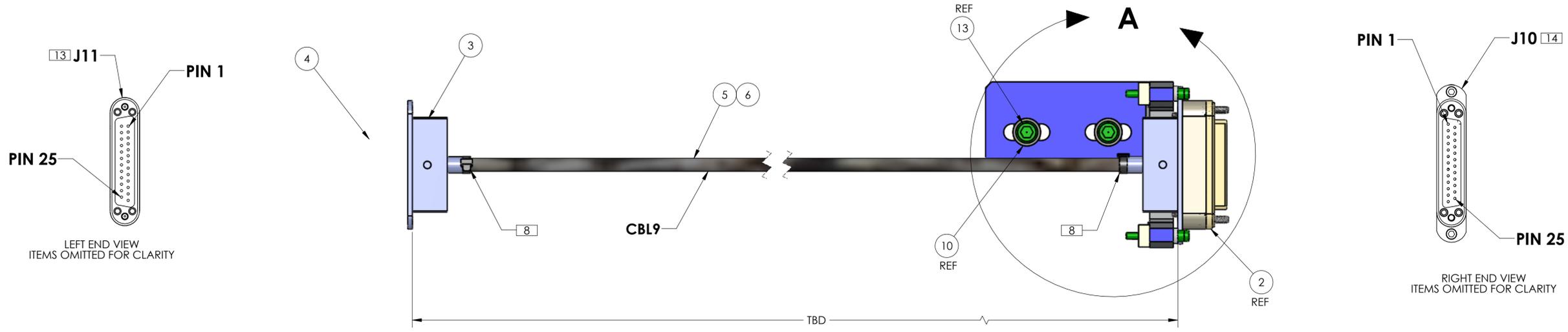


- NOTES CONTINUED:**
- 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR 'TYPE' (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 5 MUST BE CONNECTED TO PIN 1 AND BACK SHELL OF CONNECTORS J10, AND J11 USING AN ELECTRICALLY CONDUCTIVE AND VACUUM COMPATIBLE MATERIAL. (SEE LIGO SPEC. E0900364)
  - 9. ITEM 6, MUST BE CLAMPED UNTO THE BACKSHELL OF J10 AND J11 WITH A VACUUM COMPATIBLE MATERIAL. (SEE LIGO SPEC. E0900364)
  - 10. ALL JOINTS SHOULD BE CRIMPED, NO OTHER FORM OF JOINT IS ALLOWED WITHOUT THE APPROVAL OF LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY.

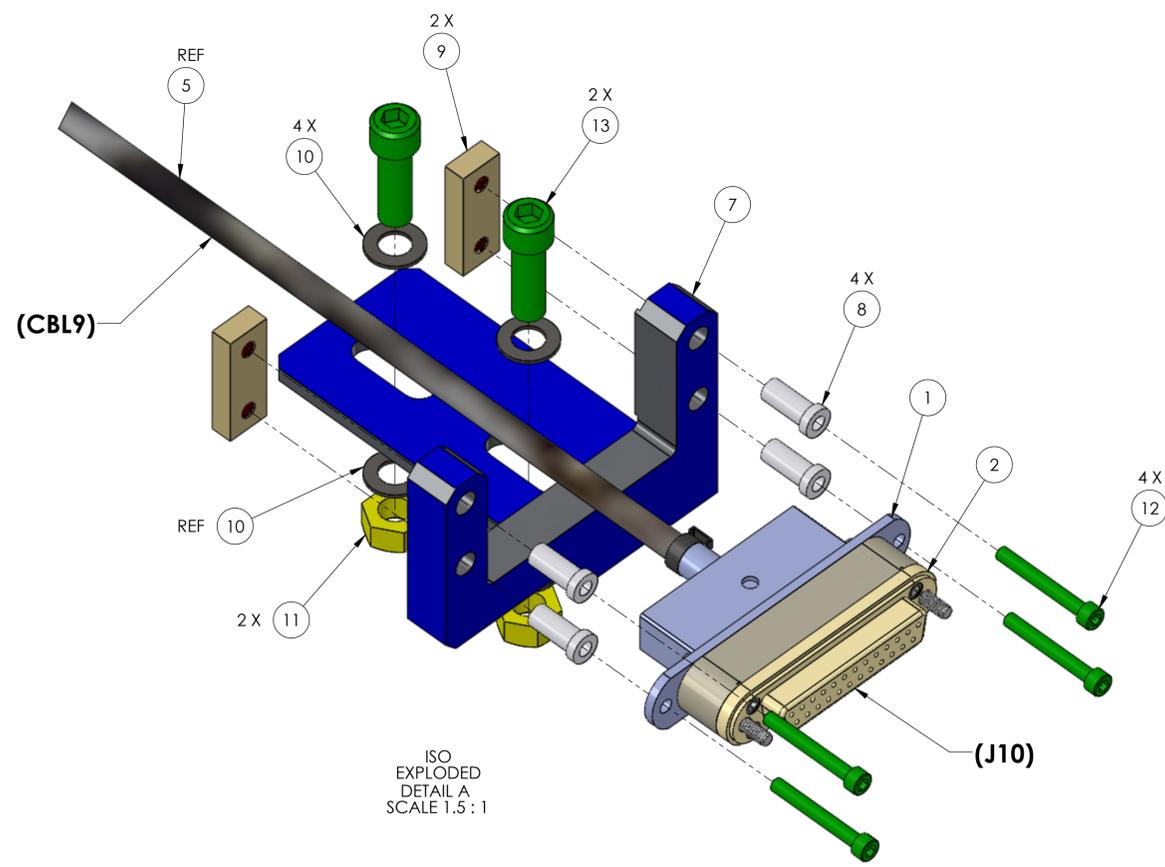
- 11. ALL MATERIAL IS TO BE VIRGIN MATERIAL (I.E. NOT WELD REPAIRS OR PLUGS UNLESS APPROVED IN ADVANCE IN WRITING BY LIGO, REFER TO LIGO-E0900364.
- 12. NO REPAIRS SHALL BE MADE UNLESS APPROVED IN ADVANCE, AND IN WRITING, BY LIGO LABORATORY. IN GENERAL WELD REPAIRS AND PRESS FIT INSERT REPAIRS ARE NEVER 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 J9 OF ASSY D1001520
- 14. MATES IN-VACUUM TO SEI CABLE ASSEMBLY



**TERMINAL BLK TO FLANGE CIRCUIT SUMMARY**

TWISTED PAIR (CBL9)	CONDUCTOR WIRE I.D.	FROM (J10)	TO (J11)
CONDUCTOR SHIELD	CBL-SHIELD (CBL1 & CBL2)	PIN 1 & SHELL	PIN 1 & SHELL
TP-1A	W2	PIN 2	PIN 2
TP-1B	W14	PIN 14	PIN 14
TP-2A	W3	PIN 3	PIN 3
TP-2B	W15	PIN 15	PIN 15
TP-3A	W4	PIN 4	PIN 4
TP-3B	W16	PIN 16	PIN 16
TP-4A	W5	PIN 5	PIN 5
TP-4B	W17	PIN 17	PIN 17
TP-5A	W6	PIN 6	PIN 6
TP-5B	W18	PIN 18	PIN 18
TP-6A	W7	PIN 7	PIN 7
TP-6B	W19	PIN 19	PIN 19
TP-7A	W8	PIN 8	PIN 8
TP-7B	W20	PIN 20	PIN 20
TP-8A	W9	PIN 9	PIN 9
TP-8B	W21	PIN 21	PIN 21
TP-9A	W10	PIN 10	PIN 10
TP-9B	W22	PIN 22	PIN 22
TP-10A	W11	PIN 11	PIN 11
TP-10B	W23	PIN 23	PIN 23
TP-11A	W12	PIN 12	PIN 12
TP-11B	W24	PIN 24	PIN 24
TP-12A	W13	PIN 13	PIN 13
TP-12B	W25	PIN 25	PIN 25



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
13	C2012	SSHC, 1/4-20 UNC-2A X 3/4 LG, VENTED UC-COMPONENT	18-8 SSSL	2		2
12	C-414-N	SSHC, #4-40 UNC-2A X 7/8 LG, UC-COMPONENT	18-8 SSSL	4		4
11	N-2520-A	HEX NUT, 1/4-20, UC-COMPONENTS	18-8 SSSL Ag PLATED	2		2
10	WF-25-A	WASHER, FLAT, 1/4, .255 ID X .468 OD .032 THK	18-8 SSSL Ag PLATED	4		4
9	D1001345-1	αLIGO ELECTRICAL CONNECTOR NUT PLATE	PEEK	2		2
8	D1002345	αLIGO, ELECTRICAL CONNECTOR BUSHING	Ceramic Porcelain	4		4
7	D1001756	αLIGO, TCS, UPPER CUSTOM CONNECTOR BRACKET	6061-T6	1		1
6	111167	PEEK BRAIDED SHIELD, .187IN ID, ACCU-GLASS	PEEK	TBD		TBD
5	112143	SHIELDED 12 TWISTED PAIR WIRE, ACCUGLASS	COPPER	TBD		TBD
4	LIGO CUSTOM	DB25 MALE CONNECTOR FOR UHV.	PEEK	1		1
3	LIGO, CUSTOM	DB25 CONNECTOR BACKSHELL, VENT HOLE, NO LFANGE	STAINLESS STEEL	1		1
2	LIGO, CUSTOM	DB25 FEMALE CONNECTOR FOR UHV	PEEK	1		1
1	LIGO, CUSTOM	DB25 CONNECTOR BACK SHELL FOR UHV (STAINLESS STEEL WITH VENT HOLE)	STAINLESS STEEL	1		1

**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

- INTERPRET DRAWING PER ASME Y14.5-1994.
- REMOVE ALL SHARP EDGES, R.02 MIN.
- DO NOT SCALE FROM DRAWING.
- 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

**LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY**

SYSTEM: ADVANCED LIGO SUB-SYSTEM: AOS NEXT ASSY: D1001517

**PART NAME: CABLE ASSY, TERMINAL BLK TO UPPER QUAD**

DESIGNER: A.Cole 10-Aug-2010 SIZE: D DWG. NO.: D1001521 REV.: v3  
 DRAFTER: A.Cole 11-Aug-2010  
 CHECKER: M.Jacobson 11-Aug-2010  
 APPROVAL: S.O'CONNOR 11-Aug-2010

SCALE: NONE PROJECTION: SHEET 1 OF 1