

FAX COVER PAGE

LIGO-T960023-00-D

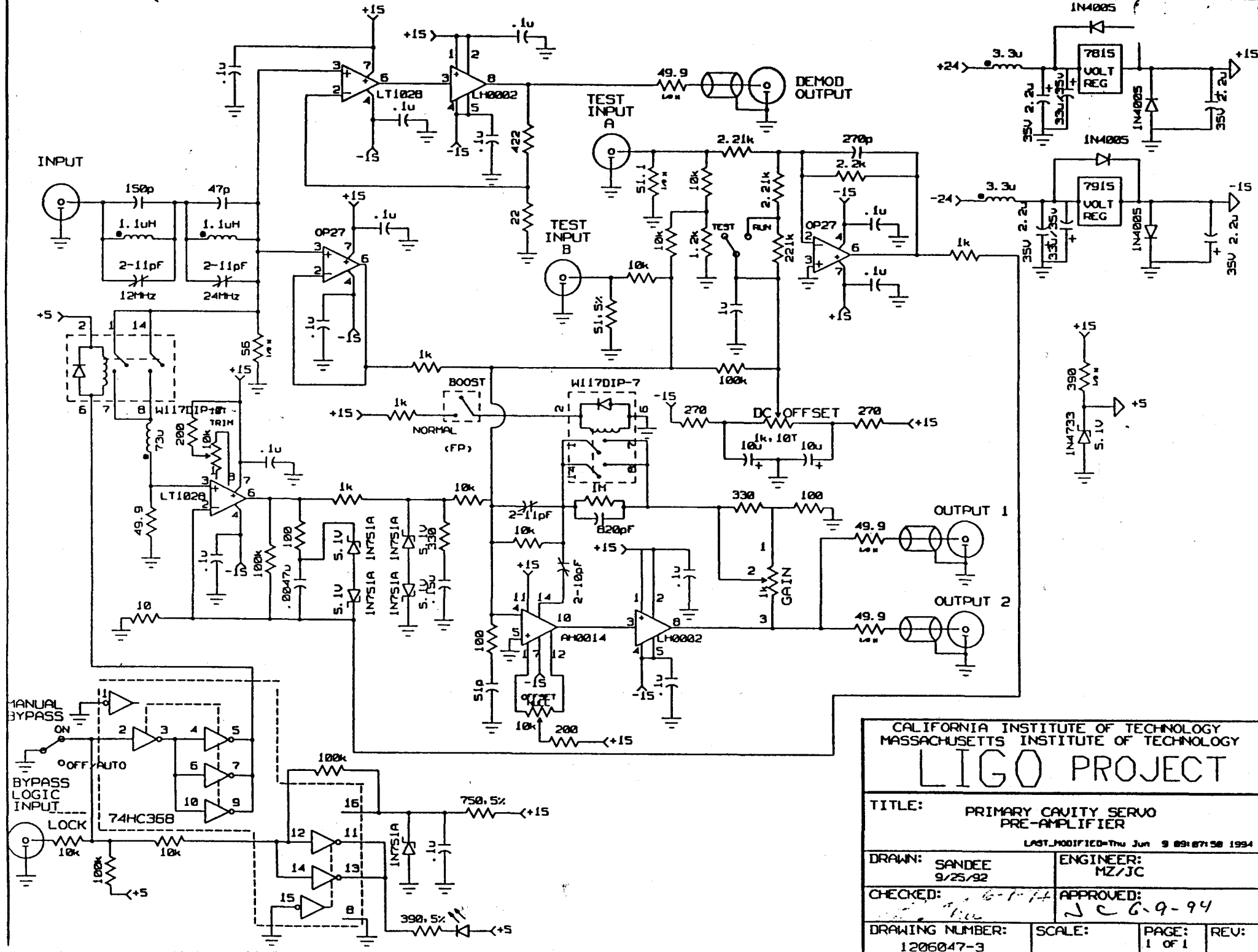
CALIFORNIA INSTITUTE OF TECHNOLOGY

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818-395-2129, Fax 818-304-9834

TO:	Mike Zucker
ORGANIZATION:	M.I.T. / LIGO
FAX NUMBER:	
VOICE NUMBER:	
DATE:	2/20/96
TIME:	3:05

FROM:	Deutze Durance
ORGANIZATION:	Caltech / LIGO
FAX NUMBER:	
VOICE NUMBER:	
REFER TO:	
SUBJECT:	Common Mode Servo

NUMBER OF PAGES FAXED INCLUDING THIS COVER SHEET:	
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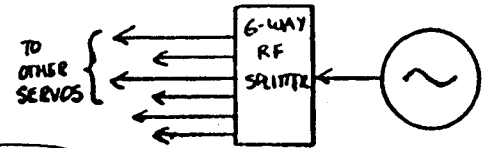


CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY <h1 style="text-align: center;">LIGO PROJECT</h1>			
TITLE:		PRIMARY CAVITY SERVO PRE-AMPLIFIER	
LAST MODIFIED: Thu Jun 9 09:07:58 1994			
DRAWN:	SANDEE 9/25/92	ENGINEER:	MZ/JC
CHECKED:	<i>[Signature]</i>	APPROVED:	<i>[Signature]</i>
DRAWING NUMBER:	1206047-3	SCALE:	PAGE: 1 OF 1

10/10/90 MEZ

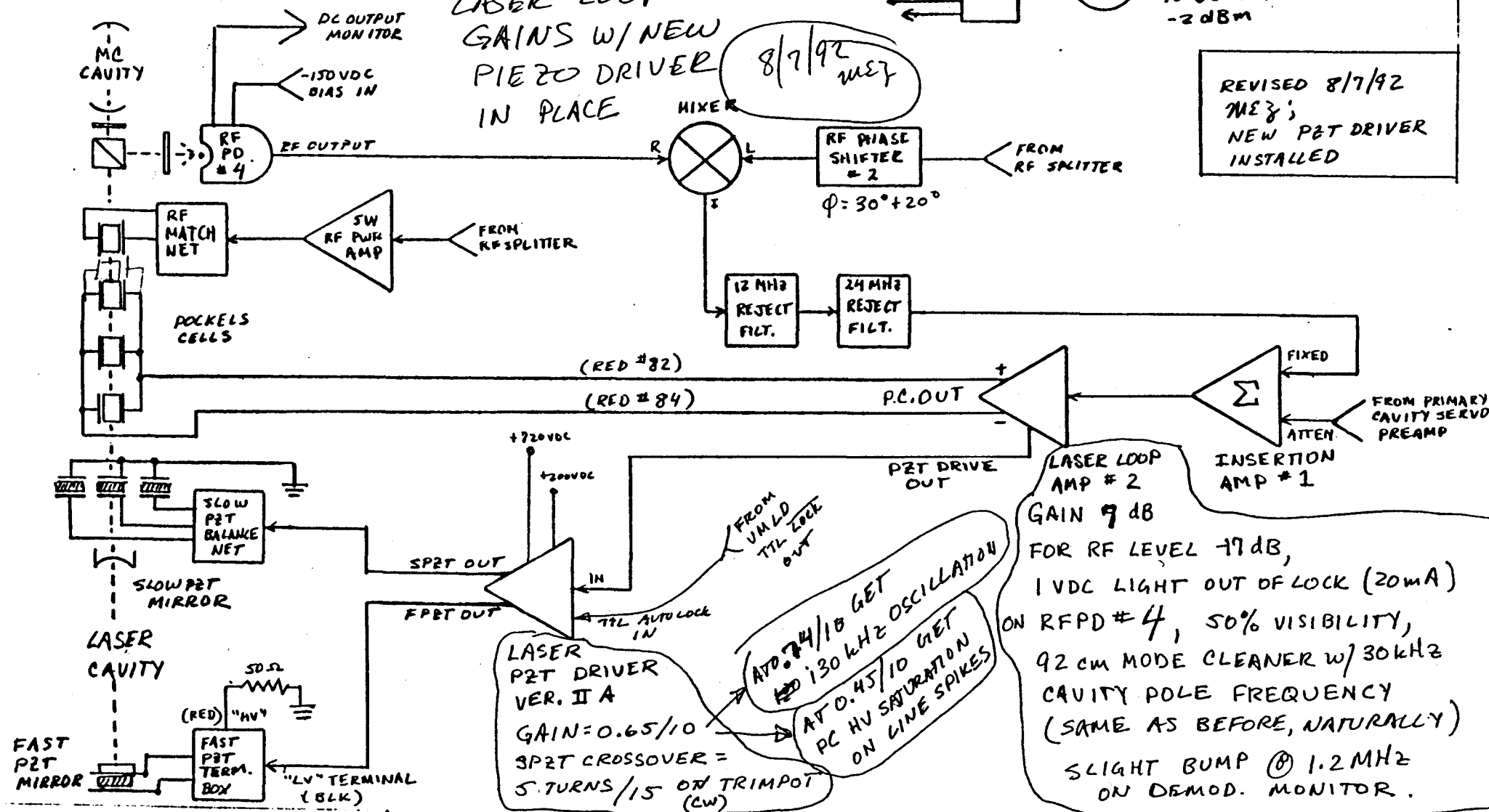
LASER STABILIZATION LOOP BLOCK DIAGRAM

LASER LOOP
GAINS W/ NEW
PIEZO DRIVER
IN PLACE



MASTER
RF OSC.
12.33 MHz
-2 dBm

REVISED 8/7/92
MEZ;
NEW PZT DRIVER
INSTALLED



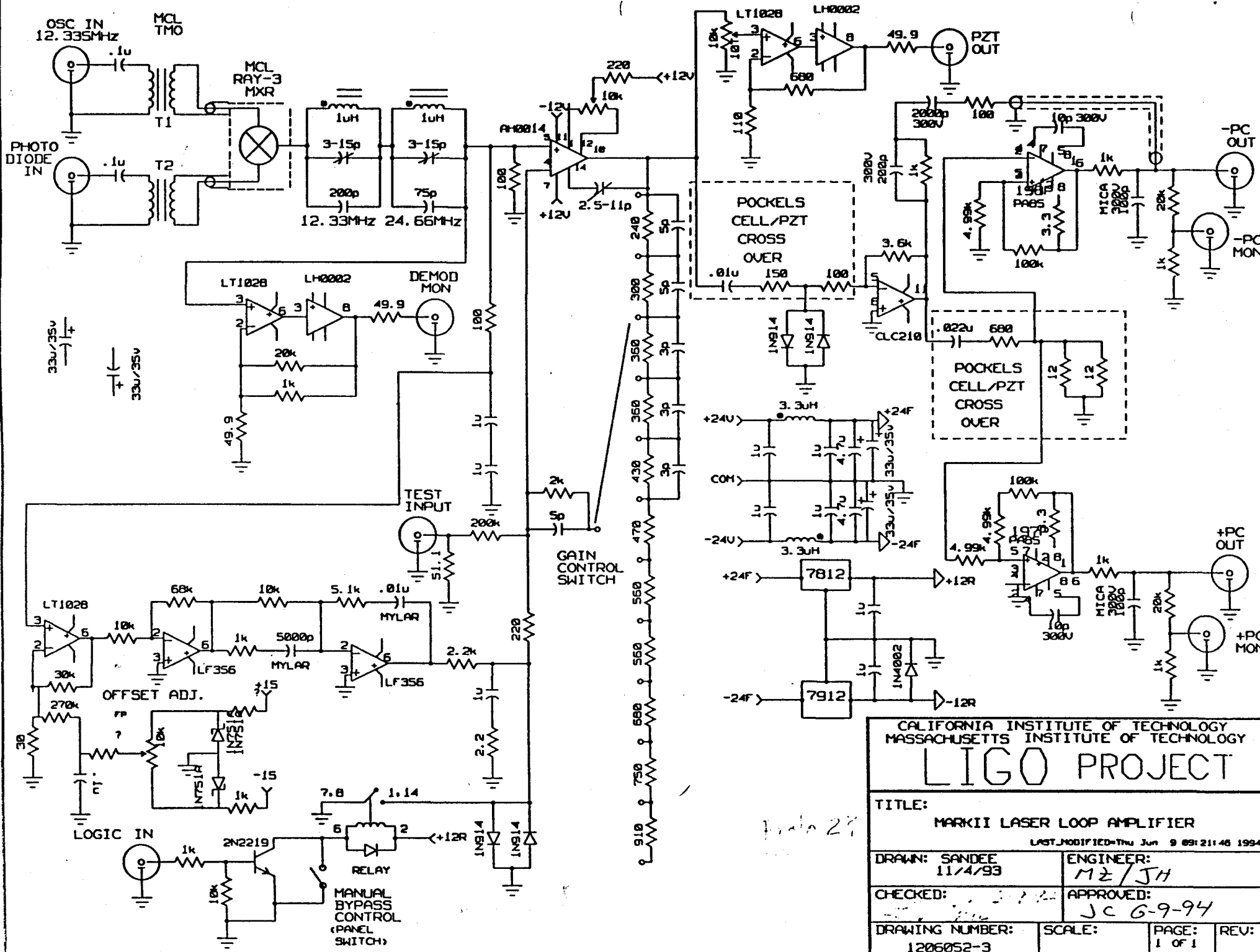
LASER
PZT DRIVER
VER. II A
GAIN=0.65/10
SPRT CROSSOVER =
5 TURNS / 15 ON TRIMPOT (CW)

AT 0.74/10 GET
130 kHz OSCILLATION
AT 0.45/10 GET
PC HV SATURATION
ON LINE SPIKES

LASER LOOP
AMP # 2
GAIN 9 dB
FOR RF LEVEL -7 dB,
1 VDC LIGHT OUT OF LOCK (20mA)
ON RFPD # 4, 50% VISIBILITY,
92 CM MODE CLEANER W/ 30kHz
CAVITY POLE FREQUENCY
(SAME AS BEFORE, NATURALLY)
SLIGHT BUMP @ 1.2 MHz
ON DEMOD. MONITOR.

NOTE: POLARITY (ONLY)
IS REVERSED
WITH RESPECT TO
OLD P.Z.T. DRIVE
SYSTEM (PIEZO SHOULD
REF. K. WITH -200V REVERSE BIAS)

SLOW PZT HAS
SAME POLARITY AS
BEFORE, BUT ⊖ SIDES
ARE NOW JOINED TO GND
INSTEAD OF 0-500V POT WIPER



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LIGO PROJECT

TITLE: MARK II LASER LOOP AMPLIFIER

LAST MODIFIED: Thu Jun 9 09:21:46 1994

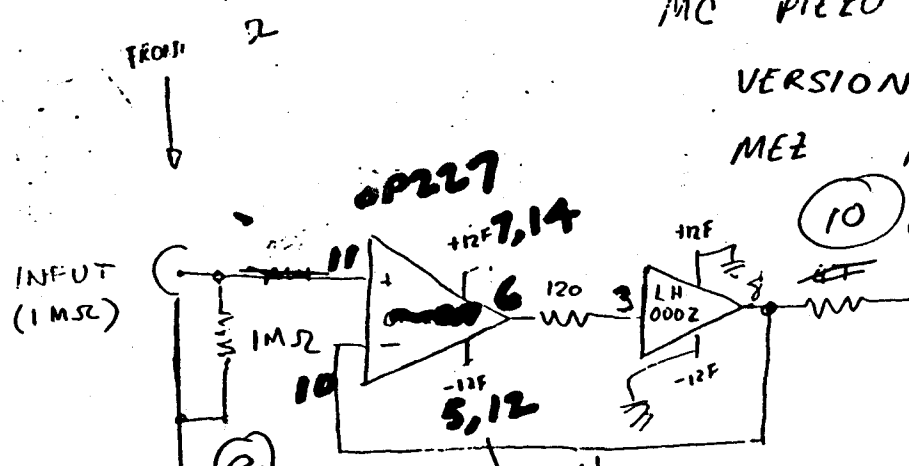
DRAWN: SANDEE 11/4/93	ENGINEER: M2/JH		
CHECKED:	APPROVED: JC G-9-94		
DRAWING NUMBER: 1206052-3	SCALE:	PAGE: 1 OF 1	REV:

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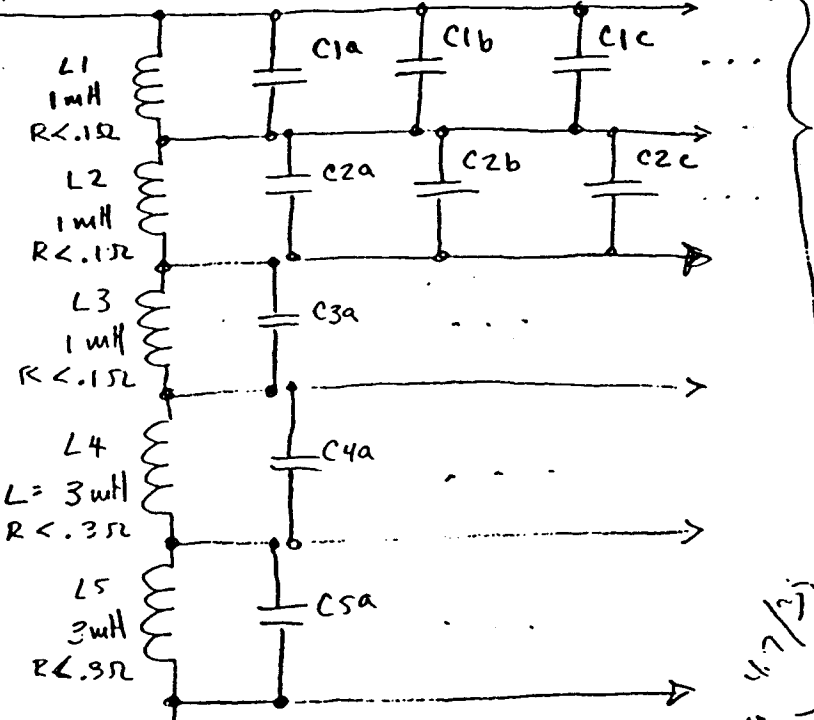
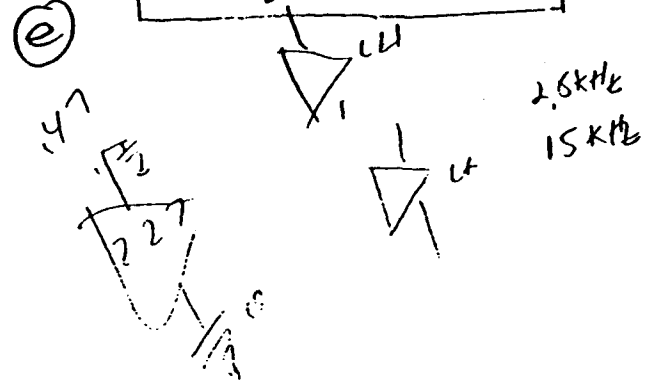
MC PIEZO DRIVEN FILTER/PREAMP

VERSION 2.0
MEZ 12/21/93

1-14-94 JC
Temp. Sch

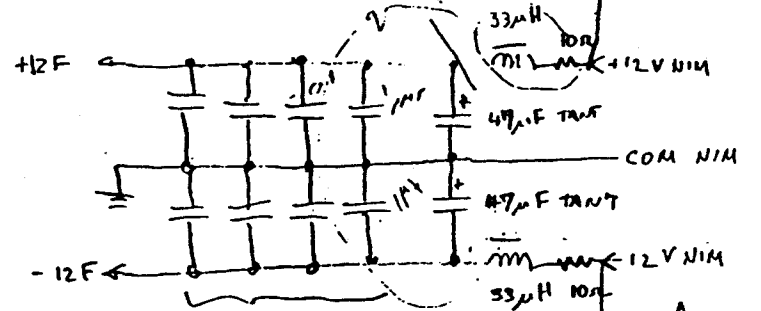
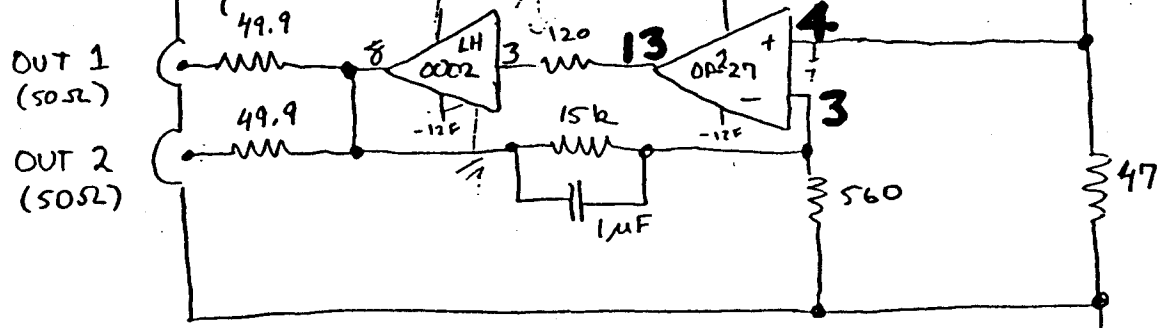


CHANGED FROM 47 TO 10 TO INCREASE NOTCH DEPTH



ALL C'S ACCESSIBLE FOR TUNING; LAYOUT TO ACCOMMODATE 1 BIG MYLAR CAP UP TO 3μF IF POSSIBLE.

$$A = 11.5 = \frac{e(47)(15860)}{57(560)(2)}$$



0.1μF CERAMIC (TYP., 8 PLS) NEAR P/S PINS ON EACH IC.

- NIM BACKPLANE
- P/S COMMON
- GROUND PLANE

