SETTING UP THE GEMINI GM925 M-F-B 2 SYSTEM

Both the hardware and software accompanying this manual have been set-up ready for immediate use.

1) The separate 8" drive unit (if supplied) may be mounted on either side of the Gemini.

2) The 50 way cable should be plugged into the 50 way 8" drive connector on the rear of the Gemini Computer unit. Pin 1 of the cable is marked by a stripe and pin 1 of the connector on the Gemini is marked with a triangular mark. The power cable of the 8" drive unit may be plugged into the rear of the Gemini system.

The system track

To 'boot' the system, first of all make sure that all of the transport protection cards have been removed from the drives, and leave the drive doors open. Then turn on the Gemini System - there will be a delay for a few seconds as the drive comes up to speed, and then the LED on the drive will illuminate. There will then be a slight delay, followed by the CP/M operating system being automatically loaded and executed.

The system track on the Winchester drive has been configured for the system as follows:

Drive A: 5Mbytes of Miniscribe 3212 10Mbyte drive - Gemini format
Drive B: " " " " " " " "

Drive C:	Teac FD55GF	Mid5"	Gemini QDDS format.	Logical drive	0.
Drive D:	" FD55B	Right5"	" DDDS "	"	1.
Drive E:	" FD55GF	Mid5"	Superbrain 40 "	"	0.
Drive F:	Epson SM140	3.5"	Apricot F1SS "	"	2.
Drive G:	Toshiba ND-40D	8"	8" SS/SD "	"	4.

Note that the M-F-B software supplied will allow any of these drives or formats to be modified whilst the system is in use, EXCEPT drives A and B which can only be modified by the use of the GENSYS program and a great deal of caution!!! See the BIOS 3.2 software manual for further details.

Floppy Disk Drive Details.

Teac FD55GF	5.25"	96TPI	Double sided	Double density	Dual speed
" FD55B	5.25"	48TPI	"	"	"	"
Toshiba ND-40D	8"	48TPI	"	"	"	"
Epson SM140	3.5"	135TPI	"	"	"	"

The M-F-B software (SETUP.COM) allows any of the above drives to be used as a sub-set of itself. e.g. -

The Double Sided drives may be used in Single Sided mode
" Double Density " " " " " Single Density "
" 96TPI " " " " " 48TPI "
etc.

8" drive

Note that the Toshiba 8" drive unit has a certain amount of "intelligence" that may cause a certain amount of confusion, unless its operation is understood.

There is a difference between single-sided and double-sided 8" diskettes - the index hole on each type of diskette is in a slightly different position. The Toshiba drive is capable of recognising this difference, and if it "sees" that the diskette is only single-sided, but is requested to access the second side, then it forces this access to occur on the first side. This is the element that may cause confusion....

1) If a single-sided 8" disk is inserted into the 8" drive, and the ANALYSE program is run, then the ANALYSE program will first of all determine whether or not it can read the first side. If this is successful then it will try to read the second side - at this point the drive will recognise that the diskette is in fact only single-sided, and will thus force the access to occur on the first side again. The ANALYSE program will determine that it can in fact read what it believes to be the second side, and thus will report that the disk is double-sided, whereas in fact it is probably not.

2) If a single-sided 8" disk is inserted into the 8" drive, and the FORMAT program is run to FORMAT a double-sided 8" format, then formatting of each track of the first side will occur, followed by the formatting of the same track on the second side. At this point the disk drive will recognise that the diskette is in fact only single-sided, and will force the formatting of the second side to occur over the top of the formatting that has already occurred on the first side. The Verification pass will also similarly be fooled, and so there will be every appearance that the disk has been formatted correctly, whereas in fact it has only been formatted on one side, and further, that side has been formatted with side information that should be on the second side.

Because of the above it is important that 8" single-sided diskettes should be kept distinctly separate from double-sided ones, and the position of the index hole should be regarded as being more accurate than the ANALYSE utility with respect to the number of sides of the diskette in use.

PARKing the Winchester

Note that the heads of the Miniscribe Winchester disk drive utilised in M-F-B 2 systems must be positioned in a special "landing zone" before the system is transported. A special utility is supplied with M-F-B 2, called PARK. Every time the system is going to be moved this must be run by typing:

PARK <Return>

A message will then indicate that the heads have been parked, and the system should then be switched off. If, for any reason after parking the reset button is pressed before the system has been turned off, then PARK must be run again.
