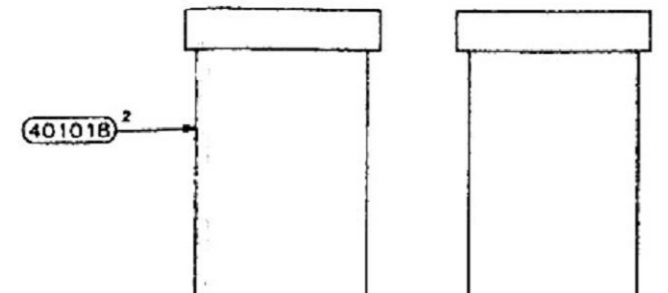


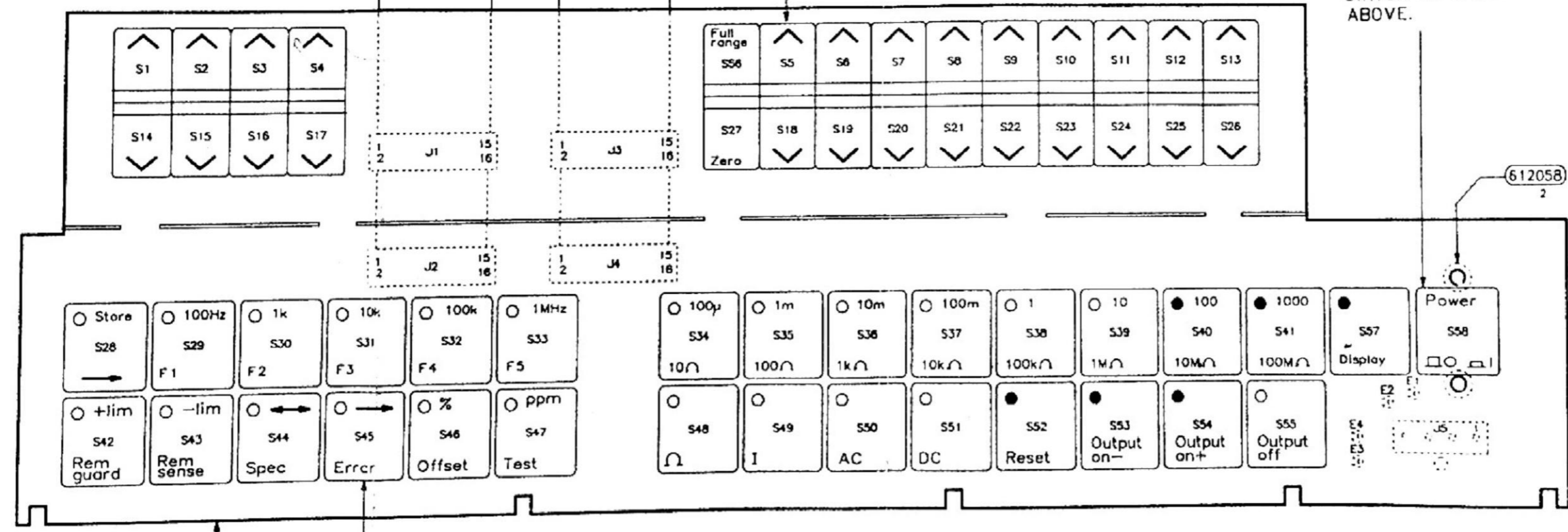
FIT THIS PART OF SWITCH CAP
TAKING CARE TO ENGAGE CAP CLAWS,
THEN PUSH CAP IN DIRECTION OF ARROW TO LOCK IN POSITION



450879

NOTE FIT SWITCHES WITH KEY CAPS
BEFORE BUILDING THE BOARD.

ASSEMBLE 'POWER'
SWITCH AS SHOWN
ABOVE.

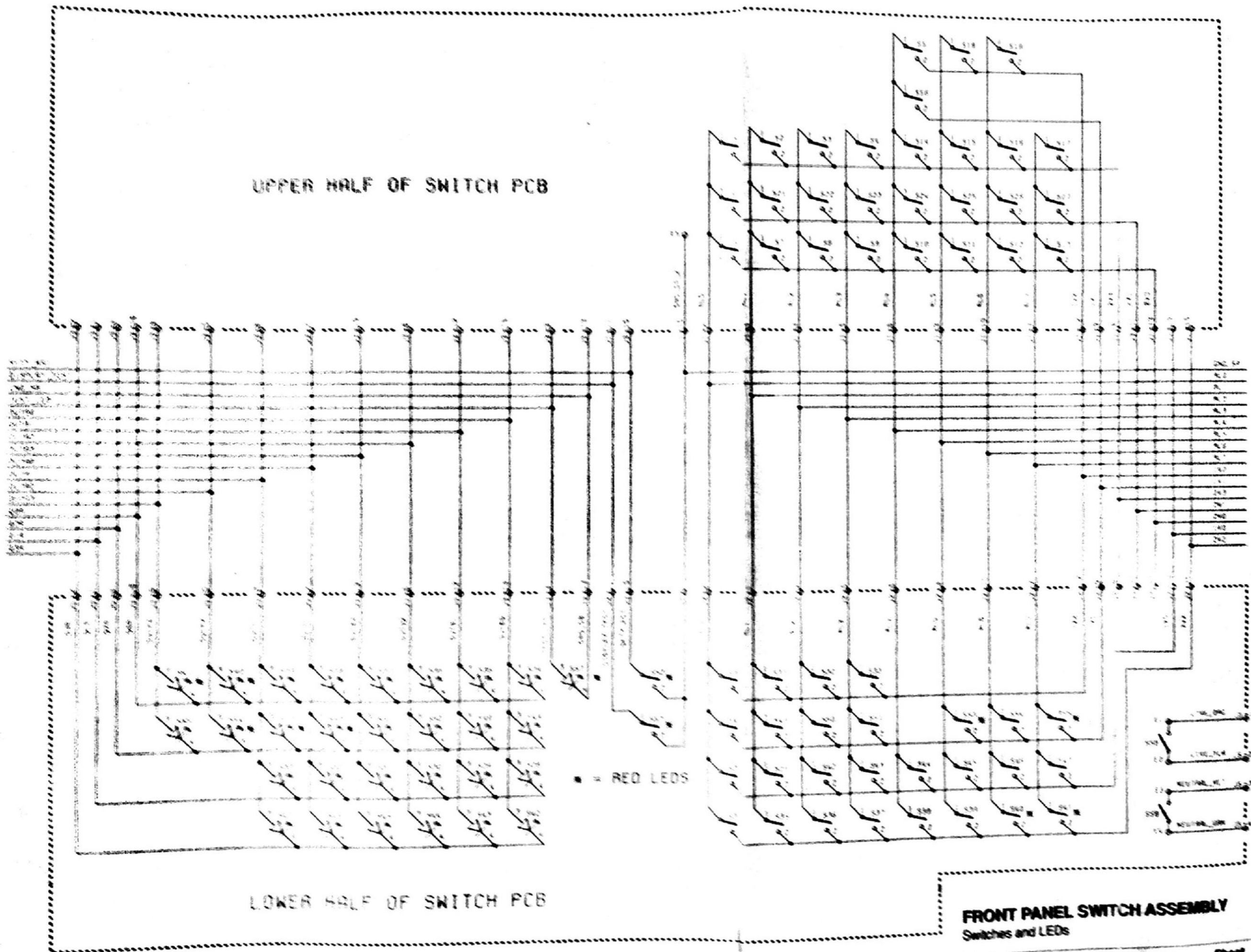


410466-1

450878



FRONT PANEL SWITCH ASSEMBLY



UPPER HALF OF SWITCH PCB

LOWER HALF OF SWITCH PCB

● = RED LED

FRONT PANEL SWITCH ASSEMBLY
Switches and LEDs

Circuit Diagram No. DC43884-1.0

Sheet 1

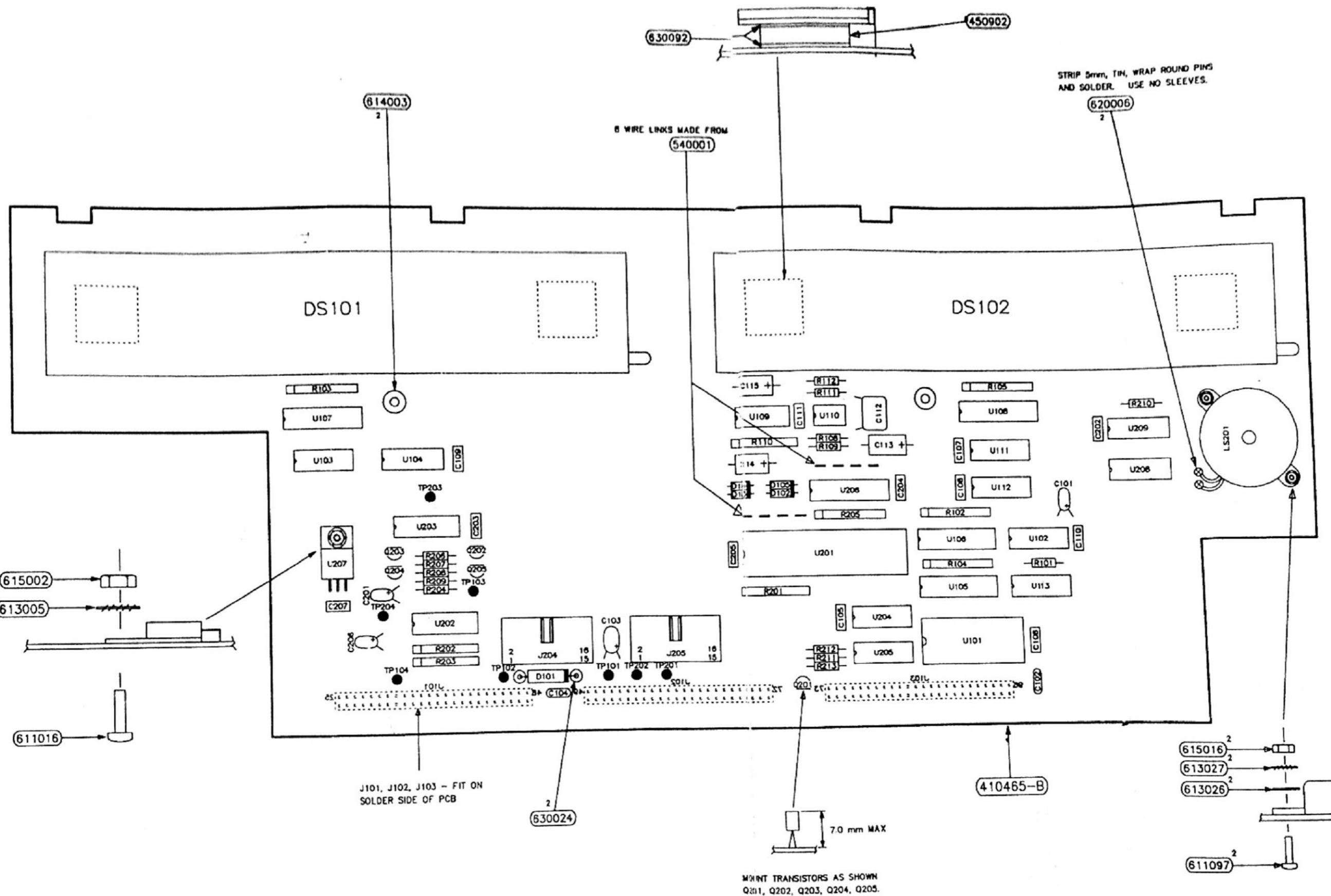


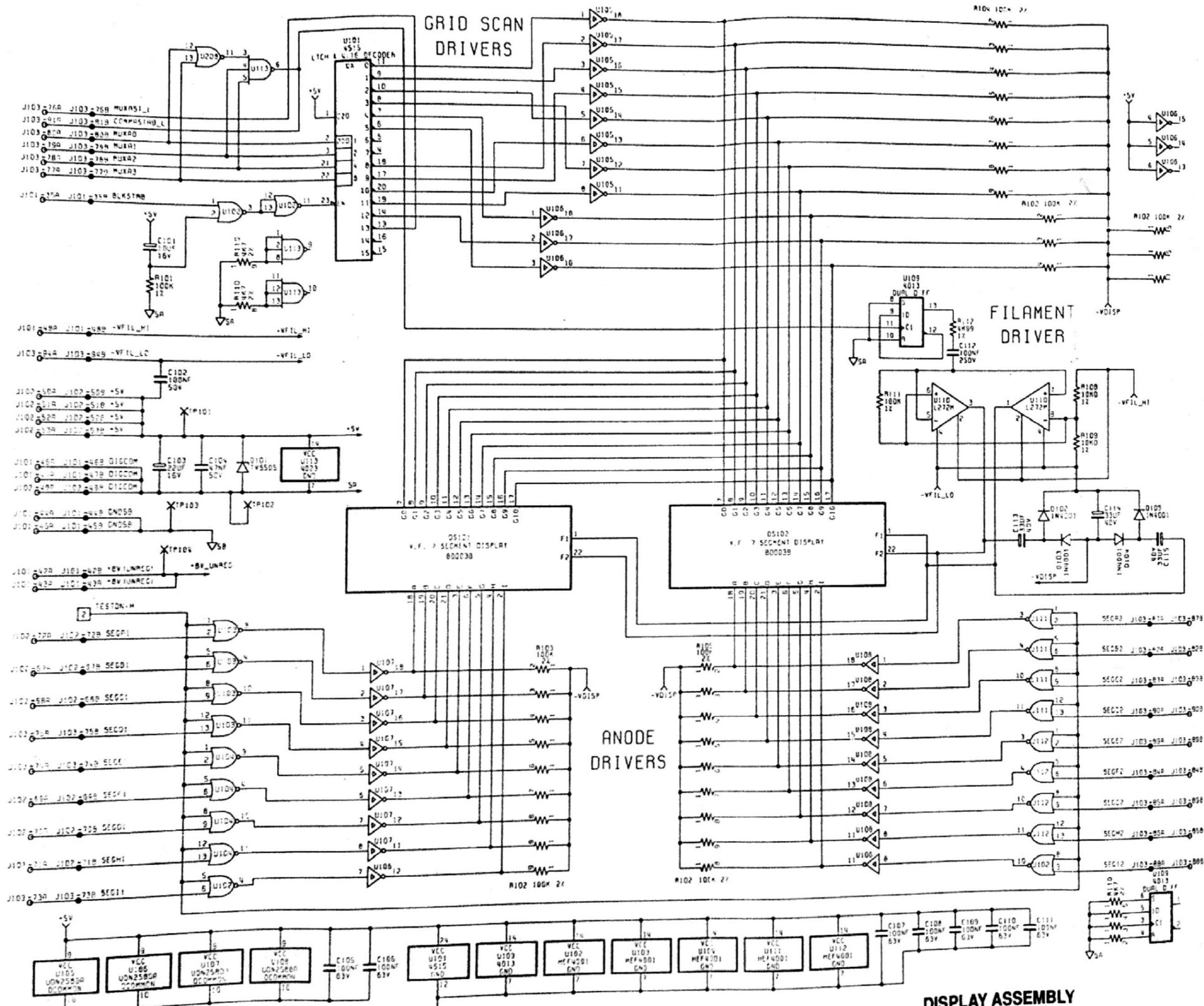
© Datron Instruments 1991

17.1-1

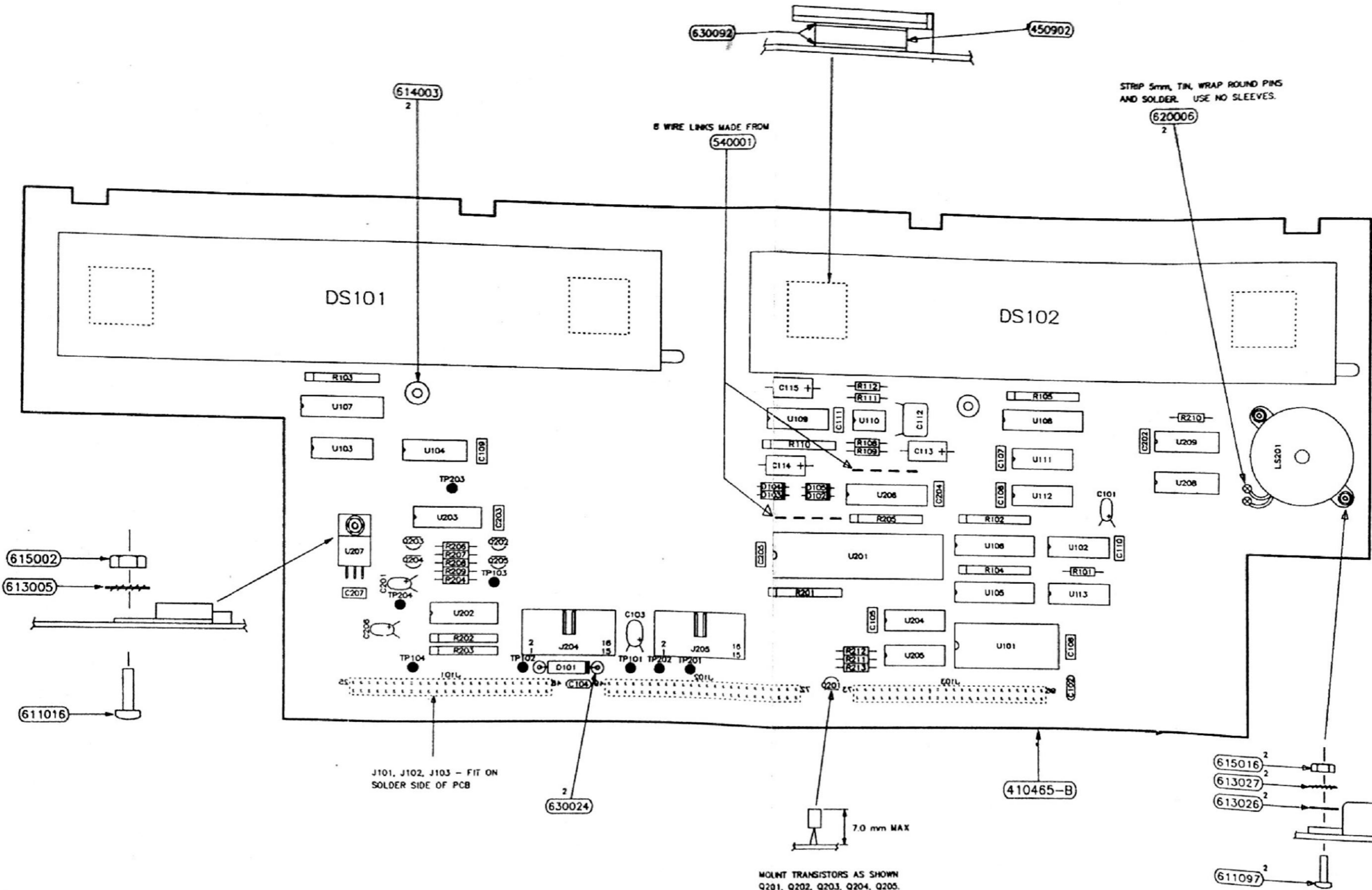
17.1-2

TO FRONT PANEL ASSEMBLY





DISPLAY ASSEMBLY
Display Drivers

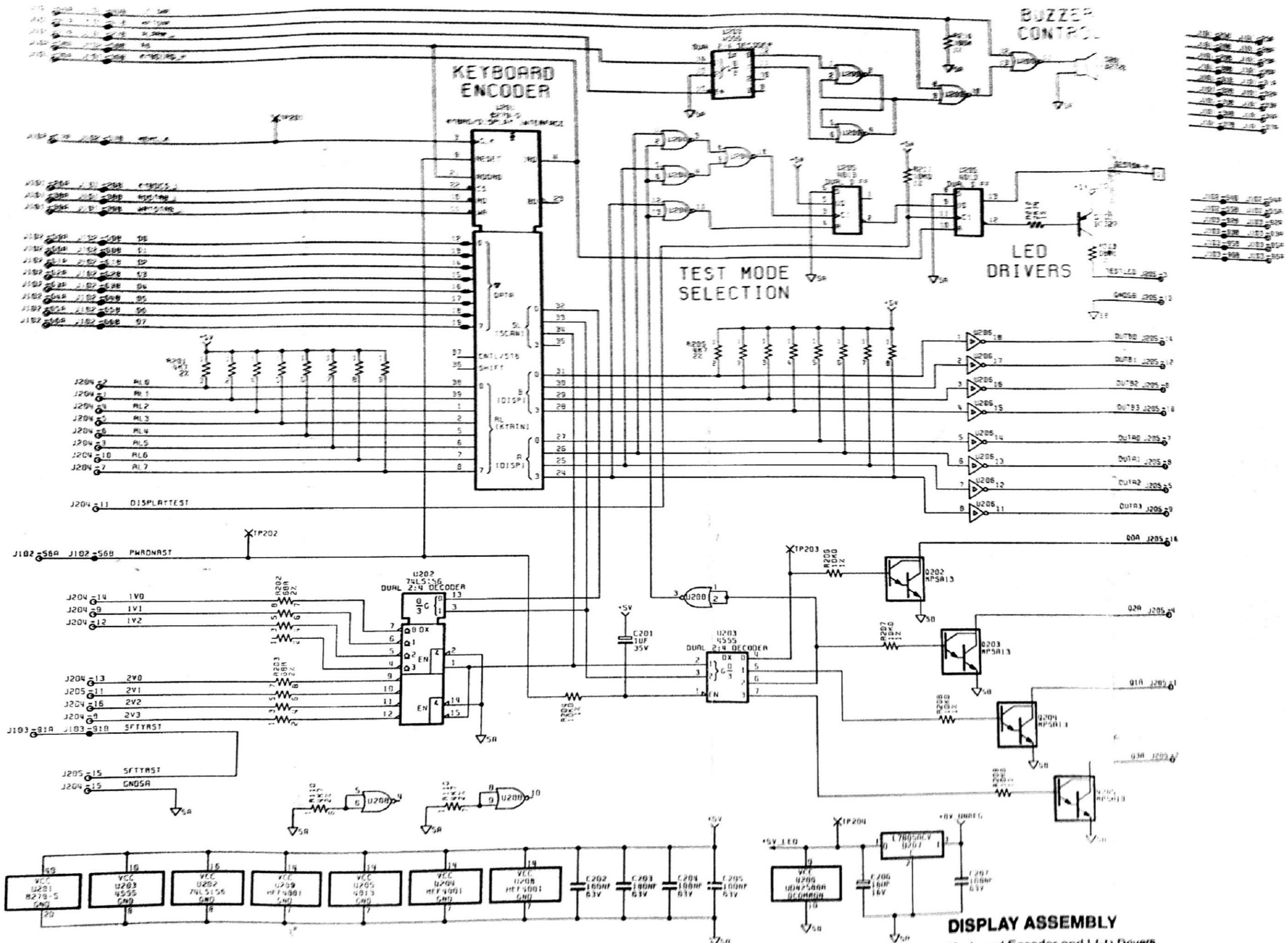


STRIP 5mm, TIN, WRAP ROUND PINS AND SOLDER. USE NO SLEEVES.

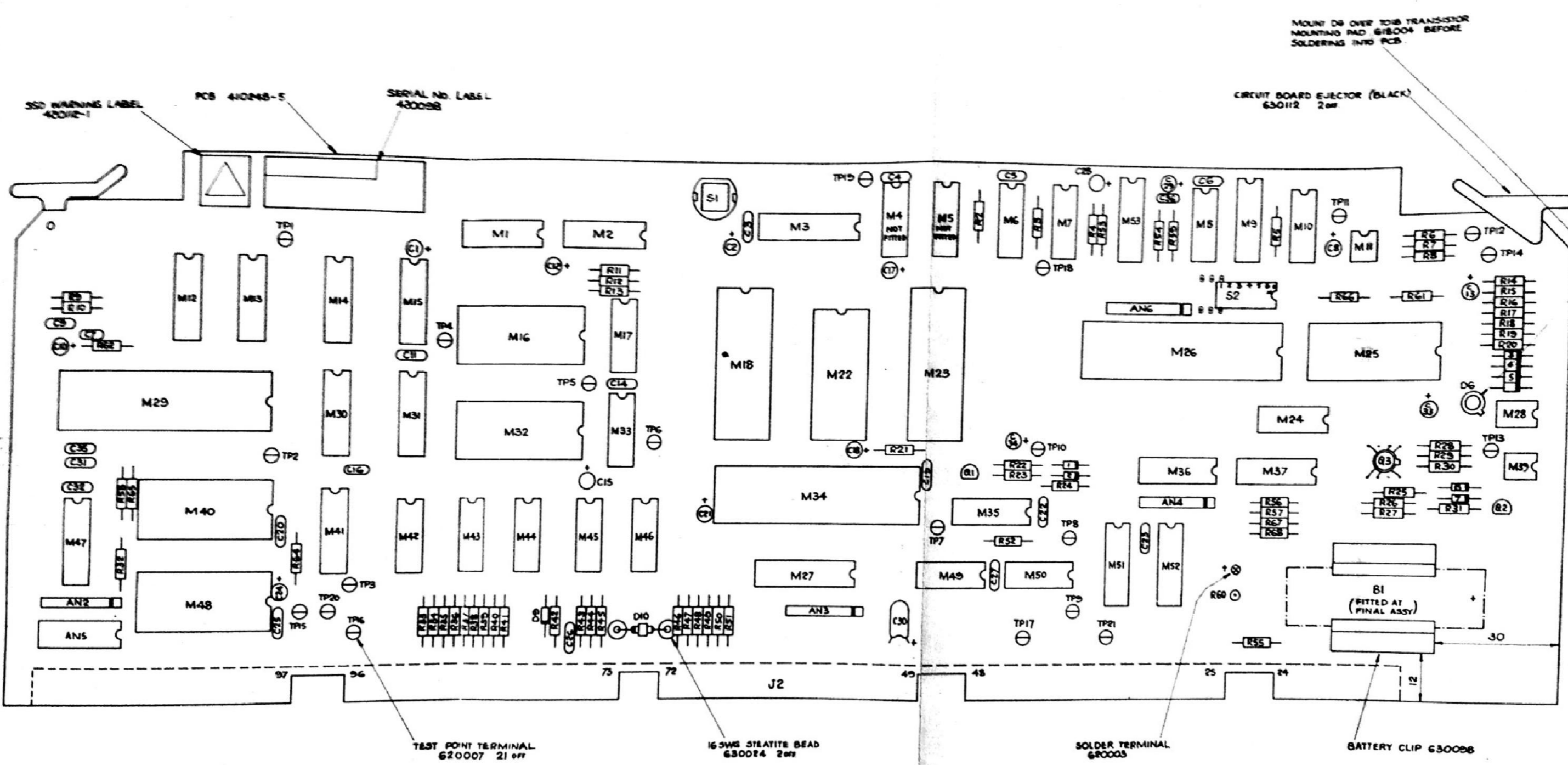
8 WIRE LINKS MADE FROM 540001

J101, J102, J103 - FIT ON SOLDER SIDE OF PCB

MOUNT TRANSISTORS AS SHOWN Q201, Q202, Q203, Q204, Q205.

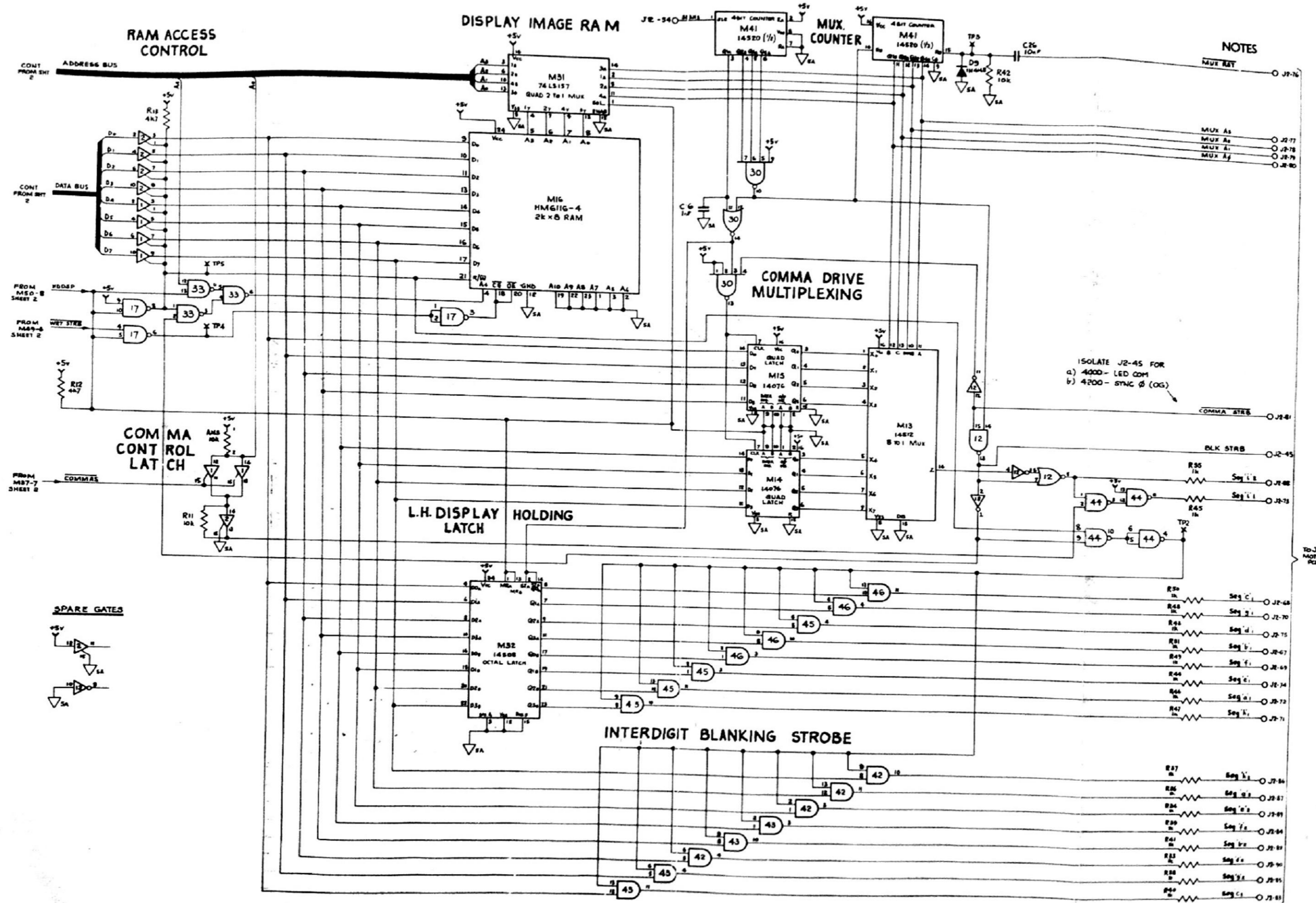


DISPLAY ASSEMBLY
Keyboard Encoder and LED Drivers
Circuit Diagram No. DC400993-1.1



MOUNTING IC's			
No. OF WAYS	PART No	No OFF	USED POSITIONS
6	605066	2	M11, M39
8	605059	1	M28
14	605060	14	M6-M8, M10, M17, M24, M33, M42-M46, M49, M50
16	605061	17	M1, M2, M0, M12-M15, M30, M31, M35-M37, M41, M47, M51-M53
20	605070	2	M3, M27
24	605064	6	M16, M22, M25, M32, M40, M48
28	605065	2	M19, M23
40	605050	3	M26, M29, M34

THE FOLLOWING COMPONENTS TO HAVE ONE GLASS BEAD 630243 ON EACH LEG: 28 off
 C3-C6, C9, C11, C14, C18, C20, C22, C28, C29, C27 & C32.



NOTES

ISOLATE J2-45 FOR
 a) 4000 - LED COM
 b) 4200 - SYNC Ø (OG)

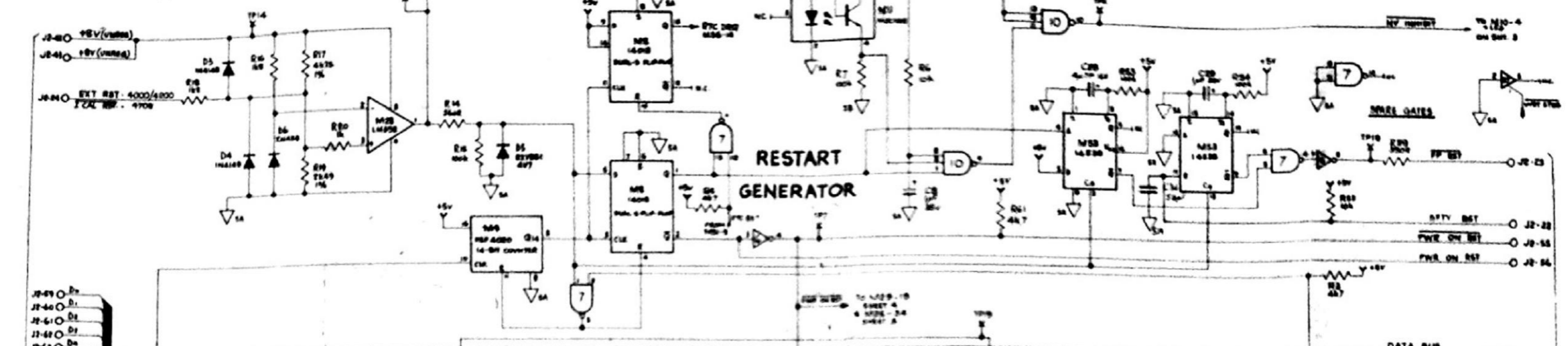
DIGITAL ASSEMBLY
 Display Multiplexing Logic

Circuit Diagram No. 430796-2.0 Sheet 1

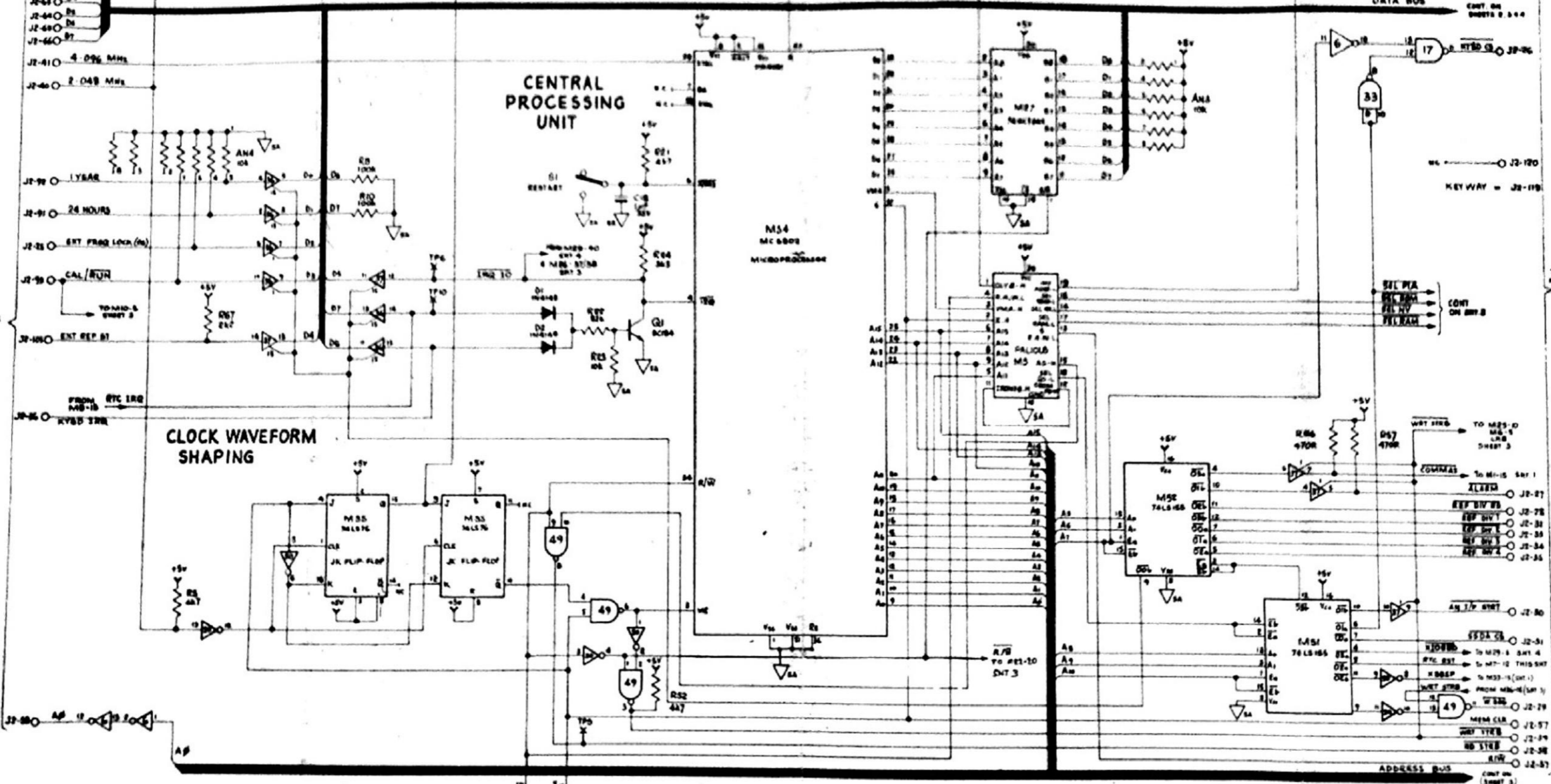


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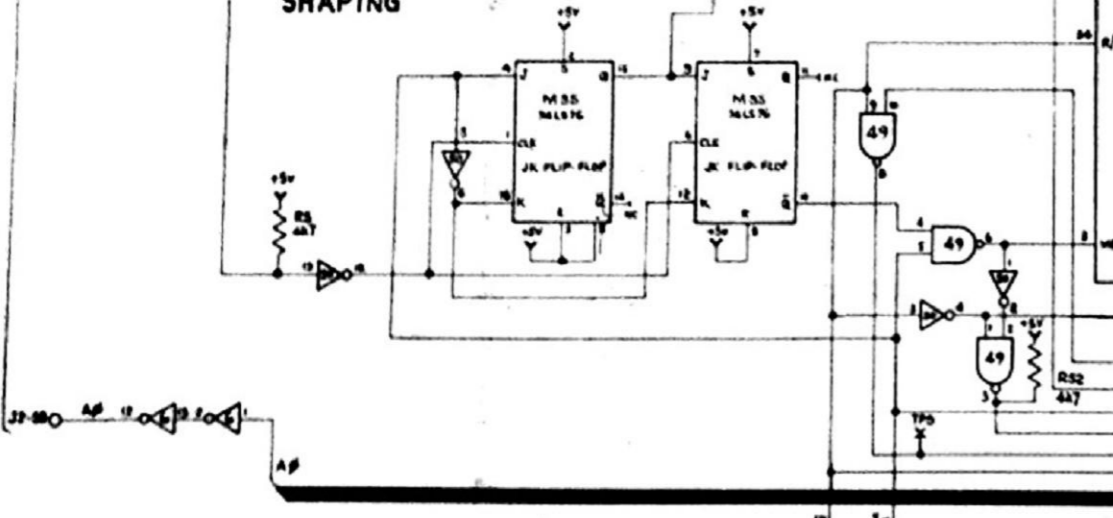
SUPPLY FAIL DETECTOR



CENTRAL PROCESSING UNIT



CLOCK WAVEFORM SHAPING



DIGITAL ASSEMBLY

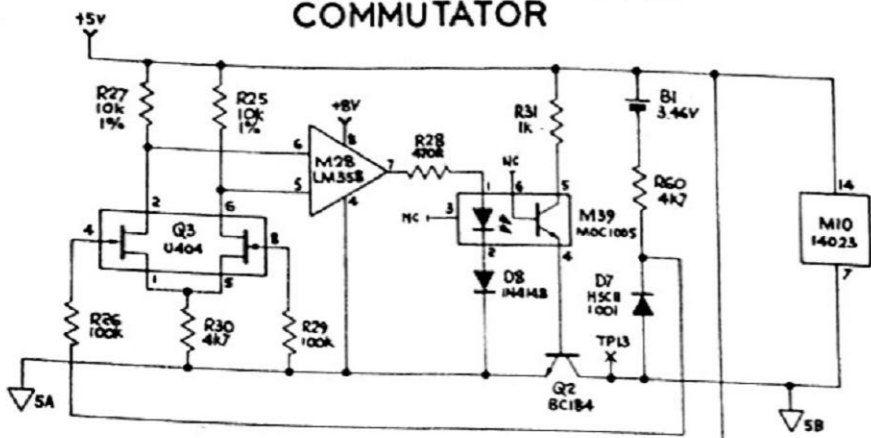
Microprocessor

Circuit Diagram No. 430796-2.0 Sheet 2

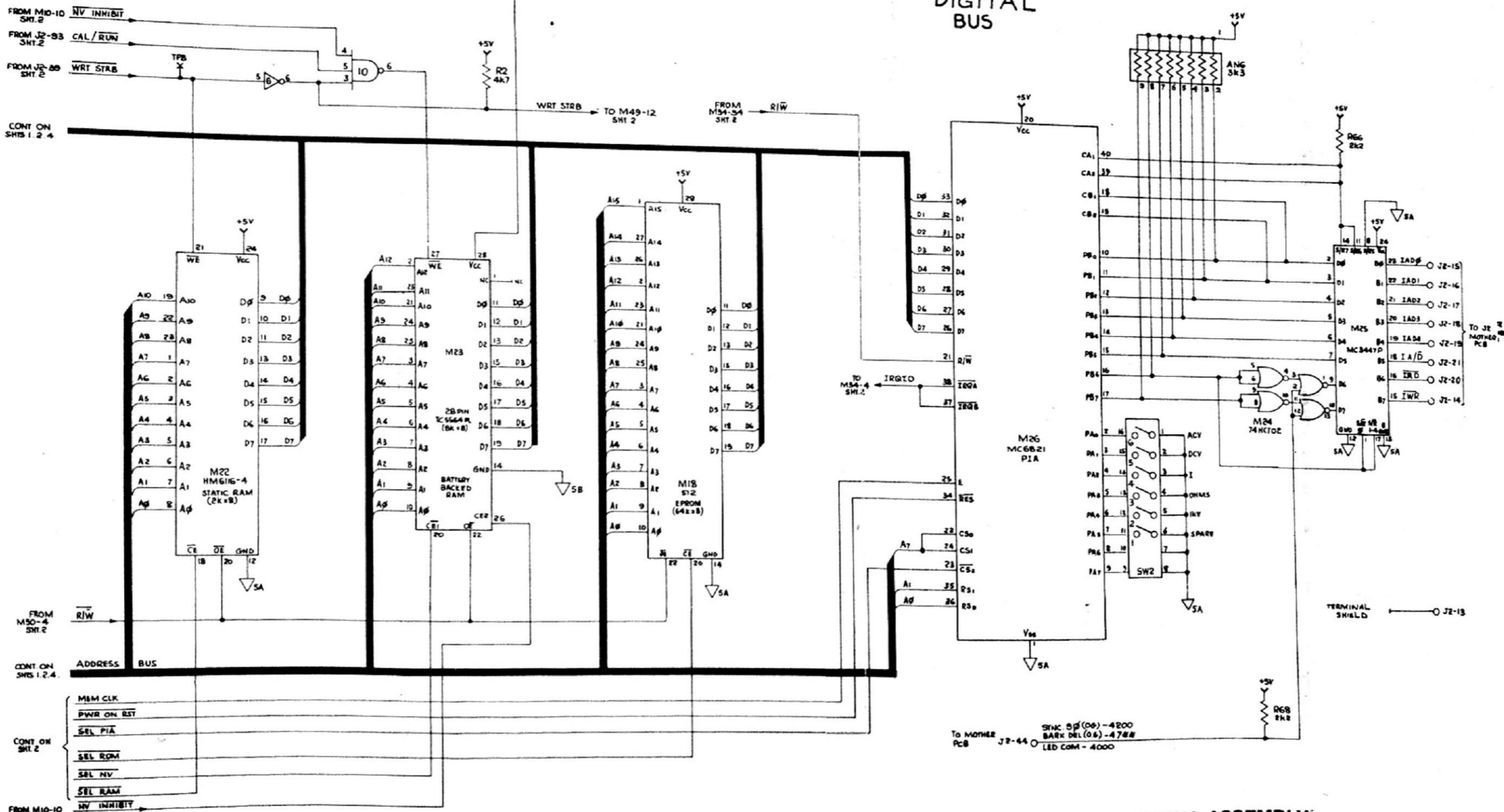


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NON VOLATILE RAM SUPPLY COMMUTATOR



DIGITAL BUS



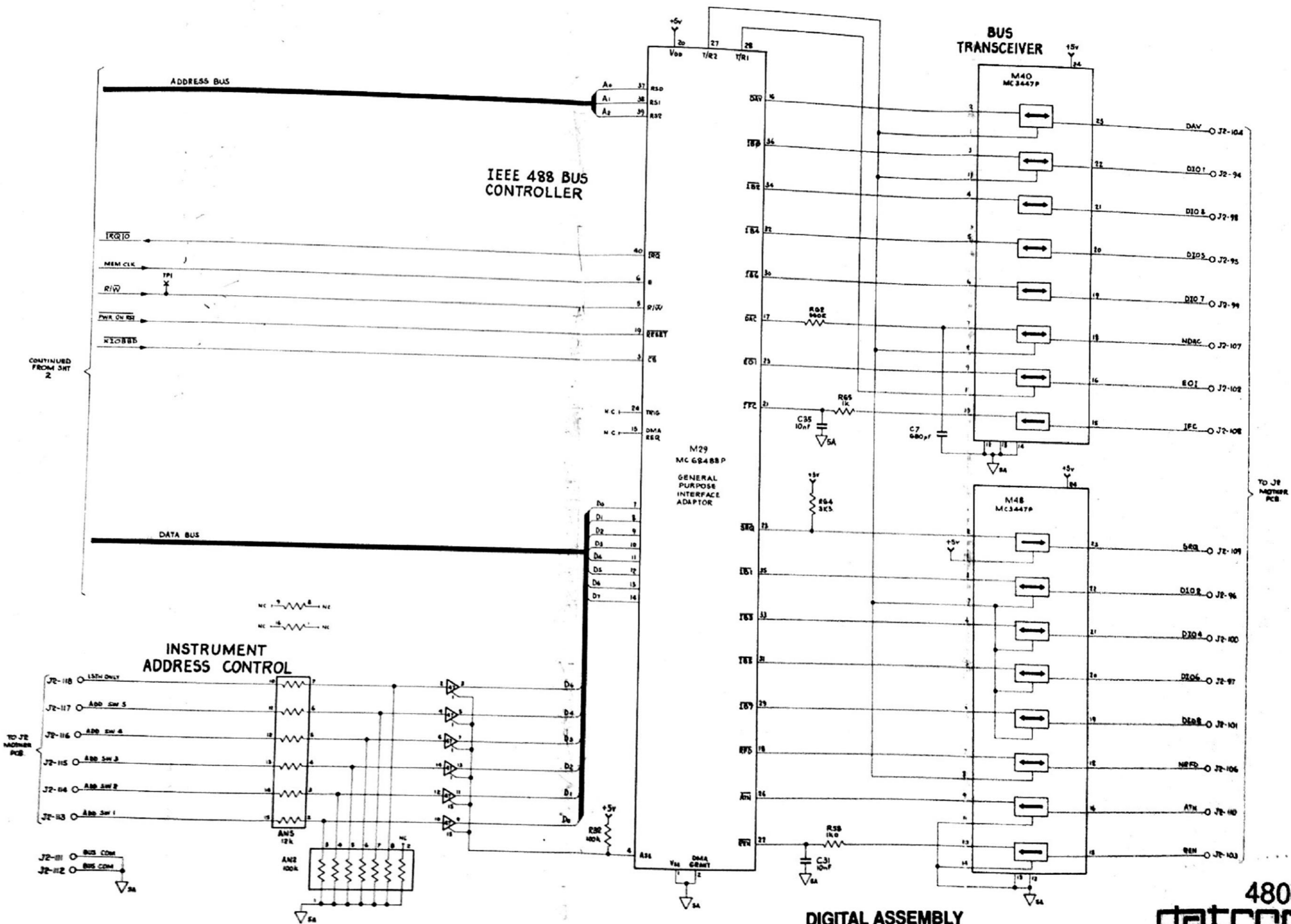
DIGITAL ASSEMBLY
Display Memory and Battery Backup



Circuit Diagram No. 430796-2.0 Sheet 3

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11.2-3



CONTINUED FROM SHT 2

TO J2 MOTHER PCB

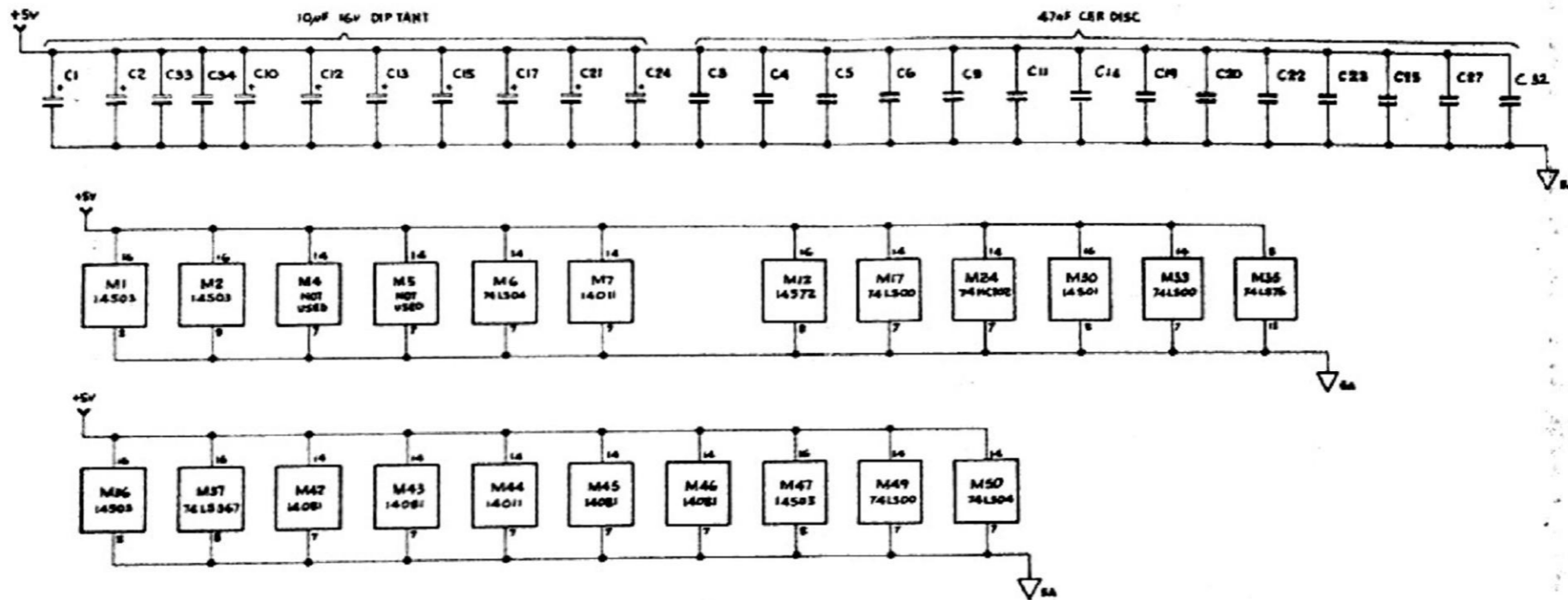
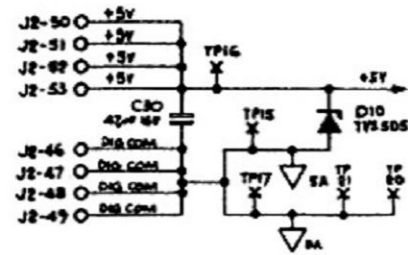
DIGITAL ASSEMBLY
IEEE 488 Interface



Circuit Diagram No. 430796-2.0 Sheet 4

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11.2-4



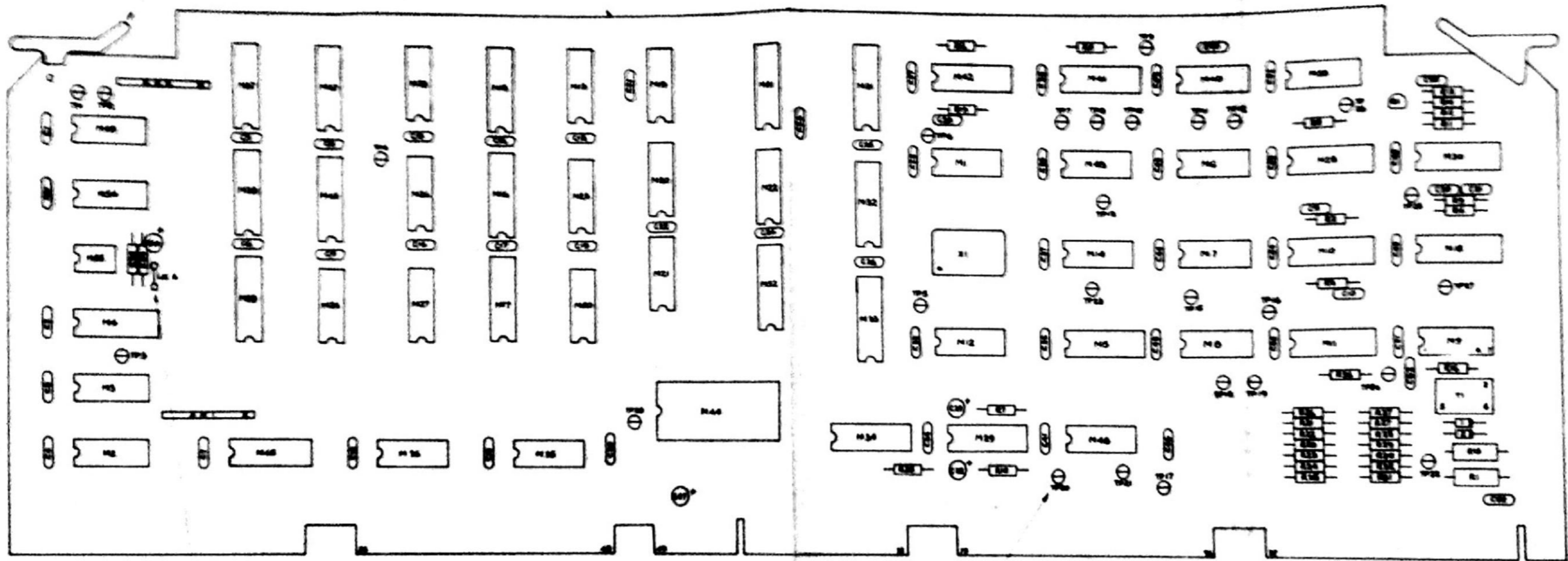
DIGITAL ASSEMBLY
I/C Power Supplies

Circuit Diagram No. 430786-2.0 Sheet 5

4808
datron
WAVETEK

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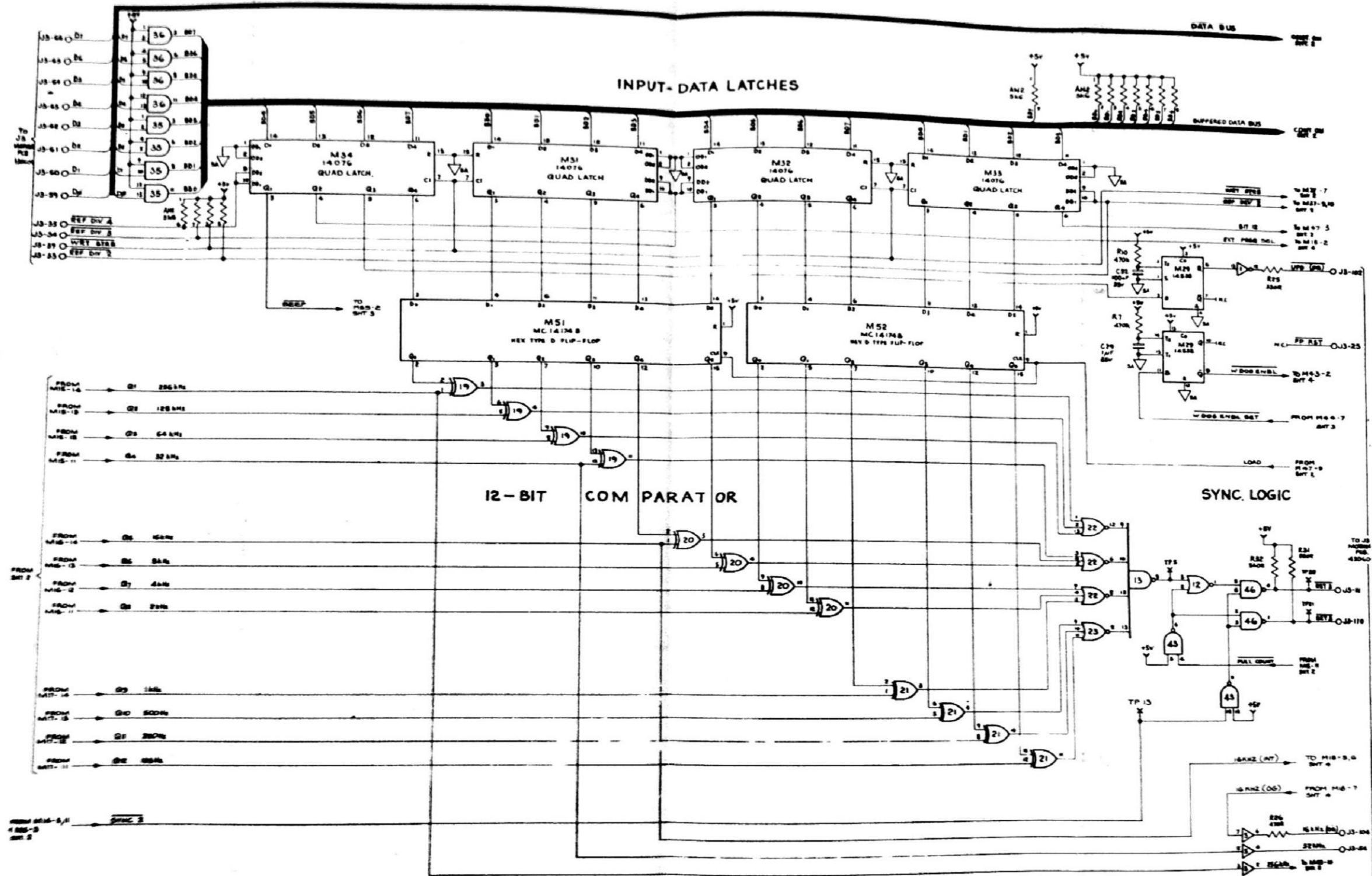
11.2-5



MASS LINK FROM 22 5005 01C WITH
680002 LINK TO PINS 6 AND 1001 LOOP

TEST POINT TERMINAL
680007 87um

NO GLASS BEAD 680245 FITTED TO EACH LEG
OF THE FOLLOWING COMPONENTS: C1-C2,
C3-C5, C8-C26, C27-C46, C48, C49,
C51-C52, C53



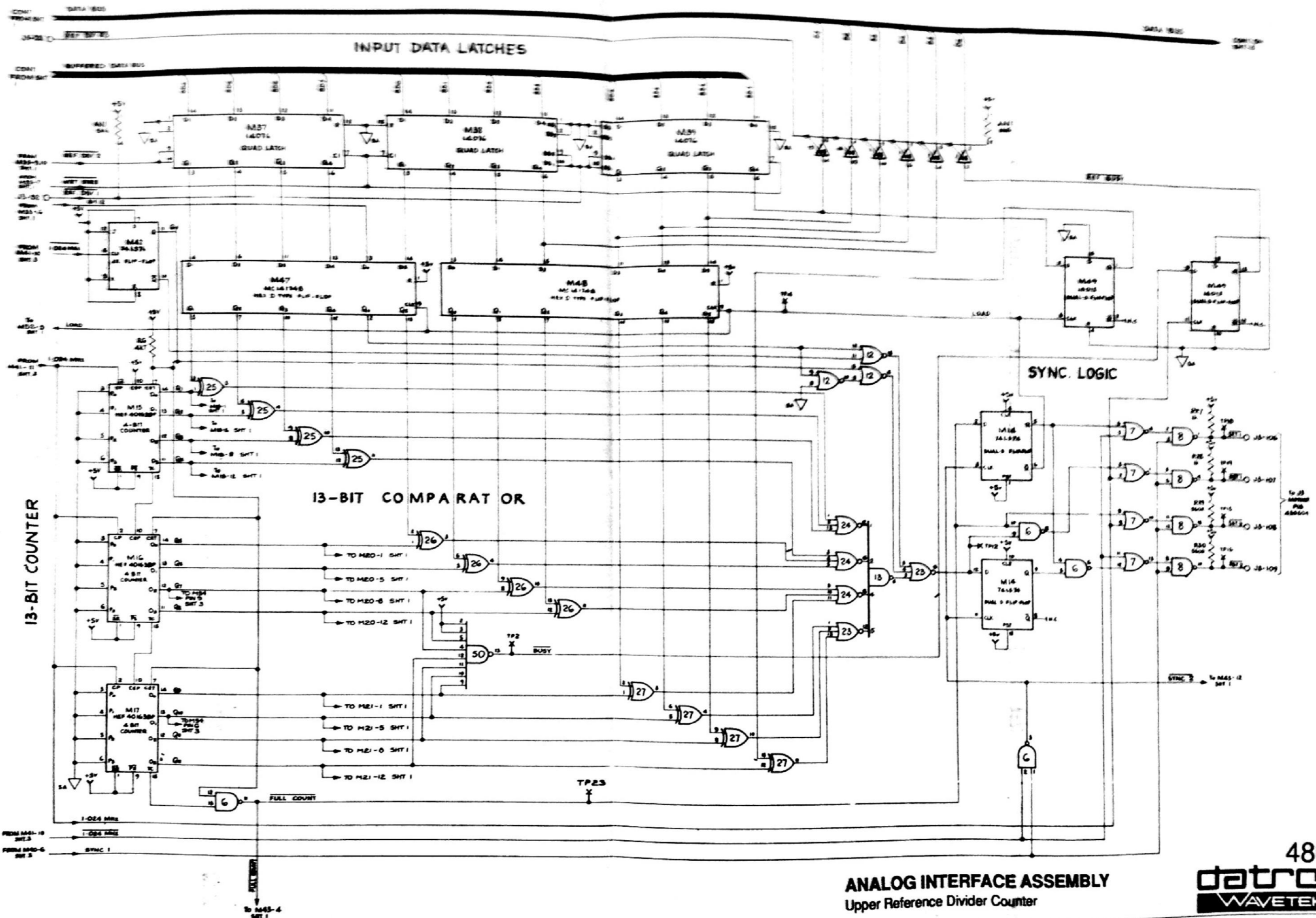
ANALOG INTERFACE ASSEMBLY
Lower Reference Divider Counter

Circuit Diagram No. 430648-1.0 Sheet 1

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WAVETEK

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11.3-1



ANALOG INTERFACE ASSEMBLY
Upper Reference Divider Counter

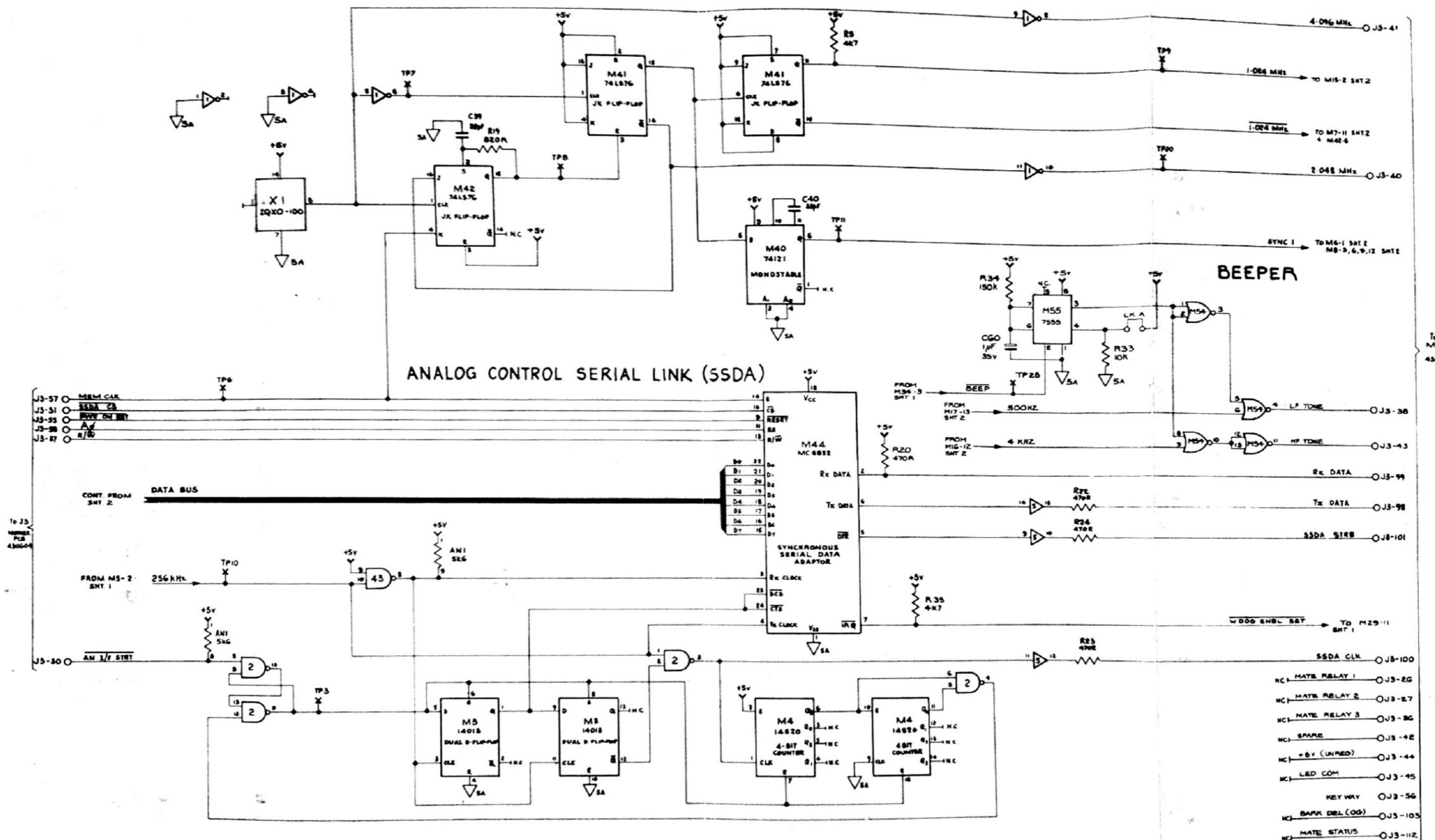
Circuit Diagram No. 430688-1.1 Sheet 2



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MASTER CLOCKS

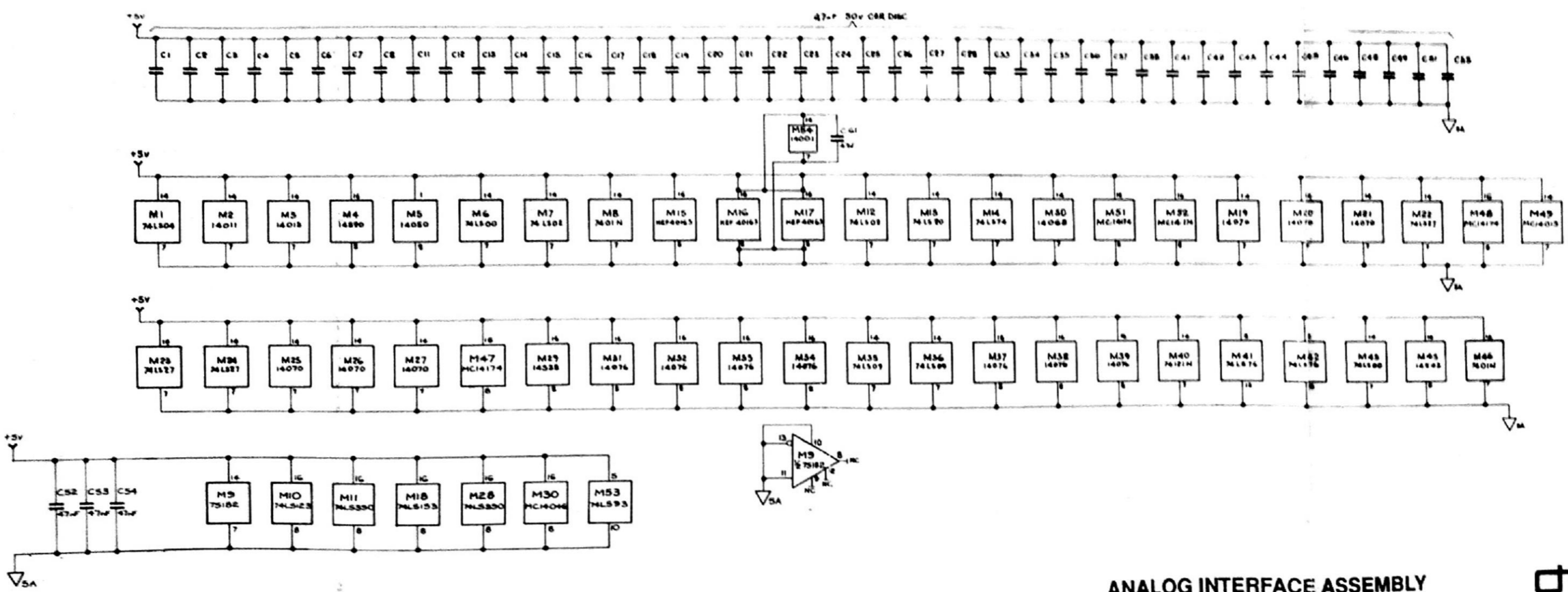
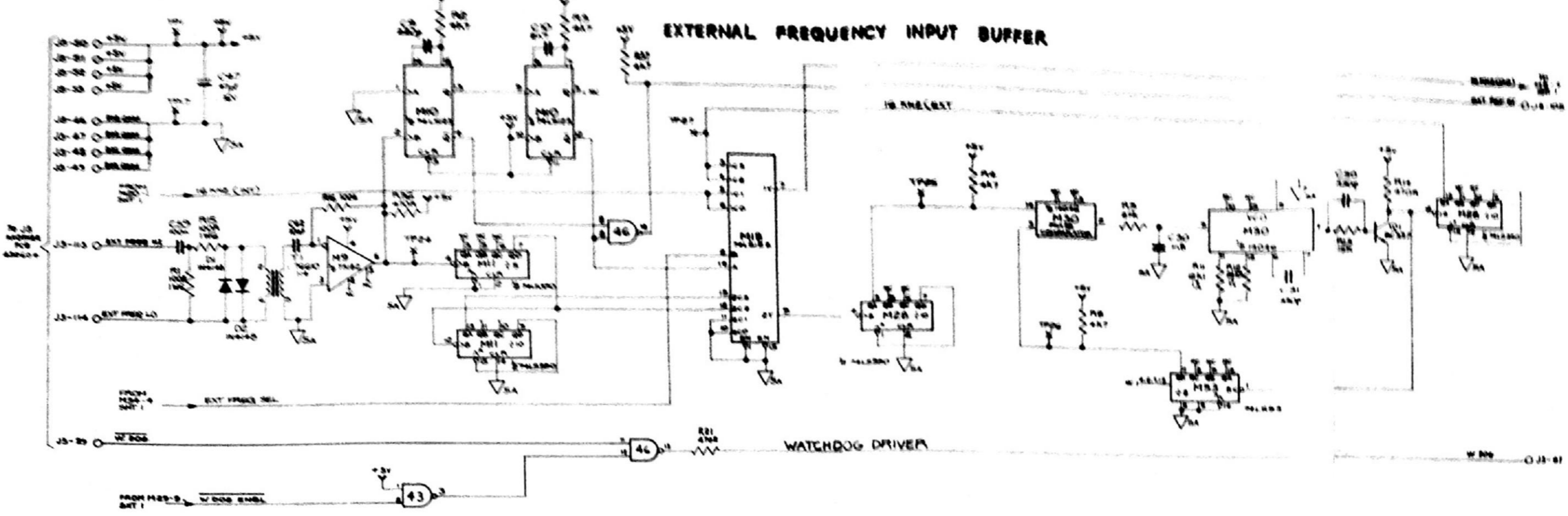


ANALOG INTERFACE ASSEMBLY Master Clocks and Analog Serial Link

Circuit Diagram No. 430648-1.1 Sheet 3

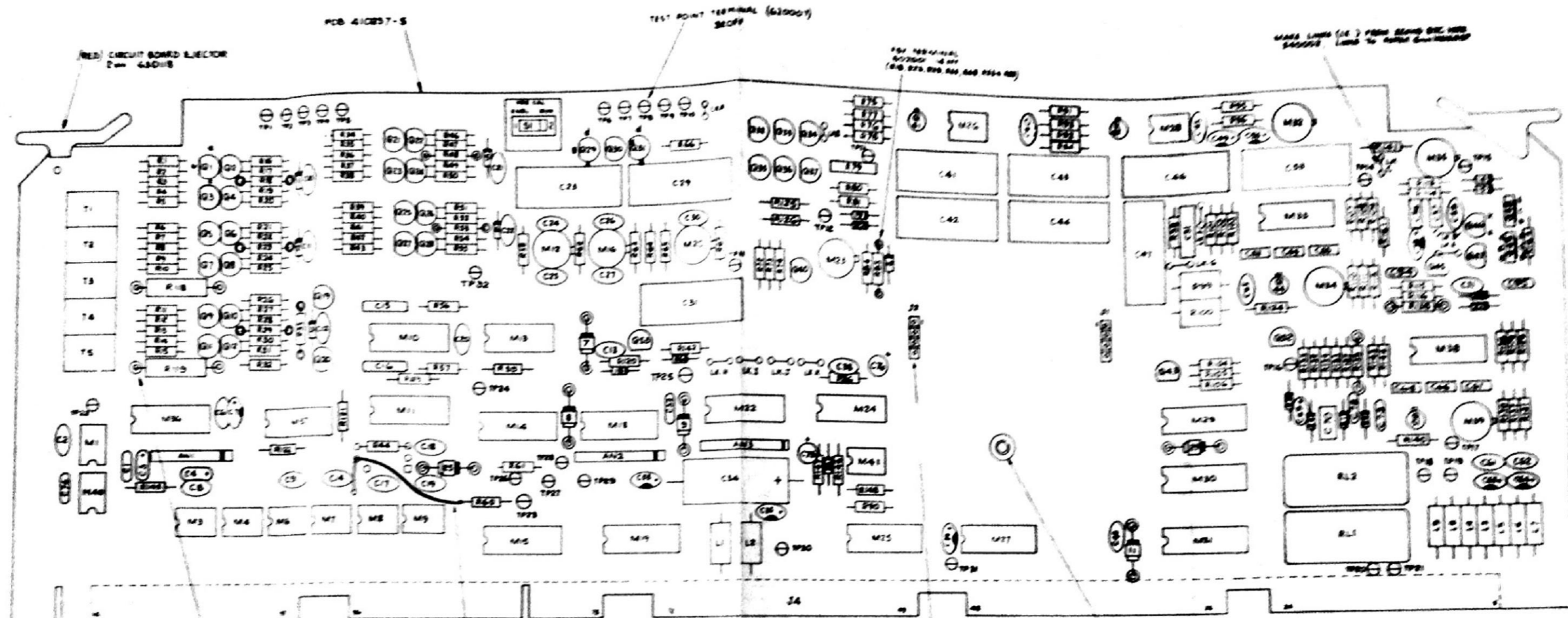


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ANALOG INTERFACE ASSEMBLY
 Frequency Lock, Watchdog Driver and I/C Power Supplies
 Circuit Diagram No. 430648-1.2 Sheet 4





WARRANTY: 1 YEAR, 24 HRS. 01-08, 01-09, 01-10, 01-11, 01-12 ON
 INSULATING BOARD - USE LEAD 430024 2mm

ADD WIRE LEAD AS SHOWN SHOWN

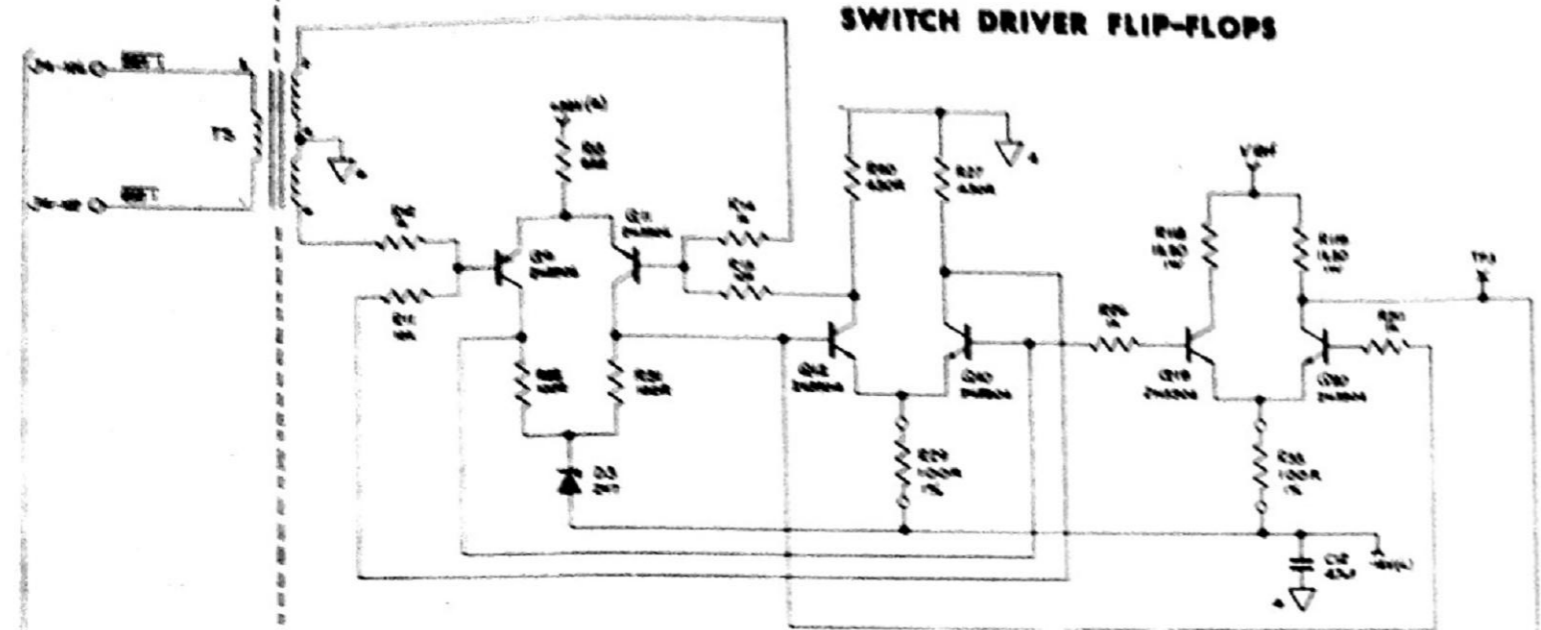
4mm 17 PCB PLUG 600019 2mm
 01-08-09-10-11-12 MARK PCB

16 2mm SHIMMED STANCHION CROGEE
 REQUIRED TO HOLD SW PLUG ON BOARD 1-16

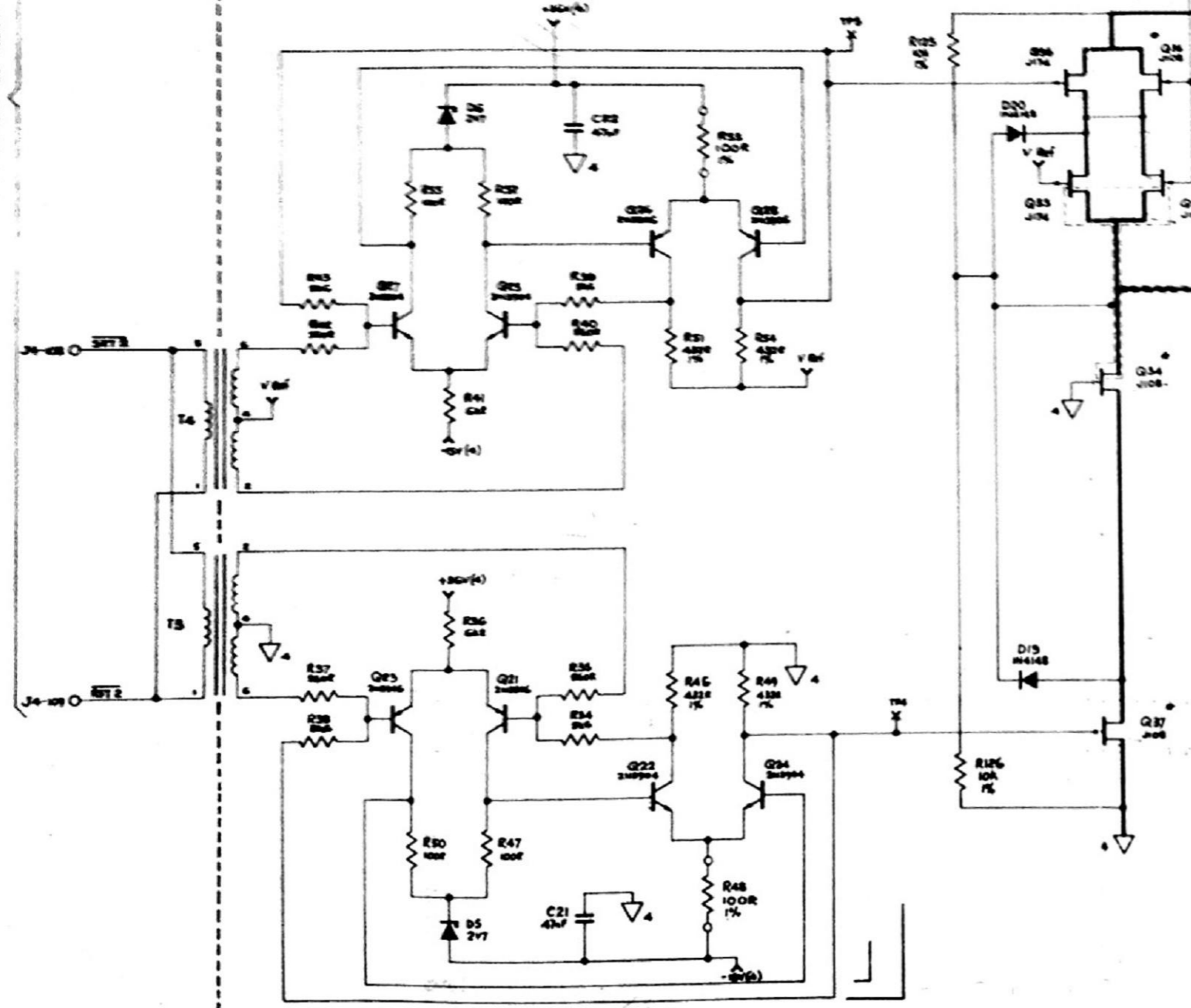
MOUNTING ICs
 FIT IN MOUNTING HOLES M1-M5, M10-M15, M20-M25, M30-M35
 ON 8-PIN DIL SOCKET 600009 11mm
 FIT IN MOUNTING HOLES M6-M9, M16-M19, M26-M29, M36-M39
 ON 4-PIN DIL SOCKET 600010 5mm
 FIT IN MOUNTING HOLES M11-M14, M21-M24, M31-M34, M41-M44
 ON 4-PIN DIL SOCKET 600011 5mm

70 14 MICROR PCB 4808/14

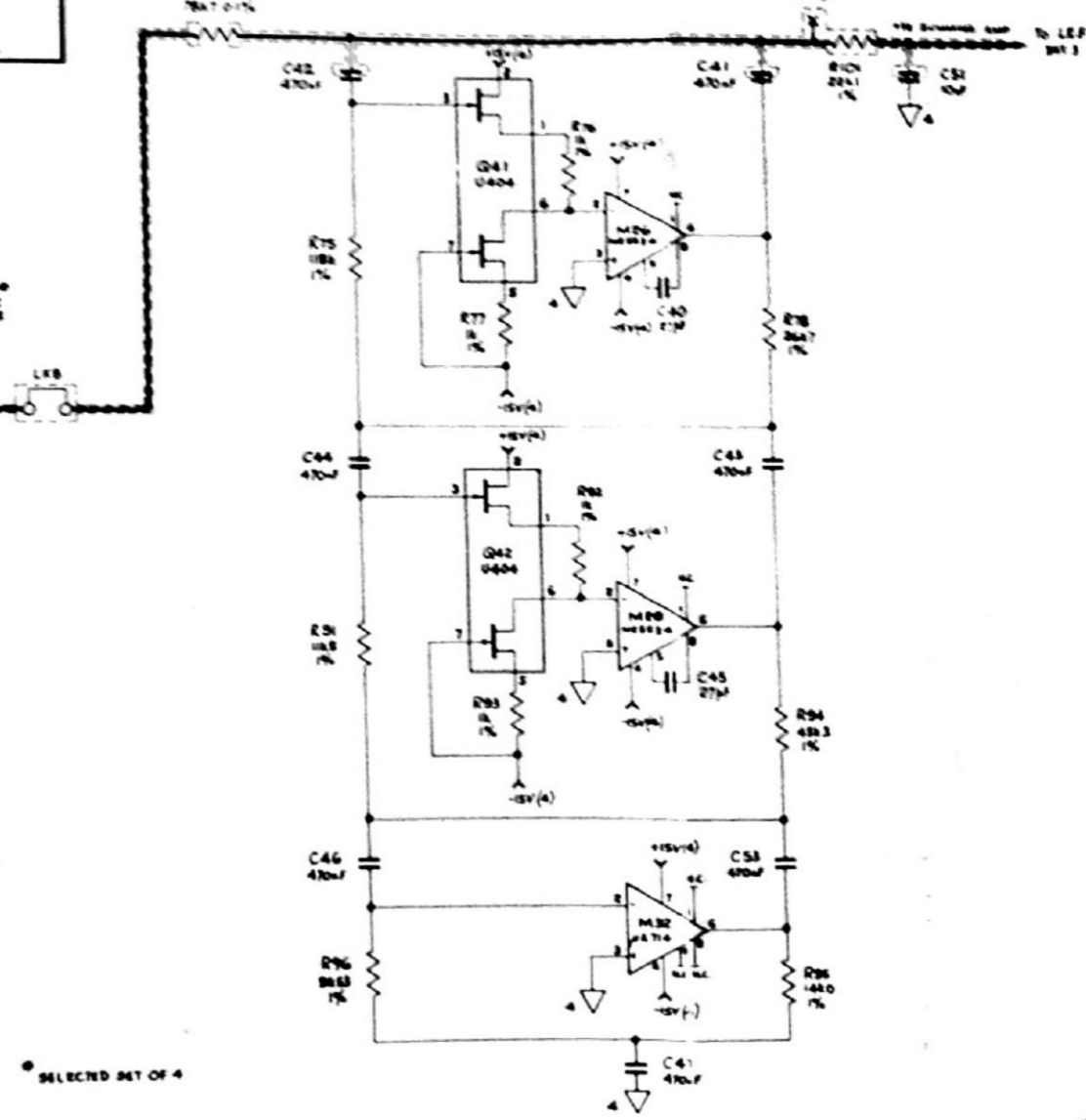
SWITCH DRIVER FLIP-FLOPS



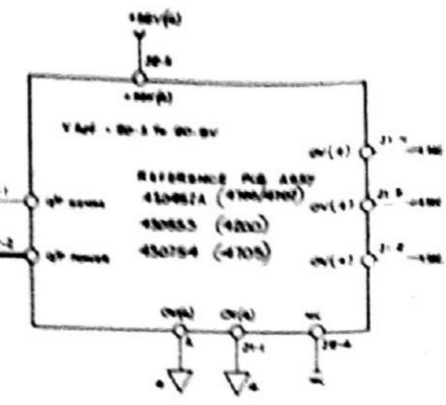
MAIN SWITCH



7 POLE BESSEL FILTER



REPROD MT OF 4



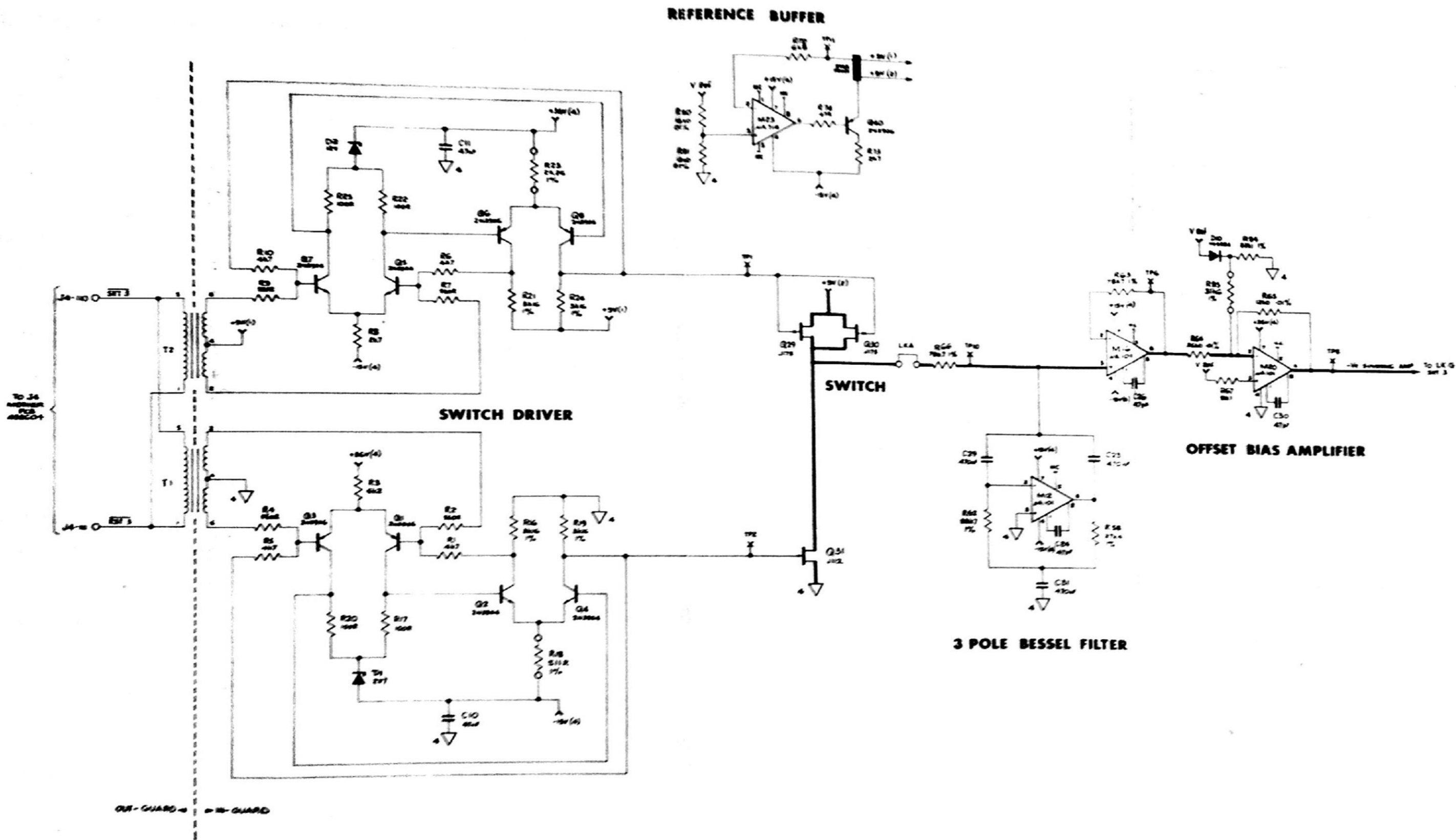
REFERENCE DIVIDER ASSEMBLY
Most-Significant Switch and Filter

Circuit Diagram No. 430(52-4.1 Sheet 1



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REFERENCE DIVIDER ASSEMBLY
Least-Significant Switch and Filter

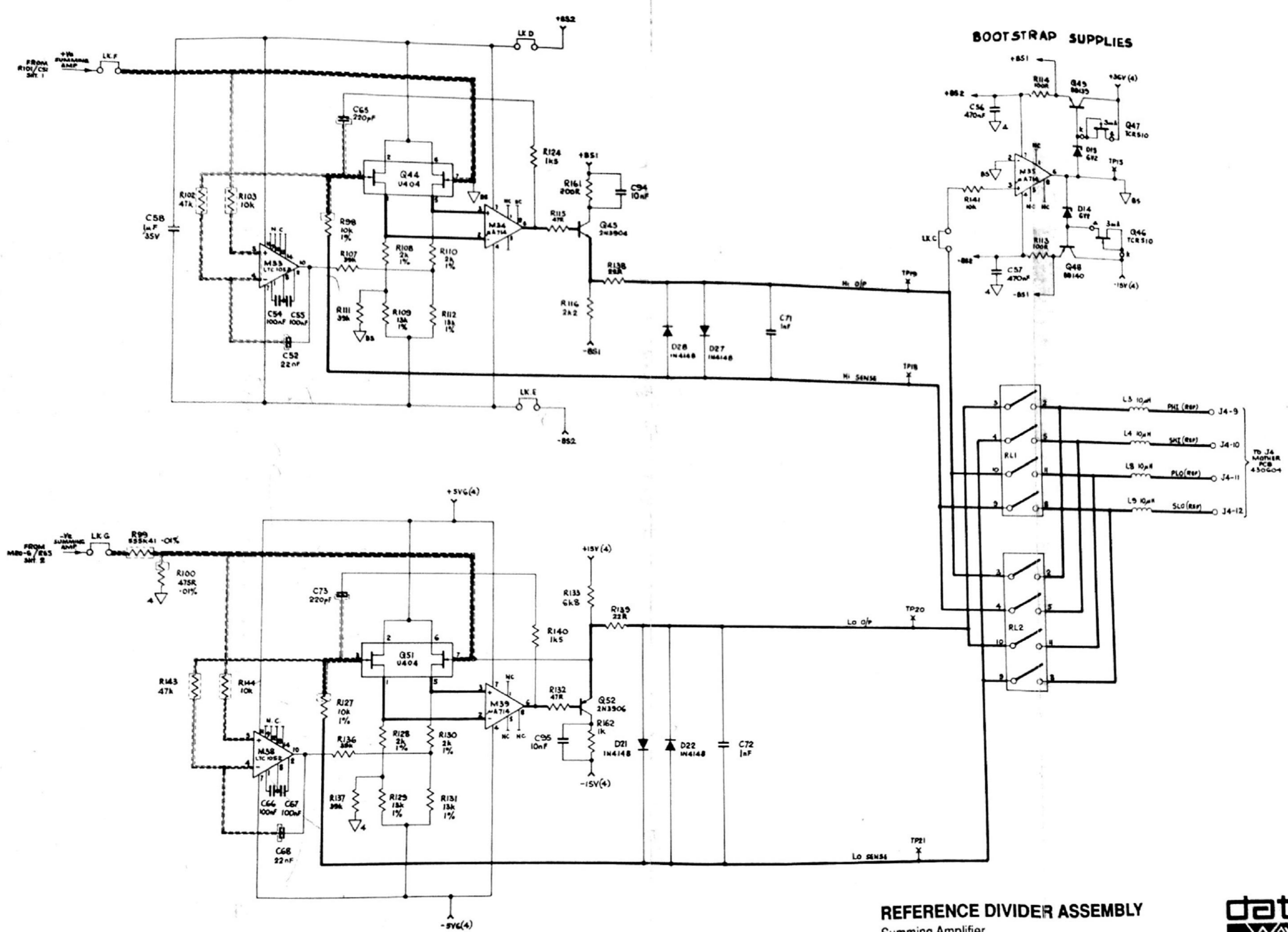
Circuit Diagram No. 430952-4.1 Sheet 2



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11.4-2



REFERENCE DIVIDER ASSEMBLY
Summing Amplifier

Circuit Diagram No. 430652-4.2 Sheet 3

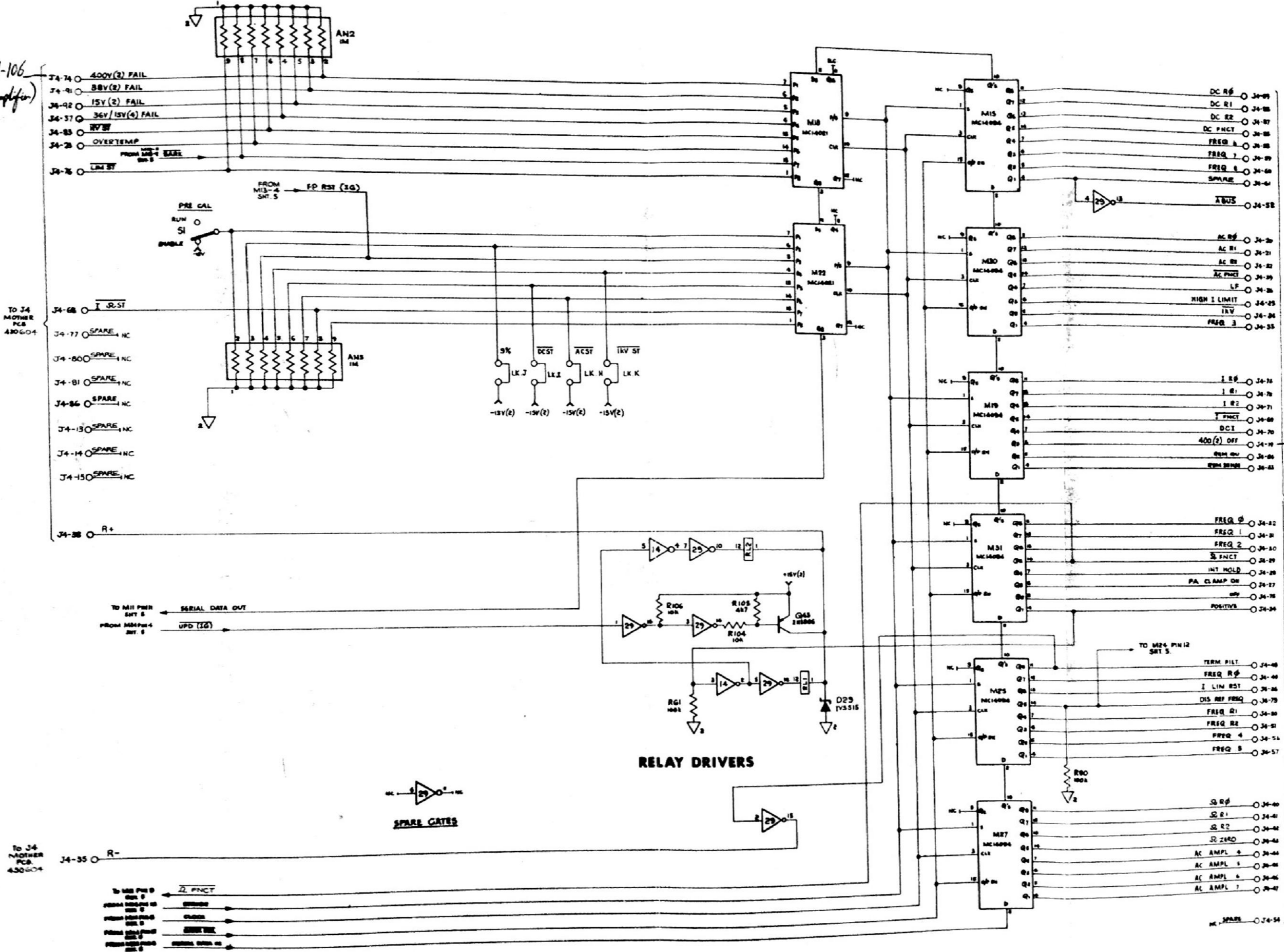


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to 59-106
(Power Amplifier)

TO J4
MOTHER
PCB
430604

TO J4
MOTHER
PCB
430604



59-25
(Power Amplifier)

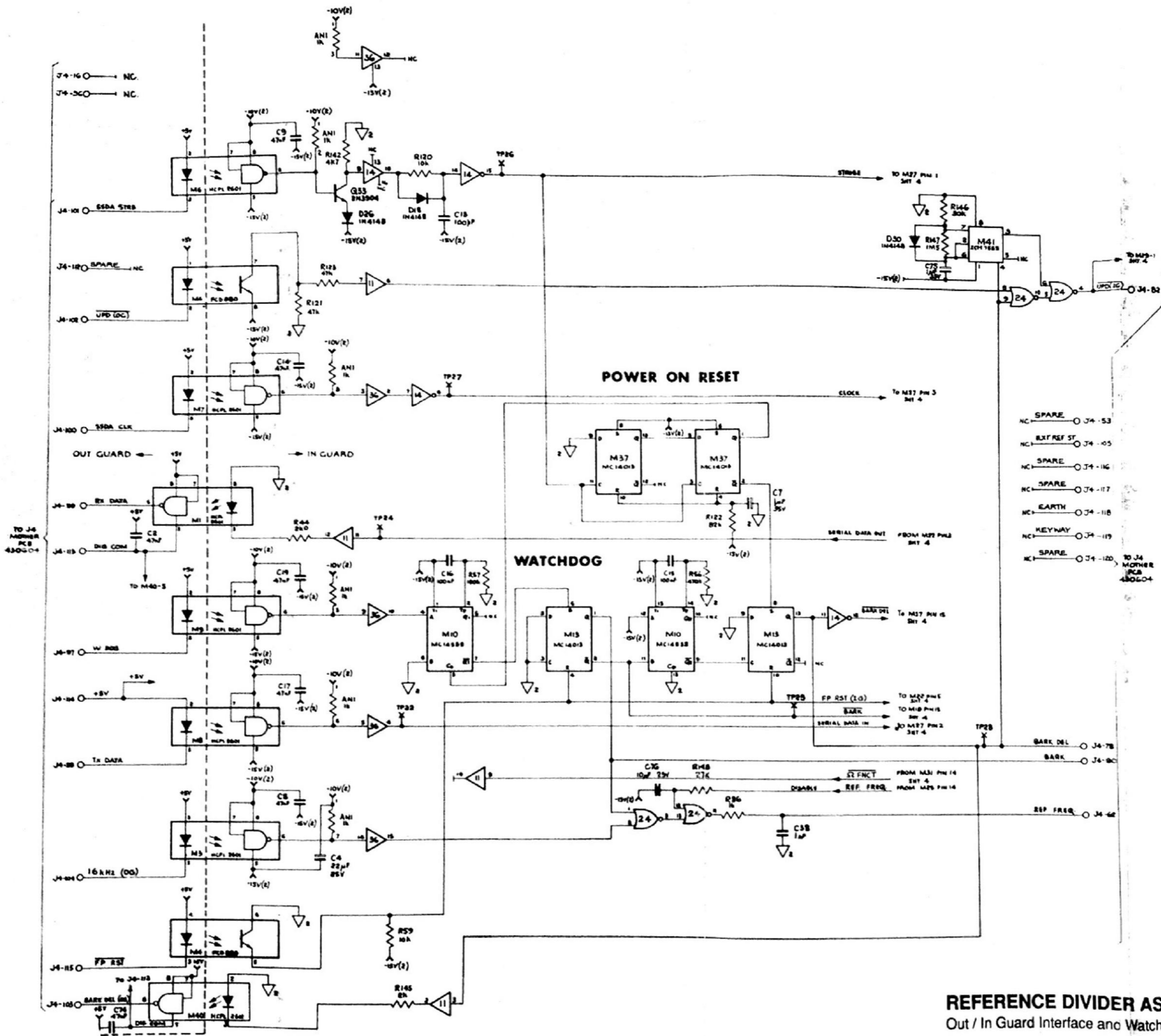
RELAY DRIVERS

SPARE GATES

REFERENCE DIVIDER ASSEMBLY
Serial / Parallel Data Converter

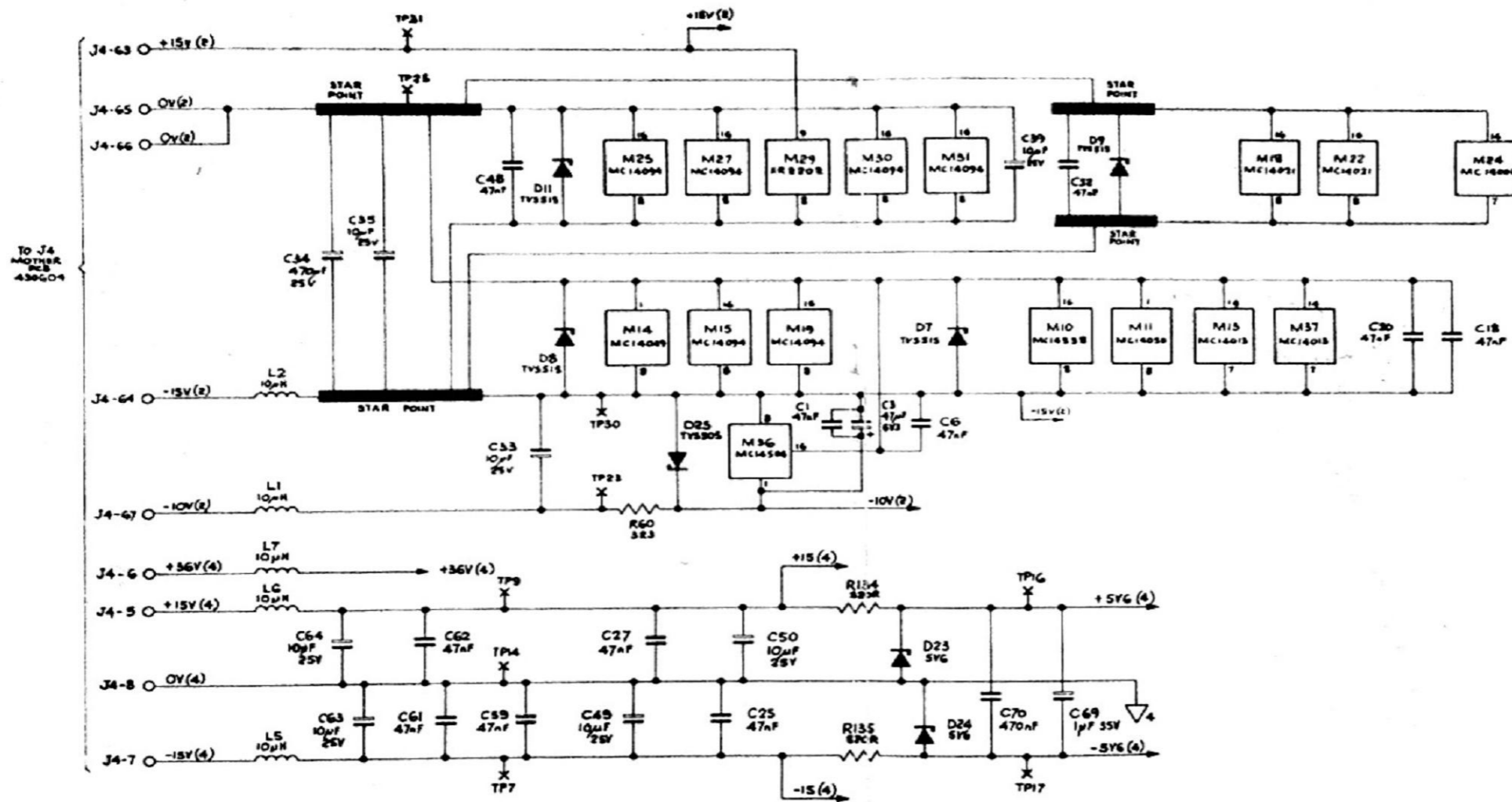


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REFERENCE DIVIDER ASSEMBLY
Out / In Guard Interface and Watchdog





REFERENCE DIVIDER ASSEMBLY
Power Supplies

Circuit Diagram No. 430652-4.0 Sheet 6



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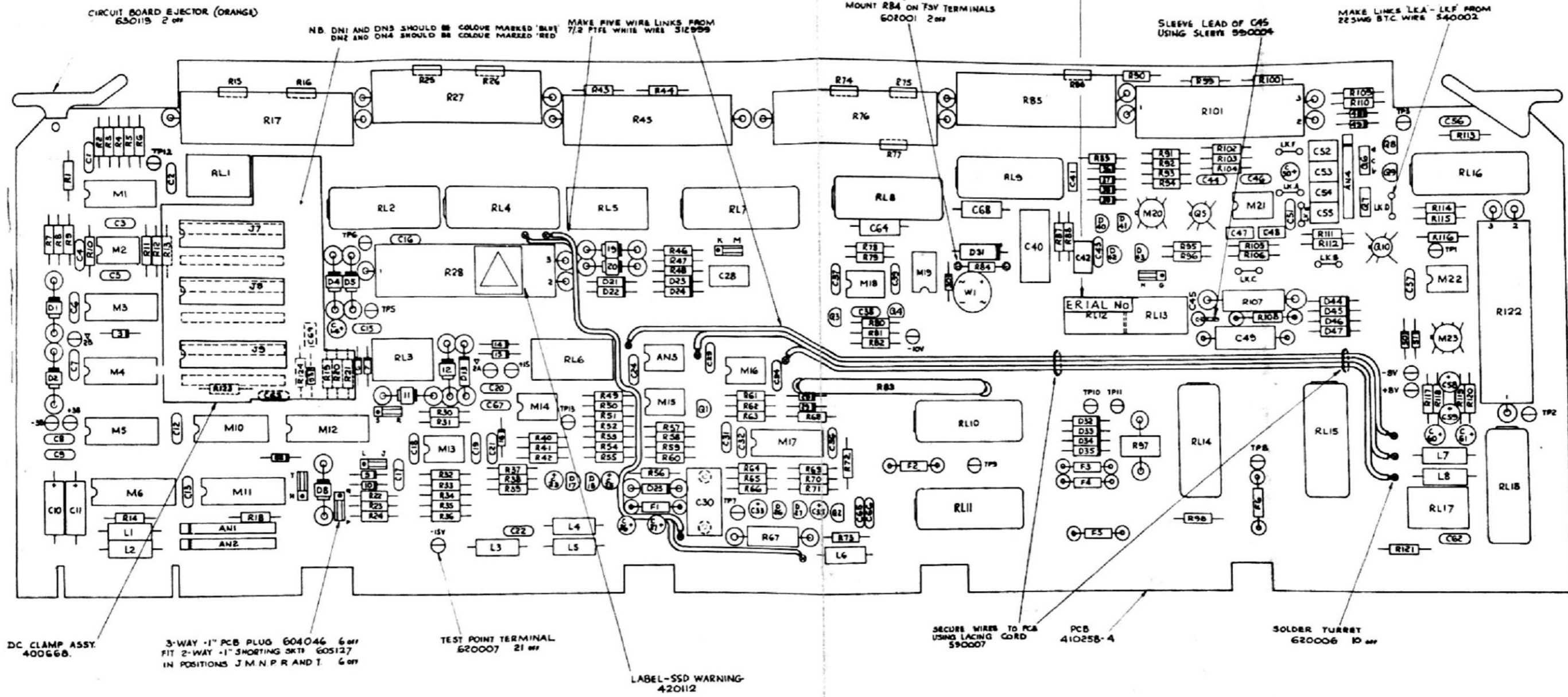
MOUNTING I.C.s.			
N° WAYS	PART N°	N° OFF	USED TO MOUNT
8	605059	3	M2, 13, 14, 15, 16, 18, 19, 21, 22
14	605060	6	M1, 3, 4, 5, 10, 17
16	605061	3	M6, 11, 12
20	605070	3	M7, 8, 9

MOUNT THE FOLLOWING COMPONENTS ON LARGE CERAMIC BEADS G50024, 2 PER LEAD: R17, R27, R28, R43, R76, R85, R101, R107, R122

THE FOLLOWING COMPONENTS TO BE MOUNTED ALSO ON LARGE BEADS, 1 PER LEAD: D1, D2, D4, D5, D8, D11, D12, D13, D19, D20, D25, R67, R97

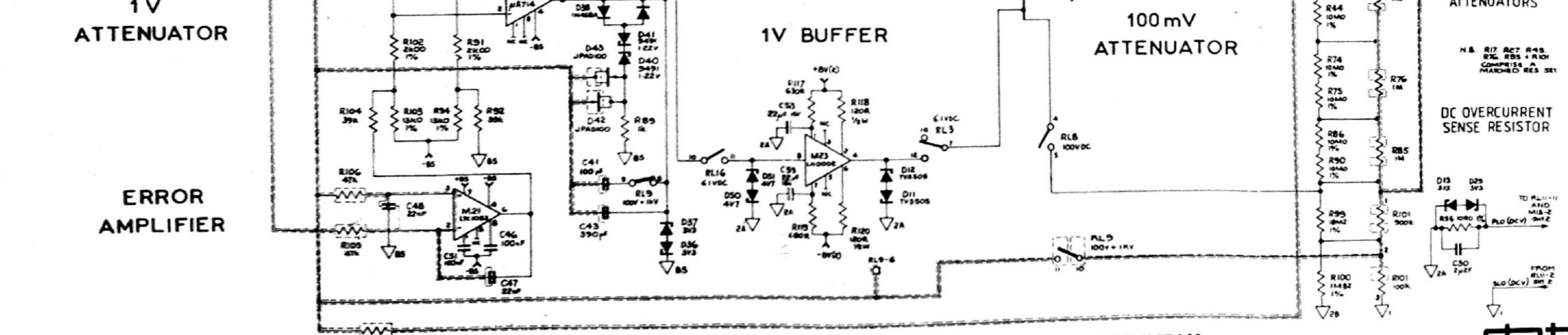
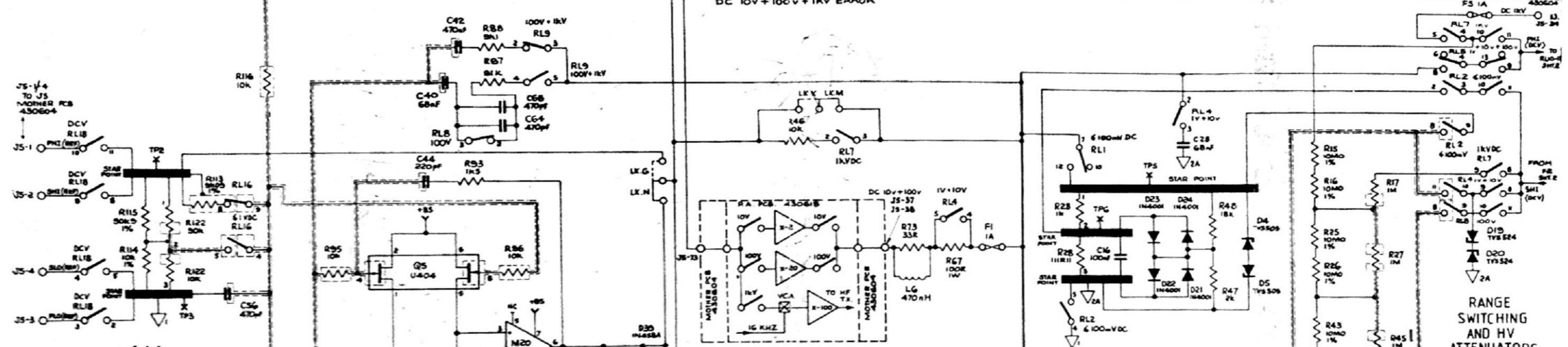
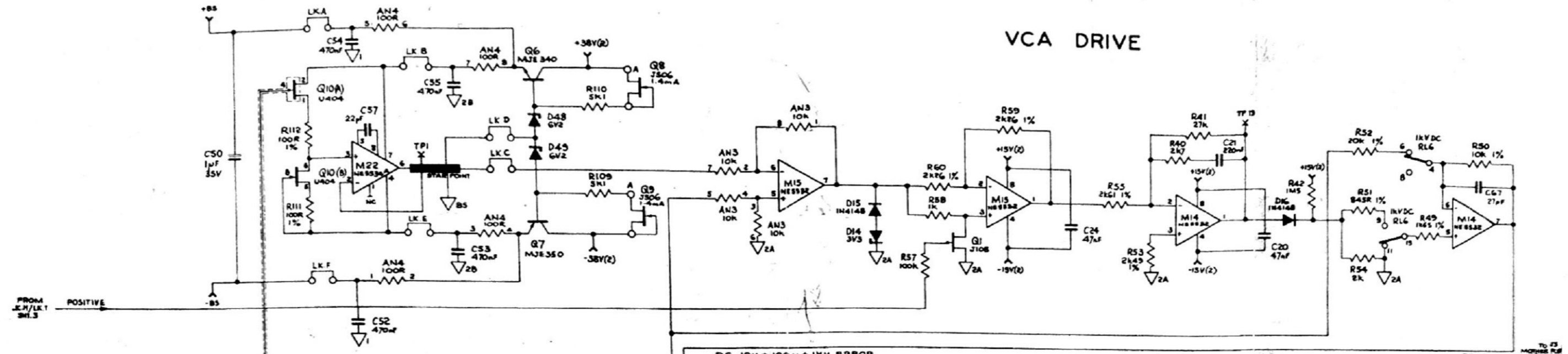
THE FOLLOWING COMPONENTS TO BE MOUNTED ON SMALL CERAMIC BEADS G50026: F1-F6, C30 1 PER LEAD, R83, R108, C49, 2 PER LEAD

N.B. CLASS BEAD 840043 FITTED TO EACH LEG OF THE FOLLOWING COMPONENTS: C4, C8-C9, C18, C19, C26-C28, C32, C34, C35, C36, C44



BOOTSTRAP SUPPLIES

VCA DRIVE



**1V
ATTENUATOR**

1V BUFFER

**100mV
ATTENUATOR**

**RANGE
SWITCHING
AND HV
ATTENUATORS**

**ERROR
AMPLIFIER**

**DC OVERCURRENT
SENSE RESISTOR**

DC ASSEMBLY
100mV, 1V, 10V, 100V & 1kV Outputs

Circuit Diagram No. 430536-4.2 Sheet 1



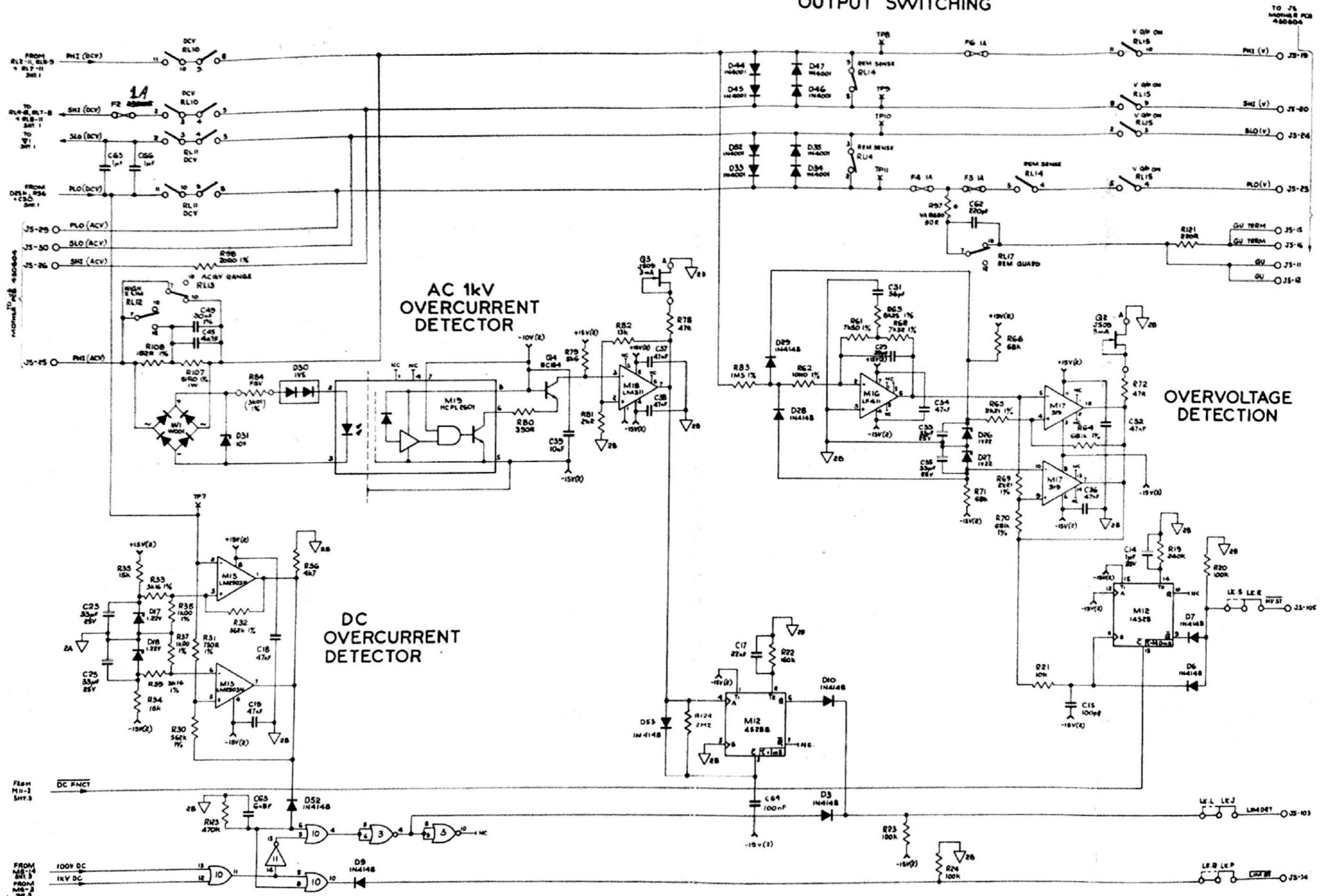
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11.5-1

11.5-2

OUTPUT SWITCHING



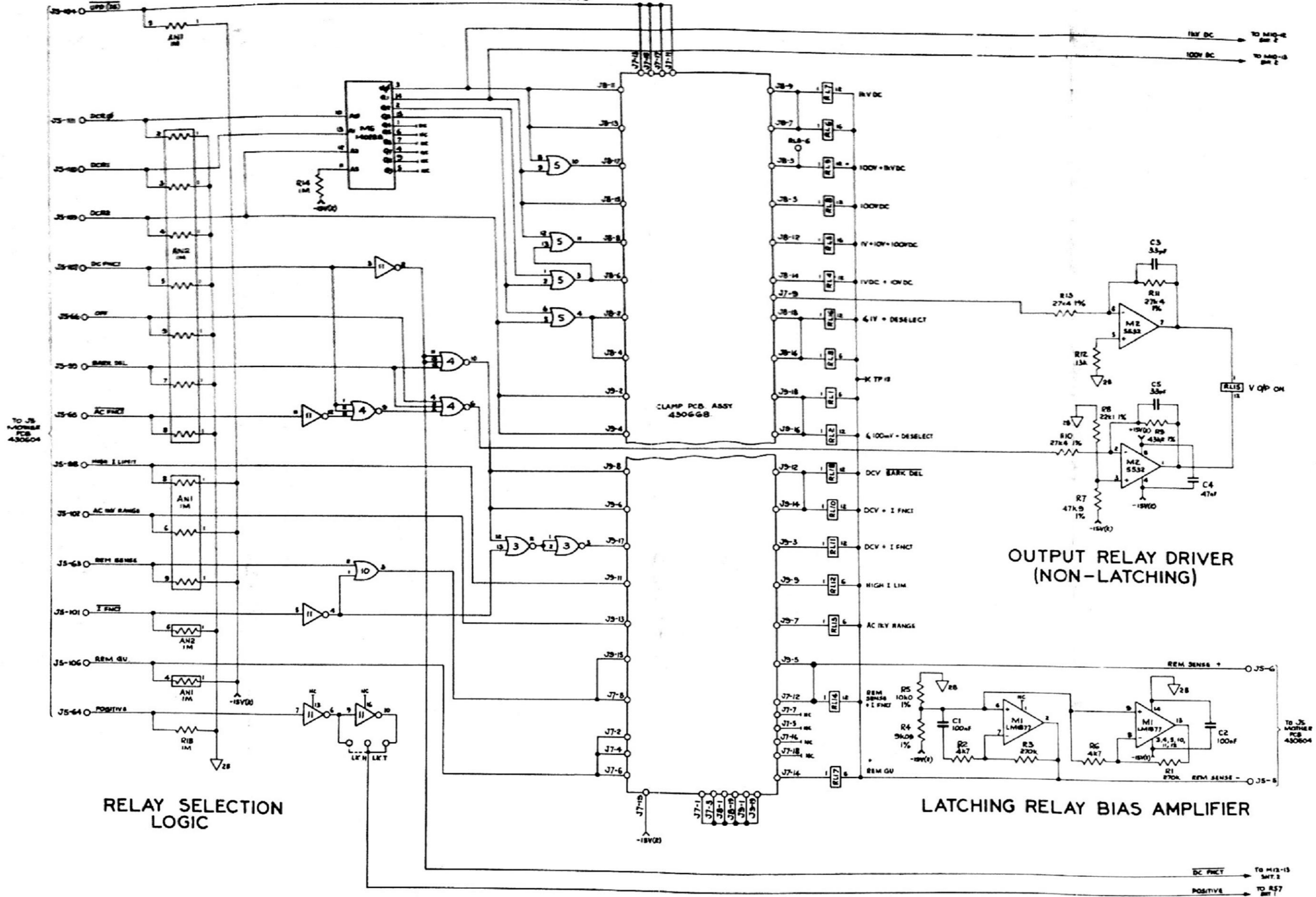
DC ASSEMBLY
Output Switching and Overload Sense

Circuit Diagram No. 430536-4.2 Sheet 2



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TRI-STATE DRIVERS



DC ASSEMBLY
Relay Drive Logic

Circuit Diagram No. 430536-4.0 Sheet 3

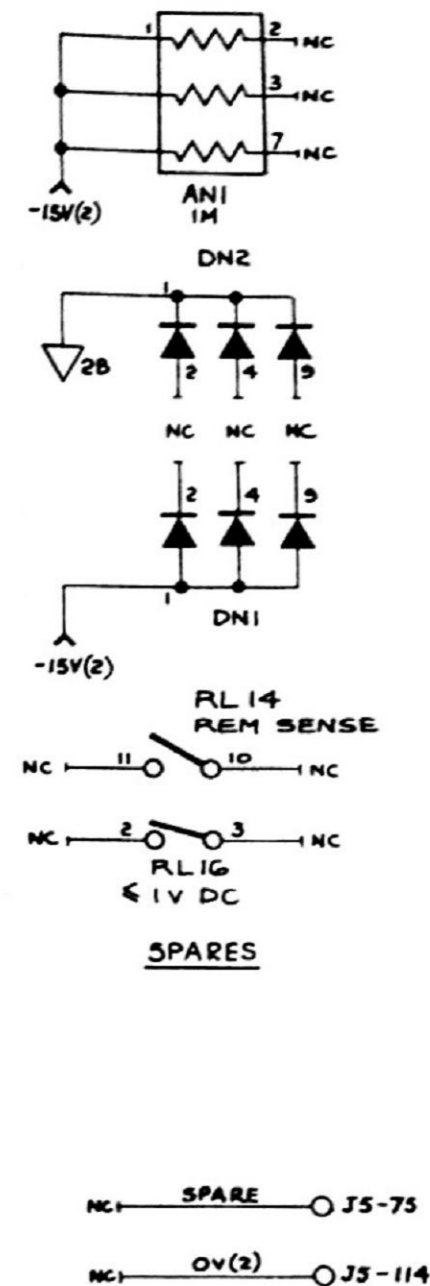
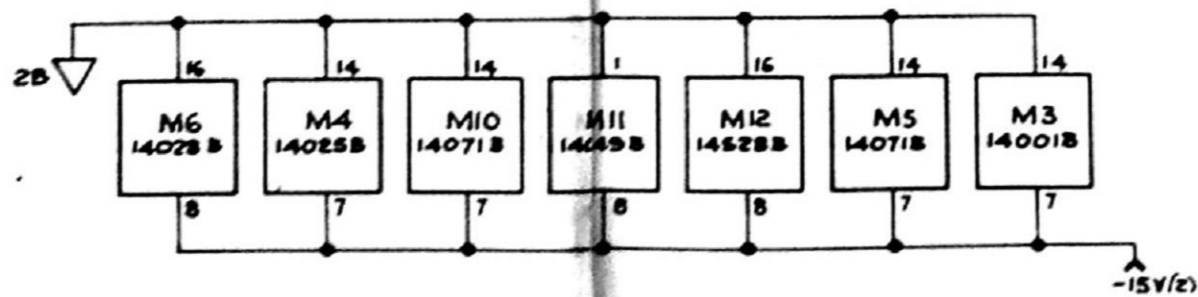
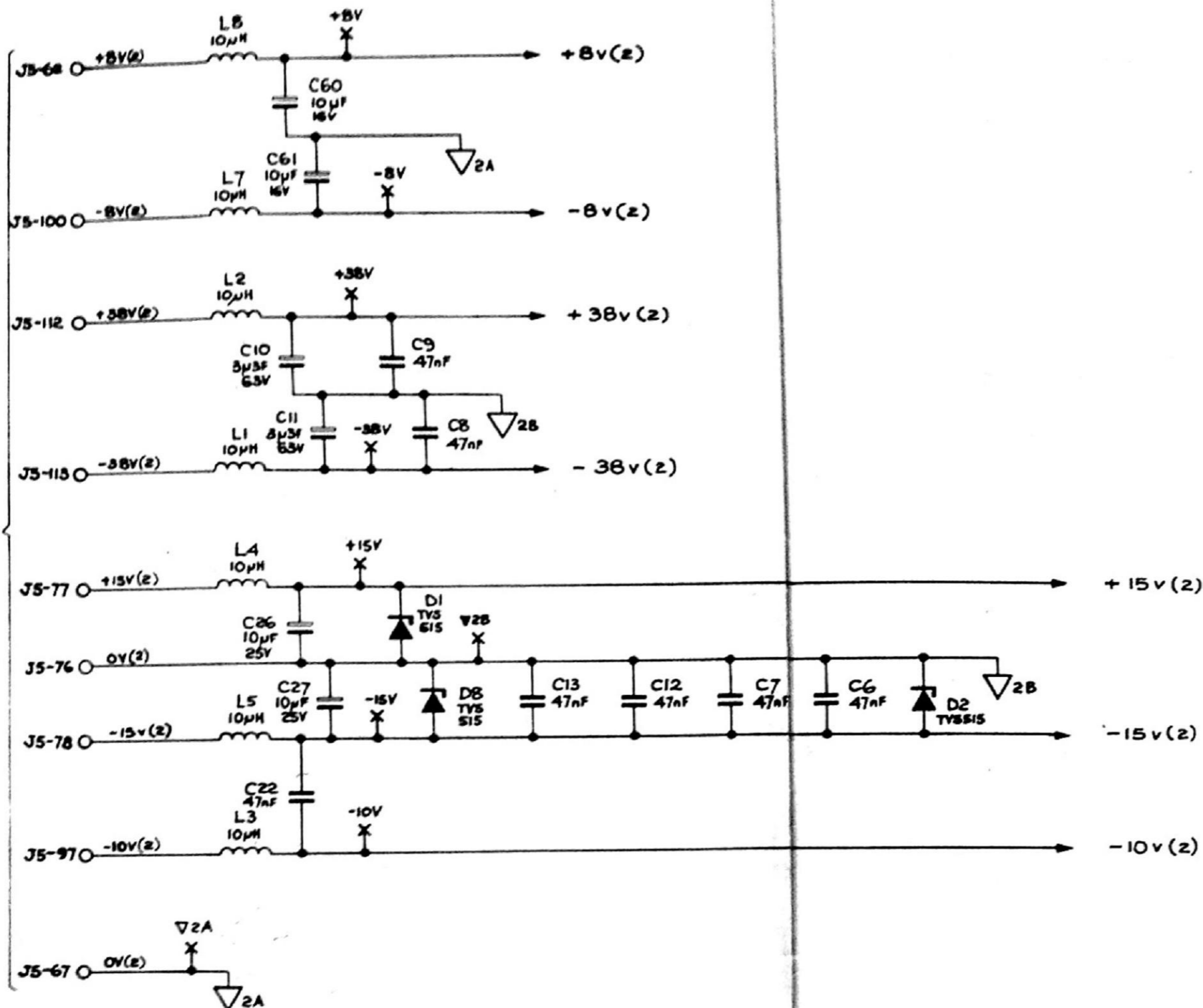


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11.5-3

TO JS
MOTHER
PCB
430604



DC ASSEMBLY

Power Supplies

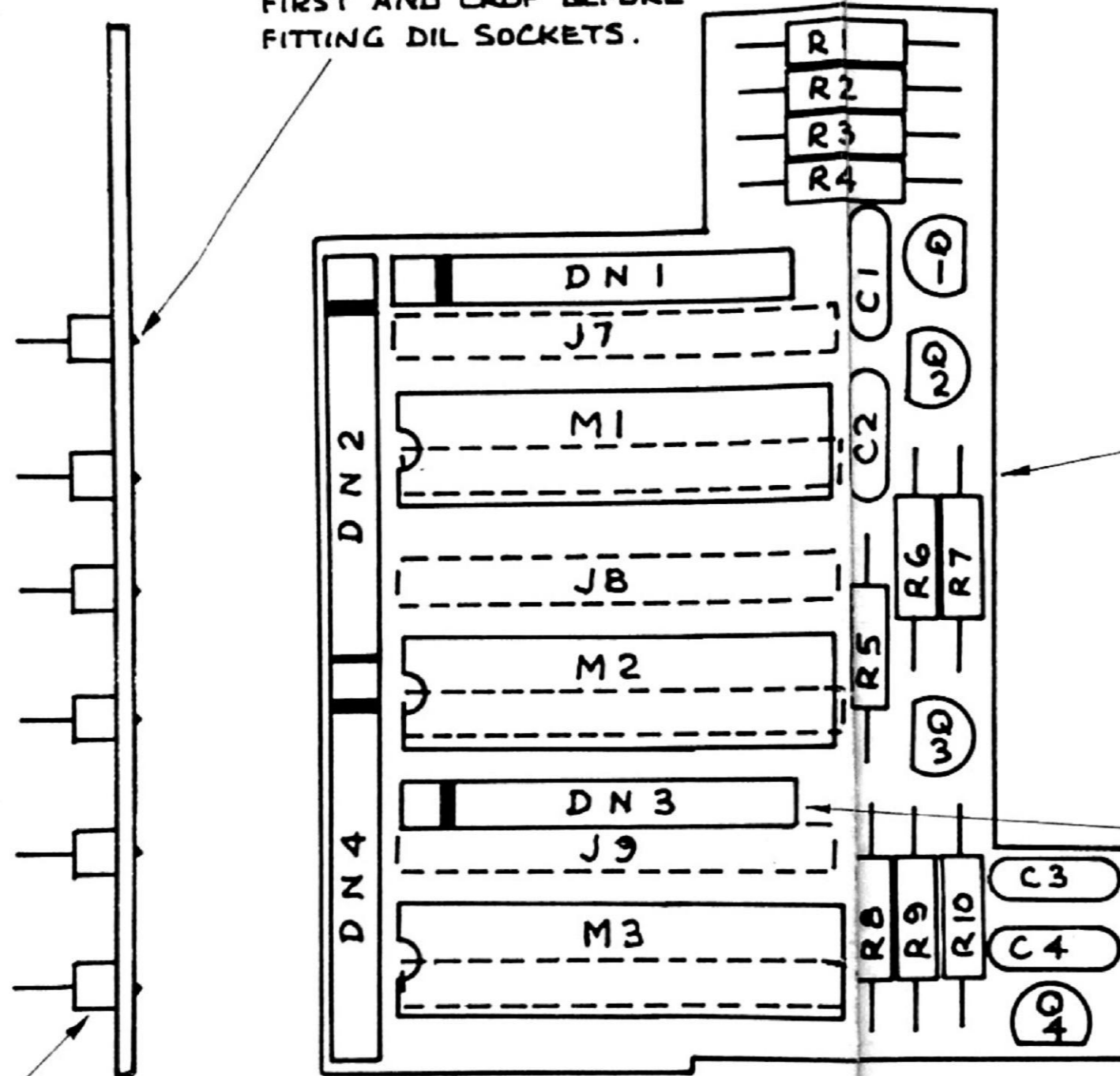
Circuit Diagram No. 430536-4.0 Sheet 4



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N.B. FIT HEADER PLUGS
FIRST AND CROP BEFORE
FITTING DIL SOCKETS.

NOTE. DN1 + DN3 ARE CODED BLUE
DN2 + DN4 ARE CODED RED



PCB 410363-1

MOUNT M1, M2, M3 IN
20 WAY DIL SOCKETS
605070.

CROP LEADS OF DN3 TO
3.0MM PRIOR TO FITTING
TO PCB.

MAKE HEADER PLUGS
FROM 604057 (6 OFF)

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

LABEL-3SD WARING 420112

WIRE LINK BETWEEN PIN A AND METAL CASE OF M15 512999

HEATSINK (TOP) 920149 TO FIT, PRESS ON TO BODY OF M19 MOUNT M15 ON SOCKET STRIP 608124 1:3 OFF

MOUNT R9 R122 AND R145 ON 234 TERMINAL 602001 6 0W

MAKE WIRE LINKS FROM 22SWG BTC WIRE 540002

R160/C132 NOT FITTED

PCB EJECTOR (YELLOW) 630120 2 0W

C133 MOUNTED ON REAR (SOLDER SIDE) OF PCB USING SILICONE RUBBER COMPOUND 300004. LEADS SOLDERED DIRECTLY ACROSS R9.

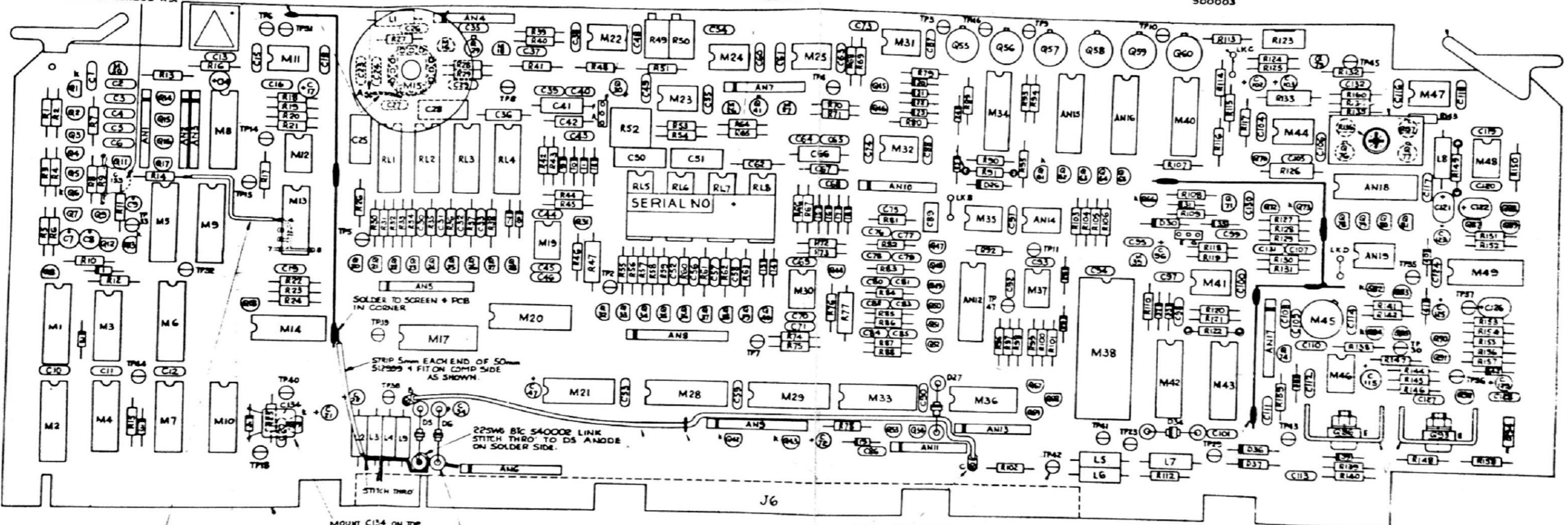
3 0W SOLDER PIN 620003 (A,B,C)

3 WAY MOLLEX HEADER 604096 2 0W FIT SHORTING PLUG 605127 IN POSITIONS A+G (SEE NOTE 1)

LABEL-SERIAL NO 420058

M3 1/4" STANDOFF 612026 SWAGED TO COMPONENT SIDE OF PCB

HEATSINK 450450 SCREW M3x16 POZI-CKE 611025 USE HEATSINK COMPOUND BETWEEN MATING SURFACES OF COMPONENTS 300003



SOLDER TO SCREEN + PCB IN CORNER

STRIP 5mm EACH END OF 50mm 512999 + FIT ON COMP SIDE AS SHOWN.

22SWG BTC 540002 LINK STITCH THRU TO D5 ANODE ON SOLDER SIDE.

R1 1/04 PTFE BLACK WIRE BETWEEN R14 AND M15 PIN 4 540008. CUT TRACK TO M15 PIN 4 ON SOLDER SIDE OF BOARD, AS SHOWN.

PCB 410171-B

MOUNT D5 D6 D27 + D34 ON CERAMIC BEAD 630024 8 0W

TWISTED COPPER WIRE LOOP 540002 TO RUSTLEAF PTFE WIRE

SLEEVE EACH END OF THIS WIRE WITH 7/8" PIECE OF SLEEVING 530001

TEST POINT TERMINAL 620007 32 0W

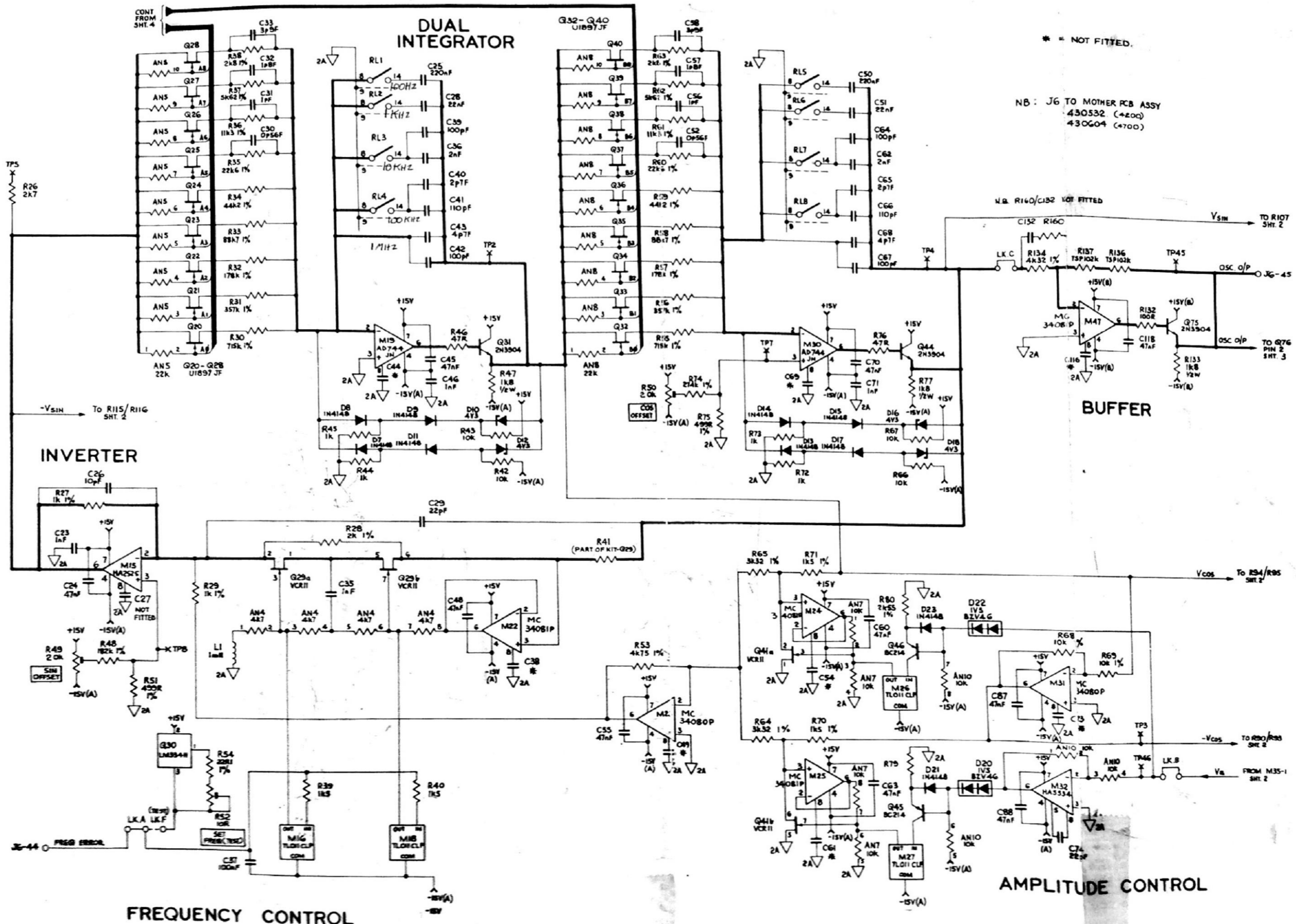
WIRE LINK 7/02 PTFE WHITE WIRE 512999

HEATSINK T0220 920089 2 0W SCREW M3x8 POZI-PAN 611016 2 0W M3 SHAKEPROOF 613005 2 0W M3 NUT 615002 2 0W NB USE HEATSINK COMPOUND 300003 BETWEEN MATING SURFACE OF Q867Q93 AND HEATSINK. MOUNT THESE DEVICES SQUARELY ON HEATSINKS

BRASS STRIP (IN 2 LENGTHS) 58mm x 3mm 630107 SOLDER 2 STRIPS TO 'BROAD' GUARD TRACK IN CENTRAL POSITION.

NB GLASS BEAD 630245 FITTED TO EACH LEG OF THE FOLLOWING COMPONENTS: C10-C13, C15, C16, C24, C45, C46, C53, C55, C59, C60, C63, C70, C87, C88, C90, C91, C93, C94, C100, C101, C103, C113, C114, C118, C120, C124, C128, D4

MOUNTING IC'S			
NO OF WAYS	PART NO	NO OFF	WHERE USED
8	605099	17	M11, M15, M22-25, M30, M31, M32, M33, M37, M41, M44, M46, M47, M48, M12
14	605060	8	M3, M4, M7, M10, M18, M14, M21, M36, M49
16	605061	15	M1, M2, M5, M6, M8, M9, M17, M20, M28, M29, M33, M34, M40, M42, M43
28	605065	1	M38



* = NOT FITTED.
 NB: J6 TO MOTHER PCB ASSY
 430532 (+200)
 430604 (+700)

U.B. R160/C132 NOT FITTED

BUFFER

AMPLITUDE CONTROL

FREQUENCY CONTROL

DUAL INTEGRATOR

INVERTER

SINE SOURCE ASSEMBLY
 Sine Oscillator

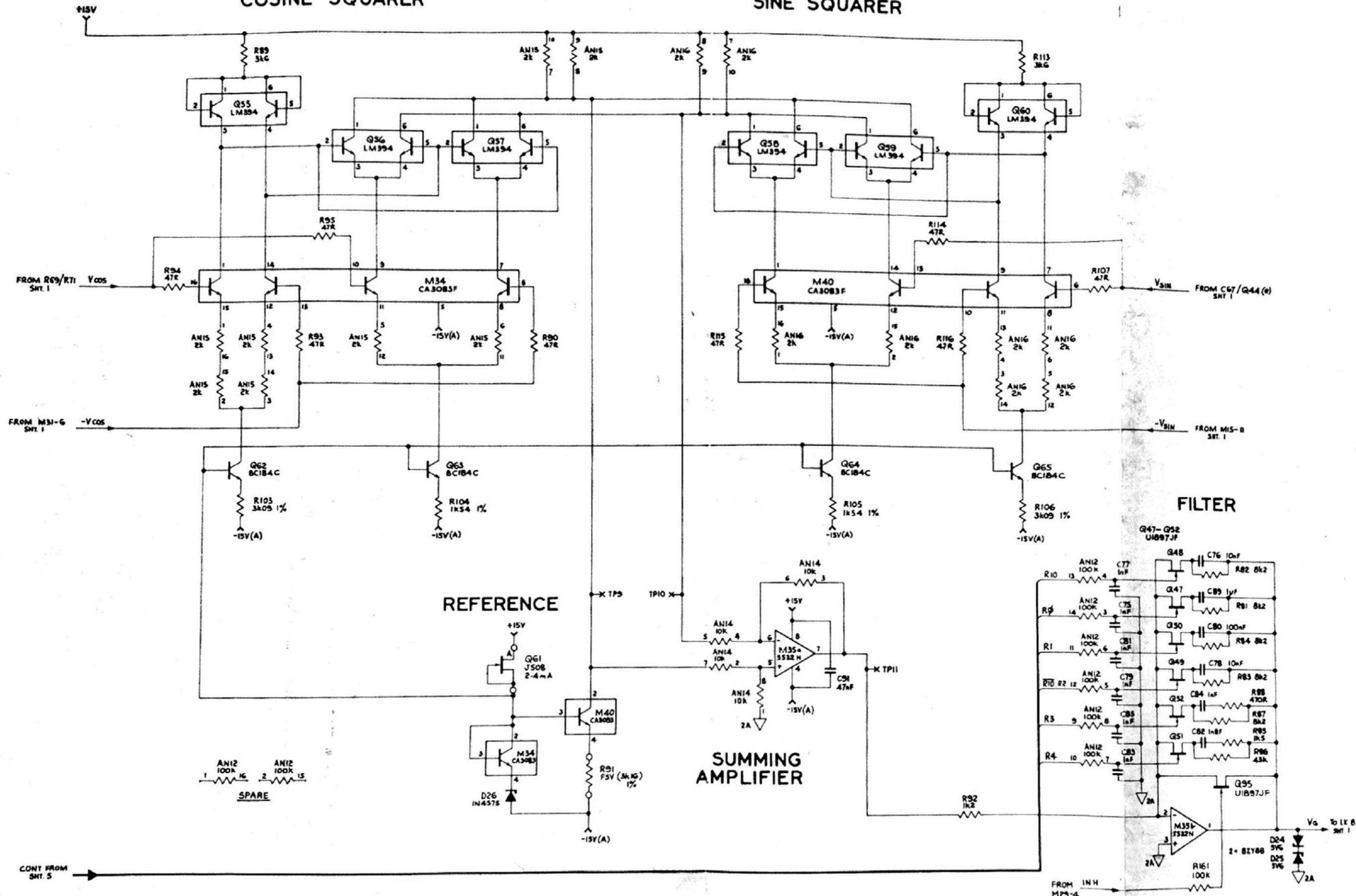
Circuit Diagram No. 43046-11.2 Sheet 1



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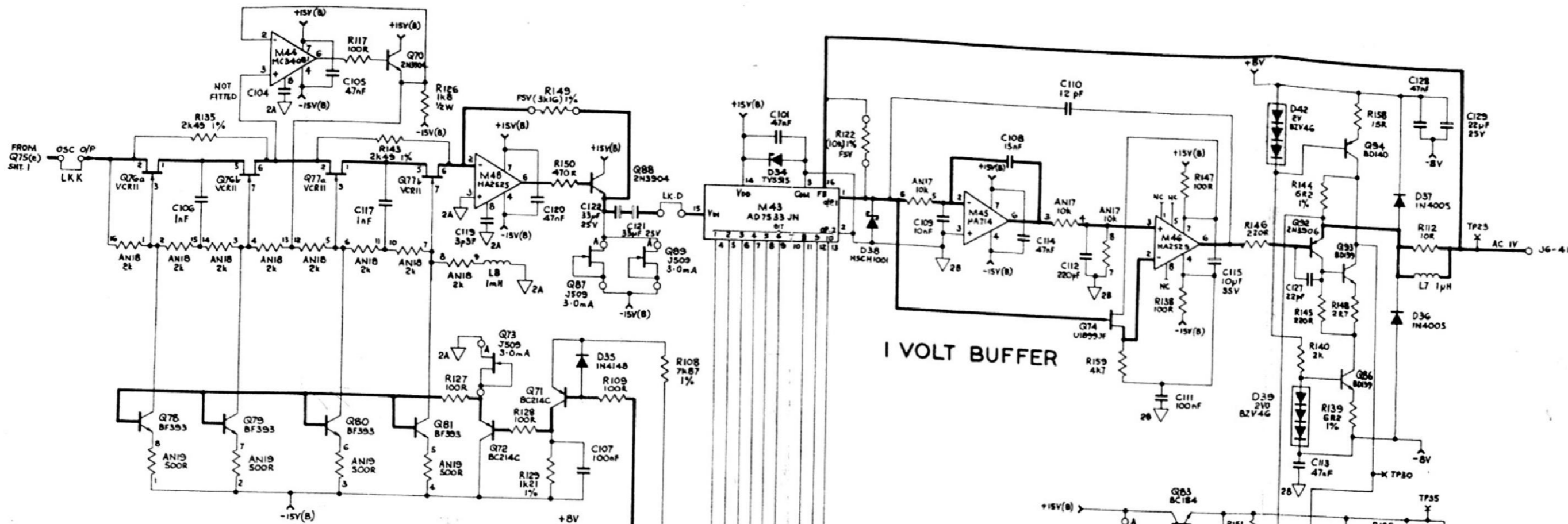
COSINE SQUARER

SINE SQUARER



SINE SOURCE ASSEMBLY
Oscillator Amplitude Detector and Reference





VOLTAGE CONTROLLED AMPLIFIER

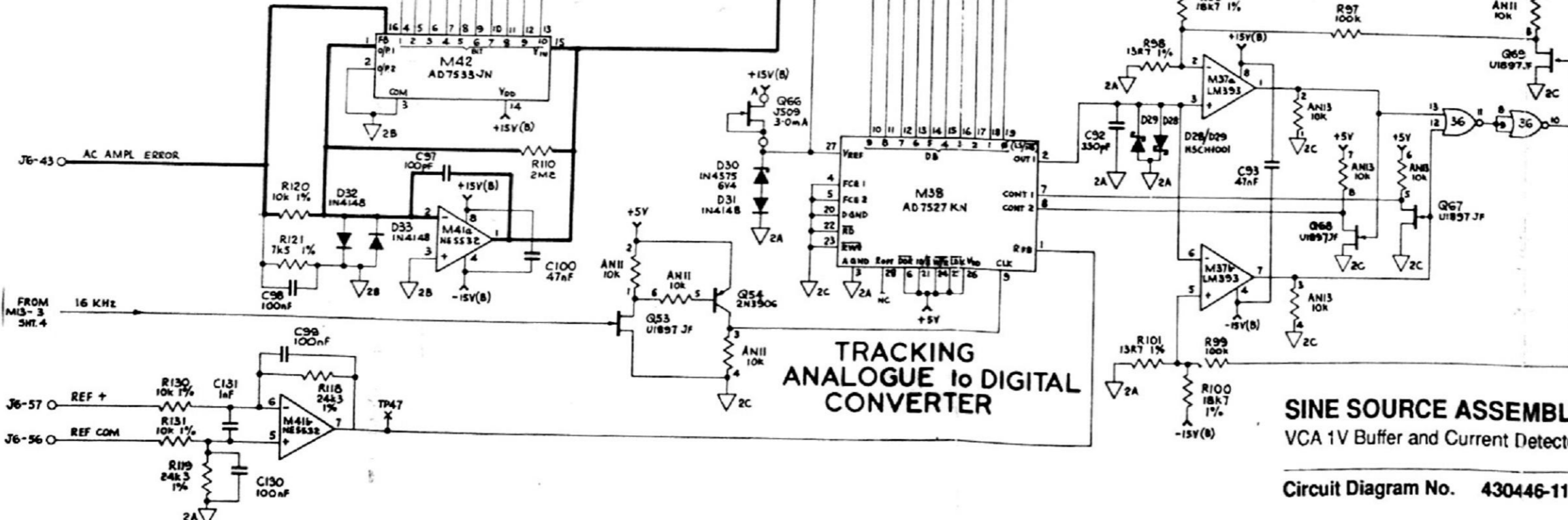
1 VOLT BUFFER

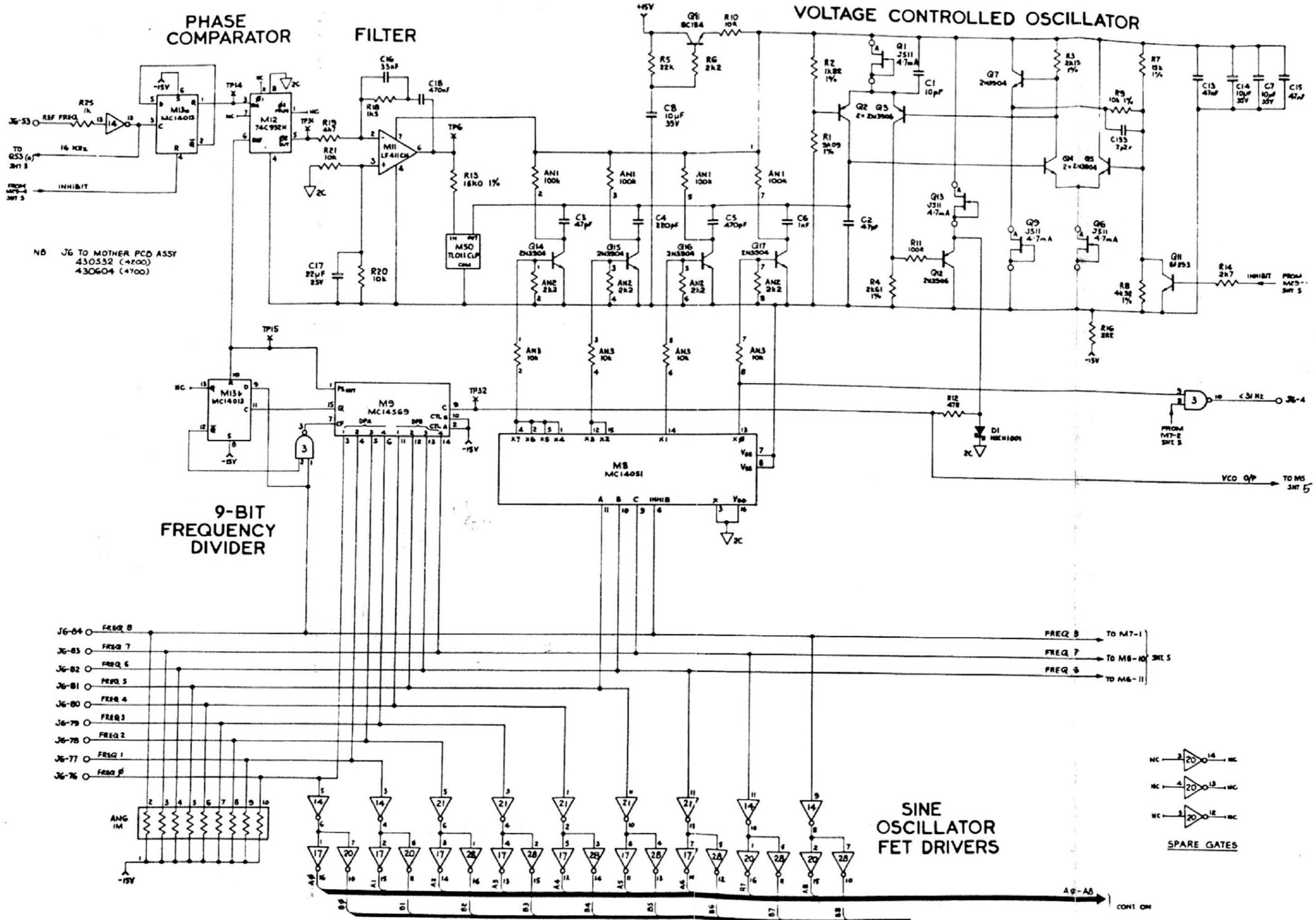
CURRENT DETECTOR

TRACKING ANALOGUE TO DIGITAL CONVERTER

**SINE SOURCE ASSEMBLY
VCA 1V Buffer and Current Detector**

NB. J6 TO MOTHER PCB ASSY
430532 (+200)
430604 (+700)

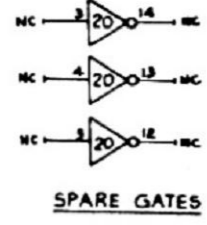




ND J6 TO MOTHER PCB ASSY
430532 (4200)
430604 (4700)

J6-04 FREQ 8
J6-03 FREQ 7
J6-02 FREQ 6
J6-01 FREQ 5
J6-00 FREQ 4
J6-79 FREQ 3
J6-78 FREQ 2
J6-77 FREQ 1
J6-76 FREQ 0

FREQ 8 TO M7-1
FREQ 7 TO M8-10 SMT 5
FREQ 6 TO M6-11

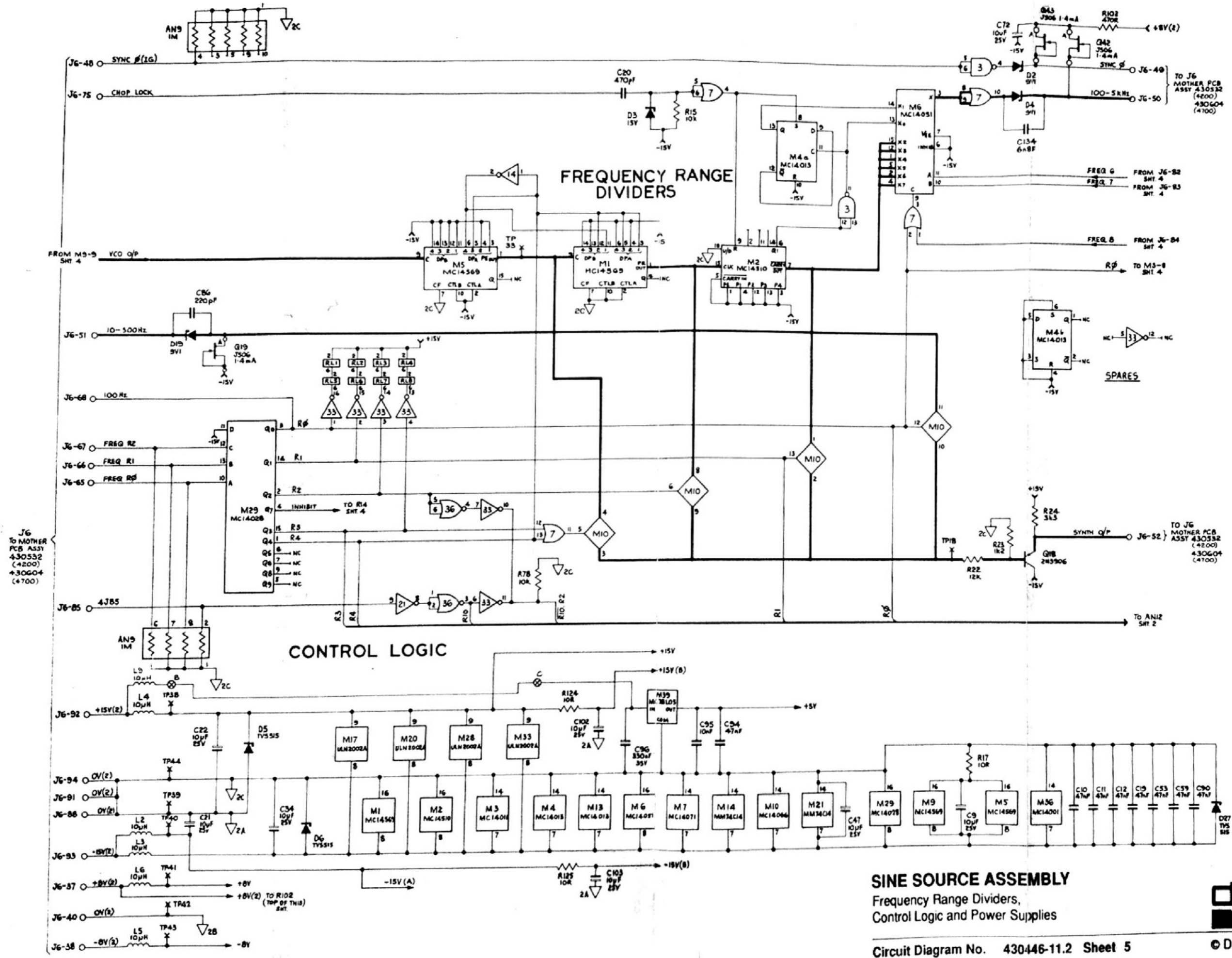


SINE SOURCE ASSEMBLY
Digital Synthesizer - VCO

Circuit Diagram No. 430446-11.1 Sheet 4



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FREQUENCY RANGE DIVIDERS

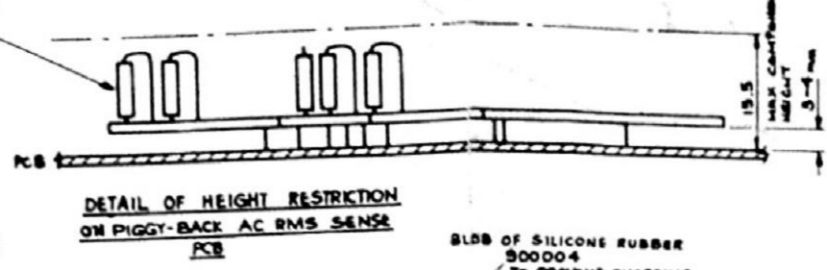
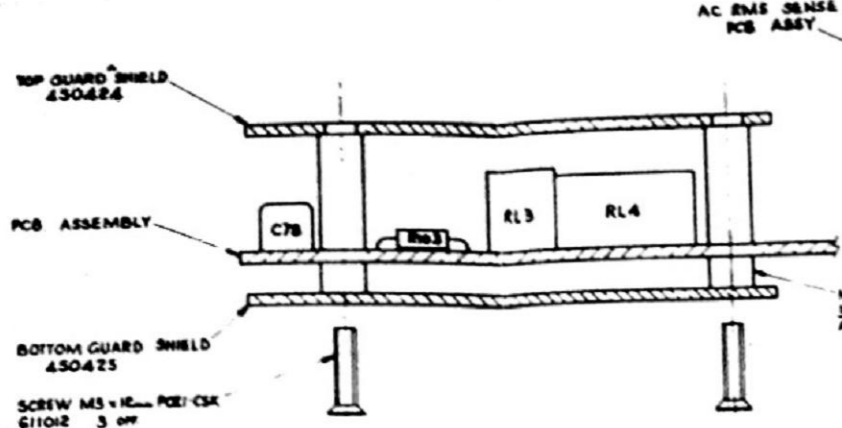
CONTROL LOGIC

SINE SOURCE ASSEMBLY
Frequency Range Dividers,
Control Logic and Power Supplies

Circuit Diagram No. 430446-11.2 Sheet 5



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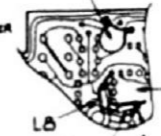
N.B. GLASS BEAD 630043 FITTED TO BACK LED OF THE FOLLOWING COMPONENTS: C6, H, 14, 20-24, 27-29, 34, 36, 40, 42, 43, 53-56.

M5 x 14mm STANDOFF G12050 TO BE SWAGED TO 410172

C61 BDD IN SILICONE RUBBER ONE LEG IN PCB HOLE, OTHER LEG WRAP ROUND CENTER LEG OF R122

MAKE LINK LEI FROM PINS 82C WIRE 540002

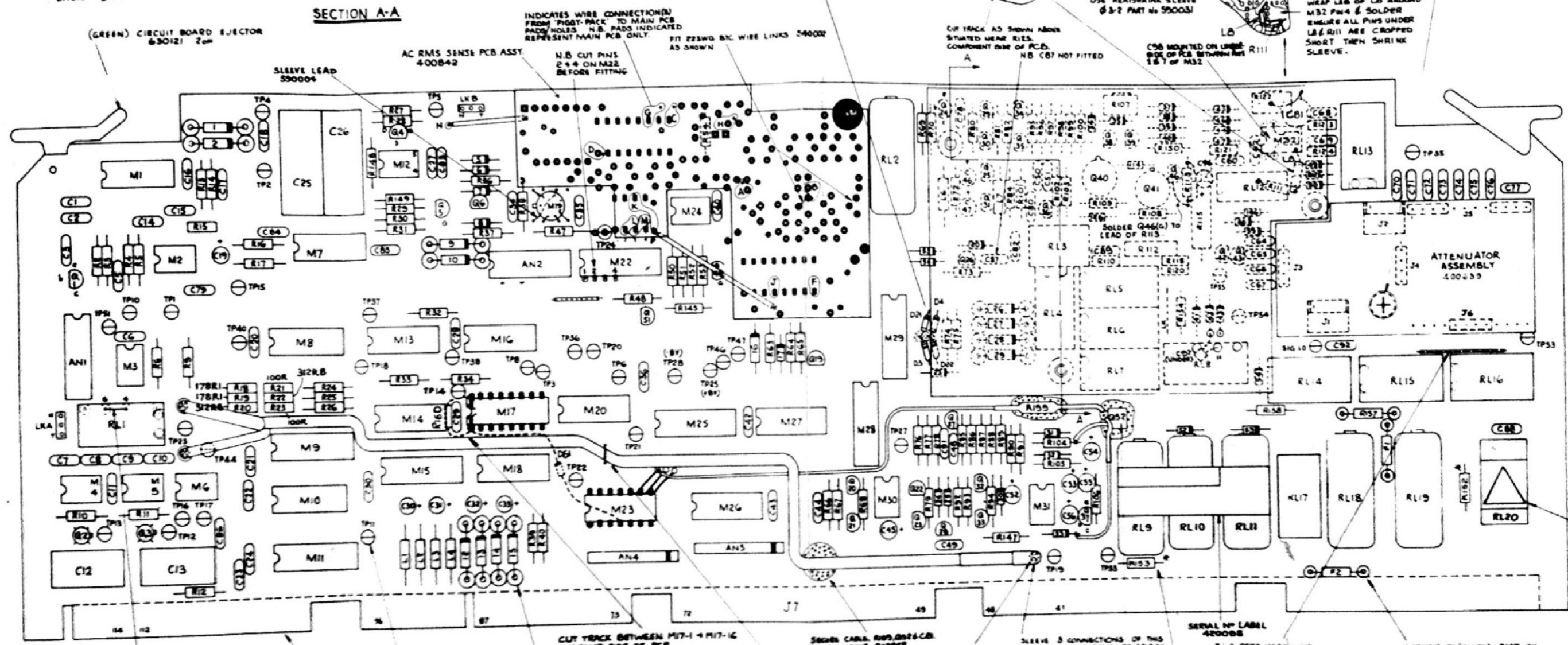
WRAP WIRE TOGETHER & SOLDER USE HEATSHRINK SLEEVE Ø 3.2 PART No 590031



INSERT LEG OF R111 INTO SWITCH THROUGH WRAP LEG OF LB AROUND M32 PIN 4 & SOLDER ENSURE ALL PINS UNDER LB & R111 ARE CROPPED SHORT THEN SHRINK SLEEVE.

CUT TRACK AS SHOWN ABOVE SITUATED NEAR R125. COMPONENT SIDE OF PCB. N.B. C67 NOT FITTED

C56 MOUNTED ON UNDER SIDE OF PCB BETWEEN PINS 18 & 17 OF M32



(GREEN) CIRCUIT BOARD EJECTOR 630121 2 off

SECTION A-A

INDICATES WIRE CONNECTIONS FROM PIGGY-BACK TO MAIN PCB PADS/HOLES. N.B. PADS INDICATED REPRESENT MAIN PCB ONLY.

AC RMS SENSE PCB ASSY 400842

N.B. CUT PINS 2 & 4 ON M22 BEFORE FITTING

FIT 22SWD. BIC WIRE LINKS 540002 AS SHOWN

SLEEVE LEAD 590004

ATTENUATOR ASSEMBLY 400439

LABEL-53D 420112

LINK RL1 PINS 4 TO PINS ON COMPONENT SIDE OF PCB USING WIRE 540002.

PCB 410172-11

TEST POINT TERMINAL 620007 37 off

CUT TRACK BETWEEN M17-1 & M17-1C ON COMP SIDE OF PCB. FIT R160 & D61 ON SOLDER SIDE OF PCB. SLEEVES ANY EXPOSED BACK LEADS TO AVOID SHORTS. LAT COMPS IN POSITIONS TO M105 AT TEST POINTS 590004 SLEEVING

SECURE CABLE TO PCB WITH LACING CORD 590007

SOLDER PIN 620003 3 off

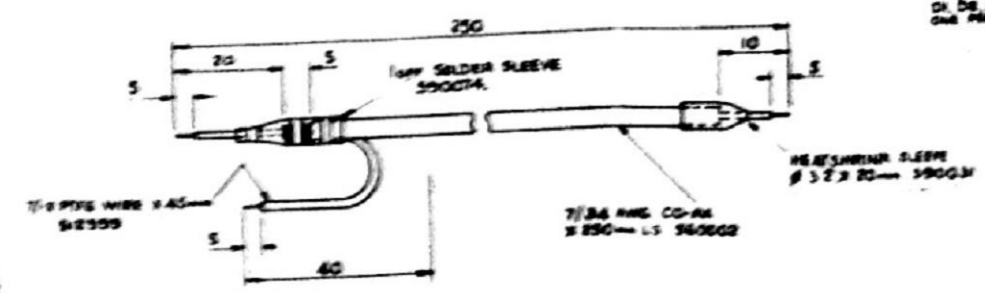
SLEEVE 3 CONNECTIONS OF THIS CABLE WITH 12 PINS OF 590004 SLEEVE

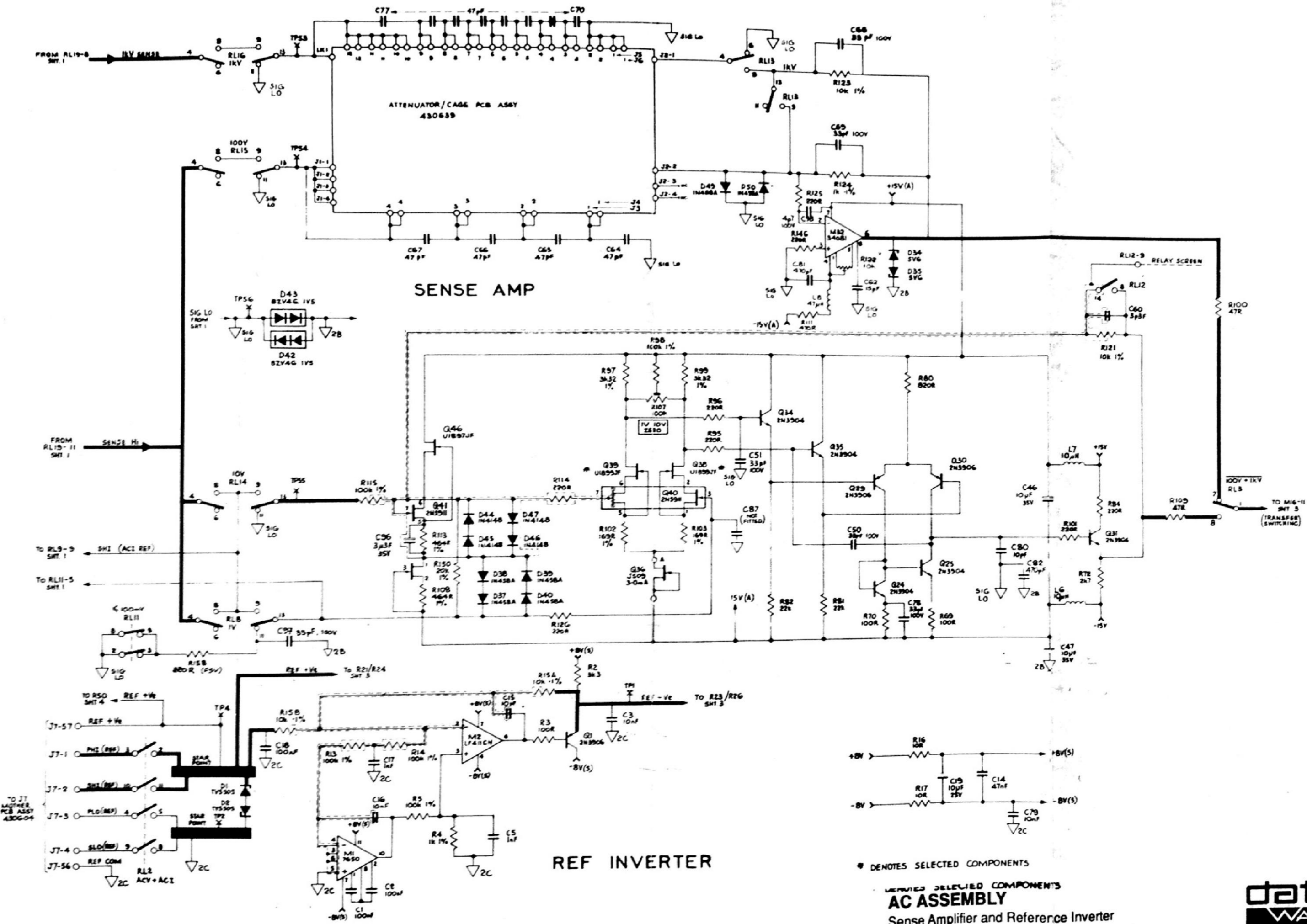
SERIAL NO LABEL 420008
7/2 PFE WIRE LINK X 25mm 52998
R152 AND R153 ARE NOT FITTED ON 4700 SERIES

MOUNT PINS 85 & 81ST ON CERAMIC BEADS 630036 10 off (2 PINS LEAD FOR R16)

MOUNT THE FOLLOWING COMPONENTS ON (LABEL) CERAMIC BEADS 630036 24 off: D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D13, D14, D15, D16, D17, D18, D19, D20, D21, D22, D23, D24, D25, D26, D27, D28, D29, D30, D31, D32, D33, D34, D35, D36, D37, D38, D39, D40, D41, D42, D43, D44, D45, D46, D47, D48, D49, D50, D51, D52, D53, D54, D55, D56, D57, D58, D59, D60, D61, D62, D63, D64, D65, D66, D67, D68, D69, D70, D71, D72, D73, D74, D75, D76, D77, D78, D79, D80, D81, D82, D83, D84, D85, D86, D87, D88, D89, D90, D91, D92, D93, D94, D95, D96, D97, D98, D99, D100.

R150 and 810 CONNECTED TO SWITCH THROUGH AS SHOWN VIA BLACK 70-2 WIRE 590004 OTHER END TO D52. SLEEVE WITH 30mm OF HEATSHRINK 590006 & BDD IN SILICONE RUBBER. Q52 BDD IN SILICONE RUBBER WITH FLAT TO PCB. CENTRE LEG CONNECT TO D53 VIA BLACK 70-2 WIRE 590004 USE 20mm OF HEATSHRINK SLEEVE 590006 AT LEG JOINT. BOTTOM LEG CONNECT TO R104 SLEEVE LEG WITH 1mm DIAMETER PFE SLEEVE 590004





* DENOTES SELECTED COMPONENTS

DEFINIES DELETED COMPONENTS
AC ASSEMBLY
 Sense Amplifier and Reference Inverter

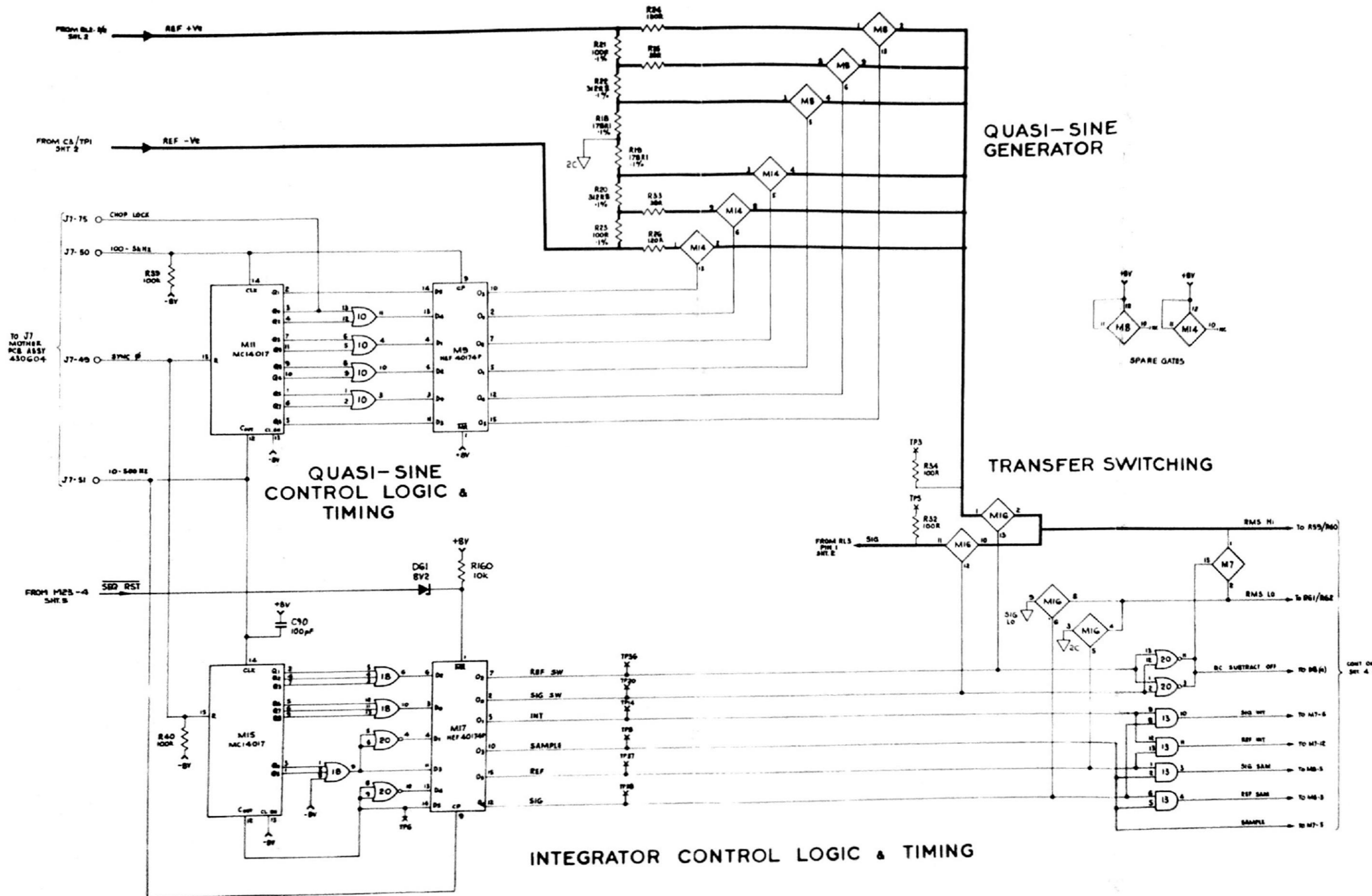
Circuit Diagram No. DC400844-1.2

Sheet 2



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11.7-2



AC ASSEMBLY
Quasi-Sine Generator and Timing Logic

4808
datron
WAVETEK

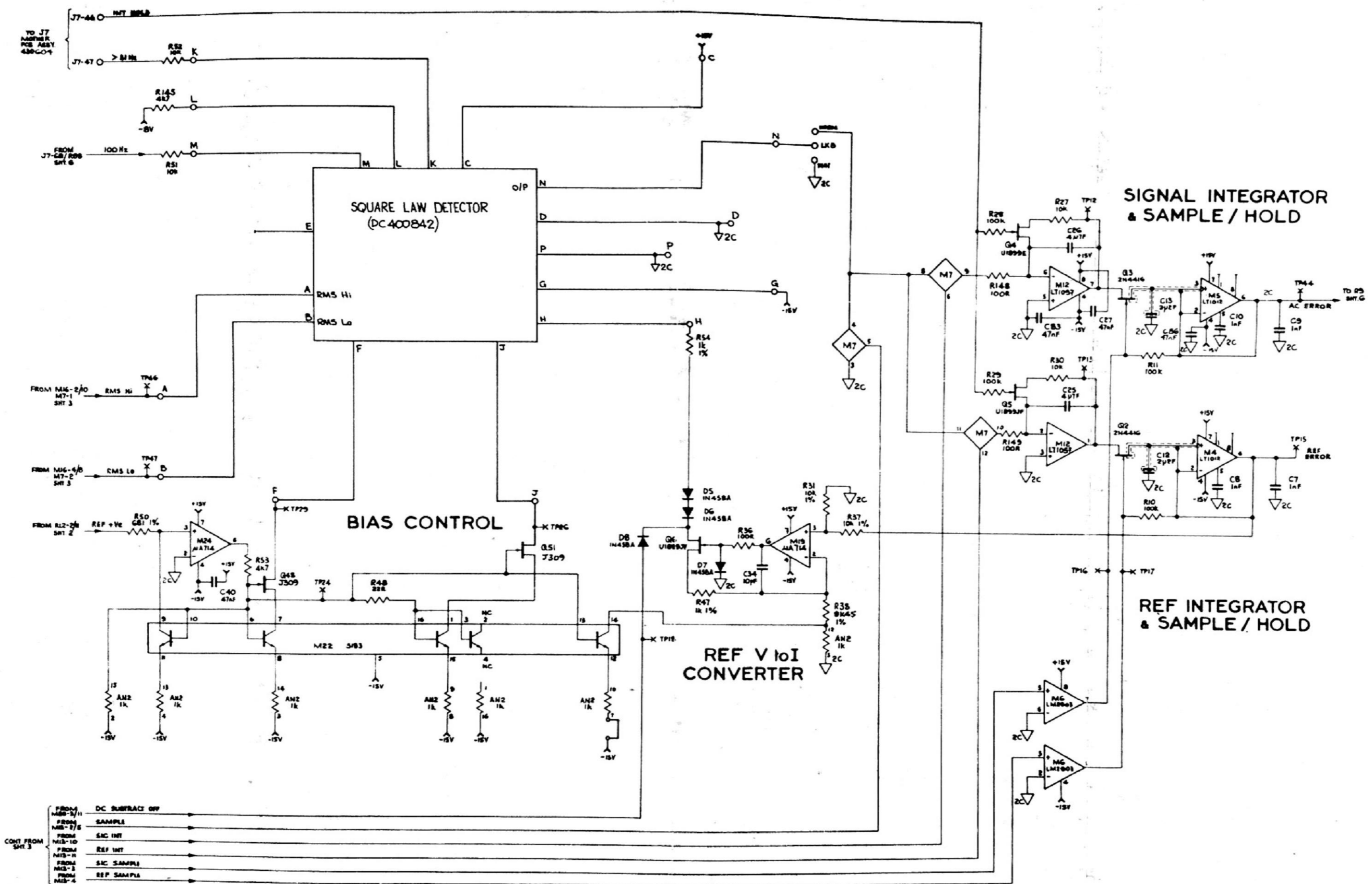
Circuit Diagram No. DC-100844-1.1

Sheet 3

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11.7-3

11.7-4



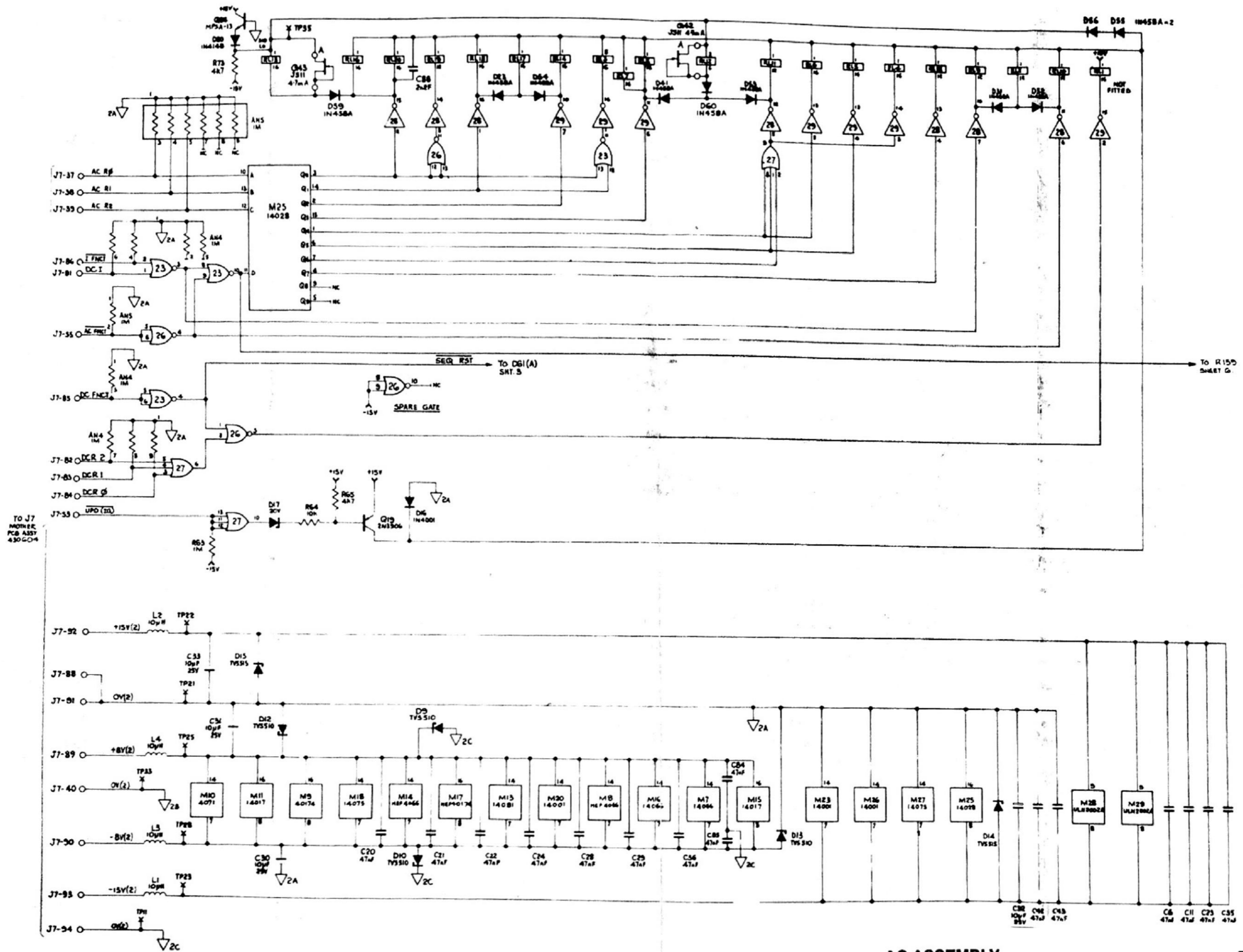
FROM M88-3/11 DC SUBTRACT OP
 FROM M85-7/5 SAMPLE
 FROM M85-10 SIC INT
 FROM M85-11 REF INT
 FROM M85-3 SIC SAMPLE
 FROM M85-4 REF SAMPLE

AC ASSEMBLY
 AC/DC Transfer Detector and Integrators



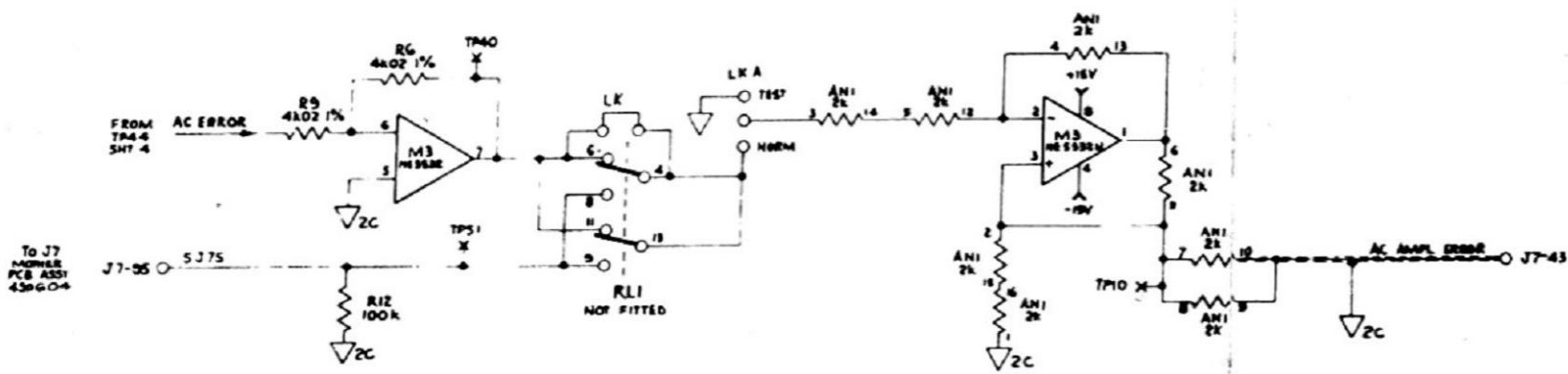
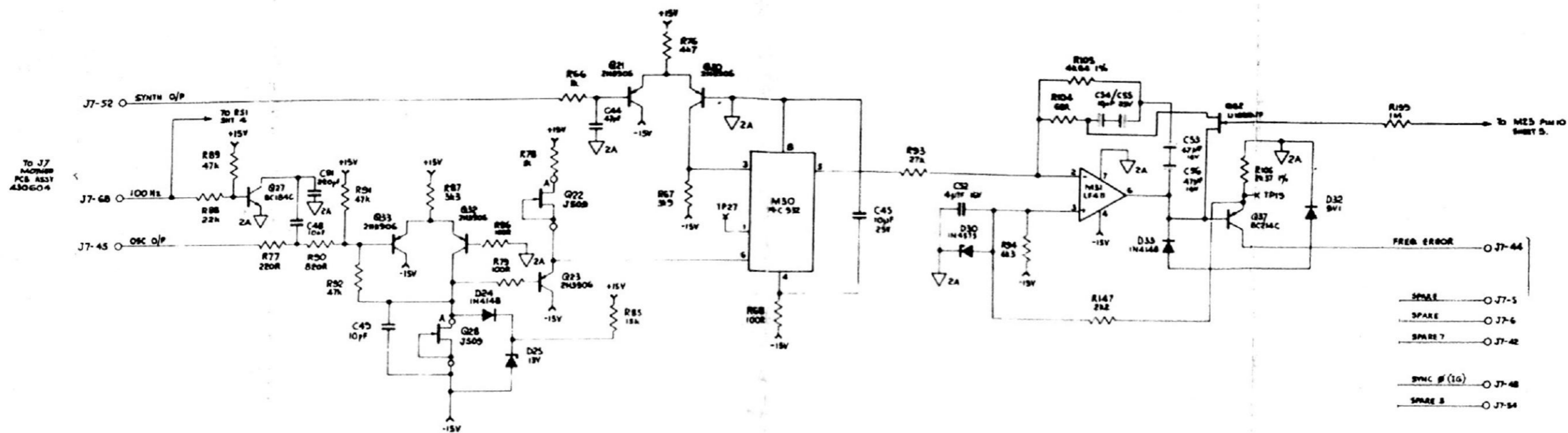
4808

11.7-4



AC ASSEMBLY
Relay Drive Logic and Power Supplies





- SPARE 1 ○ J7-5
- SPARE 2 ○ J7-6
- SPARE 7 ○ J7-42
- SYNC (10) ○ 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 R5 ○ J7-76
- FREQ R1 ○ J7-77
- FREQ R2 ○ J7-78
- FREQ R3 ○ J7-79
- FREQ R4 ○ J7-80
- SPARE 4 ○ J7-87
- SJ73 ○ J7-86
- SPARE 5 ○ J7-82
- SPARE 6 ○ J7-113
- DATA DEL ○ J7-114

To J7
MOTHER PCB ASSY
43060-4

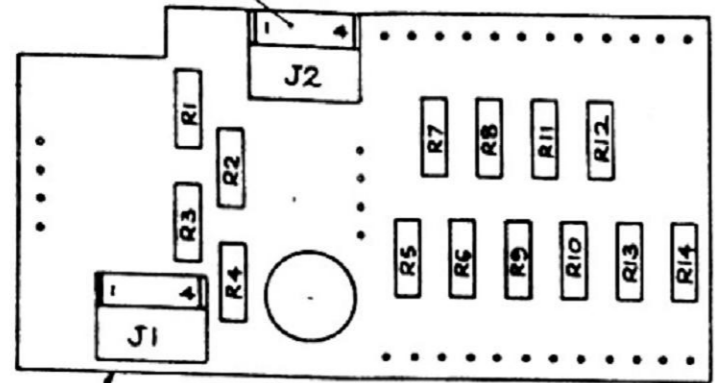
To J7
MOTHER PCB ASSY
43060-4

To J7
MOTHER PCB ASSY
43060-4

AC ASSEMBLY
Phase Detector and Integrator; Power Supplies



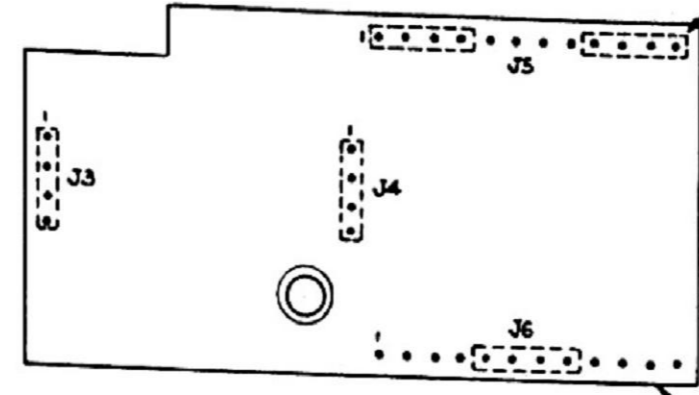
4 WAY SOCKET
605085 2 off (J1,J2)



PCB 410272-2

AC ATTENUATOR PCB

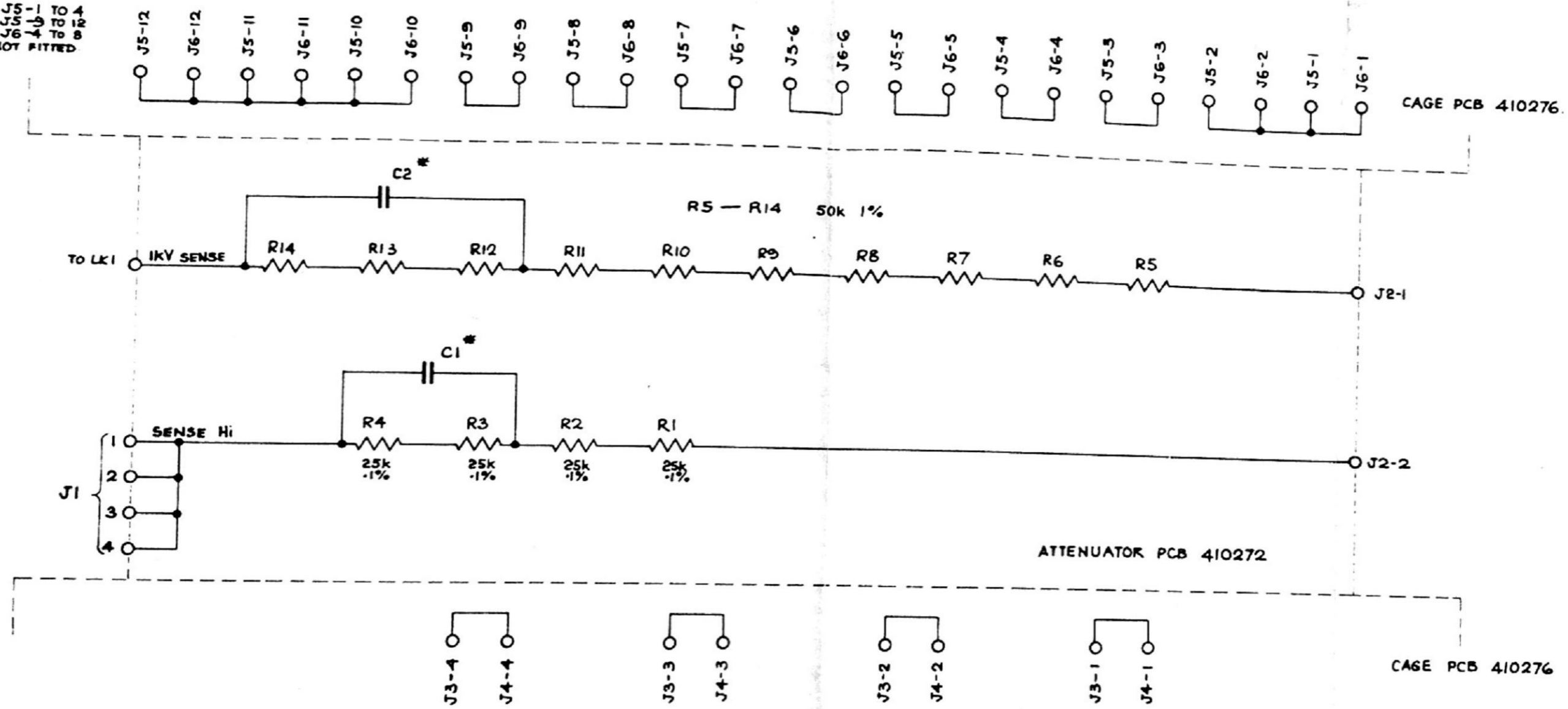
4 WAY SOCKET
605123 5 off (J3-J6)
FIT UNDERSIDE PCB.



PCB 410276-2

AC CAGE PCB

NO 444
 1655
 401-
 FITTED TO
 780
 0124



* DENOTES COMPONENT NOT FITTED

ALL CONNECTIONS TO AC PCB 430447

AC ATTENUATOR/CAGE ASSEMBLY
 Sense Amplifier - Input Attenuator

Circuit Diagram No. 430639-1.0 Sheet 1



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4808

11.7-7

C110 FITTED BETWEEN 'G' & M104 CENTRE PIN ON UNDERSIDE OF PCB.

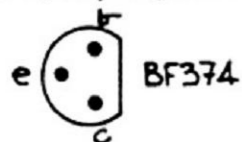
540001 WIRE LINK

LIFT PINS 1 & 14 OF M101 & CONNECT TOGETHER. FIT R130 BETWEEN PINS & WIRE LINK AS SHOWN.

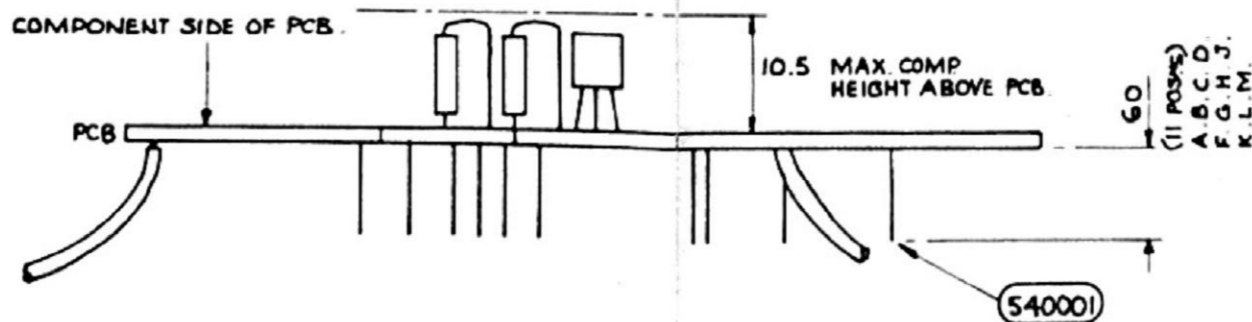
NOTE - ALL RADIALLY MOUNTED AXIAL COMPONENTS. (IE RESISTORS & DIODES, EXCEPT R130) USE COMPONENT CARRIER (G18015) 32

G05059 2
M103 & M105 MOUNTED IN 8 PIN D.I.L. SOCKET

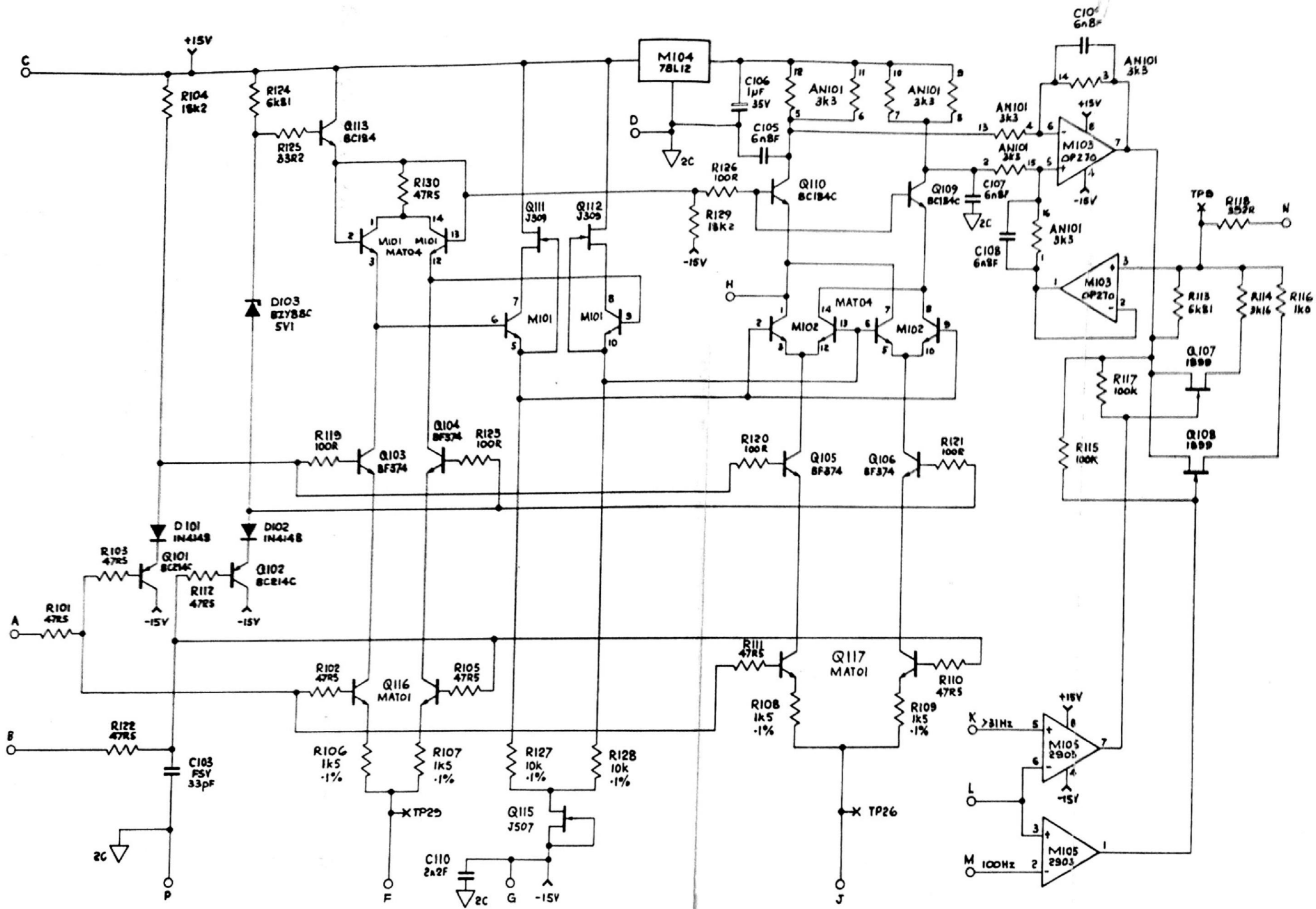
NOTE
LEAD CONFIGURATION FOR Q103, 104, 105 & 106.



VIEWED FROM UNDERSIDE



DIODES TO BE MOUNTED THUS



AC RMS SENSE
Square Law Detector



4808

11.7-8

MOUNTING ICs			
N° OF WBS	PART N°	N° OFF	
14	605060	7	M3, M5, M10, M15, M16, M18, M19
16	605061	3	M16, M18, J16
8	605059	3	M4, M8, M20
20	605070	2	J13, J14

MOUNT R2, R3, R0, R38, R213 & D11 @ D13 ON SMALL CERAMIC BEADS 630056 16 WBS

MAKE LINKS FROM TINNED COPPER WIRE 540002

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

FIXING HOLE FOR MOUNTING ALTERNATIVE RES/HEADSINK ASSYS - SEE SH12

MOUNT R60, R61, R66, R68, R65, R70, R75, R76 ON 75V TERMINALS 602001 10 WBS

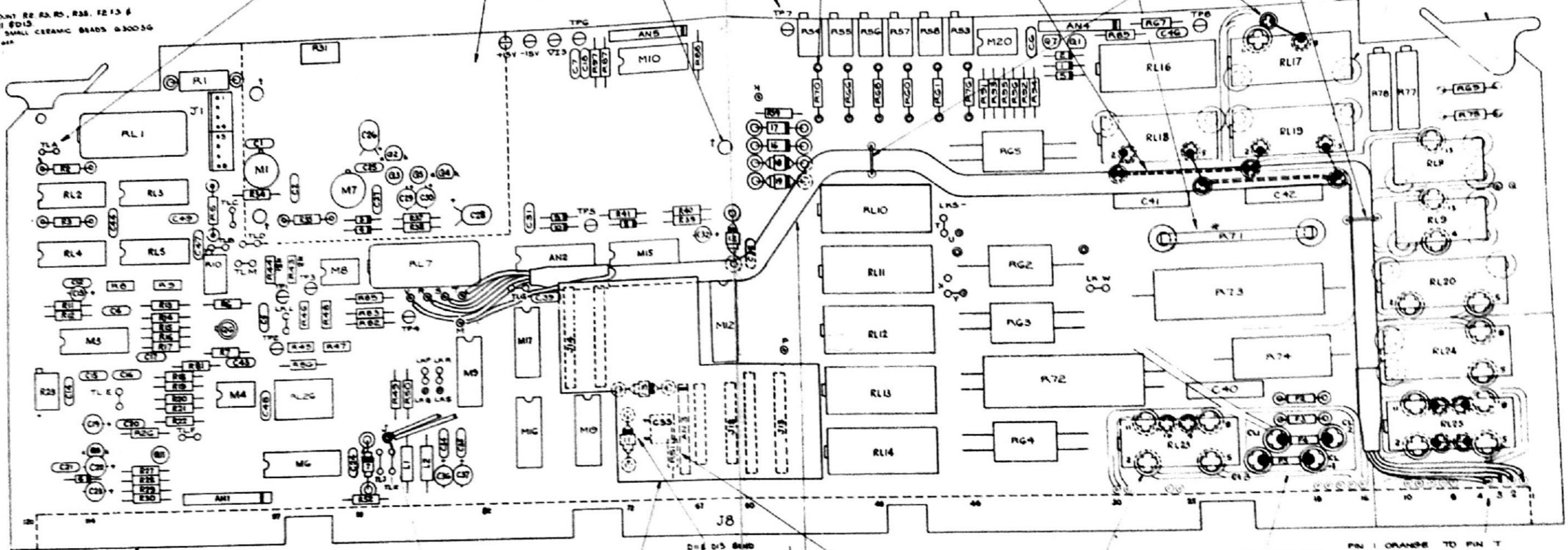
1/0-4 BLACK PTFE INSULATED WIRE 540000

16 WBS SMALL CLOVERLEAF TERMINAL 620001

SECURE CABLE TO PCB WITH LACING CORD 550007

FIT 2 WASHERS UNDER RELAYS IN POSITIONS SHOWN AND 1 EACH END OF R71 USE M3 FLAT NYLON WASHERS 34 WBS 615017

20 WBS CIRCUIT BOARD EJECTION 630122 (BLUE)



410347-1

MOUNT R1, D7, D12 .046-D19 ON LARGE CERAMIC BEAD 630024 14 WBS

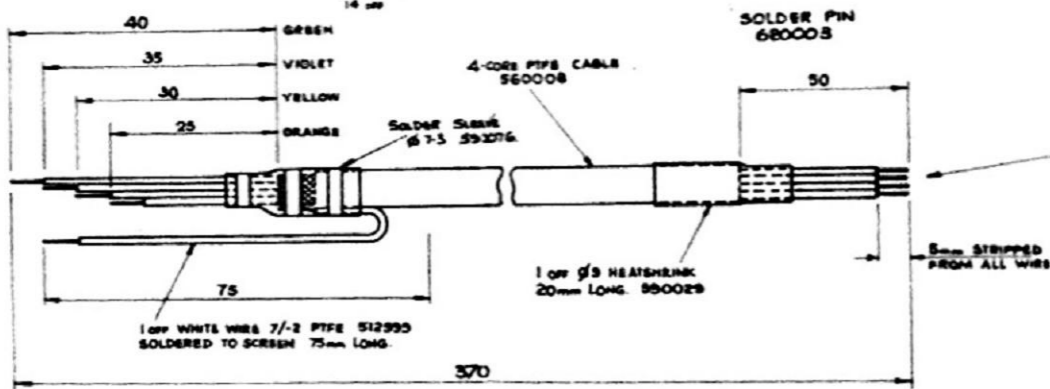
1/2 CLAMP ASSY 400665

D16 D15 BAND AS SHOWN

20 WBS LARGE CLOVERLEAF TERMINAL 620003

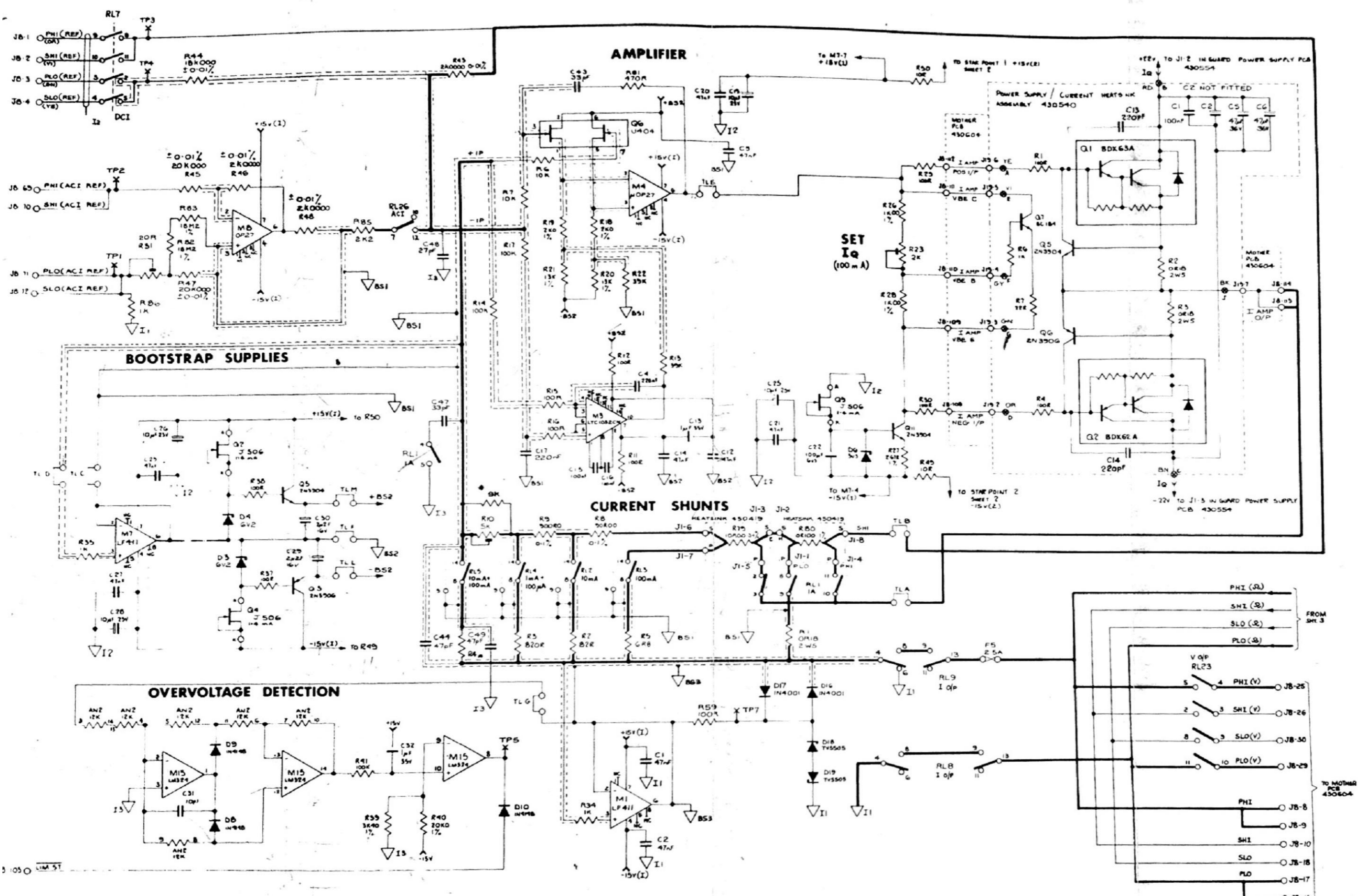
EASE WIRES INTO PATHS BETWEEN COMPONENTS AS NEATLY AS POSSIBLE - SEE SHEET 2 FOR POINT TO POINT WIRING SCHEDULE.

PIN 1 ORANGE TO PIN T
PIN 2 VIOLET TO PIN R
PIN 3 GREEN TO PIN V
PIN 4 YELLOW TO PIN S



DRY MOUNTING BEADS FOR C35 AND BAND C35 ONTO R31 ENSURE C35 IS NO HIGHER THAN AN3.

N.B. GLASS BEADS 630248 FITTED TO EACH LEG OF THE FOLLOWING COMPONENTS: C1, C2, C3, C6, C7, C8, C14, C20, C21, C24, C28, C32



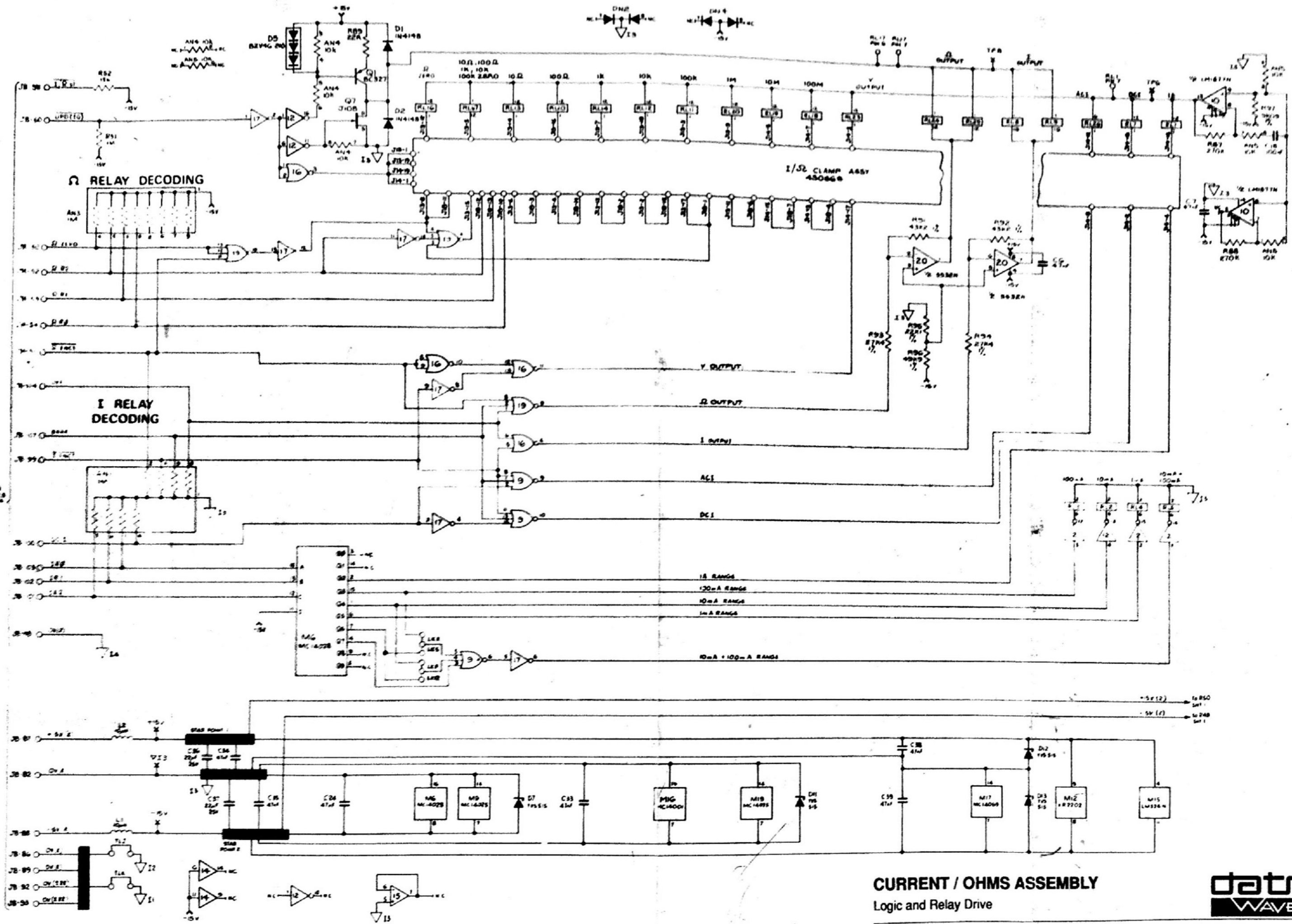
2k
 12k
 AN2 12k
 * INDICATES DEVICES NOT FITTED ON 4700.

CURRENT / OHMS ASSEMBLY
Voltage-to-Current Converter

Circuit Diagram No. 430614-1.2 Sheet 1



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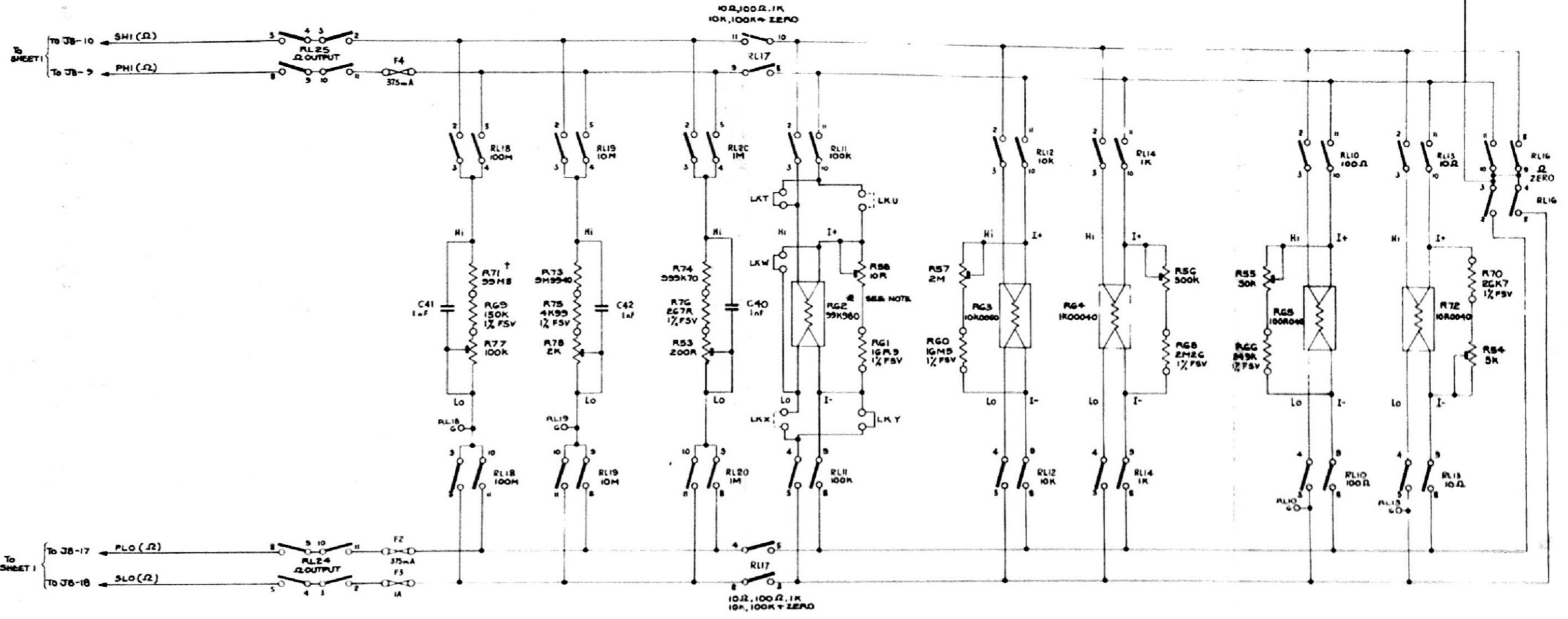
CURRENT / OHMS ASSEMBLY
Logic and Relay Drive

Circuit Diagram No. 430614-1.1 Sheet 2



© Datron Instruments 1991

J8-46	SPARE	INC
J8-47	SPARE	INC
J8-49	SPARE	INC
J8-55	REM SENSE	INC
J8-56	POSITIVE	INC
J8-57	SPARE	INC
J8-58	SPARE	INC
J8-59	KEYWAY (M.B.D.)	INC
J8-67	SPARE	INC
J8-68	SPARE	INC
J8-83	SPARE	INC
J8-84	SPARE	INC
J8-85	SPARE	INC
J8-90	SPARE	INC
J8-91	SPARE	INC
J8-97	SPARE	INC
J8-103	KEYWAY (EXT)	INC
J8-106	BARK DEL	INC



* NOTE: R62 IS A 2-WIRE RESISTOR ON THE 4700.
 † ALTERNATIVE RESISTOR SET COMPRSES TWO 45MS IN 68RMS.

CURRENT / OHMS ASSEMBLY
 Standard Resistors and Switching

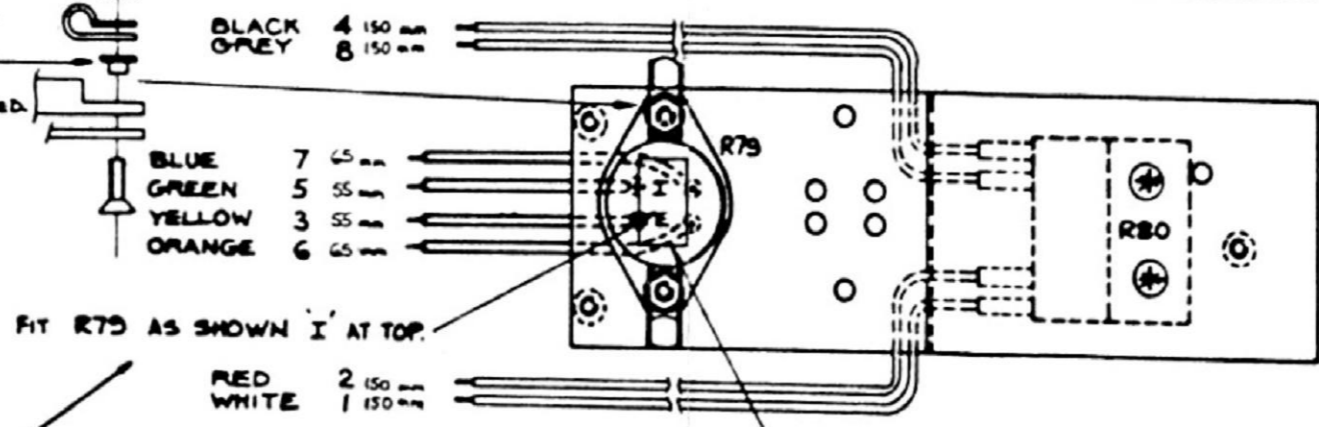
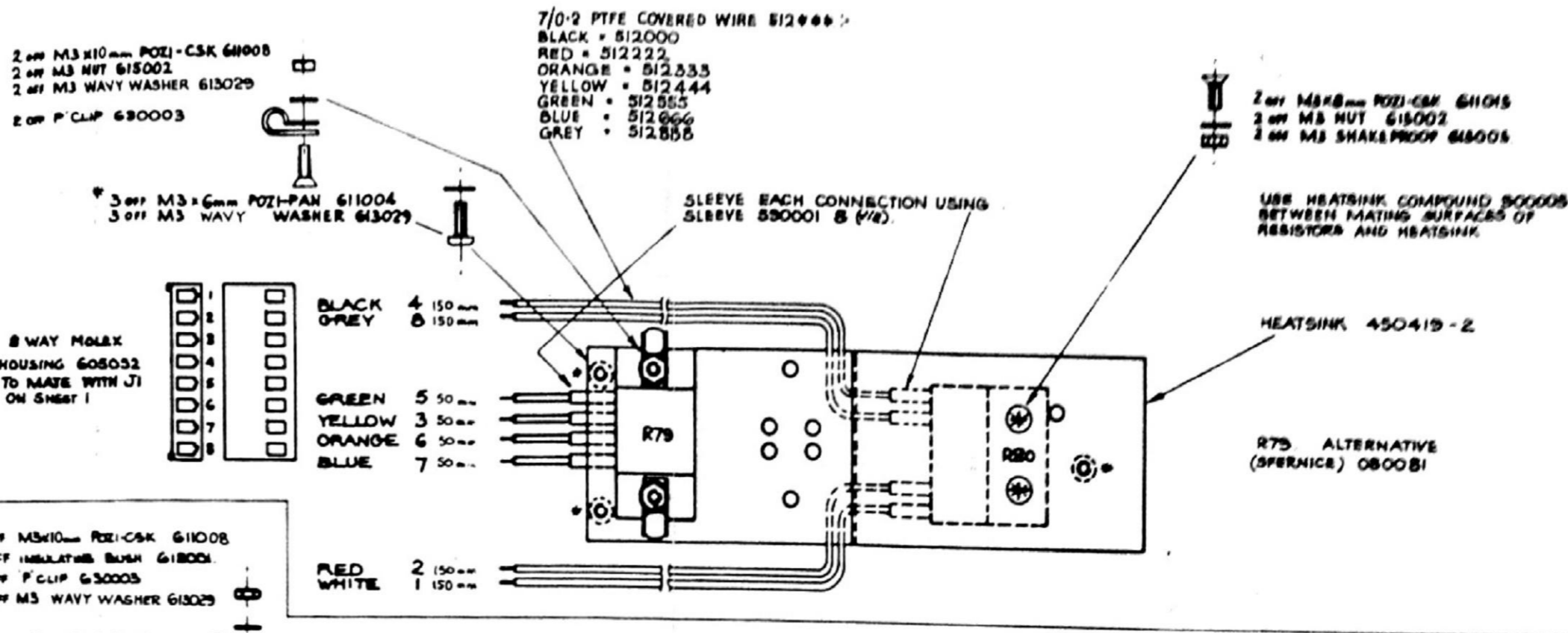
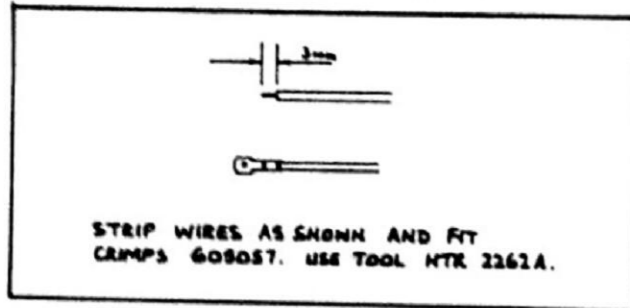
Circuit Diagram No. 430614-1.2 Sheet 3



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WIRING SCHEDULE			
WIRE COL-OUR	RELAY/PIN	DESTINATION	WIRE LENGTH
BRN	PIN J	HOLE P	120
RED	PIN J	HOLE Q	330
ORG	RL23-10	JB-29	45
YEL	RL23-9	JB-30	45
GRN	RL9-4	HOLE N	210
BLU	RL23-2	JB-10	70
YLT	RL23-5	JB-8/9	60
GRY	RL18-2	RL17-11	70
WHT	RL17-9	RL18-5	100
BRN	RL18-5	CLOVERLEAF ^{CL} ₁	105
RED	RL18-2	RL25-2	130
ORG	RL19-2	RL20-2	80
YEL	RL20-5	RL18-5	70
GRN	RL8-13	JB-16/17	100
BLU	RL9-13	CLOVERLEAF ^{CL} ₃	105
YLT	RL24-8	JB-16/17	75
GRY	RL23-11	JB-16/17	75
WHT	RL23-8	JB-18	50
BRN	RL24-5	JB-18	60
RED	RL25-8	JB-8/9	50
ORG	CLOVERLEAF ^{CL} ₄	JB-8/9	40
YEL	RL25-5	JB-10	30
GRN	RL25-11	CLOVERLEAF ^{CL} ₂	30

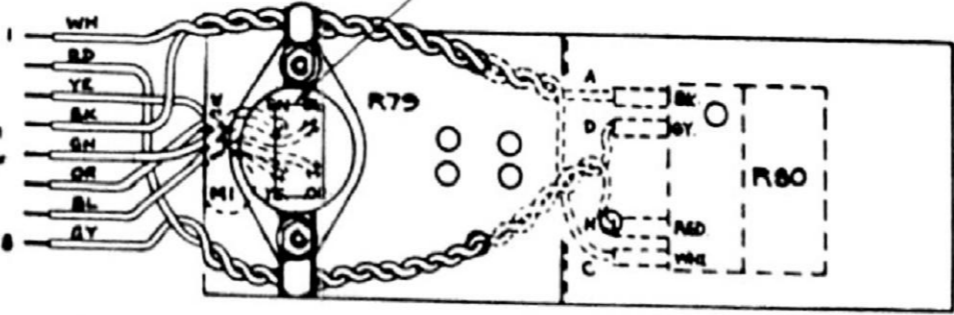
NOTE:-
ALL RELAY WIRE CONNECTIONS TO BE MADE FROM
7/8 PTFE COVERED WIRE 512***



FIT R79 AS SHOWN 'I' AT TOP.

ADD PIECE OF ADHESIVE FOAM TAPE 650167 X 15mm LONG TO TOP OF R79

ROUTE ALL WIRES FROM R79 AROUND THE TOP OF MI AND TIE WITH LACING CORD 550007 TRIM TO EQUAL LENGTH AT SOCKET.



SECURE WITH:-
2 OFF P CLIP 630003

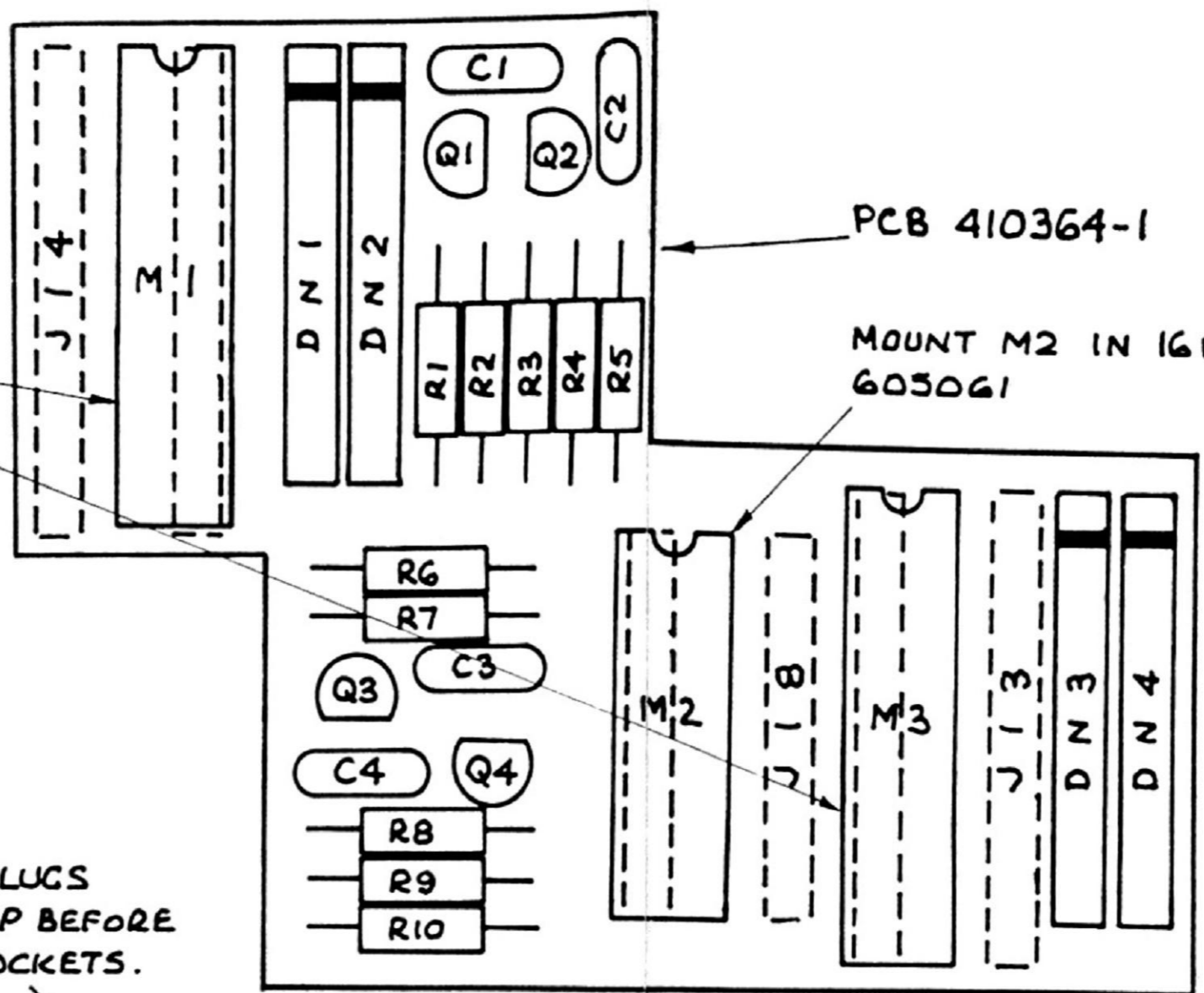
TWIST THE WIRES FROM R80 IN PAIRS AS SHOWN. START TWISTING THE INNER PAIR AS CLOSE TO RESISTOR AS POSSIBLE.

CURRENT / OHMS ASSEMBLY
Shunts R79/R80 variants (Located on PS/I Heatsink)

Circuit Diagram No. 480614-1.5 Sheet 2

NOTE. DN1 + DN3 ARE CODED RED
 DN2 + DN4 ARE CODED BLUE

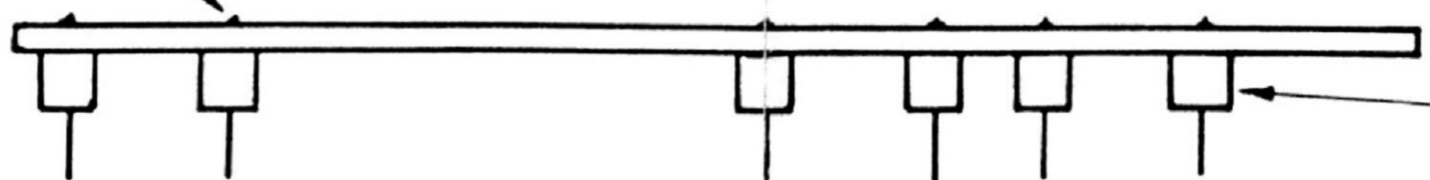
MOUNT M1, M3 IN
 20 WAY DIL SOCKETS
 605070.



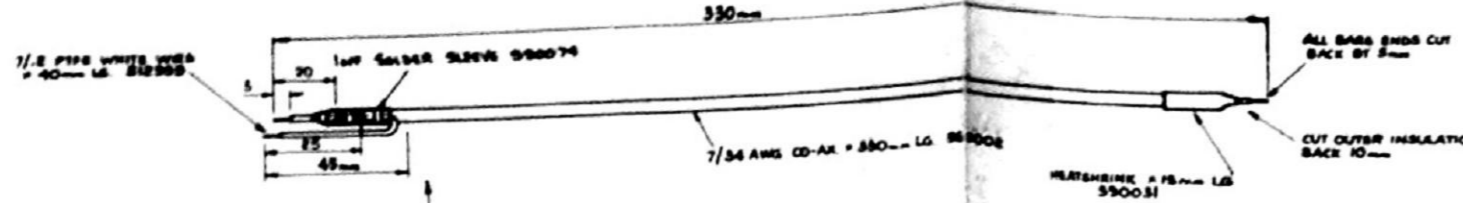
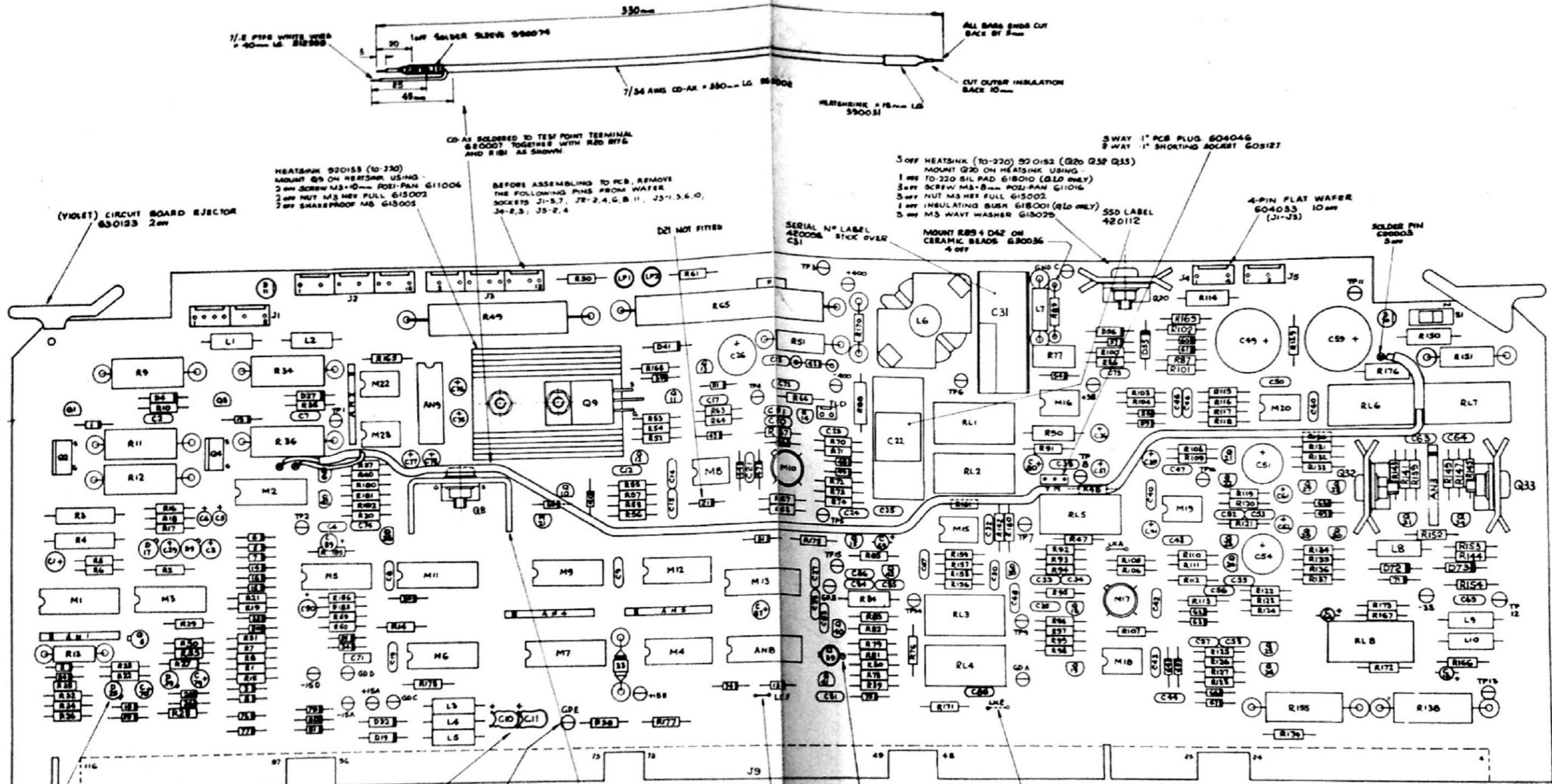
PCB 410364-1

MOUNT M2 IN 16WAY DIL SOCKET
 605061

N.B. FIT HEADER PLUGS
 FIRST AND CROP BEFORE
 FITTING DIL SOCKETS.



MAKE HEADER
 PLUGS FROM
 604057 (6 OFF)



(VIOLET) CIRCUIT BOARD EJECTOR
630123 2mm

HEATSHINK 920153 (10-220)
MOUNT Q9 ON HEATSHINK USING
3mm SCREW M3x10mm POZI-PAN G11006
3mm NUT M3 HEX FULL G15002
3mm SHAKERPROOF M3 G13005

BEFORE ASSEMBLING TO PCB, REMOVE
THE FOLLOWING PINS FROM WAFER
SOCKETS J1-5,7, J2-2,4,G,B,H, J3-1,5,6,10,
J4-2,3, J5-2,4

3 OFF HEATSHINK (10-220) 920152 (Q20 Q32 Q35)
MOUNT Q20 ON HEATSHINK USING
1mm 10-220 SIL PAD G18000 (Q10 ONLY)
3mm SCREW M3x8mm POZI-PAN G11016
3mm NUT M3 HEX FULL G15002
1mm INSULATING BUSH G18001 (Q10 ONLY)
3mm M3 WAVEY WASHER G13002B

3WAY 1" PCB PLUG 604046
2WAY 1" SHORTING SOCKET 605127

4-PIN FLAT WAFER
604033 10mm
(J1-J3)

SOLDER PIN
600003
3mm

SERIAL N° LABEL
420006 STICK OVER
C31

MOUNT R85 & D42 ON
CERAMIC BEADS G30036
4 OFF

MOUNT D5, D17, D25 & D29
ON THE MOUNTING PADS
G18004 4mm

PCB 410333-4

LW C10 & C11 AS FLAT TO PCB
AS POSSIBLE

TEST POINT TERMINAL
G20007 19 OFF

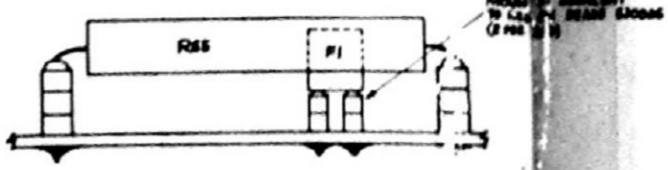
HEATSHINK (10-220) 920081
MOUNT Q8 ON HEATSHINK USING
SCREW M3x8mm POZI-PAN G11016
NUT M3 HEX FULL G15002
M3 SHAKERPROOF G13005
M3 PLAIN WASHER G13007

ALL LINKS, 225mm
THICK CO WIRE
540002

SPRING IS NOT TO BE REMOVED
FROM Q33 UNTIL BOARD IS
TESTED

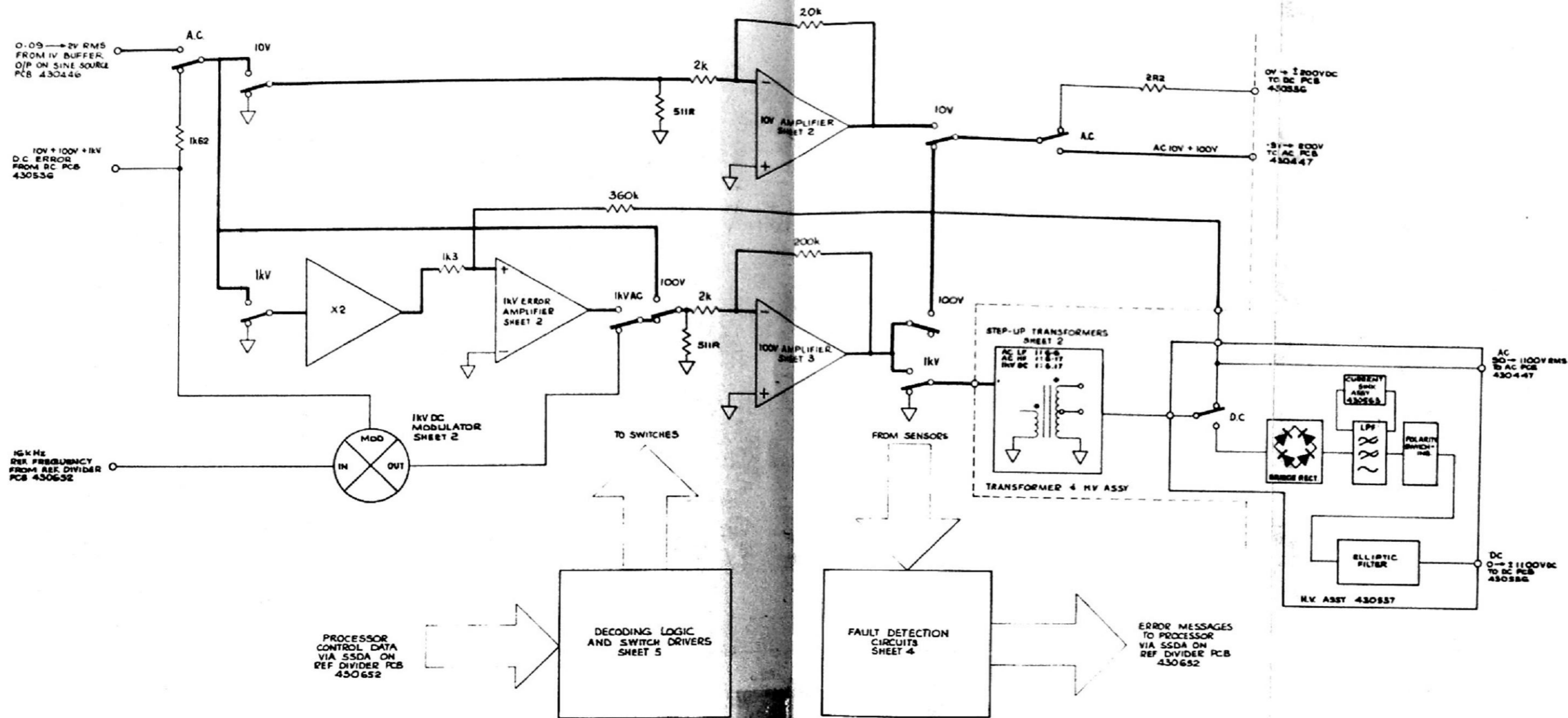
LINK 'E' NOT FITTED

MOUNTING I.C.'s			
NO OF PINS	PART N°	NO OFF	WHIRLS USED
8	605039	8	M15, M16, M18, M19, M20, M22, M23, M8
14	605060	7	M2, M3, M4, M5, M6, M9, M12
18	605061	4	M1, M7, M11, M13



MOUNTING BEADS G30024 (52 OFF)	
BEAD	COMPONENTS
1	R13, R1, R11, R10, D33, L7
2	R9, R11, R13, R34, R35, R130, R155
3	R40, R45

NOTE: THE FOLLOWING COMPONENTS TO HAVE 100PF
GLASS BEAD G30245 ON EACH LEG. (TOTAL 16 BEADS)
C8, C9, C13, C14, C19, C21, C27, C28, C32,
C42, C43, C60 & C85



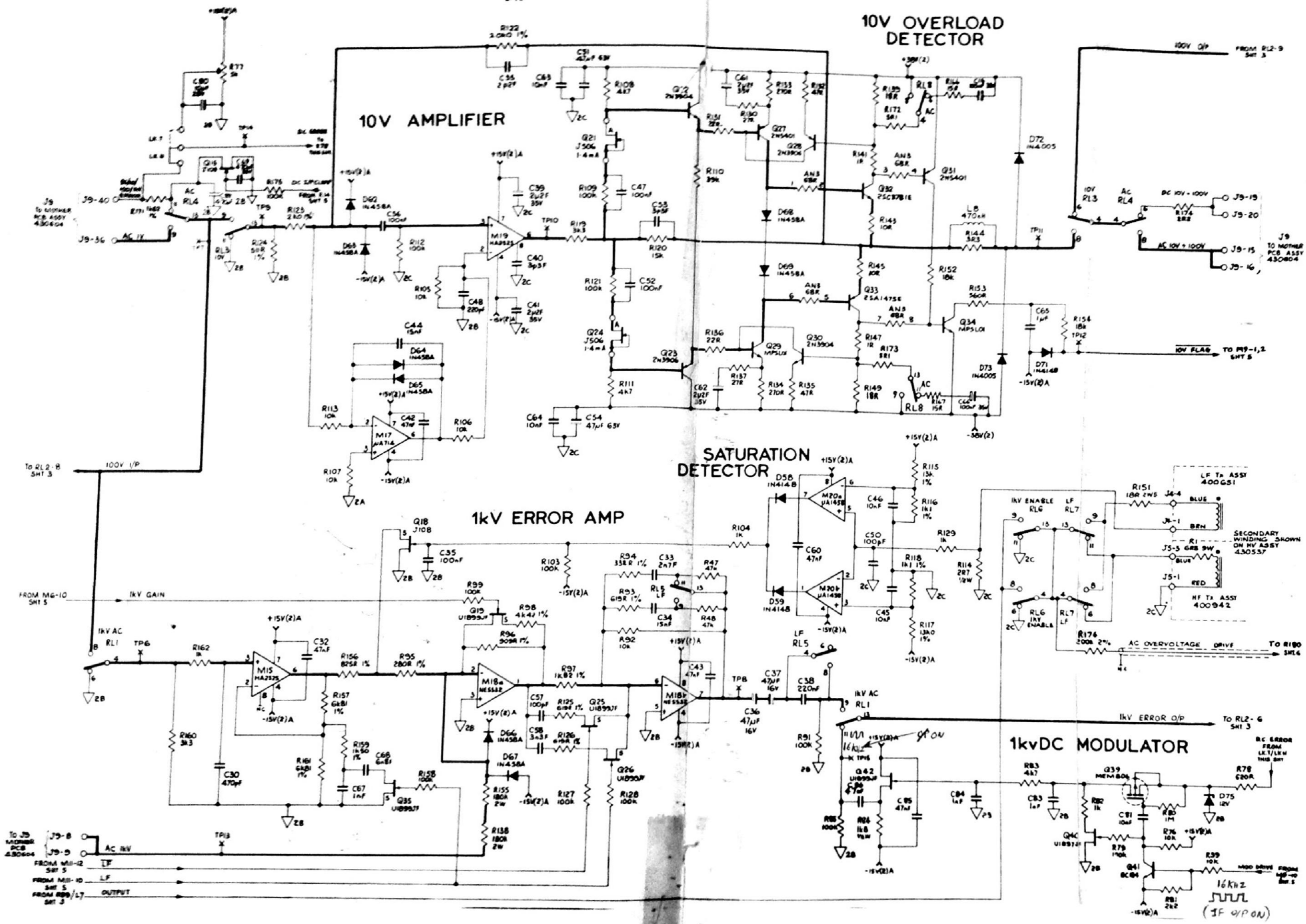
POWER AMPLIFIER ASSEMBLY

Block Diagram

Circuit Diagram No. 430118-6.0 Sheet 1



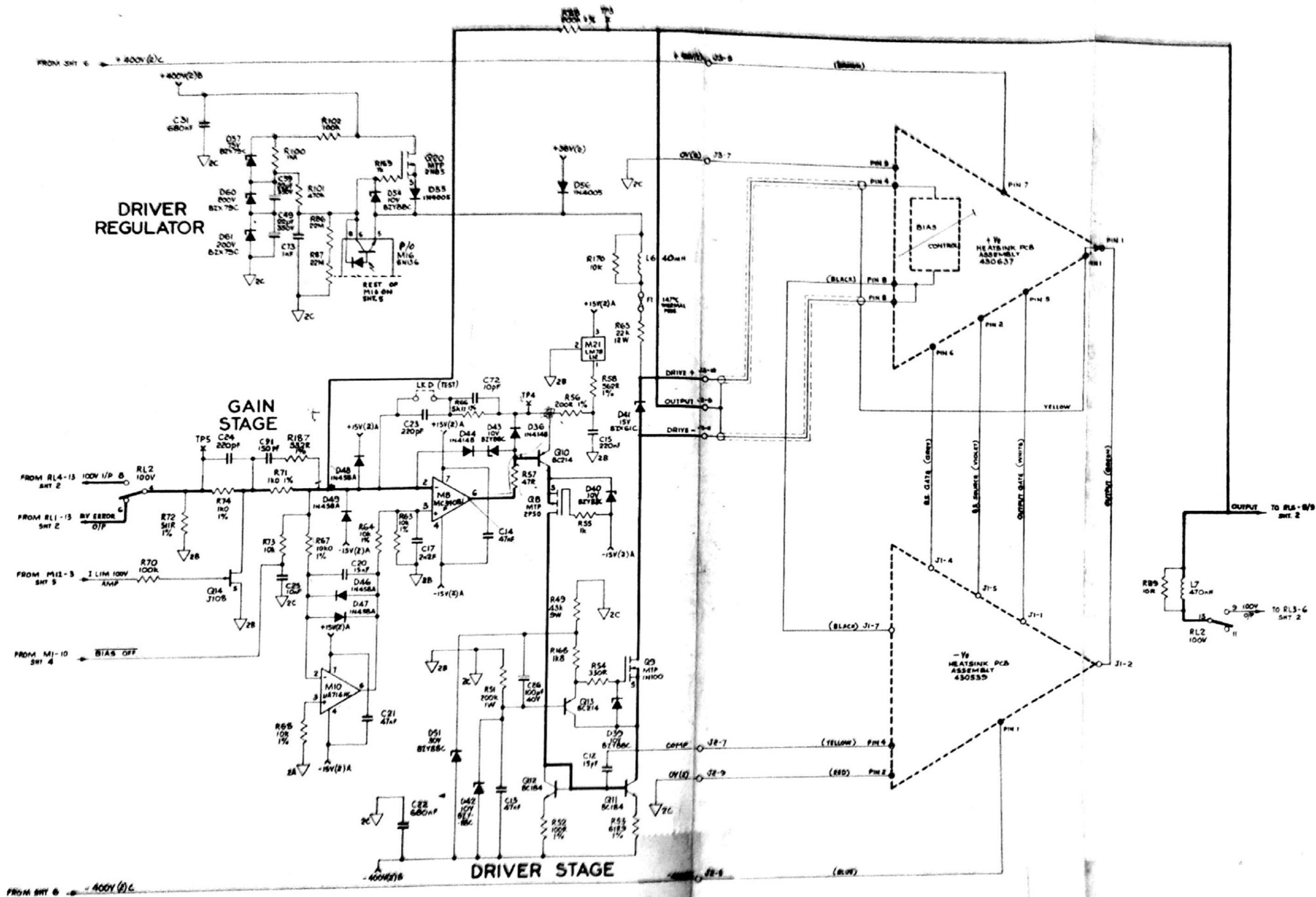
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POWER AMPLIFIER ASSEMBLY
 10V and 1kV Amplifiers
 Circuit Diagram No. 430818-6.1 Sheet 2



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POWER AMPLIFIER ASSEMBLY

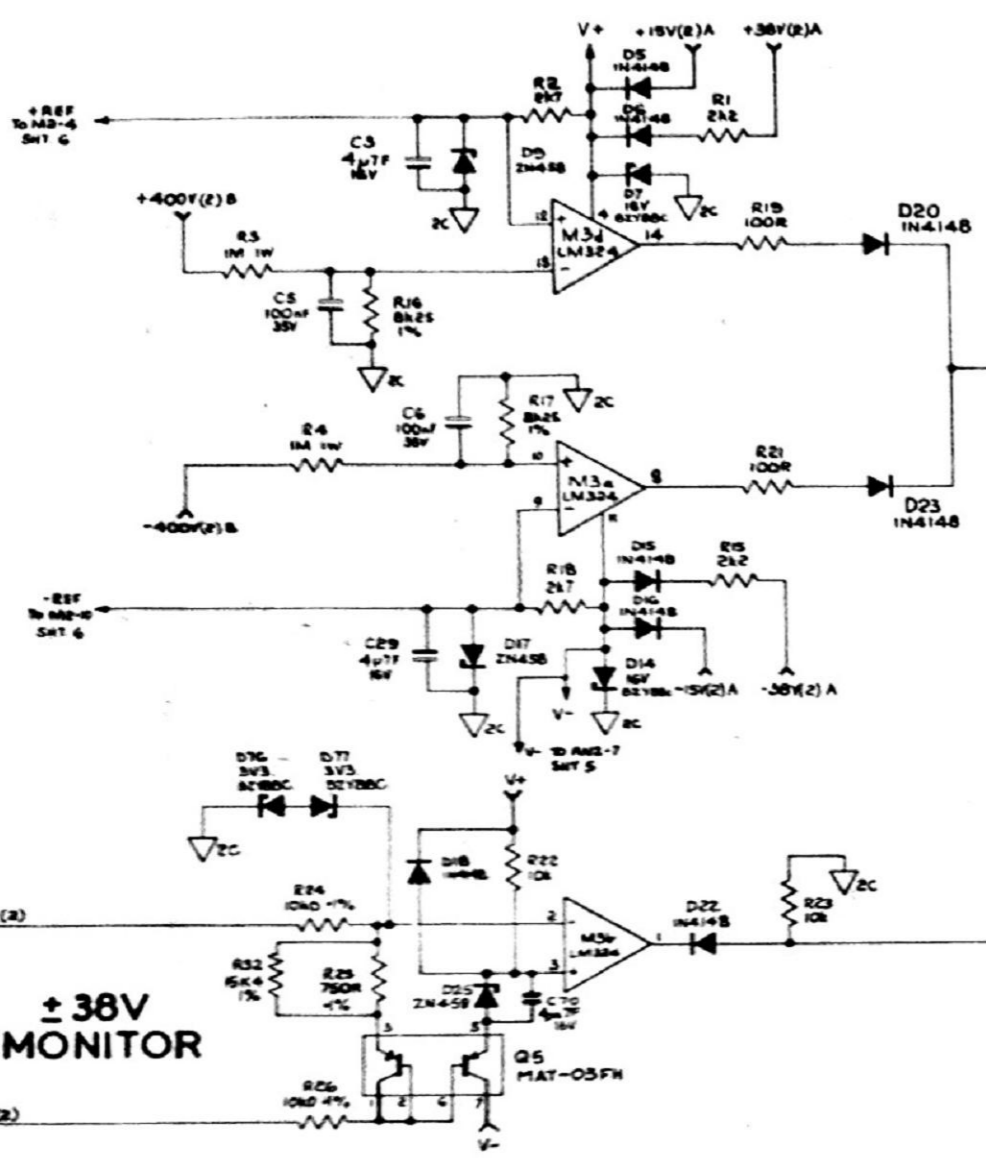
100V Amplifier

Circuit Diagram No. 43063-6.1 Sheet 3



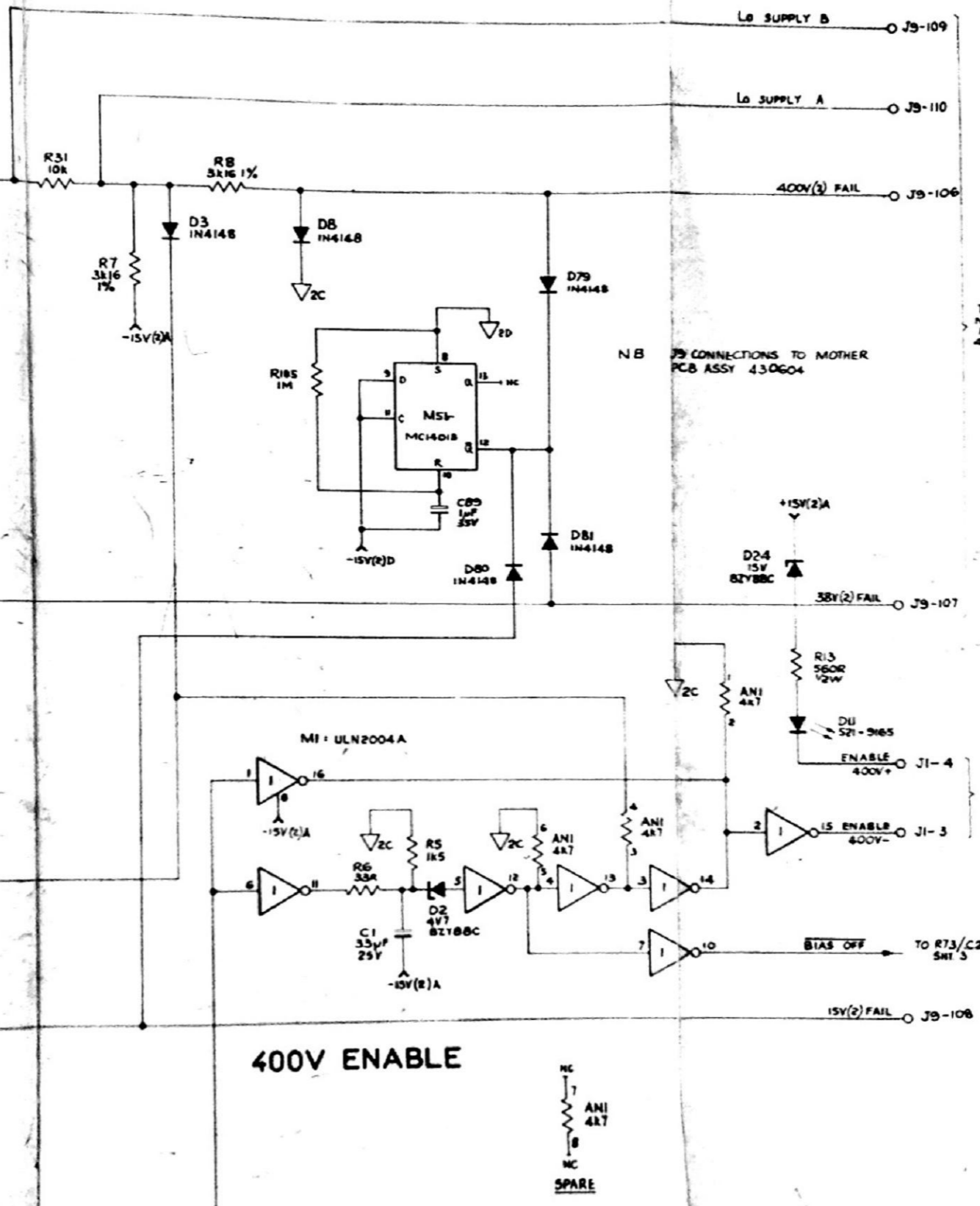
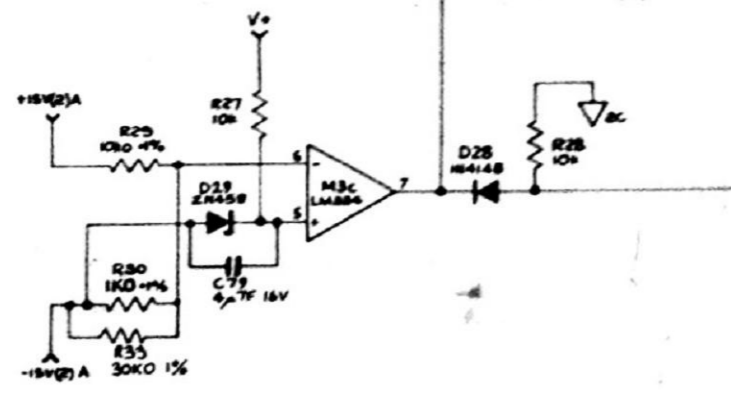
© Datron Instruments 1991

± 400V
MONITOR



± 38V
MONITOR

± 15V
MONITOR



400V ENABLE



FROM R68 PS1 OFF SMT 5

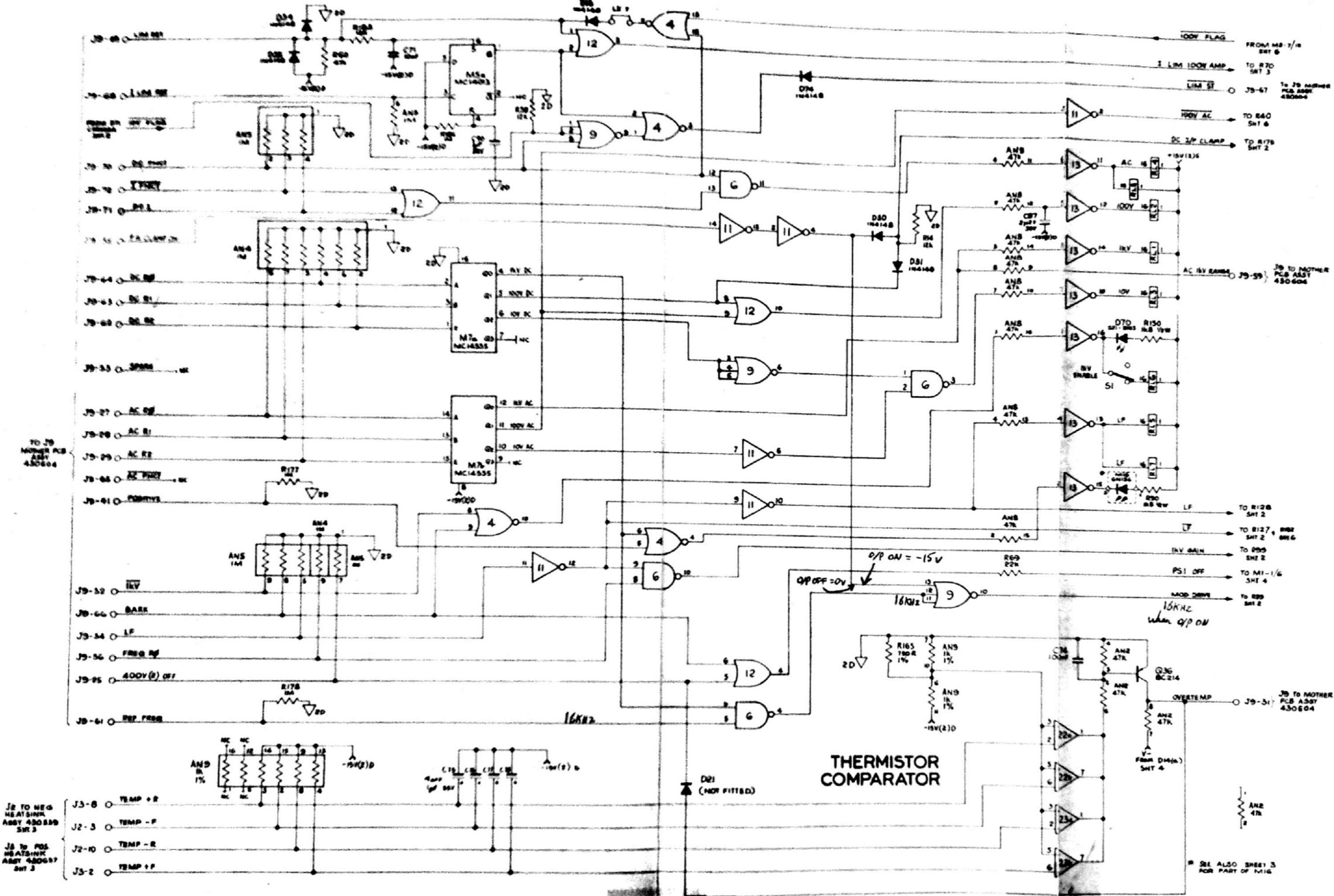
POWER AMPLIFIER ASSEMBLY
Power Supply Monitors

Circuit Diagram No. 43088-6.1 Sheet 4



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11.9-4



J2 TO NEG HEATSINK ASST 430889 SHT 3

J2 TO POS HEATSINK ASST 430887 SHT 3

THERMISTOR COMPARATOR

POWER AMPLIFIER ASSEMBLY
Logic and Relay Drives

Circuit Diagram No. 43088-6.0 Sheet 5



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4808

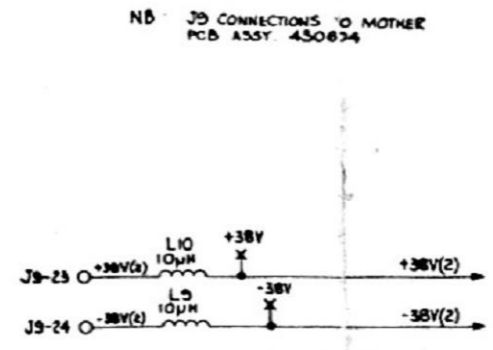
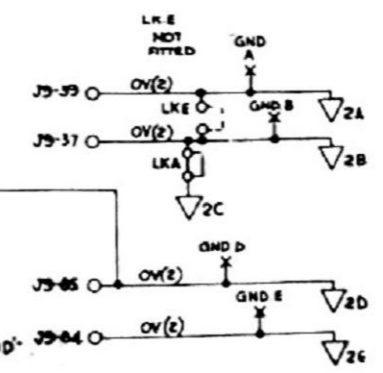
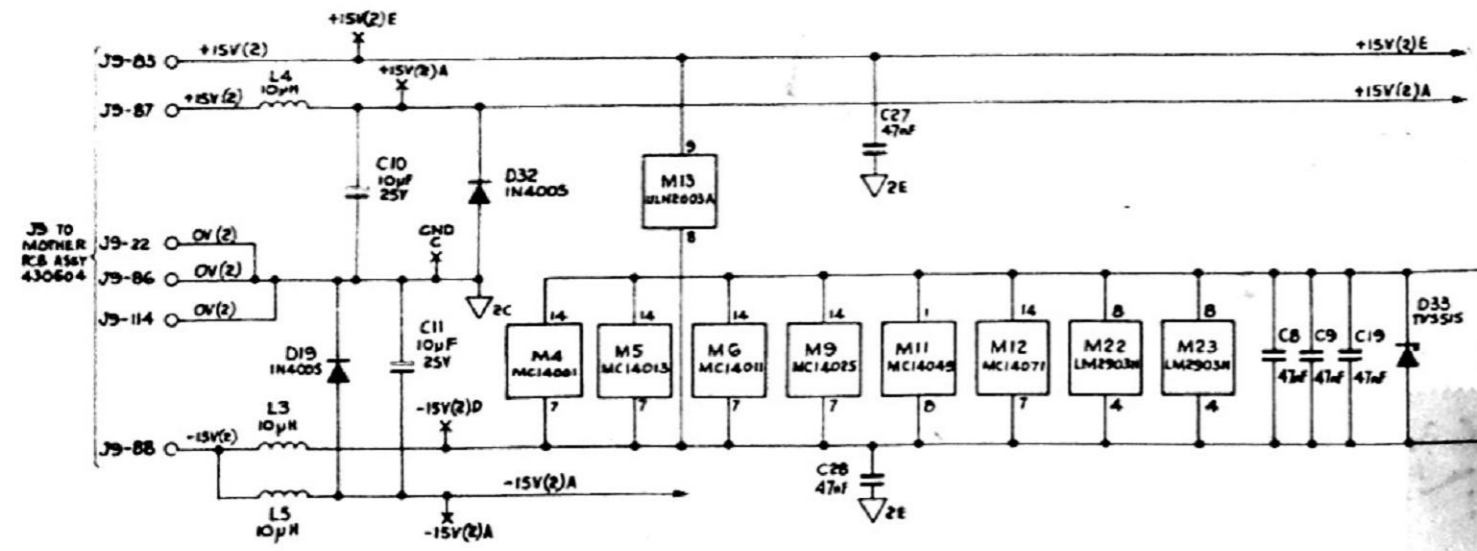
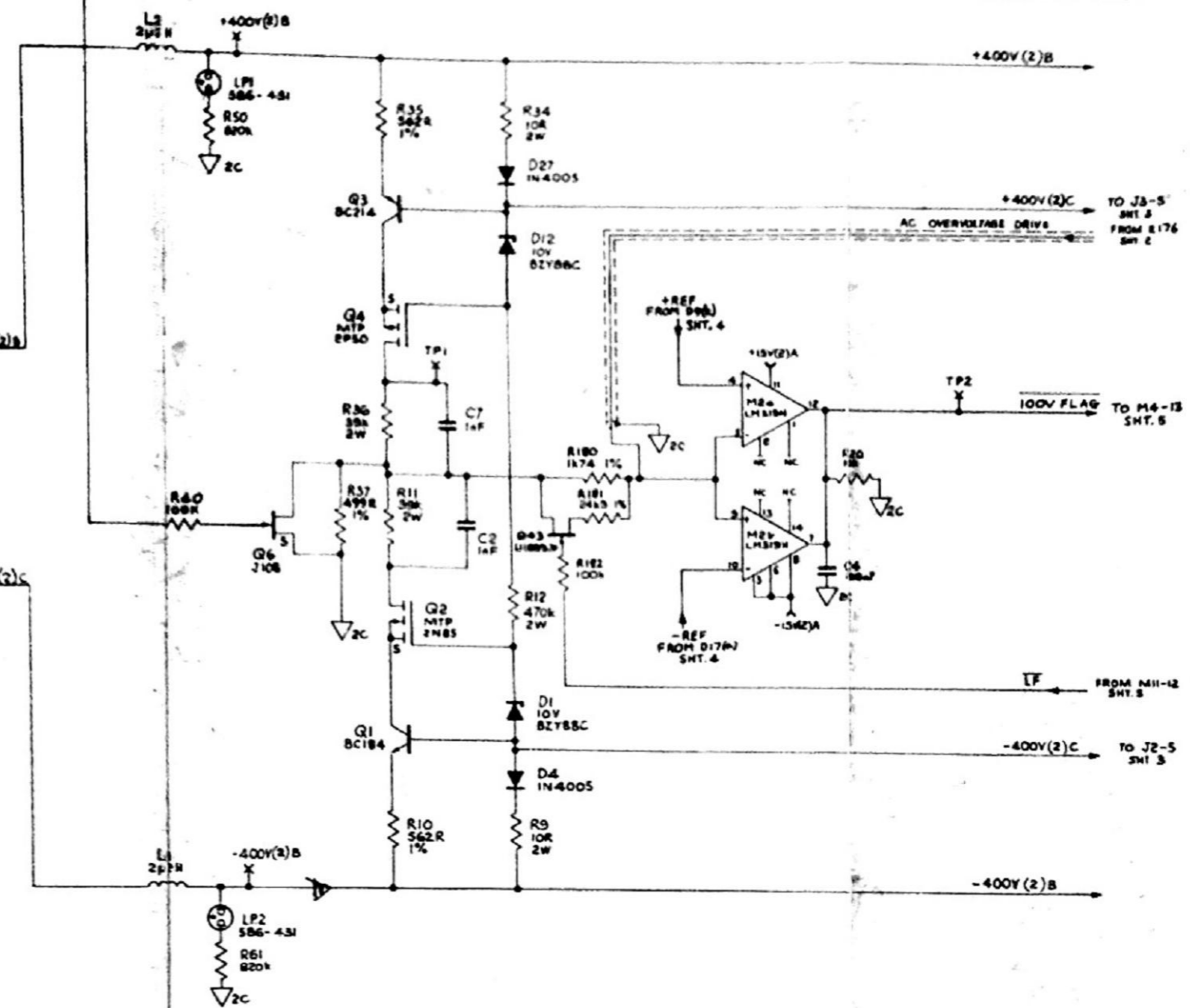
11.9-5

FROM M11-1
SHT 5 100V AC

100V CURRENT SENSE + 1kV OVERVOLTS DETECTOR



J1 to P50/1
HEATSINK ASSY
430540



NOTE: J9 CONNECTIONS TO MOTHER PCB ASSY 430604

POWER AMPLIFIER ASSEMBLY
100V Overload Detector and Power Supplies

Circuit Diagram No. 430618-6.0 Sheet 6

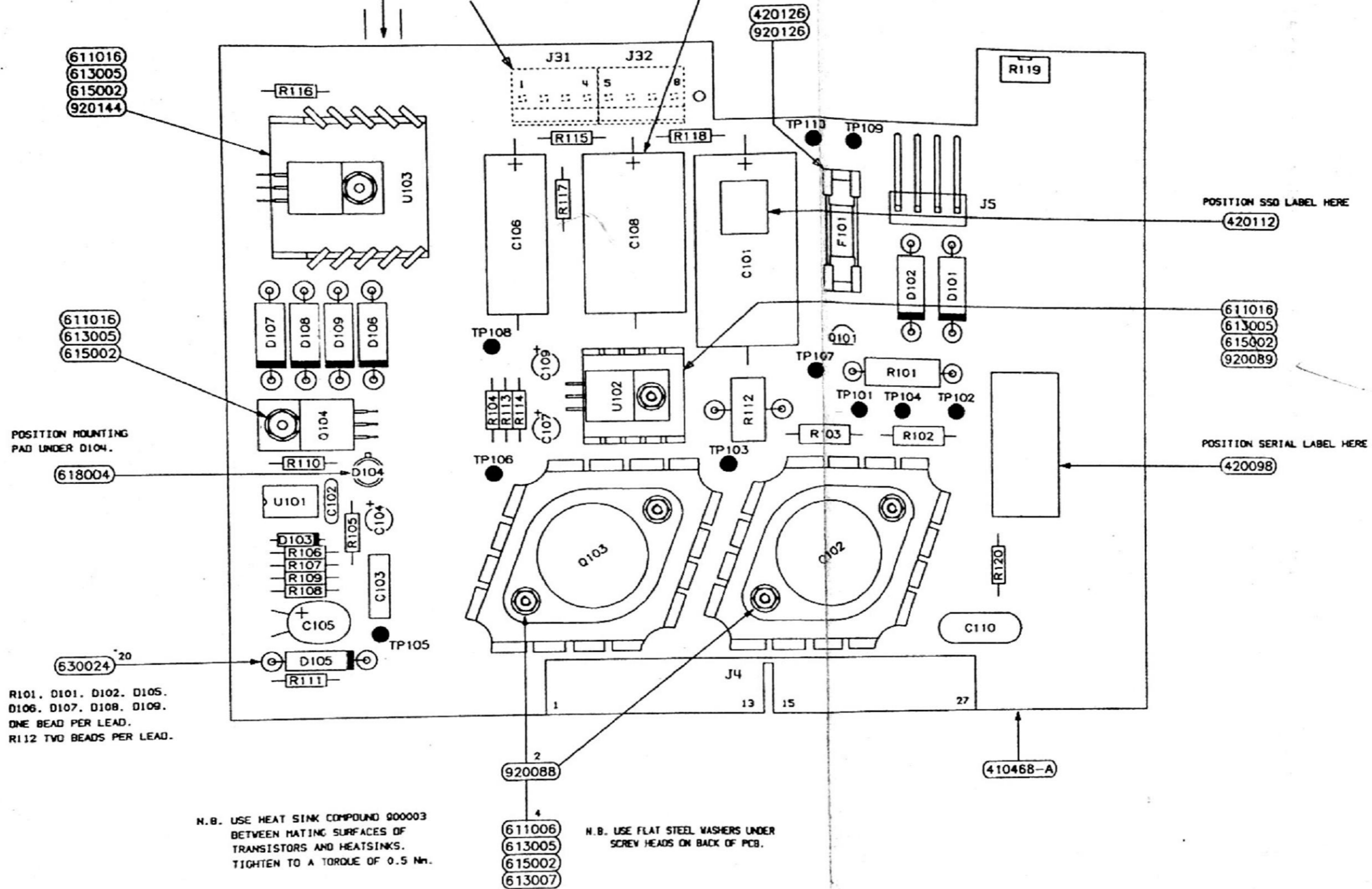


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MAX SOLDER PIP HEIGHT 2mm
IN THIS AREA
D106, D107, D108, D109,
C103, TP105, D105

MOUNT C101, C106, C108 USING
SILICONE RUBBER COMPOUND 900004.

J31, J32 - MOUNT ON SOLDER SIDE OF PCB

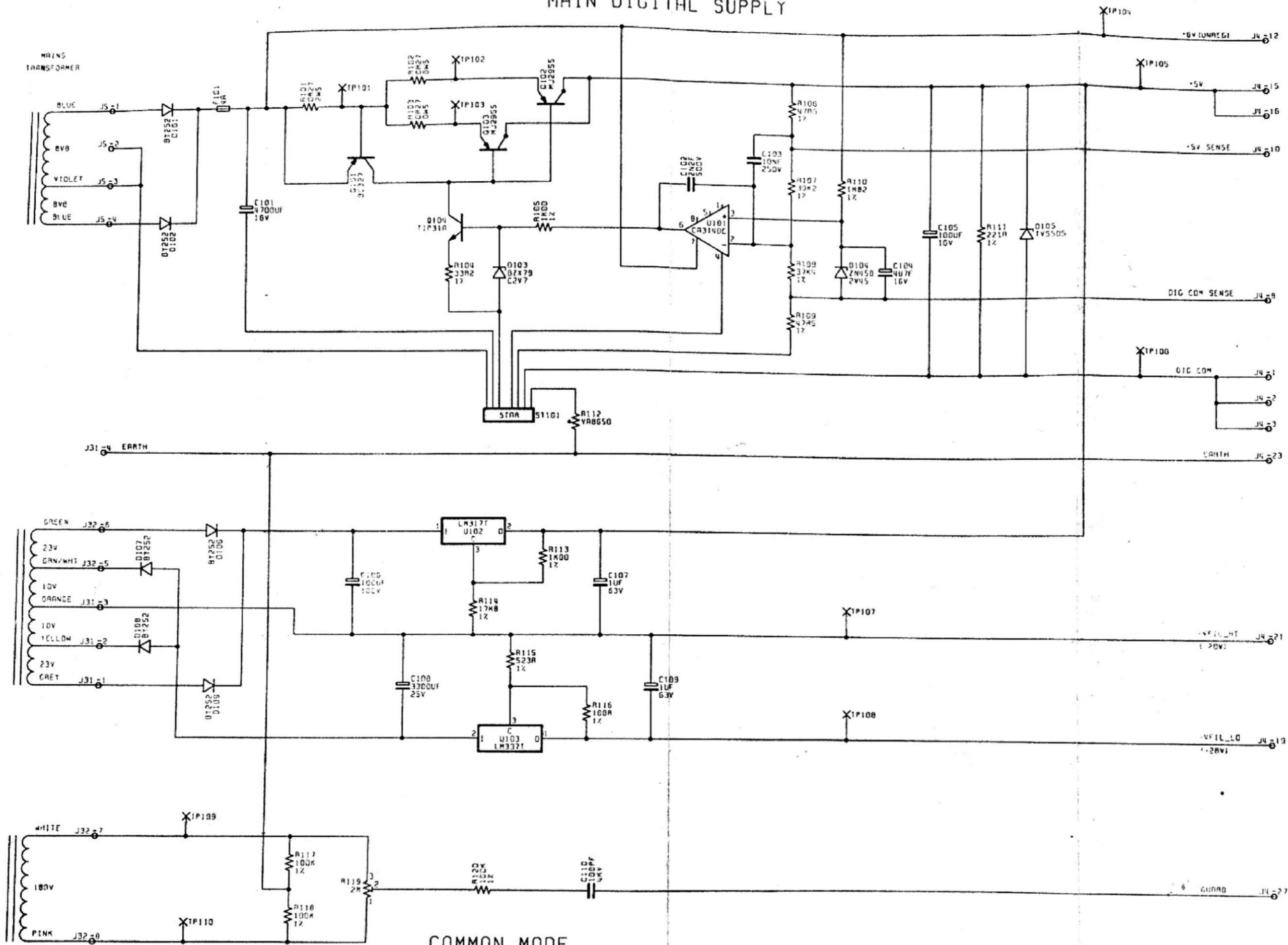


R101, D101, D102, D105,
D106, D107, D108, D109.
ONE BEAD PER LEAD.
R112 TWO BEADS PER LEAD.

N.B. USE HEAT SINK COMPOUND 900003
BETWEEN MATING SURFACES OF
TRANSISTORS AND HEATSINKS.
TIGHTEN TO A TORQUE OF 0.5 Nm.

N.B. USE FLAT STEEL WASHERS UNDER
SCREW HEADS ON BACK OF PCB.

MAIN DIGITAL SUPPLY



COMMON MODE
NULL (OG)

SEAL C1 AND C2 IN SILICONE RUBBER (900004)

FIX SSD WARNING LABEL TO C1 420112-1

4-WAY PLUG 604042 5 AW

PCB 410282-4

FIX SERIAL N° LABEL 420096 ON REVERSE SIDE

TEST POINT TERMINAL 620007 12 AW

6 AW FUSE HOLDER 920126
2 AW FUSE (4A 5/8) 920128-F1,F2
2 AW FUSE (3A 5/8) 920143-F3,F4
2 AW FUSE (1A 5/8) 920116-F5,F6

2 AW HEATSINK 920142

MOUNT M1 AND M2 ONTO HEATSINKS WITH A SIL PAD 618010 2 AW
SECURE WITH M3X10mm POZI-PAN SCREW 611006
M3 WASHER 613007 (FIT UNDER SCREW HD)
M3 FULL HEX NUT 615002
M3 SHAKEPROOF 613005
INSULATING BUSH 618001 2 AW

3 AW HEATSINK (TD202) 920105

Q1, Q2, M3, M6-M9 FIXINGS:
5 AW M3 X10mm POZI-PAN SCREW 611006
5 AW M3 FULL HEX NUT 615002
5 AW M3 SHAKEPROOF 613005

NOTE:
USE HEATSINK COMPOUND (900008) BETWEEN MATING SURFACES OF Q2, M1-M3, M6-M9 AND THEIR RESPECTIVE HEATSINKS. A TORQUE OF 0.5 Nm SHOULD BE APPLIED TO TIGHTEN COMPONENT FIXINGS.

GLASS BEAD 630043 FITTED TO EACH LEG OF CIR C17 + C20 6 AW

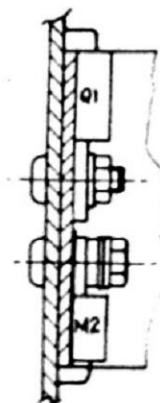
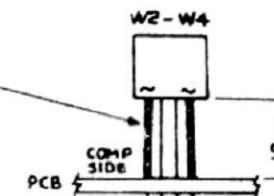
MOUNT R11-R16 ON CERAMIC BEADS 630029 12 AW

1 AW HEATSINK (TD3) 920088

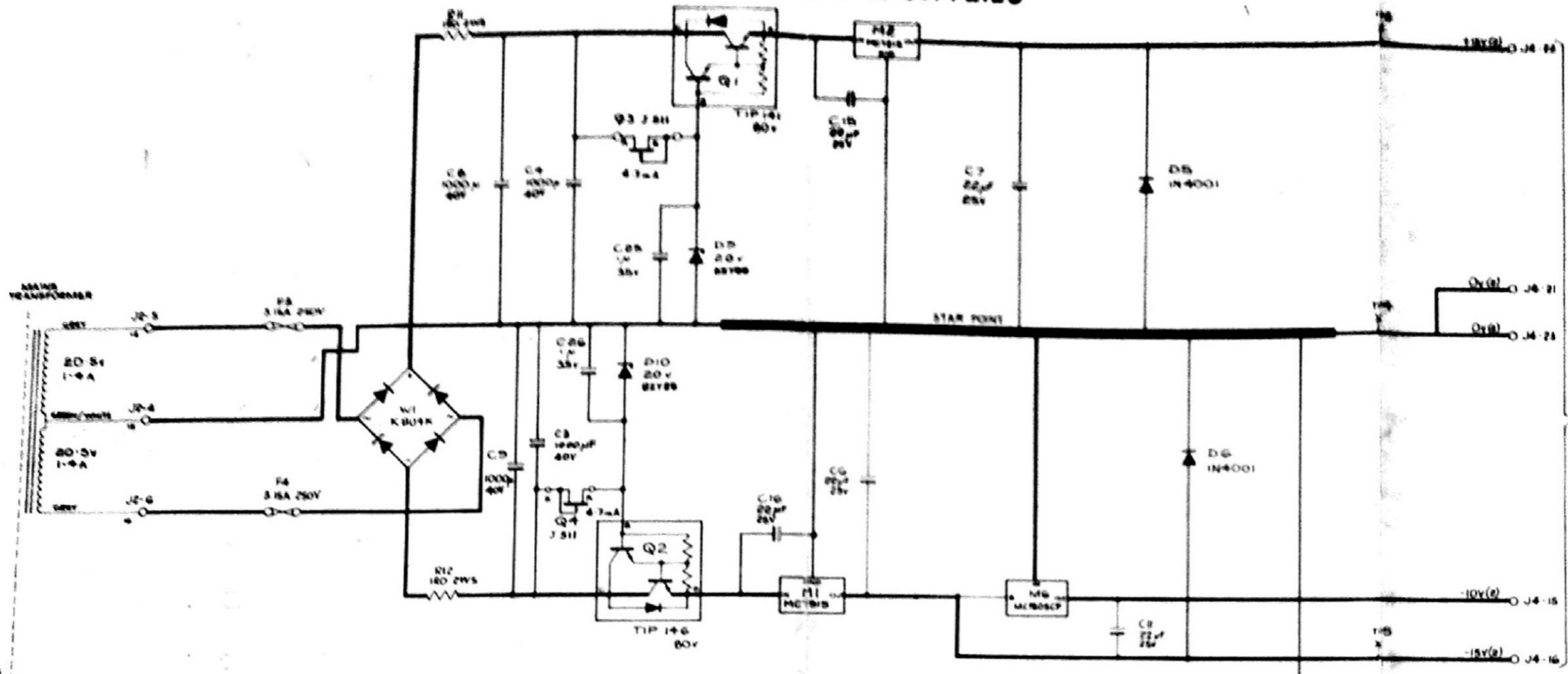
1 AW M3 WASHER 613007 FIT UNDER SCREW HEAD

1 AW HEATSINK (TD220) 920089

SLEEVE BOTH AC (~) LEADS WITH 10mm SLEEVE 990004 THIS APPLIES TO W2, W3 AND W4. DEVICES USED SHOULD BE G.I. WDM.



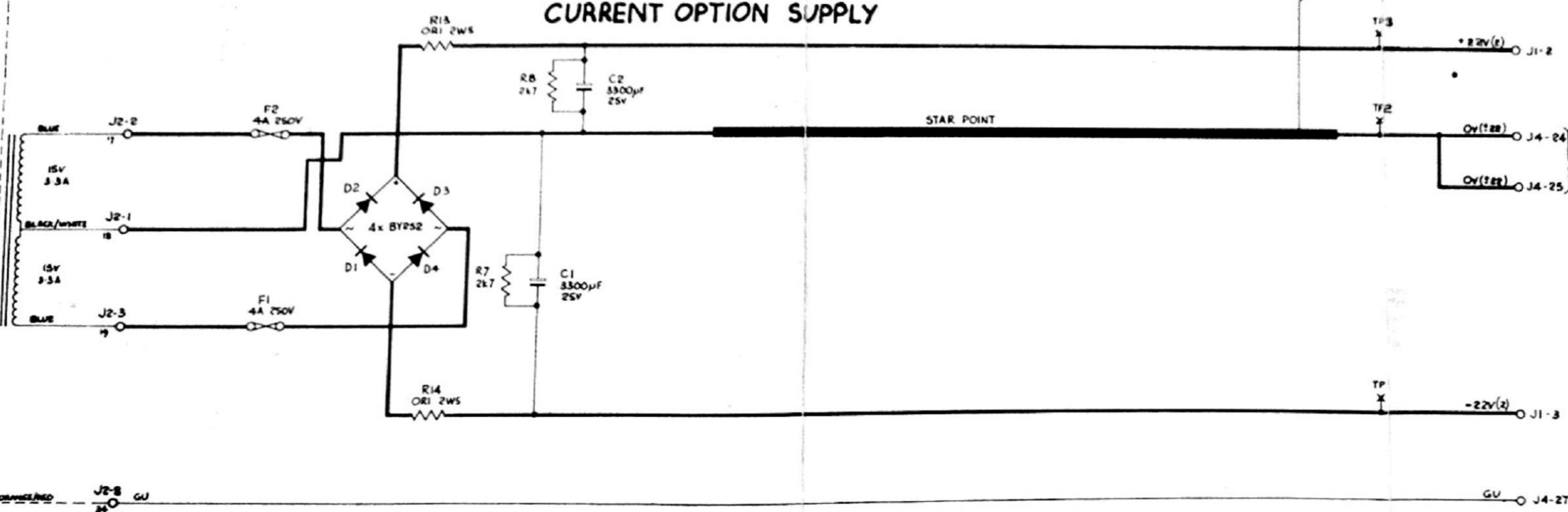
IN GUARD COMMON 2 SUPPLIES



TO J85
MOTHER PCB
430582 (+200)
430604 (+700)

PRIMARYS
SHOWN ON
INTERCONNECTION PCB
430483

CURRENT OPTION SUPPLY



TO POWER SUPPLY/CURRENT
HEATSINK 430540

TO J25
MOTHER PCB
430582 (+200)
430604 (+700)

TO POWER SUPPLY/CURRENT
HEATSINK 430540

TO J21
MOTHER PCB
430582 (+200)
430604 (+700)

IN GUARD SCREEN
CONT. ON SHT 2

IN-GUARD POWER SUPPLY ASSEMBLY
Common-2 and Current Option Supplies



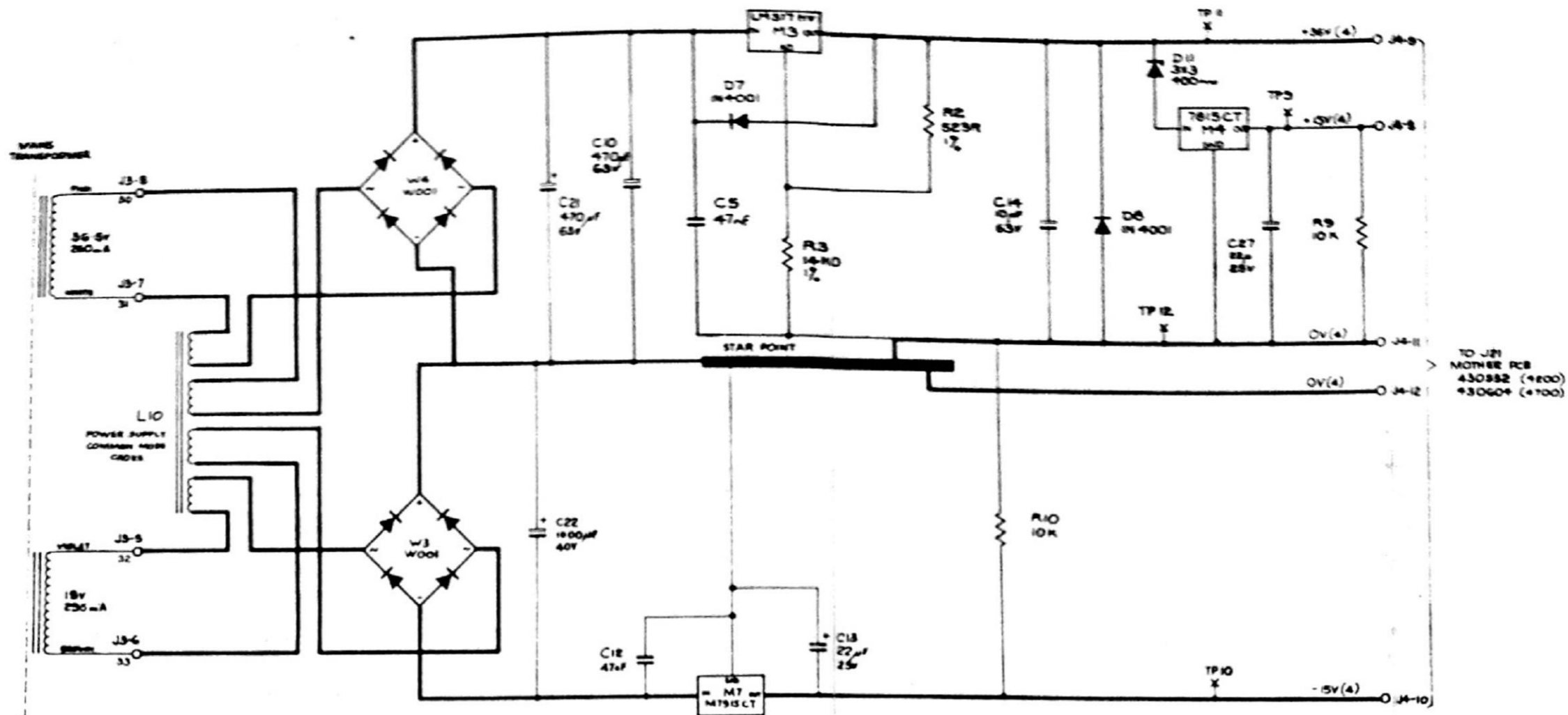
Circuit Diagram No. 430554-4.3 Sheet 1

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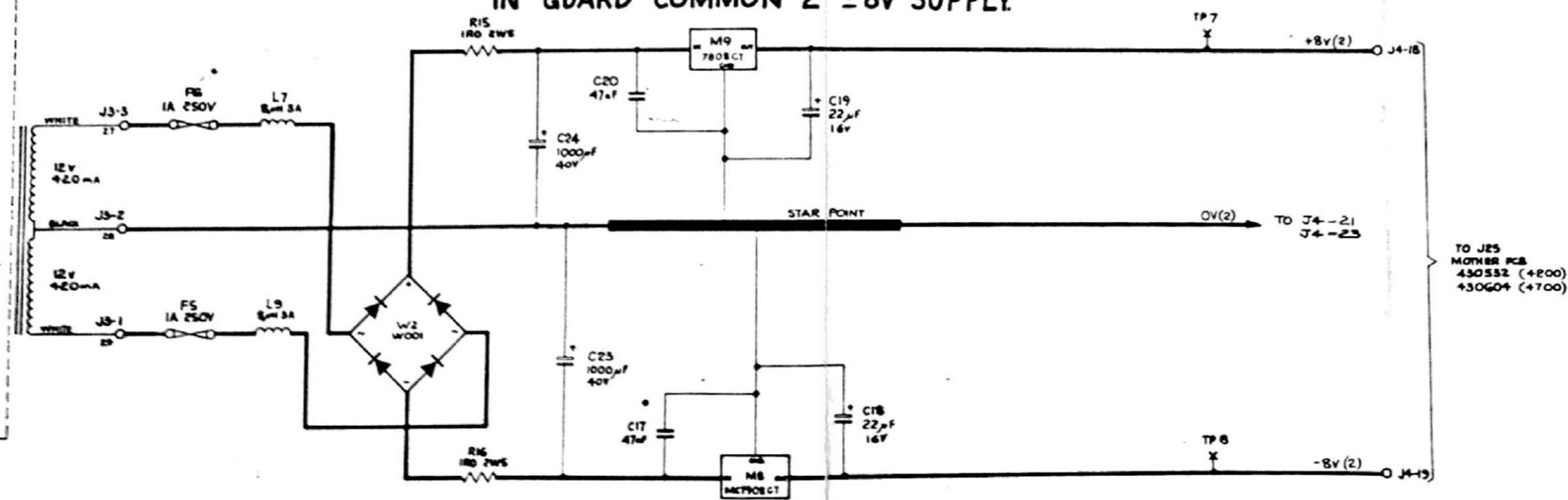
11.11-1

REFERENCE DIVIDER COMMON 4 SUPPLIES



TO J21
MOTHER PCB
430552 (+200)
430604 (+700)

IN GUARD COMMON 2 ±8V SUPPLY



TO J25
MOTHER PCB
430552 (+200)
430604 (+700)

PRIMARYS
SHOWN ON
INTERCONNECTION PCB
430453

IN GUARD SCREEN
CONV FROM SHV.1

IN-GUARD POWER SUPPLY ASSEMBLY
Reference Divider Common-4 and ±8V Common-2 Supplies

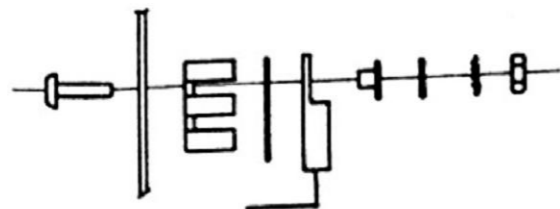
Circuit Diagram No. 430554-4.1 Sheet 2



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11.11-2



MOUNT Q1 USING THE FOLLOWING :-

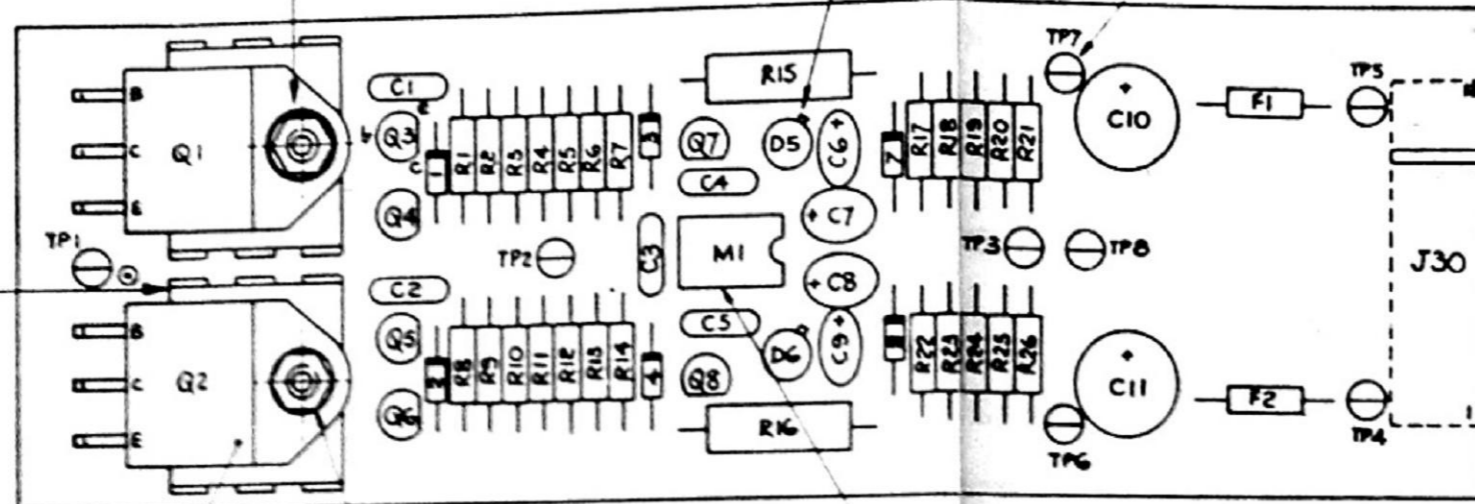
M5X10mm POZI-PAN SCREW	G1100G	1 off.
INSULATING PAD	G18014	1 off.
INSULATING BUSH	G18001	1 off.
M5 WASHER STEEL	G15007	1 off.
M3 INT SHAKE PROOF	G15005	1 off.
M5 NUT	G15002	1 off.

MOUNT D5 & D6 ON MOUNTING PADS G18004 2 off.

TEST POINT PIN 620007 6 off

P.C.B. 410254-2

HEATSINK (T0220) 920141 2 off.



USE HEATSINK COMPOUND 900003 BETWEEN MATING SURFACES OF HEATSINK AND Q2.

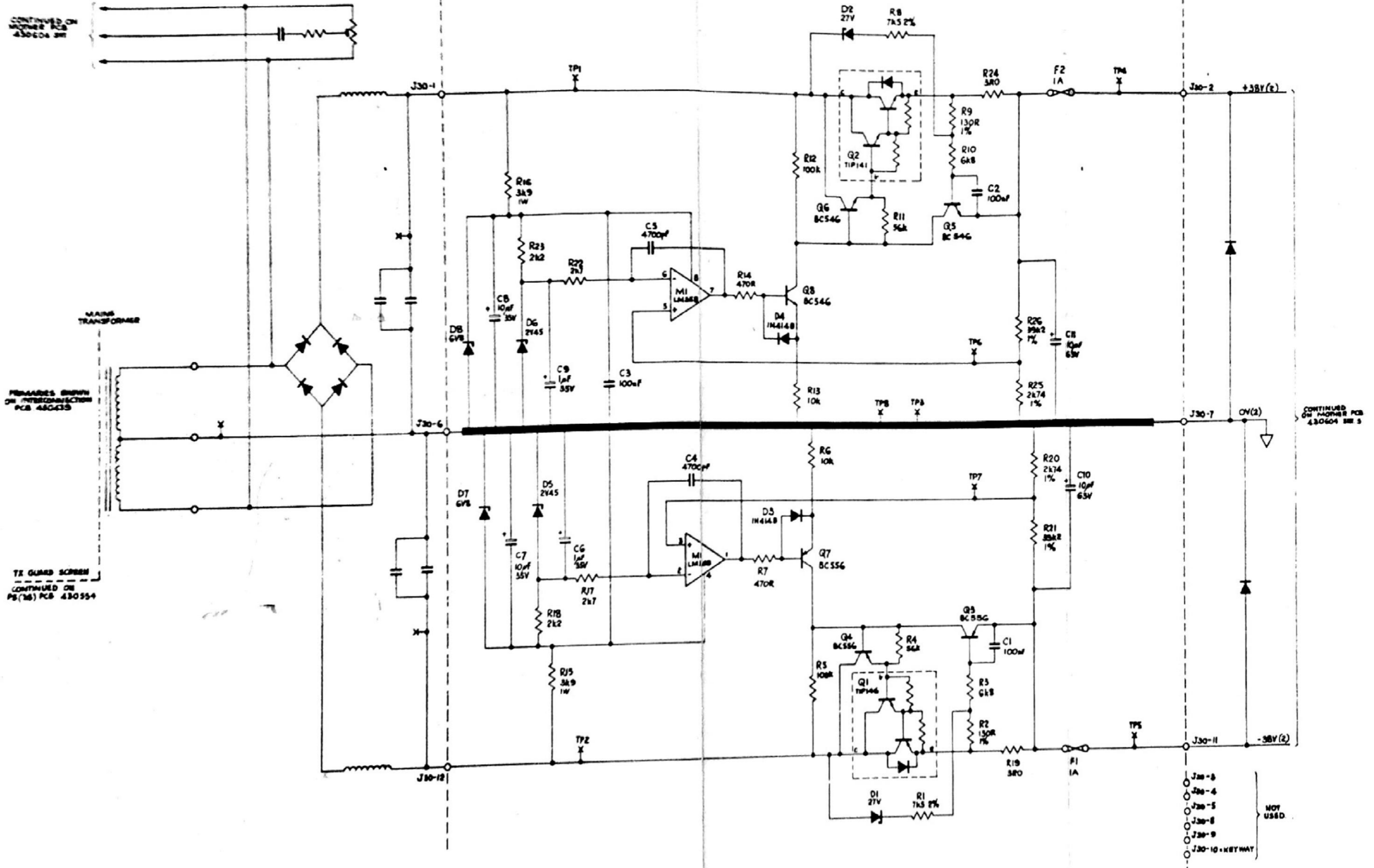
M5X8mm POZI-PAN SCREW G1101G 1 off (TO SECURE Q2)
M3 SHAKE PROOF G15005 1 off
M3 NUT G15002 1 off

MOUNT M1 ON 8WAY DIL SKT 605059/A

MOTHER PCB ASSY
400604

PS (38V) PCB ASSY
400653

MOTHER PCB ASSY
400604



±38V POWER SUPPLY ASSEMBLY
±38V Power Supply with Mother Assembly Components

MOUNT Q7 WITH FERRITE BEAD
920145 ON CENTER LEG, AS SHOWN

BAR CAMBION BUCKET 60818
PUSH INTO BACK OF PCB AND
SOLDER IN PLACE

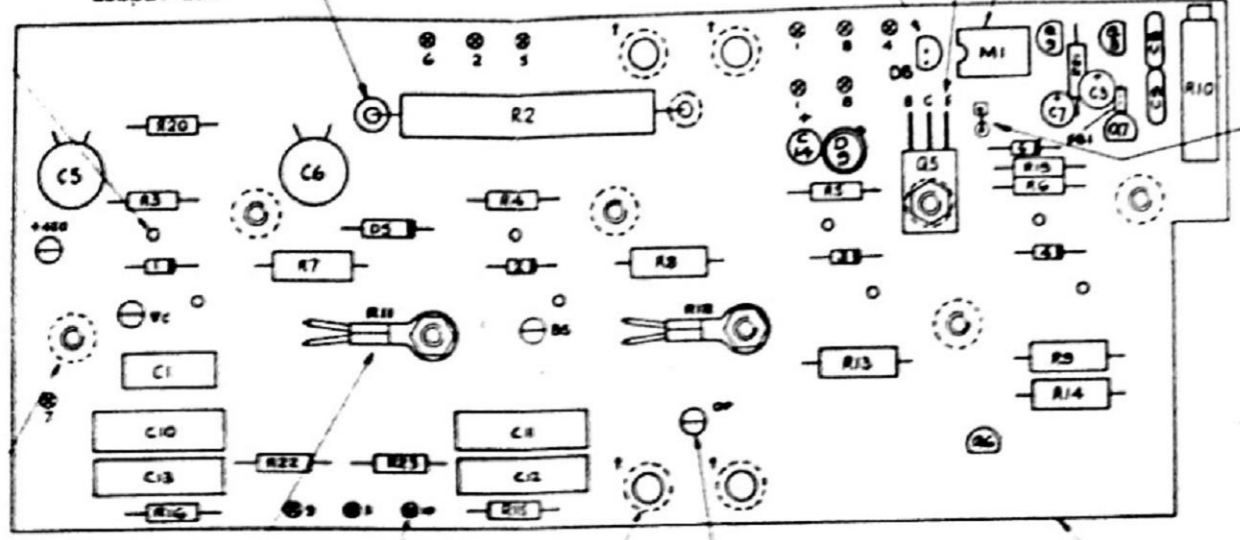
MOUNT R2 ON 16PWG LER BEAD
6300B4 20P

ENSURE THAT HOLE IN Q5
LINES UP WITH STANDOFF
HOLE AND THAT METAL
FACE IS TOWARDS PCB
SEE STAGE 4

CUT OFF THIS END PIN OF Q8
BEFORE ASSEMBLING

MOUNT R10 ON 8 WAY SOCKET
60505D

- ASSEMBLY NOTES:
- 1 ASSEMBLY PCB TO STAGE 1 EXCEPT SCREW FIXING FOR Q5 (SEE STAGE 4)
 - 2 COMPLETE PCB ASST BY FITTING WIRING LOGANS DO NOT FIT P CLIP (SEE STAGE 7)
 - 3 ASSEMBLE PCB ASST TO HEATSINKS FITTED BY 4 MIDDLE SCREWS (SEE STAGE 7)
 - 4 MOUNT Q1-Q4 TO STAGE 5 ASSEMBLY IN THE POSITION SHOWN / STAGE 5) APPLY HEATSHINK COMPOUND 900005 BETWEEN MATING SURFACES USE A TORQUE SCREWDRIVER TO TIGHTEN ALL TRANSISTOR FIXING SCREWS TO A TORQUE OF 0.8NM
 - 5 SECURE Q5 (STAGE 4) TIGHTEN NUT TO A TORQUE OF 0.8NM
 - 6 SECURE WIRING WITH P CLIP (STAGE 7)



M3 x 6mm STANDOFF 61004
SOLDER IN PLACE AFTER
SOLDERING Q5

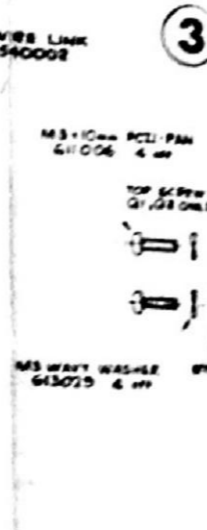
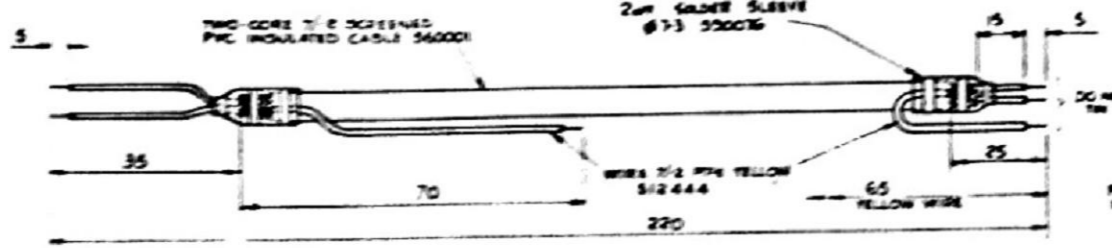
SEE STAGE 4 FOR
FIXING OF R11/R12

M3 CLEAR 4mm STANDOFF
61000 4mm
SEE STAGE 3

TEST POINT TERMINAL
620007 4mm

PCB 410243-5

SOLDER PIN
620005 12mm

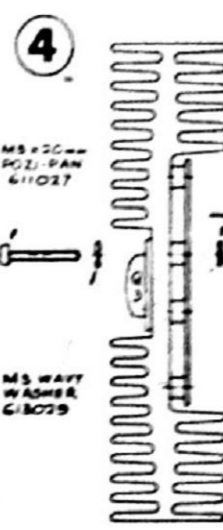


M3 x 10mm PCL PAN 611006 4mm

TOP SCREW Q1-Q4 ONLY

M3 WAVE WASHER 613025 4mm

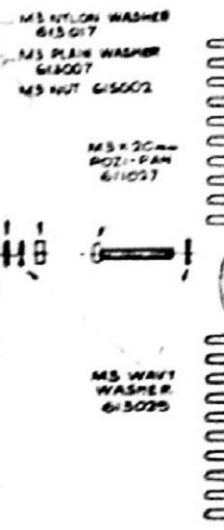
3



M3 x 20mm PCL PAN 611027

M3 WAVE WASHER 613029

4



M3 NYLON WASHER 613017

M3 PLAIN WASHER 613007

M3 NUT 615002

M3 WAVE WASHER 613029

5



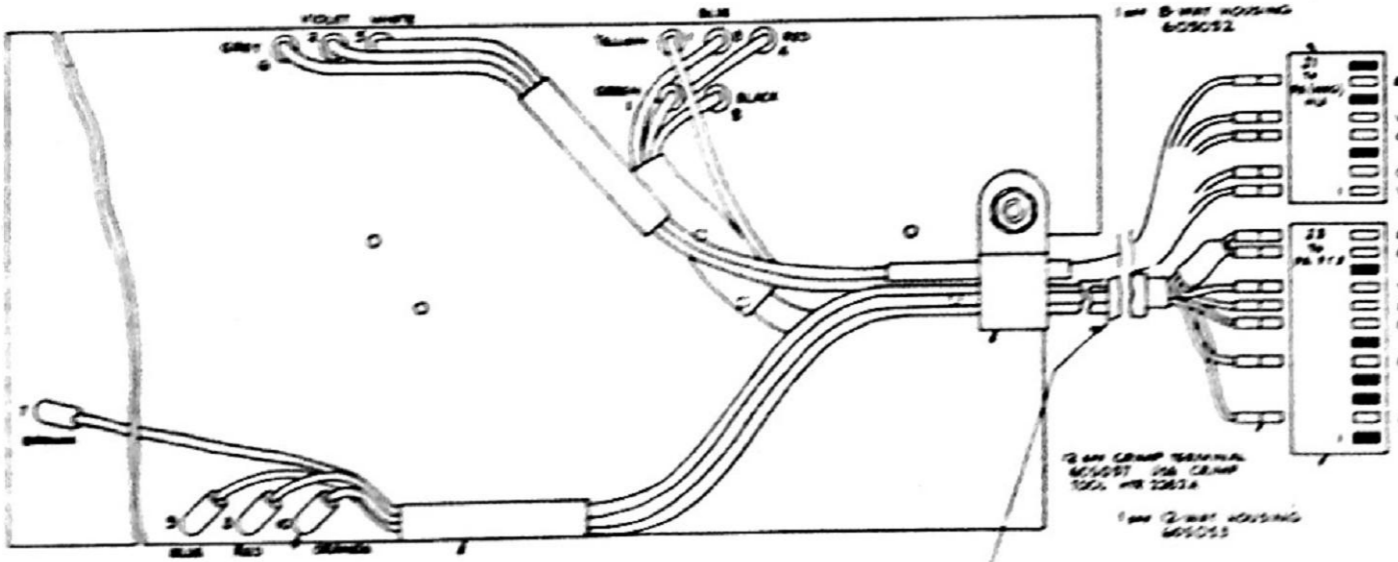
M3 PLAIN WASHER 613007

M3 WAVE WASHER 613029

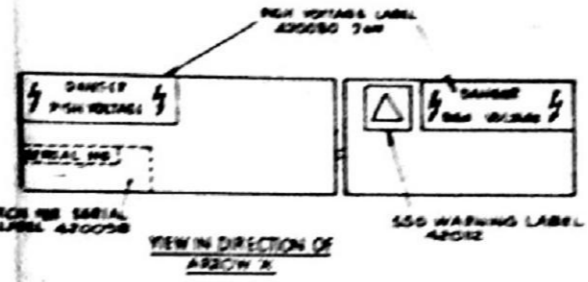
M3 NUT 615002

P CLIP 630126

2



- | | | |
|--------|-----|----------------------------|
| BLACK | 120 | |
| VIOLET | 145 | 1/2 PINS INSULATED W/0.5mm |
| LAVY | 170 | INSULATED W/0.5mm |
| GREEN | 195 | INSULATED W/0.5mm |
| WHITE | 220 | |
| RED | 245 | |
| BLUE | 270 | |
| YELLOW | 295 | 1/2 PINS INSULATED W/0.5mm |
| BROWN | 320 | INSULATED W/0.5mm |
| ORANGE | 345 | |



PSRICE 88 SERIAL HP LABEL 470058

150 WARNING LABEL 40012

2mm M3 PULL NUT SPWEL 615008

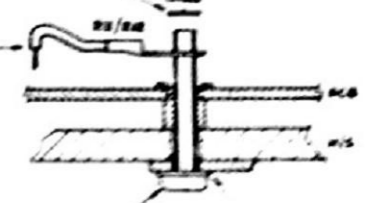
2mm M3 WAVE WASHER 613029

2mm M3 PLAIN WASHER 613007

LIFT LEADS OF Q1-Q4 TO 2mm STEP WAVE SOLDER

NOTE SOLDER LEADS ON PCB AFTER THE HAS BEEN SOLDERED

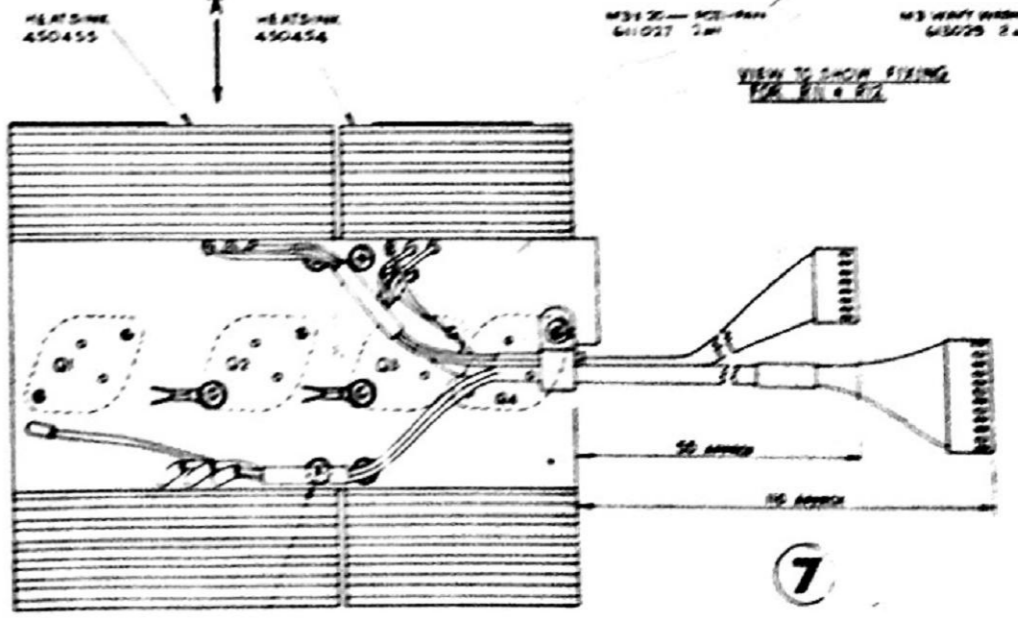
6



M3 x 20mm PCL PAN 611027 2mm

M3 WAVE WASHER 613029 2mm

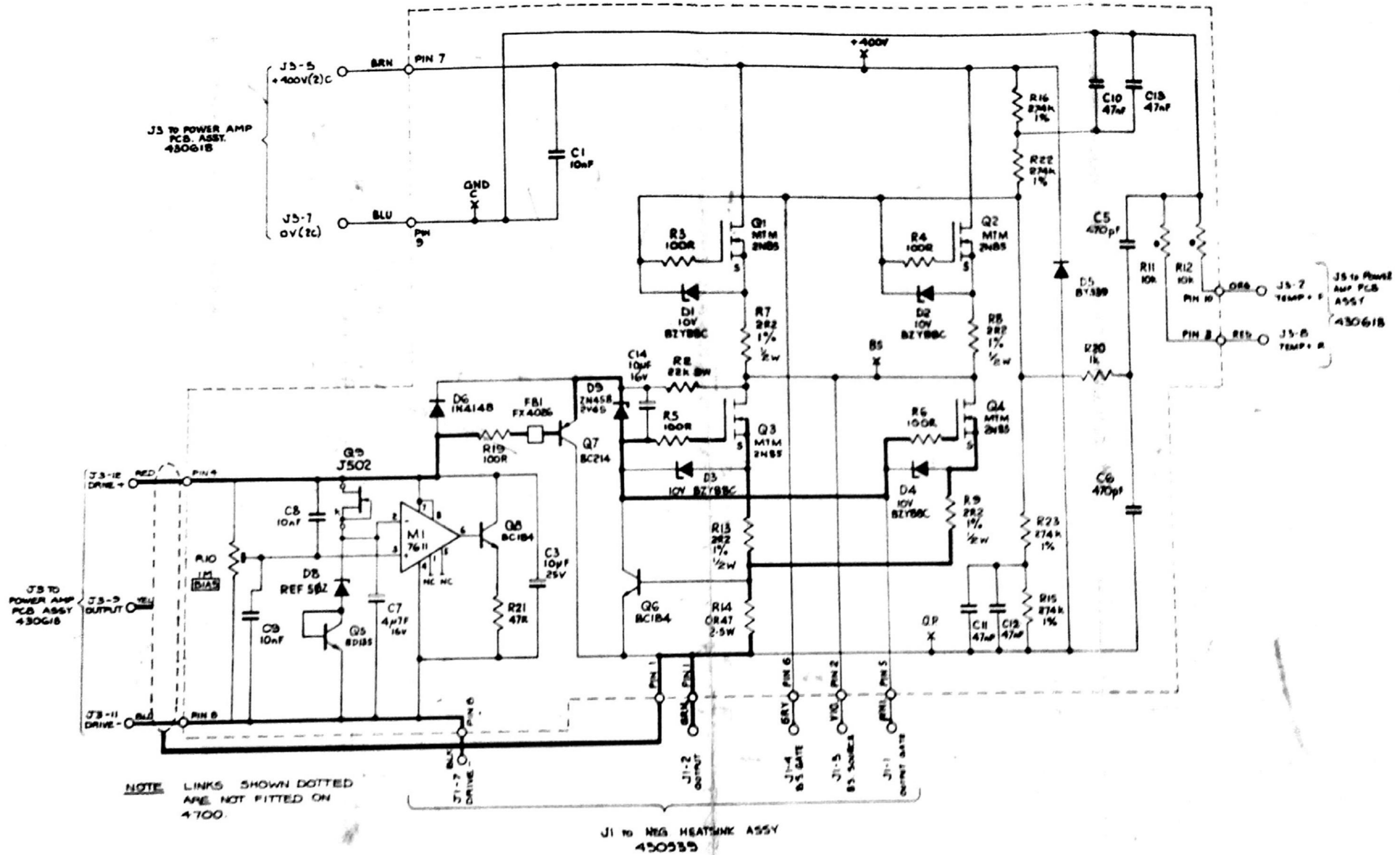
VIEW TO SHOW FIXING FOR Q1-Q4



4mm M3 x 10mm PCL PAN 611006

4mm M3 WAVE WASHER 613029

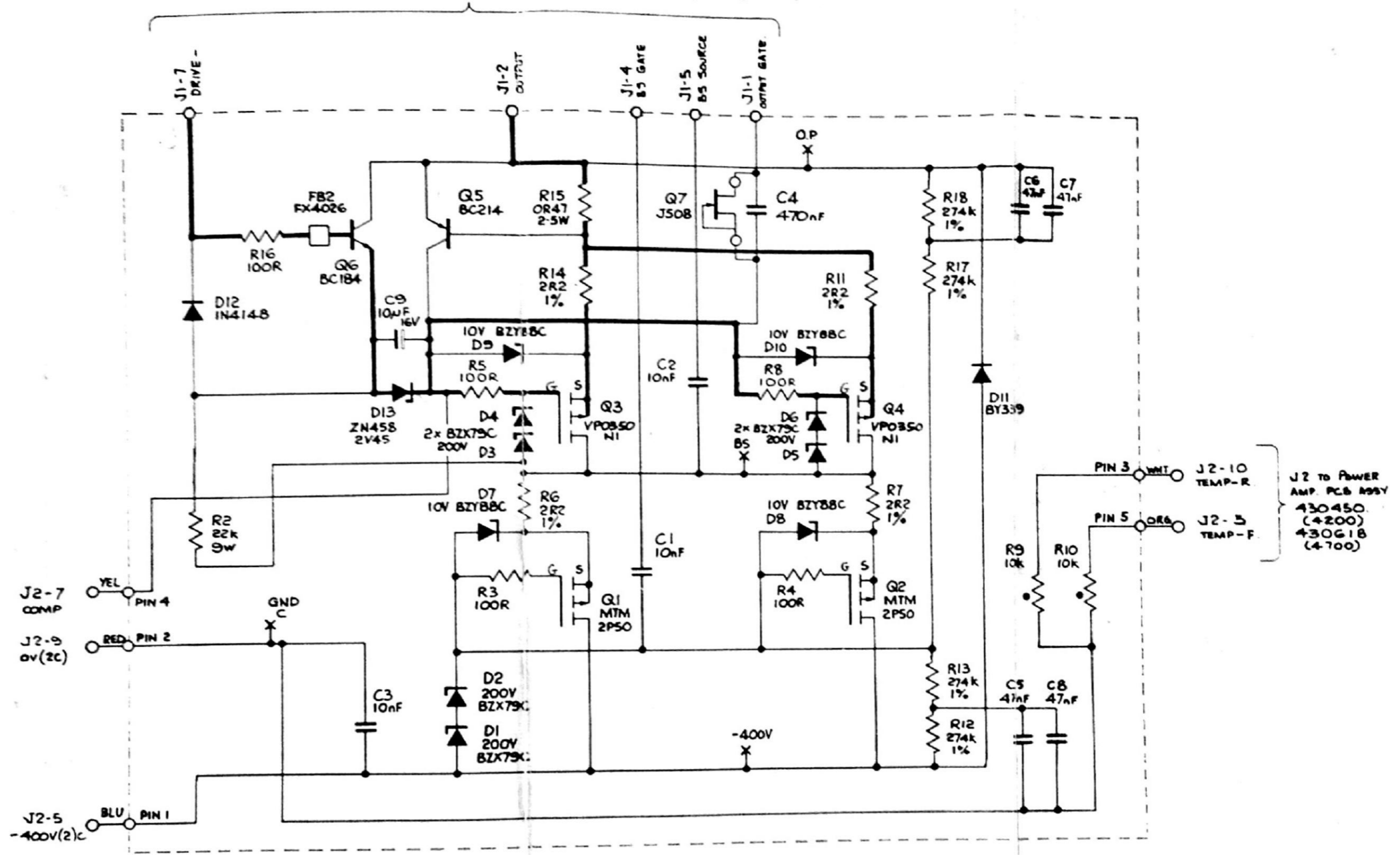
7



NOTE LINKS SHOWN DOTTED ARE NOT FITTED ON 4700.

POSITIVE HEATSINK ASSEMBLY
 Output Power Amplifier (Positive Half)
 Circuit Diagram No. 430637-1.4 Sheet 1

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datron
WAVETEK
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J2 TO POWER AMP PCB ASSY
430450 (4200)
430618 (4700)

J2 TO POWER AMP PCB ASSY
430450 (4200)
430618 (4700)

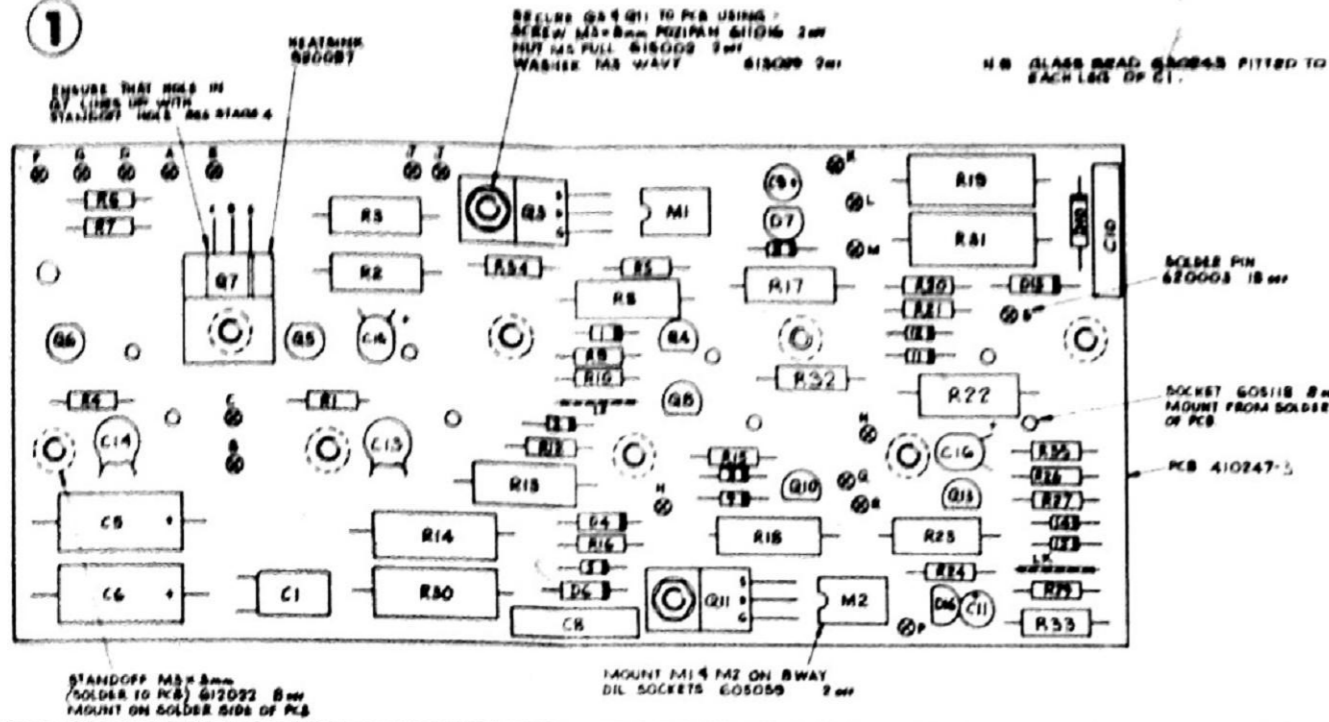
NEGATIVE HEATSINK ASSEMBLY
Output Power Amplifier (Negative Half)

Circuit Diagram No. 430539-7.7 Sheet 1

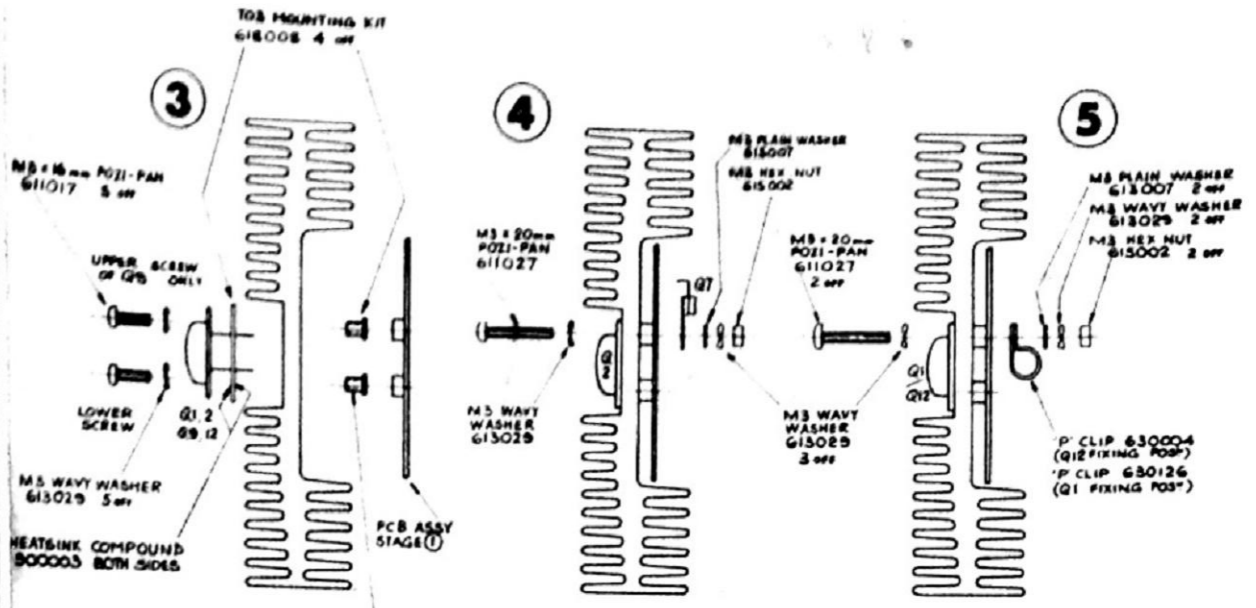


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1

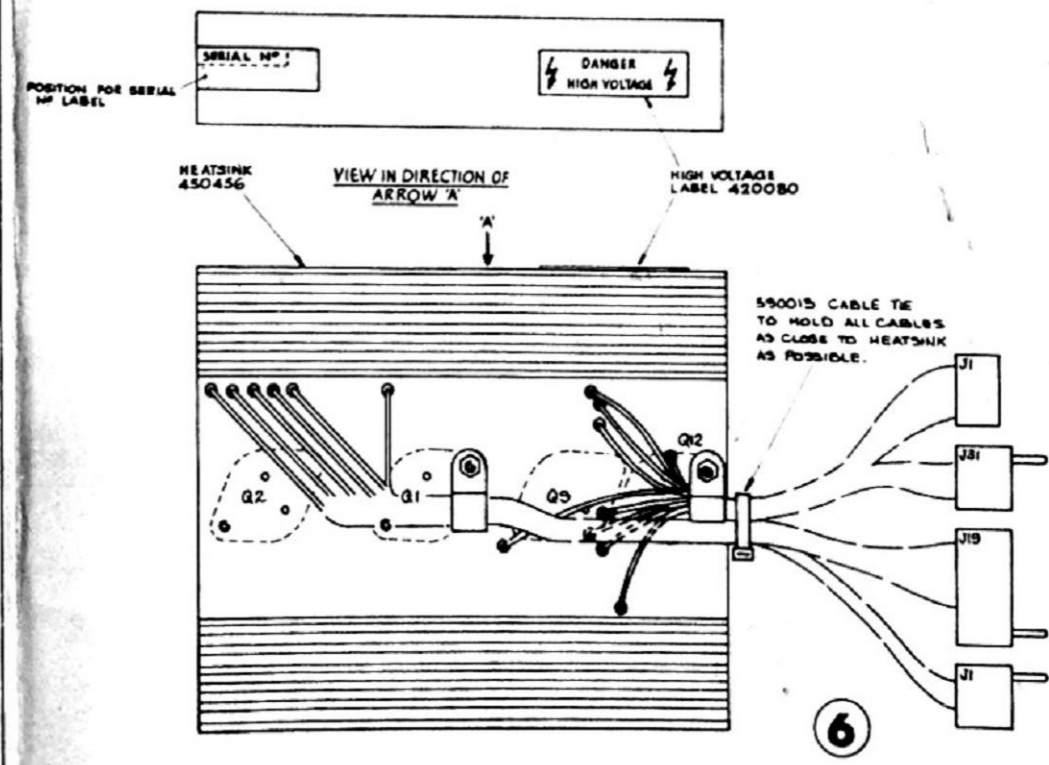
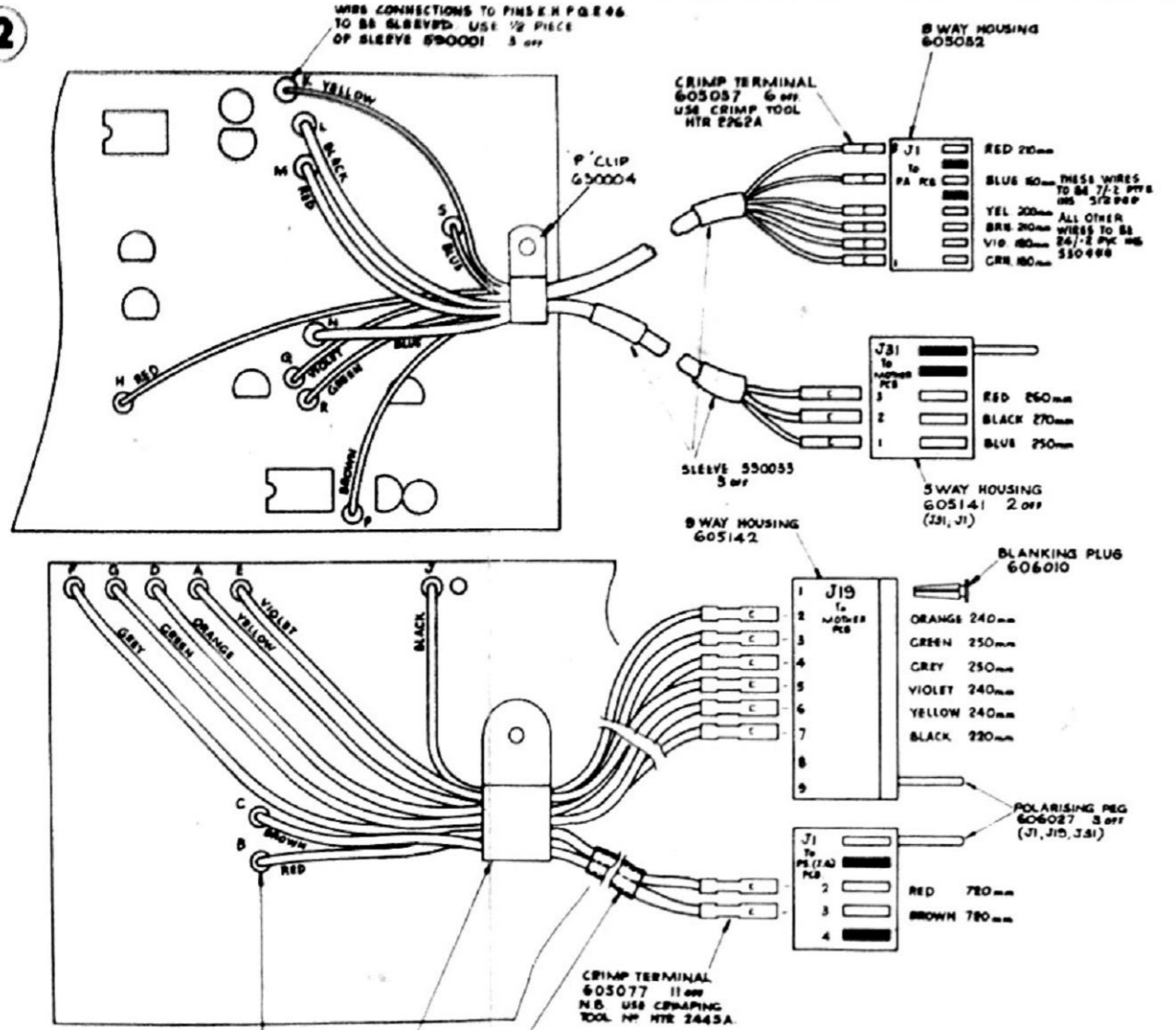


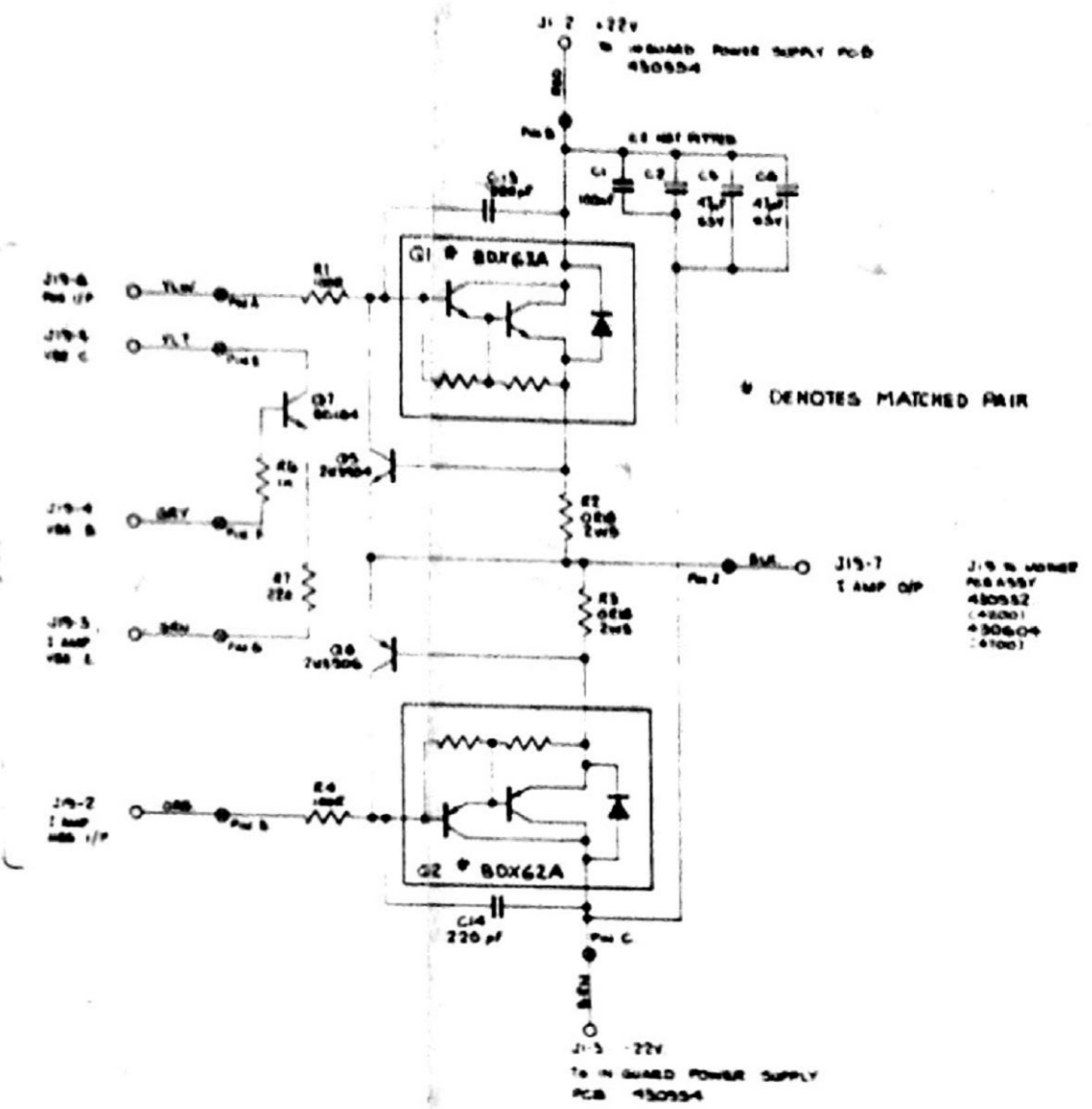
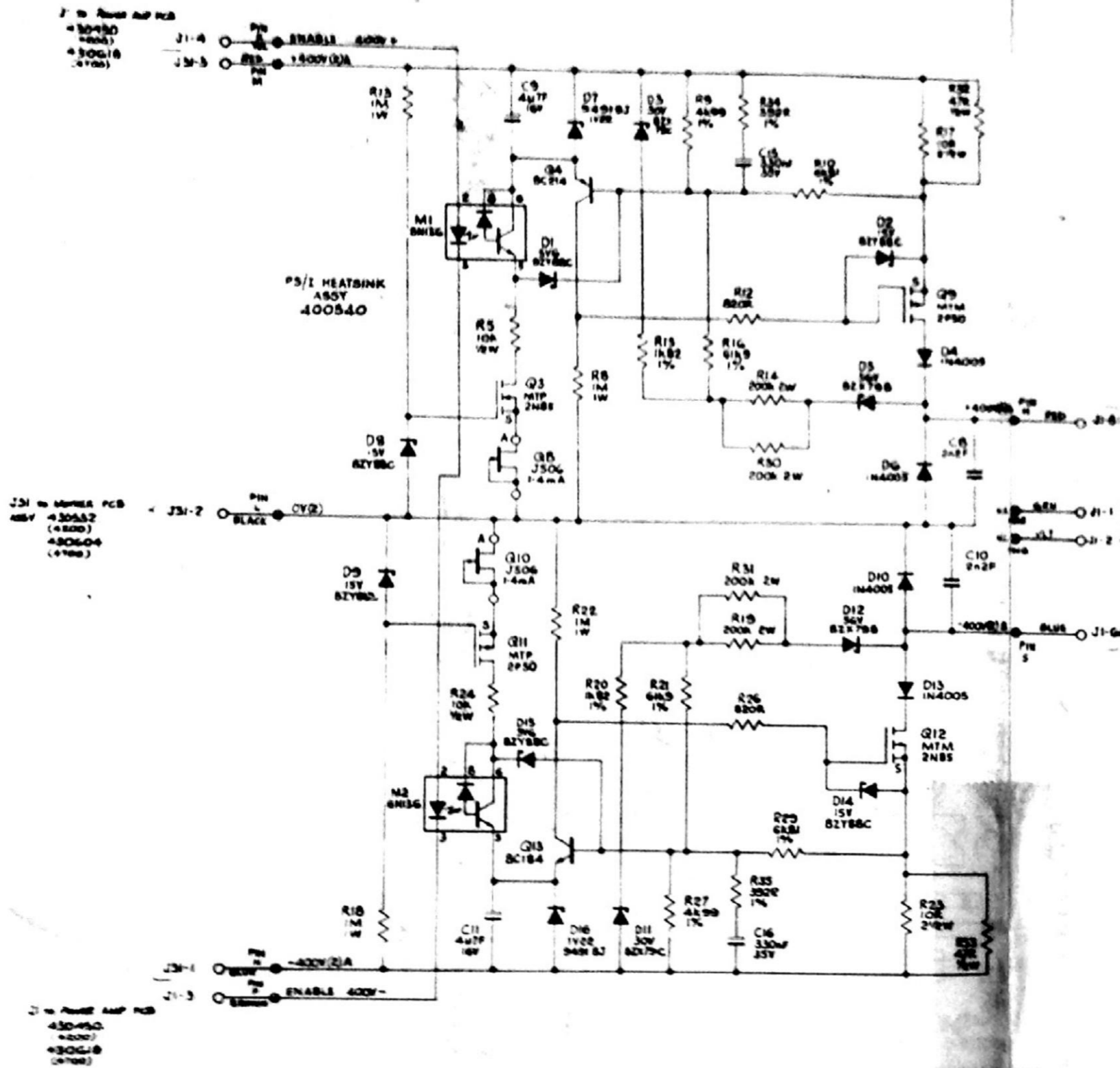
- ASSEMBLY NOTES:
- 1 ASSEMBLE PCB TO STAGE 1 EXCEPT SCREW FOR SECURING Q7 (SEE STAGE 4)
 - 2 COMPLETE PCB ASSY BY FITTING WIRING LOOMS DO NOT FIT P CLIPS (SEE STAGE 6)
 - 3 ASSEMBLE PCB ASSY TO HEATSINK BY FITTING Q1, Q2, Q4 (SEE STAGE 3) ASSEMBLE IN THE POSITIONS SHOWN AT STAGE 4
 - 4 USE A TORQUE SCREWDRIVER TO TIGHTEN ALL TRANSISTOR FIXING SCREWS TO A TORQUE OF 0.8NM
 - 5 SECURE Q7 (STAGE 4) TIGHTEN NUT TO A TORQUE OF 0.8NM
 - 6 SECURE WIRING WITH P CLIPS (SEE STAGES 4 AND 5)
 - 7 IN Q1 POSITION FIT 8DX65A DEVICE; IN Q2 POSITION FIT 8DX62A DEVICE



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

2





PS / I HEATSINK ASSEMBLY
 ±400V(2)B Regulator and Current Option Output Stage
 Circuit Diagram No. 430540-6.4 Sheet 1

- 2 off SCREW M3X10mm ROZI-PAN 611006
- 2 off NUT M3 HEX FULL 615002
- 2 off WAVY WASHER M3 613029
- 2 off SHAKEPROOF M3 613005

3 off LINK MAKE FROM 7/2 PTFE
INS. WHITE WIRE 512999

PCB 410327-3

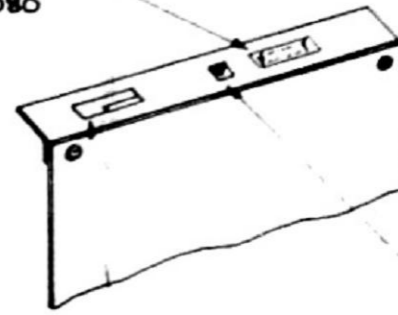
5 off 4-WAY .1" PCB PLUG 604083
(J2, J3)

HV PCB SAFETY SCREEN
450461

FIT INSULATOR 450451 BETWEEN
L3 AND PCB

HIGH VOLTAGE LABEL
420080

- NOTES
1. R11 AND R13 NOT FITTED TO PCB
 2. GLASS BEAD 630P48 FITTED TO EACH LEG OF THE FOLLOWING COMPONENTS: C5-C7 & OFF



SSD WARNING LABEL
420112-1

SERIAL N° LABEL
420098

TEST POINT TERMINAL
620007 B OFF

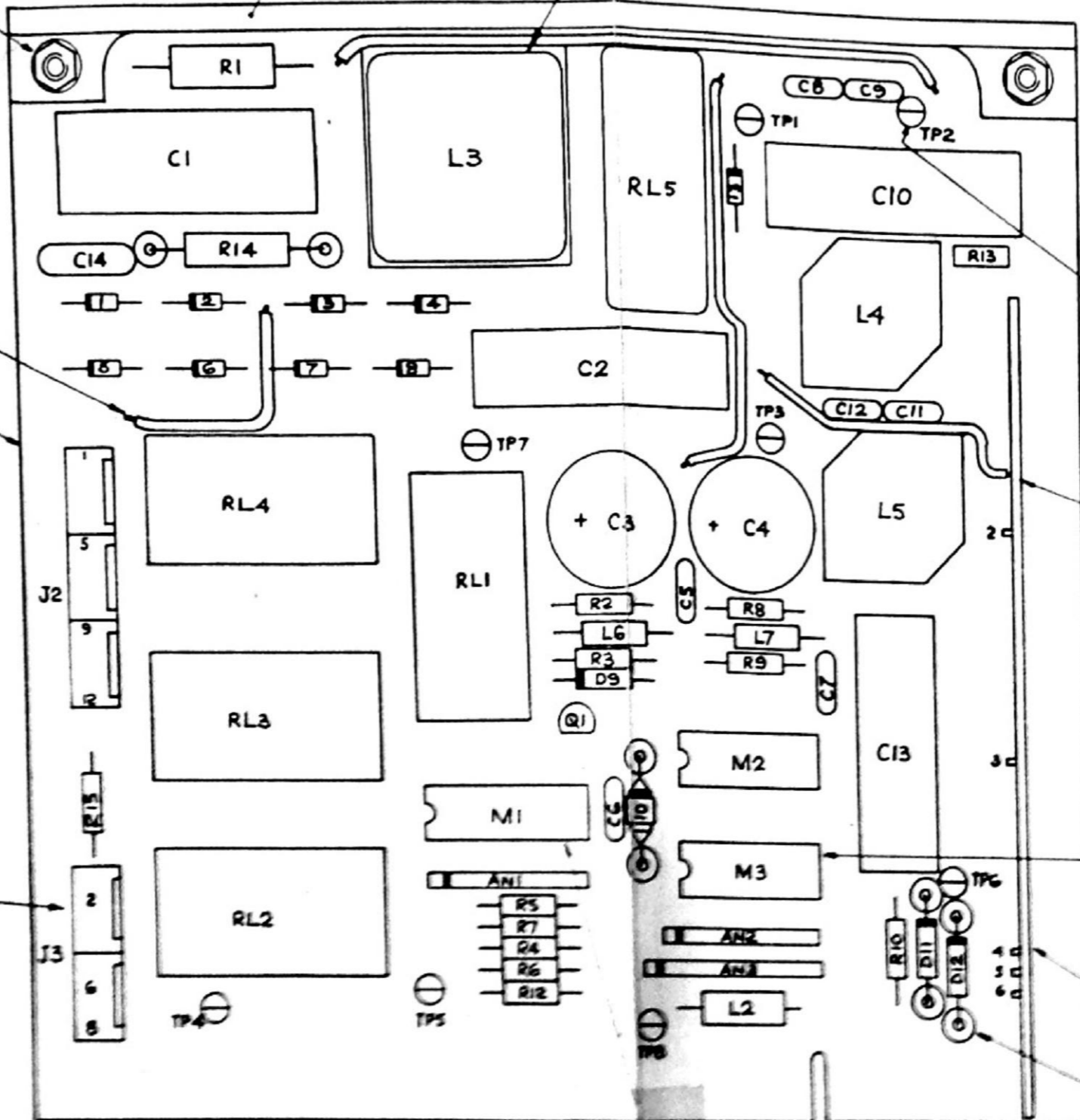
NOTE THAT THIS WIRE IS PART OF
ASSY 400563

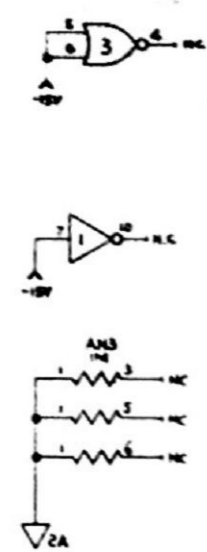
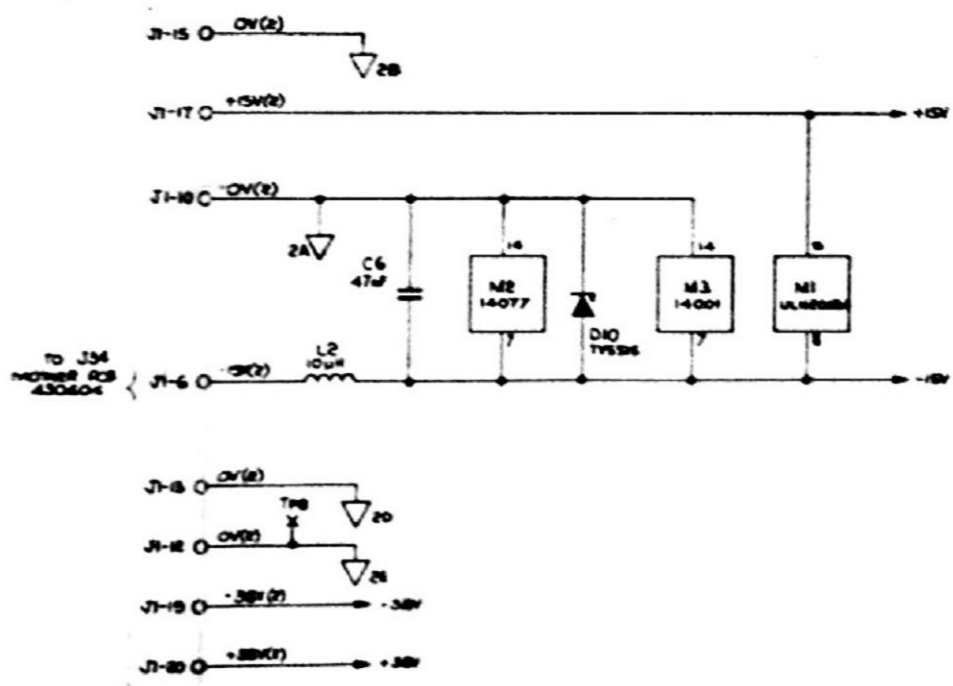
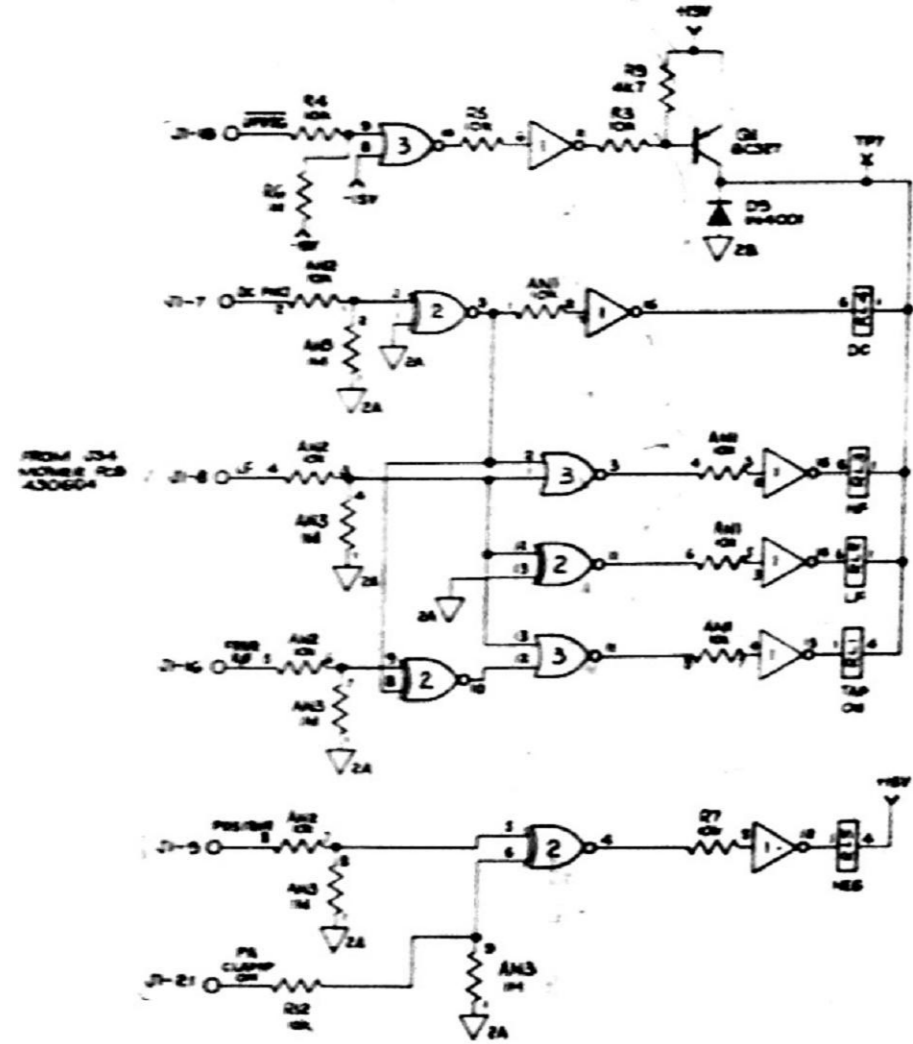
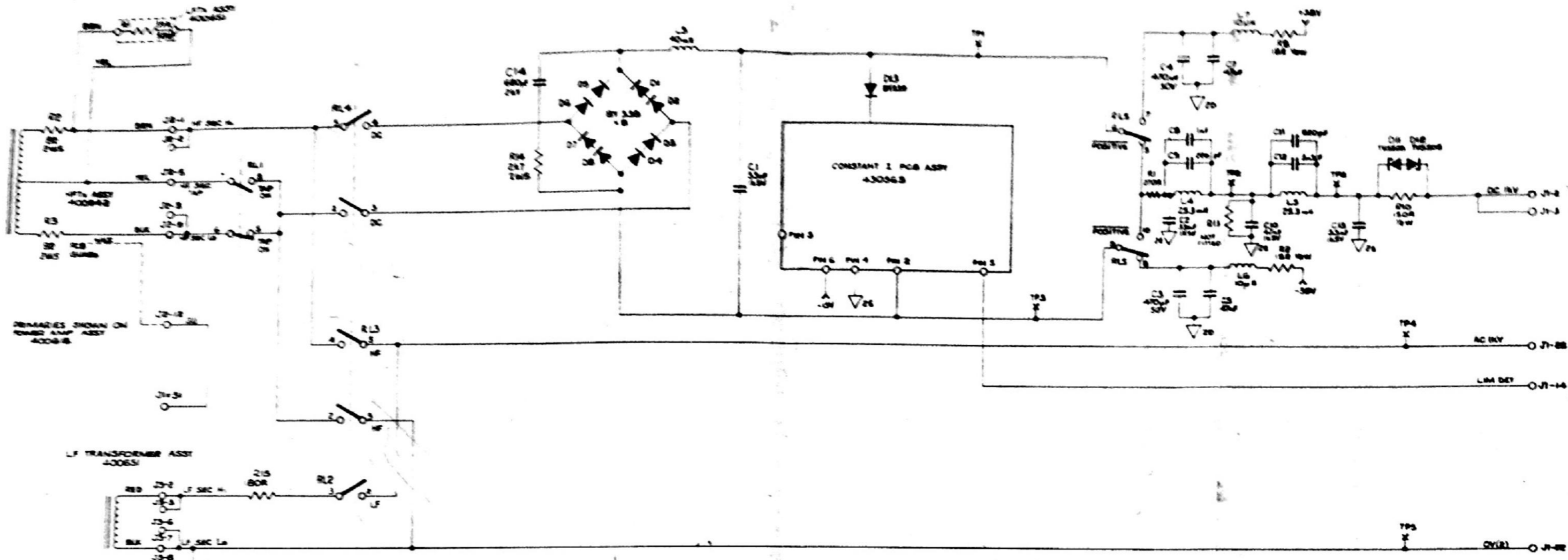
MOUNT M2/M3 ON 14 PIN DIL
SOCKET 605060 2 off

CONSTANT I SOURCE PCB ASSY
400563

16 SHG STEARITE BEAD 630024
8 off (D10, D11, D12 + R14)

MOUNT M1 ON 16 PIN DIL SOCKET
605061





HIGH VOLTAGE ASSEMBLY
High Voltage Switching and Logic

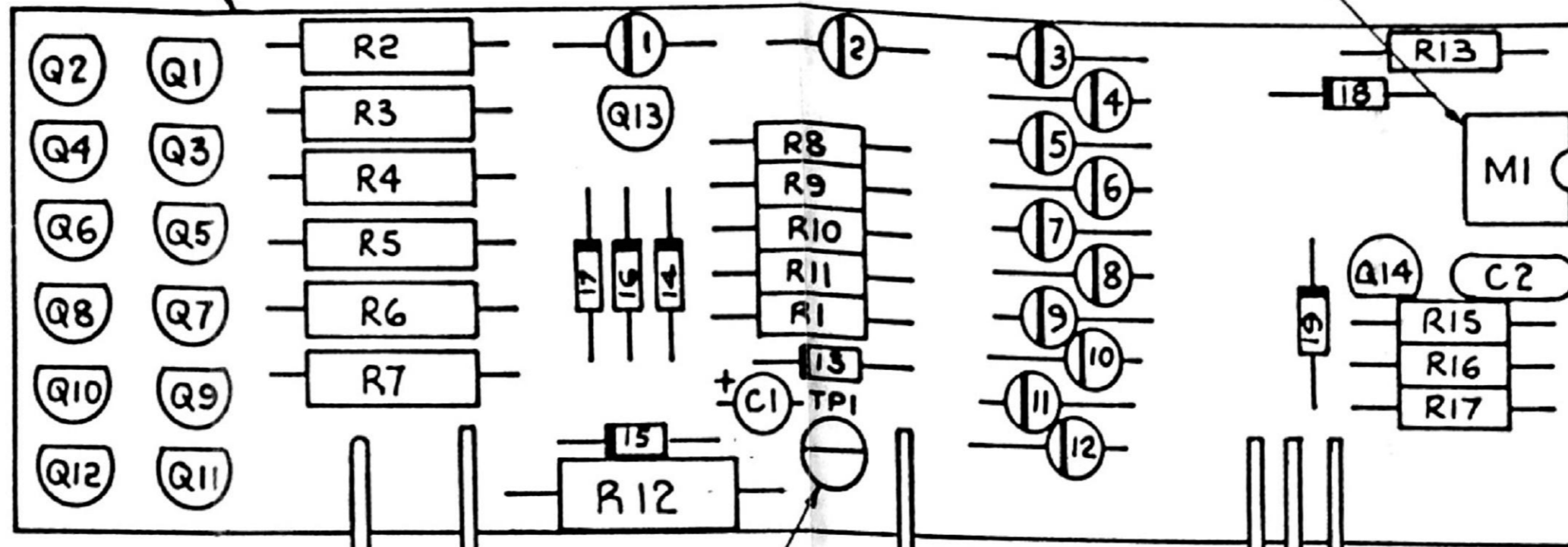
Circuit Diagram No. 430537-2.6 Sheet 1



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PCB 410285-4

MOUNT MI ON 6-WAY DIL
SOCKET 605066

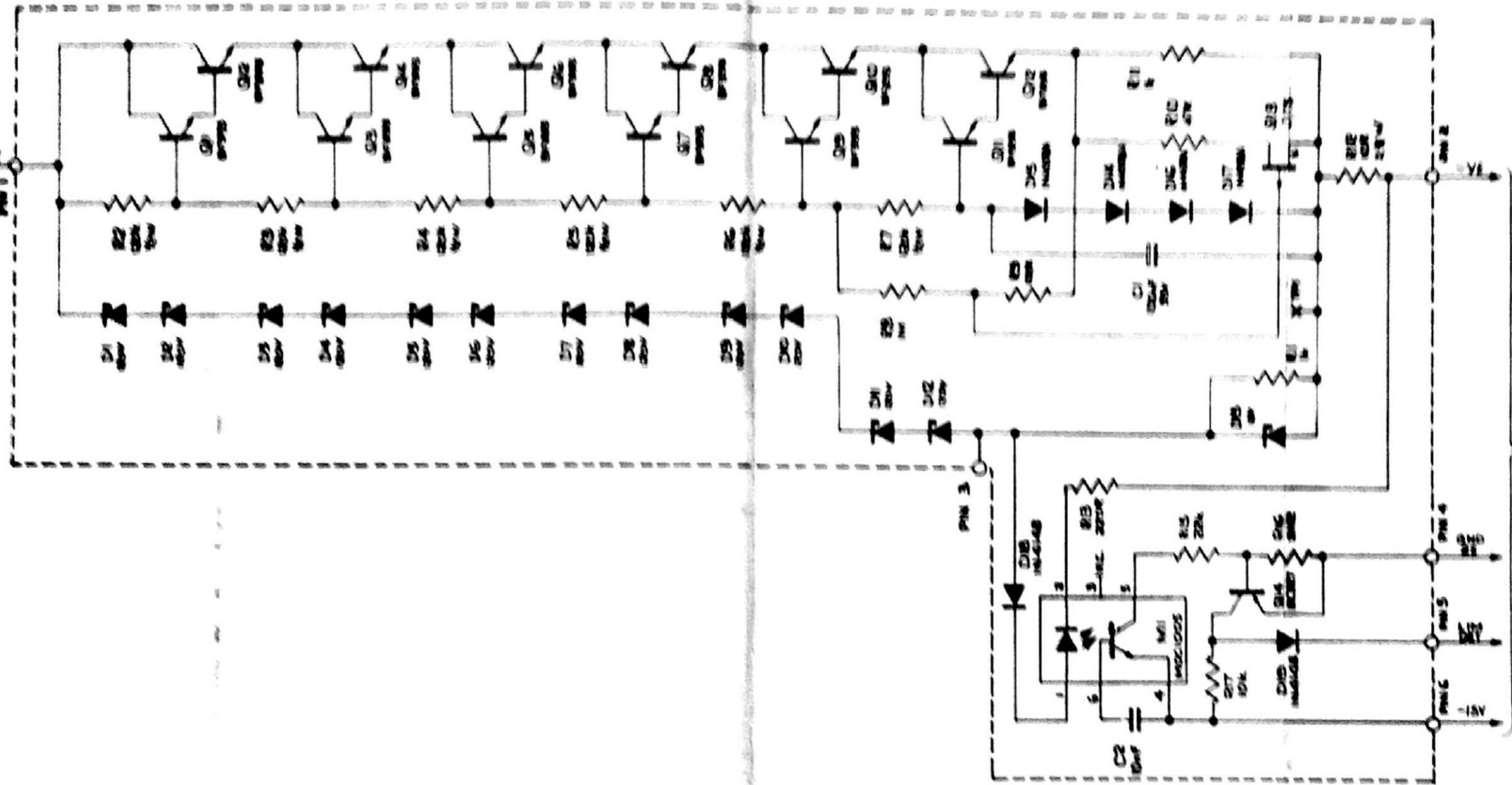


7/0.2 WHITE PTFE INSULATED
WIRE 512999.
50mm LONG STRIP
5mm EACH END &
SOLDER ON END TO PCB

TEST POINT TERMINAL
620007

11-WAY PCB PLUG
604003. USE ONLY
5 OF THE 11 PINS HERE.

TO HV PCB ASSY
430537



TO HV PCB ASSY
430537

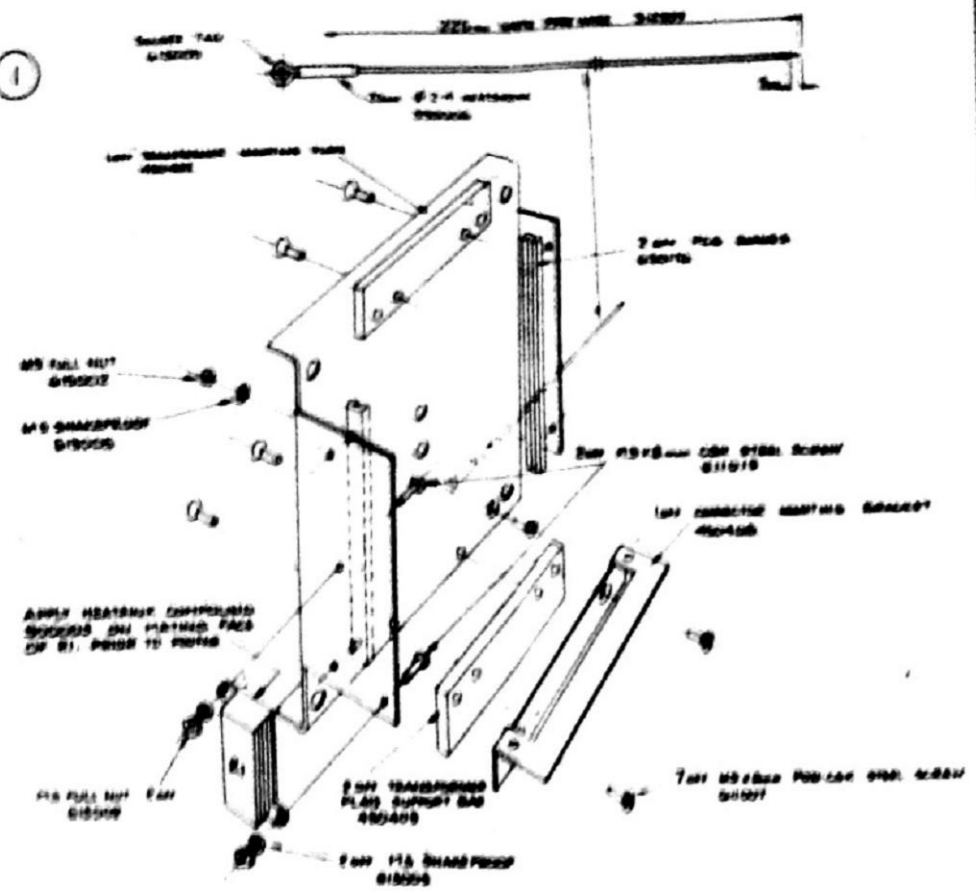
4808
CONSTANT CURRENT SOURCE ASSEMBLY
High Voltage Rectifier Bleed Chain



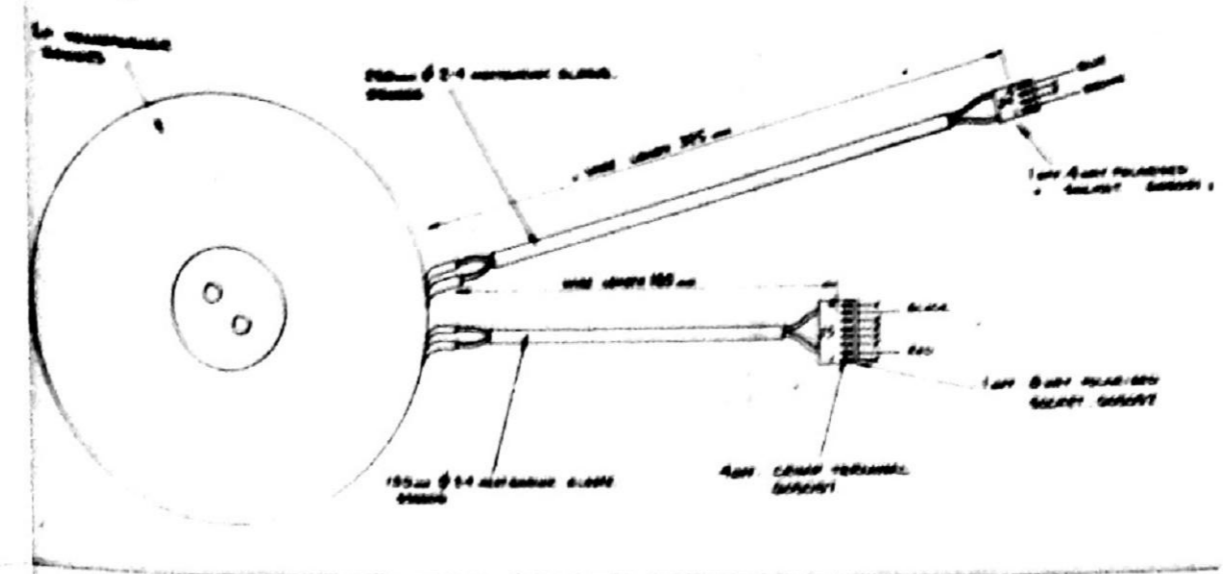
Circuit Diagram No. 430563-3.0 Sheet 1

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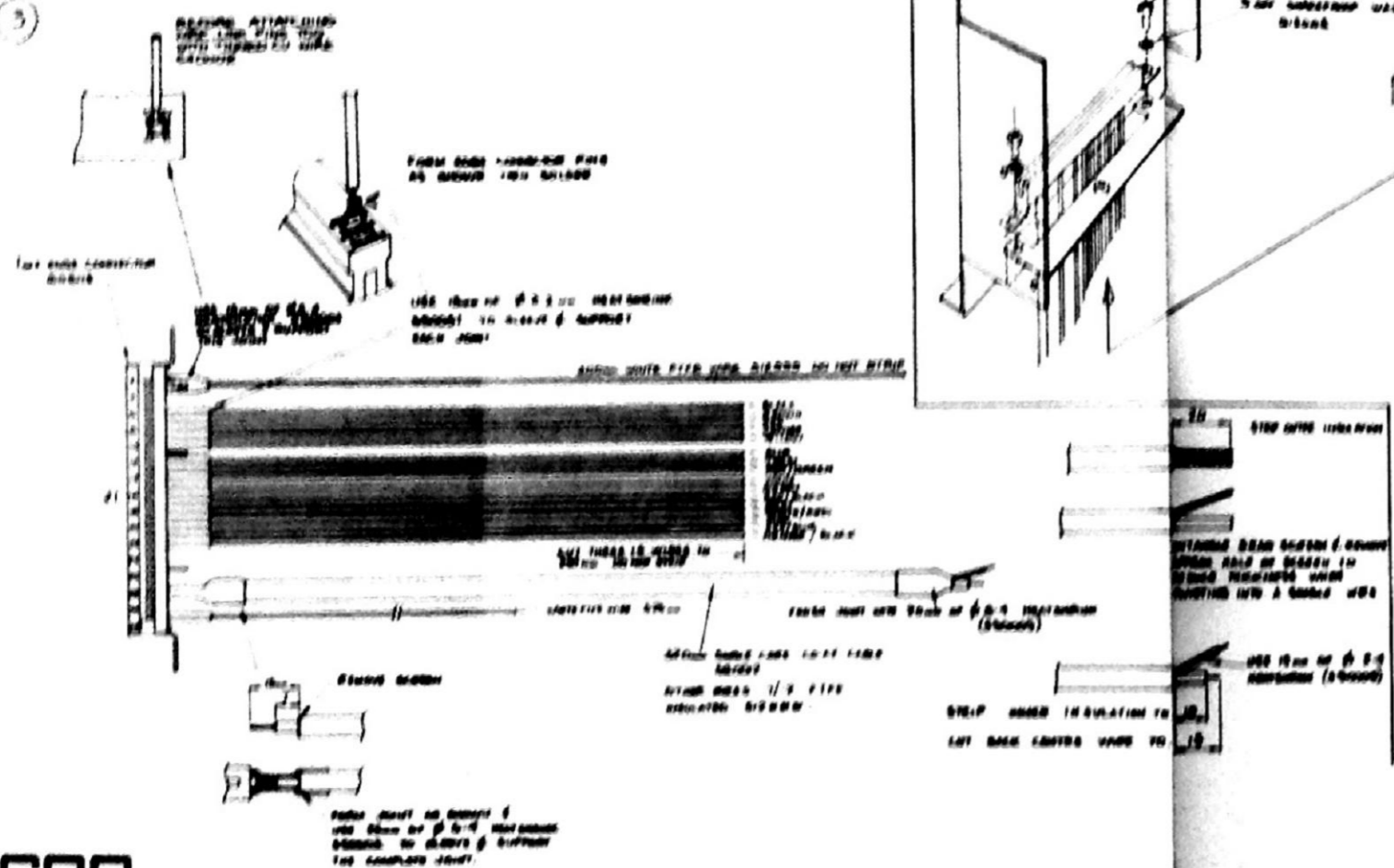
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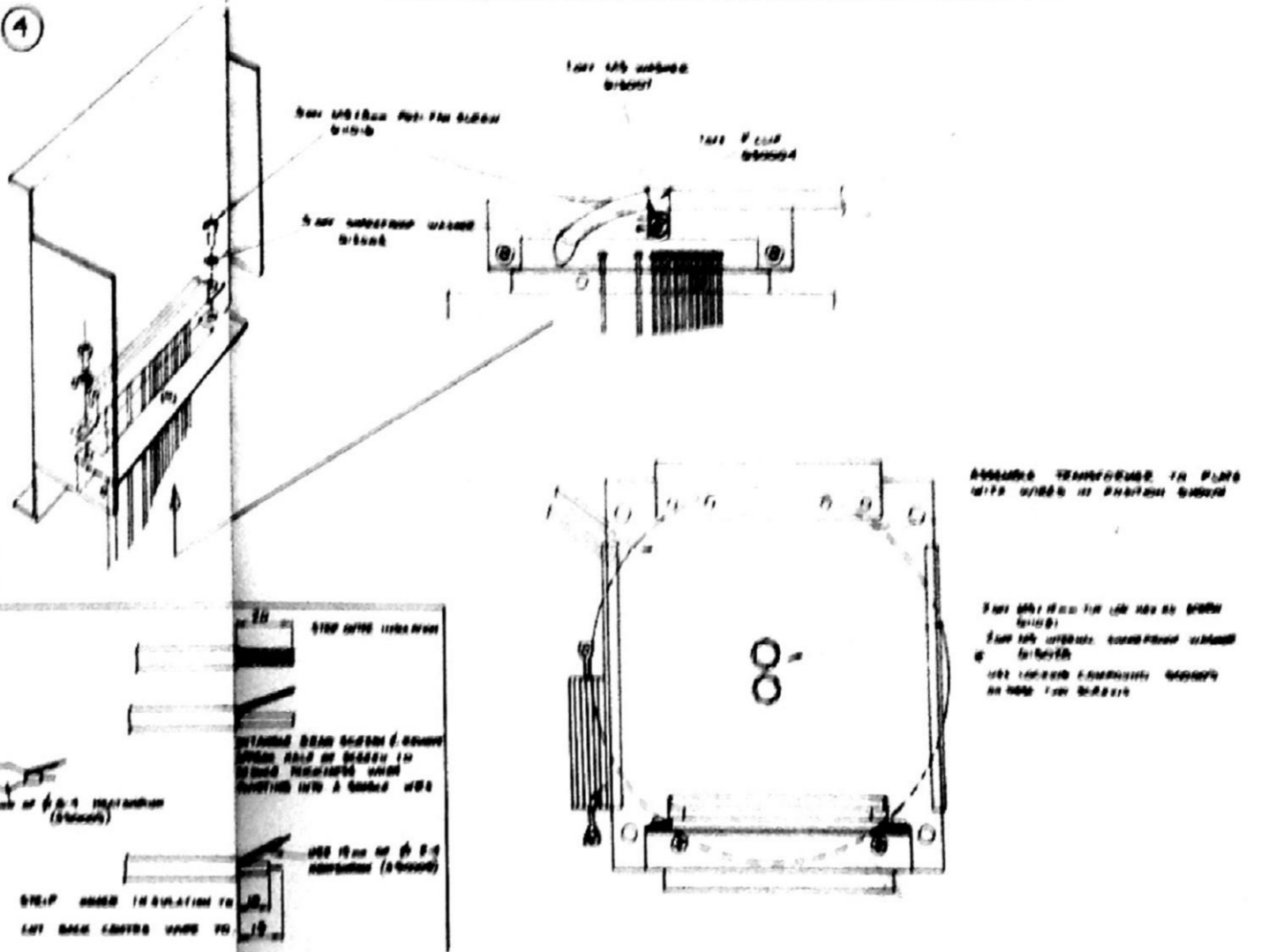
2



3

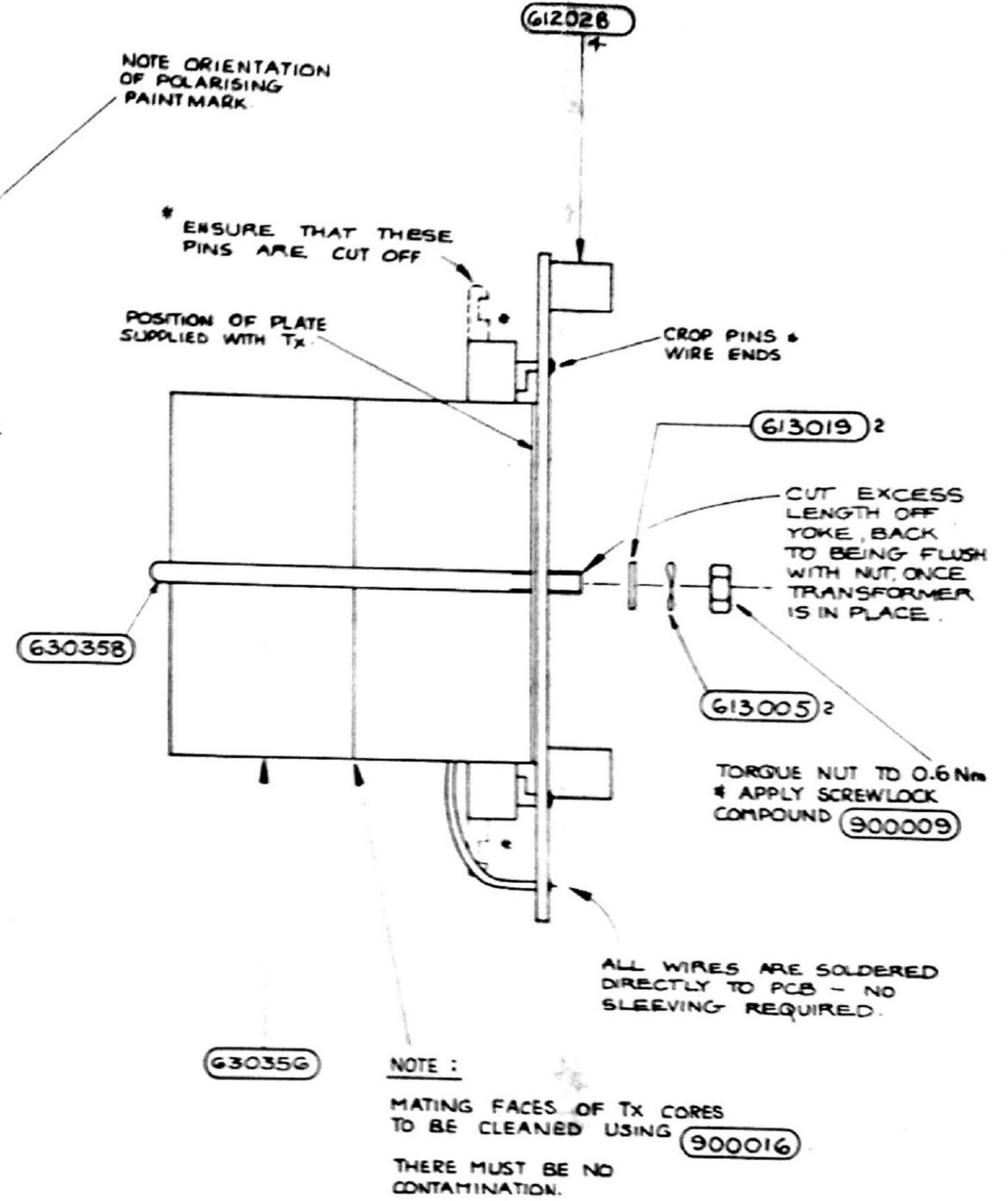
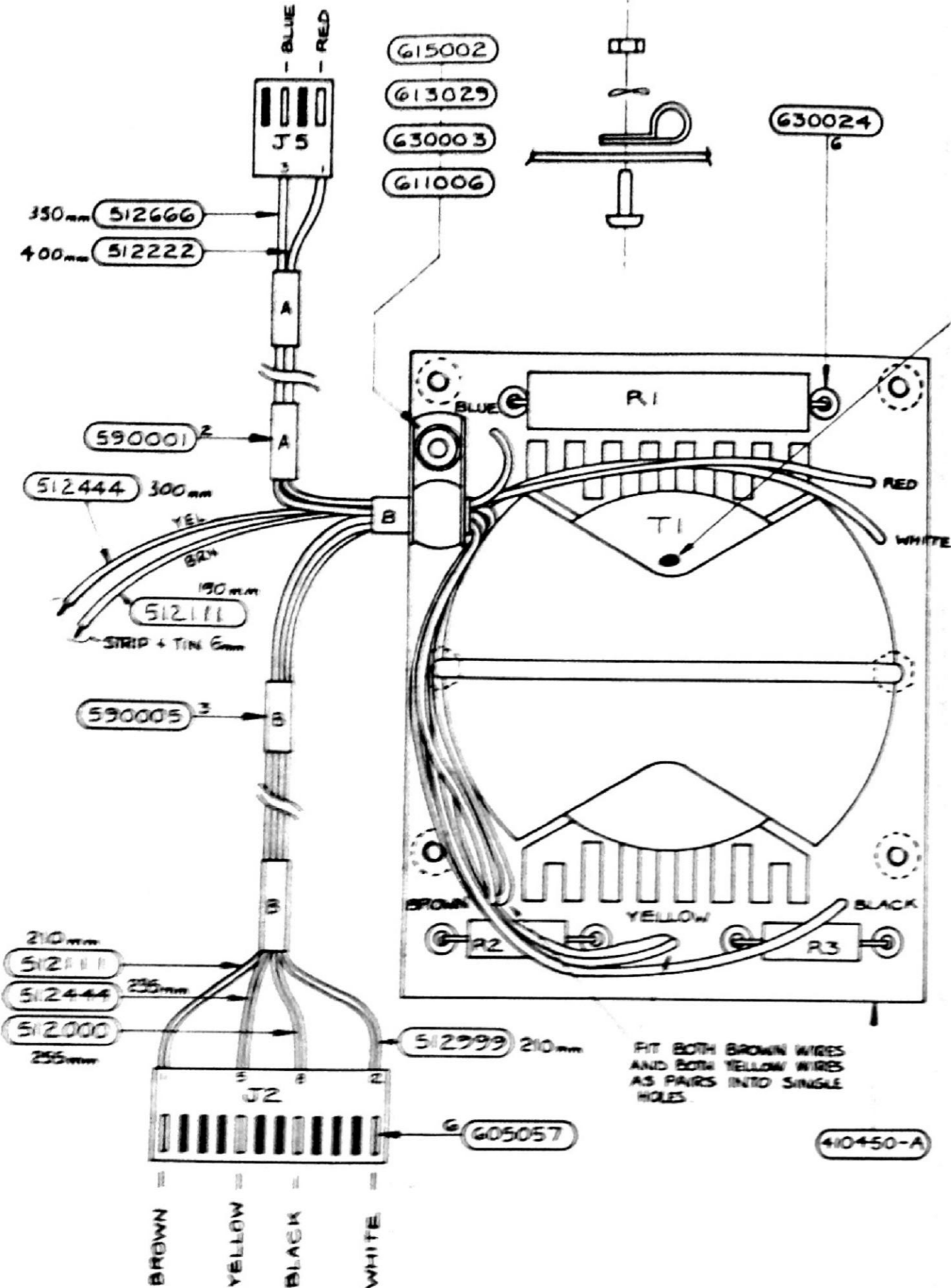


4



L.F. TRANSFORMER ASSEMBLY
Layout Drawing No. 480651-1.7 Sheet 1

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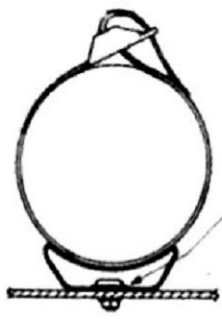


H.F. TRANSFORMER ASSEMBLY

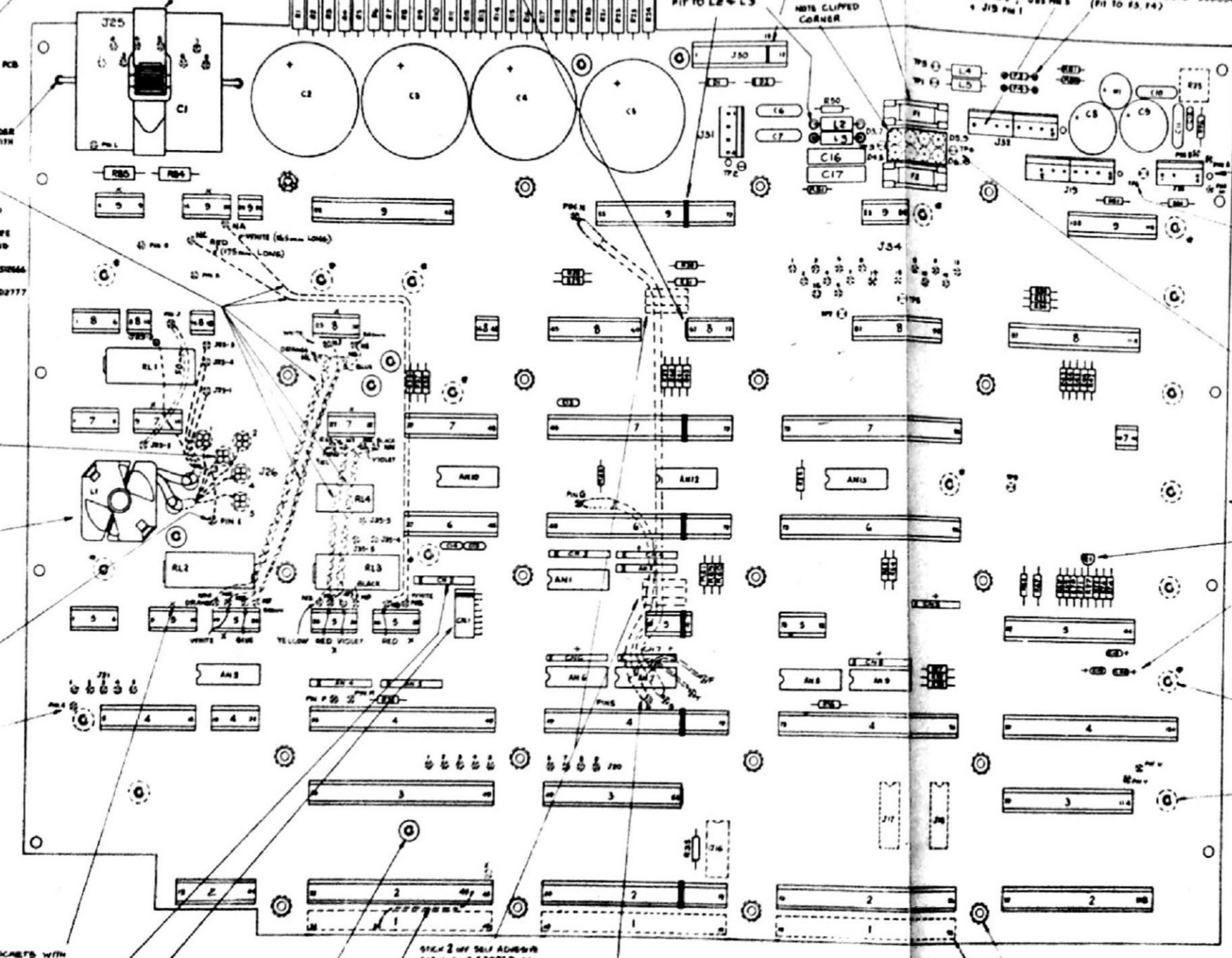
Layout Drawing No. DA400942-1.2 Sheet 1



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CABLE TIE NYLON BLOCK 650270
SIDEWALL 1.5mm POST-HOLE RADIUS
NUT HAS NEW PULL 65005
WASHER HAS CRINKLE 65008
MS LARGE WASHER 65018
UNDER SCREW HEAD



WIRES FROM C1 SOLDERED TO SOLDER
PADS 62005 (20W) & SLEEVED WITH
SLEEVE 62006 (20W)

- ON UNDERSIDE OF PCB ADD:
- BROWN WIRE 51211 & WHITE WIRE 51222 TWISTED TOGETHER AND CONNECTED AS SHOWN
 - RED WIRE 51222 & BLACK WIRE 51200 TWISTED TOGETHER AND CONNECTED AS SHOWN
 - ORANGE WIRE 51233 & BLUE WIRE 51266 TWISTED TOGETHER
 - YELLOW WIRE 51244 & VIOLET WIRE 02777 TWISTED TOGETHER
 - RED WIRE 51222
 - WHITE WIRE 51200

WIRE COLOR	WIRE LENGTH	WIRE GAUGE
YELLOW	50mm	20
RED	50mm	20
BLACK	50mm	20
WHITE	67mm	18
BLUE	64mm	18
BROWN	64mm	18

5 OFF CLOVERLEAF TERMINAL
62005 FITTED FROM
UNDERSIDE OF PCB

- J25-1 RED
J25-2 WHITE
J25-3 BLUE
J25-4 BROWN
PIN 1 YELLOW
- J26-1 RED
J26-2 WHITE
J26-3 YELLOW
J26-4 BLUE
J26-5 BROWN

ALL WIRE JOINTS
ON BOTTOM OF PCB MUST BE AS
SHOWN WITHOUT SLEEVING

66 OFF SOLDER TUBES MOUNTED
FROM UNDERSIDE (SOLDER SIDE)
OF PCB 62006

* INDICATES G & G SOCKETS WITH
MOUNTING PADS (60501) 2 OFF

MOUNT ONE 4 CINS ON
GLASS BEADS 60504
PLACED ONE ON EACH
END LEAD - 4W



MOTHER ASSEMBLY

N.B. A SMALL AMOUNT OF 60005 TO BE USED
ON THE SIDE OF KEY 60503B ONLY.

EDGE CONNECTOR KEY 60503B 2 OFF
FIT BETWEEN CONTACTS 66 & 67
ON J3 & J3

EDGE CONNECTOR KEY 60504B 6W
FIT BETWEEN CONTACTS 68 & 67
ON J3 7 & 5 & 4 & 2

4 OFF STRATITE
BEAD 630024
FIT TO L2 & L3

REMBL J32 PIN 2, J33 PIN 1
4WV SEALITE BEAD 650036
(FIT TO F3, F4)

NOTES
1 SOLDER STANDOFF TO PCB PADS
2 CRIP ALL PINS ON SOLDER SIDE OF PCB
FROM THE FOLLOWING COMPONENTS
AFTER SOLDERING - R1-004, J25
C1-C9, J9 (PINS 60-69), J6 (PINS 40-49),
J6/J7 (PINS 40-49), C16, C17, C18,
ANY J9 PINS 1-6, J3 (PINS 8-13), J3 4
J8 (PINS 15-18, 20-23), PIN 7 & J25-9

EDGE CONNECTOR QUANTITIES

PART NO	J2	J3	J4	J5	J6	J7	J8	J9
605067	3	1	4	2	2			
605088	2		1			1	2	
605089	1		1	1	1	2	1	
605090			1	3	1	2	1	
605091				4	2	1	2	
605092						1	3	1
605271	1							

J10 = 604042 2 OFF
J31 = 604042 1 OFF
J32 = 604042 2 OFF
J33 = 604042 1 OFF

TEST POINT TERMINAL 62000F
3 OFF MOUNT ON UNDERSIDE
OF PCB
REMOVE CERAMIC BEADS BEFORE
FITTING TO PCB



NB DIODES D3/D7 & D5/D8 ALSO
ASSEMBLED & SOLDERED AS SHOWN
D7/D8 & D10 HAVE THE CATHODE BAND
TOWARDS THE SMALL PCB.

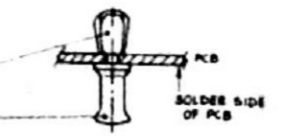
PCB 410340-4

MAX. HEIGHT OF D1 TO BE 10mm

* THESE COMPONENTS
ARE NOT FITTED

10mm STANDOFF MAX 6mm
612037 IN POSITIONS MARKED
* FIT FROM SOLDER SIDE OF PCB

10mm STANDOFF MAX 12mm
612037 FIT FROM SOLDER
SIDE OF PCB

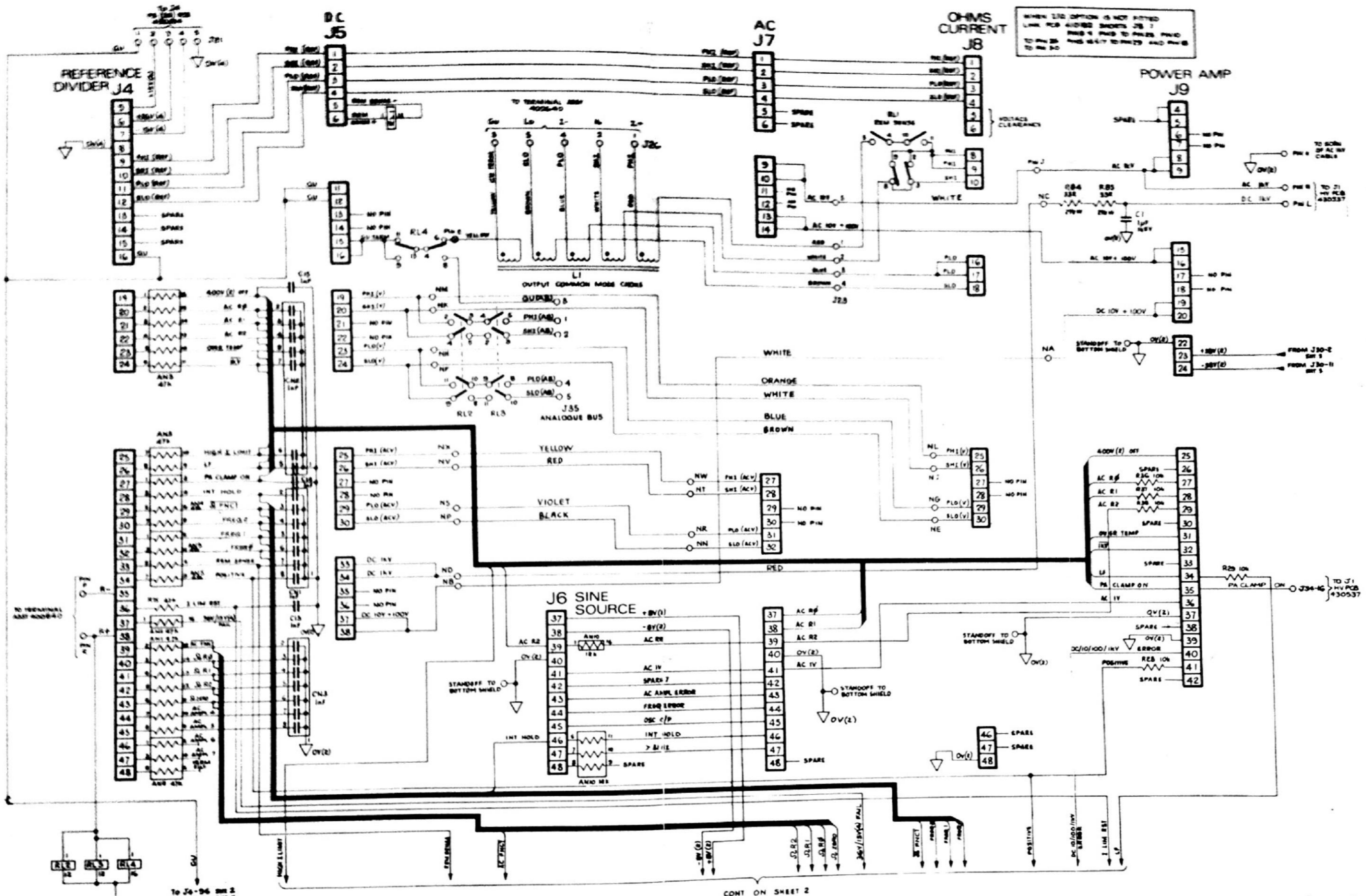


TYPICAL NYLON MOUNTING

Connectors and Pin Numbers Page

J1	25-96		11.16-4
J2	13-118		11.16-4
J3	25-66	97-114	11.16-4
J4	5-18	19-48	11.16-1
	49-96		11.16-2
	97-120		11.16-4
J5	1-6	11-16	11.16-1
	19-30	33-38	11.16-1
	62-67	73-78	11.16-2
	97-114		11.16-3
J6	37-48		11.16-1
	49-96		11.16-2
J7	1-6	9-14	11.16-1
	27-32	37-48	11.16-1
	49-96		11.16-2
	112-114		11.16-3
J8	1-6	8-10	11.16-1
	16-18	25-30	11.16-1
	46-48		11.16-1
	49-60	67-72	11.16-2
	82-93		11.16-2
	97-114		11.16-3
J9	4-9	15-20	11.16-1
	22-42		11.16-1
	55-72	83-88	11.16-2
	105-116		11.16-3
J16/J17/J18	1-16		11.16-4
J19	1-8		11.16-3
J20	1-9		11.16-4
J21/J23/J26	1-5		11.16-1
J25	1-8		11.16-2
J30	1-2	6-7	11.16-5
	11-12		11.16-5
J31/33	1-4		11.16-5
J32	1-8		11.16-5
J34	1-2		11.16-5
	3-15		11.16-2
	16		11.16-1
Pins	A, B, C, M		11.16-5
	D, F, G, N, S, T		11.16-2
	E, H, J, K, L, P, R		11.16-1
	V, W, X		11.16-4

**MOTHER ASSEMBLY
EDGE CONNECTOR PIN INDEX**



WHEN THE OPTION IS NOT FITTED
LINK PCB ADDRESS SOCKETS J8 1
TO 10 PCB ADDRESS SOCKETS J8 2
TO 10 PCB ADDRESS SOCKETS J8 3
TO 10 PCB ADDRESS SOCKETS J8 4

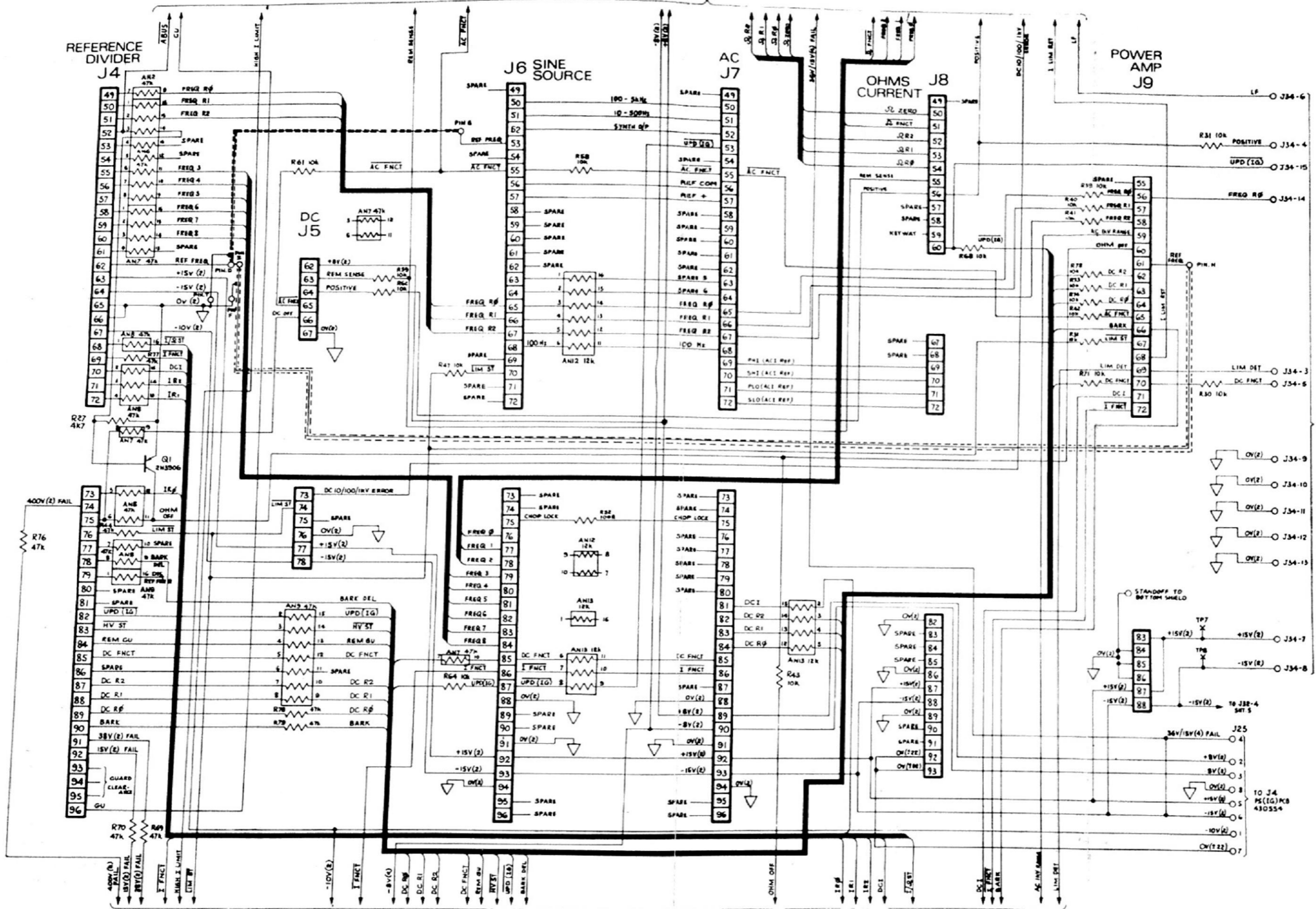
CONT ON SHEET 2

MOTHER ASSEMBLY

Circuit Diagram No. 430504-3.0 Sheet 1



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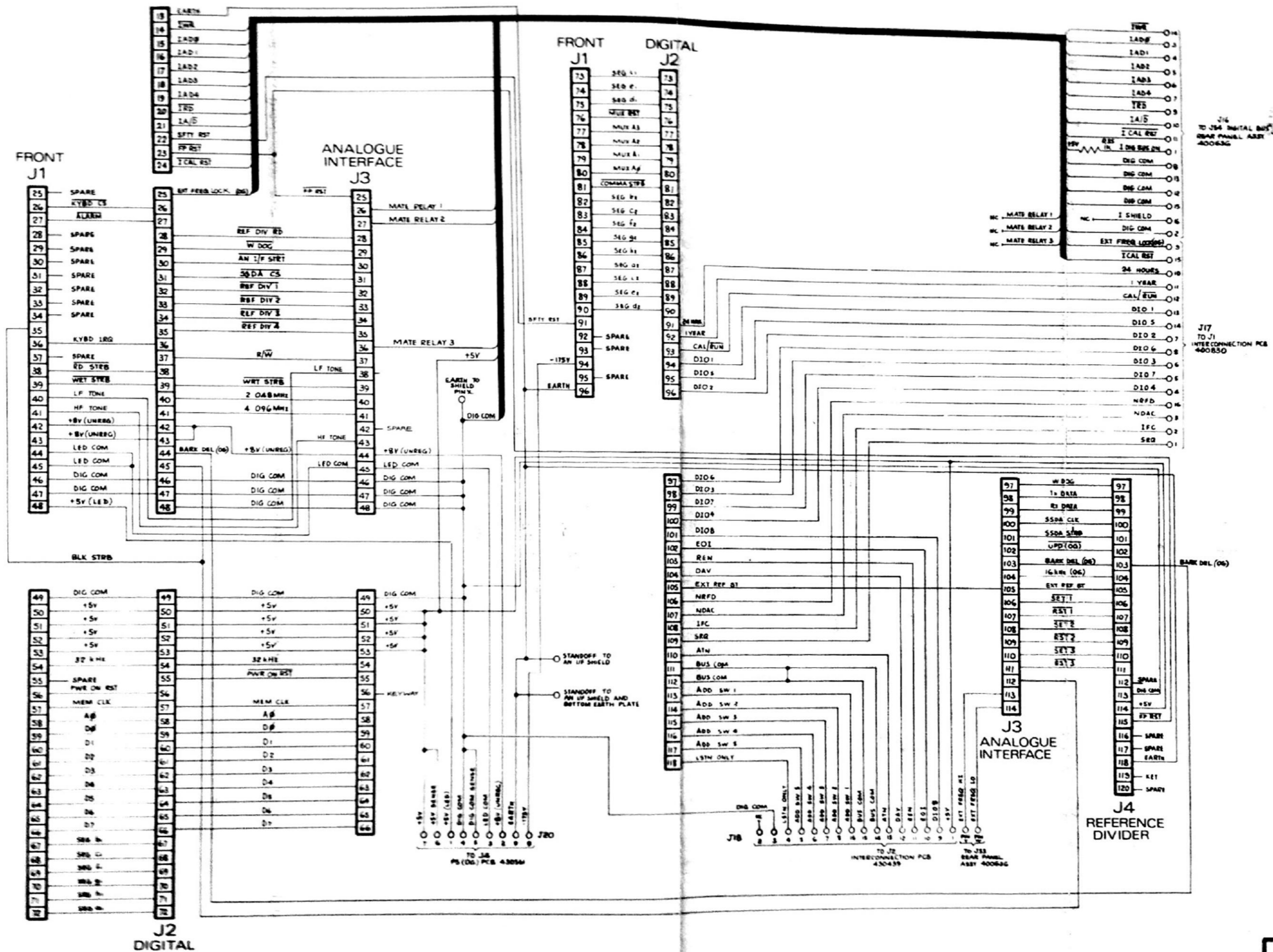


MOTHER ASSEMBLY

Circuit Diagram No. 430604-3.0 Sheet 2

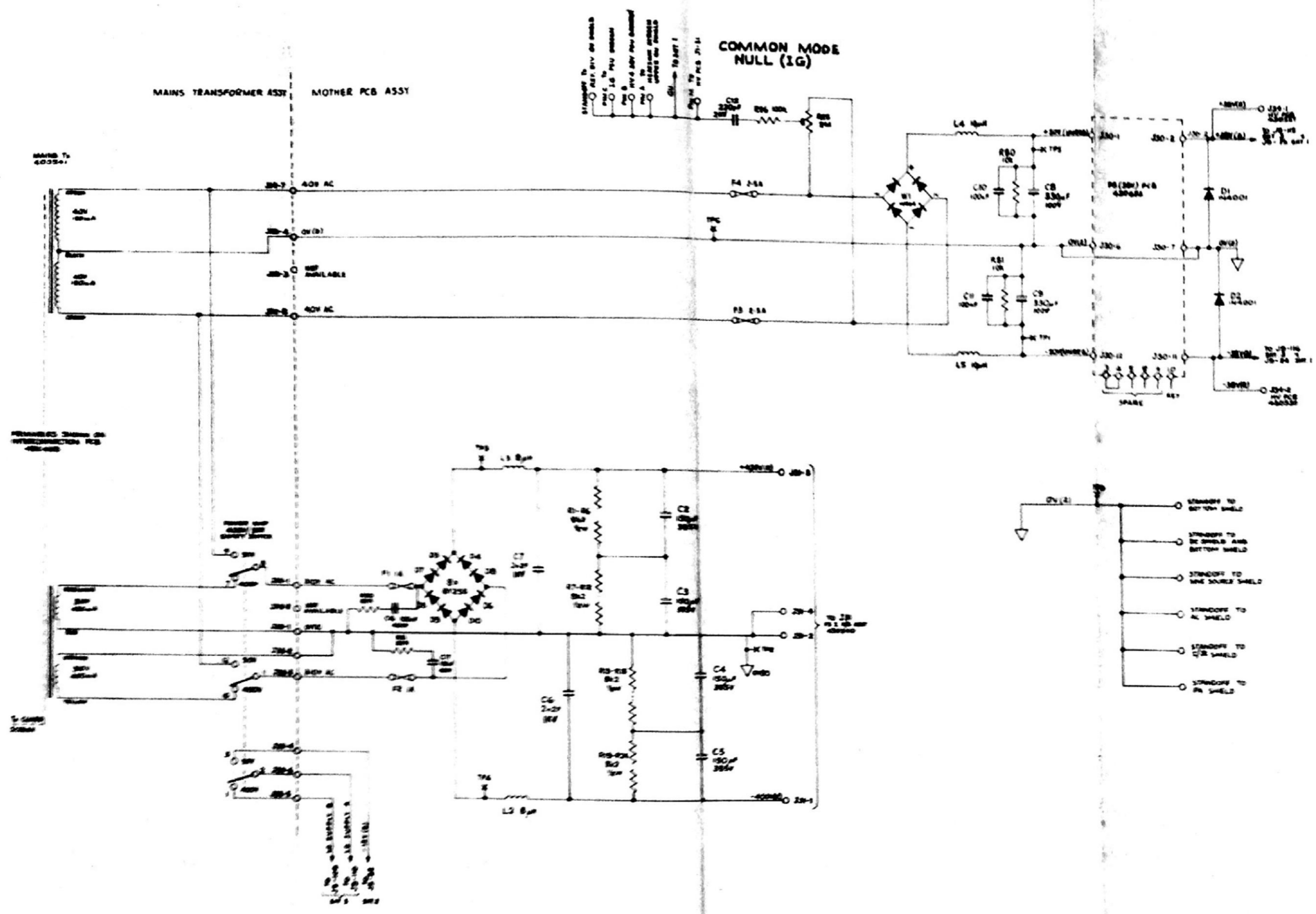


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MOTHER ASSEMBLY

Circuit Diagram No. 430604-3.1 Sheet 4

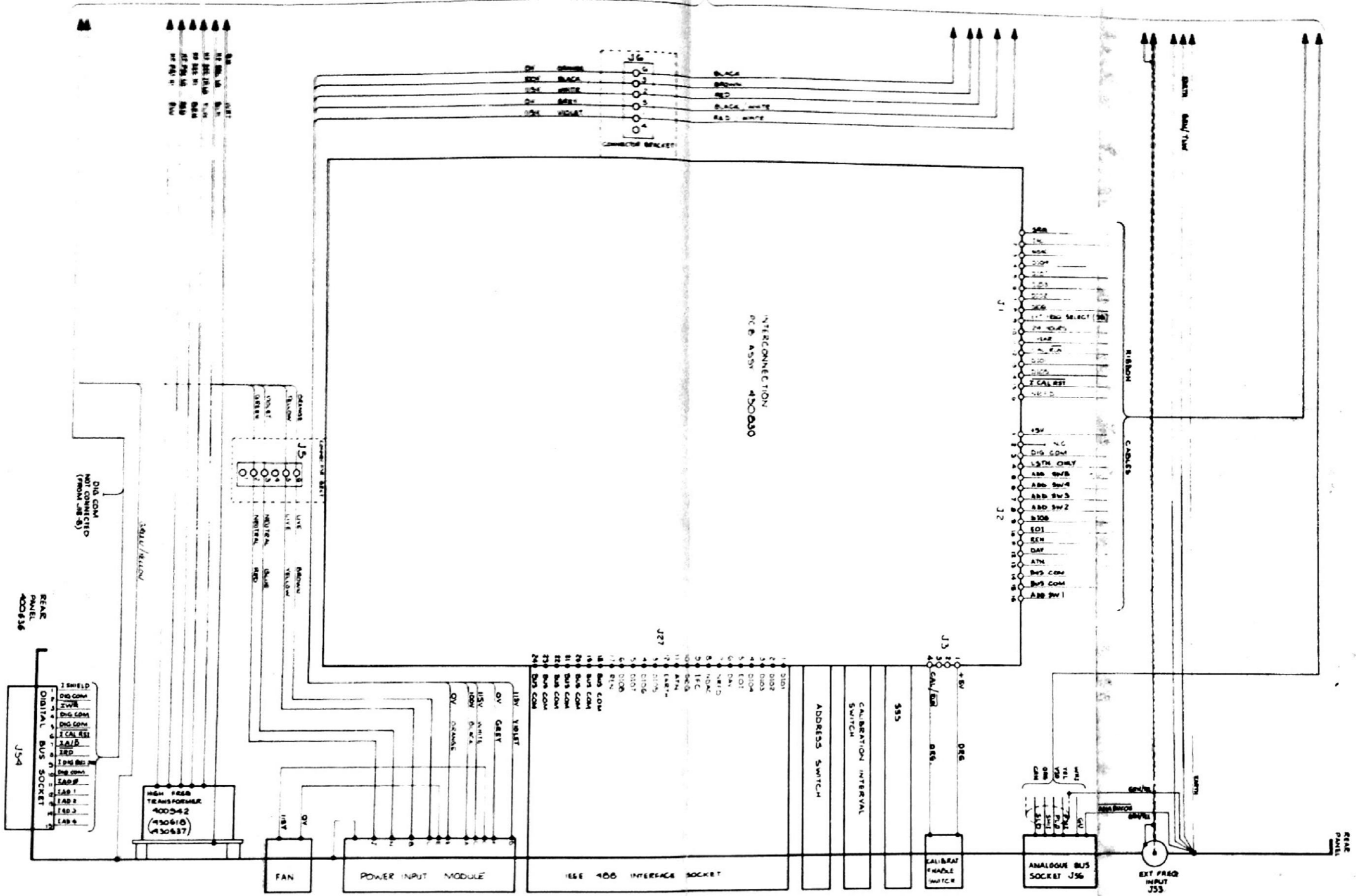


MOTHER ASSEMBLY

Circuit Diagram No. 430004-3.0 Sheet 5



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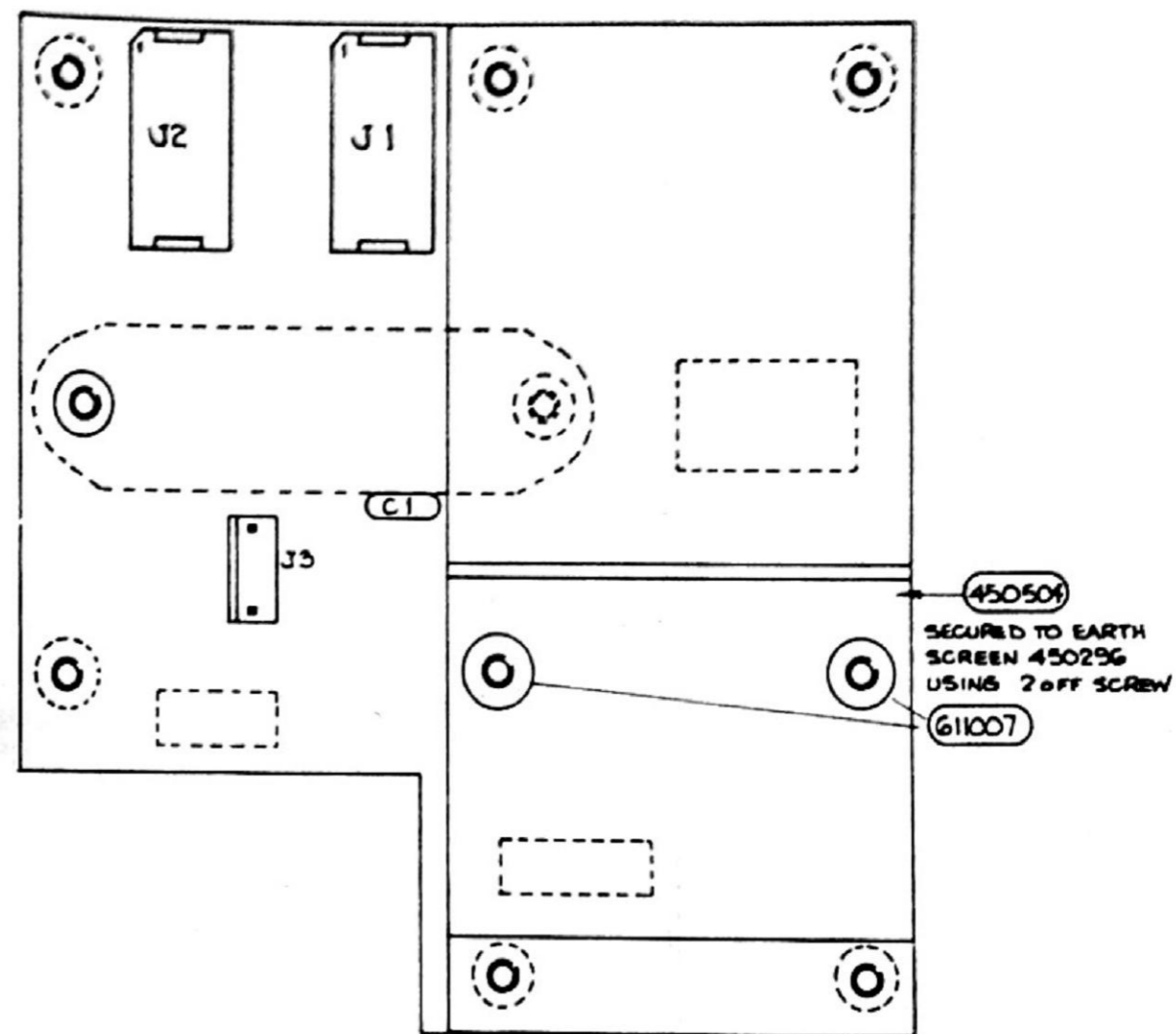
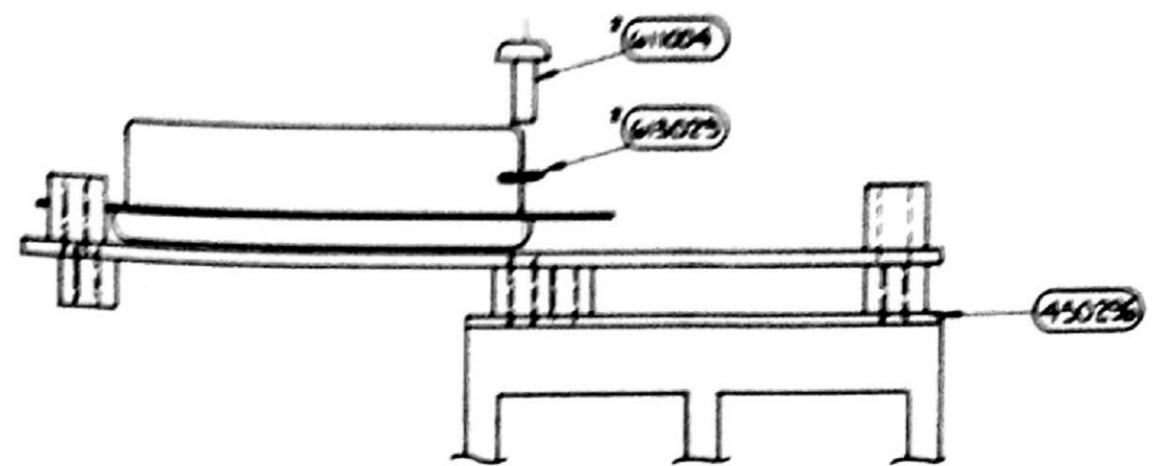
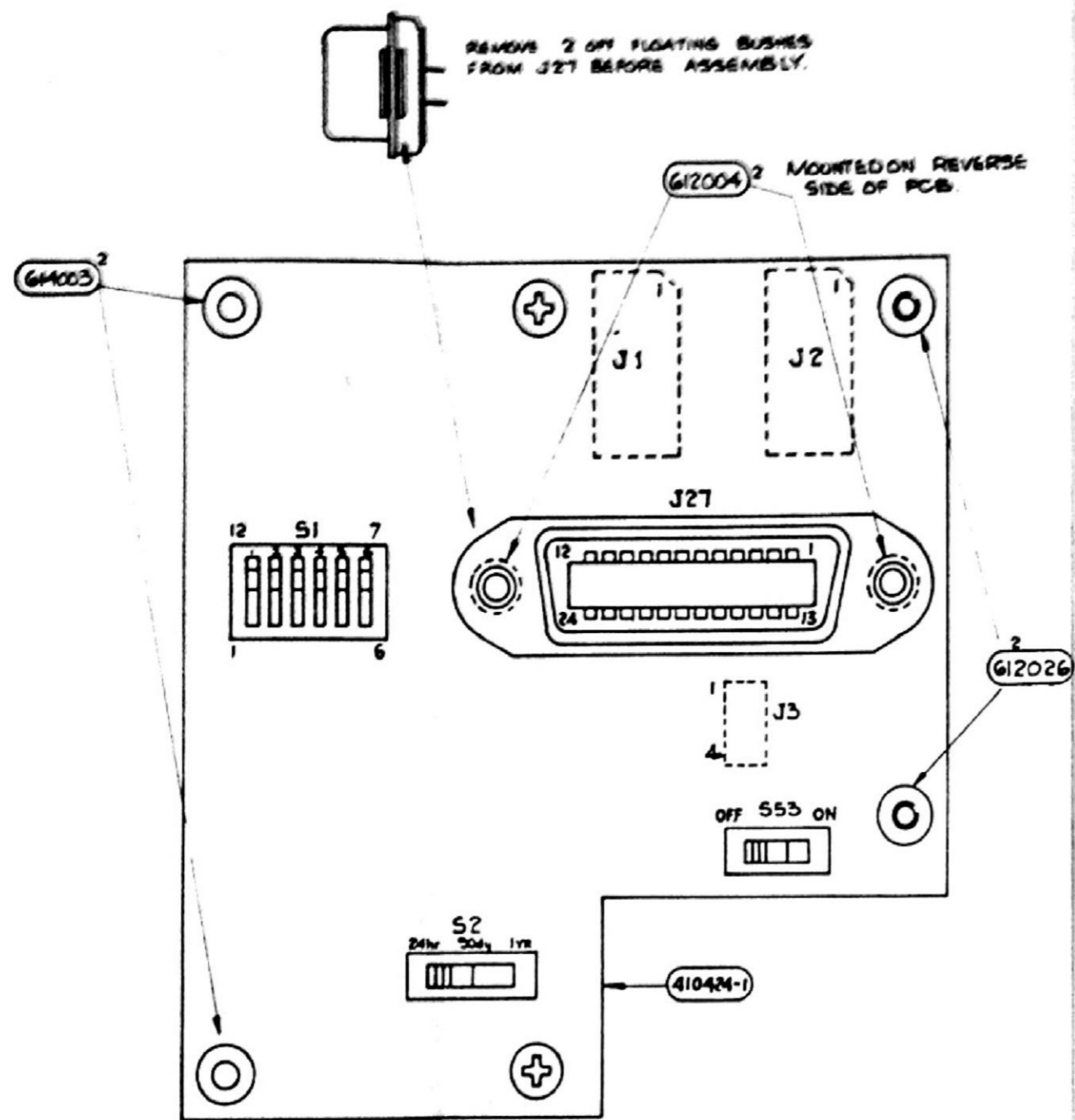


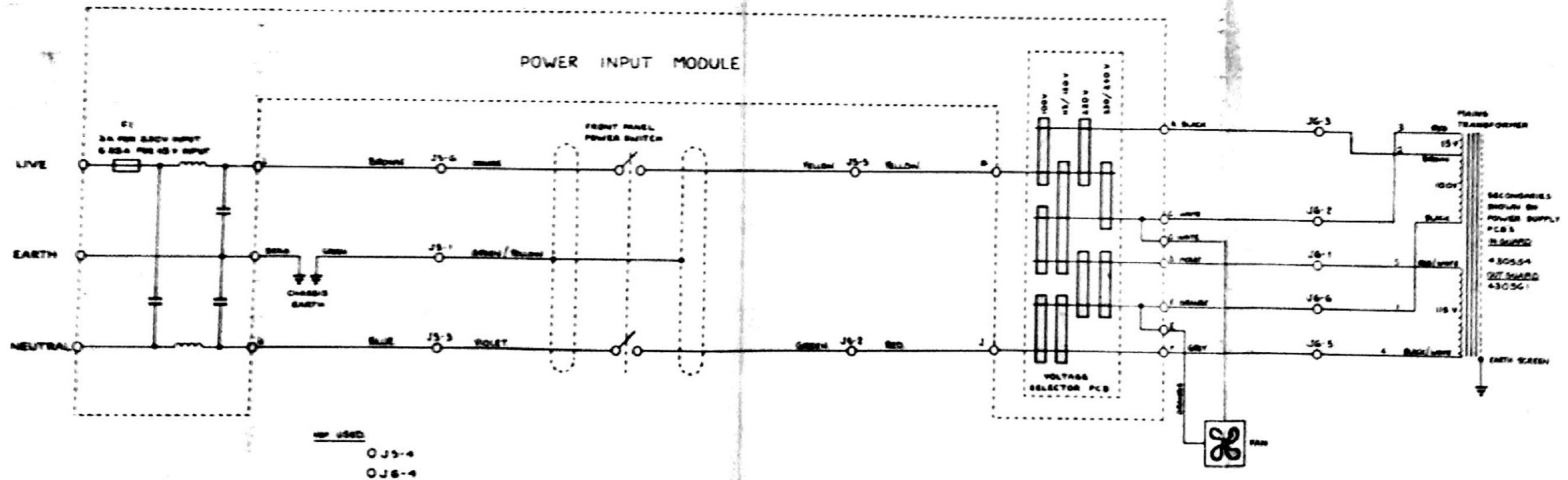
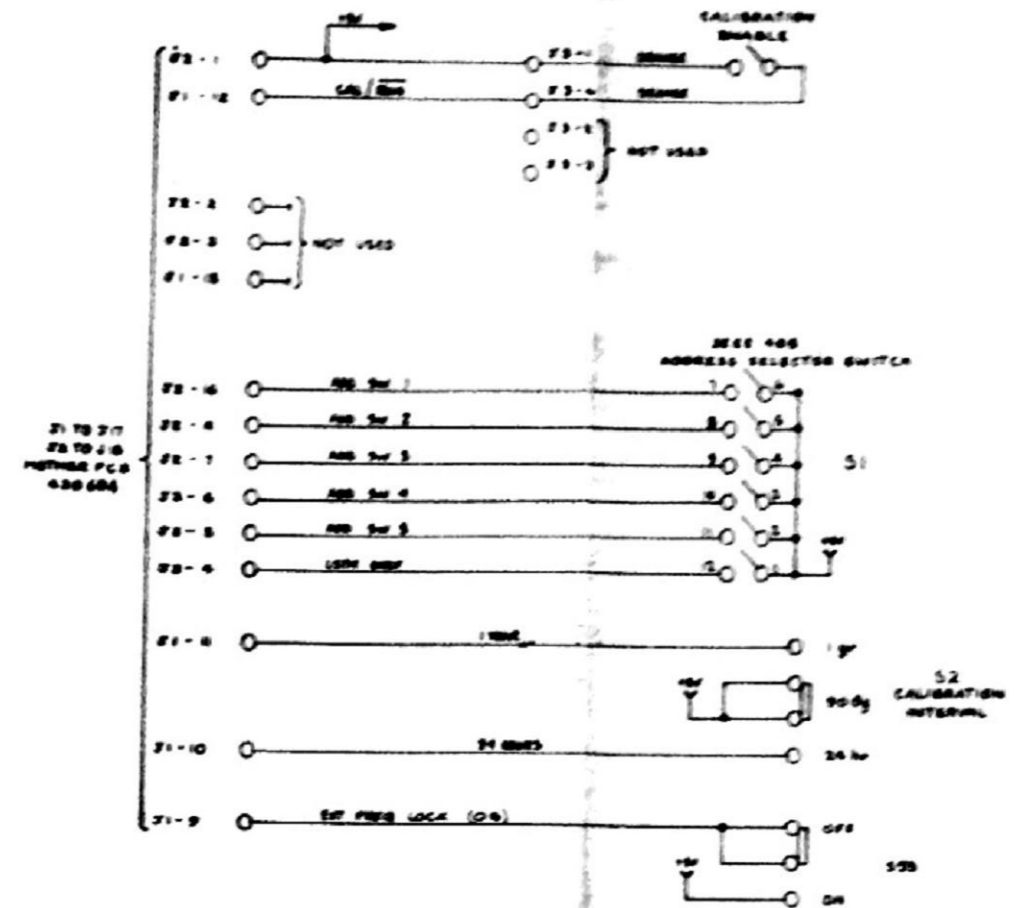
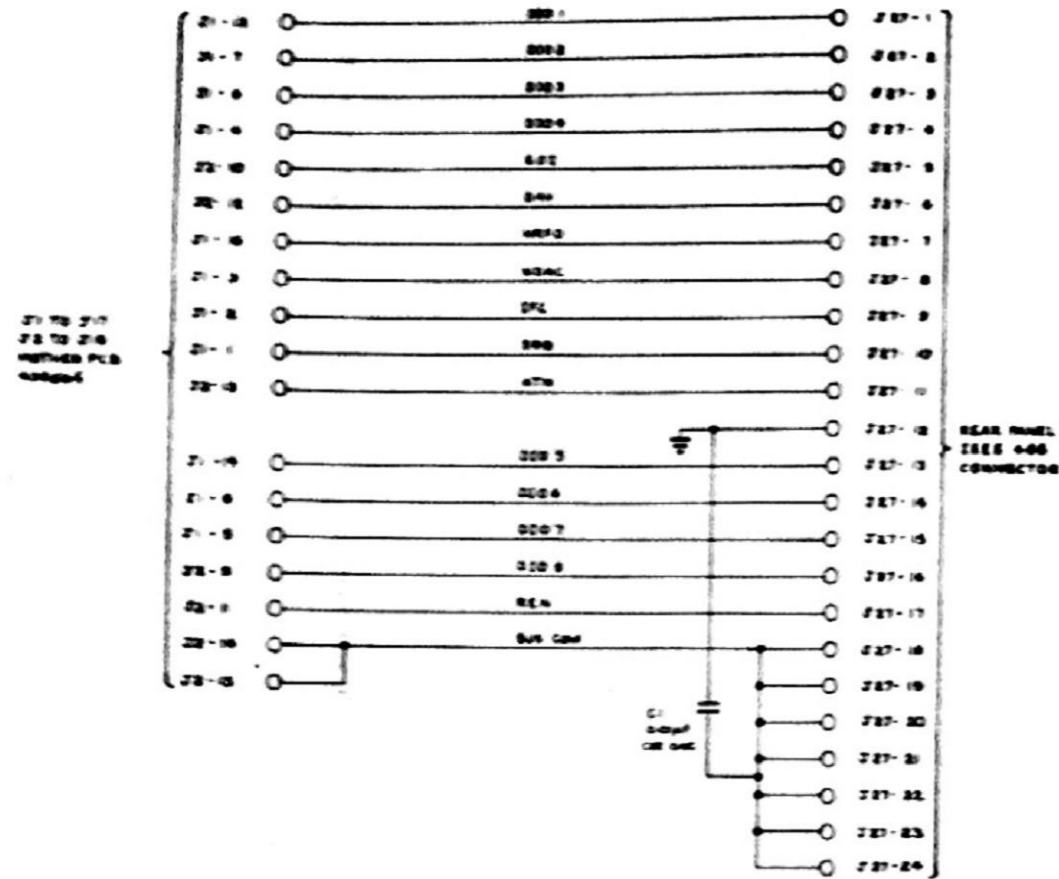
INTERCONNECTIONS

Circuit Diagram No. DC400980-1.0 Sheet 2



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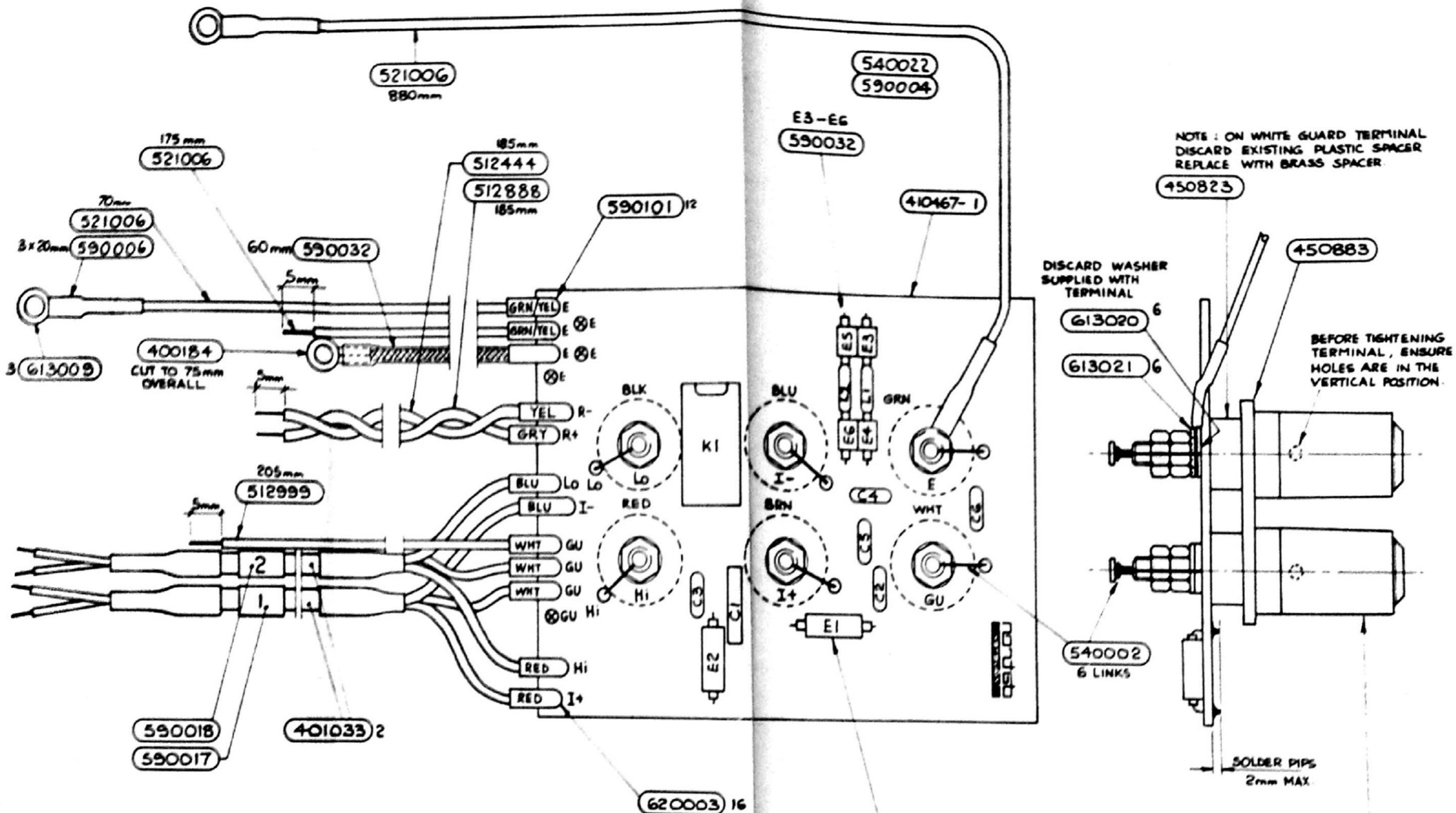


INTERCONNECTION ASSEMBLY

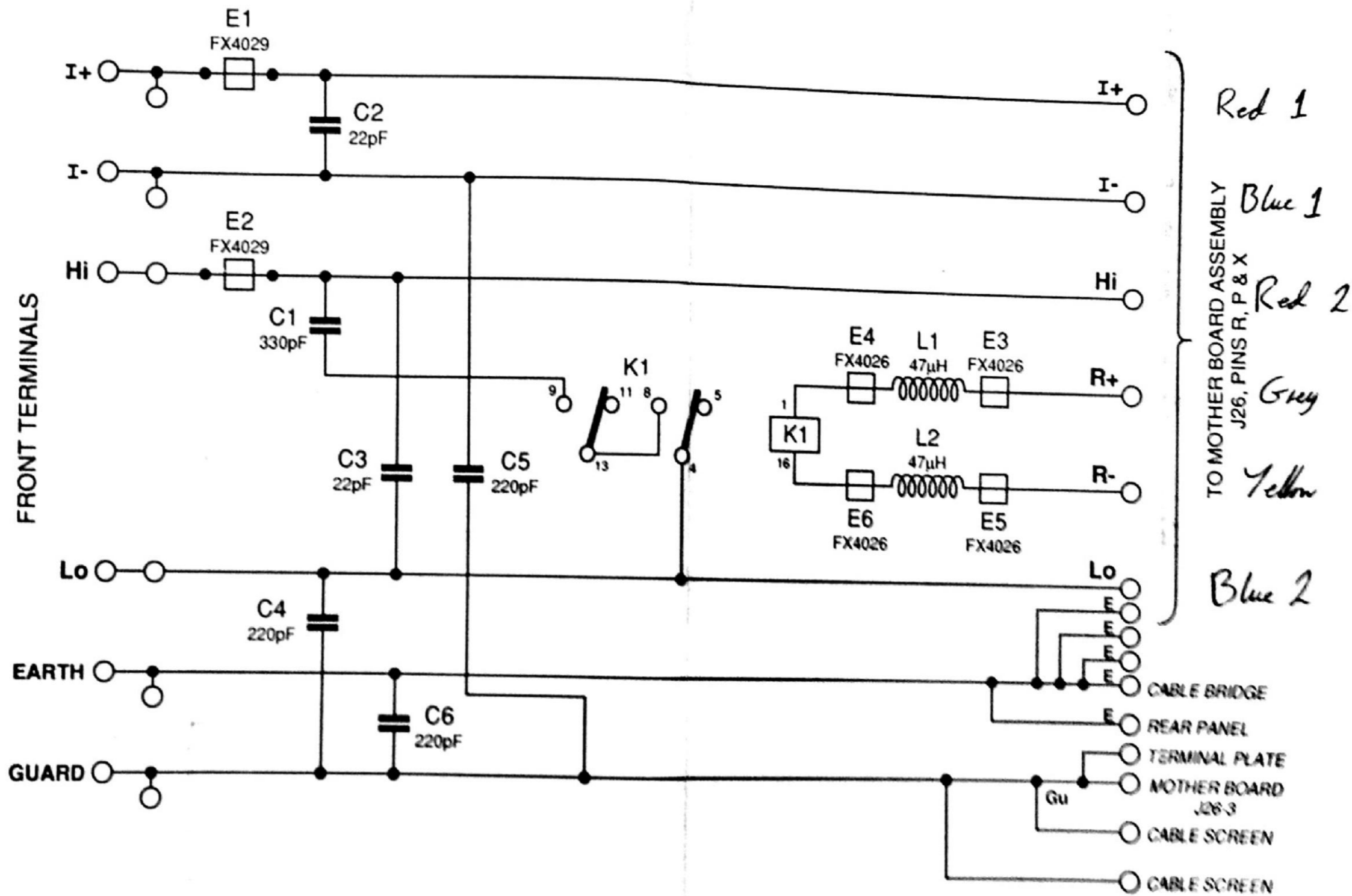
Circuit Diagram No. 43020-1.0 Sheet 1



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- TERMINAL ASSY BLK 401027
- TERMINAL ASSY RED 401028
- TERMINAL ASSY BRN 401029
- TERMINAL ASSY BLU 401030
- TERMINAL ASSY WHT 401031
- TERMINAL ASSY GRN 401032



TERMINAL BOARD ASSEMBLY

Circuit Diagram No. DC400995-2.0 Sheet 1



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