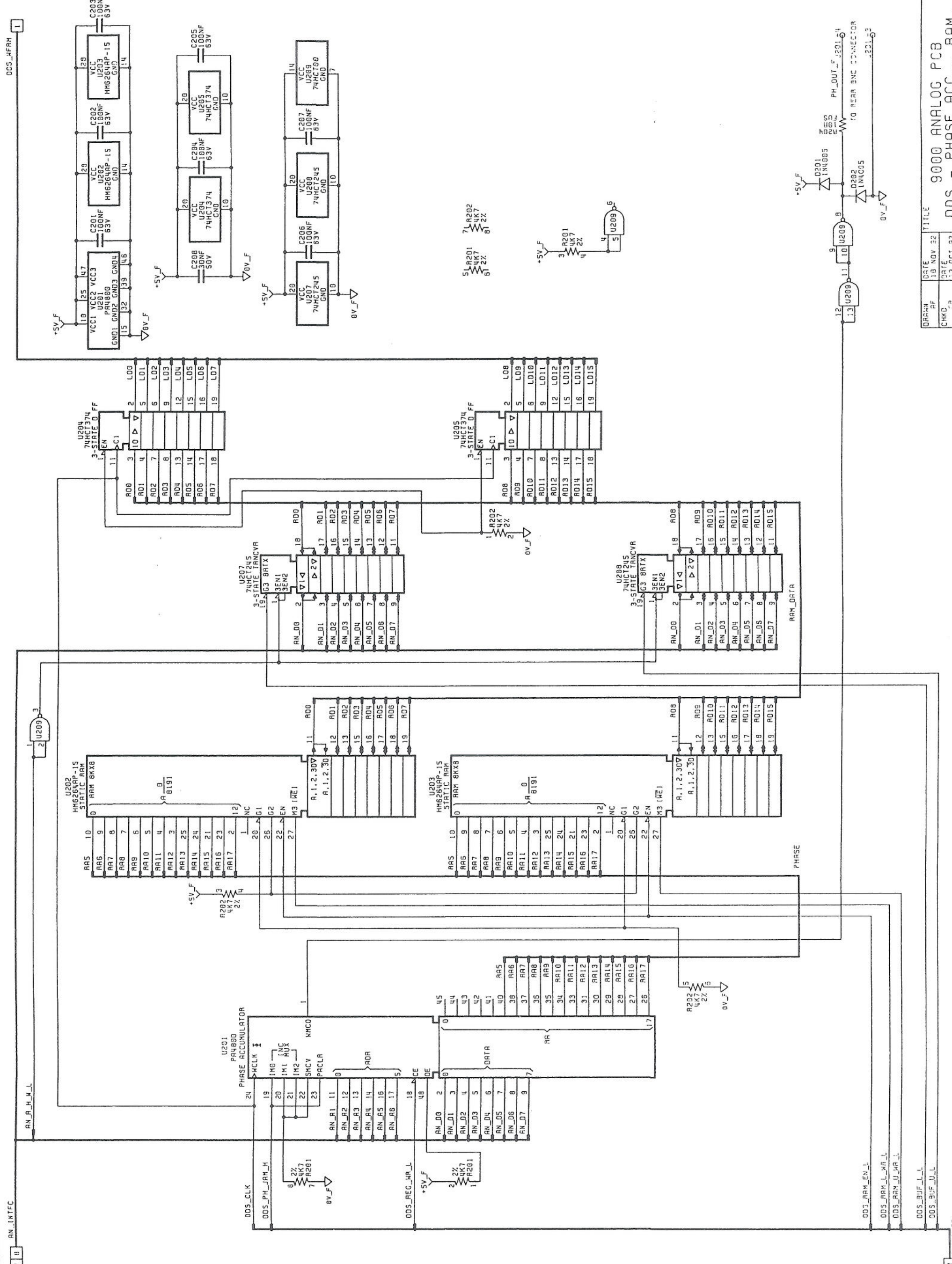


ISS CHANGES

1.0	ECO 4340 RELEASED 06 OCT 93
1.1	ECO 4342 PCB HAS ISS 0 05 OCT 93



ISS CHANGES

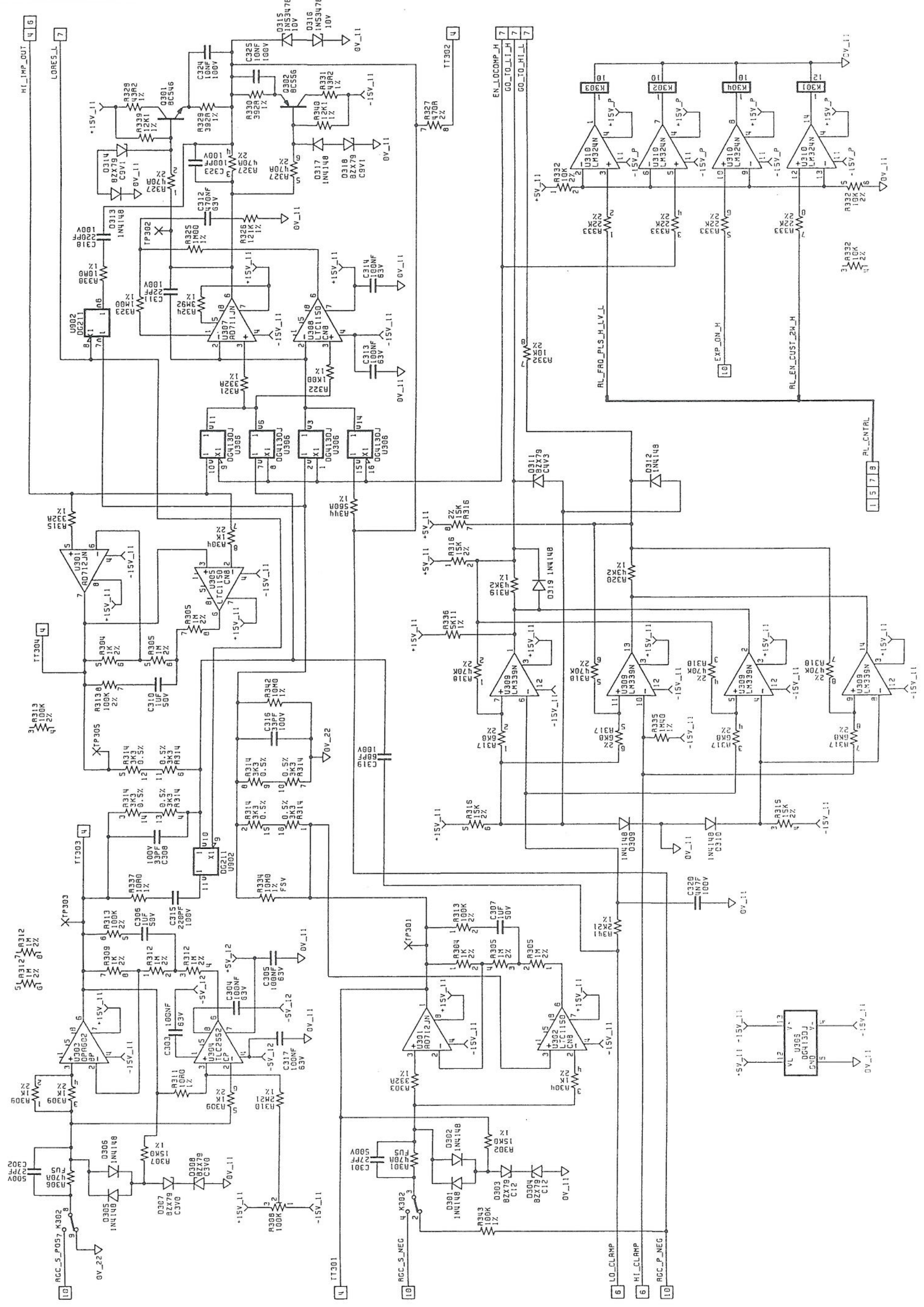
1.0	ECO 4340 RELEASED 06 OCT 93
1.1	ECO 4342 PCB HAS ISS 0 05 OCT 93

DRAWING_NO
DC401097
SHEET 2 OF 10

LEAD Z COMPENSATION

ISS	CHANGES
1.0	ECO 4340 RELEASED 08 OCT 93
1.1	ECO 4342 PCB HAS ISS 0 05 OCT 93
1.2	ECO 4358 R314 HAS KOVAR 04 NOV 93
1.3	ECO 4456 R334 HAS SM62 16 FEB 94
1.4	ECO 4746 R310 HERE NOT FILTERED R334 HAS CM15 21 FEB 95

24 FEB 1995

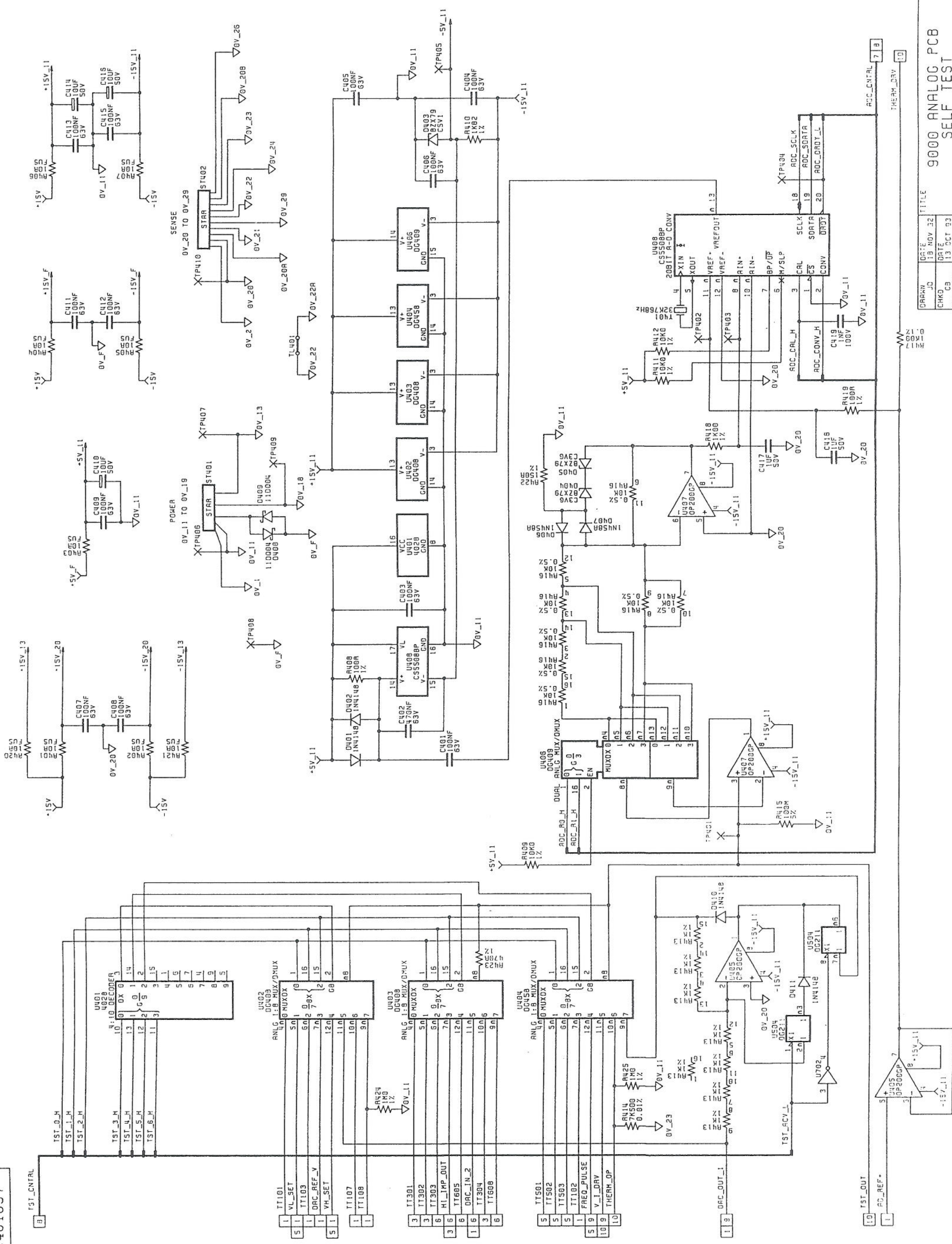


U301 AD712JN
 U302 AD712JN
 U303 AD712JN
 U304 AD712JN
 U305 AD712JN
 U306 AD712JN
 U307 AD712JN
 U308 AD712JN
 U309 LM339N
 U310 LM339N
 U311 LM339N
 U312 LM339N
 U313 LM339N
 U314 LM339N
 U315 LM339N
 U316 LM339N
 U317 LM339N
 U318 LM339N
 U319 LM339N
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 U394 LM339N
 U395 LM339N
 U396 LM339N
 U397 LM339N
 U398 LM339N
 U399 LM339N
 U400 LM339N

CHANGES

1.0	ECO 4340 RELEASED 05 OCT 93
1.1	ECO 4342 PCB HAS ISS 0 06 OCT 93
1.2	ECO 4343 R423 R4050 03 NOV 93
1.3	ECO 4426 0V_26 ON ST402 ST401 20 JAN 94
1.4	ECO 4828 U404 HAS 0C408 U415 HAS 1M00 R424 & R425 ADDED 1 JUL 12 APR 95

19 APR 1995

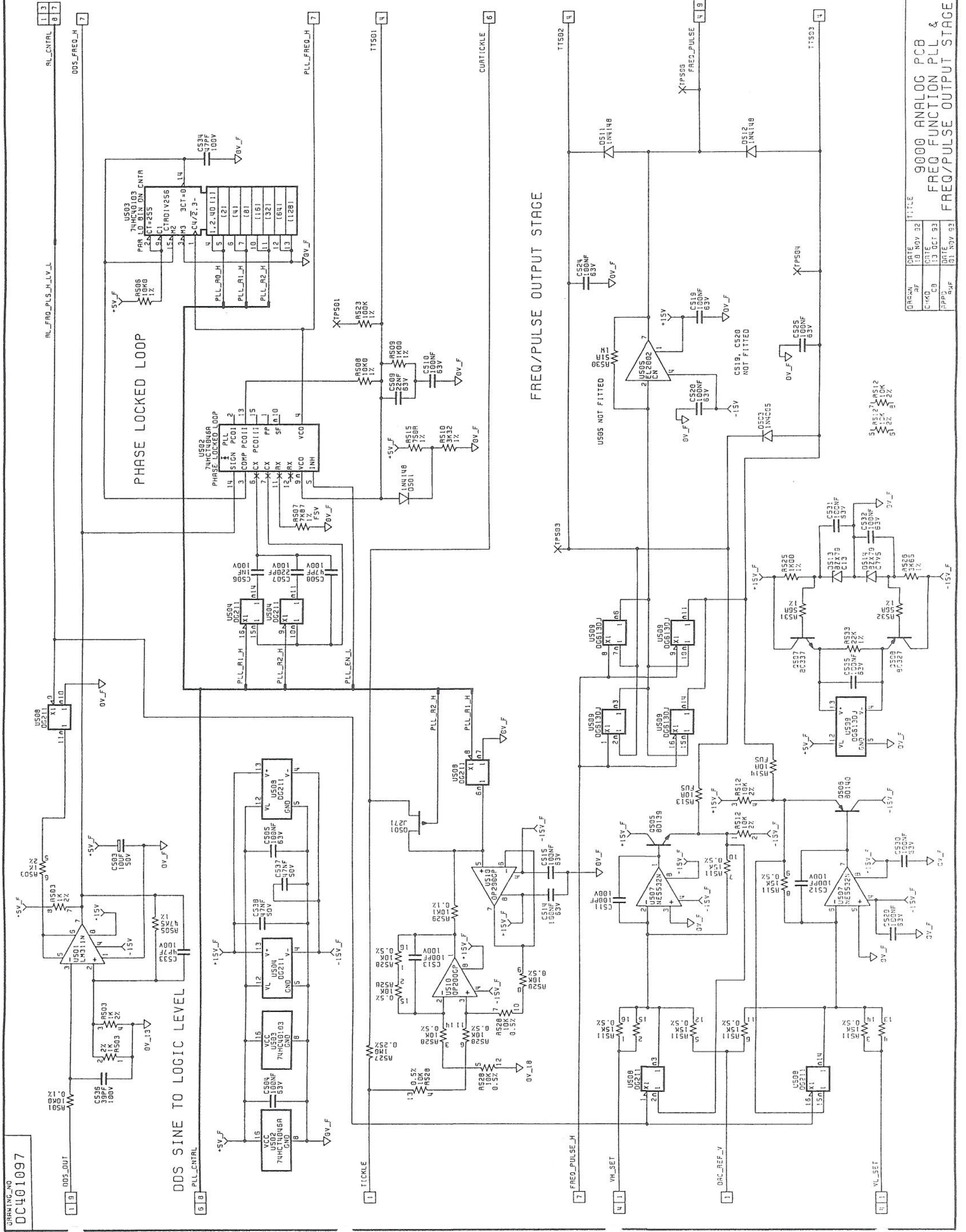


DATE	19 NOV 92
DRAWN	JC
CHECKED	CB
RPPD	RNF
DATE	13 OCT 93
DATE	01 NOV 93

TITLE
9000 ANALOG PCB
SELF TEST
MONITOR

ISS	CHANGES
1.0	ECO 4340 RELEASED 05 OCT 93
1.1	ECO 4342 PCD HAS ISS 0 05 OCT 93
1.2	ECO 4456 R507 HAS 7K50 1 JUL 18 FEB 94
1.3	ECO 4660 U501, R510 & R515 ADDED 1 JUL 12 OCT 94

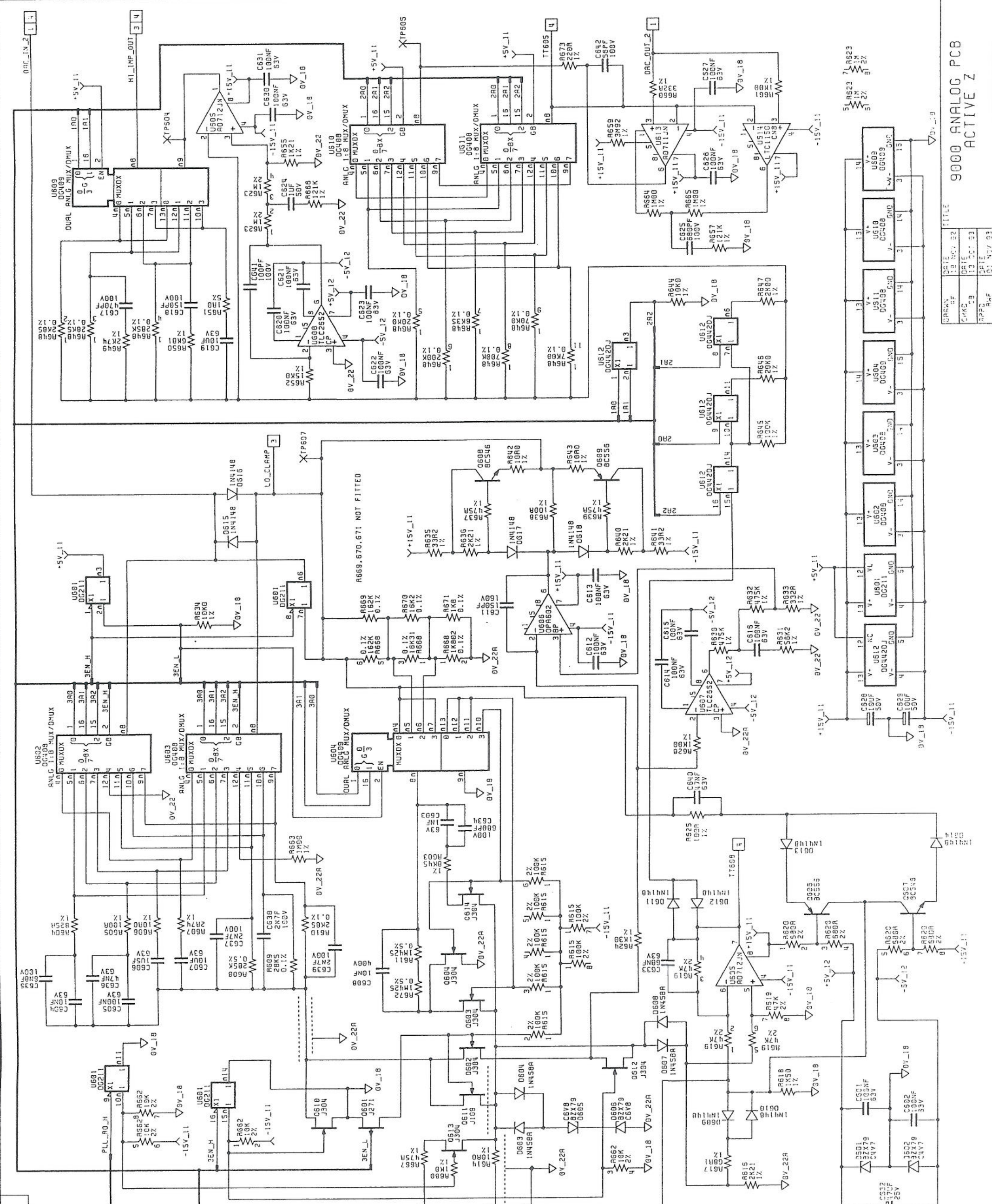
13 OCT 1994

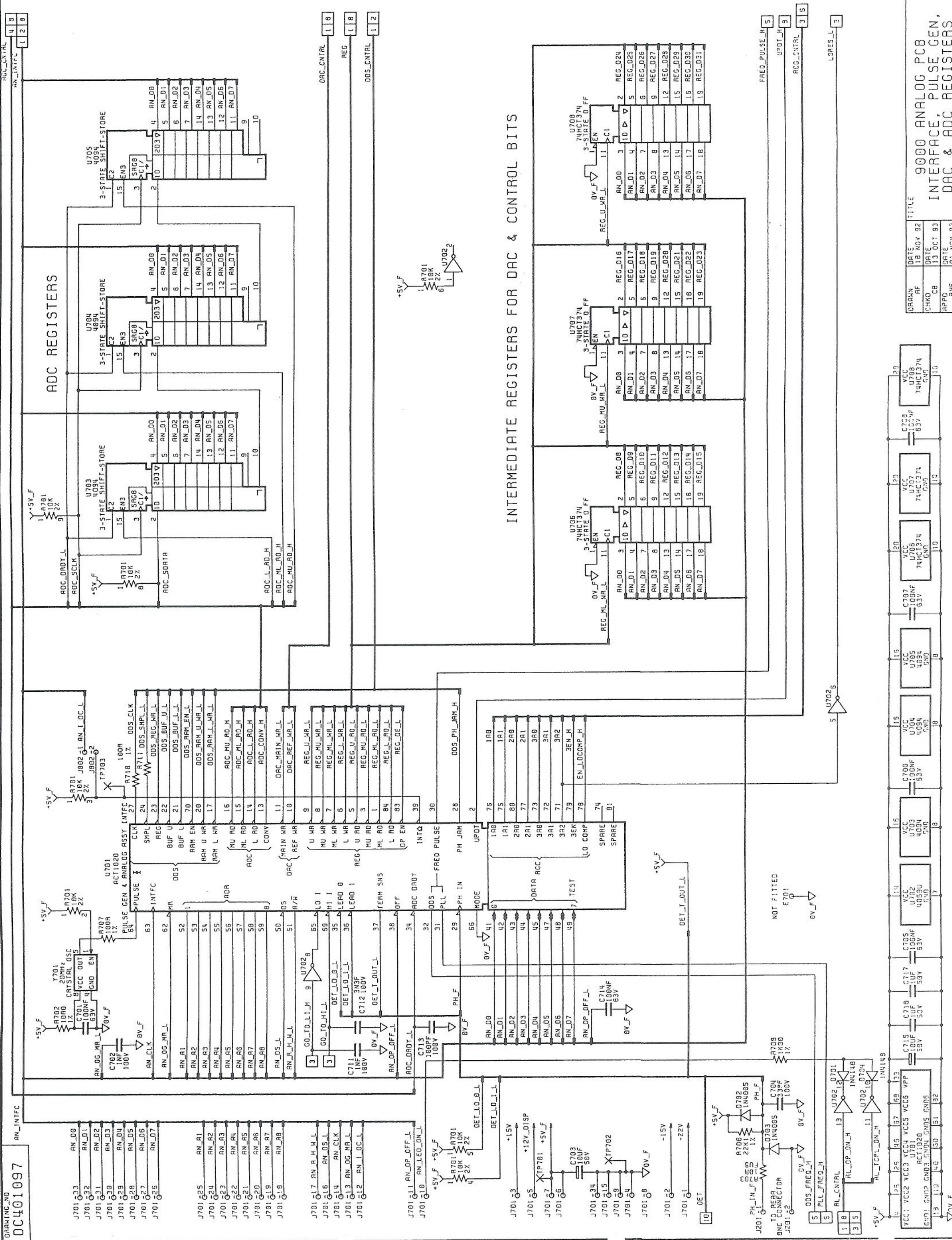


1	TICKLE	4	VH_SET	7	FREQ_PULSE_H
2		5		8	
3		6		9	
4		7		10	
5		8		11	
6	PLL_CNTRL	9	DRC_REF_V	12	
7	DDS_FREQ_H	10		13	
8		11	VL_SET	14	
9	005_OUT	12		15	
10		13		16	
11		14		17	
12		15		18	
13		16		19	
14		17		20	
15		18		21	
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87		90		93	
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93		96		99	
94		97		100	

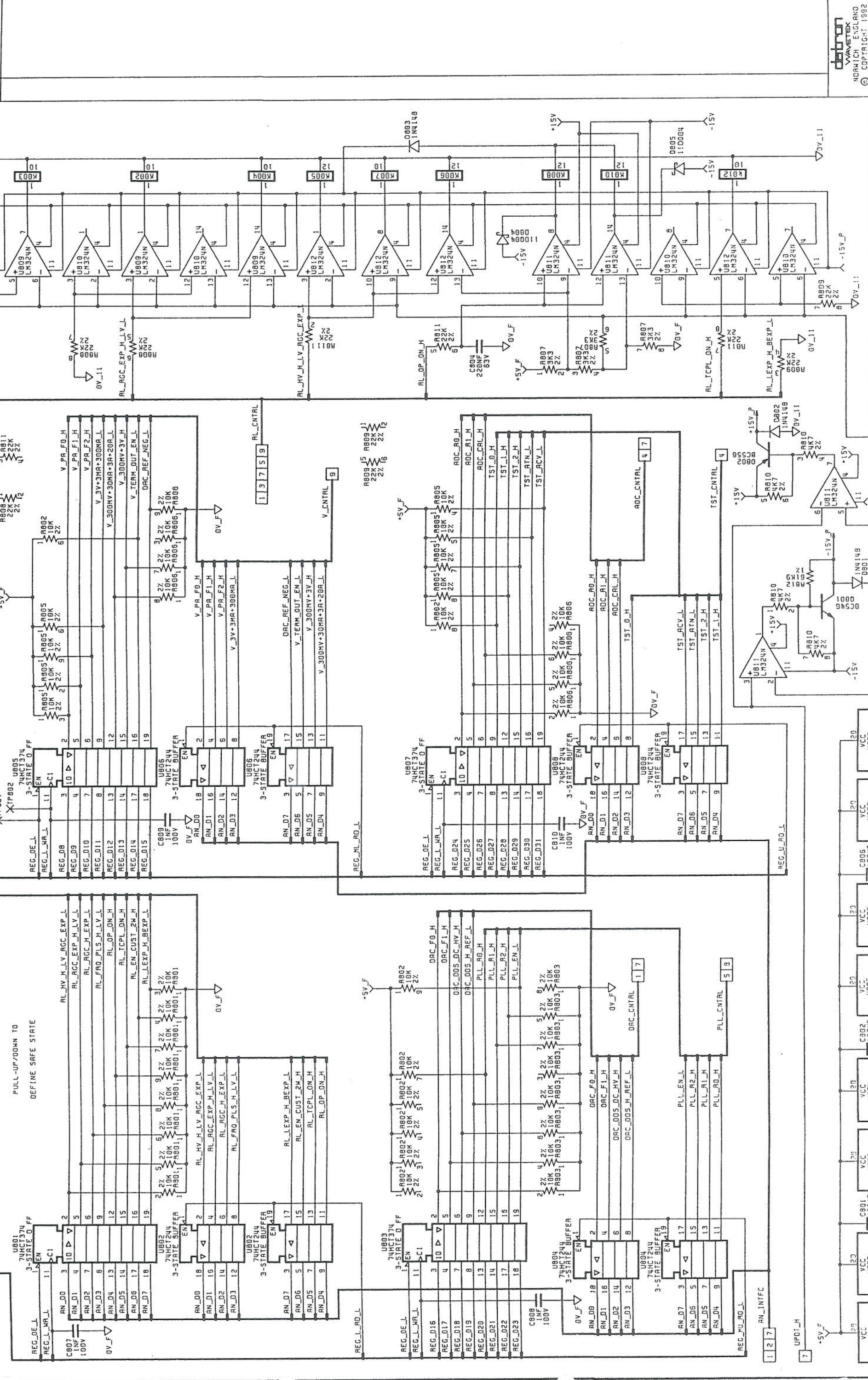
ISS	CHANGES
1.0	ECO 4340 RELEASED 05 OCT 93
1.1	ECO 4342 PCB HAS ISS 0 06 OCT 93
1.2	ECO 4360 R668 NOM FITTED 04 NOV 93
1.3	ECO 4393 R604 HAS 909A R603 HAS 9K09 R614 HAS 36A5 R611 HAS U1898 1JL 14 DEC 93
1.4	ECO 4456 R651 HAS 27A4 1JL 16 FEB 94
1.5	ECO 4828 R688 RODED 1JL 7 APR 95

19 APR 1995





ISS	CHANGES
1-8	ECO 4340 RELEASED 06 OCT 93
1.1	ECO 4342 PCB HAS ISS 0 06 OCT 93



DATE	TITLE
18 NOV 92	9000 ANALOG PCB
13 OCT 93	CONTROL REGISTERS,
01 NOV 93	DRIVERS & RELAYS

DRN AF
CHKD CA
APPD RWF

ISS CHANGES
1-8 ECO 4340 RELEASED 06 OCT 93
1.1 ECO 4342 PCB HAS ISS 0 06 OCT 93

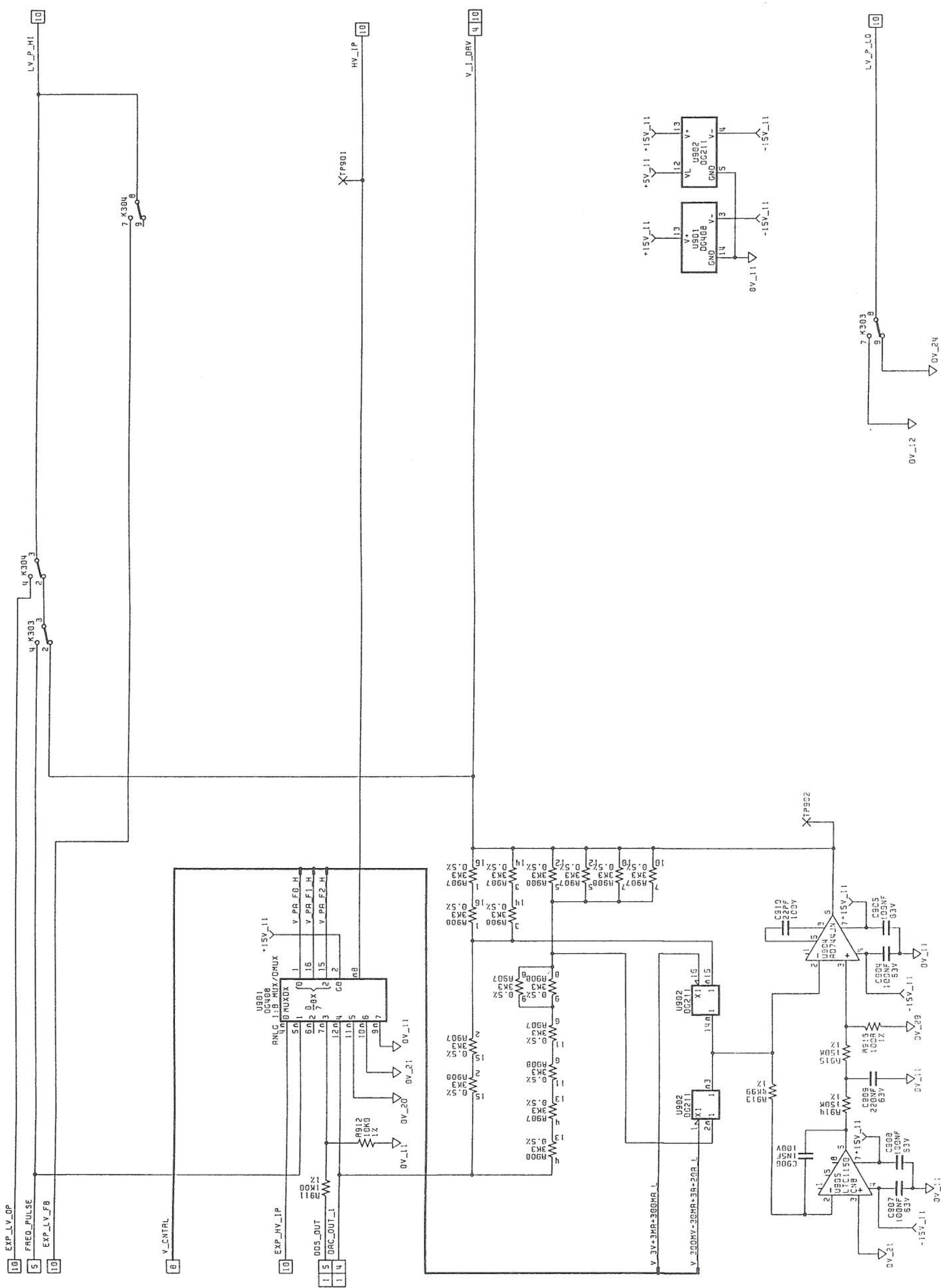
DATE TITLE
18 NOV 92 9000 ANALOG PCB
13 OCT 93 CONTROL REGISTERS,
01 NOV 93 DRIVERS & RELAYS

DC401097
SHEET 8 OF 10

ISS	CHANGES
1.0	ECO 4340 RELEASED 06 OCT 93
1.1	ECO 4312 PCB MFG 155 D 06 OCT 93
1.2	ECO 4426 MISSING 0V_11 LABEL ADDED 21 JAN 94
1.3	ECO 4456 R907 & R908 WERE 10K X 8 1 JUL 16 FEB 94
1.4	ECO 4489 C907 1 JUL 15 JUN 95

16 JUN 1995

DRW	DATE	TITLE
RF	18 NOV 92	
CB	13 OCT 93	
RWF	21 NOV 93	



7 K304

4 K303

4 K304

XTP901

XTP902

7 K303

0V_24

0V_12

LV_P_L0

V_1_DRV

HV_IP

LV_P_HI

EXP_LV_OP

FREQ_PULSE

EXP_LV_FB

V_CTRL

EXP_HV_IP

005_OUT

DAC_OUT_1

0V_11

0V_20

0V_21

0V_29

3V_11

3V_21

15V_11

15V_21

15V_12

15V_21

15V_11

15V_21

15V_11

15V_21

15V_11

15V_21

15V_11

15V_21

15V_11

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15V_21

15V_11

15V_21

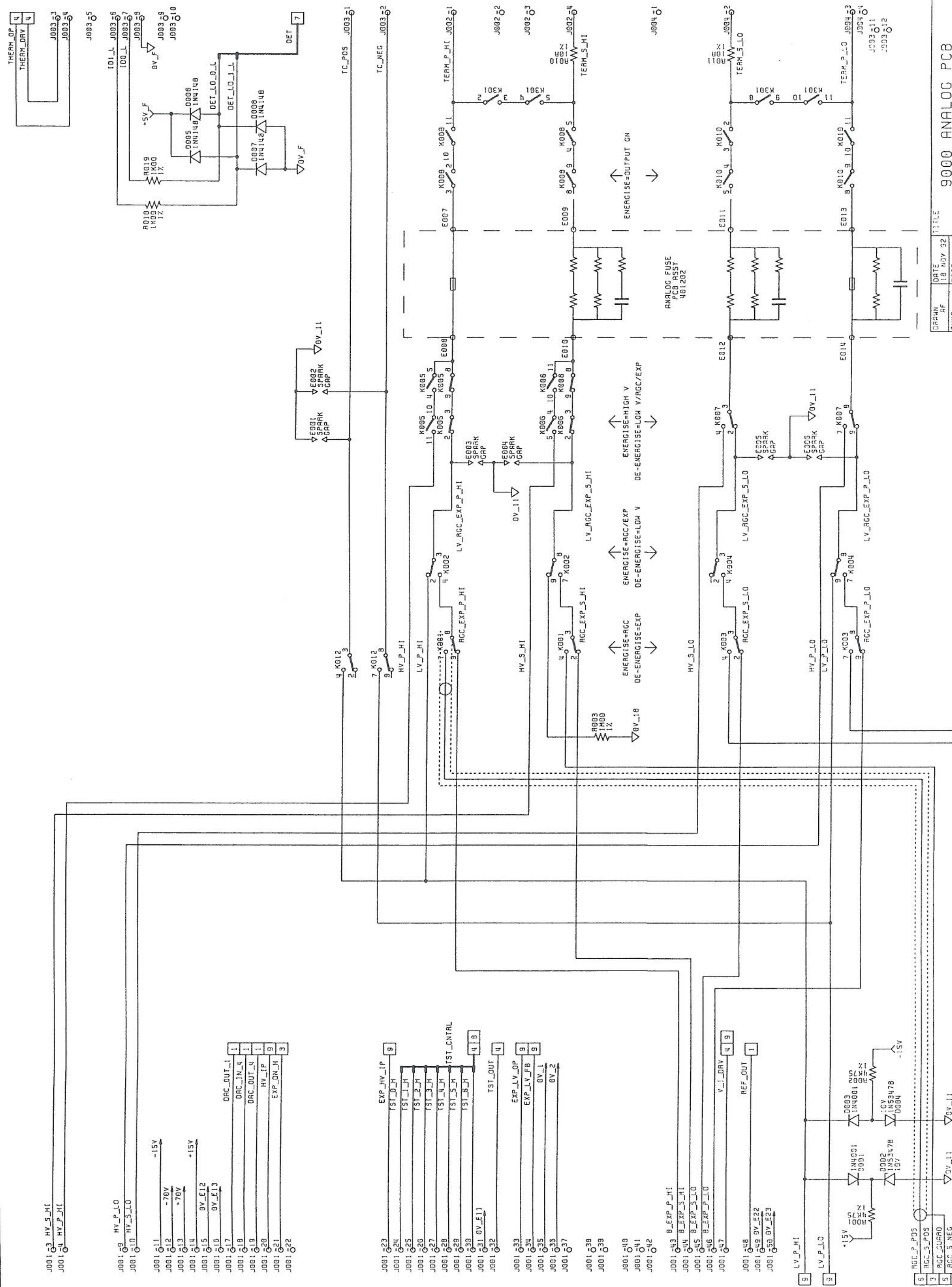
15V_11

15V_21

15V_11

15V_21

ISS	CHANGES
1.0	ECO 4310 RELEASED 06 OCT 93
1.1	ECO 4342 PCB HAS ISS 0 06 OCT 93
1.2	ECO 4582 FOOTPRINTS FOR R005, R006, R007, R008, R009, R010 DELETED ANALOG FUSE R007 ADDED 131 11 AUG 94

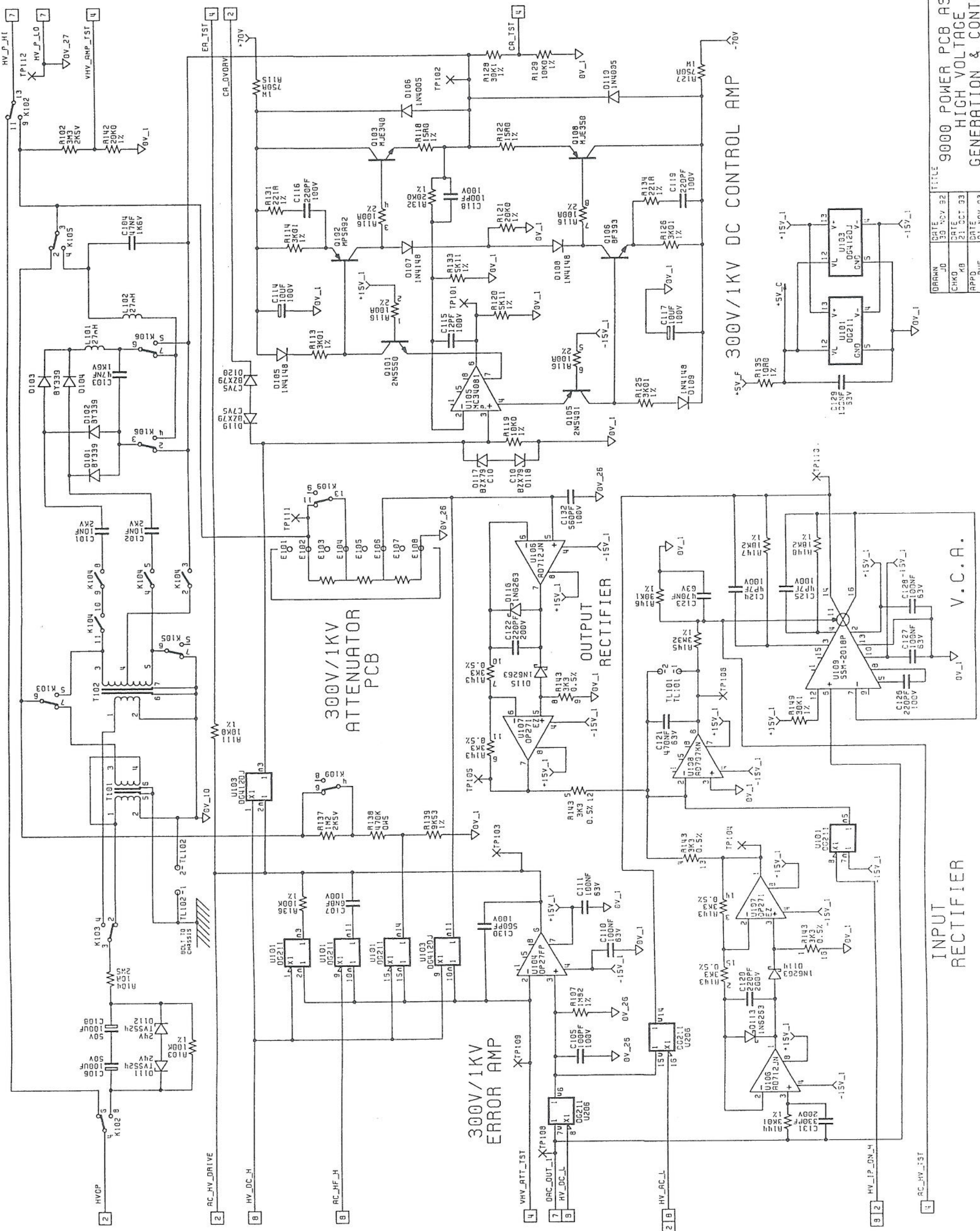


- J001-3 HV_S_HI
- J001-4 HV_P_HI
- J001-5 HV_P_LO
- J001-6 HV_S_LO
- J001-11 -15V
- J001-12 -70V
- J001-13 +70V
- J001-14 +15V
- J001-15 0V_E12
- J001-16 0V_E13
- J001-17
- J001-18 DRC_IN_4
- J001-19 DRC_OUT_4
- J001-20 HV_IP
- J001-21 EXP_ON_H
- J001-22

- J001-23 EXP_HV_IP
- J001-24 TST_O_H
- J001-25 TST_1_H
- J001-26 TST_2_H
- J001-27 TST_3_H
- J001-28 TST_4_H
- J001-29 TST_5_H
- J001-30 TST_6_H
- J001-31 0V_E11
- J001-32 TST_OUT
- J001-33 EXP_LV_OP
- J001-34 EXP_LV_FB
- J001-35 BV_1
- J001-36 BV_2
- J001-37
- J001-38
- J001-39
- J001-40
- J001-41
- J001-42
- J001-43 B_EXP_P_HI
- J001-44 B_EXP_S_HI
- J001-45 B_EXP_S_LO
- J001-46 B_EXP_P_LO
- J001-47
- J001-48
- J001-49 0V_E22
- J001-50 0V_E23

- 5 AGC_P_POS
- 3 AGC_S_POS
- 5 AGC_S_NEG
- 3 AGC_P_NEG

VOLTAGE DOUBLER



ISS	CHANGES
1.0	ECO 4340 RELEASED 13 OCT 93
1.1	ECO 4341 P59 HAS ISS C 13 OCT 93
1.2	ECO 4355 U105, U107 HERE OP27FP 03 NOV 93
1.3	ECO 4377 R103 HAS 1K00 24 NOV 93 IJL
1.4	ECO 4398 R139 HAS 9K53 019/0120 ADDED 1JL 13 DEC 93
1.5	ECO 4482 R199 HAS 1KX0 J109 & DRAMPING RESISTOR DELETED COMMENT DELETED 1JL 7 MAR 94

08 MAR 1994

DRAWN	DATE	TITLE
J0	30 NOV 92	9000 POWER PCB ASSY
CHKD	21 OCT 93	HIGH VOLTAGE
APPD	31 NOV 93	GENERATION & CONTROL

V.C.A.

INPUT
RECTIFIER

300V/1KV
ERROR AMP

300V/1KV
DC CONTROL AMP

ATTENUATOR
PCB

VOLTAGE
DOUBLER

COMPONENTS MARKED THUS * FITTED TO HEATSINK SUB-ASSY

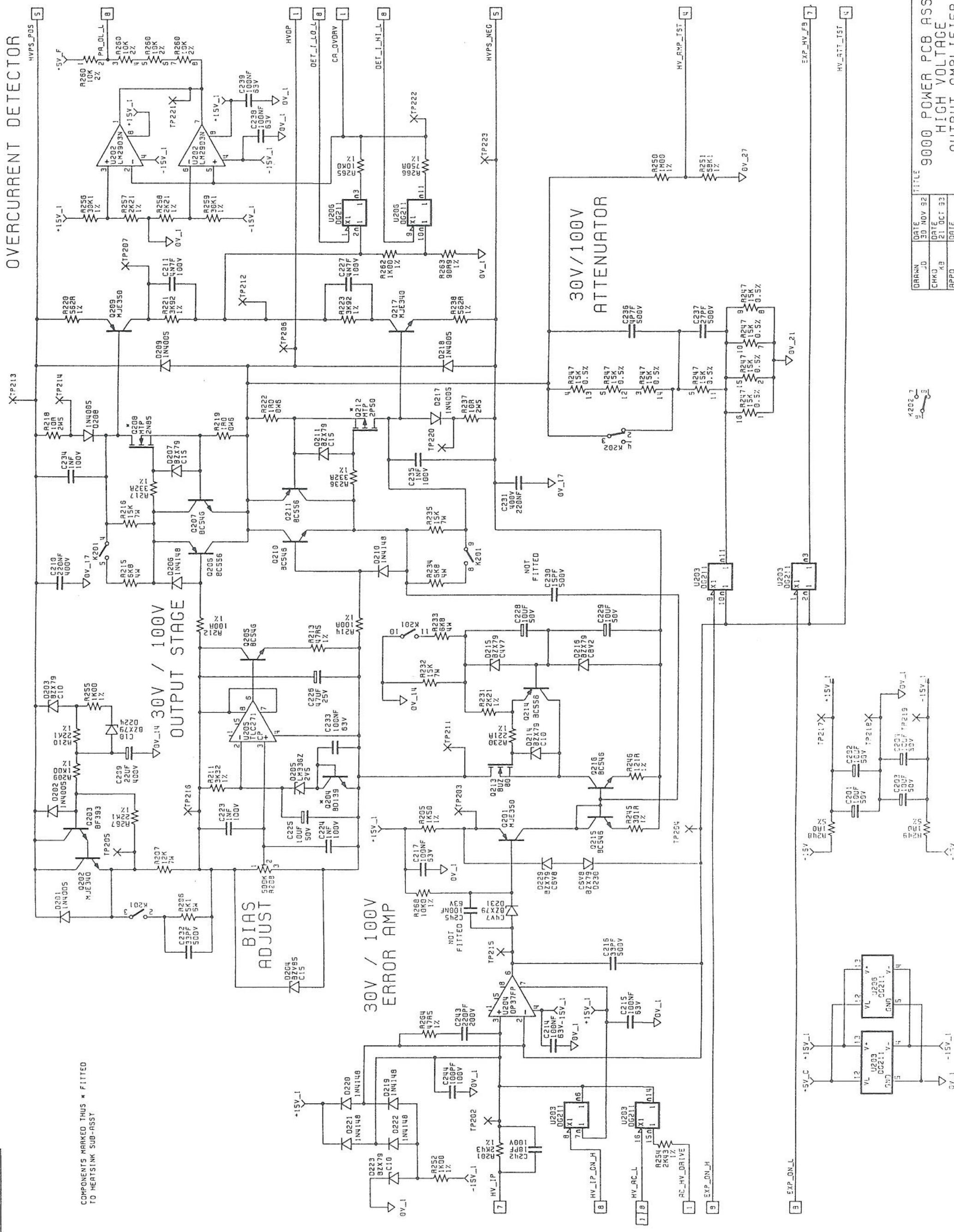
OVERCURRENT DETECTOR

30V / 100V OUTPUT STAGE

BIAS ADJUST

30V / 100V ERROR AMP

30V / 100V ATTENUATOR



155 CHANGES

1.0	ECO 4340	RELEASED	13 OCT 93
1.1	ECO 4341	PCB HAS 155 C	13 OCT 93
1.2	ECO 4346	C237 HAS 39PF	CR_OVDV LINE
		ADDED	13 DEC 93
1.3	ECO 4446	HEATSINK COMPS	MARKED THUS *
		ADDED	13 APR 94
1.4	ECO 4566	U207, D211 HERE	
		R217, R236 WERE	
		REMOVED	
		R218, R236 WERE	
		REMOVED	
		R218, R236 WERE	
		REMOVED	
1.5	ECO 4944	OV_27 HAS OV_1	
		ADDED	
		U207, D211 HERE	
		REMOVED	
		R217, R236 WERE	
		REMOVED	

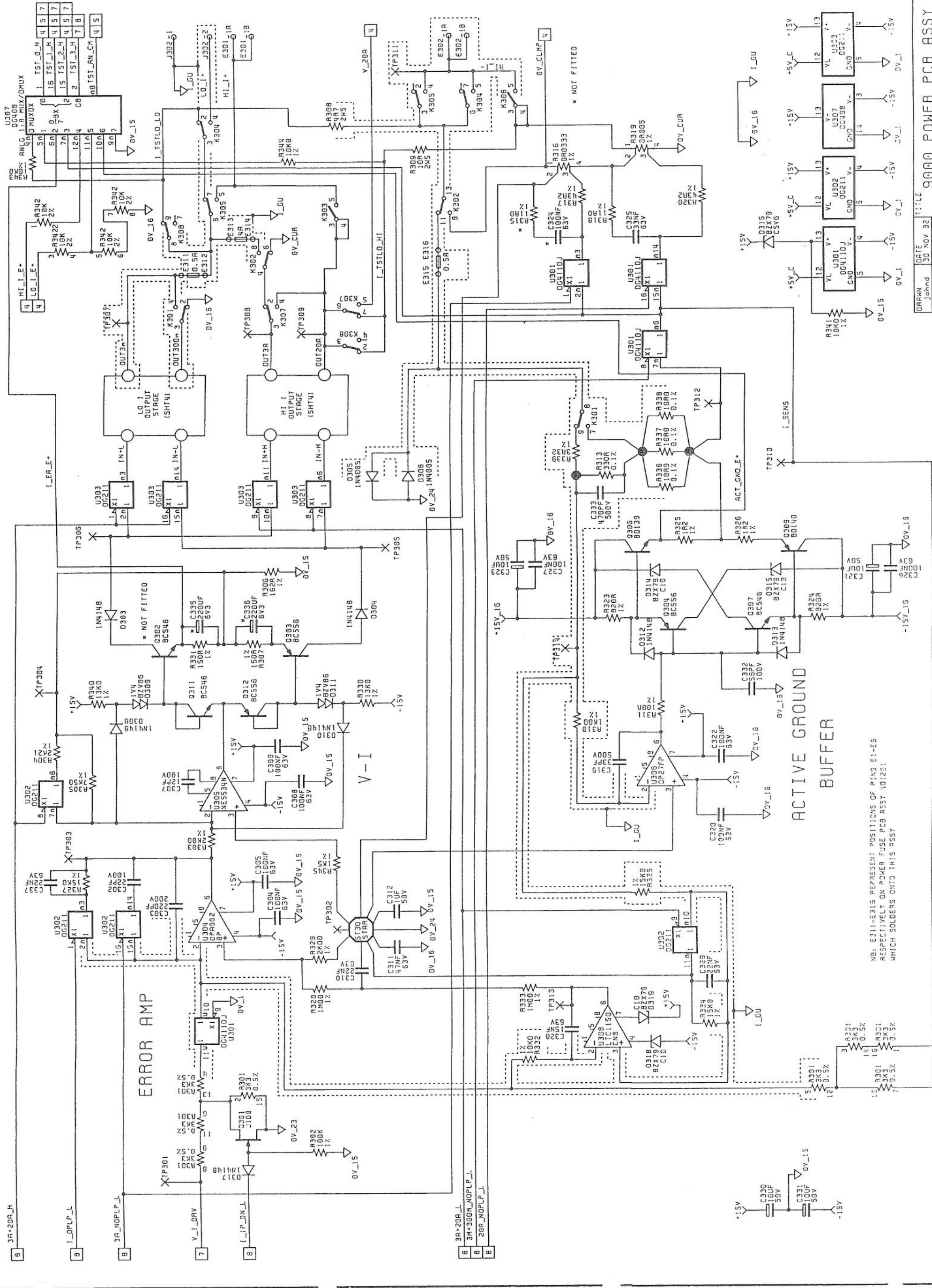
10 OCT 1995



OUTPUT STAGES

ISS	CHANGES
1.0	ECO 4340 RELEASED 13 OCT 93
1.1	ECO 4341 PCB HAS ISS C 13 OCT 93
1.2	ECO 4358 R301 HAS SK R302 HAS 22K R303 HAS 150K C303 HAS 150PF C307 HAS 150PF 04 NOV 93
1.3	ECO 4385 R302 HAS C2R C303 HAS ISS D 05 NOV 93
1.4	ECO 4582 F301, F302 & F303 DELETED 9 AUG 94 1JL

- 5 OCT 1994



DRN	DATE	TITLE
Jahnd	30 NOV 92	9000 POWER PCB ASSY
CHKD	21 OCT 93	CURRENT CONVERTER
APPD	01 NOV 93	

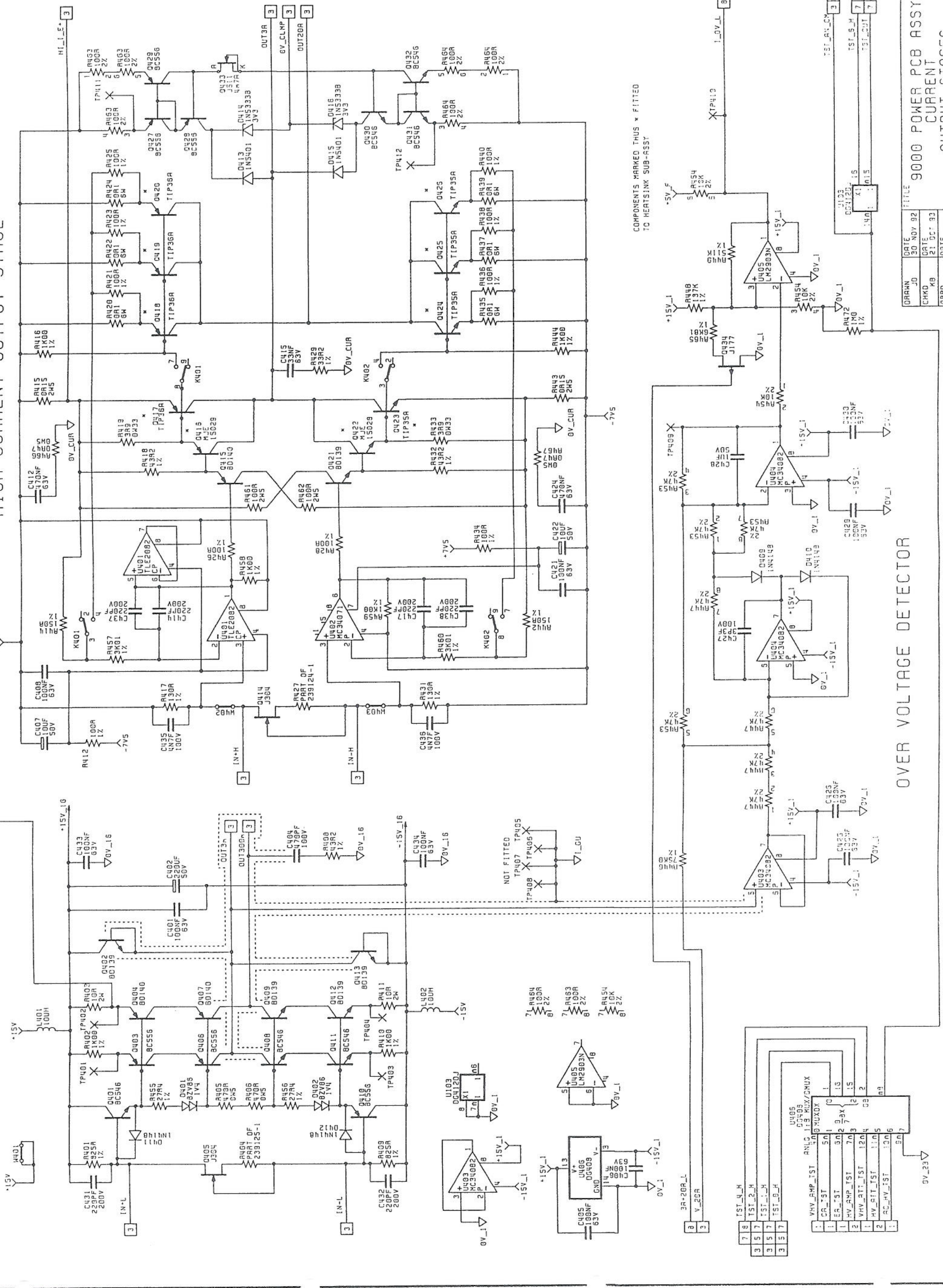
DRWING_NO DC 401096
 SHEET 3 OF 8

DATE 30 NOV 92
 TITLE 9000 POWER PCB ASSY
 CURRENT CONVERTER
 DRWING_NO DC 401096
 SHEET 3 OF 8

NOTE: E311-E316 REPRESENT POSITIONS OF PINS E1-E5 RESPECTIVELY ON POWER FUSE PCB ASSY 401201 WHICH SOLDERED ONTO THIS ASSY

LOW CURRENT OUTPUT STAGE

HIGH CURRENT OUTPUT STAGE



COMPONENTS MARKED * FITTED TO HEATSINK SUB-ASSY

OVER VOLTAGE DETECTOR

DATE	BY	FILE
30 NOV 92	JM	9000 POWER PCB ASSY
21 OCT 93	KB	CURRENT
01 NOV 93	RFW	OUTPUT STAGES

DRWN	DATE	FILE
JM	30 NOV 92	9000 POWER PCB ASSY
KB	21 OCT 93	CURRENT
RFW	01 NOV 93	OUTPUT STAGES

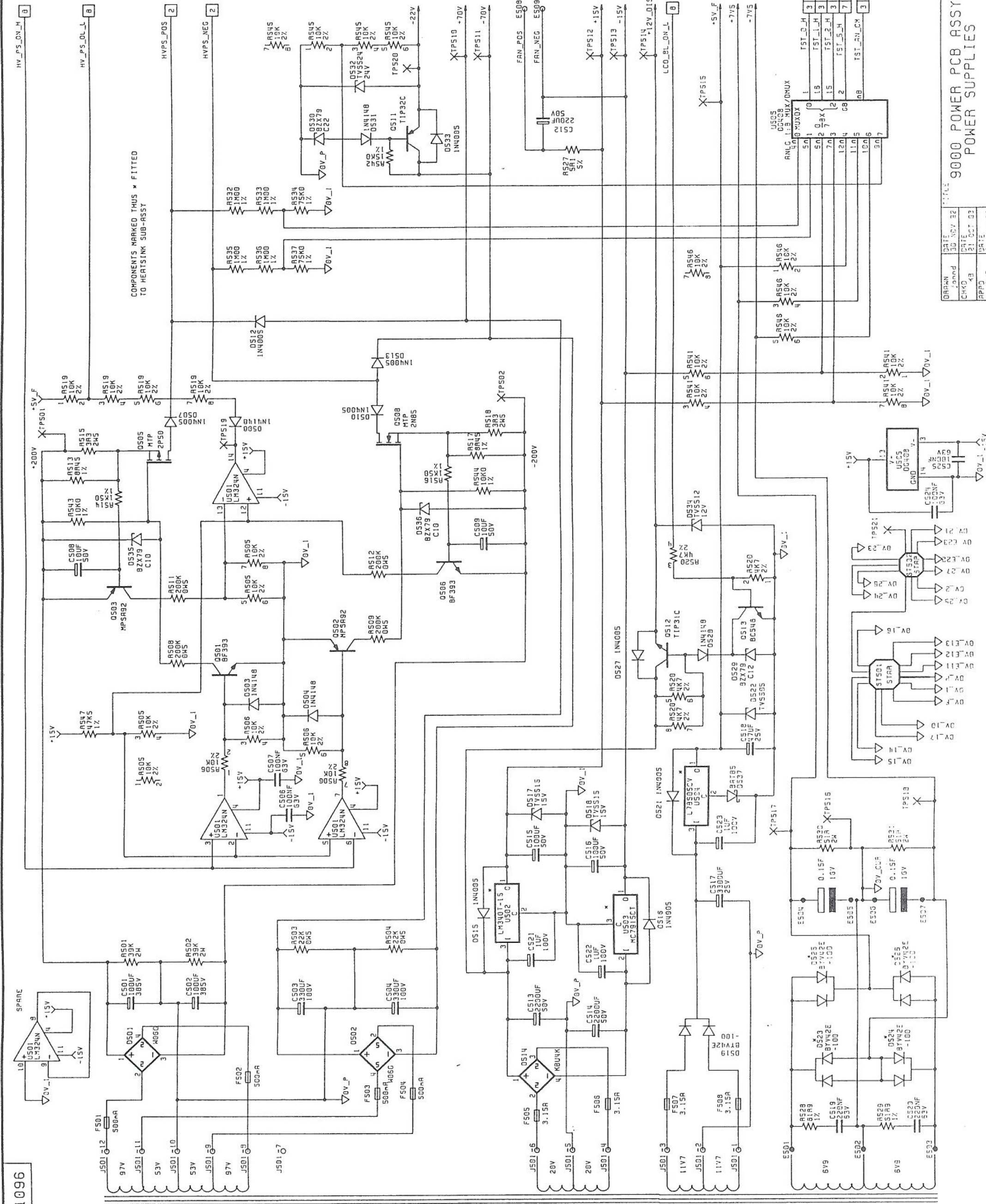
9000 POWER PCB ASSY
CURRENT
OUTPUT STAGES

19 APR 1995

CHANGES

1.0	ECO 4340	RELEASED	13 OCT 93
1.1	ECO 4341	PCB HAS ISS C	13 OCT 93
1.2	ECO 4365	TP411, 412 ADDED PCB HAS ISS D	05 NOV 93
1.3	ECO 4380	R446 HAS 22K1	30 NOV 93
1.4	ECO 4411	Q405/R404, Q414/ R427 NOK KITS	17 JAN 94
1.5	ECO 4446	HEATSINK COMPS MARKED THUS *	13 APR 94
1.6	ECO 4582	Q402 & Q413 WERE BC337	9 AUG 94
1.7	ECO 4628	R472 ADDED	12 APR 95

FOR TRANSFORMER PRIMARY CONNECTIONS - SEE SHEET 6



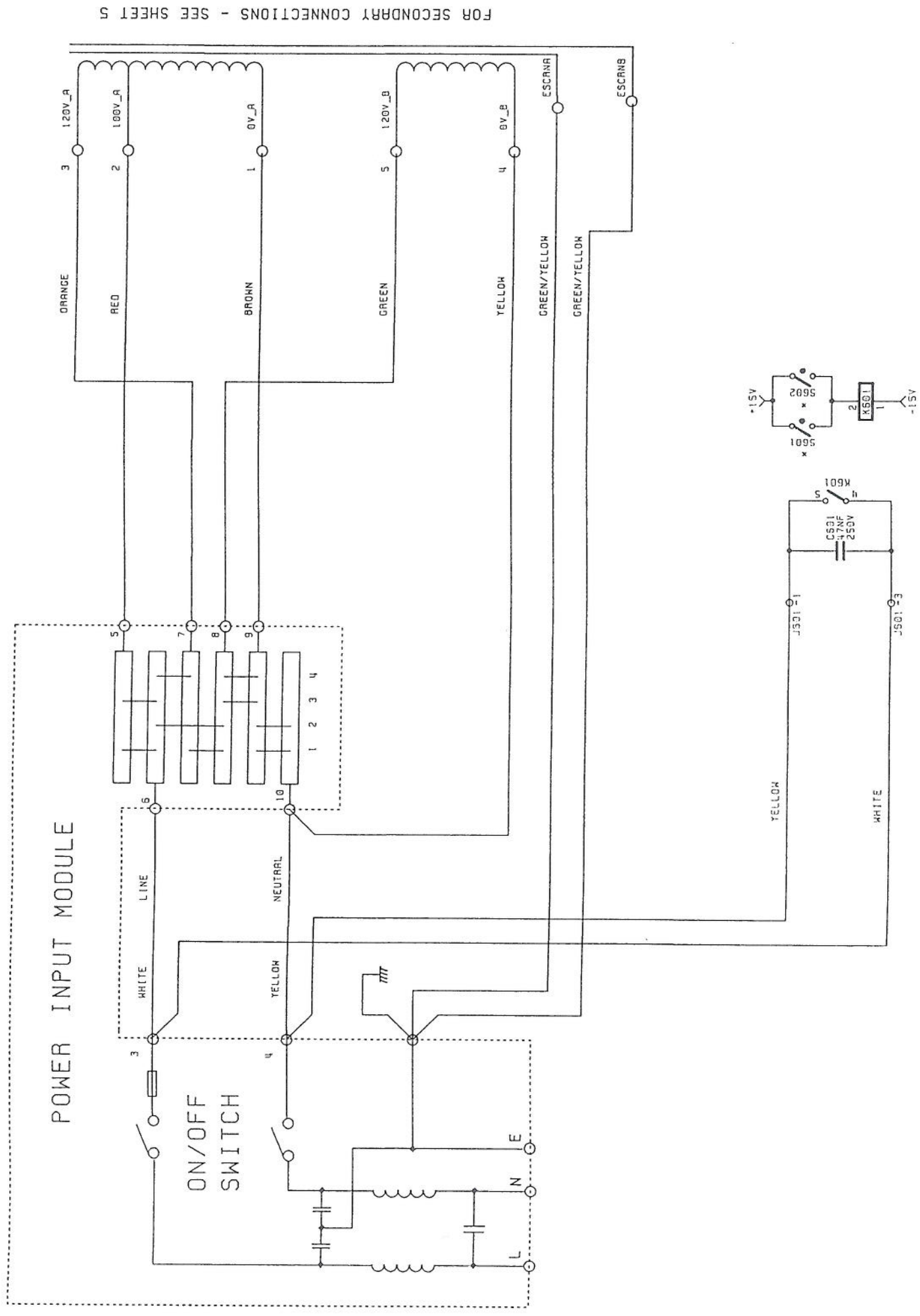
COMPONENTS MARKED THUS * FITTED TO HERTSINK SUB-ASSY

6 MAY 1994

ISS	CHANGES
1.0	ECO 4340 RELEASED 13 OCT 93
1.1	ECO 4341 PCB HAS ISS C 13 OCT 93
1.2	ECO 4365 TFS21 ADDED PCB HAS ISS D 05 NOV 93
1.3	ECO 4446 WEDELINK COMPS MARKED TO HERTSINK SUB-ASSY 13 APR 94

ISS	CHANGES
1.0	ECO 4340 RELEASED 13 OCT 93
1.1	ECO 4341 PCB RMS ISS 1 13 OCT 93
1.2	ECO 4365 PCB RMS ISS 0 05 NOV 93
1.3	ECO 4369 WHITE MRS RED 15 NOV 93
1.4	ECO 4446 HEATSINK COMPS MARKED THUS * 13 APR 94

- 6 MAY 1994

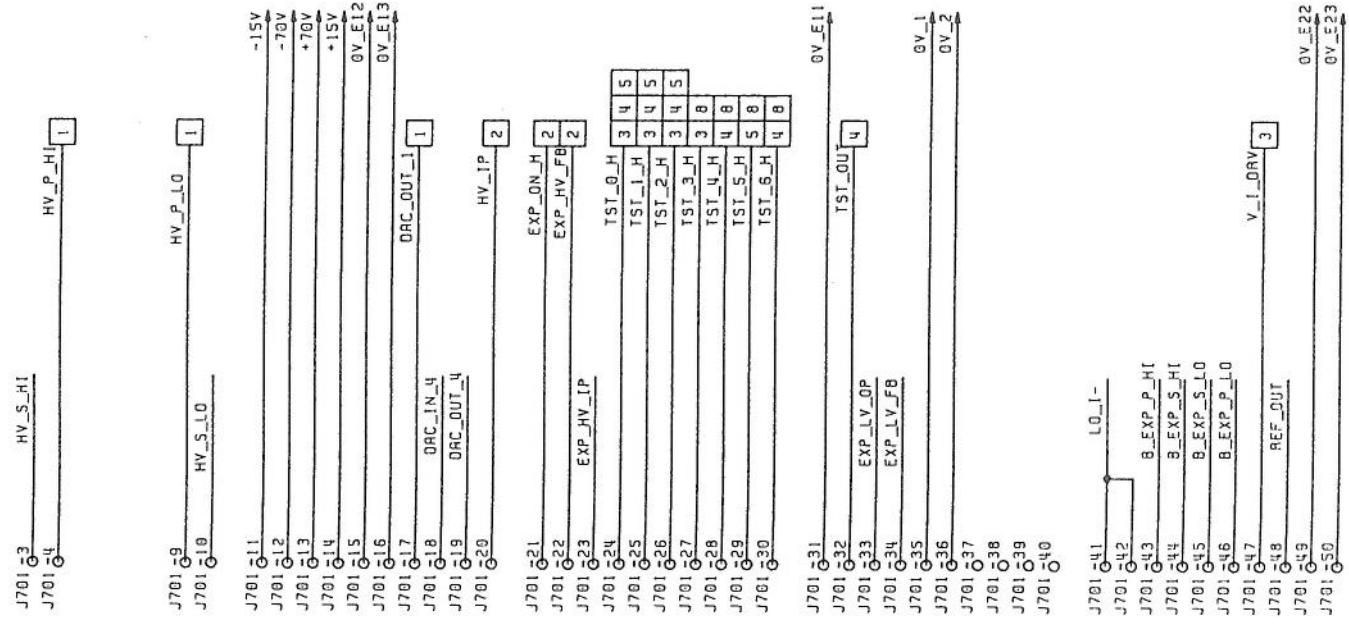


COMPONENTS MARKED THUS * FITTED
TO HEATSINK SUB-ASSY

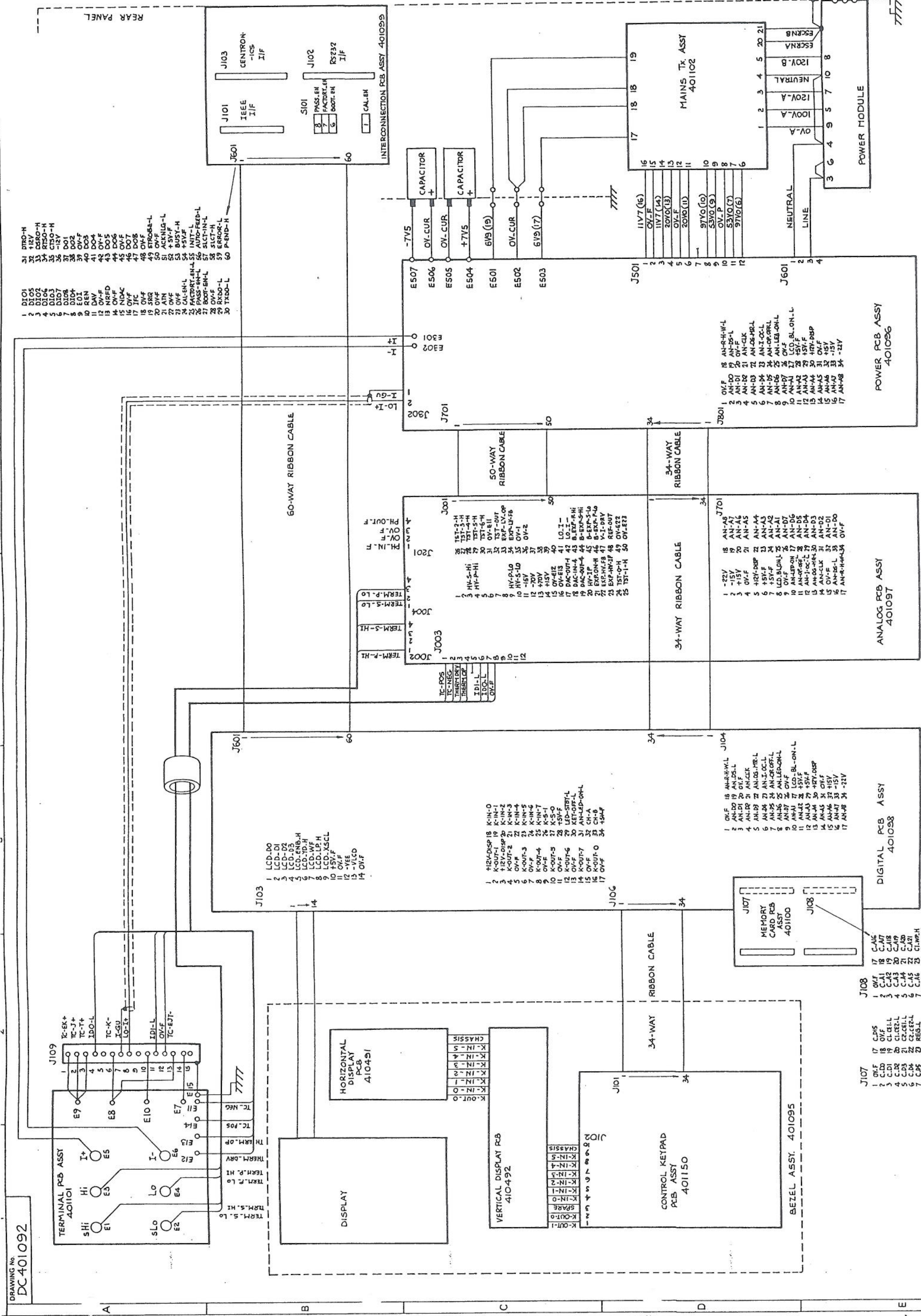
DRAWN	DATE	FILE
Jahnd	30 NOV 92	
CHKD	DATE	
KB	21 OCT 93	
APPD	DATE	
Bus	01 NOV 93	

ISS	CHANGES
1.0	ECO 4340 RELEASED 13 OCT 93
1.1	ECO 4341 PCB HAS ISS C 13 OCT 93

ORAN	DATE	TITLE
John	30 NOV 92	9000 POWER PCB ASSY
CHKD	DATE	ANALOG CONNECTOR
KB	21 OCT 93	
APPD	DATE	
RWF	01 NOV 93	

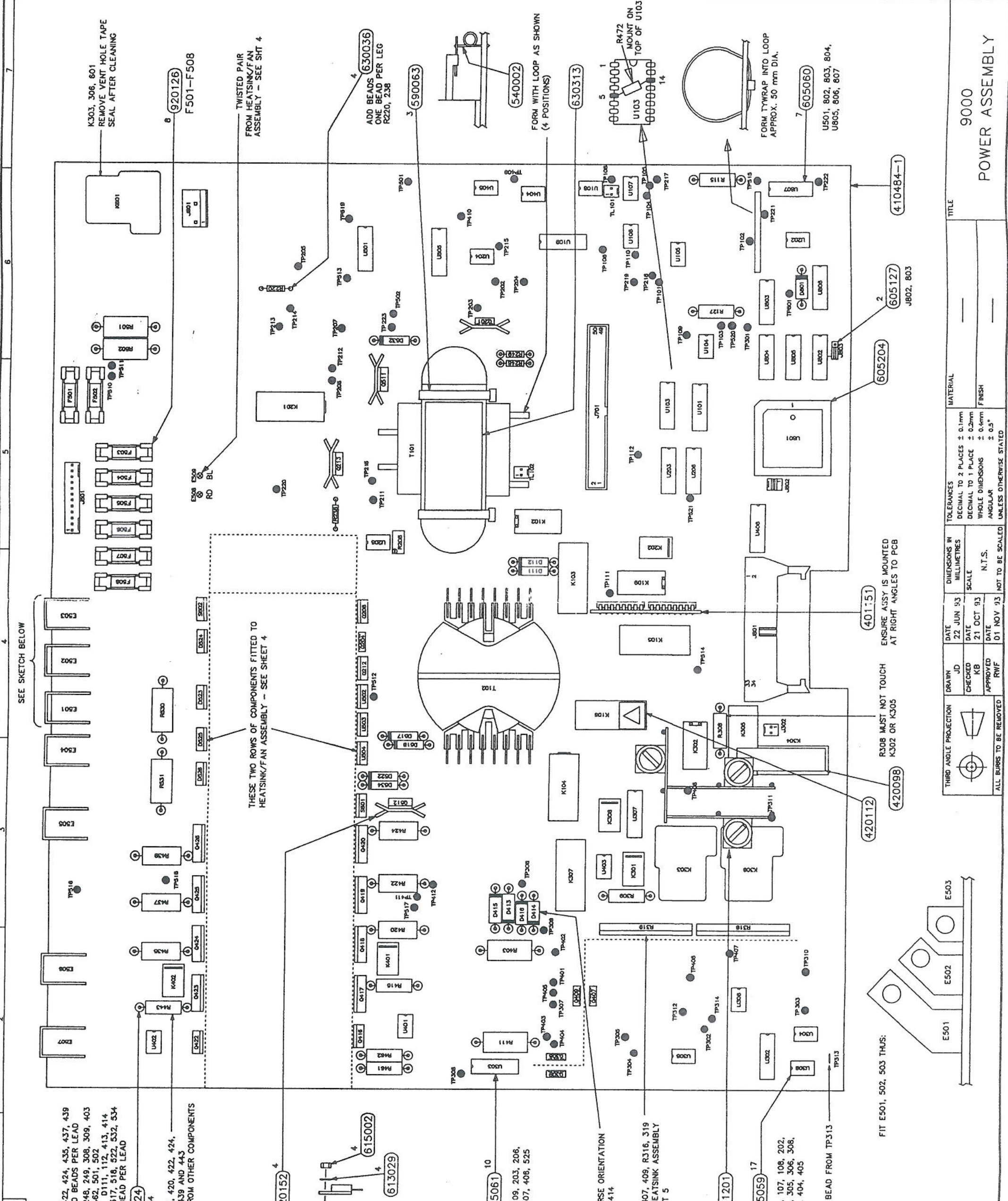


9000 INTERCONNECTION DIAGRAM



- 1 DI01
- 2 DI02
- 3 DI03
- 4 DI04
- 5 DI05
- 6 DI06
- 7 DI07
- 8 DI08
- 9 DI09
- 10 DI10
- 11 DI11
- 12 DI12
- 13 DI13
- 14 DI14
- 15 DI15
- 16 DI16
- 17 DI17
- 18 DI18
- 19 DI19
- 20 DI20
- 21 DI21
- 22 DI22
- 23 DI23
- 24 DI24
- 25 DI25
- 26 DI26
- 27 DI27
- 28 DI28
- 29 DI29
- 30 DI30
- 31 DI31
- 32 DI32
- 33 DI33
- 34 DI34
- 35 DI35
- 36 DI36
- 37 DI37
- 38 DI38
- 39 DI39
- 40 DI40
- 41 DI41
- 42 DI42
- 43 DI43
- 44 DI44
- 45 DI45
- 46 DI46
- 47 DI47
- 48 DI48
- 49 DI49
- 50 DI50
- 51 DI51
- 52 DI52
- 53 DI53
- 54 DI54
- 55 DI55
- 56 DI56
- 57 DI57
- 58 DI58
- 59 DI59
- 60 DI60

TOLERANCES		DIMENSIONS IN		DATE		DRAWN		THIRD ANGLE PROJECTION	
DECIMAL TO 3 PLACES	WHOLE DIMENSIONS	MILLIMETRES	SCALE	19 JUL 93	23 OCT 93	DATE	DATE	DATE	DATE
±.1mm	±.4mm								
UNLESS OTHERWISE STATED									
NOT TO BE SCALED									



ISS	CHANGES
1.0	ECO 4340 RELEASED 14 OCT 93
1.1	ECO 4341 PCB WAS ISS C 14 OCT 93
1.2	ECO 4355 FAN SLEEVES DELETED 03 NOV 93
1.3	ECO 4365 PCB WAS ISS D 05 NOV 93
1.4	ECO 4398 590063 WAS 2 OFF 611081, 615013 & 615012 DELETED 16 DEC 93 I/L
1.5	ECO 4482 U108 DELETED I/L 7 MAR 94
1.6	ECO 4582 ASSY 401201 ADDED. 920126 WAS 11 OFF. 630024 WAS 80 OFF I/L AUG 94
1.7	ECO 4828 R472 ADDED I/L 13 APR 95

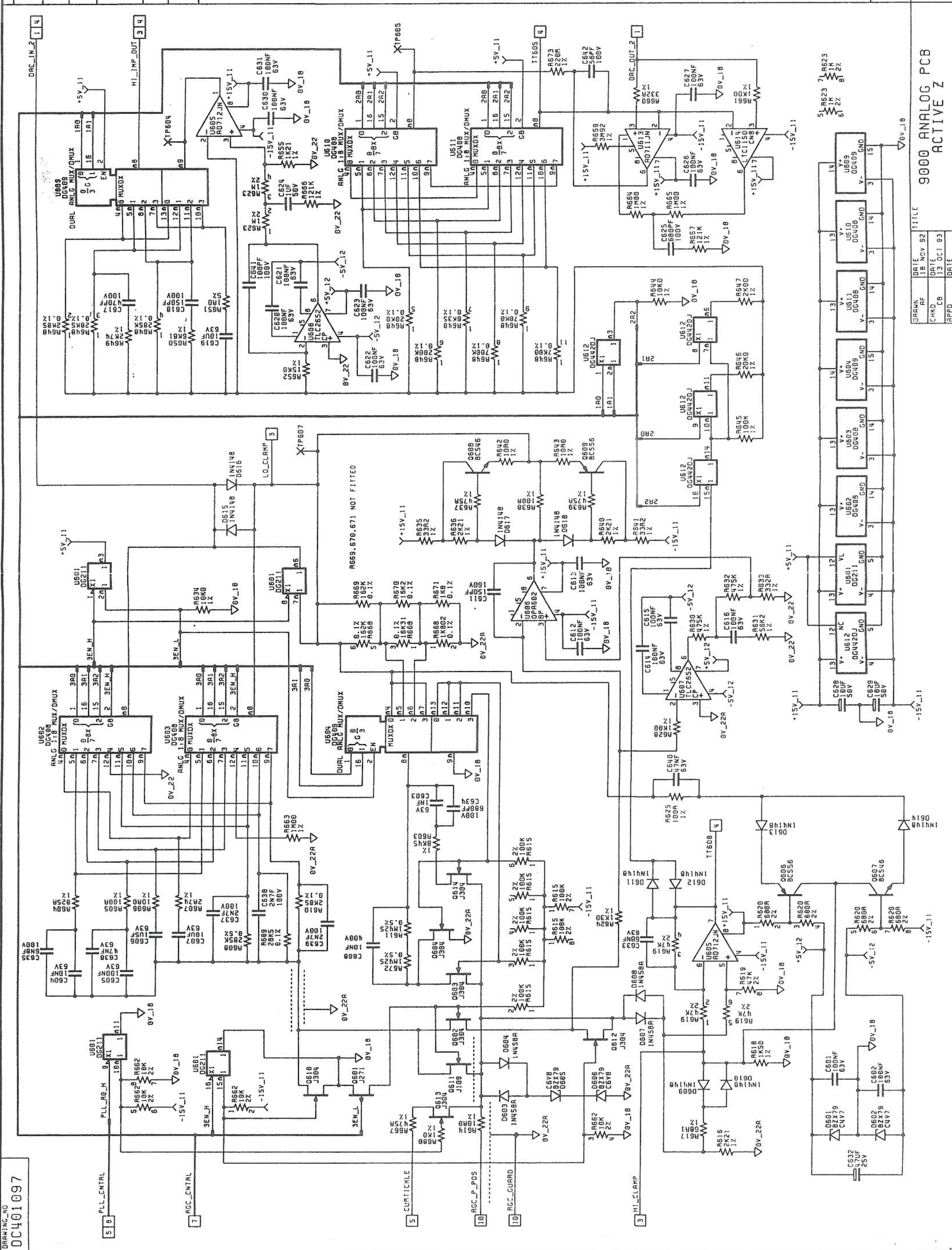
19 APR 1995

THIRD ANGLE PROJECTION		DRAWN	DATE	TOLERANCES	MATERIAL
	JD	22 JUN 93	DECIMAL TO 2 PLACES ± 0.1mm		
	KB	21 OCT 93	DECIMAL TO 1 PLACE ± 0.2mm		
	RWF	01 NOV 93	WHOLE DIMENSIONS ± 0.4mm		
			ANGULAR ± 0.5°		
			UNLESS OTHERWISE STATED		

9000
POWER ASSEMBLY

ISS	CHANGES
1.0	ECO 4346 RELEASED 06 OCT 93
1.1	ECO 4342 PCB HAS ISS 0 08 OCT 93
1.2	ECO 4368 R668 NOM FITTED 04 NOV 93
1.3	ECO 4393 R664 HAS 909R R665 HAS 9K69 R614 HAS 36A5 0511 HAS U1898 1.JL 14 DEC 93
1.4	ECO 4456 R651 HAS 27R4 1.JL 16 FEB 94
1.5	ECO 4828 R688 RODED 1.JL 7 APR 95

19 APR 1995



DRAWN	DATE	TITLE
RF	18 NOV 92	9000 ANALOG PCB
CB	13 OCT 93	ACTIVE Z
APPD	01 NOV 93	
RHF		

