PLOTMATE
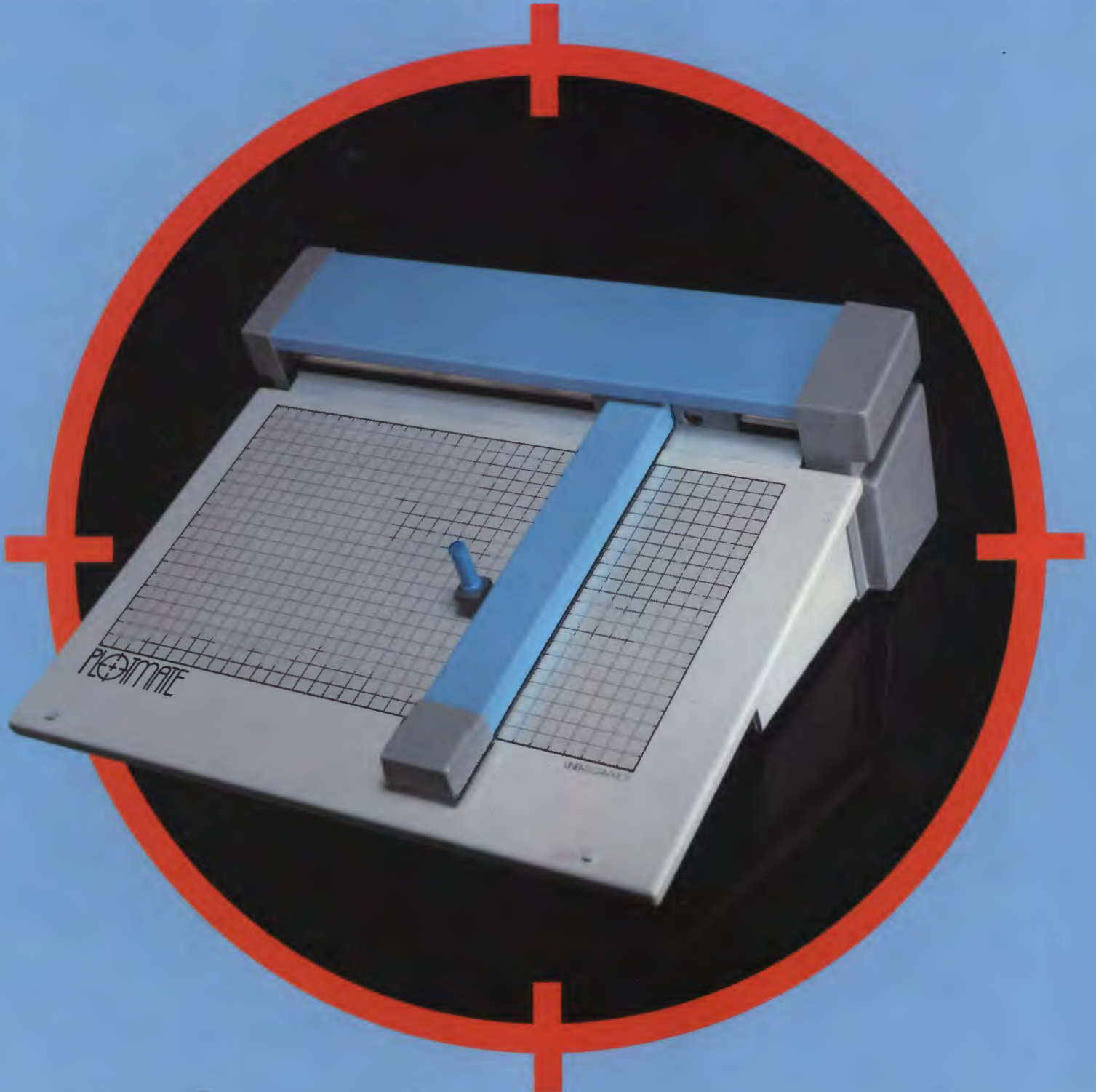
BY LINEAR GRAPHICS

A drawing companion to your BBC micro

INFORMATION

The *Plotmate* is the perfect answer for all your drawing requirements. It is an ideal, fast drawing companion to your BBC Micro, and can be used as a practical and educational aid for school and home use. It is a genuine "Flat Bed" plotter, enabling use of any paper, from postage stamp up to B4 size, with a plotting range that covers A4, 198 x 290mm. Your *Plotmate* can be used for all popular applications, eg plotting line drawings, maps, program listings and bar/pie charts.

Paper is secured by simple but effective plastic magnetic strips which are supplied with *Plotmate*. There are a wide range of pen colours available. These can be obtained from stationers or direct from Linear Graphics. The *Plotmate* is supplied with its own driver software disc with full easy-to-follow menu-driven instructions. The driver software accepts all colour, vector, character and graphics commands designated by your BBC Micro.

SPECIFICATION

System	Flat Bed X-Y Stepper Motor Driven Plotter
Plotting Range	198 x 290mm
Paper	Paper or Overhead Film up to B4
Paper Fixing	Magnetic Rubber Strips
Pen Type	Uses readily available standard plotter pens
Pen No.	Single
Pen Speed	Max. 15cms/sec
Step Size	·1mm
Switches	Power On/Off
Interface	Plugs into BBC User Port
Power	220-250v AC 50 Hz (Standard)
Dimensions	415 (W) x 400 (D) x 160 (H)
Weight	Approx. 7Kgs
Standard Accessories	User Manual
	User Port Lead
	System Disc
	Starter Pen Pack

The manufacturer reserves the right to change the above specifications without further notice.

LINEAR GRAPHICS LIMITED

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PLOTMATE   PRICE £299 (EX.VAT)

A fast, accurate, easy to use drawing device that connects to the user port* of your BBC Model B
Microcomputer. If you program in BASIC using standard BBC graphics commands to draw on the
screen, PLOTMATE will directly accept those commands and plot your graphics onto any size paper
or overhead projection film. For those who do not want to write their own programs there are
software packages available which will drive PLOTMATE.

The effective plotting area is A4 (8 1/4" x 11 3/4") but larger composite plot-outs can be
produced up to A2 (16 1/2" x 23 1/2") in size.

The many numerous facilities include triangle and block filling procedures producing excellent
solids, 15 sets of shading patterns and dotted lines, upside down plotting, global re-scaling
and re-origining, to name just a few.

PLOTMATE is the perfect drawing companion for your BBC microcomputer.

*Printer port version available.

INTERMATE   PRICE £169.50 (EX.VAT)

This unit is used in conjunction with PLOTMATE to allow standard Centronics and Serial RS232
communications to any microcomputer with these interfaces. As standard, INTERMATE has a direct
scaling and bordering facility, a self-test feature, and understands the BBC graphics commands
allowing it to be used as a remote graphics device with the BBC Micro through the RS432 port.
Expansion sockets are available on INTERMATE to accommodate plug-in graphics language ROMS.
These ROMS include Acorn Bitstick, Sweet-P Plotter Emulator and Hewlett Packard 7470A Plotter
Emulator ROMs and will be available soon to fit into the expansion sockets.

The following disk-based graphics packages are designed for use with PLOTMATE and a BBC MICRO equipped with DFS and operating system 1.2 or higher.

LINCAD   PRICE £49.50 (EX.VAT)

This friendly but extemely extensive software suite offers the following useful and attractive features:

o   "Rubber-banding" for easy generation of straight lines.
o   x,y co-ordinate position display.
o   Vertical, horizontal and absolute length of line and angle of
     line.
o   Extension of line at a fixed angle.
o   3-point generation of arcs of circles or arcs of ellipses.
o   2-point generation of complete circles or ellipses.
o   Powerful editing facilities.
o   Separate LABEL and PLOT-files.
o   Dotted construction lines at any angle.
o   ZOOM facility up to 32 times.
o   Variable character size, slant and orientation.
o   Special character font.
o   Rotation, scaling and offset transformation in final plot.
o   Easy generation of isometric drawings.
o   4 types of screen dump to EPSON DOT MATRIX PRINTER.
o   High definition output to PLOTMATE

LINCAD is the perfect complement to PLOTMATE.

LINCHART   PRICE £19.50 (EX.VAT)

Literally one of the most colourful data-presentation packages on the market, LINCHART allows the easy creation of data-files and their subsequent output to PLOTMATE in the form of pie or bar charts.   This powerful and flexible package allows for 3-dimensional effects, so that your pies really do look like pies. From the six pen colours available, up to 21 different shades may be generated.   The user has full control over every aspect of his output, from the angle of perspective of the pies to the hatching angle and density, but may also decide to let the software choose for him.

LINTRONICS   PRICE £19.50 (EX.VAT)

Using an extensive electronics character-set based on British standard BS 3939, LINTRONICS allows you to construct, save and label electronic circuits, and to draw them on PLOTMATE.   The circuits and their labels are filed on disk and may be recalled at any time for manipulation by the extremely friendly screen editor.

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SUMMARY OF PLOTMATE COMMANDS

COMMAND	DESCRIPTION
DRAW X,Y	The pen moves to the new absolute position specified by X,Y drawing a line as it goes.
GCOL N,M	This command may be used to halt PLOTMATE operation and allow the user to change pen.
MOVE X,Y	The pen moves to the new absolute position specified by X,Y without drawing.
PLOT K,X,Y	This is a multi-purpose line and triangle drawing function dependent on the value of K.

Value of K

0	The pen moves to a new position which is X,Y units from its current position (relative positioning) without drawing a line.
1-3	The pen moves as for K=0 except that a line is drawn.
4	The pen moves to the new absolute position specified by X,Y without drawing.
5-7	The pen moves to the new absolute position specified by X,Y drawing a line as it goes.
8-15	As 0-7.
16-31	AS 0-7 in multiples of 8 but dotted lines.
64-71	Single point plotted.
80-87	As 0-7 but plot and fill triangle according to the current shading pattern selected (see parameters).

PRINT	If the text cursor is joined with the graphic cursor printable characters will appear on PLOTMATE. The height, width, slope and orientation will depend on the selected parameters.
VDU X	VDU X is equivalent to PRINT CHR$(X);. See the BBC MICRO USER GUIDE for a full description. PLOTMATE makes use of certain VDU codes.
VDU 4	This stops further printing from appearing on PLOTMATE.
VDU 5	All subsequent PRINT statements will generate text output on PLOTMATE when this VDU code is called.
VDU 8	If printing is being output on PLOTMATE this call generates as BACKSPACE.
VDU 13	If printing is being output on PLOTMATE this call generates a line feed and carriage return.
VDU 18	VDU 18, followed by two bytes, is equivalent to GCOL N,M.
VDU 22	When PLOTMATE is enabled, any attempt to change mode with MODE N or VDU 22,N will have no effect and the current mode will remain MODE 7.

VDU 23   When PLOTMATE is enabled, this value followed by 255 and 8 extra bytes is a
                       parameter input device. The format is:-

                       VDU23,255,HT,WD,SL,OR,PS,SF,SH,SC
                       where;
                       HT is the text height parameter (value 1-255) scales the text height
                           (default 3)
                       WD is the text width parameter (value 1-255) scales the text width
                           (default 4)
                       SL is the text slant parameter (value 1-4) Determines the text slanting
                           1=upright 4=45 degrees (default 1)
                       OR is the text orientation (value 1-4). Determines which direction the text
                           will be plotted in (default 1).
                       PS is the pen speed parameter (value 1-10) Determines the speed of plotting
                           (default 10).
                       SF is a Special Function Parameter.
                       SH Shading parameter.
                       SC This is the global scaling parameter and governs the overall size of the
                           plotout.

         24   With 8 following bytes this code defines a rectangle parallel to the x and y
                       axes. PLOTMATE fills in this area according to the current shading pattern selected.

         25   VDU 25,K,X,Y is identical with PLOT K,X,Y as described above.
         29   VDU 29,X;Y; reorigins PLOTMATE.
         32-254   Printable ASCII characters.

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RETAIL PRICE LIST: JUNE 1985

Part No:

HARDWARE	PRODUCT DESCRIPTION	PRICE (EX VAT) £
1200-001/40	PLOTMATE with 40 track system disk inc. inter-connection lead, manual, pens	299.00
1200-001/80	PLOTMATE with 80 track system disk inc. inter-connection lead, manual, pens	299.00
1200-002	PLOTMATE Plastic Dust Cover	4.00
1200-003	INTERMATE (PLOTMATE interface unit, RS232 and Centronics parallel interfaces supported)	169.50

SOFTWARE		
1300-001	Printer Port System Disk 40 track + lead	14.50
1300-002	Printer Port System Disk 80 track + lead	14.50
1300-005	LINCAD Drawing Package 40 Track	49.50
1300-006	LINCAD Drawing Package 80 Track	49.50
1300-007	LINCHART Pies and Bars 40 Track	19.50
1300-008	LINCHART Pies and Bars 80 Track	19.50
1300-011	LINTRONICS Circuit Design 40 Track	19.50
1300-012	LINTRONICS Circuit Design 80 Track	19.50

PENS		Order Quantity		
		1-3	4-10	10+
1250-001	Fibre (0.3mm tip) 6 Colours per pack	8.50	8.00	7.00
1250-002	Fibre (0.3mm tip) 5 Black per pack	8.00	7.50	6.75
1250-003	Fibre (0.3mm tip) 5 Red per pack	8.00	7.50	6.75
1250-004	Overhead Transparency 6 Colours per pack	8.50	8.00	7.00
1250-005	Ball Point 6 Colours per pack	8.50	8.00	7.00
1250-006	Fibre (0.7mm tip) 6 Colours per pack	8.50	8.00	7.00

ALL PRICES ARE IN POUNDS STERLING, EXCLUSIVE OF VAT AND SUBJECT

PLOTMATE

ORDER FORM

TO LINEAR GRAPHICS LTD. Please supply the following:

PART NO.	ITEM	QTY.	COST £
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TOTAL COST (EX VAT)   ------------

Postage, Packing and Delivery
(U.K. Mainland only)   £10.00   ------------

Plus VAT @ 15%   ------------

TOTAL VALUE   ------------

NAME   --------------------------------------   POSITION   --------------------------------------

COMPANY   --------------------------------------   TEL.   --------------------------------------

ADDRESS   --

i) I enclose a cheque for £----------------- payable to Linear Graphics Ltd*
ii) Please charge to my Access/Barclaycard* Account No: --------------------
(*Delete as applicable. No Cash Please.)
                                        Card Expiry date --------------

SIGNED   --------------------------------------   DATE   --------------------

Note: A tax invoice will be despatched to you with your goods. All orders are subject to our
terms and conditions of sale, a copy of which is available on request.
VATReg. No:368-8583-87.