NOTES CONTINUED:

5. ITEM 16 IS NOT DEPECTED;
IT IS PRE-FORMED USING LIGO-D1002047 AND SLEEVED ONTO ITEM 4 PRIOR TO ASSEMBLY

6. ASSEMBLY STEP 1:
TWO PIECES OF ITEM 11 ARE PRE-STRIPPED AND CRIMPED INTO ITEM 10

7. ASSEMBLY STEP 2:
ITEMS 4 AND 16 ARE SET INTO ITEMS 3 AND 9

8. ASSEMBLY STEP 3:
ITEM 16 IS WOUND ABOUT THE STEM OF ITEM 8 AND SECURED AGAINST ITEM 5 BY TIGHTENING ITEM 7

9. ASSEMBLY STEP 4:
EITHER ITEM 13 OR ITEM 14 IS SECURED TO ITEM 1 USING ITEM 12

10. ASSEMBLY STEP 5:
ITEM 1 IS BROUGHT INTO PLACE AND 2X ITEM 2 ARE SECURED INTO ITEM 3

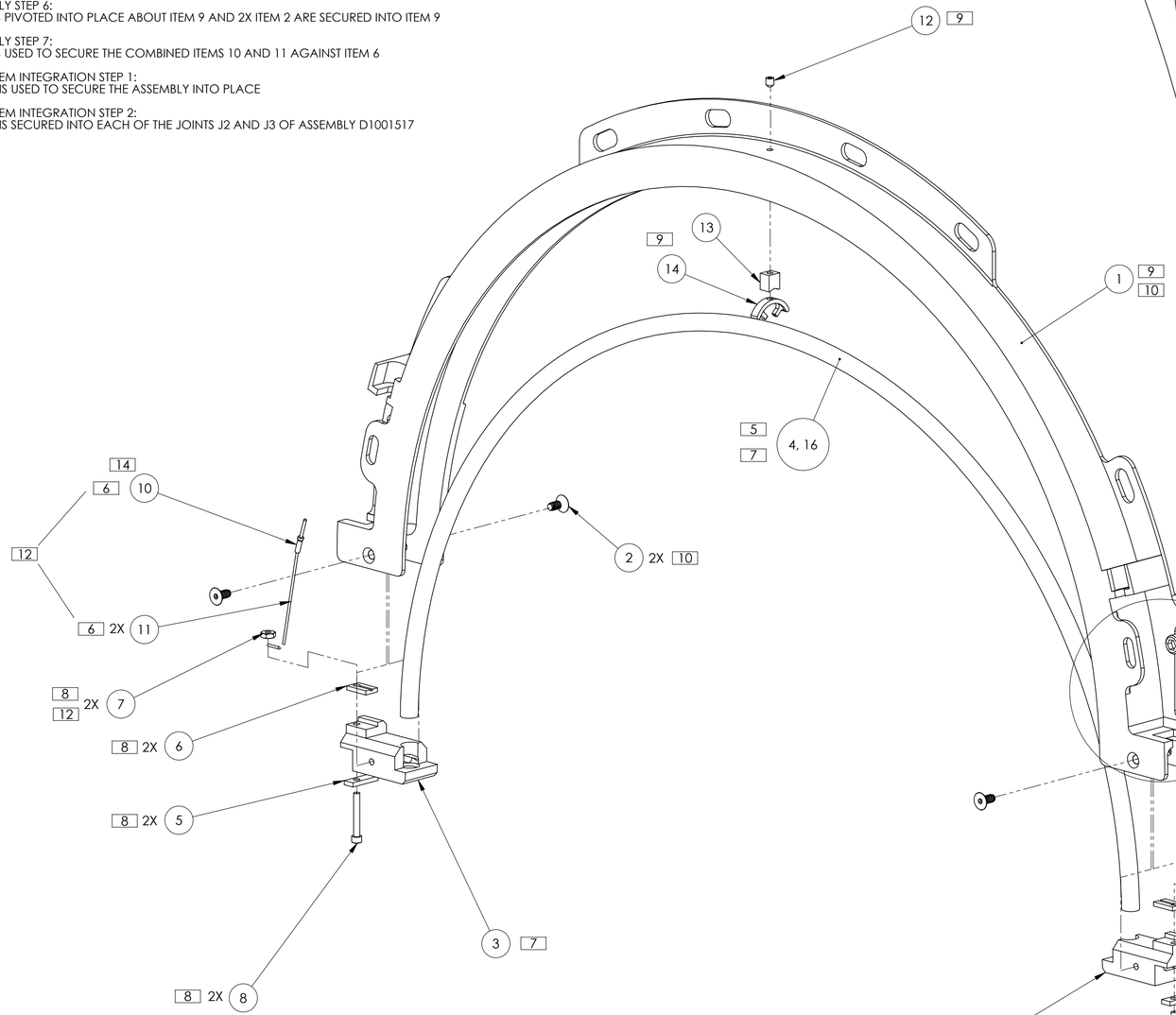
11. ASSEMBLY STEP 6:
ITEM 1 IS PIVOTED INTO PLACE ABOUT ITEM 9 AND 2X ITEM 2 ARE SECURED INTO ITEM 9

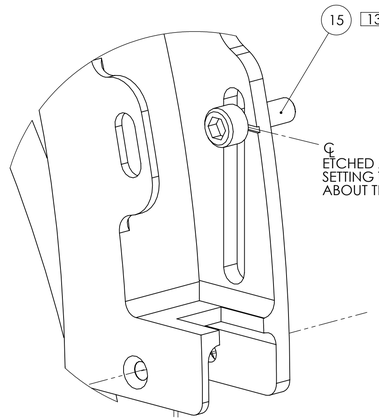
12. ASSEMBLY STEP 7:
ITEM 7 IS USED TO SECURE THE COMBINED ITEMS 10 AND 11 AGAINST ITEM 6

13. SUBSYSTEM INTEGRATION STEP 1:
ITEM 15 IS USED TO SECURE THE ASSEMBLY INTO PLACE

14. SUBSYSTEM INTEGRATION STEP 2:
ITEM 10 IS SECURED INTO EACH OF THE JOINTS J2 AND J3 OF ASSEMBLY D1001517

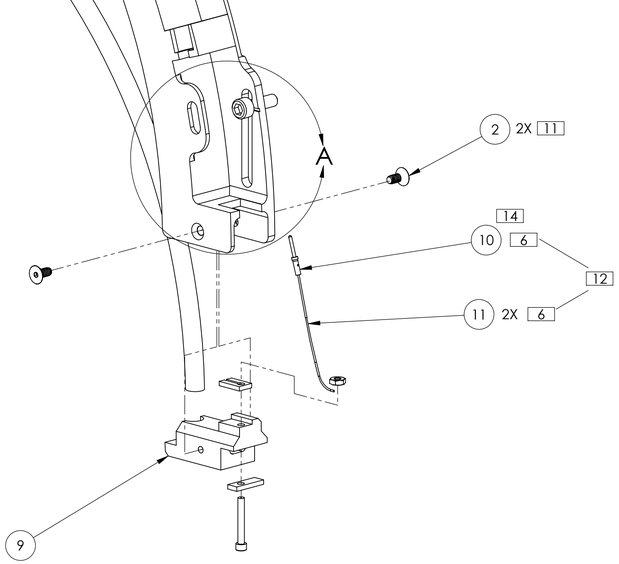
REV.	DATE	DCN #	DRAWING TREE #
v1	04-AUG-2010	E1000291	E1000295-v1
v2	16-NOV-2010	E1000291-v3	E1000295-v4

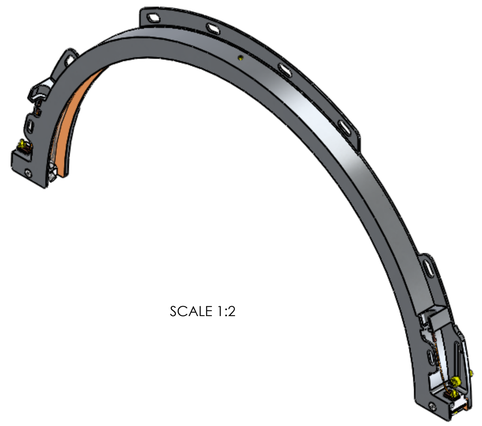




2X

DETAIL A
SCALE 2 : 1





SCALE 1:2

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
16	MM 8880K52	24AWG NICHROME WIRE, PRE-CUT	CHROMEL-C	20 FT	20 FT	40 FT
15	C-808	SHCS, #8-32 X .50 LONG, VENTED	18-8 SS	2	1	3
14	D1003009	RH ELEMENT SPACER WHEEL	MACOR CERAMIC	1	0	1
13	D1002986	RH ELEMENT SPACER	RATH ALTRA KVS	1	0	1
12	T-402	SCREW, SOCKET SET, #4-40 UNC-2A X 0.125 LONG	300 SSTL	1	0	1
11	CZ1105	28 AWG PFA COATED COPPER WIRE, 2X 2X 3-IN PRE-STRIPPED	Copper	12 IN	6 IN	18 IN
10	100170	10-24 AWG ACCUGLASS PIN CONTACT	Au-PLATED CU	2	2	4
9	D1002544	RH ELEMENT RETAINER, SIMPLIFIED RIGHT	MACOR CERAMIC	1	0	1
8	C-210	VENTED SS 18-8 SHCS #2-56 UNC-2A X .625 LG, UC COMPONENTS	18-8 SS	2	2	4
7	N-256	#2-56 UNC 2B, HEX NUT, UC COMPONENTS	18-8 SS	2	2	4
6	D1001849	UPPER COPPER PLATE	Cu, ALLOY 110	2	2	4
5	D1001850	LOWER COPPER PLATE	Cu, ALLOY 110	2	2	4
4	D1002538	SIMPLIFIED GLASS FORMER	Glass	1	1	2
3	D1002543	RH ELEMENT RETAINER, SIMPLIFIED LEFT	MACOR CERAMIC	1	0	1
2	FA-404	VENTED SS 18-8 FSHCS #4-40 UNC-2A x .25 LG, UC COMPONENTS	18-8 SS	4	2	6
1	D1001679	ALIGO TCS UPPER MONOLITHIC RH SHIELD	6061 Alloy	1	0	1

PARTS LIST

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN

TOLERANCES:
.XX ±
.XXX ±

ANGULAR ± °

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.

MATERIAL N/A

FINISH N/A µinch

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM ADVANCED LIGO

SUB-SYSTEM AOS

NEXT ASSY D1002027

PART NAME aLIGO TCS RING HEATER ASSY, UPPER SEGMENT

DESIGNER	M. JACOBSON	29 JUL 2010	
DRAFTER	A.COLE	29 JUL 2010	
CHECKER	C. TORRIE	29 JUL 2010	
APPROVAL	P. WILLEMS	29 JUL 2010	

SIZE D

DWG. NO. D1001838

REV. v2

SCALE: 1:2

PROJECTION:

SHEET 1 OF 1

D1001838_aLIGO TCS UPPER SEGMENT RING HEATER ASSY, PART PDM REV: X.072, DRAWING PDM REV: X.012