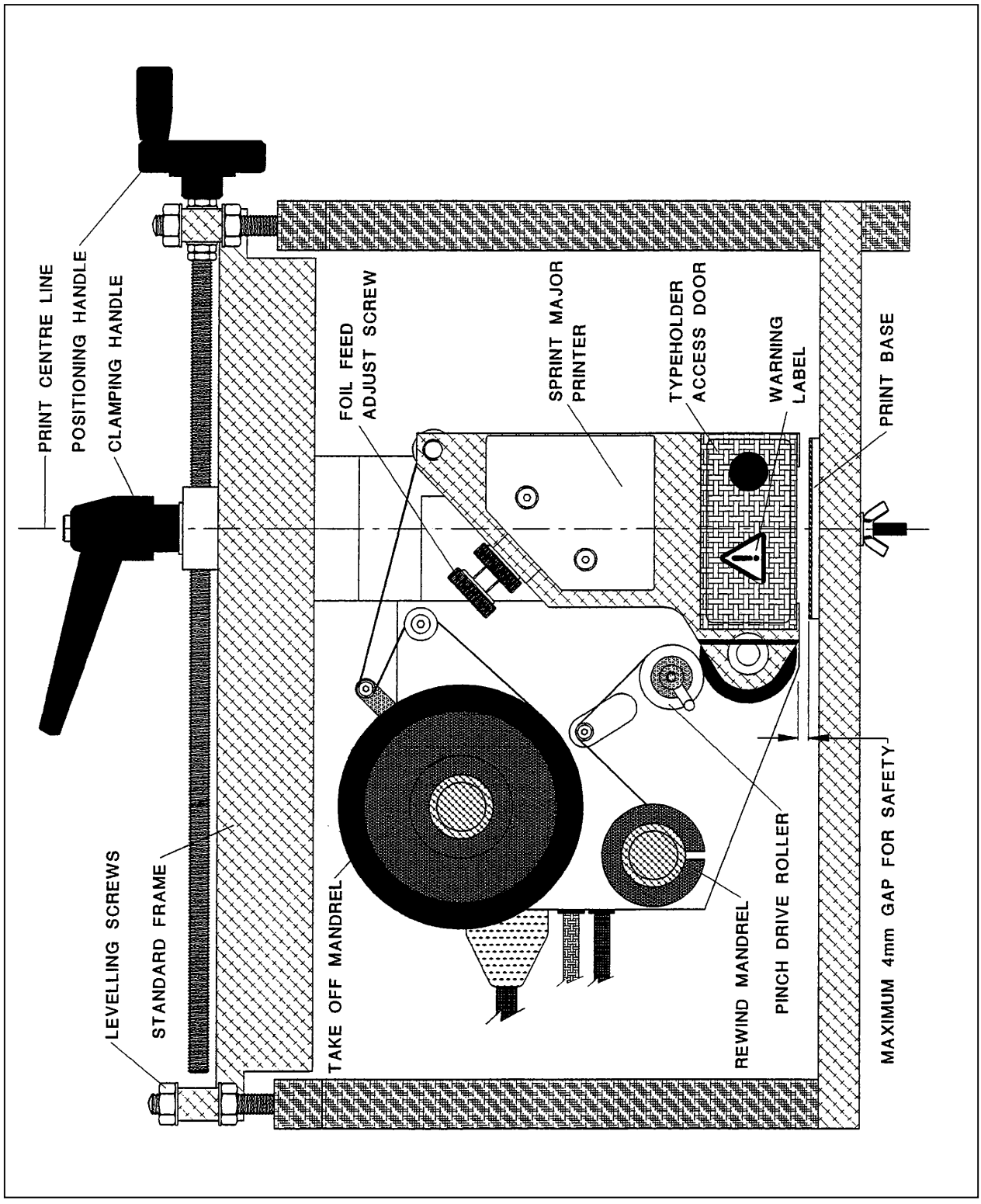


Sprint Major – Installation Dimensions

Right handed version shown. Mirror image about the centre line of print for left hand.



Sprint Major – Standard Frame Installation



Sprint Major
Airborne Noise Emissions.

Comprehensive tests have been carried out with the Sprint Major fitted in a standard printer frame and mounted onto a typical label applicator. Measurements were taken at 1.6 metres above floor level and approximately 1 metre away from the printer in all directions.

The measuring equipment used for conducting the tests was a Digital Sound Level Meter, type d-1405E supplied by Lucas CEL. Before the tests were carried out the instrument was calibrated and fitted with a foam windshield.

The results shown below are based upon a standard type installation for the printer, the operating air pressure was set at 6 bar and the air flow restrictors correctly adjusted.

The noise levels shown below are the equivalent continuous "A-weighted" sound pressure levels in decibels "dB(A)".

PRINTS PER MINUTE	NOISE LEVEL - DECIBELS (dB)
50	65
100	67
150	70
200	71
250	74

Directors: Ian Clatworthy
D.J.P. Morgan
Frances Sinclair
Andrew Pickett
Thierry Brousse

Tel: +44 (0)20-8655 4999
Fax: +44 (0)20-8655 4990
www.opendate.co.uk

OPEN DATE EQUIPMENT LTD. UNITS 8 & 9, PUMA TRADE PARK, 145 MORDEN ROAD, MITCHAM, SURREY, CR4 4DG. UNITED KINGDOM.

Standard Warranty Terms And Conditions – Hot Foil Printers

All Open Date Hot Foil Printers Carry a twelve (12) month return to base (at our discretion) warranty.

Open Date printers should be installed and operated according to the instructions given in the operating manual. No liability will be accepted for faults caused by incorrect installation or operation of the equipment or if the product has been altered or subject to unreasonable use.

The following components are not covered by warranty as they will be subject to wear and tear: -

1. Print base rubber.
2. Hardened steel type.

Should you have cause to claim for repair under warranty then please contact our service department stating the model, serial number of the product and the nature of the fault.

We reserve the right to charge for components replaced during the warranty period which are subsequently found to be damaged due to any of the above conditions not being followed.

Any items repaired or replaced under warranty will carry the balance of the original warranty period only.

Open Date Group Companies

FRANCE

OPEN DATE FRANCE
Z.I. D'Attichy
No.8, Voie Industrielle
60350 Attichy.

Local Tel:- 03 44 42 94 43
Local Fax:- 03 44 42 17 17

International Tel:- +33 3 44.42.94.43
International Fax:- +33 3 44.42.17.17

GERMANY

OPEN DATE GmbH
Mittlere Stammig 4
D-97292 Uttingen

Local Tel:- 09369 9824 0
Local Fax:- 09369 9824 24

International Tel:- +49 9369 9824 0
International Fax:- +49 9369 9824 24

U.S.A.

OPEN DATE SYSTEMS INC.
Springfield Road
PO Box 538
Georges Mills
NH 03751-0538.

Local Tel:- 603 763 3444
Local Fax:- 603 763 4222

International Tel:- +1 603 763 3444
International Fax:- +1 603 763 4222

INTERNATIONAL AGENTS & DISTRIBUTORS

Please visit **www.opendate.co.uk** for a list of international agents & distributors.