LIGO

California Institute of Technology
Massachusetts institute of Technology

Document Change Notice (DCN)

DCN No. E040012-00-C

Sheet 1 of 3

DOCUMENT No. (DOC-REV-GP.ID)	TITLE	NEW REV
D030168-A	LOS Coil DAQ Whitening board	A2

CHANGE DESCRIPTION (FROM/TO):
Cut the ground connection to U29 pin 2 on the board.

Remove resistors R89, R98, and R99. Change resistor R90 to 10K ohms to fix a fault instability.

This modification is being done on the four inputs, channels UL, LR, LL, and UL to protect the input amplifiers from damage from high voltage levels and or spikes. The existing Zener diode input clamping circuit was found to be ineffective. A set of 8 BAT-85 diodes mounted on small circuit boards are added to each channel by this modification. Also the fault threshold level that switches in a large resistor to further protect the inputs was changed from 2.5 volt level to a 0.83 volt level. This is accomplished by changing one resistor in the comparator's voltage divider circuit.

Remove Diodes D3, 4, 5, 6, 7, 8, 9, 10 and Resistor R87.
Solder in Qty: 1 Type 2 K ohm 1206 resistor at R87

REASON FOR CHANGE: See change description

ACTION: **X Incorporate Change** ☐ **Attach DCN to Drawings** ☐ **Other Action (specify):**

DISPOSITION OF HARDWARE (IDENTIFY SERIAL NUMBERS)

- ☐ **No hardware was affected (record change only):**
- ☐ **List S/Ns which comply already: 100, 101, 103, 104, 105, 107**
- ☐ **List S/Ns to be reworked: 102, 106, 108-114**
- ☐ **List S/N's to be built with this change: All greater then 115**
- ☐ **List S/Ns to be retested per this change:**
- ☐

DCN DISTRIBUTION

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Lazzarini	Lindquist	Sanders
Shoemaker	Stapfer	Tyler
Weiss	Whitcomb	Matherny
Raab		

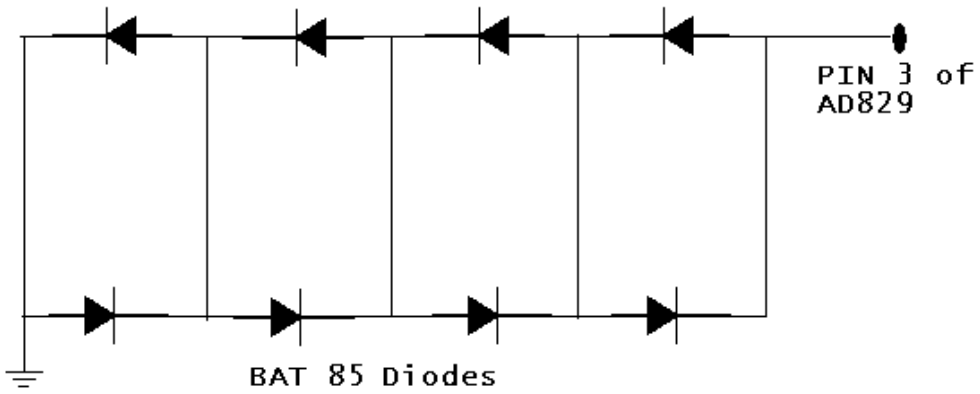
SAFETY, COST, SCHEDULE, REQUIREMENTS IMPACT? ☐ **NO** ☐ **YES (If YES, enter CR (CCB) or TCP (TRB) #)**

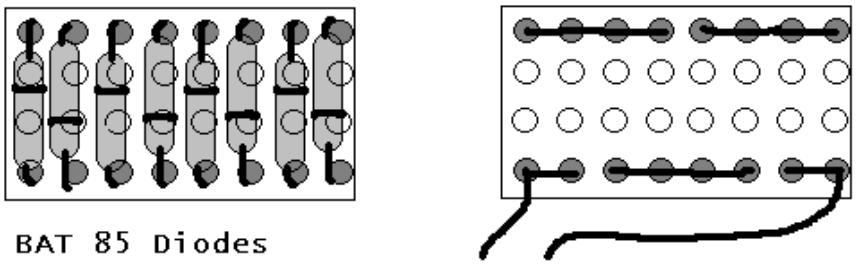
APPROVALS:	DATE	OTHER APPROVALS (SPECIFY)	DATE
ORIGINATOR: Todd Etzel	1/22/04		
TASK LEADER: Jay Heefner for J. Heefner ? Dennis Coyne	Dennis Coyne 2004.02.18 21:33:37 -08'00'		
GROUP LEADER: ? Dennis Coyne	Dennis Coyne 2004.02.18 21:34:01 -08'00'		
DCC RELEASE: ? Linda Turner Signature Not Verified	Digitally signed by Linda Turner DN: cn=Linda Turner, o=LIGO, ou=Document Control Center (DCC), c=US Date: 2004.02.21 15:46:19 -08'00'		

CHANGE DESCRIPTION (FROM/TO):

Construct 4 clamper circuits (shown below) using Qty: 8, Type: BAT 85, diodes per clamper (total Qty: 32 for all 4 channels).

Suggested construction is on tiny 4X8 perf-boards that will fit under the shield and provide access to other components if any future testing and/or troubleshooting is needed (see picture)





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