REQUESTED BY 39*G*P55022 MACHINE HISTORY DATE 84-02-24 PAGE 1

MACH TYPE	M C	SERIAL NUMBER	SYST TYPE	SYSTEM NUMBER	F/E B/O	W/T CTY	CUST NUMBER	MD CD	MICRO TPC-CD	BOX SHIP	MACHINE SHIP	PLT MFG	PLT CTL	MACHINE STATUS
4955		0022588	4955	0033615	0391		5109032				81-12-25	BOCA	BOCA	SWOM WO/EC

BASIC ECA.EC	FACTORY EC	SALES MOD	PLANT ORDER	HARD CARD
000.	012345	F00	190RRH	005

MACHINE DEVICE/RPQ CONFIGURATION

DEVICE/RPQ	DEVICE NAME	QTY	STATUS
D02038		2	FACTORY INST
1565		1	TO BE ADDED FIELD
2057		1	FACTORY INST
2095		1	FACTORY INST
2096		1	FACTORY INST
3581		1	FACTORY INST
3590		1	FACTORY INST
4540		1	FACTORY INST
5650		1	FACTORY INST
7840		1	FACTORY INST
9001		1	FACTORY INST
9079		1	FACTORY INST
9137		1	FACTORY INST
9160		1	FACTORY INST
9180		1	FACTORY INST
9251		1	FACTORY INST
9902		1	FACTORY INST

STANDARD FEATURE SECTION

ECA	FIELD	FACTORY	FEATURE BM	FTR-ASN	FEATURE NAME	STATUS	MES-NO	STAT	DATE
000	869407		0000001		CNTRY-UNITED STATES	FACT INST			
000	111111		0008010		JUMPER FEATURE	FACT INST			
000	337340		0009001		SALE TO 3RD PARTY	FACT INST			
000	337340		0009079		OTHER BUS.APPLICATNS	FACT INST			
000	111111		0009160		PRIMARY IPL-1ST DRVE	FACT INST			
000	578267		1111119		208V 60HZ 1PH	FACT INST			
000	578304	578513	1634587		SHIP GRP DEVICE 4540	FACT INST			
000	578179	375213	1637560		PROGRAMMER CONSOLE	FACT INST			
118	876784	466795A	1637561		TIMERS	FACT INST			
107	877041	466795A	1637570		DISKETTE ATTACH	FACT INST			
062	375147	755391	1637599		CHANNEL REPOWER	TO BE INST	P55022	WRIT	84-02-24
000	578365		1637600		RACK MOUNTING FIXTUR	FACT INST			
000	111111		2222222		DISTRIBUTION CHANNEL	FACT INST			
000	578454	578454	4410017		ALT IPL DISKETTE	FACT INST			
000	578478B	755143	4411315		6FT CD 208/230V 60HZ	FACT INST			
125	864724	466795A	4412522		4978 ATTACHMENT	FACT INST			
125	864724	466795A	4412522		4978 ATTACHMENT	FACT INST			
151	323396	466795A	4412759		4963 ATTACHMENT	FACT INST			
000	111111		4444444		APPLICATION UNKNOWN	FACT INST			
146	869713	876942	6837366		PROGRAM 8-LINE COMM	FACT INST			
141	864591	375489	6837367		PROGRAM 4-LINE COMM	FACT INST			
000	374843B	869577	6838156		WARNING LABEL-ENG	FACT INST			
000	375438		6840832		DATA SET EIA WRAP	FACT INST			
000	375438		6840833		DIRECT CONNECT WRAP	FACT INST			
000	864786	987963	6844356		BSCNSL US/UK/JAP/CAN	FACT INST			
000	869341B	323198	6844395		ELEC/MECH BM	FACT INST			
000	869341B	466977	6844399		HIGH VOLT GRP	FACT INST			
000	335527	335527	8568609		FEATURE B/M	FACT INST			

RPQ FEATURE SECTION

ECA	FIELD	FACTORY	RPQ B/M	RPQ #	RPQ-ASN	RPQ DESCRIPTION	STATUS	MES-NO	STAT	DATE
000	111111		0009180			1 OR 2 DRIVE ATTACH	FACT INST			
000	111111		0009251			4963 SUBSYSTEM NO.	FACT INST			

CABLE AND SHIP GROUP SECTION

ECA	FIELD	FACTORY	B/M #	LENGTH	DESCRIPTION	STATUS	MES-NO	STAT	DATE
000	578365	375425	1637595		EIA DATASET CABLE	FACT INST			
000	578555	578555	4411372		SIG CABLE SHP GRP	FACT INST			
153	988042	876942	6844227		PROGRAM 8-LINE COMM	FACT INST			
183	331641	466795A	6844396		SHIP GRP	FACT INST			

ECA HISTORY SECTION N/A = ECA NOT ASSIGNED EC PROD PRAC LEVEL = 0128 (MRS)

ECA	EC NO	ECA STATUS	FLD B/M	EIT	QTY	FCSI	DATE
001	578533	NOT REQUIRED					
004	386988	NOT REQUIRED					
005	576733	NOT REQUIRED					
006	578591	NOT REQUIRED					
007	578900	NOT REQUIRED					
008	578590	NOT REQUIRED					
009	578625	INSTALLED					
010	754954	NOT REQUIRED					
011	578757	INSTALLED					
012	754862	INSTALLED					
013	578914	NOT REQUIRED					
014	578915	NOT REQUIRED					
015	754933	INSTALLED					
016	578913	NOT REQUIRED					
017	754946	NOT REQUIRED					
018	578886	NOT REQUIRED					

REQUESTED BY 39*G*P55022 MACHINE HISTORY DATE 84-02-24 PAGE 2

MACH TYPE	M C	SERIAL NUMBER	SYST TYPE	SYSTEM NUMBER	F/E B/O	W/T CTY	CUST NUMBER	MD CD	MICRO TPC-CD	BOX SHIP	MACHINE SHIP	PLT MFG	PLT CTL	MACHINE STATUS
4955		0022588	4955	0033615	0391		5109032				81-12-25	BOCA	BOCA	SWOM WO/EC

ECA HISTORY SECTION N/A = ECA NOT ASSIGNED EC PROD PRAC LEVEL = 0128 (MRS)

ECA	EC NO	ECA STATUS	FLD B/M	EIT	QTY	FCSI	DATE
019	754882	INSTALLED					
020	754868	INSTALLED					
021	754957	NOT REQUIRED					
022	754939	NOT REQUIRED					
023	754955	NOT REQUIRED					
024	754956	NOT REQUIRED					
025	754958	NOT REQUIRED					
026	578960	NOT REQUIRED					
027	755243	INSTALLED					
028	755331	INSTALLED					
029	755088	NOT REQUIRED					
030	755285	INSTALLED					
031	755078	INSTALLED					
032	755136	NOT REQUIRED					
035	578701	INSTALLED					
036	375013	NOT REQUIRED					
037	578550	NOT REQUIRED					
038	755458	NOT REQUIRED					
040	755138	NOT REQUIRED					
041	755140	NOT REQUIRED					
042	755141	NOT REQUIRED					
043	755137	NOT REQUIRED					
044	755139	NOT REQUIRED					
045	755404	INSTALLED					
046	374989	NOT REQUIRED					
047	755500	NOT REQUIRED					
048	755501	NOT REQUIRED					
049	755502	NOT REQUIRED					
050	755503	NOT REQUIRED					
051	374888	INSTALLED					
052	375135	INSTALLED					
053	755393	NOT REQUIRED					
054	375099	NOT REQUIRED					
055	375032	NOT REQUIRED					
056	374831	INSTALLED					
057	754960	INSTALLED					
058	375052	NOT REQUIRED					
059	755551	INSTALLED					
062	375147	INSTALLED					
063	375221	NOT REQUIRED					
064	375170	NOT REQUIRED					
066	375428	INSTALLED					
067	375401	INSTALLED					
068	375420	NOT REQUIRED					
070	375158	INSTALLED					
071	375094	INSTALLED					
072	375321	NOT REQUIRED					
073	375609	INSTALLED					
074	375384	INSTALLED					
075	375465	INSTALLED					
076	375475	INSTALLED					
077	375482	INSTALLED					
078	375322	NOT REQUIRED					
079	375603	NOT REQUIRED					
080	375666	NOT REQUIRED					
081	375542	NOT REQUIRED					
082	375654	NOT REQUIRED					
083	375655	NOT REQUIRED					
084	375357	NOT REQUIRED					
085	375469	NOT REQUIRED					
086	375427	INSTALLED					
087	876741	NOT REQUIRED					
088	876907	NOT REQUIRED					
089	375200	NOT REQUIRED					
090	375201	NOT REQUIRED					
091	375393	NOT REQUIRED					
092	375352	INSTALLED					
093	375515	NOT REQUIRED					
094	375333	NOT REQUIRED					
095	3754818	NOT REQUIRED					
096	375664	NOT REQUIRED					
097	375694	NOT REQUIRED					
098	375397	NOT REQUIRED					
099	375656	NOT REQUIRED					
100	375823	NOT REQUIRED					
101	375809	INSTALLED					
102	876814	NOT REQUIRED					

REQUESTED BY 39*G*P55022 MACHINE HISTORY DATE 84-02-24 PAGE 3

MACH TYPE	M C	SERIAL NUMBER	SYST TYPE	SYSTEM NUMBER	F/E B/O	W/T CTY	CUST NUMBER	MD CD	MICRO TPC-CD	BOX SHIP	MACHINE SHIP	PLT MFG	PLT CTL	MACHINE STATUS
4955		0022588	4955	0033615	0391		5109032				81-12-25	BOCA	BOCA	SWOM WO/EC

ECA HISTORY SECTION N/A = ECA NOT ASSIGNED EC PROD PRAC LEVEL = 0128 (MRS)

ECA	EC NO	ECA STATUS	FLD B/M	EIT	QTY	FCSI	DATE
103	876817	NOT REQUIRED					
104	876916	NOT REQUIRED					
105	375511	NOT REQUIRED					
106	375474	NOT REQUIRED					
107	877041	INSTALLED					
108	876876	NOT REQUIRED					
109	375700	INSTALLED					
110	876920	NOT REQUIRED					
111	877170	NOT REQUIRED					
112	877036	INSTALLED					
113	876895	INSTALLED					
114	876993	NOT REQUIRED					
115	375662	INSTALLED					
116	864534	NOT REQUIRED					
117	877048	NOT REQUIRED					
118	876784	INSTALLED					
119	375704	NOT REQUIRED					
120	864314	NOT REQUIRED					
121	864529	INSTALLED					
122	864399	NOT REQUIRED					
123	864770	NOT REQUIRED					
124	877049	NOT REQUIRED					
125	864724	INSTALLED					
126	864728	INSTALLED					
127	869448	NOT REQUIRED					
128	869417	NOT REQUIRED					
129	375172	NOT REQUIRED					
130	869314	NOT REQUIRED					
131	869519	NOT REQUIRED					
132	869416	INSTALLED					
133	869549	NOT REQUIRED					
134	987700	INSTALLED					
135	869719	NOT REQUIRED					
136	869536	INSTALLED					
137	987681	NOT REQUIRED					
138	869618	NOT REQUIRED					
139	869592	INSTALLED					
140	987967	NOT REQUIRED					
141	864591	INSTALLED					
142	864647	INSTALLED					
143	987726	NOT REQUIRED					
144	864660	NOT REQUIRED					
145	987965	INSTALLED					
146	869713	INSTALLED					
147	988060	NOT REQUIRED					
148	323266	NOT REQUIRED					
149	994399	INSTALLED					
150	994400	INSTALLED					
151	323396	INSTALLED					
152	994418	NOT REQUIRED					
153	988042	INSTALLED					
154	869711	NOT REQUIRED					
155	987928	NOT REQUIRED					
156	466924	NOT REQUIRED					
157	987768	NOT REQUIRED					
158	323285	NOT REQUIRED					
159	323259	NOT REQUIRED					
160	466795	OPTIONAL CHG NOT INST					
161	466957	NOT REQUIRED					
162	326794	NOT REQUIRED					
163	988093	NOT REQUIRED					
164	326888	TO BE ADDED					
165	466980	NOT REQUIRED					
166	869321	NOT REQUIRED					
167	869712	NOT REQUIRED					
168	997238	OPTIONAL CHG NOT INST					
169	466907	NOT REQUIRED					
170	467013	NOT REQUIRED					
171	326761	NOT REQUIRED					
172	327620	NOT REQUIRED					
173	326765	OPTIONAL CHG NOT INST					
174	327619	NOT REQUIRED					
175	466759B	NOT REQUIRED					
176	466830	NOT REQUIRED					
177	329789	NOT REQUIRED					
178	998314	OPTIONAL CHG NOT INST					
179	331724	TO BE ADDED					

REQUESTED BY 39*G*P55022 MACHINE HISTORY DATE 84-02-24 PAGE 4

MACH TYPE	M C	SERIAL NUMBER	SYST TYPE	SYSTEM NUMBER	F/E B/O	W/T CTY	CUST NUMBER	MD CD	MICRO TPC-CD	BOX SHIP	MACHINE SHIP	PLT MFG	PLT CTL	MACHINE STATUS
4955		0022588	4955	0033615	0391		5109032				81-12-25	BOCA	BOCA	SWOM WD/EC

ECA HISTORY SECTION N/A = ECA NOT ASSIGNED EC PROD PRAC LEVEL = 0128 (MRS)

ECA	EC NO	ECA STATUS	FLD B/M	EIT	QTY	FCSI	DATE
180	334603	NOT REQUIRED					
181	331653	NOT REQUIRED					
182	881274	NOT REQUIRED					
183	331641	INSTALLED					
184	336673	NOT REQUIRED					
185	A00048	OPTIONAL CHG NOT INST					
186	336618	TO BE ADDED					
187	334596D	NOT REQUIRED					
189	337313	OPTIONAL CHG NOT INST					
190	337369	NOT REQUIRED					
192	466805	NOT REQUIRED					
193	A07945	NOT REQUIRED					
194	A08003	WRITTEN	8509761	001.0	001	056331	840224
195	331660	NOT REQUIRED					
197	A07980	OPTIONAL CHG NOT INST					
199	336711	TO BE ADDED					
200	A08038	NOT REQUIRED					
201	A08023	NOT REQUIRED					
N/A	A03065	NOT REQUIRED					
N/A	A03092	NOT REQUIRED					
N/A	A03137	NOT REQUIRED					
N/A	A03143	OPTIONAL CHG NOT INST					
N/A	A07998	NOT REQUIRED					
N/A	A10936	NOT REQUIRED					
N/A	326769	NOT REQUIRED					
N/A	329779	NOT REQUIRED					
N/A	375040	NOT REQUIRED					
N/A	375169	NOT REQUIRED					
N/A	375244	NOT REQUIRED					
N/A	375245	NOT REQUIRED					
N/A	375357H	NOT REQUIRED					
N/A	375376	INSTALLED					
N/A	386992	NOT REQUIRED					
N/A	466880	NOT REQUIRED					
N/A	467043	NOT REQUIRED					
N/A	576849	NOT REQUIRED					
N/A	576997	NOT REQUIRED					
N/A	578585	INSTALLED					
N/A	578638	NOT REQUIRED					
N/A	578677	NOT REQUIRED					
N/A	578700	INSTALLED					
N/A	578728	INSTALLED					
N/A	578751	INSTALLED					
N/A	578756	INSTALLED					
N/A	578934	NOT REQUIRED					
N/A	578984	INSTALLED					
N/A	754898	NOT REQUIRED					
N/A	754920	NOT REQUIRED					
N/A	755104	INSTALLED					
N/A	755586	NOT REQUIRED					
N/A	994359	NOT REQUIRED					
N/A	998313	NOT REQUIRED					

INSTALLED REA'S

ECA	EC NO	REA#	AFFECTS BASIC	AFFECTS BM NO
		2711250	NO	4412522
		2711384	NO	1637570
		2715025	NO	6844399
		2715031	NO	6844399
N/A	987925	2712904	NO	6844399
N/A	987925	2712905	NO	6844399
		2715035	NO	6844396
N/A	987925	2712900	NO	6844399
		2715045	NO	6844356
		2715054	NO	6844395
		2715054	NO	6844399
		2715060	NO	6844399
		2715052	NO	6844395
		2712938	NO	6844396
		2721546	NO	6844396
N/A	987925	2712978	NO	6844395
N/A	987925	2712978	NO	6844399
N/A	466987	2713034	NO	1637570
		2713061	NO	6844395
		2713061	NO	6844399

REQUESTED BY 36*G*H07382 MACHINE HISTORY DATE 82-12-17 PAGE 1

MACH TYPE	M C	SERIAL NUMBER	SYST TYPE	SYSTEM NUMBER	F/E B/G	W/T CTY	CUST NUMBER	MD CD	MICRO TPC-CD	BOX SHIP	MACHINE SHIP	PLT MFG	PLT CTL	MACHINE STATUS
4959		0012949	4955	0708015	0391		2109032				79-05-04	80CA	80CA	SWOM WO/EC

BASIC ECA.EC	FACTORY EC	SALES MOD	PLANT ORDER	HARD CARD
000.	012345	A00	2936LR	006

MACHINE DEVICE/RPQ CONFIGURATION

DEVICE/RPQ	DEVICE NAME	QTY	STATUS
1215		1	FIELD INST
2010		1	FACTORY INST
2057		1	FIELD INST
2074		1	FIELD INST
2095		1	TO BE ADDED FIELD
2096		1	TO BE ADDED FIELD
9902		1	FACTORY INST

STANDARD FEATURE SECTION

ECA	FIELD	FACTORY	FEATURE BM	FTR-ASN	FEATURE NAME	STATUS	MES-NO STAT	DATE
000	809501		0000001		CNTRY UNITED STATES	FACT INST		
000	111111		0000010		JUMPER FEATURE	FACT INST		
000	111111		0008102		LW SP SW NET 1/2 DUP	FACT INST		
000	111111		0008126		LEASE LN 1/2 DUP	FACT INST		
000	578267		1111119		208V 60HZ 1PH	FACT INST		
136	908042	809422	1637563		BSCA 1LN.ADAP MD SPD	FIELD INST	P56154 INST	82-02-10
000	3754818	375714	1637591		COMMUNICATION POWER	FACT INST		
035	374909	881209	1637597		ELEC/MECH FINAL ASSM	FACT INST		
000	5784788	578478B	4411515		6FT CD 208/230V 60HZ	FACT INST		
000	5784470	375063	4412962		BASIC CONSOLE-ENGLSH	FACT INST		
109	877048	375663	0827023		4969 ATTACHMENT	FIELD INST	G55514 INST	80-08-22
132	869713	876942	0837366		PROGRAM 8-LINE COMM	TO BE INST	H07382 WRIT	82-12-17
126	804591	375702	0837367		PROGRAM 4-LINE COMM	TO BE INST	H07382 WRIT	82-12-17
000	3748438	3746438	0838150		WARNING LABEL-ENG	FACT INST		
000	375438	375438	0840832		DATA SET EIA WRAP	FIELD INST	P56154 INST	82-02-10
000	375438	375438	0840833		DIRECT CONNECT WRAP	TO BE INST	H07382 WRIT	82-12-17

CABLE AND SHIP GROUP SECTION

ECA	FIELD	FACTORY	E/M #	LENGTH	DESCRIPTION	STATUS	MES-NO STAT	DATE
000	5703e5	375425	1e37595		EIA DATA SET CABLE	FIELD INST	P56154 INST	82-02-10
056	375147	869422	1637991		SHIP GROUP MOD ADD	FACT INST		
000	576555	576555	4411372		SIG CABLE SHP GRP	FIELD INST	P56154 INST	82-02-10
000	990314	876942	0844227		SHIP GR--8LINE COMM	TO BE INST	H07382 WRIT	82-12-17

ECA HISTORY SECTION N/A = ECA NOT ASSIGNED EC PROD PRAC LEVEL = 0316 (MRS)

ECA	EC NO	ECA STATUS	FLD B/M	EIT	QTY	FCSI	DATE
040	755393	NOT REQUIRED					
050	373147	INSTALLED					
057	375221	NOT REQUIRED					
059	375033	NOT REQUIRED					
060	375401	OPTIONAL CHG NOT INST					
061	375420	NOT REQUIRED					
063	375156	NOT REQUIRED					
064	375094	INSTALLED					
065	375609	NOT REQUIRED					
066	375465	INSTALLED					
067	375384	OPTIONAL CHG NOT INST					
068	375475	NOT REQUIRED					
069	375321	NOT REQUIRED					
070	375322	NOT REQUIRED					
071	375376	NOT REQUIRED					
072	375603	NOT REQUIRED					
073	375666	NOT REQUIRED					
074	375542	NOT REQUIRED					
075	375654	NOT REQUIRED					
076	375655	NOT REQUIRED					
077	375357	NOT REQUIRED					
078	375469	NOT REQUIRED					
079	375427	TO BE ADDED					
080	876741	NOT REQUIRED					
081	876907	NOT REQUIRED					
082	375200	NOT REQUIRED					
083	375201	NOT REQUIRED					
084	375393	NOT REQUIRED					
085	375352	NOT REQUIRED					
086	375515	NOT REQUIRED					
087	375333	NOT REQUIRED					
088	3754618	INSTALLED					
089	375664	NOT REQUIRED					
090	375694	NOT REQUIRED					
091	375397	NOT REQUIRED					
092	375656	NOT REQUIRED					
093	375623	NOT REQUIRED					
094	375669	NOT REQUIRED					
095	876814	NOT REQUIRED					
096	876817	NOT REQUIRED					
097	876910	NOT REQUIRED					
098	877041	NOT REQUIRED					

REQUESTED BY 20*G*H07362 MACHINE HISTORY DATE 82-12-17 PAGE 2

MACH TYPE	M C	SERIAL NUMBER	SYST TYPE	SYSTEM NUMBER	F/E B/D	W/T CTY	COST NUMBER	MD CD	MICRO TPC-CD	BUX SHIP	MACHINE SHIP	PLT MFG	PLT CTL	MACHINE STATUS
4959		0012949	4955	0000615	0391		5109032				79-05-04	BUCA	BUCA	SWOM WO/EC

ECA HISTORY SECTION N/A = ECA NOT ASSIGNED EC PROD PRAC LEVEL = 0316 (MRS)

ECA	EC NO	ECA STATUS	FLD B/M	EIT	QTY	FCSI	DATE
099	375474	INSTALLED					
100	870076	NOT REQUIRED					
101	375700	TO BE ADDED					
102	876920	INSTALLED					
103	877036	NOT REQUIRED					
104	375692	NOT REQUIRED					
105	870695	INSTALLED					
106	870993	INSTALLED					
107	375602	NOT REQUIRED					
108	864534	NOT REQUIRED					
109	877046	INSTALLED					
110	876784	INSTALLED					
111	375704	TO BE ADDED					
112	004314	NOT REQUIRED					
113	864399	TO BE ADDED					
114	004770	NOT REQUIRED					
115	877049	NOT REQUIRED					
116	864724	NOT REQUIRED					
117	869448	TO BE ADDED					
118	869417	NOT REQUIRED					
119	375172	OPTIONAL CHG NOT INST					
120	869514	TO BE ADDED					
121	869519	NOT REQUIRED					
122	869549	NOT REQUIRED					
123	987700	NOT REQUIRED					
124	869719	NOT REQUIRED					
125	987681	NOT REQUIRED					
126	869618	TO BE ADDED					
127	987967	NOT REQUIRED					
128	864591	INSTALLED					
129	864647	OPTIONAL CHG NOT INST					
130	864660	NOT REQUIRED					
131	987965	INSTALLED					
132	869713	INSTALLED					
133	986460	NOT REQUIRED					
134	323266	NOT REQUIRED					
135	994400	OPTIONAL CHG NOT INST					
136	323396	NOT REQUIRED					
137	994418	NOT REQUIRED					
138	968042	INSTALLED					
139	869711	NOT REQUIRED					
140	987928	NOT REQUIRED					
141	466924	NOT REQUIRED					
142	967768	NOT REQUIRED					
143	323285	NOT REQUIRED					
144	323259	NOT REQUIRED					
145	466795	WRITTEN	4772216	001.0	001	017163	821217
145	466795	WRITTEN	4772229	001.0	001	017163	821217
145	466795	WRITTEN	4772255	001.0	001	017163	821217
146	466957	NOT REQUIRED					
147	326794	NOT REQUIRED					
148	988693	OPTIONAL CHG NOT INST					
149	326866	INSTALLED					
150	466980	NOT REQUIRED					
151	869321	OPTIONAL CHG NOT INST					
152	869712	NOT REQUIRED					
153	466907	NOT REQUIRED					
154	467013	NOT REQUIRED					
155	326761	NOT REQUIRED					
156	327620	NOT REQUIRED					
157	326765	OPTIONAL CHG NOT INST					
158	327019	NOT REQUIRED					
159	4667598	NOT REQUIRED					
160	466630	NOT REQUIRED					
N/A	326769	NOT REQUIRED					
N/A	329779	NOT REQUIRED					
N/A	329789	NOT REQUIRED					
N/A	331053	NOT REQUIRED					
N/A	331724	NOT REQUIRED					
N/A	334003	NOT REQUIRED					
N/A	375244	NOT REQUIRED					
N/A	375245	NOT REQUIRED					
N/A	466860	NOT REQUIRED					
N/A	467043	NOT REQUIRED					
N/A	831274	NOT REQUIRED					
N/A	996314	INSTALLED					

INSTALLED REA'S

ECA	EC NO	REA#	AFFECTS BASIC	AFFECTS BM NO
		2710690	YES	

REQUESTED BY 30*G*H07362 MACHINE HISTORY DATE 82-12-17 PAGE 3

MACH TYPE	M C	SERIAL NUMBER	SYST TYPE	SYSTEM NUMBER	F/E B/O	W/T CTY	COST NUMBER	MD CD	MICRO TPC-CD	BOX SHIP	MACHINE SHIP	PLT MFG	PLT CTL	MACHINE STATUS
4959		0012949	4*55	0000015	0391		5109032				79-05-04	BOCA	BOCA	SWOM WO/EC

INSTALLED REA'S

ECA	EC NO	REA#	AFFECTS BASIC	AFFECTS BM NO
		2710727	NO	1637597
		2710728	NO	1637597
		2711096	NO	1637991
		2711095	NO	1637585
		2711233	NO	1637583
		2711352	NO	1637597
		2711967	NO	1637991
		2712072	YES	
N/A	375480	2712252	NO	1637597
		2712253	NO	1637591
		2712292	NO	6827023
		2712512	NO	6827023
157	326765	2715257	NO	1637585
157	326765	2715257	NO	6844227

MACH TYPE	M C	SERIAL NUMBER	SYST TYPE	SYSTEM NUMBER	F/E B/O	W/T CTY	CUST NUMBER	MD CD	MICRO TPC-CD	BOX SHIP	MACHINE SHIP	PLT MFG	PLT CTL	MACHINE STATUS
4997		0012984	4955	0008615	0391		5109032				78-09-29	BOCA	BOCA	SWM W/EC

BASIC ECA.EC	FACTORY EC	SALES MOD	MFG MOD	PLANT ORDER	HARD CARD
000.		02B	020	79860R	003

STANDARD FEATURE SECTION

ECA	FIELD	FACTORY	FEATURE BM	DEVICE	FTR-ASN	FEATURE NAME	STATUS	MES-NO	STAT	DATE
000	578267		1111119	9902		208V 60HZ 1PH	FACT INST			
000	755175B	755463	1634568			FINAL ASSEMBLY	FACT INST			
000	578296	578413	1634802			IPO ENGLISH LANGUAGE	FACT INST			
000	578296	755225	1634808	9902		HIGH VOLTAGE PWR	FACT INST			
000	578296	578526	1634810	9902		LINE CORD	FACT INST			
000	578445	578660	4410974	9197		1.8 MOLD PRI COVERS	FACT INST			
000	755463	755463	6825858			US LABELS	FACT INST			

CABLE AND SHIP GROUP SECTION

ECA	FIELD	FACTORY	B/M #	DC-RPQ	LENGTH	DESCRIPTION	STATUS	MES-NO	STAT	DATE
001	754882	754882B	1634586			SHIP GROUP	FACT INST			

ECA HISTORY SECTION N/A = ECA NOT ASSIGNED EC PROD PRAC LEVEL = 0009 (MRS)

ECA	EC NO	ECA STATUS	FLD	B/M	EIT	QTY	FCSI	DATE
001	754882	INSTALLED						
002	375034	NOT REQUIRED						
003	374920	OPTIONAL CHG NOT INST						
N/A	578469	INSTALLED						
N/A	578625	INSTALLED						
N/A	755175	INSTALLED						
N/A	755175B	INSTALLED						

INSTALLED REA'S

ECA	EC NO	REA#	AFFECTS BASIC	AFFECTS BM NO
		2710769	NO	1634568
		2711016	NO	4410974
		2711740	NO	1634568

VOLUME A00 C.P.U. 4955-90023 MODEL E00 SYSTEM 0008615 BOX SHIP 78/09/29

LOGIC TYPE -0- SYSTEMS DIAGRAMS

PAGE NUM	SH	TITLE	PART NUM	EC NUM	FEATURE B/M OR B/MS
FORM		Z150-0109-0	0002222222	UNUSED	.W. 0001634586

TOTAL PART NUMBERS THIS VOLUME 1

VOLUME 001 C.P.U. 4955-90023 MODEL E00 SYSTEM 0008615 BOX SHIP 78/09/29

LOGIC TYPE -0- SYSTEMS DIAGRAMS

PAGE NUM	SH	TITLE	PART NUM	EC NUM	FEATURE	B/M OR B/MS
A1100			0008326721	755285	.W.	0008326805
A5202		CPU E CHANNEL	0008327104	755404	.W.	0008326805
A5212		CPU E PROC 1	0008327105	755404	.W.	0008326805
A5222		CPU E PROC 2	0008327106	755404	.W.	0008326805
A5231		ADDR ZLAT	0004412895	755404	.W.	0008326805
A5300		4955 ROS CARD	0001635201	754882	.W.	0008326805
A5310		DPC WRITE	0001635490	578757	.W.	0008326805
A5320		CYCLE STL	0001635491	578757	.W.	0008326805
A5321		CHNL CHNL NOTES	0004414342	578757	.W.	0008326805
A5330		DPC CARD	0001635489	578757	.W.	0008326805
PA100		4955 CONSOLE	0001635004	578984	.W.	0008326805
PA105		PROG CONSOLE	0004414120	754882	.W.	0008326805
PA110		BASIC CONSOLE	0004414121	578980	.W.	0008326805
SC150		ACCA MULTI LN CNTRLR	0001635189	578714	.W.	0001637586
SC152		ASY COMM SINGLE LINE	0001635158	578468	.W.	0001637586
SC155		ACCA 4 LN ADAPT CARD	0001635190	578714	.W.	0001637587
SC157		ASYNC COMM 4 LINE	0001635161	754882	.W.	0001637587
SC310		BIN SYN COMM MED SP	0001635165	578468	.W.	0001637587
SD100	1	TTY ATTACH CARD	0001635180	578625	.W.	0004412940
SD105		ROS CARD	~~0001635203~~	~~754882~~	.W.	0008326805
SD105	1	TELETYPWRITER ADAPT	0001635203	755088	.W.	0004412940
SD110	3	TTY CABLES	0004412891	578751	.W.	0004412940
SF100	3	4964 DISKETTE	0001635182	~~578486~~ 578914	.W.	0001637570
SF110	3	4964 ATTACH CABLE	0001635481	578751	.W.	0001637570
SF120	1	DISKT CARD	0004412872	578714	.W.	0001637570
SF130		DISKETTE PWR	0004414011	755285	.W.	0001637570
SF136		DISKETTE LOGIC	0004414012	755285	.W.	0001637570
SF140		DISKETTE CTL	0004414013	578714	.W.	0001637570
SF150		DISKETTE UNIT ATTCH	0004414336	578940	.W.	0001637570
SF152		DISKETTE UNIT ATTCH	0004414337	578940	.W.	0001637570
SF154		VFO CARD	0004414338	578940	.W.	0001637570
SF156		DISKETTE DRIVE CTRL	0004414339	578940	.W.	0001637570
SF158		DISKETTE UNIT DEVICE	0004414340	578940	.W.	0001637570
SF300		4962 DISK ATTCH CARD	0001635183	578940	.W.	0001634791
SF301		4962 ATTACH CABLE	0001635127	578940	.W.	0001634791
SF302		4962 ATTACH	0004412894	755285	.W.	0001634791
SF305		AC PWR DIST	0001635086	578940	.W.	0001634791
SF306		DC VOLT DIST A-A1	0001635089	755285	.W.	0001634791
SF308		CABLES A-A1 TO DE	0001635112	578714	.W.	0001634791
SF309		CABLES A-A1 TO DE	0001635115	578714	.W.	0001634791
SF310		PIN LOCAT&A-A1 BOARD	0001635106	578714	.W.	0001634791
SF311		CABLE&CARD PLUG	0001635109	755285	.W.	0001634791
SF318		FCU 1 LOC=1A-A1	0004412825	578940	.W.	0001634791
SF319		FCU 1 LOC=1A-A1	0004412826	578940	.W.	0001634791
SF325		CARD MACRO CONTRL CD	0004412832	578940	.W.	0001634791
SF326		CONTROL&SAFETY	0004412833	578940	.W.	0001634791
SF327		DATA SEPARATOR	0004412834	578940	.W.	0001634791
SF328		VELOCITY CONTROL	0004412835	578940	.W.	0001634791
SF329		POSISTION DETECT	0004412836	578940	.W.	0001634791
SF330		COIL DRIVER	0004412837	578940	.W.	0001634791
SF335		DPL AND CYCLE STEAL	0004414700	578940	.W.	0001634791
SF337		CYLE STEAL WAVE FORM	0004414701	578940	.W.	0001634791
SF339		READ CYCLE STEAL	0004414702	578940	.W.	0001634791
SF341		ATTCH SCOPE PICTURES	0004414703	578940	.W.	0001634791
SF342		ATTCH SCOPE PICTURES	0004414704	578940	.W.	0001634791
SF343		ATTCH 2ND LEVEL	0004414705	755285	.W.	0001634791
SF346		ATTCH 2ND LEVEL	0004414706	578940	.W.	0001634791
SF347		ATTCH 2ND LEVEL	0004414707	578940	.W.	0001634791
SF348		ATTCH 2ND LEVEL	0004414708	578940	.W.	0001634791
SF349		FCUI 2ND LEVEL	0004414709	578940	.W.	0001634791
SF350		FCUI 2ND LEVEL	0004414710	578940	.W.	0001634791
SF351		FCUI 2ND LEVEL	0004414711	578940	.W.	0001634791
SF352		FCUI 2ND LEVEL	0004414712	578940	.W.	0001634791
SF353		FCUI TO FCU2 INTER	0004414713	578940	.W.	0001634791
SF354		FCU2 2ND LEVEL	0004414714	578940	.W.	0001634791
SF355		FCU2 2ND LEVEL	0004414715	578940	.W.	0001634791
SF356		FCU2 2ND LEVEL	0004414716	578940	.W.	0001634791
SF357		FCU2 2ND LEVEL	0004414717	578940	.W.	0001634791
SF358		FCU2 TO FCUI INTER	0004414718	578940	.W.	0001634791
SF360		ATTCH TO FCU TIMING	0004414719	578940	.W.	0001634791
SF362		DCB FCU WAVE FORMS	0004414720	578940	.W.	0001634791
SF364		DCB FCU SCOPE PICTUR	0004414721	578940	.W.	0001634791
SF380		EDGE CONNECTOR Y1	0004412838	578940	.W.	0001634791
SF381		EDGE CONNECT OR Y2	0004412839	578940	.W.	0001634791
SF382		EDGE CONNECTOR Z2	0004412840	578940	.W.	0001634791
SF383		EDGE CONNECTOR Y3	0004412841	578940	.W.	0001634791
SF461		INTER-FILE CONTR	0004414722	578940	.W.	0001634791
SF465		SERVO CTRL&TRACK	0004414723	755285	.W.	0001634791
SF467		SERVO CTRL&TRACK	0004414724	578940	.W.	0001634791
SF469		INDEX SECTOR DATA	0004414725	755285	.W.	0001634791
SF471		PHASE LOCKED OSCILL	0004414726	578940	.W.	0001634791
SF473		DSF DISK READY	0004414727	578940	.W.	0001634791
SF475		SEEK OPERATION	0004414728	578940	.W.	0001634791
SF477		SEEK OPERATION WAVE	0004414729	578940	.W.	0001634791
SF479		WHITE OPERATION	0004414730	755285	.W.	0001634791
SF481		WRITE WAVEFORMS	0004414731	578940	.W.	0001634791

VOLUME 001 C.P.U. 4955-90023 MODEL E00 SYSTEM 0008615 BOX SHIP 78/09/29

LOGIC TYPE -0- SYSTEMS DIAGRAMS

PAGE NUM	SH	TITLE	PART NUM	EC NUM	FEATURE B/M OR B/MS
SF483		READ OPERATION	0004414732	578940	.W. 0001634791
SF485		READ OPERATION	0004414733	755285	.W. 0001634791
SF487		DATA UNSAFE&WRITE	0004414734	578940	.W. 0001634791
SF489		RECALIBRATE	0004414735	578940	.W. 0001634791
ST100		TIMER ATTACH CARD	0001635187	578625	.W. 0001637561
ST105			0001635151	755404	.W. 0001637561
YA400		AC/DC DIST	0008326807	755404	.W. 0008326805
YA410		PS SCHEM	0008327537	755404	.W. 0008326805
YA420		COMPONENT	0008326809	755404	.W. 0008326805
YA430		ASSEMBLY	0008326810	374833	.W. 0008326805
YA431		CARD	0008326811	755404	.W. 0008326805
YA440		DC DIST	0008326812	755404	.W. 0008326805
YD100		AC POWER	0004412901	578625	.W. 0001634586

TOTAL PART NUMBERS THIS VOLUME 99

VOLUME 003 C.P.U. 4955-90023 MODEL E00 SYSTEM 0008615 BOX SHIP 78/09/29

LOGIC TYPE -0- SYSTEMS DIAGRAMS

PAGE NUM	SH	TITLE	PART NUM	EC NUM	FEATURE B/M OR B/MS	
E8E5		LIST	0004412848	755404	.W. 0001637586	
E8E6	1	LISTLINE TEST	0004414382	754863	.W. 0001637586	
E900		LIST ACCA ML A1	0001635333	754882	.W. 0001637586	
E901		LIST ACCA ML A2	0001635339	754863	.W. 0001637586	
E902		LIST ACCA ML A3	0001635345	754863	.W. 0001637586	
E903		LIST ACCA ML A4	0001635351	754863	.W. 0001637586	
E910		LIST ACCA ML M1	0001635357	754882	.W. 0001637586	
E911		LIST ACCA ML M2	0001635363	754863	.W. 0001637586	
E912		LIST ACCA ML M3	0001635369	754863	.W. 0001637586	
E913		LIST SS CABLE	0001635392	755243	.W. 0001637586	
E914		LIST SS IND PNL	0001635398	754882	.W. 0001637586	
E915		LIST ML CTRL 1	0001635436	754882	.W. 0001637586	
E920		LIST ML CTRL 2	0001635404	754882	.W. 0001637586	
E921		LIST ML CTRL 3	0001635410	754882	.W. 0001637586	
E922		LIST ML CTRL 4	0001635416	754882	.W. 0001637586	
E923		LIST ML CTRL 5	0001635422	754882	.W. 0001637586	
E940		LIST SS ROS	0001635430	754882	.W. 0001637586	
E941	1	LISTS ROS EC2	0004414344	754882	.W. 0001637586	
F0E5		LIST	0004412862	755404	.W. 0008326805	
F0E6		LIST	0006837828	755404	.W. 0008326805	
2000		LIST CPU COMMON	0006837794	755404	.W. 0008326805	
2300		LIST 4953-E	0006837796	755404	.W. 0008326805	
2301		LIST 4953-1	0006837798	755404	.W. 0008326805	
2302		LIST 4953-2	0006837800	755404	.W. 0008326805	
2303		LIST 4953-3	0006837802	755404	.W. 0008326805	
2304		LIST 4953-4	0006837804	755404	.W. 0008326805	
25A0		LIST NO IPL	0001635318	754882	.W. 0008326805	
25A1		LIST CPU BASIC	0001635033	578751	.W. 0008326805	
25A2		LIST CPU EXP 1	0001635035	578751	.W. 0008326805	
25A3		LIST CPU EXP 2	0001635037	755404	.W. 0008326805	
2500		LIST 4955-E	0006837806	755404	.W. 0008326805	
2501		LIST 4955-1	0006837808	755404	.W. 0008326805	
2502		LIST 4955-2	0006837810	755404	.W. 0008326805	
2503		LIST 4955-3	0006837812	755404	.W. 0008326805	
2504		LIST 4955-4	0006837814	755404	.W. 0008326805	
2505		LIST 4955-5	0006837816	755404	.W. 0008326805	
2506		LIST 4955-6	0006837818	755404	.W. 0008326805	
3CEF		LIST MDI COMM	0004414152	754882	.W. 0008326805	
3C00		LIST MDI	0001635082	578625	.W. 0008326805	
38E0		LIST CONFIG	0006837782	755404	.W. 0008326805	
38E1		LIST CONFIG	0006837784	755404	.W. 0008326805	
38E2		LIST CONFIG	0006837786	755404	.W. 0008326805	
38E3		LIST CONFIG	0006837788	755404	.W. 0008326805	
38E4		LIST CONFIG	0006837790	755404	.W. 0008326805	
38F0		LIST CONFIG	0001635015	755404	.W. 0008326805	
38F1		LIST CONFIG REC	0001635017	578751	.W. 0008326805	
38F2		LIST	0008327417	755404	.W. 0008326805	
38F3		LIST	0008327419	755404A	.W. 0008326805	
38F4		LIST	0008327421	755404	.W. 0008326805	
38F5		LIST	0008327423	755404	.W. 0008326805	
38F6		LIST	0008327425	755404	.W. 0008326805	
38F7		LIST CONFIG	0006837792	755404	.W. 0008326805	
38F9		LIST PATCH/DUMP	0001635019	755404	.W. 0008326805	
380C		LIST	0004414158	755404	.W. 0008326805	
3800		LIST DCP	0001635013	755404	.W. 0008326805	
3801		LIST DCP/TTY	0001635200	755404	.W. 0008326805	
3802		LIST DCP/DISPLAY	0001635202	755404	.W. 0008326805	
3803		LIST DCP/PRINT	0001635204	755404	.W. 0008326805	
4000	1	LIST TTY ENTER	0001635221	754882	.W. 0004412940	
4001	1	LIST TTY	0001635224	754882	.W. 0004412940	
4002		LIST TTY	0004412867	578757	.W. 0004412940	
4800	3	LIST DISKETTE	0001635063	578757	.W. 0001637570	.W. 0001637570
4801	3	LIST DISKETTE SEEK	0001635068	578757	.W. 0001637570	
4802	3	LISTDISKETTE	0001635072	578757	.W. 0001637570	
4810	3	LIST DISKETTE	0001635075	578757	.W. 0001637570	
4813	3	LIST DISKETTE DEV	0001635078	578757	.W. 0001637570	
4820	3	LIST DISKETTE DEV	0001635105	578757	.W. 0001637570	
4830	3	LIST DISKETTE	0001635305	578757	.W. 0001637570	
4840	3	LIST DISKETTE DEV	0001635308	578757	.W. 0001637570	
4850	3	LIST DISKETTE DEV	0001635311	578757	.W. 0001637570	
5000		LIST TIMER 1	0001635159	755331	.W. 0001637561	
5001		LIST TIMER 2	0001635162	578625	.W. 0001637561	
5002		LIST TIMER 3	0001635209	755331	.W. 0001637561	
6404		LIST IPL 3	0001635087	754882755285B	.W. 0008326805	
78F0		LIST DISK 4962	0001635488	755404	.W. 0001634791	
7800		LIST CHANNEL INTERFC	0001635026	755285	.W. 0001634791	
7801		LIST CHANNEL 4962	0001635136	755285B	.W. 0001634791	
7802		LIST 4962	0001635142	755285	.W. 0001634791	
7803		LIST	0006825355	755285	.W. 0001634791	
7805		LIST	0006825358	755285	.W. 0001634791	
7807		LIST	0004414132	755285	.W. 0001634791	
7808		LIST	0004414134	755285	.W. 0001634791	
7809		4962 DISK STATUS	0001635428	755285	.W. 0001634791	
7810		4962 DISK STATUS	0001635239	755285	.W. 0001634791	
7811		LIST 4962 READ TEST	0001635242	755285	.W. 0001634791	
7812		DISK WRITE TEST	0001635245	755285	.W. 0001634791	

VOLUME 003 C.P.U. 4955-90023 MODEL E00 SYSTEM 0008615 BOX SHIP 78/09/29

LOGIC TYPE -0- SYSTEMS DIAGRAMS

PAGE NUM	SH	TITLE	PART NUM	EC NUM	FEATURE	B/M OR B/MS
7813		SEEK READ WRITE	0001635240	755285	.W.	0001634791
7814		DISK WRITE TEST	0004412869	755285	.W.	0001634791
7815		CHANNEL INTERFACE	0001635251	755285	.W.	0001634791
7820		LIST CLOCK/4962	0001635396	755285	.W.	0001634791
7821		LIST CLOCK/4962	0001635399	755285	.W.	0001634791
7822		LIST CLOCK/4962	0001635402	755285	.W.	0001634791
7823		LIST CLOCK/4962	0001635405	755285	.W.	0001634791
7824		LIST CLOCK/4962	0001635408	755285	.W.	0001634791
7832		NOT READY SENSE	0001635254	755285	.W.	0001634791
7833		NOT READY SENSE	0001635431	755285	.W.	0001634791
7840		READ ERROR ANALYSIS	0001635257	755285	.W.	0001634791
7341		READ PROB MAP	0001635260	755285	.W.	0001634791
7843		4962 HEAD SELECT DIA	0001635266	755285	.W.	0001634791
7844		PH SEL DIAG	0001635269	755285	.W.	0001634791
7852		LIST UNSAFE ANNALYS	0001635275	755285	.W.	0001634791
7860		LIST SEEK FAULT MAP	0001635281	755285	.W.	0001634791
7861		LIST SEEK FAULT MAP	0001635284	755285	.W.	0001634791
7862		4962 SEEK FAULT	0001635287	755285	.W.	0001634791
7868		LIST	0004412897	755285	.W.	0001634791
7869		LIST FORMAT OR WRITE	0001635393	755285	.W.	0001634791

TOTAL PART NUMBERS THIS VOLUME 106

VOLUME 004 C.P.U. 4955-90023 MODEL E00 SYSTEM 0008615 BOX SHIP 78/09/29

LOGIC TYPE -0- SYSTEMS DIAGRAMS

PAGE NUM	SH	TITLE	PART NUM	EC NUM	FEATURE	B/M OR B/MS
TAB		BINDER TAB SYT	0001635450	578468	.W.	0008326805
000015	2	MAP TEST ENTER	0001635262	755104	.W.	0008326805
000016		MAP SYS TEST	0004414042	755104	.W.	0008326805
000017		MAP FRIEND	0004414043	755104	.W.	0008326805
000018		MAP ERAP	0004414389	754882	.W.	0008326805
023DE0		MAP FLT POINT	0004414329	754882	.W.	0008326805
0440E0		MAP TTY	0001635452	578756	.W.	0008326805
0644E0		MAP 4979	0001635457	755104	.W.	0008326805
0645E0		MAP STST 4978	0004414330	754882	.W.	0008326805
1050E0		MAP TIMER	0001635463	578756	.W.	0008326805
1068E0		MAP STST 4973	0004414112	578756	.W.	0008326805
1264E0		MAP 4974	0001635466	755104	.W.	0008326805
1478E0		MAP 4962	0001635469	578756	.W.	0008326805
16A0E0		MAP INTEG DI/DO	0001635475	578756	.W.	0008326805
20A3E0		MAP STST OEMI	0004414113	578756	.W.	0008326805
20A4E0		MAP STST S I/O	0004414114	578756	.W.	0008326805
20E0E0		MAP STST	0004412887	755104	.W.	0008326805
20E8E0		MAP STST ACCAIL	0004414115	754882	.W.	0008326805
20E9E0		MAP STST ACCAML	0004414116	754882	.W.	0008326805
20F0E0		MAP STST BSCAIL	0004414117	754882	.W.	0008326805
20F1E0		MAP STST BSCAML	0004414118	754882	.W.	0008326805
20F8E0		MAP STST SDLC	0004414119	754882	.W.	0008326805
70A0E0		LIST INTEG DI/DO	0001635259	754882	.W.	0008326805
70E0E0		LIST STST	0004412858	755104	.W.	0008326805
703DE0		LIST	0004414311	754882	.W.	0008326805
7034A1		LIST	0004414305	754882	.W.	0008326805
7034A2		LIST	0004414307	754882	.W.	0008326805
7034A3		LIST	0004414309	754882	.W.	0008326805
7034E0		LIST	0004414317	754882	.W.	0008326805
7034F1		LIST UTIL 1	0001635223	754882	.W.	0008326805
7034F8		LIST UTIL 2	0001635230	755104	.W.	0008326805
703400		LIST TEST CP	0001635211	754882	.W.	0008326805
703401		LIST	0004414315	754882	.W.	0008326805
703410		LIST	0001635220	755104	.W.	0008326805
7040E0		LIST TTY	0001635238	755104	.W.	0008326805
7044E0		LIST 4979	0001635241	755104	.W.	0008326805
7045E0		LIST	0004414313	755104	.W.	0008326805
7048E0		LIST 4964	0001635244	754882	.W.	0008326805
7050E0		LIST TIMER	0001635247	754882	.W.	0008326805
7064E0		LIST 4974	0001635250	755104	.W.	0008326805
7068E0		LIST STST 4973	0004414104	755104	.W.	0008326805
7078E0		LIST	0001635253	754882	.W.	0008326805
75A3E0		LIST STST OEMI	0004414105	755104	.W.	0008326805
75A4E0		LIST STST S I/O	0004414106	755104	.W.	0008326805
75E8E0		LIST STST ACCAIL	0004414107	754882	.W.	0008326805
75E9E0		LIST STST ACCAML	0004414108	754882	.W.	0008326805
75F0E0		LIST STST BSCAIL	0004414109	754882	.W.	0008326805
75F1E0		LIST STST BSCML	0004414110	755104	.W.	0008326805
75F8E0		LIST STST SDLC	0004414111	754882	.W.	0008326805
803420		LIST FRND SUPV	0004414044	754882	.W.	0008326805
803421		LIST FRND INTRPT	0004414045	754882	.W.	0008326805
803428		LIST FRND TST00	0004414046	754882	.W.	0008326805
803429		LIST FRND TST01	0004414047	754882	.W.	0008326805
81342A		LIST FRND TST02	0004414048	754882	.W.	0008326805
81342B		LIST FRND TST03	0004414049	754882	.W.	0008326805
81342C		LIST FRND TST04	0004414050	754882	.W.	0008326805
81342D		LIST FRND TST05	0004414051	754882	.W.	0008326805
81342E		LIST FRND TST06	0004414052	754882	.W.	0008326805
81342F		LIST FRND TST07	0004414053	754882	.W.	0008326805
85A8E8		LIST FRND AI	0004414320	754882	.W.	0008326805
85A9E8		LIST FRND AO	0004414322	754882	.W.	0008326805
85B0E8		LIST FRND DI	0004414324	754882	.W.	0008326805
85B4E8		LIST FRND DO	0004414326	754882	.W.	0008326805
8540E8		LIST FRND TTY	0004414054	754882	.W.	0008326805
8544E8		LIST FRND 4979	0004414055	755104	.W.	0008326805
8545E8		LIST FRND 4978	0001635304	755104	.W.	0008326805
8548E8		LIST FRND DSKTE	0004414056	755104	.W.	0008326805
8564E8		LIST FRND 4974	0004414057	754882	.W.	0008326805
8563E8		LIST FRND 4973	0004414058	755104	.W.	0008326805
8578E8		LIST FRND 4962	0004414059	755104	.W.	0008326805

27-11987-REA

TOTAL PART NUMBERS THIS VOLUME 70

VOLUME 005 C.P.U. 4955-90023 MODEL E00 SYSTEM 0008615 BOX SHIP 78/09/29

LOGIC TYPE -0- SYSTEMS DIAGRAMS

PAGE NUM	SH	TITLE	PART NUM	EC NUM	FEATURE B/M OR B/MS
2FORM	5	SY34-0044-0	0002222222	578757	.W. 0001637570
3FORM	1	SY34-0045-1	0002222222	754882	.W. 0001634791
1FORM	3	SY34-0041-1	0002222222	754882	.W. 0008326805
4FORM	7	SY34-0059-0	0002222222	754882	.W. 0001637586

TOTAL PART NUMBERS THIS VOLUME 4

LOGIC TYPE -0- SYSTEMS DIAGRAMS

PAGE NUM	SH	TITLE	PART NUM	EC NUM	FEATURE	B/M OR B/MS
A63871		MAP CHK LITE	0001635022	754882	.W.	0008326805
020020		MAP SYS ENTER	0001635011	755404	.W.	0008326805
020070		MAP CH ISOL 1	0001635008	755404	.W.	0008326805
020071		MAPCH ISOL 2	0001635009	755404	.W.	0008326805
020072		MAP INTERMIT	0001635083	754882	.W.	0008326805
020170		MAP IPL ENTRY	0001635094	754882	.W.	0008326805
020171		MAP IPL 1	0001635095	578625	.W.	0008326805
020172		MAP IPL 2	0001635096	754882	.W.	0008326805
020173		MAP IPL 3	0001635097	754882	.W.	0008326805
020174		MAP IPL 4	0001635098	754882	.W.	0008326805
020175		MAP IPL 5	0001635099	754882	.W.	0008326805
020180	3	MAP IPL	0001635314	754882	.W.	0001637570
020181	3	MAP IPL	0001635315	754882	.W.	0001637570
041070		MAP CONSOLE 1	0001635175	754882	.W.	0008326805
041071		MAP CONSOLE 2	0001635176	754882	.W.	0008326805
041470		MAP POWER ENTRY	0001635214	755404	.W.	0008326805
041471		MAP PWR AC DIST	0001635118	754882	.W.	0001634586
041476		MAP 400W POWER	0008327120	375101	.W.	0008326805
042000		MAP CPU COMMON	0006837819	755404	.W.	0008326805
042300		MAP	0006837825	755404	.W.	0008326805
042500		MAP4955-E	0006837820	755404	.W.	0008326805
042570		MAP 4955 MICRO	0001635028	755404	.W.	0008326805
042571		MAP 4955 BASIC	0001635029	755404	.W.	0008326805
042572		MAP 4955 FINAL	0001635030	754882	.W.	0008326805
042573		MAP ADDR XLAT	0001635031	755404	.W.	0008326805
063880		MAP CONFIG 1	0001635007	755404	.W.	0008326805
063881		MAP CONFIG 2	0001635006	755404	.W.	0008326805
063882		MAP CONFIG. 3	0004412860	755404	.W.	0001634791
063883		MAPCONFIG 4	0006837826	755404	.W.	0008326805
064000	1	MAP TTY ENTER	0001635222	578625	.W.	0004412940
064001	1	MAP TTY 1	0001635225	578625	.W.	0004412940
064002		MAP TTY	0004412866	578625	.W.	0004412940
064071	1	MAP TTY 2	0001635226	578625	.W.	0004412940
084800	3	MAP DISKETTE ENTER	0001635064	578757	.W.	0001637570
084801	3	MAP DISKETTE	0001635070	578757	.W.	0001637570
084802	3	MAP DISKETTE	0001635073	578757	.W.	0001637570
084810	3	MAP DISKETTE	0001635076	578757	.W.	0001637570
084813	3	MAP DISKETTE	0001635079	578757	.W.	0001637570
084820	3	MAP DISKETTE	0001635174	578757	.W.	0001637570
084830	3	MAP DISKETTE	0001635306	578757	.W.	0001637570
084840	3	MAP DISKETTE	0001635309	578757	.W.	0001637570
084850	3	MAP DISKETTE	0001635312	578757	.W.	0001637570
084880	3	MAP DISKETTE	0001635313	578757	.W.	0001637570
105000		MAP TIMER ENTER	0001635160	578625	.W.	0001637561
105001		MAP TIMER 1	0001635163	578625	.W.	0001637561
105002		MAP TIMER 2	0001635210	578625	.W.	0001637561
147800		MAP DCP TEST	0001635025	755285	.W.	0001634791
147801		MAP CYCLE STEAL	0001635027	755285B	.W.	0001634791
147802		MAP READY	0001635139	755285	.W.	0001634791
147803		MAP	0006825354	755285	.W.	0001634791
147805		MAP	0006825357	755285	.W.	0001634791
147807		MAP	0004414131	755285	.W.	0001634791
147808		MAP	0004414133	755285	.W.	0001634791
147809		MAP ST-SK TST 1	0001635429	755285	.W.	0001634791
147810		MAP ST-SK TST2	0001635240	755285	.W.	0001634791
147811		MAP RD TST	0001635243	755285	.W.	0001634791
147812		MAP PWR TST	0001635246	755285	.W.	0001634791
147813		MAP EXRCISR	0001635249	755285	.W.	0001634791
147814		MAP WRITE DATA	0004412868	755285	.W.	0001634791
147815		MAP ACCESS	0001635252	755285	.W.	0001634791
147820		MAP CLK STEP 1	0001635397	755285	.W.	0001634791
147821		MAP CLK STEP 2	0001635400	755285	.W.	0001634791
147822		MAP CLK STEP 3	0001635403	755285	.W.	0001634791
147823		MAP CLK STEP 4	0001635406	755285	.W.	0001634791
147824		MAP CLK STEP 5	0001635409	755285	.W.	0001634791
147832		MAP NOT RDY SNS	0001635255	755285	.W.	0001634791
147833		MAP NOT RDY SNS	0001635432	755285	.W.	0001634791
147840		MAP RD ERR	0001635258	755285	.W.	0001634791
147841		MAP RD PROB	0001635261	755285	.W.	0001634791
147843		MAP	0001635267	755285	.W.	0001634791
147844		MAP FH SEL	0001635270	755285	.W.	0001634791
147852		MAP UNSAFE	0001635276	755285	.W.	0001634791
147860		MAP SK FAULT 1	0001635282	755285	.W.	0001634791
147861		MAP SK FAULT 2	0001635285	755285	.W.	0001634791
147862		MAP SK FAULT 3	0001635288	755285	.W.	0001634791
147868		MAP	0004412896	755285	.W.	0001634791
147869		MAP TRK FORMAT	0001635394	755285	.W.	0001634791
147870		MAP IPL	0001635289	755285	.W.	0001634791
147871		MAP NOT RDY 1	0001635290	755285	.W.	0001634791
147872		MAP MTR BRK	0001635291	755285	.W.	0001634791
147873		MAP NOT RDY 2	0001635292	755285	.W.	0001634791
147874		MAP NOT RDY 3	0001635293	755285	.W.	0001634791
147875		MAP NOT RDY 4	0001635294	755285	.W.	0001634791
147876		MAP NOT RDY 5	0001635295	755285	.W.	0001634791
147877		MAP NOT RDY 6	0001635296	755285	.W.	0001634791
147878		MAP NOT RDY 7	0001635297	755285	.W.	0001634791

VOLUME 02L C.P.U. 4955-90023 MODEL E00 SYSTEM 0008615 BOX SHIP 78/09/29

LOGIC TYPE -0- SYSTEMS DIAGRAMS

PAGE NUM	SH	TITLE	PART NUM	EC NUM	FEATURE	B/M OR B/MS
147879		MAP NOT RDY 8	0001635293	755285	.W.	0001634791
147880		MAP PWR 1	0001635299	755285	.W.	0001634791
147881		MAP POWER 2	0004412882	755285	.W.	0001634791
147882		MAP POWER 3	0004412883	755285	.W.	0001634791
147885		MAP ENTRY	0001635145	755285	.W.	0001634791
147890		MAP NOT RDY 9	0004412884	755285	.W.	0001634791
147895		MAP UNSAFE	0001635303	755285	.W.	0001634791
24E8E5	1	MAPLINE TST 1	0004414129	755404	.W.	0001637586
24E8E6	1	MAPLINE TST 2	0004414381	754882	.W.	0001637586
26E900		MAP ACCA ML A1	0001635330	754882	.W.	0001637586
26E901		MAP ACCA ML A2	0001635336	754863	.W.	0001637586
26E902		MAP ACCA ML A3	0001635342	754863	.W.	0001637586
26E903		MAP ACCA ML A4	0001635348	754863	.W.	0001637586
26E910		MAP ACCA ML M1	0001635354	754863	.W.	0001637586
26E911		MAP ACCA ML M2	0001635360	754863	.W.	0001637586
26E912		MAP ACCA ML M3	0001635366	754863	.W.	0001637586
26E913		MAP SS CABLE	0001635388	755243	.W.	0001637586
26E914		MAP SS IND PNL	0001635395	754863	.W.	0001637586
26E915		MAP ML CTRL 1	0001635433	754882	.W.	0001637586
26E920		MAP ML CTRL 2	0001635401	754882	.W.	0001637586
26E921		MAP ML CTRL 3	0001635407	754863	.W.	0001637586
26E922		MAP ML CTRL 4	0001635413	754882	.W.	0001637586
26E923		MAP ML CTRL 5	0001635419	754863	.W.	0001637586
26E940		MAP SS ROS	0001635427	754882	.W.	0001637586
26E941	1	MAPS ROS EC2	0004414343	754882	.W.	0001637586
28F0E6		MAPCONFIG 4	0006837827	755404	.W.	0008326805

TOTAL PART NUMBERS THIS VOLUME 112

VOLUME 02R C.P.U. 4955-90023 MODEL E00 SYSTEM 0008615 BOX SHIP 78/09/29

LOGIC TYPE -0- SYSTEMS DIAGRAMS

PAGE NUM	SH	TITLE	PART NUM	EC NUM	FEATURE	B/M OR B/MS
FORM	1	FORM NO SY34-0054	0002222222	578468C	.W.	0001634791
FORM	6	SY34-0053-0	0002222222	754882	.W.	0001637570
FORM	3	FORM NO SY34-0050	0002222222	754882	.W.	0008326805
770010		MAP GEN GUIDE	0001635010	755404	.W.	0008326805
770011		MAPGUIDE 1	0006837821	755404	.W.	0008326805
770012		MAPGUIDE 2	0006837822	755404	.W.	0008326805
770013		MAPGUIDE 3	0006837823	755404	.W.	0008326805
770014		MAPGUIDE 4	0006837824	755404	.W.	0008326805
774000	1	MAP TTY GUIDE	0001635066	754882	.W.	0004412940
774800		MAP DISKETTE GUIDE	0001635061	754882	.W.	0001637570
775000		MAP TIMER GUIDE	0001635069	754882	.W.	0001637561
777800		MAP DISK GUIDE	0001635426	755285	.W.	0001634791
78E900		MAP ACCA ML GD	0001635327	754882	.W.	0001637586

TOTAL PART NUMBERS THIS VOLUME 13

TOTAL PART NUMBERS THIS SYSTEM 405

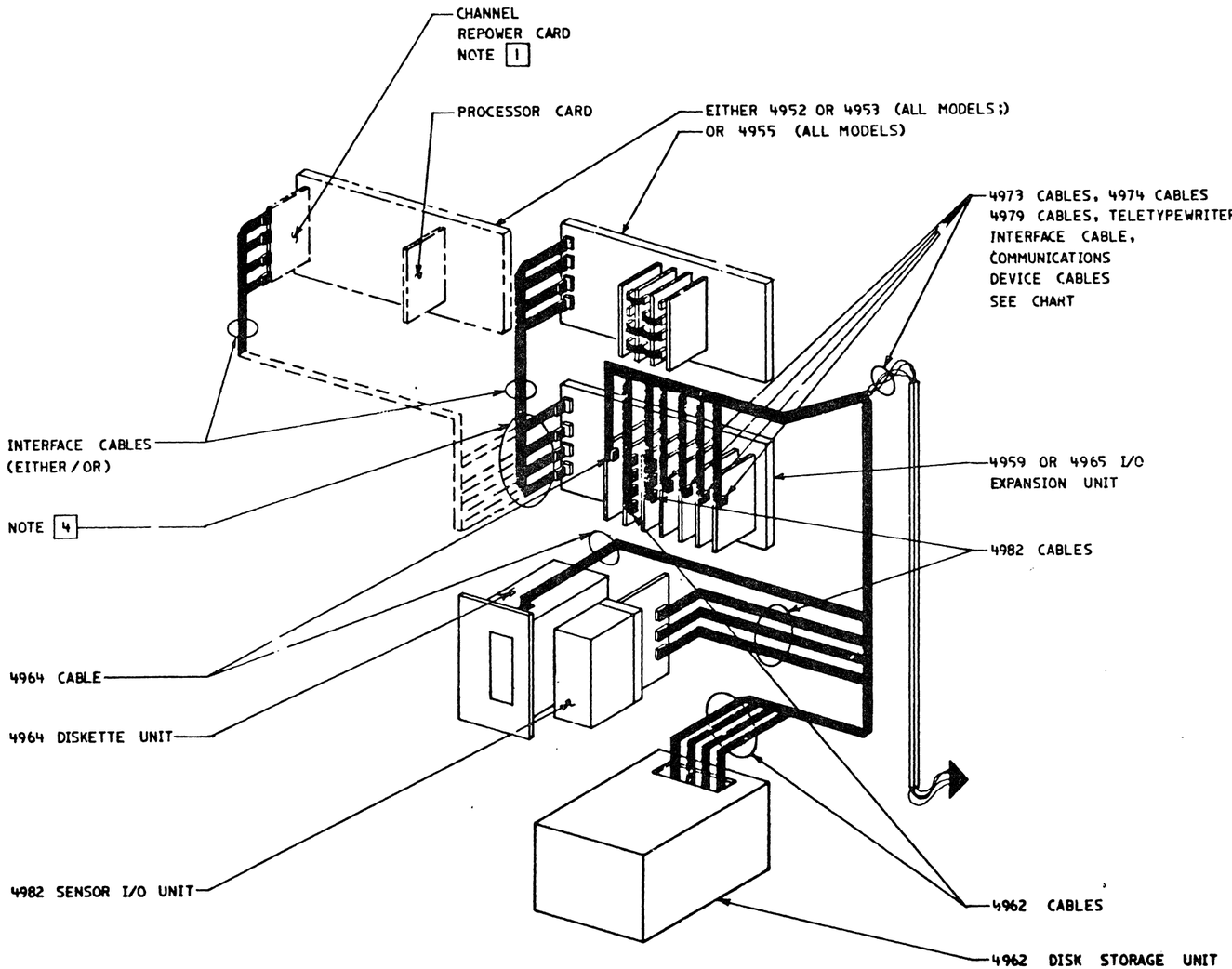
VOLUME 001 C.P.U. - MODEL SYSTEM 0008615 BOX SHIP

LOGIC TYPE -0- SYSTEMS DIAGRAMS

PAGE NUM	SH	TITLE	PART NUM	EC NUM	FEATURE S/M OR B/MS
AA100		INSTALLATION INSTR	0001633743	375342	.W. 0001637991
A9100		4959 I/O EXPAN CD FL	0001635316	578469	.W. 0001637991
YA300		CD FILE AC/DC DIST	0001635065	755173	.W. 0001637991
YA310		PWR SUPPLY SCHEMATIC	0001635071	375091	.W. 0001637991
YA320		CD FILE ELEC COMP	0001635074	755173	.W. 0001637991
YA330		CHASIS ASM	0001635077	578468	.W. 0001637991
YA331		CHASIS ASM	0001635080	578714	.W. 0001637991
YA340		CD FILE AC/DC DIST	0001635081	578625	.W. 0001637991

TOTAL PART NUMBERS THIS VOLUME 8

TOTAL PART NUMBERS THIS SYSTEM 8



TYPICAL RACK CABLING

	EC HISTORY		DRAWING TITLE
HIST	30 JUL 81	994400	I/O CABLE CHART
RED	24 NOV 81	466795	MACH 4952,4953,4955
			PART NO 8326721
D			CLASSIFICATION
			IBM CORP

A1100

A1101

CABLE IDENTIFICATION CHART

CABLE P/N	D C	DESCRIPTION	FEAT. D/C	DESCRIPTION
0984023	5700	30 (9,1) FT - 4973 EXTENDED CABLE	5630	4973 PRINTER ATTACHMENT
0984024	↕	40 (12,2)	↕	↕
0984025	↕	50 (15,2)	↕	↕
0984026	↕	60 (18,3)	↕	↕
0984027	↕	70 (21,3)	↕	↕
0984028	↕	80 (24,4)	↕	↕
0984029	↕	90 (27,4)	↕	↕
0984030	↕	100 (30,5)	↕	↕
0984031	↕	110 (33,5)	↕	↕
0984032	↕	120 (36,6)	↕	↕
0984033	↕	130 (39,6)	↕	↕
0984034	↕	140 (42,7)	↕	↕
0984035	5700	150 (45,7) FT - 4973 EXTENDED CABLE	5630	4973 PRINTER ATTACHMENT
1632206	2060	BSC V35/H.S. DDN CABLE	2075	BSC SINGLE LINE CONTROL (H.S.)
1632207	5721	20 (6,1) - 4974 BASIC ATT. CABLE	5620	4974 PRINTER ATTACHMENT
1632208	2057	EIA DATA SET CABLE	1310	MULTI-FUNCTION ATTACHMENT
			1610	ASYNCHRONOUS COMMUNICATIONS SINGLE LINE CONTROL
			2074	BSC SINGLE LINE CONTROL
			2090	SDLC SINGLE LINE CONTROL
			2092	ASYNCHRONOUS COMMUNICATIONS-4 LINE ADAPTER
			2094	BSC-4 LINE ADAPTER [2]
			2096	PROGRAMMABLE COMMUNICATIONS-4 LINE ADAPTER
1632209	2055	TTY 20 (6,1) FT CABLE	7850	TTY ATTACHMENT
1632210	2058	BSC/HIGH SPEED CABLE	2075	BSC SINGLE LINE CONTROL (H.S.)
1632211	2056	ASYNCHRONOUS, LOCAL COMMUNICATIONS, CABLE	1310	MULTI-FUNCTION ATTACHMENT
			1610	ASYNCHRONOUS COMMUNICATIONS SINGLE LINE CONTROL
			2092	ASYNCHRONOUS COMMUNICATIONS - 4 LINE ADAPTER [2]
			2096	PROGRAMMABLE COMMUNICATIONS - 4 LINE ADAPTER
1632919	2944	JAPANESE EIA DATA SET CABLE	2057	EIA DATA SET CABLE
1632924	2064	TTY TO EIA DIR. CONN (MALE)	7850	TTY ATTACHMENT
1633096	----	COMMUNICATIONS CROSS-OVER CABLE	2091	ASYNCHRONOUS COMMUNICATIONS - 8 LINE CONTROL
			2093	BSC - 8 LINE CONTROL [2]
			2095	PROGRAMMABLE COMMUNICATIONS - 8 LINE CONTROL
1634981	5701	20 (6,1) - 4973 BASIC ATT. CABLE	5630	4973 - PRINTER ATTACHMENT
1727744	2724	U.K. MODEM ADAPTER CABLE	2057	EIA DATA SET CABLE
4411751	2065	TTY TO EIA DIR. CONN (FEMALE)	7850	TTY ATTACHMENT
4412661	5741	20 (6,1) FT - 4979 BASIC CABLE	3585	4979 VIDEO ATTACHMENT
4412662	5740	30 (9,1) FT - 4979 EXTENDED CABLE	3585	4979 VIDEO ATTACHMENT
4412663	↕	40 (12,2) FT	↕	↕
4412664	↕	50 (15,2) FT	↕	↕
4412665	↕	60 (18,3) FT	↕	↕
4412666	↕	70 (21,3) FT	↕	↕
4412667	↕	80 (24,4) FT	↕	↕
4412668	↕	90 (27,4) FT	↕	↕
4412669	↕	100 (30,5) FT	↕	↕
4412670	↕	110 (33,5) FT	↕	↕
4412671	↕	120 (36,6) FT	↕	↕
4412672	↕	130 (39,6) FT	↕	↕
4412673	↕	140 (42,7) FT	↕	↕
4412674	5740	150 (45,7) FT - 4979 EXTENDED CABLE	3585	4979 VIDEO ATTACHMENT
4412703	5720	30 (9,1) FT - 4974 EXTENDED CABLE	5620	4974 PRINTER ATTACHMENT
4412704	↕	40 (12,2) FT	↕	↕
4412705	↕	50 (15,2) FT	↕	↕
4412706	↕	60 (18,3) FT	↕	↕
4412707	↕	70 (21,3) FT	↕	↕
4412708	↕	80 (24,4) FT	↕	↕
4412709	↕	90 (27,4) FT	↕	↕
4412710	↕	100 (30,5) FT	↕	↕
4412711	↕	110 (33,5) FT	↕	↕
4412712	↕	120 (36,6) FT	↕	↕
4412713	↕	130 (39,6) FT	↕	↕
4412714	↕	140 (42,7) FT	↕	↕
4412715	5720	150 (45,7) FT - 4974 EXTENDED CABLE	5620	4974 PRINTER ATTACHMENT
6844552	5770		1310	MULTI-FUNCTION ATTACHMENT
8326751	5760	10 (3,05) FT 5250 IDS ATTACHMENT CABLE	1210	IDS ATTACHMENT FEATURE
8327455	2061	20 (6,1) FT PC 20 MA I-LOOP CABLE	2096	PROGRAMMABLE COMMUNICATIONS-4 LINE ADAPTER
6031258	2071	20 (6,1) FT TELEPHONE COMM CBL/VCA	7881	TELEPHONE COMMUNICATION FEATURE
6839455	2066	50 (15,2) FT 3101 CABLE CURRENT LOOP	7850	TTY ATTACHMENT
↕	↕	↕	2096	FPMLC 4 LINE ADAPTER
			4704	TTY ADAPTER (4987)
6839455	2066	50 (15,2) FT 3101 CABLE CURRENT LOOP	4734	TTY ADAPTER (4987)
6845570	2070	20 (6,1) FT TELEPHONE COMM CBL / DAA	7881	TELEPHONE COMMUNICATIONS FTR

WRAP-BACK TOOLS

TOOL P/N	REQ'D FOR D/C
1633810	2058
1633811	2056
1633812	2060
1633834	2055, 2064, 2065
2704136	2057
6846868 NOTE [5]	
2722052	2944
4413770 NOTE [3]	2057
6825399	2061
6844547	5770
4468531	7880

NOTES:

[1] CHANNEL REPOWER CARD (D/C 1565): USAGE - 4952/4953: REQUIRED (WITH 4955: CONDITIONAL/OPTIONAL

[2] "ASYNCHRONOUS COMMUNICATIONS" ALSO KNOWN AS "START/STOP"

[3] THIS TOOL PRESENT ONLY WITH FEATURE CODES 2092 & 2094. THIS P/N 4413770 (QTY 16) SHOULD BE JUMPERED FROM PINS 4 THRU 5,6 THRU 20 ON SPECIFIED CABLE FOR INITIAL INSTALLATION CHECK-OUT

[4] "A" SLOT OF 4959 MAY CONTAIN D/C 7900 ATTACHMENT CARD

[5] THIS TOOL REQUIRED FOR FEATURE CODE 1310 MULTI-FUNCTION ATTACHMENT CABLE D/C 2057 WHEN USED WITH

EC HISTORY	DRAWING TITLE
17DEC81 466795	I/O CABLE CHART
	MACH 4952,4953,4955
	PART NO 4745798
	CLASSIFICATION

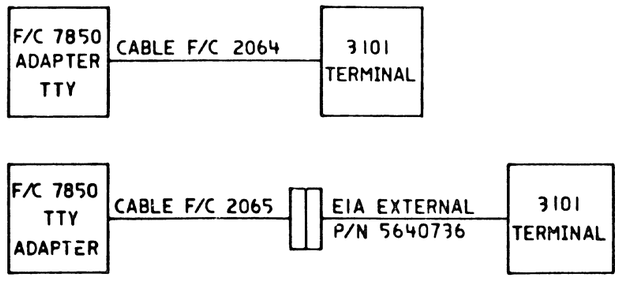
IBM CORP

D

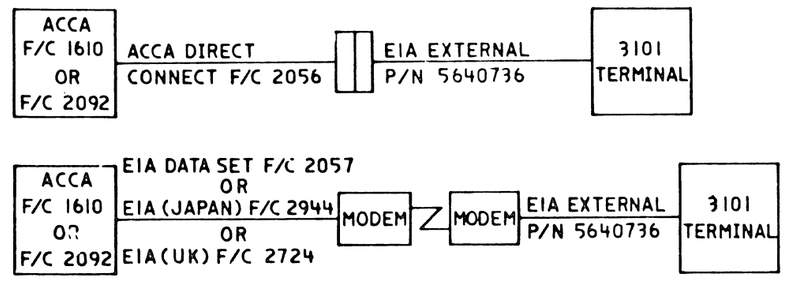
A--0-

A--0-

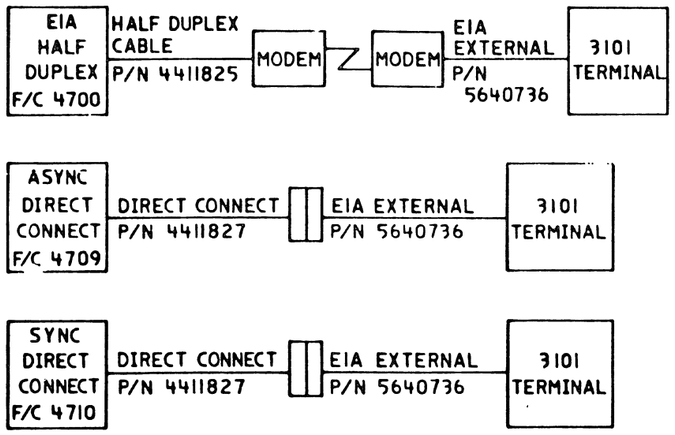
TELETYPEWRITER F/C 7850



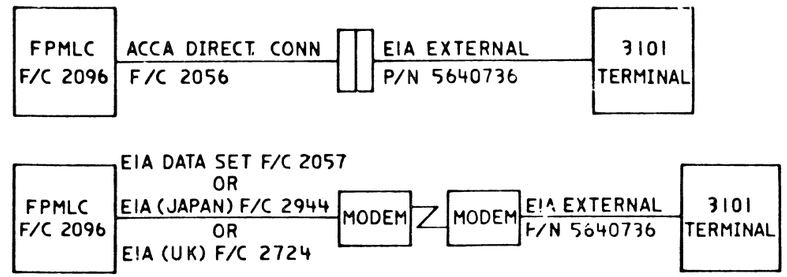
ASYNCHRONOUS COMMUNICATIONS F/C 1610, AND
ASYNCHRONOUS COMMUNICATIONS (MULTI-LINE) F/C 2091/2092



PROGRAMMABLE COMMUNICATIONS SUBSYSTEM TYPE 4987



FEATURE PROGRAMMABLE MULTI-LINE COMMUNICATIONS F/C 2095/2096



NOTE:

ALSO SEE GENERAL INFORMATION
ON A1202

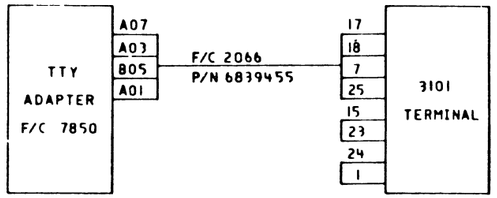
EC HISTORY		DRAWING TITLE
19SEP79	375342A	3101 TO SERIES 1 INTERFACES
24NOV81	466795	MACH RS232C
		PART NO 6840609
		CLASSIFICATION

C

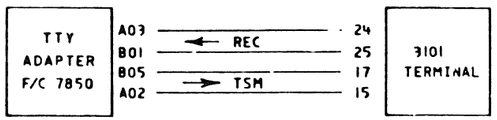
IBM CORP

A1200

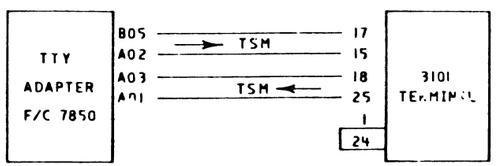
TELETYPEWRITER F/C 7850



CONNECTION WITH 3101 SUPPLYING
ALL CURRENT



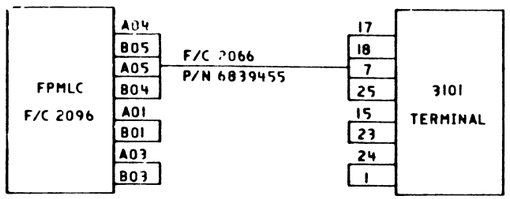
CONNECTIONS WITH TTY ADAPTER
F/C 7850 SUPPLYING ALL CURRENT.
CABLE NOT SUPPLIED



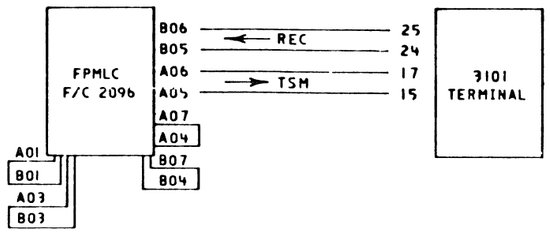
CONNECTIONS WITH EACH END
SUPPLYING ITS TSM LOOP CURRENT.
CABLE NOT SUPPLIED

NOTE:
ALSO SEE GENERAL INFORMATION ON A1202

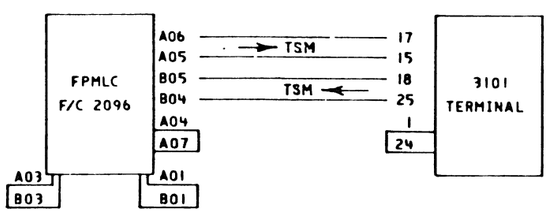
FEATURE PROGRAMMABLE MULTI-LINE COMMUNICATIONS



CONNECTION WITH 3101 SUPPLYING
ALL CURRENT

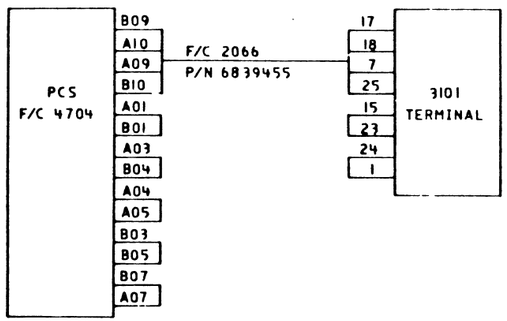


CONNECTION WITH FPMLC ADAPTER
F/C 2096 SUPPLYING ALL CURRENT.
CABLE NOT SUPPLIED



CONNECTIONS WITH EACH END
SUPPLYING ITS TSM LOOP CURRENT.
CABLE NOT SUPPLIED

PROGRAMMABLE COMMUNICATIONS SUB-SYSTEM 4987



CONNECTIONS WITH 3101 SUPPLYING
ALL CURRENT.
PCS DOES NOT HAVE A CURRENT
SUPPLYING CONFIGURATION

EC HISTORY		DRAWING TITLE
19SEP79	375342A	3101 TO SERIES 1 CURRENT LOOP INTERFACE
24 NOV 81	466795	MACH
		PART NO 6840610
C		CLASSIFICATION
		IBM CORP

A1201

GENERAL INFORMATION
SERIES 1 TO 3101 TERMINAL INTERCONNECT

1. IF CARRIER DETECT IS UP TO THE 3101 ALL THE TIME (S/1 ATTACHMENT JUMPERED FOR PERMANENT RTS), THEN THE 3101 HAS TO HAVE 'PRTS' SWITCH ON TO BE ABLE TO SEND DATA. (EIA OPERATION.)

2. WHEN THE 3101 'CRTS' SWITCH ON, RTS IS BROUGHT UP WHEN FIRST KEY IS DEPRESSED AND KEEPS IT UP UNTIL EOT/ETX (DEPENDS ON THE 3 SWITCH SETTING) IS SENT (EIA OP).

3. WITH CURRENT LOOP OPERATION, THE ONLY SWITCH ON THE 3101 WHICH AFFECTS THE OPERATION OF THE XMIT/REC DATA IS THE 'FDX' SWITCH. WHEN THIS IS ON, IT REQUIRES THE S/1 ATTACHMENT TO ECHO THE DATA.

4. IF OPERATING THE 3101 IN 'FDX' MODE (ECHOPLEX) WITH FPMLC ATTACH., RTS SHOULD BE JUMPERED ACTIVE ON THE FOUR LINE CARD SO AS TO PROVIDE CARRIER DETECT TO THE 3101. THIS ALLOWS THE ECHOED DATA TO BE RECEIVED BY THE 3101 (EIA OPERATION).

5. IF OPERATING THE 3101 IN 'FDX' MODE (ECHOPLEX) WITH THE PCS DIRECT CONNECT, THE SERIES/1 PROGRAM OR PCS FUNCTION STRING HAS TO ENSURE THAT CARRIER DETECT IS ACTIVE TO THE 3101 (EIA OPERATION).

6. THE TTY ATTACHMENT ALWAYS ECHOES THE DATA AND XMITS 2 STOP BITS.

7. WHEN USING THE TTY ATTACHMENT IN CURRENT LOOP MODE, THE TTY CARD SHOULD BE JUMPERED FOR ISOLATED CURRENT LOOP TO ALLOW THE 3101 TO SUPPLY THE CURRENT.

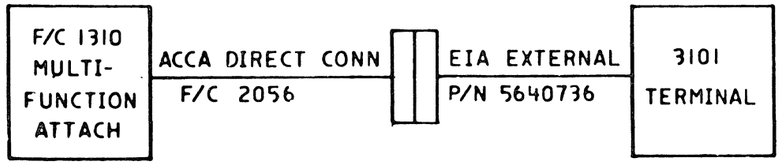
8. SINGLE LINE AND MULTILINE ACCA CANNOT ECHO THE DATA SO SHOULD OPERATE WITH THE 3101 'HDX' SWITCH ON AND 'PRTS' SWITCH ON, AND THE SERIES 1 ADAPTER JUMPERED FOR RTS ALWAYS ON.

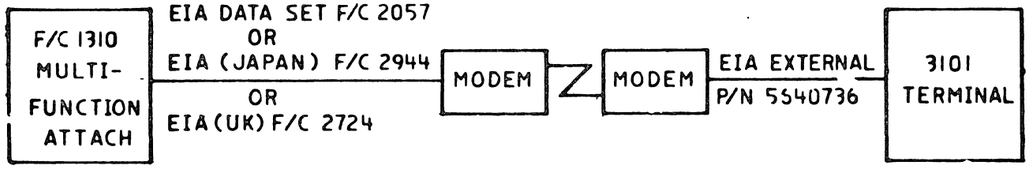
9. WHEN USING THE SINGLE LINE AND MULTILINE ACCA, THE SERIES 1 DATA HAS TO BE THE MIRROR IMAGE OF THE ASC II CHARACTERS USED BY THE 3101 (I.E., AN ASC II ETX=03, IN SERIES/1 IT IS = C0 WITH EVEN OR NO PARITY; OR C1 ODD PARITY).

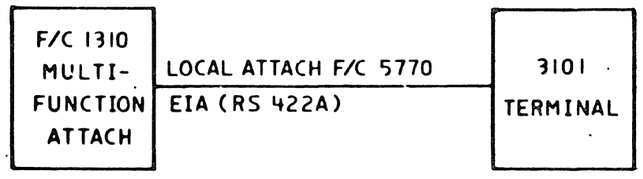
10. ACCA SINGLE STOP BIT RPO D02236 SAME AS F/C 1610 EXCEPT FOR STOP BIT SWITCH SETTING ON THE 3101

A1202

MULTI-FUNCTION ATTACHMENT F/C 1310







	EC HISTORY		DRAWING TITLE	
	19SEP79	375342A	3101 TO SERIES 1 INTERFACES	
	24NOV81	466795	MACH RS 232C	
			PART NO 6840611	
B			CLASSIFICATION	IBM CORP

A1202

4955 MOD F00 PROCESSOR BOARD

STANDARD CHANNEL	ADDR EXP CARD Q	OUT STG N M P	IN STG L	ROS CARD K	ADDR CARD J	DATA CARD H	DIR	I/O CARD(S) B C D E F G FLT PNT CARD G	ROW A *	CABLE BOARD TO BOARD
- ADDR BUS BIT--00---	----	---	---	-----	-G02-	-----	<-->	--B02--	-A2B02-	-A2B02
- ADDR BUS BIT--01---	----	---	---	-----	-G03-	-----	<-->	--B03--	-A2B03-	-A2B03
- ADDR BUS BIT--02--	----	---	---	-----	-G04-	-----	<-->	--B04--	-A2B04-	-A2B04
- ADDR BUS BIT--03---	----	---	---	-----	-G05-	-----	<-->	--B05--	-A2B05-	-A2B05
- ADDR BUS BIT--04---	----	---	---	-----	-G07-	-----	<-->	--B07--	-A2B07-	-A2B07
- ADDR BUS BIT--05---	----	---	---	-----	-G08-	-----	<-->	--B08--	-A2B08-	-A2B08
- ADDR BUS BIT--06---	----	---	---	-----	-G09-	-----	<-->	--B09--	-A2B09-	-A2B09
- ADDR BUS BIT--07---	----	---	---	-----	-G10-	-----	<-->	--B10--	-A2B10-	-A2B10
- ADDR BUS BIT--08---	----	---	---	-----	-J02-	-----	<-->	--B12--	-A2B12-	-A2B12
- ADDR BUS BIT--09---	----	---	---	-----	-J04-	-----	<-->	--D02--	-A2D02-	-A2D02
- ADDR BUS BIT--10---	----	---	---	-----	-J05-	-----	<-->	--D04--	-A2D04-	-A2D04
- ADDR BUS BIT--11---	----	---	---	-----	-J06-	-----	<-->	--D05--	-A2D05-	-A2D05
- ADDR BUS BIT--12---	----	---	---	-----	-J07-	-----	<-->	--D06--	-A2D06-	-A2D06
- ADDR BUS BIT--13---	----	---	---	-----	-J09-	-----	<-->	--D07--	-A2D07-	-A2D07
- ADDR BUS BIT--14---	----	---	---	-----	-J10-	-----	<-->	--D09--	-A2D09-	-A2D09
- ADDR BUS BIT--15---	----	---	---	-----	-J11-	-----	<-->	--D10--	-A2D10-	-A2D10
- ADDR BUS BIT--16---	----	---	---	-----	-B12-	-----	<-->	--D11--	-A2D11-	-A2D11
- ADDR GATE----------	----	---	---	-----	-D07-	-----	--->	--M08--	-A4B08-	-A4B08
- ADDR GATE RETURN---	----	---	---	-----	-G13-	-----	<---	--M09--	-A4B09-	-A4B09
- BURST RETURN-------	----	---	---	-----	-D04-	-----	<---	--P04--	-A4D04-	-A4D04
- COND CODE IN BIT-00	----	---	---	-----	-B06-	-----	<---	--D12--	-A2D12-	-A2D12
- COND CODE IN BIT-01	----	---	---	-----	-B11-	-----	<---	--D13--	-A2D13-	-A2D13
- COND CODE IN BIT-02	----	---	---	-----	-B13-	-----	<---	--B13--	-A2B13-	-A2B13
- CYCLE BYTE IND-----	----	---	---	-----	-U10-	-----	<-->	--P10--	-A4D10-	-A4D10
- CYCLE INPUT IND----	----	---	---	-----	-M13-	-----	<-->	--P09--	-A4D09-	-A4D09
- CYCLE STEAL REQ IN-	----	---	---	-----	-U13-	-----	<---	--M02--	-A4B02-	-A4B02
- DATA BUS BIT-----00	----	---	---	-----	-----	-G02-	<-->	--G02--	-A3B02-	-A3B02
- DATA BUS BIT-----01	----	---	---	-----	-----	-G03-	<-->	--G03--	-A3B03-	-A3B03
- DATA BUS BIT-----02	----	---	---	-----	-----	-G04-	<-->	--G04--	-A3B04-	-A3B04
- DATA BUS BIT-----03	----	---	---	-----	-----	-G05-	<-->	--G05--	-A3B05-	-A3B05
- DATA BUS BIT-----04	----	---	---	-----	-----	-G07-	<-->	--G07--	-A3B07-	-A3B07
- DATA BUS BIT-----05	----	---	---	-----	-----	-G08-	<-->	--G08--	-A3B08-	-A3B08
- DATA BUS BIT-----06	----	---	---	-----	-----	-G09-	<-->	--G09--	-A3B09-	-A3B09
- DATA BUS BIT-----07	----	---	---	-----	-----	-G10-	<-->	--G10--	-A3B10-	-A3B10
- DATA BUS BIT-----P0	----	---	---	-----	-----	-G12-	<-->	--G12--	-A3B12-	-A3B12
- DATA BUS BIT-----08	----	---	---	-----	-----	-J02-	<-->	--J02--	-A3D02-	-A3D02
- DATA BUS BIT-----09	----	---	---	-----	-----	-J04-	<-->	--J04--	-A3D04-	-A3D04
- DATA BUS BIT-----10	----	---	---	-----	-----	-J05-	<-->	--J05--	-A3D05-	-A3D05
- DATA BUS BIT-----11	----	---	---	-----	-----	-J06-	<-->	--J06--	-A3D06-	-A3D06
- DATA BUS BIT-----12	----	---	---	-----	-----	-J07-	<-->	--J07--	-A3D07-	-A3D07
- DATA BUS BIT-----13	----	---	---	-----	-----	-J09-	<-->	--J09--	-A3D09-	-A3D09
- DATA BUS BIT-----14	----	---	---	-----	-----	-J10-	<-->	--J10--	-A3D10-	-A3D10
- DATA BUS BIT-----15	----	---	---	-----	-----	-J11-	<-->	--J11--	-A3D11-	-A3D11
- DATA BUS BIT-----P1	----	---	---	-----	-----	-J12-	<-->	--J12--	-A3D12-	-A3D12
- DATA STROBE--------	----	---	---	-----	-B10-	-----	--->	--M10--	-A4B10-	-A4B10
- HALT OR MCHK-------	----	---	---	-----	-D09-	-----	--->	--M07--	-A4B07-	-A4B07
- INITIATE IPL-------	----	---	---	-S04-	-----	-----	--->	--P07--	-A4D07-	-A4D07
- IPL----------------	----	---	---	-S02-	-----	-----	<---	--S04--	-A5B04-	-A5B04
- POLL IDENT BIT---00	----	---	---	-----	-S11-	-----	--->	--P11--	-A4D11-	-A4D11
- POLL IDENT BIT---01	----	---	---	-----	-J12-	-----	--->	--S02--	-A5B02-	-A5B02
- POLL IDENT BIT---02	----	---	---	-----	-J12-	-----	--->	--S03--	-A5B03-	-A5B03
- POLL IDENT BIT---03	----	---	---	-----	-U05-	-----	--->	--P12--	-A4D12-	-A4D12
- POLL IDENT BIT---04	----	---	---	-----	-S12-	-----	--->	--P13--	-A4D13-	-A4D13
- POLL RETURN--------	----	---	---	-----	-G12-	-----	<---	--M04--	-A4B04-	-A4B04
- POWER ON RESET-***-	-M04	M04	M04	-U02-	-----	-----	--->	--S05--	-- * --	-A5B05
- REQ IN BUS BIT---00	----	---	---	-----	-S02-	-----	<---	--S07--	-A5B07-	-A5B07
- REQ IN BUS BIT---01	----	---	---	-----	-S03-	-----	<---	--S08--	-A5B08-	-A5B08
- REQ IN BUS BIT---02	----	---	---	-----	-S04-	-----	<---	--S09--	-A5B09-	-A5B09
- REQ IN BUS BIT---03	----	---	---	-----	-S05-	-----	<---	--S10--	-A5B10-	-A5B10
# REQ IN BUS BIT---04	----	---	---	-----	-----	-----	<---	#-S12--	#A5B12-	-A5B12
# REQ IN BUS BIT---05	----	---	---	-----	-----	-----	<---	#-S13--	#A5B13-	-A5B13
# REQ IN BUS BIT---06	----	---	---	-----	-----	-----	<---	#-U02--	#A5C02-	-A5C02
# REQ IN BUS BIT---07	----	---	---	-----	-----	-----	<---	#-U04--	#A5D04-	-A5D04
# REQ IN BUS BIT---08	----	---	---	-----	-----	-----	<---	#-U05--	#A5D05-	-A5D05
# REQ IN BUS BIT---09	----	---	---	-----	-----	-----	<---	#-U06--	#A5D06-	-A5D06
# REQ IN BUS BIT---10	----	---	---	-----	-----	-----	<---	#-U07--	#A5D07-	-A5D07
# REQ IN BUS BIT---11	----	---	---	-----	-----	-----	<---	#-U09--	#A5D09-	-A5D09
# REQ IN BUS BIT---12	----	---	---	-----	-----	-----	<---	#-U10--	#A5D10-	-A5D10
# REQ IN BUS BIT---13	----	---	---	-----	-----	-----	<---	#-U11--	#A5D11-	-A5D11
# REQ IN BUS BIT---14	----	---	---	-----	-----	-----	<---	#-U12--	#A5D12-	-A5D12
# REQ IN BUS BIT---15	----	---	---	-----	-----	-----	<---	#-U13--	#A5D13-	-A5D13
- SERVICE GATE-------	----	---	---	-----	-B09-	-----	--->	--P05--	-A4D05-	-A4D05
- SERVICE GATE RETURN	----	---	---	-P06-	-M06-	-----	<---	--P06--	-A4D06-	-A4D06
- STATUS BUS BIT---00	----	---	---	-B03-	-----	-----	--->	--J13--	-A3D13-	-A3D13
- STATUS BUS BIT---01	----	---	---	-B12-	-----	-----	--->	--G13--	-A3B13-	-A3B13
- STATUS BUS BIT---02	----	---	---	-----	-S10-	-----	--->	--M03--	-A4B03-	-A4B03
- STATUS BUS BIT---03	----	---	---	-----	-B08-	-----	--->	--P02--	-A4D02-	-A4D02
- SYSTEM RESET-------	----	---	---	-U05-	-----	-----	--->	--M05--	-A4B05-	-A4B05

VOLTAGE PIN ASSIGNMENTS (YA440)
+5V---D03--J03--P03--U03 ALL
+12V--S11 STORAGE ONLY
GND---D08--J08--P08--U08 ALL
-5V---G06--I/O AND STORAGE (NOT ROW A)

+8.5V-G11--I/O ONLY (NOT ROW A)

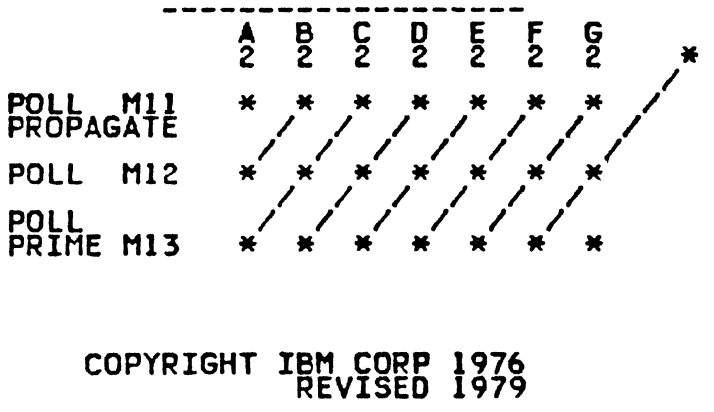
-12V--B06-I/O ONLY (NOT ROW A)
+12V--B11-I/O AND STORAGE (NOT ROW A)

\# LINES NOT USED BY PROCESSOR

* SEE INSTALLATION INSTRUCTIONS FOR RESTRICTIONS ON I/O ATTACHMENTS IN ROW A. IF A CARD IS INSTALLED IN ROW A, JUMPER A2S05 TO B2S05.

** SEE 4955 THEORY DIAGRAMS MANUAL FOR DATA FLOW AND POLL INFORMATION.

*** POWER ON RESET REFER TO YA440 FROM Q2M04 TO T2M04.



4955 MOD F00 PROCESSOR BOARD

E.C. HISTORY MACH.
15JAN81 869422 4955

IBM CORP. GSD

DATE LAST E.C. P.N. 6031138
23FEB81 987889

A52030 0 0 0

4955 MOD F00 PROCESSOR BOARD

	LINE NAME	ADDR EXP CARD Q	OUTER STG N M P 128K	INNER STG L 128K	ROS CARD K	ADDR CARD J	DATA CARD H	I/O CARDS D E F G FLOAT POINT CARD G	I/O CARDS B C
	AC FAILURE	**	REFER TO YA440 IF BBU INSTALLED						
	AC FAILURE RETURN	**	REFER TO YA440 IF BBU INSTALLED						
-	ADDR CARD GND T P					-B02-			
-	ANY WRITE CYCLE EXT				-G02-	-G11-			
-	BLK DEST PULSE & STG CY				-U04-		-U07-		
-	BYTE 0 PTY GEN/+STG P0				-S11-		-S11-		
-	BYTE 1 PTY GEN/+STG P1				-U10-		-U10-		
-	CLK CS SDR					-B03-	-B06-		
-	CLK Z REG T P						-B11-		
-	COLUMN 1					-D12-	-B13-		
-	COLUMN 7					-D13-	-D13-		
-	CPU DATA STROBE				-M06-		-M13-		
-	CTR 8-15 EQ 0					-U11-	-U11-		
-	DATA CD CON MET BIT 5				-G04-		-S12-		
-	DATA CD CON MET BIT 6A				-J04-		-S13-		
-	DATA CD CON MET BIT 6B				-G03-		-G13-		
-	DATA CARD GND T.P.						-U04-		
+	END OF CYCLE	-U02-			-J11-				
-	FLOATING PT. INSTALLED				-U06-			G2S11-	
+	GATE SDR 8-15 TO STG0-7				-S07-		-S07-		
+	GATE STG DATA TO SDR 1				-S09-		-S09-		
+	GATE STG DATA TO SDR 2				-S10-		-S10-		
-	GATE TRANSLATOR SAR	-S02-				-U04-			
-	GATED TIME A				-B04-		-S04-	-M06*-	
-	GATED TIME C				-J02-		-G06-	-S06*-	
+	INNER STG CYCLE	-B13-			-J09-				
-	MACHINE CHK SET CON DOT				-P11-	-P12-			
	9.09 MHZ OSC				-D13-				
+	OP REG BIT 07				-P10-		-S02-		
+	OP REG BIT 14				-M05-		-M06-		
+	OP REG BIT 15				-P13-		-U06-		
+	OSC TO CLOCK				-B13-				
+	OSC TO CLOCK				-D12-				
-	PCK MCK COND				-S06-	-S13-	-S03-		
-	PWR THERMAL WARN IND-*				-S03-	-U02-			
+	PRI INT REQ				-J13-	-J13-			
+	PROC CYCLE EXT NOT INHI				-J12-	-D02-			
+	PROC INSTR FETCH REQ				-B06-	-D06-			
-	PROGRAM CHK SET CON DOT				-M11-	-M12-			
-	PROTECT CHK COND DOT	-U10-			-B11-	-D05-			
-	PROTECT KEY BIT 01	-J11-				-U07-			
-	PROTECT KEY BIT 02	-J10-				-U09-			
-	PROTECT KEY BIT 04	-D05-				-B05-			
+	ROS DATA BIT 26						-U02-		
+	REFRESH ADDRESS BIT 05	-S05-	-M13-	-M13-					
+	REFRESH ADDRESS BIT 06	-M09-	-U02-	-U02-					
+	REFRESH CYCLE	-GC6-			-M02-				
+	REFRESH REQUEST	-D10-			-M03-				
-	REFRESH RESET	-U11-			-M04-				
-	SAR BIT 00	-D04-	-S12-	-S12-	-P12-	-M02-			
-	SAR BIT 01	-G02-	-U11-	-U11-	-M12-	-M03-			
-	SAR BIT 02	-J06-	-S09-	-S09-		-M04-			
-	SAR BIT 03	-J05-	-S05-	-S05-		-M05-			
-	SAR BIT 04	-G07-	-M09-	-M09-		-M07-			
+	SAR BIT 05	-B05-	-B05-	-B05-		-M08-			
+	SAR BIT 06	-B08-	-B08-	-B08-		-M09-			
+	SAR BIT 07	-B10-	-B10-	-B10-		-M10-			
+	SAR BIT 08		-B12-	-B12-		-P02-			
+	SAR BIT 09		-D02-	-D02-		-P04-			
+	SAR BIT 10		-D13-	-D13-		-P05-			
+	SAR BIT 11		-G05-	-G05-		-P06-			
+	SAR BIT 12		-J07-	-J07-		-P07-			
+	SAR BIT 13		-M10-	-M10-		-P09-			
+	SAR BIT 14		-P07-	-P07-		-P10-			
+	SAR BIT 15				-M10-	-P11-			
-	S/D DCB 24-27 BIT 01					-S06-	-S05-		
+	S/D DCB 24-27 BIT 02					-S07-	-S06-		
-	S/D DCB 24-27 BIT 04					-S08-	-S08-		
+	SDR BIT 00				-P09-		-P13-		
+	SDR BIT 01				-J05-		-J13-		
+	SDR BIT 02				-J07-		-U05-		
+	SDR BIT 03				-J06-		-G11-		
+	SDR BIT 04				-M09-		-M11-		

* INSTALL FLOATING POINT IN ROW G ONLY

VOLTAGE PIN ASSIGNMENTS (YA440)
+5V---D03--J03--P03--U03 ALL
+12V--S11 STORAGE ONLY
GND---D08--J08--P08--U08 ALL
-5V---G06 I/O AND STORAGE

+8.5V-G11 I/O ONLY

-12V--B06 I/O ONLY
+12V--B11 I/O AND STORAGE

* PWR THERMAL WARN IND (YA440)
FROM K2S03 TO T2M05

** AC FAILURE---------R2M10 TO T2M10
AC FAILURE RETURN--R2M11 TO T2M11
REFER TO YA440
REFER TO YX100 IF BBU INSTALLED.

SEE 4955 THEORY DIAGRAMS MANUAL FOR DATA FLOW

4955 MOD F00 PROCESSOR BOARD

E.C. HISTORY MACH.
15JAN81 869422 4955

IBM CORP. GSD

DATE LAST E.C. P.N. 6031139
23FEB81 987889

A 5 2 1 3

0 0 0

4955 MOD F00 PROCESSOR BOARD

	LINE NAME	ADDR EXP CARD Q	OUTER STG N M P	INNER STG L	ROS CARD K	ADDR CARD J	DATA CARD H	I/O CARDS D E F G FLT PT CARD G	I/O CARDS B C
+	SDR BIT 00 TO STG	-U12-	-U12-	-U12-			-B02-		
+	SDR BIT 01 TO STG	-U13-	-U13-	-U13-			-B03-		
+	SDR BIT 02 TO STG	-S07-	-S07-	-S07-			-B04-		
+	SDR BIT 03 TO STG	-U06-	-U06-	-U06-			-B05-		
+	SDR BIT 04 TO STG	-P12-	-P12-	-P12-			-B07-		
+	SDR BIT 05 TO STG	-P13-	-P13-	-P13-			-B08-		
+	SDR BIT 06 TO STG	-P09-	-P09-	-P09-			-B09-		
+	SDR BIT 07 TO STG	-M08-	-M08-	-M08-			-B10-		
+	SDR BIT 08 TO STG	-D06-	-D06-	-D06-			-D02-		
+	SDR BIT 09 TO STG	-M03-	-M03-	-M03-			-D04-		
+	SDR BIT 10 TO STG	-G10-	-G10-	-G10-			-D05-		
+	SDR BIT 11 TO STG	-J09-	-J09-	-J09-			-D06-		
+	SDR BIT 12 TO STG	-G04-	-G04-	-G04-			-D07-		
+	SDR BIT 13 TO STG	-J04-	-J04-	-J04-			-D09-		
+	SDR BIT 14 TO STG	-D11-	-D11-	-D11-			-D10-		
+	SDR BIT 15 TO STG	-D12-	-D12-	-D12-			-D11-		
-	SEG REG CYCLE	-B06-			-J10-				
+	SET BYTE LTH HO				-U13-		-U13-		
-	STG DATA IN P0/-BYT OPE		-P02-	-P02-	-D02-		-B12-		
-	STG DATA IN P1/-BYT 1PE		-D07-	-D07-	-B02-		-D12-		
+	STG DATA OUT BIT 00	-S10-	-S10-	-S10-			-M02-		
+	STG DATA OUT BIT 01	-U09-	-U09-	-U09-			-M03-		
+	STG DATA OUT BIT 02	-S04-	-S04-	-S04-			-M04-		
+	STG DATA OUT BIT 03	-S03-	-S03-	-S03-			-M05-		
+	STG DATA OUT BIT 04	-M12-	-M12-	-M12-			-M07-		
+	STG DATA OUT BIT 05	-P11-	-P11-	-P11-			-M08-		
+	STG DATA OUT BIT 06	-M07-	-M07-	-M07-			-M09-		
+	STG DATA OUT BIT 07	-P06-	-P06-	-P06-			-M10-		
-	STG DATA OUT BIT P0		-G12-	-G12-	-U11-		-M12-		
+	STG DATA OUT BIT 08	-B04-	-B04-	-B04-			-P02-		
+	STG DATA OUT BIT 09	-J12-	-J12-	-J12-			-P04-		
+	STG DATA OUT BIT 10	-G09-	-G09-	-G09-			-P05-		
+	STG DATA OUT BIT 11	-G08-	-G08-	-G08-			-P06-		
+	STG DATA OUT BIT 12	-J02-	-J02-	-J02-			-P07-		
+	STG DATA OUT BIT 13	-G03-	-G03-	-G03-			-P09-		
+	STG DATA OUT BIT 14	-D09-	-D09-	-D09-			-P10-		
+	STG DATA OUT BIT 15	-B09-	-B09-	-B09-			-P11-		
-	STG DATA OUT BIT P1		-B03-	-B03-	-S12-		-P12-		
+	STG RE3 TO TRANSLATOR	-B11-			-G08-				
+	STG WRITE BYTE 00		-M06-	-M06-	-S13-				
+	STG WRITE BYTE 01		-G13-	-G13-	-U09-				
+	STG WRITE OP 00	-P05-			-S08-				
+	STG WRITE OP 01	-P10-			-U07-				
-	STP CLK DOT T P				-B09-				
-	SUPVSR STOR CYC STL CYC	-U07-				-B04-			
+	TIME A	-S06-	-B02-	-B02-	-D11-	-B07-			
+	TIME B	-S08-	-G02-	-G02-	-B08-				
+	TIME C	-S11-	-M02-	-M02-	-B10-	-D10-			
+	TIME D	-G11-	-S02-	-S02-	-D10-				
-	TRANSLATOR ENABLED				-M08-	-M11-			
-	TRANSLATOR INSTALLED				-U12-	-P13-			
-	TRANSLATOR INSTALLED				-U08-	-P08-			
-	TRANSLATOR ISA	-B07-			-D09-				
-	TRANSLATOR REFRESH CYC	-J07-	-G07-	-G07-					
+	TRIG DEC CTR					-U12-	-U12-		
+	WRITE EN OR DATA STROBE				-G05-	-G06-			
+	64K CARD SELECT			-M05-	-M13-				
+	128K CARD SELECT	-M10-		-S06-					
+	192K CARD SELECT	-M05-	M2M05						
+	256K CARD SELECT	-M06-	M2S06						
-	256K INSTALLED	-S09-	M2M11						
+	320K CARD SELECT	-M11-	N2M05						
+	384K CARD SELECT	-M13-	N2S06						
-	384K INSTALLED	-S12-	N2M11						
+	448K CARD SELECT	-U04-	P2M05						
+	512K CARD SELECT	-U05-	P2S06						
-	512K INSTALLED	-S13-	P2M11						

VOLTAGE PIN ASSIGNMENTS

+5V---D03--J03--P03--U03 ALL
+12V--S11---------- STORAGE ONLY
-5V---G06---------- I/O AND STORAGE
+8.5V-G11---------- I/O ONLY
GND---D08--J08--P08--U08 ALL

-12V---B06 I/O ONLY
+12V---B11 I/O AND STORAGE

SEE 4955 THEORY DIAGRAMS MANUAL FOR DATA FLOW

REVISED 1979

4955 MOD F00 PROCESSOR BOARD

E.C. HISTORY
15JAN81 869422

MACH.
4955

IBM CORP. GSD

DATE 23FEB81 LAST E.C. 987889 P.N. 6031140

A52233

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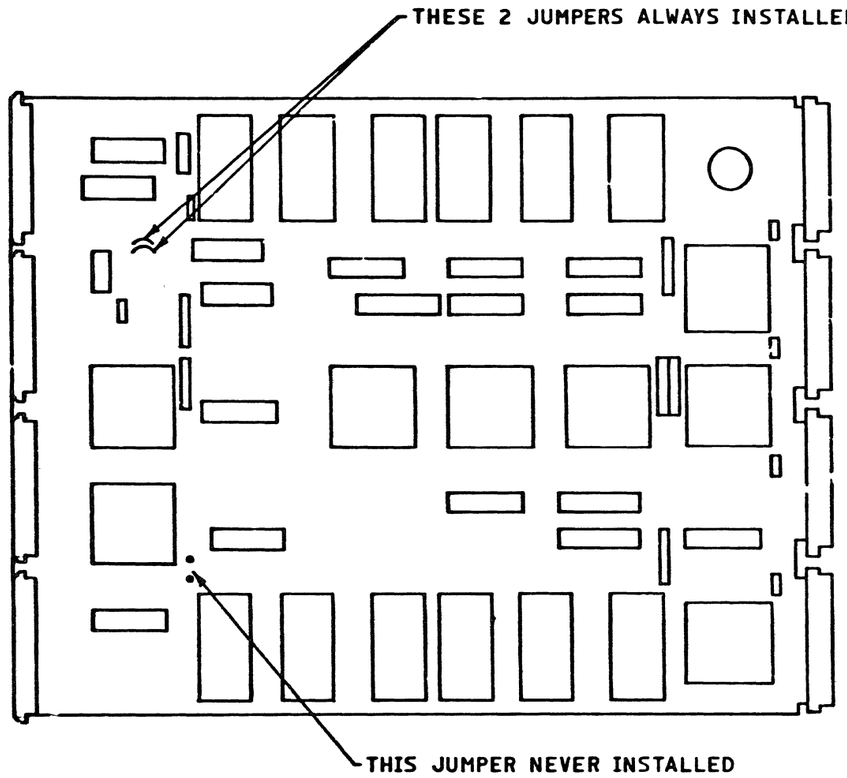
A5300

PROCESSOR CPU ROS CARD

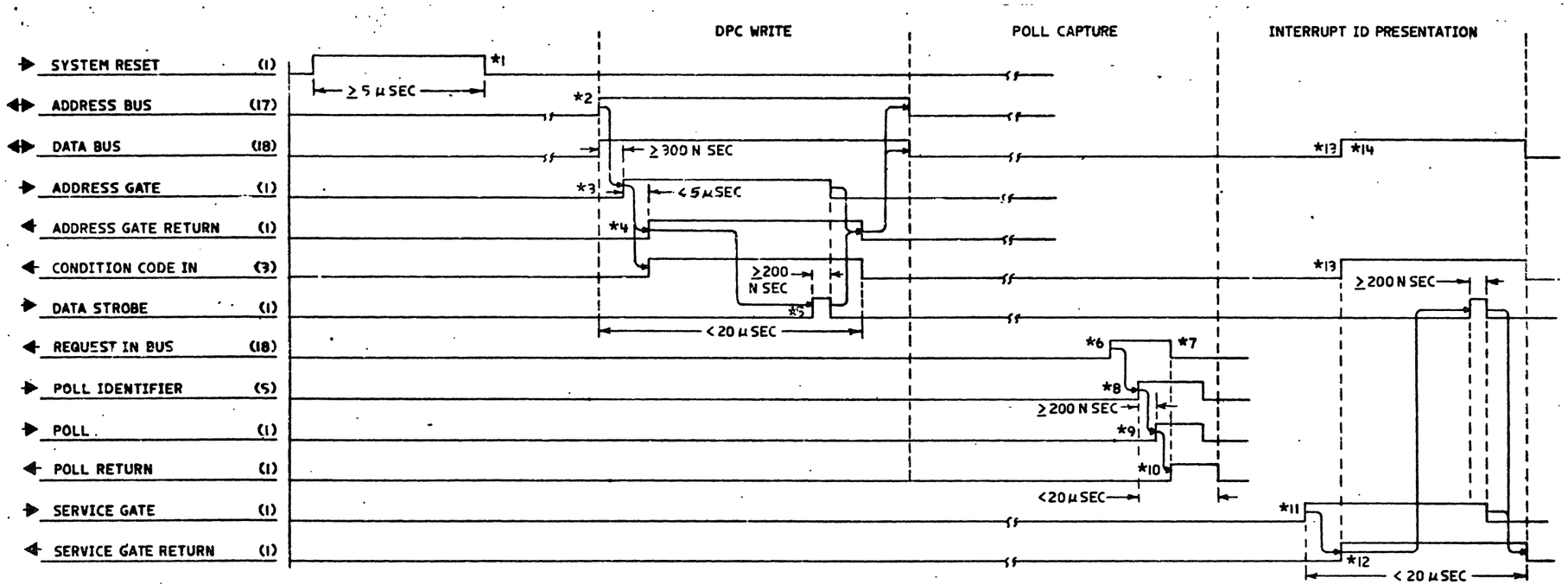


A5300

EC HISTORY		DRAWING TITLE
27SEP76	578468	4955 ROS CARD
30SEP77	754882	MACH 4955
		PART NO 1635201
C		CLASSIFICATION

IBM CORP

A5300



ALL OUTBOUND TAG AND BUS RELATIONSHIPS ARE AS SEEN AT THE OUTPUT OF THE CHANNEL. ALL INBOUND TAG AND BUS RELATIONSHIPS ARE AS SEEN AT THE OUTPUT OF THE DEVICE. ALL TIMES INDICATED ARE AS SEEN AT THE CHANNEL OUTPUT.

THESE SEQUENCES ARE SHOWN IN THIS ORDER FOR TIMING CHART SIMPLICITY. THEY DO NOT IMPLY A FIXED ORDER OF EVENTS REQUIRED BY THE CHANNEL

NOTES:

* 1 SYSTEM RESET MUST DISABLE SELECTION, BLOCK POLL PROPAGATION AND CLEAR ANY STATUS, STATES, REQUESTS, REGISTERS AND INTERFACE CONTROL LOGIC
* 2 BIT 16 ON, ADDRESS BUS CONTAINS THE COMMAND CODE (0-7) AND THE DEVICE ADDRESS (8-15)
* 3 ADDRESS BUS BIT 16 ON, EXAMINE 8-15 FOR DEVISE ADDRESS, LOGICAL COMPARE CONSTITUTES INITIAL SELECTION
* 4 INITIAL SELECTION-ADDRESS GATE SIGNALS A DEVICE THAT IT CAN RESPOND TO INITIAL SELECTION AND BEGIN EXECUTION OF THE COMMAND SPECIFIED BY BITS 0-7 OF THE ADDRESS BUS
  ADDRESS GATE RETURN-SIGNALS THE RECEPTION OF ADDRESS GATE-EXAMINE ADDRESS BUS BITS 0-7 FOR COMMAND ACCEPTANCE AND ACTIVATION OF CONDITION CODE IN BUS
* 5 DATA STROBE IS RAISED FOR A DURATION OF 200 NSEC AND FALLS BEFORE THE FALL OF ADDRESS GATE SET DATA BUS INTO HOLDING REG, IF INITIAL SELECTION AND OUTBOUND TRANSFER IS OCCURING (BIT 1 OF ADDRESS BUS ON)
* 6 REQUEST IN BUS BIT 16 OFF EQUALS INTERRUPT REQUEST ONE OF BITS 0-15 ON IS DETERMINED BY AN INTERRUPTING CONDITION IN THE DEVICE AND EQUALS THE LEVEL OF A PREVIOUS PREPARE COMMAND WITH "1" BIT ON
* 7 REQUEST IN BUS MUST STAY ACTIVE UNTIL IT IS SERVICED (POLL CAPTURE OCCURS RECEIVES A HALT I/O, DEVICE RESET, SYSTEM RESET, OR POWER ON RESET
* 8 POLL IDENTIFIER BUS (5 BITS) IS RAISED AT LEAST 200 NSEC BEFORE POLL BIT 0 OFF IS FOR INTERRUPT IDENTIFICATION
* 9 IF THE DEVICE DOES NOT CAPTURE THE POLL IT MUST PROPAGATE POLL TO THE NEXT DEVICE
* 10 POLL RETURN IS RAISED IF THE POLL IDENTIFIER MATCHES THE LOGICAL REQUEST BEING MADE ON THE REQUEST IN BUS, POLL RETURN RESETS THE REQUEST IN BUS
* 11 SERVICE GATE AFTER POLL CAPTURE INDICATES BEGIN TRANSFER TO THE DEVICE
* 12 SERVICE GATE RETURN SIGNALS THE DEVICES RECOGNITION OF SERVICE GATE
* 13 MUST BE ACTIVE BY THE RISE OF SERVICE GATE RETURN
* 14 DATA BUS BITS 0-7 ARE THE INTERRUPT STATUS BYTE (ISB), BITS 0-15 ARE THE DEVICE ADDRESS

NOTE: ALL BUS BITS MUST BE SUITABLE PRIOR TO ACTIVATING OF ANY TAG LINE
TAG LINE MUST BE DEACTIVATED PRIOR TO ANY BUS LINES GOING INACTIVE

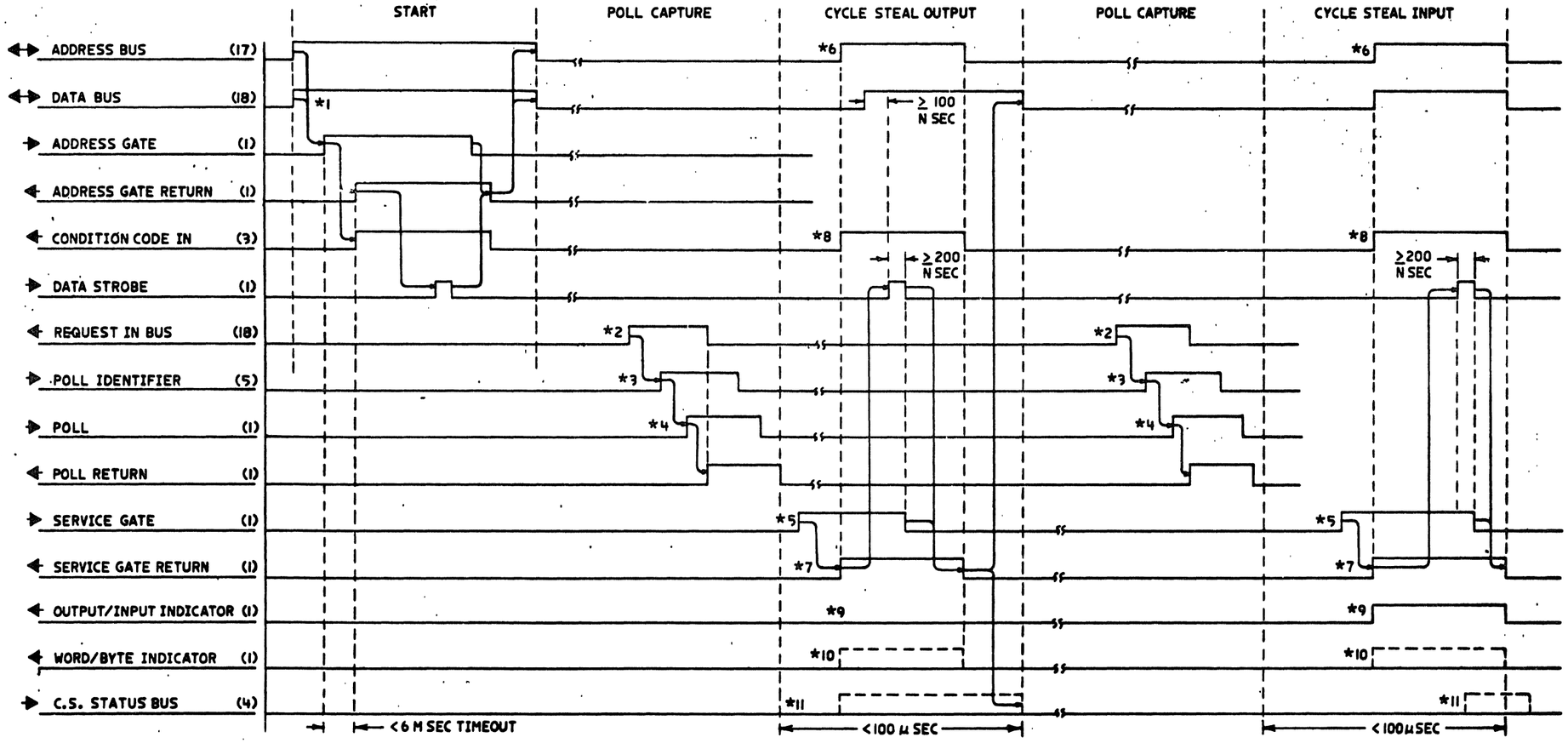
SCOPE LOOP- DPC WRITE (PREPARE DEVICE TO LEVEL 0, I-BIT ON)		
ADDRESS (HEX)	DATA (HEX)	
0000	680C	I/O COMMAND
0002	0024	ADDRESS OF IDCB
0004	6802	*UNCONDITIONAL BRANCH
0006	0000	* TO ADDRESS 0000
0024	60XX	IDCB PREPARE 'XX'- PUT DESIRED DEVICE
		ADDRESS HERE
0026	0001	PREPARE DATA, LEVEL 0, I BIT ENABLED

EC HISTORY		DRAWING TITLE
1 OCT 76	578468	DPC WRITE
1 AUG 77	578757	MACh
		PART NO 1635490
		CLASSIFICATION

D

IBM CORP

A5310



ALL OUTBOUND TAG AND BUS RELATIONSHIPS ARE AS SEEN AT THE OUTPUT OF THE CHANNEL. ALL INBOUND TAG AND BUS RELATIONSHIPS ARE AS SEEN AT THE OUTPUT OF THE I/O DEVICE. ALL TIMES INDICATED ARE AS SEEN AT THE CHANNEL OUTPUT

THESE SEQUENCES ARE SHOWN IN THIS ORDER FOR TIMING CHART SIMPLICITY. THEY DO NOT IMPLY A FIXED ORDER OF EVENTS REQUIRED BY THE CHANNEL

NOTE:

1 FOR NOTES SEE PAGE A5321

EC HISTORY		DRAWING TITLE
1 OCT 76	578468	CYCLE STEAL
1 AUG 77	578757	MACH
		PART NO 1635491
D		CLASSIFICATION

IBM CORP

NOTES:

* 1 DATA BUS CONTAINS THE DEVICE CONTROL BLOCK (DCB) ADDRESS DURING A START COMMAND

* 2 REQUEST IN BUS BIT 16 ON EQUALS CYCLE STEAL REQUEST

* 3 POLL IDENTIFIER BITS 0 ON, 3 ON AND 4 ON EQUAL POLL FOR CYCLE STEAL

* 4 POLL IS CAPTURED BY THE FIRST DEVICE TO SEE IT WITH A REQUEST IN RAISED, OTHERWISE POLL IS PROPAGATED TO THE NEXT DEVICE IN LINE

* 5 SERVICE GATE AFTER POLL CAPTURE INDICATES BEGIN DATA TRANSFER TO THE DEVICE

* 6 ADDRESS BUS BIT 16 OFF AT PROCESSOR PRIOR TO SERVICE GATE ACTIVE INDICATES CYCLE STEAL TO OR FROM STORAGE TO THE I/O DEVICE ADDRESS BUS BITS 0-15 CONTAIN THE STORAGE ADDRESS FOR CYCLE STEAL

* 7 SERVICE GATE RETURN SIGNALS A SERVICE GATE CAPTURE BY THE DEVICE AND ACTIVATION OF ADDRESS BUG (ON A CYCLE STEAL SEQUENCE), DATA BUS, CONDITION CODE IN BUS AND OTHERS TAGS AS REQUIRED BY THE PARTICULAR CYCLE STEAL OR INTERRUPT SERVICE SEQUENCE

* 8 CONDITION CODE IN BITS 0-3 RAISED DURING CYCLE STEAL DATA TRANSFERS ARE LOGICALLY EQUAL TO THE CYCLE STEAL ADDRESS KEY DURING CYCLE STEAL TRANSFERS FOR FETCHING THE DCB AND REPORTING RESIDUAL STATUS, A VALUE OF LOGICAL ZERO IS USED FOR THE ADDRESS KEY. DURING DATA TRANSFER, ADDRESS TRANSFER KEY EQUALS CONTROL WORD BITS 5-7 WHICH WERE SET IN THE DCB

* 9 CYCLE INPUT INDICATOR OFF INDICATES AN OUTPUT FROM STORAGE, CYCLE INPUT INDICATOR ON INDICATES AN INPUT TO STORAGE

* 10 CYCLE BYTE INDICATOR ON INDICATES A BYTE TRANSFER, CYCLE BYTE INDICATOR OFF INDICATES A WORD TRANSFER

* 11 STATUS BUS - ANY BIT 0-3 SIGNALS THE DEVICE THAT A CHANNEL ERROR HAS BEEN DETECTED IF ACTIVATED DURING CYCLE STEAL SERVICING THE DEVICE WILL RETAIN THIS INFORMATION FOR PRESENTATION IN THE ISB AT INTERRUPTION TIME THE DEVICE WILL TERMINATE ANY OTHER CYCLE STEAL OPERATIONS AND PRESENT AN END INTERRUPT

NOTE: ALL BUS BITS MUST BE STABLE PRIOR TO ACTIVATING OF ANY TAG LINE. TAG LINE MUST BE DEACTIVATED PRIOR TO ANY BUS LINES GOING INACTIVE

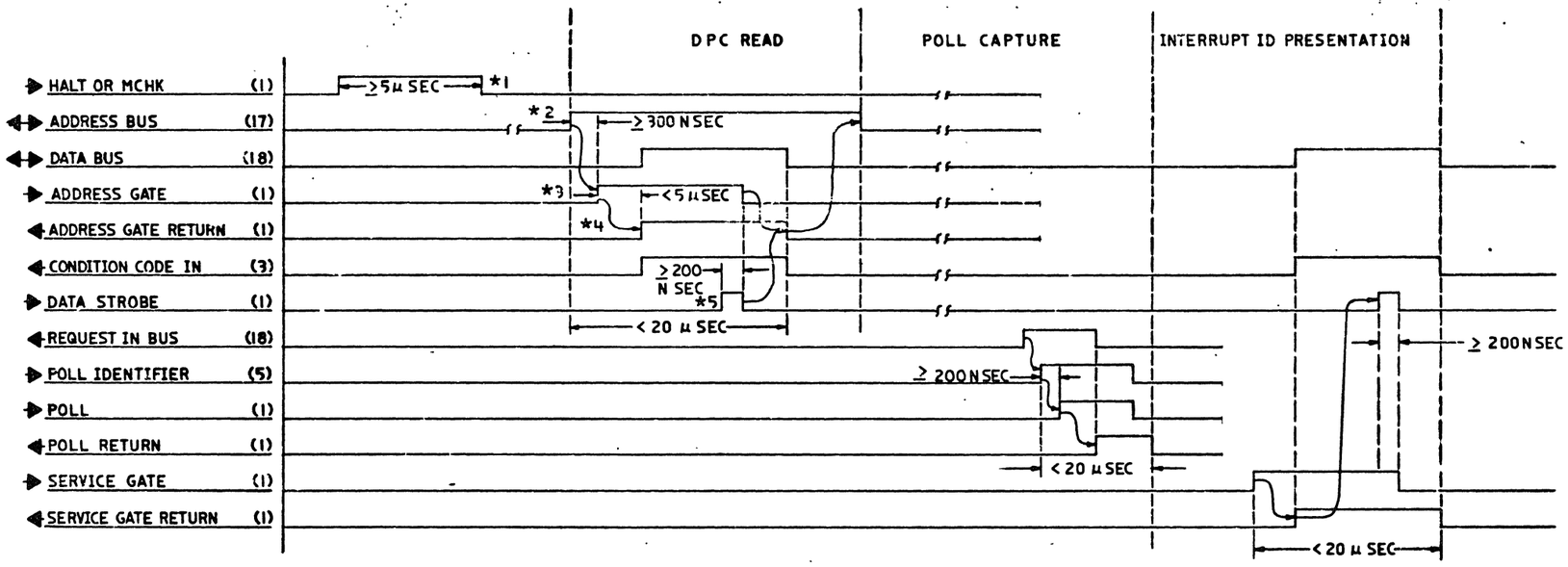
SCOPE LOOP - READ CYCLE STEAL STATUS (CYCLE STEAL DEVICES ONLY)		
ADDRESS (HEX)	DATA (HEX)	
0000	680C	I/O COMMAND
0002	0024	ADDRESS OF IDCB
0004	6802	*UNCONDITIONAL BRANCH
0006	0304	*TO ADDRESS 0304
0024	60XX	*IDCB - PREPARE 'XX' = DESIRED DEVICE ADDRESS
0026	0001	PREPARE DATA, LEVEL 0, I BIT ENABLED
0030		
↕	0300	PUT DDB POINTER (0300) IN PROPER ADDRESS.
022F		ADDRESS (HEX) CALCULATION = 0030 + 2
		(DEVICE ADDRESS). IT IS ONLY NECESSARY
		TO STORE INTO THE ONE CALCULATED
		ADDRESS
0300	0304	START INSTRUCTION POINTER
0302	0000	
0304	680C	I/O COMMAND
0306	030A	ADDRESS OF IDCB
0308	6100	LEVEL EXIT
030A	7FXX	IDCB 'XX' = DEVICE ADDRESS
030C	030E	DCB ADDRESS
030E	2000	DCB - START CYCLE STEAL
0310		
↓	0000	
0318		
031A	000X	BYTE COUNT - 'X' SEE DEVICE TDM FOR BYTE COUNT
031C	031E	DATA ADDRESS
031E	—	*CYCLE STEAL STATUS IS PUT HERE AT END
—	—	*OF CYCLE STEAL STATUS COMMAND

EC HISTORY		DRAWING TITLE
1 AUG 77	578757	A5320 NOTES
		MACH
		PART NO 4414342
		CLASSIFICATION

D

IBM CORP

A5321



ALL OUTBOUND TAG AND BUS RELATIONSHIPS ARE AS SEEN AT THE OUTPUT OF THE CHANNEL. ALL INBOUND TAG AND BUS RELATIONSHIPS ARE AS SEEN AT THE OUTPUT OF THE DEVICE. ALL TIMES INDICATED ARE AS SEEN AT THE CHANNEL OUTPUT.

THESE SEQUENCES ARE SHOWN IN THIS ORDER FOR TIMING CHART SIMIPLICITY. THEY DO NOT IMPLY A FIXED ORDER OF EVENTS REQUIRED BY THE CHANNEL.

NOTES

*1 HALT OR MCHK SIGNALS THE DEVICE TO DESELECT, BLOCK POLL PROPOGATION AND TO CLEAR ANY STATUS REQUESTS OR REGISTERS EXCEPT FOR PREPARE FIELD, OUTPUT SENSOR POINTS AND TIMER VALUES.

*2 BIT 16 ON, ADDRESS BUS CONTAINS THE COMMAND CODE (0—7) AND THE DEVICE ADDRESS (8—15)

*3 ADDRESS BUS BIT 16 ON, EXAMINE 8—15 FOR DEVICE ADDRESS, EQUAL COMPARE CONSTITUTES INITIAL SELECTION — EXAMINE ADDRESS BUS BITS 0—7 FOR COMMAND ACCEPTANCE. ACTIVATE IMMEDIATE STATUS ON CONDITION CODE IN AND DATA ON DATA BUS.

*4 INITTAL SELECTION AND ADDRESS GATE — DEVICE SETS ADDRESS GATE RETURN

*5 ON INBOUND DPC TRANSFERS, SHOULD THE CHANNEL DETECT A PARITY ERROR, DATA STROBE WILL NOT BE ACTIVATED AND ADDRESS GATE WILL BE DROPPED

NOTE: ALL BUS BITS MUST BE STABLE PRIOR TO ACTIVATING ANY TAG LINES
TAG LINE MUST BE DEACTIVATED PRIOR TO ANY BUS LINE GOING INACTIVE

SCOPE LOOP—DPC READ (READ DEVICE ID)		
ADDRESS (HEX)	DATA (HEX)	
0000	680C	I/O COMMAND
0002	0024	ADDRESS OF IDCB
0004	6802	*UNCONDITIONAL BRANCH
0006	0000	*TO ADDRESS 0000
0024	20XX	IDCB—READ DEVICE ID 'XX' = DESIRED DEVICE
		ADDRESS DEVICE ID IS STORED IN ADDRESS
0026	0000	0026 WHEN READ DEVICE ID ENDS.

EC HISTORY		DRAWING TITLE
1 OCT 76	578468	DPC READ
1 AUG 77	578757	MACH
		PART NO 1635489
		CLASSIFICATION

D

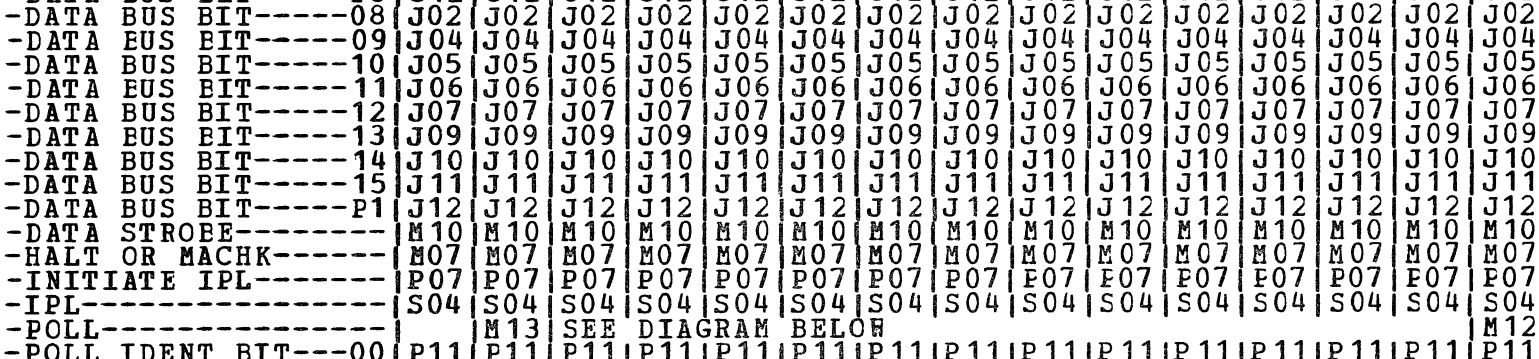
IBM CORP

A5330

A5330

4959 I/O EXPANSION CARD FILE

STANDARD CHANNEL	Q	P	N	M	L	K	J	H	G	F	E	D	C	B	A
-ADDR BUS BIT--00---	B02	B02	B02	B02	B02	B02	B02	B02	B02	B02	B02	B02	B02	B02	B02
-ADDR BUS BIT--01---	B03	B03	B03	B03	B03	B03	B03	B03	B03	B03	B03	B03	B03	B03	B03
-ADDR BUS BIT--02---	B04	B04	B04	B04	B04	B04	B04	B04	B04	B04	B04	B04	B04	B04	B04
-ADDR BUS BIT--03---	B05	B05	B05	B05	B05	B05	B05	B05	B05	B05	B05	B05	B05	B05	B05
-ADDR BUS BIT--04---	B07	B07	B07	B07	B07	B07	B07	B07	B07	B07	B07	B07	B07	B07	B07
-ADDR BUS BIT--05---	B08	B08	B08	B08	B08	B08	B08	B08	B08	B08	B08	B08	B08	B08	B08
-ADDR BUS BIT--06---	B09	B09	B09	B09	B09	B09	B09	B09	B09	B09	B09	B09	B09	B09	B09
-ADDR BUS BIT--07---	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10
-ADDR BUS BIT--08---	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12
-ADDR BUS BIT--09---	D02	D02	D02	D02	D02	D02	D02	D02	D02	D02	D02	D02	D02	D02	D02
-ADDR BUS BIT--10---	D04	D04	D04	D04	D04	D04	D04	D04	D04	D04	D04	D04	D04	D04	D04
-ADDR BUS BIT--11---	D05	D05	D05	D05	D05	D05	D05	D05	D05	D05	D05	D05	D05	D05	D05
-ADDR BUS BIT--12---	D06	D06	D06	D06	D06	D06	D06	D06	D06	D06	D06	D06	D06	D06	D06
-ADDR BUS BIT--13---	D07	D07	D07	D07	D07	D07	D07	D07	D07	D07	D07	D07	D07	D07	D07
-ADDR BUS BIT--14---	D09	D09	D09	D09	D09	D09	D09	D09	D09	D09	D09	D09	D09	D09	D09
-ADDR BUS BIT--15---	D10	D10	D10	D10	D10	D10	D10	D10	D10	D10	D10	D10	D10	D10	D10
-ADDR BUS BIT--16---	D11	D11	D11	D11	D11	D11	D11	D11	D11	D11	D11	D11	D11	D11	D11
-ADDR GATE----------	M08	M08	M08	M08	M08	M08	M08	M08	M08	M08	M08	M08	M08	M08	M08
-ADDR GATE RETURN---	M09	M09	M09	M09	M09	M09	M09	M09	M09	M09	M09	M09	M09	M09	M09
-BURST RETURN-------	P04	P04	P04	P04	P04	P04	P04	P04	P04	P04	P04	P0D	P04	P0D	P04	P04
-COND CODE IN BIT-00	D12	D12	D12	D12	D12	D12	D12	D12	D12	D12	D12	D12	D12	D12	D12
-COND CODE IN BIT-01	D13	D13	D13	D13	D13	D13	D13	D13	D13	D13	D13	D13	D13	D13	D13
-COND CODE IN BIT-02	B13	B13	B13	B13	B13	B13	B13	B13	B13	B13	B13	B13	B13	B13	B13
-CYCLE BYTE IND-----	P10	P10	P10	P10	P10	P10	P10	P10	P10	P10	P10	P10	P10	P10	P10
-CYCLE INPUT IND----	P09	P09	P09	P09	P09	P09	P09	P09	P09	P09	P09	P09	P09	P09	P09
-CYCLE STEAL REQ IN-	M02	M02	M02	M02	M02	M02	M02	M02	M02	M02	M02	M02	M02	M02	M02
-DATA BUS BIT-----00	G02	G02	G02	G02	G02	G02	G02	G02	G02	G02	G02	G02	G02	G02	G02
-DATA BUS BIT-----01	G03	G03	G03	G03	G03	G03	G03	G03	G03	G03	G03	G03	G03	G03	G03
-DATA BUS BIT-----02	G04	G04	G04	G04	G04	G04	G04	G04	G04	G04	G04	G04	G04	G04	G04
-DATA BUS BIT-----03	G05	G05	G05	G05	G05	G05	G05	G05	G05	G05	G05	G05	G05	G05	G05
-DATA BUS BIT-----04	G07	G07	G07	G07	G07	G07	G07	G07	G07	G07	G07	G07	G07	G07	G07
-DATA BUS BIT-----05	G08	G08	G08	G08	G08	G08	G08	G08	G08	G08	G08	G08	G08	G08	G08
-DATA BUS BIT-----06	G09	G09	G09	G09	G09	G09	G09	G09	G09	G09	G09	G09	G09	G09	G09
-DATA BUS BIT-----07	G10	G10	G10	G10	G10	G10	G10	G10	G10	G10	G10	G10	G10	G10	G10
-DATA BUS BIT-----P0	G12	G12	G12	G12	G12	G12	G12	G12	G12	G12	G12	G12	G12	G12	G12
-DATA BUS BIT-----08	J02	J02	J02	J02	J02	J02	J02	J02	J02	J02	J02	J02	J02	J02	J02
-DATA BUS BIT-----09	J04	J04	J04	J04	J04	J04	J04	J04	J04	J04	J04	J04	J04	J04	J04
-DATA BUS BIT-----10	J05	J05	J05	J05	J05	J05	J05	J05	J05	J05	J05	J05	J05	J05	J05
-DATA BUS BIT-----11	J06	J06	J06	J06	J06	J06	J06	J06	J06	J06	J06	J06	J06	J06	J06
-DATA BUS BIT-----12	J07	J07	J07	J07	J07	J07	J07	J07	J07	J07	J07	J07	J07	J07	J07
-DATA BUS BIT-----13	J09	J09	J09	J09	J09	J09	J09	J09	J09	J09	J09	J09	J09	J09	J09
-DATA BUS BIT-----14	J10	J10	J10	J10	J10	J10	J10	J10	J10	J10	J10	J10	J10	J10	J10
-DATA BUS BIT-----15	J11	J11	J11	J11	J11	J11	J11	J11	J11	J11	J11	J11	J11	J11	J11
-DATA BUS BIT-----P1	J12	J12	J12	J12	J12	J12	J12	J12	J12	J12	J12	J12	J12	J12	J12
-DATA STROBE--------	M10	M10	M10	M10	M10	M10	M10	M10	M10	M10	M10	M10	M10	M10	M10
-HALT OR MACHK-------	M07	M07	M07	M07	M07	M07	M07	M07	M07	M07	M07	M07	M07	M07	M07
-INITIATE IPL-------	P07	P07	P07	P07	P07	P07	P07	P07	P07	P07	P07	P07	P07	P07	P07
-IPL-----------------	S04	S04	S04	S04	S04	S04	S04	S04	S04	S04	S04	S04	S04	S04	S04
-POLL----------------		M13	SEE DIAGRAM BELOW												M12
-POLL IDENT BIT---00	P11	P11	P11	P11	P11	P11	P11	P11	P11	P11	P11	P11	P11	P11	P11
-POLL IDENT BIT---01	S02	S02	S02	S02	S02	S02	S02	S02	S02	S02	S02	S02	S02	S02	S02
-POLL IDENT BIT---02	S03	S03	S03	S03	S03	S03	S03	S03	S03	S03	S03	S03	S03	S03	S03
-POLL IDENT BIT---03	P12	P12	P12	P12	P12	P12	P12	P12	P12	P12	P12	P12	P12	P12	P12
-POLL IDENT BIT---04	P13	P13	P13	P13	P13	P13	P13	P13	P13	P13	P13	P13	P13	P13	P13
-POLL PRIME----------	M13	SEE DIAGRAM BELOW													M13
-POLL PROPAGATE-----	M11	SEE DIAGRAM BELOW													
-POLL RETURN--------	M04	M04	M04	M04	M04	M04	M04	M04	M04	M04	M04	M04	M04	M04	M04
-POWER ON RESET-----	S05	S05	S05	S05	S05	S05	S05	S05	S05	S05	S05	S05	S05	S05	S05
-REQ IN BUS BIT---00	S07	S07	S07	S07	S07	S07	S07	S07	S07	S07	S07	S07	S07	S07	S07
-REQ IN BUS BIT---01	S08	S08	S08	S08	S08	S08	S08	S08	S08	S08	S08	S08	S08	S08	S08
-REQ IN BUS BIT---02	S09	S09	S09	S09	S09	S09	S09	S09	S09	S09	S09	S09	S09	S09	S09
-REQ IN BUS BIT---03	S10	S10	S10	S10	S10	S10	S10	S10	S10	S10	S10	S10	S10	S10	S10
-REQ IN BUS BIT---04	S12	S12	S12	S12	S12	S12	S12	S12	S12	S12	S12	S12	S12	S12	S12
-REQ IN BUS BIT---05	S13	S13	S13	S13	S13	S13	S13	S13	S13	S13	S13	S13	S13	S13	S13
-REQ IN BUS BIT---06	U02	U02	U02	U02	U02	U02	U02	U02	U02	U02	U02	U02	U02	U02	U02
-REQ IN BUS BIT---07	U04	U04	U04	U04	U04	U04	U04	U04	U04	U04	U04	U04	U04	U04	U04
-REQ IN BUS BIT---08	U05	U05	U05	U05	U05	U05	U05	U05	U05	U05	U05	U05	U05	U05	U05
-REQ IN BUS BIT---09	U06	U06	U06	U06	U06	U06	U06	U06	U06	U06	U06	U06	U06	U06	U06
-REQ IN BUS BIT---10	U07	U07	U07	U07	U07	U07	U07	U07	U07	U07	U07	U07	U07	U07	U07
-REQ IN BUS BIT---11	U09	U09	U09	U09	U09	U09	U09	U09	U09	U09	U09	U09	U09	U09	U09
-REQ IN BUS BIT---12	U10	U10	U10	U10	U10	U10	U10	U10	U10	U10	U10	U10	U10	U10	U10
-REQ IN BUS BIT---13	U11	U11	U11	U11	U11	U11	U11	U11	U11	U11	U11	U11	U11	U11	U11
-REQ IN BUS BIT---14	U12	U12	U12	U12	U12	U12	U12	U12	U12	U12	U12	U12	U12	U12	U12
-REQ IN BUS BIT---15	U13	U13	U13	U13	U13	U13	U13	U13	U13	U13	U13	U13	U13	U13	U13
-SERVICE GATE-------	P05	P05	P05	P05	P05	P05	P05	P05	P05	P05	P05	P05	P05	P05	P05
-SERVICE GATE RETURN	P06	P06	P06	P06	P06	P06	P06	P06	P06	P06	P06	P06	P06	P06	P06
-STATUS BUS BIT---00	J13	J13	J13	J13	J13	J13	J13	J13	J13	J13	J13	J13	J13	J13	J13
-STATUS BUS BIT---01	G13	G13	G13	G13	G13	G13	G13	G13	G13	G13	G13	G13	G13	G13	G13
-STATUS BUS BIT---02	M03	M03	M03	M03	M03	M03	M03	M03	M03	M03	M03	M03	M03	M03	M03
-STATUS BUS BIT---03	P02	P02	P02	P02	P02	P02	P02	P02	P02	P02	P02	P02	P02	P02	P02
-SYSTEM RESET-------	M05	M05	M05	M05	M05	M05	M05	M05	M05	M05	M05	M05	M05	M05	M05



POLL COMES FROM PROC BOARD INTO A2M12 ON THIS BOARD AND IS JUMPERED TO P2M13.

VOLTAGE PIN ASSIGNMENTS
REFERENCE ALD YA110

+5V---D03-J03-P03-U03
-5V---G06 NOT ON 'A' ROW
+8.5V-G11 NOT ON 'A' ROW
+12V--B11 (OPTIONAL) NOT ON 'A' ROW
-12V--E06 (OPTIONAL) NOT ON 'A' ROW
GND---D08-J08-P08-U08
POWER ON RESET--S05 NOT ON 'A' ROW

4959 I/O EXPANSION CARD FILE

E.C. HISTORY		MACH.	
06-21-76	578446		A
10-01-76	578468	4959	1
			0
			0

IBM CORP. GSD

DATE	LAST E.C.		
12-02-76	578469	P.N. 1635316	0 0 0

FEATURE LOCATION PRIORITY - DEVICE ADDRESS PRIORITY

A. FEATURE LOCATION

A FEATURE LOCATION IN THE PROCESSING UNIT CARD FILES OR THE EXPANSION CARD FILE, IS DETERMINED BY THE FOLLOWING PRIORITY SCHEDULES.

1. FIXED LOCATIONS

MODULE PLUGGING LOCATIONS

FEATURE	4952 MODELS			4953 MODELS				4955 MODELS						4959 MODULE	4965 MODULE
	A	B	C	A	B	C	D	A	B	C	D	E	F		
PROCESSING UNIT	F	Q	F	F	Q	F	Q	-	-	-	-	-	-	-	-
PROCESSING UNIT DATA	-	-		-	-	-	-	J	D	L	H	H	H	-	-
PROCESSING UNIT ADDRESS	-	-	-	-	-	-	-	K	E	M	J	J	J	-	-
PROCESSING UNIT ROS	-	-	-	-	-	-	-	L	F	N	K	K	K	-	-
DISKETTE ATTACHMENT	-	-	E	-	-	-	-	-	-	-	-	-	-	-	F
STORAGE ADDRESS EXPANSION	-	-	-	-	-	-	-	-	-	-	-	Q	Q	-	-
STORAGE BASIC 16K	-	-	-	E	P	-	-	M	G	-	-	-	-	-	-
STORAGE BASIC 32K	F	Q	F	-	-	E	P	-	-	P	L	-	-	-	-
STORAGE BASIC 64K	-	-	-	-	-	-	-	-	-	P	L	L	-	-	-
STORAGE BASIC 128K	-	-	-	-	-	-	-	-	-	-	-	-	L	-	-
STORAGE ADDITIONAL 16K	-	-	-	B-D	L-N	C-D	M-N	N-Q	H-P	-	-	-	-	-	-
STORAGE ADDITIONAL 32K	F	Q	F	-	-	D	N	-	-	Q	M-P	M-P	-	-	-
STORAGE ADDITIONAL 64K	-	-	-	-	-	-	-	-	-	P	L	M-P	-	-	-
STORAGE ADDITIONAL 128K	-	-	-	-	-	-	-	-	-	-	-	-	M-P	-	-
ADDRESS TRANSLATOR	F	Q	F	-	-	-	-	-	Q	-	Q	-	-	-	-
FLOATING POINT PROCESSING UNIT	-	-		-	-	-	-	H	C	K	G	G	G	-	-
CHANNEL REPOWER	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B
TWO CHANNEL SWITCH	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A
EXPANSION CABLES	*	*	*	*	*	*	*	A	A	A	A	A	A	*	*
I/O FEATURES **	A-E	A-P	A-E	A-D	A-N	A-D	A-N	A-H	A-H	A-K	A-G	A-G	A-G	B-Q	B-E

* EXPANSION CABLES FROM THE 4952 ALL MODELS, THE 4953 ALL MODELS, THE 4959 OR THE 4965 NEED A CHANNEL REPOWER FEATURE. THE CABLES PLUG FROM THE CHANNEL TO THE 'A' POSITION OF THE 4959 OR 4965 EXPANSION CARD FILE.

** THE 4952 MODEL B, THE 4953 MODELS B AND D AND THE 4955 ALL MODELS ARE RESTRICTED TO I/O FEATURES WITH ' NOTE 4' IN SECTION 2, SINCE ONLY THE +5V DC AND GROUND ARE PRESENT ON THE 'A' PLUGGING LOCATION. IN THE 4955 PROCESSING UNITS 'POWER ON RESET' HAS BEEN ELIMINATED FROM THE 'A' PLUGGING LOCATION AND MUST BE JUMPERED (FROM A2SQ5 TO B2SQ5) IF AN I/O FEATURE IS INSTALLED IN THE 'A' PLUGGING LOCATION.

2. OPTIONAL FEATURE LOCATIONS

FEATURES INSTALLED IN THE PROCESSING UNIT CARD FILES AND/OR THE 4959 EXPANSION CARD FILE ARE TO BE PHYSICALLY INSTALLED FROM RIGHT TO LEFT, STARTING WITH THE RIGHTMOST AVAILABLE LOCATION.

THE RECOMMENDED SEQUENCE OF FEATURES, WITH NOTED EXCEPTIONS IS:

		NOTES
TWO CHANNEL SWITCH		11
4964 DISKETTE		7,8
BSCA MEDIUM SPEED - SINGLE LINE WITH REMOTE IPL		1,2,3,7,8
BSCA HIGH SPEED - SINGLE LINE WITH REMOTE IPL		1,2,3,7,8
1200 BPS INTEGRATED MODEM	RPQ D02049	-
S/370 ATTACHMENT		-
525X ATTACHMENT		9
MULTI-FUNCTION ATTACHMENT		1,2,7
START/STOP COMMUNICATIONS - SINGLE LINE		1,3,8
SDLC - SINGLE LINE		1,8
START/STOP 4 LINE ADAPTER - SECOND TIME IN SYSTEM		1,3,5,13
START/STOP 8 LINE CONTROLLER - D/C 2091 OR 2095		1,3
START/STOP 4 LINE ADAPTER - FIRST TIME IN SYSTEM		1,3,5,13
BSCA 4 LINE ADAPTER - SECOND TIME IN SYSTEM		1,3,5
BSCA 8 LINE CONTROLLER		1,3
BSCA 4 LINE ADAPTER - FIRST TIME IN SYSTEM		1,3,5
BSCA 8 LINE CONTROLLER	RPQ D02198 OR D02236	1,3
5230 ATTACHMENT, FIRST	RPQ D02312	9
5230 ATTACHMENT, ADDITIONAL	RPQ D02313	12
5230 ATTACHMENT, EXPAND	RPQ D02314	9
5230 ATTACHMENT, ADDITIONAL	RPQ D02313	12
BSCA MEDIUM SPEED - SINGLE LINE IF NOT REMOTE IPL		1,3,8
BSCA HIGH SPEED - SINGLE LINE IF NOT REMOTE IPL		1,3,8
5010 ATTACHMENT	RPQ D02045	-
4987 PROGRAMMABLE COMMUNICATIONS SYSTEM ATTACHMENT		9,10
LOCAL COMMUNICATIONS CONTROLLER		1,7
GPIB ADAPTER	RPQ D02118	8
S/1 TO S/1 ATTACHMENT I AND II	RPQ D02241 OR D02242	8
4978 DISPLAY ATTACHMENT		8
4966 DISKETTE ATTACHMENT		7
4979 DISPLAY ATTACHMENT		8
4962 DISK ATTACHMENT		7
4963 DISK ATTACHMENT		7
4969 TAPE ATTACHMENT		-
4973 PRINTER ATTACHMENT		8
4974 PRINTER ATTACHMENT		8
TTY		1,4,7
CUSTOMER DIRECT PROGRAM CONTROL ADAPTER		4
INTEGRATED DI/DO		4
AUTO CALL	RPQ D02013	-
4982 SENSOR I/O		4,6
TIMERS		4
CHANNEL SOCKET ADAPTER		-

NOTES

1. THESE FEATURES NEED COMMUNICATIONS SUPPLY (12V) IN THE CARD FILE OF THE 4953 MODELS B AND D AND THE 4955 MODELS A THROUGH D.
2. A MAXIMUM OF ONE (1) REMOTE IPL DEVICE MAY BE INSTALLED
3. BECAUSE OF CABLE SPACE, A MAXIMUM OF 24 COMMUNICATION LINES MAY BE INSTALLED IN ANY ONE CARD FILE.
4. IF NO EXPANSION CARD FILE IS INSTALLED, ONLY THESE FEATURES CAN BE INSTALLED IN THE 'A' CARD POSITION OF THE 4952 B, THE 4953 B AND D AND ALL MODELS OF THE 4955 PROCESSING UNITS. THE TTY CAN ONLY BE INSTALLED IN THE 'A' POSITION IF INTERNAL POWER (12V) FOR THE CURRENT LOOP IS NOT NEEDED.
5. MULTI-LINE ADAPTER FEATURES MUST BE INSTALLED IMMEDIATELY NEXT TO THE CONTROLLER CARD.
6. CARD POSITIONS IN THE 4982 ARE NUMBERED 0 TO 8.
   POSITION 0 ALWAYS CONTAINS AN ANALOG INPUT CONTROL CARD, IF INSTALLED.
   POSITION 1 ALWAYS CONTAINS THE MULTIRANGE AMPLIFIER CARD, IF INSTALLED.
   MULTIPLEX FEATURES FOLLOW IMMEDIATELY AFTER THE ABOVE FEATURES.
   POSITION 8 ALWAYS CONTAINS THE CHANNEL TERMINATION CARD.

POSITION	THE SEQUENCE OF FEATURES IN THE 4982 FEATURE
0	ANALOG INPUT CONTROL DC 1060 OR RPQ D02071 (MAXIMUM 1)
1	MULTIRANGE AMPLIFIER (MAXIMUM 1)
2	SOLID STATE MULTIPLEX
3	REED RELAY MULTIPLEX
4	ANALOG OUTPUT (AO) DC 1065 OR RPQ D02070
5	DIGITAL INPUT - ISOLATED
6	DIGITAL INPUT - NONISOLATED OR RPQ D02180
7	DIGITAL OUTPUT - NONISOLATED OR RPQ D02183 OR RPQ D02182
8	CHANNEL TERMINATION CARD

7. IPL DEVICES - ONLY ONE PRIMARY, ONE SECONDARY, AND ONE REMOTE IPL DEVICE OR FEATURE MAY BE ASSIGNED PER SYSTEM.
8. DEVICE ADDRESS MUST BE LESS THAN HEXADECIMAL 80.
9. NEEDS TWO CARD POSITIONS NEXT TO EACH OTHER.
10. THE 16 FEATURE CARD POSITIONS IN THE 4987 CARD FILE ARE NUMBERED AS FOLLOWS:
    IF ONE SCANNER IS INSTALLED, NUMBERING STARTS WITH THE RELATIVE ADDRESS OF 0 AND 1 LEFTMOST, 2 AND 3 NEXT, AND SO ON UP TO 1E AND 1F.
    IF TWO SCANNERS ARE INSTALLED, NUMBERING RESTARTS AT 0 AND 1 IN POSITION 8 AND GOES THROUGH 0E AND 0F RIGHTMOST FOR THE EXPANSION SCANNER.

    THE SEQUENCE OF FEATURES IN EACH SIDE OF THE 4987 IS:

    4700 - HALF DUPLEX ATTACHMENT CARD.
    4701 - FULL DUPLEX ATTACHMENT CARD.
    4706 - DDS ADAPTER
    4709 - LOCAL ATTACHMENT CARD (ASYNCHRONOUS)
    4710 - LOCAL ATTACHMENT CARD (SYNCHRONOUS)
    4713 - AUTO CALL ATTACHMENT CARD
    4716 - 38LS (ASYNCHRONOUS) SN CARD
    4717 - 38LS (ASYNCHRONOUS) LL - SNBU CARD
    4718 - 38LS (ASYNCHRONOUS) LL - CARD
    4719 - 38LS (ASYNCHRONOUS) LL - GBGI CARD
    4721 - 38LS (SYNCHRONOUS) SN CARD
    4722 - 38LS (SYNCHRONOUS) LL - SNBU CARD
    4723 - 38LS (SYNCHRONOUS) LL - CARD
    4724 - 38LS (SYNCHRONOUS) LL - GBGI CARD
    4704 - TTY CURRENT INTERFACE CARD

11. THE TWO CHANNEL SWITCH (TCS) MUST BE IN POSITION 'A' IN THE 4959 OR THE 4965.
12. MAXIMUM OF THREE.
13. RPQ D02350 - RS422 INTERFACE ADAPTER (8 LINES) MAY BE INSTALLED ON EITHER SIDE OF THE CONTROLLER CARD.

B. DEVICE ADDRESS RECOMMENDED

DEVICE ADDRESSES ARE NOT CONTROLLED BY PHYSICAL LOCATION IN THE SYSTEM.
ADDRESSES ARE ASSIGNED BY JUMPER OPTIONS ON THE ATTACHMENT CARDS.
RECOMMENDED ADDRESSES HAVE BEEN ASSIGNED TO ALL DEVICES FOR THE FIRST TIME THEY OCCUR IN THE SYSTEM.

1. SINGLE ADDRESS DEVICE - ADDRESS RECOMMENDED

DEVICE ADDRESSES 00-3F HAVE BEEN SPECIFIED FOR SINGLE ADDRESS DEVICES PER THE FOLLOWING TABLE.

DEVICE	TIMES IN SYSTEM FIRST	SECOND	THIRD	FOURTH
TTY	00	10	20	30
4973 PRINTER	21	31	X	X
4974 PRINTER	01	11	X	X
4964 DISKETTE	02	12	22	32
4962 DISK	03	13	23	33
4978 DISPLAY	24	34	X	X
4979 DISPLAY	04	14	24	34
ACCA SINGLE LINE	08	18	28	38
BSCA SINGLE LINE	09	19	29	39
SDLC	0A	1A	2A	3A
RPQ D02118	25	35	0F	1F
RPQ D02241 & D02242	0F	1F	2F	3F
RPQ D02236	28	38	X	X
S/370 ENCLOSURE	20	30	40	50
4966 DISKETTE	22	32	X	X
TWO CHANNEL SWITCH	23	33	43	53
525X DISPLAY	05	15	25	35

NOTE
THE DEVICE ADDRESS FOR A LARGER NUMBER OF A SPECIFIC DEVICE THAN PERMITTED IN THE TABLE WILL OVERFLOW TO 0C - 0F, 1C - 1F, 2C - 2F OR 3C - 3F.
THIS WILL PERMIT A DEVICE TYPE TO OCCUR 20 TIMES IN THE SYSTEM.
IF THE NUMBER INSTALLED IS LARGER THAN 20, ANY NOT USED ADDRESSES BETWEEN 00 AND 3F MAY BE USED.

2. TWO ADDRESS DEVICE - ADDRESS RECOMMENDED

DEVICE ADDRESSES 40-46 AND 50-56 HAVE BEEN SPECIFIED FOR TWO ADDRESS DEVICES PER THE FOLLOWING TABLE.

DEVICE	TIMES IN SYSTEM FIRST	SECOND	THIRD	FOURTH
TIMER	40	42	44	46

3. FOUR ADDRESS DEVICE - ADDRESS RECOMMENDED

DEVICE ADDRESSES 48-5C HAVE BEEN SPECIFIED FOR FOUR ADDRESS DEVICES PER THE FOLLOWING TABLE.

DEVICE	TIMES IN SYSTEM FIRST	SECOND	THIRD	FOURTH
4963 DISK	48	4C	50	54
4969 TAPE	48	4C	50	54
INTEGRATED DI - DO	48	4C	50	54
AUTO CALL RPQ D02013	48	4C	50	54
MULTI-FUNCTION ATTACH	48	4C	50	54
LOCAL COMM CONTROLLER	48	4C	50	54

NOTE
WHEN MORE THAN ONE OF THE ABOVE FEATURES APPEARS ON A SINGLE SYSTEM, ADDRESSES ARE ASSIGNED IN THE PRIORITY SEQUENCE SHOWN.
IF ONE OF EACH FEATURE IS INSTALLED ON A SYSTEM, THE ADDRESSES ASSIGNED WOULD BE:
4963 DISK ADDRESS WOULD BE 48.
4969 TAPE ADDRESS WOULD BE 4C.
THE INTEGRATED DI/DO ADDRESS WOULD BE 50.
THE AUTO CALL ADDRESS WOULD BE 54.

4. EIGHT ADDRESS DEVICE - ADDRESS RECOMMENDED

DEVICE ADDRESSES 60-88 HAVE BEEN SPECIFIED FOR EIGHT ADDRESS DEVICES PER THE FOLLOWING TABLE.

DEVICE	TIMES IN SYSTEM FIRST	SECOND	THIRD	FOURTH
START/STOP 8 LINE	60	68	70	78
BSCA 8 LINE	60	68	70	78
BSCA RPQ D02198	60	68	70	78
4982 SENSOR I/O	60	68	70	78

NOTE

WHEN MORE THAN ONE OF THE ABOVE FEATURES APPEARS ON A SINGLE SYSTEM, ADDRESSES ARE ASSIGNED IN THE PRIORITY SEQUENCE SHOWN.
IF ONE OF EACH FEATURE IS INSTALLED ON A SYSTEM, THE ADDRESSES ASSIGNED WOULD BE:
THE START STOP ADDRESS WOULD BE 60.
THE BSCA ADDRESS WOULD BE 68.
THE 4982 ADDRESS WOULD BE 70.

5. SIXTEEN ADDRESS DEVICE - ADDRESS RECOMMENDED

DEVICE ADDRESSES 90 THROUGH B0 HAVE BEEN RESERVED FOR SIXTEEN ADDRESS DEVICES.

CUSTOMER DIRECT PROGRAM CONTROL ADAPTER IS THE ONLY SIXTEEN ADDRESS DEVICE.

6. THIRTY TWO ADDRESS DEVICE - ADDRESS RECOMMENDED.

DEVICE ADDRESSES C0 THROUGH FF HAVE BEEN RESERVED FOR THIRTY TWO ADDRESS DEVICES.

DEVICE	TIMES IN SYSTEM FIRST	SECOND	THIRD	FOURTH
4987 - PCS	C0	E0	A0	80

7. ALL REMAINING ADDRESSES ARE RESERVED FOR RPQ EXCEPT FOR 4982 RPQ'S.

SERIES 1 PROGRAMMER CONSOLE OR C E CONSOLE

LINE NAME	PROC CARD	CABLE & PIN	PROC. PIN	CONS. PIN	THRU TO BAS CON
AUTO IPL MODE	-ROS-	-C3D07-	-W07-	-D07-	-C5D07-
BUZZER	-ROS-	-C3B11-	-W31-	-B11-	
CHECK INDICATOR	-ROS-	-C3D13-	-W13-	-D13-	
CHECK RESTART INDICATOR	-ROS-	-C3B07-	-W27-	-B07-	
COLUMN 00	-ROS-	-C3D03-	-WC3-	-D03-	-C5D03-
COLUMN 01	-DATA-	-C1D10-	-X10-	-D10-	
COLUMN 02	-ADDR-	-C2B13-	-W33-	-B13-	
COLUMN 03	-ADDR-	-C2D10-	-W10-	-D10-	
COLUMN 04	-ADDR-	-C2D11-	-W11-	-D11-	
COLUMN 05	-ADDR-	-C2D12-	-W12-	-D12-	
COLUMN 06	-ADDR-	-C2D13-	-W13-	-D13-	
COLUMN 07	-DATA-	-C1D11-	-X11-	-D11-	
COLUMN 08	-ROS-	-C3B08-	-W28-	-B08-	
COLUMN 09	-ROS-	-C3B12-	-W32-	-B12-	
COLUMN 10	-ROS-	-C3B13-	-W33-	-B13-	
COLUMN 11	-ROS-	-C3D02-	-W02-	-D02-	
DATA DISPLAY BIT 00 IND	-DATA-	-C1B02-	-X22-	-B02-	
DATA DISPLAY BIT 01 IND	-DATA-	-C1B03-	-X23-	-B03-	
DATA DISPLAY BIT 02 IND	-DATA-	-C1B04-	-X24-	-B04-	
DATA DISPLAY BIT 03 IND	-DATA-	-C1B05-	-X25-	-B05-	
DATA DISPLAY BIT 04 IND	-DATA-	-C1D06-	-X06-	-D06-	
DATA DISPLAY BIT 05 IND	-DATA-	-C1B07-	-X27-	-B07-	
DATA DISPLAY BIT 06 IND	-DATA-	-C1B08-	-X28-	-B08-	
DATA DISPLAY BIT 07 IND	-DATA-	-C1B09-	-X29-	-B09-	
DATA DISPLAY BIT 08 IND	-DATA-	-C1B10-	-X30-	-B10-	
DATA DISPLAY BIT 09 IND	-DATA-	-C1D07-	-X07-	-D07-	
DATA DISPLAY BIT 10 IND	-DATA-	-C1B12-	-X32-	-B12-	
DATA DISPLAY BIT 11 IND	-DATA-	-C1B13-	-X33-	-B13-	
DATA DISPLAY BIT 12 IND	-DATA-	-C1D02-	-X02-	-D02-	
DATA DISPLAY BIT 13 IND	-DATA-	-C1D09-	-X09-	-D09-	
DATA DISPLAY BIT 14 IND	-DATA-	-C1D04-	-X04-	-D04-	
DATA DISPLAY BIT 15 IND	-DATA-	-C1D05-	-X05-	-D05-	
DIAGNOSTIC MODE	-ROS-	-C3D09-	-W09-	-D09-	-C5B02-
GROUND	-DATA-	-C1D08-	-X08	-D08-	
GROUND	-ROS-	-C3D08-	-W08	-D08-	-C5D08-
INSTRUCTION STEP IND	-ROS-	-C3D11-	-W11-	-D11-	
LEVEL 00 IND	-ADDR-	-C2B09-	-W29-	-B09-	
LEVEL 01 IND	-ADDR-	-C2B10-	-W30-	-B10-	
LEVEL 02 IND	-ADDR-	-C2B11-	-W31-	-B11-	
LEVEL 03 IND	-ADDR-	-C2B12-	-W32-	-B12-	
LOAD IND	-ROS-	-C3D06-	-W06-	-D06-	-C5D06-
PRIMARY	-ROS-	-C3B09-	-W29-	-B09-	
ROW A	-ROS-	-C3B10-	-W30-	-B10-	
ROW B	-ROS-	-C3B03-	-W23-	-B03-	
ROW C	-ROS-	-C3B04-	-W24-	-B04-	
ROW D	-ROS-	-C3B05-	-W25-	-B05-	-C5B05-
RUN IND	-ROS-	-C3D04-	-W04-	-D04-	-C5D04-
STOP INDICATOR	-ROS-	-C3D10-	-W10-	-D10-	
STOP ON ADDRESS IND	-ROS-	-C3D12-	-W12-	-D12-	
STOP ON ERROR IND	-ROS-	-C3B06-	-W26-	-B06-	
WAIT IND	-ROS-	-C3D05-	-W05-	-D05-	-C5D05-
SPARE	-DATA-	-C1D12-	-X12-	-D12-	
SPARE	-DATA-	-C1D13-	-X13-	-D13-	
SPARE	-ROS-	-C3B02-	-W22-	-B02-	

CABLE CONNECTIONS

PROGRAMMER OR C.E MAINTENANCE CONS.

4952/4953 CABLE CONNECTIONS

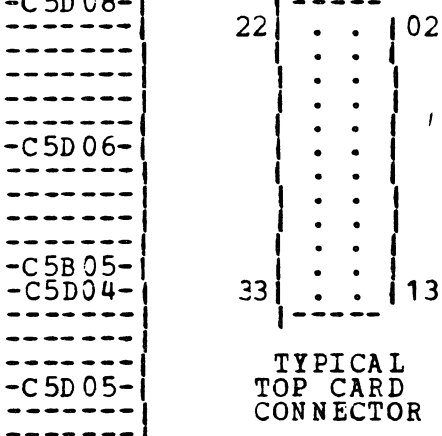
CONSOLE	PROCESS
C1	X
C2	YL
C3	W

C5 JUMPER C6

4955 CABLE CONNECTIONS

CONSOLE	PROCESS
C1	DATA X
C2	ADDR WL
C3	ROS W

C5 JUMPER C6



TYPICAL TOP CARD CONNECTOR

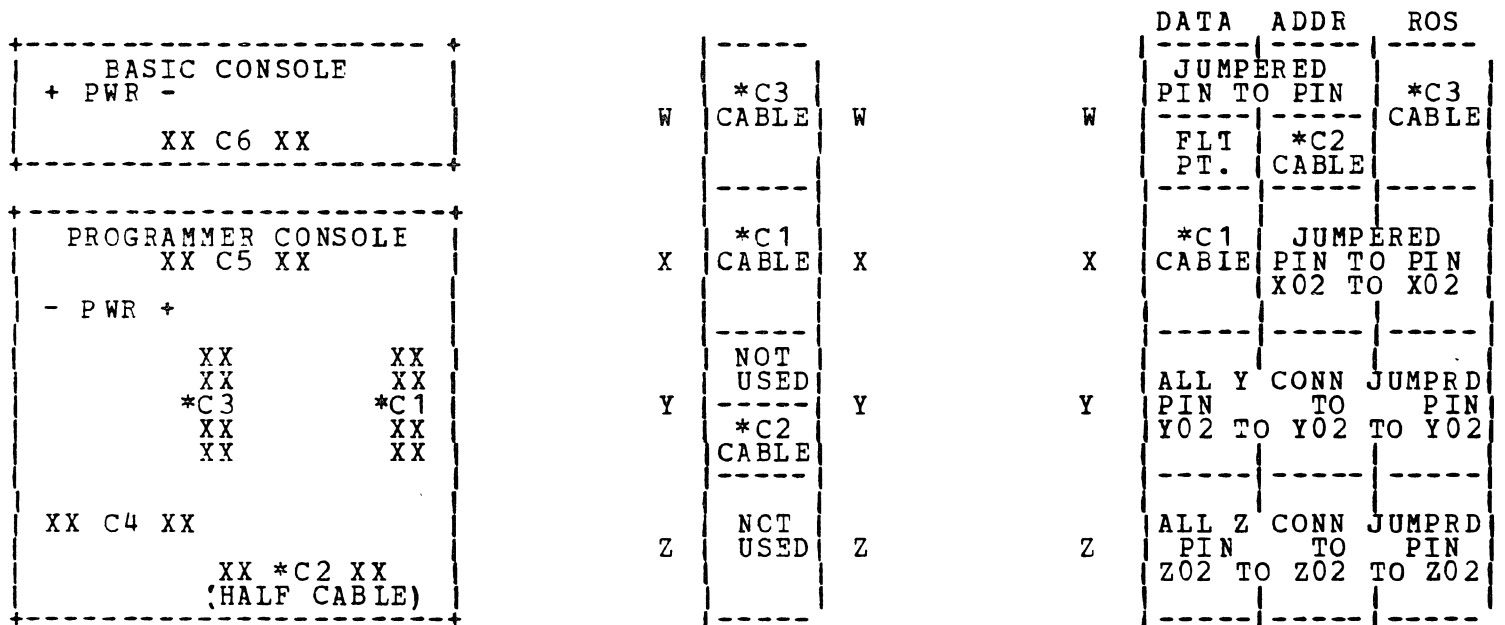
BASIC CONSOLE INSTALLED ONLY

AUTO IPL MODE	-ROS-	-C3D07-	-WC7-	-----|	-C6D07-
COLUMN 00---(LOAD SW)--	-ROS-	-C3D03-	-W03-	-----|	-C6D03-
DIAGNOSTIC MODE	-ROS-	-C3D09-	-W09-	-----|	-C6B02-
GROUND	-ROS-	-C3D08-	-W08-	-----|	-C6D08-
LOAD IND	-ROS-	-C3D06-	-WC6-	-----|	-C6D06-
PRIMARY	-ROS-	-C3B09-	-W29-	-----|	-C6B09-
ROW D--------(LOAD SW)--	-ROS-	-C3B05-	-W25-	-----|	-C6B05-
RUN IND	-ROS-	-C3D04-	-W04-	-----|	-C6D04-
WAIT IND	-ROS-	-C3D05-	-W05-	-----|	-C6D05-

C3 CABLE CONNECTION

BASIC * CONSOLE	PROC* CARD	
4952	C6	W
4953	C6	W
4955	C6	ROS W

* C3 CABLE FROM C6 TO PROCESSOR



CABLE LOCATIONS REAR VIEW

* 4952/53 CARD SIDE

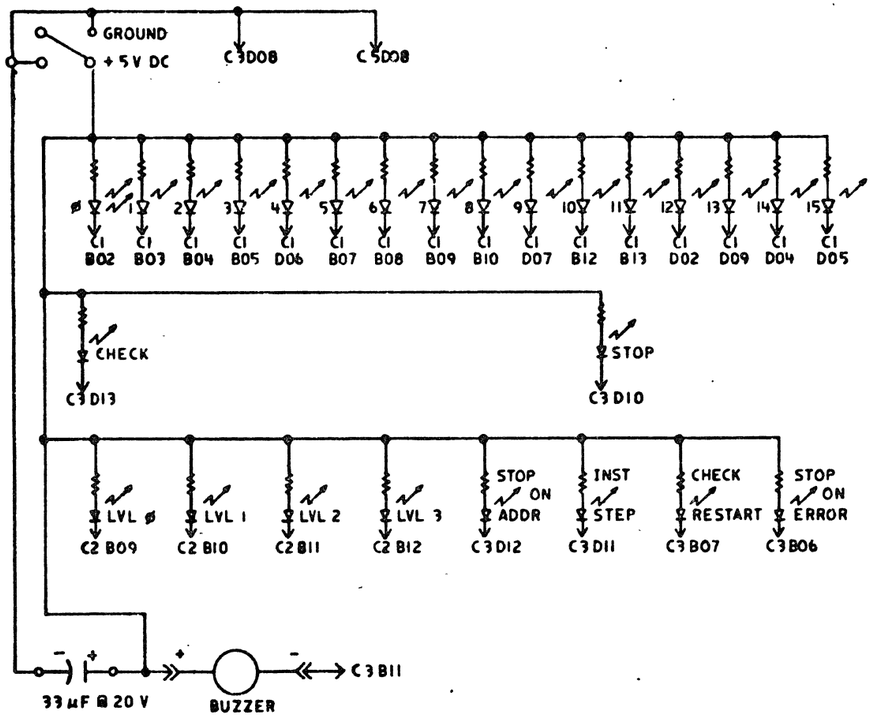
* 4955 CARD SIDE CABLES

* CONSOLE CABLES C1, C2 AND C3 ARE LABELED X, Y AND W ON THE PROCESSOR END.

SEE SERIES 1 THEORY DIAGRAMS MANUAL FOR DATA FLOW

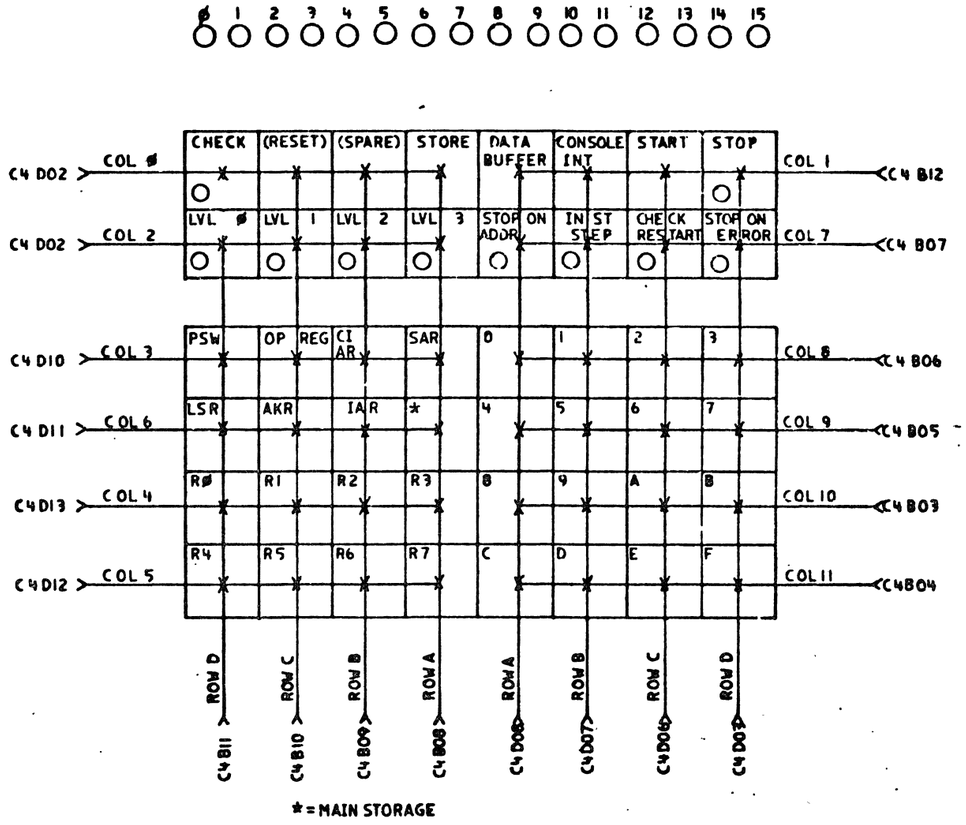
SERIES 1 PROGRAMMER OR CE CONSOLE

E.C. HISTORY		MACH.	P
06-21-76	578446		A
10-01-76	578468	SERIES 1	1
12-02-76	578469		0
03-15-77	578714		0
07-12-77	578984		
01-15-79	375147	IBM CORP. GSD	
DATE	LAST E.C.		0 0 0
04-20-79	375401	P.N. 1635004	



NOTE:

1 ALL LED RESISTORS ARE 200Ω (R-PAC)



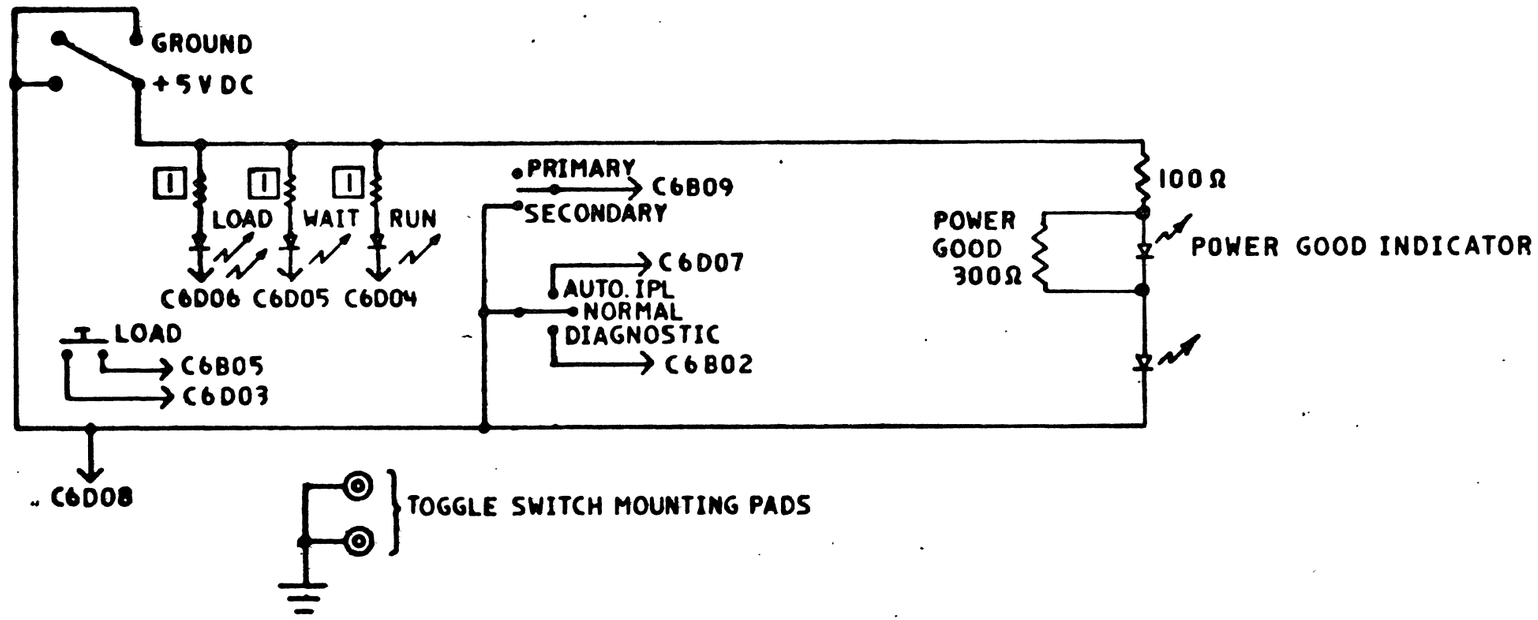
*=MAIN STORAGE

EC HISTORY		DRAWING TITLE
2 MAY 77	578751	FULL FUNCTION CONSOLE WIRING DIAGRAM
30 SEP 77	754882	MACH
		PART NO 4414120
C		CLASSIFICATION

IBM CORP

PA105

PA105



PA110

NOTE

[1] RESISTORS ARE 200Ω (R-PAC)

	EC HISTORY		DRAWING TITLE	
	29 APR 77	578751	BASIC CONSOLE WIRING DIAGRAM	
			MACH	
			PART NO 4414121	
B			CLASSIFICATION	IBM CORP

PA110

ASYNCHRONOUS MULTI LINE CONTROLLER CARD

STANDARD CHANNEL

```
  ADDRESS BUS BIT--00------B02
  ADDRESS BUS BIT--01------B03
  ADDRESS BUS BIT--02------B04
  ADDRESS BUS BIT--03------B05
  ADDRESS BUS BIT--04------B07
  ADDRESS BUS BIT--05------B08
  ADDRESS BUS BIT--06------B09
  ADDRESS BUS BIT--07------B10
  ADDRESS BUS BIT--08------B12
  ADDRESS BUS BIT--09------D02
  ADDRESS BUS BIT--10------D04
  ADDRESS BUS BIT--11------D05
  ADDRESS BUS BIT--12------D06
  ADDRESS BUS BIT--13------D07
  ADDRESS BUS BIT--14------D09
  ADDRESS BUS BIT--15------D10
  ADDRESS BUS BIT--16------D11
  ADDRESS GATE-------------M08
  ADDRESS GATE RETURN------M09
# BURST RETURN------------(P04)
  CONDITION CODE IN BIT-00-D12
  CONDITION CODE IN BIT-01-D13
  CONDITION CODE IN BIT-02-B13
  CYCLE BYTE INDICATOR-----P10
  CYCLE INPUT INDICATOR----P09
  CYCLE STEAL REQUEST IN---M02
  DATA BUS BIT-----00------G02
  DATA BUS BIT-----01------G03
  DATA BUS BIT-----02------G04
  DATA BUS BIT-----03------G05
  DATA BUS BIT-----04------G07
  DATA BUS BIT-----05------G08
  DATA BUS BIT-----06------G09
  DATA BUS BIT-----07------G10
  DATA BUS BIT-----P0------G12
  DATA BUS BIT-----08------J02
  DATA BUS BIT-----09------J04
  DATA BUS BIT-----10------J05
  DATA BUS BIT-----11------J06
  DATA BUS BIT-----12------J07
  DATA BUS BIT-----13------J09
  DATA BUS BIT-----14------J10
  DATA BUS BIT-----15------J11
  DATA BUS BIT-----P1------J12
  DATA STROBE--------------M10
  HALT OR MCHK-------------M07
# INITIATE IPL------------(P07)
# IPL----------------------(S04)
  POLL---------------------M12
  POLL IDENTIFIER BIT--00--P11
  POLL IDENTIFIER BIT--01--S02
  POLL IDENTIFIER BIT--02--S03
  POLL IDENTIFIER BIT--03--P12
  POLL IDENTIFIER BIT--04--P13
  POLL PRIME---------------M13
  POLL PROPAGATE-----------M11
  POLL RETURN--------------M04
  POWER ON RESET-----------S05
  REQUEST IN BUS BIT--00---S07
  REQUEST IN BUS BIT--01---S08
  REQUEST IN BUS BIT--02---S09
  REQUEST IN BUS BIT--03---S10
  REQUEST IN BUS BIT--04---S12
  REQUEST IN BUS BIT--05---S13
  REQUEST IN BUS BIT--06---U02
  REQUEST IN BUS BIT--07---U04
  REQUEST IN BUS BIT--08---U05
  REQUEST IN BUS BIT--09---U06
  REQUEST IN BUS BIT--10---U07
  REQUEST IN BUS BIT--11---U09
  REQUEST IN BUS BIT--12---U10
  REQUEST IN BUS BIT--13---U11
  REQUEST IN BUS BIT--14---U12
  REQUEST IN BUS BIT--15---U13
  SERVICE GATE-------------P05
  SERVICE GATE RETURN------P06
  STATUS BUS BIT------00---J13
  STATUS BUS BIT------01---G13
  STATUS BUS BIT------02---M03
  STATUS BUS BIT------03---P02
  SYSTEM RESET-------------M05
```

CONTROLLER TOP CARD CONNECTOP(S)

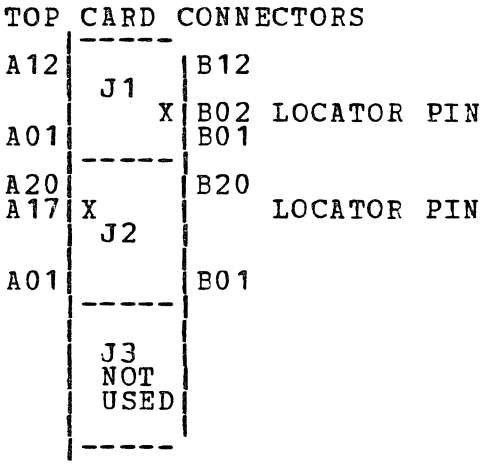
INDICATOR PANEL CONNECTOR

```
J1B05-- -FUNCTION/DISPLAY SW  01
J1A06-- -FUNCTION/DISPLAY SW  02
J1B06-- -FUNCTION/DISPLAY SW  04
J1A07-- -FUNCTION/DISPLAY SW  08
J1B07-- -FUNCTION/DISPLAY SW  16
J1B01--  GROUND
J1B12-- -LAMP DRIVER  00
J1A12-- -LAMP DRIVER  01
J1B11-- -LAMP DRIVER  02
J1A11-- -LAMP DRIVER  03
J1B10-- -LAMP DRIVER  04
J1A10-- -LAMP DRIVER  05
J1B09-- -LAMP DRIVER  06
J1A09-- -LAMP DRIVER  07
J1A04-- -LINE SELECT SW  01
J1B04-- -LINE SELECT SW  02
J1A05-- -LINE SELECT SW  04
J1A03-- +5V
```

ADAPTER CONNECTOR CABLE

```
J2B18-- -ADDRESS BUS OUT BIT  00
J2B19-- -ADDRESS BUS OUT BIT  01
J2A18-- -ADDRESS BUS OUT BIT  02
J2A19-- -ADDRESS BUS OUT BIT  03
J2B12-- -ADDRESS BUS OUT BIT  04
J2B13-- -ADDRESS BUS OUT BIT  05
J2B14-- -ADDRESS BUS OUT BIT  06
J2B15-- -ADDRESS BUS OUT BIT  07
J2B16-- -CONTROL STROBE POWERED
J2A08-- -DATA BUS IN BIT  00
J2A09-- -DATA BUS IN BIT  01
J2A10-- -DATA BUS IN BIT  02
J2A11-- -DATA BUS IN BIT  03
J2A15-- -DATA BUS IN BIT  04
J2A14-- -DATA BUS IN BIT  05
J2A12-- -DATA BUS IN BIT  06
J2A13-- -DATA BUS IN BIT  07
J2B03-- -DATA BUS OUT BIT  00
J2B04-- -DATA BUS OUT BIT  01
J2B05-- -DATA BUS OUT BIT  02
J2B06-- -DATA BUS OUT BIT  03
J2B07-- -DATA BUS OUT BIT  04
J2B08-- -DATA BUS OUT BIT  05
J2B09-- -DATA BUS OUT BIT  06
J2B10-- -DATA BUS OUT BIT  07
J2B11-- -HEX F
J2A04-- +LINE LATCH  00
J2A05-- +LINE LATCH  01
J2A06-- +LINE LATCH  02
J2A07-- +LINE LATCH  03
J2A01-- +LINE LATCH  04
J2A02-- +LINE LATCH  05
J2A03-- +LINE LATCH  06
J2B01-- +LINE LATCH  07
J2B17-- -SENSE STROBE MPT
J2A16-- -153.6 KHZ
J2B20-- -1.63 USEC CLK
J2A20-- -6.66 MSEC CLK
J2B02--  NOT USED
```

TOP CARD CONNECTORS



CABLE LOCATIONS

VOLTAGE PIN ASSIGNMENTS
+5V---D03--J03--P03--U03
GND---D08--J08--P08--U08
-5V---G06
+8.5V-G11

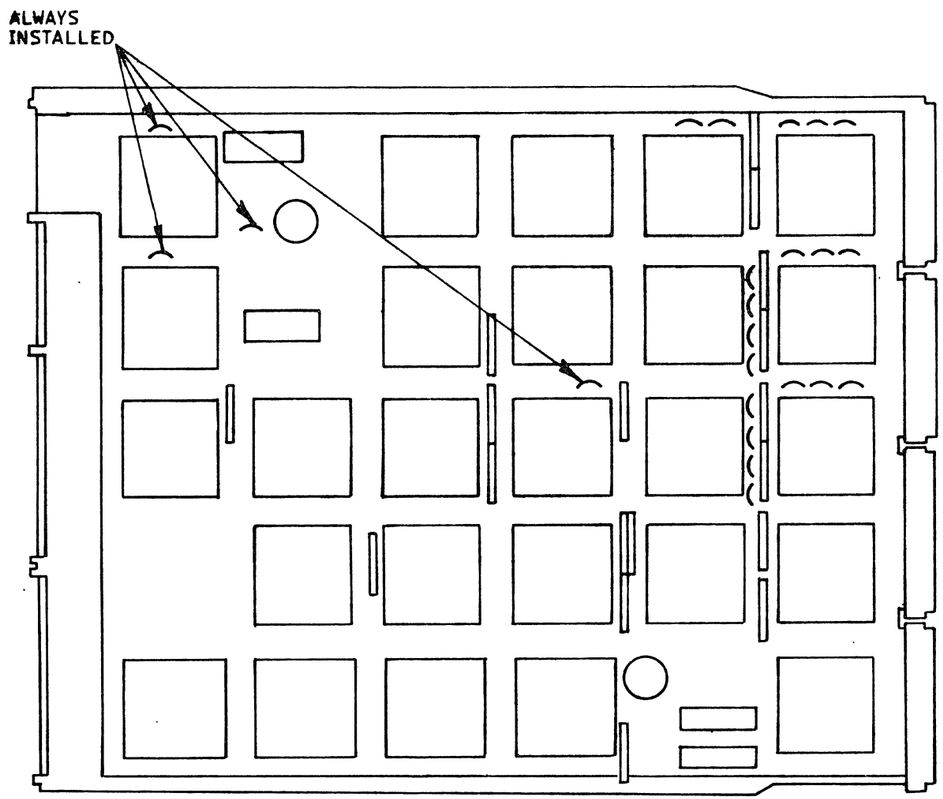
LINES ARE NOT USED BY THIS ATTACHMENT.

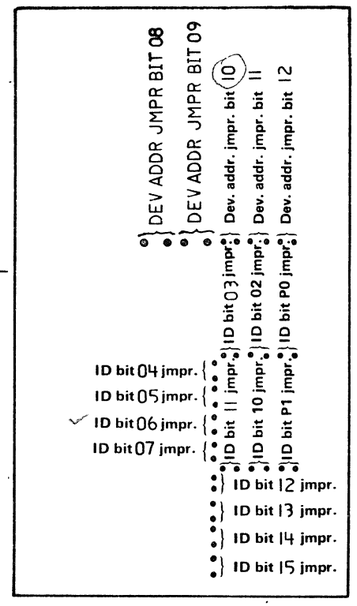
SEE PROC THEORY DIAGRAMS MANUAL FOR DATA FLOW

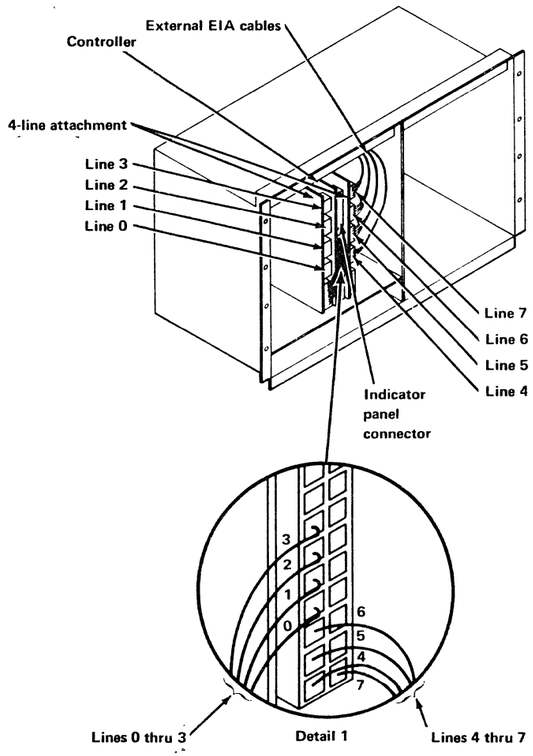
ACCA MULTI LINE CONTROLLER

E.C. HISTORY		MACH.	
06-21-76	578446		S
10-01-76	578468	SERIES 1	C
12-02-76	578469		1
03-15-77	578714		5
			0
		IBM CORP. GSD	
DATE	LAST E.C.		0 0 0
01-15-79	375147	P.N. 1635189	

ASYNCHRONOUS COMM 8 LINE CONTROL-2091







NOTE:
To insure proper installation of the cable between the controlled card and the 4-line attachement cards, see detail 1

NOTES:
The Multi-line S/S Controller ID word is jumpered or wire wrapped as follows:

- Bit 2 – On
- Bits 3, 4, 5 – Off
- Bits 6 & 7 – Determined by the number of lines attached. For Two lines jumper on Bit 7; for Four lines jumper on Bit 6; for Six lines jumper on both 6 & 7; for Eight lines no jumpers on 6 or 7.
- Bit P0 – Jumpered as required to make Bits 2 thru 7 odd parity
- Bits 10,11,P1 – Off
- Bits 12,13,14 – On

JUMPER = BIT ON

EC HISTORY		DRAWING TITLE
27SEP76	578468	ASYNCHRONOUS COMM 8 LINE CONTROL
		MACH
		PART NO 1635158
		CLASSIFICATION
C		IBM CORP

SC152

SC152

ASYNCHRONUS 4 LINE ADAPTER CARD

STANDARD CHANNEL

```
POLL----------------------M12
POLL PRIME----------------M13
POLL PROPAGATE------------M11
```

NOTE-
FOR POLL PROPAGATION ONLY.
NOT USED BY ADAPTER CARD.

TOP CARD CONNECTORS

DATASET INTERFACE CONNECTOR	MODEM PIN
JXA07-- +CARRIER DETECT	08
JXB03-- +CLEAR TO SEND	05
JXB01-- +DATA SET READY	06
JXA02-- -DATA SIGNAL RATE SELECT	23
JXA01-- +DATA TERMINAL READY	20
JXB04-- -RECEIVE DATA	03
JXA03-- +REQUEST TO SEND	04
JXB07-- +RING INDICATOR	22
JXA08-- SIGNAL GROUND	07
JXA04-- -TRANSMIT DATA	02

** JX=ANY MODEM CABLE, J1 TO J4.

CONTROLLER CONNECTOR CABLE

```
J5B18-- -ADDRESS BUS OUT BIT  00
J5B19-- -ADDRESS BUS OUT BIT  01
J5A18-- -ADDRESS BUS OUT BIT  02
J5A19-- -ADDRESS BUS OUT BIT  03
J5B12-- -ADDRESS BUS OUT BIT  04
J5B13-- -ADDRESS BUS OUT BIT  05
J5B14-- -ADDRESS BUS OUT BIT  06
J5B15-- -ADDRESS BUS OUT BIT  07
J5B16-- -CONTROL STROBE POWERED
J5A08-- -DATA BUS IN BIT  00
J5A09-- -DATA BUS IN BIT  01
J5A10-- -DATA BUS IN BIT  02
J5A11-- -DATA BUS IN BIT  03
J5A15-- -DATA BUS IN BIT  04
J5A14-- -DATA BUS IN BIT  05
J5A12-- -DATA BUS IN BIT  06
J5A13-- -DATA BUS IN BIT  07
J5B03-- -DATA BUS OUT BIT  00
J5B04-- -DATA BUS OUT BIT  01
J5B05-- -DATA BUS OUT BIT  02
J5B06-- -DATA BUS OUT BIT  03
J5B07-- -DATA BUS OUT BIT  04
J5B08-- -DATA BUS OUT BIT  05
J5B09-- -DATA BUS OUT BIT  06
J5B10-- -DATA BUS OUT BIT  07
J5B11-- -HEX F
J5A04-- +LINE LATCH  00/04
J5A05-- +LINE LATCH  01/05
J5A06-- +LINE LATCH  02/06
J5A07-- +LINE LATCH  03/07
J5B17-- -SENSE STROBE MPT
J5A16--  153.6 KHZ
J5A20--  6.6 MSEC CLK
J5B20-- -1.63 USEC. CLK
```

TOP CARD CONNECTORS

```
      |-----
  A08 | J1  | B08
      |MODEM|
      | 3/7 |
      |     X| B02 LOCATOR PIN
  A01 |     | B01
      |-----|
  A08 | J2  | B08
      |MODEM|
      | 2/6 |
      |     X| B02 LOCATOR PIN
  A01 |     | B01
      |-----|
  A08 | J3  | B08
      |MODEM|
      | 1/5 |
      |     X| B02 LOCATOR PIN
  A01 |     | B01
      |-----|
  A08 | J4  | B08
      |MODEM|
      | 0/4 |
      |     X| B02 LOCATOR PIN
  A01 |     | B01
      |-----|
  A20 | J5  | B20
      |     |
      |     |
      |     |
      |     |
      |     X| B02 LOCATOR PIN
  A01 |     | B01
      |-----|
CABLE LOCATIONS
```

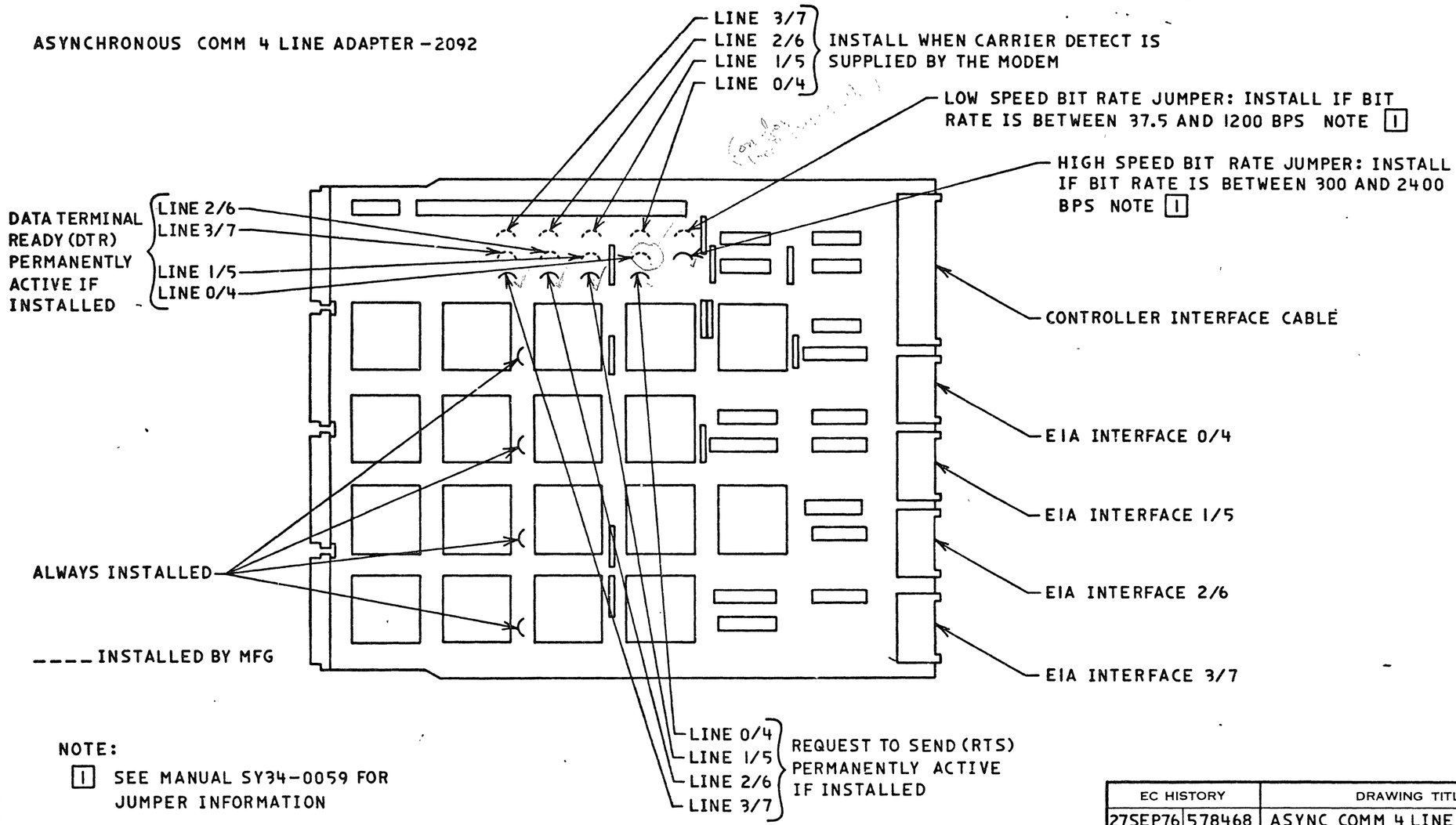
VOLTAGE PIN ASSIGNMENTS
+5V---D03--J03--P03--U03
GND---D08--J08--P08--U08
-12V--B06
+12V--B11

SEE PROC THEORY DIAGRAMS MANUAL FOR DATA FLOW

ACCA FOUR LINE ADAPTER CARD

E.C.	HISTORY	MACH.	SC15
06-21-76	578446		
10-01-76	578468	4953/4955	
12-02-76	578469		
DATE	LAST E.C.	IBM CORP. GSD P.N. 1635190	0 0 0
03-15-77	578714		

ASYNCHRONOUS COMM 4 LINE ADAPTER - 2092



NOTE:

[1] SEE MANUAL SY34-0059 FOR JUMPER INFORMATION

	EC HISTORY		DRAWING TITLE
	27SEP76	578468	ASYNC COMM 4 LINE ADAPTER
RED	30SEP77	754882	MACH
			PART NO. 1635161
C			CLASSIFICATION

IBM CORP

SC157

SC157

BINARY SYNCHRONOUS COMM SINGLE LINE CONTROL-MED SPEED

A B

- ICLK-ATTACHMENT WILL PROVIDE CLOCKING IF INSTALLED
- M.P.-BSCA IS A MULTI-POINT TRIBUTARY TERMINAL IF INSTALLED
- A.T.-BSCA SHOULD GENERATE ANSWER TONE IF INSTALLED
- RTS-PERMANENTLY HOLD UP RTS TO THE MODEM IF INSTALLED
- DTR-PERMANENTLY HOLD UP DTR TO THE MODEM IF INSTALLED
- NO RI-INSTALL IF MODEM DOES NOT DRIVE THE RING INDICATOR LEAD
- SCOPE POINTS **
- SCOPE POINTS **
- 7-MP TERMINAL ADDRESS BIT 7 * (SEE NOTE 1)
- 6-MP TERMINAL ADDRESS BIT 6
- 5-MP TERMINAL ADDRESS BIT 5
- 4-MP TERMINAL ADDRESS BIT 4
- 3-MP TERMINAL ADDRESS BIT 3
- 2-SCOPE POINTS **
- 1-MP TERMINAL ADDRESS BIT 1
- 0-MP TERMINAL ADDRESS BIT 0 (SEE NOTE 2)

** B03 = -CTS
B09 = +RECEIVE DATA MARK
A09 = -XMIT DATA MARK (EIA)
B10 = RECEIVE CLOCK
A10 = XMIT CLOCK

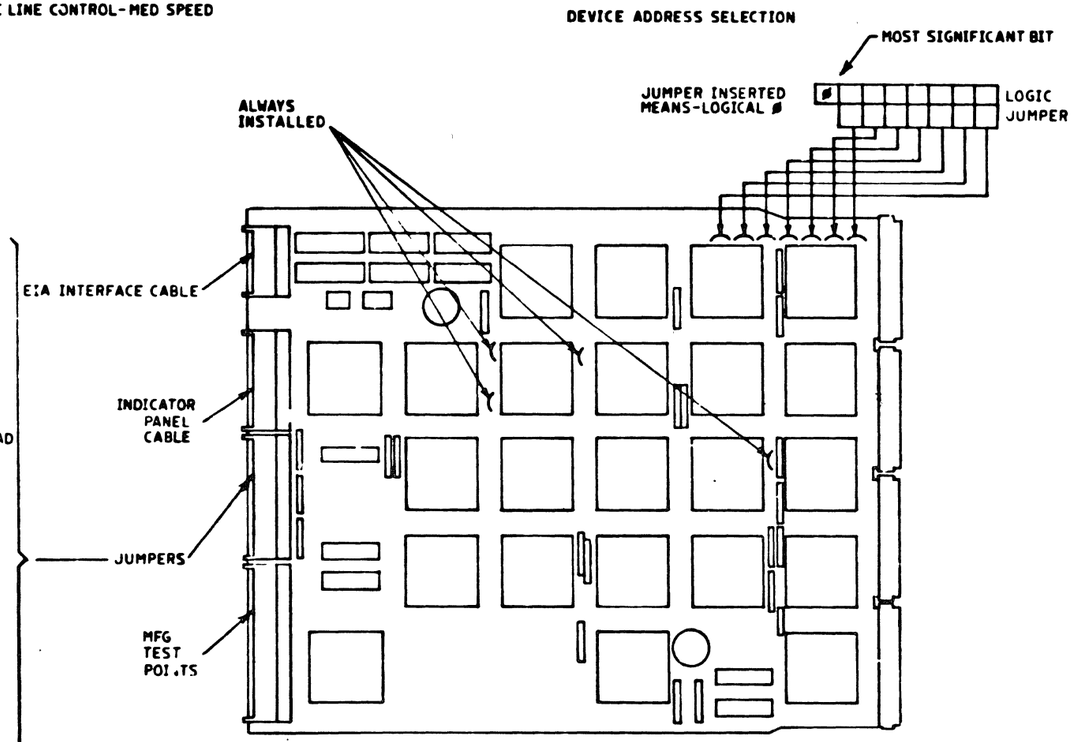
---- INSTALLED BY MFG

* MP TERMINAL ADDRESS JUMPER INSTALLED MEANS LOGICAL 1

NOTE 1 - MP ADDR BIT 7 ON, IN THE ABSENCE OF THE M.P. JUMPER, INDICATES SWITCHED LINE OPERATION

NOTE 2 - MP ADDR BIT 0 ON, REGARDLESS OF THE M.P. JUMPER, INDICATES THAT IPL IS ALLOWED

DEVICE ADDRESS SELECTION



EC HISTORY		DRAWING TITLE
27SEP76	578468	BINARY SYNCHRONOUS COMM SINGLE LINE CONTROL-MED SPEED
		MACH
		PART NO 1635165
		CLASSIFICATION

C

IBM CORP

SC310

SC310

FEATURE PROGRAMMABLE MULTI LINE COMMUNICATIONS CONTROLLER
FEATURE CODE 2095

STANDARD CHANNEL

```
  ADDRESS BUS BIT--00------B02
  ADDRESS BUS BIT--01------B03
  ADDRESS BUS BIT--02------B04
  ADDRESS BUS BIT--03------B05
  ADDRESS BUS BIT--04------B07
  ADDRESS BUS BIT--05------B08
  ADDRESS BUS BIT--06------B09
  ADDRESS BUS BIT--07------B10
  ADDRESS BUS BIT--08------B12
  ADDRESS BUS BIT--09------D02
  ADDRESS BUS BIT--10------D04
  ADDRESS BUS BIT--11------D05
  ADDRESS BUS BIT--12------D06
  ADDRESS BUS BIT--13------D07
  ADDRESS BUS BIT--14------D09
  ADDRESS BUS BIT--15------D10
  ADDRESS BUS BIT--16------D11
  ADDRESS GATE-------------M08
  ADDRESS GATE RETURN------M09
# BURST RETURN------------(P04)
  CONDITION CODE IN BIT-00-D12
  CONDITION CODE IN BIT-01-D13
  CONDITION CODE IN BIT-02-B13
  CYCLE BYTE INDICATOR-----P10
  CYCLE INPUT INDICATOR----P09
  CYCLE STEAL REQUEST IN---M02
  DATA BUS BIT-----00------G02
  DATA BUS BIT-----01------G03
  DATA BUS BIT-----02------G04
  DATA BUS BIT-----03------G05
  DATA BUS BIT-----04------G07
  DATA BUS BIT-----05------G08
  DATA BUS BIT-----06------G09
  DATA BUS BIT-----07------G10
  DATA BUS BIT-----P0------G12
  DATA BUS BIT-----08------J02
  DATA BUS BIT-----09------J04
  DATA BUS BIT-----10------J05
  DATA BUS BIT-----11------J06
  DATA BUS BIT-----12------J07
  DATA BUS BIT-----13------J09
  DATA BUS BIT-----14------J10
  DATA BUS BIT-----15------J11
  DATA BUS BIT-----P1------J12
  DATA STROBE--------------M10
  HALT OR MCHK------------(M07)
# INITIATE IPL------------(P07)
# IPL----------------------S04
  POLL---------------------M12
  POLL IDENTIFIER BIT--00--P11
  POLL IDENTIFIER BIT--01--S02
  POLL IDENTIFIER BIT--02--S03
  POLL IDENTIFIER BIT--03--P12
  POLL IDENTIFIER BIT--04--P13
  POLL PRIME---------------M13
  POLL PROPAGATE-----------M11
  POLL RETURN--------------M04
  POWER ON RESET-----------S05
  REQUEST IN BUS BIT--00---S07
  REQUEST IN BUS BIT--01---S08
  REQUEST IN BUS BIT--02---S09
  REQUEST IN BUS BIT--03---S10
  REQUEST IN BUS BIT--04---S12
  REQUEST IN BUS BIT--05---S13
  REQUEST IN BUS BIT--06---U02
  REQUEST IN BUS BIT--07---U04
  REQUEST IN BUS BIT--08---U05
  REQUEST IN BUS BIT--09---U06
  REQUEST IN BUS BIT--10---U07
  REQUEST IN BUS BIT--11---U09
  REQUEST IN BUS BIT--12---U10
  REQUEST IN BUS BIT--13---U11
  REQUEST IN BUS BIT--14---U12
  REQUEST IN BUS BIT--15---U13
  SERVICE GATE-------------P05
  SERVICE GATE RETURN------P06
  STATUS BUS BIT------00---J13
  STATUS BUS BIT------01---G13
  STATUS BUS BIT------02---M03
  STATUS BUS BIT------03---P02
  SYSTEM RESET-------------M05
```

CONTROLLER TOP CARD CONNECTOR(S)

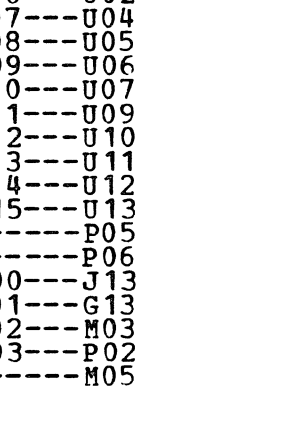
INDICATOR PANEL CONNECTOR

```
J1B05-- -FUNCTION/DISPLAY SW  01
J1A06-- -FUNCTION/DISPLAY SW  02
J1B06-- -FUNCTION/DISPLAY SW  04
J1A07-- -FUNCTION/DISPLAY SW  08
J1B07-- -FUNCTION/DISPLAY SW  16
J1B01--  GROUND
J1B12-- -LAMP DRIVER  00
J1A12-- -LAMP DRIVER  01
J1B11-- -LAMP DRIVER  02
J1A11-- -LAMP DRIVER  03
J1B10-- -LAMP DRIVER  04
J1A10-- -LAMP DRIVER  05
J1B09-- -LAMP DRIVER  06
J1A09-- -LAMP DRIVER  07
J1A04-- -LINE SELECT SW  01
J1B04-- -LINE SELECT SW  02
J1A05-- -LINE SELECT SW  04
J1A03-- +5V
```

ADAPTER CONNECTOR CABLE

```
J2B18-- -ADDRESS BUS OUT BIT  00
J2B19-- -ADDRESS BUS OUT BIT  01
J2A18-- -ADDRESS BUS OUT BIT  02
J2A19-- -ADDRESS BUS OUT BIT  03
J2B12-- -ADDRESS BUS OUT BIT  04
J2B13-- -ADDRESS BUS OUT BIT  05
J2B14-- -ADDRESS BUS OUT BIT  06
J2B15-- -ADDRESS BUS OUT BIT  07
J2B16-- -CONTROL STROBE POWERED
J2A08-- -DATA BUS IN BIT  00
J2A09-- -DATA BUS IN BIT  01
J2A10-- -DATA BUS IN BIT  02
J2A11-- -DATA BUS IN BIT  03
J2A15-- -DATA BUS IN BIT  04
J2A14-- -DATA BUS IN BIT  05
J2A12-- -DATA BUS IN BIT  06
J2A13-- -DATA BUS IN BIT  07
J2B03-- -DATA BUS OUT BIT  00
J2B04-- -DATA BUS OUT BIT  01
J2B05-- -DATA BUS OUT BIT  02
J2B06-- -DATA BUS OUT BIT  03
J2B07-- -DATA BUS OUT BIT  04
J2B08-- -DATA BUS OUT BIT  05
J2B09-- -DATA BUS OUT BIT  06
J2B10-- -DATA BUS OUT BIT  07
J2B11-- -HEX F
J2A04-- +LINE LATCH  00
J2A05-- +LINE LATCH  01
J2A06-- +LINE LATCH  02
J2A07-- +LINE LATCH  03
J2A01-- +LINE LATCH  04
J2A02-- +LINE LATCH  05
J2A03-- +LINE LATCH  06
J2B01-- +LINE LATCH  07
J2B17-- -SENSE STROBE
J2A16--  153.6 KHZ
J2B20-- -1.63 USEC. CLK
J2A20-- -6.66 MSEC CLK
# J2B02--  NOT USED
```

TOP CARD CONNECTORS



CABLE LOCATIONS

VOLTAGE PIN ASSIGNMENTS
+5V---D03--J03--P03--U03
GND---D08--J08--P08--U08
-5V---G06
+8.5V-G11

LINES ARE NOT USED BY THIS ATTACHMENT.

SEE THE PROCESSOR THEORY DIAGRAMS MANUAL FOR DATA FLOW.

F P M L COMMUNICATIONS CONTROLLER

E.C. HISTORY

MACH. SERIES/1

SCL 4500

IBM CORP. GSD

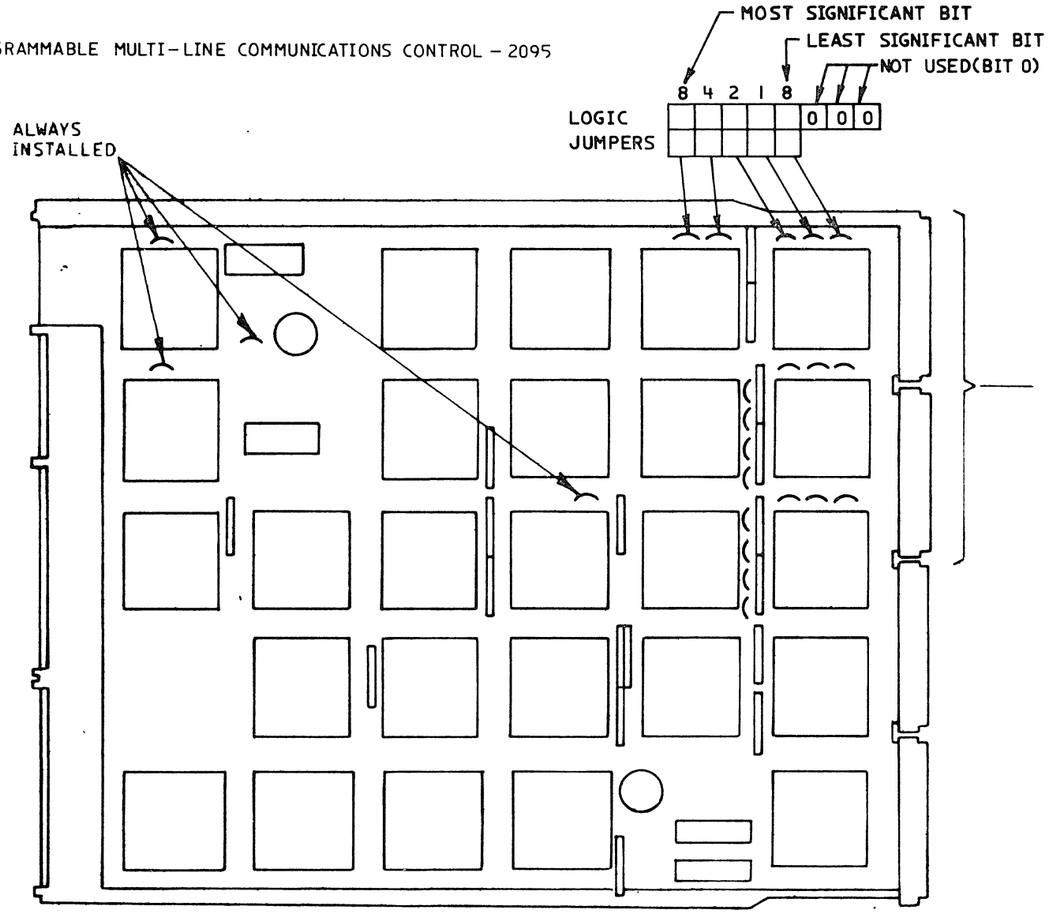
DATE 23-02-79 LAST E.C. 375094

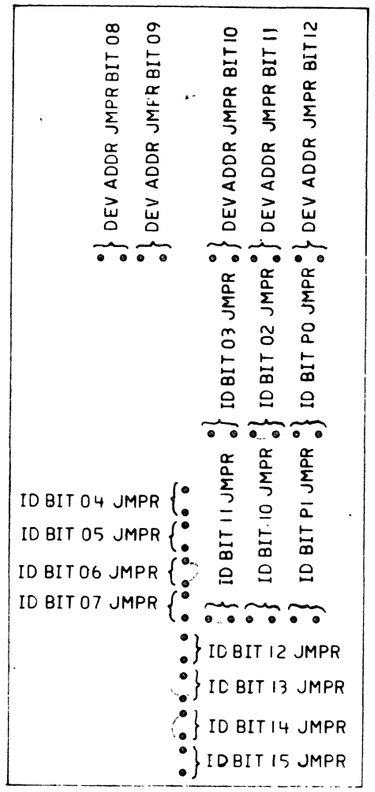
P.N. 6839764

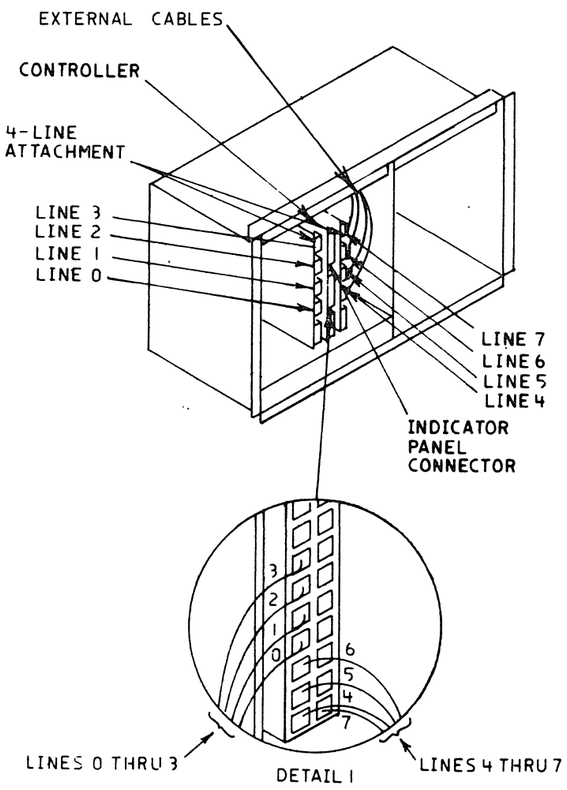
000

SC455

FEATURE PROGRAMMABLE MULTI-LINE COMMUNICATIONS CONTROL - 2095







NOTE:
TO INSURE PROPER INSTALLATION OF THE CABLE BETWEEN THE CONTROLLED CARD AND THE 4-LINE ATTACHMENT CARDS SEE DETAIL 1

NOTES:

THE FEATURE PROGRAMMABLE MULTI-LINE COMMUNICATIONS CONTROL ID WORD IS JUMPERED OR WIRE WRAPPED AS FOLLOWS:

BIT 2 - ON
BITS 3,4,5 - OFF
BITS 6&7 - DETERMINED BY THE NUMBER OF LINES ATTACHED. FOR TWO LINES JUMPER ON BIT 7; FOR FOUR LINES JUMPER ON BIT 6; FOR SIX LINES JUMPER ON BOTH 6 & 7; FOR EIGHT LINES NO JUMPERS ON 6 OR 7
BIT PO - JUMPERED AS REQUIRED TO MAKE BIT 2 THRU 7 ODD PARITY - 2 LINES = PO ON, 4 LINES = PO ON, 6 LINES = PO OFF, 8 LINES = PO OFF
BITS 10,12,PI-OFF
BITS 11,13,14-ON
DEVICE ADDRESS JUMPERS ON = LOGICAL 1
TYPICAL DEV ADDR: 48 = HEX 01001000

SC455

EC HISTORY		DRAWING TITLE
14MAR79	375094	FEAT. PROGRAMMABLE MULTI-LINE COMM'S. CONT.
16 AUG 79	375589	MACH SERIES/1
10 MAR 82	326765	PART NO 6839765
C		CLASSIFICATION

IBM CORP

SC455

FEATURE PROGRAMMABLE FOUR (4) COMMUNICATIONS LINE ADAPTER CARD
FEATURE 2096

STANDARD CHANNEL

POLL----------M12
POLL PRIME ----------M13
POLL PROPAGATE----------M11

NOTE-
FOR POLL PROPAGATION ONLY.
NOT USED BY ADAPTER CARD.

TOP CARD CONNECTORS

DATASET INTERFACE CABLE — MODEM
FEATURE CODE 2057 PIN
(WHEN LINE IS JUMPERED FOR EIA RS232C / CCITT V.24)

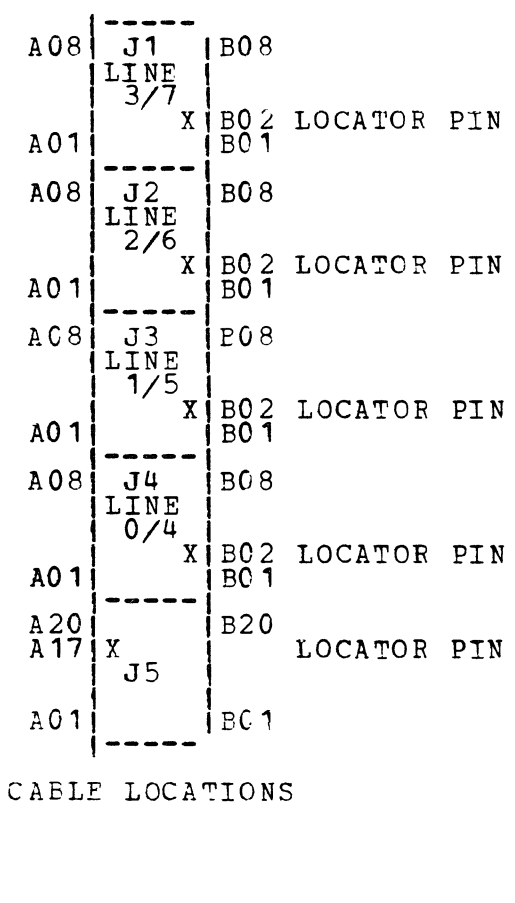
	JXBC3-- +CLEAR TO SEND	05
	JXB01-- +DATA SET READY	06
	JXA02-- -DATA SIGNAL RATE SELECT	23
	JXA01-- +DATA TERMINAL READY	20
	JXA07-- +DATA CARRIER DETECT	08
#	JXB08-- -MODEM TEST	
	JXB06-- +RECEIVE CLOCK	17
	JXB04-- -RECEIVE DATA	03
	JXA03-- +REQUEST TO SEND	04
#	JXA05-- RESERVED	
#	JXBC5-- RESERVED	
	JXB07-- +RING INDICATOR	22
	JXA08-- SIGNAL GROUND	07
	JXA06-- +TRANSMIT CLOCK	15
	JXA04-- -TRANSMIT DATA	02

CURRENT LOOP INTERFACE CABLE
FEATURE CODE 2061
(WHEN LINE JUMPERED FOR CURRENT LOOP)

JXA05--	-XMIT DATA RTN	+XMIT	WHITE
JXA06--	-XMIT BIAS RTN	-XMIT	RED
JXB05--	-RCV DATA RTN	+RCV	BLACK
JXB06--	-RCV BIAS RTN	-RCV	YELLOW
JXA01--	+DATA TERMINAL PEADY		JUMPER 1
JXB01--	+DATA SET READY		JUMPER 1
# JXA02--	+RATE SELECT		NOT USED
JXA03--	+REQUEST TO SEND		JUMPER 2
JXB03--	+CLEAR TO SEND		JUMPER 2
JXA04--	+XMIT DATA		JUMPER 3
JXA07--	+XMIT BIAS		JUMPER 3
JXBC4--	+RCV DATA		JUMPER 4
JXB07--	+RCV BIAS		JUMPER 4
# JXA08--	GROUND		NOT USED
# JXB08--	-MODEM TEST		NOT USED

** JX=ANY MODEM CABLE, J1 TO J4

TOP CARD CONNECTORS



CABLE LOCATIONS

CONTFOLLEP CONNECTOP CABLE

#	J5B18--	-ADDRESS BUS OUT BIT 00
#	J5B19--	-ADDRESS BUS OUT BIT 01
#	J5A18--	-ADDRESS BUS OUT BIT 02
#	J5A19--	-ADDRESS BUS OUT BIT 03
	J5B12--	ADDRESS BUS OUT BIT C4
	J5B13--	-ADDRESS BUS OUT BIT 05
	J5B14--	-ADDRESS BUS OUT BIT 06
	J5B15--	-ADDRESS BUS OUT BIT 07
	J5B16--	-CONTROL STROBE POWERED
	J5A08--	-DATA BUS IN BIT 00
	J5A09--	-DATA BUS IN BIT 01
	J5A1C--	-DATA BUS IN BIT C2
	J5A11--	-DATA BUS IN BIT 03
	A5A15--	-DATA BUS IN BIT 04
	J5A14--	-DATA BUS IN BIT 05
	J5A12--	-DATA BUS IN BIT 06
	J5A13--	-DATA BUS IN BIT 07
	J5B03--	-DATA BUS OUT BIT 00
	J5BC4--	-DATA BUS OUT BIT C1
	J5BC5--	-DATA BUS OUT BIT 02
	J5B06--	-DATA BUS OUT BIT 03
	J5B07--	-DATA BUS OUT BIT 04
	J5BC8--	-DATA BUS OUT BIT 05
	J5B09--	-DATA BUS OUT BIT 06
	J5B10--	-DATA BUS OUT BIT C7
	J5B11--	-HEX F
	J5AC4--	+LINE LATCH 00/04
	J5A05--	+LINE LATCH 01/05
	J5A06--	+LINE LATCH C2/06
	J5A07--	+LINE LATCH 03/07
	J5B17--	-SENSE STROBE
#	J5A16--	-153.6 KHZ
#	J5B20--	-1.63 USEC. CLOCK
	J5A20--	-6.66 MSEC CLOCK
#	J5B02--	NOT USED

VOLTAGE PIN ASSIGNMENTS
+5V---D03--J03--P03--U03
GND---D08--J08--P08--U08
-12V--B06
+12V--B11

LINES ARE NOT USED BY THIS ADAPTER.

SEE THE PROCESSOR THEORY DIAGRAMS MANUAL FOR DATA FLOW.

F P 4 LINE COMMUNICATIONS ADAPTER

E.C. HISTORY — MACH. SERIES/1

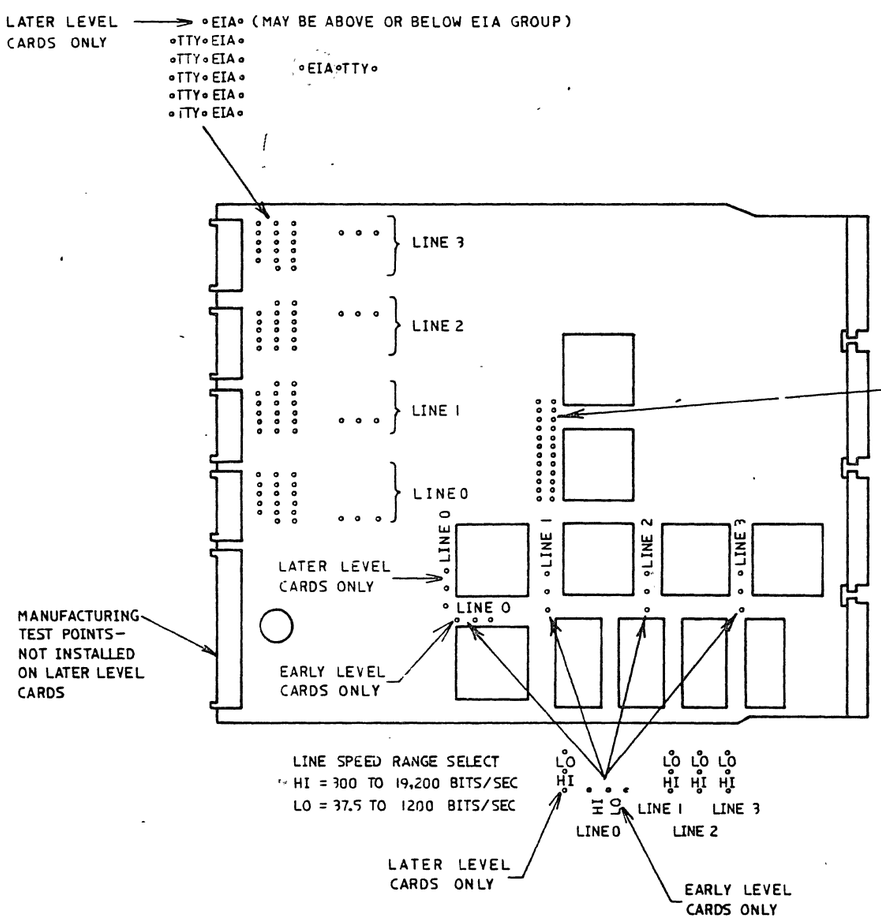
F. C. 375094

IBM CORP. GSD

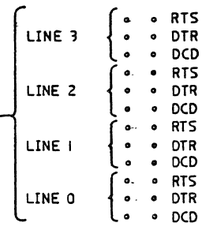
DATE 16-07-79 — LAST E.C. 375589 — P.N. 6839766

SC46C000

FEATURE PROGRAMMABLE MULTI-LINE COMMUNICATIONS ADAPTER - 2096



EIA / TTY JUMPERS
MUST BE INSTALLED AS A GROUP OF 6 (TTY) OR 7 (EIA) JUMPERS.
EIA = RS232C/CCITT V.24
TTY = CURRENT LOOP INTERFACE



MODEM CONTROL JUMPERS
INSTALLED AS REQUIRED BY USER CONFIGURATION. IF JUMPER IS INSTALLED, IT UNCONDITIONALLY ACTIVATES SIGNAL.
RTS = REQUEST TO SEND (TO MODEM)
DTR = DATA TERMINAL READY (TO MODEM)
DCD = DATA CARRIER DETECT (TO ADAPTER)

NOTE: FOR DIRECT CONNECT APPLICATIONS OR CURRENT LOOP APPLICATIONS INSTALL DCD, DTR AND RTS JUMPERS FOR EACH LINE IN USE

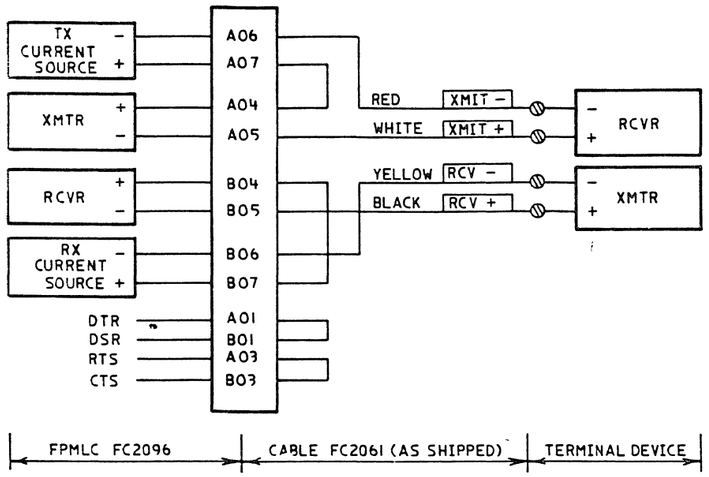
SC4655

EC HISTORY		DRAWING TITLE	
14 MAR 79	375094	FEATURE PROGRAMMABLE MULTI-LINE COMM'S.	
15 AUG 79	375589	MACH SERIES 1	
14 SEP 79	375743	PART NO 6839767	
C 15 MAY 81	987965	CLASSIFICATION	IBM CORP

SC4655

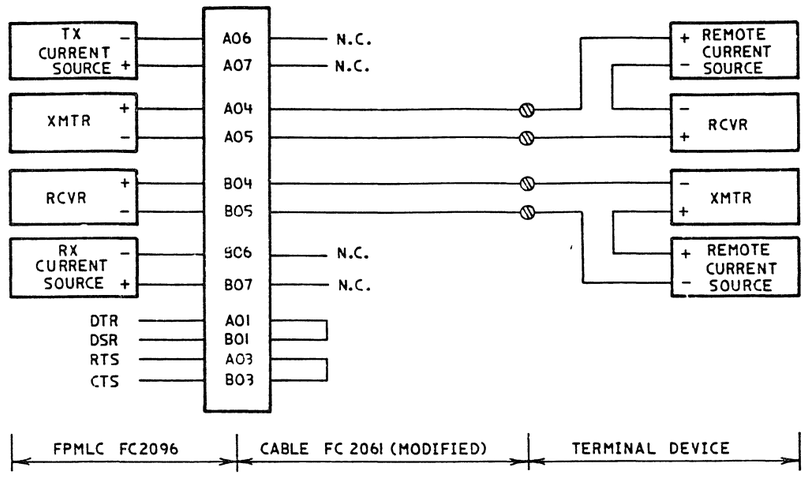
CONFIGURATION # 1

4-WIRE, FC 2096 SUPPLIES 20MA FOR BOTH LOOPS



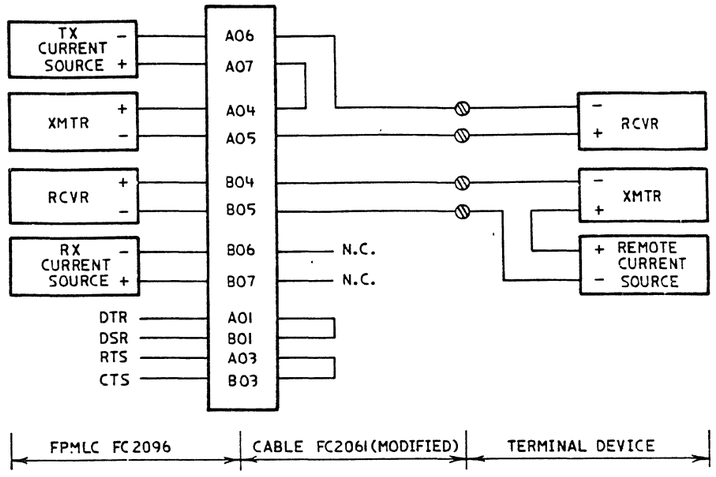
CONFIGURATION # 2

4-WIRE, REMOTE CURRENT SOURCES SUPPLY 20MA/60MA FOR BOTH LOOPS



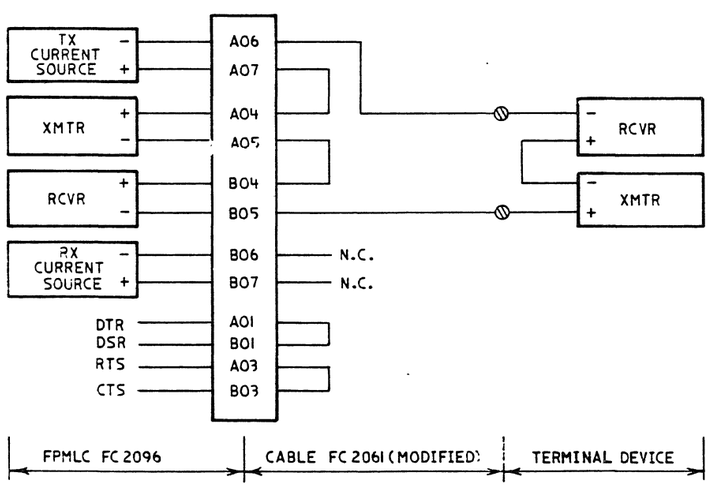
CONFIGURATION # 3

4-WIRE, EACH DEVICE POWERS ITS TRANSMIT LOOP



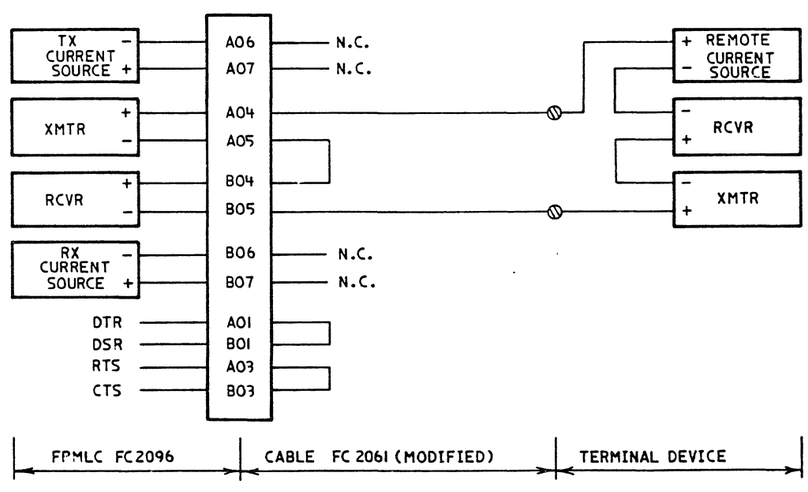
CONFIGURATION # 4

2-WIRE, FC 2096 SUPPLIES 20MA FOR LOOP



CONFIGURATION # 5

2-WIRE, REMOTE CURRENT SOURCE SUPPLIES 20MA/60MA FOR LOOP



NOTES:

1. CONFIGURATION # 1 REPRESENTS CABLE ASSEMBLY FC 2061 AS SHIPPED. OTHER CONFIGURATIONS ARE ACCOMPLISHED BY REARRANGING FOUR WIRES AND TWO JUMPERS AT THE CABLE ASSEMBLY BERG CONNECTOR
2. CONFIGURATION # 3 IS RECOMMENDED FOR LONGER CABLE RUNS AND/OR HIGHER DATA RATES
3. ECHO PLEX IS PROVIDED BY FC 2096 AS A PROGRAMABLE OPTION

EC HISTORY		DRAWING TITLE
23AUG79	375589	FPMLC CURRENT LOOP CONFIGURATION
	987965	MACH
		PART NO 6841485
		CLASSIFICATION

D

IBM CORP

SC470

TTY FEATURE ATTACHMENT CARD

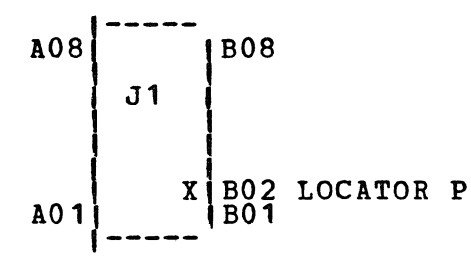
STANDARD CHANNEL

```
  ADDRESS BUS BIT--00------B02
  ADDRESS BUS BIT--01------B03
  ADDRESS BUS BIT--02------B04
  ADDRESS BUS BIT--03------B05
  ADDRESS BUS BIT--04------B07
  ADDRESS BUS BIT--05------B08
  ADDRESS BUS BIT--06------B09
  ADDRESS BUS BIT--07------B10
  ADDRESS BUS BIT--08------B12
  ADDRESS BUS BIT--09------D02
  ADDRESS BUS BIT--10------D04
  ADDRESS BUS BIT--11------D05
  ADDRESS BUS BIT--12------D06
  ADDRESS BUS BIT--13------D07
  ADDRESS BUS BIT--14------D09
  ADDRESS BUS BIT--15------D10
  ADDRESS BUS BIT--16------D11
  ADDRESS GATE-------------M08
  ADDRESS GATE RETURN------M09
# BURST RETURN------------(P04)
  CONDITION CODE IN BIT-00-D12
  CONDITION CODE IN BIT-01-D13
  CONDITION CODE IN BIT-02-B13
  CYCLE BYTE INDICATOR-----P10
  CYCLE INPUT INDICATOR----P09
  CYCLE STEAL REQUEST IN---M02
  DATA BUS BIT-----00------G02
  DATA BUS BIT-----01------G03
  DATA BUS BIT-----02------G04
  DATA BUS BIT-----03------G05
  DATA BUS BIT-----04------G07
  DATA BUS BIT-----05------G08
  DATA BUS BIT-----06------G09
  DATA BUS BIT-----07------G10
  DATA BUS BIT-----P0------G12
  DATA BUS BIT-----08------J02
  DATA BUS BIT-----09------J04
  DATA BUS BIT-----10------J05
  DATA BUS BIT-----11------J06
  DATA BUS BIT-----12------J07
  DATA BUS BIT-----13------J09
  DATA BUS BIT-----14------J10
  DATA BUS BIT-----15------J11
  DATA BUS BIT-----P1------J12
  DATA STROBE--------------M10
  HALT OR MCHK-------------M07
  INITIATE IPL-------------P07
  IPL----------------------S04
  POLL---------------------M12
  POLL IDENTIFIER BIT--00--P11
  POLL IDENTIFIER BIT--01--S02
  POLL IDENTIFIER BIT--02--S03
  POLL IDENTIFIER BIT--03--P12
  POLL IDENTIFIER BIT--04--P13
  POLL PRIME---------------M13
  POLL PROPAGATE-----------M11
  POLL RETURN--------------M04
  POWER ON RESET-----------S05
  REQUEST IN BUS BIT--00---S07
  REQUEST IN BUS BIT--01---S08
  REQUEST IN BUS BIT--02---S09
  REQUEST IN BUS BIT--03---S10
  REQUEST IN BUS BIT--04---S12
  REQUEST IN BUS BIT--05---S13
  REQUEST IN BUS BIT--06---U02
  REQUEST IN BUS BIT--07---U04
  REQUEST IN BUS BIT--08---U05
  REQUEST IN BUS BIT--09---U06
  REQUEST IN BUS BIT--10---U07
  REQUEST IN BUS BIT--11---U09
  REQUEST IN BUS BIT--12---U10
  REQUEST IN BUS BIT--13---U11
  REQUEST IN BUS BIT--14---U12
  REQUEST IN BUS BIT--15---U13
  SERVICE GATE-------------P05
  SERVICE GATE RETURN------P06
  STATUS BUS BIT------00---J13
  STATUS BUS BIT------01---G13
  STATUS BUS BIT------02---M03
  STATUS BUS BIT------03---P02
  SYSTEM RESET-------------M05
```

TTY TOP CARD CONNECTOR(S)

```
* EIA
  J1A06--  EIA DATA TERMINAL READY
  J1A04--  EIA RECEIVED DATA
  J1B06--  EIA TRANSMITTED DATA
  J1B05--  SIGNAL GROUND

* TTL
  J1B05--  SIGNAL GROUND
  J1B04--  TTL RECEIVED DATA
  J1A07-- -TTL XMIT DATA OUT
  OR
  J1B07-- +TTL XMIT DATA OUT

* CURRENT LOOP  IF CARD SUPPLIES POWER
  J1A03-- +RCV  TO XMIT AND RCV
  J1B01-- -RCV  CURRENT LOOP.
  J1B05-- -XMIT
  J1A02-- +DATA MARK OUT  **   (+XMIT)
  J1B03-- +D M O INVERT POLARITY +XMIT

* CURRENT LOOP    IF EXTERNAL CUSTOMER
  J1A01-- +RCV    POWER SUPPLY IS USED
  J1A03-- -RCV    TO DRIVE XMIT AND
  J1B05-- -XMIT   RCV CURRENT LOOPS.
  J1A07-- -DATA MARK OUT  **
  J1B07-- +DATA MARK OUT

  * OPTIONAL LINE(S) WITH FEATURE
    J1B08--  SSS/TTL READ CONTROL
    J1A08--  SSS/TTL WRITE CONTROL

** ASR33, ASR35, AND KSR33 TELETYPE-
   WRITERS REQUIRE THIS POLARITY + XMIT
   SIGNAL.
```

TOP CARD CONNECTOR

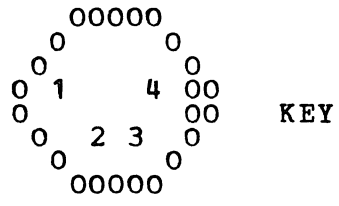


CUSTOMER ACCESS PANEL (C.A.P.)
FOR TTY FEATURE.

C.A.P.	TOP CARD CONNECTOR	
PIN 1	-XMIT	BLACK
PIN 2	+XMIT	YELLOW
PIN 3	-RCV	WHITE
PIN 4	+RCV	RED

REFERENCE SD110

CUSTOMER ACCESS PANEL (C.A.P.)



SEE PROC THEORY DIAGRAMS MANUAL FOR DATA FLOW

TTY ATTACHMENT CARD

E.C.	HISTORY	MACH.	
06-21-76	578446		S
10-01-76	578468	TTY	D
12-02-76	578469		1
05-01-77	578751		0
			0

IBM CORP. GSD

DATE	LAST E.C.	P.N. 1635180	
06-10-77	578625		0 0 0

RATE SELECTION

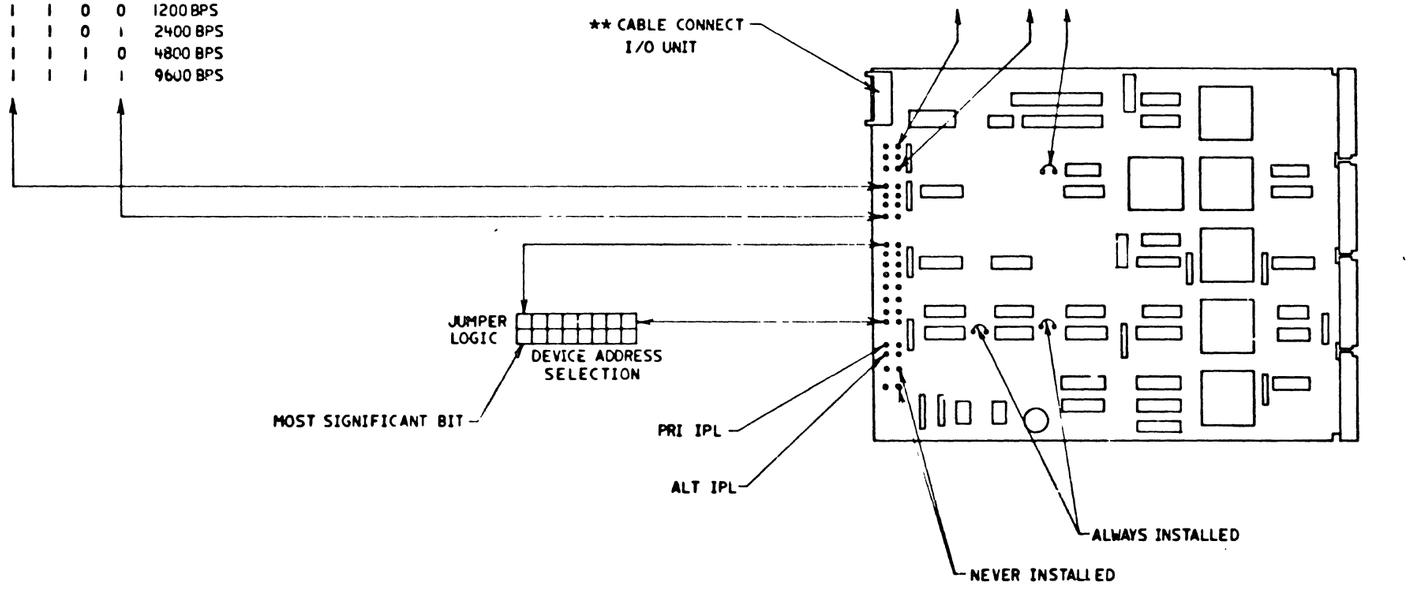
0	1	0	0	50 BPS
1	0	0	0	75 BPS
0	1	0	1	100 BPS
0	0	0	0	110 BPS
1	0	0	1	150 BPS
0	1	1	0	200 BPS
1	0	1	0	300 BPS
1	0	1	1	600 BPS
1	1	0	0	1200 BPS
1	1	0	1	2400 BPS
1	1	1	0	4800 BPS
1	1	1	1	9600 BPS

DIAGNOSTIC CONFIGURATION ENTRY FOR STANDARD OPTIONS
0040,0000,0000,0000,0000,0000,0000,0010
**DIAGNOSTIC WRAP CONNECTOR = P/N 1633834

NOTE:
1 JUMPER INSTALLED = LOGICAL 1
NO JUMPER = 0
STANDARD CARD JUMPERING JUMPERS(AS SHOWN)
ADDRESS = 00 HEX = 00000000
RATE = 110 BPS = 0000
INPUT = CONTACT SENSE
CLOSED = DATA MARK
NON-ISOLATED = 0001
IPL SOURCE = NONE = 00

* JUMPER INSTALLED MEANS NON-ISOLATED CONTACT SENSE. NO EXTERNAL POWER SUPPLIES FOR THE CURRENT LOOP ARE REQUIRED, +12 VOLT REGULATOR IN CARD FILE POWER SUPPLY IS A PRE-REQUISITE
JUMPER NOT INSTALLED MEANS ISOLATED CONTACT SENSE. EXTERNAL POWER SUPPLIES ARE REQUIRED
- DON'T CARE - NOT USED

	INPUT SELECTION			INPUT SELECTED	INPUT INTERPRETED AS
	0	0	0 *	CONTACT SENSE	CLOSED = DATA MARK
	0	0	1 -	TTL	MINUS = DATA MARK
	0	1	0 -	EIA †	MINUS = DATA MARK
	0	1	1 -	INTERNAL	TIME DATA OUT
EIA† = START/STOP ONLY	1	0	0 *	CONTACT SENSE	OPEN = DATA MARK
	1	0	1 -	TTL	PLUS = DATA MARK
	1	1	0 -	EIA †	PLUS = DATA MARK
	1	1	1 -	INTERNAL	TIME DATA OUT



EC HISTORY		DRAWING TITLE
27SEPT6	578468	TELETYPEWRITER ADAPTER
04JAN77	578486	MACH 4953/4955
8FEB78	755088	PART NO 1635203
		CLASSIFICATION

D

IBM CORP

SDI05

SDI05

TTY FEATURE CABLE CONNECTIONS

EIA VOLTAGE LEVEL CONNECTION

SERIES 1 TTY CARD CONNECTOR		CUSTOMER DEVICE CONNECTOR
EIA RECEIVED DATA-----A04	----RED----------	TRANSMITTED DATA
SIGNAL GROUND---------B05	----BLACK--------	SIGNAL GROUND
EIA TRANSMITTED DATA--B06	----YELLOW-------	RECEIVED DATA
DATA TERMINAL READY---A06	----WHITE--------	RECEIVED LINE SIGNAL DETECTOR
		REQUEST TO SEND
	JUMPER	
		CLEAR TO SEND
		DATA TERMINAL READY
	JUMPER	
		DATA SET READY

TTL VOLTAGE LEVEL CONNECTION

SERIES 1 TTY CARD CONNECTOR		CUSTOMER DEVICE CONNECTOR
TTL RECEIVED DATA--------B04	-------RED--------	TRANSMITTED DATA
SIGNAL GROUND-----------B05	-------BLACK------	SIGNAL GROUND
TTL XMIT DATA OUT A07 OR B07	-------YELLOW-----	RECEIVED DATA
(A07 + IS LOGICAL 0)		
(B07 + IS LOGICAL 1)		
	WHITE WIRE NOT USED	

CONNECTIONS FOR CURRENT LOOP WHEN USER POWER SUPPLY SUPPLIES CURRENT TO DRIVE THE LOOPS.

SERIES 1 TTY CARD CONNECTOR				CUSTOMER DEVICE CONNECTOR
		TRANSMIT LOOP		
SSS CLOSED=DATA MARK* A07	XMIT+	-- + USER'S POWER SUPPLY -	----BLACK---	RECEIVE -
SIGNAL GROUND B05	XMIT-	----------	----YELLOW--	RECEIVE +
		RECEIVE LOOP		
ISOLATED RECEIVE INPUT + A01	RCV+	--- + USER'S POWER SUPPLY -	----WHITE---	TRANSMIT -
ISOLATED RECEIVE INPUT - A03	RCV-	----------	----RED-----	TRANSMIT +

*INVERTED SIGNAL (CLOSED = DATA SPACE) AVAILABLE ON B07

CONNECTIONS FOR CURRENT LOOP WHEN TELETYPEWRITER ADAPTER SUPPLIES THE CURRENT TO DRIVE THE LOOPS.

SERIES 1 TTY CARD CONNECTOR			CUSTOMER DEVICE CONNECTOR
CURRENT DRIVER, CURRENT=MARK* A02	---XMIT +	----------YELLOW---	RECEIVE +
SIGNAL GROUND B05	---XMIT -	----------BLACK----	RECEIVE -
NONISOLATED CONTACT IN + A03	---RCV +	----------RED------	TRANSMIT +
NONISOLATED CONTACT IN - FOR 24V B01 FOR 12V B05	---RCV -	----------WHITE----	TRANSMIT -

*INVERTED SIGNAL (CURRENT = SPACE) IS AVAILABLE ON B03.

SEE PROC THEORY DIAGRAMS MANUAL FOR DATA FLOW

TTY ATTACHMENT CABLE

E.C. HISTORY	MACH.	SD110
	TTY FRAME	
	IBM CORP. GSD	
DATE 05-01-77 LAST E.C. 578751	P.N. 4412891	000

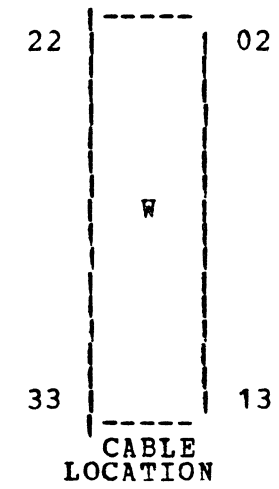
4964 DISKETTE ATTACHMENT CARD

STANDARD CHANNEL

```
  ADDRESS BUS BIT--00------B02
  ADDRESS BUS BIT--01------B03
  ADDRESS BUS BIT--02------B04
  ADDRESS BUS BIT--03------B05
  ADDRESS BUS BIT--04------B07
  ADDRESS BUS BIT--05------B08
  ADDRESS BUS BIT--06------B09
  ADDRESS BUS BIT--07------B10
  ADDRESS BUS BIT--08------B12
  ADDRESS BUS BIT--09------D02
  ADDRESS BUS BIT--10------D04
  ADDRESS BUS BIT--11------D05
  ADDRESS BUS BIT--12------D06
  ADDRESS BUS BIT--13------D07
  ADDRESS BUS BIT--14------D09
  ADDRESS BUS BIT--15------D10
  ADDRESS BUS BIT--16------D11
  ADDRESS GATE------------M08
  ADDRESS GATE RETURN-----M09
# BURST RETURN------------(P04)
  CONDITION CODE IN BIT-00-D12
  CONDITION CODE IN BIT-01-D13
  CONDITION CODE IN BIT-02-B13
  CYCLE BYTE INDICATOR----P10
  CYCLE INPUT INDICATOR---P09
  CYCLE STEAL REQUEST IN--M02
  DATA BUS BIT-----00------G02
  DATA BUS BIT-----01------G03
  DATA BUS BIT-----02------G04
  DATA BUS BIT-----03------G05
  DATA BUS BIT-----04------G07
  DATA BUS BIT-----05------G08
  DATA BUS BIT-----06------G09
  DATA BUS BIT-----07------G10
  DATA BUS BIT-----P0------G12
  DATA BUS BIT-----08------J02
  DATA BUS BIT-----09------J04
  DATA BUS BIT-----10------J05
  DATA BUS BIT-----11------J06
  DATA BUS BIT-----12------J07
  DATA BUS BIT-----13------J09
  DATA BUS BIT-----14------J10
  DATA BUS BIT-----15------J11
  DATA BUS BIT-----P1------J12
  DATA STROBE-------------M10
  HALT OR MCHK------------M07
  INITIATE IPL------------P07
  IPL---------------------S04
  POLL--------------------M12
  POLL IDENTIFIER BIT--00--P11
  POLL IDENTIFIER BIT--01--S02
  POLL IDENTIFIER BIT--02--S03
  POLL IDENTIFIER BIT--03--P12
  POLL IDENTIFIER BIT--04--P13
  POLL PRIME--------------M13
  POLL PROPAGATE----------M11
  POLL RETURN-------------M04
  POWER ON RESET----------S05
  REQUEST IN BUS BIT--00---S07
  REQUEST IN BUS BIT--01---S08
  REQUEST IN BUS BIT--02---S09
  REQUEST IN BUS BIT--03---S10
  REQUEST IN BUS BIT--04---S12
  REQUEST IN BUS BIT--05---S13
  REQUEST IN BUS BIT--06---U02
  REQUEST IN BUS BIT--07---U04
  REQUEST IN BUS BIT--08---U05
  REQUEST IN BUS BIT--09---U06
  REQUEST IN BUS BIT--10---U07
  REQUEST IN BUS BIT--11---U09
  REQUEST IN BUS BIT--12---U10
  REQUEST IN BUS BIT--13---U11
  REQUEST IN BUS BIT--14---U12
  REQUEST IN BUS BIT--15---U13
  SERVICE GATE------------P05
  SERVICE GATE RETURN-----P06
  STATUS BUS BIT-------00---J13
  STATUS BUS BIT-------01---G13
  STATUS BUS BIT-------02---M03
  STATUS BUS BIT-------03---P02
  SYSTEM RESET------------M05
```

4964 TOP CARD CONNECTORS

```
W 25-- +ACCESS LINE  00
W 04-- +ACCESS LINE  01
W 26-- +ACCESS LINE  02
W 10-- +ACCESS LINE  03
W 33-- -DIAGNOSTIC DATA
W 03-- -DISKETTE DRIVE SENSE
W 11-- +DISKETTE SENSE
W 27-- +ERASE CURRENT SENSE
W 28-- +ERASE GATE
W 07-- +FILE DATA DEGATE
W 08--  GROUND
W 05-- +HEAD ENGAGE
W 32-- +IGNORE WINDOW
W 31-- +INDEX
W 09-- +INNER TRACKS
W 24-- +SELECT HEAD  01
W 13-- +STANDARDIZED CLOCK
W 29-- +STANDARDIZED DATA
W 23--  UNUSED
W 12-- +VFO DATA SYNC
W 02--  WRITE DATA
W 30-- +WRITE GATE
W 06-- +4F CLOCK PHASE 1
```




```
VOLTAGE PIN ASSIGNMENTS
+5V---D03--J03--P03--U03
GND---D08--J08--P08--U08
+8.5V-G11
```

LINES ARE NOT USED BY THIS ATTACHMENT.

SEE 4964 THEORY DIAGRAMS MANUAL FOR DATA FLOW

4964 ATTACHMENT CARD

E.C. HISTORY		MACH.
06-21-76	578446	
10-01-76	578468	4964
12-17-76	578486	

DATE	LAST E.C.
03-15-77	578714

IBM CORP. GSD
P.N. 1635182

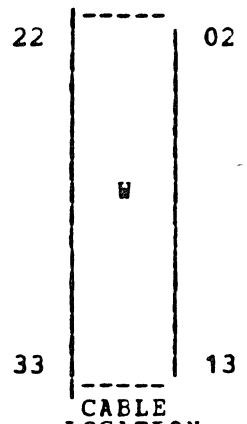
SF1000

000

4964 DISKETTE ATTACHMENT CABLE

4964 ATTACHMENT CABLE PIN ASSIGNMENTS			4964 DISKETTE CABLE PIN ASSIGNMENTS
W	25--	+ACCESS LINE 00	--B05
W	04--	+ACCESS LINE 01	--D04
W	26--	+ACCESS LINE 02	--B06
W	10--	+ACCESS LINE 03	--D10
W	33--	+DIAGNOSTIC DATA	--B13
W	03--	-DISKETTE DRIVE SENSE	--D03
W	11--	+DISKETTE SENSE	--D11
W	27--	+ERASE CURRENT SENSE	--B07
W	28--	+ERASE GATE	--B08
W	07--	+FILE DATA DEGATE	--D07
W	08--	GROUND	--D08
W	05--	+HEAD ENGAGE	--D05
W	32--	+IGNORE WINDOW	--B12
W	31--	+INDEX	--B11
W	09--	+INNER TRACKS	--D09
W	24--	+SELECT HEAD 01	--B04
W	13--	+STANDARDIZED CLOCK	--D13
W	29--	+STANDARDIZED DATA	--B09
W	23--	UNUSED	--B03
W	12--	+VFO DATA SYNC	--D12
W	02--	WRITE DATA	--D02
W	30--	+WRITE GATE	--B10
W	06--	+4F CLOCK PHASE 1	--D06

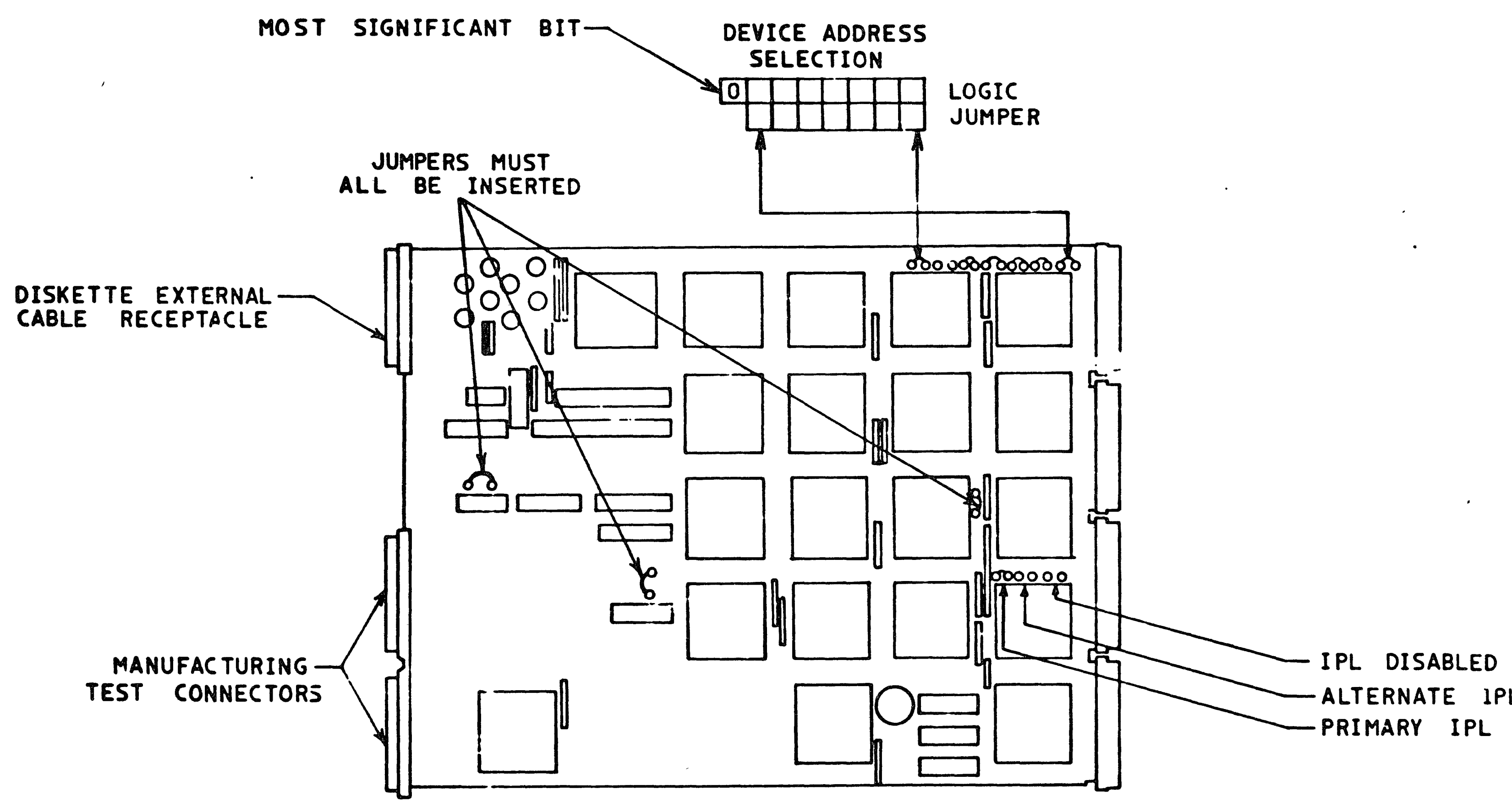
PROCESSOR ATTACHMENT
TOP CARD CONNECTOR



SEE 4964 THEORY DIAGRAMS MANUAL FOR DATA FLOW

4964 ATTACHMENT CABLE

E.C.	HISTORY	MACH.	S
10-01-76	578468		F
12-02-76	578469	4964	1
12-17-76	578486		1
			0
		IBM CORP. GSD	
DATE	LAST E.C.		0 0 0
05-01-77	578751	P.N. 1635481	



NOTE:

1 JUMPER INSTALLED = LOGICAL 0
NO JUMPER = LOGICAL 1

STANDARD CARD JUMPERING (AS SHOWN)
ADDRESS = 02 HEX = 00000010
IPL = PRIMARY

DIAGNOSTIC CONFIGURATION ENTRY FOR CARD AS SHOWN
0248, 0000, 0000, 0000, 0000, 0000, 0000, 0106

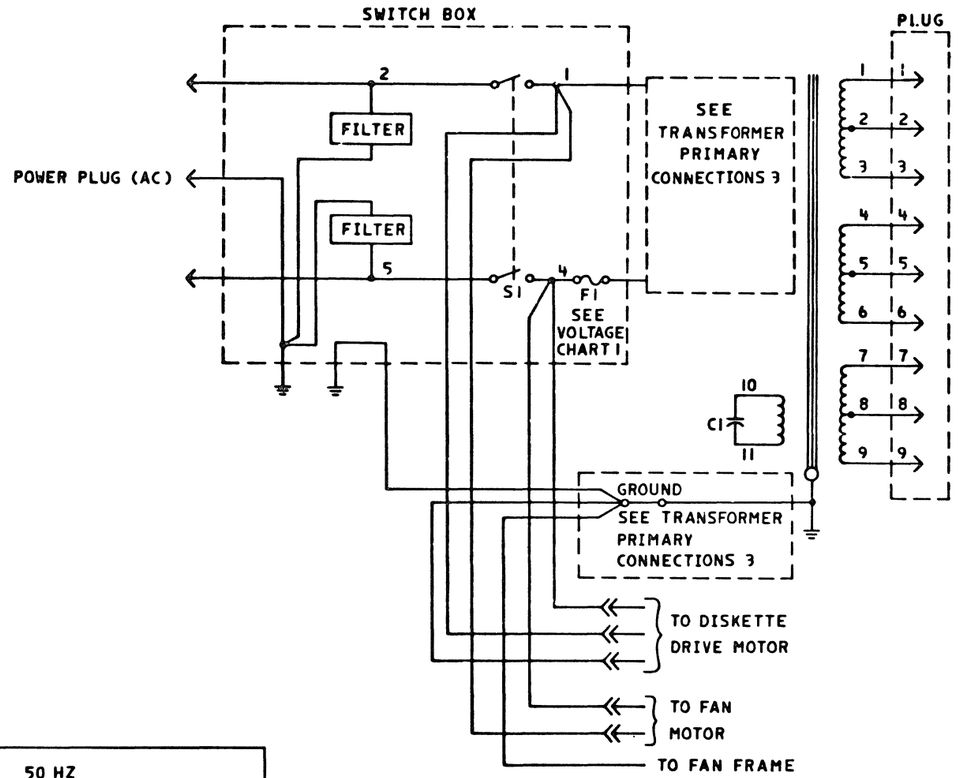
EC HISTORY		DRAWING TITLE
31MAR77	578714	ATTACHMENT CARD
		MACH SERIES / 1
		PART NO 4412872
C		CLASSIFICATION — IBM CORP

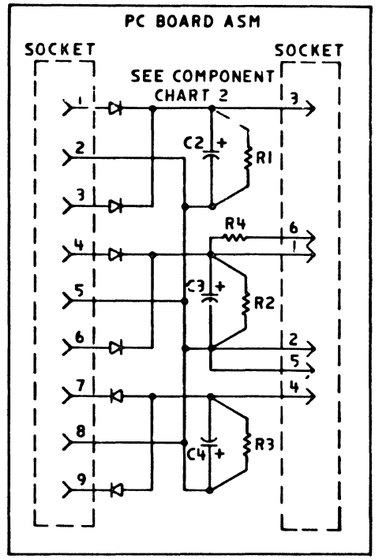
1 VOLTAGE CHART

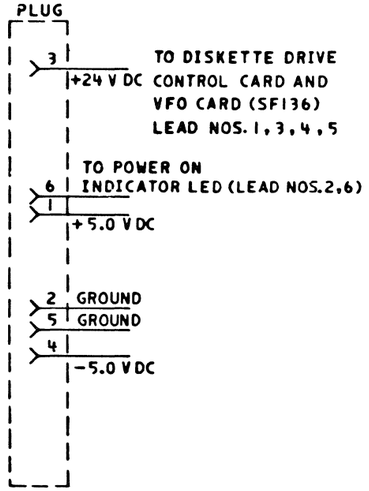
FREQUENCY	VOLTAGE ±10%	FUSE RATING	FUSE PART NUMBER	MAXIMUM OPERATING CURRENT
50±.5 HZ	100 VAC	1.0	303549	0.68
	110 VAC	0.8	78952	0.61
	123.5 VAC	0.8	78952	0.55
	200 VAC	0.5	78999	0.34
	220 VAC	0.5	78999	0.31
	235 VAC	0.5	78999	0.29
60±.5 HZ	100 VAC	1.0	303549	0.68
	115 VAC	0.8	78952	0.59
	200 VAC	0.5	78999	0.34
	208 VAC	0.5	78999	0.32
	230 VAC	0.5	78999	0.29

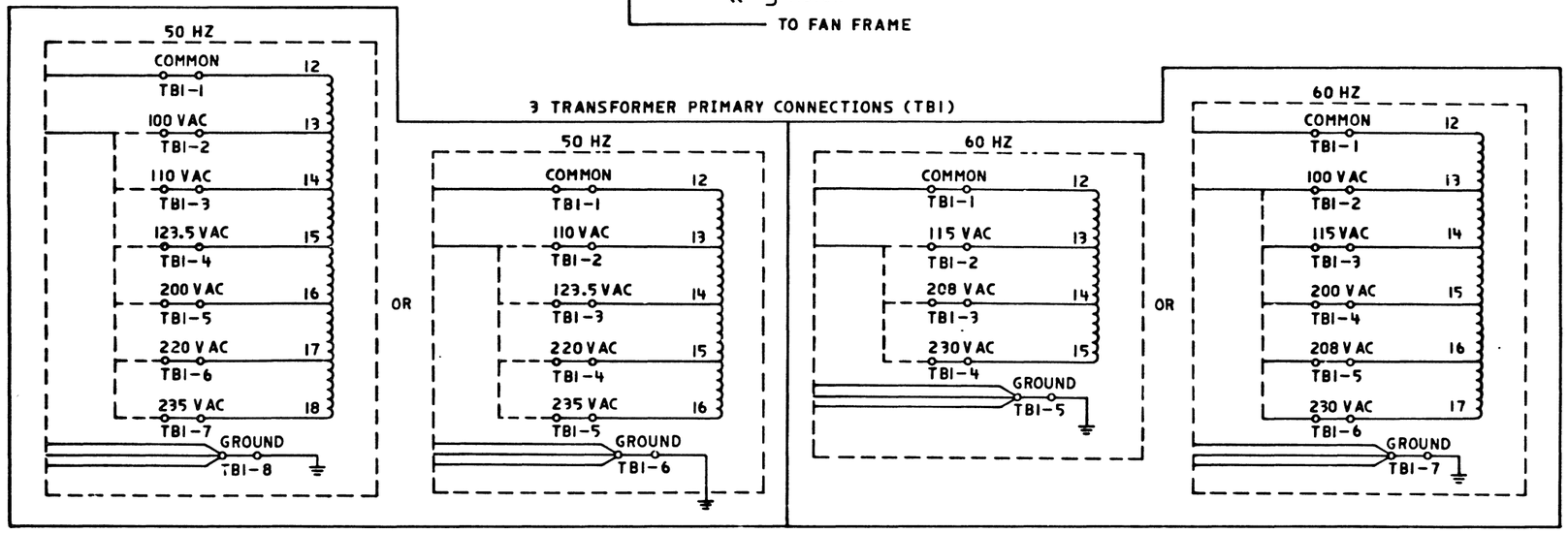
2 COMPONENT CHART

R1	1500Ω 2 WATT RESISTOR	
R2	68Ω 2 WATT RESISTOR	
R3	68Ω 2 WATT RESISTOR	
R4	200Ω 0.25 WATT RESISTOR	
C1	50 HZ	2.5μF 660 VAC CAPACITOR
	60 HZ	1.5μF 660 VAC CAPACITOR
C2	16,000μF 33 V DC CAPACITOR	
C3	84,000μF 10 V DC CAPACITOR	
C4	11,000μF 10 V DC CAPACITOR	





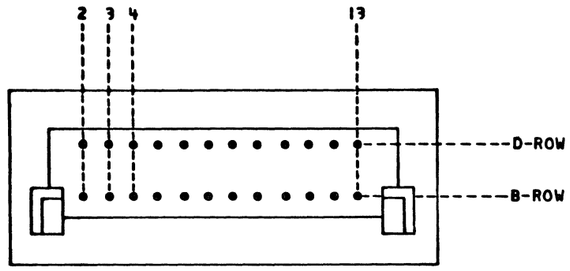




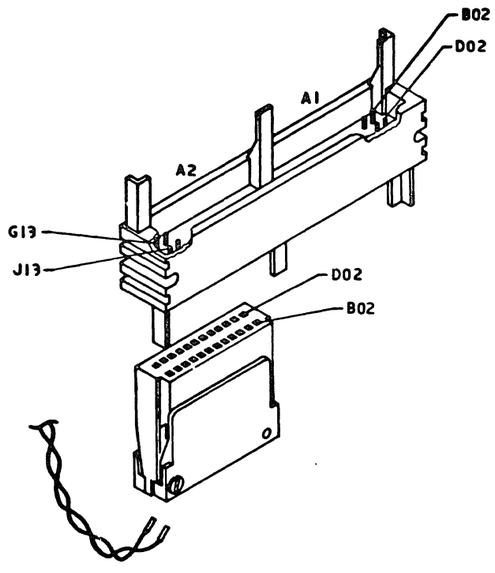
EC HISTORY		DRAWING TITLE
31 MAR 77	578714	DISKETTE POWER
9 SEP 77	754863	MACH SERIES/1
RED 8 MAR 78	755285	PART NO 4414011
D		CLASSIFICATION

IBM CORP

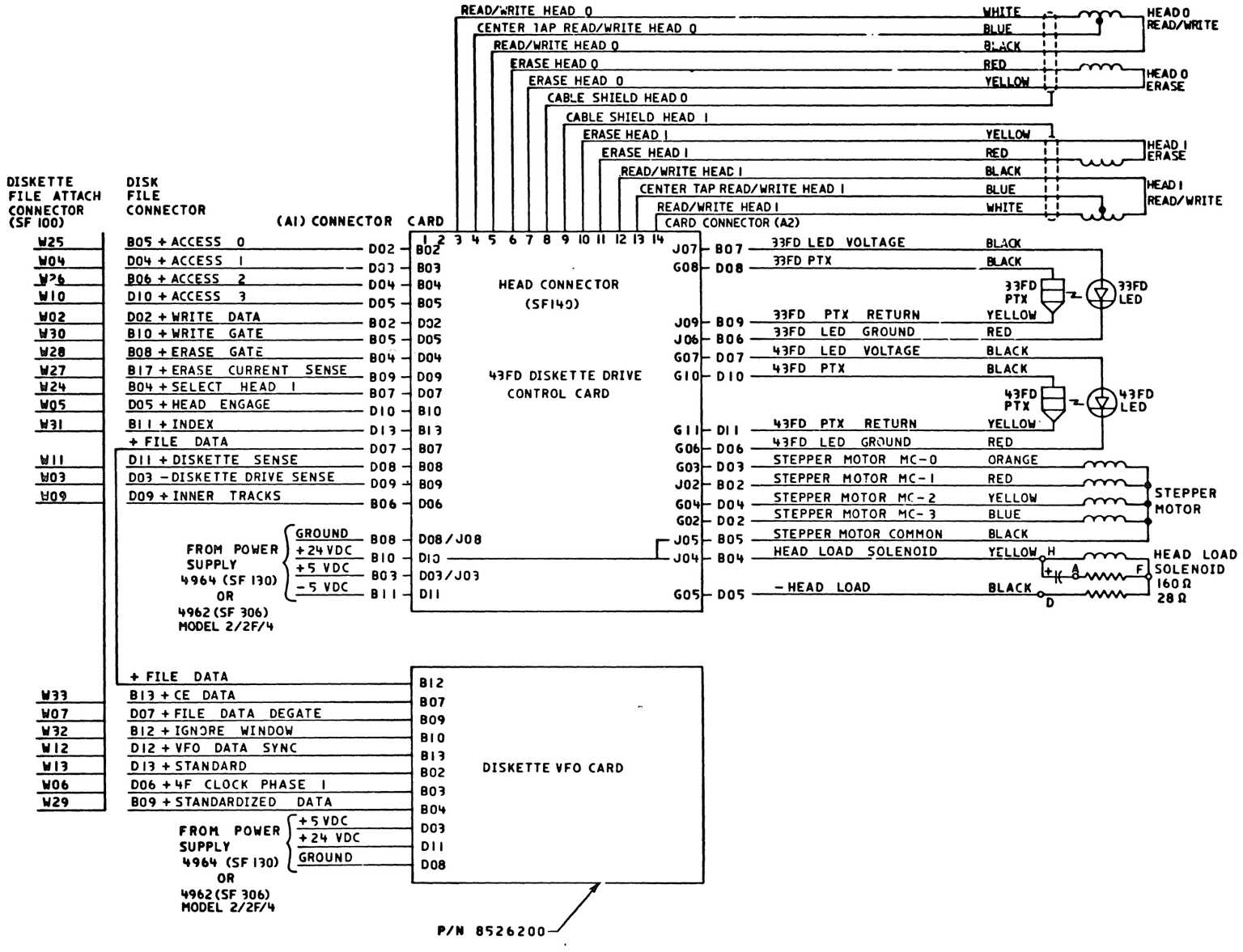
SF130



4964 INTERFACE FILE SOCKET
OR
4962-2/2F/4



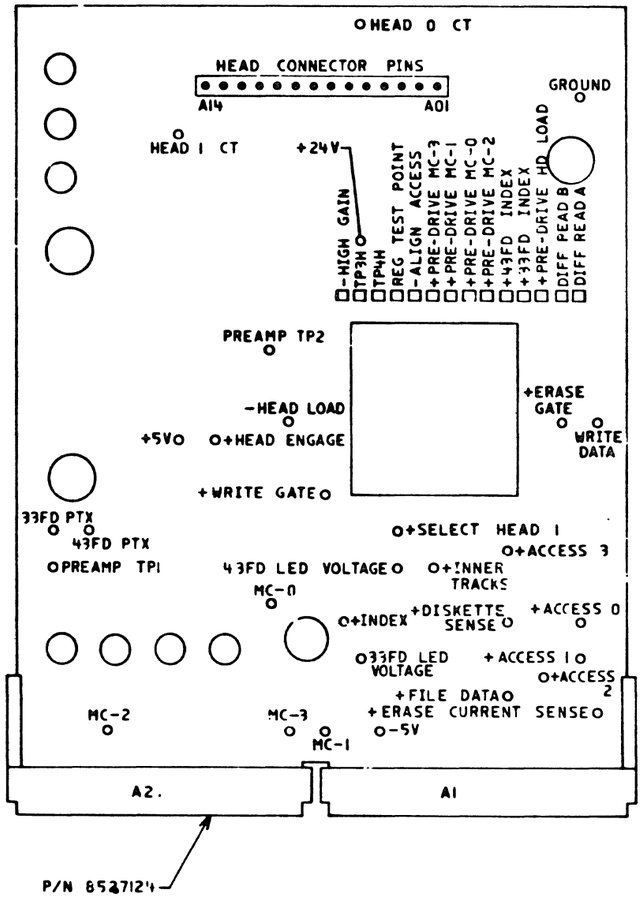
43FD DISKETTE DRIVE CONTROL
CARD SOCKET



S F 1 3 6

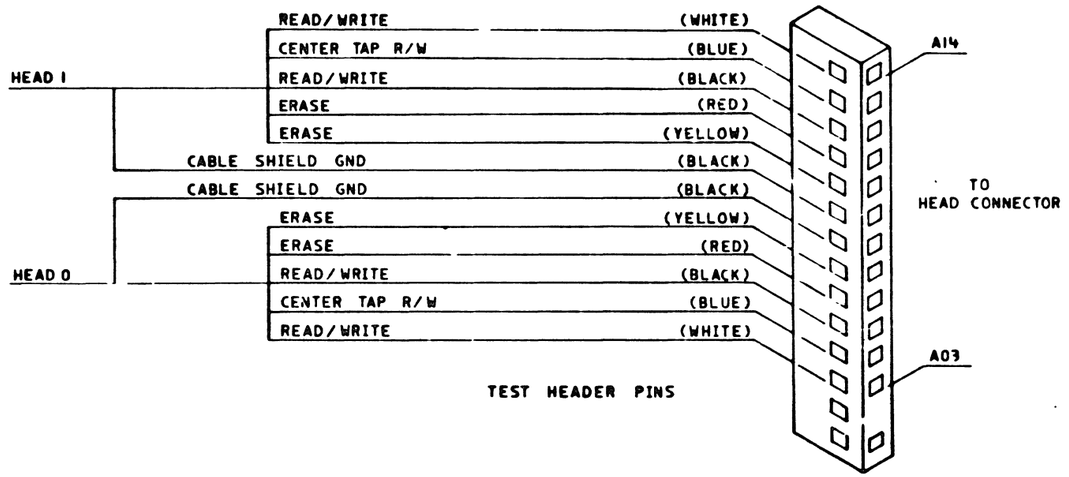
S F

EC HISTORY		DRAWING TITLE
31 MAR 77	578714	DISKETTE LOGIC
29 APR 77	578751	MACH SERIES/1
9 SEP 77	754863	PART NO 4414012
D 8 MAR 78	755285	CLASSIFICATION
		IBM CORP

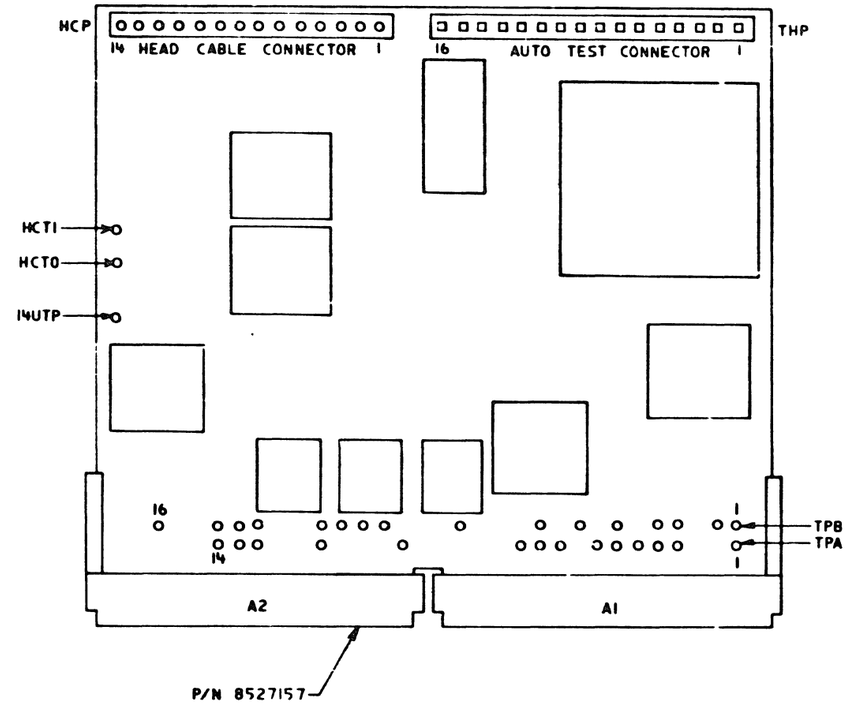


43FD DISKETTE DRIVE
TEST PINS

TPA1	+WRITE DATA
TPA2	+ERASE GATE
TPA3	+WRITE GATE
TPA4	+INNER TRACKS
TPA5	+SELECT HEAD 1
TPA6	GROUND
TPA7	+ERASE CURRENT SENSE
TPA8	+24 VDC
TPA9	-5 VDC
TPA10	MC-1
TPA11	MC-COMMON
TPA12	33FD LED VOLTAGE
TPA13	GROUND
TPA14	33FD PTX
TPB1	+ACCESS 0
TPB2	+ACCESS 1
TPB3	+ACCESS 2
TPB4	+ACCESS 3
TPB5	+FILE DATA
TPB6	+DISKETTE SENSE
TPB7	+HEAD ENGAGE
TPB8	+INDEX
TPB9	MC-3
TPB10	MC-0
TPB11	MC-2
TPB12	-HEAD LOAD
TPB13	43FD LED VOLTAGE
TPB14	+5 VDC
TPB15	(RESERVED)
TPB16	43FD PTX
THP1	+DISKETTE LOADED
THP2	+PREDRIVE ACCESS 3
THP3	+PREDRIVE ACCESS 2
THP4	+PREDRIVE ACCESS 1
THP5	+PREDRIVE ACCESS 0
THP6	+43FD INDEX
THP7	+33FD INDEX
THP8	DIFF READ A
THP9	DIFF READ B
THP10	-HIGH GAIN
THP11	-ALIGN ACCESS
THP12	-HIGH CURRENT
THP13	PREAMP TP1
THP14	PREAMP TP2
THP15	-HIGH GAIN A
THP16	-HIGH GAIN B



TEST HEADER PINS

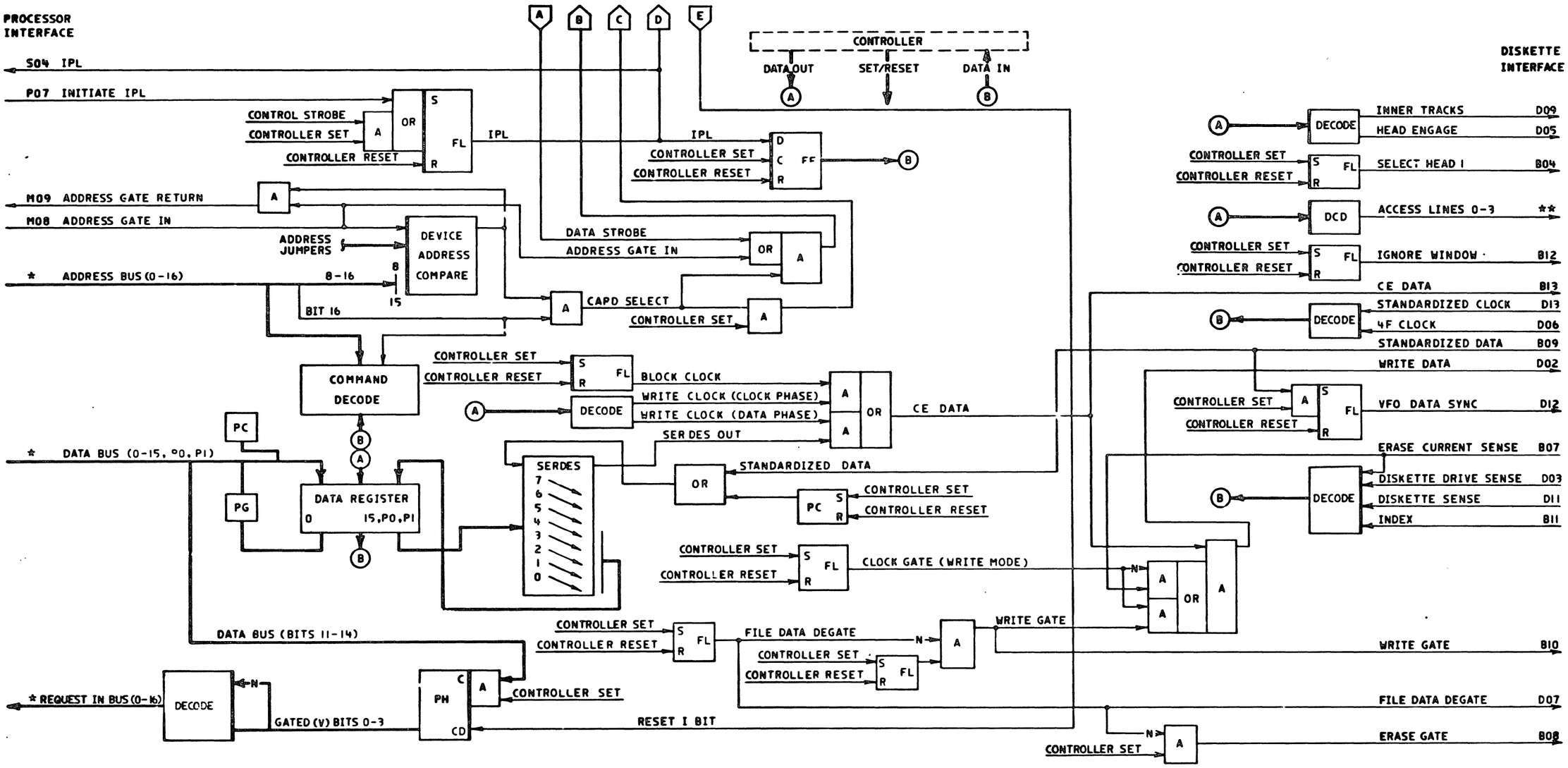


EC HISTORY		DRAWING TITLE
31MAR77	578714	DISKETTE CONTROL CARD
		MACH SERIES / 1
		PART NO 4414013
		CLASSIFICATION

D

IBM CORP

SF140



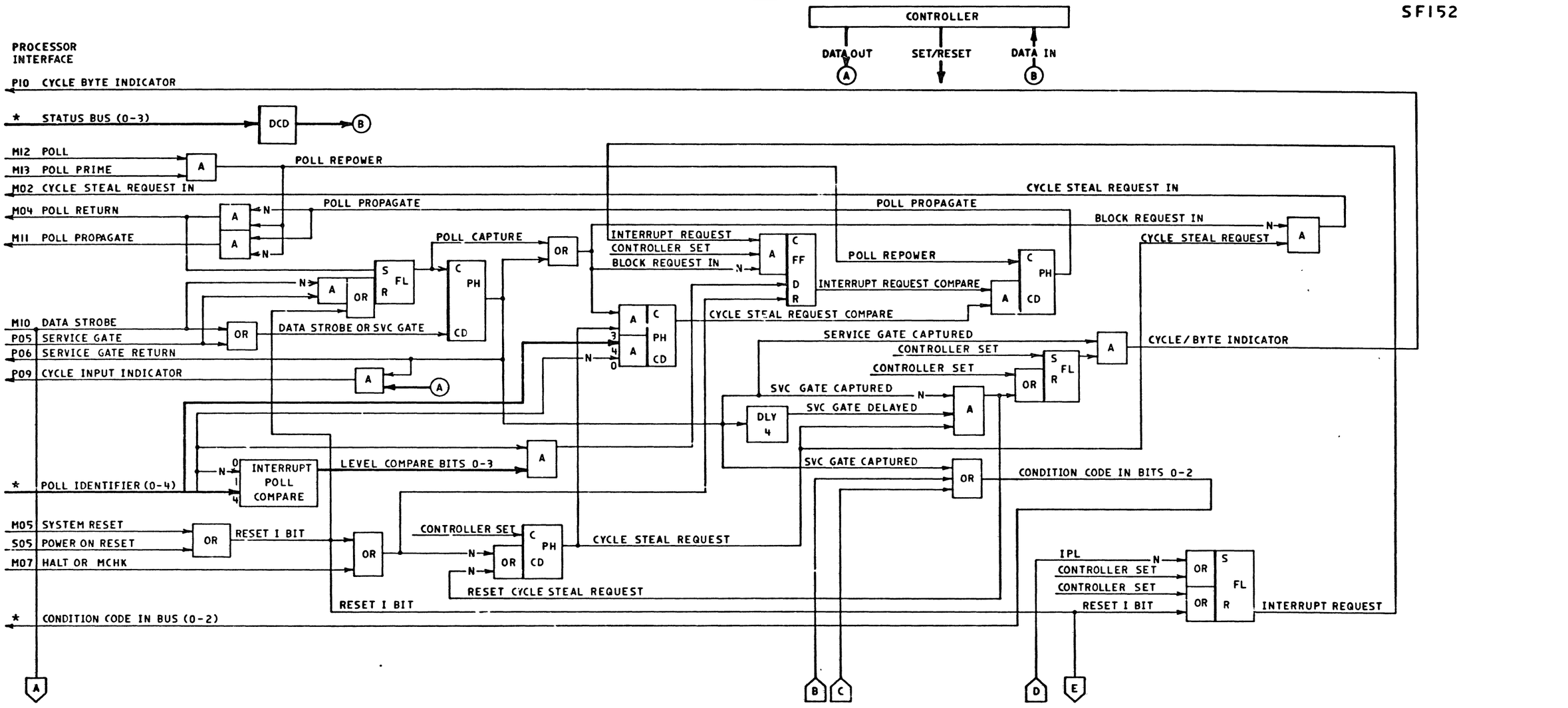
*- SEE SF100 FOR PIN ASSIGNMENTS
**- SEE SF110 FOR PIN ASSIGNMENTS

EC HISTORY		DRAWING TITLE
21 SEP 77	578940	DISKETTE UNIT ATTACHMENT CARD
		MACH SERIES/1
		PART NO 4414336
		CLASSIFICATION

D

IBM CORP

SF150



*SEE SF100 FOR PIN ASSIGNMENTS

SF152

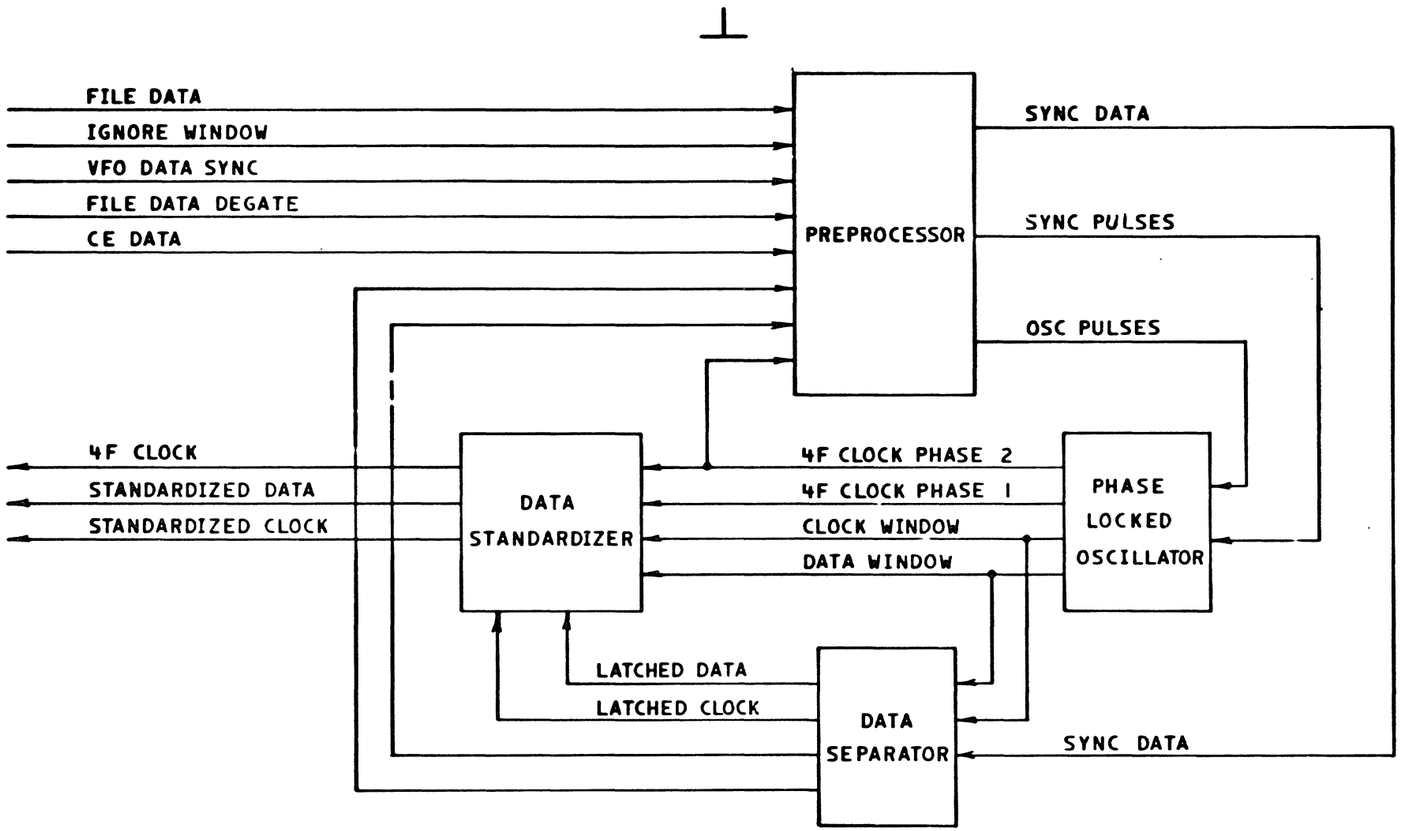
EC HISTORY		DRAWING TITLE
21 SEP 77	578940	DISKETTE UNIT ATTACHMENT CARD
		MACH SERIES/1
		PART NO 4414337
		CLASSIFICATION

D

IBM CORP

SF152

SF154



SF154

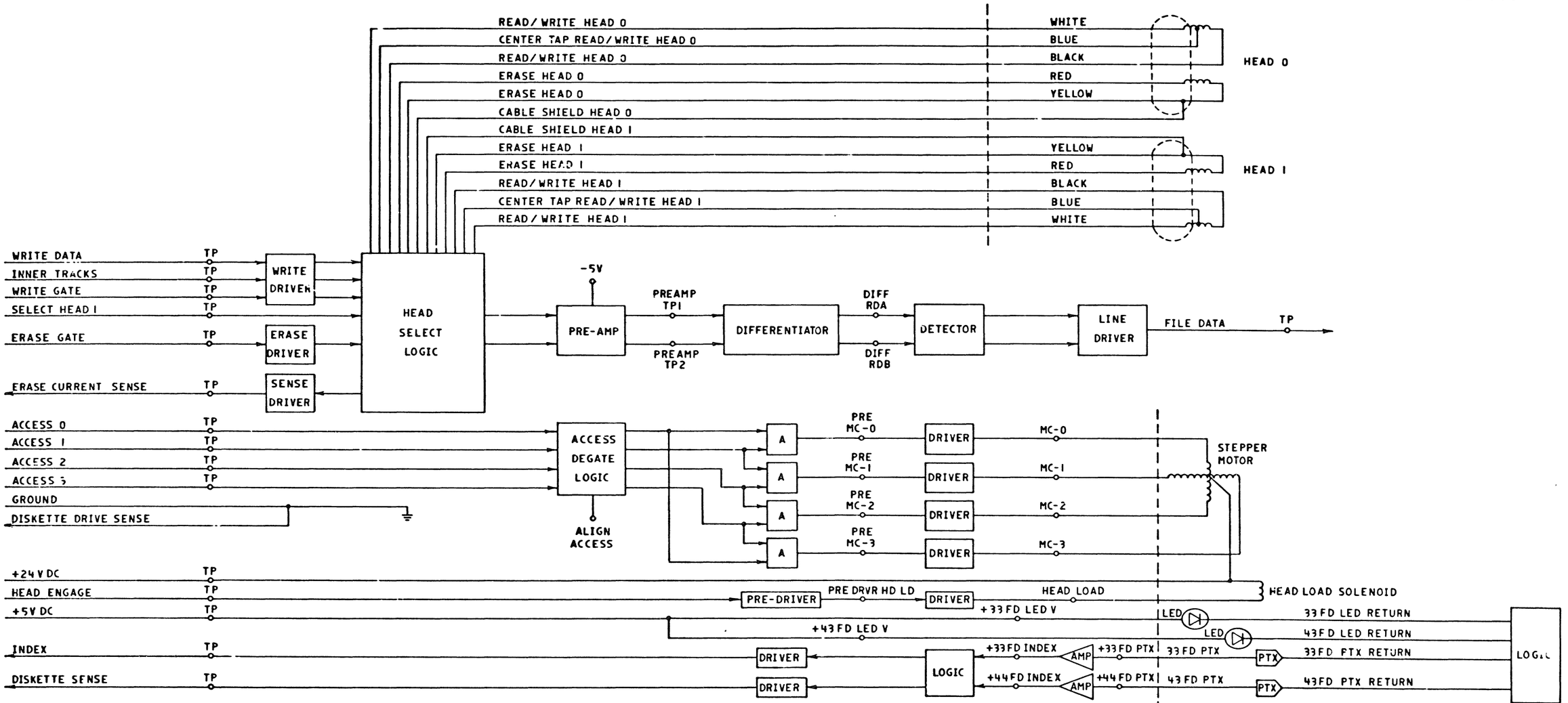
SF154

EC HISTORY		DRAWING TITLE
21 SEP77	578940	VFO CARD
		MACH SERIES/1
		PART NO 4414338
		CLASSIFICATION

C

IBM CORP

SF154



SF156

EC HISTORY		DRAWING TITLE
21 SEP 77	578940	DISKETTE DRIVE CONTROL CARD
		MACH SERIES/1
		PART NO 4414339
		CLASSIFICATION

D

IBM CORP.

SF156

READ/WRITE PRINCIPLES

WRITE DATE

FOR EACH TRANSITION ON THE WRITE DATA LINE, THE CURRENT IS SWITCHED IN THE READ/WRITE HEADS CAUSING A FLUX CHANGE ON THE DISKETTE SURFACE

READ DATA

- SINE WAVE SIGNAL:

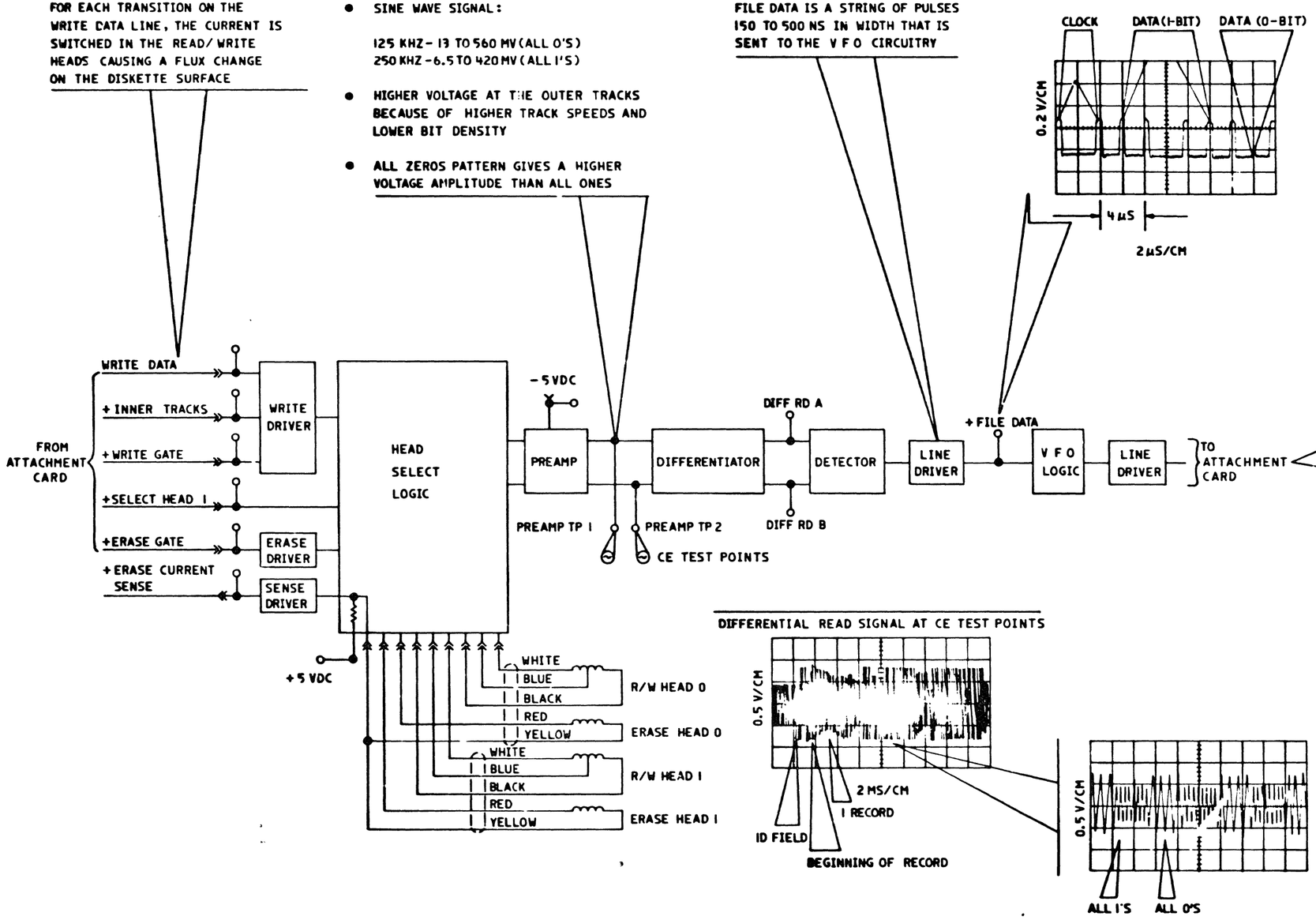
  125 KHZ - 13 TO 560 MV (ALL 0'S)
  250 KHZ - 6.5 TO 420 MV (ALL 1'S)

- HIGHER VOLTAGE AT THE OUTER TRACKS BECAUSE OF HIGHER TRACK SPEEDS AND LOWER BIT DENSITY

- ALL ZEROS PATTERN GIVES A HIGHER VOLTAGE AMPLITUDE THAN ALL ONES

FILE DATA

FILE DATA IS A STRING OF PULSES 150 TO 500 NS IN WIDTH THAT IS SENT TO THE V F O CIRCUITRY



NOTE: USE TEKTRONIX' 453, 454, OR EQUIVALENT WITH × 10 PROBES

CHANNEL A SWEEPMODE	NORMAL
CHANNEL A LEVEL	+
CHANNEL A COUPLING	DC
CHANNEL A SLOPE	+
CHANNEL A SOURCE	EXTERNAL
TRIGGER MODE	NORMAL
	CHANNEL 1
CHANNEL 1 VOLTS/DIVISION	0.2 V/CM
CHANNEL 1 INPUT	DC
TIMES PER DIVISION	2 µS/CM
CONNECT CHANNEL 1 TO	+ FILE DATA
CONNECT TRIGGER TO	+ INDEX TEST PIN

OBSERVE: CLOCK PULSES EVERY 4 µS. PULSE DURATION SHOULD BE BETWEEN 100 AND 500 NS. PULSE AMPLITUDE SHOULD BE BETWEEN 2.4 AND 4.2 VOLTS.

SEPARATED DATA

CLOCK AND DATA PULSES ARE SEPARATED AND STANDARDIZED IN THE V F O CARD AND SENT TO THE ATTACHMENT

NOTE: USE TEKTRONIX' 453, 454, OR EQUIVALENT WITH × 10 PROBES

CHANNEL A SWEEP MODE	NORMAL
CHANNEL A LEVEL	+
CHANNEL A COUPLING	DC
CHANNEL A SLOPE	+
CHANNEL A SOURCE	EXTERNAL
TRIGGER MODE	NORMAL
	ADD
CHANNEL 1 VOLTS/DIVISION	0.5 V/CM
CHANNEL 2 VOLTS/DIVISION	0.5 V/CM
CHANNEL 1 INPUT	AC
CHANNEL 2 INPUT	AC
INVERT	PULL OUT
TIMES PER DIVISION	2 MS/CM
CONNECT CHANNEL 1 TO	PRE AMP TP1
CONNECT CHANNEL 2 TO	PRE AMP TP2
CONNECT TRIGGER TO	+ INDEX TEST PIN

OBSERVE: THE AMPLITUDE OF THE READ SIGNAL SHOULD BE BETWEEN 6.5 TO 560 MV

DIFFERENTIAL READ SIGNAL AT CE TEST POINTS

SF158

EC HISTORY		DRAWING TITLE
21 SEP 77	578940	DISKETTE UNIT DEVICE
		MACH SERIES/1
		PART NO 4414340
		CLASSIFICATION

D

IBM CORP

SF158

4962 DISK ATTACHMENT CARD

STANDARD CHANNEL

```
  ADDRESS BUS BIT--00------B02
  ADDRESS BUS BIT--01------B03
  ADDRESS BUS BIT--02------B04
  ADDRESS BUS BIT--03------B05
  ADDRESS BUS BIT--04------B07
  ADDRESS BUS BIT--05------B08
  ADDRESS BUS BIT--06------B09
  ADDRESS BUS BIT--07------B10
  ADDRESS BUS BIT--08------B12
  ADDRESS BUS BIT--09------D02
  ADDRESS BUS BIT--10------D04
  ADDRESS BUS BIT--11------D05
  ADDRESS BUS BIT--12------D06
  ADDRESS BUS BIT--13------D07
  ADDRESS BUS BIT--14------D09
  ADDRESS BUS BIT--15------D10
  ADDRESS BUS BIT--16------D11
  ADDRESS GATE-------------M08
  ADDRESS GATE RETURN------M09
# BURST RETURN------------(P04)
  CONDITION CODE IN BIT-00-D12
  CONDITION CODE IN BIT-01-D13
  CONDITION CODE IN BIT-02-B13
# CYCLE BYTE INDICATOR----(P10)
  CYCLE INPUT INDICATOR----P09
  CYCLE STEAL REQUEST IN---M02
  DATA BUS BIT------00-----G02
  DATA BUS BIT------01-----G03
  DATA BUS BIT------02-----G04
  DATA BUS BIT------03-----G05
  DATA BUS BIT------04-----G07
  DATA BUS BIT------05-----G08
  DATA BUS BIT------06-----G09
  DATA BUS BIT------07-----G10
  DATA BUS BIT------P0-----G12
  DATA BUS BIT------08-----J02
  DATA BUS BIT------09-----J04
  DATA BUS BIT------10-----J05
  DATA BUS BIT------11-----J06
  DATA BUS BIT------12-----J07
  DATA BUS BIT------13-----J09
  DATA BUS BIT------14-----J10
  DATA BUS BIT------15-----J11
  DATA BUS BIT------P1-----J12
  DATA STROBE--------------M10
  HALT OR MCK--------------M07
  INITIATE IPL-------------P07
  IPL----------------------S04
  POLL---------------------M12
  POLL IDENTIFIER BIT--00--P11
  POLL IDENTIFIER BIT--01--S02
  POLL IDENTIFIER BIT--02--S03
  POLL IDENTIFIER BIT--03--P12
  POLL IDENTIFIER BIT--04--P13
  POLL PRIME---------------M13
  POLL PROPAGATE-----------M11
  POLL RETURN--------------M04
  POWER ON RESET-----------S05
  REQUEST IN BUS BIT--00---S07
  REQUEST IN BUS BIT--01---S08
  REQUEST IN BUS BIT--02---S09
  REQUEST IN BUS BIT--03---S10
  REQUEST IN BUS BIT--04---S12
  REQUEST IN BUS BIT--05---S13
  REQUEST IN BUS BIT--06---U02
  REQUEST IN BUS BIT--07---U04
  REQUEST IN BUS BIT--08---U05
  REQUEST IN BUS BIT--09---U06
  REQUEST IN BUS BIT--10---U07
  REQUEST IN BUS BIT--11---U09
  REQUEST IN BUS BIT--12---U10
  REQUEST IN BUS BIT--13---U11
  REQUEST IN BUS BIT--14---U12
  REQUEST IN BUS BIT--15---U13
  SERVICE GATE-------------P05
  SERVICE GATE RETURN------P06
  STATUS BUS BIT------00---J13
  STATUS BUS BIT------01---G13
  STATUS BUS BIT------02---M03
  STATUS BUS BIT------03---P02
  SYSTEM RESET-------------M05
```

VOLTAGE PIN ASSIGNMENTS

```
+5V---D03--J03--P03--U03
GND---D08--J08--P08--U08
```

4962 TOP CARD CONNECTORS

```
Z11-- -CARD FILE POR
Z29-- -CE STROBE
Z10-- +CHAN FORCE END OP
Z28-- -CLK FILE DATA OUT OF BFR
Z22-- -DCB LD HEAD AND SECTOR
Z23-- -DCB LD SCH ARG FLAG
Z24-- -DCB LD SCH ARG CYLINDER
Z25-- -DCB LD SEEK DIFFERENCE
Z27-- -DCB SEEK STAPT PLS
Z32-- -DIAGNOSTIC MODE
Z12-- +DSF RESET
Z07-- -FCU ADDRS 1
Z09-- -FCU ADDRS 2
W12-- -FCU END SECTOR PULSE PWR
X13-- -FCU INDEX PULSE PWR
Z02-- -FCU MODIFIER 0
Z04-- -FCU MODIFIER 1
Z05-- -FCU MODIFIFR 2
Z06-- -FCU MODIFIER 3
X12-- -SECTOR OR INDEX PULSE PWR
W10-- -FCU SUMMARY CHK PWR
W22-- +FCU TO CHAN BIT 00
W23-- +FCU TO CHAN BIT 01
W24-- +FCU TO CHAN BIT 02
W25-- +FCU TO CHAN BIT 03
W27-- +FCU TO CHAN BIT 04
W28-- +FCU TO CHAN BIT 05
W29-- +FCU TO CHAN BIT 06
W30-- +FCU TO CHAN BIT 07
W32-- +FCU TO CHAN BIT 08
W33-- +FCU TO CHAN BIT 09
W02-- +FCU TO CHAN BIT 10
W04-- +FCU TO CHAN BIT 11
W05-- +FCU TO CHAN BIT 12
W06-- +FCU TO CHAN BIT 13
W07-- +FCU TO CHAN BIT 14
W09-- +FCU TO CHAN BIT 15
Y11-- -FILE HONORED
X11-- -FILE BFR REQ OCD
W11-- -FILE READY OCD
Z13-- -IPL MODE
W13-- -POR TO CHAN
Y22-- +DBO/BFR DATA BIT 00
Y23-- +DBO/BFR DATA BIT 01
Y24-- +DBO/BFR DATA BIT 02
Y25-- +DBO/BFR DATA BIT 03
Y27-- +DBO/BFR DATA BIT 04
Y28-- +DBO/BFR DATA BIT 05
Y29-- +DBO/BFR DATA BIT 06
Y30-- +DBO/BFR DATA BIT 07
Y32-- +DBO/BFR DATA BIT 08
Y33-- +DBO/BFR DATA BIT 09
Y02-- +DBO/BFR DATA BIT 10
Y04-- +DBO/BFR DATA BIT 11
Y05-- +DBO/BFR DATA BIT 12
Y06-- +DBO/BFR DATA BIT 13
Y07-- +DBO/BFR DATA BIT 14
Y09-- +DBO/BFR DATA BIT 15
Y10-- -BFR OUT BIT PI
X22-- -SER-DES BIT 00
X23-- -SER-DES BIT 01
X24-- -SER-DES BIT 02
X25-- -SER-DES BIT 03
X27-- -SER-DES BIT 04
X28-- -SER-DES BIT 05
X29-- -SER-DES BIT 06
X30-- -SER-DES BIT 07
X32-- -SER-DES BIT 08
X33-- -SER-DES BIT 09
X02-- -SER-DES BIT 10
X04-- -SER-DES BIT 11
X05-- -SER-DES BIT 12
X06-- -SER-DES BIT 13
X07-- -SER-DES BIT 14
X09-- -SER-DES BIT 15
X10-- -SER-DES PARITY BIT TO BFR OCD
Z33-- +SIO ATTACH RESET
Z30-- -START OP
```

TOP CARD CONNECTORS

```
  |-----
22|  W  |02
33|     |13
  |-----|
22|  X  |02
33|     |13
  |-----|
22|  Y  |02
33|     |13
  |-----|
22|  Z  |02
33|     |13
  |-----
```

CABLE LOCATIONS

LINES ARE NOT USED BY THIS ATTACHMENT.

SEE LOGIC(S) SF345 TO SF348 FOR DATA FLOW.

4962 ATTACHMENT CARD

E.C. HISTORY		MACH.	
10-01-76	578468		SF
12-02-76	578486	4962	30
05-01-77	578751		00
09-01-77	578940		
		IBM CORP. GSD	
DATE	LAST E.C.		0 0 0
01-15-79	375147	P.N. 1635183	

4962 DISK ATTACHMENT CABLE

ATTACHMENT CABLES PIN ASSIGNMENTS		CONTROLLER CABLES PIN ASSIGNMENTS
Z11--	-CARD FILE POR	-- A5D11
Z29--	-CE STROBE	-- A5B09
Z10--	+CHAN FORCE END OP	-- A5D10
Z28--	-CLK FILE DATA OUT OF BFR	-- A5B08
Z22--	-DCB LD HEAD AND SECTOR	-- A5B02
Z23--	-DCB LD SCH ARG FLAG	-- A5B03
Z24--	-DCB LD SCH ARG CYLINDER	-- A5B04
Z25--	-DCB LD SEEK DIFFERENCE	-- A5B05
Z27--	-DCB SEEK START PLS	-- A5B07
Z32--	-DIAGNOSTIC MODE	-- A5B12
Z12--	+DSF RESET	-- A5D12
Z07--	-FCU ADDRS 1	-- A5D07
Z09--	-FCU ADDRS 2	-- A5D09
W12--	-FCU END SECTOR PULSE PWR	-- A2D12
X13--	-FCU INDEX PULSE PWR	-- A3D13
Z02--	-FCU MODIFIER 0	-- A5D02
Z04--	-FCU MODIFIER 1	-- A5D04
Z05--	-FCU MODIFIER 2	-- A5D05
Z06--	-FCU MODIFIER 3	-- A5D06
X12--	-SECTOR OR INDEX PULSE PWR	-- A3D12
W10--	-FCU SUMMARY CHK PWR	-- A2D10
W22--	+FCU TO CHAN BIT 00	-- A2B02
W23--	+FCU TO CHAN BIT 01	-- A2B03
W24--	+FCU TO CHAN BIT 02	-- A2B04
W25--	+FCU TO CHAN BIT 03	-- A2B05
W27--	+FCU TO CHAN BIT 04	-- A2B07
W28--	+FCU TO CHAN BIT 05	-- A2B08
W29--	+FCU TO CHAN BIT 06	-- A2B09
W30--	+FCU TO CHAN BIT 07	-- A2B10
W32--	+FCU TO CHAN BIT 08	-- A2B12
W33--	+FCU TO CHAN BIT 09	-- A2B13
W02--	+FCU TO CHAN BIT 10	-- A2D02
W04--	+FCU TO CHAN BIT 11	-- A2D04
W05--	+FCU TO CHAN BIT 12	-- A2D05
W06--	+FCU TO CHAN BIT 13	-- A2D06
W07--	+FCU TO CHAN BIT 14	-- A2D07
W09--	+FCU TO CHAN BIT 15	-- A2D09
Y11--	-FILE HONORED	-- A4D11
X11--	-FILE BUF REQ OCD	-- A3D11
W11--	-FILE READY OCD	-- A2D11
Z13--	-IPL MODE	-- A5D13
W13--	-POR TO CHAN	-- A2D13
Y22--	+DBO/BFR DATA BIT 00	-- A4B02
Y23--	+DBO/BFR DATA BIT 01	-- A4B03
Y24--	+DBO/BFR DATA BIT 02	-- A4B04
Y25--	+DBO/BFR DATA BIT 03	-- A4B05
Y27--	+DBO/BFR DATA BIT 04	-- A4B07
Y28--	+DBO/BFR DATA BIT 05	-- A4B08
Y29--	+DBO/BFR DATA BIT 06	-- A4B09
Y30--	+DBO/BFR DATA BIT 07	-- A4B10
Y32--	+DBO/BFR DATA BIT 08	-- A4B12
Y33--	+DBO/BFR DATA BIT 09	-- A4B13
Y02--	+DBO/BFR DATA BIT 10	-- A4D02
Y04--	+DBO/BFR DATA BIT 11	-- A4D04
Y05--	+DBO/BFR DATA BIT 12	-- A4D05
Y06--	+DBO/BFR DATA BIT 13	-- A4D06
Y07--	+DBO/BFR DATA BIT 14	-- A4D07
Y09--	+DBO/BFR DATA BIT 15	-- A4D09
Y10--	-BFR OUT BIT P1	-- A4D10
X22--	-SER-DES BIT 00	-- A3B02
X23--	-SER-DES BIT 01	-- A3B03
X24--	-SER-DES BIT 02	-- A3B04
X25--	-SER-DES BIT 03	-- A3B05
X27--	-SER-DES BIT 04	-- A3B07
X28--	-SER-DES BIT 05	-- A3B08
X29--	-SER-DES BIT 06	-- A3B09
X30--	-SER-DES BIT 07	-- A3B10
X32--	-SER-DES BIT 08	-- A3B12
X33--	-SER-DES BIT 09	-- A3B13
X02--	-SER-DES BIT 10	-- A3D02
X04--	-SER-DES BIT 11	-- A3D04
X05--	-SER-DES BIT 12	-- A3D05
X06--	-SER-DES BIT 13	-- A3D06
X07--	-SER-DES BIT 14	-- A3D07
X09--	-SER-DES BIT 15	-- A3D09
X10--	-SER-DES PARITY BIT TO BFR OCD	-- A3D10
Z33--	+SIO ATTACH RESET	-- A5B13
Z30--	-START OP	-- A5B10

PROCESSOR ATTACHMENT
TOP CARD CONNECTORS

22	W	02
33		13
22	X	02
33		13
22	Y	02
33		13
22	Z	02
33		13

CABLE LOCATIONS

W CONNECTS THRU CABLE TO A2
X CONNECTS THRU CABLE TO A3
Y CONNECTS THRU CABLE TO A4
Z CONNECTS THRU CABLE TO A5

A2	A3	A4	A5

DEVICE BOARD 'A' (CARD SIDE VIEW)

SEE LOGIC(S) SF345 TO SF348 FOR DATA FLOW

4962 ATTACHMENT CABLE

E.C. HISTORY		MACH.	
10-01-76	578468		S
12-02-76	578486	4962	F
05-01-77	578751		3
09-21-77	578940		0
			1

IBM CORP. GSD

DATE	LAST E.C.		
01-15-79	375147	P.N. 1635127	0 0 0

CHANNEL REPOWER CARD

STANDARD CHANNEL

```
ADDRESS BUS BIT--00------B02
ADDRESS BUS BIT--01------B03
ADDRESS BUS BIT--02------B04
ADDRESS BUS BIT--03------B05
ADDRESS BUS BIT--04------B07
ADDRESS BUS BIT--05------B08
ADDRESS BUS BIT--06------B09
ADDRESS BUS BIT--07------B10
ADDRESS BUS BIT--08------B12
ADDRESS BUS BIT--09------D02
ADDRESS BUS BIT--10------D04
ADDRESS BUS BIT--11------D05
ADDRESS BUS BIT--12------D06
ADDRESS BUS BIT--13------D07
ADDRESS BUS BIT--14------D09
ADDRESS BUS BIT--15------D10
ADDRESS BUS BIT--16------D11
ADDRESS GATE-------------M08
ADDRESS GATE RETURN------M09
BURST RETURN-------------P04
CONDITION CODE IN BIT-00-D12
CONDITION CODE IN BIT-01-D13
CONDITION CODE IN BIT-02-B13
CYCLE BYTE INDICATOR-----P10
CYCLE INPUT INDICATOR----P09
CYCLE STEAL REQUEST IN---M02
DATA BUS BIT-----00------G02
DATA BUS BIT-----01------G03
DATA BUS BIT-----02------G04
DATA BUS BIT-----03------G05
DATA BUS BIT-----04------G07
DATA BUS BIT-----05------G08
DATA BUS BIT-----06------G09
DATA BUS BIT-----07------G10
DATA BUS BIT-----P0------G12
DATA BUS BIT-----08------J02
DATA BUS BIT-----09------J04
DATA BUS BIT-----10------J05
DATA BUS BIT-----11------J06
DATA BUS BIT-----12------J07
DATA BUS BIT-----13------J09
DATA BUS BIT-----14------J10
DATA BUS BIT-----15------J11
DATA BUS BIT-----P1------J12
DATA STROBE--------------M10
HALT OR MCHK-------------M07
INITIATE IPL-------------P07
IPL----------------------S04
POLL---------------------M12
POLL IDENTIFIER BIT--00--P11
POLL IDENTIFIER BIT--01--S02
POLL IDENTIFIER BIT--02--S03
POLL IDENTIFIER BIT--03--P12
POLL IDENTIFIER BIT--04--P13
POLL PRIME---------------M13
POLL PROPAGATE-----------M11
POLL RETURN--------------M04
POWER ON RESET-----------S05
REQUEST IN BUS BIT--00---S07
REQUEST IN BUS BIT--01---S08
REQUEST IN BUS BIT--02---S09
REQUEST IN BUS BIT--03---S10
REQUEST IN BUS BIT--04---S12
REQUEST IN BUS BIT--05---S13
REQUEST IN BUS BIT--06---U02
REQUEST IN BUS BIT--07---U04
REQUEST IN BUS BIT--08---U05
REQUEST IN BUS BIT--09---U06
REQUEST IN BUS BIT--10---U07
REQUEST IN BUS BIT--11---U09
REQUEST IN BUS BIT--12---U10
REQUEST IN BUS BIT--13---U11
REQUEST IN BUS BIT--14---U12
REQUEST IN BUS BIT--15---U13
SERVICE GATE-------------P05
SERVICE GATE RETURN------P06
STATUS BUS BIT------00---J13
STATUS BUS BIT------01---G13
STATUS BUS BIT------02---M03
STATUS BUS BIT------03---P02
SYSTEM RESET-------------M05
```

TOP CARD CONNECTORS

```
W22-- ADDRESS BUS BIT  00
W23-- ADDRESS BUS BIT  01
W24-- ADDRESS BUS BIT  02
W25-- ADDRESS BUS BIT  03
W27-- ADDRESS BUS BIT  04
W28-- ADDRESS BUS BIT  05
W29-- ADDRESS BUS BIT  06
W30-- ADDRESS BUS BIT  07
W32-- ADDRESS BUS BIT  08
W02-- ADDRESS BUS BIT  09
W04-- ADDRESS BUS BIT  10
W05-- ADDRESS BUS BIT  11
W06-- ADDRESS BUS BIT  12
W07-- ADDRESS BUS BIT  13
W09-- ADDRESS BUS BIT  14
W10-- ADDRESS BUS BIT  15
W11-- ADDRESS BUS BIT  16
Y28-- ADDRESS GATE
Y29-- ADDRESS GATE RETURN
Y04-- BURST RETURN
W12-- CONDITION CODE IN BIT  00
W13-- CONDITION CODE IN BIT  01
W33-- CONDITION CODE IN BIT  02
Y10-- CYCLE BYTE INDICATOR
Y09-- CYCLE INPUT INDICATOR
Y22-- CYCLE STEAL REQUEST IN
X22-- DATA BUS BIT  00
X23-- DATA BUS BIT  01
X24-- DATA BUS BIT  02
X25-- DATA BUS BIT  03
X27-- DATA BUS BIT  04
X28-- DATA BUS BIT  05
X29-- DATA BUS BIT  06
X30-- DATA BUS BIT  07
X32-- DATA BUS BIT  P0
X02-- DATA BUS BIT  08
X04-- DATA BUS BIT  09
X05-- DATA BUS BIT  10
X06-- DATA BUS BIT  11
X07-- DATA BUS BIT  12
X09-- DATA BUS BIT  13
X10-- DATA BUS BIT  14
X11-- DATA BUS BIT  15
X12-- DATA BUS BIT  P1
Y30-- DATA STROBE
WXYZ-- 08, 26, 31 -- GROUNDS
Y27-- HALT OR MCK
Y07-- INITIATE IPL
Z24-- IPL
Y32-- POLL
Y11-- POLL IDENTIFIER BIT  00
Z22-- POLL IDENTIFIER BIT  01
Z23-- POLL IDENTIFIER BIT  02
Y12-- POLL IDENTIFIER BIT  03
Y13-- POLL IDENTIFIER BIT  04
Y33-- POLL PRIME
Y24-- POLL RETURN
Z25-- POWER ON RESET
Z27-- REQUEST IN BUS BIT  00
Z28-- REQUEST IN BUS BIT  01
Z29-- REQUEST IN BUS BIT  02
Z30-- REQUEST IN BUS BIT  03
Z32-- REQUEST IN BUS BIT  04
Z33-- REQUEST IN BUS BIT  05
Z02-- REQUEST IN BUS BIT  06
Z04-- REQUEST IN BUS BIT  07
Z05-- REQUEST IN BUS BIT  08
Z06-- REQUEST IN BUS BIT  09
Z07-- REQUEST IN BUS BIT  10
Z09-- REQUEST IN BUS BIT  11
Z10-- REQUEST IN BUS BIT  12
Z11-- REQUEST IN BUS BIT  13
Z12-- REQUEST IN BUS BIT  14
Z13-- REQUEST IN BUS BIT  15
Y05-- SERVICE GATE
Y06-- SERVICE GATE RETURN
X13-- STATUS BUS BIT  00
X33-- STATUS BUS BIT  01
Y23-- STATUS BUS BIT  02
Y02-- STATUS BUS BIT  03
Y25-- SYSTEM RESET
```

TOP CARD CONNECTORS

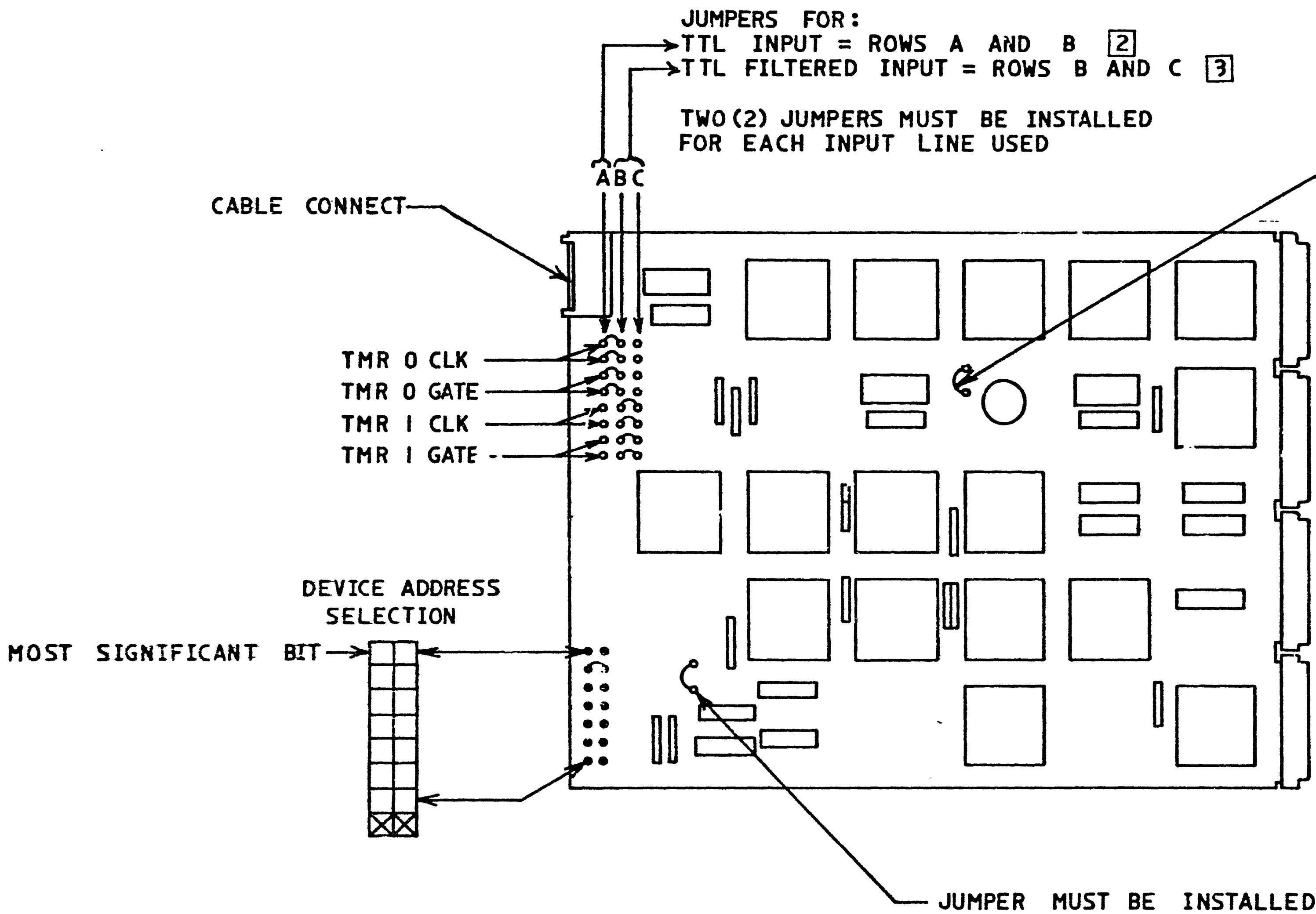
VOLTAGE PIN ASSIGNMENTS
+5V---D03--J03--P03--U03
GND---D08--J08--P08--U08

CABLE CONNECTIONS

SEE PROC THEORY DIAGRAMS MANUAL FOR DATA FLOW

CHANNEL REPOWER CARD

E.C. HISTORY		MACH.	SR2000
06-21-76	578446		
10-01-76	578468	SERIES 1	
12-02-76	578469		
DATE	LAST E.C.	IBM CORP. GSD	0 0 0
01-15-79	375147	P.N. 1635439	



NOTES:

[2] 0 TO +5.5 VOLTS MAX @ ≤ MHZ RATE

[3] ±24 VOLTS MAX @ ≤ 50 KHZ RATE (WORSE CASE)

NOTE:

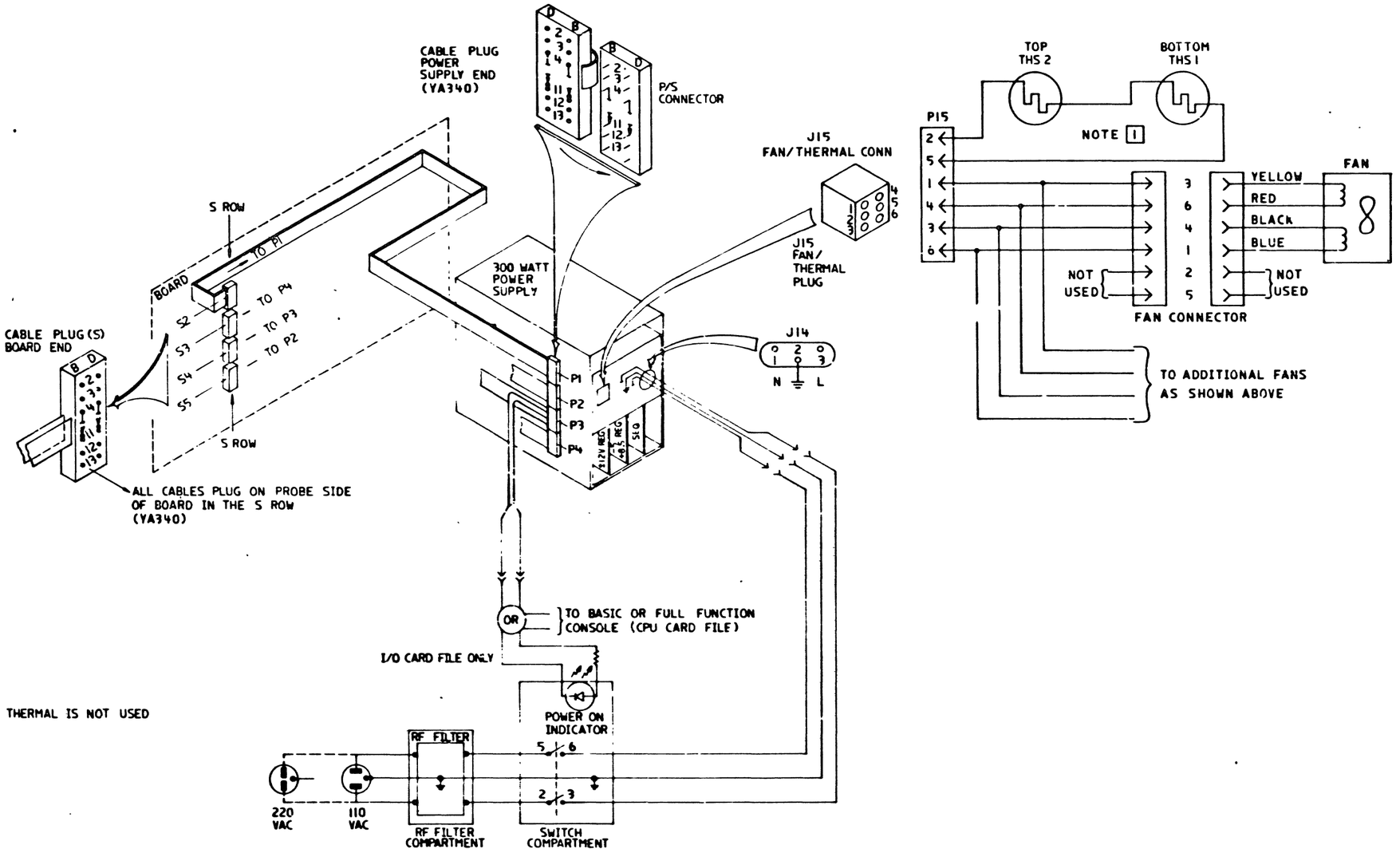
[1] JUMPER INSTALLED = LOGICAL 1
NO JUMPER = LOGICAL 0

STANDARD CARD JUMPERING (AS SHOWN)
ADDRESS = 40 HEX = 01000000
INPUT = TTL(TIMER 0) TTL FILTERED(TIMER 1)

DIAGNOSTIC CONFIGURATION ENTRY FOR CARD AS SHOWN
TMR0 = 4050,4000,0000,0000,0000,0000,0000,0028
TMR1 = 4150,0000,0000,0000,0000,0000,0000,0028

WRAP CONNECTOR P/N 1633835

EC HISTORY		DRAWING TITLE	
31MAR77	578714	TIMER	
16AUG78	755404	MACH SERIES/1	
14 SEP 79	375743	PART NO 1635151	
		CLASSIFICATION	IBM CORP
C			



NOTES:
[1] JUMPER (2 TO 5) IF EXTERNAL THERMAL IS NOT USED

EC HISTORY		DRAWING TITLE
25 AUG 76	578468	CARD FILE AC/DC DISTRIBUTION DIAGRAM
7 MAR 77	578714	MACH
13 JUN 77	578625	PART NO 1635065
13 JAN 78	755173	CLASSIFICATION

D

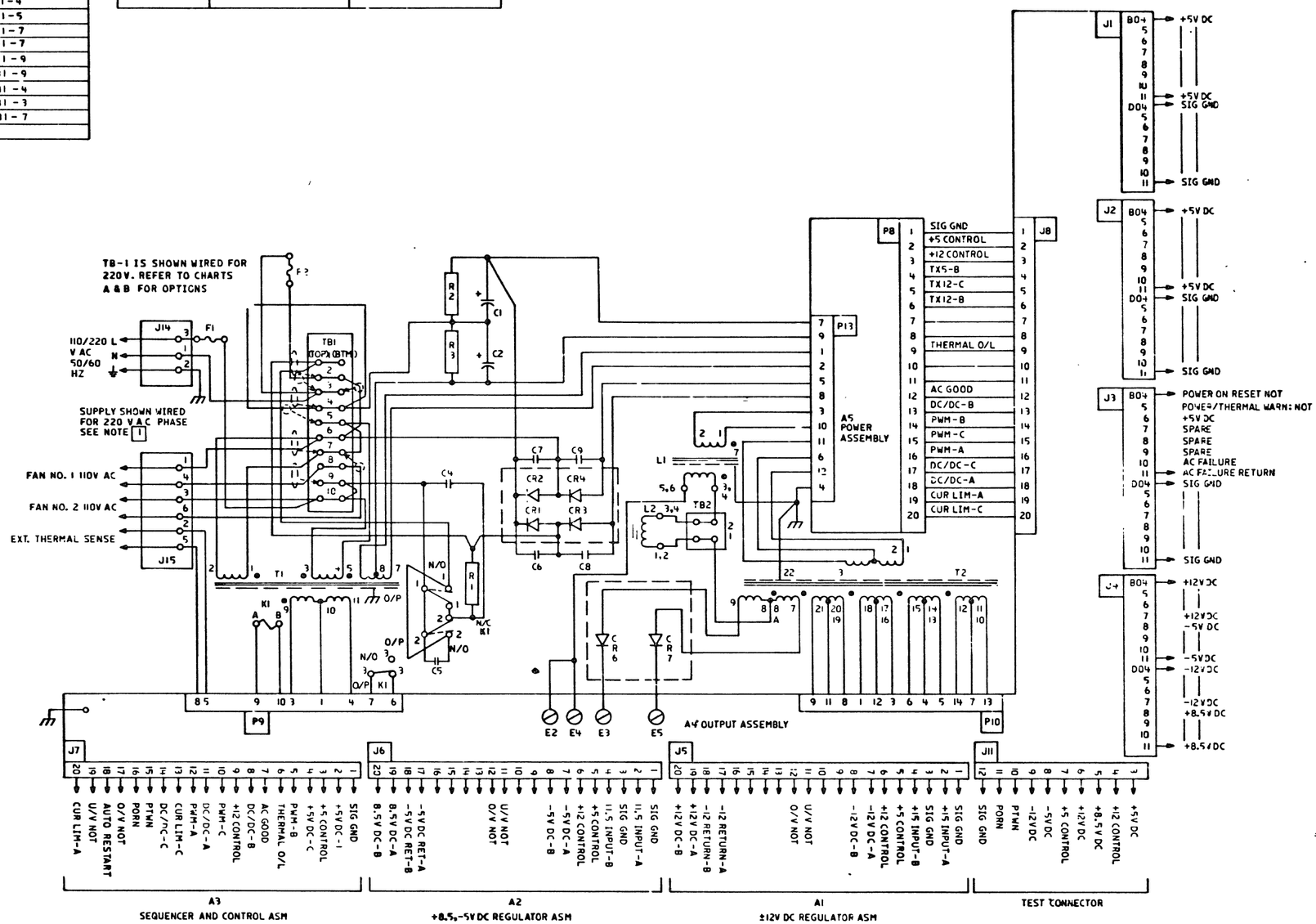
IBM CORP

YA300

YA300

FROM	CHART A NOTE [1] TO	
RIA	220V AC PHASE TO PHASE TB1-1	110 VAC PHASE TO NEUTRAL TB1-2
K1-1 N/O, 2 N/O	TB1-1	TB1-2
J14-1	TB1-3	TB1-4
TB1-4	TB1-4	TB1-5
J15-1	TB1-6	TB1-7
T1-2	TB1-6	TB1-7
J15-4	TB1-8	TB1-9
T1-1	TB1-7	TB1-9
F2-A	TB1-3	TB1-4
F2-B	TB1-2	TB1-3
J15-6	TB1-8	TB1-7

FROM	CHART B NOTE [2] TO	
TB1-6	220VAC PHASE TO PHASE TB1-2	220VAC PHASE TO NEUTRAL TB1-3



NOTES:

[1] DOTTED LINES DESCRIBE TB1 WIRING CHANGES TO CONVERT FROM 220 VAC PHASE TO PHASE TO 110 VAC PHASE TO NEUTRAL

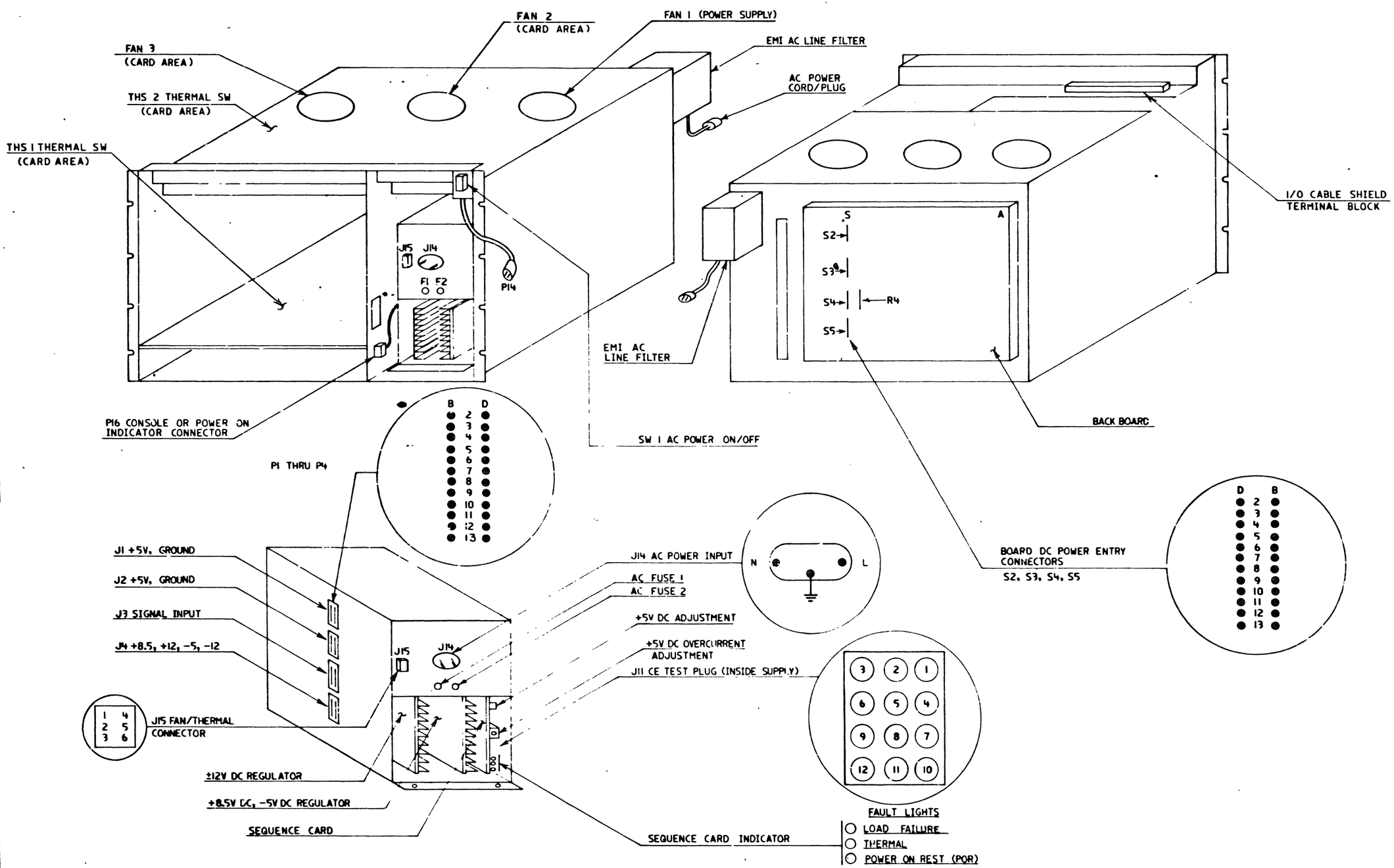
[2] DOTTED LINES DESCRIBE TB1-2-3 CHANGE TO CONVERT FROM 220 VAC PHASE TO PHASE TO 220 VAC PHASE TO NEUTRAL (U.K. ONLY)

HIST	EC HISTORY		DRAWING TITLE
	8 DEC 77	754960	POWER SUPPLY SCHEMATIC
	27 SEP 78	375091	MACH
			PART NO 1635071
D			CLASSIFICATION

IBM CORP

YA310

YA320



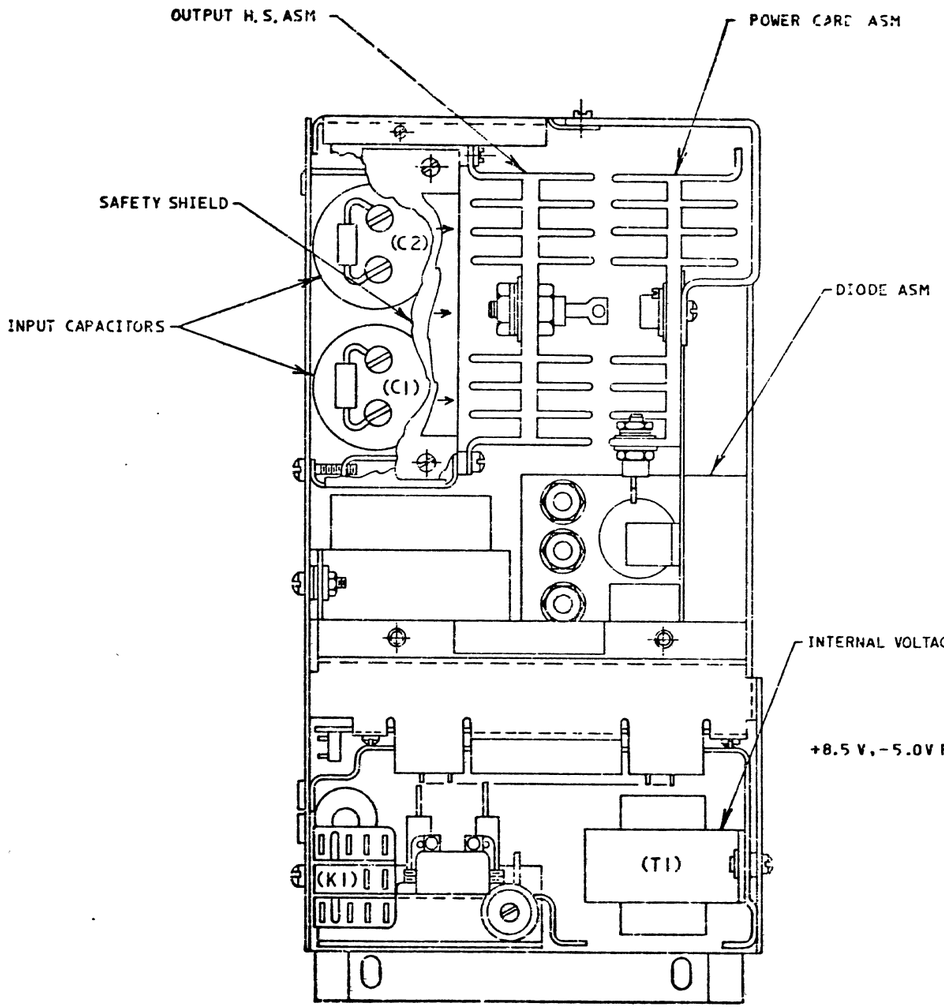
EC HISTORY		DRAWING TITLE
25 AUG 76	578468	CARD FILE ELECTRICAL COMPONENT LOCATION
7 MAR 77	578714	MACH
28 OCT 77	578990	PART NO 1635074
13 JAN 78	755173	CLASSIFICATION

D

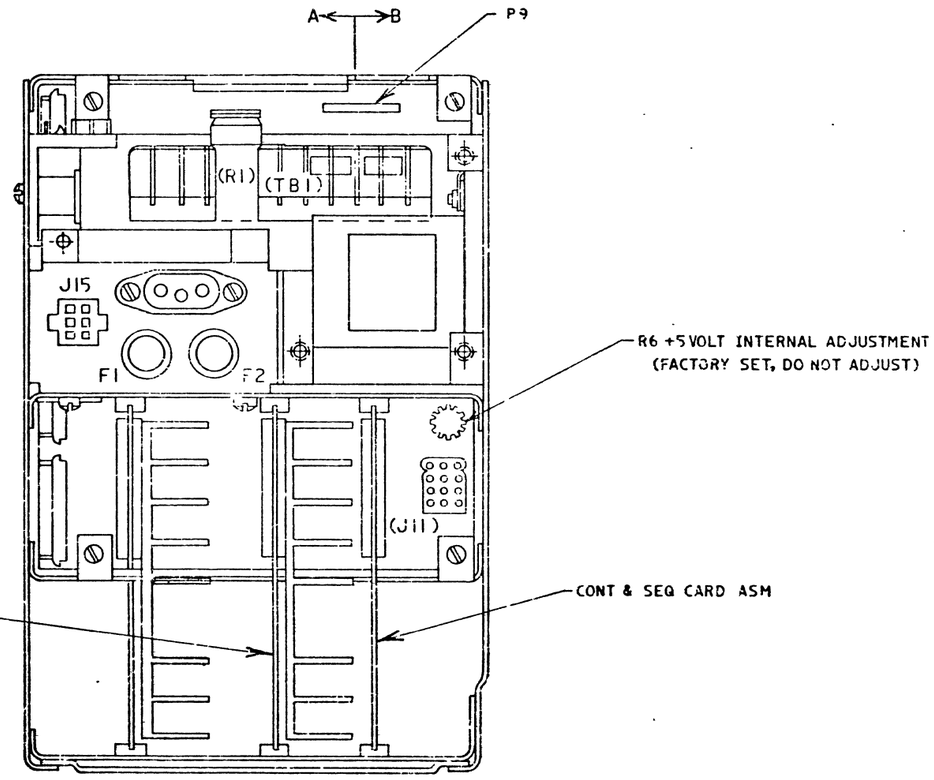
IBM CORP

YA320

YA320



TOP VIEW
(WITH COVERS REMOVED)



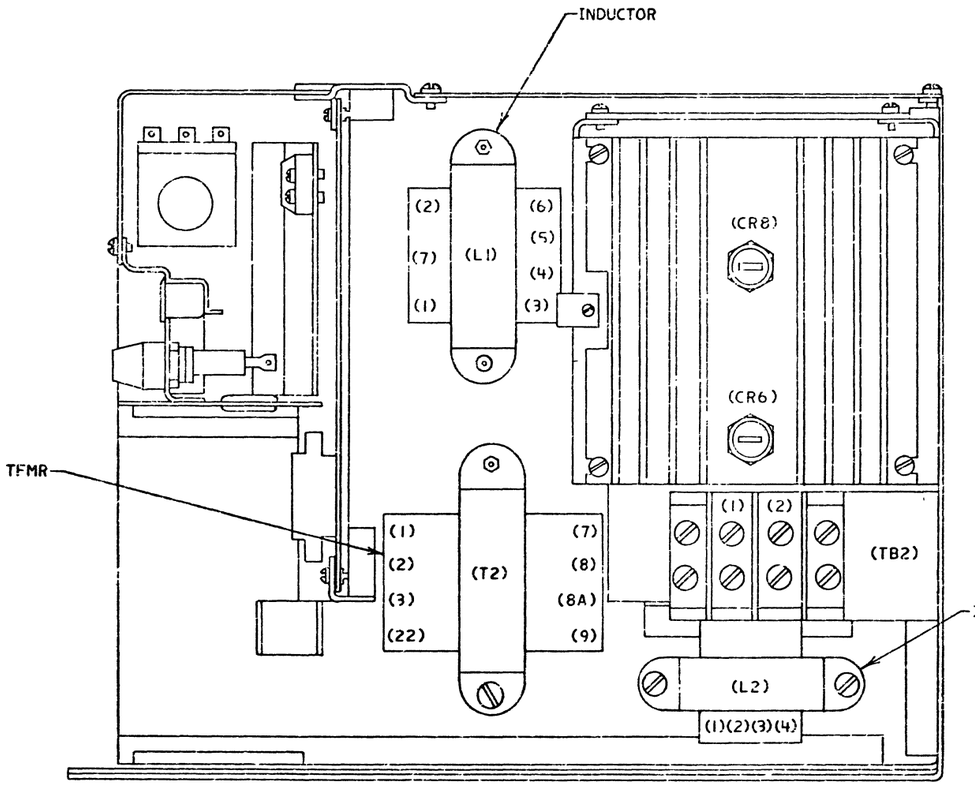
FRONT VIEW
(WITH COVERS REMOVED)

YA330

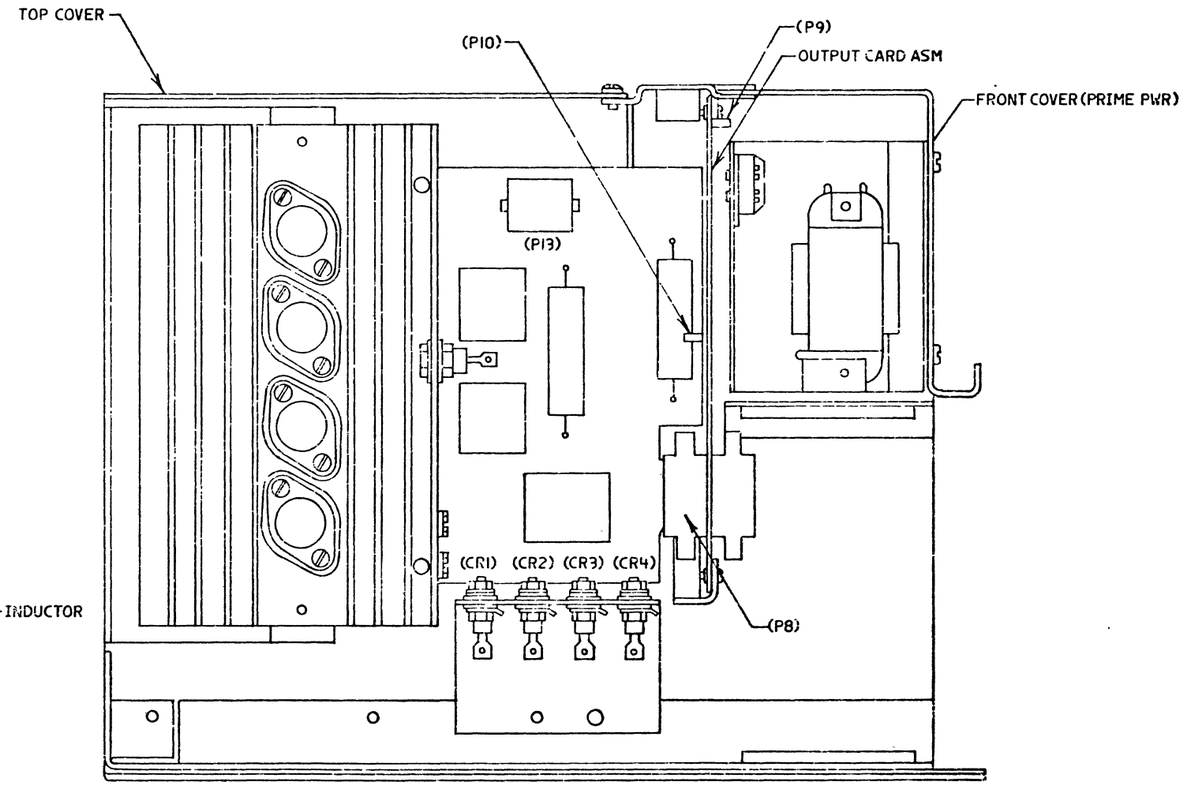
EC HISTORY		DRAWING TITLE
24 AUG 76	578468	CHASSIS ASM
		MACH
		PART NO 1635077
D		CLASSIFICATION

IBM CORP

YA331



VIEW A-A



VIEW B-B

YA331

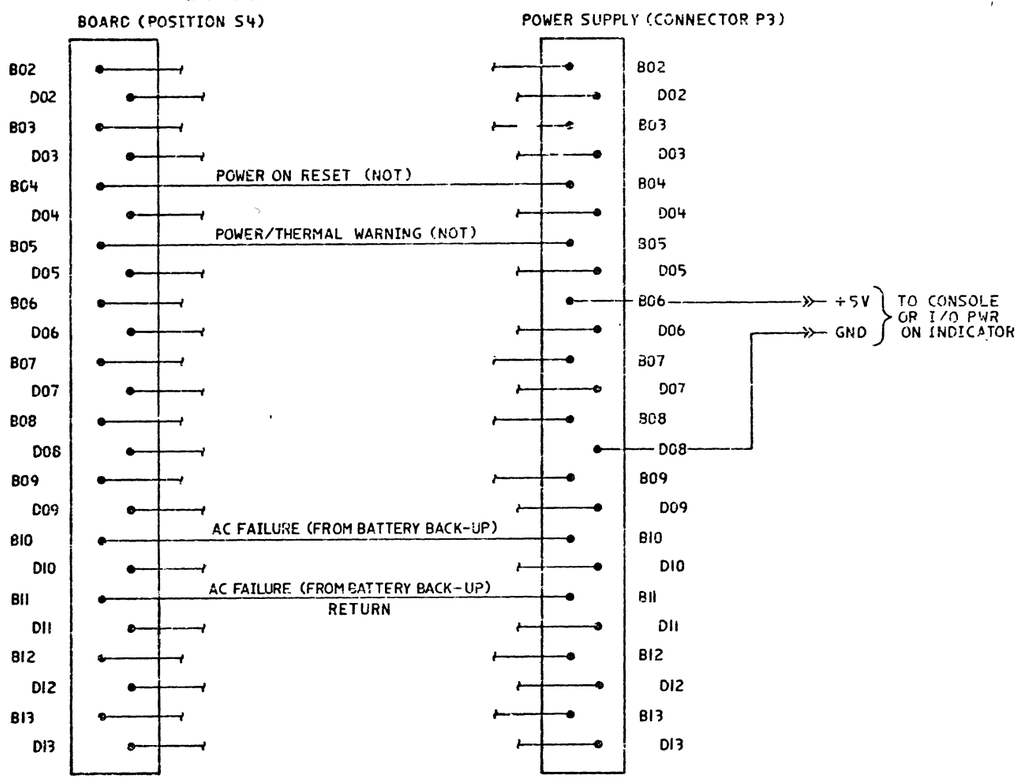
EC HISTORY		DRAWING TITLE
24 AUG 76	578468	CHASSIS ASSEMBLY
7 MAR 77	578714	MACH
		PART NO 1635080
		CLASSIFICATION

D

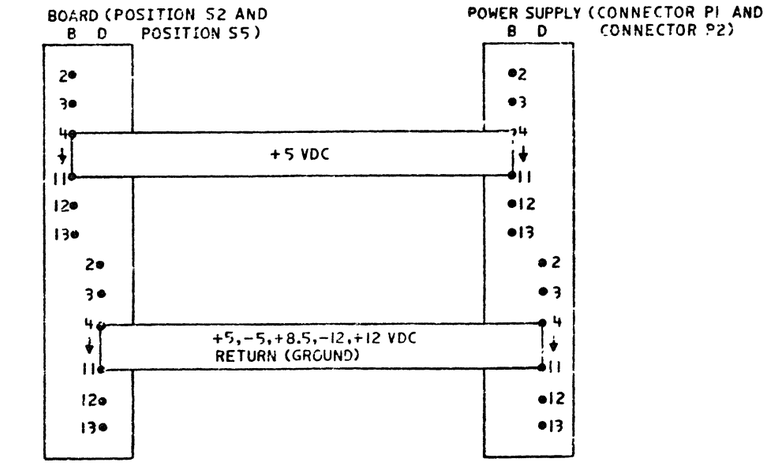
IBM CORP

YA331

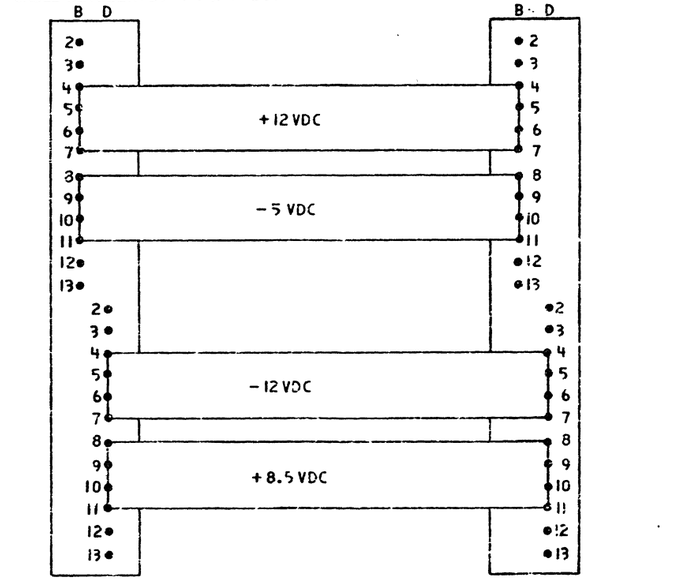
CABLE BETWEEN: S4-P3
(P3-S4)



CABLES BETWEEN:
S2-P1 (P1-S2) AND S5-P2 (P2-S5)



CABLE BETWEEN: S3-P4 (P4-S3)



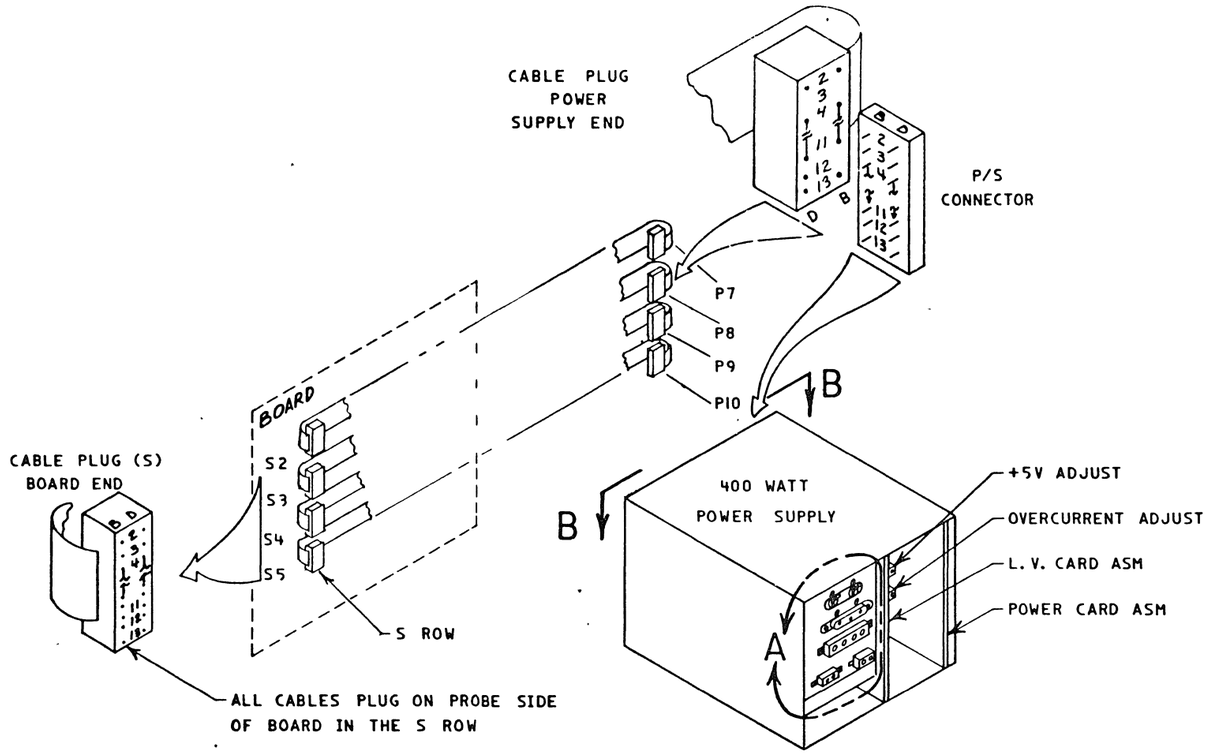
NOTE:
1 SEE YA300 FOR CABLING LAYOUT

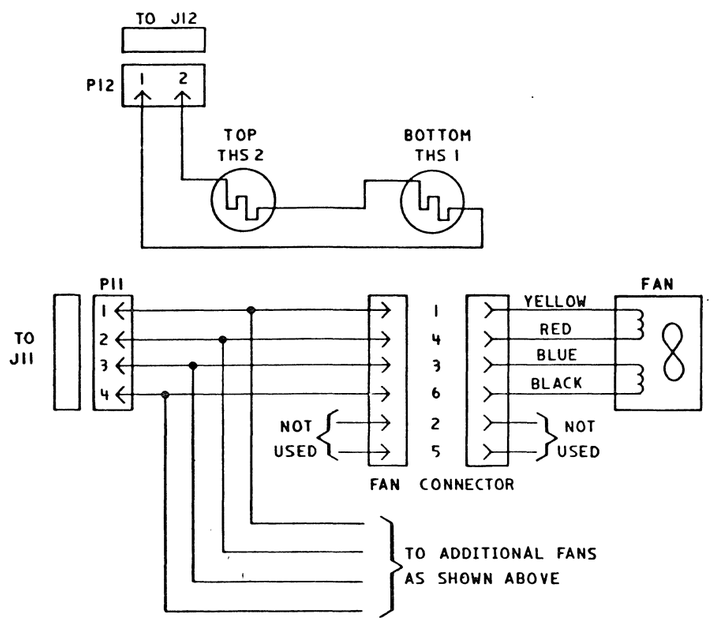
EC HISTORY		DRAWING TITLE
24 AUG 76	578468	CARD FILE DC DIST DIAGRAM
13 JUN 77	578625	MACH
		PART NO 1635081
		CLASSIFICATION

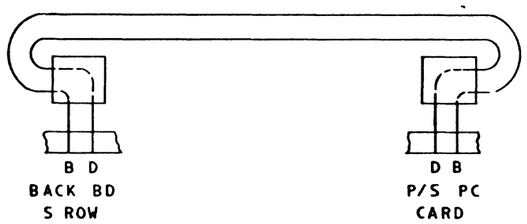
D

IBM CORP

YA340

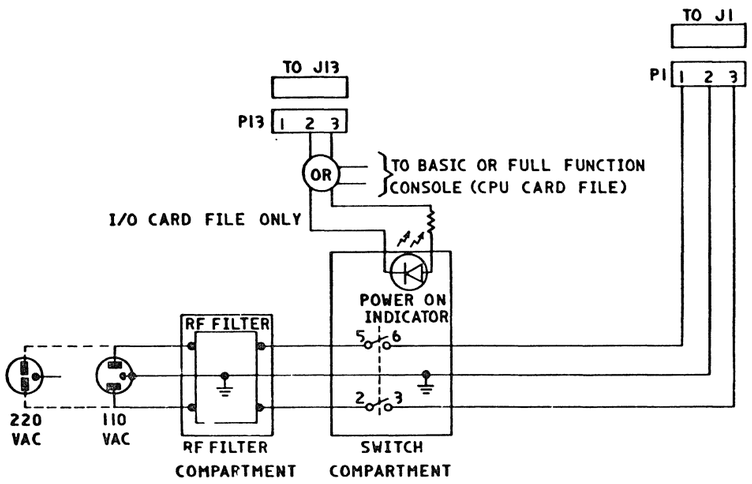


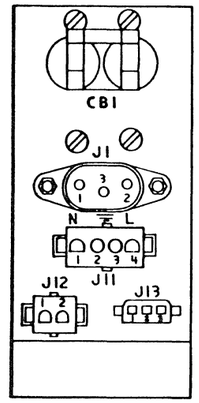




TOP VIEW

B–B





DETAIL A

EC HISTORY		DRAWING TITLE
21 APR 78	7554040	CARD FILE AC/DC DIST DIAGRAM
6 JUN 78	374833	MACH 400 W
16 AUG 78	755404	PART NO 8326807
28 SEP 78	375054	CLASSIFICATION
25 JAN 79	375147	

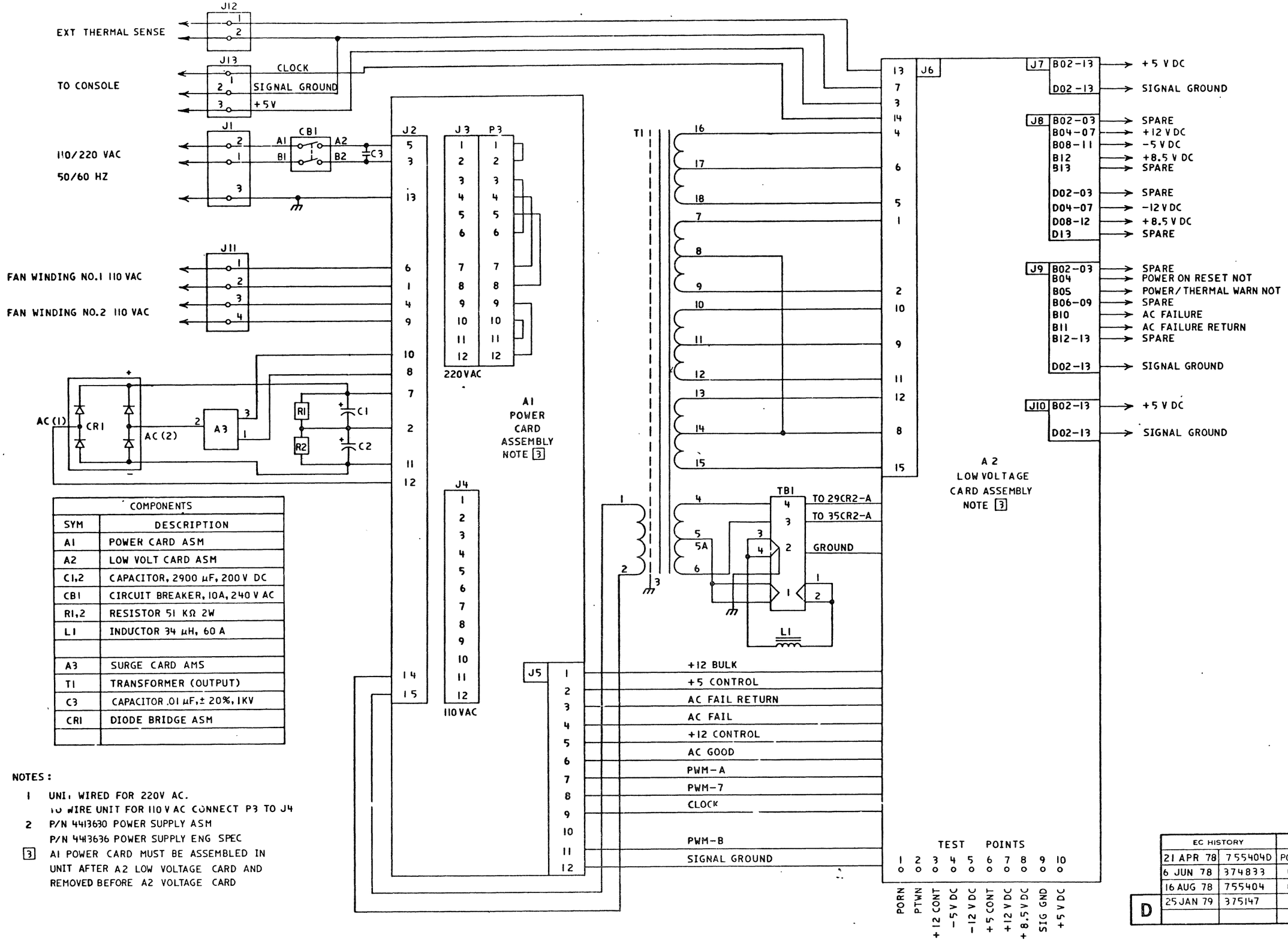
D

IBM CORP

YA400

YA400

YA410



COMPONENTS	
SYM	DESCRIPTION
A1	POWER CARD ASM
A2	LOW VOLT CARD ASM
C1,2	CAPACITOR, 2900 µF, 200 V DC
CB1	CIRCUIT BREAKER, 10A, 240 V AC
R1,2	RESISTOR 51 KΩ 2W
L1	INDUCTOR 34 µH, 60 A
A3	SURGE CARD AMS
T1	TRANSFORMER (OUTPUT)
C3	CAPACITOR .01 µF, ± 20%, 1KV
CR1	DIODE BRIDGE ASM

NOTES:

1. UNIT WIRED FOR 220V AC.
   TO WIRE UNIT FOR 110 V AC CONNECT P3 TO J4
2. P/N 4413630 POWER SUPPLY ASM
   P/N 4413636 POWER SUPPLY ENG SPEC
3. A1 POWER CARD MUST BE ASSEMBLED IN UNIT AFTER A2 LOW VOLTAGE CARD AND REMOVED BEFORE A2 VOLTAGE CARD

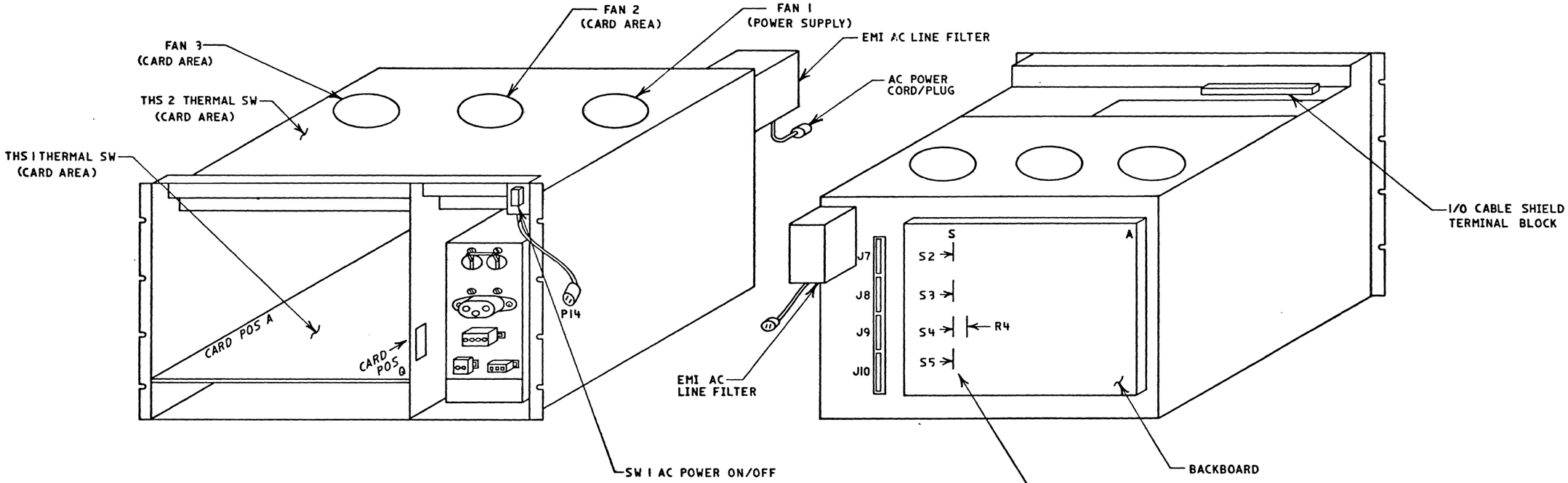
YA410

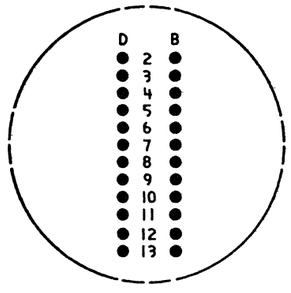
REFERENCE DRAWING

EC HISTORY		DRAWING TITLE
21 APR 78	7554040	POWER SUPPLY SCHEMATIC
6 JUN 78	374833	MACH 400 W
16 AUG 78	755404	PART NO 8327537
25 JAN 79	375147	CLASSIFICATION

D

IBM CORP





YA420

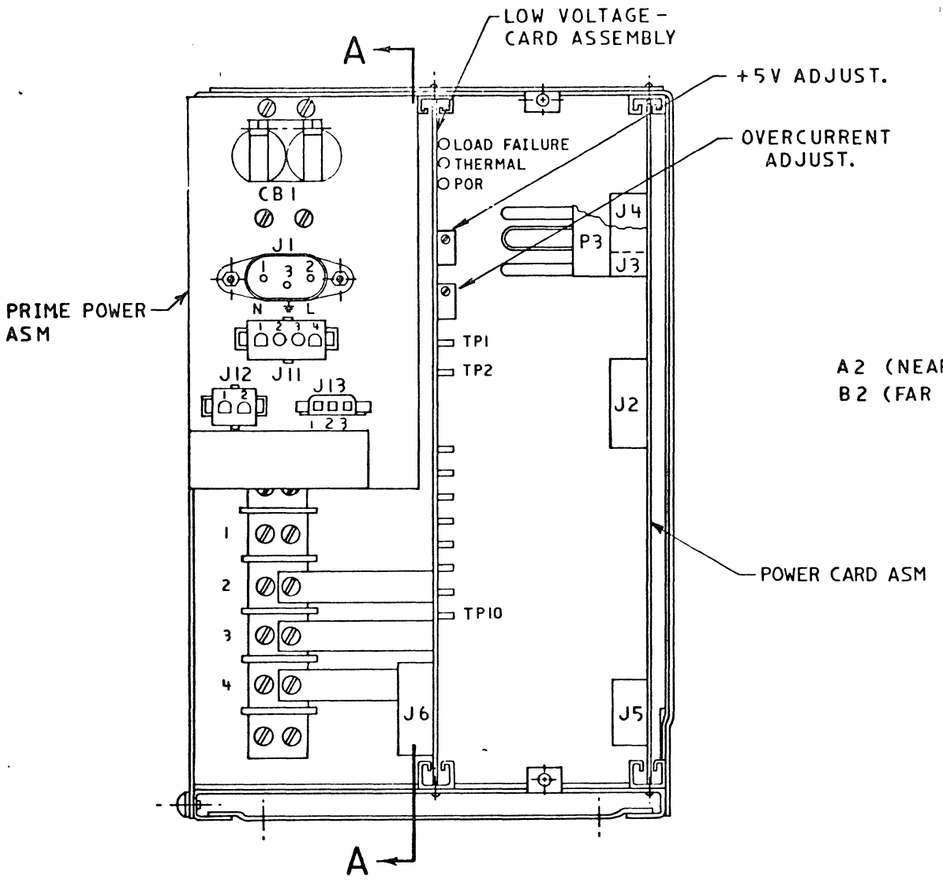
EC HISTORY		DRAWING TITLE
21 APR 78	755404D	CARD FILE ELEC COMPONENT LOC
6 JUN 78	374833	MACH 4955-E
16 AUG 78	755404	PART NO 8326809
		CLASSIFICATION

D

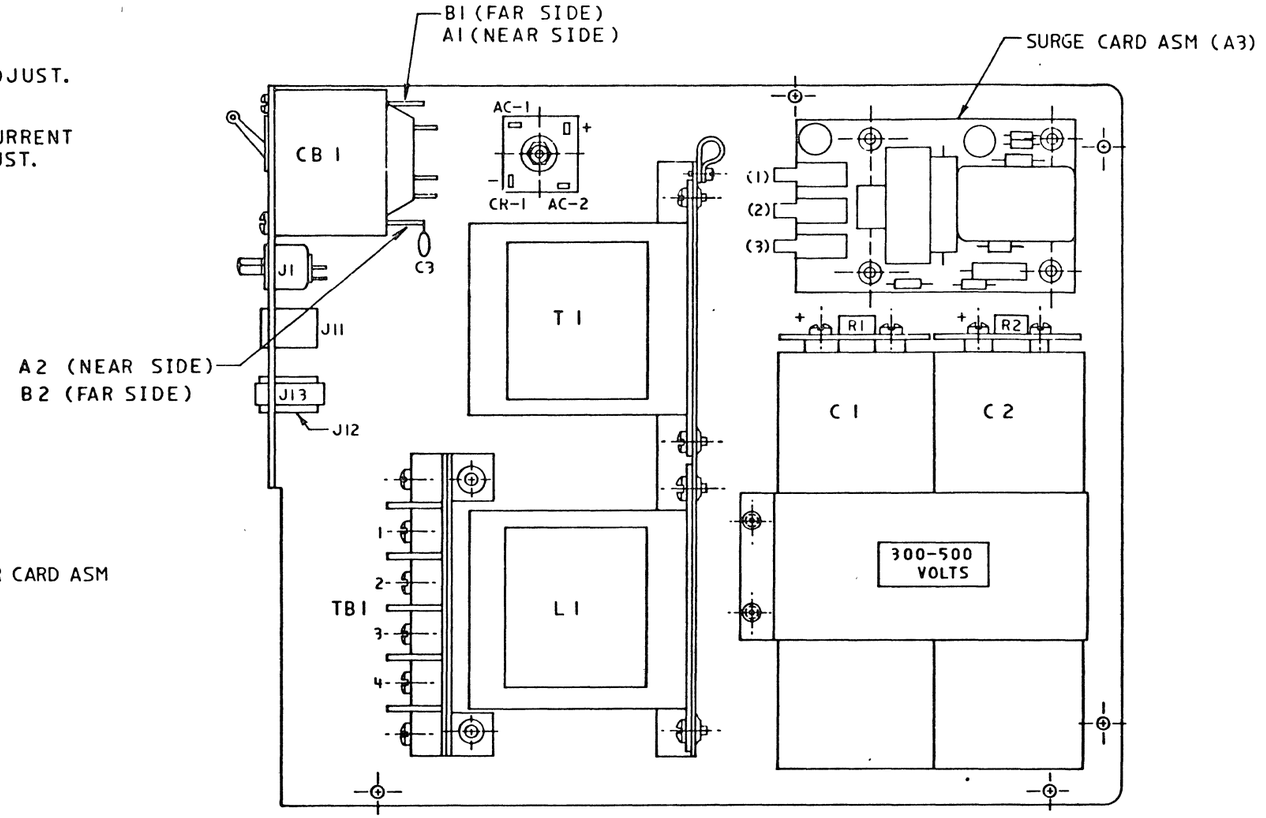
IBM CORP

YA420

YA430



POWER SUPPLY
FRONT VIEW
(WITH FRONT COVER REMOVED)

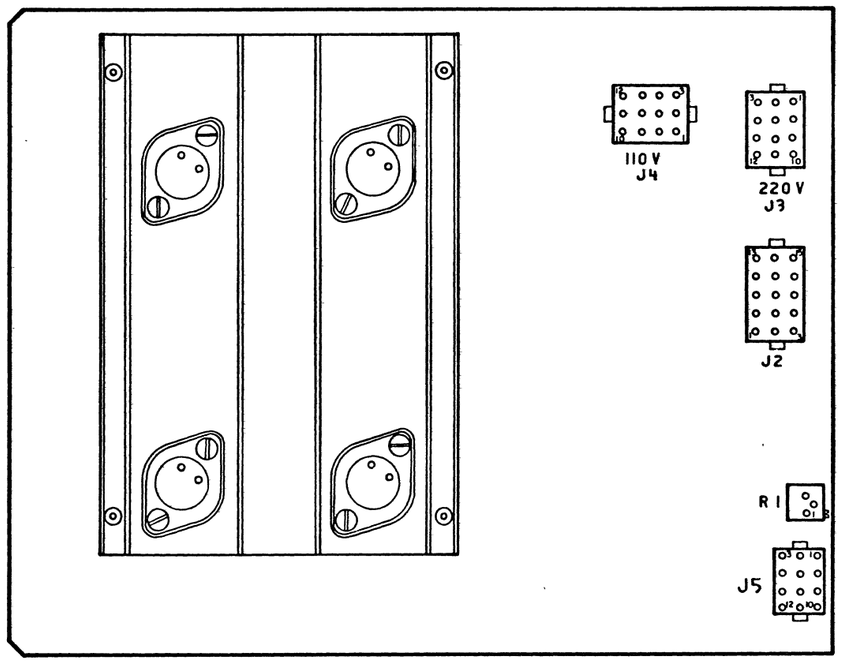


SECTION A-A
PRIME POWER ASM

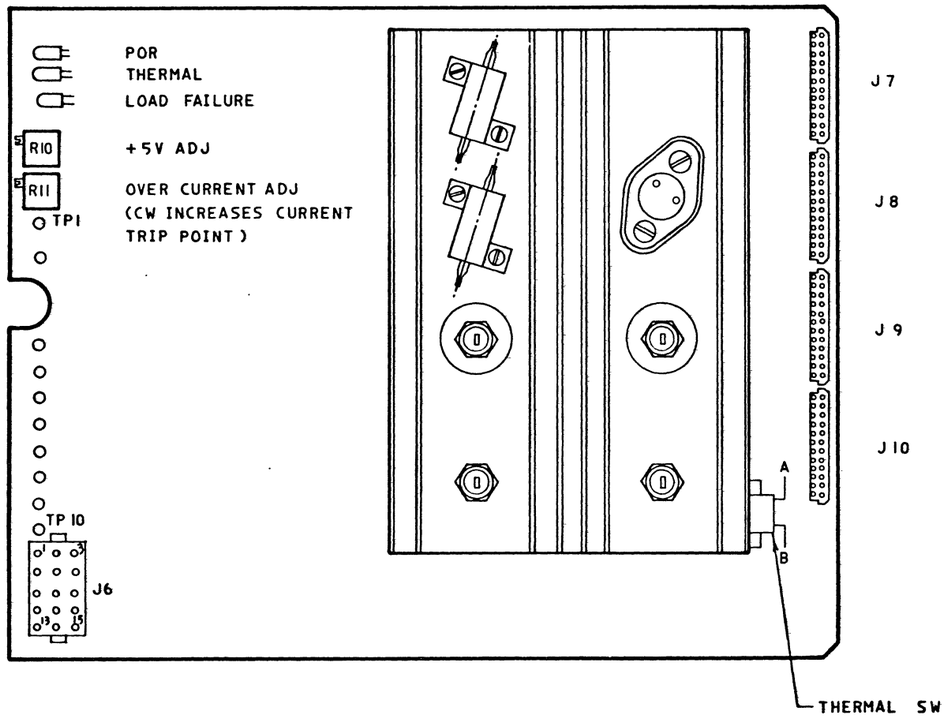
YA430

EC HISTORY		DRAWING TITLE
21 APR 78	755404D	CHASSIS ASSEMBLY
6 JUN 78	374833	MACH 400W
28 SEP 78	375054	PART NO 8326810
25 JAN 79	375147	CLASSIFICATION
D		IBM CORP

YA430



POWER CARD ASSEMBLY



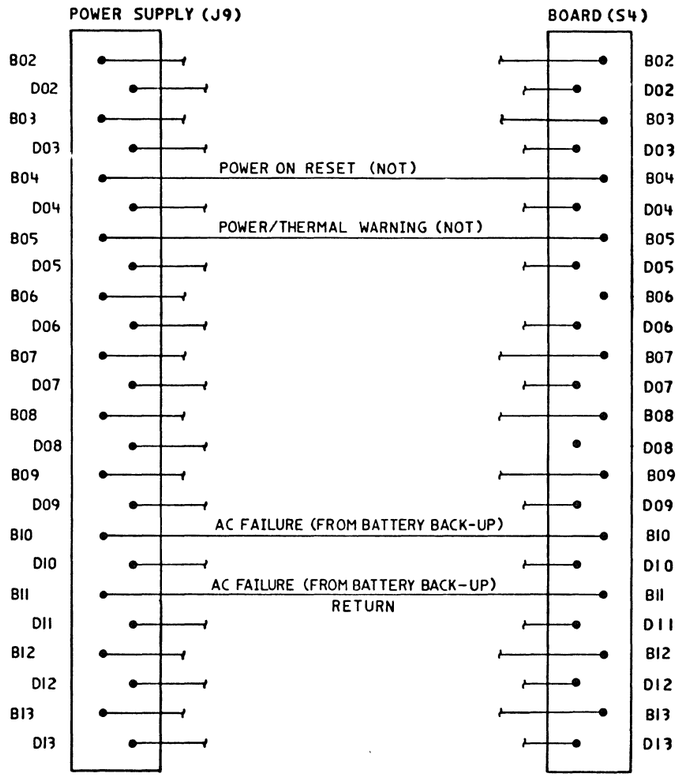
LOW VOLTAGE CARD ASSEMBLY

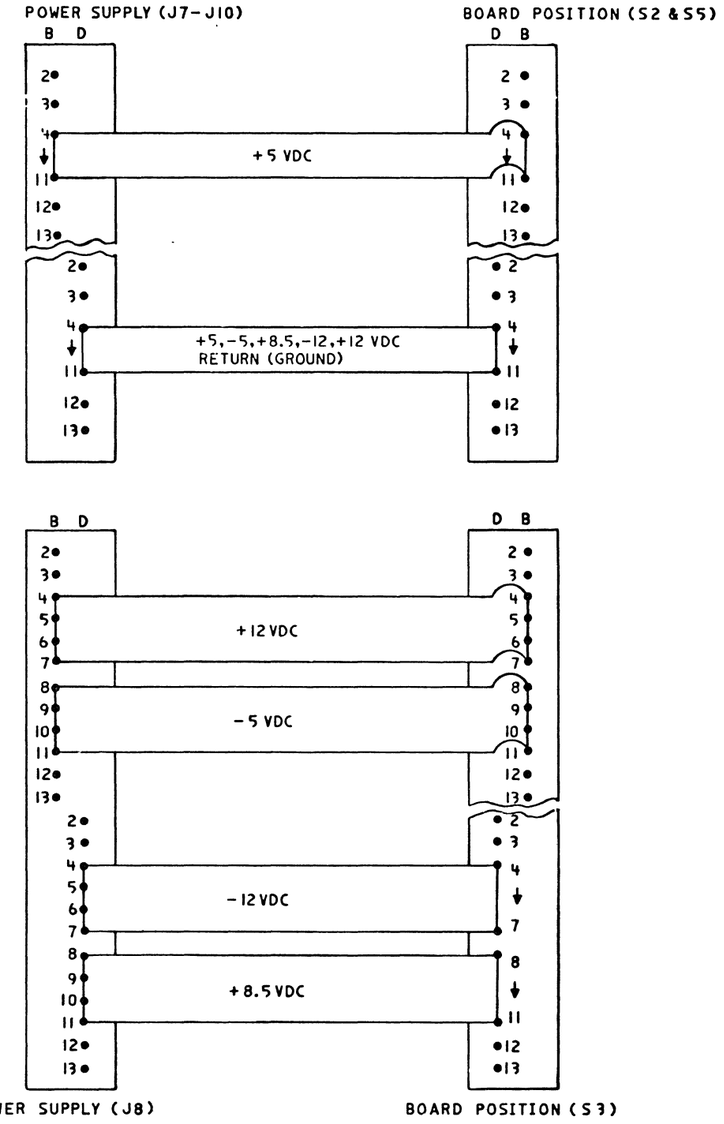
YA431

EC HISTORY		DRAWING TITLE
21 APR 78	755404D	CARD ASSEMBLIES
6 JUN 78	374833	MACH 4955-E
16 AUG 78	755404	PART NO 8326811
D		CLASSIFICATION

IBM CORP

YA431





NOTES:

1 SEE YA400 FOR CABLING LAYOUT BD FROM REAR OF RACK

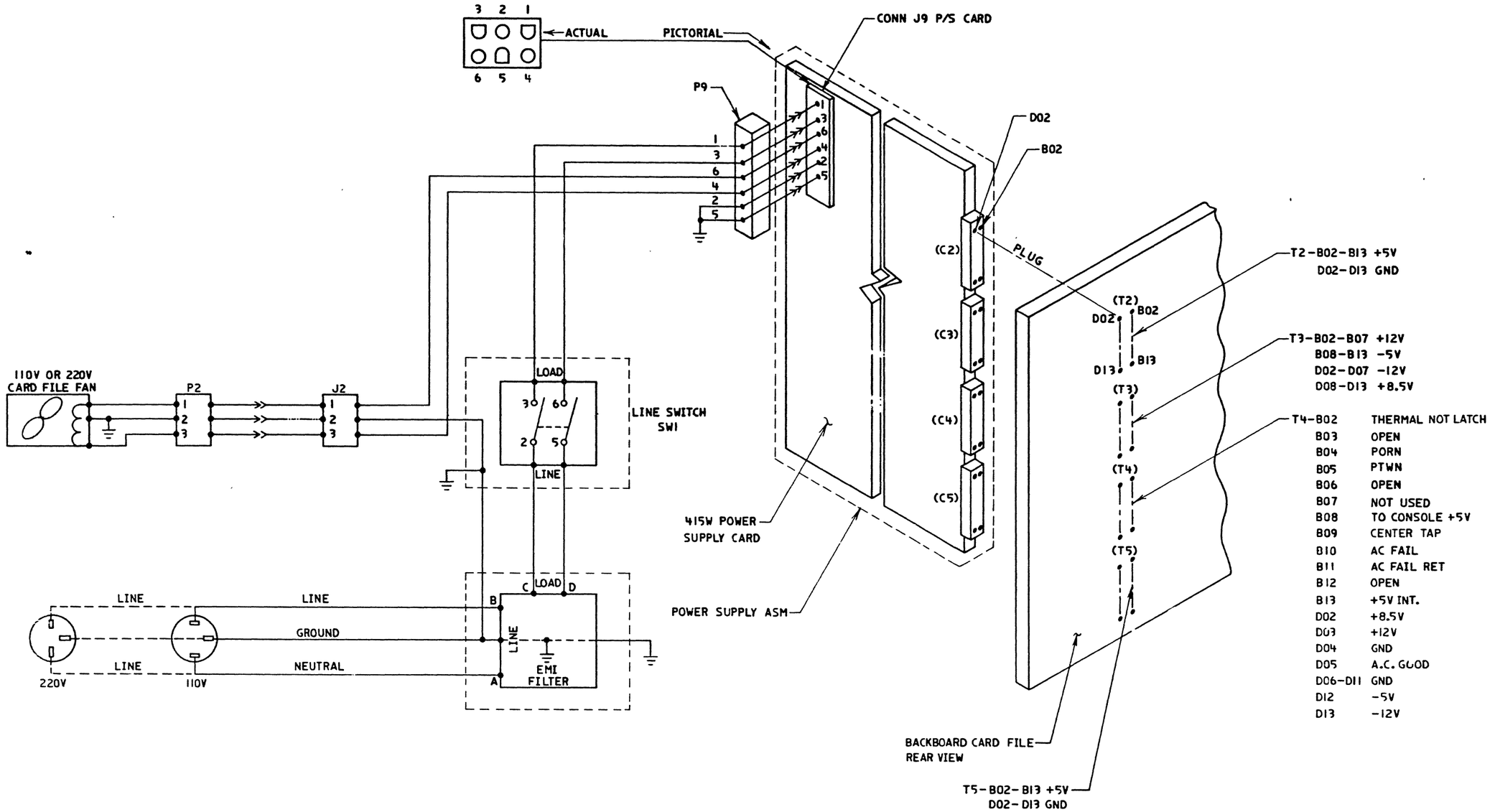
2 VIEW OF P/S AND BACK BD WITH CABLES REMOVED

EC HISTORY		DRAWING TITLE
21 APR 78	755404D	CARD FILE DC DIST DIAGRAM
6 JUN 78	374833	MACH 4955-E
16 AUG 78	755404	PART NO 8326812
		CLASSIFICATION

D

IBM CORP

YA450

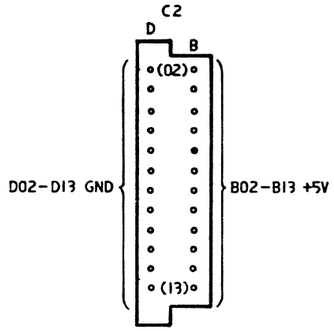


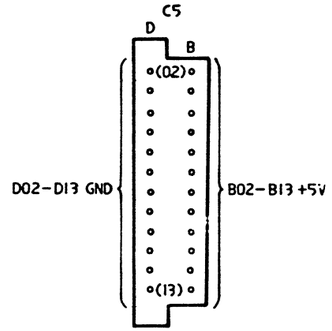
EC HISTORY		DRAWING TITLE
13 AUG 80	869341C	FULL FILE AC/DC DISTRIBUTION
28 JUL 81	994400	MACH
		PART NO 6844420
		CLASSIFICATION

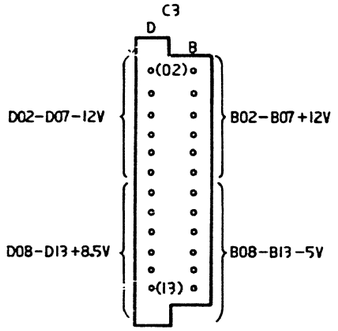
D

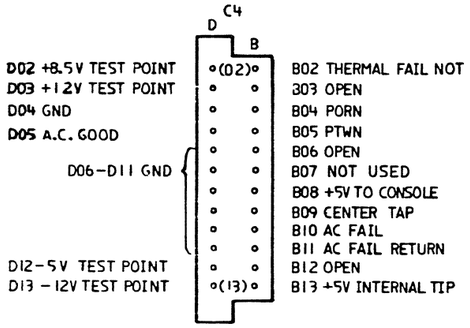
IBM CORP

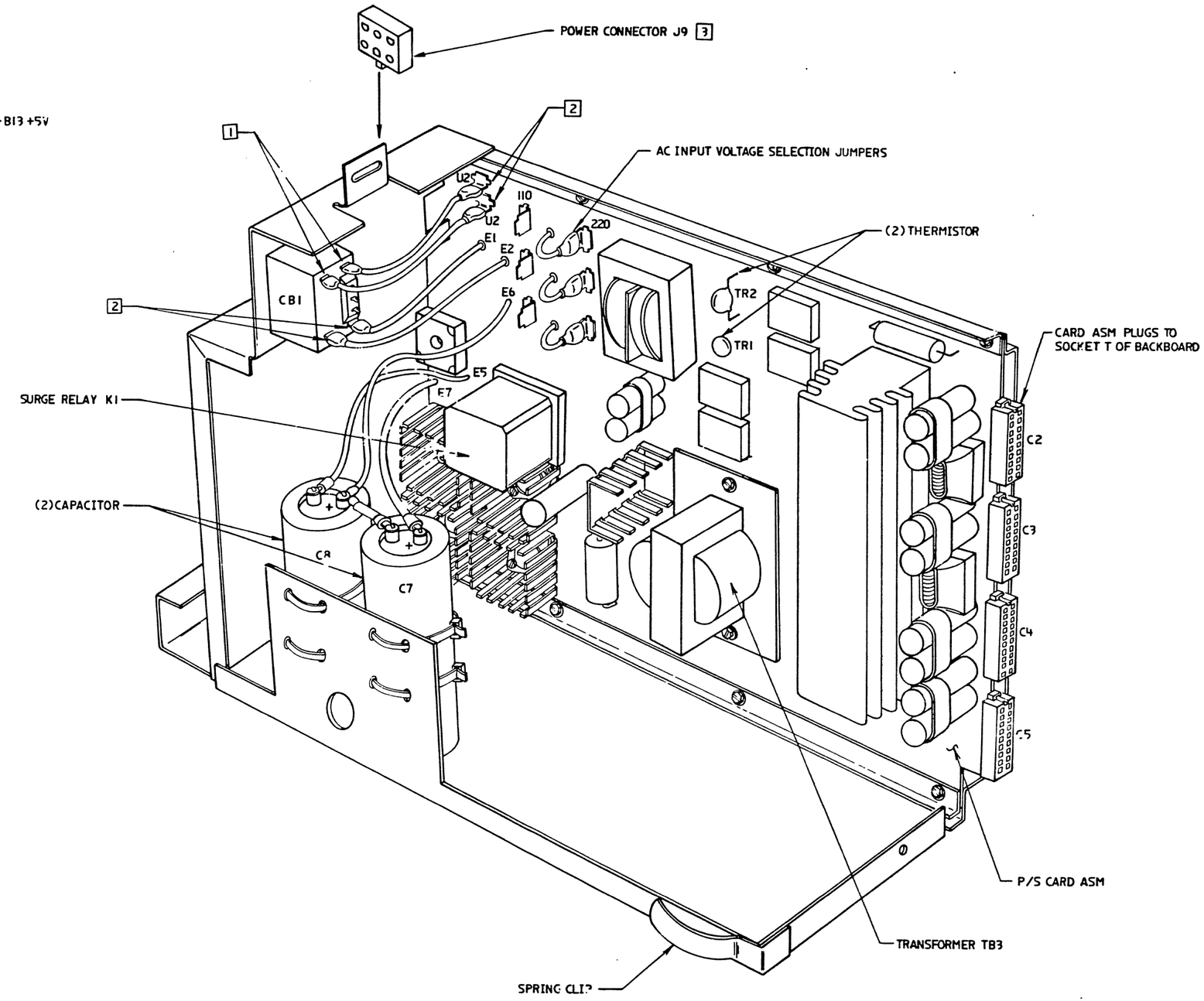
YA450











NOTES:

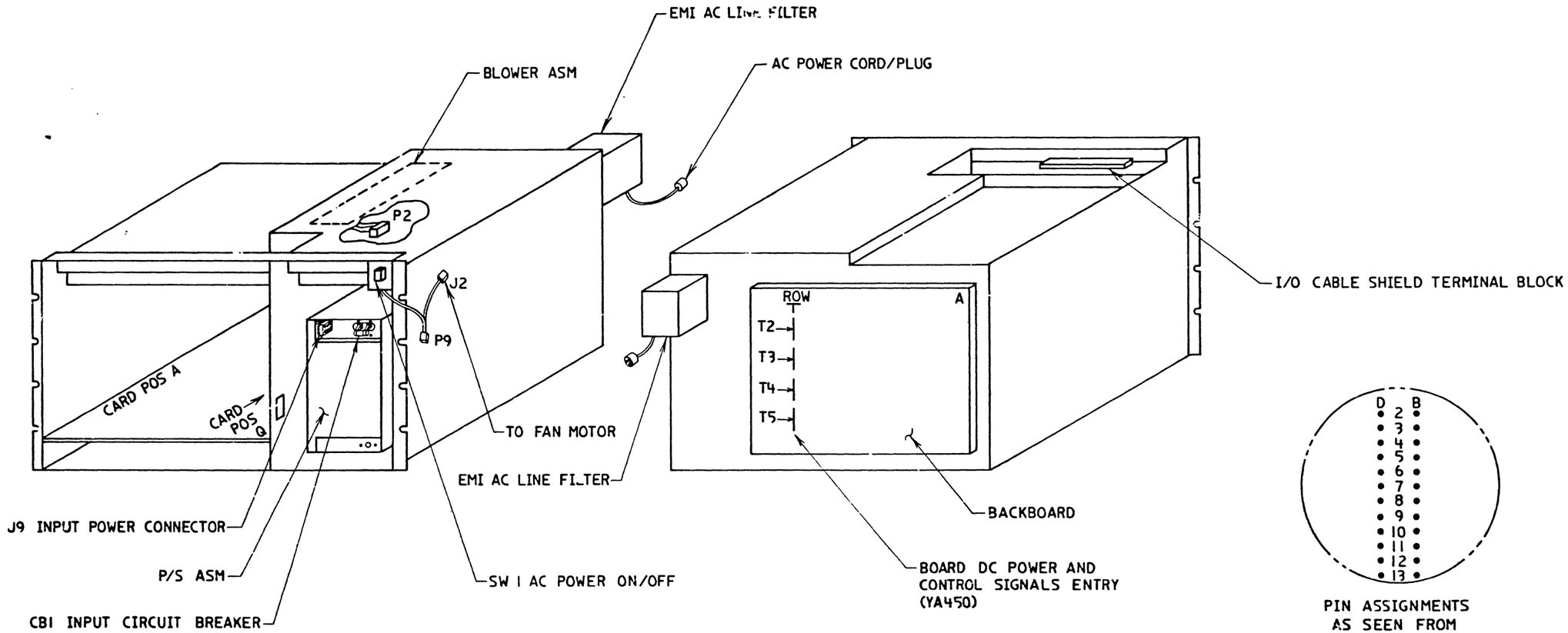
1. THESE LEADS ARE SOLDERED ONTO THE CIRCUIT BREAKER
2. SLIP-ON TERMINALS
3. POWER CONNECTOR J9 IS ON THE FRONT OF THE POWER SUPPLY CHASSIS

EC HISTORY		DRAWING TITLE
13 AUG 80	869341C	POWER SUPPLY 415 WATT-PLUGGABLE
21 JAN 81	987893	MACH
28 JUL 81	994400	PART NO 6844421
		CLASSIFICATION

D

IBM CORP

YA455



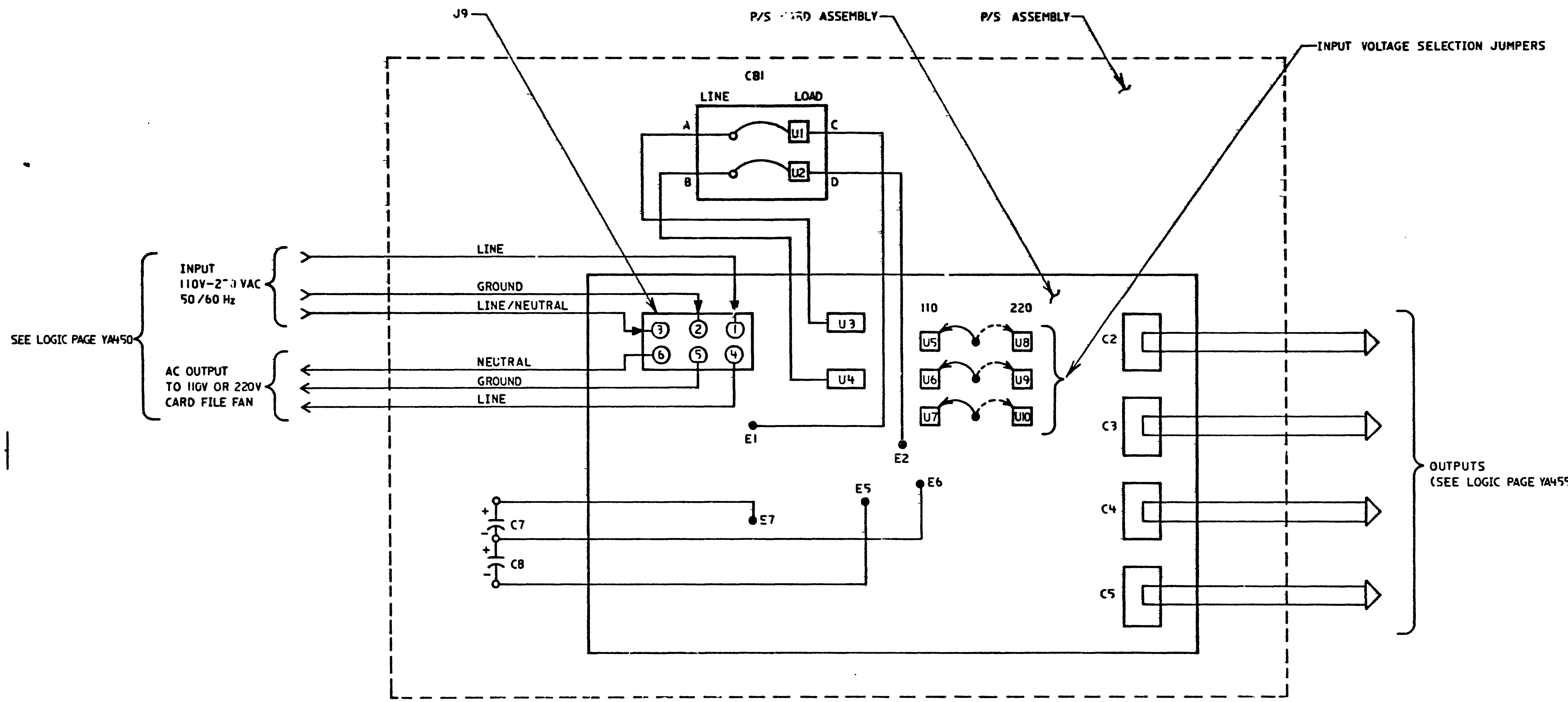
PIN ASSIGNMENTS
AS SEEN FROM
BACKBOARD SIDE

EC HISTORY		DRAWING TITLE
13AUG80	869341C	CARD FILE COMPONENT LOC
		MACH 415W
		PART NO 6844422
		CLASSIFICATION

D

IBM CORP

YA460

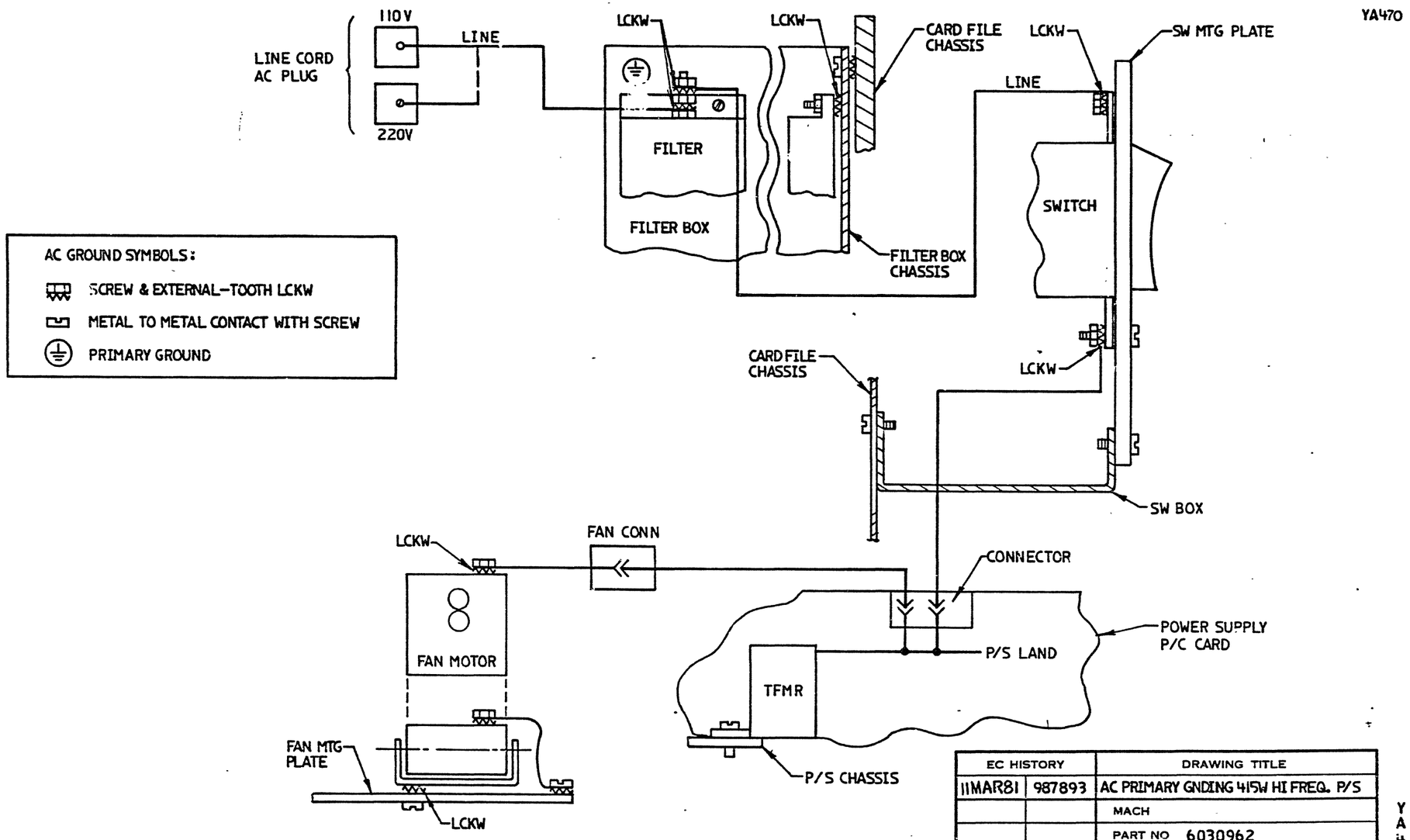


NOTE: U2 CONNECTIONS ARE FOR SLIP-ON TERMINALS

COMPONENTS	
SYM	DESCRIPTION
C7,C8	CAPACITOR, 2900uF 200VDC
CB1	CIRCUIT BREAKER, 10A, 240VAC

EC HISTORY		DRAWING TITLE
	869341C	POWER SUPPLY SCHEMATIC
		MACH 415 W
		PART NO 6844423
C		CLASSIFICATION — IBM CORP

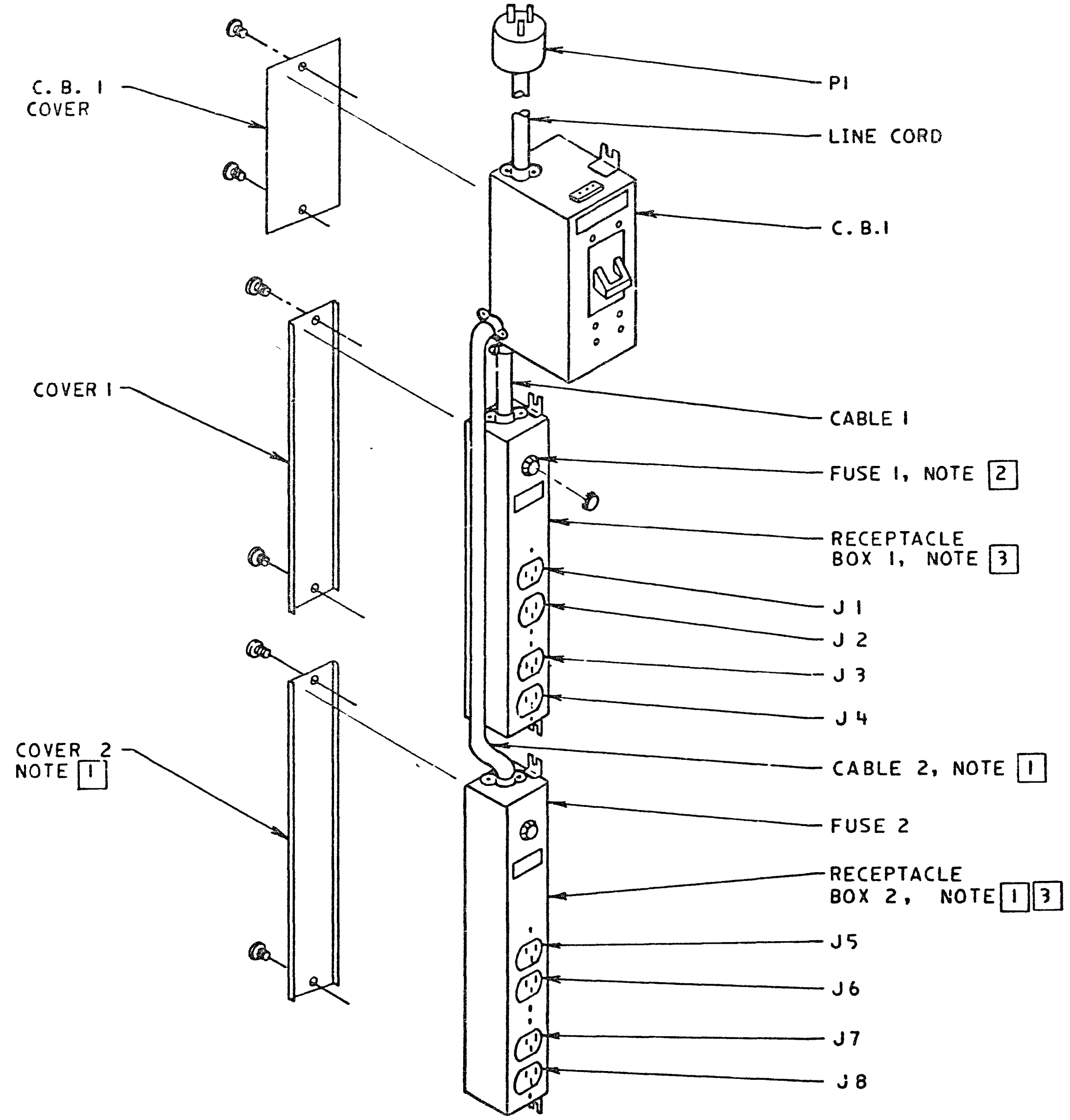
YA470



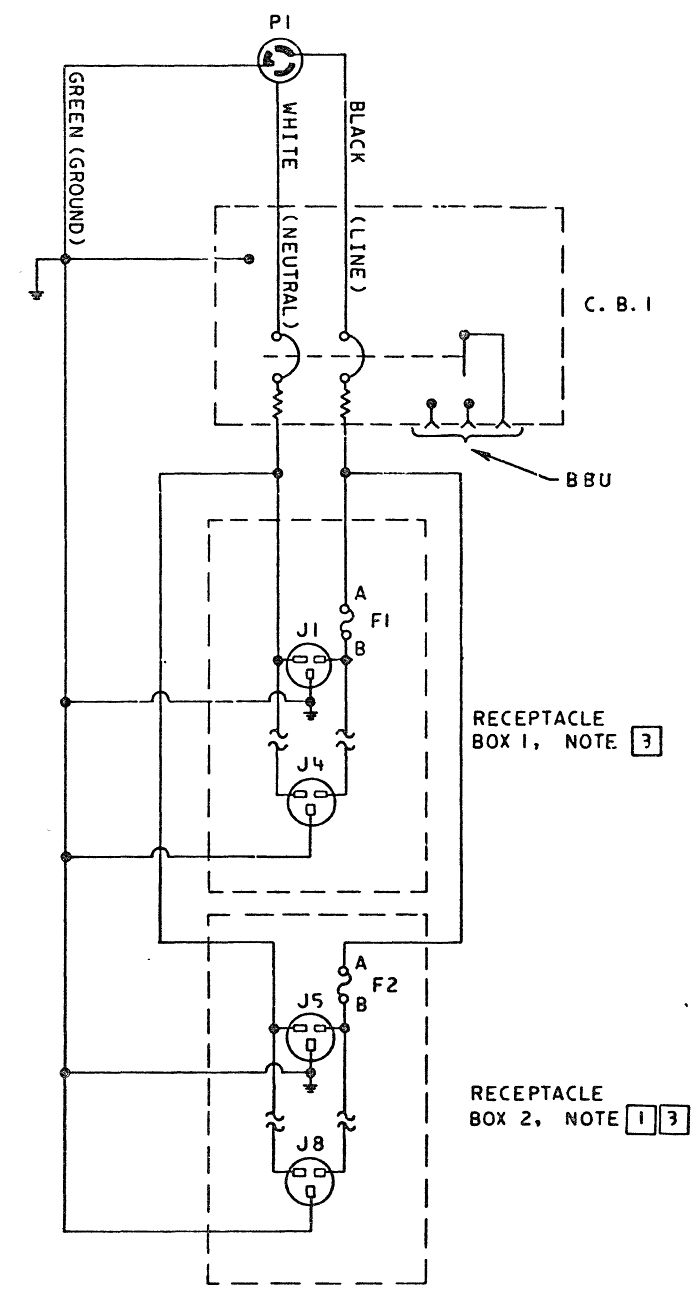
EC HISTORY		DRAWING TITLE
11MAR81	987893	AC PRIMARY GNDING 415W HI FREQ. P/S
		MACH
		PART NO 6030962
C		CLASSIFICATION
		IBM CORP

YA470

YA470



1.8 METER ENCLOSURE



NOTES:

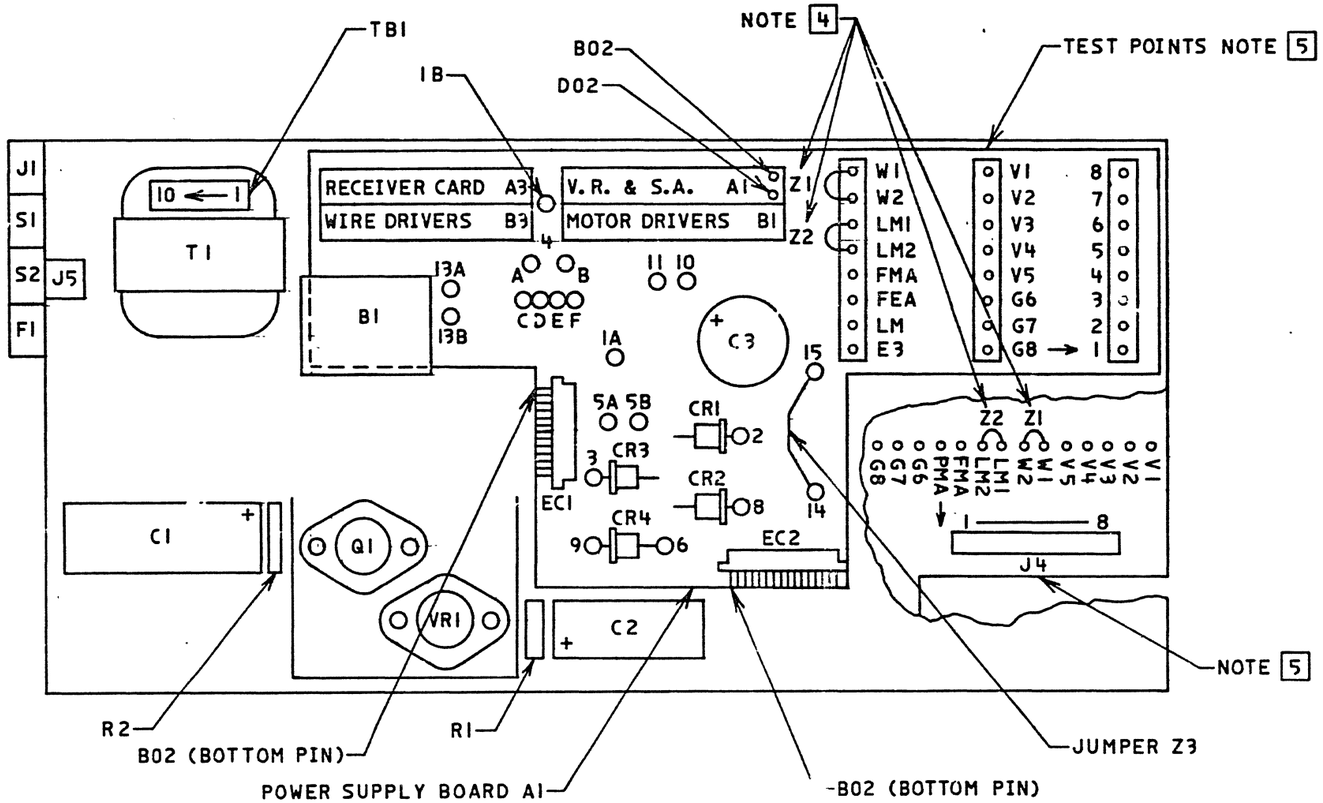
1 NOT INCLUDED IN THE 1.0 METER ENCLOSURE
2 FOR CANADA ONLY
3 MAY BE EITHER 110 OR 220 VOLT RECEPTACLES
4 JAPAN INSTALLATIONS ONLY; A COMPENSATION NETWORK ASSEMBLY IS USED, REFER TO INSTALLATION INSTRUCTIONS, PART NUMBER 1633743, PARAGRAPH 4.1

YD100

EC HISTORY		DRAWING TITLE	
	578625	AC PWR DIST LOCATION & WD	
28 JUN 79	375342A	MACH	
		PART NO 4412901	
D		CLASSIFICATION	IBM CORP

YD100

YP100



COMPONENT LIST		
NOTES	SYMBOL	DESCRIPTION
6		SLT CARD (A3)
6		SLT CARD (A1)
6		SLT CARD (B1)
6		SLT CARD (B3)
6	A1	POWER SUPPLY BOARD
4	Z1, Z2	JUMPER
3	S1	SWITCH 2 PST POWER
3	J1	CONNECTOR
1	F1	FUSE 2A, SB
2	F1	FUSE 1A, SB
3	J5	CONNECTOR
3	S2	SWITCH DPDT CF MODE
	T1	TRANSFORMER
	C1	18,000 UF 15 V DC
	C2	5,800 UF 40V DC
	C3	19,000 UF 30V DC
	B1	FAN
	A3	RECEIVER CARD
	Q1	TRANSISTOR
	VR1	+5V REGULATOR
3	CR1-CR4	RECTIFIER
	Z3	JUMPER
	R1	RESISTOR 200 Ω 10W
	R2	RESISTOR 100Ω 5W

NOTES:

1 USED WHEN MACHINE IS WIRED FOR 100V AC-123.5V AC

2 USED WHEN MACHINE IS WIRED FOR 200V AC-235V AC

[3] NOT RECOMMENDED FOR FIELD REPLACEMENT. SEE PARTS CATALOG FOR NEXT HIGHER ASSEMBLY

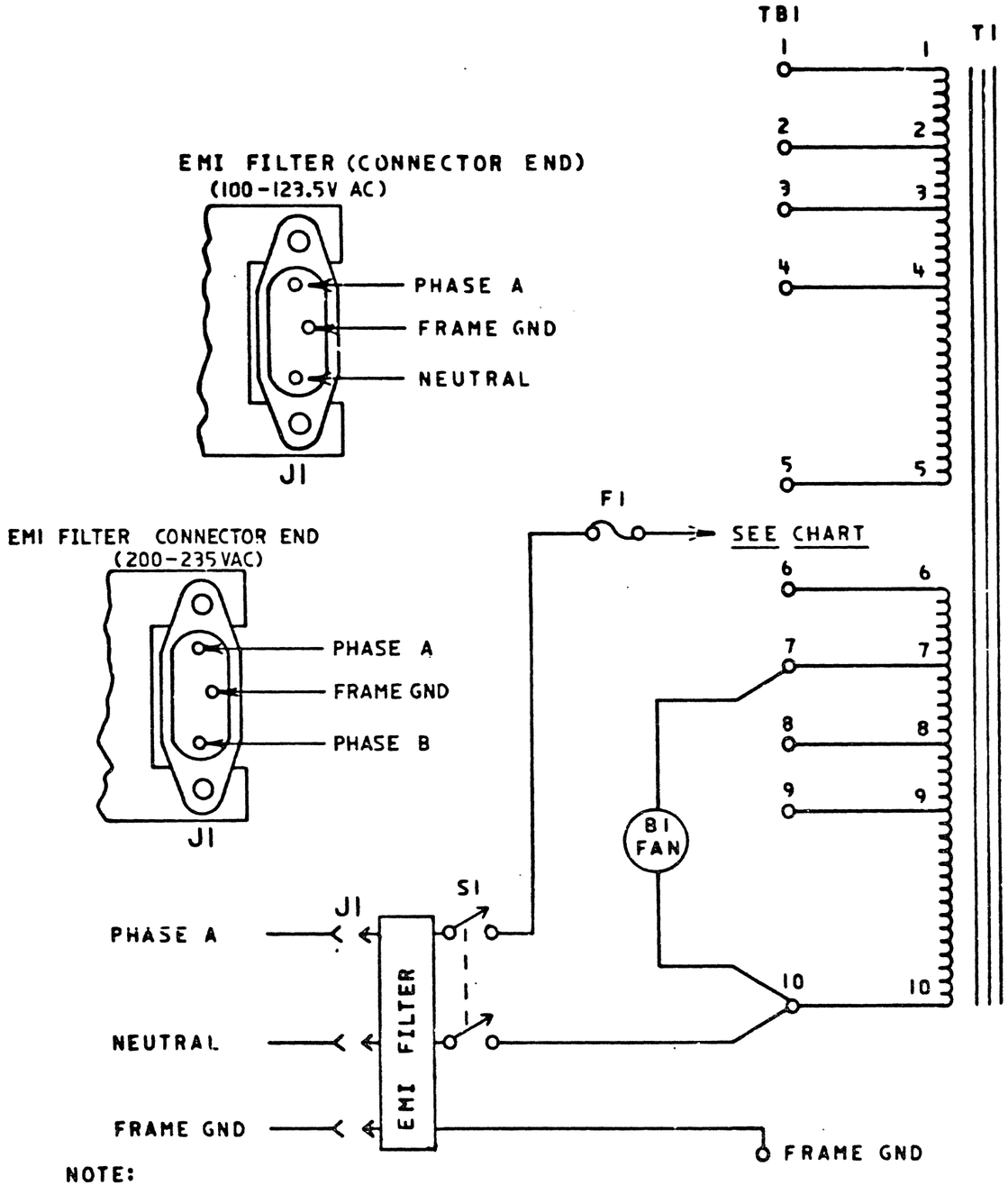
[4] JUMPERS Z1, Z2 ARE REMOVED ONLY FOR DIAGNOSTIC PROCEDURES IN MAPS. SEE PAGE SP150

[5] TEST POINTS AND J4 MAY APPEAR EITHER WAY

[6] A1 CARD P/N 5863340
A3 CARD P/N 1631329
B1 CARD P/N 6847227 (OR P/N 6843324, OR P/N 5863342)
B3 CARD P/N 6843322 (OR P/N 5863341) NOTE: USE P/N 4498820 FOR R.P.Q.'S REQUIRING HIGH WIRE IMPACT FORCES.

EC HISTORY		DRAWING TITLE
12FEB76	579577	COMPONENT LOC - POWER SPLY
22JUL77	386313	MACH
30JAN81	987806	PART NO 1638947
		CLASSIFICATION
C		F. S. 12FEB76 IBM CORP

YP100



YP130	30VAC TO POWER SUPPLY BOARD PIN 2
YP130	30V CENTER TAP
YP130	30VAC TO POWER SUPPLY BOARD PIN 8
YP130	10.8VAC TO POWER SUPPLY BOARD PIN 3
YP130	10.8V CENTER TAP
YP130	10.8VAC TO POWER SUPPLY BOARD PIN 9

TB1 CONNECTIONS

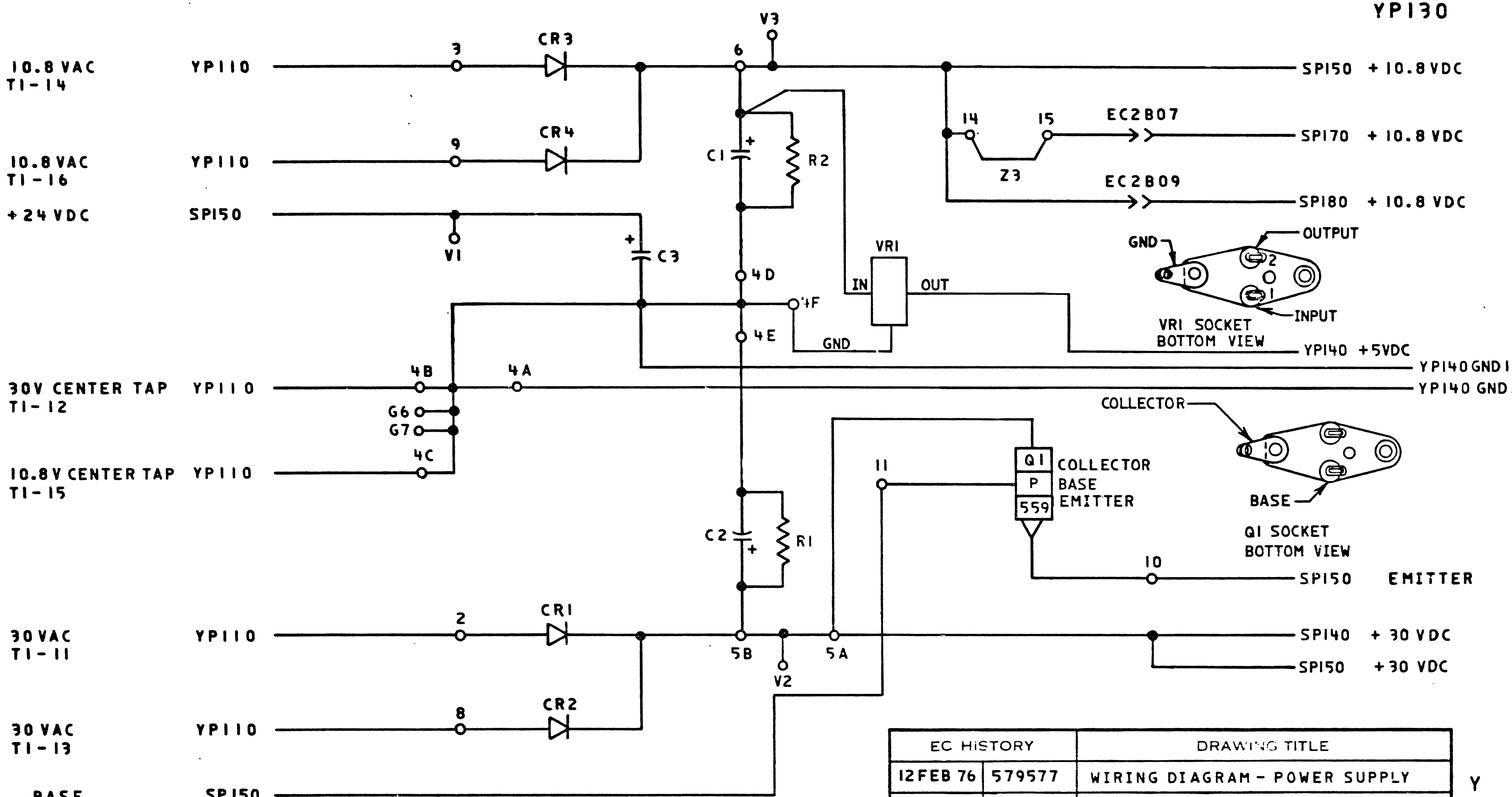
INPUT	PHASE A	NEUTRAL	JUMPERS
100 VAC	9	10	4-9, 5-10
110 VAC	8	10	3-8, 5-10
115 VAC	7	10	2-7, 5-10
123.5VAC	6	10	1-6, 5-10
200 VAC	4	10	5-9
208 VAC	4	10	5-8
220 VAC	3	10	5-8
230 VAC	2	10	5-7
235 VAC	1	10	5-7

NOTE:
1 COMPONENT LOCATIONS ARE SHOWN ON PAGE YP100

EC HISTORY		DRAWING TITLE		
12FEB 76	579577	WIRING DIAGRAM 100VAC - 235 VAC		
22 JUL 77	386313	MACH		
		PART NO 1638948		
B		CLASSIFICATION		
		F. S.	12 FEB 76	CORP

YP110

YP110


10.8 VAC
T1-14
YP110
3
CR3
V3
6
SP150 +10.8VDC
10.8 VAC
T1-16
YP110
9
CR4
C1
R2
14
15
Z3
EC2B07
SP170 +10.8 VDC
EC2B09
SP180 +10.8 VDC
+24 VDC
SP150
V1
C3
4D
4F
4E
IN
VR1
OUT
GND
GND
OUTPUT
INPUT
VR1 SOCKET
BOTTOM VIEW
YP140 +5VDC
YP140 GND1
YP140 GND2
30V CENTER TAP
T1-12
YP110
4B
4A
G6
G7
4C
10.8V CENTER TAP
T1-15
YP110
COLLECTOR
Q1
P
559
COLLECTOR
BASE
EMITTER
11
BASE
Q1 SOCKET
BOTTOM VIEW
C2
R1
10
SP150 EMITTER
30 VAC
T1-11
YP110
2
CR1
5B
V2
5A
SP140 +30 VDC
SP150 +30 VDC
30 VAC
T1-13
YP110
8
CR2
BASE
SP150

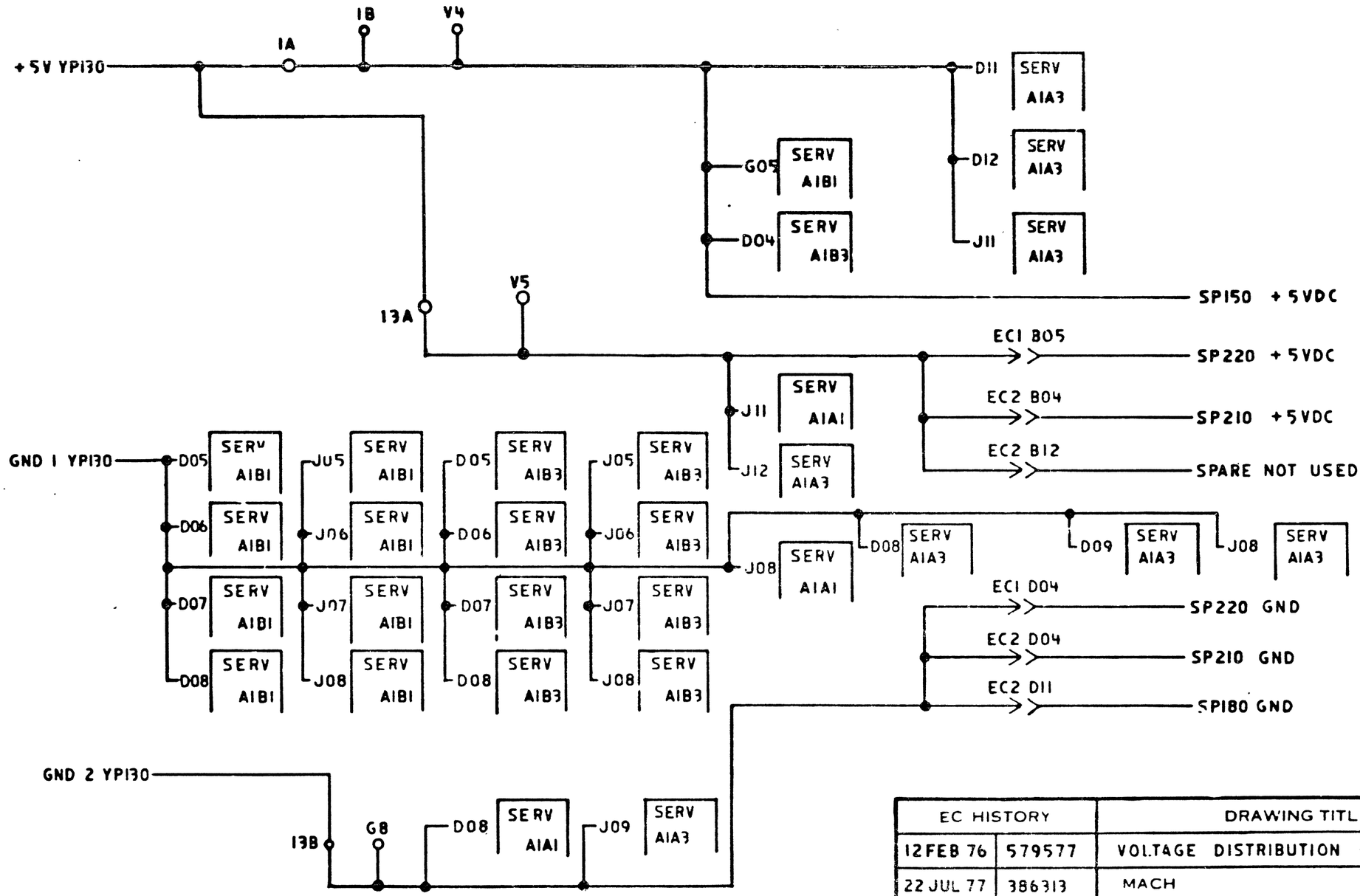
NOTE :
1 COMPONENT, TEST POINT AND EDGE CONNECTOR LOCATIONS ARE SHOWN ON PAGE YP100

EC HISTORY		DRAWING TITLE	
12 FEB 76	579577	WIRING DIAGRAM - POWER SUPPLY	
22 JUL 77	386313	MACH	
3 MAR 78	386441	PART NO 1638950	
		CLASSIFICATION	IBM CORP
		F. S.	12 FEB 76

B

YP130

YP130



NOTE:

1 CIRCUIT CARD, TEST POINT AND EDGE CONNECTOR LOCATIONS ARE SHOWN ON PAGE YP100

EC HISTORY		DRAWING TITLE
12FEB 76	579577	VOLTAGE DISTRIBUTION +5VDC
22 JUL 77	386313	MACH
		PART NO 1638951
		CLASSIFICATION
		F. S. 12FEB 76

B

IBM CORP

YP140