

overt at brueggie left zedler to reduce a chance of being a victim of your own greed and a sufficient incentive exists for the state to invest more in its own infrastructure to increase its revenues and to improve its services without relying on outside providers and to take advantage of the opportunities available to it by increasing its revenues and not necessarily end up with greater costs to the state or the community who may not be compensated for this. It should be noted that GEMINI will continue to offer the same service to all clients who will be well advised to take advantage of the new opportunities available to them.



# DISTRIBUTOR PRICE LIST

Effective 1st May, 1987

Issue 28

**Gemini**  
*Computer Systems Limited*

Springfield Road, Chesham, Bucks HP5 1PU  
Telephone: (0494) 791010 Telex 837788

## INTRODUCTION

It has been necessary to produce a price list this month in order to correct a number of mistakes that appeared in issue 27. In particular, page 9 of the previous list was incorrectly laid out but there were 1 or 2 other omissions including GM860. Hopefully, this revision will resolve these problems.

The power supply saga unfortunately continues to afflict the GM843. We seem to have resolved all of the remaining problems on procurement of the switch modes on page 6 with the exception of one. As an interim measure we are making available to customers (at a loss!) a Boschert power supply with metalwork which converts it to the GM843 form factor. Unfortunately, the pin outs are different and there is little we can do to remedy this until the replacement for the VMS 2850 arrives in June or July. The new device will be size wise somewhere between the GM843 and the GM817 but it will be available in metalwork to convert it to a standard GM843 form factor. However, whichever version we supply it will at least comply to the standard GM843 pin out.

I understand from comments from some of our dealers that the photograph of a frame on page 5 suggested that there was not enough room for the PLUTO 2. This is not the case as the new design is somewhat deeper than the original GM610 with the side plates being 13.75" long.

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PART NO.

DESCRIPTION

DC 1

DC 2

END USER

GM7000 series CHALLENGER SYSTEMS

The Challenger series of super micros now feature an extended range of Winchester disc drives. At the top end of the spectrum we can supply 140 and 142 MByte systems whilst, at the same time, we have retained the 20 MByte GM7001 at a reduced price.

All the prices on this range have changed, mainly as a result of recent dramatic shifts in the costings of the Winchester drives themselves. The 40 MByte unit now features a half height N.E.C. drive which is marginally slower than the 45 MByte MiniScribe it replaces. However, there has been a big price reduction which will more than offset any slight degradation of performance. The 70 MByte drives will continue to be of either Micropolis or MiniScribe origin but, once again, you will see a significant price reduction although this time it is not accompanied by any change in performance.

GM7001	Challenger 20 20 MB Win/1.2 MB Floppy	2500.00	2850.00	3575.00
GM7007	Challenger 40 40 MB Win/1.2 MB Floppy	2950.00	3350.00	4200.00
GM7008	Challenger 40 40 MB Win/58 MB tape/1.2 MB Floppy	3950.00	4525.00	5650.00
GM7003	Challenger 70 70 MB Win/1.2 MB Floppy	3750.00	4325.00	5400.00
GM7006	Challenger 70 70 MB Win/58 MB tape/1.2 MB Floppy	4800.00	5480.00	6850.00
GM7009	Challenger 140 142 MB Win/1.2 MB Floppy	4350.00	4950.00	6200.00
GM7010	Challenger 140 142 MB Win/58 MB tape/1.2 MB Floppy	5400.00	6150.00	7700.00

GM6000 series PERIPHERALS FOR 68K-BUS and CHALLENGER

GM6001	68K WYSE 50 Terminal	415.00	475.00	595.00
GM6002	20" Mitsubishi CAD Monitor (use with GM2006)	2600.00	2600.00	3250.00
GM6003	14" Graphics Monitor (use with GM2005 and GM2007)	695.00	695.00	850.00
GM6004	14" Microvitec Monitor (use with GM2009)	TBA	TBA	TBA

GM2000 series 68K-BUS BOARDS

GM2001	68K Quad Serial Board	175.00	200.00	250.00
GM2002	68K 1 MByte RAM Board (expandable with 1 x GM3002)	525.00	600.00	750.00
GM2003	68K Prototyping Board	35.00	40.00	50.00
GM2004	68K V21/V23 MODEM Board	TBA	TBA	TBA
GM2005-1	68K Standard Graphics Board (single screen version)	630.00	720.00	900.00
GM2005-2	68K Standard Graphics Board (twin screen version)	700.00	800.00	1000.00
GM2005-4	68K Standard Graphics Board (four screen version)	840.00	960.00	1200.00
GM2006	68K CAD Graphics Board	875.00	1000.00	1250.00
GM2007	68K Artist Graphics Board	1050.00	1200.00	1500.00
GM2008	68K Kaleidoscope Graphics Board	2975.00	3400.00	4250.00
GM2009	68K Non interlaced version of GM2005 Graphics Board	840.00	960.00	1200.00
GM2010	68K IEEE Board	175.00	200.00	250.00
GM2011	68K A - D/D - A Multi I/O Board	495.00	570.00	710.00
GM2015	68K Synchronous Serial Board	TBA	TBA	TBA

GM3000 series 68K-BUS COMPATIBLE BOARDS

GM3001	68K CPU/Backplane	1225.00	1400.00	1750.00
GM3002	68K 1 MByte RAM Daughter Board	405.00	460.00	575.00
GM3004	Carpenter JETPAK (Maths Co-Processor)	505.00	505.00	595.00
GM3005	68K-BUS Backplane for 19" Rack	TBA	TBA	TBA

GM4000 series OPERATING SYSTEMS and RELATED PRODUCTS AVAILABLE from GEMINI

GM4001	CP/M 68K (complete with DR 'C' Compiler)	205.00	235.00	295.00
GM4002	68K BOS Operating System	300.00	500.00	750.00
GM4003	68K UCSD P-System (+ Pascal/Advanced Dev. Toolkit)	345.00	395.00	495.00
GM4004	Mirage Operating system	315.00	360.00	450.00

GM4100 series APPLICATION PACKAGES for the CHALLENGER AVAILABLE from THIRD PARTIES

GM4101	InterCAD single user CAD package	1200.00	N/A	2000.00
GM4102	InterCAD multi user CAD package (3 terminal)	3000.00	N/A	5000.00
GM4103	InterCAD multi user CAD package (no limit to number of users)	4800.00	N/A	8000.00
GM4104	GENISYST running on Challenger multi user	TBA	N/A	1500.00

PART NO.	DESCRIPTION	DC 1	DC 2	END USR
<u>GM4200 series MIRAGE RELATED SOFTWARE AVAILABLE from MARSTON SPURRIER</u>				
GM4201	APL.68000	840.00	960.00	1200.00
GM4202	APL.68000 Runtime Package	100.00	125.00	N/A
GM4203	Swifte-Pascal	263.00	300.00	375.00
GM4204	Swifte-Fortran	455.00	520.00	650.00
GM4205	Swifte-Basic	277.00	315.00	395.00
GM4206	TRAP ISAM File Subsystem	179.00	205.00	255.00
GM4207	Lattice C	350.00	400.00	500.00
GM4208	CP/M 68K under Mirage	105.00	120.00	150.00
GM4209	Microgrid (for networking with GM2010)	175.00	200.00	250.00
GM4210	MITS (Mirage Intelligent Terminal Support)			
	Mirage system and up to 3 PCs	315.00	360.00	450.00
	Mirage system and up to 12 PCs	420.00	480.00	600.00
GM4211	Mirage Sampler/Demo	10.00	N/A	N/A
GM4212	Special dealer pack comprising: Mirage, Swifte-Basic, Swifte-Pascal, Swifte-Fortran, TRAP and Window Text Processor - one set per dealer.	Contact Marston Spurrier		
GM4213	OxWord	275.00	315.00	395.00
GM4214	OxCalc	275.00	315.00	395.00
GM4215	OxSys Suite	415.00	475.00	595.00
GM4216	Sahara Software for Genisyst inc. TRAP, Run Time Module	TBA	TBA	TBA

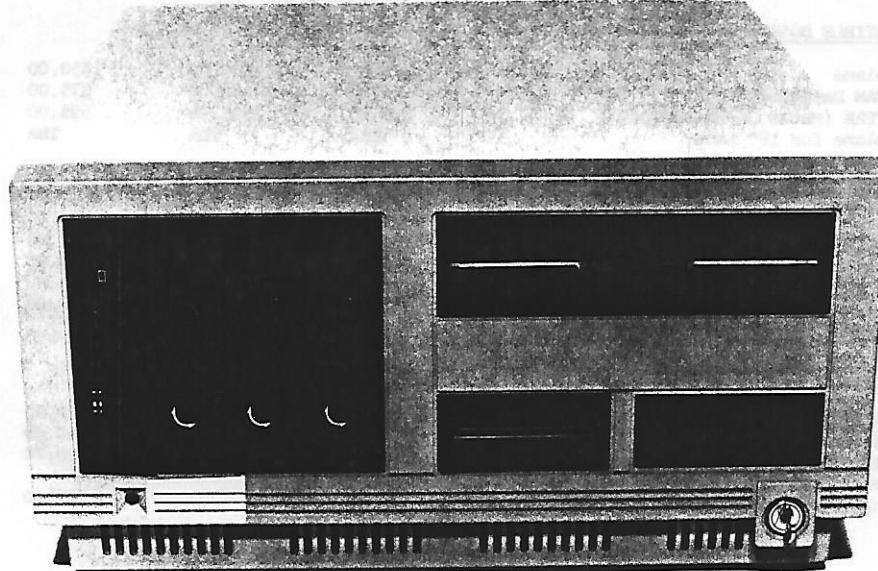
MARSTON SPURRIER, UNIT 5.11, THE BONDWAY BUSINESS CENTRE, 59/71 THE BONDWAY, LONDON, SW8 SQL: tel. 01 735 3806

GM5000 series ACCESSORIES for the 68K-BUS and CHALLENGER

GM5001	68K 19" Frame Assembly	TBA	TBA	TBA
GM5002	Cable for connecting GM2001 to GM6001	10.00	N/A	14.00
GM5003	8 pin DIN plug for S5/8 connectors	1.80	N/A	2.70
GM5004	Cable from GM2005 (Standard) and GM2007 (Artist) to GM412G Cotron monitor	10.00	N/A	14.00
GM5005	Cable from GM2006 (CAD Graphics) to GM6002 (CAD mon.)	18.00	N/A	25.00

GM8000 series BUNDLED PACKAGES

GM8004	Specialist Genisyst hardware package GM7001 with GM2001 Serial Board, 2 x GM6001, Wyse terminals and Mirage software	4000.00	N/A	5500.00
GM4104	Genisyst software	TBA	N/A	1500.00



The DX-3 system - this is supplied with a Wyse 50 terminal

#### MULTI-FORMAT-BIOS SYSTEMS

Those of you who visited our stand at Compec last year will have seen the new M-F-B system (pictured opposite) which caused quite a lot of interest. Production of the system, renamed DX-3 (for Data Exchange), has now commenced.

The system is not only physically very different from its predecessor, M-F-B 2, but also now includes a far more comprehensive suite of software. Given the problems of supporting such a complex package we have decided to channel the sales of this product range through a limited number of distributors. In the U.K. we have concluded an agreement with Messrs. Timeclaim whereby they will act as a master distributor for the DX-3. U.K. dealers wishing to sell this product will purchase the hardware and receive full support via Timeclaim.

The DX-3 product requires a high level of product knowledge to both secure the initial sale and support it thereafter. The selected master distributors for this product who include Timeclaim have been chosen for the level of competence they have attained with the product range and we are sure that a far more proficient level of sales support can be given in this manner than would be available direct from Gemini.

PART NO.	DESCRIPTION	DC 1	DC 2	END USER
<u>DATA EXCHANGE SYSTEMS</u>				
GM946	Gemini DX-3 20 MByte (including Wyse 50 terminal)	See below	See below	7950.00
GM947	Gemini DX-3 40 MByte (including Wyse 50 terminal)	See below	See below	8750.00

In the U.K. DX-3 systems are available via Timeclaim. Overseas distributors apply to Gemini for pricing information.

We will continue to allow ALL bona fide Gemini dealers to purchase the M-F-B 2 range direct from Gemini. There is shortly to be available an upgrade package from the M-F-B 2 to the DX-3 but sales of this will be channelled via Timeclaim in the U.K. and certain qualified distributors overseas.

#### MULTI FORMAT BIOS SYSTEMS (M-F-B)

GM926	Galaxy M-F-B 2 (20 MByte)	3250.00	3650.00	4450.00
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#### 8" SUB-SYSTEM for M-F-B 2

GM865-0	8" floppy sub-system with 1 x 8" drive	630.00	700.00	875.00
GM865-1	8" floppy sub-system with 1 x 8" + 3.5" drives	800.00	880.00	1100.00
GM865-2	8" floppy sub-system with 1 x 8" + 3.5" x 3" drives	870.00	960.00	1200.00
GM865-3	8" floppy sub-system with 1 x 8" + 3" drives	700.00	780.00	975.00

Note: It is advisable to order the GM865 sub-system at the same time as an M-F-B to ensure correct implementation and testing of the complete system.

GM933	Upgrade for M-F-B 1 to M-F-B 2 standard	650.00	850.00	1050.00
-------	---	--------	--------	---------

Note: GM933 is available as a factory upgrade ONLY since various mechanical changes need to be made in addition to the obvious software and hardware modifications. This price includes: exchange of 96 TPI Floppy; exchange GM829 to GM849; upgrade of software from M-F-B 1 to M-F-B 2; supply of MS-COPY; MS-CHECK; 3 months' warranty; 6 months' format library update service.

A substantial number of the sales of M-F-B's made by our dealers include 2 Gemini MultiBoard 1 boards. Details are as follows:

GM833	MultiBoard 1 0.5 MByte 'RAM Disc'	285.00	315.00	395.00
GM848	MultiBoard 1 Multi-Serial + Parallel I/O Board	94.00	100.00	125.00
GM711	Large Back Plate output of GM848 to DB25 Sockets	6.00	N/A	8.50

Timeclaim Ltd., Tanyard House, Station Road, Woodbridge, Suffolk, IP12 4AU. (telephone 03943 6616)  
Synercom SA, 11 Rue Tronchet, 75008 Paris, France. (telephone 010 33 1 47420700)  
Gemini Computer Systemer ApS, Symfonivej 15, DK 2730 Herlev, Denmark. (telephone 010 45 2 842611)

INTRODUCTION to the GEMINI RANGE of 5U HIGH FRAMES for the MultiBoard 1

We are pleased to announce the availability of a range of frames manufactured from brushed aluminium which are suitable for a wide spectrum of MultiBoard 1 based systems. There are 4 basic models:

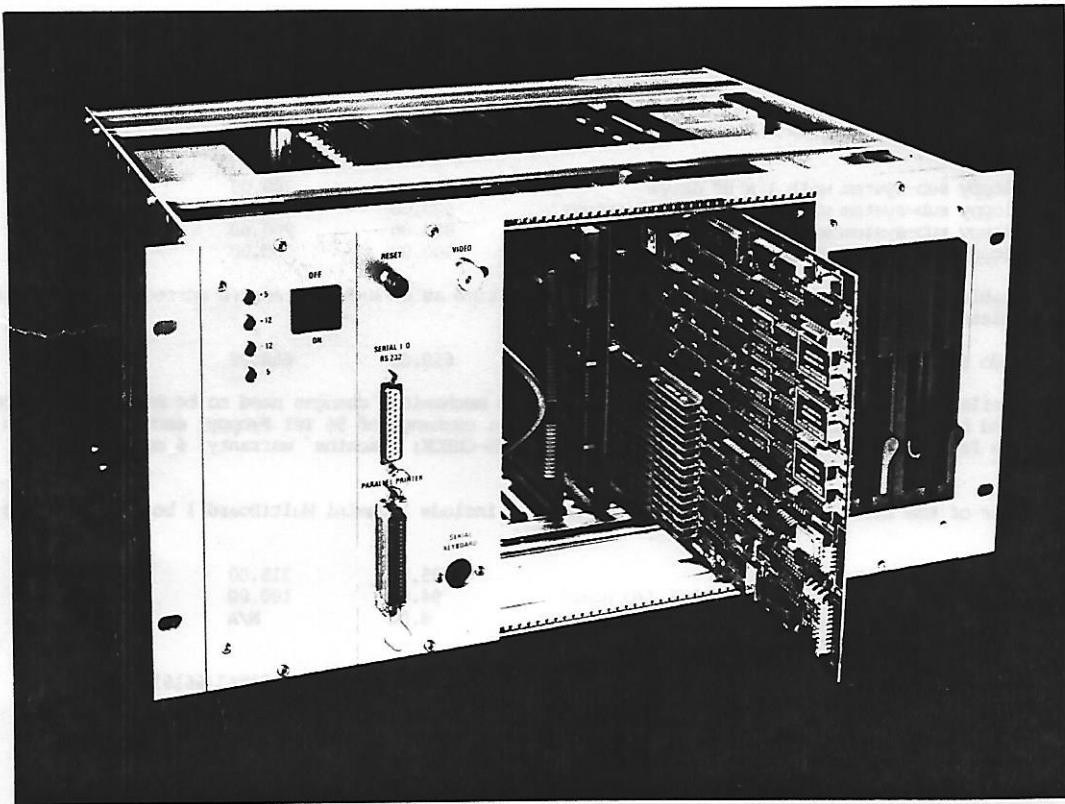
GM761: A replacement for the GM610. This kit of aluminium extrusions and plates is an equivalent to the original item manufactured by Vero. We have commented in previous Newsletters that our cost price from Vero has been somewhat higher than our resale price and this has now been adjusted to reflect the true cost of 1987 rather than the original cost in 1982!

GM791: This kit takes the concept of the GM761 a stage further and includes all the necessary aluminium plates to provide cover at both front and rear (except for the P.S.U. and motherboard). Additionally, an aluminium enclosure is provided for a power supply. It is assumed that an 8 way Motherboard will be fitted to the system.

GM792: This kit is similar to the GM791 but makes provision for up to 2 half height disc drives to be housed in the system. These can be either floppies or Winchesters and a fixing position for a Winchester Controller Card is also provided.

GM796: This rack system is similar to the GM792 but makes specific provision for one or more PLUTO 2's. The kit includes an additional power supply enclosure for the -5V supply required for the PLUTO board.

On page 6 of this price list we detail standard frame based systems reference GM928 and GM949 which can now be purchased from Gemini using elements of the above listed frames. A number of OEM customers are now approaching us via dealers with a view to Gemini building specially configured systems and we are quite willing and capable of dealing with this type of requirement. Dealers, therefore, should be encouraged to solicit this type of business which will undoubtedly provide both a unique service and additional value for a sale. You must, of course, refer to our Sales Department before quoting a customer but it is worth us making the comment that the majority of customers seem to find our rack building service to offer quality and value which they cannot easily compete with.



A picture of the GM796 frame kit with a PLUTO 2 fitted into the system

## MULTIBOARD 1 BASED SYSTEMS

Since the publication of issue 26 of this price list in October we have moved towards the elimination of Winchester based systems with 10 MByte drives. This process is not entirely completed and so we will accept during March, April and May orders for the smaller systems notwithstanding the fact that they have been listed as being 'discontinued'.

PART NO.	DESCRIPTION	DC 1	DC 2	END USER
QM905	Galaxy 2 Computer with 2 x 800K Drives	1075.00	1195.00	1495.00
QM906	Galaxy 2 Computer with 1 x 800K Drive	915.00	1020.00	1275.00
QM924	Galaxy 3 Computer 1x20.8MB + 1x800K Drive	1775.00	1950.00	2450.00
QM909	Galaxy 4 MultiNet Workstation	535.00	600.00	750.00
QM923	Galaxy 4 MultiNet Colour Workstation (inc. PLUTO)	1050.00	1060.00	1325.00
QM923M	As above but also inc. Mini Palette	1275.00	1320.00	1650.00
QM927	Galaxy 4 MultiNet Fileserver (21.6MB + 800K)	1950.00	2150.00	2700.00
QM928	Odin. CP/M Development System 2 x 800K in 19" Rack	1075.00	1195.00	1495.00
QM949	Odin. CP/M Development System/20 MB 1x800K + 19" Rack	1700.00	1875.00	2350.00
QM950	Odin. MS DOS Development System 2 x 800K in 19" Rack	1075.00	1195.00	1495.00
QM951	Odin. MS DOS Dev. System 20MB + 1 x 800K in 19" Rack	1700.00	1875.00	2350.00

### Notes

- 1) Gemini 4s require GM816 for Centronics printer I/O add  
 2) Gemini 2, 3 or M-F-B as 'Superstation' (part GM9XXS) add
- |       |        |        |
|-------|--------|--------|
| 94.00 | 100.00 | 125.00 |
| 70.00 | 70.00  | 100.00 |

## MONITORS and PERIPHERALS (plus related Cable Assemblies)

QM406	Eurovideo 12" Monochrome Monitor (Green)	115.00	128.00	160.00
QM1014	Quantum 12" Monochrome Monitor	90.00	105.00	135.00
QM412G	Grey Cotron Rapier High Resolution Colour Monitor (Tilt and Swivel Base)	695.00	695.00	850.00
QM413	Digitiser Pad with Pen (GM699 Cable required)	540.00	540.00	675.00
QM414	Digitiser Pad with Cursor (GM699 Cable required)	620.00	620.00	775.00
QM419	Sony 13" Colour Monitor (inc. Stand)	445.00	475.00	595.00
QM860	Byte Wide EPROM Programmer	110.00	120.00	150.00

### POWER SUPPLIES

QM857	35W Switch Mode PSU including connectors	38.00	38.00	45.50
QM858	40W Switch Mode PSU including connectors	39.00	39.00	47.50
QM850	50W Switch Mode PSU including connectors	35.00	40.00	50.00
QM817	85W Switch Mode PSU including connectors	57.00	60.00	75.00
QM854	85W Switch Mode PSU including connectors	60.00	65.00	85.00
QM843	100W Switch Mode PSU including connectors	110.00	125.00	155.00

## GM800 series DISK SUB-SYSTEMS

GM855-20	20 MByte Tape Streamer sub-system	750.00	850.00	1050.00
GM9110	Tape for GM855-20	18.00	20.00	25.00
GM9400	50W IDS cable assy for GM849A to rear of Galaxy	10.00	N/A	14.00

### Special Notes:

- 1) This sub-system should be used in conjunction with either the GM849A FDC board. Refer to engineering note 7 for details of modifications to GM849. The GM855 will not work if connected to the GM829 FDC board.

GM865-0	8" floppy sub-system with 1 x 8" drive	630.00	700.00	875.00
GM865-1	8" floppy sub-system with 1 x 8" + 3.5" drives	800.00	880.00	1100.00
GM865-2	8" floppy sub-system with 1 x 8" + 3.5" + 3" drives	870.00	960.00	1200.00
GM865-3	8" floppy sub-system with 1 x 8" + 3" drives	700.00	780.00	975.00

MULTIBOARD 1 BASED BOARDS

We have concluded that previous price lists are somewhat difficult to decipher and have, therefore, reverted to putting these products in numerical order since the majority of our dealers are quite familiar with the product range. We hope that this re-arrangement will enable you to use this price list more effectively. Please note that this list does not include power supplies, motherboards or keyboards.

PART NO.	DESCRIPTION	DC 1	DC 2	END USER
GM802	MultiBoard 1 64K RAM Board	65.00	75.00	95.00
GM811	MultiBoard 1 CPU Board	90.00	100.00	125.00
GM813	MultiBoard 1 CPU/64K RAM Board	125.00	140.00	175.00
EV814	MultiBoard 1 IEEE Board	Available from E.V.		
GM816	MultiBoard 1 I/O Board RTC, CTC, 3 x PIO	94.00	100.00	125.00
GM818	Serial Daughter Board for GM816	45.00	52.00	65.00
GM822K	Real-Time Clock Kit	21.00	21.00	29.50
GM824	MultiBoard 1 A/D Board	94.00	100.00	125.00
IO828H	PLUTO 1 768 x 576	505.00	540.00	675.00
IO828L	PLUTO 1 640 x 576	450.00	480.00	600.00
IO828-1	PLUTO PLI-001A 640 x 576 interlaced 16 fixed colours	475.00	510.00	600.00
IO828-2	PLUTO PLI-002A 768 x 576 interlaced 16 fixed colours	525.00	570.00	675.00
IO828-3	PLUTO PLI-003A 640 x 576 16 from 4096 colours	700.00	750.00	900.00
IO828-4	PLUTO PLI-004A 768 x 576 16 from 4096 colours	750.00	810.00	975.00
GM832	MultiBoard 1 SVC Board	105.00	116.00	145.00
GM833	MultiBoard 1 512K RAM-Disc Board	285.00	315.00	395.00
GM836	MultiBoard 1 MultiNet Interface Board	38.00	40.00	50.00
GM836OEM	GM836 with Transport Software	50.00	55.00	70.00
GM836UPG	Galaxy Upgrade to Superstation	60.00	65.00	80.00
GM837	MultiBoard 1 Colour Graphics Board	90.00	100.00	125.00
NE840	Newburn (formerly Microcode) 14 slot Motherboard	Available from Newburn		
GM841	MultiBoard 1 Extender Board	22.00	24.00	30.00
GM842	D-A Daughter Board for GM816	TBA	TBA	TBA
BE847	Arithmetic Board	N/A	N/A	268.00
GM848	MultiBoard 1 Multi-Serial I/O Board (3 x SIO + PIO)	94.00	100.00	125.00
GM849	MultiBoard 1 FDC/SCSI Board replaces GM829	105.00	116.00	145.00
GM851	12 Bit A-D Board	270.00	295.00	370.00
GM853	Bytewide Eprom Board	65.00	75.00	95.00
CA856	Costgold 8088 Processor Board (formerly CA802)	260.00	280.00	350.00
DY861	Tracker Ball Interface Board (inc. Tracker Ball)	215.00	235.00	295.00
GM862	MultiBoard 1 256K Dynamic RAM Board	212.00	225.00	295.00
GM863-32	32K Static RAM Board	105.00	120.00	150.00
GM863-64	64K Static RAM Board	150.00	170.00	215.00
IO864	PLUTO 2	1875.00	2000.00	2500.00
CA866	Costgold 8088 Processor Board (formerly CA803)	240.00	260.00	325.00
GM867	Opto Input Board for GM816	205.00	205.00	270.00
GM869	Opto Output Board for GM816	255.00	255.00	340.00
GM870	21/23 Modem Board	110.00	125.00	175.00
GM873	MultiBoard 1 2 MByte RAM Disc	425.00	475.00	595.00
NE874	(NE310) Analogue Input Board	Available from Newburn		
NE875	(NE875) Analogue Output Board	Available from Newburn		
NE876	(NE876) Digital Input Board	Available from Newburn		
NE877	(NE325) Digital Output Board	Available from Newburn		
GM880	64180 CPU/RAM Board	TBA	TBA	TBA
GM886	80186/640K CPU RAM Board	TBA	TBA	TBA
GM888	MultiBoard 1 8088 Co-Processor Board	105.00	116.00	145.00

KEYBOARDS

GM852SE	Low prof. 87 key kbd. in case w.cable Serial,English	100.00	110.00	135.00
GM852PE	Low prof. 87 key kbd. in case w.cable Par.,English	105.00	115.00	145.00
GM852SD	Low prof. 87 key kbd. in case w.cable Serial,Danish	105.00	115.00	145.00
GM852PD	Low prof. 87 key kbd. in case w.cable Par.,Danish	110.00	125.00	155.00
GM852SF	Low prof. 87 key kbd. in case w.cable Serial,French	110.00	125.00	155.00
GM852PF	Low prof. 87 key kbd. in case w.cable Par.,French	115.00	130.00	160.00
GM852SG	Low prof. 87 key kbd. in case w.cable Serial,German	105.00	115.00	145.00
GM852PG	Low prof. 87 key kbd. in case w.cable Par.,German	110.00	125.00	155.00
GM852SN	Low prof. 87 key kbd. in case w.cable Serial,Norwegian	105.00	115.00	145.00
GM852PN	Low prof. 87 key kbd. in case w.cable Par.,Norwegian	110.00	125.00	155.00
GM852SS	Low prof. 87 key kbd. in case w.cable Serial,Swedish	105.00	115.00	145.00
GM852PS	Low prof. 87 key kbd. in case w.cable Par.,Swedish	110.00	125.00	155.00

## GM500 series SOFTWARE

Notes: Gemini products in [ ] are additionally required to run these packages

'RP/M' = GEMINI 1200 BAUD CUTS TAPE FORMAT

'DDDS' = GM809/GM815 FORMAT

(Pertec, 48tpi, Double Density, Double Sided)

'QDSS' = GEMINI FORMAT

(Micropolis, 96tpi, Double Density, Single Sided)

'QDSS' = QUANIUM/GEMINI FORMAT

(Micropolis, 96tpi, Double Density, Double Sided)

### Operating Systems for GEMINI Boards (Eeprom)

PART NO.	DESCRIPTION	DC 1	DC 2	END USER
GM537	RP/M V2 (for GM811/GM813)	14.00	20.00	
GM569	SIMON (for GM811/GM813)	8.00	12.00	

### Tape Software for RP/M Systems

PART NO.	DESCRIPTION	OP/SYSTEM	DC	END USER
GM517	GEM-ZAP [GM821/GM827+GM852]	RP/M	34.00	45.00
GM519	GEM-PEN [GM812/GM882]	RP/M	30.00	45.00
GM524	GEM-DEBUG	RP/M	20.00	30.00
GM549	ECONOMY BASIC [GM812/GM832]	RP/M	19.00	25.00

### Operating Systems for NASCOM Products (Eeprom)

GM502	NAS-SYS 3	2716	8.00	12.00
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### Operating Systems for GEMINI with Disks

GM512	CP/M 2.2 Bios V3.4 [GM809/GM829/GM849+GM815]	DDDS	75.00	105.00
GM555	CP/M 2.2 Bios V3.4 [GM809/GM829/GM849+GM825]	QDSS	75.00	105.00
GM578	CP/M-86 [GM809/GM829/GM849+GM888+GM825] or Galaxy + GM888]	QDSS	125.00	175.00
GM583	Bios V3.4 Upgrade of existing Gemini Master Disk		22.00	30.00
GM585	Multinet V.2 upgrade/existing Gemini Master Disk		35.00	100.00
GM584	IBM COPY	QDSS	50.00	65.00

### Operating Systems for NASCOMs with GEMINI disks

GM513	CP/M 2.2 [GM809/GM829+GM815]	DDDS	90.00	125.00
GM556	CP/M 2.2 [GM809/GM829+GM825]	QDSS/QDSS	90.00	125.00
GM534	POLYDOS 4 [GM809/GM829+GM825]	QDSS	68.00	90.00

### CP/M Software for GEMINI & NASCOM Systems running Gemini QDSS Format

GM539	Gem-Zap	QDSS	34.00	45.00
GM540	Gem-Debug	QDSS	20.00	30.00
GM541	Gem-Pen	QDSS	30.00	45.00
GM579	Digital Research GSX [Pluto]	QDSS	56.00	75.00
GM580	Digital Research DR-DRAW [requires GSX]	QDSS	240.00	320.00
GM573	Pluto Qwikdraw	QDSS	50.00	75.00
GM548	GemGraphpac for IVC (links to MBASIC)	QDSS	26.00	35.00
GM551	Economy BASIC for IVC	QDSS	21.00	28.00
GM574	Economy BASIC for SVC	QDSS	21.00	28.00
GM575	SVC Graphpac (links MBASIC)	QDSS	26.00	35.00
CX233	Easylink Software (from Centiflex)	QDSS	50.00	80.00

### Source Listings for Gemini Software and Firmware

All source listings are supplied for the purchaser's own use only - Gemini retains copyright on all code based on the use of these listings. Sales of these are made direct, and a commission is payable to the dealer. Please note that listings for MFB, Multinet, Bios-V3.2 and Bios-V3.4 are not available.

GM563	CP/M 2.2 Bios (V2.4)	Source	QDSS	500.00
GM564	IVC-MON V2	Source	QDSS	100.00
GM565	Format/Backup/Util	Source	QDSS	100.00
GM566	Config	Source	QDSS	50.00
GM567	SysWin/FormWin	Source	QDSS	100.00
GM568	SIMON Boot ROM	Source	QDSS	100.00
GM577	SVC-MON V4	Source	QDSS	100.00

PART NO.	DESCRIPTION	DC 1	DC 2	END USER
<u>GM600/GM700 series: MISCELLANEOUS</u>				
<u>Motherboards and Connectors</u>				
GM632	77 Way Edge Connector	3.25	N/A	4.30
GM633	43 Way Edge Connector	1.70	N/A	2.25
GM634	Edge Connector Clips	0.09	N/A	0.13
GM654	Motherboard for 5 boards	5.00	N/A	6.50
GM655	Motherboard for 8 boards	6.50	N/A	10.00
GM656	Motherboard for 3 boards	3.50	N/A	5.00
GM682	Motherboard for 6 boards	5.50	N/A	7.50
<u>Frames, Enclosures and Related Accessories</u>				
GM609	3A PSU Enclosure for 19" VERO Frame	10.00	N/A	14.50
GM761	19" Frame Development System Enclosure	52.50	58.00	72.00
GM661	Galaxy Enclosure (excluding card frame)	65.00	N/A	90.00
GM762	Galaxy Enclosure issue 5 (will accommodate 4 half height drives excludes GM685 Frame but includes front panel)	75.00	N/A	105.00
GM763	Galaxy Enclosure issue 5 (will accommodate 2 half height drives excludes GM685 Frame but includes front panel - will accommodate PLUTO 2)	75.00	N/A	105.00
GM687	3 Card Enclosure (as GM909 but excludes card frame including front moulding)	55.00	N/A	70.00
GM688	6 Card Enclosure (excluding frame - this must have a front moulding)	65.00	N/A	80.00
GM685	6 Card Internal Frame Assembly	40.00	N/A	55.00
GM686	3 Card Internal Frame Assembly	30.00	N/A	45.00
GM702	Small Back plate for Galaxy - Plain	4.00	N/A	6.00
GM703	Small Back plate for Galaxy - MultiNet	4.00	N/A	6.00
GM704	Small Back plate for Galaxy - IEEE	4.00	N/A	6.00
GM718	Small Back plate for Galaxy/Workstation - 34W + 50W IDS	5.50	N/A	7.50
GM710	Large Back plate for Galaxy/Workstation - 4 x DB25+Rotary	6.00	N/A	8.50
GM711	Large Back plate for Galaxy/Workstation - 4 x DB25	6.00	N/A	8.50
GM712	Large Back plate for Galaxy/Workstation - 34W+2x50W IDS	6.00	N/A	8.50
GM713	Large Back plate for Galaxy/Workstation - 16W+3x26W IDS	6.00	N/A	8.50
GM726	Large Back plate for Galaxy/Workstation - Plain	6.00	N/A	8.50
GM732	Large Back plate for Galaxy/Wstn - IEEE+DB9/15/25+DIN	9.00	N/A	12.50
GM760	Large Back plate for Galaxy/Workstation - 34W+3x50W IDS	9.00	N/A	12.50
GM797	Large Back plate for Galaxy/Workstation - 1x50W+1x34W IDS	6.00	N/A	8.50
GM798	Large Back plate for Galaxy/Wstn - 1x50W+1x34W IDS+2xDB25	9.00	N/A	12.50
GM738	Replacement moulded front panel for Gemini 2 and 3	12.50	N/A	18.00
GM739	Replacement moulded front panel for GM909 Workstation	7.50	N/A	11.00
GM779	Replacement moulding for GM852 keyboard	10.00	N/A	14.00
GM791	19" Rack Assembly for diskless development system	110.00	120.00	150.00
GM792	19" Rack Assembly for disk based development system	145.00	160.00	195.00
GM796	As GM792 but with provision for extra PSU and brackets for PLUTO 2	200.00	220.00	275.00
GM9220	Large Back Plate 1 x 50W + 1 x 34W IDS	6.00	N/A	8.50
GM9221	Large Back Plate for Galaxy/Wstn - 3xDB25+1xDB15+Rotary	9.00	N/A	12.50
GM9222	Large Back Plate for Galaxy/Wstn - 1xCentronics+1xDB25	TBA	N/A	TBA
<u>Disk Drives and Accessories</u>				
GM706	Teac FB55B 5.25" 48 tpi DDS 1/2 ht. (400K)	115.00	N/A	160.00
GM707	Teac FD55F 5.25" 96 tpi QDDS 1/2 ht. (800K)	115.00	N/A	160.00
GM748	Teac FD55GF 96 tpi Dual Speed 1/2 ht. (800K/1.2MB)	150.00	N/A	210.00
GM752	Teac FD35F 3.5" DS (800K)	130.00	N/A	180.00
GM770	Mitsubishi M2896 8" Double Sided Drive	355.00	N/A	425.00
GM743	Metal Full Height Drive Blanking Plate	4.50	N/A	6.00
GM757	Plastic Full Height Drive Blanking Plate (including GM900/016 mounting bracket)	5.00	N/A	7.50
GM758	Plastic Half Height Drive Blanking Plate (including GM900/016 mounting bracket)	5.00	N/A	7.50
GM771	Rodime RO352 10 MByte 3.5" Winchester Drive	400.00	N/A	500.00
GM753	MiniScribe 3212 10 MByte half-height	375.00	N/A	475.00
GM754	MiniScribe 3425 20 MByte half-height	500.00	N/A	650.00
GM695	Xebec S1410A Winchester Controller Board	205.00	N/A	285.00
GM9001	Adaptec ACB4000A Winchester Controller Board	225.00	225.00	320.00
GM9020	N.E.C. 20 MByte Winchester Drive inc. V.F Xebec PROM	TBA	TBA	TBA
GM9021	N.E.C. 40 MByte Winchester Drive	TBA	TBA	TBA
GM727	Full height bezel for Toshiba floppy disk drive	7.00	N/A	10.00
GM9101	Full height bezel for Teac floppy disk drive	7.00	N/A	10.00
GM9110	Tape for GM855-20	18.00	20.00	25.00

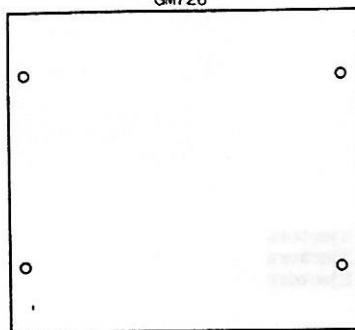
BACKPLATES for GALAXY, WORKSTATION and M-F-B 2 ENCLOSURES

All Gemini Galaxy, Workstation and M-F-B 2 enclosures have a cut out on the rear panel so that one of the range of back plates depicted on this page can be used for special applications. Standard systems being shipped from the factory are automatically fitted with the GM726 back plate. However, we are prepared to substitute this at no extra cost if a customer specifies an alternative at the time of ordering the system.

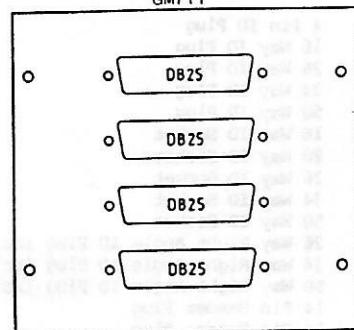
The diagrams on this page show the type of connector that can be mounted onto the various back plates, e.g. IDC 34W which is a 34 Way Insulation Displacement Connector.

All the back plates listed on this page can be purchased separately from Gemini dealers.

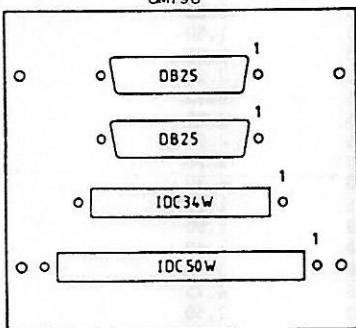
GM726



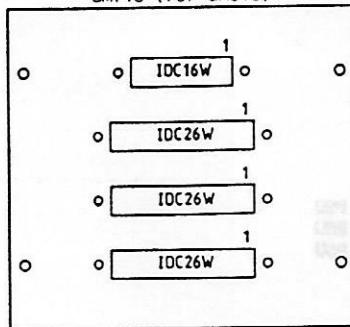
GM711



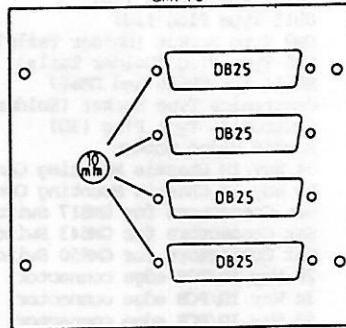
GM798



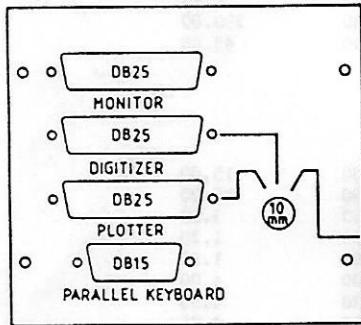
GM713 (for GM816)



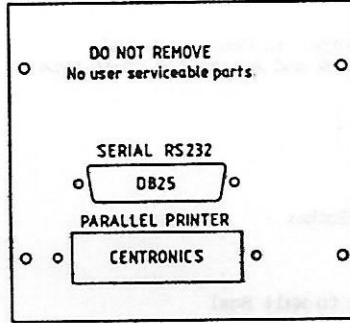
GM710



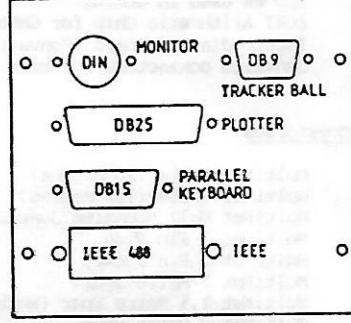
GM9221 (for Colour Workstation)



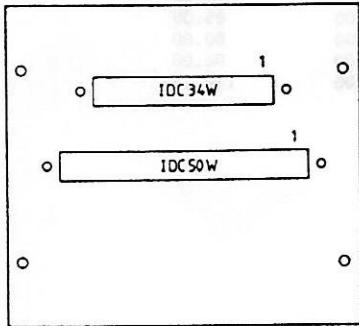
GM9222 (for DX-3)



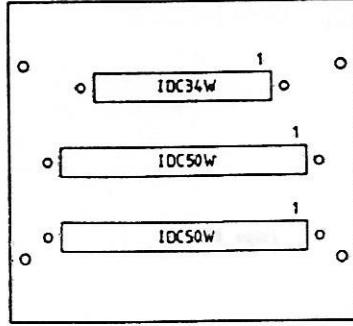
GM732 (for CAD-8)



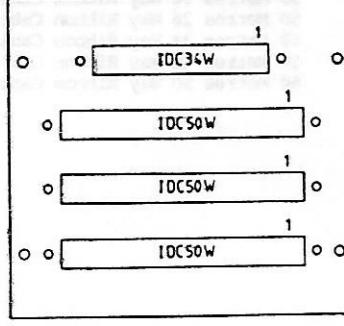
GM797 (for GM849)



GM712 (for GM849)



GM760



PART NO.	DESCRIPTION	DC	END USER
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#### Plugs and Sockets

In this and some of the following sections the abbreviation 'ID' is used for Insulation Displacement.

GM620	4 Pin ID Plug	0.14	0.20
GM621	16 Way ID Plug	0.60	0.80
GM622	26 Way ID Plug	0.90	1.20
GM623	34 Way ID Plug	1.10	1.50
GM624	50 Way ID Plug	1.45	2.00
GM625	16 Way ID Socket	0.90	1.30
GM740	20 Way ID Socket	1.00	1.30
GM626	26 Way ID Socket	1.35	1.80
GM627	34 Way ID Socket	1.75	2.40
GM628	50 Way ID Socket	2.80	3.75
GM629	26 Way Right Angle ID Plug including Ejectors	1.25	1.75
GM630	34 Way Right Angle ID Plug including Ejectors	1.60	2.25
GM631	50 Way Right Angle ID Plug including Ejectors	2.25	3.00
GM635	14 Pin Header Plug	0.35	0.60
GM636	16 Pin Header Plug	0.40	0.70
GM637	20 Pin Header Plug	0.50	0.85
GM638	24 Pin Header Plug	0.75	1.10
GM639	DB25 Type Plug (Solder Tails)	2.75	3.75
QM724	Shell for GM639	1.00	1.50
GM642	DB15 Type Socket (ID)	2.50	3.50
GM643	DB15 Type Plug (ID)	2.25	3.00
GM666	DB9 Type Socket (Solder Tails)	1.10	1.50
GM667	DB9 Type Plug (Solder Tails)	0.90	1.20
GM722	Shell for GM666 and GM667	1.80	2.50
GM644	Centronics Type Socket (Solder Tails)	2.75	3.75
GM645	Centronics Type Plug (ID)	3.45	4.95
QM741	PL-259 Video Socket	1.45	2.05
GM749	34 Way ID Chassis Mounting Connector	2.00	2.70
GM750	50 Way ID Chassis Mounting Connector	3.00	4.30
GM670	Set Connectors for GM817 Switch Mode PSU	1.05	1.50
GM719	Set Connectors for GM843 Switch Mode PSU	1.10	1.60
GM723	Set Connectors for GM850 Switch Mode PSU	1.00	1.40
GM742	20 Way ID/PCB edge connector	2.10	3.50
GM619	34 Way ID/PCB edge connector	3.55	4.75
GM715	50 Way ID/PCB edge connector	5.50	7.50
GM651	Disk drive Power Socket/Pins	0.40	0.60
GM9400	50W IDS Cable Assembly GM849 to GM9220 <38>	10.00	14.00

#### Miscellaneous

GM730	LED as used in Gemini	0.75	1.25
GM737	8087 Arithmetic Chip for GM888	180.00	250.00
GM759	Intermedia I/O Board (Converts PIO output to Centronics and converts connectors for both Centronics and Serial I/O to ID type)	32.00	45.00

#### MultiNet Accessories

GM678-20	MultiNet Cable (20 Metres)	10.00	15.00
GM678-100	MultiNet Cable (100 Metres)	37.50	55.00
GM679	MultiNet Wall Mounting Junction Box/Socket	2.50	3.50
GM680	MultiNet 3 Pin Plug	0.85	1.20
GM697	MultiNet 3 Pin Socket	0.85	1.20
GM716	MultiNet 1 Metre Spur	3.00	4.00
GM751	MultiNet 1.5 Metre Spur (Workstation to Wall Box)	3.20	4.30
GM793	MultiNet 2 Metre Spur	3.50	4.75

#### Ribbon Cable for use with Insulation Displacement Connectors

GM672	50 Metres 16 Way Ribbon Cable	30.00	40.00
GM673	50 Metres 20 Way Ribbon Cable	38.00	60.00
GM674	50 Metres 26 Way Ribbon Cable	45.00	65.00
GM675	50 Metres 34 Way Ribbon Cable	60.00	80.00
GM676	50 Metres 40 Way Ribbon Cable	65.00	90.00
GM677	50 Metres 50 Way Ribbon Cable	100.00	130.00

PART NO.	DESCRIPTION	DC	END USER
<u>Mains Related Accessories</u>			
QM729	Mains Switch/Fuse/Socket assembly (as in GM909/865/Challenger)	3.50	5.00
QM777	Filtered Mains Switch/Fuse/Socket assembly (as used in issue 5 Galaxy enclosures)	13.00	17.50
QM728	Flush CEE22 Mains Outlet Socket	1.50	2.25
QM778	Recessed CEE22 Mains Outlet Socket	1.00	1.40
QM780	CEE22 Rewireable Plug (for use with QM778)	2.50	3.50
QM782	CEE22 Rewireable Plug (for use with QM777)	2.50	3.50
QM690	80mm Mains Fan (as used in Challenger and Galaxys)	9.00	13.00
QM689	Fan Filter Assembly	3.50	5.00
QM696	Fan Filter (for use in GM689)	0.10	0.15
QM764	Plastic Fan Cover (as used currently on Galaxys)	1.75	2.50
QM773	Mains Cable - U.K. Mains Plug to CEE22 Socket	3.50	4.75
QM774	Mains Cable - 2 pin Euro Plug to CEE22 Socket	3.50	4.50
QM775	Mains Cable - Free end to CEE22 Socket	1.80	2.75
QM776	Mains Cable - Shrouded CEE22 Plug to CEE22 Socket	4.75	6.25
QM794	Plug to fit in GM728 Socket	TBA	TBA
QM795	Plug to fit in GM728 Socket with 1 Metre Cable	TBA	TBA
<u>Assembled Cables</u>			
<Note>			
GM646	Parallel Galaxy Keyboard Cable (Coiled Type)	<1>	14.50
GM649	34 Way Cable Assembly (Galaxy)	<2>	12.00
GM660	Gemini Video Cable (PL259-Phono)	<20>	3.50
GM665	Parallel Printer Cable with Amphenol Plugs	<4>	10.00
GM668	Keyboard Cable Assembly (for use in GM664)	<5>	4.20
GM669	Internal Parallel Printer Cable (Galaxy)	<6>	11.00
GM671	Internal Parallel Keyboard Cable (Galaxy)	<7>	4.20
GM683	Internal Serial Printer Cable (Galaxy)	<8>	6.00
GM699	Serial Cable for Digitiser Pad	<16>	12.00
GM705	26 Way Cable for GM836 to GM811/GM813	<19>	3.50
GM714	Set Cables for Galaxy IVC - SVC Conversion	<14>	6.00
GM717	Cable for Colour Workstation to Rapier Monitor	<15>	24.00
GM731	20 Way Internal Winchester Cable	<9>	4.50
GM733	Internal Video Cable (SVC)	<10>	1.25
GM734	Cable 26 Way IDS on GM848/DB25 (use with GM711)	<12>	4.50
GM735	Internal Cable Assembly/Cassette and L Pen	<11>	1.00
GM736	Internal Serial Keyboard Cable	<13>	4.50
GM755H	Set (3) Winchester Upgrade Cables (horizontal)	<23>	23.00
GM755V	Set (3) Winchester Upgrade Cables (vertical)	<24>	23.00
GM756H	Winchester (GM829-Floppy) Drive Cable (horizontal)	<25>	7.00
GM756V	Winchester (GM829-Floppy) Drive Cable (vertical)	<26>	7.00
GM765	Cable from GM732 Back Plate (DB25) to GM412G	<27>	24.00
GM766	Internal Cable from PLUTO to GM732 Back Plate	<28>	TBA
GM767	Internal Cable from Mini Palette to GM732	<29>	TBA
GM781	DB9 Socket Right Angle PCB Mounting		1.50
GM783	34 Way Cable Assembly to support external 5.25"/3.5"	<30>	TBA
	Floppy Drives		TBA
GM784	50 Way Cable Assembly to support external 8" Floppy Drives	<31>	TBA
GM785	16 Way Cable Assembly Serial I/O to GM759	<32>	TBA
GM786	26 Way Cable Assembly PIO to GM759	<33>	TBA
GM787	25 Way Cable Assembly GM759 to Galaxy Back Panel	<34>	TBA
GM788	34 Way Cable Assembly GM759 to Galaxy Back Panel	<35>	TBA
GM789	34 Way Cable Assembly for interconnecting M-F-B - IO socket at each end	<36>	TBA
GM790	50 Way Cable Assembly for interconnecting M-F-B - IO socket at each end	<37>	TBA

#### Cable Notes

- <1> Coiled Cable, DB15 plug at one end to a DB15 socket.
- <2> 22" Long, 34 Way ID Socket at End 1 to 2 x 34 Way PCB cons 3.75" apart at End 2.
- <4> 36" Long with Centronics Type ID Plug at each end. (Standard cable for use with Epson printers etc.)
- <5> 6" Long, 16 Way ID Socket to DB15 Type Plug. (For use inside keyboard cases.)
- <6> 10" Long, 26 Way ID Socket (PIO compatible) to Centronics type Socket. (As used inside Galaxy.)
- <7> 36" Long, 16 Way ID Socket (GM811/GM812 Kbd. Skt.) to DB15 type Socket (GM821E/GM827E).

Cable Notes Continued

<8> 14" Long, 16 Way ID Socket (GM811/GM813 RS232 Skt.) to DB25 type Socket.  
 <9> 12" Long, 20 Way ID Socket to 20 Way PCB Edge Connector.  
 <10> 12" Long, 5 pin 'Dice' DIN Plug to open end, supplied with PL259 chassis Socket.  
 <11> 19" Long, 5 pin 180 degrees DIN Plug to 5 pin 180 degrees DIN chassis Socket, L/Pen or Cassette.  
 <12> 14" Long, 26 Way ID Socket to DB25 type chassis Socket wired pin for pin.  
 <13> 14" Long, 6 pin DIN Plug to 6 pin chassis Socket for internal keyboard.  
 <14> 2 Cables, (a) 17" Long 6 pin DIN Plug to 6 pin DIN chassis Socket.  
       (b) 12" Long 5 pin 'Dice' DIN Plug to Open End.  
 <15> 58" Long, DB25 Type Plug to DB25 Type Plug wired for Cotron Monitors.  
 <16> 50" Long, DB25 Type Plug to DB25 Type Plug wired for Calcomp Digitizer Pad.  
 <19> 10" Long, 26 pin ID Socket to 26 pin ID Socket.  
 <20> 45" Long, PL259 Plug to Phono Plug.  
 <23> Set 3 Cables horizontally mounted Xebec Controller  
       (a) GM829/GM849 to Sebec 6" long with 50 Way ID Socket at each end.  
       (b) Xebec to Winchester 10" long 20 Way PCB to 20 Way ID Socket.  
       (c) Xebec to Winchester 9" long 34 Way PCB to 34 Way PCB + 2 sets of Drive Connectors and Pins.  
 <24> As note <23> but Cable (a) 25" long.  
 <25> 18" Long 34 Way ID Socket to 34 Way PCB.  
 <26> 24" Long 34 Way ID Socket to 34 Way PCB.  
 <27> 36" Long 6 pin DIN to DB25 Type Socket. External cable assembly for output to GM412G Monitor.  
 <28> 9" Long 6 pin DIN to 20 Way ID Socket. Internal cable assembly from PLUTO to GM732 Back Plate.  
 <29> 9" Long 12 Way ID connector to DB25 Type Socket. Internal cable from Mini Palette to GM732 Back Plate.  
 <30> 12" Long 34 Way ID Socket to 34 Way chassis mounting ID Socket to support external 5.25"/3.5" Floppy disk drives.  
 <31> 36" Long 50 Way ID Socket to 50 Way chassis mounting ID Socket to support external 8" Floppy disk drives.  
 <32> 19" Long 16 Way Cable Assembly with 16 Way ID Socket at each end. Serial I/O on GM811/GM813 to GM759.  
 <33> 15" Long 26 Way Cable Assembly with 26 Way ID Socket at each end. PIO on GM811/GM813 to GM759.  
 <34> 12" Long 26 Way Cable Assembly with 26 Way ID Socket to DB25 Type Socket. GM759 to Galaxy Back Panel.  
 <35> 8" Long 34 Way Cable Assembly with 34 Way ID Socket to Centronics Type Socket. GM759 to Galaxy Back Panel.  
 <36> 11" Long 50 Way Cable Assembly with 50 Way ID Socket at each end - SCSI/8" on 829/849 to Galaxy Back Panel.  
 <37> 11" Long 34 Way Cable Assembly with 34 Way ID Socket at each end - 34 Way connector on 829/849 to Galaxy Back Panel.

PART NO.	DESCRIPTION	DC	END USER
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SEMICONDUCTORS

Memory Devices

4116	16K x 1 250 nS DRAM	0.60	1.00
4164	64K x 1 150 nS DRAM	1.50	2.25
2732	4K x 8 EPROM	3.50	4.75
2764	8K x 8 EPROM	4.00	5.50
6116	2K x 8 SRAM	4.50	6.00
6264	8K x 8 SRAM	5.25	6.25

PROMs and PALS

PM-1	GM811 Memory Decode PROM	2.00	3.00
PIO-1	GM811 I/O Decode PROM	2.00	3.00
813 PAL	GM813 Memory Decode PAL (14L4)	4.00	5.50
813-1	GM813 I/O Decode PROM	2.00	3.00
812-I/O	GM832/GM812 I/O Decode PROM	2.00	3.00
833-1	GM833 I/O Decode PROM	2.00	3.00
862-1	GM862 Addressing Mode Decode PROM	2.00	3.00
-1A (82S129)	GM853/GM863 Bank A Address Decode PROM	2.00	3.00
-1B (82S129)	GM853/GM863 Bank B Address Decode PROM	2.00	3.00
-2 (82S129)	GM853/GM863 Device Size Decode PROM	2.00	3.00
837-1	GM837 DRAM Control PROM	2.00	3.00
837-2	GM837 I/O Decode PROM	2.00	3.00
103/5	GM888 Reset Jump PROM	2.00	3.00
SM09/A	GM888 State Machine PROM	2.00	3.00
SM09/B	GM888 State Machine PROM	2.00	3.00
SM09/C	GM888 State Machine PROM	2.00	3.00

If orders are placed for customer blown PROMs the first copy will be invoiced at the amount shown for 811MEM and 812-I/O-S. Subsequent copies will be charged at the normal price denoted above.

811MEM	GM811 Memory Decode PROM blown to customer spec.	10.00	12.50
812-I/O-S	GM832/GM812 I/O Decode PROM blown to customer spec.	10.00	12.50

PART NO.	DESCRIPTION	DC	END USER
<u>Mains Related Accessories</u>			
GM729	Mains Switch/Fuse/Socket assembly (as in GM909/865/Challenger)	3.50	5.00
GM777	Filtered Mains Switch/Fuse/Socket assembly (as used in issue 5 Galaxy enclosures)	13.00	17.50
GM728	Flush CEE22 Mains Outlet Socket	1.50	2.25
GM778	Recessed CEE22 Mains Outlet Socket	1.00	1.40
GM780	CEE22 Rewireable Plug (for use with GM778)	2.50	3.50
GM782	CEE22 Rewireable Plug (for use with GM777)	2.50	3.50
GM690	80mm Mains Fan (as used in Challenger and Galaxys)	9.00	13.00
GM689	Fan Filter Assembly	3.50	5.00
GM696	Fan Filter (for use in GM689)	0.10	0.15
GM764	Plastic Fan Cover (as used currently on Galaxys)	1.75	2.50
GM773	Mains Cable - U.K. Mains Plug to CEE22 Socket	3.50	4.75
GM774	Mains Cable - 2 pin Euro Plug to CEE22 Socket	3.50	4.50
GM775	Mains Cable - Free end to CEE22 Socket	1.80	2.75
GM776	Mains Cable - Shrouded CEE22 Plug to CEE22 Socket	4.75	6.25
GM794	Plug to fit in GM728 Socket	TBA	TBA
GM795	Plug to fit in GM728 Socket with 1 Metre Cable	TBA	TBA
<u>Assembled Cables</u>			
		<Note>	
GM646	Parallel Galaxy Keyboard Cable (Coiled Type)	<1>	14.50
GM649	34 Way Cable Assembly (Galaxy)	<2>	12.00
GM660	Gemini Video Cable (PL259-Phono)	<20>	3.50
GM665	Parallel Printer Cable with Amphenol Plugs	<4>	10.00
GM668	Keyboard Cable Assembly (for use in GM664)	<5>	4.20
GM669	Internal Parallel Printer Cable (Galaxy)	<6>	11.00
GM671	Internal Parallel Keyboard Cable (Galaxy)	<7>	4.20
GM683	Internal Serial Printer Cable (Galaxy)	<8>	6.00
GM699	Serial Cable for Digitiser Pad	<16>	12.00
GM705	26 Way Cable for GM836 to GM811/GM813	<19>	3.50
GM714	Set Cables for Galaxy IVC - SVC Conversion	<14>	6.00
GM717	Cable for Colour Workstation to Rapier Monitor	<15>	24.00
GM731	20 Way Internal Winchester Cable	<9>	4.50
GM733	Internal Video Cable (SVC)	<10>	1.25
GM734	Cable 26 Way IDS on GM848/DB25 (use with GM711)	<12>	4.50
GM735	Internal Cable Assembly/Cassette and L Pen	<11>	1.00
GM736	Internal Serial Keyboard Cable	<13>	4.50
GM755H	Set (3) Winchester Upgrade Cables (horizontal)	<23>	23.00
GM755V	Set (3) Winchester Upgrade Cables (vertical)	<24>	23.00
GM756H	Winchester (GM829-Floppy) Drive Cable (horizontal)	<25>	7.00
GM756V	Winchester (GM829-Floppy) Drive Cable (vertical)	<26>	7.00
GM765	Cable from GM732 Back Plate (DB25) to GM412G	<27>	24.00
GM766	Internal Cable from PLUTO to GM732 Back Plate	<28>	TBA
GM767	Internal Cable from Mini Palette to GM732	<29>	TBA
GM781	DB9 Socket Right Angle PCB Mounting		1.50
GM783	34 Way Cable Assembly to support external 5.25"/3.5"	<30>	TBA
	Floppy Drives		
GM784	50 Way Cable Assembly to support external 8" Floppy Drives	<31>	TBA
GM785	16 Way Cable Assembly Serial I/O to GM759	<32>	TBA
GM786	26 Way Cable Assembly PIO to GM759	<33>	TBA
GM787	25 Way Cable Assembly GM759 to Galaxy Back Panel	<34>	TBA
GM788	34 Way Cable Assembly GM759 to Galaxy Back Panel	<35>	TBA
GM789	34 Way Cable Assembly for interconnecting M-F-B - IO socket at each end	<36>	TBA
GM790	50 Way Cable Assembly for interconnecting M-F-B - IO socket at each end	<37>	TBA

#### Cable Notes

- <1> Coiled Cable, DB15 plug at one end to a DB15 socket.
- <2> 22" Long, 34 Way ID Socket at End 1 to 2 x 34 Way PCB cons 3.75" apart at End 2.
- <4> 36" Long with Centronics Type ID Plug at each end. (Standard cable for use with Epson printers etc.)
- <5> 6" Long, 16 Way ID Socket to DB15 Type Plug. (For use inside keyboard cases.)
- <6> 10" Long, 26 Way ID Socket (PIO compatible) to Centronics type Socket. (As used inside Galaxy.)
- <7> 36" Long, 16 Way ID Socket (GM811/GM812 Kbd. Skt.) to DB15 type Socket (GM821E/GM827E).

PART NO.	DESCRIPTION	DC	END USER
<u>Z80 Devices</u>			
Z80A CPU	4 MHz CPU	2.50	3.50
Z80B CPU	6 MHz CPU	3.00	4.25
Z80A PIO	4 MHz PIO	2.50	3.50
Z80A CTC	4 MHz CTC	2.50	3.50
Z80A SIO	4 MHz SIO	3.50	4.75
<u>Miscellaneous Devices</u>			
6845	Video Controller Chip	5.50	7.70
8250	UART	15.00	21.50
1397	3 Chip Set FDC Controller 1797/1691/2143 (GM809/GM829)	27.00	35.00
2793	FDC Controller (GM849 and Challenger)	20.00	30.00
8087	8 MHz Arithmetic Chip for GM888	180.00	250.00
75174	RS422 Device for GM836 Board	3.00	4.50
75175	RS422 Device for GM836 Board	3.00	4.50
75176	RS422 Device for GM836 Board	5.50	7.00
<u>Nascom Devices</u>			
81LS97		1.25	1.75
DM8131		1.50	2.50
N210	A/IM 5600 CPU	3.75	5.00
<u>GM300 series: MANUALS/LITERATURE</u>			
GM301	Z80 CPU (MK3880) Manual	2.80	4.00
GM302	Z80 PIO (MK3881) Manual	2.45	3.50
GM303	NAS-SYS 3 Manual	3.50	5.00
GM305	179X FDC Manual	1.25	1.75
GM306	GM811 CPU Hardware Manual	1.40	2.00
GM307	GM811 RP/M Software Manual	0.70	1.00
GM310	GM803 EPROM Hardware Manual	0.70	1.00
GM311	GM802 RAM Hardware Manual	0.70	1.00
GM314	GM517/8 GEM-ZAP Manual	2.50	3.50
GM315	GM519-521 GEMPEM Manual	1.75	2.50
GM316	GEMINI-2 User Manual	8.00	11.00
GM348	GEMINI-3 User Manual	8.00	11.00
GM317	GM524/5 GEM-DEBUG Manual	1.40	2.00
GM318	GM813 Hardware Manual	1.75	2.50
GM319	CP/M 2.2 Manuals (Digital Research)	22.00	29.50
GM320	Z80 CTC (MK3882) Manual	2.45	3.50
GM321	GM816 I/O Board Hardware Manual	1.05	1.50
GM322	GM829 FDC/SASI Hardware Manual	1.05	1.50
GM323	MultiNet Workstation User Manual	1.50	2.50
GM324	MultiNet Workstation System Manual	1.50	2.50
GM325	MultiNet Installation Manual	1.50	2.50
GM326	MultiNet Superstation User Manual	1.50	2.50
GM327	MultiNet GM836 OEM Manual	1.50	2.50
GM328	M-F-B Software Manual	N/A	N/A
GM329	GM818 Serial Daughter Instruction Manual	1.75	2.50
GM330	GM832 SVC Software Manual	1.50	2.50
GM331	GM832 SVC Hardware Manual	1.25	1.80
GM332	GM837 Colour Board User Manual	3.75	5.00
GM333	GM860 EPROM Programmer User Manual	1.25	1.80
GM334	GM833 RAM Disk User Manual	1.05	1.50
GM335	GM848 Serial I/O User Manual	1.05	1.50
GM336	Z80 SIO (MK3884) Manual	3.50	5.00
GM337	GM824 Hardware Manual	1.40	2.00
GM338	CP/M-86 Manual	35.00	50.00
GM343	Switch Mode Power Supply Manual	0.70	1.00
GM344	GM888 User Manual	1.40	2.00
GM345	GM862 Hardware Manual	1.05	1.50
GM346	Bios V3 Manual	2.50	3.50
GM347	GM870 Modem Manual	2.00	2.80
GM348	Galaxy 3 User Manual	8.00	11.00

GM100 series: REPAIRS AND EXCHANGE PRICES

Please note that in this section there is no DC2 but there are specific carriage charges to be applied to each line item. This change in policy from our normal percentage adder for carriage is necessary as the repair and exchange costs only reflect a small proportion of the value of the goods being shipped. In ALL other categories carriage charges will be added to the invoice at the prevailing rate which is currently 1% but will be increased to 1.5% from 1st April.

PART NO	DESCRIPTION	DC 1	P & P	END USER
GM111	Fixed Charge Repair - Systems (all MultiBoard 1 types)	40.00	15.00	55.00
GM112	Fixed Charge Repair - 8 x 8 MultiBoard 1 Boards	20.00	4.00	28.00
GM113	Fixed Charge Repair - GM836 Network Board	10.00	2.00	14.00
GM114	Fixed Charge Repair - GM860 EPROM Programmer	20.00	5.00	28.00
GM115	Fixed Charge Repair - Rodime Winchester	150.00	10.00	195.00
GM116	Fixed Charge Repair - 8" Floppies	80.00	10.00	120.00
GM117	Fixed Charge Repair - 5.25" Floppies	65.00	8.00	95.00
GM118	Fixed Charge Repair - 3.5" Floppies	40.00	5.00	60.00
GM119	Fixed Charge Repair - 3" Floppies	35.00	5.00	50.00
GM120	Fixed Charge Repair - GM695 Xebec	125.00	4.00	160.00
GM121	Fixed Charge Repair - Power Supplies	20.00	8.00	28.00
GM122	Fixed Charge Repair - GM852 Keyboard	15.00	10.00	20.00
GM123	Fixed Charge Repair - GM406 Eurovideo Monitors	25.00	12.00	35.00
GM124	Fixed Charge Repair - Cotron Monitors	75.00	15.00	100.00
GM125	Fixed Charge Repair - Systems (all 68K-BUS types)	65.00	25.00	95.00
GM140	Exchange Teac for Micropolis	90.00	8.00	115.00
GM141	Exchange Miniscribe (10MB) for Rodime	250.00	10.00	295.00
GM142	Exchange Miniscribe (20MB) for Rodime	295.00	10.00	330.00
GM142N	Exchange N.E.C. (20MB) for Rodime (inc. Ref F PROM)	295.00	10.00	330.00
GM143	Exchange GM817 for old VMS 2600	45.00	8.00	60.00
GM144	Exchange GM843 for old VMS 2800	85.00	8.00	125.00
GM145	Exchange GM827 for GM827	37.00	10.00	50.00
GM146	Exchange 8" Mitsubishi for old 8" Tandon	295.00	10.00	330.00
GM147	Exchange PROM for Rodime Drives	20.00	1.00	30.00

Notes

- a) Prices as described in GM111 and GM125 do not take into account the cost of repairing Winchesters, Floppies, Streamers or other items which are denoted in the GM120 series. The repair charge quoted under these 2 headings, however, covers all other aspects of repairs to the systems.
- b) With the introduction of the N.E.C. 5.25" 20 MByte Winchester in our range we may, from time to time, supply this device in lieu of the MiniScribe which are referred to in GM141 and GM142. If the N.E.C. drive is supplied it is important that the customer understands that they need a revision F PROM in the GM695 Xebec card.
- c) When our existing stock is exhausted we will not be able to supply the 10 MByte MiniScribe drive which is used in GM141. At that point the only exchanges will be under the heading of GM142.

SURPLUS PRODUCTS

Gemini, like any company, from time to time generates surplus products and we have now decided to formalise the manner in which these are disposed of. On the rear cover of all future copies you will find a list of parts which are subject to special pricing on a 'first come - first served' basis.

We are running a special offer on volume purchases of the GM632 77 way edge connector and the GM844 8 way motherboard assembly. Details are as follows: GM632 77 way edge connector: 50+ - £1.95; 100+ - £1.85; 500+ - £1.75  
GM844 8 way motherboard assembly: 10+ - £34.00; 25+ - £29.50

PART NO.	DESCRIPTION	DC 1	DC 2	END USER
GM557	MBasic Interpreter [QDSS] less manual	50.00	60.00	75.00
GM558	dBASE II [QDSS] including manual	100.00	120.00	160.00
GM561	Spell-Star [QDSS]	20.00	25.00	40.00
GM562	MARS [QDSS]	50.00	60.00	80.00
GM571	Sapphire Calcmaster [QDSS]	25.00	30.00	50.00
GM646	Coiled Parallel Keyboard Cable	7.00	8.00	10.50
GM803	MultiBoard 1 EPROM Board	18.00	22.00	27.00
GM812	MultiBoard 1 IVC Board	50.00	60.00	85.00
GM825-0	Enclosure for twin floppy disk sub-system	54.00	60.00	75.00
MC826	Microcode 32K Static RAM Board	20.00	25.00	35.00
GM827	ASCII 87 key Keyboard	20.00	25.00	35.00
GM829	MultiBoard 1 5.25"/8" FDC + SASI Board	75.00	85.00	105.00
IO830	Mini Palette for PLUTO	175.00	195.00	235.00
GM835-0	Winchester sub-sys. minus drive/inc. PSU conn. etc.	225.00	245.00	310.00
IO859	I/O Palette Board	500.00	600.00	725.00
QM1013	GM827 Keyboard in Quantum Enclosure with int. cable	50.00	60.00	85.00
QM1014	Quantum 12" monochrome monitor	90.00	105.00	135.00
QM735	Internal Cable Assy/Cassette and Light Pen <11>	0.70	0.80	1.00

ALL PRICES SHOWN IN THIS PRICE LIST ARE SUBJECT TO V.A.T. AT THE PREVAILING RATE

E. & O. E.