

FONNLY F3 MICRO COMPUTER

THE EQUIPMENT THAT MAKES UP A FOONLY COMPUTER SYSTEM IS INSTALLED IN 2 CABINETS AND CONSIST OF THE FOLLOWING.

ONE CABINET WITH

- 1- A NET COM COMMUNICATIONS INTERFACE
- 2- A FOONLY MICRO COMPUTER WITH 512 K OF 36 BIT WORDS OF MEMORY

ONE I/O CABINET WITH

- 1- WHICH HAS 3 CDC MODEL NUM. BZ9AX 160 MEGA BYTE DISK DRIVES
(WITH NON REMOVABLE DISK PACKS)
- 2- . MODEL NUM. 9100 KENNDY TAPE DRIVE
(75 IPS 9 TRACK 800/1600 BPI)
- 3- A MODEL NUM. 9219 FORMATTER USED IN CONJUNCTION WITH TAPE DRIVE.

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POWER SWITCHES FOR EMERGENCY
AND NORMAL POWER DOWNS

PAGE 1

THE FOONLY MICRO COMPUTER CABINET

- 1- HAS A 2 POLE CIRCUIT BREAKER THAT SHUTS OFF ALL AC POWER TO FONNLY CABINET, LOCATED ON THE BACK OF THE CABINET AT THE BOTTOM CENTER.
- 2- HAS A SINGLE SWITCH FOR DC POWER ONLY, LOCATED JUST ABOVE THE AC BREAKER.
- 3- THE NET COM INTERFACE HAS NO SWITCHES AND MUST BE UNPLUGGED

THE I/O CABINET

- 1- THE CDC DISK DRIVES HAVE A CIRCUIT BREAKER ON EACH DRIVE WHICH SERVES AS AN ON OFF SWITCH AND A CIRCUIT BREAKER. LOCATED AT LEFT REAR CORNER OF EACH DISK DRIVE.
- 2- THE KENNDY TAPE DRIVE HAS POWER OFF SWITCH ON TOP FRONT OF TAPE DRIVE
- 3- THE FORMATTER MUST BE UNPLUGGED FROM REAR OF CABINET.

THE 9100 KENNDY TAPE DRIVE HAS ALL OF ITS SWITCHES ON THE FRONT PANEL

THE LOAD POINT LIGHT IS UNDER THE SWING UP TOP PANEL. THE PANEL MUST BE RAISED TO SEE LOAD POINT.

MAINTENANCE SWITCHES AND LAMPS ARE ALSO UNDER THE SWING UP TOP PANEL.

THERE IS A TAPE CLEANING PROCEDURE ON PAGE 9 OF THIS SECTION.

THE KENNDY FORMATTER IS JUST AN INTERFACE BETWEEN THE FOONLY CONTROLLER AND THE KENNDY TAPE DRIVE. THERE ARE NO LIGHTS OR SWITCHES TO BE CONCERNED WITH.

IN ORDER TO LOAD DISK DIAGNOSTICS OR A SYSTEM MONITOR YOU MUST LOAD A MICRO LOADER INTO THE SYSTEM.

(THIS WOULD ONLY BE NECESSARY IF THE SYSTEM HAD LOST POWER OR HAD A POWER GLITCH)

TO VERIFY MICRO CODE

SET MI STOP AND MI PC SWITCHES
SET ADDRESS SWITCHES TO 4000
PRESS MI CLR AND MI CONT
RESET MI STOP AND MI PC SWITCHES
PRESS MI CONT

YOU SHOULD NOW BE ABLE TO USE CONSOLE EXM AND DEP SWITCHES WHICH INDICATE THAT THE MICRO CODE IS OK.

LOADING MICRO CODE

INSTALL MICRO CODE TAPE
CHECK FOR CORRECT BPI 800/1600
SET ADDRESS SWITCHES TO 10
SET MI STOP AND MI PC SWITCHES
PRESS MI CLR AND MI CONT
RESET MI STOP AND MI PC SWITCHES
PRESS MI CONT

THE TAPE WILL ONLY MOVE A SHORT DISTANCE. YOU CAN THEN VERIFY IF THE MICRO LOADED USING THE ABOVE PROCEDURE ARE GO AHEAD WITH LOADING OF NEXT TAPE MONITOR, DIGS ETC.

LOADING DISK DIAGNOSTICS OR A MONITOR TAPE

INSTALL CORRECT TAPE DIAG OR MONITOR
CHECK FOR CORRECT BPI 800/1600
SET ADDRESS SWITCHES TO 5000
SET MI STOP AND MI PC SWITCHES
PRESS MI CLR AND MI CONT
RESET MI STOP AND MI PC SWITCHES
PRESS MI CONT

TAPE SHOULD NOW BE LOADING

WHEN TAPE STOPS
SET ADDRESS SWITCHES TO 140 WHEN LOADING DIAGS
SET ADDRESS SWITCHES TO 100 WHEN LOADING MONITOR
YOU MUST NOW USE THE CONSOLE SWITCHES
PRESS CONSOLE START SWITCH 2 TIMES
THE TTY SHOULD NOW RESPOND AND BE WAITING FOR YOUR COMMANDS

SEE PAGE 2 FIG 1 FOR SWITCHES

SEE TENEX OPERATING PROCEDURES FOR MONITOR
SEE NEXT PAGE FOR BRIEF DISCRPTION OF DISK DIAGNOSTICS.

- WARNING -

BECAUSE THE CDC DISK DRIVE DOESNT HAVE A REMOVABLE PACK CARE MUST BE TAKEN WHEN RUNNIG DIAGNOSTICS ON A SYSTEM PACK. AS OF NOW THERE IS ONLY 1 MAINTENANCE CYL WHICH WE CAN WRITE ON. THAT IS CYL 1466 OCTAL 822 DECIMAL. IT WOULD BE A GOOD IDEA NOT TO RUN ANY WRITE DIAGS UNLESS IT WAS REALLY NECESSARY OR A BACK UP HAD JUST BEEN TAKEN. TO BE SURE THAT WE DONT DO A WRITE ACCIDENTLY WE SHOULD KEEP THE DISK IN WRITE PROTECT WHILE RUNNING DIAGNOSTICS.

WITH DIAGS LOADED AND TTY WAITING AT EDDT WE CAN NOW RUN DIAGS.

TYPE IN	<u>CDC160\$G</u>	
UNIT/	<u>X</u>	A LINE FEED WILL GET YOU TO CYL,ETC
CYL/	<u>X</u>	822. IS THE DECIMAL EQUIV. OF 1466 OCTAL
HEAD/	<u>XX</u>	
SECTOR/	<u>X</u>	

TYPE RD\$G THE TTY WILL PRINT OUT SOME INFORMATION

TYPE RD\$G THIS WILL INITIALIZE THE DISK AND YOU COULD GET AN ERROR

TYPE RECAL\$G YOU CAN NOW PROCEDE WITH THE DIAGNOSTICS.

(ALL 3 DISK DRIVES SHOULD BE INITIALIZED
STARTING WITH 2 RD\$G BEFORE RUNNIG DIAGS)

SOME OF THE DISK DIAGNOSTICS TO RUN ARE BELOW BUT DOES NOT INCLUDE ALL OF THEM ARE GIVE YOU PARAMETERS FOR SOME OF THEM
TYPE HELP\$G FOR MORE DETAILED INFORMATION.

RD\$G
WA\$G
TEST1\$G
TEST2\$G
TEST3\$G
TEST4\$G
TEST5\$G
TEST6\$G

SEE DIAGNOSTIC LISTING FOR DISCRPTION OF ABOVE DIAGNOSTICS

THE DISK DRIVES ARE POWERED UP AND DOWN BY THE CIRCUIT BREAKERS ON THE BACK OF EACH DISK DRIVE.

WHEN POWERING THE DISKS UP CARE SHOULD BE TAKEN TO ALLOW SOME TIME FOR THE FIRST DISK TO POWER UP BEFORE POWERING UP THE NEXT DISK DRIVE. THE REASON BEING THAT THE CIRCUIT BREAKER ON THE MAIN PANEL MAY TRIP IF MORE THAN 1 DIAK DRIVE IS POWERED UP AT THE SAME TIME.

THERE ARE 3 LIGHTS ON FRONT OF DISK DRIVE

READY	FAULT CLEAR	WRITE PROTECT
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READY IS JUST A YELLOW LIGHT

FAULT CLEAR IS BOTH A RED LAMP AND CLEAR SWITCH, WHEN A FAULT OCCURS YOU SHOULD BE ABLE TO CLEAR IT BY PRESSING SWITCH, IF YOU CANT CLEAR THE SWITCH THIS WAY, SOME TIMES YOU CAN POWER THE DISK DRIVE OFF AND THEN BACK ON.

WRITE POTECT IS A RED LAMP AND SWITCH TO PROTECT THE DRIVE FROM BEING WRITTEN ON. IF LAMP IS ON SWITCH IS SET ON.

UNDER THE FRONT PANEL IS A FAULT CLEAR DISPLAY LAMP USED TO RECORD DISK ERRORS THERE ARE 9 LOACTIONS THAT ARE RECORDED. THE 1ST 2 LAMPS RECORDE THE ERROR AND THE OTER 1 RECORDES THE AMOUNT OF ERRORS. THIS CAN BE CLEARED BY THE SWITCH. THIS WILL BE DESCUSSED IN FURTER DETAIL IN THE MAINTENANCE SECTION.

4.1 GENERAL

Kennedy Company tape transports are highly reliable precision instruments which will provide years of trouble-free performance when properly maintained. A planned program of routine inspection and maintenance is essential for optimum performance and reliability. The units require very few adjustments and these should not be performed unless there is strong reason to believe they are required. All electrical adjustments are preset at the factory and should not require readjustment except after long periods of time.

4.2 PREVENTIVE MAINTENANCE

To assure continuing trouble-free operation a preventive maintenance schedule should be kept. The items involved are few and simple but very important to proper tape transport operation. The frequency of performance will vary somewhat with the environment and degree of use of the transport so a rigid schedule applying to all machines is difficult to define. The recommended periods below apply to units in constant operation in ordinary environments. They should be modified if experience shows other periods are more suitable.

4.2.1 DAILY CHECK

Visually check the machine for cleanliness and obvious misadjustment. If items in the tape path show evidence of dirt or oxide accumulation, clean thoroughly.

4.2.2 CLEANING

All items in the tape path must be kept scrupulously clean. This is particularly true of the head and guides. The inside of the dust cover must not be allowed to accumulate dirt since transfer to the tape will cause malfunction.

In cleaning it is important to be thorough yet gentle and to avoid certain dangerous practices.

4.2.2.1 Head Cleaning

Oxide or dirt accumulations on the head surfaces are removed using a mild organic solvent and a swab. Q tips are convenient for this use but must be used with caution. Be sure the wooden portion does not contact head surfaces.

An ideal solvent is 1,1,1 trichloroethane contained in Kennedy K21 maintenance kit. However, others such

as isopropyl alcohol will do. **DO NOT USE:** acetone or lacquer thinner, aerosol spray cans, or rubbing alcohol.

Do not use an excess of any solvent, and be extremely careful not to allow solvent to penetrate ball bearings of idler rollers, capstan motor, etc., since it will destroy their lubrication.

4.2.2.2 Tape Path Cleaning

CAUTION

Do not attempt to clean the mylar sensors in columns or allow solvent to contact the element. Dirt and oxide will not impede the sensor operation.

Other items in the tape path should be cleaned at the same time as the magnetic head. These include columns, idler rollers, tape guides, capstan, and tape cleaner surface.

The techniques are similar to those outlined above for head cleaning.

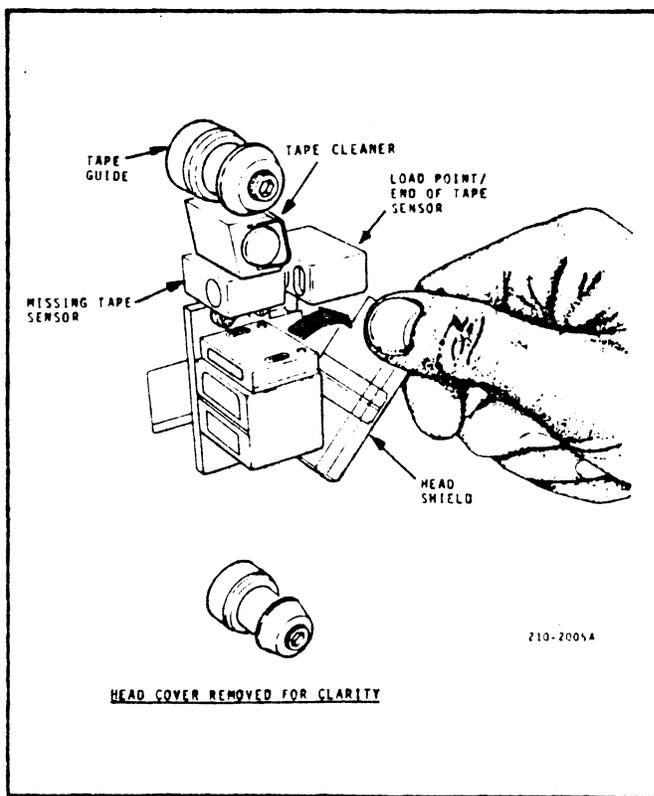


Figure 4-1. Opening of Head Shield