



California Institute of Technology
Massachusetts Institute of Technology

DCN No. E040303 - 00 - D

Sheet 1 OF 5

Document Change Notice (DCN)

DOC NO	TITLE	PRE REV	NEW REV
E030507-00	DRAWING TREE	00	A
E030508-00	MATERIALS LIST	00	A
D040391-02	A-LIGO SUS CPTYPE MC SUS ASSEMBLY & ASSEMBLY FIXTURES	02	A
D020700-02	Advanced LIGO Mode Cleaner Suspension Assembly	02	A

FULL LIST OF DRAWINGS STARTS ON SHEET 2 OF 2

CHANGE DESCRIPTION (FROM / TO):

REASON FOR CHANGE: Initial Release

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

DISPOSITION OF HARDWARE (IDENTIFY SERIAL NUMBERS)	DCN DISTRIBUTION		
<input checked="" type="checkbox"/> No hardware was affected (record change only):	Barish	Coyne	Fritschel
<input type="checkbox"/> List S/Ns which comply already:	Giaime	Lazzarini	Lindquist
<input type="checkbox"/> List S/Ns to be reworked/scrapped:	Raab	Shoemaker	Sibley
<input type="checkbox"/> List S/N's to be built with this change:	Sigg	Tyler	Weiss
<input type="checkbox"/> List S/Ns to be retested per this change:	Whitcomb	Worden	Hough
<input type="checkbox"/>	Cantley	Greenhalgh	
	N. Robertson		

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

APPROVALS:	DATE	OTHER APPROVALS (SPECIFY)	DATE
ORIGINATOR: Calum I. Torrie	24 th June 2004	(MB):	
TASK LEADER (JHR):		(NAR):	
GROUP LEADER (DC):			

DCC RELEASE:



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DOC NO	TITLE	PRE REV	NEW REV
D040391	ASSEMBLY MC SUSPENSION & ASSEMBLY FIXTURES	02	TO A
D020700	Mode Cleaner Suspension Assembly	02	TO A
D020661	ASSEMBLY MAGNET AND DUMBBELL	00	TO A
D020541	ASSEMBLY LOWER AND INTERMEDIATE MASS	01	TO A
D020234	MC OPTIC	05	TO A
D020416	CVI OPTIC SPACER	00	TO A
D020316	ASSEMBLY LOWER WIRE CLAMP	00	TO A
D020204	LOWER WIRE CLAMP SHIM	00	TO A
D020203	LOWER WIRE CLAMP OUTSIDE	00	TO A
D020202	LOWER WIRE CLAMP INSIDE	00	TO A
D020148	MC WIRE STAND OFF	01	TO A
D020319	ASSEMBLY UPPER BLADE WIRE CLAMP	01	TO A
D020198	UPPER BLADE WIRE CLAMP	00	TO A
D030042	UPPER BLADE WIRE CLAMP PLATE	01	TO A
D020135	UPPER BLADE WIRE CLAMP PLATE (ALT TO D030042)	01	TO A
D020535	ASSEMBLY UPPER MASS + TABLE CLOTH	01	TO A
D020239	COIL HOLDER U (TABLE CLOTH)	06	TO A
D020225	ASSEMBLY COIL FORMER AND ASSOCIATED PARTS	10	TO A
D020282	COIL FORMER BRACKET	11	TO A
D030122	SHOULDER FOR COIL FORMER BRACKET	01	TO A
D030105	ASSEMBLY COIL HEAD	09	TO A
D020188	COIL FORMER	09	TO A
D030108	SPACER FOR PIN HEAD	01	TO A
D030123	SPACER FOR COIL FORMER BRACKET	01	TO A
D030183	COIL FORMER CLAMP ONE PIECE	04	TO A
D030710	COIL FORMER CLAMP ONE PIECE ALT	03	TO A
D020532	ASSEMBLY MAGNET AND FLAG (FOR PITCH)	00	TO A
D020210	BRIDGE SPACER FOR MAGNET	00	TO A
D020533	ASSEMBLY MAGNET AND FLAG	00	TO A
D020196	MAGNET SPACER	00	TO A
D020534	ASSEMBLY UPPER MASS	00	TO A
D020197	FLAG FOR MAGNET	00	TO A
D020137	PITCH INSERT FOR T SECTION	03	TO A
D020136	T SECTION FOR UPPER MASS	06	TO A
D020201	LowerBlade	03	TO A
D020134	UPPER MASS MAIN SECTION	03	TO A
D020308	lowerbladeclamp lowerside	00	TO A
D020119	LOWER BLADE CLAMP UPPER SIDE	00	TO A
D020318	ASSEMBLY LOWER BLADE WIRE CLAMP	01	TO A
D020132	LOWER BLADE WIRE CLAMP	01	TO A
D020133	LOWER BLADE WIRE CLAMP PALTE	01	TO A
D030044	LOWER BLADE WIRE CLAMP PLATE THICK (ALT TO D020133)	01	TO A
D020199	MAGNET HOLDER (TRANSVERSE)	00	TO A
D020211	FIT FOR MAGNET HOLDER	00	TO A
D020200	MAGNET HOLDER (LONGITUDINAL AND YAW)	00	TO A
D030076	MAGNET SPACER (STEEL)	00	TO A
D020499	ASSEMBLY UPPER WIRE CLAMP (WITH PITCH ADJUSTMENT)	00	TO A
D020481	UPPER MASS C CLAMP	03	TO A
D020309	UPPER MASS WIRE CLAMP PLATE (WITH GROOVE)	00	TO A



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DOC NO	TITLE	PRE REV	NEW REV	
D020139	UPPER MASS WIRE CLAMP PLATE		00	TO A
D020482	UPPERMASS SCREW DRIVE SYSTEM		00	TO A
D020676	ROLL INSERT TSECTION		00	TO A
D030025	STAINLESS SHCS, 1/4-20X2.5, ROUNDED END		00	TO A
D020542	ASSEMBLY UPPER BLADE GUARD		02	TO A
D020236	MC STRUCTURE GUARD TOP PLATE		01	TO A
D020463	LOS WINCH FIXTURE ADAPTER PLATE		00	TO A
D020443	UPPER BLADE CATCHER ASSEMBLY PLATE		01	TO A
D020562	UPPER BLADE CATCHER ASSEMBLY GUARD		00	TO A
D030075	LOS WINCH FIXTURE ADAPTER PLATE		00	TO A
D030022	STAINLESS SHCS, 1/4-20X2.5, ROUNDED END		00	TO A
D020346	MCStructure Tablecloth Bracket		04	TO A
D020023	MC STRUCTURE MAIN STRUCTURE		04	TO A
D020418	Structure Stiffener, Small		03	TO A
D020420	Crossbar for Stops		05	TO A
D020417	Sensor/Actuator Bracket, LIGO1		03	TO A
D030017	LIGO1 SENSOR/ACTUATOR BRACKET 2		01	TO A
D030018	LIGO1 SENSOR/ACTUATOR BRACKET 3		00	TO A
D020422	Side X Stiffener		01	TO A
D020425	X Stiffener, Front		01	TO A
D030041	TABLE CLAMP (STRUCTURE SHIM TO OPTICAL TABLE)		01	TO A
D030014	CROSSBAR BRACKET TWO		00	TO A
D020522	Crossbar Bracket		00	TO A
D020523	FACE BRACKET		01	TO A
D030015	FACE BRACKET 2		00	TO A
D030016	FACE BRACKET 3		00	TO A
D020526	CROSSBAR FOR STOPS 2		02	TO A
D030023	STAINLESS SHCS, 1/4-20X2.5, ROUNDED END		00	TO A
D020405	Structure Brace		04	TO A
D030451	Rotational Adjuster Assembly		02	TO A
D030448	BASE PLATE		02	TO A
D030447	ROTATING PLATE		02	TO A
D020205	UPPER BLADE		02	TO A
D030450	PULL PLATE		01	TO A
D030449	PUSH PLATE		02	TO A
D030459	RA UPPER BLADE CLAMP LOWER SIDE 0.0 DEGREE		00	TO A
D020116	UPPER BLADE CLAMP UPPER SIDE 0.0 DEGREE		00	TO A
D030269	BLADE DAMPER		01	TO A
D030263	COPPER SLEEVE		00	TO A
D030264	DAMPER ARM		01	TO A
D020466	NICKEL PLATED MAGNET		A	TO A
D020215	smallcatcher forlowerblades		00	TO A
D020494	ALIGNMENT TARGET (FOR LOCAL SENSORS)		00	TO A
D020162	ASSEMBLY LOWER WIRE JIG		01	TO A
D020157	TEST MASS JIG		02	TO A
D020155	SPACER FOR MASS JIG		01	TO A
D020156	CLAMP MASS JIG		01	TO A
D030048	SPACER FOR MASS JIG (LOWER WIRE)		01	TO A
D030047	CLAMP MASS JIG (WITH GROOVE)		01	TO A
D030028	Brass Pusher Fixture		00	TO A



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DOC NO	TITLE	PRE REV	NEW REV
D020161	ASSEMBLY UPPER WIRE JIG		00 TO A
D020153	BAR JIG (UPPER AND INT. WIRE)		01 TO A
D020158	ANGLED ATTACHMENT FOR UPPER BLADE WIRE CLAMP		00 TO A
D020154	BAR JIG STEP PLATE		03 TO A
D020440	UPPER WIRE HEIGHT BALANCE		00 TO A
D020540	WIRE START MATCHED HEIGHT (GROOVED CLAMP)		00 TO A
D020380	WIRE START CLAMP UPPER		00 TO A
D020501	BAR JIG ADJUSTER		00 TO A
D020677	ASSEMBLY LIBRARY OF CLAMPS (INCLUDING CLAMPS 4 ROT ADJ)		02 TO A
D020307	upperbladeclamp lowerside		00 TO A
D020321	upperbladeclamp lowerside ANGLED 0.5degree		00 TO A
D020325	upperbladeclamp upperside ANGLED 0.5degree		00 TO A
D020324	upperbladeclamp lowerside ANGLED 2.5degree		00 TO A
D020328	upperbladeclamp upperside ANGLED 2.5degree		00 TO A
D020312	upperbladeclamp upperside ANGLED		00 TO A
D020311	upperbladeclamp lowerside ANGLED		00 TO A
D020323	upperbladeclamp lowerside ANGLED 1.5degree		00 TO A
D020327	upperbladeclamp upperside ANGLED 1.5degree		00 TO A
D020322	upperbladeclamp lowerside ANGLED 1.0degree		00 TO A
D020326	upperbladeclamp upperside ANGLED 1.0degree		00 TO A
D020679	UPPER BLADE CLAMP LOWERSIDE SHIM 1mm		00 TO A
D020680	UPPER BLADE CLAMP LOWERSIDE SHIM 2mm		00 TO A
D020340	lowerbladeclamp upperside angled 2.5degree		00 TO A
D020336	lowerbladeclamp lowerside angled 2.5degree		00 TO A
D020313	lowerbladeclamp lowerside angled		00 TO A
D020314	lowerbladeclamp upperside angled		00 TO A
D020339	lowerbladeclamp upperside angled 1.5degree		00 TO A
D020335	lowerbladeclamp lowerside angled 1.5degree		00 TO A
D020334	lowerbladeclamp lowerside angled 1.0degree		00 TO A
D020338	lowerbladeclamp upperside angled 1.0degree		00 TO A
D020333	lowerbladeclamp lowerside angled 0.5degree		00 TO A
D020337	lowerbladeclamp upperside angled 0.5degree		00 TO A
D020682	LowerBladeClamps Shim1mm		00 TO A
D020687	UpperBladeClamp Lowerside Angled 3.0degree		00 TO A
D020689	UpperBladeClamp Upperside Angled 3.0degree		00 TO A
D020688	UpperBladeClamp Lowerside Angled 3.5degree		00 TO A
D020690	UpperBladeClamp Upperside Angled 3.5degree		00 TO A
D030460	ROTAIONAL ADJUSTER UPPER BLADE CLAMP LOWER SIDE ANGLED 0.5 DEGREE		00 TO A
D030461	ROTAIONAL ADJUSTER UPPER BLADE CLAMP LOWER SIDE ANGLED 1.0 DEGREE		00 TO A
D030462	ROTAIONAL ADJUSTER UPPER BLADE CLAMP LOWER SIDE ANGLED 1.5 DEGREE		00 TO A
D030463	ADVANCED LIGO SUS MC ROTAIONAL ADJUSTER UPPER BLADE CLAMP LOWER SIDE 2.0 DEGREE		00 TO A
D030464	ADVANCED LIGO SUS MC ROTAIONAL ADJUSTER UPPER BLADE CLAMP LOWER SIDE ANGLED 2.5 DEGREE		00 TO A
D030465	ADVANCED LIGO SUS MC ROTAIONAL ADJUSTER UPPER BLADE CLAMP LOWER SIDE ANGLED 3.0 DEGREE		00 TO A
D030466	ADVANCED LIGO SUS MC ROTAIONAL ADJUSTER UPPER BLADE CLAMP LOWER SIDE ANGLED 2.5 DEGREE		00 TO A
D030049	ASSEMBLY INTERMEDIATE WIRE JIG		00 TO A
D020376	WIRE START GROOVED CLAMP		00 TO A



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DOC NO	TITLE	PRE REV	NEW REV
D020159	LOWER BLADE WIRE JIG (INTERMEDIATE WIRES)		04 TO A
D020458	ASSEMBLY BASIC ALUM CATCHER INTERMEDIATE & TEST MASS		00 TO A
D020445	V CLAMP FOR BAR CATCHER		00 TO A
D020448	CATCHER BAR FOR INTERMEDIATE MASS		00 TO A
D020446	BAR ATTACH LOWER		00 TO A
D020447	BAR ATTACH UPPER		00 TO A
D020449	CATCHER BAR FOR TEST MASS		00 TO A
D040259	TABLE CLOTH AND UPPER MASS TABLE JIG		00 TO A
D020450	BAR PLATE (FIXTURE ASSEMBLY)		00 TO A
D020350	UPPER MASS 100g ADD ON MASS		00 TO A
D020351	UPPER MASS 50g ADD ON MASS		01 TO A
D030468	40g ADD ON MASS		00 TO A
D030457	SPACER 120g MASS		00 TO A
D030456	SPACER 75g MASS		00 TO A
D030455	SPACER 35g MASS		00 TO A
D030454	SPACER 60g MASS		00 TO A
D030079	UPPER MASS 10g ADD ON MASS		00 TO A
D030078	UPPER MASS 20g ADD ON MASS		00 TO A
D020660	ASSEMBLY I-BLADE DEFLECTION JIG		00 TO A
D010264	I-BLADE WIRE CLAMP		00 TO A
D010265	I-BLADE WIRE CLAMP PLATE		00 TO A
D010266	I-BLADE MASS CLAMP CYLINDER		00 TO A
D010261	I-BLADE MASS CLAMP		00 TO A
D010268	I-BLADE MASS CLAMP PLATE		00 TO A
D030021	RSHCS 1/4-20 X 2.25		00 TO A
D030024	AG-RSHCS 8-32 X .375		00 TO A
D030026	AG-RSHCS 8-32 X 1.75		00 TO A
D030027	AG-RSHCS 8-32 X 2		00 TO A