



**FORMAL DRAWING TREE REFERENCE DOCUMENT**

TITLE: **aLIGO TCS Ring Heater Assemblies**  
for Production Lot #2

DOCUMENT CONTROL NO.: **E1000295 -v8**  
RELATED DOC. CHANGE NO.: E1100901 -v1

CONTAINING ASSEMBLIES: D1001838 -v6  
D1001895 -v6

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DATE: 26-Apr-12

PURPOSE: This document is the formal reference for necessary revisions of each child of the stated assemblies, and the total necessary quantities for all items.

DCN	NOTES	Level	INDENTURE CHART	QUANTITY				UNITS	DWG TREE REF. NO.	MATERIAL	DCC No.	NAME	TYPE	SOURCE	REV.
				REQ'd	SPARE	TOT.									
No.															
E1100901		1			15	0	15	EA	E1000295		D1001838	<b>aLIGO [TCS] UPPER SEGMENT RING HEATER ASSY</b>	ASSY	MTS	v6
		2			1	0	1	EA		Al, Au-coated	D1001679	aLIGO TCS UPPER MONOLITH RH SHIELD	PRT	MTS	v6
	UC COMPONENTS	2			2	2	4	EA		18-8	C-812	SHCS #8-32 X .75 IN LONG, VENTED	HW	OTS	
	UC COMPONENTS	2			2	2	4	EA		18-8	WFV-08	FLAT WASHER, #8, VENTED	HW	OTS	
	Caltech provided	2			1	1	2	EA		glass	D1002538	SIMPLIFIED GLASS FORMER	PRT	MTS	v3
		2			20.0	10.0	30	FT		NiCr		NICHROME WIRE, 24 AWG	PRT	OTS	
		2			1	0	1	EA		Macor	D1002543-01	RH ELEMENT CONNECTOR, SIMPLIFIED LEFT	PRT	MTS	v5
		2			1	0	1	EA		Macor	D1002544-01	RH ELEMENT CONNECTOR, SIMPLIFIED RIGHT	PRT	MTS	v5
		2			1	1	2	EA		Macor	D1002545	SIMPLIFIED RH ELEMENT STANDOFF	PRT	MTS	v3
	UC COMPONENTS	2			3	1	4	EA		Stainless Steel	T-402	SS Set Screw #4-40 x .125, vented	HW	OTS	
	UC COMPONENTS	2			4	2	6	EA		18-8	FA-404	SS FSHCS-V #4-40 UNC 2A X .25 LONG	HW	OTS	
	ACCUGLASS	2			4.25	2.125	6.4	IN		Kapton, Cu	100680	22 AWG KAPTON INSULATED Cu SOLID WIRE, 2x 2.125 IN LENGTH	HW	OTS	
	ACCUGLASS	2			2	2	4	EA		Cu, Au-coated	100170	20-24 AWG PIN CONTACT, MALE	HW	OTS	
	UC COMPONENTS	2			2	1	3	EA		18-8	C-204-N	SHCS #2-56 x .25 IN LONG	HW	OTS	
		2			1	0	1	EA		Cu 110 Alloy	D1200560-01	BASE OF Cu CALMP, LEFT SIDE	PRT	MTS	v1
		2			1	0	1	EA		Cu 110 Alloy	D1200561-01	Cu CLAMP, LEFT SIDE	PRT	MTS	v1
		2			1	0	1	EA		Cu 110 Alloy	D1200560-02	BASE OF Cu CALMP, RIGHT SIDE	PRT	MTS	v1
		2			1	0	1	EA		Cu 110 Alloy	D1200561-02	Cu CLAMP, RIGHT SIDE	PRT	MTS	v1
E1100901		1			15	0	15	EA	E1000295		D1001895	<b>aLIGO [TCS] LOWER SEGMENT RING HEATER ASSY</b>	ASSY	MTS	v6
		2			1	0	1	EA		Al, Au-coated	D1001680	aLIGO TCS UPPER MONOLITH RH SHIELD	PRT	MTS	v6
	UC COMPONENTS	2			2	2	4	EA		18-8	C-812	SHCS #8-32 X .75 IN LONG, VENTED	HW	OTS	
	UC COMPONENTS	2			2	2	4	EA		18-8	WFV-08	FLAT WASHER, #8, VENTED	HW	OTS	
	Caltech provided	2			1	1	2	EA		glass	D1002538	SIMPLIFIED GLASS FORMER	PRT	MTS	v3
		2			20.0	10.0	30	FT		NiCr		NICHROME WIRE, 24 BNC [DIA .5 MM]	PRT	OTS	
		2			1	0	1	EA		Macor	D1002543-02	RH ELEMENT CONNECTOR, SIMPLIFIED LEFT	PRT	MTS	v5
		2			1	0	1	EA		Macor	D1002544-02	RH ELEMENT CONNECTOR, SIMPLIFIED RIGHT	PRT	MTS	v5
		2			1	1	2	EA		Macor	D1002545	SIMPLIFIED RH ELEMENT STANDOFF	PRT	MTS	v3
	UC COMPONENTS	2			3	1	4	EA		Stainless Steel	T-402	SS Set Screw #4-40 x .125, vented	HW	OTS	
	UC COMPONENTS	2			4	2	6	EA		18-8	FA-404	SS FSHCS-V #4-40 UNC 2A X .25 LONG	HW	OTS	
	ACCUGLASS	2			13.75	6.875	21	IN		Kapton, Cu	100680	22 AWG KAPTON INSULATED Cu SOLID WIRE, 2x 2.125 IN LENGTH	HW	OTS	
	ACCUGLASS	2			2	2	4	EA		Cu, Au-coated	100170	20-24 AWG PIN CONTACT, MALE	HW	OTS	
	UC COMPONENTS	2			2	1	3	EA		18-8	C-204-N	SHCS #2-56 x .25 IN LONG	HW	OTS	
		2			1	0	1	EA		Cu 110 Alloy	D1200560-01	BASE OF Cu CALMP, LEFT SIDE	PRT	MTS	v1
		2			1	0	1	EA		Cu 110 Alloy	D1200561-01	Cu CLAMP, LEFT SIDE	PRT	MTS	v1
		2			1	0	1	EA		Cu 110 Alloy	D1200560-02	BASE OF Cu CALMP, RIGHT SIDE	PRT	MTS	v1
		2			1	0	1	EA		Cu 110 Alloy	D1200561-02	Cu CLAMP, RIGHT SIDE	PRT	MTS	v1