

**Component-Level Information Packet  
for 5062-6432  
Tracking Generator Control for HP 8593A, HP 8594A, and  
HP 8595A**

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**HEWLETT  
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**HP Part Number 5062-6432  
Tracking Generator Control**

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C2	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C3	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C4	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C5	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C6	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C7	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C8	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C9	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C10	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C11	0180-3831	3	1	CAP-FXD 10uF 35 V TA	04200	299D106X9035DB1
C12	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C13	0160-4832	4	1	CAP-FXD 0.01uF 100 V	02010	SA101C103KAAH
C14	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C15	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C16	0160-4574	1	1	CAP-FXD 1000pF 100 V	02010	SA101C102KAAH
C17	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C18	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C19	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C20	0160-4832	4	1	CAP-FXD 0.01uF 100 V	02010	SA101C103KAAH
C21	0180-3831	3	1	CAP-FXD 10uF 35 V TA	04200	299D106X9035DB1
C22	0180-3831	3	1	CAP-FXD 10uF 35 V TA	04200	299D106X9035DB1
C23	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C24	0180-3849	3	1	CAP-FXD 47uF 10 V TA	04200	299D476X9010DB1
C25	0180-3831	3	1	CAP-FXD 10uF 35 V TA	04200	299D106X9035DB1
C26	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C27	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C28	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C29	0160-4819	7	1	CAP-FXD 2200pF 100 V	02010	SA301A222JAAH
C30	0180-3848	2	1	CAP-FXD 33uF 16 V TA	04200	299D336X9016DB1
C31	0160-4832	4	1	CAP-FXD 0.01uF 100 V	02010	SA101C103KAAH
C32	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
C33	0160-5422	0	1	CAP-FXD 0.047uF 50 V	02010	SA205C473MAAH
CR1	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	00046	1N4150
CR2	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	00046	1N4150
CR3	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	00046	1N4150
CR4	1901-0050	3	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	00046	1N4150
J1	1252-2009	9	1	CONN-POST TYPE .100-PIN-SPCG 9-CONT	02946	68451-126
J2	1252-2260	4	1	CONN-POST TYPE .100-PIN-SPCG 8-CONT	02946	78207-108
L1	9140-0210	1	1	INDUCTOR RF-CH-MLD 100UH +-5% .166D-INX.	03273	15M103J
L2	9140-0210	1	1	INDUCTOR RF-CH-MLD 100UH +-5% .166D-INX.	03273	15M103J
L3	9140-0210	1	1	INDUCTOR RF-CH-MLD 100UH +-5% .166D-INX.	03273	15M103J
L4	9100-1629	4	1	INDUCTOR RF-CH-MLD 47UH +-5% .166D-INX.3	03273	15M472J
L5	9140-0738	8	1	INDUCTOR 100UH .7D-INX.6LG-IN	01869	
MP2	0403-0630	8	1	EXTR-PC BD BRN NYL .062-IN-BD-THKNS	02123	91-2-BROWN-9
MP3	0403-0621	7	1	EXTR-PC BD BLK NYL .062-IN-BD-THKNS	02123	91-2-BLACK-5
MP4	0403-0026	6	1	GLIDE, NYLON	28480	0403-0026

\*Indicates factory-selected value

**HP Part Number 5062-6432**  
**Tracking Generator Control**

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
P1	1251-8912	3	1	CONN-POST TYPE .100-PIN-SPCG 60-CONT	01380	534204-5
Q1	1853-0213	7	1	TRANSISTOR PNP 2N4236 SI TO-5 PD=1W	02037	2N4236
Q2	1854-0215	1	1	TRANSISTOR NPN SI TO-92 PD=350MW	00746	2N3904
Q3	1855-0555	4	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	02883	VN0300L
R1	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R2	0698-6343	5	1	RESISTOR 9K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R3	0757-0424	7	1	RESISTOR 1.1K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R4	0698-6321	9	1	RESISTOR 9.9K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R5	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R6	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R7	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R8	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R9	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R10	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R11	0698-6317	3	1	RESISTOR 500 +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R12	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R13	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R14	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R15	0698-6358	2	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R16	0698-6358	2	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R17	0698-3151	7	1	RESISTOR 2.87K 1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R18	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R19	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R20	0698-6630	3	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R21	0698-3432	7	1	RESISTOR 26.1 1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R22	0698-6360	6	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	00746	CRB14 OR CRB25
R23	0757-0442	9	1	RESISTOR 10K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R24	0757-0416	7	1	RESISTOR 511 +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R25	2100-3274	2	1	RESISTOR-TRMR 10K 10% TKF SIDE-ADJ 1-TRN	03744	3386X-Y46-103
R26	0757-0317	7	1	RESISTOR 1.33K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R27	0757-0416	7	1	RESISTOR 511 +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R28	0757-0280	3	1	RESISTOR 1K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R29	2100-3273	1	1	RESISTOR-TRMR 2K 10% TKF SIDE-ADJ 1-TRN	03744	3386X-Y46-202
R30	0757-0441	8	1	RESISTOR 8.25K +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
R32	0757-0401	0	1	RESISTOR 100 +-1% .125W TF TC=0+-100	00746	CRB14 OR CRB25
TP1	0360-0077	5	1	TERMINAL-STUD SGL-TUR SWGFRM-MTG	01461	1601-HP
TP2	0360-0077	5	1	TERMINAL-STUD SGL-TUR SWGFRM-MTG	01461	1601-HP
TP3	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP4	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP5	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP6	0360-1682	0	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
U1	1826-1514	6	1	IC V RGLTR-V-REF-FXD 9.95/10.05V 8-DIP-P	10858	LT1021BCN8-10
U2	1826-1436	1	1	IC OP AMP PRCN DUAL 8-DIP-C PKG	10858	LT1013ACJ8
U3	1826-1436	1	1	IC OP AMP PRCN DUAL 8-DIP-C PKG	10858	LT1013ACJ8
U4	1826-0141	3	1	IC COMPARATOR GP DUAL 14-DIP-C PKG	03406	LM319J
U5	1826-2026	7	1	ANALOG SWITCH SPST 8 -DIP-P	02883	DG417DJ
U6	1820-3173	5	1	IC FF CMOS/74HC J-K NEG-EDGE-TRIG PRESET	02037	MC74HC112N
U7	1820-3079	0	1	IC DCDR CMOS/74HC BIN 3-TO-8-LINE	02037	MC74HC138N

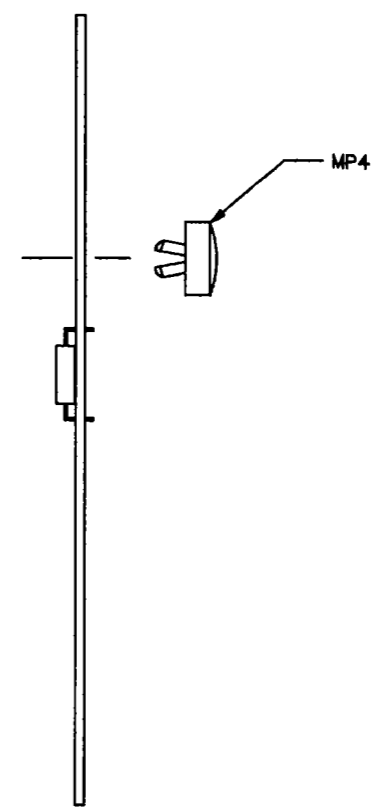
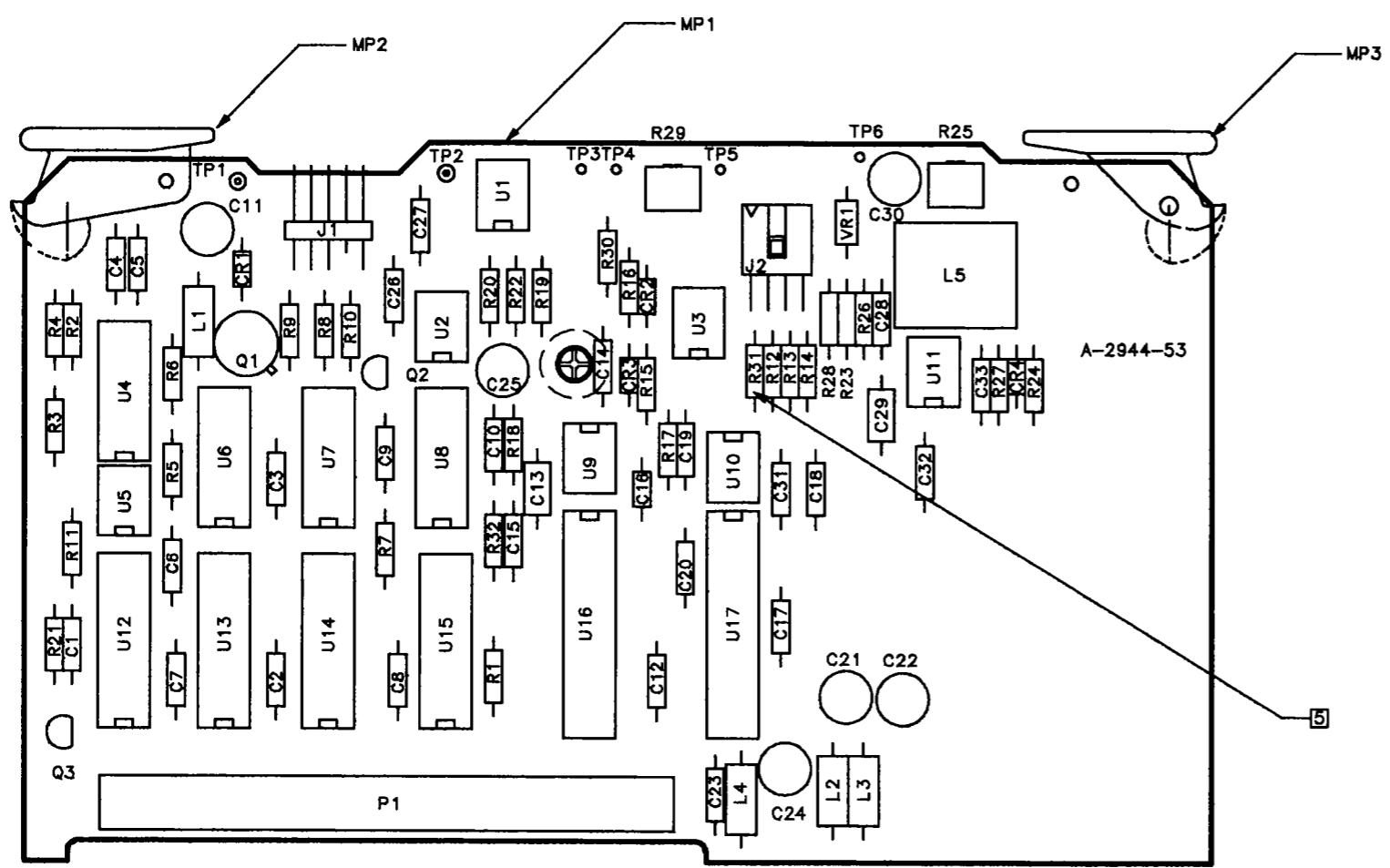
**HP Part Number 5062-6432  
Tracking Generator Control**

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
U8	1826-2128	0	1	ANALOG SWITCH 8 CHNL 16 -DIP-P	02883	DG408DJ
U9	1826-1436	1	1	IC OP AMP PRCN DUAL 8-DIP-C PKG	10858	LT1013ACJ8
U10	1826-1436	1	1	IC OP AMP PRCN DUAL 8-DIP-C PKG	10858	LT1013ACJ8
U11	1826-1048	1	1	IC OP AMP PRCN 8-DIP-C PKG	02180	OP-07CZ
U12	08590-80105	9	1	PAL, PROGRAMMED	28480	08590-80105
U13	1820-3790	2	1	IC LCH CMOS/74HC D-TYPE OCTL	02037	MC74HC573N
U14	1820-3789	9	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG COM	02037	MC74HC574N
U15	1820-3789	9	1	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG COM	02037	MC74HC574N
U16	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	03285	AD7547KN
U17	1826-1933	3	1	D/A 12-BIT 24-PLASTIC CMOS	03285	AD7547KN
VR1	1902-0551	1	1	DIODE-ZNR 6.2V 5% PD=1W IR=10UA	02037	

*\*Indicates factory-selected value*



SYM	REVISIONS	APPROVED	DATE
A			



NOTES: UNLESS OTHERWISE SPECIFIED

- 1. DIMENSIONS ARE IN INCHES.
- ~~2. REMOVE TABS AFTER WAVE SOLDER.~~
- ~~3. MAXIMUM COMPONENT HEIGHT~~
- 4. MAXIMUM LEAD TRIM LENGTH .0.118
- 5. DO NOT LOAD R31.

SEE MATERIAL LIST 5062-6432

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UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.	DRAWN BY	DATE	BD ASSEMBLY- TRACKING GEN CONTROL	
	ENGINEER/CHECKER			
TOLERANCES: XX.XXX ±.015	RELEASED TO PROD.		TITLE	PART NUMBER 5062-6432
SEE CORP. STD. 808	SUPERSEDES DWG.		SCALE NONE	1 SHEET OF 1 D-5062-6432-2





SYM	REVISIONS	APPROVED	DATE
A			

**J1 TG CONNECTOR**

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	+5VF		G
2	ACOM		C
3	-15VF		G
4	OSC_PWR		C
5	TRM		F
6	ALC_MDN		F
7	CR1		F
8	TRM_LVL		D
9	ALC_EXT		H
10	ALC_EXT		C

**J2 LODA CONNECTOR**

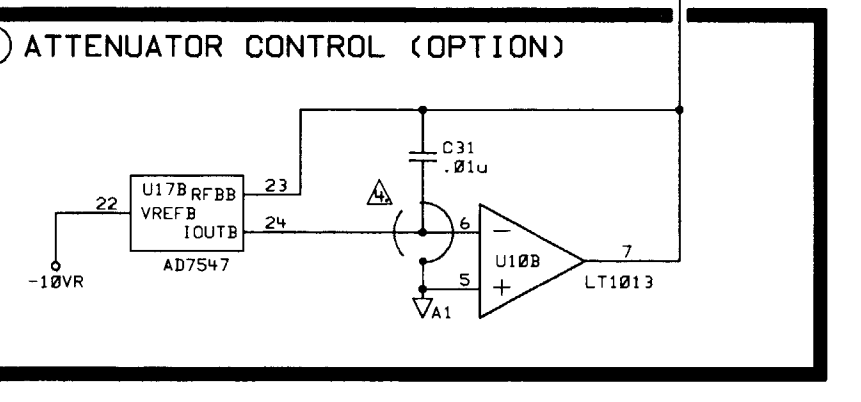
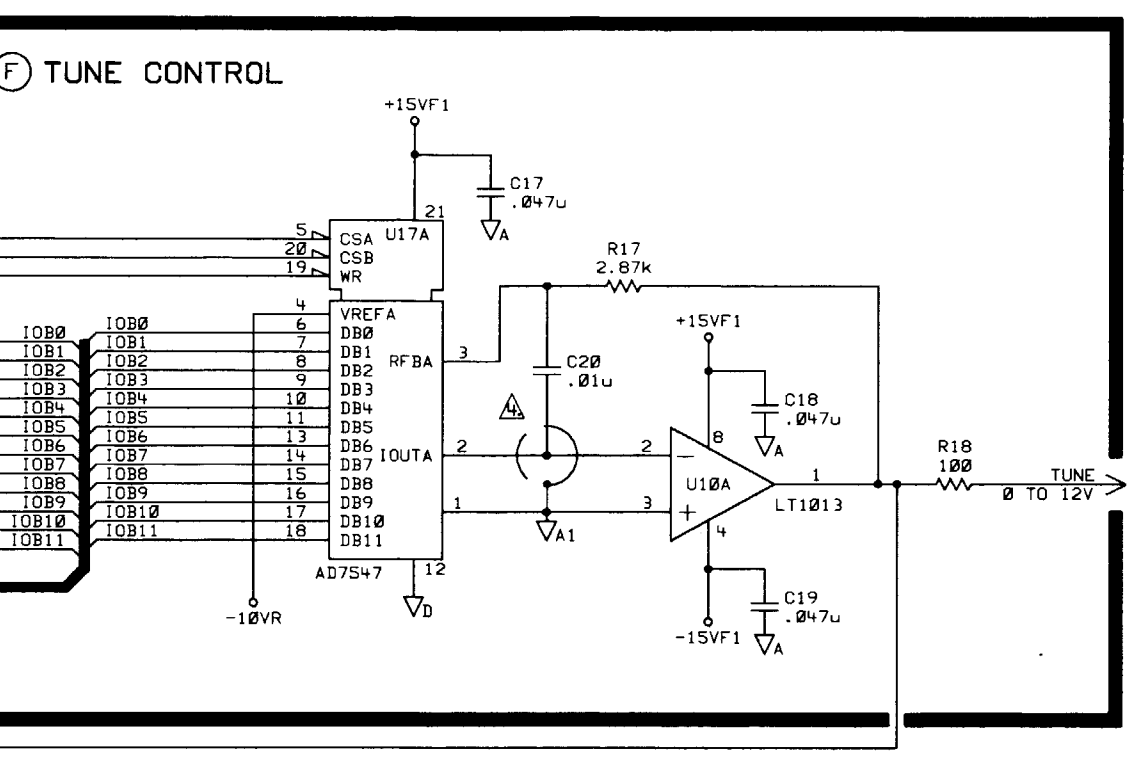
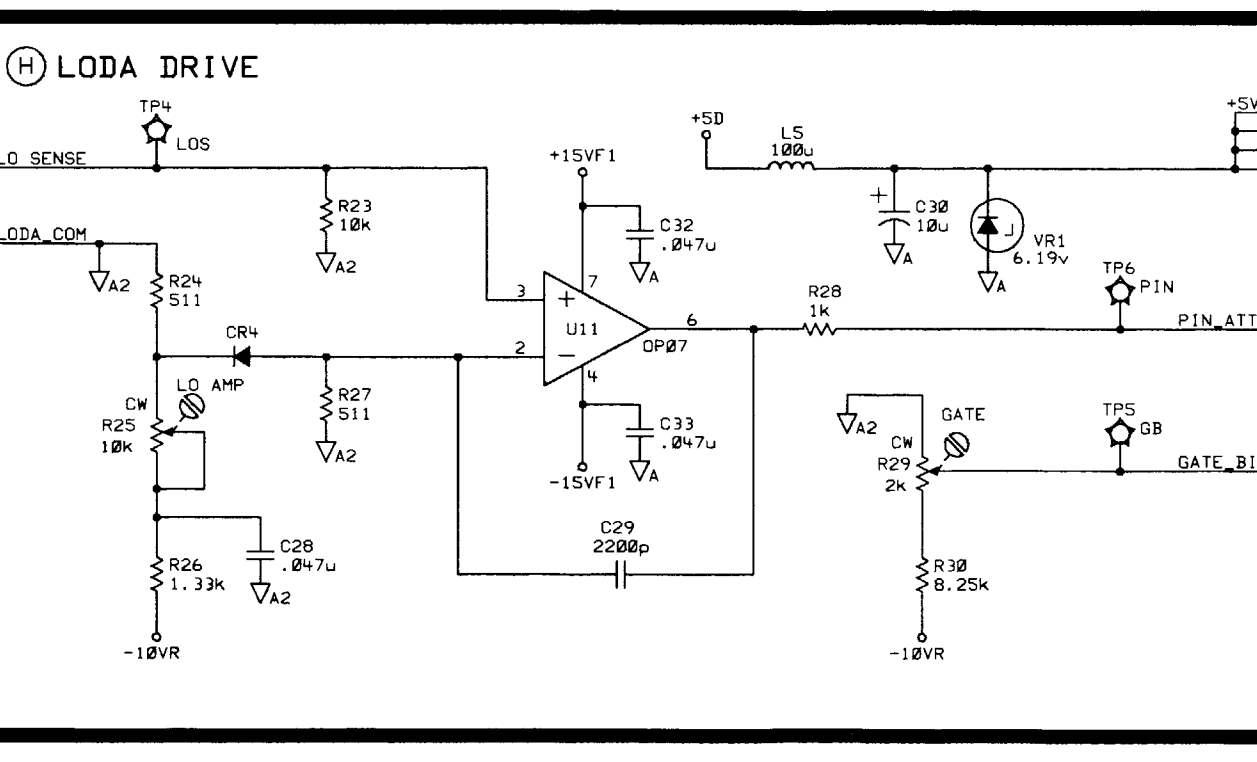
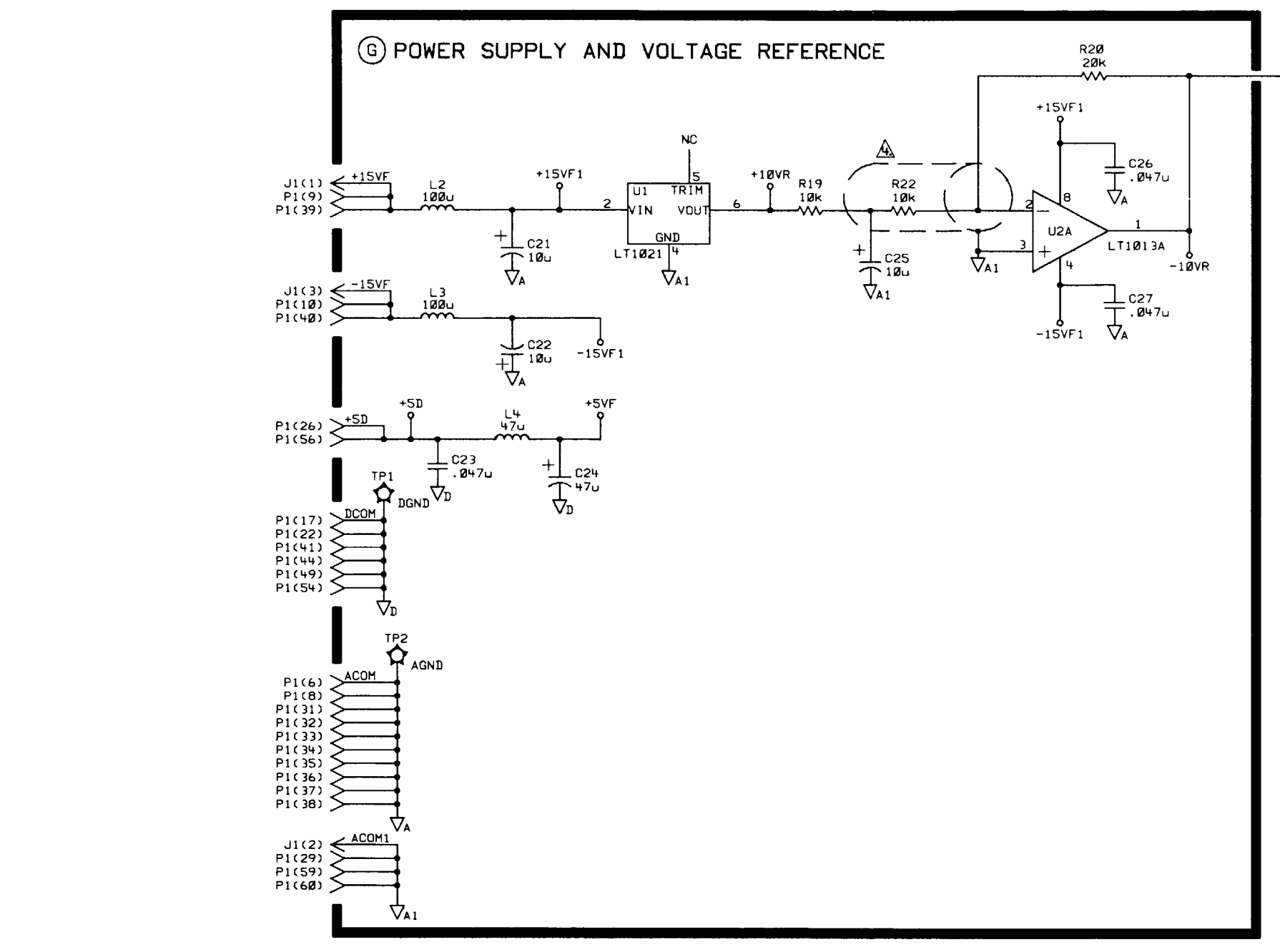
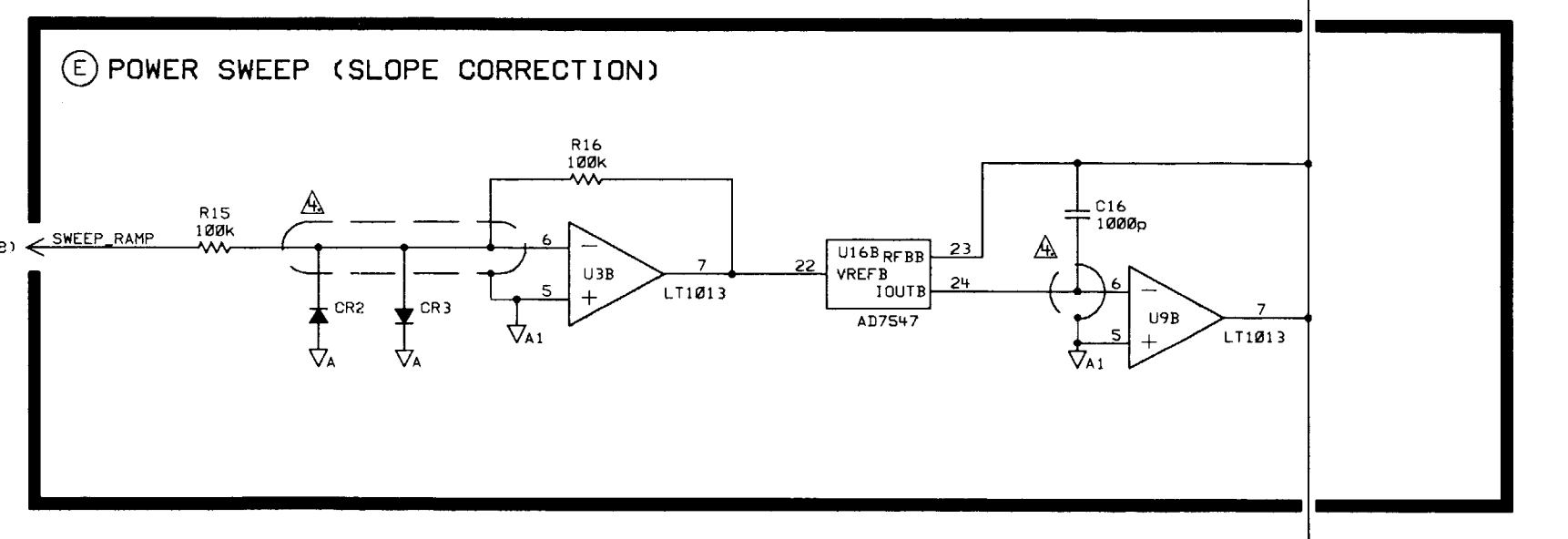
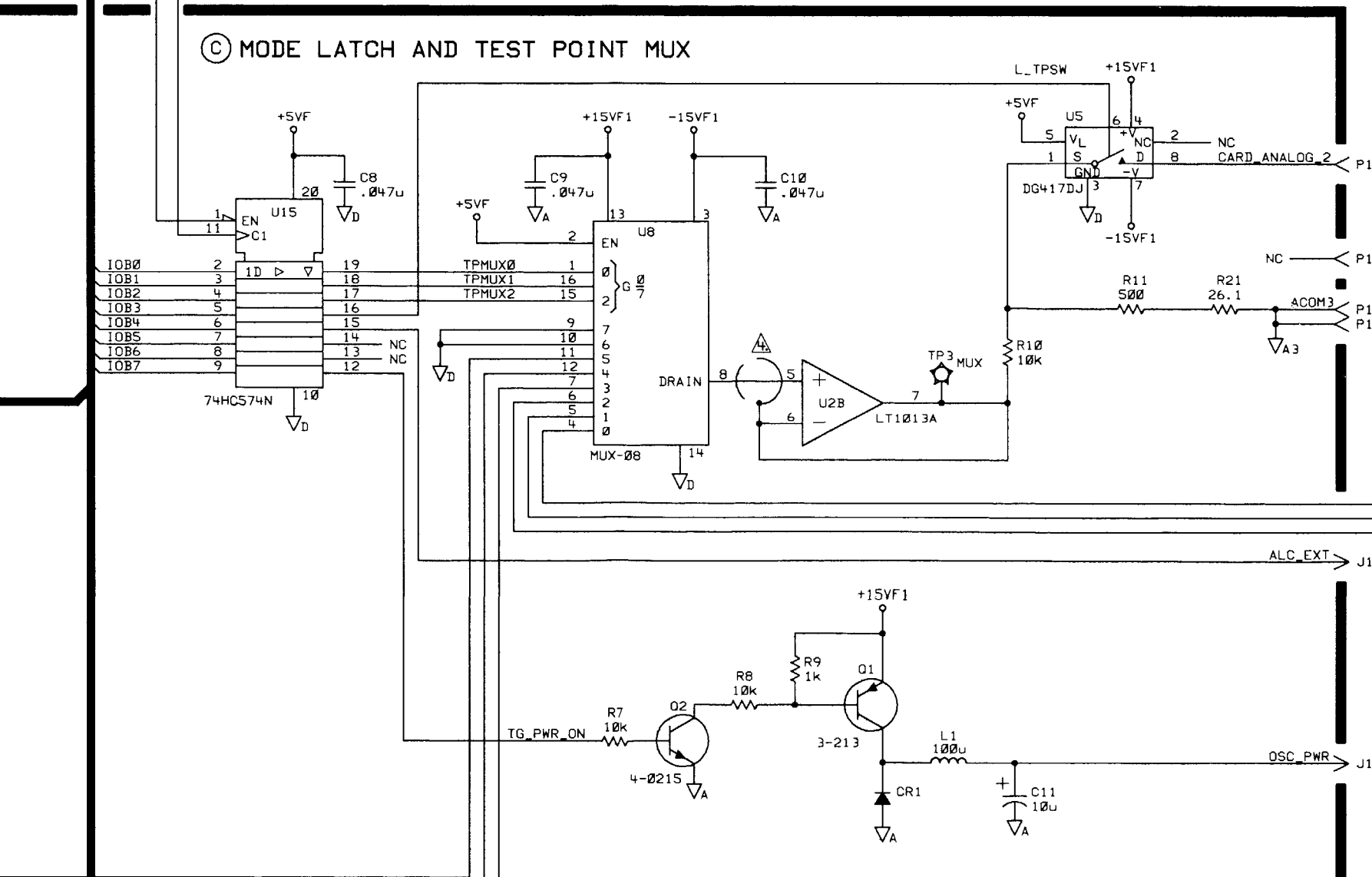
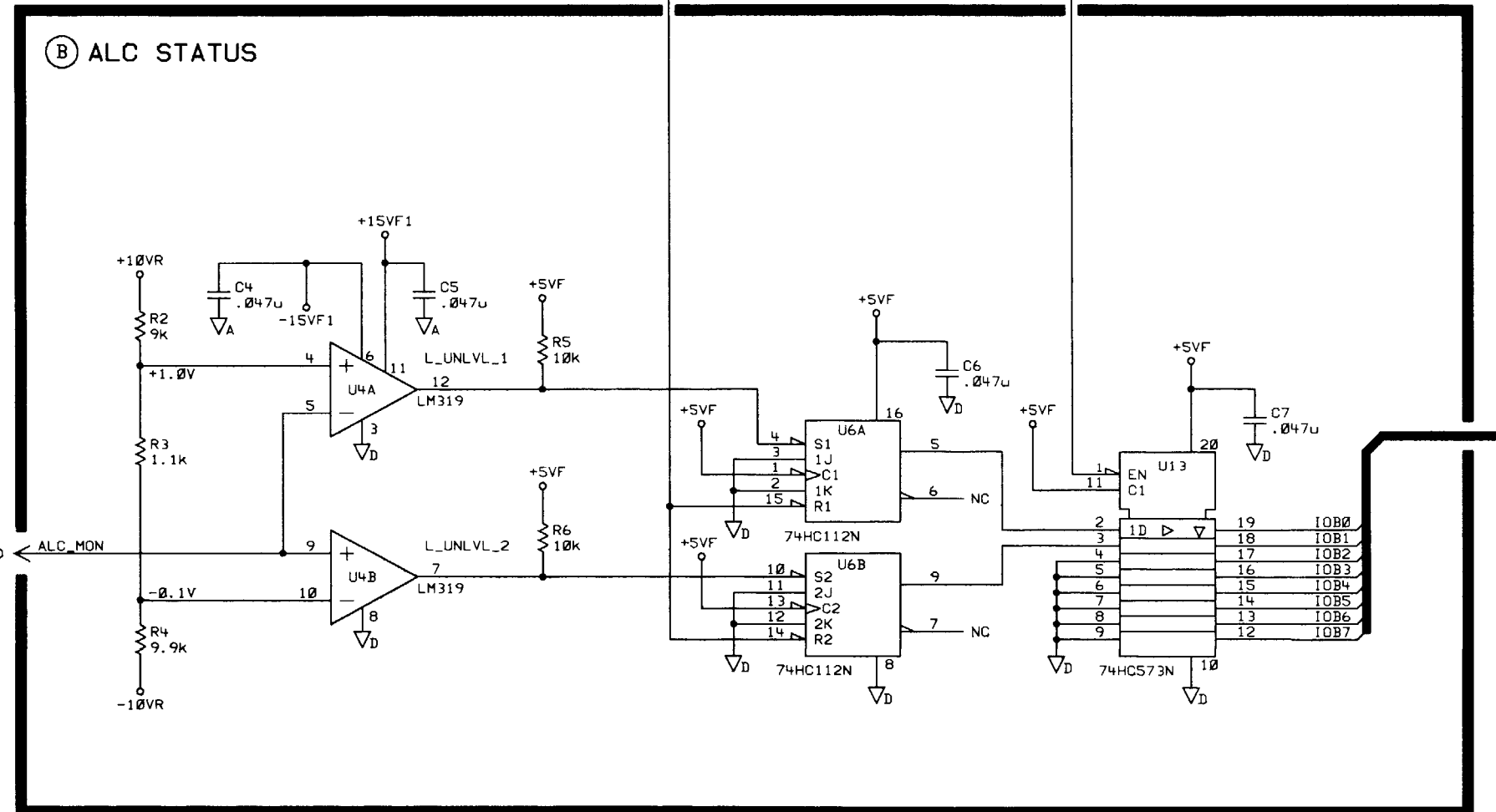
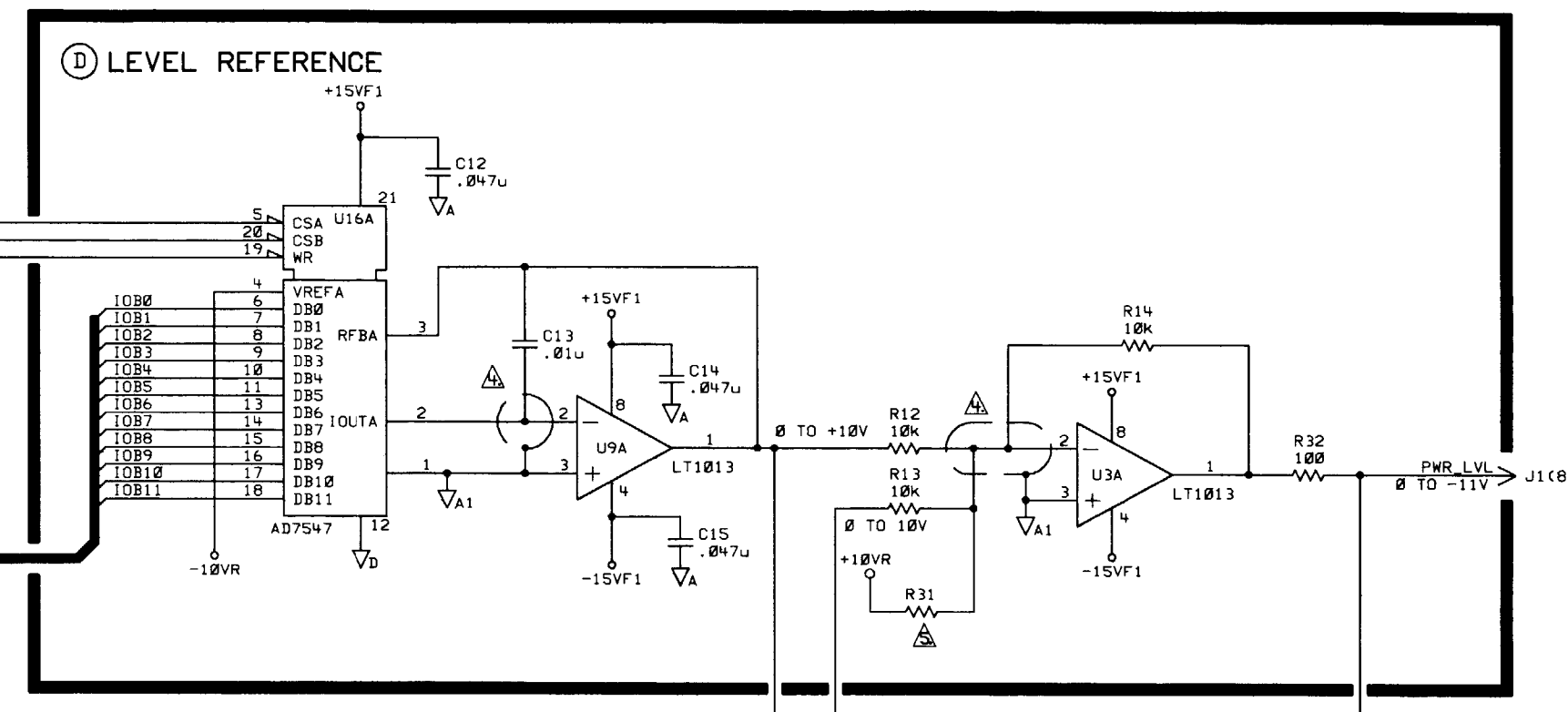
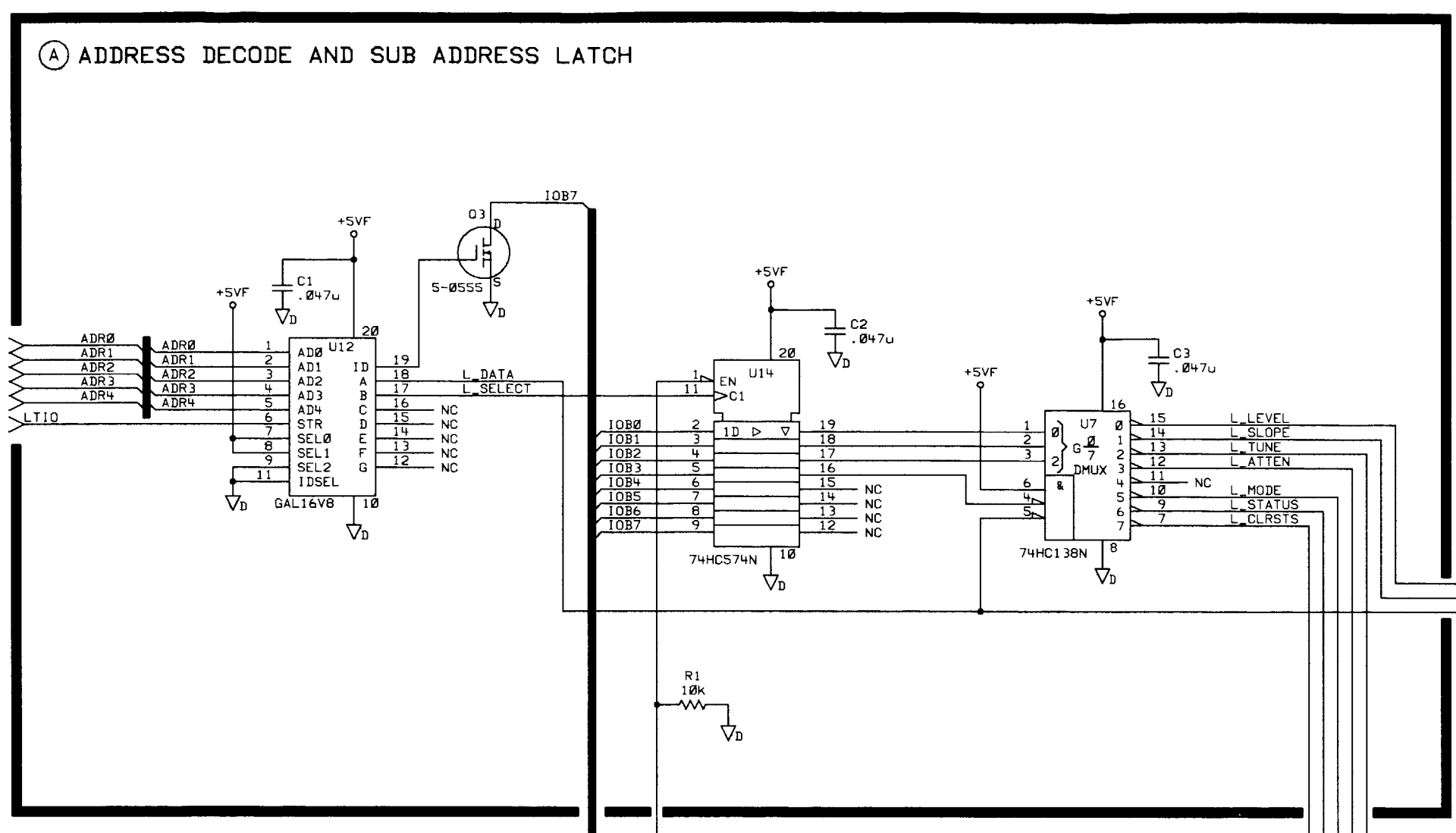
PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	+5VF1		H
2	LOA_SENSE		H
3	GATE_BIAS		H
4	LODA_CMD		H
5	LODA_CMD		H
6	LODA_CMD		H
7	LODA_CMD		H
8	+5VF1		H
9	+5VF1		H
10	+5VF1		H

**P1**

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	NC		
2	ACOM		C
3	NC		
4	ACOM		C
5	OSC_ANALOG_2		C
6	ACOM		C
7	ACOM		C
8	ACOM		C
9	ACOM		C
10	+15VF		G
11	-15VF		G
12	ALC_MDN		F
13	ALC_MDN		F
14	ALC_MDN		F
15	ALC_MDN		F
16	ALC_MDN		F
17	ALC_MDN		F
18	ALC_MDN		F
19	ALC_MDN		F
20	ALC_MDN		F
21	ALC_MDN		F
22	ALC_MDN		F
23	ALC_MDN		F
24	ALC_MDN		F
25	ALC_MDN		F
26	ALC_MDN		F
27	ALC_MDN		F
28	ALC_MDN		F
29	ALC_MDN		F
30	ALC_MDN		F

**P1 CONT.**

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
31	ACOM		C
32	ACOM		C
33	ACOM		C
34	ACOM		C
35	ACOM		C
36	ACOM		C
37	ACOM		C
38	ACOM		C
39	+15VF		G
40	-15VF		G
41	ALC_MDN		F
42	ALC_MDN		F
43	ALC_MDN		F
44	ALC_MDN		F
45	ALC_MDN		F
46	ALC_MDN		F
47	ALC_MDN		F
48	ALC_MDN		F
49	ALC_MDN		F
50	ALC_MDN		F
51	ALC_MDN		F
52	ALC_MDN		F
53	ALC_MDN		F
54	ALC_MDN		F
55	ALC_MDN		F
56	ALC_MDN		F
57	ALC_MDN		F
58	ALC_MDN		F
59	ALC_MDN		F
60	ALC_MDN		F



**NOTES:**

- REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.
- UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω) CAPACITANCE IN MICROFARADS (μF) INDUCTANCE IN MICROHENRIES (μH)
- MNEMONIC TABLE

MNEMONIC	DESCRIPTION

▲ GUARD TRACES  
▲ DO NOT LOAD R31

ITEM	QTY.	PART/MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
DRAWN BY					
ENGINEER/CHECKER					
RELEASE TO PROD.					
SUPERSEDES DWG.					

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BOARD ASSEMBLY-  
TRACKING GEN  
CONTROL  
TITLE (SCHEMATIC)  
FILENAME=9387A944  
SCALE NONE SHEET 1 OF 1  
D-5062-6432-1



5062-6432  
PART NUMBER