

CTRY-724 CUST-W037450-RUWEL WERK SER BR-016 SYS #- -000- YV386 TYP-5410

FCT ORDER-DP7373 SALES MODEL-A01 PLT SEQ #-

SHIPPED-00OCT70 SHP SEQ-0034 FCT SEQ-0345 WD- MODE-P3 MACH STA-NORMAL

SEQ #	EC #	STATUS	FIELD	B/M	FCSI #	TIME	ECA#	DATE
A0034	000926827	PRES LVL						
B0345	FCT 000817647	FACT LVL						
B0347	FCT 000818257	INSTALED						15JUN73
B0348	FCT 000818242	INSTALED						15JUN73
B0349	FCT 000817668	INSTALED						15JUN73
B0350	FCT 000817612	INSTALED						15JUN73
B0351	FCT 000817576A	INSTALED						15JUN73
B0352	FCT 000815994A	INSTALED						15JUN73
B0353	FCT 000818268	INSTALED						15JUN73
B0354	FCT 000817612A	INSTALED						15JUN73
B0355	FCT 000817593	INSTALED						15JUN73
B0356	FCT 000818260	INSTALED						15JUN73
B0357	FCT 000818992	INSTALED						15JUN73
B0358	FCT 000818255	INSTALED						15JUN73
B0359	FCT 000818253	INSTALED						15JUN73
B0360	FCT 000818273	INSTALED						15JUN73
B0361	FCT 000818307	INSTALED						15JUN73
B0362	FCT 000818245	INSTALED						15JUN73
B0363	FCT 000817663	INSTALED						15JUN73
B0364	FCT 000818316	INSTALED						15JUN73
B0365	FCT 000818254	INSTALED						15JUN73
B0366	FCT 000818285	INSTALED						15JUN73
B0367	FCT 000926271E	INSTALED						15JUN73
B0368	FCT 000818264	INSTALED						15JUN73
B0369	FCT 000817663A	INSTALED						15JUN73
B0370	FCT 000818310	INSTALED						12JUL73
B0371	FCT 000926562	INSTALED						12JUL73
B0374	FCT 000818268A	INSTALED						15JUN73
B0376	FCT 000818302	INSTALED						15JUN73
B0377	FCT 000818318	INSTALED						12JUL73
B0378	FCT 000818501	INSTALED						15JUN73
B0379	FCT 000818308	INSTALED						15JUN73
B0381	FCT 000818527	INSTALED						15JUN73
B0382	FCT 000817683	INSTALED						15JUN73
B0383	FCT 000818533	INSTALED						15JUN73
B0384	FCT 000818536	INSTALED						15JUN73
B0385	FCT 000818402	INSTALED						15JUN73
B0386	FCT 000817604C	INSTALED						15JUN73
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B0389	FCT 000818542	INSTALED						15JUN73
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B0392	FCT 000818294	INSTALED						15JUN73
B0393	FCT 000817685	INSTALED						15JUN73
B0394	FCT 000818518	INSTALED						15JUN73
B0395	FCT 000818322	INSTALED						15JUN73
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B0399	FCT 000818287	INSTALED						15JUN73
B0400	FCT 000818270	INSTALED						15JUN73
B0401	FCT 000926661	INSTALED						15JUN73
B0402	FCT 000818552	INSTALED						15JUN73
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B0404	FCT 000818312	INSTALED						15JUN73
B0405	FCT 000818516	INSTALED						15JUN73
B0406	FCT 000818323	INSTALED						15JUN73
B0407	FCT 000818516C	INSTALED						15JUN73
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B0414	FCT 000817690	INSTALED						15JUN73
B0415	FCT 000818309A	INSTALED						12JUL73
B0416	FCT 000818506	INSTALED						15JUN73
B0417	FCT 000818592	INSTALED						15JUN73
B0419	FCT 000818585	INSTALED						15JUN73
B0420	FCT 000818570	INSTALED						12JUL73
B0421	FCT 000926704	INSTALED						15JUN73
B0422	FCT 000818568	INSTALED						15JUN73

SEQ # EC # STATUS FIELD B/M FCSI # TIME ECA# DATE

0002592600 0001 COVER GROUP UPPE INT 15FEB73 0001 0000
 ***** COMMENTS
 D0001 000815615 PRES LVL

0002592706 0001 NOMENCLATURE GER 2929 INT 15FEB73 0001 0001
 ***** COMMENTS
 D0001 000815614K PRES LVL

E0001 FCT 000815863M FACT LVL

0002592998 0001 DISK STR DRV 1 S DG9175 9400 ~~TBR~~ 06MAR75 0005 0011 removed 16.6.75 *Pe*
 ***** COMMENTS
 D0005 000818422A PRES LVL

E0011 FCT 000818418 FACT LVL
 E0013 FCT 000820412 INSTALED 15JUN73

0002592999 0001 DISK STR DRV 2 S DG9175 S 9401 ~~SHP~~ 13MAR75 0009 installed 16.6.75 *Pe*
 ***** COMMENTS 0550000662551
 D0006 000818422A PRES LVL

E0009 FCT 000818418 FACT LVL
 E0011 FCT 000820412 INSTALED 08MAR75

0002593131 0001 NO PW/PACK TERMI INT 15FEB73 0001 0000
 ***** COMMENTS
 D0001 000818294 PRES LVL

0002593244 0001 DISK STOR 1 SP 5 DG9175 ~~TBR~~ 06MAR75 0001 0000 removed 16.6.75 *Pe*
 ***** COMMENTS
 D0001 000818418 PRES LVL

0002593245 0001 DISK STOR 2 SP 5 DG9175 S ~~SHP~~ 13MAR75 0000 installed 16.6.75 *Pe*
 ***** COMMENTS 0000000662553
 D0001 000818418 PRES LVL

END

FEATURE	BM	STAT	FEATURE	BM	STAT	FEATURE	BM	STAT	FEATURE	BM	STAT
0002591006		INT	0002591012		INT	0002591020		INT	0002591040		INT
0002591185		SHP	0002591190		TBR	0002591299		INT	0002592600		INT
0002592706		INT	0002592998		TBR	0002592999		SHP	0002593131		INT
0002593244		TBR	0002593245		SHP						

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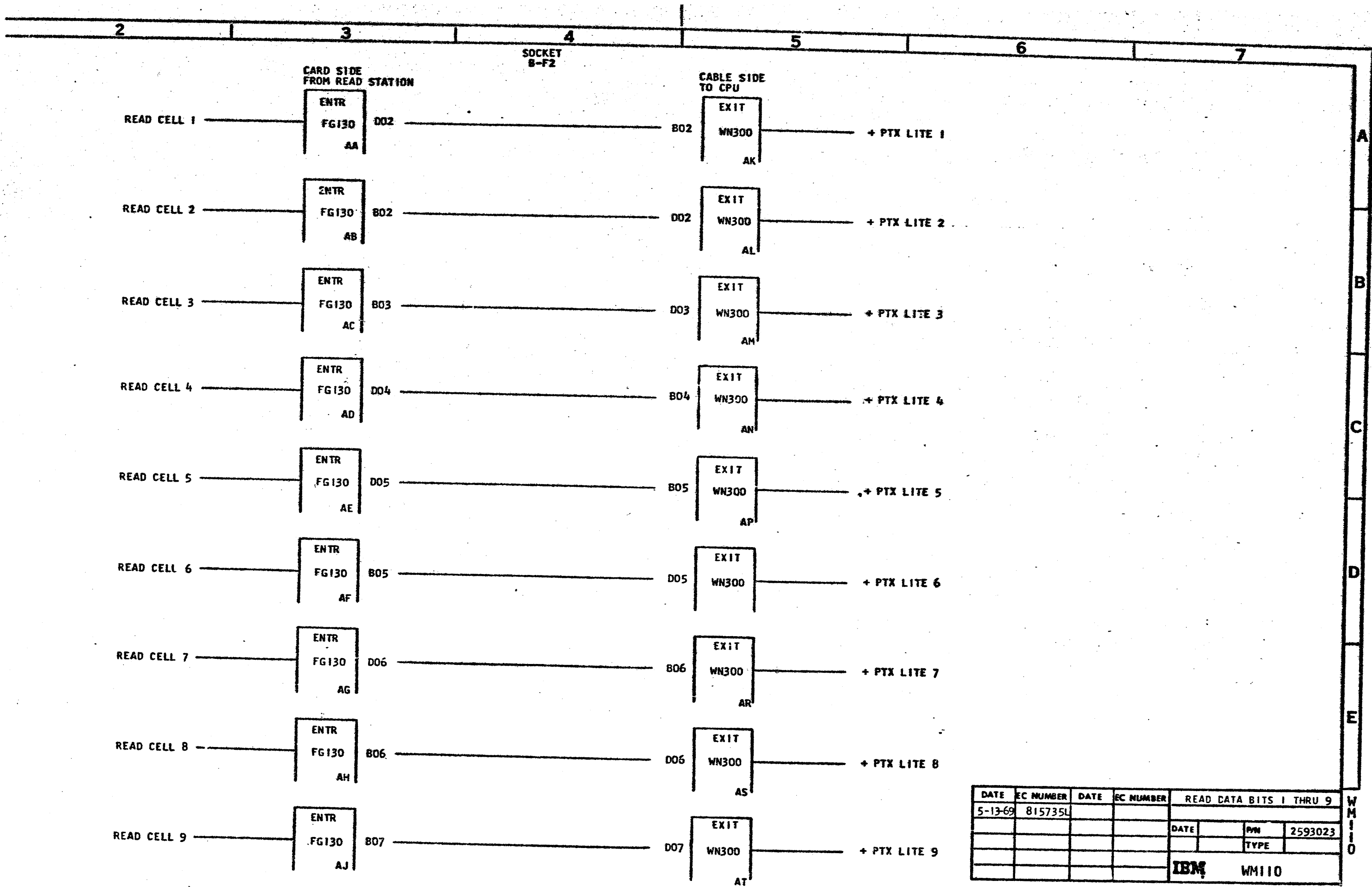
REPORT DATE 14MAR75

VOL 001 M/T 5424

SERIAL 53004619

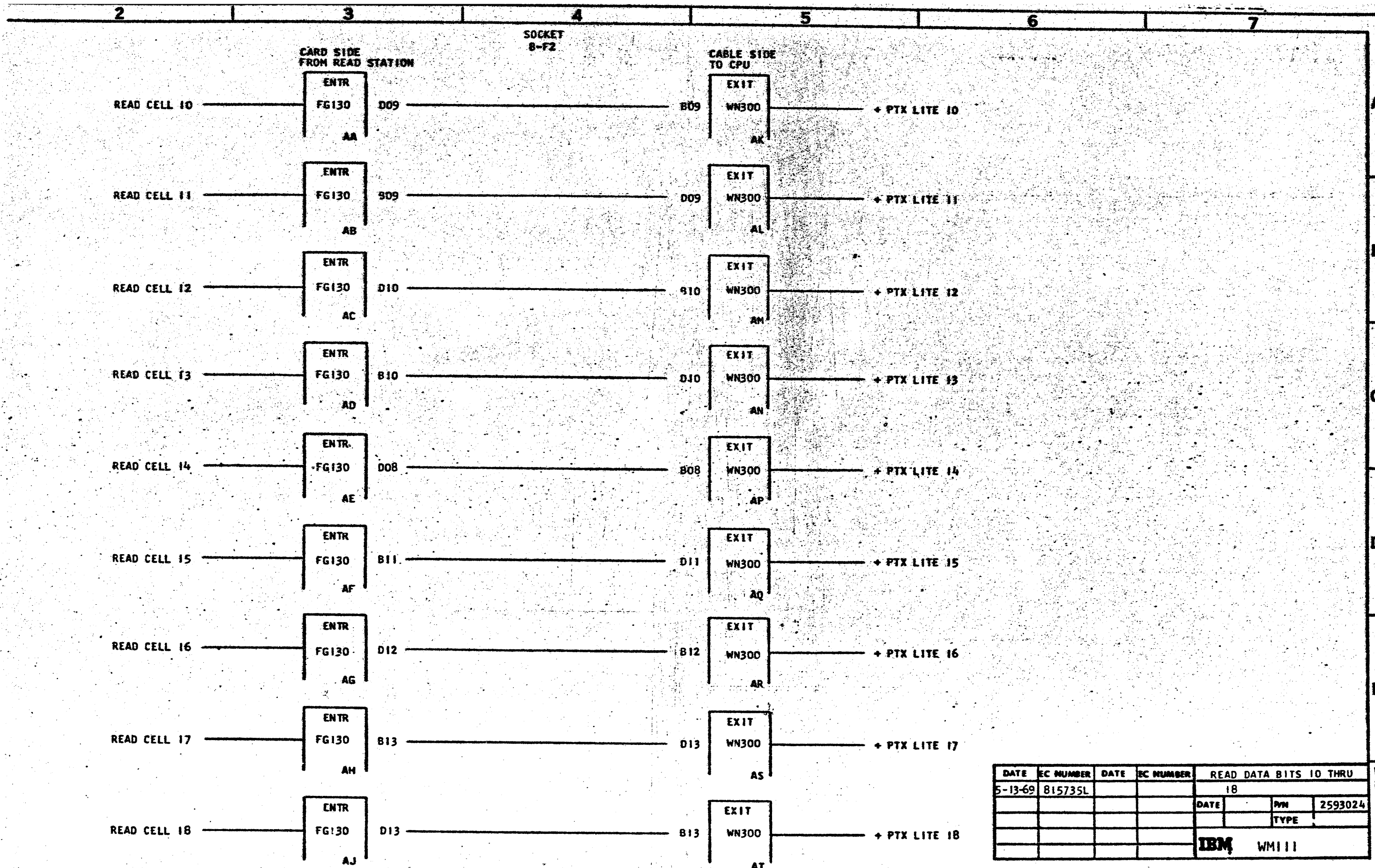
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LCCIC SYSTEMS	NUMBER DIAGRAMS	DESCRIPTION	PART NUMBER	EC NUMBER	FEATURE	BM
	WM110	READ DATA BITS 1 THRU 9	0002593023	000815735L		
	WM111	READ DATA BITS 10 THRU 18	0002593024	000815735L		
	WM120	PCF CHK SAMPLE & RESET	0002593026	000815876		
	WM121	PCF CHK DATA BITS 124EAB P CDLU	0002593027	000815735L		
	WM130	CB SIGNALS 1	0002593029	000815876		
	WM131	CB SIGNALS 2	0002593030	000815735L		
	WM140	SWITCH SIGNALS 1	0002593031	000818992		
	WM141	SWITCH SIGNAL 2	0002593032	000815735L		
	WM150	IND LAMPS FC CHK 1 TC 9	0002593033	000815876		
	WM151	IND LAMPS FC CHK 10 TC 16	0002593034	000820404		
	WM152	IND LAMPS FC CHK 17 TC 20	0002593035	000815876		
	WM153	IND LAMPS MISC IND	0002593036	000815876		
	WM160	CTRL MAGNET DRS 1 5AMP	0002593037	000817604C		
	WM161	CTRL MAGNET DRS 2 5AMP	0002593038	000817604C		
	WM162	CTRL MAGNET DRS 3 5AMP	0002593039	000818294		
	WM163	CTRL MAGNET DRS 4 3AMP	0002593040	000815876		
	WM164	CTRL MAGNET DRS 5 2AMP	0002593041	000815876		
	WM170	PCF MAG DRS 1 TC 6	0002593042	000820404		
	WM171	PCF MAG DRS 7 TC 12	0002593043	000820404		
	WM172	PCF MAG DRS 13 TC 18	0002593044	000820404		
	WM180	PRT MAG DRIVE 1 TC 4	0002593047	000818270	w	000259104C
	WM181	PRT MAG DRIVE 5 TC 8	0002593049	000818270	w	000259104C
SYSTEMS	DIAGRAMS					
	FG110	PLUG CHART AC1 6 BIT	0002593000	000818270	w	000259104C
	R E A S	0005305161				
	FG120	TERN BLOCK AC1 KC1	0002593008	000817604C	w	000259104C
	FG130	READ SIGNALS 6 BIT	0002593010	000818992	w	000259104C
	FG140	PUNCH CHECK SIGNALS 6 BIT	0002593012	000820404	w	000259104C
	FG150	PRINT MAGNET SIG AC1 KC1	0002593014	000818270	w	000259104C
	FG160	PRINT MAGNET SIGNALS 6 BIT	0002593016	000818322	w	000259104C
	FG161	PUNCH TIMING	0002593087	000818322		
	FG170	CTRL MAGNETS 1	0002593018	000817604C		
	FG171	CTRL MAGNET 2	0002593019	000820404		
	FG172	CCU MAG METER CTRL	0002593091	000818506		
	FG173	CONTROL MAGNET 3	0002593054	000817604C		
	FG180	EMITTER SIGNALS	0002593020	000818270		
	FG190	LAMPS	0002593021	000815735L		
	FG200	SWITCHES	0002593022	000818992		
	FG210	MTR ST SW SCHEMATIC	0002593089	000820404		
	FG211	MTR ST SW LAYOUT	0002593090	000820404		
	FG212	TRIAC MOTOR SWITCH	0002593076	000818516C		
	FG220	COMPONENT LIST	0002593052	000818506		
	FG221	COMPONENT LIST CRL MAGS	0002593092	000817604C		
	YB115	POWER DISTR AC1 6 BIT	0002593004	000818418	w	000259104C
	YB116	PWR DIS W.D.	0002593086	000818506		
	YB117	24V DISTR ECU DISTR	0002593094	000817663A		
	YF215	+24V DC PWR SUPPLY	0002593093	000818992		



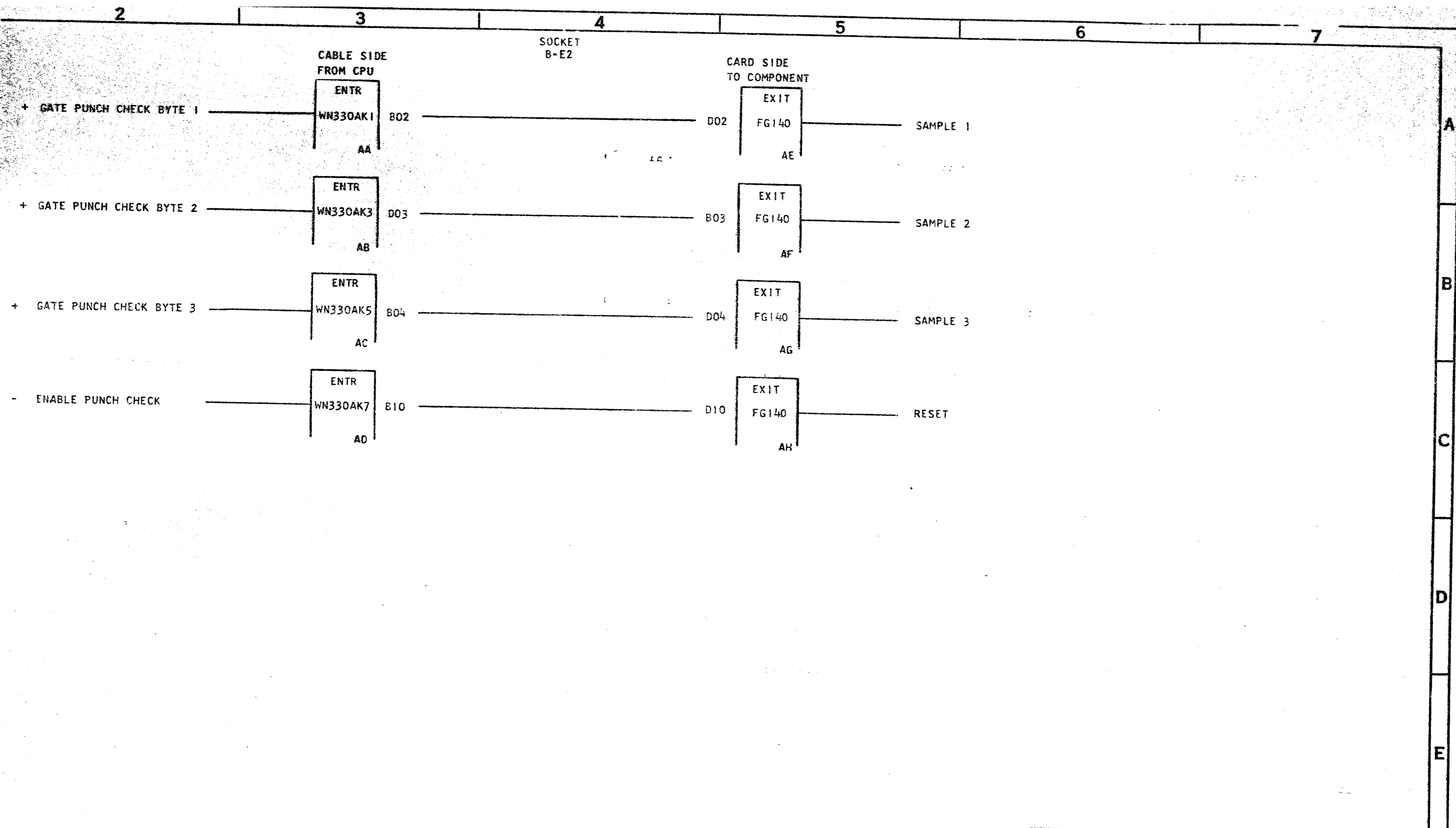
DATE	EC NUMBER	DATE	EC NUMBER	READ DATA BITS 1 THRU 9		
5-13-69	815735L			DATE	PW	2593023
					TYPE	
				IBM WM110		

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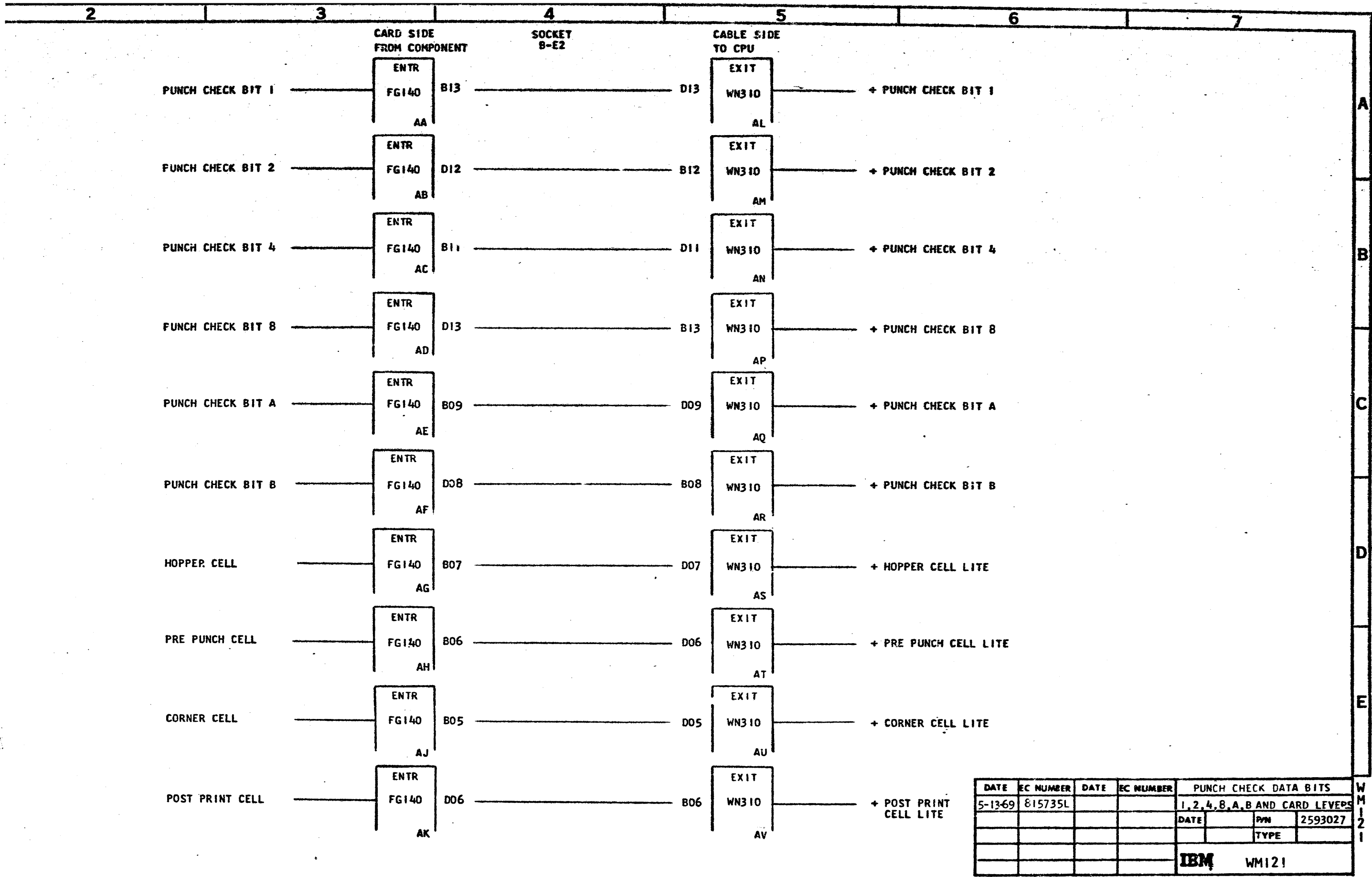
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5-13-69	815735L			18	
				DATE	P/N
					2593024
				TYPE	
				IBM WM111	

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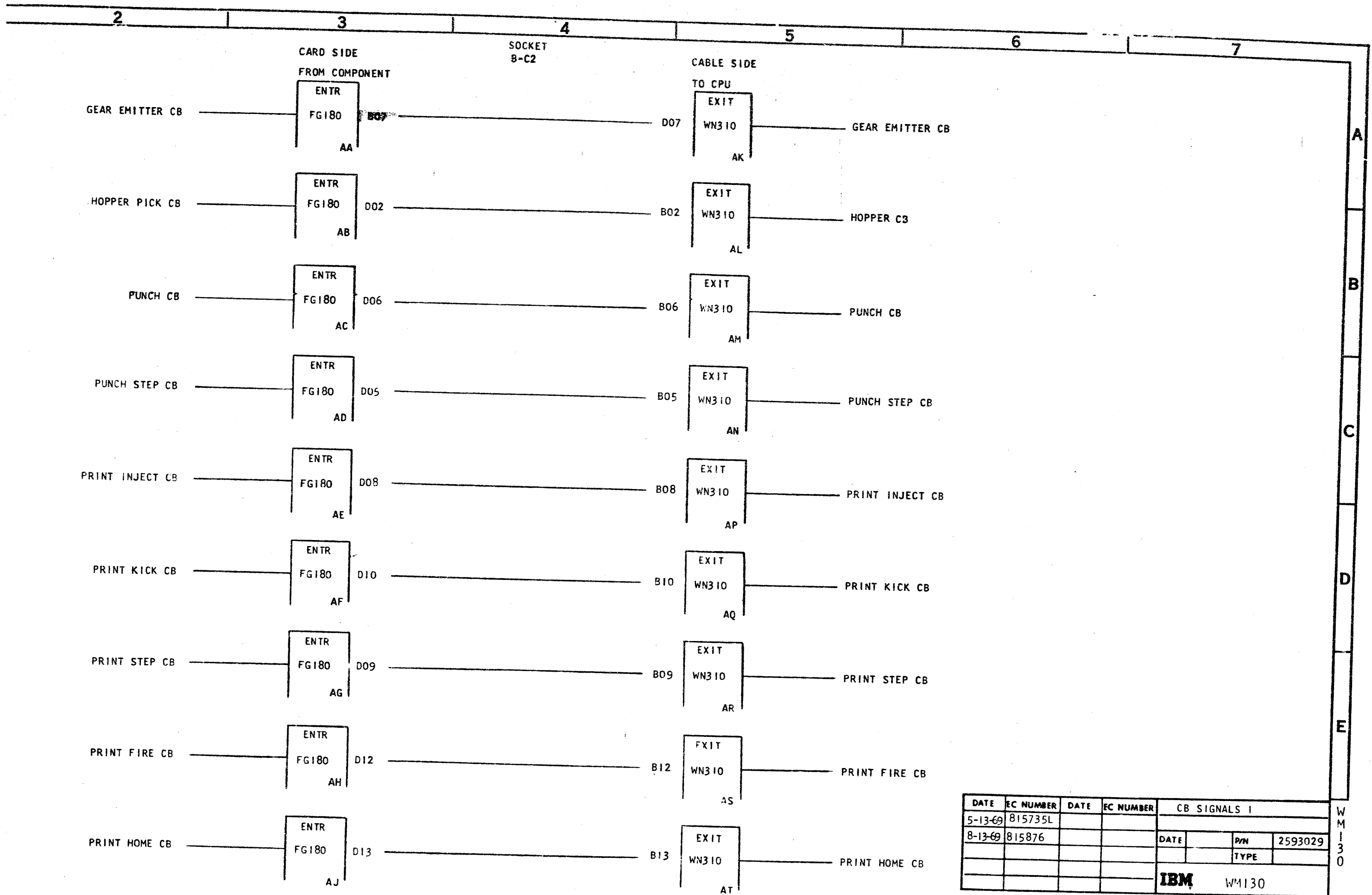
DATE	EC NUMBER	DATE	EC NUMBER	PUNCH CHECK	
5-13-69	815735L			SAMPLE AND RESET	
8-13-69	815876			DATE	P/N 2593026
					TYPE
				IBM	WM120

WM120



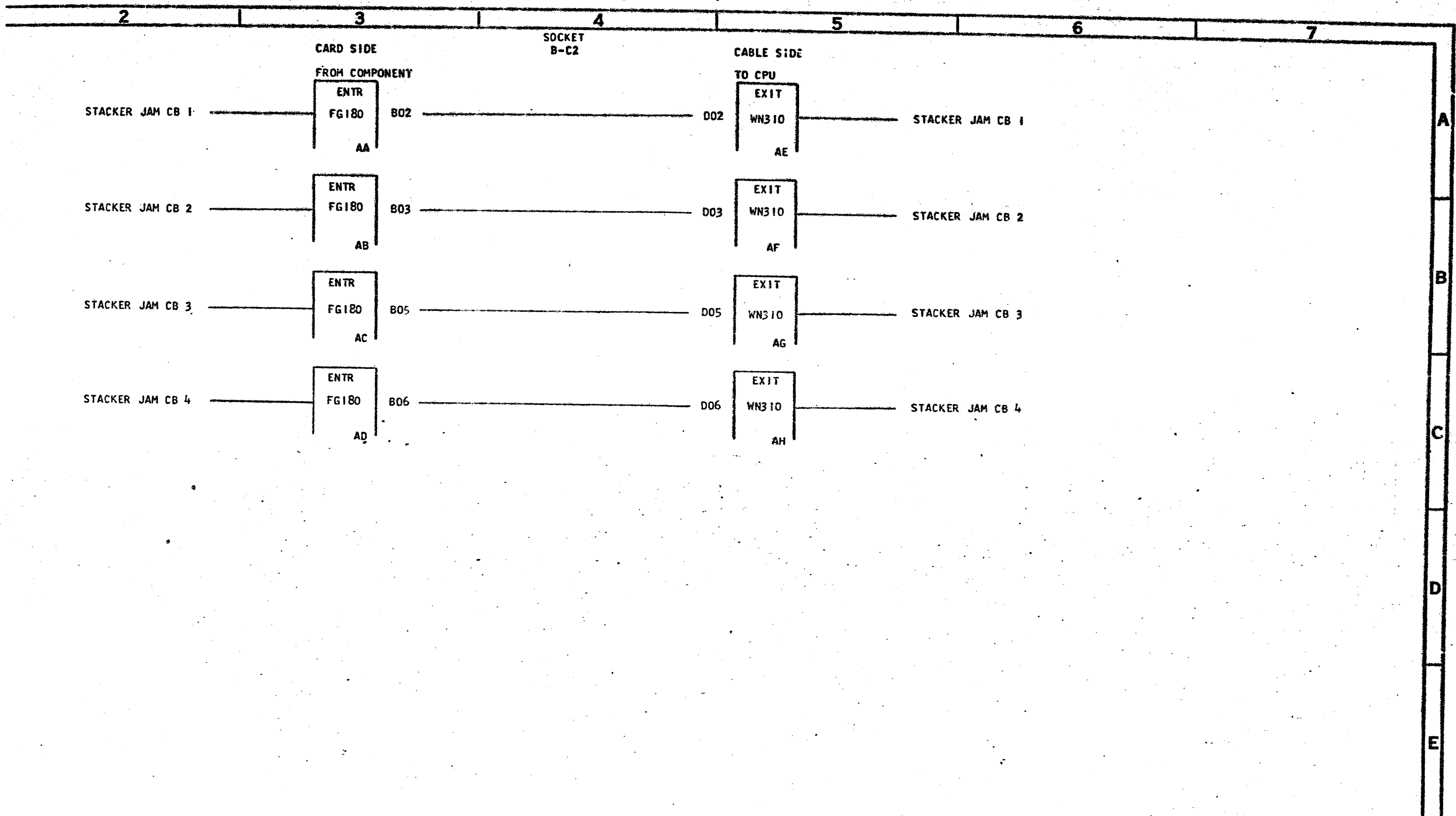
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5-13-69	815735L			1, 2, 4, 8, A, B AND CARD LEVERS	
				DATE	PVN 2593027
					TYPE
				IBM	WM121

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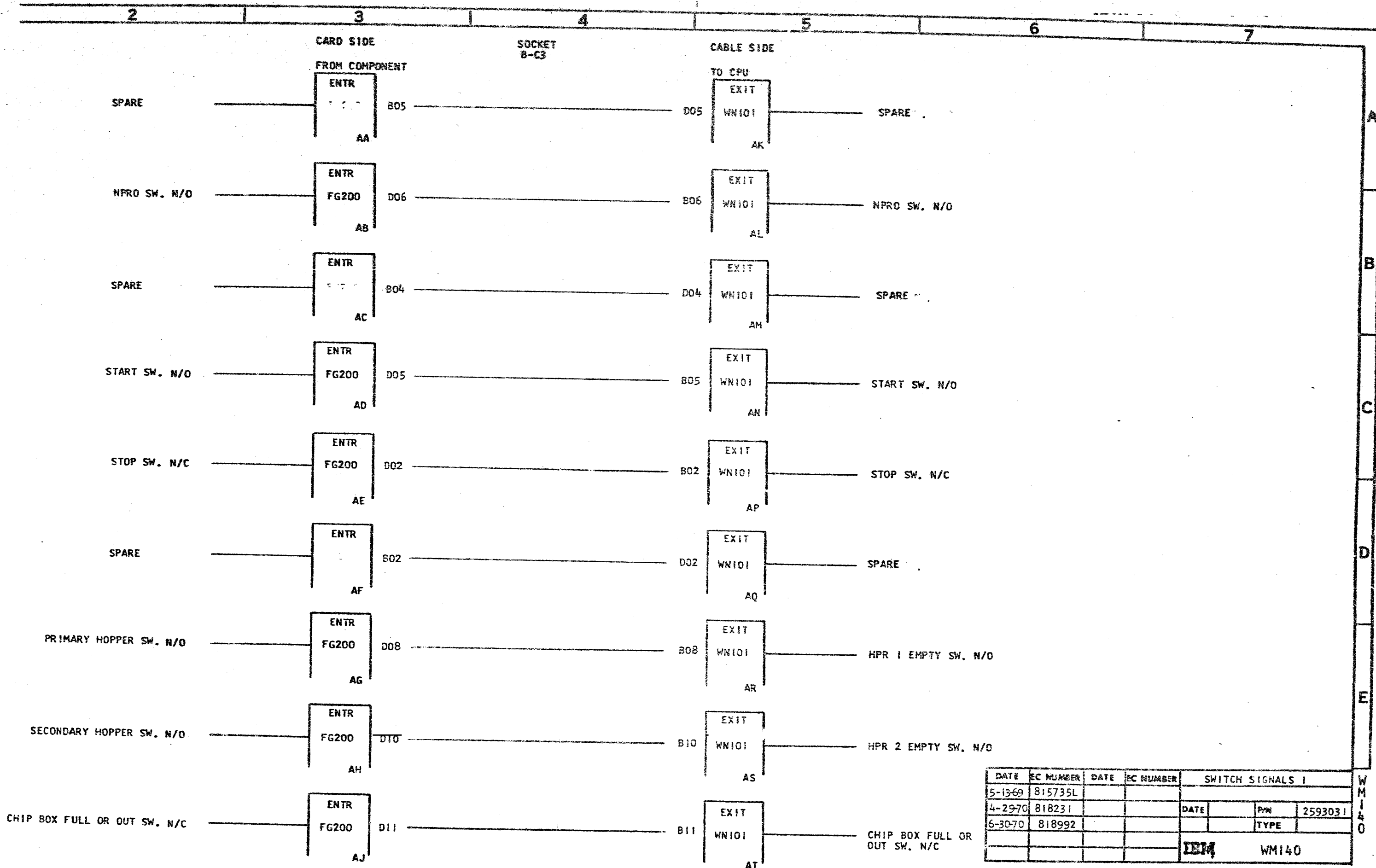
DATE	EC NUMBER	DATE	EC NUMBER	CB SIGNALS I		
5-13-69	815735L			DATE	P/N	2593029
8-13-69	815876				TYPE	
				IBM WM130		

WM130



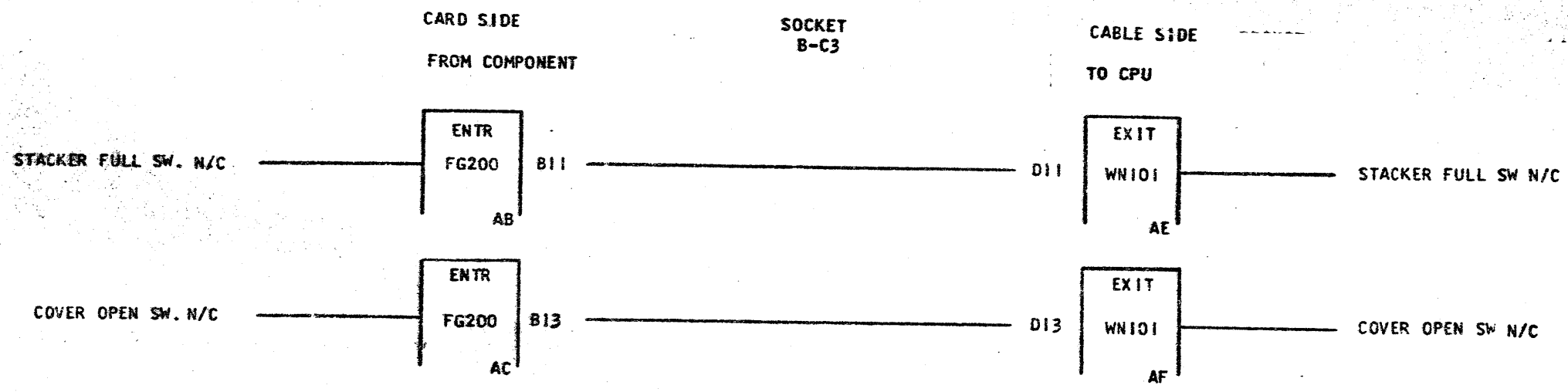
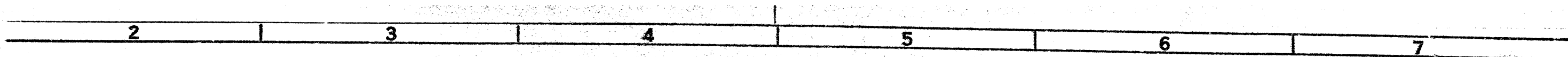
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5-13-69	815735L			DATE	P/N 2593030
				TYPE	
				IBM	WM131

WM131



DATE	EC NUMBER	DATE	EC NUMBER	SWITCH SIGNALS I		
5-13-69	815735L					
4-29-70	818231			DATE	P/W	2593031
6-30-70	818992				TYPE	
				IBM WM140		

WM140



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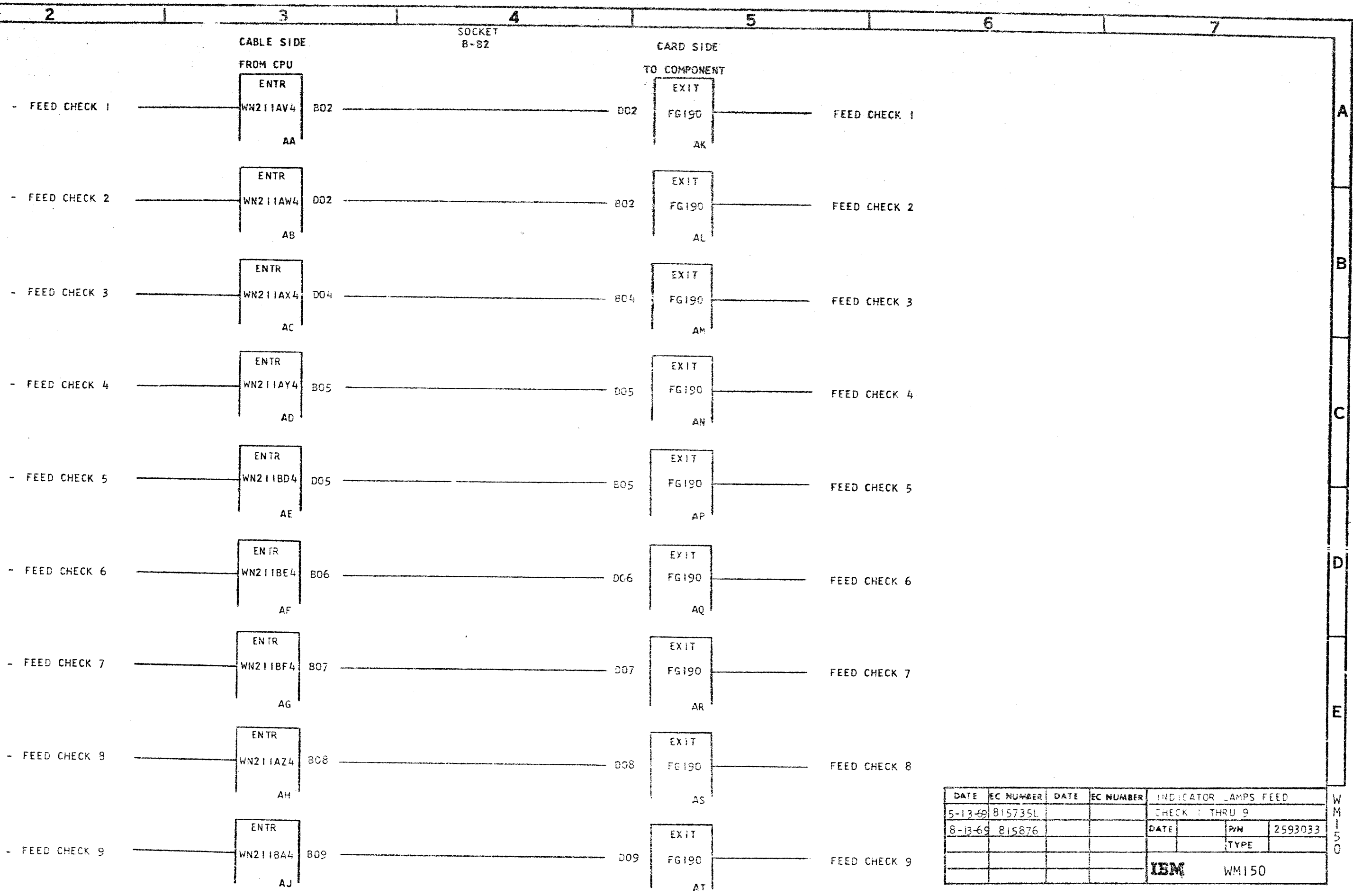
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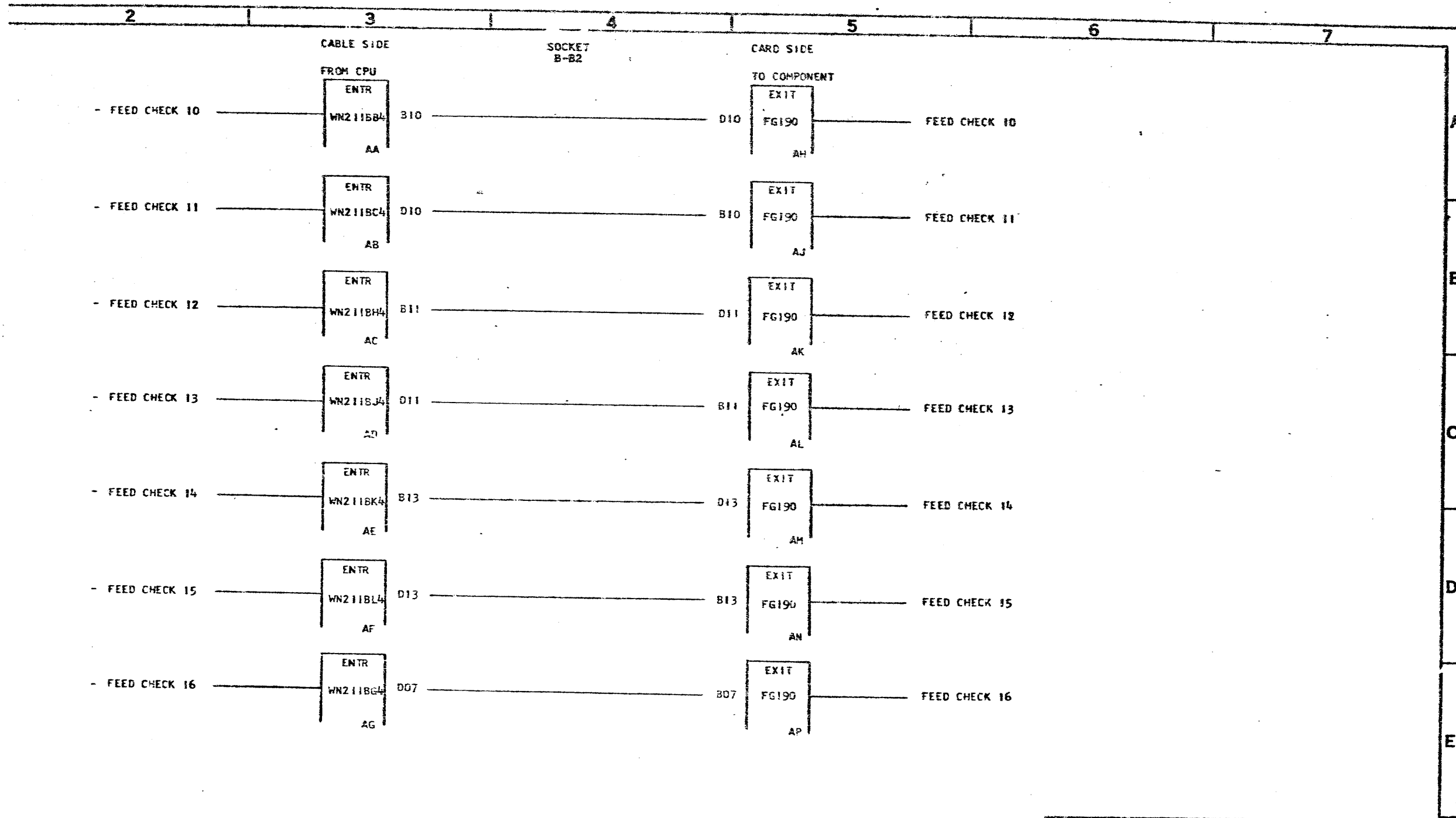
DATE	EC NUMBER	DATE	EC NUMBER	SWITCH SIGNALS 2		
5-13-69	815735L			DATE	P/N	2593032
					TYPE	
				IBM WM141		

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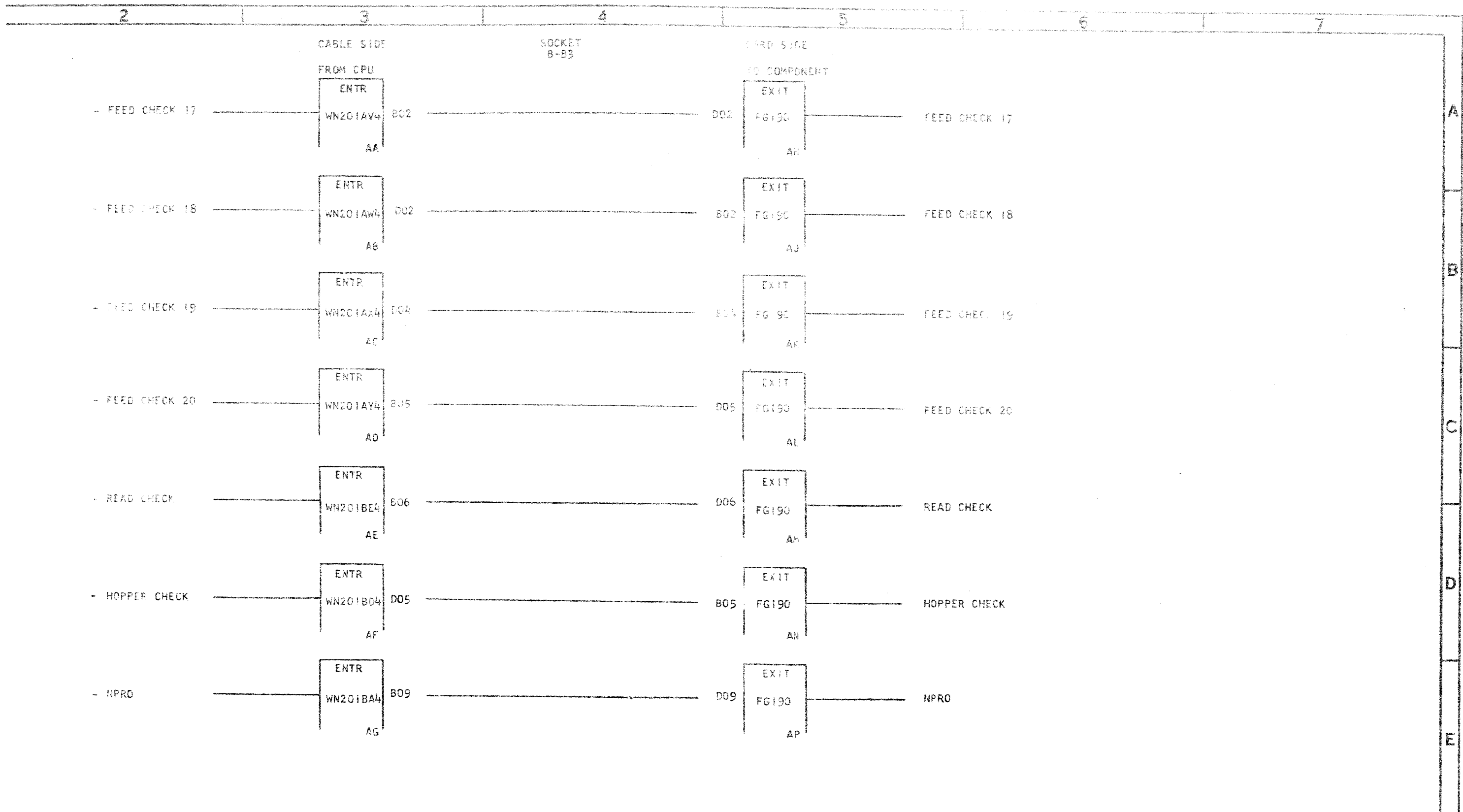
DATE	EC NUMBER	DATE	EC NUMBER	INDICATOR LAMPS FEED		
5-13-69	815735L			CHECK 1 THRU 9		
8-13-69	815876			DATE	P/N	2593033
					TYPE	
				IBM	WM150	

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WM150



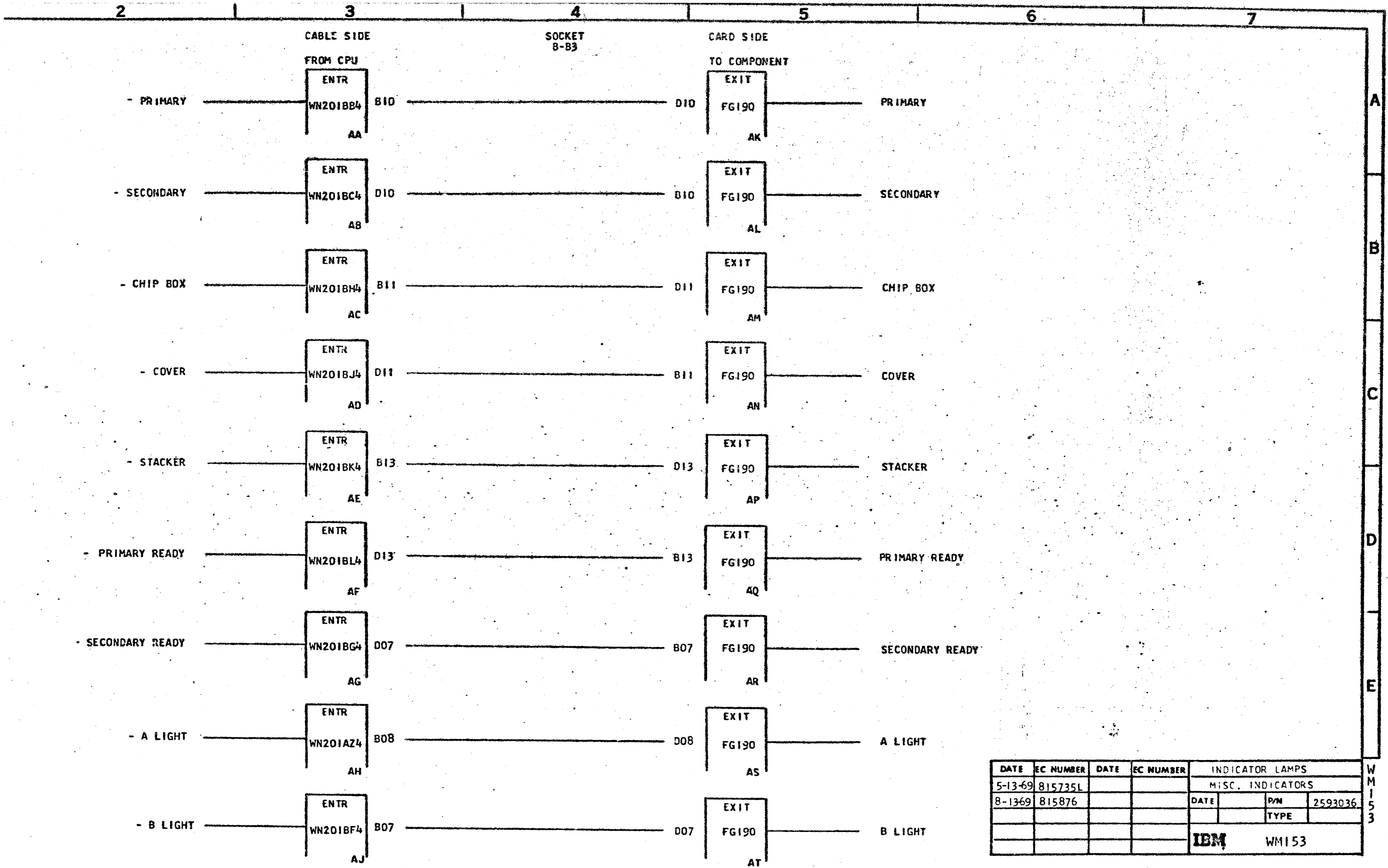
DATE	EC NUMBER	DATE	EC NUMBER	INDICATOR LAMPS FEED		
5-13-69	815735L			CHECK 10 THRU 16		
8-15-69	815876			DATE	WN	2593034
25APR72	820404				TYPE	
				IBM WM151		

WM151



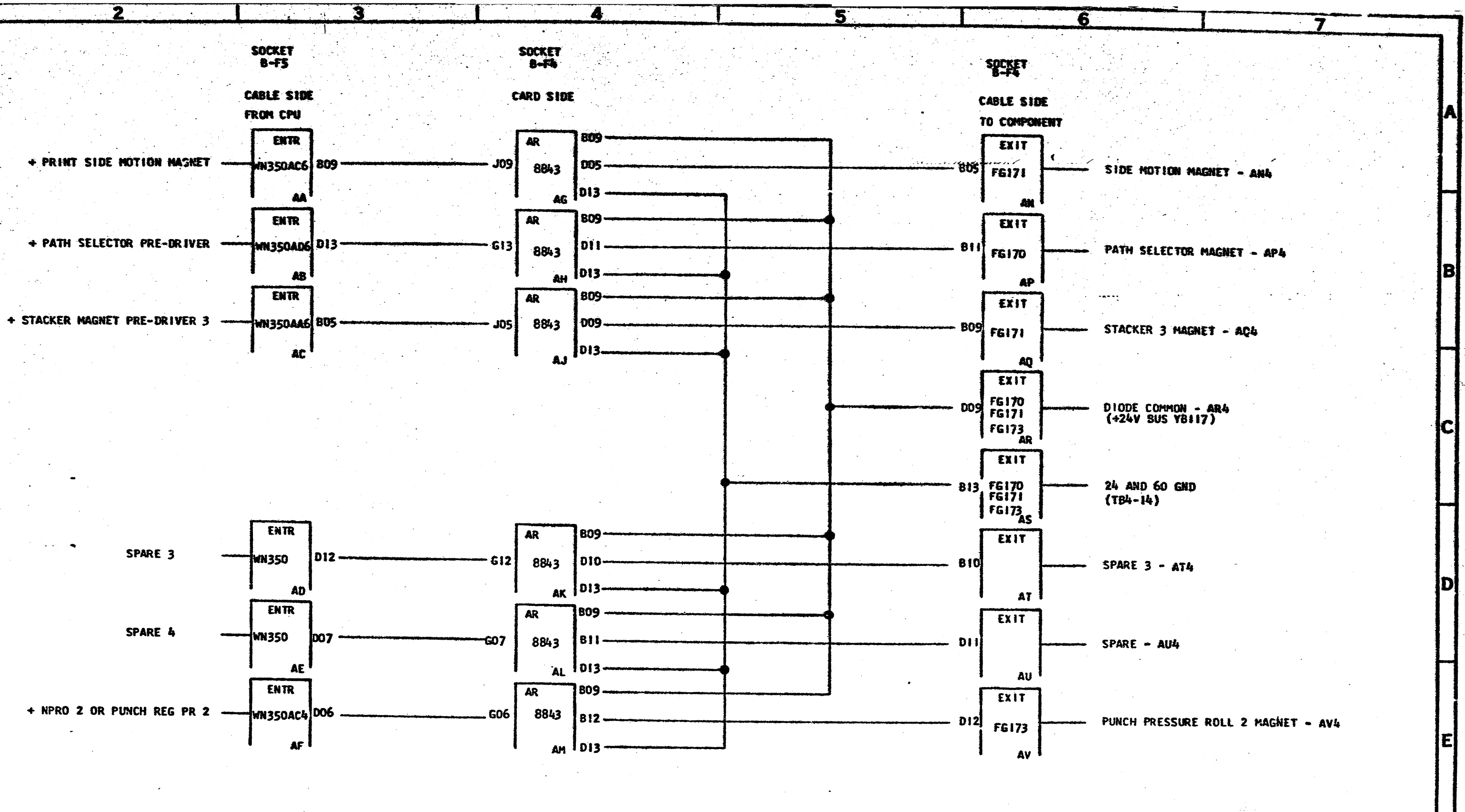
DATE	EC NUMBER	DATE	EC NUMBER	INDICATOR LAMPS FEED		
5-13-69	815735L			CHECK 17 THRU 20		
8-10-69	815876			DATE	P/N	2593035
					TYPE	
				IBM WM152		

WM152



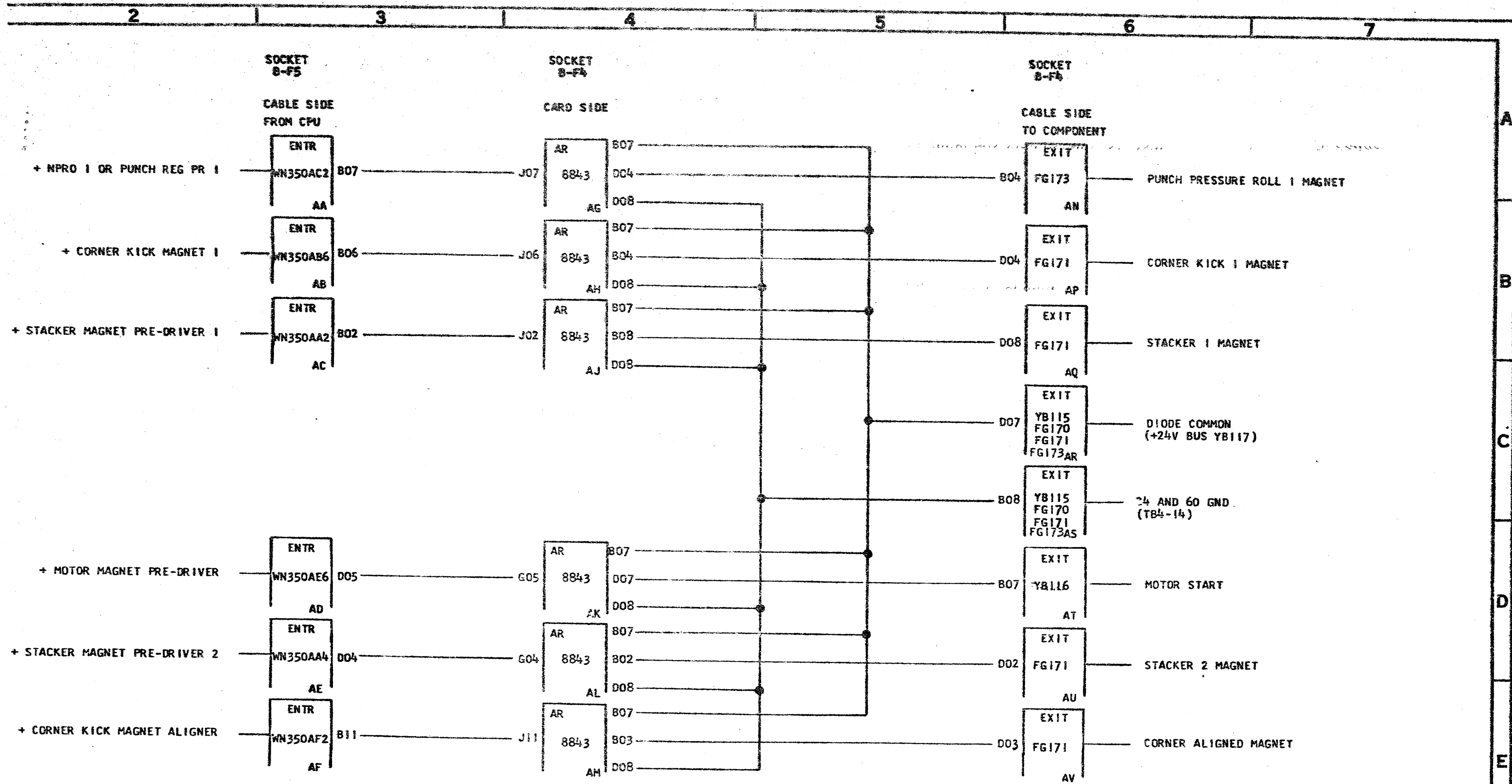
DATE	EC NUMBER	DATE	EC NUMBER	INDICATOR LAMPS		
5-13-69	815735L			MISC. INDICATORS		
8-13-69	815876			DATE	P/N	2593036
					TYPE	
				IBM	WM153	

WM153



DATE	EC NUMBER	DATE	EC NUMBER	CONTROL MAGNET DRIVERS I		
5-8-69	815735L			.5 AMP		
8-13-69	815876			DATE	BY	2593037
5-4-70	817645A				TYPE	
6-30-70	818992			IBM WM160		
11-30-70	817604C					

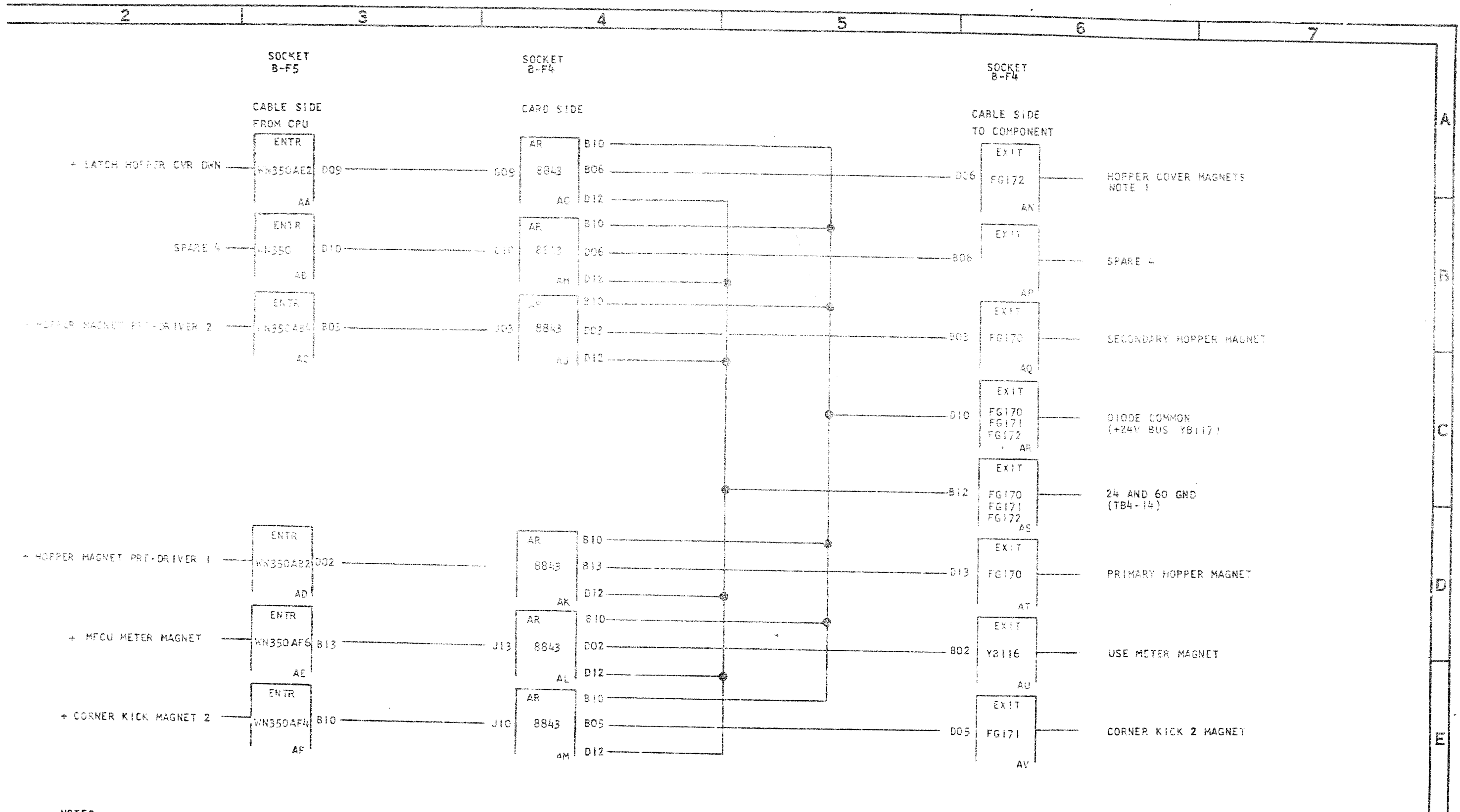
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WM160



DATE	EC NUMBER	DATE	EC NUMBER	CONTROL MAGNET DRIVERS 2		
5-13-69	815735L	11-30-70	817604C	.5 AMP		
8-13-69	815876			DATE	P/N	2593038
12-8-69	817603				TYPE	
5-4-70	817645A			IBM WM161		
6-30-70	818992					

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WM161



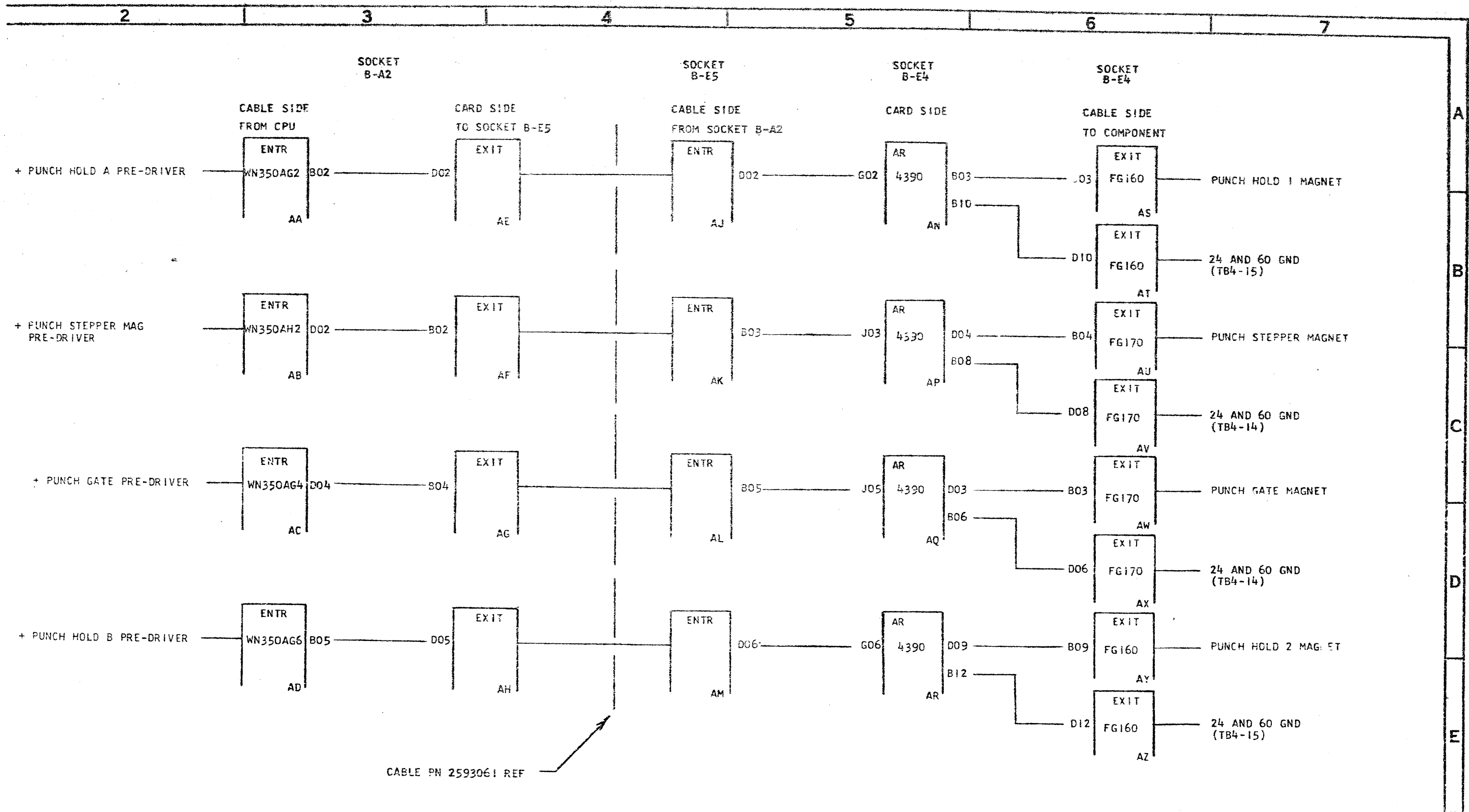
NOTES

1 HOPPER COVERS WIRED ON MACHINES ONLY PRIOR TO EC 817699,

DATE	EC NUMBER	DATE	EC NUMBER	CONTROL MAGNET DRIVERS 3		
5-13-69	815735L	6-30-70	818992	.5 AMP		
8-13-69	815876	11-17-70	818294	DATE	P/H	2593039
10-27-69	817524				TYPE	
12-8-69	817603			WM162		
5-4-70	817645A					

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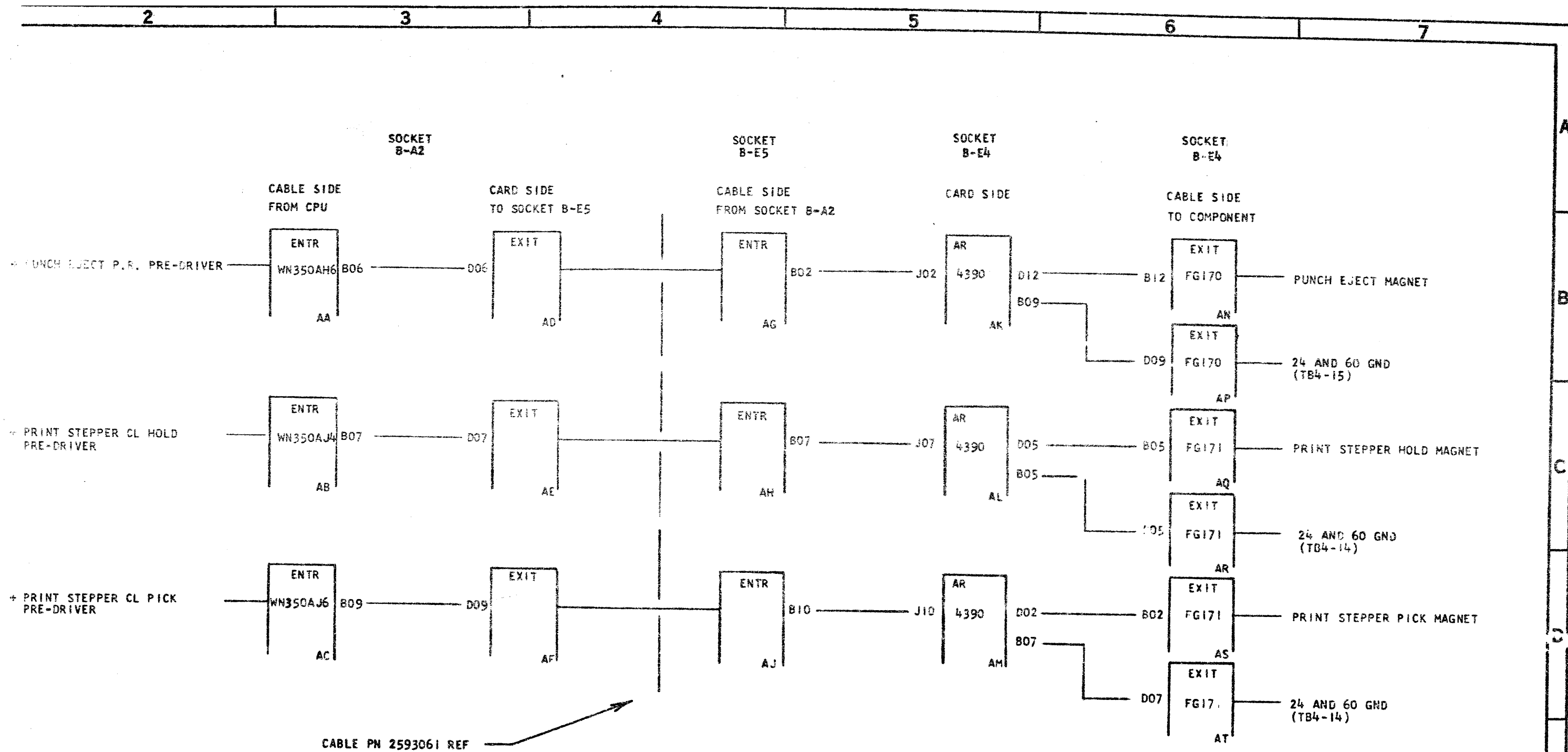
WM162



CABLE PN 2593061 REF

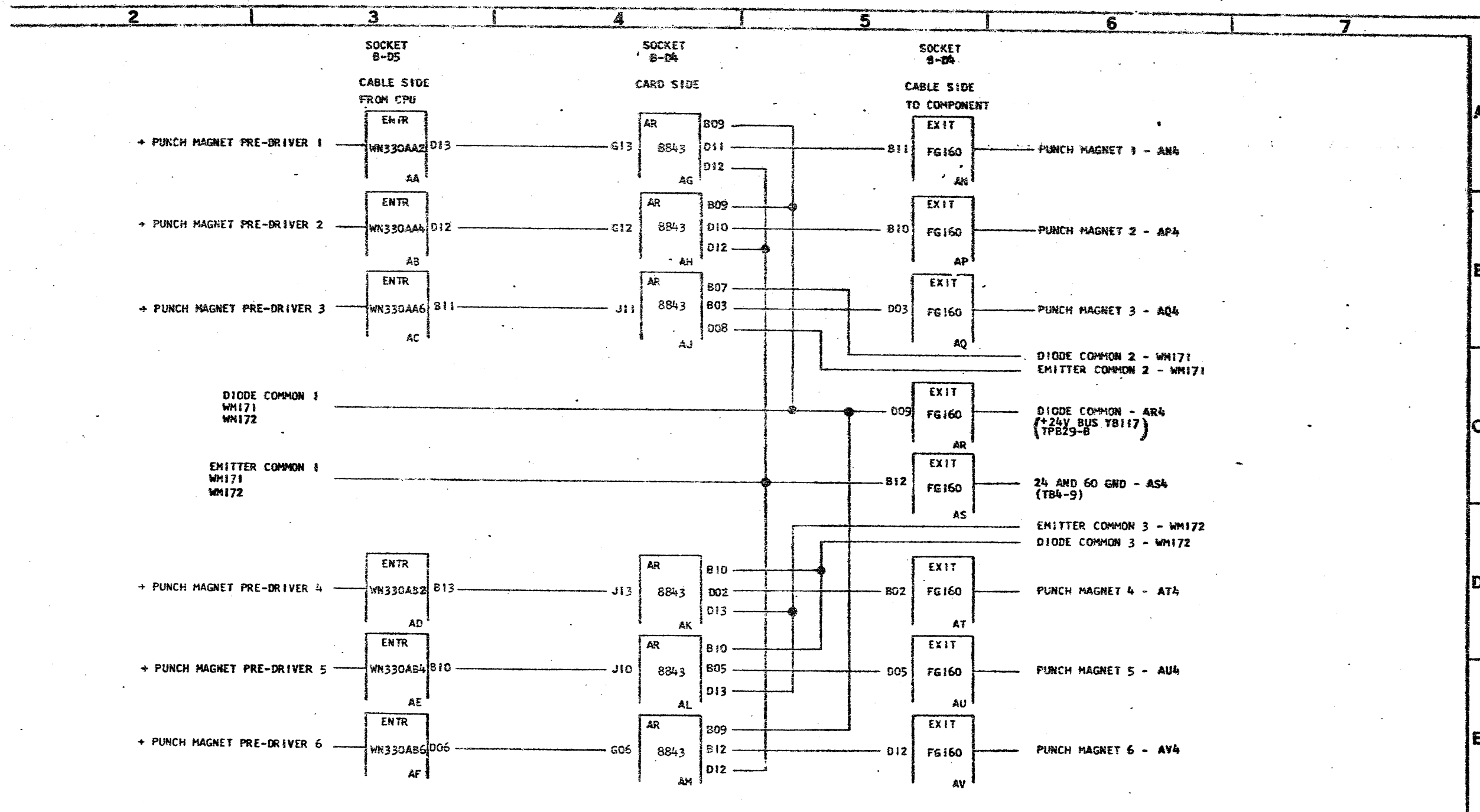
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5-13-69	815735L			.3 AMP		
8-13-69	815876			DATE	P/N	2593040
					TYPE	
				IBM	WM163	

WM163

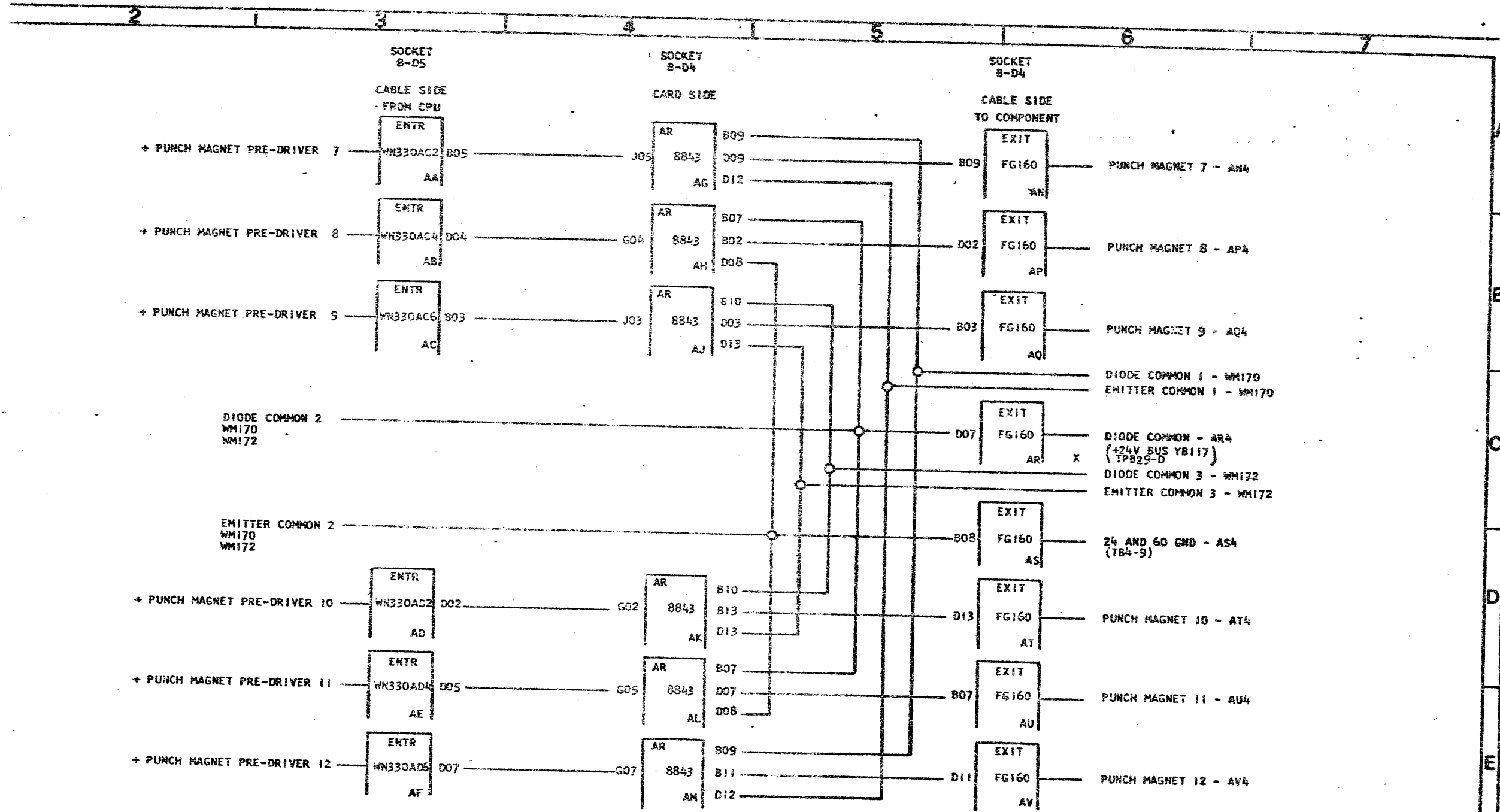


DATE	EC NUMBER	DATE	EC NUMBER	CONTROL MAGNET DRIVERS 5		
5-13-69	815735L			.3 AMP		
8-13-69	815876			DATE	P/N	2593041
					TYPE	
				IBM WM164		

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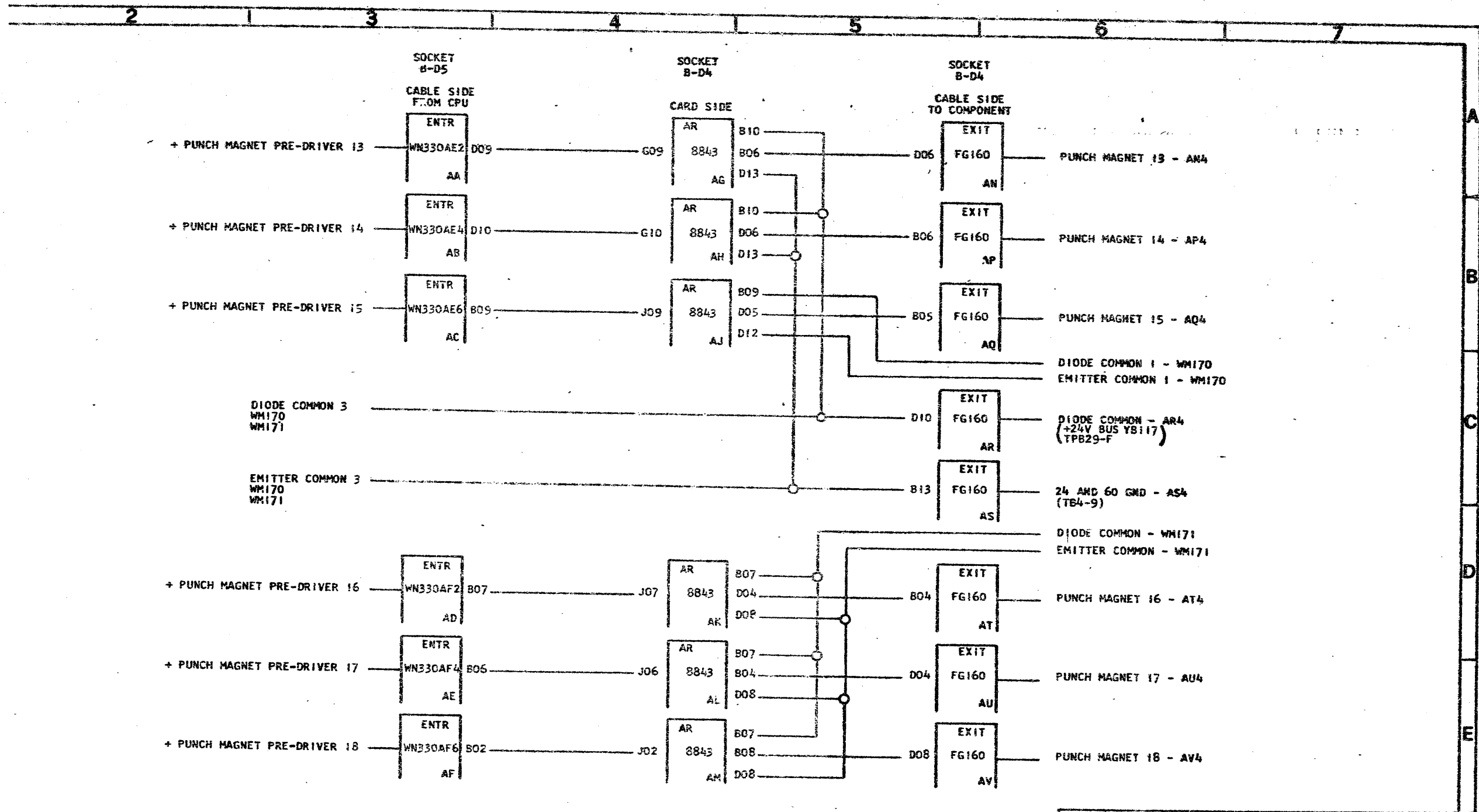


DATE	EC NUMBER	DATE	EC NUMBER	PUNCH MAGNET DRIVERS	W M 1 7 0
5-13-59	815735L			1 THRU 6	
8-13-69	815876			DATE PWN 2593042	
5-4-70	817645A			TYPE	
6-30-70	818992			IBM WM170	
4-25-72	820404				



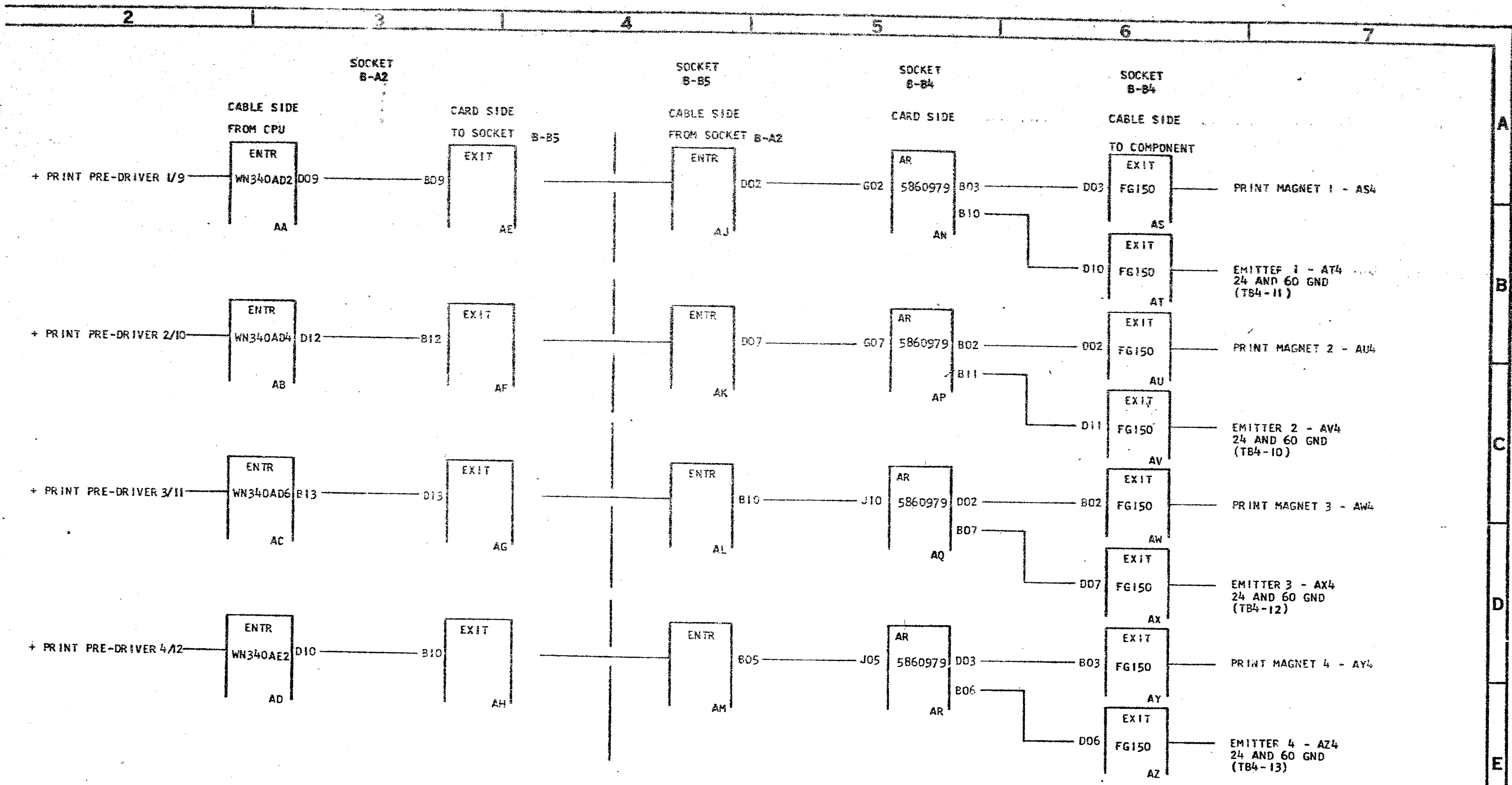
DATE	EC NUMBER	DATE	EC NUMBER	PUNCH MAGNET DRIVERS	
5-13-69	815735L			7 THRU 12	
8-8-69	815876			DATE	R/W 2593043
5-4-70	817645A			TYPE	
6-30-70	818992				
25APR72	820404			IBM	WM171

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WM171



DATE	EC NUMBER	DATE	EC NUMBER	PUNCH MAGNET DRIVERS		
5-13-69	815735L			13 THRU 18		
8-13-69	815876			DATE	BY	2593044
5-4-70	817645A				TYPE	
6-30-70	818992					
25 APR 72	820404			IBM		WM172

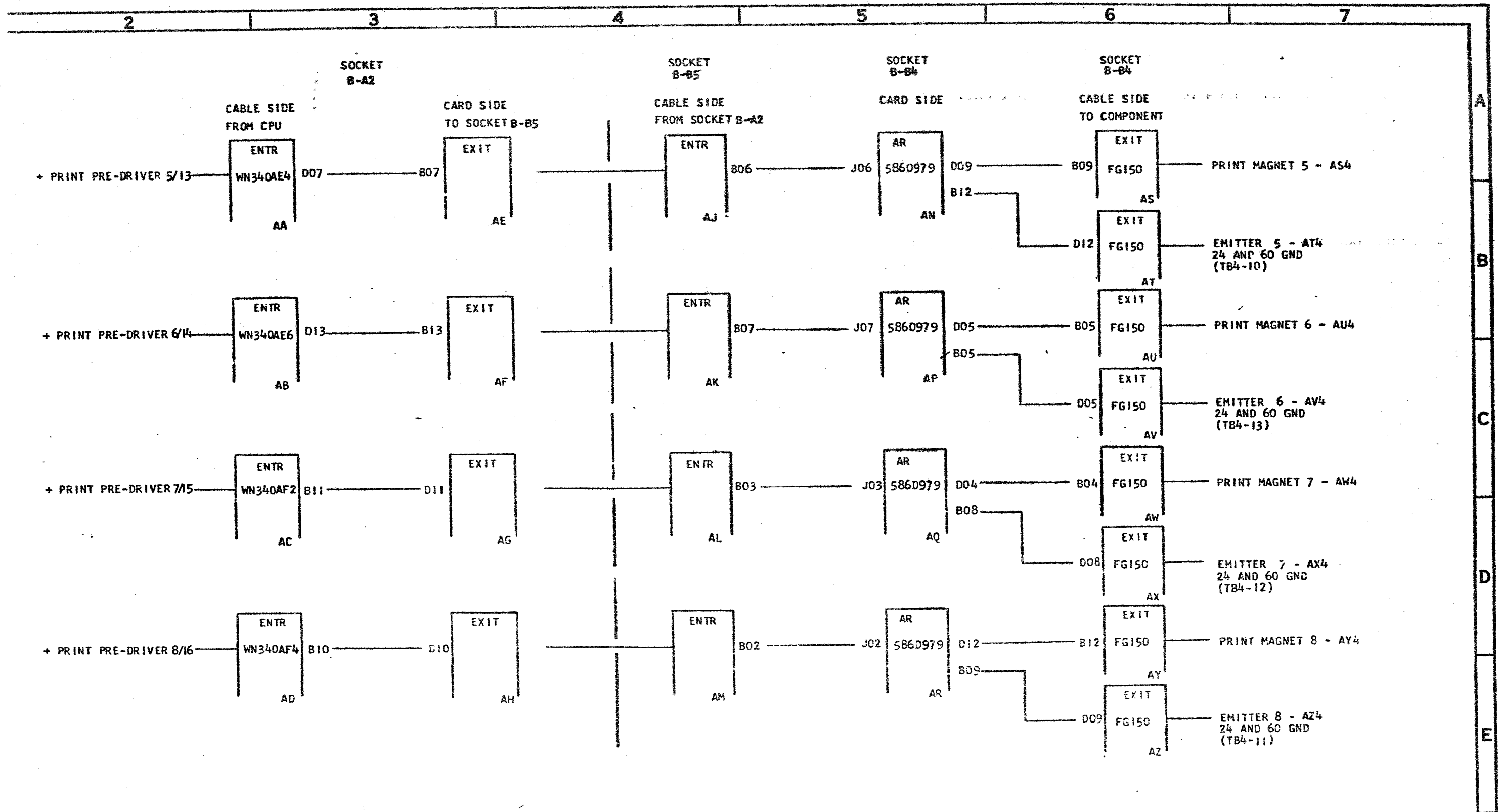
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WM172



NOTE
 1 FOR INPUT USE NUMBER BEFORE SLASH FOR MODELS A01, K01
 2 B4 CARD MAY BE 5808751 IN EARLY MACHINES.

DATE	EC NUMBER	DATE	EC NUMBER	PRINT MAGNET DRIVERS		
5-13-69	815735L	6-30-70	818992	1 THRU 4 MOD A01		
8-13-69	815876	1-25-71	818270	DATE	P/N	2593047
12-8-69	817603				TYPE	
2-6-70	817590B					
5-4-70	817645A			IBM WM180		

WM180

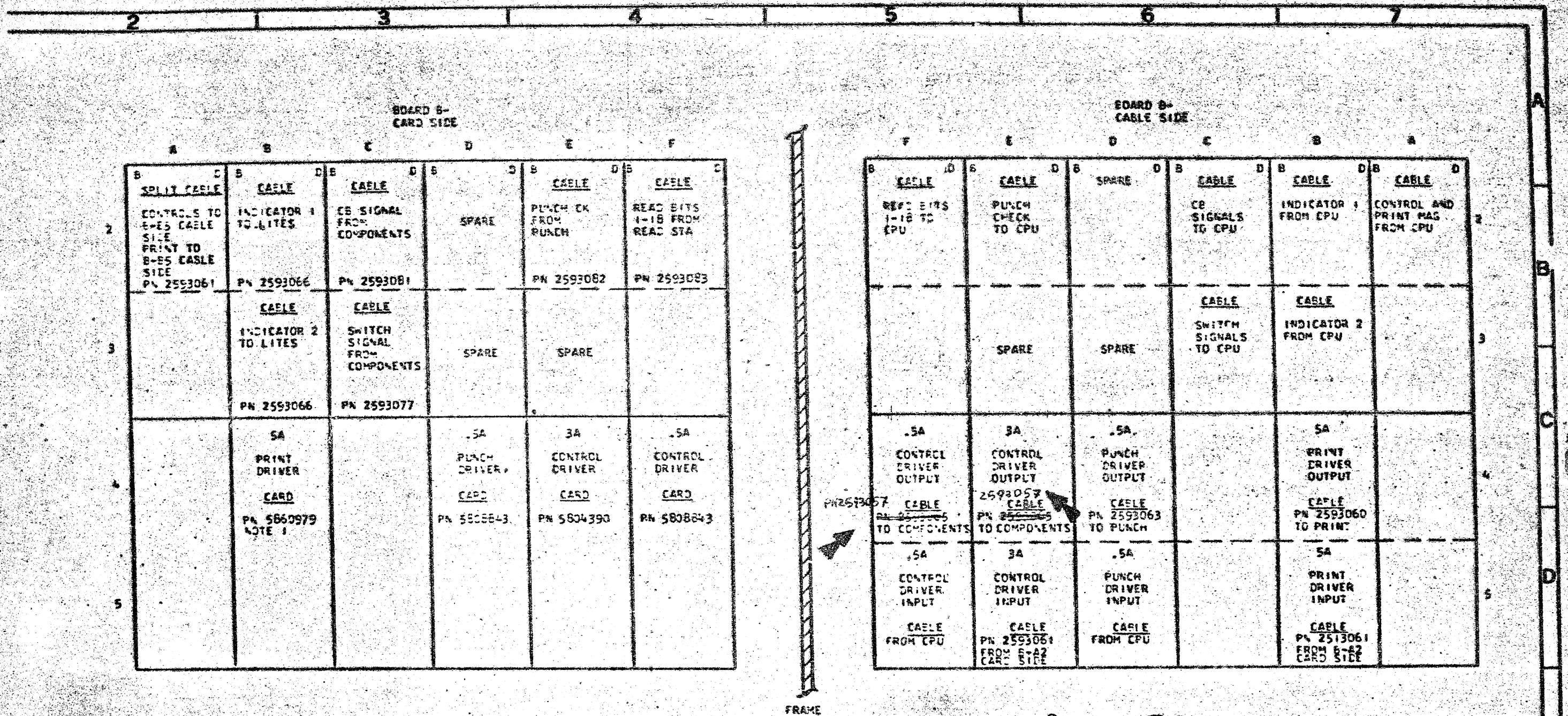


NOTE

- 1 FOR INPUT USE NUMBER BEFORE SLASH FOR MODELS A01, K01
- 2 B4 CARD MAY BE 5808751 IN EARLY MACHINES.

DATE	EC NUMBER	DATE	EC NUMBER	PRINT MAGNET DRIVERS
5-13-69	815735L	1-25-71	818270	5 THRU 8 MOD A01
8-13-69	815876			DATE
2-6-70	817590B			P/N 2593049
5-4-70	817645A			TYPE
6-30-70	818992			IBM WM181

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NOTE
1 EARLY MACHINES MAY HAVE P/N 58C8751 IN THIS LOCATION.

REA 53-05161

DATE	EC NUMBER	DATE	EC NUMBER	PLUG CHART	
5-13-69	815735L			MOD 1 6 BIT	
8-13-69	81587E			DATE	P/N 2593000
2-6-70	81752CE				TYPE
1-25-71	81827C			IBM FG110	

BOARD B-
CARD SIDE

	B	D	B	D	B	D	B	D	B	D		
2	<u>SPLIT CABLE</u> CONTROLS TO B-E5 CABLE SIDE PRINT TO B-B5 CABLE SIDE PN 2593061		<u>CABLE</u> INDICATOR 1 TO LITES PN 2593066		<u>CABLE</u> CB SIGNAL FROM COMPONENTS PN 2593081		SPARE		<u>CABLE</u> PUNCH CK FROM PUNCH PN 2593082		<u>CABLE</u> READ BITS 1-18 FROM READ STA PN 2593083	
3			<u>CABLE</u> INDICATOR 2 TO LITES PN 2593066		<u>CABLE</u> SWITCH SIGNAL FROM COMPONENTS PN 2593077		SPARE		SPARE			
4			.5A PRINT DRIVER <u>CARD</u> PN 5860979 NOTE 1				.5A PUNCH DRIVER <u>CARD</u> PN 5808843		3A CONTROL DRIVER <u>CARD</u> PN 5804390		.5A CONTROL DRIVER <u>CARD</u> PN 5808843	
5												

BOARD B-
CABLE SIDE

	B	D	B	D	B	D	B	D	B	D		
2	<u>CABLE</u> READ BITS 1-18 TO CPU		<u>CABLE</u> PUNCH CHECK TO CPU		SPARE		<u>CABLE</u> CB SIGNALS TO CPU		<u>CABLE</u> INDICATOR 1 FROM CPU		<u>CABLE</u> CONTROL AND PRINT MAG FROM CPU	
3			SPARE		SPARE		<u>CABLE</u> SWITCH SIGNALS TO CPU		<u>CABLE</u> INDICATOR 2 FROM CPU			
4	.5A CONTROL DRIVER OUTPUT CABLE PN 2593065 TO COMPONENTS		3A CONTROL DRIVER OUTPUT CABLE PN 2593065 TO COMPONENTS		.5A PUNCH DRIVER OUTPUT CABLE PN 2593063 TO PUNCH				5A PRINT DRIVER OUTPUT CABLE PN 2593060 TO PRINT			
5	.5A CONTROL DRIVER INPUT CABLE FROM CPU		3A CONTROL DRIVER INPUT CABLE PN 2593061 FROM B-A2 CARD SIDE		.5A PUNCH DRIVER INPUT CABLE FROM CPU				5A PRINT DRIVER INPUT CABLE PN 2513061 FROM B-A2 CARD SIDE			

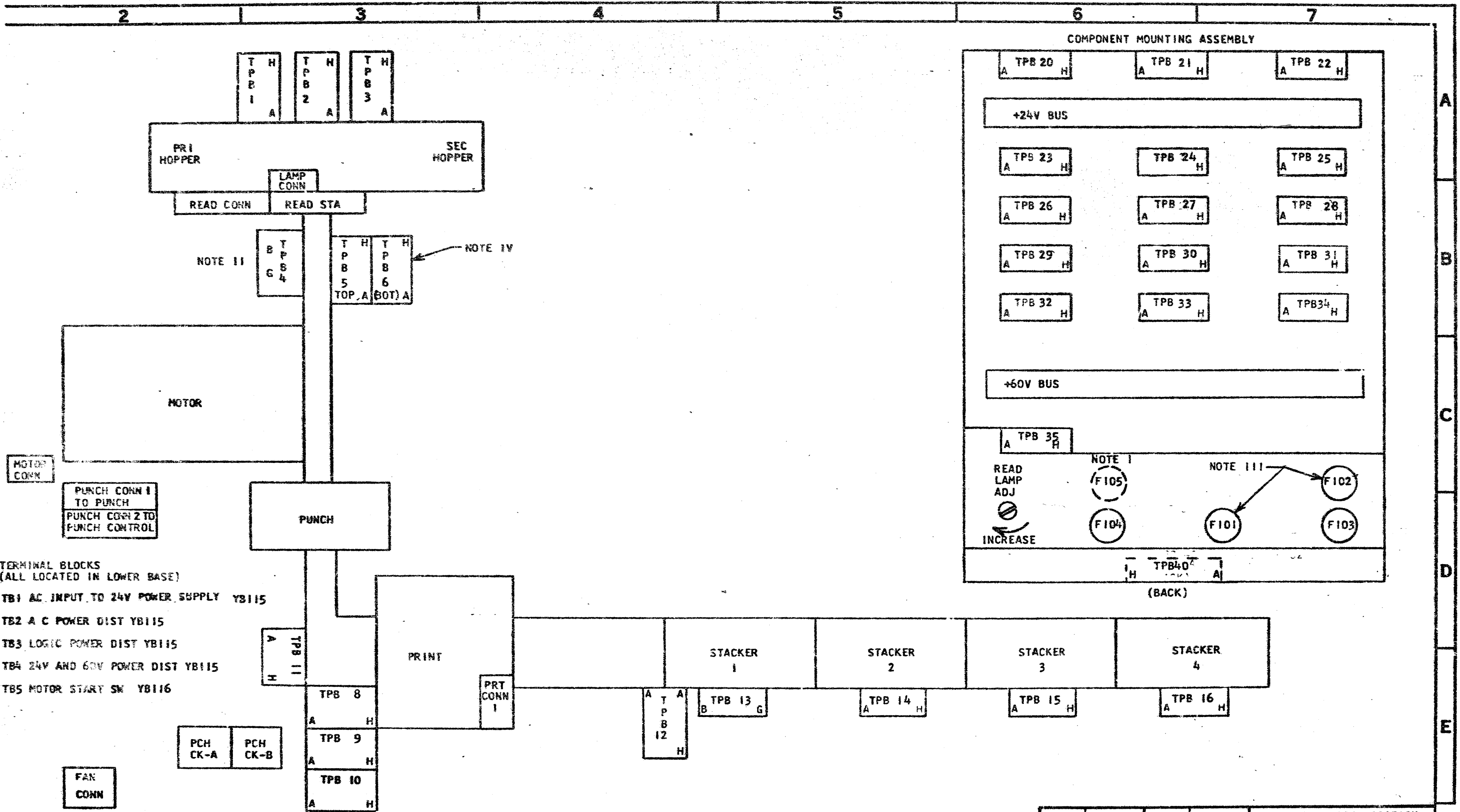


FRAME

NOTE

1 EARLY MACHINES MAY HAVE P/N 5808751 IN THIS LOCATION.

DATE	EC NUMBER	DATE	EC NUMBER	PLUG CHART		
5-13-69	815735L			MOD 1 6 BIT		
8-13-69	815876			DATE	P/N	2593000
2-6-70	817590B				TYPE	
1-25-71	818270			IBM FG110		



TERMINAL BLOCKS
(ALL LOCATED IN LOWER BASE)

- TB1 AC INPUT TO 24V POWER SUPPLY YB115
- TB2 A C POWER DIST YB115
- TB3 LOGIC POWER DIST YB115
- TB4 24V AND 60V POWER DIST YB115
- TB5 MOTOR START SW YB116

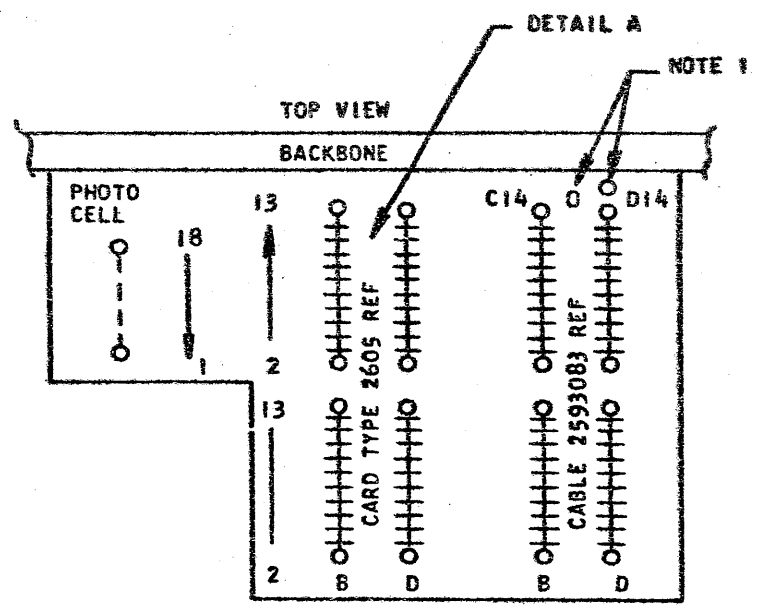
- NOTE
- I FUSE F105 USED FOR DISK FEATURE ONLY
 - II TPB4 USED FOR JAPANESE WORLD TRADE MACHINES ONLY
 - III FUSES MAY NOT BE PRESENT ON MACHINES WHERE MOTOR HAS THERMAL OVERLOAD SWITCH
 - IV TPB6 IS NOT PRESENT ON ALL MACHINES

DATE	EC NUMBER	DATE	EC NUMBER	TERMINAL BLOCK LOCATION		
5-13-69	815735L			MOD I		
8-13-69	815876A			DATE	PN	2593008
8-26-69	815876B			TYPE		
12-8-69	817603			IBM FG120		
11-30-70	817604C					

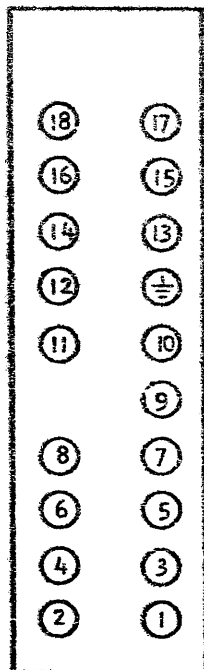
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FG120

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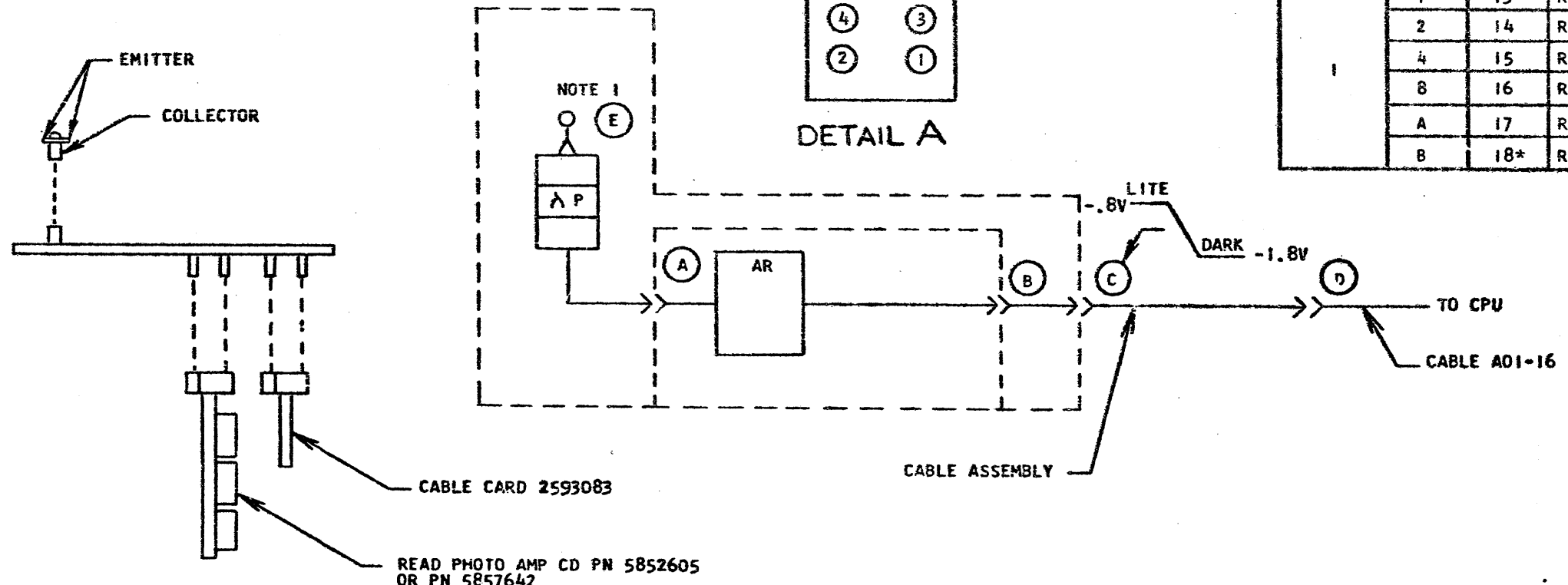


READ STATION TEST POINTS
(VIEWED FROM TOP OF READ STATION)



DETAIL A

BIT IDENTIFICATION		READ					
TIER	BIT	CELL NO.	P1	(A) FROM	(B) TO	(C) TO	(D)
3	1	1	RDCD	J02	RDCD D10	RD CBLE B10	WM110
	2	2	RDCD	G02	RDCD D11	RD CBLE B09	WM110
	4	3	RDCD	J03	RDCD B02	RD CBLE B02	WM110
	8	4	RDCD	G03	RDCD D05	RD CBLE D05	WM110
	A	5	RDCD	J04	RDCD B04	RD CBLE B04	WM110
	B	6	RDCD	G04	RDCD B03	RD CBLE B03	WM110
2	1	7	RDCD	J05	RDCD B09	RD CBLE D07	WM110
	2	8	RDCD	G05	RDCD D06	RD CBLE B06	WM110
	4	9	RDCD	J06	RDCD B05	RD CBLE B05	WM110
	8	10	RDCD	J07	RDCD D09	RD CBLE B08	WM111
	A	11	RDCD	G07	RDCD D07	RD CBLE B07	WM111
	B	12	RDCD	G08	RDCD D04	RD CBLE D04	WM111
1	1	13	RDCD	J09	RDCD D12	RD CBLE D09	WM111
	2	14	RDCD	G09	RDCD D13	RD CBLE D10	WM111
	4	15	RDCD	J10	RDCD B12	RD CBLE B12	WM111
	8	16	RDCD	G10	RDCD D02	RD CBLE D02	WM111
	A	17	RDCD	J11	RDCD D03	RD CBLE D03	WM111
	B	18*	RDCD	G11	RDCD B11	RD CBLE B11	WM111



NOTE

1 -4V WIRED TO POINT (E) VIA CABLE CARD PIN D13 TO TB3-2 VIA CABLE PN 2593083 GROUND WIRED TO INTERNAL PLANE VIA CABLE CARD PIN B13 TO TB3-8 VIA CABLE PN 2593083

DATE	EC NUMBER	DATE	EC NUMBER	READ SIGNALS		
5-13-69	815735L	6-30-70	818992	6 BIT		
8-13-69	815876			DATE	PN	2593010
10-27-69	817524				TYPE	
12-8-69	817603			IBM FG13C		
5-4-70	817645A					

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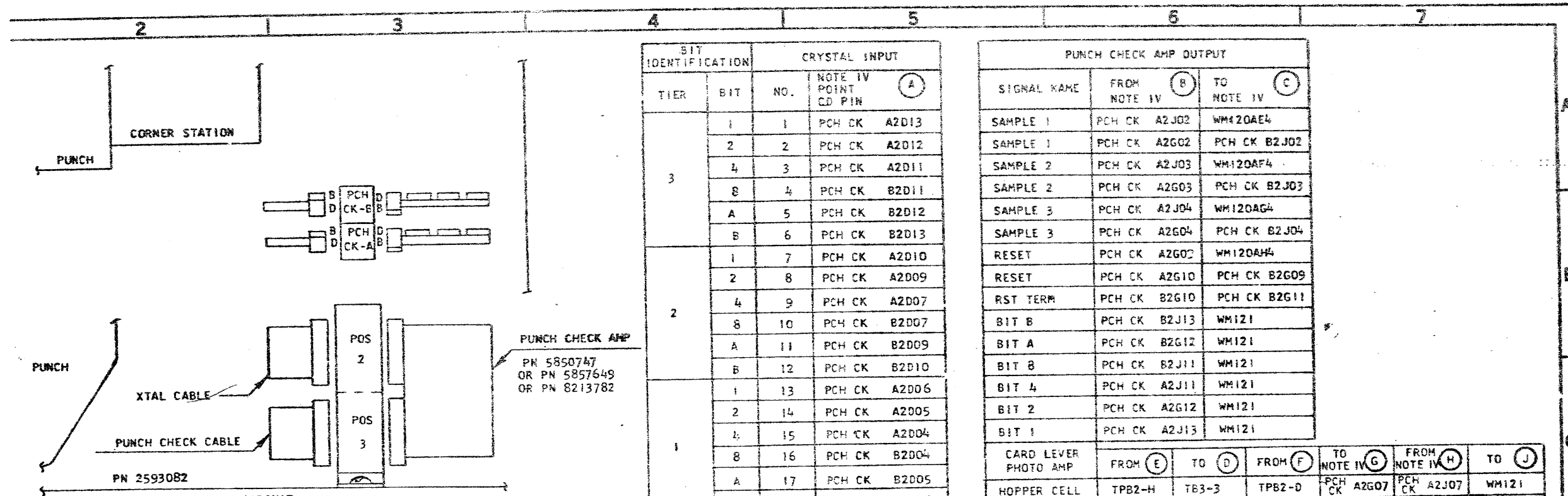
V

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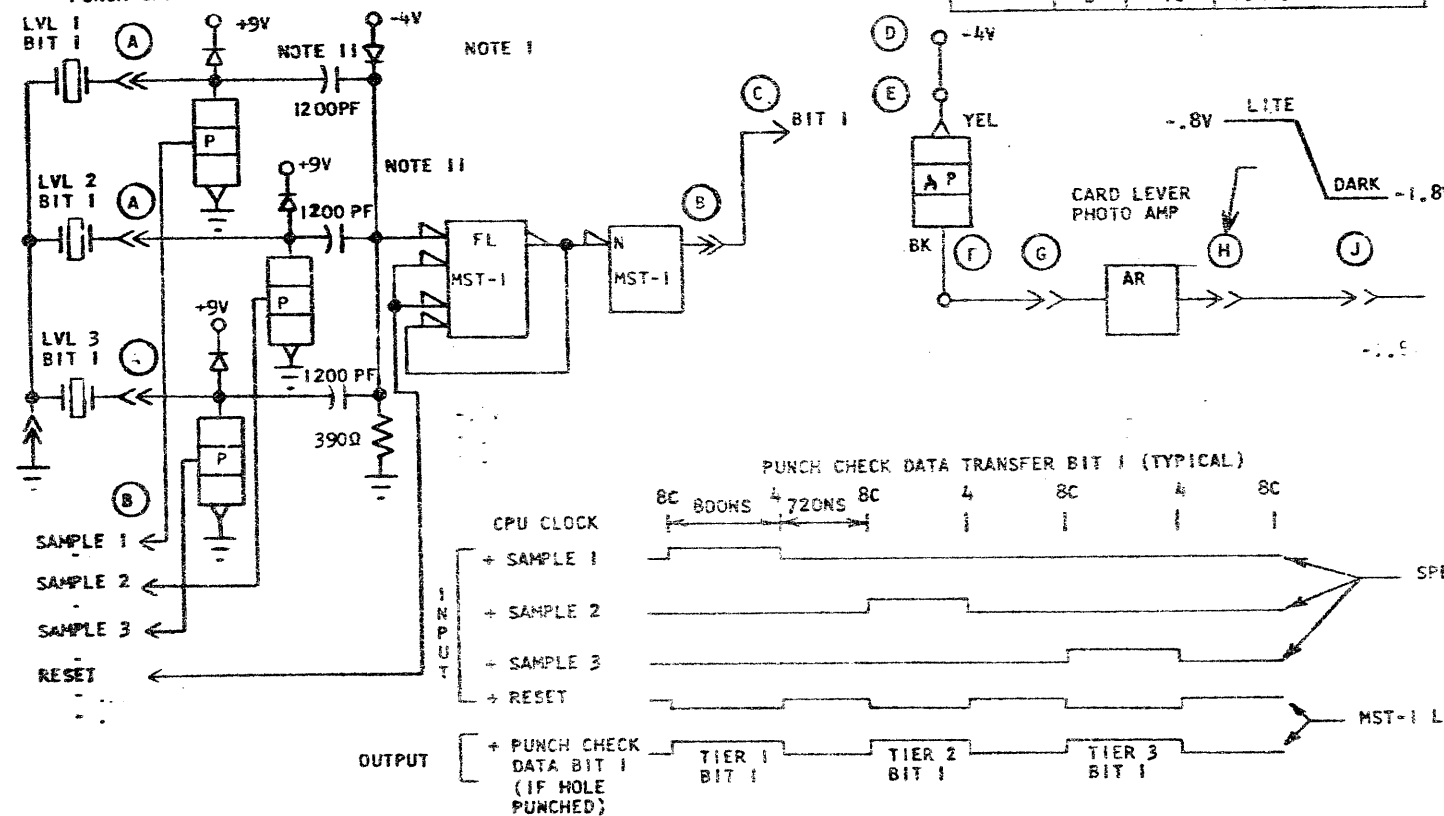


BIT IDENTIFICATION		CRYSTAL INPUT	
TIER	BIT	NO.	NOTE IV POINT CD PIN (A)
3	1	1	PCH CK A2D13
	2	2	PCH CK A2D12
	4	3	PCH CK A2D11
	8	4	PCH CK B2D11
	A	5	PCH CK B2D12
	B	6	PCH CK B2D13
2	1	7	PCH CK A2D10
	2	8	PCH CK A2D09
	4	9	PCH CK A2D07
	8	10	PCH CK B2D07
	A	11	PCH CK B2D09
	B	12	PCH CK B2D10
1	1	13	PCH CK A2D06
	2	14	PCH CK A2D05
	4	15	PCH CK A2D04
	8	16	PCH CK B2D04
	A	17	PCH CK B2D05
	B	18	PCH CK B2D06

PUNCH CHECK AMP OUTPUT		
SIGNAL NAME	FROM NOTE IV (B)	TO NOTE IV (C)
SAMPLE 1	PCH CK A2J02	WM120AE4
SAMPLE 1	PCH CK A2G02	PCH CK B2J02
SAMPLE 2	PCH CK A2J03	WM120AF4
SAMPLE 2	PCH CK A2G03	PCH CK B2J03
SAMPLE 3	PCH CK A2J04	WM120AG4
SAMPLE 3	PCH CK A2G04	PCH CK B2J04
RESET	PCH CK A2G02	WM120AH4
RESET	PCH CK A2G10	PCH CK B2G09
RST TERM	PCH CK B2G10	PCH CK B2G11
BIT B	PCH CK B2J13	WM121
BIT A	PCH CK B2G12	WM121
BIT 8	PCH CK B2J11	WM121
BIT 4	PCH CK A2J11	WM121
BIT 2	PCH CK A2G12	WM121
BIT 1	PCH CK A2J13	WM121

CARD LEVER PHOTO AMP	FROM (E)	TO (D)	FROM (F)	TO NOTE IV (G)	FROM NOTE IV (H)	TO (J)
HOPPER CELL	TPB2-H	TB3-3	TPB2-D	PCH CK A2G07	PCH CK A2J07	WM121
PUNCH CELL NOTE V	PCH CONN 2-T	TB3-2	PCH CONN 2-W	PCH CK A2G08	PCH CK A2J06	WM121
CORNER CELL	TPB8-H	TB3-3	TPB8-D	PCH CK B2G07	PCH CK B2J07	WM121
PRINT CELL	TPB12-B	TB3-3	TPB12-A	PCH CK B2G08	PCH CK B2J06	WM121

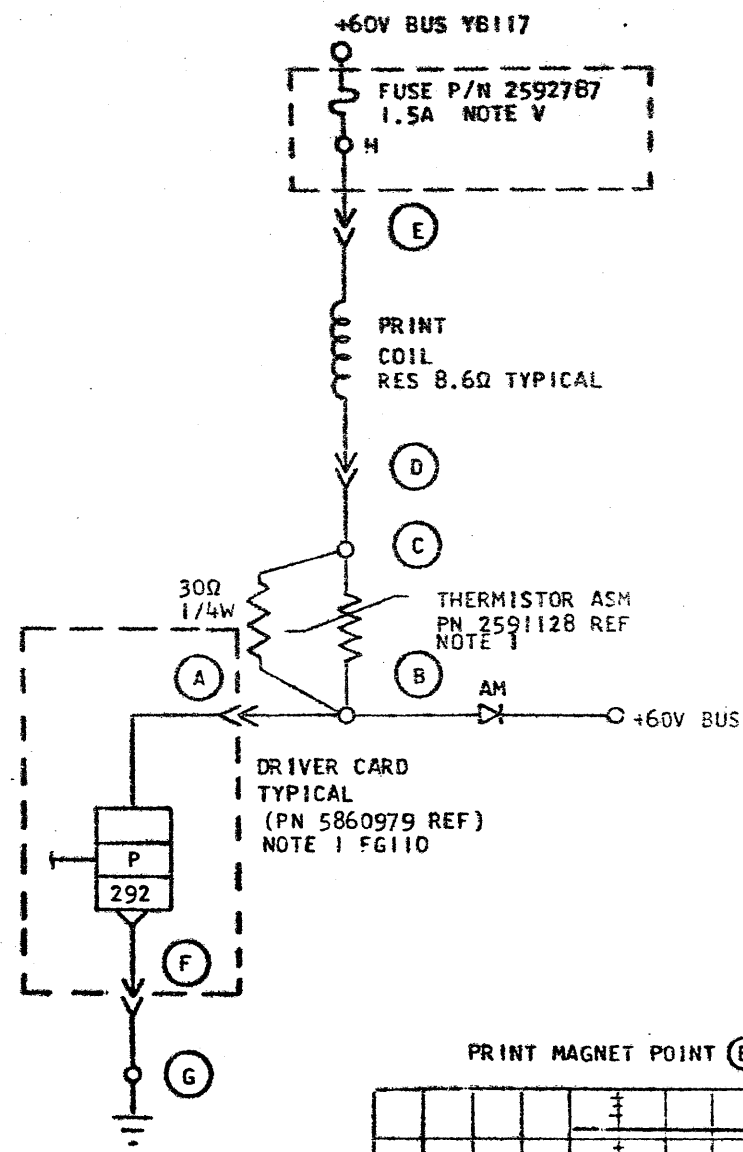
PUNCH CHECK TYPICAL CIRCUIT



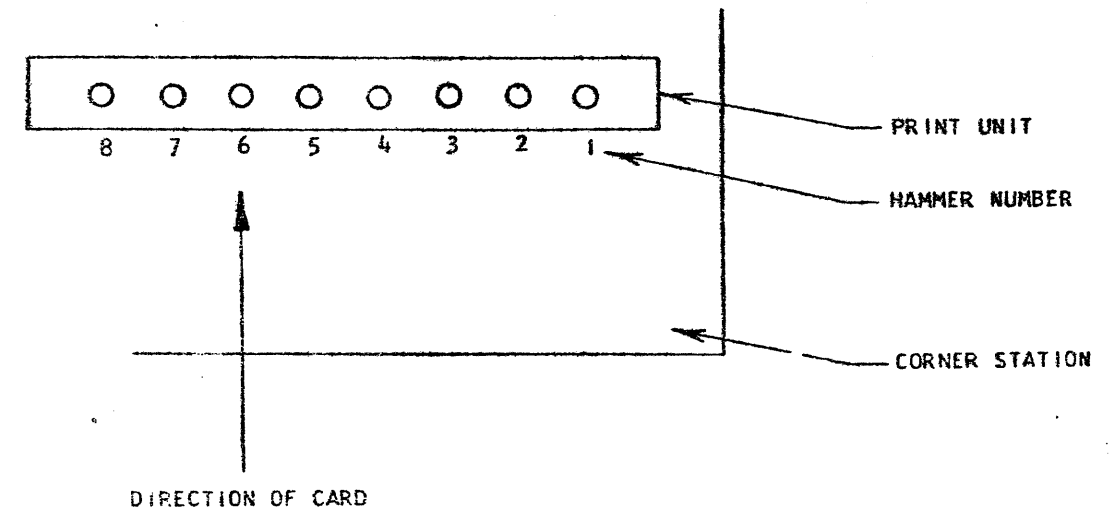
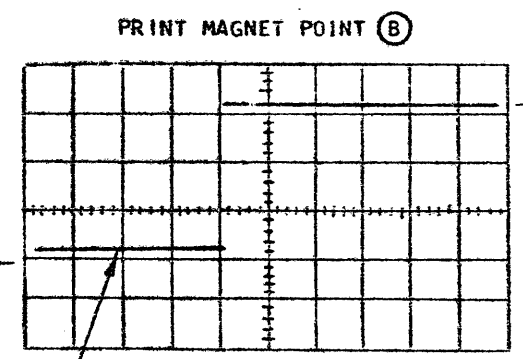
NOTES

- I -4V DISTRIBUTED TO CARD PINS A2G06 AND B2G06 VIA CABLE PN 2593082 TO TB3-2
- II +9V DISTRIBUTED TO CARD PINS A2J09 AND B2J09 VIA CABLE PN 2593082 TO TB3-7
- III GROUND DISTRIBUTED TO CARD PINS A2J08 AND B2J08 VIA CABLE PN 2593082 TO CABLE CARD B-E2 COMMON. B-E2 COMMON CONNECTED TO CPU GROUND VIA CABLE PIN B-E2, D03, B04, D07, B08, D11, B12 THRU FEED THRU CONNECTOR TO A01-16 CABLE FROM CPU
- IV SOCKET PIN NUMBERS SHOWN ARE CARD PIN NUMBERS. CABLE PIN NUMBERS ARE MIRROR IMAGE
- V CONNECTOR PINS SHOWN ARE CABLE SIDE OF CONNECTOR
- VI GROUND IS DISTRIBUTED TO THE PUNCH CHECK CRYSTAL CABLE VIA CARD PINS A2D08 AND B2D08

DATE	EC NUMBER	DATE	EC NUMBER	PUNCH CHECK, CD LEVERS	
5-13-69	815735L	6-30-70	818992	SIGNALS 6 BIT	
8-13-69	815876	16MAR71	818522	DATE	REV 2593012
10-27-69	817524	4-25-72	820404		TYPE
12-8-69	817603				
5-4-70	817645A			IBM	FG140



CHARACTER PRINTED				PRINT MOD I											
REG	1ST SIDE STEP	2ND SIDE STEP	3RD SIDE STEP	HAM NO.	SIGNAL			+60 VOLT		NOTE V		60V COMMON			
					FROM Pt (A)	TO Pt (B)	THROUGH DIODE TO	FROM Pt (E)	TO PT (H)	THROUGH FUSE TO	FROM P (F)	TO PT (G)			
1	2	3	4	1	WM180AS4	TPB33-A	+60 VOLT BUS	TPB30-A	PRT CONN I-X	PRT CONN I-V	TPB33-B	+60V BUS	WM180AT4	TB4-11	
5	6	7	8	2	WM180AU4	TPB33-D	+60 VOLT BUS	TPB30-D	PRT CONN I-S	PRT CONN I-K	TPB33-C	+60V BUS	WM180AV4	TB4-10	
9	10	11	12	3	WM180AW4	TPB33-E	+60 VOLT BUS	TPB30-E	PRT CONN I-F	PRT CONN I-C	TPB33-F	+60V BUS	WM180AX4	TB4-12	
13	14	15	16	4	WM180AY4	TPB33-H	+60 VOLT BUS	TPB30-H	PRT CONN I-W	PRT CONN I-J	TPB33-G	+60V BUS	WM180AZ4	TB4-13	
17	18	19	20	5	WM181AS4	TPB34-A	+60 VOLT BUS	TPB31-A	PRT CONN I-P	PRT CONN I-H	TPB34-B	+60V BUS	WM181AT4	TB4-10	
21	22	23	24	6	WM181AU4	TPB34-D	+60 VOLT BUS	TPB31-D	PRT CONN I-D	PRT CONN I-A	TPB34-C	+60V BUS	WM181AV4	TB4-13	
25	26	27	28	7	WM181AW4	TPB34-E	+60 VOLT BUS	TPB31-E	PRT CONN I-U	PRT CONN I-R	TPB34-F	+60V BUS	WM181AX4	TB4-12	
29	30	31	32	8	WM181AY4	TPB34-H	+60 VOLT BUS	TPB31-H	PRT CONN I-E	PRT CONN I-B	TPB34-G	+60V BUS	WM181AZ4	TB4-11	

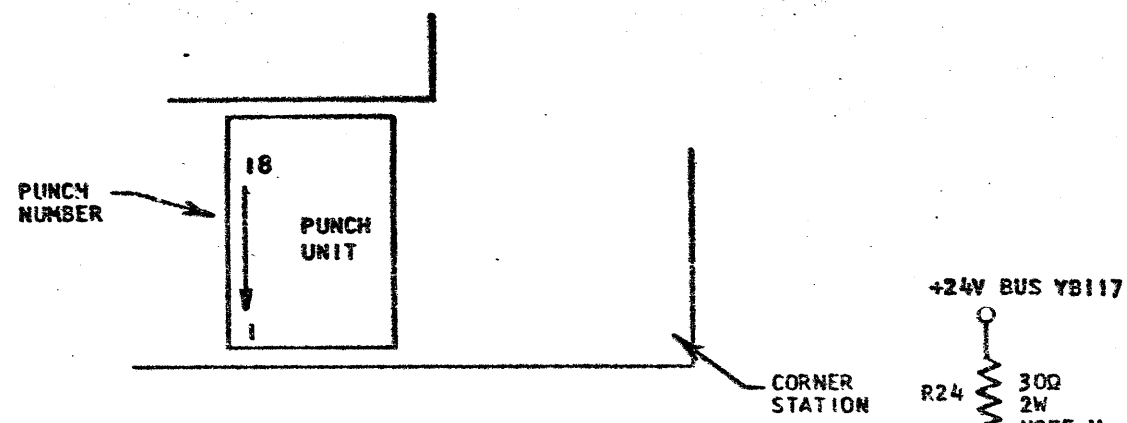


NOTES
I INPUTS TO THE DRIVER CARDS ARE SHOWN ON PAGES WM180, WM181
II +6V DISTRIBUTED TO CARD PINS B-B4B13, D13
III -4V DISTRIBUTED TO CARD PIN B-B4B04 FROM TB3-1

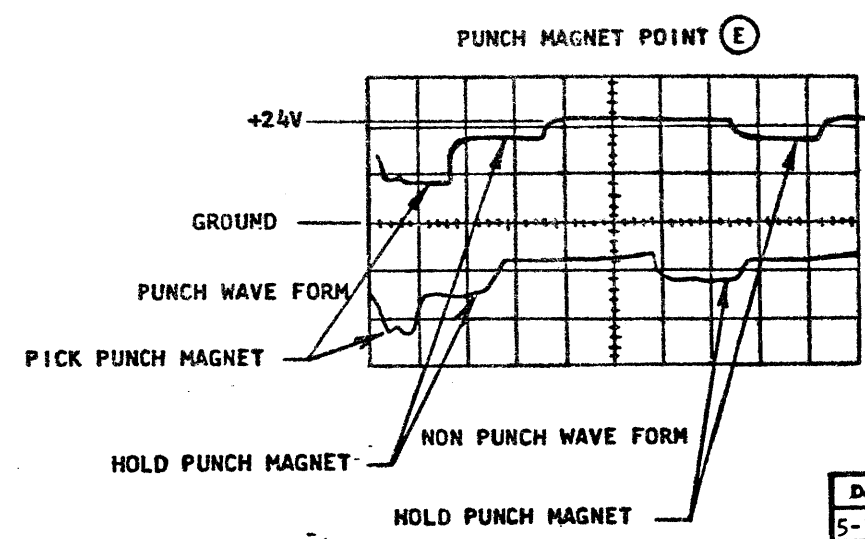
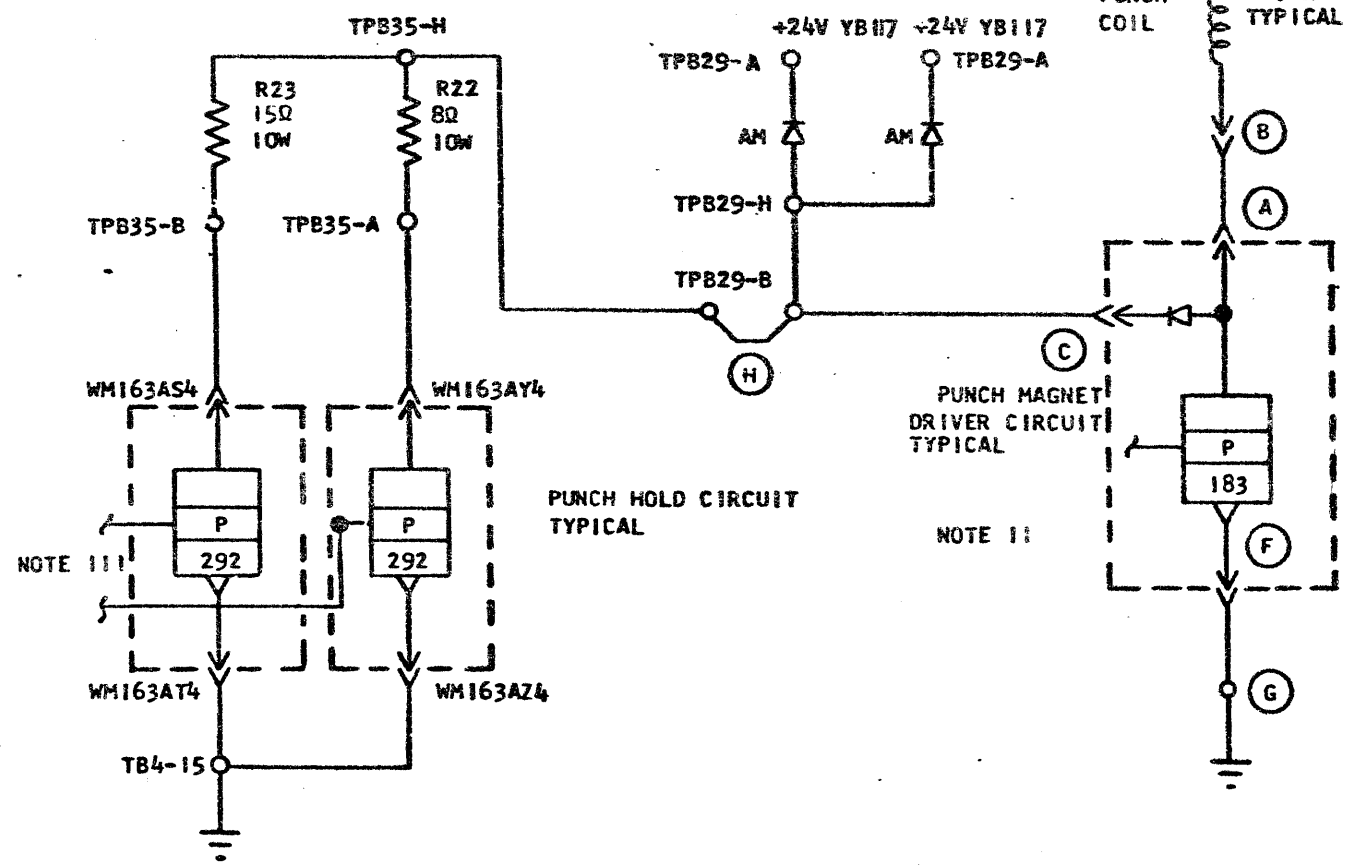
IV THE RESISTANCE OF THERMISTOR ASM PN 2591128 VARIES INVERSLY WITH TEMPERATURE APPROXIMATELY AS THE FOLLOWING:
 $R_T = 7.21\Omega @ 0^\circ C$
 $3.38\Omega @ +25^\circ C$
 $1.63\Omega @ +50^\circ C$
 $.84\Omega @ +75^\circ C$
 $.46\Omega @ +100^\circ C$

V POINT (H) AND FUSE MAY NOT BE PRESENT, THEN POINT (E) GOES TO +60V BUSS.

DATE	EC NUMBER	DATE	EC NUMBER	PRT MAGNET SIGNALS		
5-13-69	815735L	6-30-70	818992	MOD I		
8-13-69	815876	10-20-70	818272	DATE	P/N	2593014
10-27-69	817524	1-25-71	818270		TYPE	
2-6-70	817590B			IBM FG150		
5-4-70	817645A					



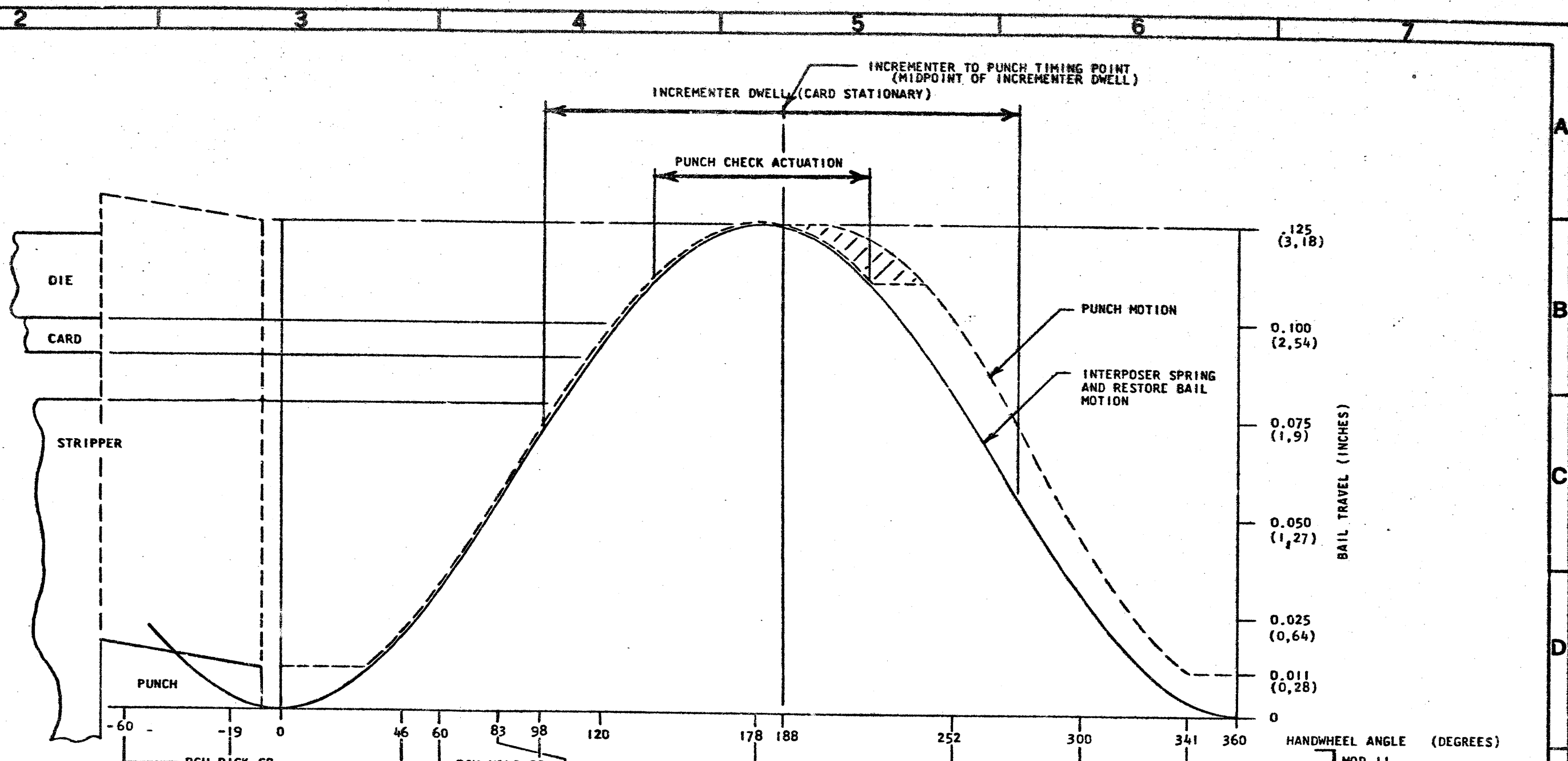
PUNCH															
NO.	SIGNAL				HOLD				+24V COMMON						
	FROM P	(A)	TO P	NOTE IV	FROM P	(D)	TO P	(E)	FROM P	(C)	TO P	(H)	FROM P	(F)	TO P
1	WM170AN4		P	T		R	S	TPB20-A	WM170AR4		TPB29-B	WM170AS4		TB4-9	
2	WM170AP4		K	N		L	M	TPB23-A	WM170AR4		TPB29-B	WM170AS4		TB4-9	
3	WM170AQ4		E	J		F	H	TPB20-D	WM171AR4		TPB29-G	WM170AS4		TB4-9	
4	WM170AT4		KK	FF		JJ	HH	TPB23-D	WM172AR4		TPB29-C	WM172AS4		TB4-9	
5	WM170AU4		EE	BB		DD	CC	TPB20-E	WM172AR4		TPB29-C	WM172AS4		TB4-9	
6	WM170AV4		AA	X		Z	Y	TPB23-E	WM170AR4		TPB29-B	WM170AS4		TB4-9	
7	WM171AN4		K	f		d	e	TPB20-H	WM170AR4		TPB29-B	WM170AS4		TB4-9	
8	WM171AP4		Y	b		z	a	TPB23-H	WM171AR4		TPB29-G	WM171AS4		TB4-9	
9	WM171AQ4		l	x		v	w	TPB21-A	WM172AR4		TPB29-C	WM172AS4		TB4-9	
10	WM171AT4		w	t		r	u	TPB24-A	WM172AR4		TPB29-C	WM172AS4		TB4-9	
11	WM171AU4		e	n		r	p	TPB21-D	WM171AF4		TPB29-G	WM171AS4		TB4-9	
12	WM171AV4		m	h		k	j	TPB24-D	WM170AR4		TPB29-B	WM171AS4		TB4-9	
13	WM172AN4		t	w		u	v	TPB21-E	WM172AR4		TPB29-C	WM170AS4		TB4-9	
14	WM172AP4		n	d		p	r	TPB24-E	WM172AR4		TPB29-C	WM172AS4		TB4-9	
15	WM172AQ4		h	m		j	k	TPB21-H	WM170AR4		TPB29-B	WM170AS4		TB4-9	
16	WM172AT4		f	e		e	d	TPB24-H	WM171AR4		TPB29-G	WM171AS4		TB4-9	
17	WM172AU4		b	y		q	z	TPB22-A	WM171AR4		TPB29-G	WM171AS4		TB4-9	
18	WM172AV4		x	u		w	v	TPB25-A	WM171AF4		TPB29-G	WM171AS4		TB4-9	



- NOTE
- I CONNECTOR PINS SHOWN ARE CABLE SIDE OF CONNECTOR
 - II INPUTS TO DRIVERS ARE SHOWN ON PAGES WM170, WM171, AND WM172
 - III INPUTS TO DRIVERS ARE SHOWN ON PAGE WM163
 - IV CONNECTOR PINS SHOWN ARE PUNCH SIDE OF CONNECTOR
 - V R24 IS 27Ω PRIOR TO EC 818322

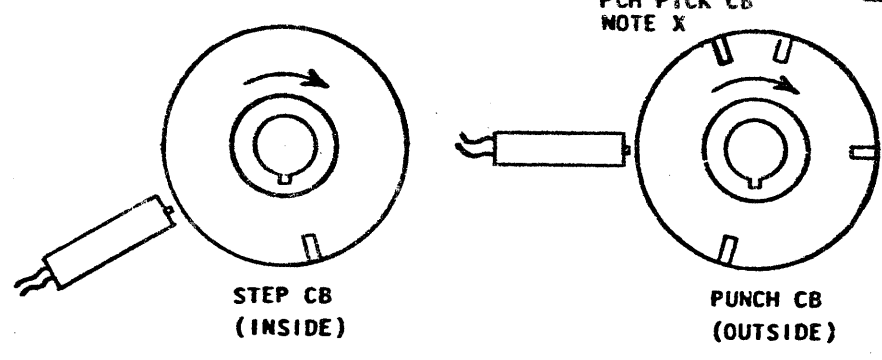
DATE	EC NUMBER	DATE	EC NUMBER	PUNCH MAGNET SIGNALS -		
5-13-69	815735L	6-30-70	818992	6 BIT		
8-13-69	815876	11-24-70	818322	DATE	PK	2593016
10-27-69	817524				TYPE	
12-8-69	817603			IBM FG160		
5-4-70	817645A					

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-60 -19 0 46 60 83 98 120 178 188 252 300 341 360
 PCH PICK CB NOTE X PCH HOLD CB NOTE XI STEP CB DE-ENERGIZE CB NOTE XII PCH CHECK CB PCH PICK CB (FOR NEXT CYCLE)
 PCH PICK CB NOTE X PCH HOLD CB NOTE XI STEP CB DE-ENERGIZE CB NOTE XII PCH CHECK CB PCH PICK CB (FOR NEXT CYCLE)

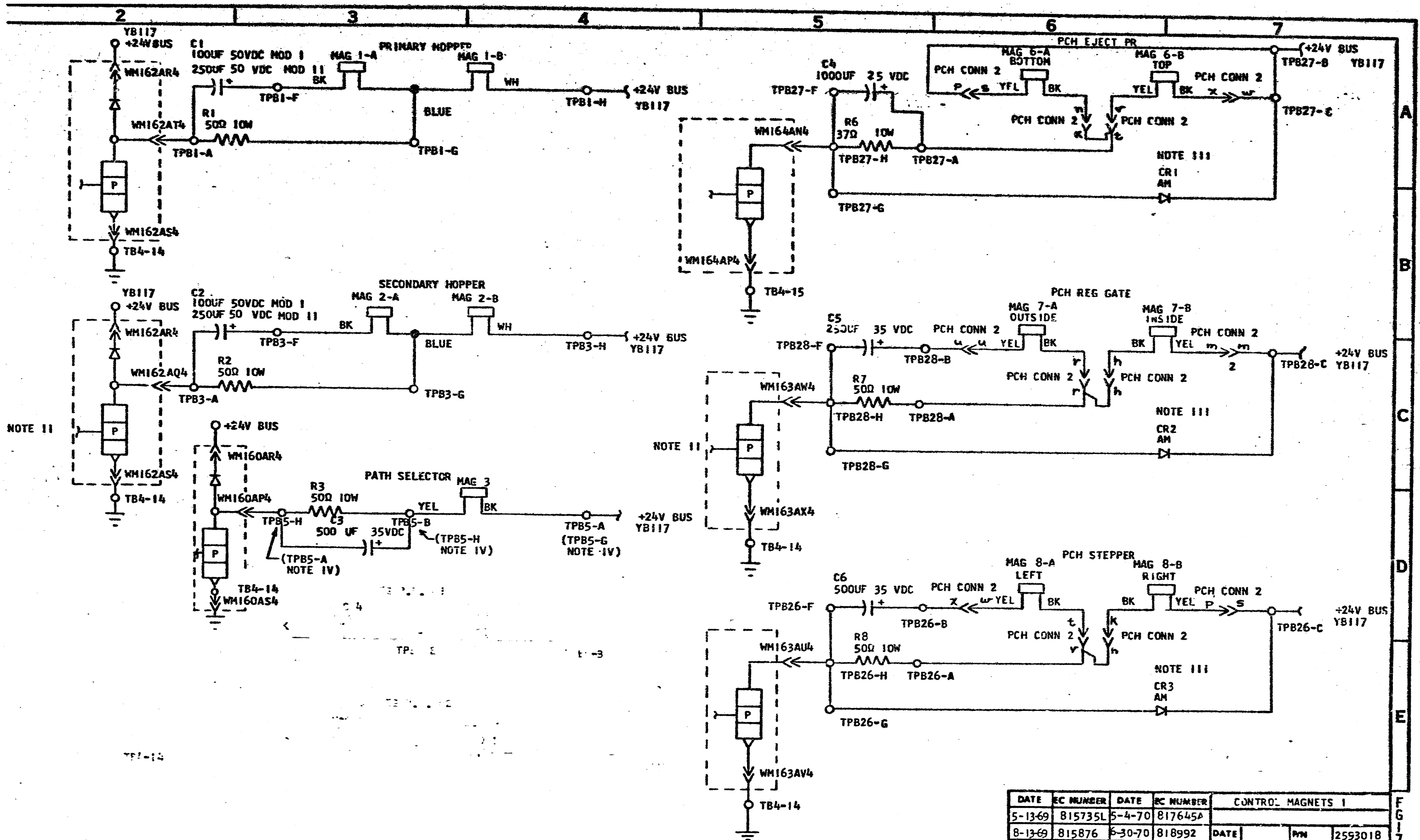
MOD 11
 1 REV = 12 MSEC
 1 MSEC = 30.2 DEG
 MOD 1
 1 REV = 24 MSEC
 1 MSEC = 15.1 DEG



- NOTES
- X INITIATES 0.47 AMP PICK PULSE TO PUNCH MAGNETS
 - XI 0.47 AMP PUNCH MAGNET PICK CURRENT REDUCED TO 0.15 AMP HOLD CURRENT VALUE
 - XII 0.15 AMP HOLD CURRENT TURNED OFF

DATE	EC NUMBER	DATE	EC NUMBER	PUNCH TIMING,	
5-4-70	817645A			5424 MFCU	
6-30-70	816992	DATE	3-23-70	P/N	2593087
11-24-70	818322			TYPE	
				IBM	FG161

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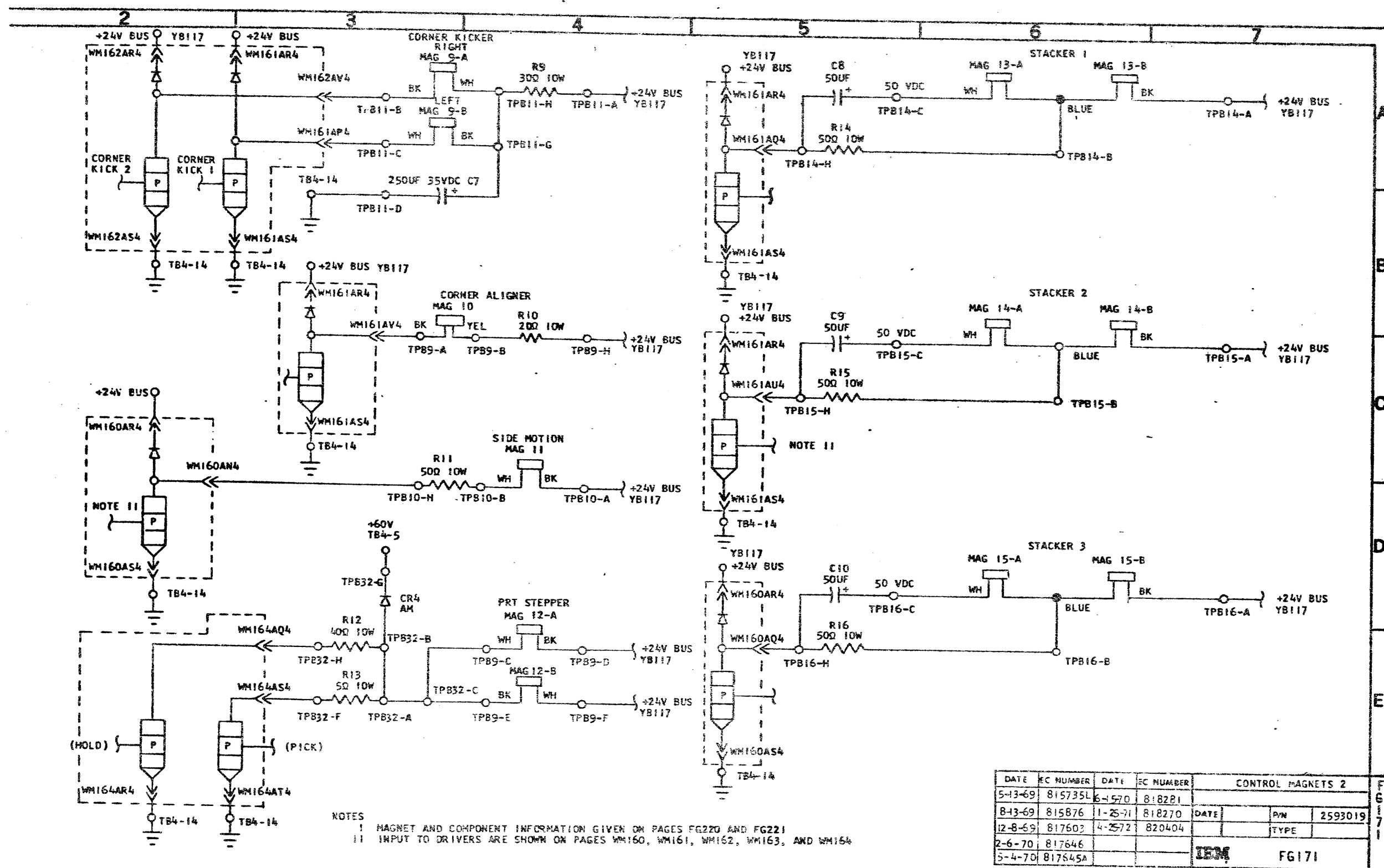
NOTE II

NOTES

- I MAGNET AND COMPONENT INFORMATION GIVEN ON PAGES FG220 AND FG221
- II INPUTS TO DRIVERS ARE SHOWN ON PAGES WM160, WM161, WM162, WM163, AND WM164
- III PCH CONN $\begin{matrix} \text{A} \\ \text{---} \\ \text{B} \end{matrix}$ A IS THE MALE END OF THE CONNECTOR, B IS THE FEMALE END

DATE	EC NUMBER	DATE	EC NUMBER	CONTROL MAGNETS I		
5-13-69	815735L	5-4-70	817645A			
8-13-69	815876	5-30-70	818992	DATE	PN	2593018
10-27-69	817524	11-30-70	817604C		TYPE	
12-8-69	817603					
2-6-70	81764C					

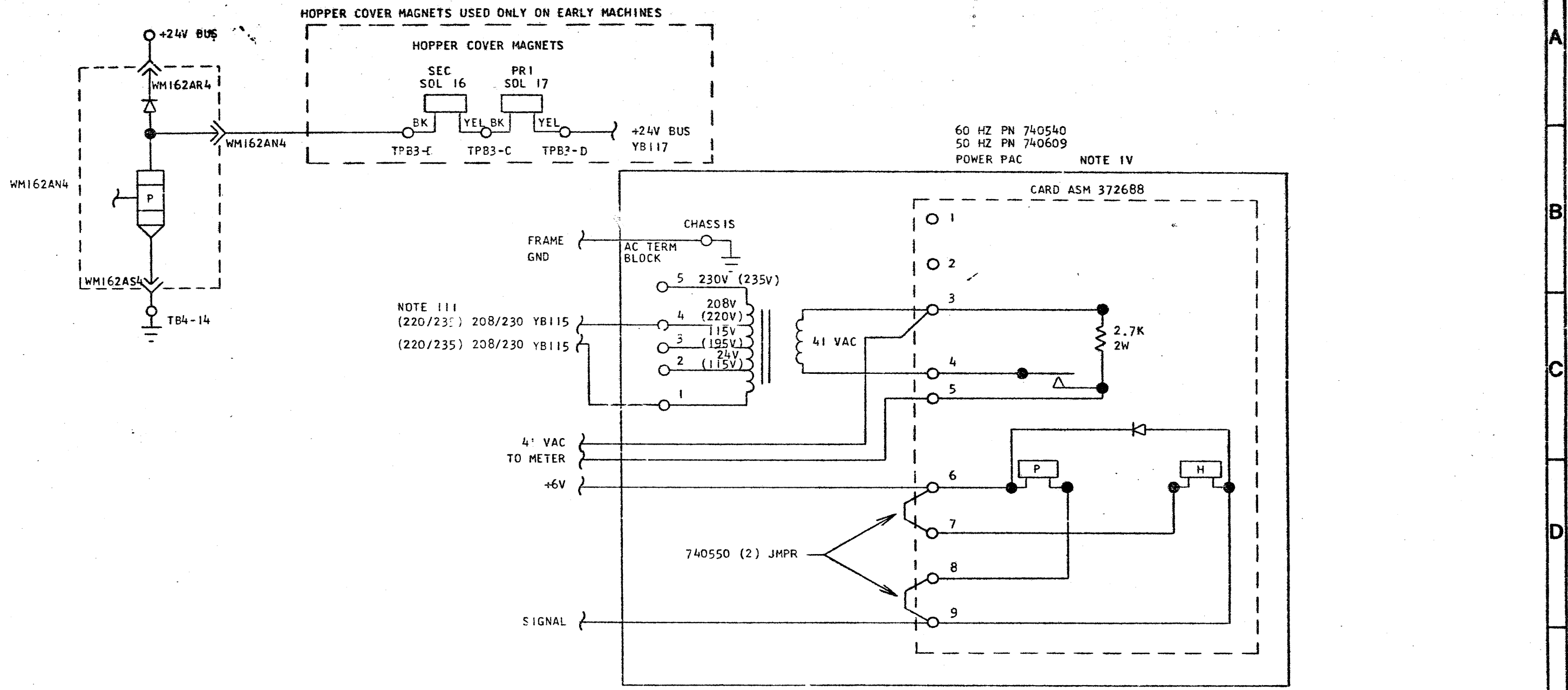
FG170



NOTES
 1 MAGNET AND COMPONENT INFORMATION GIVEN ON PAGES FG220 AND FG221
 11 INPUT TO DRIVERS ARE SHOWN ON PAGES WM160, WM161, WM162, WM163, AND WM164

DATE	EC NUMBER	DATE	EC NUMBER	CONTROL MAGNETS 2		
5-13-69	815735L	6-1-70	818281			
8-13-69	815876	1-25-71	818270	DATE	P/N	2593019
12-8-69	817603	4-25-72	820404		TYPE	
2-6-70	817646			IBM FG171		
5-4-70	817645A					

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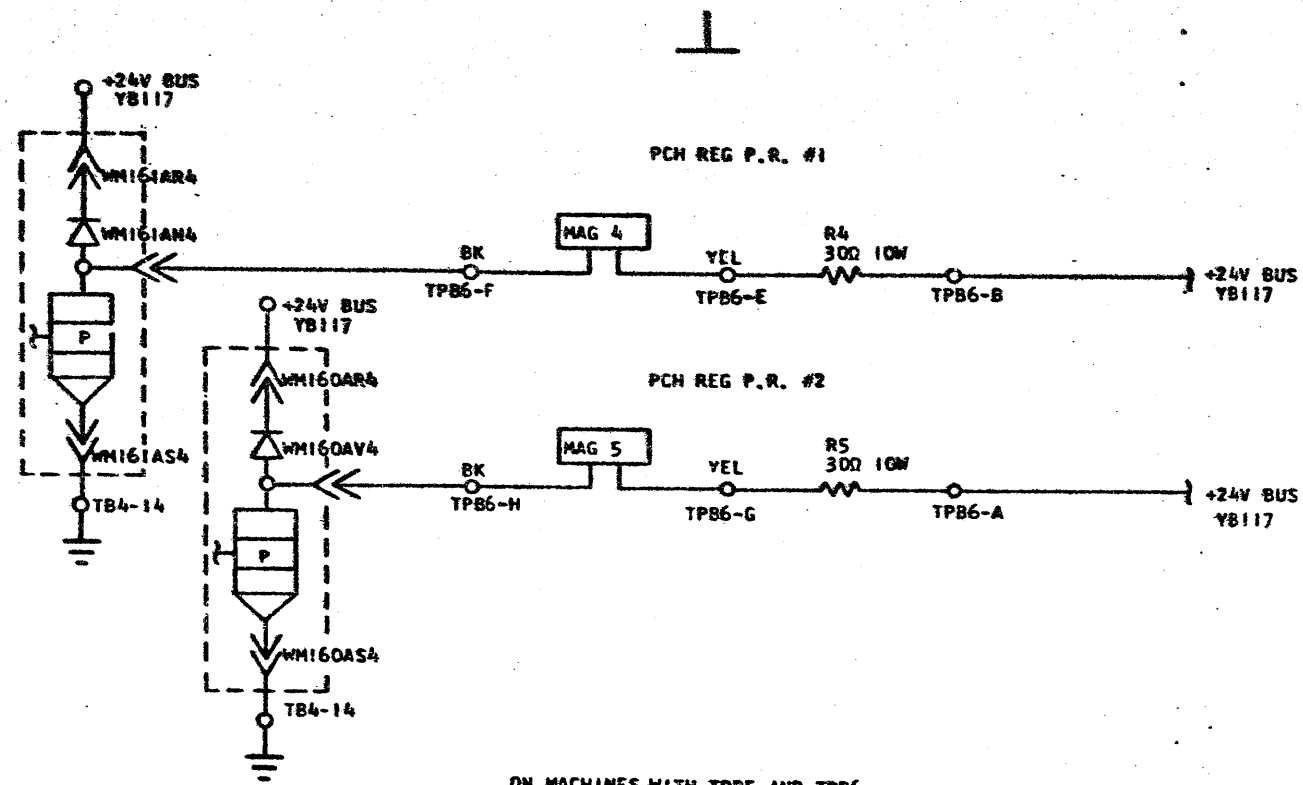
NOTE III
(220/235) 208/230 YB115
(220/235) 208/230 YB115

EXTERNAL CONNECTIONS SHOWN ON PAGE YB116

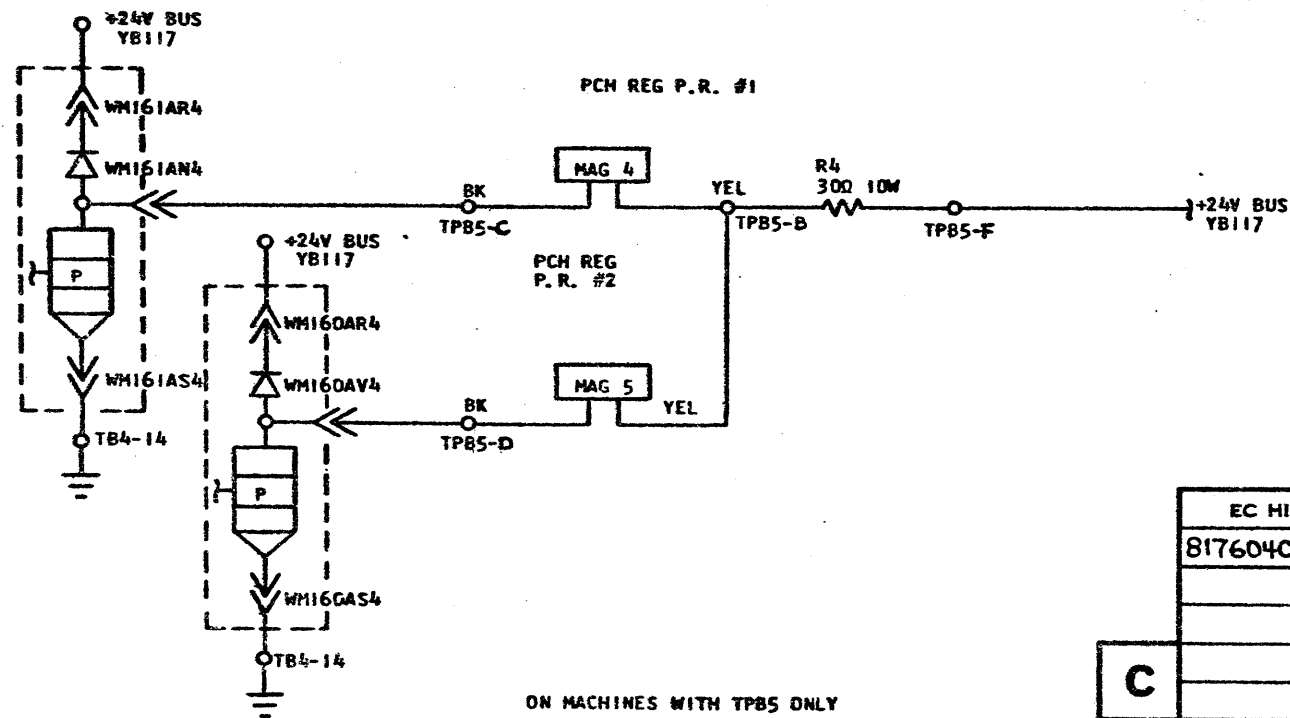
- NOTES
- I THE WIRING DIAGRAM FOR THE POWER PACK IS ON YB116
 - II VOLTAGES VALUES IN BRACKETS REFER TO 50 CYCLE MACHINE
 - III FOR CONVERSION FROM 208 (220) VAC TO 230 (235) VAC SEE TABLE ON YB115
 - IV PRESENT ONLY IF POWER PAC FEATURE INSTALLED

DATE	EC NUMBER	DATE	EC NUMBER	COVER MAGNETS AND METER		
5-13-69	815735L	6-30-70	818992	CONTROL		
8-13-69	815876	11-17-70	818294	DATE	P/N	2593091
10-27-69	817524	1 FEB 71	818506		TYPE	
12-8-69	817603			IBM FG172		
5-4-70	817645A					

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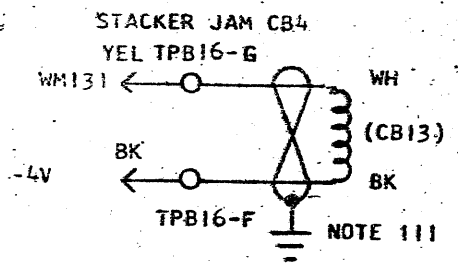
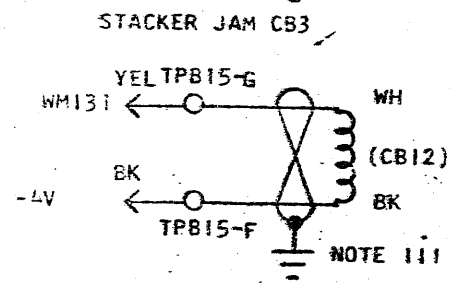
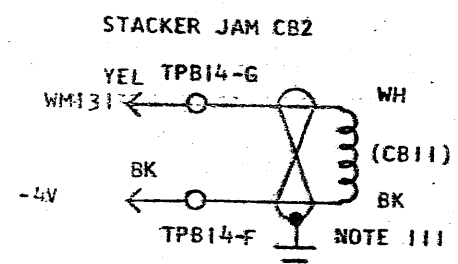
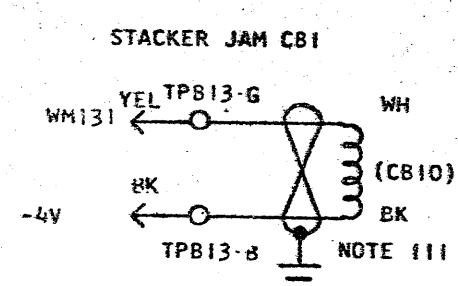
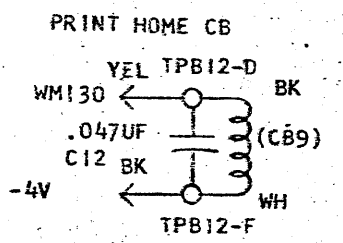
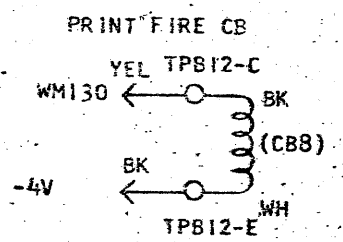
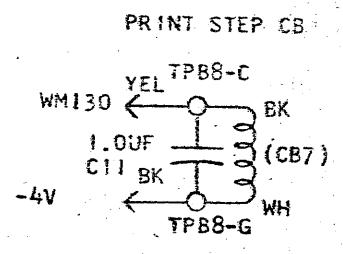
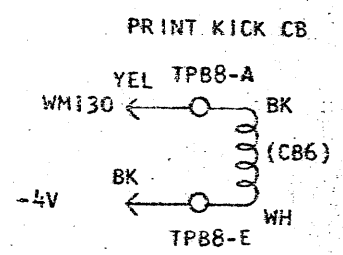
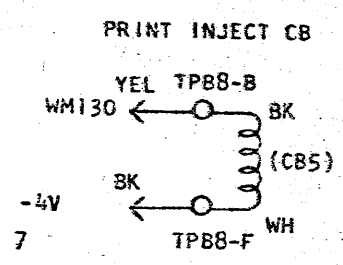
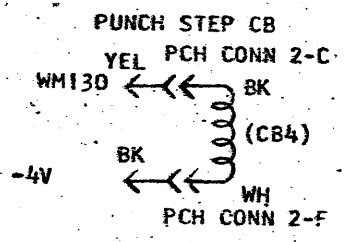
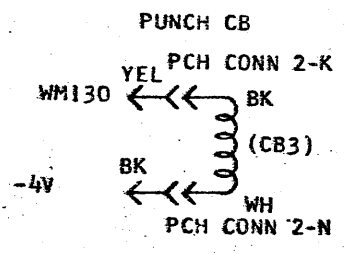
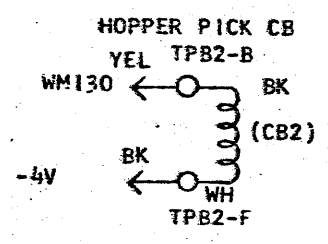
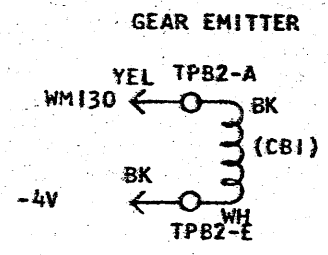
ON MACHINES WITH TPB5 AND TPB6



ON MACHINES WITH TPB5 ONLY

EC HISTORY		DRAWING TITLE	
817604C	11-30-70	CONTROL MAGNETS 3	
		MACH	
		PART NO 2593054	
C		CLASSIFICATION	IBM CORP
		RC 11-23-70	

FG173



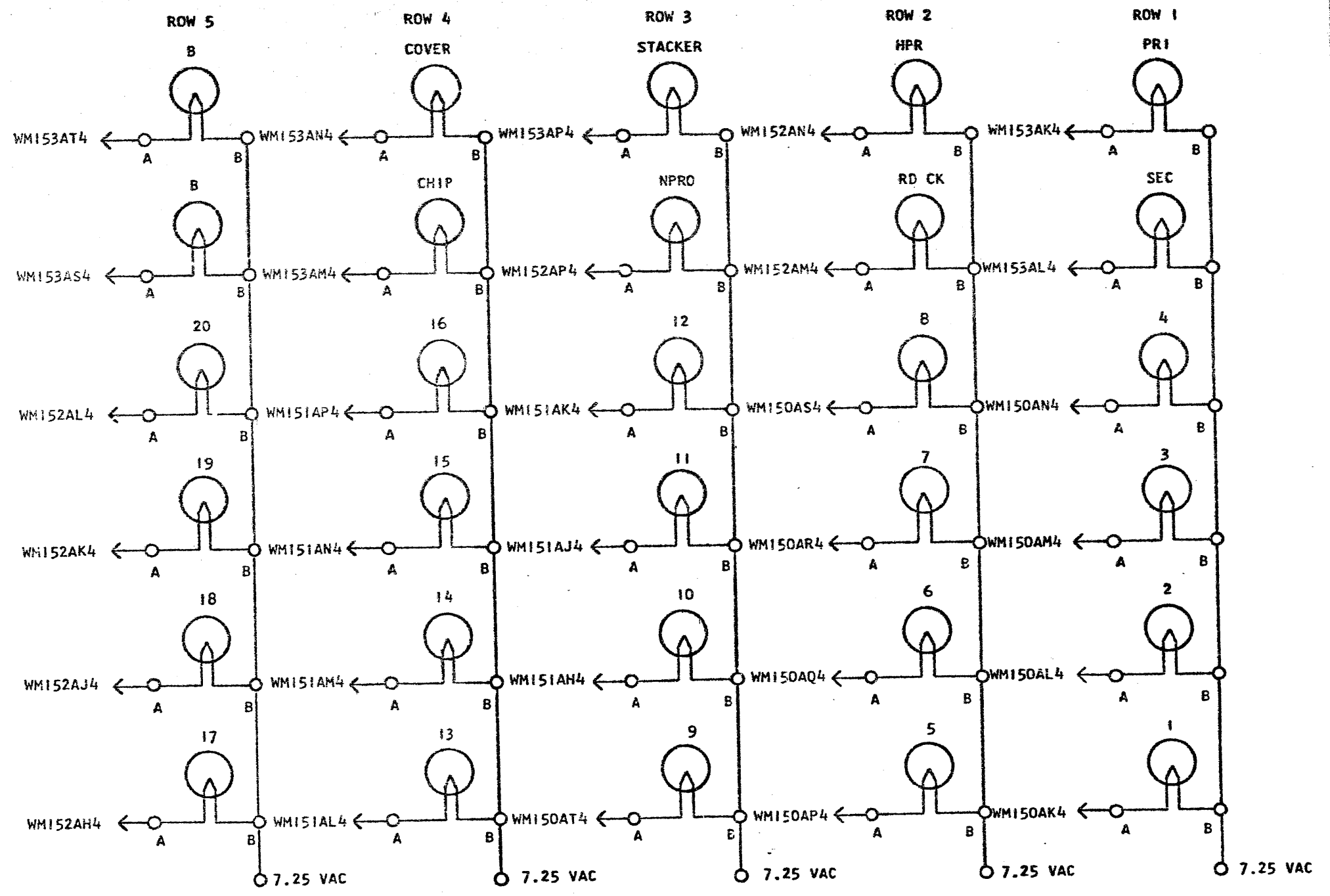
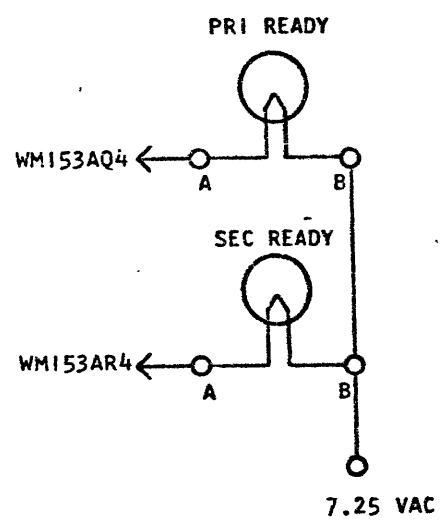
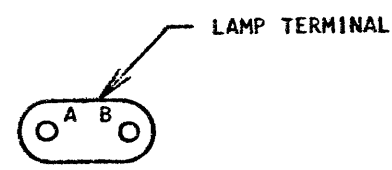
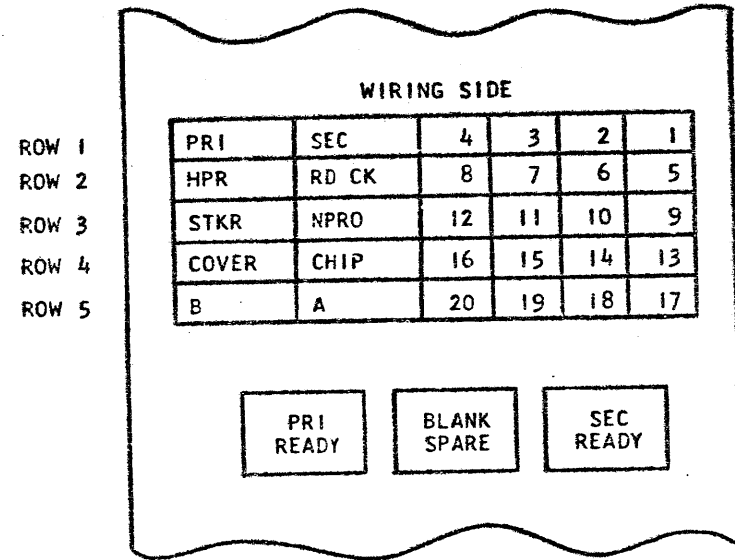
NOTES

- I ALL CB'S COMMONED (BLACK LEAD OF TWISTED PAIR OF CABLE) TO -4V ON PADDLE CARD COMMON SOCKET B-C2. PADDLE CARD COMMON CONNECTED TO -4V VIA CABLE PN 2593081 TO TB3-1.
- II RES 325Ω TYPICAL ALL CB'S
- III STACKER JAM CB'S HAVE SHIELDED PROBE AND WIRES CONNECTED TO GROUND

DATE	EC NUMBER	DATE	EC NUMBER	EMITTER SIGNALS
5-13-69	815735L	1-25-71	818270	(CB SIGNALS)
8-13-69	815876			DATE P/N 2593020
12-8-69	817603			TYPE
5-4-70	817645A			IBM FG180
6-30-70	818992			

A
B
C
D
E
FG180

INDICATOR LAMP LOCATION

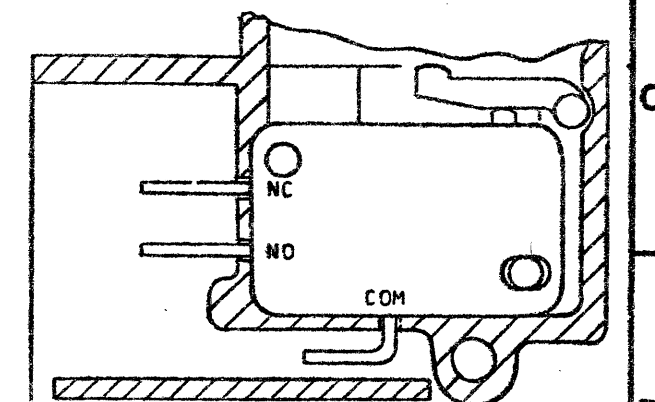
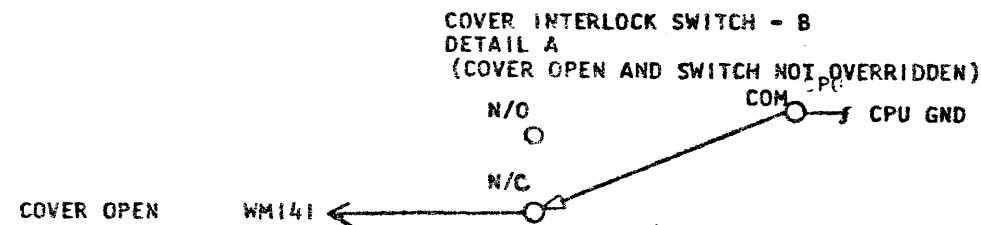
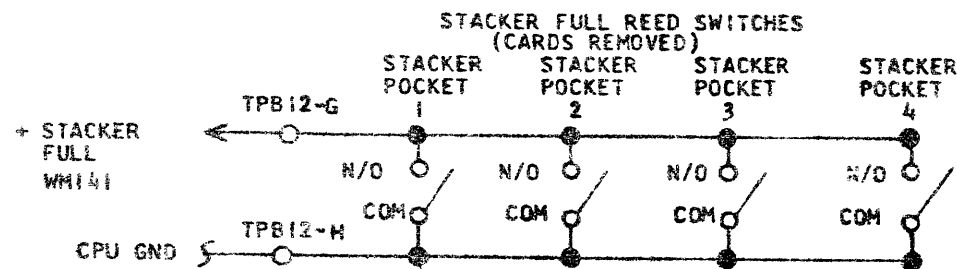
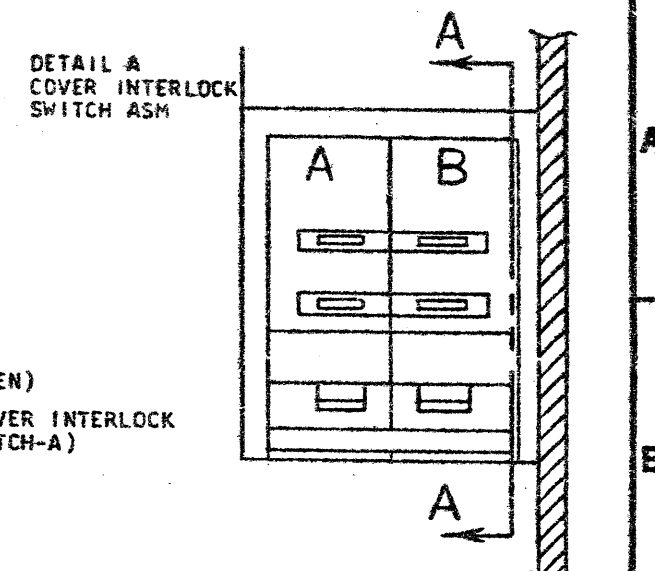
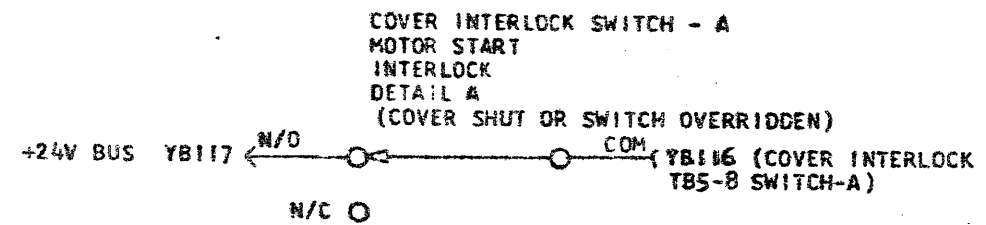
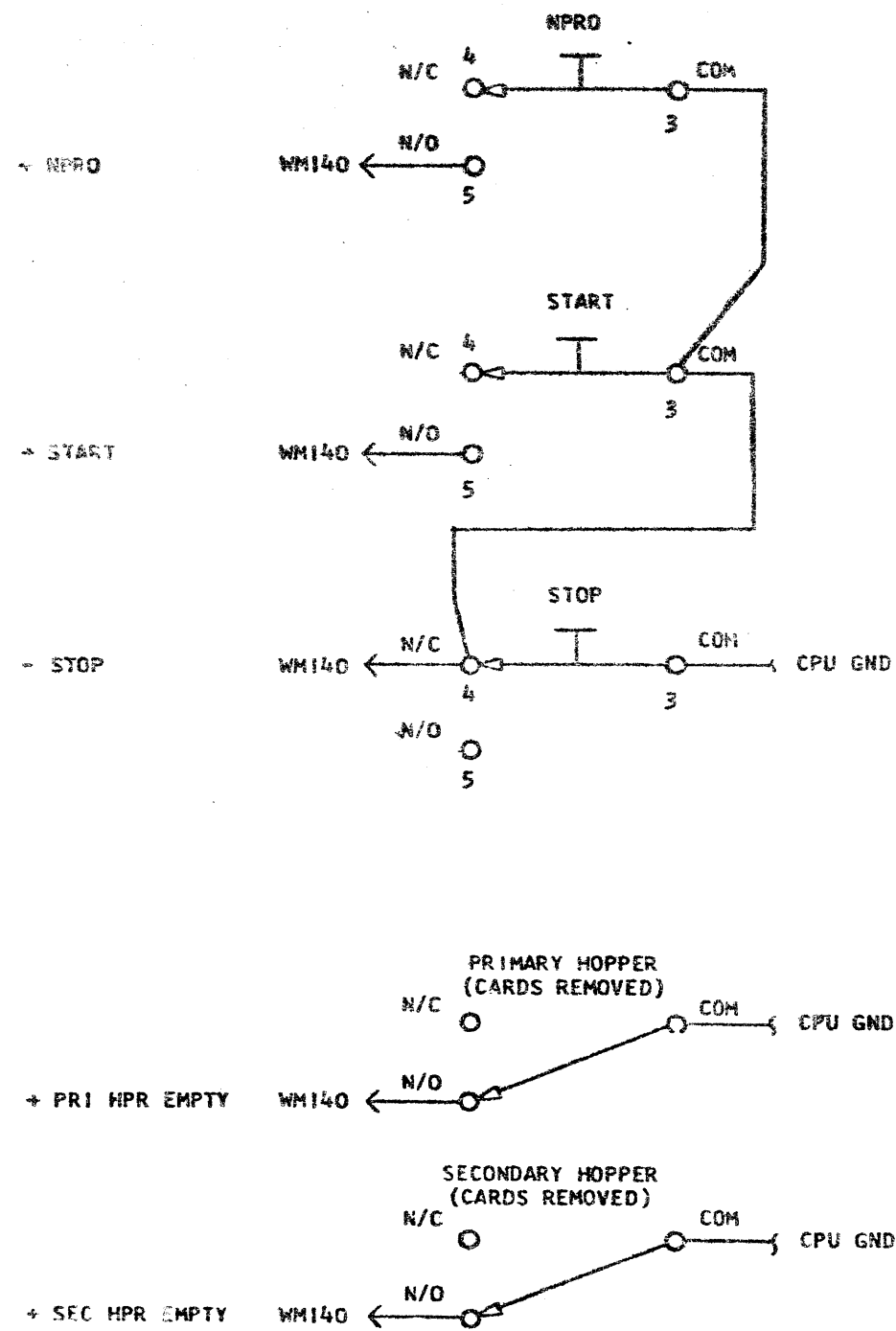


NOTES

1 THE 7.25 VAC COMMON POINTS ARE CONNECTED TO THE COMMON BUS OF PADDLE CARDS B-B2 AND B-B3. THE COMMON BUIS OF THE PADDLE CARDS IS CONNECTED TO 7.25 VAC THRU PINS D03, B06, B09, B12

DATE	EC NUMBER	DATE	EC NUMBER	LAMPS		
5-13-69	815735L			DATE	P/N	2593021
					TYPE	
				IEM FG190		

FG190

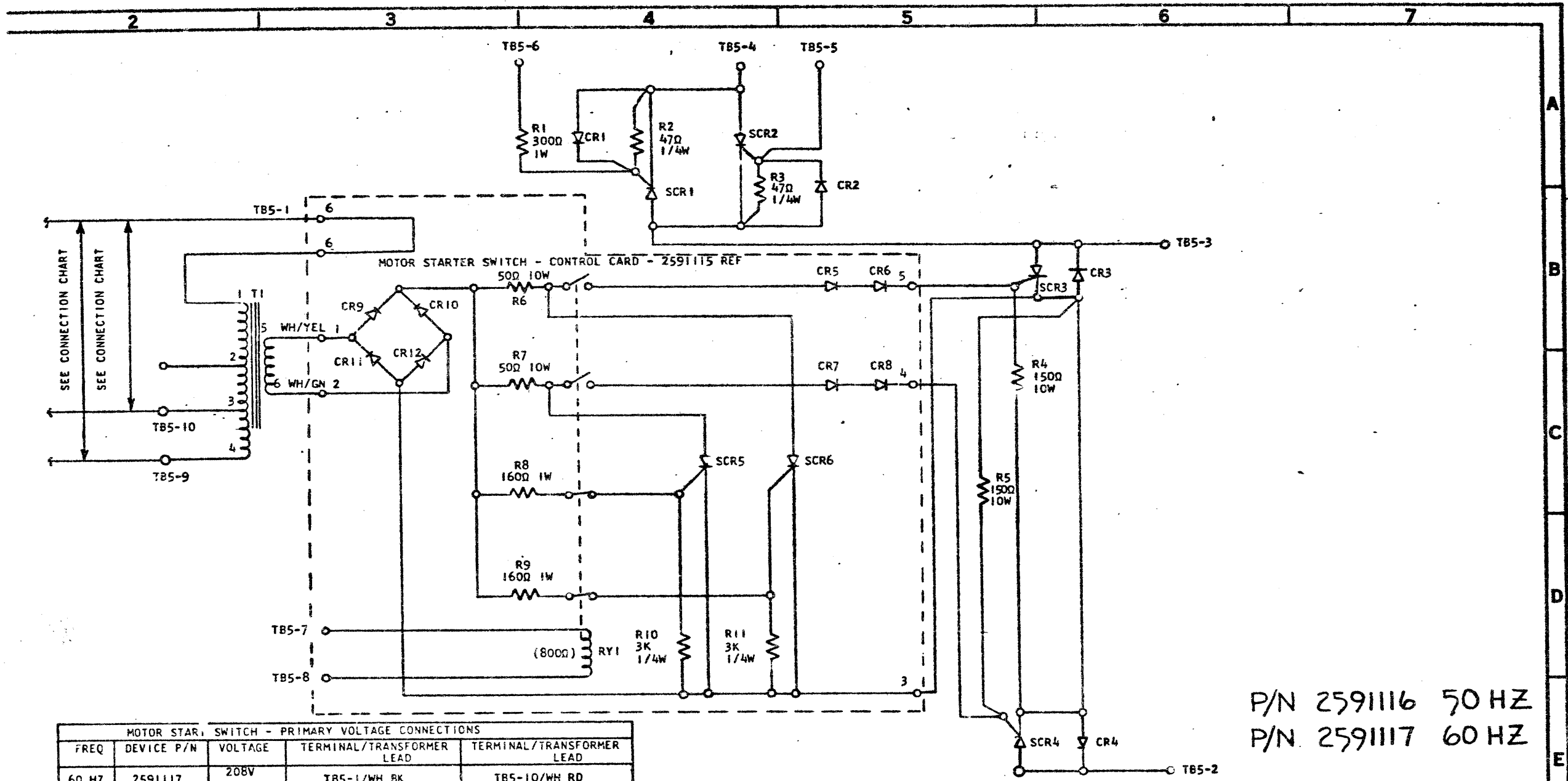


NOTES

- I SWITCH COMMONS MARKED "CPU GND" ARE CONNECTED TO COMMON BUS ON PADDLE CARD. COMMON BUS ON PADDLE CARD CONNECTED TO CPU CABLE GROUND THRU PINS D03, B06, B09, B12
- II SWITCHES SHOWN WITH THE N/O CONTACT CLOSED ARE HELD TRANSFERRED FOR NORMAL OPERATION

DATE	EC NUMBER	DATE	EC NUMBER	SWITCHES		
5-13-69	815735L					
8-13-69	815876			DATE	P/N	2593022
12-8-69	817603				TYPE	
4-29-70	818231			IBM		FG200
6-30-70	818992					

FG200



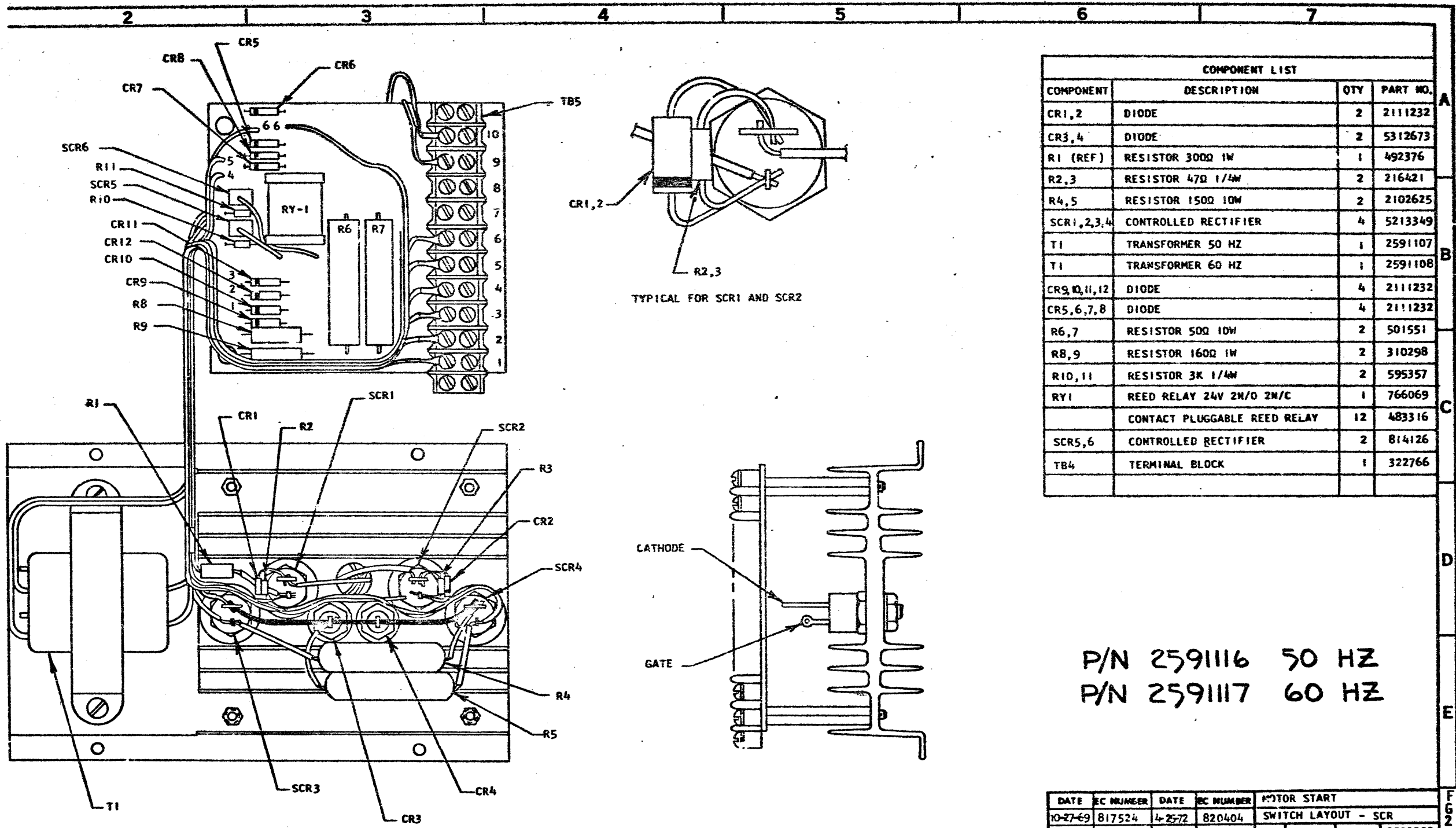
MOTOR STAR. SWITCH - PRIMARY VOLTAGE CONNECTIONS				
FREQ	DEVICE P/N	VOLTAGE	TERMINAL/TRANSFORMER LEAD	TERMINAL/TRANSFORMER LEAD
60 HZ	2591117	208V 230V	TB5-1/WH BK	TB5-10/WH RD
50 HZ	2591116	220V	TB5-1/NO 1	TB5-10/NO 3
		235V	TB5-1/NO 1	TB5-9/NO 4

NOTES
 1 EXTERNAL CONNECTIONS SHOWN ON PAGE YB116

P/N 2591116 50 HZ
 P/N 2591117 60 HZ

DATE	EC NUMBER	DATE	EC NUMBER	MOTOR START
10-27-69	817524	4-2-72	820404	SWITCH SCHEMATIC - SCR
12-8-69	817603			DATE MM 2591009
5-4-70	817645A			TYPE
6-30-70	818992			IBM FG210
16FEB71	818516C			

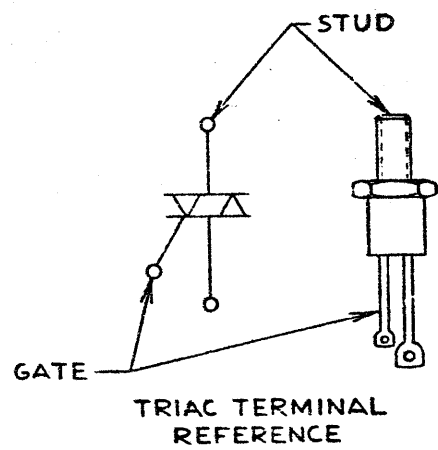
FG210



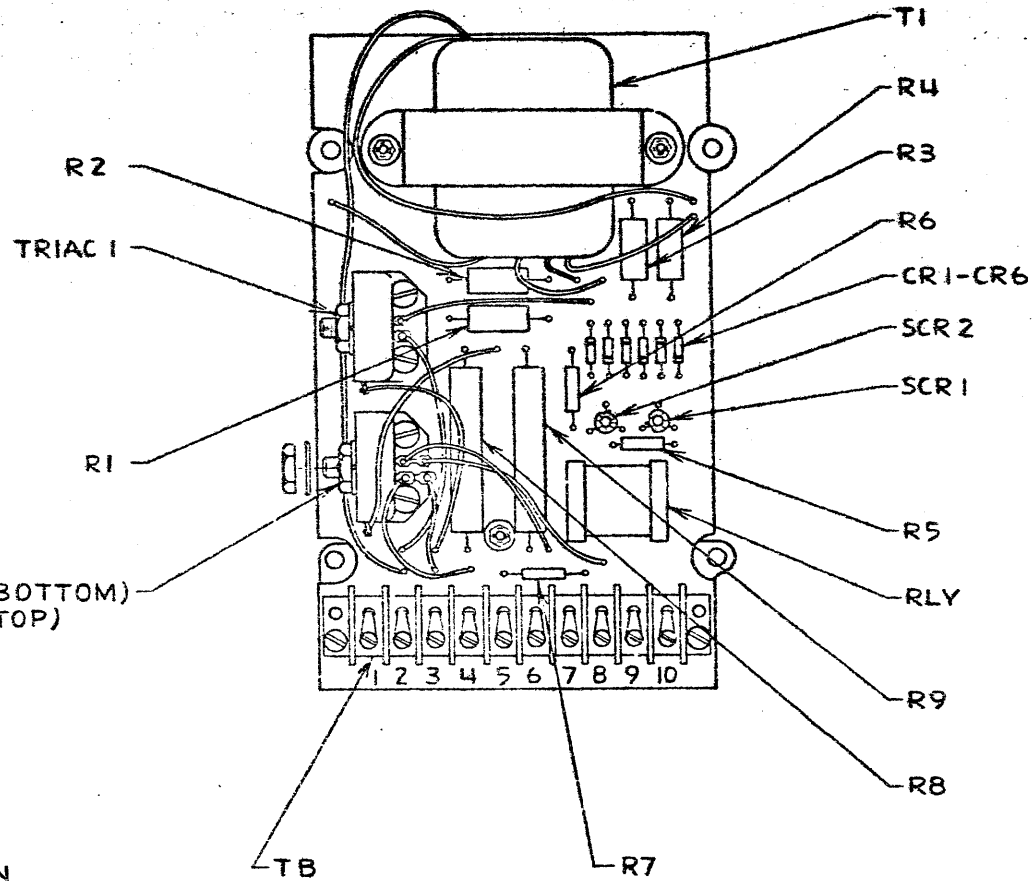
COMPONENT LIST			
COMPONENT	DESCRIPTION	QTY	PART NO.
CR1,2	DIODE	2	2111232
CR3,4	DIODE	2	5312673
R1 (REF)	RESISTOR 300Ω 1W	1	492376
R2,3	RESISTOR 47Ω 1/4W	2	216421
R4,5	RESISTOR 150Ω 10W	2	2102625
SCR1,2,3,4	CONTROLLED RECTIFIER	4	5213349
T1	TRANSFORMER 50 HZ	1	2591107
T1	TRANSFORMER 60 HZ	1	2591108
CR9,10,11,12	DIODE	4	2111232
CR5,6,7,8	DIODE	4	2111232
R6,7	RESISTOR 50Ω 10W	2	501551
R8,9	RESISTOR 160Ω 1W	2	310298
R10,11	RESISTOR 3K 1/4W	2	595357
RY1	REED RELAY 24V 2N/O 2N/C	1	766069
	CONTACT PLUGGABLE REED RELAY	12	483316
SCR5,6	CONTROLLED RECTIFIER	2	814126
TB4	TERMINAL BLOCK	1	322766

P/N 2591116 50 HZ
P/N 2591117 60 HZ

DATE	EC NUMBER	DATE	EC NUMBER	MOTOR START
10-27-69	817524	4-25-72	820404	SWITCH LAYOUT - SCR
12-8-69	817603			DATE P/N 2593090
5-4-70	817645A			TYPE
6-30-70	818992			IBM F6211
16 FEB 71	818516C			

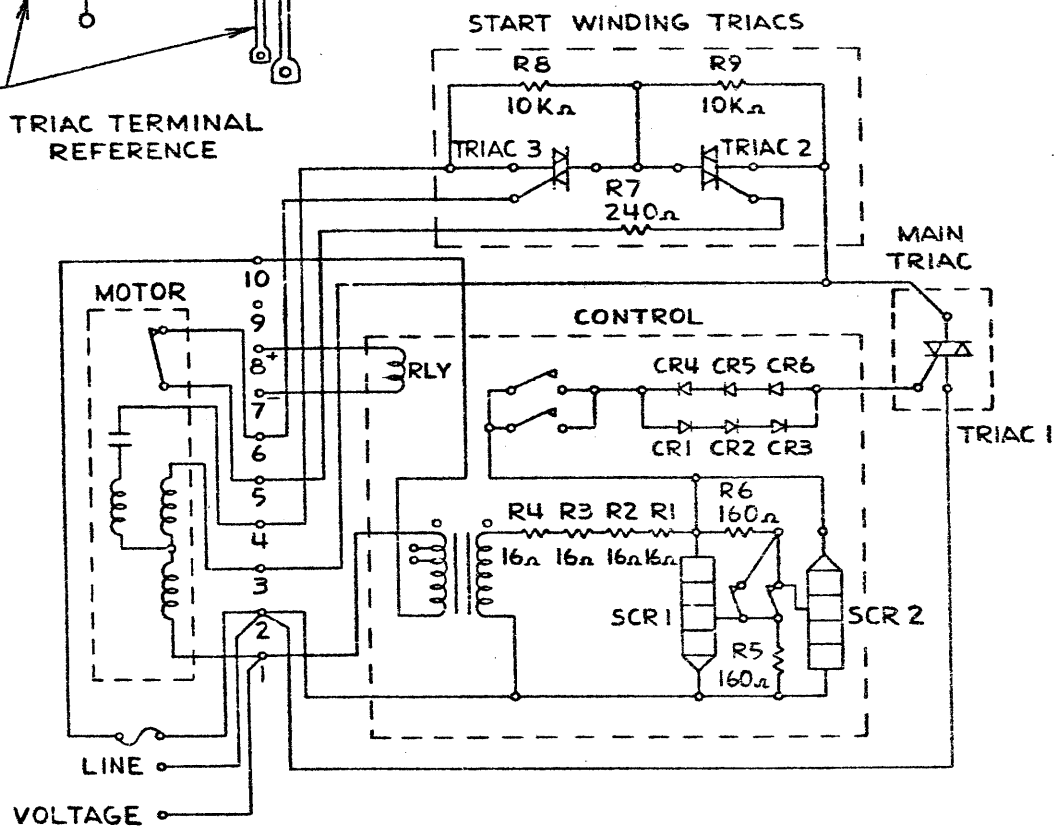


TRIAC 2 (BOTTOM)
TRIAC 3 (TOP)



12 of 12

ITEM	DESCRIPTION	PART NO
CR1 THRU CR6	AM DIODE	2111232
R1-R4	RESISTOR 16Ω 2W	216794
R5-R6	RESISTOR 160Ω 1/4 W	216430
R7	RESISTOR 240Ω 1/4 W	550050
SCR1,2	SILICON CONTROLLED RECTIFIER	813228
TRIAC 1,2,3	TRIAC	2391765
T1	TRANSFORMER 60 HZ	5232773
	TRANSFORMER 50 HZ	4118372
TB	TERMINAL BLOCK	2596009
R8-R9	RESISTOR 10KΩ 10W	2102743



SCHEMATIC

P/N 2593073 60HZ
P/N 2593074 50HZ

EC HISTORY		DRAWING TITLE	
16 FEB 71	B18516C	TRIAC MOTOR START SWITCH	
		MACH	
		PART NO 2593076	
		CLASSIFICATION	
D		2-12-71	R.D.C. IBM CORP

F
G
2
1
2

SYMBOL	DESCRIPTION	P/N	PAGE REFERENCE
C1 MOD I	CAPACITOR ASM 100 UF 50 VDC	223075	FG170
C1 MOD II	CAPACITOR ASM 250 UF 50 VDC	2154915	FG170
C2 MOD I	CAPACITOR ASM 100 UF 50 VDC	223075	FG170
C2 MOD II	CAPACITOR ASM 250 UF 50 VDC	2154915	FG170
C3	CAPACITOR ASM 500 UF 35 VDC	1177266	FG170
C4	CAPACITOR ASM 1000 25 VDC	2591133	FG170
C5	CAPACITOR ASM 250 UF 35 VDC	2103010	FG170
C6	CAPACITOR ASM 500 US 35 VDC	1177266	FG170
C7	CAPACITOR ASM 250 UF 35 VDC	2103010	FG171
C8	CAPACITOR ASM 50 UF 50 VDC	603090	FG171
C9	CAPACITOR ASM 50 UF 50 VDC	603090	FG171
C10	CAPACITOR ASM 50 UF 50 VDC	603090	FG171
C11	CAPACITOR ASM 1 UF 35 VDC	2591172	FG180
C12	CAPACITOR ASM .047 UF 100 VDC	2591173	FG180
C13	CAPACITOR 20000 UF 75 VDC	5214233	YB117
C14	CAPACITOR 20000 UF 75 VDC	5214233	YB117
CR1	DIODE ASM AM	615354	FG170
CR2	DIODE ASM AM	615354	FG170
CR3	DIODE ASM AM	615354	FG170
CR4	DIODE ASM AM	615354	FG171
F101	FUSE 5A NOTE III	107666	YB116
F102	FUSE 5A NOTE III	107666	YB116
F103	FUSE .5A SLO - BLO	78999	YB116
F104	FUSE 8A	1146953	YB117

SYMBOL	DESCRIPTION	P/N	PAGE REFERENCE
R1	RESISTOR ASM 50Ω 10W	2133486	FG170
R2	RESISTOR ASM 50Ω 10W	2133486	FG170
R3	RESISTOR ASM 50Ω 10W	2133486	FG170
R4	RESISTOR ASM 30Ω 10W	2591155	FG173
R5	RESISTOR ASM 30Ω 10W	2591155	FG173
R6	RESISTOR ASM 37Ω 10W	2591127	FG170
R7	RESISTOR ASM 50Ω 10W	2133486	FG170
R8	RESISTOR ASM 50Ω 10W	2133486	FG170
R9	RESISTOR ASM 30Ω 10W	2591155	FG171
R10	RESISTOR ASM 20Ω 10W	2591129	FG171
R11	RESISTOR ASM 50Ω 10W	2133486	FG171
R12	RESISTOR ASM 40Ω 10W	639303	FG171
R13	RESISTOR ASM 5Ω 10W	2591126	FG171
R14	RESISTOR ASM 50Ω 10W	2133486	FG171
R15	RESISTOR ASM 50Ω 10W	2133486	FG171
R16	RESISTOR ASM 50Ω 10W	2133486	FG171
R17	RESISTOR ASM 330Ω 1W	2591156	YB116
R18	RESISTOR ASM 560Ω 1W	647556	YB116
R19	RHEOSTAT 6Ω 50W	528481	YB116
R20	RESISTOR 3Ω 25W NOTE IV	337213	YB116
R21	RESISTOR ASM 1Ω 5W	2593097	YB115
R22	RESISTOR ASM 8Ω 10W	2591144	FG160
R23	RESISTOR ASM 15Ω 10W	2123394	FG160
NOTE I	RESISTOR ASM 8Ω 10W	2591144	FG160
R24	RESISTOR ASM 30Ω 2W	2592373	FG160
NOTE II			

NOTES

- I RESISTOR R23 8Ω 10W IS USED FOR JAPANESE WORLD TRADE FEATURE. 15Ω 10W IS USED FOR 6 BIT MACHINES
- II PRIOR TO EC 818322 RESISTOR R24 WAS 27Ω 2W P/N 2591143
- III FUSES MAY NOT BE PRESENT ON MACHINES WHERE MOTOR HAS THERMAL OVERLOAD SWITCH
- IV ON MACHINES BUILT PRIOR TO EC 818506 R20 CAN BE 5Ω 25W P/N 501550

DATE	EC NUMBER	DATE	EC NUMBER	COMPONENT LIST		
5-13-69	815735L	6-15-70	818281			
8-13-69	815876	11-30-70	817604C	DATE	P/N	2593052
10-27-69	817524	1FEB71	818506		TYPE	
12-8-69	817603			IBM FG220		
5-4-70	817645A					

A
B
C
D
E
FG220

COMPONENT LIST CONTROL MAGNETS

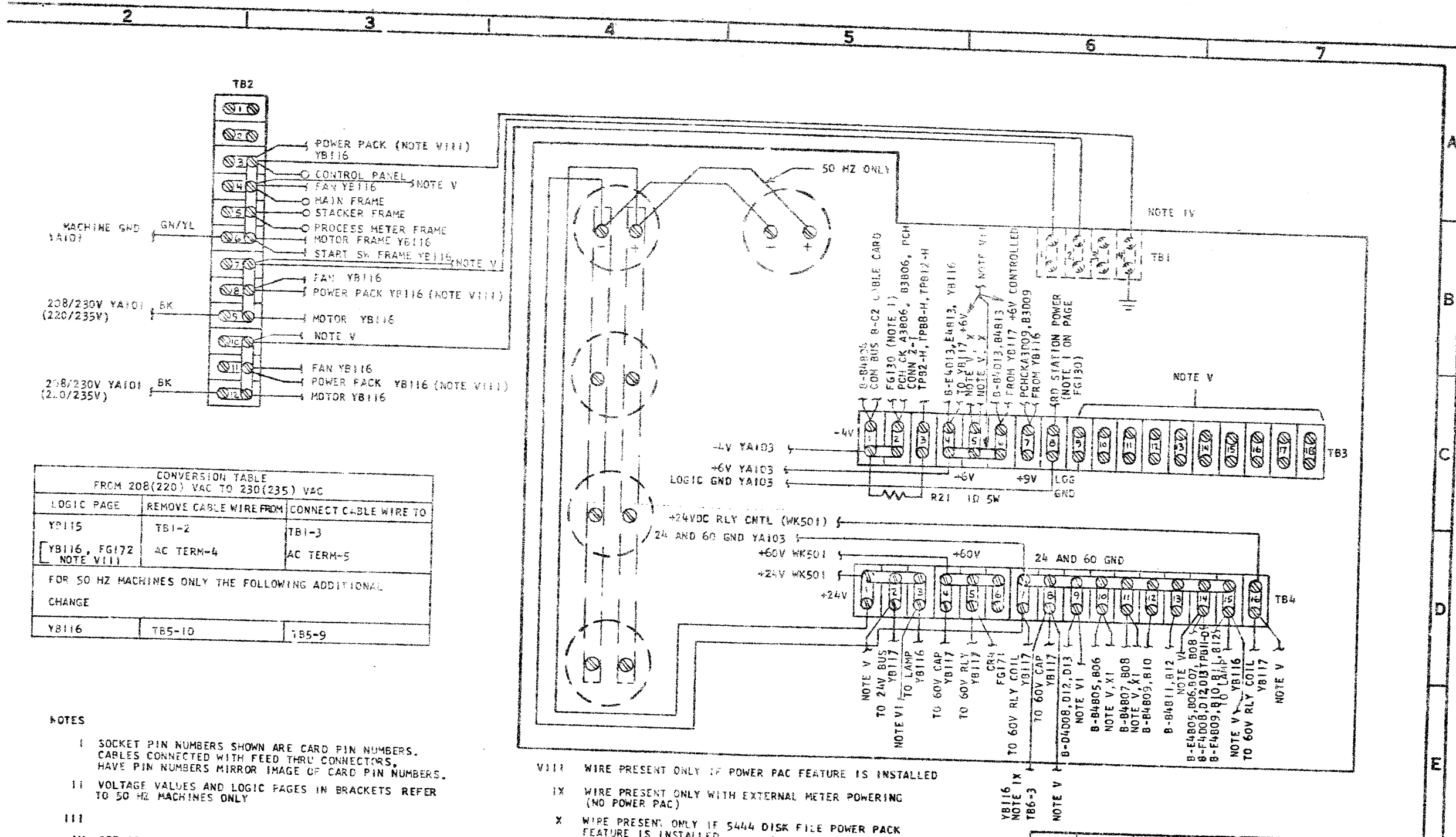
SYMBOL	DESCRIPTION	RES TYP SECTION A	RES TYP SECTION B	P/N	PAGE REFERENCE
MAG 1	PRI HOPPER CLUTCH MAGNET	26Ω	27Ω	2593864	FG170
MAG 2	SEC HOPPER CLUTCH MAGNET	26Ω	27Ω	2593864	FG170
MAG 3	PATH SELECTOR MAGNET	34Ω	-	2592701	FG170
MAG 4	PUNCH REG P.R. 1 MAGNET	34Ω	-	2592701	FG173
MAG 5	PUNCH REG P.R. 2 MAGNET	34Ω	-	2592701	FG173
MAG 6	PUNCH EJECT MAGNET	16Ω	16Ω	2591746	FG170
MAG 7	PUNCH REG GATE MAGNET	10Ω	10Ω	2591766	FG170
MAG 8	PUNCH STEP CLUTCH MAGNET	8Ω	8Ω	2591680	FG170
MAG 9	CORNER KICK MAGNET	16Ω	16Ω	2591955	FG171
MAG 10	CORNER ALIGNER MAGNET	27.5Ω	-	638766	FG171
MAG 11	PRINT SIDE MOTION MAGNET	27Ω	-	2591998	FG171
MAG 12	PRINT STEP CLUTCH MAGNET	7.0Ω	7.0Ω	2592148	FG171
MAG 13	STACKER 1 MAGNET	20Ω	29.5Ω	2592399	FG171
MAG 14	STACKER 2 MAGNET	20Ω	29.5Ω	2592399	FG171
MAG 15	STACKER 3 MAGNET	20Ω	29.5Ω	2592399	FG171
MAG 16	SEC HOPPER COVER MAGNET	120Ω	-	2591467	FG172
MAG 17	PRI HOPPER COVER MAGNET	120Ω	-	2591467	FG172

COMPONENT LIST MAGNETIC EMITTERS (CB'S)

SYMBOL	FUNCTION	RES TYP SECTION A	RES TYP SECTION B	P/N	PAGE REFERENCE
CB1	GEAR EMITTER	325Ω	-	2592773	FG180
CB2	HOPPER PICK	325Ω	-	2593899	FG180
CB3	PUNCH	325Ω	-	2592774	FG180
CB4	PUNCH STEP	325Ω	-	2592774	FG180
CB5	PRINT INJECT •	325Ω	-	2593899	FG180
CB6	PRINT KICK •	325Ω	-	2593899	FG180
CB7	PRINT STEP	325Ω	-	2593899	FG180
CB8	PRINT FIRE	325Ω	-	2593899	FG180
CB9	PRINT HOME	325Ω	-	2593899	FG180
CB10	STACKER 1	325Ω	-	2592237	FG180
CB11	STACKER 2	325Ω	-	2592237	FG180
CB12	STACKER 3	325Ω	-	2592237	FG180
CB13	STACKER 4	325Ω	-	2592237	FG180

DATE	EC NUMBER	DATE	EC NUMBER	COMPONENT LIST CTRL MAG'S		
5-13-69	815735L					
12-8-69	817603			DATE	P/N	2593092
11-30-70	817604C				TYPE	
				IBM	FG221	

A
B
C
D
E
FG221



CONVERSION TABLE
FROM 208(220) VAC TO 230(235) VAC

LOGIC PAGE	REMOVE CABLE WIRE FROM	CONNECT CABLE WIRE TO
YB115	TB1-2	TB1-3
YB116, FG172 NOTE VIII	AC TERM-4	AC TERM-5
FOR 50 HZ MACHINES ONLY THE FOLLOWING ADDITIONAL CHANGE		
YB116	TB5-10	TB5-9

- NOTES
- I SOCKET PIN NUMBERS SHOWN ARE CARD PIN NUMBERS. CABLES CONNECTED WITH FEED THRU CONNECTORS. HAVE PIN NUMBERS MIRROR IMAGE OF CARD PIN NUMBERS.
 - II VOLTAGE VALUES AND LOGIC PAGES IN BRACKETS REFER TO 50 HZ MACHINES ONLY
 - III
 - IV SEE CONVERSION TABLE
 - V 5444 DISK FILE WIRING ON TB2, TB3 AND TB4 IS SHOWN ON YD100, YD105, AND YD110 (5410 ALD VOL 8).
 - VI +24V AND GROUND CONNECTIONS FOR EITHER KEYBOARD OR CONSOLE PRINTER
 - VII WIRES FROM TB3-4 AND 6 TO YB117 ARE ONLY ON EARLY MACHINES BEFORE EC 817663. THE JUMPER FROM TB3-5 TO TB3-6 IS ONLY ON LATER MACHINES AFTER EC 817663.

- VIII WIRE PRESENT ONLY IF POWER PAC FEATURE IS INSTALLED
- IX WIRE PRESENT ONLY WITH EXTERNAL METER POWERING (NO POWER PAC)
- X WIRE PRESENT ONLY IF 5444 DISK FILE POWER PACK FEATURE IS INSTALLED
- XI WIRE PRESENT ONLY IF 5444 DRIVE FILE WITH EXTERNAL METER POWERING

DATE	EC NUMBER	DATE	EC NUMBER	POWER DIST (LOWER BASE)
11-17-70	818294			MOD 1 6B1T
20CT71	818418			DATE PPN 2593004
				TYPE
IBM				YB115

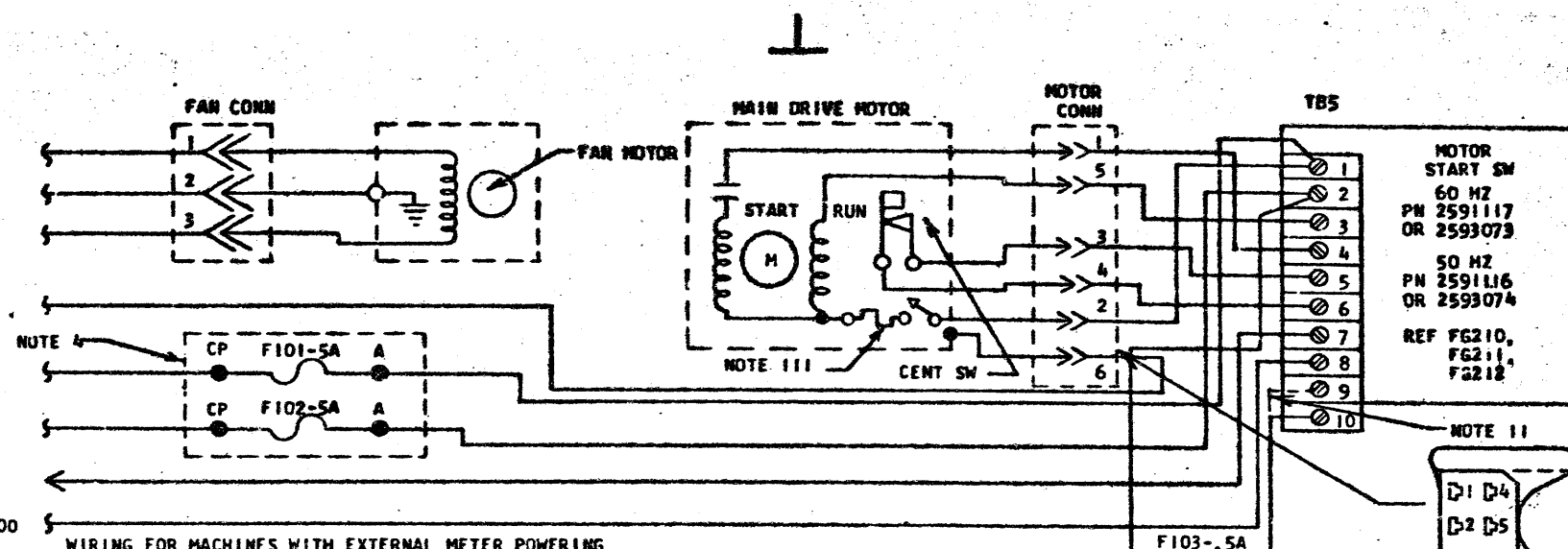
208/230 VAC YB115
(220/235).
MACHINE GND YB115
208/230 VAC YB115
(220/235)

MACHINE GND YB115
208/230 VAC YB115
(220/235)

208/230 VAC YB115
(220/235)

WR161AT4

COVER INTERLOCK SWITCH-A FG200



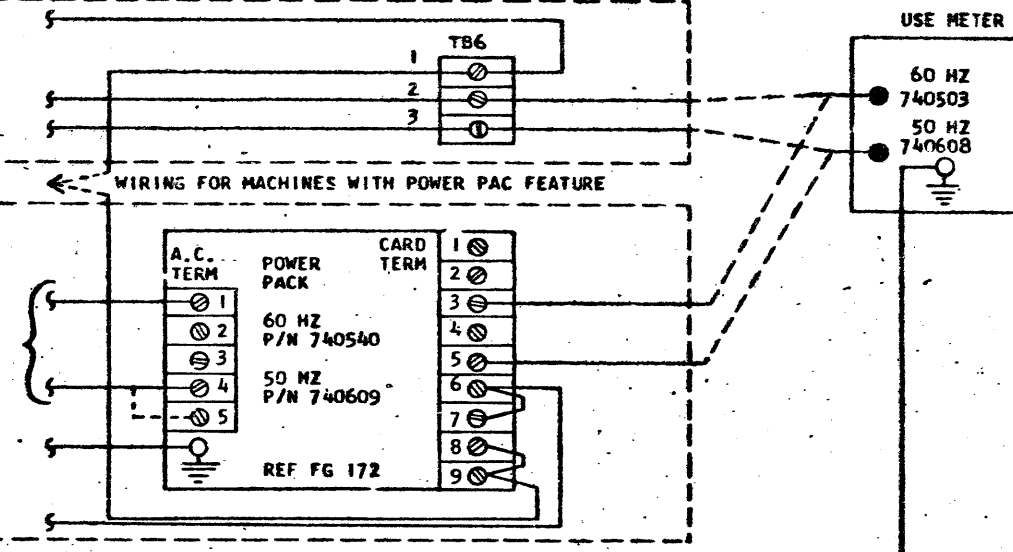
WIRING FOR MACHINES WITH EXTERNAL METER POWERING

5424 USE METER CTL YA104

5424 USE METER YA104
POWER GND YB115 TB4-B

USE METER MAGNET WM 162AU4

WIRING FOR MACHINES WITH POWER PAC FEATURE



208/230V 60 HZ
OR
220/235V 50 HZ

YB115 NOTE 11

MACHINE GND YB115

+6V YB115

MACHINE GND YB115

24 AND 60 GND YB115

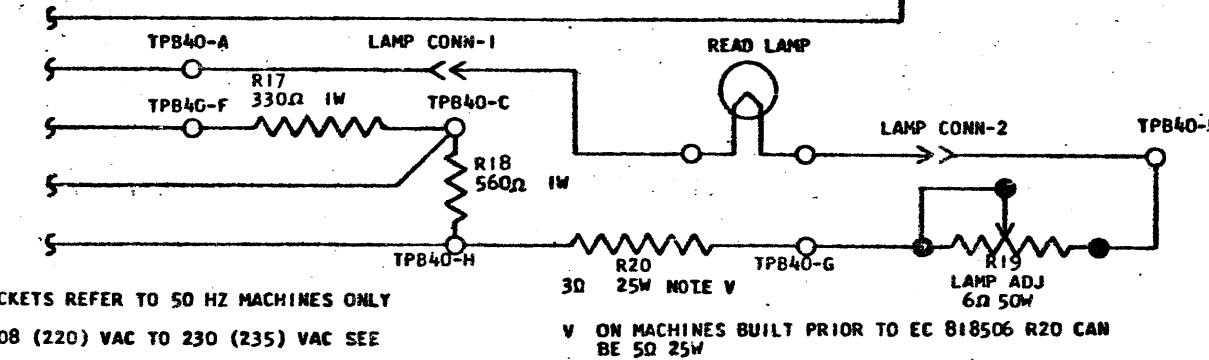
24 AND 60 GND YB115

TO +9V YB115

+24V YB115

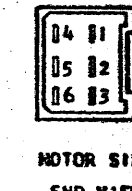
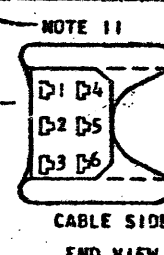
NOTES

- I VOLTAGE VALUES IN BRACKETS REFER TO 50 HZ MACHINES ONLY
- II FOR CONVERSION FROM 208 (220) VAC TO 230 (235) VAC SEE TABLE ON YB115
- III MANUAL RESET, THERMAL SWITCH (NOT PRESENT ON ALL MOTORS)
- IV MOTOR FUSES ARE NOT PRESENT ON ALL MACHINES, BUT ARE REQUIRED FOR MOTORS WITHOUT THERMAL SWITCHES.



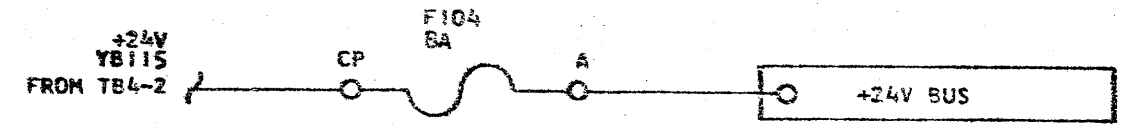
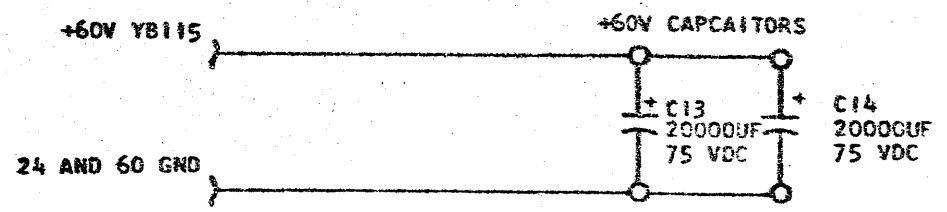
V ON MACHINES BUILT PRIOR TO EC 818506 R20 CAN BE 5Ω 25W

MOTOR START SW
60 HZ
PN 2591117
OR 2593079
50 HZ
PN 2591116
OR 2593074
REF FG210,
FG211,
FG212



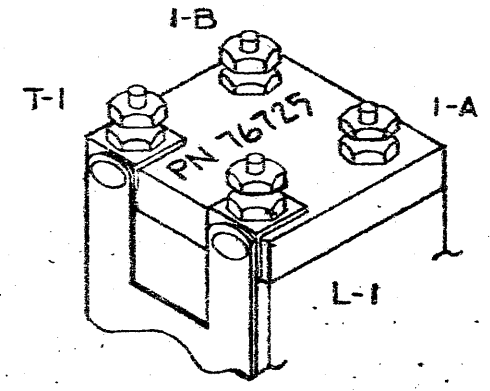
EC HISTORY		DRAWING TITLE	
17NOV70	818294	POWER DIST. WIRING DIAGRAM	
1FEB71	818506	MACH	
		PART NO	2593086
C		CLASSIFICATION	RC 11-16-70
		IBM CORP	

Y B 1 1 6
Y B 1 1 6

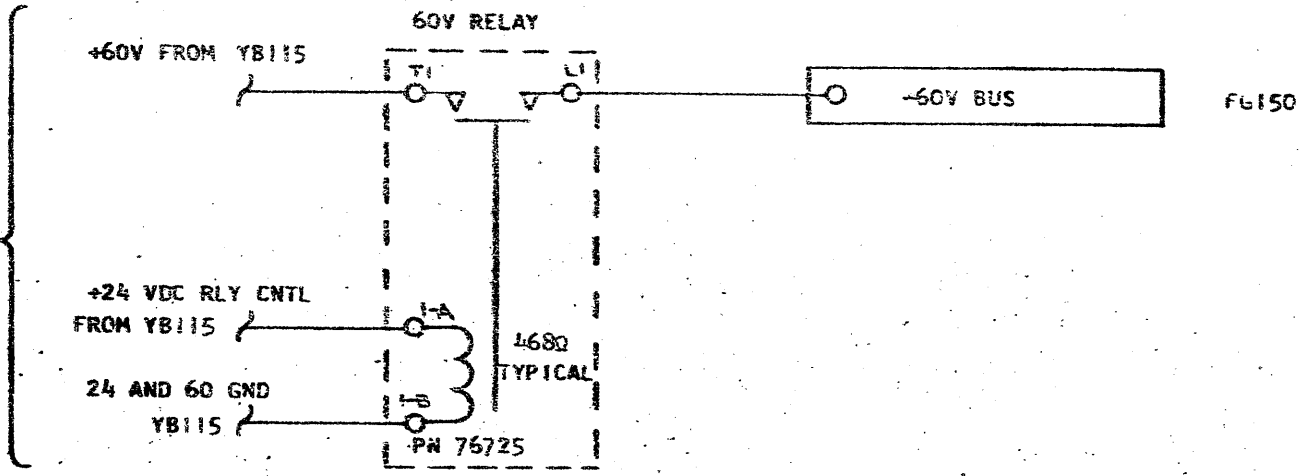


- FG160 WM160 WM172
- FG170 WM161 WM173
- FG171 WM162
- FG172 WM170
- FG200 WM171

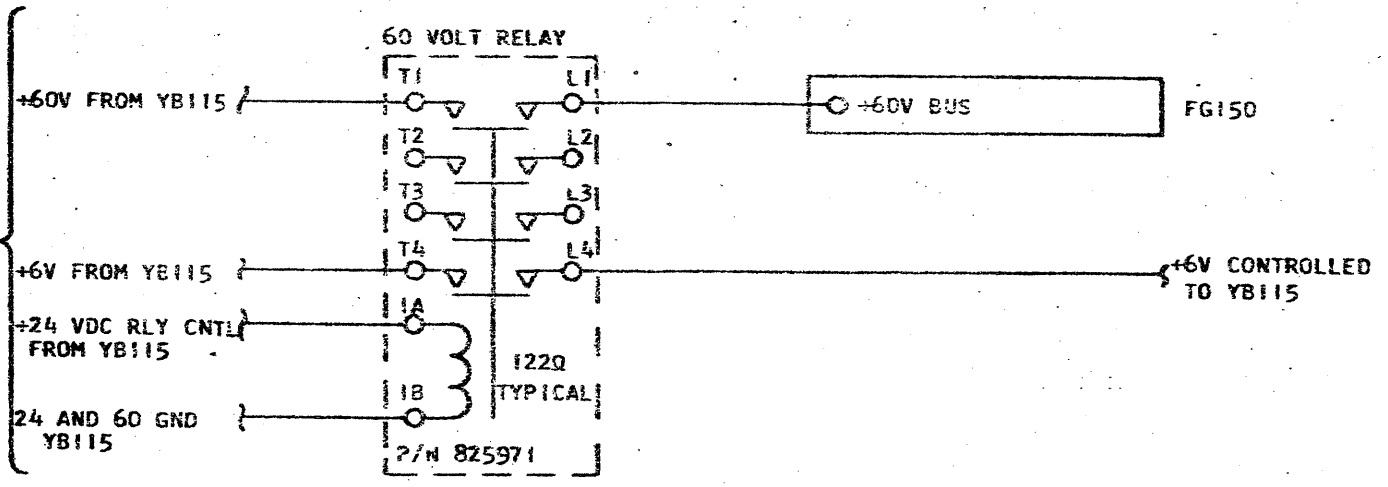
+60V RELAY
TERMINAL LOCATION



AFTER
EC 817663
(FACTORY ONLY EC)



BEFORE
EC 817663
(FACTORY ONLY EC)

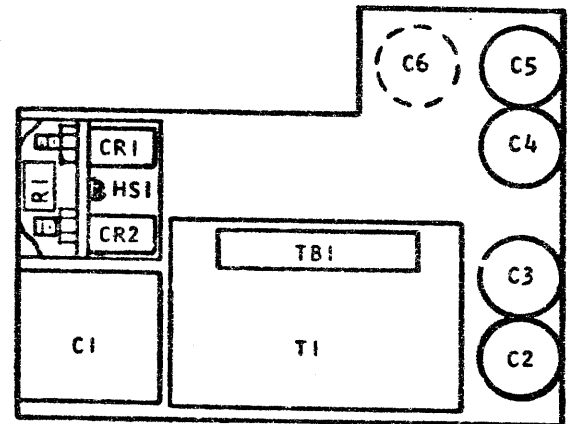
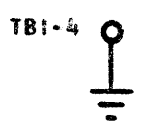
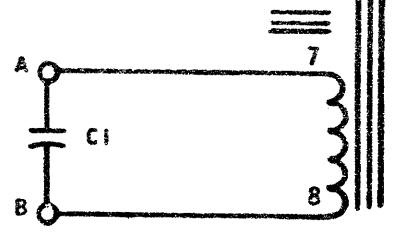
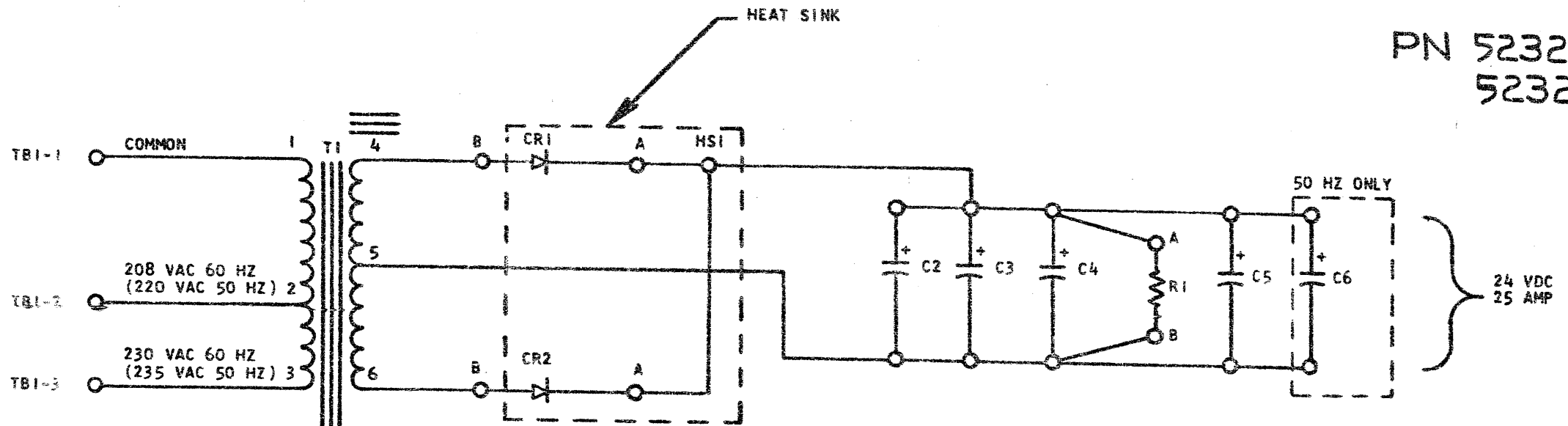


DATE	EC NUMBER	DATE	EC NUMBER	+24V DIST		
10-27-69	817524	9-1-70	817663A	+60V DIST.		
12-8-69	817603			DATE	R/W	2593094
5-4-70	817645A				TYPE	
6-30-70	818992			IBM YB117		
8-13-70	817663					

A
B
C
D
E
Y
B
1
1
7

2 3 4 5 6 7

PN 5232830 (60 HZ)
5232820 (50 HZ)



SYMBOL	DESCRIPTION	PART NUMBER
C1 (50 HZ)	CAPACITOR - 45 UF - 530 VAC	5738734
C1 (60 HZ)	CAPACITOR - 40 UF - 330 VAC	5319839
C2 - C6	CAPACITOR - 54,000 UF - 30 VDC	5796427
CR1 - CR2	RECTIFIER	127324
R1	RESISTOR - 25Ω - 50W	208825
T1 (50 HZ)	TRANSFORMER ASSEMBLY	4118438
T1 (60 HZ)	TRANSFORMER ASSEMBLY	5232893

NOTES

1 EXTERNAL WIRING IS SHOWN ON PAGE YB115

DATE	EC NUMBER	DATE	EC NUMBER	+24 VDC POWER SUPPLY		
10-27-69	817524					
12-8-69	817603			DATE	P/N	2593093
5-4-70	817645A				TYPE	
6-30-70	818992			IBM		YF215

A
B
C
D
E

Y
F
2
1
5