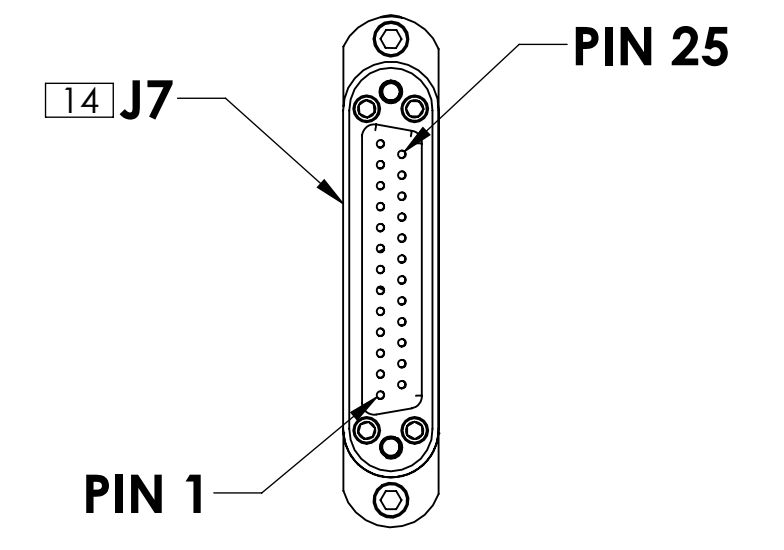
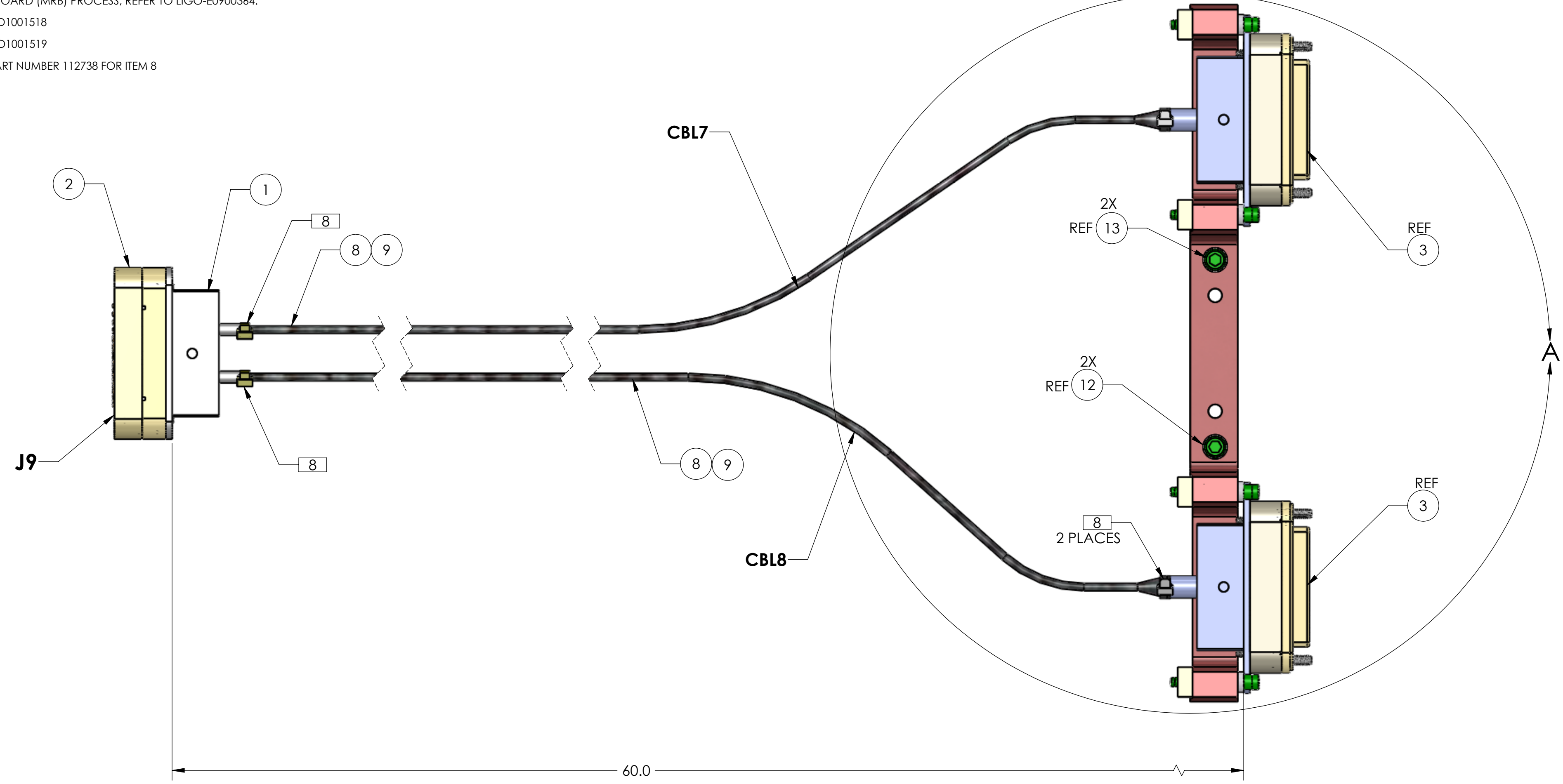
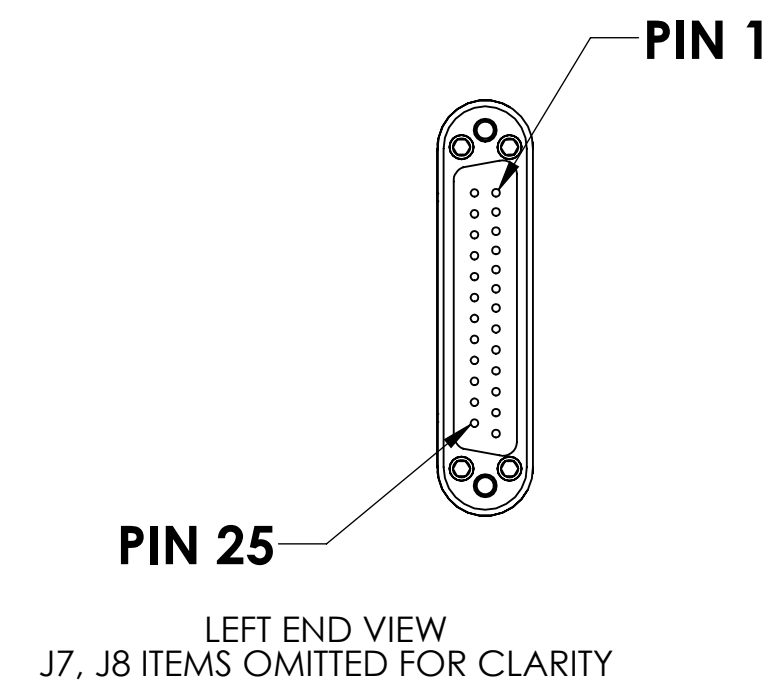


- NOTES CONTINUED:**
- 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT. EXAMPLE (PART): 001-v1  
EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD
  - 6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
  - 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
  - 8. BRAID OF ITEM 8 MUST BE CONNECTED TO PIN 1 AND BACK SHELL OF CONNECTORS J7, J8 AND J9 USING AN ELECTRICALLY CONDUCTIVE AND VACUUM COMPATIBLE MATERIAL. (SEE LIGO SPEC. E0900364)
  - 9. ALL JOINTS SHOULD BE CRIMPED. NO OTHER FORM OF JOINT IS ALLOWED WITHOUT THE APPROVAL OF LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY.
  - 10. ITEM 9, MUST BE CLAMPED UNTO THE BACKSHELL OF J7, J8 AND J9 WITH A VACUUM COMPATIBLE MATERIAL. (SEE LIGO SPEC. E0900364)

- 11. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NOT WELD REPAIRS OR PLUGS UNLESS APPROVED IN ADVANCE IN WRITING BY LIGO, REFER TO LIGO-E0900364.
- 12. NO REPAIRS SHALL BE MADE UNLESS APPROVED IN ADVANCE, AND IN WRITING, BY LIGO LABORATORY. IN GENERAL WELD REPAIRS AND PRESS FIT INSERT REPAIRS ARE NEVER ACCEPTABLE. THE MATERIAL SHOULD BE MADE WITH VIRGIN MATERIAL. SPECIAL CIRCUMSTANCES CAN BE REVIEWED IF / WHEN BROUGHT TO THE ATTENTION OF LIGO CONTRACTING OFFICER'S REPRESENTATIVE (COTR) THROUGH A MATERIAL REVIEW BOARD (MRB) PROCESS. REFER TO LIGO-E0900364.
- 13. MATES TO J1 OF ASSY D1001518
- 14. MATES TO J4 OF ASSY D1001519
- 15. VENDOR ASSIGNED PART NUMBER 112738 FOR ITEM 8

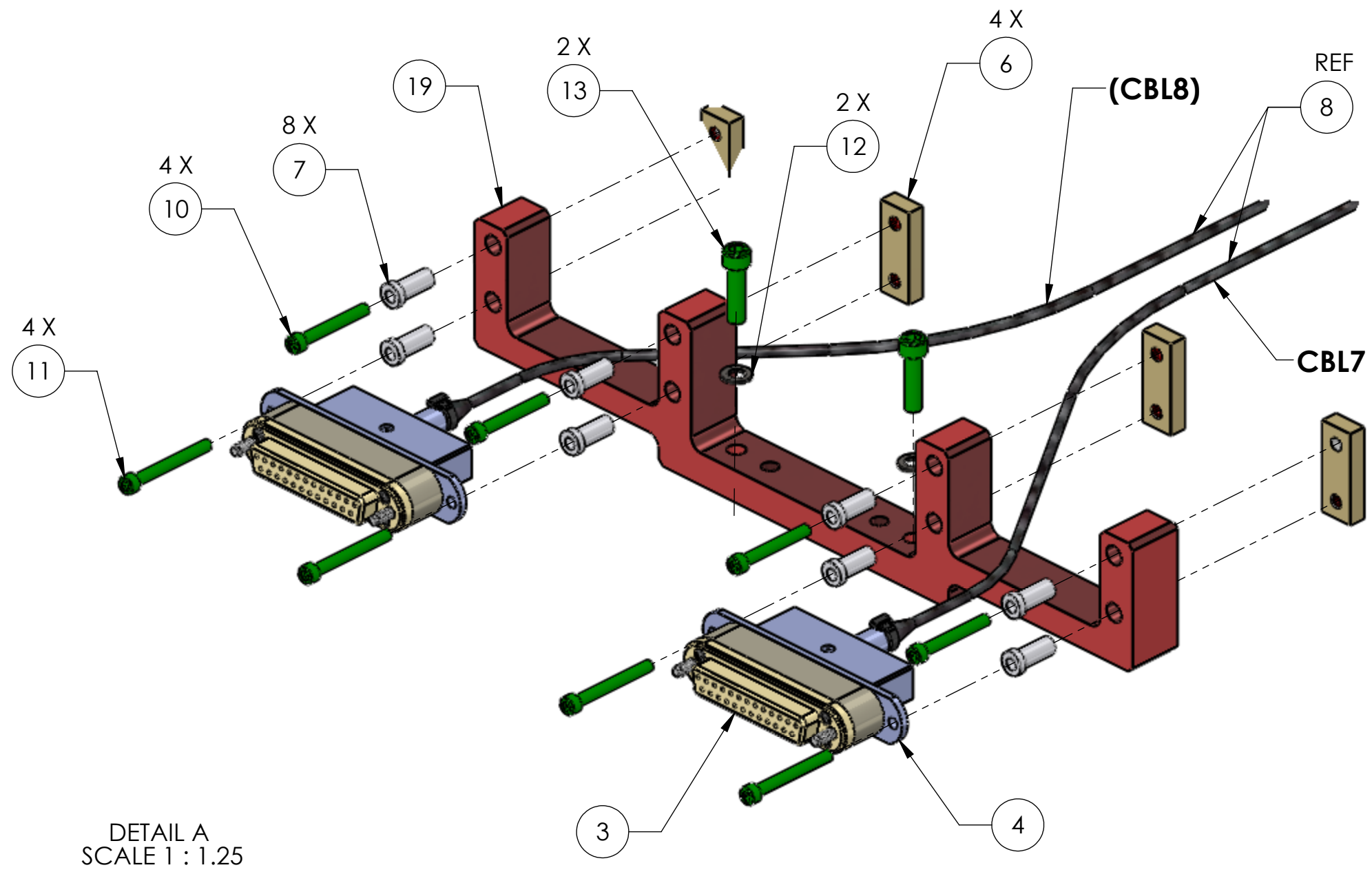
REV.	DATE	DCN #	DRAWING TREE #
v1	04-AUG-2010	-	-
v2	17-SEPT-2010	-	-
v3	10-NOV-2010	E1000700-v2	E1000699-v2
v4	03-DEC-2010	E1000700-v3	E1000699-v3



**L-QUAD TERM BLK TO U-QUAD TERM BLK CABLE CIRCUIT SUMMARY**

CABLE	TWISTED PAIR	CON. WIRE ID	FROM (J7)	TO (J9)
CBL7	-	SHIELD	PIN 1 & SHELL	PIN 1 & SHELL
	CBL7-TP1A	W2	PIN 2	PIN 2
	CBL7-TP1B	W14	PIN 14	PIN 14
	CBL7-TP2A	W3	PIN 3	PIN 3
	CBL7-TP2B	W15	PIN 15	PIN 15
	CBL7-TP3A	W4	PIN 4	PIN 4
	CBL7-TP3B	W16	PIN 16	PIN 16
	CBL7-TP4A	W5	PIN 5	PIN 5
	CBL7-TP4B	W17	PIN 17	PIN 17
	CBL7-TP5A	W6	PIN 6	PIN 6
CBL7-TP5B	W18	PIN 18	PIN 18	
CBL7-TP6A	W7	PIN 7	PIN 7	
CBL7-TP6B	W19	PIN 19	PIN 19	

CABLE	TWISTED PAIR	CON. WIRE ID	FROM (J8)	TO (J9)
CBL8	-	SHIELD	PIN 1 & SHELL	PIN 1 & SHELL
	CBL8-TP1A	W8	PIN 8	PIN 8
	CBL8-TP1B	W20	PIN 20	PIN 20
	CBL8-TP2A	W9	PIN 9	PIN 9
	CBL8-TP2B	W21	PIN 21	PIN 21
	CBL8-TP3A	W10	PIN 10	PIN 10
	CBL8-TP3B	W22	PIN 22	PIN 22
	CBL8-TP4A	W11	PIN 11	PIN 11
	CBL8-TP4B	W23	PIN 23	PIN 23
	CBL8-TP5A	W12	PIN 12	PIN 12
CBL8-TP5B	W24	PIN 24	PIN 24	
CBL8-TP6A	W13	PIN 13	PIN 13	
CBL8-TP6B	W25	PIN 25	PIN 25	



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
19	D1001755	αLIGO TCS RH, LOWER CUSTOM 25D CON BRKT	6061-T6 (SS)	1		1
13	C810-N	SSHC, #8-32 UNC-2A X 5/8 LONG. UC-COMPONENTS	18-8 SS	2		2
12	WF-08-A	WASHER, FLAT, #8, .169 ID X .304 OD .032 THK UC-COMPONENTS	18-8 SS AG PLATED	2		2
11	C-416-N	SCREW, SOCKET HEAD CAP, #4-40 UNC-2A X 1 LONG, FULLY THREADED	18-8 SS	4		4
10	C-414-N	SSHC, #4-40 UNC-2A X 7/8 LONG. UC-COMPONENTS	Ag-PLATED 300 SSSL	4		4
9	111167	PEEK BRADING SHIELDING, .187IN ID. ACCU-GLASS	PEEK	120 IN		120 IN
8	112738	SHIELDED 6 TISTED PAIR WIRE. ACCUGLASS	Copper	120 IN		120 IN
7	D1002345	αLIGO, ELECTRICAL CONNECTOR BUSHING	Ceramic Porcelain	8		8
6	D1002346	αLIGO ELECTRICAL CONNECTOR NUT PLATE	PEEK	4		4
4	LIGO CUSTOM	DB25 CONNECTOR BACK SHELL, SINGLE PORT, FOR UHV (WITH VENT HOLE)	STAINLESS STEEL	2		2
3	LIGO CUSTOM	DB25 FEMALE CONNECTOR FOR UHV. LIGO, CUSTOM	PEEK	2		2
2	LIGO CUSTOM	DB25 MALE CONNECTOR FOR UHV.	PEEK	1		1
1	LIGO CUSTOM	DB25 CONNECTOR 2 PORTS BACKSHELL, VENT HOLE, NO FLANGE	STAINLESS STEEL	1		1

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
1. INTERPRET DRAWING PER ASME Y14.5-1994.	
2. REMOVE ALL SHARP EDGES, R.02 MIN.	
3. DO NOT SCALE FROM DRAWING.	
4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	
DIMENSIONS ARE IN INCHES	
TOLERANCES:	
.XX ± .10	
.XXX ±	
ANGULAR ± °	
MATERIAL	N/A
FINISH	N/A μinch

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		<b>PART NAME</b> αLIGO CBL Assy, L-Quad Term Blk to U-Quad Term Blk				
<b>SYSTEM</b> ADVANCED LIGO	<b>SUB-SYSTEM</b> AOS	<b>DESIGNER</b> A. COLE	<b>DATE</b> 6-AUG-2010	<b>SIZE</b> D	<b>DWG. NO.</b> D1001520	<b>REV.</b> v4
<b>CHECKER</b> S. O'CONNOR	<b>DATE</b> 04 AUG 2010	<b>APPROVAL</b> M. JACOBSON	<b>DATE</b> 04 AUG 2010	<b>SCALE</b> 1:16	<b>PROJECTION</b> 	<b>SHEET 1 OF 1</b>

D1001520 Cbl Assy, Lower Quad Term Blk to Upper Quad Term Blk, PART FROM REV. X-034, DRAWING FROM REV. X-035