Higher resolution and greater versatility... 12" Computer Monitors from Lowe Electronics

A big step up! The new 12" AVT Monitors from Lowe Electronics, are designed for the serious user who intends to expand his professional system to its full capability.

Thanks to its wide bandwidth, the Monitors 12" screen comfortably accommodates an 80 column display and high resolution graphics, helpful when using a word processing package; then the special anti-glare filter and coloured phosphor tube (green-P31, or amber-P134) makes reading easier on the eye.

Like the 9", the 12" Monitors are also compatible with most popular makes of 'Micro' on the market (Commodore, Apple, Tandy, Sharp, Genie etc) and will greatly enhance their display quality.

Their attractive cream and white, sturdy metal casing and undoubted reliability makes them an eminently suitable monitor for office use. Equally the facility to connect up to ten monitors to one system in a daisy chain, plus its concealed control panel makes it the ideal candidate for school or laboratory use.

First the Lowe 9", and now the new Lowe 12" Monitors – surely still the best value available today! Ask your local dealer for a demonstration soon.

AVT 12" Monitor

AVT 12" Monitor

Specifications and Prices

Specifications:

Price:

DM 210 G (Green)

specification

Bandwidth better than 12 MHz
Resolution better than 750 lines
240V 50 Hz supply
75 ohm or high impedance input
9.5 Kg packed weight
Link through video facility
1.5V p-p input, RCA phono socket
P31 phosphor 12″ tube

NETT	VAT	TOTAL
£120·00	£18·00	£138·00

DM 210 O (Orange)

specification

Bandwidth better than 12 MHz
Resolution better than 750 lines
240V 50 Hz supply
75 ohm or high impedance input
9.5 Kg packed weight
Link through video facility
1.5V p-p input, RCA phono socket
P134 phosphor 12″ tube

NETT	VAT	TOTAL
£125·00	£18·75	£143·75

LOWE ELECTRONICS LTD.
BENTLEY BRIDGE
CHESTERFIELD ROAD
MATLOCK
DERBYSHIRE, DE4 5LE
TELEPHONE MATLOCK 2430 or 2817

Your local dealer

Sole Importers: Lowe Electronics, Chesterfield Road, Matlock, Derbyshire DE4 5LE. Tel: 0629 4995. Telex: 377482 Lowlec G.

9" MONITORS

Green

DM 091 G

The DM091G is a high quality metal cased computer monitor, incorporating a smoked anti-glare display filter for easier viewing.

Specification

Bandwidth better than 12 MHz.
Resolution better than 750 lines
240V 50 Hz supply
75π or high impedance input
5.4 Kg packed weight
Link through video facility
1.5v p-p input, RCA phono socket
Tube P31 green phosphor

White

DM 091D

The DM091D is a high quality metal cased computer monitor with a black and white display, incorporating a smoked display filter (which can be removed).

Specification

Bandwidth better than 12 MHz
Resolution better than 750 lines
240v 50 Hz supply
75π or high impedance input
5.4 Kg packed weight
Link through video facility
Tube P4 phosphor

Available from,

or Amber

DM 0910

The DM0910 is a high quality monitor with a NEW amber display to be especially relaxing. Specifications are as above.

LOWE ELECTRONICS
CHESTERFIELD ROAD, MATLOCK, DERBYSHIRE

GENIE 1

ingenious!

Complete

The **New** Genie System is supplied ready to go, with all necessary leads and reference manuals, even a tape of BASIC programs is supplied.

Extended BASIC

The Microsoft extended BASIC has many powerful features, including double precision variables, scientific functions, formatted printing, extended editing sub-commands, automatic line numbering, multiple dimensional arrays, complete string manipulation, direct access to graphics and machine language sub-routines.

Facilities

The standard EG3003 contains a key typewriter style keyboard with 10 key rollover, a dual cassette interface, internal cassette unit with level control and VU meter, power supply 625 line TV interface expansion connector and video output as standard in a single attractive case making the machine a truly versatile package.

Sound

The Genie I comes complete with its own internal sound unit which is fully programmable. The sound unit automatically switches on when sound programs are run.

Machine Code

The Genie I contains, in addition to the extended BASIC, a machine language monitor: this monitor enables the writing and execution of machine code programs direct from the Genie keyboard with no extra software required.

Facilities include modify registers, modify memory, display memory, execute (with breakpoints) and return to BASIC.

Super BASIC

The Genie I has still more BASIC commands in its 1.5K ROM extension - these commands include RENUMBER and SCREEN PRINT.

Lower Case

The Genie I has full upper and lower case, with an optional flashing cursor and auto repeat on all keys.

LOWE ELECTRONICS

CHESTERFIELD ROAD, MATLOCK, DERBYSHIRE

Specification

Extended BASIC Features

Commands

AUTO	CLEAR	CLEAR n
CLOAD	CLOAD?	CONT
CSAVE	DELETE	EDIT
LIST	NEW	RUN
SYSTEM	TROFF	TRON

Input/Output Statements

PRINT	PRINT	PRINT USING
TAB	INPUT	PRINT =#/-1
DATA	READ	INPUT =#/-1
RESTORE	INP	OUT

Program Statements

DEFDBL	DEFINT	DEFSNG
DEFSTR	DIM	LET
END	STOP	GOTO
GOSUB	RETURN	ON...GOTO
FOR	NEXT	ON..GOSUB
RESUME	ERROR	ON ERROR GOTO
RANDOM	REM	IF...THEN...ELSE
CLS	RESET	SET
POKE	PEEK	

Basic Commands and Statements

String Functions

ASC	CHR$	FRE
INKEY$	LEN	LEFT$
MID$	RIGHT$	STRS$
STRING$	VAL	

Arithmetic Functions

ABS	ATN	CDBL
CINT	COS	CSNG
EXP	FIX	INT
LOG	RND	SIN
SGN	SQR	TAN

Special Functions

ERL	ERR	MEM
POINT	POS	USR
VARPTR		

Operators

+	–	.
/	[	<
>	=	<=
=<	>=	=>
<>	><	NOT
AND	OR	

Super BASIC Functions

Basic Commands

RENUMBER
SCREEN PRINT
CURSOR FLASH
REPEAT KEY

Machine Language Monitor

ENTER ROUTINE
DISPLAY MEMORY
MODIFY REGISTERS
MODIFY MEMORY
START EXECUTION
EXIT TO BASIC

Block Diagram

Proven

The Video Genie System uses proven technology throughout, providing excellent reliability and value for money. The system was developed after a thorough study of the shortcomings of existing systems, and offers a complete, expandable system.

Fully Supported

The Microsoft level II BASIC contained in a 12K Read only Memory (ROM) is the same as that used in the TRS-80 level II, thus a very wide range of applications programs is available from many sources. Your Genie dealer has available a wide range of fully supported software from Molimerx Ltd. to complement the versatility of the EG3003.

Documentation

3 manuals, a user's guide, beginners' programming manual and BASIC reference manual are supplied with the machine. A BASIC textbook for beginners, technical manual and machine language programming guide are available.

Memory

The EG3003 has 16K of internal RAM expandable externally to 48K. 13.5K of ROM contains the Microsoft BASIC

Cassette

Interfaces are included for both the internal and an external cassette unit. Data transfer at 500 bits per second.

CPU

The Z80 microprocessor is used operating at 1.79 MHz

Display Format

16 lines by 32 or 64 character switchable, Pixel Graphics of 128 by 48 resolution can be fully mixed with text. Graphics are generated from BASIC using the SET and RESET commands.

Dimensions

Power Supply	240v 50 Hz. 25W
Dimensions	540W x 110H x 370D
Weight	10 Kg Packed
Video Output	2v p-p negative sync
External Cassette Input	1v p-p
External Cassette Output	0.3v p-p
UHF Output	625 line 50 Hz UHF

ingenious !

Available from,

LOWE ELECTRONICS

CHESTERFIELD ROAD, MATLOCK, DERBYSHIRE

9″ MONITORS

Green

DM 091 G

The DM091G is a high quality metal cased computer monitor, incorporating a smoked anti-glare display filter for easier viewing.

Specification

Bandwidth better than 12 MHz.
Resolution better than 750 lines
240V 50 Hz supply
75π or high impedance input
5.4 Kg packed weight
Link through video facility
1.5v p-p input, RCA phono socket
Tube P31 green phosphor

White

DM 091D

The DM091D is a high quality metal cased computer monitor with a black and white display, incorporating a smoked display filter (which can be removed).

Specification

Bandwidth better than 12 MHz
Resolution better than 750 lines
240v 50 Hz supply
75π or high impedance input
5.4 Kg packed weight
Link through video facility
Tube P4 phosphor

Available from,

or Amber

DM 0910

The DM0910 is a high quality monitor with a NEW amber display to be especially relaxing. Specifications are as above.

LOWE ELECTRONICS

CHESTERFIELD ROAD, MATLOCK, DERBYSHIRE

EG 602
MICROPRINTER

Value

The EG602 microprinter is an ideal match for the Genie computers, a low cost small reliable unit in a colour matched case.

The printer provides 80 column printout with a 5 x 7 matrix character format,at 30 cps.

Features

The EG602 has a full UK character set, including a £ sign. The continuous loop ribbon is self inking for long life.

A self test facility allows the printer to be checked off line and the tractor feed width is adjustable to allow many different types of stationery (including multiple copies) to be used.

Available from,

Graphics

The EG602 microprinter has full character graphics with a set of special graphic patterns. Bit image graphics are available to a horizontal resolution of 480 columns and include an internally generated repeat facility. Text may be produced at 80 or 40 columns and is fully mixable with graphic characters.

Specifications

Speed	30 cps
Paper Size	4½ - 8 inches (adjustable pinfeed)
Character Spacing	12 characters/inch
Line Spacing	6/inch character mode 9/inch graphic mode
Character Matrix	5 x 7 116 separate characters
Input	8 bit parallel Centronics compatible
Graphics	480 columns in groups of 7 dots per column
Dimensions	173 x 328 x 132
Weight	2.5 Kg
Power Supply	240v 50 Hz 15 watts

LOWE ELECTRONICS
CHESTERFIELD ROAD, MATLOCK, DERBYSHIRE

Technical Specification

1	+ 8V		semi-regulated, max 2A
2	+ 16V		semi-regulated, max 500mA
3	NC		
4	VIØ	L O/C	
5	VI1	L O/C	
6	VI2	L O/C	
7	VI3	L O/C	vectored interrupt line Ø line 7
8	VI4	L O/C	
9	VI5	L O/C	
10	VI6	L O/C	
11	VI7	L O/C	
12	NMI	L O/C	Non-maskable interrupt
13	NC		
14	NC		
15	NC		
16	NC		
17	NC		
18	SDSB/	L O/C	Status signals and control signals disable
19	CDSB		
20	GND		
21	REFSH	L	Dynamic Ram refreshing signal
22	ADSB/	L O/C	Address lines and data output disable
23	DOSB		
24	Ø		Master clock, 1.7MHz
25	NC		
26	PHLDA	H	Processor HOLD acknowledge
27	NC		
28	NC		
29	A5	H	Address line 5
30	A4	H	Address line 4
31	A3	H	Address line 3
32	A15	H	Address line 15
33	A12	H	Address line 12
34	A9	H	Address line 9
35	DO1		Data out bit 1
36	DOØ		Data out bit Ø
37	A1Ø		Address line 1Ø
38	DO4		Data out bit 4
39	DO5		Data out bit 5
40	DO6		Data out bit 6
41	DI2		Data in bit 2
42	DI3		Data in bit 3
43	DI7		Data in bit 7
44	SM1	H	Op-code fetch cycle
45	SOUT	H	I/O out control signal
46	SINP	H	I/O in control signal
47	SMEMR	H	Memory read cycle
48	SHLTA	H	Process halt acknowledge
49	CLOCK		2MHZ, 50% duty cycle
50	GND		
51	+ 8V		
52	16V		Semi-regulated, max 100mA
53	GND		
54	NC		
55	NC		
56	NC		
57	NC		
58	NC		
59	NC		
60	NC		
61	NC		
62	NC		
63	NC		
64	NC		
65	MREQ		Memory request cycle
66	NC		
67	PHANTOM	L O/C	Phantom enable for bootstrapping
68	MWRT	H	Memory write control signal
69	NC		
70	GND		
71	NC		
72	NC		
73	INT	L O/C	Primary interrupt request
74	HOLD	L O/C	Bus hold control signal
75	RESET	LO/C	Reset control signal
76	NC		
77	PWR	L	Processor write control signal
78	PDBIN	H	Processor read control signal
79	AØ	H	Address line Ø
80	A1	H	Address line 1
81	A2	H	Address line 2
82	A6	H	Address line 6
83	A7	H	Address line 7
84	A8	H	Address line 8
85	A13	H	Address line 13
86	A14	H	Address line 14
87	A11	H	Address line 11
88	DO2	H	Data out bit 2
89	DO3	H	Data out bit 3
90	DO7	H	Data out bit 7
91	DI4	H	Data in bit 4
92	DI5	H	Data in bit 5
93	DI6	H	Data in bit 6
94	DI1	H	Data in bit 1
95	DIØ	H	Data in bit Ø
96	SINTA	H	Interrupt acknowledge
97	SWO		Processor write cycle
98	NC		
99	POC	L	Power on clear signal
100	GND		

S100 BUS

The EG3013 S100 bus connections are shown on the left of the page. This bus system can be used to connect a wide range of other peripheral equipment to your Video Genie System.

Parallel Printer Interface

The EG3013 provides an 8 bit parallel printer interface to Centronics standards

PIN	SIGNAL	PIN	SIGNAL
1	DATA STROBE	2	GND
3	DØ	4	GND
5	D1	6	GND
7	D2	8	GND
9	D3	10	GND
11	D4	12	GND
13	D5	14	GND
15	D6	16	GND
17	D7	18	GND
19	NC	20	GND
21	BUSY	22	GND
23	OUT OF PAPER	24	GND
25	UNIT SELECT	26	NC
27	NC	28	NC
29	NC	30	NC
31	NC	32	NC
33	NC	34	NC

RS232 Interface (optional)

The RS232 interface uses the AY-3-1015d UART and features switch selectable baud rates to 2400 baud, the unit also has switch selectable start stop and parity bits. The interface may be switched to drive an RS232 printer directly from the LLIST and LPRINT commands.

PIN	SIGNAL	DESCRIPTION	
1	PGND	Protective Ground	
2	TXD	Transmit Data	(OUT)
3	RXD	Receive Data	(IN)
4	RTS	Request-to-send	(OUT)
5	CTS	Clear-to-send	(IN)
6	DSR	Data Set Ready	(IN)
7	SGND	Signal Ground	
8	CD	Carrier Detect	(IN)
20	DTR	Data Terminal Ready	(OUT)

Floppy Disk Connection

The EG3013 provides facilities for connecting up to four single sided (or two double sided) disk drives of 35 40 or 77 (or 87) tracks. The interconnections are to Shugart SA400 standards

PIN	SIGNAL	PIN	SIGNAL
1	GND	2	NC
3	GND	4	NC
5	GND	6	NC
7	GND	8	INDEX/SECTOR
9	GND	10	DRIVE SELECT 1
11	GND	12	DRIVE SELECT 2
13	GND	14	DRIVE SELECT 3
15	GND	16	MOTOR ON
17	GND	18	DIRECTION SELECT
19	GND	20	STEP
21	GND	22	WRITE DATA
23	GND	24	WRITE GATE
25	GND	26	TRACK ØØ
27	GND	28	WRITE PROTECT
29	GND	30	READ DATA
31	GND	32	DRIVE SELECT 4
33	GND	34	NC

LOWE ELECTRONICS
CHESTERFIELD ROAD, MATLOCK, DERBYSHIRE

EG 3013

Expandability

The Video Genie System is designed to expand, the EG3013 expander box allows the Genie owner to do exactly that, it contains a selection of interfaces, allowing the connection of, extra RAM, disk drives, printers, and S100 cards.

S100 Bus

The EG3013 has a two slot S100 motherboard allowing the systm to use cards from the wide range of S100 cards available. The bus is self powered and can be extended. Two S100 RAM cards are available for use with this bus, which is ideal for use with custom designed interfaces.

RAM Cards

Two S100 memory cards are available type EG3015, in 16K or 32K versions. These cards use dynamic memory and are intended for use with the EG 3013 though they are bank selectable, and equally useful with other S100 systems.

Printer Interface

The expansion box provides facilities for the connection of a parallel input printer (via a Centronics standard interface). An optional cable the EG3106C is available to connect the EG3013 to a printer using an Amphenol type input connector.

Floppy Disk Controller

The main purpose of the EG3013 is to provide facilities for the connection of a floppy disk system. The Expansion box thus provides facilities for the connection of up to four EG400 or similar (Shugart compatible) minidisk drives. Maximum storage (using four 87 track drives) is approximately 890K formatted. A cable type EG3018C (four drives) or type DDC (two drives) is required to connect the disk drives to the EG3013.

RS232

The EG3013 may be supplied with an RS232 serial interface, this can be bidirectional, (if software driven), and may be switched to output only, for use with a serial printer via the LLIST and LPRINT commands.

Accessories

The EG3013 comes complete with users manual and intrerconnecting lead to the Video Genie System.

Available from,

LOWE ELECTRONICS
CHESTERFIELD ROAD, MATLOCK, DERBYSHIRE

EG 400

Disk Drive

Floppy disk systems for the Video Genie System provide far more than mass storage. The major advantage of a disk system is its speed, which gives very fast saves and loads as well as full ramdom access file handling.
The Video Genie disk system can use many of the different Disk Operating Systems (DOS's) available, such as TRS-DOS, VTOS, Newdos plus and Newdos 80. Available from many sources are powerful applications programs to match the system. Other available facilities include CP/M and programming languages such as FORTRAN, Pascal, APL, Micro Cobol, and Forth.

Available from,

The EG 400 is a 35 track mini-disk drive matching the Video Genie System. The drive connects directly to the EG3013 expansion box via an EG3018c or DDC cable. The unit has address selection so that up to four drives may be daisy chained together.

The storage capacity of the EG 400 is 109.4K per drive (unformatted) and the unit is complete with power supply. The interconnections are to Shugart standards.

Specifications

Capacity	109.4 unformatted
Transfer rate	125K bits per second
Average latency	100mS
Recording Density	2581 BPI inside track

LOWE ELECTRONICS
CHESTERFIELD ROAD, MATLOCK, DERBYSHIRE

EG 3008
GENIE II

The Macro computer

Proven

The Business Genie uses only proven technology throughout, providing excellent reliability and value for money. The Genie II was developed after a thorough investigation into the shortcomings of existing business machines and provides an excellent cost effective solution.

Software

The Genie II is supplied with an exclusive 13K BASIC in ROM, containing the renowned Microsoft level II BASIC extended to include professional features, terminal facilities and special function keys.

Keyboard

The Genie II has a 71 key business keyboard, including a full typewriter style section, numeric keypad and four special function keys. Lower case is standard, with a flashing cursor and software auto repeat.

Applications

The Genie II uses Microsoft level II BASIC, so literally thousands of programs are available for every purpose.

A suite of business packages has been developed by a British software house specifically for the Genie II; these include sales purchase and nominal ledger systems and packages for stock control and payroll.

These packages are simple to operate and written to a very high standard. Full details are available separately.

Value

The Genie II business computor has been developed from the top selling Video Genie System, and offers equal value for money. The Genie II is the basis of a modular expansible system.

The GENIE II

A GIANT LEAP FOR MICRO — BUSINESS SYSTEMS

LOWE ELECTRONICS
CHESTERFIELD ROAD, MATLOCK, DERBYSHIRE

Technical Specification

Expansion Units

Disk Drives

As well as the obvious advantage of mass-storage, the addition of the disk system to the Genie means much faster access to other languages and full random access file handling. Up to 4 drives can be used on a system.

Expander

The expansion box unleashes the full possibilities of the Genie. It contains a selection of interfaces, allowing the connection of up to 48K RAM, 4 disk drives, printers and S100 cards.

Monitor

The EACA monitor is available in two versions, with black and white or a restful green screen in an attractive matching style. An EACA monitor is the final item required to complete your system.

Capability

The GENIE system can be expanded to give one million characters of disk storage, enough for all but the largest applications. A wide range of printers can be employed with the system, including daisywheel types for word processing applications.

Technical

Cassette

Interfaces are included for an external cassette unit. Data transfer at 500 bits per second.

Display

16 Lines by 32 or 64 characters switchable, Pixel Graphics of 128 by 48 resolution can be fully mixed with text. Graphics are generated from BASIC using the SET and RESET commands.

CPU

The EG3008 uses the industry standard Z80 microprocessor.

Interface

The EG3008 has a 50 way universal interface bus for connection to the EACA range of peripherals.

Memory

The EG3008 has 16K of internal RAM expandable externally to 48K. 13.5 of ROM contains the Microsoft Business BASIC.

Specification

Power Supply	240v 50Hz. 25W
Dimensions	540W x 110H x 370D
Weight	10 Kg. Packed
Video Output	2v p-p negative sync
External Cassette Input	1v p-p
External Cassette Output	0.3v p-p

Now with TV interface !

Available from,

LOWE ELECTRONICS
CHESTERFIELD ROAD, MATLOCK, DERBYSHIRE

GENIE SYSTEM PRICE LIST

		Net	Inc Vat
GENIE COMPUTERS			
EG3003	The NEW Genie 1 computer.	299.00	343.85
EG3008	Genie II professional Genie.	310.00	356.50
MONITORS			
EG100	12 inch b/w monitor	69.00	79.35
EG101	12 inch green phosphor monitor.	79.00	90.85
DM-091D	High quality wide bandwidth 9inch B/W monitor with display filter	90.00	103.50
DM-091G	9 inch high quality green phosphor monitor with display filter	99.00	113.85
EXPANSION UNITS			
EG3013	Expander box including 16k card and S100 bus system.	215.00	247.25
EG3013/W	Expander box with 16k card S100 card and RS232 interface	245.00	281.75
EG3014	NEW 16k expander box including disk controller and 16k RAM	199.00	228.85
EG3014	NEW expander box with 32k of memory	213.00	244.95
EG3015/16	16k S100 RAM card for EG3103 bank selectable	95.00	109.25
EG3015/32	32k S100 RAM card for EG3013 or other systems bank selectable	130.00	149.50
EG400	40 track single/double density disk drive	220.00	253.00
EXPANSION BOX OPTIONS			
EG3020	RS232 interface internal fitting in EG 3014 UART driven bidirection	39.60	45.54
EG3021	Double density adaptor for EG3014 (may be used with EG3013).	72.00	82.80
EG3022	S100 adaptor for EG3014 two slots IEEE twin bus specification	63.80	73.37
SYSTEM CABLES			
EG3016C	Parallel printer cable for Expander box.	19.00	21.85
EG3018C	4 way disk drive cable	34.60	39.79
DDC	Two way disk cable.	21.00	24.15
GENIE ACCESSORIES			
CB	Colour board for Geniel/11 requires internal fitting	36.00	41.40
SK2	Sound kit for Geniel/11 requires internal fitting	8.20	9.43
FRED	Music systhesiser external fitting specify disk or tape software	44.40	51.06
LCK	Lower case unit (internal fitting) for early Genie Systems	29.80	34.27
CASSETTE	Audio cassette recorder mains/batt suitable for use as 2nd cassette	17.40	20.01
GENIE INTERFACES			
M103	Non originate modem	155.00	178.25
50/40	Interface to connect Tandy peripherals to the Genie bus	34.00	39.10
EG3016	Parallel printer interface for Genie keyboard.	38.00	43.70
EG3023	Interface to connect Genie peripherals to the TRS 80 model 1.	18.40	21.16
PCR-81	RS 232 interface for Genie keyboard, includes software.	47.60	54.74
VGBus	Bus connector (50 way) for Genie bus.	4.20	4.83
PAPER			
FF8	Fanfold paper 11x8 inches for EG602 and GP80	15.00	17.25
FF9.5	11x9 inch fanfold paper for Mx-80 and Centronics 737/739	14.00	16.10
RP	8.5 inch roll paper A quality for friction feed printers	2.40	2.76
COVERS			
CV1	Cover for EG3003/3008.	5.00	5.75
CV3	Cover for 9 inch monitors DM-091 series	4.20	4.83
CV5	Cover for Centronics printers	4.20	4.83
CV6	Cover for 12 inch monitors (EG100/101)	6.20	7.13
MEDIA			
40Disk/10	Box of 10 40 track double density diskettes suitable for Genie.	21.80	25.07
C12/10	C12 cassettes specially manufactured for computer use	4.00	4.60
DCase	Diskette case for minidiskettes	1.80	2.07
MANUALS			
VGM	Spare set of users manuals for the EG3003	5.00	N/A
VGTM	Service manual for EG3003	5.00	N/A
VGProg	Instructional programming manual for Genie.	5.00	N/A
VG11M	Genie 11 users manuals	5.00	N/A
PRINTERS			
EG602	Genie system microprinter	210.00	241.50
730-2	Centronics 730-2 parallel interface 80/132 column printer.	377.20	433.78
730-4	Serial version of above RS232 input	414.00	476.10
737-2	Centronics 80/132 col printer 3 way paper feed fully proportional	407.00	468.05
CC1	Cable required to give standard Amphenol type input for 737/730.	17.00	19.55
PRINTER RIBBONS			
CR	Centronics Zip pack type ribbons (pack of 3)	10.80	12.42
SOFTWARE			
PURCH	Tridata purchase ledger system.	175.00	201.25
SALES	Tridata sales ledger system.	175.00	201.25
SYSTEM DESK			
SD1	Knock down Genie system desk specially designed for Genie system	81.40	93.61

LOWE ELECTRONICS

CHESTERFIELD ROAD, MATLOCK, DERBYSHIRE

GENIE MONITORS

EG101

The EG101 is a 12" green display monitor using a true green phosphor tube for best results. Its case is colour matched to the Genie computers and includes a carrying handle.

specification

Bandwidth better than 7 MHz.
Resolution better than 700 lines at centre
240V 50 Hz supply 30W
75 π input 1.5V p-p video
6.4 Kg 380W x 290H x 300D

EG100

The EG100 is a 12" black and white monitor designed to match the Genie computer systems, in an attractive colour keyed case.

specification

Bandwidth better than 7 MHz.
Resolution better than 700 lines at centre
240v 50 Hz supply 30W
75 π input 1 5V p-p video
6.4 Kg 380W x 290H x 300D

Available from,

Value

The Genie monitors are especially designed to provide excellent value for money. They give a good clear display and may be used with many other computer systems since they have a standard video input.

The Genie monitors offer much better definition than that obtained from a domestic television and are an excellent first step towards a complete system.

LOWE ELECTRONICS
CHESTERFIELD ROAD, MATLOCK, DERBYSHIRE

CODE	SYM-BOL	CODE	SYM-BOL	CODE	SYM-BOL	CODE	SYM-BOL	CODE	SYM-BOL	CODE	SYM-BOL	CODE	SYM-BOL	CODE	SYM-BOL
0		32	SP	64	@	96	NON DISPLAYABLE CHARACTERS	128	PIXEL CHARACTERS	160	PIXEL CHARACTERS	192	CHARACTER COMPRESSION CODES	224	CHARACTER COMPRESSION CODES
1		33	!	65	A	97		129		161		193		225	
2		34	"	66	B	98		130		162		194		226	
3		35	#	67	C	99		131		163		195		227	
4		36	$	68	D	100		132		164		196		228	
5		37	%	69	E	101		133		165		197		229	
6		38	&	70	F	102		134		166		198		230	
7		39	'	71	G	103		135		167		199		231	
8	BS	40	(	72	H	104		136		168		200		232	
9		41	)	73	I	105		137		169		201		233	
10	LF	42	*	74	J	106		138		170		202		234	
11	FF	43	+	75	K	107		139		171		203		235	
12	FF	44	,	76	L	108		140		172		204		236	
13	CR	45	—	77	M	109		141		173		205		237	
14	CURON	46	.	78	N	110		142		174		206		238	
15	CUROF	47	/	79	O	111		143		175		207		239	
16		48	0	80	P	112		144		176		208		240	
17		49	1	81	Q	113		145		177		209		241	
18		50	2	82	R	114		146		178		210		242	
19		51	3	83	S	115		147		179		211		243	
20		52	4	84	T	116		148		180		212		244	
21		53	5	85	U	117		149		181		213		245	
22		54	6	86	V	118		150		182		214		246	
23	32/64	55	7	87	W	119		151		183		215		247	
24	[CL]	56	8	88	X	120		152		184		216		248	
25	[CR]	57	9	89	Y	121		153		185		217		249	
26	[CD]	58	:	90	Z	122		154		186		218		250	
27	[CU]	59	;	91	↑	123		155		187		219		251	
28	[HOM]	60	<	92	↓	124		156		188		220		252	
29		61	=	93	←	125		157		189		221		253	
30	ERL	62	>	94	→	126		158		190		222		254	
31	ERF	63	?	95	—	127		159		191		223		255	

Screen memory:- 15360-16383
3C00H-3FFFH

Format:- 16 lines of 64 characters, selec[illegible]ble to 32 characters.

Notes:- Character codes from 0 to 31 are control codes. Notable ones are; 14-Cursor on, [illegible]5-Cursor off, 23-32/64 character select, 29-Reset cursor to [illegible]rt of line, 30-Erase to end of line, 31-Erase to end of frame. [illegible]el graphics are accessed by codes 129 to [illegible]1 inclusive and the remaining 64 are used as TAB generator[illegible] 0 spaces to 63 spaces for space commission in pro[illegible]ram[illegible].

VIDEO GENIE SOUND KIT DRIVER PROGRAM

This program should be entered exactly as shown below, especially line 30). Since the sound generation routine modifies itself, this sound programs should be saved before being run.

```
10 CLEAR 100
20 DATA 205  , 127 , 10 , 14 , 255 , 30 , 7 , 62 , 1 , 237 ,121 ,
69 ,  16 , 254 , 62 , 2  , 237 , 121 , 69 , 16 , 254 , 175 , 29 ,
32 , 4 , 37 , 32 , 233 , 201 , 175 , 175 , 175 , 175 , 24 , 228
30 MCPROG$="123456789*123456789*123456789*123456"
40 A = VARPTR ( MCPROG$ ) + 1 : A1 = PEEK(A) : A2 = PEEK(A+1)
50 AD = A2 * 256 + A1
60 FOR A = AD TO AD + 34 : READ D : POKE A , D : NEXT A
70 POKE 16526 , A1 : POKE 16527 , A2
```

The routine is used in the following manner,

Sound is called by;

X=USR(X)

Where the variable X determines the pitch and duration of the sound produced, and has the form;

X=256*(duration)+(pitch)

Where "duration" is an integer between 1 and 127, (127 gives the longest duration); "Pitch" is also an integer between 1 and 127, the values required to produce a musical scale are given below.

NOTE	VALUE	
C	252	middle C
C#	237	
D	224	
D#	211	
E	199	
F	187	
G	166	
G#	156	
A	147	
A#	139	
B	131	
C	123	

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		Net	Inc Vat
GENIE COMPUTERS			
EG3003	Genie 1	299.00	343.85
EG3008	Genie 11	299.00	343.85
EG3200	Genie 111 profesional computer.	1699.00	1953.85
MONITORS			
EG100	12 inch b/w monitor	69.00	79.35
EG101	12 inch green phosphor monitor.	79.00	90.85
DM-091D	High quality wide bandwidth 9inch B/W monitor with display filter	95.00	109.25
DM-091G	9 inch high quality green phosphor monitor with display filter	99.00	113.85
DM-091O	9 inch high quality monitor with amber tube	105.00	120.75
DM-210G	As above but with 12 inch green tube.	120.00	138.00
DM-210 O	As above with 12 inch AMBER tube	125.00	143.75
EXPANSION UNITS			
EG3013/W	Expander box with S100, 16k memory card and RS232 interface	245.00	281.75
EG3014	Expander box including 16k RAM printer interface and disk control	199.00	228.85
EG3014	As above fitted 32k of memory	213.00	244.95
EG3015/16	16k S100 RAM card for EG3103 bank selectable	95.00	109.25
EG3015/32	32k S100 RAM card for EG3013 or other systems bank selectable	130.00	149.50
EG400T	NEW 40 track single/double density disk drive up to 184k storage	220.00	253.00
EG401AT	NEW dual 40 track disk unit up to 368k formatted storage	375.00	431.25
EXPANSION BOX OPTIONS			
EG3020	RS232 interface for EG3014 UART driven bidirectional	39.60	45.54
EG3021	Double density adaptor for EG3014.	72.00	82.80
EG3022	S100 adaptor for EG3014 two slots IEEE twin bus specification	63.80	73.37
SYSTEM CABLES			
EG3016C	Parallel printer cable for Expander box.	19.00	21.85
EG3018C	4 way disk drive cable	34.60	39.79
DDC	Two way disk cable.	21.00	24.15
GENIE ACCESSORIES			
SK2	Internal sound unit for Genie 11	8.20	9.43
FRED	Music systhesiser, external fitting, complete with software	44.40	51.06
CASSETTE	Audio cassette recorder mains/batt suitable for use as 2nd cassette	17.40	20.01
GENIE INTERFACES			
M103	Non originate modem	155.00	178.25
50/40	Interface to connect Tandy peripherals to the Genie bus	34.00	39.10
EG3016	Parallel printer interface for Genie keyboard.	38.00	43.70
EG3023	Interface to connect Genie peripherals to the TRS 80 model 1.	18.40	21.16
PCR-81	RS 232 interface for Genie keyboard, includes software.	47.60	54.74
VGBus	Bus connector (50 way) for Genie bus.	4.20	4.83
LE19 EPROM SYSTEM			
LE19	EPROM unit for older Genie systems	26.50	30.47
EP1	EPROM for LE19 with all GENIE 1 facilities.	12.00	13.80
EP2	EPROM for LE19 with improved machine language monitor and renumber.	12.00	13.80
COVERS			
CV1	Cover for EG3003/3008.	5.00	5.75
CV3	Cover for 9 inch monitors DM-091 series	4.20	4.83
CV6	Cover for 12 inch monitors (EG100/101)	6.20	7.13
CONSUMABLES			
FF8	8x11 inch fanfold paper for EG602 printer	15.00	17.25
EG602R	Spare ribbons for EG602 printer	6.00	6.90
40Disk/10	Box of 10 40 track double density diskettes suitable for Genie.	21.80	25.07
C12/10	C12 cassettes specially manufactured for computer use	4.00	4.60
DCase	Diskette case for minidiskettes	1.80	2.07
MANUALS			
VGM	Spare set of users manuals for the EG3003	5.00	N/A
VG1TM	Technical manual for Genie I/II	10.00	N/A
EG3014TM	Technical manual for the EG3014	10.00	N/A
VGProg	Instructional programming manual for Genie.	5.00	N/A
VG11M	Spare set of users manuals for Genie II.	5.00	N/A
PRINTERS			
EG602	Genie system microprinter	210.00	241.50
SOFTWARE			
PURCH	Tridata purchase ledger system.	175.00	201.25
SALES	Tridata sales ledger system.	175.00	201.25
STOCK	Tridata stock control package	175.00	201.25
SYSTEM DESK			
SD1	Knock down Genie system desk specially designed for Genie system	81.40	93.61

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Video Genie Options

Sound Kit

A simple internal amplifier/speaker with external volume control allowing the Video Genie System to produce the sound effects included in many programs (such as Android Nim).

Price £8.50(+ VAT) fitting approx. £5.00

Colour Kit

An internally fitted option for the Video Genie producing eight colours at 64 x 32 resolution which may be mixed with normal text (in green) and graphics (in red).

The colour board operates directly into a PAL colour TV or monitor - colours are produced using a simple extension to the BASIC software - the CSET command.

Price £37.50 (+ VAT) fitting approx. £19.00

Lower Case Kit

An internally fitted P.C.B. giving full lower case (including £ sign) - supplied complete with the required software.

Price £28.50 (+ VAT) fitting approx. £7.50

Music Synthesiser

FRED is a "black box" plugging directly onto the Genie expansion bus which produces music (in stereo)!

The System produces up to 6 simultaneous tones into two channels of software selectable pitch timbre and envelope. Volume and tempo are also software controlled.

FRED is supplied complete with a manual, compiler software and sample tune.

Price £45.00 (+ VAT)

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EXPANDER

Expandability

Expandability! the Genie computers are designed with expansion in mind; they can handle up to 48K RAM and 1.4 million characters of disk storage. The EG3014 is the key to this expansion - it contains a parallel printer interface, disk controller, 16K of expansion memory and has RS232, S100 and double density available as options.

Memory

The EG3014 is supplied with 16K RAM which can easily and cheaply be expanded to 32K by plugging in industry standard 4116 memory IC's. This gives a total system capacity of 48K RAM (the Genie computer contains 16K).

Available from,

Disks

Disk drives give fast access to a mass of information and rapid program loading. A fully expanded Genie system can store the contents of 6 average 100 page paperback books on disk.

The EG3014 supports up to 4 minifloppy disk drives - these can be used in double density mode with the EG3021 adaptor to give 184K of storage with each 40 track EG400 drive and over 368K with an 80 track drive.

A cable type DDC (two drives) or EG3018C (four drives) is required to connect the disk units.

Printer

The EG3014 contains a parallel printer interface to the widely used Centronics standard. This allows the connection of many types of printer, including the Genie System printer - the EG602.
A cable type EG3016C is required to connect the EG602 or any parallel input printer.

Accessories

The EG3014 is supplied complete with operating manual and connecting cable for the Genie.

Dimensions	255 x 110 x 425
Supply	240V 50 Hz 25W
Disk Interface	SA400 compatible
Printer Interface	Centronics Parallel Compatible

The EG3014 is suitable for use with the Video Genie System, Genie 1 and Genie 11.

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EXPANSION OPTIONS

The EG3020 serial interface allows the Genie owner to communicate with other computers, use serial printers and telephone modems; in fact to talk to the world.

The EG3020 is a bidirectional RS232 serial interface for the EG3014. It is easily fitted inside the EG3014 case and has switches allowing baud rate selection between 110 and 19200 band. Word length is selectable between 5 and 8 bits. Parity and stop bit settings are switch selectable.

The EG3020 can be switched to directly drive a serial printer from the LPRINT and LLIST commands.

EG3020

The EG3021 double density adaptor plugs simply into the EG3014 and immediately doubles the storage capacity of disk drives attached to the system without loosing single density operation. A single EG400 disk drive gives around 200K of storage in double density mode, and total system capacity is 1.4M bytes.

The EG3021 is easily fitted to the EG3014 expander and may also be used with the EG3023.

EG3021

The EG3022 bus adaptor gives full S100 capability to the Genie computers. The EG3022 supports any two S100 cards from the huge range available.

Internal Genie memory can be disabled allowing a full 64K S100 system to be created.

The EG3022 fits simply and quickly into the EG3014 - full fitting instructions are supplied.

EG3022

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