



PRINTMASTER SERIES

**OPERATOR INSTRUCTIONS
PARTS LISTING
CIRCUIT DIAGRAMS
INSTALLATION DETAILS**

These instructions cover the following models;

PRINTMASTER 400

PRINTMASTER 1000

PRINTMASTER PLUS

PRINTMASTER "S"

Designed and manufactured by:

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

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PRINTMASTER SERIES INDEX.

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EC DECLARATION OF CONFORMITY

We hereby declare that the following machinery complies with the essential health and safety requirements of the Machinery Directive 89/392/EEC, 91/368/EEC and 93/44/EEC enacted in the United Kingdom by the Supply of Machinery (Safety) Regulations 1992.

Machine Description	Hot Foil Printer
Model	Printmaster
Type
Serial number
Manufactured by	Open Date Equipment Limited.
Address	Units 8 & 9, Puma Trade Park, 145 Morden Road, Mitcham, Surrey, CR4 4DG. United Kingdom

This machinery has been and manufactured in accordance with the following transposed harmonised European standards.

EN292: parts 1 and 2, 1991. Safety of Machinery - Basic concepts - general principles of design.

EN294: 1992. Safety of Machinery - Safety distance to prevent finger zones being reached by the upper limbs.

EN60204: part 1, 1993. Safety of Machinery - Electrical equipment of machines - Specification of functional requirements.

EN50081: part 1, 1992. Electromagnetic compatibility - Generic emission standard.

EN50082: part 1, 1992. Electromagnetic compatibility - Generic immunity standard.

In addition, this machinery has been designed and manufactured in accordance with British Standard BS 5301: 1988, Safety of Machinery.

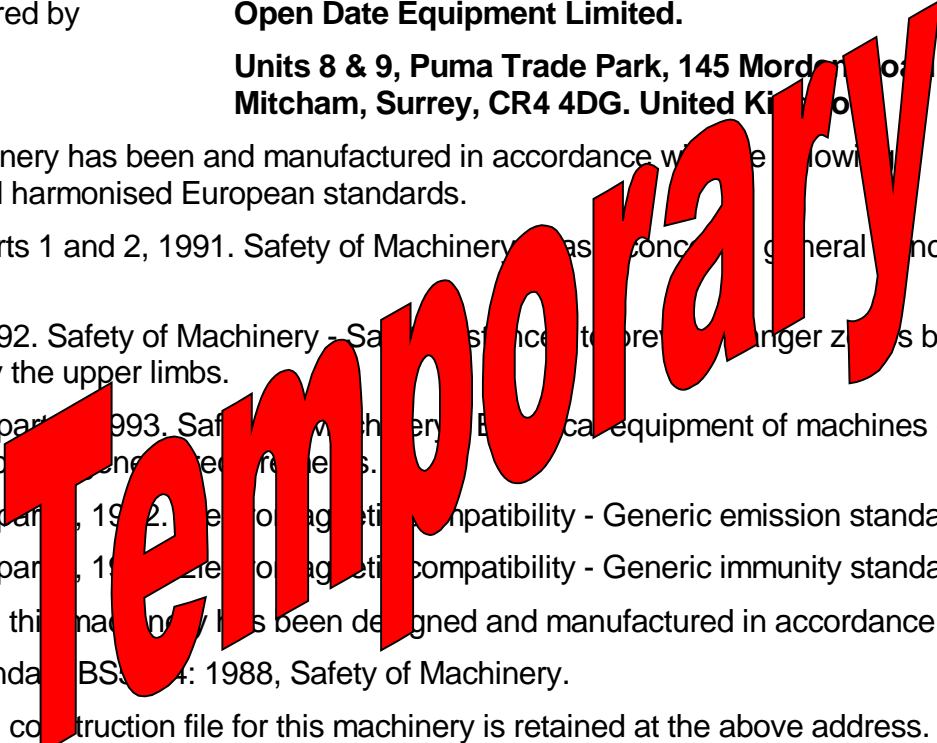
A technical construction file for this machinery is retained at the above address.

Signed..... Date.....

Name K.F. Wingfield. Position General Manager

Being the responsible person appointed by Open Date Equipment Limited.

This Declaration of Conformity complies with Regulation 22 of The Supply of Machinery (Safety) Regulations 1992.



IMPORTANT SAFETY INSTRUCTIONS

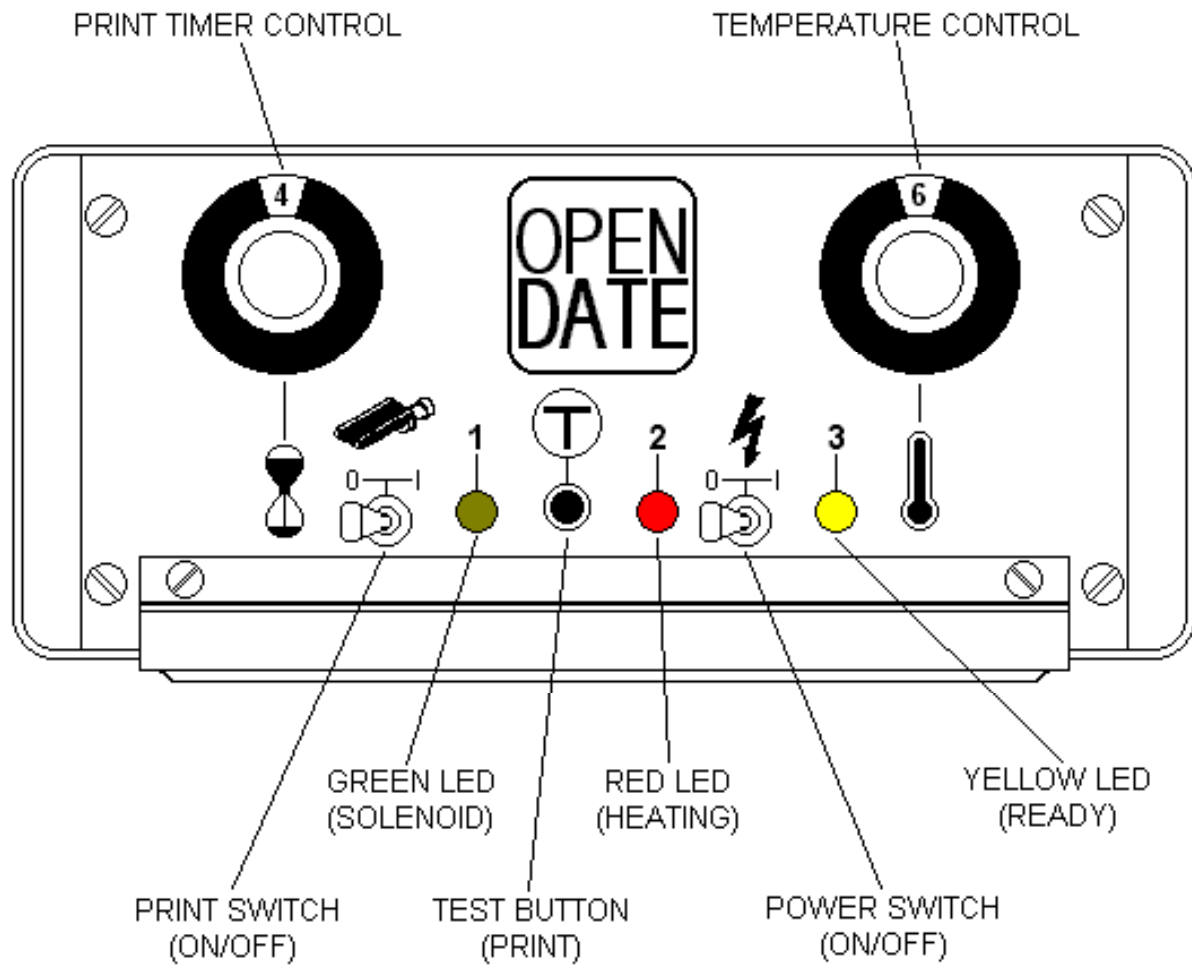
1. Read these instructions carefully. Follow all warnings and instructions marked on the product.
2. Always disconnect the printhead and controller from the mains electricity and air supply before attempting to clean or service it.
3. Never operate the printhead unless it is installed within the mounting frame supplied. When installed correctly the gap between the printer and print base should not be greater than 4mm (see page 29).
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 6).
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 mains cable, utilising one wire as a grounding conductor. This must be connected to a suitable earth 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 can get very hot, it should only be held by its plastic handle. Never touch the metallic parts, as temperatures could be as high as 220 degrees C.
15. Disconnect the product from the electrical and air supply, referring to servicing by 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

ELECTRONIC CONTROL UNIT (refer to page 5)

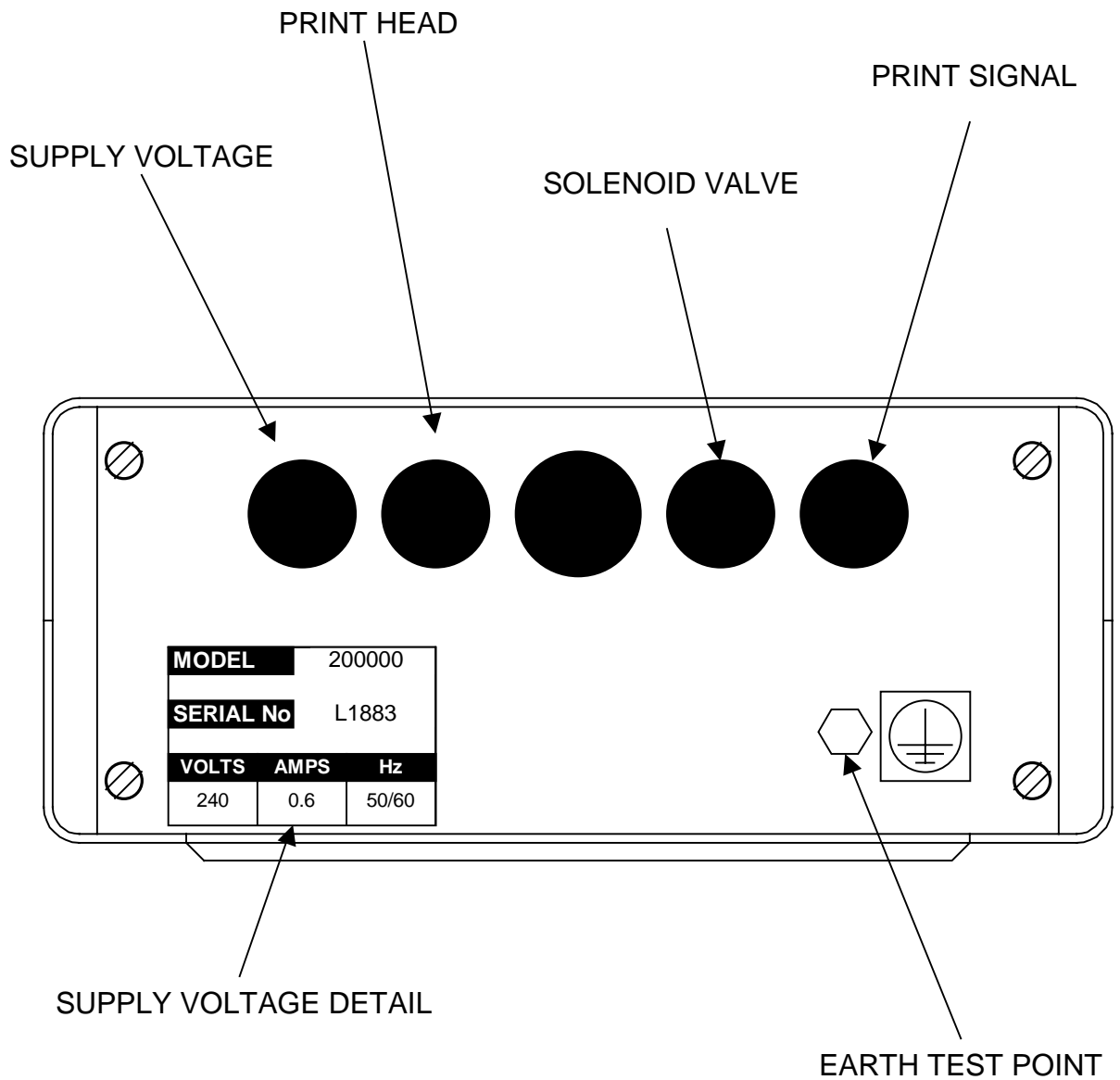
PRINT switch	Switches on the print cycle. Switch off to silence the audible alarm.
POWER/HEAT	Doubles as the main power switch (does not isolate the internal switch circuitry). Leave on to maintain operating temperature. Four to five minutes should be allowed for the printhead to warm up from cold.
PRINT TIMER	Adjusts the dwell time, ie. the period of time that the type/die face is control in contact with the substrate. Higher numbers indicate longer dwell time. Range is 12 to 650 milli-seconds.
TEMPERATURE	Adjusts the head temperature. Higher numbers indicate higher control temperature. Range is 75 to 220 degrees C. (see page 16).
TEST button	Manually operates the printhead.
LED 1 (green)	Indicates that the solenoid valve circuit is in order. Switches off during the print cycle, when the foil alarm sounds and when the type/die holder door is open.
LED 2 (red)	Lights when the printhead is heating.
LED 3 (amber)	Indicates that the printhead is at operating temperature.
NOTE.	It is normal for the red and amber LED's (lights) to alternate every minute or so. This indicates that the operating temperature is being maintained.

ELECTRONIC CONTROL UNIT FRONT PANEL LAYOUT



ELECTRONIC CONTROL UNIT REAR PANEL

(Cables omitted for clarity)



OPERATING INSTRUCTIONS

MAGAZINE REMOVAL (refer to page 29)

To remove the foil magazine, switch the "LOCK/RELEASE" lever to "RELEASE", this disengages the air bolt and pinch drive and withdraw the magazine using the two handles. Turn off the **PRINT** switch to silence the audible alarm.

FOIL THREADING (refer to page 8)

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

RE-FITTING FOIL MAGAZINE

Hold the magazine by the two handles, slide in onto the locating pins, push firmly home, switch the "LOCK/RELEASE" lever to "LOCK". Turn the **PRINT** switch on.

FITTING TYPE/DIE HOLDER

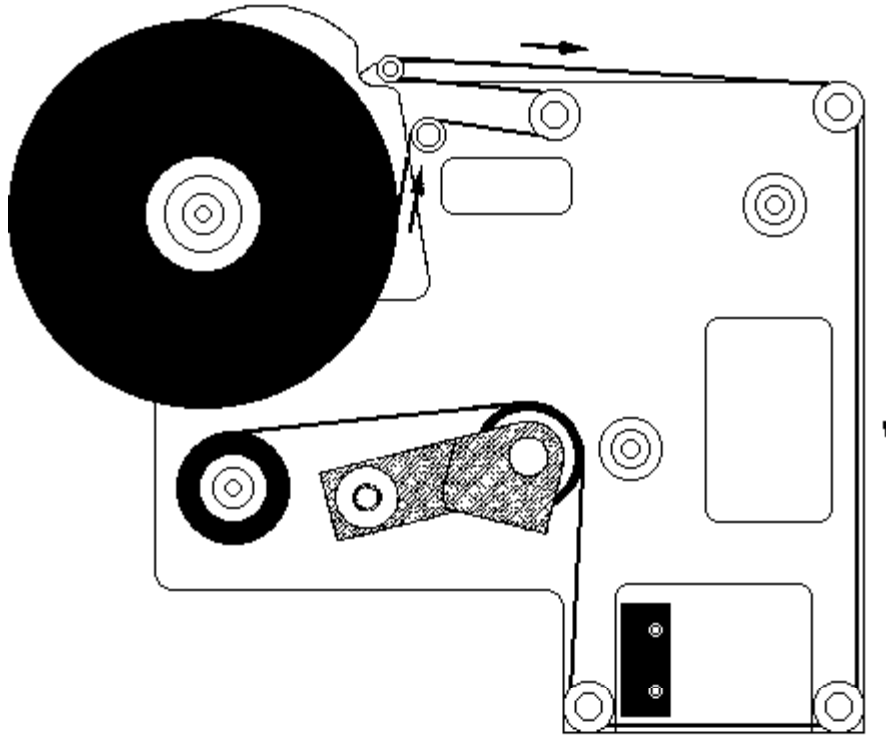
NEVER ASSUME THAT A TYPE/DIE HOLDER IS COLD.

Only pick up a 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 end plate. Close the door.

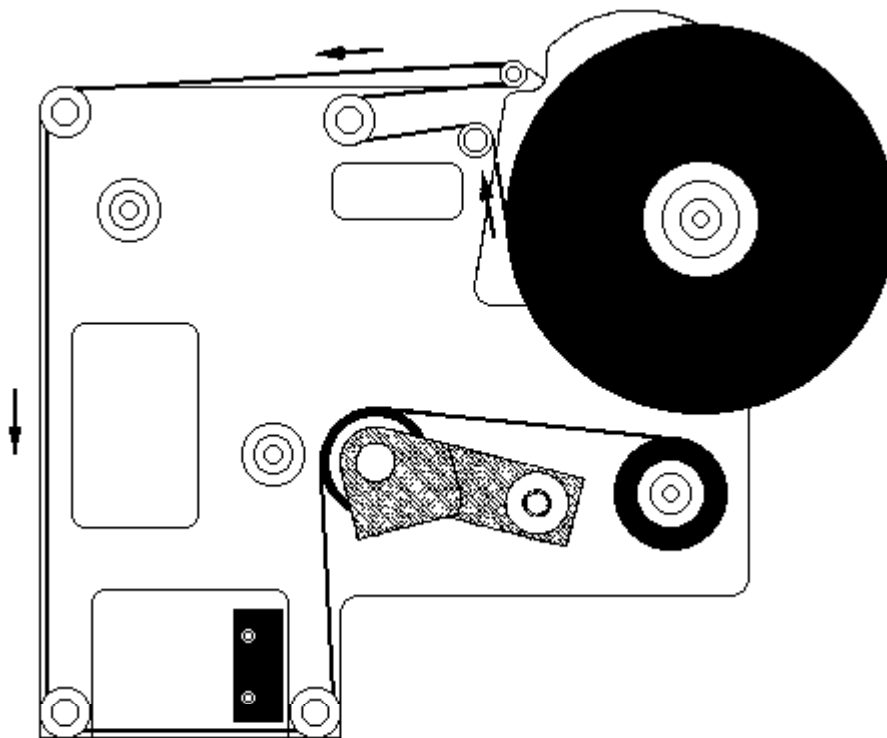
FOIL FEED ADJUSTING SCREW (refer to page 29)

This adjusts the amount of foil used per print and is located towards the rear of the printer body adjacent to the air pipe entry points. 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.

FOIL THREADING DIAGRAMS



Left Hand Printer



Right 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) Set **PRINT** control to 3 and **HEAT** control to 5.
- (6) Switch **HEAT** on, leave **PRINT** off. 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 type face 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) Load foil as detailed on page 7.
- (10) Turn on **PRINT** switch.
- (11) Place a sample of substrate material under printer and press **TEST** button. Inspect resulting print.
- (12) Adjust print levelling screws until a light, uniform print impression is achieved. Lock levelling screws.
- (13) Adjust foil metering screw for economic foil use as detailed previously and tighten thumb nut.

PRINT ORIENTATION

To rotate the printer and therefore turn the overprint through 90 degrees, remove the foil magazine (if applicable), 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 and replace the magazine.

TEMPERATURE ADJUSTMENT (refer to page 5)

- Normal setting is about 5.
- Should the print not fully adhere to the substrate 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.

INITIAL SETTING PROCEDURE (Continued)

PRINT TIMER ADJUSTMENT (refer to pages 4 & 5)

- Normal setting is about 4.
- 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 11)

The air flow 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 air flow and consequently the print ram velocity, it will also affect noise levels.

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

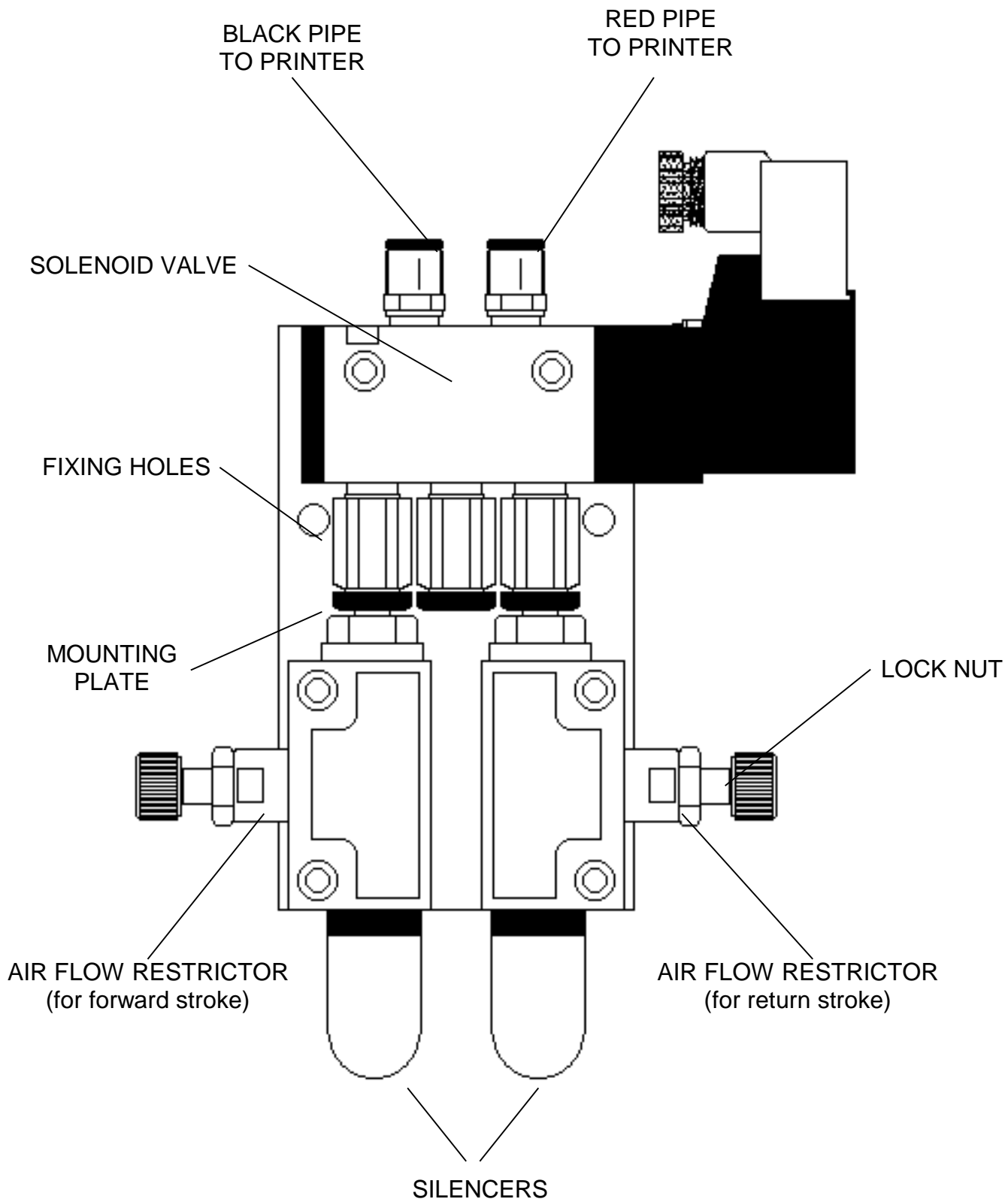
The drive for the printing foil is taken from the return stroke of the print ram. Increasing the exhaust air flow will speed up the foil feed. To ensure efficient foil feeding, the return stroke should be as gentle as possible.

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

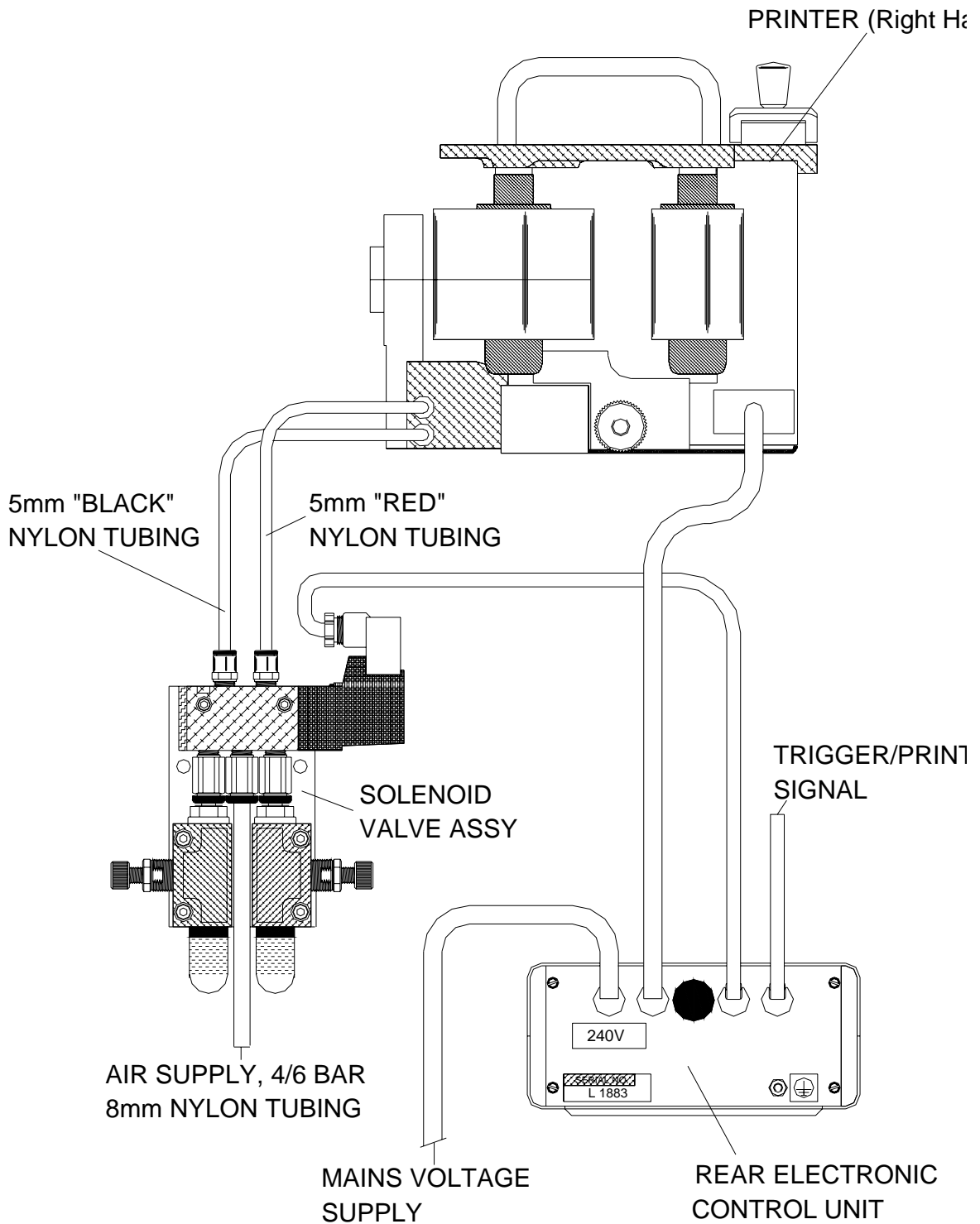
Note!

It is very important that the print ram returns fully before the next print cycle commences.

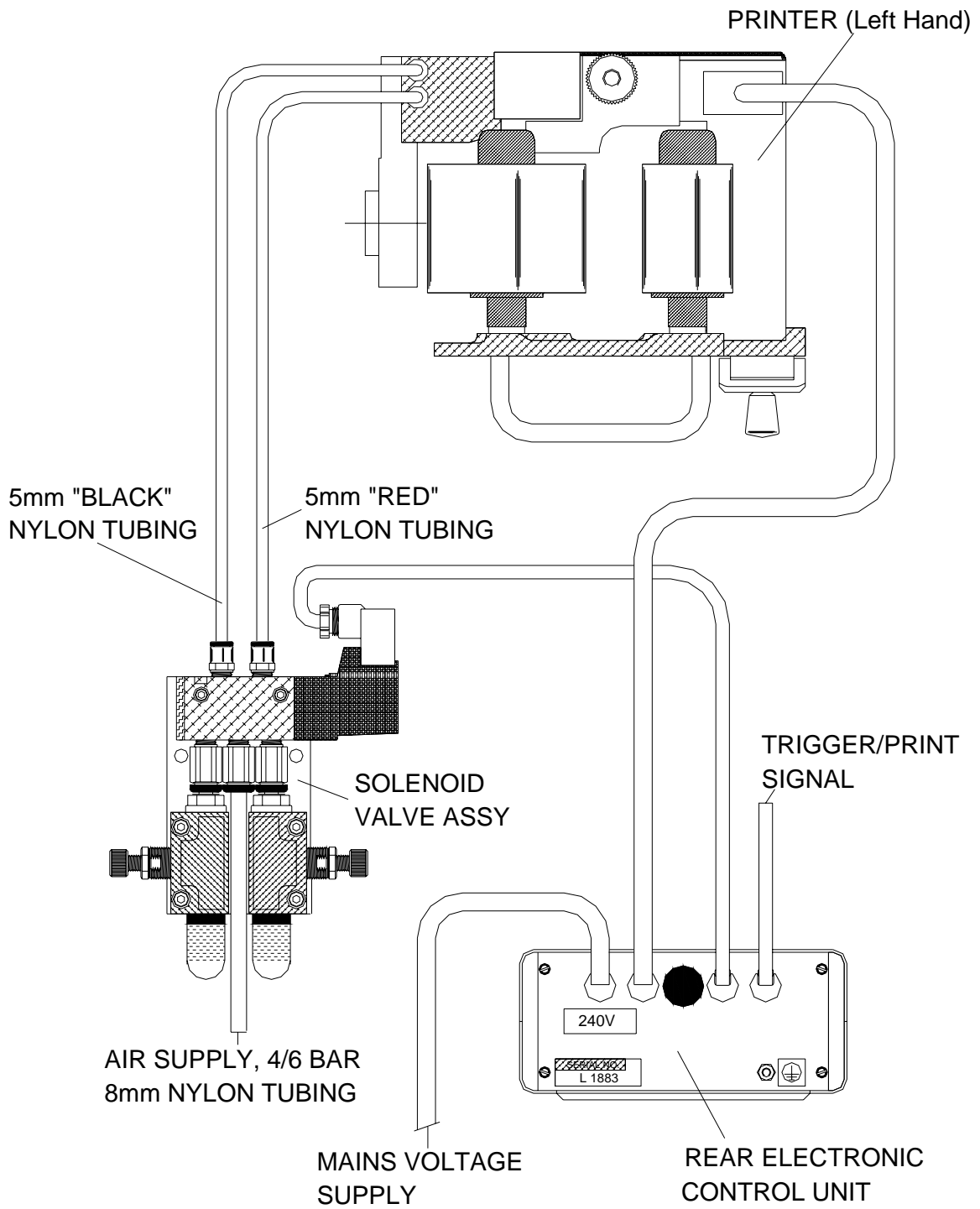
SOLENOID VALVE DETAILS



PRINTMASTER SERIES (Right Hand) CONNECTION DETAILS

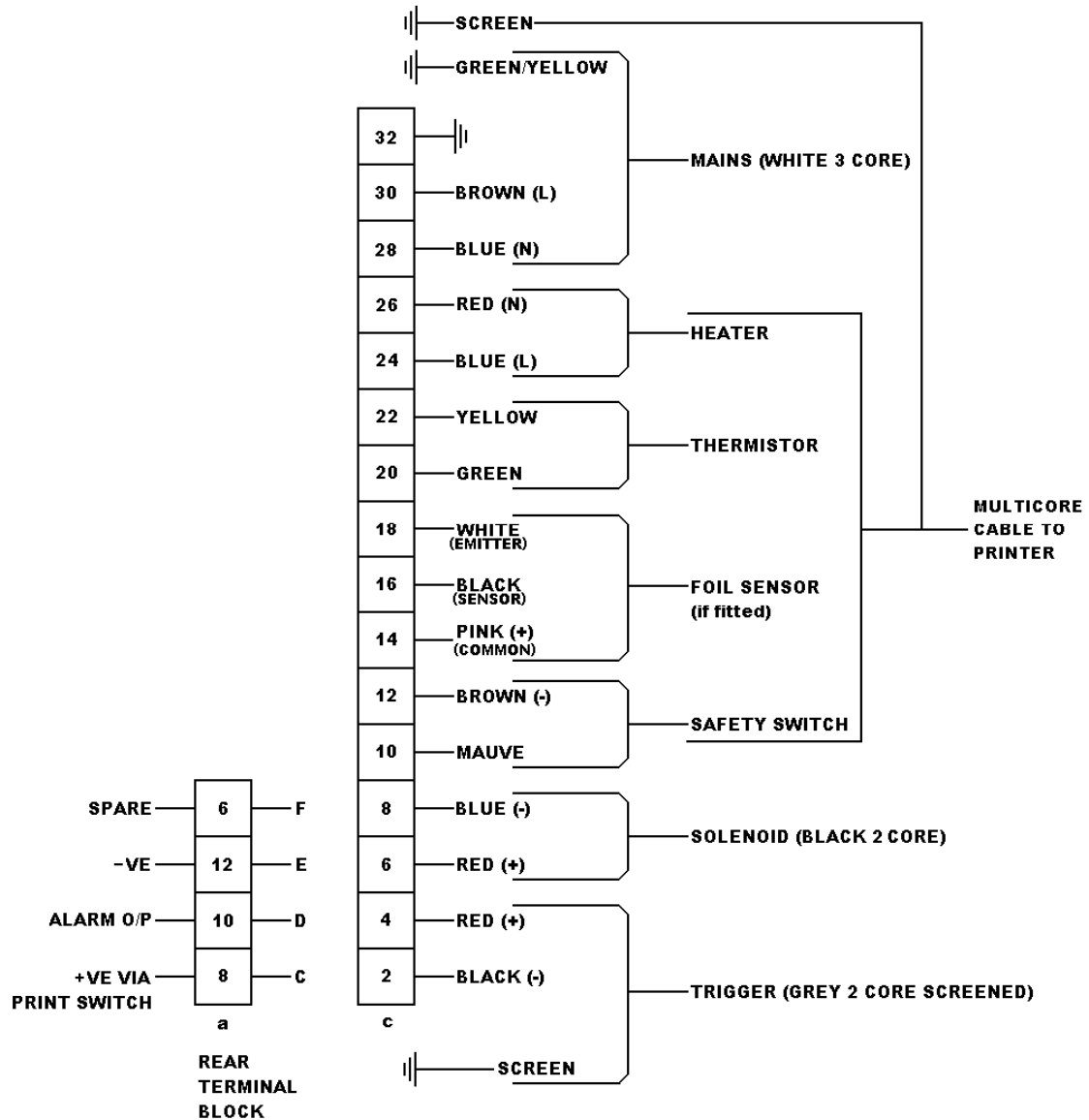


PRINTMASTER SERIES (Left Hand) CONNECTION DETAILS



PRINTMASTER SERIES INTERNAL WIRING DIAGRAM (ELECTRONIC CONTROL UNIT)

Drawing No. 9-834



1 YW	2 GN	3 RED	4 BU	5 BN
6 MV	7 WT	8 BK	9 PK	

CABLE SOCKET

TRIGGER SIGNAL SELECTION

The trigger signal which initiates the print cycle can be either a DC voltage or taken from a pair of normally open contacts. The option is selected by moving the blue jumpers at the rear of the main printer control card. When supplied, the board is configured to accept a DC print signal.

1. Horizontally mounted boards are normally configured to accept a DC print signal within the range 10 to 50 volts (polarity unimportant), and the blue selector jumpers are pegged north-south i.e. sitting parallel to each other, see figure 1.
2. For triggering from a normally open contact source such as a relay, microswitch or foot switch, the selector jumpers should be set east/west i.e. in line with each other, see figure 2.

N.B. Vertically mounted boards for use in DIN41494 ("Eurocard") enclosures are pegged east-west. Both print signal options are then available and can be selected by suitable wiring to the PCB connector within the enclosure.

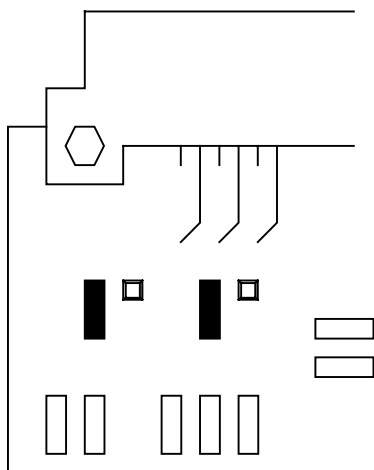


Figure 1.
Jumpers set for 10 to 50
volts DC print signal.

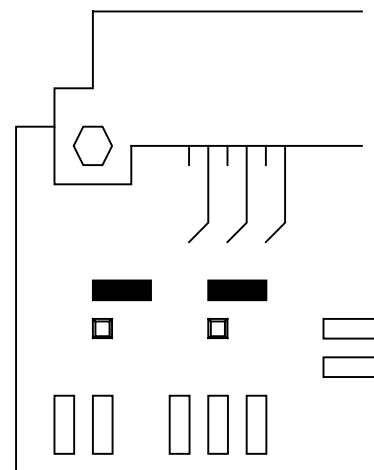
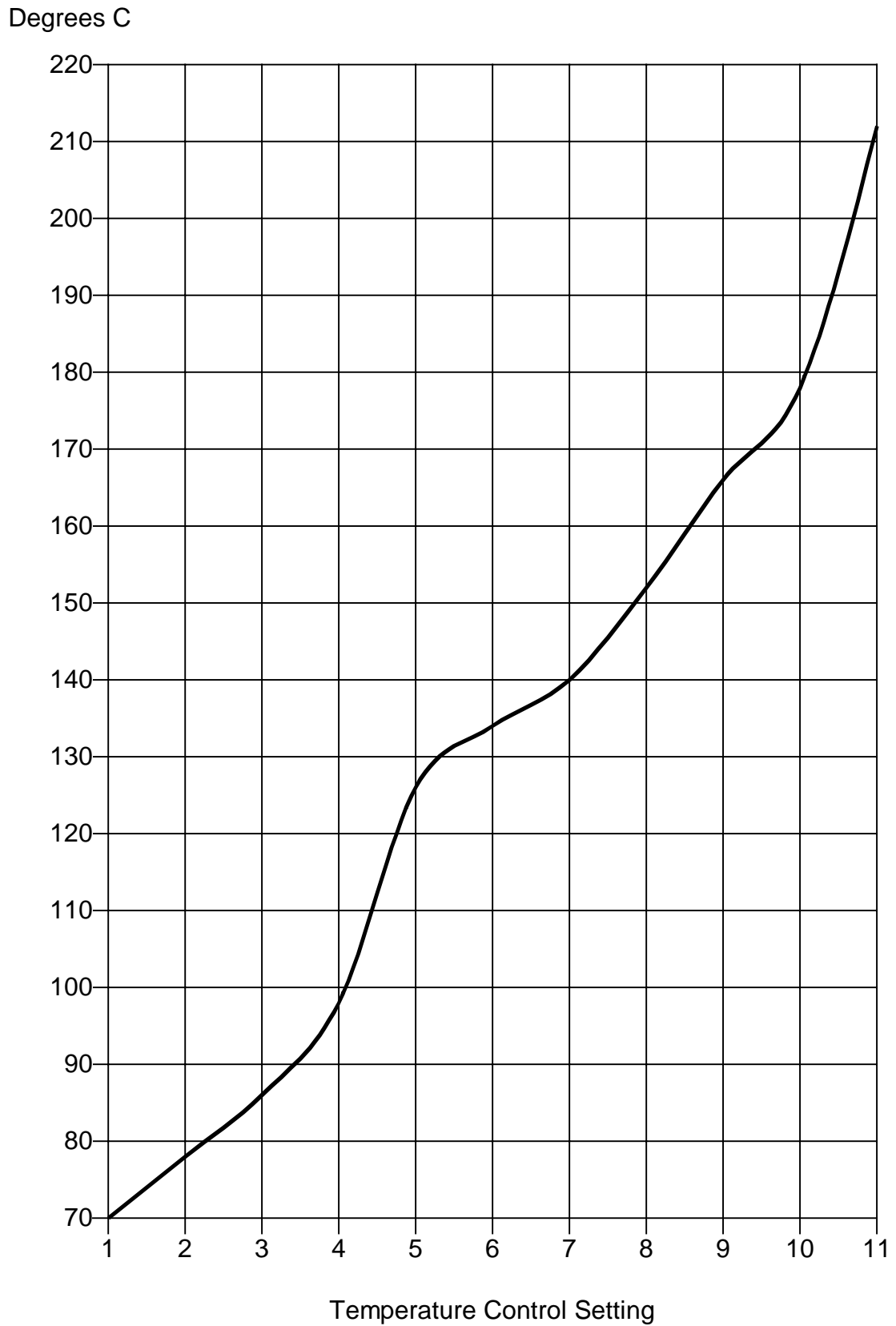


Figure 2.
Jumpers set for normally
open print signal.

Printhead Temperature Relative to Settings (nominal).



ELECTRONIC FAULT FINDING

FAULT	POSSIBLE CAUSE
No lights when control unit is switched on.	No power to control unit. Fuse blown on PCB.
Control panel lights, including green, are illuminated but printer will not operate either by remote trigger signal or TEST button.	No air. Fault on PCB.
Control panel lights, except green, are illuminated and printer will not operate either by remote trigger signal or TEST button.	Solenoid valve failure. Solenoid valve disconnected. PRINT switch off.
Alarm sounds continually.	Type holder door open. Foil magazine not fully engaged. Safety microswitch failure. Printer plug not properly mated. No foil present (if foil alarm is fitted). Foil not positioned over sensor (if fitted). Foil sensor misaligned (if fitted). Foil sensor failure (if fitted).
Printer does not heat, red L.E.D. is illuminated.	Heater failure. Broken wire between heater and socket. Fault on PCB.
Printer does not heat, yellow L.E.D. is illuminated. In extreme cold conditions press and hold down TEST button for 5 - 10 seconds.	Plug/socket disconnected. Thermistor failed open/short circuit. Fault on PCB.
Heater fails to switch off, yellow L.E.D. stays on.	Fault on PCB.
Heater fails to switch off, red L.E.D. stays on.	Fault on PCB. Thermistor probe loose in housing.

MECHANICAL FAULT FINDING

FAULT	POSSIBLE CAUSE
Insufficient foil pull.	Foil adjusting screw wound in too far. Pinch roller not engaged. Torsion spring on body broken. Grub screw loose in cam or lever. Drive roller damaged or dirty. Insufficient clearance between printer and print base. Cam worn. Fork-end roller worn.
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.	Bent spindle on foil magazine. 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 print ram, see page 10).
Printer is sluggish.	Insufficient air pressure. Flow restrictors wound in too far. Faulty valve.

PRINT QUALITY DETERIORATION.

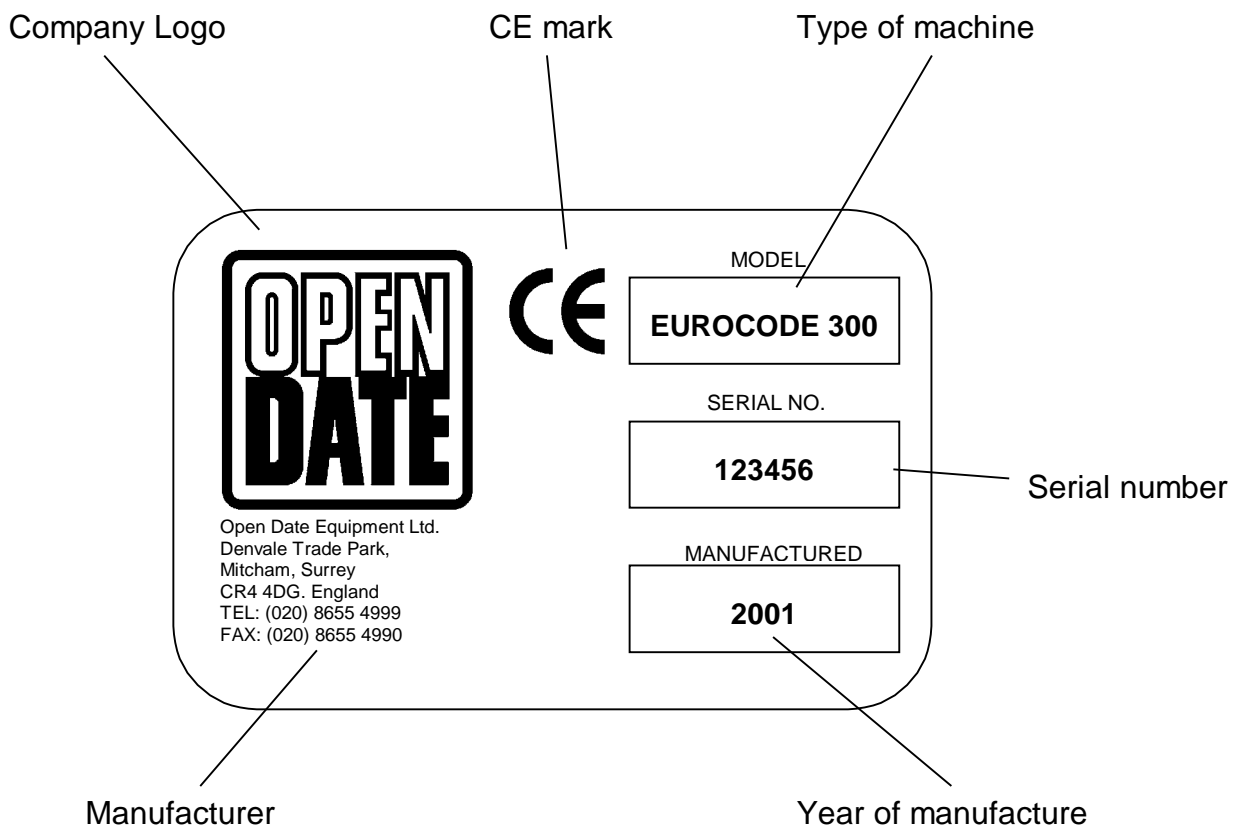
Print quality deterioration can be attributed to any of the following causes;

POSSIBLE CAUSE	CURE
Insufficient foil pull	See pages 7 & 29 (Foil Feed Adjustment)
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:

**PRINTMASTER 400
PRINTMASTER 1000
PRINTMASTER PLUS
PRINTMASTER "S"**

MECHANICAL

STOCK REF

	1.	Spring Set	***
	2.	Drive Belt	***
	3.	Grey Self Adhesive Print Base 300 x 450mm sheet	SABASE
or	4.	White Silicone Rubber Print Base 300 x 300 x 3mm thick sheet	SRBASE
	5.	Rubber Drive Roller (Body)	DRI120019
	6.	Rubber Pinch Roller (Magazine)	***
	7.	Brake Pads (pack of 5)	BRA490003
	8.	Fork End Roller Assembly	FOR129506

ELECTRICAL

	1.	Cartridge Heater 240v	HEA501506
	2.	Thermistor Probe	THE500502
	3.	End of Foil Detector Card	ALA129510
	4.	Proximity Switch for Door	SWI395003
	5.	Plug-In Control Card (240v)	CPC290500
	6.	Solenoid Valve without fittings	VAL510517
	7.	Pack of Fuses (5)	FUS393500

*** Please advise serial number or type and hand of printer.

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

This list covers machines supplied after 1st January 1993 for the first two years of operation only.

PRINTMASTER 1000 FOIL MAGAZINE PARTS LIST (1 of 2)

When ordering spare parts please use the Stock Reference.

Item numbers refer to those on assembly drawing MHD4762 issue 8 (see page 23).

List refers to machines from serial number 249101 onwards.

	<u>ITEM</u>	<u>DESCRIPTION</u>	<u>STOCK REF.</u>	<u>QTY</u>	<u>NOTES</u>
	1	Magazine Plate	N/A	1	
	2	Foil Spindle	SPI121002	1	
	3	Foil Roller	ROL121003	1	
	4/5	Pinch Roller Assembly	ROL129210	1	For R/H printer only.
<u>or</u>		Pinch Roller Assembly	ROL129211	1	For L/H printer only.
<u>or</u>		Pinch Roller Assembly	ROL129222	1	Part assembled. Suitable for either hand.
	6	Dancing Arm	ARM120086	1	
	7	Dancing Bar	DAN120037	1	
	8	Dance Arm Roller	ROL121007	1	
	9	Brake Hub Back Disc	N/A	1	Part of item 30.
	10	Rewind Hub Back Disc	DIS121009	1	Part of item 30.
	11	Foil Guide	GUI121010	1	For R/H printer only.
<u>or</u>		Foil Guide	GUI121503	1	For L/H printer only.
	12	Foil Guide Support	SUP121011	1	
	13	Foil Guide Support	SUP121012	1	
	14	Reel Clamp	CLA121013	1	
	15	Brake Strap	BRA120088	1	
	16	Drive Belt	DR1121014	1	
	17	Countersunk Screw	SCRM4CSS12	2	M4 x 12.
	18	Plain Washer	WASM3F	3	M3.
	19	Pinch Roller Bracket Ass'y	BRA129208	1	For R/H printer only. Includes items 44 & 56.
<u>or</u>		Pinch Roller Bracket Ass'y	BRA129209	1	For L/H printer only. Includes items 44 & 56.
	20				
	21	Pivot Bush	BUS120032	1	
	22	Magazine Handle	HAN120079	2	
	23	Countersunk Screw	SCRM5CSS20	4	M5 x 20.
	24	Spring	SPR530008	1	
	25	Foil Spindle	SPI120033	4	
	26	Foil Roller	ROL120034	4	
	27	Washer	WAS120035	8	
	28	Button Head Screw	SCRM4BH508	8	M4 x 8.
	29	Bearing	BEA520003	4	Part of item 30.
	30	Take-Off Hub Ass'y	HUB125114	1	Includes items 9, 29, 32, 33, 50 & 61.
<u>or</u>		Rewind Hub Ass'y	HUB125118	1	Includes items 10, 29, 32, 33, 41, 50 & 51.
	31	Dowel		2	3 dia x 10.
	32	Spring Clip	SPR530001	8	Part of Sprint Set. Part of item 30.
	33	Pan Head Screw	SCR2-56PHS1/8	8	No. 2-56 UNC x 1/8".
	34	Pull Stud	PUL120040	1	
	35	Anchor	ANC120087	1	
	36	Brake Tension Sleeve	SLE751036	1	
	37	Cap Head Screw	SCRM4SCS20	1	M4 x 20.
	38				
	39	Brake Strap Clamp	CLA620041	1	
	40	Hub Spindle	SPI120044	2	
	41	Pan Head Screw	SCRM2PHS06	2	M2 x 6.
	42	Brake Spring	SPR530018	1	
	43	Button Head Screw	SCRM3BHS06	2	M3 x 6.
	44	Bush	BEA520004	1	Part of item 19.
	45	Countersunk Screw	SCRM4CSS08	1	M4 x 8.
	46	Roll Pin		1	1/8" dia x 3/4"
	47	Door Handle	HAN530502	1	Part of item 57.
	48	Pinch Roller Shaft	SHA120050	1	
	49	Grub Screw	SCRM5SSS10	1	M5 x 10.
	50	Hub Boss	N/A	2	Part of item 30.
	51	Drive Boss	N/A	1	Part of item 30.
	52	Door Magnet	MAG531001	1	Part of item 57.

PRINTMASTER 1000 FOIL MAGAZINE PARTS LIST (2 of 2)

When ordering spare parts please use the Stock Reference.

Item numbers refer to those on assembly drawing MHD4762 issue 8 (see page 23).

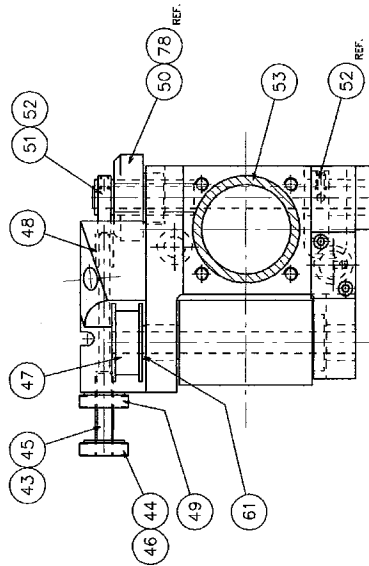
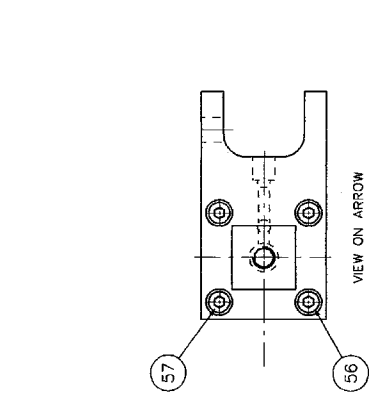
All lists refers to machines from serial number 249101 onwards.

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>STOCK REF.</u>	<u>QTY</u>	<u>NOTES</u>
53	Location Bush	BUS120053	2	
54	Shoulder Screw	SHO120056	1	
55	Spring Post	SPR120058	2	Part of item 19.
56	Spring Post	SPR120059	1	
<u>or</u>	57 Door Assembly	DOO125152	1	For standard Magazine.
	Door Assembly	DOO125154	1	For Databox Magazine.
	58 Sensor Magnet	MAG120078	1	Part of item 57.
<u>or</u>	59 Hinge Block	HIN120062	1	Part of item 57 for standard Magazine.
	Hinge Block	HIN122006	1	Part of item 57 for Databox Magazine.
	60 Cap Head Screw	SCRM3SCS16	2	M3 x 16.
	61 Brake Hub	N/A	1	Part of item 30.
	62 Clutch Bearing	BEA521501	1	Part of item 4/5.
	63 Foil Retainer	RET129501	1	
	64			
	65 Needle Bearing	BEA521001	1	Part of item 4/5.
	66 Washer	WASM4F	2	M4.
	67 Hexagon Screw	SCRM4HSS16	1	M4 x 16.
	68 Hexagon Screw	SCRM3HSS16	1	M3 x 16.

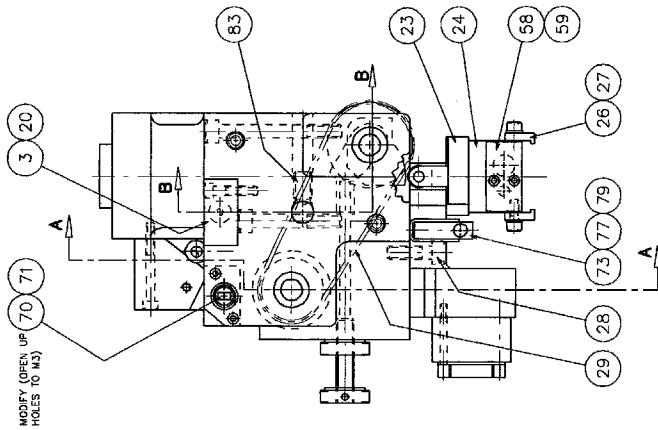
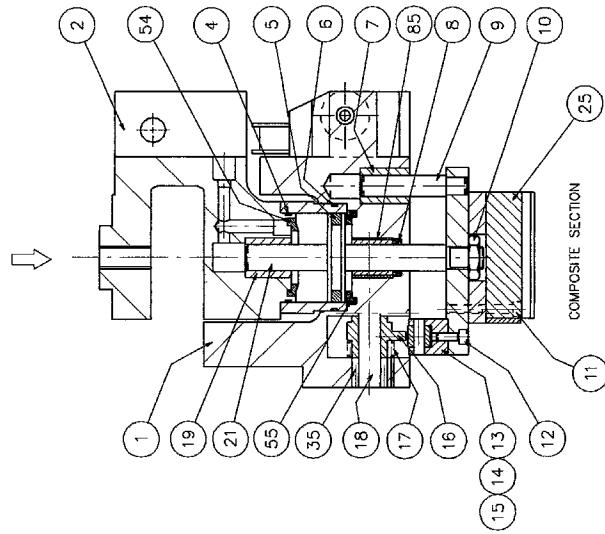
PRINTMASTER BODY ASSEMBLY

General Tolerance E 0.1
Unless Stated Otherwise

Remove All Burrs
And Sharp Edges



SCRAP SECTION B-B



MODIFY (OPEN UP HOLES TO M3)

REV	17	10/03	REBORN	Change
Issue	1	03/01	03/01	03/01
PRINTMASTER (R-HAND) BODY ASSEMBLY				
Open Data Equipment Ltd. Part No.				
Pars, Kerkem Rd., Mitham,				
Surrey, GU8 4DG				
Tel: 085 885 4999				
Drawn	Chd.	Scale	1:1	
WED				

NOTE ↓
GUARDS (DETS. 72.74 & 75)
HAVE BEEN OMITTED FOR CLARITY

PRINTMASTER 1000, PLUS & "S" BODY PARTS LIST

(1 of 2)

When ordering spare parts please use the Stock Reference.

Item numbers refer to those on assembly drawing MHD4229 issue 17 (page 26).

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>STOCK REF.</u>	<u>QTY</u>	<u>NOTES</u>
	1 Body	N/A	1	
<u>or</u>	2 Top Bracket Ass'y	BRA125158	1	For R/H printer only.
	Top Bracket Ass'y	BRA125162	1	For L/H printer only.
	3 Port Block	POR129221	1	
	4 O-Ring	O-R512005	1	Part of Seal Kit.
	5 Main Piston Seal	SEA512006	1	Part of Seal Kit.
	6 O-Ring	O-R512016	1	Part of Seal Kit.
	7 Oilite Bearing	BEA520009	1	
	8 Nose Seal	SEA512007	1	Part of Seal Kit.
	9 Guide Pin	GUI120004	1	
	10 Nut	NUTM10H	1	M10
	11 Cap Head Screw	SCRM4SCS30	4	M4 x 30
	12 Cap Head Screw	SCRM4SCS10	1	M4 x 10
	13 Fork End Assembly	FOR129506	1	
	14 Fork End Roller	N/A	1	Part of Fork End Assembly.
	15 Dowel Pin	N/A	1	Part of Fork End Assembly.
	16 Cam	CAM120007	1	
	17 Torsion Spring	SPR530006	1	Part of Spring Set.
	18 Cam Shaft	SHA120008	1	
	19 Oilite Bearing	BEA520002	1	
	20 Cap Head Screw	SCRM4SCS16	2	M4 x 16
	21 Main Piston	PIS120009	1	or Piston/Seal Ass'y – PIS125050
<u>or</u>	22 Manifold Assembly	MAN129515	1	For R/H printer only.
	Manifold Assembly	MAN129516	1	For L/H printer only.
	23 Mounting Plate	N/A	1	
	24 Insulator Plate	INS120012	1	
	25 Heater Block	HEA120013	1	
<u>or</u>	26 Side Locator	SID120014	2	
	Side Locator	SID122503	2	For Printmaster Plus only.
	27 Button Head Screw	SCRM4SSS08	6	
	28 Cap Head Screw	SCRM6SCS20	2	M6 x 20
	29 Timing Belt	BEL522501	1	
<u>or</u>	Timing Belt	BEL522508	1	For Printmaster Plus only.
	30 Piston	PIS120015	2	or Piston/Seal Ass'y – PIS125076
	31 Seal	SEA512008	2	Part of Seal Kit.
	32 Compression Spring	SPR530007	2	Part of Spring Set.
	33 Keep Plate	KEE120016	1	
	34 CSK Screw	SCRM5CSS16	2	M5 x 16
	35 Needle Bearing	BEA521001	4	
	36 Grub Screw	SCRM4SSS08	2	M4 x 8
	37 Location Pin	LOC120017	2	
	38 Drive Roller Shaft	SHA120018	1	
	39/40 Drive Roller	DR1120019	1	
	41 Plug Housing	PLU120020	1	
<u>or</u>	42 Piston Bracket Ass'y	BRA129217	1	For R/H printer only.
	Piston Bracket Ass'y	BRA129218	1	For L/H printer only.
	43 - 46 Foil Adjusting Screw	ADJ120057	1	
	47 Timing Pulley	PUL120025	1	
<u>or</u>	Timing Pulley	PUL122501	1	For Printmaster Plus only.
	48 Lever Stop	N/A		
	49 Thumb Nut	THU120023	1	
<u>or</u>	50 Timing Pulley Ass'y	PUL129212	1	For R/H Printmaster 1000 & S only.
	Timing Pulley Ass'y	PUL129213	1	For L/H Printmaster 1000 & S only.
<u>or</u>	Timing Pulley Ass'y	PUL125092	1	For R/H Printmaster Plus only.
<u>or</u>	Timing Pulley Ass'y	PUL125093	1	For L/H Printmaster Plus only.
	51 Lever	LEV120028	1	
	52 Grub Screw	SCRM5SSS06	2	M5 x 6
	53 Main Cylinder Barrel	BAR120029	1	
	54 Top Damper	DAM120075	1	
	55 Bottom Damper	DAM120074	1	
	56 Cap Head Screw	SCRM6SCS40	2	M6 x 40
	57 Cap Head Screw	SCRM6SCS55	2	M6 x 55

PRINTMASTER 1000, PLUS & "S" BODY PARTS LIST

(2 of 2)

When ordering spare parts please use the Stock Reference.

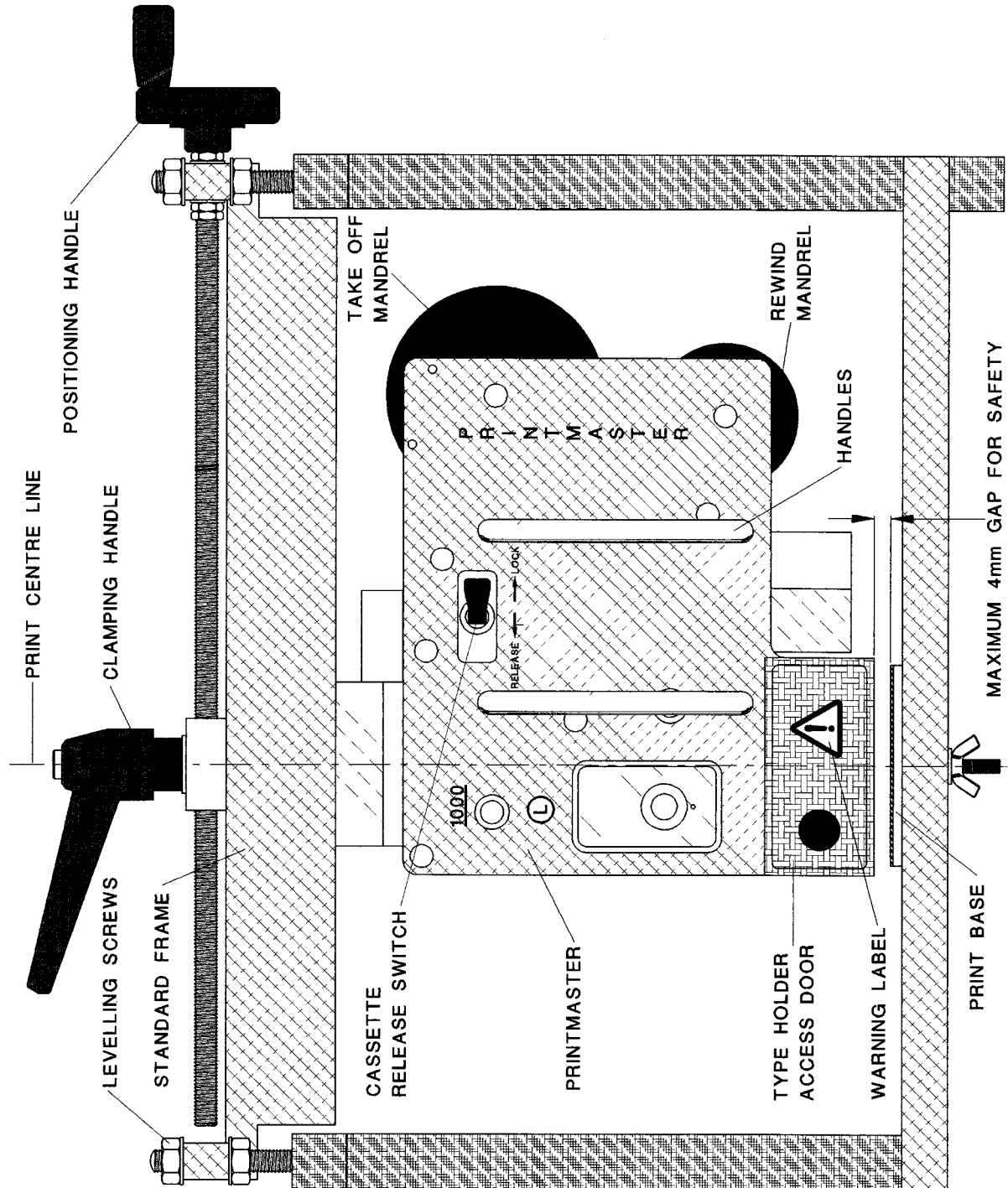
Item numbers refer to those on assembly drawing MHD4229 issue 16 (page 26)

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>STOCK REF.</u>	<u>QTY</u>	<u>NOTES</u>
58	Keep Plate	KEE120030	1	
59	CSK Screw	SCRM3CSS06	2	M3 x 6
60	Poppet	POP120054	1	Part of item 22.
61	Spacer	SPA120055	2	
62	Cap Head Screw	SCRM4SCS35	2	M4 x 35
63	Plug		1	1/8" BSP. Part of item 22.
64	Compression Spring	SPR530011	1	Part of Spring Set. Part of item 22.
65	Plug/Wiring Ass'y	PLU399400	1	For R/H printer only.
<u>or</u>	Plug/Wiring Ass'y	PLU399401	1	For L/H printer only.
66	Lock Piston	PIS120064	1	or Piston/Seal Ass'y – PIS125166
67	Seal	SEA512009	1	Part of Seal Kit.
68	O-Ring	O-R512010	1	Part of Seal Kit.
69	Spring	SPR530027	1	Part of Spring Set.
70	Air Switch	AIR120065	1	
71	Cap Head Screw	SCRM3SCS25	2	M3 x 25
72	Air Switch Guard	GUA120066	1	For R/H printer only.
<u>or</u>	Air Switch Guard	GUA120512	1	For L/H printer only.
73	Door Switch Guard	GUA120067	1	
74	Back Guard	GUA120068	1	For R/H printer only.
<u>or</u>	Back Guard	GUA120513	1	For L/H printer only.
75	Side Guard	GUA120069	1	For Standard R/H printer only.
<u>or</u>	Side Guard	GUA120514	1	For Standard L/H printer only.
<u>or</u>	Side Guard	GUA122008	1	For Databox R/H printer only.
<u>or</u>	Side Guard	GUA122009	1	For Databox L/H printer only.
76	O-Ring	O-R512011	1	Part of Seal Kit.
77	Door Switch Holder	HOL120080	1	
78	Clutch Bearing	BEA521501	2	One used in item 50.
79	Door Switch	SWI395003	1	Part of item 65.
80				
81	Foil Run-Out Card	ALA129510	1	
82	Cap Head Screw	SCRM3SCS06	2	M3 x 6
83	Ball Catch	SPR531005	1	
84	Mounting Screw	SCR120070	2	
85	Nose Bearing Ass'y	BEA120071	1	Part of Seal Kit.

ADDITIONAL SPARE PARTS AND REPAIR KITS

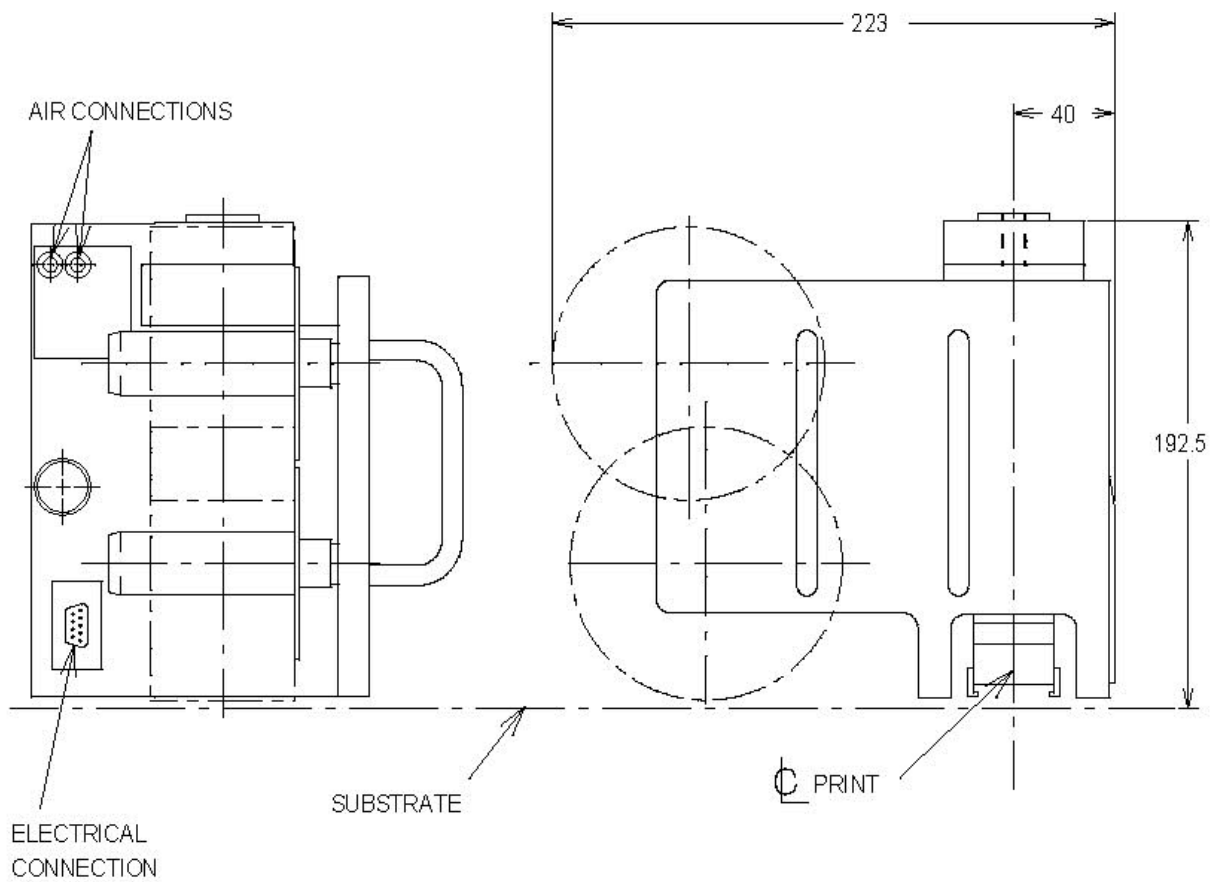
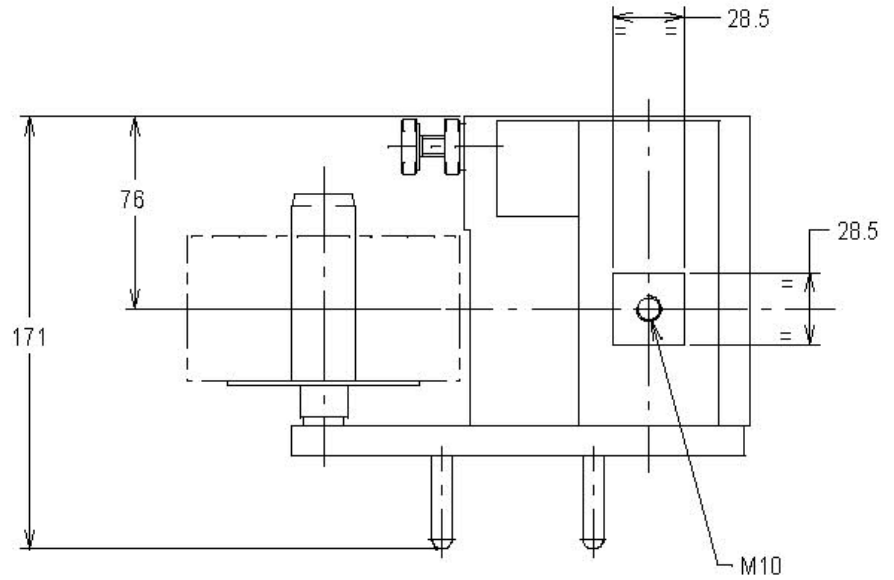
<u>PNEUMATIC</u>		
Solenoid valve without fittings.		VAL510517
<u>ELECTRONIC</u>		
Cartridge Heater, 240V, 250w.		HEA501506
Thermistor probe.		THE500502
Plug-in printer control card, 240V, box mount (horizontal).		CPC290500
<u>REPAIR KITS</u>		
Spring set containing all springs plus drive belt.		SPR129505
Main Cylinder Seal Kit including all seals, o-rings & nose bearing.		SEA131011

PRINTMASTER STANDARD FRAME INSTALLATION



PRINTMASTER INSTALLATION DIMENSIONS

R/H VERSION SHOWN



AIRBORNE NOISE EMISSIONS

Comprehensive tests have been carried out with the Eurocode 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)
100	65
200	69
300	72
400	75

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 subjected to unreasonable use.

The following components are not covered by the 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 problems or faults.

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.

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Local Fax:- 03 44 42 17 17

International Tel:- 0033 3 44.42.94.43

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OPEN DATE GmbH

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D - 97292 Üttingen

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U.S.A.

OPEN DATE SYSTEMS INC.

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Georges Mills
NH 03751-0538.

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INTERNATIONAL AGENTS & DISTRIBUTORS

Please visit:

www.opendate.co.uk

for a list of international agents & distributors.