

CALIBRATION  
AND  
SERVICING  
HANDBOOK

Volume 2

4200

**datron**

INSTRUMENTS

**AUTOCAL AC STANDARD**

# CALIBRATION AND SERVICING HANDBOOK

for

## **THE DATRON 4200** **AUTOCAL AC STANDARD**

Volume 2

Component Lists and  
Servicing Diagrams

850058

Issue 1 (May 1986)

For any assistance contact your nearest Datron Sales and Service Centre.  
Addresses can be found at the back of this handbook.

Due to our policy of continuously updating our products, this handbook may contain minor differences in specification, components and circuit design to the instrument actually supplied. Amendment sheets precisely matched to your instrument serial number are available on request.



**DANGER**  
**HIGH VOLTAGE**



**THIS INSTRUMENT IS CAPABLE  
OF DELIVERING  
A LETHAL ELECTRIC SHOCK!**



FRONT or REAR  
terminals carry the  
Full Output Voltage.

**THIS CAN KILL!**



Guard terminal is  
sensitive to over-  
voltage

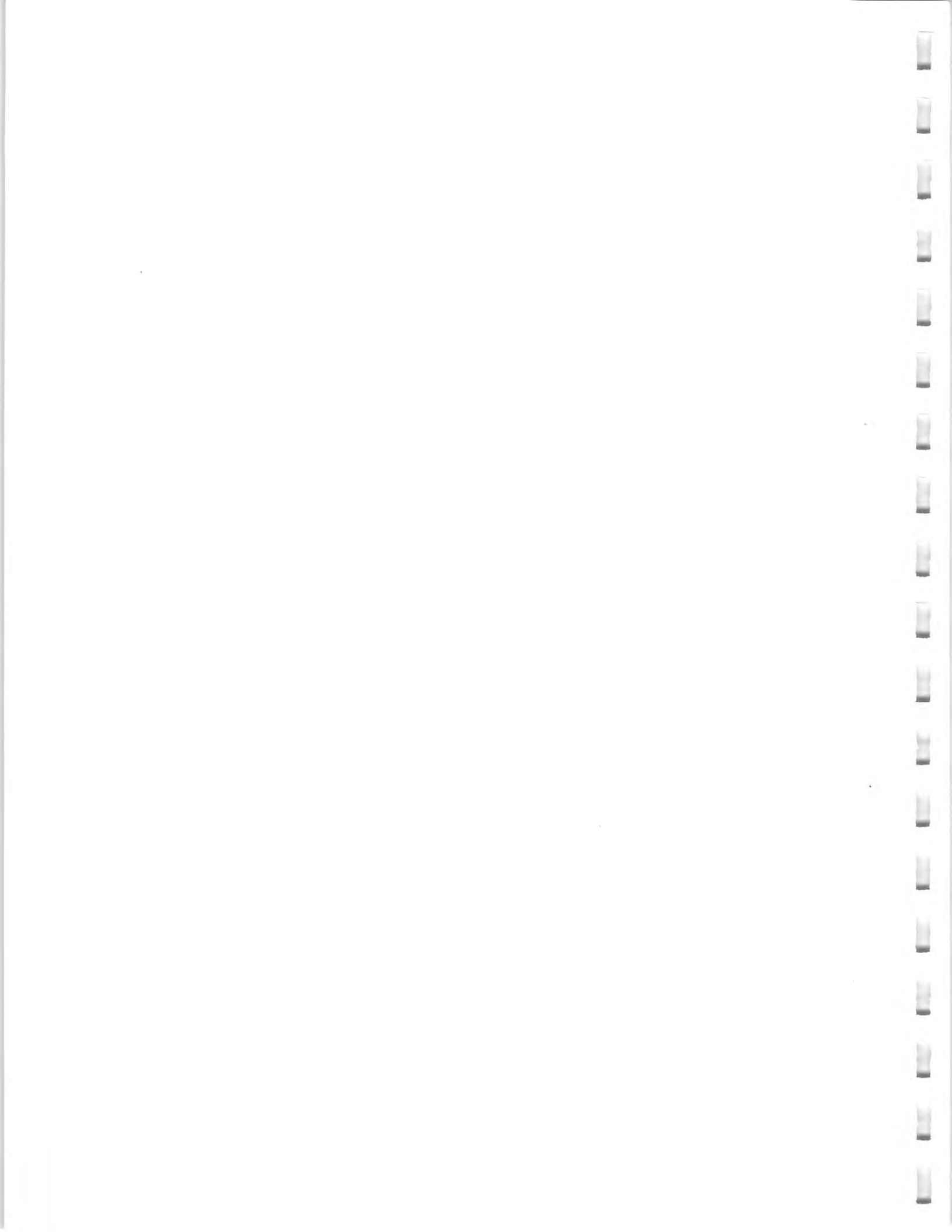
**It can damage  
your instrument!**

Unless **you** are **sure** that  
it is **safe** to do so,  
**DO NOT TOUCH** the  
**I+ I- Hi** or **Lo leads**  
and **terminals**

**DANGER**

## SECTION 6 COMPONENT LISTS

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R70	000688	GR8 5% 1/4W CARBON	MULLARD	CR25	—
R71	000688	GR8 " " "	"	"	—
R72	000563	56k " " "	"	"	1
R73, R74, R75	000472	4k7 " " "	"	"	—
R76	000103	10k " " "	"	"	—
R77, R78	000104	100k " " "	"	"	—
AN1, AN2	090017	100k x 7 2% NETWORK	BECKMAN	LO8-1- R100k	2
AN3, AN4	090041	4k7 x 7 2% NETWORK	BECKMAN	LO8-1- R4k7	2
AN5, AN6	090121	100k x 8 2% NETWORK	BECKMAN	LO9-1- R100k	2
C1	150002	10µF 20% 16V DIP TANT	UNION CARBIDE	K10E16	2
C2	104026	47nF <sup>+50</sup> / <sub>-20</sub> % 50V CER DISC	SIEMENS	B37449	3
C3	104026	47nF <sup>+50</sup> / <sub>-20</sub> % 50V CER DISC	SIEMENS	B37449	—
C4	150001	22µF 20% 16V DIP TANT	UNION CARBIDE	K22E16	1
C5	104026	47nF <sup>+50</sup> / <sub>-20</sub> % 50V CER DISC	SIEMENS	B37449	—
C6		NOT USED			—
C7		NOT USED			—
C8	110013	100nF 20% 250V POLYESTER	MULLARD	C280AEP100k	19
C9	110013	" " " "	"	"	—
C10	110013	" " " "	"	"	—
C11	110013	" " " "	"	"	—
C12	110013	" " " "	"	"	—

NOTES

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DATE	7.3.84	datron ELECTRONICS LTD
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DATE		FRONT PCB ASSY
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		400533
		SHEET
		5 OF 11

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C13	110013	100nF 20% 250V POLY-ESTER	MULLARD	C280AEP100k	—
C14	110013	" " " "	"	"	—
C15	110013	" " " "	"	"	—
C16	110013	" " " "	"	"	—
C17	110013	" " " "	"	"	—
C18	110013	" " " "	"	"	—
C19	110013	" " " "	"	"	—
C20	110013	" " " "	"	"	—
C21	110013	" " " "	"	"	—
C22	110013	" " " "	"	"	—
C23	110013	" " " "	"	"	—
C24	110013	" " " "	"	"	—
C25	110013	" " " "	"	"	—
C26	110013	" " " "	"	"	—
C27	150002	10µF 20% 16V DIP TANT	UNION CARBIDE	K10E16	—
C28	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	K10R35	1
D1	200001	75mA 75V GP. Si DIODE	FAIRCHILD	IN4148	18
D2	200001	" " " "	"	"	—
D3	200001	" " " "	"	"	—
D4	200001	" " " "	"	"	—
D5	200001	" " " "	"	"	—
D6	200001	" " " "	"	"	—
D7	200001	" " " "	"	"	—

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		6 OF 11





DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q32	250011	Si PNP TRANSISTOR	NATIONAL	BC327/TO18	-
Q33	240009	Si NPN TRANSISTOR	"	MPS101/TO18	-
Q34	240009	" " "	"	"	-
Q35	240009	" " "	"	"	-
Q36	240009	" " "	"	"	-
Q37	240009	" " "	"	"	-
Q38	240009	" " "	"	"	-
Q39	240009	" " "	"	"	-
Q40	240009	" " "	"	"	-
Q41	240009	" " "	"	"	-
Q42	240009	" " "	"	"	-
M1	280023	QUAD 2-1/P NOR GATE	MOTOROLA	MC14001 BCP	1
M2	260005	5V IA REGULATOR	MOTOROLA	MC7805CP	1
M3	280043	4-BIT LATCH/4 TO 16 LINE DECODER	MOTOROLA	MC14515 BCP	1
M4	280090	DUAL BINARY 1 of 4 DECODER	MOTOROLA	MC14555 BCP	1
M5	270071	DUAL 1 of 4 DECODER 1S	NATIONAL	DM74LS156N	1
M6	280103	PROGRAMMABLE KEYBOARD/DISP	INTEL	8279-5	1

NOTES.

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DATE		SHEET 10 OF 11	

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
S1-S12, S14-S25, S27	700079	KEYBOARD * 1/2 SWITCH . BLACK	NSF	K12/HALF KEY. BLACK	26
S29-S43	700061	KEYBOARD SWITCH. RED LED.	SCHADOW	SRL-RED LED	22
S28, S44, S45	700062	KEYBOARD SWITCH GREEN LED.	SCHADOW	SRL-GREEN LED.	3
S46, S47, S49, S50 S52-S54	700061	KEYBOARD SWITCH. RED LED	SCHADOW	SRL-RED LED	-
S56	700079	KEYBOARD * 1/2 SWITCH . BLACK	NSF	K12/HALF KEY. BLACK	-
	410144-9	PCB			1
J1	604060	24+24 WAY .1" PCB. PLUG GOLD	AMP	2-825440-4	3
	605098	40 PIN DIL. LOW PROFILE SKT	CAMBION	703-4340-01-06-00	1
	605060/L	14 WAY DIL. " " "			1
	605061/L	16 WAY DIL. " " "			2
	605097	24 WAY DIL. " " "	CAMBION	703-4324-01-06-00	1
	612023	STANDOFF M2.5x4 LG. BRASS 1/8"	CAMBION	350-5181-22-07	2
	800017-3	8 1/2 DIGIT DISPLAY WITH LEGEND	DALE	SEE DRG-	2
	920096	BUZZER PIEZOELECTRIC	TOKO	PB 2720	1
	620003	SOLDER PCB TERMINAL LUG	HARWIN	H210SA	2

NOTES.

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DATE		SHEET 10 OF 11	

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	611054	M2x6mm SLOT CSK STEEL	ZN PL		2
	611076	M3x6mm SLOT PAN HEAD.	ZN PL.		1
	613005	M3 INT. SHAKEPROOF			1
	613026	M2 WASHER STEEL ZN PL			2
	613027	M2 INT SHAKEPROOF			2
	615002	M3 FULL NUT STEEL ZN PL			1
	615016	M2 FULL NUT STEEL ZN PL			2
	620007	TEST POINT TERMINAL	MICROVAR	C30	9
	630029	TAPE DOUBLE SIDED 1/4" x 1/32"	3M	4032	150mm

NOTES.

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ISS										DRAWN	JL			TITLE	4200 FRONT PCB ASSY
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DATE										APPROVED				SHEET	11 OF 11
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DRAWING No. 400534		CHK'D																								
		DATE	B.0 1958 4-7-85 MD		B.1 1945 3-9-85 AP		B.2 2063 29.11.85 AP		9.0 2090 13.1.86 AP																	
		ECO																								
		REVISION																								
		ISSUE																								
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION																							
COMP. LAYOUT.	480534	1	B.0	B.1	B.2	9.0																				
SCHMATIC	430534	1	B.0	B.1	B.2	9.0																				
SCHMATIC	430534	2	B.0	B.1	B.2	9.0																				
SCHMATIC	430534	3	B.0	B.1	B.2	9.0																				
SCHMATIC	430534	4	B.0	B.1	B.2	9.0																				
SCHMATIC	430534	5	B.0	B.1	B.2	9.0																				
FUNCTIONAL TEST PROC.	460534/FT	1-7	B.0	B.1	B.2	9.0																				
FUNCT. TEST TICK LIST	470534/FT	1	B.0	B.1	B.2	9.0																				
NOTES			<input type="checkbox"/> INDICATES NO CHANGE TO DOCS. AT ISSUE LEVEL CHANGE														DRN B. JACKSON DATE 4-7-85.		CHK'D MSD DATE 10.7.85		APP'D 		TITLE 4200 DIGITAL PCB ASSY		DRAWING No. 400534 SHEET 1 of 12	

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	000332	3k3 5% 1/4W CARBON	MULLARD	CR25	3
R2	000472	4k7 " " "	"	"	11
R3	000472	4k7 " " "	"	"	-
R4	000472	4k7 " " "	"	"	-
R5	000472	4k7 " " "	"	"	-
R6	000103	10k " " "	"	"	5
R7	000104	100k " " "	"	"	9
R8	000122	1k2 " " "	"	"	2
R9	000104	100k " " "	"	"	-
R10	000104	100k " " "	"	"	-
R11	000103	10k " " "	"	"	-
R12	000472	4k7 " " "	"	"	-
R13	000472	4k7 " " "	"	"	-
R14	000561	560R " " "	"	"	2
R15	000104	100k " " "	"	"	-
R16	000182	1k8 " " "	"	"	1
R17	014751	4k75 1% 1/8W 50ppm MF	HOLCO	H8C	1
R18	000122	1k2 5% 1/4W CARBON	MULLARD	CR25	-
R19	012491	2k49 1% 1/8W 50ppm MF	HOLCO	H8C	1
R20	000102	1k 5% 1/4W CARBON	MULLARD	CR25	21
R21	000472	4k7 " " "	"	"	-
R22	000223	22k " " "	"	"	1
R23	000103	10k " " "	"	"	-

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4	5	6	7	8				
ECO	-	1679	1727 1737	1763	1780	1847	1860	1892				
DATE	25.11.83	25.7.84	18.10.84	23.11.84	2.1.85	19.2.85	27.3.85	15.5.85				
CHK'D	MSD	MD	MD	MD	AP	AP	AP	AP				

DATE	5.3.84	ELECTRONICS LTD
DRAWN	IL	
CHECKED		TITLE 4200 DIGITAL PCB. ASSY.
APPROVED		
DATE	9.3.84	DRAWING NUMBER 400534
		SHEET 2 of 12

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
R24	000332	3k3 5% 1/4W CARBON	MULLARD	CR25	—
R25	011002	10k0 1% 1/8W 50ppm MF	HOLCO	H8C	2
R26	000104	100k 5% 1/4W CARBON	MULLARD	CR25	—
R27	011002	10k0 1% 1/8W 50ppm MF	HOLCO	H8C	—
R28	000471	470R 5% 1/4W CARBON	MULLARD	CR25	3
R29	000104	100k " " "	"	"	—
R30	000472	4k7 " " "	"	"	—
R31	000102	1k " " "	"	"	—
R32	000104	100k " " "	"	"	—
R33	000102	1k " " "	"	"	—
R34	000102	1k " " "	"	"	—
R35	000102	1k " " "	"	"	—
R36	000102	1k " " "	"	"	—
R37	000102	1k " " "	"	"	—
R38	000102	1k " " "	"	"	—
R39	000102	1k " " "	"	"	—
R40	000102	1k " " "	"	"	—
R41	000102	1k " " "	"	"	—
R42	000103	10k " " "	"	"	—
R43	000102	1k " " "	"	"	—
R44	000102	1k " " "	"	"	—
R45	000102	1k " " "	"	"	—
R46	000102	1k " " "	"	"	—

NOTES.

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DATE	5.3.84	datron ELECTRONICS LTD
DRAWN	JL.	
CHECKED		TITLE
APPROVED		4200. DIGITAL PCB. ASSY.
DATE		DRAWING NUMBER
		400534
		SHEET
		3 OF 12

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R47	000102	1k 5% 1/4W CARBON	MULLARD	CR25	—
R48	000102	1k " " "	"	"	—
R49	000102	1k " " "	"	"	—
R50	000102	1k " " "	"	"	—
R51	000102	1k " " "	"	"	—
R52	000472	4k7 " " "	"	"	—
R53	000104	100k " " "	"	"	—
R54	000104	100k " " "	"	"	—
R55	000103	10k " " "	"	"	—
R56	000471	470R " " "	"	"	—
R57	000471	470R " " "	"	"	—
R58	000102	1k " " "	"	"	—
R59	000391	390R " " "	"	"	1
R60	000472	4k7 " " "	"	"	—
R61	000472	4k7 " " "	"	"	—
R62	000561	560R " " "	"	"	—
R63		NOT USED			—
R64	000332	3k3 " " "	"	"	—

NOTES.

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DATE		DRAWING NUMBER
		400534
		SHEET
		4 OF 12

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
AN1	090050	3k3 x7 2% NETWORK	BECKMAN	764-1- R3k3	1
AN2	090017	100k x7 2% NETWORK	BECKMAN	764-1- R100k	1
AN3	090046	10k x7 2% NETWORK	BECKMAN	764-1- R10k	2
AN4	090046	10k x7 2% NETWORK	BECKMAN	764-1- R10k	-
AN5	090085	12k x8 2% NETWORK	AB	761-3- 12k	1
C1	150002	10µF 20% 16V DIP TANT	UNION CARBIDE	K10E16	11
C2	150002	10µF 20% 16V DIP TANT	UNION CARBIDE	K10E16	-

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DATE		DRAWING NUMBER 400534 SHEET 5 OF 12

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C3	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	14
C4	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C5	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C6	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C7	102681	680pF 10% 500V CER DISC	ITT	CD10	1
C8	150016	1µF 20% 35V DIP TANT.	UNION CARBIDE	K1035	3
C9	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C10	150002	10µF 20% 16V DIP TANT.	UNION CARBIDE	K10E16	-
C11	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C12	150002	10µF 20% 16V DIP TANT.	UNION CARBIDE	K10E16	-
C13	150002	10µF 20% 16V DIP TANT.	UNION CARBIDE	K10E16	-
C14	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C15	150002	10µF 20% 16V DIP TANT.	UNION CARBIDE	K10E16	-
C16	102102	1nF 10% 500V CER DISC	ITT	CD10	1
C17	150002	10µF 20% 16V DIP TANT	UNION CARBIDE	K10E16	-
C18	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	K1035	-
C19	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C20	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C21	150002	10µF 20% 16V DIP TANT.	UNION CARBIDE	K10E16	-
C22	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C23	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C24	150002	10µF 20% 16V DIP TANT	UNION CARBIDE	K10E16	-
C25	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-

NOTES.

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DATE	5.3.84	datron ELECTRONICS LTD
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DATE		DRAWING NUMBER 400534 SHEET 6 OF 12

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
C26	101103	10nF 25% 250V CER DISC	ITT	CD10	2
C27	104026	47nF $\pm 20\%$ 50V CER DISC	SIEMENS	B37449	-
C28	150006	4.7 $\mu$ F 20% 16V DIP TANT	UNION CARBIDE	K47E16	1
C29	150016	1 $\mu$ F 20% 35V DIP TANT	UNION CARBIDE	K10E35	-
C30	150024	4.7 $\mu$ F 20% 16V DIP TANT	UNION CARBIDE	K47E16	1
C31	101103	10nF 25% 250V CER DISC	ITT	CD10	-
C32	104026	47nF $\pm 20\%$ 50V CER DISC	SIEMENS	B37449	-
C33	150002	10 $\mu$ F 20% 16V DIP TANT	UNION CARBIDE	K10E16	-
C34	150002	10 $\mu$ F 20% 16V DIP. TANT	UNION CARBIDE	K10E16	-
D1	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	6
D2	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D3	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D4	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D5	210047	4V7 400mW ZENER	MULLARD	BZY88C4V7	1
D6	214012	2V45 30 $\mu$ m ZENER	FERRANTI	ZN458	1
D7	220010	Si HOT CARRIER DIODE	H.P.	HSCH1001 / IN6263	1
D8	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D9	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-

NOTES.												DATE 5.3.84		datron ELECTRONICS LTD	
SEE SHEET 2 FOR LATEST ISSUE												DRAWN JL		TITLE 4200. DIGITAL PCB ASS	
ISS												CHECKED		APPROVED	
E.C.O.												DATE		DRAWING NUMBER 400534	
DATE												DATE		SHEET OF 12	
CHKD															

1 W. 3164

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
D10	213006	5V SW ZENER	UNITRODE	TVS505	1
Q1	240001	Si NPN TRANSISTOR	NATIONAL	BC184 / TO18	2
Q2	240001	Si NPN TRANSISTOR	NATIONAL	BC184 / TO18	-
Q3	230031	N-CHAN DUAL JFET	TELEDYNE	SU26S6M	1

NOTES.												DATE 5.3.84		datron ELECTRONICS LTD	
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ISS												CHECKED		APPROVED	
E.C.O.												DATE		DRAWING NUMBER 400534	
DATE												DATE		SHEET OF 12	
CHKD															

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
M1	280024	TRI-STATE HEX. NON-INV. BUFFER	MOTOROLA	MC14503 BCP	4
M2	280024	TRI-STATE HEX. NON-INV. BUFFER	MOTOROLA	MC14503 BCP	-
M3	290122-1	74S188 PROM PROGRAMMED	DATRON (SEE DRG.)	SN74S188N (BLUE)	1
M4	270056	8 1/P NAND LS	NATIONAL	DM74LS30N	1
M5	270048	QUAD 2 1/P NAND LS	NATIONAL	DM74LS00N	4
M6	270050	HEX. INVERTER	NATIONAL	74LS04	2
M7	280008	QUAD 2 1/P 'NAND' GATE	MOTOROLA	MC14011 BCP	2
M8	280011	DUAL D FLIP-FLOP	MOTOROLA	MC14013 BCP	1
M9	280102	14 BIT BINARY COUNTER	MULLARD	HEF 4020 BP	1
M10	280091	UN-BUFFERED TRIPLE 3 1/P 'NAND'	MOTOROLA	MC14023 UBCP	1
M11	220015	5KV OPTO ISOLATOR	MOTOROLA	MOC1005	2
M12	280077	HEX. INVERTER	MOTOROLA	MC14572 BCP	1
M13	280033	8-CHAN DATA SELECTOR	MOTOROLA	MC14512 BCP	1
M14	280015	QUAD LATCH	MOTOROLA	MC14076 BCP	2
M15	280015	QUAD LATCH	MOTOROLA	MC14076 BCP	-
M16	280062	8-BIT STATIC RAM	MOTOROLA	MC6810A	1
M17	270048	QUAD 2 1/P NAND GATE	NATIONAL	74LS00	-
M18		NOT FITTED			-
M19	290124 - 12	2764 EPROM PROGRAMMED	DATRON	SEE DRG.	1
M20	290125 - 12	2764 EPROM PROGRAMMED	DATRON	SEE DRG.	1
M21	290126 - 12	2764 EPROM PROGRAMMED	DATRON	SEE DRG.	1
M22	280107	2k x 8 STATIC RAM	HITACHI	HM6116P-4	1
M23	280117	2k x 8 STATIC RAM LP	FUJITSU	MB8417-25	1

NOTES.

DATE	5.3.84	datron ELECTRONICS LTD	
DRAWN		TITLE	4200 DIGITAL PCB. ASSY
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APPROVED		DRAWING NUMBER	400534
DATE		SHEET	9 OF 12

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
M24	270058	DUAL 2 TO 4 LINE DEMUX LS	NATIONAL	DM74LS155N	3
M25	270075	DUAL D FLIP-FLOP LS	NATIONAL	DM74LS74 N	1
M26		NOT FITTED			-
M27		NOT USED			-
M28	260043	358 DUAL OP AMP	NATIONAL	LM358N	1
M29	280064	IEEE 488 INTERFACE CHIP	MOTOROLA	MCG8488P	1
M30	280005	TRIPLE GATE	MOTOROLA	MC14501 BCP	1
M31	270045	QUAD 2 TO 1 LINE MUX LS	NATIONAL	DM74LS157N	1
M32	280092	DUAL 4-BIT LATCH	MOTOROLA	MC14508 BCP	1
M33	270048	QUAD 2 1/P NAND LS	NATIONAL	DM74LS00N	-
M34	280087	MICRO-PROCESSOR CHIP	MOTOROLA	MC6802	1
M35	270057	DUAL J-K FLIP-FLOP LS	NATIONAL	DM74LS76N	1
M36	280024	TRI-STATE HEX. NON-INV. BUFFER	MOTOROLA	MC14503 BCP	-
M37	270077	TRI-STATE HEX. BUFFER LS	NATIONAL	DM74LS367	1
M38		NOT USED			-
M39	220015	5KV OPTO ISOLATOR	MOTOROLA	MOC1005	-
M40	280086	BI-DIRECTIONAL BUS TRANSCEIVER	MOTOROLA	MC3447	2
M41	280059	DUAL BINARY UP COUNTER	MOTOROLA	MC14520 BCP	1
M42	280085	QUAD 2 1/P 'AND' GATE	MOTOROLA	MC14081 BCP	4
M43	280085	QUAD 2 1/P 'AND' GATE	MOTOROLA	MC14081 BCP	-
M44	280008	QUAD 2 1/P 'NAND' GATE	MOTOROLA	MC14011 BCP	-
M45	280085	QUAD 2 1/P 'AND' GATE	MOTOROLA	MC14081 BCP	-
M46	280085	QUAD 2 1/P 'AND' GATE	MOTOROLA	MC14081 BCP	-

NOTES.


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DATE	5.3.84	datron ELECTRONICS LTD	
DRAWN		TITLE	4200 DIGITAL PCB. ASSY
CHECKED			
APPROVED		DRAWING NUMBER	400534
DATE		SHEET	10 OF 12






DRAWING No. 400570		CHK'D 15-7-85																		
		DATE 15-7-85																		
		ECO 2076																		
		REVISION 1.1																		
		ISSUE 1.1																		
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION																	
COMP. LAYOUT.	480570	1	1.0	1.1																
SCHMATIC	430570	1	1.0	1.0																
SCHMATIC	430570	2	1.0	1.0																
SCHMATIC	430570	3	1.0	1.0																
SCHMATIC	430570	4	1.0	1.1																
FUNCTIONAL TEST PROC.	460570/FT	1-15	1.0																	
FUNCT. TEST TICK LIST	470570/FT	1	1.0																	
NOTES				DRN B. JACKSON	CHK'D MJO	APPR 27	TITLE 4200	DRAWING No. 400570												
				DATE 5 JULY 85	DATE 10.7.85	DATE 23.7.85	ANALOG. INTERFACE ASSY									SHEET 1 of 3				

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1		NOT USED			-
R2		NOT USED			-
R3		NOT USED			-
R4		NOT USED			-
R5	000472	4k7 5% 1/4W CARBON	MULLARD	CR25	3
R6	000472	4k7 5% 1/4W CARBON	MULLARD	CR25	-
R7	000474	470k 5% 1/4W CARBON	MULLARD	CR25	2
R8		NOT FITTED			-
R9		NOT FITTED			-
R10	000474	470k 5% 1/4W CARBON	MULLARD	CR25	-
R11		NOT FITTED			-
R12		NOT FITTED			-
R13		NOT FITTED			-
R14		NOT FITTED			-
R15		NOT FITTED			-
R16		NOT FITTED			-
R17		NOT FITTED			3
R18		NOT FITTED			-
R19	000821	820R 5% 1/4W CARBON	MULLARD	CR25	1
R20	000471	470R 5% 1/4W CARBON	MULLARD	CR25	6
R21	000471	470R 5% 1/4W CARBON	MULLARD	CR25	-
R22	000471	470R 5% 1/4W CARBON	MULLARD	CR25	-
R23	000471	470R 5% 1/4W CARBON	MULLARD	CR25	-

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	DATE	23.5.84	DATE	23.5.84
EC'D	RELEASED	CHECK	JA	DATE	31.5.84
DATE	31.5.84	APPROVED	R3C	DRAWING NUMBER	400570
CHK'D	2	DATE	31.5.84	SHEET	2 of 9

 ELECTRONICS LTD  
 TITLE 4200. ANALOG INTERFACE PCB. ASSY.  
 DRAWING NUMBER 400570

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R24	000471	470R 5% 1/4W CARBON	MULLARD	CR25	-
R25	000331	330R 5% 1/4W CARBON	MULLARD	CR25	1
R26	000471	470R 5% 1/4W CARBON	MULLARD	CR25	-
R27	000102	1k 5% 1/4W CARBON	MULLARD	CR25	2
R28	000102	1k 5% 1/4W CARBON	MULLARD	CR25	-
R29	000561	560R 5% 1/4W CARBON	MULLARD	CR25	4
R30	000561	560R 5% 1/4W CARBON	MULLARD	CR25	-
R31	000561	560R 5% 1/4W CARBON	MULLARD	CR25	-
R32	000561	560R 5% 1/4W CARBON	MULLARD	CR25	-
R33		NOT FITTED			-
R34		NOT FITTED			-
R35	000472	4K7 5% 1/4W CARBON	MULLARD	CR25	-
ANI	090079	5kG x 8 2% NETWORK	AB	850-91-5k6	2
AN2	090079	5kG x 8 2% NETWORK	AB	850-91-5k6	-

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS																			
E.C.O																			
DATE																			
CHKD																			

DATE 23 5 84	datron ELECTRONICS LTD	
DRAWN JA	TITLE 4200 ANALOG INTERFACE PCB. ASSY.	
CHECKED	APPROVED	
DATE	DRAWING NUMBER 400570	SHEET 3 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C1	104026	47nF ±50% 50V CER-DISC	SIEMENS	B37449	41
C2	104026	47nF " " " "	"	"	-
C3	104026	47nF " " " "	"	"	-
C4	104026	47nF " " " "	"	"	-
C5	104026	47nF " " " "	"	"	-
C6	104026	47nF " " " "	"	"	-
C7	104026	47nF " " " "	"	"	-
C8	104026	47nF " " " "	"	"	-
C9		NOT USED			-
C10		NOT USED			-
C11	104026	47nF ±50% 50V CER DISC	SIEMENS	B37449	-
C12	104026	47nF " " " "	"	"	-
C13	104026	47nF " " " "	"	"	-
C14	104026	47nF " " " "	"	"	-
C15	104026	47nF " " " "	"	"	-
C16	104026	47nF " " " "	"	"	-
C17	104026	47nF " " " "	"	"	-
C18	104026	47nF " " " "	"	"	-
C19	104026	47nF " " " "	"	"	-
C20	104026	47nF " " " "	"	"	-
C21	104026	47nF " " " "	"	"	-
C22	104026	47nF " " " "	"	"	-
C23	104026	47nF " " " "	"	"	-

NOTES.

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E.C.O																			
DATE																			
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DRAWN JA	TITLE 4200 ANALOG INTERFACE PCB. ASSY.	
CHECKED	APPROVED	
DATE	DRAWING NUMBER 400570	SHEET 4 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C24	104026	47nF +50% 50V CER. DISC	SIEMENS	B37449	-
C25	104026	" " " " "	"	"	-
C26	104026	" " " " "	"	"	-
C27	104026	" " " " "	"	"	-
C28	104026	" " " " "	"	"	-
C29	150016	1µF 20% 35v DIP. TANT	UNION CARBIDE	KIROE35	1
C30		NOT FITTED			-
C31		NOT FITTED			-
C32	150012	100nF 20% 35V DIP. TANT	UNION CARBIDE	KRIOE35	1
C33	104026	47nF +50% 50V CER. DISC	SIEMENS	B37449	-
C34	104026	" " " " "	"	"	-
C35	104026	" " " " "	"	"	-
C36	104026	" " " " "	"	"	-
C37	104026	" " " " "	"	"	-
C38	104026	" " " " "	"	"	-
C39	102220	22µF 5% 500V CER. DISC	ITT	CDIO	1
C40	102330	33µF 5% 500V CER DISC	ITT	CDIO	1
C41	104026	47nF +50% 50V CER. DISC	SIEMENS	B37449	-
C42	104026	" " " " "	"	"	-
C43	104026	" " " " "	"	"	-
C44	104026	" " " " "	"	"	-
C45	104026	" " " " "	"	"	-
C46	104026	" " " " "	"	"	-

NOTES

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DATE: 23.5.84

DRAWN: J.R.

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4200. ANALOG  
INTERFACE PCB. ASSY.  
DRAWING NUMBER 400570 5 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C47	150024	47µF 20% 16V DIP. TANT	UNION CARBIDE	K47E16	1
C48	104026	47nF +50% 50V CER. DISC	SIEMENS	B37449	-
C49	104026	47nF +50% 50V CER DISC	SIEMENS	B37449	-
C50		NOT FITTED			-
C51	104026	47nF +50% 50V CER DISC	SIEMENS	B37449	-
D1		NOT FITTED			-
D2		NOT FITTED			-
Q1		NOT FITTED			-
M1	270050	HEX INVERTER LS	NATIONAL	DM74LS04N	1
M2	280008	QUAD 2 1/P 'NAND' GATE	MOTOROLA	MC14011BCP	1
M3	280011	DUAL D FLIP-FLOP	MOTOROLA	MC14013BCP	2
M4	280059	DUAL BINARY UP COUNTER	MOTOROLA	MC14520BCP	1
M5	280037	HEX BUFFER	MOTOROLA	MC14050BCP	1
M6	270048	QUAD 2 1/P 'NAND' LS	NATIONAL	DM74LS00N	2
M7	270072	QUAD 2 1/P 'NOR' LS	NATIONAL	DM74LS02N	2
M8	270002	QUAD 2 1/P O/C NAND	NATIONAL	DM7401N	2
M9		NOT USED			-
M10		NOT USED			-
M11		NOT USED			-

NOTES

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DATE							
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DATE: 23.5.84

DRAWN: J.R.

CHECKED: [Signature]

APPROVED: [Signature]

DATE: [Blank]

DRAWING NUMBER: 400570 6 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
M12	270072	QUAD 2 I/P 'NOR' LS	NATIONAL	DM74LS02N	-
M13	270055	DUAL 4 I/P 'NAND' LS	NATIONAL	DM74LS20N	1
M14	270075	DUAL D FLIP-FLOP LS	NATIONAL	DM74LS74N	1
M15	280095	4BIT SYNC. BINARY COUNTER	MULLARD	HEF40163BP	3
M16	280095	4BIT SYNC. BINARY COUNTER	MULLARD	HEF40163BP	-
M17	280095	4BIT SYNC. BINARY COUNTER	MULLARD	HEF40163BP	-
M18		NOT FITTED			-
M19	280093	QUAD EXCLUSIVE-OR GATE	MOTOROLA	MC14070BCP	6
M20	280093	QUAD EXCLUSIVE-OR GATE	MOTOROLA	MC14070BCP	-
M21	280093	QUAD EXCLUSIVE-OR GATE	MOTOROLA	MC14070BCP	-
M22	270074	TRIPLE 3 I/P 'NOR' LS	NATIONAL	DM74LS27N	3
M23	270074	TRIPLE 3 I/P 'NOR' LS	NATIONAL	DM74LS27N	-
M24	270074	TRIPLE 3 I/P 'NOR' LS	NATIONAL	DM74LS27N	-
M25	280093	QUAD EXCLUSIVE-OR GATE	MOTOROLA	MC14070BCP	-
M26	280093	QUAD EXCLUSIVE-OR GATE	MOTOROLA	MC14070BCP	-
M27	280093	QUAD EXCLUSIVE-OR GATE	MOTOROLA	MC14070BCP	-
M28		NOT FITTED			-
M29	280068	DUAL PRECISION MONOSTABLE	MOTOROLA	MC14538BCP	1
M30		NOT FITTED			-
M31	280015	QUAD LATCH	MOTOROLA	MC14076BCP	7
M32	280015	QUAD LATCH	MOTOROLA	MC14076BCP	-
M33	280015	QUAD LATCH	MOTOROLA	MC14076BCP	-
M34	280015	QUAD LATCH	MOTOROLA	MC14076BCP	-

NOTES.

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ISS	E C O	DATE	CHKD

DATE	23 5 84	datron ELECTRONICS LTD					
DRAWN	JR		TITLE	4200. ANALOG INTERFACE PCB. ASSY.			
CHECKED			DRAWING NUMBER	400570	SHEET	7	OF
APPROVED		DATE					

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
M35	270073	QUAD 2 I/P o/c 'AND' LS	NATIONAL	DM74LS09N	2
M36	270073	QUAD 2 I/P o/c 'AND' LS	NATIONAL	DM74LS09N	-
M37	280015	QUAD LATCH	MOTOROLA	MC14076BCP	-
M38	280015	QUAD LATCH	MOTOROLA	MC14076BCP	-
M39	280015	QUAD LATCH	MOTOROLA	MC14076BCP	-
M40	270036	MONOSTABLE	NATIONAL	DM74121N	1
M41	270057	DUAL JK FLIP-FLOP LS	NATIONAL	DM74LS76N	2
M42	270057	DUAL JK FLIP-FLOP LS	NATIONAL	DM74LS76N	-
M43	270048	QUAD 2 I/P NAND LS	NATIONAL	DM74LS00N	-
M44	280094	SYNC SERIAL DATA ADAPTOR	MOTOROLA	MC6852P	1
M45	280024	TRI-STATE HEX. NON-INV. BUFFER	MOTOROLA	MC14503BCP	1
M46	270002	QUAD 2 I/P o/c NAND	NATIONAL	DM7401N	-
M47	280038	HEX D FLIP-FLOP	MOTOROLA	MC14174BCP	4
M48	280038	HEX D FLIP-FLOP	MOTOROLA	MC14174BCP	-
M49	280011	DUAL D FLIP-FLOP	MOTOROLA	MC14013BCP	-
M50	280105	8 I/P NAND	MOTOROLA	MC14068BCP	1
M51	280038	HEX D FLIP-FLOP	MOTOROLA	MC14174BCP	-
M52	280038	HEX D FLIP-FLOP	MOTOROLA	MC14174BCP	-

NOTES

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DATE	23 5 84	datron ELECTRONICS LTD					
DRAWN			TITLE	4200. ANALOG INTERFACE PCB. ASSY.			
CHECKED			DRAWING NUMBER	400570	SHEET	8	OF
APPROVED		DATE					

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy
XI	410155-5	PCB			1
	605060/A	14 WAY DIL SOCKET			25
	605061/A	16 WAY DIL SOCKET			20
	605064/A	24 WAY DIL SOCKET			1
	630117	CIRCUIT BOARD EJECTOR	RICHCO	CBE BROWN	2
	800029	CRYSTAL OSCILLATOR	4.096 MHz	IQD IQXO-100	1
	620007	TEST POINT TERMINAL	MICROVAR	C 30	23
	540002	22 SWG TINNED COPPER WIRE	R.S.		A/R

NOTES

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DATE	23 5 84	datron	ELECTRONICS LTD
DRAWN		TITLE	
CHECKED		4200. ANALOG INTERFACE PCB. ASSY.	
APPROVED		DRAWING	NUMBER
DATE		400570	9 SHEET OF 9



DESIGNATOR	DATRÓN PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R24	013161	3k16 1% 1/8W 50ppm MF	HOLCO	H8C	-
R25	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R26	000102	1k 5% 1/4W CARBON	MULLARD	CR25	-
R27	000431	430R 5% 1/4W CARBON	MULLARD	CR25	2
R28	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R29 (FSV)	019538	95R3 1% 1/8W 50ppm MF	HOLCO	H8C	4
R30	000431	430R 5% 1/4W CARBON	MULLARD	CR25	-
R31	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R32	000102	1k 5% 1/4W CARBON	MULLARD	CR25	-
R33 (FSV)	019538	95R3 1% 1/8W 50ppm MF	HOLCO	H8C	-
R34	000562	5k6 5% 1/4W CARBON	MULLARD	CR25	4
R35	000561	560R 5% 1/4W CARBON	MULLARD	CR25	-
R36	000622	6k2 5% 1/4W CARBON	MULLARD	CR25	-
R37	000561	560R 5% 1/4W CARBON	MULLARD	CR25	-
R38	000562	5k6 5% 1/4W CARBON	MULLARD	CR25	-
R39	000562	5k6 5% 1/4W CARBON	MULLARD	CR25	-
R40	000561	560R 5% 1/4W CARBON	MULLARD	CR25	-
R41	000622	6k2 5% 1/4W CARBON	MULLARD	CR25	-
R42	000561	560R 5% 1/4W CARBON	MULLARD	CR25	-
R43	000562	5k6 5% 1/4W CARBON	MULLARD	CR25	-
R44	000202	2k0 5% 1/4W CARBON	MULLARD	CR25	2
R45	000222	2k2 5% 1/4W CARBON	MULLARD	CR25	3
R46	014320	432R 1% 1/8W 50ppm MF	HOLCO	H8C	4

NOTES.

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ISS																				
E.C.O.																				
DATE																				
CHKD																				

DATE	2.3.84	<b>datron</b> ELECTRONICS LTD TITLE <b>4200 REF DIVIDER PCB. ASSY.</b> DRAWING NUMBER <b>400535</b> SHEET <b>3</b> OF <b>21</b>
DRAWN	JL	
CHECKED		
APPROVED		
DATE		

DESIGNATOR	DATRÓN PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R47	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R48 (FSV)	019538	95R3 1% 1/8W 50ppm MF	HOLCO	H8C	-
R49	014320	432R 1% 1/8W 50ppm MF	HOLCO	H8C	-
R50	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R51	014320	432R 1% 1/8W 50ppm MF	HOLCO	H8C	-
R52	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R53 (FSV)	019538	95R3 1% 1/8W 50ppm MF	HOLCO	H8C	-
R54	014320	432R 1% 1/8W 50ppm MF	HOLCO	H8C	-
R55	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R56	000474	470k 5% 1/4W CARBON	MULLARD	CR25	1
R57	000184	180k 5% 1/4W CARBON	MULLARD	CR25	1
R58	013742	37k4 1% 1/8W 50ppm MF	HOLCO	H8C	1
R59	000103	10k 5% 1/4W CARBON	MULLARD	CR25	-
R60	000338	3R3 5% 1/4W CARBON	MULLARD	CR25	1
R61	000104	100k 5% 1/4W CARBON	MULLARD	CR25	2
R62	018872	88k7 1% 1/8W 50ppm MF	HOLCO	H8C	1
R63	017872	78k7 1% 1/8W 50ppm MF	HOLCO	H8C	2
R64	070144	36k0 .01% 5ppm WW	MANN	MX125B	1
R65	070142	12k0 .01% 5ppm WW	MANN	MX125B	2
R66	017872	78k7 1% 1/8W 50ppm MF	HOLCO	H8C	-
R67	000912	9k1 5% 1/4W CARBON	MULLARD	CR25	1
R68		NOT USED			-
R69		NOT USED			-

NOTES.

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DATE	2.3.84	<b>datron</b> ELECTRONICS LTD TITLE <b>4200 REF DIVIDER PCB. ASSY.</b> DRAWING NUMBER <b>400535</b> SHEET <b>4</b> OF <b>21</b>
DRAWN	JL	
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APPROVED		
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R70		NOT USED			-
R71		NOT USED			-
R72	000682	6k8 5% 1/4W CARBON	MULLARD	CR25	1
R73	000272	2k7 5% 1/4W CARBON	MULLARD	CR25	-
R74	000470	47R 5% 1/4W CARBON	MULLARD	CR25	3
R75	011183	118k 1% 1/8W 50ppm MF	HOLCO	H8C	1
R76	011001	1k00 1% 1/8W 50ppm MF	HOLCO	H8C	4
R77	011001	1k00 1% 1/8W 50ppm MF	HOLCO	H8C	-
R78	012672	26k7 1% 1/8W 50ppm MF	HOLCO	H8C	1
R79	080032	78k7 0.1% 1W 10ppm MF	VISHAY	VS3CS	1
R80	070143	16k0 0.01% 5ppm WW	MANN	MX125B	1
R81	070142	12k0 0.01% 5ppm WW	MANN	MX125B	-
R82		NOT USED			
R83		NOT USED			
R84	012212	22k1 1% 1/8W 50ppm MF	HOLCO	H8C	2
R85	(F5V) 013162	31k6 1% 1/8W 50ppm MF	HOLCO	H8C	1
R86	000102	1k 5% 1/4W CARBON	MULLARD	CR25	-
R87		NOT USED		CR25	-
R88		NOT USED			-
R89		NOT USED			-
R90	000104	100k 5% 1/4W CARBON	MULLARD	CR25	-
R91	011182	11k8 1% 1/8W 50ppm MF	HOLCO	H8C	1
R92	011001	1k00 1% 1/8W 50ppm MF	HOLCO	H8C	-

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DATE	2.3.84	<b>datron</b> ELECTRONICS LTD	TITLE	4200 REF. DIVIDER PCB. ASSY.
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R93	011001	1k00 1% 1/8W 50ppm MF	HOLCO	H8C	-
R94	014532	45k3 1% 1/8W 50ppm MF	HOLCO	H8C	1
R95	011402	14k0 1% 1/8W 50ppm MF	HOLCO	H8C	1
R96	019531	9k53 1% 1/8W 50ppm MF	HOLCO	H8C	1
R97		NOT USED			-
R98	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	4
R99	070156	555k41 0.01% 5ppm WW	MANN	AX175B	1
R100	070145	475R 0.01% 5ppm WW	MANN	AX175B	1
R101	012212	22k1 1% 1/8W 50ppm MF	HOLCO	H8C	-
R102	000473	47k 5% 1/4W CARBON	MULLARD	CR25	4
R103	000103	10k 5% 1/4W CARBON	MULLARD	CR25	-
R104	000103	10k 5% 1/4W CARBON	MULLARD	CR25	-
R105	000472	4k7 5% 1/4W CARBON	MULLARD	CR25	-
R106	000103	10k 5% 1/4W CARBON	MULLARD	CR25	-
R107	000393	39k 5% 1/4W CARBON	MULLARD	CR25	4
R108	012001	2k00 1% 1/8W 50ppm MF	HOLCO	H8C	4
R109	011302	13k0 1% 1/8W 50ppm MF	HOLCO	H8C	4
R110	012001	2k00 1% 1/8W 50ppm MF	HOLCO	H8C	-
R111	000393	39k 5% 1/4W CARBON	MULLARD	CR25	-
R112	011302	13k0 1% 1/8W 50ppm MF	HOLCO	H8C	-
R113	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R114	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R115	000470	47R 5% 1/4W CARBON	MULLARD	CR25	-

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R116	000222	2k2 5% 1/3W CARBON	MULLARD	CR25	-
R117		NOT USED			-
R118	006132	1k30 2% 1W MET-OX	ELECTROSIL	FP1	2
R119	006132	1k30 2% 1W MET-OX	ELECTROSIL	FP1	-
R120	000103	10k 5% 1/4W CARBON	MULLARD	CR25	-
R121	000473	47k 5% 1/4W CARBON	MULLARD	CR25	-
R122	000823	82k 5% 1/4W CARBON	MULLARD	CR25	1
R123	000473	47k 5% 1/4W CARBON	MULLARD	CR25	-
R124	000152	1k5 5% 1/4W CARBON	MULLARD	CR25	2
R125	011002	10k0 1% 1/8W 50ppm MF	HOLCO	H8C	-
R126	011002	10k0 1% 1/8W 50ppm MF	HOLCO	H8C	-
R127	011002	10k0 1% 1/8W 50ppm MF	HOLCO	H8C	-
R128	012001	2k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R129	011302	13k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R130	012001	2k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R131	011302	13k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R132	000470	47R 5% 1/3W CARBON	MULLARD	CR25	-
R133	000222	2k2 5% 1/3W CARBON	MULLARD	CR25	-
R134	000821	820R 5% 1/3W CARBON	MULLARD	CR25	2
R135	000821	820R 5% 1/3W CARBON	MULLARD	CR25	-
R136	000393	39k 5% 1/3W CARBON	MULLARD	CR25	-
R137	000393	39k 5% 1/3W CARBON	MULLARD	CR25	-
R138	000220	22R 5% 1/3W CARBON	MULLARD	CR25	2

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R139	000220	22R 5% 1/3W CARBON	MULLARD	CR25	-
R140	000152	1k5 5% 1/3W CARBON	MULLARD	CR25	-
R141	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R142	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	-
R143	000473	47k 5% 1/3W CARBON	MULLARD	CR25	-
R144	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R145	000202	2k 5% 1/3W CARBON	MULLARD	CR25	-
AN1	090031	1k x7 2% NETWORK	BECKMAN	L08-1-RIK	1
AN2	090096	1M x8 2% NETWORK	BECKMAN	L09-1-RIM	2
AN3	090096	1M x8 2% NETWORK	BECKMAN	L09-1-RIM	-

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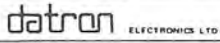
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
C1	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	23
C2	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C3	150003	47 $\mu$ F 20% 6V3 DIP TANT	UNION CARBIDE	K47EGV3	1
C4	150021	22 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K22E25	1
C5		NOT USED			-
C6	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C7	150016	1 $\mu$ F 20% 35V DIP TANT	UNION CARBIDE	KIROE35	3
C8	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C9	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C10	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C11	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C12	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C13	102101	100nF 10% 500V CER DISC	ITT	CD10	1
C14	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C15	110013	100nF 20% 250V POLYESTER	MULLARD	C280AEP100K	2
C16	110013	100nF 20% 250V POLYESTER	MULLARD	C280AEP100K	-
C17	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C18	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C19	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C20	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C21	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C22	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C23	140016	470nF 10% 250V POLYPROP	RIFA	PHE402 HFK	10

NOTES.

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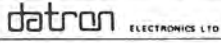
DATE	2.3.84					
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C24	102470	47pF 5% 500V CER DISC	ITT	CD10	3
C25	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C26	102470	47pF 5% 500V CER DISC	ITT	CD10	-
C27	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C28		NOT USED			-
C29	140016	470nF 10% 250V POLYPROP	RIFA	PHE402HFK	-
C30	102470	47pF 5% 500V CER DISC	ITT	CD10	-
C31	140016	470nF 10% 250V POLYPROP	RIFA	PHE402 HFK	-
C32	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C33	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K10E25	7
C34	180015	470 $\mu$ F 25V AL. ELECT.	MULLARD	017-16471	1
C35	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C36		NOT USED			-
C37		NOT USED			-
C38	110030	1nF 20% 100V POLYESTER	WIMA	FKS2	3
C39	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C40	102270	27pF 5% 500V CER DISC	ITT	CD10	2
C41	140016	470nF 10% 250V POLYPROP	RIFA	PHE 402 HFK	-
C42	140016	470nF 10% 250V POLYPROP	RIFA	PHE 402 HFK	-
C43	140016	470nF 10% 250V POLYPROP	RIFA	PHE 402 HFK	-
C44	140016	470nF 10% 250V POLYPROP	RIFA	PHE 402 HFK	-
C45	102270	27pF 5% 500V CER DISC	ITT	CD10	-
C46	140016	470nF 10% 250V POLYPROP	RIFA	PHE 402 HFK	-

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D1	210027	2V7 400mW ZENER	MULLARD	BZY88C2V7	4
D2	210120	12V 400mW ZENER	MULLARD	BZY88C12	1
D3	210027	2V7 400mW ZENER	MULLARD	BZY88C2V7	-
D4	210043	4V3 400mW ZENER	MULLARD	BZY88C4V3	1
D5	210027	2V7 400mW ZENER	MULLARD	BZY88C2V7	-
D6	210027	2V7 400mW ZENER	MULLARD	BZY88C2V7	-
D7	213009	15V 5W ZENER	UNITRODE	TVS 515	5
D8	213009	15V 5W ZENER	UNITRODE	TVS 515	-
D9	213009	15V 5W ZENER	UNITRODE	TVS 515	-
D10	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	1
D11	213009	15V 5W ZENER	UNITRODE	TVS 515	-
D12		NOT USED			-
D13		NOT USED			-
D14	210062	6V2 400mW ZENER	MULLARD	BZY88C6V2	2
D15	210062	6V2 400mW ZENER	MULLARD	BZY88C6V2	-
D16		NOT USED			-
D17		NOT USED			-
D18	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	8
D19	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D20	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D21	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D22	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D23	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	2

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D24	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	-
D25	213006	5V 5W ZENER	UNITRODE	TVS 505	1
D26	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D27	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D28	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D29	213009	15V 5W ZENER	UNITRODE	TVS 515	-

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
Q1	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	13
Q2	240006	Si NPN "	NATIONAL	2N3904/TO18	14
Q3	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q4	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q5	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q6	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q7	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q8	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q9	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q10	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q11	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q12	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q13		NOT USED			—
Q14		NOT USED			—
Q15		NOT USED			—
Q16		NOT USED			—
Q17		NOT USED			—
Q18		NOT USED			—
Q19	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q20	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q21	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q22	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q23	250004	Si PNP "	NATIONAL	2N3906/TO18	—

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q24	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q25	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q26	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q27	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q28	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q29	230039	P-CHAN JFET	SILICONIX	J175	2
Q30	230039	P-CHAN JFET	SILICONIX	J175	—
Q31	230038	N-CHAN JFET	SILICONIX	J112	1
Q32	* 239037-1	N-CHAN JFET SEL SET	DATRON (SEE DRG)	J108 (COLOUR)	1 SET OF 4
Q33	230048	P-CHAN JFET	TELEDYNE	J174	2
Q34	* 239037-1	N-CHAN JFET SEL SET	DATRON (SEE DRG)	J108 (COLOUR)	—
Q35	* 239037-1	N-CHAN JFET SEL SET	DATRON (SEE DRG)	J108 (COLOUR)	—
Q36	230048	P-CHAN JFET	TELEDYNE	J174	—
Q37	* 239037-1	N-CHAN JFET SEL SET	DATRON (SEE DRG)	J108 (COLOUR)	—
Q38		NOT USED			—
Q39		NOT USED			—
Q40	250004	Si PNP	NATIONAL	2N3906/TO18	—
Q41	230031	N-CHAN DUAL JFET	TELEDYNE	SU2656M	4
Q42	230031	N-CHAN DUAL JFET	TELEDYNE	SU2656M	—
Q43	250004	Si PNP	NATIONAL	2N3906/TO18	—
Q44	230031	N-CHAN DUAL JFET	TELEDYNE	SU2656M	—
Q45	240006	Si NPN	NATIONAL	2N3904/TO18	—
Q46	230042	N-CHAN CURRENT LIM. 3mA	TELEDYNE	TCR 510	2


NOTES. \* THESE 4 FETS MUST HAVE THE SAME COLOUR CODING

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q47	230042	N-CHAN CURRENT LIM 3mA	TELEDYNE	TCR510	-
Q48	250021	Si PNP TRANSISTOR	MOTOROLA	BD140	1
Q49	240031	Si NPN TRANSISTOR	MOTOROLA	BD139	1
Q50		NOT USED			-
Q51	230031	N-CHAN DUAL JFET	TELEDYNE	SU2656M	-
Q52	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	-
Q53	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-

NOTES.										DATE	2.3.84		 TITLE 4200 REF. DIVIDER PCB. ASSY. DRAWING NUMBER 400535     SHEET 17 OF 21
SEE SHEET 2 FOR LATEST ISSUE										DRAWN			
ISS										CHECKED			
ECD										APPROVED			
DATE										DATE			
CHKD													

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
M1	220027	HIGH CMR OPTO ISOL.	HP	HCPL-2601(5082-4361)	7
M2		NOT USED			-
M3	220027	HIGH CMR OPTO ISOL	HP	HCPL-2601(5082-4361)	-
M4	220017	2k5V DUAL OPTO ISOLATOR	FAIRCHILD	FCD 880	1
M5		NOT USED			-
M6	220027	HIGH CMR OPTO ISOL.	HP	HCPL-2601(5082-4361)	-
M7	220027	HIGH CMR OPTO ISOL.	HP	HCPL-2601(5082-4361)	-
M8	220027	HIGH CMR OPTO ISOL.	HP	HCPL-2601(5082-4361)	-
M9	220027	HIGH CMR OPTO ISOL	HP	HCPL-2601(5082-4361)	-
M10	280068	DUAL PRECISION MONOSTABLE	MOTOROLA	MC14538 BCP	1
M11	280037	HEX BUFFER	MOTOROLA	MC14050BCP	1
M12	260025	101 OP AMP	NATIONAL	LM101AH	3
M13	280011	DUAL-D FLIP.FLOP	MOTOROLA	MC14013BCP	2
M14	280009	HEX INVERTER/BUFFER	MOTOROLA	MC14049BCP	1
M15	280089	8BIT SHIFT REGISTER	MOTOROLA	MC14094BCP	6
M16	260025	101 OP AMP	NATIONAL	LM101AH	-
M17		NOT USED			-

NOTES.										DATE	2.3.84		 TITLE 4200 REF. DIVIDER PCB. ASSY. DRAWING NUMBER 400535     SHEET 18 OF 21
SEE SHEET 2 FOR LATEST ISSUE										DRAWN			
ISS										CHECKED			
ECD										APPROVED			
DATE										DATE			
CHKD													

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
M18	280088	8 BIT STATIC SHIFT REGISTER	MOTOROLA	MC14021 BCP	2
M19	280089	8 BIT STATIC SHIFT REGISTER	MOTOROLA	MC14094 BCP	-
M20	260025	101 OP AMP	NATIONAL	LM101	-
M21		NOT USED			-
M22	280088	8 BIT STATIC SHIFT REGISTER	MOTOROLA	MC14021 BCP	-
M23	260027	714 OP AMP	FAIRCHILD	$\mu$ A 714 HC	5
M24	280023	QUAD 2/P NOR GATE	MOTOROLA	MC14001 BCP	1
M25	280089	8 BIT STATIC SHIFT REGISTER	MOTOROLA	MC14094 BCP	-
M26	260057	5534 OP AMP	SIGNETICS	NE5534N	2
M27	280089	8 BIT STATIC SHIFT REGISTER	MOTOROLA	MC14094 BCP	-
M28	260057	5534 OP AMP	SIGNETICS	NE5534N	-
M29	290090	7X DARLINGTON DRIVER	SPRAGUE/EXAR	ULN2002A/XR2202CP	1
M30	280089	8 BIT STATIC SHIFT REGISTER	MOTOROLA	MC14094 BCP	-
M31	280089	8 BIT STATIC SHIFT REGISTER	MOTOROLA	MC14094 BCP	-
M32	260027	714 OP AMP	FAIRCHILD	$\mu$ A 714 HC	-
M33	260053	7650 OP AMP	INTERSIL	ICL7650 CPD	2
M34	260027	714 OP AMP	FAIRCHILD	$\mu$ A 714 HC	-
M35	260027	714 OP AMP	FAIRCHILD	$\mu$ A 714 HC	-
M36	280106	HEX LEVEL SHIFTER	MOTOROLA	MC14504 BCP	1
M37	280011	DUAL D FLIP FLOP	MOTOROLA	MC14013 BCP	-
M38	260053	7650 OP AMP	INTERSIL	ICL7650 CPD	-
M39	260027	714 OP AMP	FAIRCHILD	$\mu$ A 714 HC	-
M40	220027	HIGH CMR OPTO ISOL.	HP	HCPL-2601 (5082-4361)	-

NOTES.

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DATE	2.3.84	<b>datron</b> ELECTRONICS LTD	
DRAWN		TITLE	4200 REF DIVIDER
CHECKED			PCB ASSY.
APPROVED		DRAWING NUMBER	400535
DATE		SHEET	19 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
RL1	330030	RELAY 4P N/O	SDS	S4 24V	2
RL2	330030	RELAY 4P N/O	SDS	S4 24V	-
RL3		NOT USED			-
LI - L9	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	9
TI-T5	310002-2	PULSE TX	NEWPORT	76616/4 HV	5
SI	700070	SLIDE SWITCH, EXTRA HI. LEVER	APR	25446A H6	1
	400553-2	REF PCB ASSY			1
	410257-3	PCB			1
	512999	7/2 PTFE INS. WIRE (WHITE)			A/R
	540002	22SWG BTC WIRE			A/R
	590004	SLEEVE, PTFE	HELLERMANN ELECTRIC	FE10	A/R
	602001	FSV TERMINAL	MOLEX	02-04-5114	14
	605059/A	8WAY DIL. SOCKET			10
	605060/A	14WAY DIL. SOCKET			5
	605061/A	16WAY DIL. SOCKET			13
	611016	SCREW M3x8mm STEEL POT-PAN ZINC PLATED	GKN		2
	604053	4WAY .1" PCB PLUG GD. PL	MOLEX	4030-04 AG (.825" PINS)	2
	612025-1	STANDOFF M3x5mm BRASS	DATRON	SEE DRAWING.	1

NOTES.

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INSTRUMENT	REF. DIV. ASSY.	REF. ASSY.
4000	400444	400452
4000A	400444A	400452A

DATE	2.3.84	<b>datron</b> ELECTRONICS LTD	
DRAWN		TITLE	4200 REF DIVIDER
CHECKED			PCB ASSY.
APPROVED		DRAWING NUMBER	400535
DATE		SHEET	20 OF 21




DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	613029	M3 CRINKLE WASHER SS.			2
	630024	STANDARD STEATITE INS. BEAD	PARK ROYAL PORCELAIN CO	TYPE N°2 (16SWG)	14
	630118	CIRCUIT BOARD EJECTOR	RICHCO	CBE RED	2
	620007	TEST POINT TERMINAL	MICROVAR	C30	32
	900004	SILICONE RUBBER COMP.	RS	555-588	A/R

NOTES.

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DATE 2.3.84	
DRAWN	
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APPROVED	
DATE	TITLE 4200 REF. DIVIDER PCB. ASSY DRAWING NUMBER 400535
SHEET 21 OF 21	

DRAWING No. <b>400553</b>	CHK'D	<b>MD</b>																	
	DATE	<b>2-0 1958 4-7-85 MD</b>																	
	ECO																		
	REVISION																		
	ISSUE	<b>2-0</b>																	
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION																
COMP. LAYOUT.	480553	1	2-0																
SCHMATIC	430553	1	2-0																
FUNCTIONAL TEST PROC.	460553/FT	1-3	2-0																
FUNCT. TEST TICK LIST	470553/FT	1	2-0																
NOTES			<b>datron</b> <small>INSTRUMENTS NORWICH ENGLAND</small>		DRN <b>B. JACKSON</b>	CHK'D <b>150</b>	APPR <b>257</b>	TITLE <b>4200</b>	DRAWING No. <b>400553</b>										
					DATE <b>4 JULY 85</b>	DATE <b>10.7.85</b>	DATE <b>23.7.85</b>	REFERENCE PCB ASSY	SHEET 1 of 4										

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.																								
R1	090014-2	50k .02%R 2ppmR WW	MANN	AX175B	} 1 SET																								
R2	090014-2	9k995 .02%R 2ppmR WW	MANN	AX175B																									
R3		PART OF KIT (WITH D2,D4,D7,D9)		AX175B																									
R4		NOT USED			-																								
R5	018251	8k25 1% 1/8W 50ppm MF	HOLCO	H8C	1																								
R6	000470	47R 5% 1/3W CARBON	MULLARD	CR25	2																								
R7		NOT USED			-																								
R8	070152	68R .1% 10ppm WW	MANN	MX125	1																								
R9	070153	34R .1% 10ppm WW	MANN	MX125	1																								
R10		NOT USED			-																								
R11	011698	16R9 1% 1/8W 50ppm MF	HOLCO	H8C	1																								
R12		NOT USED			-																								
R13	050056	10R .25% 1/8W 50ppm MF	HOLCO	H8	1																								
R14		NOT USED			-																								
R15	000438	4R3 5% 1/3W CARBON	MULLARD	CR25	1																								
R16		NOT USED			-																								
R17		NOT USED			-																								
R18	018459	8R45 1% 1/8W 50ppm MF	HOLCO	H8C	1																								
R19	090081	2k NTC THERMISTOR	RHOPOINT	MSB202k	1																								
R20	006751	750R 2% 1W MET-OX	ELECTROSIL	FPI	1																								
R21	000470	47R 5% 1/3W CARBON	MULLARD	CR25	-																								
R22	000222	2k2 5% 1/3W CARBON	MULLARD	CR25	1																								
R23	015231	5k23 1% 1/8W 50ppm MF	HOLCO	H8C	2																								
NOTES.																													
SEE SHEET 1 FOR LATEST ISSUE																													
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>ISS</td> <td>1</td> <td>2</td> <td colspan="3"></td> </tr> <tr> <td>ECO</td> <td>16/35</td> <td></td> <td colspan="3"></td> </tr> <tr> <td>DATE</td> <td>14.12.84</td> <td>8.84</td> <td colspan="3"></td> </tr> <tr> <td>CHKD.</td> <td>MD</td> <td></td> <td colspan="3"></td> </tr> </table>						ISS	1	2				ECO	16/35					DATE	14.12.84	8.84				CHKD.	MD				
ISS	1	2																											
ECO	16/35																												
DATE	14.12.84	8.84																											
CHKD.	MD																												
			DATE <b>1.3.84</b>	<b>datron</b> ELECTRONICS LTD																									
			DRAWN <b>IL</b>	TITLE <b>4200 REF PCB ASSY</b>																									
			CHECKED <b>MD</b>	DRAWING NUMBER <b>400553</b>																									
			APPROVED <b>J. Hume</b>	SHEET <b>2</b> OF <b>4</b>																									
			DATE <b>7.3.84</b>																										

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R24	090099-3	25k ATTN. SET	MANN	SEE DRG	1 SET
R25	090099-3	10k ATTN. SET	MANN	SEE DRG	
R26	090099-3	10k ATTN. SET	MANN	SEE DRG	
R27	000125	1M2 5% 1/8W CARBON	MULLARD	CR25	1
R28	012263	226k 1% 1/8W 50ppm MF	HOLCO	H8C	2
R29	063104	100k POT 3/8SQ CERMET	BECKMAN	72P	1
R30	012003	200k 1% 1/8W 50ppm MF	HOLCO	H8C	1
R31	015231	5k23 1% 1/8W 50ppm MF	HOLCO	H8C	-
R32	012263	226k 1% 1/8W 50ppm MF	HOLCO	H8C	-
C1	102470	47pF 5% 500V CER DISC	ITT	CD10	1
C2	102221	220pF 10% 500V CER DISC	ITT	CD10	1
C3	104026	47nF $\pm 20\%$ 50V CER DISC	SIEMENS	B37449	1
D1		NOT USED			-
D2, D4, D7, D9	219021-1	6V2 x 4 ZENER + RESISTOR	DATRON	IN829A x 4 + AX175B	1 KIT
D3		NOT USED			-
D5	200008	200mA 125V LL Si DIODE	FAIRCHILD	1N458A	1
D6		NOT USED			-
D8		NOT USED			-

NOTES.

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ISS																				
E.C.O.																				
DATE																				
CHKD.																				

DATE	1. 3. 84	datron ELECTRONICS LTD
DRAWN	L.	
CHECKED		TITLE
APPROVED		4200 REF PCB ASSY.
DATE		DRAWING NUMBER
		400553
		SHEET
		3 OF 4


DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q1	240006	Si NPN TRANSISTOR	NATIONAL	2N3904 / T018	2
Q2	240006	Si NPN TRANSISTOR	NATIONAL	2N3904 / T018	-
M1	260025	101 OP AMP	NATIONAL	LM101AH	1
M2	260027	714 OP AMP	FAIRCHILD	$\mu$ A714 HC	1
	410162-6	PCB			1
	450372-3	HEATSINK BLOCK			1
	450373-3	HEATSINK PLATE			1
	540002	22SWG B.T.C. WIRE			A/R
	590004	SLEEVE PTFE	HELLERMANN ELECTRIC	FE10	A/R
	604056	4WAY .1" PCB PLUG GD. PL.	MOLEX	22-10-2041	1
	611004	M3x6mm POZIPAN STEEL	ZN-PL.		2
	611007	M3x6mm POZICKS STEEL	ZN. PL.		2
	613029	M3 CRINKLE WASHER SS			2
	900003	HEATSINK COMPOUND	RS	554-311	A/R
J1, J2	605085	4WAY PCB SOCKET	MOLEX	22-17-2042	2
	611037	M3x8mm HEX NYLON SCREW			1

NOTES.

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ISS																				
E.C.O.																				
DATE																				
CHKD.																				

DATE	1. 3. 84	datron ELECTRONICS LTD
DRAWN	L.	
CHECKED		TITLE
APPROVED		4200 REF PCB ASSY
DATE		DRAWING NUMBER
		400553
		SHEET
		4 OF 4

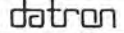
DRAWING No. <b>400550</b>		CHK'D <b>[Signature]</b>							
		DATE <b>4.7.85</b>							
		ECO <b>6.1.1948</b>	<b>17.7.85</b>						
		REVISION <b>7.0.1980</b>	<b>11.10.85</b>						
		ISSUE <b>7.1.2031</b>	<b>16.10.85</b>						
			<b>7.2.2052</b>	<b>7.11.85</b>					
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION						
COMP. LAYOUT.	480550	1	6.0	7.0	7.1	7.2			
SCHEMATIC	430550	1	6.0	7.0	7.1	7.2			
SCHEMATIC	430550	2	6.1	7.0	7.1				
FUNCTIONAL TEST PROC.	460550/FT	1-3	6.0	7.0					
FUNCT. TEST TICK LIST	470550/FT	1	6.0	7.0					
NOTES					DRN <b>B. JACKSON</b> DATE <b>4 JULY 85</b>	CHK'D <b>MJD</b> DATE <b>10.7.85</b>	APPD DATE	TITLE <b>4200</b> <b>O/P CONTROL PCB ASSY</b>	DRAWING No. <b>400550</b> SHEET <b>1</b> OF <b>9</b>

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	000105	1M 5% 1/3W CARBON	MULLARD	CR25	8
R2	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R3	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R4	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R5	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R6	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	2
R7	000103	10k 5% 1/3W CARBON	MULLARD	CR25	10
R8	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R9	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R10	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R11	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R12	000244	240k 5% 1/3W CARBON	MULLARD	CR25	1
R13	000104	100k 5% 1/3W CARBON	MULLARD	CR25	2
R14	000473	47k 5% 1/3W CARBON	MULLARD	CR25	1
R15	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R16	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R17	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R18	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R19	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R20	000471	470R 5% 1/3W CARBON	MULLARD	CR25	1
R21	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	-
R22	000103	10k 5% 1/3W CARBON	MULLARD	CR25	2
R23	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS.	1	2	3	4	5	6				
E.C.O.	RELEASE	17.83	18.03	18.26	18.51	18.67				
DATE	18.7.84	5.12.84	9.1.85	22.1.85	26.2.85	15.3.85				
CHK'D.	[Signature]	[Signature]	[Signature]	[Signature]	[Signature]	[Signature]				

DATE	<b>21.3.84</b>		 ELECTRONICS LTD	
DRAWN	<b>IL</b>		TITLE	<b>4200</b>
CHECKED	<b>RSC</b>		<b>O/P CONT. PCB ASSY.</b>	
APPROVED	<b>[Signature]</b>		DRAWING NUMBER	<b>400550</b>
DATE	<b>13.7.84</b>		SHEET	<b>2</b> OF <b>9</b>



DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C7	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C8	150023	33 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K33E25	2
C9	150023	33 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K33E25	-
C10	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C11	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C12	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C13	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C14	102470	47pF 5% 500V CER DISC	ITT	CD10	1
C15	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C16	110040	33nF 20% 63V POLYESTER	WIMA	MKS2	1
C17		NOT USED			-
C18	101103	10nF 25% 250V CER DISC	ITT	CD10	1
C19	104032	220pF 10% 2kV CER DISC	ITT	HD09	1
C20	110041	10nF 20% 100V POLYESTER	WIMA	FKS2	2
C21	110041	10nF 20% 100V POLYESTER	WIMA	FKS2	-
C22	150012	100nF 20% 35V DIP TANT	UNION CARBIDE	KR10E35	1
C23	110013	100nF 20% 250V POLYESTER	MULLARD	C280AE P100K	1
C24		NOT FITTED			-
D1	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	9
D2	213009	15V 5W ZENER	UNITRODE	TV5515	2
D3	213009	15V 5W ZENER	UNITRODE	TV5515	-
D4	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	8

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

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CHKD																				

DATE	21. 3. 84	<b>datron</b> ELECTRONICS LTD TITLE 4200 O/P CONT. PCB ASSY DRAWING NUMBER 400550 SHEET 5 OF 9
DRAWN	IL.	
CHECKED		
APPROVED		
DATE		

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D5	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D6	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D7	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D8	214014	1V22 100ppm ZENER	TELEDYNE	9491 BJ	2
D9	214014	1V22 100ppm ZENER	TELEDYNE	9491 BJ	-
D10	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D11	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D12	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D13	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D14	213001	10V 5W ZENER	MOTOROLA	IN5347B	1
D15	213011	1V5 250mW ZENER	MULLARD	BZV46-1V5	1
D16	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	-
D17	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	-
D18	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	-
D19	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	-
D20	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	-
D21	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	-
D22	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	-
D23	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	-
D24	210150	15V 400mW ZENER	MULLARD	BZY88C15	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS																				
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DATE	21. 3. 84	<b>datron</b> ELECTRONICS LTD TITLE 4200 O/P CONT. PCB ASSY DRAWING NUMBER 400550 SHEET 6 OF 9
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
Q1	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	1
Q2	230048	P-CHAN JFET	TELEDYNE	J174	1
Q3	230042	N-CHAN I LIM 3.0mA	TELEDYNE	TCR510	1
Q4	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	1
Q5	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	1
M1	280037	HEX BUFFER	MOTOROLA	MC14050BCP	1
M2	280034	DUAL MONOSTABLE	MOTOROLA	MC14528BCP	1
M3	290089	7 X DARLINGTON DRIVER	SPRAGUE/EXAR	ULN2003A/XR2203CP	1
M4	280045	TRIPLE 3 I/P NOR	MOTOROLA	MC14025BCP	1
M5	260049	319 DUAL COMPARATOR	NATIONAL	LM319N	2
M6	260049	319 DUAL COMPARATOR	NATIONAL	LM319N	-
M7	260073	4II OP AMP	NATIONAL	LF411CN	1
M8	220027	HIGH CMR OPTO ISOL.	HP	HCPL-2601 (5082-4361)	1
W1	209003	1.5A 100V BRIDGE RECT	MICRO-ELECTRONICS	W001	1

NOTES.

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DATE	21.3.84	datron ELECTRONICS LTD
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
RL1	330029	RELAY 2P2W	SDS	DS2E-DC24V	3
RL2	330029	RELAY 2P2W	SDS	DS2E-DC24V	-
RL3	330031	RELAY 2P N/O 2P N/C	SDS	S2-24V	2
RL4	330031	RELAY 2P N/O 2P N/C	SDS	S2-24V	-
RL5	330030	RELAY 4P N/O	SDS	S4-24V	2
RL6	330030	RELAY 4P N/O	SDS	S4-24V	-
RL7	330029	RELAY 2P2W	SDS	DS2E-DC24V	-
L1	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	3
L2	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
L3	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
	410274-4	PCB			1
	605059/A	8WAY DIL SOCKET			2
	605060/A	14WAY DIL SOCKET			3
	605061/A	16WAY DIL SOCKET			3
	602001	FSV TERMINAL	MOLEX	02-04-5114	2
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	17
	630024	STEATITE BEAD 16 SWG	PARK ROYAL PORCELAINS	N $\circ$ 2	24
	630119	PCB EJECTOR. ORANGE	RICHCO	CBE	2

NOTES.

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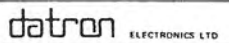
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DATE		DRAWING NUMBER
		400550
		SHEET
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
F1	920120	FUSE 1A 125V 7mm	LITTLEFUSE	275 001	3
F2	920120	FUSE 1A 125V 7mm	LITTLEFUSE	275 001	-
F3	920120	FUSE 1A 125V 7mm	LITTLEFUSE	275 001	-
	620003	SOLDER PIN	HARWIN	H2105	2
	540006	1/4 PTFE WIRE BLACK			A/R
	590004	SLEEVE Ø1.0 PTFE			A/R
	900004	SILICONE RUBBER COMP	RS	555-588	A/R
	512999	7/2 PTFE INS WIRE (WHITE)			A/R
	604046	3WAY ·1" PCB PLUG GD.PL.	MOLEX	22-10-2031	2
	605127	2WAY ·1" SHORTING SKT.	ASSMANN	AKSPL-G	2

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DATE	21.3.84	 TITLE 4200 o/p CONT PCB ASSY					
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DRAWING No.		CHK'D																																							
400446		DATE		8.0 1958 57.85																																					
		ECO		8.1 2045 29.1085																																					
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DESCRIPTION		DRAWING NUMBER		SHEET NUMBER		ISSUE + REVISION																																			
COMPONENT LAYOUT		480446		1		8.0																																			
SCHEMATIC		430446		1		8.0																																			
SCHEMATIC		430446		2		8.0																																			
SCHEMATIC		430446		3		8.1																																			
SCHEMATIC		430446		4		8.0																																			
SCHEMATIC		430446		5		8.0																																			
FUNCTIONAL TEST PROC.		460446/FT		1-7		8.0																																			
FUNC. TEST TICK LIST		470446/FT		1		8.0																																			
NOTES						<b>datron</b> INSTRUMENTS NORWICH ENGLAND				DRN JL.		CHKD MJD		APP 51		TITLE 4200 SINE SOURCE PCB ASSY.		DRAWING No. 400446 SHEET 1 OF 27																							
						DATE 5.7.85		DATE 10.7.85		DATE 23.7.85																															

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	019091	9k09 1% 1/8W 50ppm MF	HOLCO	H8C	1
R2	011821	1k82 1% 1/8W 50ppm MF	HOLCO	H8C	1
R3	012151	2k15 1% 1/8W 50ppm MF	HOLCO	H8C	1
R4	012611	2k61 1% 1/8W 50ppm MF	HOLCO	H8C	1
R5	000223	22k 5% 1/3W CARBON	MULLARD	CR25	1
R6	000222	2k2 5% 1/3W CARBON	MULLARD	CR25	1
R7	011502	15k 1% 1/8W 50ppm MF	HOLCO	H8C	1
R8	014321	4k32 1% 1/8W 50ppm MF	HOLCO	H8C	2
R9	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	7
R10	000100	10R 5% 1/3W CARBON	MULLARD	CR25	6
R11	000101	100R 5% 1/3W CARBON	MULLARD	CR25	10
R12	000470	47R 5% 1/3W CARBON	MULLARD	CR25	9
R13	013012	30k1 1% 1/8W 50ppm MF	HOLCO	H8C	1
R14	000272	2k7 5% 1/3W CARBON	MULLARD	CR25	2
R15	000103	10k 5% 1/3W CARBON	MULLARD	CR25	8
R16	000228	2R2 5% 1/3W CARBON	MULLARD	CR25	1
R17	000100	10R 5% 1/3W CARBON	MULLARD	CR25	-
R18	000152	1k5 5% 1/3W CARBON	MULLARD	CR25	4
R19	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	4
R20	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R21	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R22	000123	12k 5% 1/3W CARBON	MULLARD	CR25	1
R23	000122	1k2 5% 1/3W CARBON	MULLARD	CR25	2

NOTES.

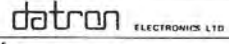
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<table border="1"> <tr><th>REV.</th><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>ECO.</td><td></td><td>1725</td><td>1742</td><td>1770</td><td>1780</td><td>1801</td><td>1827</td><td>1837</td></tr> <tr><td>DATE</td><td>26.9.84</td><td>10.10.84</td><td>31.10.84</td><td>22.11.84</td><td>12.1.85</td><td>13.2.85</td><td>9.4.85</td><td>1.5.85</td></tr> <tr><td>CHKD.</td><td></td><td>ND</td><td>ND</td><td>ND</td><td>ND</td><td>ND</td><td>ND</td><td>ND</td></tr> </table>		REV.	1	2	3	4	5	6	7	8	ECO.		1725	1742	1770	1780	1801	1827	1837	DATE	26.9.84	10.10.84	31.10.84	22.11.84	12.1.85	13.2.85	9.4.85	1.5.85	CHKD.		ND	ND	ND	ND	ND	ND	ND
REV.	1	2	3	4	5	6	7	8																													
ECO.		1725	1742	1770	1780	1801	1827	1837																													
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<table border="1"> <tr> <td>DATE</td> <td>24.7.84</td> <td colspan="2">TITILE</td> <td colspan="2">4200 SINE SOURCE PCB ASSY</td> </tr> <tr> <td>DRAWN</td> <td>JL.</td> <td>DRAWING NUMBER</td> <td>400446</td> <td>SHEET</td> <td>2 OF 27</td> </tr> </table>		DATE	24.7.84	TITILE		4200 SINE SOURCE PCB ASSY		DRAWN	JL.	DRAWING NUMBER	400446	SHEET	2 OF 27																								
DATE	24.7.84	TITILE		4200 SINE SOURCE PCB ASSY																																	
DRAWN	JL.	DRAWING NUMBER	400446	SHEET	2 OF 27																																

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R24	000332	3k3 5% 1/3W CARBON	MULLARD	CR25	1
R25	000102	1k 5% 1/3W CARBON	MULLARD	CR25	5
R26	000272	2k7 5% 1/3W CARBON	MULLARD	CR25	-
R27	011001	1k 1% 1/8W 50ppm MF	HOLCO	H8C	2
R28	012001	2k 1% 1/8W 50ppm MF	HOLCO	H8C	1
R29	011001	1k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R30	047153	715k 1% 1/2W 100ppm CF	ALLEN BRADLEY	CC	2
R31	013573	357k 1% 1/8W 50ppm MF	HOLCO	H8C	2
R32	011783	178k 1% 1/8W 50ppm MF	HOLCO	H8C	2
R33	018872	88k7 1% 1/8W 50ppm MF	HOLCO	H8C	2
R34	014422	44k2 1% 1/8W 50ppm MF	HOLCO	H8C	2
R35	012262	22k6 1% 1/8W 50ppm MF	HOLCO	H8C	2
R36	011132	11k3 1% 1/8W 50ppm MF	HOLCO	H8C	2
R37	015621	5k62 1% 1/8W 50ppm MF	HOLCO	H8C	2
R38	012801	2k8 1% 1/8W 50ppm MF	HOLCO	H8C	2
R39	000152	1k5 5% 1/3W CARBON	MULLARD	CR25	-
R40	000152	1k5 5% 1/3W CARBON	MULLARD	CR25	-
R41		FSV (PART OF KIT WITH Q29)			-
R42	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R43	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R44	000102	1k 5% 1/3W CARBON	MULLARD	CR25	-
R45	000102	1k 5% 1/3W CARBON	MULLARD	CR25	-
R46	000331	330R 5% 1/3W CARBON	MULLARD	CR25	2

NOTES.

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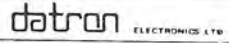
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		SHEET <b>3</b> OF <b>27</b>

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R47	001182	1k8 5% 1/2W CARBON	MULLARD	CR37	2
R48	011823	182k 1% 1/8W 50ppm MF	HOLCO	H8C	1
R49	067503	50k POT 20 TURN CERMET	BECKMAN	68X	2
R50	067503	50k POT 20 TURN CERMET	BECKMAN	68X	-
R51	014990	499R 1% 1/8W 50ppm MF	HOLCO	H8C	2
R52	063100	10R POT 38 SQ CERMET	BECKMAN	72P	1
R53	014751	4k75 1% 1/8W 50ppm MF	HOLCO	H8C	3
R54	012218	22R1 1% 1/8W 50ppm MF	HOLCO	H8C	1
R55	047153	715k 1% 1/2W 100ppm CF	ALLEN BRADLEY	CC	-
R56	013573	357k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R57	011783	178k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R58	018872	88k7 1% 1/8W 50ppm MF	HOLCO	H8C	-
R59	014422	44k2 1% 1/8W 50ppm MF	HOLCO	H8C	-
R60	012262	22k6 1% 1/8W 50ppm MF	HOLCO	H8C	-
R61	011132	11k3 1% 1/8W 50ppm MF	HOLCO	H8C	-
R62	015621	5k62 1% 1/8W 50ppm MF	HOLCO	H8C	-
R63	012801	2k8 1% 1/8W 50ppm MF	HOLCO	H8C	-
R64	013321	3k32 1% 1/8W 50ppm MF	HOLCO	H8C	2
R65	013321	3k32 1% 1/8W 50ppm MF	HOLCO	H8C	-
R66	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R67	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R68	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R69	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	-

NOTES.

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DATE		TITLE <b>4200 SINE SOURCE PCB ASSY</b>
		DRAWING NUMBER <b>400446</b>
		SHEET <b>4</b> OF <b>27</b>

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
R70	011501	1k5 1% 1/8W 50ppm MF	HOLCO	H8C	2
R71	011501	1k5 1% 1/8W 50ppm MF	HOLCO	H8C	-
R72	000102	1k 5% 1/3W CARBON	MULLARD	CR25	-
R73	000102	1k 5% 1/3W CARBON	MULLARD	CR25	-
R74	012743	274k 1% 1/8W 50ppm MF	HOLCO	H8C	1
R75	014990	499R 1% 1/8W 50ppm MF	HOLCO	H8C	-
R76	000331	330R 5% 1/3W CARBON	MULLARD	CR25	-
R77	001182	1k8 5% 1/2W CARBON	MULLARD	CR37	-
R78	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R79	000512	5k1 5% 1/3W CARBON	MULLARD	CR25	2
R80	000512	5k1 5% 1/3W CARBON	MULLARD	CR25	-
R81	000822	8k2 5% 1/3W CARBON	MULLARD	CR25	5
R82	000822	8k2 5% 1/3W CARBON	MULLARD	CR25	-
R83	000822	8k2 5% 1/3W CARBON	MULLARD	CR25	-
R84	000822	8k2 5% 1/3W CARBON	MULLARD	CR25	-
R85	000152	1k5 5% 1/3W CARBON	MULLARD	CR25	-
R86	000433	43k 5% 1/3W CARBON	MULLARD	CR25	1
R87	000822	8k2 5% 1/3W CARBON	MULLARD	CR25	-
R88	000471	470R 5% 1/3W CARBON	MULLARD	CR25	4
R89	000362	3k6 5% 1/3W CARBON	MULLARD	CR25	2
R90	000470	47R 5% 1/3W CARBON	MULLARD	CR25	-
R91	013161	FSV (3k16 1% NOM)	HOLCO	H8C	2
R92	000122	1k2 5% 1/3W CARBON	MULLARD	CR25	-

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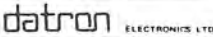
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R93	000470	47R 5% 1/3W CARBON	MULLARD	CR25	-
R94	000470	47R 5% 1/3W CARBON	MULLARD	CR25	-
R95	000470	47R 5% 1/3W CARBON	MULLARD	CR25	-
R96	011872	18k7 1% 1/8W 50ppm MF	HOLCO	H8C	2
R97	000104	100k 5% 1/3W CARBON	MULLARD	CR25	2
R98	011378	13R7 1% 1/8W 50ppm MF	HOLCO	H8C	2
R99	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R100	011872	18k7 1% 1/8W 50ppm MF	HOLCO	H8C	-
R101	011378	13R7 1% 1/8W 50ppm MF	HOLCO	H8C	-
R102	000471	470R 5% 1/3W CARBON	MULLARD	CR25	-
R103	013091	3k09 1% 1/8W 50ppm MF	HOLCO	H8C	2
R104	011541	1k54 1% 1/8W 50ppm MF	HOLCO	H8C	2
R105	011541	1k54 1% 1/8W 50ppm MF	HOLCO	H8C	-
R106	013091	3k09 1% 1/8W 50ppm MF	HOLCO	H8C	-
R107	000470	47R 5% 1/3W CARBON	MULLARD	CR25	4
R108	017871	7k87 1% 1/8W 50ppm MF	HOLCO	H8C	1
R109	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R110	000225	2M210% 1/3W CARBON	MULLARD	CR25	1
R111		NOT USED			-
R112	000100	10R 5% 1/3W CARBON	MULLARD	CR25	-
R113	000362	3k6 5% 1/3W CARBON	MULLARD	CR25	-
R114	000470	47R 5% 1/3W CARBON	MULLARD	CR25	-
R115	000470	47R 5% 1/3W CARBON	MULLARD	CR25	-

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
R116	000470	47R 5% 1/3W CARBON	MULLARD	CR25	-
R117	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R118	012432	24k3 1% 1/8W 50ppm MF	HOLCO	H8C	2
R119	012432	24k3 1% 1/8W 50ppm MF	HOLCO	H8C	-
R120	011002	10K 1% 1/8W 50ppm MF	HOLCO	H8C	-
R121	017501	7k5 1% 1/8W 50ppm MF	HOLCO	H8C	1
R122	011002	FSV (10K 1% NOM)	HOLCO	H8C	-
R123	066103	10K POT 3/8 SQ. VERT CERMET	BECKMAN	72XW	1
R124	000100	10R 5% 1/3W CARBON	MULLARD	CR25	-
R125	000100	10R 5% 1/3W CARBON	MULLARD	CR25	-
R126	001182	1k8 5% 1/2W CARBON	MULLARD	CR37	2
R127	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R128	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R129	011211	1k21 1% 1/8W 50ppm MF	HOLCO	H8C	1
R130	011002	10K 1% 1/8W 50ppm MF	HOLCO	H8C	-
R131	011002	10K 1% 1/8W 50ppm MF	HOLCO	H8C	-
R132	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R133	001182	1k8 5% 1/2W CARBON	MULLARD	CR37	-
R134	014321	4k32 1% 1/8W 50ppm MF	HOLCO	H8C	-
R135	012491	2k49 1% 1/8W 50ppm MF	HOLCO	H8C	2
R136	090063	PTC THERMISTOR	TEXAS	TSPI02k	2
R137	090063	PTC THERMISTOR	TEXAS	TSPI02k	-
R138	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
R139	000100	10R 5% 1/3W CARBON	MULLARD	CR25	-
R140	000202	2K 5% 1/3W CARBON	MULLARD	CR25	1
R141	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R142	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R143	012491	2k49 1% 1/8W 50ppm MF	HOLCO	H8C	-
R144	011008	10R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R145	000221	220R 5% 1/3W CARBON	MULLARD	CR25	2
R146	000221	220R 5% 1/3W CARBON	MULLARD	CR25	-
R147	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R148	000108	1R 5% 1/3W CARBON	MULLARD	CR25	1
R149	013161	FSV (3k16 1% NOM)	HOLCO	H8C	-
R150	000471	470R 5% 1/3W CARBON	MULLARD	CR25	-
R151	014751	4k75 1% 1/8W 50ppm MF	HOLCO	H8C	-
R152	015230	523R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R153	014320	432R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R154	014751	4k75 1% 1/8W 50ppm MF	HOLCO	H8C	-
R155	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	-
R156	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	-
R157	000471	470R 5% 1/3W CARBON	MULLARD	CR25	-
R158	000220	22R 5% 1/3W CARBON	MULLARD	CR25	1
R159	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	-
R160		NOT FITTED			-

NOTES.

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C6	102102	1nF 10% 500V CER DISC	ITT	CD10	15
C7	150015	10μF 20% 35V DIP TANT	UNION CARBIDE	K10E35	4
C8	150015	10μF 20% 35V DIP TANT	UNION CARBIDE	K10E35	-
C9	150020	10μF 20% 25V DIP TANT	UNION CARBIDE	K10E25	10
C10	104026	47nF $\pm\frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	30
C11	104026	47nF $\pm\frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C12	104026	47nF $\pm\frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C13	104026	47nF $\pm\frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C14	150015	10μF 20% 35V DIP TANT	UNION CARBIDE	K10E35	-
C15	104026	47nF $\pm\frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C16	110040	33nF 20% 63V POLYESTER	WIMA	MKS2	1
C17	150021	22μF 20% 25V DIP TANT	UNION CARBIDE	K22E25	2
C18	110039	470nF 20% 63V POLYESTER	WIMA	MKS2	1
C19	104026	47nF $\pm\frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C20	102471	470pF 10% 500V CER DISC	ITT	CD10	-
C21	150020	10μF 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C22	150020	10μF 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C23	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C24	104026	47nF $\pm\frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C25	120034	220nF 1% 63V POLYCARB	ASHCROFT	A2B2201E	2
C26	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C27	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C28	120035	22nF 1% 400V POLYCARB	ASHCROFT	A2B22004E	2

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C29	102220	22pF 5% 500V CER DISC	ITT	CD10	3
C30	104017	0p56F $\pm 0.1pF$ 500V CER DISC	ITT	GDO8AGOP56BS	2
C31	102108	1pF $\pm 5pF$ 500V CER DISC	ITT	CD06	2
C32	102188	1p8F $\pm 5pF$ 500V CER DISC	ITT	CD06	2
C33	102398	3p9F $\pm 5pF$ 500V CER DISC	ITT	CD08	2
C34	150020	10μF 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C35	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C36	130083	2nF 1% 160V POLYSTYRENE	MULLARD	425	2
C37	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	7
C38	102478	4p7F $\pm 5pF$ 500V CER DISC	ITT	CD08	9
C39	102101	100pF 10% 500V CER DISC	ITT	CD10	3
C40	102278	2p7F $\pm 5pF$ 500V CER DISC	ITT	CD08	2
C41	130084	110pF 1% 630V POLYSTYRENE	MULLARD	427	2
C42	130042	100pF 1% 630V POLYSTYRENE	SUFLEX	HS	2
C43	102478	4p7F $\pm 5pF$ 500V CER DISC	ITT	CD08	-
C44	102338	3p3F $\pm 5pF$ 500V CER DISC	ITT	CD08	3
C45	104026	47nF $\pm\frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C46	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C47	150020	10μF 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C48	104026	47nF $\pm\frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C49	102478	4p7F $\pm 5pF$ 500V CER DISC	ITT	CD08	-
C50	120034	220nF 1% 63V POLYCARB	ASHCROFT	A2B2201E	-
C51	120035	22nF 1% 400V POLYCARB	ASHCROFT	A2B22004E	-

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C52	104017	0p56F $\pm 0.1\mu$ F 500V CER DISC	ITT	GDO8AGOP56BS	-
C53	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C54	102478	4p7F $\pm 5\mu$ F 500V CER DISC	ITT	CDO8	-
C55	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C56	102108	1pF $\pm 5\mu$ F 500V CER DISC	ITT	CDO6	-
C57	102188	1p8F $\pm 5\mu$ F 500V CER DISC	ITT	CDO6	-
C58	102398	3p9F $\pm 5\mu$ F 500V CER DISC	ITT	CDO8	-
C59	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C60	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C61	102478	4p7F $\pm 5\mu$ F 500V CER DISC	ITT	CDO8	-
C62	130083	2nF 1% 160V POLYSTYRENE	MULLARD	425	-
C63	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C64	102101	100pF 10% 500V CER DISC	ITT	CD10	-
C65	102278	2p7F $\pm 5\mu$ F 500V CER DISC	ITT	CDO8	-
C66	130084	110pF 1% 630V POLYSTYRENE	MULLARD	427	-
C67	130042	100pF 1% 630V POLYSTYRENE	SUFLEX	HS	-
C68	102478	4p7F $\pm 5\mu$ F 500V CER DISC	ITT	CDO8	-
C69	102338	3p3F $\pm 5\mu$ F 500V CER DISC	ITT	CDO8	-
C70	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C71	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C72	150020	10pF 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C73	102478	4p7F $\pm 5\mu$ F 500V CER DISC	ITT	CDO8	-
C74	102220	22pF 5% 500V CER DISC	ITT	CD10	-

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C75	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C76	110041	10nF 20% 100V POLYESTER	WIMA	FKS2	3
C77	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C78	110041	10nF 20% 100V POLYESTER	WIMA	FKS2	-
C79	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C80	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	-
C81	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C82	102182	1n8F 20% 500V CER DISC	ITT	CD10	1
C83	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C84	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C85	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C86	102221	220pF 10% 500V CER DISC	ITT	CD10	-
C87	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C88	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C89	110046	1uF 20% 50V POLYESTER	WIMA	MKS2	1
C90	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C91	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C92	102331	330pF 10% 500V CER DISC	ITT	CD10	1
C93	104026	47nF $\pm 50\%$ 50V CER DISC	ITT	B37449	-
C94	104026	47nF $\pm 50\%$ 50V CER DISC	ITT	B37449	-
C95	101103	10nF 25% 250V CER DISC	ITT	CD10	1
C96	150010	330nF 20% 35V DIP TANT	UNION CARBIDE	KR33E35	1
C97	102101	100pF 10% 500V CER DISC	ITT	CD10	-

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C98	110042	100nF 20% 63V POLYESTER	WIMA	CD10	-
C99	110042	100nF 20% 63V POLYESTER	WIMA	CD10	-
C100	104026	47nF $\pm 20\%$ 50V CER DISC	SIEMENS	B37449	-
C101	104026	47nF $\pm 20\%$ 50V CER DISC	SIEMENS	B37449	-
C102	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C103	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C104	102478	4p7F $\pm 5\%$ 500V CER DISC	ITT	CD08	-
C105	104026	47nF $\pm 20\%$ 50V CER DISC	SIEMENS	B37449	-
C106	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C107	110042	100nF 20% 63V POLYESTER	WIMA	CD10	-
C108	110015	15nF 20% 63V POLYESTER	WIMA	MKS2	1
C109	110041	10nF 20% 100V POLYESTER	WIMA	FKS2	-
C110	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C111	110042	100nF 20% 63V POLYESTER	WIMA	CD10	-
C112	102221	220pF 10% 500V CER DISC	ITT	CD10	-
C113, C114	104026	47nF $\pm 20\%$ 50V CER DISC	ITT	B37449	-
C115	150015	10µF 20% 35V DIP TANT	UNION CARBIDE	K10E35	-
C116	102478	4p7F $\pm 5\%$ 500V CER DISC	ITT	CD08	-
C117	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C118	104026	47nF $\pm 20\%$ 50V CER DISC	SIEMENS	B37449	-
C119	102338	3p3F $\pm 5\%$ 500V CER DISC	ITT	CD08	-
C120	104026	47nF $\pm 20\%$ 50V CER DISC	SIEMENS	B37449	-
C121	150023	33µF 20% 25V DIP TANT	UNION CARBIDE	K33E25	3

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C122	150023	33µF 20% 25V DIP TANT	UNION CARBIDE	K33E25	-
C123	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C124	104026	47nF $\pm 20\%$ 50V CER DISC	SIEMENS	B37449	-
C125	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C126	150023	33µF 20% 25V DIP TANT	UNION CARBIDE	K33E25	-
C127	102220	22pF 5% 500V CER DISC	ITT	CD10	-
C128	104026	47nF $\pm 20\%$ 50V CER DISC	SIEMENS	B37449	-
C129	150021	22µF 20% 25V DIP TANT	UNION CARBIDE	K22E25	-
C130	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	-
C131	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C132		NOT FITTED			-

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D1	220010	Si HOT CARRIER DIODE	HP	HSC1001/IN6263	4
D2	210091	9VI 400mW ZENER	MULLARD	BZY88C9VI	3
D3	210150	15V 400mW ZENER	MULLARD	BZY88C15	1
D4	210091	9VI 400mW ZENER	MULLARD	BZY88C9VI	-
D5	213009	15V 5W ZENER	UNITRODE	TVS515	4
D6	213009	15V 5W ZENER	UNITRODE	TVS515	-
D7	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	14
D8	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D9	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D10	210043	4V3 400mW ZENER	MULLARD	BZY88C4V3	4
D11	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D12	210043	4V3 400mW ZENER	MULLARD	BZY88C4V3	-
D13	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D14	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D15	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D16	210043	4V3 400mW ZENER	MULLARD	BZY88C4V3	-
D17	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D18	210043	4V3 400mW ZENER	MULLARD	BZY88C4V3	-
D19	210091	9VI 400mW ZENER	MULLARD	BZY88C9VI	-
D20	213011	1V5 250mW ZENER	MULLARD	BZV46-1V5	2
D21	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D22	213011	1V5 250mW ZENER	MULLARD	BZV46-1V5	-
D23	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D24	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	2
D25	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	-
D26	213023	6V4 100ppm ZENER	MOTOROLA	IN4575	2
D27	213009	15V 5W ZENER	UNITRODE	TVS515	-
D28	220010	Si HOT CARRIER DIODE	HP	HSC1001/IN6263	-
D29	220010	Si HOT CARRIER DIODE	HP	HSC1001/IN6263	-
D30	213023	6V4 100ppm ZENER	MOTOROLA	IN4575	-
D31	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D32	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D33	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D34	213009	15V 5W ZENER	UNITRODE	TVS515	-
D35	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D36	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	2
D37	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	-
D38	220010	Si HOT CARRIER DIODE	HP	HSC1001/IN6263	-
D39	213012	2V0 250mW ZENER	MULLARD	BZV46-2V0	2
D40	210062	6V2 400mW ZENER	MULLARD	BZY88C6V2	2
D41	210062	6V2 400mW ZENER	MULLARD	BZY88C6V2	-
D42	213012	2V0 250mW ZENER	MULLARD	BZV46-2V0	-

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
Q1	230065	N-CHAN I LIM 4.7mA	SILICONIX	J511	4
Q2	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	6
Q3	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	-
Q4	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	12
Q5	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-
Q6	230065	N-CHAN I LIM 4.7mA	SILICONIX	J511	-
Q7	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-
Q8	240013	Si NPN TRANSISTOR	NATIONAL	BC184C/TO18	5
Q9	230065	N-CHAN I LIM 4.7mA	SILICONIX	J511	-
Q10		NOT USED			-
Q11	240032	Si NPN TRANSISTOR	MOTOROLA	BF393/TO18	5
Q12	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	-
Q13	230065	N-CHAN I LIM 4.7mA	SILICONIX	J511	-
Q14	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-
Q15	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-
Q16	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-
Q17	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-
Q18	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	-
Q19	230001	N-CHAN I LIM 1.4 mA	SILICONIX	J506	3
Q20	230035	N-CHAN JFET	TELEDYNE	U1897JF	28
Q21	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q22	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q23	230035	N-CHAN JFET	TELEDYNE	U1897JF	-

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q24	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q25	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q26	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q27	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q28	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q29	239060-1	N-CHAN DUAL JFET + R41	DATRON	VCR11 (COLOUR) + H8	1
Q30	260060	334 CURRENT SOURCE	NATIONAL	LM334H	1
Q31	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-
Q32	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q33	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q34	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q35	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q36	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q37	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q38	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q39	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q40	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q41	230046-1	N-CHAN DUAL JFET		SEE DRG	1
Q42	230001	N-CHAN I LIM 1.4 mA	SILICONIX	J506	-
Q43	230001	N-CHAN I LIM 1.4 mA	SILICONIX	J506	-
Q44	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-
Q45	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	3
Q46	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	-

NOTES.

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DATE	24. 7. 84	datron ELECTRONICS LTD
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q47	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q48	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q49	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q50	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q51	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q52	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q53	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q54	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	-
Q55	240017	Si NPN DUAL TRANSISTOR	NATIONAL	LM394	6
Q56	240017	Si NPN DUAL TRANSISTOR	NATIONAL	LM394	-
Q57	240017	Si NPN DUAL TRANSISTOR	NATIONAL	LM394	-
Q58	240017	Si NPN DUAL TRANSISTOR	NATIONAL	LM394	-
Q59	240017	Si NPN DUAL TRANSISTOR	NATIONAL	LM394	-
Q60	240017	Si NPN DUAL TRANSISTOR	NATIONAL	LM394	-
Q61	230050	N-CHAN I LIM 2.4mA	SILICONIX	J508	1
Q62	240013	Si NPN TRANSISTOR	NATIONAL	BC184C/TO18	-
Q63	240013	Si NPN TRANSISTOR	NATIONAL	BC184C/TO18	-
Q64	240013	Si NPN TRANSISTOR	NATIONAL	BC184C/TO18	-
Q65	240013	Si NPN TRANSISTOR	NATIONAL	BC184C/TO18	-
Q66	230042	N-CHAN I LIM 3.0mA	SILICONIX	J509	6
Q67	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q68	230035	N-CHAN JFET	TELEDYNE	U1897JF	-
Q69	230035	N-CHAN JFET	TELEDYNE	U1897JF	-

NOTES.

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ISS	E.C.O.	DATE	CHKD								

DATE 24.7.84	<b>datron</b> ELECTRONICS LTD TITLE 4200 SINE SOURCE PCB ASSY DRAWING NUMBER 400446 21 OF 27
DRAWN L	
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q70	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-
Q71	250008	Si PNP TRANSISTOR	NATIONAL	BC214C/TO18	3
Q72	250008	Si PNP TRANSISTOR	NATIONAL	BC214C/TO18	-
Q73	230042	N-CHAN I LIM 3.0mA	SILICONIX	J509	-
Q74	230003	N-CHAN JFET	TELEDYNE	U1899JF	1
Q75	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-
Q76	239059-1	N-CHAN DUAL JFET KIT	DATRON	YCR11 } SAME COLOUR	1 KIT
Q77	239059-1	N-CHAN DUAL JFET KIT	DATRON	YCR11 }	-
Q78	240032	Si NPN TRANSISTOR	MOTOROLA	BF 393/TO18	-
Q79	240032	Si NPN TRANSISTOR	MOTOROLA	BF 393/TO18	-
Q80	240032	Si NPN TRANSISTOR	MOTOROLA	BF 393/TO18	-
Q81	240032	Si NPN TRANSISTOR	MOTOROLA	BF 393/TO18	-
Q82	230042	N-CHAN I LIM 3.0mA	SILICONIX	J509	-
Q83	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	2
Q84	230042	N-CHAN I LIM 3.0mA	SILICONIX	J509	-
Q85	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	-
Q86	240031	Si NPN TRANSISTOR	MOTOROLA	BD139	2
Q87	230042	N-CHAN I LIM 3.0mA	SILICONIX	J509	-
Q88	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-
Q89	230042	N-CHAN I LIM 3.0mA	SILICONIX	J509	-
Q90	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	-
Q91	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	-
Q92	250008	Si PNP TRANSISTOR	NATIONAL	BC214C/TO18	-

NOTES.

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q93	240031	Si NPN TRANSISTOR	MOTOROLA	BD139	-
Q94	250021	Si PNP TRANSISTOR	MOTOROLA	BD140	1
M1	280101	DUAL BCD/BINARY COUNTER	MOTOROLA	MC14569BCP	3
M2	280057	BCD UP/DOWN COUNTER	MOTOROLA	MC14510BCP	1
M3	280008	QUAD 2 I/P NAND	MOTOROLA	MC14011 BCP	1
M4	280011	DUAL D FLIP-FLOP	MOTOROLA	MC14013 BCP	2
M5	280101	DUAL BCD/BINARY COUNTER	MOTOROLA	MC14569BCP	-
M6	280076	8 CHANNEL AN MUX	MOTOROLA	MC14051 BCL	2
M7	280079	QUAD 2 I/P OR	MOTOROLA	MC14071 BCP	1
M8	280076	8 CHANNEL AN MUX	MOTOROLA	MC14051 BCL	-
M9	280101	DUAL BCD/BINARY COUNTER	MOTOROLA	MC14569BCP	-
M10	280025	QUAD ANALOG SWITCH	MOTOROLA	MC14066 BCP	1
M11	260073	411 OP AMP	NATIONAL	LF411 CN	1
M12	280125	PHASE DETECTOR	NATIONAL	MM74C932N	1
M13	280011	DUAL D FLIP-FLOP	MOTOROLA	MC14013 BCP	-
M14	280080	HEX SCHMITT TRIGGER	NATIONAL	MM74C14N	2
M15	260074	LH0032C FAST FET OP AMP	NATIONAL	LH0032 CG	1

NOTES.

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
M16	260076	CURRENT MIRROR 1:1	TEXAS	TLO11 CLP	2
M17	290090	7x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2002A / XR2202CP	4
M18	260076	CURRENT MIRROR 1:1	TEXAS	TLO11 CLP	-
M19	260046	2525 OP AMP	HARRIS	HA32527-5	11
M20	290090	7x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2002A / XR2202CP	-
M21	280080	HEX SCHMITT TRIGGER	NATIONAL	MM74C14N	-
M22	260046	2525 OP AMP	HARRIS	HA32527-5	-
M23	260046	2525 OP AMP	HARRIS	HA32527-5	-
M24	260046	2525 OP AMP	HARRIS	HA32527-5	-
M25	260046	2525 OP AMP	HARRIS	HA32527-5	-
M26	260077	CURRENT MIRROR 2:1	TEXAS	TLO12 CLP	3
M27	260077	CURRENT MIRROR 2:1	TEXAS	TLO12 CLP	-
M28	290090	7x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2002A / XR2202CP	-
M29	280035	BCD/DECIMAL DECODER	MOTOROLA	MC14028 BCP	1
M30	260046	2525 OP AMP	HARRIS	HA32527-5	-
M31	260046	2525 OP AMP	HARRIS	HA32527-5	-
M32	260057	5534 OP AMP	SIGNETICS	NE5534N	1
M33	290090	7x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2002A / XR2202CP	-
M34	290000	NPN TRANSISTOR ARRAY	RCA	CA3083F	2
M35	260042	5532 DUAL OP AMP	SIGNETICS	NE5532N	2
M36	280023	QUAD 2 I/P NOR	MOTOROLA	MC14001UBCP	1
M37	260078	DUAL COMPARATOR	NATIONAL	LM393AN	1
M38	280126	D/A CONVERTER	ANALOG DEVICES	AD7527 KN	1

NOTES.

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
M39	260033	5V VIOA REGULATOR	MOTOROLA	MC78L05ACP	1
M40	290000	NPN TRANSISTOR ARRAY	RCA	CA3083F	-
M41	260042	5532 DUAL OP AMP	SIGNETICS	NE5532N	-
M42	280127	10-BIT MULTIPLYING DAC	ANALOG DEVICES	AD7533JN	2
M43	280127	10-BIT MULTIPLYING DAC	ANALOG DEVICES	AD7533JN	-
M44	260046	2525 OP AMP	HARRIS	HA32527-5	-
M45	260027	714 OP AMP	FAIRCHILD	$\mu$ A714HC	1
M46	260046	2525 OP AMP	HARRIS	HA32527-5	-
M47	260046	2525 OP AMP	HARRIS	HA32527-5	-
M48	260046	2525 OP AMP	HARRIS	HA32527-5	-
M49	260049	319 DUAL COMPARATOR	NATIONAL	LM319N	1
M50	260077	CURRENT MIRROR 2:1	TEXAS	TL012 CLP	-
RL1	330012-2	RELAY REED IA GUARDED	HAMLIN	HE721A5134	8
RL2	330012-2	RELAY REED IA GUARDED	HAMLIN	HE721A5134	-
RL3	330012-2	RELAY REED IA GUARDED	HAMLIN	HE721A5134	-
RL4	330012-2	RELAY REED IA GUARDED	HAMLIN	HE721A5134	-
RL5	330012-2	RELAY REED IA GUARDED	HAMLIN	HE721A5134	-
RL6	330012-2	RELAY REED IA GUARDED	HAMLIN	HE721A5134	-

NOTES

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DATE	24. 7. 84	datron ELECTRONICS LTD
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
RL7	330012-2	RELAY REED IA GUARDED	HAMLIN	HE721A5134	-
RL8	330012-2	RELAY REED IA GUARDED	HAMLIN	HE721A5134	-
L1	370003	1mH 40 $\Omega$ RF CHOKE	SIGMA	SC10	2
L2	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	6
L3	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
L4	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
L5	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
L6	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
L7	370026	1 $\mu$ H 880mA CHOKE	SIGMA	SC10	1
L8	370003	1mH 40 $\Omega$ RF CHOKE	SIGMA	SC10	-
L9	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
	410171-8	PCB			1
	450450-1	HEATSINK			1
	540002	22SWG BTC WIRE			A/R
	512999	7/-2 PTFE WIRE			A/R
	602001	FSV TERMINAL	MOLEX	02-04-5114	6
	605059/A	8WAY DIL SOCKET			17
	605060/A	14WAY DIL SOCKET			9
	605061/A	16WAY DIL SOCKET			15

NOTES

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	605065	28 WAY DIL SOCKET			1
	604046	3-WAY .1" PCB PLUG GD.R.	MOLEX	22-10-2031	2
	611016	M3x8mm POZIPAN STEEL	ZN PL		2
	611025	M3x16mm POZICK STEEL	ZN PL		1
	612026-1	M3x6mm STANDOFF	DATRON	SEE DRG	1
	613005	M3 INT SHAKEPROOF			2
	615002	M3 FULL NUT STEEL ZN.PL.			2
	620003	SOLDER PIN	HARWIN	H2105 A01	3
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	32
	630024	STEATITE BEAD 16 SWG	PARK ROYAL PORCELAIN	Nº 2	8
	630107	BRASS STRIP 15.5 x .38mm	RIGHTON	CZ108 1/2H	A/R
	630120	PCB EJECTOR (YELLOW)	RICHCO	CBE	2
	900003	HEATSINK COMPOUND	RS	554-311	A/R
	920089-1	HEATSINK TO-220		SEE DRG	2
	920149	HEATSINK TO8	SOURIAU	TXBF 2-050-033B	1
	605124	10 WAY SOCKET STRIP	AUGAT	510-AG-91D	1 1/3
	605127	2 WAY .1" SHORTING SKT	ASSMANN	AKSPL-G	2
	590001	20mm RUBBER SLEEVE.	HELLERMANN.	H15 x 20.	1

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DRAWING No. <b>400447</b>		CHK'D	12.0 1958 4.7.85 12.1 1982 14.8.85 12.2 1993 19.10.85 13.0 1980 19.10.85 13.1 2046 12.11.85 13.2 2050 12.11.85 13.3 2052 12.11.85 13.4 2059 12.11.85 13.5 2067 12.11.85 13.6 2084 12.12.85 14.0 2049 12.12.85 14.1 2112 12.1.86
DATE		ECO	REVISION ISSUE
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE . REVISION
COMPONENT LAYOUT	480447	1	12.0 12.1 12.2 13.0 13.1 13.2 13.3 13.4 13.5 14.0
SCHEMATIC	430447	1	12.0 12.1 12.2 13.0 13.1 13.2 13.3 13.4 13.5 14.0
SCHEMATIC	430447	2	12.0 12.1 12.2 13.0 13.1 13.2 13.3 13.4 13.5 14.0
SCHEMATIC	430447	3	12.0 12.1 12.2 13.0 13.1 13.2 13.3 13.4 13.5 14.0
SCHEMATIC	430447	4	12.0 12.1 12.2 13.0 13.1 13.2 13.3 13.4 13.5 14.0
SCHEMATIC	430447	5	12.0 12.1 12.2 13.0 13.1 13.2 13.3 13.4 13.5 14.0
SCHEMATIC	430447	6	12.0 12.1 12.2 13.0 13.1 13.2 13.3 13.4 13.5 14.0
FUNCTIONAL TEST PROC	460447/FT	1-5	12.0 13.0 14.0
FUNC. TEST TICK LIST	470447/FT	1	12.0 13.0 14.0
P.C.B	410172	-	10.0 11.0
NOTES		<input type="checkbox"/> INDICATES NO CHANGE TO DOCS. AT ISSUE LEVEL CHANGE	
		DRN DATE 4.7.85	CHK'D DATE 10.7.85
		APPR DATE 23.7.85	TITLE 4200 A.C. PCB ASSY
		DRAWING No. 400447	SHEET 1 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	000105	1M 5% 1/3W CARBON	MULLARD	CR25	4
R2	000332	3k3 5% 1/3W CARBON	MULLARD	CR25	2
R3	000101	100R 5% 1/3W CARBON	MULLARD	CR25	17
R4	011001	1k 1% 1/8W 50ppm MF	HOLCO	H8C	4
R5	011003	100k 1% 1/8W 50ppm MF	HOLCO	H8C	4
R6	014021	4k02 1% 1/8W 50ppm MF	HOLCO	H8C	3
R7		NOT USED			-
R8		NOT USED			-
R9	014021	4k02 1% 1/8W 50ppm MF	HOLCO	H8C	-
R10	000104	100k 5% 1/3W CARBON	MULLARD	CR25	7
R11	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R12	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R13	011003	100k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R14	011003	100k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R15	090138-1	10k MATCHED PAIR	VISHAY	SEE DRG-	1
R16	000100	10R 5% 1/3W CARBON	MULLARD	CR25	2
R17	000100	10R 5% 1/3W CARBON	MULLARD	CR25	-
R18	080071	178R1 -1% 3ppm M.FOIL	VISHAY	SI02C	2
R19	080071	178R1 -1% 3ppm M.FOIL	VISHAY	SI02C	-
R20	080072	312R8 -1% 3ppm M.FOIL	VISHAY	SI02C	2
R21	080073	100R -1% 3ppm M.FOIL	VISHAY	SI02C	2
R22	080072	312R8 -1% 3ppm M.FOIL	VISHAY	SI02C	-
R23	080073	100R -1% 3ppm M.FOIL	VISHAY	SI02C	-

ISS	9	10	11	12	DATE	
E.C.O	1859	1850	1854	1906	2.7.84	
DATE	4.3.85	12.3.85	18.4.85	5.6.85	datron ELECTRONICS LTD	
CHKD	AP	M	MD	MD	DRAWN	1L
ISS	SEE SHEET 1 FOR LATEST ISSUE.				TITLE	4200 A.C. PCB ASSY
E.C.O	RELEASE	1697	1715,1719,1722,1723,1735	1738	CHECKED	1.1.1
DATE	29.8.84	17.9.84	12.10.84	22.10.84	APPROVED	1.1.1
CHKD	AP	MD	MD	MD	DATE	19.7.84
					DRAWING NUMBER	400447
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R24	000121	120R 5% 1/3W CARBON	MULLARD	CR25	2
R25	000390	39R 5% 1/3W CARBON	MULLARD	CR25	2
R26	000121	120R 5% 1/3W CARBON	MULLARD	CR25	-
R27	000103	10k 5% 1/3W CARBON	MULLARD	CR25	7
R28	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R29	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R30	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R31	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	3
R32	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R33	000390	39R 5% 1/3W CARBON	MULLARD	CR25	-
R34	000101	100R 1% 1/8W 50ppm MF	HOLCO	H8C	-
R35	013920	392R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R36	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R37	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R38	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R39	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R40	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R41	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R42	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R43	016190	619R 1% 1/8W 50ppm MF	HOLCO	H8C	2
R44	016190	619R 1% 1/8W 50ppm MF	HOLCO	H8C	-
R45	012670	267R 1% 1/8W 50ppm MF	HOLCO	H8C	2
R46	012670	267R 1% 1/8W 50ppm MF	HOLCO	H8C	-

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CHKD																				

DATE	datron ELECTRONICS LTD	
DRAWN	TITLE	
CHECKED	4200 A.C. PCB ASSY	
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R47	011001	1k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R48	000220	22R 5% 1/3W CARBON	MULLARD	CR25	1
R49	011001	1k0 1% 1/8W 50ppm MF	HOLCO	H8C	-
R50	011301	1k3 1% 1/8W 50ppm MF	HOLCO	H8C	1
R51	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R52	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R53	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	5
R54	011001	1k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R55		NOT USED			-
R56	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R57	000682	6k8 5% 1/3W CARBON	MULLARD	CR25	1
R58	000470	47R 5% 1/3W CARBON	MULLARD	CR25	3
R59	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R60	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R61	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R62	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R63	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R64	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R65	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	-
R66	000102	1k 5% 1/2W CARBON	MULLARD	CR25	2
R67	000392	3k9 5% 1/3W CARBON	MULLARD	CR25	1
R68	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R69	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-

NOTES.

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DRAWN	TITLE	
CHECKED	4200 AC PCB ASSY	
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R70	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R71		NOT USED			-
R72	000272	2k7 5% 1/3W CARBON	MULLARD	CR25	1
R73	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	-
R74	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R75	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R76	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	-
R77	000221	220R 5% 1/3W CARBON	MULLARD	CR25	4
R78	000102	1k 5% 1/3W CARBON	MULLARD	CR25	-
R79	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R80	000821	820R 5% 1/3W CARBON	MULLARD	CR25	2
R81	000223	22k 5% 1/3W CARBON	MULLARD	CR25	5
R82	000223	22k 5% 1/3W CARBON	MULLARD	CR25	-
R83		NOT USED			-
R84	000221	220R 5% 1/3W CARBON	MULLARD	CR25	-
R85	000153	15k 5% 1/3W CARBON	MULLARD	CR25	1
R86	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R87	000332	3k3 5% 1/3W CARBON	MULLARD	CR25	-
R88	000223	22k 5% 1/3W CARBON	MULLARD	CR25	-
R89	000473	47k 5% 1/3W CARBON	MULLARD	CR25	3
R90	000821	820R 5% 1/3W CARBON	MULLARD	CR25	-
R91	000473	47k 5% 1/3W CARBON	MULLARD	CR25	-
R92	000473	47k 5% 1/3W CARBON	MULLARD	CR25	-

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APPROVED	DRAWING NUMBER	SHEET
DATE	400447	5 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R93	000273	27k 5% 1/3W CARBON	MULLARD	CR25	1
R94	000432	4k3 5% 1/3W CARBON	MULLARD	CR25	1
R95	000221	220R 5% 1/3W CARBON	MULLARD	CR25	-
R96	000221	220R 5% 1/3W CARBON	MULLARD	CR25	-
R97	013321	3k32 1% 1/8W 50ppm MF	HOLCO	H8C	2
R98	011003	100k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R99	013321	3k32 1% 1/8W 50ppm MF	HOLCO	H8C	-
R100	000470	47R 5% 1/3W CARBON	MULLARD	CR25	-
R101	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R102	011690	169R 1% 1/8W 50ppm MF	HOLCO	H8C	2
R103	011690	169R 1% 1/8W 50ppm MF	HOLCO	H8C	-
R104	000680	68R 5% 1/3W CARBON	MULLARD	CR25	1
R105	014641	4k64 1% 1/8W 50ppm MF	HOLCO	H8C	1
R106	012371	2k37 1% 1/8W 50ppm MF	HOLCO	H8C	1
R107	066104	100k POT 3/8 SQ VERT CERMET	BECKMAN	72XW	1
R108	014640	464R 1% 1/8W 50ppm MF	HOLCO	H8C	2
R109	000470	47R 5% 1/3W CARBON	MULLARD	CR25	-
R110	080074	111R11 1% 3ppm M.FOIL	VISHAY	SI02C	1
R111		NOT USED			-
R112	090129-3	12R346/100R	VISHAY	SEE DRG	1
R113	014640	464R 1% 1/8W 50ppm MF	HOLCO	H8C	-
R114	008054	220R 5% 1/3W CARBON	MULLARD	CR16	4
R115	090148-1	100k (MATCHED PAIR WITH R121)	DATRON	SEE DRG	1

NOTES.

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R116		NOT USED			-
R117		NOT USED			-
R118	080095	1k1 1% 1ppm M.FOIL	VISHAY	S102C	1
R119		NOT USED			-
R120	080075	10k 1% 1ppm M.FOIL	VISHAY	S102C	2
R121	090148-1	10K (MATCHED PAIR WITH R115)	DATRON	SEE DRG-	-
R122	066103	10K POT 3/8 SQ VERT CERMET	BECKMAN	72XW	1
R123	080075	10K 1% 1ppm M.FOIL	VISHAY	S102C	-
R124	080043-2	1k -1% 3ppm M.FOIL	VISHAY	SEE DRG	1
R125	008054	220R 5% 1/5W CARBON	MULLARD	CR16	-
R126	008054	220R 5% 1/5W CARBON	MULLARD	CR16	-
R127		NOT USED			-
R128		NOT USED			-
R129		NOT USED			-
R130		NOT USED			-
R131		NOT USED			-
R132		NOT USED			-
R133		NOT USED			-
R134		NOT USED			-
R135		NOT USED			-
R136		NOT USED			-
R137		NOT USED			-
R138		NOT USED			-

NOTES.

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R139		NOT USED			-
R140		NOT USED			-
R141	014 750	475R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R142	06310 4	100K POT 3/8 SQ. CERMET	BECKMAN	72P	1
R143	014752	47k5 1% 1/8W 50ppm MF	HOLCO	H8C	1
R144		NOT FITTED			-
R145	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	-
R146	008054	220R 5% 1/5W CARBON	MULLARD	CR16	-
R147	000222	2k2 5% 1/3W CARBON	MULLARD	CR25	1
R148	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R149	000101	100R 5% 1/3W CARBON	MULLARD	CR25	-
R150	012002	20k 1% 1/8W 50ppm MF	HOLCO	H8C	1
R151		NOT USED			-
R152	000223	22k 5% 1/3W CARBON	MULLARD	CR25	-
R153	000223	22k 5% 1/3W CARBON	MULLARD	CR25	-
R154	011000	100R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R155		NOT USED			-
R156	014021	4k02 1% 1/8W 50ppm MF	HOLCO	H8C	-
R157	008064	33R 5% 1/5W CARBON	MULLARD	CR16	1
R158	000201	200R 5% 1/3W CARBON	MULLARD	CR25	1

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
AN1	090136	2k x 8 ±.5% DIL NETWORK	BECKMAN	698-3-R2KD	2
AN2	090144	1k x 8 1% DIL NETWORK	BECKMAN	698-3-R1KF	1
AN3	090136	2k x 8 ±.5% DIL NETWORK	BECKMAN	698-3-R2KD	-
AN4	090096	1M x 8 2% NETWORK	BECKMAN	LO9-1-RIM	2
AN5	090096	1M x 8 2% NETWORK	BECKMAN	LO9-1-RIM	-
AN6	090137	3k3 x 8 ±.5% DIL NETWORK	BECKMAN	698-3-R3K3D	1

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DATE		datron ELECTRONICS LTD
DRAWN		
CHECKED		TITLE
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		SHEET OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
C1	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	4
C2	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	-
C3	101103	10nF 25% 250V CER DISC	ITT	CD10	3
C4	102220	22pF 5% 500V CER DISC	ITT	CD10	1
C5	110030	1nF 20% 100V POLYESTER	WIMA	FKS2	2
C6	104026	47nF ±.50% 50V CER DISC	SIEMENS	B37449	20
C7	102102	1nF 10% 500V CER DISC	ITT	CD10	4
C8	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C9	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C10	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C11	104026	47nF ±.50% 50V CER DISC	SIEMENS	B37449	-
C12	120014	2μF 10% 63V POLYCARB	ASHCROFT	A2B2221B	2
C13	120014	2μF 10% 63V POLYCARB	ASHCROFT	A2B2221B	-
C14	104026	47nF ±.50% 50V CER DISC	SIEMENS	B37449	-
C15	102100	10pF 5% 500V CER DISC	ITT	CD10	16
C16	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	-
C17	110030	1nF 20% 100V POLYESTER	WIMA	FKS2	-
C18	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	-
C19	150020	10μF 20% 25V DIP TANT	UNION CARBIDE	K10E25	8
C20	104026	47nF ±.50% 50V CER DISC	SIEMENS	B37449	-
C21	104026	47nF ±.50% 50V CER DISC	SIEMENS	B37449	-
C22	104026	47nF ±.50% 50V CER DISC	SIEMENS	B37449	-
C23	104026	47nF ±.50% 50V CER DISC	SIEMENS	B37449	-

NOTES.

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DATE		datron ELECTRONICS LTD
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C24	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C25	120025	4 $\mu$ F 10% 63V POLYCARB	ASHCROFT	A2B4721B	2
C26	120025	4 $\mu$ F 10% 63V POLYCARB	ASHCROFT	A2B4721B	-
C27	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C28	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C29	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C30	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C31	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C32	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C33	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C34	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C35	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C36	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C37	102471	470pF 10% 500V CER DISC	ITT	CD10	4
C38	102471	470pF 10% 500V CER DISC	ITT	CD10	-
C39	100102	1nF 10% 100V CER PLATE	MULLARD	2222 630 19102	1
C40	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C41		NOT USED			-
C42	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C43	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	-
C44	102470	47pF 5% 500V CER DISC	ITT	CD10	2
C45	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARB	K10E25	-
C46	150015	10 $\mu$ F 20% 35V DIP TANT	UNION CARBIDE	K10E35	2

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DATE		<b>datron</b> ELECTRONICS LTD	
DRAWN			
CHECKED			TITLE <b>4200 AC PCB ASSY</b>
APPROVED			
DATE		DRAWING NUMBER <b>400447</b>	
		SHEET <b>11</b> OF <b>23</b>	

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C47	150015	10 $\mu$ F 20% 35V DIP TANT	UNION CARBIDE	K10E35	-
C48	101103	10nF 25% 250V CER DISC	ITT	CD10	-
C49	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C50	100330	33pF 2% 100V CER DISC	MULLARD	2222 683	5
C51	100330	33pF 2% 100V CER DISC	MULLARD	2222 683	-
C52	150006	4 $\mu$ F 20% 16V DIP TANT	UNION CARBIDE	K47E16	1
C53	150024	47 $\mu$ F 20% 16V DIP TANT	UNION CARBIDE	K47E16	2
C54	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C55	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C56	150024	47 $\mu$ F 20% 16V DIP TANT	UNION CARBIDE	K47E16	-
C57		NOT USED			-
C58		NOT USED			-
C59		NOT USED			-
C60	102338	3p3F $\pm 5\%$ 500V CER DISC	ITT	CD08	1
C61		NOT USED			-
C62	102150	15pF 5% 500V CER DISC	ITT	CD10	1
C63		NOT USED			-
C64	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C65	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C66	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C67	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C68	100330	33pF 2% 100V CER DISC	MULLARD	2222 683	-
C69	100330	33pF 2% 100V CER DISC	MULLARD	2222 683	-

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DATE		<b>datron</b> ELECTRONICS LTD	
DRAWN			
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DATE		DRAWING NUMBER <b>400447</b>	
		SHEET <b>12</b> OF <b>23</b>	

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C70	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C71	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C72	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C73	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C74	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C75	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C76	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C77	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C78	100330	33pF 2% 100V CER DISC	MULLARD	2222 683	-
C79	101103	10nF 25% 250V CER DISC	ITT	CD10	-
C80	102100	10pF 5% 500V CER DISC	ITT	CD10	-
C81	102471	470pF 10% 500V CER DISC	ITT	CD10	-
C82	102471	470pF 10% 500V CER DISC	ITT	CD10	-
C83	104026	47nF $\pm\frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C84	104026	47nF $\pm\frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C85	104026	47nF $\pm\frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C86	104026	47nF $\pm\frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C87	104035	27pF 5% 500V CER DISC	ITT	CD10 27pF P0J5 N150	1
C88	102222	2n2F 20% 500V CER DISC	ITT	CD10	1
C89	120029	6n8F 20% 100V POLYCARB	WIMA	FKC2	1
C90	102101	100pF 10% 500V CER DISC	ITT	CD10	1
C91	102221	22OpF 10% 500V CER DISC	ITT	CD10	1
C92	102470	47pF 5% 500V CER DISC	ITT	CD10	-

NOTES.

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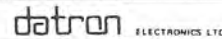
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CHECKED	TITLE 4200 AC PCB ASSY	
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DATE	400447	13 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D1	213006	5V 5W ZENER	UNITRODE	TVS505	2
D2	213006	5V 5W ZENER	UNITRODE	TVS505	-
D3		NOT USED			-
D4		NOT USED			-
D5	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	21
D6	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D7	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D8	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D9	213022	10V 5W ZENER	UNITRODE	TVS510	4
D10	213022	10V 5W ZENER	UNITRODE	TVS510	-
D11	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D12	213022	10V 5W ZENER	UNITRODE	TVS510	-
D13	213022	10V 5W ZENER	UNITRODE	TVS510	-
D14	213009	15V 5W ZENER	UNITRODE	TVS515	2
D15	213009	15V 5W ZENER	UNITRODE	TVS515	-
D16	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	5
D17	210200	20V 400mW ZENER	MULLARD	BZY88C20	1
D18		NOT USED			-
D19		NOT USED			-
D20	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	7
D21	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	-
D22	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	-
D23	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-

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DATE	400447	14 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D24	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D25	210130	13V 400mW ZENER	MULLARD	BZY88C13	1
D26	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	-
D27	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	-
D28	213002	5VI 5W ZENER	MOTOROLA	IN5338B	2
D29	213002	5VI 5W ZENER	MOTOROLA	IN5338B	-
D30	213023	6V4 100ppm ZENER	MOTOROLA	IN4575	1
D31	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D32	210091	9VI 400mW ZENER	MULLARD	BZY88C9VI	1
D33	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D34	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	2
D35	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	-
D36		NOT USED			-
D37	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D38	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D39	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D40	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D41	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D42	213011	1V5 250mW ZENER	MULLARD	BZV46-1V5	2
D43	213011	1V5 250mW ZENER	MULLARD	BZV46-1V5	-
D44	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D45	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D46	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS												
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DATE	 <b>4200 AC PCB ASSY</b>
DRAWN	
CHECKED	
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DATE	DRAWING NUMBER <b>400447</b>
SHEET <b>15</b> OF <b>23</b>	

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D47	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D48		NOT USED			-
D49	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D50	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D51		NOT USED			-
D52	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D53	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D54	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D55	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D56	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D57	220010	Si HOT CARRIER DIODE	HP	HSCH1001/IN6263	2
D58	220010	Si HOT CARRIER DIODE	HP	HSCH1001/IN6263	-
D59	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D60	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
Q1	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	9
Q2	230069	N-CHAN JFET	SILICONIX	2N4416	2
Q3	230069	N-CHAN JFET	SILICONIX	2N4416	-
Q4	230003	N-CHAN JFET	TELEDYNE	UI899JF	7
Q5	230003	N-CHAN JFET	TELEDYNE	UI899JF	-
Q6	230003	N-CHAN JFET	TELEDYNE	UI899JF	-
Q7	230003	N-CHAN JFET	TELEDYNE	UI899JF	-

NOTES.

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DATE	 <b>4200 AC PCB ASSY</b>
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SHEET <b>16</b> OF <b>23</b>	

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q8	230003	N-CHAN JFET	TELEDYNE	U1899JF	-
Q9	250027	Si DUAL PNP TRANSISTOR	MICRO POWER SYSTEMS	MP351	1
Q10	240038	Si NPN DUAL TRANSISTOR	MICRO POWER SYSTEMS	MP318	7
Q11		NOT USED			-
Q12	240038	Si NPN DUAL TRANSISTOR	MICRO POWER SYSTEMS	MP318	-
Q13	240038	Si NPN DUAL TRANSISTOR	MICRO POWER SYSTEMS	MP318	-
Q14	240038	Si NPN DUAL TRANSISTOR	MICRO POWER SYSTEMS	MP318	-
Q15	240038	Si NPN DUAL TRANSISTOR	MICRO POWER SYSTEMS	MP318	-
Q16	240013	Si NPN TRANSISTOR	NATIONAL	BC184C/TO18	2
Q17	240038	Si NPN DUAL TRANSISTOR	MICRO POWER SYSTEMS	MP318	-
Q18	240038	Si NPN DUAL TRANSISTOR	MICRO POWER SYSTEMS	MP318	-
Q19	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	-
Q20	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	-
Q21	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	-
Q22	230042	N-CHAN I LIM 3.0mA	SILICONIX	J509	3
Q23	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	-
Q24	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	5
Q25	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-
Q26	240025	DARLINGTON	MOTOROLA	MPSA 13	1
Q27	240013	Si NPN TRANSISTOR	NATIONAL	BC184C/TO18	-
Q28	230042	N-CHAN I LIM 3.0mA	SILICONIX	J509	-
Q29	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	-
Q30	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	-

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

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DATE		<b>datron</b> ELECTRONICS LTD
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q31	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-
Q32	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	-
Q33	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	-
Q34	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-
Q35	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	-
Q36	230042	N-CHAN I LIM 3.0mA	SILICONIX	J509	-
Q37	250008	Si PNP TRANSISTOR	NATIONAL	BC214C/TO18	1
Q38	239072-1	N-CHAN JFET SEL	DATRON (2.5V ≤ Vp ≤ 3.5V)	U1899JF (GREEN)	2
Q39	239072-1	N-CHAN JFET SEL	DATRON (2.5V ≤ Vp ≤ 3.5V)	U1899JF (GREEN)	-
Q40	230070	N-CHAN DUAL JFET	SILICONIX	2N5911	2
Q41	230070	N-CHAN DUAL JFET	SILICONIX	2N5911	-
Q42	230065	N-CHAN I LIM 4.7 mA	SILICONIX	J511	2
Q43	230065	N-CHAN I LIM 4.7 mA	SILICONIX	J511	-
Q44	239075-1	N-CHAN JFET SEL	DATRON (3.5V ≤ Vp ≤ 4.5V)	U1899JF (BLUE)	2
Q45	239075-1	N-CHAN JFET SEL	DATRON (3.5V ≤ Vp ≤ 4.5V)	U1899JF (BLUE)	-
Q46	230035	N-CHAN JFET	TELEDYNE	U1897JF	1
Q47		NOT USED			-
Q48, Q51	230003	N-CHAN JFET	TELEDYNE	U1899JF	-
Q49, Q50		NOT USED			-
M1	260053	7650 OP AMP	INTERSIL	ICL7650CPD	1
M2	260073	411 OP AMP	NATIONAL	LF411CN	2
M3	260042	5532 DUAL OP AMP	SIGNETICS	NE5532N	1
M4	260066	11 OP AMP	NATIONAL	LM11CN	2

NOTES.

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
M5	260066	11 OP AMP	NATIONAL	LM11CN	-
M6	260075	2903 DUAL COMPARATOR	NATIONAL	LM2903N	2
M7	280025	QUAD ANALOG SWITCH	MOTOROLA	MC14066BCP	4
M8	280025	QUAD ANALOG SWITCH	MOTOROLA	MC14066BCP	-
M9	280124	HEX D-TYPE FLIP-FLOP	MULLARD	HEF40174P	2
M10	280079	QUAD 2 I/P OR	MOTOROLA	MC14071BCP	1
M11	280032	DECADE COUNTER/DIV.	MOTOROLA	MC14017BCP	2
M12	260050	412 DUAL FET I/P OP AMP	NATIONAL	LF412CN	2
M13	280085	QUAD 2 I/P AND	MOTOROLA	MC14081BCP	1
M14	280025	QUAD ANALOG SWITCH	MOTOROLA	MC14066BCP	-
M15	280032	DECADE COUNTER/DIV.	MOTOROLA	MC14017BCP	-
M16	280025	QUAD ANALOG SWITCH	MOTOROLA	MC14066BCP	-
M17	280124	HEX D-TYPE FLIP-FLOP	MULLARD	HEF40174P	-
M18	280122	TRIPLE 3 I/P OR	MOTOROLA	MC14075BCP	2
M19	260050	412 DUAL FET I/P OP AMP	NATIONAL	LF412CN	-
M20	280023	QUAD 2 I/P NOR	MOTOROLA	MC14001UBCP	3
M21	260075	2903 DUAL COMPARATOR	NATIONAL	LM2903N	-
M22	290135	HV TRANSISTOR ARRAY	PLESSEY	SL3183	1
M23	280023	QUAD 2 I/P NOR	MOTOROLA	MC14001UBCP	-
M24	260027	714 OP AMP	FAIRCHILD	μA714 HC	1
M25	280035	BCD/DECIMAL DECODER	MOTOROLA	MC14028BCP	1
M26	280023	QUAD 2 I/P NOR	MOTOROLA	MC14001UBCP	-
M27	280122	TRIPLE 3 I/P OR	MOTOROLA	MC14075BCP	-

NOTES.

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DATE		datron ELECTRONICS LTD	
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
M28	290090	7X DARLINGTON DRIVER	SPRAGUE/EXAR	ULN2002A /XR2202CP	2
M29	290090	7X DARLINGTON DRIVER	SPRAGUE/EXAR	ULN2002A /XR2202CP	-
M30	280125	PHASE DETECTOR	NATIONAL	MM74C932N	1
M31	260073	411 OP AMP	NATIONAL	LF411CN	-
M32	260087	BIFET OP. AMP	MOTOROLA	MC34081P	1
RL1		NOT USED			-
RL2	330030	RELAY 4P N/O	SDS	S4-24V	5
RL3	330032	RELAY 1P2W MINIATURE	TAKAMISAWA	MZ24 HSC	1
RL4	330029	RELAY 2P2W	SDS	DS2E - DC24V	11
RL5	330029	RELAY 2P2W	SDS	DS2E - DC24V	-
RL6	330029	RELAY 2P2W	SDS	DS2E - DC24V	-
RL7	330029	RELAY 2P2W	SDS	DS2E - DC24V	-
RL8	330029	RELAY 2P2W	SDS	DS2E - DC24V	-
RL9	330030	RELAY 4P N/O	SDS	S4-24V	-
RL10	330030	RELAY 4P N/O	SDS	S4-24V	-
RL11	330031	RELAY 2P N/O 2P N/C	SDS	S2-24V	1
RL12	330012-2	RELAY REED 1A GUARDED	HAMLIN	HE721A5134	1
RL13	330029	RELAY 2P2W	SDS	DS2E - DC24V	-
RL14	330029	RELAY 2P2W	SDS	DS2E - DC24V	-
RL15	330029	RELAY 2P2W	SDS	DS2E - DC24V	-

NOTES.

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
RL16	330029	RELAY 2P2W	SDS	DS2E-DC24V	-
RL17	330029	RELAY 2P2W	SDS	DS2E-DC24V	-
RL18	330030	RELAY 4P N/O	SDS	S4-24V	-
RL19	330030	RELAY 4P N/O	SDS	S4-24V	-
RL20	330029	RELAY 2P2W	SDS	DS2E-DC24V	-
L1	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	6
L2	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
L3	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
L4	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
L5		NOT USED			-
L6	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
L7	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
F1	920120	FUSE 1A 125V 7mm	LITTLEFUSE	275 001	2
F2	920120	FUSE 1A 125V 7mm	LITTLEFUSE	275 001	-
	410172-11	PCB - AC			1
	400639-1	ATTENUATOR/CAGE ASSY	DATRON		1

NOTES.

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DATE	datron ELECTRONICS LTD	
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	450442-1	HEATSINK			1
	540002	22 SWG B.T.C. WIRE			A/R
	512999	7/2 PTFE WIRE			A/R
	560002	7/34AWG CO-AX			A/R
	590007	LACING CORD		MW/062 BLACK	A/R
	590031	HEATSHRINK SLEEVE 32mm	HELLERMANN ELECTRIC		A/R
	590032	HEATSHRINK SLEEVE 48mm	" "		A/R
	604056	4WAY .1" PCB PLUG GD PL	MOLEX	22-10-2041	10
	605059/A	8WAY DIL SOCKET	COMWAY ELECT.	ICN-083-53T	12
	605060/A	14WAY DIL SOCKET	COMWAY ELECT.	ICN-143-53T	12
	605061/A	16WAY DIL SOCKET	COMWAY ELECT	ICN-163-53T	8
LKA, LKB.	605127	2WAY .1" SHORTING SKT.	ASSMANN	AKSPL-G	2
	611012	M3x12mm POZI-CSK STEEL	ZN PL		3
	611004	M3x6mm POZIPAN STEEL	ZN PL		2
	612030-1	M3x14mm STANDOFF	DATRON	SEE DRG 612***	1
	612026-1	M3x6mm STANDOFF	DATRON	SEE DRG 612***	1
	614001	M3 CLEAR x 4mm STANDOFF	DATRON		3
	613005	M3 INT SHAKEPROOF	ZN PL		1
	613029	M3 WAVY WASHER S.S.			1
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	44
	630024	STEATITE BEAD 16SWG	PARK ROYAL PORCELAIN	Nº 2 (LARGE)	24

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

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DATE																				
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	630036	STEATITE BEAD 18 SWG	PARK ROYAL PORCELAIN	Nº 1	10
	630121	PCB EJECTOR GREEN	RICHCO	CBE	2
	450424-1	TOP GUARD SHIELD			1
	450425-1	BOTTOM GUARD SHIELD			1
	900003	HEATSINK COMPOUND	RS	544-311	A/R
	590001	SLEEVE Ø3.0 MAX.	HELLERMANN ELECTRIC	H15 X 20mm BLK. HELSYN	2
	590004	SLEEVE Ø1.0 PTFE	HELLERMANN ELECTRIC	FE10	A/R
LKA, LKB	604046	3 WAY .1" PCB PLUG GD.PL.	MOLEX	22-10-2031	2
	620003	SOLDER PIN	HARWIN	H2105A01	3

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.												
ECO												
DATE												
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DATE	2.7.84	datron ELECTRONICS LTD	
DRAWN		TITLE	
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DATE		400447	SHEET 23 OF 23

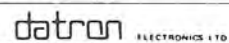
DRAWING No. 400555		CHK'D	DATE		ECO		REVISION		ISSUE		
		B-0	1958	4-7-85	MD						
		B-1	1957	1-8-85	MP						
		B-2	1969	1-8-85	MP						
		B-3	2069	28.11.85	MP						
		B-3	2138	5.2.86	MP						
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION								
COMP. LAYOUT.	480555	1	B-0	B-0	B-1	B-1	B-2	B-2	B-3	B-3	B-3
COMP. LAYOUT.	480555	2	B-0	B-1	B-2	B-2	B-3	B-3	B-3	B-3	B-3
SCHEMATIC	430555	1	B-0	B-0	B-1	B-1	B-2	B-2	B-3	B-3	B-3
SCHEMATIC	430555	2	B-0	B-1	B-2	B-2	B-3	B-3	B-3	B-3	B-3
FUNCTIONAL TEST PROC.	460555/FT	1-5	B-0	B-0	B-1	B-1	B-2	B-2	B-3	B-3	B-3
FUNCT. TEST TCK LIST.	470555/FT	1-2	B-0	B-0	B-1	B-1	B-2	B-2	B-3	B-3	B-3
NOTES					DRN B. JACKSON DATE 4-7-85	CHK'D MSJ DATE 18.7.85	APP'D ST DATE 21.7.85	TITLE 4200 I PCB ASSEMBLY	DRAWING No. 400555 SHEET 1 of 13		

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	008037	OR18 10% 2 1/2 W WIRE WOUND	WELWYN	W21	1
R2	000820	B2R 5% 1/4 W CARBON	MULLARD	CR25	1
R3	000821	B2DR 5% 1/4 W CARBON	MULLARD	CR25	1
R4	NOT USED				-
R5	000688	GRB 5% 1/4 W CARBON	MULLARD	CR25	1
R6	000103	10K 5% 1/4 W CARBON	MULLARD	CR25	3
R7	000103	10K 5% 1/4 W CARBON	MULLARD	CR25	-
R8	080084	20R00 0.1% 3ppm M FOIL	VISHAY	S102C	1
R9	080085	200R0 0.1% 3ppm M FOIL	VISHAY	S102C	1
R10	067502	5K POT 20 TURN CERMET	BECKMAN	68X	1
R11	000101	100R 5% 1/4 W CARBON	MULLARD	CR25	8
R12	000101	100R 5% 1/4 W CARBON	MULLARD	CR25	-
R13	000393	39K 5% 1/4 W CARBON	MULLARD	CR25	2
R14	000104	100K 5% 1/4 W CARBON	MULLARD	CR25	3
R15	000101	100R 5% 1/4 W CARBON	MULLARD	CR25	-
R16	000101	100R 5% 1/4 W CARBON	MULLARD	CR25	-
R17	000104	100K 5% 1/4 W CARBON	MULLARD	CR25	-
R18	012001	2K00 1% 1/8 W 50ppm MF	HOLCO	H8C	2
R19	012001	2K00 1% 1/8 W 50ppm MF	HOLCO	H8C	-
R20	011302	13K0 1% 1/8 W 50ppm MF	HOLCO	H8C	2
R21	011302	13K0 1% 1/8 W 50ppm MF	HOLCO	H8C	-
R22	000393	39K 5% 1/4 W CARBON	MULLARD	CR25	-
R23	067202	2K POT 20TURN CERMET	BECKMAN	68X	1

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4	4	5	6	7	8
ECO	RELEASED	1767	1754	1789	1801	1822	1831	1842	1873
DATE	2.11.84	22.11.84	4.12.84	7.12.84	3.1.85	23.1.85	4.2.85	19.2.85	18.3.85
CHK'D	MD	MD	MD	MP	MP	MP	MP	MP	MP

DATE	12 9 84	
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CHEF	30/10/84	
APPROVED	ST	
DATE	2-11-84	TITLE 4200 I PCB ASSEMBLY. DRAWING NUMBER 400555 SHEET 2 OF 13

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
R24	NOT USED				
R25	NOT USED				
R26	011001	1K00 1% 1/8W 50ppm MF	HOLCO	H8C	2
R27	012670	267R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R28	011001	1K00 1% 1/8W 50ppm MF	HOLCO	H8C	-
R29	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R30	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R31	066200	20R POT 3/8 SQ. VERT CERMET	BECKMAN	72XW	1
R32	000472	4K7 5% 1/4W CARBON	MULLARD	CR25	1
R33	000103	10K 5% 1/4W CARBON	MULLARD	CR25	-
R34	000102	1K 5% 1/4W CARBON	MULLARD	CR25	3
R35	000102	1K 5% 1/4W CARBON	MULLARD	CR25	-
R36	NOT USED				-
R37	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R38	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R39	013401	3K40 1% 1/8W 50ppm MF	HOLCO	H8C	1
R40	012002	20K0 1% 1/8W 50ppm MF	HOLCO	H8C	1
R41	000104	100K 5% 1/4W CARBON	MULLARD	CR25	-
R42		NOT USED			-
R43	080083	2K000 .01% 3ppm M. FOIL	VISHAY	S102C	1
R44		NOT USED			-
R45	080082	20K000 .01% 3ppm M. FOIL	VISHAY	S102C	2
R46	080083	2K 000 .01% 3ppm M. FOIL	VISHAY	S102C	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

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DATE 12.9.84	<b>datron</b> ELECTRONICS LTD	
DRAWN	TITLE 4200 I PCB ASSEMBLY	
CHECKED	30/10	
APPROVED	DRAWING NUMBER 400555	SHEET OF 3 OF 13
DATE		

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
R47	080082	20K000 .01% 3ppm M. FOIL	VISHAY	S102C	-
R48	080083	2 K000 .01% 3ppm M. FOIL	VISHAY	S102C	-
R49	000100	10R 5% 1/4W CARBON	MULLARD	CR25	2
R50	000100	10R 5% 1/4W CARBON	MULLARD	CR25	-
R51	000105	1M 5% 1/4W CARBON	MULLARD	CR25	1
R52	000153	15K 5% 1/4W CARBON	MULLARD	CR25	1
R53 TO R58	NOT USED				-
R59	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R60 TO R78	NOT USED				-
R79	080081-1	10R00 0.1% M FOIL	VISHAY	SEE DRAWING	1
R80	080022-1	OR100 1% M FOIL		SEE DRAWING	1
R81	000471	470R 5% 1/4W CARBON	MULLARD	CR25	1
R82	071825	18M2 1% 1/2W 100ppm CF	ALLEN BRADLEY	CC	2
R83	071825	18M2 1% 1/2W 100ppm CF	ALLEN BRADLEY	CC	-
R84		NOT USED			-
R85	000222	2K2 5% 1/4W CARBON	MULLARD	CR25	1
R86	000102	1K 5% 1/4W CARBON	MULLARD	CR25	-
AN1	090096	1MX8 2% SIL NETWORK	BECKMAN	LOG-1-RIM	
AN2	090085	12KX8 2% DIL NETWORK	ALLEN BRADLEY	761-3-12K	1

NOTES.

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DATE 12.9.84	<b>datron</b> ELECTRONICS LTD	
DRAWN	TITLE 4200 I PCB ASSEMBLY	
CHECKED	30/10	
APPROVED	DRAWING NUMBER 400555	SHEET OF 4 OF 13
DATE		

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PABJ No.	No. USED Per Assy.
C1	104026	47nF $\pm \frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	15
C2	104026	47nF $\pm \frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C3	NOT USED				-
C4	110035	220nF 20% 63V POLYESTER	WIMA	MK52	2
C5	104026	47nF $\pm \frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C6	NOT USED				-
C7	NOT USED				-
C8	NOT USED				-
C9	NOT USED				-
C10	NOT USED				-
C11	NOT USED				-
C12	104026	47nF $\pm \frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C13	150016	1 $\mu$ F 20% 35V DIP TANT	UNION CARBIDE	K10E35	2
C14	104026	47nF $\pm \frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C15	110042	100nF 20% 63V POLYESTER	WIMA	MK52	2
C16	110042	100nF 20% 63V POLYESTER	WIMA	MK52	-
C17	110035	220nF 20% 63V POLYESTER	WIMA	MK52	-
C18	NOT USED				-
C19	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K10E25	4
C20	104026	47nF $\pm \frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C21	104026	47nF $\pm \frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C22	150004	100 $\mu$ F 20% 6V3 DIP TANT	UNION CARBIDE	K100E6V3	1
C23	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K10E25	-

NOTES.

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datron ELECTRONICS LTD	
TITLE '4200'	
I PCB ASSEMBLY	
DRAWING NUMBER	400555
SHEET	5 OF 13

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C24	104026	47nF $\pm \frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C25	104026	47nF $\pm \frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C26	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C27	104026	47nF $\pm \frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C28	150020	10 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C29	150005	2 $\mu$ F 20% 16V DIP TANT	UNION CARBIDE	K2R2E16	2
C30	150005	2 $\mu$ F 20% 16V DIP TANT	UNION CARBIDE	K2R2E16	-
C31	102100	10pF 5% 500V CER DISC	ITT	CD10	1
C32	150016	1 $\mu$ F 20% 35V DIP TANT	UNION CARBIDE	K10E35	-
C33	104026	47nF $\pm \frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C34	104026	47nF $\pm \frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C35	104026	47nF $\pm \frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C36	150021	22 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K22E25	2
C37	150021	22 $\mu$ F 20% 25V DIP TANT	UNION CARBIDE	K22E25	-
C38	104026	47nF $\pm \frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C39	104026	47nF $\pm \frac{50}{20}\%$ 50V CER DISC	SIEMENS	B37449	-
C40	NOT USED				-
C41	NOT USED				-
C42	NOT USED				-
C43	102330	33pF 5% 500V CER DISC	ITT	CD10	2
C44	102470	47pF 5% 500V CER DISC	ITT	CD10	3
C45	NOT USED				-
C46	NOT USED				-

NOTES.

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TITLE '4200'	
I PCB ASSEMBLY	
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C47	102330	33pF 5% 500V CER DISC	ITT	CD10	-
C48	102470	47pF 5% 500V CER DISC	ITT	CD10	-
C49	102470	47pF 5% 500V CER DISC	ITT	CD10	-
D1	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	3
D2	NOT USED				-
D3	210062	6V2 400mW ZENER	MULLARD	BZY88C6V2	2
D4	210062	6V2 400mW ZENER	MULLARD	BZY88C6V2	-
D5	NOT USED				-
D6	210033	3V3 400mW ZENER	MULLARD	BZY88C3V3	1
D7	213009	15V 5W ZENER	UNITRODE	TV5515	4
D8	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	3
D9	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D10	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D11	213009	15V 5W ZENER	UNITRODE	TV5515	-
D12	213009	15V 5W ZENER	UNITRODE	TV5515	-
D13	213009	15V 5W ZENER	UNITRODE	TV5515	-
D14	NOT USED.				-
D15	NOT USED.				-
D16	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	-
D17	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	-
D18	213006	5V 5W ZENER	UNITRODE	TV5505	2

NOTES.

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D19	213006	5V 5W ZENER	UNITRODE	TV5505	-
Q1	250004	Si PNP TRANSISTOR	NATIONAL	2N3906 / T092	2
Q2	230001	N-CHAN I LIM 1.4mA	TELEDYNE	J506	3
Q3	250004	Si PNP TRANSISTOR	NATIONAL	2N3906 / T092	-
Q4	230001	N-CHAN I LIM 1.4mA	TELEDYNE	J506	-
Q5	240006	Si NPN TRANSISTOR	NATIONAL	2N3904 / T092	2
Q6	230031	N-CHAN DUAL J FET	SILICONIX	U404	1
Q7	NOT USED				-
Q8	NOT USED				-
Q9	230001	N-CHAN I LIM 1.4mA	TELEDYNE	J506	-
Q10	NOT USED				-
Q11	240006	Si NPN TRANSISTOR	NATIONAL	2N3904 / T092	-

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DATE 12 9 84	<b>datron</b> ELECTRONICS LTD TITLE '4200' I PCB ASSEMBLY DRAWING NUMBER 400555 SHEET 8 OF 13
DRAWN	
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
M1	260069	411 OP AMP	NATIONAL	LF411 CH	2
M2	NOT USED				-
M3	260055	7650 OP AMP	INTERMIL	ICL7650 CPD	1
M4	260065	OP27 OP AMP	PMI	OP27FZ	2
M5		NOT USED			-
M6	280035	BCD/DECIMAL DECODER	MOTOROLA	MC14028 BCP	1
M7	260069	411 OP AMP	NATIONAL	LF411 CH	-
M8	260065	OP27 OP AMP	PMI	OP27FZ	-
M9	280045	TRIPLE 3 I/P NOR	MOTOROLA	MC14025 UBCP	1
M10		NOT USED			-
M11		NOT USED			-
M12	290090	7x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2002A / XR2202CP	2
M13		NOT USED			-
M14	290090	7x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2002A / XR2202CP	-
M15	260039	324 QUAD OP AMP	NATIONAL	LM324 N	1
M16	280023	QUAD 2 I/P NOR	MOTOROLA	MC14001 UBCP	1
M17	280017	HEX INVERTER	MOTOROLA	MC14069 UBCP	1
M18		NOT USED			-
M19		NOT USED			-
M20		NOT USED			-

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DATE 12 9 84	datron ELECTRONICS LTD	
DRAWN	TITLE 4200	
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
RL1	330028	RELAY 4 POLE LATCHING	NATIONAL	S3-L2-24V	1
RL2	330012-2	RELAY REED IA GUARDED	HAMLIN	HE721A5134	4
RL3	330012-2	RELAY REED IA GUARDED	HAMLIN	HE721A5134	-
RL4	330012-2	RELAY REED IA GUARDED	HAMLIN	HE721A5134	-
RL5	330012-2	RELAY REED IA GUARDED	HAMLIN	HE721A5134	-
RL7	NOT USED				-
RL6	NOT USED				-
RL8	330029	RELAY 2P2W	SDS	DS2E - DC24V	2
RL9	330029	RELAY 2P2W	SDS	DS2E - DC24V	-
RL10 TO RL22	NOT USED				-
RL23	330030	RELAY 4P N/O	SDS	S4-24V	1
RL24	NOT USED				-
RL25	NOT USED				-

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DATE 12 9 84	datron ELECTRONICS LTD	
DRAWN	TITLE 4200	
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APPROVED	DRAWING NUMBER 400555	SHEET OF 13 10
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
L1	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	2
L2	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
	410321- 1	I/ $\Omega$ PRINTED CIRCUIT BOARD			1
	450419 - 2	CURRENT HEATSINK			1
	512000	7/0.2 PTFE WIRE BLACK			A/R
	512222	7/0.2 PTFE WIRE RED			A/R
	512333	7/0.2 PTFE WIRE ORANGE			A/R
	512444	7/0.2 PTFE WIRE YELLOW			A/R
	512555	7/0.2 PTFE WIRE GREEN			A/R
	512666	7/0.2 PTFE WIRE BLUE			A/R
	512888	7/0.2 PTFE WIRE GREY			A/R
	540002	??SWG TINNED COPPER WIRE.			A/R
	512999	7/0.2 WHITE PTFE INSULATED WIRE			A/R
	540006	1/0.4 BLK. PTFE INS. WIRE		TO BSG210 TYPEA	A/R
	590001	SLEEVE MAX. CABLE $\phi$ 3.0	HELLERMANN ELECTRIC	H15 x 20mm BLK. HELSYN	10
	590004	SLEEVE PTFE	HELLERMANN ELECTRIC	FE 10	A/R
	590007	LACING CORD			A/R

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DRAWN <i>[Signature]</i>		
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	604033	4WAY .1"PCB PLUG GD. PL.	MOLEX	22-29-2041	2
	605052	8WAY .1" HOUSING	MOLEX	22-01-2085	1
	605059	8WAY DIL SOCKET			2
	605060	14WAY DIL SOCKET			5
	605061	16WAY DIL SOCKET			3
	605057	CRIMP TERMINAL GD. PL.	MOLEX	4803-GL	8
	611004	M3 X 6mm POZI-PAN STEEL. ZN. PL.			3
	611015	M3 X 6mm POZI-C.S.K STEEL. ZN. PL.			2
	611008	M3 X 10mm POZI-C.S.K STEEL. ZN. PL.			2
	613005	M3 INT SHAKEPROOF			2
	613029	M3 WAVEY WASHER SS			5
	615002	M3 FULL NUT STEEL ZN. PL.			4
*	618001	INSULATING BUSH TO 220.	MULLARD	56359C	2
	620001	CLOVERLEAF PTFE INSUL.	SEAELECTRO	FTE12P59	2
	620003	SOLDER PIN	HARWIN	H 2105 AOI	4
	620005	CLOVERLEAF PTFE INSUL.	SEAELECTRO	FTE 15P59	3
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C.30	1

NOTES: \* INSULATING BUSH REQUIRED ONLY WHEN VISHAY RESISTOR ALTERNATIVE USED. (R79)

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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R70	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R71	011001	1k0 1% 1/8W 50ppm MF	HOLCO	H8C	3
R72	015110	511R 1% 1/8W 50ppm MF	HOLCO	H8C	2
R73	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R74	011001	1k0 1% 1/8W 50ppm MF	HOLCO	H8C	-
R75	000473	47k 5% 1/3W CARBON	MULLARD	CR25	-
R76	000473	47k 5% 1/3W CARBON	MULLARD	CR25	-
R77		NOT USED			-
R78		NOT USED			-
R79		NOT USED			-
R80		NOT USED			-
R81		NOT USED			-
R82		NOT USED			-
R83		NOT USED			-
R84		NOT USED			-
R85		NOT USED			-
R86	000226	22M 5% 1/3W CARBON	MULLARD	CR25	2
R87	000226	22M 5% 1/3W CARBON	MULLARD	CR25	-
R88	005204	200k 2% 1/2W CARBON	ELECTROSIL	TR5	1
R89	000100	10R 5% 1/3W CARBON	MULLARD	CR25	3
R90	000102	1k 5% 1/3W CARBON	MULLARD	CR25	-
R91	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R92	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-

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DATE	25. 5. 84	datron ELECTRONICS LTD
DRAWN	L.L.	
CHECKED		TITLE
APPROVED		4200 P.A. PCB. ASSY.
DATE		DRAWING NUMBER
		400450
		SHEET OF
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R93	016190	619R 1% 1/8W 50ppm MF	HOLCO	H8C	3
R94	013320	332R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R95	012800	280R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R96	019090	909R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R97	012211	2k21 1% 1/8W 50ppm MF	HOLCO	H8C	1
R98	014421	4k42 1% 1/8W 50ppm MF	HOLCO	H8C	1
R99	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R100	000105	1M 5% 1/3W CARBON	MULLARD	CR25	1
R101	000474	470k 5% 1/3W CARBON	MULLARD	CR25	1
R102	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R103	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R104	000102	1k 5% 1/3W CARBON	MULLARD	CR25	-
R105	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R106	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R107	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R108	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	-
R109	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R110	000393	39k 5% 1/3W CARBON	MULLARD	CR25	1
R111	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	-
R112	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R113	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R114	001278	2R7 5% 1/2W CARBON	MULLARD	CR37	1
R115	011302	13k0 1% 1/8W 50ppm MF	HOLCO	H8C	2

NOTES.

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DATE	25. 5. 84	datron ELECTRONICS LTD
DRAWN	L.L.	
CHECKED		TITLE
APPROVED		4200 P.A. PCB. ASSY.
DATE		DRAWING NUMBER
		400450
		SHEET OF
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DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
D1	210100	10V 400mW ZENER	MULLARD	BZY88C10	7
D2	210047	4V7 400mW ZENER	MULLARD	BZY88C4V7	1
D3	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	28
D4	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	8
D5	214012	2V45 30ppm ZENER	FERRANTI	ZN458	1
D6	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D7	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D8	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D9	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D10	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D11	220008	L.E.D RED	PYE-TMC	S21-9165	2
D12	210100	10V 400mW ZENER	MULLARD	BZY88C10	-
D13	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D14	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D15	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D16	213012	2V0 250mW ZENER	MULLARD	BZV46-2V0	1
D17	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D18	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D19	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	-
D20	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D21	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D22	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D23	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

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DATE	25.5.84	<b>datron</b> ELECTRONICS LTD
DRAWN	IL.	
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DATE		
TITLE		4200 P.A. PCB. ASSY
DRAWING NUMBER		400450
SHEET		15
OF		23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
D24	210150	15V 400mW ZENER	MULLARD	BZY88C15	1
D25		NOT USED			
D26		NOT USED			
D27	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	-
D28	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D29	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D30	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D31	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D32	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	-
D33	213009	15V 5W ZENER	UNITRODE	TVS515	2
D34	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D35	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D36	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D37		NOT USED			
D38	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D39	210100	10V 400mW ZENER	MULLARD	BZY88C10	-
D40	210100	10V 400mW ZENER	MULLARD	BZY88C10	-
D41	211150	15V 1.3W ZENER	MULLARD	BZX61C15	1
D42	210100	10V 400mW ZENER	MULLARD	BZY88C10	-
D43	210100	10V 400mW ZENER	MULLARD	BZY88C10	-
D44	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D45	213009	15V 5W ZENER	UNITRODE	TVS515	-
D46	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	12

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

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DATE	25.5.84	<b>datron</b> ELECTRONICS LTD
DRAWN	IL.	
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DATE		
TITLE		4200 P.A. PCB. ASSY.
DRAWING NUMBER		400450
SHEET		16
OF		23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D47	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D48	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D49	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D50		NOT USED			
D51	210300	30V 400mW ZENER	MULLARD	BZY88C30	1
D52		NOT USED			
D53		NOT USED			
D54	210100	10V 400mW ZENER	MULLARD	BZY88C10	-
D55	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	-
D56	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	-
D57	213005	75V 1/2W ZENER	MOTOROLA	BZX79C75	1
D58	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D59	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D60	213019	200V 5% 1/2W ZENER	MULLARD	BZX79C200	2
D61	213019	200V 5% 1/2W ZENER	MULLARD	BZX79C200	-
D62	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D63	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D64	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D65	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D66	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D67	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D68	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-
D69	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	-

NOTES.

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DATE	25.5.84	<b>datron</b> ELECTRONICS LTD		
DRAWN	JL.		TITLE	4200 P.A. PCB. ASSY.
CHECKED			DRAWING NUMBER	400450
APPROVED			SHEET	17 OF 23
DATE				

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D70	220008	L.E.D. RED	PYE - TMC	521-9165	-
D71	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D72	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	-
D73	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	-
D74	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
Q1	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	4
Q2	230063	N-CHAN TMOS JFET	MOTOROLA	MTP2N85	2
Q3	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	6
Q4	230064	P-CHAN TMOS JFET	MOTOROLA	MTP2P50	2
Q5	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	-
Q6	230036	N-CHAN JFET	SILICONIX	J108	4
Q7	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	-
Q8	230064	P-CHAN TMOS JFET	MOTOROLA	MTP2P50	-
Q9	230073	N-CHAN TMOS JFET	MOTOROLA	MTP1N100	1
Q10	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	-
Q11	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	-
Q12	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	-
Q13	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	-

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS										
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DATE	25.5.84	<b>datron</b> ELECTRONICS LTD		
DRAWN	JL.		TITLE	4200 P.A. PCB. ASSY.
CHECKED			DRAWING NUMBER	400450
APPROVED			SHEET	18 OF 23
DATE				

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
Q14	230036	N-CHAN JFET	SILICONIX	J108	-
Q15		NOT USED			-
Q16		NOT USED			-
Q17	250001	Si PNP TRANSISTOR	NATIONAL	BC214 / TO18	-
Q18	230036	N-CHAN JFET	SILICONIX	J108	-
Q19	230003	N-CHAN JFET	TELEDYNE	U1899JF	4
Q20	230063	N-CHAN TMO5 JFET	MOTOROLA	MTP2N85	-
Q21	230001	N-CHAN I LIM 1.4 mA	SILICONIX	J506	2
Q22	240006	Si NPN TRANSISTOR	NATIONAL	2N3904 / TO18	2
Q23	250004	Si PNP TRANSISTOR	NATIONAL	2N3906 / TO18	1
Q24	230001	N-CHAN I LIM 1.4 mA	SILICONIX	J506	-
Q25	230003	N-CHAN JFET	TELEDYNE	U1899JF	-
Q26	230003	N-CHAN JFET	TELEDYNE	U1899JF	-
Q27	250009	Si PNP TRANSISTOR	NATIONAL	2N5401 / TO18	3
Q28	250009	Si PNP TRANSISTOR	NATIONAL	2N5401 / TO18	-
Q29	240009	Si NPN TRANSISTOR	NATIONAL	MPSL01/2N5550 TO18	2
Q30	240006	Si NPN TRANSISTOR	NATIONAL	2N3904 / TO18	-
Q31	250009	Si PNP TRANSISTOR	NATIONAL	2N5401 / TO18	-
Q32	240030	Si NPN TRANSISTOR	MOTOROLA	BD389	1
Q33	250019	Si PNP TRANSISTOR	MOTOROLA	BD390	1
Q34	240009	Si NPN TRANSISTOR	NATIONAL	MPSL01/2N5550 TO18	-
Q35	230003	N-CHAN JFET	TELEDYNE	U1899JF	-
Q36	250001	Si PNP TRANSISTOR	NATIONAL	BC214 / TO18	-

NOTES.

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ISS																				
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DATE	25. 5. 84	datron ELECTRONICS LTD	
DRAWN	IL	TITLE	
CHECKED		4200 P.A. PCB. ASSY.	
APPROVED		DRAWING NUMBER	400450
DATE		SHEET	19 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
Q37	230036	N-CHAN JFET	SILICONIX	J108	-
M1	290077	7x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2004A / XR2204CP	1
M2	260049	319 DUAL COMPARATOR	NATIONAL	LM319N	1
M3	260039	324 QUAD OP AMP	NATIONAL	LM324N	1
M4	260043	358 DUAL OP AMP	NATIONAL	LM358N	1
M5	280011	DUAL D FLIP-FLOP	MOTOROLA	MC14013 BCP	1
M6	280008	QUAD 2 I/P NAND	MOTOROLA	MC14011 BCP	1
M7	280090	DUAL BINARY DECODER	MOTOROLA	MC14555BCP	1
M8	260074	LH0032C FAST FET OP AMP	NATIONAL	LH0032CG	1
M9	280045	TRIPLE 3 I/P NOR	MOTOROLA	MC14025BCP	1
M10	260027	714 OP AMP	FAIRCHILD	μA714 HC	2
M11	280009	HEX INVERTER	MOTOROLA	MC14049 UBCP	1
M12	280023	QUAD 2 I/P NOR	MOTOROLA	MC14001 UBCP	1
M13	290089	7x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2003A / XR2203CP	1
M14		NOT USED			-
M15	260046	2525 OP AMP	HARRIS	HA325 25-5	2
M16	220018	Hi-SPEED OPTO ISOLATOR	HP	6N136	1
M17	260027	714 OP AMP	FAIRCHILD	μA714HC	-
M18	260042	5532 DUAL OP AMP	SIGNETICS	NE 5532N	1

NOTES.

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DATE	25. 5. 84	datron ELECTRONICS LTD	
DRAWN	IL	TITLE	
CHECKED		4200 P.A. PCB. ASSY.	
APPROVED		DRAWING NUMBER	400450
DATE		SHEET	20 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
M19	260046	2525 OP AMP	HARRIS	HA 32525-5	-
M20	260028	1458 DUAL OP AMP	FAIRCHILD	$\mu$ A1458CTC	1
M21	260079	12V 1A REGULATOR	NATIONAL	LM78L12	1
M22	260075	2903 DUAL COMPARATOR	NATIONAL	LM2903N	2
M23	260075	2903 DUAL COMPARATOR	NATIONAL	LM2903N	-
RL1	330029	RELAY 2P 2W	SDS	DS2E-DC24V	7
RL2	330029	RELAY 2P 2W	SDS	DS2E-DC24V	-
RL3	330029	RELAY 2P 2W	SDS	DS2E-DC24V	-
RL4	330029	RELAY 2P 2W	SDS	DS2E-DC24V	-
RL5	330029	RELAY 2P 2W	SDS	DS2E-DC24V	-
RL6	330029	RELAY 2P 2W	SDS	DS2E-DC24V	-
RL7	330029	RELAY 2P 2W	SDS	DS2E-DC24V	-
L1	370025	2 $\mu$ H 665mA CHOKE	SIGMA	SC30	2
L2	370025	2 $\mu$ H 665mA CHOKE	SIGMA	SC30	-
L3	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	5
L4	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
L5	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
L6	370007-1	40mH CHOKE	SIGA		1
L7	370012	470nH 0.1 $\Omega$ RF CHOKE	SIGMA	SC10	2
L8	370012	470nH 0.1 $\Omega$ RF CHOKE	SIGMA	SC10	-

NOTES.

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DATE	25.5.84	datron ELECTRONICS LTD
DRAWN	L.	
CHECKED		TITLE
APPROVED		4200 P.A. PCB. ASSY.
DATE		DRAWING NUMBER
		400450
		SHEET
		21 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
L9	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
L10	370001	10 $\mu$ H 0.85 $\Omega$ RF CHOKE	PLESSEY	58/10/0011/10	-
LPI	920148	NEON 200/250V T1/4 BI-PIN	RS	586-431	2
LP2	920148	NEON 200/250V T1/4 BI-PIN	RS	586-431	-
	410253-5	PCB			1
	540002	22SWG B.T.C. WIRE			A/R
J1-J5	604046	3-WAY .1" PCB PLUG GD.PL.	MOLEX	22-10-2031	1
	604033	4-WAY .1" PCB PLUG GD.PL.	MOLEX	22-29-2041	10
	605059/A	8-WAY DIL SOCKET			8
	605060/A	14-WAY DIL SOCKET			6
	605061/A	16-WAY DIL SOCKET			4
	611006	M3x10mm POZI-PAN STEEL	ZN.PL.		2
	611016	M3x8mm POZI-PAN STEEL	ZN.PL.		2
	613005	M3 INT. SHAKEPROOF	ZN.PL.		3
	613007	M3 WASHER STEEL	ZN.PL.		1
	615002	M3 FULL NUT STEEL	ZN.PL.		4
	618001	INSULATING BUSH TO-220	MULLARD	56359C	1
	613029	M3 WAVY WASHER			1
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	27

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS																				
E C O																				
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CHKD																				


DATE	25.5.84	datron ELECTRONICS LTD
DRAWN	L.	
CHECKED		TITLE
APPROVED		4200 P.A. PCB. ASSY.
DATE		DRAWING NUMBER
		400450
		SHEET
		22 OF 23


DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	630024	STEATITE BEAD 16 SWG	PARK ROYAL PORCELAIN	Nº 2	52
	630123	PCB EJECTOR - VIOLET	RICHCO	CBE	2
SI	700081	SWITCH 1P 2POS <sup>M</sup> SLIDE	ALCO	SL5-121-PC	1
	920091-1	HEATSINK TO-220	SEE DRG		1
	920151	HEATSINK TO-202 SLIP CLIP	THERMALLOY	6046 PB	2
	920152	HEATSINK TO-220	AAVID	5425B - TT	1
	920153	HEATSINK TO-220	ASSMAN	V4330	1
	590004	SLEEVING PTFE $\phi$ 1.0			A/R
	618004	MOUNTING PAD TO18	JERMYN	TO18-008D	1
	618010	SIL PAD TO-220			1
	605124	10-WAY SOCKET STRIP	AUGAT	510-AG91D	1-33
	920149	HEATSINK TO8	SOURIAU	TXBF 2-050-033B	1

NOTES.

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ISS.																				
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DATE																				
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DATE	25. 5. 84	
DRAWN	IL	
CHECKED		TITLE
APPROVED		4200 P.A. PCB. ASSY
DATE		DRAWING NUMBER
		400450
		SHEET
		23 OF 23

DRAWING No. 400561		CHK'D																
		DATE	2.0 1958 4-7-85															
		ECO	2.1 2034 14-10-85															
		REVISION																
		ISSUE																
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION															
COMP LAYOUT.	480561	1	2.0	2.1														
SCHEMATIC	430561	1	2.0															
FUNCTIONAL TEST PROC.	460561/FT	1-3	2.0															
FUNCT. TEST TICK LIST	470561/FT	1	2.0															
NOTES			 DRN B. JACKSON INSTRUMENTS NORWICH ENGLAND DATE 4-7-85 CHK'D MSD DATE 10.7.85 APPROVED [Signature] DATE 23.7.85 TITLE 4200 OUT GUARD PSU ASSY DRAWING No. 400561 SHEET 1 of 5															

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	008024	OR27 10% 2 1/2 W WIREWOUND	WELWYN	W21	1
R2	000330	33R 5% 1/3 W CARBON	MULLARD	CR25	1
R3	000102	1K 5% 1/3 W CARBON	MULLARD	CR25	3
R4	000182	1k8 5% 1/3 W CARBON	MULLARD	CR25	1
R5	013922	39k2 1% 1/8 W 50ppm MF	HOLCO	H8C	1
R6	013742	37k4 1% 1/8 W 50ppm MF	HOLCO	H8C	1
R7	090001	PTC THERMISTOR	MULLARD	VA8650	1
R8	000470	47R 5% 1/3 W CARBON	MULLARD	CR25	2
R9	000470	47R 5% 1/3 W CARBON	MULLARD	CR25	-
R10	011003	100k 1% 1/8 W 50ppm MF	HOLCO	H8C	2
R11	011003	100k 1% 1/8 W 50ppm MF	HOLCO	H8C	-
R12	066205	2M POT 3/8 SQ VERT.CERMET	BECKMAN	72XW	1
R13	001184	180k 5% 1/2 W CARBON	MULLARD	CR37	1
R14	000102	1k 5% 1/3 W CARBON	MULLARD	CR25	-
R15	000102	1k 5% 1/3 W CARBON	MULLARD	CR25	-
R16	000221	220R 5% 1/3 W CARBON	MULLARD	CR25	2
R17	008022	OR27 10% 1/2 W MF	ITT	RN05	2
R18	008022	OR27 10% 1/2 W MF	ITT	RN05	-
R19	000104	100k 5% 1/3 W CARBON	MULLARD	CR25	1
R20	000221	220R 5% 1/3 W CARBON	MULLARD	CR25	-

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1																		
ECO																			
DATE	3.1.84																		
CHKD.	MD																		

DATE	29.2.84	 ELECTRONICS LTD	
DRAWN	IL		
CHECKED	[Signature]	TITLE	4200 PS (0G) PCB ASSY
APPROVED	[Signature]	DRAWING NUMBER	400561
DATE	6.3.84	SHEET	2 OF 5

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C1		NOT USED			-
C2	150006	4 $\mu$ 7F 20% 16V DIP TANT	UNION CARBIDE	K4R7E16	1
C3		NOT USED			-
C4	150017	100 $\mu$ F 20% 16V DIP TANT	UNION CARBIDE	K100E16	1
C5	180004	4700 $\mu$ F 16V AL. ELECT	WIMA	PRINTILYT 1	1
C6	101103	10nF 25% 250V CER DISC	ITT	CD10	1
C7	180026	10 $\mu$ F 350V AL. ELECT	ITT	EN12.12 10/350	1
C8	104030	100pF 10% 4kV CER DISC	ITT	HD16	1
C9	102222	2n2F 20% 500V CER DISC	ITT	CD10	1
C10	110005	10nF 20% 250V POLYESTER	MULLARD	C280AEP10K	1
D1	200022	3A 400V GP Si DIODE	MOTOROLA	BY252	2
D2	200022	3A 400V GP Si DIODE	MOTOROLA	BY252	-
D3	210027	2V7 400mW ZENER	MULLARD	BZY88C2V7	1
D4	214012	2V45 30ppm ZENER	FERRANTI	ZN458	1
D5	213006	5V 5W ZENER	UNITRODE	TV5505	1
D6	210068	6V8 400mW ZENER	MULLARD	BZY88C6V8	1
D7	213004	180V 1/2 W ZENER	MOTOROLA	IN5279B	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS	E.C.D.	DATE	CHKD.

DATE	29.2.84	datron ELECTRONICS LTD
DRAWN	IL.	
CHECKED		TITLE
APPROVED		4200 PS(OG) PCB ASSY
DATE		DRAWING NUMBER 400561
		3 SHEET OF 5

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
W1	209013	1A5 600V BRIDGE RECT	MICRO-ELECTRONICS	W006	1
Q1	250011	Si PNP TRANSISTOR	NATIONAL	BC327/TO18	1
Q2	240024	Si NPN TRANSISTOR	NATIONAL	TIP31A	1
Q3	240018	Si NPN TRANSISTOR	MOTOROLA	MJE340	2
Q4	240018	Si NPN TRANSISTOR	MOTOROLA	MJE340	-
Q5	250016	Si PNP TRANSISTOR	MOTOROLA	MJ2955	2
Q6	250016	Si PNP TRANSISTOR	MOTOROLA	MJ2955	-
MI	260061	3140 OP AMP	RCA	CA3140E	1
	410179-G	PCB			1
	604042	4WAY WAFER PIN .156"	MOLEX	09-72-2041	2
	605059/A	8WAY DIL SOCKET			1
	611006	M3x10mm POZIPAN STEEL	ZN PL		6
	611004	M3x6mm POZIPAN STEEL	ZN PL		1
	613005	M3 INT. SHAKEPROOF	ZN PL		7
	613007	M3 WASHER STEEL	ZN PL		6
	615002	M3 FULL NUT STEEL	ZN PL		7
	618004	MOUNTING PAD TO18	JERMYN	TO18-008D	1
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	9
	630024	STEATITE BEAD 16 SWG	PARK ROYAL PORCELAIN	Np 2 (LARGE)	6
	900003	HEATSINK COMPOUND	RS	554-311	A/R
	900004	SILICONE RUBBER COMPOUND	RS	555-588	A/R

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS	E.C.D.	DATE	CHKD.


DATE	29.2.84	datron ELECTRONICS LTD
DRAWN	IL.	
CHECKED		TITLE
APPROVED		4200 PS (OG) PCB ASSY
DATE		DRAWING NUMBER 400561
		4 SHEET OF 5

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	920088-1	HEATSINK T0-3	SEE DRG		2
	920126	FUSE HOLDER 20mm PCB	BELLING LEE	L1426	1
FI	920128	FUSE 4A 250V 20mm SLO-B	BELLING LEE	L2080A/4	1
	920144	HEATSINK T0-220	REDPOINT	TV1500	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.															
E.C.O.															
DATE															
CHKD.															

DATE 29.2.84	 <b>4200 PS OG PCB ASSY</b> DRAWING NUMBER <b>400561</b>	SHEET 5 of 5
DRAWN <u>L.</u>		
CHECKED		
APPROVED		
DATE		





















DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	410245-4	PCB			1
	450454-1	HEATSINK 64mm			1
	450455-1	HEATSINK 91mm			1
	420080-1	HIGH VOLTAGE LABEL			2
	510000	7/2 PVC INSULATED (BLK) WIRE			A/R
	510111	7/2 PVC INSULATED (BRN) WIRE			A/R
	510222	7/2 PVC INSULATED (RED) WIRE			A/R
	510444	7/2 PVC INSULATED (YEL) WIRE			A/R
	510555	7/2 PVC INSULATED (GRN) WIRE			A/R
	510666	7/2 PVC INSULATED (BLUE) WIRE			A/R
	510777	7/2 PVC INSULATED (VIO) WIRE			A/R
	510888	7/2 PVC INSULATED (GREY) WIRE			A/R
	510999	7/2 PVC INSULATED (WHITE) WIRE			A/R
	510333	7/2 PVC INSULATED (OR) WIRE			A/R
	560001	2 CORE 7/2 BRAIDED SCN. CABLE			•22M
	590001	SLEEVE MAX CABLE $\phi$ 3.0	HELLERMANN ELECTRIC	H15 x 20mm BLACK HELSYN	6
	590003	HEATSHRINK SLEEVE $\phi$ 6.4	RS OR HELLERMANN	399-524 OR LVR64	40mm
	590002	SLEEVE MAX CABLE $\phi$ 6.0	HELLERMANN ELECTRIC	H30 x 25mm BLACK HELSYN	2
J1	605052	8 WAY •1" HOUSING	MOLEX	22-01-2085	1
	605057	CRIMP TERMINAL GD. PL.	MOLEX	4809-G1	12
	605118-1	SOCKET $\phi$ 1.02	CAMBION	SEE DRAWING A4	8
	611006	M3 x 10mm POZIPAN STEEL	ZN PL		10
	611027	M3 x 20mm POZIPAN STEEL	ZN PL		2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS																				
E.C.O.																				
DATE																				
CHKD																				

DATE	22.2.84	datron ELECTRONICS LTD
DRAWN	IL.	
CHECKED		TITLE
APPROVED		4200.PA. (POS) H/S ASSY
DATE		DRAWING NUMBER
		400538
		SHEET
		5 OF 6


DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	612004-1	M3 x 4mm STANDOFF	HARWIN	CS2116/B	8
	613029	M3 WAVY WASHER SS			14
	613007	M3 WASHER STEEL ZN.PL.			2
	615002	M3 FULL NUT STEEL ZN PL.			2
	620003	SOLDER PIN	HARWIN	H2105A01	12
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	4
	630024	STEATITE BEAD 16 SWG	PARK ROYAL PORCELAIN	Nº2	2
	630126	'P' CLIP $\phi$ 7.9mm	RICHCO	N5	1
	613017	M3 WASHER NYLON			1
	900003	HEATSINK COMPOUND	RS	554-311	A/R
FBI	920145	FERROXCUBE BEAD	MULLARD	FX4026	1
	590033	SLEEVE. MAX CABLE $\phi$ 10	HELLERMANN ELECTRIC	H50 x 25mm BLK. HELSYN	2
	590006	$\phi$ 2.4 HEATSHRINK SLEEVE			A/R
	590060	0.5mm I/D PTFE SLEEVE	HELLERMANN	FE051	A/R
J3	605053	12-WAY •1" HOUSING	MOLEX	22-01-2125	1
	900012	EPOXY ADHESIVE	ARALDITE	100	A/R
	614001	M3 CLEAR x 4mm STANDOFF	HARWIN	CS2117B	4
	540002	22 SWG B.T.C. WIRE			A/R

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS																				
E.C.O.																				
DATE																				
CHKD																				

DATE	22.2.84	datron ELECTRONICS LTD
DRAWN	IL.	
CHECKED		TITLE
APPROVED		4200.PA (POS) H/S ASSY
DATE		DRAWING NUMBER
		400538
		SHEET
		6 OF 6


DRAWING No. <b>400539</b>		CHK'D <b>MD</b>																			
DATE <b>15.11.85</b>		DATE <b>15.11.85</b>																			
ECO <b>7.1.2056</b>		DATE <b>7.1.2056</b>																			
REVISION		DATE <b>7.1.2118</b>																			
ISSUE		DATE <b>29.1.86</b>																			
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION																		
COMPONENT LAYOUT	480539	1	7.0	7.1																	
SCHEMATIC	430539	1	7.0	7.1	7.2																
FUNCTIONAL TEST PROC	460539/FT	1-2	7.0																		
FUNC. TEST TICK LIST	470539/FT	1	7.0																		
NOTES				DRH <b>L</b>	CHK'D <b>MD</b>	APPD	TITLE	DRAWING No.													
		<small>INSTRUMENTS NORWICH ENGLAND</small>		DATE <b>10.7.85</b>	DATE <b>12.7.85</b>	DATE	<b>4200 PA (NEG) H/S ASSY.</b>	<b>400539</b> SHEET 1 of 6													

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1		NOT USED			-
R2	008057	22k 5% 3W WW RES	WELWYN	W23	-
R3	000101	100R 5% 1/3W CF RES	MULLARD	CR25	3
R4	000101	100R 5% 1/3W CF RES	MULLARD	CR25	-
R5	000681	680R 5% 1/3W CF RES	MULLARD	CR25	2
R6	008055	2R2 1% 1/2W MET-GLAZE	NEOHM	RGPO207	4
R7	008055	2R2 1% 1/2W MET-GLAZE	NEOHM	RGPO207	-
R8	000681	680R 5% 1/3W CF RES	MULLARD	CR25	-
R9	090135	10k NTC THERMISTOR	FENWAL	UUA41J1	2
R10	090135	10k NTC THERMISTOR	FENWAL	UUA41J1	-
R11	008055	2R2 1% 1/2W MET-GLAZE	NEOHM	RGPO207	-
R12	012743	274k 1% 1/8W 50ppm MF	HOLCO	H8C	4
R13	012743	274k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R14	008055	2R2 1% 1/2W MET-GLAZE	NEOHM	RGPO207	-
R15	008021	0R47 5% 2.5W WW RES	WELWYN	W21	1
R16	000101	100R 5% 1/3W CF RES	MULLARD	CR25	-
R17	012743	274k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R18	012743	274k 1% 1/8W 50ppm MF	HOLCO	H8C	-
C1	110043	10nF 20% 630V POLYESTER	WIMA	MKS4	4
C2	110043	10nF 20% 630V POLYESTER	WIMA	MKS4	-
C3	110043	10nF 20% 630V POLYESTER	WIMA	MKS4	-
C4	110043	10nF 20% 630V POLYESTER	WIMA	MKS4	-

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4	5	6	7				
E.C.O.	-	1069	1717	1741	1777	1817	1869				
DATE	29.5.84	24.7.84	4.10.84	25.10.84	28.11.84	14.1.85	19.4.85				
CHK'D	MD	MD	MD	MD	MD	MD	MD				

DATE	<b>22.2.84</b>		
DRAWN	<b>L</b>	TITLE	
CHECKED	<b>MD</b>	<b>4200. PA (NEG) H/S ASSY</b>	
APPROVED	<b>MD</b>	DRAWING NUMBER	<b>400539</b>
DATE	<b>29.5.84</b>	SHEET	<b>2</b> OF <b>6</b>

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C5	110053	47nF 10% 630V POLYESTER	WIMA	MKS4	4
C6	110053	47nF 10% 630V POLYESTER	WIMA	MKS4	-
C7	110053	47nF 10% 630V POLYESTER	WIMA	MKS4	-
C8	110053	47nF 10% 630V POLYESTER	WIMA	MKS4	-

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS									
E.C.O.									
DATE									
CHKD.									

DATE	15.11.85	datron ELECTRONICS LTD	
DRAWN	J.L.		
CHECKED		TITLE	4200. PA.(NEG) H/S ASSY.
APPROVED		DRAWING NUMBER	400539
DATE			3 SHEET OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D1	213019	200V 5% 1/2W ZENER	MULLARD	BZX79C200	6
D2	213019	200V 5% 1/2W ZENER	MULLARD	BZX79C200	-
D3	213019	200V 5% 1/2W ZENER	MULLARD	BZX79C200	-
D4	213019	200V 5% 1/2W ZENER	MULLARD	BZX79C200	-
D5	213019	200V 5% 1/2W ZENER	MULLARD	BZX79C200	-
D6	213019	200V 5% 1/2W ZENER	MULLARD	BZX79C200	-
D7	210100	10V 400mW ZENER	MULLARD	BZY88C10	4
D8	210100	10V 400mW ZENER	MULLARD	BZY88C10	-
D9	210100	10V 400mW ZENER	MULLARD	BZY88C10	-
D10	210100	10V 400mW ZENER	MULLARD	BZY88C10	-
D11	200020	1A 1K5V FR Si DIODE	MOTOROLA	BY339	1
D12	200001	75mA 75V GP Si DIODE	FAIRCHILD	1N4148	1
Q1	239068-1	MTM2P50 MATCHED PAIR.	DATRON	SEE DRG.	2 PAIRS.
Q2					
Q3	239068-1	MTM2P50 MATCHED PAIR.	DATRON	SEE DRG.	-
Q4					
Q5	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	1
Q6	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS									
E.C.O.									
DATE									
CHKD.									

DATE	22.2.84	datron ELECTRONICS LTD	
DRAWN	J.L.		
CHECKED		TITLE	4200. PA (NEG) H/S ASSY
APPROVED		DRAWING NUMBER	400539
DATE			4 SHEET OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	410246-4	PCB			1
	420080-1	LABEL 'DANGER HIGH VOLTAGE'			2
	450454-1	HEATSINK 64mm			1
	450455-1	HEATSINK 91mm			1
	605118-1	SOCKET $\phi$ 1.02	CAMBION	SEE DRAWING. A4.	8
	590001	SLEEVE MAX. CABLE $\phi$ 3.0	HELLERMANN ELECTRIC	H15 X 20mm BLACK HELSYN	3
	590002	SLEEVE MAX. CABLE $\phi$ 6.0	HELLERMANN ELECTRIC	H15 X 25mm BLACK HELSYN	3
FB2	920145	FERROXCUBE BEAD	MULLARD	FX4026	1
J1	604033	4 WAY .1" PCB PLUG GD. PL.	MOLEX	22-29-2041	2
J2	605053	12 WAY .1" HOUSING	MOLEX	22-01-2125	1
	605057	CRIMP TERMINAL GD. PL.	MOLEX	4809-GL	5
	611006	M3 X 10mm POZIPAN STEEL	ZN PL		11
	611027	M3 X 20mm POZIPAN STEEL	ZN PL		1
	612004-1	M3 X 4mm STANDOFF	HARWIN	CS2116/B	8
	613029	M3 WAVY WASHER SS			13
	613007	M3 WASHER STEEL	ZN PL		1
	615002	M3 FULL NUT STEEL	ZN PL		1
	620003	SOLDER PIN	HARWIN	H2105A01	5
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	4
	630003	'P' CLIP $\phi$ 4.8mm	SES	CNS	1
	900003	HEATSINK COMPOUND	RS	554-311	A/R

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS																				
E.C.O.																				
DATE																				
CHKD.																				

DATE	23.2.84.	datron ELECTRONICS LTD
DRAWN	JL.	
CHECKED		TITLE
APPROVED		4200. PA (NEG) H/S ASSY
DATE		DRAWING NUMBER
		400539
		SHEET OF
		5 OF 6


DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	510222	7/2 PVC INSULATED (RED) WIRE			A/R
	510444	7/2 PVC INSULATED (YEL) WIRE			A/R
	510666	7/2 PVC INSULATED (BLUE) WIRE			A/R
	510999	7/2 PVC INSULATED (WHITE) WIRE			A/R
	510333	7/2 PVC INSULATED (OR) WIRE			A/R
	590006	$\phi$ 2.4 HEATSHRINK SLEEVE			A/R
	590060	0.5mm I/D PTFE SLEEVE	HELLERMANN	FE051	A/R
	630024	STEATITE BEAD 16SWG	PARK ROYAL PORCELAIN	Nº 2	2
	900012	EPOXY ADHESIVE	ARALDITE	100	A/R
	614001	M3 CLEAR X 4mm STANDOFF	HARWIN	CS2117B	4

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS																				
E.C.O.																				
DATE																				
CHKD.																				

DATE	22.2.84	datron ELECTRONICS LTD
DRAWN	JL.	
CHECKED		TITLE
APPROVED		4200. PA (NEG) H/S ASSY
DATE		DRAWING NUMBER
		400539
		SHEET OF
		6 OF 6

DRAWING No. 400540		CHK'D	DATE	ECO	REVISION	ISSUE																	
		6-0	1958	10.7.85	MD	6-1	2048	29.10.85	MD	6-1	2069	3.12.85	AD										
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE + REVISION																				
COMPONENT LAYOUT	480540	1	6-0	6-1																			
SCHEMATIC	430540	1	6-0																				
FUNCTIONAL TEST PROC.	460540/FT	1-5	6-0																				
FUNC. TEST TICK LIST	470540/FT	1	6-0																				
NOTES			 DRN 11- DATE 10.7.85				CHK'D 150 DATE 12.7.85		APP'D 57 DATE 21.7.85		TITLE 4200 PS/I H/S ASSY			DRAWING No. 400540 SHEET 1 OF 8									

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	000101	100R 5% 1/3W CF RES	MULLARD	CR25	2
R2	008037	OR18 10% 2-5W WW RES	WELWYN	W21	2
R3	008037	OR18 10% 2-5W WW RES	WELWYN	W21	-
R4	000101	100R 5% 1/3W CF RES	MULLARD	CR25	-
R5	008045	10K 1% 1/2W MET-GLAZE	NEOHM	RGPO207	2
R6	000102	1K 5% 1/3W CF RES	MULLARD	CR25	1
R7	000220	22R 5% 1/3W CF RES	MULLARD	CR25	1
R8	006105	1M 2% 1W MET-OX	ELECTROSIL	FPI	4
R9	014991	4k99 1% 1/8W 50ppm MF	HOLCO	H8C	2
R10	016811	6k81 1% 1/8W 50ppm MF	HOLCO	H8C	2
R11		NOT USED			-
R12	000821	820R 5% 1/3W CF RES	MULLARD	CR25	2
R13	006105	1M 2% 1W MET-OX	ELECTROSIL	FPI	-
R14	007204	200k 2% 2W MET-OX	ELECTROSIL	FP2	4
R15	011821	1k82 1% 1/8W 50ppm MF	HOLCO	H8C	2
R16	016192	61k9 1% 1/8W 50ppm MF	HOLCO	H8C	2
R17	008062	10R 1% 2 1/2W WW RES	WELWYN	W21	2
R18	006105	1M 2% 1W MET-OX	ELECTROSIL	FPI	-
R19	007204	200k 2% 2W MET-OX	ELECTROSIL	FP2	-
R20	011821	1k82 1% 1/8W 50ppm MF	HOLCO	H8C	-
R21	016192	61k9 1% 1/8W 50ppm MF	HOLCO	H8C	-
R22	006105	1M 2% 1W MET-OX	ELECTROSIL	FPI	-
R23	008062	10R 1% 2 1/2W WW RES	WELWYN	W21	-

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4	5	6				
ECO	-	1691	1731, 1740	1775, 1805	1869	1902				
DATE	29.5.84	20.8.84	18.10.84	9.1.85	19.1.85	30.1.85				
CHK'D	MD	MD	MD	MD	MD	MD				

DATE	23.2.84	datron ELECTRONICS LTD	
DRAWN	11-	TITLE	
CHECKED	DC	4200 PS/I H/S ASSY	
APPROVED	57	DRAWING NUMBER	400540
DATE	29.5.84	SHEET	2 OF 8

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R24	008045	10k 1% 1/2W MET-GLAZE	NEOHM	RGPO207	—
R25		NOT USED			—
R26	000821	820R 5% 1/3W CF RES	MULLARD	CR25	—
R27	014991	4k99 1% 1/8W 50ppm MF	HOLCO	H8C	—
R28		NOT USED			—
R29	016811	6k81 1% 1/8W 50ppm MF	HOLCO	H8C	—
R30	007204	200k 2% 2W MET-OX	ELECTROSIL	FP2	—
R31	007204	200k 2% 2W MET-OX	ELECTROSIL	FP2	—
R32	005470	47R 2% 1/2W MET-OX	ELECTROSIL	TR5	2
R33	005470	47R 2% 1/2W MET-OX	ELECTROSIL	TR5	—
R34, R35	013920	392R 1% 1/8W 50ppm MF	HOLCO	H8C	2
C1	104025	100nF $\pm 80\%$ 50V CER DISC	SIEMENS	B37449	1
C2		NOT USED			—
C3		NOT USED			—
C4		NOT USED			—
C5	180045	47μF 63V AL. ELECT.	MULLARD	031-38479	2
C6	180045	47μF 63V AL. ELECT.	MULLARD	031-38479	—
C7		NOT USED			—
C8	120033	2n2F 20% 1kV POLYCARB	WIMA	FKC3	2
C9	150006	4μ7F 20% 16V DIP TANT	UNION CARBIDE	K4R7E16	2
C10	120033	2n2F 20% 1kV POLYCARB	WIMA	FKC3	—
C11	150006	4μ7F 20% 16V DIP TANT	UNION CARBIDE	K4R7E16	—
C12		NOT USED			—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
E.C.D.														
DATE														
CHKD.														

DATE	23.2.84	datron ELECTRONICS LTD	TITLE 4200. PS/I H/S ASSY
DRAWN	JL		
CHECKED		DRAWING NUMBER	3 SHEET OF 8
APPROVED			
DATE			

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C13	104043	100pF 10% 500V CER DISC	STC	CD1OKWK100PMS55500 <sup>D5C</sup>	2
C14	104043	100pF 10% 500V CER DISC	STC	CD1OKWK100PMS55500 <sup>D5C</sup>	—
C15	150010	330nF 20% 35V DIP TANT	UNION CARBIDE	KR33E35	2
C16	150010	330nF 20% 35V DIP TANT	UNION CARBIDE	KR33E35	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
E.C.D.														
DATE														
CHKD.														

DATE	18.10.84	datron ELECTRONICS LTD	TITLE 4200. PS/I H/S ASSY.
DRAWN			
CHECKED		DRAWING NUMBER	4 SHEET OF 8
APPROVED			
DATE			

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
D1	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	2
D2	210150	15V 400mW ZENER	MULLARD	BZY88C15	4
D3	213020	30V 5% 1/2W ZENER	MULLARD	BZX79C30	2
D4	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	4
D5	213021	56V 2% 400mW ZENER	MULLARD	BZX79B56	2
D6	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	-
D7	214014	1V22 100ppm ZENER	TELEDYNE	9491BJ	2
D8	210150	15V 400mW ZENER	MULLARD	BZY88C15	-
D9	210150	15V 400mW ZENER	MULLARD	BZY88C15	-
D10	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	-
D11	213020	30V 5% 1/2W ZENER	MULLARD	BZX79C30	-
D12	213021	56V 2% 400mW ZENER	MULLARD	BZX79B56	-
D13	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	-
D14	210150	15V 400mW ZENER	MULLARD	BZY88C15	-
D15	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	-
D16	214014	1V22 100ppm ZENER	TELEDYNE	9491BJ	-
Q1	240036	Si NPN DARL. TRANSISTOR	MOTOROLA	MJ1000	1
Q2	250024	Si PNP DARL. TRANSISTOR	MOTOROLA	MJ900	1
Q3	230063	N-CHAN T.MOS JFET	MOTOROLA	MTP2N85	1
Q4	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	1
Q5	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.										
E.C.O.										
DATE										
CHKD.										

DATE 23.2.84	datron ELECTRONICS LTD
DRAWN IL.	
CHECKED	TITLE 4200. PS/I H/S ASSY
APPROVED	DRAWING NUMBER 400540
DATE	SHEET OF 8 5

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
Q6	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO92	1
Q7	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO92	2
Q8	230001	N-CHAN I LIM 1.4 mA	TELEDYNE	TCR506	2
Q9	230062	P-CHAN T.MOS JFET	MOTOROLA	MTM2P50	1
Q10	230001	N-CHAN I LIM 1.4 mA	TELEDYNE	TCR506	-
Q11	230064	P-CHAN T.MOS JFET	MOTOROLA	MTP2P50	1
Q12	230061	N-CHAN T.MOS JFET	MOTOROLA	MTM2N85 TO3	1
Q13	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	-
M1	220018	Hi-SPEED OPTO ISOLATOR	HP	6N136	2
M2	220018	Hi-SPEED OPTO ISOLATOR	HP	6N136	-
	410247-2	PCB			1
	420080-1	LABEL 'DANGER HIGH VOLTAGE'			1
	450456-1	HEATSINK			1
	510111	7/2 PVC INSULATED (BRN) WIRE	RS		A/R
	510222	7/2 PVC INSULATED (RED) WIRE	RS		A/R
	510444	7/2 PVC INSULATED (YEL) WIRE	RS		A/R
	510555	7/2 PVC INSULATED (GRN) WIRE	RS		A/R
	510666	7/2 PVC INSULATED (BLU) WIRE	RS		A/R

NOTES.


SEE SHEET 2 FOR LATEST ISSUE

ISS.										
E.C.O.										
DATE										
CHKD.										

DATE 23.2.84	datron ELECTRONICS LTD
DRAWN IL.	
CHECKED	TITLE 4200. PS/I H/S ASSY.
APPROVED	DRAWING NUMBER 400540
DATE	SHEET OF 8 6





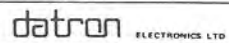
DRAWING No. 400565		CHK'D		
		DATE	4-7-85	
		ECO	4-01958	
		REVISION ISSUE	4-0	
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION	
COMP. LAYOUT.	480565	1	4-0	
SCHEMATIC	430565	1	4-0	
NOTES				
				DRN B. JACKSON DATE 4-7-85
		CHK'D MJD DATE 9.7.85		APP'D JSL DATE 22.7.85
		TITLE 4200 H.V. PCB ASSY		DRAWING No. 400565 SHEET 1 OF 3

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	000103	10k 5% 1/3W CARBON	MULLARD	CR25	1
R2	000183	18k 5% 1/3W CARBON	MULLARD	CR25	1
R3	000332	3k3 5% 1/3W CARBON	MULLARD	CR25	1
R4	000393	39k 5% 1/3W CARBON	MULLARD	CR25	1
R5	000473	47k 5% 1/3W CARBON	MULLARD	CR25	1
AN1	090130	15k x 4 2% SIL. NETWORK	BECKMAN	L08-3-R15k	1
AN2	090095	47k x 4 2% NETWORK	BECKMAN	L08-3-R47k	1
AN3	090131	10k x 4 2% SIL. NETWORK	BECKMAN	L08-3-R10k	1
AN4	090096	1M x 8 2% NETWORK	BECKMAN	L08-3-R1M	1
CI	104026	47nF $\pm 50\%$ 50V CER DISC	SIEMENS	B37449	1
DI	213009	15V 5W ZENER	UNITRODE	TVS515	1
Q1	250001	Si PNP TRANSISTOR		BC214	1
M1	290089	7x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2003A / XR2203CP	1
M2	280037	HEX BUFFER	MOTOROLA	MC14050BCP	1

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4																				
ECO		1083	1756	1708																				
DATE	18.7.84	1.8.84	8.11.84	18.12.84																				
CHKD.	M	MD	MD	MD																				

DATE	16.5.84		
DRAWN	11	TITLE	
CHECKED	R3C	4200 HV. PCB. ASSY.	
APPROVED	JSL	DRAWING NUMBER	
DATE	18.7.84	400565	SHEET 2 OF 3

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
RL1	330029	RELAY 2P2W	SDS	DS2E-DC24V	1
RL2	330033	RELAY 2P N/O 5A 2kV	SDS	JC2aDC24V	2
RL3	330033	RELAY 2P N/O 5A 2kV	SDS	JC2aDC24V	-
L1	370001	10μH 0.85Ω RF CHOKE	PLESSEY	58/10/0011/10	2
L2	370001	10μH 0.85Ω RF CHOKE	PLESSEY	58/10/0011/10	-
	410251-3A	PCB			1
	450401-1	H.V. PCB SAFETY SCREEN.			1
	540002	22 SWG TINNED CU WIRE			A/R
	604033	4WAY 1" PCB PLUG GD. PL	MOLEX	22-29-2041	7
	605061/A	16WAY DIL SOCKET			2
	611016	M3 x 8mm POZIPAN STEEL	ZN. PL.		2
	613029	M3 WAVY WASHER SS			2
	615002	M3 FULL STEEL NUT	ZINC PLATED.		2
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	2
	630024	STEATITE BEAD 16 SWG	PARK ROYAL PORCELAIN	Nº 2	2
	590004	1.0mm PTFE. SLEEVE			A/R
	613007	M3 WASHER STEEL	ZN.PL.		2

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS.															
E.C.O.															
DATE															
CHKD.															

DATE	16. 5. 84	datron ELECTRONICS LTD
DRAWN	II	
CHECKED		TITLE
APPROVED		4200 HV. PCB. ASSY.
DATE		DRAWING NUMBER
		400565
		SHEET
		3
		OF
		3



400541


DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	605136	0.093" MALE CRIMP TERM.GD.	MOLEX	02-09-6123	5
	606010	POLARISING KEY	MOLEX	15-04-0219	4
	604068	6WAY 0.093" PLUG	MOLEX	03-09-2062.	1
	611015	M3 X 8mm POZI-CSK STEEL	ZN PL		5
	611069	M5 X 8mm HEX HD STEEL			2
	613005	M3 INT SHAKEPROOF			3
	613009	4BA SOLDER TAG BRASS	TIN PL		5
	613028	M5 INT SHAKEPROOF			2
	615002	M3 FULL NUT STEEL	ZN PL		3
	700093	SWITCH 4P 2P C/O.	ARROW-HART	CTS12 BPA	1
	900009	LOCKING COMPOUND	LOCTITE	227	A/R.

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS.														
E.C.O.														
DATE														
CHKD.														

DATE	6 th MAR 84	datron ELECTRONICS LTD	
DRAWN	B. JACKSON	TITLE	4200
CHECKED		MAINS TRANSFORMER ASSY	
APPROVED		DRAWING NUMBER	400541
DATE		SHEET	3 OF 3

DRAWING No. 400458		CHK'D	DATE		ECO	REVISION	ISSUE										
			4-0   1958   3-7-85   <b>NO</b>			4-1   2072   11-12-85   <b>MS</b>											
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION														
COMP LAYOUT.	480458	1	4-0	4-1													
NOTES			 datron INSTRUMENTS NORWICH ENGLAND		DRN B.JACKSON	CHK'D MSD	APP'D <i>[Signature]</i>	TITLE 4200	DRAWING No. 400458					SHEET 1 of 3			
			DATE 3-7-85		DATE 9.7.85	DATE 23.7.84	LF TRANSFORMER ASSY										

400458.

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	300025-2	L.F TRANSFORMER	SIGA		1
	450402-2	4200 LF. TX MTG. PLATE			1
	450405-1	4200 LF. TX PLATE SUPPT. BAR.			2
	450408-1	4200 CONN. MTG. BRKT.			1
	510000	WIRE 7/.2 BLACK PVC INS.			A/R
	510111	WIRE 7/.2 BROWN PVC INS.			A/R
	510220	WIRE 7/.2 RD/BK PVC INS.			A/R
	510330	WIRE 7/.2 DE/BK PVC INS.			A/R
	510333	WIRE 7/.2 ORANGE PVC INS.			A/R
	510444	WIRE 7/.2 YELLOW PVC INS.			A/R
	510555	WIRE 7/.2 GREEN PVC INS.			A/R
	510888	WIRE 7/.2 GREY PVC INS			A/R
	510999	WIRE 7/.2 WHITE PVC INS.			A/R
	560012	1 CORE 1/D-64 CO-AX			A/R
	590003	SLEEVE HEATSHRINK Ø6.4	RS OR HELLERMANN ELECTRIC	399-524 OR LVR64	A/R
	590006	SLEEVE HEATSHRINK Ø2.4	RS OR HELLERMANN ELECTRIC	399-495 OR LVR24	A/R
	590032	SLEEVE HEATSHRINK Ø4.8			A/R
	510222	WIRE 7/.2 RED PVC INS.			A/R
	G05051	4WAY 0.1" HOUSING	MOLEX	22-01-2045	1
	G05052	8WAY 0.1" HOUSING	MOLEX	22-01-2085	1

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4										
ECO		1394	1630	1631										
DATE	22-2-84	8-3-84	9-5-84	31-7-84										
CHK'D	RP	MD	MD	MD										

DATE	22nd Feb 84	datron ELECTRONICS LTD	
DRAWN	B.JACKSON	TITLE	4200
CHECKED	<i>[Signature]</i>	L.F. TRANSFORMER ASSY	
APPROVED	<i>[Signature]</i>	DRAWING NUMBER	400458
DATE	8.3.84	SHEET	2 OF 3

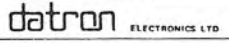
400458.


DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	G05057	CRIMP TERMINAL GD PL	MOLEX	4089-GL	4
	G05116-2	32+32WAY PCB EDGE SKT.		SEE DRG. A4.	1
	G11007	M3x6 <sup>mm</sup> POZI-CSK STEEL	ZN PL		7
	G11016	M3x8 <sup>mm</sup> POZI-PAN STEEL	ZN PL		3
	G11069	M5x8 <sup>mm</sup> HEX HEAD STEEL	ZN PL		2
	G13005	M3 INTERNAL SHAKE PROOF			4
	G13007	M3 WASHER STEEL	ZN PL		1
	G13009	4BA SOLDER TAG BRASS	TIN PL		1
	G13028	M5 INTERNAL SHAKE PROOF			2
	G15002	M3 FULL NUT STEEL	ZN PL		1
	G30004	P CLIP $\phi$ 6.4 <sup>mm</sup>	SES	CNG	1
	G30170	PCB GUIDE	RICHCO	RCG2	2
	900009	LOCKING COMPOUND	LOCTITE	222	A/R

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS.																				
E.C.O.																				
DATE																				
CHKD.																				

DATE	22nd Feb 84		
DRAWN	B. JACKSON		
CHECKED		TITLE	4200
APPROVED		L.F. TRANSFORMER ASSY	
DATE		DRAWING NUMBER	400458
		SHEET	3 OF 3

DRAWING No.		CHK'D	DATE	ECO	REVISION	ISSUE	
400578		MJD	3-7-85		4.0	1988	
					4.1	1985	
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION				
COMP LAYOUT	480578	1	4.0	4.1			
FUNCTIONAL TEST PROC.	460578/FT	1	4.0				
FUNCT. TEST TICK LIST	470578/FT	1	4.0				
NOTES			DRN B. JACKSON DATE 3-7-85	CHK'D MJD DATE 9.7.85.	APPD  DATE	TITLE 4200. HF. TX ASSY	DRAWING No. 400578 SHEET 1 OF 3

400578

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	008042	GRB 5% 9W WIREWOUND	WELWYN	W 23	1
	300026-2	HF TRANSFORMER	SIGA	SEE DRG.	1
	410256-6	HF TX MOUNTING PCB.			1
	512222	7/0.2 PTFE INSUL. WIRE	RED.		0.35 M
	512666	7/0.2 PTFE INSUL. WIRE	BLUE.		0.35 M
	512000	7/0.2 PTFE INSUL. WIRE	BLACK.		0.26 M
	512111	7/0.2 PTFE INSUL. WIRE	BROWN.		0.31 M
	512444	7/0.2 PTFE INSUL. WIRE	YELLOW.		0.25 M
	512999	7/0.2 PTFE INSUL. WIRE	WHITE.		0.21 M
	590001	SLEEVING H15x20 BLACK.			2
	590005	SLEEVING H20x20 BLACK.			3
	590063	295mm CABLE TIE.	PANDUIT	PLT 31	1
	605051	4WAY 0.1" HOUSING	MOLEX	22-01-2045	1
	605053	12WAY 0.1" HOUSING	MOLEX	22-01-2125	1
	605057	CRIMP TERMINAL GD. PL	MOLEX	4809-GL	6
	611055	M4x40mm SLOT-PAN BRASS	Ni PL		1
	612029-1	M3x12mm STANDOFF	HARWIN	SEE DRG 612**.*.	4

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4
E.C.O.	RELEASED	1757	1828	1534
DATE	28 SEP 84	15 NOV 84	25 JAN 85	4-6-85
CHK'D.	MD	MD	MD	MD

DATE	datron ELECTRONICS LTD	
26 APR 84	TITLE: 4200	
DRAWN B. JACKSON	DRAWING NUMBER: 400578	
CHECKED MJD	SHEET 2 OF 3	
APPROVED MJD	HF TRANSFORMER ASSY	
DATE 28.9.84		


400578

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	613020	M4 WASHER STEEL.	ZN. PL		2
	613021	M4 INT. SHAKEPROOF.			1
	615011	M4 FULL NUT STEEL	ZN PL		1
	630024	STEATITE BEAD 16SWG	PARK ROYAL PORCELAIN	N°2	2


NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS.																							
E.C.O.																							
DATE																							
CHKD.																							

DATE	26-4-84	 datron ELECTRONICS LTD	
DRAWN	B. JACKSON		
CHECKED		TITLE	'4200'
APPROVED		HF TRANSFORMER ASSY	
DATE		DRAWING NUMBER	400578
		SHEET	3 OF 3




DRAWING No.		CHK'D																														
400532		DATE	8.0 1988	2.7.85																												
		ECO	8.1 2039	28.10.85																												
		REVISION																														
		ISSUE																														
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE . REVISION																													
COMPONENT LAYOUT	480532	1	8.0 8.0	8.1 8.1																												
COMPONENT LAYOUT	480532	2	8.0 8.0	8.1 8.1																												
SCHMATIC	430532	1	8.0 8.0	8.1 8.1																												
SCHMATIC	430532	2	8.0 8.0	8.1 8.1																												
SCHMATIC	430532	3	8.0 8.0	8.1 8.1																												
SCHMATIC	430532	4	8.0 8.0	8.1 8.1																												
SCHMATIC	430532	5	8.0 8.0	8.1 8.1																												
NOTES					DRN IL DATE 2.7.85	CHK'D MSP DATE 10.7.85	APP'D ST DATE 23.7.85	TITLE 4200 MOTHER PCB. ASSY.	DRAWING No. 400532 SHEET 1 OF 9																							

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	24
R2	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R3	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R4	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R5	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R6	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R7	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R8	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R9	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R10	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R11	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R12	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R13	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R14	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R15	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R16	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R17	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R18	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R19	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R20	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R21	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R22	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R23	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS.	1	2	3	4	5	6	7	8						
E.C.O.	RELEASED	1682	1729	1752	1786	1794	1879	1880						
DATE	10.5.84	1.8.84	18.10.84	8.11.84	5.12.84	11.12.84	25.3.85	29.3.85						
CHKD	MS	MD	MD	MD	MD	MD	MD	MD						

DATE	12.3.84		
DRAWN	IL	TITLE	
CHECKED	RHC	4200 MOTHER PCB ASSY	
APPROVED	ST	DRAWING NUMBER	400532
DATE	6.5.84	SHEET	2 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R24	001822	8k2 5% 1/2W CARBON	MULLARD	CR37	-
R25	063205	2M POT 3/8 SQ CERMET	BECKMAN	72P	1
R26	000104	100k 5% 1/3W CARBON	MULLARD	CR25	1
R27	000103	10k 5% 1/3W CARBON	MULLARD	CR25	46
R28	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R29	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R30	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R31	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R32	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R33	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R34	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R35	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R36	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R37	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R38	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R39	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R40	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R41	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R42	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R43	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R44	000473	47k 5% 1/3W CARBON	MULLARD	CR25	8
R45	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R46	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.												
E.C.D.												
DATE												
CHKD.												

DATE	12.3.84	<b>datron</b> ELECTRONICS LTD
DRAWN	IL	
CHECKED		TITLE
APPROVED		4200 MOTHER PCB ASSY
DATE		DRAWING NUMBER
		400532
		SHEET
		3 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R47	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R48	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R49	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R50	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R51	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R52	000101	100R 5% 1/3W CARBON	MULLARD	CR25	1
R53	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R54	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R55	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R56	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R57	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R58	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R59	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R60	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R61	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R62	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R63	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R64	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R65	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R66	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R67	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R68	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R69	000473	47k 5% 1/3W CARBON	MULLARD	CR25	-

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.												
E.C.D.												
DATE												
CHKD.												

DATE	12.3.84	<b>datron</b> ELECTRONICS LTD
DRAWN	IL	
CHECKED		TITLE
APPROVED		4200 MOTHER PCB ASSY
DATE		DRAWING NUMBER
		400532
		SHEET
		4 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R70	000473	47k 5% 1/3W CARBON	MULLARD	CR25	-
R71	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R72	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R73	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R74	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R75	000473	47k 5% 1/3W CARBON	MULLARD	CR25	-
R76	000473	47k 5% 1/3W CARBON	MULLARD	CR25	-
R77	000473	47k 5% 1/3W CARBON	MULLARD	CR25	-
R78	000473	47k 5% 1/3W CARBON	MULLARD	CR25	-
R79	000473	47k 5% 1/3W CARBON	MULLARD	CR25	-
R80	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R81	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R82		NOT USED			-
R83		NOT USED			-
AN1	090090	47k x8 2% NETWORK	AB	761-3-47k	6
AN2	090095	47k x4 2% NETWORK	BECKMAN	LO8-3-R47k	3
AN3	090090	47k x8 2% NETWORK	AB	761-3-47k	-
AN4	090095	47k x4 2% NETWORK	BECKMAN	LO8-3-R47k	-
AN5	090095	47k x4 2% NETWORK	BECKMAN	LO8-3-R47k	-
AN6	090090	47k x8 2% NETWORK	AB	761-3-47k	-

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.	E.C.O.	DATE	CHKD.

DATE	12.3.84	datron ELECTRONICS LTD
DRAWN	IL	
CHECKED		TITLE
APPROVED		4200 MOTHER PCB ASSY
DATE		DRAWING NUMBER
		400532
		SHEET
		5 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
AN7	090090	47k x8 2% NETWORK	AB	761-3-47k	-
AN8	090090	47k x8 2% NETWORK	AB	761-3-47k	-
AN9	090090	47k x8 2% NETWORK	AB	761-3-47k	-
AN10	090085	12k x8 2% NETWORK	AB	761-3-12k	4
AN11	090085	12k x8 2% NETWORK	AB	761-3-12k	-
AN12	090085	12k x8 2% NETWORK	AB	761-3-12k	-
AN13	090085	12k x8 2% NETWORK	AB	761-3-12k	-
C1		NOT USED			-
C2	180050	150µF 385V AL. ELECT	MULLARD	052-58151	4
C3	180050	150µF 385V AL. ELECT	MULLARD	052-58151	-
C4	180050	150µF 385V AL. ELECT	MULLARD	052-58151	-
C5	180050	150µF 385V AL. ELECT	MULLARD	052-58151	-
C6	104023	2n2F 20% 1kV CER DISC	ITT	HDI6	2
C7	104023	2n2F 20% 1kV CER DISC	ITT	HDI6	-
C8	180049	330µF 100V AL. ELECT	ECC	SMVB	2
C9	180049	330µF 100V AL. ELECT	ECC	SMVB	-
C10	110013	100nF 20% 250V POLYESTER	MULLARD	C280AEP100k	2
C11	110013	100nF 20% 250V POLYESTER	MULLARD	C280AEP100k	-

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.	E.C.O.	DATE	CHKD.

DATE	12.3.84	datron ELECTRONICS LTD
DRAWN	IL	
CHECKED		TITLE
APPROVED		4200 MOTHER PCB ASSY
DATE		DRAWING NUMBER
		400532
		SHEET
		6 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C12	104032	220pf 10% 2kV CER DISC	ITT	HD09	1
C13	102102	1nF 10% 500V CER DISC	ITT	CD10	3
C14	102102	1nF 10% 500V CER DISC	ITT	CD10	-
C15	102102	1nF 10% 500V CER DISC	ITT	CD10	-
CN1	104033	1nF x7 20% 50V CAP NWK	SPRAGUE	470C7X7R102M5DG	2
CN2	104033	1nF x7 20% 50V CAP NWK	SPRAGUE	470C7X7R102M5DG	-
D1	200002	1A 50V GP SI DIODE	FAIRCHILD	IN4001	2
D2	200002	1A 50V GP SI DIODE	FAIRCHILD	IN4001	-
D3	200024	3A 1k3V GP SI DIODE	MOTOROLA	BY255	8
D4	200024	3A 1k3V GP SI DIODE	MOTOROLA	BY255	-
D5	200024	3A 1k3V GP SI DIODE	MOTOROLA	BY255	-
D6	200024	3A 1k3V GP SI DIODE	MOTOROLA	BY255	-
D7-D10	200024	3A 1k3V GP SI DIODE	MOTOROLA	BY255	-

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.																			
E.C.O.																			
DATE																			
CHKD.																			

DATE	12.3.84		
DRAWN	IL		
CHECKED			
APPROVED			
DATE		TITLE	4200 MOTHER PCB ASSY
		DRAWING NUMBER	400532
		SHEET	7 OF 8

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
W1	209014	1A5 400V BRIDGE RECT	MICRO-ELECTRONICS	W004	1
RL1	330031	RELAY 2P N/O 2P N/C	SDS	S2-24V	1
L1	370024-A	COMMON MODE CHOKE 5W	SIGA	SEE DRG	1
L2	370014	8μH 3A RF CHOKE	ERO	F1756-008-301	2
L3	370014	8μH 3A RF CHOKE	ERO	F1756-008-301	-
L4	370001	10μH 0.85Ω RF CHOKE	PLESSEY	58/10/0011/10	2
L5	370001	10μH 0.85Ω RF CHOKE	PLESSEY	58/10/0011/10	-
J4, J5, J7, J8, J9	605090-2	6+6 WAY PCB EDGE SKT	SEE DRG		8
	410259-5	PCB			1
	512999	7/2 WHITE PTFE INS 1kV <sub>rms</sub>		TO BSQ210 TYPE C	A/R
	560002	7/3+AWG CU. COV. STEEL CO-AX			A/R
	590031	HEATSHRINK SLEEVE φ 3.2			A/R
J19, J31, J32, J33	604042	4WAY +156° PLUG GD PL	MOLEX	09-72-2041	6
J2, J3, J4, J6, J7	605087-2	24+24 WAY PCB EDGE SKT	SEE DRG		13
J3, J5, J8, J9	605088-2	18+18 WAY PCB EDGE SKT	SEE DRG		6
J4, J6, J7, J8, J9	605089-2	12+12 WAY PCB EDGE SKT	SEE DRG		6
J5, J7, J8, J9	605091-2	6+6 WAY PCB EDGE SKT	SEE DRG		9
J7, J8, J9 J2	605092-2	3+3 WAY PCB EDGE SKT	SEE DRG		6
J30	605114-2	12+12 WAY PCB EDGE SKT	SEE DRG		1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.																			
E.C.O.																			
DATE																			
CHKD.																			

DATE	12.3.84		
DRAWN	IL		
CHECKED			
APPROVED			
DATE		TITLE	4200 MOTHER PCB ASSY
		DRAWING NUMBER	400532
		SHEET	8 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	612004-1	M3 x 4mm STANDOFF	DATRON	SEE DRG	13
	612027-1	M3 x 8mm STANDOFF	DATRON	SEE DRG	9
	617010	NYLATCH PLUNGER 3/16"	HARTWELL CORP	HN3P-32-4-1	20
	617011	NYLATCH GROMMET 3/16"	HARTWELL CORP	HN3G-32-1	20
J26	620005	CLOVERLEAF PTFE INSUL.	SEAELECTRO	FTE1SP59	5
	620006	SOLDER TURRET	HARWIN	H9001-01	62
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	9
	630036	STEATITE BEAD 18 SWG	PARK ROYAL PORCELAIN	Nº 1	4
F1	920116	FUSE 1A 250V 20mm SLO-B	BELLING LEE	L2080A/1	2
F2	920116	FUSE 1A 250V 20mm SLO-B	BELLING LEE	L2080A/1	-
F3	920125	FUSE 2-5A 125V 7mm	LITTLE FUSE	275 025	2
F4	920125	FUSE 2-5A 125V 7mm	LITTLE FUSE	275 025	-
	920126	FUSE HOLDER 20mm PCB	BELLING LEE	L1426	2
J1	605111	24 + 24 WAY .1" PCB SKT	AMP	2-141592-4	3
	612024-1	M3 X 12.7mm STANDOFF	DATRON	SEE DRG	1
	540002	22 SWG TINNED CU. WIRE			A/R
	590004	SLEEVING 1.0mm PTFE		FE10	A/R
	630024	STEATITE BEAD 16 SWG	PARK ROYAL PORCELAIN	Nº 2 (LARGE)	4
	602018	EYELET Ø1.6	PACE INC.	1347-0047	8
	512000	7/0-2 PTFE INSULATED BLACK WIRE.			A/R
	512111	7/0-2 PTFE INSULATED BROWN WIRE.			A/R
	512222	7/0-2 PTFE INSULATED RED WIRE.			A/R

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.																	
E.C.O.																	
DATE																	
CHKD																	

DATE	12.3.84	
DRAWN	JL	
CHECKED		TITLE
APPROVED		4200 MOTHER PCB ASSY
DATE		DRAWING NUMBER
		400532
		SHEET
		9 OF 9

DRAWING No. <b>400439</b>		CHK'D <b>MP</b>	DATE <b>4-7-85</b>	ECO <b>2-0 1958</b>	REVISION <b>3-0 12061</b>	ISSUE <b>3-0 12061</b>										
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION													
COMP. LAYOUT.	480439	1	2-0	3-0												
SCHEMATIC	430439	1	2-0	3-0												
PCB	410167	-	3-0													

NOTES	datron <small>INTEGRATED SYSTEMS NORWICH ENGLAND</small>	DRN <b>B. JACKSON</b>	CHK'D <b>MP</b>	APPD	TITLE <b>4000 / 4200</b>	DRAWING No. <b>400439</b>
		DATE <b>7-9-85</b>	DATE <b>7.7.85</b>	DATE	INTERCONNECTION PCB.	SHEET 1 OF 2

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	410167-3	PCB			1
	450540-1	CONNECTOR SUPPT. BRACKET			1
	450296-2	EARTH SCREEN			1
C1	101103	10nF 25% 250V CER DISC	ITT	CD10.	1
J3-J4	604033	4 CCT POLARISING WAFER	MOLEX	22-29-2041 GOLD	2
J1, J2	605002	16 WAY DIL SOCKET	CA	CA-105-10SD	2
J27	605086	24 WAY PCB MNT RECEPTACLE	AMPHENOL	57-20240-8	1
	611004	M3X6 POZIPAN SCREW	GKN	ZINC PLATED	2
	612004	M3X4 STANDOFF 1/16" PCB	HARWIN	CS 2116-B	2
	612008	M3X6 STANDOFF 1/16" PCB	CAMBION	350-5138-09-07	2
	613029	M3 CRINKLE WASHER			2
S1	700046	SWITCH 6 POSN D.I.L S.P.S.T	AMP. OR CONTRAVES	435166-4 OR D55-6	1
	700047	SWITCH COVER	AMP	435238-3	1
S2	700080	SP3P SLIDE P.C.B MNT	ALCO	SLS-131-PC	1
S53	700081	SPDT SLIDE P.C.B MNT	ALCO	SLS-121-PC	1
	G14003	STANDOFF 3-3 CLEAR 6mm BRASS	HARWIN	CS 2117-A	2
	900004	SILICONE RUBBER COMPOUND	RS.	544-311	A/R
	G11007	M3X6mm POZI-C5K SCREW	ZN. PL.	-	2

NOTES.										DATE <b>27. 7. 81</b>	datron <small>ELECTRONICS LTD</small>	
SEE SHEET 1 FOR LATEST ISSUE										DRAWN <b>JK</b>	TITLE <b>4000 INTERCONNECTION PCB ASSY</b>	
ISS	1	2								CHECKED <b>B. JACKSON</b>	DRAWING NUMBER <b>400439</b>	
E.CO.	RELEASED	1986								APPROVED <b>B. Home</b>	SHEET <b>2 OF 2</b>	
DATE	5-8-81	29-3-82	11-4-83							DATE <b>27th AUG 81</b>		
CHKD	-	MP	MP									






DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
400634					
	920122-3	TERMINAL BLACK	DATRON	SEE DRAWING A4	1
	920123-3	TERMINAL RED/BLK	DATRON	SEE DRAWING A4	1
	920134-3	TERMINAL BRN/BLK	DATRON	SEE DRAWING A4	1
	920135-3	TERMINAL BLU/BLK	DATRON	SEE DRAWING A4	1
	920136-3	TERMINAL WHT/BLK	DATRON	SEE DRAWING A4	1
	920137-3	TERMINAL GRN/BLK	DATRON	SEE DRAWING A4	1
	613009	M3 SOLDER TAG.			1
	613021	M4 SHAKEPROOF WASHER.			12
	613020	M4 WASHER STEEL	ZN PL		6
	613039	M2 SOLDER TAG.	ROSS COURTNEY	201002	1
	400184	EARTH BRAID ASSY	DATRON		1
	512999	7/0.2 PTFE INSUL. WHITE WIRE			0.18M.
	521006	16/0.2 PVC INS. GRN/YLW WIRE			A/R
	590001	SLEEVE $\phi$ 3.0	HELLERMANN.	H15x 20	7
	590006	HEATSHRINK SLEEVE $\phi$ 2.4			A/R
	512444	7/0.2 PTFE INSUL. YELLOW WIRE			0.14M
	512888	7/0.2 PTFE INSUL. GREY. WIRE.			0.14M
	590003	HEATSHRINK SLEEVE $\phi$ 6.4			A/R
	590017	HEATSHRINK CABLE MARKER			1
	590018	HEATSHRINK CABLE MARKER			1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.																			
E.C.O.																			
DATE																			
CHKD.																			

DATE	19. 9. 85	
DRAWN	J.B.	
CHECKED		
APPROVED		
DATE		TITLE
		TERMINAL BOARD ASSEMBLY.
		DRAWING NUMBER
		400634
		SHEET
		3 OF 3



DRAWING No. 400529.		CHK'D	DATE	ECO	REVISION	ISSUE
		4.0	1958	2.7.85	M	
		4.1	1946	18.7.85	AP	
		5.0	1980	15.11.85	AP	
		5.1	1081	2.12.85	AP	
		5.2	2077	2.12.85	AP	
		5.3	2080	4.12.85	AP	
		5.4	2049	19.12.85	AP	
		6.0	2090	13.1.86	AP	
		6.1	2103	13.1.86	AP	
		6.1	2109	20.1.86	AP	

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION																	
COMPONENT LAYOUT	480529	1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
COMPONENT LAYOUT	480529	2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
COMPONENT LAYOUT	480529	3	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
COMPONENT LAYOUT	480529	4	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
ELEC. INSP. TEST PROC.	460529/EI	1-3	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
INST. TEST PROC.	460529/IT	1-13	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
INST. CAL. TEST PROC.	460529/IC	1-6	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
STD. CAL TEST PROC.	460529/SC	1-8	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
INST. TEST TICK LIST.	470529/IT	1-2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

NOTES	<input type="checkbox"/> INDICATES NO CHANGE TO DOCS AT ISSUE LEVEL CHANGE.	<b>datron</b> INSTRUMENTS NORWICH ENGLAND	DRN B. JACKSON DATE 2nd JUL 85	CHK'D MJD DATE 9.7.85	APP'D [Signature] DATE 23.7.85	TITLE 4200 MAIN ASSEMBLY	DRAWING No. 400529. SHEET 1 of 4
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400529.

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	400446-8	4200 SINE SOURCE PCB ASSY.			1
	400447-14	4200 A.C. PCB ASSY.			1
	400450-10	4200 POWER AMP PCB ASSY.			1
	400530-8	4200 CHASSIS ASSY.			1
	400534-9	4200 DIGITAL PCB ASSY.			1
	400535-5	4200 REFERENCE DIVIDER PCB ASSY.			1
	400544-4	4200 3BY PSU. PCB ASSY.			1
	400550-7	4200 OUTPUT CONTROL PCB ASSY.			1
	400554-4	4200 POWER SUPPLY PCB ASSY (IN GUARD).			1
	400561-1	4200 POWER SUPPLY PCB ASSY (OUT GUARD).			1
	400565-4	4200 HIGH VOLTAGE PCB ASSY.			1
	400570-1	4200 ANALOGUE INTERFACE PCB ASSY.			1
	410288-1	I/Ω LINK PCB.			1
	420093-3	RATING LABEL.			1
	420098	SERIAL/MOD STATUS LABEL RS		554-793	1
	450231-4	CARD SUPPORT BRACKET			2
	450233/J-1	4200 INSTRUCTION CARD			1
	450273-2	TOP COVER			1
	450274-2	BOTTOM COVER			1
	450307-2	PACKING BOX			1

NOTES.	SEE SHEET 1 FOR LATEST ISSUE	DATE 18th MAY 84.	<b>datron</b> ELECTRONICS LTD
ISS	1	DRAWN B. JACKSON	TITLE 4200 MAIN ASSEMBLY.
E.C.O	RELEASED	CHECKED M.J.D.	DRAWING NUMBER 400529
DATE	28 SEP 84	APPROVED [Signature]	SHEET 2 OF 4
CHK'D	MJD	DATE 28.9.84	

400529.

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	450400-1	MOULDED FOOT			6
	510222	7/0-2 PVC INSULATED RED WIRE			A/R
	590001	SLEEVE MAX. CABLE $\phi$ 3.0. HELLERMANN ELECTRIC. H15X20. BLK.			1
	590002	SLEEVE MAX. CABLE $\phi$ 6.0 " "		H30X25. BLK.	1
	G11076	M3X6mm SLOT PAN STEEL	ZN PL		12
	G11005	M3X12mm POZIPAN STEEL	ZN PL		13
	G11007	M3X6mm POZI-CSK STEEL	ZN PL		9
	G11016	M3X8mm POZI PAN STEEL	ZN PL		8
	G11038	M4X12mm SKT CSK HTS.	CHEM. BLK.		16
	G11058	M4X8mm POZI-CSK STEEL	ZN PL		20
	G13005	M3 INT SHAKEPROOF	ZN PL		21
	G13007	M3 WASHER STEEL	ZN PL		8

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS									
E.C.O.									
DATE									
CHKD									

DATE	18th MAY 84.	datron ELECTRONICS LTD
DRAWN	B. JACKSON	
CHECKED		TITLE '4200' MAIN ASSEMBLY
APPROVED		DRAWING NUMBER 400529
DATE		SHEET 3 OF 4

400529.

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	G30122	P.C.B. EJECTOR BLUE	RICHCO	CBE	1
	G30109	2.5mm A/F HEXAGON KEY	UNBRAKO	2.5mm A/F	1
	G30163	POLYTHENE BAG GUSSETTED	ABBOTTS	18" X 28" X 42". 500g	1
	B50051-1	4200 USERS HANDBOOK	DATRON		1
	B50056-1	CAL & SERV. HANDBOOK	DATRON		1
	B50007-1	4200 IEEE CARD.	DATRON		1
	900016	CLEANING FLUID	RS	556-654	A/R
	920012	MAINS LEAD UK.	BELLING LEE	L1919A / ZM / BLACK	1
	920098	FUSE 3A 250V 1/4" SLO-B	LITTELFUSE	313003	1
	920101	BATTERY LITHIUM AA	TADIRAN	TL 2100 SOLDER TAGS.	1

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS									
E.C.O.									
DATE									
CHKD									

DATE	18th MAY 84.	datron ELECTRONICS LTD
DRAWN	B. JACKSON	
CHECKED		TITLE '4200' MAIN ASSEMBLY
APPROVED		DRAWING NUMBER 400529
DATE		SHEET 4 OF 4

DRAWING No. 400530		CHK'D	DATE	ECO	REVISION	ISSUE	ISSUE - REVISION																														
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	7-0	7-1	8-0	8-1	8-2	8-3	8-4	8-5	8-6	8-7																									
COMP. LAYOUT	480530	1	7-0	7-0	7-0	7-0	7-0	7-0	7-0	7-0	7-0	7-0																									
COMP. LAYOUT	480530	2	7-0	7-1	7-0	7-0	7-0	7-0	7-0	7-0	7-0	7-0																									
COMP. LAYOUT	480530	3	7-0	7-1	7-0	7-0	7-0	7-0	7-0	7-0	7-0	7-0																									
COMP. LAYOUT	480530	4	7-0	7-1	7-0	7-0	7-0	7-0	7-0	7-0	7-0	7-0																									
COMP. LAYOUT	480530	5	7-0	7-1	7-0	7-0	7-0	7-0	7-0	7-0	7-0	7-0																									
COMP. LAYOUT	480530	6	7-0	7-1	7-0	7-0	7-0	7-0	7-0	7-0	7-0	7-0																									
COMP. LAYOUT	480530	7	7-0	7-1	7-0	7-0	7-0	7-0	7-0	7-0	7-0	7-0																									
SCHMATIC	430530	1	7-0	8-0	8-0	8-1	8-2	8-3	8-4																												
SCHMATIC	430530	2	7-0	8-0	8-0	8-1	8-2	8-3	8-4																												

NOTES	<b>datron</b> <small>INSTRUMENTS NORWICH ENGLAND</small>	DRN <b>B. JACKSON</b>	CHK'D <b>MJD</b>	APPD DATE	TITLE <b>4200 CHASSIS ASSY.</b>	DRAWING No. <b>400530</b>
	DATE <b>3-7-85</b>	DATE <b>9.7.85</b>	DATE		SHEET <b>1</b> of <b>5</b>	

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
400458-4		4200 LF TX ASSY			1
400462-4		MAINS SWITCH CABLE ASSY			1
400463-2		DIGITAL PSU CABLE ASSY			1
450542-1		MADE IN ENGLAND BADGE.			1
400471-1		RIBBON CABLE ASSY			2
400531-5		4200 REAR PANEL ASSY			1
400532-8		4200 MOTHER PCB ASSY			1
400533-3		4200 FRONT PCB ASSY			1
400538-9		4200 PA (POS) HS ASSY			1
400539-7		4200 PA (NEG) HS ASSY			1
400540-6		4200 PSU/I HS ASSY			1
400541-4		4200 MAINS TX ASSY			1
400560-1		4200 IN/GU. PSU. CABLE ASSY.			1
450467-1		FOAM GASKET.			1
450265-3		MOULDED CHASSIS			1
450267-3		4200 FRONT PANEL			1
400578-4		HF TRANSFORMER ASSY.			1
450271-1		FILTER GRILLE			1
450272-1		TX BOLT PLATE			2
450277-1		FOAM FILTER			1
450280-1		HANDLE			2
450477-1		GUARD/EARTH SPACER WASHER.			1
450293-1		PCB SUPPORT.			3

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS.	1	2	3	4	5	6	7																
E.C.O.	RELEASED	1721	1771	1834	1864	1864	1880	1882	1918														
DATE	28-9-84	9-10-84	11-12-84	29-1-85	15-3-85	29-3-85	13-5-85																
CHKD	<b>EP</b>	<b>EP</b>	<b>MD</b>	<b>EP</b>	<b>MD</b>	<b>EP</b>	<b>MD</b>																

DATE <b>7th MAR 84</b>	<b>datron</b> <small>ELECTRONICS LTD</small>
DRAWN <b>B. JACKSON</b>	TITLE <b>4200</b>
CHECKED <b>MJD</b>	<b>CHASSIS ASSEMBLY</b>
APPROVED <b>MJD</b>	DRAWING NUMBER <b>400530</b>
DATE <b>28.9.84</b>	SHEET <b>2</b> OF <b>5</b>

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	450300-1	REAR SPACER			2
	450301-2	EARTH BRACKET			1
	450305/A-3	4200 OVERLAY			1
	450310-1	SIDE EXTRUSION R.H.			1
	450311-1	SIDE EXTRUSION L.H.			1
	450316-1	P.S. GUARD SCREEN			1
	450452-3	CABLE BRIDGE			1
	450367-1	POLAROID			2
	450406-1	40V PSU BRACKET			1
	450414-2	EARTH SHEET			2
	450415-2	GUARD SHEET			2
	450418-1	M5 BOLT SPACER			4
	450430-1	4200 HEATSINK RETAINER			1
	450431-1	4200 HEATSINK GU. SCREEN.			1
	450436-1	TRANSFORMER BOLT PLATE			2
	450446-1	PCB GUARD SCREEN			6
	450447-1	PCB EARTH SCREEN			1
	512999	7/0-2 PTFE INSUL. WIRE.	WHITE		0.2 M
	510999	7/0-2 PVC INSUL. WIRE.	WHITE.		A/R
	521006	16/0-2 PVC INSUL. WIRE.	GREEN / YELLOW		A/R
	400634-1	TERMINAL PCB ASSY.			1
	590006	SLEEVE HEATSHRINK Ø 2.4			A/R
	590013	STD CABLE TIE 3.6x140mm			2

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS.																			
E.C.O.																			
DATE																			
CHKD.																			

DATE 7th MAR 84	<b>datron</b> ELECTRONICS LTD
DRAWN B. JACKSON.	
CHECKED	TITLE '4200' CHASSIS ASSEMBLY
APPROVED	DRAWING NUMBER 400530
DATE	SHEET OF 5

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	590002	SLEEVE MAX CABLE Ø 6.0	HELLERMANN ELECTRIC	H30 x 25.	6
	590003	SLEEVE HEATSHRINK Ø 6.4			A/R
	606005	DIL SOCKET CLIP 16 W	CA	CA16-200-DL	2
	611004	M3x6mm POZI-PAN STEEL	ZN PL		35
	611008	M3x10mm POZI-CSK STEEL	ZN PL		4
	611012	M3x12mm POZI-CSK STEEL	ZN PL		6
	611015	M3x8mm POZI-CSK STEEL	ZN PL		2
	611016	M3x8mm POZI-PAN STEEL	ZN PL		21
	611023	M2.5x10mm POZI-PAN STEEL	ZN PL		2
	611038	M4x12mm SKT.CSK HTS.	CHEM. BLK.		6
	611047	M5x12mm POZI-CSK STEEL	ZN PL		8
	611078	M4x12mm TAPTITE POZI-CSK	STEEL ZN PL BLACK CONV.	LANOLIN DIP	8
	611051	M8x110mm HEX STEEL	ZN PL		4
	611045	M5x65mm POZI-PAN STEEL	ZN PL		4
	611054	M2x6mm SLOT CSK STEEL	ZN PL.		1
	611006	M3x10mm POZI-PAN STEEL	ZN PL.		1
	613005	M3 INT SHAKE PROOF			30
	613007	M3 WASHER STEEL	ZN PL		7
	613009	4BA SOLDER TAG BRASS	TIN PL		3
	613012	M2.5 WASHER STEEL	ZN PL		4
	613013	M5 WASHER STEEL	ZN PL		4
	613014	M2.5 INT SHAKEPROOF			2

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS.																			
E.C.O.																			
DATE																			
CHKD.																			

DATE 7th MAR 84	<b>datron</b> ELECTRONICS LTD
DRAWN B. JACKSON.	
CHECKED	TITLE '4200' CHASSIS ASSEMBLY
APPROVED	DRAWING NUMBER 400530
DATE	SHEET OF 5


DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	G13025	M8 WASHER STEEL	ZN PL		4
	G13028	M5 INT SHAKE PROOF			4
	G13029	M3 CRINKLE WASHER	S.S.		30
	G13038-1	M5 LARGE WASHER.		SEE DRG. A4.	2
	G13021	M4 INT. SHAKEPROOF			6
	G15002	M3 FULL NUT STEEL	ZN PL		4
	G15007	M5 FULL NUT STEEL	ZN PL		4
	G15012	M5 NYLOCK NUT STEEL	ZN PL		4
	G15015	M8 NYLOCK NUT STEEL	ZN PL		4
	G17013	Ø 2.4 POP RIVET DOMED HD.	GEORGE TUCKER EYELET.	TAP/D/33/BH	2
	G13027	M2 INT SHAKEPROOF			1
	G30003	'P' CLIP Ø 4.8 <sub>MM</sub>	SES	CN5	3
	G30004	'P' CLIP Ø 6.4 <sub>MM</sub>	SES	CNG	4
	G30020	CABLE CLIP Ø 4 <sub>MM</sub>	3M	708	2
	G30029	TAPE DOUBLE SIDED 1/4" X 1/32"	3M	4032	A/R
	G15016	M2 FULL NUT			1
	G30167	FOAM TAPE 6 <sub>MM</sub> T X 9 <sub>MM</sub> W	TESA	TESAMOLL 761/4763	A/R
	G30168	POLYESTER TAPE 50 <sub>MM</sub> WIDE	3M	Ø83	A/R
	G30175	PCB GUIDE	RICHCO	RCG1	2
	900009	LOCKING COMPOUND.	LOCTITE	220	A/R.

NOTES.

SEE SHEET 1 FOR LATEST ISSUE


ISS.																					
E.C.O.																					
DATE																					
CHKD																					

DATE 7th MAR 84	datron ELECTRONICS LTD
DRAWN B. JACKSON	
CHECKED	TITLE 4200 CHASSIS ASSEMBLY
APPROVED	DRAWING NUMBER 400530
DATE	SHEET OF 5

DRAWING No. <b>400603</b>		CHK'D	3-0 1958 11-7-85 MP			
		DATE				
		E.C.O.				
		REVISION				
		ISSUE	3-0			
DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION			
COMP LAYOUT.	480603	1	3-0	3-0		
COMP LAYOUT.	480603	2	3-0	3-0		
COMP LAYOUT	480603	3	3-0	3-0		
COMP LAYOUT	480603	4	3-0	3-0		
NOTES		 <b>datron</b> <small>INSTRUMENTS NORWICH ENGLAND</small>		DRN <b>B. JACKSON</b> <i>BJP</i> DATE <b>11. JULY 85.</b> <i>26.7.85</i> DATE	APPD DATE TITLE <b>4200</b> <b>OPTIONS.</b>	DRAWING No. <b>400603</b> SHEET <b>1</b> OF <b>2</b>

400603.

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
OPTION 30	400555-8	CURRENT PCB ASSY	DATRON.		A/R
OPTION 30.	440094-1	RACK MOUNTING KIT.	DATRON.		A/R
OPTION 42.	440117-3	REAR OUTPUT KIT.	DATRON.		A/R
OPTION 80.	440096-1	115V 60Hz KIT	DATRON.		A/R

NOTES.					DATE <b>11th JULY 85.</b>		 <b>datron</b> <small>ELECTRONICS LTD</small>	
SEE SHEET 1 FOR LATEST ISSUE					DRAWN <b>B. JACKSON</b>		TITLE <b>4200</b> <b>OPTIONS.</b>	
ISS.	<b>3-0</b>				CHECKED <i>MP</i>		DRAWING NUMBER <b>400603</b>	
E.C.O.	<b>1958</b>				APPROVED <i>[Signature]</i>		SHEET <b>2</b> OF <b>2</b>	
DATE	<b>11-7-85</b>				DATE			
CHKD.								



DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	450018-2	BLANKING PLATE			1
	606011	9 WAY PLASTIC'D CONN.B/SHELL	T+B ANSLEY	609-09	1
	606013	PLASTIC'D CONN. JACKSCREW	T+B ANSLEY	609-004	1 PAIR
	606014	PLASTIC'D CONN. JACK SKT. ASS.	T+B ANSLEY	609-006	1 PAIR
	613007	M3 FLAT STEEL WASHER, ZINC PLATED.			2
	611005	SCREW M3X12mm STEEL	POZI-PAN ZINC PLATED	GKN	1
	611016	SCREW M3X8mm STEEL	" " " "	GKN	4
	611017	SCREW M3X16mm STEEL	" " " "	GKN	2
	611049	SCREW M4X20mm STEEL	" " " "	GKN	4
	613005	WASHER M3 INT/SHAKEPROOF	STEEL ZINC PLATED	GKN	7
	613009	SOLDER TAG 4BA			1
	613021	WASHER M4 INT/SHAKEPROOF	STEEL ZINC PLATED	GKN	4
	615002	NUT M3 FULL HEX. STEEL	ZINC PLATED	GKN	3
	615011	NUT M4 FULL HEX. STEEL	ZINC PLATED	GKN	4
	700071	KEYSWITCH ACTIVATED ON/OFF	LORLIN	KMS 8004/DC751	1
	920150	FAN 115V 119mm BALL B.	REDPOINT	RCF 162/115	1
	920086	MAINS 1/P MODULE	POTTER	7100-0002	1
	630133	HOLE PLUG 1/4" BLACK	HEYCO	DP 250	6
	900009	LOCKING COMPOUND	LOCTITE	270	N/R
	920098	FUSE 3A. ANTISURGE	LITTLEFUSE	313003	1

NOTES

SEE SHEET 1 FOR LATEST ISSUE

ISS																				
ECD																				
DATE																				
CHKD																				

DATE	7.9.84	datron ELECTRONICS LTD	
DRAWN	M.J.D.	TITLE	4200 REAR PANEL ASSY.
CHECKED		DRAWING NUMBER	400531
APPROVED	<i>JL</i>	SHEET	3 OF 4
DATE	10.9.84		

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	530000	24/2 PVC INSULATED (BLK)			100mm
	530111	24/2 PVC INSULATED (BRN)			110mm
	530222	24/2 PVC INSULATED (RED)			120mm
	530333	24/2 PVC INSULATED (ORG)			120mm
	530999	24/2 PVC INSULATED (WHT)			110mm
	605135	6WAY CHASSIS MNT. 0-093 SKT.	MOLEX	03-09-1061	2
	605136	0-093 MALE CRIMP TERM. GD.	MOLEX	02-09-6123.	5
	605137	0-093 FEMALE CRIMP TERM. GD.	MOLEX	02-09-5123.	5

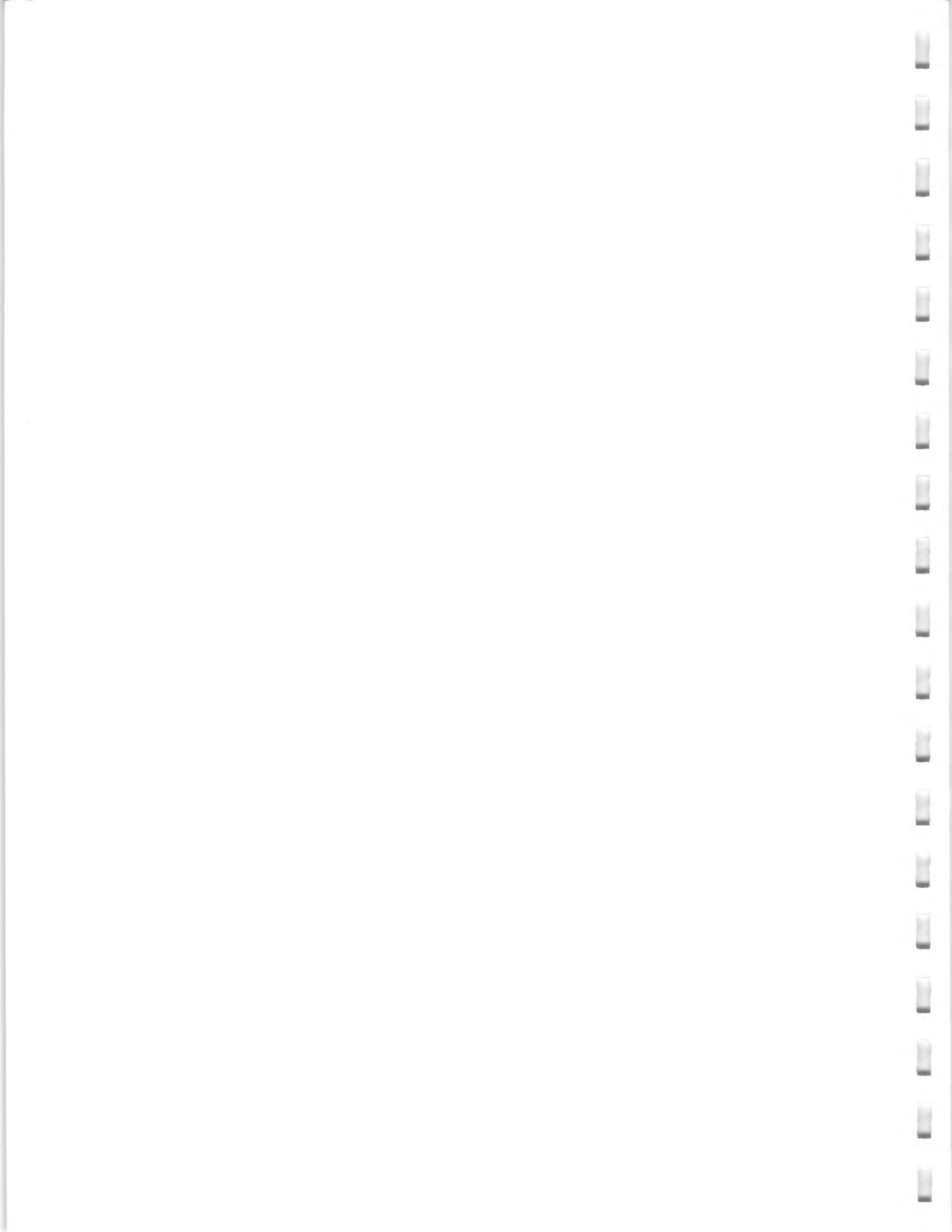
NOTES

SEE SHEET 1 FOR LATEST ISSUE

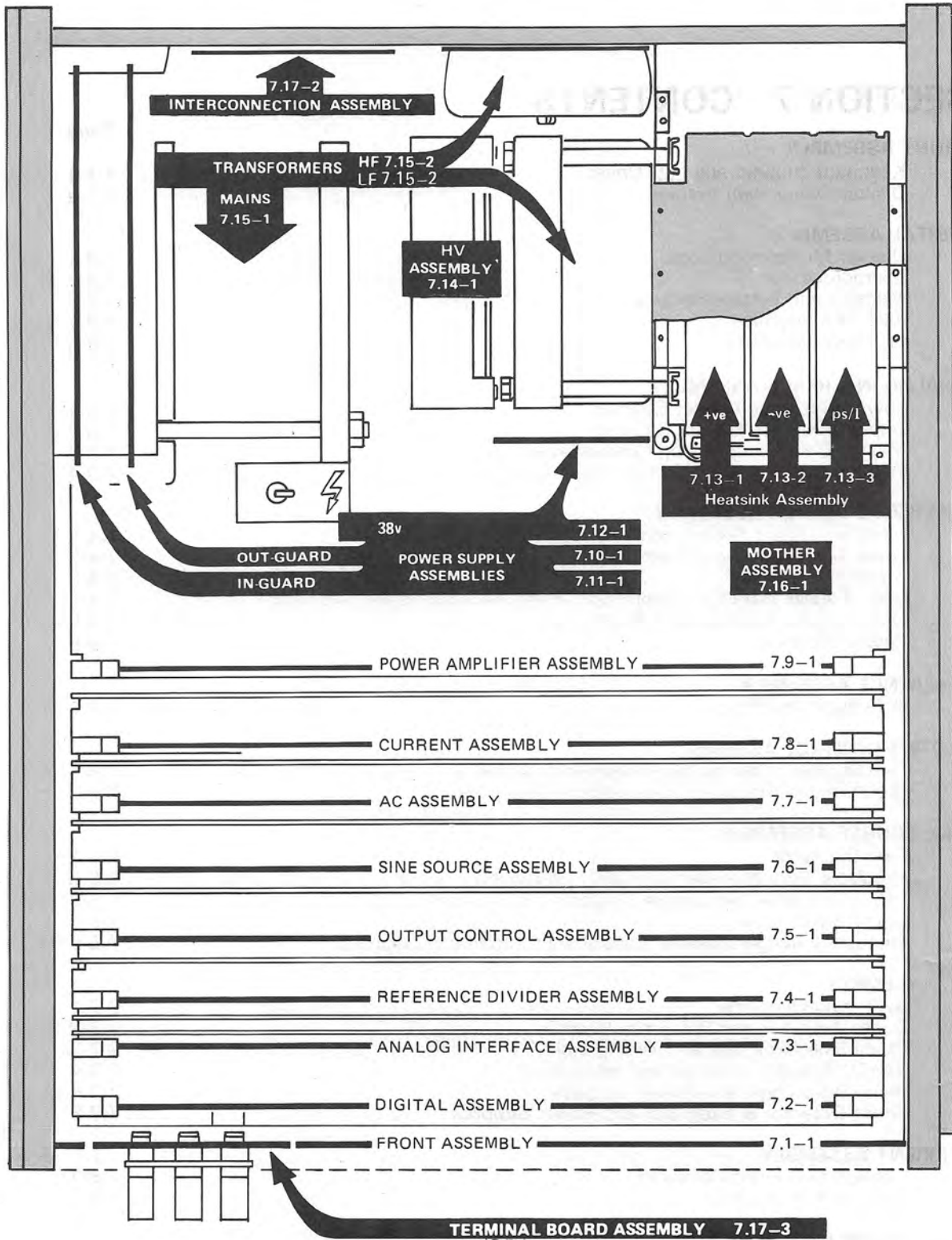
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ECD																				
DATE																				
CHKD																				

DATE	6th DEC 85.	datron ELECTRONICS LTD	
DRAWN	B.S. JACKSON	TITLE	4200 REAR PANEL ASSY.
CHECKED		DRAWING NUMBER	400531
APPROVED		SHEET	4 OF 4
DATE			





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BUZZER CONTROL

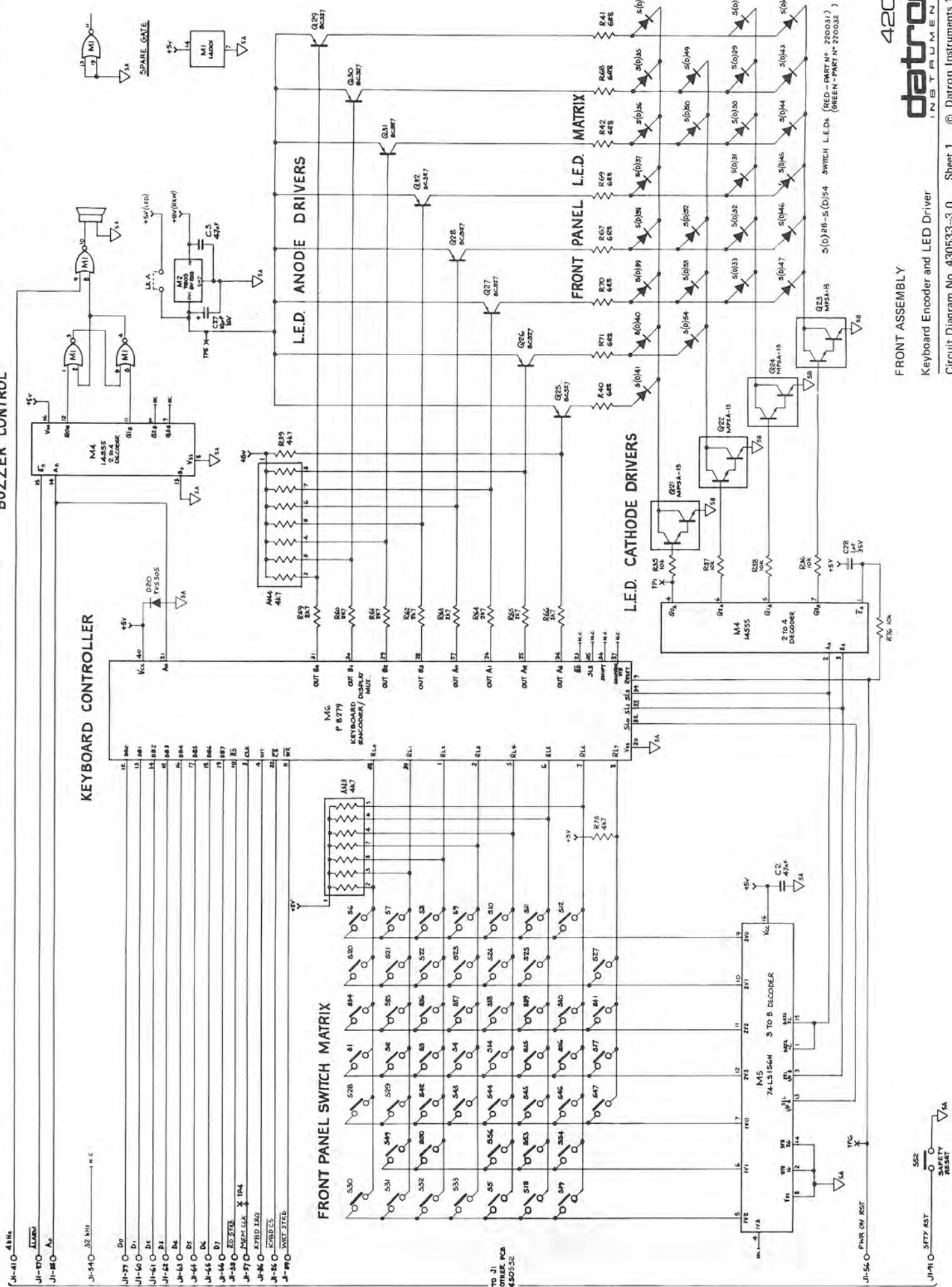
KEYBOARD CONTROLLER

FRONT PANEL SWITCH MATRIX

L.E.D. ANODE DRIVERS

FRONT PANEL L.E.D. MATRIX

L.E.D. CATHODE DRIVERS



RED - PART N° 220031 )  
GREEN - PART N° 220032 )

4200

**datron**  
INSTRUMENTS

FRONT ASSEMBLY  
Keyboard Encoder and LED Driver  
Circuit Diagram No. 430533-3.0 Sheet 1 © Datron Instruments 1986



- J1-410 41Mk
- J1-470 ALUMIN
- J1-480 Aa
- J1-540 .32 MHT
- J1-570 Do
- J1-600 D1
- J1-610 D1
- J1-620 D1
- J1-630 D1
- J1-640 D1
- J1-650 D1
- J1-660 D1
- J1-670 D1
- J1-680 D1
- J1-690 D1
- J1-700 D1
- J1-710 D1
- J1-720 D1
- J1-730 D1
- J1-740 D1
- J1-750 D1
- J1-760 D1
- J1-770 D1
- J1-780 D1
- J1-790 D1
- J1-800 D1
- J1-810 D1
- J1-820 D1
- J1-830 D1
- J1-840 D1
- J1-850 D1
- J1-860 D1
- J1-870 D1
- J1-880 D1
- J1-890 D1
- J1-900 D1
- J1-910 D1
- J1-920 D1
- J1-930 D1
- J1-940 D1
- J1-950 D1
- J1-960 D1
- J1-970 D1
- J1-980 D1
- J1-990 D1
- J1-1000 D1

TO J1  
MOTOR PCB  
450532

J1-540 PWR ON RES

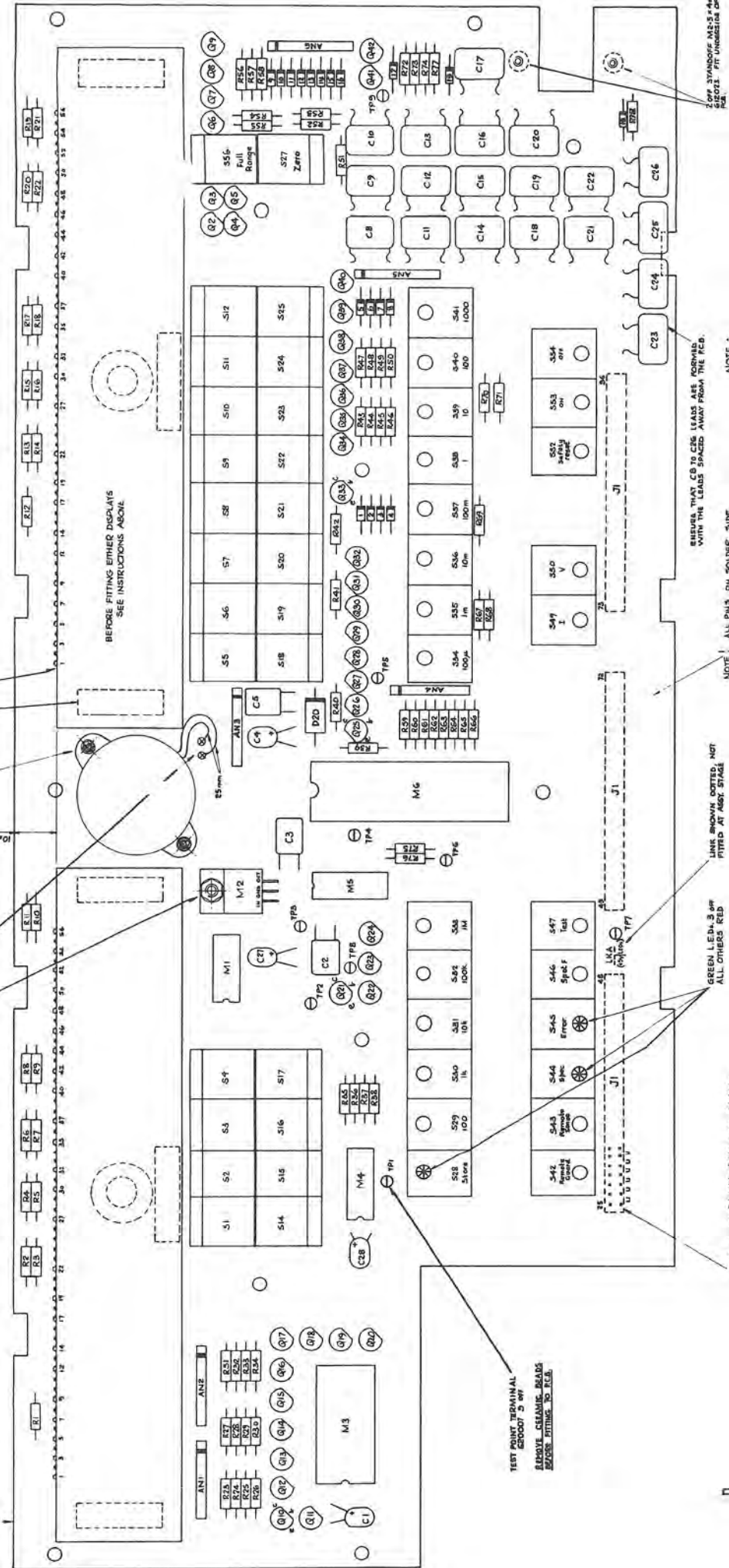
J1-100 SAFETY RESET

**FRONT ASSEMBLY**

**MOUNTING ICs**  
FIT M1 INTO 14-WAY DIL SOCKET 605060/L  
FIT M3 INTO 24-WAY DIL SOCKET 605097  
FIT M4 INTO 16-WAY DIL SOCKET 605066/L  
FIT M5 INTO 40-WAY DIL SOCKET 605076

EACH DISPLAY TO HAVE 3 PIECES OF RESISTOR SENSITIVE TAPE 600023  
25mm LEADS STUCK TO THE REVERSE OF THE DISPLAY  
TO PREVENT SHORTING. THE TAPE PINS WHICH  
ARE SHOWN BELOW. (THERE ARE ONLY SOLDER PASTE FOL  
THESE PINS)  
SECURE BUZZER (PART # 920096) WITH  
2 #4 NUTS W/ 2 #4 CSK SCREWS 611084  
2 #4 NUTS W/ 2 #4 CSK SCREWS 611084  
2 #4 NUTS W/ 2 #4 CSK SCREWS 611084

PCB: 410142  
2 #4 SOLDER TERMINAL 600003  
TO SECURE M2 SEE FIRING  
DETAIL AT BOTTOM OF SHEET



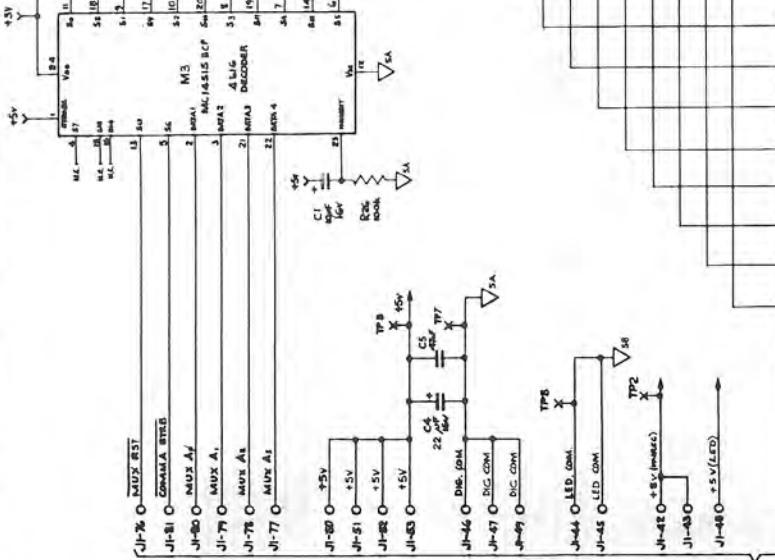
NOTE: ALL VIA HOLES AND SPARE COMPONENT HOLES MUST BE SOLDERED

NOTE: FIT 3 #4 24-24 WAY 1/4" RES. PLUS 604060  
TO UNDERSIDE OF PCB. ENSURE THAT BODY IS  
PART 4 ADJACENT TO PCB WITH ANODIZED PINS  
POINTING TOWARDS LOWER SIDE OF PCB.

NOTE: SREW M3 6mm SLANTER PANDA  
WASHER M3 SHAKPROOF 611003  
NUT M3 HEX FULL 616002

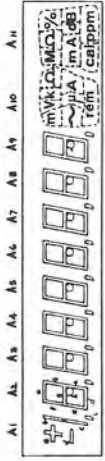


**GAS DISCHARGE DISPLAY ANODE DRIVERS**

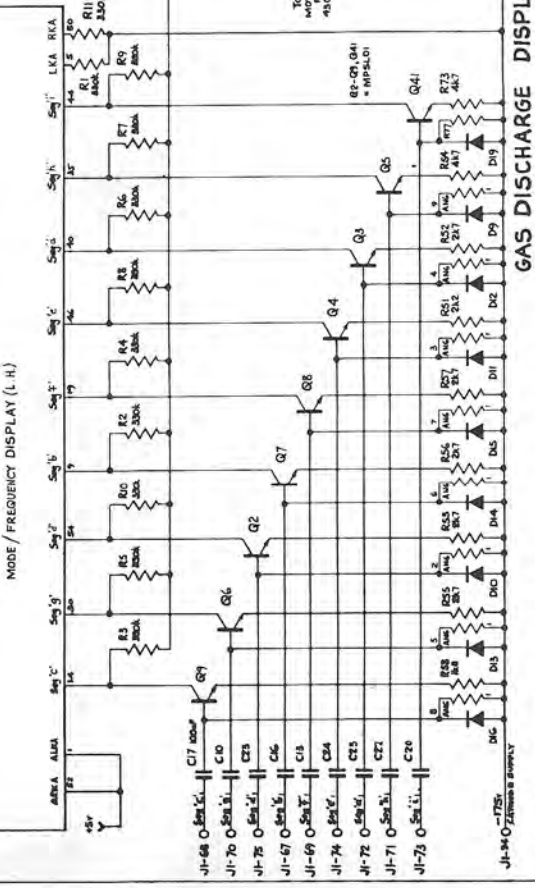


- J1-76 0 MUX B3T
- J1-81 0 GOMAMA BR16
- J1-80 0 MUX A1
- J1-79 0 MUX A1
- J1-78 0 MUX A1
- J1-77 0 MUX A1
- J1-80 0 25V
- J1-81 0 +5V
- J1-82 0 -5V
- J1-83 0 +5V
- J1-46 0 DMC 10M
- J1-47 0 DMC COM
- J1-49 0 DMC COM
- J1-44 0 LED COM
- J1-45 0 LED COM
- J1-48 0 +5V (ANODE)
- J1-43 0
- J1-48 0 +5V (LED)

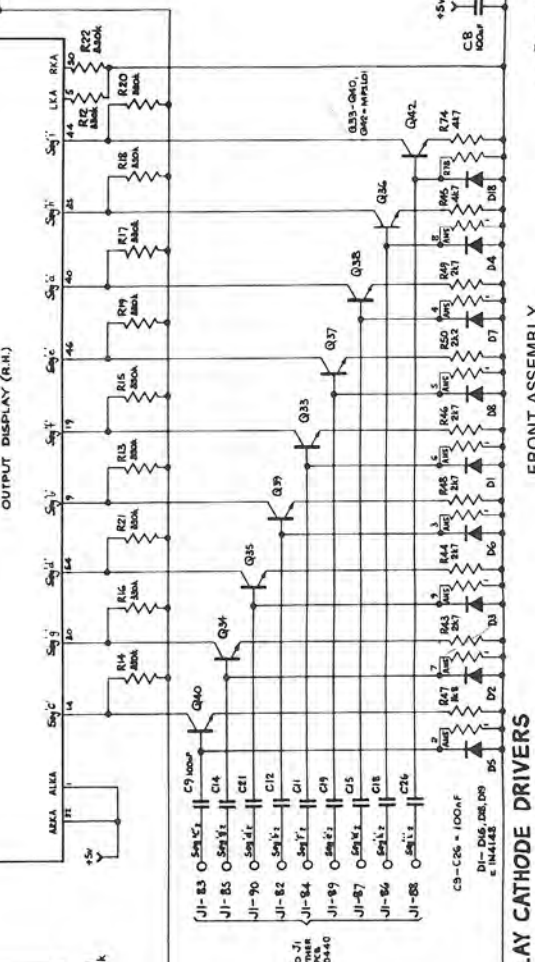
SEG.	ANODE	ALI
8	A10	7
7	A9	6
6	A8	5
5	A7	4
4	A6	3
3	A5	2
2	A4	1
1	A3	0



**8 1/2 DIGIT DISPLAY  
MODE / FREQUENCY DISPLAY (L.H.)**



**8 1/2 DIGIT DISPLAY  
OUTPUT DISPLAY (R.H.)**



**GAS DISCHARGE DISPLAY CATHODE DRIVERS**



- J1-84 0 25V
- J1-70 0 5V
- J1-75 0 5V
- J1-67 0 5V
- J1-69 0 5V
- J1-74 0 5V
- J1-72 0 5V
- J1-71 0 5V
- J1-73 0 5V
- J1-80 0 25V

4200

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INSTRUMENTS

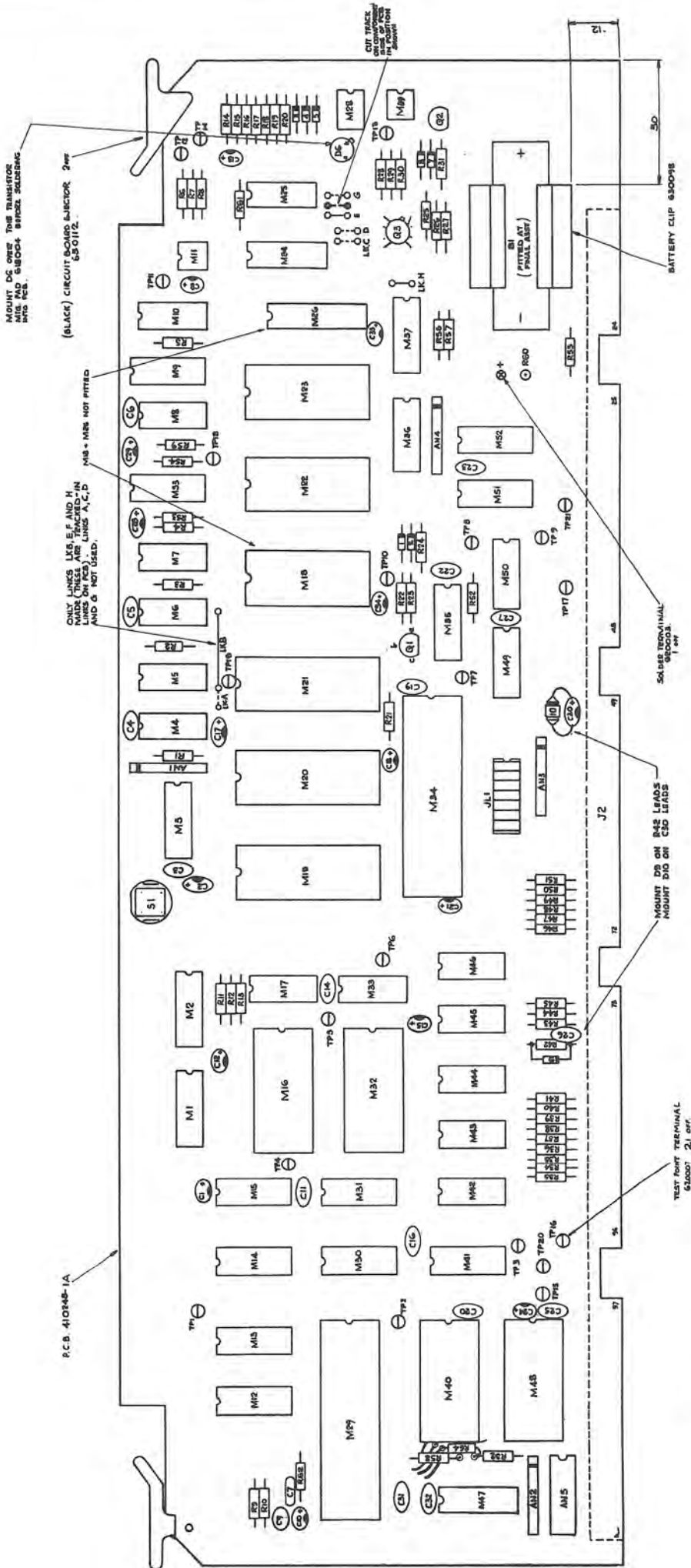
Display Driver High Voltage  
Circuit Diagram No. 430533-3.0 Sheet 2 © Datron Instruments 1986



DIGITAL ASSEMBLY

THIRD ANGLE PROJECTION

DRAWN IN ACCORDANCE WITH BS 308



MOUNT DC OVER THE TRANSISTOR  
M10 AND SUBCOT SOLDER  
M10 M8.

(BLACK) CIRCUIT BOARD LECTOR 2mm  
650172.

ONLY LINKS LK5, E, F, AND H  
LINKS ON PCB. LINKS A, C, D  
AND G NOT USED.

M18 - M28 NOT FITTED

CUT TRACK  
ON LOW SIDE OF  
IN POSITION  
SHEET

BATTERY CLIP 650018

SOLDER TERMINAL  
650020  
16mm

MOUNT DS ON HAS LEADS  
ROBERT D10 ON CS5 LEADS

TEST POINT TERMINAL  
650007 2.1mm

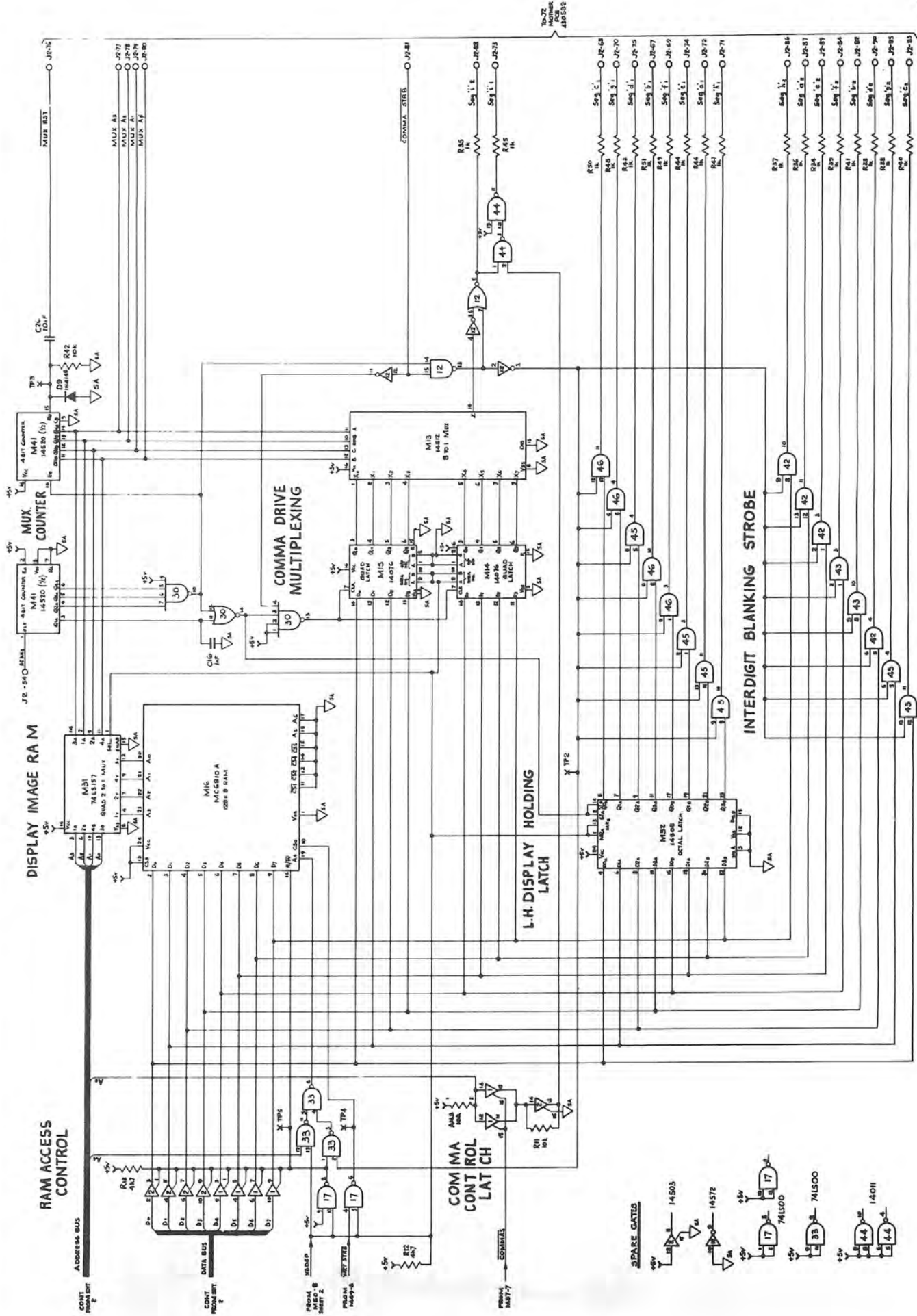
MOUNTING I.C.s

- FIT M11 + M29 INTO 8-WAY DIL SOCKET 605064/A 2mm
- FIT M28 INTO 8-WAY DIL SOCKET 605059/A 2mm
- FIT M4-M10 INTO 14-WAY DIL SOCKET 605064/A 16mm
- FIT M11-M15 M16 M17 M18 M19 M20 M21 M22 M23 M24 M25 M26 M27 M28 M29 M30 M31 M32 M33 M34 M35 M36 M37 M38 M39 M40 M41 M42 M43 M44 M45 M46 M47 M48 M49 M50 M51 M52 M53 M54 M55 M56 M57 M58 M59 INTO 14-WAY DIL SOCKET 605061/A 20mm
- FIT M19 - M21 INTO 8-WAY DIL SOCKET 605064/A 3mm
- FIT M16, M18, M22, M23, M32, M40, M48 INTO 34-WAY DIL SOCKET 605064/A 7mm
- FIT M27 + M24 INTO 40-WAY DIL SOCKET 605050/A 2mm

DIGITAL ASSEMBLY

Display Multiplexing Logic

Circuit Diagram No. 430534-9.0



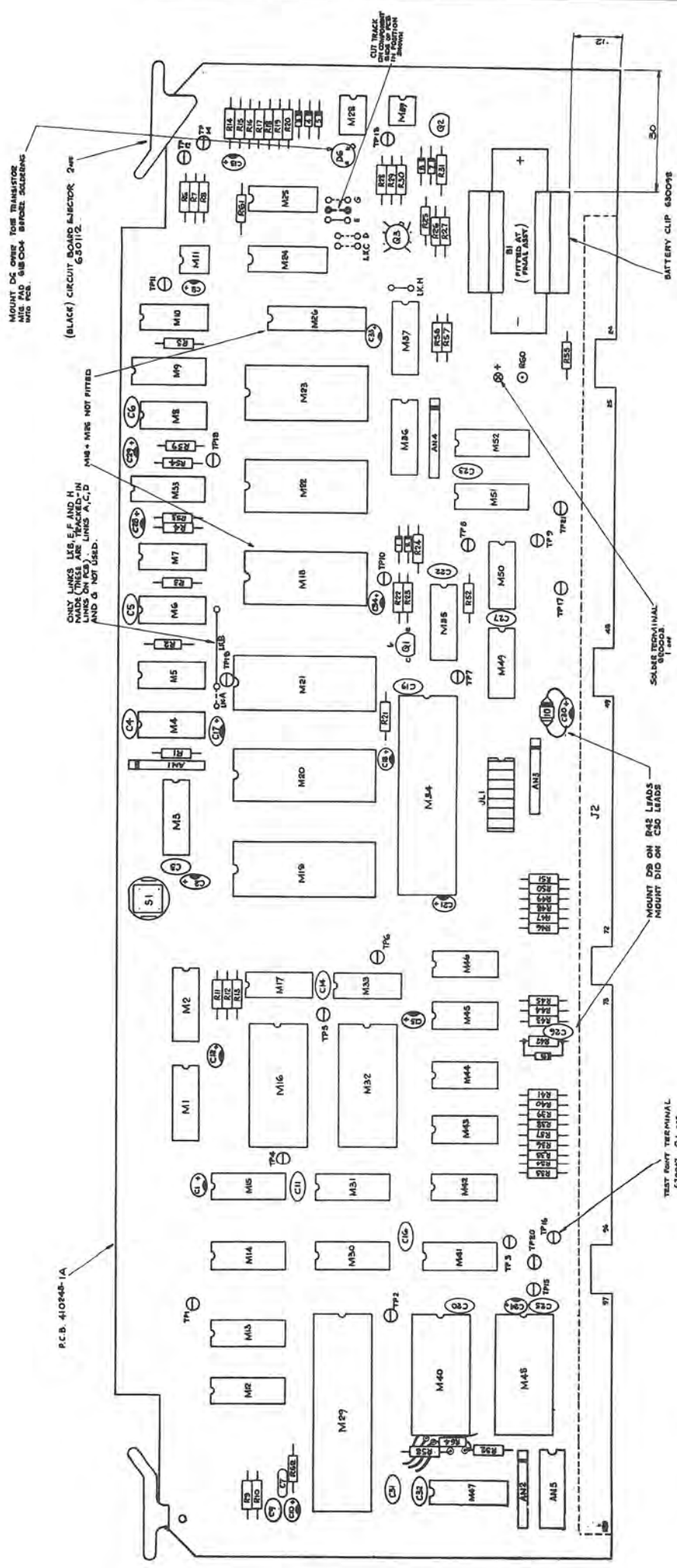
DIGITAL ASSEMBLY

Display Multiplexing Logic

Circuit Diagram No. 430534-9.0

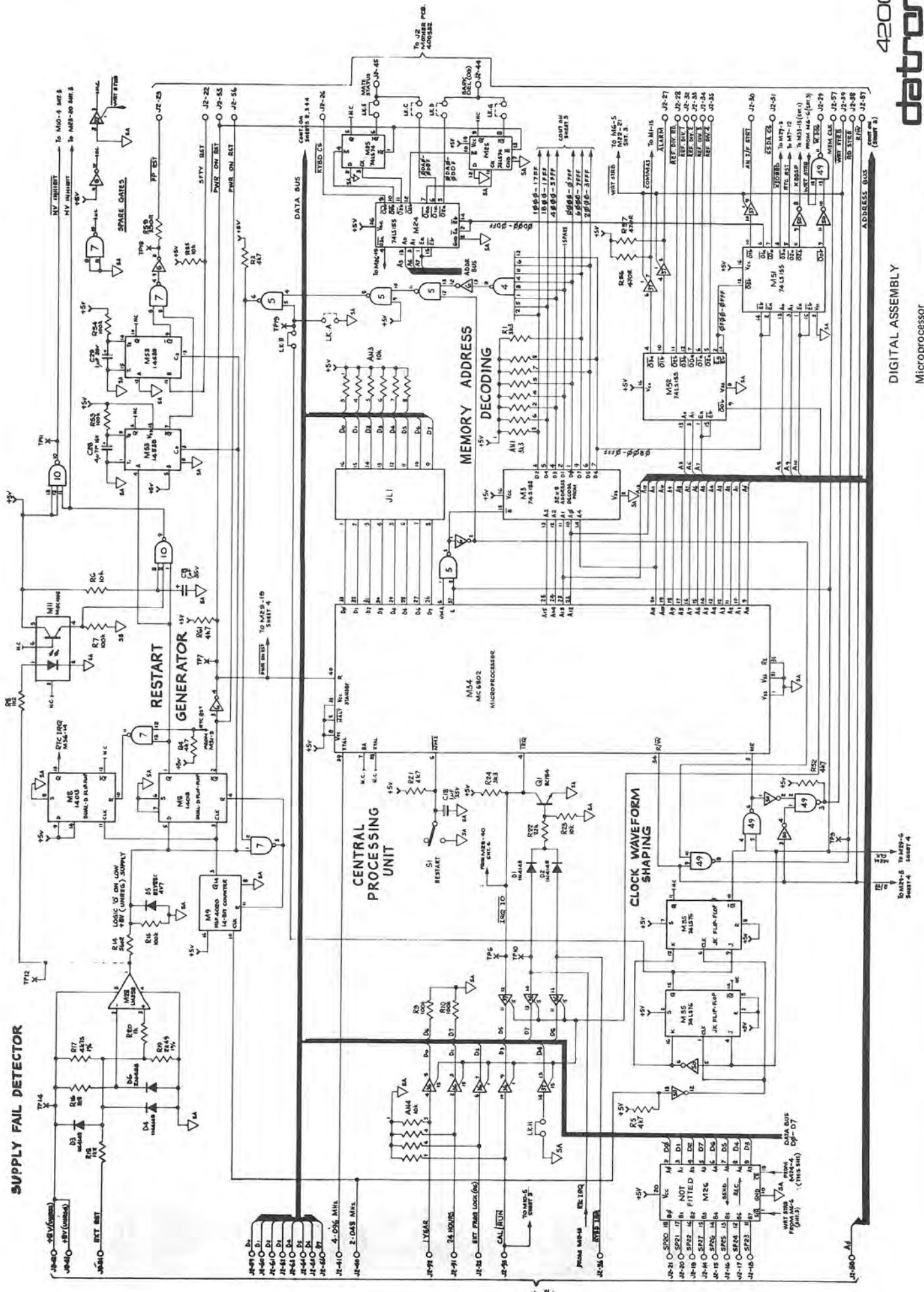
DIGITAL ASSEMBLY

THIRD ANGLE PROJECTION  
DRAWN IN ACCORDANCE WITH BS 308



MOUNTING I.C.s.

- PTT M11 & M18 INTO 6-WAY DIL SOCKET 650566/A 2-W
- PTT M12 INTO 14-WAY DIL SOCKET 650566/A 2-W
- FIT M14-M18 INTO M17 M18 M13 M12-M16 M13 + M150 INTO 14-WAY DIL SOCKET 650562/A 16 OFF
- FIT M11-M13 M15 M12-M15 M24 M30 M31 M33-M37 M41 M47 M51-M53 + J11 INTO 16-WAY DIL SOCKET 650506/A 30-W
- PTT M19 - M21 INTO 8P-WAY 2HL SOCKET 650505/A 3-W
- PTT M16, M18, M24, M32, M40 + M48 INTO 24-WAY DIL SOCKET 650566/A 7-W
- PTT M27 + M28 INTO 40-WAY DIL SOCKET 650506/A 2-W



DIGITAL ASSEMBLY

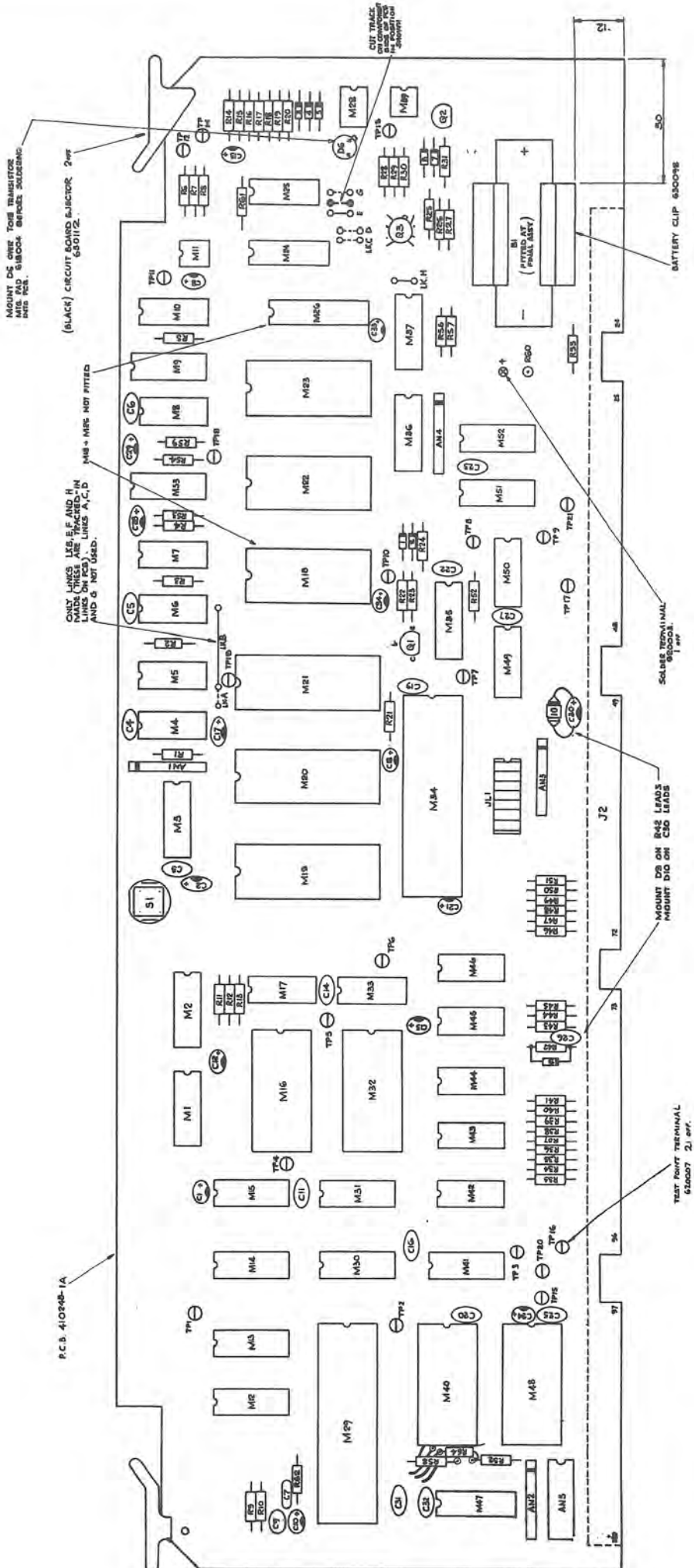
Microprocessor

Circuit Diagram No. 430534-9.0 Sheet 2 © Datron Instruments 1986

DIGITAL ASSEMBLY

## THIRD ANGLE PROJECTION

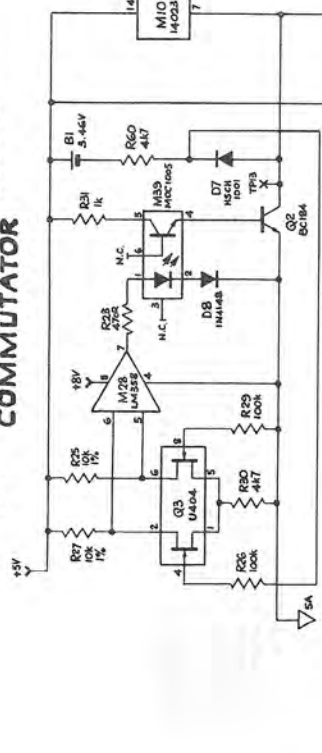
DRAWN IN ACCORDANCE WITH BS 308



**MOUNTING I.C.s.**

- FIT M1 + M2 INTO 6-WAY DIL SOCKET 650644 2W
- FIT M3 INTO 14-WAY DIL SOCKET 650644 2W
- FIT M4-M8 INTO 14-WAY DIL SOCKET 650644 15 W
- FIT M9-M12 INTO 14-WAY DIL SOCKET 650644 15 W
- FIT M13-M15 INTO 14-WAY DIL SOCKET 650644 15 W
- FIT M16-M18 INTO 14-WAY DIL SOCKET 650644 15 W
- FIT M19-M21 INTO 9-WAY DIL SOCKET 650644 7 W
- FIT M22-M24 INTO 14-WAY DIL SOCKET 650644 15 W
- FIT M25-M27 INTO 14-WAY DIL SOCKET 650644 15 W
- FIT M28-M30 INTO 14-WAY DIL SOCKET 650644 15 W
- FIT M31-M33 INTO 14-WAY DIL SOCKET 650644 15 W
- FIT M34-M36 INTO 14-WAY DIL SOCKET 650644 15 W
- FIT M37-M39 INTO 14-WAY DIL SOCKET 650644 15 W
- FIT M40-M42 INTO 14-WAY DIL SOCKET 650644 15 W
- FIT M43-M45 INTO 14-WAY DIL SOCKET 650644 15 W

# NON-VOLATILE RAM COMMUTATOR



FROM MIO-10 NV INHIBIT

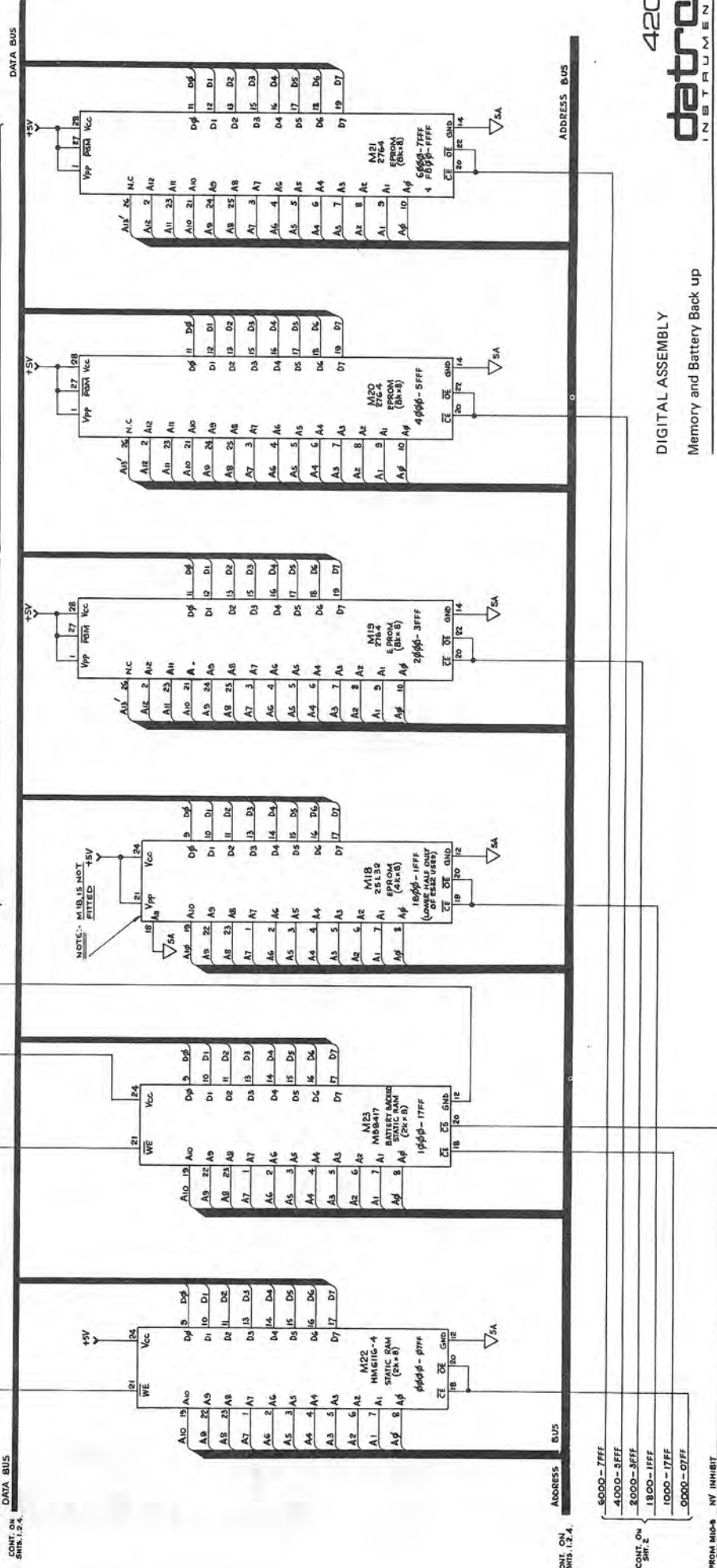
FROM LPS-3 CAL/RTN

FROM LPS-4 WRT STRB.

CONT. ON

SHT. 1, 2, 4.

# PROGRAM MEMORY



CONT. ON

SHT. 1, 2, 4.

CONT. ON

SHT. 2

FROM MIO-9

SHT. 2

NV INHIBIT

DIGITAL ASSEMBLY

Memory and Battery Back up

Circuit Diagram No. 430534--9.0 Sheet 3

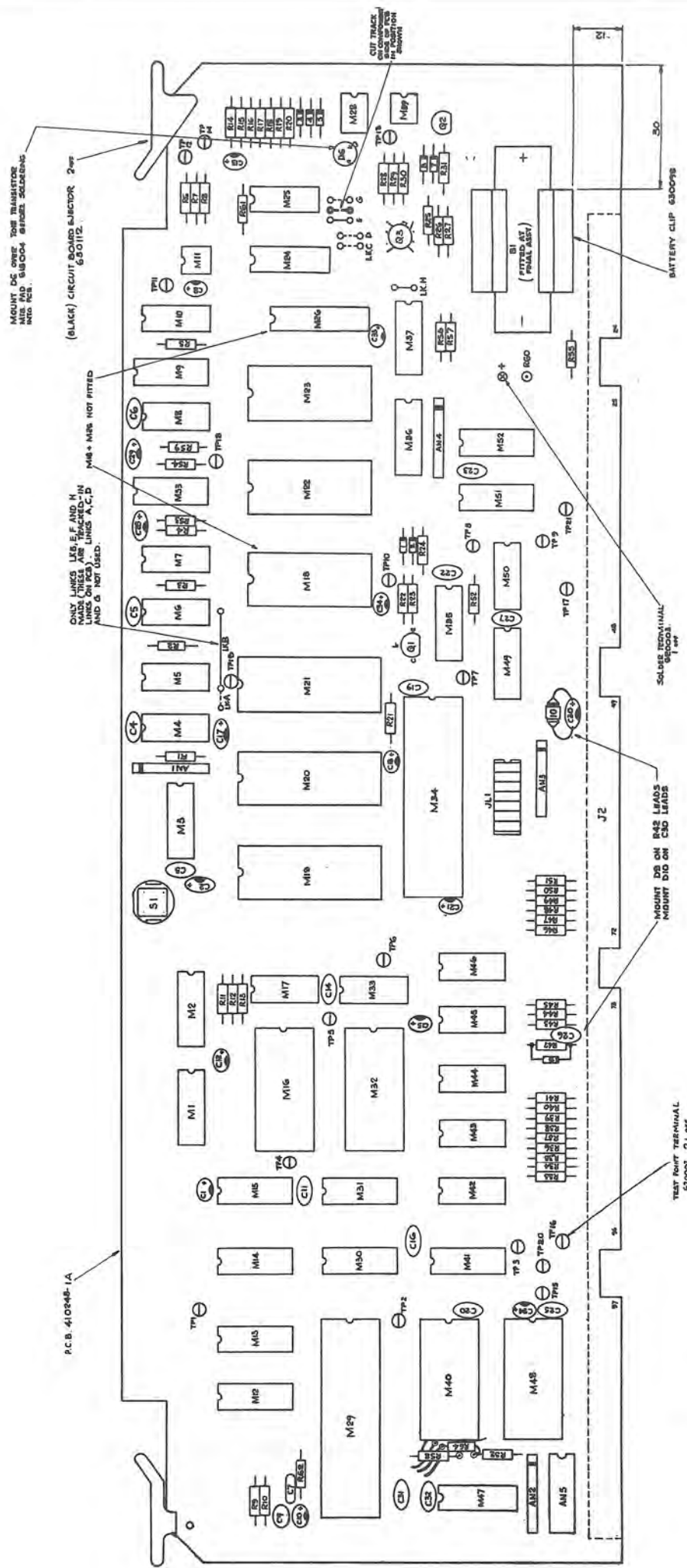
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INSTRUMENTS

4200

DIGITAL ASSEMBLY

THIRD ANGLE PROJECTION  
DRAWN IN ACCORDANCE WITH BS 308

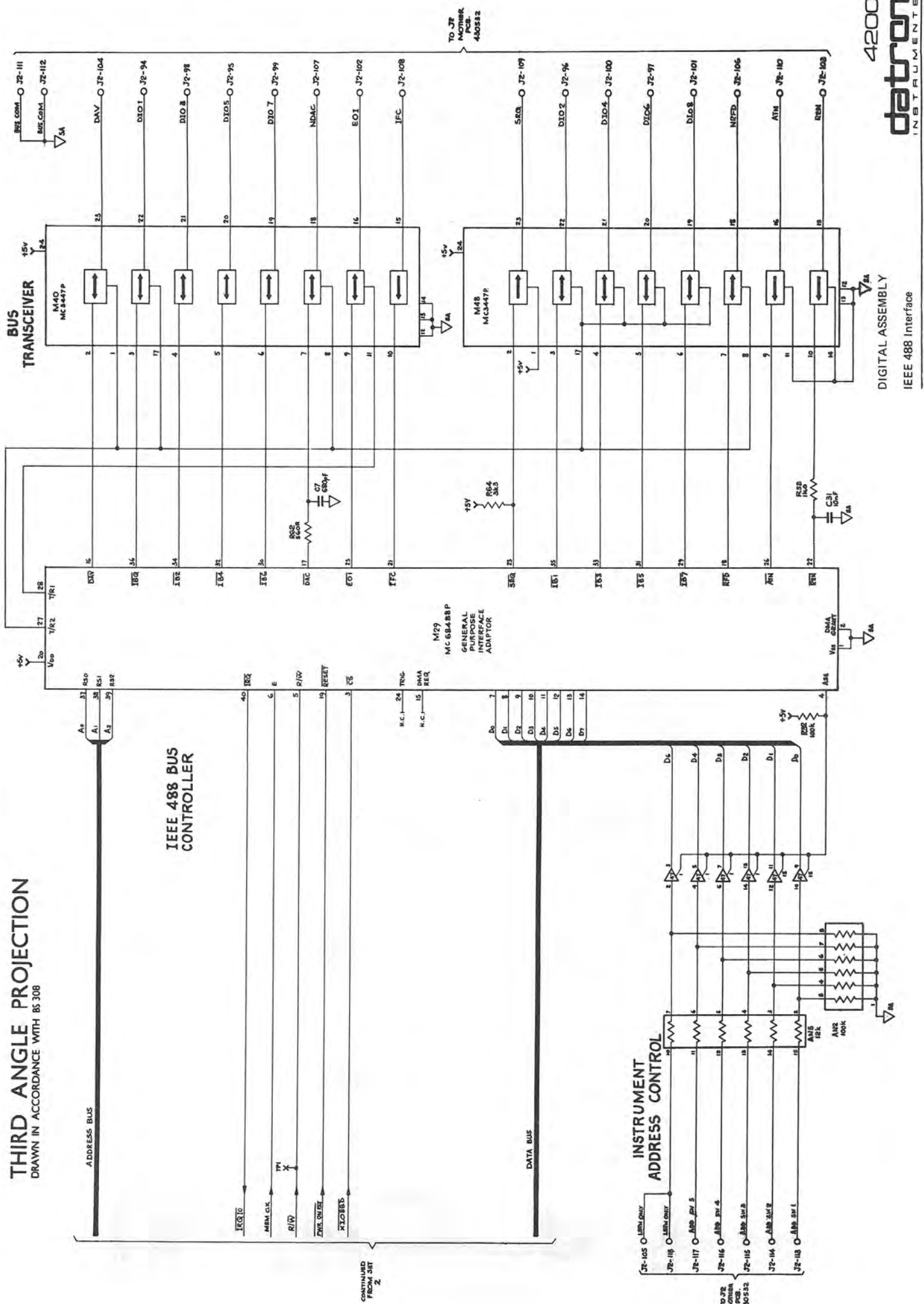


MOUNTING I.C.s.

- FIT M11-M19 INTO 6-WAY DIL SOCKET 605064/A 2#
- FIT M20 INTO 9-WAY DIL SOCKET 605089/A 2#
- FIT M41-M50 M17 M25 M33 M42-M46 M48 4 M50 INTO 14-WAY DIL SOCKET 605064/A 16 #
- FIT M1-M5 M8 M12-M16 M24 M30 M31 M32 M35 1 J11 INTO 6-WAY DIL SOCKET 605061/A 30 #
- FIT M10-M21 INTO 8-WAY DIL SOCKET 605064/A 3 #
- FIT M15, M18, M22, M23, M40 1 M45 INTO 9-WAY DIL SOCKET 605064/A 7 #
- FIT M28 1 M34 INTO 40-WAY DIL SOCKET 605050/A 2 #

# THIRD ANGLE PROJECTION

DRAWN IN ACCORDANCE WITH BS 308

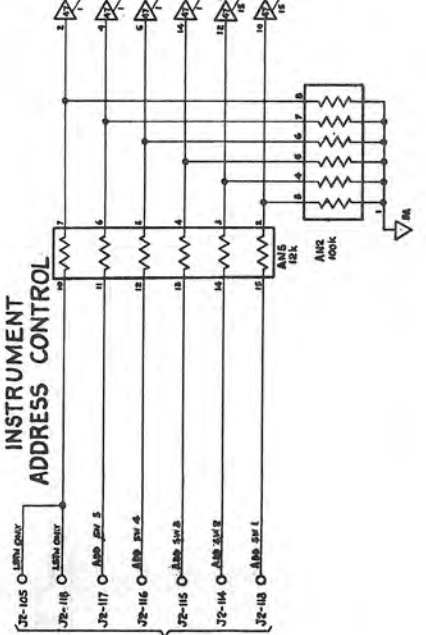


CONTINUED FROM SHIT 2

TO J2 MONITOR PCB 430532

TO J2 MONITOR PCB 430532

## INSTRUMENT ADDRESS CONTROL

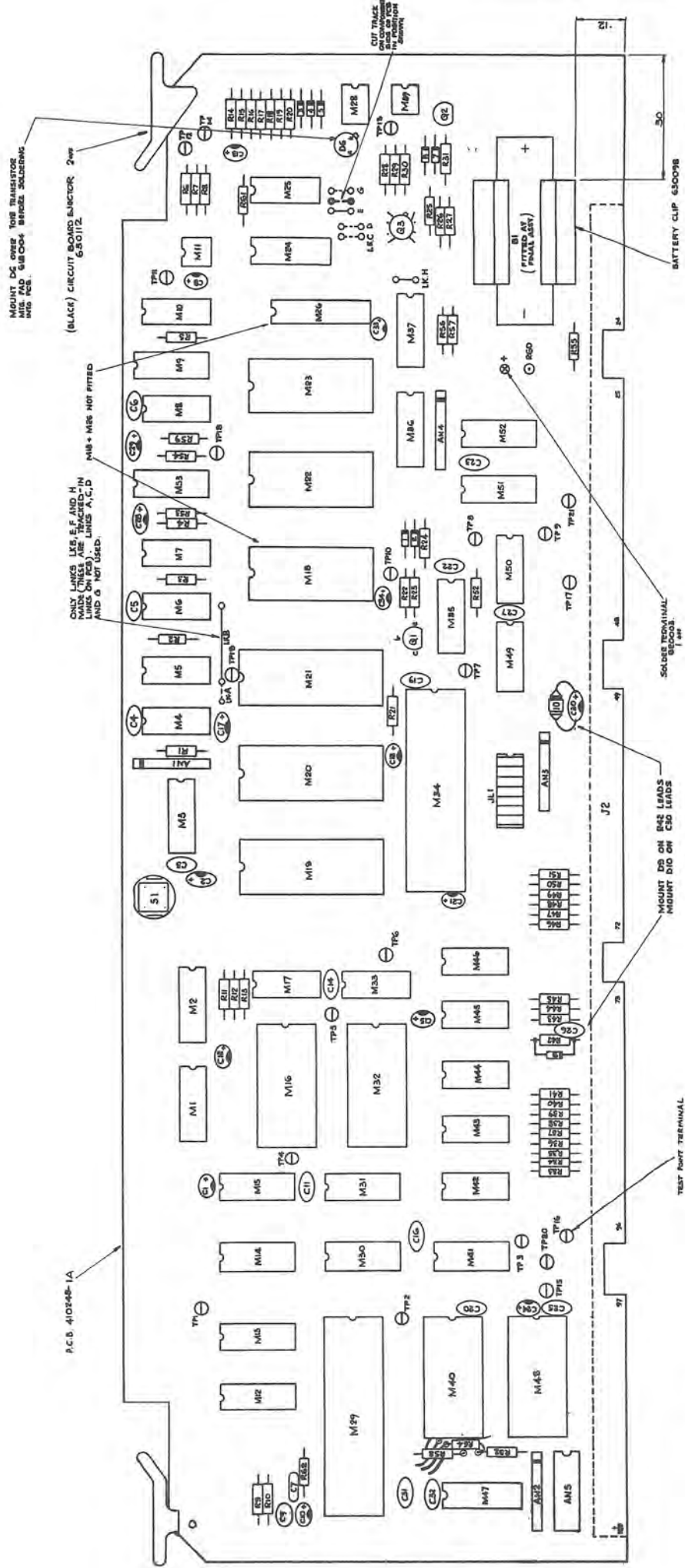




## DIGITAL ASSEMBLY

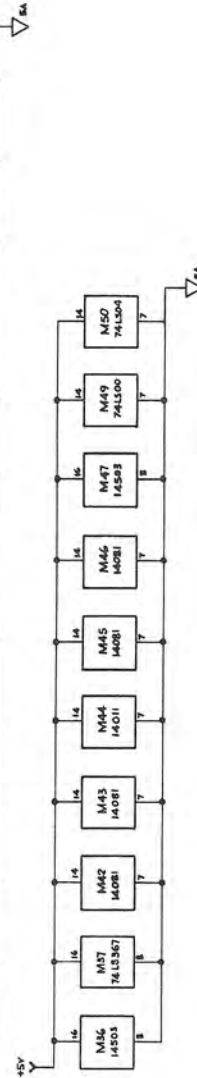
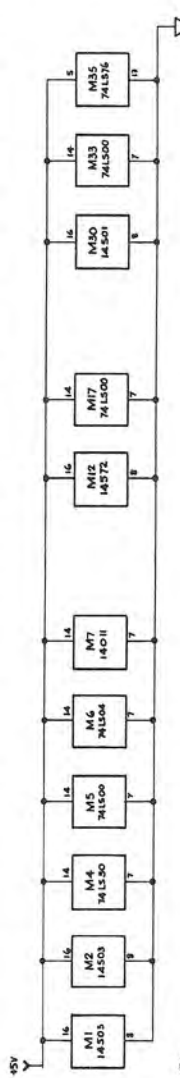
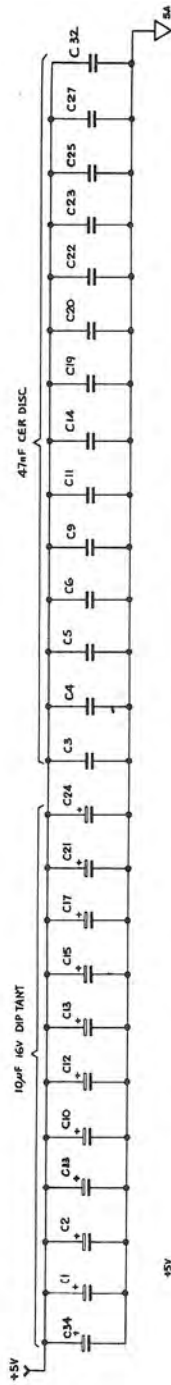
# THIRD ANGLE PROJECTION

DRAWN IN ACCORDANCE WITH BS 308



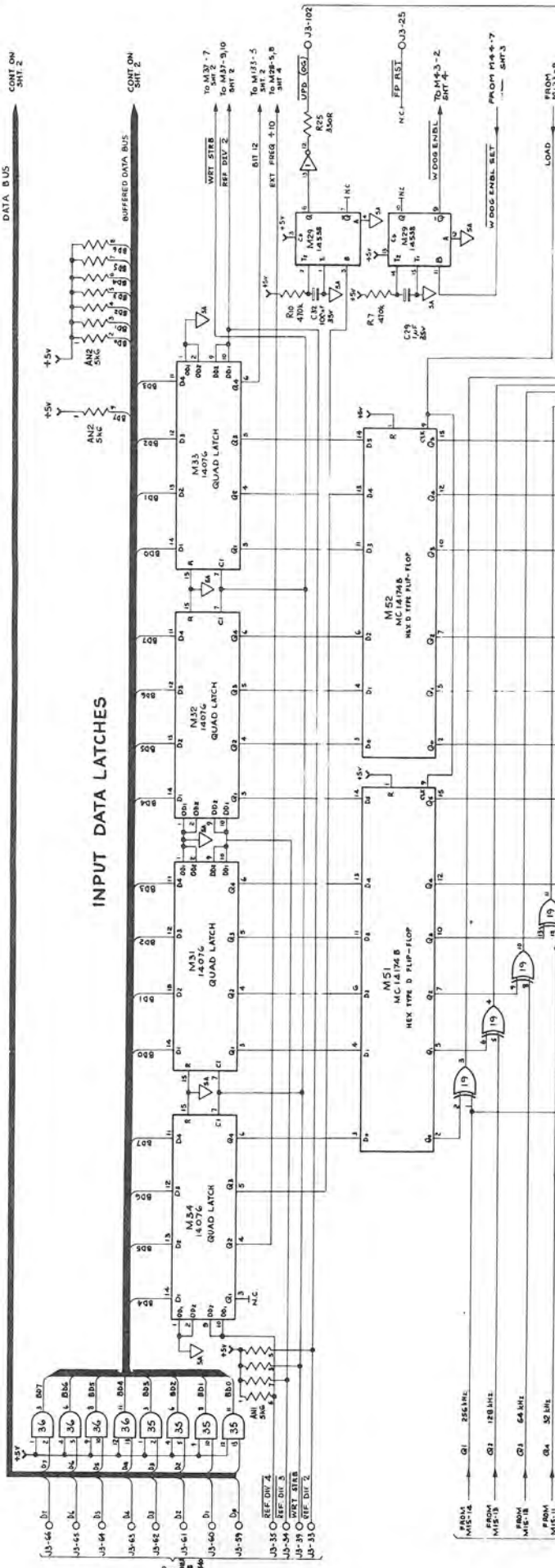
### MOUNTING I.C.s.

- FIT M1 + M39 INTO 6-WAY DIL SOCKET 605064/A 2-wf
- FIT M2 INTO 8-WAY DIL SOCKET 605064/A 2-wf
- FIT M4-M8 INTO 14-WAY DIL SOCKET 605064/A 16-wf
- FIT M1-M3 INTO 8-WAY DIL SOCKET 605064/A 16-wf
- FIT M10-M12 INTO 8-WAY DIL SOCKET 605064/A 3-wf
- FIT M13-M15 INTO 14-WAY DIL SOCKET 605064/A 3-wf
- FIT M16-M18 INTO 14-WAY DIL SOCKET 605064/A 2-wf
- FIT M19 + M21 INTO 20-WAY DIL SOCKET 605064/A 2-wf
- FIT M22 + M23 INTO 20-WAY DIL SOCKET 605064/A 2-wf

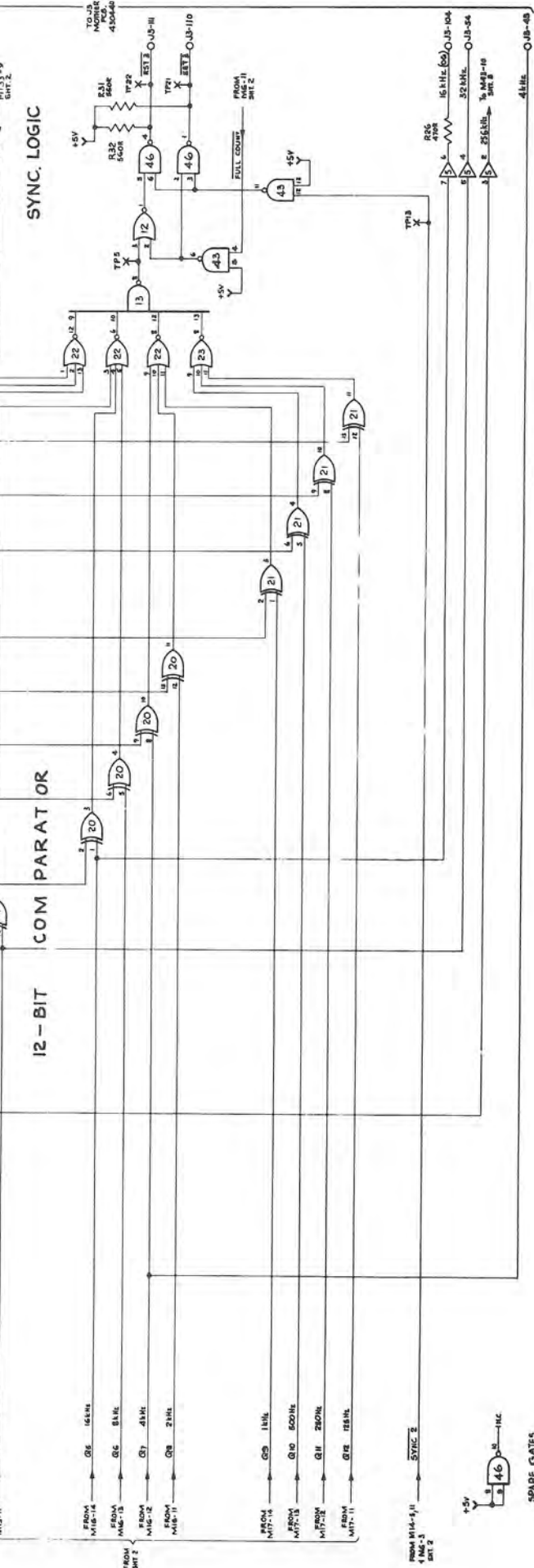




### INPUT DATA LATCHES



### SYNC. LOGIC



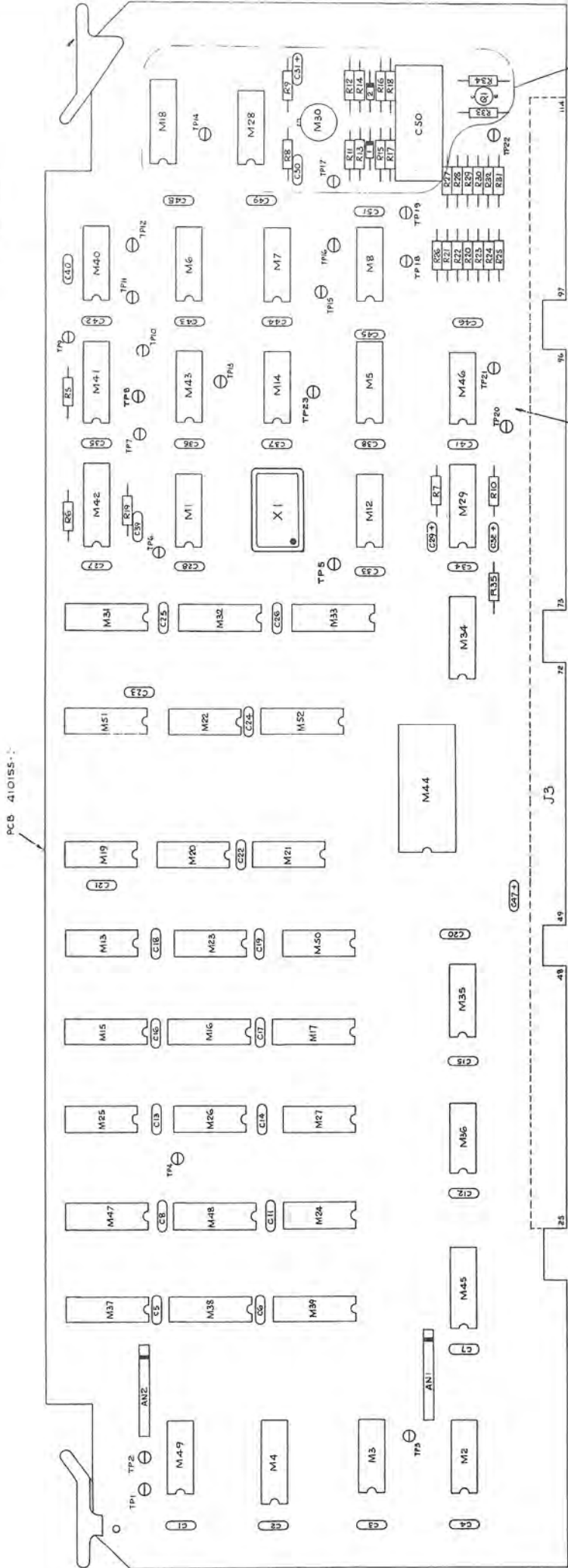
### 12-BIT COMPARATOR

ANALOG INTERFACE ASSEMBLY  
Lower Reference Divider Counter  
Circuit Diagram No. 430570--1.0 Sheet 1 © Datron Instruments 1986



ANALOG INTERFACE ASSEMBLY

(BROWN) CIRCUIT BOARD EJECTOR  
GSC0117 2 OFF

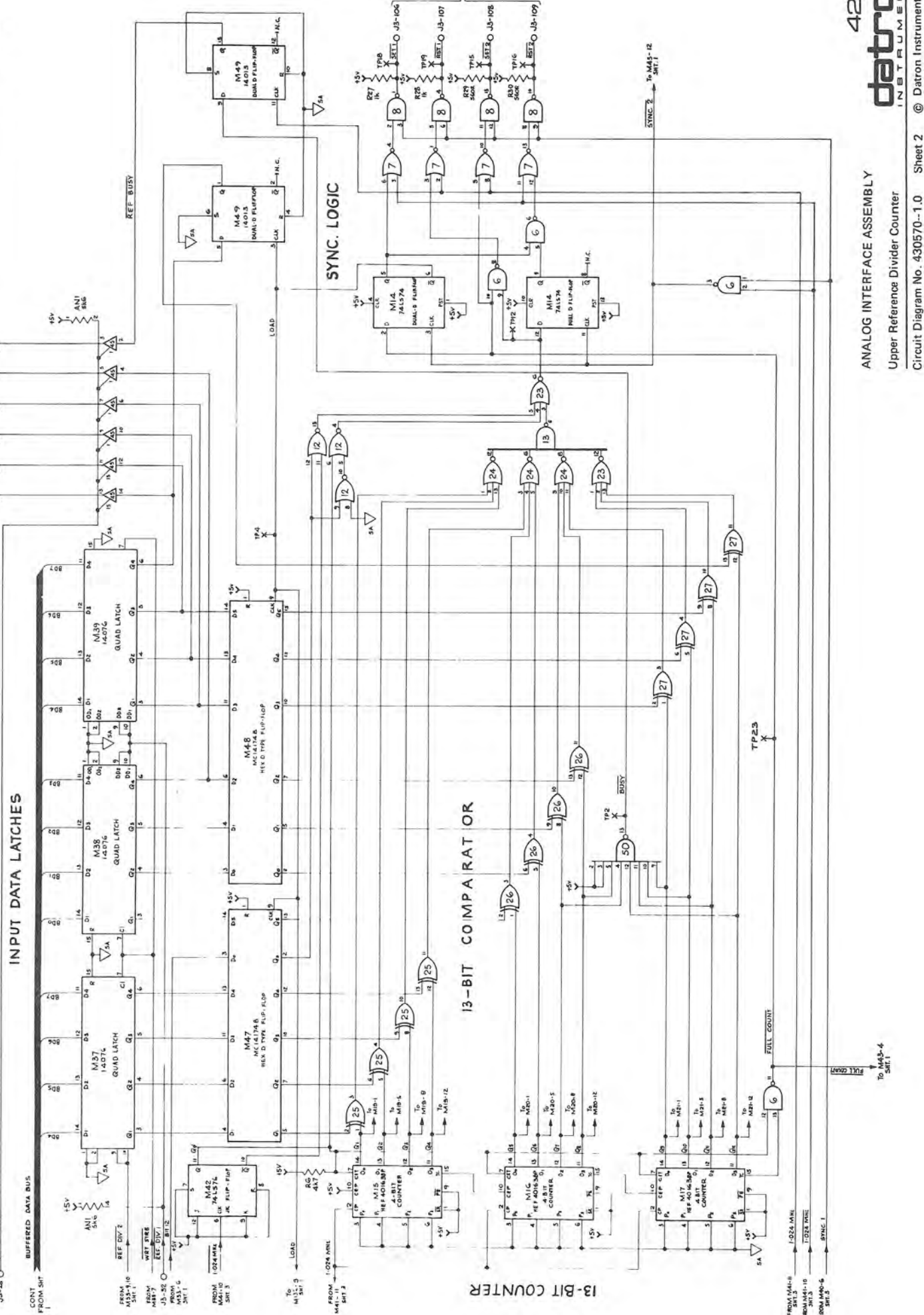


N.B. THE FOLLOWING COMPONENTS NOT FITTED -  
R8, R9, R10, R16, R33, R34, C30, C31, C50, D1, D2, G1, M18, M28, M30, TP14.

TEST POINT TERMINAL (G20007) 23 OFF

NF WAYS	PART N°	MOUNTING IC's.	
		USED TO MOUNT	N° OFF
14	60506/A	1-3, 6-8, 12-14, 18-27, 35, 36, 40, 43, 45, 49 + 50	25
16	60506/A	4-5, 15-17, 29, 31-34, 37-39, 41, 42, 45, 47, 48, 51, 52	20
24	60506/A	44	1

M19-M11 NOT USED.



INPUT DATA LATCHES

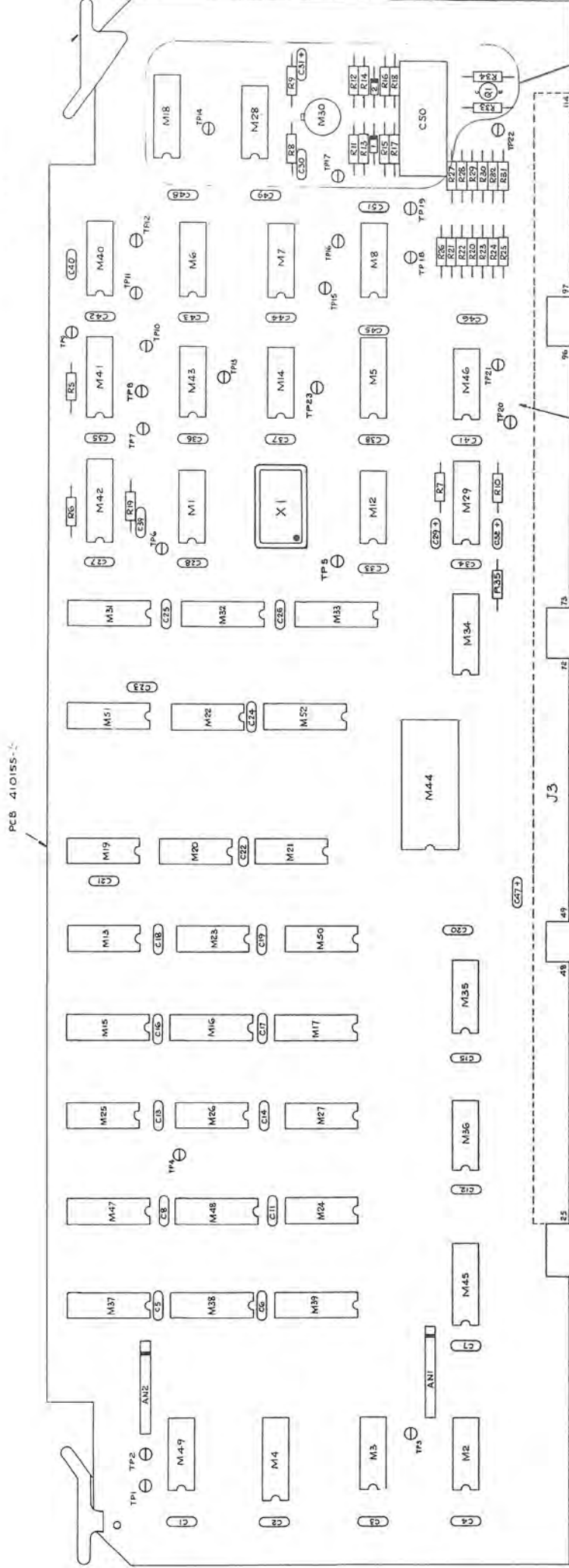
13-BIT COMPARATOR

13-BIT COUNTER

SYNC LOGIC

ANALOG INTERFACE ASSEMBLY

(BROWN) CIRCUIT BOARD EJECTOR  
650117 2 DR



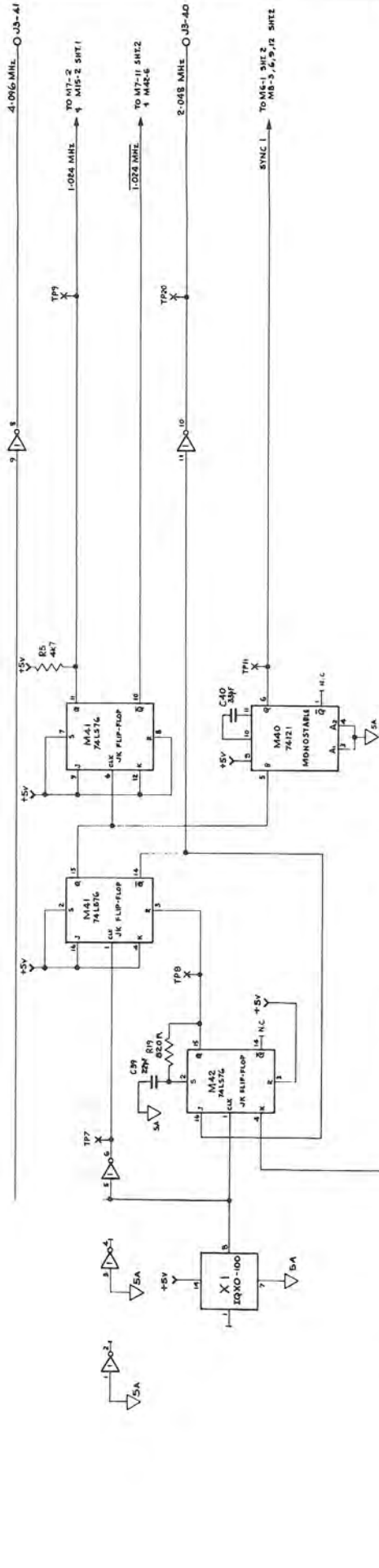
N.B. THE FOLLOWING COMPONENTS  
NOT FITTED - R8, R9, R11-R18,  
R20, R21, C35, C39, C40,  
C41, C42, Q1, M18, M28, M30  
TP14

TEST POINT TERMINAL  
(650007) 23 DR

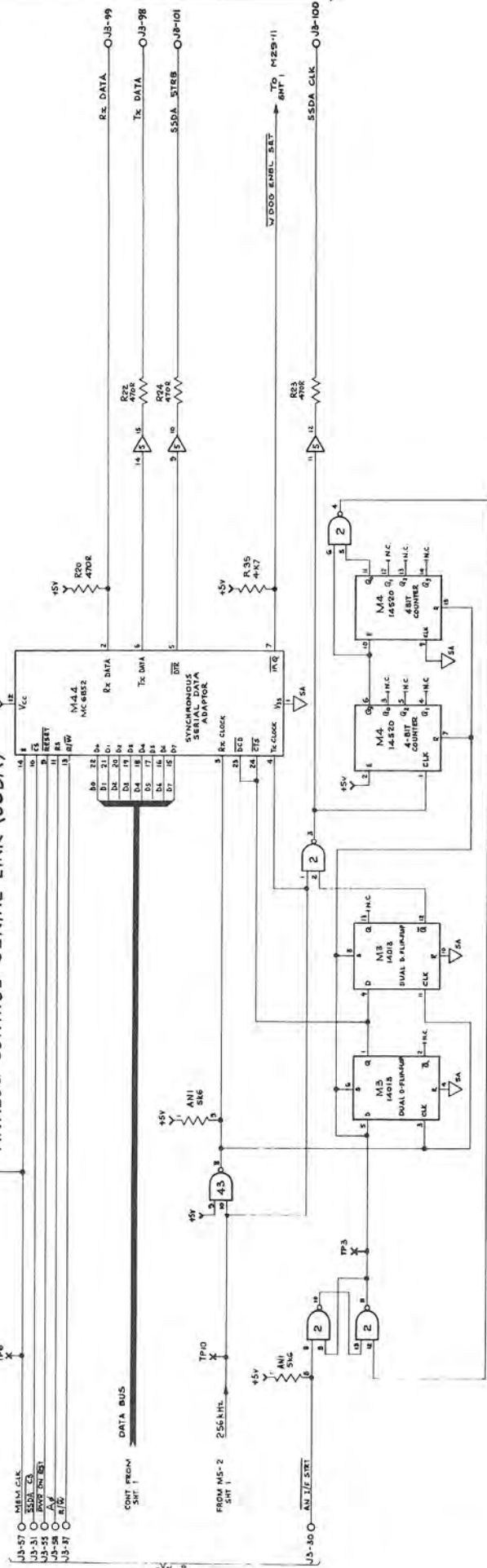
REF	WAYS	PART NO	USED TO MOUNT	NO OF
14	605060/A	1-3, 6-8, 12-14, 15-27, 35, 36, 40, 43, 46, 49 & 50		25
16	605061/A	4-5, 15-17, 29, 31-34, 37-59, 41, 42, 45, 47, 48, 51, 52		20
24	605064/A	44		1

M19-M21 NOT USED.

# MASTER CLOCKS



# ANALOG CONTROL SERIAL LINK (SSDA)



To J3  
MOTHER  
PCB  
430570-1.0

ANALOG INTERFACE ASSEMBLY

Master Clocks and  
Analog Control Serial Link

Circuit Diagram No. 430570--1.0 Sheet 3

4200

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INSTRUMENTS

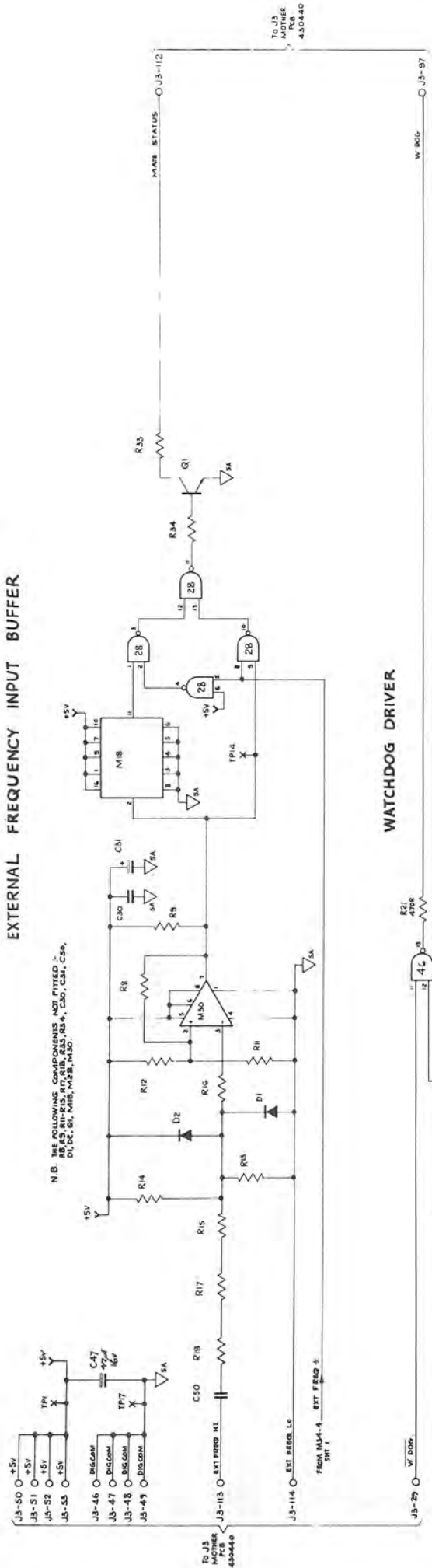
© Datron Instruments 1986

7.3-3

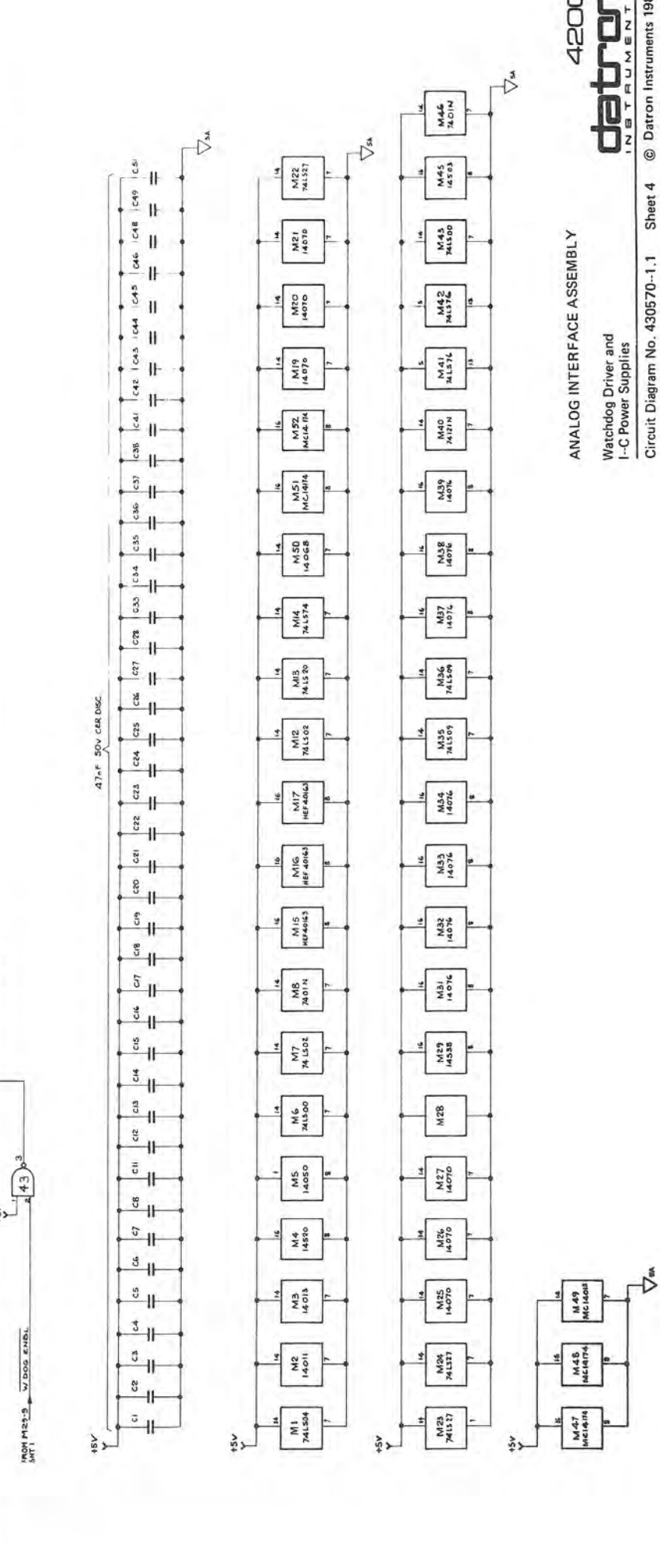




EXTERNAL FREQUENCY INPUT BUFFER



WATCHDOG DRIVER



REFERENCE DIVIDER ASSEMBLY

INSURE A MINIMUM GAP OF 0.3 mm  
BETWEEN THE CAPACITORS AND THE  
HEATSHINK PLATE.

PCB 410257-3

(RED) CIRCUIT BOARD EJECTOR  
2.89" 63D11S

TEST POINT TERMINAL (G20007)  
3R0FF

650 TERMINAL  
G20001 14.91  
(M18, R23, R29, R31, ARE R21X M8)

IF M3X8 POLYPAN SCREW GUIDE  
AS CANNLE WASHER G20075  
FROM INSTITUTE OF MAIN PCB

PC2024 0.05" DIA. REFERENCE DIV. ASSEMBLY  
M18 AND R23 TO FORM G20002 POSITION.  
SHOWS SIZE

MAKE LINKS (L1) FROM STAINLESS STEEL  
S40002 LINKS TO FORM G20002

MOUNT Q18, R105, D7, D9, D25, D11 + D29 ON  
INSULATING PAD (1.0" X 1.0") G30074 16.811

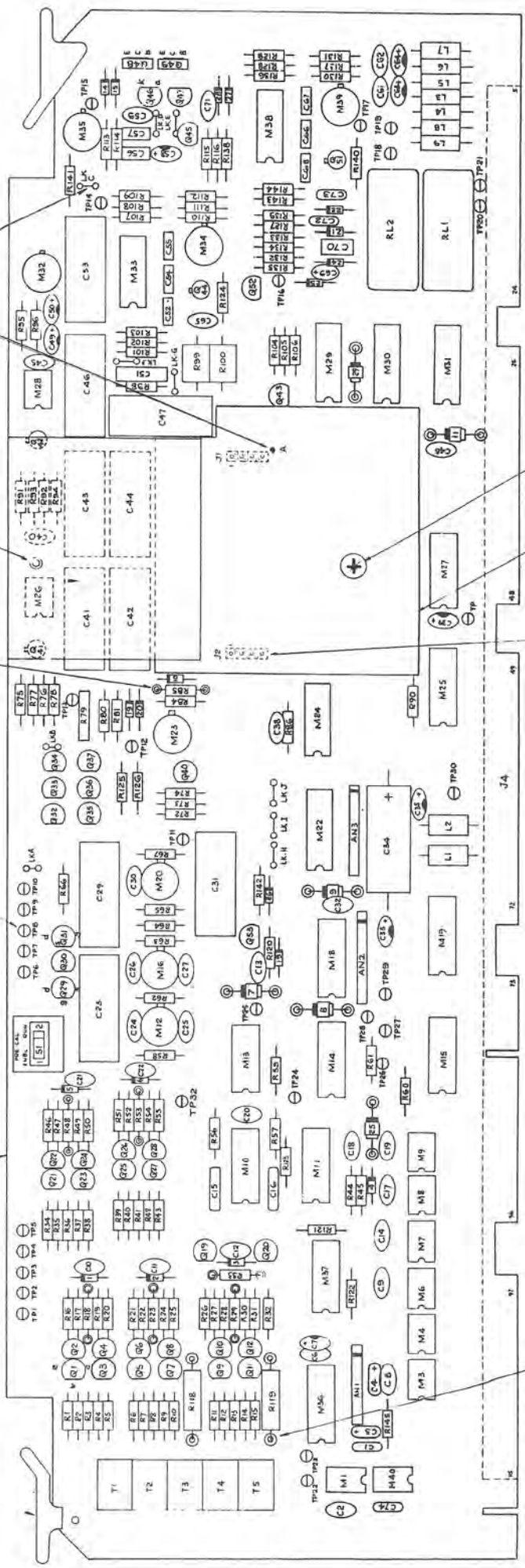
MOUNTING I.C.

- FIT M16/M18, M19, M40, M25, M28  
ON 8-WAY DIL SOCKET G05059 10.84
- FIT M13, M29, M38, M37, M18  
ON 4-WAY DIL SOCKET G05060 5.84
- FIT M10, M11, M15, M18, M19, M22, M25, M27  
ON 16-WAY DIL SOCKET G05061 13.84

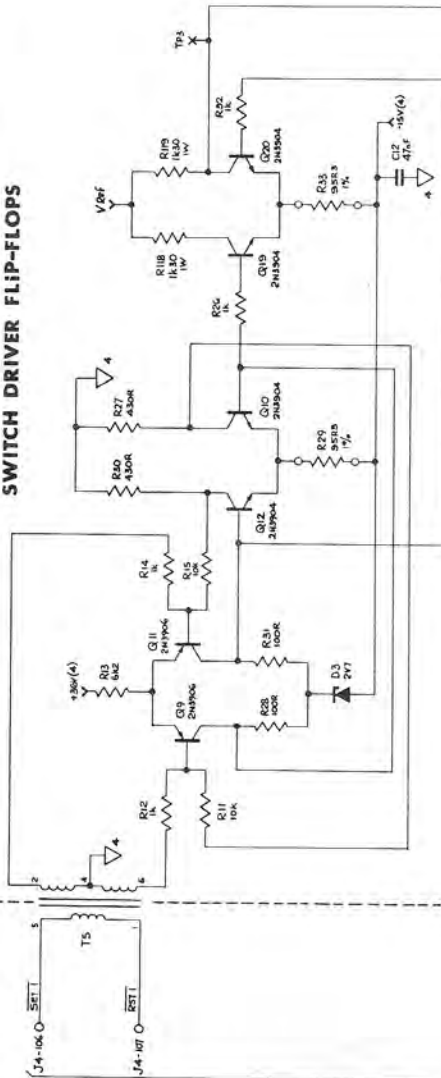
4-WAY .1" PCB PLUG G04053 2.44  
SOLDERED INTO MAIN PCB  
MOUNTING HOLE. REFER TO PLUG  
BOARD ONTO FINISH, NOT SHOWN

M37.5 SWAGED STANDOFF G20025  
SECURED TO MAIN PCB ON COMP. FOR  
MOUNTING. REFER TO M37.5  
M3 CANNLE WASHER G30075

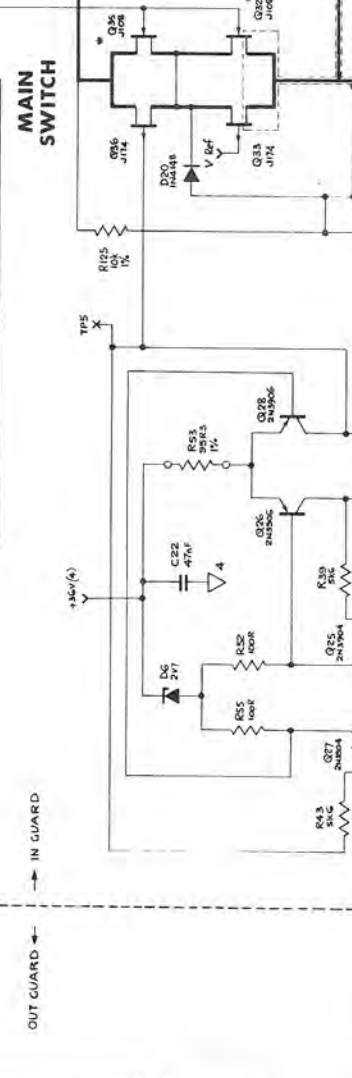
REFERENCE PCB ASSY  
400095



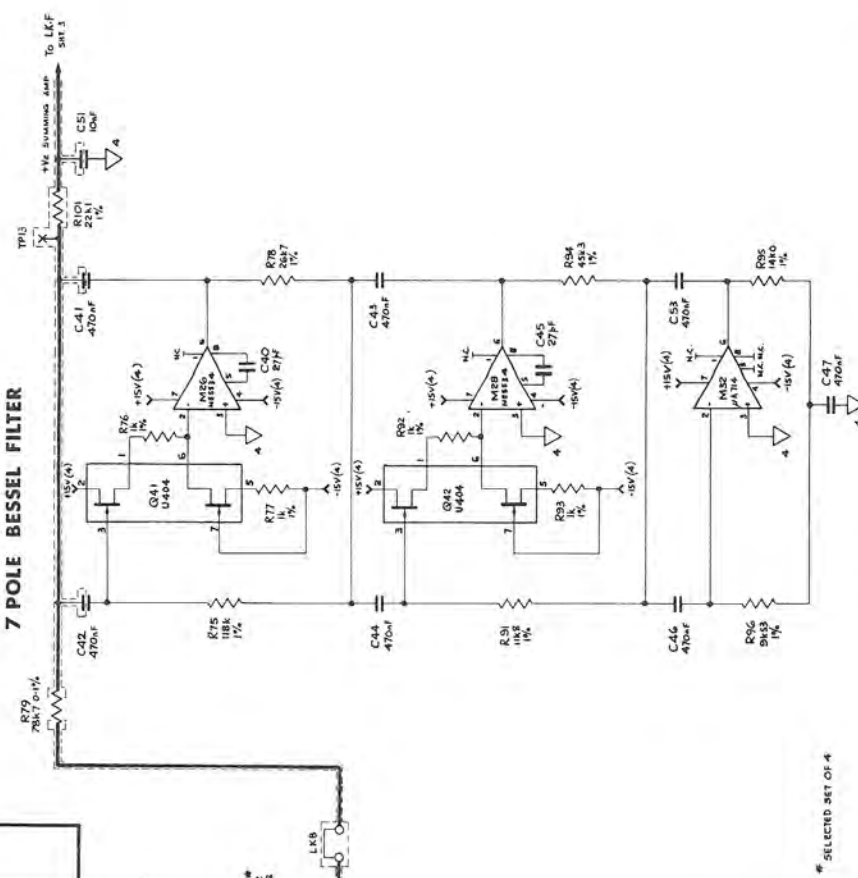
### SWITCH DRIVER FLIP-FLOPS



### MAIN SWITCH



### 7 POLE BESSEL FILTER



### REFERENCE DIVIDER ASSEMBLY

Most-Significant  
Switch and Filter

Circuit Diagram No. 430535--70 Sheet 1

REFERENCE DIVIDER ASSEMBLY

INSURE A MINIMUM GAP OF 0.3 mm  
BETWEEN THE CAPACITORS AND THE  
HEATSINK PLATE.

MAKE SURE ALL THE REF. POINTS ARE  
CORRECTLY LOCATED ON THE PCB  
AND REF. TO THE MAIN PCB POSITION

MAKE SURE ALL THE REF. POINTS ARE  
CORRECTLY LOCATED ON THE PCB  
AND REF. TO THE MAIN PCB POSITION

11 M3X8 PAN-FLAT SCREW GROWS  
FROM UNDERSIDE OF MAIN PCB

TEST POINT TERMINAL (G10001)  
3800

PCB 410257-3

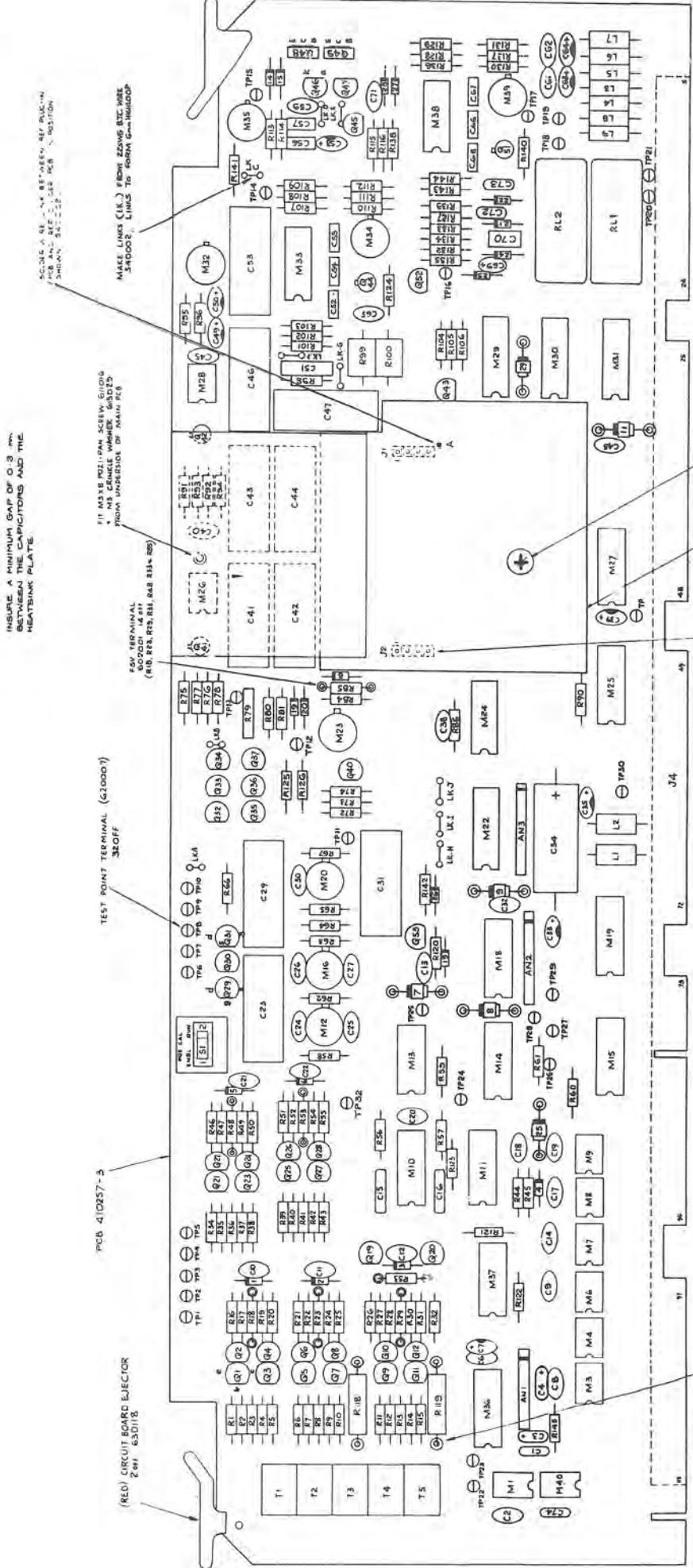
(RED) CIRCUIT BOARD EJECTOR  
2 #1 630118

MOUNT R18, R19, Q7, Q8, Q9, D11, D12 ON  
INSULATING BEAD (1 PER LEAD) G30024 10 #1

MOUNTING I.C.  
FIT M11, M12, M13, M14, M15, M16, M17, M18, M19  
ON BAY DIL SOCKET G30059 10 #1

FIT M20, M21, M22, M23, M24, M25, M26, M27, M28  
ON 14 WAY DIL SOCKET G30060 5 #1

FIT M30, M31, M32, M33, M34, M35, M36, M37  
ON 16 WAY DIL SOCKET G30061 13 #1

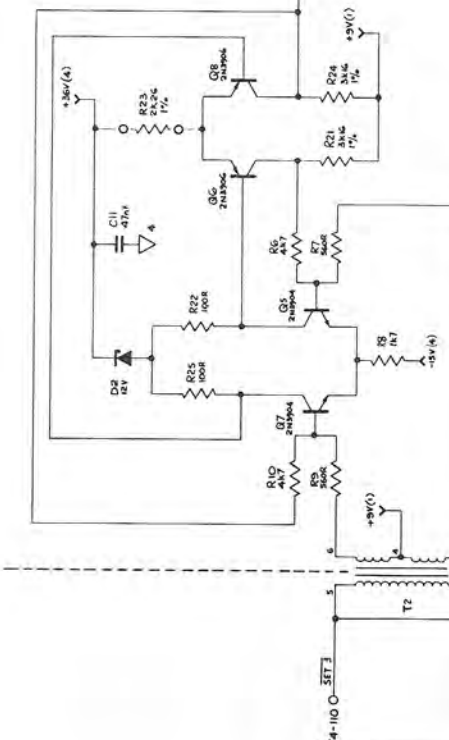
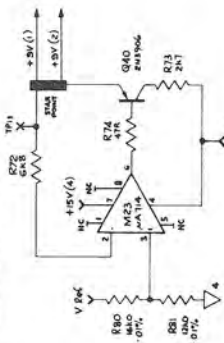


M33 SWAGED STANDOFF G30025  
SOLDER TO REV. 001 PCB ON OPPOSITE SIDE  
OF BOARD TO MAIN PCB USING  
M3 SCREW NUMBER G30026

DIFFERENCE PCB ASST  
40085A

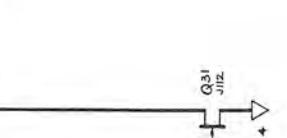
4 WAY 1" PCB PLUG G30058 2 #1  
SOLDERED INTO MAIN PCB  
ON OPPOSITE SIDE OF BOARD  
TO PLUG BOARD ONTO MAIN PCB SHOWN

**REFERENCE BUFFER**

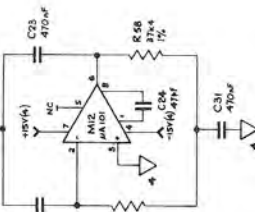


**SWITCH DRIVER**

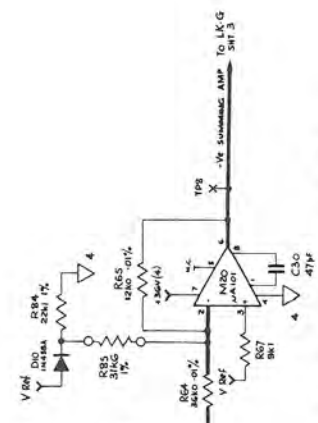
**SWITCH**



**3 POLE BESEL FILTER**



**OFFSET BIAS AMPLIFIER**



To J4  
110 0 EST 3  
45053E

OUT-GUARD

### REFERENCE DIVIDER ASSEMBLY

INSURE A MINIMUM GAP OF 0.3" BETWEEN THE CAPACITORS AND THE HEATSHINK PLATE.

PCB 410257-3

(RED) CIRCUIT BOARD EJECTOR  
2.0" 450118

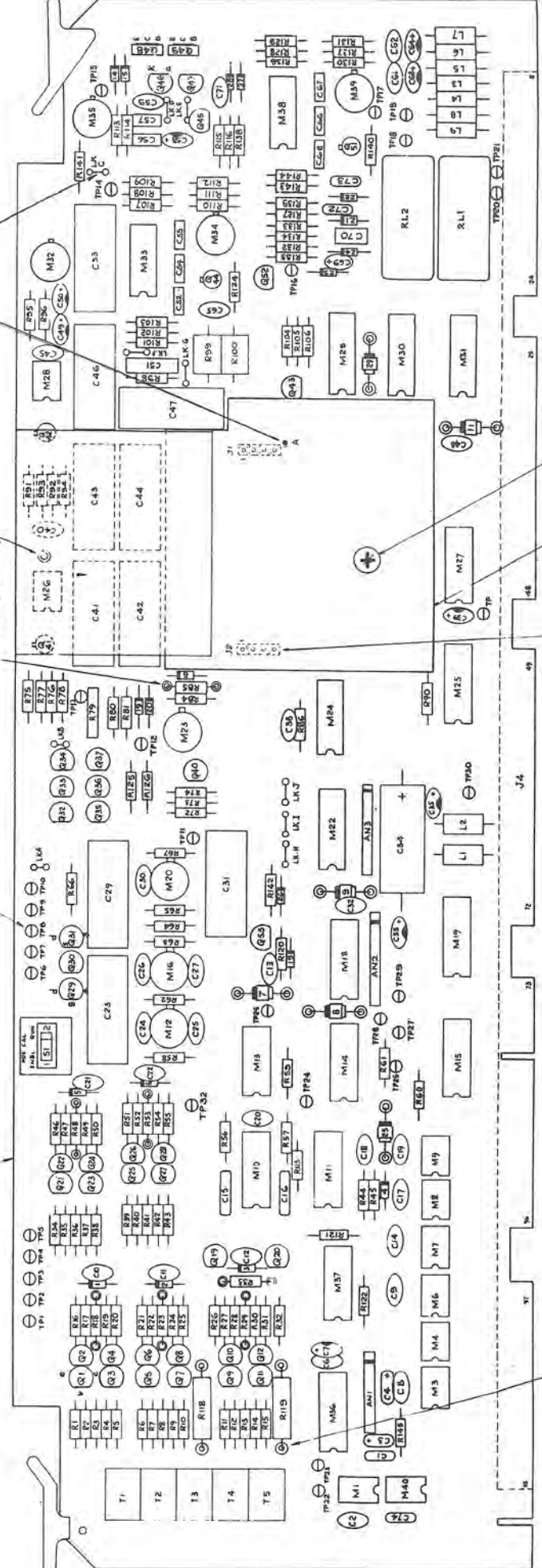
TEST POINT TERMINAL (210007)  
3/OFF

6.5V TERMINAL  
602001 14 011  
(R18, R23, R25, R33, R48, R51, R59)

FIT M3X8 POSI-PAN SCREW WITH 13 CIRCLES WARMER & 2025 ROUND W/HEAD OF TIGHTEN PEG

SCALE 1:20 - 1/8" BETWEEN REF. DIM. LINES AND DIM. LINES PCB POSITION, SHOWN AS DIM.

MAKE LINKS (LINK) FROM TRANS RES. WIRE 340002, LINKS TO FORM 500-WHOLEP



MOUNT R10, R11, D7-D9, D25, D11, 1 D29 ON INSULATING BEAD (1 PER LEAD) 630024 18"

#### MOUNTING I.C.s

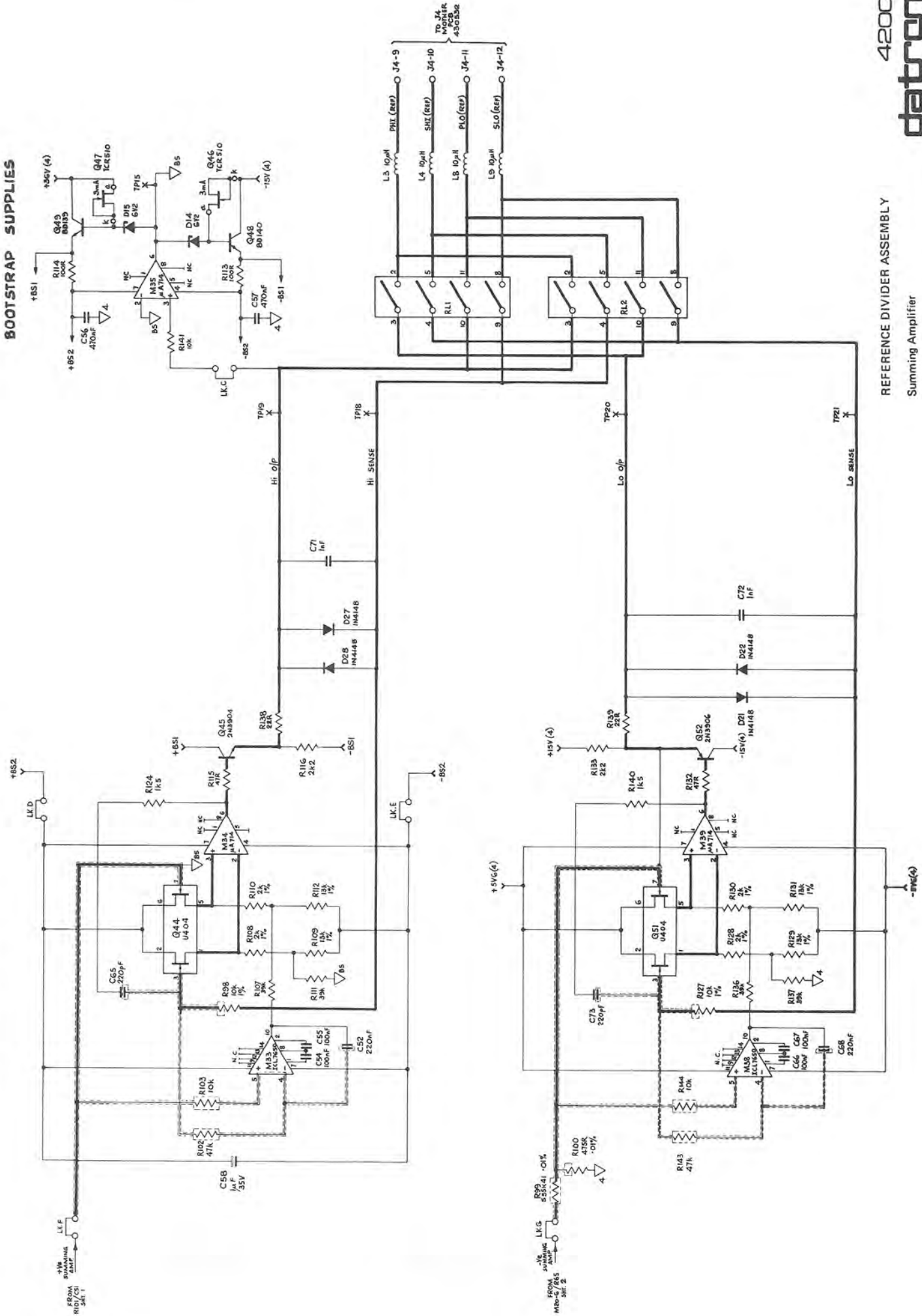
- FIT M1, M14, M16-M19, M40, M26, M28 ON 8 WAY DIL-SOCKET 609059 0 5FF
- FIT M13, M20, M24, M27, M33 ON 4-WAY DIL-SOCKET 609060 5 5FF
- FIT M40, M41, M44, M45, M49, M50, M51, M56, M18, M19, M21, M25, M27 ON 16-WAY DIL-SOCKET 609061 13 5FF

4-WAY 1" PCB PLUG 602083 24" SOLDERED INTO MAIN PCB BOARD ONTO THIS - NOT SHOWN

M33-5-SWAGED STANDOFF GROOSES ACCORD TO REV. 014 PCB ON COMP. FOR M33 CIRCLE WARMER ASSEMBLY TO PLUG

DIFFERENTIAL PCB ASSY 400881

**BOOTSTRAP SUPPLIES**



REFERENCE DIVIDER ASSEMBLY

Summing Amplifier

4200

**datron**  
INSTRUMENTS

Circuit Diagram No. 430535--7.0 Sheet 3 © Datron Instruments 1986

7.4-3



REFERENCE DIVIDER ASSEMBLY

INSURE A MINIMUM GAP OF 0.3 mm BETWEEN THE CAPACITORS AND THE HEATSINK PLATE.

TEST POINT TERMINAL (G10007) 3800F

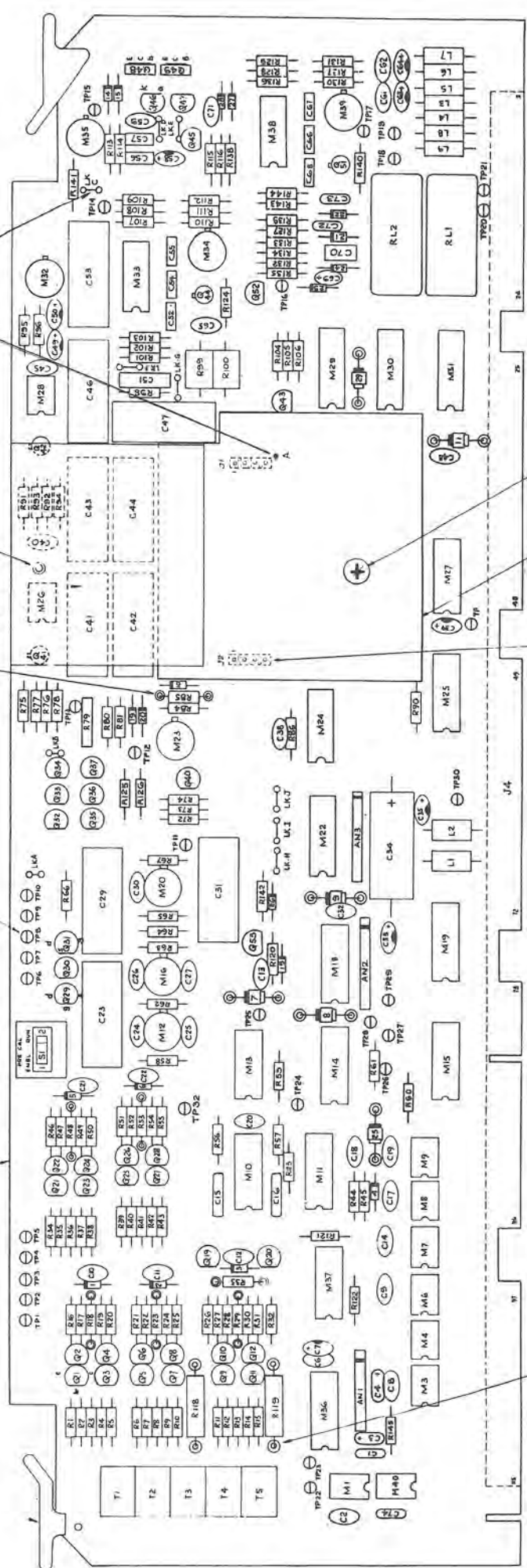
PCB 410257-3

(RED) CIRCUIT BOARD EJECTOR 2.01 630118

INSURE A MINIMUM GAP OF 0.3 mm BETWEEN THE CAPACITORS AND THE HEATSINK PLATE.

FIT M318 POSI-PAN SCREW G1010 TO M3 CRANKE WASHER G8025 FROM UNDERSIDE OF MAIN PCB

PCB TERMINAL G02001 44.011 (R16, R24, R25, R31, R48, R53, R58)



MARK LINKS (L1, L2) FROM BOARD BPC DATE S1400021. LINKS TO BOARD S1400020

M33.5 - SWAGED STANDOFF G10025 SECURED TO REF. PCB ON BOARD FOR MOUNTING OF M33.5 CRANKE WASHER G8025

ALWAY -17 PCB PLUS GOLDEN 2mm SOLDERED INTO MAIN PCB. MOUNTING OF M33.5 CRANKE WASHER TO ALUG BOARD ONLY. THIS NOT SHOWN

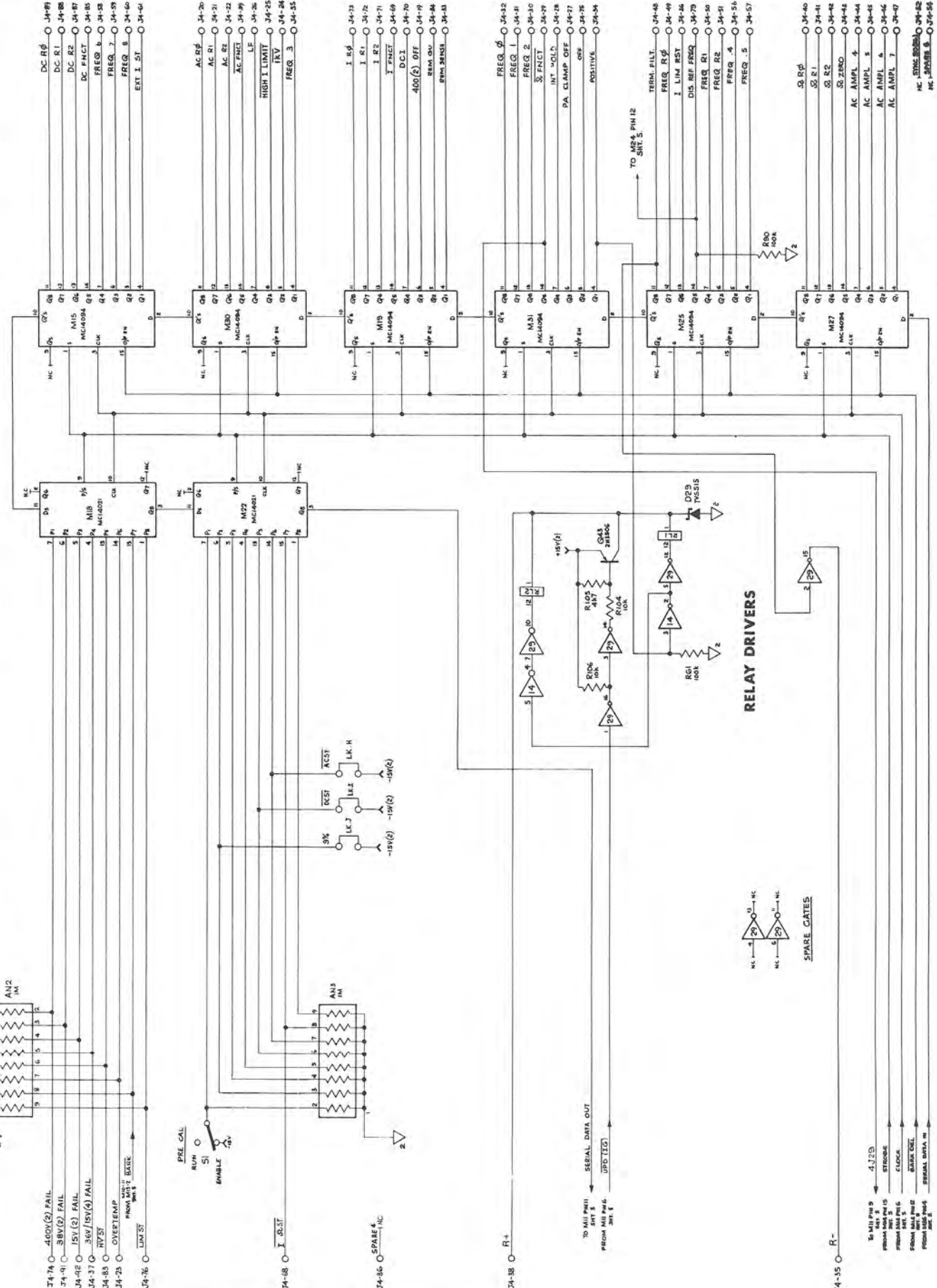
MOUNT ON BUS, 07-08, 09, 011, 029 ON INSULATING PAD (1 PR LEAD) G30024 18mm

MOUNTING I.C. 100 MIL MAX. HEIGHT M49, M48, M26, M28 ON BUWAY DIL SOCKET G05059 10 4mm

100 MIL MAX. HEIGHT M33, M37, M38 ON JUMPER DIL SOCKET G05060 5 4mm

100 MIL MAX. HEIGHT M13, M14, M15 ON BUWAY DIL SOCKET G05061 13 4mm

REFERENCE PCB ASSY ADDRESS



REFERENCE DIVIDER ASSEMBLY

INSURE A MINIMUM GAP OF 0.3 mm  
BETWEEN THE CAPACITORS AND THE  
HEATING PLATE.

INSURE THE WIRE IS NOT BENT AT A RIGHT ANGLE  
IN THE AREA OF THE SOCKET CONNECTION.

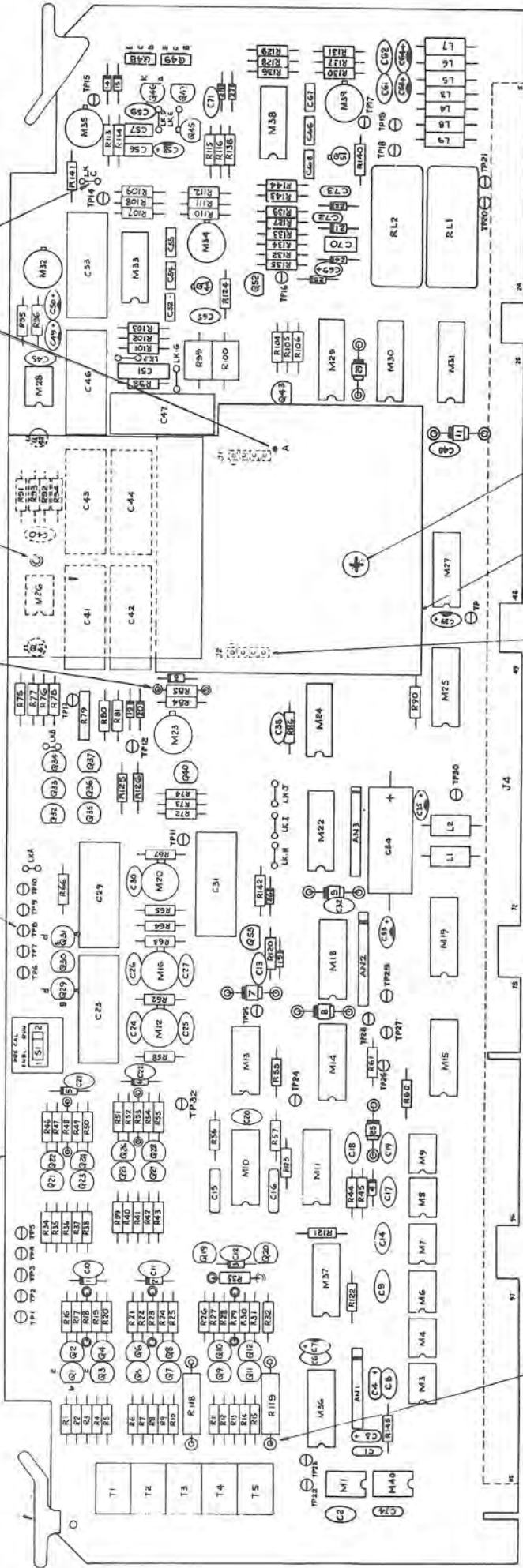
FIT MAKE ROZ-PAN SCREEN GRID  
A MS CRINKLE WARMER GRID 25  
FROM UNDERSIDE OF MAIN PCB

FIT MAKE ROZ-PAN SCREEN GRID  
A MS CRINKLE WARMER GRID 25  
FROM UNDERSIDE OF MAIN PCB

TEST POINT TERMINAL (G30007)  
SCOFF

PCB 410257-3

(RED) CIRCUIT BOARD EJECTOR  
2mm, 630113



MOUNT PCB BUS D7-D9, D25, D14, D28 ON  
INSULATING BEAD (1 PER LEAD) G30024 16mm

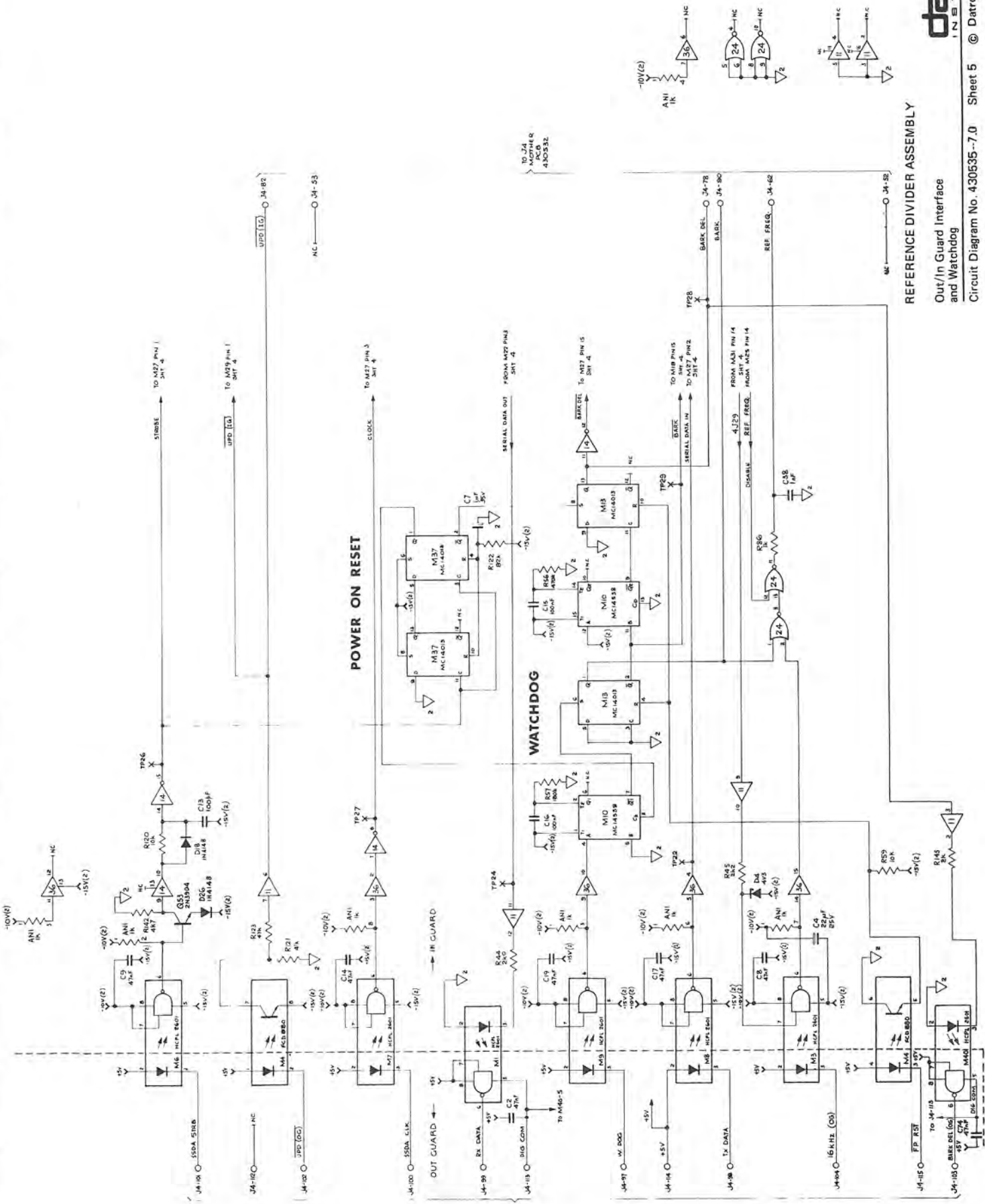
MOUNTING I.C.

- RT1 M1, M14, M15, M16, M17, M18, M19, M20, M21, M22, M23, M24, M25, M26, M27, M28, M29, M30, M31, M32, M33, M34, M35, M36, M37, M38, M39, M40, M41, M42, M43, M44, M45, M46, M47, M48, M49, M50, M51, M52, M53, M54, M55, M56, M57, M58, M59, M60, M61, M62, M63, M64, M65, M66, M67, M68, M69, M70, M71, M72, M73, M74, M75, M76, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M97, M98, M99, M100

M33-5- SHAVED STANOFF GRID  
SECURED TO PCB BY PUS ON CONV SIDE  
M33-6- 102-PAN SCREW GRID  
NO CRINKLE WARMER GRID

REFERENCE PCB ASSY  
400555

ALWAY 1" PUS PLUS G0040B 2mm  
SOLDERED INTO MAIN PCB  
M5-5 SOCKETS ON REF PCB ASSY TO PLUG  
GROUP CHIP PINS - NOT SHOWN



**POWER ON RESET**

**WATCHDOG**

**REFERENCE DIVIDER ASSEMBLY**

**Out/in Guard Interface and Watchdog**

REFERENCE DIVIDER ASSEMBLY

INSURE A MINIMUM GAP OF 0.3 mm BETWEEN THE CAPACITORS AND THE MOUNTING PLATE.

PCB 410257-5

(RED) CIRCUIT BOARD EJECTOR  
C-04 653015

TEST POINT TERMINAL (G20007)  
J20FF

RESV TERMINAL  
G02020 18 011  
(R16, R23, R29, R33, R48, R53, R56)

FIT MIXER PZL-1 PAN SCREW. G1008  
M3 CANNULE WASHER G0025  
FROM INVERTER OF MAIN PCB

25.26 ± 0.15 ± 0.05 REF. GREEN REF. PULG. IN  
PCB MAN. REF. J20FF-2 J20FF-3 POSITION.  
SMOOTH SURFACE

MAKE LINKS (L1, L2) FROM STANDS BITE WIRE  
S410002 LINKS TO FORM G-UNIDROP

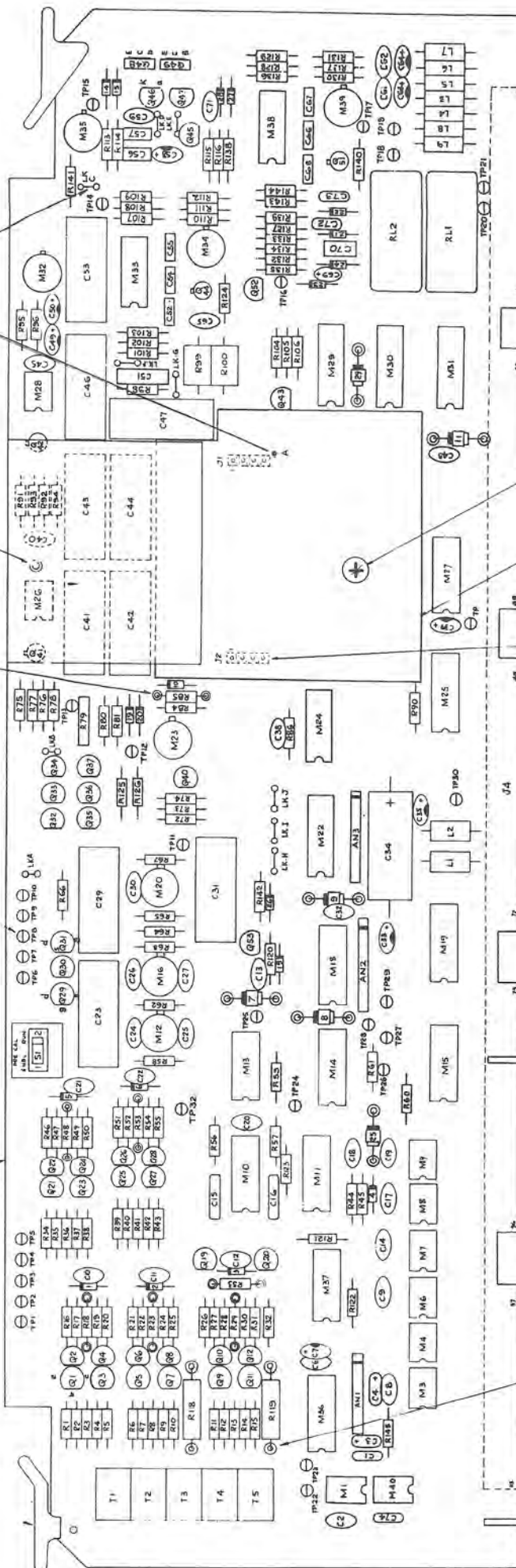
MOUNT R16, R18, D7-D9, D5, D11 1.029 ON  
INSULATING BEAD (1 PPR LEAD) 630014, 18H1

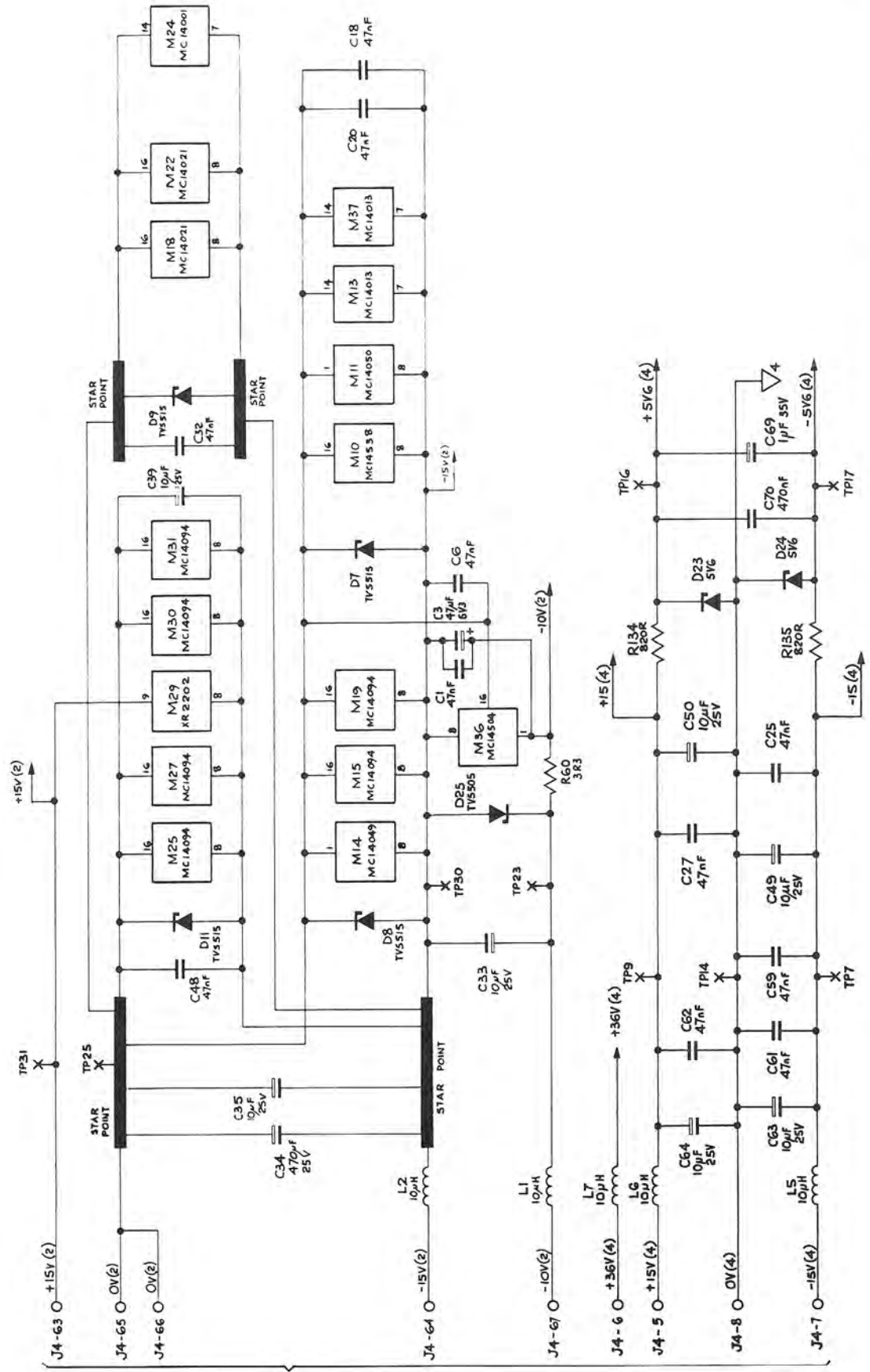
MOUNTING I.C.

- FIT M1, M14A, M16-M19, M40, M26, M28 ON 8 WAY DIL SOCKET 601059 10 011
- FIT M15, M29, M33, M37, M38 ON 14 WAY DIL SOCKET 605060 9 011
- FIT M10, M11, M14, M15, M18, M19, M22, M23, M27 ON 16 WAY DIL SOCKET 605061 13 011

M37-5-3 WAGED STANDOFF G10025  
SECURED TO BOARD PAD ON CONVE SIDE  
WASHER G10001 W/ WIRE  
M3 CANNULE WASHER G10025  
REFERENCE PCB ASSY  
400883

4 WAY 17 PCB PLUG G04053 2MM  
SOLDERED INTO MAIN PCB ASSY TO PLUG  
BOARD D140 PINS. NOT SHOWN

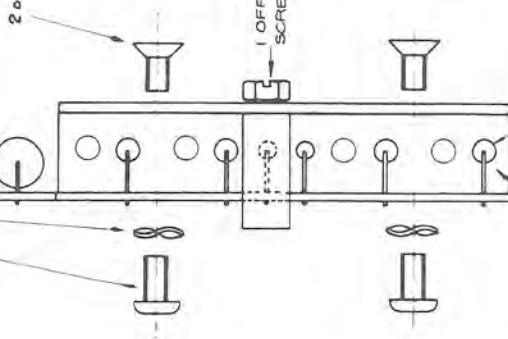




TO J4  
MCI4094  
430535

REFERENCE ASSEMBLY

2 OFF M3x16mm POZI-PAN SCREWS  
G11004  
2 OFF M3 WAVY WASHERS.  
G13025

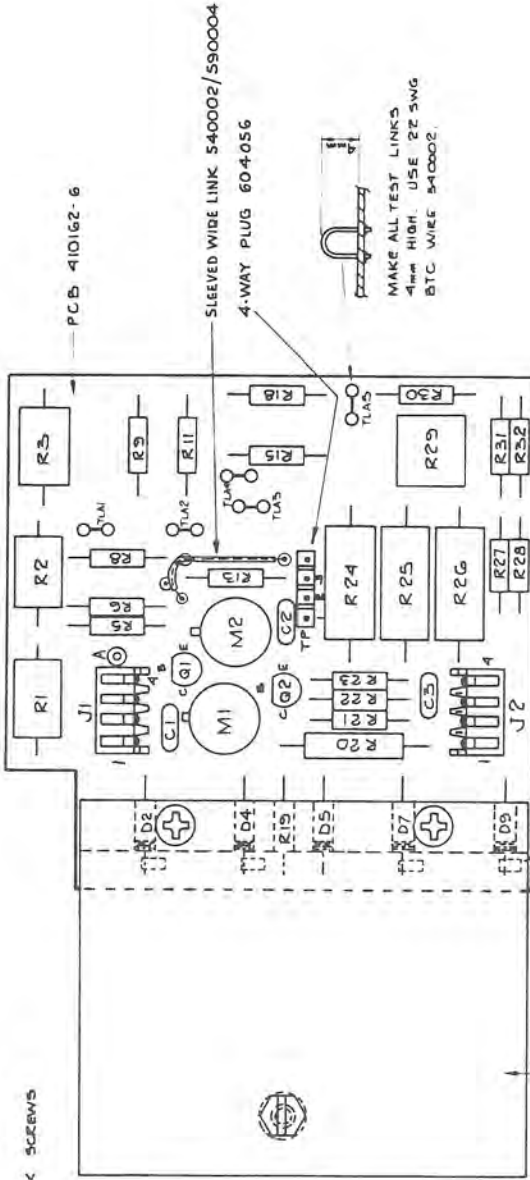


HEATSINK BLOCK  
450372

HEATSINK PLATE  
450373

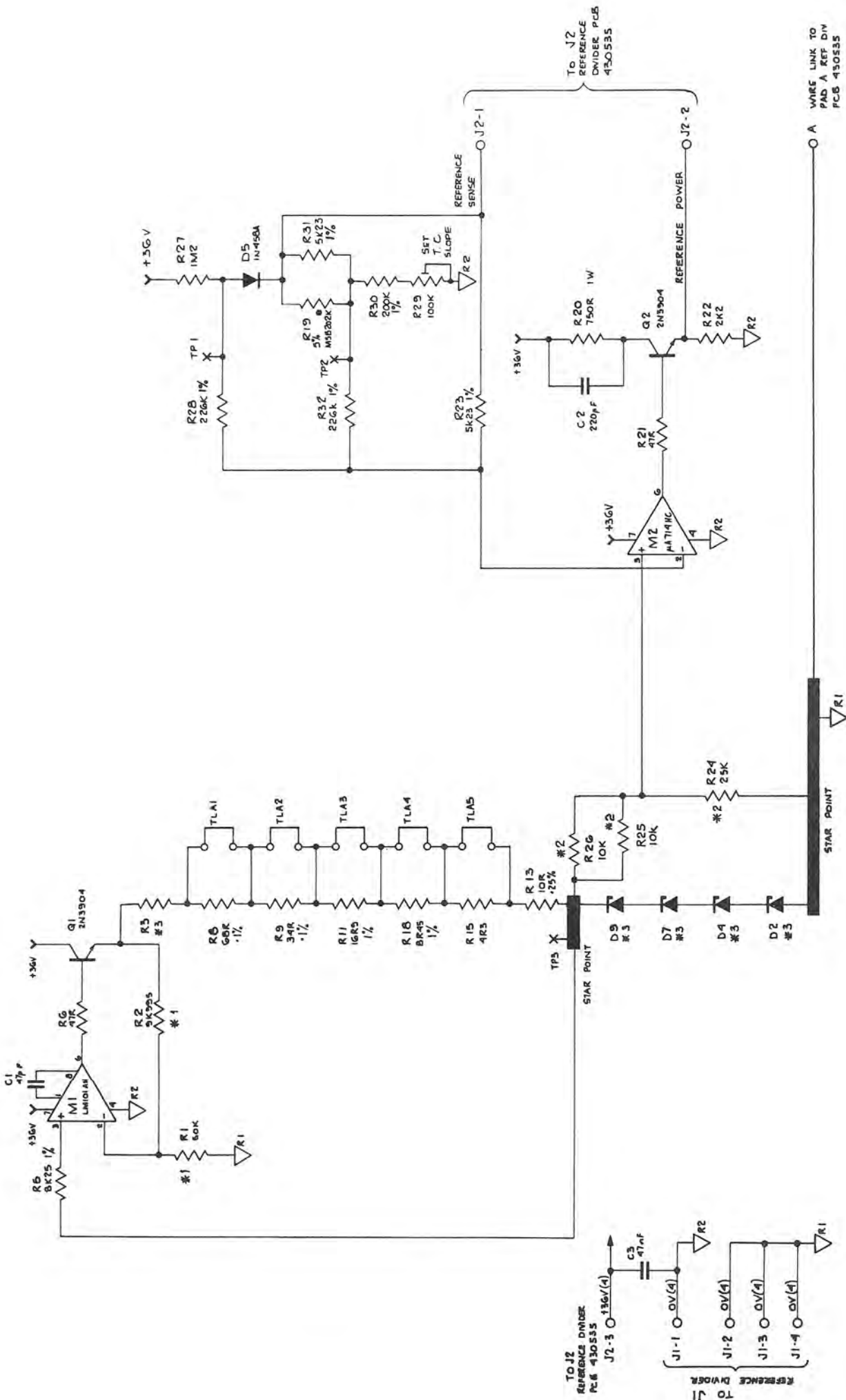
HEATSINK COMPOUND  
500005

WHEN ASSEMBLING DIODES INTO  
HEATSINK BLOCK APPLY A SMALL  
AMOUNT OF HEATSINK COMPOUND  
AROUND THE BODY OF EACH DIODE.  
ALSO APPLY HEATSINK COMPOUND  
BETWEEN THE BLOCK & THE PLATE.  
(HEATSINK COMPOUND 500005)



MAKE ALL TEST LINKS  
4mm HIGH. USE 22 SWG  
BTC WIRE 540002.

DIODE LABELS



REFERENCE ASSEMBLY

datron  
INSTRUMENTS

4200

Circuit Diagram No. 430553--2.0 Sheet 1 © Datron Instruments 1988



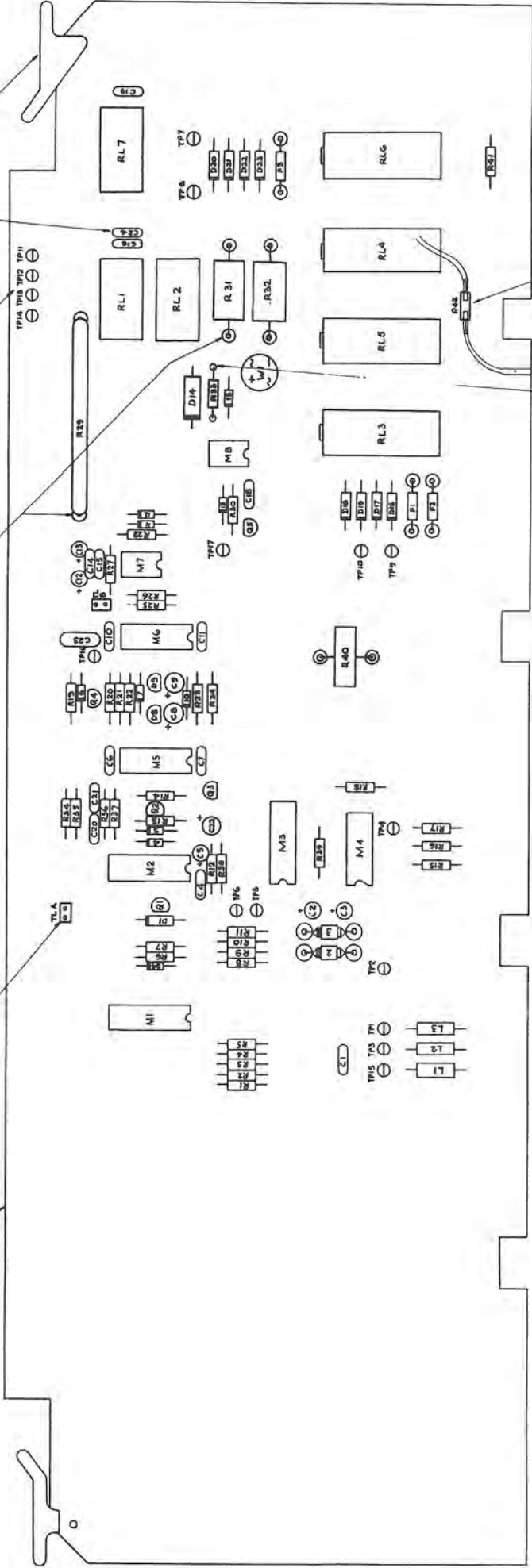
OUTPUT CONTROL ASSEMBLY

PC 6 410274-6

MOUNT F1-F3, D2, D3+ RES CERAMIC BEADS, ONE PER LEAD  
F1, F2, F3, RES 1400 OHMS, TWO PER LEAD 650024 20W

TEST POINT TERMINAL 620007 17 WAF  
DO NOT FIT C8-4

CIRCUIT BOARD EJECTOR (ORANGE) 630019 2 WAF



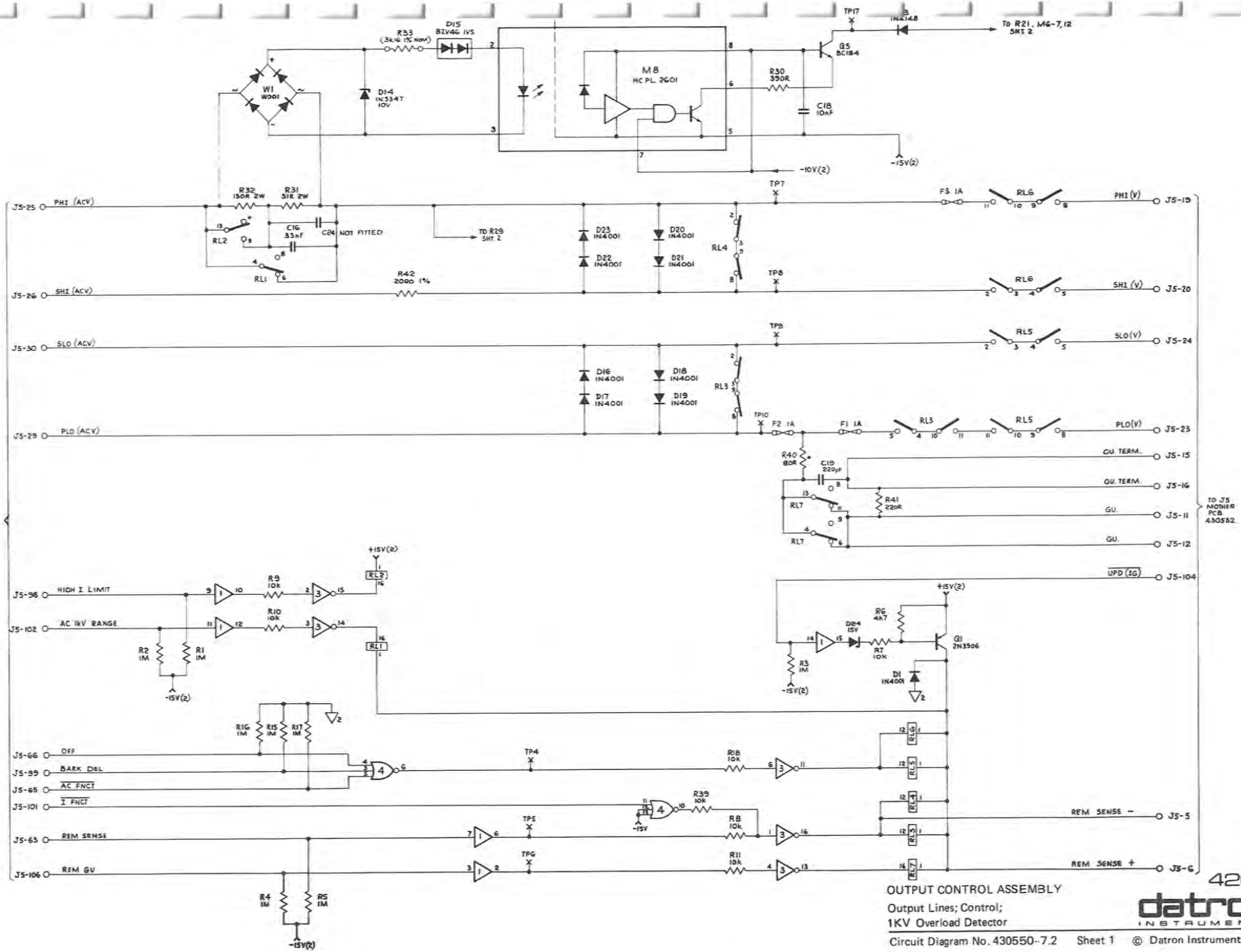
TEST POINT TERMINAL 620007 17 WAF  
DO NOT FIT C8-4

CIRCUIT BOARD EJECTOR (ORANGE) 630019 2 WAF

TRACE JUMPS TO RL4 CIRCUIT BOARD SECURELY MOUNTED IN POSITION SHOWN.

MOUNT R33 ON F30 TERMINALS 600001 2 WAF

MOUNTING IC:  
FIT M7 & M8 INTO 8-WAY DIL SOCKET 605055/A 2 WAF  
FIT M4, M5 & M6 INTO 14-WAY DIL SOCKET 605050/A 3 WAF  
FIT M1, M2 & M3 INTO 16-WAY DIL SOCKET 605051/A 3 WAF

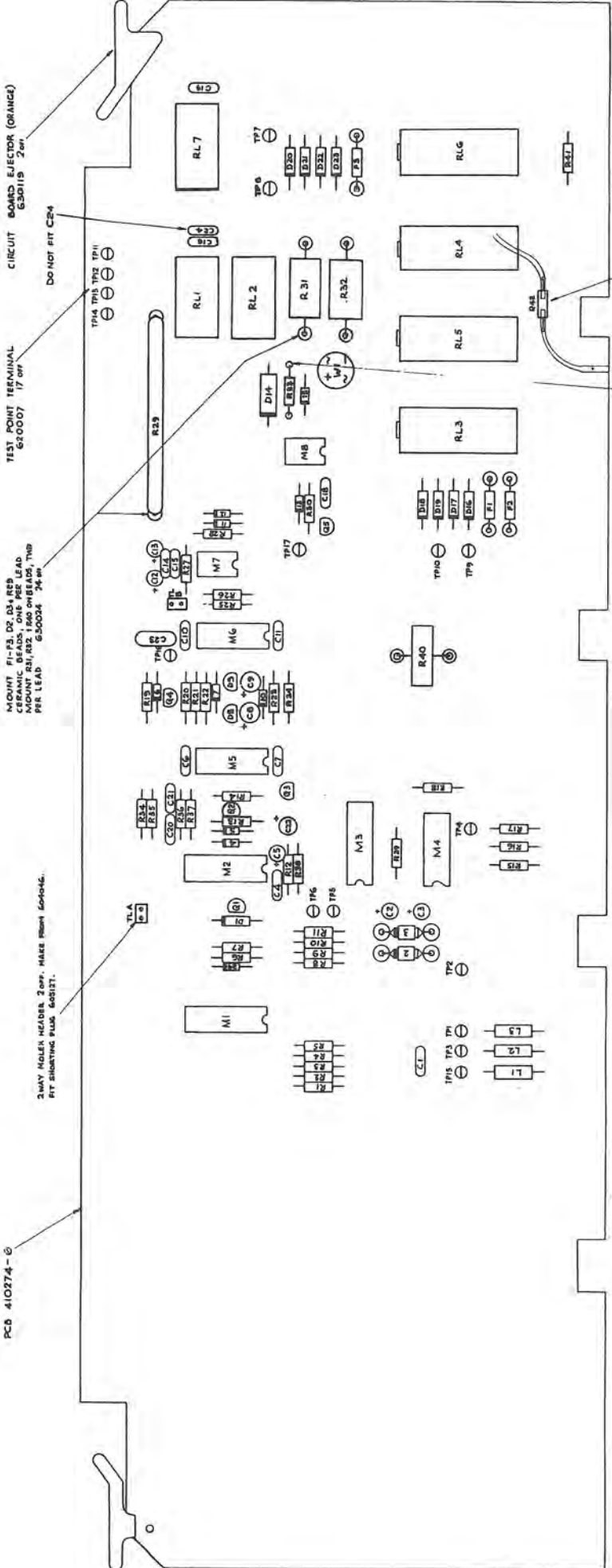


OUTPUT CONTROL ASSEMBLY  
Output Lines; Control;  
1KV Overload Detector  
Circuit Diagram No. 430550-7.2



OUTPUT CONTROL ASSEMBLY

PCB 410274-6



3-WAY HOLES HEADERS, 2.00", MAKE FROM 6063ALC.  
FIT SHORTING PLUG 630521.

MOUNT FI-F3, D2, D3, R25  
CERAMIC BEADS, ONE PER LEAD  
M7, M8, R20, R21, R22, R23, R24  
PER LEAD 630022 24.00"

TEST POINT TERMINAL  
620007 17.00"

CIRCUIT BOARD EJECTOR (ORANGE)  
630115 2.00"

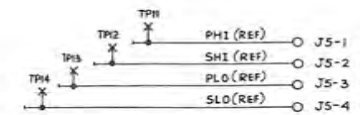
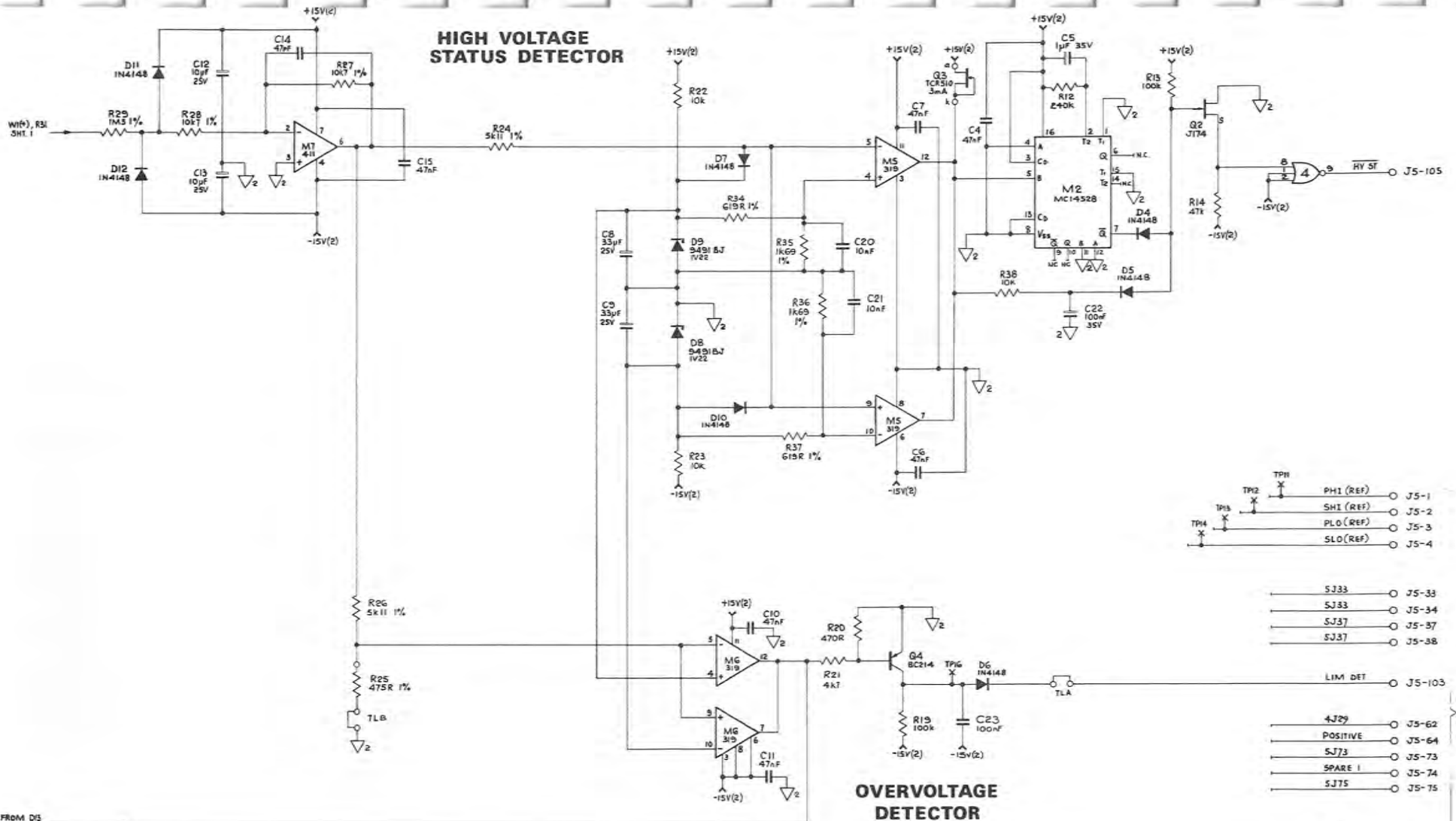
DO NOT FIT C24

TRACK 65-66 TO RL4 DIT ON  
SOURCE AND ON PCB  
MOUNT MOUNTED IN POSITION  
3.00"

MOUNT 633 ON  
F5V TERMINALS  
630201 2.00"

MOUNTING I.C.I.  
FIT M7 & M8 INTO 8-WAY DIL SOCKET 606359/A 2.00"  
FIT M4, M5 & M6 INTO 14-WAY DIL SOCKET 606360/A 3.00"  
FIT M1, M2 & M3 INTO 16-WAY DIL SOCKET 606361/A 3.00"

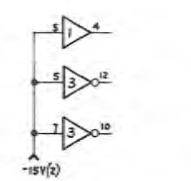
**HIGH VOLTAGE STATUS DETECTOR**



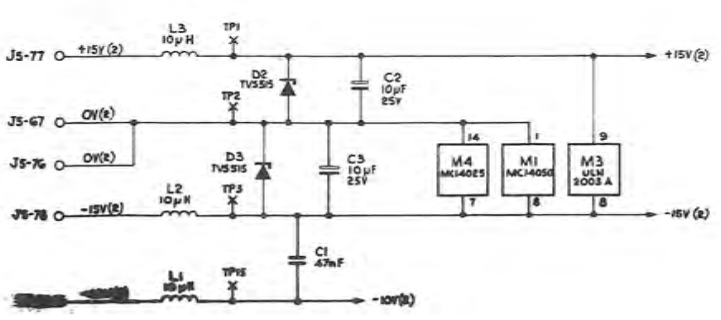
- SJ33 J5-33
- SJ33 J5-34
- SJ37 J5-37
- SJ37 J5-38
- LIM DET J5-103
- 4J29 J5-62
- POSITIVE J5-64
- SJ73 J5-73
- SPARE 1 J5-74
- SJ75 J5-75
- BARK J5-100

TO J5 MOTHER PCB 430532

**OVERVOLTAGE DETECTOR**



SPARE GATES



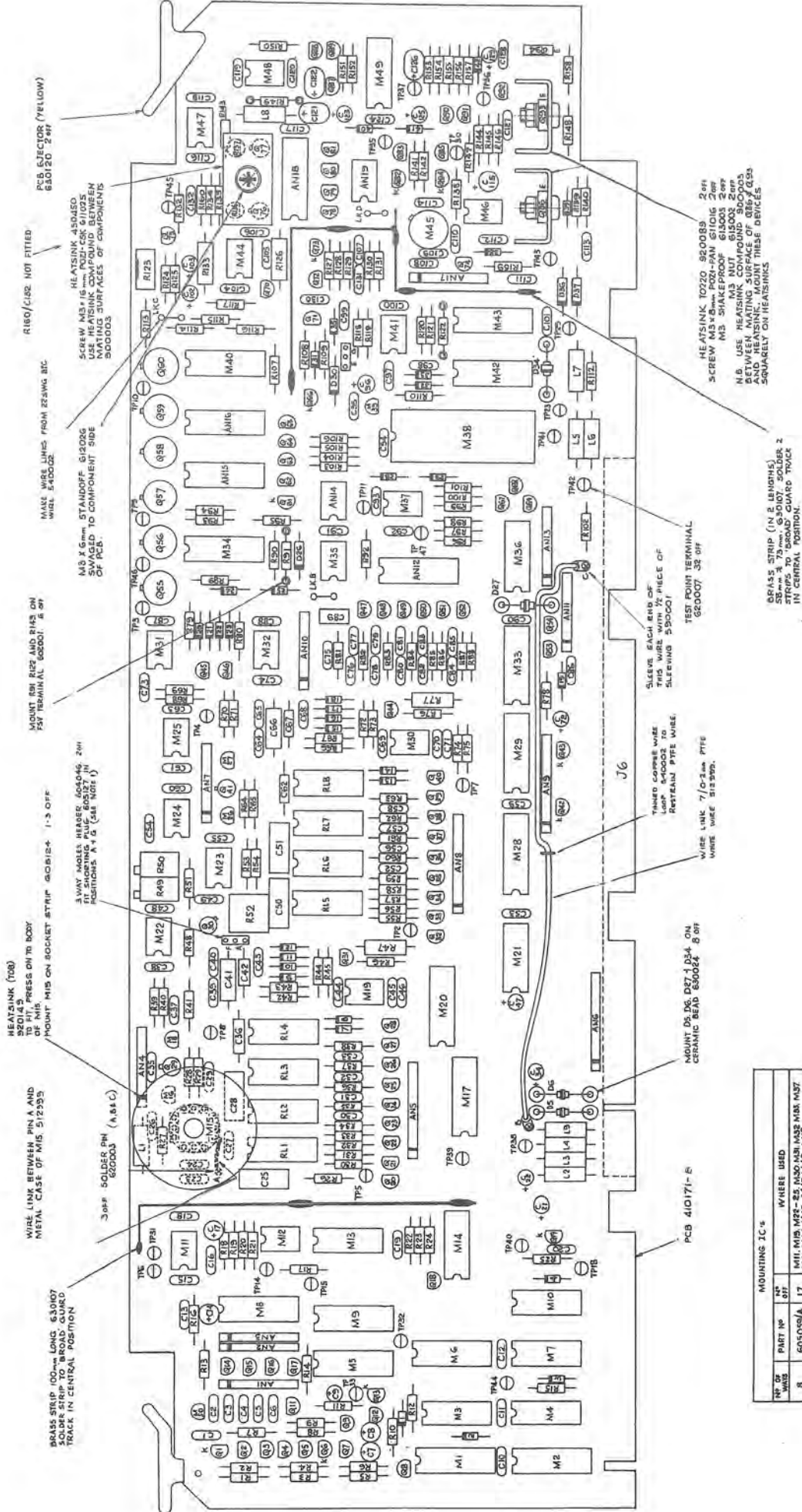
**OUTPUT CONTROL ASSEMBLY**

- 4J85 J5-107
- SPARE 4 J5-108
- 4J87 J5-109
- 4J88 J5-110
- 4J89 J5-111
- +38V (2) J5-112
- 38V (2) J5-113
- OV (2) J5-114

4200  
**datron**  
INSTRUMENTS  
High Voltage-Status and  
Overvoltage Detectors  
Circuit Diagram No. 430550--7.1 Sheet 2 © Datron Instruments 1986

SINE SOURCE ASSEMBLY

NOTE 1. FIT LINK 'E' AND LINK 'F' IN PLACE OF LINK 'A' AND LINK 'G' FOR TEST



HEATSINK (108) 9201498 TO FIT, PRESS ON TO BODY OF M15. MOUNT THIS ON SOCKET STRIP 603124 1-3 OFF 3 WAY MOLEX HEASER 604046 2W. HI-SHORTHING P.W. 605101 IN POSITION A AND B (SEE NOTE 1)

WIRE LINK BETWEEN PIN A AND METAL CASE OF M15. 512329

BRASS STRIP (00mm LONG 63107 SOLDER STRIP TO BROAD GUARD TRACK IN CENTRAL POSITION)

HEATSINK 450605 USE HEATSINK COMPOUND BETWEEN MATING SURFACES OF COMPONENTS 500005

SCREW M3x16 STANDOFF 610003 SWAGED TO COMPONENT SIDE OF PCB.

MAKE WIRE LINKS FROM 22SWG BIC WIRE 540002

RIBO/CISE NOT FITTED

PCB SELECTOR (YELLOW) 630120 2 EFF

308P SOLDER PH 620003 (A, B, C)

MOUNT RM R122 AND R143 ON 25W TERMINAL 600001 5 01

REMOVE EACH END OF THIS WIRE WITH 1/2 INCH OF SLEEVING 550001

TRIMMED COPPER WIRE ATTACHED TO RETURN PIPE WIRE

WIRE LINK 7/0-3mm PTFE WHITE WIRE 515590.

MOUNT DS DS D7-D 024 ON CERAMIC BEAD 650024 0 01

PCB 410171-6

HEATSINK TO220 920089 SCREW M3x16 510003 M3 SHAKESHOOF 610003 M3 NUT 615003 2 EFF

N.B. USE HEATSINK COMPOUND 800205 BETWEEN HEATSINK SURFACES AND HEATSINK. MOUNT THESE DEVICES SQUARELY ON HEATSINKS

BRASS STRIP (IN 8 LENGTHS) 58mm x 75mm. 631007. SOLDER 2 STRIPS TO BROAD GUARD TRACK IN CENTRAL POSITION.

THESE POINT TERMINAL 620007 38 01

J6

THIN COPPER WIRE ATTACHED TO RETURN PIPE WIRE

WIRE LINK 7/0-3mm PTFE WHITE WIRE 515590.

MOUNT DS DS D7-D 024 ON CERAMIC BEAD 650024 0 01

PCB 410171-6

HEATSINK TO220 920089 SCREW M3x16 510003 M3 SHAKESHOOF 610003 M3 NUT 615003 2 EFF

N.B. USE HEATSINK COMPOUND 800205 BETWEEN HEATSINK SURFACES AND HEATSINK. MOUNT THESE DEVICES SQUARELY ON HEATSINKS

BRASS STRIP (IN 8 LENGTHS) 58mm x 75mm. 631007. SOLDER 2 STRIPS TO BROAD GUARD TRACK IN CENTRAL POSITION.

THESE POINT TERMINAL 620007 38 01

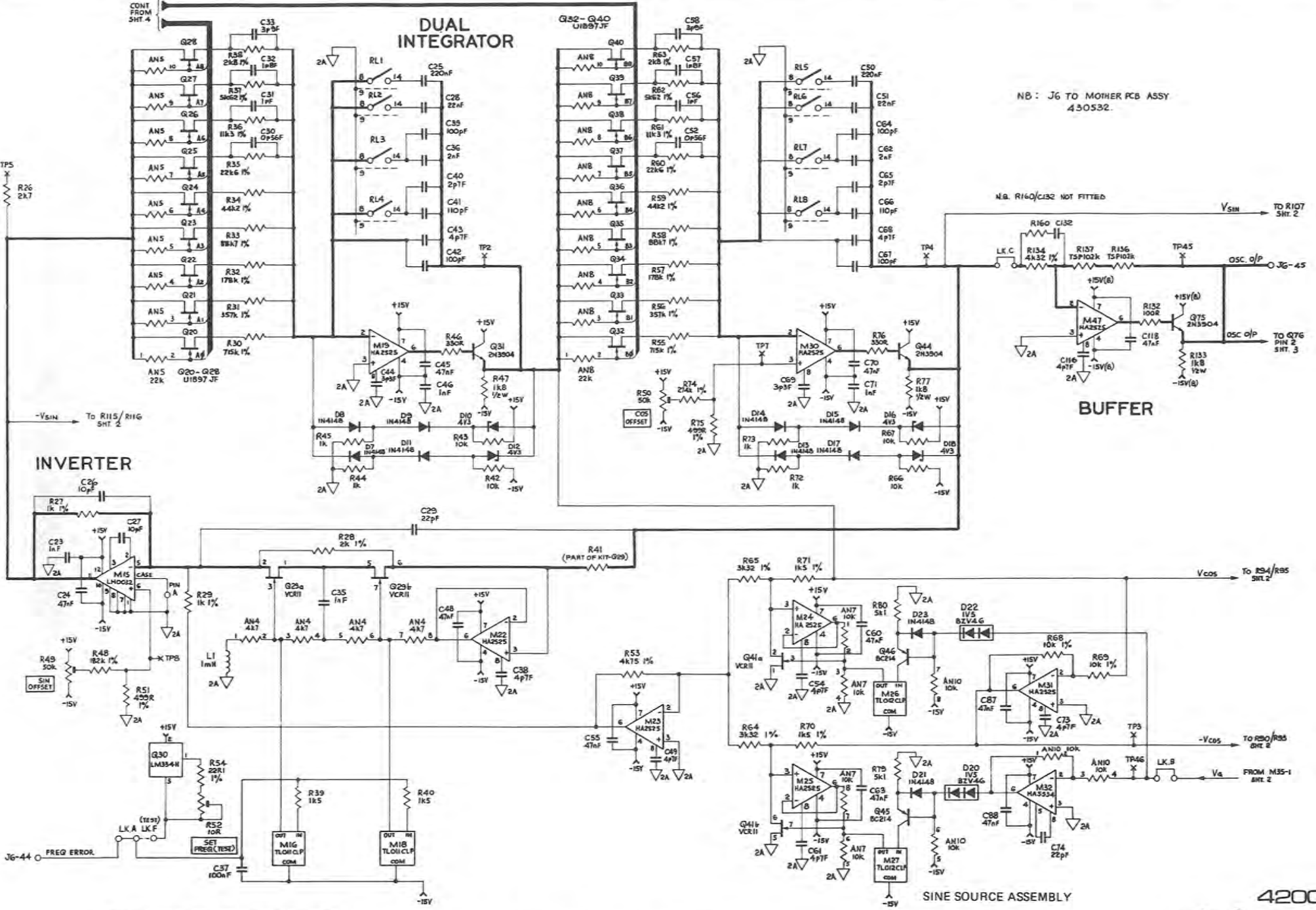
REMOVE EACH END OF THIS WIRE WITH 1/2 INCH OF SLEEVING 550001

WIRE LINK 7/0-3mm PTFE WHITE WIRE 515590.

MOUNT DS DS D7-D 024 ON CERAMIC BEAD 650024 0 01

PCB 410171-6

MOUNTING IC's	
NO OF M15	WHERE USED
8	M11, M15, M22-25, M30, M31, M32, M33, M34, M37, M41, M44, M46, M47, M48, M18
14	M3, M4, M7, M10, M13, M14, M21, M25, M49
16	M1, M2, M5, M6, M8, M9, M17, M20, M18, M19
28	M35, M34, M36, M38, M42, M43, M45



NB: J6 TO MOTHER PCB ASSY 430532.

N.B. R160/C132 NOT FITTED

BUFFER

FREQUENCY CONTROL

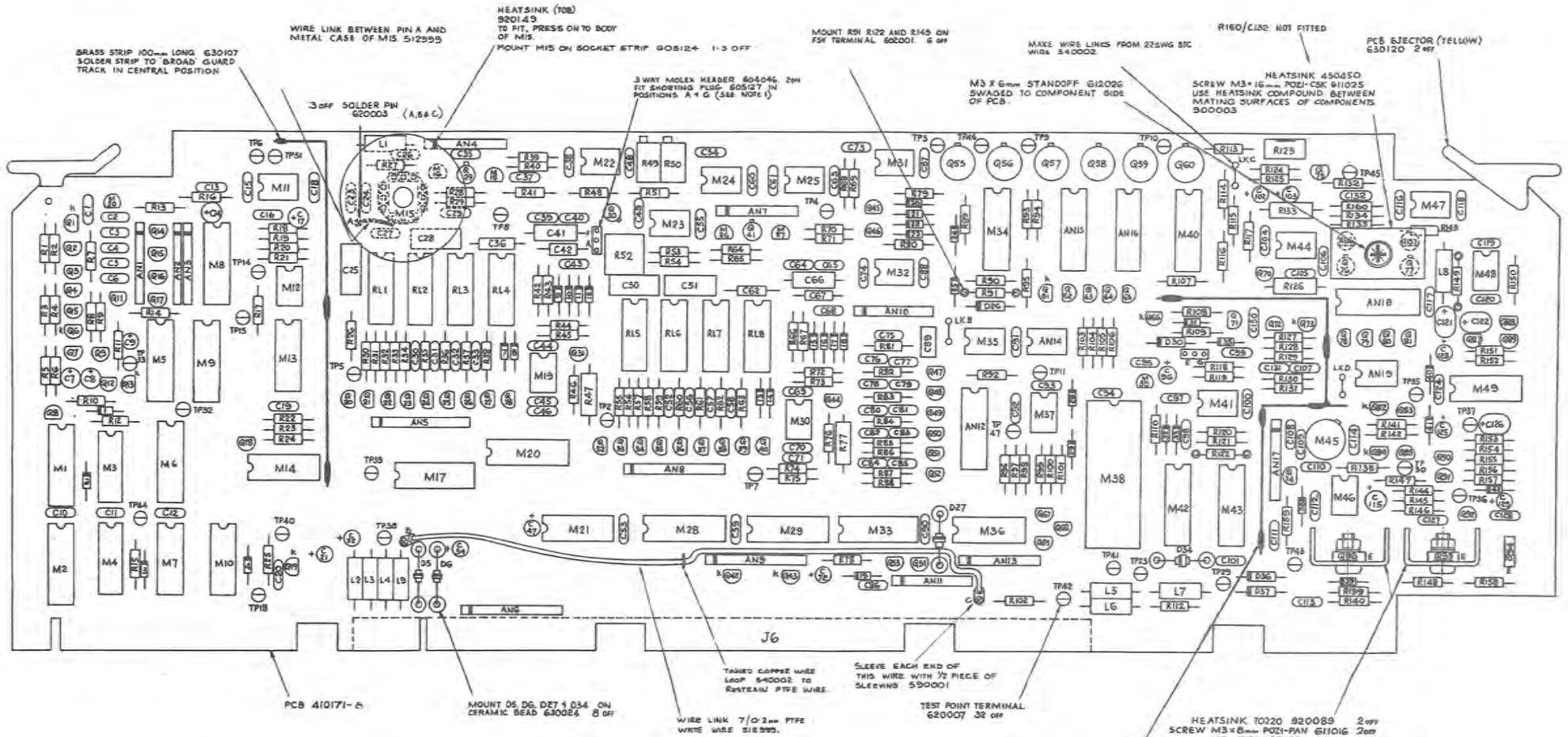
AMPLITUDE CONTROL

SINE SOURCE ASSEMBLY

Sine Oscillator

SINE SOURCE ASSEMBLY

NOTE 1. FIT LINK 'E' AND LINK 'F' IN PLACE OF LINK 'A' AND LINK 'G' FOR TEST



**MOUNTING IC'S**

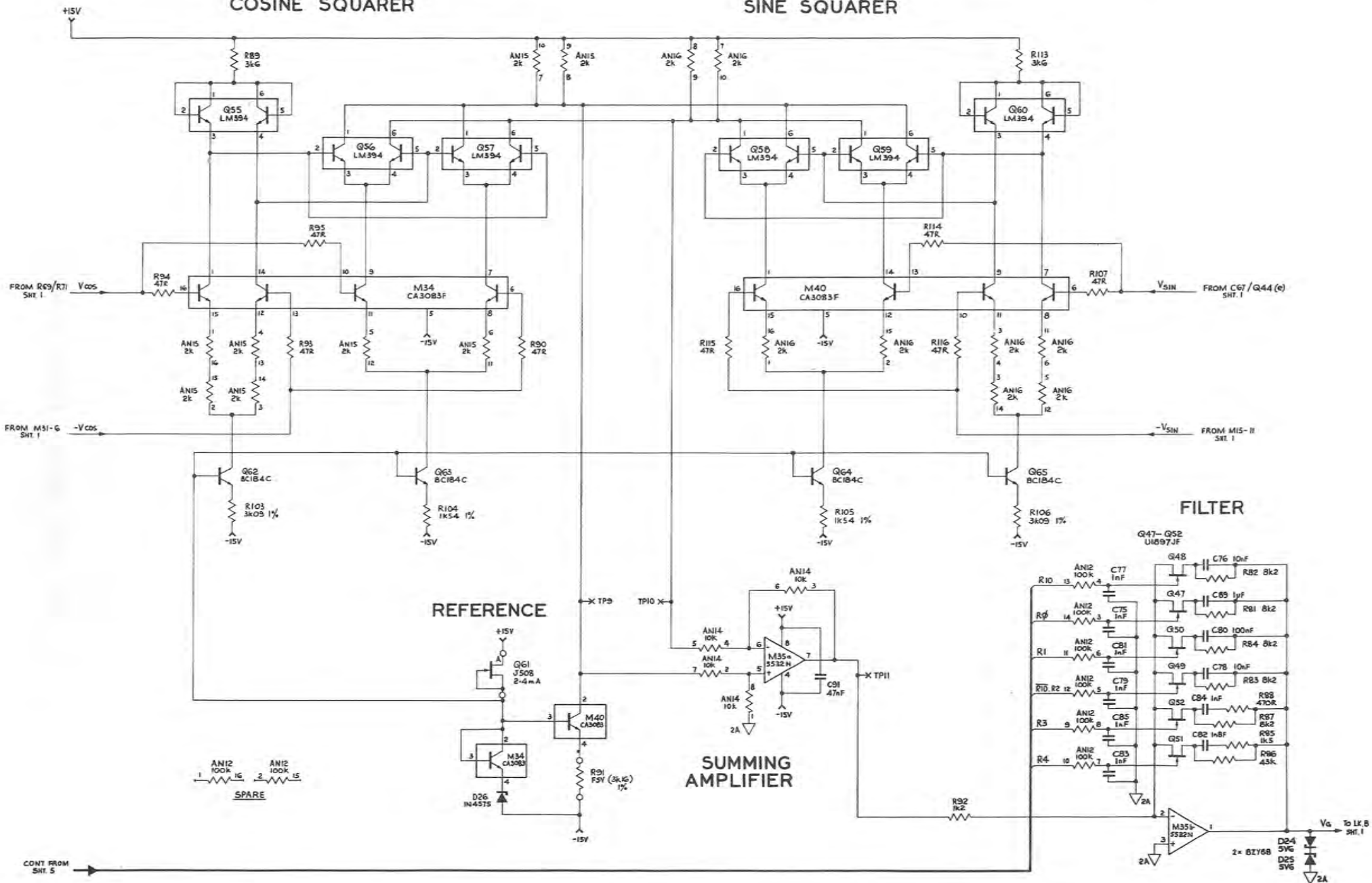
NR OF WIRES	PART NO	NR OFF	WHERE USED
8	605059/A	17	M11, M13, M22-25, M30, M31, M32, M35, M37, M41, M44, M46, M47, M48, M49, M12
14	605060/A	9	M3, M4, M7, M10, M13, M14, M21, M36, M45
16	605061/A	15	M1, M3, M5, M6, M8, M9, M17, M20, M28, M29, M33, M34, M40, M42, M43
28	605065/A	1	M38

BRASS STRIP (IN 2 LENGTHS)  
38mm x 75mm, 630107. SOLDER 2 STRIPS TO 'BROAD' GUARD TRACK IN CENTRAL POSITION.

HEATSINK 70220 520089 2 off  
SCREW M3 x 6mm POZI-PAN 61016 2 off  
M3 SHAKEPROOF 61503 2 off  
M3 NUT 61502 2 off  
N.B. USE HEATSINK COMPOUND 500003 BETWEEN MATING SURFACE OF Q86/Q85 AND HEATSINK. MOUNT THESE DEVICES SQUARELY ON HEATSINKS.

### COSINE SQUARER

### SINE SQUARER



SINE SOURCE ASSEMBLY

Oscillator Amplitude-Detector and Reference

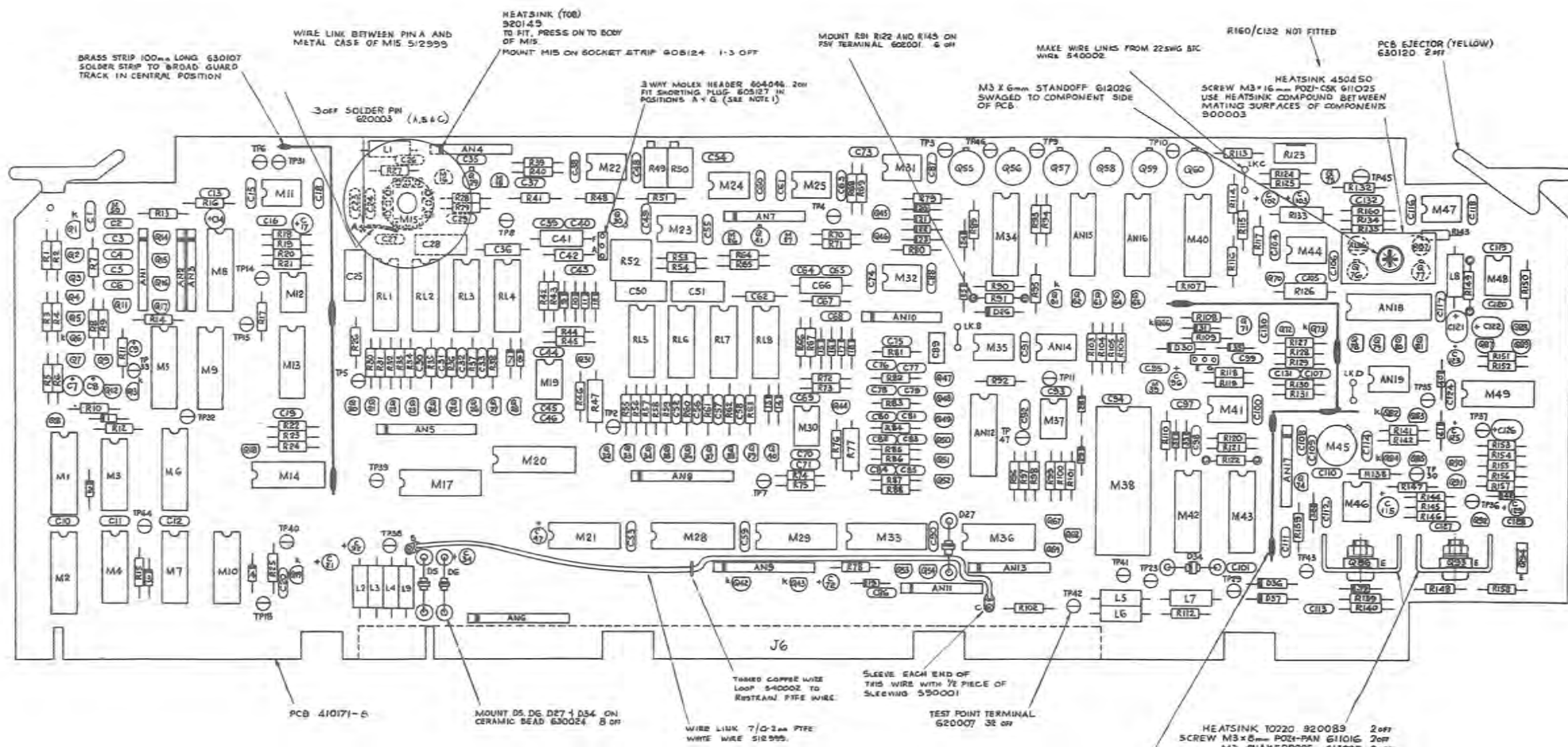
Circuit Diagram No. 430446-8.0 Sheet 2 © Datron Instruments 1986





SINE SOURCE ASSEMBLY

NOTE 1. FIT LINK 'E' AND LINK 'F' IN PLACE OF LINK 'A' AND LINK 'G' FOR TEST



MOUNTING IC's

HP OF WING	PART #	# OFF	WHERE USED
8	60505/A	17	M11, M19, M22-23, M30, M31, M32, M35, M37, M41, M44, M46, M47, M48, M12
14	60506/A	8	M3, M4, M7, M10, M18, M14, M21, M34, M49
16	605061/A	15	M1, M2, M5, M6, M8, M9, M17, M20, M28, M29, M33, M34, M40, M42, M43
28	605062/A	1	M38

BRASS STRIP (IN 2 LENGTHS) SB= 3.75mm 630107 SOLDER 2 STRIPS TO 'BROAD' GUARD TRACK IN CENTRAL POSITION.

HEATSINK 10220 820089 2 OFF  
SCREW M3 x 8mm POZI-PAN 610106 2 OFF  
M3 SHAKEPROOF 613005 2 OFF  
M3 NUT 615002 2 OFF  
N.B. USE HEATSINK COMPOUND 800003 BETWEEN MATING SURFACE OF Q36/Q35 AND HEATSINK. MOUNT THESE DEVICES SQUARELY ON HEATSINKS.

THIRD COPPER WIRE LOOP 840002 TO RESTRAIN PIPE WIRE.  
WIRE LINK 7/0.2mm PTFE WHITE WIRE 512995.  
SLEEVE EACH END OF THIS WIRE WITH TE PIECE OF SLEEVING 550001.  
TEST POINT TERMINAL 620007 3E OFF

WIRE LINK BETWEEN PIN A AND METAL CASE OF M15 512999

HEATSINK (100) 920145 TO FIT. PRESS ON TO BODY OF M15.  
MOUNT M15 ON SOCKET STRIP 608124 1-3 OFF

MOUNT R81 R82 AND R145 ON 25V TERMINAL 620001 6 OFF

3 WY MOLEX HEADER 804046 20H FIT SHORTING PLUG 605127 IN POSITIONS X & G (SEE NOTE 1)

MAKE WIRE LINKS FROM 22SWG BIC WIRE 840002

HEATSINK 450450 SCREW M3 x 16mm POZI-CSK 611025 USE HEATSINK COMPOUND BETWEEN MATING SURFACES OF COMPONENTS 800003

PCB EJECTOR (YELLOW) 630120 2 OFF

3 OFF SOLDER PIN 620003 (A,B,G)

BRASS STRIP 100mm LONG 630107 SOLDER STRIP TO 'BROAD' GUARD TRACK IN CENTRAL POSITION

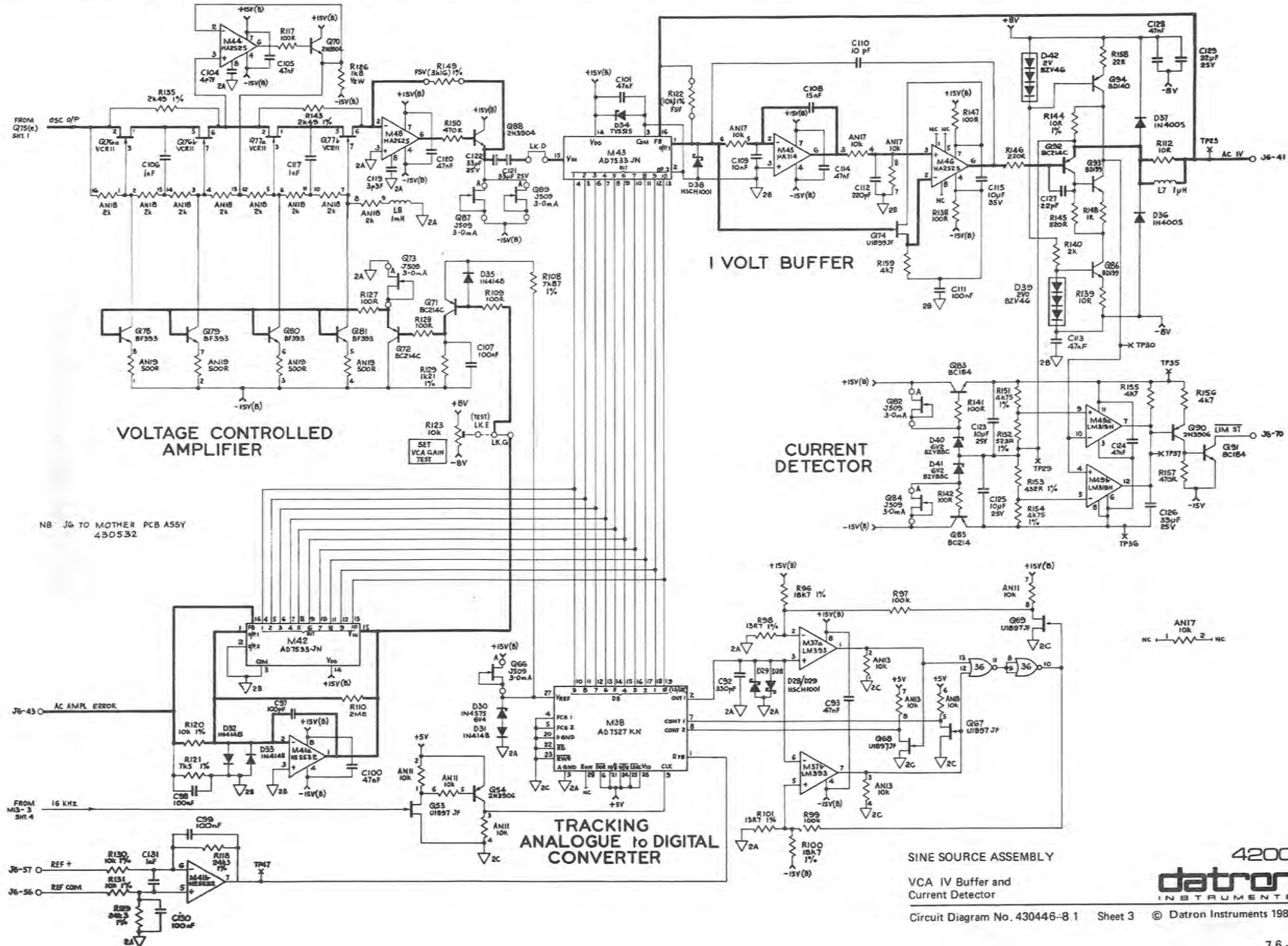
PCB 410171-6

MOUNT D5, D6, D27 & D54 ON CERAMIC BEAD 630024 8 OFF

J6

R160/C182 NOT FITTED

M3 x 6mm STANDOFF 612026 SAWAGED TO COMPONENT SIDE OF PCB.



SINE SOURCE ASSEMBLY

VCA IV Buffer and Current Detector

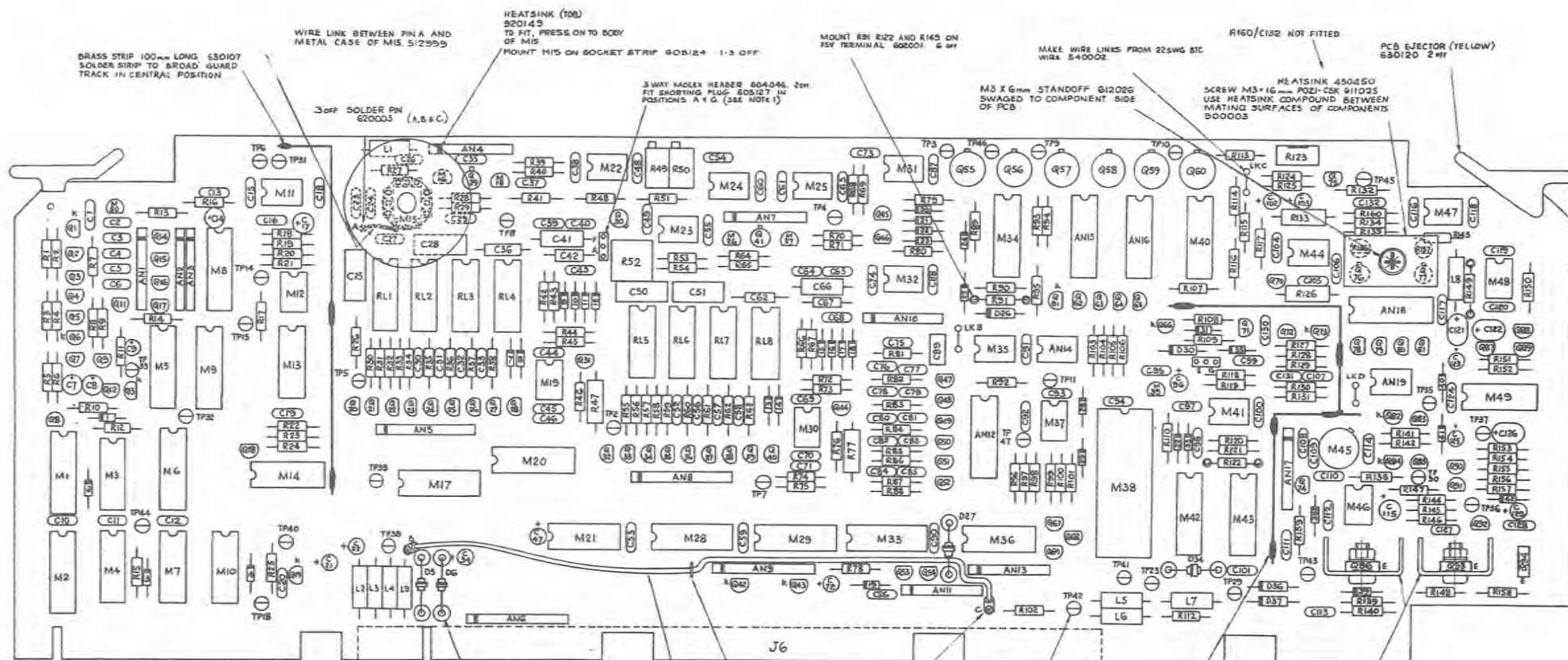
Circuit Diagram No. 430446-8.1

Sheet 3 © Datron Instruments 1986

**4200**  
**datron**  
INSTRUMENTS

SINE SOURCE ASSEMBLY

NOTE 1: FIT LINK 'E' AND LINK 'F' IN PLACE OF LINK 'A' AND LINK 'G' FOR TEST



BRASS STRIP 100mm LONG 53017 SOLDER STRIP TO BROAD GUARD TRACK IN CENTRAL POSITION

WIRE LINK BETWEEN PIN A AND METAL CASE OF MIS 512959

3 off SOLDER PIN 620003 (A,B+C)

HEATSINK 1000 520145 TO FIT, PRESS ON TO BODY OF MIS

MOUNT M15 ON SOCKET STRIP 605124 1-3 OFF

MOUNT R31 R32 AND R145 ON 75V TERMINAL 602001 6 off

3 WAY MOLEX HEADER 604046 2off FIT SHORTING PLUG 605127 IN POSITIONS A+G (SEE NOTE 1)

MAKE WIRE LINKS FROM 22SWG BTC WIRA 540002

R160/C122 NOT FITTED

PCB EJECTOR (YELLOW) 630120 2 off

M3 6mm STANDOFF 612026 SWAGED TO COMPONENT SIDE OF PCB

HEATSINK 450250 SCREW M3x16mm POZI-DR 611025 USE HEATSINK COMPOUND BETWEEN MATING SURFACES OF COMPONENTS 900003

PCB 41071-6

MOUNT D5, D6, D27 1 D34 ON CERAMIC BEAD 630024 8 off

WIRE LINK 7/0-2mm PTFE WIRE WIRA 512959

THIRD COPPER WIRE LOOP 540002 TO RESTRAIN PTFE WIRE

SLEEVE EACH END OF THIS WIRE WITH 72 PIECE OF SLEEVING 590001

TEST POINT TERMINAL 620007 32 off

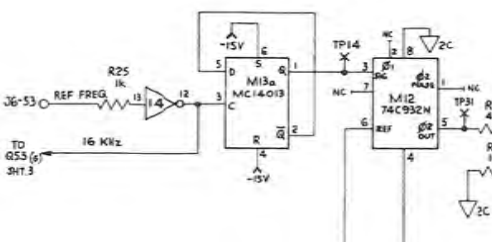
HEATSINK 10220 9200B8 2 off SCREW M3x8mm POZI-PAN 611016 2off M3 SHAKEPROOF 615005 2off M3 NUT 615002 2off N.B. USE HEATSINK COMPOUND 900003 BETWEEN MATING SURFACE OF Q86+Q83 AND HEATSINK. MOUNT THESE DEVICES SQUARELY ON HEATSINKS

BRASS STRIP (IN 2 LENGTHS) 58mm x 73mm 53017 SOLDER 2 STRIPS TO BROAD GUARD TRACK IN CENTRAL POSITION

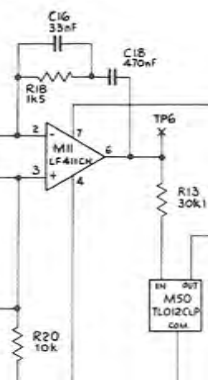
MOUNTING IC's

NO. OF WIRS	PART NO.	NO. OFF	WHERE USED
8	605059/A	17	M11, M19, M22-25, M30, M31, M32, M36, M37, M41, M44, M46, M47, M48, M12
14	605060/A	9	M3, M4, M7, M10, M15, M14, M21, M36, M48
16	605061/A	15	M1, M2, M5, M6, M8, M9, M17, M18, M28, M29, M33, M34, M40, M42, M43
26	605065/A	1	M38

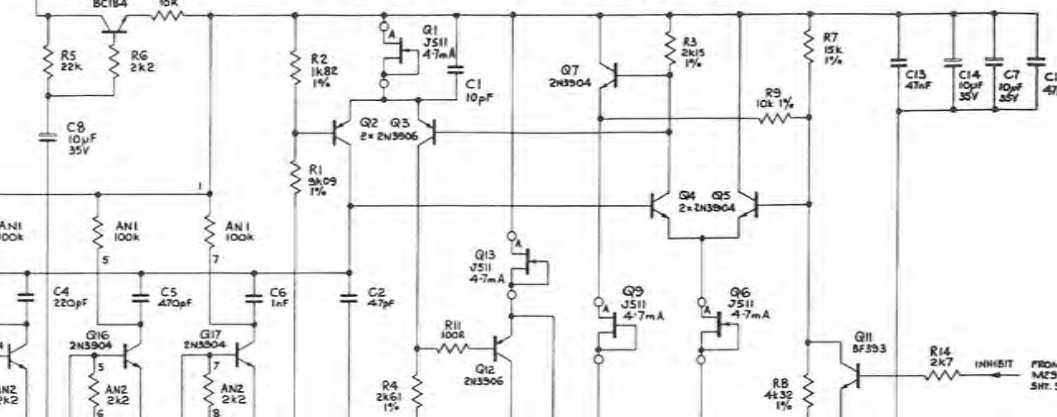
### PHASE COMPARATOR



### FILTER

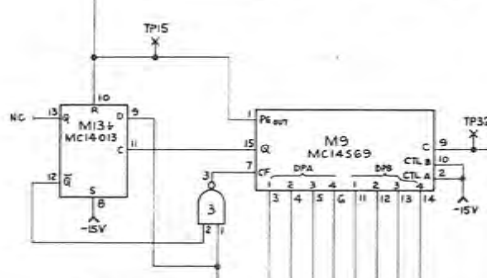


### VOLTAGE CONTROLLED OSCILLATOR

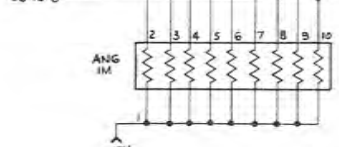


NB J6 TO MOTHER PCB ASSY 430532

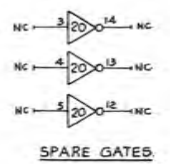
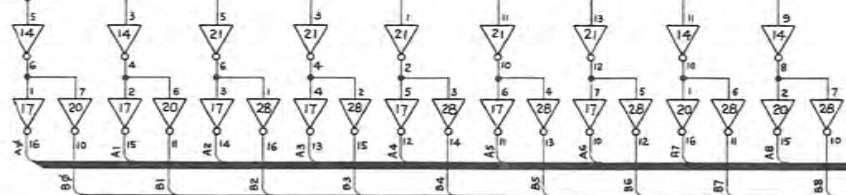
### 9-BIT FREQUENCY DIVIDER



- J6-04 FREQ 8
- J6-03 FREQ 7
- J6-02 FREQ 6
- J6-01 FREQ 5
- J6-80 FREQ 4
- J6-79 FREQ 3
- J6-78 FREQ 2
- J6-77 FREQ 1
- J6-76 FREQ 0



### SINE OSCILLATOR FET DRIVERS

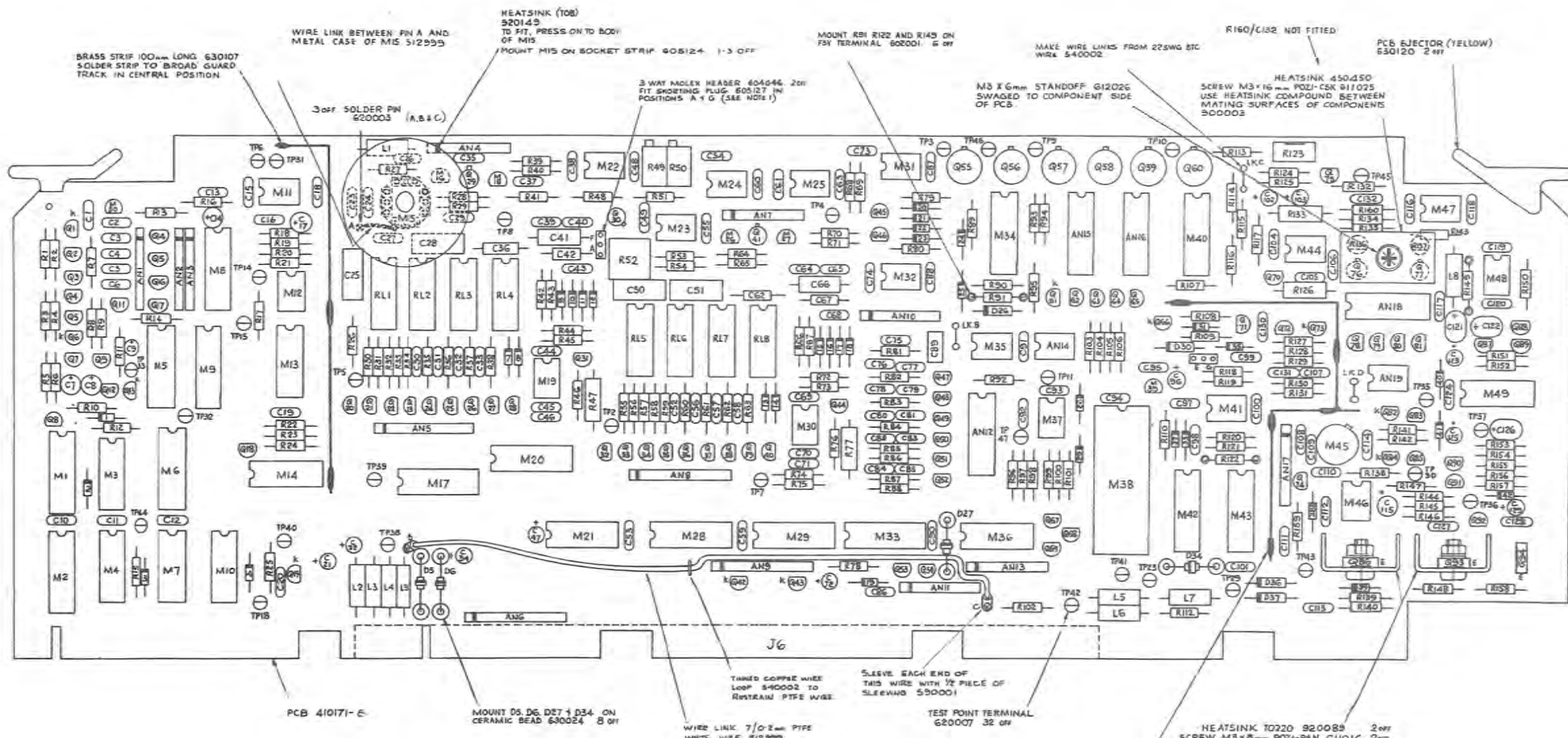


SINCE SOURCE ASSEMBLY  
Digital Synthesizer  
Circuit Diagram No. 430446-8.0 Sheet 4 © Datron Instruments 1986



SINE SOURCE ASSEMBLY

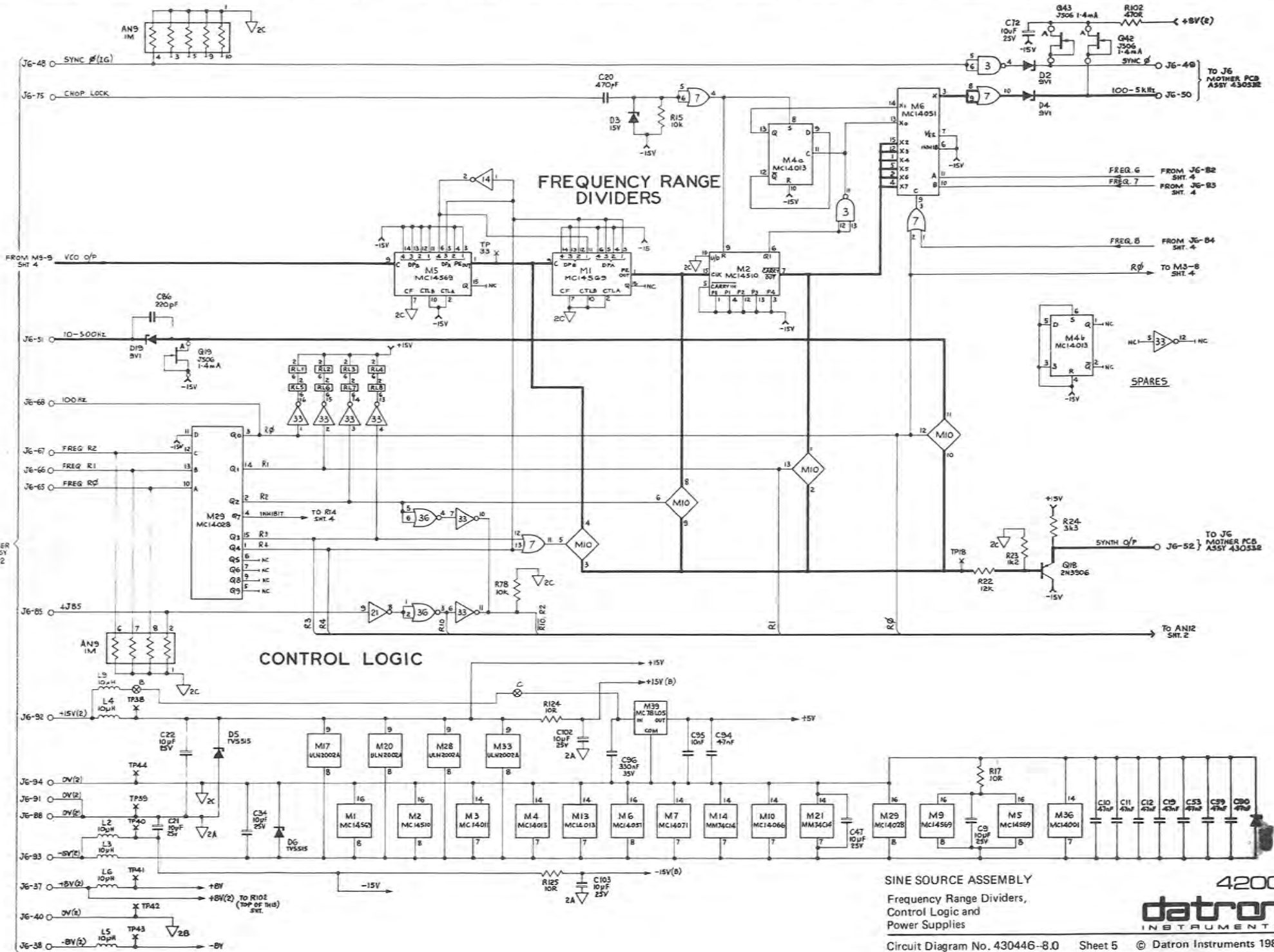
NOTE 1 FIT LINK 'A' AND LINK 'F' IN PLACE OF LINK 'A' AND LINK 'G' FOR TEST



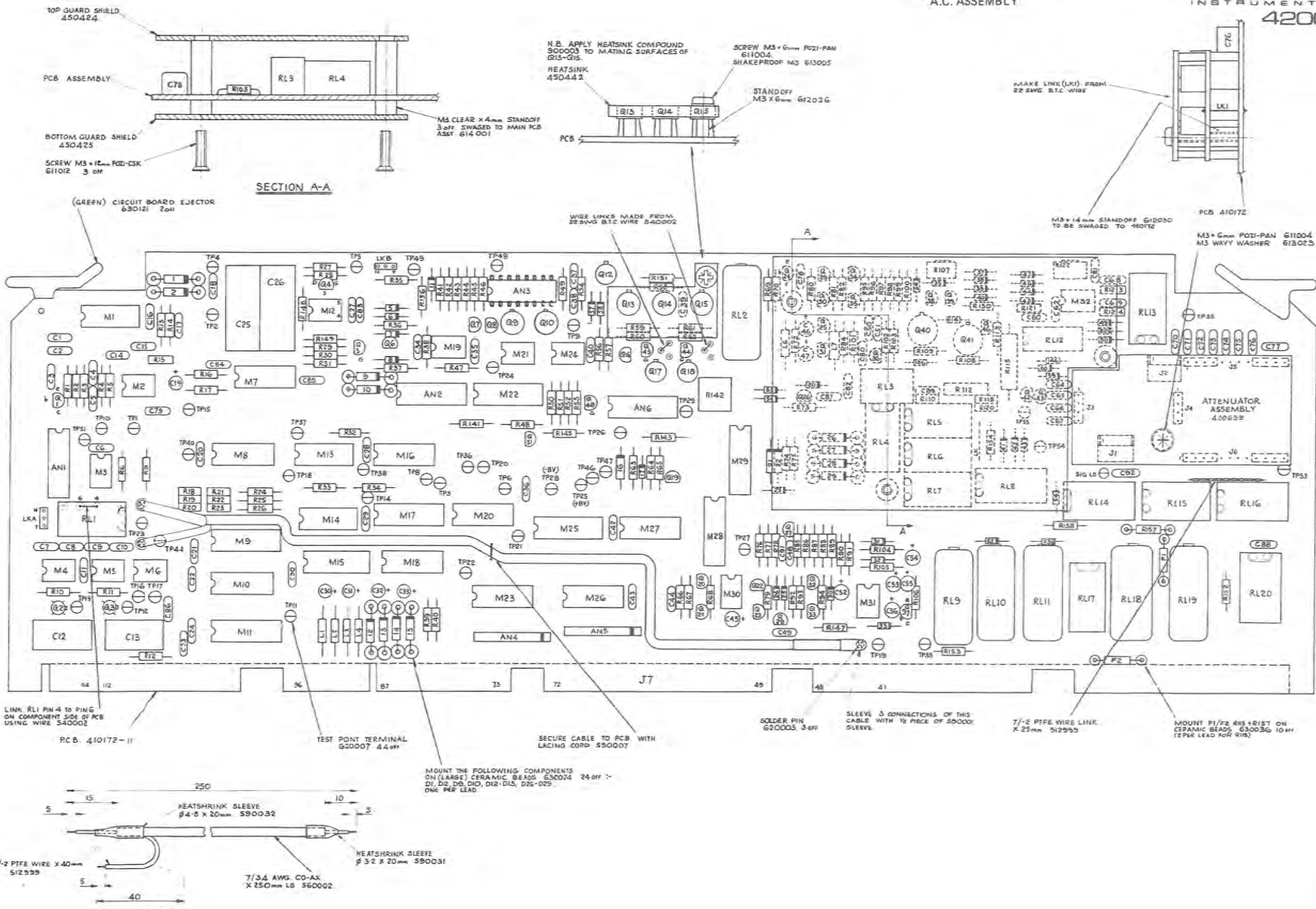
**MOUNTING IC'S**

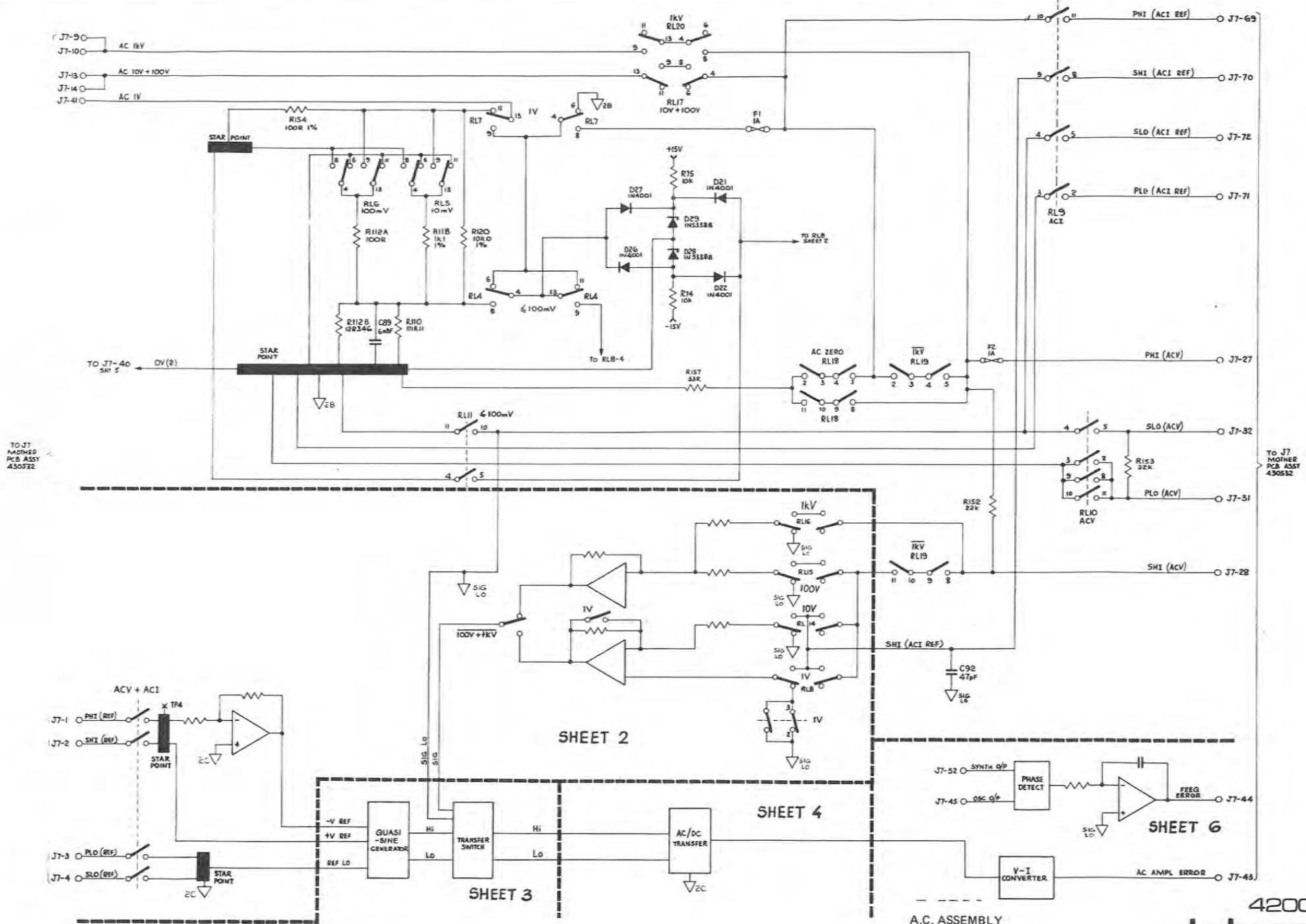
NO OF WAFERS	PART NO	NO OFF	WHERE USED
8	605099/A	17	M11, M19, M22-25, M30, M31, M32, M37, M41, M44, M46, M47, M48, M12
14	605060/A	9	M3, M4, M7, M10, M13, M14, M21, M26, M48
16	605061/A	15	M1, M2, M5, M6, M8, M9, M17, M18, M28, M29, M33, M34, M40, M42, M43
26	605069/A	1	M38

BRASS STRIP (IN 2 LENGTHS) 38mm x 7.2mm. 630107. SOLDER 2 STRIPS TO 'BROAD' GUARD TRACK IN CENTRAL POSITION.



**A.C. ASSEMBLY**





TO J7  
MOTHER  
PCB ASSY  
430532

TO J7  
MOTHER  
PCB ASSY  
430532

SHEET 2

SHEET 3

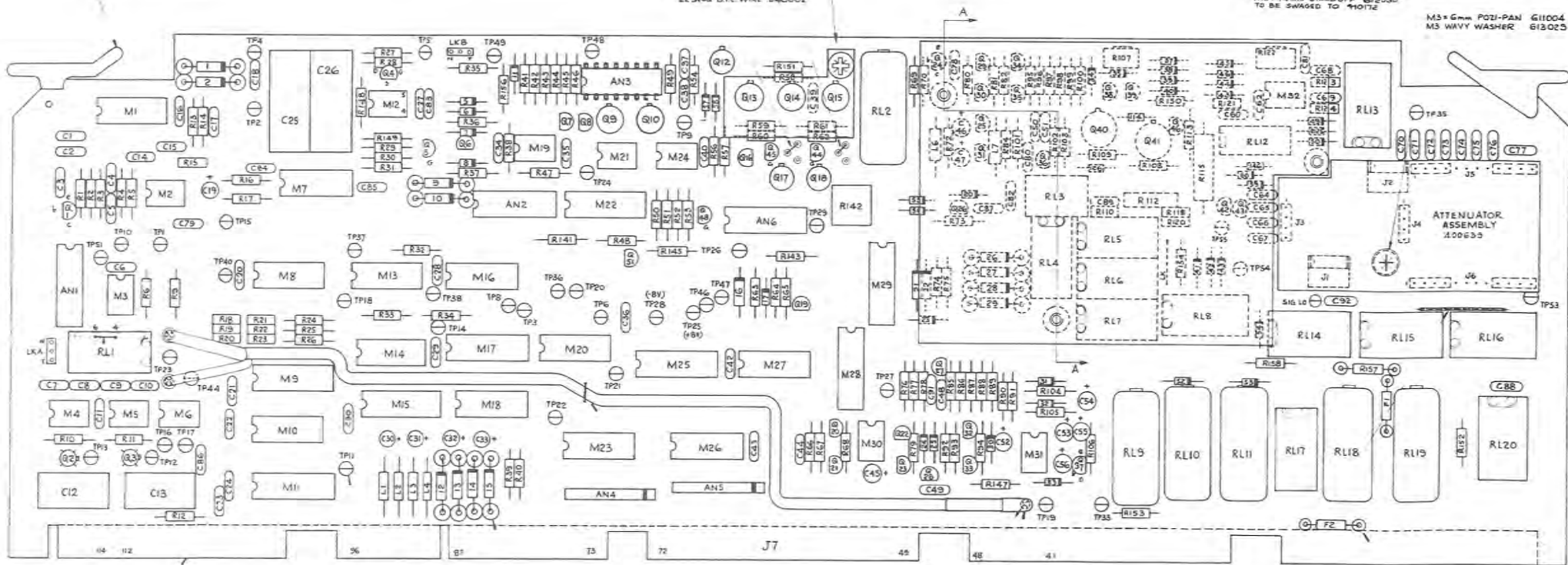
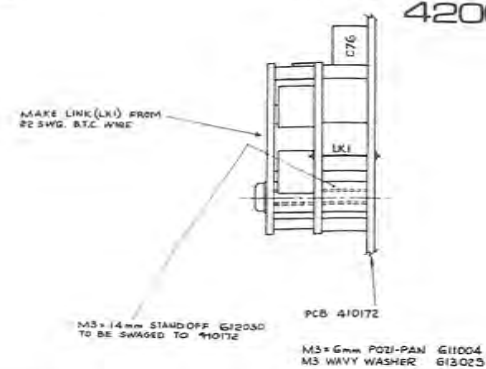
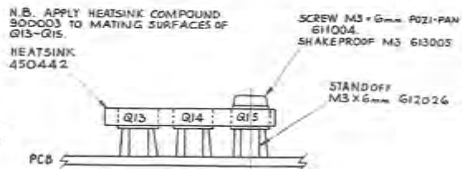
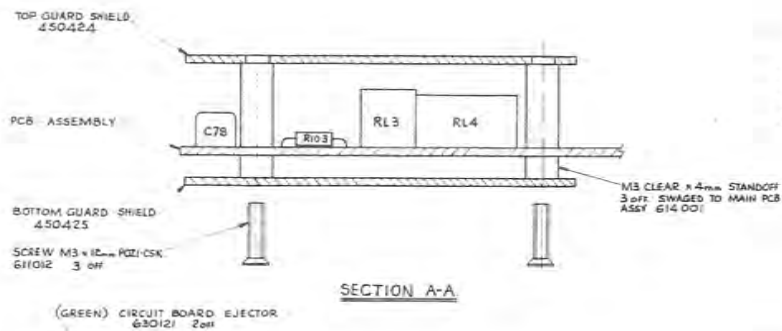
SHEET 4

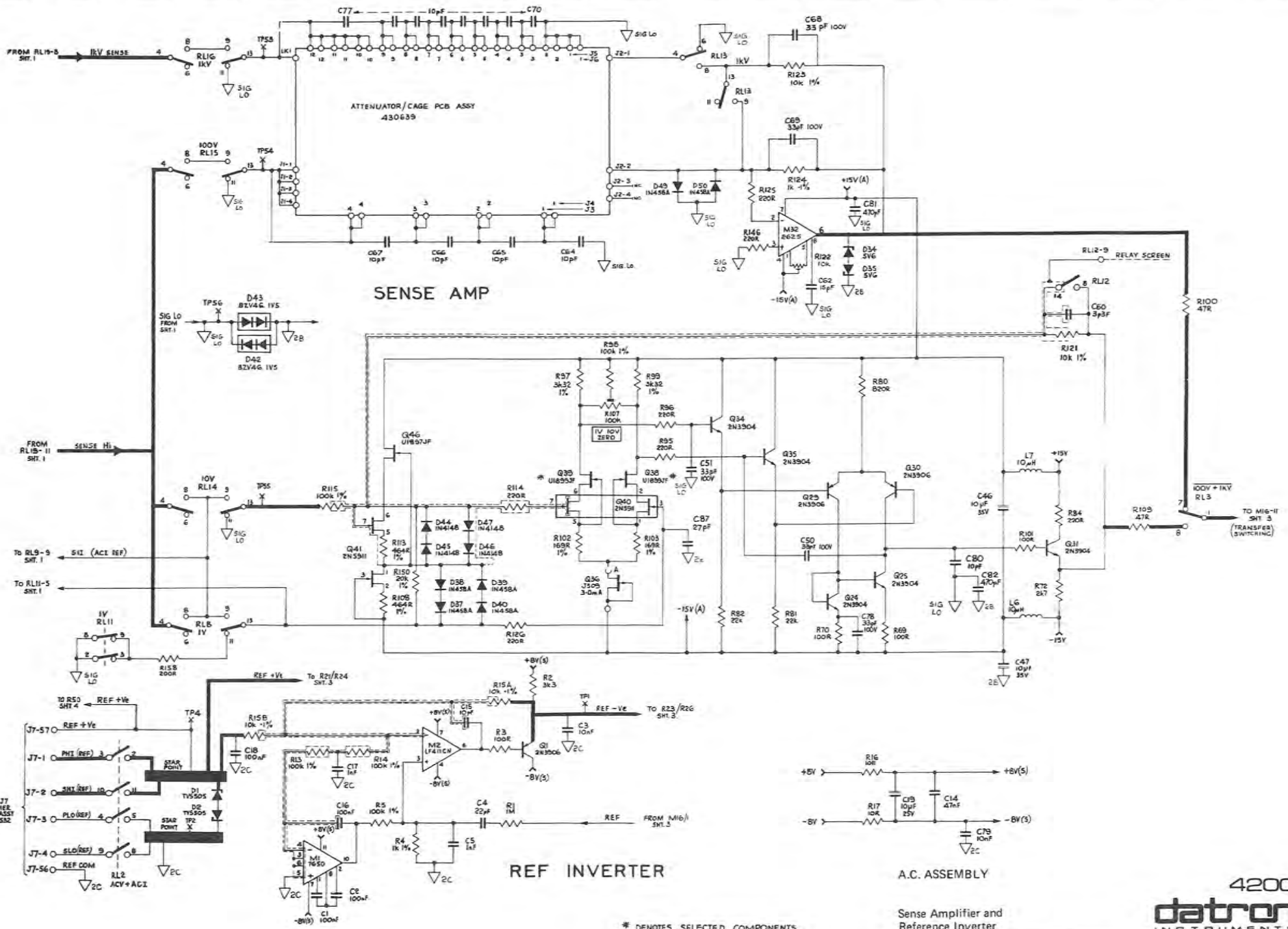
SHEET 6

4200  
datron  
INSTRUMENTS  
A.C. ASSEMBLY  
Switching Overview  
Circuit Diagram No. 430447--14.0 Sheet 1 © Datron Instruments 1986



A.C. ASSEMBLY





\* DENOTES SELECTED COMPONENTS

A.C. ASSEMBLY

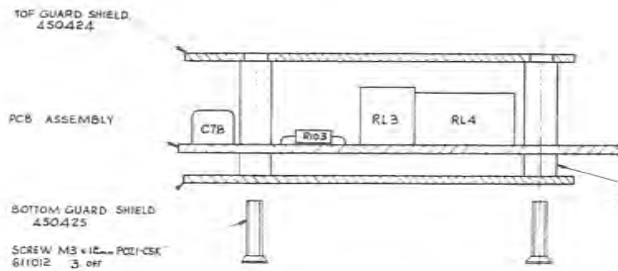
Sense Amplifier and Reference Inverter

Circuit Diagram No. 430447--14.0 Sheet 2 © Datron Instruments 1986



4200

A.C. ASSEMBLY



SECTION A-A

SCREW M3 x 12mm POZI-CHK 611012 3 off

PCB ASSEMBLY

BOTTOM GUARD SHIELD 450425

TOP GUARD SHIELD 450424

M3 CLEAR x 4mm STANDOFF 3 off SWAGED TO MAIN PCB ASSY 614001

N.B. APPLY HEATSINK COMPOUND 500003 TO MATING SURFACES OF Q13-Q15  
HEATSINK 450442

SCREW M3 x 6mm POZI-PAN 611004  
SHAKEPROOF M3 613005

STAND OFF M3 x 6mm Q12026

WIRE LINKS MADE FROM 22SWG B1C WIRE 540002

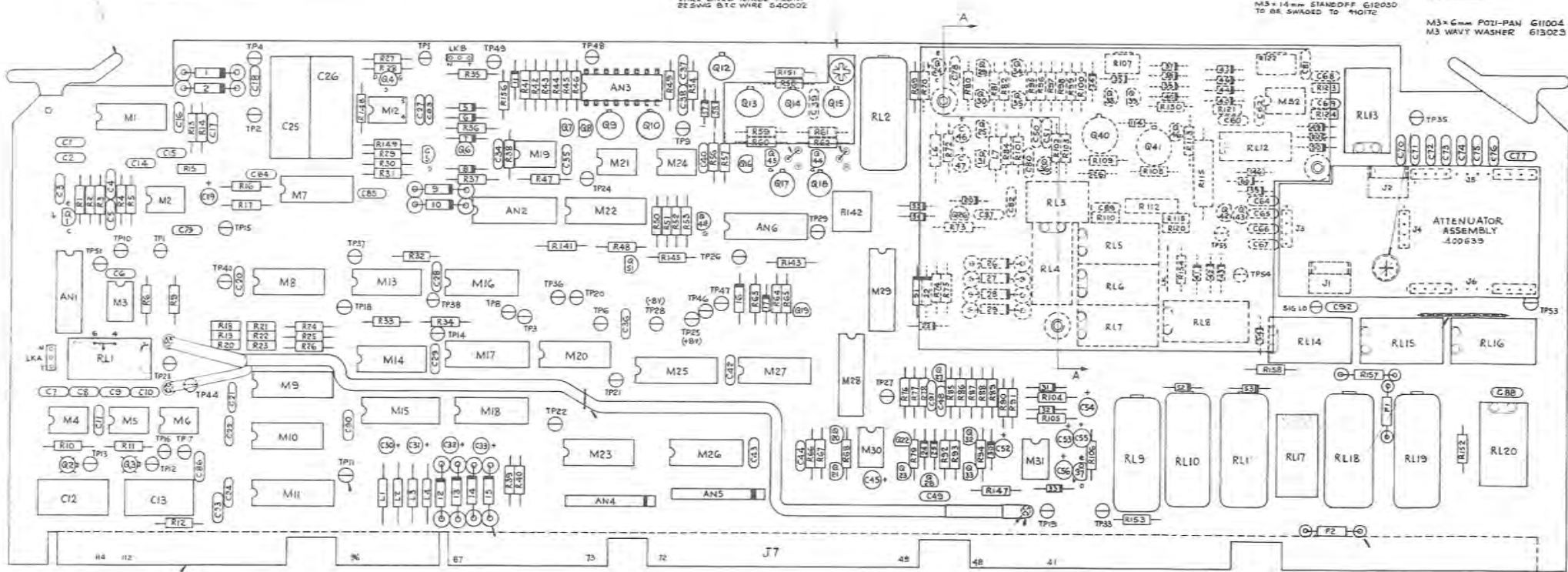
MAKE LINK (LKI) FROM 22SWG B1C WIRE

(GREEN) CIRCUIT BOARD EJECTOR 630121 2 off

M3 x 14mm STANDOFF G12030 TO BE SWAGED TO #1012

PCB 410172

M3 x 6mm POZI-PAN 611004  
M3 WAVY WASHER 613005



LINK RL1 SW 4 TO PING ON COMPONENT SIDE OF PCB USING WIRE 540002

PCB 410172-1

TEST POINT TERMINAL 620007 44 off

SECURE CABLE TO PCB WITH LACING CORD 590007

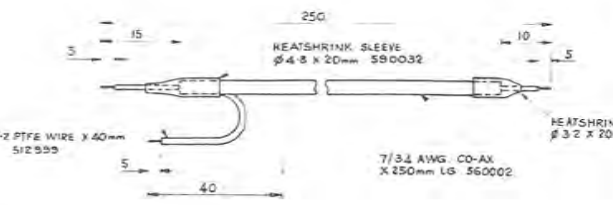
SOLDER PIN 620003 3 off

SLEEVE 3 CONNECTIONS OF THIS CABLE WITH 1/2 PIECE OF 500001 SLEEVE

7/2 PTFE WIRE LINK X 25mm 512553

MOUNT F1/F2 R15-R157 ON CERAMIC BEADS 630036 10 off (2 PWR LEAD FOR R15)

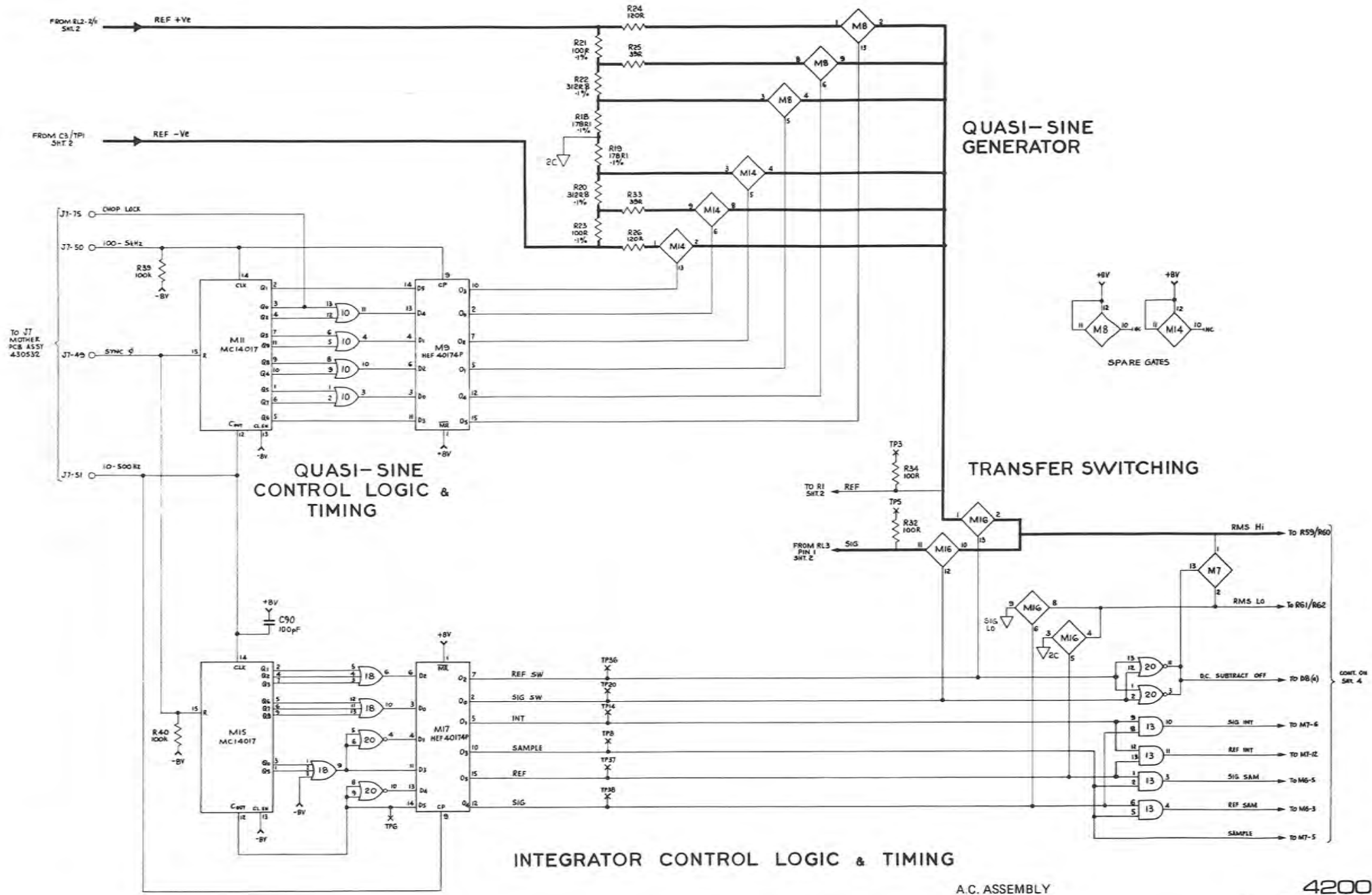
MOUNT THE FOLLOWING COMPONENTS ON (LARGE) CERAMIC BEADS 630036 24 off :-  
D1, D2, D3, D10, D12, D15, D26, D29  
ONE PWR LEAD



HEATSHRINK SLEEVE 4.8 x 20mm 590032

HEATSHRINK SLEEVE 3.2 x 20mm 590031

7/32 AWG CO-AX X 150mm LG 560002



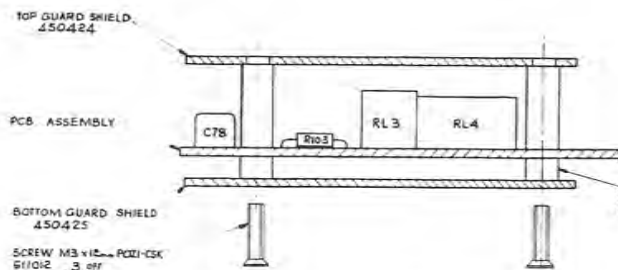
A.C. ASSEMBLY

Quasi-Sine Generator and Timing Logic

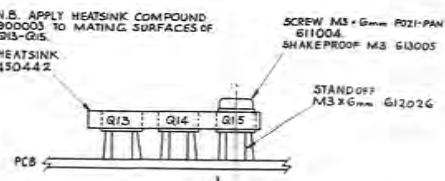
CIRCUIT Diagram No 430447-14 0 Sheet 3 © Datron Instruments 1986



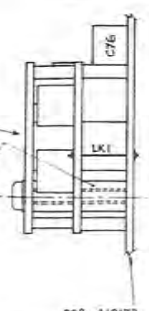
A.C. ASSEMBLY



SECTION A-A



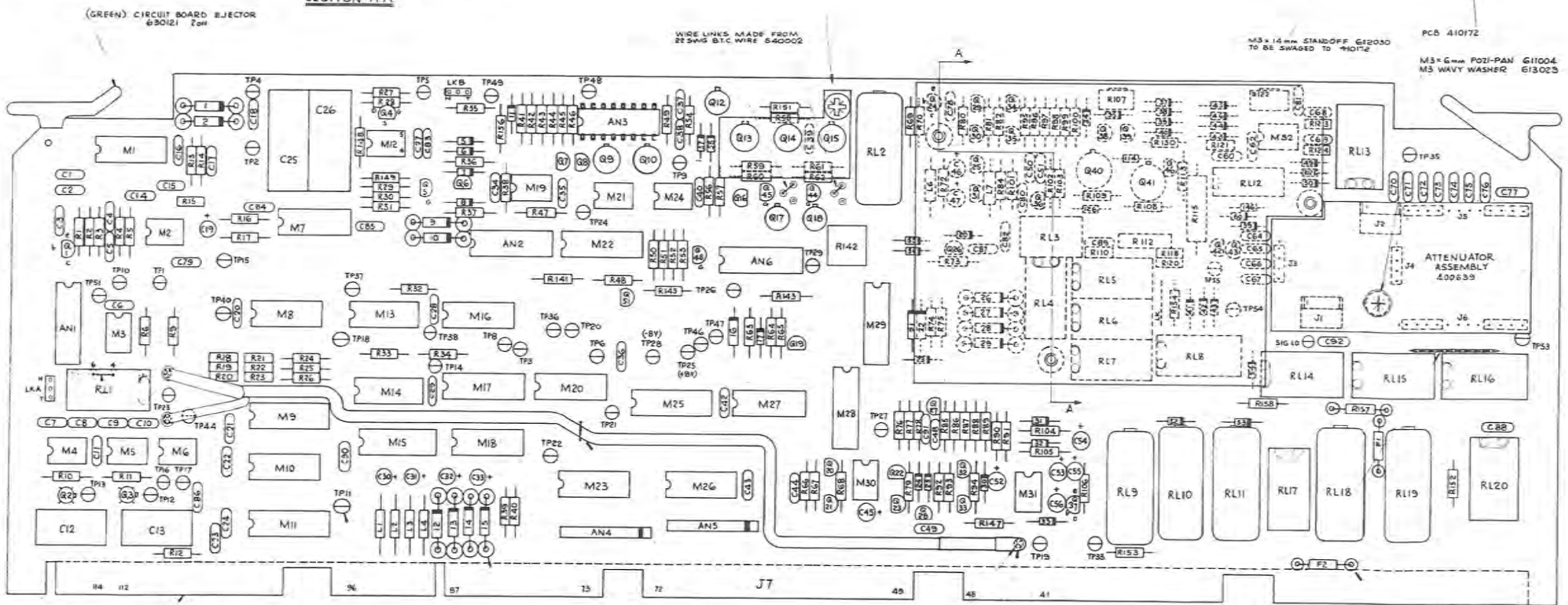
MAKE LINK (LKI) FROM 22 SWG. B.T.C. WIRE



M3 x 1.4mm STANDOFF G12030 TO BE SWAGED TO #10112

M3 x 6mm POZI-PAN G11004  
M3 WAVY WASHER G13023

WIRE LINKS MADE FROM 22 SWG B.T.C. WIRE 540002



LINK RLI PIN 4 TO PIN G ON COMPONENT SIDE OF PCB USING WIRE 540002

PCB 410172-11

TEST POINT TERMINAL 200007 44 off

SECURE CABLE TO PCB WITH LACING CORD 590007

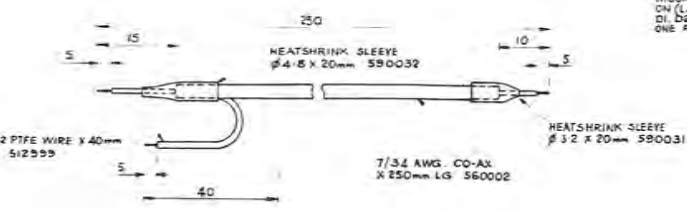
SOLDER PIN 620003 3 off

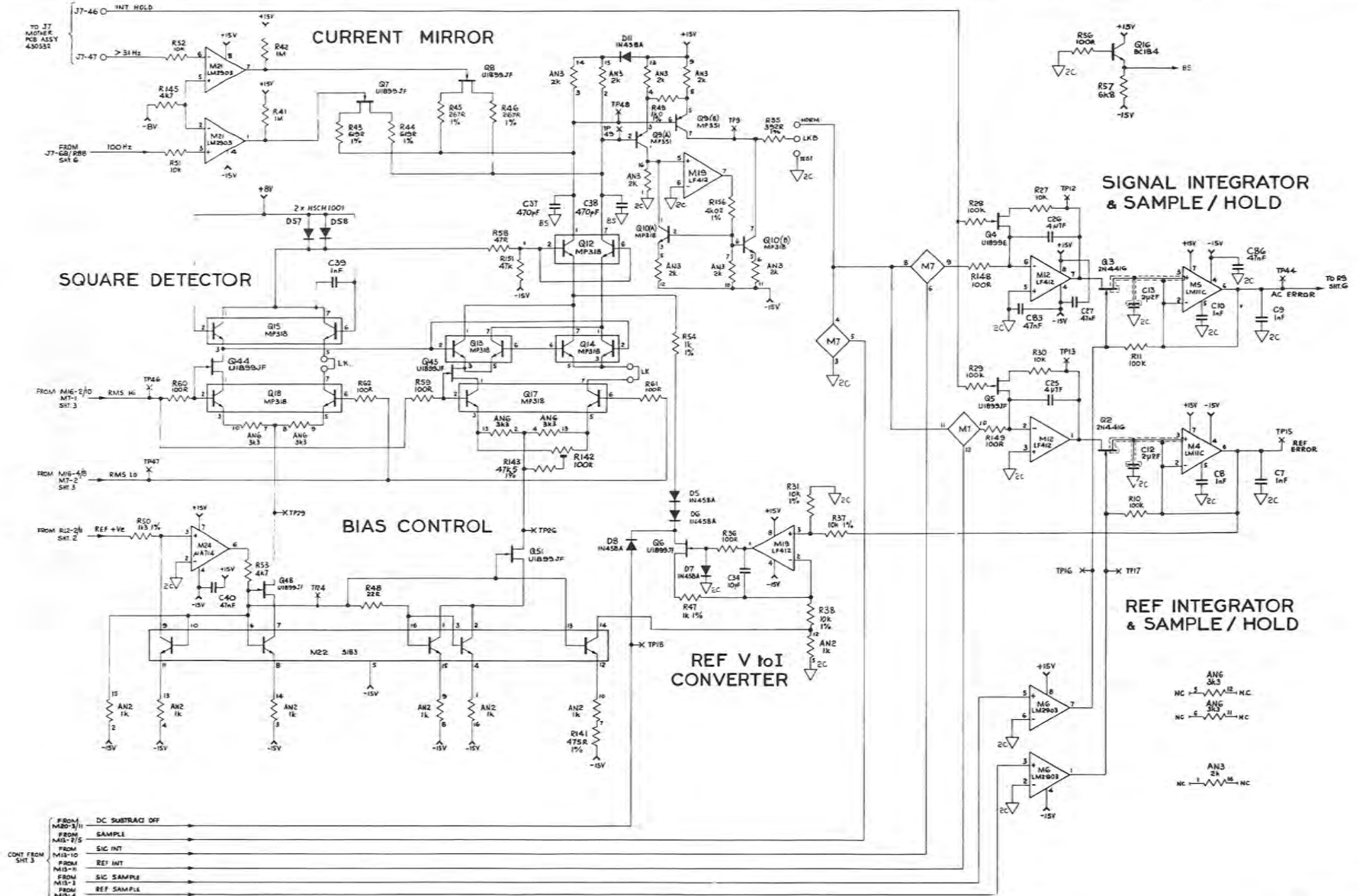
SLEEVE 3 CONNECTIONS OF THIS CABLE WITH 1/2 PIECE OF 500001 SLEEVE

7/2 PTFE WIRE LINK X 25mm 512593

MOUNT F1/F2 R151/R157 ON CERAMIC BEADS 63003G 10 off (REFER LEAD FOR R15)

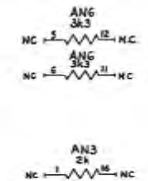
MOUNT THE FOLLOWING COMPONENTS ON (LARGE) CERAMIC BEADS 630024 24 off :-  
D1, D2, D9, D10, D12-D15, D26-D29.  
ONE REF LEAD





CONT FROM SH1 3

FROM M20-3/11	DC SUBTRACT OFF
FROM M13-7/5	SAMPLE
FROM M13-10	SIG INT
FROM M13-9	REF INT
FROM M13-3	SIG SAMPLE
FROM M13-4	REF SAMPLE



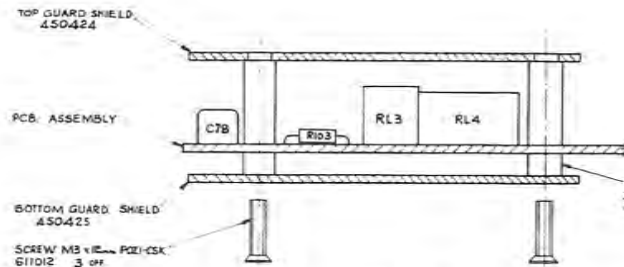
A.C. ASSEMBLY

AC/DC Transfer Detector and Integrators

Circuit Diagram No 430447- 14.0 Sheet 4 © Datron Instruments 1986

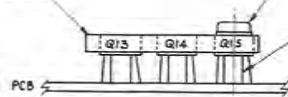
4200  
**datron**  
INSTRUMENTS

A.C. ASSEMBLY

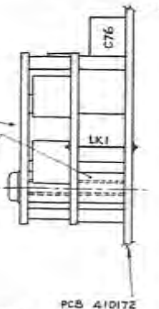


SECTION A-A

N.B. APPLY HEATSIK COMPOUND 900003 TO MATING SURFACES OF Q13-Q15



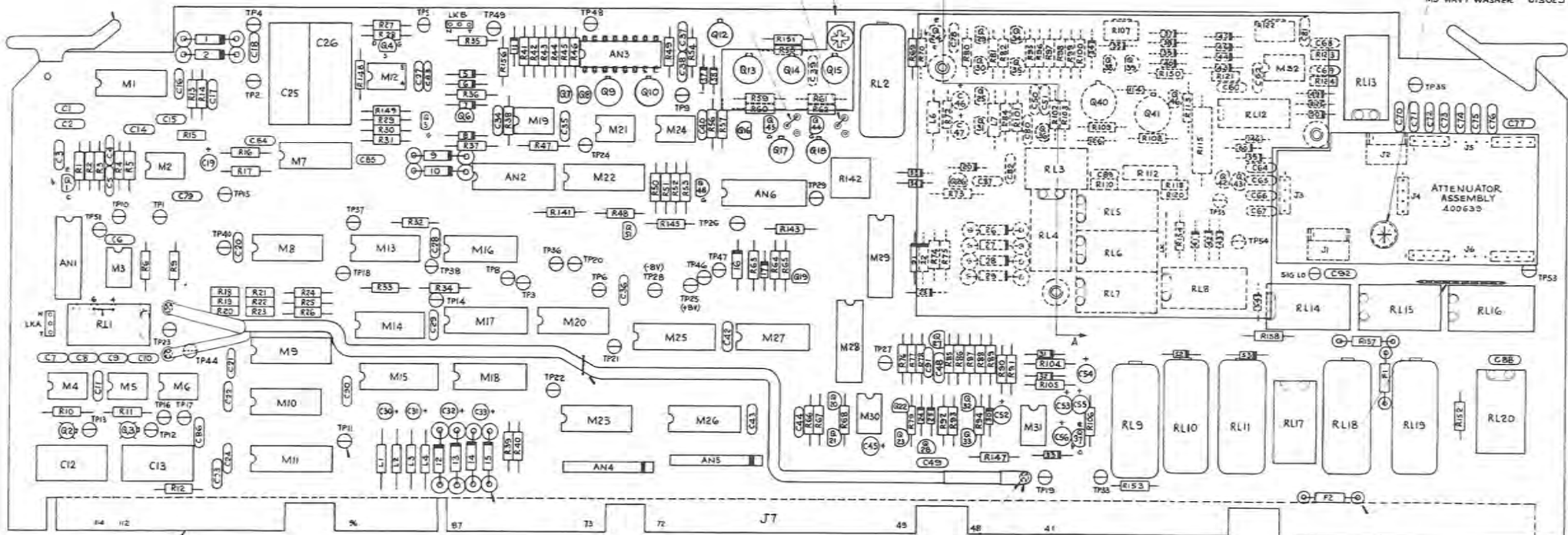
MAKE LINK (LK1) FROM 22 SWG. B.T.C. WIRE



M3 x 14mm STANDOFF 616000 TO BE SWAGED TO 910132

M3 x 6mm POZI-PAN 611004 M3 WAVY WASHER 613025

WIRE LINKS MADE FROM 22 SWG B.T.C. WIRE 540002



LINK RL1 PIN 4 TO PING ON COMPONENT SIDE OF PCB USING WIRE 540002

PCB 410172 - 11

TEST POINT TERMINAL 620007 44 off

SECURE CABLE TO PCB WITH LACING CORD 590007

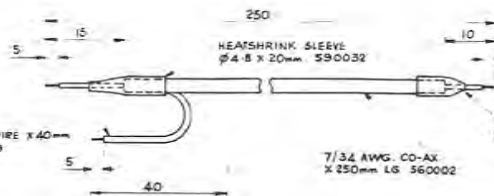
SOLDER PIN 620003 3 off

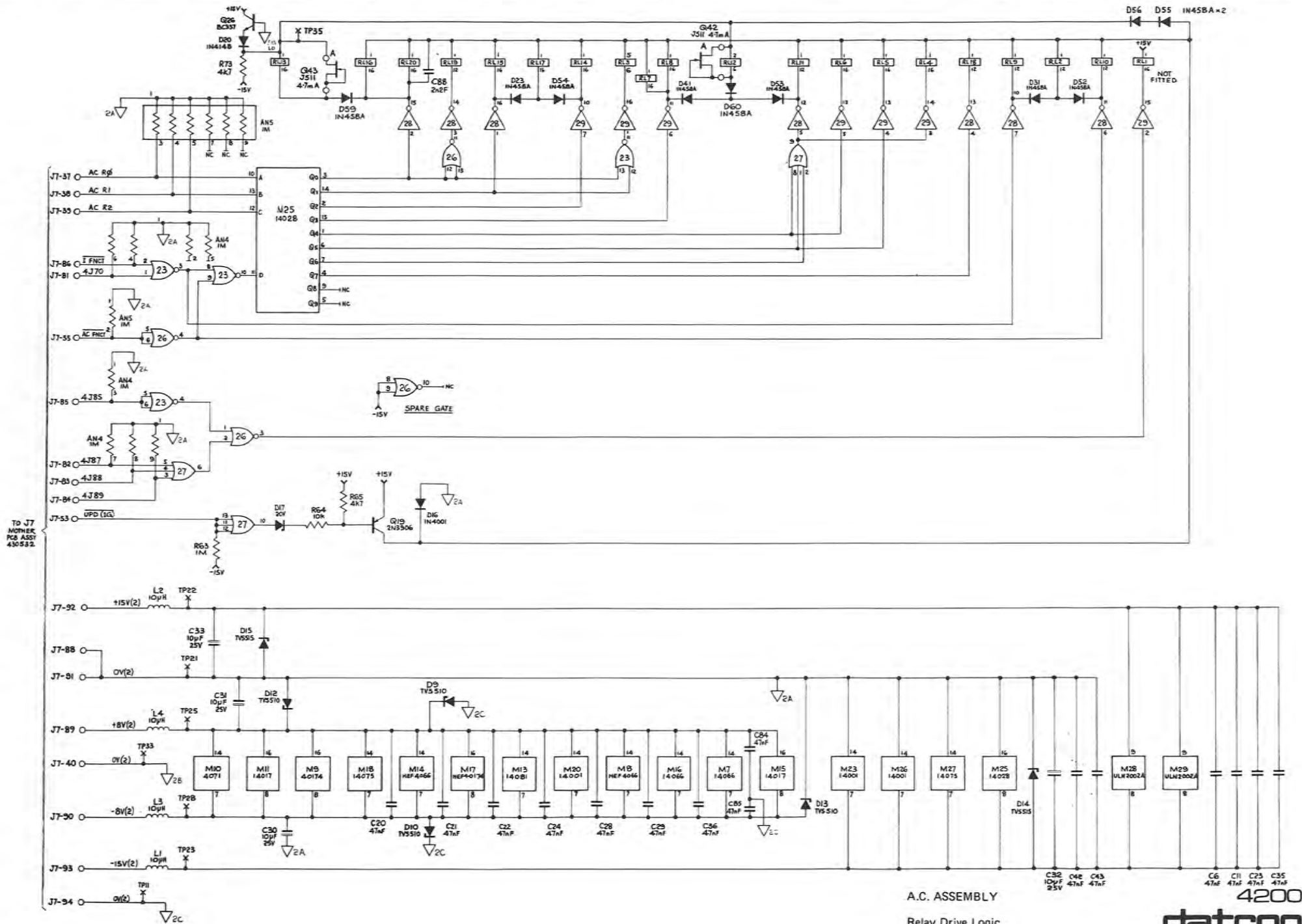
SLEEVE & CONNECTIONS OF THIS CABLE WITH 1/2 PIECE OF 450001 SLEEVE

7/2 PTFE WIRE LINK X 25mm 512955

MOUNT F1/F2 R15-10157 ON CERAMIC BEADS 630036 10 off (2 PER LEAD FOR R15)

MOUNT THE FOLLOWING COMPONENTS ON (LARGE) CERAMIC BEADS 630024 24 off - D1, D2, D3, D10, D12-D15, D26, D29 ONE PER LEAD





A.C. ASSEMBLY

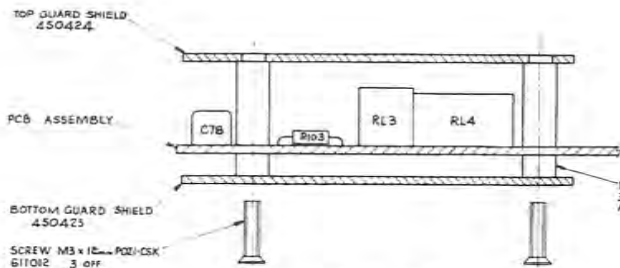
Relay Drive Logic  
and Power Supplies

Circuit Diagram No. 430447- 14 0 Sheet 5 © Datron Instruments 1986





A.C. ASSEMBLY



SECTION A-A

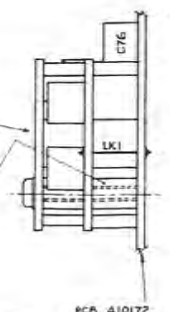
N.B. APPLY HEATSINK COMPOUND  
900003 TO MATING SURFACES OF  
Q13-Q15

SCREW M3 x 6mm POZI-PAN  
611004  
SHAKEPROOF M3 613005

STAND OFF  
M3 x 6mm G12026



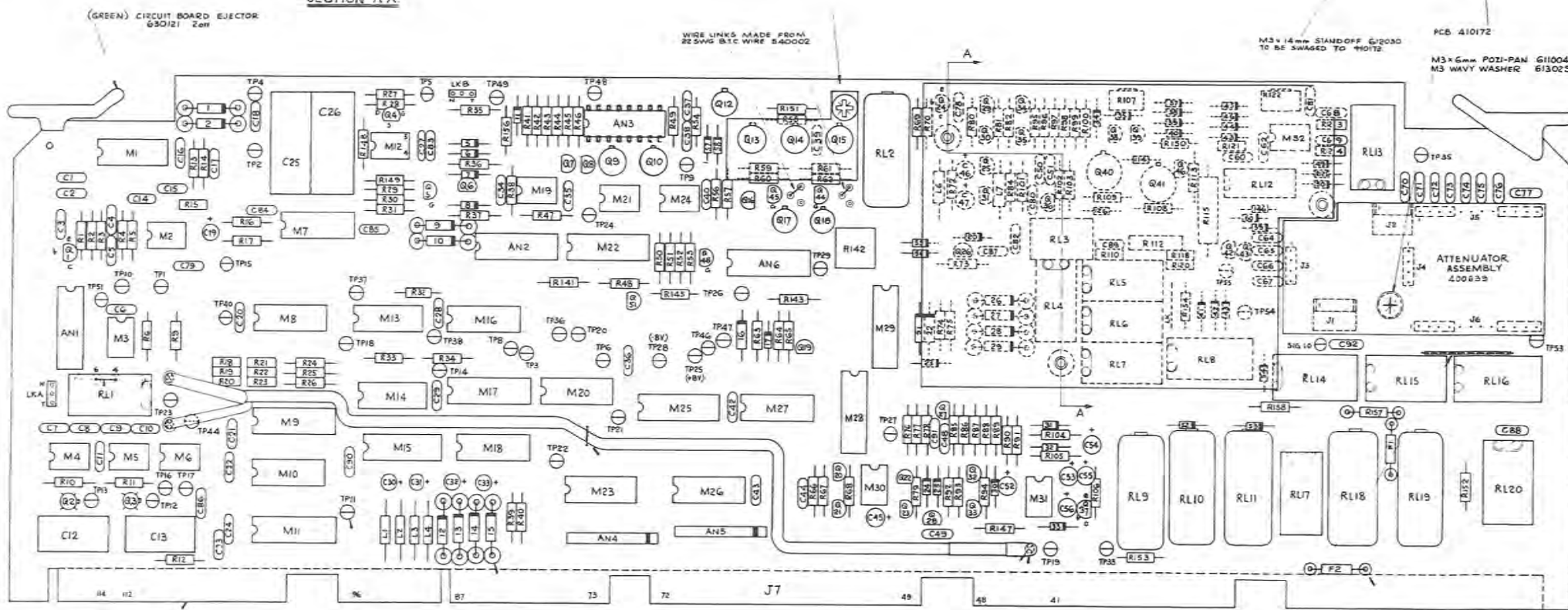
MAKE LINK (LKI) FROM  
#2 SWG. B.T.C. WIRE



M3 x 14mm STAND-OFF G12030  
TO BE SWAGED TO #10172

M3 x 6mm POZI-PAN 611004  
M3 WAVY WASHER 613023

WIRE LINKS MADE FROM  
#2 SWG. B.T.C. WIRE 540002



LINK RL1 PIN 4 TO PIN 6  
ON COMPONENT SIDE OF PCB  
USING WIRE 540002

PCB 410172-11

TEST POINT TERMINAL  
620007 44#H

SECURE CABLE TO PCB WITH  
LACING CORD 590001

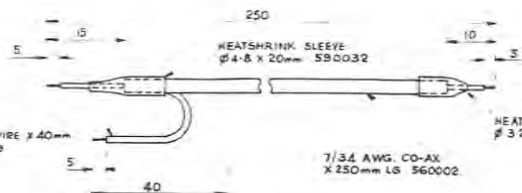
SOLDER PIN  
620003 3 off

SLEEVE 3 CONNECTIONS OF THIS  
CABLE WITH 1/2 PIECE OF 540002

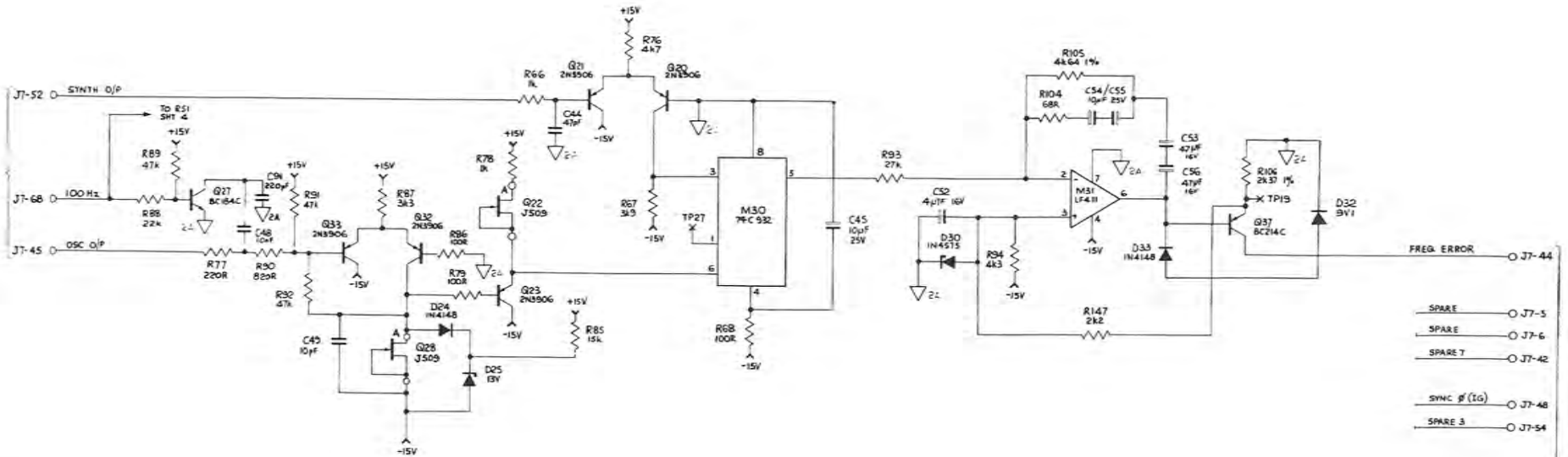
7/2 PTFE WIRE LINK  
X 25mm 512555

MOUNT F1/F2 R15+R17 ON  
CERAMIC BEADS 630036 10#H  
(2 PER LEAD FOR R15)

MOUNT THE FOLLOWING COMPONENTS  
ON (LARGE) CERAMIC BEADS 630024 24 off :-  
D1, C2, D9, D10, D12, D15, D16, D23  
ONE PER LEAD



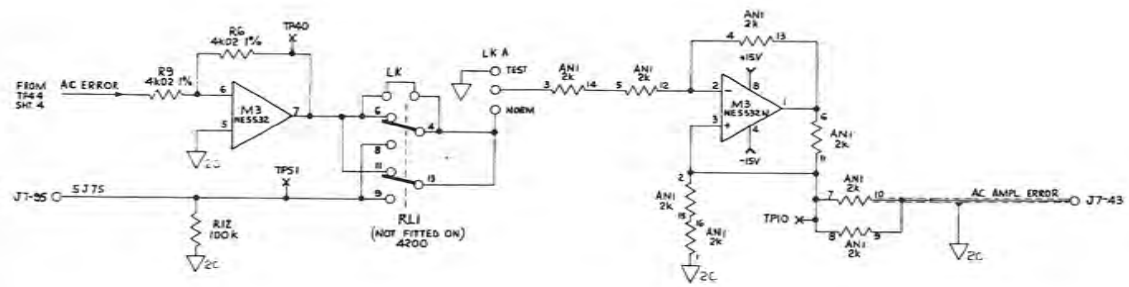
TO J7  
MOTHER  
PCB ASSY  
430532



- FREQ ERROR ○ J7-44
- SPARE ○ J7-5
- SPARE ○ J7-6
- SPARE 7 ○ J7-42
- SYNC  $\beta$  (IG) ○ J7-48
- SPARE 3 ○ J7-54
- AC AMPL 2 ○ J7-58
- AC AMPL 3 ○ J7-59
- AC AMPL 4 ○ J7-60
- AC AMPL 5 ○ J7-61
- AC AMPL 6 ○ J7-62
- AC AMPL 7 ○ J7-63
- AC AMPL 8 ○ J7-64
- FREQ R0 ○ J7-65
- FREQ R1 ○ J7-66
- FREQ R2 ○ J7-67
- REM SENSE ○ J7-73
- OFF ○ J7-74
- FREQ  $\phi$  ○ J7-76
- FREQ 1 ○ J7-77
- FREQ 2 ○ J7-78
- FREQ 3 ○ J7-79
- FREQ 4 ○ J7-80
- SPARE ○ J7-87
- SJ73 ○ J7-96
- SPARE ○ J7-102
- SPARE ○ J7-103
- BACK DEL ○ J7-104

TO J7  
MOTHER PCB ASSY  
430532

TO J7  
MOTHER  
PCB ASSY  
430532



C41, R7, RB — NOT FITTED.

A.C. ASSEMBLY

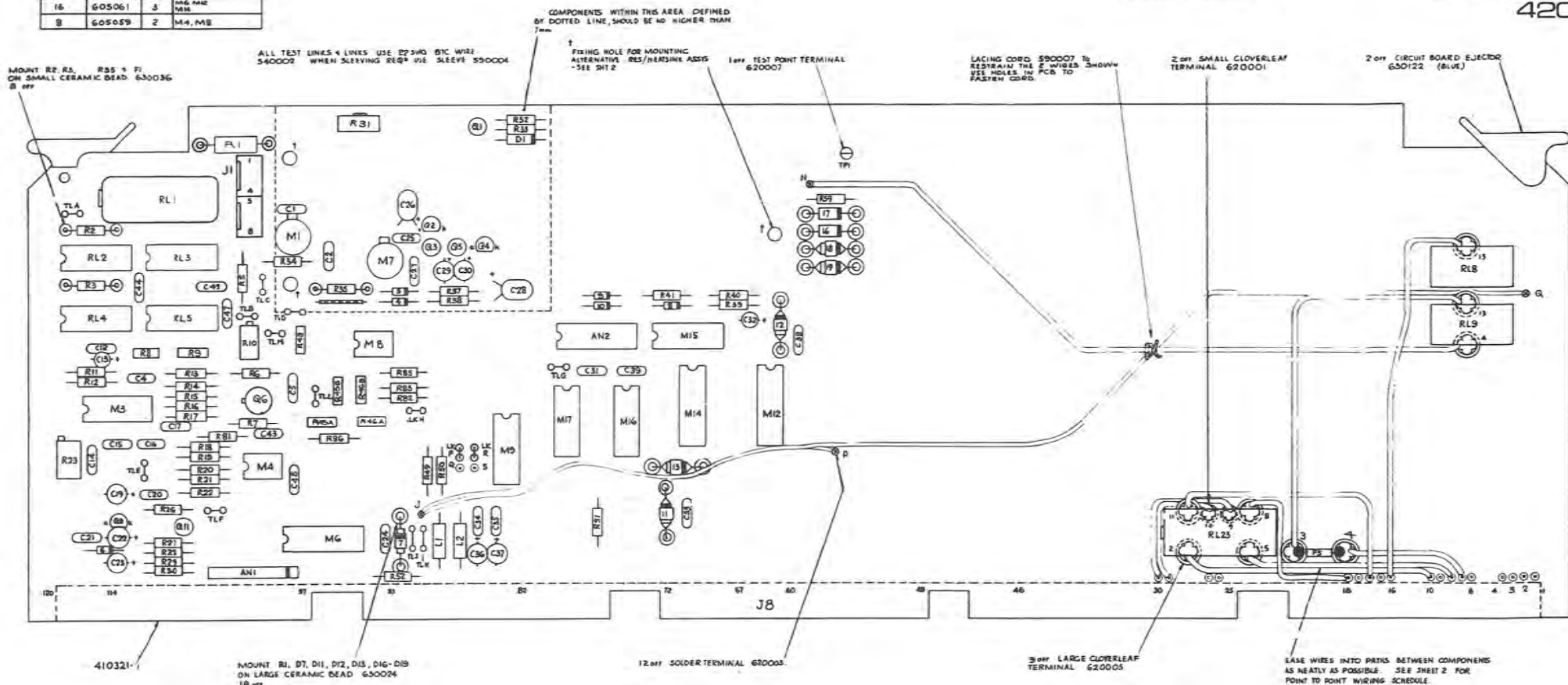
Phase Detector & Integrator  
and Power Supplies

Circuit Diagram No. 430447--14.0 Sheet 6 © Datron Instruments 1986

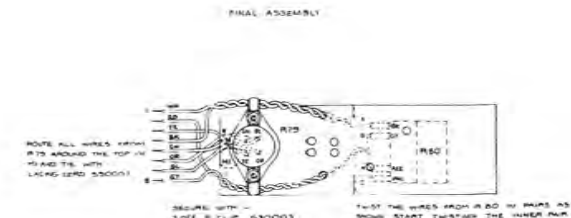
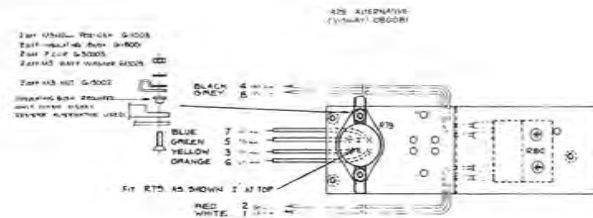
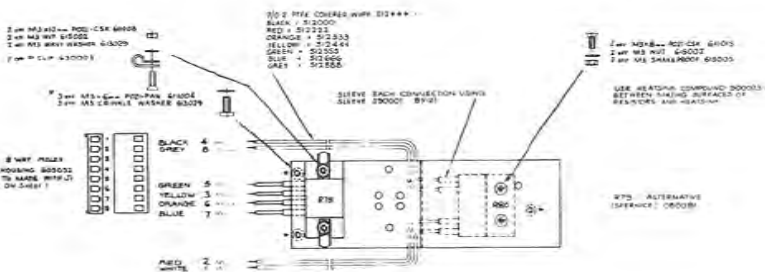


CURRENT ASSEMBLY

MOUNTING I.C. 1		
NO OF WDS	PART NO	NO OF F
14	605060	5
16	605061	3
8	605059	2



10 ALL CONNECTIONS TO SOLDER PINS TO BE SLEEVED, USE SLEEVE 530001 (R),

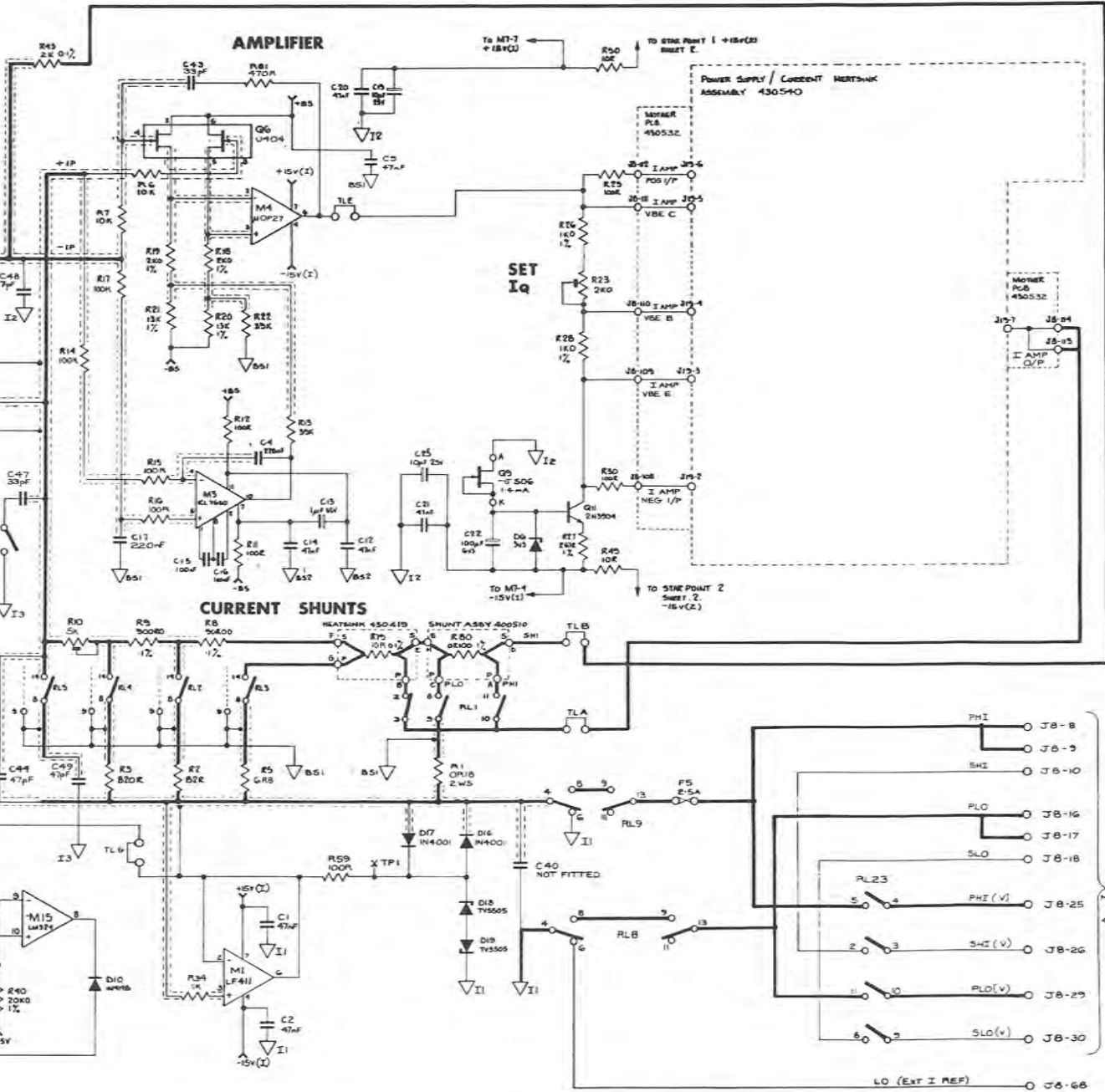
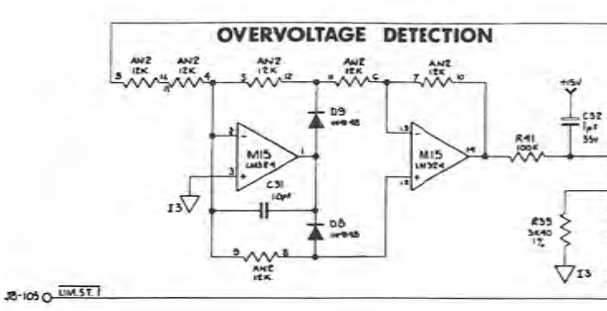
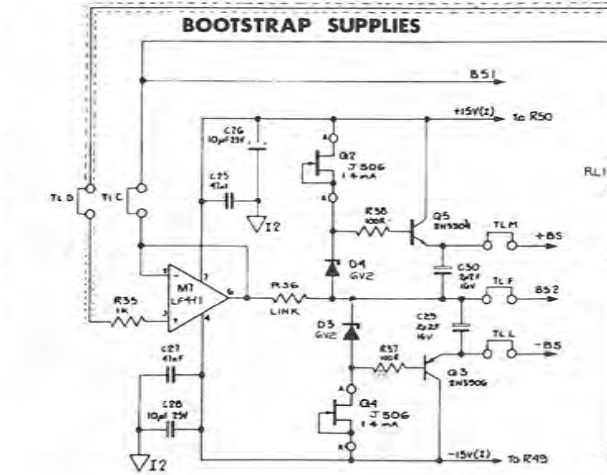
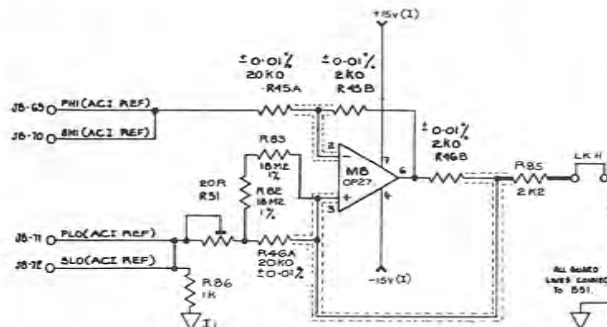


NOTE: ALL WIRES SHOWN R/TD AROUND THE TOP IN R15 AND THE WIRE WITH LACING CORD 530007.

SECURE WITH - 2 OFF R CLIP 630003

1-57 THE WIRES FROM R15 TO R18 SHOULD START TWISTING THE INNER PAIR AS CLOSE TO RESISTOR AS POSSIBLE.

- J8-1 PD PHI
- J8-2 PD SHI
- J8-5 PD PLC
- J8-6 PD SLO



POWER SUPPLY / CURRENT HEATSINK ASSEMBLY 43054-0

SET Iq

CURRENT SHUNTS

OVERVOLTAGE DETECTION

38-105 Q UMST



CURRENT ASSEMBLY

Voltage-to-Current Converter

Circuit Diagram No. 430555--8.0

Sheet 1 © Datron Instruments 1986

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INSTRUMENTS

CURRENT ASSEMBLY

MOUNTING ICS	
IP OR WBS	PART N°
14	G05060
16	G05061
8	G05059

MOUNT RE 23  
ON SMALL CERAMIC BRD G00036

ALL TEST WIRING LINKS USE 20 AWG BIC WIRE  
S40002 WHEN SOLDERING REPT USE SLEW 580004

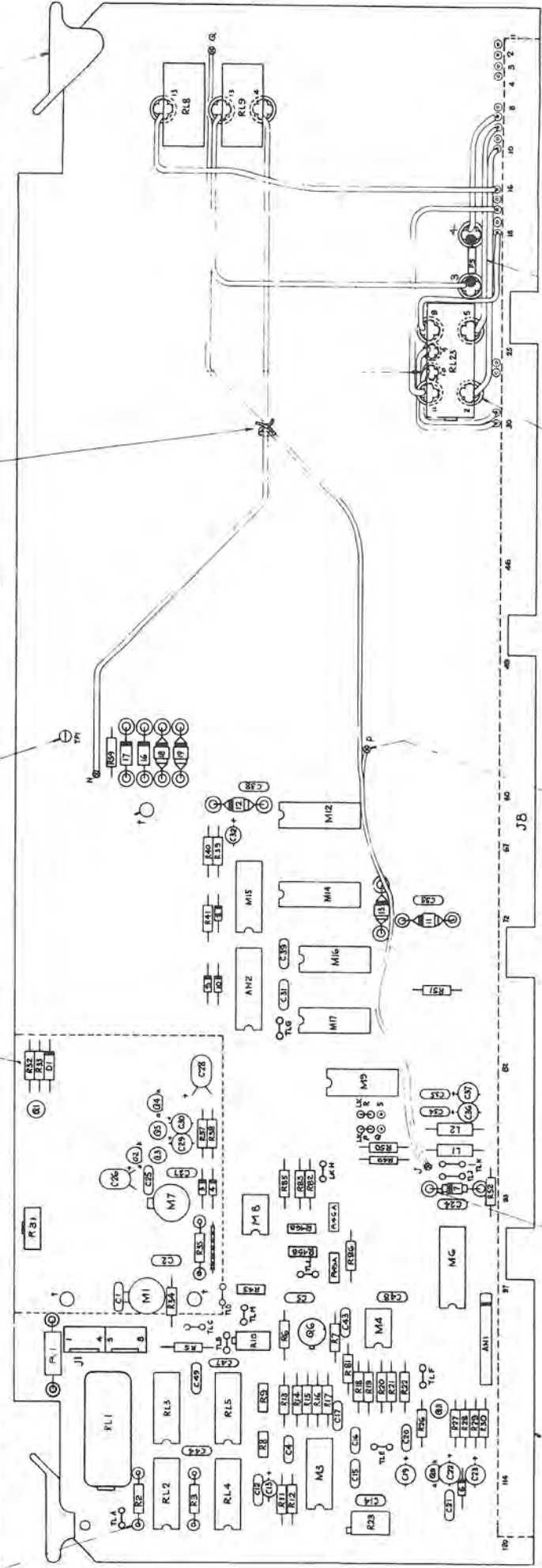
COMPONENTS WITHIN THIS AREA DEFINED  
BY DOTTED LINE SHOULD BE NO HIGHER THAN  
7mm

PLACING HOLE FOR SOLDERING  
ALTERNATIVE 805/840001-805  
-31E 2012

LACING CORD 580002 IS  
RESTRICTED TO 2 WIRES 3.0mm  
FASTEN BOARD

2.0" SMALL COVERLEAF  
TERMINAL G20001

2.0" COVER BONES EJEEDOR  
630122 (AUK)



410321-1  
MOUNT R1, D2, D11, D12, D18, D19  
ON LARGE CERAMIC BRD G00004  
18 mm

12.0" SOLDER TERMINAL G20006  
N.B. ALL CONNECTIONS TO SOLDER PINS  
TO BE SLEWED, USE SLEW 580001 (AS)

USE WIRES INTO PADS BETWEEN COMPONENTS  
AS SHOWN IN SHEET 2 FOR  
POINT TO POINT WIRING SCHEMATIC

7/0.15 PINS CONNECT WIRE 512 \*\*\*  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25

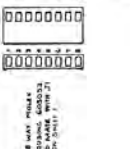
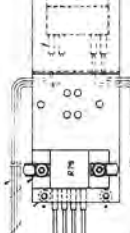
7/0.15 PINS CONNECT WIRE 512 \*\*\*  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25

7/0.15 PINS CONNECT WIRE 512 \*\*\*  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25

7/0.15 PINS CONNECT WIRE 512 \*\*\*  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25

7/0.15 PINS CONNECT WIRE 512 \*\*\*  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25

7/0.15 PINS CONNECT WIRE 512 \*\*\*  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25  
G00004 21 22 23 24 25



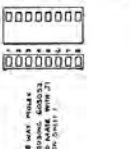
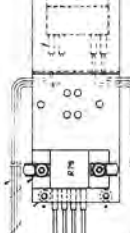
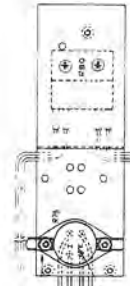
478 ALTERNATIVE  
FASTENING ORIGIN

478 ALTERNATIVE  
FASTENING ORIGIN

478 ALTERNATIVE  
FASTENING ORIGIN

478 ALTERNATIVE  
FASTENING ORIGIN

478 ALTERNATIVE  
FASTENING ORIGIN



478 ALTERNATIVE  
FASTENING ORIGIN

478 ALTERNATIVE  
FASTENING ORIGIN

478 ALTERNATIVE  
FASTENING ORIGIN

478 ALTERNATIVE  
FASTENING ORIGIN

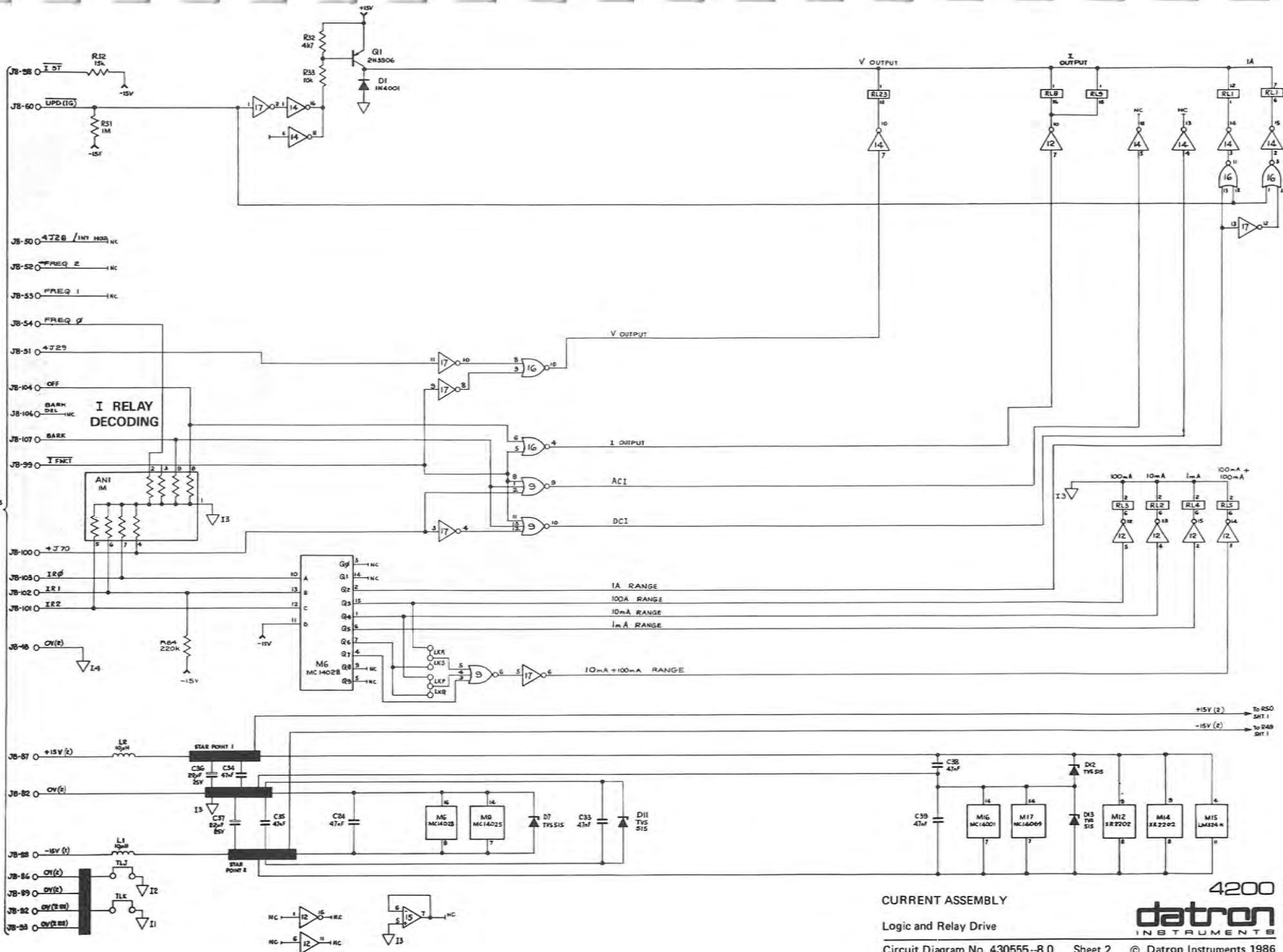
478 ALTERNATIVE  
FASTENING ORIGIN

478 ALTERNATIVE  
FASTENING ORIGIN

478 ALTERNATIVE  
FASTENING ORIGIN

478 ALTERNATIVE  
FASTENING ORIGIN

478 ALTERNATIVE FASTENING ORIGIN



CURRENT ASSEMBLY

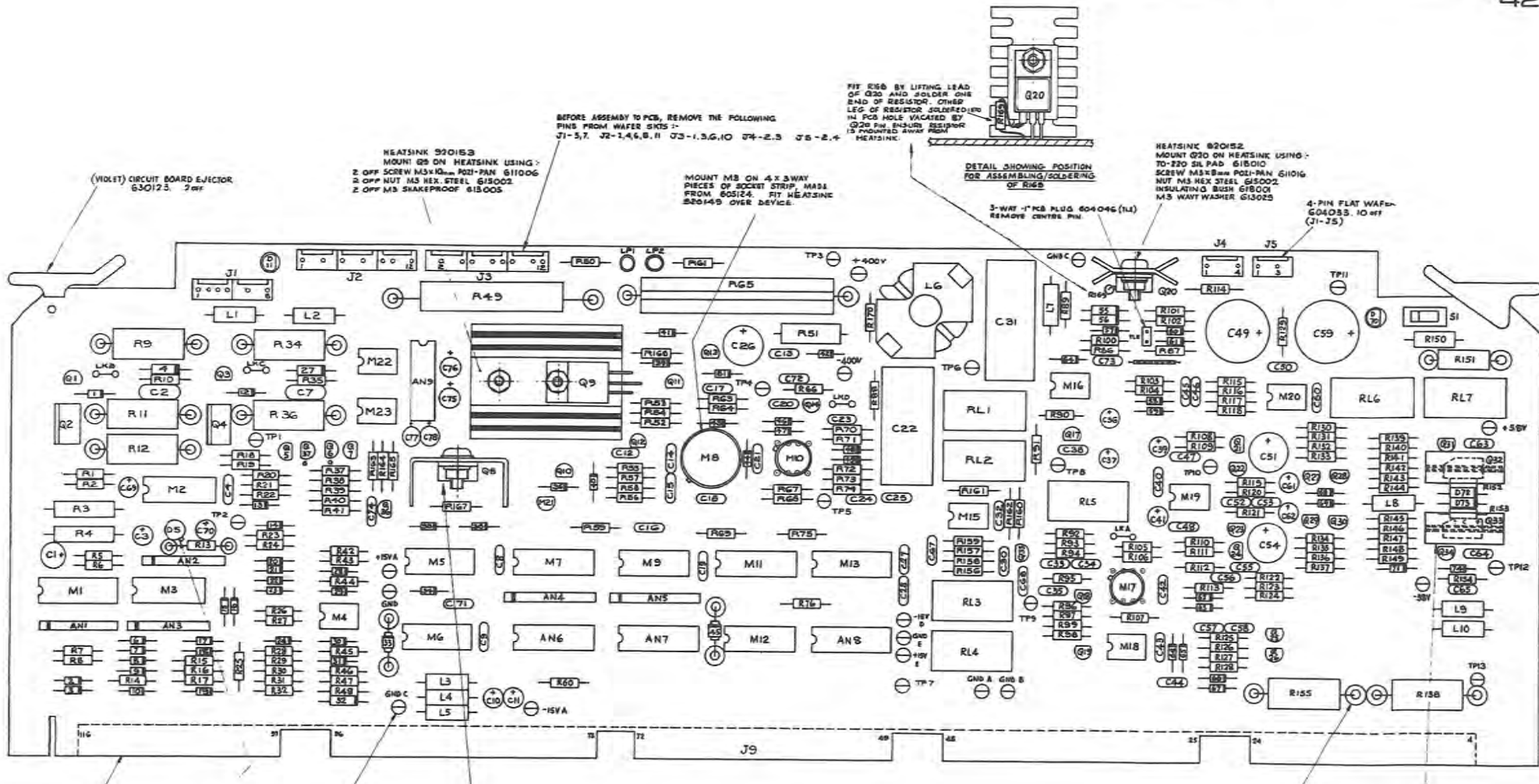
Logic and Relay Drive

Circuit Diagram No. 430555-8.0 Sheet 2 © Datron Instruments 1986

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INSTRUMENTS

POWER AMPLIFIER ASSEMBLY



BEFORE ASSEMBLY TO PCB, REMOVE THE FOLLOWING PINS FROM WAFER STRIPS :-  
J1-5,7 J2-1,4,6,8,11 J3-1,3,6,10 J4-2,3 J5-2,4

HEATSINK 920153  
MOUNT Q9 ON HEATSINK USING :-  
2 OFF SCREW M3X10mm POSI-PAN 611006  
2 OFF NUT M3 HEX STEEL 615002  
2 OFF M3 SHAKEPROOF 615005

MOUNT M8 ON 4 X 3 WAY PIECES OF SOCKET STRIP, MADE FROM 605124. FIT HEATSINK 520145 OVER DEVICE

FIT R58 BY LIFTING LEAD OF Q20 AND SOLDER ONE END OF RESISTOR. OTHER LEG OF RESISTOR SOLDERED IN PCB HOLE VACATED BY Q20 PIN ENSURE RESISTOR IS PROTECTED BY WAFER STRIP

DETAIL SHOWING POSITION FOR ASSEMBLING/SOLDERING OF R58

HEATSINK 920152  
MOUNT Q20 ON HEATSINK USING :-  
70-220 SIL PAD 616010  
SCREW M3X8mm POSI-PAN 611016  
NUT M3 HEX STEEL 615002  
INSULATING BUSH 616001  
M3 WAFER WASHER 613003

3-WAY 1" PCB PLUG 604046 (14) REMOVE CENTRE PIN

4-PIN FLAT WAFER G04033, 10 OFF (J1-J5)

(VIOLET) CIRCUIT BOARD EJECTOR 630123, 2mm

PCB 410253-5 MOUNT D5 ON TOIE MOUNTING PAD 616004 TEST POINT TERMINAL 620007 27mm

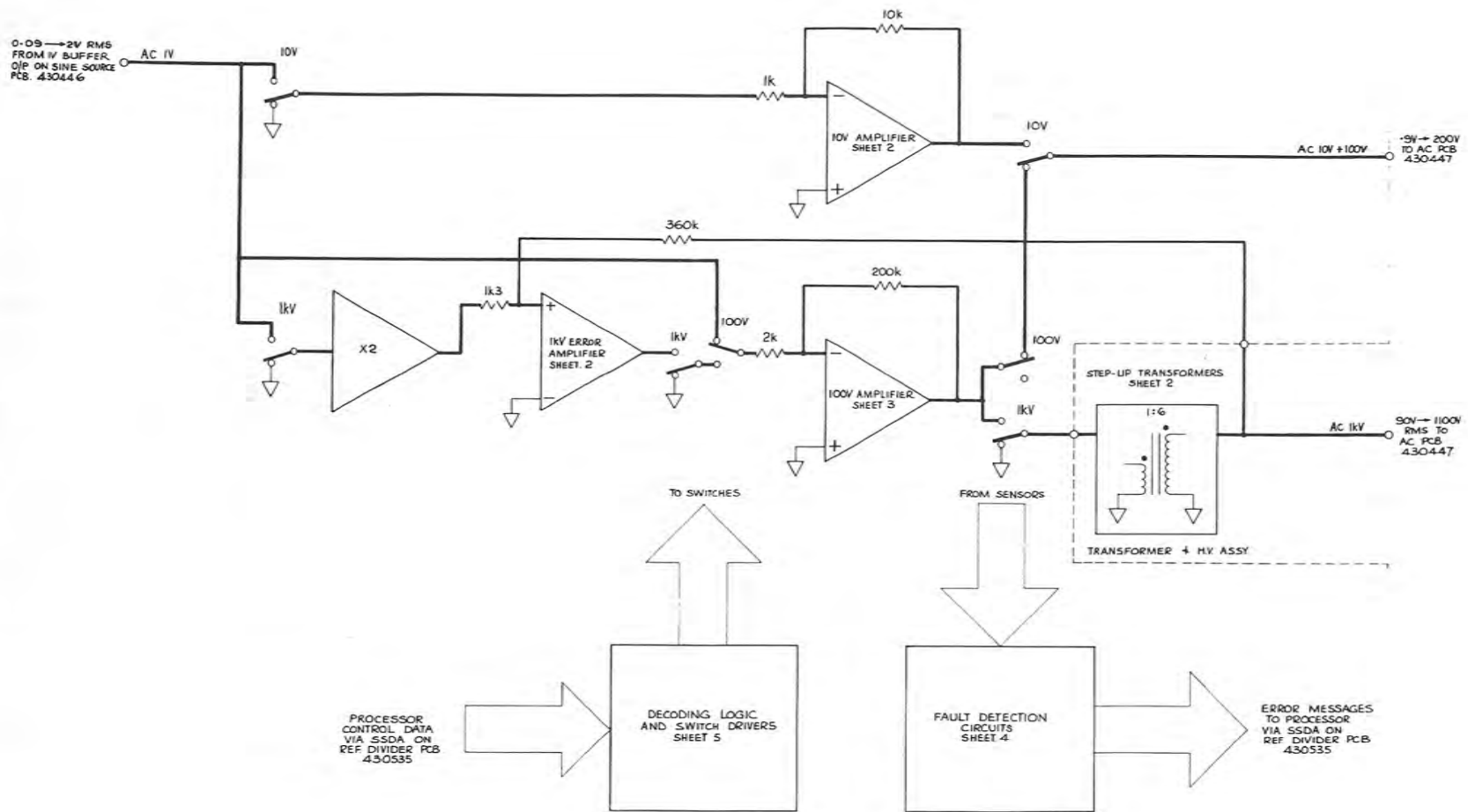
HEATSINK 520051  
MOUNT Q8 ON HEATSINK USING :-  
SCREW M3X8mm POSI-PAN 611016  
NUT M3 HEX STEEL 615002  
M3 SHAKEPROOF 615005  
M3 PLAIN WASHER 613007

N.B. MAKE ALL LINKS (L6) FROM 22 SWG B.T.C. WIRE. 540002

CLIP HEATSINK 920151 ON TO Q52 + Q55. 2mm

MOUNTING IC'S			
NO OF WAFER	PART NO	NO OFF	WHERE USED
5	605059/A	5	M4, M6, M18, M19, M20, M15, M22, M23
14	605060/A	6	M2, M3, M5, M6, M9, M12
16	605061/A	4	M1, M7, M11, M13

MOUNTING BEADS 630024 (50mm)	
BEADS PER LEAD	COMPONENTS
1	R109, D33, D45, R13
2	R8, R1, R2, R34, R56, R138, R151, R155
3	R49, R65



4200  
POWER AMPLIFIER ASSEMBLY

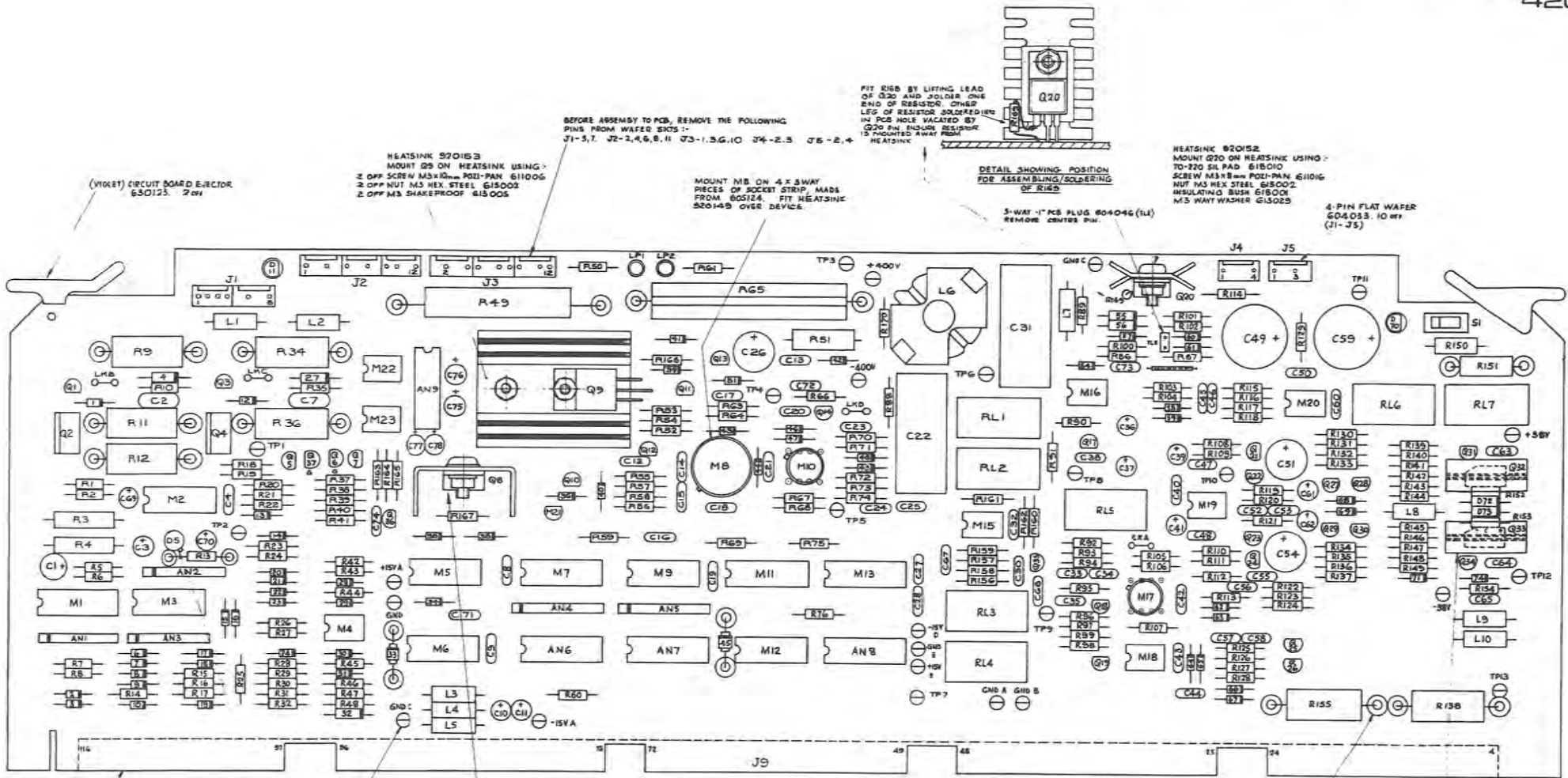
Block Diagram

Circuit Diagram No. 430450-10.0 Sheet 1 © Datron Instruments 1986





POWER AMPLIFIER ASSEMBLY



(WCKET) CIRCUIT BOARD EJECTOR  
630123. 2 off

HEATSINK 9201B3  
MOUNT Q9 ON HEATSINK USING  
2 OFF SCREW M3X10mm POST-PAN 611006  
2 OFF NUT M3 HEX STEEL 615002  
2 OFF M3 SHAKEPROOF 615005

BEFORE ASSEMBY TO PCB, REMOVE THE FOLLOWING  
PINS FROM WAFER STRIPS :-  
J1-5,7 J2-2,4,6,8,11 J3-1,3,6,10 J4-2,3 J5-2,+

MOUNT M8 ON 4 X SWAY  
PIECES OF SOCKET STRIP, MADE  
FROM 605124. FIT HEATSINK  
920149 OVER DEVICE.

FIT R168 BY LIFTING LEAD  
OF Q20 AND FOLDER ONE  
END OF RESISTOR, OTHER  
LEG OF RESISTOR SOLDERED  
IN PCB HOLES VACATED BY  
Q20 PIN ENSURE RESISTOR  
IS POSITIONED AWAY FROM  
HEATSINK

DETAIL SHOWING POSITION  
FOR ASSEMBLING/SOLDERING  
OF R168

3-WAY 1" PCB PLUG 604046 (14)  
REMOVE COVER PIN

HEATSINK 9201B2  
MOUNT Q20 ON HEATSINK USING -  
T0-220 SIL PAD 618010  
SCREW M3X8mm POST-PAN 611016  
NUT M3 HEX STEEL 615002  
INSULATING BUSH 618001  
M3 WASH WASHER 615025

4-PIN FLAT WAFER  
604033. 10 off  
(J1-J5)

PCB 410253-5 MOUNT D5 ON TOP  
MOUNTING PAD 618004

TEST POINT TERMINAL  
G20007 27 off

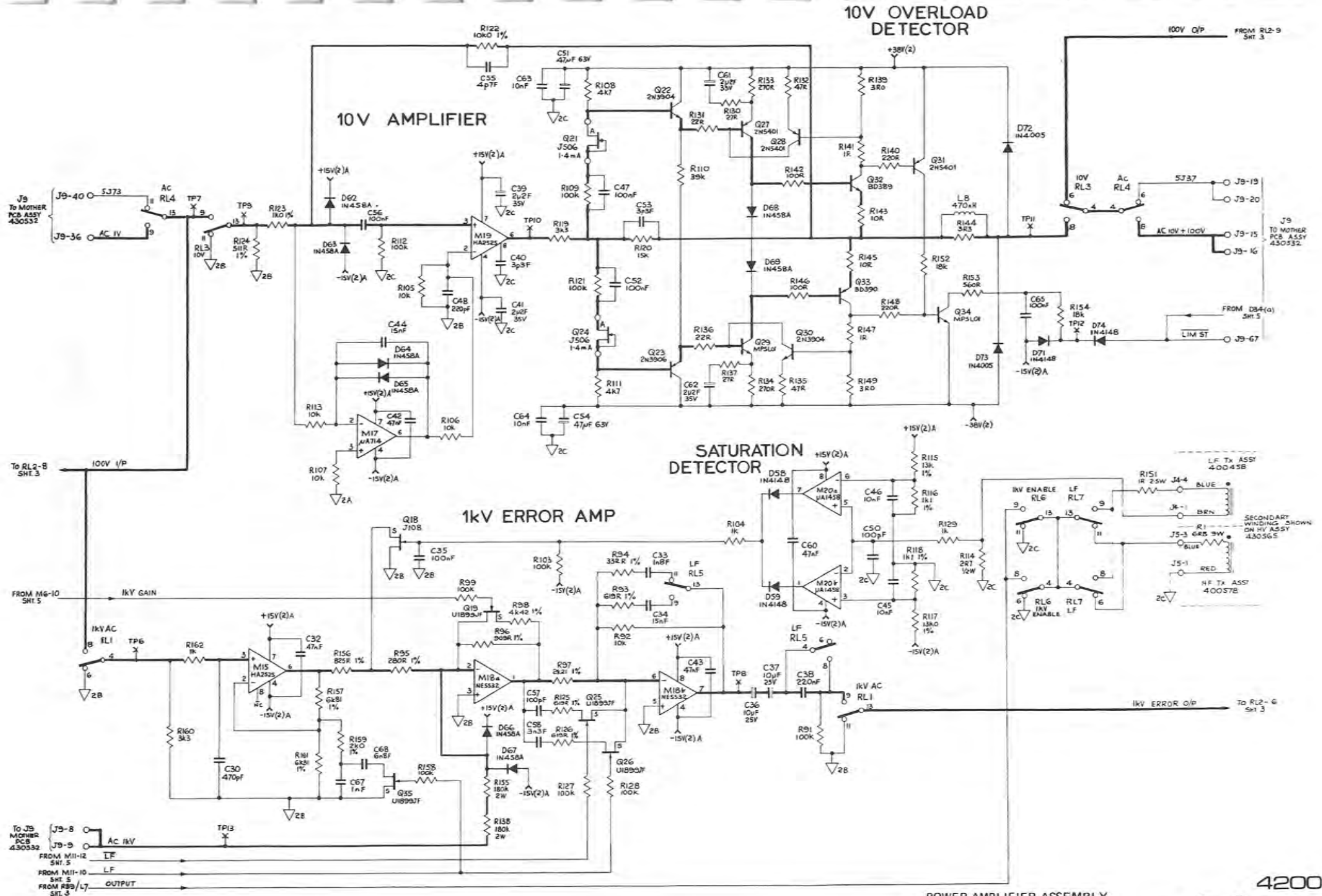
HEATSINK 920091  
MOUNT Q8 ON HEATSINK USING  
SCREW M3X8mm POST-PAN 611016  
NUT M3 HEX STEEL 615002  
M3 SHAKEPROOF 615005  
M3 PLAIN WASHER 615007

N/B MAKE ALL LINKS (LX6) FROM  
22 SWG B.T.C. WIRE. 5400C2.

CLIP HEATSINK 920151 ON  
TO Q32 + Q33. 2 off

MOUNTING IC'S			
NO OF WAFERS	PART NO	NO DFT	WHERE USED.
8	605089/A	8	M4, M16, M18, M19, M20, M15, M22, M23
14	605060/A	6	M2, M3, M5, M6, M9, M12
16	605061/A	4	M1, M7, M11, M13

MOUNTING BEADS 630024 (50 off)	
BEADS PER LEAD	COMPONENTS
1	R109, D33, D45, R13
2	R8, R1, R2, R34, R36, R138, R151, R155
3	R49, R65



**10V OVERLOAD DETECTOR**

**10V AMPLIFIER**

**1kV ERROR AMP**

**SATURATION DETECTOR**

**POWER AMPLIFIER ASSEMBLY**

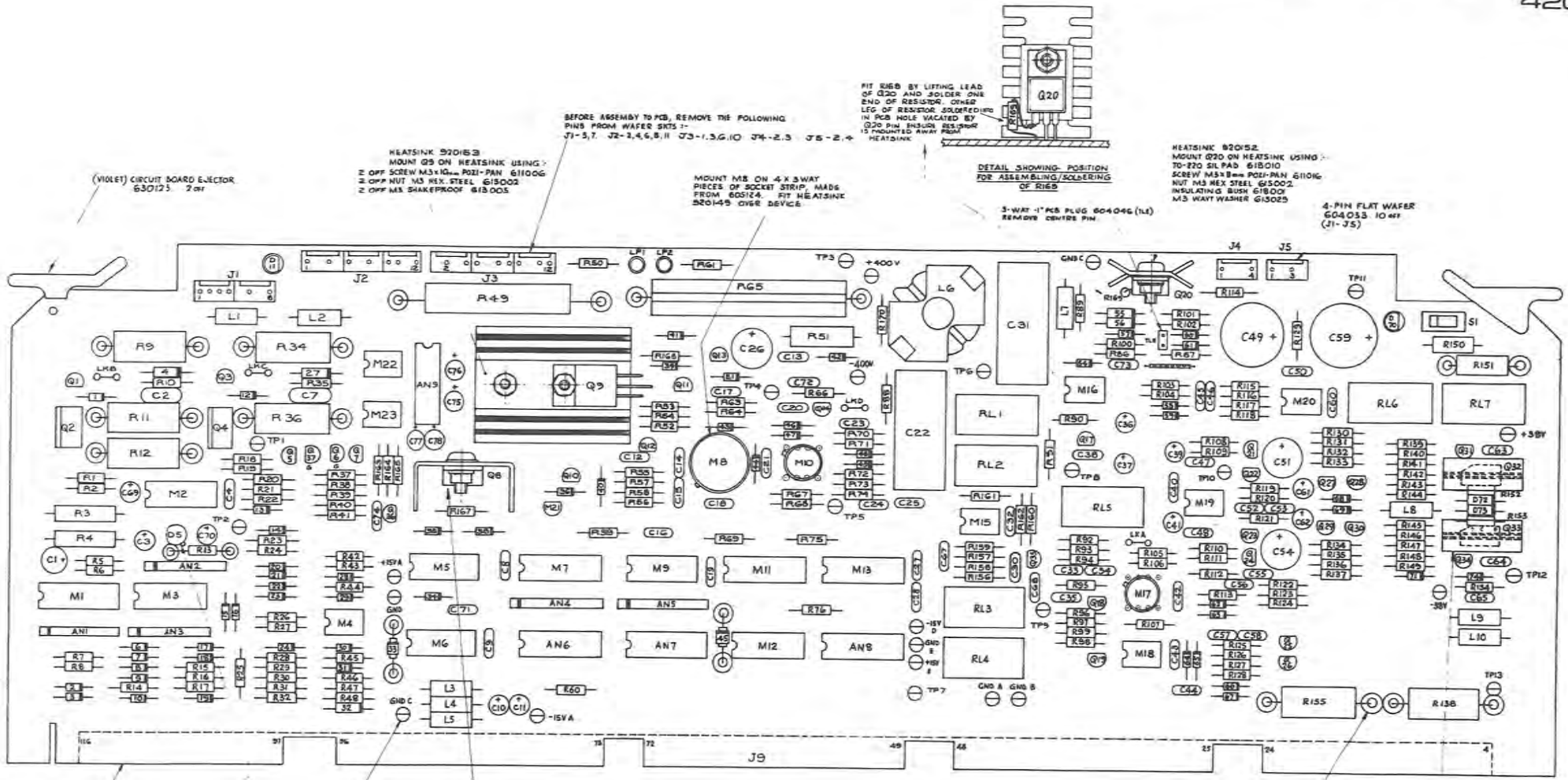
10V and 1kV Amplifiers

Circuit Diagram No. 430450-10.0 Sheet 2 © Datron Instruments 1986

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INSTRUMENTS

POWER AMPLIFIER ASSEMBLY



(VIOLET) CIRCUIT BOARD EJECTOR  
630123 2 off

HEATSINK 920153  
MOUNT Q3 ON HEATSINK USING:  
2 OFF SCREW M3x10mm P02-PAN 61100G  
2 OFF NUT M3 HEX STEEL 615002  
2 OFF M3 SHAKERPROOF 618105

BEFORE ASSEMBLY TO PCB, REMOVE THE FOLLOWING  
PINS FROM WAFER SKTS :-  
J1-3,7 J2-2,4,6,8,11 J3-1,3,6,10 J4-2,3 J5-2,4

MOUNT M8 ON 4 X 3 WAY  
PIECES OF SOCKET STRIP, MADE  
FROM 600124. FIT HEATSINK  
920149 OVER DEVICE

FIT R56B BY LIFTING LEAD  
OF Q20 AND SOLDER ONE  
END OF RESISTOR. OTHER  
LEG OF RESISTOR SOLDERED  
IN PCB HOLE VACATED BY  
Q20 PIN. ENSURE RESISTOR  
IS MOUNTED AWAY FROM  
HEATSINK

DETAIL SHOWING POSITION  
FOR ASSEMBLING/SOLDERING  
OF R165

3-WAY 1" PCB PLUG 604046 (14)  
REMOVE CENTRE PIN

HEATSINK 920152  
MOUNT Q20 ON HEATSINK USING :-  
10-220 SIL PAD 618010  
SCREW M3x8mm P02-PAN 61100G  
NUT M3 HEX STEEL 615002  
INSULATING BUSH 618007  
M3 WAY WASHER 615025

4-PIN FLAT WAFER  
604053 10 off  
(J1-J5)

PCB 410253-5 MOUNT D5 ON TOP  
MOUNTING PAD 618004

TEST POINT TERMINAL  
G20007 27 off

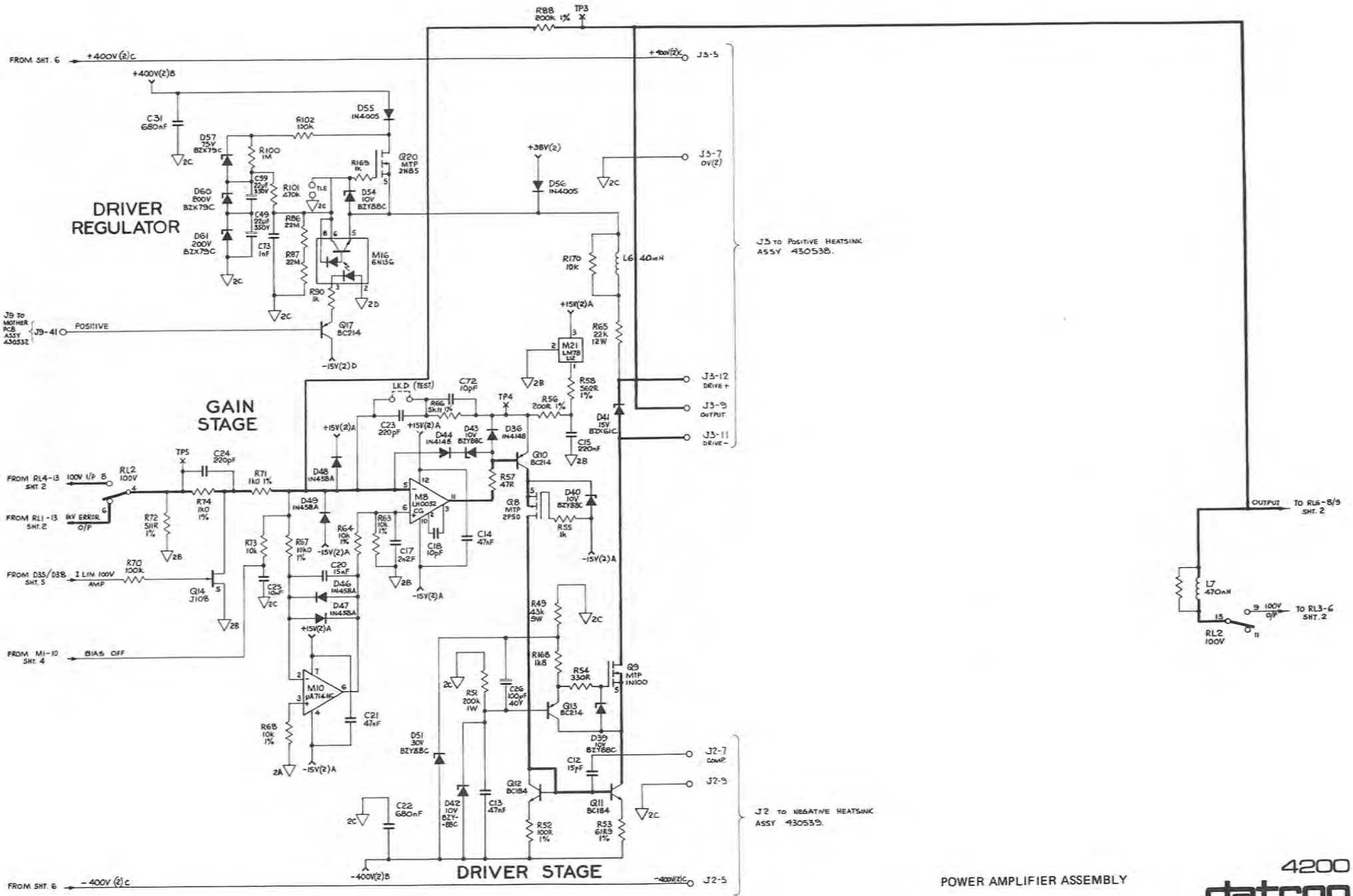
HEATSINK 920091  
MOUNT Q8 ON HEATSINK USING :-  
SCREW M3x10mm P02-PAN 61100G  
NUT M3 HEX STEEL 615002  
M3 SHAKERPROOF 615005  
M3 PLAIN WASHER 618007

N.B. MAKE ALL LINES (UX4) FROM  
22 SWG B.T.C. WIRE. 540002

CLIP HEATSINK 920151 ON  
TO R52 + C55. 2 off

MOUNTING IC's			
NO OF WAYS	PART NO	NO OFF	WHERE USED
8	605059/A	8	M-4, M16, M18, M19, M20, M15, M22, M23
14	605060/A	6	M2, M3, M5, M6, M8, M12
16	605061/A	4	M1, M7, M11, M13

MOUNTING BEADS 630024 (50 off)	
BEADS PER LEAD	COMPONENTS
1	R109, D33, D45, R113
2	R9, R11, R12, R34, R36, R138, R151, R155
3	R49, R65



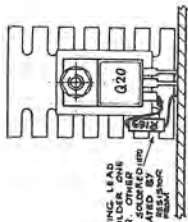
POWER AMPLIFIER ASSEMBLY

100V Amplifier

Circuit Diagram No. 430450--10.0 Sheet 3 © Datron Instruments 1986

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 INSTRUMENTS

POWER AMPLIFIER ASSEMBLY



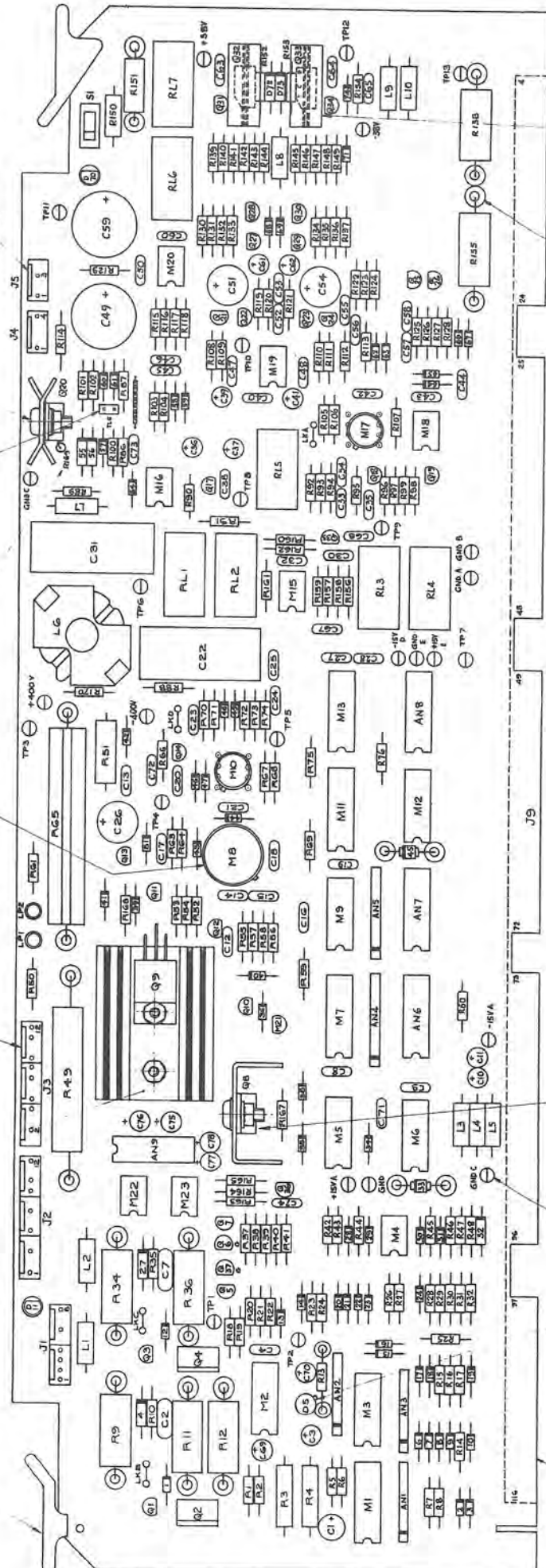
AT 020 AND LIFTING LEAD AT 020 TO THE END OF RESISTOR. OTHER END OF RESISTOR TO BE IN PLACE HOLE VALICATED BY 020 PIN ENHANCER RESISTOR HEATSHINK

HEATSHINK BEZEL MOUNT 020 ON HEATSHINK USING TO-180 SILL PAD. SOLDER IN PLACE HOLE VALICATED BY 020 PIN ENHANCER RESISTOR. M5 WATY WASHER 618007.

BEFORE ASSEMBLY TO PCB, REMOVE THE FOLLOWING PINS FROM WAFER STRIPS: J1-3, 7, 12, 2, 4, 6, 8, 11, J3-1, 3, 6, 10, J4-2, 3, 7, 5, 8, 10, J5-2, 3, 7, 5, 8, 10.

HEATSHINK 920020 MOUNT 020 ON HEATSHINK USING TO-180 SILL PAD. SOLDER IN PLACE HOLE VALICATED BY 020 PIN ENHANCER RESISTOR. M5 WATY WASHER 618007.

(VIOLET) CIRCUIT BOARD EJECTOR 630123, 2 REF.



CLIP HEATSHINK 920151 TO 020 + 020, 2 REF.

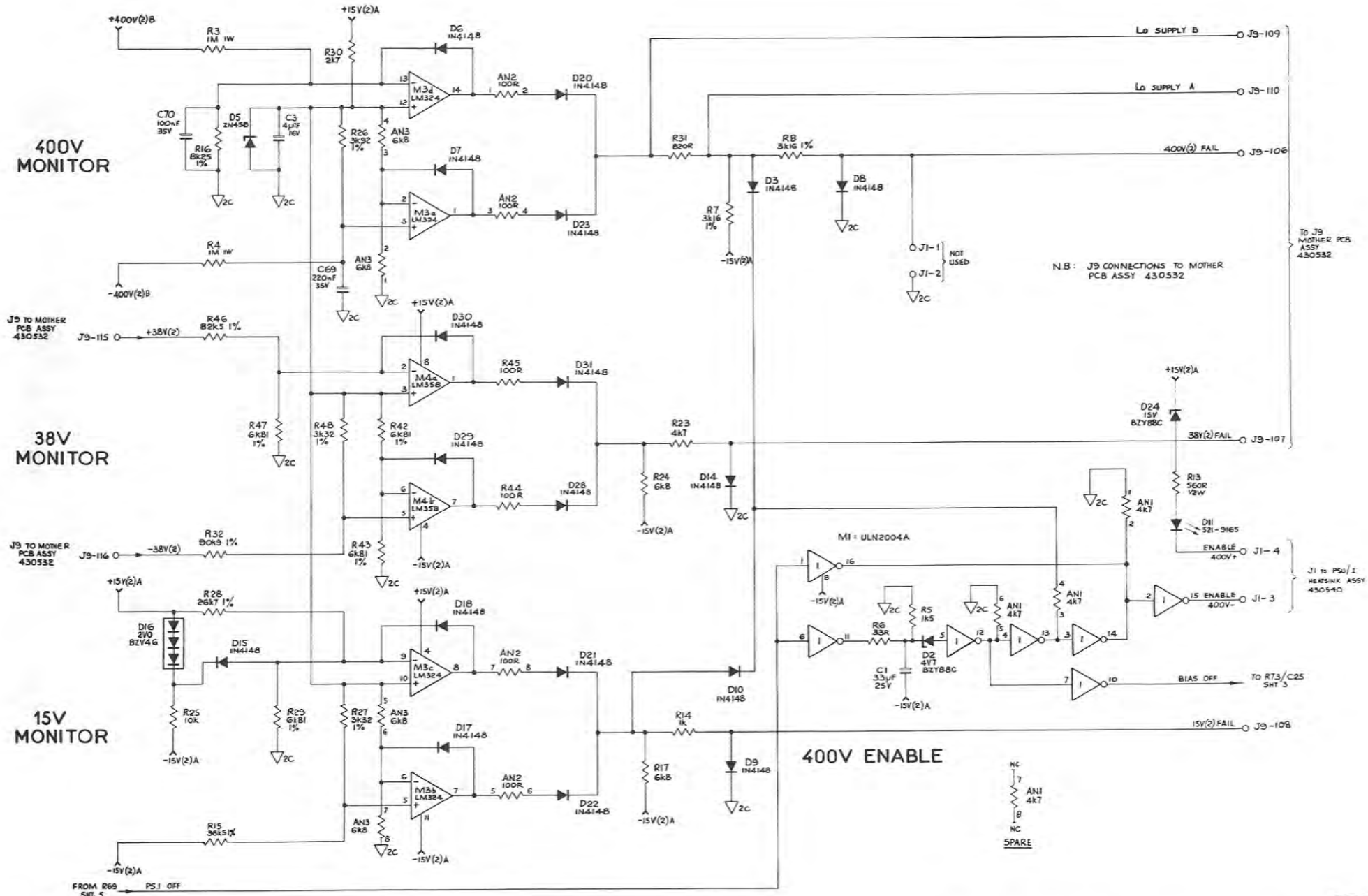
HEATSHINK 920020 MOUNT 020 ON HEATSHINK USING TO-180 SILL PAD. SOLDER IN PLACE HOLE VALICATED BY 020 PIN ENHANCER RESISTOR. M5 WATY WASHER 618007.

HEATSHINK 920020 MOUNT 020 ON HEATSHINK USING TO-180 SILL PAD. SOLDER IN PLACE HOLE VALICATED BY 020 PIN ENHANCER RESISTOR. M5 WATY WASHER 618007.

PCB 410253-5 MOUNT 020 ON HEATSHINK USING TO-180 SILL PAD. SOLDER IN PLACE HOLE VALICATED BY 020 PIN ENHANCER RESISTOR. M5 WATY WASHER 618007.

MOUNTING BEADS	COMPONENTS
1	R109, D33, D45, P13.
2	R9, R11, R12, R24, R36, R138, R151, R155
3	R45, R46

PCB	PART NO.	REF.	WHERE USED
3	605059/A	5	M4, M16, M18, M19, M20, M15, M22, M25
14	605060/A	5	M2, M3, M5, M6, M8, M12
16	605061/A	4	M1, M7, M11, M13



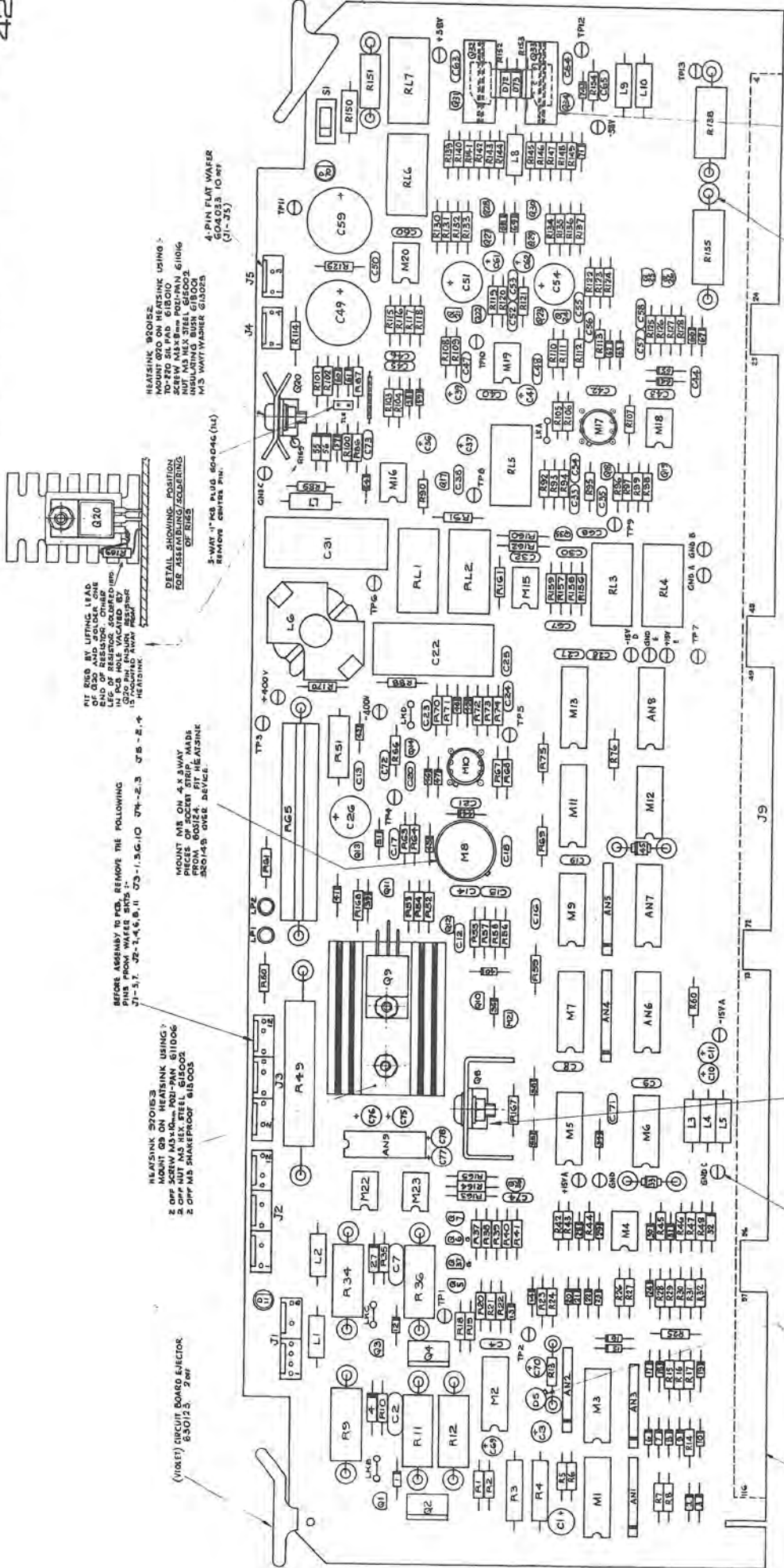
To J9 MOTHER PCB ASSY 430532

N.B: J9 CONNECTIONS TO MOTHER PCB ASSY 430532

J1 to P50/I HEATSINK ASSY 430540



POWER AMPLIFIER ASSEMBLY



FIT END BY LIFTING LEAD  
ON THE END OF THE  
LEG OF RESISTOR. CHECK  
G202 PIN ENDS WITH  
HEATING IRON.  
DETAIL SHOWING POSITION  
FOR ASSEMBLING  
OF RESISTORS

HEATSINK 920BI  
TO 270 SOLDER USING  
SCREW M3.5x8mm POSI-PAN 61016  
INSULATING STRIP 61002  
M3 WASH WASHER 61003  
G04033 (10.0)

BEFORE ASSEMBLY TO PCB, REMOVE THE FOLLOWING  
PINS FROM WAFER STRIPS 1-3  
J1-3, J2-1, 4, 6, 8, 11 J3-1, 3, 6, 10 J4-2, 3  
J5-1, 2, 4

HEATSINK STORIES  
MOUNT Q3 ON HEATSINK USING:  
1. 270 SOLDER  
2. OFF M3 WASH WASH WASH  
3. OFF M3 SHANKPROOF 61003

(10K) CIRCUIT BOARD RESISTOR  
630153 2.0W

HEATSINK 920BI  
TO 270 SOLDER USING  
SCREW M3.5x8mm POSI-PAN 61016  
INSULATING STRIP 61002  
M3 WASH WASH WASH WASH  
G04033 (10.0)

HEATSINK 920BI  
TO 270 SOLDER USING  
SCREW M3.5x8mm POSI-PAN 61016  
INSULATING STRIP 61002  
M3 WASH WASH WASH WASH  
G04033 (10.0)

HEATSINK 920BI  
TO 270 SOLDER USING  
SCREW M3.5x8mm POSI-PAN 61016  
INSULATING STRIP 61002  
M3 WASH WASH WASH WASH  
G04033 (10.0)

HEATSINK 920BI  
TO 270 SOLDER USING  
SCREW M3.5x8mm POSI-PAN 61016  
INSULATING STRIP 61002  
M3 WASH WASH WASH WASH  
G04033 (10.0)

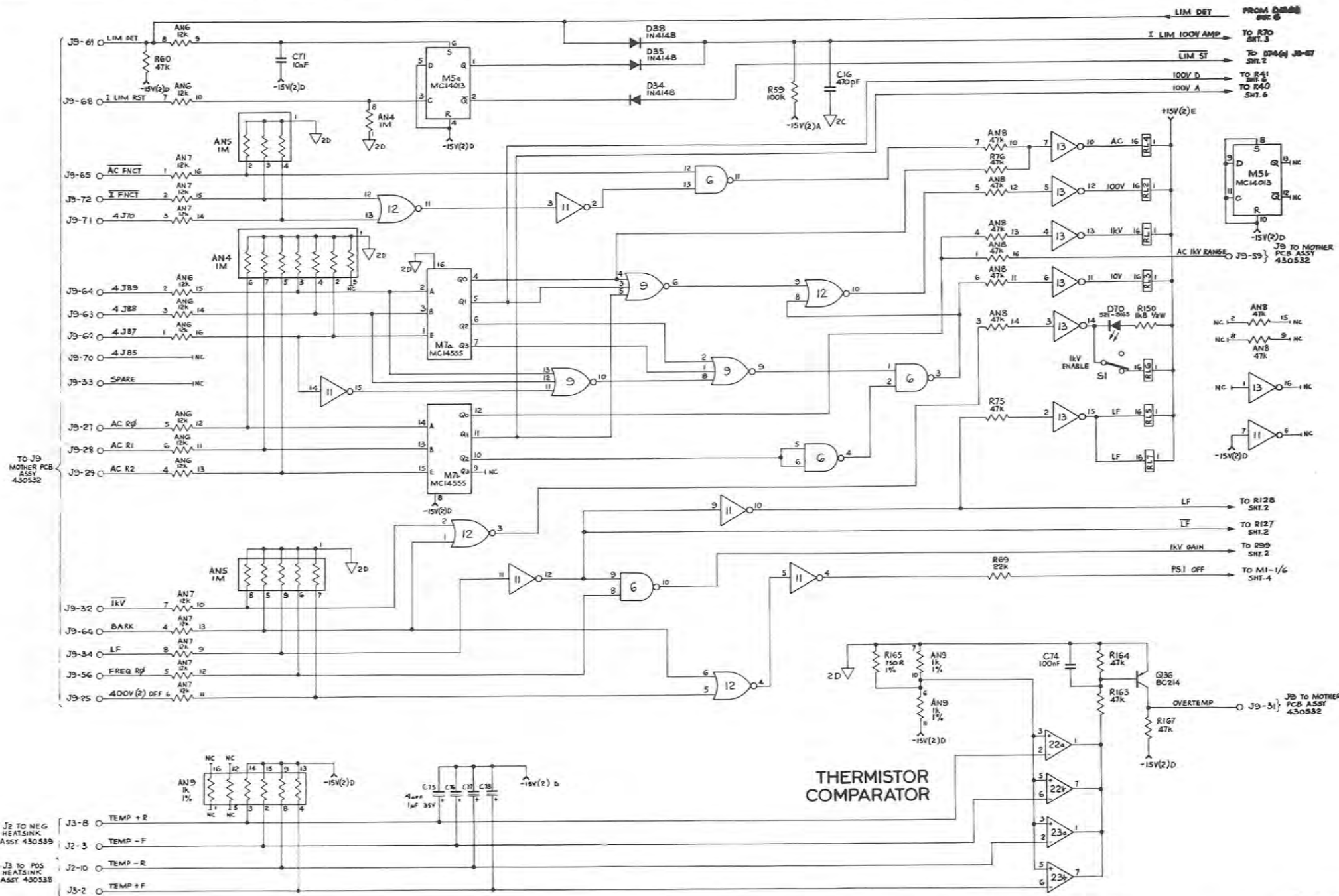
CLIP HEATSINK 920BI ON TO Q32 + Q33, 2.0W.

BEANS PER LEAD	COMPONENTS
1	R109, D33, D45, R13
2	R3, R11, R2, R34, R36, R138, R151, R155
3	R45, R58

TEST POINT TERMINAL 620007 27 W.

PCB 410283-5 MOUNT 05 04 FOR MOUNTING PAD 61004

NO OF WAFERS	PART NO	NO OFF	WHERE USED
5	605059/A	5	M4, M16, M18, M19, M20, M15, M22, M23
14	605066/A	6	M2, M5, M6, M8, M9, M12
16	605066/A	4	M1, M7, M11, M13



POWER AMPLIFIER ASSEMBLY

4200

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INSTRUMENTS

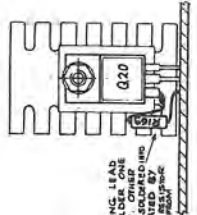
Logic and Relay Drives

Circuit Diagram No. 430450-10.0

Sheet 5 © Datron Instruments 1986



**POWER AMPLIFIER ASSEMBLY**



FIT SIZES BY LIFTING LEAD OF Q20 AND SOLDER ONE END OF RESISTOR TO BOARD IN PCB HOLE VACATED BY PREVIOUSLY MOUNTED PART. REMOVE FROM BOARD.

BEFORE ASSEMBLY TO PCB, REMOVE THE FOLLOWING:

- J1-5,7, J2-3,4,5,6,11, J3-1,3,5,10, J4-2,3, J5-2,4

**HEATSINK SIZES:**  
MOUNT Q8 ON HEATSINK USING 2 OFF SCREW M3x3mm MOD-PAN 611006  
2 OFF NUT M3 HEX STEEL 615002  
2 OFF M3 SHANK-PROOF 615005

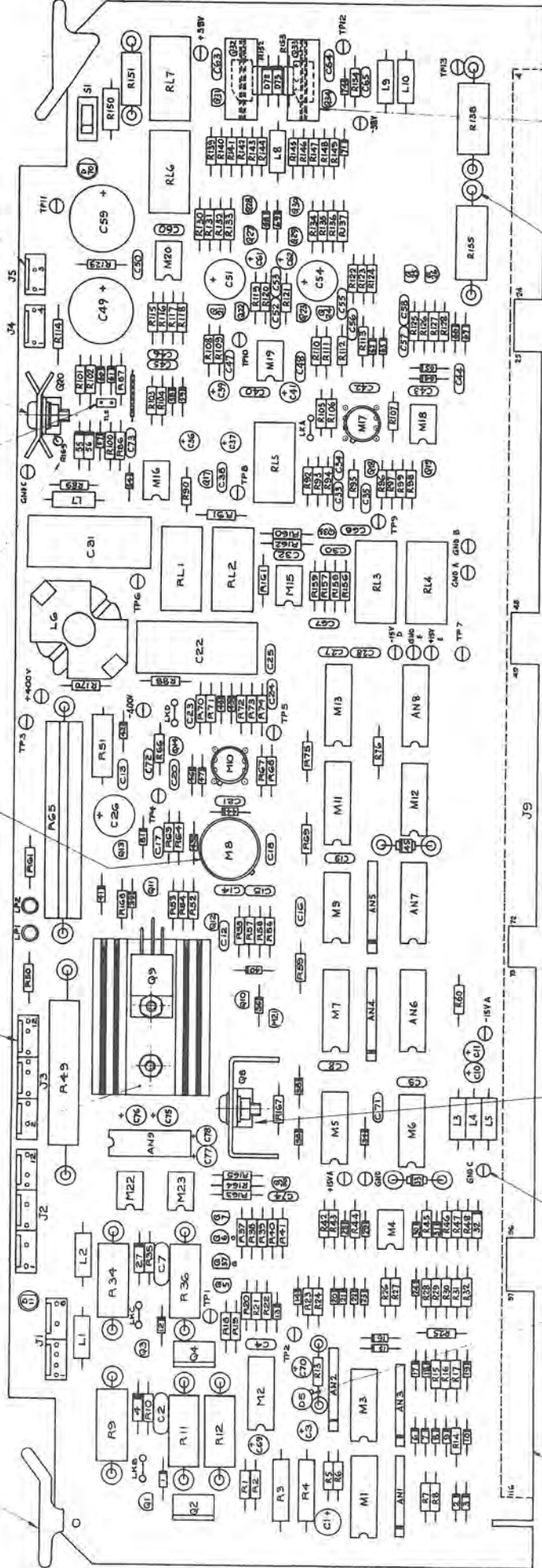
(Violet) 60159 BOARD-EJECTOR 610012 A, 2 4W

MOUNT M18 ON A-2 SWIVY PICES OF SOCKET STRIP, MADE FROM 606124. FIT HEATSINK SEC-145 OVER DEVICE.

**HEATSINK SIZES:**  
MOUNT Q20 ON HEATSINK USING 2 OFF SCREW M3x3mm MOD-PAN 611006  
2 OFF NUT M3 HEX STEEL 615002  
2 OFF M3 SHANK-PROOF 615005

3-WAY PCB PLUG 804041 (14) REMOVE CENTER PIN.

4-PIN FLAT WAFER 801533, 10 4W (31-35)



PCB 410253-5 MOUNT D5 ON TOB MOUNTING PAD 618004 TEST POINT TERMINAL 620007 27 4W

HEATSINK 520051 MOUNT Q8 ON HEATSINK USING 2 OFF SCREW M3x3mm MOD-PAN 611006 2 OFF NUT M3 HEX STEEL 615002 2 OFF M3 SHANK-PROOF 615005 M18 PLAIN WASHER 615007

N.B. MAKE ALL LINKS (L4\*) FROM 22 SWG B.T.C. WIRE, 5410002

CLIP HEATSINK 520151 TO 652 + G3A, 2 4W

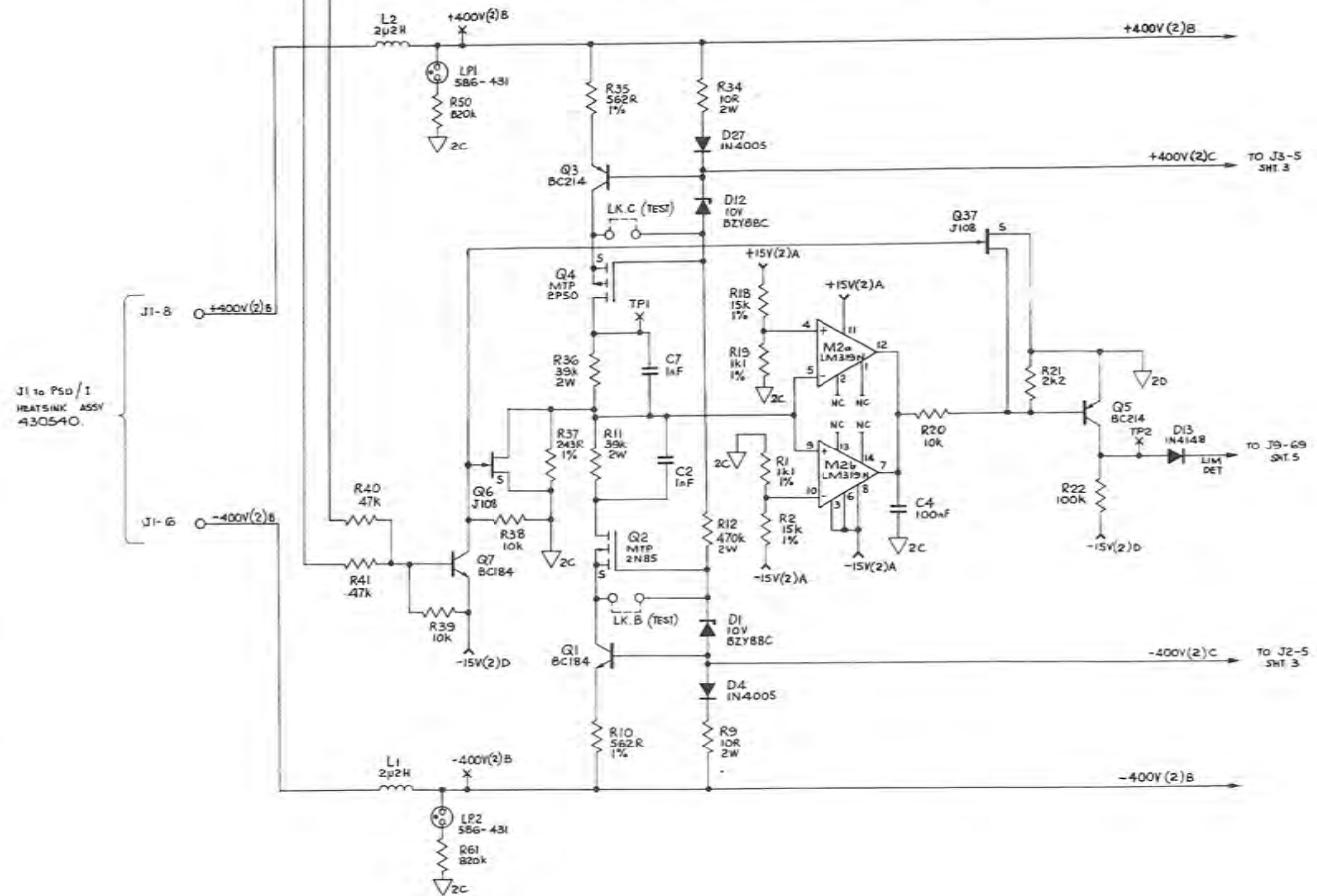
NP OF WAYS	PART #	IF OFF	WHERE USED:
B	605059/A	B	M4, M6, M16, M19, M20, M15, M22, M23
14	605060/A	B	M2, M3, M5, M6, M8, M9, M22
16	605061/A	B	M1, M7, M11, M13

BEADS PER LEAD	COMPONENTS
1	R108, D33, D45, R13
2	R9, R11, R12, R34, R36, R128, R151, R155
3	R49, R65

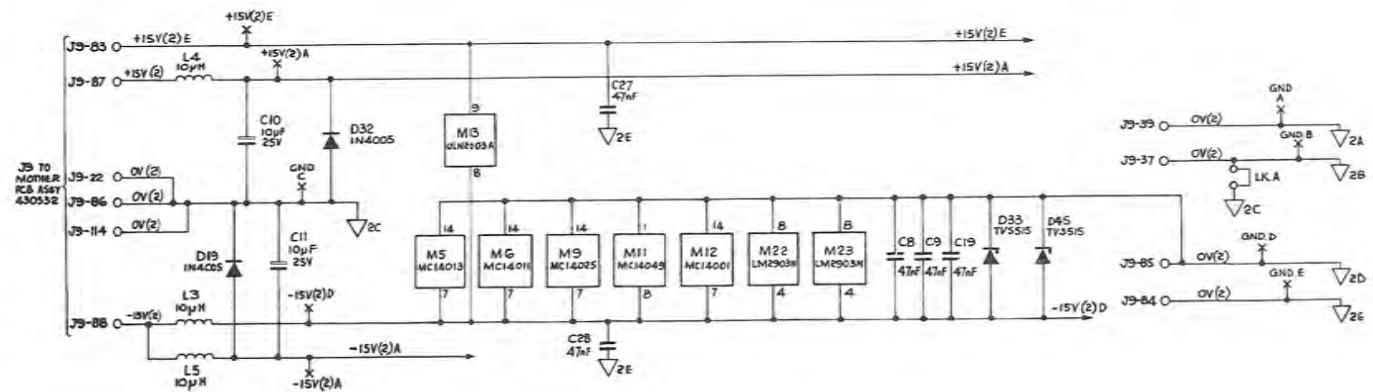
MOUNTING IC-5

FROM M7-8  
SWT. 5 → 100V A  
FROM M7-5  
SWT. 5 → 100V D

# 100V OVERLOAD DETECTOR



J1 to P5D/1  
HEATSINK ASSY  
430540

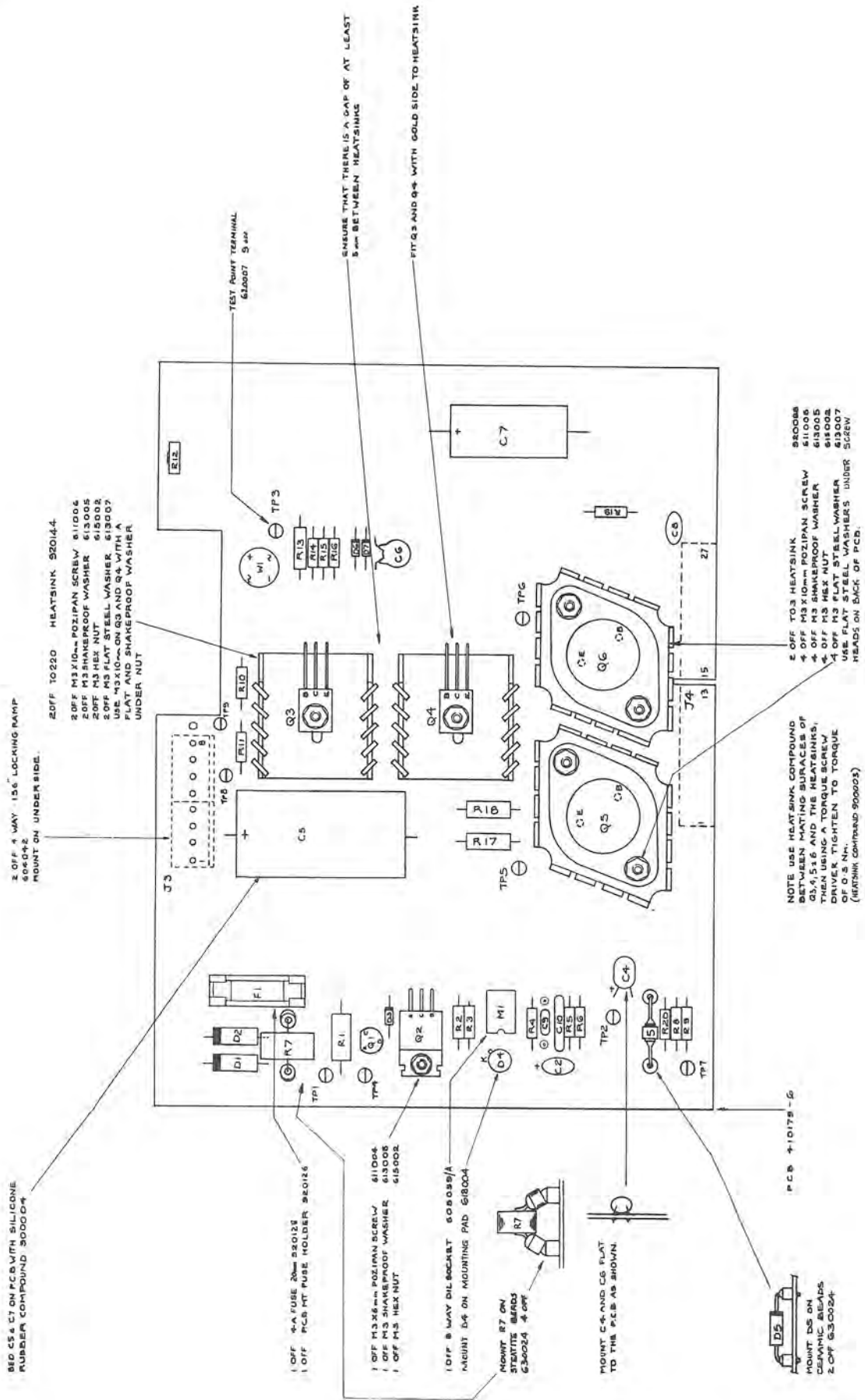


NB: J9 CONNECTIONS TO MOTHER PCB ASSY 430552

POWER AMPLIFIER ASSEMBLY  
100V Overload Detector  
and Power Supplies  
Circuit Diagram No. 430450-10.0 Sheet 6 © Datron Instruments 1986



OUT-GUARD POWER SUPPLY ASSEMBLY



2 OFF 4 WAY 156 LOCKING RAMP  
604042  
MOUNT ON UNDER SIDE.

2 OFF TO220 HEATSINK 920144  
2 OFF M3 X10mm POZIPAN SCREW 611004  
2 OFF M3 SHAKEPROOF WASHER 613005  
2 OFF M3 HEX NUT 615002  
2 OFF M3 FLAT STEEL WASHER 618002  
USE M3 X10mm ON Q3 AND Q4 WITH A  
FLAT AND SHAKEPROOF WASHER  
UNDER NUT

1 OFF 4-A FUSE 20mm 920128  
1 OFF PCB MT FUSE HOLDER 920146  
1 OFF M3 X3.26mm POZIPAN SCREW 611004  
1 OFF M3 SHAKEPROOF WASHER 613005  
1 OFF M3 HEX NUT

1 OFF 8 WAY DIL SOCKET 608059/A  
MOUNT 64 ON MOUNTING PAD 618004  
MOUNT R7 ON  
STENTITE BEADS  
630024 4 OFF

MOUNT C4 AND C6 FLAT  
TO THE PCB AS SHOWN

PCB 410178-6  
MOUNT D5 ON  
2 WAY 156 RAMP  
2 OFF 630907

NOTE USE HEAT-SINK COMPOUND  
BETWEEN MATING SURFACES OF  
Q3, Q4, Q5 AND THE HEATSINKS,  
THEN USING A TORQUE SCREW  
DRIVER TIGHTEN TO TORQUE  
(MATING CAPTAND 909003)

2 OFF T03 HEATSINK  
4 OFF M3 X10mm POZIPAN SCREW  
4 OFF M3 SHAKEPROOF WASHER  
4 OFF M3 HEX NUT  
4 OFF M3 FLAT STEEL WASHER  
4 OFF M3 FLAT STEEL WASHERS UNDER  
SCREW HEADS ON BACK OF PCB.

ENSURE THAT THERE IS A GAP OF AT LEAST  
5mm BETWEEN HEATSINKS

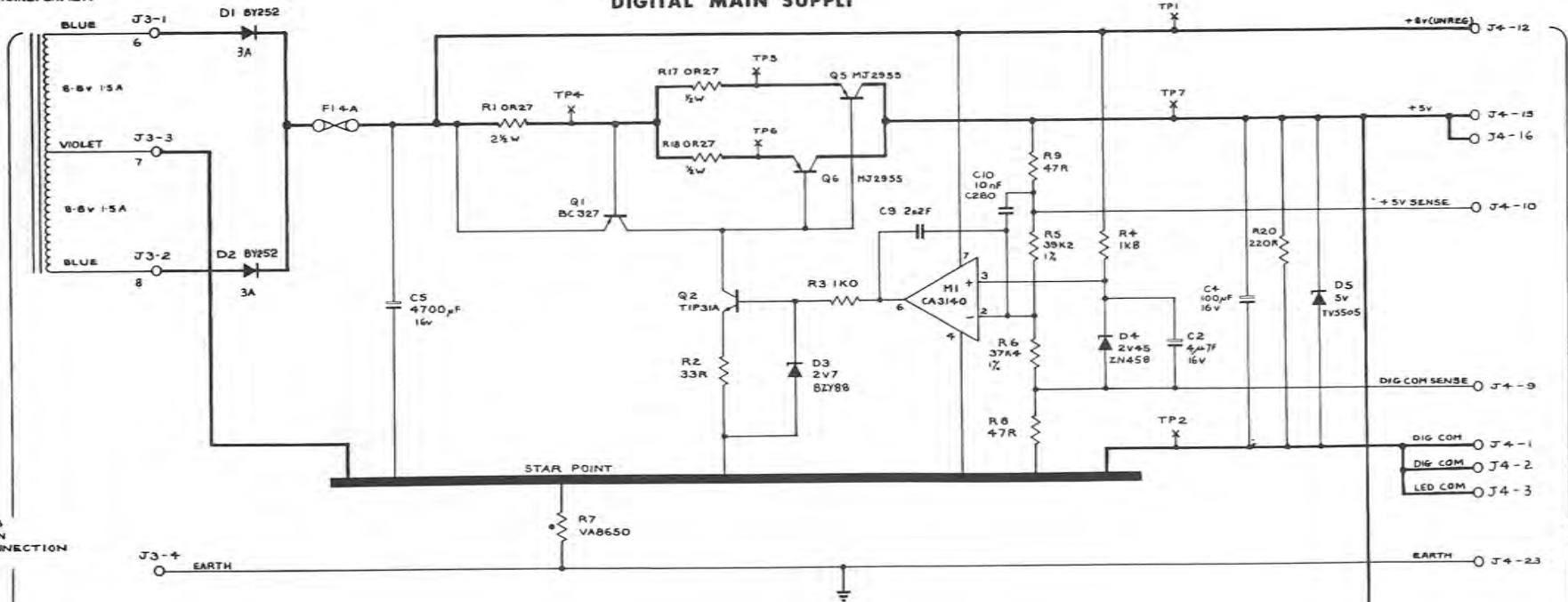
PTQ3 AND Q4 WITH GOLD SIDE TO HEATSINK

TEST POINT TERMINAL  
630907 5 OFF

MAINS TRANSFORMER

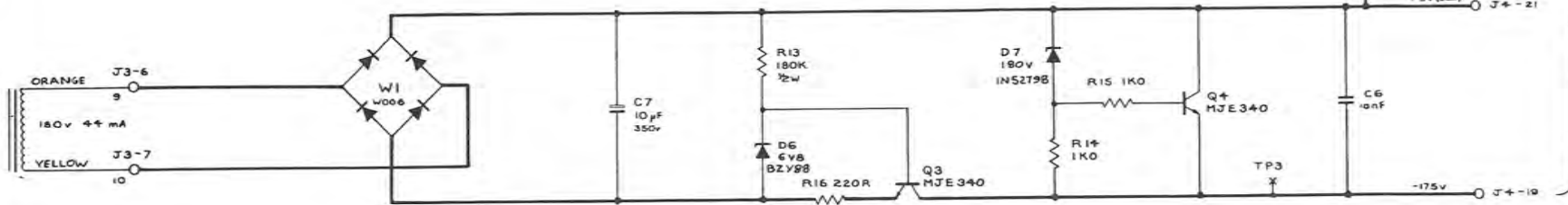
DIGITAL MAIN SUPPLY

PRIMARYS SHOWN ON INTERCONNECTION PCB. 430+39

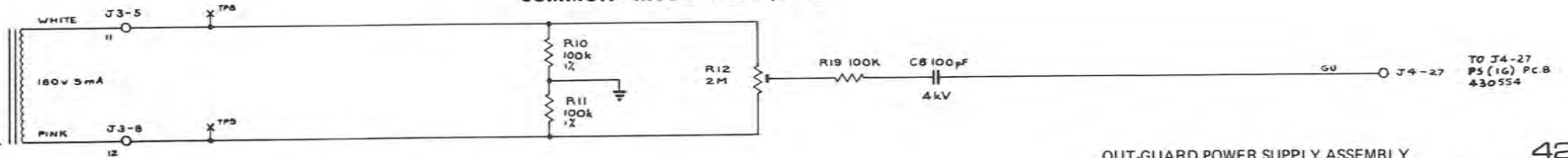


TO J20 MOTHER PCB 430532 (J4-23 ALSO GOES TO REAR PANEL EARTH SCREW)

DISPLAY SUPPLY



COMMON MODE NULL (O.G.)



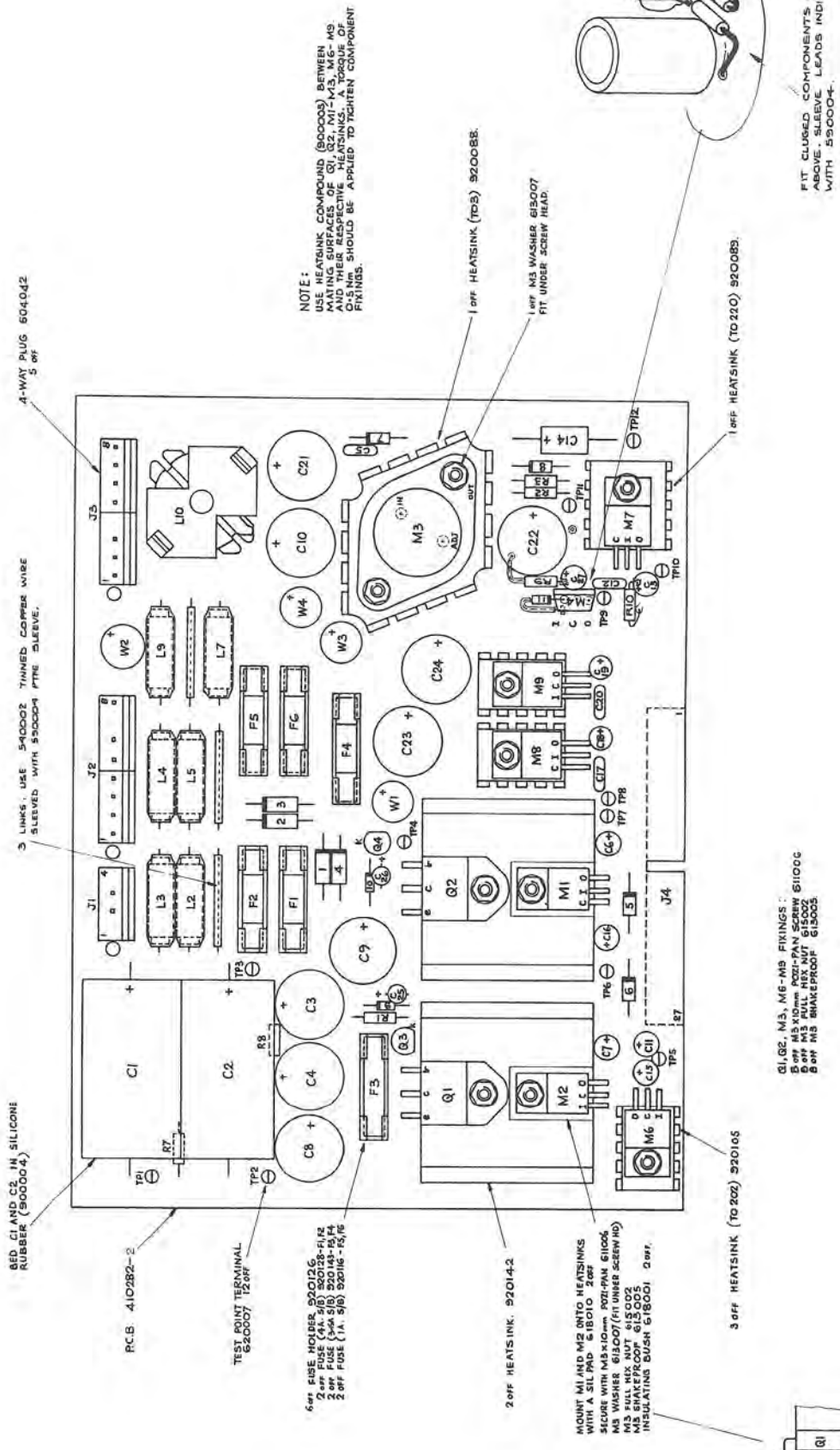
OUT-GUARD POWER SUPPLY ASSEMBLY

Main Digital Supply, Display Supply and Common Mode Null

Circuit Diagram No. 430561-2.0 Sheet 1 © Datron Instruments 1986



IN-GUARD POWER SUPPLY ASSEMBLY



4-WAY PLUG 604042  
5 off

3 LINKS, USE 540002 TINNED COPPER WIRE  
SLEEVED WITH 950004 PTFE SLEEVE.

GED. C1 AND C2, IN SILICONE  
RUBBER (900004)

RCB 4102B2-2

TEST POINT TERMINAL  
620007 12 off

6 off EDGE HOLDER 920126  
2 off FUSE (1A, 5/8) 920143-PA  
2 off FUSE (1A, 5/8) 920143-PA  
2 off FUSE (1A, 5/8) 920143-PA

2 off HEATSINK, 920142

MOUNT M1 AND M2 INTO HEATSINKS  
WITH A SIL PAD 618010 2 off  
SCORE WITH M3 X10mm POZI-PAN 61006  
M3 WASHER 613007 (FIT UNDER SCREEN HD)  
M3 FULL HEX NUT 615002  
INSULATING GUSH 616001 2 off.

3 off HEATSINK (TO 202) 920105

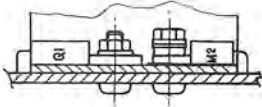
NOTE:  
USE HEATSHINK COMPOUND (900003)  
BETWEEN MATING SURFACES OF Q1, Q2, M1, M2,  
M3 AND THEIR RESPECTIVE HEATSINKS. A TORQUE OF  
0.5 N.M. SHOULD BE APPLIED TO TIGHTEN COMPONENT  
FIXINGS.

1 off HEATSINK (TO 3) 920088

1 off M3 WASHER 613007  
FIT UNDER SCREW HEAD

1 off HEATSINK (TO 210) 920089

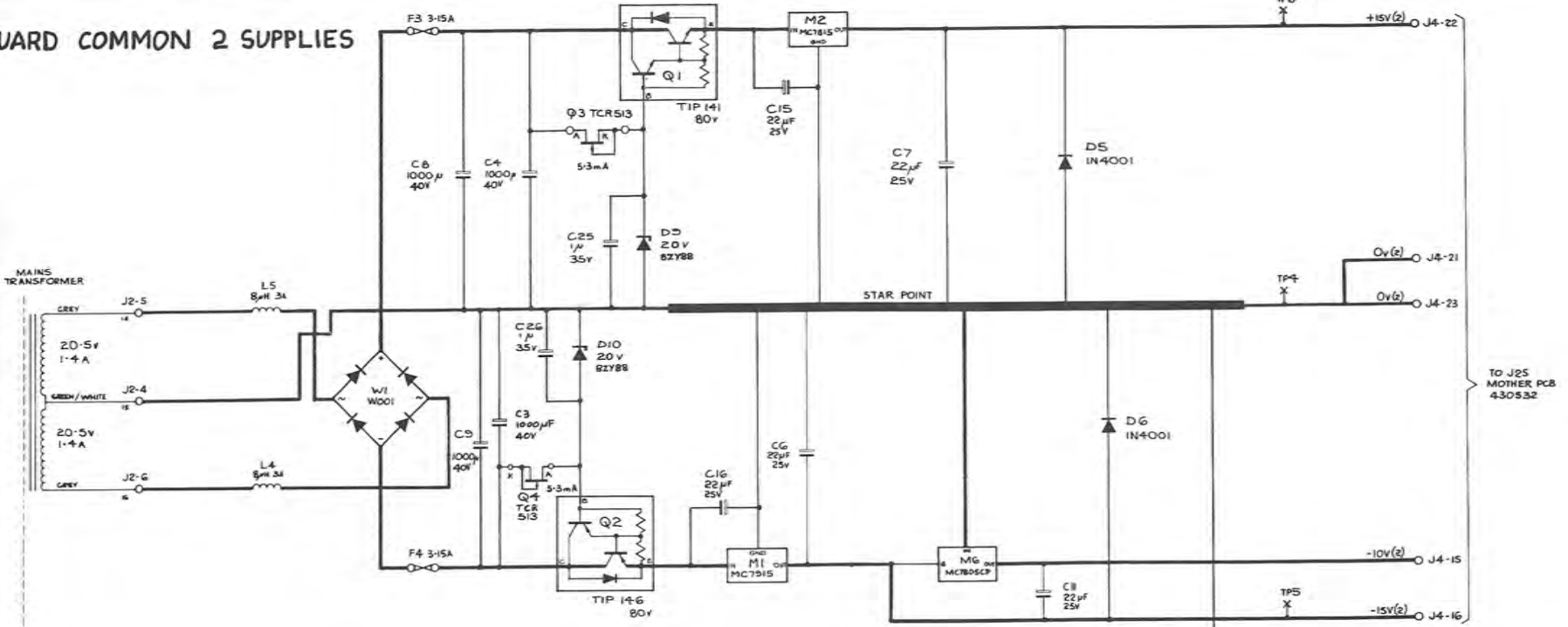
Q1, Q2, M3, M6-M9 FIXINGS:  
5 off M3 X10mm POZI-PAN SCREW 61006  
5 off M3 FULL HEX NUT 615002  
5 off M3 BRAKEPROOF 615005



FIT CLUSED COMPONENTS AS SHOWN  
ABOVE. SLEEVE LEADS INDICATED  
WITH 950004.

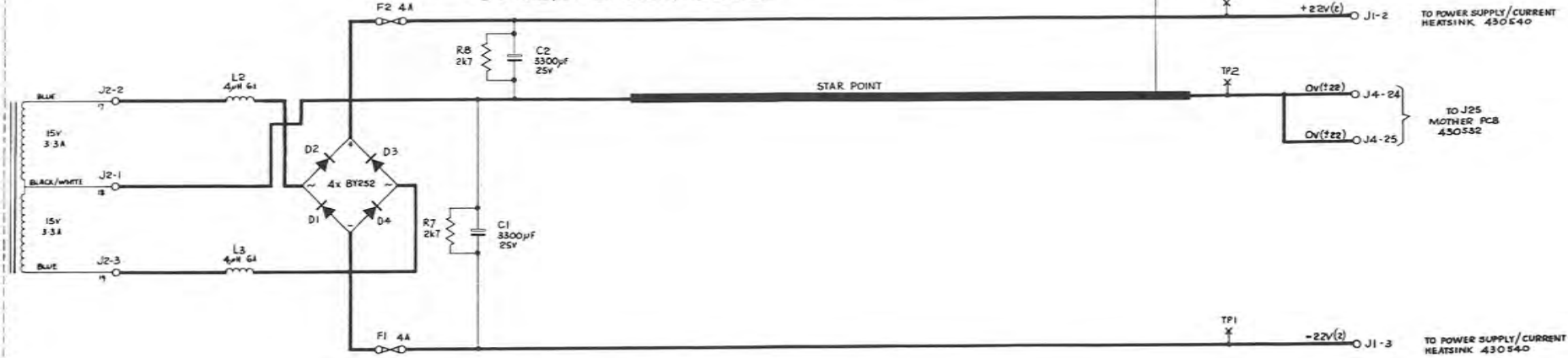
# IN GUARD COMMON 2 SUPPLIES

PRIMARYS SHOWN ON INTERCONNECTION PCB 430435



TO J25 MOTHER PCB 430532

# CURRENT OPTION SUPPLY



TO POWER SUPPLY/CURRENT HEATSINK 430540

TO J25 MOTHER PCB 430532

TO POWER SUPPLY/CURRENT HEATSINK 430540

TR GUARD SCREEN CONT. ON SHIT 2

TO J21 MOTHER PCB 430532

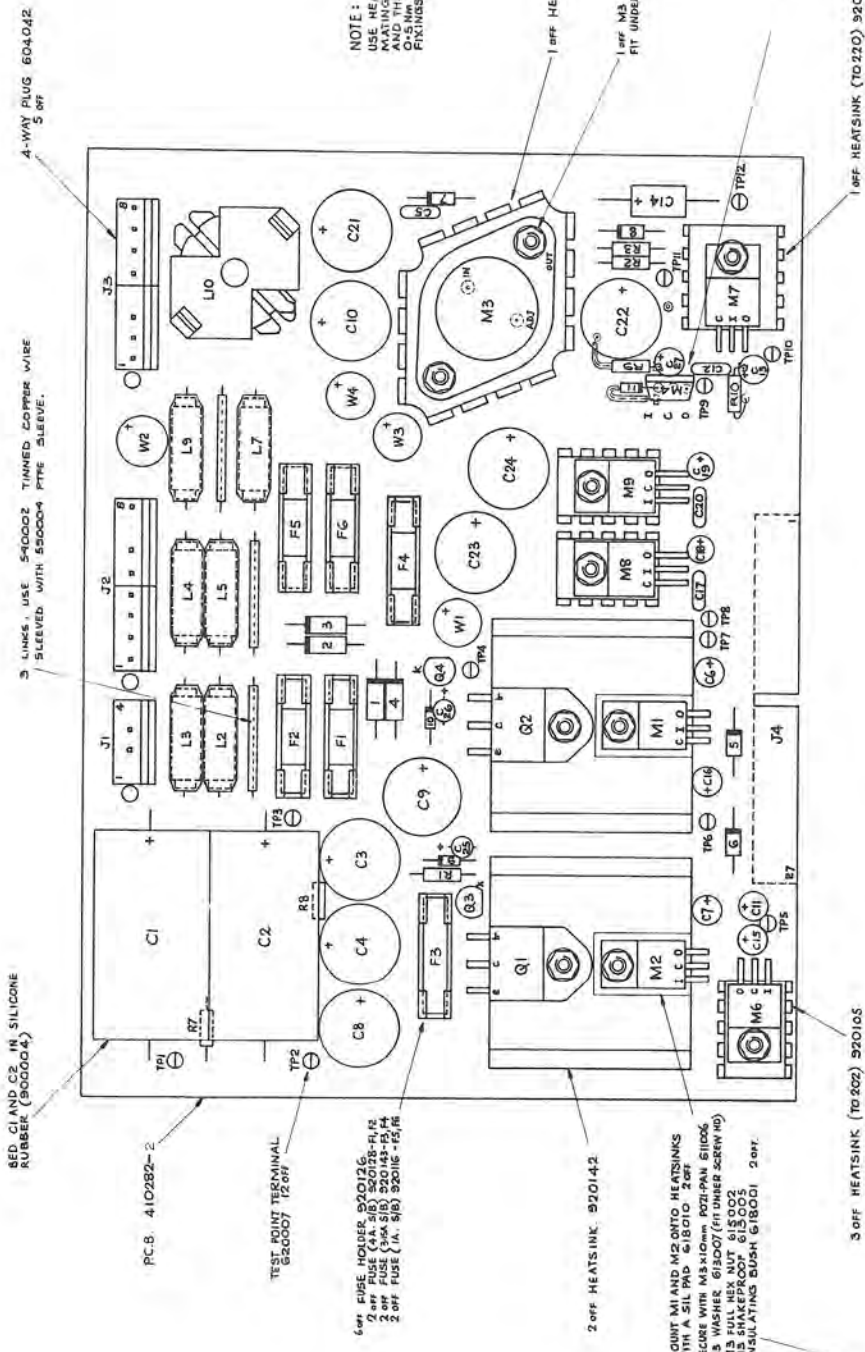
## IN-GUARD POWER SUPPLY ASSEMBLY

Common-2 Supplies and Current Option Supply



Circuit Diagram No. 430554-4.1 Sheet 1 © Datron Instruments 1986

IN-GUARD POWER SUPPLY ASSEMBLY



RED. CLIND C3, M3 SILICONE RUBBER (800004)

3 LINKS, USE 540002 TINNED COPPER WIRE SLEEVED WITH 550004 PTFE SLEEVE.

4-WAY PLUG 604042 5 WFT

PCB. 410282-2

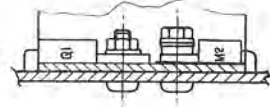
TEST POINT TERMINAL 820007 120H

6Wt FUSE HOLDER 920126  
2 WFT FUSE (1A, 5B) 520128-F/R2  
2 WFT FUSE (1/4A, 5B) 920143-F/R4  
2 WFT FUSE (1/4, 5B) 920144-F/R4

2 OFF HEATSINK 920142

MOUNT M1 AND M2 ONTO HEATSINKS WITH A SIL PAD 618010 2 OFF  
SECURE WITH M3x10mm TORX-SPAN SCREW 61006  
MOUNT M3 ON TO HEATSINK WITH TORX-SPAN SCREW 61006  
M3 BUSH 618007 (1.000mm DIA) TORX-SPAN SCREW 61006  
M3 SHAKESPROOF 613005  
INSULATING BUSH 618001 2 OFF

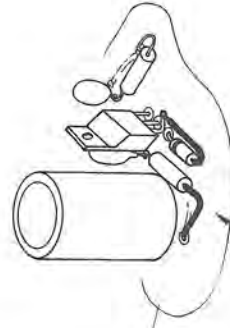
3 OFF HEATSINK (TO 202) 920105



NOTE :  
USE HEATSINK COMPOUND (800003) BETWEEN MATING SURFACES OF Q1, Q2, M1-M3, M6-M9 AND M10. APPLY HEATSINK COMPOUND TO Q1-M3. TORQUE OF Q1-M3 SHOULD BE APPLIED TO TIGHTEN COMPONENT FIXINGS.

1 OFF HEATSINK (TO 3) 920088.

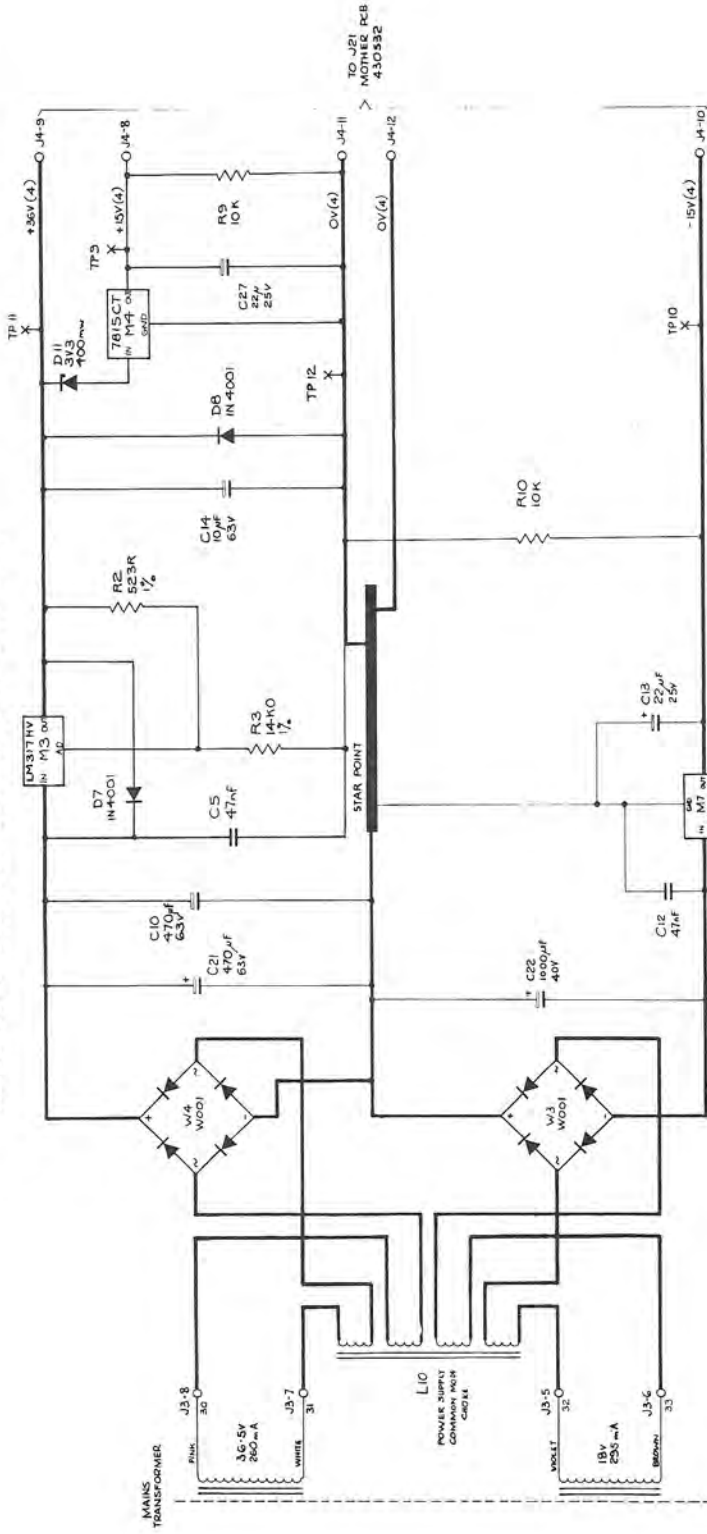
1 OFF M3 WASHER 618007 FIT UNDER SCREW HEAD.



FIT CLAMPED COMPONENTS AS SHOWN ABOVE. SLEEVE LEADS INDICATED WITH 590004.

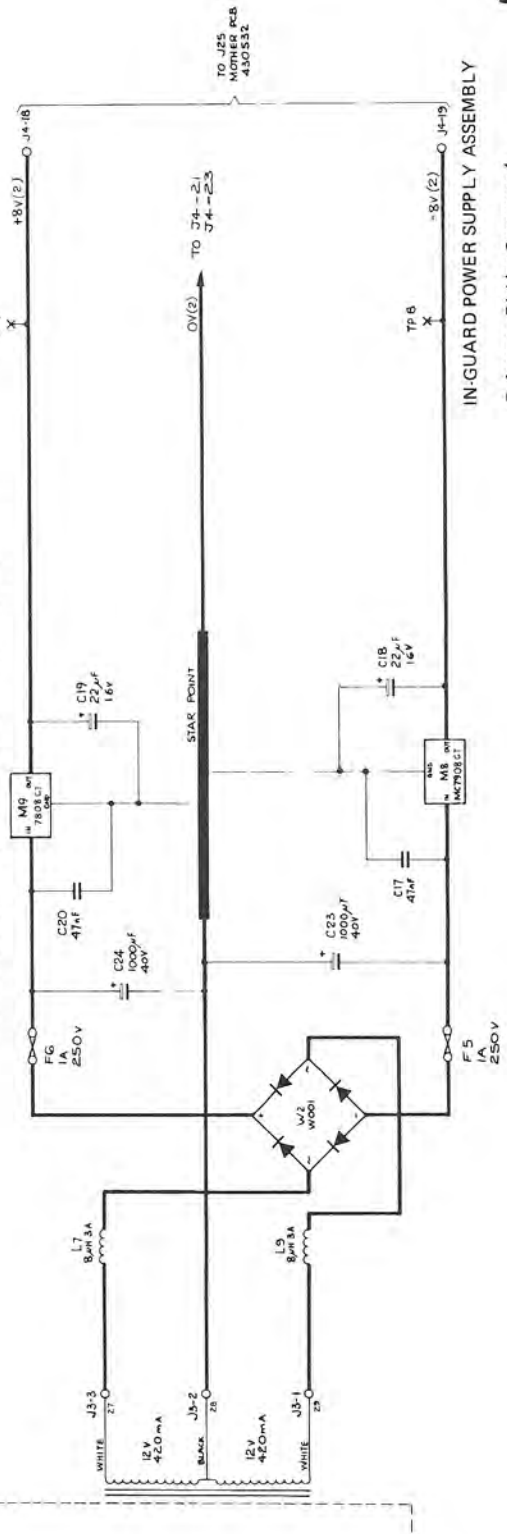
Q1, Q2, M3, M6-M9 FIXINGS :  
5 OFF M3 TORX-SPAN SCREW 61006  
5 OFF M3 TORX-SPAN SCREW 61006  
8 OFF M3 SHAKESPROOF 613005

# REFERENCE DIVIDER COMMON 4 SUPPLIES



PRIMARYS  
SHOWN ON  
INTERCONNECTION PCB  
430533

# IN GUARD COMMON 2 ±8V SUPPLY

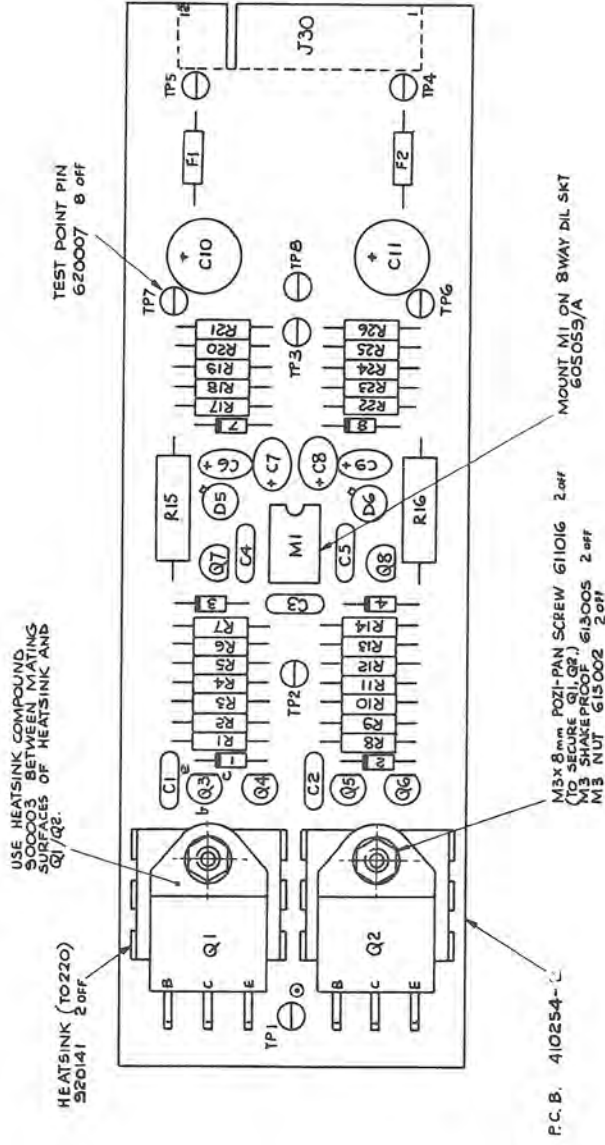


IN-GUARD SCREEN  
CONT. FROM SHIT



# THIRD ANGLE PROJECTION

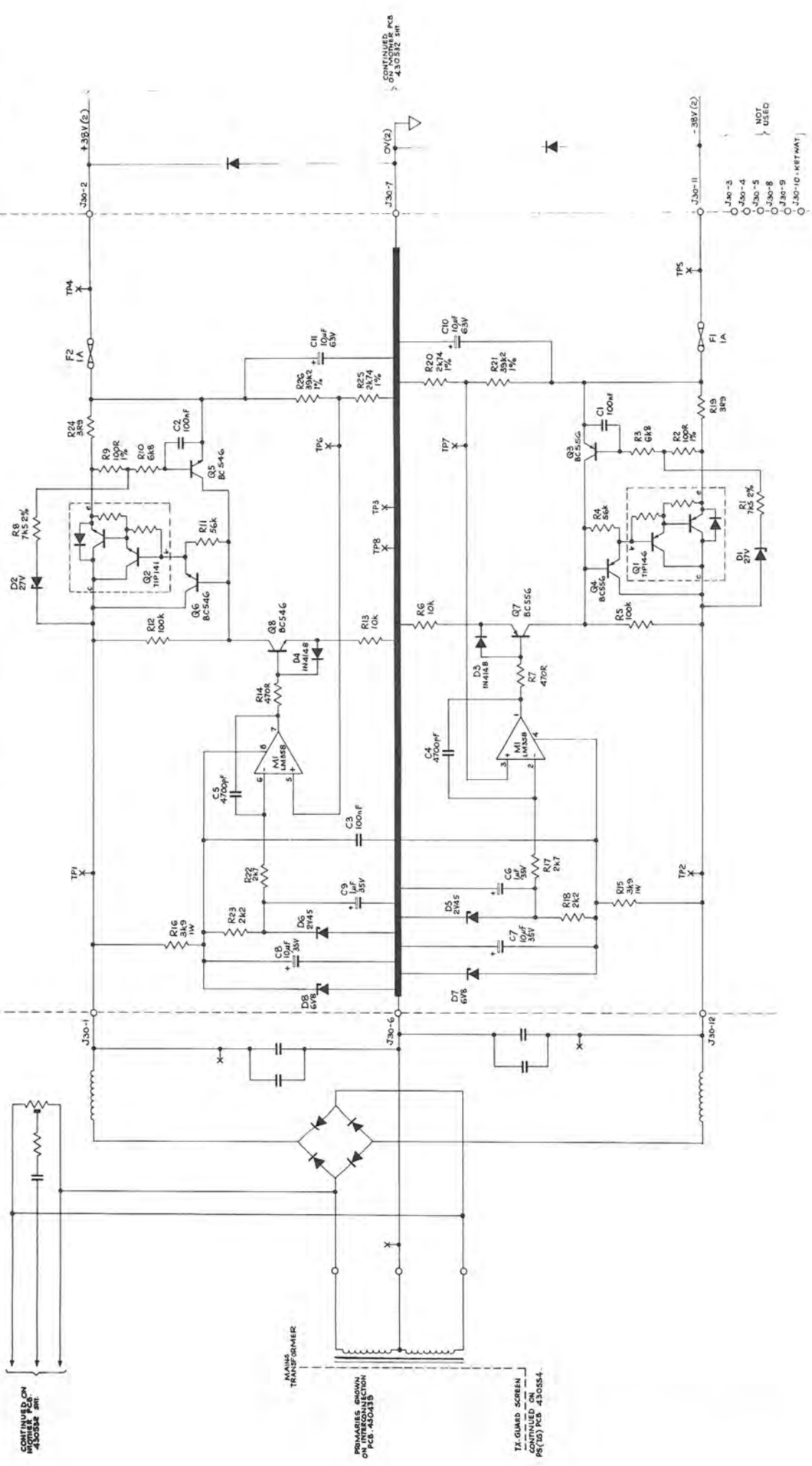
DRAWN IN ACCORDANCE WITH BS 308



MOTHER PCB ASSY  
400532

PS (38V) PCB ASSY  
400544

MOTHER PCB ASSY  
400532



CONTINUED ON  
PCB 430532 SH.

PRIMARYS SHOWN  
ON SECTION  
PCB 430532 SH.

TA GUARD SCREEN  
CONTINUED ON  
PS (38V) PCB 430554.

4200  
**datron**  
INSTRUMENTS  
Sheet 1 © Datron Instruments 1986  
7.12--1

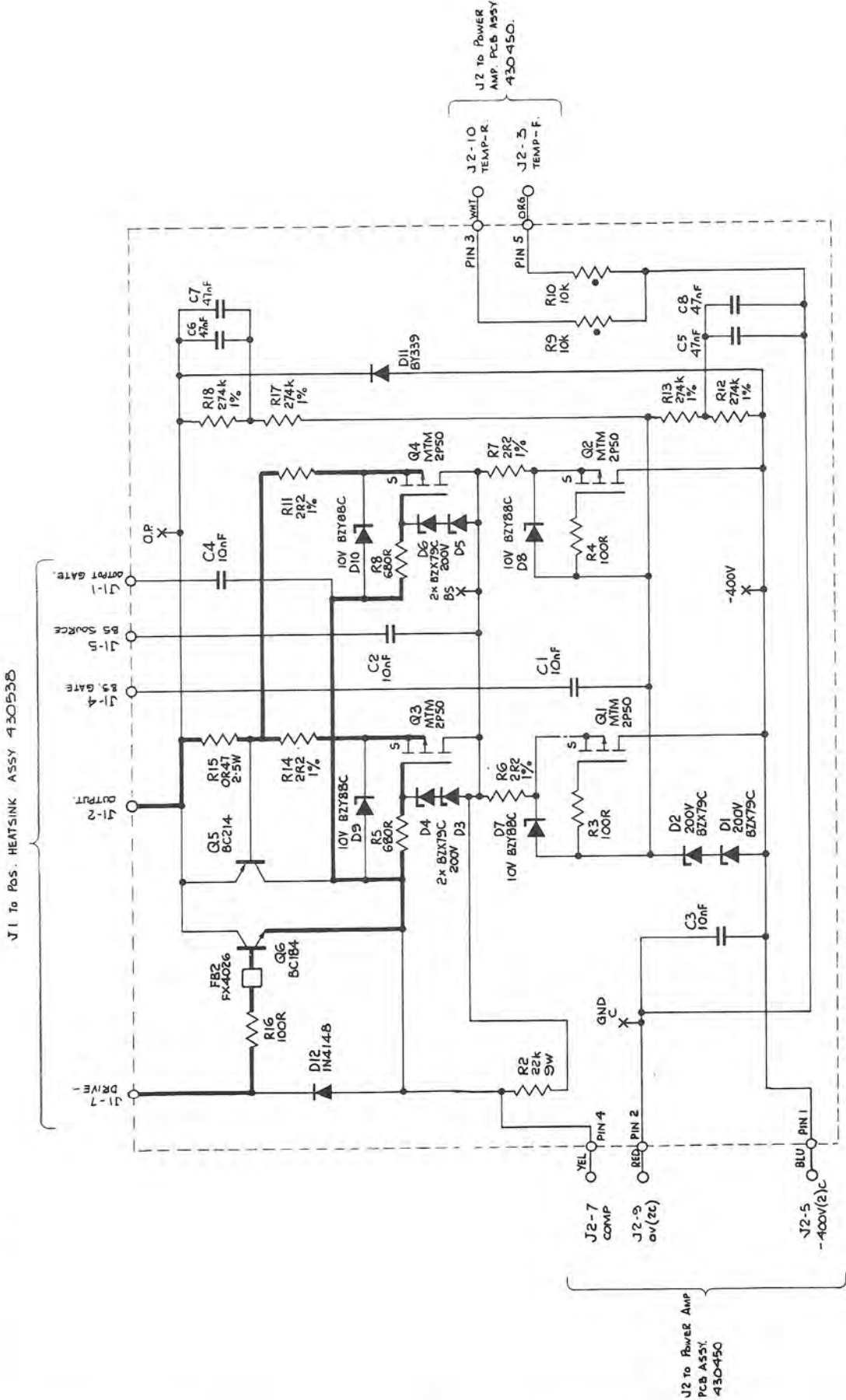
+38V POWER SUPPLY ASSEMBLY  
+38V Power Supply with  
Mother-Assembly Components  
Circuit Diagram No. 430544-4.0

NOT  
USED  
KEYWAY



# THIRD ANGLE PROJECTION

DRAWN IN ACCORDANCE WITH BS 308

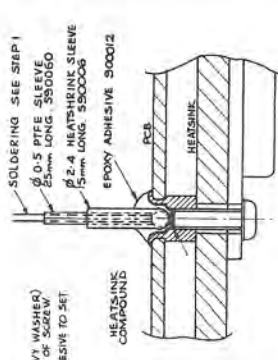
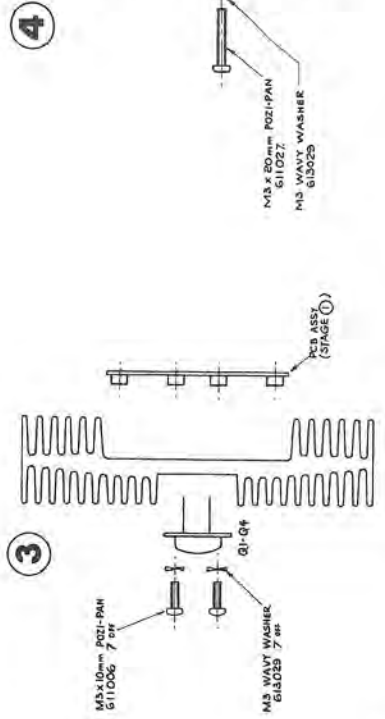
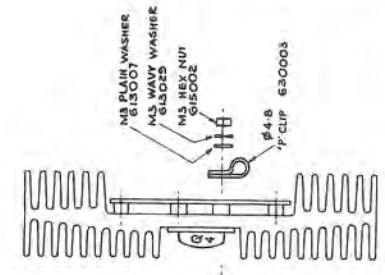
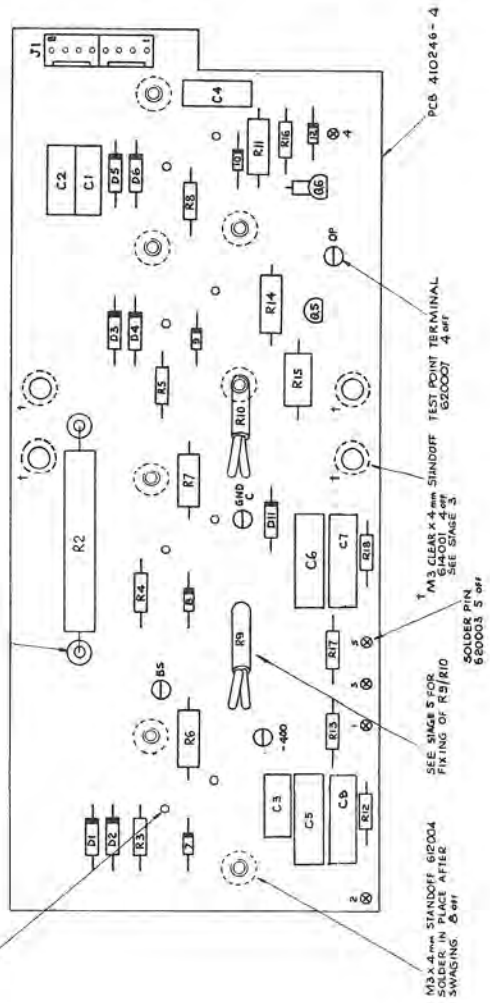
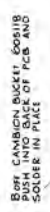
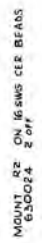
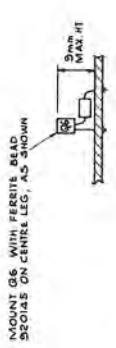


POSITIVE HEATSINK ASSEMBLY  
Output Power Amplifier  
(Positive Half)

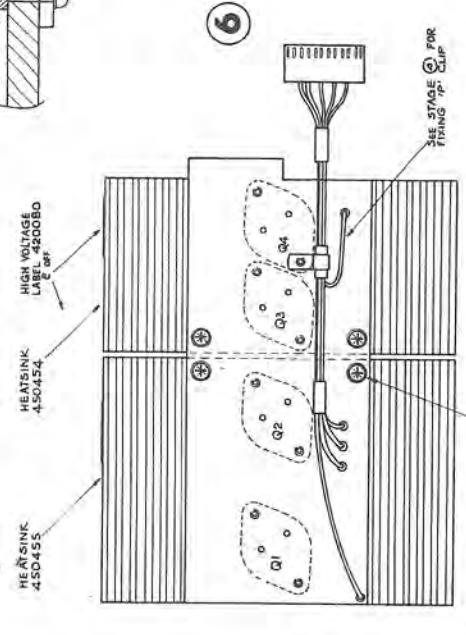
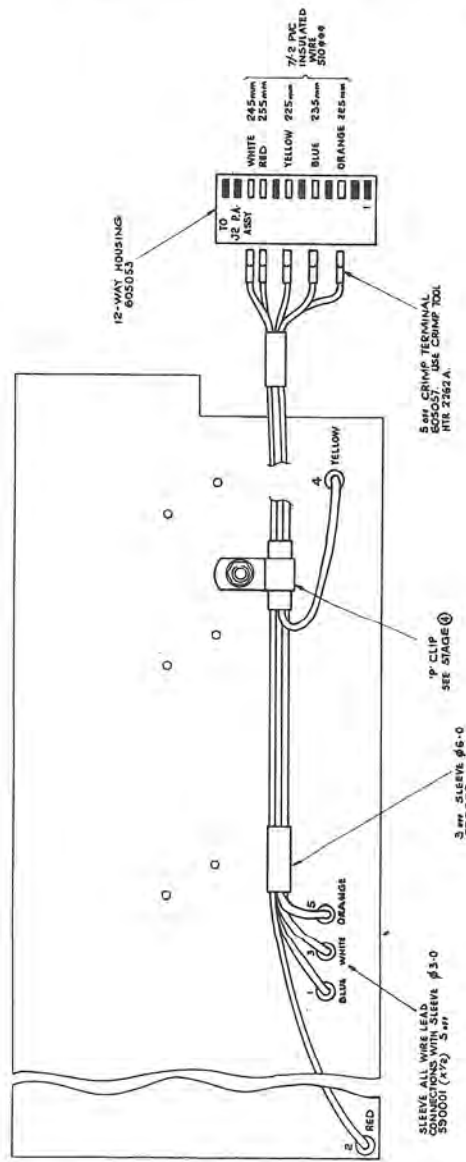


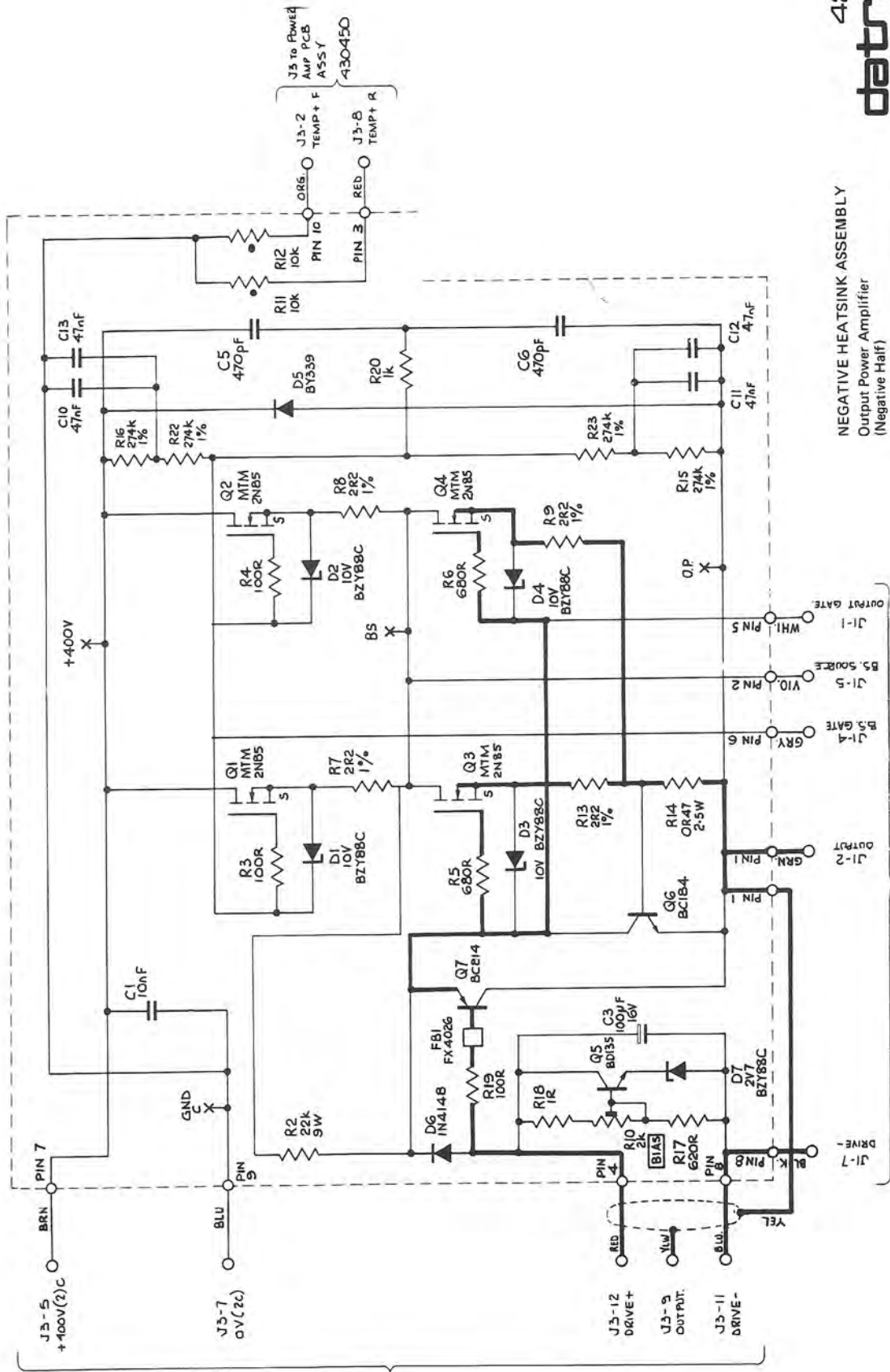
**NEGATIVE HEATSINK ASSEMBLY**

- ASSEMBLY NOTES:**
- 1 ASSEMBLE PCB TO STAGE ①
  - 2 COMPLETE PCB ASSY BY FITTING WIRING LOOM, DO NOT FIT 'P' CLIP (SEE STAGE ②)
  - 3 ASSEMBLE PCB ASSY TO HEATSINKS, FITTED BY 4 MIDDLE SCREWS (SEE STAGE ③)
  - 4 SECURE WIRING WITH 'P' CLIP (SEE STAGE ④)
  - 5 SECURE WIRING WITH 'P' CLIP (STAGE ⑤)



- 1 FIT M3 X 10mm SCREW (WITHOUT WAVY WASHER) WITH HEATSINK COMPOUND ON END OF SLEEVE
- 2 MOUNT THERMISTOR 1 WAIT FOR ADHESIVE TO SET
- 3 REMOVE M3 SCREW & RE-FIT WITH WAVY WASHER





J3 TO POWER AMP  
PCB ASSY.  
430450

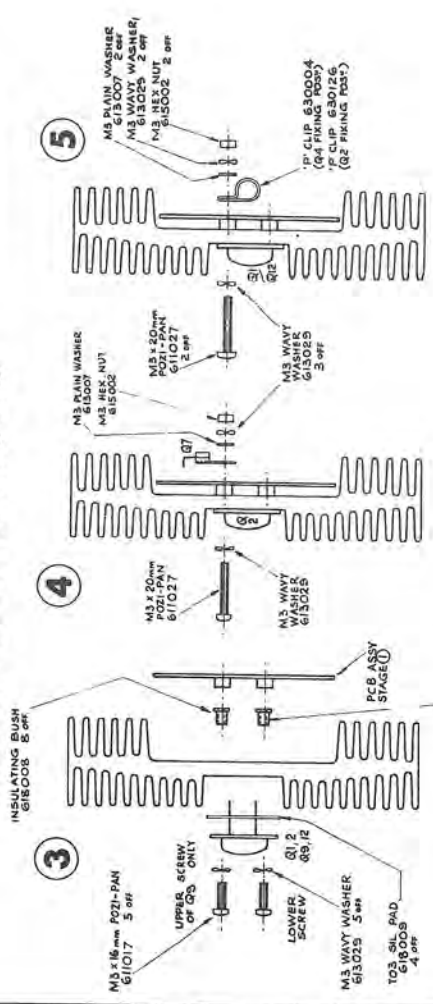
J1 TO NEG. HEATSINK ASSY  
430539

NEGATIVE HEATSINK ASSEMBLY  
Output Power Amplifier  
(Negative Half)

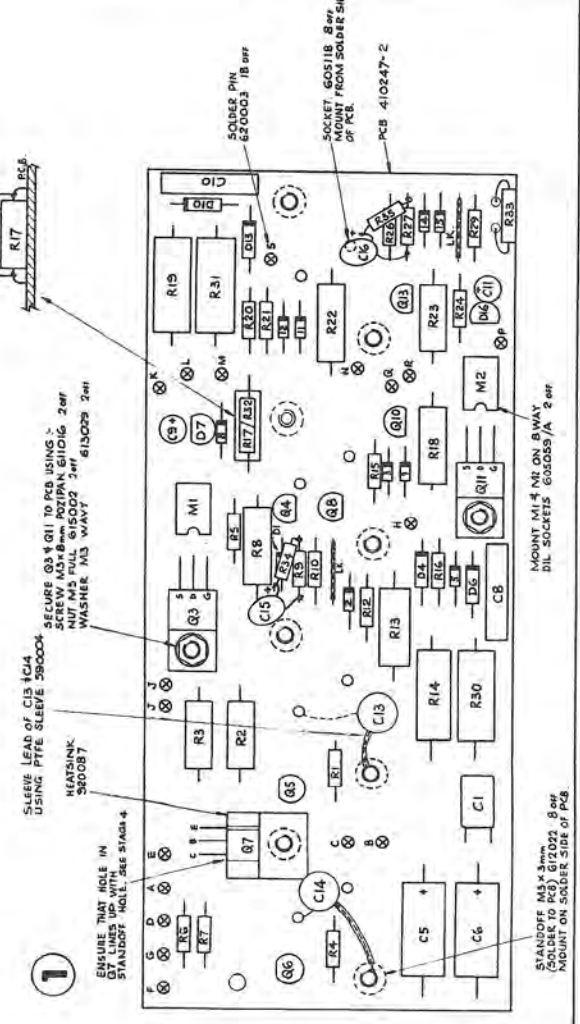


**PS/I HEATSINK ASSEMBLY**

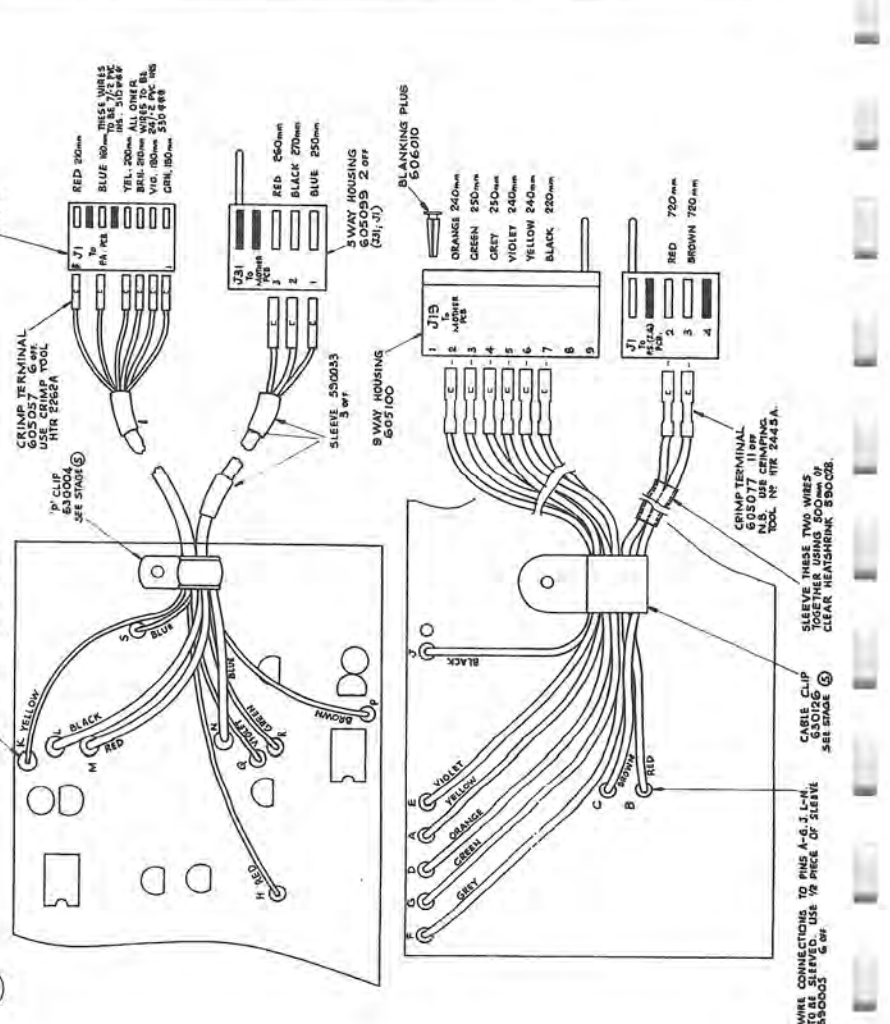
- ASSEMBLY NOTES:**
1. ASSEMBLE PCB TO STAGE ① EXCEPT SCREW FOR SECURING Q7 (SEE STAGE ④)
  2. COMPLETE PCB ASSY BY FITTING WIRES LOOKS DO NOT FIT "P" CLIPS (SEE STAGE ⑤)
  3. COMPLETE PCB ASSY TO HEATSINK BY FITTING Q1, Q2, Q3 (SEE STAGE ③)
  4. SECURE Q7 (STAGE ④), TIGHTEN ALL TRANSDUCER PINNING SCREWS TO A TORQUE OF 0.5 Nm
  5. SECURE WIRING WITH "P" CLIPS (SEE STAGES ③ AND ⑤)



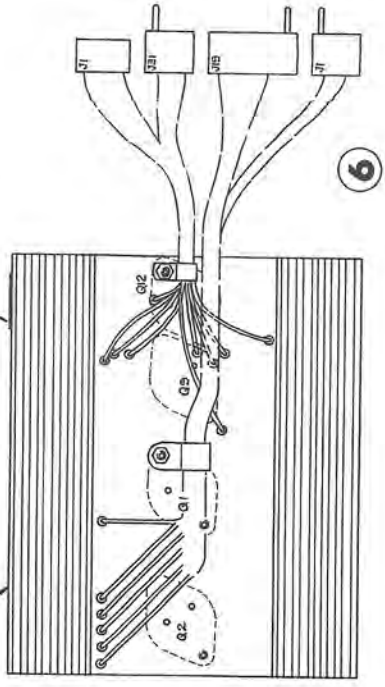
POSITION ALL INSULATING BUSHES INTO RESPECTIVE HOLES OF HEATSINK BEFORE POSITIONING PCB ASSY.



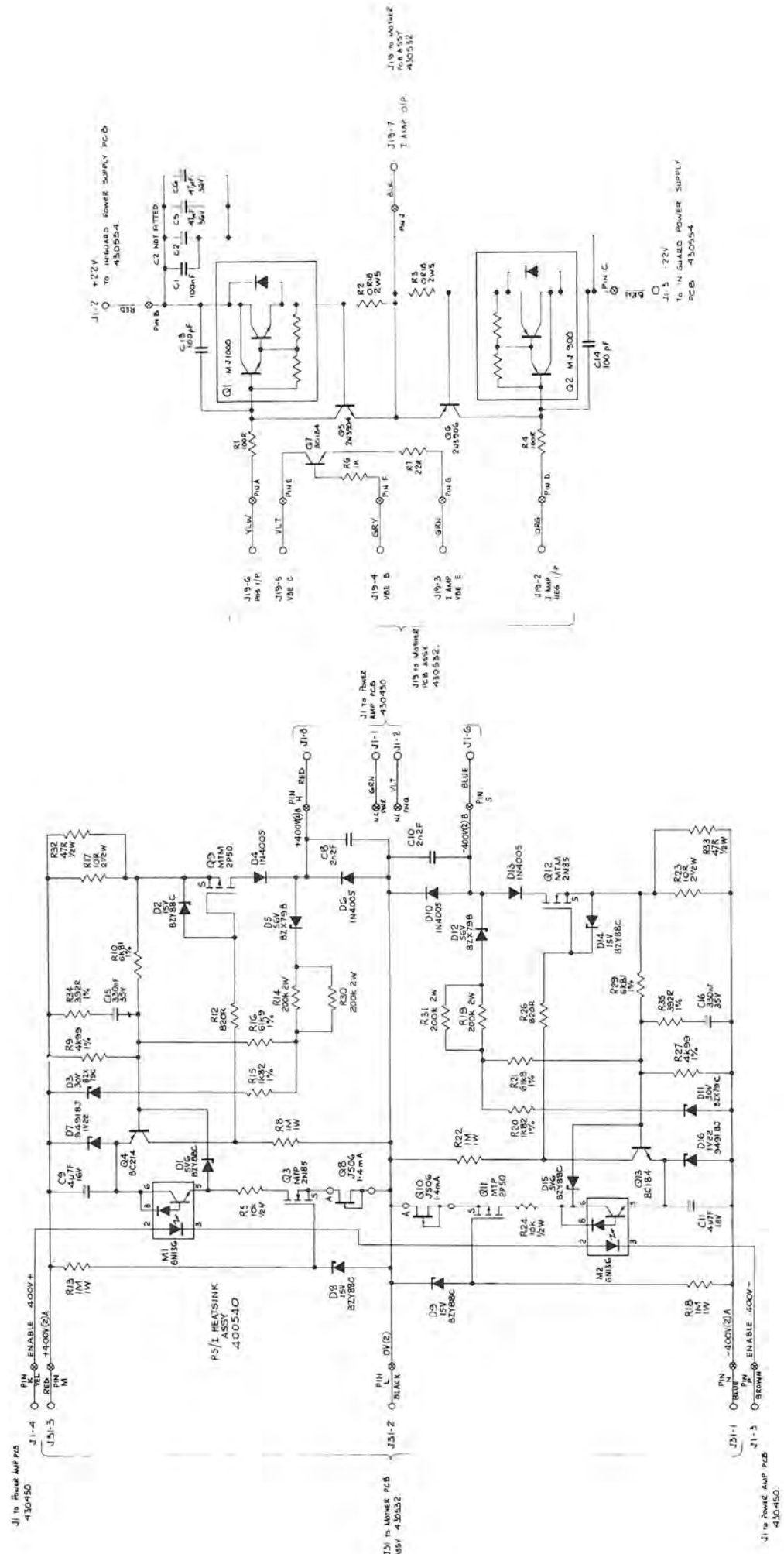
WIRE CONNECTIONS TO PINS K, R, R & S TO BE SLEEVED. USE 1/2 PIECE OF SLEEVE 590001... 3 off



WIRE CONNECTIONS TO PINS A-4, 1, 1-N TO BE SLEEVED. USE 1/2 PIECE OF SLEEVE 590001... 6 off



⑥

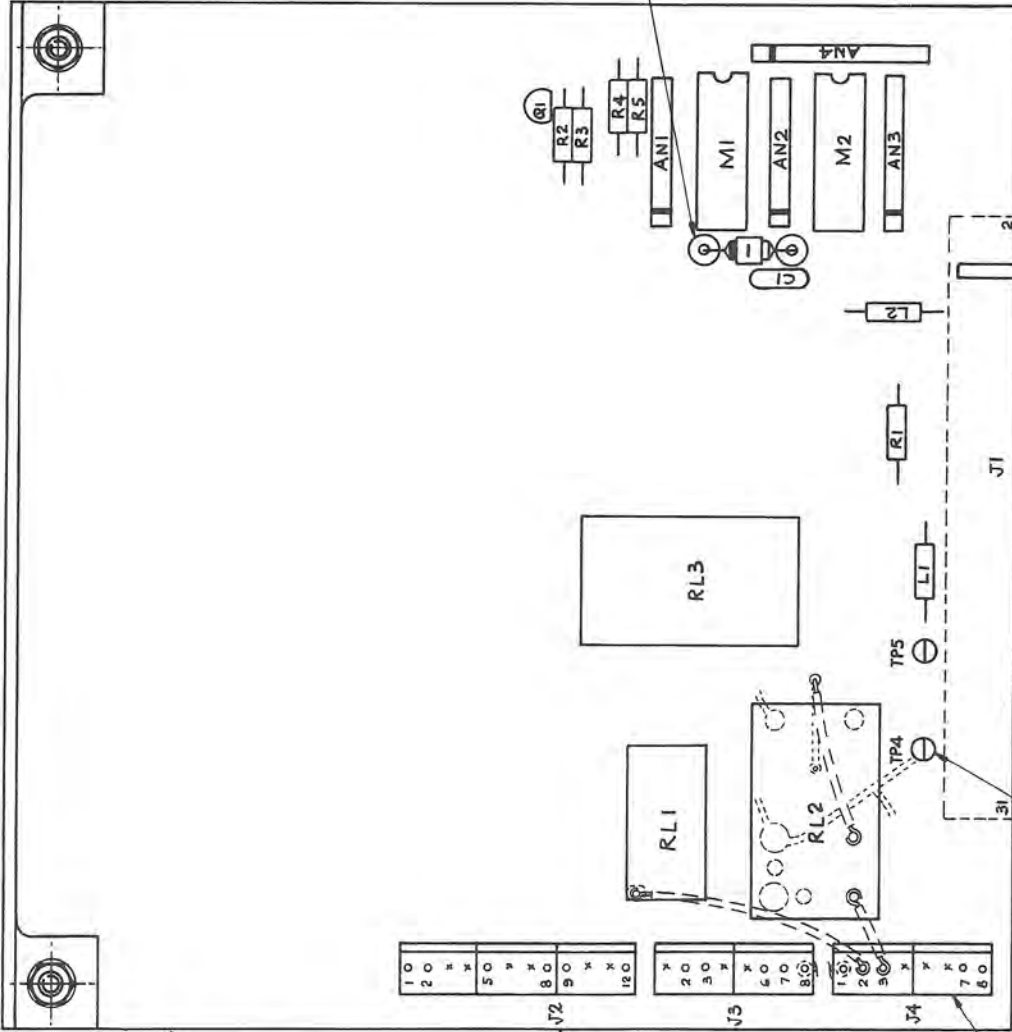
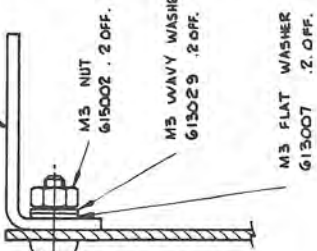




HIGH VOLTAGE ASSEMBLY

HV PCB SAFETY SCREEN  
450461

SCREW M3x.8mm  
611016 2 OFF

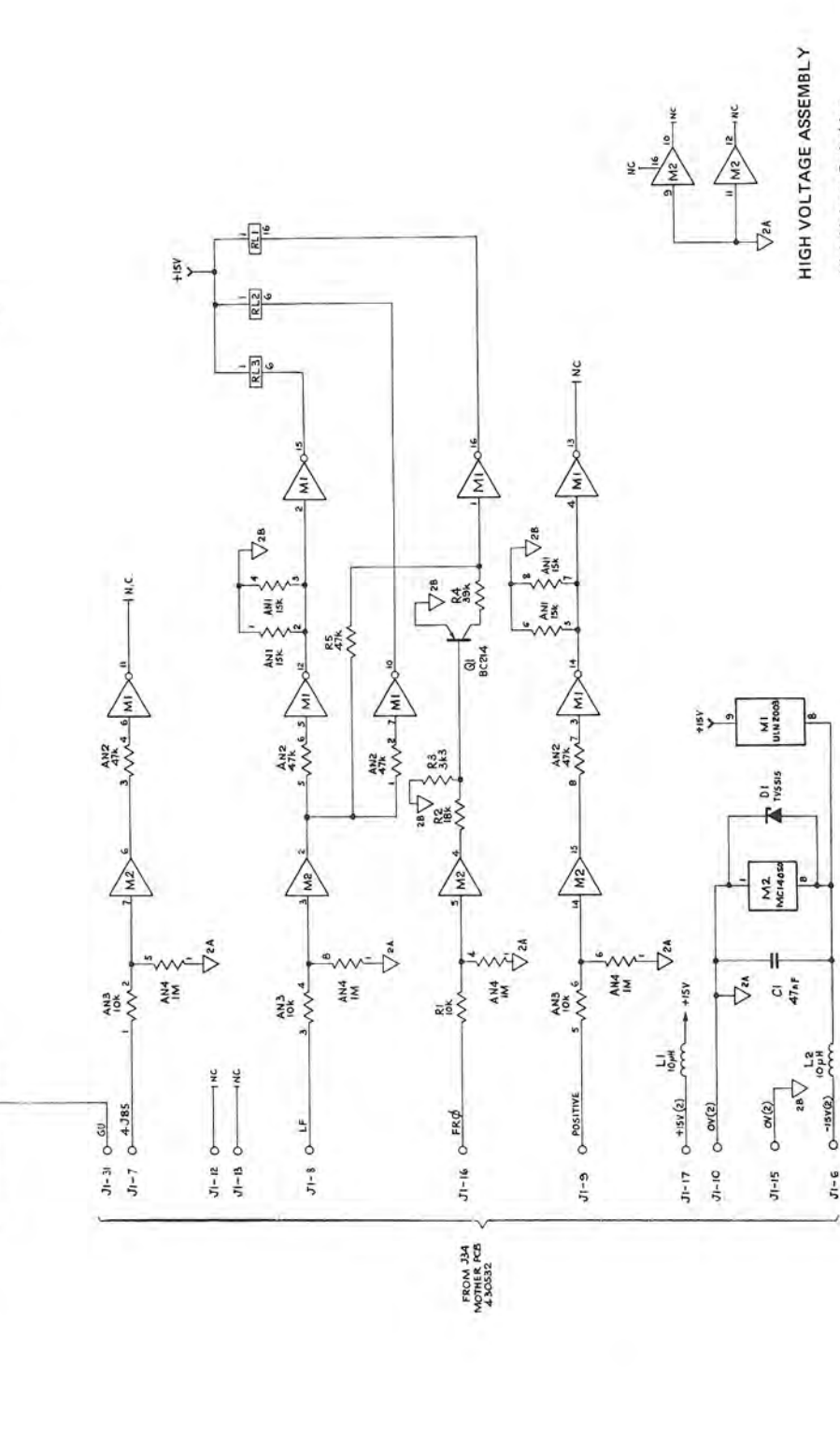
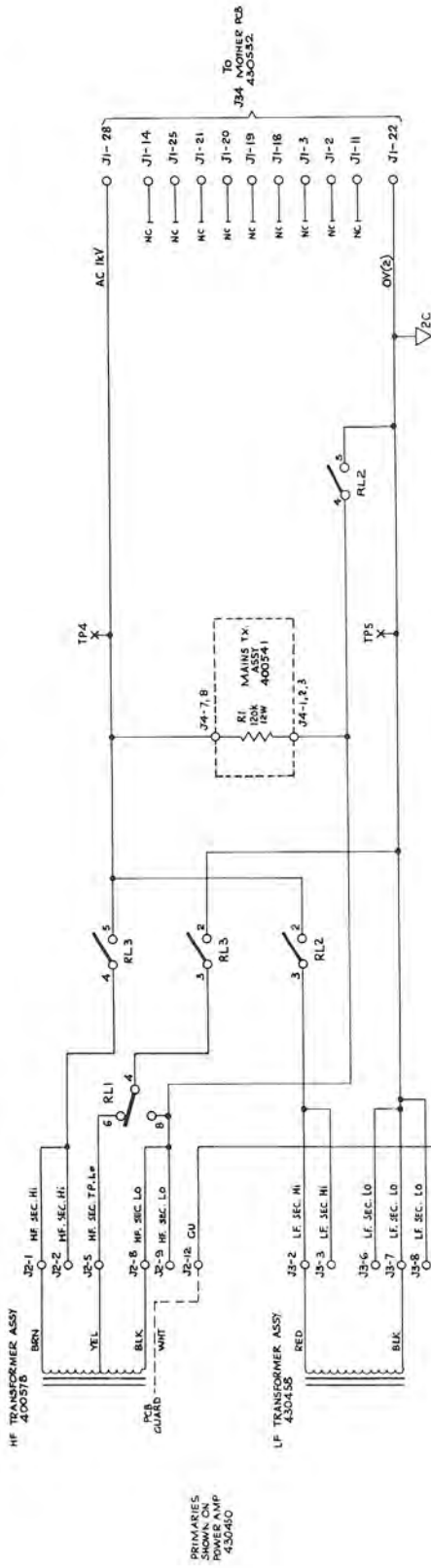


PCB. 410251-3A

CUT TRACK FROM J3-6 TO J4-1  
REMOVE ALL OF TRACK.  
ADD SLEEVED LINKS FROM :-  
J4-2 TO RL1-6  
J4-3 TO RL2-4  
RL2-5 TO STITCH-  
THROUGH.

MAKE LINKS FROM :-  
TINNED COPPER WIRE 54-0002  
PTFE SLEEVING

4-WAY MOLEX PLUG  
G04033 7 OFF  
REMOVE PINS  
EACH MOLEX, AS SHOWN  
BY 'x'.



**4200**

**datron**  
INSTRUMENTS

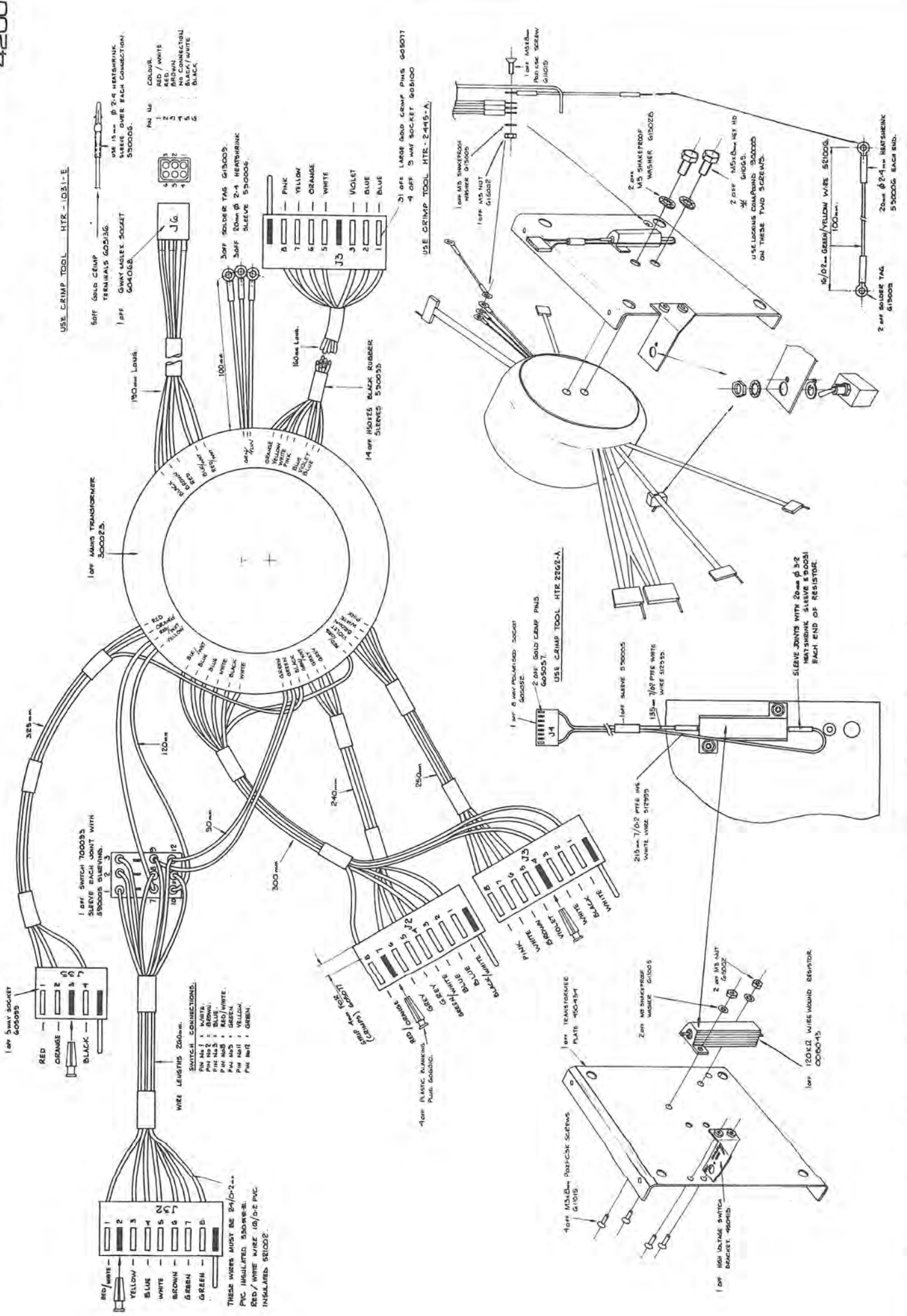
**HIGH VOLTAGE ASSEMBLY**

High Voltage Switching and Logic

Circuit Diagram No. 430565--4.0 Sheet 1 © Datron Instruments 1986

7.14--1

MAINS (LINE) TRANSFORMER



USE CRIMP TOOL HTR-1031-E

100V MAINS TRANSFORMER 300025

50V GOLD CRIMP TERMINALS 60513G  
USE 15mm Ø 2-4 HEATSHRINK SLEEVE OVER EACH CONNECTION.  
100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

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100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

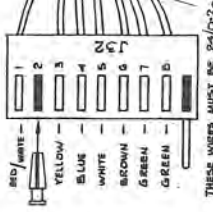
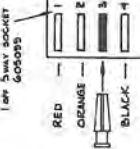
100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025



WIRE LENGTHS 200mm  
SWITCH CONNECTIONS:  
PIN No 1: BROWN  
PIN No 2: BLUE  
PIN No 3: RED  
PIN No 4: YELLOW  
PIN No 5: GREEN

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

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100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

100V 500W TRANSFORMER 300025

For mains (line) transformer circuits refer to the following pages:

7.10-1 Main Digital Supply, Display Supply  
and Common Mode Null

7.11-1 Common-2 Supplies and  
Current Option Supply

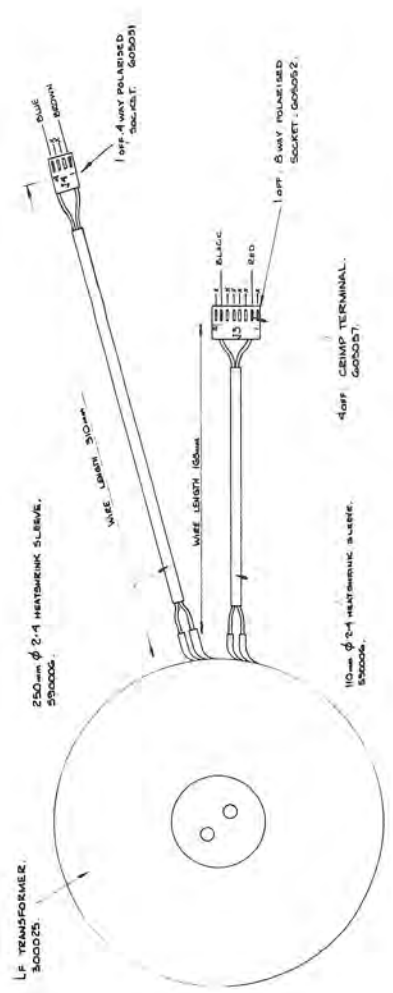
7.11-2 Reference Divider Common-4  
and + 8V Common-2 Supplies

7.16-5 400V Power Supply, 38V Power Supply  
and Common Mode Null

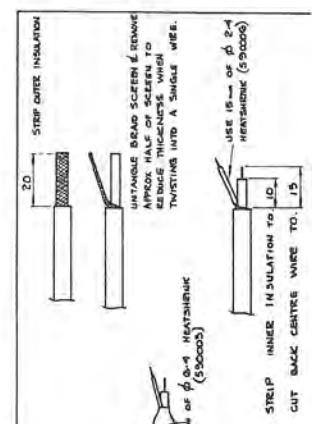
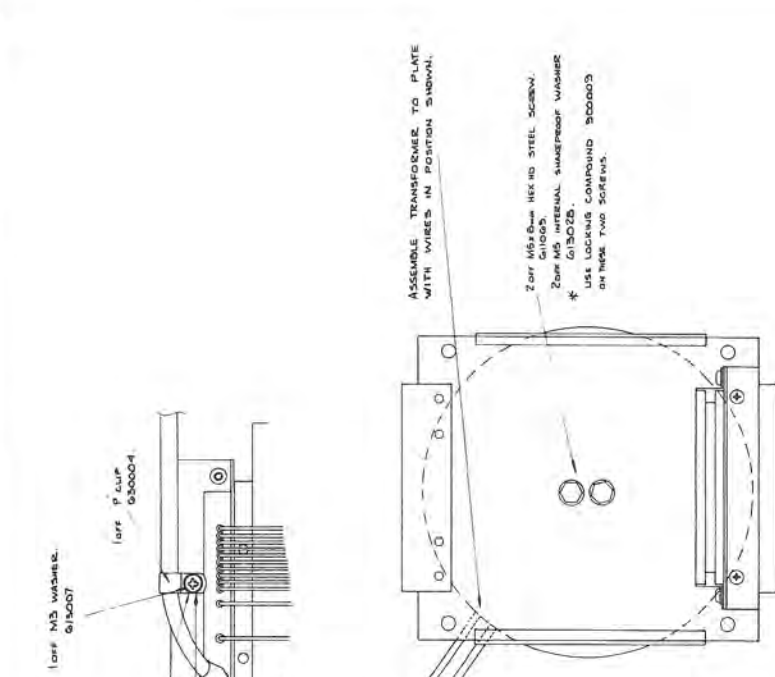
7.17-2 Interconnections, Power Input Module  
and Mains Transformer Primary

L.F. TRANSFORMER ASSEMBLY

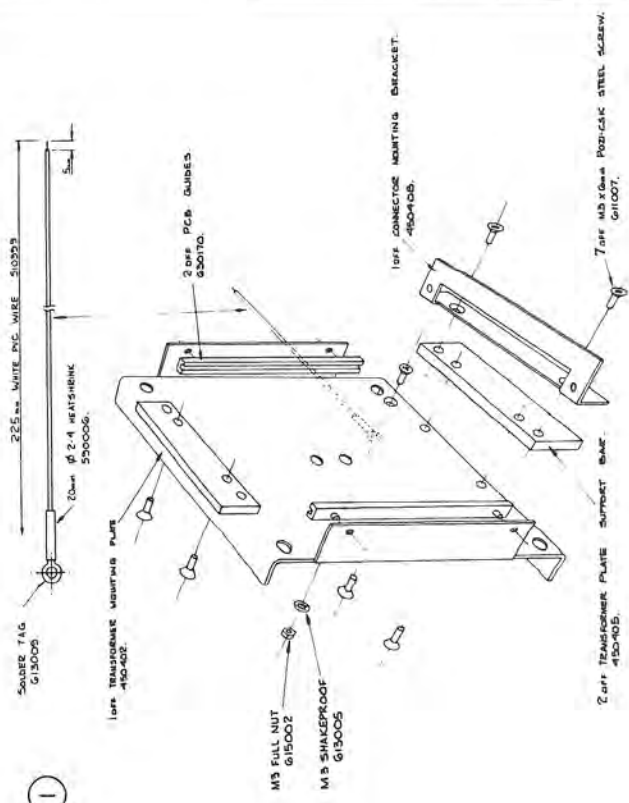
2



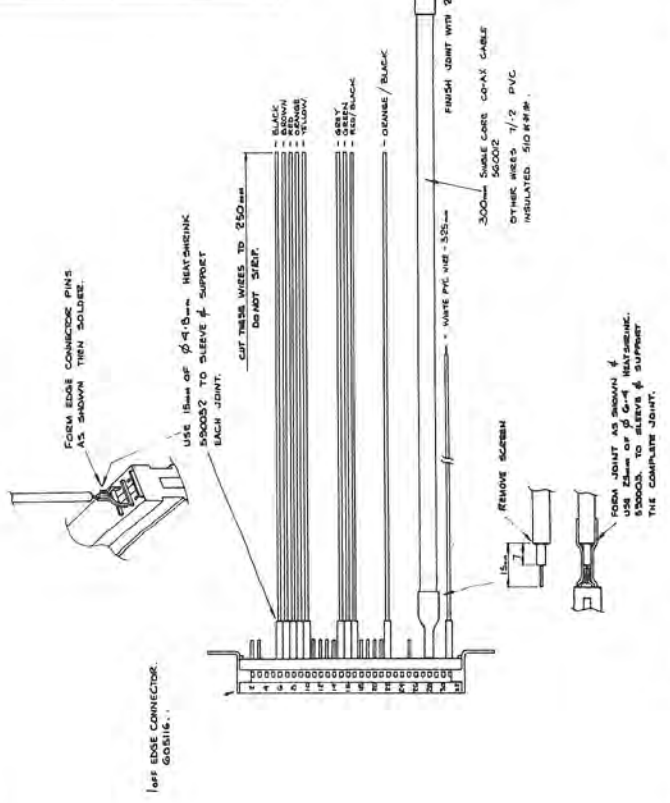
4



1



3



CABLE TIE 5900G3 TO BE WRAPPED AROUND THE TRANSFORMER BODY HOLDING ALL THE WIRES ACTING AS A STRAIN RELIEF. ENSURE THIS SLEEVE IS UNDER THE CABLE TIE.

2 OFF CERAMIC BEADS G30024

RED WIRE 7/0-2 PTFE INSULATED 51222Z

RED WIRE 7/0-2 PTFE INSULATED 51222Z

YELLOW WIRE 7/0-2 PTFE INSULATED 51244A

250 mm

BLUE RED

M4 FULL NUT G19011

M4 SHAKE PROOF WASHER G13021

310 mm

BROWN WIRE 7/0-2 PTFE INSULATED 51211L

BLACK WIRE 7/0-2 PTFE INSULATED 512000

PCB 410256

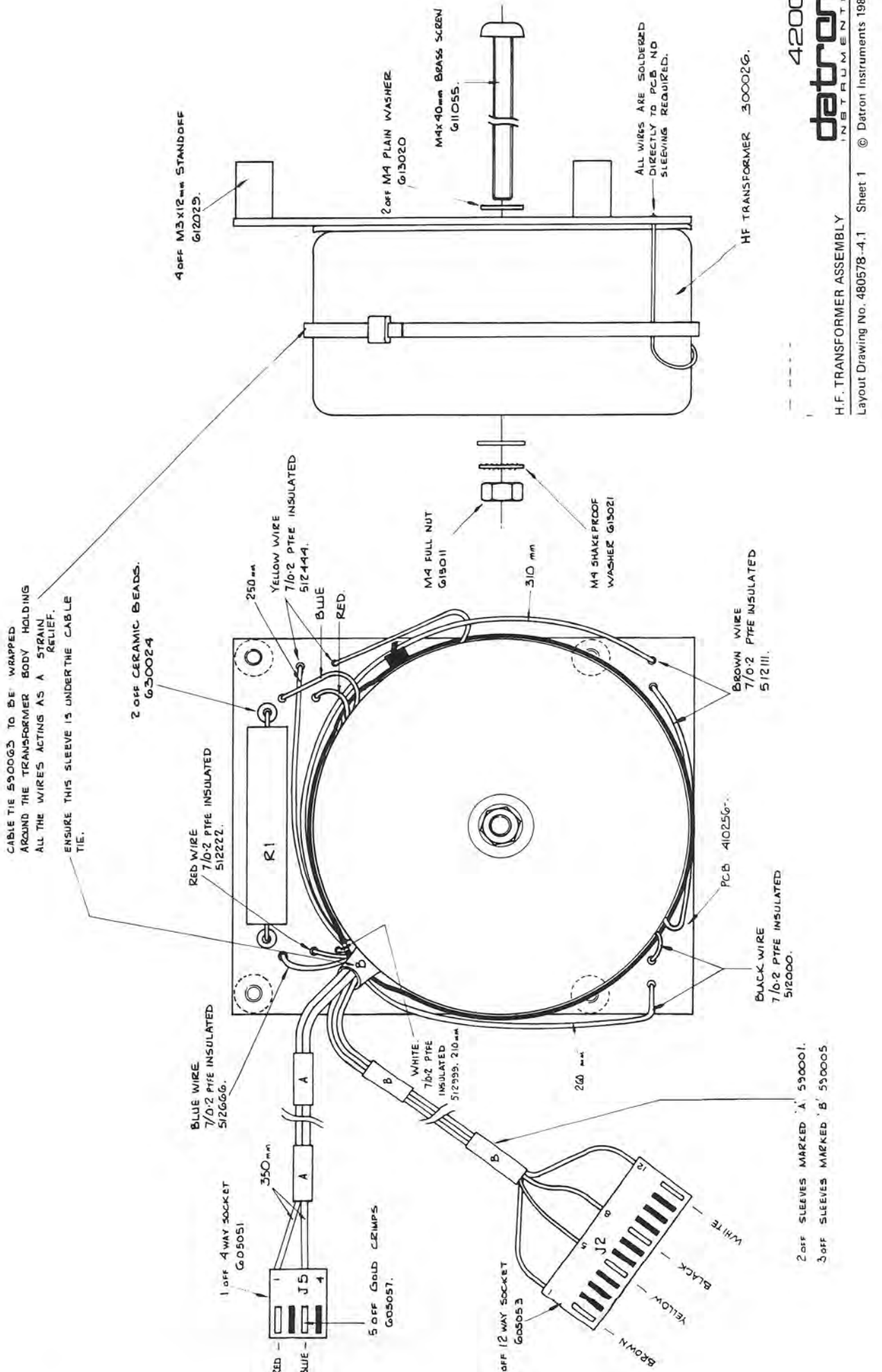
4 OFF M3 X 12 mm STANDOFF G12029

2 OFF M4 PLAIN WASHER G13020

M4 X 40 mm BRASS SCREEN G11055

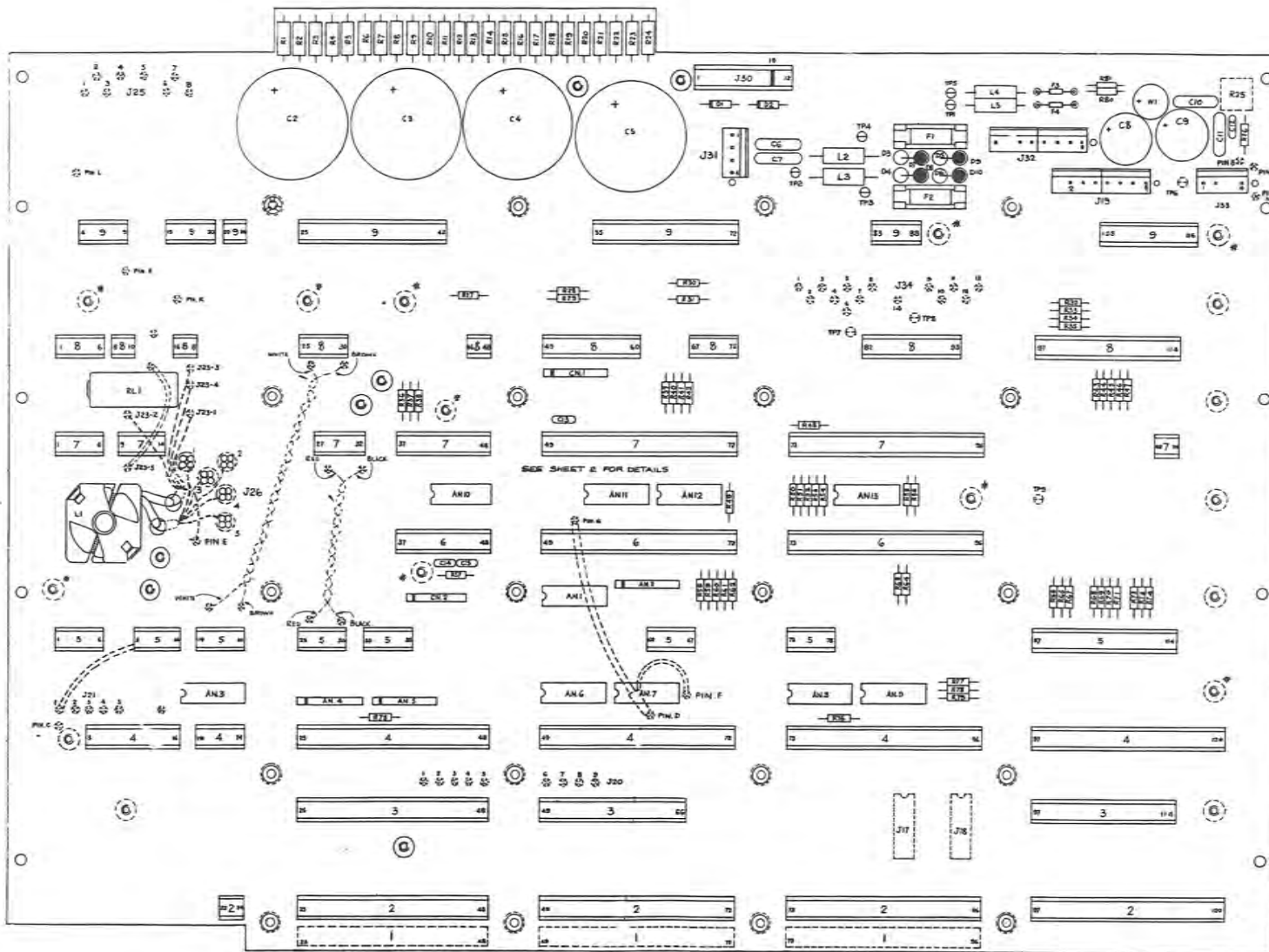
ALL WIRES ARE SOLDERED DIRECTLY TO PCB NO SLEEVING REQUIRED.

HF TRANSFORMER 30002G

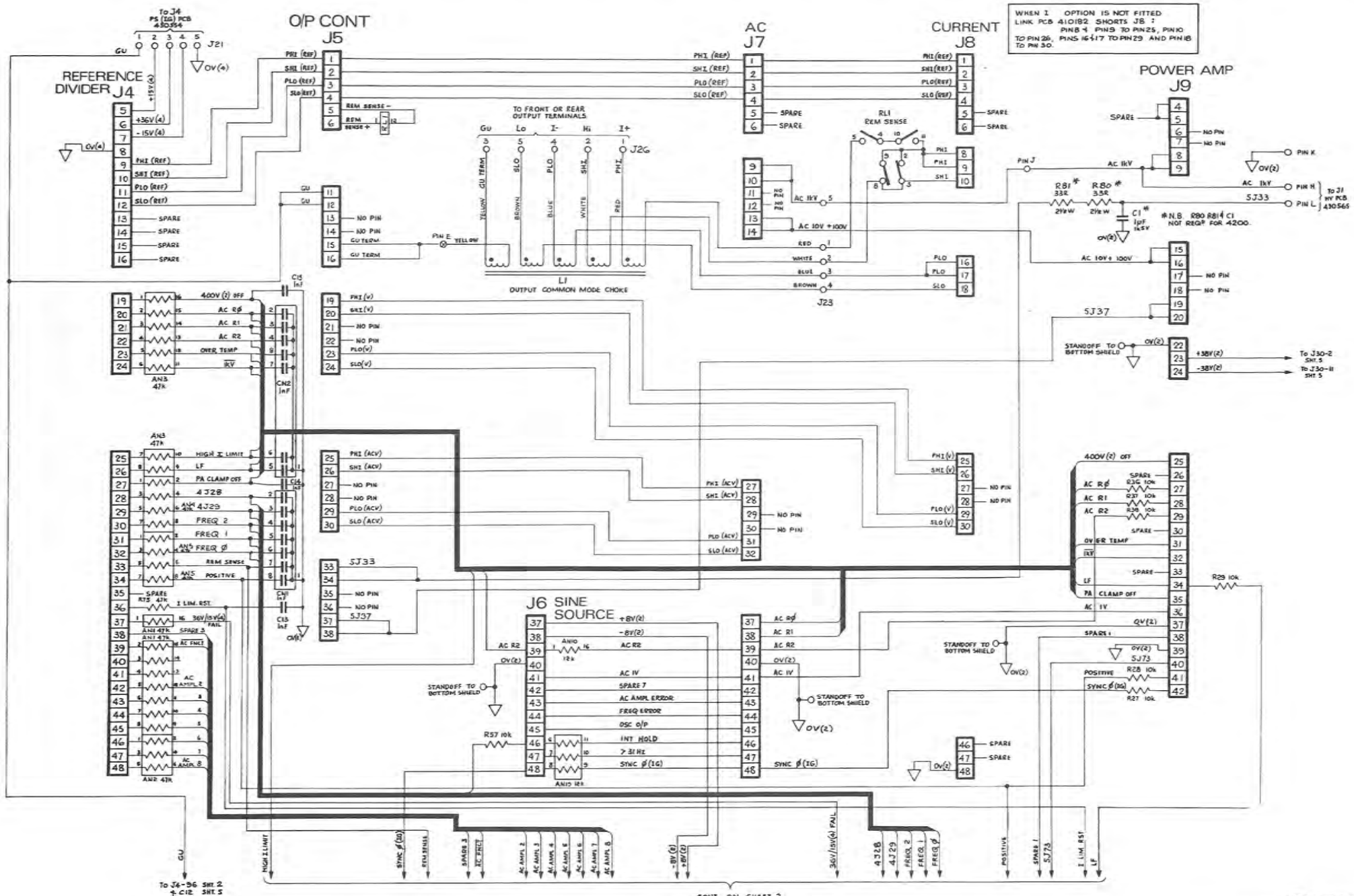


2 OFF SLEEVES MARKED 'A' 590001.  
3 OFF SLEEVES MARKED 'B' 590005

MOTHER ASSEMBLY



Connector and Pin numbers	Diagram:
J1 25-96	7.16-4
J2 22-120	7.16-4
J3 25-66 97-114	7.16-4
J4 5-16 19-48 49-96 97-120	7.16-1 7.16-2 7.16-4
J5 1-6 11-16 19-30 33-38 62-67 73-78 97-114	7.16-1 7.16-2 7.16-3
J6 37-48 49-96	7.16-1 7.16-2
J7 1-6 9-14 27-32 37-48 49-96 112-114	7.16-1 7.16-2 7.16-3
J8 1-6 8-10 16-18 25-30 46-48 49-60 67-72 82-93 97-114	7.16-1 7.16-2 7.16-3
J9 4-9 15-20 22-42 55-72 83-88 105-116	7.16-1 7.16-2 7.16-3
J17/18 1-16	7.16-4
J19 1-8	7.16-3
J20 1-9	7.16-4
J21/23 1-5	7.16-1
J25 1-8	7.16-2
J26 1-5	7.16-1
J30 1-2 6-7 11-12 J31/33 1-4 J32 1-8	7.16-5
J34 1-13	7.16-2
Pin A,B,C,M Pin D,F,G Pin H,J,K,L	7.16-5 7.16-2 7.16-1



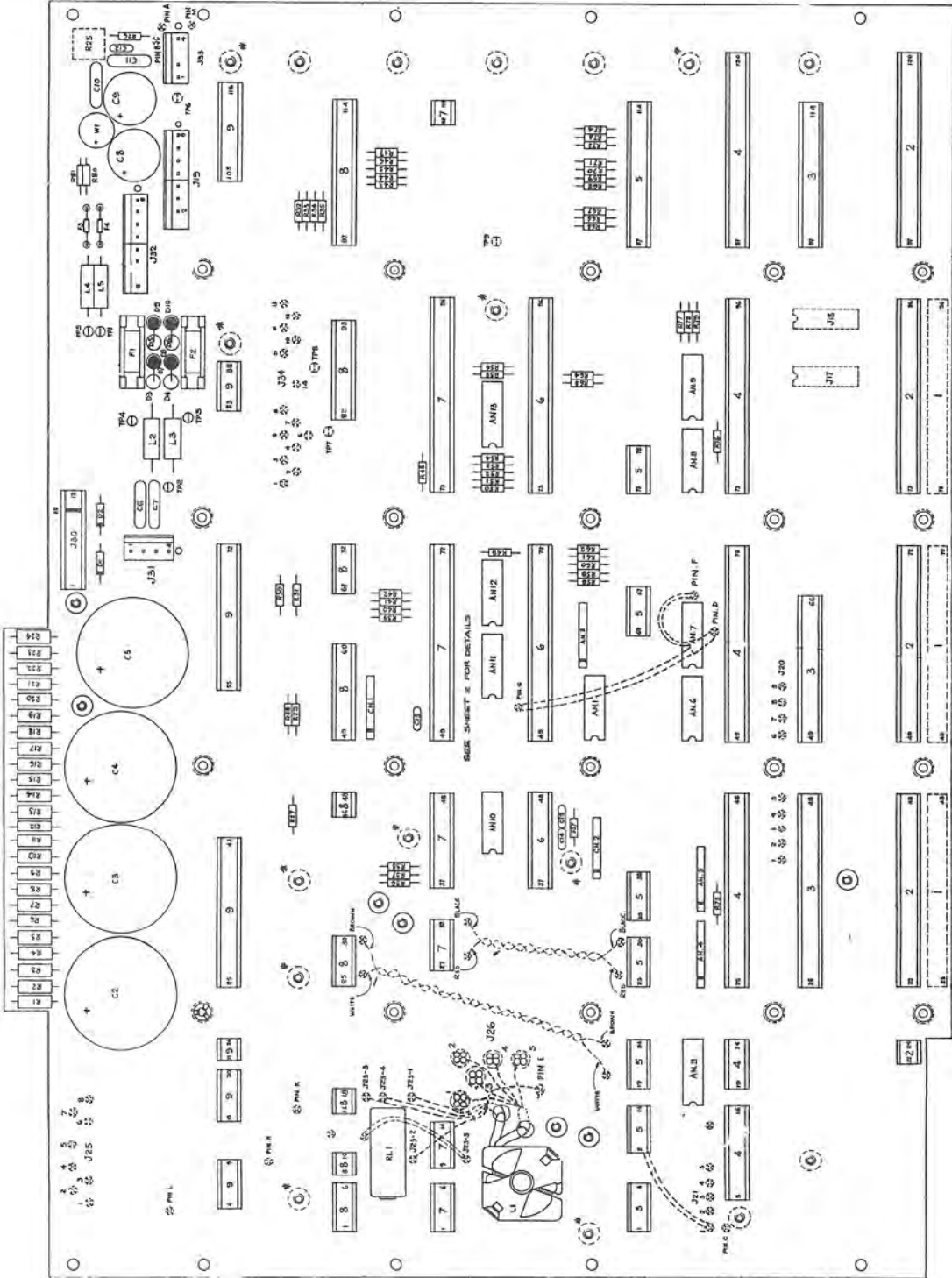
CONT ON SHEET 2

MOTHER ASSEMBLY

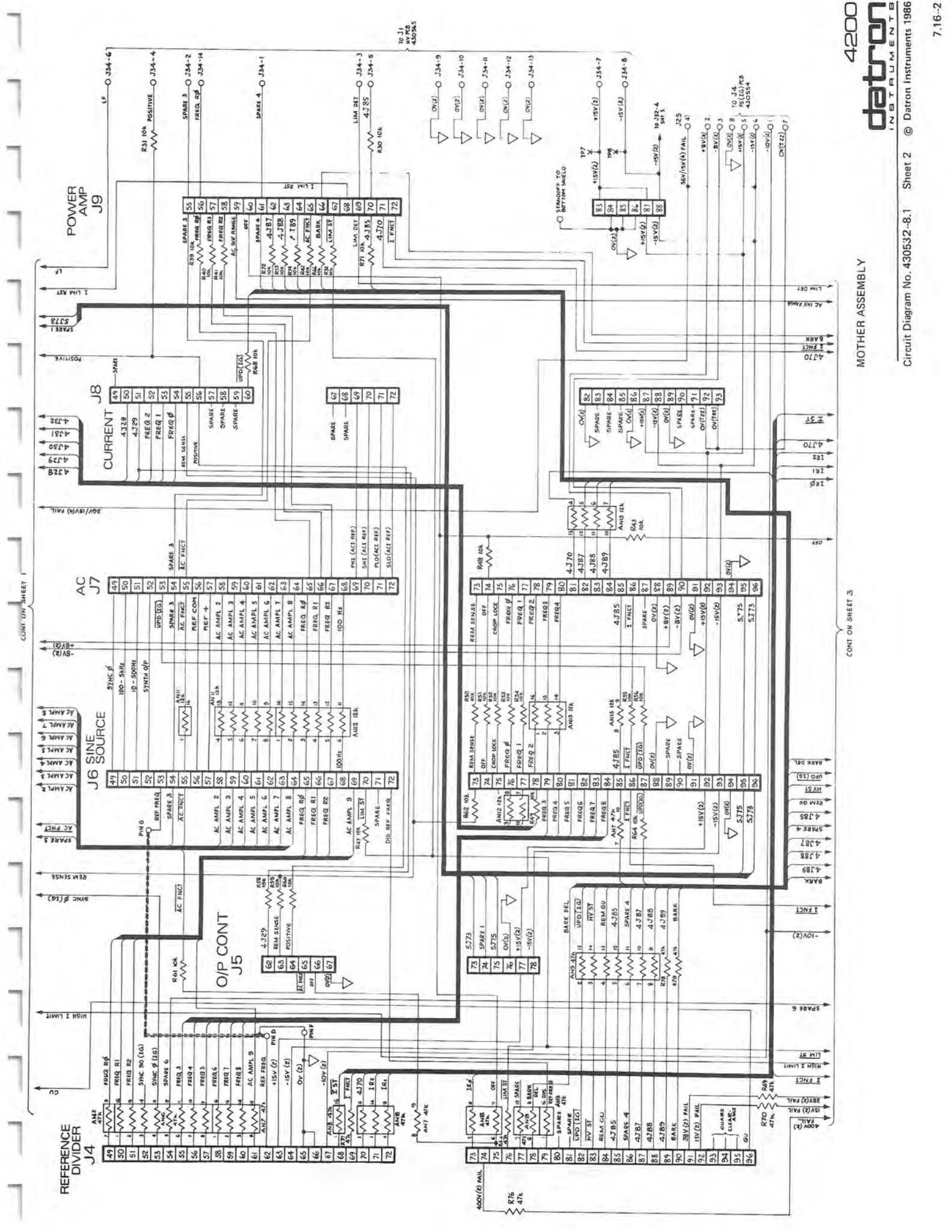




MOTHER ASSEMBLY



Connector and Pin numbers	Diagram:
J1 25-96	7.16-4
J2 22-120	7.16-4
J3 25-66 97-114	7.16-4
J4 5-16 19-48 49-96 97-120	7.16-1 7.16-2 7.16-4
J5 1-6 11-16 19-30 33-38 62-67 73-78 97-114	7.16-1 7.16-2 7.16-3
J6 37-48 49-96	7.16-1 7.16-2
J7 1-6 9-14 27-32 37-48 112-114	7.16-1 7.16-2 7.16-3
J8 1-6 8-10 16-18 25-30 46-48 49-60 67-72 82-93 97-114	7.16-1 7.16-2 7.16-3
J9 4-9 15-20 22-42 55-72 83-88 105-116	7.16-1 7.16-2 7.16-3
J17/18 1-16	7.16-4
J19 1-8	7.16-3
J20 1-9	7.16-4
J21/23 1-5	7.16-1
J25 1-8	7.16-2
J26 1-5	7.16-1
J30 1-2 6-7 11-12 J31/33 1-4 J32 1-8	7.16-5
J34 1-13	7.16-2
Pin A,B,C,M Pin D,F,G Pin H,J,K,L	7.16-5 7.16-2 7.16-1



CONT ON SHEET

CONT ON SHEET 3

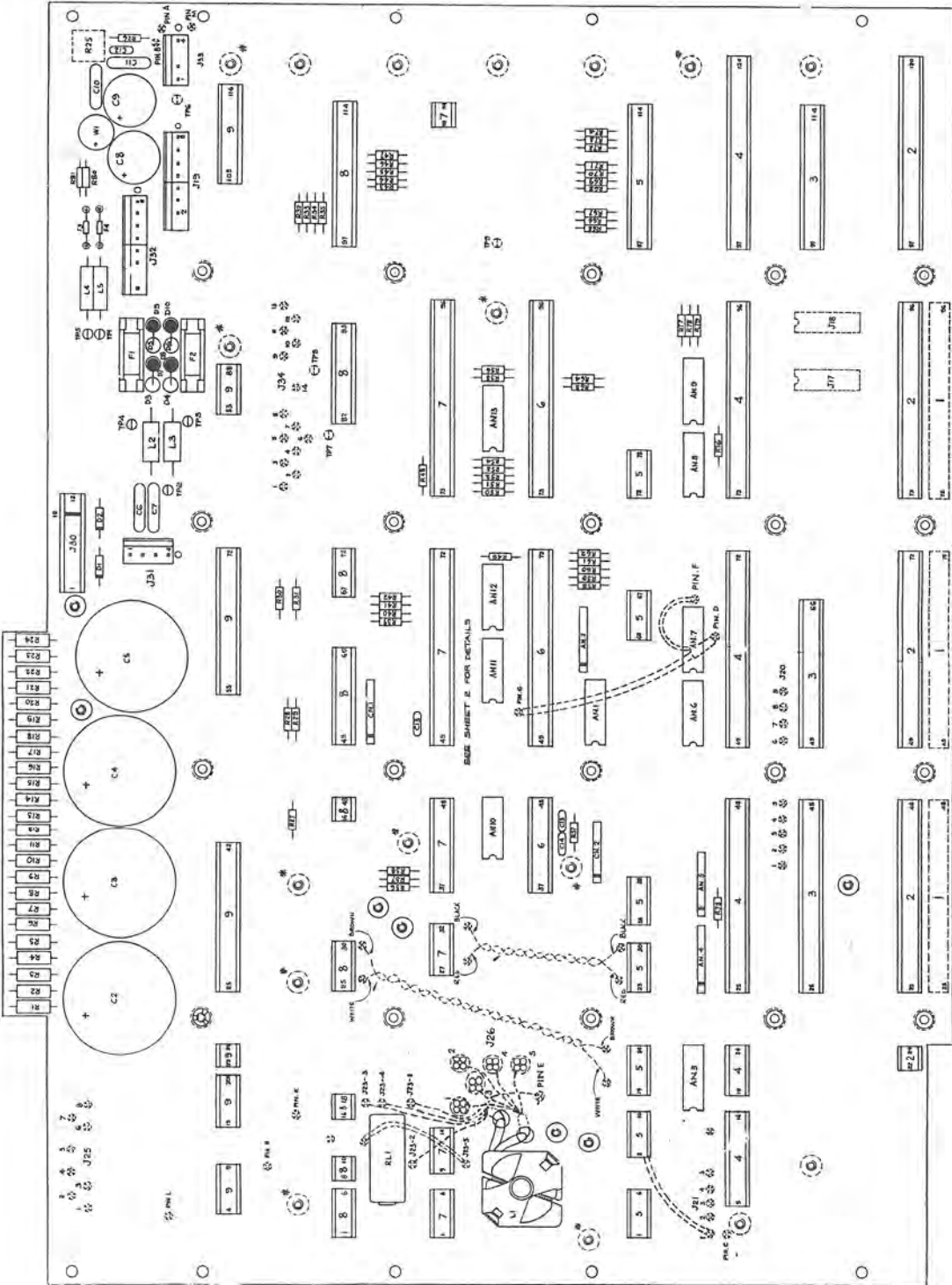
MOTHER ASSEMBLY

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Datron  
INSTRUMENTS

Circuit Diagram No. 430532-8.1 Sheet 2 © Datron Instruments 1986

7.16-2

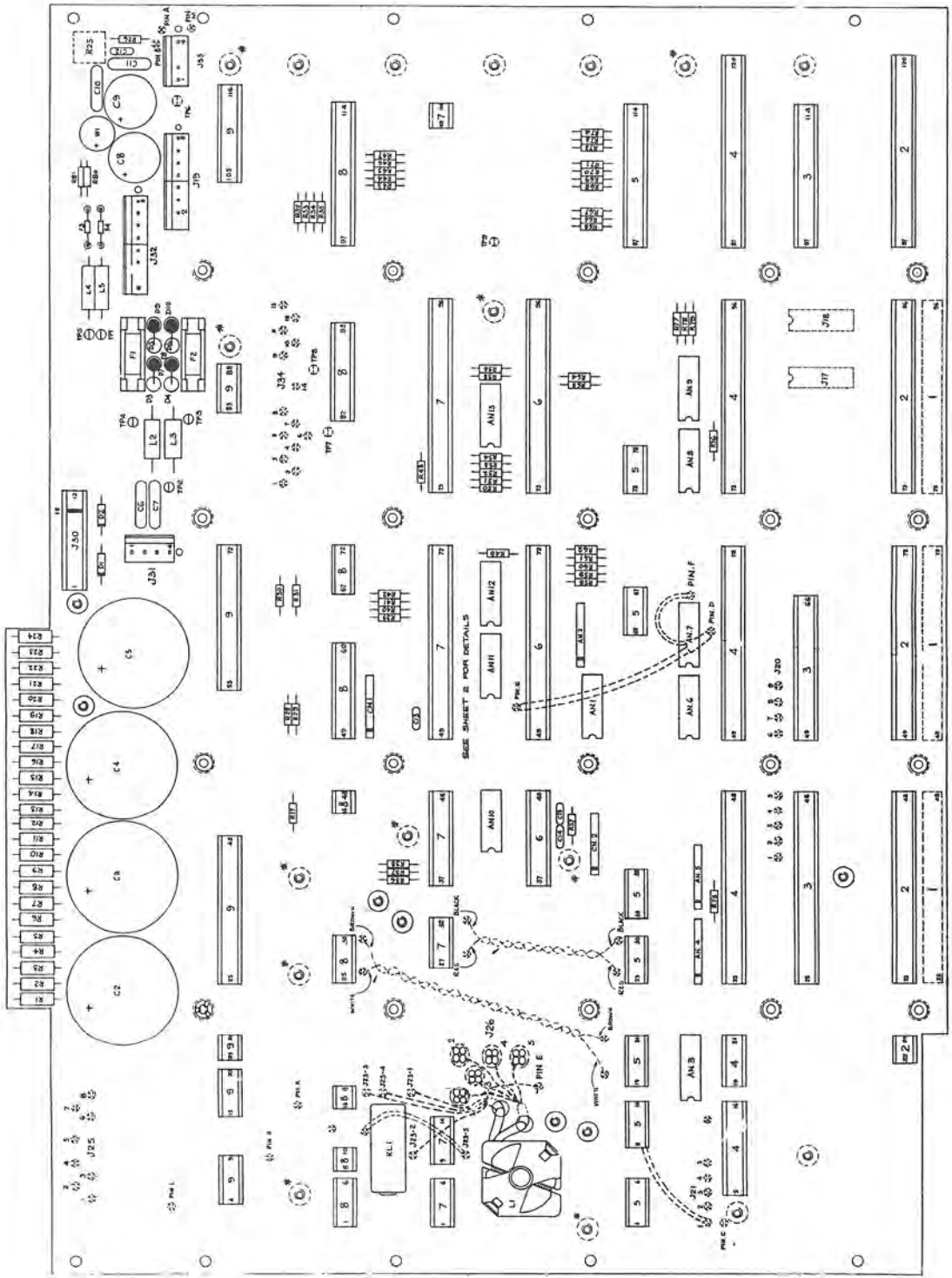
MOTHER ASSEMBLY



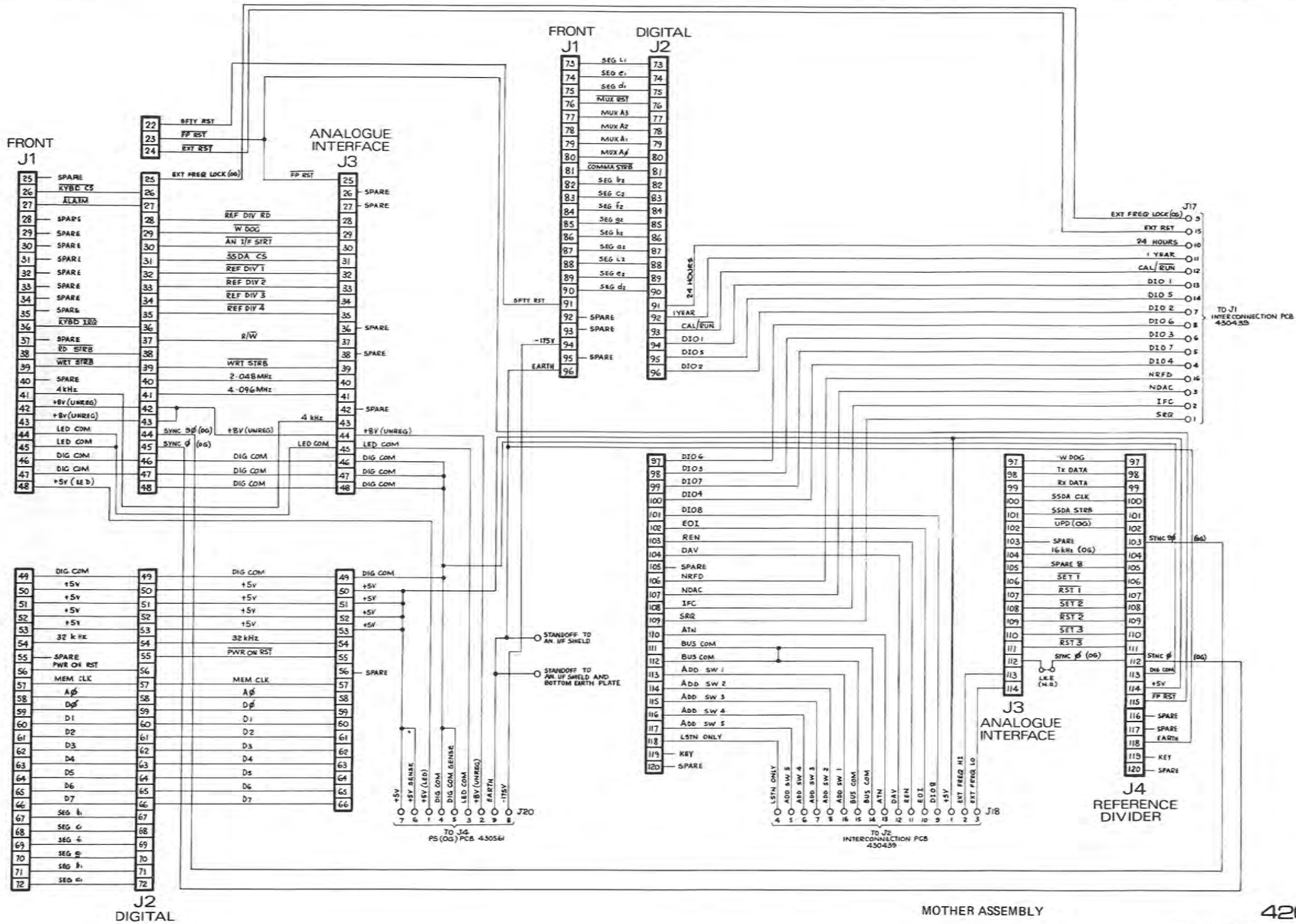
Connector and Pin numbers	Diagram:
J1 25-96	7.16-4
J2 22-120	7.16-4
J3 25-66 97-114	7.16-4
J4 5-16 19-48 49-96 97-120	7.16-1 7.16-2 7.16-4
J5 1-6 11-16 19-50 33-58 62-67 73-78 97-114	7.16-1 7.16-2 7.16-3
J6 37-48 49-96	7.16-1 7.16-2
J7 1-6 9-14 27-32 37-48 49-96 112-114	7.16-1 7.16-2 7.16-3
J8 1-6 8-10 16-18 25-50 46-48 49-60 67-72 82-93 97-114	7.16-1 7.16-2 7.16-3
J9 4-9 15-20 22-42 55-72 83-88 105-116	7.16-1 7.16-2 7.16-3
J17/18 1-16	7.16-4
J19 1-8	7.16-3
J20 1-9	7.16-4
J21/23 1-5	7.16-1
J25 1-8	7.16-2
J26 1-5	7.16-1
J30 1-2 6-7 11-12 J31/33 1-4 J32 1-8	7.16-5
J34 1-13	7.16-2
P.in A,B,C,M D,F,G H,J,K,L	7.16-5 7.16-2 7.16-1



MOTHER ASSEMBLY



Connector and Pin numbers	Diagram:
J1 25-96	7.16-4
J2 22-120	7.16-4
J3 25-66 97-114	7.16-4
J4 5-16 19-48 49-96 97-120	7.16-1 7.16-2 7.16-4
J5 1-6 11-16 19-30 33-38 62-67 73-78 97-114	7.16-1 7.16-2 7.16-3
J6 37-48 49-96	7.16-1 7.16-2
J7 1-6 9-14 27-32 37-48 49-96 112-114	7.16-1 7.16-2 7.16-3
J8 1-6 8-10 16-18 25-30 46-48 49-60 67-72 82-93 97-114	7.16-1 7.16-2 7.16-3
J9 4-9 15-20 22-42 55-72 83-88 105-116	7.16-1 7.16-2 7.16-3
J17/18 1-16	7.16-4
J19 1-8	7.16-3
J20 1-9	7.16-4
J21/23 1-5	7.16-1
J25 1-8	7.16-2
J26 1-5	7.16-1
J30 1-2 6-7 11-12 J31/33 1-4 J32 1-8	7.16-5
J34 1-13	7.16-2
Pin A,B,C,M Pin D,F,G Pin H,I,J,K,L	7.16-5 7.16-2 7.16-1



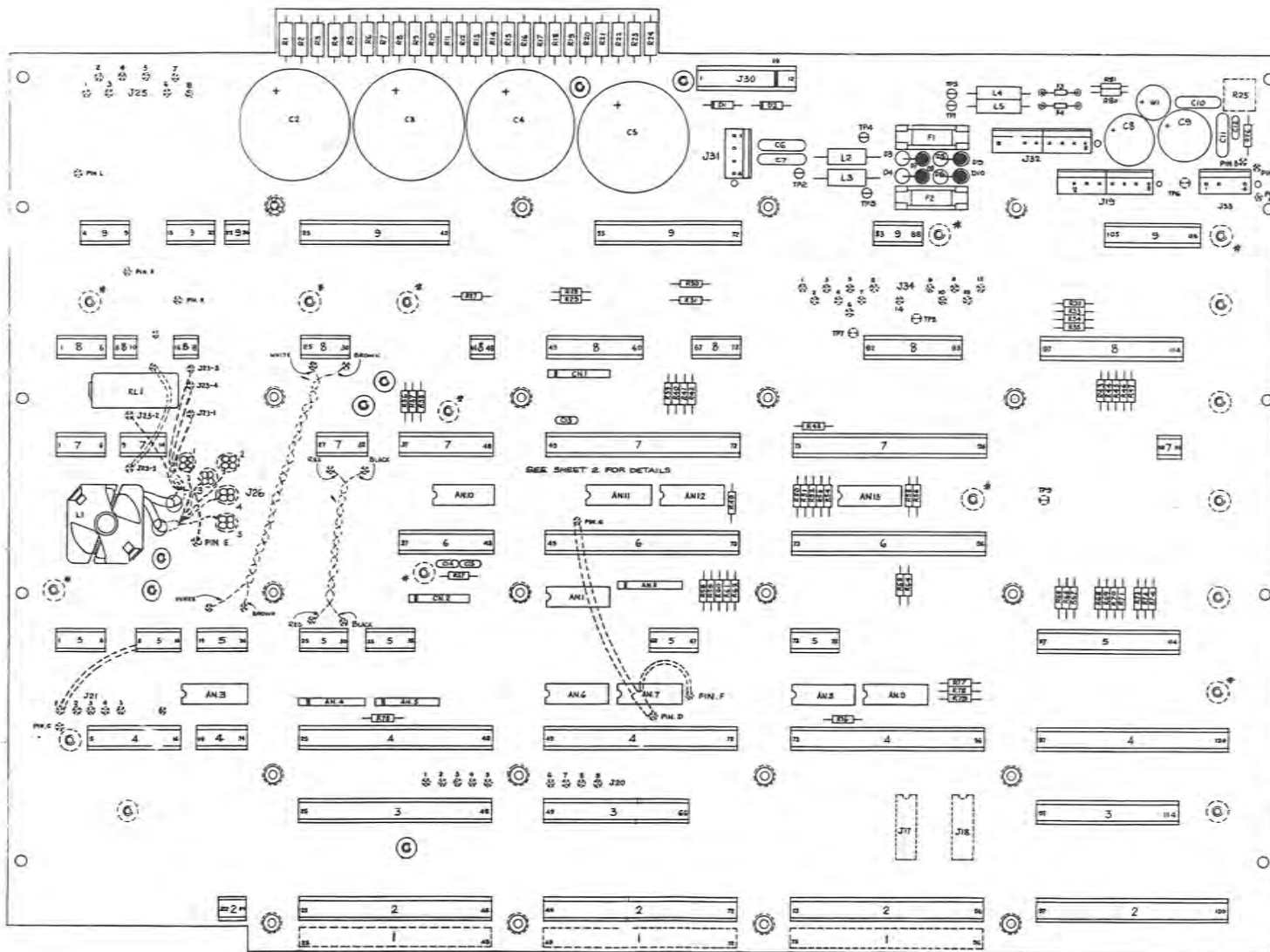
MOTHER ASSEMBLY

4200

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INSTRUMENTS

Circuit Diagram No. 430532-8.0 Sheet 4 © Datron Instruments 1986

MOTHER ASSEMBLY

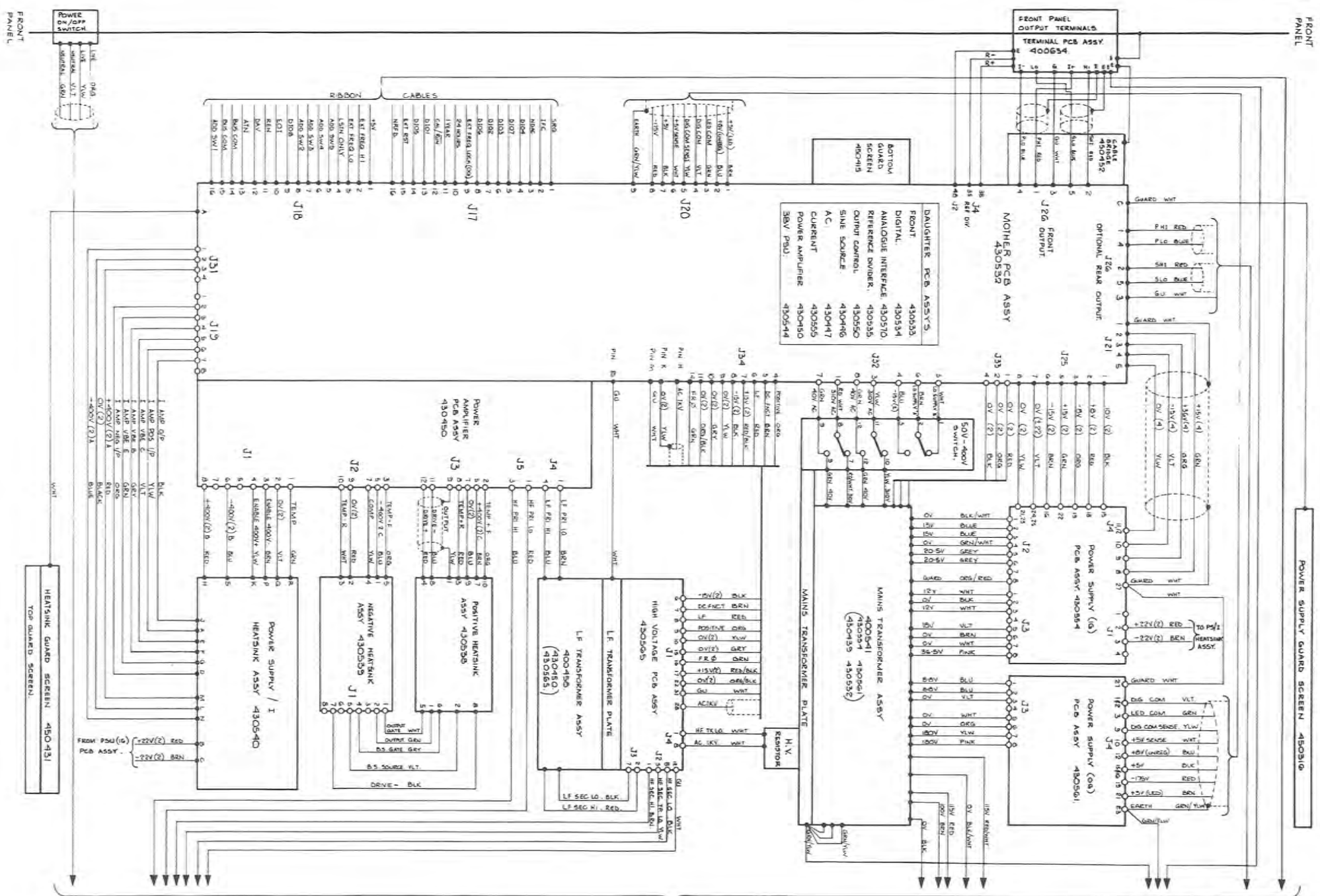


Connector and Pin numbers	Diagram:
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J2 22-120	7.16-4
J3 25-66 97-114	7.16-4
J4 5-16 19-48 49-96 97-120	7.16-1 7.16-2 7.16-4
J5 1-6 11-16 19-30 33-38 62-67 73-78 97-114	7.16-1 7.16-2 7.16-3
J6 37-48 49-96	7.16-1 7.16-2
J7 1-6 9-14 27-32 37-48 49-96 112-114	7.16-1 7.16-2 7.16-3
J8 1-6 8-10 16-18 25-30 46-48 49-60 67-72 82-93 97-114	7.16-1 7.16-2 7.16-3
J9 4-9 15-20 22-42 55-72 83-88 105-116	7.16-1 7.16-2 7.16-3
J17/18 1-16	7.16-4
J19 1-8	7.16-3
J20 1-9	7.16-4
J21/23 1-5	7.16-1
J25 1-8	7.16-2
J26 1-5	7.16-1
J30 1-2 6-7 11-12 J31/33 1-4 J32 1-8	7.16-5
J34 1-13	7.16-2
Pin A,B,C,M Pin D,F,G Pin H,J,K,L	7.16-5 7.16-2 7.16-1

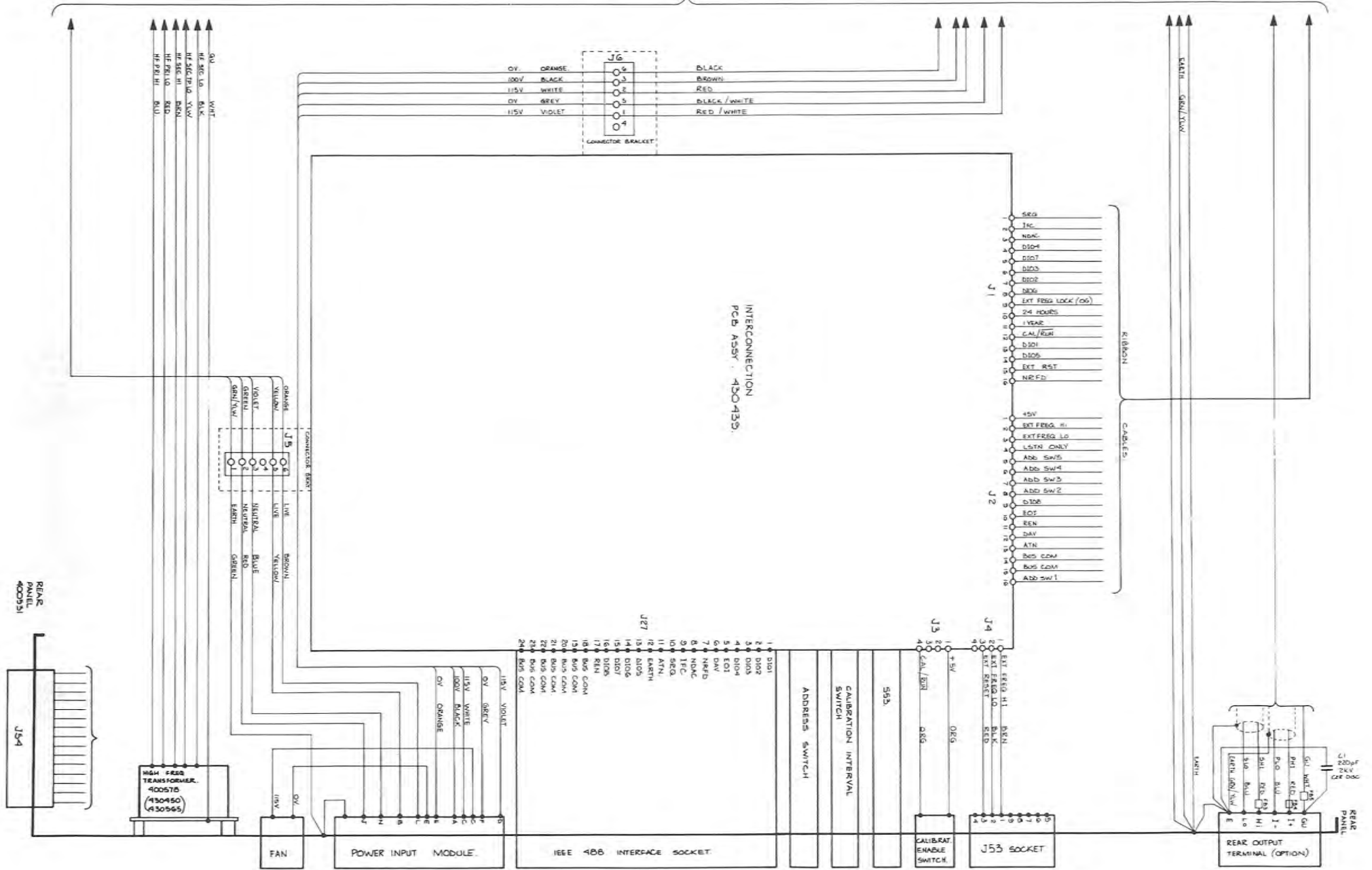




INTERCONNECTIONS



CONTINUED ON SHEET 2.

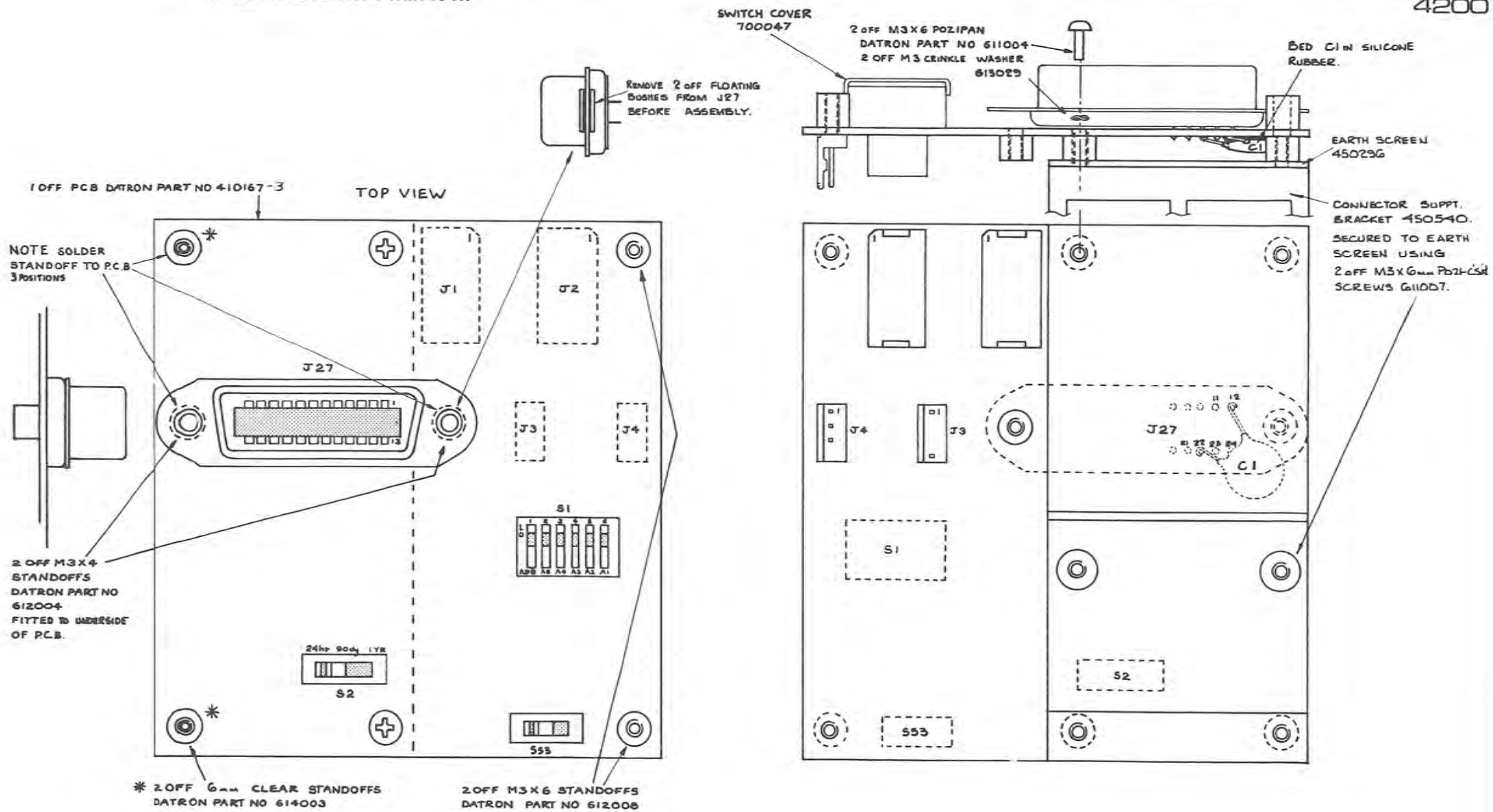


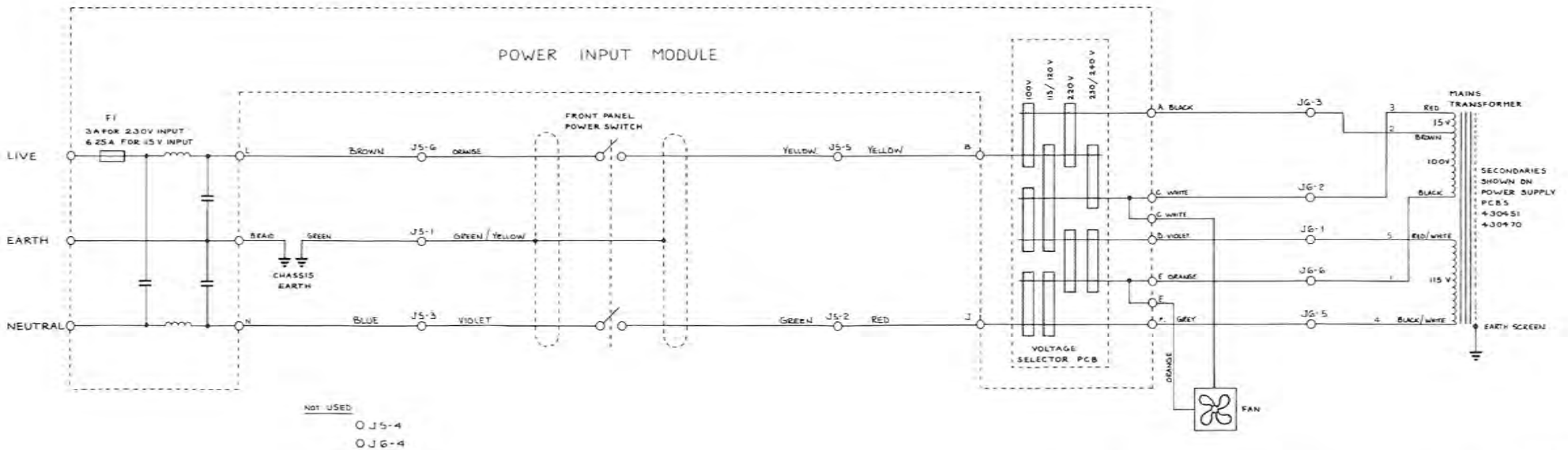
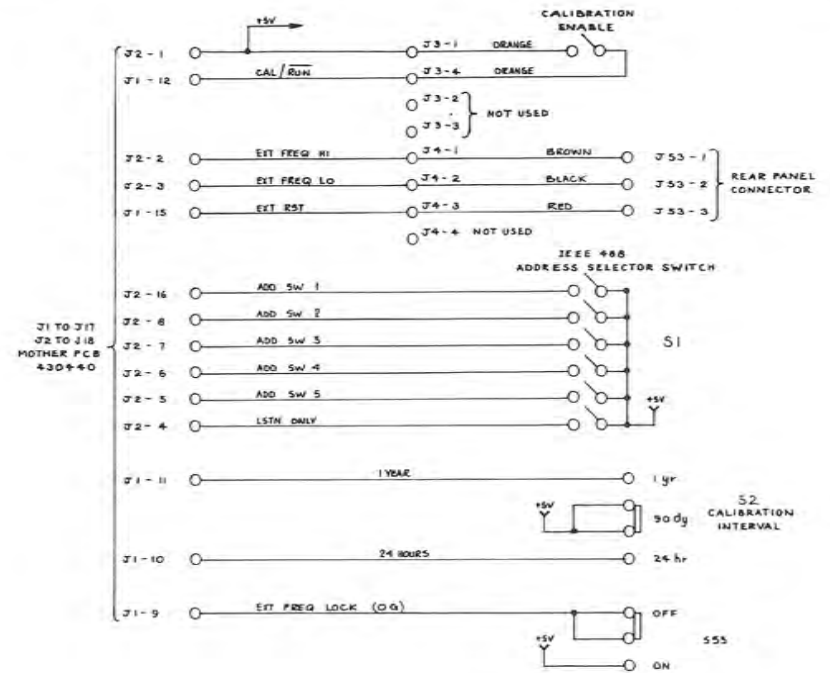
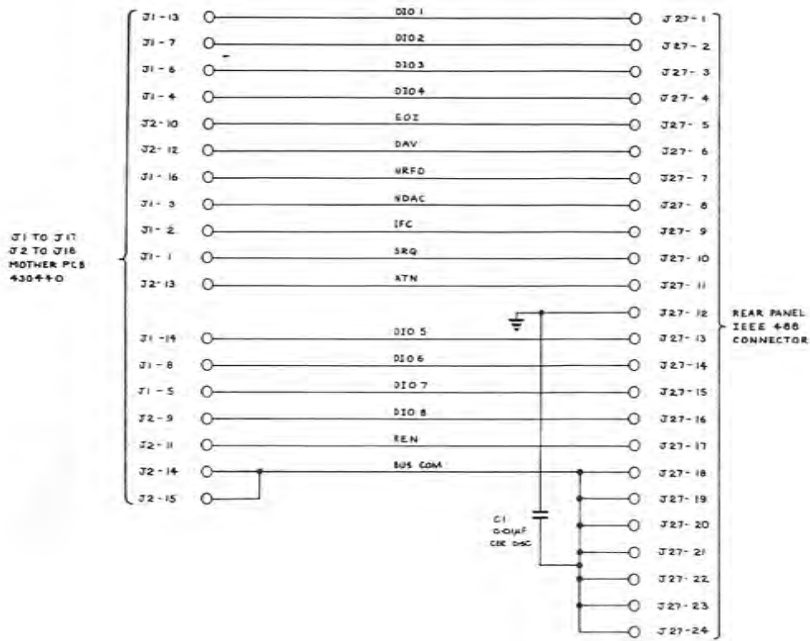
INTERCONNECTIONS

# THIRD ANGLE PROJECTION

DRAWN IN ACCORDANCE WITH BS 308

## INTERCONNECTION ASSEMBLY





INTERCONNECTION ASSEMBLY

Interconnections, Power Input Module  
and Mains Transformer Primary

Circuit Diagram No. 430439-3.0 Sheet 1 © Datron Instruments 1986

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INSTRUMENTS

TERMINAL BOARD ASSEMBLY



SLEEVE ALL FERRITE BEADS.  
 FB1 & FB2 USE  $\phi$  4 HEATSHRINK SLEEVE 590003.  
 FB3, FB4, FB5 & FB6, USE  $\phi$  4.8 HEATSHRINK SLEEVE 590032.  
 ASSEMBLE FB3, FB4, FB5 & FB6, ON CHOKE LEADS AS SHOWN.  
 FB1 & FB2 FITTED ON TINNED COPPER WIRE 540002.

WASHER SUPPLIED WITH TERMINAL IS NOT TO BE USED AS IT IS TOO LARGE.  
 SECURE TERMINAL USING :-  
 2 OFF M4 SHAKEPROOF. G13021 } PER TERMINAL.  
 1 OFF M4 PLAIN WASHER G13020 }  
 USE NUTS AS SUPPLIED WITH TERMINALS.

TERMINAL PLATE  
 450269

REMOVE SOLDER TURRET ENDS FROM TERMINALS.

SOLDER PIPS  
 2mm MAX.

13 OFF SOLDER PIN  
 G20003.

BEFORE TIGHTENING TERMINALS  
 ENSURE HOLES ARE IN THE  
 VERTICAL POSITION.

- 1 OFF BLACK TERMINAL 920122
- 1 OFF RED/BLK TERMINAL 920123
- 1 OFF BRN/BLK TERMINAL 920134
- 1 OFF BLU/BLK TERMINAL 920135
- 1 OFF WHT/BLK TERMINAL 920136
- 1 OFF GRN/BLK TERMINAL 920137

180mm 7/0-2 PTFE INS. WHITE 512999.

740mm GRN/YLW 16/0-2 PVC INS  
 521006.  
 M3 SOLDER TAG G13009.  
 20mm  $\phi$  2.4 HEATSHRINK SLEEVE  
 590006.

85mm GRN/YLW 16/0-2 PVC INS  
 521006.  
 M2 SOLDER TAG G13039.  
 20mm  $\phi$  2.4 HEATSHRINK  
 SLEEVE 590006.

110mm GREEN/YLW  
 16/0-2 PVC INS. 521006  
 STRIP ENDS 5mm & SOLDER TIN.

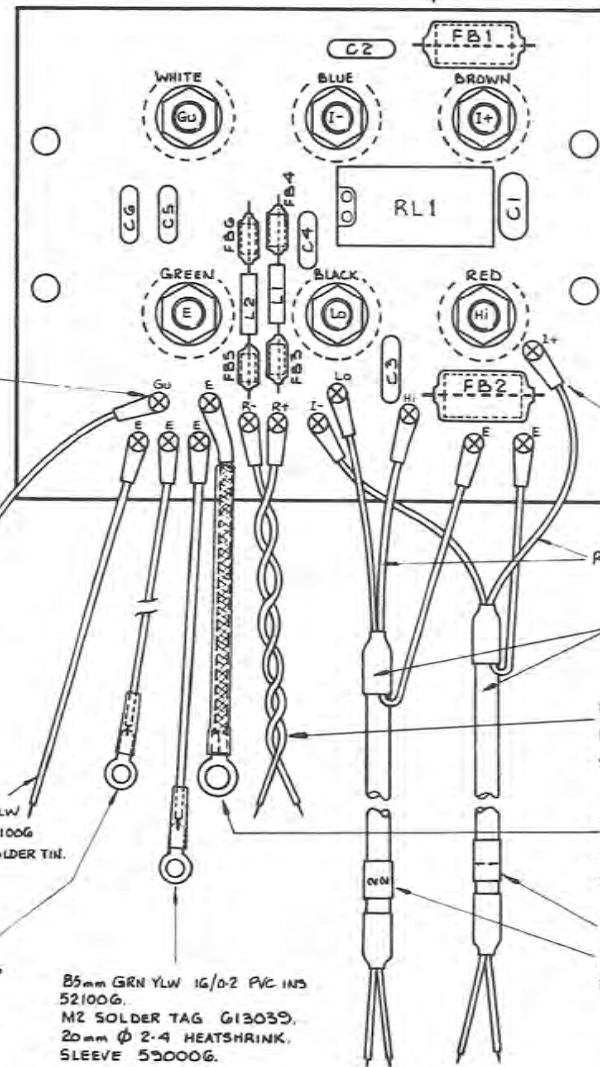
SLEEVE WIRE CONNECTIONS WITH SLEEVE  
 590001 - 1/2 PER CONNECTION.

2 OFF FRONT OUTPUT CABLES  
 400576.

R+ 140mm 7/0-2 PTFE INS. GREY 512888.  
 R- 140mm 7/0-2 PTFE INS. YELLOW 512444  
 STRIP ENDS 5mm & SOLDER TIN.

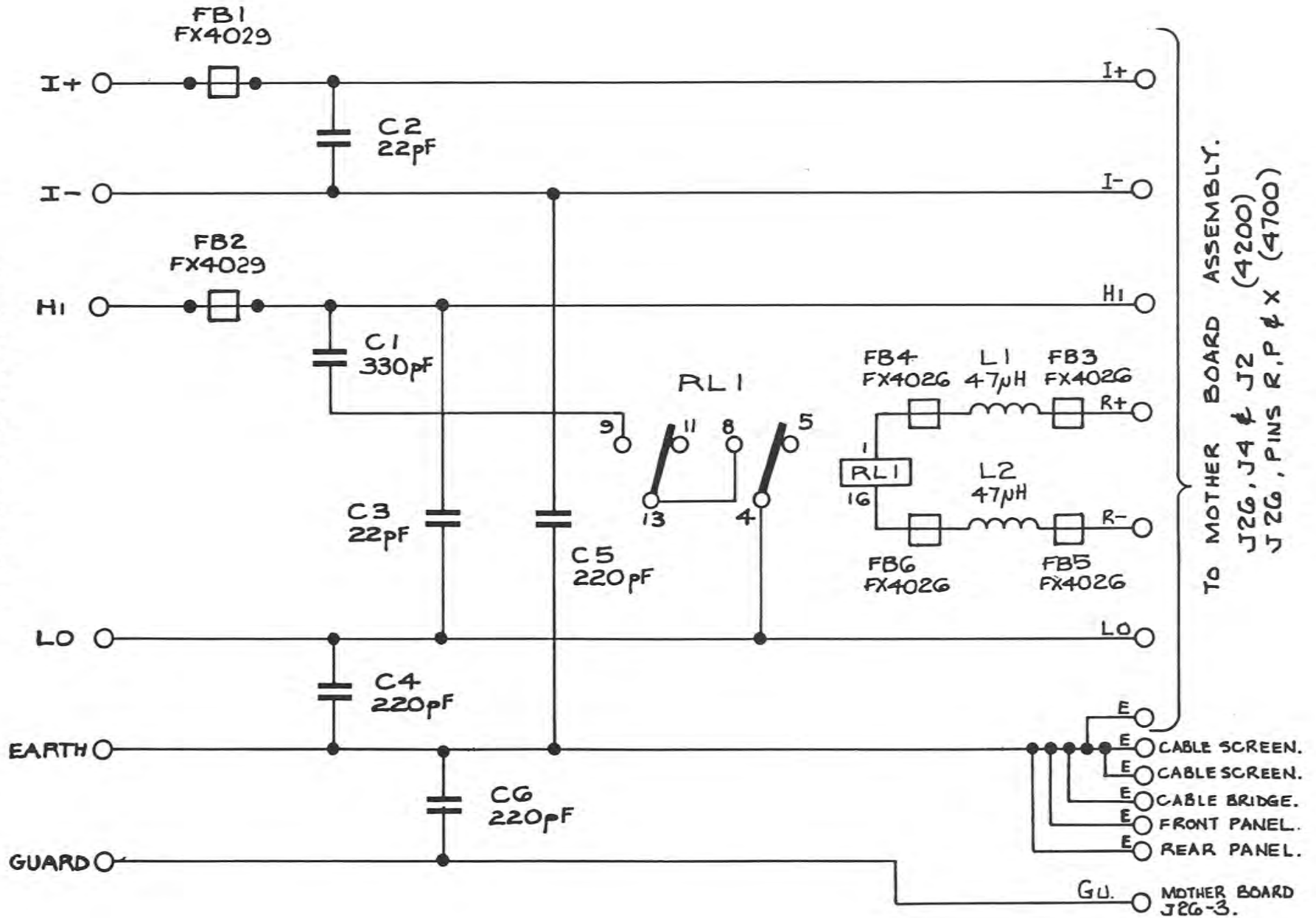
EARTH BRAID ASSEMBLY 400184.  
 CUT TO 50mm OVERALL.  
 SLEEVE BRAID WITH 35mm  $\phi$  4.8 HEATSHRINK  
 SLEEVE 590032.

1 OFF HEATSHRINK MARKER (1) 590017  
 1 OFF HEATSHRINK MARKER (2) 590018  
 FITTED AS SHOWN.



PC.B 410309-1

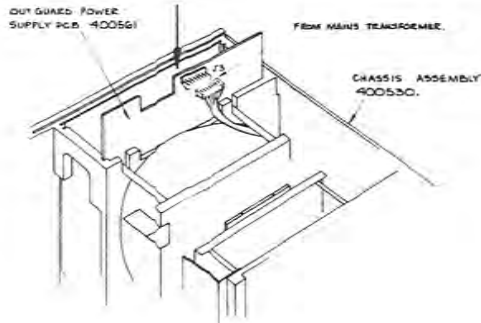
FRONT TERMINALS



TO MOTHER BOARD ASSEMBLY.  
 J26, J4 & J2 (4200)  
 J26, PINS R, P & X (4700)

MAIN ASSEMBLY

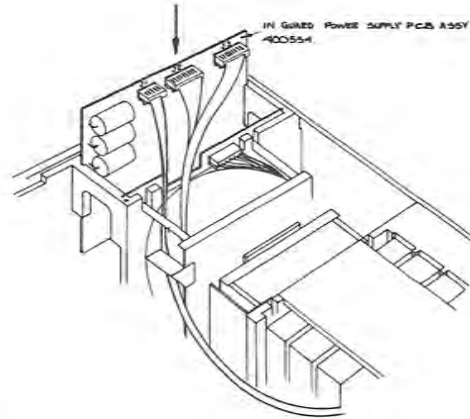
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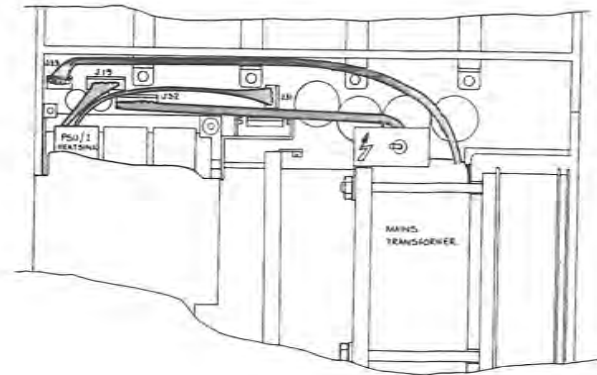
**NOTE.**  
CLEAN ALL PCB EDGE CONTACTS WITH CLEANING FLUID 900018 BOTH BEFORE INITIAL ASSEMBLY & AT FINAL INSTRUMENT FINISHING.  
STEPS. 1, 2, 4, 5 & 6

2

**INGATED PSU PCB CONNECTIONS**  
J1. FROM POWER SUPPLY HEATSINK.  
J2. FROM MAINS TRANSFORMER.  
J3. FROM MAINS TRANSFORMER.

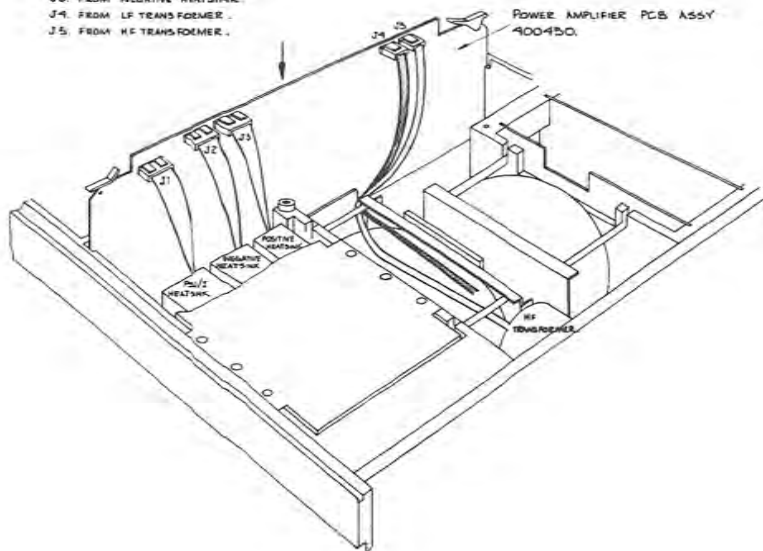


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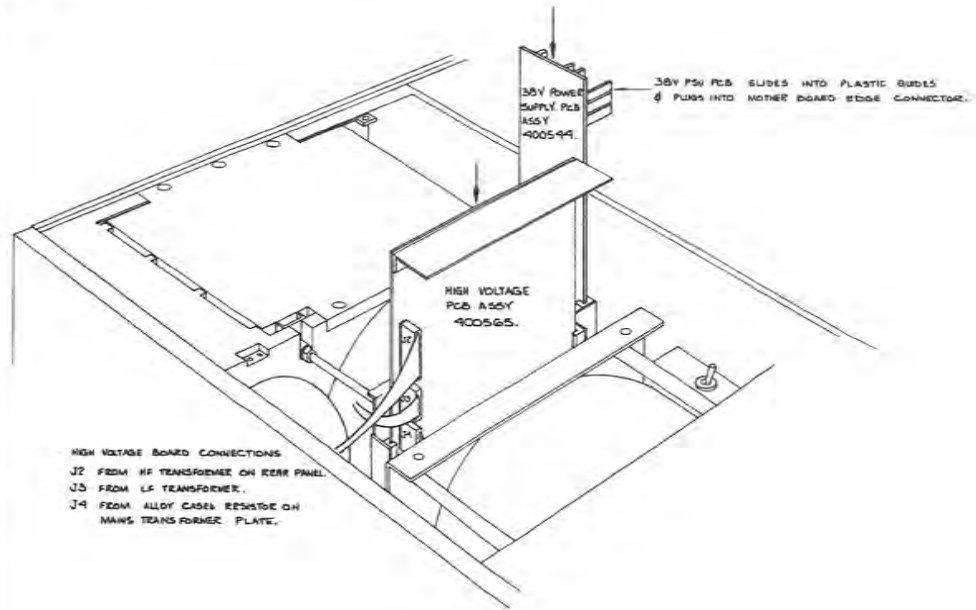


4

**POWER AMP BOARD CONNECTIONS**  
J1. FROM PSU/1 HEATSINK.  
J2. FROM POSITIVE HEATSINK.  
J3. FROM NEGATIVE HEATSINK.  
J4. FROM LF TRANSFORMER.  
J5. FROM HF TRANSFORMER.



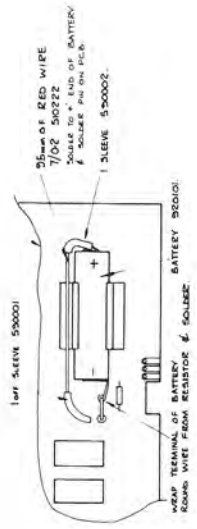
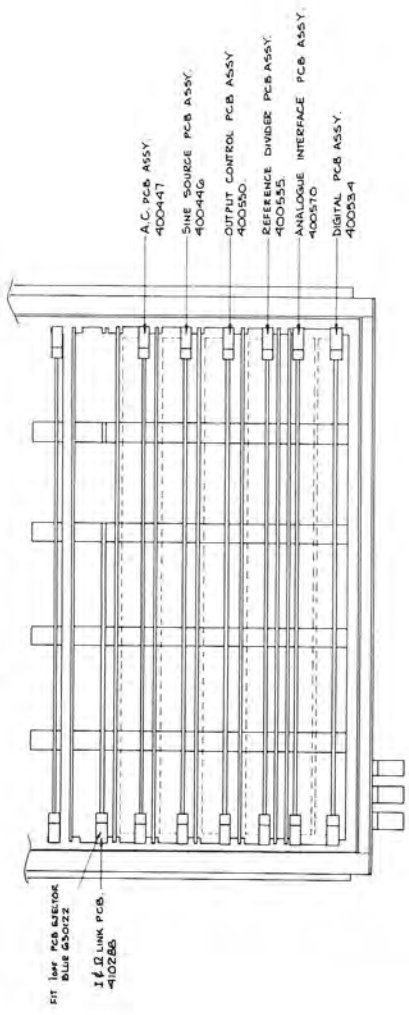
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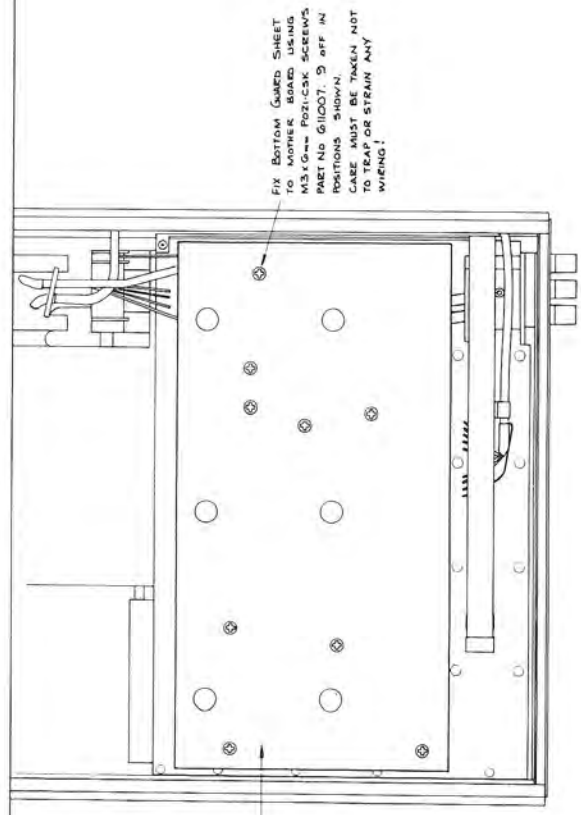
**HIGH VOLTAGE BOARD CONNECTIONS**  
J2 FROM HF TRANSFORMER ON REAR PANEL.  
J3 FROM LF TRANSFORMER.  
J4 FROM ALLOY CASE RESISTOR ON MAINS TRANSFORMER PLATE.

6

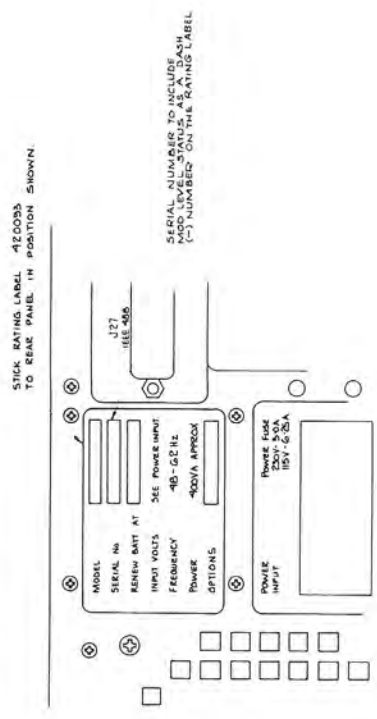
NOTE  
CLEAN ALL PCB EDGE CONTACTS WITH CLEANING FLUID 500016 BOTH BEFORE INITIAL ASSEMBLY AND AT FINAL INSTRUMENT FINISHING.



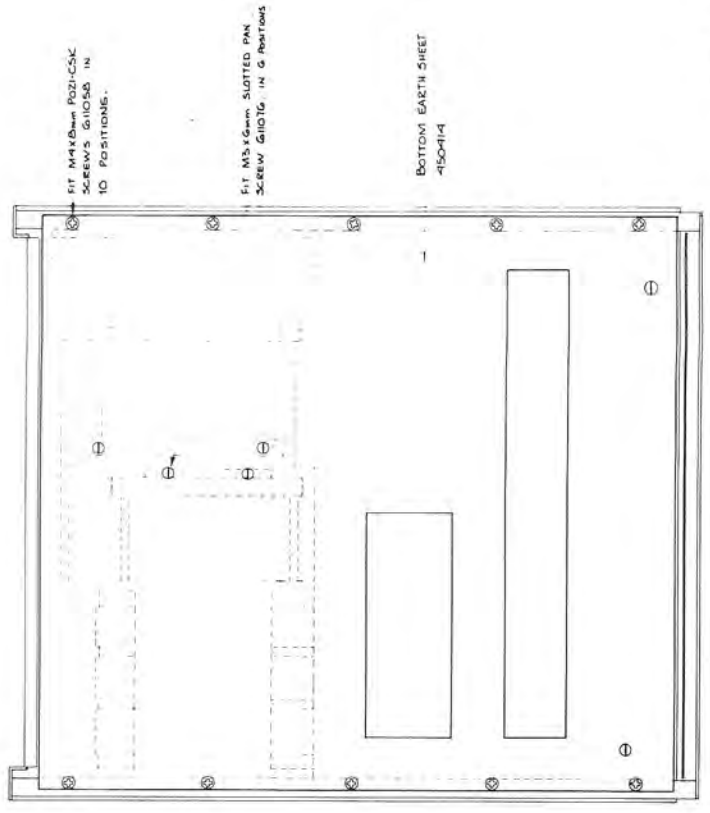
8



7



9



MAIN ASSEMBLY



MAIN ASSEMBLY

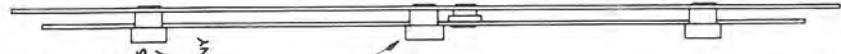
10

TOP EARTH GUARD ASSEMBLY.

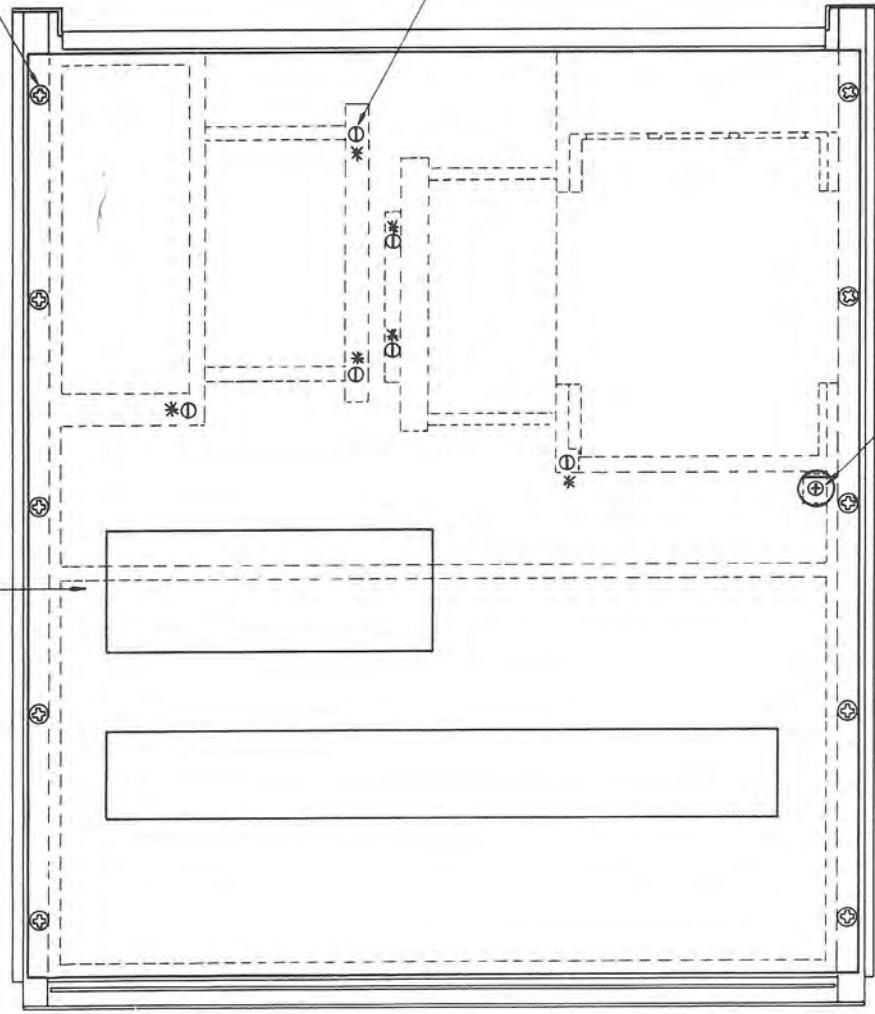
FIT M4X0.5mm POZI-PAK SCREWS G11055 IN 10 POSITIONS.

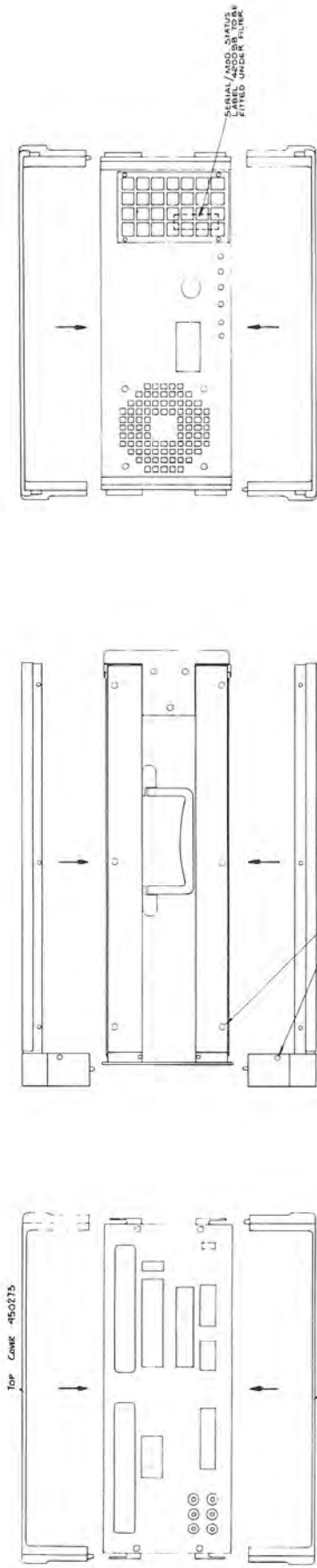
FIT M3X0.5mm SLOTTED-PAN SCREW G11076 IN SIX POSITIONS. MARKED \*

M3 X 12mm POZI-PAN SCREW G11005  
M3 SHAKEPROOF WASHER G13005.



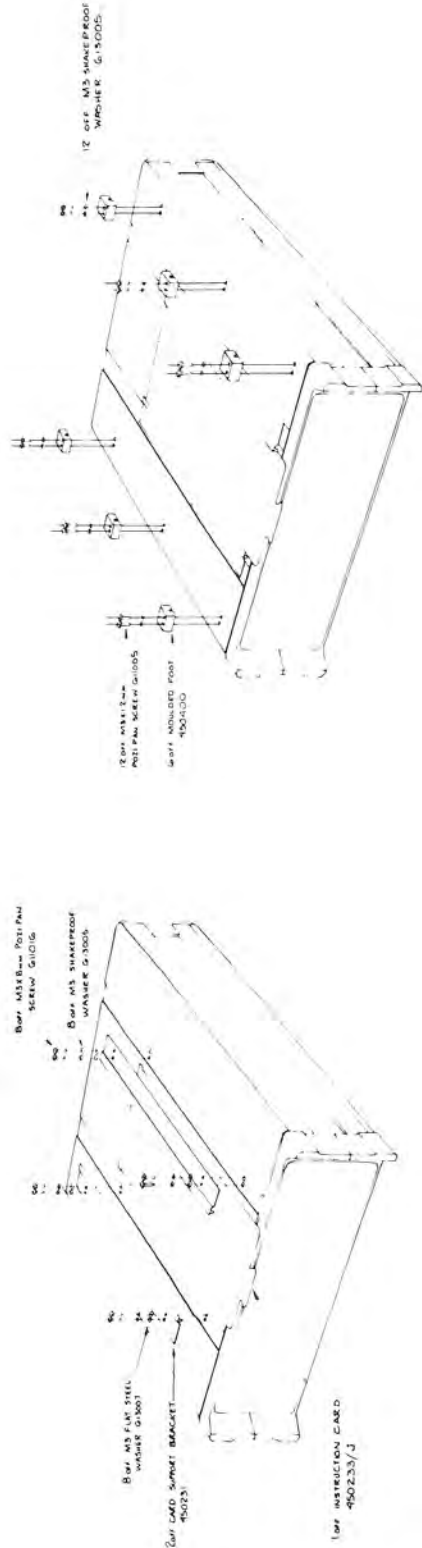
TOP EARTH GUARD ASSY HAS PCB RETAINING BARS WHICH MUST BE CAREFULLY POSITIONED ON PCB'S BEFORE INSERTING ANY FIXING SCREWS.





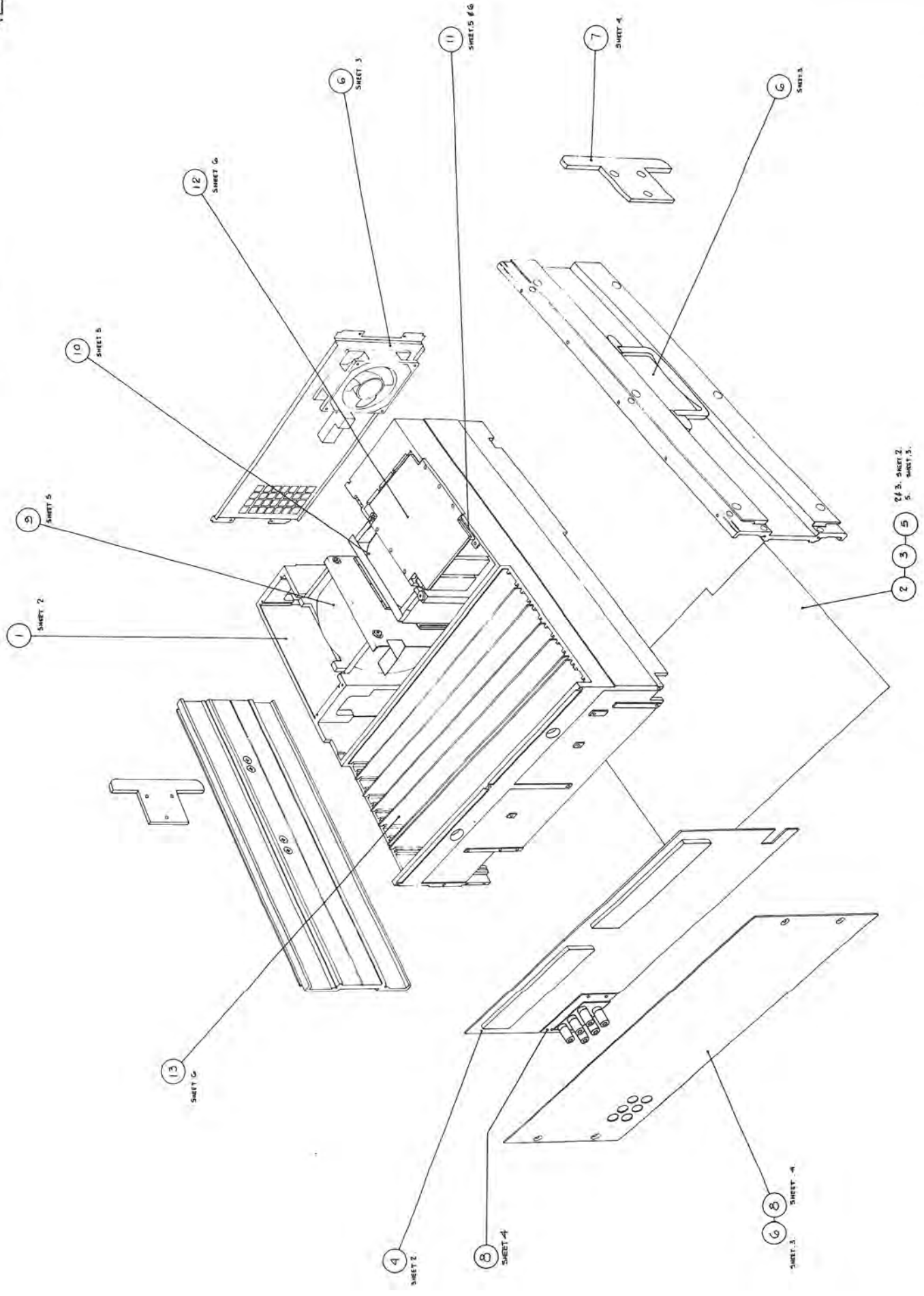
FIT M4X12mm SOCKET HEAD CSK SCREWS  
G10356 IN 16 POSITIONS.

FIT INTO CAL & SERV. MAINS DOOR :-  
1 off 320059 SA 1W ANTISURFACE FUSE  
1 off 030103 2.5mm A/F HER KEY  
2 off CAL SWITCH KEYS (FROM REAR PANEL ASSY)

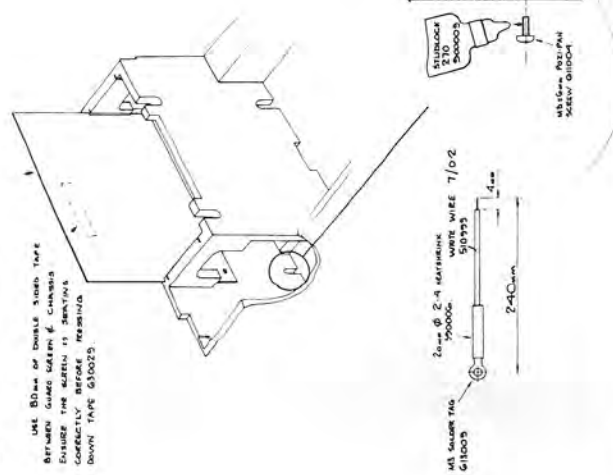


MAIN ASSEMBLY

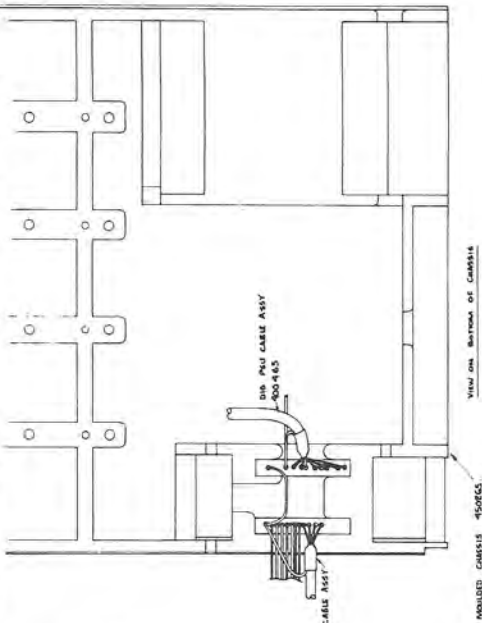
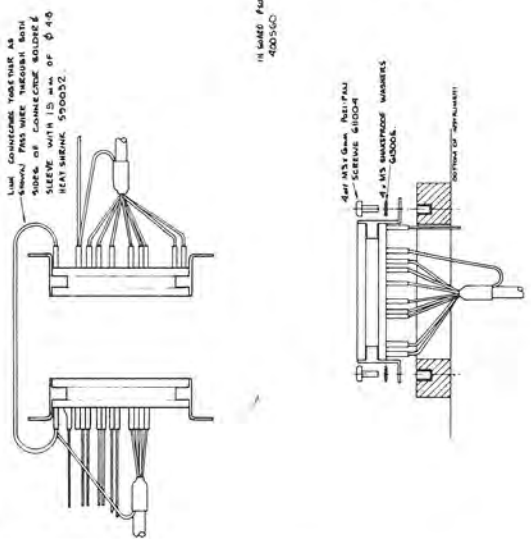
CHASSIS ASSEMBLY



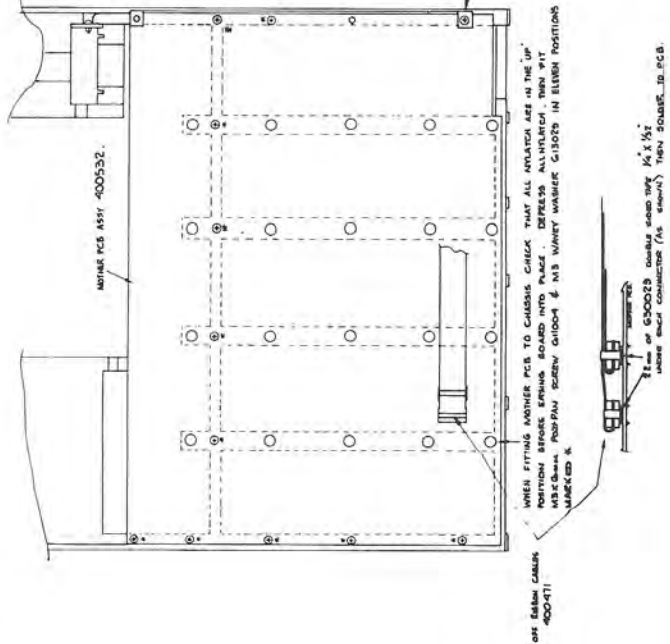
1 POWER SUPPLY GUARD SCREEN 400531G



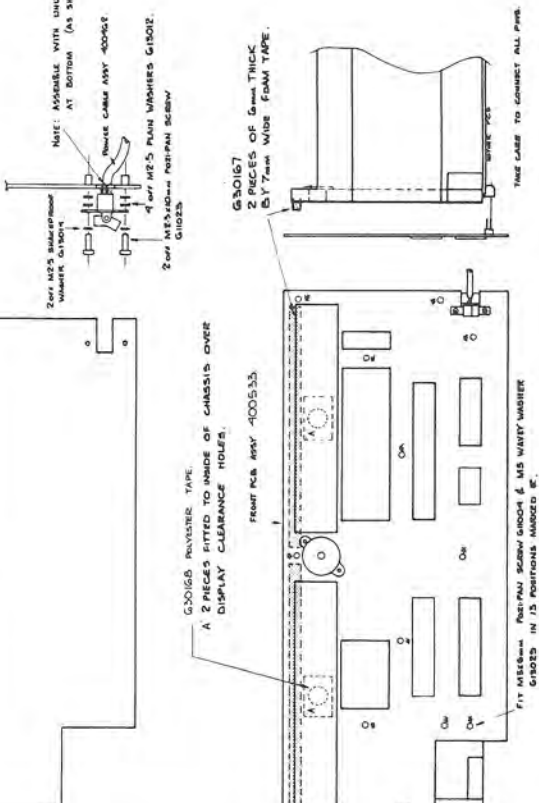
2



3

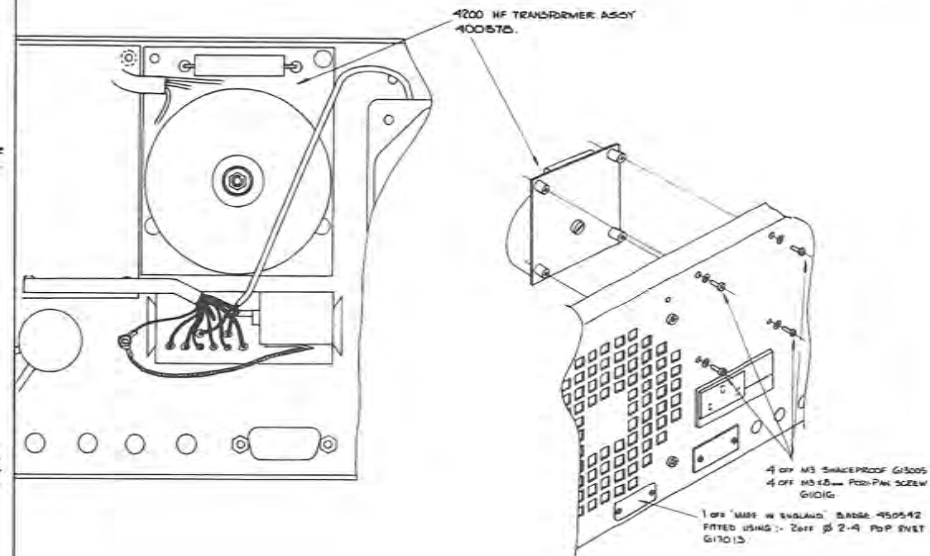
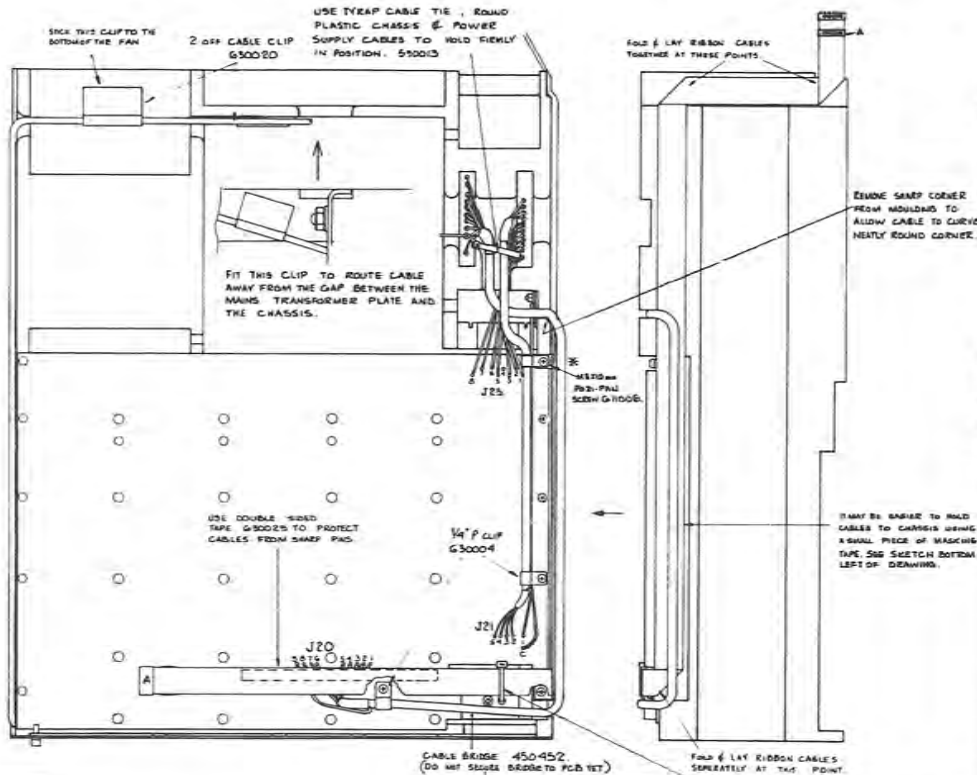


4

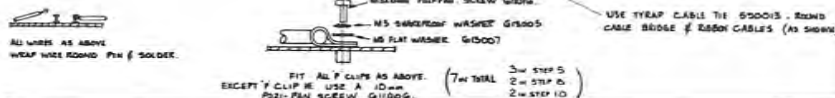


CHASSIS ASSEMBLY

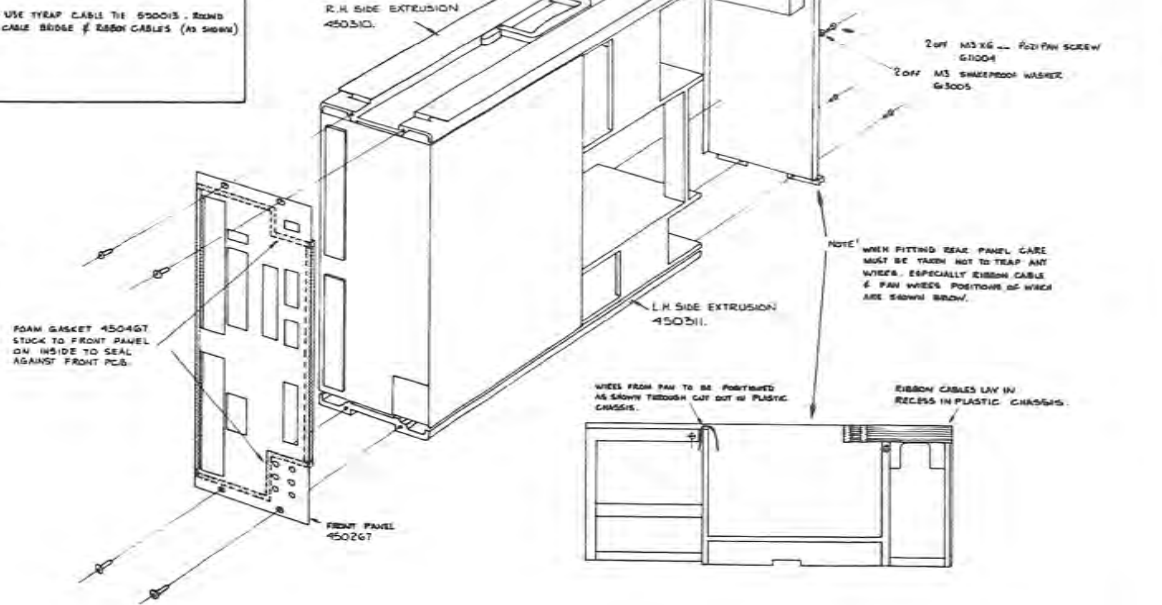
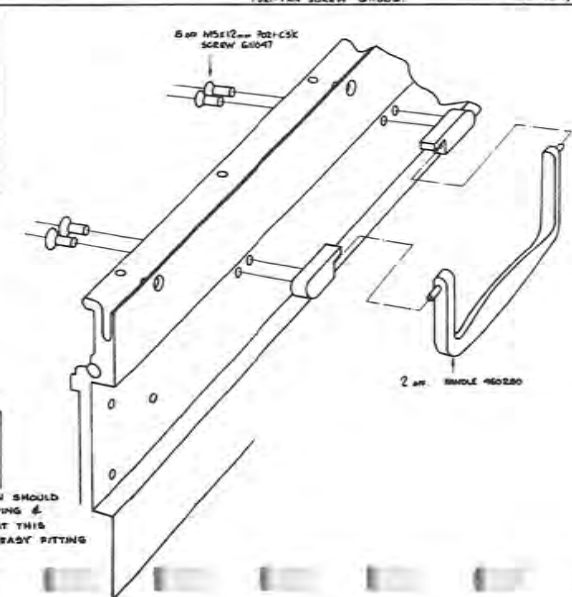
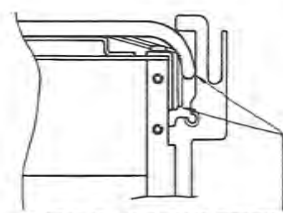
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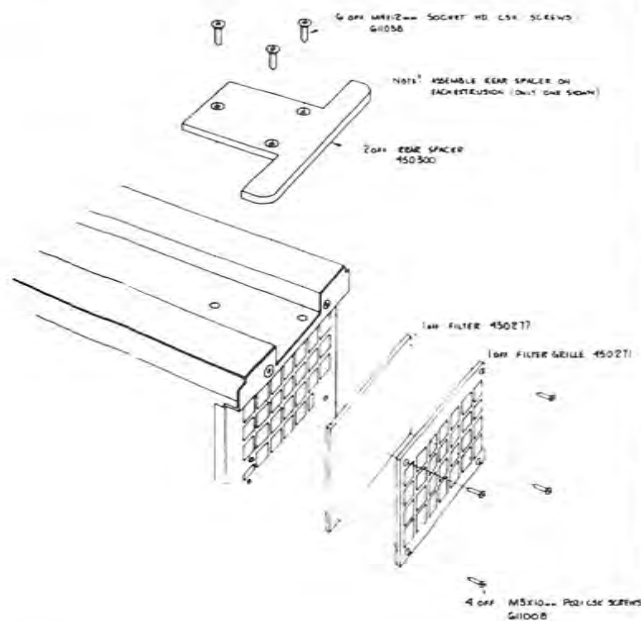
Pin No	COLOUR	CABLE ONLY NO
J25-1	BLACK	400560
J25-2	RED	-
J25-3	ORANGE	-
J25-4	IND CONNECTION	-
J25-5	GREEN	400560
J25-6	BROWN	-
J25-7	VIOLET	-
J25-8	YELLOW	-
J21-1	WHITE	-
J21-2	GREEN	-
J21-3	ORANGE	-
J21-4	VIOLET	-
J21-5	YELLOW	-
J21-6	WHITE FROM STEP 1	-
J20-3	NOT FITTED	-
J20-6	SPRING TYPAL	400563
J20-7	BLACK	-
J20-8	WHITE	-
J20-9	YELLOW	-
J20-4	VIOLET	-
J20-5	GREEN	-
J20-2	RED	-
J20-1	BROWN	-



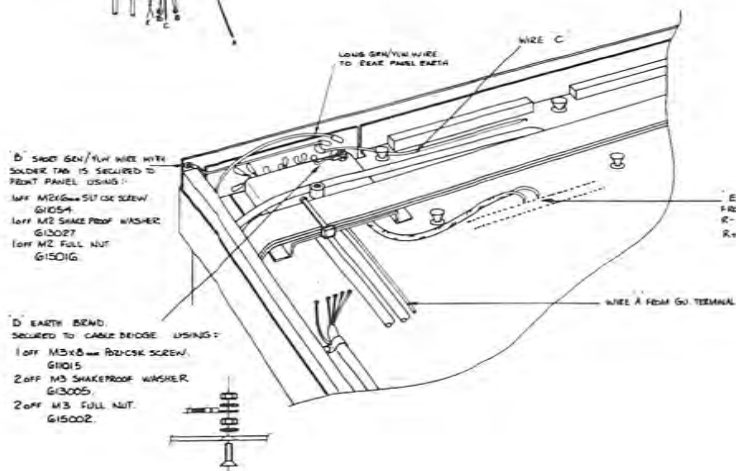
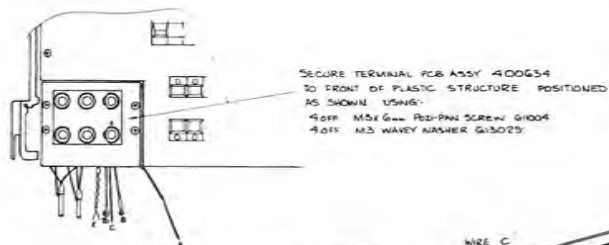
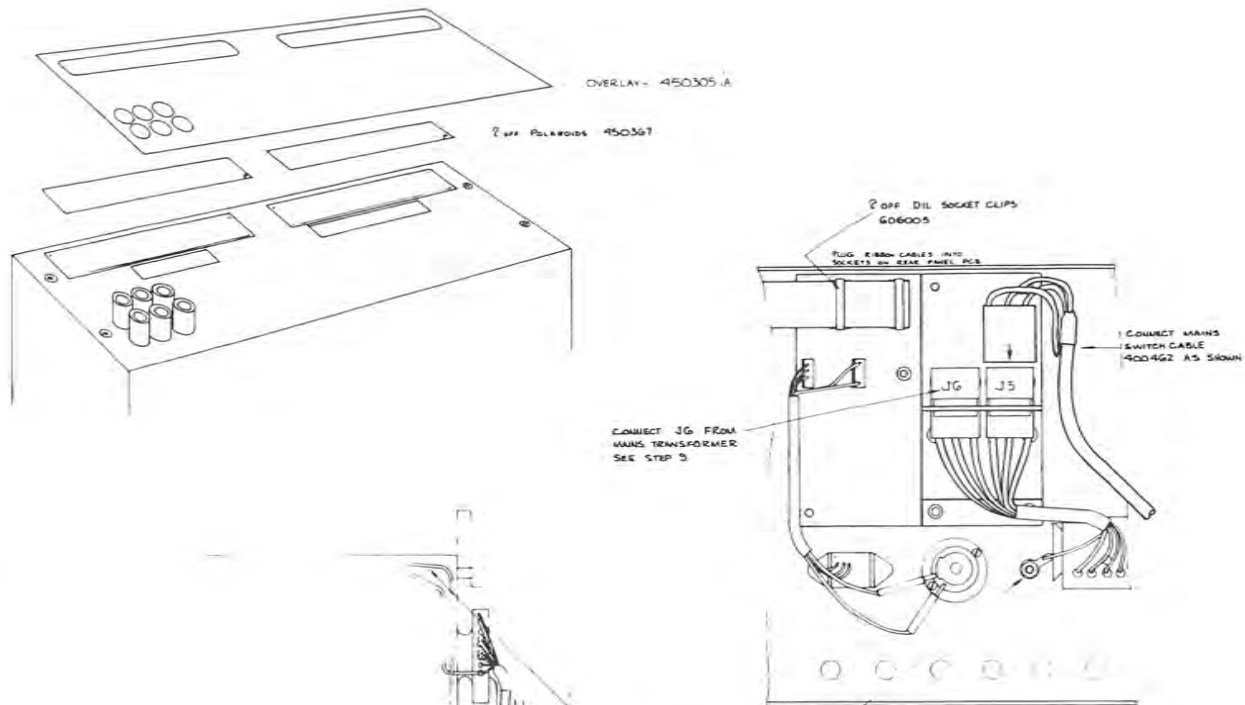
6



7



8



WIRE FROM TERMINAL PCB ASSY EMERGES FROM EXTENSION THEN BOLTS TO THE MATH. SCREW ON REAR PANEL TOGETHER WITH GREEN/YELLOW WIRE FROM 1500F CAPACITOR AND ANNA TRANSFORMER PLATE (STEP 9)

FRONT PANEL PCB TERMINAL ASSY	MOTHER PCB	CABLE No
I+	J26-1	1
H1	J26-2	2
GU	J26-3	WHITE WIRE
I-	J26-4	1
LO	J26-5	2

NOTE: IT IS IMPERANT TO KEEP ALL WIRING ON MOTHER BOARD TO A MAXIMUM HEIGHT OF 8mm. AFTER ASSEMBLY AN EASY CHECK IS TO PLACE THE BOTTOM GUARD SCREEN ON & THIS SCREEN SHOULD LAY ON THE STANDOFFS WITHOUT CRUSHING ANY WIRING. (AS BELOW)

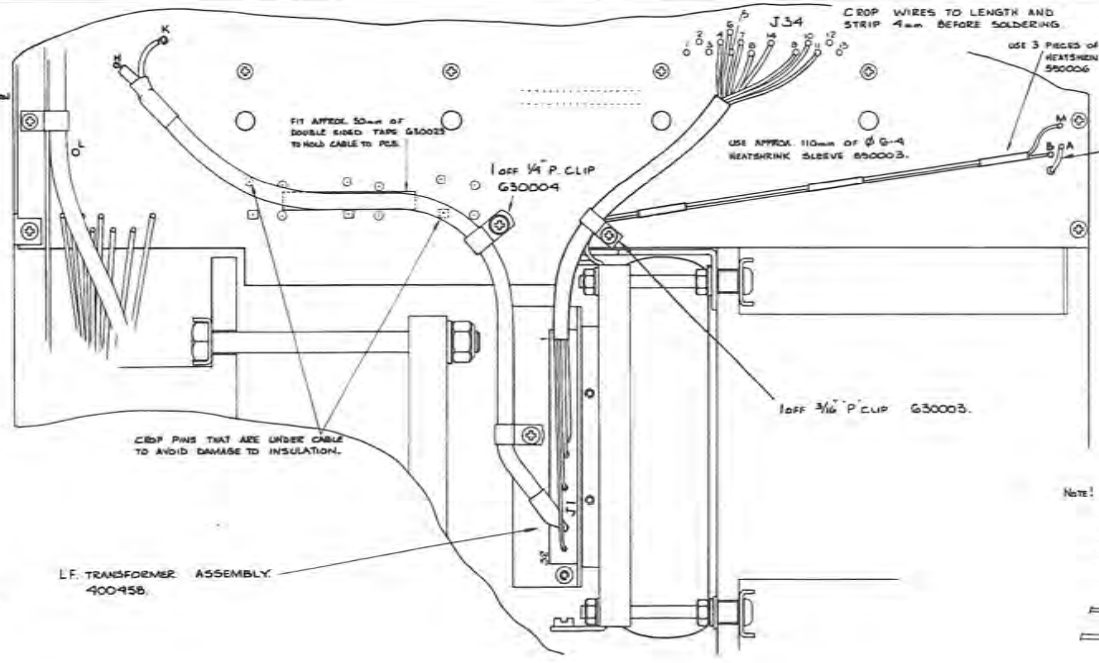
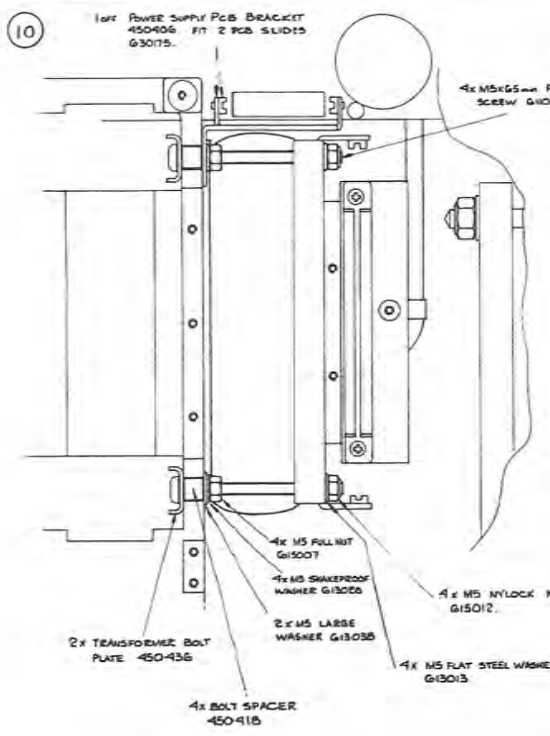
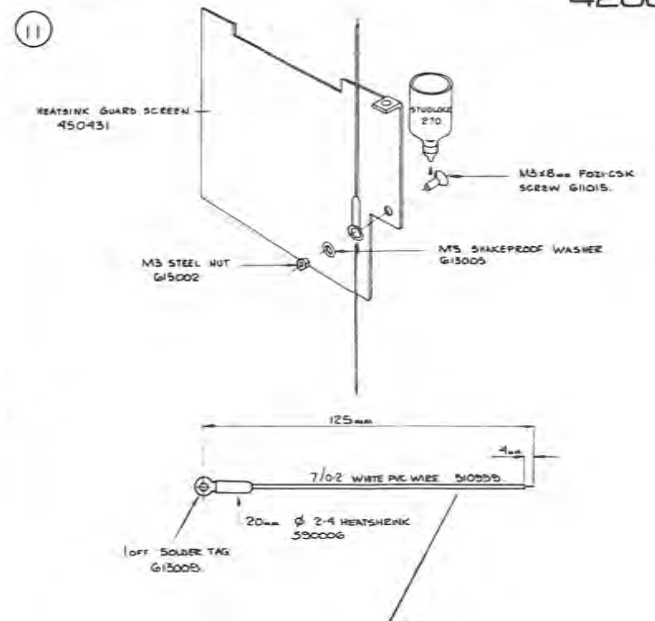
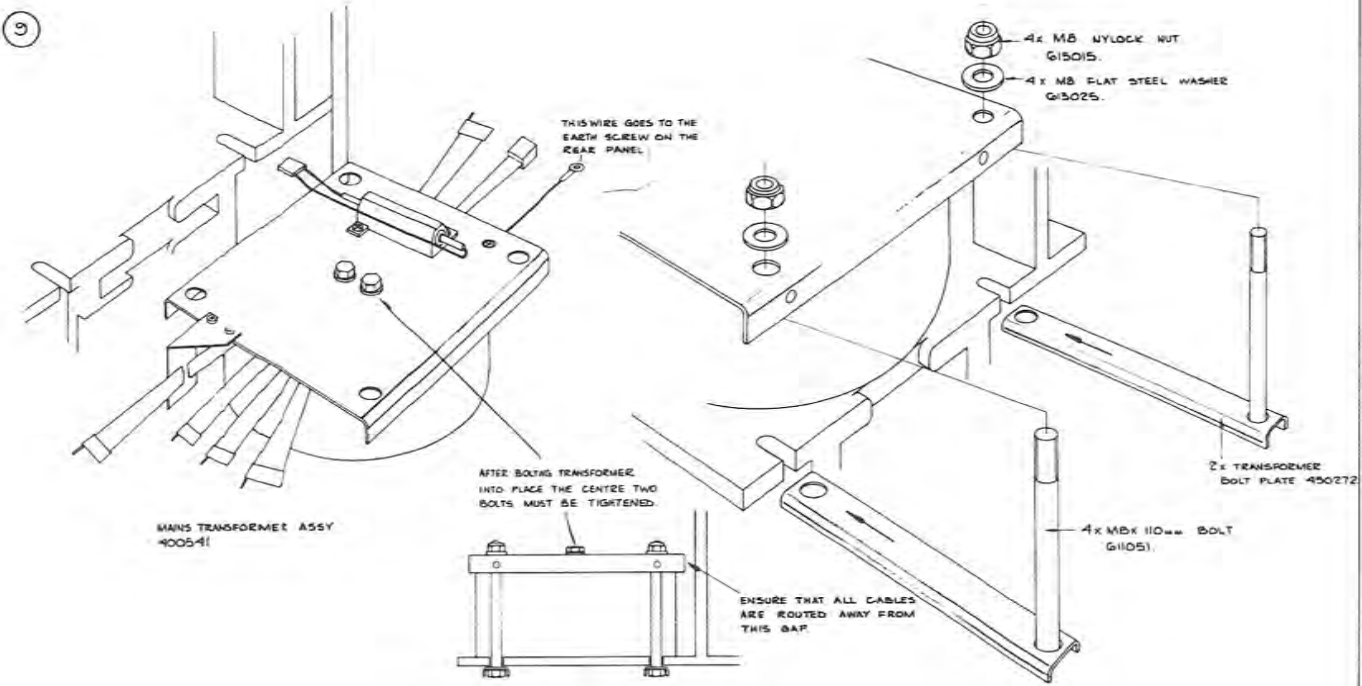


SECURE CABLE BENDER TO MOTHER PCB USE 2 OFF M5x6mm POZ-PAN SCREW G1004 2 OFF M3 WAVE WASHER G1002

CHASSIS ASSEMBLY

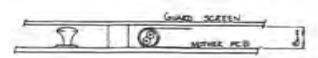


CHASSIS ASSEMBLY

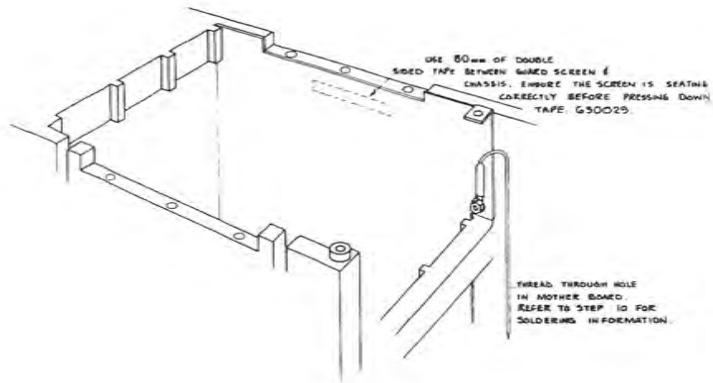


PIN N°	WIRE COLOUR
J34-1	NOT CONNECTED.
" 2	NOT CONNECTED.
" 3	NOT CONNECTED.
" 4	ORANGE
" 5	BROWN
" 6	RED
" 7	RED / BLACK
" 8	BLACK
" 9	YELLOW
" 10	GREY
" 11	ORG. / BLK.
" 12	NOT CONNECTED.
J34-13	NOT CONNECTED.
J34-14	NOT CONNECTED.
PIN L	NOT CONNECTED.
B	WHITE PVC FROM LE TO PLATE
M	WHITE PVC FROM PIN 21-31
A	WHITE PVC FROM G3 SCREEN
J34-14	GREEN

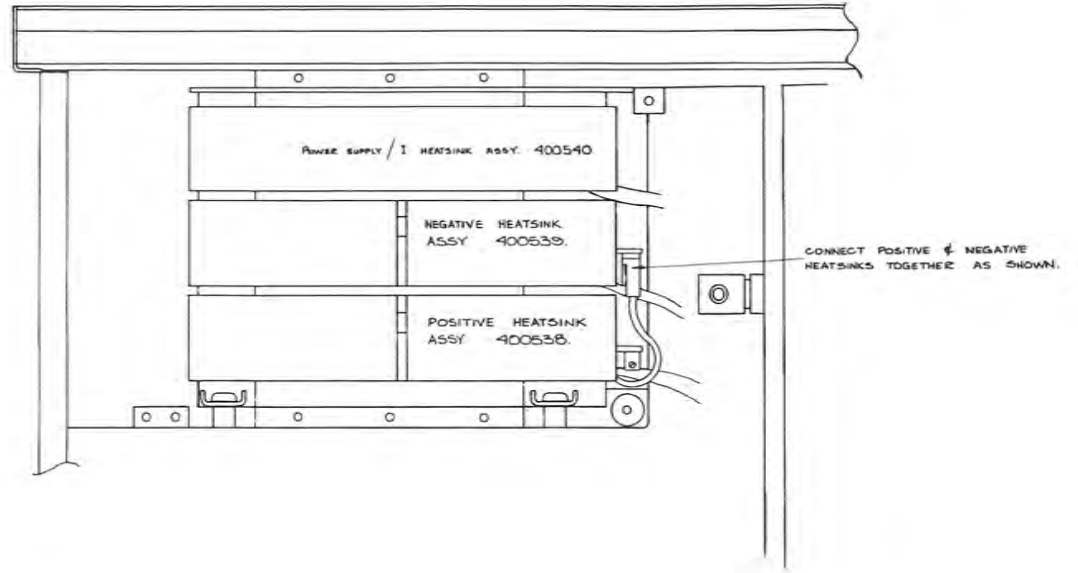
NOTE: IT IS IMPORTANT TO KEEP ALL WIRING ON MOTHER BOARD TO A MAXIMUM HEIGHT OF 25mm. AFTER ASSEMBLY AN EASY CHECK IS TO PLACE THE BOTTOM GUARD SCREEN ON & THIS SCREEN SHOULD LAY ON THE STANDOFFS WITHOUT CRUSHING ANY WIRES. (AS BELOW)



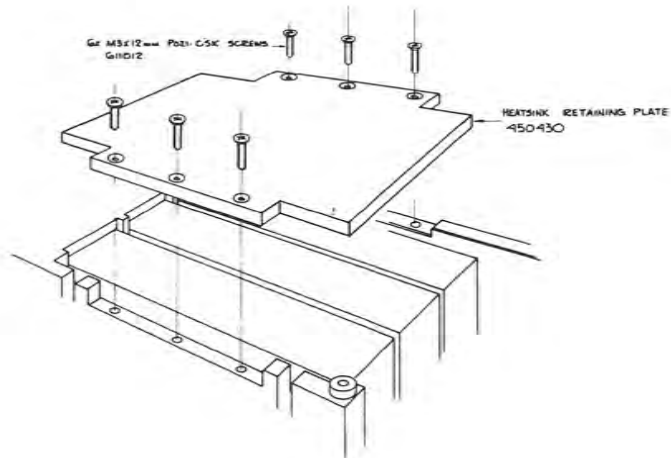
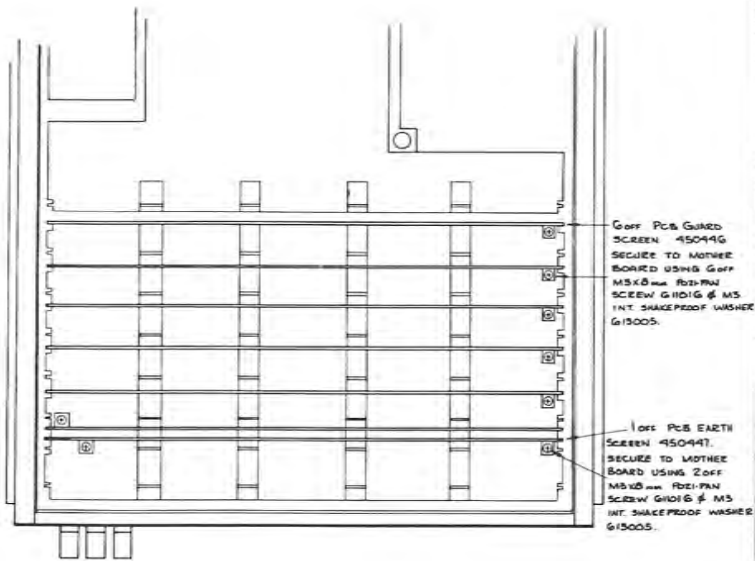
11



12



13

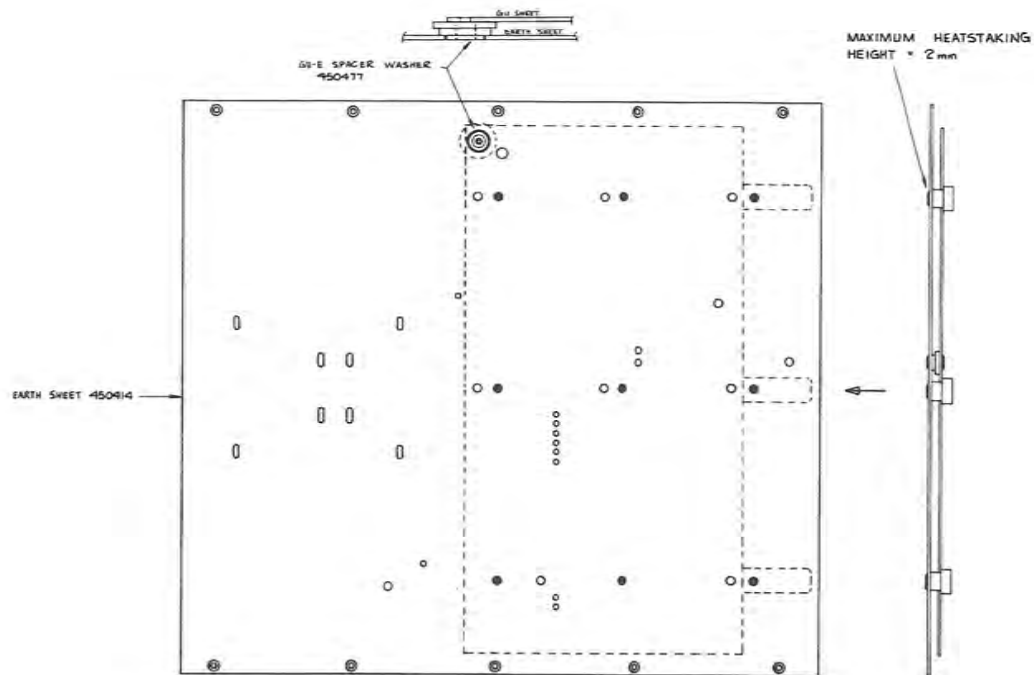
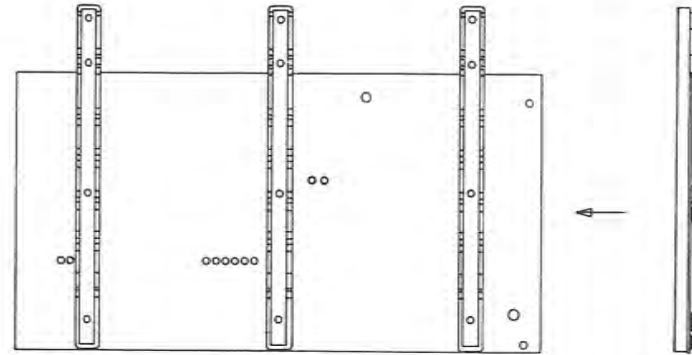
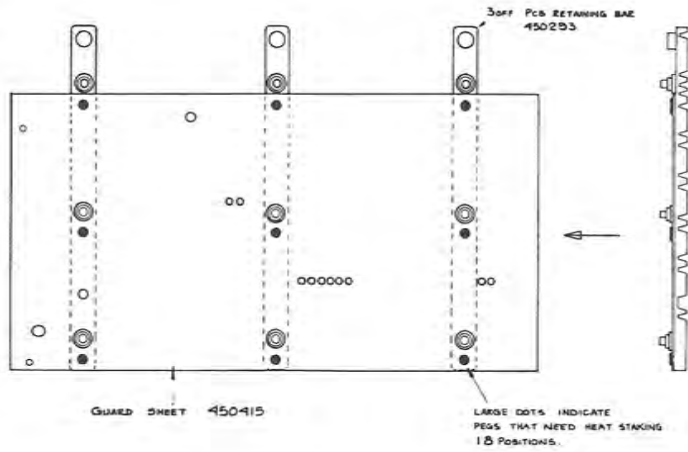


CHASSIS ASSEMBLY

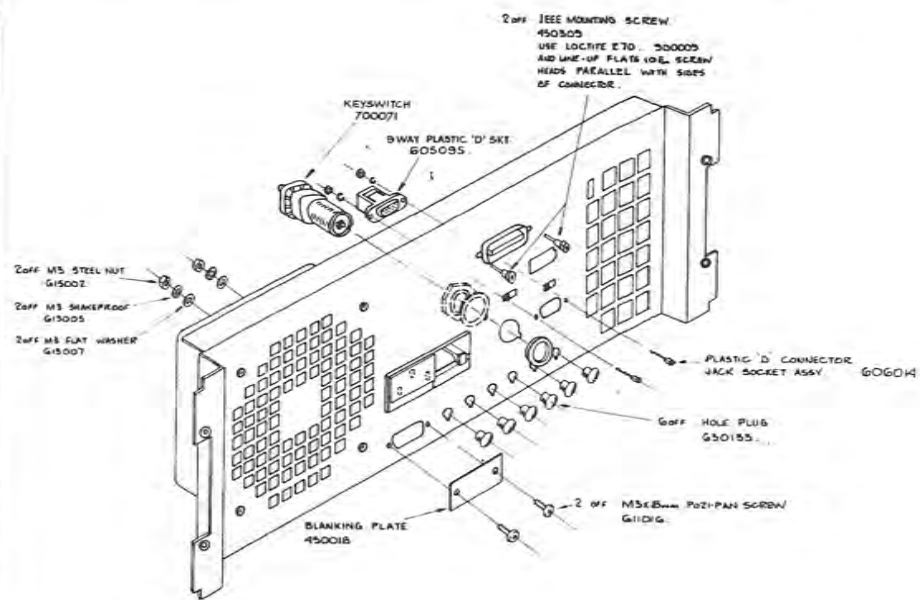
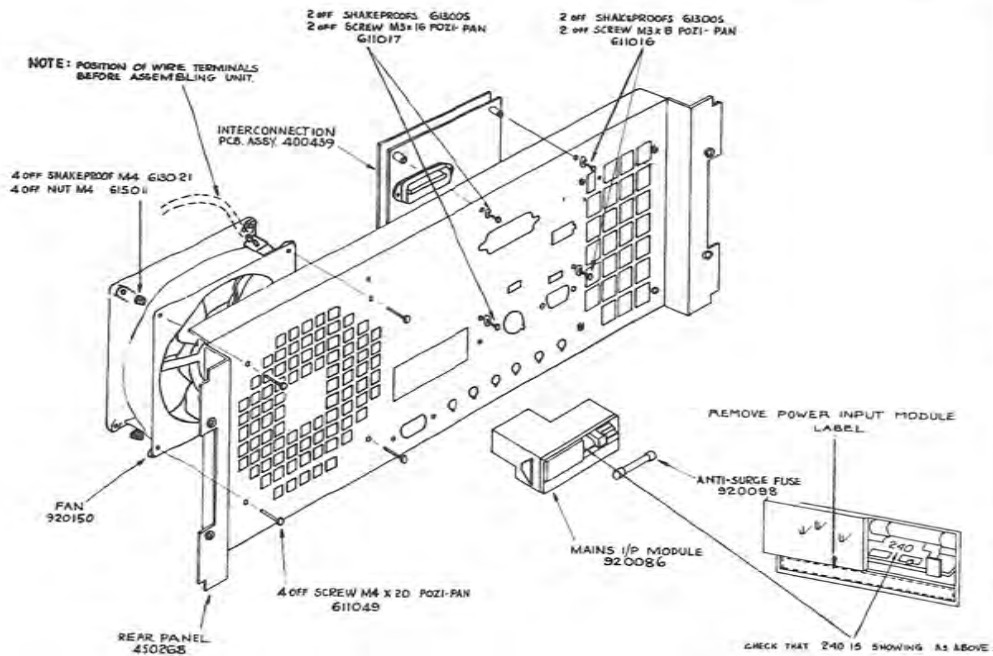


CHASSIS ASSEMBLY

14



WHEN THE CHASSIS ASSY IS COMPLETE CHECK THAT THE TOP EARTH GUARD SHEET ASSEMBLY, BOTTOM GUARD & EARTH SHEETS FIT.



5 OFF CRIMP TERMINAL (J3, J4, J5)  
605057

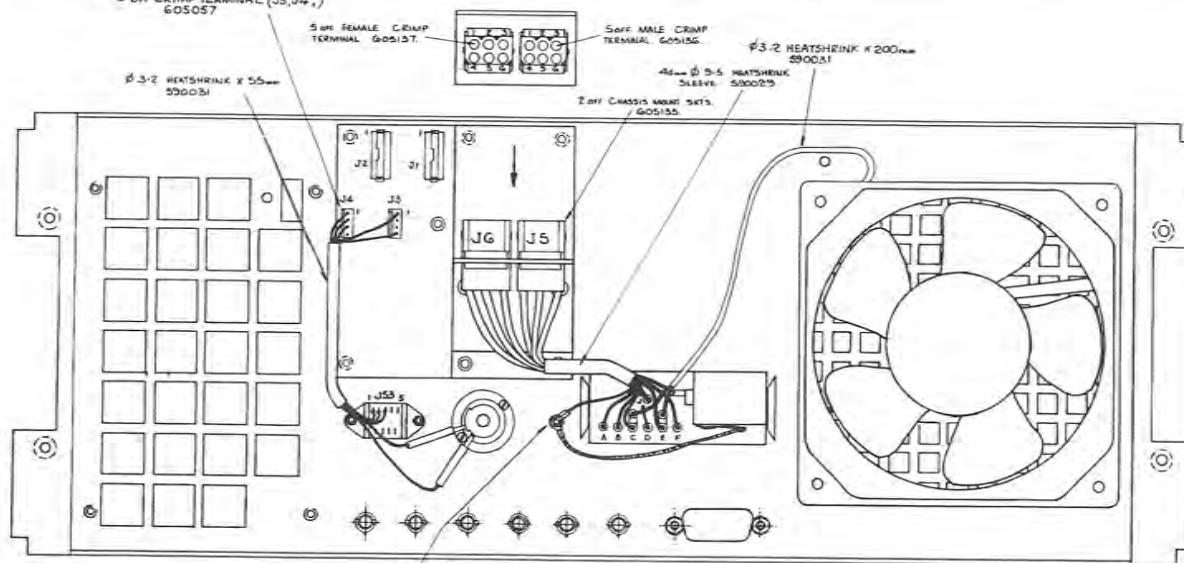
5 WIRE FEMALE CRIMP TERMINAL 605137

5 OFF MALE CRIMP TERMINAL 605156

Ø 3.2 HEATSHRINK X 200mm 590031

45mm Ø 3.5 HEATSHRINK SLEEVE 590029

2 OFF CHASSIS MOUNT SKTS 605135



CRIMP CONNECTIONS

605057 USE CRIMP TOOL HTR-2262-A  
605156 & 137 USE CRIMP TOOL HTR-1031-E

NB ALL EXPOSED WIRE TERMINATIONS TO BE SLEEVED - USED HALF PIECE OF SLEEVE:-  
590031 x 3off  
590029 x 6off

CONNECTOR PIN (INTERCONNECTION PCB)	WIRE COLOUR/LENGTH	DESTINATION (REAR PANEL)	WIRE PART NO
J6 PIN 1	VIOLET / 105mm	POWER INPUT MODULE PIN D	530777
2	WHITE / 110mm	- PIN C	530999
3	BLACK / 100mm	- PIN A	530000
4	N/C	-	-
5	GREY / 120mm	- PIN F	530855
6	ORANGE / 100mm	- PIN E	530333
J5 PIN 1	GREEN / 130mm	TO REAR PANEL	530555
2	RED / 120mm	POWER INPUT MODULE PIN J	530222
3	BLUE / 110mm	- PIN N	530666
4	N/C	-	-
5	YELLOW / 110mm	- PIN B	530444
6	BROWN / 110mm	- PIN L	530111
J4 PIN 1	BROWN 115	J53-1	510111
2	BLACK 115	J53-2	510000
3	RED 115	J53-3	510222
4	-	-	-
J3 PIN 1	ORANGE 150	CAL SWITCH	510333
2	-	-	-
3	-	-	-
4	ORANGE 150	CAL SWITCH	510333
FAN #	ORANGE 250	POWER I/P MODULE PIN C	510333
FAN #	WHITE 250	- PIN E	510999

\* CONNECT WIRES EITHER WAY ROUND

CHASSIS ASSEMBLY

Layout Drawing No. 480531-5.0 Sheet 1 © Datron Instruments 1986

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INSTRUMENTS

## THIRD ANGLE PROJECTION

DRAWN IN ACCORDANCE WITH BS 308

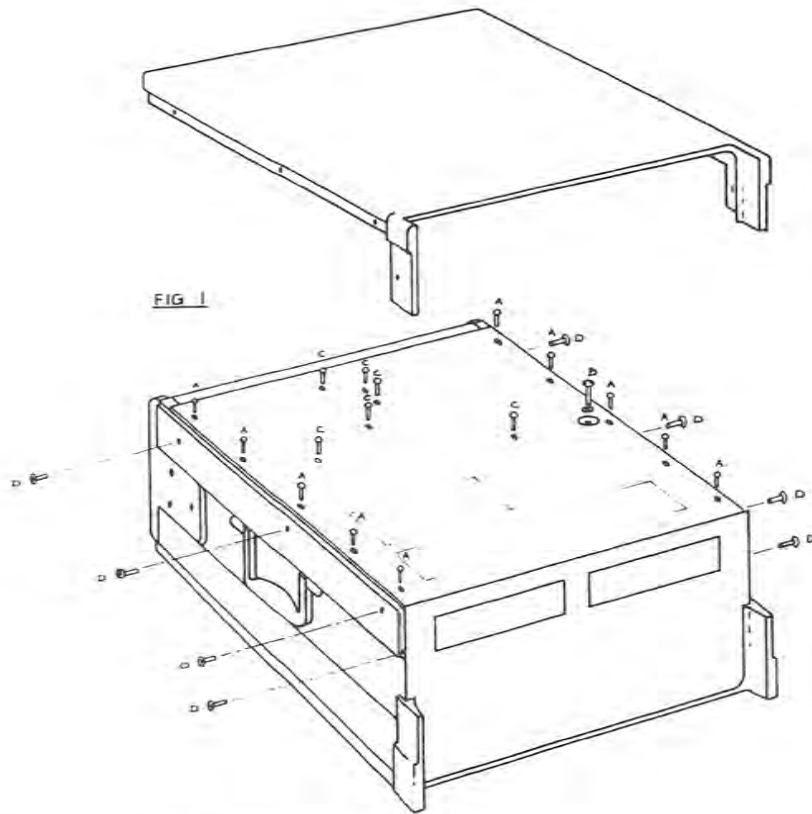
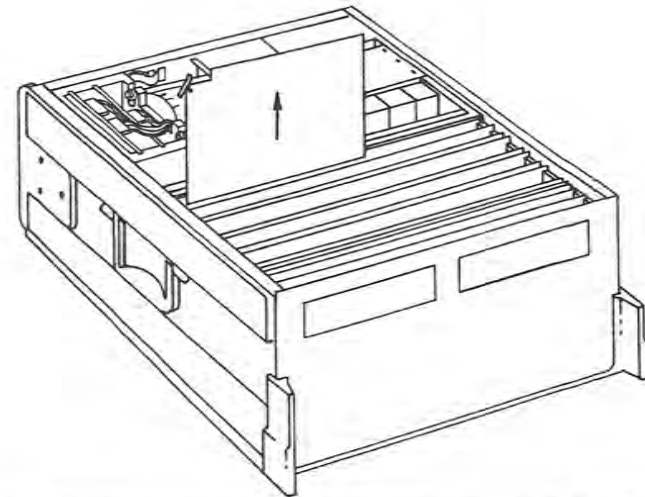
OPTION FITTING INSTRUCTIONS  
Option 30: Currentdatron  
INSTRUMENTS  
4200

FIG 1

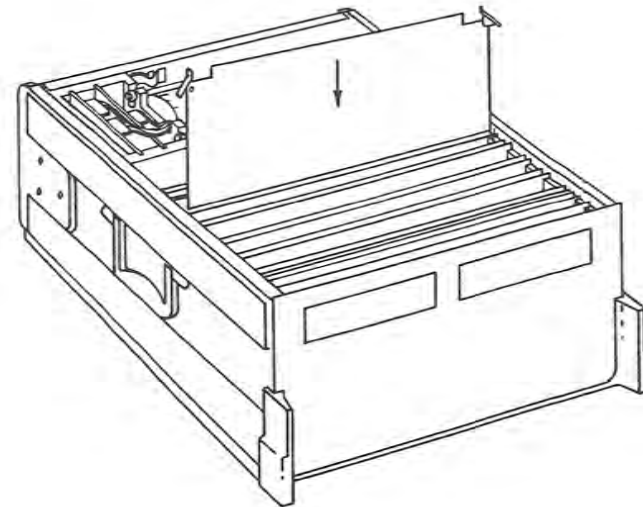
## OPTION 30 CURRENT.

## PROCEDURE :-

- ① REMOVE THE 8 SCREWS WHICH SECURE THE LID IN POSITION, THEN LIFT THE LID OFF. THERE ARE 17 SCREWS TO REMOVE BEFORE THE GUARD SHIELD CAN BE TAKEN AWAY.
- ④ REPLACE THE GUARD SHIELD AND REFIT ITS SCREWS IN THE POSITIONS SHOWN IN FIG 1
  - A 10 OFF M4 X 8MM POZI- CSK SCREWS G1105B.
  - B 1 OFF M3 X 12MM POZI- PAN SCREWS G110D5
  - C 6 OFF M3 X 6MM SLOTTED PAN HD SCREW G1107G
 USE M3 SHAKEPROOF WASHER ON SCREW 'B' ONLY.  
 POSITION LID & SECURE WITH:-  
 D 8 OFF M4 X 12MM SOCKET HD- CSK SCREW G1103B



- ② THE GREY PLASTIC INNER CHASSIS DIVIDES THE INTERNAL SPACE INTO TWO AREAS. THE LAST POSITION IN THE FRONT SECTION CONTAINS A HALF WIDTH P.C.B WHICH IS FITTED WHEN THE CURRENT OPTION IS NOT REQUIRED.
- ③ REMOVE THE LINK P.C.B AND REPLACE IT WITH THE CURRENT OPTION BOARD 400555



# THIRD ANGLE PROJECTION

DRAWN IN ACCORDANCE WITH BS 308

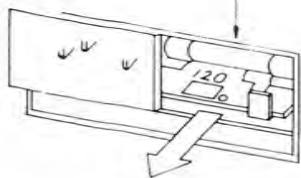
OPTION 80 115V 60Hz. KIT OF PARTS 440096.

## PROCEDURE :-

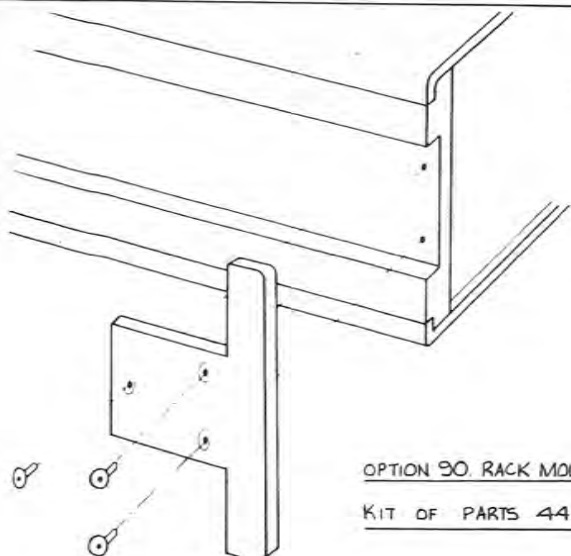
1. CHANGE MAINS FUSE
2. CHANGE VOLTAGE P.C.B
3. ENSURE THAT CORRECT VOLTAGE AND FREQUENCY ARE STATED ON THE RATING LABEL.
4. ON FINAL CHECK, USE THE INST. INC. CERTIFICATE OF QUALITY CONFORMANCE, FORM 93
5. REPLACE FUSE IN SERVICING MANUAL ACCESSORY WALLET WITH 6.25A 250V 1/4" SLO-B FUSE.

CHANGE MAINS FUSE TO:  
620114 6.25A 250V 1/4" SLO-B FUSE.

DETAIL FROM  
REAR PANEL



SLIDE PCB FORWARD AND REMOVE FROM MAINS FILTER, INSERT SO THAT 120 IS VISIBLE AS ABOVE.

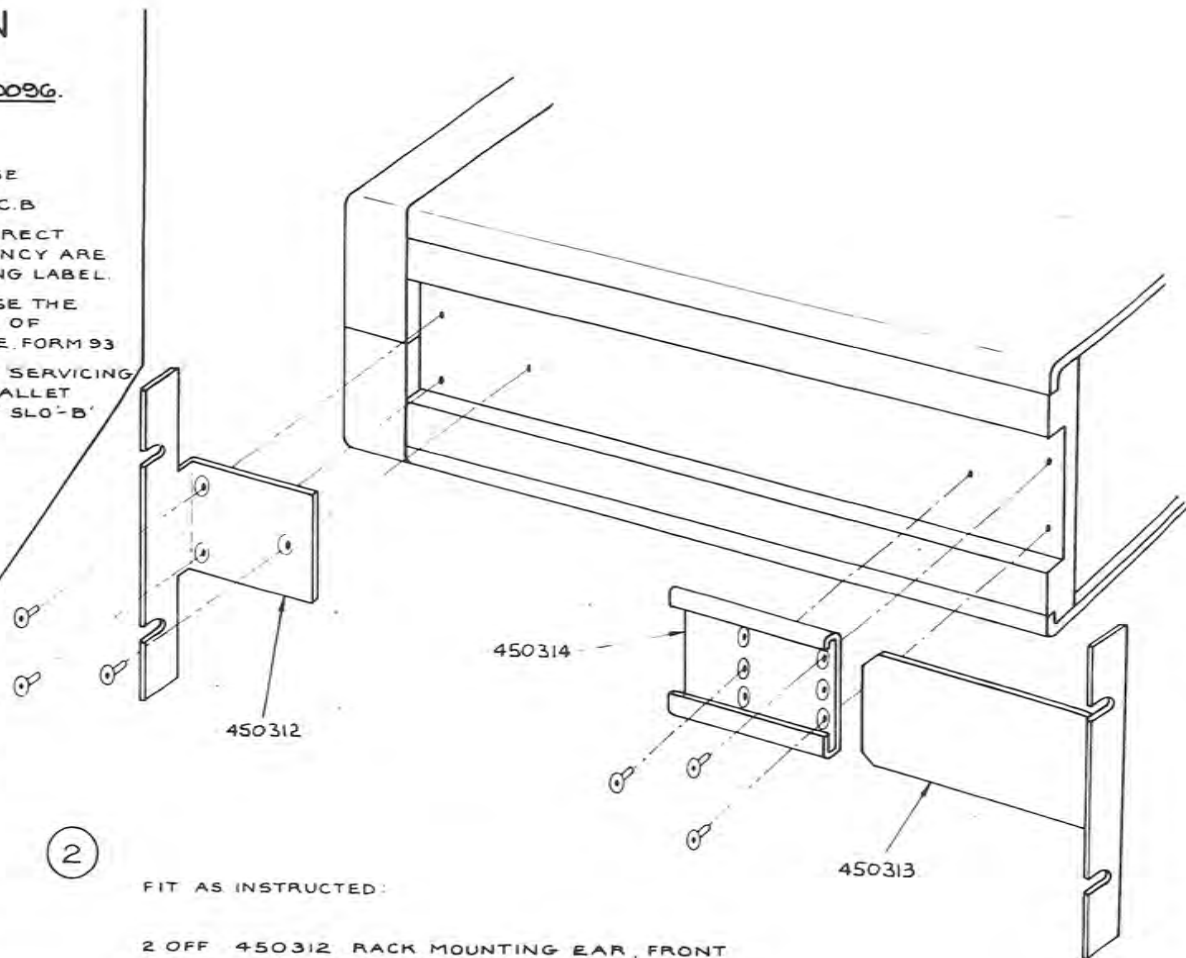


OPTION 90 RACK MOUNTING

KIT OF PARTS 440094

1 REMOVE :-

- 2 OFF 450300 REAR SPACERS.
- 6 OFF 611038 M4X12mm SOCKET H'D C'SK SCREWS.



FIT AS INSTRUCTED:

- 2 OFF 450312 RACK MOUNTING EAR, FRONT
- 2 OFF 450313 RACK MOUNTING EAR, REAR
- 2 OFF 450314 RACK MOUNTING SLIDE
- 12 OFF 611062 M4X8mm SOCKET H'D C'SK SCREWS

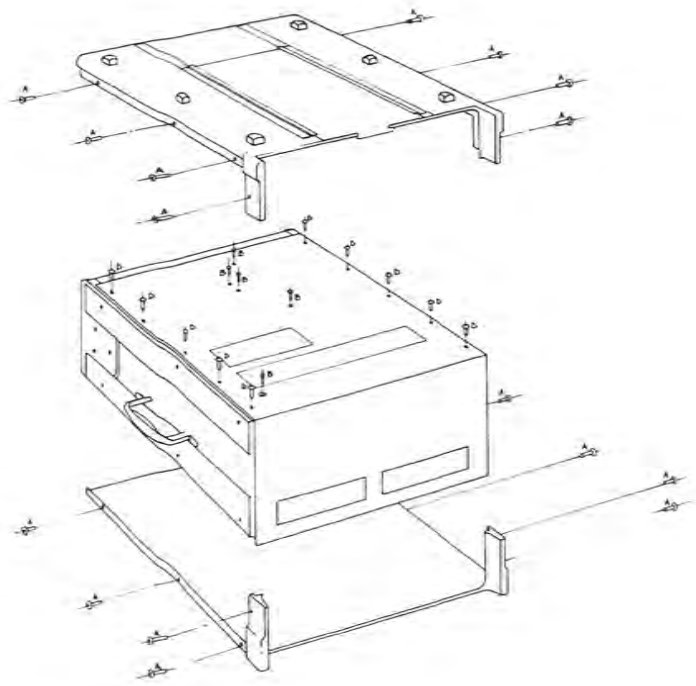
## SUITABLE RACK DEPTHS

DEPTH		NOTES
mm.	INCHES	
< 635	< 25	SHORTEN REAR RACK MOUNTING EARS.
635 TO 735	25 TO 29	FIT AS SHOWN BY DRAWING.
735 TO 800	29 TO 31½	REVERSE RACK MOUNTING SLIDES TO EXTEND PAST REAR PANEL.

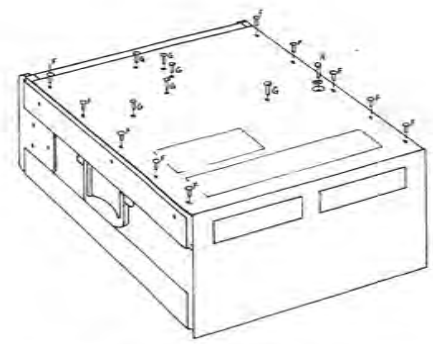
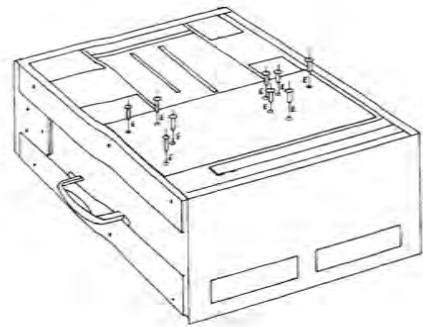
OPTION FITTING INSTRUCTIONS  
Option 80: 115V 60Hz  
Option 90: Rack Mounting

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INSTRUMENTS

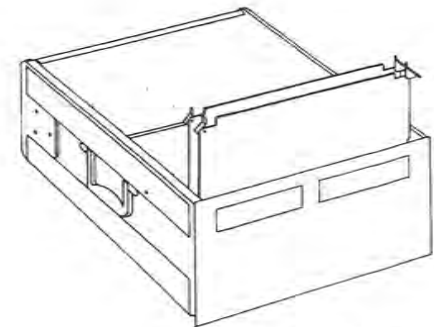
OPTION FITTING INSTRUCTIONS  
Option 42: Rear Output



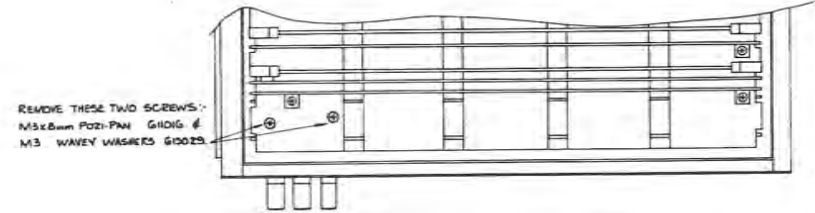
REMOVE TOP & BOTTOM COVERS BY REMOVING:-  
 A 16 OFF M4X12mm SKT HD CSK SCREWS G1058.  
 REMOVE BOTTOM EARTH SHEET & THEN BOTTOM  
 GUARD SHEET. REMOVE FOLLOWING SCREWS.  
 B 5 OFF M3X6mm SLOTTED-PAN HD SCREWS G1076  
 D 10 OFF M4X8mm PZ1-CSK SCREWS G1058  
 E 3 OFF M3X6mm PZ1-CSK SCREWS G1007.



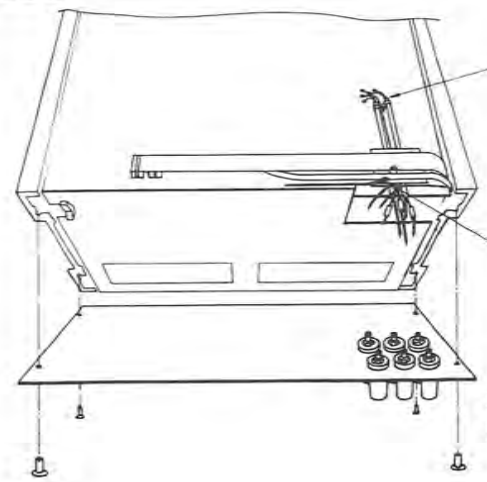
REMOVE TOP EARTH SHEET ASSEMBLY BY UNDOING:-  
 F 10 OFF M4X8mm PZ1-CSK SCREWS G1058.  
 G 6 OFF M3X6mm SLOTTED-PAN HD SCREWS G1076  
 H 1 OFF M3X12mm PZ1-PAN SCREW G1005  
 1 OFF M3 SHAKEPROOF WASHER G13005  
 ON SCREW 'H' ONLY.



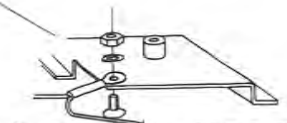
REMOVE FRONT TWO CIRCUIT BOARDS WITH  
 BLACK & BROWN EJECTORS.



REMOVE THESE TWO SCREWS:-  
 G M3X6mm PZ1-PAN G1016 &  
 I M3 WAVEY WASHERS G1005.



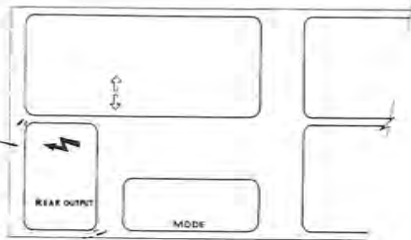
WITH CALIBRATOR UPSIDE-DOWN FACING FORWARD  
 UNSOLDER THE CABLES GOING FROM TERMINALS  
 TO THE CLOVERLEAVES ON THE MOTHER PCB. ALSO  
 REMOVE THE 2 P CLIPS & FIXING SCREWS.  
 REMOVE THE FRONT PANEL FIXING SCREWS.  
 UNSOLDER CABLES FROM TERMINALS.  
 REMOVE CABLES & TERMINALS.  
 GREEN/YELLOW WIRES FROM MOTHER PCB & REAR  
 PANEL EARTH CONNECTION (WHICH GOES INTO  
 SIDE EXTRUSION) MUST BE SOLDERED TO A SOLDER  
 TAG & SECURED TO THE CABLE BRIDGE AS  
 SHOWN BELOW.



SOLDER WIRES TO SOLDER  
 TAG G1005.  
 SLEEVE WITH 20mm OF  
 Ø 2-4 HEATSHRINK Ø10006.

SECURE SOLDER TAG TO CABLE  
 BRIDGE USING:-  
 1 OFF M3X6mm PZ1-CSK SCREW  
 G1007.  
 1 OFF M3 SHAKEPROOF WASHER  
 G13005.  
 1 OFF M3 FULL NUT. Ø10002.

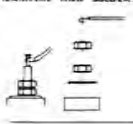
STICK ADHESIVE LABEL 45037B ON TO FRONT PANEL OVERLAY AS INDICATED BELOW:-



SELF ADHESIVE REAR OUTPUT LABEL 45037B

LINE-UP BORDER LINES OF LABEL WITH LINES ON OVERLAY.

WRAP WIRE ROUND TERMINAL AND SOLDER.



RED 020123  
BLACK 020122  
BROWN 020134  
BLUE 020135  
WHITE 020136  
GREEN 020157



BEFORE TIGHTENING TERMINALS ENSURE HOLES ARE IN THE VERTICAL POSITION.

USE 10mm OF Ø 2.4 HEATSHRINK 59000G TO STOP FERRITE BEAD SLIDING DOWN WIRE. 25mm Ø 2.4 HEATSHRINK OVER RESISTOR.

400mm 7/02 WHITE PTFE INSULATED WIRE 51255D.

220R 5% 1/8W CARBON RESISTOR 000771

WIRE C

HEATSHRINK 20mm OF Ø 4.8 HEATSHRINK SLEEVE 59002Z TO 3OFF FERRITE BEADS 020154 & ASSEMBLE TO WIRES AS SHOWN ON WIRES FROM HI, I+ & GU TERMINALS.

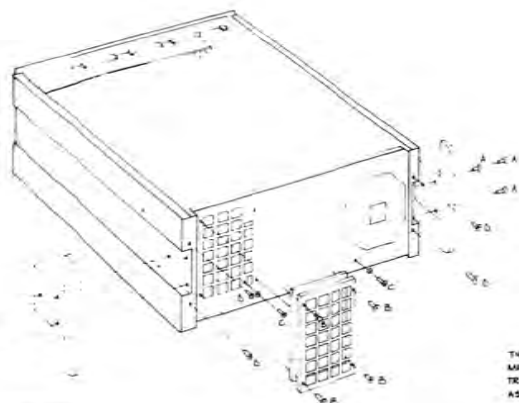
TERMINAL COLOUR	RED	BLACK	BROWN	BLUE	WHITE	GREEN
2OFF CABLE 400605	A	A	B	B	C	Earth
WIRE COLOUR	RED	BLUE	RED	BLUE	WHITE	GREEN/YELLOW FROM REAR PANEL & SCREENS OF A&B. (3 CONNECTIONS)
						SOLDER 220pf 2KV CAPACITOR 10405Z BETWEEN GUARD & PATH TERMINALS. SLEEVE LEADS WITH PTFE 59000H.

1OFF M3 SOLDER TAG G13009

20mm HEATSHRINK Ø 2.4 59000G

150mm 15/02 GREEN/YELLOW WIRE 531005

1OFF M4 SOLDER TAG G13024



REMOVE:

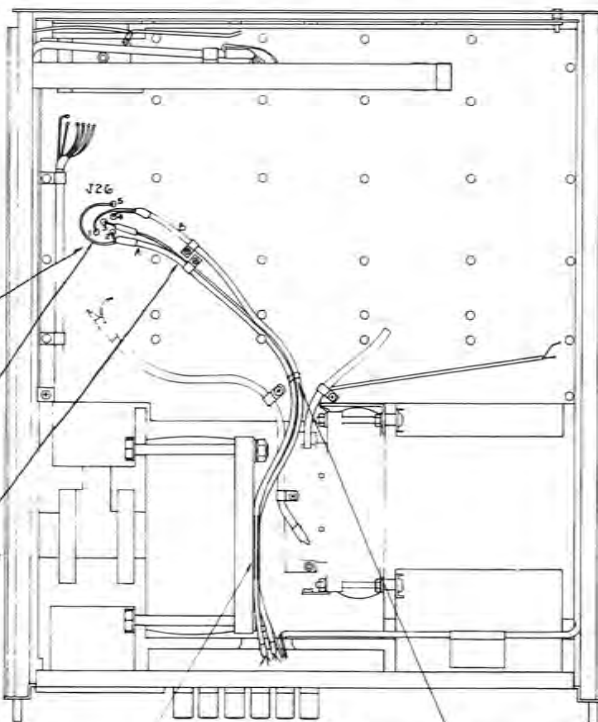
- A. 6 OFF M4x12mm CSK SOCKET HD SCREWS G1103B
- 2 OFF REAR SPACERS 450300
- B. 4 OFF M3x10mm POZI-CSK SCREWS G1100B
- 1 OFF FILTER GRILLE 450271
- 1 OFF FILTER 450277
- C. 2 OFF M3x6mm POZI-PAN SCREWS G11004
- 2 OFF M3 SHAKEPROOF WASHER G13005
- D. 4 OFF M4x8mm TAPTITE POZI-CSK SCREWS G1104B

EASE REAR PANEL FORWARD. DISCONNECT CABLES FROM INTERCONNECTION P.C.B.

REAR PANEL TERMINALS	MOTHER P.C.B. TERMINALS ASSY
HI	1
I+	2
I-	3
GU	4
E	5

THE WIRING AT J26 HAS BEEN MADE TOO LONG SO IT CAN BE TRIMMED TO SUIT & LAY AS FLAT AS POSSIBLE.

2OFF 3/6" P CLIPS & FIXING SCREWS THESE ARE REUSED FROM FRONT OUTPUT CABLES.



2OFF ADHESIVE CABLE CLIPS G3002D TO HOLD CABLES A,B & C TO TRANSFORMER PLATE.

USE LACING CORD 590007 TO HOLD CABLES TOGETHER.

WHEN THE REAR PANEL IS AWAY FROM THE CHASSIS REMOVE THE PUSH OUT PLUGS WHICH BLANK THE TERMINAL HOLES AND REFIT THE TERMINALS FROM THE FRONT PANEL.

CONNECT REAR OUTPUT CABLES

FIT 150mm EARTH WIRE (SHOWN ABOVE) TO EARTH SCREW ON REAR PANEL 'M3' SOLDER TAG END. PASS EARTH WIRE AROUND THE BACK OF, AND THEN INTO THE RECESS IN THE CHASSIS & CONNECT THE M4 SOLDER TAG OF EARTH WIRE TO THE EARTH TERMINAL.

SOLDER THE 220pf 2KV CAPACITOR 10405Z BETWEEN GUARD & EARTH TERMINALS.

RECONNECT CABLES TO INTERCONNECTION P.C.B.

EASE REAR PANEL BACK INTO PLACE.

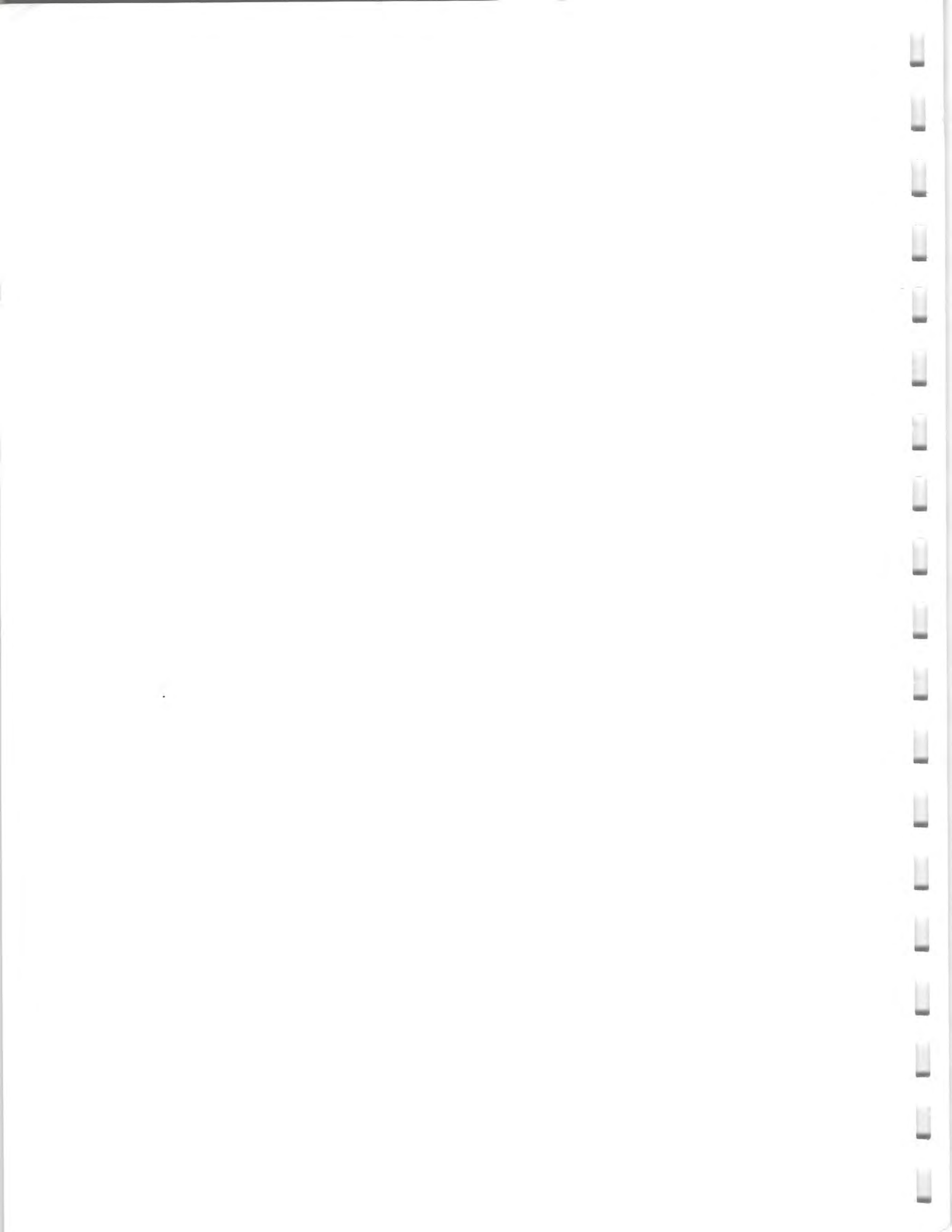
REFIT REAR PANEL AS SHOWN IN PREVIOUS STEP. SECURE CABLES A,B & C WITH CABLE CLIPS & P CLIPS. ASSEMBLE RESISTOR TO CABLE C & SOLDER TO COVERLEAF. FIT CABLES A & B THEN SOLDER TO CLOVERLEAF TERMINALS.

FINALLY REPLACE GUARD SHIELDS & COVERS AS SHOWN IN PREVIOUS STEPS.

OPTION FITTING INSTRUCTIONS  
Option 42: Rear Output

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INSTRUMENTS

Layout Drawing No. 480603-3.0 Sheet 4 © Datron Instruments 1986



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<b>EIRE</b> Calibration Specialists Limited Unit 5, Enterprise Centre, Plassey Park, Castletroy, Limerick	(61)330333	70092
<b>FINLAND</b> Finn Metric OY PL4, Riihitontuntie 2, SF 02201, ESPOO	(0)423911	122018
<b>FRANCE</b> JOD Instrumentation 37-41 rue des Mazurières, 92500 Rueil Malmaison, Paris	(1)7329260	201626
<b>GERMANY</b> Wavetek Electronics GmbH Hans-Pinsel Strasse 9-10, 8013 Haar b. Munchen. W. Germany	(89)461090	5212996
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<b>HONG KONG</b> Eurotherm (Far East) Ltd 49-51 Wong Chuk Hang Rd, Flat A and B, 19/F Derrick Building, Aberdeen	(5)546391	72449
<b>INDIA</b> Electronic Enterprises PB No. 6367, Unit 216, Regal Estate, Acharya Donde Marg, Sewri, Bombay 400 015	(22)8827096	1171071
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JAPAN	Cornes & Co. 8th Floor Maruzen Buildings, 3-10 Nihonbashi 2 Chome, Chuo-Ku, Tokyo	(3)2725771	2222987
KOREA	M.S. International Corporation CPO Box 6780, Seoul	(2)7539916	24965
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PORTUGAL	Omnitecnica Estrada de Alfragide, 2700 Amadora	(19)905517	13433
PAKISTAN	CMC 22 Fareed Chambers, Abdullah Haroon Road, Karachi-3	(21)516134	25433
SPAIN	REMA Leo Haag S.A. Jose Abascal, 18-28003 Madrid	(1)4423900	42838
SINGAPORE & MALASIA	SEEL 24 Ang Mo Kio Street 65, Singapore 2056	(65)4593555	21901
SOUTH AFRICA	Measuretest Pty. Limited P O Box 6301, Dunswart 1508, Transvaal	(11)8947721/2/3	421482
SWEDEN	Ferner Electronics AB Box 125, 16126 BROMMA	(8)802540	10312
SWITZERLAND	Precitek Electronic AG Bahnhofstrasse 358B, CH-8107, Buchs/Zurich	(1)8442950	56377
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