

09

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07

LIGHTWAVE ELECTRONICS
4-2451 REV B

JFAN2

M9

GND6

C98 C99 C100

JPS1

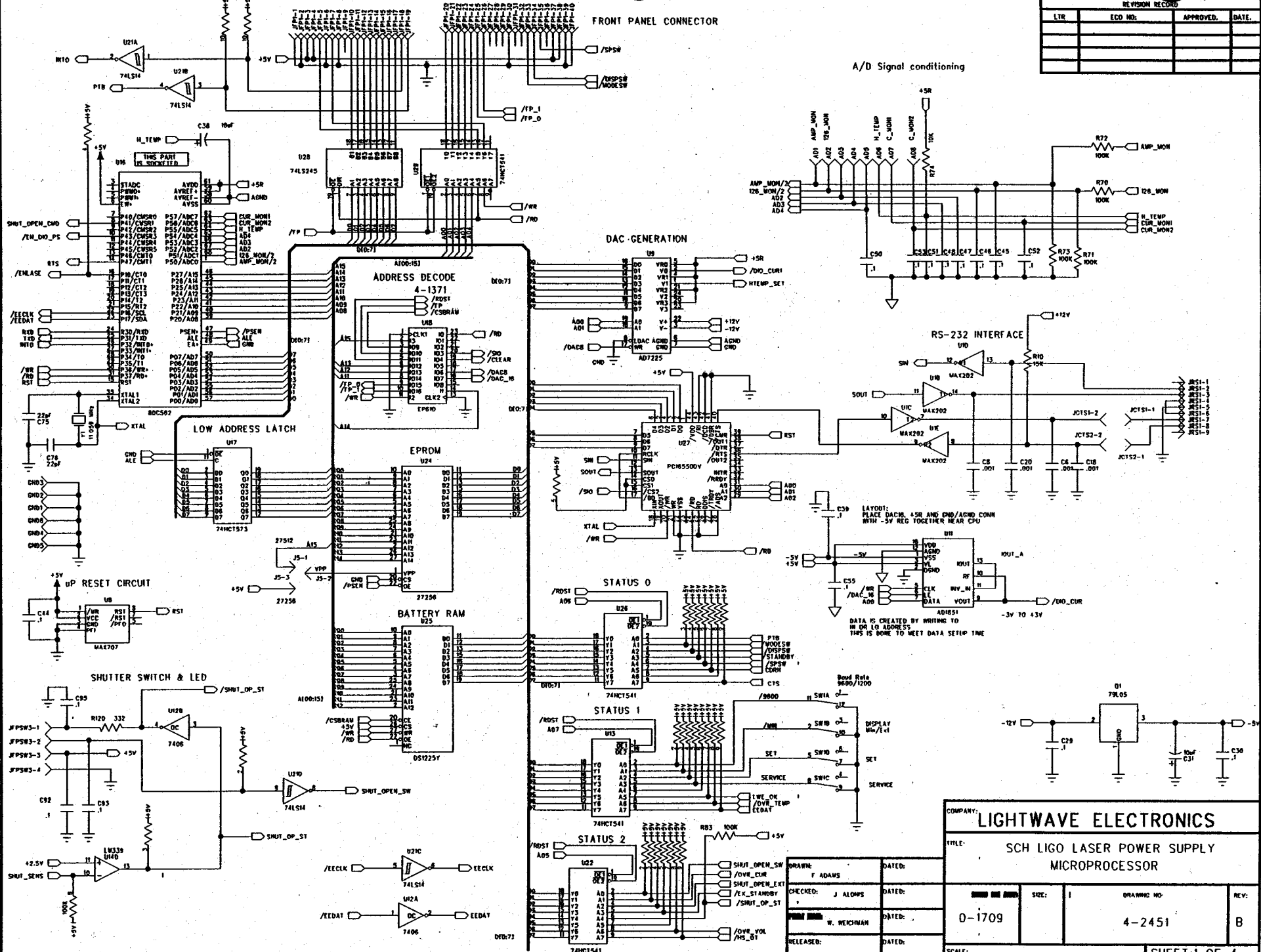
M8

GND5

M9

GND6

REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE



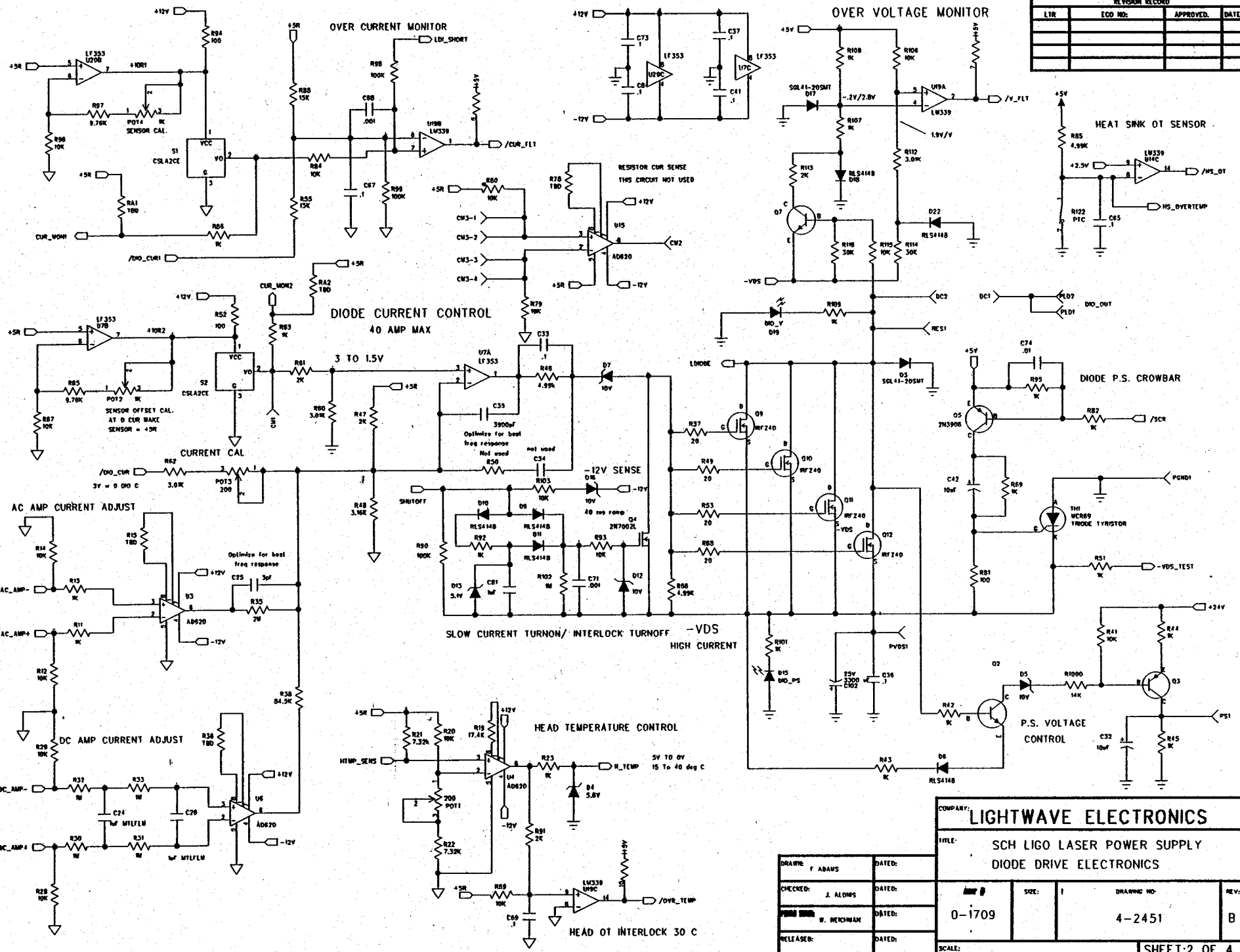
COMPANY: **LIGHTWAVE ELECTRONICS**

TITLE: **SCH LIGO LASER POWER SUPPLY MICROPROCESSOR**

DRAWN: F ADAMS DATED: CHECKED: J ALOWS DATED: RELEASED: W. WERCHAN DATED: SCALE: SHEET: 1 OF 4

0-1709 SIZE: I DRAWING NO: 4-2451 REV: B

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



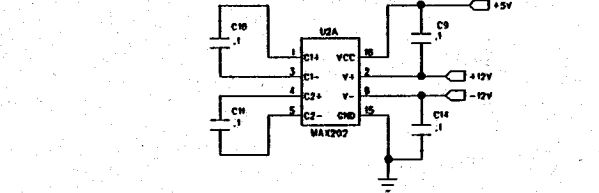
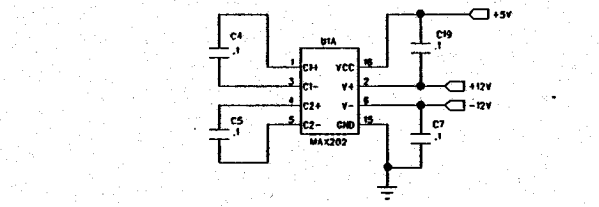
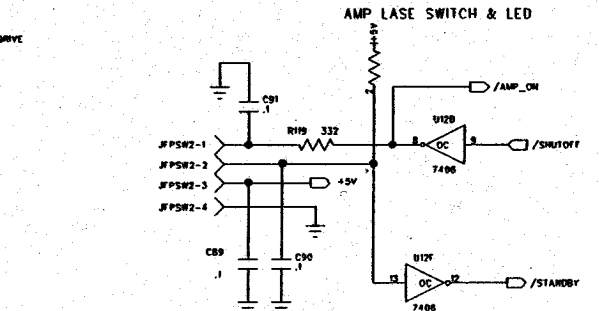
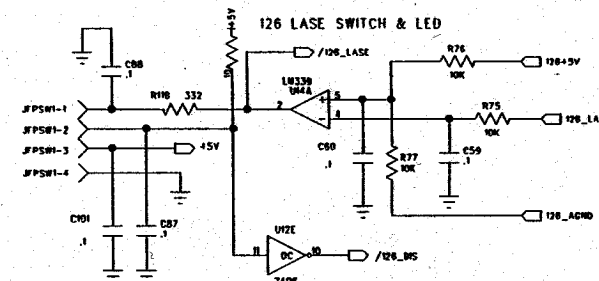
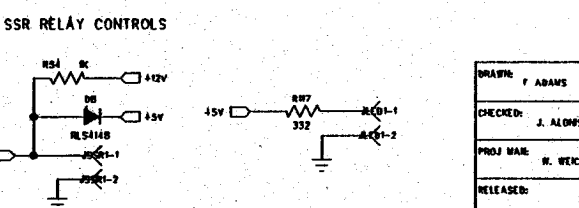
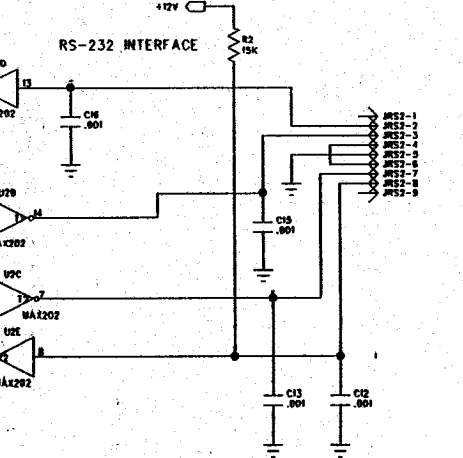
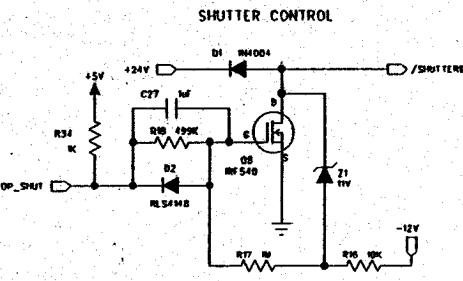
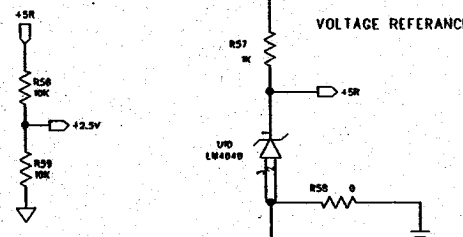
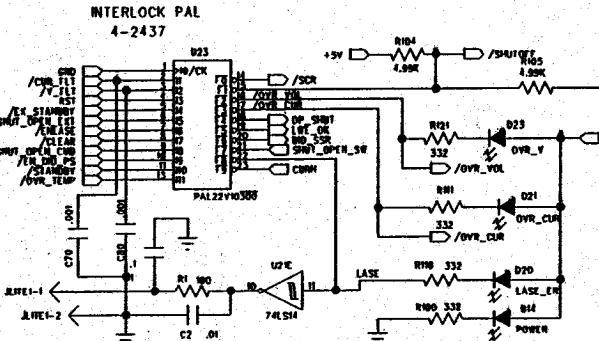
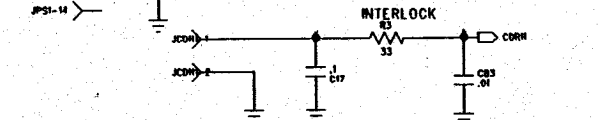
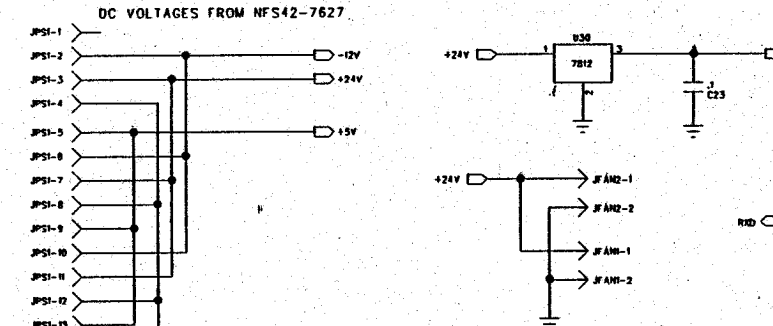
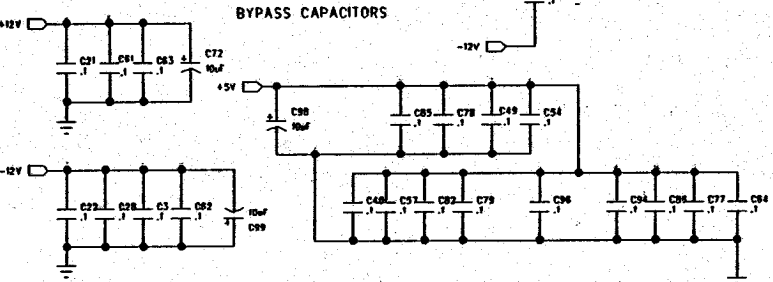
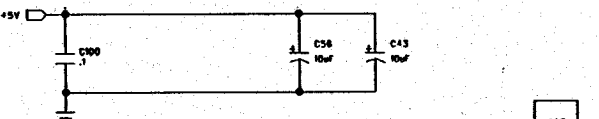
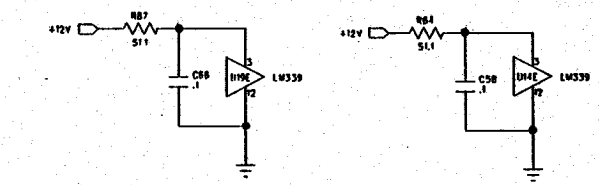
COMPANY: **LIGHTWAVE ELECTRONICS**

TITLE: **SCH LIGO LASER POWER SUPPLY
DIODE DRIVE ELECTRONICS**

DRAWN: F. AUBAS	DATED:		SIZE: 1	DRAWING NO: 4-2451	REV: B
CHECKED: J. ALONS	DATED:		0-1709		
DESIGNED: W. WENCHAM	DATED:				
RELEASED:	DATED:				

SCALE: **SHEET: 2 OF 4**

REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE



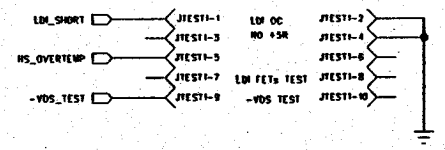
LTR	ECO NO.	APPROVED.	DATE.

126 LASER CONTROL/STATUS DB15F CONN

126+5V	J1-1	126+5V
126_AGND	J1-2	126_HD_GND
126_01MP	J1-3	D1mp
126_L1MP	J1-4	L1mp
126_DMON	J1-5	Dmon
126_NE	J1-6	NE
126_LASE	J1-7	126_LASE
126_LMON	J1-8	Lmon
126_SLOW	J1-9	SLOW
126_CUR_MON	J1-10	126_CUR_MON
126_CUR_ADJ	J1-11	126_ADJ
126_DTEC	J1-12	Diec
126_LTEC	J1-13	Ltec
PZT+	J1-14	PZT+
PZT-	J1-15	PZT-

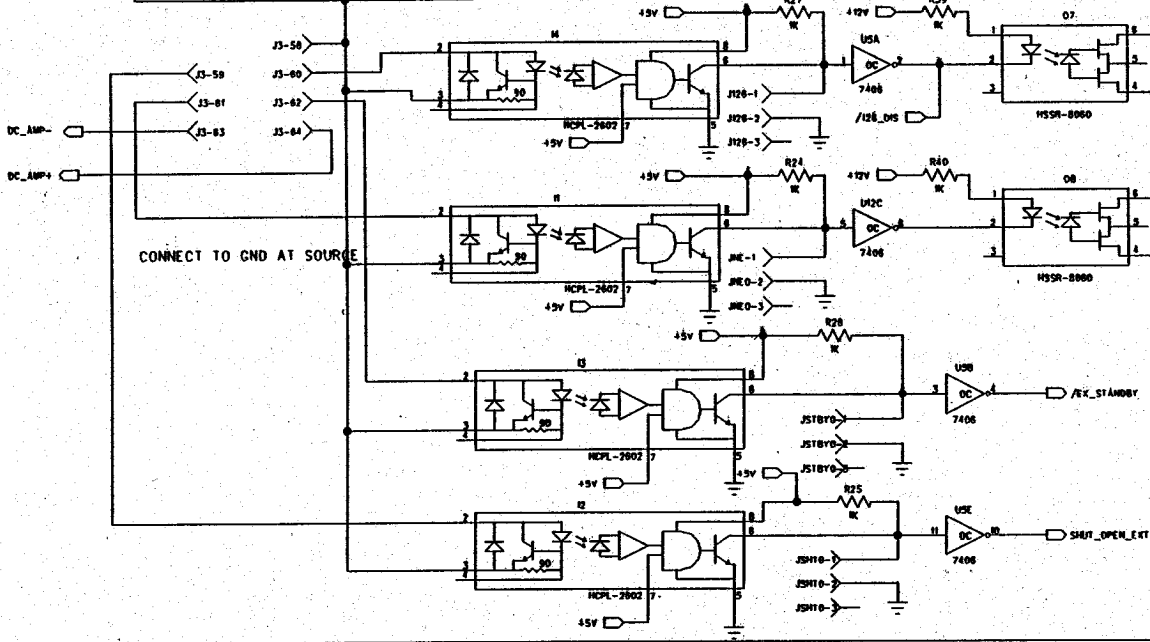
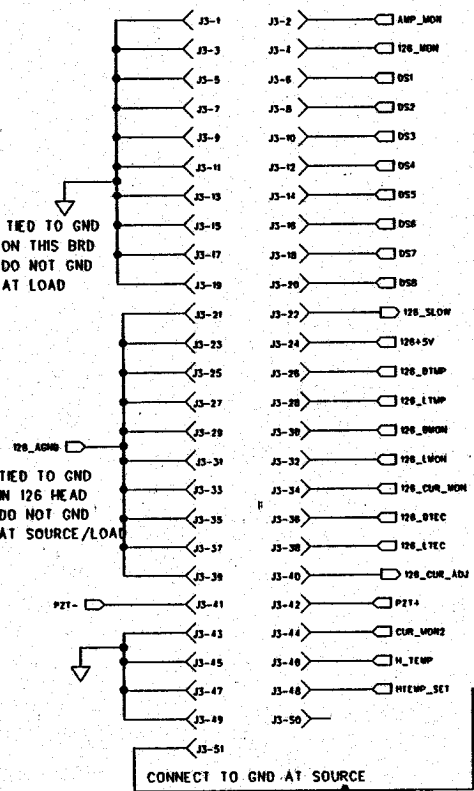
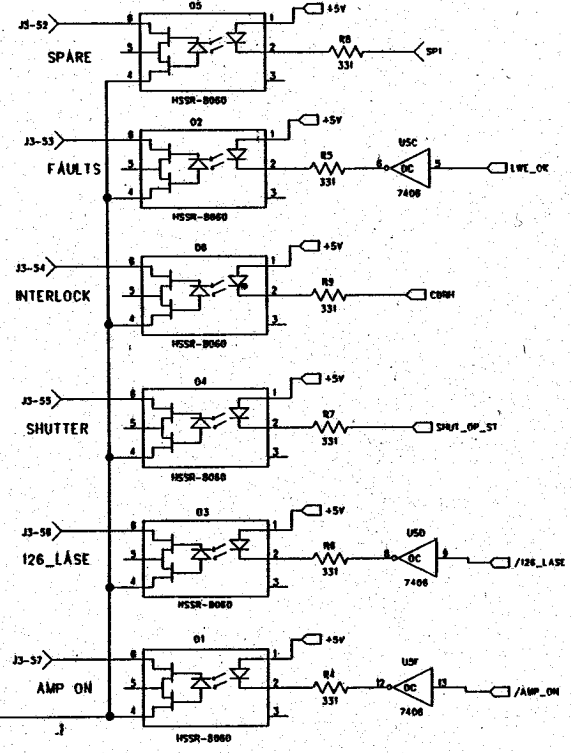
AMPLIFIER AC CURRENT CONTROL

J4-1	AC_AMP+
J4-2	
J4-3	AC_AMP-



HEAD CONTROL & DATA DB25F CONN

AMP_MON	J2-1	AMP MON
HEAD_AGND	J2-2	HEAD AGND
DIO SENS 1	J2-3	DIO SENS 1
DIO SENS 2	J2-4	DIO SENS 2
DIO SENS 3	J2-5	DIO SENS 3
DIO SENS 4	J2-6	DIO SENS 4
EECLK	J2-7	EECLK
HEAD_TEMP_SENSE	J2-8	HEAD TEMP SENSE
SHUT_SENSE	J2-9	SHUTTER SENSE
/SHUT DRIVE	J2-10	/SHUT DRIVE
+24V	J2-11	+24V
126_MON	J2-12	126 MON
GND	J2-13	GND
SP	J2-14	SP
DIO SENS 5	J2-15	DIO SENS 5
DIO SENS 6	J2-16	DIO SENS 6
DIO SENS 7	J2-17	DIO SENS 7
DIO SENS 8	J2-18	DIO SENS 8
EEDAT	J2-19	EEDAT
HEAD_TEMP_RET	J2-20	HEAD TEMP RET
SP	J2-21	SP
-12V	J2-22	-12V
/SHUTDRIVE	J2-23	/SHUT DRIVE
+24V	J2-24	+24V
GND	J2-25	GND



COMPANY: LIGHTWAVE ELECTRONICS

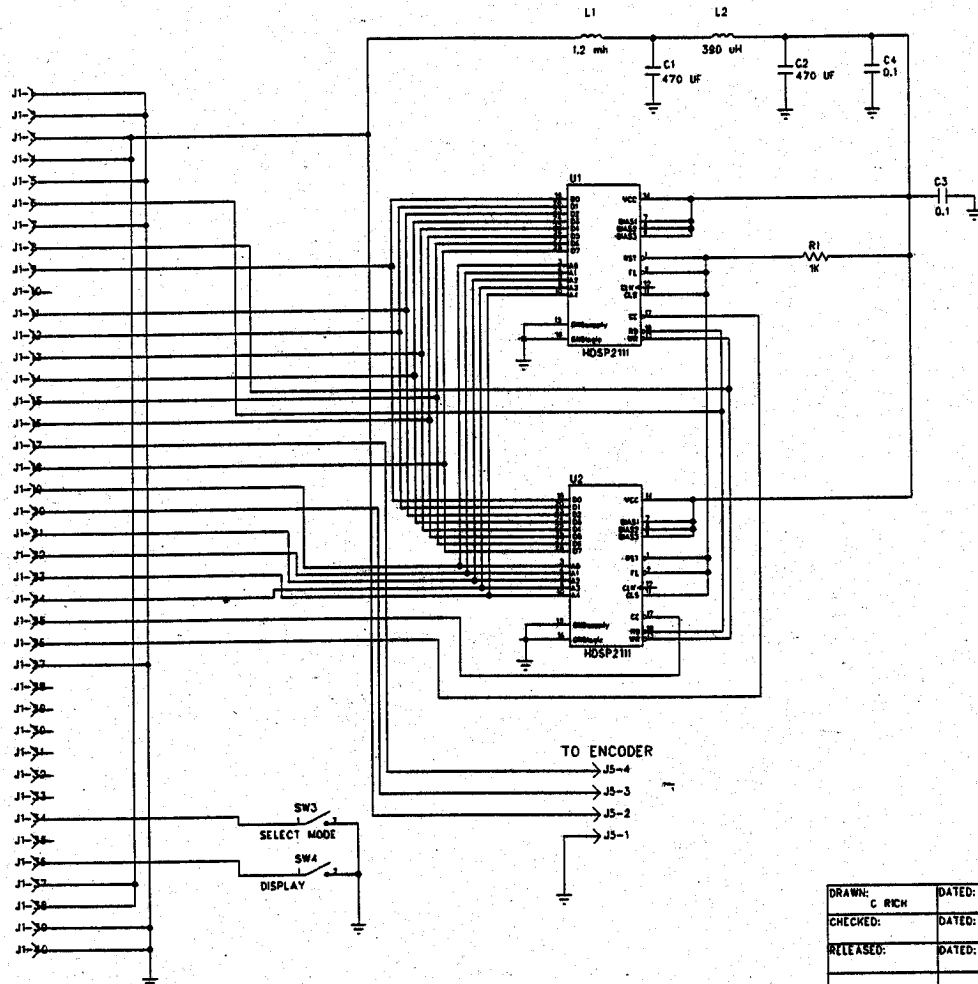
TITLE: SCH LIGO LASER POWER SUPPLY INTERFACE CIRCUITRY

DRAWN: F. ADAMS	DATED:
CHECKED: J. ALONIS	DATED:
PROJ MAN: W. WEICHMAN	DATED:
RELEASED:	DATED:

ASY #	SIZE:	DRAWING NO.	REV:
0-1709		4-2451	B
SCALE:	SHEET: 4 OF 4		

REVISION RECORD		
LTR	ECO NO:	APPROVED/DATE:
B	1094	

REV C --MOVED ONE MT HOLE --NO DESIGN CHANGE

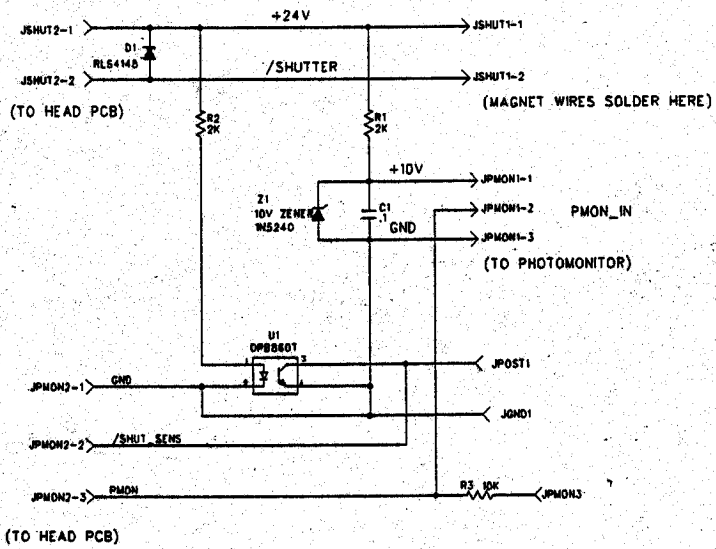


USED IN FOLLOWING ASY:
 0-1266, 0-1267, 0-1405

LIGHTWAVE ELECTRONICS				
SCH, 2XX FRONT PANEL PCB				
DRAWN: C RICH	DATED:	CODE:	SIZE:	DRAWING NO:
CHECKED:	DATED:			4-1753
RELEASED:	DATED:			
SCALE:				SHEET: 1 OF 1

DRAWN: C RICH	DATED:	CODE:	SIZE:	DRAWING NO:	REV:
CHECKED:	DATED:			4-1753	C
RELEASED:	DATED:				
SCALE:				SHEET: 1 OF 1	

REVISION RECORD		
LTR	ECO NO:	APPROVED DATE:



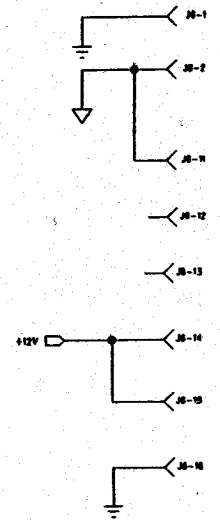
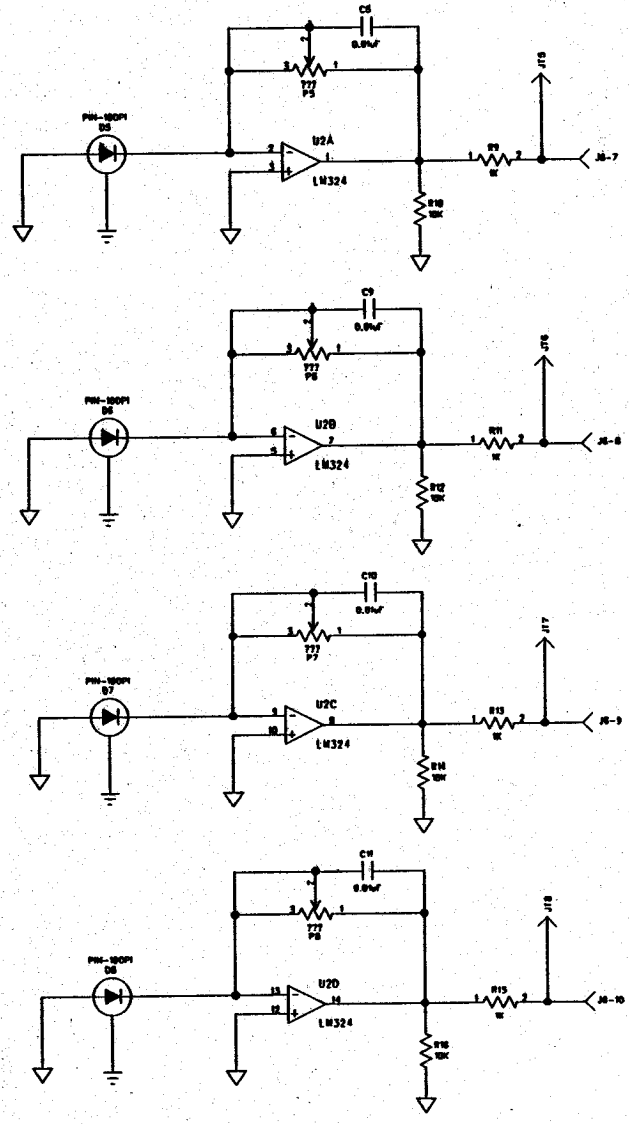
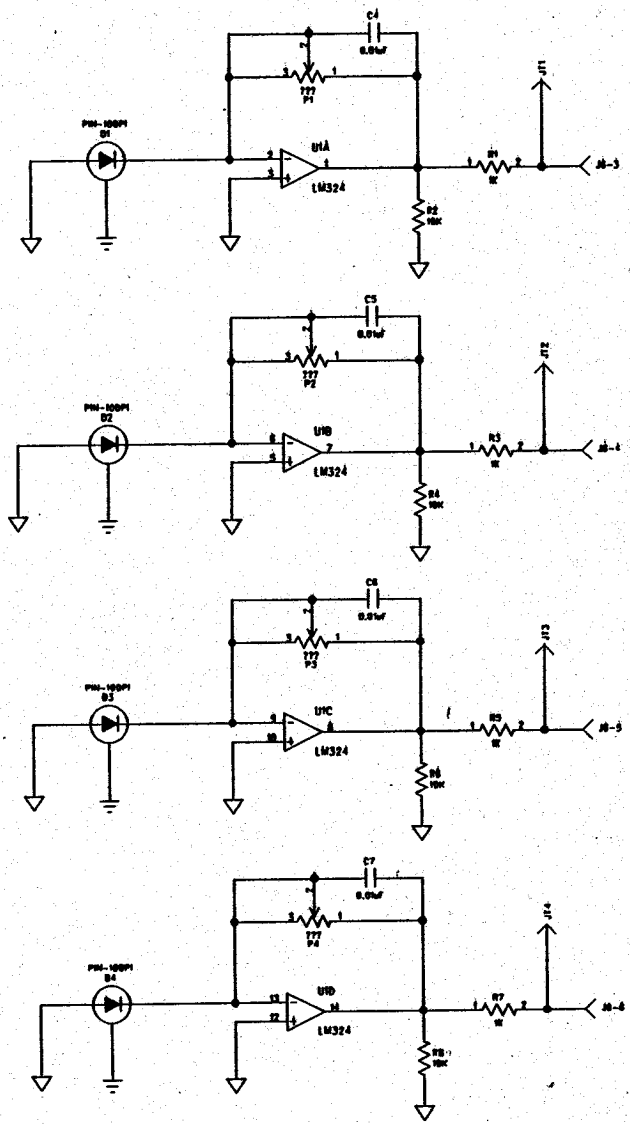
COMPANY: LIGHTWAVE ELECTRONICS

TITLE: PCB, MAGNET SHUTTER, 2XX
(USED IN ASY 0-1505)

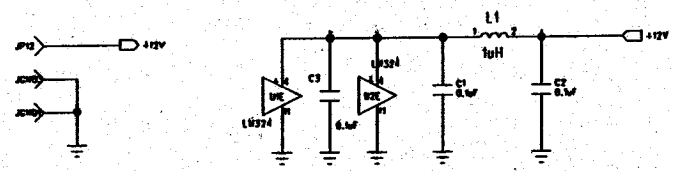
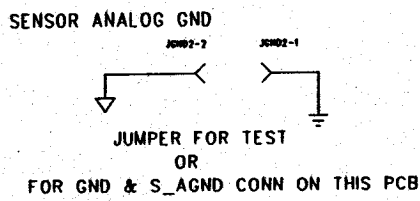
DRAWN: f. Adams	DATED:
CHECKED:	DATED:
QUALITY CONTROL:	DATED:
RELEASED:	DATED:

CODE:	SIZE:	DRAWING NO:	REV:
		4-2042	B
SCALE:			SHEET: 1 OF 1

REVISION RECORD			
LTB	ECN NO.	APPROVED:	DATE:



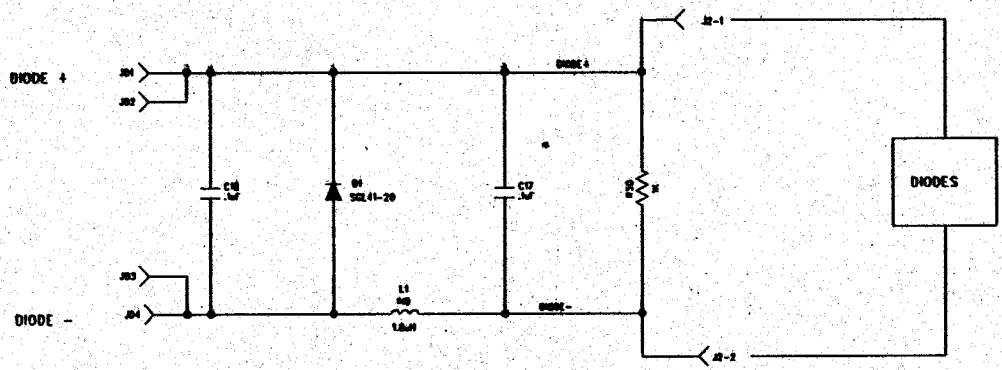
SET POTS FOR 8V NOMINAL OUTPUT



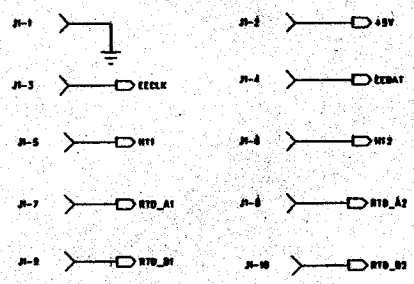
LIGHTWAVE ELECTRONICS			
TITLE: SCH LIGO DIODE SENSOR			
DRAWN: F. ADAMS	DATED:	USED ON ASY #:	DRAWING NO:
DESIGN BY: F. ADAMS	DATED:	0-169B	4-2429
REV ENG: J. ALOMS	DATED:		REV: X
PROD ENG: W. WIECH	DATED:		
SHEET: 1 OF 1			

REVISION RECORD		
LTR	ECO NO:	APPROVED DATE:

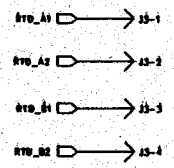
DIODE CURRENT FILTER & ESD SUPPRESSION CIRCUIT



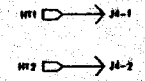
TO HEAD INTERFÄCE



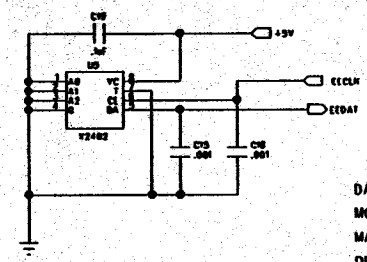
CHILLER TEMP SENSE



HEAD TEMP SENSE



EEPROM



DATA STORED:
 MODEL #
 MAX DIO CUR
 OP DIO CUR
 HEAD TEMP
 HOURS

COMPANY: **LIGHTWAVE ELECTRONICS**

TITLE: **SCH LIGO AMPLIFIER FEED THRU**

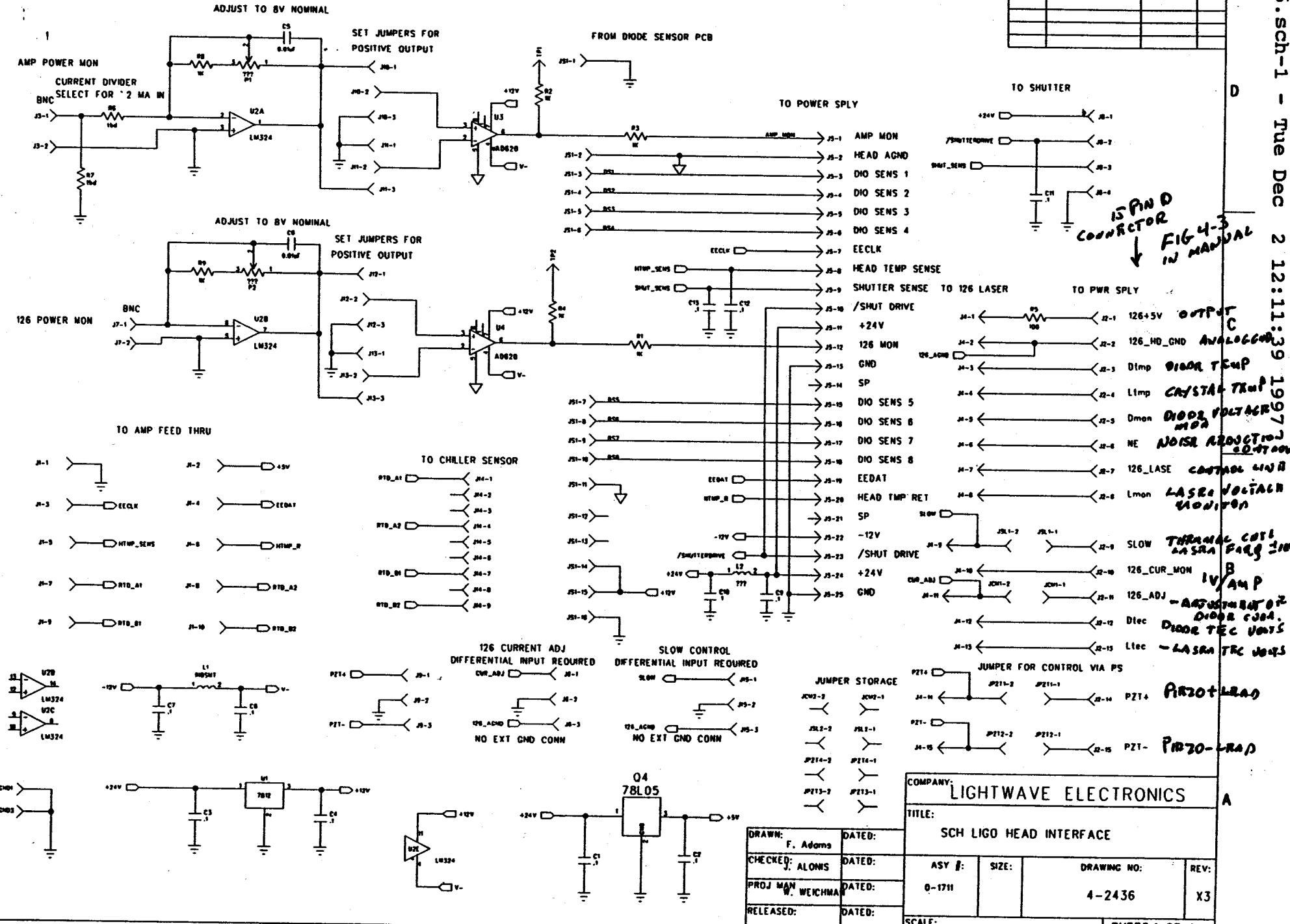
DRAWN: F. Adams	DATED:
CHECKED: J. ALONIS	DATED:
PROJ MAN W. WEICHMANN	DATED:
RELEASED:	DATED:

CODE:	SIZE:	DRAWING NO: 4-2435	REV: X2
SCALE:		SHEET: 1 OF 1	

2436.Sch-1 - Tue Dec 2 12:11:39 1997

REVISION RECORD		
LTR	ECO NO:	APPROVED DATE:

CHILLER SENSE CONN



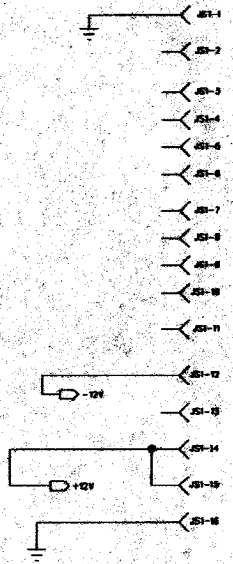
15 PIN D CONNECTOR
FIG 4-3 IN MANUAL

OUTPUT C
126 HD_GND ANALOG
Dimp DIODE TEMP
Limp CRYSTAL TEMP
Dmon DIODE VOLTAGE
NE NOISE REDUCTION
126_LASE CONTROL W/ R
Lmon LASER VOLTAGE MONITOR
SLOW THERMAL COOL LASER FARG 3 IN
126_CUR_MON IV/AMP
126_ADJ - ADJUSTMENT OF DIODE CURR.
Dlec DIODE TEC UNITS
Llec - LASER TEC UNITS

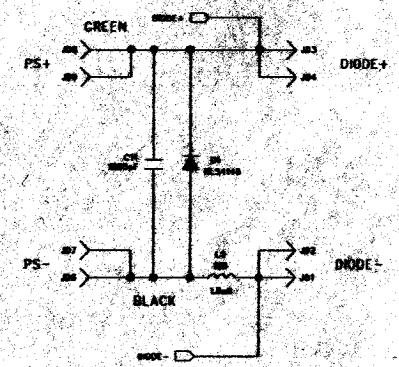
COMPANY: LIGHTWAVE ELECTRONICS			
TITLE: SCH LIGO HEAD INTERFACE			
ASSEMBLY: 0-1711	SIZE:	DRAWING NO: 4-2436	REV: X3
SCALE:		SHEET: 1 OF 1	

DRAWN: F. Adams	DATED:
CHECKED: J. ALOWS	DATED:
PROJ MAN: R. WECHMAN	DATED:
RELEASED:	DATED:

REVISION RECORD			
LYR	ECO NO.	APPROVED:	DATE:

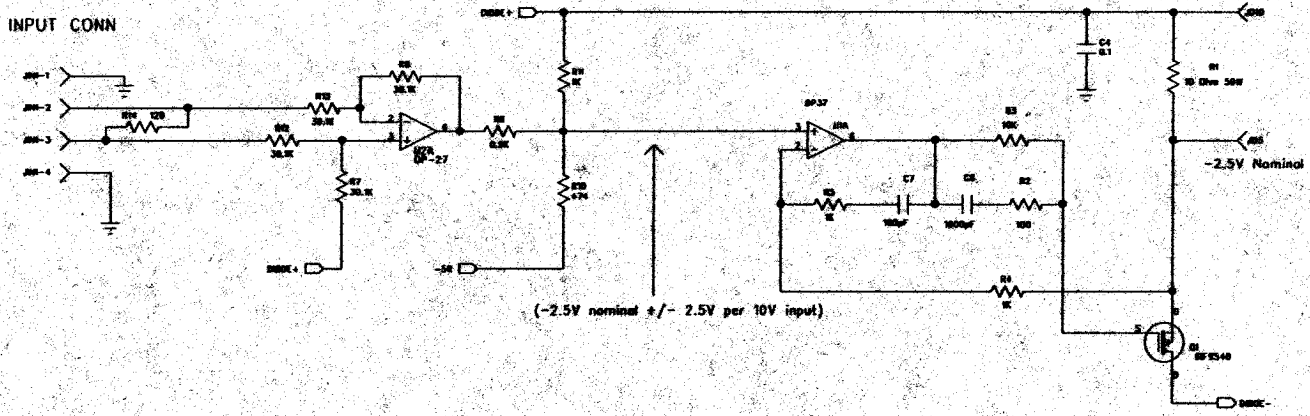


+/- 10V input for +/- 250mA output

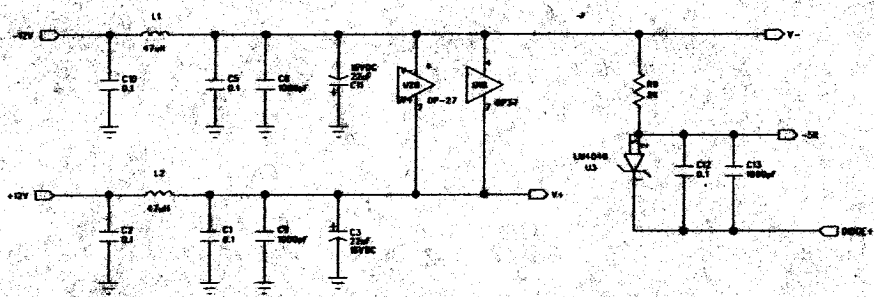


NOTE: $Rf/Rin = Rg/Rin$ for CMR

INPUT CONN



(-2.5V nominal +/- 2.5V per 10V input)



LIGHTWAVE ELECTRONICS			
TITLE: SCH LIGO FAST DIODE INPUT			
DESIGN BY: F. ALONIS / S. COMES	DATE:	USED ON ASY E:	DRAWING NO.:
REV ENG: S. COMES	DATE:	4-3278	4-3278
PHOTO ENG:	DATE:		REV: B

6

5

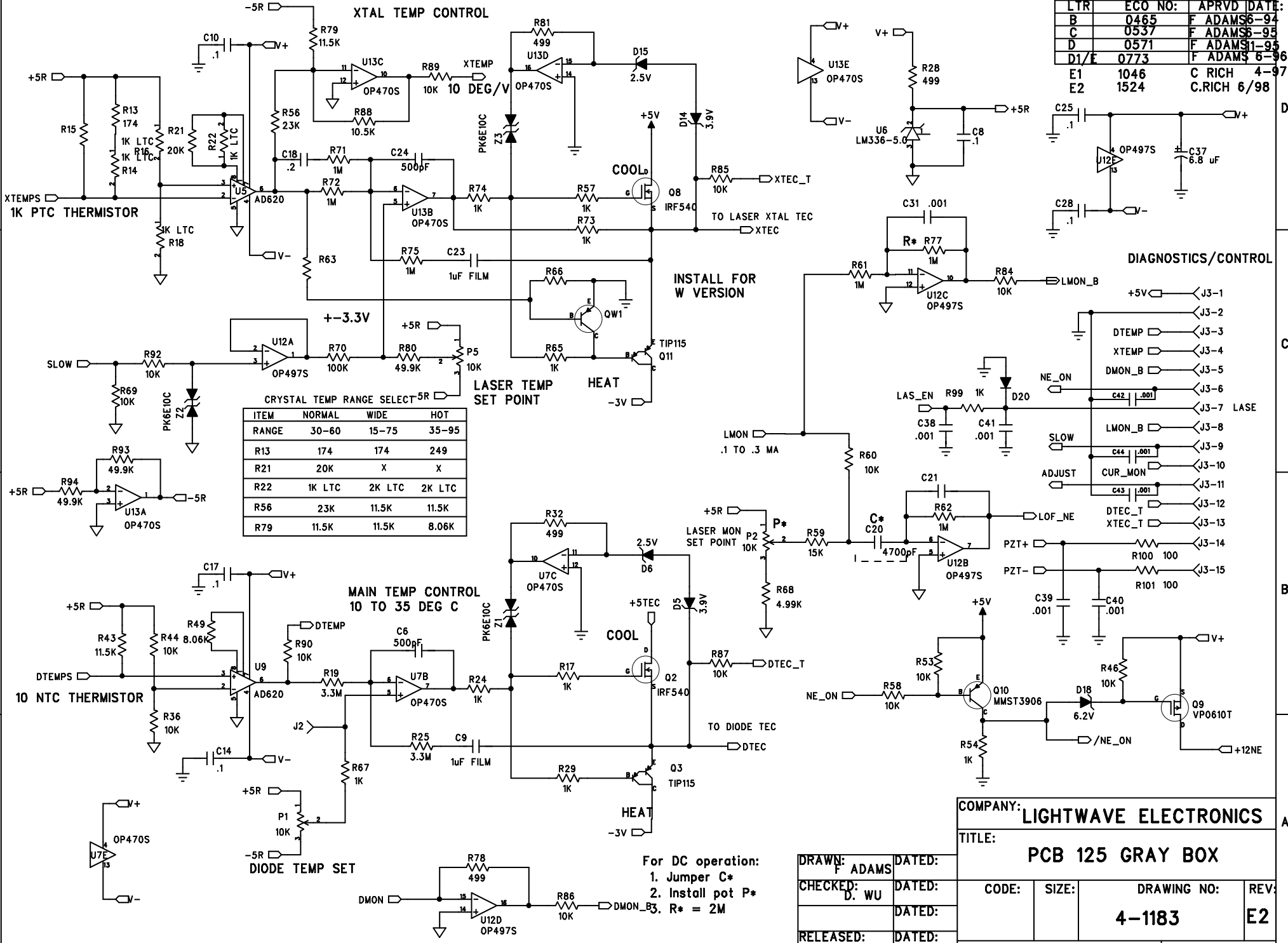
4

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2

1

REVISION RECORD			
LTR	ECO NO:	APRVD	DATE:
B	0465	F ADAMS	6-94
C	0537	F ADAMS	6-95
D	0571	F ADAMS	1-96
D1/E	0773	F ADAMS	6-96
E1	1046	C RICH	4-97
E2	1524	C.RICH	6/98



CRYSTAL TEMP RANGE SELECT

ITEM	NORMAL	WIDE	HOT
RANGE	30-60	15-75	35-95
R13	174	174	249
R21	20K	X	X
R22	1K LTC	2K LTC	2K LTC
R56	23K	11.5K	11.5K
R79	11.5K	11.5K	8.06K

For DC operation:
 1. Jumper C*
 2. Install pot P*
 R* = 2M

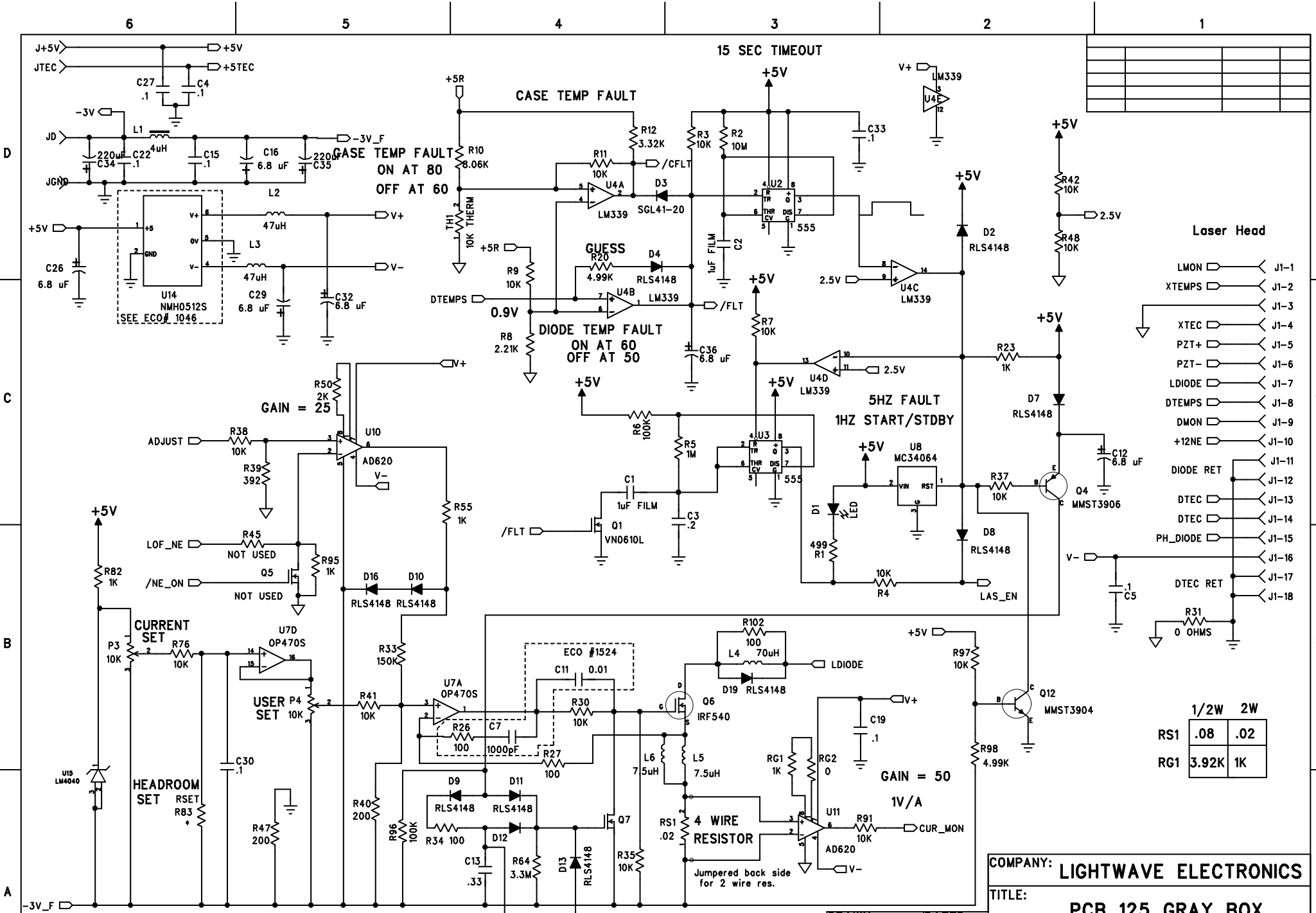
COMPANY: LIGHTWAVE ELECTRONICS

TITLE: PCB 125 GRAY BOX

CODE:	SIZE:	DRAWING NO:	REV:
		4-1183	E2

SCALE: SHEET: 1 OF 2

DRAWN: F ADAMS	DATED:
CHECKED: D. WU	DATED:
RELEASED:	DATED:



MAX	1	5	4.75	4.5	4.25	4.0	3.75	3.5	3.0
RSET OPEN	200K	100K	57K	40K	30K	23K	15K		

	1/2W	2W
RS1	.08	.02
RG1	3.92K	1K

COMPANY: LIGHTWAVE ELECTRONICS

TITLE: PCB 125 GRAY BOX

DRAWN: F. ADAMS	DATED:	CODE:	SIZE:	DRAWING NO:	REV:
CHECKED: B. WU	DATED:			4-1183	E2
RELEASED:	DATED:	SCALE:			