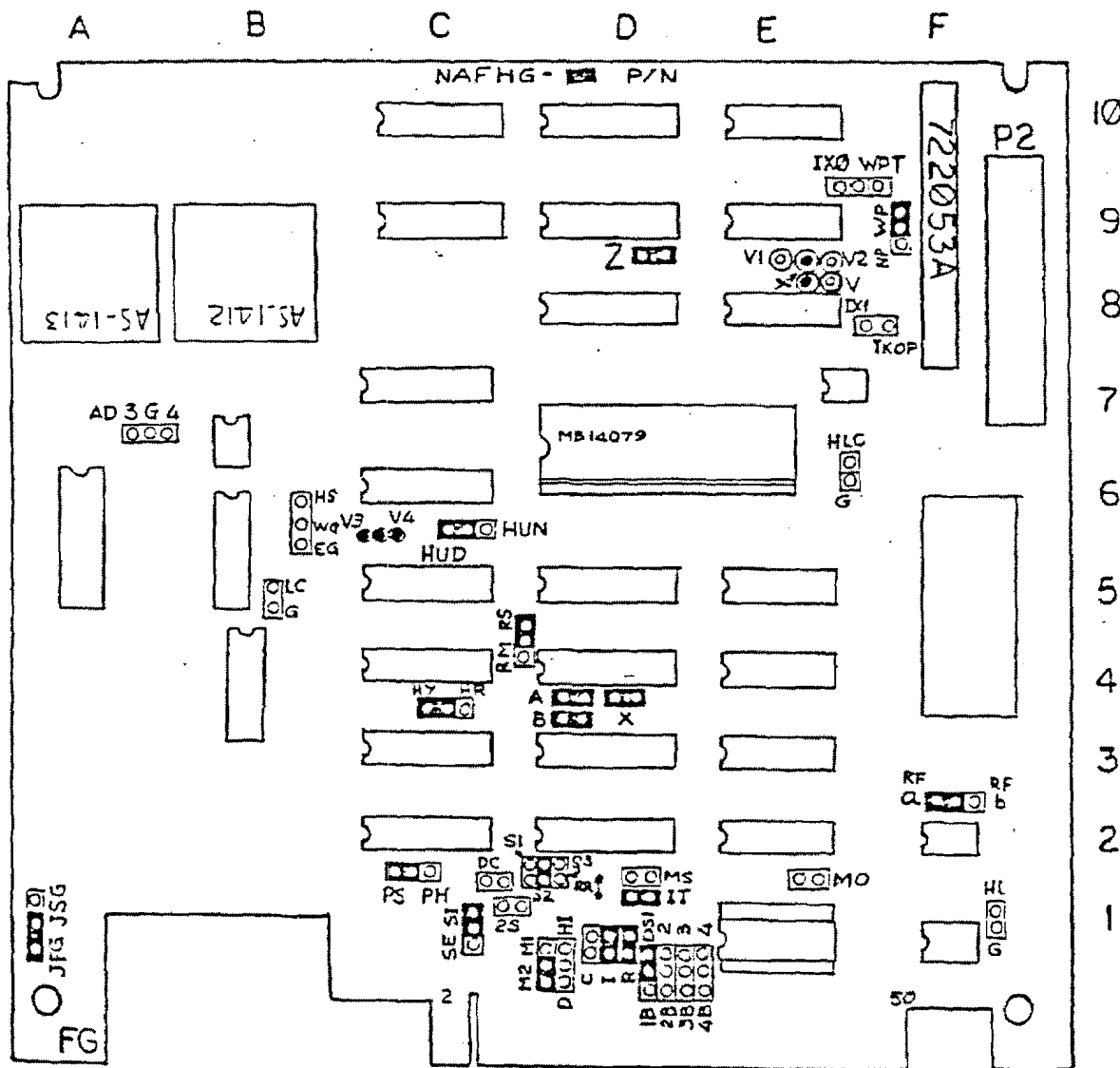


CUSTOMER INSTALLATION OPTIONS

The M2896 can be modified so that the non-standard operations described in sections 3 and 4 are performed.

These modifications are performed by connecting or disconnecting traces on the printed-circuit board and/or using alternate input/output pins.

Traces are connected with short-plugs and jumpers. The position of the traces at delivery from the factory is shown in Table 6-1. Fig. 6-1 shows the location of the traces on the printed-circuit board.



NP : Switching with short-plug

HL : Switching by cutting the pattern and using jumpers.

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Fig. 6-1 Printed-Circuit Board Trace Location

FLEXIBLE DISK DRIVE

ENGINEERING INFORMATION

TITLE M2896-63 (PCB, NAFHQ)	DATE '83-9-9
ITEM 1. Improvement in the PCB, NAFHQ 2. Automatic motor-start / stop operation.	APPROVED <i>H. Takeuchi</i>
	CHECKED <i>A. Antezaki</i>
	DRAWN <i>Edith Kojima</i>

1. Improvement in the PCB, NAFHQ.

We redesigned the wiring-pattern to add the options for customer.

(Additional options are described on following sheets.)

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2. Automatic motor-start / stop operation.

We redesigned the circuit to add the automatic motor-start / stop operation for better media clamp.

The operation is as following.

- (1) Spindle Motor starts to rotate when Diskette is inserted in the disk drive. (i.e. Micro-Switch is opened)
- (2) It stops to rotate when the Hold READY comes true.
- (3) In the condition the Hold READY is true, the spindle motor can be controlled by the MOTOR START signal. There is the 2.6sec delay time from the motor stop signal to the motor stop.
- (4) If the DC power is turned on when the diskette is inside and the door is closed, the motor will start to rotate and stop like (2).

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FLEXIBLE DISK DRIVE

ENGINEERING INFORMATION

3. Location change (P/N DC447248-01-B → DC447248-02)

Table 6-1 Customer CRT/ACC. Trace Options

Trace Designator	Location		Description	Shipped from Factory	
	01-B	02-C		Open	Short.
TERMINATOR	E1	E1	Input line terminator		Plugged
JPG	A1	A1	Frame ground and signal ground are shorted		Plugged
JSG	A1	A1	Frame ground and signal ground are opened	X	
DS1	D1	D1	DRIVE SELECT 1 Input		Plugged
DS2, DS3, DS4	D1	D1	DRIVE SELECT 2, 3, 4 Input	X	
1R, 2R, 3R, 4R	D1	D1	SIDE SELECT Option using DRIVE SELECT	X	
SE	C1	C1	External WRITE CURRENT SWITCH	X	
SI	C1	C1	Internal WRITE CURRENT SWITCH		Plugged
S	C1	—	"Keep Open"	X	
DC	C1	C1	DISK CHANGE Option	X	
2S	C1	C1	TWO-SIZED Status Output	X	
IT	D1	D1	IN USE Terminator		Plugged
D	D1	D1	Alternate Input - IN USE	X	
HI	D1	D1	HEAD LOAD *ON* IN USE to the IN USE CIRCUIT	X	
C	D1	D1	Alternate Input - HEAD LOAD	X	
I	D1	D1	INDEX Output		Plugged
R	D1	D1	READY Output		Plugged
SI	C1	D1	SIDE SELECT Option using DIRECTION SELECT	X	
S2	D1	D1	Standard SIDE SELECT Input		Plugged
S3	D1	D1	SIDE SELECT Option using DRIVE SELECT	X	

(CONTINUED ON NEXT PAGE)

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FLEXIBLE DISK DRIVE ENGINEERING INFORMATION

Table 6.1 (cont.)

Trace Designator	Location		Description	Shipped from factory	
	01-B	02-C		Open	Short
RS	C5	D4	READY Standard		Plugged
RM	C5	D4	READY Modified	X	
RPA	F3	F2	"Don't Remove"		Plugged
RPO	F3	F2	"Keep Open"	X	
MO	E1	E1	MOTOR ON from HEAD LOAD	X	
MS	D1	D1	MOTOR ON from DRIVE SELECT	X	
S	D9	D9	IN USE LED from DRIVE SELECT		Plugged
WP	C5	F9	Allow Write when WRITE PROTECTED	X	
WF	C5	F9	Inhibit Write when WRITE PROTECTED		Plugged
A	C4	D4	Radial HEAD LOAD		Plugged
B	C5	D3	Radial HEAD LOAD		Plugged
X	C4	D4	Radial HEAD LOAD		Plugged
DOO	D4	—	"Don't Out"		X
DOI	D4	—	"Keep Open"	X	
RI	D2	D1	Radial INDEX		X
RR	D2	D1	Radial READY		X
Y	D8	E3	IN USE from HEAD LOAD	X	
V	E9	E3	Door Lock from HEAD LOAD		X
HLZ	D10	D10	HEAD LOAD Latch	X	
DL	B10	D10	Door Lock Latch Option	X	
HUN	C6	C5	Head Unload Normal	X	
HUD	C6	C5	Head Unload Delay		Plugged

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FLEXIBLE DISK DRIVE

ENGINEERING INFORMATION

4. Additional options on P/N DC447248-02-C

	Trace Designator	Location		Description	Shipped from Factory	
		01-B	02-C		Open	Short
Customer Option	HR	—	C4	Hold READY Output	X	
	HY	—	C4	Standard READY Output		plugged
	M1	—	D1	Use J1 pin 4 for Motor Start	X	
	M2	—	D1	Use J1 pin 18 for Motor Start		plugged
	PS	—	C2	HEAD LOAD Anded with Standard READY		plugged
	PH	—	C2	HEAD LOAD Anded with Hold READY	X	
Factory Option. (Internal use for motors)	E1	—	C4	"Keep open"	X	
	E2	—	C4	"Do not cut"		X
	V1	—	E9	"Do not cut"		X
	V2	—	E9	"Keep open"	X	
	V3	—	C5	"Do not cut"		X
	V4	—	C5	"Keep open"	X	
	V5	—	E4	"Keep open"	X	
	V6	—	E4	"Do not cut"		X
	V7	—	D3	"Keep open"	X	
	V8	—	D3	"Do not cut"		X