

*J. Fay*

**IBM**<sup>®</sup>

**Customer Engineering**

**Instructional**

**Systems Diagrams**

**FOR INSTRUCTIONAL USE ONLY**

**729 II, V Magnetic Tape Units (30,000 Series)**

**729 IV, VI Magnetic Tape Units (90,000 Series)**

**729 IV Magnetic Tape Unit (70,000 Series)**



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LOGIC NO.	DESCRIPTION	PART NO	ENG CHG
SYSTEM DIAGRAMS			
VOLUME 1			
TU.00.01.0	SEQUENCE CHT	0348610	250267
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TU.02.00.0	REFERENCE PAGE	0348607	250969
TU.02.10.0	T/C CONNECTOR RECEPTACLE	0348614	249230
TU.02.20.0	TAPE SIGNAL TERMINATOR	0348615	250266
TU.03.00.0	TAPE POWER CONNECTORS	0348617	250267
TU.04.00.0	POWER SUPPLIES LOCATION	0348618	250259
TU.04.10.0	CKT CARD LOCATION CHART	0348609	250120
TU.04.11.0	CIRCUIT CARD LOCATION CHART	0348661	250120
TU.05.00.0	CIRCUIT PROTECTOR CHART	0348574	250259
TU.06.00.0	LOCATION CHART	0348621	250266
TU.06.10.0	LOCATION CHARTS	0348616	250259
TU.07.00.0	READ PRE-AMPS	0348623	250103
TU.07.10.1	ERASEJHD-WR PULSE-DELAY-WR TR 1	0348626	250969
TU.07.10.2	WRITE TR 2-TR 4-TR 8	0348627	250969
TU.07.10.3	WRITE TR A-TR B-TR C	0348628	250969
TU.07.10.4	WR STATUS & WR TRIG INDICATORS	0348625	250969
TU.08.00.1	INPUT CONVERSION LINES	0348629	251426
TU.08.10.1	OUTPUT CONVERSION LINES	0348630	251062
TU.08.10.1	OUTPUT CONVERSION LINES	0348630	250969
TU.08.20.1	REAR CE PANEL 1	0348631	250969
TU.08.20.2	REAR CE PANEL 2	0348632	250969
TU.08.30.1	SELECT SWITCH-CCP ALARM CIRCUIT	0348633	250266
TU.09.10.1	WR STAT-REW UNLOAD	0348635	250969
TU.09.15.1	SEL & RDY-REW STAT-NOT FILE PROT	0348636	251426
TU.09.20.1	INITIAL RESET-LOAD REWIND-RUN	0348637	251426
TU.09.25.1	UNLOAD-UNLOAD STOP	0348638	251426
TU.09.30.1	MOTOR REVERSE	0348639	250456
TU.09.35.1	TAPE TAKE UP-HD UP MTRS	0348640	251054
TU.09.40.1	HS REW-CAP MTRS	0348641	251054
TU.09.45.1	-48 VOLT CLUTCH CONTROL	0348642	250969
TU.09.50.1	FWD GO CONTROL	0348643	250266
TU.09.50.2	PROLAY CONTROL	0348644	250266
TU.09.50.3	PROLAY COILS	0348588	250259
TU.09.55.1	LOAD POINT TAPE INDICATE	0348646	251054
TU.09.60.0	SEQUENCE CHT	0348634	250266
TU.09.60.1	DENSITY	0348647	250969
TU.10.00.1	RELAYS-MOTOR-CLUTCH-NOT FILE PROT	0348648	250266
TU.11.00.1	SWITCHES	0348649	250456
TU.12.00.1	LIGHTS	0348650	250969
TU.13.00.1	C E TESTER CONTROL	0348651	250969
TU.13.10.1	FRONT C E PANEL	0348652	250266
TU.15.00.0	CLUTCH & VACUUM CONTROL	0352758	251438
TU.16.00.0	MOTOR CIRCUIT	0348654	250266
TU.95.00.0	POWER SUPPLY SCHEMATIC	0348655	250259
TU.95.00.0	DC REG REF MAT	0348547	250259
TU.95.00.0	PLUS MINUS 12 VDC REGULATOR	0348548	250259
TU.95.00.0	PLUS MINUS 6 VDC REGULATOR	0348549	250259
TU.95.00.1	GND SYSTEM -48 -75 VOLTAGE DISTR	0348656	251054
TU.95.00.2	&12 -12 &6 -6 VOLTAGE DIST	0348657	251054
TU.95.01.0	COMPONENTS	0348612	250259
TU.95.01.0	COMPONENTS	0348613	250259

PLUGGABLE UNIT OR CARD DIAGRAMS

VOLUME 1	DESCRIPTION	PART NO	ENG CHG
ACH-	PREAMP #3 MAGNETIC TAPE	0370100	000000
ACX-	PREAMP #4 MAGNETIC TAPE	0370099	000000
APE-	CONVERTER N LINE TO S LINE	0370639	000000
APF-	CONVERTER P LINE TO S LINE	0370640	000000
APG-	CONVERTER S LINE TO N LINE	0370641	000000
APH-	CONVERTER S LINE TO P LINE	0370642	000000
AR--	TRIGGER #2	0371034	000000
AYWS	GATED SAMPLE PULSE DRIVER VM3	0371041	000000
BJ--	DELAY LINE LUMPED	0371432	000000
BKVZ	DRIVER 2 PROLAY 1 READ GATE	0371433	000000
CD--	INVERTERS N TYPE	0371029	000000
CEYB	EMITTER FOLLOWER PNP	0371032	000000
CFYA	EMITTER FOLLOWER NPN	0371033	000000
HW--	INDICATOR LAMP VM	0371048	000000
LZ--	HEAD DRIVER & ECHO PULSE AMP	0371674	000000
MD--	DRIVERS-FUNCTIONAL COIL	0371497	000000
MH--	INVERTERS POWER PNP	0371487	000000
MX--	INVERTER N TWO WAY	0371661	000000
RP--	DELAY LINE DISTRIBUTED #2	0371749	000000
WB--	DRIVER RELAY 2.5 AMP	0371880	000000
YAW	A C PHOTO AMPLIFIER	0370452	000000

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TU.00.02.0	SEQUENCE CHTS	0348611	250266
TU.02.00.0	REFERENCE PAGE	0348607	250969
TU.02.10.0	T/C CONNECTOR RECEPTACLE	0348614	249230
TU.02.20.0	TAPE SIGNAL TERMINATOR	0348615	250266
TU.03.00.0	TAPE POWER CONNECTORS	0348617	249230
TU.04.00.0	POWER SUPPLIES LOC	0348618	250259
TU.04.10.0	CKT CARD LOCATION CHART	0348608	250120
TU.04.11.0	CKT CD LOC CHART	0348662	251054
TU.05.00.0	CIRCUIT PROTECTOR CHART	0348574	250259
TU.06.00.0	LOCATION CHART	0348621	250266
TU.06.10.0	LOCATION CHARTS	0348616	250259
TU.07.00.0	READ PRE-AMPS	0348624	250103
TU.07.10.1	ERASE HD-WR PULSE-DELAY	0348626	250969
TU.07.10.2	WRITE CKTS	0348627	250969
TU.07.10.3	DELAY MATRIX	0348628	250969
TU.07.10.4	WR STATUS & WR TRIG INDICATORS	0348625	250969
TU.08.00.1	INPUT CONVERSION LINES	0348629	251426
TU.08.10.1	OUTPUT CONVERSION LINES	0348630	251062
TU.08.20.1	REAR CE PANEL I	0348631	250969
TU.08.20.2	REAR CE PANEL II	0348632	250969
TU.08.30.1	SELECT SWITCH-CCP ALARM CIRCUIT	0348633	250266
TU.09.10.1	WR STAT-REW UNLOAD	0348635	250969
TU.09.15.1	SEL & RDY-REW STAT-NOT FILE PROT	0348636	251426
TU.09.20.1	INITIAL RESET-LOAD REWIND-RUN	0348637	251426
TU.09.25.1	UNLOAD-UNLOAD STOP	0348638	251426
TU.09.30.1	MOTOR REVERSE	0348639	250456
TU.09.35.1	TAPE TAKE UP-HD UP MTRS	0348640	251054
TU.09.40.1	HS REW-CAP MTRS	0348641	251054
TU.09.45.1	-48 VOLT CLUTCH CONTROL	0348642	250969
TU.09.50.1	FWD GO CONTROL	0348643	250266
TU.09.50.2	PROLAY CONTROL	0348644	250266
TU.09.50.3	PROLAY COILS	0348588	250259
TU.09.55.1	LOAD POINT TAPE INDICATE	0348646	251054
TU.09.60.0	SEQUENCE CHART	0348634	250266
TU.09.60.1	DENSITY	0348647	250969
TU.10.00.1	RELAYS-MOTOR-CLUTCH-NOT FILE PROT	0348648	250266
TU.11.00.1	SWITCHES	0348649	250456
TU.12.00.1	LIGHTS	0348650	250969
TU.13.00.1	C E TESTER CONTROL	0348651	250969
TU.13.10.1	FRONT C E PANEL	0348652	250266
TU.15.00.0	CLUTCH AND VACUUM CONTROL	0348653	250266
TU.16.00.0	MOTOR CIRCUIT	0348654	250266
TU.95.00.0	POWER SUPPLY SCHEMATIC	0348655	250259
TU.95.00.0	DC REG REF MAT	0348547	250259
TU.95.00.0	PLUS MINUS 12 VDC REGULATOR	0348548	250259
TU.95.00.0	PLUS MINUS 6 VDC REGULATOR	0348549	250259
TU.95.00.1	GND SYSTEM -48 -75 VOLTAGE DISTR	0348656	251054
TU.95.00.2	&12 -12 &6 -6 VOLTAGE DIST	0348657	251054
TU.95.01.0	COMPONENTS	0348612	250259
TU.95.01.0	COMPONENTS	0348613	250259

PLUGGABLE UNIT OR CARD DIAGRAMS

VOLUME 1	DESCRIPTION	PART NO	ENG CHG
ABK-	PREAMP #2 MAGNETIC TAPE	0371926	000000
AFA-	PREAMP #1 MAGNETIC TAPE	0371925	000000
APE-	CONVERTER N LINE TO S LINE	0370639	000000
APF-	CONVERTER P LINE TO S LINE	0370640	000000
APG-	CONVERTER S LINE TO N LINE	0370641	000000
APH-	CONVERTER S LINE TO P LINE	0370642	000000
AR--	TRIGGER #2	0371034	000000
AYWS	GATED SAMPLE PULSE DRIVER VM3	0371041	000000
BJ--	DELAY LINE LUMPED	0371432	000000
BKVZ	DRIVER 2 PROLAY 1 READ GATE	0371433	000000
BP--	DELAY LINE DISTRIBUTED	0371439	000000
CD--	INVERTERS N TYPE	0371029	000000
CEYB	EMITTER FOLLOWER PNP	0371032	000000
CFYA	EMITTER FOLLOWER NPN	0371033	000000
HW--	INDICATOR LAMP VM	0371048	000000
LZ--	HEAD DRIVER & ECHO PULSE AMP	0371674	000000
MD--	DRIVERS-FUNCTIONAL COIL	0371497	000000
MH	INVERTERS POWER PNP	0371487	000000
MX--	INVERTER N TWO WAY	0371661	000000
WB--	DRIVER RELAY 2.5 AMP	0371880	000000
YAW	A C PHOTO AMPLIFIER	0370452	000000

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TU.00.02.0	SEQUENCE CHART	0348611	250266
TU.02.00.0	REFERENCE PAGE	0348607	250969
TU.02.10.0	T/C CONNECTOR RECEPTACLE	0348558	250267
TU.02.20.0	TAPE SIGNAL TERMINATOR	0348559	250267
TU.03.00.0	TAPE POWER CONNECTORS	0348617	249230
TU.04.00.0	POWER SUPPLIES LOC	0348618	249230
TU.04.10.0	CIR CARD LOC CHART	0348560	250267
TU.04.11.0	CIRCUIT CARD LOCATION CHART	0348562	251054
TU.05.00.0	CIRCUIT PROTECTOR CHART	0348574	250259
TU.06.00.0	LOCATION CHART	0348621	250266
TU.06.10.0	LOCATION CHARTS	0348616	250259
TU.07.00.0	READ PREAMPS	0348564	250267
TU.07.10.1	ERASE HD-WR PULSE	0348566	250969
TU.07.10.2	WRITE CKTS	0348567	250969
TU.07.10.3	DELAY MATRIX	0348628	250969
TU.07.10.4	WR STATUS & WR TRIG INDICATORS	0348625	250969
TU.08.00.1	INPUT CONVERSION LINES	0348629	251426
TU.08.10.1	OUTPUT CONVERSION LINES	0348569	251062
TU.08.20.1	REAR CE PANEL 1	0348631	250969
TU.08.20.2	REAR CE PANEL 2	0348632	250969
TU.08.30.1	SELECT SWITCH-CCP ALARM CIRCUIT	0348633	250266
TU.09.10.1	WR STAT-REW UNLOAD	0348635	250969
TU.09.15.1	SEL & RDY-REW STAT-NOT FILE PROT	0348636	251426
TU.09.20.1	INITIAL RESET-LOAD REWIND-RUN	0348637	251426
TU.09.25.1	UNLOAD -UNLOAD STOP	0348638	251426
TU.09.30.1	MOTOR REVERSE	0348639	250456
TU.09.35.1	TAPE TAKE UP-HD UP MTRS	0348640	251054
TU.09.40.1	HS REW-CAP MTRS	0348641	251054
TU.09.45.1	-48 VOLT CLUTCH CONTROL	0348642	250969
TU.09.50.1	FWD GO CONTROL	0348643	250266
TU.09.50.2	PROLAY CONTROL	0348644	250266
TU.09.50.3	PROLAY COILS	0348588	250259
TU.09.55.1	LOAD POINT TAPE INDICATE	0348646	251054
TU.09.60.0	SEQUENCE CHT	0348634	250266
TU.09.60.1	DENSITY	0348647	250969
TU.10.00.1	RELAYS-MOTOR-CLUTCH-NOT FILE PROT	0348648	250266
TU.11.00.1	SWITCHES	0348649	250456
TU.12.00.1	LIGHTS	0348650	250969
TU.13.00.1	CE TESTER CONTROL	0348651	250969
TU.13.10.1	FRONT CE PANEL	0348652	250266
TU.15.00.0	CLUTCH & VACUUM CONTROL	0352758	251438
TU.16.00.0	MOTOR CIRCUIT	0348654	250266
TU.95.00.0	POWER SUPPLY SCHEMATIC	0348655	250259
TU.95.00.0	DC REG REF MAT	0348547	250259
TU.95.00.0	PLUS MINUS 12 VDC REGULATOR	0348548	250259
TU.95.00.0	PLUS MINUS 6 VDC REGULATOR	0348549	250259
TU.95.00.1	GND SYSTEM -48 -75 VOLTAGE DISTR	0348656	251054
TU.95.00.2	&12 -12 &6 -6 VOLTAGE DIST	0348657	251054
TU.95.01.0	COMPONENTS	0348612	250259
TU.95.01.0	COMPONENTS	0348613	250259
PLUGGABLE UNIT OR CARD DIAGRAMS			
VOLUME 1			
APE--	CONV N LN TO S LN	0370639	250267
APF--	CONV S LN TO P LN	0370640	250267
APG--	CONV S LN TO N LN	0370641	250267
APH--	CONV S LN TO P LN	0370642	250267
AR--	TRIGGER *2	0371034	250267
ARK	PRE-AMP #1 MAG TP	0370706	112444
ARL	PRE-AMP #2 MAG TP	0370707	112444
AYWS	GTD SMPLE PLSE DRVR 2 VM 3	0371041	250267
BJ--	DELAY LN LUMPED	0371432	250267
BKVZ	DRIVER 2 PROLAY 1 RD GT	0371433	250267
CD--	INVERTERS N TYPE	0371029	250267
CEYA	EMITTER FOL NPN	0371033	250267
CEYB	EMITTER FOL PNP	0371032	250267
HW--	INDIC LAMP VM	0371048	250267
LZ--	HEAD DRVR & ECHO PLSE AMP	0371674	250267
MD--	DRVRS-FUNCT COIL	0371497	250267
MH	INVERTERS PWR PNP	0371487	250267
MX--	INVERTER N 2 WAY	0371661	250267
RP--	DLY LN DIST #2	0371749	250267
WB--	DRIVER RELAY 2.5 AMP	0371880	250267
YAW	AC PHOTO AMPLIFIER	0370452	250267
YEU	WRITE CURRENT BAL	0370668	112416
YHM--	RES & SUP	0370701	250267

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TU.02.20.0	Tape Signal Terminator	0348559	250267
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TU.04.00.0	Power Supplies Location	0348618	250259
TU.04.10.0	Cir Cd Loc Chart	0348561	250267
TU.04.11.0	Cir Card Loc Chart	0348563	251054
TU.05.00.0	Circuit Protector Chart	0348574	250259
TU.06.00.0	Location Chart	0348621	250267
TU.06.10.0	Location Charts	0348616	250259
TU.07.00.0	Read Preamps	0348565	250267
TU.07.10.1	Erase Hd-Wr Pulse-Delay-Wr Tri	0348566	250969
TU.07.10.2	Write Tr 2-Tr 4-Tr 8	0348567	250456
TU.07.10.3	Write Tr A-Tr B-Tr C	0348568	250456
TU.07.10.4	Wr Status & Wr Trig Indicators	0348625	250969
TU.08.10.1	Output Conversion Lines	0348569	251062
TU.08.20.1	Rear CE Panel 1	0348631	250456
TU.08.20.2	Read CE Panel 2	0348632	250969
TU.08.30.1	Select Switch-CCP Alarm Circuit	0348633	250267
TU.09.10.1	Wr Stat-Rew Unload	0348635	250456
TU.09.15.1	Sel & Rdy-Rew Stat-Not File Prot	0348636	251426
TU.09.20.1	Intital Reset-Load Rewind-Run	0348637	251426
TU.09.25.1	Unload-Unload Stop	0348638	251426
TU.09.30.1	Motor Reverse	0348639	250456
TU.09.35.1	Tape Take Up-Hd Mtrs	0348640	251054
TU.09.40.1	Hs Rew-Cap Mtrs	0348641	251054
TU.09.45.1	-48 Volt Clutch Control	0348642	250969
TU.09.50.1	Fwd Go Control	0348643	250267
TU.09.50.2	Prolay Controls	0348644	250267
TU.09.50.3	Prolay Coils	0348645	250259
TU.09.55.1	Load Point Tape Indicate	0348646	251054
TU.09.60.0	Sequence Cht	0348634	250266
TU.09.60.1	Density	0348647	250969
TU.10.00.1	Relays-Motor-Clutch-Not File Prot	0348648	250267
TU.11.00.1	Switches	0348649	250456
TU.12.00.1	Lights	0348650	250969
TU.13.00.1	CE Tester Control	0348651	250969
TU.13.10.1	Front CE Panel	0348652	250267
TU.15.00.0	Clutch and Vacuum Control	0348653	250267
TU.16.00.0	Motor Circuit	0348654	250267
TU.95.00.0	Power Supply Schematic	0348655	250259
TU.95.00.0	DC Reg Ref Mat	0348547	250259
TU.95.00.0	Plus Minus 12 VDC Regulator	0348548	250259
TU.95.00.0	Plus Minus 6 VDC Regulator	0348549	250259
TU.95.00.1	Gnd-Sys -48 -75 Voltage Distr	0348656	251054
TU.95.00.2	12 -12 & 6 -6 Voltage Dist	0348657	251054
TU.95.01.0	Components	0348612	250259
TU.95.01.0	Components	0348613	250259

PLUGGABLE UNIT OR CARD DIAGRAMS

ALZ	PRE-AMP #1 MAG TP	0370680	112444
APE--	CONV N LN TO S LN	0370639	250267
APF--	CONV S LN TO P LN	0370640	250267
APG--	CONV S LN TO N LN	0370641	250267
APH--	CONV S LN TO P LN	0370642	250267
APZ	PRE-AMP #2 MAG TP	0370681	112444
AR---	TRIGGER #2	0371034	250267
AYWS	GTD SMPLE PULSE DRVR	0371041	250267
BJ---	DELAY LN LUMPED	0371432	250267
BKVZ	DRVR 2 PROLAY 1 RD GT	0371433	250267
BP---	DELAY LN DIST	0371439	250267
CD---	INVERTERS N TYPE	0371029	250267
CEYB	EMITTER FOL PNP	0371032	250267
CFYA	EMITTER FOL NPN	0371033	250267
HW---	INDIC LMP VM	0371048	250267
LZ---	HEAD DRVR & ECHO PLSE AMP	0371674	250267
MD---	DRVRS-FUNCT COIL	0371497	250267
MH	INVERTERS PNP PNP	0371487	250267
MX---	INVERTER N 2 WAY	0371661	250267
WB---	DRVR RELAY 2-5 AMP	0371880	250267
YAW	AC PHOTO AMPLIFIER	0370452	250267
YEV-	WRITE CUR BAL	0370668	250267
YHM-	RES & SUP	0370701	250267

SEQUENCE CHART

LOW SPEED LOAD REWIND

FUNCTION	PAGE	BCK	T.P.															
1 LOAD REW. KEY	TU.11.00.1	4D	3C02B	+S														
2 INITIATE REW.	TU.09.10.1	1G	3C07G	-S														
3 INITIAL RESET	TU.09.20.1	5B	3C15G	-S														
4 UNLD. STATUS	TU.09.25.1	3C	3D06C	+S														
5 LD.REW.STATUS	TU.09.20.1	2B	3C16G	+S														
6 REW. STATUS	TU.09.15.1	3E	3C11D	+S														21
7 VAC.MTRS.-R4	TU.09.25.1	3F	3C06E	+S														
8 MTR.REV.-R7	TU.09.30.1	2F	3D09L	+S														
9 VAC.OFF BEL SW	TU.11.00.1	4H	3E01F	-S														
10 RJN-R1 & R2	TU.09.20.1	2E	3C19H	+S														
11 TAPE UP MTR-R6	TU.09.35.1	1B	3D13G	+S														
12 TAPE IN ONE COL	TU.09.35.1	5C	3D11L	+S														
13 HEAD UP MTR-R8	TU.09.35.1	2G	3D15L	+S														
14 TAPE IN BOTH COL	TU.09.35.1	5B	3D11K	-S														
15 HEAD DWN SW.	TU.11.00.1	4G	3E02K	+S														
16 CAP MTRS.-R3	TU.09.40.1	2E	3D24A	+S														
17 CAP OUT SW.	TU.11.00.1	2A	3D02P	+S														
18 FORWARD	TU.09.50.1	1A	3D24C	+S														
19 GO	TU.09.50.1	1F	3D23K	+S														
20 LP.PHOTOCELL	TU.09.55.1	4B	3E20D	-S														
21 AT LOAD POINT	TU.09.55.1	2A	3E21G	+S														

- A LOAD REWIND KEY
- B VACUUM UP
- C HEAD COMES DOWN
- D TAPE IN BOTH COLUMNS
- E START CAPSTAN MOTORS
- F CAPSTANS OUT
- G LOAD POINT SENSED

HIGH SPEED LOAD REWIND

FUNCTION	PAGE	BCK	T.P.															
1 RESET KEY	TU.09.15.1	4H	3C14K	-S														
2 START STATUS	TU.09.15.1	5B	3C13E	-S														
3 LOAD REW. KEY	TU.11.00.1	4D	3C02B	+S														
4 INITIATE REW.	TU.09.10.1	1G	3C07G	-S														
5 REW. STATUS	TU.09.15.1	3E	3C11D	+S														
6 MTR REV.-R7	TU.09.30.1	2F	3D09L	+S														
7 LD.REW.STATUS	TU.09.20.1	2B	3C16G	+S														
8 CAP MTRS.-R3	TU.09.40.1	2E	3D24A	+S														
9 CAP IN SW.	TU.11.00.1	2B	3D02R	+S														
10 HEAD UP MTR.-R8	TU.09.35.1	2G	3D15L	+S														
11 TAPE UP MTR-R6	TU.09.35.1	1B	3D13G	+S														
12 HEAD UP SW.	TU.11.00.1	2F	3E02L	+S														
13 TAPE IN ONE COL	TU.09.35.1	5C	3D11L	+S														
14 TAPE IN RT. COL.	TU.11.00.1	2I	3E01D	+S														
15 TAPE IN LT. COL.	TU.11.00.1	4I	3E01H	+S														
16 H.S.REW.MTR.-R5	TU.09.40.1	1A	3C19E	-S														
17 H.S.REW.P.C.	TU.09.30.1	1C	3D10C	+S														
18 HEAD DWN. SW.	TU.11.00.1	4G	3E02K	+S														
19 CAP OUT SW.	TU.11.00.1	2A	3D02P	+S														
20 FORWARD	TU.09.50.1	1A	3D24C	+S														
21 GO	TU.09.50.1	1F	3D23K	+S														
22 LP.PHOTOCELL	TU.09.55.1	4B	3E20D	-S														
23 AT LOAD POINT	TU.09.55.1	2A	3E21G	+S														
24 REELS STOPPED	TU.11.00.1	3C	3C02K	-S														

- A RESET KEY
- B LOAD REWIND KEY
- C CAPSTANS IN
- D HEAD UP SW
- E HIGH SPEED REW. MTR
- F LOW SPEED AREA
- G REELS STOPPED
- H HEAD COMES DOWN
- I START CAPSTAN MTRS.
- J CAPSTANS OUT
- K LOAD POINT SENSED
- L FORWARD STATUS

NOTE XI ALL LEVELS SHOWN ARE IN ACTIVE STATUS

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME   SYSTEMS DIAGRAM		9-13-61	250103			PRINT TO ENG. OPER. NO. 895291 DWG. SIZE - C	348610
TU.00.01.0		11-20-61	250206				
DESIGN   RPR-17-61	MODEL						
DETAIL							
CHECK   LHB-17-61	DRAW   LdB-17-61						
APPRO   RSR-17-61	CHECK   LNB-17-61						

248611

TU.00.02.0

SEQUENCE CHART

MANUAL UNLOAD

FUNCTION	PAGE	PCK	T.P.	A	B	C	D	E	F	G
1 RESET KEY	TU.09.15.1	4H	3C14K -S							
2 START STATUS	TU.09.15.1	5B	3C13E -S	1						
3 UNLOAD KEY	TU.11.00.1	2D	3C02H +S							
4 GATED UNLD PB	TU.09.25.1	5E	3D05E -S		3	3				
5 UNLD STATUS	TU.09.25.1	3C	3D06C +S		4					
6 MTR REV-R7	TU.09.30.1	2F	3D09L +S					5		
7 CAP MTRS-R3	TU.09.40.1	2E	3D24A +S					5		
8 AT LOAD POINT	TU.09.55.1	2A	3E21G +S					5		
9 CAP IN SW	TU.11.00.1	2B	3D02R +S							
10 HEAD UP MTR-R8	TU.09.35.1	2G	3D15L +S					9	12	
11 TAPE UP MTR-R6	TU.09.35.1	1B	3D13G +S					9		13
12 HEAD UP SW	TU.11.00.1	2F	3E02L +S							
13 TAPE IN ONE COL	TU.09.35.1	5C	3D11L +S							15
14 TAPE IN RT COL	TU.11.00.1	2I	3E01D +S							
15 TAPE IN LT COL	TU.11.00.1	4I	3E01H +S							
16 VAC MTRS-R4	TU.09.25.1	3F	3C06E +S							15
17 UNLD STOP	TU.09.25.1	3F	3C06E -S						15	
18 VAC OFF BEL SW	TU.11.00.1	4H	3E01F -S							
19 RUN-RI & R2	TU.09.20.1	2E	3C19H +S							18
20 FORWARD	TU.09.50.1	1A	3D24C +S							
21 GO	TU.09.50.1	1F	3D23K +S							17

- A RESET KEY
- B UNLOAD KEY
- C CAPSTANS IN
- D START HEAD UP & TAPE UP MTRS
- E HEAD UP SW
- F UNLOAD STOP
- G VACUUM OFF

REWIND AND UNLOAD

FUNCTION	PAGE	BCK	T.P.	A	B	C	D	E	F	G	H	I	J
1 REW & UNLD TC39	TU.08.00.1	1F	3J21H +S										7
2 INITIATE REW	TU.09.10.1	1G	3C07G -S	1									1
3 REW & UNL STAT	TU.09.10.1	4F	3C08C -S	1									10
4 REW STATUS	TU.09.15.1	3E	3C11D +S		2								9
5 MECH RDY	TU.09.15.1	2B	3C10K +S			4							
6 SEL & RDY	TU.09.15.1	1B	3C09C +S			4							
7 SEL & REW TC37	TU.09.15.1	1F	3C10G -S				4						9
8 LP.PHOTOCELL	TU.09.55.1	4B	3E20D -S										
9 AT LOAD POINT	TU.09.55.1	2A	3E21G +S					8					10
10 UNLD STATUS	TU.09.25.1	3C	3D06C +S					9					
11 START STATUS	TU.09.15.1	4A	3C12K -S										10
12 MTR REV-R7	TU.09.30.1	2F	3D09L +S										10
13 CAP MTRS-R3	TU.09.40.1	2E	3D24A +S										10
14 CAP IN SW	TU.11.00.1	2B	3D02R +S										
15 HEAD UP MTR-R8	TU.09.35.1	2G	3D15L +S								14		17
16 TAPE UP MTR-R6	TU.09.35.1	1B	3D13G +S								14		18
17 HD UP SW	TU.11.00.1	2F	3E02L +S										
18 TAPE IN ONE COL	TU.09.35.1	5C	3D11L +S										20
19 TAPE IN RT COL	TU.11.00.1	2I	3E01D +S										
20 TAPE IN LT COL	TU.11.00.1	4I	3E01H +S										
21 VAC MTRS-R4	TU.09.25.1	3F	3C06E +S										20
22 UNLD STOP	TU.09.25.1	3F	3C06E -S										20
23 VAC OFF BEL SW	TU.11.00.1	4H	3E01F -S										
24 RUN-RI & R2	TU.09.20.1	2E	3C19H +S										23
25 FORWARD	TU.09.50.1	1A	3D24C +S					4	8				
26 GO	TU.09.50.1	1F	3D23K +S					4		9			22

- A REW & UNLD TC39
- B REWIND STATUS
- C SEL & REWIND TC37
- D LOAD POINT SENSED
- E UNLOAD STATUS
- F AT LOAD POINT
- G CAPSTANS IN
- H HEAD UP SW
- I TAPE OUT OF BOTH COL
- J VACUUM OFF

NOTE XI  
ALL LEVELS ARE SHOWN IN ACTIVE STATUS

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME I S Y S	9-13-61	250102			X PRINT TO ENG. SPEC. NO.	
TU.00.02.0	11-20-61	250266			895291	
DESIGN R P R						
DETAIL						
CHECK H E	7-61	DRAW I D	8-1-61		DWG. SIZE - C	
APPRO R S R	7-61	CHECK L W B	8-17-61			

248611

TU.00.02.0



## INPUT-OUTPUT LINES

T/C	LINE NAME	CONNECTOR	PAGE	BLOCK
7	-N BKWD		TU.08.00.1	5E
8	BKWD	SHIELD 00A3K17A	TU.08.00.1	5E
5	&P GO		TU.08.00.1	1E
6	GO	SHIELD 00A3K15F 00A3K15E	TU.08.00.1	1E
47	&P HIGH DENSITY		TU08101	5A
46	HIGH DENSITY	SHIELD 00A3K13B 00A3K13A		
82	READ BUS 1		TU07000	
83	READ BUS 1	SHIELD		
84	READ BUS 2		TU07000	
85	READ BUS 2	SHIELD		
93	READ BUS 4		TU07000	
92	READ BUS 4	SHIELD		
95	READ BUS 8		TU07000	
94	READ BUS 8	SHIELD		
102	READ BUS A		TU07000	
103	READ BUS A	SHIELD		
104	READ BUS B		TU07000	
105	READ BUS B	SHIELD		
113	READ BUS C		TU07000	
112	READ BUS C	SHIELD		
17	RESERVED			
16	RESERVED	SHIELD		
49	RESERVED			
48	RESERVED	SHIELD		
39	&P REWIND & UNLOAD		TU08001	1F
40	REWIND & UNLOAD	SHIELD 00A3K15H 00A3K15G		
31	&P SEL & RDY M2		TU08101	
32	SEL & RDY M2	SHIELD 00A3K13P 00A3K13C		
21	&P SEL & RDY M4		TU.08.10.1	5B
20	SEL & RDY M4	SHIELD 00A3K13D 00A3K13C		
115	&P SEL & READY M 50R 6		TU.08.10.1	
114	&P SEL & READY M 50R 6	SHIELD 00A3K13R		
37	-N SEL & REM		TU08101	4I
38	SEL & REM	SHIELD 00A3K13K 00A3K13J		
25	-N SEL & TI OFF		TU.08.10.1	4H
24	SEL & TI OFF	SHIELD 00A3K13H 00A3K13G		
23	-N SEL & TI ON		TU.08.10.1	4G
22	SEL & TI ON	SHIELD 00A3K13F 00A3K13E		
29	&P SEL & NOT LP		TU08101	5F
28	SEL & NOT LP	SHIELD 00A3K11K 00A3K11J		
27	&P SEL & LP		TU08101	
26	SEL & LP	SHIELD 00A3K11H 00A3K11G		
33	&P SEL RDY & READ		TU08101	5D
34	SEL RDY & READ	SHIELD 00A3K11F 00A3K11E		
35	&P SEL RDY & WRITE		TU08101	5C
36	SEL RDY & WRITE	SHIELD 00A3K11D 00A3K11C		
76	SEL TU 0		TU08301	
77	&P SEL TU 0	SHIELD		
78	SEL TU 1		TU08301	
79	&P SEL TU 1	SHIELD		
86	&P SEL TU 2		TU08301	
87	SEL TU 2	SHIELD		
88	&P SEL TU 3		TU08301	
89	SEL TU 3	SHIELD		
97	&P SEL TU 4		TU08301	
96	SEL TU 4	SHIELD		
99	&P SEL TU 5		TU08301	
98	SEL TU 5	SHIELD		

## INPUT-OUTPUT LINES

T/C	LINE NAME	CONNECTOR	PAGE	BLOCK
106	GP SEL TU 6		TU08301	
107	SEL TU 6	SHIELD		
108	GP SEL TU 7		TU08301	
109	SEL TU 7	SHIELD		
117	GP SEL TU 8		TU08301	
116	SEL TU 8	SHIELD		
119	GP SEL TU 9		TU08301	
118	SEL TU 9	SHIELD		
41	GP SET HI DENSITY		TU08001	1B
42	SET HI DENSITY	SHIELD	00A3K17R 00A3K17Q	
43	-N SET LO DENSITY		TU08001	3F
44	SET LO DENSITY	SHIELD	00A3K17H 00A3K17J	
13	GP SET READ STATUS		TU.08.00.1	1A
14	SET READ STATUS	SHIELD	00A3K17P 00A3K17N	TU.08.00.1 1A
11	-N SET WR STATUS		TU.08.00.1	3E
12	SET WR STATUS	SHIELD	00A3K17D 00A3K17C	
19	SPARE			
18	SPARE	SHIELD		
122	SPARE			
123	SPARE	SHIELD		
124	SPARE			
125	SPARE	SHIELD		
186	SPARE			
187	SPARE	SHIELD		
188	SPARE			
189	SPARE	SHIELD		
190	SPARE			
191	SPARE	SHIELD		
9	-N START REWIND		TU.08.00.1	1G
10	START REWIND	SHIELD	00A3K17K 00A3K17J	TU.08.00.1 1G
3	GP TURN OFF TI		TU.08.00.1	1C
4	TURN OFF TI	SHIELD	00A3K15D 00A3K15C	TU.08.00.1 1C
1	-N TURN ON TI		TU.08.00.1	5F
2	TURN ON TI	SHIELD	00A3K17F 00A3K17E	
172	-N WR BUS 1		TU08001	5A
171	WR BUS 1	SHIELD	00A3K09B 00A3K09A	TU08001
174	-N WR BUS 2		TU08001	3A
73	WR BUS 2	SHIELD	00A3K09D 00A3K09C	
176	-N WR BUS 4		TU08001	5B
175	WR BUS 4	SHIELD	00A3K09F 00A3K09E	
178	-N WR BUS 8		TU08001	3B
177	WR BUS 8	SHIELD	00A3K09H 00A3K09G	
180	-N WR BUS A		TU08001	5C
179	WR BUS A	SHIELD	00A3K09K 00A3K09J	TU08001
182	-N WR BUS B		TU08001	3C
181	WR BUS B	SHIELD	00A3K09M 00A3K09L	
184	-N WR BUS C		TU08001	5D
183	WR BUS C	SHIELD	00A3K09P 00A3K09N	
196	GP WRITE PULSE		TU08001	3D
197	WRITE PULSE	SHIELD	00A3K09R 00A3K09Q	
192	-N WRITE ECHO		TU08101	3A
193	WRITE ECHO	SHIELD	00A3K11B 00A3K11A	
194	WRITE CHECK CHARACTER		TU08001	1M
195	WRITE CHECK CHARACTER	SHIELD	00A3K17M	

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T/C CONNECTOR RECEPTACLE

15	SHIELD	SET READ STATUS	SHIELD	SET WRITE STATUS	SHIELD	START REWIND	8 SHIELD	BKWD	SHIELD	GO	SHIELD	TURN OFF T.I.	SHIELD	1 TURN ON T.I.
30	SEL & NOT AT LD. PT.	SHIELD	SEL & AT LD. PT.	SHIELD	SEL & T.I. OFF	SHIELD	13 SEL & T.I. ON	SHIELD	SEL & RDY MOD III	SHIELD	SPARE	SHIELD	SPARE	16 SHIELD
45	SHIELD	SET LO-DENSITY	SHIELD	SET HI-DENSITY	SHIELD	REWIND & UNLOAD	38 SHIELD	SEL & REWIND	SHIELD	SEL RDY & WRITE	SHIELD	SEL RDY & READ	SHIELD	31 SEL & RDY MOD II
60							53						HI-DENSITY LO-DENSITY	46 SHIELD
75							68							61
85 SHIELD	READ BUS 2	SHIELD	READ BUS 1	81						80	SEL T.U. 1	SHIELD	SEL T.U. 0	76 SHIELD
95 READ BUS 8	SHIELD	READ BUS 4	SHIELD	91						90	SHIELD	SEL T.U. 3	SHIELD	86 SEL T.U. 2
105 SHIELD	READ BUS B	SHIELD	READ BUS A	101						100	SEL T.U. 5	SHIELD	SEL T.U. 4	96 SHIELD
115 SPARE	SHIELD	READ BUS C	SHIELD	111						110	SHIELD	SEL T.U. 7	SHIELD	106 SEL T.U. 6
125 SHIELD	SPARE	SHIELD	SPARE	121						120	SEL T.U. 9	SHIELD	SEL T.U. 8	116 SHIELD
140 -6V							133	+6V						126
155							148							141
170 -12V							163	GND						156
185	WRITE BUS C	SHIELD	WRITE BUS B	SHIELD	WRITE BUS A	SHIELD	178 WRITE BUS 8	SHIELD	WRITE BUS 4	SHIELD	WRITE BUS 2	SHIELD	WRITE BUS 1	171 SHIELD
200			SHIELD	WRITE PULSE	SHIELD	WRITE CHECK CHAR	193 SHIELD	WRITE ECHO PULSE	SHIELD	SPARE	SHIELD	SPARE	187 SHIELD	SPARE

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		7.19-61	249230			X PRINT TO ENG. SPEC. NO. 895291	
TU02.10.0							
DESIGN LFC/6-29-61	MODEL 729 II					DWG. SIZE - B	
CHECK LFC/7-5-61	DRAW						
APPRO RSR/7-5-61	CHECK						TU02.10.0

348614

348558

TU02.10.0

T/C CONNECTOR RECEPTACLE

15	SHIELD	SET READ STATUS	SHIELD	SET WRITE STATUS	SHIELD	START REWIND	8 SHIELD	BKWD	SHIELD	GO	SHIELD	TURN OFF T.I.	SHIELD	1 TURN ON T.I.
30	SEL & NOT AT LD. PT.	SHIELD	SEL & AT LD. PT.	SHIELD	SEL & T.I. OFF	SHIELD	23 SEL & T.I. ON	SHIELD	SEL & RDY MOD IV	SHIELD	SPARE	SHIELD	SPARE	16 SHIELD
45	SHIELD	SET LO-DENSITY	SHIELD	SET HI-DENSITY	SHIELD	REWIND & UNLOAD	38 SHIELD	SEL & REWIND	SHIELD	SEL RDY & WRITE	SHIELD	SEL RDY & READ	SHIELD	31 SEL & RDY MOD II
60							53						HI-DENSITY LO-DENSITY	46 SHIELD
75							68							61
85 SHIELD	READ BUS 2	SHIELD	READ BUS 1	81						80	SEL T.U. 1	SHIELD	SEL T.U. 0	76 SHIELD
95 READ BUS B	SHIELD	READ BUS 4	SHIELD	91						90	SHIELD	SEL T.U. 3	SHIELD	86 SEL T.U. 2
105 SHIELD	READ BUS B	SHIELD	READ BUS A	101						100	SEL T.U. 5	SHIELD	SEL T.U. 4	96 SHIELD
115 MOD V/VI	SHIELD	READ BUS C	SHIELD	111						110	SHIELD	SEL T.U. 7	SHIELD	106 SEL T.U. 6
125 SHIELD	SPARE	SHIELD	SPARE	121						120	SEL T.U. 9	SHIELD	SEL T.U. 8	116 SHIELD
140 -6V							133	+6V						126
155							148							141
170 -12V							163	GND						136
185	WRITE BUS C	SHIELD	WRITE BUS B	SHIELD	WRITE BUS A	SHIELD	178 WRITE BUS B	SHIELD	WRITE BUS 4	SHIELD	WRITE BUS 2	SHIELD	WRITE BUS 1	171 SHIELD
200			SHIELD	WRITE PULSE	SHIELD	WRITE CHECK CHAR	193 SHIELD	WRIT. ECHO PULSE	SHIELD	SPARE	SHIELD	SPARE	187 SHIELD	SPARE

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		11-1-61	250267			X PRINT TO ENG. SPEC. NO. 895291	
TU02.10.0						DWG. SIZE - B	
DESIGN RFR 7-20-61	MODEL 729 VI & VI						
DETAIL CB 8-28-61							
CHECK RFR 10-6-61	DRAW						
APPRO RSR 10-6-61	CHECK						TU02.10.0

WABLSU

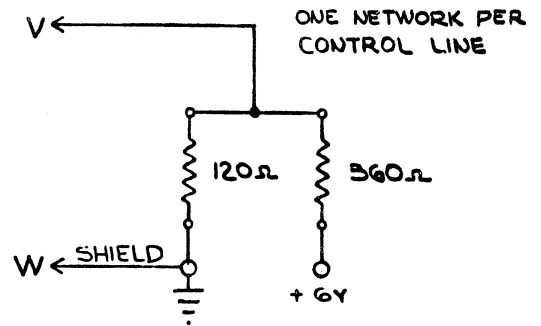
348615

# TAPE SIGNAL TERMINATOR

**MAILED**

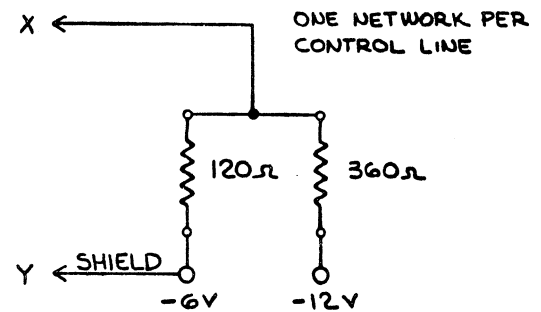
V	W
T/C 1	T/C 2
7	8
9	10
11	12
17	16
19	18
43	44
112	111
174	173
176	175
178	177
180	179
182	181
184	183
194	195
196	197

### "N" LINE COUPLING NETWORK



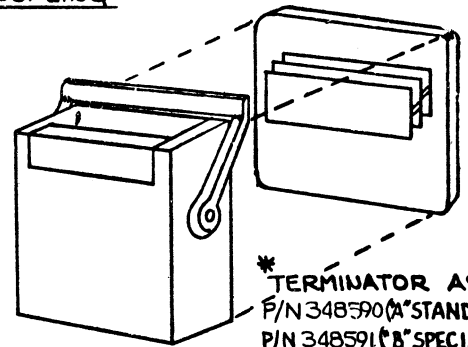
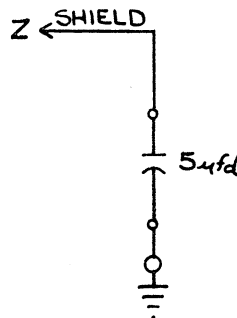
X	Y
T/C 3	T/C 4
5	6
13	14
39	40
41	42
77	76
79	78
86	87
88	89
97	96
99	98
106	107
108	109
117	116
119	118

### "P" LINE COUPLING NETWORK



### RESPONSE LINE DECOUPLING

Z
T/C 20
22
24
26
28
32
34
36
38
46
52
54
56
58
68
70
72
74
193



ONE DECOUPLING CAPACITOR PER RESPONSE LINE. \* TERMINATOR ASM. P/N 348590 (A\* STANDARD) P/N 348591 (B\* SPECIAL) \* CONNECTED TO UNUSED TAPE UNIT SIGNAL CONNECTOR

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		7-19-61	249230			X PRINT TO ENG. SPEC. NO. 895291	
TU 02.20.0		11-20-61	250266				
DESIGN	LFC 6-20-61	MODEL	729II				
DETAIL							
CHECK	LFC 7-5-61	DRAW					
APPROV	RSR 7-5-61	CHECK					

DWG. SIZE B TU 02.20.0

348615

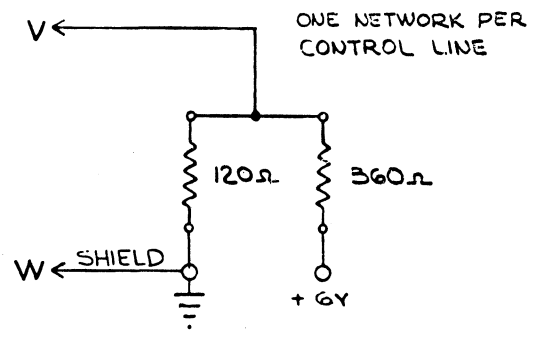
348559

TU02.20.0

# TAPE SIGNAL TERMINATOR

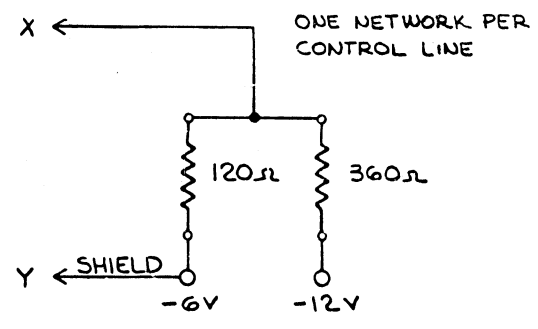
V	W
T/C 1	T/C 2
7	8
9	10
11	12
17	16
19	18
43	44
172	171
174	173
176	175
178	177
180	179
182	181
184	183
194	195
196	197

## "N" LINE COUPLING NETWORK



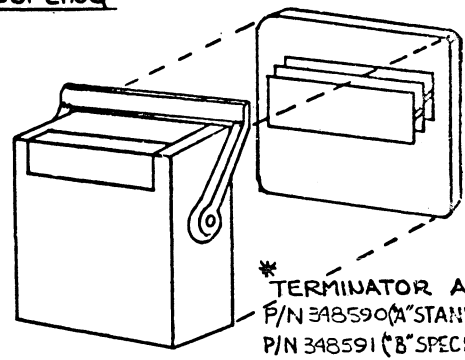
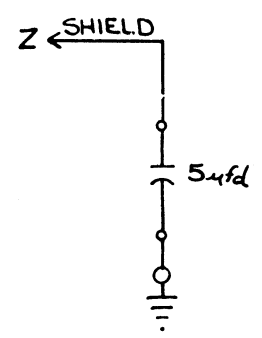
X	Y
T/C 3	T/C 4
5	6
13	14
39	40
41	42
77	76
79	78
86	87
88	89
97	96
99	98
106	107
108	109
117	116
119	118

## "P" LINE COUPLING NETWORK



## RESPONSE LINE DECOUPLING

Z
T/C 20
22
24
26
28
32
34
36
38
46
52
54
56
58
68
70
72
74
114
193



\* TERMINATOR ASH.  
P/N 348590 ("A" STANDARD)  
P/N 348591 ("B" SPECIAL)  
\* CONNECTED TO UNUSED TAPE UNIT SIGNAL CONNECTOR

ONE DECOUPLING CAPACITOR PER RESPONSE LINE.

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		11-1-61	250267			X PRINT TO ENG. SPEC. NO. 895291	
TU02.20.0							
DESIGN	RSP 9-20-61	MODEL	729 VAVI				
DETAIL	CB 9-28-61						
CHECK	RPR 10-6-61	BY	7				
APPROV	USE 10-6-61	CHK	CK				
						DWG. SIZE B	TU.02.20.0

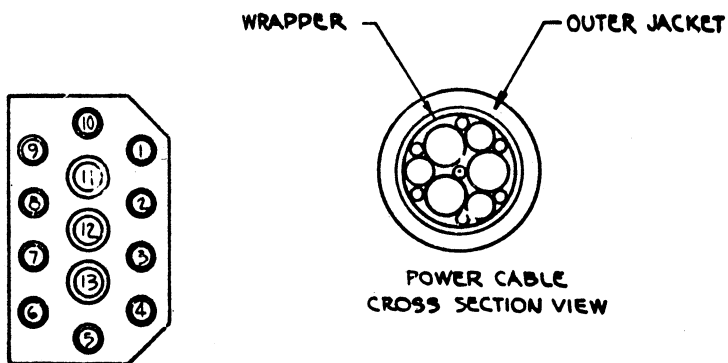
348559

MASTER  
MASTER

TAPE POWER CONNECTORS

POWER PLUG PIN ASSIGNMENTS				
TAPE UNIT		POWER CABLE		SYSTEMS PAGE
PIN NO.	VOLTAGE OR CONTROL*	WIRE SIZE	TYPE	
1	AC OUTLET - 115 VOLTS	14	AC	TU16.00.0
2	AC OUTLET - 115 VOLTS	14	AC	TU16.00.0
3	BOND	14		
4	SPARE	18		
5	MODEL II & III RESET - 208 VOLTS	18	AC	TU16.00.0
6	SPARE	18		
7	SPARE	18		
8	SPARE	18		
9	SPARE	18		
10	MODEL I & II RESET - 208 VOLTS	18	AC	TU16.00.0
11	UNREG AC #1	10	AC	TU16.00.0
12	UNREG AC #2	10	AC	TU16.00.0
13	UNREG AC #3	10	AC	TU16.00.0

POWER PLUG PIN ASSIGNMENTS



PIN LAYOUT - POWER PLUG - MALE

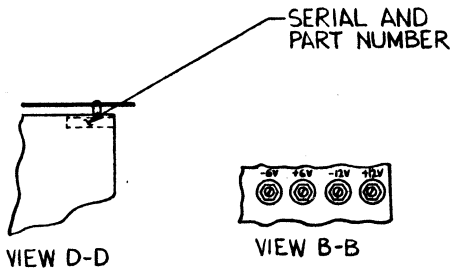
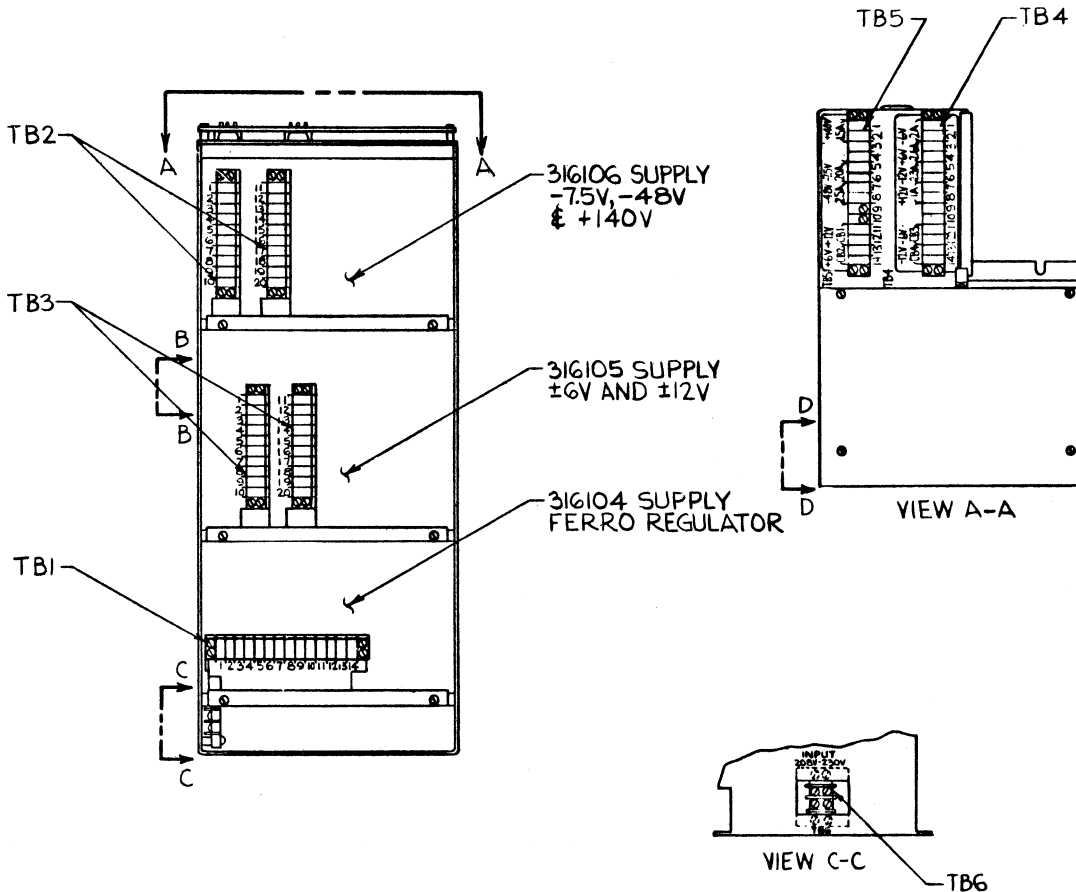
INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM	7-19-61	249230			X PRINT TO ENG. SPEC. NO. 895291	
TU03.00.0					DWG. SIZE - B	
DESIGN L.F.C. 6-20-61 MODEL 729 II						
DETAIL						
CHECK LFC 7-5-61	DRAW					
APPRO RSR 7-5-61	CHECK					TU0300.0

348618

POWER SUPPLIES LOCATION

TU.04.00.0

DISCONTINUED



INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	7-19-61	249230			X PRINT TO ENG. SPEC. NO. 895291	TU.04.000
	TU.04.00.0	2-15-62	250259				
DESIGN	LFC 6-20-61 MODEL 729 II						
DETAIL							
CHECK	LFC 7-5-61 DRAW IDI 6-28-61						
APPRO	RSR 7-5-61 CHECK						



348609

TU.04.10.0

CIRCUIT CARD LOCATION CHART

Read Preamplifiers

	J	K	L	M
01		BJ-- 0371432 TU. 07. 00. 0 2A	ACX- 0370099 TU. 07. 00. 0 1A 3A	ACW- 0370100 TU. 07. 00. 0 4A
02		BJ-- 0371432 TU. 07. 00. 0 2B	ACX- 0370099 TU. 07. 00. 0 1B 3B	ACW- 0370100 TU. 07. 00. 0 4B
03		BJ-- 0371432 TU. 07. 00. 0 2C	ACX- 0370099 TU. 07. 00. 0 1C 3C	ACW- 0370100 TU. 07. 00. 0 4C
04		BJ-- 0371432 TU. 07. 00. 0 2D	ACX- 0370099 TU. 07. 00. 0 1D 3D	ACW- 0370100 TU. 07. 00. 0 4D
05		BJ-- 0371432 TU. 07. 00. 0 2E	ACX- 0370099 TU. 07. 00. 0 1E 3E	ACW- 0370100 TU. 07. 00. 0 4E
06		BJ-- 0371432 TU. 07. 00. 0 2F	ACX- 0370099 TU. 07. 00. 0 1F 3F	ACW- 0370100 TU. 07. 00. 0 4F
07		BJ-- 0371432 TU. 07. 00. 0 2G	ACX- 0370099 TU. 07. 00. 0 1G 3G	ACW- 0370100 TU. 07. 00. 0 4G
08				

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		10-17-61	250120			X PRINT TO ENG. SPEC. NO. 895291	
TU.04.10.0							
DESIGN	RPR	8-17-61	MODEL	729 II			
DETAIL							
CHECK	LHB	8-17-61	DRAW				
APPRO	RSR	8-17-61	CHECK				

348609

TU.04.10.0

348608

TU.04.10.0

CIRCUIT CARD LOCATION CHART

Read Preamplifiers

	J	K	L	M
01		BJ-- 0371432 TU. 07. 00. 0 2A	ABK- 0371926 TU. 07. 00. 0 1A 3A	AFA- 0371925 TU. 07. 00. 0 4A
02		BJ-- 0371432 TU. 07. 00. 0 2B	ABK- 0371926 TU. 07. 00. 0 1B 3B	AFA- 0371925 TU. 07. 00. 0 4B
03		BJ-- 0371432 TU. 07. 00. 0 2C	ABK- 0371926 TU. 07. 00. 0 1C 3C	AFA- 0371925 TU. 07. 00. 0 4C
04		BJ-- 0371432 TU. 07. 00. 0 2D	ABK- 0371926 TU. 07. 00. 0 1D 3D	AFA- 0371925 TU. 07. 00. 0 4D
05		BJ-- 0371432 TU. 07. 00. 0 2E	ABK- 0371926 TU. 07. 00. 0 1E 3E	AFA- 0371925 TU. 07. 00. 0 4E
06		BJ-- 0371432 TU. 07. 00. 0 2F	ABK- 0371926 TU. 07. 00. 0 1F 3F	AFA- 0371925 TU. 07. 00. 0 4F
07		BJ-- 0371432 TU. 07. 00. 0 2G	ABK- 0371926 TU. 07. 00. 0 1G 3G	AFA- 0371925 TU. 07. 00. 0 4G
08				

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		10-17-61	250120			X PRINT TO ENG. SPEC. NO. 895291	TU.04.10.0
TU:04.10.0							
DESIGN	RPR 8-17-61	MODEL	729 IV				
DETAIL							
CHECK	LHB 8-17-61	DRAW					
APPRO	RSR 8-17-61	CHECK					

348608

348560

CIRCUIT CARD LOCATION CHART  
Read Preamplifiers

	J	K	L	M
01		BJ-- 0371432 TU.07.00.0 2A	ARL- 0370707 TU.07.00.0 1A 3A	ARK- 0370706 TU.07.00.0 4A
02		BJ-- 0371432 TU.07.00.0 2B	ARL- 0370707 TU.07.00.0 1B 3B	ARK- 0370706 TU.07.00.0 4B
03		BJ-- 0371432 TU.07.00.0 2C	ARL- 0370707 TU.07.00.0 1C 3C	ARK- 0370706 TU.07.00.0 4C
04		BJ-- 0371432 TU.07.00.0 2D	ARL- 0370707 TU.07.00.0 1D 3D	ARK- 0370706 TU.07.00.0 4D
05		BJ-- 0371432 TU.07.00.0 2E	ARL- 0370707 TU.07.00.0 1E 3E	ARK- 0370706 TU.07.00.0 4E
06		BJ-- 0371432 TU.07.00.0 2F	ARL- 0370707 TU.07.00.0 1F 3F	ARK- 0370706 TU.07.00.0 4F
07		BJ-- 0371432 TU.07.00.0 2G	ARL- 0370707 TU.07.00.0 1G 3G	ARK- 0370706 TU.07.00.0 4G
08				

INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE X PRINT TO ENG. SPEC. NO. 895291	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM TU.04.10.0				11-1-61	250267				
DESIGN RRR 9-18-61 MODEL 729 X									
DETAIL									
CHECK LHB 9-18-61 DRAW									
APPRO RSR 9-18-61 CHECK									TU.04.10.0

348560

343561

CIRCUIT CARD LOCATION CHART  
Read Preamplifiers

	J	K	L	M
01		BJ-- 0371432 TU.07.00.0 2A	APZ- 0370681 TU.07.00.0 1A 3A	ALZ- 0370680 TU.07.00.0 4A
02		BJ-- 0371432 TU.07.00.0 2B	APZ- 0370681 TU.07.00.0 1B 3B	ALZ- 0370680 TU.07.00.0 4B
03		BJ-- 0371432 TU.07.00.0 2C	APZ- 0370681 TU.07.00.0 1C 3C	ALZ- 0370680 TU.07.00.0 4C
04		BJ-- 0371432 TU.07.00.0 2D	APZ- 0370681 TU.07.00.0 1D 3D	ALZ- 0370680 TU.07.00.0 4D
05		BJ-- 0371432 TU.07.00.0 2E	APZ- 0370681 TU.07.00.0 1E 3E	ALZ- 0370680 TU.07.00.0 4E
06		BJ-- 0371432 TU.07.00.0 2F	APZ- 0370681 TU.07.00.0 1F 3F	ALZ- 0370680 TU.07.00.0 4F
07		BJ-- 0371432 TU.07.00.0 2G	APZ- 0370681 TU.07.00.0 1G 3G	ALZ- 0370680 TU.07.00.0 4G
08				

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM TU.04.10.0		11-1-61	250267			X PRINT TO ENG. SPEC. NO. 895291	
DESIGN RPK	9-18-61	MODEL	725 VL				
RETAIL							
ECK	1-11-62	DRAW					
APPRO RSK	2-17-61	CHECK					
							TU.04.10.0

348561

	A	B	C	D	E	F	G	H	J	K
01										
02										
03			MX-- 0371661 TU.09.10.1 1A TU.09.10.1 3A TU.09.10.1 5C TU.09.10.1 5D	CD-- 0371029 TU.09.25.1 4B TU.09.25.1 5E	BKYZ 0371833 TU.08.10.1 2B					
04	WB-- 0371880 TU.09.50.2 1A		MX-- 0371661 TU.09.10.1 2A TU.09.45.1 TU.09.10.1 TU.09.25.1	MX-- 0371661 TU.09.25.1 4B TU.09.45.1 TU.08.00.1 TU.09.55.1 5						
05			CD-- 0371029 TU.09.10.1 3B TU.09.10.1 5B TU.09.10.1 5C TU.09.15.1 2R	CD-- 0371029 TU.09.25.1 5E TU.09.25.1 5G	YAH-- 0370452 TU.09.55.1 4A					
06	WB-- 0371880 TU.09.50.2 1B		CEYB 0371032 TU.09.10.1 2A TU.09.15.1 3D TU.09.15.1 4B TU.09.25.1 2 3F	MX-- 0371661 TU.09.25.1 TU.09.25.1 TU.09.25.1 TU.09.25.1 TU.09.60.1	YAH-- 0370452 TU.09.55.1 5G					
07			MX-- 0371661 TU.09.10.1 1H TU.09.10.1 2F TU.09.10.1 5							
08	WB-- 0371880 TU.09.50.2 2C		MX-- 0371661 TU.09.10.1 3F TU.09.10.1 3G TU.09.10.1 4F TU.09.10.1 4G	CEYB 0371032 TU.09.10.1 3A TU.09.25.1 3B TU.09.30.1 2G TU.09.30.1 3A	DAC-- 0371951 TU.09.55.1 3E TU.09.55.1 3F TU.09.55.1 4F					
09			DAX-- 0371084 TU.09.15.1 3A TU.09.15.1 2B TU.09.15.1 1D TU.09.55.1 5	MH-- 0371487 TU.09.25.1 1C TU.09.30.1 2F TU.09.40.1 5F TU.09.40.1 5G	MX-- 0371661 TU.09.55.1 3H TU.09.55.1 3I TU.09.55.1 4D TU.08.00.1 4H					
10	WB-- 0371880 TU.09.50.2 1C		MX-- 0371661 TU.09.12.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.55.1	MX-- 0371661 TU.09.30.1 TU.09.30.1 TU.09.30.1 TU.09.40.1						
11			MH-- 0371487 TU.09.15.1 1C TU.09.15.1 2A TU.09.15.1 2G TU.09.15.1 3E	MX-- 0371661 TU.09.30.1 3E TU.09.30.1 4G TU.09.35.1 5C						
12	WB-- 0371880 TU.09.50.2 2D		MX-- 0371661 TU.09.10.1 5F TU.09.15.1 4A TU.09.15.1 4D TU.09.15.1 5B	MX-- 0371661 TU.09.35.1 TU.09.35.1 TU.09.35.1 TU.09.55.1 TU.09.40.1	APH-- 0370442 TU.08.10.1 1B TU.08.00.1 4G TU.08.00.1 1D TU.08.10.1 5D					
13			CD-- 0371029 TU.09.15.1 3G TU.09.15.1 4C TU.09.15.1 5A	MX-- 0371661 TU.09.35.1 1B TU.09.35.1 4C TU.09.35.1 5	TAU-- 0370129 TU.08.00.1 2H TU.08.00.1 2F TU.09.55.1 4E TU.09.55.1 2E	APH-- 0370442 TU.08.10.1 3B TU.08.10.1 2F TU.08.10.1 5E TU.08.10.1 2C				
14	WB-- 0371880 TU.09.50.2 1D	WB-- 0371880 TU.09.55.1 5H	MX-- 0371661 TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 5E	CD-- 0371029 TU.09.35.1 2A TU.09.35.1 4E TU.09.35.1 4G	APG-- 0371661 TU.08.00.1 TU.08.00.1 TU.08.00.1 TU.08.00.1 TU.09.55.1 5	APH-- 0370442 TU.08.10.1 3G TU.08.10.1 4H TU.08.10.1 3A				

	A	B	C	D	E	F	G	H	J	K	
15			MX-- 0371661 TU.09.20.1 1E TU.09.20.1 2B TU.09.20.1 3A TU.09.20.1 4C TU.09.20.1 5D	MX-- 0371661 TU.09.35.1 1E TU.09.35.1 2B TU.09.35.1 3A TU.09.35.1 4C TU.09.35.1 5D					MX-- 0371661 TU.08.00.1 2B TU.08.00.1 3C TU.08.00.1 4D TU.08.00.1 5E	APF-- 0370639 TU.08.00.1 2B TU.08.00.1 3C TU.08.00.1 4D TU.08.00.1 5E	
16	WB-- 0371880 TU.09.50.2 2E	MD-- 0371497 TU.07.10.1 2B TU.09.55.1 1B TU.09.60.1 1B	MX-- 0371661 TU.09.20.1 2B TU.09.20.1 3C TU.09.20.1 4D TU.09.20.1 5E	MX-- 0371661 TU.09.35.1 2B TU.09.35.1 3C TU.09.35.1 4D TU.09.35.1 5E				MX-- 0371661 TU.08.00.1 2B TU.08.00.1 3C TU.08.00.1 4D TU.08.00.1 5E	APF-- 0370639 TU.08.00.1 2B TU.08.00.1 3C TU.08.00.1 4D TU.08.00.1 5E		
17			MX-- 0371661 TU.09.20.1 2B TU.09.20.1 3C TU.09.20.1 4D TU.09.20.1 5E	CD-- 0371029 TU.09.40.1 2B TU.09.40.1 3C TU.09.40.1 4D TU.09.40.1 5E				MX-- 0371661 TU.08.00.1 2B TU.08.00.1 3C TU.08.00.1 4D TU.08.00.1 5E	APF-- 0370639 TU.08.00.1 2B TU.08.00.1 3C TU.08.00.1 4D TU.08.00.1 5E		
18	WB-- 0371880 TU.09.50.2 2E	MD-- 0371497 TU.09.15.1 1A TU.09.15.1 2E TU.09.60.1 1F	MX-- 0371029 TU.09.20.1 1E TU.09.20.1 2B TU.09.20.1 3C TU.09.20.1 4D	CD-- 0371029 TU.09.40.1 2B TU.09.40.1 3C TU.09.40.1 4D TU.09.40.1 5E				MX-- 0371048 TU.07.10.4 4A TU.07.10.4 5B TU.07.10.4 6C TU.07.10.4 7D	APF-- 0370640 TU.08.00.1 1A TU.08.00.1 2B TU.08.00.1 3C TU.08.00.1 4D		
19			CEYB 0371032 TU.09.20.1 1E TU.09.20.1 2B TU.09.40.1 3C TU.08.10.1 4D						APF-- 0370640 TU.08.00.1 1A TU.08.00.1 2B TU.08.00.1 3C TU.08.00.1 4D		
20	WB-- 0371880 TU.09.50.2 2E	MD-- 0371497 TU.09.45.1 2E TU.07.10.1 4A TU.09.55.1 5I	MX-- 0371661 TU.09.45.1 2B TU.09.45.1 3C TU.09.45.1 4D TU.09.45.1 5E	CD-- 0371029 TU.09.45.1 2B TU.09.45.1 3C TU.09.45.1 4D TU.09.45.1 5E	CD-- 0371029 TU.09.45.1 2B TU.09.45.1 3C TU.09.45.1 4D TU.09.45.1 5E			MX-- 0371048 TU.07.10.4 4A TU.07.10.4 5B TU.07.10.4 6C TU.07.10.4 7D	APF-- 0370640 TU.08.00.1 1A TU.08.00.1 2B TU.08.00.1 3C TU.08.00.1 4D		
21			MX-- 0371661 TU.09.45.1 2B TU.09.45.1 3C TU.09.45.1 4D TU.09.45.1 5E	MX-- 0371661 TU.09.45.1 2B TU.09.45.1 3C TU.09.45.1 4D TU.09.45.1 5E	MX-- 0371661 TU.09.45.1 2B TU.09.45.1 3C TU.09.45.1 4D TU.09.45.1 5E			MX-- 0371048 TU.07.10.4 4A TU.07.10.4 5B TU.07.10.4 6C TU.07.10.4 7D	APF-- 0370640 TU.08.00.1 1A TU.08.00.1 2B TU.08.00.1 3C TU.08.00.1 4D		
22	WB-- 0371880 TU.09.50.2 1G	MD-- 0371497 TU.09.45.1 1B TU.09.45.1 2G TU.09.45.1 2M	MX-- 0371029 TU.09.50.1 1B TU.09.50.1 2G TU.09.50.1 2M	MX-- 0371661 TU.09.50.1 1B TU.09.50.1 2G TU.09.50.1 2M		AK-- 0371241 TU.07.10.1 1B	AYWS 0371041 TU.07.10.2 5G	AR-- 0371034 TU.07.10.2 4C	LZ-- 0371674 TU.07.10.2 3G		
23			MX-- 0371661 TU.09.50.1 1E TU.09.50.1 2B TU.09.50.1 3C TU.09.50.1 4D TU.09.50.1 5E	CEYB 0371032 TU.09.20.1 1E TU.09.20.1 2B TU.09.50.1 3C TU.08.10.1 4D		APG-- 0370641 TU.07.10.1 1A	AYWS 0371041 TU.07.10.2 5F	AR-- 0371034 TU.07.10.2 4E	LZ-- 0371674 TU.07.10.2 3F		
24	WB-- 0371880 TU.09.50.2 2H	MD-- 0371497 TU.09.15.1 1G TU.09.35.1 1G TU.09.45.1 2A	MX-- 0371661 TU.09.50.2 3F TU.09.50.2 4E TU.09.50.2 5I	MX-- 0371497 TU.09.40.1 1B TU.09.50.1 2E TU.09.50.1 1E		MH-- 0371497 TU.07.10.1 2A TU.07.10.1 3B TU.07.10.1 4C	AYWS 0371041 TU.07.10.2 5E	AR-- 0371034 TU.07.10.2 4E	LZ-- 0371674 TU.07.10.2 3E		
25			MX-- 0371661 TU.09.60.1 2B TU.09.60.1 3C TU.09.60.1 4H TU.09.60.1 5A	MX-- 0371661 TU.09.50.2 4C TU.09.50.2 5E TU.09.60.1 2C		APF-- 0370639 TU.07.10.1 2G TU.07.10.1 3H TU.07.10.1 4I TU.07.10.1 5M	AYWS 0371041 TU.07.10.2 5D	AR-- 0371034 TU.07.10.2 4D	LZ-- 0371674 TU.07.10.2 3D		
26	WB-- 0371880 TU.09.50.2 2I	MD-- 0371497 TU.09.30.1 1F TU.09.35.1 1C TU.09.40.1 1C	MX-- 0371661 TU.09.60.1 2F TU.09.60.1 3B TU.09.60.1 4B TU.09.60.1 5H	MX-- 0371661 TU.09.60.1 3C TU.09.60.1 4E TU.09.60.1 5E		APF-- 0370639 TU.07.10.1 2H TU.07.10.1 3I TU.07.10.1 4J TU.07.10.1 5N	AYWS 0371041 TU.07.10.2 5C	AR-- 0371034 TU.07.10.2 4C	LZ-- 0371674 TU.07.10.2 3C		
27			MX-- 0371661 TU.13.00.1 3B TU.13.00.1 4D TU.13.00.1 5E	CD-- 0371029 TU.13.00.1 3C TU.13.00.1 4C TU.13.00.1 4D		RP-- 0371749 TU.07.10.1 5D	AYWS 0371041 TU.07.10.2 5B	AR-- 0371034 TU.07.10.2 4B	LZ-- 0371674 TU.07.10.2 3B		
28	YHM-- 0370701 TU.09.20.1 TU.09.25.1 TU.09.30.1 TU.09.35.1 TU.09.55.1	MD-- 0371497 TU.09.20.1 2F TU.09.25.1 1E	OG-- 0371679 TU.13.00.1 5B	QH-- 0371680 TU.13.00.1 2E		RP-- 0371749 TU.07.10.1 5E	AYWS 0371041 TU.07.10.2 5A	AR-- 0371034 TU.07.10.2 4A	LZ-- 0371674 TU.07.10.2 3A		

	A	B	C	D	E	F	G	H	J	K
01										
02										
03			MX-- 0371661 TU.09.10.1 1A TU.09.10.1 3A TU.09.10.1 3C TU.09.10.1 5D	CD-- 0371029 TU.09.25.1 1A TU.09.25.1 4B TU.09.25.1 5E	RKV2 0371433 TU.08.10.1 2B					
04	WB-- 0371880 TU.09.50.2 1A		MX-- 0371661 TU.09.10.1 1A TU.09.10.1 4B TU.09.10.1 4C TU.09.25.1 4F TU.09.25.1 5C	MX-- 0371661 TU.09.25.1 1A TU.09.45.1 2C TU.08.00.1 4F TU.09.55.1 5C						
05			CD-- 0371029 TU.09.10.1 3B TU.09.10.1 5B TU.09.10.1 5C TU.09.15.1 2B	CD-- 0371029 TU.09.25.1 1A TU.09.25.1 5E TU.09.25.1 5F TU.09.25.1 5G	YAW-- 0370852 TU.09.55.1 4A					
06	WB-- 0371880 TU.09.50.2 1B		CEYB 0371661 TU.09.10.1 2A TU.09.15.1 3D TU.09.15.1 4B TU.09.25.1 2F	MX-- 0371661 TU.09.25.1 1A TU.09.25.1 2C TU.09.25.1 2D TU.09.25.1 2E TU.09.60.1 2F	YAW-- 0370852 TU.09.55.1 5C					
07			MX-- 0371661 TU.09.10.1 1C TU.09.10.1 1H TU.09.10.1 2F TU.09.10.1 5							
08	WB-- 0371880 TU.09.50.2 2C		MX-- 0371661 TU.09.10.1 3B TU.09.10.1 3C TU.09.10.1 4F TU.09.10.1 4G	CEYB 0371032 TU.09.25.1 3A TU.09.25.1 3B TU.09.30.1 2G TU.09.30.1 3A	DAC-- 0371831 TU.09.55.1 3H TU.09.55.1 4F					
09			DAZ-- 0370084 TU.09.15.1 3B TU.09.15.1 1B TU.09.15.1 1D TU.09.55.1 1C	MH-- 0371487 TU.09.25.1 1C TU.09.30.1 2F TU.09.40.1 5F TU.09.40.1 5G	MX-- 0371661 TU.09.55.1 3H TU.09.55.1 4D TU.08.00.1 4H					
10	WB-- 0371880 TU.09.50.2 1C		MX-- 0371661 TU.09.15.1 1A TU.09.15.1 2A TU.09.15.1 2G TU.09.55.1 2B	MX-- 0371661 TU.09.30.1 1A TU.09.30.1 1B TU.09.40.1 1C						
11			MH-- 0371487 TU.09.15.1 1C TU.09.15.1 2A TU.09.15.1 2G TU.09.15.1 3E	MX-- 0371661 TU.09.30.1 3E TU.09.30.1 4G TU.09.35.1 5H TU.09.35.1 5C						
12	WB-- 0371880 TU.09.50.2 2D		MX-- 0371661 TU.09.10.1 5F TU.09.15.1 4A TU.09.15.1 4D TU.09.15.1 5B	MX-- 0371661 TU.09.35.1 1B TU.09.35.1 1C TU.09.55.1 1D TU.09.40.1	MX-- 0371661 TU.08.00.1 1B TU.08.00.1 3B TU.08.00.1 1D TU.08.10.1 5	APH-- 0370642 TU.08.10.1 1B TU.08.10.1 3B TU.08.10.1 5C TU.08.10.1 5F				
13			CD-- 0371029 TU.09.15.1 3G TU.09.15.1 4F TU.09.15.1 5A	MX-- 0371661 TU.09.35.1 1B TU.09.35.1 1C TU.09.35.1 3F TU.09.35.1 5	TAU-- 0370129 TU.08.00.1 3B TU.08.00.1 2F TU.09.55.1 4E TU.09.55.1 2E	APH-- 0370642 TU.08.10.1 3B TU.08.10.1 2F TU.08.10.1 4E TU.08.10.1 2C				
14	WB-- 0371880 TU.09.50.2 1D	WB-- 0371880 TU.09.55.1 5H	MX-- 0371661 TU.09.15.1 4E TU.09.15.1 4H TU.09.15.1 5E	CD-- 0371029 TU.09.35.1 1B TU.09.35.1 1C TU.09.35.1 4G	APG-- 0370641 TU.08.10.1 1B TU.08.00.1 4E TU.09.55.1 4H TU.08.00.1 5A					

	A	B	C	D	E	F	G	H	J	K	
15			MX-- 0371661 TU.09.20.1 TU.09.20.1 TU.09.20.1 TU.09.20.1 5	MX-- 0371661 TU.09.35.1 TU.09.35.1 TU.09.35.1 TU.09.35.1 5				MX-- 0371661 TU.08.00.1 TU.08.00.1 TU.08.00.1 TU.08.00.1 TU.08.00.1 5	APE-- 0370639 TU.08.00.1 TU.08.00.1 TU.08.00.1 TU.08.00.1 TU.08.00.1 5		
16	WB-- 0371880 TU.09.50.2 2E	MD-- 0371497 TU.07.10.1 TU.09.55.1 TU.09.60.1 1B	MX-- 0371661 TU.09.20.1 TU.09.20.1 TU.09.20.1 TU.09.20.1 5	MX-- 0371661 TU.09.35.1 TU.09.35.1 TU.09.40.1 TU.09.40.1 5				MX-- 0371661 TU.08.00.1 TU.08.00.1 TU.08.00.1 TU.08.00.1 5	APE-- 0370639 TU.08.00.1 TU.08.00.1 TU.08.00.1 TU.08.00.1 5		
17			MX-- 0371661 TU.09.20.1 TU.09.20.1 TU.09.20.1 5	CU-- 0371029 TU.09.40.1 TU.09.40.1 TU.09.40.1 5				MX-- 0371661 TU.09.00.1 TU.09.00.1 TU.09.55.1 TU.08.10.1 4B	APE-- 0370639 TU.08.00.1 TU.08.00.1 TU.08.00.1 TU.08.00.1 5		
18	WB-- 0371880 TU.09.50.2 2F	MD-- 0371497 TU.09.15.1 TU.09.15.1 TU.09.60.1 1F	CD-- 0371029 TU.09.20.1 TU.09.20.1 TU.09.20.1 5						APE-- 0370639 TU.08.00.1 TU.08.00.1 1H		
19			CEYB 0371032 TU.09.20.1 TU.09.20.1 TU.09.40.1 TU.08.10.1 2						APE-- 0370639 TU.08.00.1 TU.08.00.1 1A 5G		
20	WB-- 0371880 TU.09.50.2 2G	MD-- 0371497 TU.09.45.1 TU.07.10.1 TU.09.55.1 5	MX-- 0371661 TU.09.45.1 TU.09.45.1 TU.09.45.1 5	CD-- 0371029 TU.09.45.1 TU.09.45.1 TU.09.45.1 5	CD-- 0371029 TU.09.55.1 TU.09.55.1 5			MX-- 0371044 TU.07.10.4 TU.07.10.4 TU.07.10.4 TU.07.10.4 4D	APE-- 0370639 TU.08.00.1 TU.08.00.1 3H		
21			MX-- 0371661 TU.09.45.1 TU.09.45.1 TU.09.45.1 5	MX-- 0371661 TU.09.45.1 TU.09.45.1 TU.09.45.1 5	MX-- 0371661 TU.07.10.1 TU.09.55.1 TU.09.55.1 5			MX-- 0371497 TU.07.10.4 TU.07.10.4 TU.07.10.4 TU.07.10.4 4H	APE-- 0370639 TU.08.00.1 TU.08.00.1 5H		
22	WB-- 0371880 TU.09.50.2 1G	MD-- 0371497 TU.09.45.1 TU.09.45.1 TU.09.45.1 2H	CD-- 0371029 TU.09.50.1 TU.09.50.1 TU.09.50.1 5	MX-- 0371661 TU.09.50.1 TU.09.50.1 TU.09.50.1 4D		AK-- 0371241 TU.07.10.1 1B	AYWS 0371041 TU.07.10.2 5G	AR-- 0371034 TU.07.10.2 4G	LZ-- 0371674 TU.07.10.2 3G		
23			MX-- 0371661 TU.09.50.1 TU.09.50.1 TU.09.50.1 5	CEYB 0371032 TU.09.20.1 TU.09.20.1 TU.09.50.1 TU.08.10.1 2		APG-- 0370641 TU.07.10.1 1A	AYWS 0371041 TU.07.10.2 5F	AR-- 0371034 TU.07.10.2 4F	LZ-- 0371674 TU.07.10.2 5F		
24	WB-- 0371880 TU.09.50.2 2H	MD-- 0371497 TU.09.15.1 TU.09.35.1 TU.09.45.1 2A	MX-- 0371661 TU.09.50.2 TU.09.50.2 TU.09.50.2 5	MX-- 0371497 TU.09.40.1 TU.09.40.1 TU.09.50.1 TU.09.50.1 1E		MX-- 0371487 TU.07.10.1 TU.07.10.1 TU.07.10.1 TU.07.10.1 3	AYWS 0371041 TU.07.10.2 5E	AR-- 0371034 TU.07.10.2 4E	LZ-- 0371674 TU.07.10.2 5E		
25			MX-- 0371661 TU.09.60.1 TU.09.60.1 TU.09.60.1 5	MX-- 0371661 TU.09.50.2 TU.09.50.2 TU.09.60.1 TU.09.60.1 5		APE-- 0370639 TU.07.10.1 TU.07.10.1 TU.07.10.1 TU.07.10.1 2H	AYWS 0371041 TU.07.10.2 5D	AR-- 0371034 TU.07.10.2 4D	LZ-- 0371674 TU.07.10.2 5D		
26	WB-- 0371880 TU.09.50.2 2I	MD-- 0371497 TU.09.30.1 TU.09.35.1 TU.09.40.1 1C	MX-- 0371661 TU.09.60.1 TU.09.60.1 TU.09.60.1 5	MX-- 0371661 TU.09.60.1 TU.09.60.1 TU.09.60.1 5		APE-- 0370639 TU.07.10.1 TU.07.10.1 TU.07.10.1 TU.07.10.1 4I	AYWS 0371041 TU.07.10.2 5C	AR-- 0371034 TU.07.10.2 4C	LZ-- 0371674 TU.07.10.2 5C		
27			MX-- 0371661 TU.13.00.1 TU.13.00.1 TU.13.00.1 5	CD-- 0371029 TU.13.00.1 TU.13.00.1 TU.13.00.1 4D		BP-- 0371439 TU.07.10.1 5D	AYWS 0371041 TU.07.10.2 5B	AR-- 0371034 TU.07.10.2 4B	LZ-- 0371674 TU.07.10.2 5B		
28	YVWL 0370701 TU.09.20.1 TU.09.50.1 TU.09.50.2 TU.09.55.1	MD-- 0371497 TU.09.20.1 TU.09.25.1 TU.09.40.1 1E	OX-- 0371679 TU.13.00.1 5B	OH-- 0371680 TU.13.00.1 2E		BP-- 0371439 TU.07.10.1 5E	AYWS 0371041 TU.07.10.2 5A	AR-- 0371034 TU.07.10.2 4A	LZ-- 0371674 TU.07.10.2 5A		



	A	B	C	D	E	F	G	H	J
01									
02									
03			MX-- TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.10.1	CD-- TU.09.25.1 TU.09.25.1 TU.09.25.1 TU.09.25.1		MYE-- TU.09.10.1 TU.09.10.1			
04	0371880 TU.09.50.2 1A		MX-- TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.25.1	MX-- TU.09.25.1 TU.09.45.1 TU.09.00.1 TU.09.55.1 5					
05			CD-- TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.15.1 2B	CD-- TU.09.25.1 TU.09.25.1 TU.09.25.1 TU.09.25.1 5C	YAW-- TU.09.55.1 NA				
06	0371880 TU.09.50.2 1B		0371880 TU.09.50.2 1B TU.09.10.1 TU.09.15.1 TU.09.15.1 TU.09.25.1 2	MX-- TU.09.25.1 TU.09.25.1 TU.09.25.1 TU.09.60.1	YAW-- TU.09.55.1 5C				
07			MX-- TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.10.1 5						
08	0371880 TU.09.50.2 2C		MX-- TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.10.1 4C	0371880 TU.09.50.2 2C TU.09.25.1 TU.09.25.1 TU.09.30.1 2	0371880 TU.09.50.2 2C TU.09.55.1 TU.09.55.1 TU.09.55.1 4F				
09			DAX-- TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.55.1 5	MX-- TU.09.25.1 TU.09.30.1 TU.09.40.1 TU.09.40.1 5	MX-- TU.09.55.1 TU.09.55.1 TU.08.00.1 NA				
10	0371880 TU.09.50.2 1C		MX-- TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.55.1	MX-- TU.09.10.1 TU.09.30.1 TU.09.30.1 TU.09.40.1					
11			MX-- TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.15.1	MX-- TU.09.30.1 TU.09.30.1 TU.09.35.1 TU.09.55.1					
12	0371880 TU.09.50.2 2B		MX-- TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 5B	MX-- TU.09.35.1 TU.09.35.1 TU.09.35.1 TU.09.40.1	MX-- TU.09.00.1 TU.09.10.1 TU.09.10.1 TU.09.10.1 5				
13			CD-- TU.09.15.1 TU.09.15.1 TU.09.15.1	MX-- TU.09.35.1 TU.09.35.1 TU.09.35.1 TU.09.35.1 5					
14	0371880 TU.09.50.2 1D	0371880 TU.09.55.1 5B	MX-- TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 5E	CD-- TU.09.35.1 TU.09.35.1 TU.09.35.1 TU.09.35.1 5					

	A	B	C	D	E	F	G	H	J	K	
15			MX-- 0371661 TU.09.20.1 1E TU.09.20.1 2E TU.09.20.1 3E TU.09.20.1 4E TU.09.20.1 5E	MX-- 0371661 TU.09.20.1 2E TU.09.20.1 3E TU.09.20.1 4E TU.09.20.1 5E					MX-- 0371661 TU.09.00.1 2E TU.09.00.1 3E TU.09.00.1 4E TU.09.00.1 5E	APE-- 0370639 TU.08.00.1 2E TU.08.00.1 3E TU.08.00.1 4E TU.08.00.1 5E	
16	MB-- 0371880 TU.09.50.2 2E	MD-- 0371497 TU.09.10.1 1E TU.09.60.1 1E	MX-- 0371661 TU.09.20.1 2E TU.09.20.1 3E TU.09.20.1 4E TU.09.20.1 5E	MX-- 0371661 TU.09.20.1 2E TU.09.20.1 3E TU.09.20.1 4E TU.09.20.1 5E				MX-- 0371661 TU.09.00.1 2E TU.09.00.1 3E TU.09.00.1 4E TU.09.00.1 5E	APE-- 0370639 TU.08.00.1 2E TU.08.00.1 3E TU.08.00.1 4E TU.08.00.1 5E		
17			MX-- 0371661 TU.09.20.1 2E TU.09.20.1 3E TU.09.20.1 4E TU.09.20.1 5E	CE-- 0371029 TU.09.40.1 2E TU.09.40.1 3E TU.09.40.1 4E TU.09.40.1 5E				MX-- 0371661 TU.09.00.1 2E TU.09.00.1 3E TU.09.00.1 4E TU.09.00.1 5E	APE-- 0370639 TU.08.00.1 2E TU.08.00.1 3E TU.08.00.1 4E TU.08.00.1 5E		
18	MB-- 0371880 TU.09.50.2 2F	MD-- 0371497 TU.09.15.1 1A TU.09.60.1 1F	CD-- 0371029 TU.09.20.1 2E TU.09.20.1 3E TU.09.20.1 4E TU.09.20.1 5E						APE-- 0370639 TU.08.00.1 2E TU.08.00.1 3E TU.08.00.1 4E TU.08.00.1 5E		
19			CLYB 0371032 TU.09.20.1 2E TU.09.20.1 3E TU.09.20.1 4E TU.09.20.1 5E						APE-- 0370640 TU.08.00.1 2E TU.08.00.1 3E TU.08.00.1 4E TU.08.00.1 5E		
20	MB-- 0371880 TU.09.50.2 2G	MD-- 0371497 TU.09.45.1 2E TU.09.10.1 2E TU.09.55.1 2E	MX-- 0371661 TU.09.45.1 2E TU.09.45.1 3E TU.09.45.1 4E TU.09.45.1 5E	CD-- 0371029 TU.09.45.1 2E TU.09.45.1 3E TU.09.45.1 4E TU.09.45.1 5E	CD-- 0371029 TU.09.55.1 2E TU.09.55.1 3E TU.09.55.1 4E TU.09.55.1 5E			MX-- 0371088 TU.07.10.4 2E TU.07.10.4 3E TU.07.10.4 4E TU.07.10.4 5E	APF-- 0370640 TU.08.00.1 2E TU.08.00.1 3E TU.08.00.1 4E TU.08.00.1 5E		
21			MX-- 0371661 TU.09.45.1 2E TU.09.45.1 3E TU.09.45.1 4E TU.09.45.1 5E	MX-- 0371661 TU.09.45.1 2E TU.09.45.1 3E TU.09.45.1 4E TU.09.45.1 5E	MX-- 0371661 TU.07.10.1 2E TU.09.55.1 2E TU.09.55.1 3E TU.09.55.1 4E TU.09.55.1 5E			MX-- 0371088 TU.07.10.4 2E TU.07.10.4 3E TU.07.10.4 4E TU.07.10.4 5E	APF-- 0370640 TU.08.00.1 2E TU.08.00.1 3E TU.08.00.1 4E TU.08.00.1 5E		
22	MB-- 0371880 TU.09.50.2 1G	MD-- 0371497 TU.09.45.1 2H TU.09.45.1 2H TU.09.45.1 2H	CE-- 0371029 TU.09.50.1 2E TU.09.50.1 3E TU.09.50.1 4E TU.09.50.1 5E	MX-- 0371661 TU.09.50.1 2E TU.09.50.1 3E TU.09.50.1 4E TU.09.50.1 5E		AK-- 0371241 TU.07.10.1 2E	AYWS 0371041 TU.07.10.2 2E	AR-- 0371034 TU.07.10.2 2E	LZ-- 0371674 TU.07.10.2 2E		
23			MX-- 0371661 TU.09.50.1 2E TU.09.50.1 3E TU.09.50.1 4E TU.09.50.1 5E	CEYB 0371032 TU.09.20.1 2E TU.09.20.1 3E TU.09.20.1 4E TU.09.20.1 5E		APG-- 0370641 TU.07.10.1 2E	AYWS 0371041 TU.07.10.2 2E	AR-- 0371034 TU.07.10.2 2E	LZ-- 0371674 TU.07.10.2 2E		
24	MB-- 0371880 TU.09.50.2 2H	MD-- 0371497 TU.09.15.1 2H TU.09.55.1 2H TU.09.45.1 2H	MX-- 0371661 TU.09.50.2 2E TU.09.50.2 3E TU.09.50.2 4E TU.09.50.2 5E	MX-- 0371661 TU.09.40.1 2E TU.09.40.1 3E TU.09.40.1 4E TU.09.40.1 5E		2 3 4	AYWS 0371041 TU.07.10.2 2E	AR-- 0371034 TU.07.10.2 2E	LZ-- 0371674 TU.07.10.2 2E	YSU-- 0370648 TU.07.10.2 2E TU.07.10.2 3E TU.07.10.2 4E TU.07.10.2 5E	
25			MX-- 0371661 TU.09.60.1 2E TU.09.60.1 3E TU.09.60.1 4E TU.09.60.1 5E	MX-- 0371661 TU.09.50.2 2E TU.09.50.2 3E TU.09.50.2 4E TU.09.50.2 5E			AYWS 0371041 TU.07.10.2 2E	AR-- 0371034 TU.07.10.2 2E	LZ-- 0371674 TU.07.10.2 2E		
26	MB-- 0371880 TU.09.50.2 2I	MD-- 0371497 TU.09.30.1 2E TU.09.35.1 2E TU.09.40.1 2E	MX-- 0371661 TU.09.60.1 2E TU.09.60.1 3E TU.09.60.1 4E TU.09.60.1 5E	MX-- 0371661 TU.09.60.1 2E TU.09.60.1 3E TU.09.60.1 4E TU.09.60.1 5E			AYWS 0371041 TU.07.10.2 2E	AR-- 0371034 TU.07.10.2 2E	LZ-- 0371674 TU.07.10.2 2E	YSU-- 0370648 TU.07.10.2 2E TU.07.10.2 3E TU.07.10.2 4E TU.07.10.2 5E	
27			MX-- 0371661 TU.13.00.1 2E TU.13.00.1 3E TU.13.00.1 4E TU.13.00.1 5E	CD-- 0371029 TU.13.00.1 2E TU.13.00.1 3E TU.13.00.1 4E TU.13.00.1 5E							
28	YHM-- 0370701 TU.09.20.1 2E TU.09.25.1 2E TU.09.30.1 2E TU.09.35.1 2E	MD-- 0371497 TU.09.25.1 2E TU.09.40.1 2E	OH-- 0371680 TU.13.00.1 2E					AYWS 0371041 TU.07.10.2 2E	AR-- 0371034 TU.07.10.2 2E	LZ-- 0371674 TU.07.10.2 2E	

	A	B	C	D	E	F	G	H	J	K
01										
02										
03			MX-- 0371661 TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.10.1 5A 5B 5C 5D	CD-- 0371029 TU.09.25.1 TU.09.25.1 TU.09.25.1 TU.09.25.1 TU.09.25.1 5A 5B 5C 5E	BKYZ 0371433 TU.08.10.1 2B					
04	WB-- 0371880 TU.09.50.2 1A		MX-- 0371661 TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.25.1 5A 5B 5C 5D	MX-- 0371661 TU.09.25.1 TU.09.25.1 TU.09.25.1 TU.09.25.1 TU.09.25.1 5A 5B 5C 5E						
05			CD-- 0371029 TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.15.1 5A 5B 5C 5D 5E	CD-- 0371029 TU.09.25.1 TU.09.25.1 TU.09.25.1 TU.09.25.1 TU.09.25.1 5A 5B 5C 5E	YAH-- 0370452 TU.09.55.1 4A					
06	WB-- 0371880 TU.09.50.2 1B		CEYB 0371032 TU.09.10.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.25.1 2A 2B 2C 2D 2E 2F	MX-- 0371661 TU.09.25.1 TU.09.25.1 TU.09.25.1 TU.09.25.1 TU.09.25.1 5A 5B 5C 5E	YAH-- 0370452 TU.09.55.1 5G					
07			MX-- 0371661 TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.10.1 5A 5B 5C 5D 5E							
08	WB-- 0371880 TU.09.50.2 2C		MX-- 0371661 TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.10.1 TU.09.10.1 5A 5B 5C 5D 5E	CCYB 0371032 TU.09.25.1 TU.09.25.1 TU.09.25.1 TU.09.25.1 TU.09.25.1 3A 3B 3C 3D 3E	DAC-- 0371951 TU.09.55.1 3F 3G 3H 3I 3J 3K					
09			DAX-- 0370084 TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.55.1 5A 5B 5C 5D 5E	MH-- 0371487 TU.09.25.1 TU.09.30.1 TU.09.30.1 TU.09.40.1 TU.09.40.1 5A 5B 5C 5D 5E	MX-- 0371661 TU.09.55.1 TU.09.55.1 TU.09.55.1 TU.09.55.1 TU.09.55.1 5A 5B 5C 5D 5E					
10	WB-- 0371880 TU.09.50.2 1C		MX-- 0371661 TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.55.1 5A 5B 5C 5D 5E	MX-- 0371661 TU.09.30.1 TU.09.30.1 TU.09.30.1 TU.09.30.1 TU.09.40.1 5A 5B 5C 5D 5E						
11			MH-- 0371487 TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 5A 5B 5C 5D 5E	MX-- 0371661 TU.09.30.1 TU.09.30.1 TU.09.35.1 TU.09.35.1 TU.09.35.1 5A 5B 5C 5D 5E						
12	WB-- 0371880 TU.09.50.2 2D		MX-- 0371661 TU.09.10.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 5A 5B 5C 5D 5E	MX-- 0371661 TU.09.35.1 TU.09.35.1 TU.09.35.1 TU.09.35.1 TU.09.40.1 5A 5B 5C 5D 5E			MX-- 0371661 TU.08.00.1 TU.08.00.1 TU.08.00.1 TU.08.00.1 TU.08.10.1 5A 5B 5C 5D 5E	APH-- 0370642 TU.08.10.1 TU.08.10.1 TU.08.10.1 TU.08.10.1 TU.08.10.1 5A 5B 5C 5D 5E		
13			CD-- 0371029 TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 5A 5B 5C 5D 5E	MX-- 0371661 TU.09.35.1 TU.09.35.1 TU.09.35.1 TU.09.35.1 TU.09.35.1 5A 5B 5C 5D 5E			TAU-- 0370129 TU.08.00.1 TU.08.00.1 TU.08.00.1 TU.08.00.1 TU.08.00.1 5A 5B 5C 5D 5E	APH-- 0370642 TU.08.10.1 TU.08.10.1 TU.08.10.1 TU.08.10.1 TU.08.10.1 5A 5B 5C 5D 5E		
14	WB-- 0371880 TU.09.50.2 1D	WB-- 0371880 TU.09.55.1 5H	MX-- 0371661 TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 TU.09.15.1 5A 5B 5C 5D 5E	CD-- 0371029 TU.09.35.1 TU.09.35.1 TU.09.35.1 TU.09.35.1 TU.09.35.1 5A 5B 5C 5D 5E			MX-- 0371661 TU.08.00.1 TU.08.00.1 TU.08.00.1 TU.08.00.1 TU.08.00.1 5A 5B 5C 5D 5E	APG-- 0370641 TU.08.10.1 TU.08.10.1 TU.08.10.1 TU.08.10.1 TU.08.10.1 5A 5B 5C 5D 5E		

	A	B	C	D	E	F	G	H	I	J	K
15			0371661 TU-07-20.1 5	MX-T 0371661 TU-07-20.1 5							
16	MB- 0371880 TU-07-22.2 2	MB-D 0371967 TU-07-20.1 5	MX-T 0371961 TU-07-20.1 5	MX-T 0371961 TU-07-20.1 5							
17			0371661 TU-07-20.1 5	MX-T 0371661 TU-07-20.1 5							
18	MB- 0371880 TU-07-25.2 2	MB-D 0371967 TU-07-25.1 5	CX-T 0371929 TU-09-20.1 5	CX-T 0371929 TU-09-20.1 5							
19			0371661 TU-07-20.1 5	MX-T 0371661 TU-07-20.1 5							
20	MB- 0371880 TU-07-50.2 2	MB-D 0371967 TU-07-45.1 5	CX-T 0371661 TU-09-45.1 5	CX-T 0371661 TU-09-45.1 5							
21			0371661 TU-07-20.1 5	MX-T 0371661 TU-07-20.1 5							
22	MB- 0371880 TU-07-50.2 2	MB-D 0371967 TU-07-45.1 5	CX-T 0371661 TU-09-50.1 5	CX-T 0371661 TU-09-50.1 5							
23			0371661 TU-07-20.1 5	MX-T 0371661 TU-07-20.1 5							
24	MB- 0371880 TU-07-50.2 2	MB-D 0371967 TU-07-45.1 5	CX-T 0371661 TU-09-50.2 5	CX-T 0371661 TU-09-50.2 5							
25			0371661 TU-07-20.1 5	MX-T 0371661 TU-07-20.1 5							
26	MB- 0371880 TU-07-22.2 2	MB-D 0371967 TU-07-20.1 5	MX-T 0371961 TU-07-20.1 5	MX-T 0371961 TU-07-20.1 5							
27			0371661 TU-07-20.1 5	MX-T 0371661 TU-07-20.1 5							
28	MB- 0371880 TU-07-25.2 2	MB-D 0371967 TU-07-25.1 5	CX-T 0371661 TU-09-25.1 5	CX-T 0371661 TU-09-25.1 5							

348574

CIRCUIT PROTECTOR CHART

TU05.00.0

DWG. SIZE B

A.C. C.P.

CP #	VOLTAGE	CURRENT	FUNCTION	PART NO.
1	208	7A	Ø1 LINE	535296
2		4A	Ø1 POWER SUPPLY	535295
3		8A	Ø2 LINE	524179
4		7A	Ø3 LINE	535296
5		2A	Ø3 GATE BLOWER	535294
6		2A	Ø3 VAC PUMP & PRES BLOWER	535294
7		2A	Ø2 GATE BLOWER	535294
8		2A	Ø2 VAC PUMP & PRES BLOWER	535294
9		2A	Ø2 CAP & TAKE UP	535294
10	208	2A	Ø3 CAP & TAKE UP	535294

NOTE XI

D.C. C.P.

CP #	VOLTAGE	CURRENT	PART NO.
11	-48	2.0	535294
12	-12	5.0	589756
13	-6	3.5	597450
14	+6	3.5	597450
15	+12	3.5	597450
16	-7.5	10.0	524180
17	+140	1.0	535292

NOTE

XI TAPE UNITS WITH EC-250460 DO NOT HAVE CP55 #7.

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		2-15-62	250259			X PRINT TO ENG. SPEC. NO. 895291	348574
TU05.00.0		3-10-62	250460				
DESIGN	LFC 6-20-61	MODEL	729 II				
DETAN	GCC 115-62						
CHECK	RCV 1/19/62	DRAW					
APPROV	RSR 1/18/62	CHECK				DWG. SIZE B TU05.00.0	

348620

## CIRCUIT PROTECTOR CHART

TU05.00.0

DISCONTINUED

## A.C. C.P.

CP #	VOLTAGE	CURRENT	FUNCTION	PART NO.
1	208	7A	Ø1 LINE	535296
2	↑	4A	Ø1 POWER SUPPLY	535295
3		8A	Ø2 LINE	524179
4		7A	Ø3 LINE	535296
5		2A	Ø3 GATE BLOWER	535294
6		2A	Ø3 VAC PUMP & PRES BLOWER	535294
7		2A	Ø2 GATE BLOWER	535294
8		2A	Ø2 VAC PUMP & PRES BLOWER	535294
9	↓	2A	Ø2 CAP & TAKE UP	535294
10	208	2A	Ø3 CAP & TAKE UP	535294

## D.C. C.P.

CP #	VOLTAGE	CURRENT	PART NO.
11	-48	2.0	535294
12	-12	3.5	597450
13	-6	3.5	597450
14	+6	3.5	597450
15	+12	3.5	597450
16	-7.5	20.0	535297
17	+140	1.0	535292

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	7-19-61	249230			X PRINT TO ENG. SPEC. NO. 895291	348620
	TU05.00.0	2-15-62	250259				
DESIGN	LFC 6-20-61	MODEL	729 II				
DETAIL							
CHECK	LFC 7-5-61	DRAW	ID1 6-28-61				
APPRO	RSR 7-5-61	CHECK					TU05.00.0

348621

LOCATION CHART

TU06.00.0

DOUBLE POLE RELAYS

RELAY NO.	TYPE	PART NO.	COIL P.U.	POINTS		NAME
				A	B	
1	DP	223642	TU10.00.1	TU16.00.0	TU16.00.0	PHASE 1
2	DP	↑	↑	↑	↑	PHASE 2&3
3	DP	↑	↑	↑	↑	CAPSTAN MOTORS
4	DP	↑	↑	↑	↑	VACUUM MOTOR
5	DP	↑	↑	↑	↑	REWIND MOTOR
6	DP	↑	↑	↑	↑	TAPE TAKE-UP START
7	DP	↓	↓	↓	↓	TAKE-UP REVERSE
8	DP	223642	TU10.00.1	TU16.00.0	TU16.00.0	HEAD TAKE-UP MOTOR

DUO RELAYS

RELAY NO.	TYPE	PART NO.	COIL P.U.	POINTS				NAME
				AU	AL	BU	BL	
9	DUO	124843	TU10.00.1	TU 15.00.0	TU 15.00.0	TU 15.00.0	TU 15.00.0	140 VOLT CONTROL
10	DUO	124843	TU10.00.1	TU 15.00.0				REWIND
11	DUO	530731	TU10.00.1		TU 12.00.1		TU 11.00.1	NOT FILE PROTECT
12	DUO	111351	TU10.00.1		TU 10.00.1		TU 10.00.1	NOT FILE PROTECT I

CONTACTOR

NO.	PART NO.	LOCATION	NAME
KI	369224	TU16.00.0	POWER ON

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		7-19-61	249230			X PRINT TO ENG. SPEC. NO. 895291	
TU06.00.0		11-20-61	250266				
DESIGN	LFC 6-20-61	MODEL	729 II			DWG. SIZE B TU06.00.0	348621
DETAIL							
CHECK	LFC 7-5-61	DRAW	IDI 6-28-61				
APPRO	RSR 7-5-61	CHECK					

## LOCATION CHARTS

## KEYS AND SWITCHES

NAME	LOCATION
CAPSTAN IN SWITCH-LEFT	TU 11.00.1
CAPSTAN IN SWITCH-RIGHT	TU 11.00.1
CAPSTAN OUT SWITCH-LEFT	TU 11.00.1
CAPSTAN OUT SWITCH-RIGHT	TU 11.00.1
DOOR CLOSED INTERLOCK	TU 11.00.1
HEAD DOWN SWITCH	TU 11.00.1
HEAD UP SWITCH	TU 11.00.1
H.S. REW THERMAL CUT OUT	TU 11.00.1
LOAD REWIND P.B.	TU 11.00.1
REEL RELEASE P.B.	TU 11.00.1
RESET P.B.	TU 11.00.1
START P.B.	TU 11.00.1
TAPE IN COL SW-LEFT	TU 11.00.1
TAPE IN COL SW- RIGHT	TU 11.00.1
TIME DELAY SW	TU 11.00.1
UNLOAD P.B.	TU 11.00.1
VACUUM COL SW-LEFT	TU 15.00.0
VACUUM COL SW- RIGHT	TU 15.00.0
VACUUM OFF BELLOW SW	TU 11.00.1
SELECTOR SW	TU 08.30.1
CHANGE DENSITY P.B.	TU 11.00.1
POWER ON-OFF SW.	

## LIGHTS AND LAMPS

NAME	LOCATION
FILE PROTECT LIGHT	TU 12.00.1
FUSE LIGHT	TU 12.00.1
H.S. AREA LAMP	TU 09.30.1
LOAD POINT LAMP	TU 12.00.1
READY LIGHT	TU 12.00.1
SELECT LIGHT	TU 12.00.1
TAPE BREAK LAMP	TU 12.00.1
TAPE INDICATE LAMP	TU 12.00.1
TAPE INDICATE ON LIGHT	TU 12.00.1
ADDRESS LIGHT	TU 12.00.1
LINE POWER	TU 16.00.0
MACHINE POWER	TU 16.00.0
HI AND LO DENSITY LIGHTS	TU 12.00.1

## DIODES

NO	PART NO	LOC
1	352375	TU 10.00.1
2	352375	TU 10.00.1
3	352375	TU 10.00.1
4	352375	TU 10.00.1
5	352375	TU 10.00.1
6	352375	TU 10.00.1
7	352375	TU 10.00.1
8		TU 09.50.2
9		TU 09.50.2
10		TU 09.50.2
12		TU 09.50.2
13		TU 09.50.2
14	333264	TU 09.50.3
15	333264	TU 09.50.3

## POTENTIOMETERS

NO.	PART NO.	LOC.	NAME
1	252816	TU 09.30.1	H S. REWIND AREA LAMP
2	252816	TU 09.55.1	TAPE IND & LOAD POINT LAMP
3	252816	TU 09.55.1	TAPE BREAK LAMP
4	528459	TU 09.50.3	PROLAY-NEUTRAL
5	528481	TU 09.50.3	PROLAY-DRIVE
7	527738	TU 09.50.3	FWD GO DELAY
8	352396	TU 15.00.0	STOP CLUTCH-LEFT
9	352396	TU 15.00.0	STOP CLUTCH-RIGHT
10	352397	TU 15.00.0	UP CLUTCH- RIGHT
11	352397	TU 15.00.0	DOWN CLUTCH RIGHT
12	352397	TU 15.00.0	UP CLUTCH- LEFT
13	352397	TU 15.00.0	DOWN CLUTCH- LEFT

## PHOTO CELLS

NAME	LOC
H.S. AREA	TU 09.30.1
LOAD POINT AND TAPE BREAK	TU 09.55.1
TAPE IND	TU 09.55.1

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		2-15-62	250259			PRINT TO ENG. SPEC. NO. 895291	TU 06.10.0
TU 06.10.0							
DESIGN LFC 7-1-61 MODEL 729 II							
DETAIL JCC 1-15-62							
CHECK ASJ 1/1/62 DRAW							
APPRO ASR 1/25/62 CHECK							



## KEYS AND SWITCHES

NAME	LOCATION
CAPSTAN IN SWITCH-LEFT	TU 11.00.1
CAPSTAN IN SWITCH-RIGHT	TU 11.00.1
CAPSTAN OUT SWITCH-LEFT	TU 11.00.1
CAPSTAN OUT SWITCH-RIGHT	TU 11.00.1
DOOR CLOSED INTERLOCK	TU 11.00.1
HEAD DOWN SWITCH	TU 11.00.1
HEAD UP SWITCH	TU 11.00.1
H.S. REW THERMAL CUT OUT	TU 11.00.1
LOAD REWIND P.B.	TU 11.00.1
REEL RELEASE P.B.	TU 11.00.1
RESET P.B.	TU 11.00.1
START P.B.	TU 11.00.1
TAPE IN COL SW-LEFT	TU 11.00.1
TAPE IN COL SW-RIGHT	TU 11.00.1
TIME DELAY SW	TU 11.00.1
UNLOAD P.B.	TU 11.00.1
VACUUM COL SW-LEFT	TU 15.00.0
VACUUM COL SW-RIGHT	TU 15.00.0
VACUUM OFF BELLOW SW	TU 11.00.1
SELECTOR SW	TU 08.30.1
CHANGE DENSITY P.B.	TU 11.00.1
POWER ON-OFF SW.	

## LIGHTS AND LAMPS

NAME	LOCATION
FILE PROTECT LIGHT	TU 12.00.1
FUSE LIGHT	TU 12.00.1
H.S. AREA LAMP	TU 09.30.1
LOAD POINT LAMP	TU 12.00.1
READY LIGHT	TU 12.00.1
SELECT LIGHT	TU 12.00.1
TAPE BREAK LAMP	TU 12.00.1
TAPE INDICATE LAMP	TU 12.00.1
TAPE INDICATE ON LIGHT	TU 12.00.1
ADDRESS LIGHT	TU 12.00.1
LINE POWER	TU 16.00.0
MACHINE POWER	TU 16.00.0
HI AND LO DENSITY LIGHTS	TU 12.00.1

## DIODES

NO	PART NO	LOC
1	352375	TU 10.00.1
2	352375	TU 10.00.1
3	352375	TU 10.00.1
4	352375	TU 10.00.1
5	352375	TU 10.00.1
6	352375	TU 10.00.1
7	352375	TU 10.00.1
8		TU 09.50.2
9		TU 09.50.2
10		TU 09.50.2
11		TU 09.50.2
12		TU 09.50.2
13		TU 09.50.2
14	333264	TU 09.50.3
15	333264	TU 09.50.3

## POTENTIOMETERS

NO.	PART NO.	LOC.	NAME
1	252816	TU 09.30.1	H.S. REWIND AREA LAMP
2	252816	TU 09.55.1	TAPE IND & LOAD POINT LAMP
3	252816	TU 09.55.1	TAPE BREAK LAMP
4	528459	TU 09.50.3	PROLAY-NEUTRAL
5	528481	TU 09.50.3	PROLAY-DRIVE
6	527738	TU 09.50.3	BKWD GO DELAY
7	527738	TU 09.50.3	FWD GO DELAY
8	352396	TU 15.00.0	STOP CLUTCH-LEFT
9	352396	TU 15.00.0	STOP CLUTCH-RIGHT
10	352397	TU 15.00.0	UP CLUTCH-RIGHT
11	352397	TU 15.00.0	DOWN CLUTCH-RIGHT
12	352397	TU 15.00.0	UP CLUTCH-LEFT
13	352397	TU 15.00.0	DOWN CLUTCH-LEFT

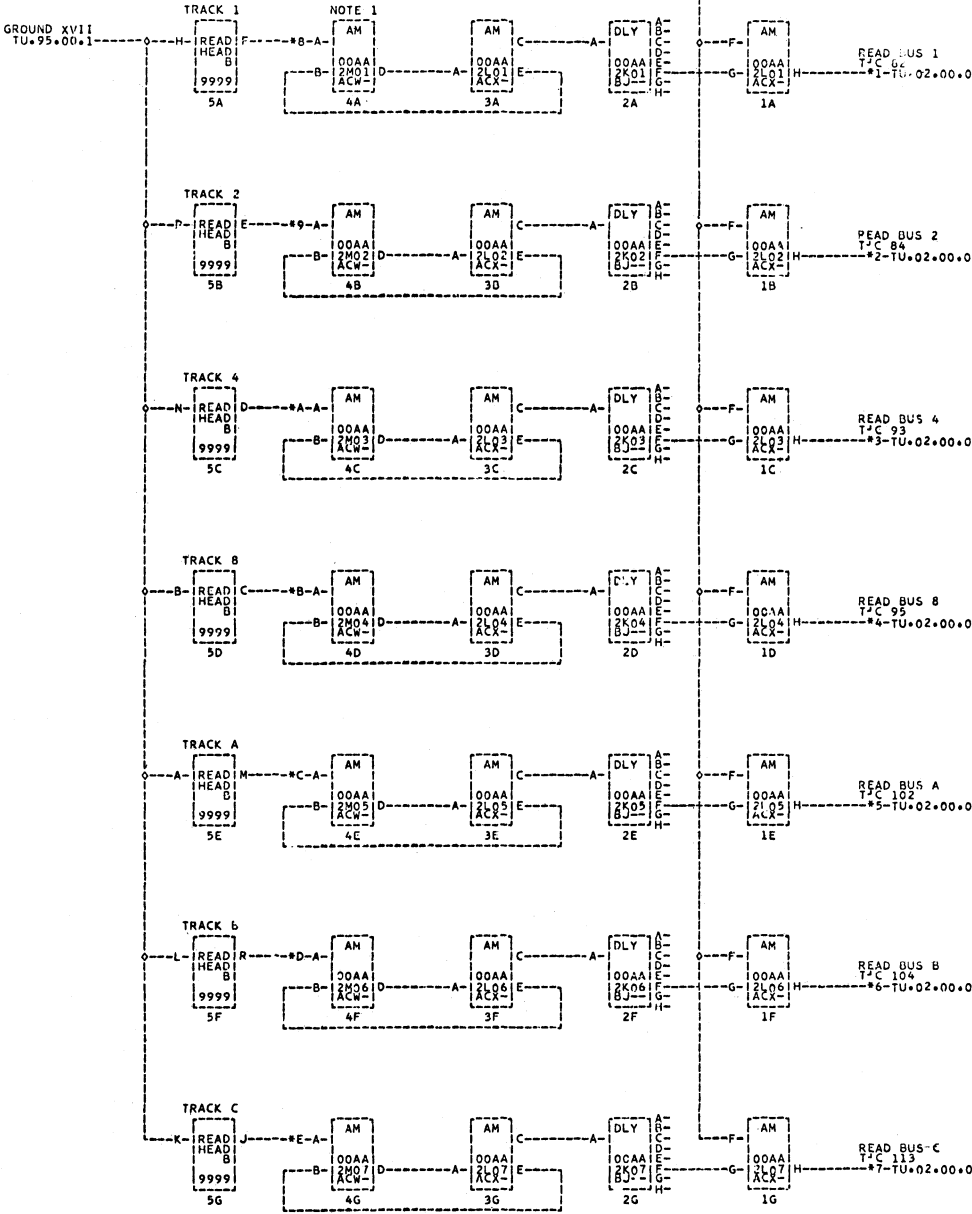
## PHOTO CELLS

NAME	LOC
H.S. AREA	TU 09.30.1
LOAD POINT AND TAPE BREAK	TU 09.55.1
TAPE IND	TU 09.55.1

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME: SYSTEMS DIAGRAM		7-19-61	249230			X PRINT TO ENG. SPEC. NO. 895291	
TU 06.10.0		2-15-62	250259				
DESIGN: LFC 7-1-61 (MODEL) 729 II							
DETAIL:							
CHECK: LFC 7-5-61 (DRAW)							TU 06.10.0
APPRO: RSR 7-6-61 (CHECK)							

+T READ GATE

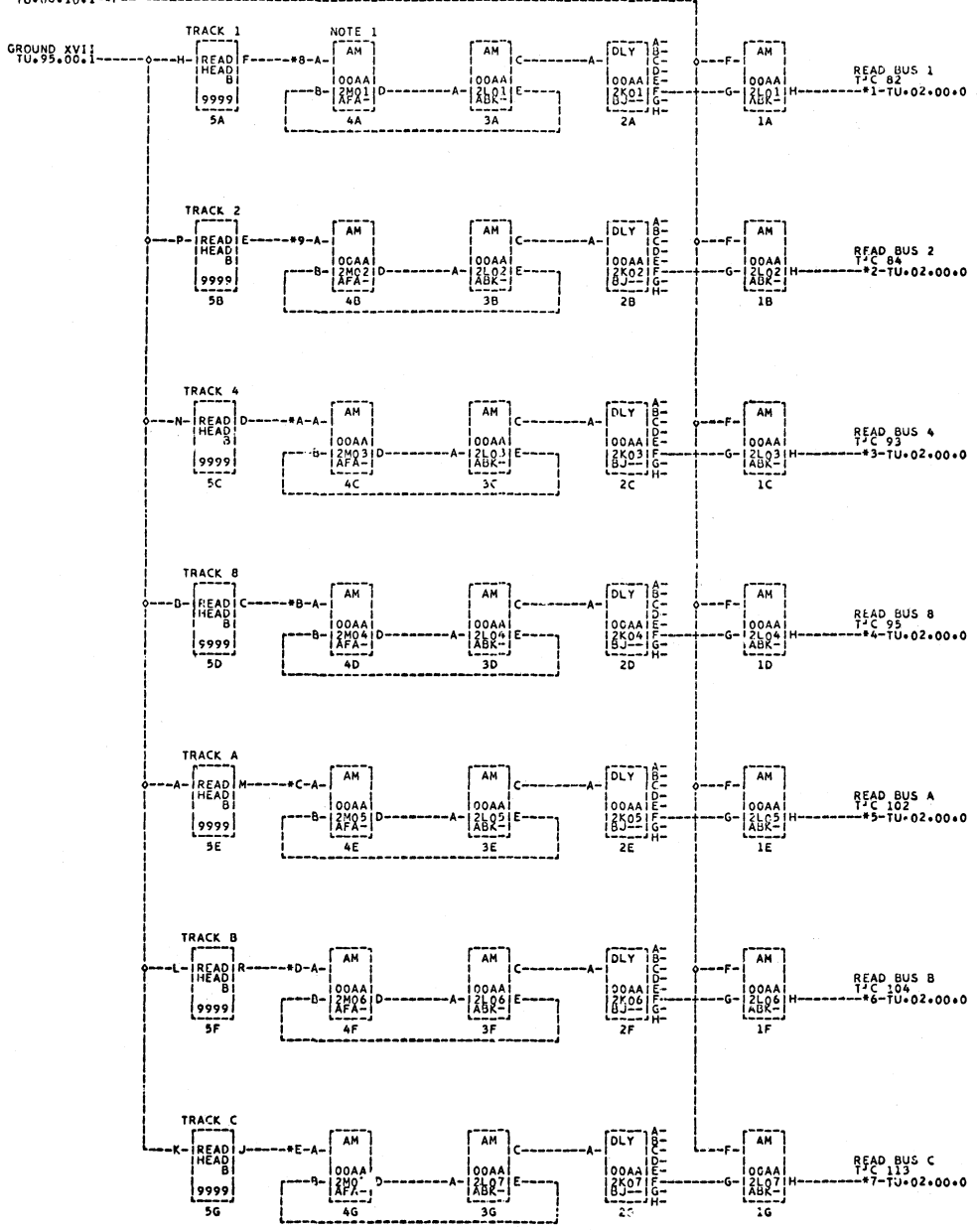
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 \*9--00A2-51H \*A--00A2-51I \*B--00A2-51J \*C--00A2-51K \*D--00A2-51L \*E--00A2-51M

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 A 07-01-61 249230 B 07-21-61 250103

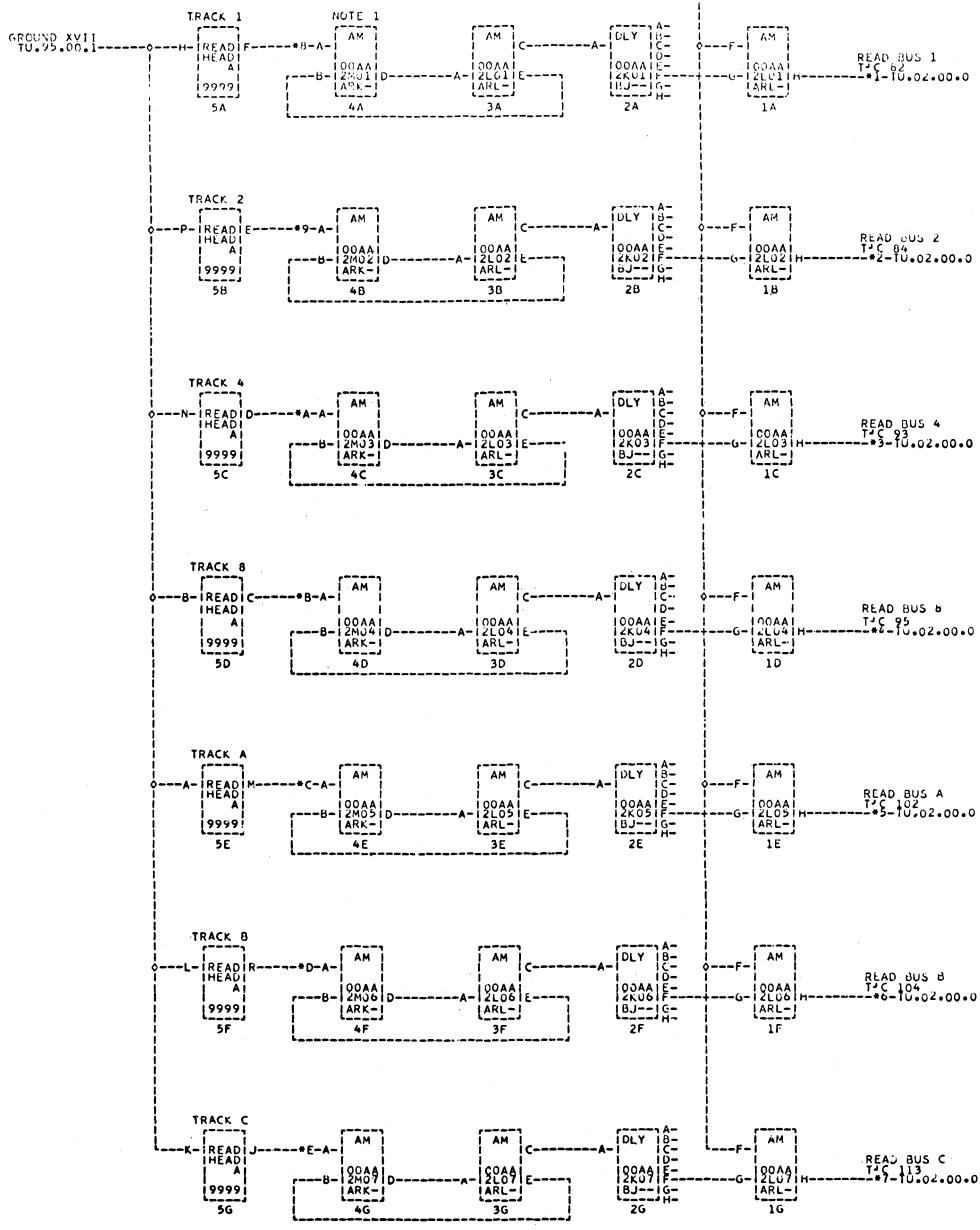
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 \*9--00A2-51C \*A--00A2-51E \*B--00A2-51G \*C--00A2-52A \*D--00A2-52C \*E--00A2-52E  
 \*F--00A2-54H

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 A 07-01-61 249230 B 07-21-61 250103

+I READ GATE  
TU.08.1C.1

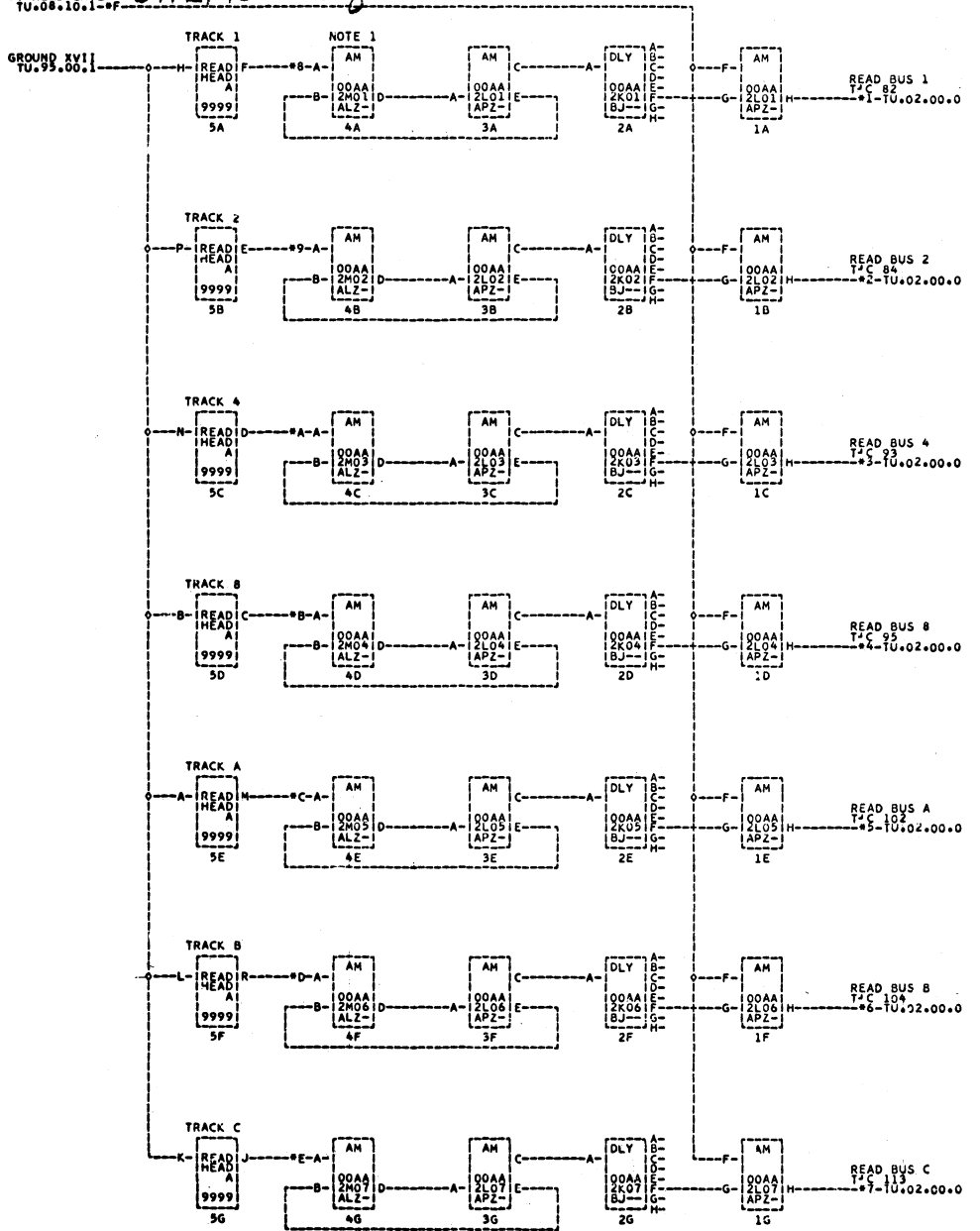


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 \*9--00A2-51C \*A--00A2-51E \*B--00A2-51G \*C--00A2-52A \*D--00A2-52C \*E--00A2-52E

COMMENTS  
THIS PAGE FOR 729-V

TAG DATE	E.C.NO.	TAG DATE	E.C.NO.	TAG DATE	E.C.NO.	TAG DATE	E.C.NO.
A 09-29-61	250267						

+T READ GATE *online only*  
TU.08.10.1

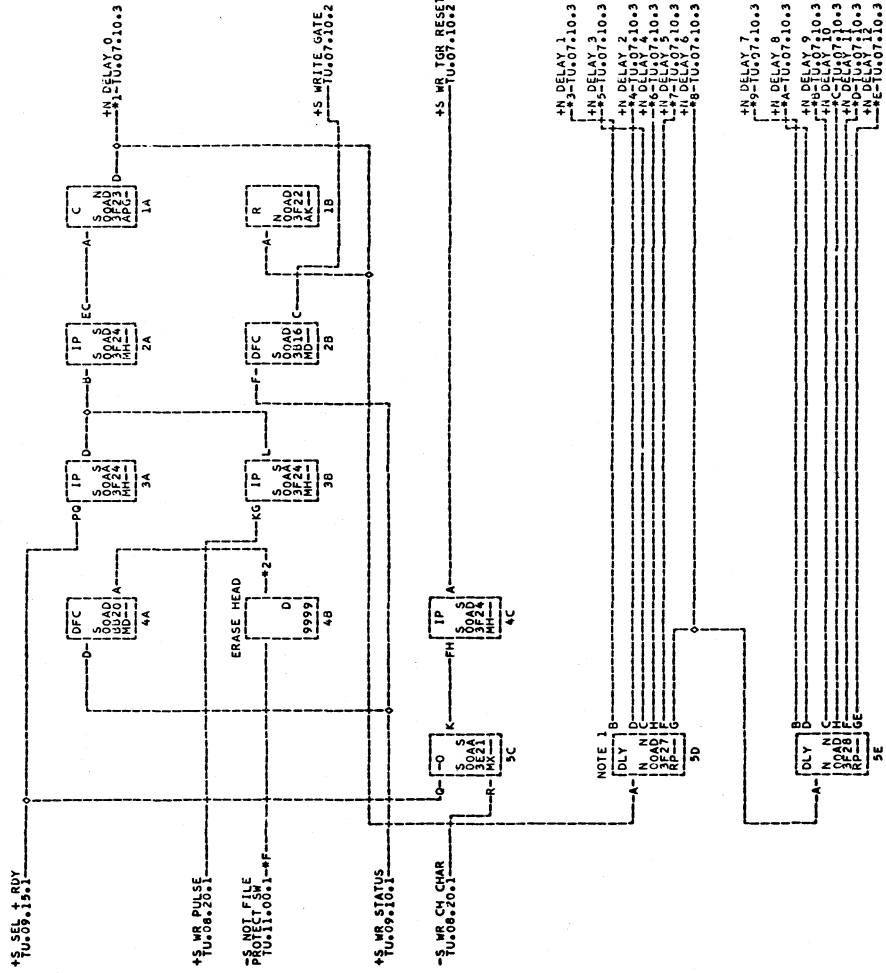


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- \*9--00A2-51C   \*A--00A2-51E   \*B--00A2-51G   \*C--00A2-52A   \*D--00A2-52C   \*E--00A2-52E
- \*F--00A2-54G

1

COMMENTS  
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TAG DATE	E.C.NO.	TAG DATE	E.C.NO.	TAG DATE	E.C.NO.	TAG DATE	E.C.NO.
A 09-29-61	230267						



+N TRACK A  
TU.07.10.3

+N TRACK B  
TU.07.10.3

+N TRACK C  
TU.07.10.3

+N TRACK D  
TU.07.10.3

+N TRACK E  
TU.07.10.3

+N TRACK F  
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+N TRACK G  
TU.07.10.3

+N TRACK H  
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+N TRACK I  
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+N TRACK J  
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+N TRACK K  
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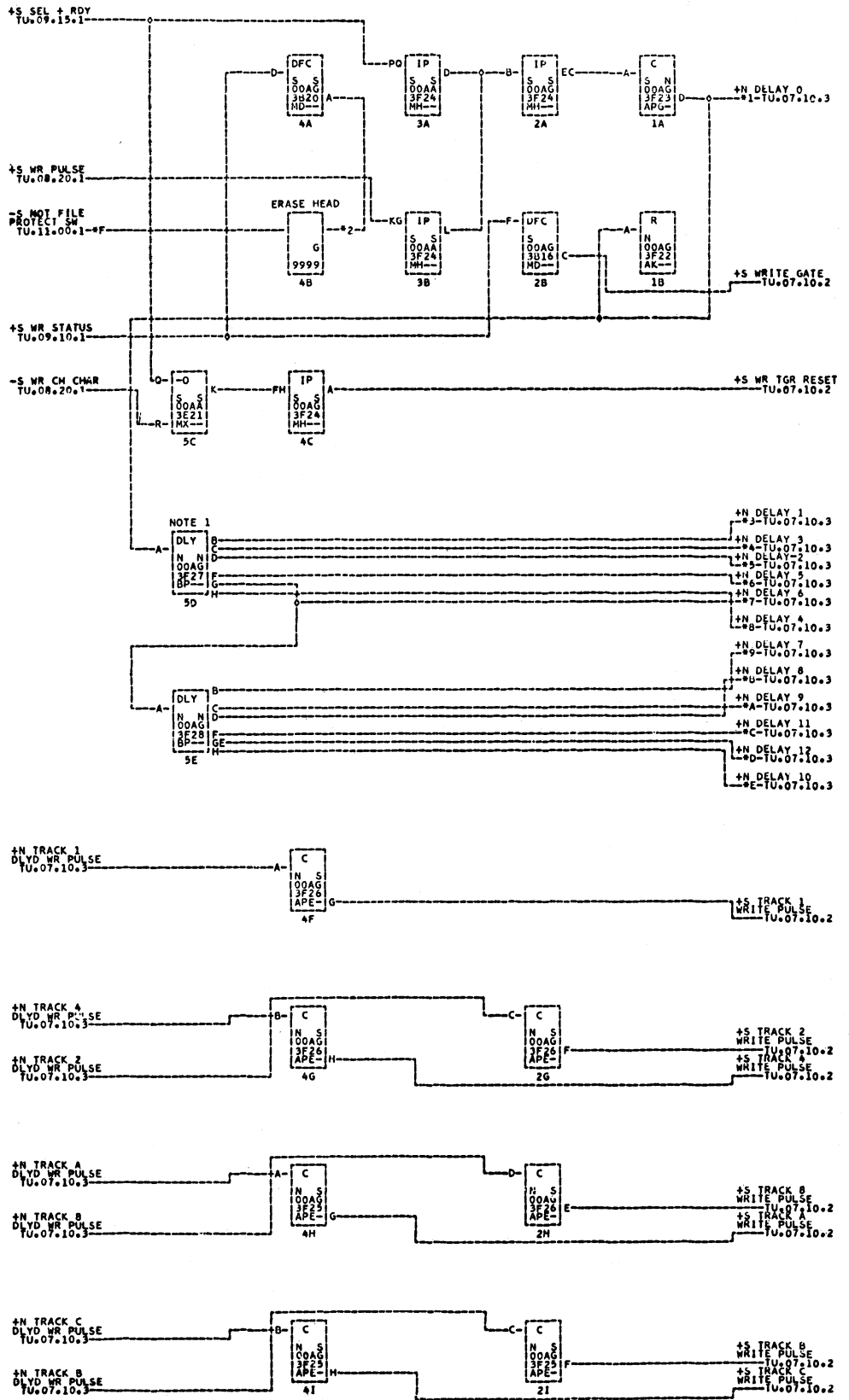
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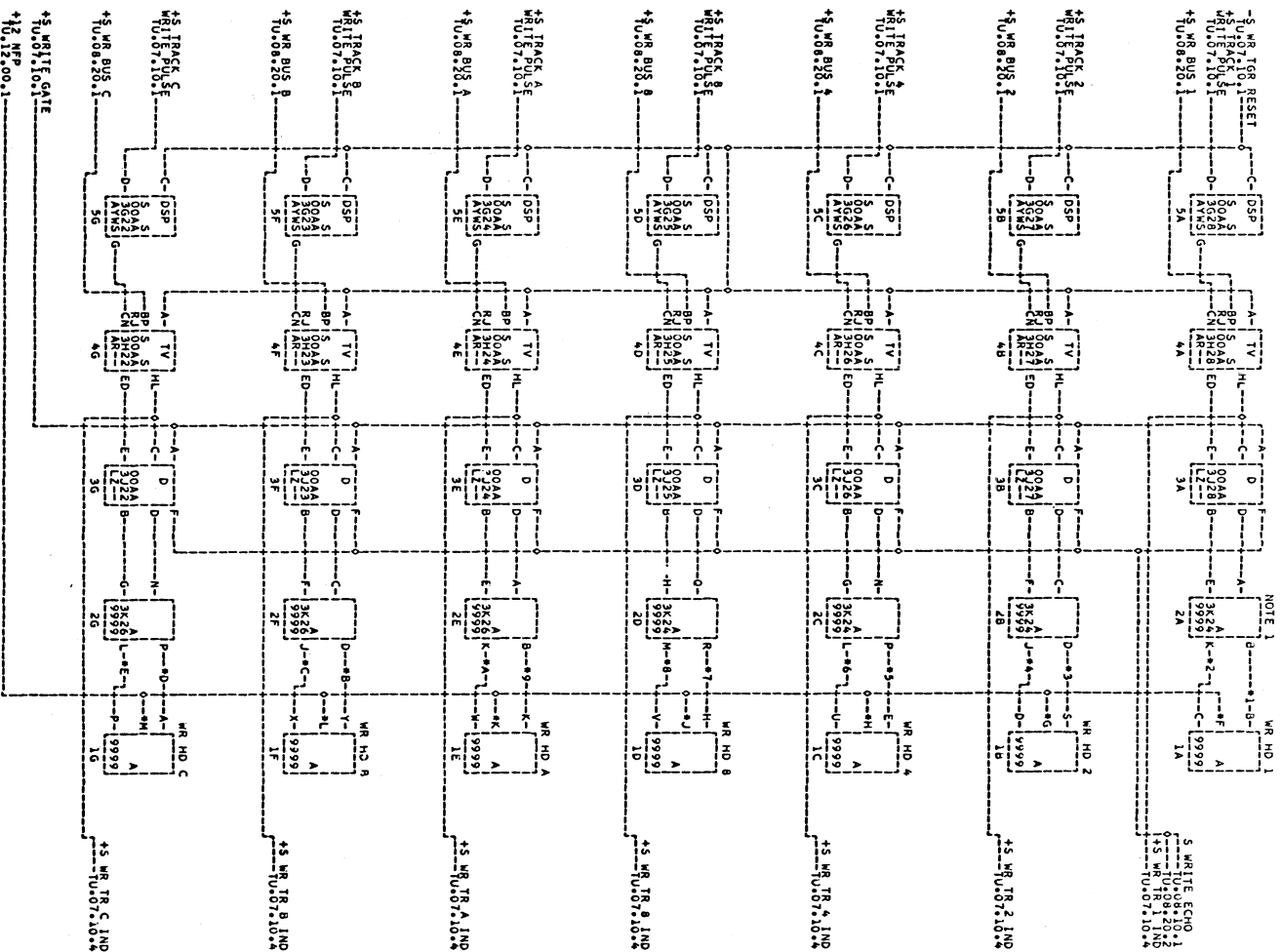
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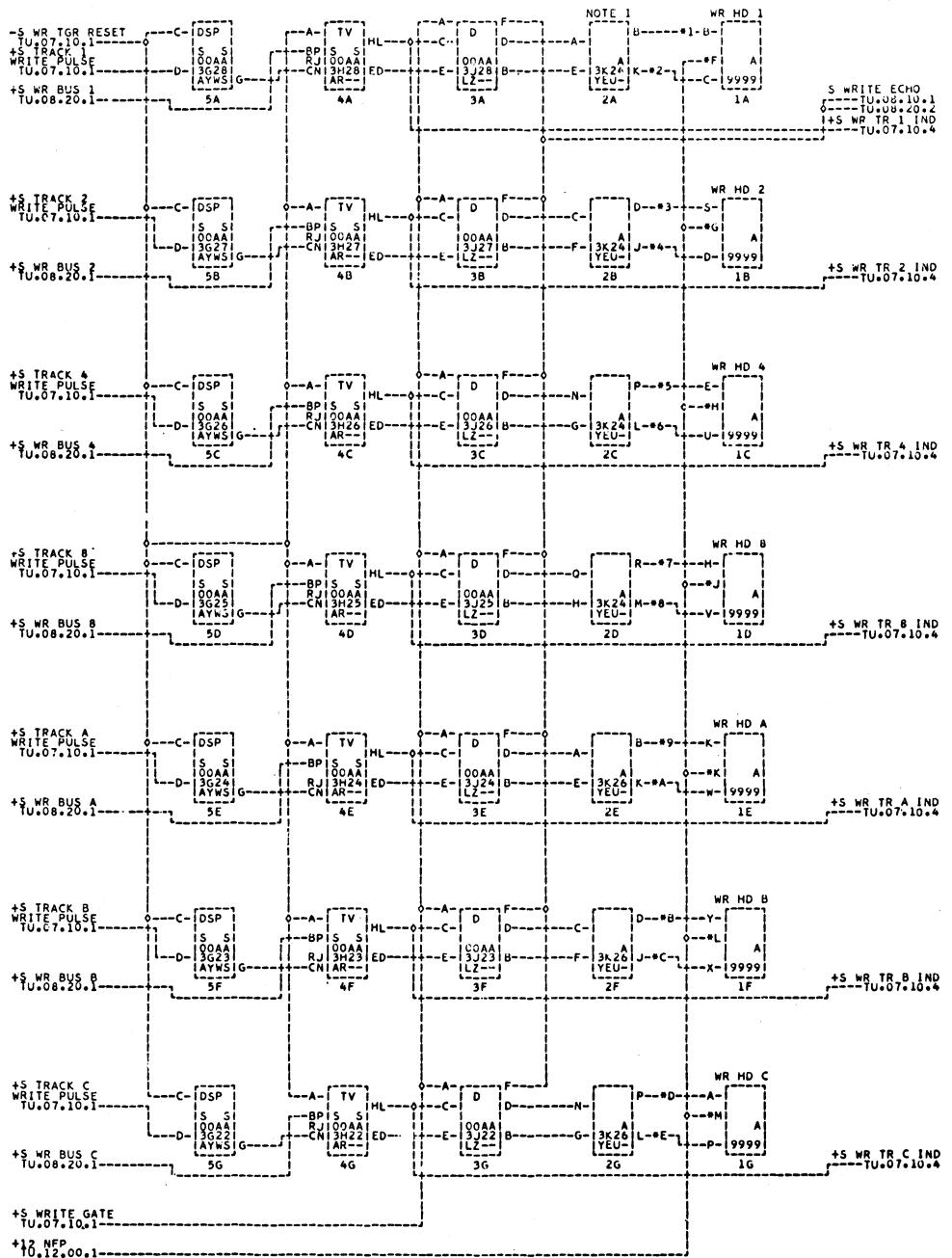
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		E	10-13-61	2	50266	F	11-28-61	2	50436	G	01-18-62	2	50989



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 \*2--00A3K29  
 \*3--00A3K30  
 \*4--00A3K31  
 \*5--00A3K32  
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 \*72--00A3K99  
 \*73--00A3K00

NOTE 1 34852 ON MODEL 2 + 4  
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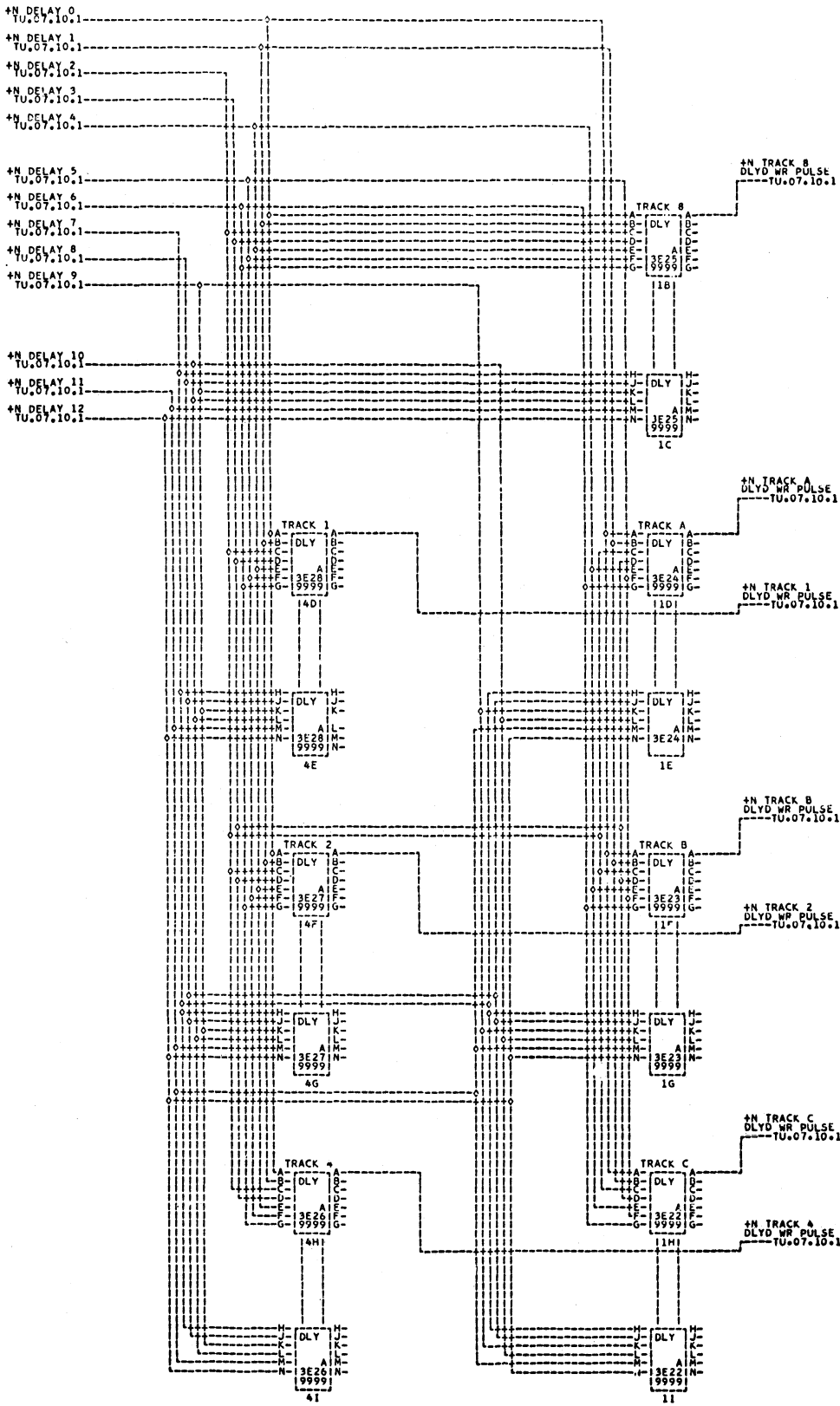
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- \*7--00A3K28N    \*8--00A3K28P    \*9--00A3K28T    \*A--00A3K28B    \*B--00A3K28E    \*C--00A3K28E
- \*D--00A3K28J    \*E--00A3K28K    \*F--00A3K28C--R    \*G--00A3K28G--T    \*H--00A3K28L--F    \*J--00A3K28Q--J
- \*K--00A3K27C--L    \*L--00A3K27G--M    \*M--00A3K27L--R

NOTE 1 YEU- CARD ON MODEL 5 AND 6

COMMENTS

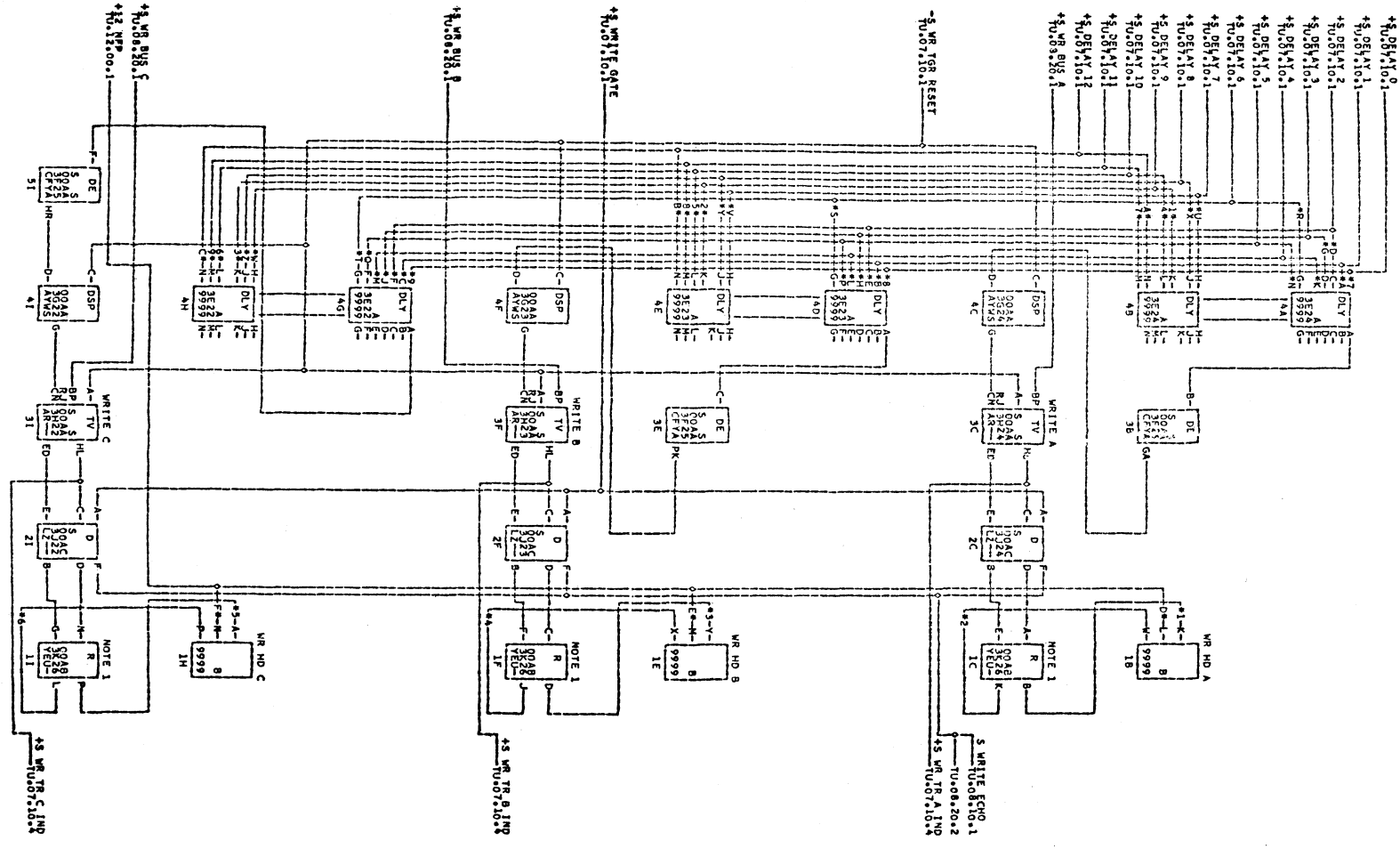
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A 10-13-61 250067 B 10-13-61 250267 C 11-28-61 250456 D 01-17-62 250969



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E	11-28-61	250456	F	01-17-62	250969						

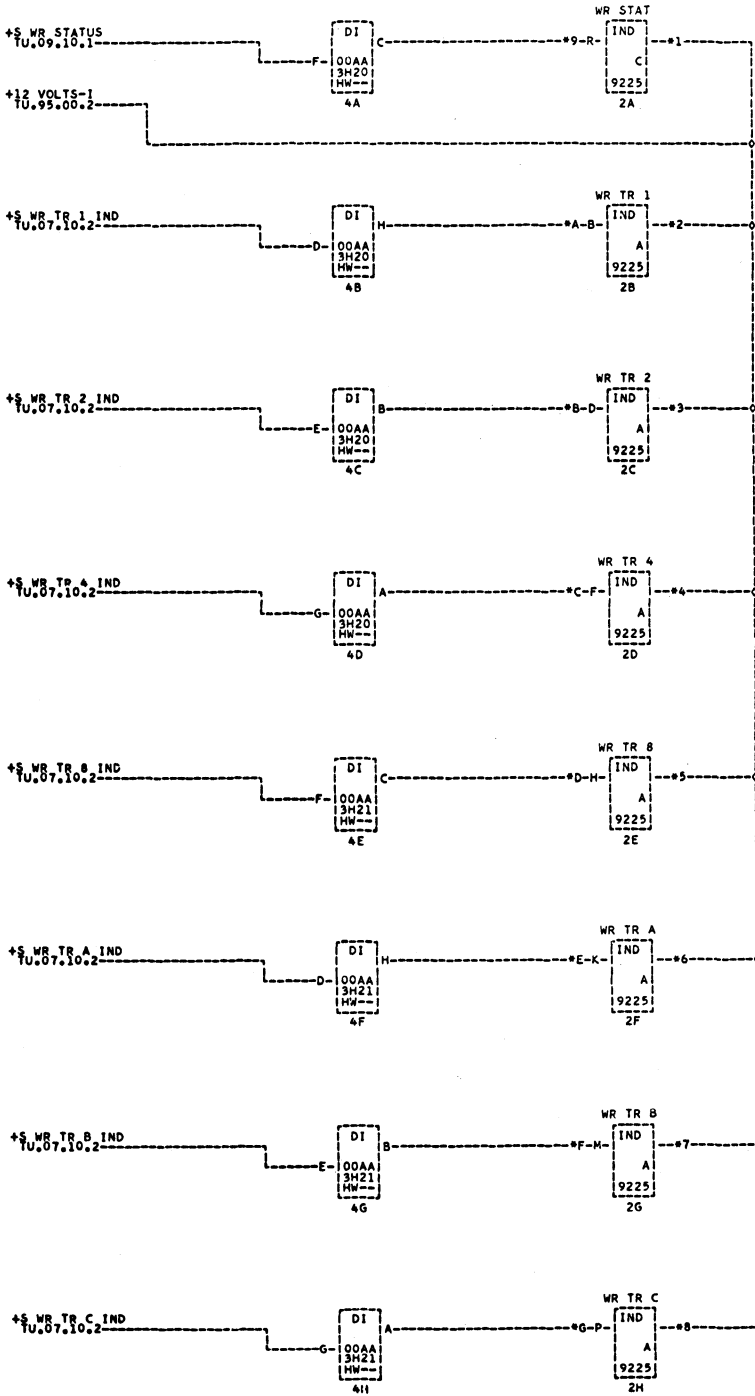


NOTE 1 VER- CARD ON MODEL VVI

COMMENTS

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A 10-13-61 55087 B 10-21-61 55287 C 11-26-61 55486

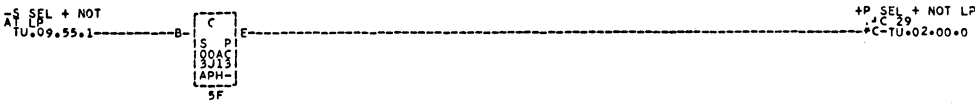
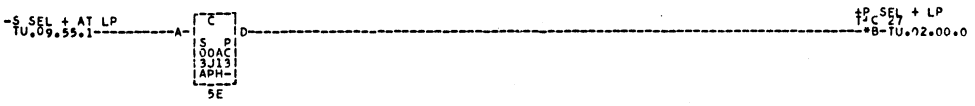
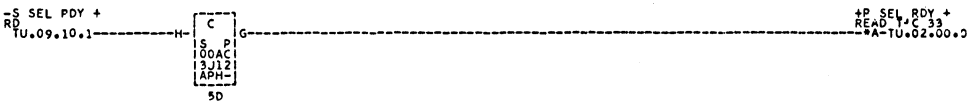
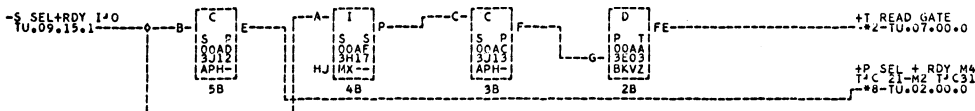
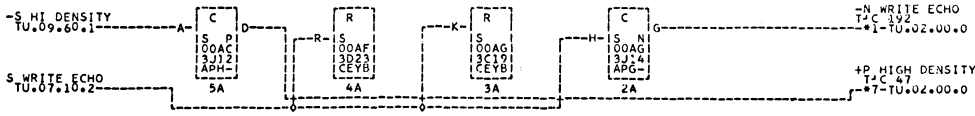


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- \*7--00A3F01H--    \*8--00A3F01B--    \*9--00A3F01R--    \*A--00A3F01B--    \*B--00A3F01D--    \*C--00A3F01F--
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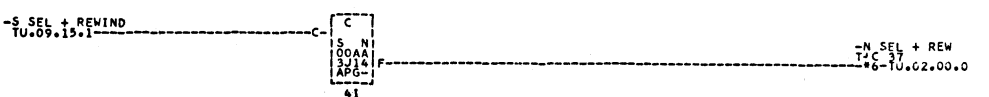
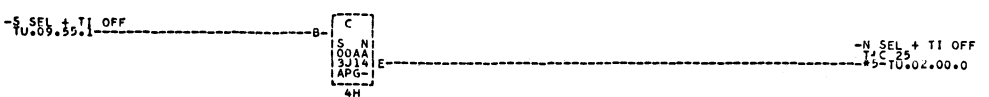
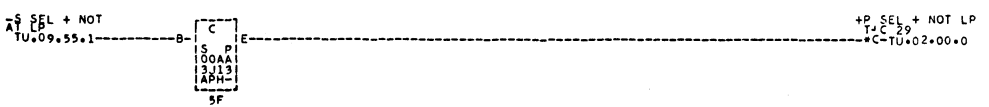
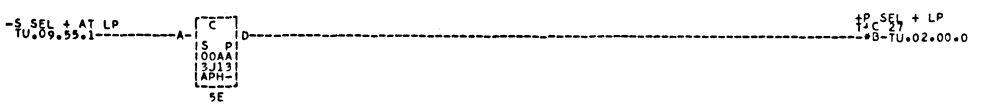
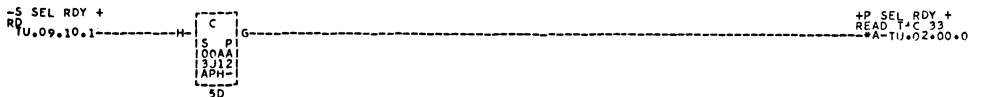
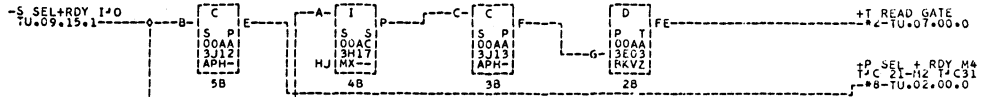
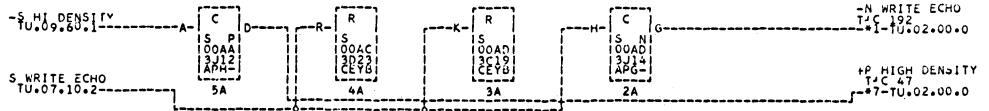
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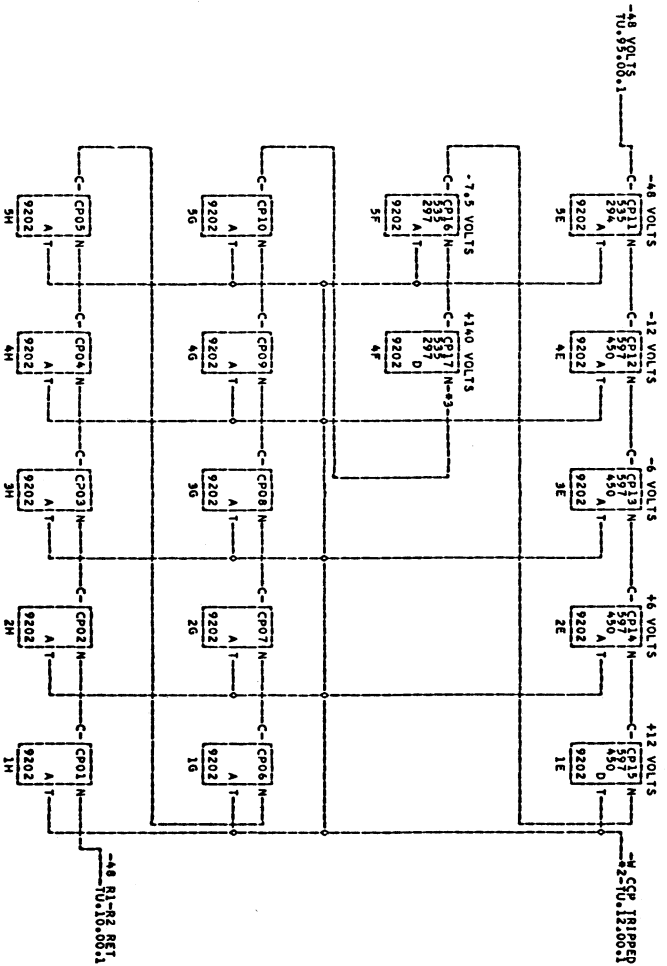
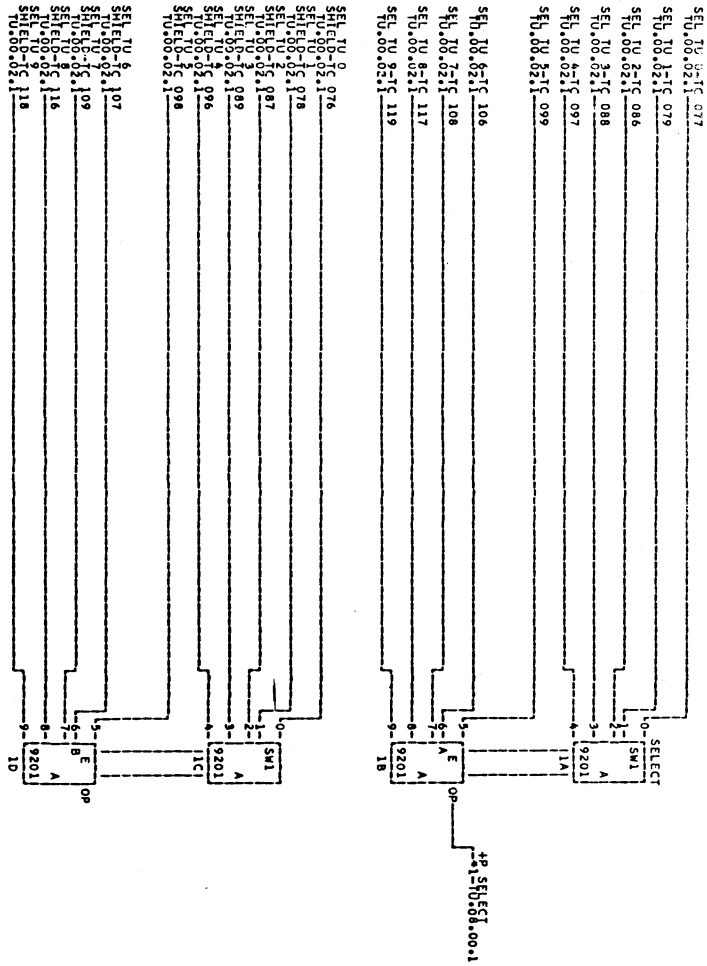


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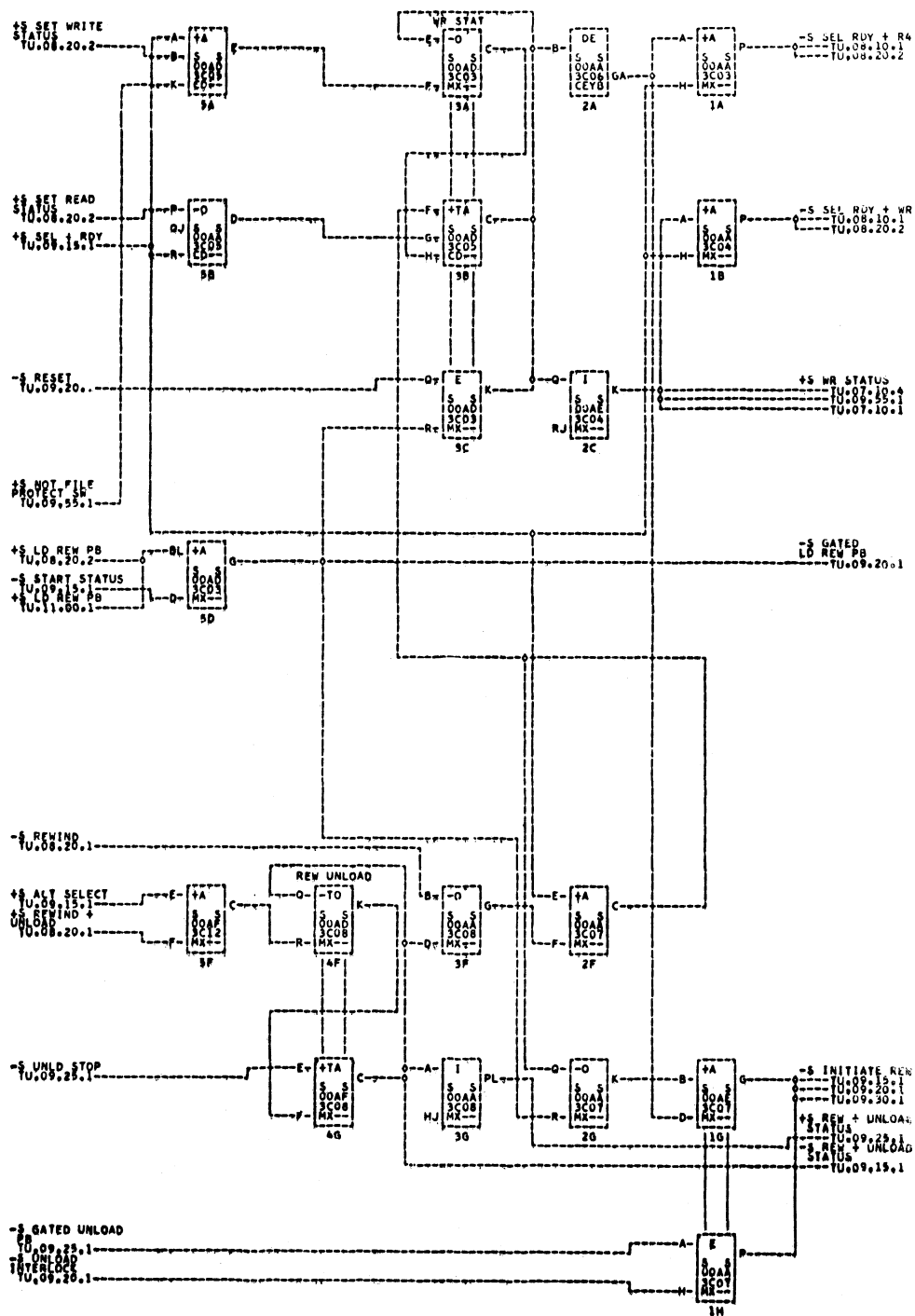


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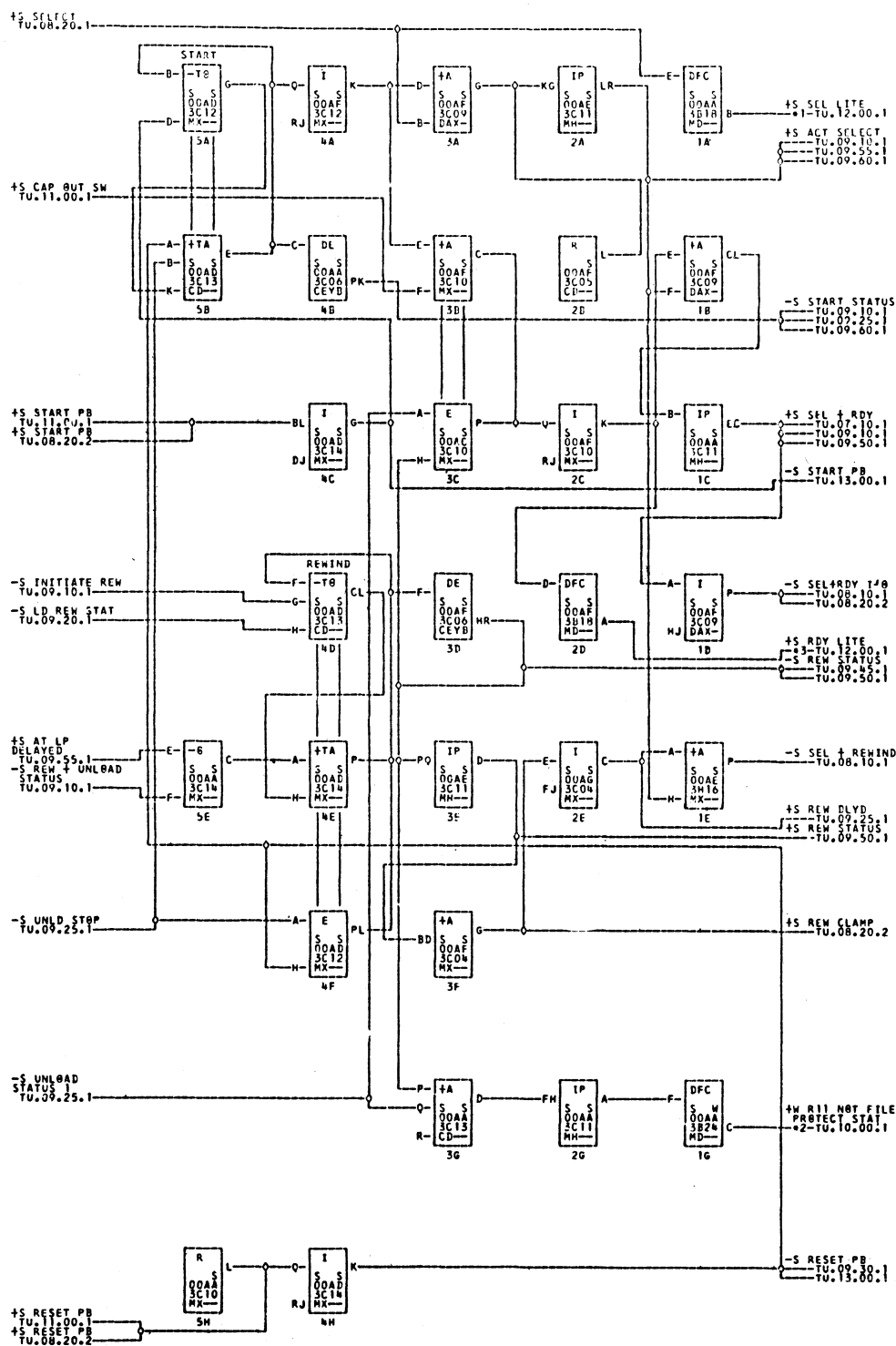
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1



COMMENTS

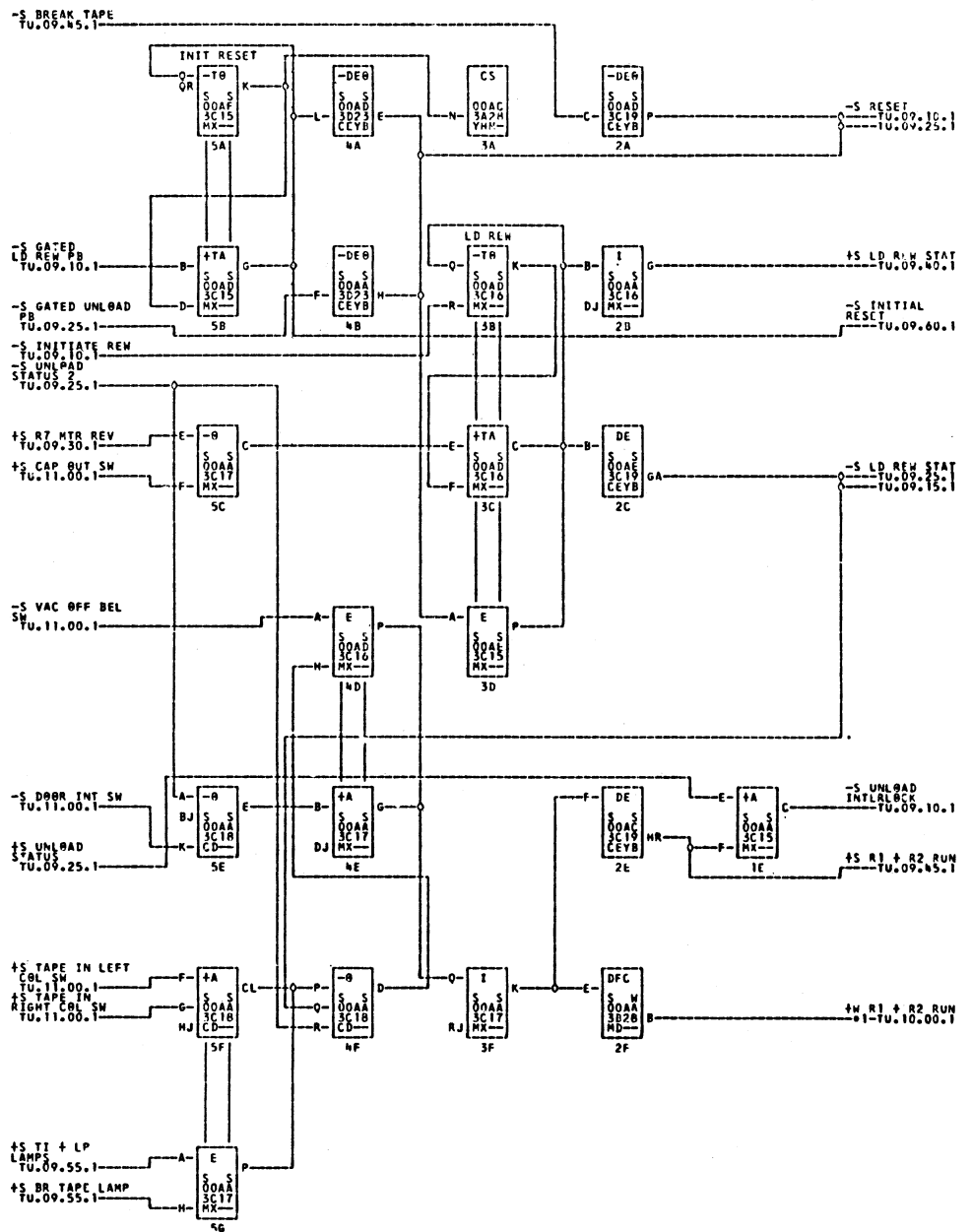
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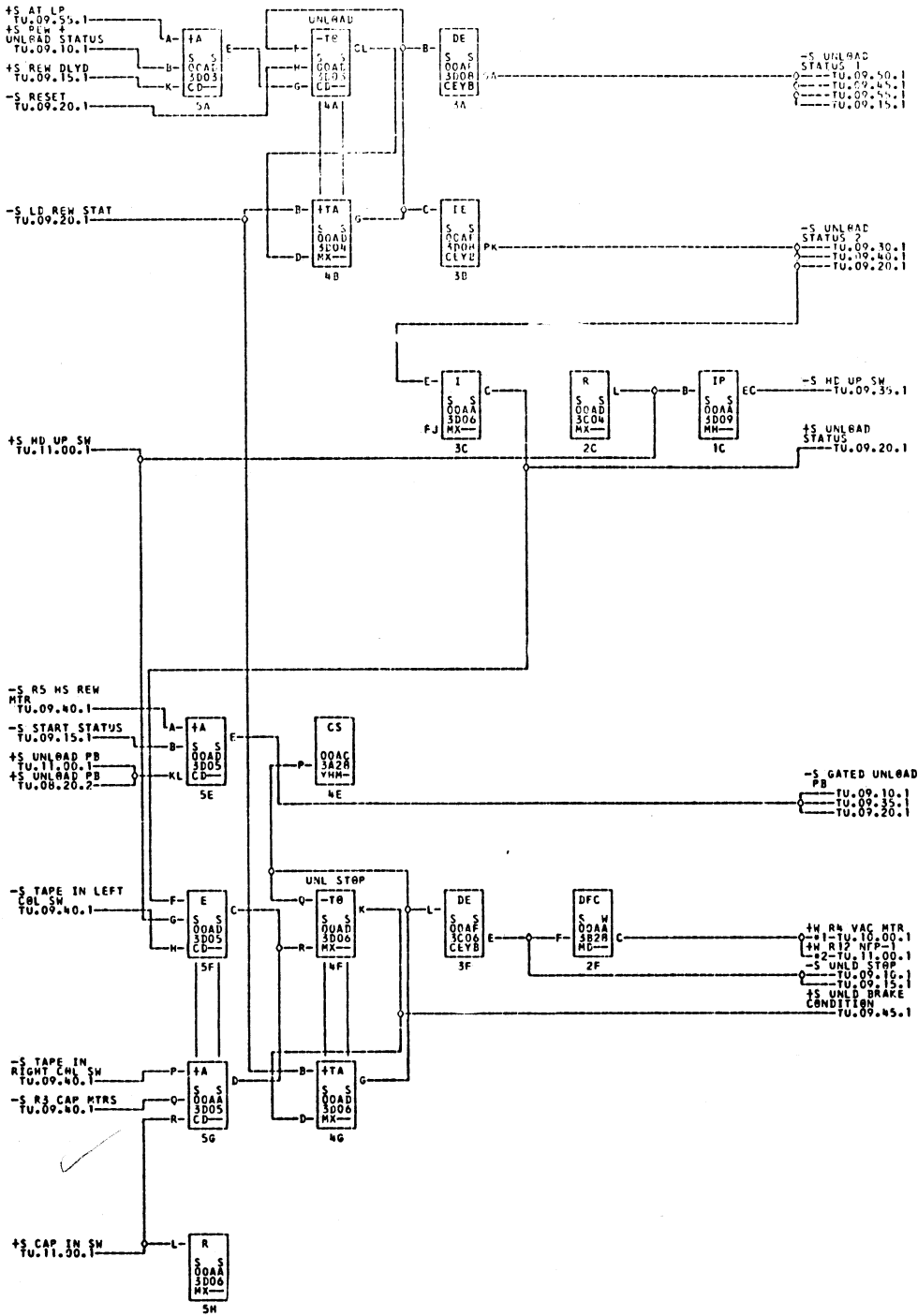
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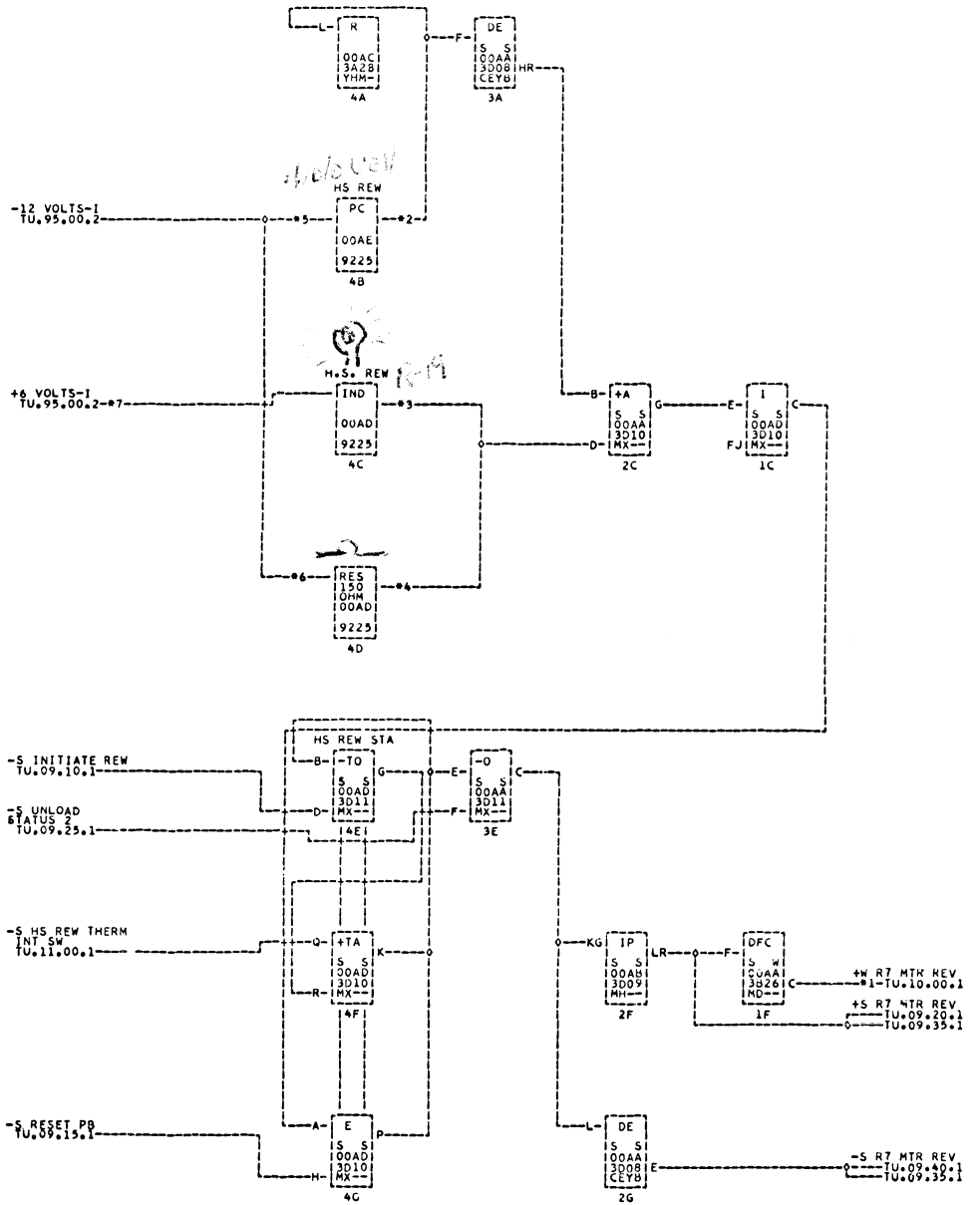
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E	11-20-61	250456	F	04-25-62	251426						



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COMMENTS

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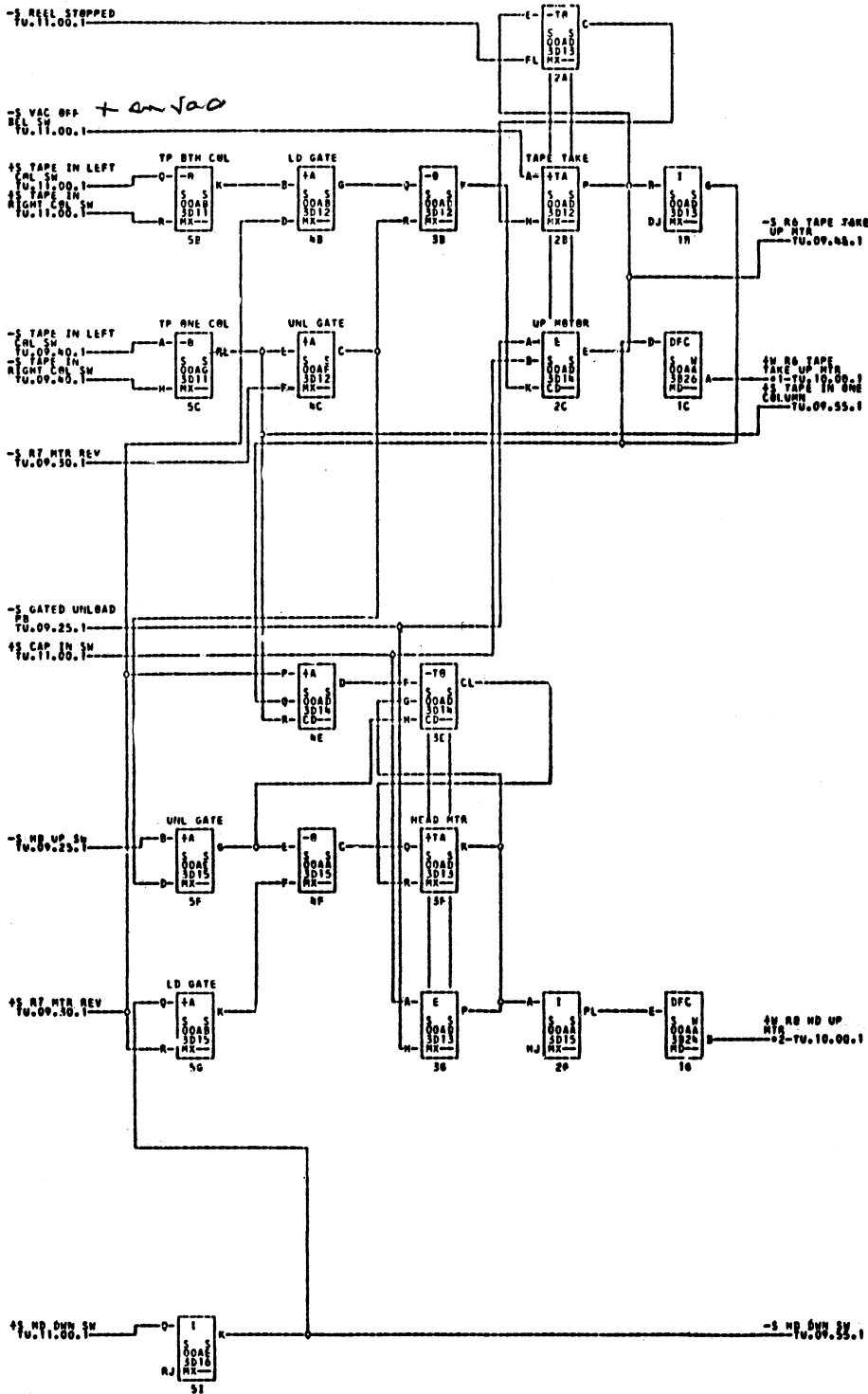


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COMMENTS

TAG	DATE	E.C.NO.	TAG	DATE	E.C.NO.	TAG	DATE	E.C.NO.	TAG	DATE	E.C.NO.
A	03-27-61	249230	B	07-21-61	250103	C	09-05-61	250120	D	10-30-61	250266
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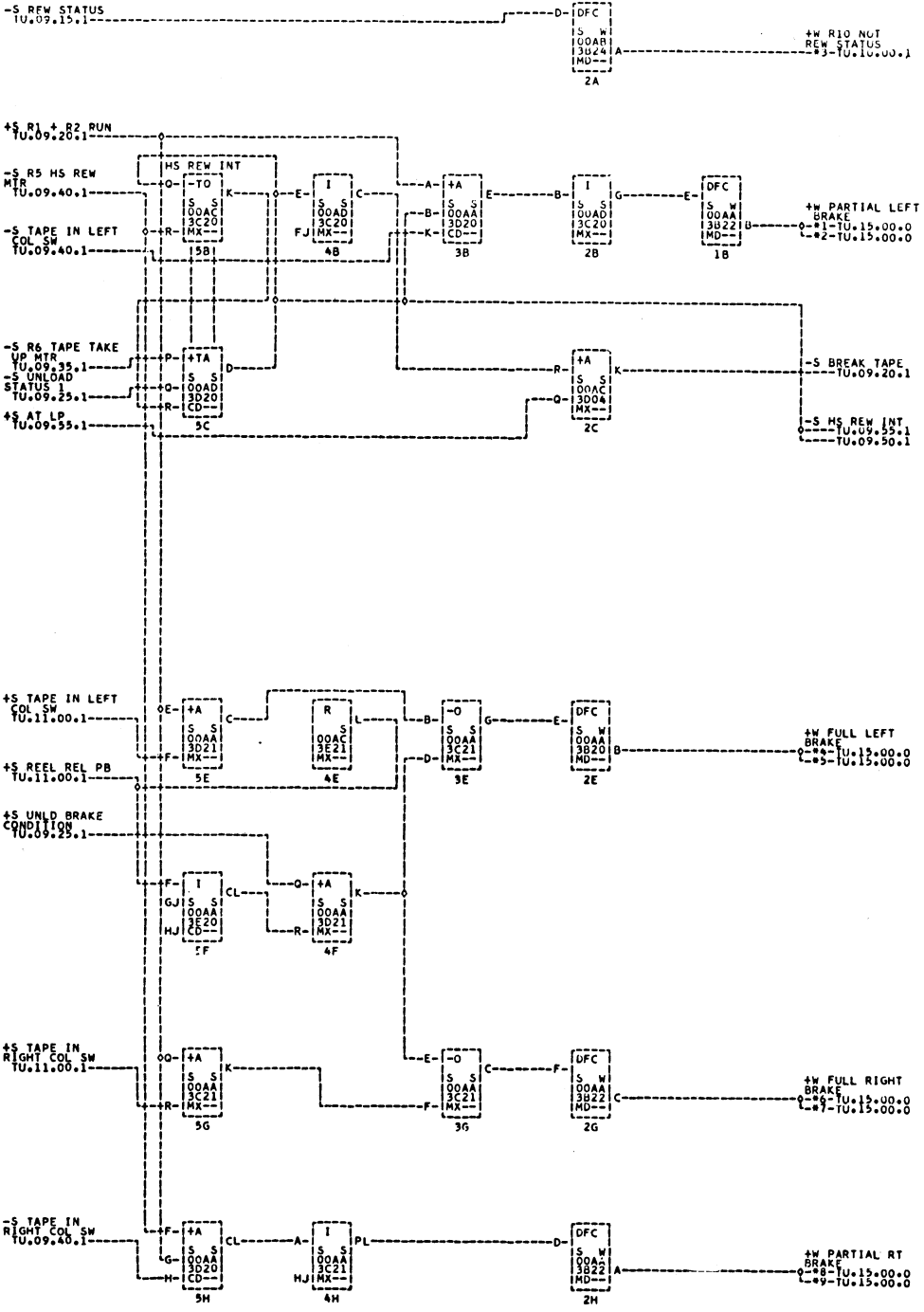
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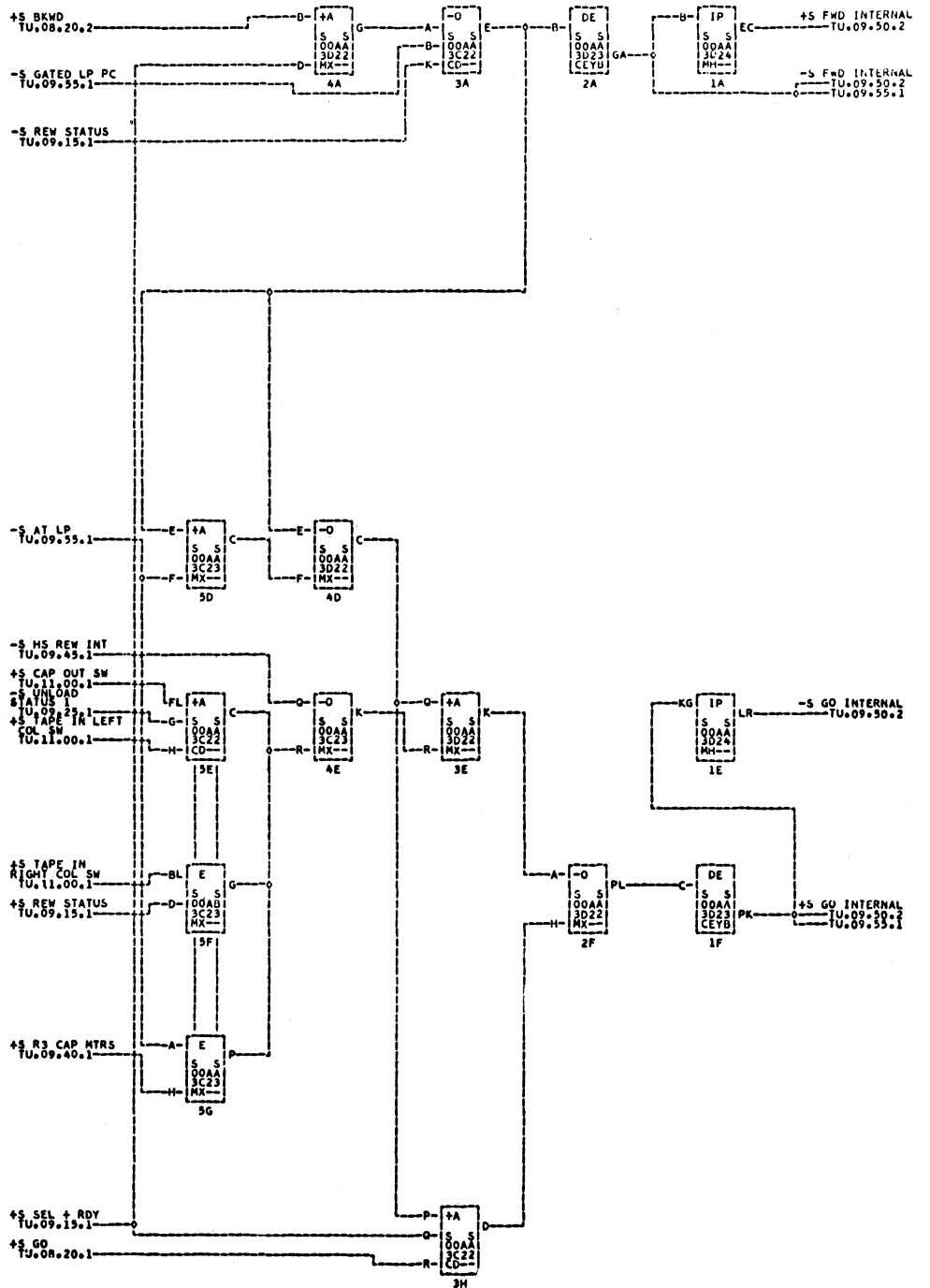




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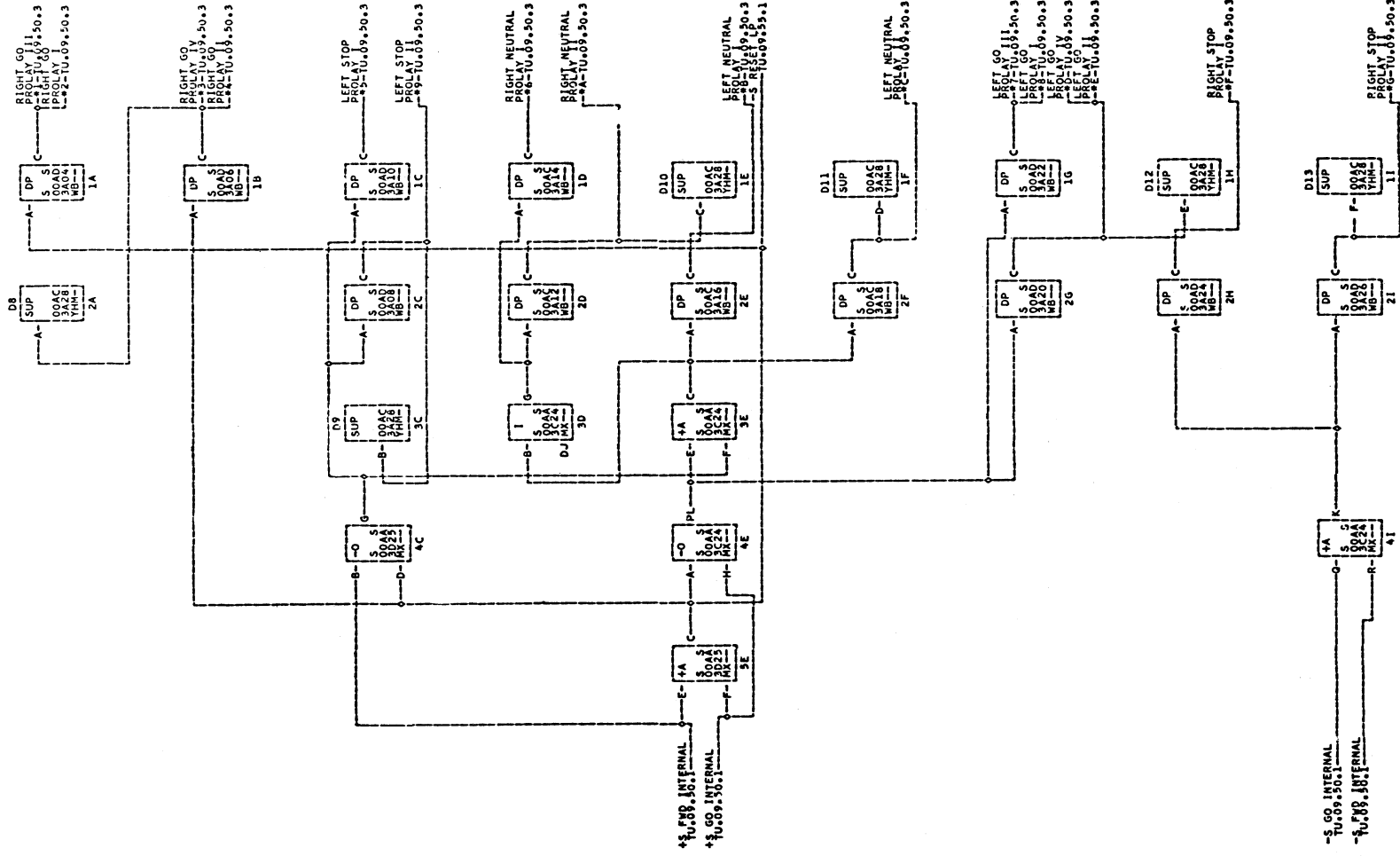
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COMMENTS

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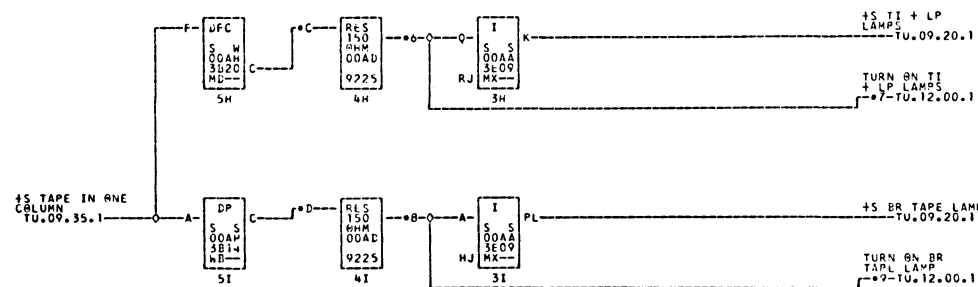
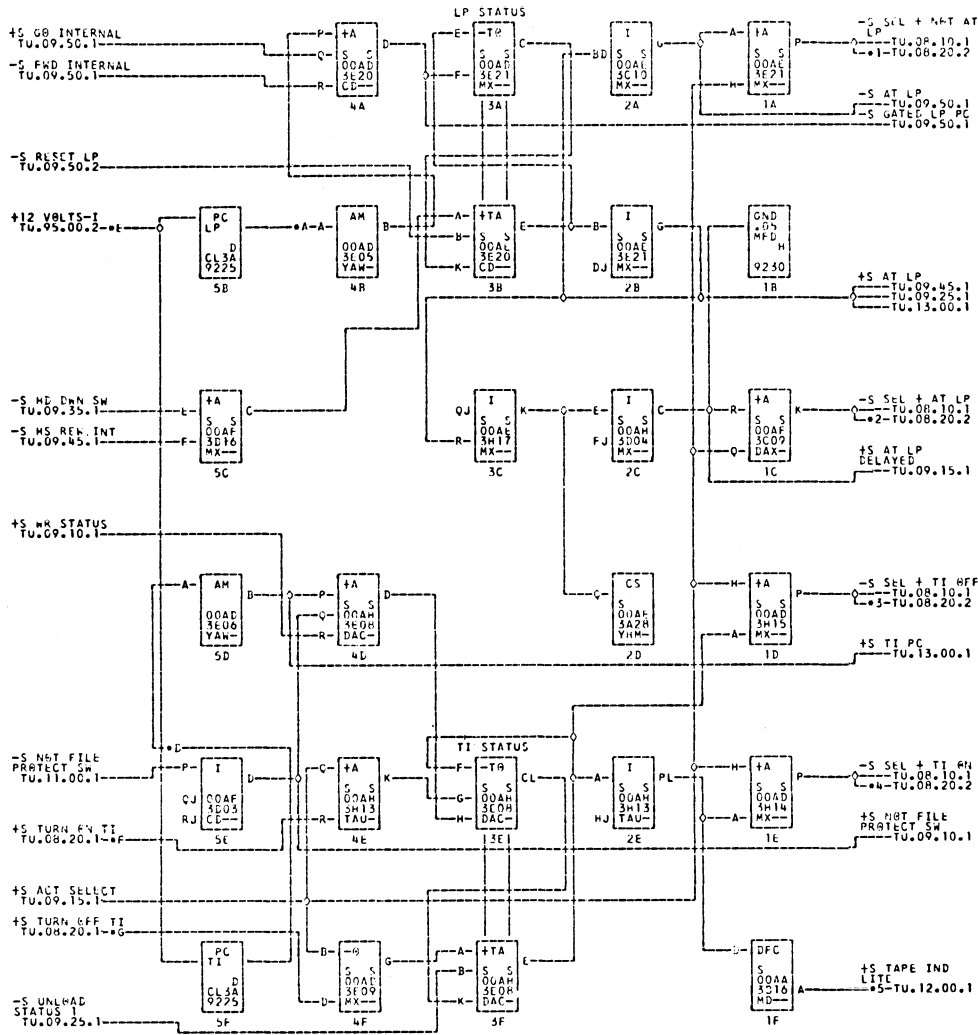


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COMMENTS

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 \*E 11.0A1E s1 516190 \*F 12.0A1E s1 516190 \*G 13.0A1E s1 516190





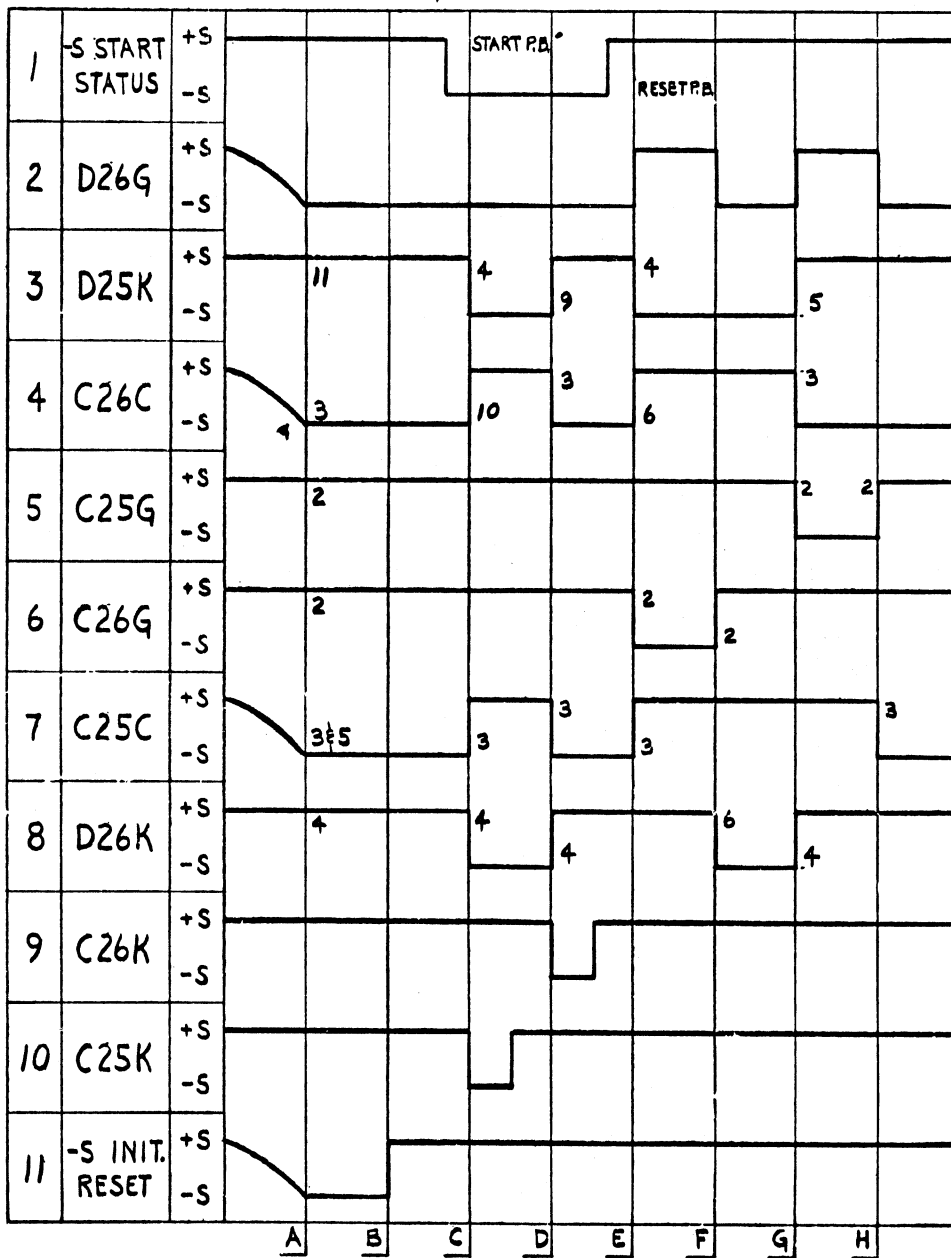
- \*1-00A3K19J \*2-00A3K19G \*3-00A3K19H \*4-00A3K19F \*5-00A3C01P \*6-00T03-08-00A3A01M \*7-00A3E02D
- \*8-00T03-10-00A3A01P \*9-00A3E02F \*10-00A3E02C \*11-00A3E02B \*12-00A3E02A \*13-00A3E02E \*14-00A3E02D
- \*15-00A3K23F \*16-00A3E02B \*17-00A3E02A \*18-00A3K21B

COMMENTS

TAG	DATE	E.C.NB.	TAG	DATE	E.C.NB.	TAG	DATE	E.C.NB.	TAG	DATE	E.C.NB.
A	05-27-61	249230	F	01-22-62	250969	C	09-05-61	250120	D	10-18-61	250266
E	11-29-61	250458				G	01-31-62	251062	H	02-26-62	251054

348634

### SEQUENCE CHART CHANGE DENSITY

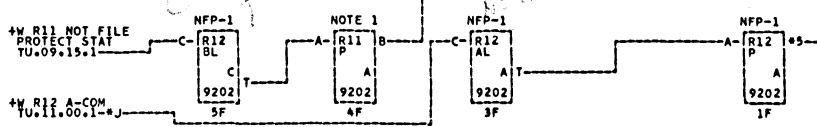
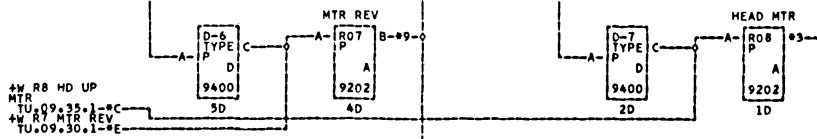
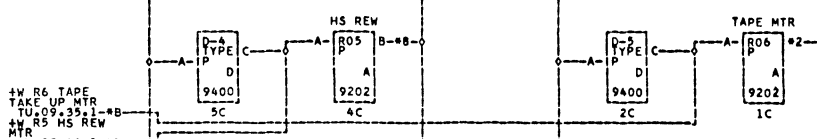
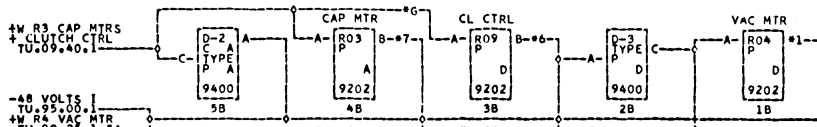
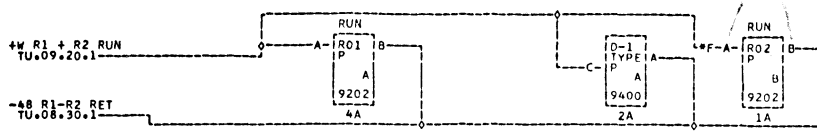


A POWER ON - INITIAL RESET      E CHANGE DENSITY P.B. - LOW  
 B LD. REV. - DROP INITIAL RESET    F RELEASE P.B.  
 C SET LOW DENSITY                    G CHANGE DENSITY P.B. - HIGH  
 D SET HIGH DENSITY                    H. RELEASE P.B.

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	11-20-61	250266			X' PRINT TO ENG. SPEC. NO.	348634
	TU.09.60.0						
DESIGN	LHB 10-13-61	MODEL	729 II				
DETAIL							
CHECK	RFR 10-24-61	DRAW					
APPRO	RSR 10-24-61	CHECK					
TU.09.60.0							348634



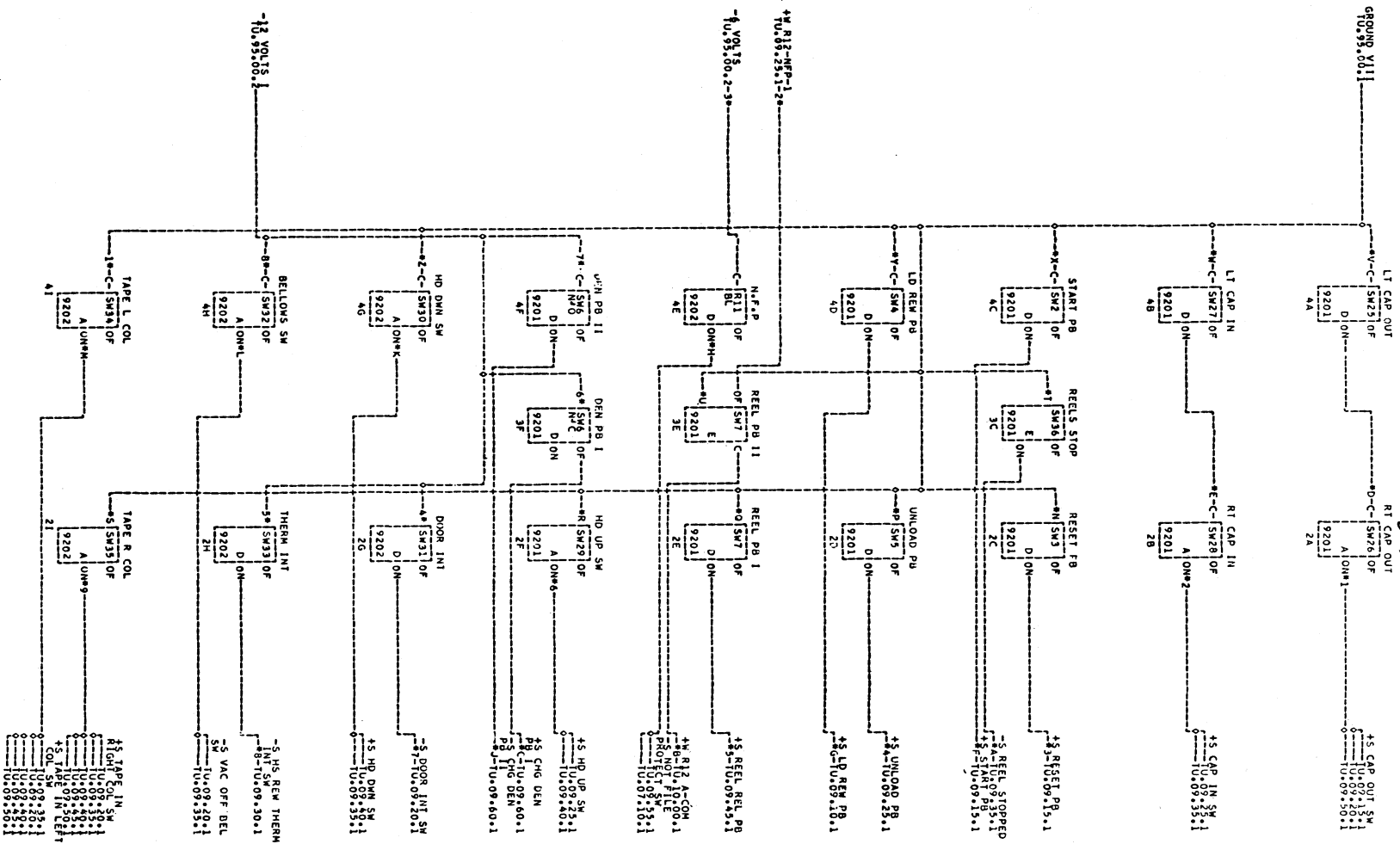




- \*1-00A3A02E-00T89-05-B- \*2-00A3A02J-00T89-08-B- \*3-00A3A02N-00T89-11-B- \*4-00A3A02Q-00T89-11-B-
- \*5-00A3D01N-B- \*6-00A3A02C-00T89-02 \*7-00A3A02C-00T89-02 \*8-00A3A02C-00T89-03
- \*9-00A3A02L-00T89-08 \*A-00T89-04 \*B-00T89-07 \*C-00T89-10 \*D-00T89-02 \*E-00T89-09 \*F-00T89-01
- \*G-00T89-03 \*H-00T89-12 \*J-00A3D01P

NOTE 1 COMMENTS  
 YO R12 B COIL

TAG DATE EIC: NO TAG DATE EIC: NO TAG DATE EIC: NO TAG DATE EIC: NO  
 A 05-31-61 249230 B 07-21-61 250103 C 09-05-61 250120 D 10-16-61 250266

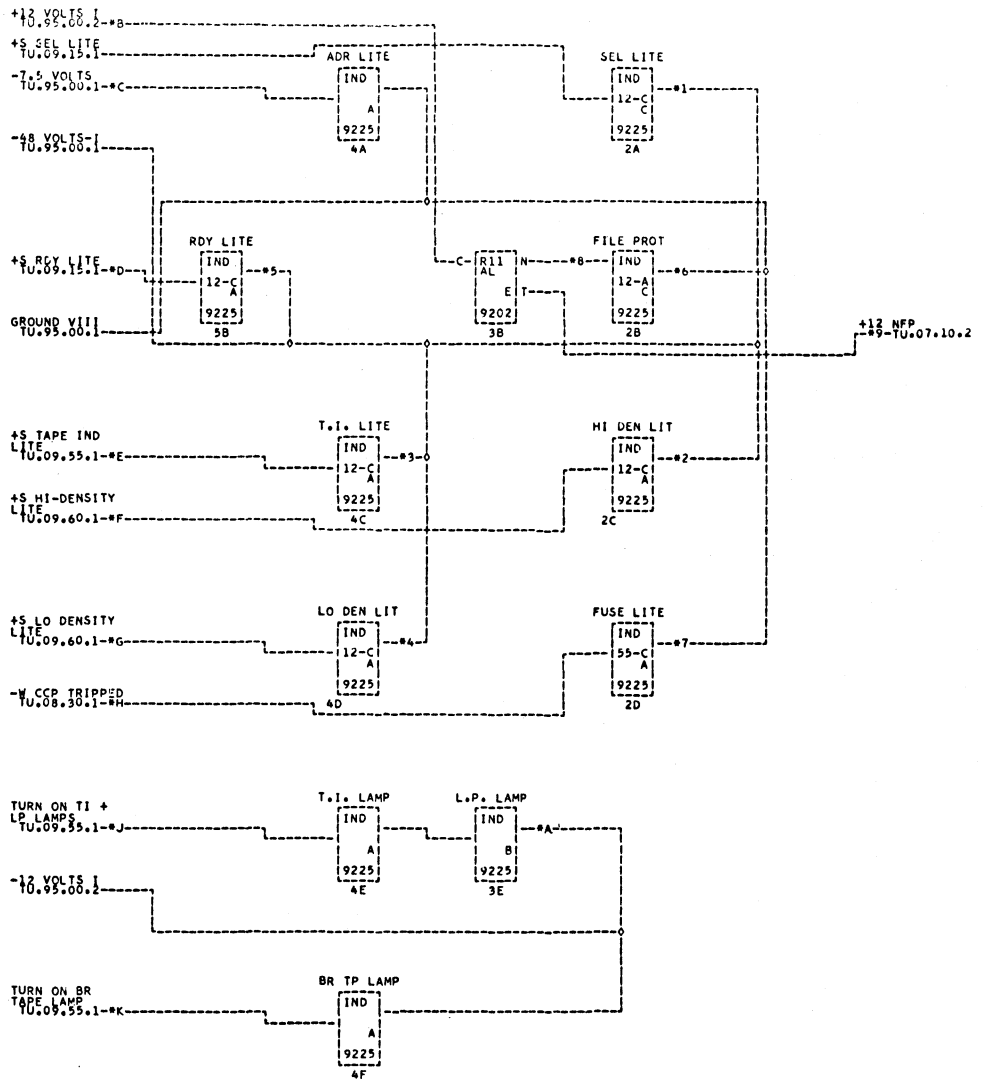


- 11-00A3D02P
- 11-00A3E010
- 11-00A3E011
- 11-00A3E012
- 11-00A3E013
- 11-00A3E014
- 11-00A3E015
- 11-00A3E016
- 11-00A3E017
- 11-00A3E018
- 11-00A3E019
- 11-00A3E020
- 11-00A3E021
- 11-00A3E022
- 11-00A3E023
- 11-00A3E024
- 11-00A3E025
- 11-00A3E026
- 11-00A3E027
- 11-00A3E028
- 11-00A3E029
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- 11-00A3E097
- 11-00A3E098
- 11-00A3E099
- 11-00A3E100

COMMENTS

TAG DATE E.C.NO. TAG DATE E.C.NO. TAG DATE E.C.NO. TAG DATE E.C.NO.

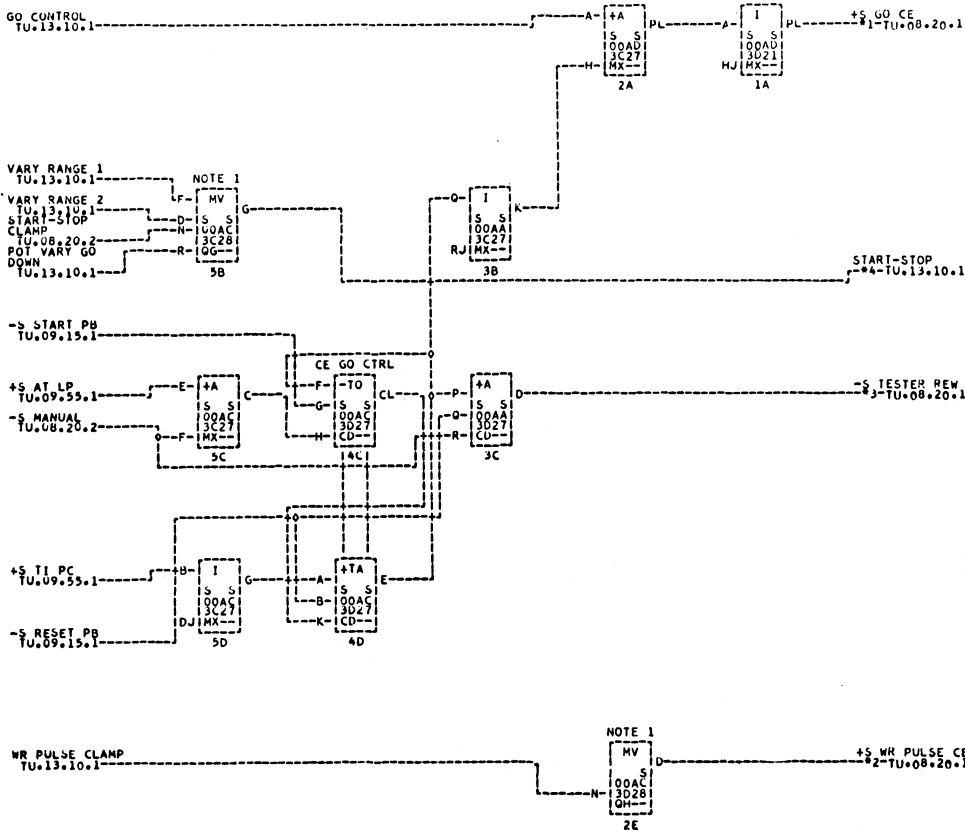
11-29-61 250458 11-29-61 250458 11-29-61 250458 11-29-61 250458



\*1--00A3C01C-- \*2--00A3C01J-- \*3--00A3C01N-- \*4--00A3C01G-- \*5--00A3C01E-- \*6--00A3C01L--00A3C01B--  
 \*7--00A3C01Q-- \*8--00A3D01H--00A3C01M-- \*9--00A3D01J \*A--00A3E02E-- \*B--00A3D01G-- \*C--00A3C01A--  
 \*D--00A3C01F-- \*E--00A3C01P-- \*F--00A3C01K-- \*G--00A3C01H-- \*H--00A3C01R--00A3K01Q-- \*J--00A3D02F--  
 \*K--00A3D02D--

COMMENTS

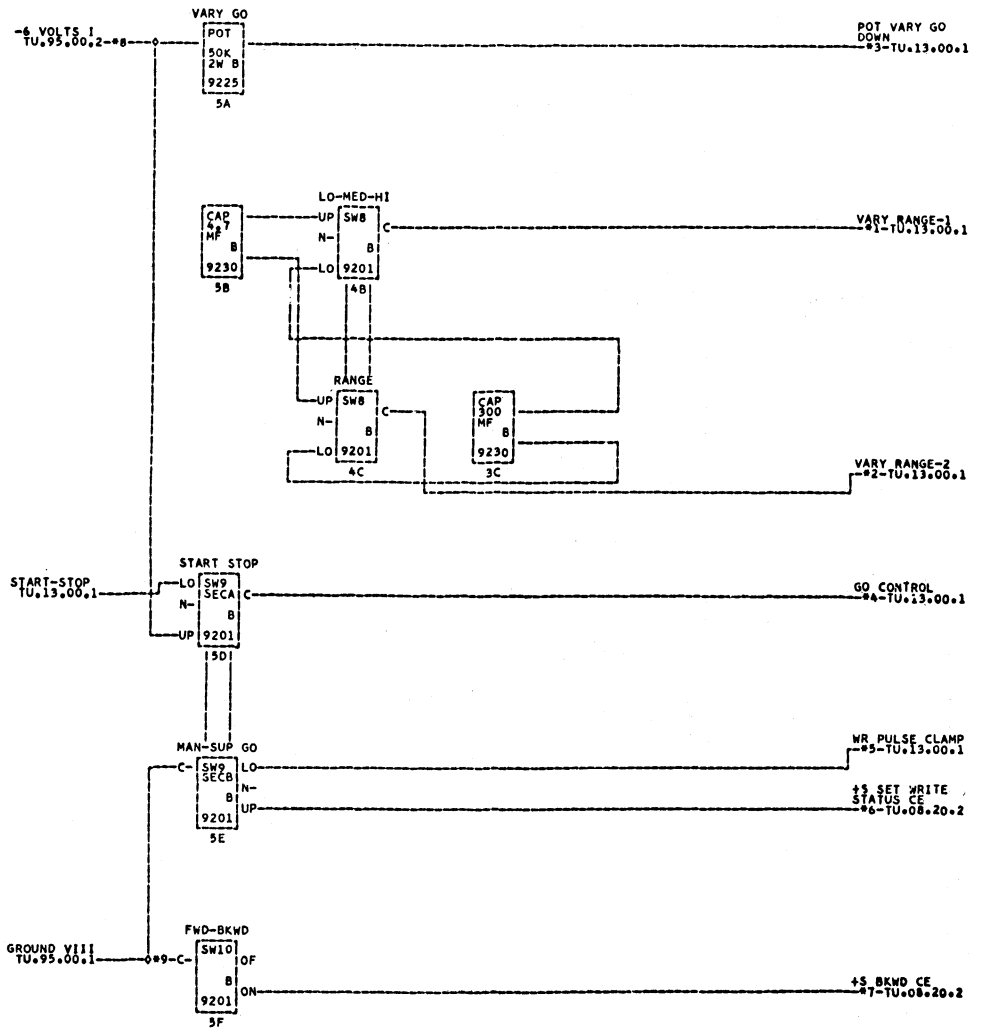
TAG	DATE	E.C.NO.	TAG	DATE	E.C.NO.	TAG	DATE	E.C.NO.	TAG	DATE	E.C.NO.
A	05-31-61	249230	B	07-21-61	250103	C	09-05-61	250120	D	10-13-61	250266
E	01-17-62	250969									



\*1--00A3K21R \*2--00A3K21K \*3--00A3K21L \*4--00A3E01P

NOTE 1 THESE CARDS NOT SHIPPED WITH MACHINE

COMMENTS	TAG DATE	E.C.NO.	T	DATE	E.C.NO.	TAG DATE	E.C.NO.	TAG DATE	E.C.NO.
	03-31-61	249230	18	9-05-61	250120	10-30-61	250266	01-11-62	250969



#1--00A3E020 #2--00A3E02R #3--00A3E02P #4--00A3E01N #5--00A3E01L #6--00A3E01M #7--00A3E01K #8--00A3E02N  
 #9--00A3E01J

COMMENTS

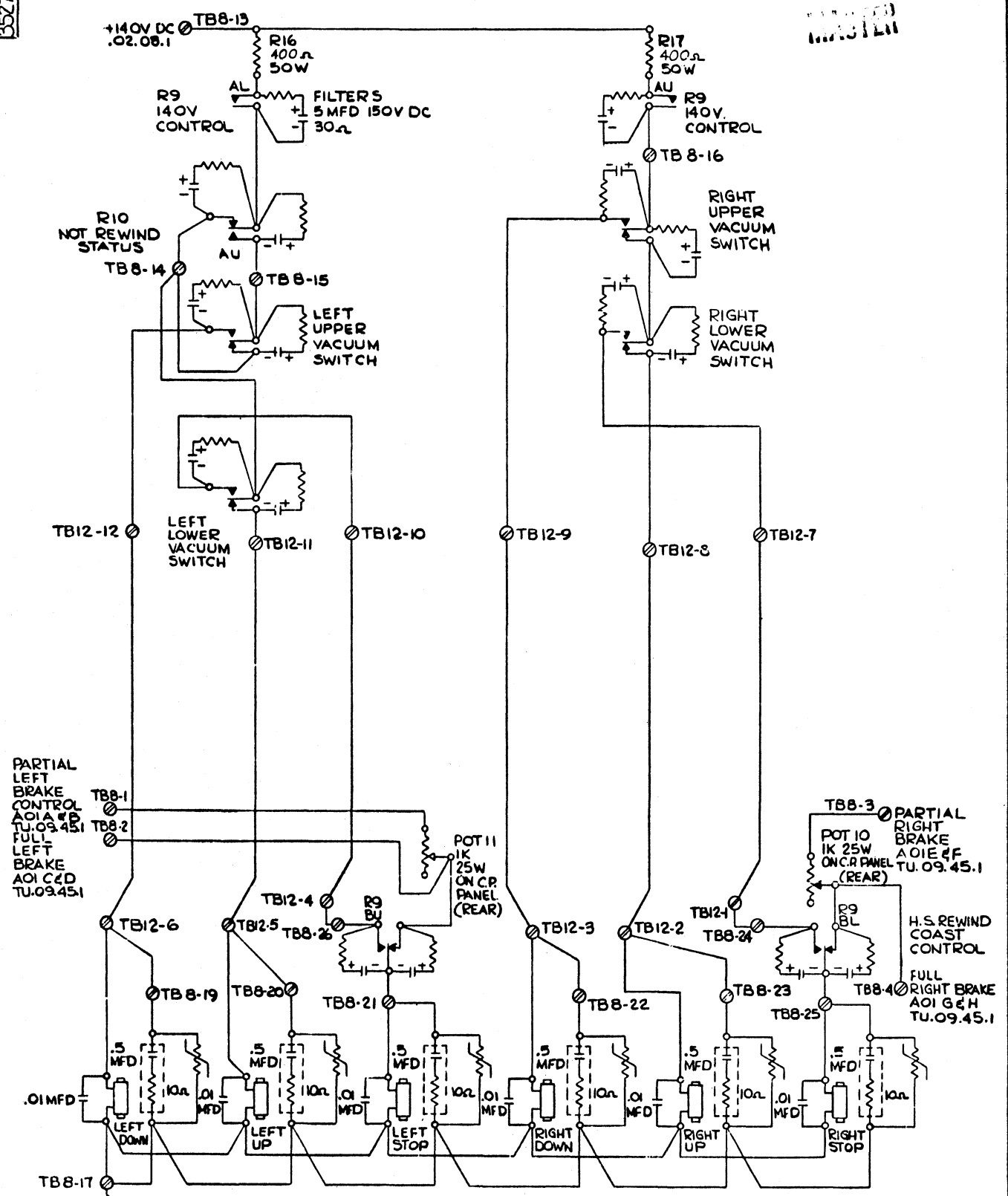
TAG	DATE	E.C.NO.	TAG	DATE	E.C.NO.	TAG	DATE	E.C.NO.	TAG	DATE	E.C.NO.
A	05-31-61	249230	B	10-13-61	250266						

352758

# CLUTCH AND VACUUM CONTROL

TU15.000

REVISION  
MAY 1961



PARTIAL  
LEFT  
BRAKE  
CONTROL  
AOI A G H  
TU.09.45.1  
FULL  
LEFT  
BRAKE  
AOI C E D  
TU.09.45.1

TB8-3 PARTIAL  
RIGHT  
BRAKE  
AOI E F  
TU.09.45.1  
(REAR)

H.S. REWIND  
COAST  
CONTROL  
FULL  
RIGHT BRAKE  
AOI G H  
TU.09.45.1

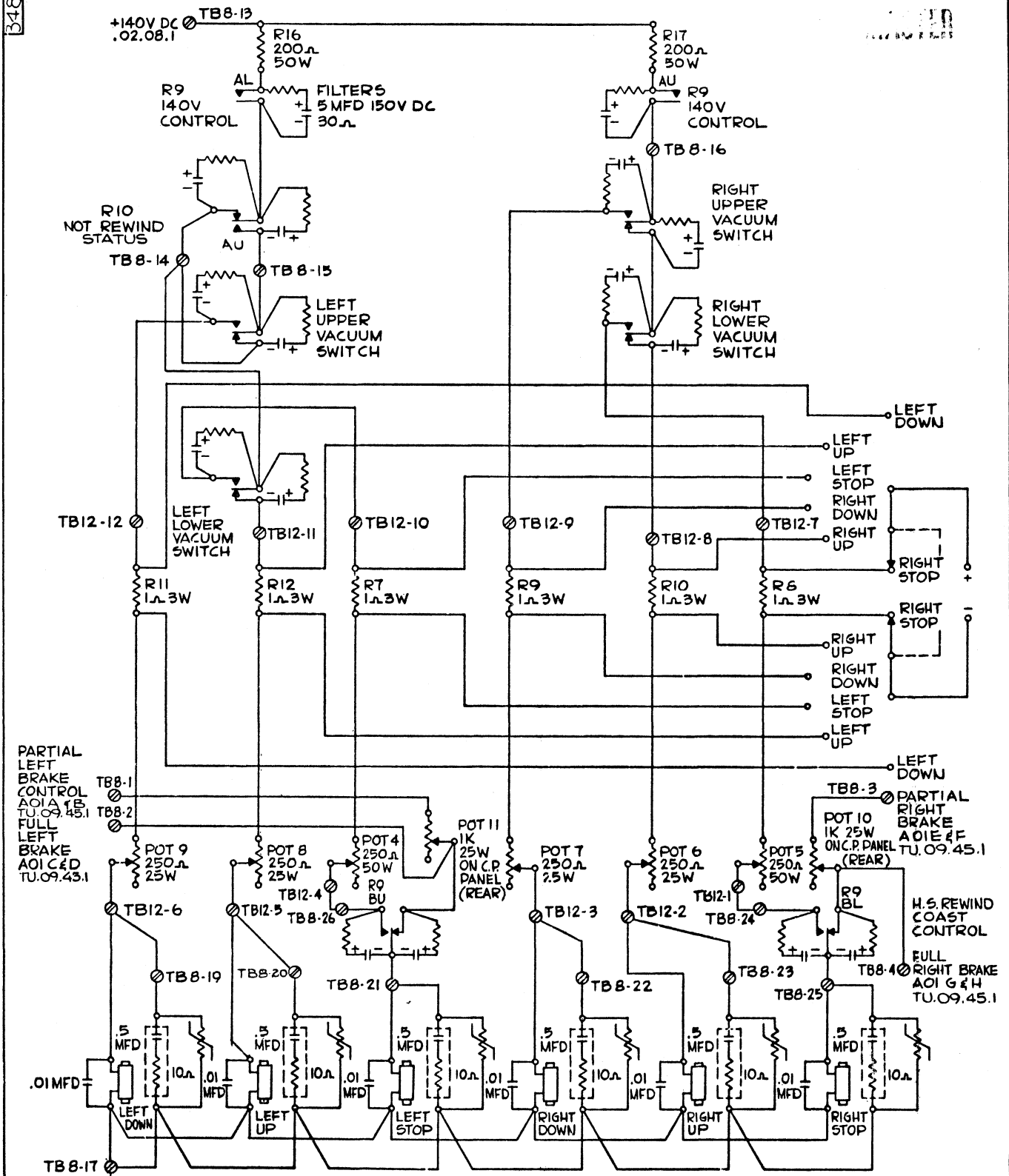
INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM				1-9-62	250951			A PRINT TO ENG. SPEC. NO. 895291	352758
TU15.00.0				6-2-62	251438				
DESIGN	RSC (12.6.1)	MODEL	729 II						
DETAIL	RSC (12.6.1)								
CHECK	RSC (12.6.1)	DRAW							
APPRO	RSC (12.6.1)	CHECK							

TU15.00.0

348653

# CLUTCH AND VACUUM CONTROL

TU15.00.0

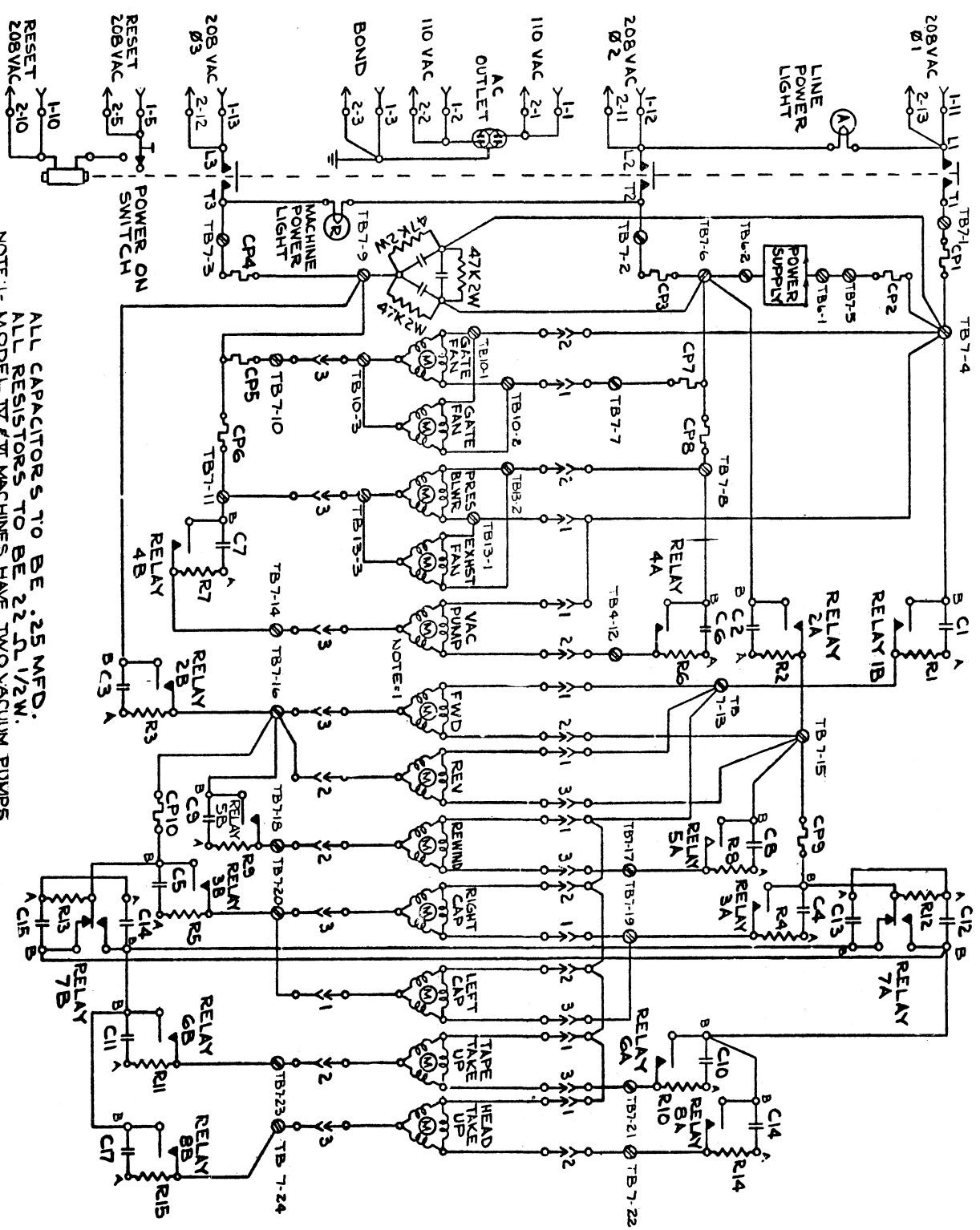


INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	7-19-61	249230			X PRINT TO ENG. SPEC. NO. 895291	348653
	TU15.00.0	11-20-61	250266				
DESIGN	W. J. G. G. MODEL 729XIV						
DETAIL	W. J. G. G.						
CHECK	W. J. G. G.						
APPRO	S. R. T. G. G.						

TU15.00.0

# MOTOR CIRCUIT

348654

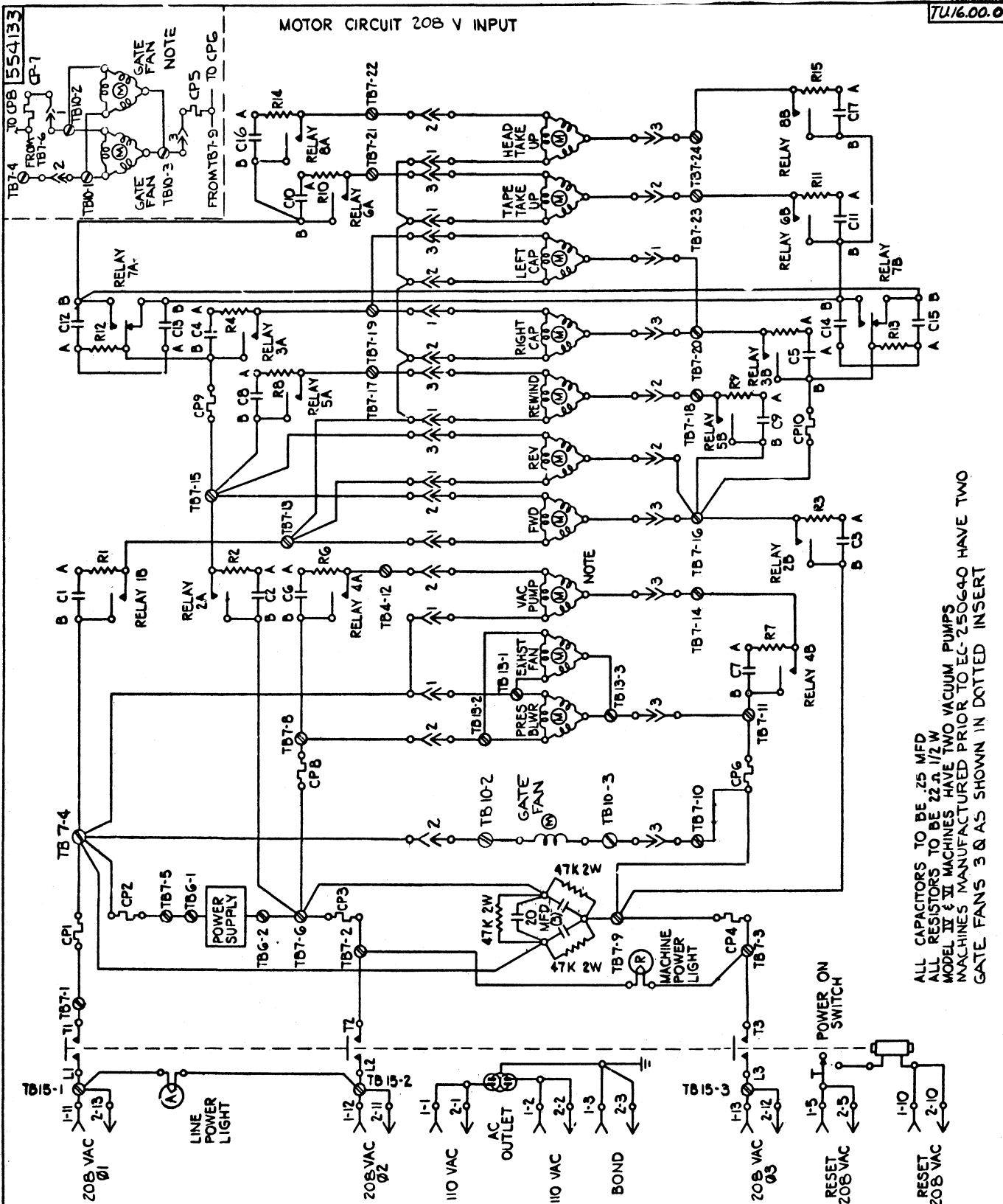


NOTE: 1- ALL CAPACITORS TO BE .25 MFD.  
 ALL RESISTORS TO BE 2.2 Ω 1/2W.  
 MODEL III MACHINES HAVE TWO VACUUM PUMPS

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAG	7-19-61	249230			X PRINT TO ENG. OPER. NO. B95291	348654
DESIGN	TU16000	11-20-61	250226				
MODEL	122 II, III						
DETAIL	6-1-61						
CHECK	F-TD G						
APPRO	7-10-61						



MOTOR CIRCUIT 208 V INPUT



ALL CAPACITORS TO BE .25 MFD  
 ALL RESISTORS TO BE 22 Ω 1/2 W  
 MODEL IX & XI MACHINES HAVE TWO VACUUM PUMPS  
 MACHINES MANUFACTURED PRIOR TO EC-250640 HAVE TWO  
 GATE FANS 3 & A5 SHOWN IN DOTTED INSERT

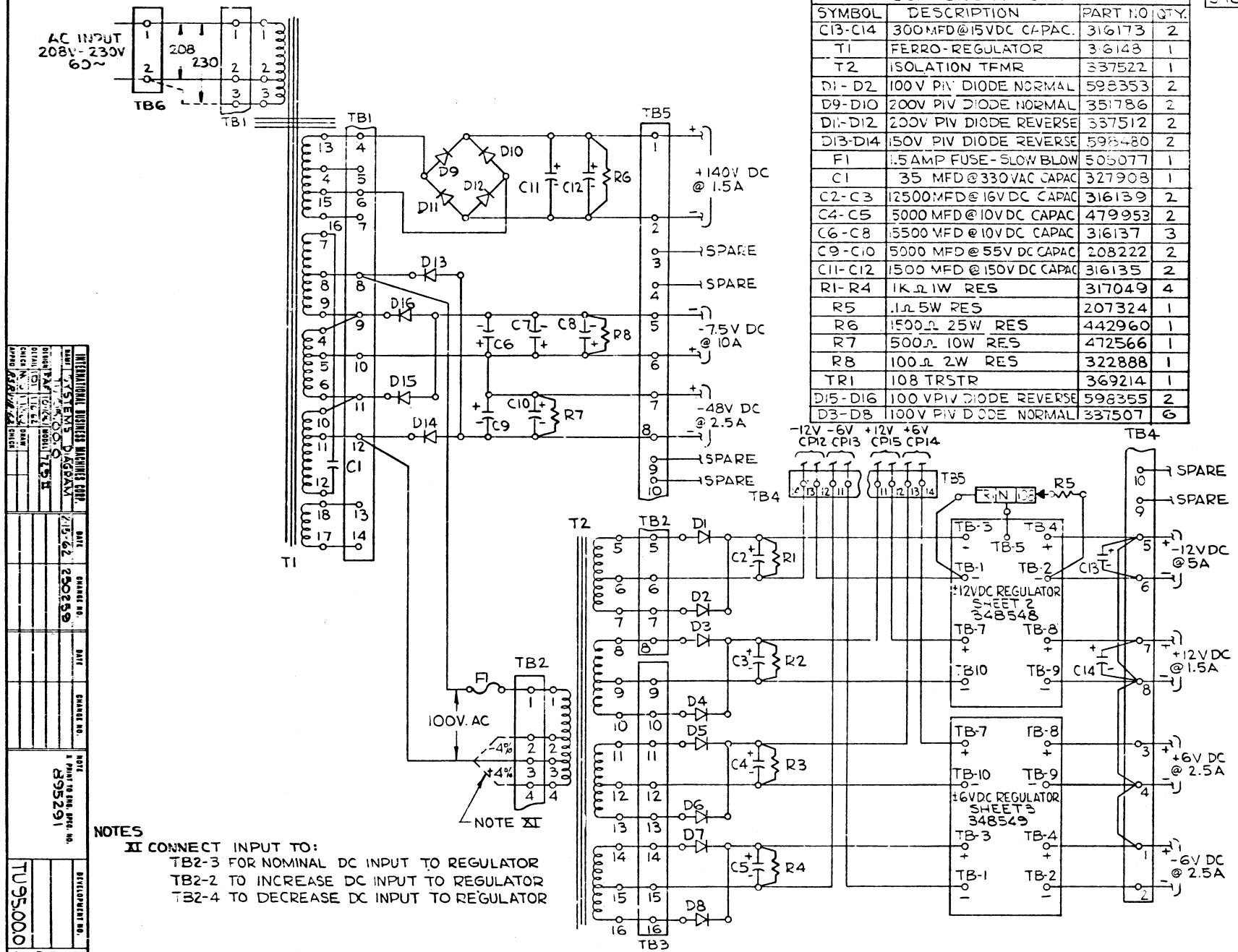
INTERNATIONAL BUSINESS MACHINES COOP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	3-10-61	250460			2 POINT TO ENG. SPEC. NO. 895291	
DESIGNER	TU16.00.0						
DETAILS	10-2-61						
CHECK	HH 3-6-61						
APPROV	RS 10-5-61						

TU16.00.0

554133



AC INPUT  
208V-230V  
60~



COMPONENT CHART			
SYMBOL	DESCRIPTION	PART NO.	QTY.
C13-C14	300MFD@15VDC CAPAC.	316173	2
T1	FERRO-REGULATOR	36148	1
T2	ISOLATION TFMR	337522	1
D1-D2	100V PIV DIODE NORMAL	598353	2
D9-D10	200V PIV DIODE NORMAL	351786	2
D11-D12	200V PIV DIODE REVERSE	337512	2
D13-D14	150V PIV DIODE REVERSE	598480	2
F1	1.5AMP FUSE-SLOW BLOW	505077	1
C1	35 MFD@330VAC CAPAC	327908	1
C2-C3	12500MFD@16VDC CAPAC	316139	2
C4-C5	5000 MFD@10VDC CAPAC	479953	2
C6-C8	5500 MFD @ 10VDC CAPAC	316137	3
C9-C10	5000 MFD @ 55V DC CAPAC	208222	2
C11-C12	1500 MFD @ 150VDC CAPAC	316135	2
R1-R4	1KΩ 1W RES	317049	4
R5	.1Ω 5W RES	207324	1
R6	1500Ω 25W RES	442960	1
R7	500Ω 10W RES	472566	1
R8	100Ω 2W RES	322888	1
TR1	108 TRSTR	369214	1
D15-D16	100 VPIV DIODE REVERSE	598355	2
D3-D8	100V PIV DIODE NORMAL	337507	6

REVISION	DATE	BY	CHKD BY
1	7/15/77	29055	29055
2	7/15/77	29055	29055
3	7/15/77	29055	29055
4	7/15/77	29055	29055
5	7/15/77	29055	29055
6	7/15/77	29055	29055
7	7/15/77	29055	29055
8	7/15/77	29055	29055
9	7/15/77	29055	29055
10	7/15/77	29055	29055
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12	7/15/77	29055	29055
13	7/15/77	29055	29055
14	7/15/77	29055	29055
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47	7/15/77	29055	29055
48	7/15/77	29055	29055
49	7/15/77	29055	29055
50	7/15/77	29055	29055

NOTES  
 XI CONNECT INPUT TO:  
 TB2-3 FOR NOMINAL DC INPUT TO REGULATOR  
 TB2-2 TO INCREASE DC INPUT TO REGULATOR  
 TB2-4 TO DECREASE DC INPUT TO REGULATOR

348547

DWG. SIZE C

SHEET 1 OF 3

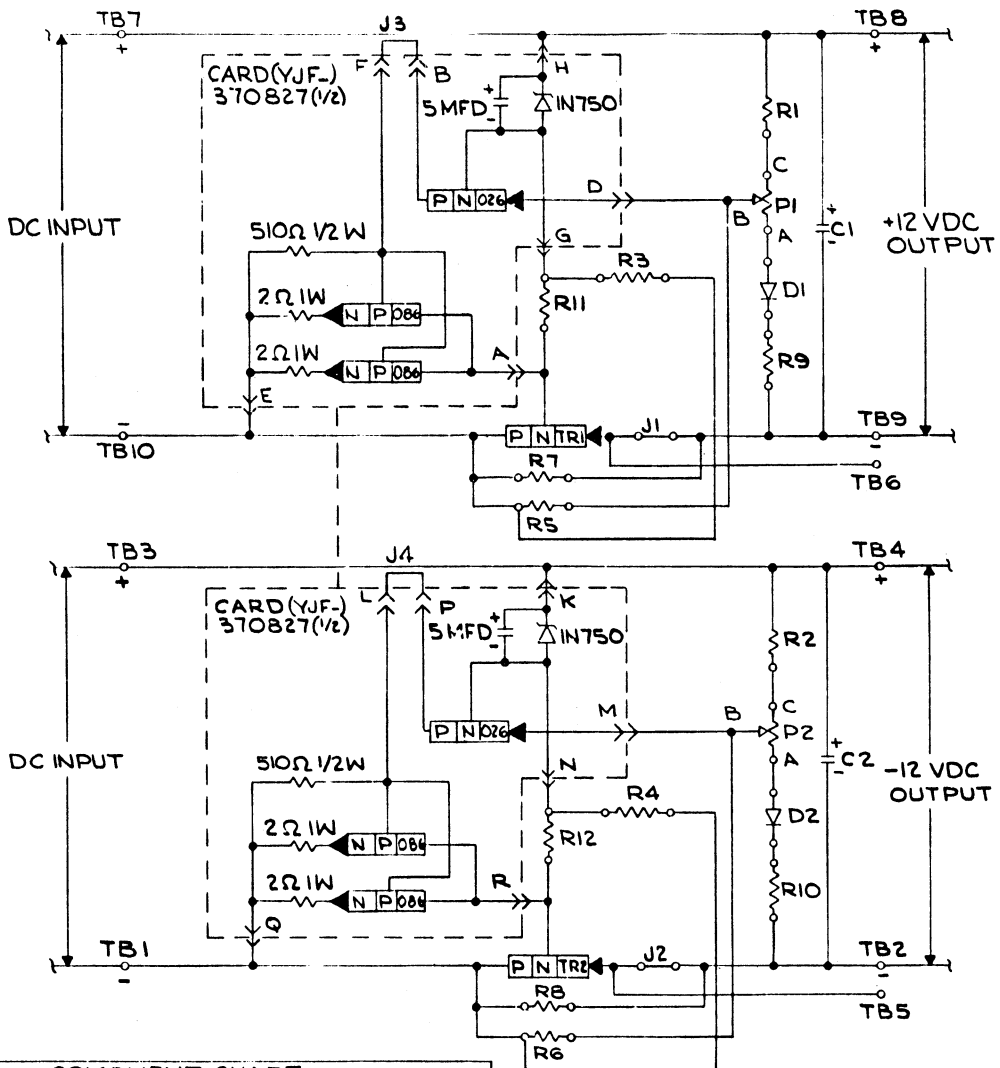
TU95000

34854

DWG. SIZE C

± 12 VDC REGULATOR

SHEET 2 OF 3 TU95.000



COMONENT CHART

SYMBOL	DESCRIPTION	PART NO	QTY
TR1 TR2	10B TRANSISTOR	369214	2
D1 D2	1N1692 DIODE	207398	2
P1 P2	25Ω 2W POT	2132014	2
C1 C2	250MFD @ 50 VDC CAP	2109462	2
R1 R2	30Ω 1W RESISTOR	509507	2
R3 R4	3.9K 1/2W RESISTOR	317022	2
R5 R6	62K 1/2W RESISTOR	334914	2
R7 R8	100Ω 2W RESISTOR	322888	2
R9 R10	56Ω 2W RESISTOR	216981	2
R11 R12	510Ω 1W RESISTOR	103915	2
J1 J2	JUMPER	337519	2
J3 J4	JUMPER	337530	2

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEM DIAGRAM		2-15-62	250259			X PRINT TO ENG. SPEC. NO. 895291	348548
TU95.00.0							
DESIGN	FAP 11-15-61	MODEL	729 II-IV				
DETAIL	Dec 11-10-62						
CHECK	NCS 1-11-62	DRAW					
APPRO	FSR 1-11-62	CHECK					

TU95.00.0

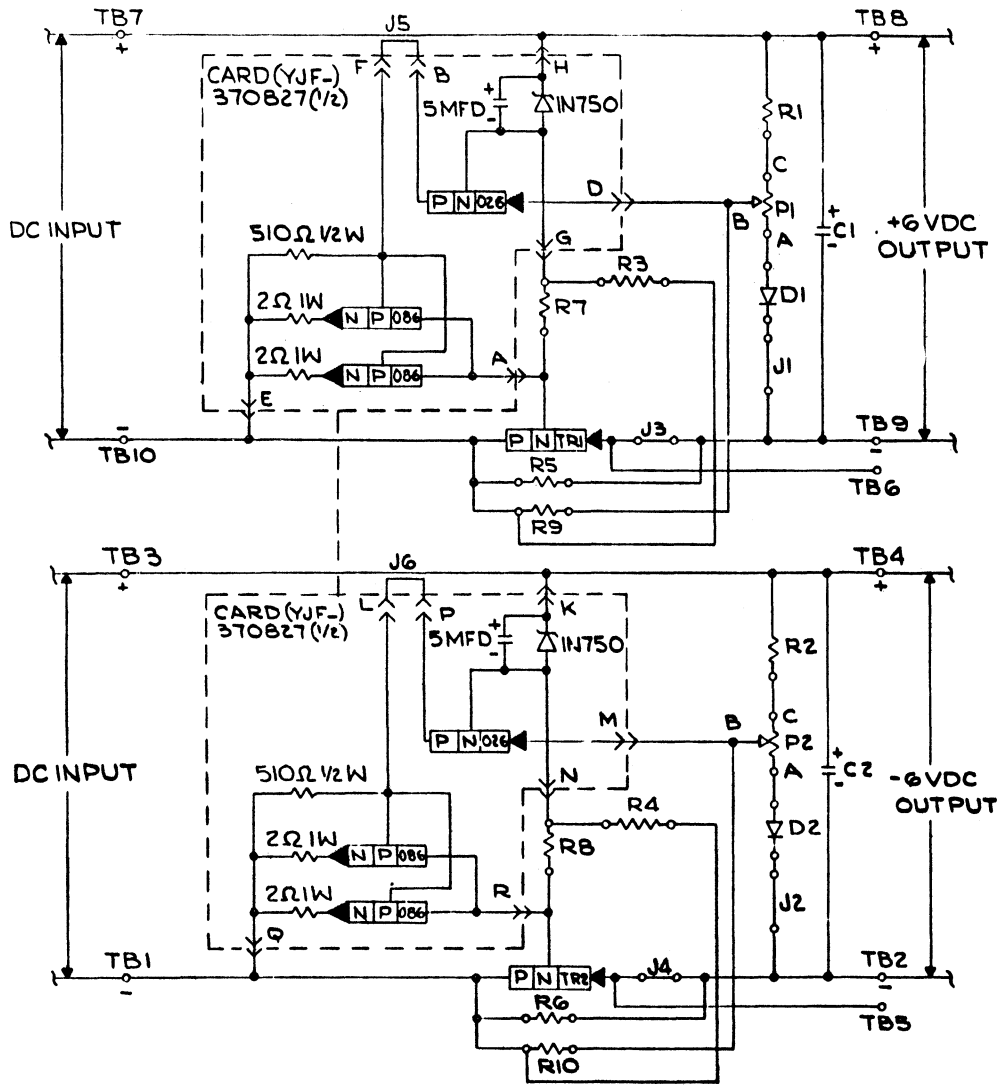
348549

DWG. SIZE C

± 6 VDC REGULATOR

SHEET 3 OF 3

TU95.000



COMPONENT CHART			
SYMBOL	DESCRIPTION	PART NO	QTY
TRI TR2	10B TRANSISTOR	369214	2
D1 D2	IN1692 DIODE	207398	2
P1 P2	25Ω 2W POT	2132014	2
C1 C2	250 MFD @ 50VDC CAP	2109462	2
R1 R2	30Ω 1W RESISTOR	509507	2
R3 R4	2K 1/2 W RESISTOR	317019	2
R5 R6	75Ω 2W RESISTOR	210986	2
R7 R8	220Ω 1/2 W RESISTOR	317007	2
R9 R10	3K 1/2 W RESISTOR	323920	2
J1 J2	JUMPER	337519	4
J3 J4	JUMPER	337519	4
J5 J6	JUMPER	337530	2

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME   SYSTEM DIAGRAM	2-15-62	250255			NOTE * PRINT TO ENCL. SPEC. NO. 895291	348549
DESIGN   FAF 11-15-61						
DETAIL   DCB 11-10-61						
CHECK   NCS 11-1-62						
APPROV   RSM 1-10-62						TU95.00.0

NOTE ALL GROUNDS ARE JUMPERED AT K02 PADDLE DESIGNATIONS ARE FOR CABLE REFERENCE ONLY

LINE NAME	PIN	PAGE	BLOCK	COMMENTS
GROUND I	K02M			TB 5 5
GROUND II	A05J			A ROW SUPPLY
GROUND III	K02P			TB 5 5
GROUND IV	B04J			A ROW GROUND
GROUND V	K02R			TB 5 7
GROUND VI	C05J			A ROW GROUND
GROUND VII	K03J			TB 5 7
GROUND VIII	K02L			B ROW GROUND
GROUND IX	C07J			TB 5 7
GROUND X	D07J			B ROW GROUND
GROUND XI	D05J			TB 5 7
GROUND XII	E04J			B ROW GROUND
GROUND XIII	G04J			TB 4 8
GROUND XIV	H04J			D ROW GROUND
GROUND XV	J04J			TB 4 8
GROUND XVI	K15M			C ROW GROUND
MINUS FORTY EIGHT	K01N	TU.10.00.1		TB 3 8
MINUS FORTY EIGHT	C01N	TU.12.00.1		RELAY 12 B COIL JUMP TO R 11 B C/
MINUS FORTY EIGHT	C01G	TU.12.00.1		TAPE INDICATE LITE
MINUS FORTY EIGHT	C01G	TU.12.00.1		HIGH DENSITY LITE
MINUS FORTY EIGHT	C01E	TU.12.00.1		LOW DENSITY LITE
MINUS FORTY EIGHT	C01E	TU.12.00.1		READY LITE
MINUS FORTY EIGHT	A28R	TU.10.00.1		SELECT LITE
MINUS FORTY EIGHT	A02Q	TU.10.00.1		SUPPRESSOR CARD SUPPLY
MINUS FORTY EIGHT	A02R	TU.10.00.1		TB 9 DU NOT REW STATUS R 10
MINUS FORTY EIGHT	A02L	TU.10.00.1		TB 9 13 HEAD UP MOTOR R 8
MINUS FORTY EIGHT	A02J	TU.10.00.1		TB 9 8 MOTOR REVERSE R 7
MINUS FORTY EIGHT	A02G	TU.10.00.1		TB 9 8 TAPE TAKE UP MOTOR R 6
MINUS FORTY EIGHT	A02G	TU.10.00.1		TB 9 5 HS REW MOTOR R 5
MINUS FORTY EIGHT	A02E	TU.10.00.1		TB 9 5 VACUUM MOTOR R 4
MINUS FORTY EIGHT	A02C	TU.10.00.1		TB 9 2 CAPSTAN MOTORS R3 6R 9
MINUS 7.5 VOLTS I	K01P	TU.12.00.1		TB 5 5
MINUS 7.5 VOLTS II	C01A			ADDRESS LITE
MINUS 7.5 VOLTS III	B01L	TU.09.50.3		TB11 3
MINUS 7.5 VOLTS IV	A05M	TU.09.50.3		A ROW SUPPLY
MINUS 7.5 VOLTS V	B01M	TU.09.50.3		TB11 3
MINUS 7.5 VOLTS VI	A07M	TU.09.50.3		A ROW SUPPLY
MINUS 7.5 VOLTS VII	B01P	TU.09.50.3		TB11 3
MINUS 7.5 VOLTS VIII	A05M	TU.09.50.3		A ROW SUPPLY

NOTE 1 CAPACITOR CARD PN 556981 IN K03 IS WIRED TO THE FOLLOWING NETS

J PIN TO GROUND VII  
 G PIN TO MINUS SIX VOLTS III  
 L PIN TO PLUS TWELVE VOLTS I  
 N PIN TO MINUS TWELVE VOLTS II  
 Q PIN TO PLUS SIX VOLTS I

LINE NAME	PIN	PAGE	BLOCK	COMMENTS
PLUS TWELVE VOLTS I	K01A			TB 4 7
PLUS TWELVE VOLTS I	F01Q	TU.07.10.4	2A	K'ITE STATUS LITE
PLUS TWELVE VOLTS I	F01N	TU.07.10.4	2H	C TRACK LITE
PLUS TWELVE VOLTS I	F01L	TU.07.10.4	29	R TRACK LITE
PLUS TWELVE VOLTS I	F01J	TU.07.10.4	29	A TRACK LITE
PLUS TWELVE VOLTS I	F01G	TU.07.10.4	2E	B TRACK LITE
PLUS TWELVE VOLTS I	F01E	TU.07.10.4	2D	4 TRACK LITE
PLUS TWELVE VOLTS I	F01C	TU.07.10.4	2C	7 TRACK LITE
PLUS TWELVE VOLTS I	F01A	TU.07.10.4	2B	1 TRACK LITE
PLUS TWELVE VOLTS I	E02A	TU.09.55.1	5B	LP671 PHOTOCCELL
PLUS TWELVE VOLTS I	D04N			D ROW SUPPLY
PLUS TWELVE VOLTS I	C04N			B ROW SUPPLY
PLUS TWELVE VOLTS I	B04N			A ROW SUPPLY
PLUS TWELVE VOLTS I	A28M			A ROW SUPPLY
PLUS TWELVE VOLTS I	A27O			A ROW SUPPLY
PLUS TWELVE VOLTS I	B27O			B ROW SUPPLY
PLUS TWELVE VOLTS I	E02A			22 OHM CHOKE
PLUS TWELVE VOLTS I	D01G			PN 554161
PLUS TWELVE VOLTS I	D01G	TU.11.00.1	3B	FILE PROTECT RELAY R11 AL
PLUS TWELVE VOLTS I	K03L			CAP CARD PN 556981
PLUS TWELVE VOLTS I	C18N			CARD JUMPER
PLUS TWELVE VOLTS I	C19Q			CARD JUMPER
PLUS TWELVE VOLTS I	C20N			CARD JUMPER
PLUS TWELVE VOLTS I	C05N			CARD JUMPER
PLUS TWELVE VOLTS I	C06O			CARD JUMPER
PLUS TWELVE VOLTS I	C07N			CARD JUMPER
PLUS TWELVE VOLTS I	D08N			CARD JUMPER
PLUS TWELVE VOLTS I	D08Q			CARD JUMPER
PLUS TWELVE VOLTS I	D23N			CARD JUMPER
PLUS TWELVE VOLTS I	D23O			CARD JUMPER
PLUS TWELVE VOLTS II	K01B			TB 4 7
PLUS TWELVE VOLTS II	J04N			J ROW SUPPLY
PLUS TWELVE VOLTS II	H04N			H ROW SUPPLY
PLUS TWELVE VOLTS II	G04N			G ROW SUPPLY
PLUS TWELVE VOLTS II	F04N			F ROW SUPPLY
PLUS TWELVE VOLTS II	E04N			E ROW SUPPLY
PLUS TWELVE VOLTS II	E05N			CARD JUMPER
PLUS TWELVE VOLTS II	E05O			CARD JUMPER
PLUS TWELVE VOLTS II	E06N			CARD JUMPER
PLUS TWELVE VOLTS II	E06O			CARD JUMPER
PLUS TWELVE VOLTS II	F25N			CARD JUMPER
PLUS TWELVE VOLTS II	F25O			CARD JUMPER
PLUS TWELVE VOLTS II	F26N			CARD JUMPER
PLUS TWELVE VOLTS II	F26O			CARD JUMPER
PLUS TWELVE VOLTS II	E10N			CARD JUMPER
PLUS TWELVE VOLTS II	E10O			CARD JUMPER
PLUS SIX VOLTS I	K01H			TB 4 3
PLUS SIX VOLTS I	D01O	TU.09.30.1	4C	MS REW LITE
PLUS SIX VOLTS I	B04L			B ROW SUPPLY
PLUS SIX VOLTS I	A04L			A ROW SUPPLY
PLUS SIX VOLTS I	K01M			CAP CARD PN 556981
PLUS SIX VOLTS I	K03O			
PLUS SIX VOLTS II	K01J			TB 4 3

348612

## COMPONENTS

SHEET 1 OF 2

TU95.01.0

DIODES			
SYMBOL	PART NO	PAGE NO	DESCRIPTION
CR1-4	595257	TU95.00.0	200 PIV
CR5,CR6	598479	TU95.00.0	150 PIV
CR7,CR8	207344	TU95.00.0	50 PIV
CR12,CR13	209002	TU95.00.0	ZENER 10 VOLT
CR14-17	598353	TU95.00.0	100 PIV
CR18,CR21	598480	TU95.00.0	135 PIV
CR19,CR20	598479	TU95.00.0	135 PIV
CR22,CR23	257800	TU95.00.0	100 PIV
CR24,CR25			

MAGNETIC COMPONENTS			
SYMBOL	PART NO	PAGE NO	DESCRIPTION
VRI	316148	TU95.00.0	FERRO REGULATOR
TI	316149	TU95.00.0	ISOLATION TRANSFORMER
LI	316150	TU95.00.0	CHOKE

TRANSISTORS			
SYMBOL	PART NO	PAGE NO	DESCRIPTION
X1, X4	209001	TU95.00.0	POWER TRANSISTOR
X9, X12			
X2, X5	518689		TYPE 02B
X3, X6	318325	TU95.00.0	TYPE 083
X7, X10	535441	TU95.00.0	TYPE 026
X8, X11	369087	TU95.00.0	TYPE 086

CAPACITORS			
SYMBOL	PART NO	PAGE NO	DESCRIPTION
C1	327908	TU95.00.0	35MFD, 330 VAC
C2	524854	TU95.00.0	20MFD, 330 VAC
C3	316135	TU95.00.0	1500MFD, 150VDC
C5-C9	316137	TU95.00.0	15, 500 MFD 10 VDC
C14, C15			
C16			
C10, C11	208222	TU95.00.0	5000MFD, 55VDC
C13	316139	TU95.00.0	12, 500 MFD 16 VDC
C17, C18			
C19, C20	316173	TU95.00.0	300MFD, 15VDC
C21, C22			
C23	316668	TU95.00.0	300MFD, 15VDC
C24			

348612  
DISCONTINUED

DISCONTINUED

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	7-19-61	249230			X PRINT TO ENCL. SPEC. NO. 895291	348612
	TU95.01.0	2-15-62	250259				
DESIGN	RPR 7-19-61						
DETAIL							
CHECK	LHB 7-19-61						
APPRO	RSR 7-19-61						TU95.01.0



348613

COMPONENTS

SHEET 2 OF 2

TU95.01.0

## DISCONTINUED MASTER

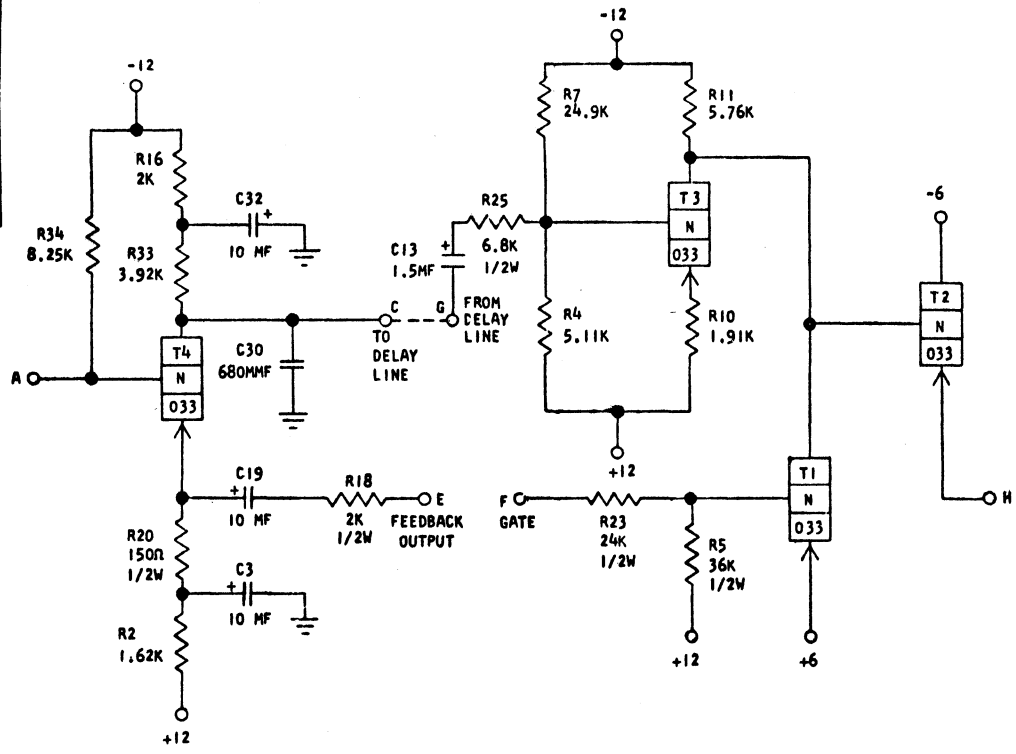
RESISTORS			
SYMBOL	PART NO	PAGE NO	DESCRIPTION
R 1	442960	TU 95.00.0	1500 $\Omega$ 25W
R10,R20	317011	TU 95.00.0	470 $\Omega$ 1/2W
R 4	322888	TU 95.00.0	100 $\Omega$ 2W
R 5	221110	TU 95.00.0	200 $\Omega$ 25W
R 7	317019	TU 95.00.0	150 $\Omega$ 2W
R 31			
R 14	316140	TU 95.00.0	470 $\Omega$ 5W
R 24			
R 9,R15	317003	TU 95.00.0	47 $\Omega$ 1/2W
R11,R16	317012	TU 95.00.0	510 $\Omega$ 1/2W
R12,R17	316142	TU 95.00.0	10 $\Omega$ 5W
R29,R36			
R 13	132779	TU 95.00.0	75 $\Omega$ 1W
R 22			
R 18,R19	316144	TU 95.00.0	50 $\Omega$ 5W
R 28,R30			
R 21	316145	TU 95.00.0	530 $\Omega$ 5W
R 23			
R 27	322347	TU 95.00.0	560 $\Omega$ 1/2W
R 8,R32	317006	TU 95.00.0	200 $\Omega$ 1/2W
R 35	317276	TU 95.00.0	1200 $\Omega$ 1/2W
R 25,R33	322729	TU 95.00.0	150 $\Omega$ 1/2W
R 51	316146	TU 95.00.0	5 $\Omega$ 2W POT
R 54			
R 52	316147	TU 95.00.0	50 $\Omega$ 2W POT
R 53			

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	7-19-61	249230			X POINT TO ENG. SPEC. NO. 895291	348613
	TU95.01.0	2-15-62	250259				
DESIGN	RPR 7-19-61	MODEL	727 II				
CHECK	LHB 7-19-61	DRAW	GT 7-13-61				
APP'D	RSR 7-19-61	CHECK					TU95.01.0

371926

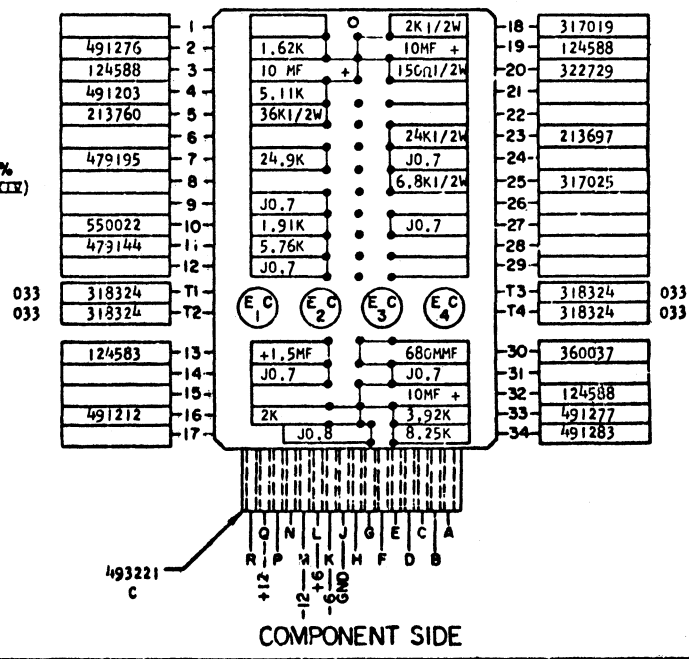
ALLOY - PRE AMP NO. 2 MAGNETIC TAPE

371926  
STANDARDS CODE  
2-7045  
A B K -



NOTES

- I CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION
- II ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- XIII ALL RESISTORS ARE 1/8 WATT AND ±1% UNLESS OTHERWISE NOTED (AS NOTE XIV)
- XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296
- XIV ALL 1/2 WATT RESISTORS ARE ±5%



**B**

CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE
LIP FG	2-13-60

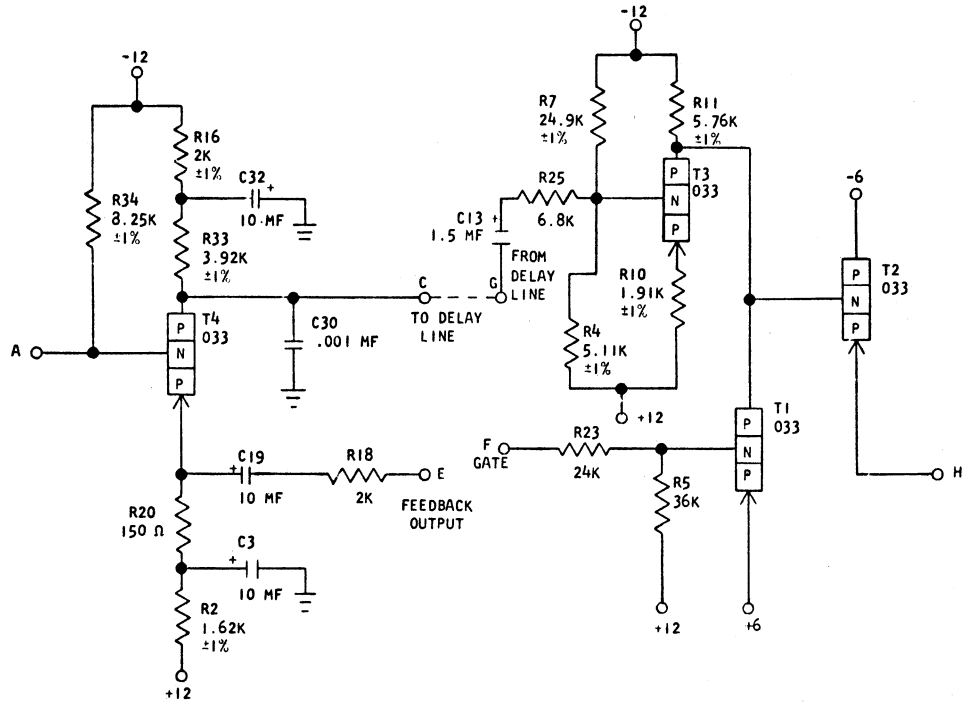
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.	371926
NAME CARD ASM TSTR-ALLOY-PRE		2-19-60	108356	NGJ				2547-0799	
AMP NO. 2 MAGNETIC TAPE		3-3-60	D108533	NGJ					
DESIGN	REM 2-13-60	TYPE	SMS		3-16-60	REDRAWN			
DETAIL	REM 2-13-60	SCALE	NONE		5-6-60	D108817	NGJ		
CHECK	TPA 2-13-60	DRAW	WPA 2-2-61		2-21-61	111085	NGJ		
APPRO	BES 2-13-60	CHECK	WPA 2-2-61		2-21-61	111085	NGJ		

ALLOY - PREAMP NUMBER 4 MAGNETIC TAPE

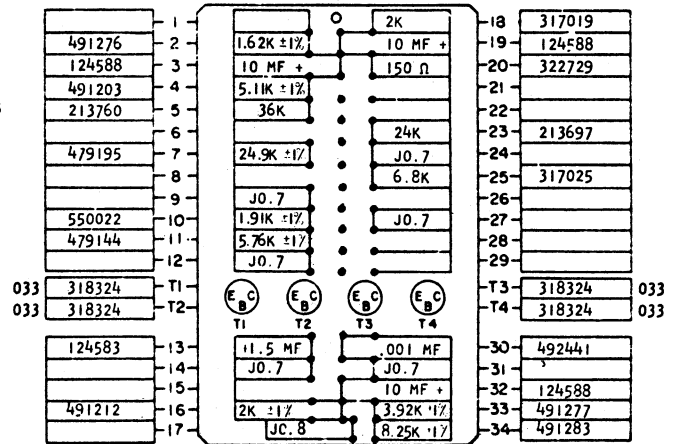
370099

A C X -

STANDARDS CODE  
2-7045



- NOTES
- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 892099
  - XI ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999
  - XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED (AS NOTE XV)
  - XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296
  - XIV
  - XV ALL ±1% RESISTORS ARE 1/8 WATT



B

CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE
KMT	5-9-60

INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR-ALLOY-PREAMP	DATE	5-27-60	CHANGE NO.	109175	APPROVAL	JWB			2547-1142
DESIGN	NUMBER 4 MAGNETIC TAPE	DATE	2-21-61	CHANGE NO.	111085	APPROVAL	IWB			
DETAIL	VJK 5-9-60 TYPE SMS 729	DATE	3-23-61	CHANGE NO.	111378	APPROVAL	IWB			
CHECK	VJK 5-9-60 SCALE NONE	DATE		CHANGE NO.		APPROVAL				
APPRO	5-24-60 DRAW VE 5-16-60	DATE		CHANGE NO.		APPROVAL				370099

COMPONENT SIDE

370100

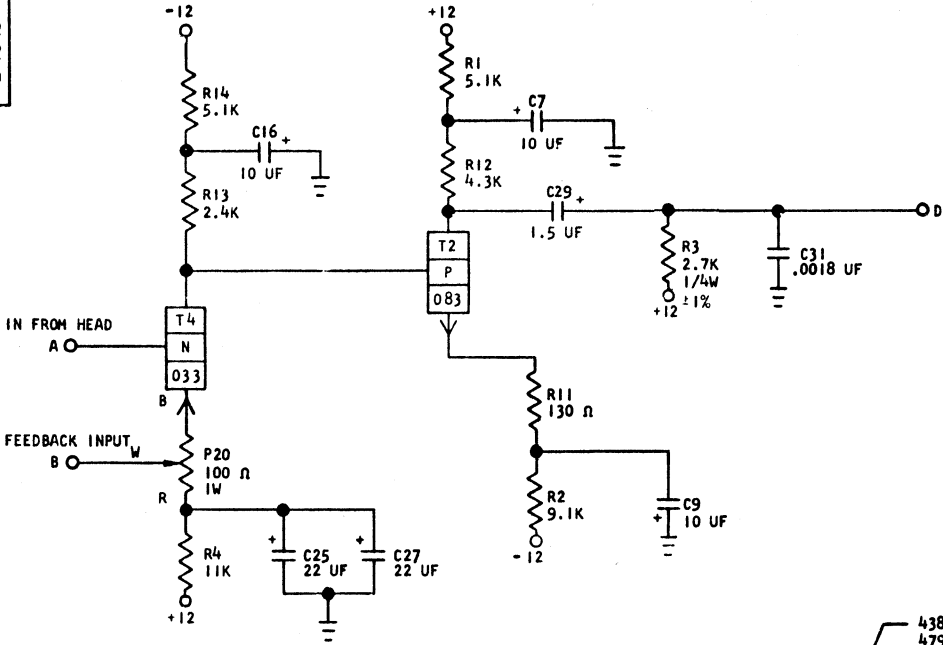
ACW -

STANDARDS CODE

2-7045

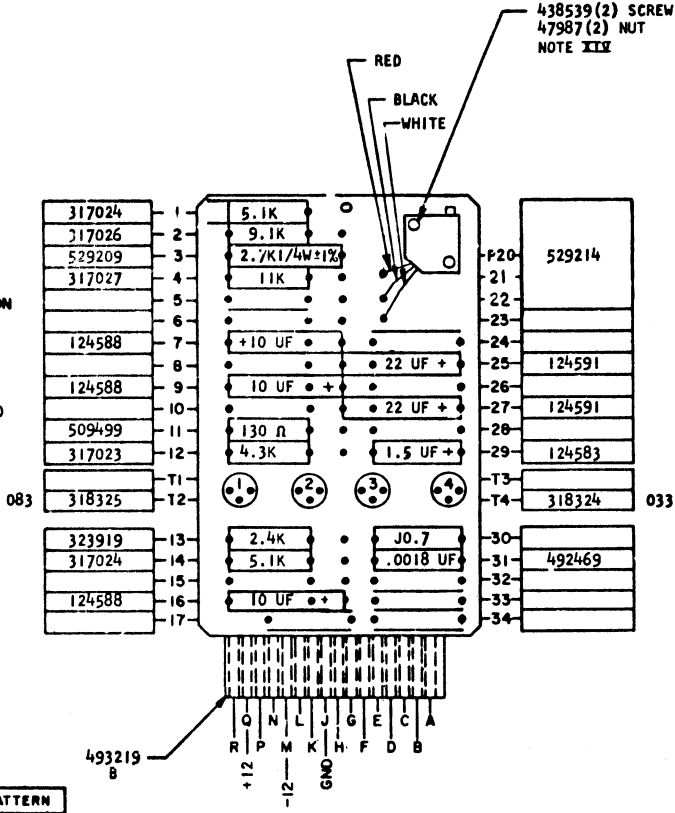
370100

ALLOY-PRE AMP NUMBER 3, MAGNETIC TAPE



NOTES

- I CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 892099.
- II ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
- IV "J" IN BLOCK DENOTES BARL WIRE JUMPER 491296
- V PART NUMBER 529214 NOT TO BE SUBJECTED TO ANY LIQUID

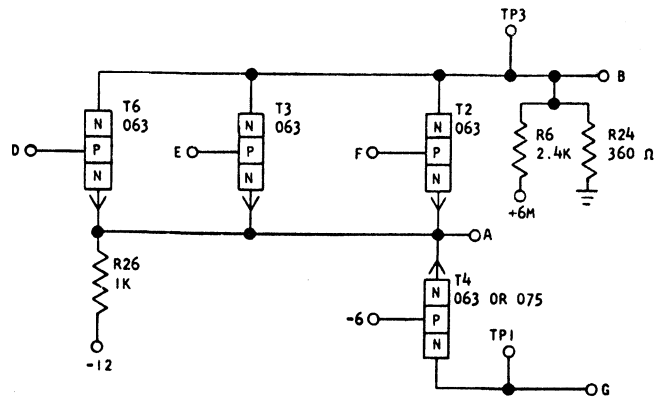


B

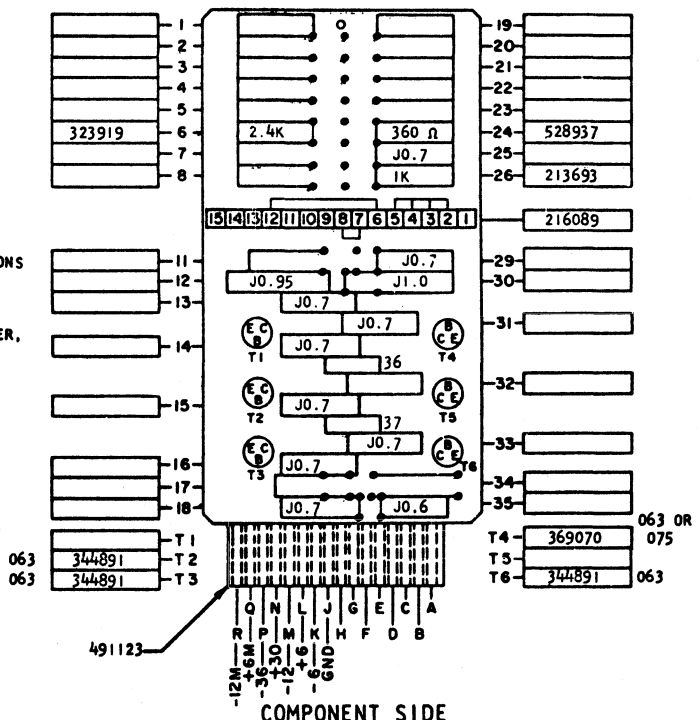
CIRCUIT AND PACKAGING STANDARD		HOLE PATTERN		DATE				DEVELOPMENT NO.	370100
APPROVAL	DATE	491329		DATE	CHANGE NO.	APPROVAL	2547-1143		
KMT	5-9-60			DATE	CHANGE NO.	APPROVAL			
INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL
NAME CARD ASM TSTR-ALLOY- PREAMP NO. 3, MAGNETIC TAPE				5-27-60	109175	INB			
DESIGN VJK 5-30 MODL SMS 729				3-23-61	111378	INB			
DETAIL VJK 5-20 SCALE NONE				11-1-61	112432	JWB			
CHECK 10-23-61 DRAW HDE 9-18-61									
APPRO 10-23-61 CHECK WWP 9-20-61									

ALLOY - THREE WAY "P" BLOCK OUT  
PH LOAD

371230  
STANDARDS CODE  
2-7045  
ADYY



- NOTES  
 X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891230  
 XI ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999  
 XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED  
 XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



**B**

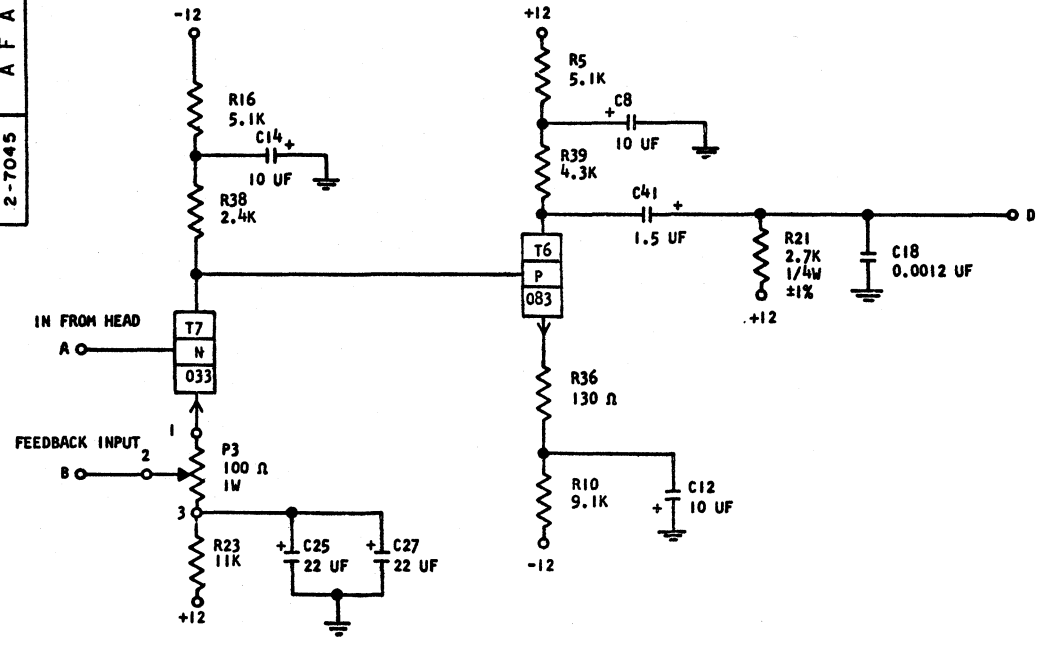
DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-30-58

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR-ALLOY-THREE	5-8-58	104500		7-6-60	D109624	RWB	
WAY "P" BLOCK OUT PH LOAD	11-11-58	382-0861					
DESIGN DEV 12-8-58	TYPE SMS						
DETAIL RKD 12-8-58	SCALE NONE	105546A	RJH				
CHECK GWS 12-8-58	DRAW VE 5-16-60	105865	RJH				
APPRO BES 4-14-59	CHECK CLW 5-17-60	3-30-60	REDRAWN				

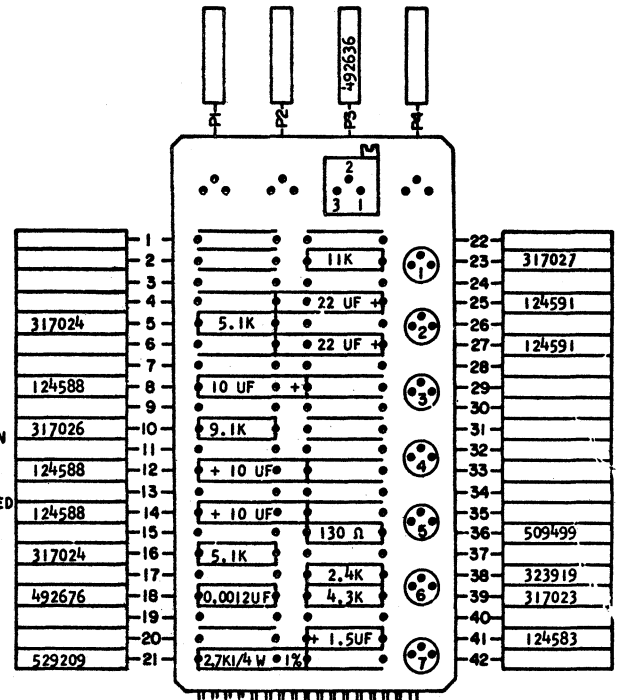
371925

ALLOY-PRE AMP NO 1, MAGNETIC TAPE

STANDARDS CODE  
2-7045  
371925  
A F A -



- NOTES
- I CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 895396 AND 891999
  - II ASSEMBLE TO ENGINEERING SPECIFICATION
  - XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - XIII POTENTIOMETER 492636 MUST NOT BE SUBJECTED TO ANY LIQUIDS



B

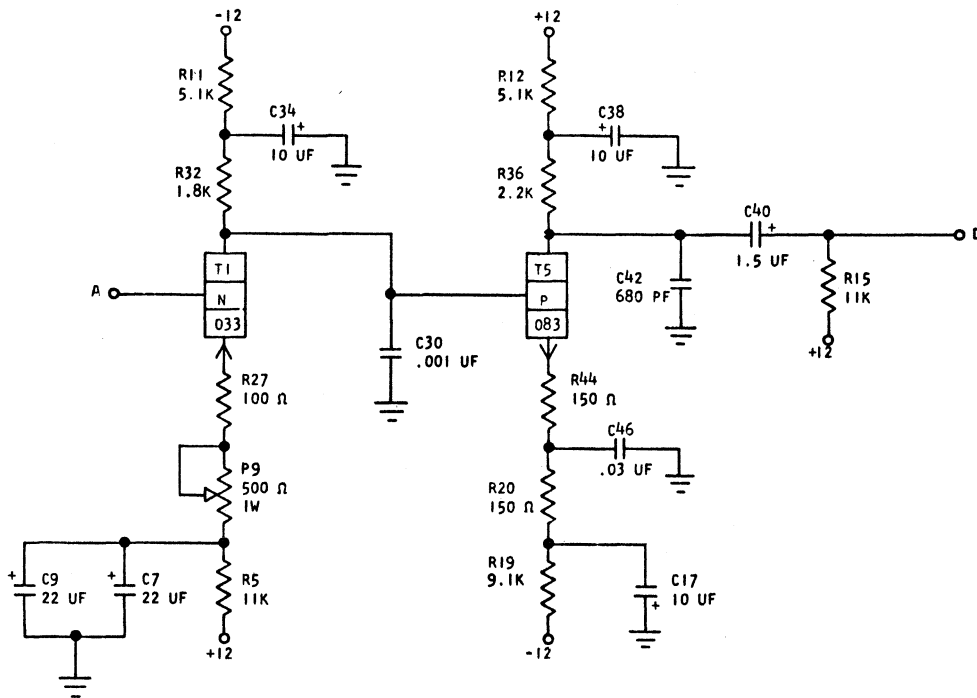
DPD CIRCUIT & PACKAGING STANDARD		HOLE PATTERN	
APPROVAL	DATE	493474	
LIP	2-12-60		

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR-ALLOY-PREAMP NO. 1, MAGNETIC TAPE	2-22-60	108355	NGJ				2547-0687
DESIGN TPA	2-12-60	111378	IWB				
DETAIL VE	7-10-62	112432	IWB				371925
CHECK VE	7-10-62	114712	MDL				
APPRO WS	8-8-62						

T1	
T2	
T3	
T4	
T5	
T6	318325 063
T7	318324 033

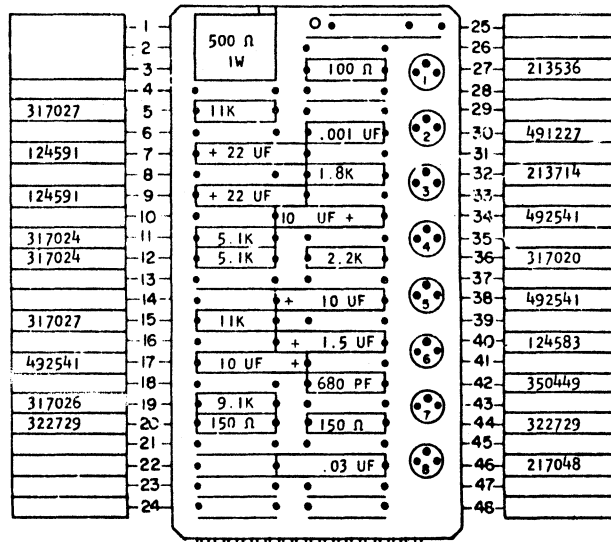
ALLOY - PRE AMP NO. 1 MAGNETIC TAPE

STANDARDS CODE  
2-7045  
370680  
ALZ-



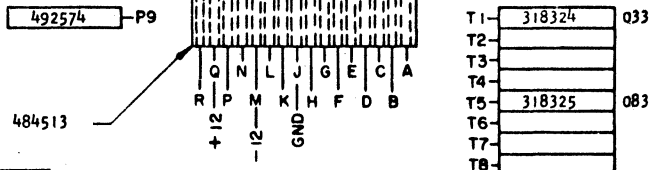
NOTES

- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 892680
- XI ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- XII ALL RESISTORS ARE 1/2 WATT AND ± 5% UNLESS OTHERWISE NOTED
- XIII POTENTIOMETER TO BE MOUNTED AND SOLDERED AFTER BOARD HAS BEEN CLEANED. ASSEMBLE WITH JEDEC PAD 491299



B

CIRCUIT AND PACKAGING STANDARD		HOLE PATTERN								
APPROVAL	DATE	493457								
KMT	8-10-61									
INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR - ALLOY - PRE AMP NO. 1 MAGNETIC TAPE				8-22-61	112444	JWB				2547-1654
DESIGN VJK 7-12-61 MODEL SMS 729 IV										
DETAIL VJK 7-12-61 SCALE NONE										
CHECK TPA 7-13-61 DRAW VE 8-16-61										
APPROV OHS 8-23-61 CHECK WJF 8-16-61										



370680

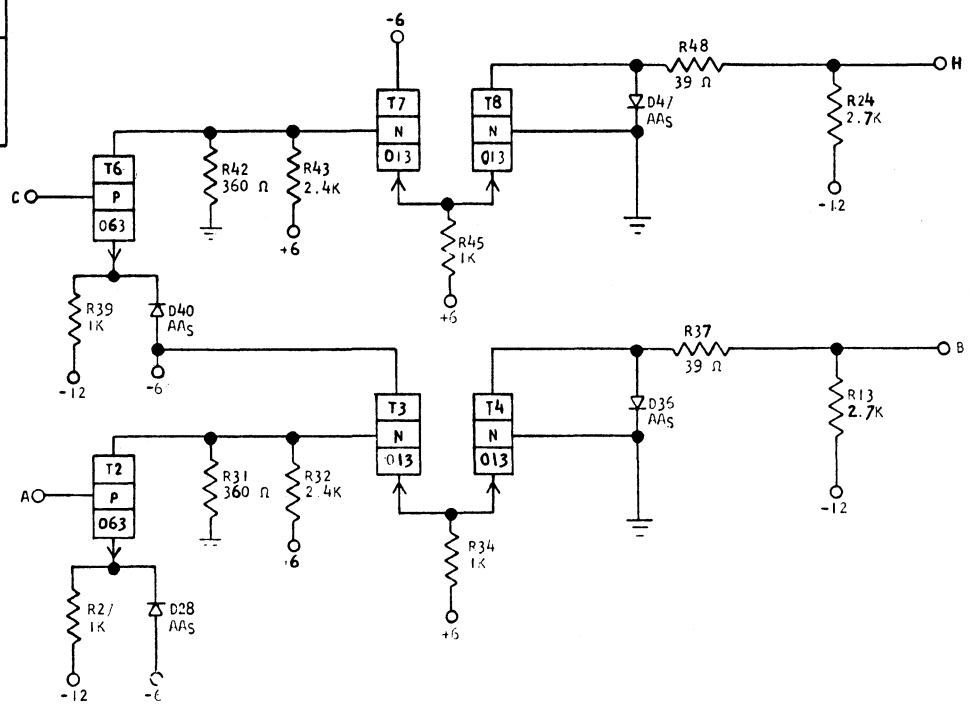




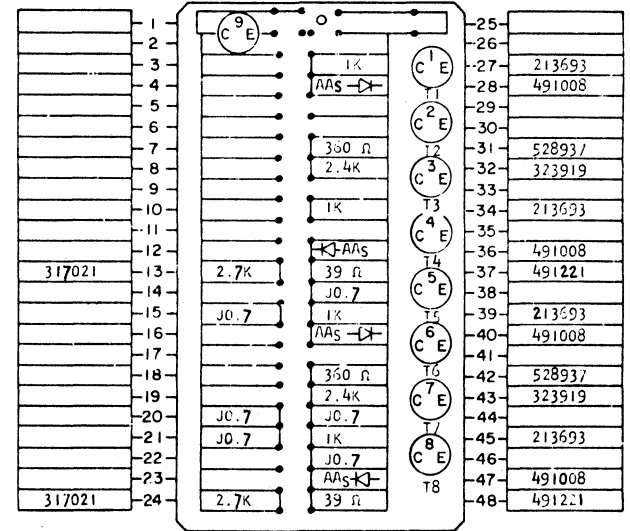
ALLOY-CONVERTER (P LINE TO S LINE)

STANDARDS CODE  
2-7045

370640  
A P F -



- NOTES
- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 892640
  - XI ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER 491296



**B**

CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE
KMT	6-8-61

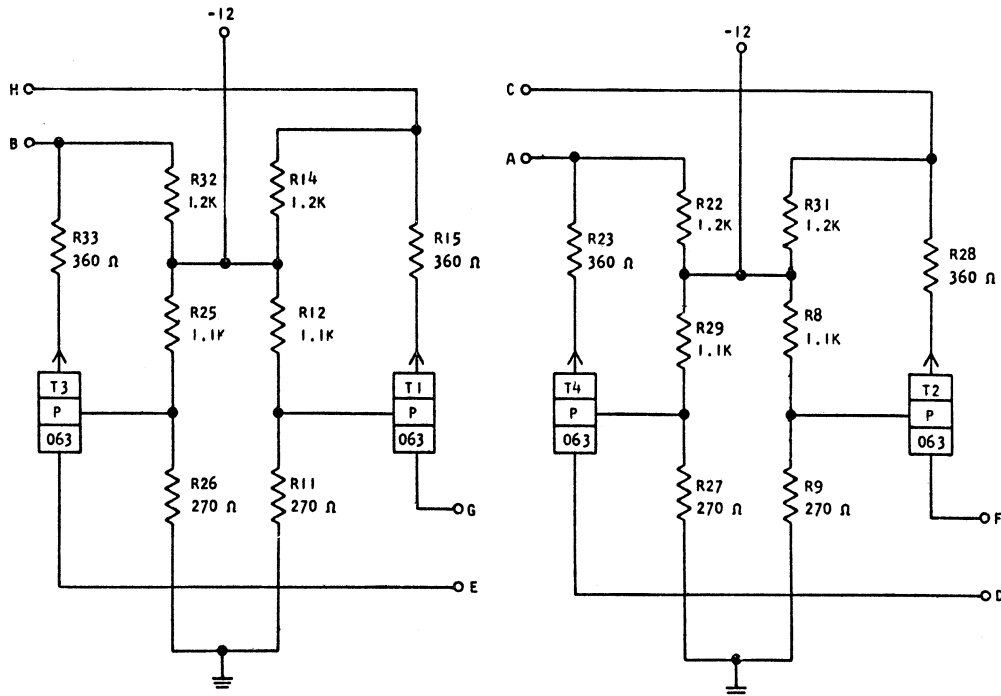
INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR-ALLOY-CONVERTER (P LINE TO S LINE)	6-15-61	112132	JWB				2547-1603
DESIGN RJA	5-15-60	TYPE	SMS 7.9 IV				
DETAIL RJA	5-16-60	SCALE	NONE				
CHECK DAS	5-16-61	DRAW MDE	6-13-61				
APPROV		CHECK	6-13-61				

T1	344891	063
T2	344892	013
T3	344892	013
T4	344892	013
T5		
T6	344891	063
T7	344892	013
T8	344892	013

COMPONENT SIDE

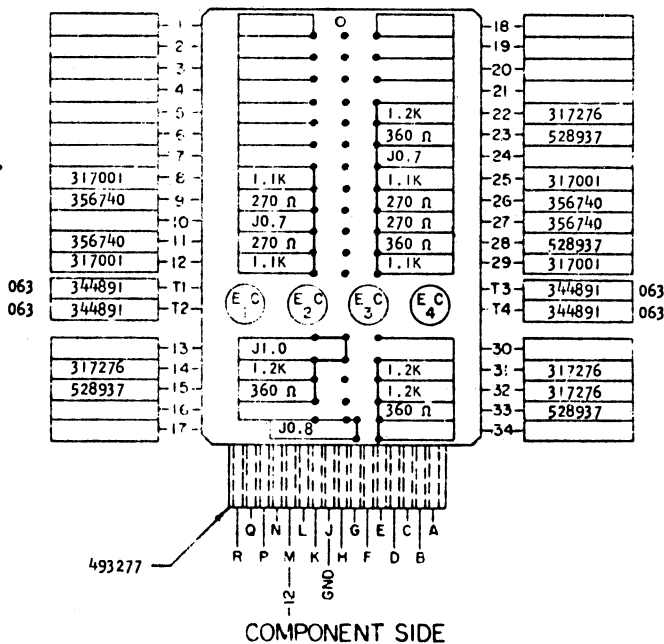
ALLOY CONVERTER-"S" LINE TO "N" LINE

370641  
STANDARDS CODE  
2-7045  
A P G -



NOTES

- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 892641
- XI ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
- XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



B

CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE
KMT	6-8-61

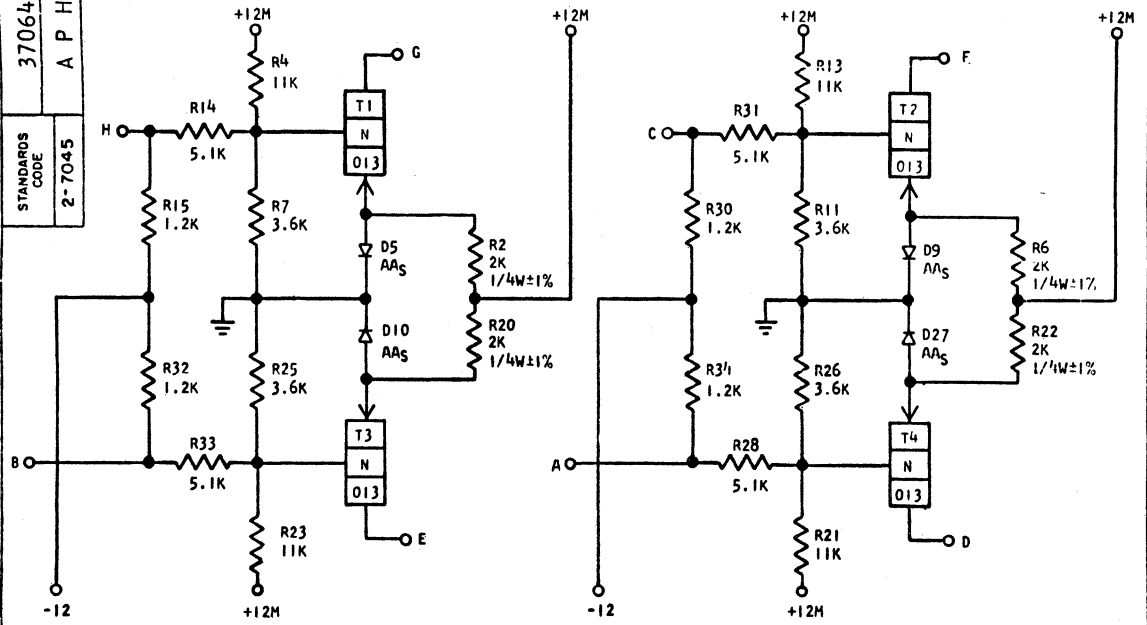
INTERNATIONAL BUSINESS MACHINES CORP.			DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME			6-15-61	112142	JWB				2547-1609
CONVERTER-"S" LINE TO "N" LINE									
DESIGN	WOD	5-27-61	TYPE	SMS 729 IV					
DETAIL	WOD	5-27-61	SCALE	NONE					
CHECK	DAS	5-31-61	DRAW	VE	6-12-61				
APPRO	CHS	6-15-61	CHECK	VA	6-13-61				

370641

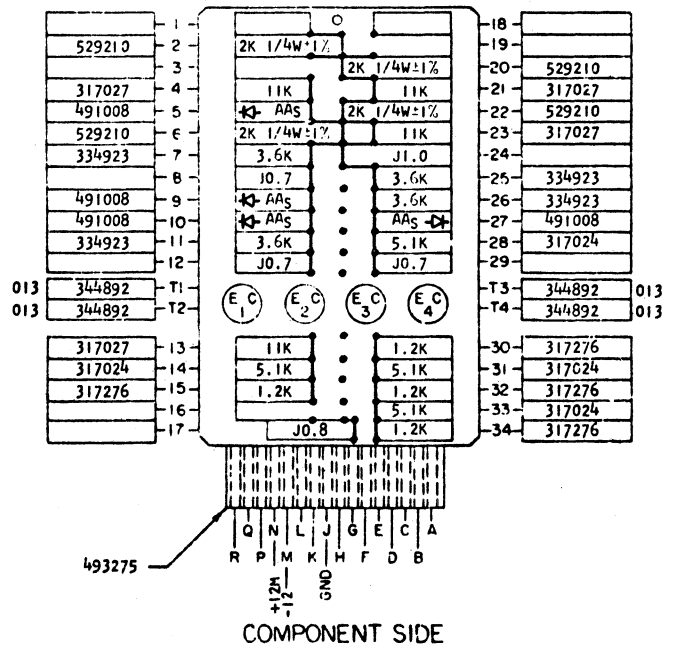
ALLOY CONVERTER "S" LINE TO "P" LINE

370642

370642  
A P H -  
STANDARDS CODE  
2-7045



- NOTES**
- X** CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 892642
  - XI** ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - XII** ALL RESISTORS ARE 1/2 WATT AND  $\pm 5\%$  UNLESS OTHERWISE NOTED
  - XIII** "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



**B**

CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE
KMT	6-8-61

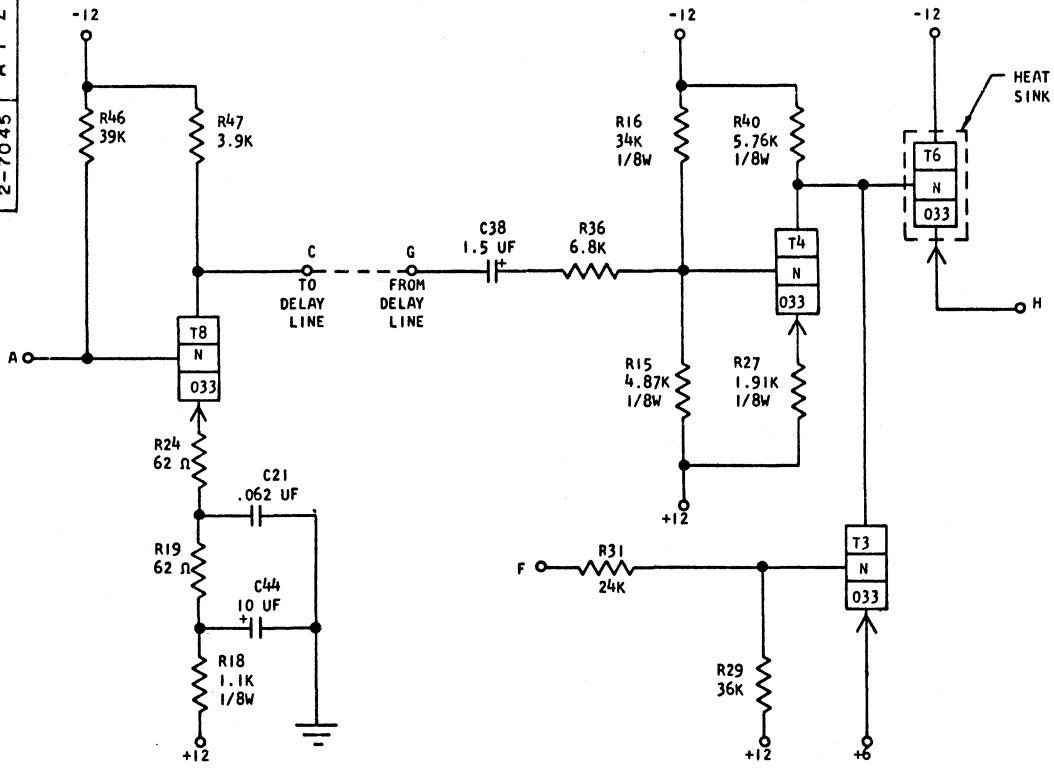
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR - ALLOY CONVERTER "S" LINE TO "P" LINE		6-15-61	112142	JWB				2547-1610
DESIGN WOD	5-27-61	TYPE	SMS 729 IV					
DETAIL WOD	5-27-61	SCALE	NONE					
CHECK DAS	5-31-61	DRAW	VE 642-61					
APPRO CHS	6-15-61	CHECK	Ma 6-13-61					

370642

370681

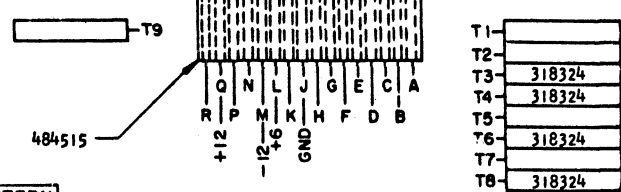
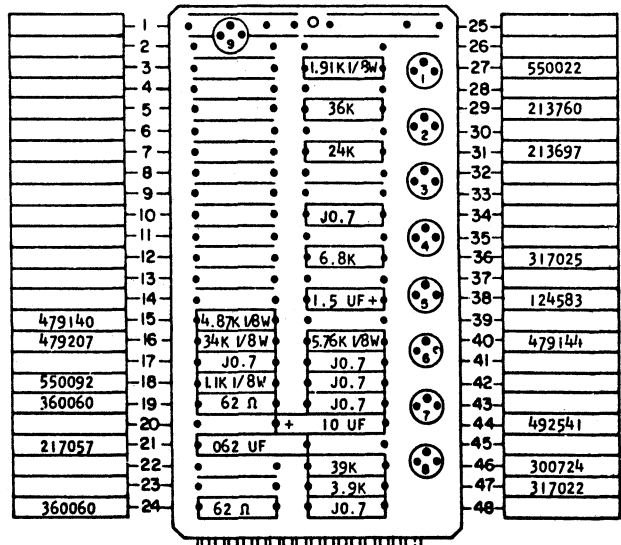
ALLOY - PRE AMP NO. 2 MAGNETIC TAPE

STANDARDS CODE  
2-7045  
370681  
A P Z -



NOTES

- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 892680
- XI ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- XII ALL RESISTORS ARE 1/2 WATT AND ± 5% UNLESS OTHERWISE NOTED (AS NOTE XV)
- XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER 491296
- \* XIV HEAT SINK 492434 AND 492435 TO BE SELECTED AS REQUIRED.
- XV ALL 1/8W RESISTORS TO BE ±1%.

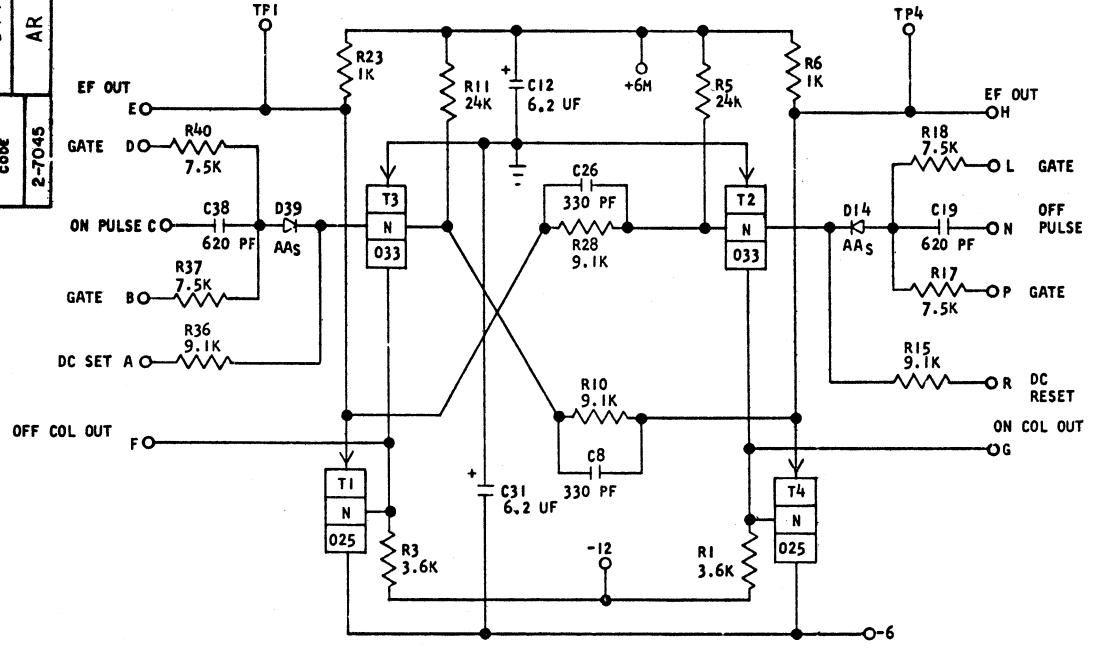


B

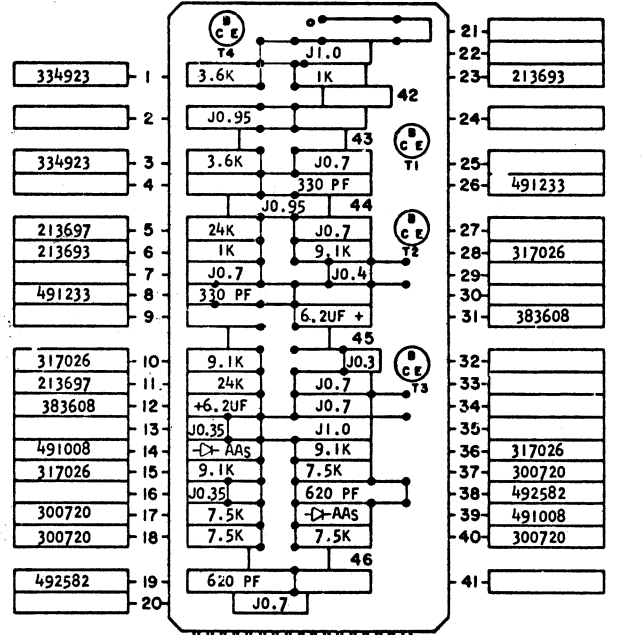
CIRCUIT AND PACKAGING STANDARD		HOLE PATTERN		INTERNATIONAL BUSINESS MACHINES CORP.				DEVELOPMENT NO.	370681
APPROVAL	DATE	493457		NAME	DATE	CHANGE NO.	APPROVAL		
KMT	8-10-61			CARD ASM TSTR - ALLOY -	8-22-61	112444	JWB	2547-1655	
				PRE AMP NO. 2 MAGNETIC TAPE					
DESIGN WOD	8-9-61	MODEL	SMS 729 IV						
DETAIL WOD	8-9-61	SCALE	NONE						
CHECK TPA	8-10-61	DRAW	VE 8-16-61						
APPRO CNS	8-23-61	CHECK	WJF 8-16-61						

CTRL TRIGGER #1

STANDARDS CODE 2-7045 AR



- NOTES**
- X** CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891034
  - XI** ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - XII** ALL RESISTORS ARE 1/2 WATT AND  $\pm 5\%$  UNLESS OTHERWISE NOTED
  - XIII** "J" IN BLOCK DENOTES BARE WIRE JUMPER 491296



025 318322 T4

T1 318322 025  
T2 318324 033  
T3 318324 033

**B**

CIRCUIT AND PACKAGING STANDARD		APPROVAL		DATE		HOLE PATTERN		
						493456		
INTERNATIONAL BUSINESS MACHINES CORP.								
NAME	CARD ASM TSTR - CTRL	DATE	3-26-59	CHANGE NO.	105271	APPROVAL	RJH	
TRIGGER #1		DATE	7-8-59	CHANGE NO.	106709	APPROVAL	RJH	
DESIGN	CB 5-16-60	MODEL	SMS	DATE	3-23-60	CHANGE NO.	108563	
DETAIL	CB 5-16-60	SCALE	NONE	DATE	5-20-60	CHANGE NO.	D108709	
CHECK	AFY 4/1/61	DRAW	MDE 9-9-61	DATE	8-26-60	CHANGE NO.	D109615	
APPRO	CHS 7/1/61	CHECK	WOP 9-11-61	DATE		CHANGE NO.		
							DEVELOPMENT NO.	2545-0125
								371034

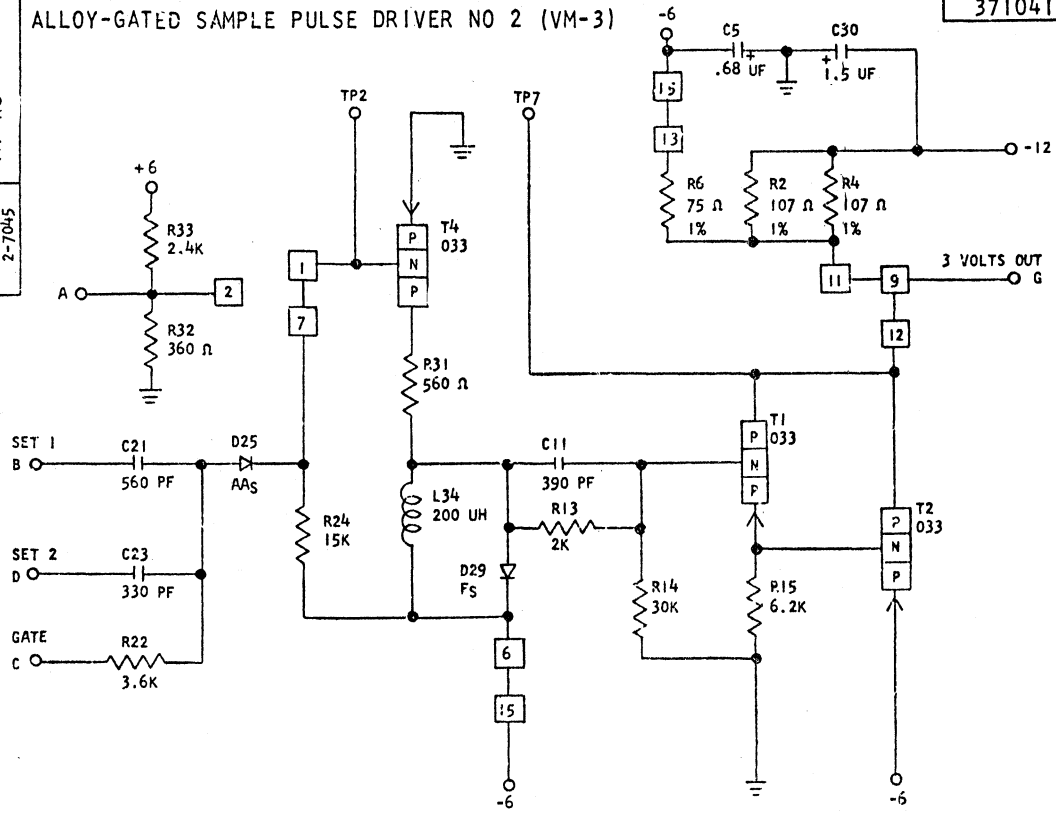




ALLOY-GATED SAMPLE PULSE DRIVER NO 2 (VM-3)

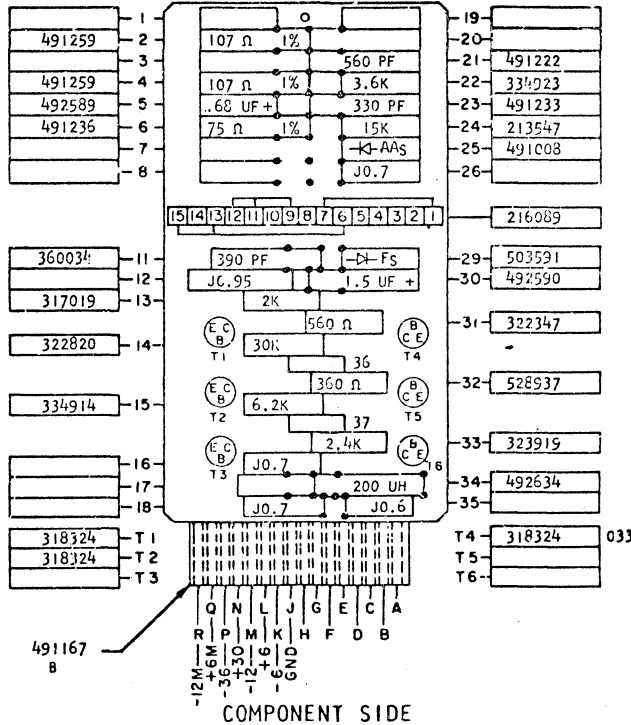
371041

STANDARDS CODE  
371041  
AY WS  
2-7045



NOTES

- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891041
- XI ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
- XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



**B**

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-10-58

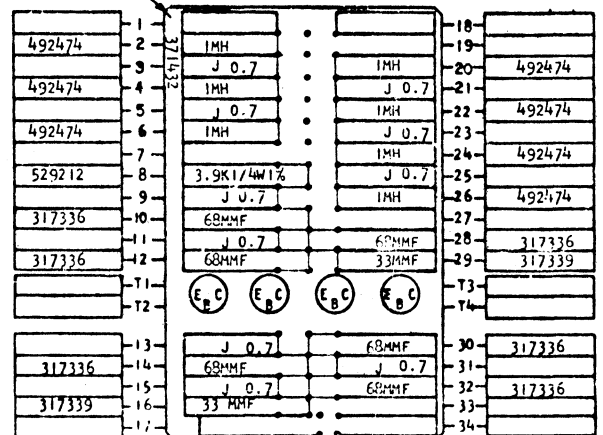
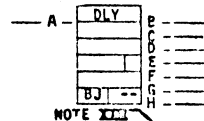
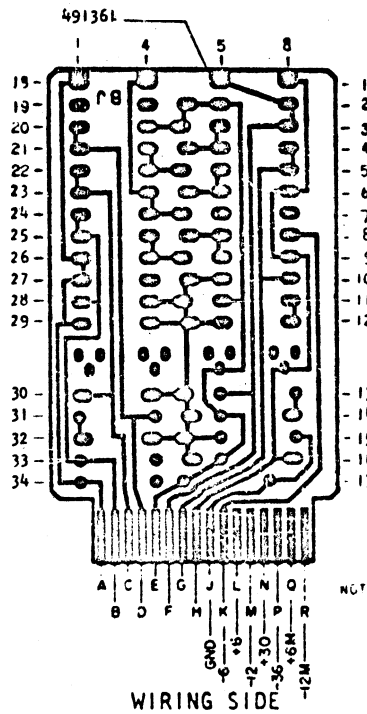
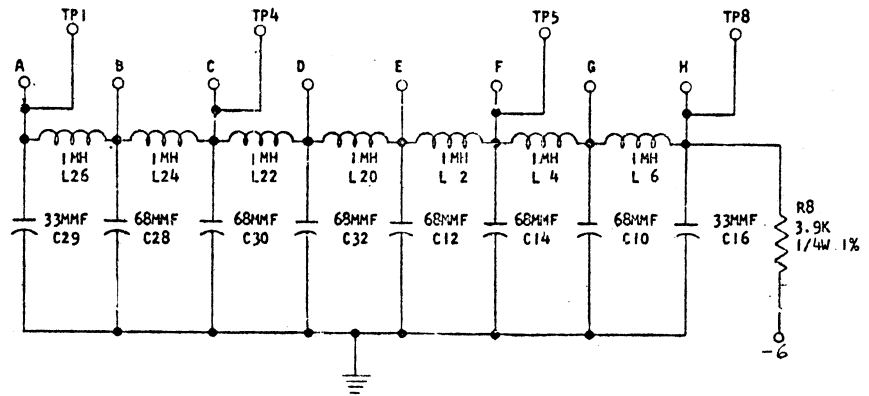
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR-ALLOY-		SEE INDEX CARD			6-20-61	112148	IWB	371041
GATED S.P.D. NO2 (VM-3)		11-30-59	D107764					
DESIGN	AJR 2-24-59	3-29-60	100509	NGJ				
DETAIL	RKD 2-24-59	11-4-60	D109900	9213				
CHECK	DEV 2-24-59	12-13-60	D110872	IWB				
APPRO	GWS 2-24-59							



ALLOY - DELAY LINE LUMPED

371432

STANDARDS CODE  
4-1502



NOTES

- I ASSEMBLE TO ENGINEERING SPECIFICATION 095396 AND 891999
- II 491296 BARE WIRE FOR ALL JUMPERS
- III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
- IV "J" IN BLOCK DENOTES JUMPER
- V CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891432

DIP CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
<i>P. L. Emery</i>	10-30-56

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHARGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
MIL CARD ASM TSTR - ALLOY		11-5-58	105392					
DELAY LINE LUMPED		11-18-58	D105397					
DESIGN	MODEL							
	SMS							
DETAIL	SCALE	1-7-59	105601					
	NONE							
CHECK	FORM	3-10-61	111393					
APPROV	CHECK							

371432

371433

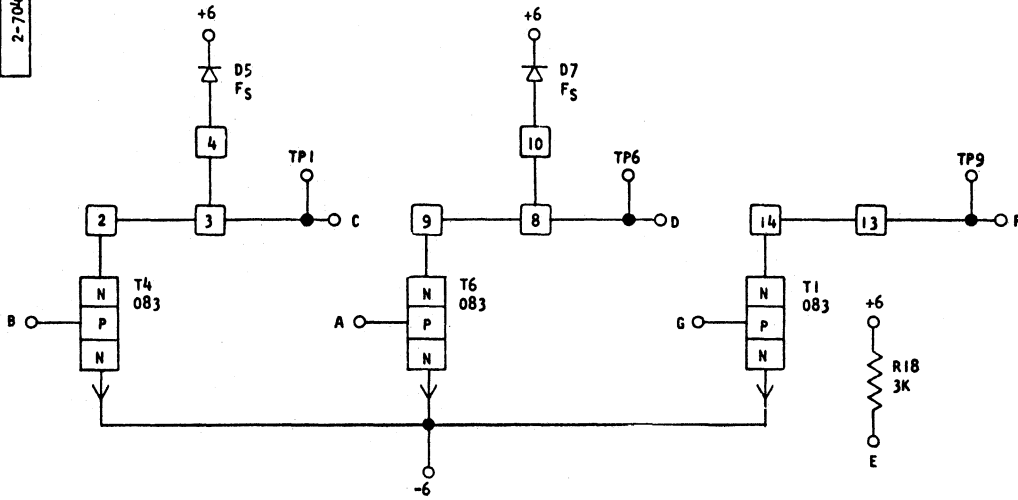
ALLOY-DRIVER, PROLAY ONE READ GATE

371433

B K V Z

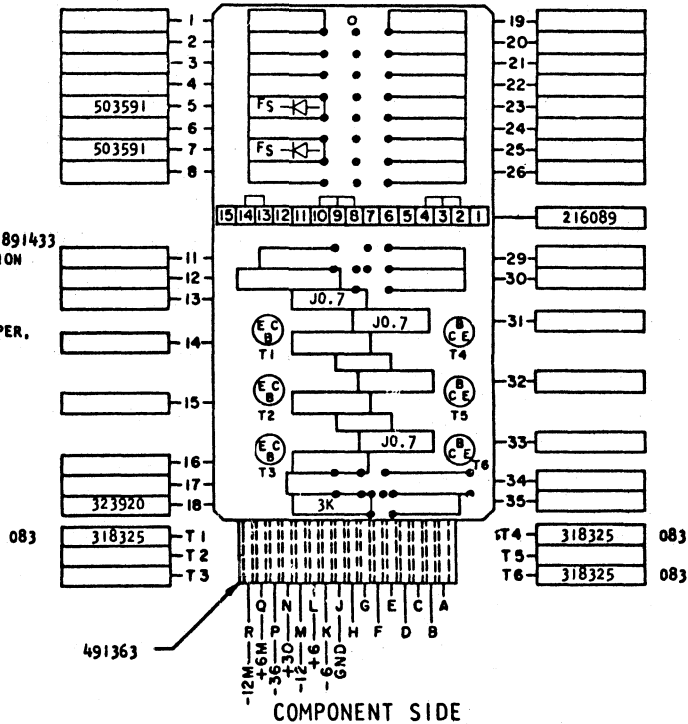
STANDARDS CODE

2-7045



NOTES

- I TEST TO ENGINEERING SPECIFICATION 891433
- II ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
- IV "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



B

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
R.W.E.	10-30-58

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR- ALLOY-DRIVER, PROLAY ONE READ GATE		11-5-58	105392	RJH				
DESIGN GHS 6-30-58		4-27-60	108823	NGJ				
DETAIL EJC 7-8-58		6-16-60	D109191	<i>JWB</i>				
CHECK GHS 7-9-58								
DRAW PAP 5-12-60								
APPROV B.C. 11-5-58								
CHECK E.C.N. 5-12-60								

371433



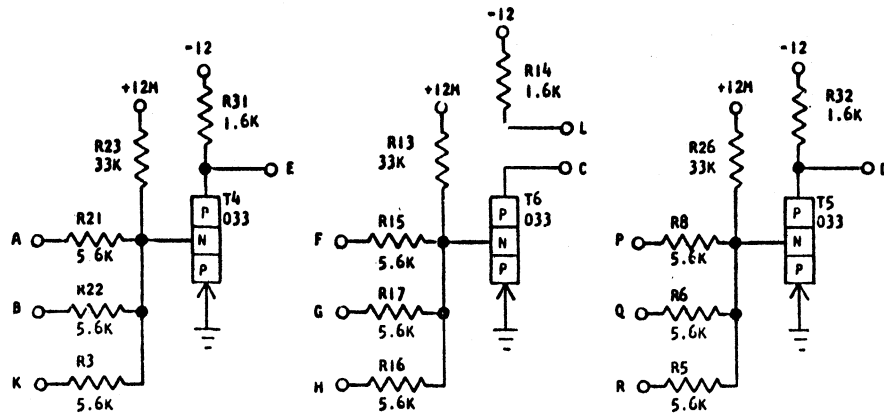
CTRL - INVERTERS "N" TYPE

371029

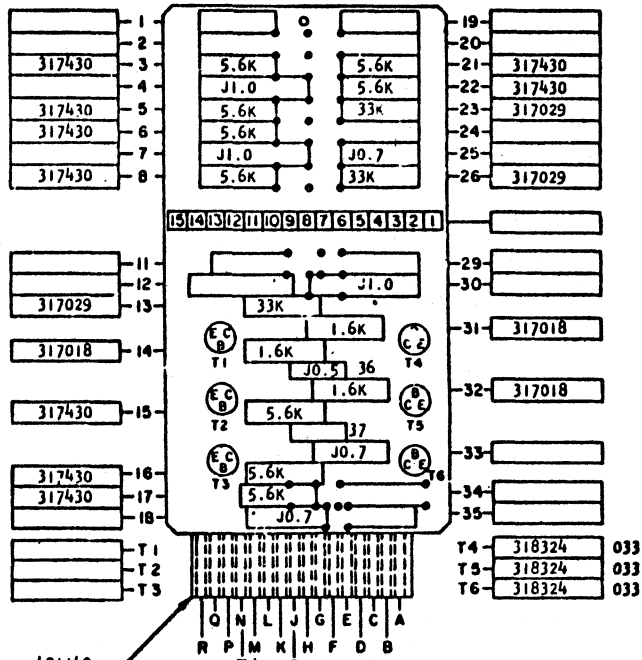
C D - -

STANDARDS CODE

2-7045



- NOTES  
 I TEST TO ENGINEERING SPECIFICATION 891029  
 II ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999  
 III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED  
 IIII "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



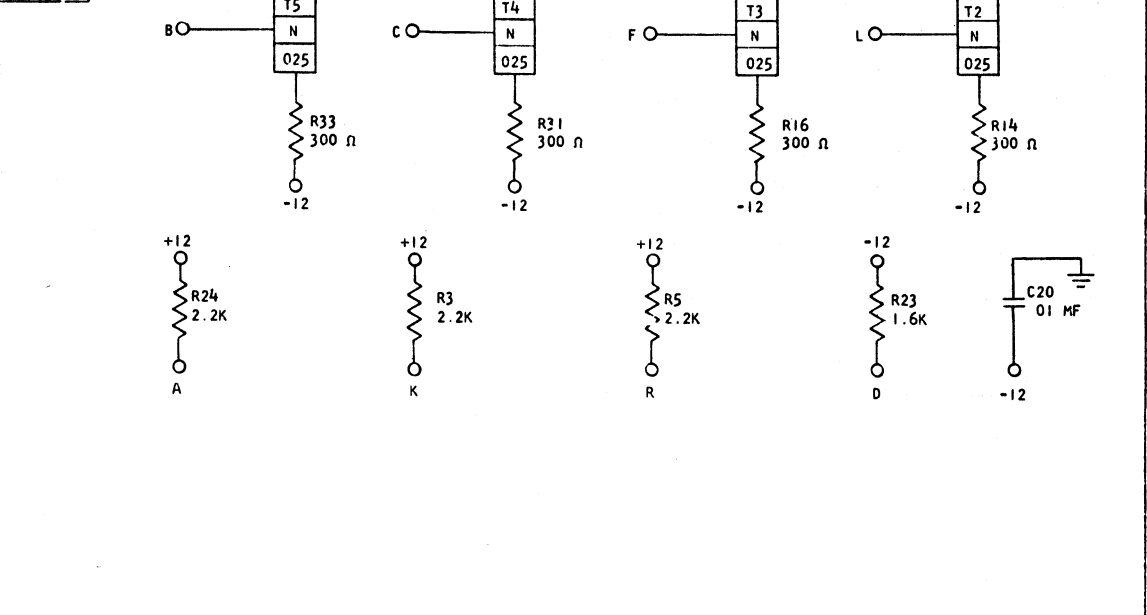
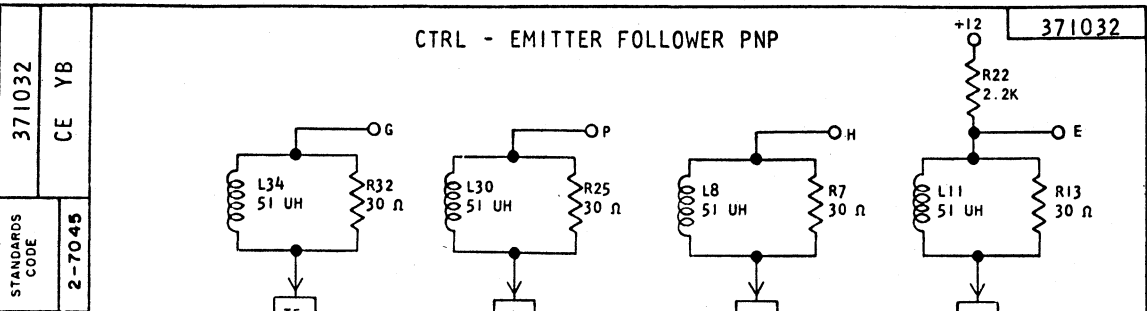
COMPONENT SIDE

B

OPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-10-58

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR-CTRL- INVERTERS "N" TYPE	2-18-59	105890	RJH				
DESIGN FKB	8-10-59	106772	RJH				
DETAIL JCT	10-22-59	REDRAWN					
CHECK LB	6-20-60	D109187	AWB				
APPRO DEV	2-24-59	CHECK					

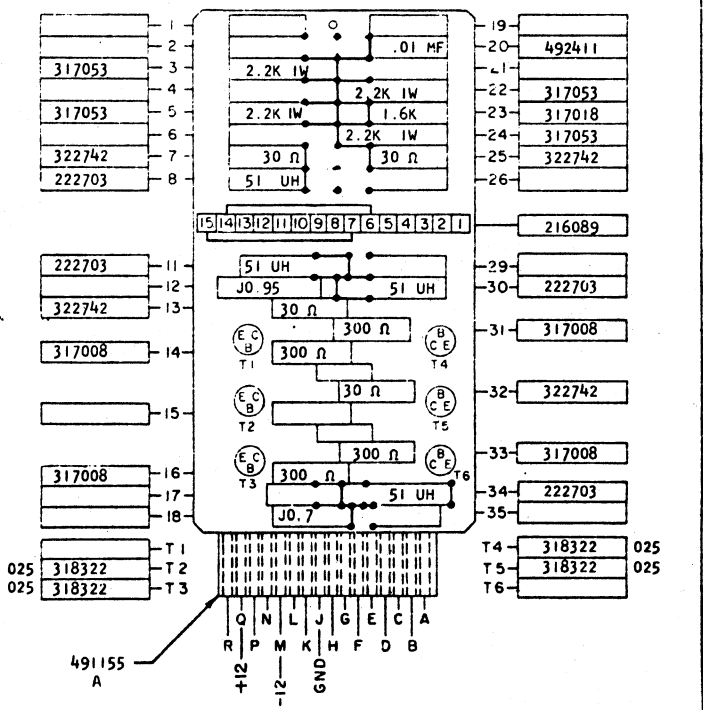
371029



- NOTES**
- I** CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891032
  - II** ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - XII** ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - XIII** "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296

**B**

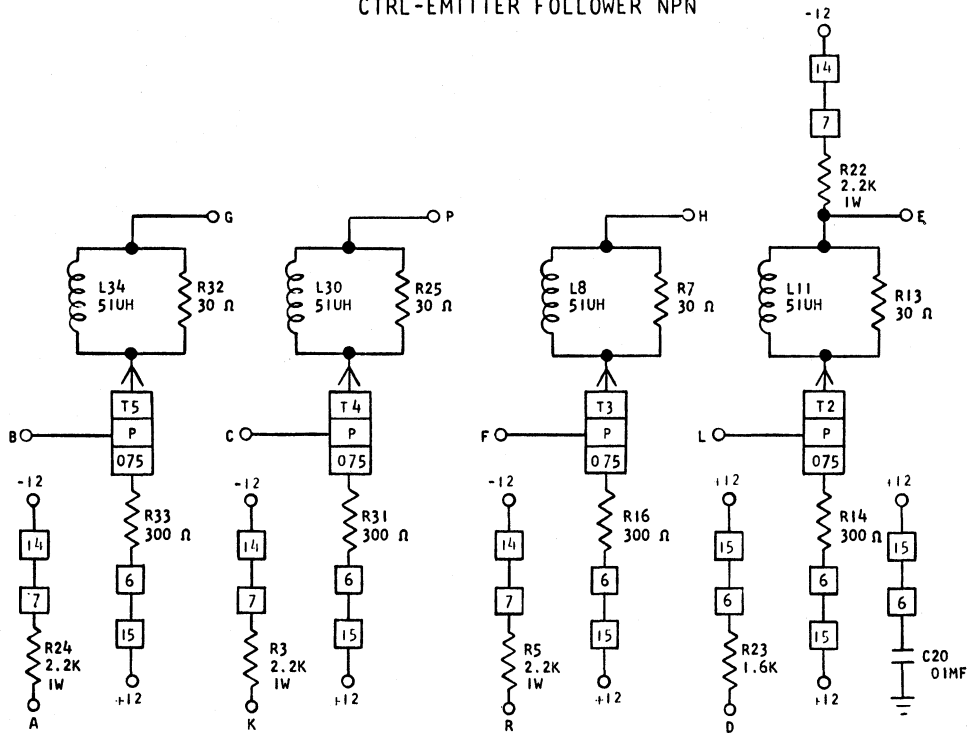
DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RAE	11-14-51



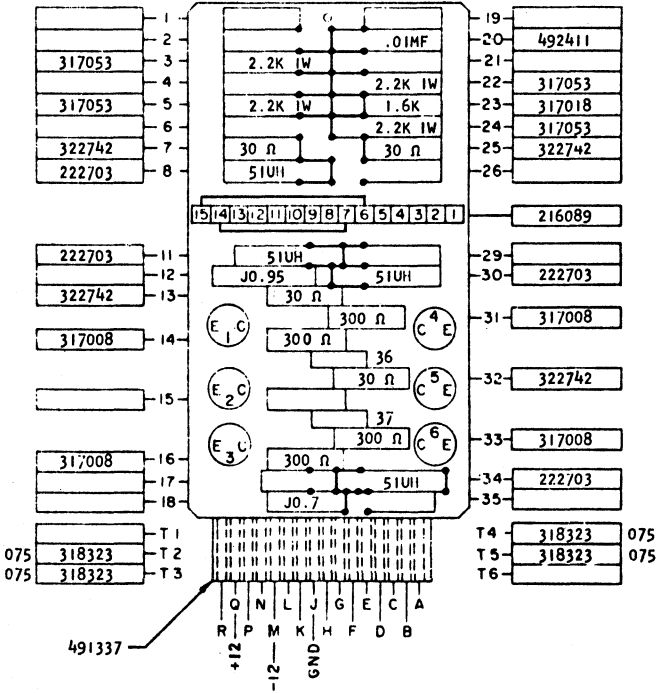
INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR CTRL				11-18-58	105502	RJH	1-27-61	D111089	IWB	371032
EMITTER FOLLOWER PNP				10-20-59	REDRAWN					
DESIGN		TYPE	SMS	3-22-60	108318	NGJ				
DETAIL	5-5-58	SCAL	NONE	7-7-60	109613	IWB				
CHECK	5-6-58	DRAW	VE 11-14-60							
APPROV	11-11-58	CHECK	DR 11-19-60	12-14-60	D110502	JWB				

CTRL-EMITTER FOLLOWER NPN

STANDARDS CODE 2-7045  
 371033  
 CF YA



- NOTES**
- I** CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891033
  - II** ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - XII** ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - XIII** "J" IN BLOCK DENOTES BARE WIRE JIMPF, 491296



**B**

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	

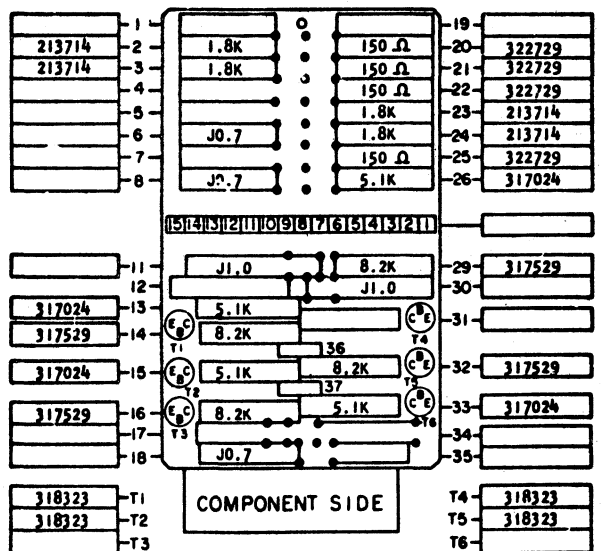
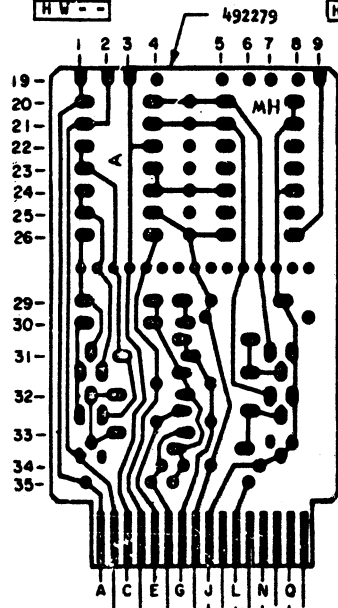
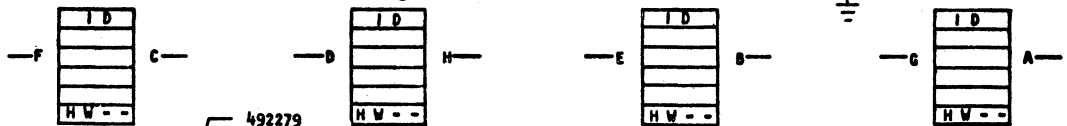
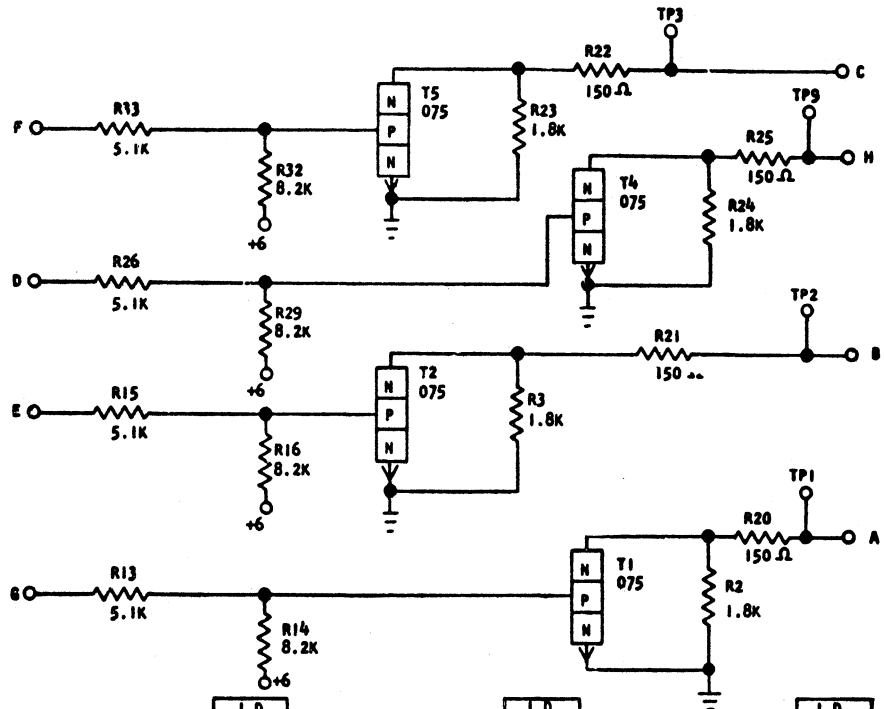
INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR-CTRL-EMITTER FOLLOWER NPN	11-18-58	105502					371033
DESIGN: LB	10-9-59	108318	NGJ				
DETAIL: JCT 5-6-58	3-22-60	109613	IWB				
CHECK: GHS 5-6-58	7-7-60						
APPRO: DEV 11-14-58	3-7-61	D111226	JWB				

ALLOY-INDICATORS, LAMP, VM

371048

371048

STANDARDS CODE  
2-70MS



- NOTES  
 I ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999  
 II "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296  
 III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED  
 IV ASSEMBLE WITH JEDEC TRANSISTOR  
 V TEST TO ENGINEERING SPECIFICATION 891048

**B**

WIRING SIDE

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	2-19-59
DEV	

INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME				1-20-59	104500					2547-0197
INDICATORS, LAMP, VM				2-16-59	382-0137					
DESIGN	EJC	10-21-58	MODEL	SMS	2-25-59	105935	RJH			
DETAIL	EJC	10-21-58	SCALE	NONE	3-23-60	REDRAWN				
CHECK	LB	10-22-58	DRAW	VE	3-23-60					
APPROD	GWS	2-26-59	CHECK	Z/L	2-19-60					

371048

371674

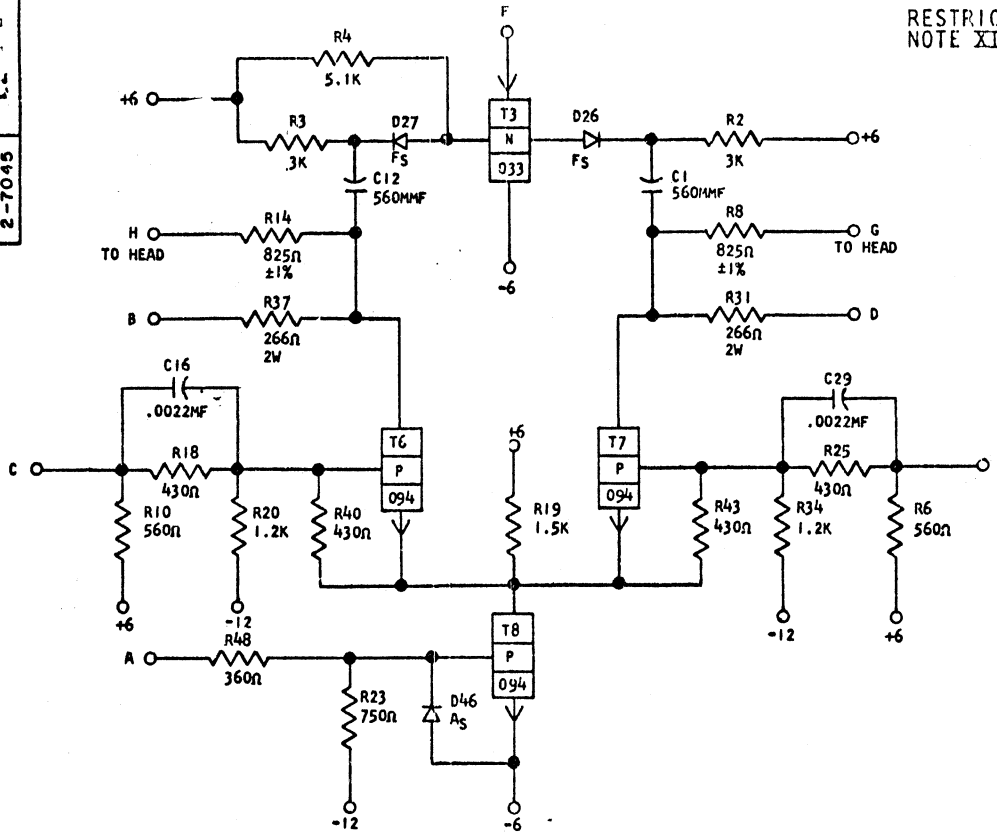
STANDARDS CODE  
2-7045

LZ

ALLOY-HEAD DRIVER AND ECHO PULSE AMPLIFIER

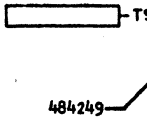
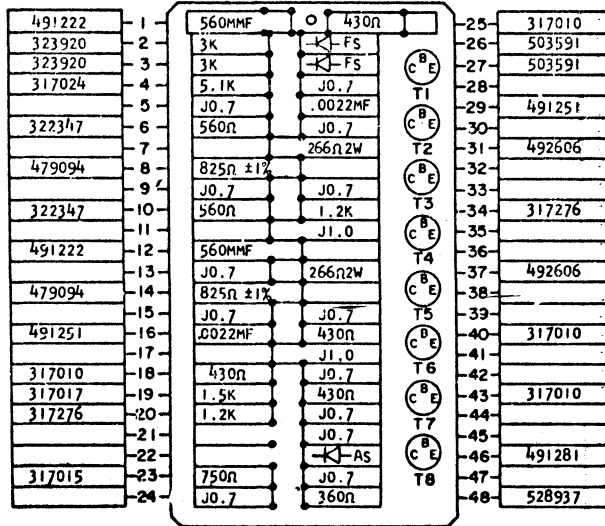
371674

RESTRICTED  
NOTE XIV



NOTES

- I** CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891674
- II** ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- III** ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED (AS NOTE **XX**)
- IV** "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296
- XV** RESTRICTED TO 729 II AND IX MACHINES FOR APPLICATION REASONS
- XX** ALL 2 WATT RESISTORS ARE +1% -2%



COMPONENT SIDE

B

CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE
KMT	1-30-61

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR- ALLOY-HEAD DRIVER AND ECHO PULSE AMPLIFIER	8-12-59	106797	RJH	10-17-60	110171		371674
DESIGN TPA 1-26-61 TYPE SMS 729	10-8-59	106945	RJH	2-9-61	111235	NOTE XIV	
DETAIL TPA 1-26-61 SCALE NONE	10-20-59	D107565	RJH				
CHECK DAS 1-27-61 DRAW VE 2-2-61	10-21-59	REDRAWN					
APPRO GHS 2-9-61 CHECK pep 2-3-61	12-18-59	107934	RJH				

T1		
T2		
T3	318324	033
T4		
T5		
T6	369081	094
T7	369081	094
T8	369081	094

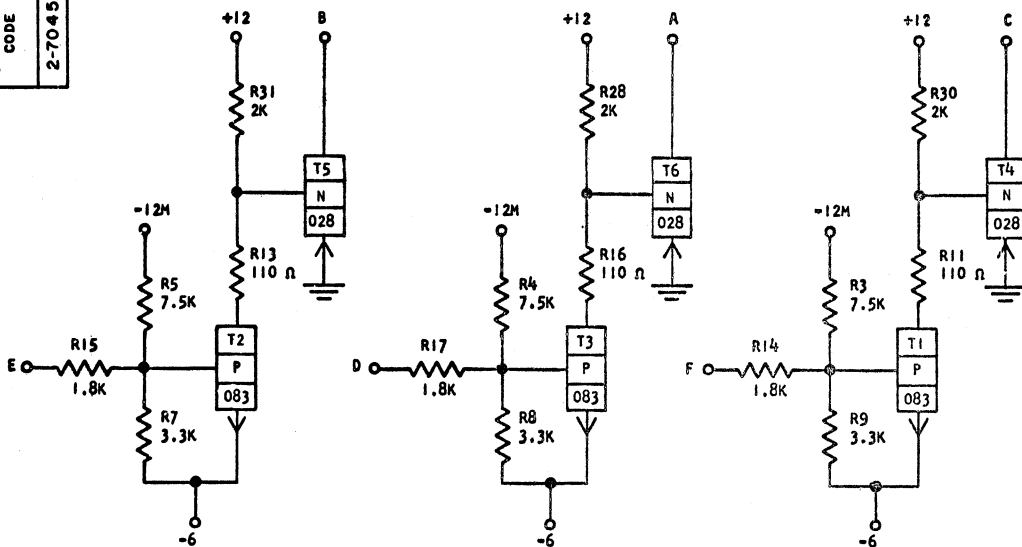


CTRL-DRIVERS, FUNCTIONAL COIL  
MOUNT CARD ON ONE INCH CENTERS NOTE XIII

371497

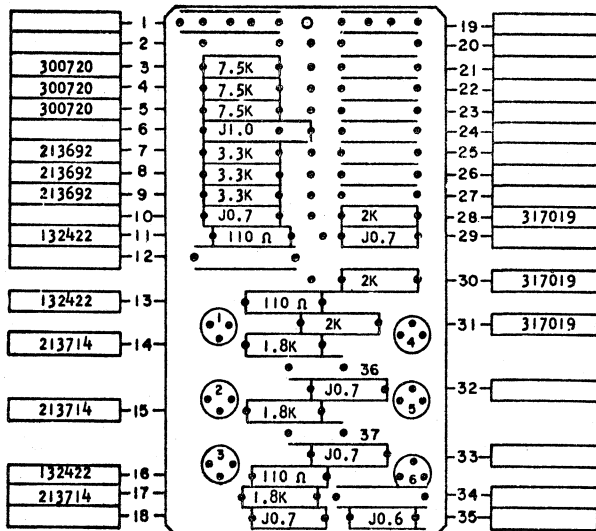
MD --

STANDARDS CODE  
2-7045



NOTES

- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891497
- XI ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED.
- XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER 491296
- XIV THE MAXIMUM HEIGHT THAT COMPONENTS MAY PROJECT ABOVE THE SURFACE OF A CARD WILL BE .405



083	318325	T1	518689	028
083	318325	T2	518689	028
083	318325	T3	518689	028

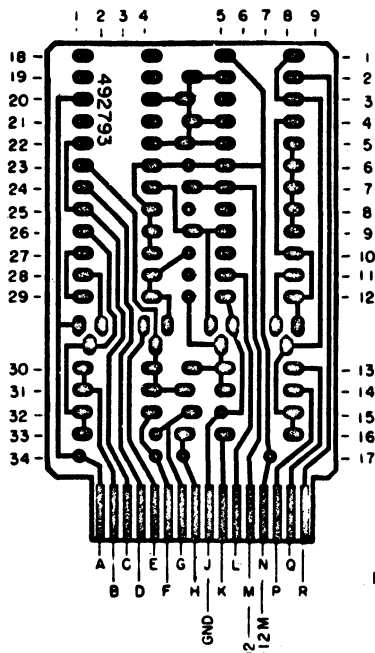
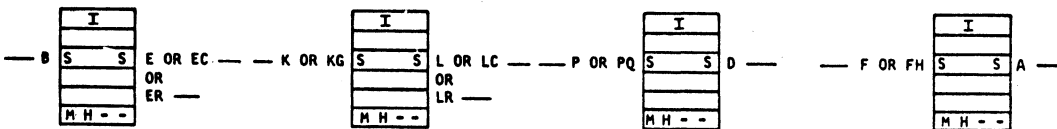
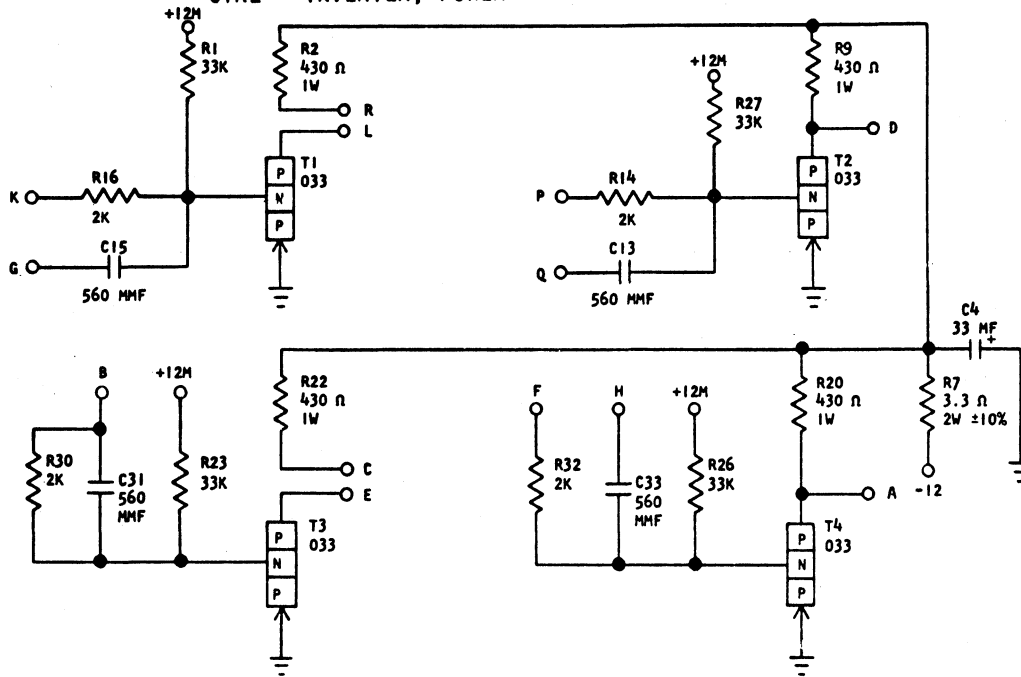
B

DPD CIRCUIT & PACKAGING STANDARD		HOLE PATTERN		INTERNATIONAL BUSINESS MACHINES CORP.				DEVELOPMENT NO.	371497	
APPROVAL	DATE	491021		NAME	DATE	CHANGE NO.	APPROVAL			
LIP	5-5-59			CARD ASM. TSTR- CTRL DRIVERS	6-17-59	106599	RJH	2547-0279		
				FUNCTIONAL COIL	10-5-59	D106943	RJH			
DESIGN	TPA	1-27-59	MODEL	SMS						
DETAIL	TPA	1-29-59	SCALE	NONE						
CHECK	LB	3-24-59	DRAW	VE	10-18-61					
APPRO	GWS	6-17-59	CHECK	MDL	10-23-61					

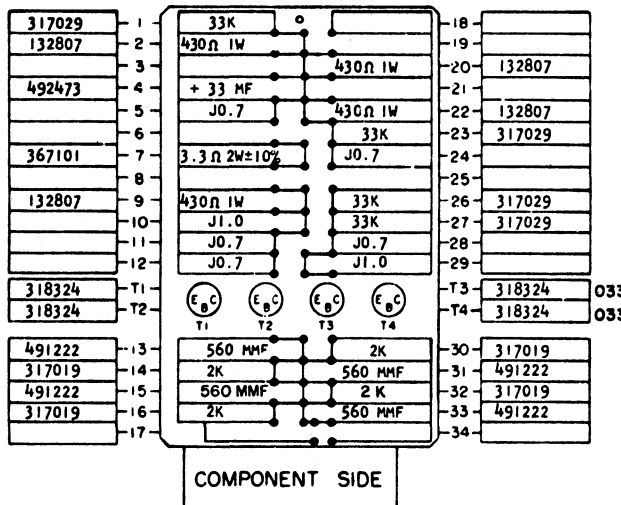
CTRL - INVERTER, POWER - PNP

371487

STANDARDS CODE  
2-7045



WIRING SIDE



COMPONENT SIDE

- NOTES
- X** TEST TO ENGINEERING SPECIFICATION 891487
  - XI** ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - XII** 491299 - ASSEMBLE WITH JEDEC TRANSISTOR
  - XIII** "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296
  - XIV** ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED

**B**

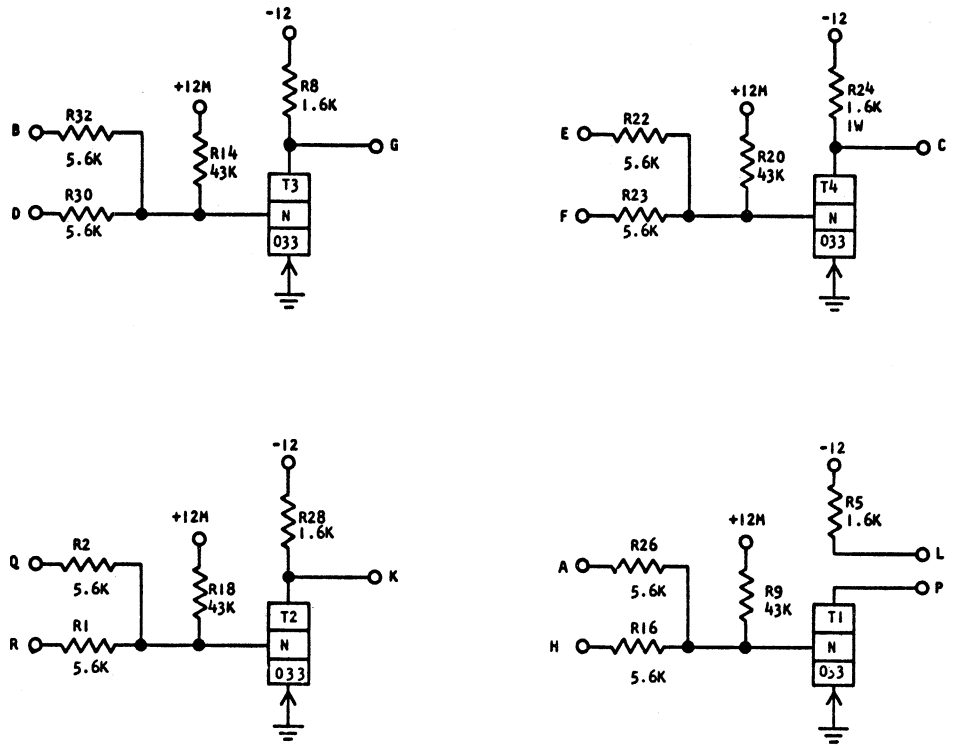
CIRCUIT & PACKAGING STANDAPD	
APPROVAL	DATE
LIP	3-31-59

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR- CTRL	6-23-59	106624	RJH				2547-0377
	INVERTER, POWER-PNP	8-18-59	D106814	RJH				
DESIGN	TPA 2-16-59 MODEL SMS	12-11-59	D107842	RJH				
DETAIL	TPA 2-16-59 SCALE NONE							
CHECK	EJC 2-16-59 DRAW VE 4-4-60	4-4-60	REDRAWN					
APPRO	GWS 6-23-59 CHECK							

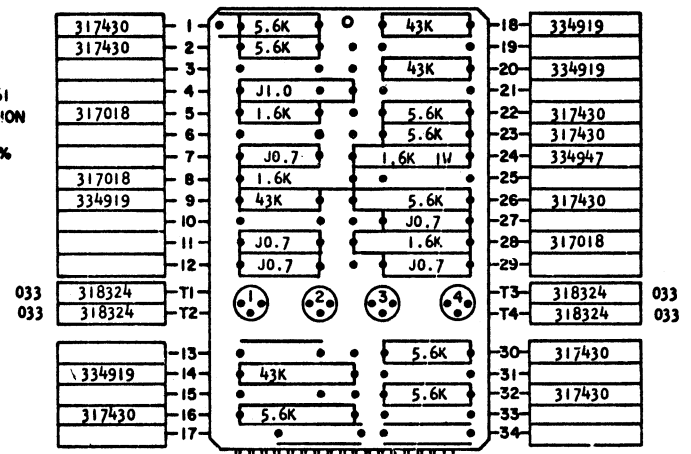
371487

CTRL-INVERTER "N" 2 WAY

STANDARDS CODE 371661  
2-7045 MX --



- NOTES
- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891661
  - XI ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER 491296



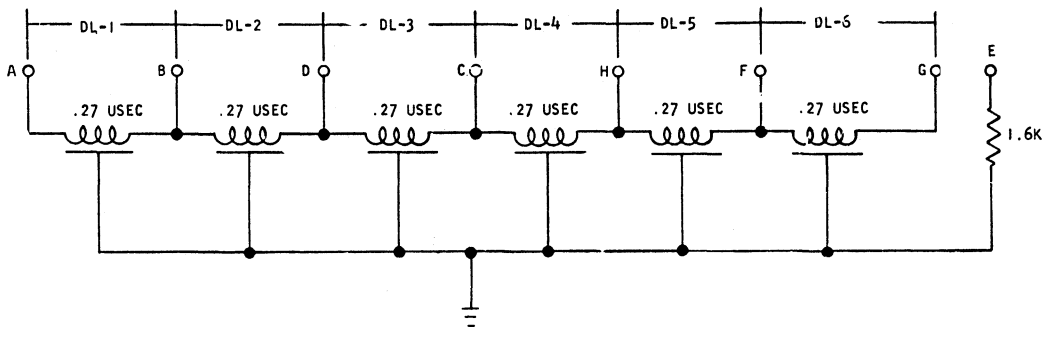
CIRCUIT AND PACKAGING STANDARD		APPROVAL		DATE		HOLE PATTERN	
KHT		7-10-59		491329			
INTERNATIONAL BUSINESS MACHINES CORP.							
NAME CARD ASM TSTR-CTRL-		DATE 8-25-60		CHANGE NO. D109878		APPROVAL IWB	
INVERTER "N" 2 WAY		DATE 10-12-60		CHANGE NO. 110150		APPROVAL IWB	
DESIGN RJA 6-16-59		MODEL SMS		DATE 5-23-62		CHANGE NO. 113942	
DETAIL RJA 6-25-59		SCALE NONE		DRAW 3-19-62		APPROVAL MDL	
CHECK TPA 7-13-59		DRAW					
APPRO GWS 8-10-59		CHECK					
						DEVELOPMENT NO. 2547-0475	
						371661	

371749

ALLOY-DELAY LINE DISTRIBUTED NUMBER 2

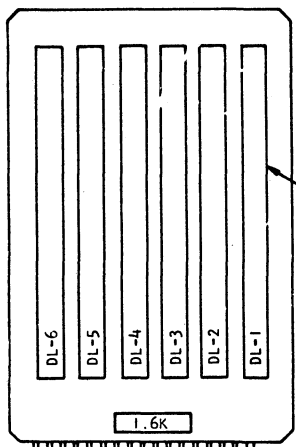
STANDARDS CODE  
2-7045

371749  
RP ---



NOTES

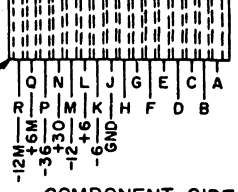
- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891749
- II ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999
- XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED



535103 (6)

317018

491371 B



COMPONENT SIDE

B

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
HFH KMT	11-10-59

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR-ALLOY-	11-13-59	106681	RJH				2547-0598
DESIGN	DELAY LINE DISTRIBUTED NUMBER 2	11-30-59	107826	RJH				
DESIGN	GHS 11-10-59 MODEL SMS 7292	3-28-60	REDRAWN					
DETAIL	GHS 11-10-59 SCALE NONE	9-28-60	D109919	JWB				
CHECK	TPA 11-10-59 DRAW VE 9-13-60							
APPRO	GWS 11-12-60 CHECK REN 9-13-60							

371749

371880

STANDARDS CODE

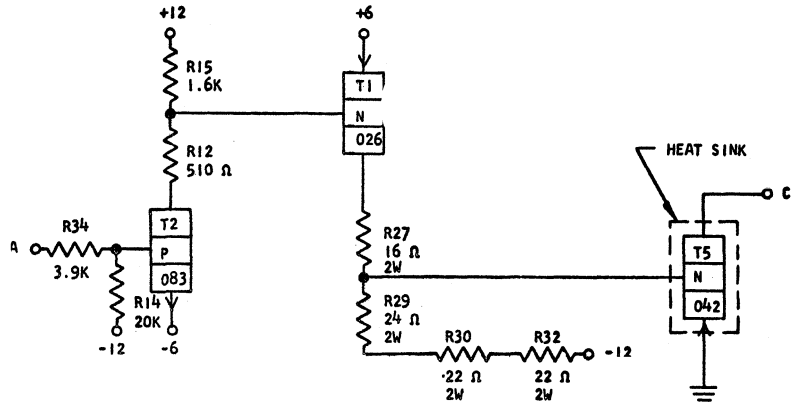
WB --

2-7-65

ALLOY DRIVER RELAY 2.5 AMP  
MOUNT CARD ON ONE INCH CENTERS NOTE XV

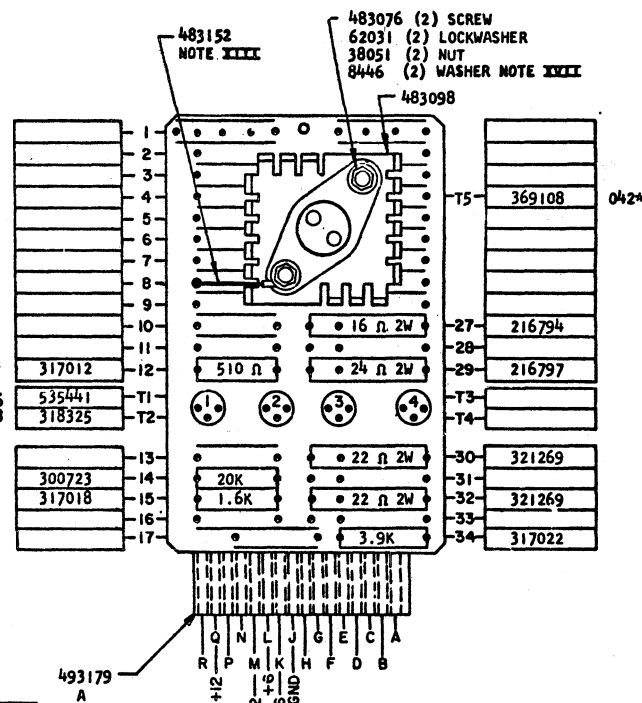
371880

RESTRICTED  
NOTE XIV



NOTES

- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891880
- XI ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- XII ALL RESISTORS ARE 1/2 WATT AND  $\pm 5\%$  UNLESS OTHERWISE NOTED
- XIII CASE IS ELECTRICALLY CONNECTED TO COLLECTOR, CONNECTION COMPLETED THROUGH JUMPER
- \* XIV TECHNICAL LABORATORY EVALUATION INCOMPLETE, ADDITIONAL USAGE TO BE AVOIDED. THIS PART SUBJECT TO WITHDRAWAL
- XV THE MAXIMUM HEIGHT THAT COMPONENTS MAY PROJECT ABOVE THE SURFACE OF THE CARD WILL BE .850
- \* XVI DO NOT CRIMP TRANSISTOR LEADS. SOLDER TO BOARD AFTER CLEANING.
- XVII WASHER 8446 TO BE PLACED BETWEEN HEAT SINK AND CARD SURFACE.



B

CIRCUIT AND PACKAGING STANDARD		APPROVAL		DATE		HOLE PATTERN		
LIP		KMT		12-18-59		491329		
INTERNATIONAL BUSINESS MACHINES CORP.								
NAME	CARD ASM TSTR - ALLOY DRIVER RELAY 2.5 AMP	DATE	1-15-60	CHANGE NO.	108034	APPROVAL	NOTE XVI	
DESIGN	CB 1-4-60	MODEL	SMS	DATE	8-30-60	CHANGE NO.	108999	
DETAIL	CB 1-4-60	SCALE	NONE	DATE	6-21-61	CHANGE NO.	111824	
CHECK	HDA 1-5-62	DRAW	VE 1-2-62	DATE	4-25-62	CHANGE NO.	113674	
APPRO	BES 1-11-60	CHECK	WJW 1-3-62	DATE		CHANGE NO.		
							DEVELOPMENT NO.	2547-0648
								371880

370452

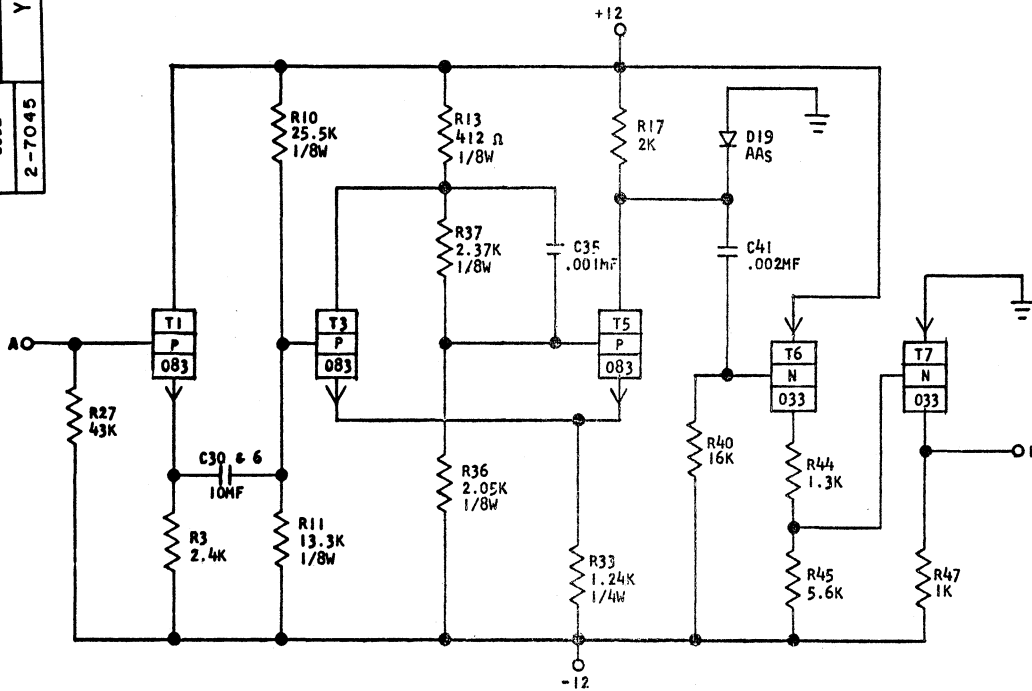
Y A W -

STANDARDS CODE

2-7045

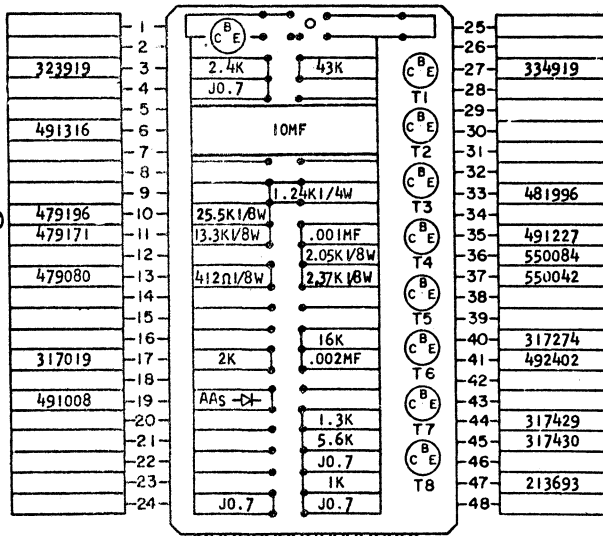
A.C. PHOTO AMPLIFIER

370452



NOTES

- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 892452
- XI ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED (AS NOTES XIV, XV)
- XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER 491296
- XIV ALL 1/8 WATT RESISTORS ±1%
- XV ALL 1/4 WATT RESISTORS ±1%



COMPONENT SIDE

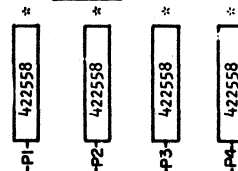
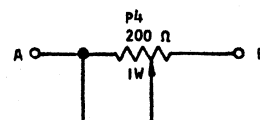
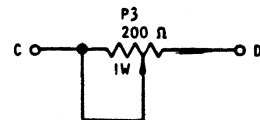
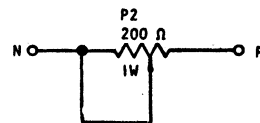
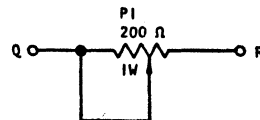
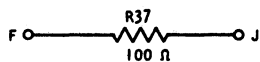
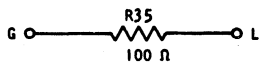
B

CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE
K M T	1-11-61

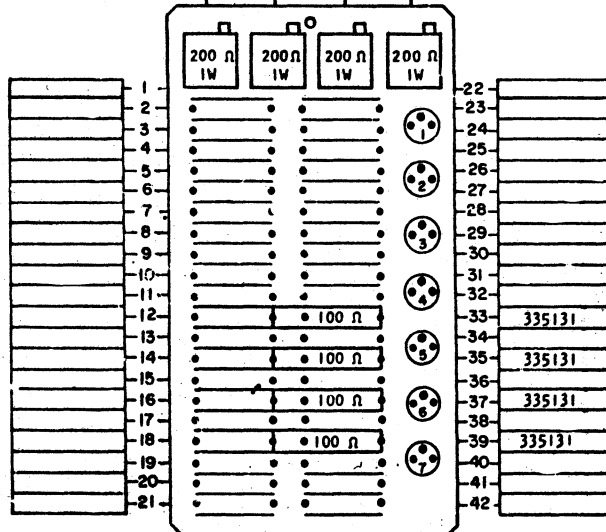
INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME				1-31-61	111068	JWB				2547-1371
CARD ASM TSTR - A.C. PHOTO AMPLIFIER										370452
DESIGN	DAS 11-7-60	TYPE	SMS 7330							
DETAIL	DAS 11-9-60	SCALE	NONE							
CHECK	TPA 11-15-60	DRAW	MDE 1-23-61							
APPRO	CHS 1-31-61	CHECK	WJP 1-24-61							

WRITE CURRENT BALANCE

STANDARDS CODE  
370668  
2-7045  
Y E U -



- NOTES
- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION
  - XI ASSEMBLE TO ENGINEERING SPECIFICATION 89538J AND 891999
  - XII ALL RESISTORS ARE 1 WATT AND ±5% UNLESS OTHERWISE NOTED
  - \* XIII ASSEMBLE POTENTIOMETER 422558 WITH JEDEC PAD 491299
  - \* XIV POTENTIOMETER 422558 NOT TO BE SUBJECTED TO ANY LIQUIDS



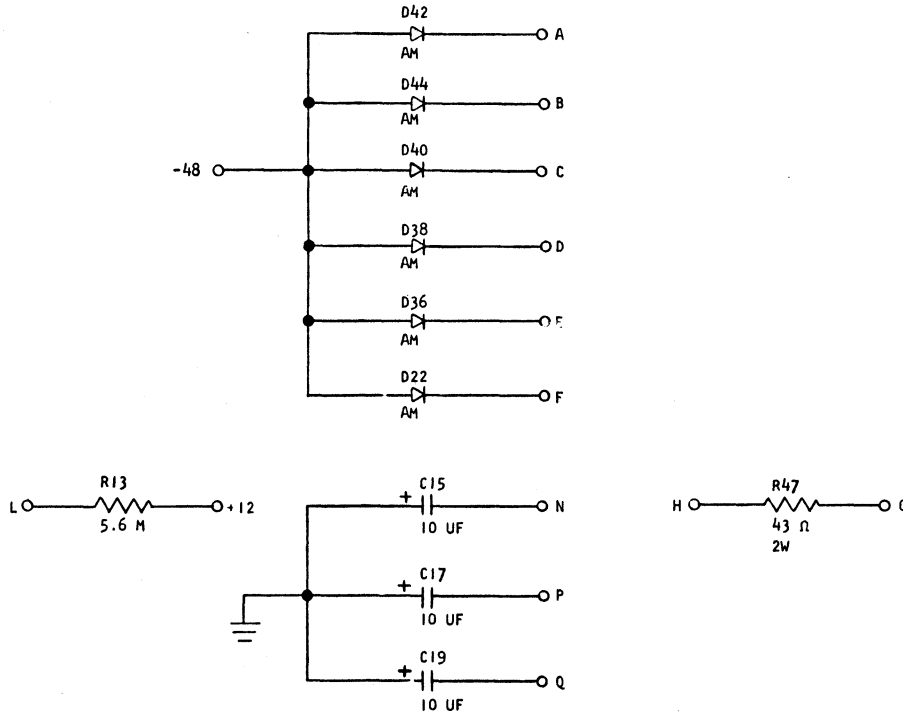
B

CIRCUIT AND PACKAGING STANDARD		DATE		HOLE PATTERN		COMPONENT SIDE					
APPROVAL		DATE		493474							
KMT		7-13-61									
INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.	370668
NAME CARD ASM TSTR-				8-28-61	112416	JWB				2547-1653	
WRITE CURRENT BALANCE											
DESIGN	TPA	7-12-61	MODEL	SMS 729	Y						
DETAIL	TPA	7-12-61	SCALE	NONE							
CHECK	DAS	7-13-61	DRAW	VE	8-11-61						
APPRO	NS	8-25-61	CHECK	WJF	8-11-61						

370701

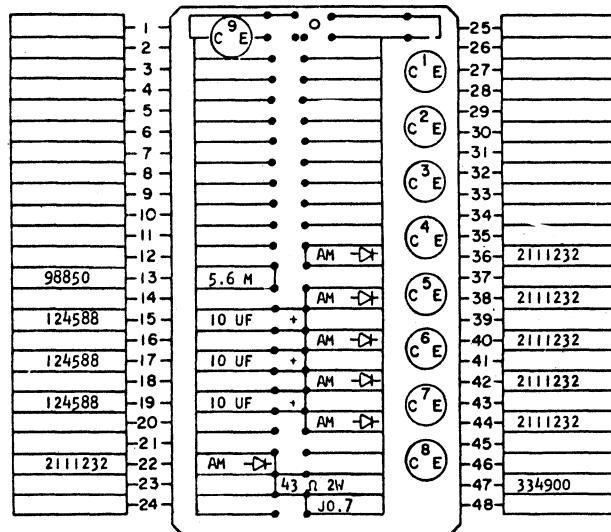
STANDARDS CODE  
2-7045  
370701  
Y H M

RESISTOR AND SUPPRESSOR



NOTES

- I CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION
- II ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
- XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER 491296



B

CIRCUIT AND PACKAGING STANDARD		HOLE PATTERN		INTERNATIONAL BUSINESS MACHINES CORP.				370701	
APPROVAL	DATE	493457		NAME	DATE	CHANGE NO.	APPROVAL		DEVELOPMENT NO.
KMT	8-1-61			CARD ASM TSTR-RESISTOR AND SUPPRESSOR	8-10-61	112426	<i>QWB</i>		2547-1659
DESIGN	TPA 8-1-61	TYPE	SMS729IIIIV	CHECK	AY 8-8-61	DRAW	MDE 8-3-61		
DETAIL	TPA 8-1-61	SCALE	NONE	APPRO	HS 8-9-61	CHECK	QFM 8-7-61		



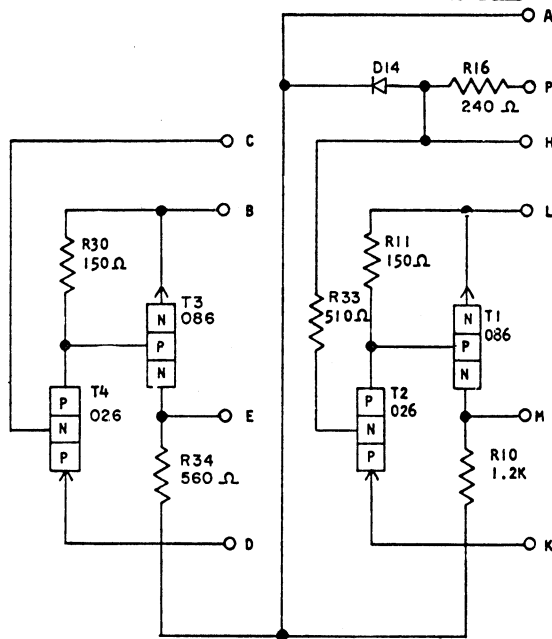
# AMPLIFIER - ERROR VOLTAGE - NEGATIVE

MOUNT ON 1 INCH CENTERS NCTE ~~XX~~

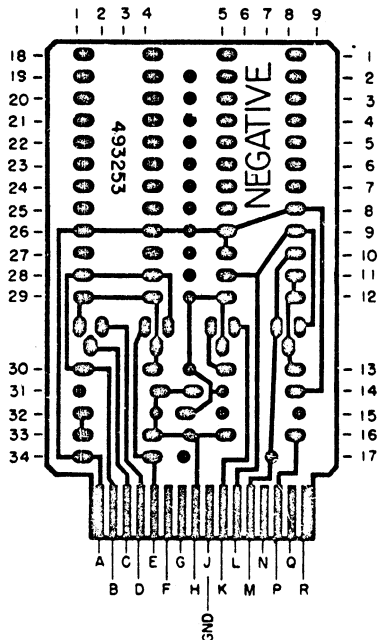
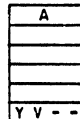
371921

371921

STANDARDS  
CODE  
2-7045



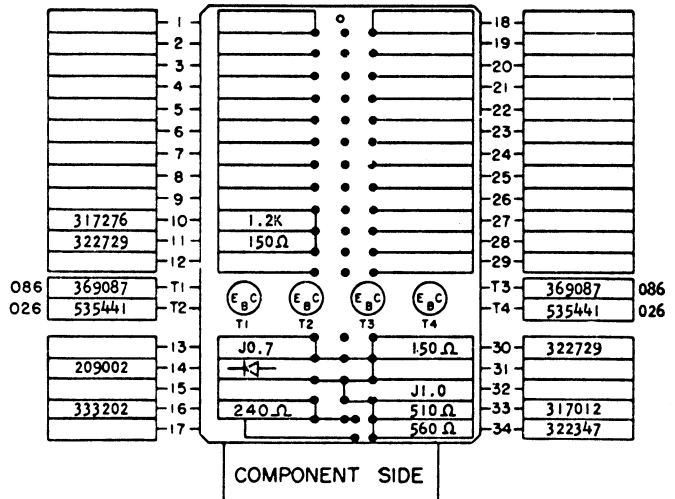
- A - D.C. COMMON
- B - LOAD SIDE OF C.B. FOR (-6)
- C - (-6) REFERENCE
- D - VOLTAGE DIVIDER FOR (-6) LEVEL
- E - BASE OF Q22 (-6)
- H - VOLTAGE DIVIDER FOR (-6) REFERENCE
- K - VOLTAGE DIVIDER FOR (-12) LEVEL
- L - LOAD SIDE OF C.B. (-12) (OR COLLECTOR OF Q22)
- M - BASE OF Q22 (-12)
- P - LINE SIDE OF C.B.



**B**

WIRING SIDE

CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
LIP KMT	2-18-60



**NOTES**

- X TEST TO ENGINEERING SPECIFICATION 891921
- XI ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- XII 491299-ASSEMBLE WITH JEDEC TRANSISTOR
- XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296
- XIV ALL RESISTORS ARE 1/2 WATT AND ± 5% UNLESS OTHERWISE NOTED
- XV THE MAXIMUM HEIGHT THE COMPONENTS MAY PROJECT ABOVE THE SURFACE OF THE CARD WILL BE .850

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR-AMPLIFIER	3-15-60	108551	NGJ				2547-0843
DESIGN	PPH 2-11-60							
DETAIL	PPH 2-15-60							
CHECK	CJB 3-10-60							
APPRO	BES 3-15-60							

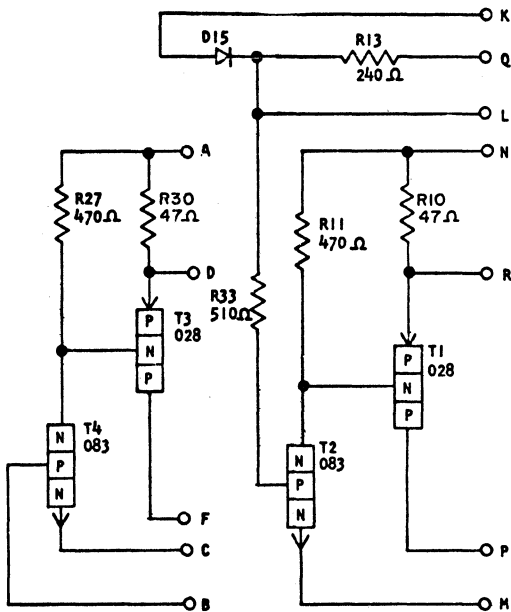
371921

371920

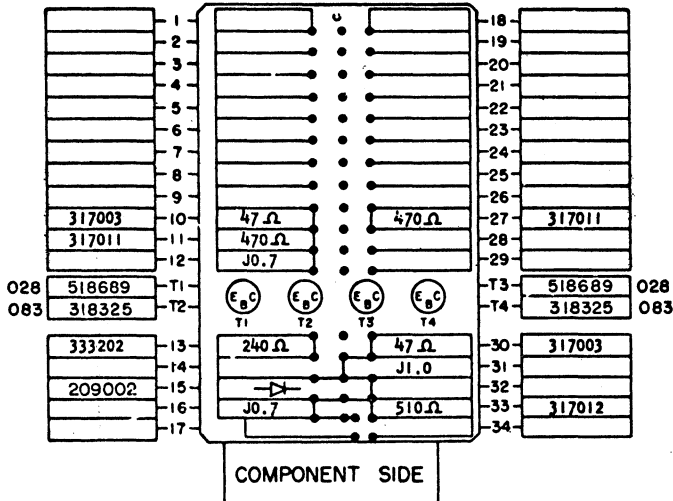
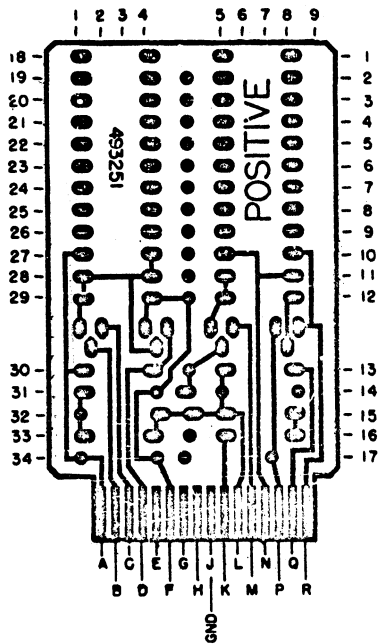
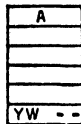
STANDARDS CODE  
2-7045

AMPLIFIER - ERROR VOLTAGE, POSITIVE  
MOUNT ON 1 INCH CENTERS NOTE XX

371920



- A - EMITTER OF 022 (+6)
- B - REFERENCE FOR (+6)
- C - VOLTAGE DIVIDER FOR (+6)
- D - BASE OF 022 (+6)
- F - COLLECTOR OF 022 (+6)
- K - D.C. COMMON
- L - VOLTAGE DIVIDER FOR (+6) REFERENCE
- M - VOLTAGE DIVIDER FOR (+12)
- N - EMITTER OF 022 (+12)
- P - COLLECTOR OF 022 (+12)
- Q - LINE SIDE OF C.B (+12)
- R - BASE OF 022 (+12)



- NOTES
- X TEST TO ENGINEERING SPECIFICATION 891920
  - XX ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - XXI 491299-ASSEMBLE WITH JEDEC TRANSISTOR
  - XXII "J" IN BLOCK DENOTES JUMPER, 491296
  - XXIII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - XXIV THE MAXIMUM HEIGHT THE COMPONENTS MAY PROJECT ABOVE THE SURFACE OF THE CARD WILL BE .650

B

WIRING SIDE

CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
LIP	2-18-60
KMT	

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM. TSTR-AMPLIFIER	3-15-60	108551	NGJ				2547-0842
ERROR VOLTAGE, POSITIVE	3-25-60	REDRAWN					
DESIGN PPH 2-11-60 MODEL SMS 729	3-29-60	D108613	NGJ				
DETAIL PPH 2-11-60 SCALE NONE							
CHECK CJB 3-10-60 DRAW YE 3-25-60							
APPRO BES 3-15-60 CHECK p/p 3-25-60							

371920

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LOGIC NO.	DESCRIPTION	PART NO	ENG CHG
SYSTEM DIAGRAMS			
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0.01.00	INDEX 729	0530033	246414
0.01.01	TAPE DRIVE	0530034	244313A
0.02.01	T/C CONN RECEPTACLE	0530035	244313A
0.02.02	TAPE SIGNAL TERMINATOR	0535311	250249
0.03.01	TAPE PWR CONN	0530036	244313A
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0.06.01	LOC CHTS	0530040	247614
0.06.01	LOC CHTS	0530041	248593
0.07.01	CARD FRAME	0530042	249224
0.08.01	NEON PANEL	0530043	247602B
0.10.01	LOGIC PAGE	0530928	244879B
0.11.01	RELAY GATE & BLOWERS	0526510	248161
0.12.01	AC RACEWAY	0530930	244879B
0.13.01	POWER TRANSISTOR PANEL	0526511	248710
0.15.01	VOLTAGE BUSS	0526208	245849
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1.05.01	TAPE INDICATE	0529268	248991
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2.02.02	TAPE DRIVE	0526277	248692
2.03.01	CLUTCH & VACUUM CONTROL	0352603	248593
2.04.01	MOTOR CIRC	0530048	248697
2.05.01	LOGIC PANEL	0530049	248593
2.06.01	GROUND SYS	0530050	248593
2.07.01	VOLT DIST	0530051	248713A
2.08.01	VOLT DIST	0530052	247614
3.04.01	& -6V & -12V CARD WIRING	0316158	247455
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3.06.01	-48V -7.5V & 140 & 62V SUPPLY	0316160	247455
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3.09.01	COMPONENTS	0316172	247455
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0.AA.01	PWR RELAY PWR LIGHT DRIVER	0528618	248314
0.AA.02	PWR PROLAY DRIVER	0528619	248314
PLUGGABLE UNIT OR CARD DIAGRAMS			
VOLUME 2			
AAZU	ALLOY-TWO WAY N BLOCK	0371206	000000
AAZW	ALLOY-ONE WAY N BLOCK	0371204	000000
ABK	ALLOY PRE AMP NO 2	0371926	000000
ABZU	ALLOY-TWO WAY P BLOCK	0371215	000000
ABZV	ALLOY-TWO WAY P BLOCK	0371214	000000
ABZW	ALLOY-TWO WAY P BLOCK	0371213	000000
ACYZ	ALLOY THREE WAY N BLOCK	0371219	000000
ACZA	ALLOY-THREE WAY N BLOCK	0371218	000000
ADYY	ALLOY 3 WAY P BLOCK OUT PH LOAD	0371230	000000
ADYZ	ALLOY THREE WAY P BLOCK	0371229	000000
ADZA	ALLOY-THREE WAY P BLOCK	0371228	000000
AEWY	ALLOY-COMPLEMENTED EMITTER N LINE	0371238	000000
AFA	ALLOY PRE AMP NO 1 MAGNETIC TAPE	0371925	000000
AMZX	ALLOY ONE WAY N BLOCK	0371202	000000
AMZY	ALLOY-ONE WAY N BLOCK	0371201	000000
AMZZ	ALLOY-ONE WAY N BLOCK	0371200	000000
ANZX	ALLOY-ONE WAY P BLOCK	0371211	000000
ANZZ	ALLOY-ONE WAY P BLOCK	0371209	000000
AP	ALLOY VM CS CONVERTER	0371030	000000
AQ	ALLOY CS VM CONVERTER	0371031	000000
AR	ALLOY TRIGGER #1	0371034	000000
AV	ALLOY GATED SAMPLE PULSE DRIVER 1	0371038	000000
AX	ALLOY TIMING CARD #2 SINGLE SHOT	0371040	000000
AYWS	ALLOY GATED SAMPLE DRIVER 2	0371041	000000
BD	ALLOY GATED SAMPLE PULSE DRIVER	0371417	000000
BGWC	ALLOY-INTERGRATOR	0371428	000000
BGWD	ALLOY-INTERGRATOR	0371427	000000
BH	ALLOY EOR PHOTO SENSE	0371431	000000
BJ	ALLOY DELAY LINE LUMPED	0371432	000000
BKVX	ALLOY DRIVERS	0371435	000000
BKVV	ALLOY DRIVERS	0371434	000000
BKVZ	ALLOY DRIVERS	0371433	000000
BN	ALLOY LOAD POINT PHOTOSENER	0371438	000000
BP	ALLOY DELAY LINE DISTRIBUTED	0371439	000000
BS	ALLOY NEON DRIVER	0371442	000000
CE	CTRL EMITTER FOLLOWER PNP	0371032	000000
LQ	ALLOY DRIVER 48V LIGHT & RELAY	0371499	000000
LZ	ALLOY	0371674	000000
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530032

MAGNETIC TAPE UNIT - TYPE 729 II & IV  
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NOT MANUAL LOAD REWIND - LINE	02.01.1	(4B)
NOT REWIND STATUS - LINE	02.01.1	(3B)
PICK LOAD POINT TRIGGER	01.06.1	
POWER PLUG - PAGE	00.03.1	
PROLAY COILS	01.08.1	
PROLAY DRIVE LOGIC - PAGE	01.08.1	
READ BUS - LINE	01.03.1	
READ HEAD	01.03.1	
READ PREAMP - PAGE	01.03.1	
READ STATUS, -P LINE	01.02.1	
READ TRIGGER	01.02.1	
READ TRIGGER SET - LINE	02.01.1	(2B)
READ - WRITE STATUS - PAGE	01.02.1	
READY LIGHT	02.01.1	(2B)
REEL RELEASE - PUSH BUTTON	02.03.1	(2F)

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	MAGNETIC TAPE UNIT	3-31-59	244313A			X PRINT TO ENG. SPEC. NO. 895291	530032
	INDEX	10-26-59	246414				
DESIGN	MODEL 729 II & IV	2-2-60	245843			DWG. SIZE - B	00.01.0
DETAIL	GT 2-14-59	8-10-60	247249				
CHECK	1/5 3-9-59	7-19-61	249230				
APPRO	LD 3-9-59						

530033

00.01.0

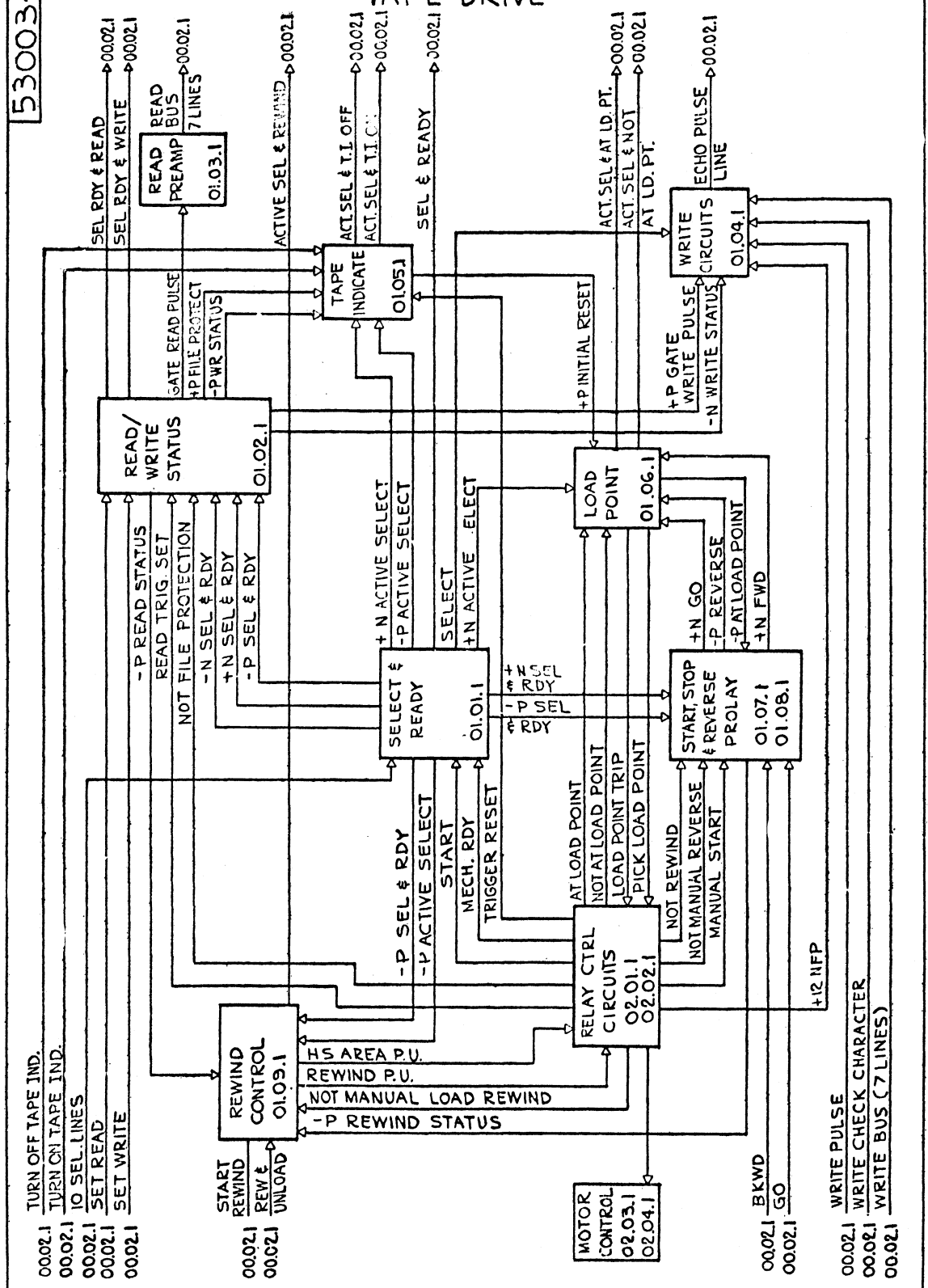
Sheet 2 of 2

RELAY CIRCUITS - PAGE	02.01.1	02.02.1	02.02.2
RELAY LOCATION CHART	00.06.1		
RESET - PUSH BUTTON	02.01.1	(3A)	
REVERSE, -P LINE	01.07.1		
REWIND - PAGE	01.09.1		
REWIND P.U. - LINE	01.09.1		
REWIND STATUS -P LINE	01.07.1		
REWIND UNLOAD P. U. - LINE	01.09.1		
SELECT - LINE	01.01.1		
SELECT AND READY, + N LINE	01.01.1		
SELECT AND READY, -N LINE	01.01.1		
SELECT AND READY, -P LINE	01.01.1		
SELECT AND READY, -LINE	01.01.1		
SELECT AND REWIND - LINE	01.09.1		
SELECT LIGHT	01.01.1		
SELECT READY - PAGE	01.01.1		
SELECT, READY AND READ - LINE	01.02.1		
SELECT, READY AND WRITE - LINE	01.02.1		
SET READ - LINE	01.02.1		
SET WRITE - LINE	01.02.1		
START - LINE	02.01.1	(3B)	
START - PUSH BUTTON	02.01.1	(3A)	
START REWIND - LINE	01.09.1		
START REWIND - UNLOAD- LINE	01.09.1		
START, STOP AND REVERSE CONTROL - PAGE	01.07.1		
STOP, + N LINE	01.07.1		
T/C CONNECTOR RECEPTACLE - PAGE	00.02.1		
TAPE BREAK LAMP	02.02.1	(4D)	
TAPE BREAK PHOTO CELL	01.06.1		
TAPE DRIVE - PAGE	00.01.1		
TAPE IN COLUMN SWITCH - LEFT	02.02.1	(3C)	
TAPE IN COLUMN SWITCH - RIGHT	02.02.1	(3C)	
TAPE INDICATE PAGE	01.05.1		
TAPE INDICATE LAMP	02.02.1	(4D)	
TAPE INDICATE LIGHT	01.05.1		
TAPE INDICATE PHOTO CELL	01.05.1		
TAPE INDICATE TRIGGER	01.05.1		
TAPE OUT OF BOTH COLUMNS - LINE	02.02.1	(2D)	
TIME DELAY SWITCH	02.02.1	(2D)	
TRIGGER RESET - LINE	02.02.1	(3D)	
TRIGGER RESET, + P LINE	01.05.1		
TURN OFF T.I. - LINE	01.05.1		
TURN ON T.I. -LINE	01.05.1		
UNLOAD - PUSH BUTTON	02.01.1	(4A)	
VACUUM COLUMN SWITCHES	02.03.1		
VOLTAGE DISTRIBUTION (-48V) -PAGE	02.05.1		
VOLTAGE DISTRIBUTION (+ 12,+6, -6, -12) -PAGE	02.07.1		
VOLTAGE DISTRIBUTION (-7.5,+62, +140F, +140) - PAGE	02.08.1		
WRITE AMPLIFIER - PAGE	01.04.1		
WRITE BUS - LINE	01.04.1		
WRITE CHECK CHARACTER - LINE	01.04.1		
WRITE HEAD	01.04.1		
WRITE PULSE - LINE	01.04.1		
WRITE STATUS, + P LINE	01.02.1		
WRITE STATUS, -P LINE	01.02.1		

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME MAGNETIC TAPE UNIT		3-31-59	244313 A			X PRINT TO ENG. SPEC. NO. 895291	530033
INDEX		10-26-59	246414				
DESIGN	MODEL 729 II & IV	7-19-61	249230				
DETAIL	GT. 2-14-59					DWG. SIZE - B	
CHECK	HS 3-9-59	DRAW					00.01.0
APPRO	LD 5-9-59	CHECK					

530034

00.01.1



INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE X PRINT TO ENG. SPEC. NO. 895291	DEVELOPMENT NO.	530034
NAME SYSTEMS DIAGRAM 00.01.1		3-31-59	249313A					
DESIGN		10-13-59	246200			DWG. SIZE - B	00.01.1	530034
DETAIL	G.T. 2-14-59	7-19-61	249230					
CHECK	Z/S 3-9-59 DRAW							
APPRO	Y/D 3-9-59 CHECK							

00.02.1

530035

DISCONTINUED  
MASTER

T/C CONNECTOR RECEPTACLE

15	SHIELD	SET READ STATUS	SHIELD	SET WRITE STATUS	SHIELD	START REWIND	8 SHIELD	BKWD	SHIELD	GO	SHIELD	TURN OFF T.I.	SHIELD	TURN ON T.I.	
30	SEL & NOT AT LD. PT.	SHIELD	SEL & AT LD. PT.	SHIELD	SEL & T.I. OFF	SHIELD	23 SEL & T.I. ON	SHIELD	SEL & RDY MOD IV	SHIELD	SPARE	SHIELD	SPARE	16 SHIELD	
45	SHIELD	SET LO-DENSITY	SHIELD	SET HI-DENSITY	SHIELD	REWIND & UNLOAD	38 SHIELD	SEL & REWIND	SHIELD	SEL RDY & WRITE	SHIELD	SEL RDY & READ	SHIELD	31 SEL & RDY MOD II	
60							53						HI-DENSITY LO-DENSITY	46 SHIELD	
75							68							61	
85 SHIELD	READ BUS 2	SHIELD	READ BUS 1	81								80 SEL T.U. 1	SHIELD	SEL T.U. 0	76 SHIELD
95 READ BUS B	SHIELD	READ BUS 4	SHIELD	91								90 SHIELD	SEL T.U. 3	SHIELD	86 SEL T.U. 2
105 SHIELD	READ BUS B	SHIELD	READ BUS A	101								100 SEL T.U. 5	SHIELD	SEL T.U. 4	96 SHIELD
115 SPARE	SHIELD	READ BUS C	SHIELD	111								110 SHIELD	SEL T.U. 7	SHIELD	106 SEL T.U. 6
125 SHIELD	SPARE	SHIELD	SPARE	121								120 SEL T.U. 9	SHIELD	SEL T.U. 8	116 SHIELD
140 -6V							133	+6V							126
155							148								141
170 -12V							163	GND							156
185	WRITE BUS C	SHIELD	WRITE BUS B	SHIELD	WRITE BUS A	SHIELD	178 WRITE BUS B	SHIELD	WRITE BUS 4	SHIELD	WRITE BUS 2	SHIELD	WRITE BUS 1	171 SHIELD	
200			SHIELD	WRITE PULSE	SHIELD	WRITE CHECK CHAR	193 SHIELD	WRITE ECHO PULSE	SHIELD	SPARE	SHIELD	SPARE	187 SHIELD	SPARE	

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		3-31-59	244313A	10-17-60	245848B	X PRINT TO ENG. SPEC. NO. 895291 DWG. SIZE - B	530035
00.02.1		7-10-59	246016	7-19-61	249230		
DESIGN	MODEL 729 II & IV	10-26-59	246414				
DETAIL	G.T. 2-13-59	2-2-60	245843				
CHECK	NS 3-9-59	8-10-60	247249				
APPROV	YLS 5-9-59					00.02.1	



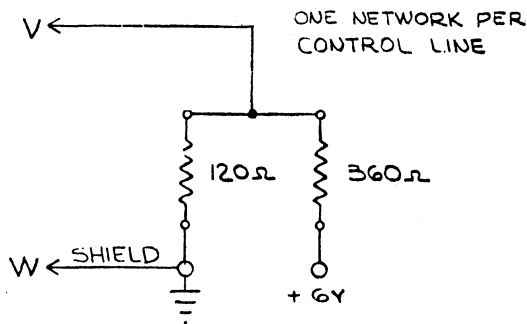
535311

00.02.2

# TAPE SIGNAL TERMINATOR

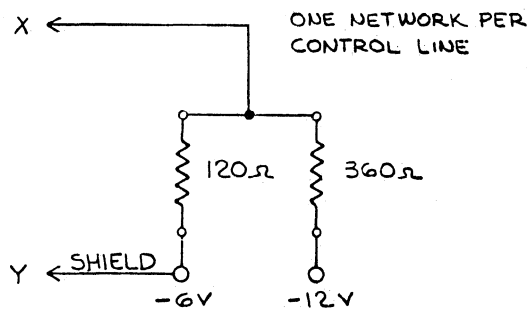
V	W
T/C 1	T/C 2
7	8
9	10
11	12
17	16
19	18
43	44
172	171
174	173
176	175
178	177
180	179
182	181
184	183
194	195
196	197

### "N" LINE COUPLING NETWORK



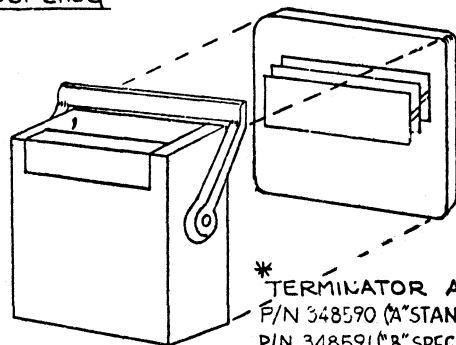
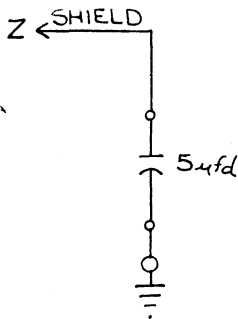
X	Y
T/C 3	T/C 4
5	6
13	14
39	40
41	42
77	76
79	78
86	87
88	89
97	96
99	98
106	107
108	109
117	116
119	118

### "P" LINE COUPLING NETWORK



### RESPONSE LINE DECOUPLING

Z
T/C 20
22
24
26
28
32
34
36
38
46
52
54
56
58
68
70
72
74
193



\* TERMINATOR ASM.  
P/N 348590 (A"STANDARD")  
P/N 348591 (B" SPECIAL)

ONE DECOUPLING CAPACITOR \* CONNECTED TO UNUSED TAPE UNIT  
PER RESPONSE LINE. SIGNAL CONNECTOR

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	4-5-60	247124			X PRINT TO ENG. SPEC. NO. 895291	00.02.2
	00.02.2						
DESIGN	WB 1-27-60 MODEL 729II4IV	8-30-60	247963				
DETAIL	NS 1-27-60	7-19-61	249230				
CHECK	NS 1-27-60 DRAW	11-30-61	250249				
APPROV	NS 3-1-60 CHECK						

535311

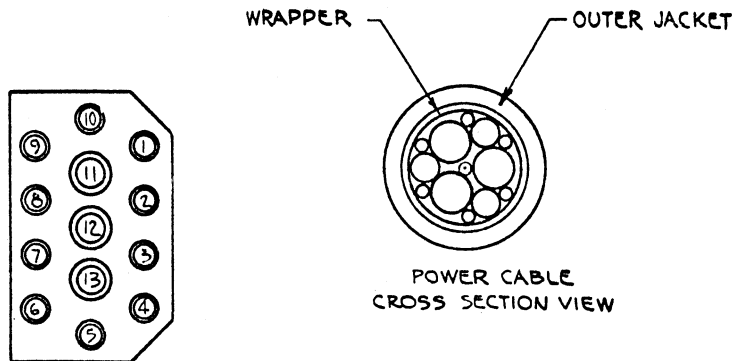
530036

00.03.1

TAPE POWER CONNECTORS

POWER PLUG PIN ASSIGNMENTS				
PIN NO.	TAPE UNIT VOLTAGE OR CONTROL	POWER CABLE		SYSTEMS PAGE
		WIRE SIZE	TYPE	
1	AC OUTLET - 115 VOLTS	14	AC	02.04.1
2	AC OUTLET - 115 VOLTS	14	AC	02.04.1
3	BOND	14		02.04.1
4	SPARE	18		
5	MODEL II & IV RESET - 208 VOLTS	18	AC	02.04.1
6	SPARE	18		
7	SPARE	18		
8	SPARE	18		
9	SPARE	18		
10	MODEL II & IV RESET - 208 VOLTS	18	AC	02.04.1
11	UNREG AC $\phi$ 1	10	AC	02.04.1
12	UNREG AC $\phi$ 2	10	AC	02.04.1
13	UNREG AC $\phi$ 3	10	AC	02.04.1

POWER PLUG PIN ASSIGNMENTS



PIN LAYOUT - POWER PLUG - MALE

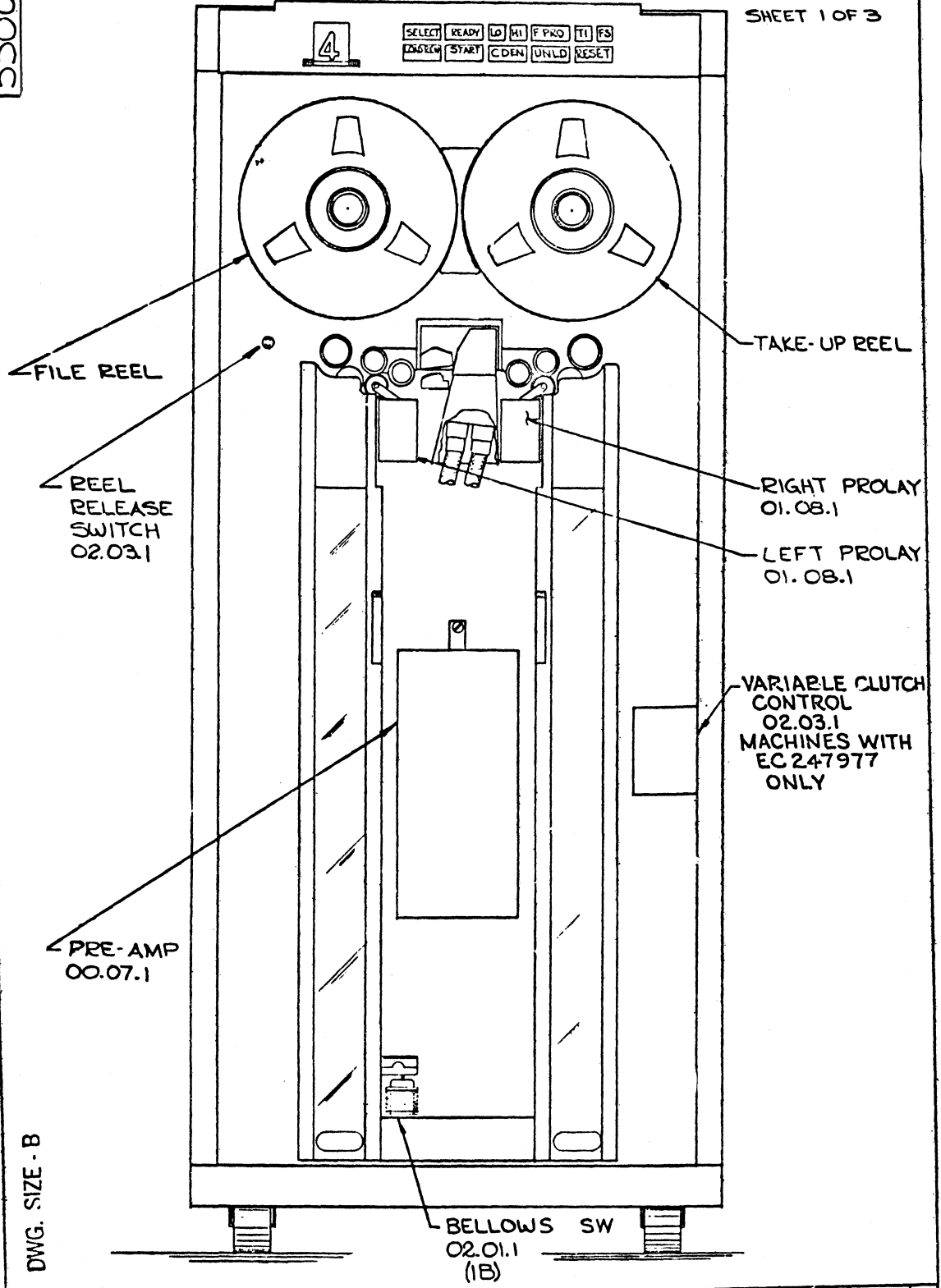
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		3-31-59	244313A			X PRINT TO ENG. SPEC. NO. 895291	530036
00.03.1		2-2-60	245843				
DESIGN		MODEL 729 II & IV	7-19-61	249230		DWG. SIZE - B	00.03.1
DETAIL	G.T. 2-14-59						
CHECK	W.S. 3-9-59	DRAW					
APPRO	W.B. 3-4-59	CHECK					

530037

# ASSEMBLY LOCATION FRONT

00.04.1

SHEET 1 OF 3



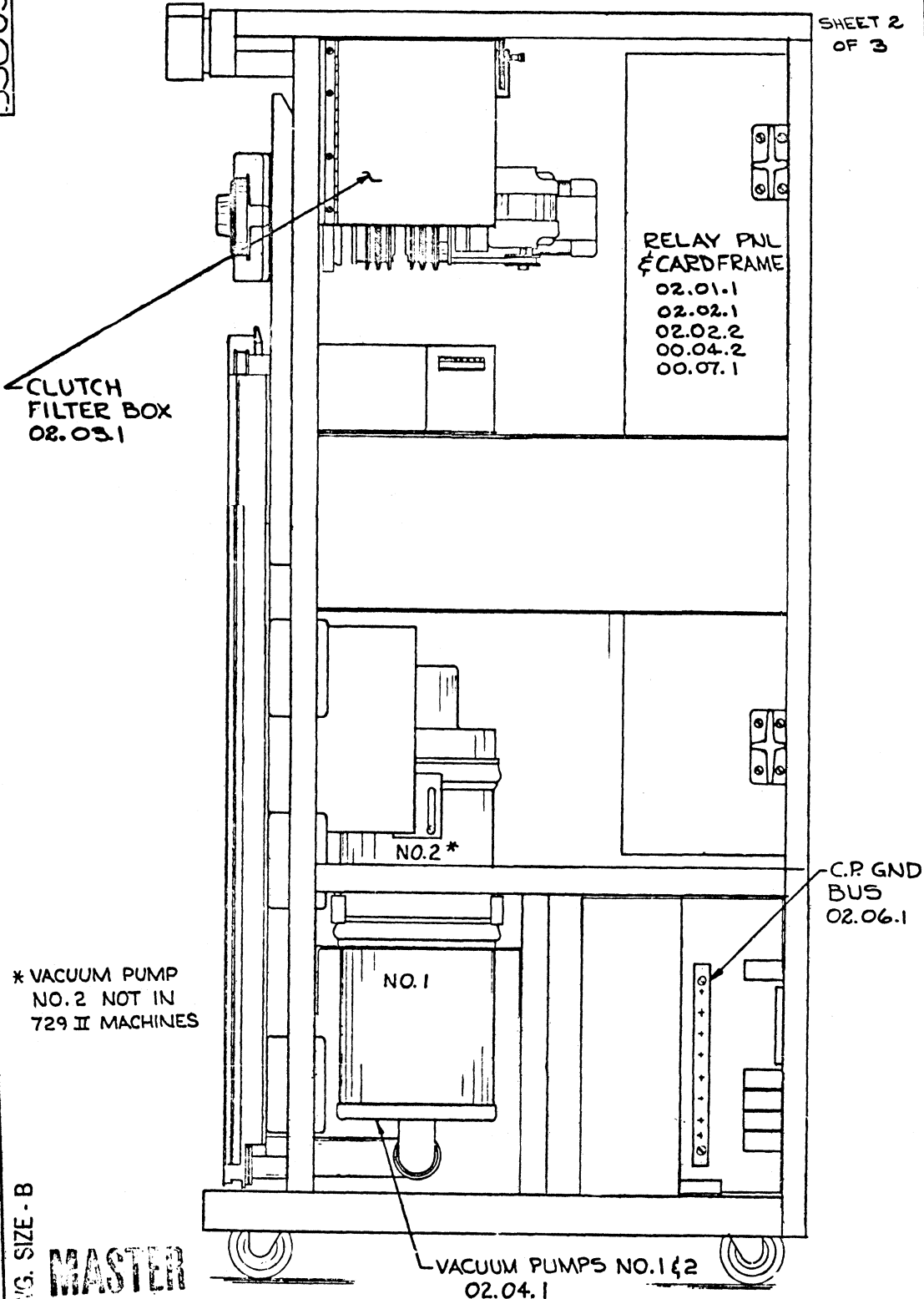
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE X PRINT TO ENG. SPEC. NO. 895291	DEVELOPMENT NO. 530037
NAME	SYSTEM DIAGRAM	3-19-59	244313-A	12-19-60	247977		
	00.04.1	11-28-59	246413	5-26-61	249229		
DESIGN	MODEL 729II & IV	2-2-60	245843	7-6-61	249244		
DETAIL	GT 2-14-59	5-19-60	247454-A	7-19-61	249730		
CHECK	NS 3-9-59 DRAW	8-10-60	247249				
APPRO	WB 3-9-59 CHECK						

530037

ASSEMBLY LOCATION, RIGHT SIDE

00.04.1

SHEET 2  
OF 3



ENG. SIZE - B  
**MASTER**

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		3-13-59	244313-A	12-19-60	247977	X PRINT TO ENG. SPEC. NO. 895291	530037
00.04.1		11-28-59	246413	5-26-61	249229		
DESIGN	MODEL 729 II & IV	2-2-60	245843	7-6-61	249244		
DETAIL GT	2-14-59	5-19-60	247454-A	7-14-61	249230		
CHECK NS	3-9-59	8-10-60	247249				
APPRO WB	3-9-59	CHECK				00.04.1	

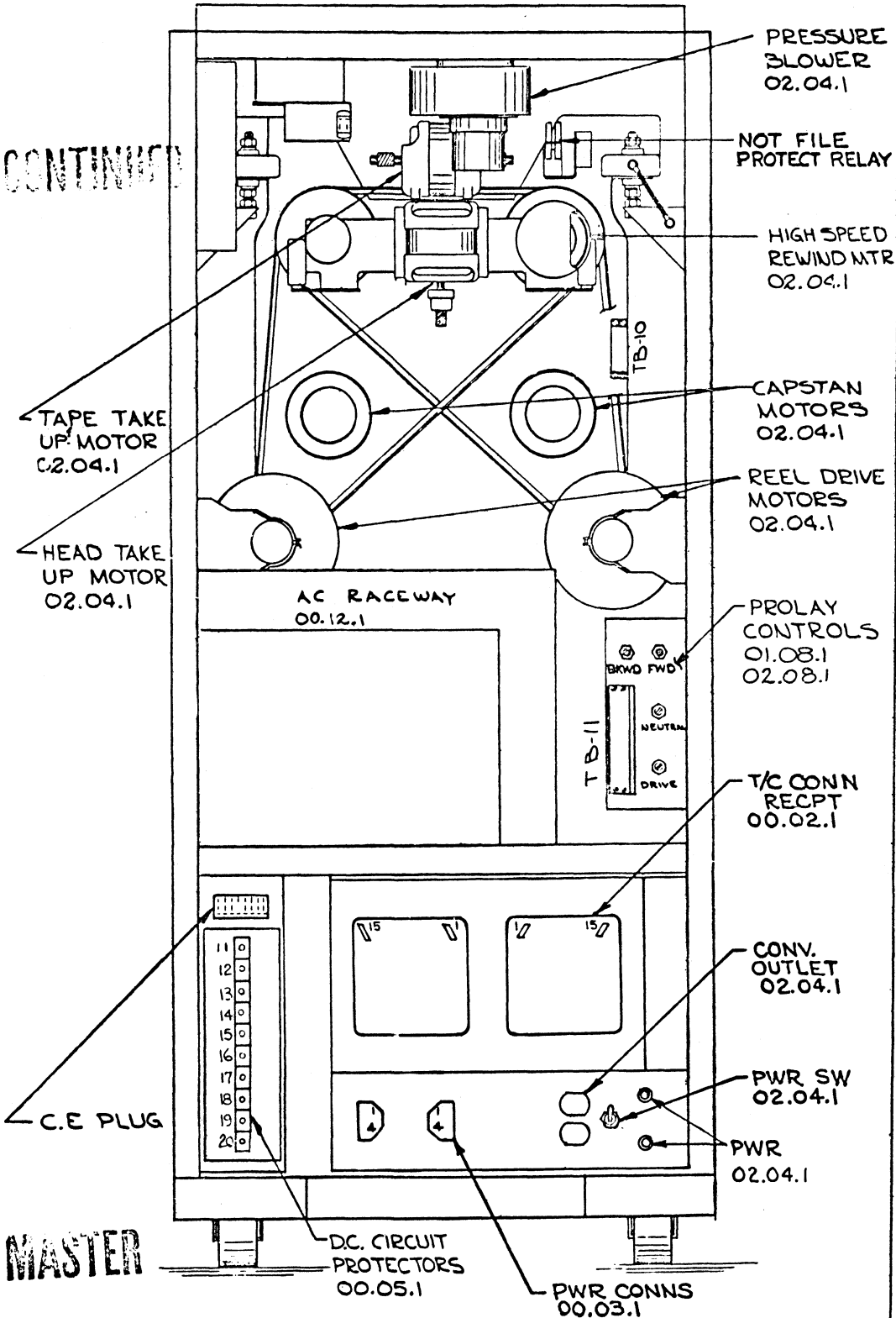
530037

# ASSEMBLY LOCATION, REAR

00.04.1

SHEET 3 OF 3

DISCONTINUED



DWG. SIZE - B

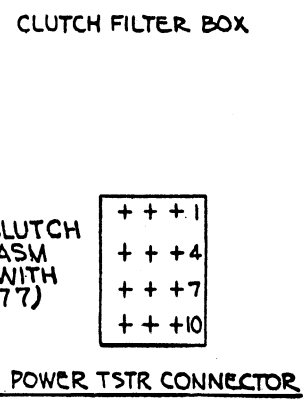
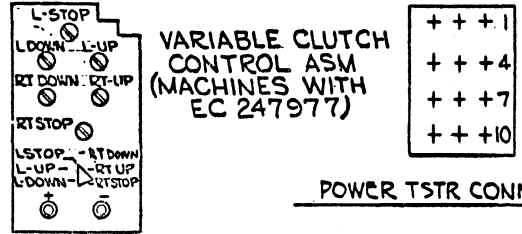
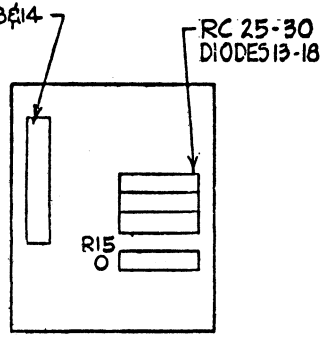
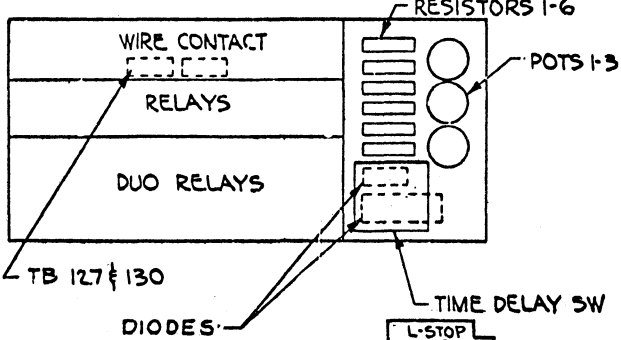
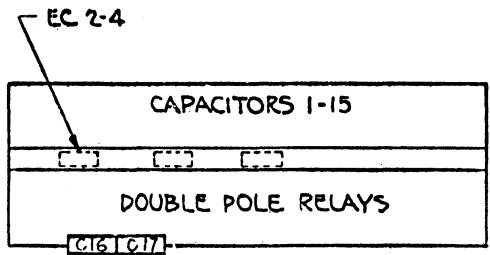
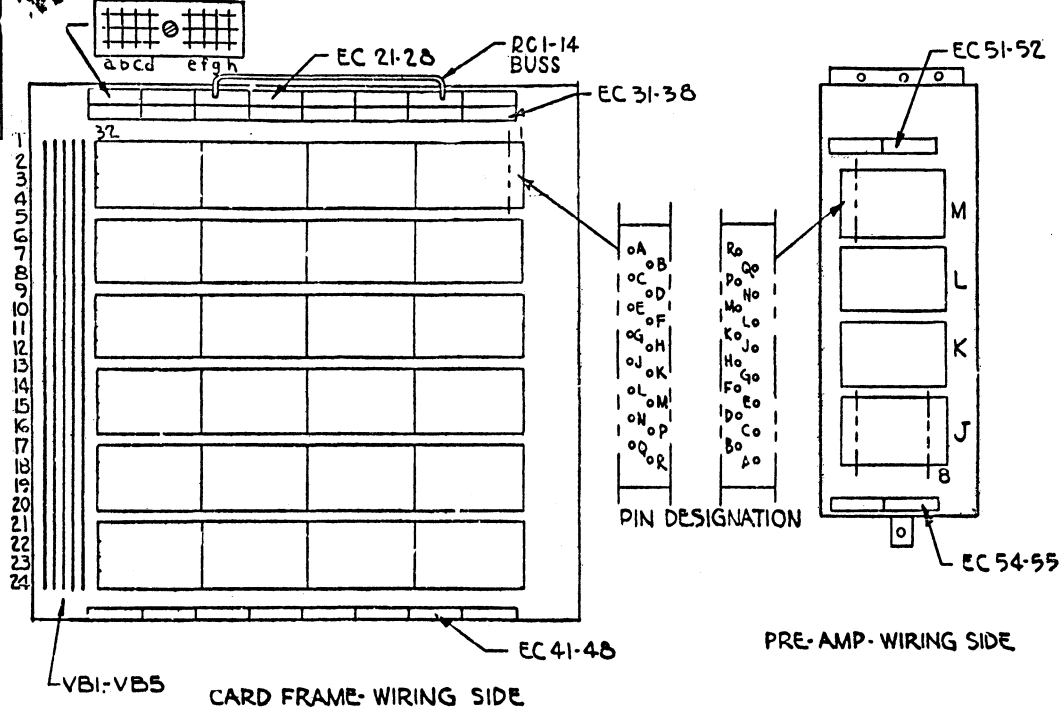
MASTER

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE X PRINT TO ENG. SPEC. NO. 89529)	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM 00.04.1	3-13-59	244313-A	12-19-60	247977		
DESIGN		11-28-59	246413	5-26-61	249229		
DETAIL	GT 2-14-59	2-2-60	245843	7-6-61	249244		
CHECK	NS 3-9-59 DRAW	5-17-60	247454-A	7-19-61	249230		
APPRO	VJB 3-9-59 CHECK	8-10-60	247249				00.04.1

530038

COMPONENT LOCATION

00.04.2



INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		3-31-59	244313A	12-10-60	247977	X PRINT TO ENG. SPEC. NO. 895291	530038
00.04.2		9-21-59	246204A	7-17-61	249230		
DESIGN	MODEL 729 II & III	2-3-60	246412	10-13-61	248593	DWG. SIZE - B	00.04.2
DETAIL	G.T. 2-14-59	6-29-60	247723				
CHECK	N.S. 3-8-59	12-1-60	248610				
APPRO	V.S. 3-9-59						

530039

# CIRCUIT PROTECTOR CHART

00.05.1

### AC. C.P.

C.P.#	VOLTAGE	CURRENT	FUNCTION	PART NO
1	208	7A	Ø 1 LINE	535296
2		4A	Ø 1 POWER SUPPLY	535295
3		8A	Ø 2 LINE	524179
4		7A	Ø 3 LINE	535296
5		2A	Ø 3 GATE BLOWER	535294
6		2A	Ø 3 VAC. PUMP & PRESS. BLOWER	
7		2A	Ø 2 GATE BLOWER	
8		2A	Ø 2 VAC. PUMP & PRESS. BLOWER	
9		2A	Ø 2 CAP TAKE UP	
10	208	2A	Ø 3 CAP TAKE UP	535294

### DC. C.P. MACHINES WITH PHASE I & II POWER SUPPLY

CP'S  
LOCATED  
IN POWER  
SUPPLY

C.P. NO.	VOLTAGE	CURRENT	WIRE COLOR	PART NO.
11	-48	2A	WHITE/ORANGE	535294
12	-12	3.5A	VIOLET	597450
13	-6	3.5A	BROWN	597450
14	+6	4.0A	ORANGE	597452
15	+12	3.5A	GRAY	597450
16	-7.5	20A	BLUE	535297
17	+62	0.5A	WHITE/BLACK	535290
18	+140F	0.5A	PINK	535290
19	+140	1A	RED	535292
20	-48SP	0.5A	WHITE/RED	535290

MACHINES  
WITH PHASE II

### D.C. C.P. MACHINES WITH PHASE III POWER SUPPLY

C.P. NO	VOLTAGE	CURRENT	WIRE COLOR	PART NO
11	-48	2.0	WHITE /ORANGE	535294
12	-12	3.5	VIOLET	597450
13	-6	3.5	BROWN	597450
14	+6	3.5	ORANGE	597450
15	+12	3.5	GRAY	597450
16	-7.5	20.0	BLUE	535297
17	+62	0.5	WHITE/BLACK	535290
18	+140F	0.5	PINK	535290
19	+140	1.0	RED	535292
20	-48SP	0.5	WHITE / RED	535290

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		3-31-59	244313A	7-19-61	249230	X PRINT TO ENG. SPEC. NO. 895291	530039
00.05.1		11-10-59	246406				
DESIGN	MODEL 729 II & III	5-19-60	247454-A			DWG. SIZE - B	00.05.1
DETAIL	ST 2-15-59	9-12-60	247455-B				
CHECK	MS 3-2-59 DRAW	12-21-60	248692				
APPRO	MS 5-9-59 CHECK						

530040

## LOCATION CHARTS

00.06.1

SHEET 1 OF 2

## WIRE CONTACT RELAYS

RELAY NO.	SIZE	TYPE	PART NO.	COILS		POINTS						NAME	NEON NO.
				PU	LT	1	2	3	4	5	6		
101	6	S	196197	4D		1A	3B	1C	4D	3A	2A	LOAD REW-2	3
102	6	S	196197	3D		2D	3A	2D	1A	3A		UNLOAD-2	39
104	6	S	196197	3B		1C	3B	3A	1A	2A	2D	REW STATUS-1	2
106	6	S	196197	3B		1K	3B	2B	4A	2A		START	
107	4	L	186685	4B	3B	2A	1B		1D			UNLOAD-1	40
109	4	L	186685	2D	1D	1C	4D	2A	4B			UNLOAD STOP-1	43
110	4	S	196207	4B		4A	4C	4C	1K			REMOVE INITIAL RESET	6
111	4	S	196207	4C		4D	1D	3A				REWIND P.U.	5
112	4	S	196207	2B		2A		2A	2A			NOT FILE PROTECT-2	
113	4	S	196207	2D		2F	2D					H.S. REW STATUS	25
114	6	S	196197	2D		4A	3E	2D				H.S. REW INTLK	24
116	4	L	186685	4C	4C	1C	4D	3B	3C			LOAD POINT	15
117	4	S	196207	3D		3B	4D	1D	2A			CAPSTANS OUT	16
119	4	S	196207	1D		3C						MAN. GO	20
120	4	S	196207	1B		4B	4D	4C	2C			CLUTCH STATUS-2	36
121	4	S	196207	4C		3A	1B	2D				H.S. REW AREA	26
122	4	S	196207	3D				2A	1C			UNLOAD-3	38
123	4	L	186685	4C	1D	3C	1C	2A				REW & UNLOAD	29
124	4	S	196207	4D			3A					CE. PLUG	27
125	4	L	186685	1J	2J	1J	1J	1J	2K			DEN STATUS-1	
126	4	L	186685	1J	1J	1J	1J	1J				DEN STATUS-2	
127	4	L	186685	1J	1J	2J	1J					DEN STATUS-3	

## DUO RELAYS

RELAY NO.	PART NO.	COIL P.U.	POINTS				NAME	NEON NO.
			AU	AL	BU	BL		
1	124843	1B	2A	3B	2E	2F	RUN	
2		1B	3C	2E	2F	4B	CLUTCH STATUS-1	37
3		4D		3B	3C	1B	LOAD REW-1	4
4		3B	1B	3D	4C	3A	H.S. REW END	1
5		3D	1A	1D	2C	2E	TAPE OUT LT. COL.	44
6		3D	1A	1C	2C	2F	TAPE OUT RT. COL.	44
7		4C		1B	4C	4C	PHOTO LAMP	13
8		1B	1G	1D	C		TIME DELAY MOTOR	12
9		3B		2E			REW STATUS-2	
NFP	124843	2B		2B		2A	NOT FILE PROTECT-1	

## DOUBLE POLE RELAYS

RELAY NO.	PART NO.	COIL P.U.	POINTS		NAME
			A	B	
DP1	223642	1B		1G	PHASE 1
DP2		1B	1H	1H	PHASE 2 & 3
DP3		3D	2H	2H	CAPSTAN MOTORS
DP4		1D	1H	1G	VACUUM MOTOR
DP5		2D	2G	2G	REWIND MOTOR
DP6		3D	2H	2H	TAPE TAKE-UP START
DP7		3B	2H	2H	TAPE TAKE-UP REVERSE
DP8	223642	2D	2H	2H	HEAD TAKE-UP MTR

## CONTACTOR

NO.	PART NO.	LOC.	NAME
K1	369224	02.04.1	POWER ON

DWG. SIZE - B

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	4-28-59	244313B	6-29-60	247723	X PRINT TO ENG. SPEC. NO. 895291	530040
DESIGN	00.06.1	7-10-59	246016	7-12-60	247602		
DETAIL	G.T. 2-14-59	10-26-59	246414	8-10-60	247249		
CHECK	NS 3-10-59	6-16-60	246407	2-11-61	247614		
APPRO	WB 4-13-59	6-17-60	247734				
							00.06.1



530041

## LOCATION CHARTS

0006.1

SHEET 2 OF 2

## KEYS AND SWITCHES

NAME	LOCATION	NEON NO
CAPSTAN IN SWITCH - LEFT	02.02.1(3C)	47
CAPSTAN IN SWITCH - RIGHT	02.02.1(3C)	47
CAPSTAN OUT SWITCH-LEFT	02.02.1(3D)	
CAPSTAN OUT SWITCH-RIGHT	02.02.1(3C)	
DOOR CLOSED INTERLOCK	02.01.1(2A)	
HEAD DOWN SWITCH	02.01.1(1A)	18
HEAD UP SWITCH	02.02.1(2C)	46
H. S. REW THERMAL CUTOUT	02.01.1(3A)	
LOAD REWIND P. B.	02.01.1(4A)	
REEL RELEASE P.B.	02.03.1(2F)	
RESET P.B.	02.01.1(3A)	
START P.B.	02.01.1(3A)	
TAPE IN COL SWITCH-LEFT	02.02.1(3C)	9
TAPE IN COL SWITCH-RIGHT	02.02.1(3C)	8
TIME DELAY SW	02.02.1(2D)	19
UNLOAD P.B.	02.01.1(4A)	
VACUUM COL SW-LEFT	02.03.1	
VACUUM COL SW-RIGHT	02.03.1	
VACUUM OFF BELLOWS SW	02.01.1(1B)	11
SELECTOR SW	02.02.2(3J)	
CHANGE DENSITY P.B.	02.02.2(1K)	
POWER ON-OFF SW	02.04.1(2G)	

## LIGHTS AND LAMPS

NAME	LOCATION
FILE PROTECT LIGHT	02.01.1(2B)
FUSE LIGHT	02.02.2(3K)
H.S. AREA LAMP	01.09.1
LOAD POINT LAMP	02.02.1(4D)
READY LIGHT	02.01.1(2B)
SELECT LIGHT	01.01.1
TAPE BREAK LAMP	02.02.1(4D)
TAPE INDICATE LAMP	02.02.1(4D)
TAPE INDICATE ON LIGHT	01.05.1
ADDRESS LIGHT	02.01.1(2A)
POWER OFF LIGHT	02.04.1(1G)
POWER ON LIGHT	02.04.1(1G)
HI AND LO DENSITY LIGHTS	02.02.2(2K)

## DIODES \*\*

NO	PART NO	LOCATION
1	315902	3B
2	315902	3B
3	315902	4A
4	315902	2C
5	315902	1B
6	315902	1C
7	315902	3B
8	315902	3B
9	315902	3B
10	315902	4B
11	333264	02.08.1
12	333264	02.08.1
13-18	352385	02.03.1

## POTENTIOMETERS

NO	PART NO	LOCATION	NAME
1	528154	01.09.1	H.S. AREA LAMP
2	333198	02.02.1	PHOTO LAMP
3	535673	02.03.1	STOP CLUTCH - RIGHT
4	528459	02.08.1	PROLAY-NEUTRAL
5	528481	02.08.1	PROLAY-DRIVE
6	527738	02.08.1	BKWD GO DELAY
7	527738	02.08.1	FWD GO DELAY
* 8	352396	02.03.1	STOP CLUTCH-LEFT
* 9	352396	02.03.1	STOP CLUTCH-RIGHT
* 10	352397	02.03.1	UP CLUTCH - RIGHT
* 11	352397	02.03.1	DOWN CLUTCH - RIGHT
* 12	352397	02.03.1	UP CLUTCH - LEFT
* 13	352397	02.03.1	DOWN CLUTCH - LEFT

## PHOTO CELLS

NAME	LOCATION
H. S. AREA	01.09.1
LOAD POINT AND TAPE BREAK	01.06.1
TAPE IND	01.05.1

\*\* IN92 DIODE (\*352375 ASM)  
ACROSS COILS OF DP2-DP8

(\* MACHINES WITH EC 247977 ONLY)

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHARGE NO.	DATE	CHARGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	4-28-59	244313-B	10-4-60	247602-B	PRINT TO ENG. SPEC. NO. 895291	
DESIGN	00.06.1	7-10-59	246016	12-21-60	247977		
DETAIL	G.T. 215 59	9-28-59	246189	7-19-61	249230		
CHECK	N.A. 210 59	10-26-59	246414	10-16-61	248593		
APPROV	W.B. 413 59	CHECK	J.F.T. 1231 60	6-3-60	246407		

00.06.1

530041

530042

LOCATION CHART

00.07.1

CARD FRAME

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
A																																	
B																																	
C																																	
D																																	
E																																	
F																																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	

NOTE:

ALL INDEX NUMBERS PREFIXED BY 01.  
 \* CARD IN CIB LOCATION REQUIRES TWO SPACES. SCHEMATIC DESIGNATION 04.1 ON CARD 371204 AT LOCATION D15 REFERS ONLY TO MACHINES WITH EC248974.  
 \* CARDS NOT IN MACHINES WITH EC.249224 (SINGLE DELAY LINE)

PRE-AMP

	1	2	3	4	5	6	7	8
M								
F								
K								
J								
	1	2	3	4	5	6	7	8

POWER TRANSISTORS

1	2	3	4
528405 08.1	528405 08.1	528405 08.1	
5	6	7	8
528405 08.1	528405 08.1	528405 08.1	
9	10	11	12
528455 01.1,06.1,09.1	528455 05.1,06.1,09.1	528455 09.1,02.2	

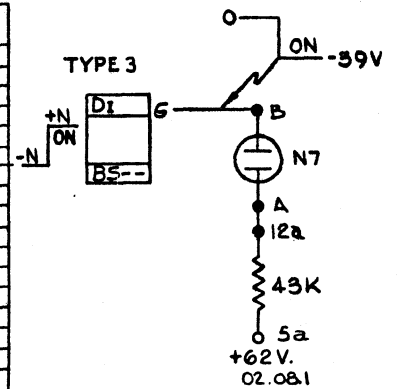
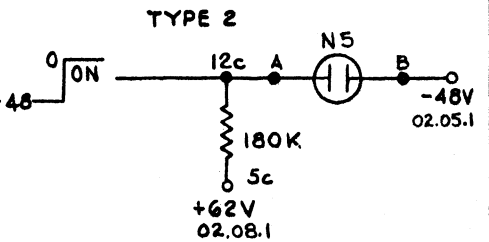
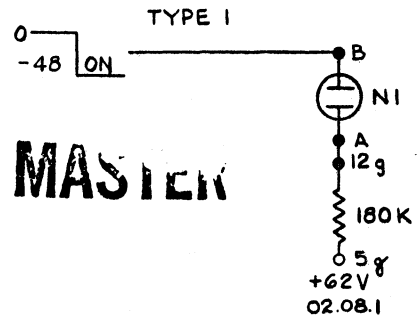
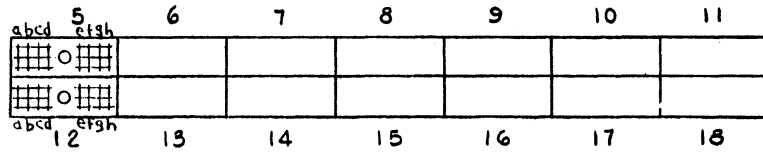
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		SEE INDEX CARD		5-16-61	249224	X PRINT TO ENG. SPEC. NO. 895291	00.07.1
DESIGN MODEL 729 IV		11-21-60	248328				
DETAIL GT 2-15-59		1-26-61	248710				
CHECK NS 3-10-59 DRAW GT 2-10-61		2-21-61	R249207				
APPRO WB 4-13-59 CHECK GGN 2-14-61		4-19-61	248974				

530042

530043

NEON PANEL

00.08.1



NO.	EC.	TYPE CKT.	SYSTEM LOC.	NO.	EC.	TYPE CKT.	SYSTEM LOC.
1	12g	1	02.01.1 (3B)	29	16c	3	
2	12f	1	02.01.1 (1A)	30	16b		
3	12e	2	02.01.1 (1A)	31	16a		
4	12d	1	02.02.1 (3C)	32	15h		
5	12c	2	02.02.1 (4D)	33	15g		
6	12b	1	02.02.1 (4C)	34	15f	3	01.02.1
7	12a	3	01.04.1	35	15e	3	01.04.1
8	15f	1	02.02.1 (3D)	36	17b		02.01.1 (1B)
9	15e	1	02.02.1 (3D)	37	17a	1	02.02.1 (3D)
10	15d			38	16h	1	02.02.1 (3D)
11	13c	1	02.01.1 (1B)	39	16g		02.01.1 (3A)
12	13b	1	02.01.1 (1B)	40	16f		02.02.1 (4C)
13	15a	2	02.02.1 (4C)	41	16e	3	01.05.1
14	12h	3	01.04.1	42	16d	3	01.04.1
15	14e	1	02.02.1 (3C)	43	18a	1	02.02.1 (1C)
16	14d	1	02.02.1 (4C)	44	17h	1	02.02.1 (2C)
17	14c	1	02.02.1 (3D)	45	17g		
18	14b	1	02.01.1 (1A)	46	17f	1	02.02.1 (2D)
19	14a	1	02.02.1 (3D)	47	17e	1	02.02.1 (2C)
20	13h	1	02.02.1 (3C)	48	17d	3	01.06.1
21	13g	3	01.04.1	49	17c	3	01.04.1
22	15d			50	18h		
23	15c			51	18g		
24	15b	1	02.02.1 (2D)	52	18f		
25	15a	2	02.02.1 (2D)	53	18e		
26	14h	1	02.01.1 (3A)	54	18d		
27	14g	1	02.01.1 (3A)	55	18c		
28	14f	3	01.04.1	56	18b		

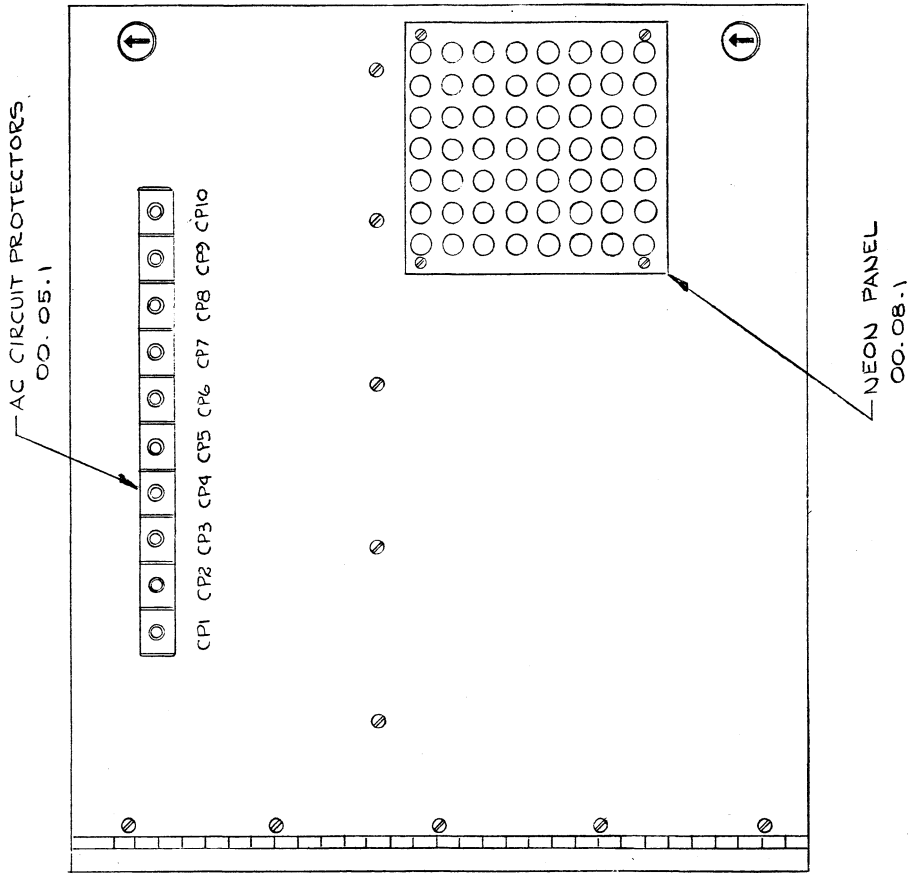
DWG. SIZE - B

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.	530043
NAME SYSTEMS DIAGRAM		4-28-59	244313 B			X PRINT TO ENG. SPEC. NO. 895291		
DESIGN		2-2-60	245843					
MODEL 729 IV		6-16-60	246407					
DRAW		10-4-60	247602-B					
DETAIL	GT 2-15-59							
CHECK	NS 3/2/59							
APPRO	NTB 4-13-59						00.08.1	

530928

00.10.1

# NEON PANEL & A.C. CKT PROT.

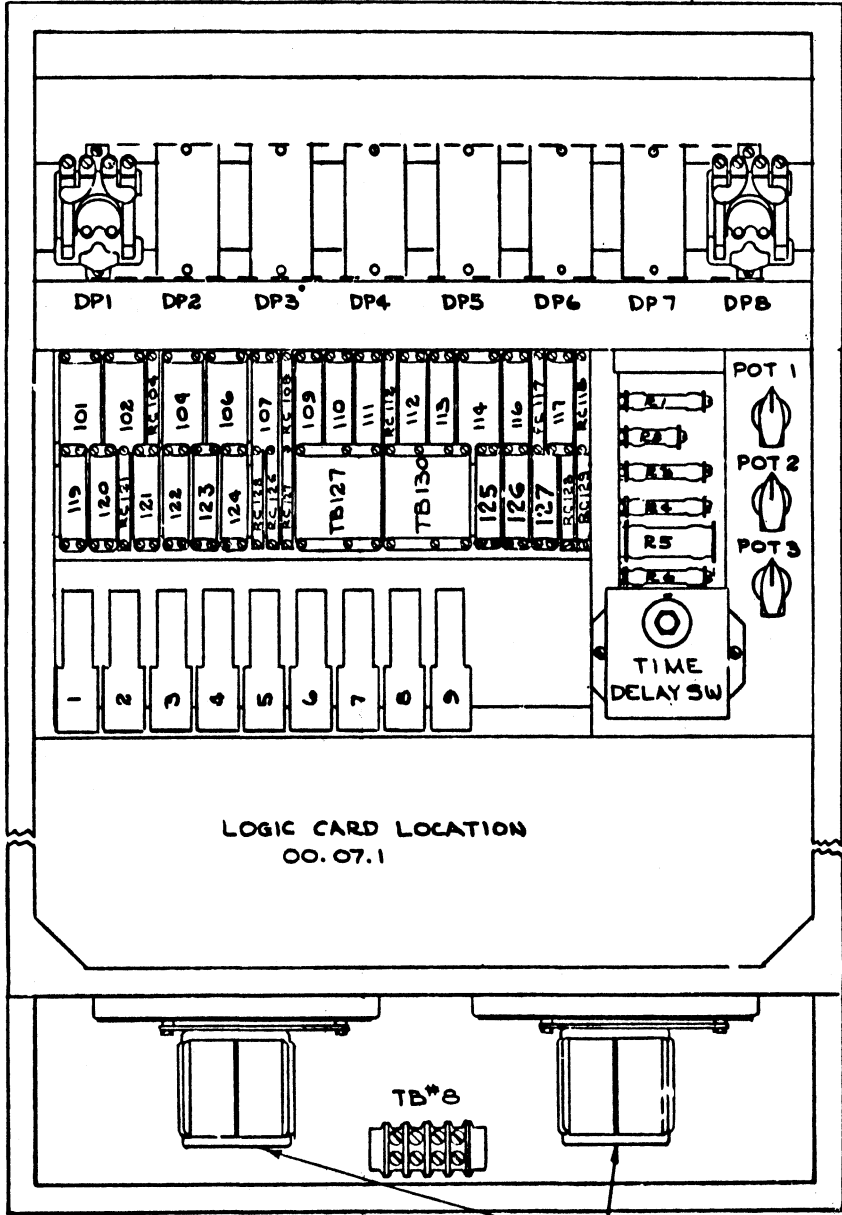


INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		5-20-59	244879B			X PRINT TO ENG. SPEC. NO. 895291	530928
DESIGN	MODEL 729 III						00.10.1
DETAIL HHH	4-9-59						
CHECK RCK	4-27-57						
APPRO HP	4-27-57						

526510

00.11.1

# RELAY GATE & BLOWERS



DWG. SIZE - B

NOTE: SEE SYSTEMS  
DIAGRAMS 02.01.1, 02.02.1  
& 02.02.2 FOR RELAY LOGIC

BLOWERS  
02.04.1

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		11-28-59	246413			X PRINT TO ENG. SPEC. NO. 895291	
00.11.1		10-3-60	248161				
DESIGN		MODEL	7291014				
DETAIL	HHH	4-9-59		7-19-61	249230		
CHECK	NJS	10-30-59	DRAW				
APPROV		11/11/59	CHECK				

00.11.1

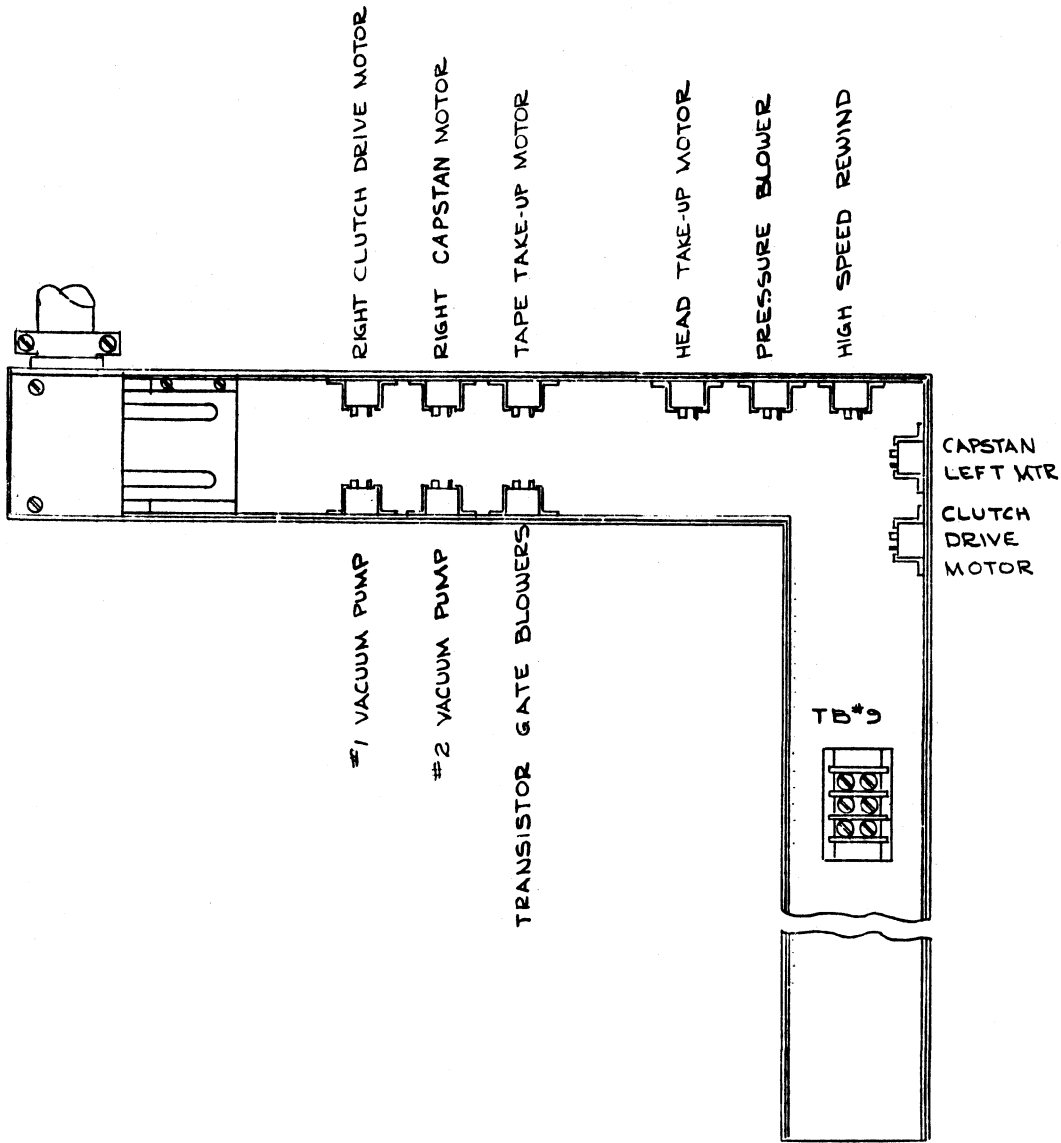
526510

530930

00.12.1

A.C. RACEWAY

MASTER



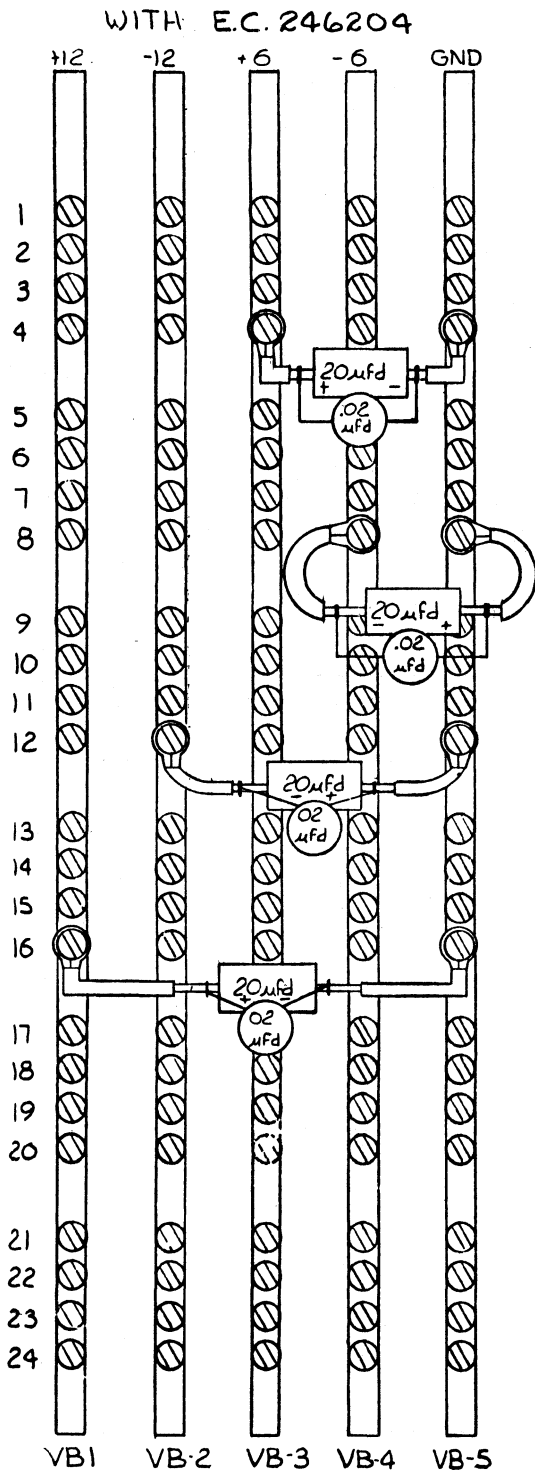
INTERNATIONAL BUSINESS MACHINES CORP.			DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME			5-20-59	244879B			X PRINT TO ENG. SPEC. NO. 895291	00.12.1
SYSTEM DIAGRAM			8-18-60	246565				
DESIGN	HHH	3-26-59	MODEL	729 III				530930
DETAIL	HHH	3-26-59						
CHECK	REX	4-27-59	DRAW					
APPRO	AP	7-27-59	CHECK					



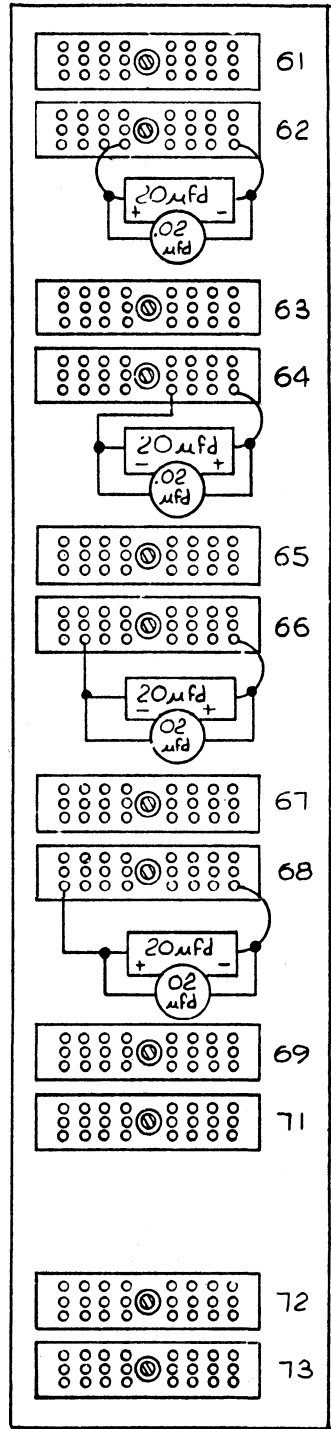
526208

00.15.1

VOLTAGE BUS (OPTIONAL)



WITHOUT EC 246204



INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	9-30-59	246204			X PRINT TO ENG. SPEC. NO.	
DESIGN	HHH 11-1359	21959	245849			895291	
DETAIL	AAM 11-13-59					DWG. SIZE - B	
CHECK	HHH 11-17-59						
APPRO	GJR 11-23-59						

00.15.1

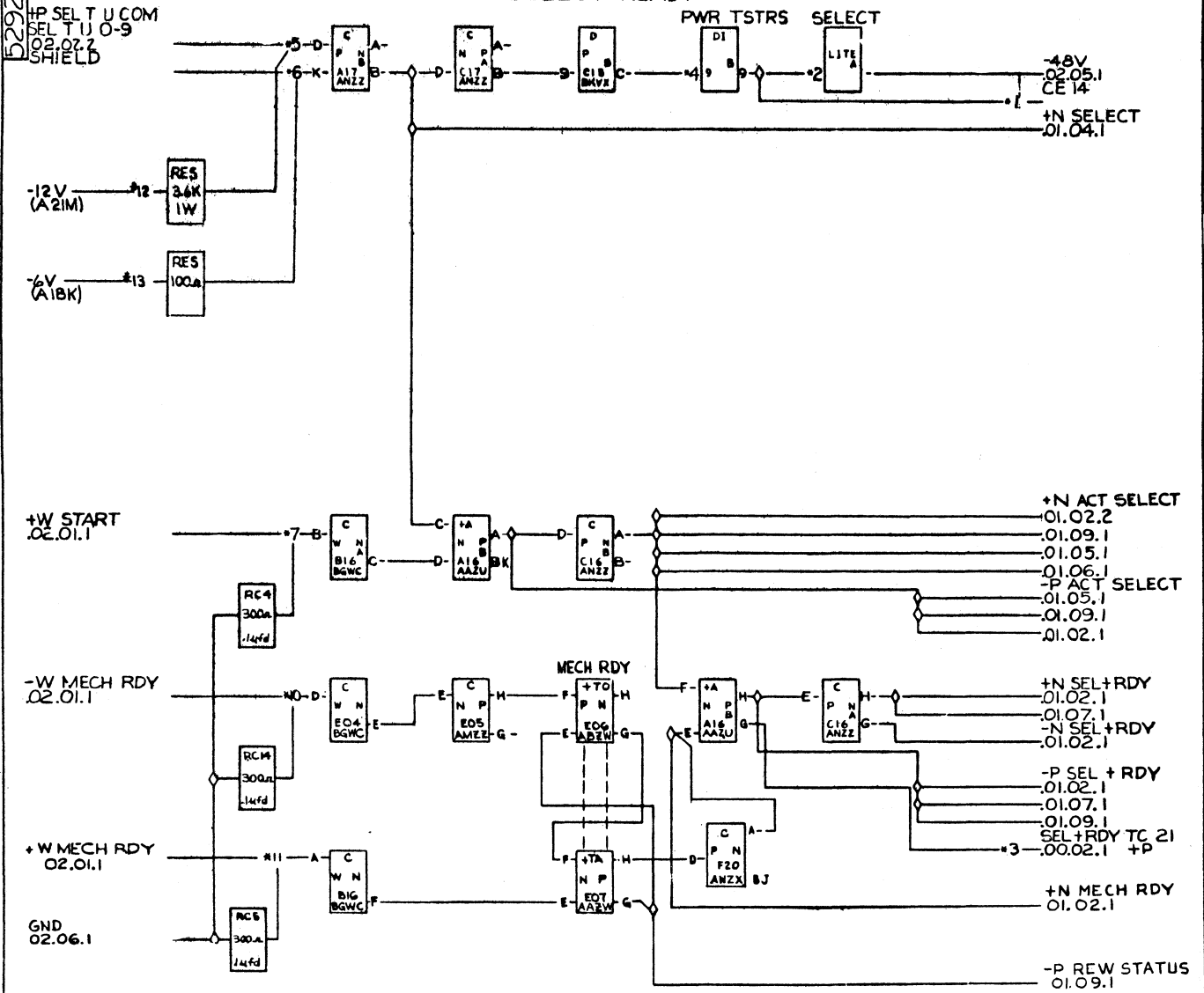
526208



529264

SELECT READY

.01.01.1



NOTE: ROMAN NUMERAL CONNECTIONS REFER ONLY TO MACHINES WITH PLUGGABLE MAIN GATE CABLES

\*1-TPD-48-III S \*2-III S \*3-34G. \*4-TP06-25C IXW-III M-7 \*5-34E. \*6-34F \*7-IXJ 24C \*10-27G \*11-24d \*12-33H \*13-24F

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	SEE INDEX CARD				X PRINT TO ENG. SPEC. NO. 895291	529264
DESIGN	MODEL 7291V	8-10-60	247249				
DETAIL	D 6055	10-3-60	248161			.01.01.1	
CHECK		11-21-60	248328				
APPROV		7-19-61	249230				

529265

READ WRITE STATUS

01.02.1

DISCONTINUED

-N SEL +RDY  
01.01.1

+G-G GATE  
READ PULSE  
01.03.1

-P SEL +RDY  
01.04.1

+P TC 13 SET  
READ  
00.02.1  
SHIELD

WR STATUS

+62V  
02.08.1

+N SEL +RDY  
01.01.1

+W READ TRIG  
SET  
02.01.1

TC 33 SEL RDY  
+READ +P  
00.02.1

-N TC 11 SET  
WRITE  
00.02.1  
SHIELD

-P READ STATUS  
01.09.1  
-P WRITE STATUS  
01.05.1

-P SEL +RDY  
01.01.1

-W NOT FILE  
PROTECT  
02.01.1

+P  
WRITE STATUS  
01.04.1  
-P NOT FILE  
PROTECT  
01.05.1

GND  
02.06.1

+N MECH RDY  
01.01.1

TC 35 SEL RDY  
+WR +P  
00.02.1

+N  
WR STATUS  
01.04.1

NOTE: B-CIRCUIT WITHIN DOTTED AREA  
REFERS ONLY TO MACHINES  
WITH EC 248974

NOTE: A-ROMAN NUMERAL CONNECTIONS REFER  
ONLY TO MACHINES WITH PLUGGABLE  
MAIN GATE CABLES

\*1-5F 43K 8F \*2-46C. \*3-TP 36 0 33F \*4-34C. \*5-45E. \*6-36A. \*7-36B \*8-IXE 24A  
\*9-34A. \*A-34B \*B-IXC 24B

DWG. SIZE - D

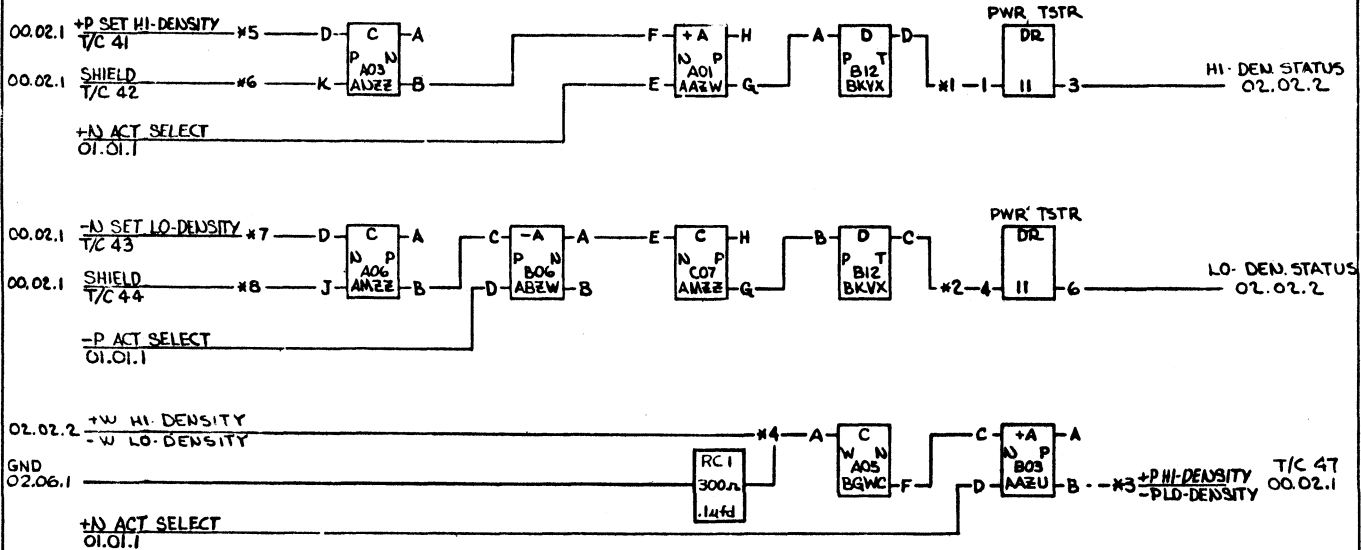
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	2-13-59	244313A	7-14-60	247615	NOTE X POINT TO ENR. SPEC. NO. 8-5291	529265
DESIGN	0102.1	2-19-59	244313B	4-19-61	248974		
DETAIL	MODEL 729 IV	6-24-59	246020	7-19-61	249230		
CHECK	D 6859	2-3-60	246412				
APPRO		6-29-60	247723				
							01.02.1

530986

01.02.2

# DENSITY STATUS

DISCONTINUED



NOTES  
 ROMAN NUMERICAL CONNECTIONS REFER ONLY TO MACHINES WITH  
 PLUGGABLE MAIN GATE CABLES

\*1-26c ~~IT~~ ~~YR~~ \*2-26c ~~IU~~ ~~IV~~ \*3-36c \*4-33g \*5-33b \*6-33c \*7-26f \*8-26g

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME: SYSTEMS DIAGRAM		7-10-59	246016	7-19-60	249230	NOTE PRINT TO ENG. SPEC. NO. 855291	01.02.2
MODEL: 729 II, IV		10-26-59	246414				
DESIGN	U.S. 6-22-59	2-2-60	245843				
CHECK	WB 7-8-59	DRAW	SVS 10-19-59	6-29-60	247723		
APPROV	WB 7-8-59	CHECK	WJ 10-20-59	8-10-60	247249		

530986

# READ PREAMP TRACK 1

READ PREAMP TRACK 1

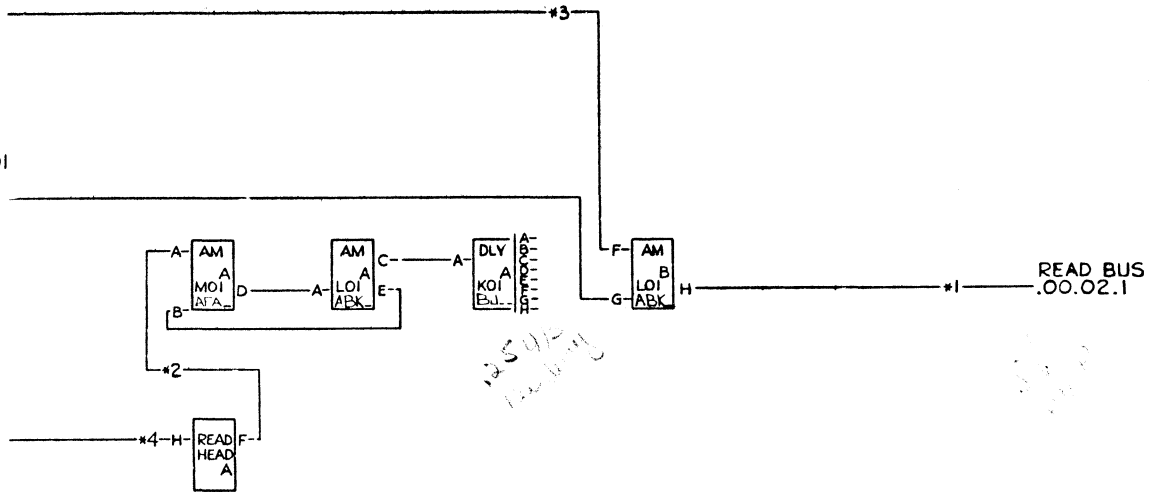
01.03.1

529266

+6 -6 GATE  
READPULSE  
.01.02.1

DELAY LINE KO1  
A TO H

GROUND  
.02.06.1



TRACK NO	CARD LOCATION			INPUTS				OUTPUT			
	AFA	ABK	BJ..	E.C.	PLUG	PLUG	E.C.	E.C.	514	SHIELD	
									T/C	T/C	
1	M01	LO1	K01	51b	F	H	51a	55a	82	83	
2	M02	LO2	K02	51d	E	P	51c	55b	84	85	
3	M03	LO3	K03	51f	D	N	51e	55c	93	92	
4	M04	LO4	K04	51h	C	B	51g	55d	95	94	
A	M05	LO5	K05	52b	M	A	52a	55e	102	103	
B	M06	LO6	K06	52d	R	L	52c	55f	104	105	
C	M07	LO7	K07	52f	J	K	52e	55g	113	112	

NOTE: ROMAN NUMERAL CONNECTIONS  
REFER ONLY TO MACHINES WITH  
PLUGGABLE MAIN GATE CABLES.

\*1-55A \*2-51A \*3-54H \*4-51B

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	2-13-59	244313A	7-19-61	249230	X PRINT TO ENG. SPEC. NO. 895291	529266
DESIGN	01.03.1	2-19-59	244313B				
DETAIL	10 685	6-24-59	246020				
CHECK		2-2-60	246625				
APPRO		3-14-60	247122				

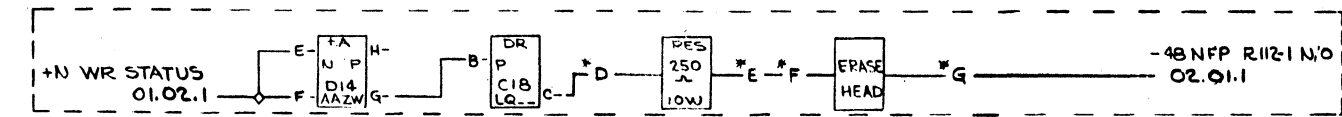
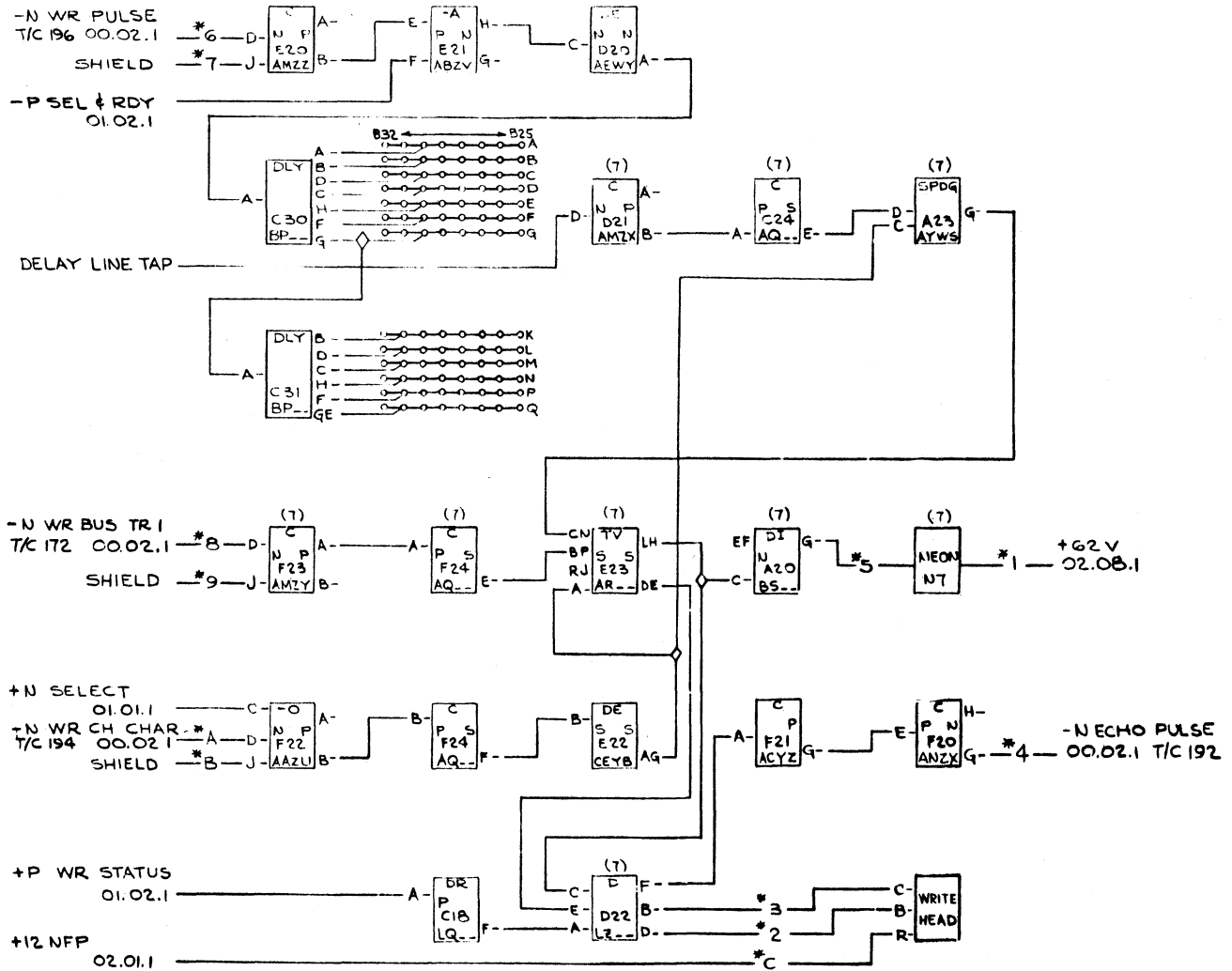
01.03.1

WRITE AMP TRACK 1

01.04.1

BS1027

WRITE AMPLIFIER TRACK 1



CKT WITHIN DOTTED AREA REFERS ONLY TO MACHINES WITH E.C. 248974 AND 249865

TRACK NO.	CARD LOCATIONS										INPUT WR BUS		OUTPUT				NEON	DELAY LINE 0-2.22 μs TAPS OF .185 μs				
	AMZY	AMZX	AQ--	AYWS	AR--	B5--	LZ--	SIG T/C	E.C.	SHIELD T/C	E.C.	RED E.C.	WHITE E.C.	BLK (STRIP) E.C.	SHIELD PIN	IND E.C.			NO. E.C.			
1	D21	D21	D24	A23	E23	A20	D22	112	42e	171	42f	22g	B	22h	C	32g	R	32h	23h	N7	12a	325 A-G; K-Q
2	F23	D	F24	A	F24	A	F24	172	42e	171	42f	22g	B	22h	C	32g	R	32h	23h	N7	12a	325 A-G; K-Q
4	F25	D	F24	A	F24	A	F24	174	42c	173	42d	22e	S	22f	D	32e	T	32f	23g	N14	12h	B26 " "
8	F27	D	F24	A	F24	A	F24	176	42a	175	42b	22c	E	22d	U	32c	F	32d	23f	N21	13g	B27 " "
A	F28	D	F24	A	F24	A	F24	176	42a	175	42b	22c	E	22d	U	32c	F	32d	23f	N21	13g	B27 " "
B	F29	D	F24	A	F24	A	F24	176	42a	175	42b	22c	E	22d	U	32c	F	32d	23f	N21	13g	B27 " "
C	F30	D	F24	A	F24	A	F24	178	41g	177	41h	21g	K	21h	W	31g	L	31h	23j	N35	15e	B29 " "
	F31	D	F24	A	F24	A	F24	180	41e	179	41f	21c	Y	21f	X	31e	M	31f	23c	N42	16c	B30 " "
	F31	D	F24	A	F24	A	F24	182	41c	181	41d	21c	Y	21f	X	31e	M	31f	23c	N42	16c	B30 " "
	F31	D	F24	A	F24	A	F24	184	41a	183	41b	21c	A	21d	P	31c	N	31d	23b	N49	17c	B31 " "

- #1-12a, 43k, 5a #2-22g #3-22h #4-43e
- #5-TP-36, 0, 23h #6-43a #7-43b #8-42e
- #9-42f #A-43c #B-43d #C-32g
- #D-38d #E-37g #F-PC#14 #G-PC#4

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
SYSTEMS DIAGRAM		5-16-61	249224			X PRINT TO ENG. SPEC. NO. 895291	BS1027
01.04.1		6-6-61	249865				
DESIGN WB 12-15-60 MODEL 729 IV		7-9-61	249230				
CHECK JLD 4-18-61 DRAW		9-12-61	250107				
APPROV JLD 4-21-61 CHECK							01.04.1

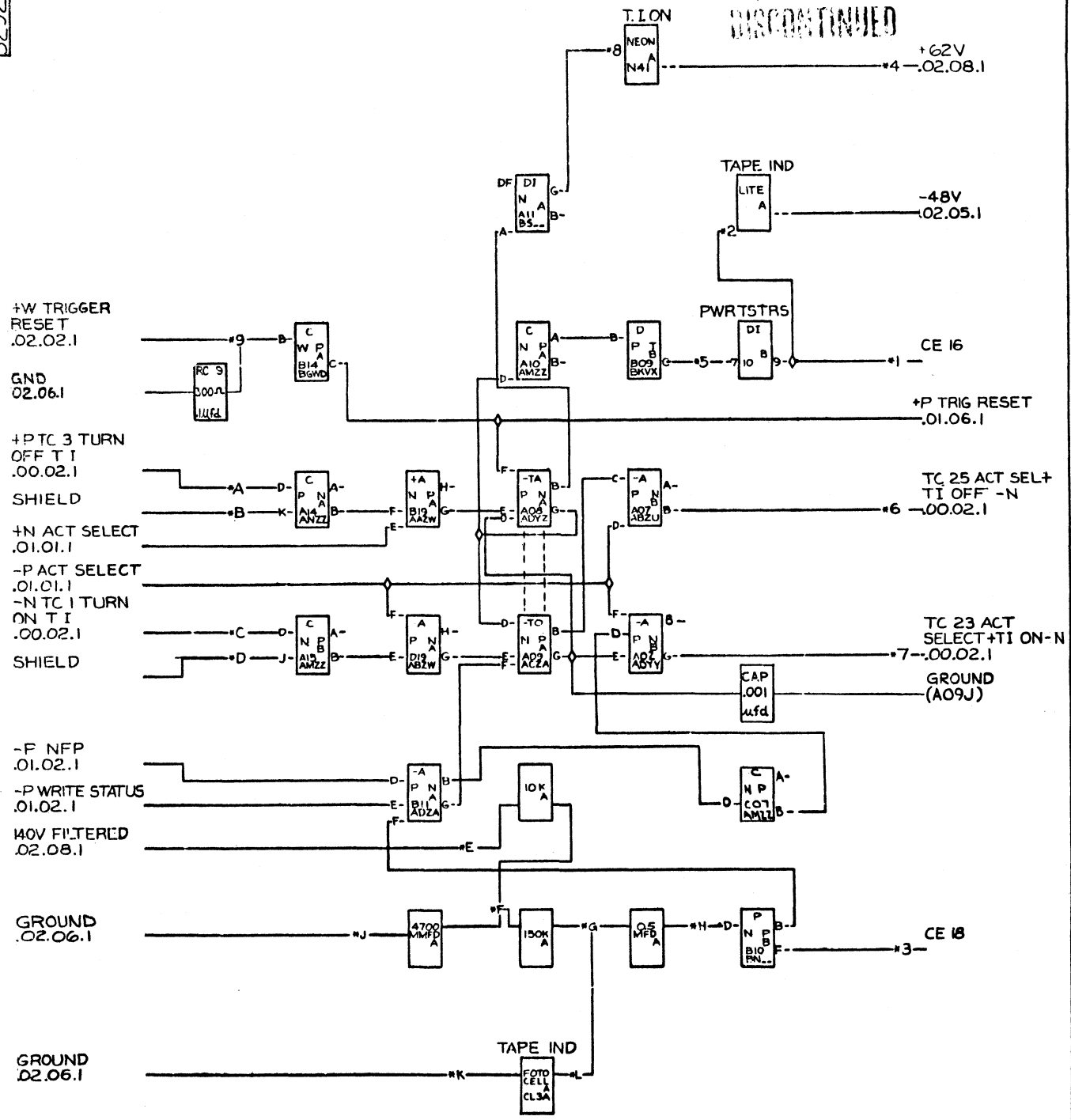
# TAPE Indicate

TAPE INDICATE

01.05.1

529268

DISCONTINUED



NOTE: ROMAN NUMERAL CONNECTIONS REFER ONLY TO MACHINES WITH PLUGGABLE MAIN GATE CABLES

- \*1-TPO-48-III † \*2-IP0-48-III 16 \*3-27A IX-A \*4-16e 43K 9e \*5-TPO 6-25F IXE-III R \*6-36C \*7-37A
- \*8-TP-36 0 33d \*9-IXH 25A \*A-35C. \*B-35D. \*C--35A. \*D-35B. \*E-47D \*F-47B. \*G-46G. \*H-45G
- \*J-47F \*K-PS\*2 \*L-PS\*3 ID

D. & S. SIZE = G

MASTER

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME, SYSTEMS DIAGRAM		2-13-59	244313A	8-23-60	247961	1 PRINT TO ENG. SPEC. NO. 895291	01.05.1
.01.05.1		2-23-59	244313B	12-16-60	248693		
DESIGN	MODEL	2-24-59	246020	7-19-61	249230		
CHECK	DRAW	2-3-60	246412	10-11-61	248991		
APPRO	CHECK	6-29-60	247723				

01.05.1

LOAD POINT

01.06.1

529269

LOAD POINT

DISCONTINUED

+W AT LOAD POINT  
.02.02.1

+N GO  
.01.07.1

GND  
02.06.1

+P TRIG RESET  
.01.05.1

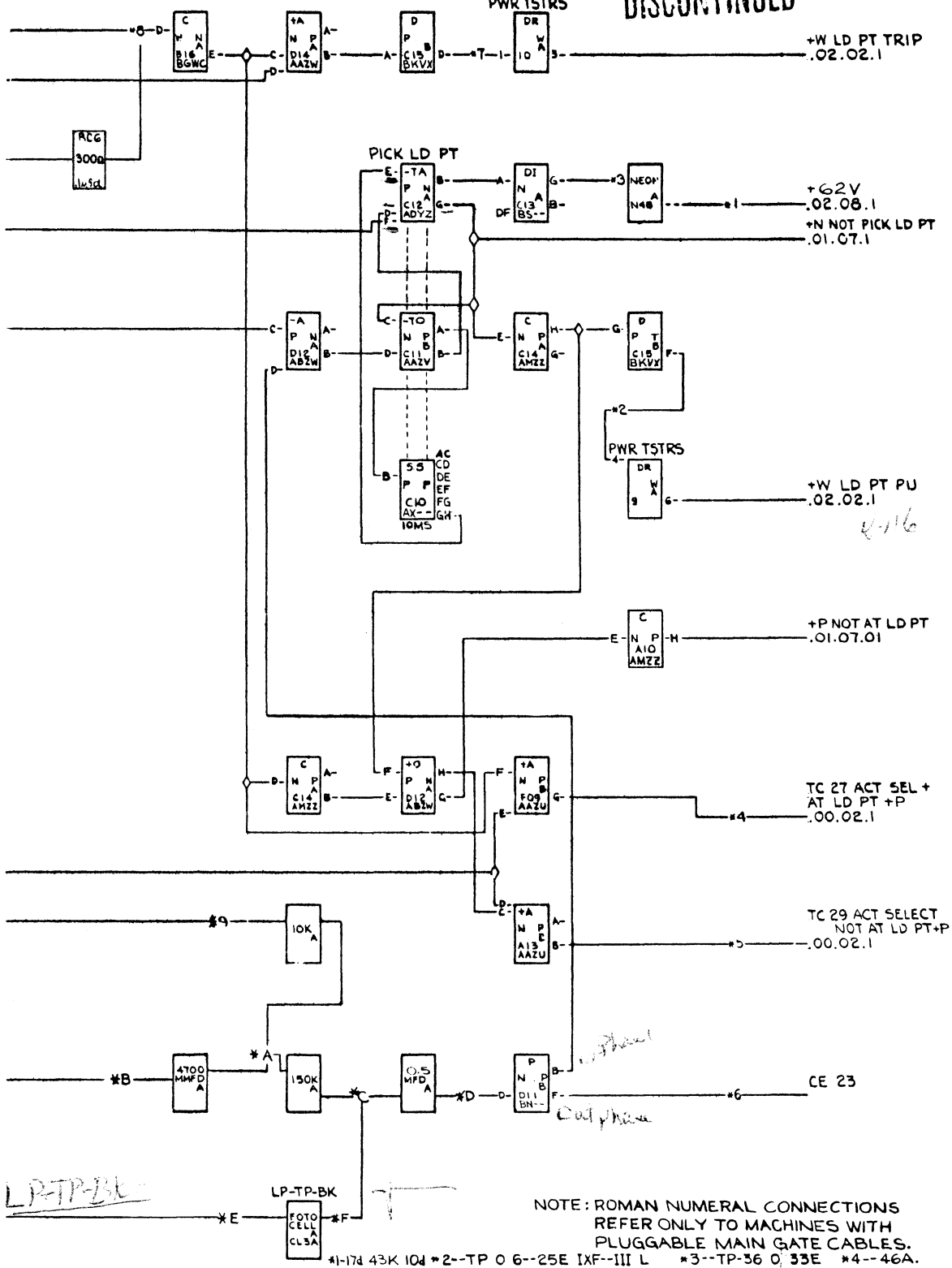
-P REVERSE  
.01.07.1

+N ACT SEL  
.01.01.1

+140V FILTERED  
.02.08.1

GROUND  
02.06.1

GROUND  
.02.06.1

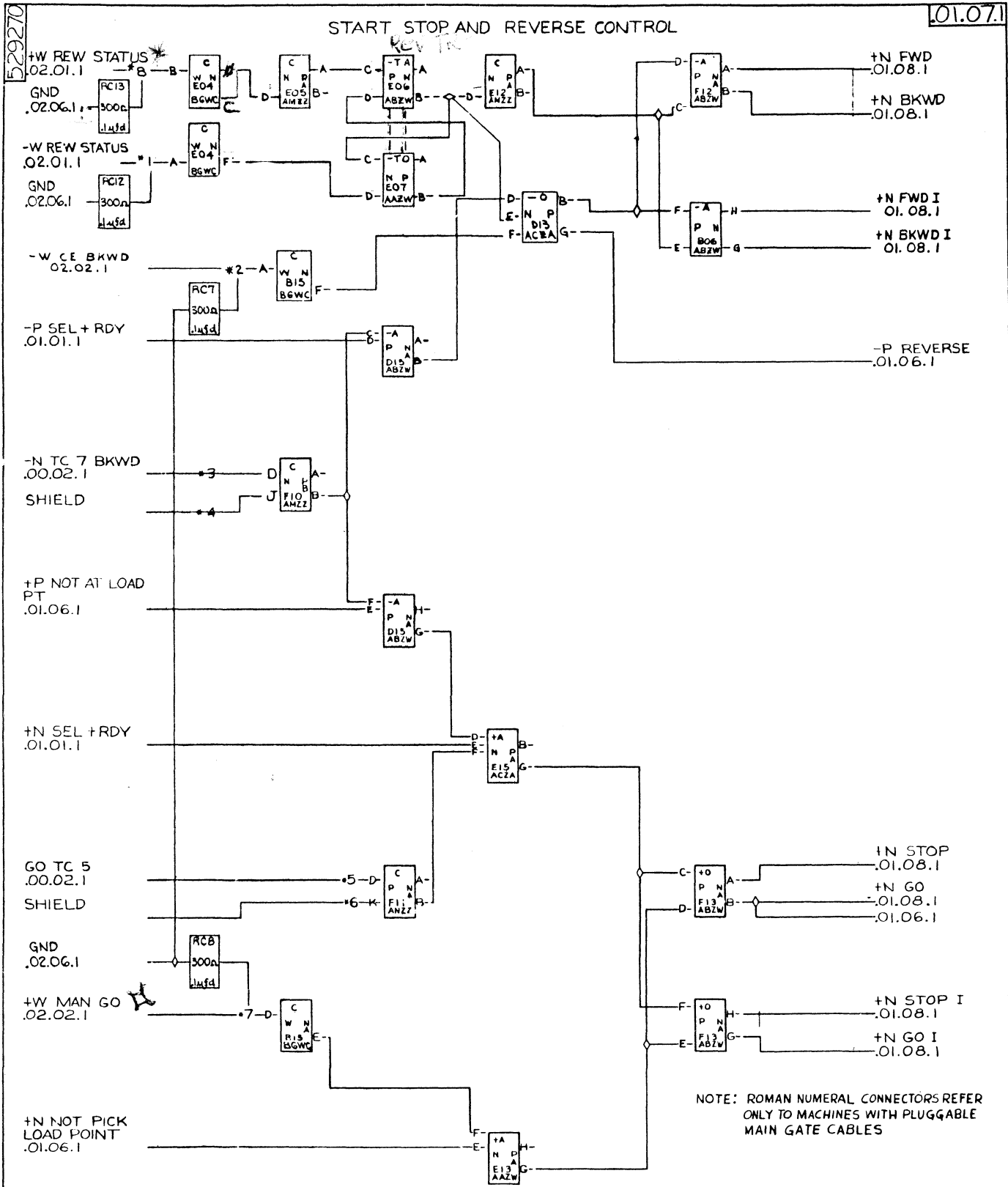


\*9-47C \*A-47A \*B-47F \*C-46H  
\*D-45H \*E-PS\*2 \*F-PS\*1 \*E  
D.C. 01.06.1

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	2-13-59	244313A	6-29-60	247723	X PRINT TO ENG. SPEC. NO. 895291	529269
DETAIL	01.06.1	2-23-59	244313B	7-14-60	247734B		
DESIGN	MODEL 729 IV	6-24-59	246020	7-19-61	249230		
CHECK	10 6859	2-3-60	246412				
APPRO	DRAW	6-14-60	247734				

01.06.1

# Start Stop & Rev Control



\*1-35h \*2-24 G \*3-45C. \*4-45D \*5-45B. \*6-45A. \*7-1XM 24H \*8-36g

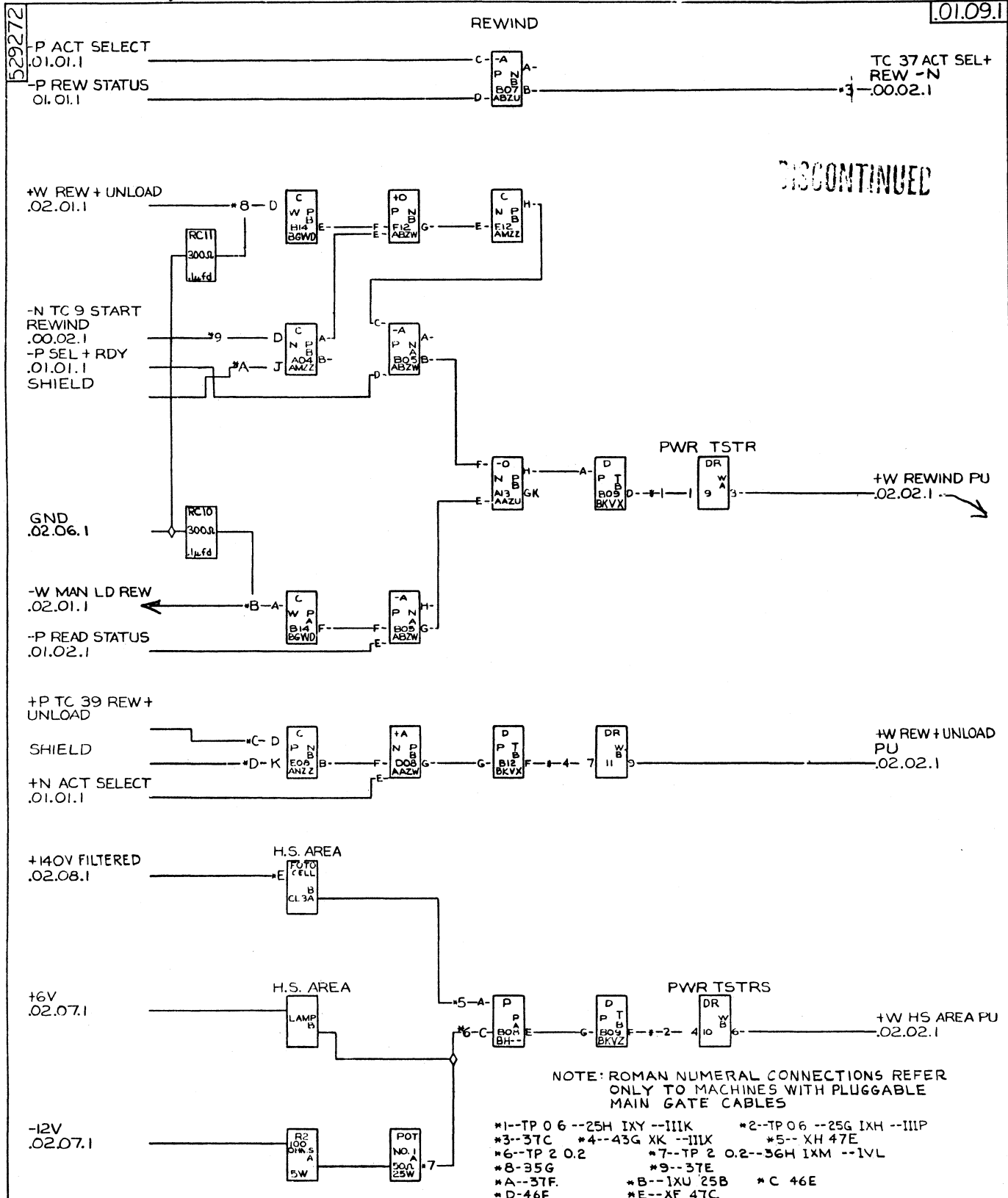
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		2-13-59	244313A	6-4-60	246407	X PRINT TO ENG. SPEC. NO. 895291	529270
.01.07.1		2-23-59	244313B	6-14-60	247734		
DESIGN	MODEL 729IV	6-24-59	246270	6-29-60	247723		
DETAIL ID 6858		10-12-59	246200	7-19-61	249230		
CHECK	DRAW	2-3-60	246412				
APPRO	CHECK						.01.07.1





# Rewind-

01.09.1

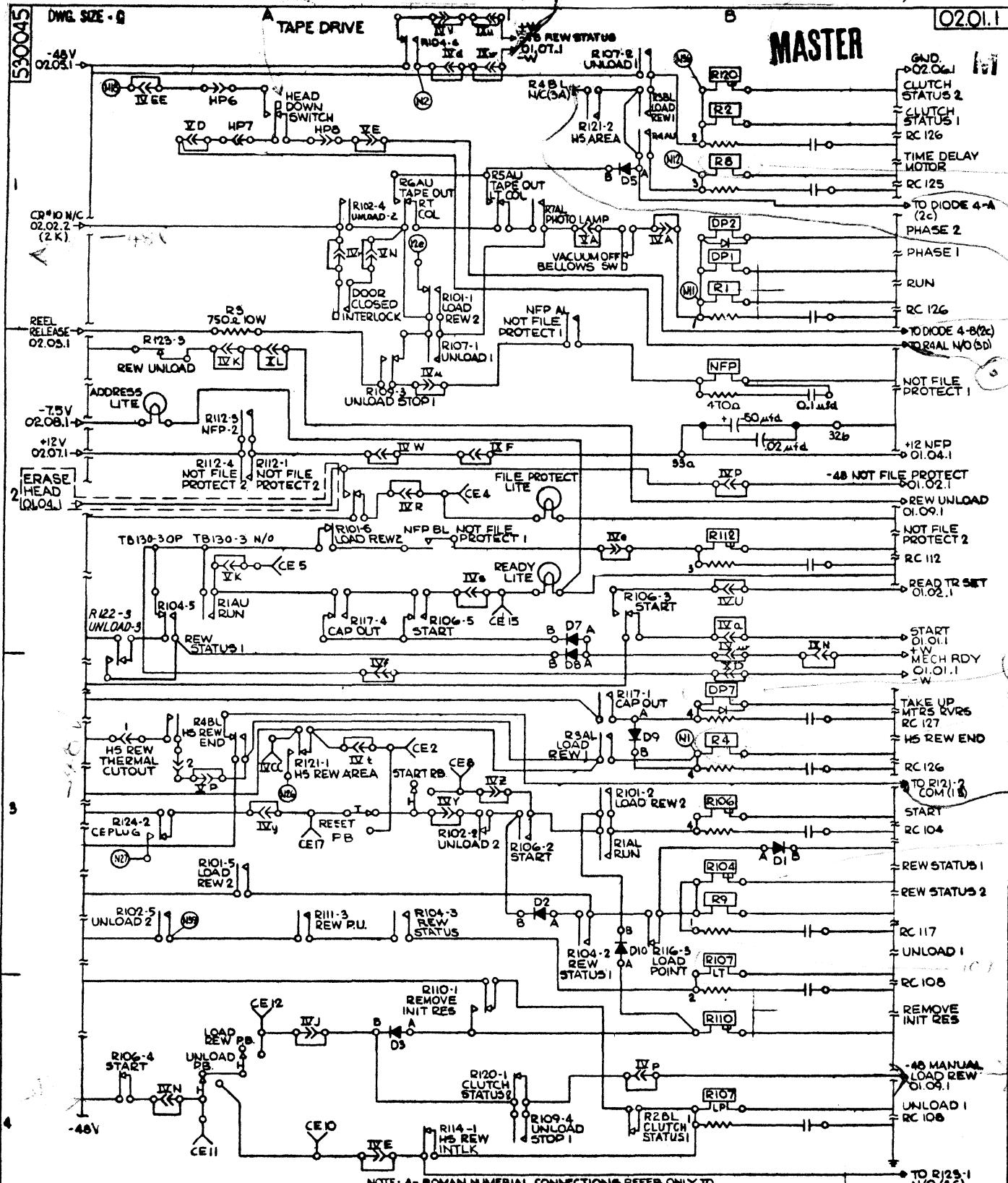


INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	2-13-59	244313A	8-10-60	247249	X PRINT TO ENG. SPEC. NO. 895291	529272
DESIGN		2-23-59	244313B	7-19-61	249230		
DETAIL	ID 2858	6-24-59	246020				
CHECK		2-3-60	246412				
APPRO		6-29-60	247723				

01.09.1

01.09.1

Head down SW \*0077 TAPE DR.



NOTE: A - ROMAN NUMERICAL CONNECTIONS REFER ONLY TO MACHINES WITH PLUGGABLE MAIN GATE CABLES

NOTE B - CIRCUIT WITHIN DOTTED AREA REFERS ONLY TO MACHINES WITH EC 248974

DISCONTINUED

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME   SYSTEMS DIAGRAM						X POINT TO ENG. SPEC. NO. 695291	530045
O2.01.1							
DESIGN	MODEL 729 IV	12-21-60	248692				
DETAIL	GT 2-14-59	2-11-61	247614				
CHECK	US 2-5-59	4-19-61	248974				02.01.1
APPROV	NS 1-13-57	7-19-61	249230				

N. N. W. ET - 1/16/66

Tape Drive

530046

DWG. SIZE - C

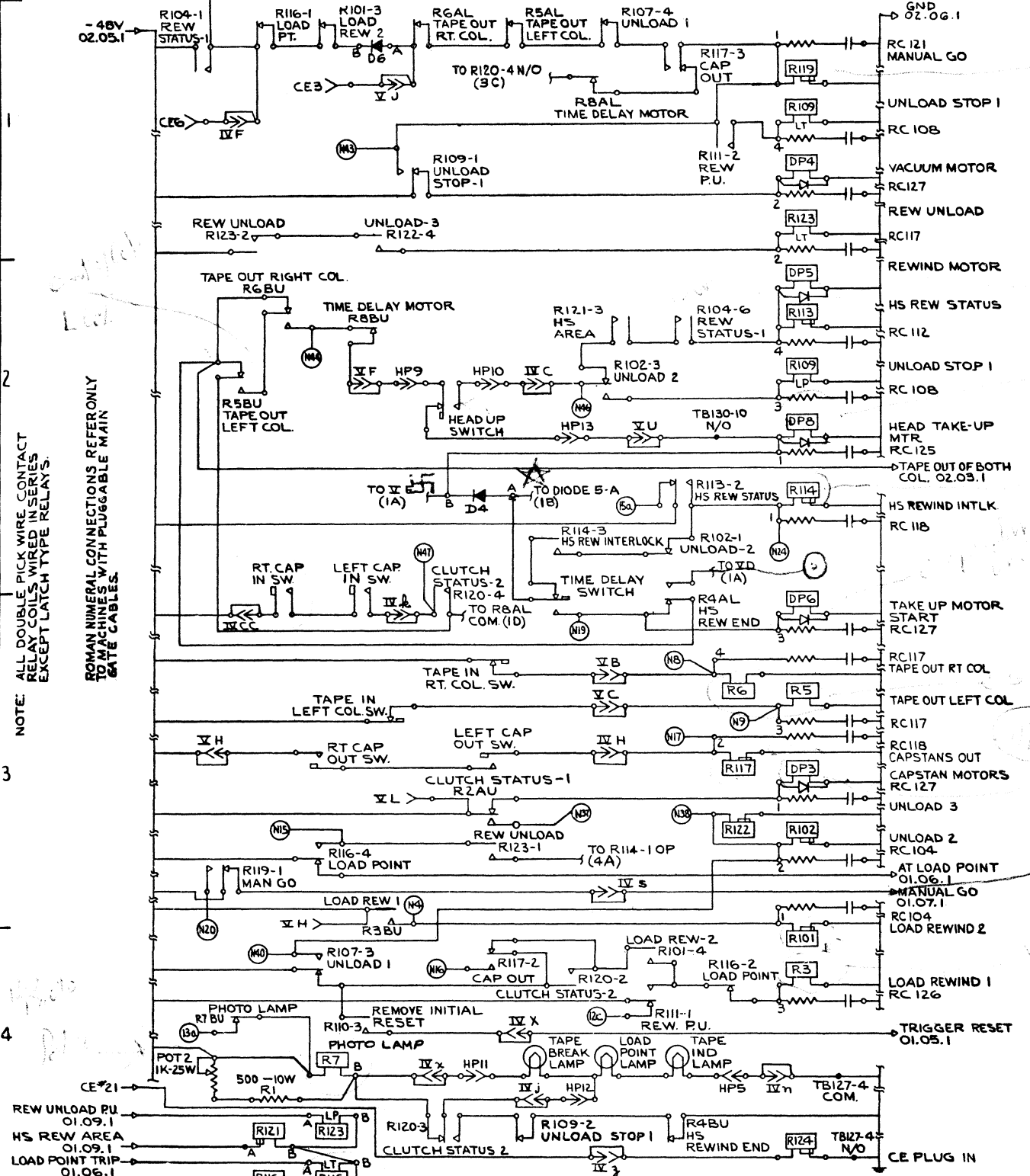
TAPE DRIVE

DISCONTINUED

MASTER

02.02.1

M



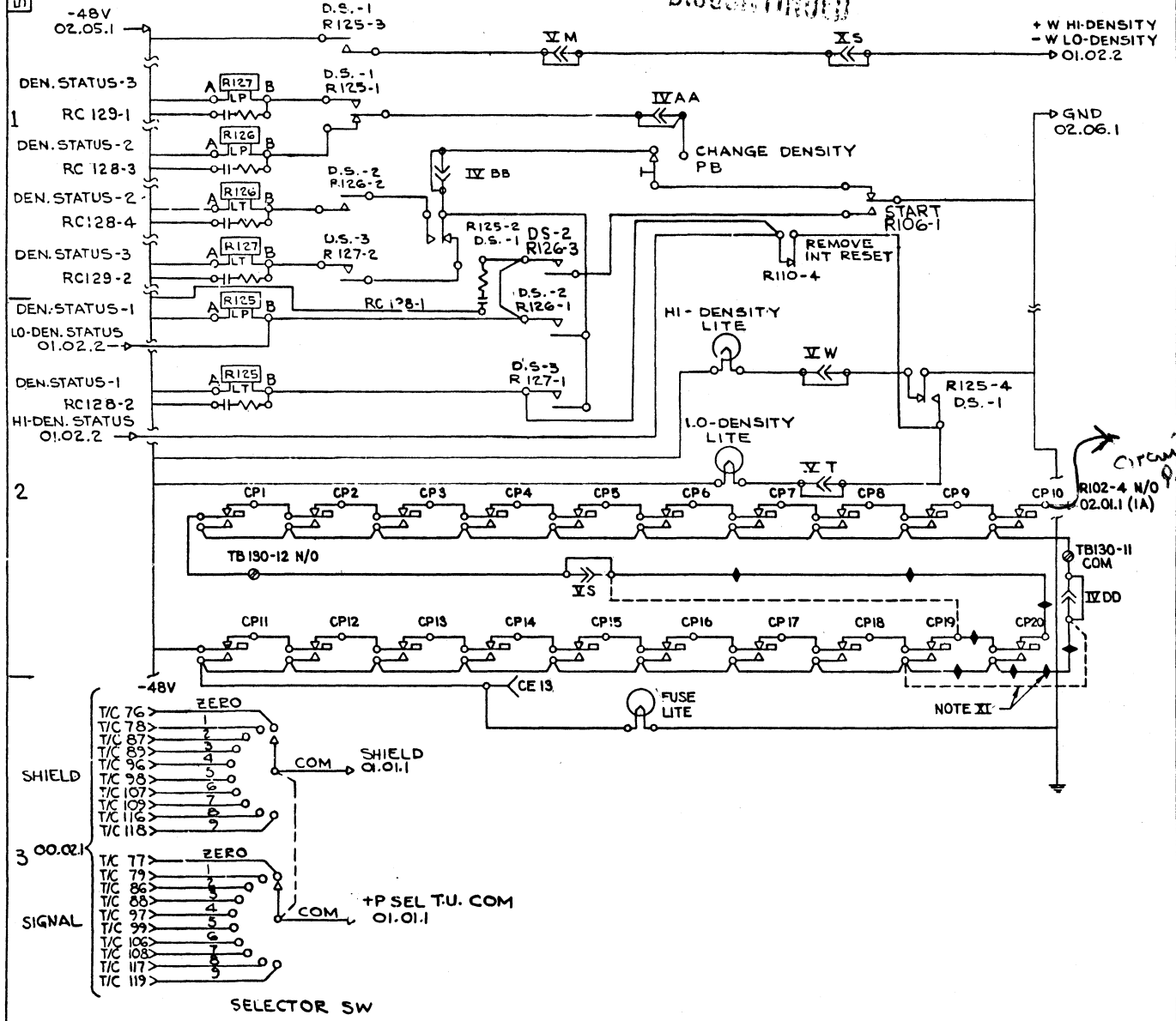
NOTE: ALL DOUBLE PICK WIRE CONTACT RELAY COILS WIRED IN SERIES EXCEPT LATCH TYPE RELAYS.

ROMAN NUMERAL CONNECTIONS REFER ONLY TO MACHINES WITH PLUGGABLE MAIN BATE CABLES.

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	4-28-59	244313B	10-4-60	247602B	X PRINT TO ENG. SPEL. NO. 895291	530046
DESIGN	GT 21359	7-10-59	246016	2-11-61	247614		
DRAWN	13 3-6-60	10-26-59	246414	7-19-61	249230		
CHECKED	13 3-6-60	2-2-60	245843	10-16-61	248593		
APPROVED	4-15-60	6-16-60	246407				

02.02.1

DISCONTINUED



*Circuit Protection*

- NOTES
- I ROMAN NUMERAL CONNECTIONS REFER ONLY TO MACHINES WITH PLUGGABLE MAIN GATE CABLES.
  - II - - - MACHINES WITHOUT -48V SP
  - ◆◆ MACHINES WITH -48V SP

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		10-21-59	246414	10-3-60	248161	X PRINT TO ENG. SPEC. NO. 895291	526277
02.02.2		2-2-60	245843	12-21-60	248692		
DESIGN	729 II IV	6-3-60	246407	7-19-61	249230		
DETAIL	FJK 10-21-59	6-30-60	247723				
CHECK	KJS 10-21-59	8-23-60	247959				
APPROV	10-21-59						

02.02.2

248161

*Clutch & Vacuum*

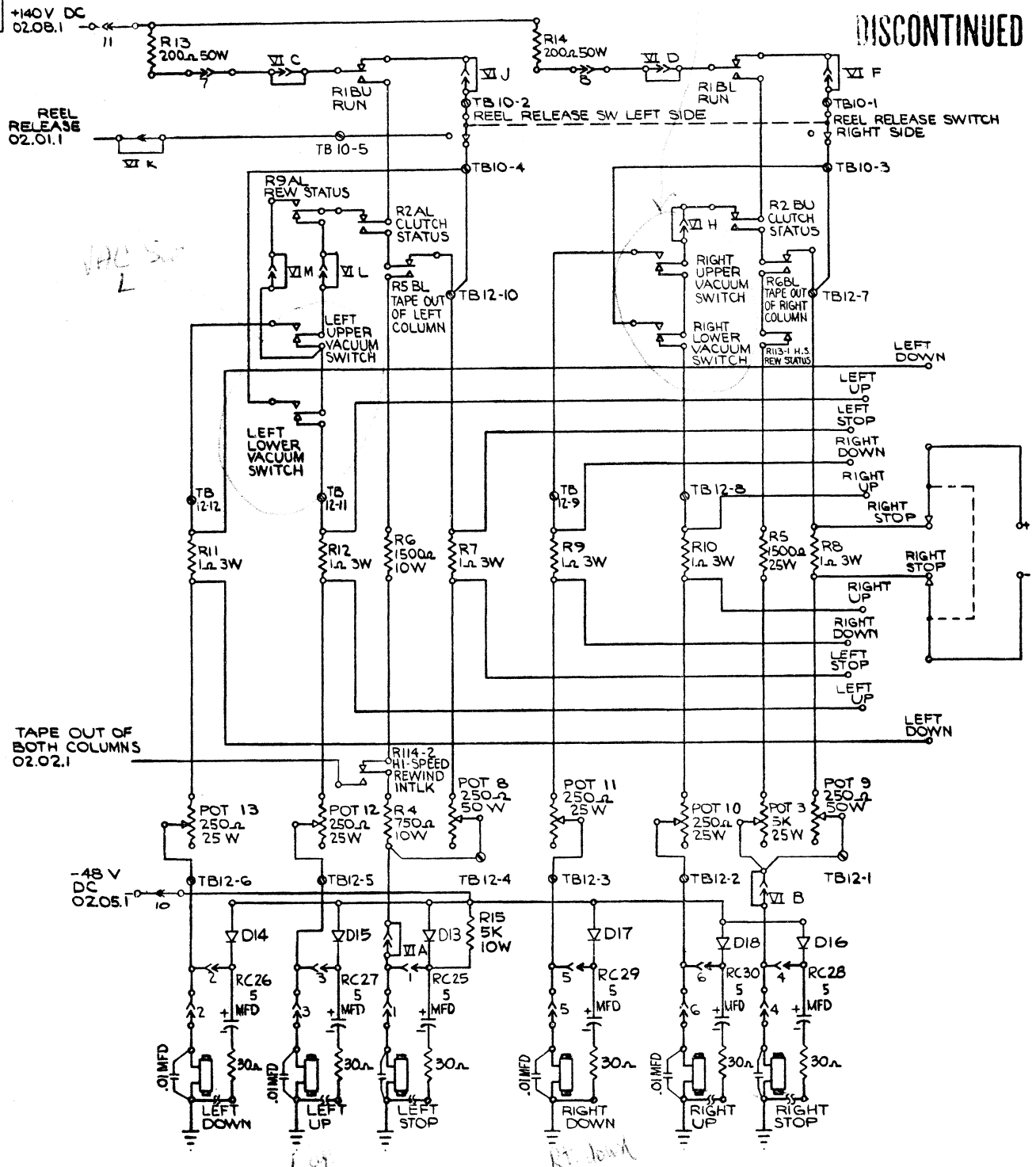
*100%*

02.03.1

CLUTCH & VACUUM CONTROL  
(MACHINES WITH EC 247977)

**FRASER  
DISCONTINUED**

352603



NOTE  
ROMAN NUMERALS REFER ONLY TO MACHINES WITH PLUGGABLE MAIN GATE CABLES.

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		12-20-60	247977			* PRINT TO ENR. SPEC. NO. 875291	352603
02.03.1		6-23-61	247977C				
DESIGNER HHH (9 30-60) MODEL 729 10		7-19-61	249230				
DETAIL DD 7-30-60		10-16-61	248593				
DRAWN HHH (10-1-60) CHECK							02.03.1

208V Motor CIR.

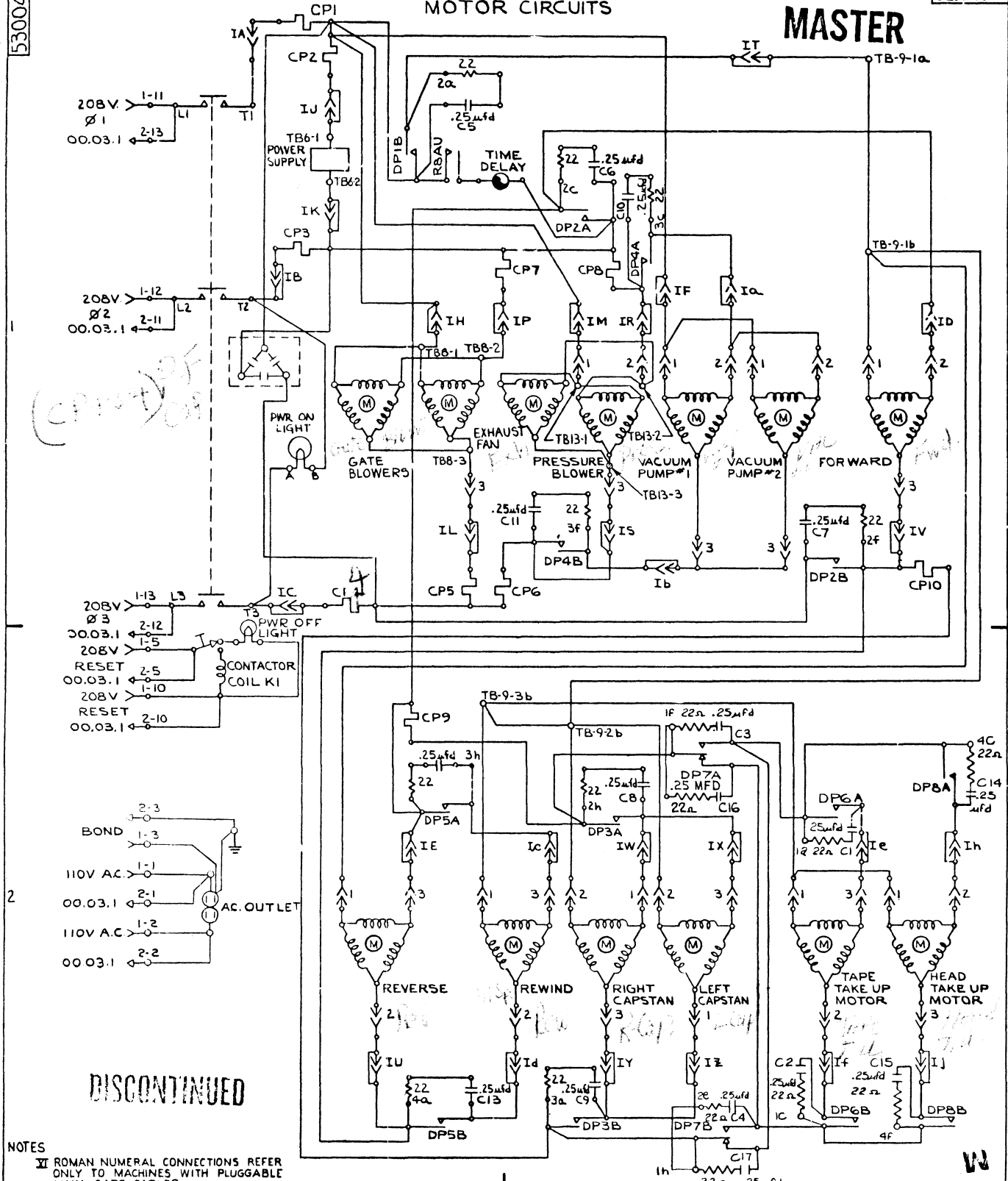
530048

DRWG. SIZE - G

MOTOR CIRCUITS

02.04.1

MASTER



(copy) of

DISCONTINUED

NOTES  
 XI ROMAN NUMERAL CONNECTIONS REFER ONLY TO MACHINES WITH PLUGGABLE MAIN GATE CABLES  
 XII

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME: SYSTEMS DIAGRAM		4-78-59	149338	12-12-60	248321	NOTE X PRINT TO ENG. SPEC. NO. 895291	02.04.1
02.04.1		9-4-59	244322	4-13-61	248697		
DESIGN	GT 21659	MODEL	729 IV	11-25-59	244323		
DETAIL				5-27-61	R249229		
CHECK	43 3-10-61	DRAW		2-2-60	245843		
APPROV	1-13-61	CHECK		7-6-61	R249244		
				6-29-60	247723		
				7-19-61	249230		

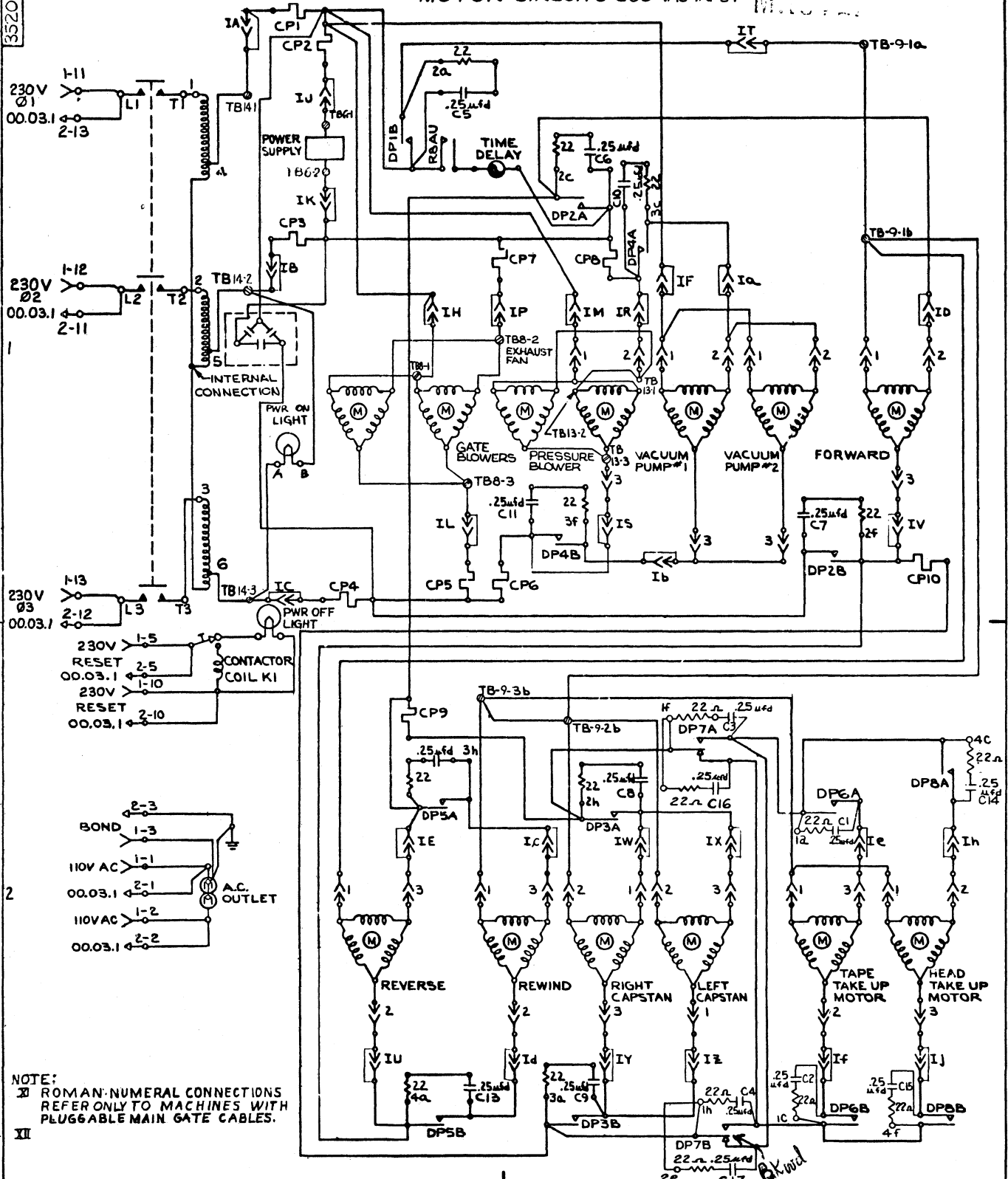
530048

# MOTOR CIR'S

## MOTOR CIRCUITS 230 VAC INPUT

02.04.1

352076



NOTE:  
 ⓧ ROMAN NUMERAL CONNECTIONS REFER ONLY TO MACHINES WITH PLUGGABLE MAIN GATE CABLES.  
 XII

DWG. SIZE - C

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME: SYSTEMS DIAGRAM		8-18-60	247571	11-30-61	250249	NOTE: PRINT TO ENG. SPEC. NO. 695291	352076
02.04.1		2-12-60	248321				
DESIGN: J.C. [unclear] [unclear]		4-13-61	248697			DWG. SIZE - C	02.04.1
DRAWN: J.C. [unclear] [unclear]		5-26-61	249229				
CHECK: J.C. [unclear] [unclear]		7-6-61					

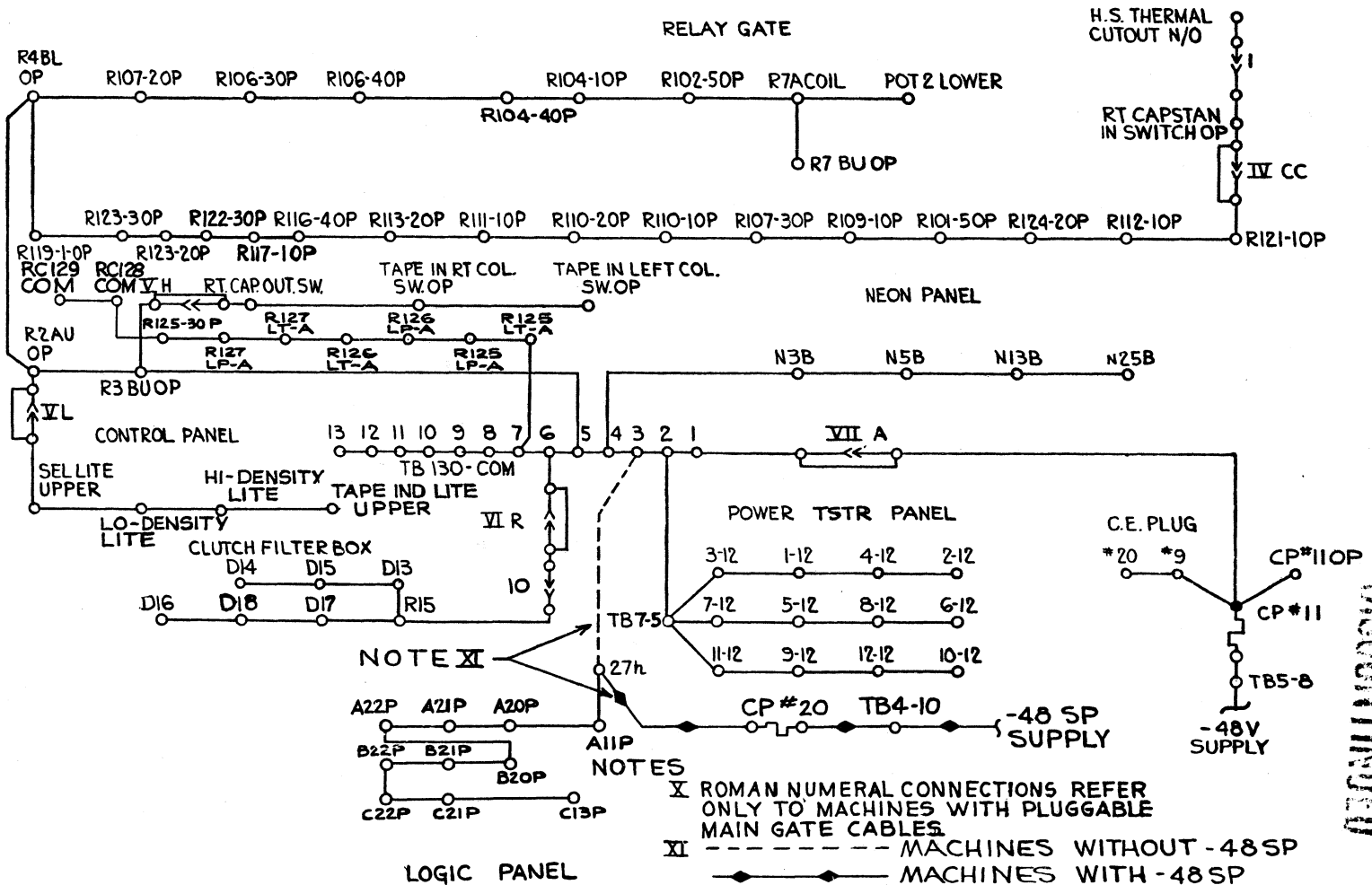


530049

# MASTER

DWG. SIZE - B

- 48 VOLT DISTRIBUTION

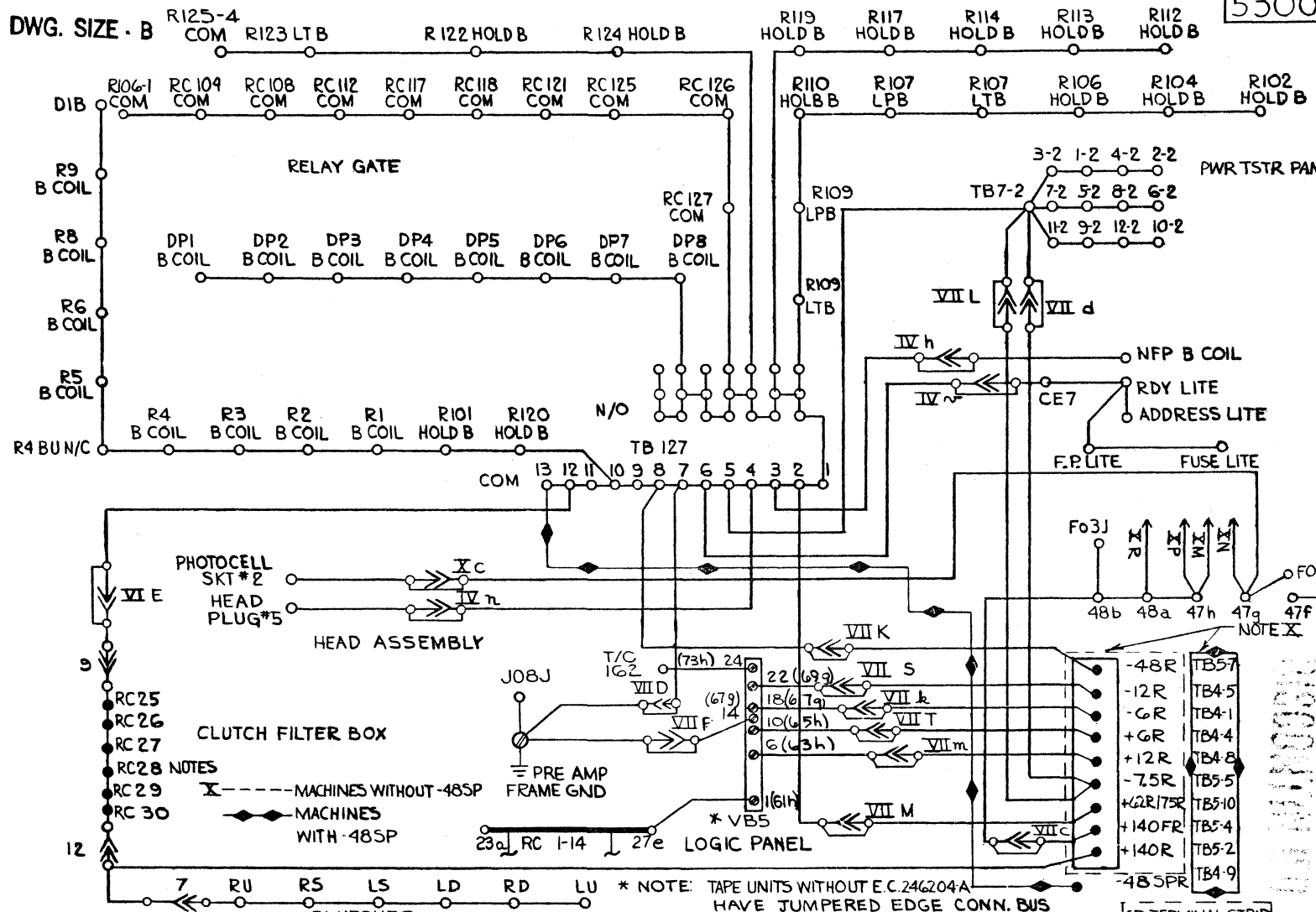


DISCONTINUED

02.05.1

INTERNATIONAL BUSINESS MACHINES CORP.		NAME	SYSTEMS DIAGRAM	DATE	CHANGE NO.
DESIGN	02.05.1	MODEL	729 IX	DATE	CHANGE NO.
DETAIL	GT.	DATE	7-19-61	DATE	CHANGE NO.
CHECK	MS	DATE	3-10-59	DATE	CHANGE NO.
APPROV	WES	DATE	4-13-59	DATE	CHANGE NO.
			MODEL	729 IX	DATE
			DATE	7-19-61	DATE
			DATE	10-16-61	DATE
			DATE	248593	DATE
			DATE		DATE
			DATE		DATE
			DATE		DATE
NOTE X PRINT TO ENG. SPEC. NO. 855291					
DEVELOPMENT NO. 02.05.1					
530049					

530050



NOTE: ROMAN NUMERAL CONNECTIONS REFER ONLY TO MACHINES WITH PLUGGABLE MAIN GATE CABLES.

\* NOTE: TAPE UNITS WITHOUT E.C.246204A HAVE JUMPED EDGE CONN. BUS BARS INDICATED BY ( ) DESIGNATIONS.

CP TERMINAL STRIP

GROUND SYSTEM MASTER 0206.1

INTERNATIONAL BUSINESS MACHINES CORP.		DATE		CHANGE NO.		DATE		CHANGE NO.		NOTE	
NAME SYSTEMS DIAGRAM		SEE INDEX CARD		248603						X PRINT TO ENG. SPEC. NO. 895251	
DESIGN 02.06.1		MODEL 729 IV									
DETAIL G.T. 2-14-53		7-19-61		249230							
CHECK /S 3-27-57		10-16-61		248593							
APPROV /WS 4-13-57											
DWG. SIZE - B		R125-4		R123 LTB		R122 HOLD B		R124 HOLD B			

02.06.1

530050

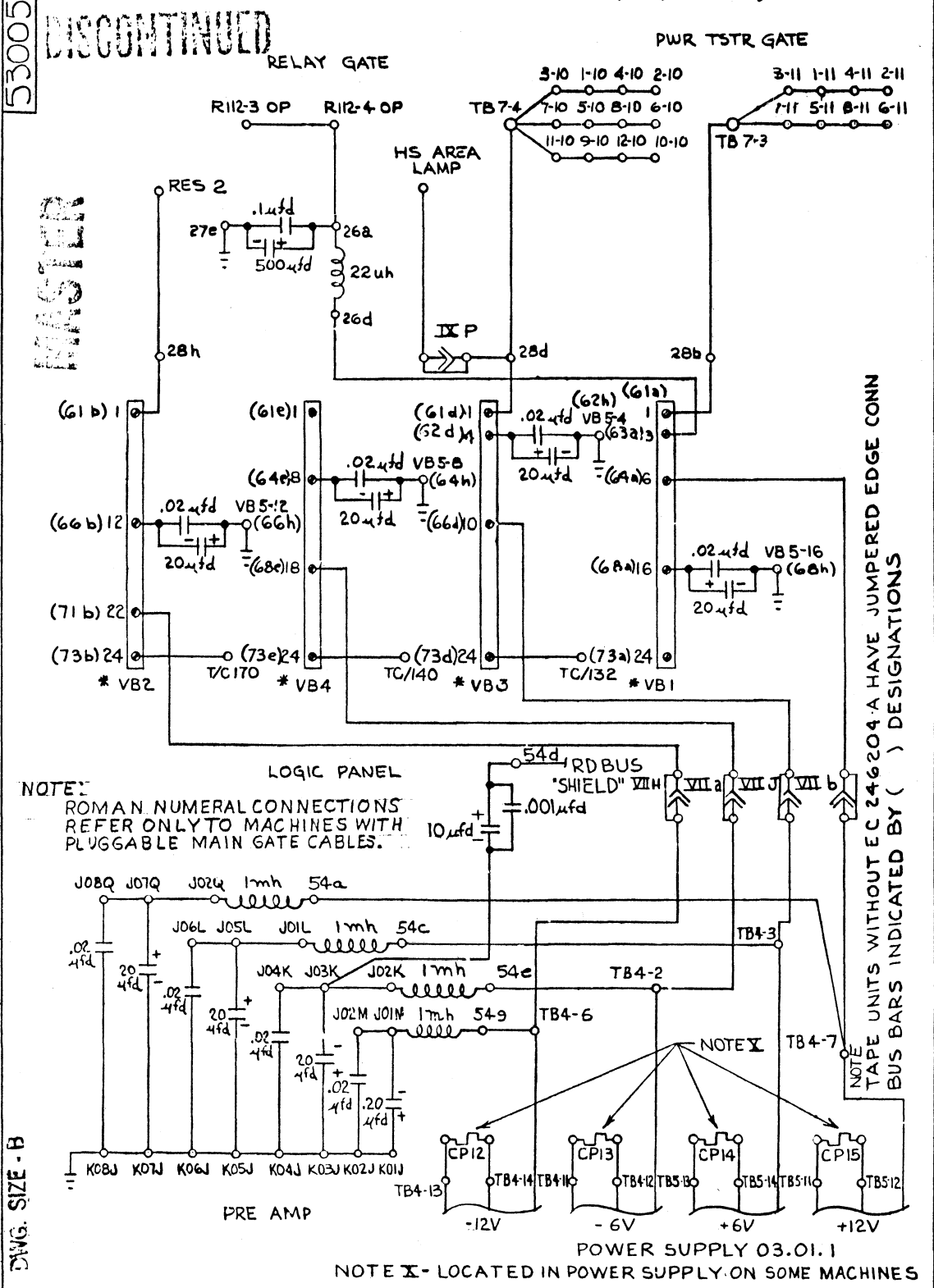
530051

DISCONTINUED

# VOLTAGE DISTRIBUTION (+12,+6,-6,-12)

02.07.1

MASTER



NOTE:  
ROMAN NUMERAL CONNECTIONS REFER ONLY TO MACHINES WITH PLUGGABLE MAIN GATE CABLES.

NOTE  
TAPES UNITS WITHOUT EC 246204-A HAVE JUMPERED EDGE CONN  
BUS BARS INDICATED BY ( ) DESIGNATIONS

DWG. SIZE - B

NOTE X - LOCATED IN POWER SUPPLY ON SOME MACHINES

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	SEE INDEXCARD		249230		X PRINT TO ENG. SPEC. NO. 895291	02.07.1
DESIGN	MODEL 729 IV	5-20-60	247454-A				
DETAIL	NS 3-4-5	12-21-60	248692				
CHECK	NS 3-13-57	2-2-61	248713				
APPRO	VLS 4-5-5	3-27-61	248713-A				

530051

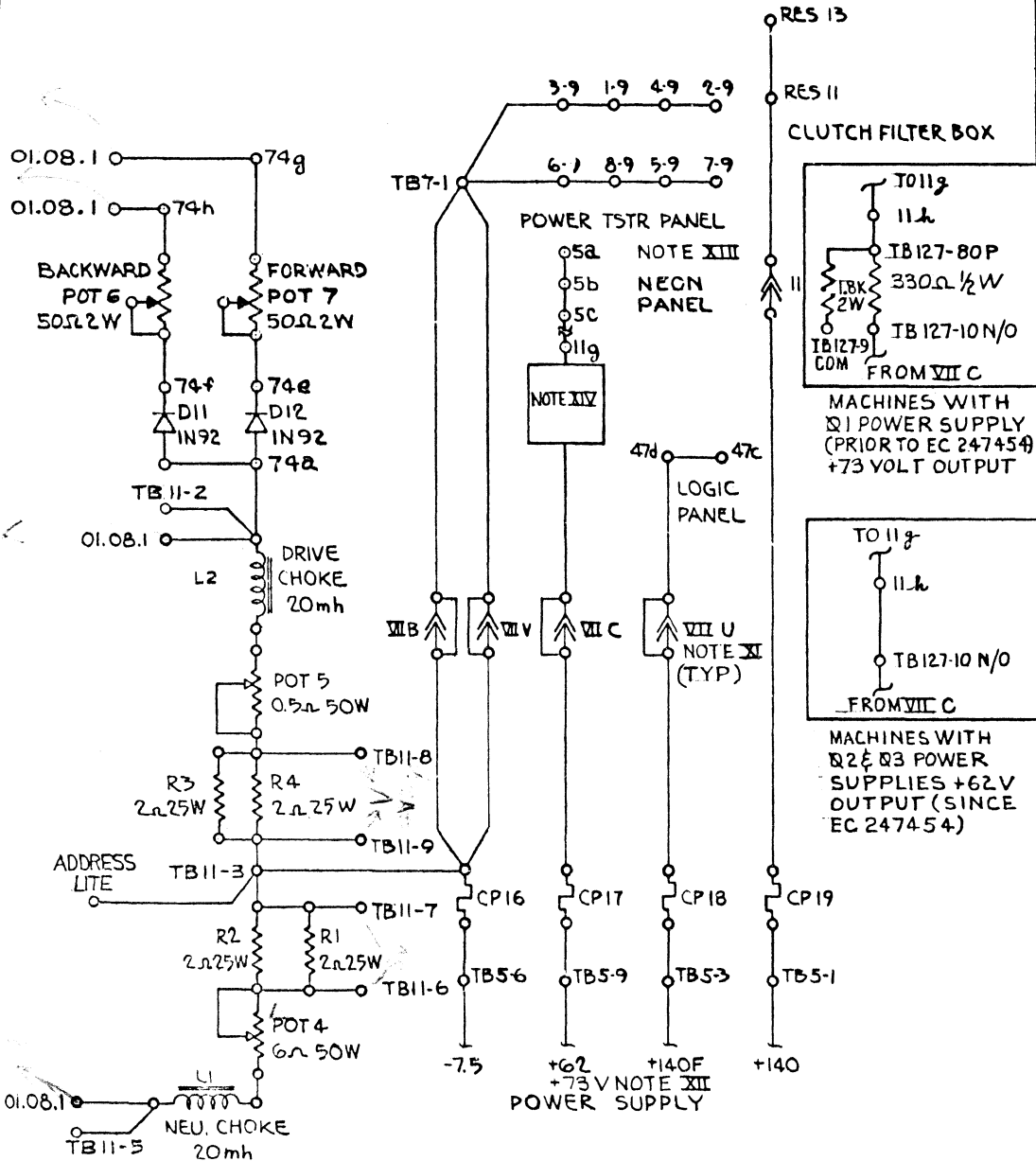
530052

VOLTAGE DISTRIBUTION (-7.5, +62, +140F & +140) (+73) NOTE XII

02.08.1

MASTER

DISCONTINUED



NOTES

- XI ROMAN NUMERAL CONNECTIONS REFER ONLY TO MACHINES WITH PLUGGABLE MAIN GATE CABLES
- XII MACHINES WITH #1 POWER SUPPLIES HAVE +73V OUTPUT
- XIII JUMPERED FROM 5a TO 11h INCLUSIVE
- XIV SEE RECTANGLES ON RIGHT SIDE OF PAGE FOR SPECIFIC MACHINE

DWG. SIZE - B

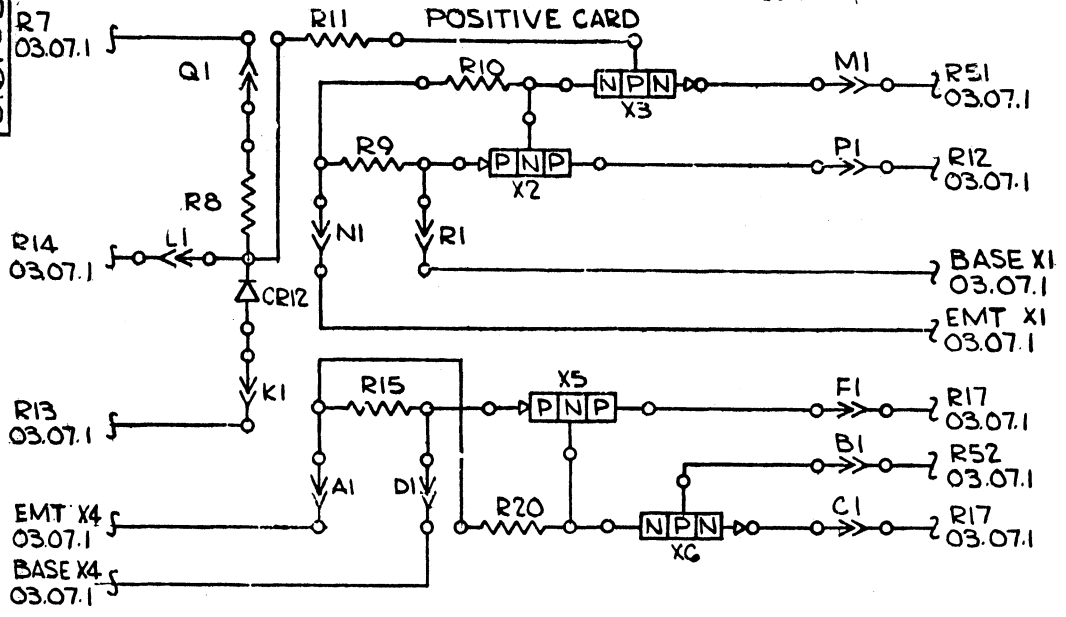
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		4-28-59	24433B	2-11-61	247614	X PRINT TO ENG. SPEC. NO. 895291	530052
02.08.1		9-2-59	246139	7-19-61	249230		
DESIGN	MODEL 729 IV	2-3-60	246412				
DETAIL	C.T. 2-14-59	8-18-60	246565				
CHECK	2-5 3-10-59	12-21-60	248692				
APPRO	2-5 4-13-59					02.08.1	

316158

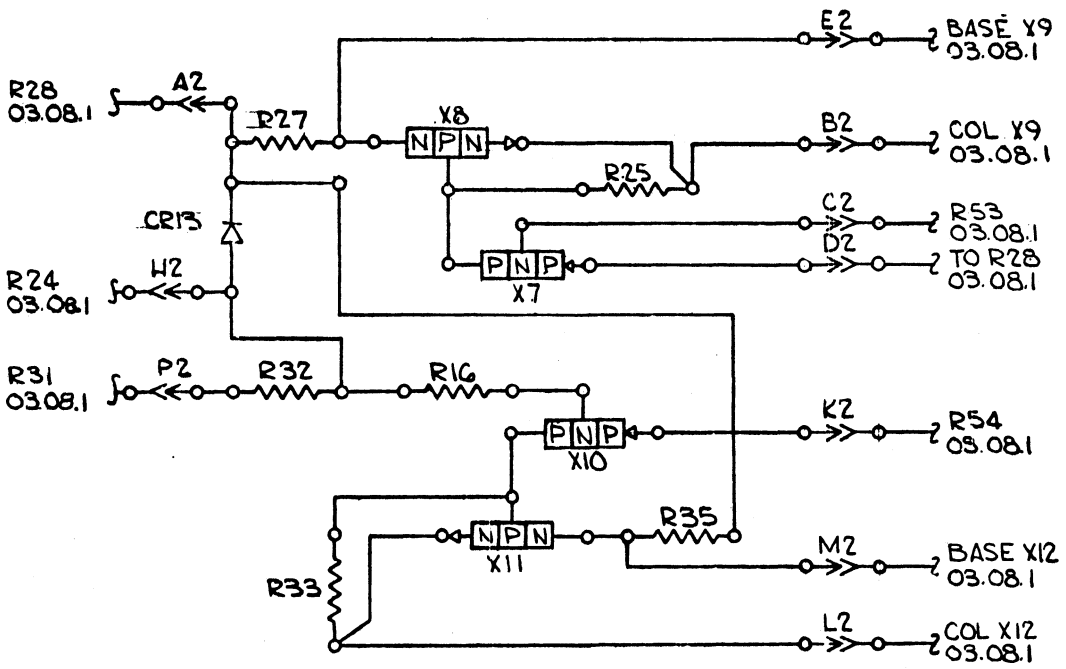
±6V & ±12V CARD WIRING

MASTER

03.04.1



NEGATIVE CARD



NOTE:  
 X O->>O DESIGNATES PIN CONNECTIONS ON CARD SOCKET.

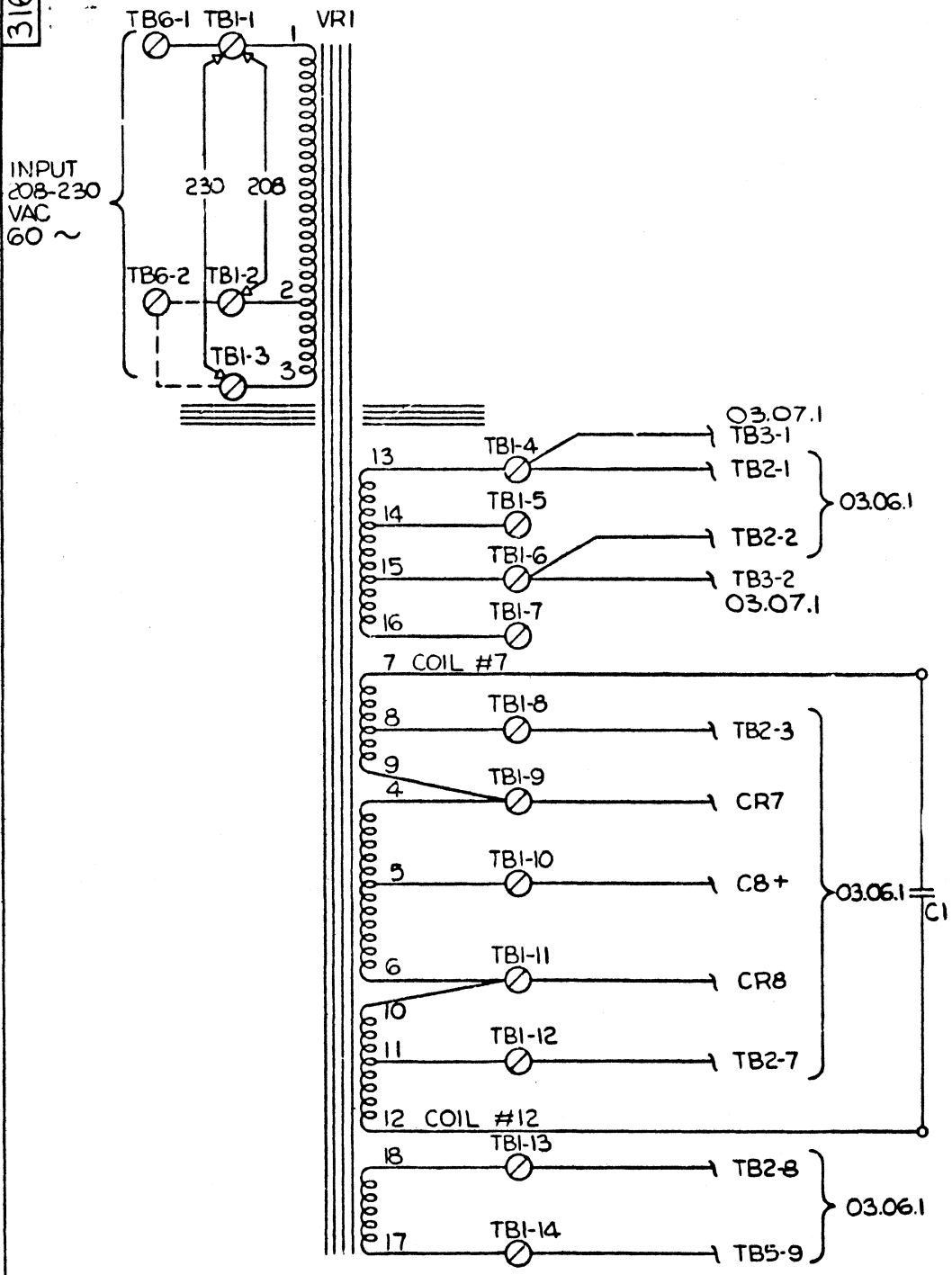
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		6-9-60	247455			NOTE X PRINT TO ENG. SPEC. NO. 875291	P439.0434
03.04.1							
DESIGN	PECO 2-1-60 MODEL 729 II & IV						
DETAIL	ID 4-19-60 PHASE III						
CHECK	FLV 4-21-60 DRAWN						
APPRO	NM 5-6-60 CHECK						03.04.1

316158

316159

FERRO-REGULATOR SECTION

03.05.1

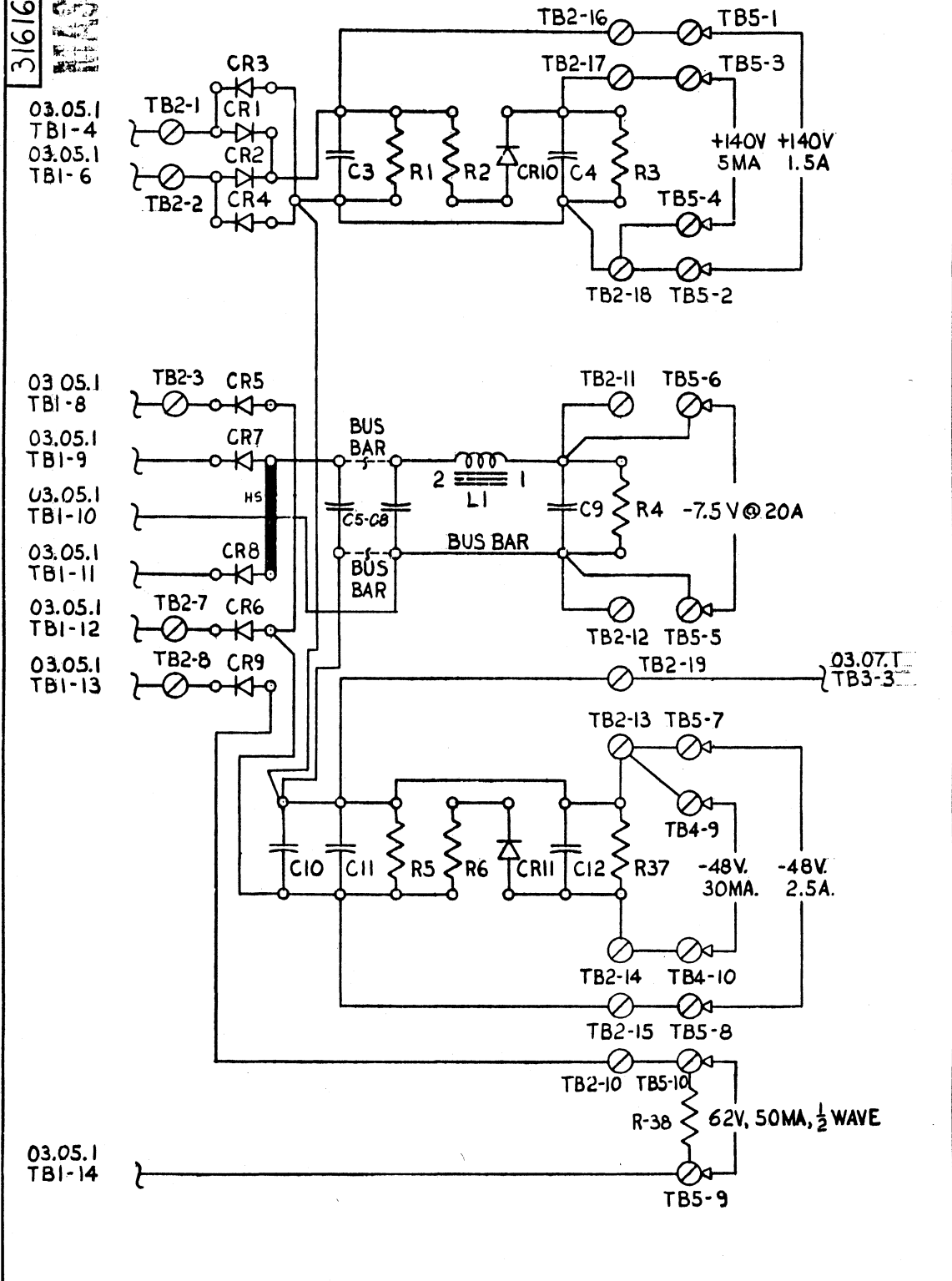


INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.	316159
NAME SYSTEMS DIAGRAM		6-9-60	247455			X PRINT TO ENG. SPEC. NO. 695291	P439-0435	
03.05.1		6-6-61	249545					
DESIGN	PECOLL-29-60	MODEL	729 II E IV					
DETAIL	JD 4-19-60	PHASE	II					
CHECK	FLV 4-21-60	DRAW						
APPRO	NM 5-6-60	CHECK					03.05.1	

316160

-48V, -7.5V, +140 & 62V SUPPLY

03.06.1



INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		6-9-60	247455			X PRINT TO ENGL. SPEC. NO. 895291	P439-0436
DESIGN PECO 12-1-60							
MODEL 729 II & IV							
DETAIL ID 4-19-60							
PHASE III							
CHECK FLV 4-21-60							
DRAW							
APPRO NM 5-6-60							
CHECK							

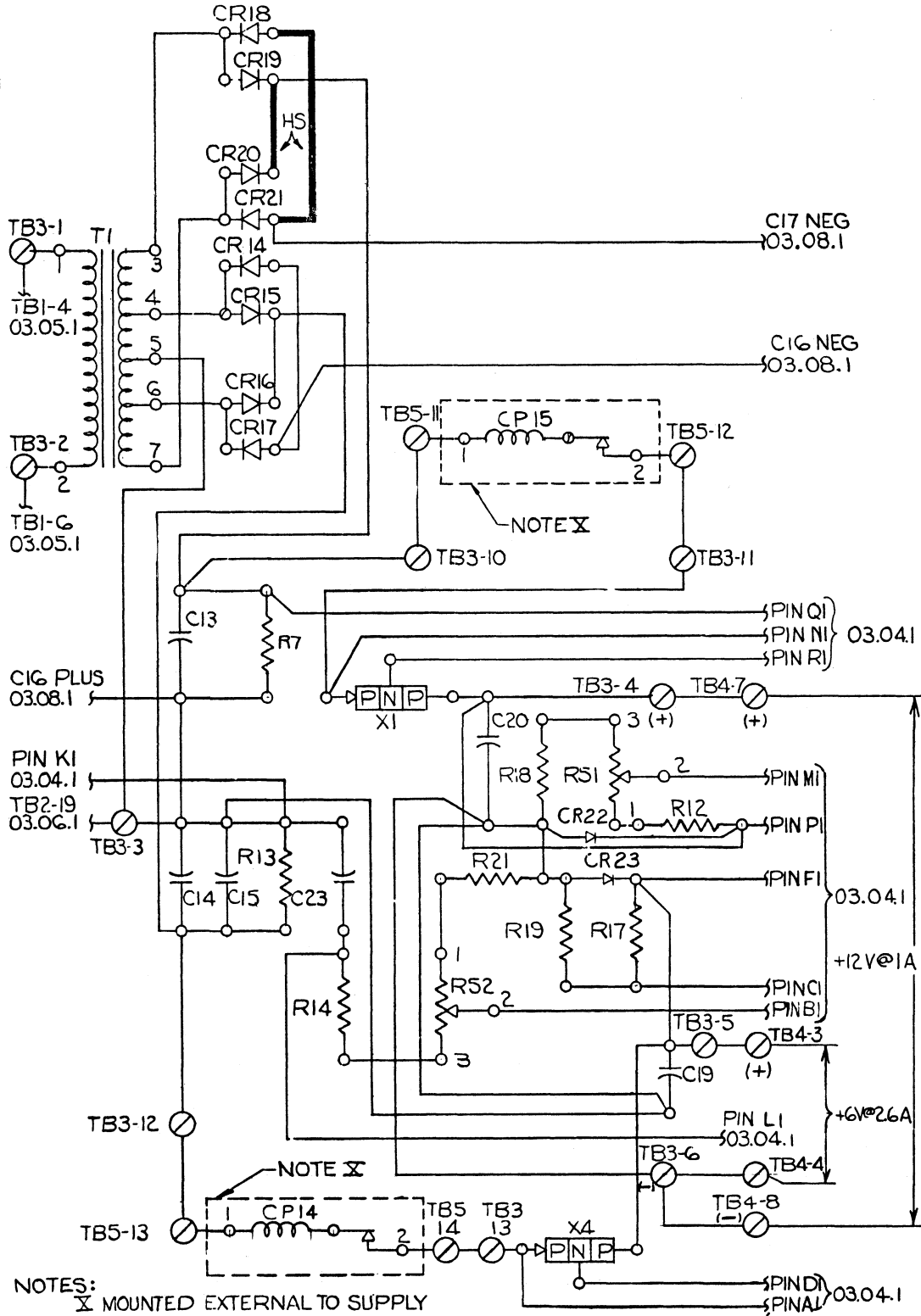
03.06.1

316160

03.07.1

3161G1

+6V AND +12V SUPPLY



NOTES:  
 X MOUNTED EXTERNAL TO SUPPLY

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	6-9-60	247455			NOTE X PRINT TO ENG. SPEC. NO. 895 291	2439-0437
DESIGN	PROJ 21-60	11-29-60	248153-A				
DETAIL	ID 4-9-60 PHASE III	9-25-61	248692A				
CHECK	FLV 4-21-60						
APPRO	N M 5-6-60						

03.07.1

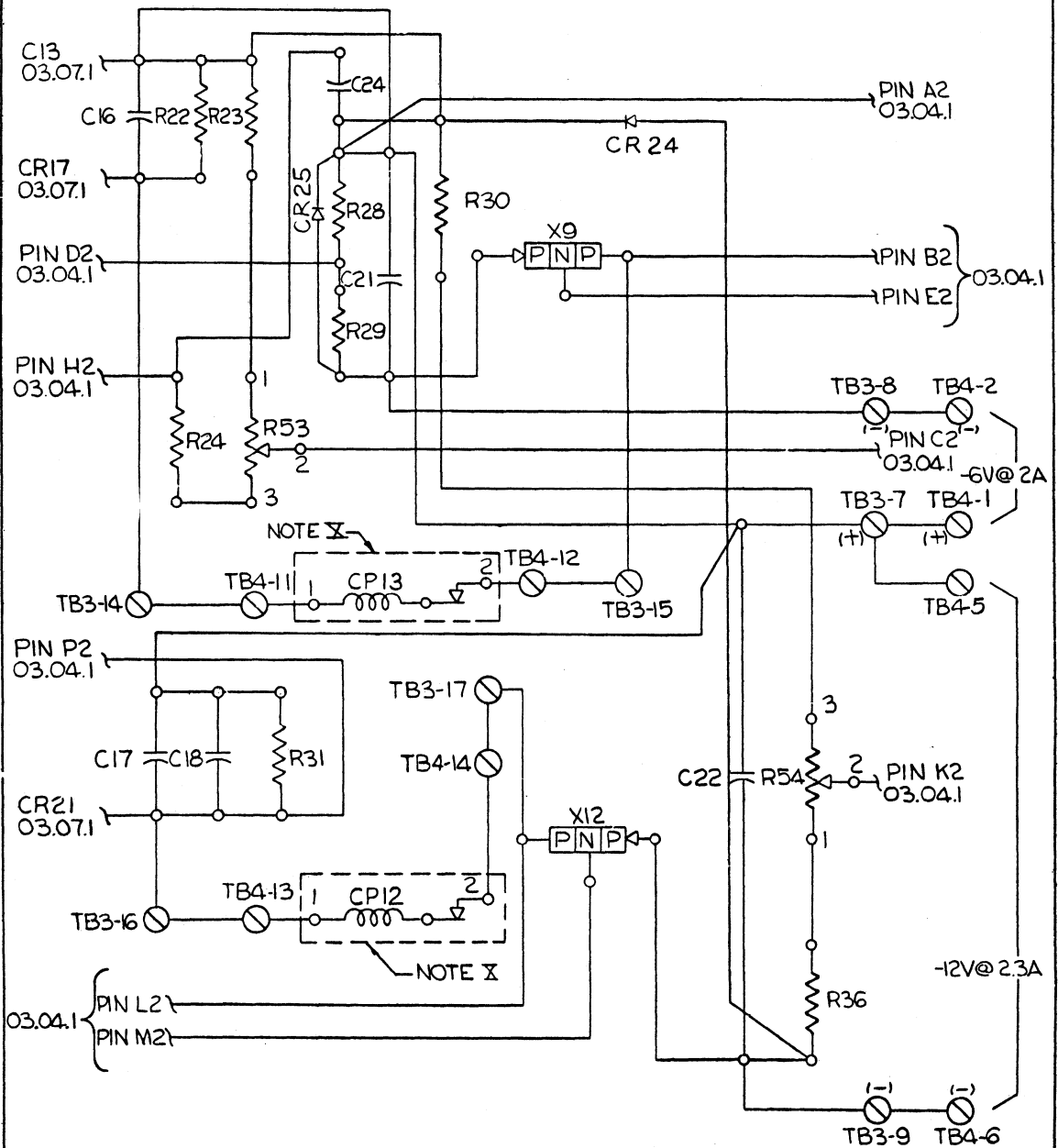
3161G1



316162

-6V & -12V SUPPLY

03.08.1



NOTE:  
X MOUNTED EXTERNAL TO SUPPLY

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		6-9-60	247455			NOTE X PRINT TO ENG. SPEC. NO. 895291	P439-0438
03.08.1		11-29-60	248153-A				
DESIGN PECO 2-1-60	MODEL 729 II & IV	9-25-61	248692-A				
DETAIL JD 1-10-60	PHASE III						
CHECK FIV 1-21-60	DRAW						
APPRO NM 5-6-60	CHECK						03.08.1

316132

COMPONENTS

SHEET 1 OF 2

03.09.1

316169

DIODES

SYMBOL	PART NO	PAGE NO	DESCRIPTION
CR1-4	595257	03.06.1	200 PIV
CR5,CR6	598479	03.06.1	150 PIV
CR7,CR8	207344	03.06.1	50 PIV
CR9,11	257800	03.06.1	100 PIV
CR12,CR13	209002	03.04.1	ZENER 10 VOLT
CR14-17	598353	03.07.1	100 PIV
CR18,CR21	598480	03.07.1	135 PIV
CR19,CR20	598479	03.07.1	135 PIV
CR22,CR23	257800	03.07.1	100 PIV
CR24,CR25		03.08.1	

MAGNETIC COMPONENTS

SYMBOL	PART NO	PAGE NO	DESCRIPTION
VR1	316148	03.05.1	FERRO REGULATOR
T1	316149	03.07.1	ISOLATION TRANSFORMER
L1	316150	03.06.1	CHOKE

TRANSISTORS

SYMBOL	PART NO	PAGE NO	DESCRIPTION
X1, X4	209001	03.07.1	POWER TRANSISTOR
X9, X12		03.08.1	
X2, X5	518689	03.04.1	TYPE 028
X3, X6	318325	03.04.1	TYPE 083
X7, X10	535441	03.04.1	TYPE 026
X8, X11	369087	03.04.1	TYPE 086

CAPACITORS

SYMBOL	PART NO	PAGE NO	DESCRIPTION
C1	327908	03.05.1	35MFD, 330 VAC
C3	316135	03.06.1	1500MFD, 150VDC
C4	316136	03.06.1	250MFD, 150VDC
C5-C9	316137	03.06.1	15, 500 MFD 10 VDC
C14, C15		03.07.1	
C16		03.08.1	
C10, C11	208222	03.06.1	5000MFD, 55VDC
C12	316138	03.06.1	2000MFD, 50VDC
C13	316139	03.07.1	12, 500 MFD 16 VDC
C17, C18		03.08.1	
C19, C20	316173	03.07.1	300MFD, 15VDC
C21, C22		03.08.1	
C23	316668	03.07.1	300MFD, 15VDC
C24		03.08.1	

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME	SYSTEMS DIAGRAM	6-9-60	247455			X PRINT TO ENG. SPEC. NO. 895291	03.09.1
	03.09.1	11-29-60	248153-A				
DESIGN	FLV 4-20-60 MODEL 729 II & IV	12-21-60	248865				
DETAIL	ID 4-20-60 PHASE III	6-6-61	249545				
CHECK	FLV 4-21-60 DRAW	6-22-61	249795				
APPRO	NM 5-6-60 CHECK						

316169

316172

316172

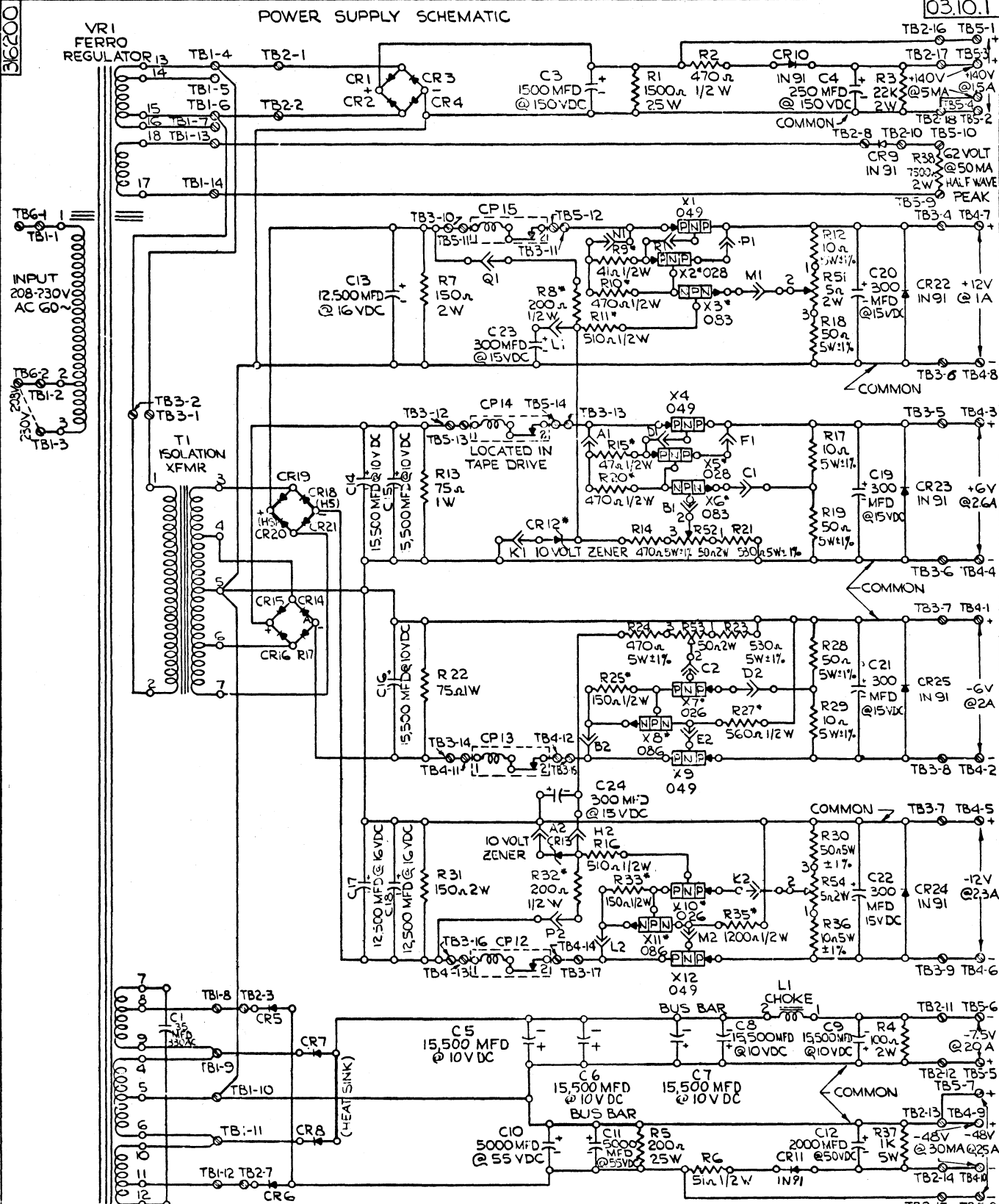
RESISTORS			
SYMBOL	PART NO	PAGE NO	DESCRIPTION
R 1	442960	03.06.1	1500Ω 25W
R 2	317011	03.06.1	470Ω 1/2W
R10,R20		03.04.1	
R 3	317099	03.06.1	22KΩ 2W
R 4	322888	03.06.1	100Ω 2W
R 5	221110	03.06.1	200Ω 25W
R 6	502483	03.06.1	51Ω 1/2W
R 7	317019	03.07.1	150Ω 2W
R 31		03.08.1	
R 14	316140	03.07.1	470Ω 5W
R 24		03.08.1	
R 9,R15	317003	03.04.1	47Ω 1/2W
R11,R16	317012	03.04.1	510Ω 1/2W
R12,R17	316142	03.07.1	10Ω 5W
R29,R36		03.08.1	
R 13	132779	03.07.1	75Ω 1W
R 22		03.08.1	
R 37	2100878	03.06.1	1KΩ 5W
R 38	326998	03.06.1	7500Ω 2W
R18,R19	316144	03.07.1	50Ω 5W
R 28,R30		03.08.1	
R 21	316145	03.07.1	530Ω 5W
R 23		03.08.1	
R 27	322347	03.04.1	560Ω 1/2W
R 8,R32	317006	03.04.1	200Ω 1/2W
R 35	317276	03.04.1	1200Ω 1/2W
R 25,R33	322729	03.04.1	150Ω 1/2W
R 51	316146	03.07.1	5Ω 2W POT
R 54		03.08.1	
R 52	316147	03.07.1	50Ω 2W POT
R 53		03.08.1	

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM				6-9-60	247455	X PRINT TO ENG. SPEC. NO.	
DESIGN FLV 4-20-60 MODEL 729 II & IV						895291	
DETAIL ID 4-20-60 PHASE III							
CHECK FLV 4-21-60 DRAW							
APPRO N M 5-6-60 CHECK							03.09.1

316172

POWER SUPPLY SCHEMATIC

03.10.1



NOTE: COMPONENTS MARKED BY \* ARE MOUNTED ON PRINTED CIRCUIT CARDS

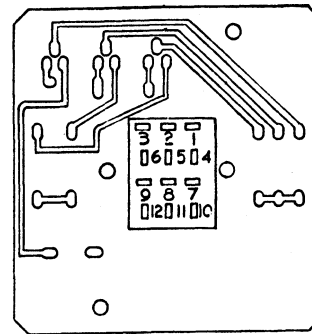
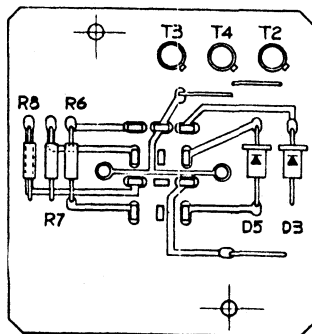
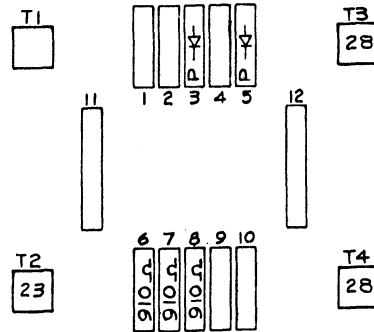
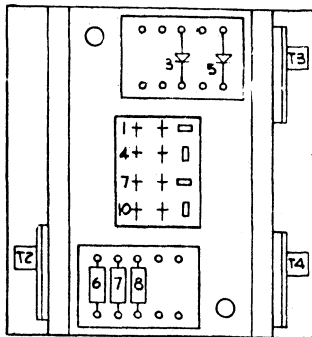
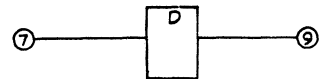
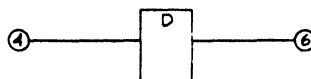
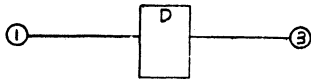
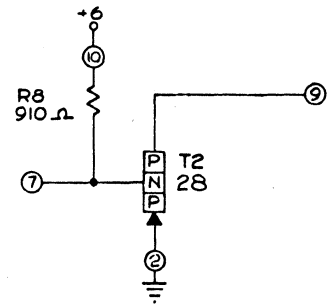
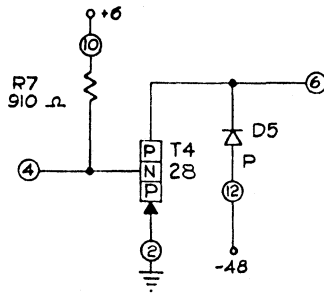
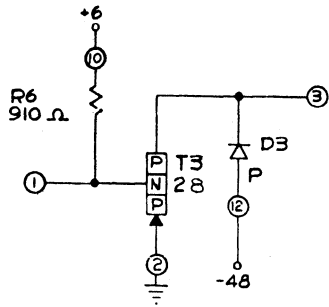
SWG. S171

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME: SYSTEMS DIAGRAM		9-15-60	248153			X PRINT TO ENG. SPEC. NO. 895291	03.10.1
03.10.1		12-21-60	248865				
DESIGN: N11117-23 CD MODEL 7291 IV		6-6-61	249545				
DRAWN: D 8-9-60 PHASE III		6-22-61	249795				
CHECK: LFC 8-10-60		9-25-61	24992A				
APPROV: [Signature]							

528618

POWER RELAY & POWER LIGHT DRIVER

0.AA.01

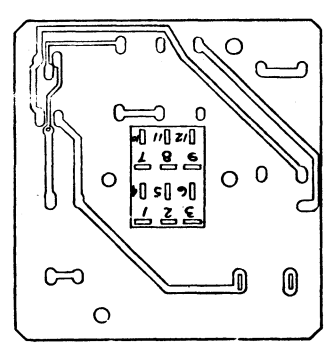
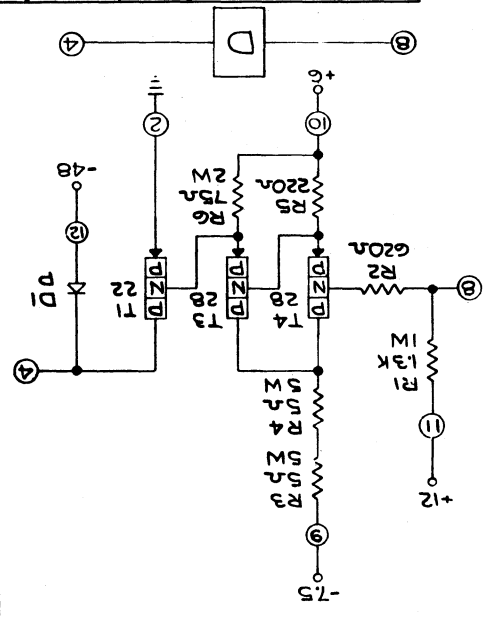
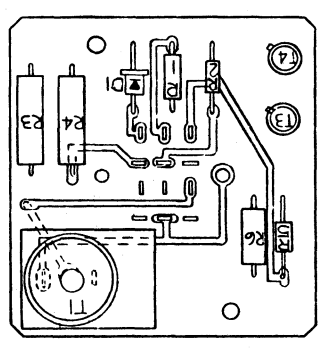
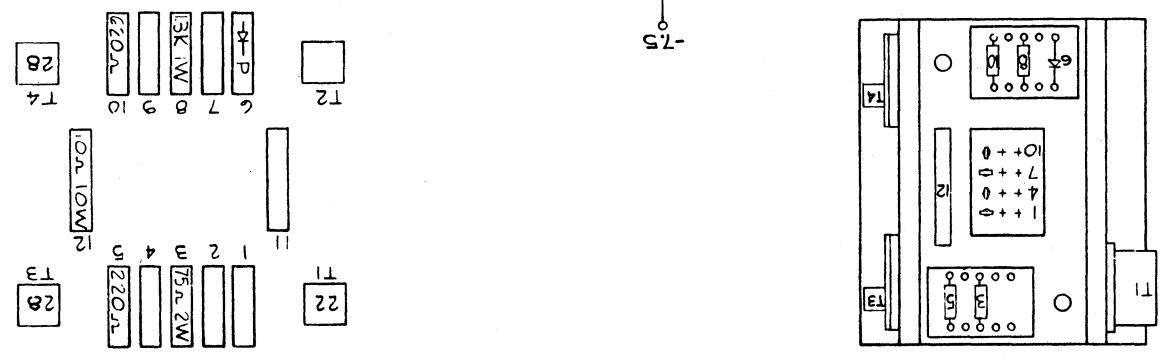
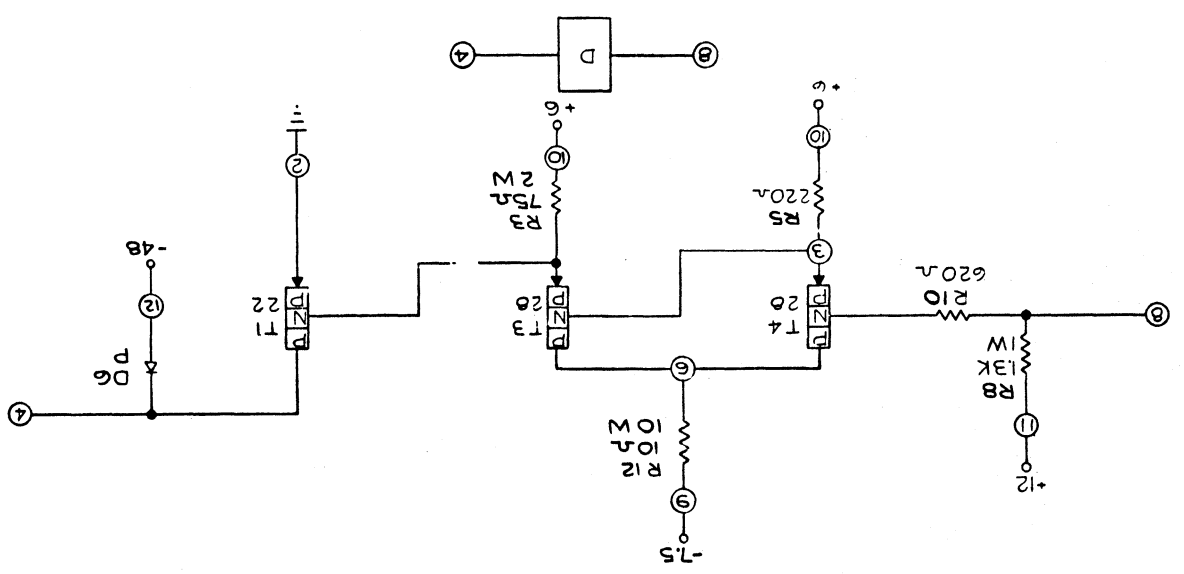


INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	DATE	CHANGE NO.	NOTE	DEVELOPMENT NO.
NAME SYSTEMS DIAGRAM		9-2-58	244306A			NOTE X PRINT TO ENG. SPEC. NO. 895291	4526-0679
		1-11-61	248314				
DESIGNER	MODEL 729 III						
DRAWN							
CHECKED							
APPROVED							

528618

POWER PROLAY DRIVER

0AA02

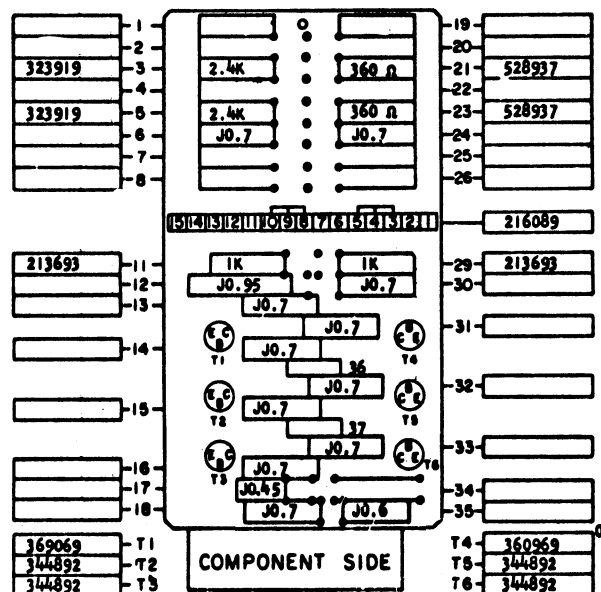
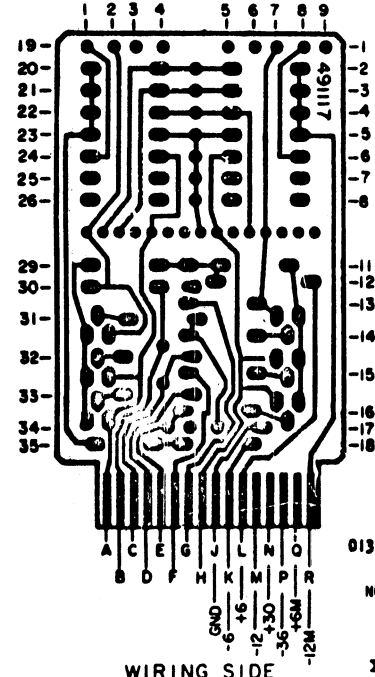
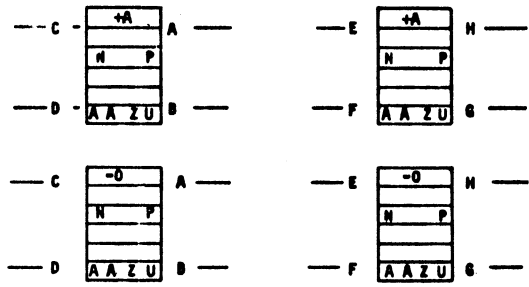
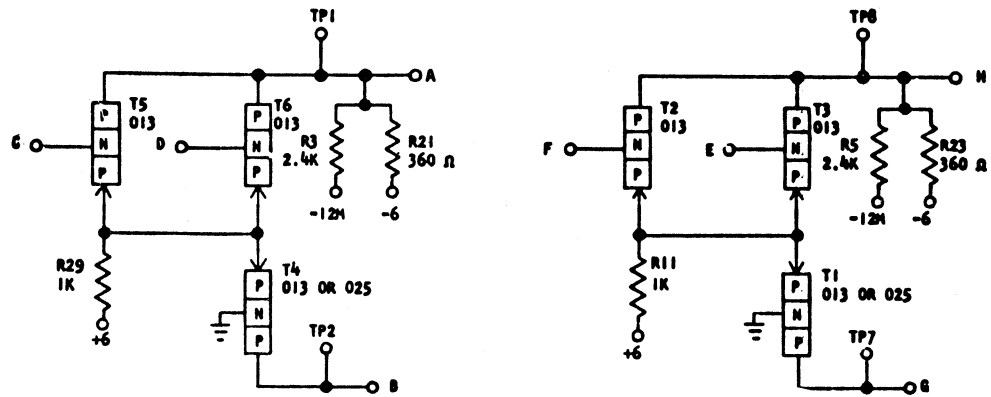


APPROVED	5-22-62	CHECKED	11-9-60
DESIGN	3-13-58	DETAILS	3-13-58
MODEL	72-9 III	DATE	1-11-61
NAME	SYSTEMS DIAGRAM	CHANGE NO.	24306A
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	
		CHANGE NO.	
		NOTE	1 POINT TO ENG. SPEC. NO. 695291
		DEVELOPMENT NO.	0020-0779
			619873

ALLOY - TWO WAY "N" BLOCK

371206

371206  
STANDARDS  
CODE  
2-7045



013 OR 025 369069 T1  
013 344892 T2  
013 344892 T3

NOTES  
I ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999  
II "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296  
III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED  
IV TEST TO ENGINEERING SPECIFICATION 891206

OPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE

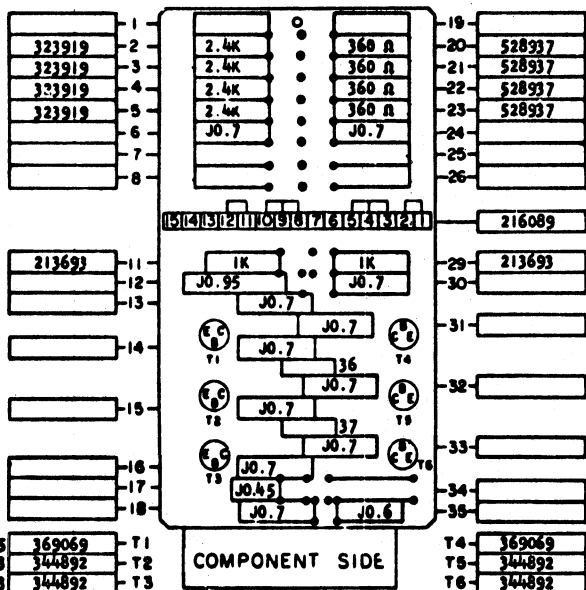
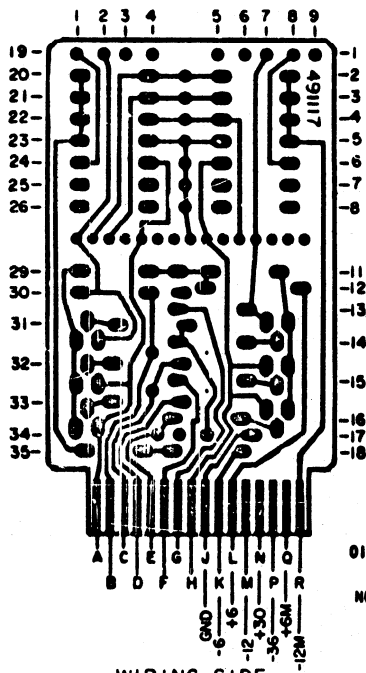
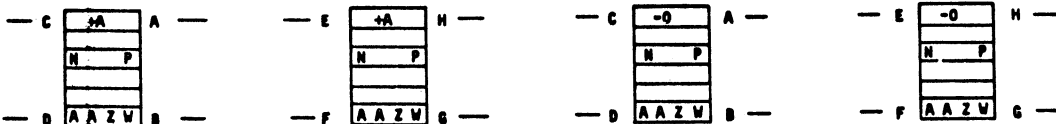
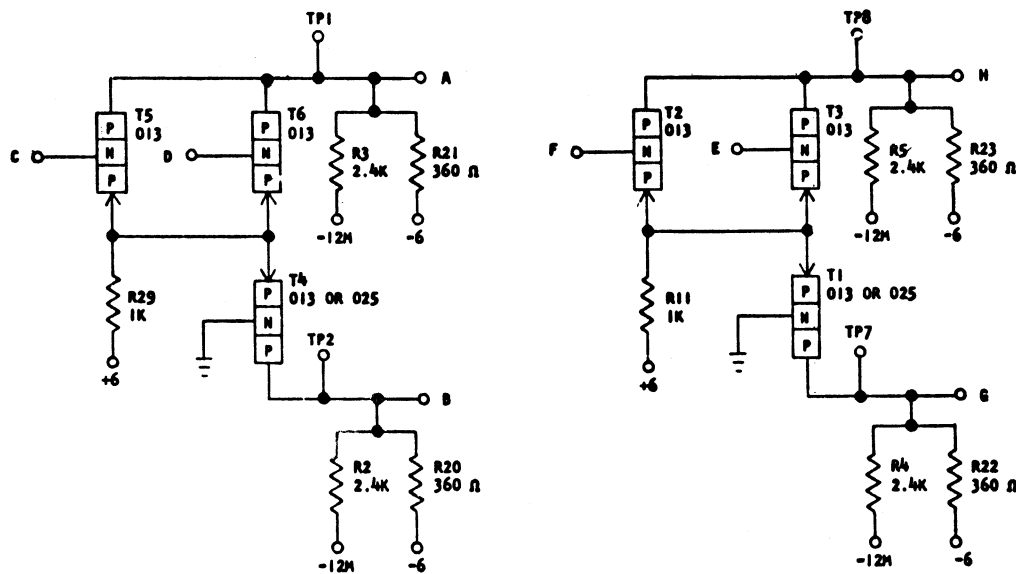
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR-ALLOY TWO WAY	11-18-58	105502A	R.H.				371206
DESIGN	DEV 11-18-58	4-23-59	105865	R.H.				
DETAIL	RKD 11-18-58	5-4-60	108805	R.H.				
CHECK	GMS 11-18-58							
APPRO	DEV 11-18-58							

371204

ALLOY-TWO WAY "N" BLOCK

371204

STANDARD CODE  
2-7045



013 OR 025 369069 T1  
013 344892 T2  
013 344892 T3

NOTES  
I ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999  
II "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296  
III ALL RESISTORS ARE 1/2 WATT AND :5% UNLESS OTHERWISE NOTED  
IV TEST TO ENGINEERING SPECIFICATION 891204

**B**

WIRING SIDE

BPD CIRCUIT & PACKAGING STANDARD

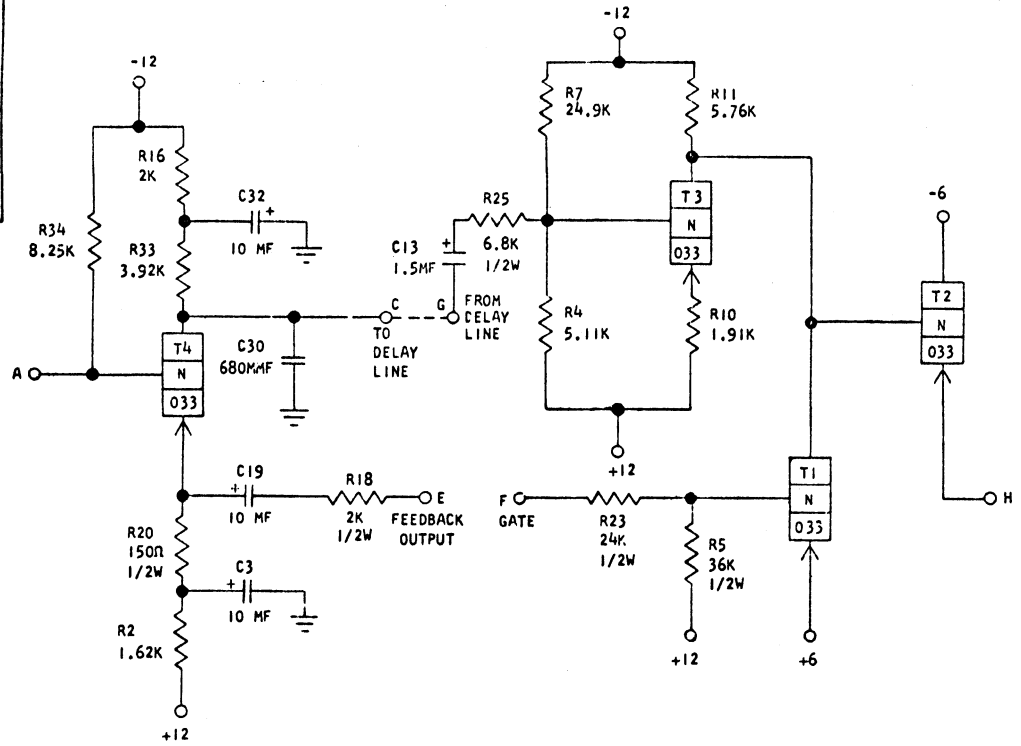
APPROVAL	DATE
RWE	10-30-58

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASH TSTR- ALLOY-TWO	11-20-58	105502A	R.J.H				371204
WAY	"N" BLOCK	4-23-59	105865	R.J.H				
DESIGN	DEV 11-1-58	MODEL	SMS					
DETAIL	RKD 11-14-58	SCALE	NONE					
CHECK	GWS 11-18-58	DRAW	VE 11-18-60					
APPRO	DEV 11-18-58	CHECK	Q.V. 11-27-60					



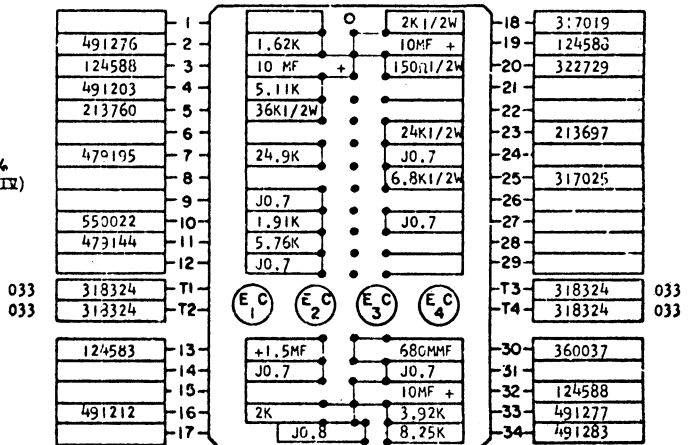
ALLOY - PRE AMP NO. 2 MAGNETIC TAPE

371926  
STANDARDS CODE  
2-7045  
A B K -



NOTES

- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION
- XI ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- XII ALL RESISTORS ARE 1/8 WATT AND ±1% UNLESS OTHERWISE NOTED (AS NOTE XIII)
- XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296
- XIV ALL 1/2 WATT RESISTORS ARE ±5%



033	318324	T1	033	318324	T3	318324	033
033	318324	T2	033	318324	T4	318324	033

124583	13	1.62K	18	317019
	14	10 MF	19	124588
	15	5.11K	20	322729
491212	16	36K1/2W	21	
	17	24.9K	22	
		JO.7	23	213697
		24.9K	24	
		JO.7	25	317025
		1.91K	26	
		5.76K	27	
		JO.7	28	
		JO.7	29	
		JO.7	30	360037
		JO.7	31	124588
		JO.7	32	491277
		JO.7	33	491283
		JO.7	34	

**B**

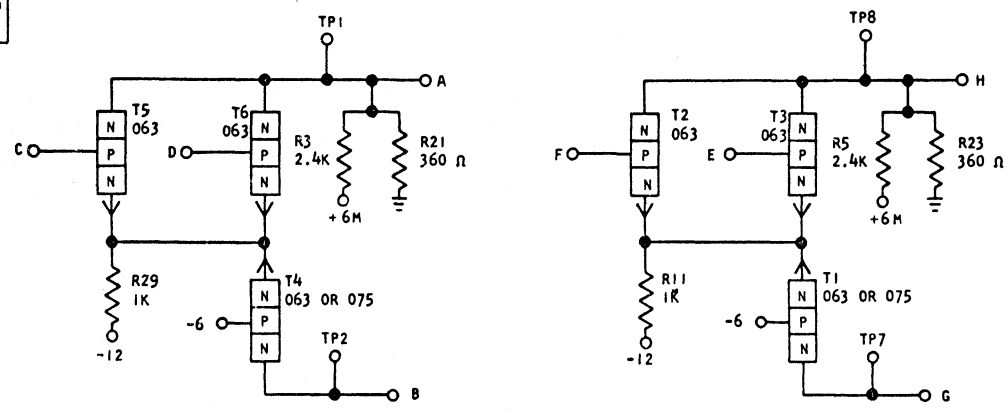
CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE
LIP	2-13-60
FG	

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.	371926
NAME	CARD ASM TSTR-ALLOY-PRE	2-19-60	108356	NGJ				2547-0799	
AMP NO.	2 MAGNETIC TAPE	3-3-60	D108533	NGJ					
DESIGN	REM 2-13-60	TYPE	SMS						
DETAIL	REM 2-13-60	SCALE	NONE						
CHECK	TPA 2-13-60	DRAW	2-2-61	5-6-60	D108817	NGJ			
APPRO	BES 2-13-60	CHECK	2-2-61	2-21-61	111085	JWB			

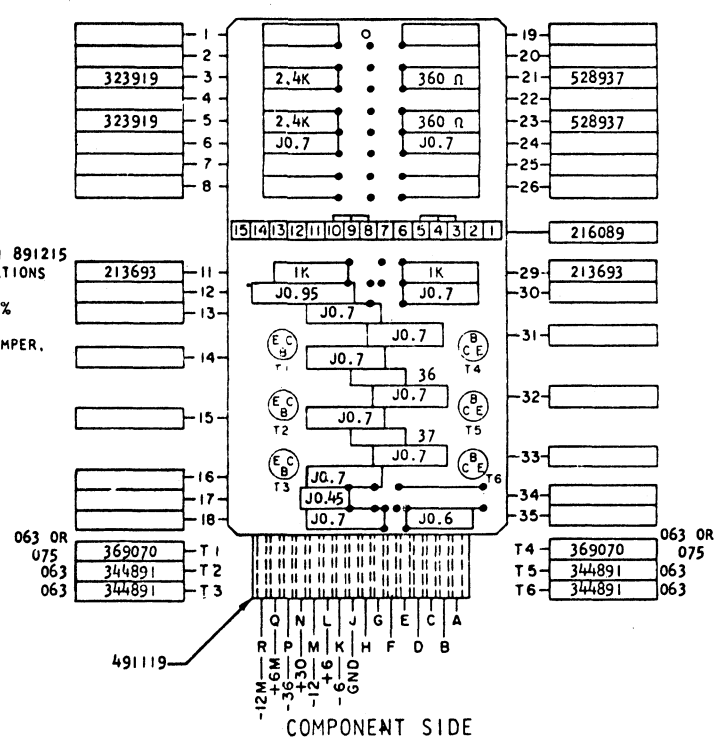
ALLOY-TWO WAY "P" BLOCK

371215  
A B Z U

STANDARDS CODE  
2-7045



- NOTES  
 I TEST TO ENGINEERING SPECIFICATION 891215  
 II ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999  
 III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED  
 IIII "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



**B**

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-30-58

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR- ALLOY-	5-14-58	+04500		4-23-59	105865	RJH	
TWO WAY "P" BLOCK OUT PH LOADS		6-6-58	382-0026		3-31-60	REDRAWN		
DESIGN	RD 12-8-58	TYPE	SMS		6-20-60	D 109187	<i>2 U B</i>	
DETAIL	RKD 12-8-58	SCALE	NONE					
CHECK	GWS 12-8-58	DRAW	VE 5-10-60					
APPRO	BES 12-8-58	CHECK	<i>95 5-14-60</i>		2-16-59	105875	RJH	

ALLOY-TWO WAY "P" BLOCK-IN PH LOADS

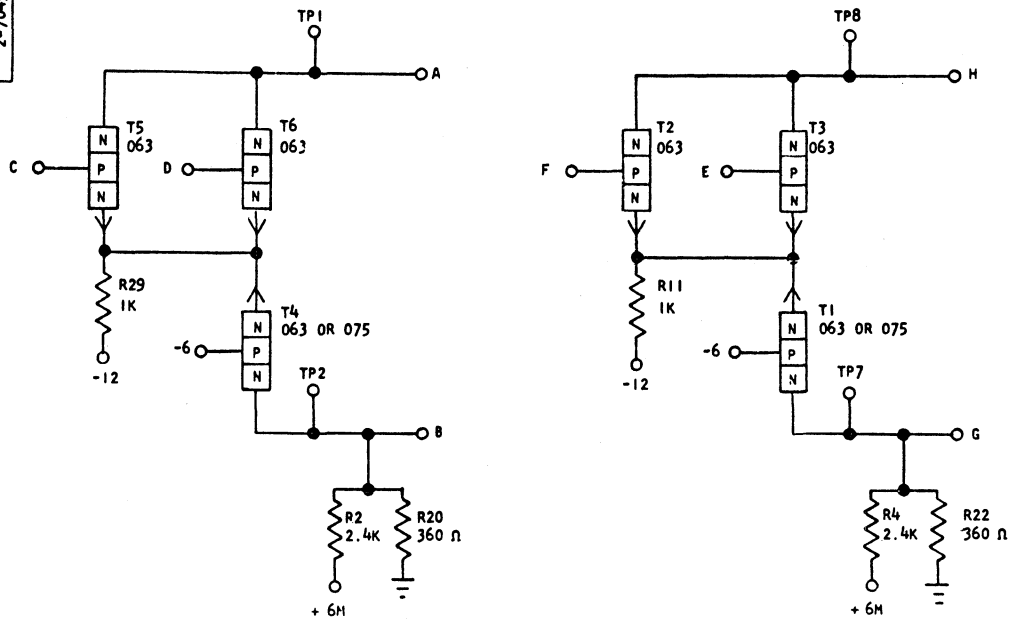
371214

371214

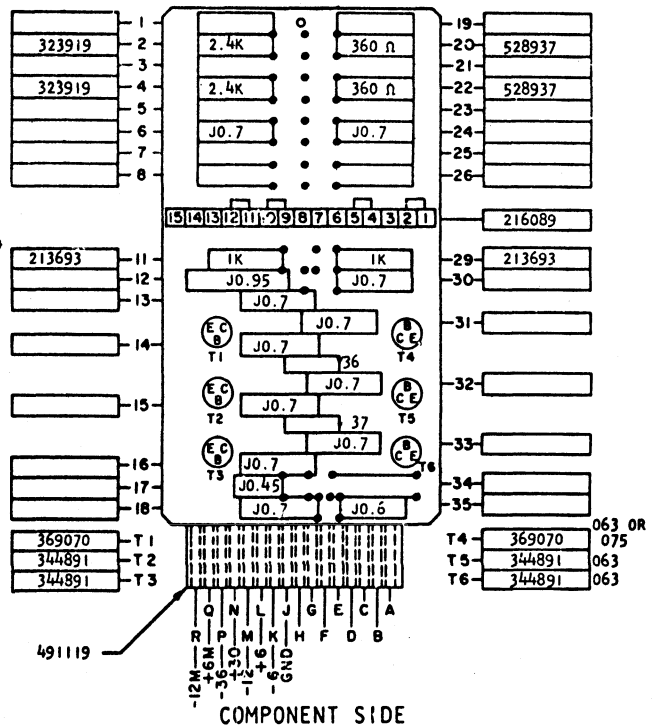
A B Z V

STANDARDS CODE

2-7045



- NOTES
- I TEST TO ENGINEERING SPECIFICATION 891214
  - II ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - IV "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



B

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-30-58

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR-ALLOY-TWO WAY	12-9-58	105546	RJH				371214
"P" BLOCK -IN PH LOADS	4-23-59	105865	RJH				
DESIGN: DEV 12-8-58	TYPE SMS	1-22-60	REDRAWN				
DITAIL RKD 12-8-58	SCALE NONE	6-20-60	D109187				
CHECK GWS 12-8-58	DRAW VE 5-23-60						
APPRO BES 12-8-58	CHECK 5-23-60						

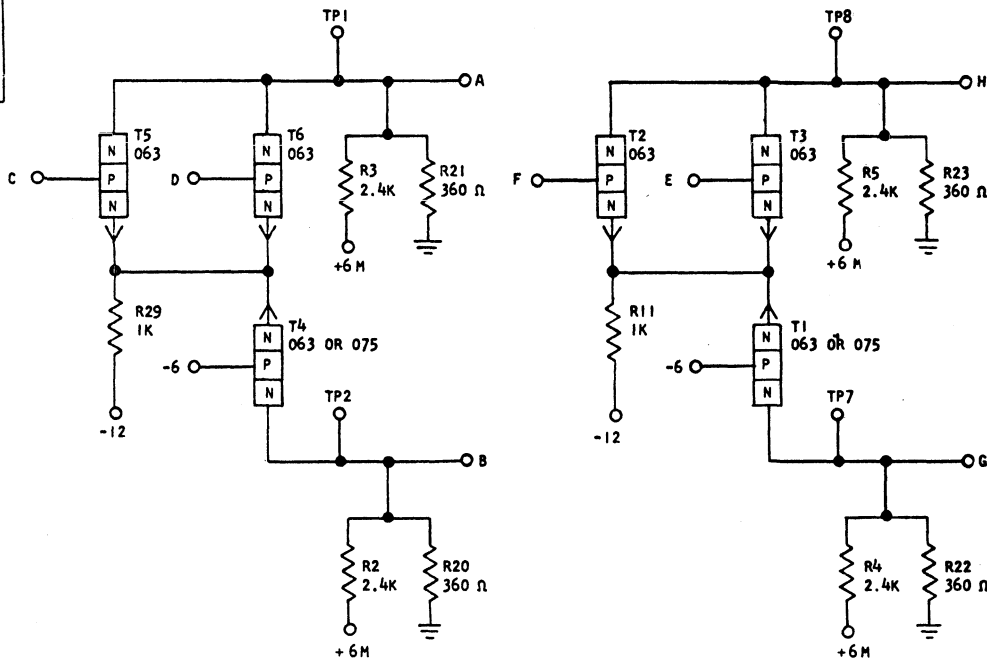
ALLOY-TWO WAY "P" BLOCK

371213

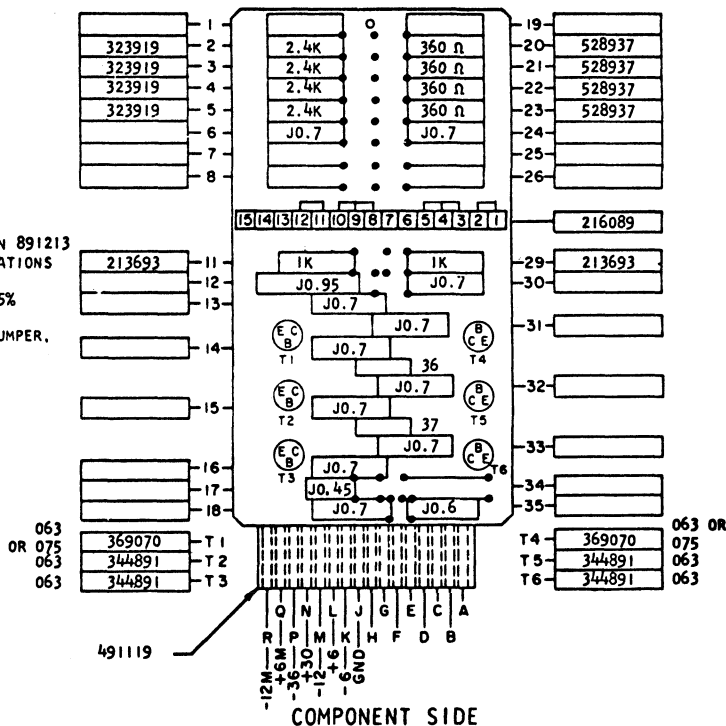
A B Z W

STANDARDS CODE

2-7045



- NOTES
- I TEST TO ENGINEERING SPECIFICATION 891213
  - II ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999
  - III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - IV "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



B

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-30-58

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR-ALLOY-TWO	11-20-58	105502A	RJH				371213
WAY "P" BLOCK TWO ON CARD ALL LDS	4-23-59	105865	RJH				
DESIGN DEV 11-1-58 TYPE SMS	1-27-60	REDRAWN					
DETAIL RKD 11-18-58 SCALE NONE							
CHECK GWS 11-18-58 DRAW VE 5-10-60	6-20-60	D109187	<i>RWB</i>				
APPRO DEV 11-18-58 CHECK <i>5/25/58-61</i>							

371219

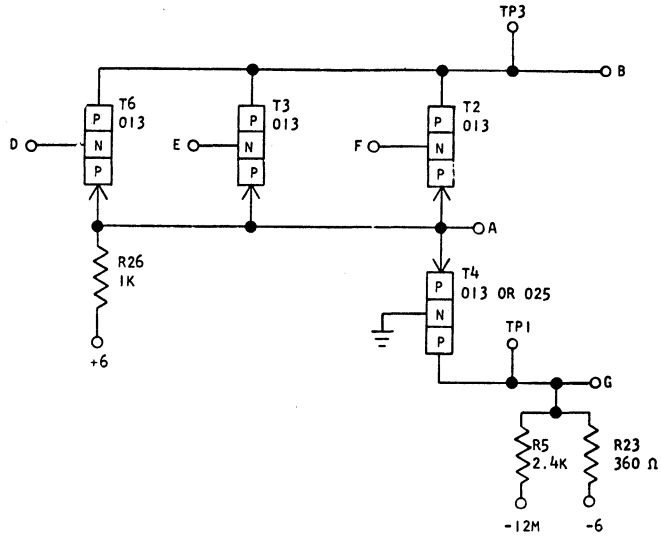
ALLOY-THREE WAY "N" BLOCK  
IN PH LOADS

371219

A C Y Z

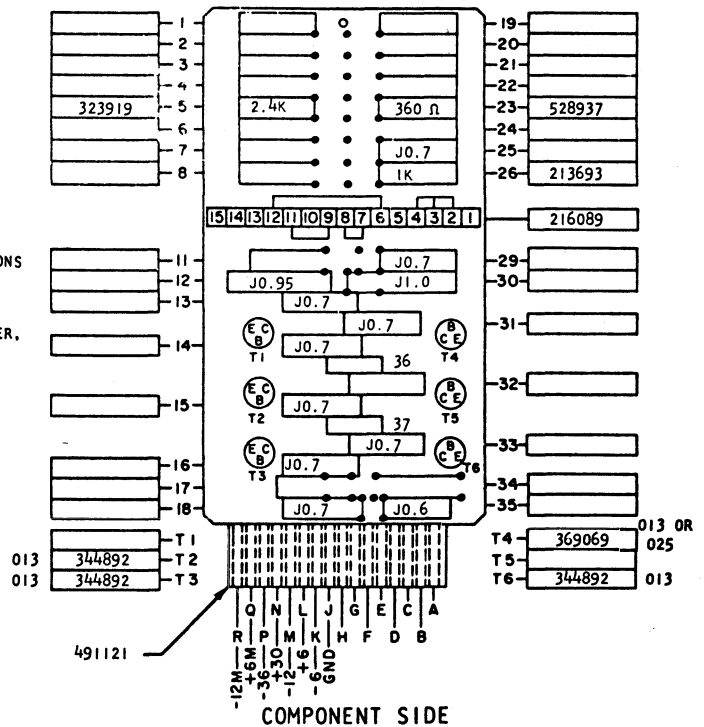
STANDARDS  
CODE

2-7045



NOTES

- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891219
- XI ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999
- XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
- XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



B

OPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-30-58

INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR- ALLOY -THREE	DATE	5-6-58	CHANGE NO.	104500-	APPROVAL	7-6-60	CHANGE NO.	D109624	371219
WAY	"N" BLOCK IN PH LOADS	DATE	11-11-58	CHANGE NO.	382-0061	APPROVAL		CHANGE NO.		
DESIGN	DEV 12-8-58	TYPE	SMS	DATE	12-10-58	CHANGE NO.	105546A	APPROVAL	RJH	
DETAIL	RKD 12-8-58	SCALE	NONE	DATE	4-23-59	CHANGE NO.	105865	APPROVAL	RJH	
CHECK	GWS 12-8-58	DRAW	VE 5-13-60	DATE	3-25-60	CHANGE NO.	REDRAWN	APPROVAL		
APPRO	CAM 4-14-59	CHECK	204 5-16-60	DATE		CHANGE NO.		APPROVAL		

371218

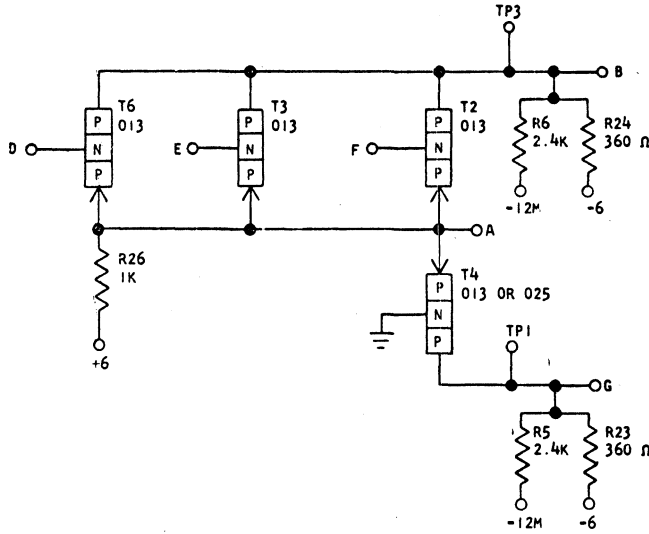
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STANDARDS CODE

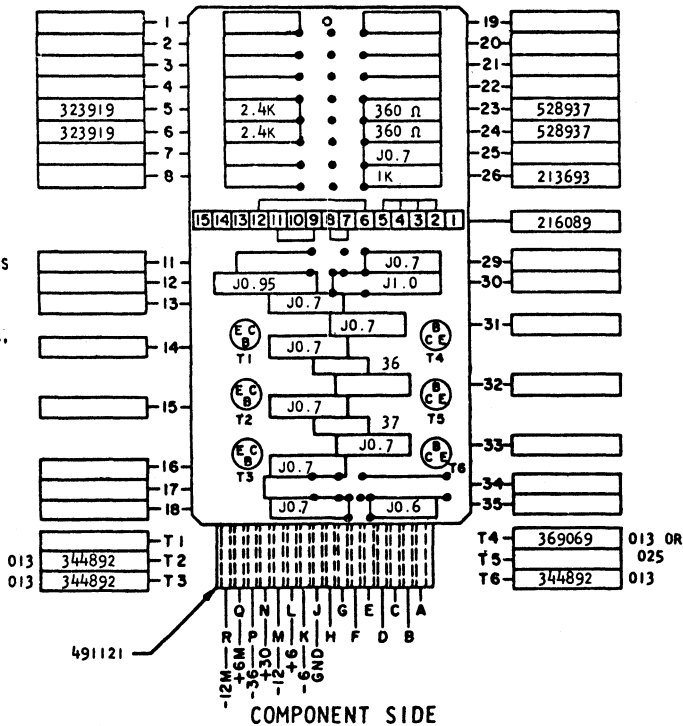
2-7045

ALLOY-THREE WAY "N" BLOCK ALL LOADS

371218



- NOTES
- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891218
  - XI ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999
  - XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



B

DPD CIRCUIT & PACKAGING STANDARD

APPROVAL

DATE

RWE

10-30-58

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR- ALLOY-THREE WAY "N" BLOCK ALL LOADS	5-6-58	+04500-		7-6-60	0109624	RWB	371218
DESIGN	DEV 11-1-58	TYPE	SMS					
DETAIL	RKD 11-18-58	SCALE	NONE					
CHECK	GWS 11-18-58	DRAW	VE 5-16-60					
APPRO	DEV 11-18-58	CHECK	CLW 5-16-60					
			3-25-60	REDRAWN				

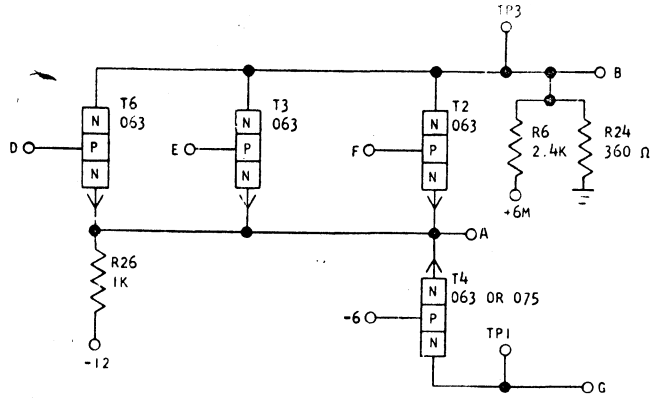
ALLOY - THREE WAY "P" BLOCK OUT  
PH LOAD

371230

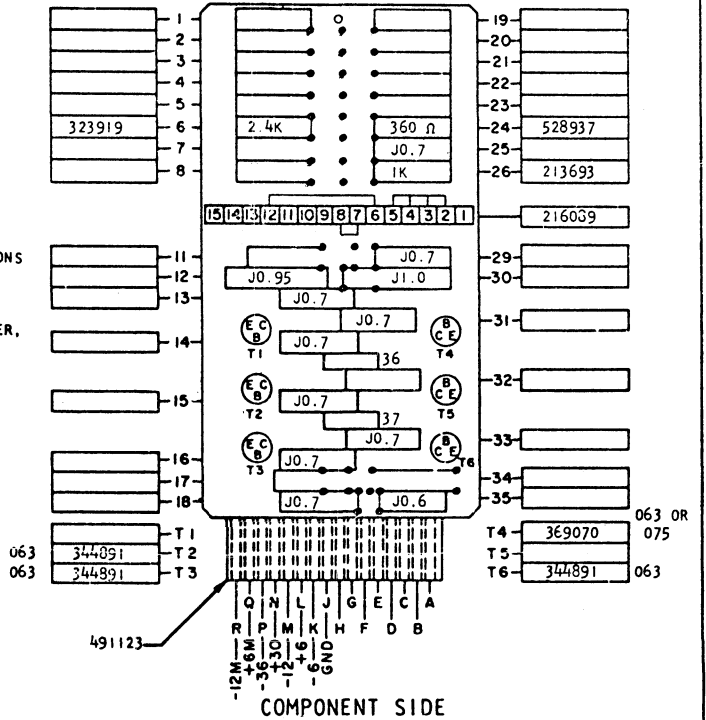
STANDARDS  
CODE

A D Y Y

2-7045



- NOTES
- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891230
  - XI ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999
  - XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



**B**

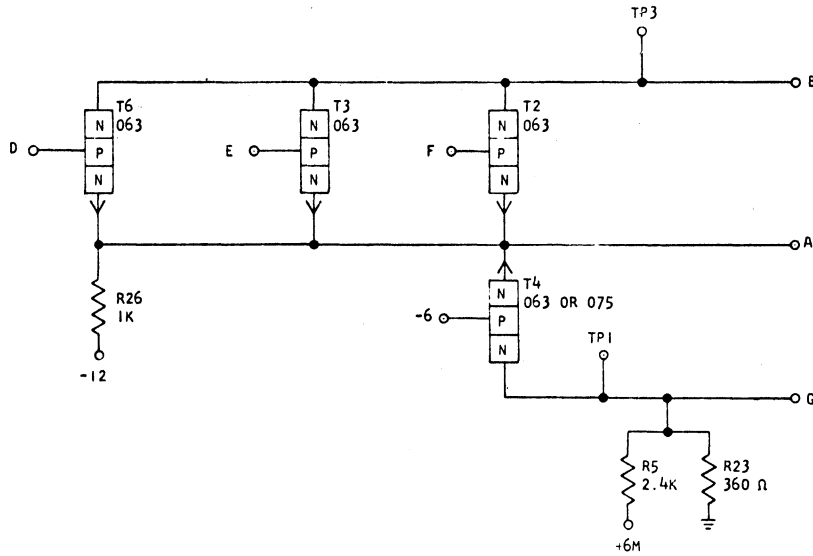
DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-30-58

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR-ALLOY-THREE	5-8-58	104500		7-6-60	D109624	<i>JWB</i>	
WAY	"P" BLOCK OUT PH LOAD	11-11-58	302-8861					
DESIGN	DEV 12-8-58 TYPE SMS	12-10-58	105546A	RJH				
DETAILED	RKD 12-8-58 SCALE NONE	4-23-59	105865	RJH				
CHECK	GWS 12-8-58 DRAW VE 5-46-60	3-30-60	REDRAWN					
APPRO	BES 4-14-59 CHECK CLW 5-17-60							

STANDARDS CODE  
371229  
2-7045  
A D Y Z

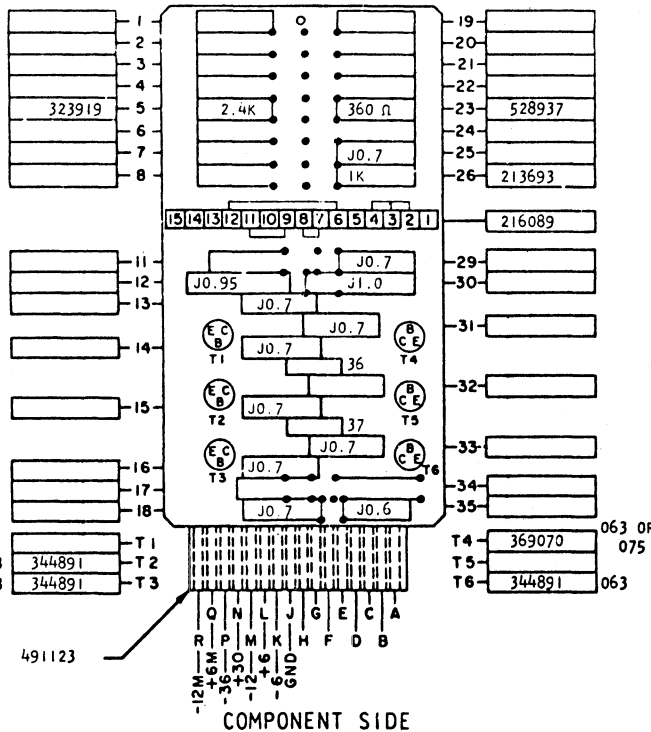
ALLOY - THREE WAY "P" BLOCK  
IN PH LOADS

371229



NOTES

- I CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891229
- II ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999
- III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
- III "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



B

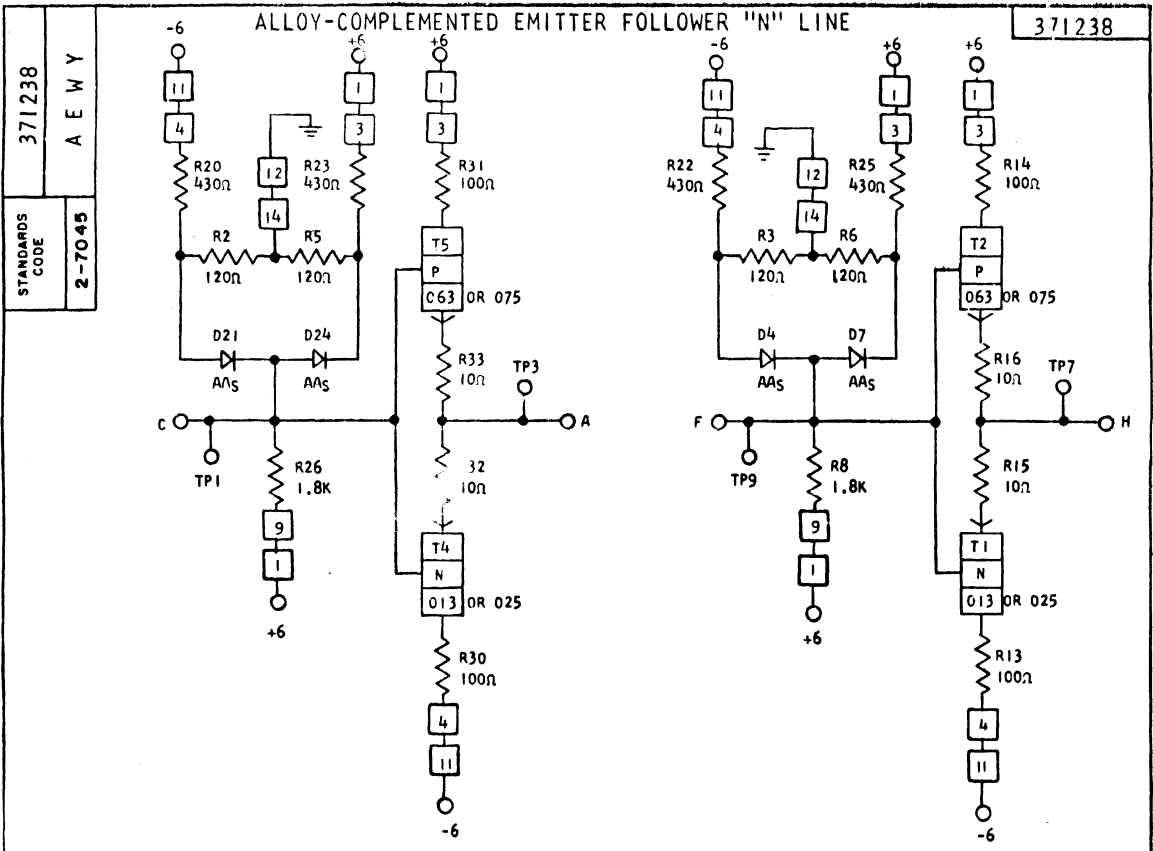
DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-30-58

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR-ALLOY THREE	5-14-58	104500		7-6-60	D109624	QWB	
WAY	"P" BLOCK-IN PH LOAD	11-1-58	382-006+					
DESIGN DEV	12-8-58	TYPE	SMS					
DETAIL RKD	12-8-58	SCALE	NONE					
CHECK GWS	12-8-58	DRAW	VE	5-16-60	4-23-59	105865	RJH	
APPRO BES	4-14-59	CHECK	24	5-18-60	3-24-60	REDRAWN		

371229

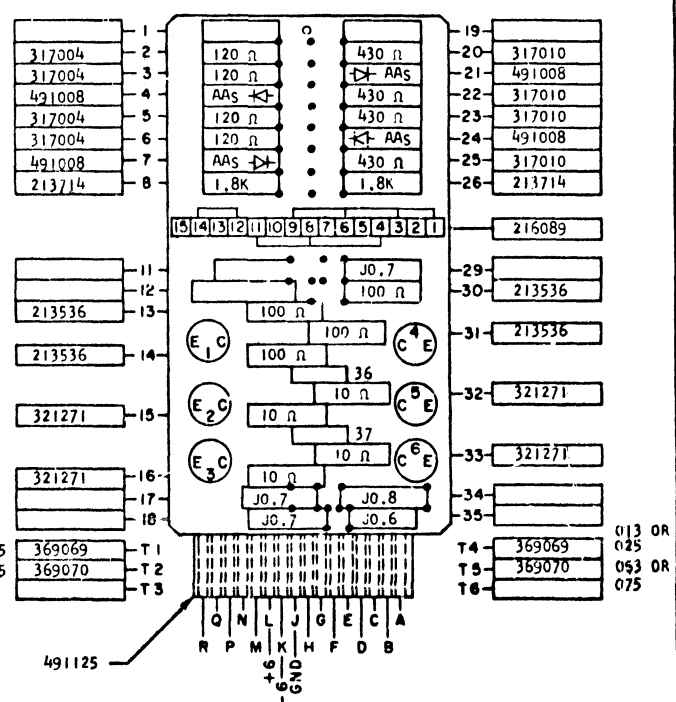






371238  
STANDARDS CODE  
2-7045  
A E W Y

- NOTES**
- I** CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891238
  - II** ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - III** ALL RESISTORS ARE 1/2 WATT AND 15% UNLESS OTHERWISE NOTED
  - IV** "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



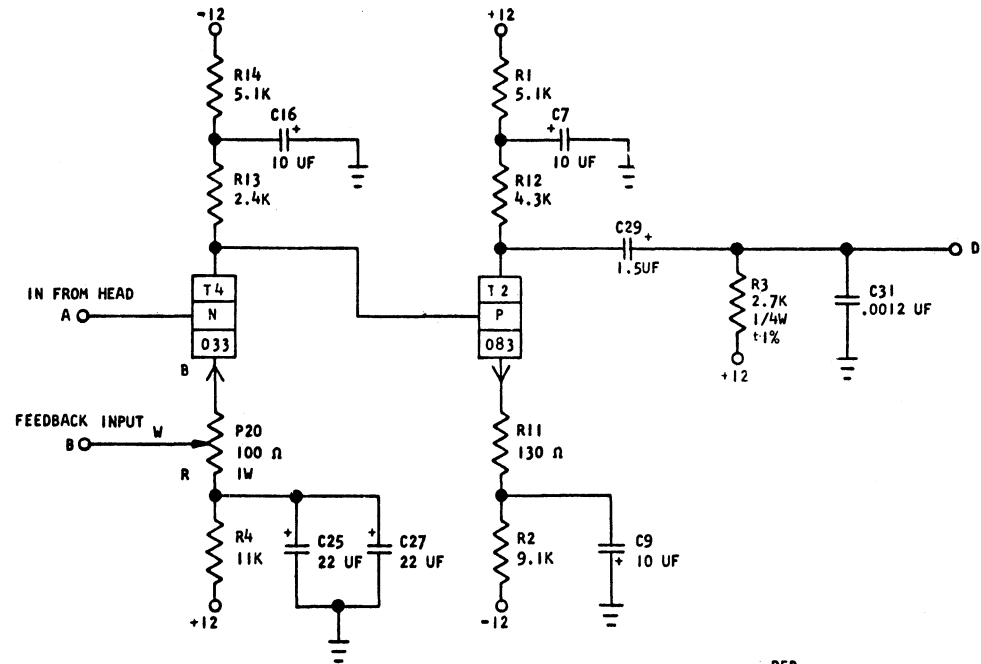
**B**

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-30-58

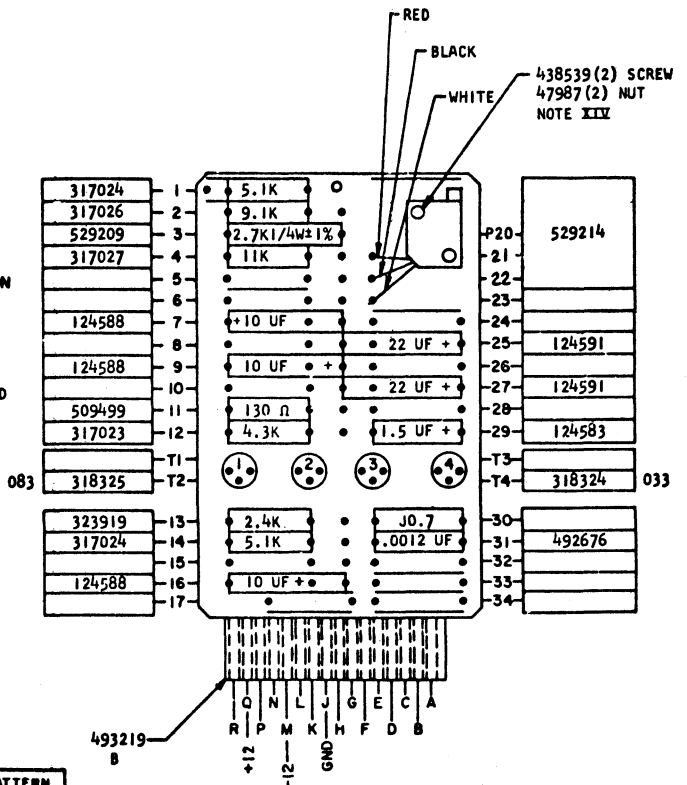
INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR-ALLOY-COM-PLEMENTED EMITTER FOLLOWER "N" LINE			11-20-58	105502A	RJH				371238
DESIGN DEV	11-1-58	TYPE	SMS	4-23-59	105865	RJH				
DETAIL RKD	11-18-58	SCA	E	1-27-60	REDRAWN					
CHECK	GWS 11-18-58	DRAW	2-2-61	2-21-61	111085	<i>JWB</i>				
APPRO	DEV 11-18-58	CHECK	2-3-61							

ALLOY-PRE AMP NO 1, MAGNETIC TAPE

STANDARDS CODE  
371925  
2-7045  
A F A



- NOTES
- I CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION
  - II ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - IV "J" IN BLOCK DENOTES BARE WIRE JUMPER 491296
  - V PART NUMBER 529214 NOT TO BE SUBJECTED TO ANY LIQUID.



<b>B</b>		CIRCUIT AND PACKAGING STANDARD		HOLE PATTERN		COMPONENT SIDE		371925	
APPROVAL	DATE			491329					
LIP	2-12-60								
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL		DEVELOPMENT NO.
NAME CARD ASM TSTR - ALLOY-		2-22-60	108355	NGJ					2547-0687
PRE AMP NO 1, MAGNETIC TAPE		3-23-61	111378	IWB					
DESIGN TPA 2-12-60 MODEL SMS		11-1-61	112432	JWB					
DETAIL TPA 2-13-60 SCALE NONE									
CHECK 10-23-61 DRAW MDE 9-18-61									
APPRO 0-20-61									

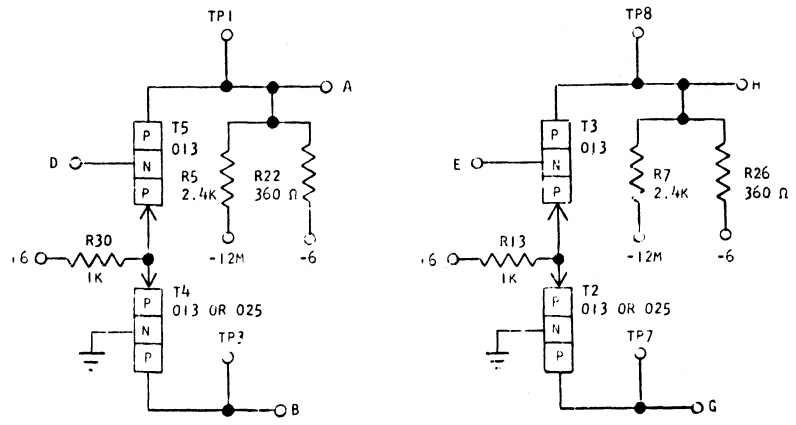
371202

A M Z X

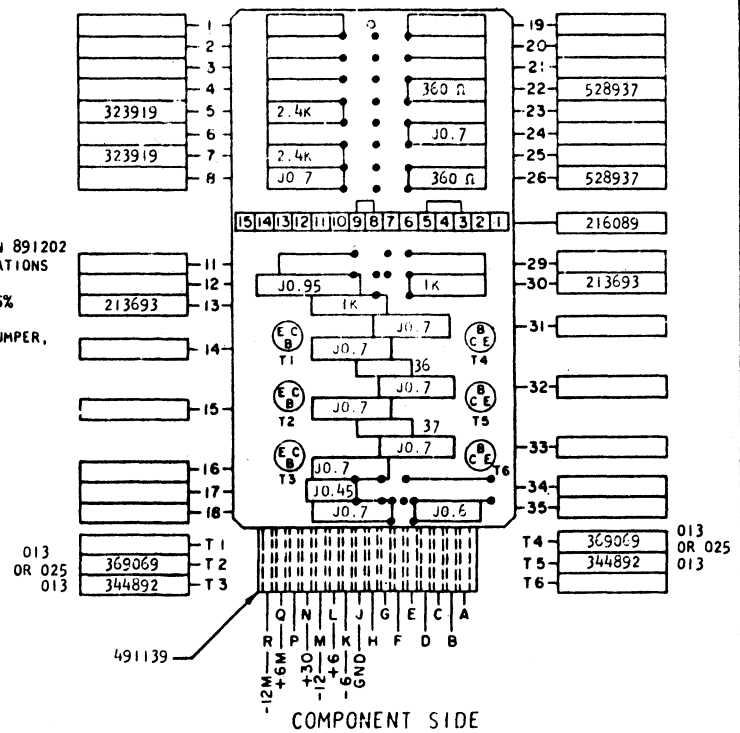
STANDARDS CODE  
2-7045

ALLOY - ONE WAY "N" BLOCK

371202



- NOTES
- I TEST TO ENGINEERING SPECIFICATION 891202
  - II ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999
  - III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - IV "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



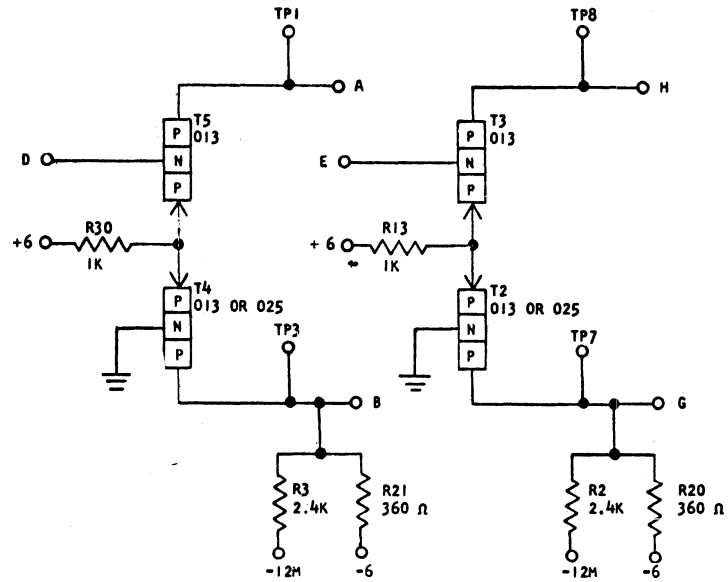
**B**

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-30-58

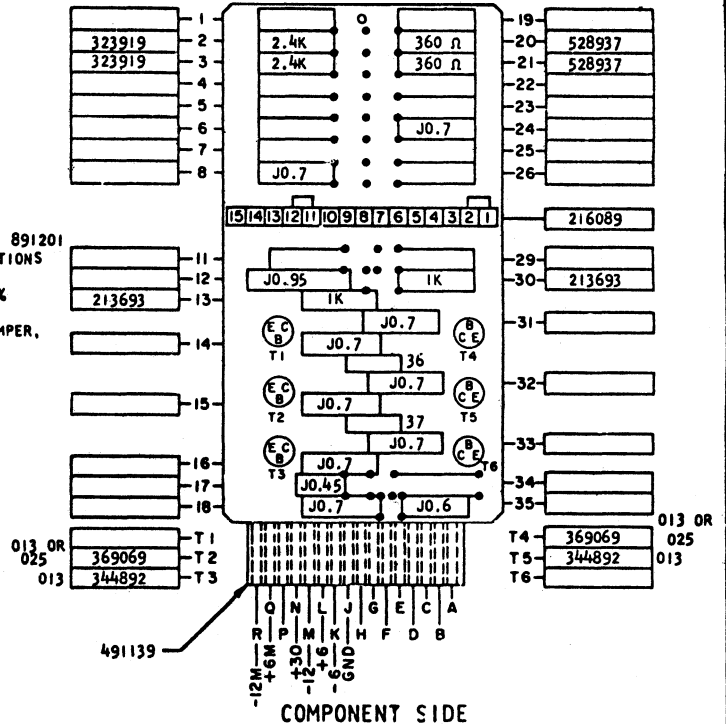
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR-ALLOY-ONE WAY	11-20-58	105502A	RJH				371202
	"N" BLOCK	4-23-59	105865	RJH				
DESIGN	DEV 11-1-58	TYPE	SMS					
DETAIL	RKD 11-8-58	SCALE	NONE					
CHECK	GWS 11-8-58	DRAW	VE 5-9-60					
APPRO	DEV 11-18-58	CHECK	5-23-60					
		6-20-60	D109187	DWB				

ALLOY-ONE WAY "N" BLOCK

371201  
STANDARDS CODE  
2-7045  
A M Z Y



- NOTES
- I TEST TO ENGINEERING SPECIFICATION 891201
  - II ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999
  - III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - IV "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



**B**

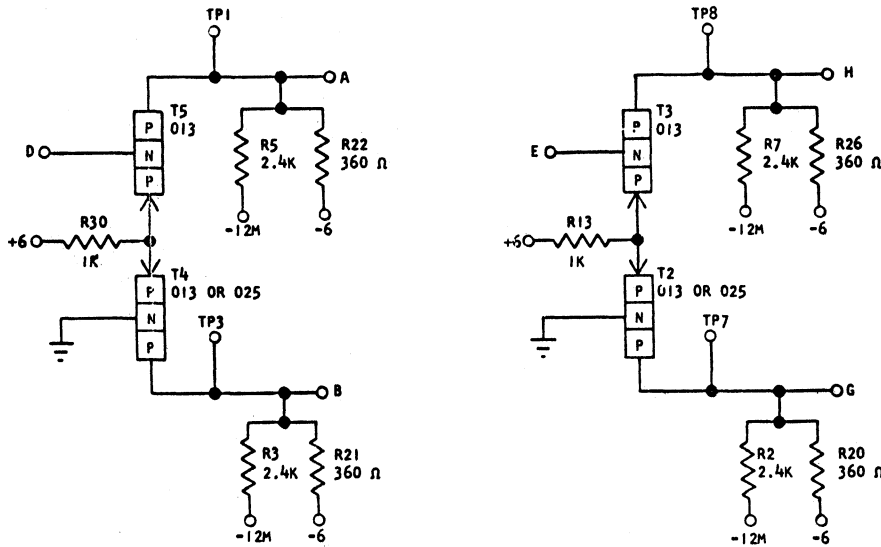
DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-30-58

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR- ALLOY- ONE WAY "N" BLOCK	11-20-58	105502A	RJH				
DESIGN/DEV	11-18-58	TYPE	SMS					
DETAIL/RKD	11-18-58	SCALE	NONE					
CHECK/GWS	11-18-58	DRAW	VE	5-10-60	6-20-60	D109187	JWB	
APPRO/DEV	11-18-58	CHECK		5-13-60				

ALLOY-ONE WAY "N" BLOCK

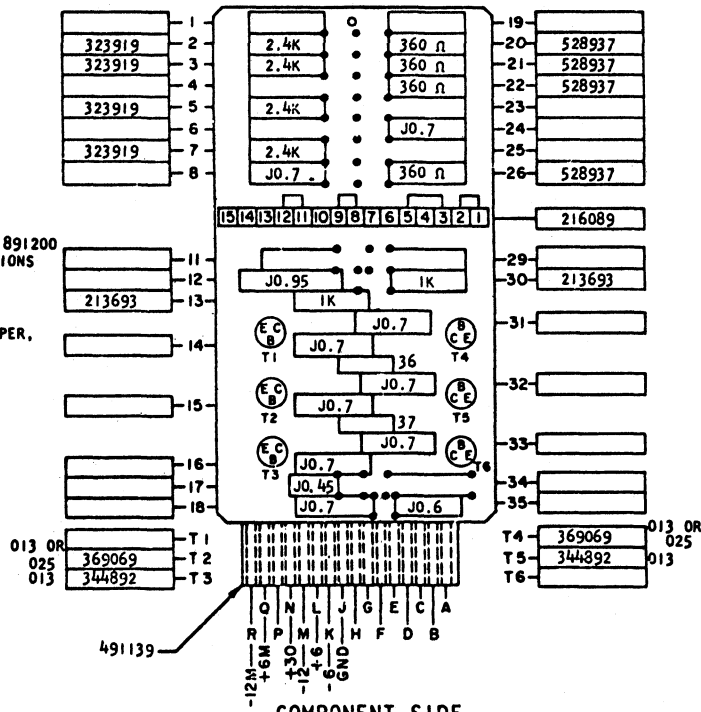
371200  
A M Z Z

STANDARDS  
CODE  
2-7045



NOTES

- I TEST TO ENGINEERING SPECIFICATION 891200
- II ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999
- III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
- IV "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



B

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-30-58

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR- ALLOY-ONE	11-18-58	105502	RJH				371200
	WAY "N" BLOCK	4-23-59	105865	RJH				
DESIGN	TYPE SMS	1-11-60	REDRAWN					
DETAIL	SCALE NONE	6-20-60	D109187	<i>QWB</i>				
CHECK	DEV 4-14-59 DRAW VE 5-10-60							
APPRO	AWN 4-14-59 CHECK <i>QWB</i> 5-11-60							

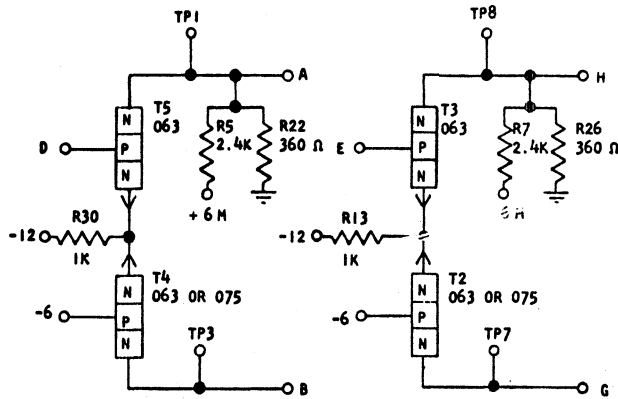
ALLOY - ONE WAY "P" BLOCK  
OUT PH LOADS  
TWO ON CARD

371211

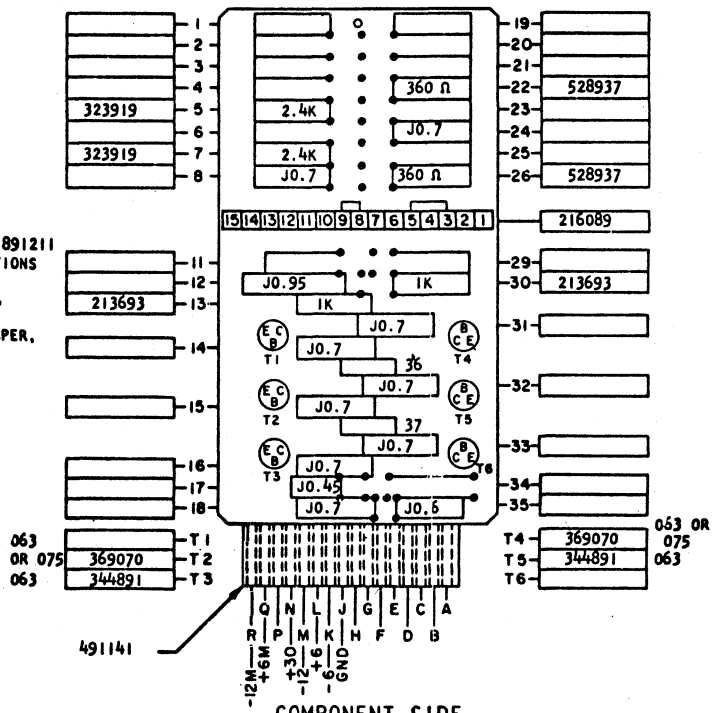
A N Z X

STANDARDS  
CODE

2-7045



- NOTES  
 I TEST TO ENGINEERING SPECIFICATION 891211  
 II ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999  
 III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED  
 IIII "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



**B**

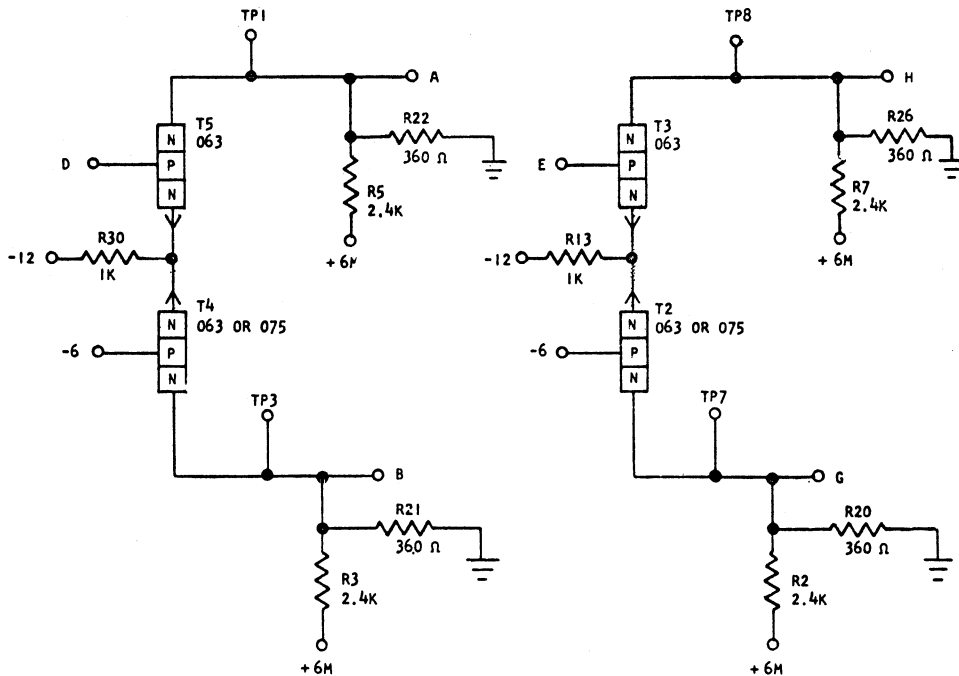
DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-30-58

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR-ALLOY ONE WAY	5-14-58	104500		4-23-59	105865	RJH	
DESIGN	DEV 11-4-58 TYPE SMS	7-8-58	302-0029		8-25-60	D109878	JWB	
DETAIL	RKD 11-18-58 SCALE NONE	9-5-58	302-0046					
CHECK	GWS 11-18-58 DRAW VE 5-16-60	11-11-58	302-0061					
APPRO	BES 11-18-58 CHECK CLW 5-17-60	11-20-58	105502A					

ALLOY - ONE WAY "P" BLOCK  
TWO ON CARD

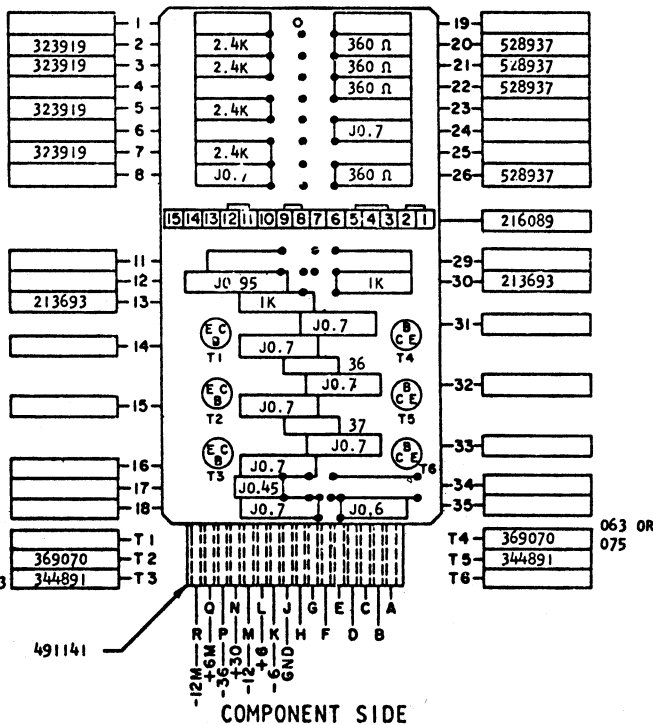
STANDARDS  
CODE  
2-7045

AN ZZ



NOTES

- I CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891209
- II ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
- IV "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296
- V 491299-ASSEMBLE WITH JEDEC TRANSISTOR



B

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-30-58

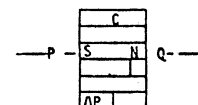
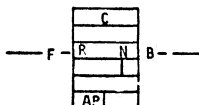
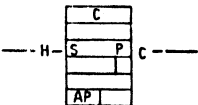
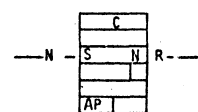
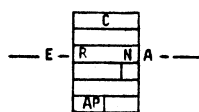
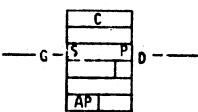
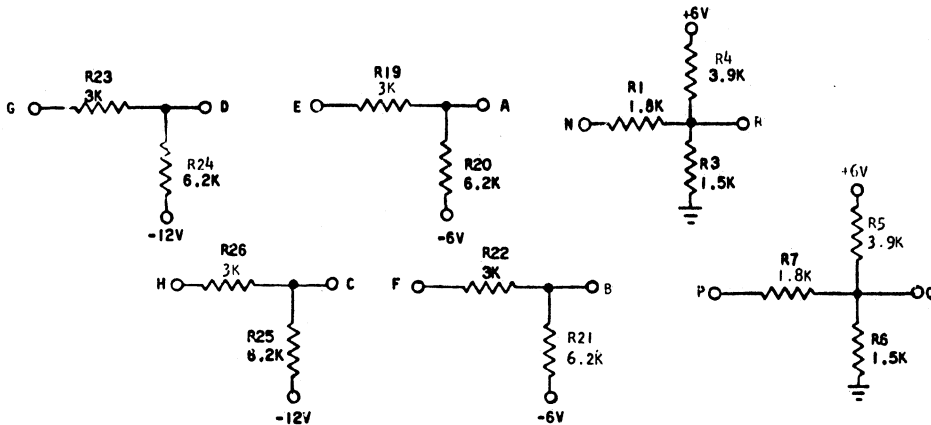
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR- ALLOY- ONE	11-20-58	105502A	RJH				371209
WAY	"P" BLOCK TWO ON CARD	4-23-59	105865	RJH				
DESIGN	DEV 11-18-58	TYPE	SMS					
DETAIL	RKD 11-18-58	SCALE	NONE					
CHECK	SMS 11-18-58	DRWG	VE 7-8-60					
APPROD	DEV 11-18-58	CHECK	Z/L/L					



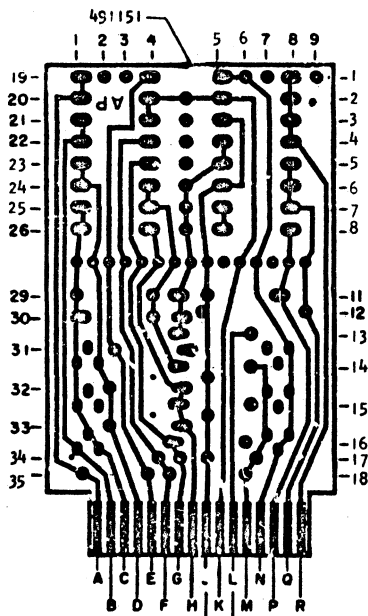
ALLOY - VM - CS CONVERTER

371030

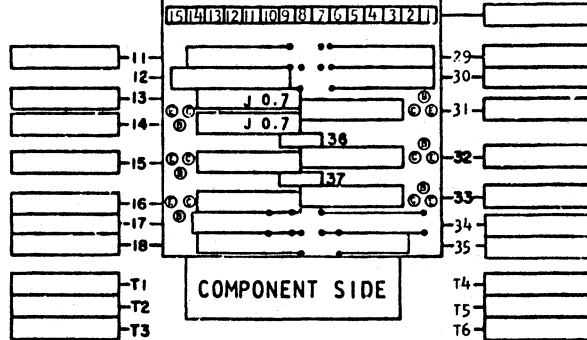
STANDARDS CODE  
4-1502



NOTE XIV



213714	1	1.8K	3K	19	323920
317017	2	1.5K	6.2K	20	334914
317022	3	3.9K	6.2K	21	334914
317022	4	3.9K	3K	22	323920
317017	5	3.9K	3K	23	323920
317017	6	1.5K	6.2K	24	334914
213714	7	1.8K	6.2K	25	334914
	8	J0.7	3K	26	323920



NOTES

- X ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- XX 491296 BARE WIRE FOR ALL JUMPERS
- XXX ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
- XXXX "J" IN BLOCK DENOTES JUMPER
- XXXXX PRINT ASM PART NO IN BLACK 1/8 HIGH AND 1/16 FROM THE LEFT HAND EDGE OF THE COMPONENT SIDE OF THE CARD BETWEEN POSITIONS 1 AND 8
- XXL TEST TO ENGINEERING SPECIFICATION 891030

B

WIRING SIDE

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
<i>Bill Emery</i>	10-10-58

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.	371030
NAME CARD ASM TSTR - ALLOY		7-7-58	104500						
VM-CS CONVERTER		10-8-58	382-0058						
DESIGN	FKB	MODEL	SMS						
DETAIL	JCT	5-5-58	SCALE	NONE	11-18-58	105502	<i>WJH</i>		
CHECK	LD	5-7-58	DRAW						
APPRO	1-27-11-1959	CHECK							

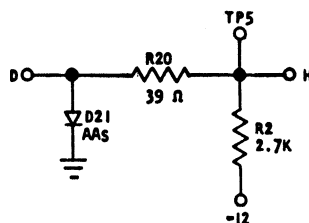
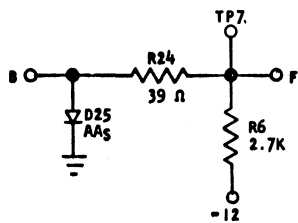
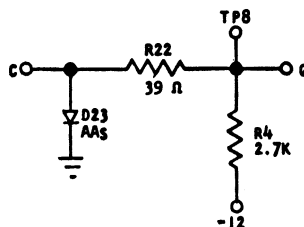
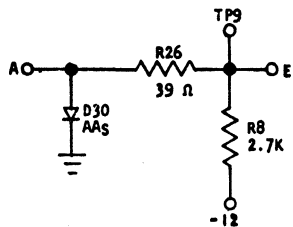
ALLOY-CS-VM CONVERTER

371031

AQ --

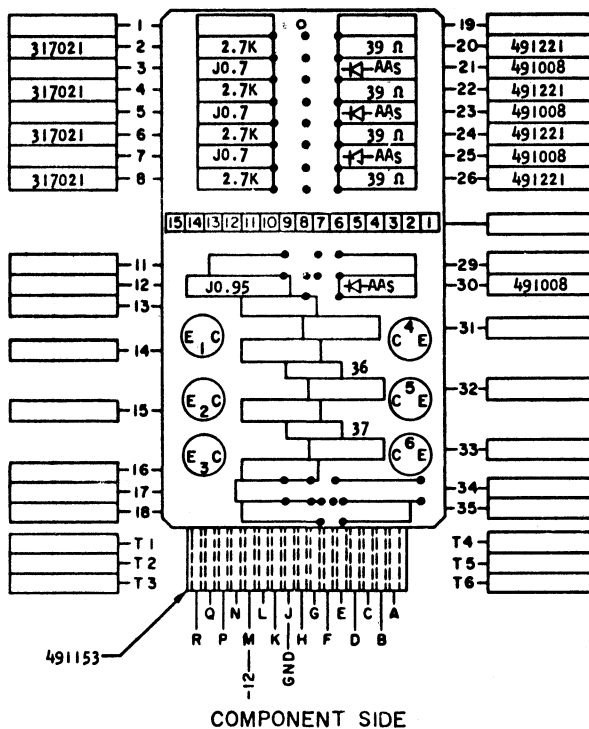
STANDARDS CODE

2-7045



NOTES

- I CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891031
- II ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- III ALL RESISTORS ARE 1/2 WATT AND 15% UNLESS OTHERWISE NOTED
- IV "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



B

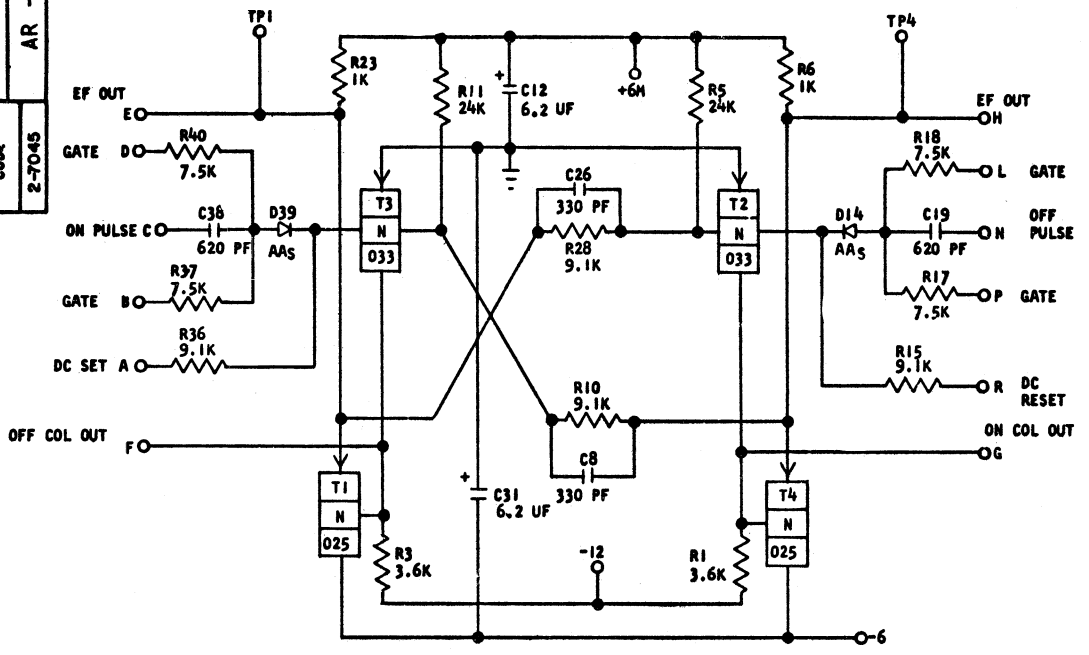
OPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-10-58

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR-ALLOY-CS-VM CONVERTER		11-18-58	105502	RJH				
		11-16-59	REDRAWN					
DESIGN	FKB	TYPE	SMS					
DETAIL	JCT 5-5-58	SCALE	NONE					
CHECK	GHS 5-6-59	DRAW	MDE 2-7-61					
APPRO	DEV 11-14-58	CHECK	2-8-61					

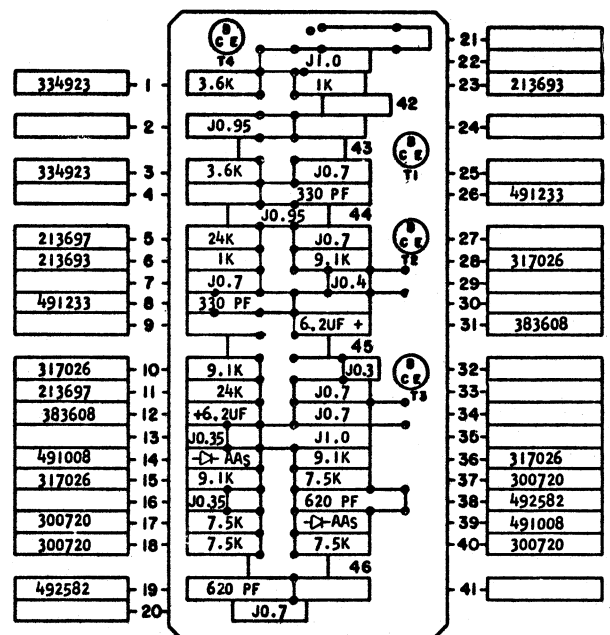
371031

STANDARDS CODE  
2-7045  
371034  
AR --

CTRL TRIGGER #1



- NOTES  
 I CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891034  
 II ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999  
 III ALL RESISTORS ARE 1/2 WATT AND ± 5% UNLESS OTHERWISE NOTED  
 IV "J" IN BLOCK DENOTES BARE WIRE JUMPER 491296



025 318322 T4  
 T1 318322 025  
 T2 318324 033  
 T3 318324 033

B

CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE
HOLE PATTERN 493456	

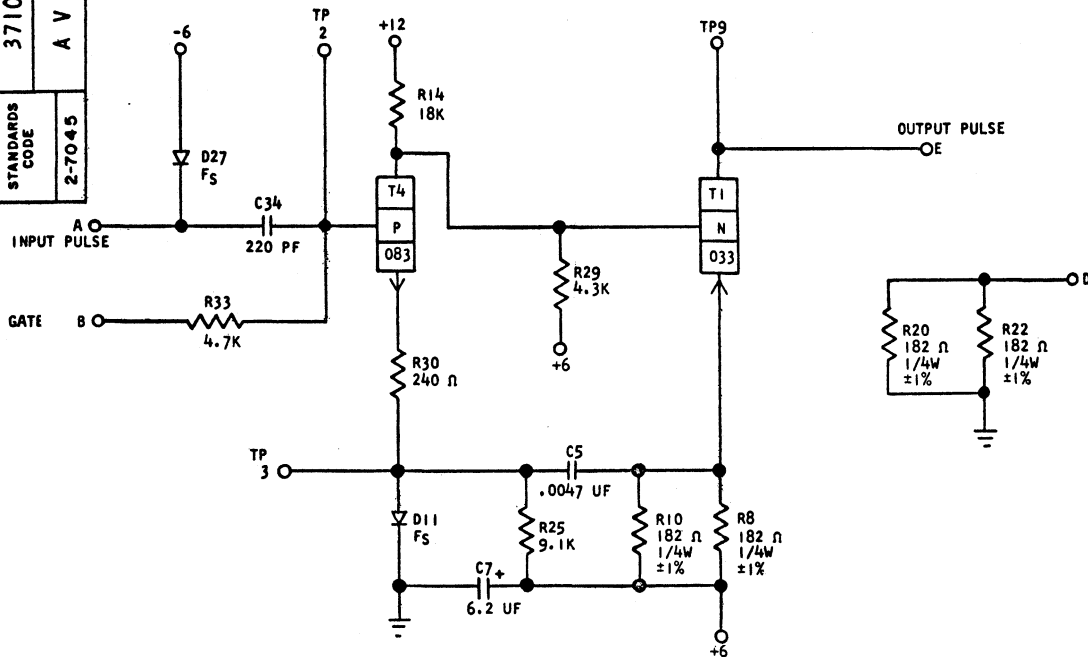
COMPONENT SIDE

INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR - CTRL				3-26-59	105271	RJH	1-17-61	110970	IWB	2545-0125
TRIGGER #1				7-8-59	106709	RJH	9-15-61	112680	IWB	
DESIGN	CB	5-16-60	MODEL	SMS	3-23-60	108563	NGJ	12-21-61	D113082	
DETAIL	CB	5-16-60	SCALE	NONE	5-20-60	D108709	IWB	8-17-62	114443	
CHECK	APY	4-15-61	DRAW	HDE	9-9-61					
APPRO	CAS	7-13-61	CHECK	WOP	9-11-61	8-26-60	D109615	IWB		

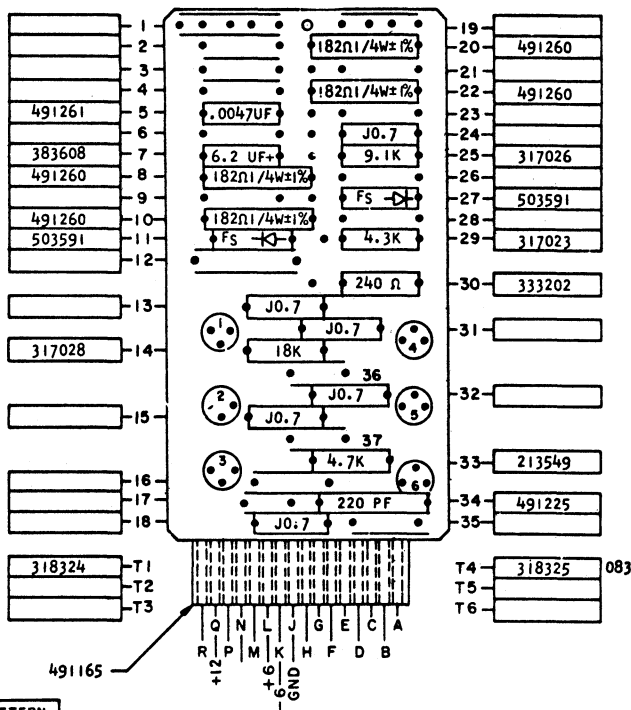
ALLOY GATED SAMPLE PULSE DRIVER NO. 1

371038

STANDARDS CODE  
2-7045  
371038  
A V - -



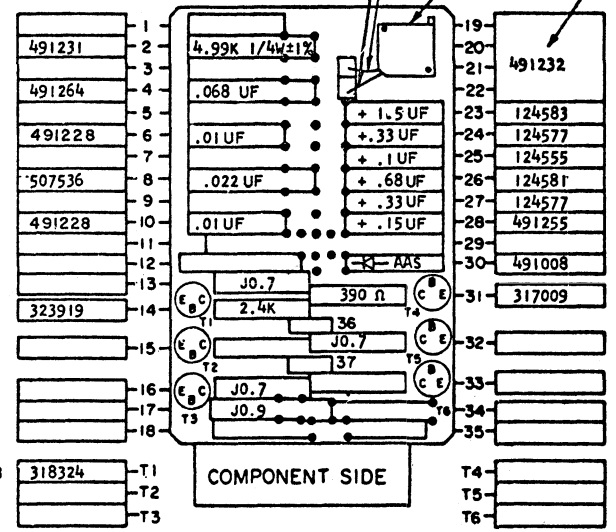
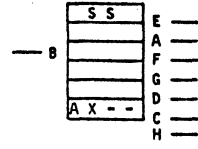
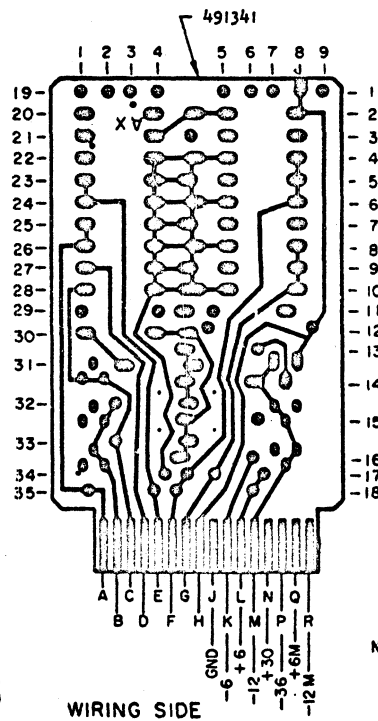
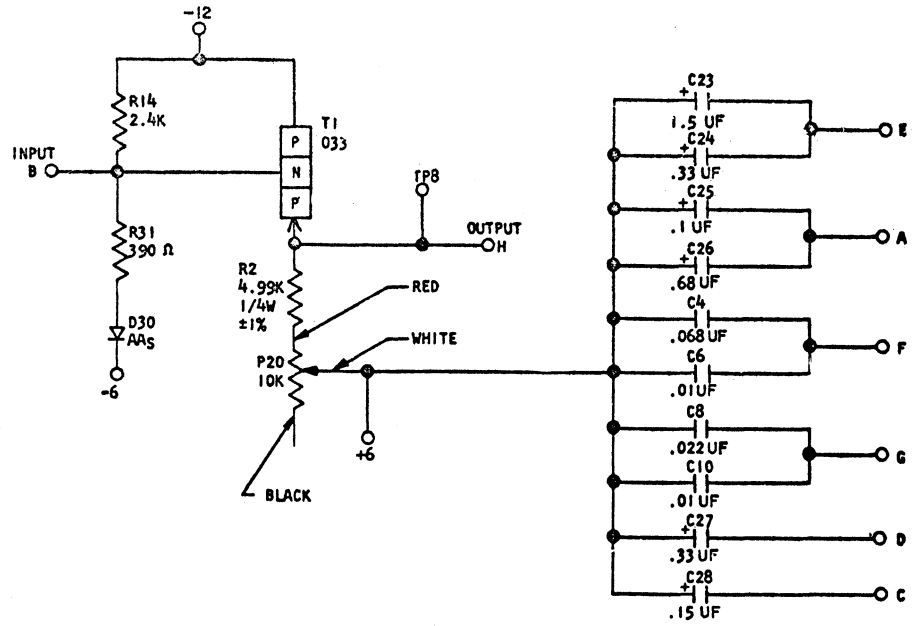
- NOTES  
 I CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION  
 II ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999  
 III ALL RESISTORS ARE 1/2 WATT AND  $\pm 5\%$  UNLESS OTHERWISE NOTED.  
 IV "J" IN BLOCK DENOTES BARE WIRE JUMPER 491296



B

DPD CIRCUIT & PACKAGING STANDARD		APPROVAL		DATE		HOLE PATTERN		
P C E		10-10-58		491021		COMPOENT SIDE		
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR-ALLOY GATED SAMPLE PULSE DRIVER NO.1		12-1-60	110187	IWB				371038
DESIGN GHS 6-2-58 MODEL 3MS								
DETAIL EJC 6-6-58 SCALE NONE			114443	MDL				
CHECK GHS 6-9-58 DRAW HAV 15-15-62								
APPRO GWS 6-2-62 CHECK 1-6-62								

STANDARDS CODE  
2-7045



NOTES  
 X ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999  
 XI "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296  
 XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED  
 XIII  
 XIV TEST TO ENGINEERING SPECIFICATION 891040  
 XV POTENTIOMETER TO BE MOUNTED AND SOLDERED AFTER BOARD HAS BEEN CLEANED. BLACK WIRE NOT USED. CUT OFF AS CLOSE AS POSSIBLE TO CASE

CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-10-58

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR- ALLOY	7-11-59	104503-		3-28-60	REDRAWN		371040
TIMING CARD NO.	2 SINGLE SHOT	10-8-59	302-0050-		6-28-61	112166	IWB	
DESIGN	GHS 5-19-58 MODEL SMS	12-20-58	302-0000-					
DETAIL	EJC 5-20-58 SCALE NONE	2-18-59	105090	RJH				
CHECK	GHS 6-2-58 DRAW VE	3-28-60						
APPRO	DEV 2-24-59 CHECK ZML	4-11-60	8-5-59	106790	RJH			

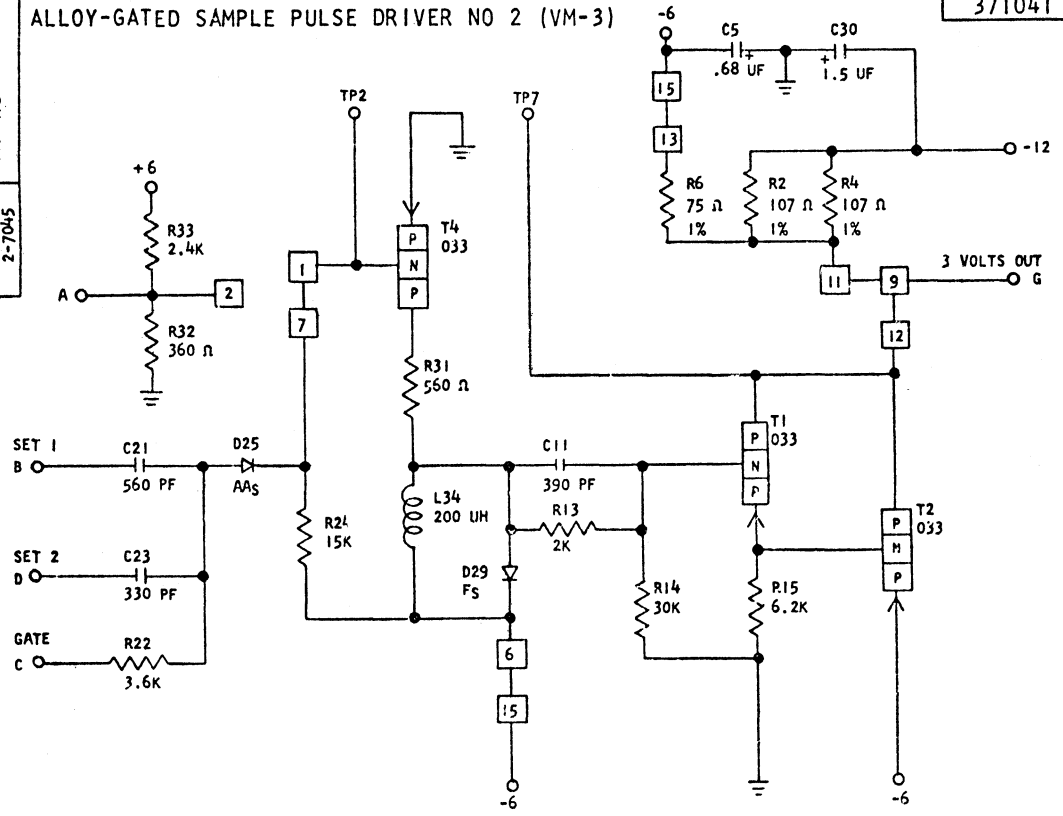
371041

STANDARDS CODE  
2-7045

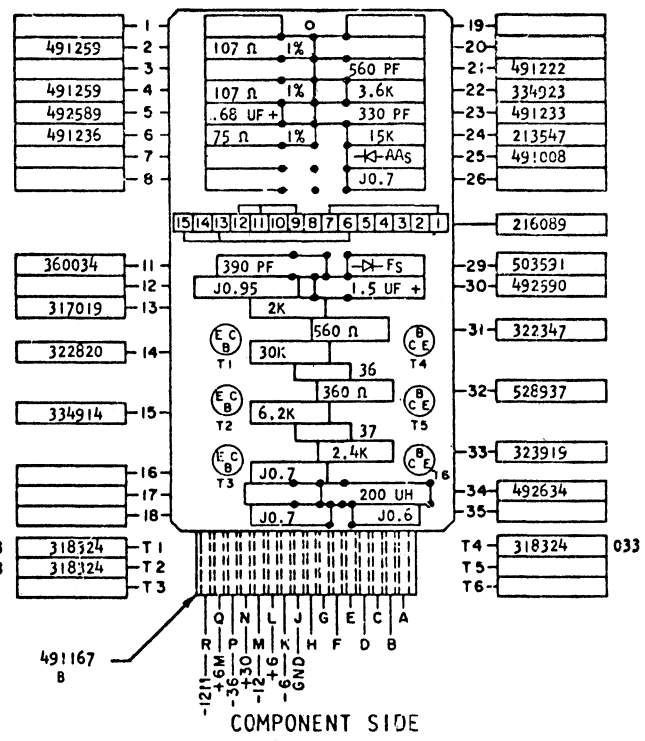
AY WS

ALLOY-GATED SAMPLE PULSE DRIVER NO 2 (VM-3)

371041



- NOTES
- X CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891041
  - XI ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - XII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



B

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-10-58

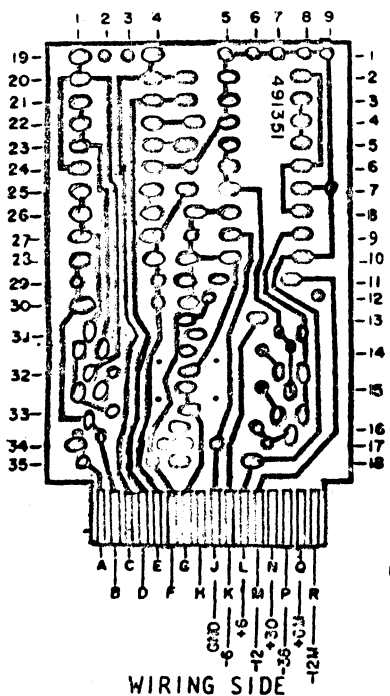
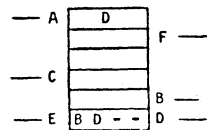
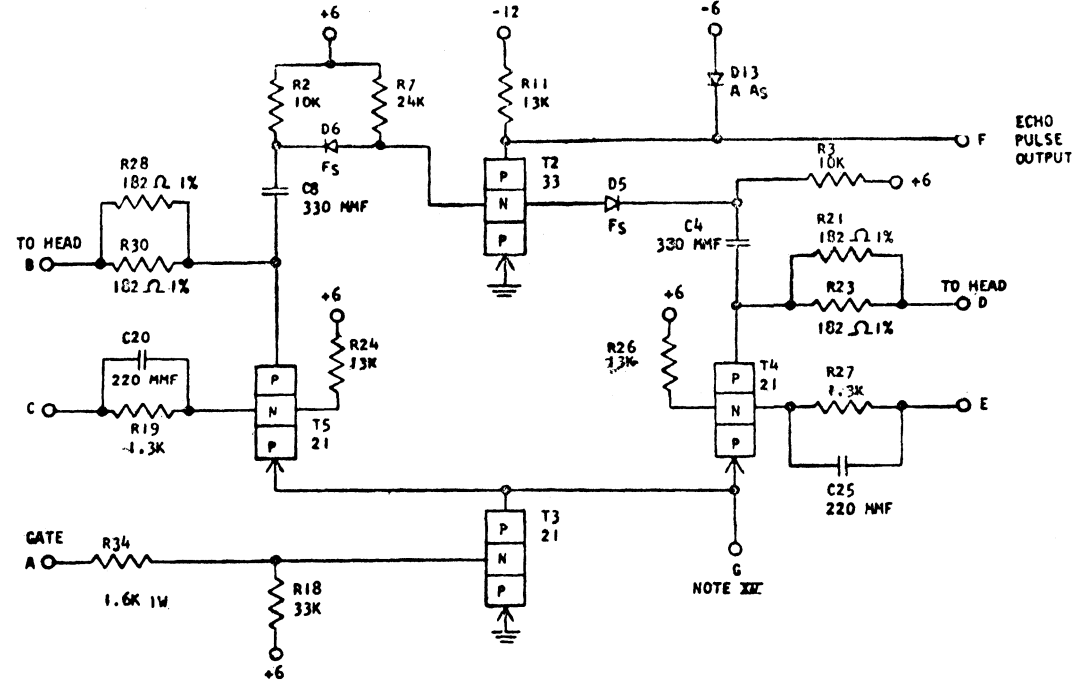
INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR-ALLOY-	SEE INDEX CARD			6-20-61	112148	IWB	371041
GATED S.P.D. NO2 (VM-3)	11-30-59	D107764					
DESIGN AJR 2-24-59	3-20-60	100300	NGJ				
DETAIL RKO 2-24-59	11-4-60	D109300	92013				
CHECK DEV 2-24-59	12-13-60	D110872	IWB				

# ALLOY - HEAD DRIVER AND ECHO PULSE AMPLIFIER

371417

371417

STANDARDS CODE  
2-7045



300721	1	1.2K	19	317429
300721	2	10K	20	491225
491233	3	10K	21	491273
503591	4	330 MF	22	
503591	5	Jumper	23	491273
213697	6	182 Ω 1%	24	334959
491233	7	13K	25	491225
	8	220 MF	26	334959
	9	13K	27	317429
	10	1.3K	28	491273
		182 Ω 1%		
334959	11	13K	29	
491008	12	182 Ω 1%	30	491273
	13		31	
	14	Jumper	32	
	15	Jumper	33	
	16	Jumper	34	334947
317029	17	1.6K 1W	35	
	18	33K		
318324	T1		T4	526796
526796	T2		T5	526796
	T3		T6	

NOTES  
 X ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999  
 XII 491296 BARE WIRE FOR ALL JUMPERS  
 XIII ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED  
 XIV "J" IN BLOCK DENOTES JUMPER  
 XV FOR NON-GATED VERSION, JUMPER PINS G AND J ON BACK PANEL  
 XVI TEST TO ENGINEERING SPECIFICATION 891417

DFD CIRCUIT & PACKAGING STANDARD

APPROVAL	DATE

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASIA TSTR- ALLOY	11-18-58	103397					
HEAD DRIVER & ECHO PULSE/AMP	12-15-59	D107925	RJH				
DESIGN GHS 8-4-58 MODEL SMS	4-26-60	D108701	NGJ				
DETAIL TPA 8-5-58 PCALC MCNE							
CHECK GHS 8-6-58 DRAW							
APPRO PDR 8-8-58 CHECK							

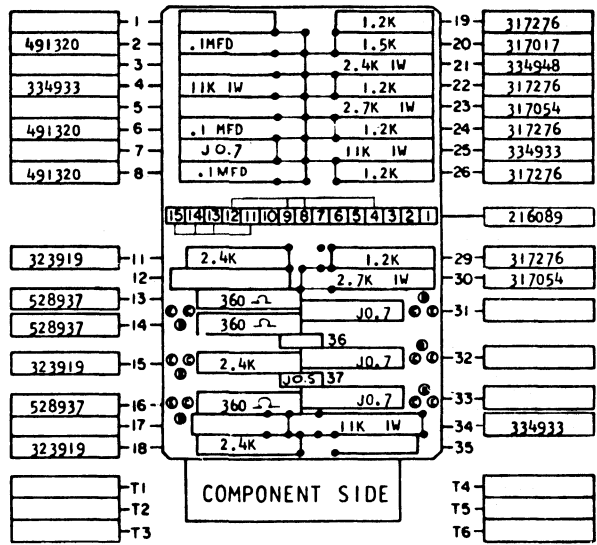
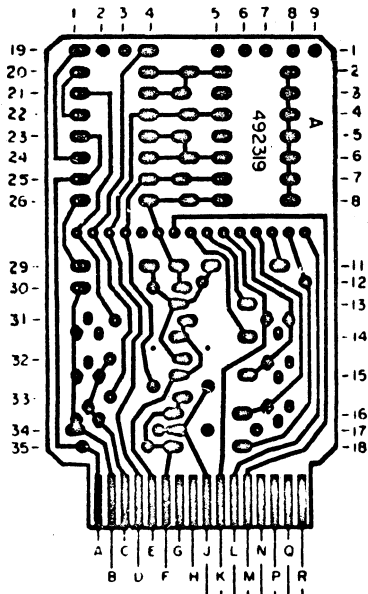
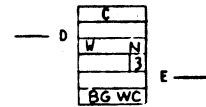
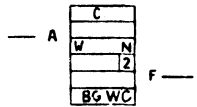
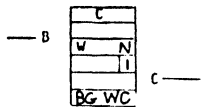
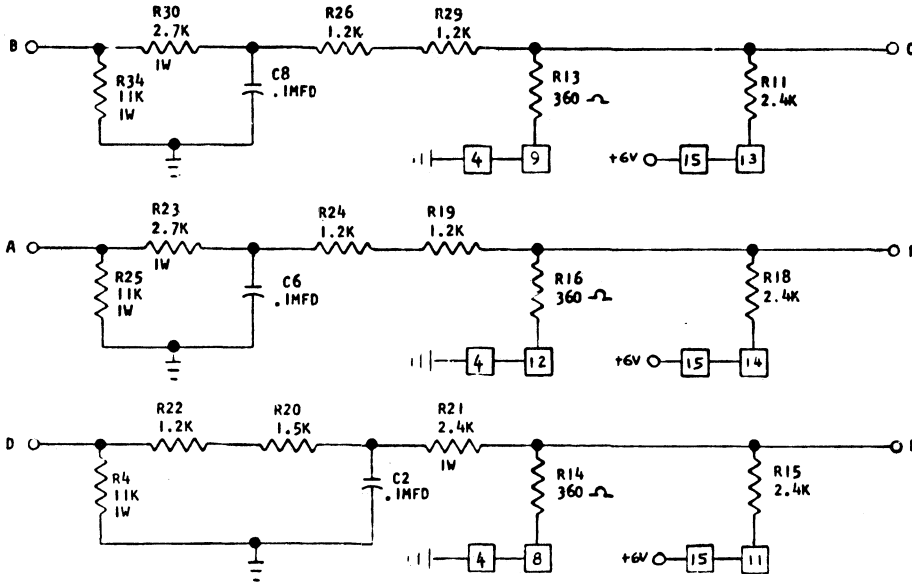
371417

# ALLOY - INTEGRATOR-NEGATIVE INPUT THREE N LINES

371428

371428

STANDARDS  
CODE  
4-1502



- NOTES
- I ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - II 491296 BARE WIRE FOR ALL JUMPERS
  - III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - IV "J" IN BLOCK DENOTES JUMPER
  - V TEST TO ENGINEERING SPECIFICATION 891428

## B WIRING SIDE

DPU CIRCUIT & PACKAGING STANDARD

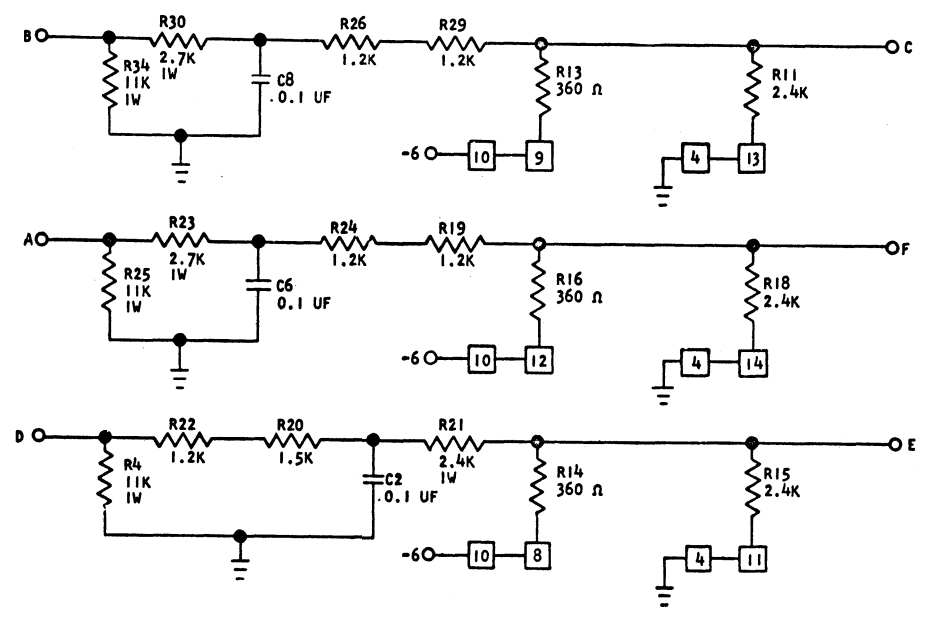
APPROVAL: *P.B. Henry* DATE: 5-4-59

INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR - ALLOY			11-5-58	105322	RJH				371428
	INTE. NEG INP 3N LINES			1-7-59	105661	RJH				
DESIGN	RRD	3-26-59	MODEL	SMS						
DETAIL	AJC	3-27-59	SCALE	NONE	4-22-59	105671	RJH			
CHECK	DEN	4-4-59	DRAW		9-9-59	106862	RJH			
APPRO	REC	4-4-59	CHECK	Clw	8-12-59					

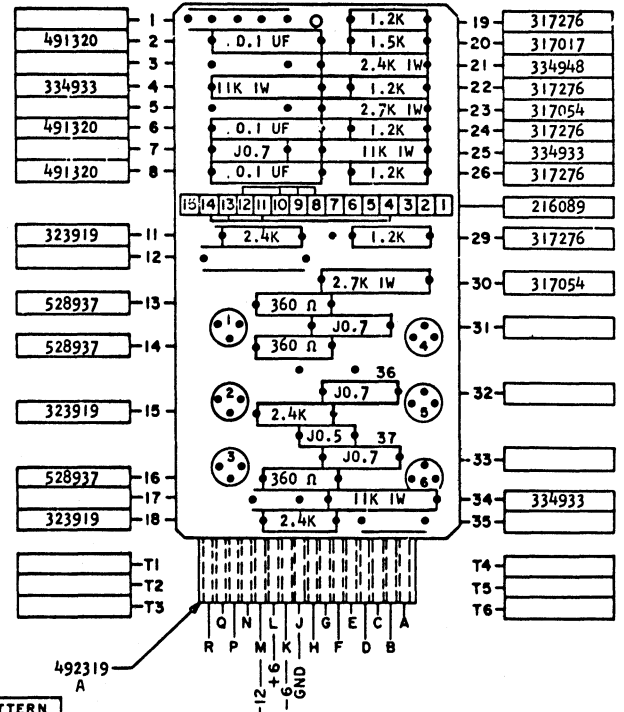


ALLOY-INTEGRATOR-NEGATIVE INPUT THREE P LINES

371427  
BG WD  
STANDARDS CODE  
2-7045



- NOTES**
- I** CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891427
  - II** ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - III** ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - IV** "J" IN BLOCK DENOTES BARE WIRE JUMPER 491296



**B**

DPD CIRCUIT & PACKAGING STANDARD		APPROVAL		DATE		HOLE PATTERN		INTERNATIONAL BUSINESS MACHINES CORP.								
P B		REC		8-4-59		491020		NAME	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.	
								CARD ASM TSTR-ALLOY-INTE -	11-5-58	105392	RJH				371427	
								NEG INP THREE P LINES	4-22-59	105671	RJH					
								DESIGN RRD 3-26-59	MODEL SMS	9-9-59	106862	RJH				
								DETAIL AJC 3-27-59	SCALE NONE	4-27-61	112757	MDL				
								CHECK DEN 4-4-59	DRAW MDE 110-16-61	APPRO REC 4-4-59	CHECK TUF 110-24-61					

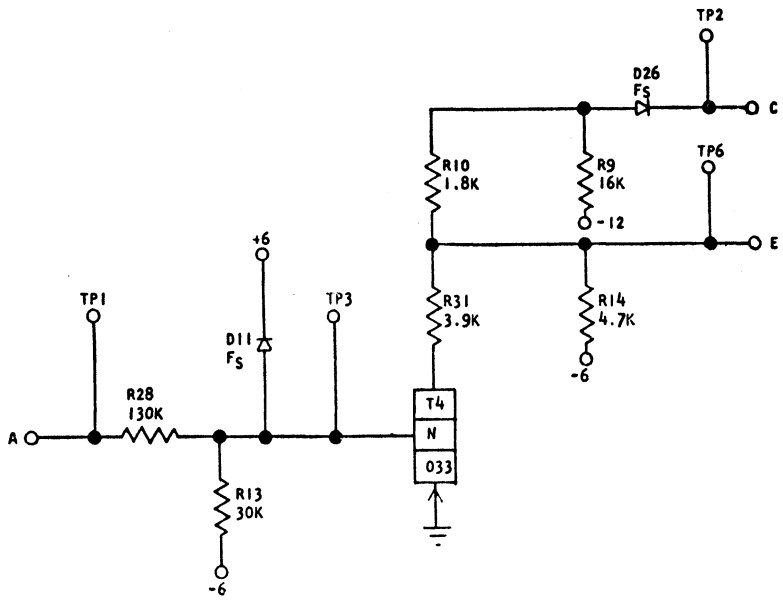
371431

# ALLOY-EOR PHOTODENSE

371431

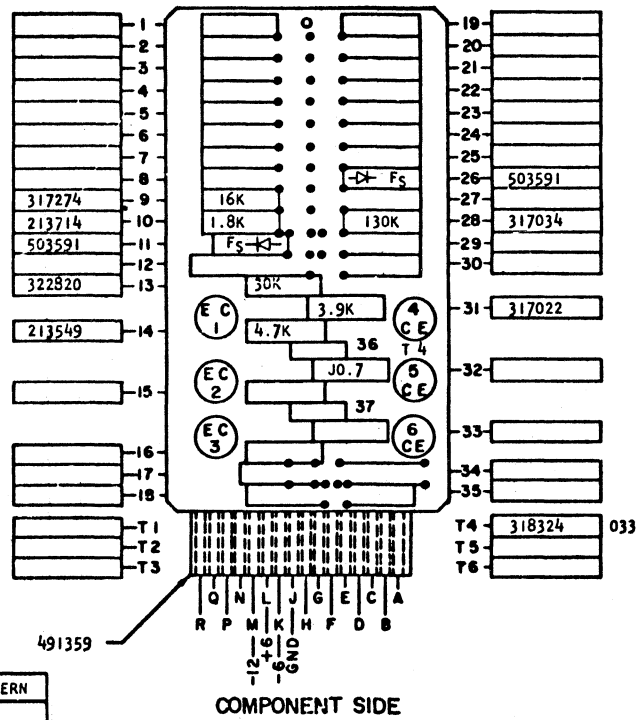
B H - -

STANDARDS CODE  
2-7045



### NOTES

- I CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891431
- II ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
- IV "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



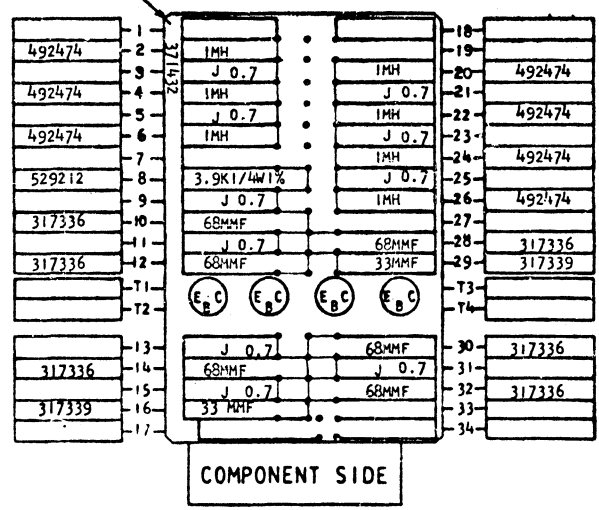
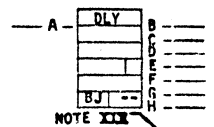
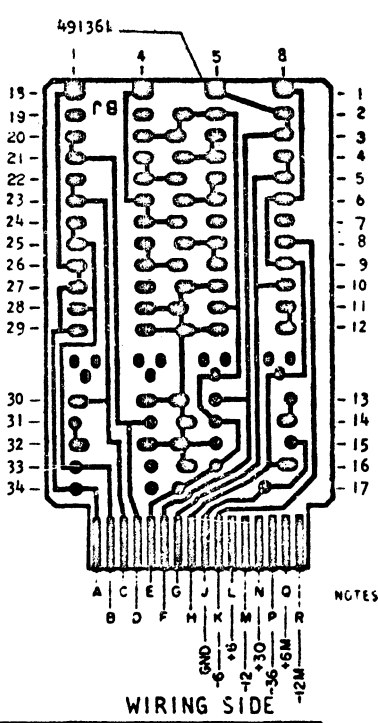
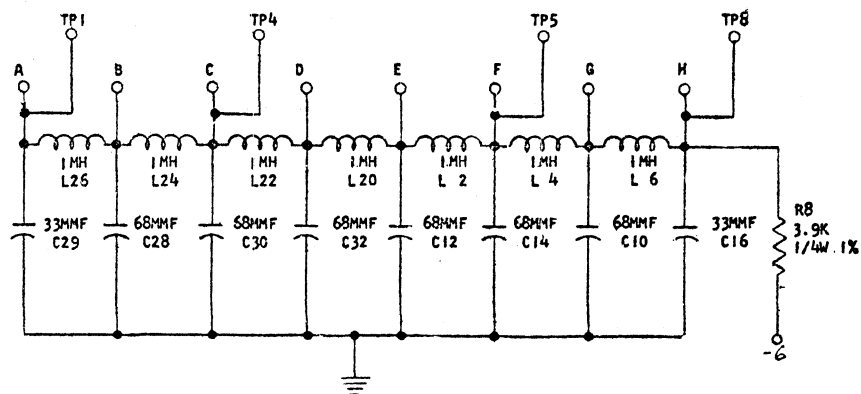
B

DPD CIRCUIT & PACKAGING STANDARD		APPROVAL		DATE		HOLE PATTERN		
RWE		10-10-58		491021				
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR - ALLCY-		11-5-58	105392	RJH				371431
EOR PHOTODENSE		7-11-61	111792	JWB				
DESIGN	EJC	6-13-58		TYPE	SMS			
DETAIL	EJC	6-16-58		SCALE	NONE			
CHECK	GHS	8-9-58		DRAW	MDE	6-22-61		
APPRO		7-12-61		CHECK		6-23-61		

ALLOY - DELAY LINE LUMPED

371432

STANDARDS CODE  
4-1502



- NOTES
- X ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - XX 491296 BARE WIRE FOR ALL JUMPERS
  - XXX ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - XXXX "J" IN BLOCK DENOTES JUMPER
  - XXV CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891432

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
<i>Roller Emery</i>	10-30-58

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR - ALLOY		11-5-58	105392					
DELAY LINE LUMPED		11-18-58	D105397					
DESIGN	MODEL SMS	1-7-59	105661	RJM				
DETAIL	SCALE NONE	3-10-61	111393	IWB				
CHECK	DRAW							
APPRO	CHECK							

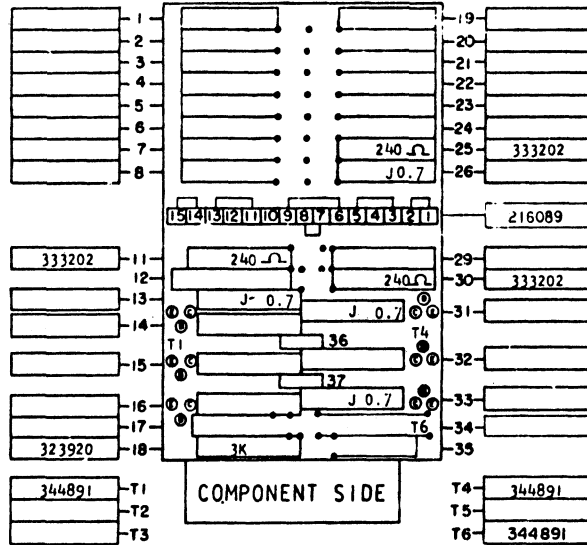
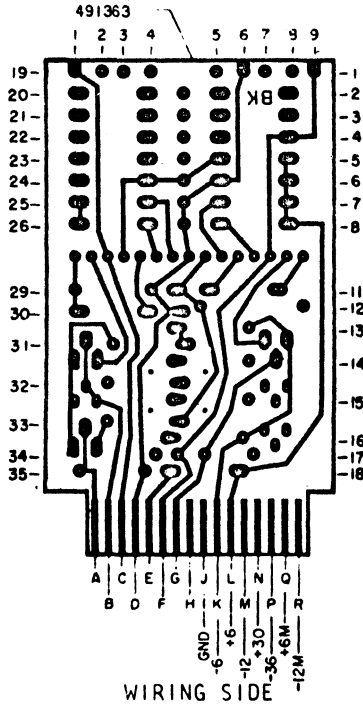
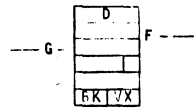
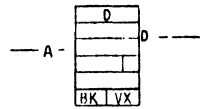
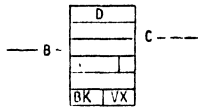
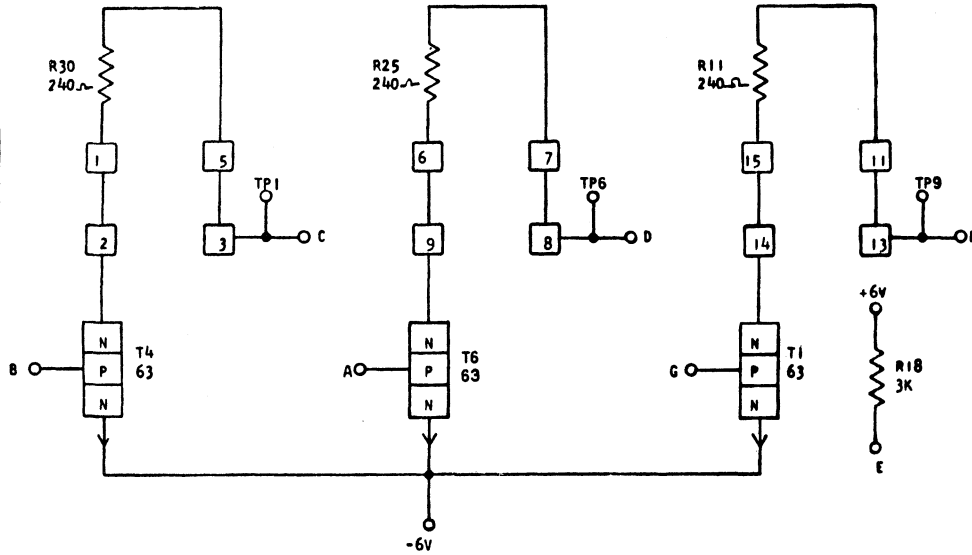
371432

ALLOY-DRIVER, THREE RELAY AND LIGHT

371435

371435

STANDARD CASE  
2-7045



- NOTES
- I ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - II 42129G BARE WIRE FOR ALL JUMPERS
  - III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - IV "J" IN BLOCK DENOTES JUMPER
  - V TEST TO ENGINEERING SPECIFICATION 891435

WIRING SIDE

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
<i>[Signature]</i>	10 10 58

INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.	
NAME	CARD ASM TSTR-ALLOY-DRIVER	DATE	11-5-58	CHANGE NO.	105392	APPROVAL		DATE		DEVELOPMENT NO.	
	THREE RELAY & LIGHT	DATE	4-27-60	CHANGE NO.	108823	APPROVAL	NGJ	DATE		DEVELOPMENT NO.	
DESIGN	GHS 6-30-58	MODEL	SMS								
DETAIL	EJC 7-8-58	SCALE	NONE								
CHECK	GHS 7-9-58	DRAW	JTB 9-9-58								
APPRO		CHECK									

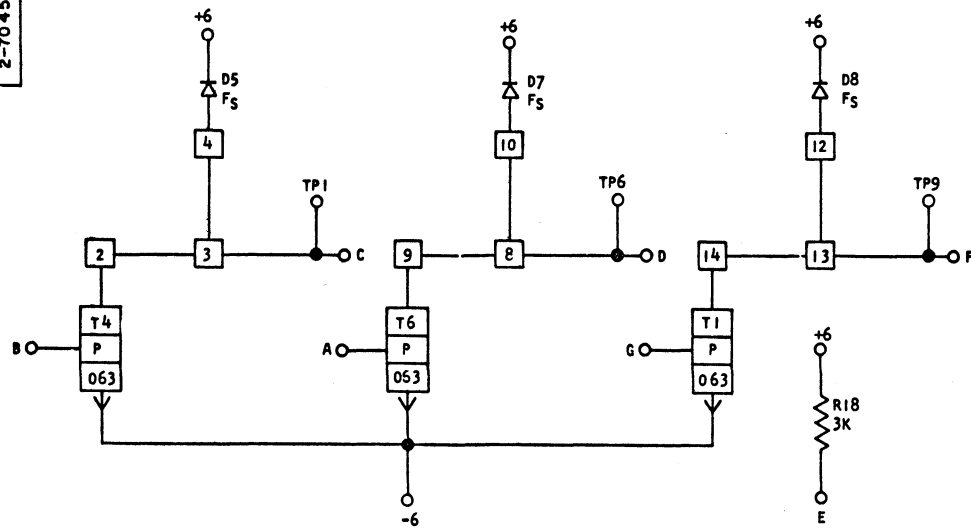
371435

ALLOY-DRIVERS, THREE PROLAY

371434

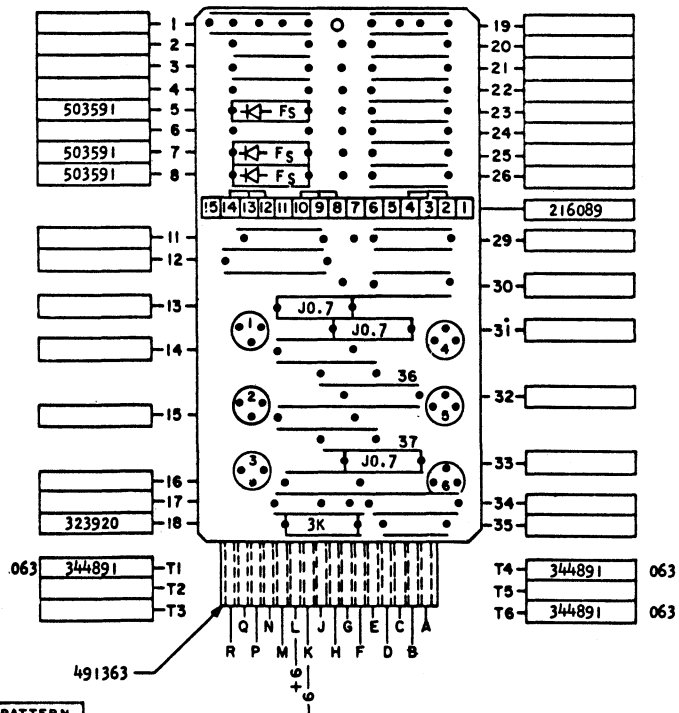
BK VY

STANDARDS CODE  
2-7045



NOTES

- I CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891434
- II ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- III ALL RESISTORS ARE 1/2 WATT AND  $\pm 5\%$  UNLESS OTHERWISE NOTED
- IV "J" IN BLOCK DENOTES BARE WIRE JUMPER 491296



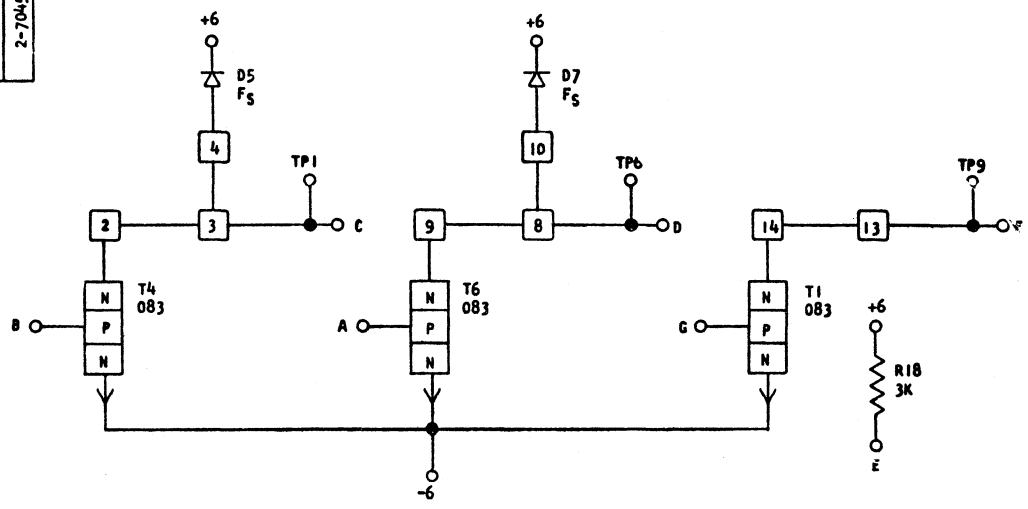
B

DPD CIRCUIT & PACKAGING STANDARD		MOLE PATTERN		COMPONENT SIDE				
APPROVAL	DATE	491020		DATE	CHANGE NO.	APPROVAL	DATE	DEVELOPMENT NO.
RWE	10-10-58							
INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	DEVELOPMENT NO.
NAME	CARD ASM TSTR - ALLOY-	11-5-58	105392	RJH				371434
DRIVERS, THREE PROLAY		3-30-60	REDRAWN					
DESIGN	GHS 6-30-58 MODEL SMS	4-27-60	108823	NGJ				
DETAIL	EJC 7-8-58 SCALE NONE	4-27-62	112757	MDL				
CHECK	GHS 7-9-58 DRAW VE 11-2-61							
APPRO	CHECK <i>[Signature]</i> 11-3-61							

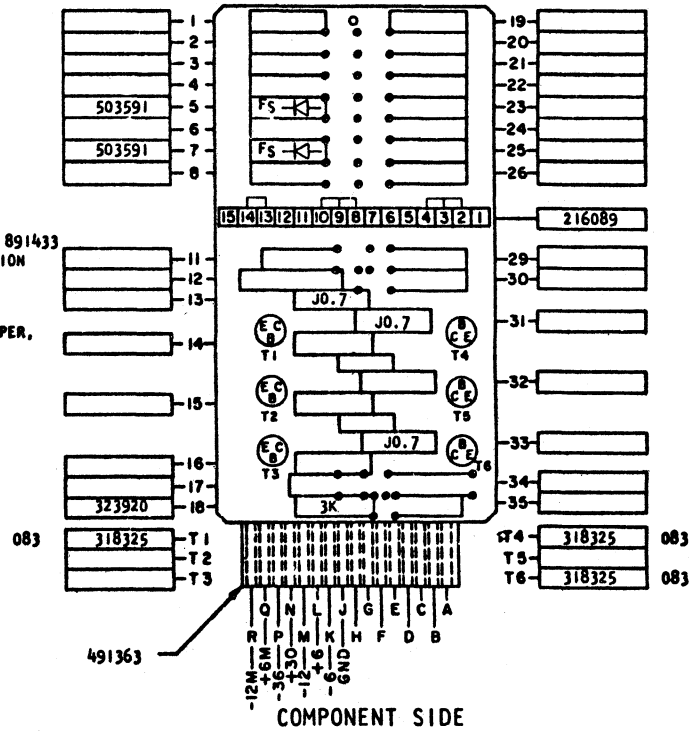
ALLOY-DRIVER, PROLAY ONE READ GATE

371433  
B K V Z

STANDARDS CODE  
2-7045



- NO. I TEST TO ENGINEERING SPECIFICATION 891433
- II ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
- IV "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



**B**

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
R.W.E.	10-30-58

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR-ALLOY-DRIVER, PROLAY ONE READ GATE	11-5-58	105392	RJH				
DESIGN GHS 6-30-58	4-27-60	108823	NGJ				
DETAIL EJC 7-8-58	6-16-60	D109191	<i>JWB</i>				
CHECK GHS 7-9-58	DRAW PAP 5-12-60						
APPRO B.P. 8-11-58	CHECK REN 6-12-60						

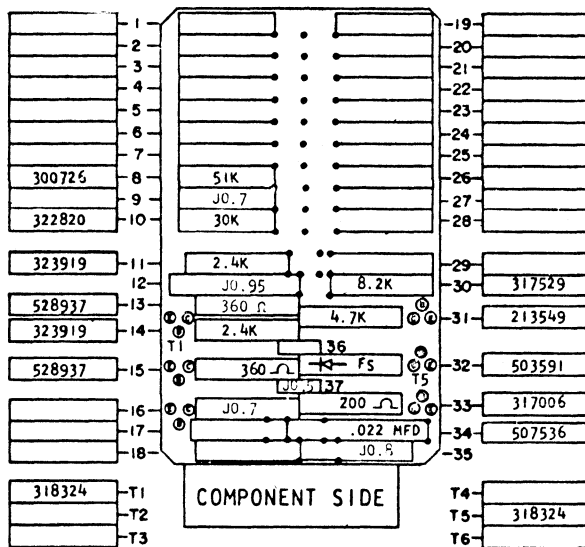
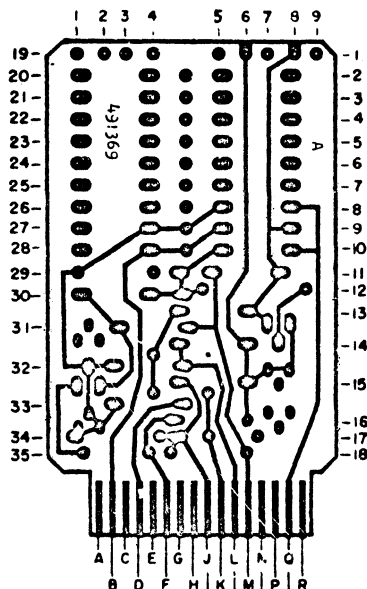
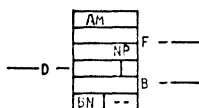
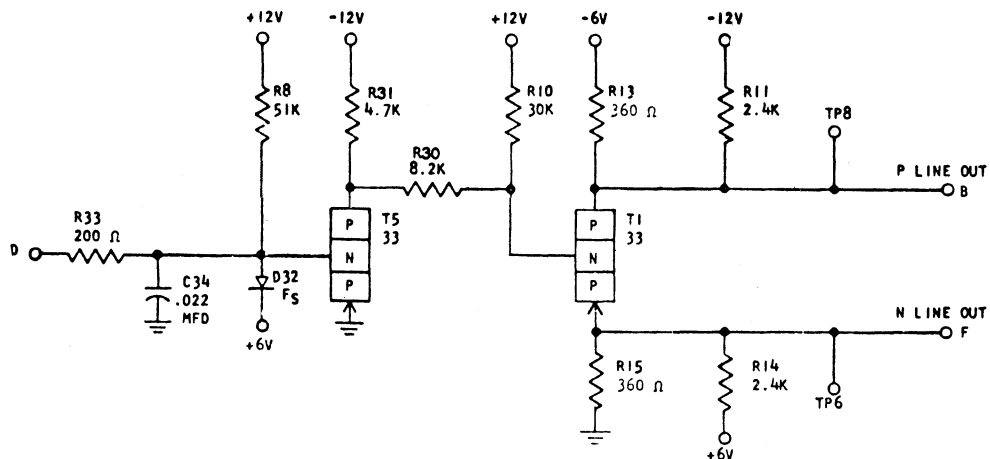
371433

ALLOY - LOAD POINT PHOTOSENSFR

371438

371438

STANDARDS CODE  
4-1502



- NOTES
- I ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - II 491296 BARE WIRE FOR ALL JUMPERS
  - III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - IV "J" IN BLOCK DENOTES JUMPER
  - XV TEST TO ENGINEERING SPECIFICATION 891438
  - XVI 491299-ASSEMBLE WITH JEDEC TRANSISTOR

B

WIRING SIDE

OPD CIRCUIT & PACKAGING STANDARD

APPROVAL: *[Signature]* DATE: *[Date]*

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR-ALLOY-LOADPOINT PHOTOSENSFR	11-14-58	105473	[Signature]				
DESIGN	GHS 7-10-58 MODEL SMS	2-2-59	105574	RJH				
DETAIL	EJC 7-29-58 SCALE NONE	6-26-59	106680	RJH				
CHECK	GHS 7-30-58 DRAW							
APPRO	[Signature]							

371438

371439

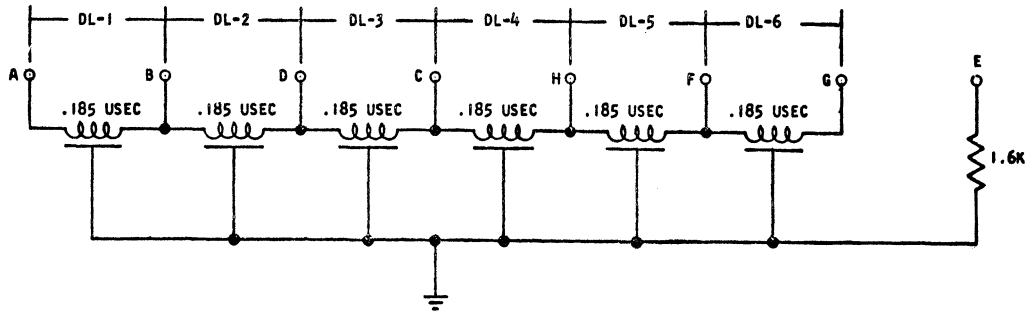
ALLOY-DELAY LINE DISTRIBUTED

371439

BP --

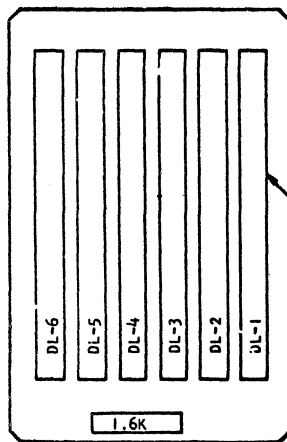
STANDARDS  
CODE

2-7045



NOTES

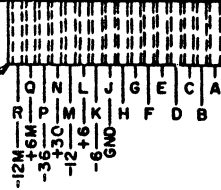
- I CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891439
- II ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999
- III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED



529207 (6)

317018

491371  
B



COMPONENT SIDE

B

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE REC	10-30-58

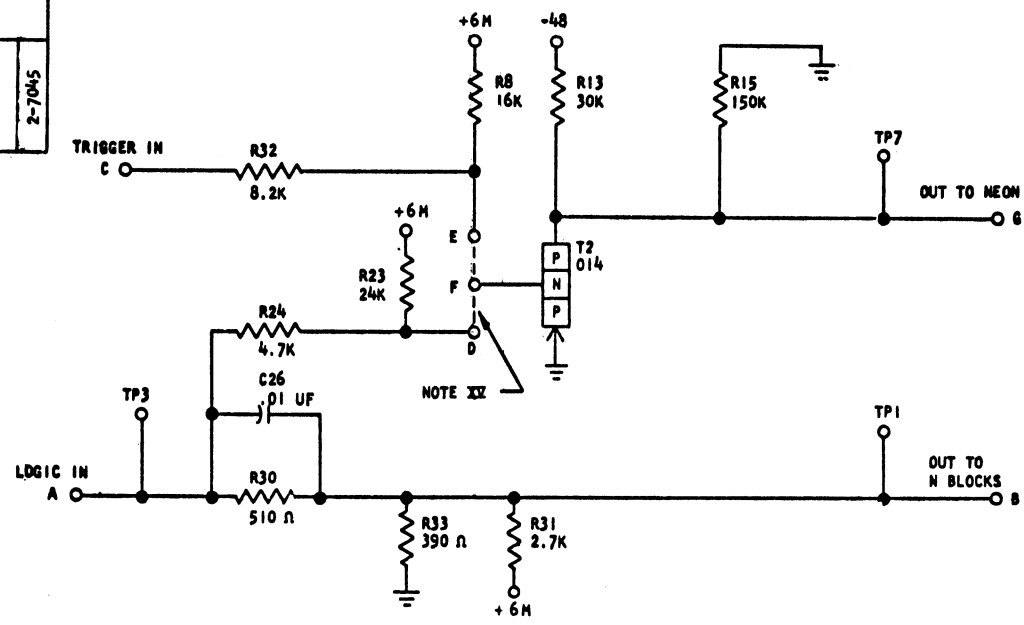
INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPR. VAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR - ALLOY-	11-14-58	105473					
DELAY LINE DISTRIBUTED		7-1-59	106595	RJH				
DESIGN LB	3-6-58	MODEL	SMS	8-12-59	106775	RJH		
DETAIL EJC	3-6-58	SCALE	NONE	9-16-59	D106942	RJH		
CHECK REC	6-30-59	DRAW VE	9-13-60	9-18-60	D109919	JWB		
APPRO GWS	6-30-59	CHECK RCH	9-13-60	9-18-60	D109919	JWB		

371439

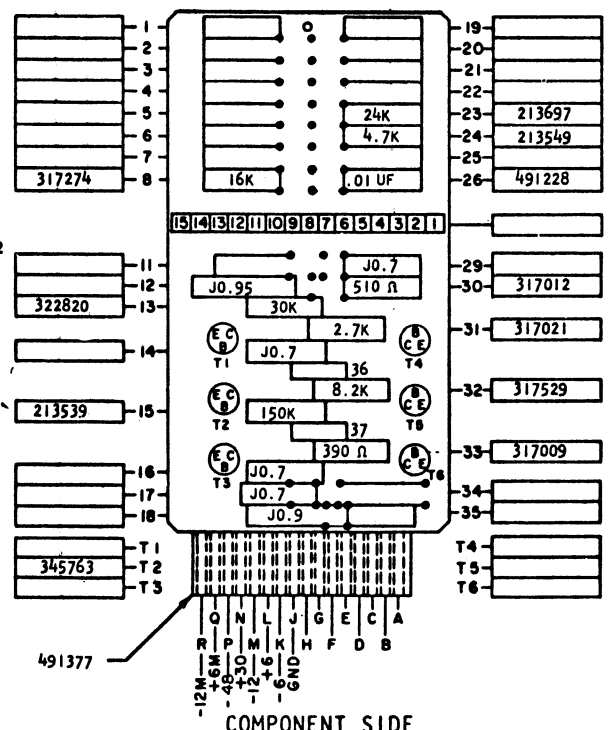


ALLOY - NEON DRIVER

371442  
B S - -  
STANDARDS CODE  
2-7045



- NOTES  
**I** TEST TO ENGINEERING SPECIFICATION 891442  
**II** ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999  
**III** ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED  
**IV** "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296  
**V** WHEN USED AS A TRIGGER NEON DRIVER, CONNECT PIN F TO E ON BACK PANEL. WHEN USED AS A LOGIC NEON DRIVER, CONNECT PIN F TO D ON BACK PANEL



**B**

DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RWE	10-10-58

INTERNATIONAL BUSINESS MACHINES CORP.				DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASM TSTR-ALLOY			11-5-58	105392	RJH				371442
NEON DRIVER				6-3-60	D108918	<i>JWB</i>				
DESIGN	GHS	8-7-58	TYPE	SMS	6-28-61	112166	IWB			
DETAIL	TPA	8-7-58	SCALE	NONE						
CHECK	GHS	8-7-58	DRAW	VE 5-6-60						
APPRO	PDB	8-11-58	CHECK							

371032

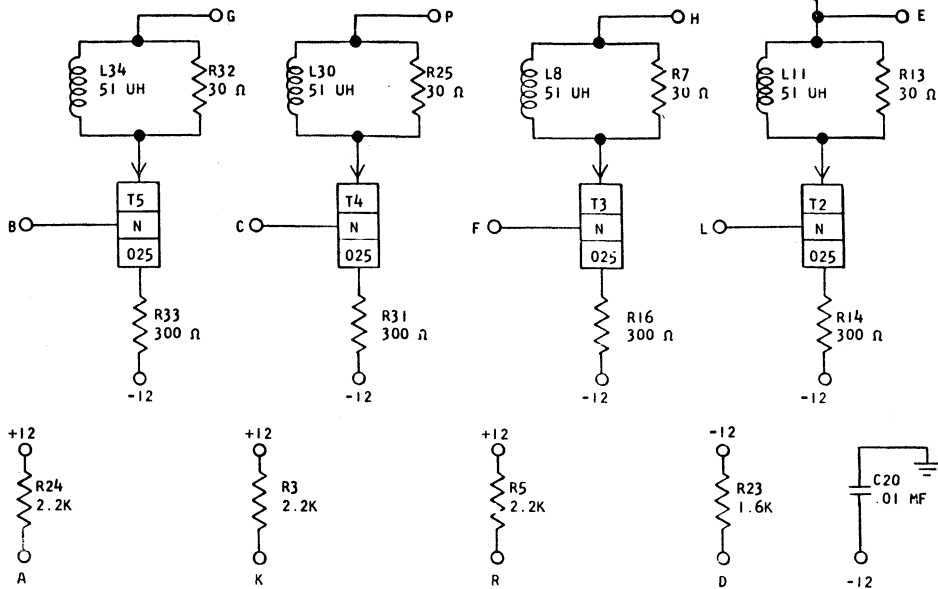
CE YB

STANDARDS CODE

2-7045

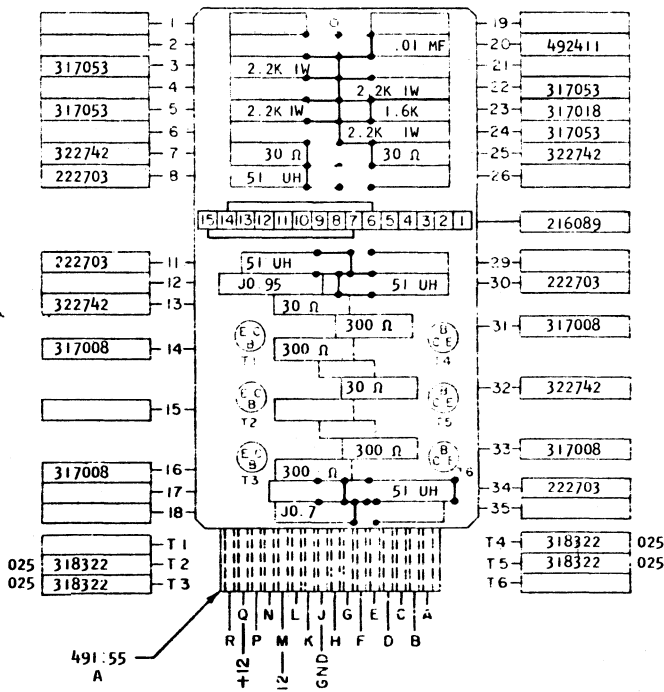
CTRL - EMITTER FOLLOWER PNP

371032



NOTES

- I CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891032
- II ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
- IV "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296



COMPONENT SIDE

B

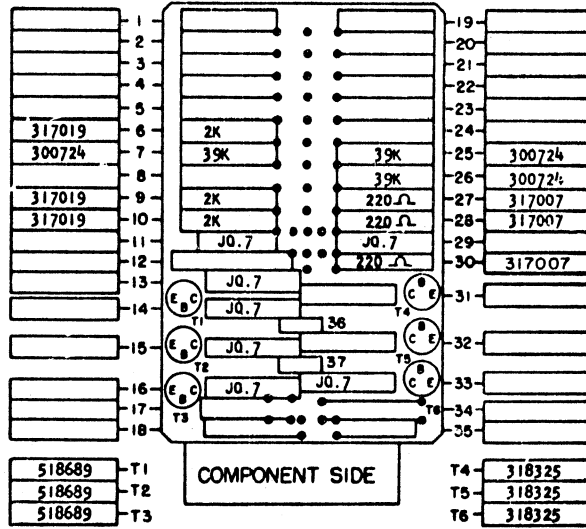
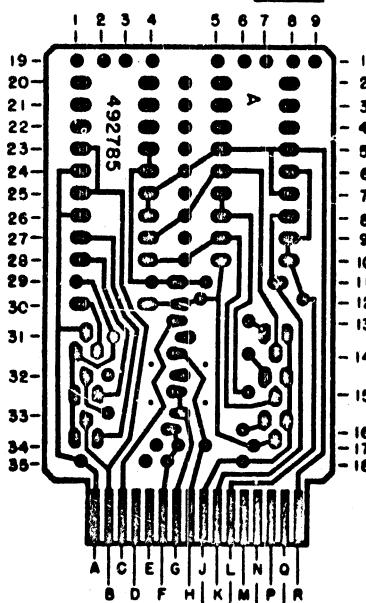
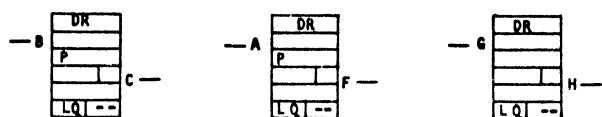
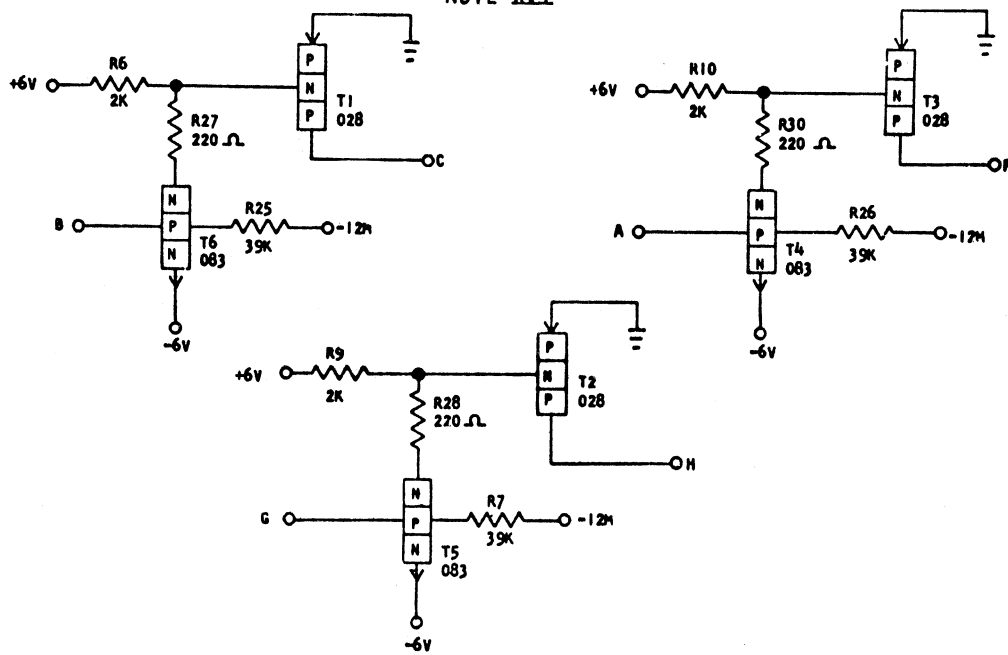
DPD CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
RAE	11-14-58

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.	
NAME CARD ASM TSTR - CTRL	11-18-58	105502	RJH	1-27-61	D111089	IWB	371032	
EMITTER FOLLOWER PNP	10-20-59	REDRAWN						
DESIGN								
DETAIL	5-5-58	SCALE	NONE	3-22-60	108318	NGJ		
CHECK	5-6-58	DRAW	VE	11-14-60	7-7-60	109613		IWB
APPRO	11-14-58	CHECK	JWB	12-14-60	D110502	JWB		

ALLOY-DRIVER, 48V, LIGHT & RELAY  
MOUNT CARD ON 1 INCH CENTERS  
NOTE XVI

371499

STANDARDS  
CODE  
2-7045



**B**

**WIRING SIDE**

CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
LIP	5-6-59

- NOTES
- I ASSEMBLE TO ENGINEERING SPECIFICATIONS 895396 AND 891999
  - II 491295 BARE WIRE FOR ALL JUMPERS
  - III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - IV "J" IN BLOCK DENOTES JUMPER
  - V 491299-ASSEMBLE WITH JEDEC TRANSISTOR
  - VI TEST TO ENGINEERING SPECIFICATION 891499
  - VII MAXIMUM HEIGHT COMPONENTS MAY PROJECT ABOVE SURFACE OF CARD WILL BE .850

INTERNATIONAL BUSINESS MACHINES CORP.		DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME	CARD ASH TSTR-ALLOY	6-9-59	106401	RJH				2547-0365
	DRIVER, -48V LIGHT & RELAY	8-14-59	106770	RJH				
DESIGN	RJA 5-4-59 MODEL SMS	10-13-59	REDRAWN					
DETAIL	RJA 5-4-59 SCALE NONE							
CHECK	LD 5-5-59 DRAW VE 10-13-59	4-28-60	D108701	NGJ				
APPROV	LD 5-5-59 CHECK 10-24-59							

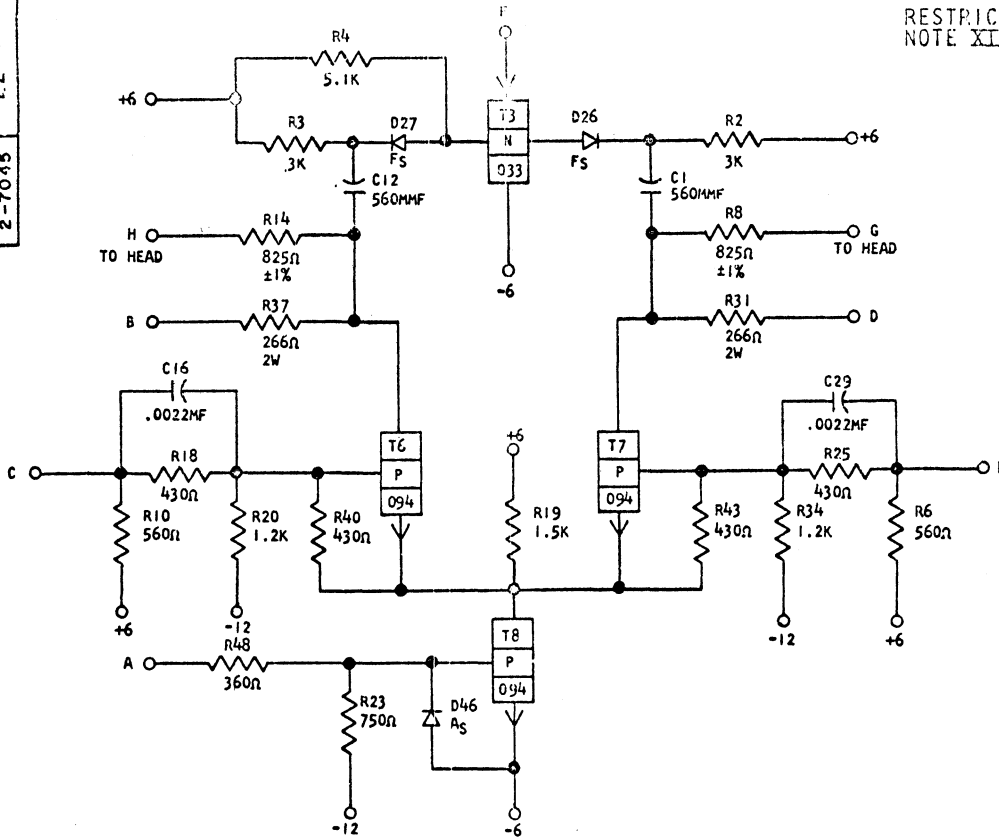
371499

371674  
I.Z  
2-7045  
STANDARDS CODE

ALLOY-HEAD DRIVER AND ECHO PULSE AMPLIFIER

371674

RESTRICTED  
NOTE XIV



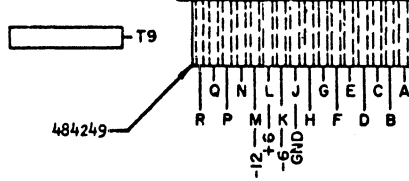
NOTES

- I CIRCUIT MUST CONFORM TO ENGINEERING SPECIFICATION 891674
- II ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- III ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED (AS NOTE XX)
- IV "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296
- V RESTRICTED TO 729 II AND IX MACHINES FOR APPLICATION REASONS
- VI ALL 2 WATT RESISTORS ARE +1% -2%

491222	1	560MMF	430Ω	25	317010
323920	2	3K	FS	26	503591
323920	3	3K	FS	27	503591
317024	4	5.1K	J0.7	28	
322347	5	J0.7	.0022MF	29	491251
479094	6	560Ω	J0.7	30	
	7		266Ω 2W	31	492606
	8	825Ω ±1%		32	
	9	J0.7	J0.7	33	
322347	10	560Ω	1.2K	34	317276
	11		J1.0	35	
491222	12	560MMF		36	
	13	J0.7	266Ω 2W	37	492606
479094	14	825Ω ±1%		38	
	15	J0.7	J0.7	39	
491251	16	.0022MF	430Ω	40	317010
317010	17		J1.0	41	
317017	18	430Ω	J0.7	42	
317276	19	1.5K	430Ω	43	317010
	20	1.2K	J0.7	44	
	21		J0.7	45	
	22		FS	46	491281
317015	23	750Ω	J0.7	47	
	24	J0.7	360Ω	48	528937

B

CIRCUIT AND PACKAGING STANDARD	
APPROVAL	DATE
KMT	1-30-61



T1		
T2		
T3	318324	033
T4		
T5		
T6	369081	094
T7	369081	094
T8	369081	094

COMPONENT SIDE

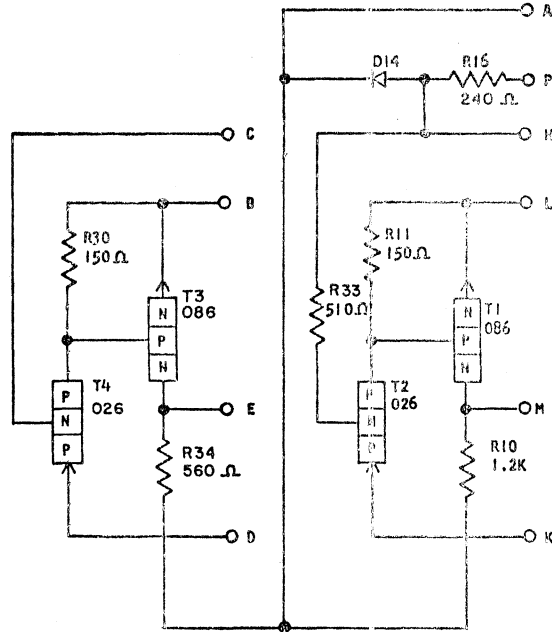
INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM TSTR- ALLOY-HEAD	8-12-59	106797	RJH	10-17-60	110171		371674
DRIVER AND ECHO PULSE AMPLIFIER	10-8-59	106945	RJH	2-9-61	111235	NOTE XIV	
DESIGN TPA 1-26-61 TYPE SMS 729	10-20-59	D107565	RJH				
DETAIL TPA 1-26-61 SCALE NONE	10-21-59	REDRAWN					
CHECK DAS 1-27-61 DRAW VE 2-2-61							
APPRO C.H.S. 2-9-61 CHECK P.P.W. 2-3-61	12-18-59	107934	RJH				

AMPLIFIER - ERROR VOLTAGE - NEGATIVE  
MOUNT ON 1 INCH CENTERS NOTE XIV

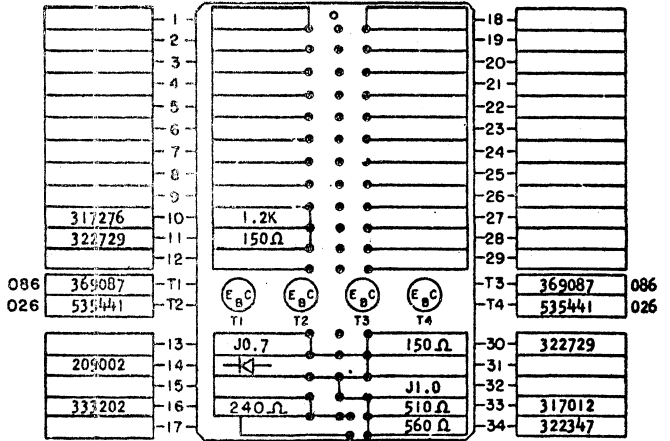
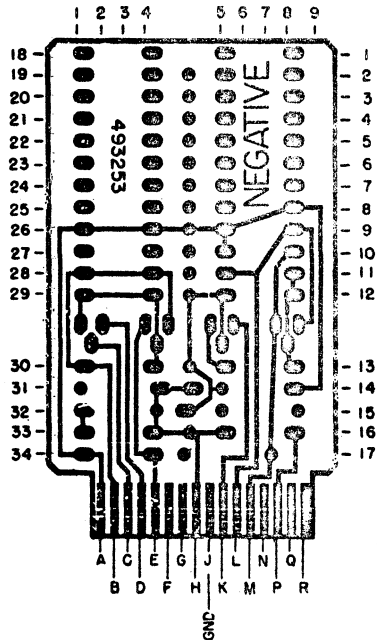
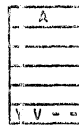
371921

371921

STANDARDS CODE  
2-7045



- A - D.C. COMMON
- B - LOAD SIDE OF C.B. FOR (-6)
- C - (-6) REFERENCE
- D - VOLTAGE DIVIDER FOR (-6) LEVEL
- E - BASE OF Q22 (-6)
- H - VOLTAGE DIVIDER FOR (-6) REFERENCE
- K - VOLTAGE DIVIDER FOR (-12) LEVEL
- L - LOAD SIDE OF C.B. (-12) (OR COLLECTOR OF Q22)
- M - BASE OF Q22 (-12)
- P - LINE SIDE OF C.B.



COMPONENT SIDE

NOTES

- X TEST TO ENGINEERING SPECIFICATION 891921
- XI ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
- XII 491299 - ASSEMBLE WITH JEDEC TRANSISTOR
- XIII "J" IN BLOCK DENOTES BARE WIRE JUMPER, 491296
- XIV ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
- XV THE MAXIMUM HEIGHT THE COMPONENTS MAY PROJECT ABOVE THE SURFACE OF THE CARD WILL BE .850

B

WIRING SIDE

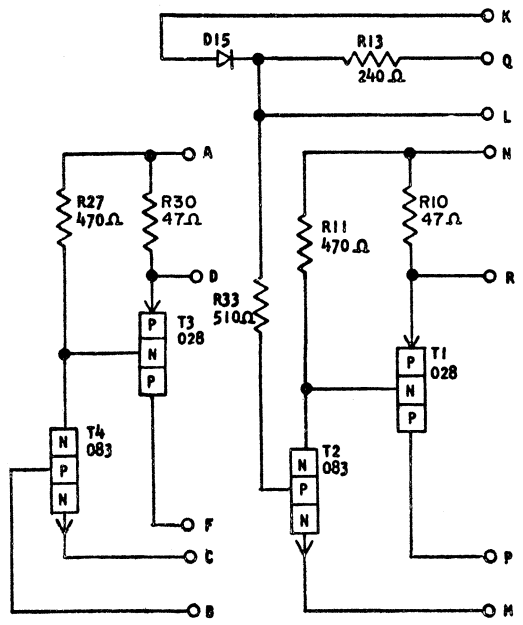
CIRCUIT & PACKAGING STANDARD							
APPROVAL	DATE						
LIP KHT	2-18-60						
INTERNATIONAL BUSINESS MACHINES CORP.							
NAME	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
CARD ASM TSTR-AMPLIFIER	3-15-60	108551	NGJ				2547-0843
ERROR VOLTAGE-NEGATIVE							
DESIGN	PPH 2-11-60	MODEL	SMS 729				
DETAIL	PPH 2-15-60	SCALE	NONE				
CHECK	CJB 3-10-60	DRAW	VE 3-25-60				
APPRO	BES 3-15-60	CHECK	4-5-60				

371921

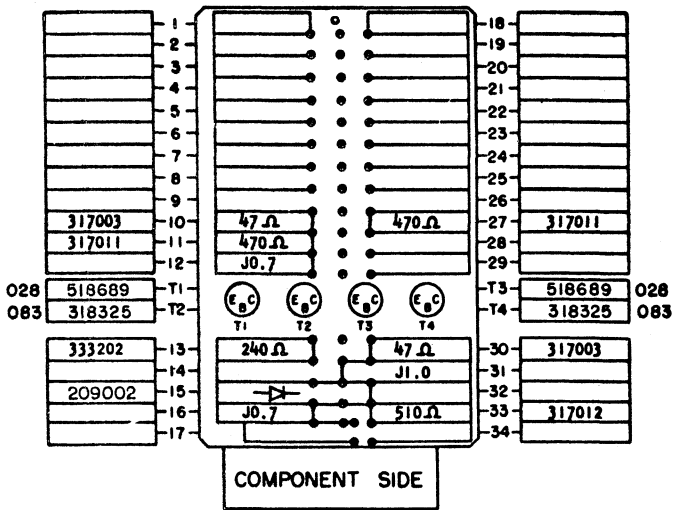
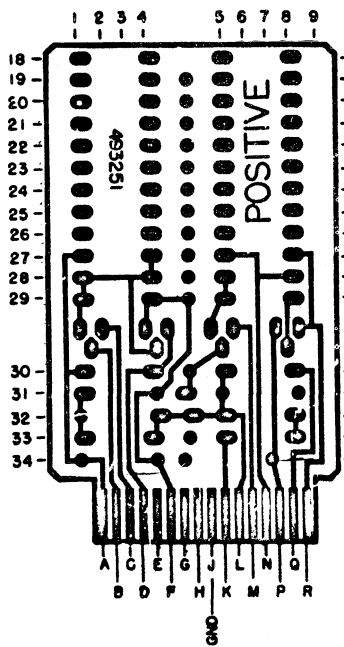
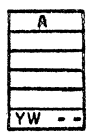
AMPLIFIER - ERROR VOLTAGE, POSITIVE  
MOUNT ON 1 INCH CENTERS NOTE XV

371920

STANDARDS CODE  
2-7045



- A - EMITTER OF 022 (+6)
- B - REFERENCE FOR (+6)
- C - VOLTAGE DIVIDER FOR (+6)
- D - BASE OF 022 (+6)
- F - COLLECTOR OF 022 (+6)
- K - D.C. COMMON
- L - VOLTAGE DIVIDER FOR (+6) REFERENCE
- M - VOLTAGE DIVIDER FOR (+12)
- N - EMITTER OF 022 (+12)
- P - COLLECTOR OF 022 (+12)
- Q - LINE SIDE OF C.B (+12)
- R - BASE OF 022 (+12)



- NOTES
- X TEST TO ENGINEERING SPECIFICATION 891920
  - XI ASSEMBLE TO ENGINEERING SPECIFICATION 895396 AND 891999
  - XII 491299-ASSEMBLE WITH JEDEC TRANSISTOR
  - XIII "J" IN BLOCK DENOTES JUMPER, 491296
  - XIV ALL RESISTORS ARE 1/2 WATT AND ±5% UNLESS OTHERWISE NOTED
  - XV THE MAXIMUM HEIGHT THE COMPONENTS MAY PROJECT ABOVE THE SURFACE OF THE CARD WILL BE .850

**B** WIRING SIDE

CIRCUIT & PACKAGING STANDARD	
APPROVAL	DATE
LIP	2-18-60

INTERNATIONAL BUSINESS MACHINES CORP.	DATE	CHANGE NO.	APPROVAL	DATE	CHANGE NO.	APPROVAL	DEVELOPMENT NO.
NAME CARD ASM. TSTR-AMPLIFIER	3-15-60	108551	NGJ				2547-0842
ERROR VOLTAGE, POSITIVE	3-25-60	REDRAWN					
DESIGN PPH 2-11-60 MODEL SMS 729	3-29-60	D108613	NGJ				
DETAIL PPH 2-11-60 SCALE NONE							
CHECK CJB 3-10-60 DRAW VE 3-25-60							
APPRO BES 3-15-60 CHECK p.p.f. 3-25-60							

371920



