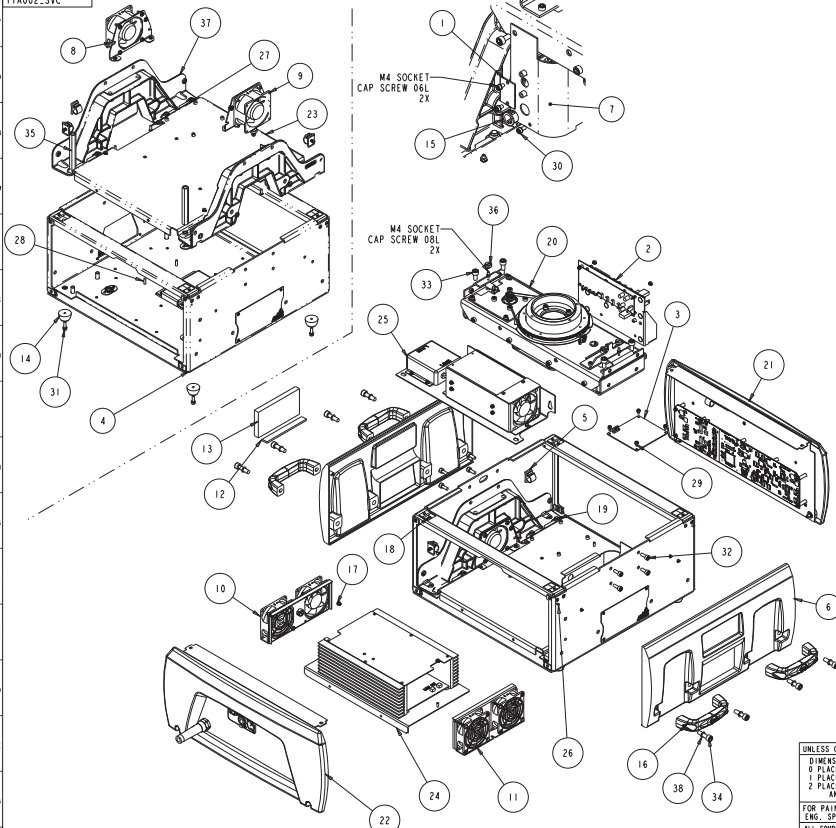


TTA002_SVC



FOR SERVICE REFERENCE ONLY

38	8	WASHER#318_500_040	90706101	WASHER, .040 X .318 ID X .500 OD
37	2	DB250	99260452	SUPPORT, BEAM, CAST TOP BOX, DL2
36	2	DB306	80071851	STUD, PANEL RETAINER, DL2
35	2	TW348	90702272	STANDOFF, 1/2 HEX, MB, FF 3.937L
34	8	SCREWM#AC30SS	91100830	SCREW,MB SOCKET CAP 30 SS
33	4	SCREWM#AC16SSP	91100816	SCREW,MB SOCKET CAP 16 SS W/PATCH
32	8	SCREWM#AC16SS	91100616	SCREW,MB SOCKET CAP 16 SS W/PATCH
31	4	SCREWM#AC16W-BZ	91000516	SCREW,M5 SOCKET CAP 16 BZ SEMS
30	3	SCREWM#AC08BZ	91000408	SCREW,M4 SOCKET CAP 08 BZ SEMS
29	6	SCREWM#AC06W-BZ	91000406	SCREW,M4 SOCKET CAP 06 BZ SEMS
28	4	SCREWM#MB20BZ	91010420	SCREW,MB BUTTON 20 BZ W/PATCH
27	4	SCREWM#MB12BZ	91010412	SCREW,MB BUTTON 12 BZ W/PATCH
26	4	SCREWS-19PP380BTYP-BZ	90709016	SCREW,#6 PHIL PAN 3/8 B TYPE BZ
25	1	TOA075	INTERNAL	POWER SUPPLY, MOUNTED W/LINE/FILTER SG
24	1	TOA034	99070027EF	POWER SUPPLY, 2.5KW, CCI, AI
23	1	TW102	99080307	PLATE, MOUNTING, POWER SUPPLY, MEA1
22	1	TTA068	INTERNAL	PANEL, ASM, I/O, COMPLETE SG 2.5
21	1	TTA067	INTERNAL	PANEL, ASM, FRONT, ELECT ENCL SG
20	1	TWA081	INTERNAL	FAN BEARING COMPLETE SG
19	12	NUT,MB_LOCK,NY	90703105	NUT,MB-1.25, W/LOC
18	1	NUTM#KEP	91201206	NUT,M6 KEPS
17	4	NUTM#KEP	91201204	NUT,M4 KEPS
16	4	SW214	90720005	HANDLE, SMALL W/ LOGO
15	1	BUSHING500SNAP	90410102	GROMMET,SNAP BUSHING .50 ID
14	4	RUBBER_FOOT	90410089	FOOT, RUBBER STC/NH LONG
13	1	DB512	80260015	FILTER, INTAKE TOP BOX DL2
12	1	VELCRO_STRIP_HOOK88	90722021	FASTENER,VELCRO,5/8" WIDE W/PSA,HOOK 88
11	1	TOA035	INTERNAL	FAN MOUNT ASSEMBLY, 2.5KW PS, INTAKE
10	1	TOA036	INTERNAL	FAN MOUNT ASSEMBLY, 2.5 KW PS, EXHAUST
9	1	TWA011	INTERNAL	FAN ASSEMBLY, INTAKE
8	1	TWA065	INTERNAL	FAN ASSEMBLY, EXHAUST
7	1	TW197	99080313	DUCT, DIVERTER, ENCLOSURE
6	2	TW201	99220033	COVER, SIDE, TOP BOX DL2
5	6	CLIP_50_PUSH_ON_NY	90701271	CLIP, WIRE .50 DIA, PUSH MOUNT
4	1	TWA009	80110041	CHASSIS, ASSY, TOP BOX SG
3	1	TW429	80010206EF	BOARD,RGB LED CONTROL MODULE ASSY
2	1	TWA062	INTERNAL	BOARD,LOGIC W/VERTICAL MOUNT SB/SG
1	1	FST19	80040024EF	BOARD ASSY TEMP SENSOR
ITEM NO.	QTY.	FILENAME	PART NO.	DESCRIPTION

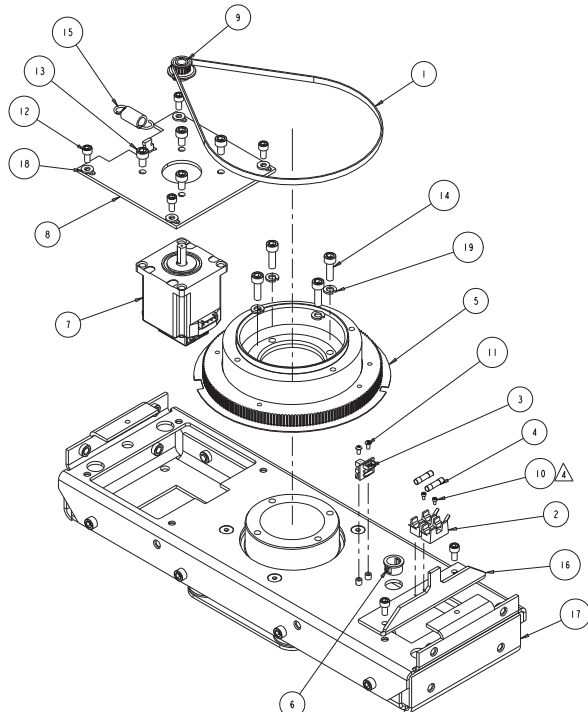
BILL OF MATERIALS

UNLESS OTHERWISE SPECIFIED:	RELEASE DATE:	CEL:	High End	2105 GRACY FARMS LANE AUSTIN, TEXAS 78758 1537 836-2244 FAX (512) 832-4128 http://www.highend.com	
DIMENSIONAL TOLERANCES:	ENG:	QA:			
0 PLACE DECIMAL = ±0.38	MEG:	DRW:			
1 PLACE DECIMAL = ±0.25	MEG:				
2 PLACE DECIMALS = ±0.13	ANGLES = ±0.5°				
FOR PAINTED PARTS REFER TO ENG. SPEC. MANUAL W/ 0592	INTERPRET:				
ALL COMPONENTS: MATERIALS AND FINISHES TO BE HANS COMPLIANT	CHARTED:				
W/IN. UNIT	INTERPRET DIMENSIONS PER ASME Y14.5M-1994	THIRD ANGLE PROJECTION	SI METRIC A1	DO NOT SCALE	
VOLUME	DIMENSIONS ARE IN MILLIMETERS				

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FINISH: NONE
PART NO. INTERNAL TTA002_SVC
DRAWING NO. TTA002_SVC
SCALE: 0.250
SHEET: 1 OF 1

TWA001



REV.	DESCRIPTION	DATE	ENG	ECO #	APPR
1	CREATE DRAWING		KDB		
2	REPLACE DB335 PINION WITH TW335 PINION	29APR08	PP		MB
3	CORRUPT FILE CAUSED INTRALINK ISSUES;REBUILD ASSY	02OCT08	LR		
4	FUSE HOLDER: SWAP FLAT HD FOR M2 SOCKET CAP	14OCT08	LR		

19	4	WASHER,M6,SPLITLOCK,SS	91109206	1	WASHER_LOCK,SPLIT,M6,SS
18	4	WASHER10-Z04X40SS	90706012	1	WASHER_FLAT #10 SS
17	1	TWA094	80460012	C	SUPPORT_ASSY,PAN BEARING V4
16	1	TWS36	99260515	-	STOP_PAN_LOCK SS
15	1	SPRING500_1250_LG	90701354	-	SPRING_EXTENSION_500 X 1.25 LG
14	4	SCREW#M6AC20SS	91100620	-	SCREW_M6 SOCKET CAP 20 SS
13	4	SCREW#M6AC10SS	91100610	-	SCREW_M6 SOCKET CAP 10 SS W/PATCH
12	6	SCREW#M5AC10SSP	91100510	-	SCREW_M5 SOCKET CAP 10 SS W/PATCH
11	2	SCREW#M3AB06BZP	91010306	-	SCREW_M3 BUTTON SOCKET HD 06 BZ W/PATCH
10	2	SCREW#M2AC04BZ	91050204	-	SCREW_M2 SOCKET CAP 04 BZ
9	1	TW335	99430126	-	PINION ASSY 13T 3MM HTD, LOW PROFILE
8	1	TWS27	99260505	A	MOUNT_PAN_MOTOR SS
7	1	TWS02	INTERNAL	3	MOTOR_ENCODER ASSEMBLY SB/SG
6	1	BUSHING500SNAP	90410102	-	GROMMET_SNAP BUSHING .50 ID
5	1	DBA015	INTERNAL	NA	GEAR_ASSY_PAN DL2
4	2	FUSE5X20_5A-SLOW	90403012	-	FUSE_5 AMP SLOW
3	1	FS709	80040022EF	1.0	BOARD_ASSY_X-SPOT FLAG HOMING SENSOR
2	2	FUSE_HOLDER5X20	90412018EF	-	BLOCK_FUSE SINGLE 5 X 20MM SINGLE
1	1	TWS04	99360050	-	BELT_TIMING 3MM HTD, 200 GROOVE, 6MM

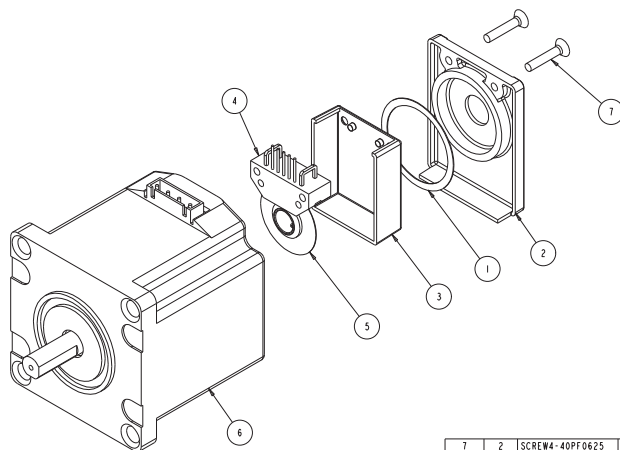
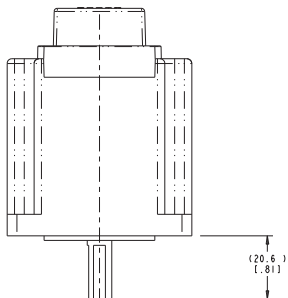
ITEM NO.	QTY.	FILENAME	PART NO.	REV	DESCRIPTION
BILL OF MATERIALS					
UNLESS OTHERWISE SPECIFIED: RELEASE DATE: CE:					
DIMENSIONAL TOLERANCES:		ENG:		High End 2105 GRACY FARMS LANE	
0 PLACE DECIMAL: ±0.38		ME:		AUSTIN, TEXAS 78758	
1 PLACE DECIMAL: ±0.25		MEG:		(512) 836-2240	
2 PLACE DECIMALS: ±0.13		DRW:		FAX (512) 832-4128	
ANGLES: ±0.5		DISCRIPTION:		http://www.highend.com	
FOR PAINTED PARTS REFER TO: PAN BEARING COMPLETE SG		MATERIAL:		FINISH:	
ENG. SPEC. MANUAL W-0592		CHARTED		NONE	
ALL COMPONENTS: MATERIALS AND FINISHES TO BE BANS COMPLIANT					
MATERIAL:		INTERPRET DIMENSIONS PER		PART NO.	
W/IN. UNIT		ASME Y14.5M-1994		INTERNAL TWA081	
FLATNESS:		THIRD ANGLE PROJECTION		DRAWING NO.	
THICKNESS:		DIMENSIONS ARE IN MILLIMETERS		SCALE: 0.630	
VOLUME:		DO NOT SCALE		SHEET: 1 OF 1	

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TW502

REV.	DESCRIPTION	DATE	ENG	ECO #	APPR
1	RELEASE FOR PROTOTYPE	23FEB07	SH		
2	ADD ITEM 7 TO BOM	29APR08	PP		MB
3	MOTOR WAS MR110, NOW MR114.;EXPLODE THE VIEW	03OCT08	LR		



ITEM NO.	QTY.	FILENAME	PART NO.	REV	DESCRIPTION
7	2	SCREW4-40PF0625	90709134	-	SCREW, 4-40 PHIL FLAT 5/8
6	1	MR114	99270085	-	MOTOR, STEP, 3PH S60, 19MM DL SHT HI TO, JS
5	1	FS524	90306068	-	ENCODER, WHEEL/HUB, 500 CPR 5V
4	1	FS523	90306067	-	ENCODER, OPTICAL MODULE, 500 CPR 5V
3	1	FS227	99220023	A	COVER, ENCODER, DIE CAST
2	1	FS228	80130023	A	BASE, ENCODER, DIE CAST
1	1	FS805	99250029	-	ADHESIVE, RING ENCODER

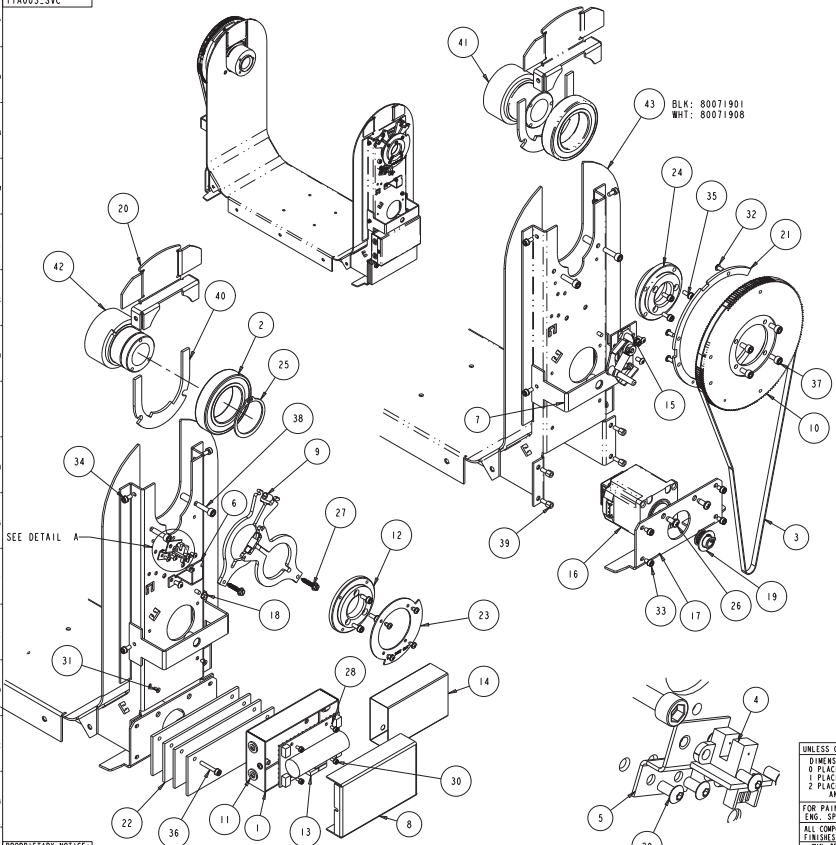
BILL OF MATERIALS

UNLESS OTHERWISE SPECIFIED:	RELEASE DATE:	CC:	2105 GRACY FARMS LANE AUSTIN, TEXAS 78758 (512) 836-2242 FAX (512) 832-8542 http://www.highend.com	
DIMENSIONAL TOLERANCES:	ENG:	QA:		
1 PLACE DECIMALS ± .010	ME:	DRW:		
2 PLACE DECIMALS ± .010	REG:	DESCRIPTION:		
3 PLACE DECIMALS ± .005	ANGLES ± .1°	MOTOR, ENCODER ASSEMBLY SB/SG		
FOR PAINTED PARTS REFER TO ENG. SPEC. MANUAL WJ-0592	MATERIAL:	FINISH:		
ALL COMPONENTS: MATHEMATICAL AND FINISHES TO BE BANS COMPLIANT	UNLESS OTHERWISE SPECIFIED:	PART NO.		
W.T. .001	INTERPRET DIMENSIONS PER ASME Y14.5M-1994	DRAWING NO.		
FLATNESS:	DIMENSIONS ARE IN INCHES.	INTERNAL TW502		
THICKNESS:	DRAWING USES THIRD ANGLE PROJECTION	REV. 3		
VOLUME:	DO NOT SCALE DRAWING	SCALE: 1:1		
		SHEET: 1 OF 1		

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TTA003_SVC

**FOR SERVICE
REFERENCE ONLY**



43	1	TWA093	CHARTED	YOKE, WELDED ASSY PAINTED SG
42	1	TW381	99140021	TUBE, TILT W/ RETAINING GROOVE
41	1	CAT327	99140018	TUBE, TILT CATALYST HEAD, DL1
40	2	TW517	80070464	STOP, TILT TUBE SG
39	4	STANDOFF_M4X6_M-F	90702376	STANDOFF, 6MM X 6MM L W/F M4 ALUM
38	4	SCREWMSAC20SSP	91100520	SCREW, M5 SOCKET CAP 20 SS W/PATCH
37	4	SCREWMSAC10SSP	91100510	SCREW, M5 SOCKET CAP 10 SS W/PATCH
36	2	SCREWMAAC25W-BZ	91000425	SCREW, M4 SOCKET CAP 25 BZ SEMS
35	6	SCREWMAAC10W-BZ	91000410	SCREW, M4 SOCKET CAP 10 BZ SEMS
34	8	SCREWMAAC08BZ	91000408	SCREW, M4 SOCKET CAP 08 BZ SEMS
33	4	SCREWMAAC06W-BZ	91000406	SCREW, M4 SOCKET CAP 06 BZ SEMS
32	8	SCREWMA40808ZP	91010408	SCREW, M4 BUTTON 08 BZ W/PATCH
31	2	SCREWMS3AF068ZP	91040306	SCREW, M3 SOCKET CSNK FLAT 06 BZ W/PATCH
30	4	SCREWMS3AC06W-BZ	91000306	SCREW, M3 SOCKET CAP 06 BZ SEMS
29	4	SCREWMS3AB068ZP	91010306	SCREW, M3 BUTTON SOCKET HD 06 BZ W/PATCH
28	6	SCREW-19PP250TL-SZ	90709123	SCREW, 6-19 PHIL PAN 1/4 SZ PLASTITE
27	2	SCREW-18SH75ABTYPE-SS	90704040	SCREW, 8X HEX HEAD 7/8 SHEET METAL SS
26	2	SCREW10-14PP500TL-SZ	90709062	SCREW, #10 PHIL PAN 1/2 PLASTITE SZ
25	1	RING-RETAINING-175-SHAFT	90701375	RING, RETAINING, EXTERNAL, 1.618
24	1	CAT328	99360041	PULLEY, ADAPTOR, TILT, DL1
23	1	TW519	99080311	PLATE, TILT SENSOR SG
22	4	TW542	80070473	PLATE, COUNTERWEIGHT, OKE SG
21	1	DE131	99080350	PLATE, TILT STOP V3
20	2	CAT181	80071806	PLATE, TILT BEARING RETAINER BLK DL1
19	1	TW335	99430126	PINION ASSY 17T 3MM HTD, LOW PROFILE
18	1	NUTM4KEP	91201204	NUT, M4 KEPS
17	2	TW526	99260504	MOUNT, TILT MOTOR, SG
16	1	TW502	INTERNAL	MOTOR, ENCODER ASSEMBLY SB/SG
15	1	CATA031	NA	LATCH, ASSY, TILT, DL
14	1	TW208.FORMED	90411075	INSULATOR, IGNITOR MEAI
13	1	TW426	90606007EF	IGNITOR, POWER SUPPLY, 2KW, CCI, AI
12	1	TW380	99400097	HUB, TILT SENSOR SG
11	4	BUSHING3121DSNAP	90401517	GROMMET, SNAP BUSHING .312 ID
10	1	DE132	99430131	GEAR, PULLEY, 170T TILT/PAN DRIVE V2
9	2	FSAD09	80360009	DAMPENER, BRAKE ASSY PAN X-SPOT/SG
8	1	TW146	99080309	COVER, IGNITOR BRACKET SG
7	2	CAT186	99260424	BRACKET, YOKER ARM COVER RETAINER DL
6	1	CAT198	99263113	BRACKET, WIRE GUIDE, RIGHT, DL
5	1	TW529	99260506	BRACKET, TILT SENSOR, SG
4	1	FS709	80040022EF	BOARD, ASSY X-SPOT FLAG HOMING SENSOR
3	1	TW503.TENSIONED	99360049	BELT, TIMING 3MM HTD, 305 GROOVE, 6MM
2	2	BEARING.45-75MM.BALL	90719061	BEARING, 45MM, 6009 ZRS
1	1	TW147	99080310	BASE, IGNITOR BRACKET SG

ITEM NO., QTY., FILENAME, PART NO., DESCRIPTION, BILL OF MATERIALS

UNLESS OTHERWISE SPECIFIED: RELEASE DATE: CE: High End 2105 GRACY FARMS LANE AUSTIN, TEXAS 78758 (512) 296-2244 FAX (512) 832-4128 http://www.highend.com LIGHTWAVE RESEARCH

DIMENSIONAL TOLERANCES: 0 PLACE DECIMAL = ±0.38 1 PLACE DECIMAL = ±0.13 2 PLACE DECIMALS = ±0.13 ANGLES = ±0.5

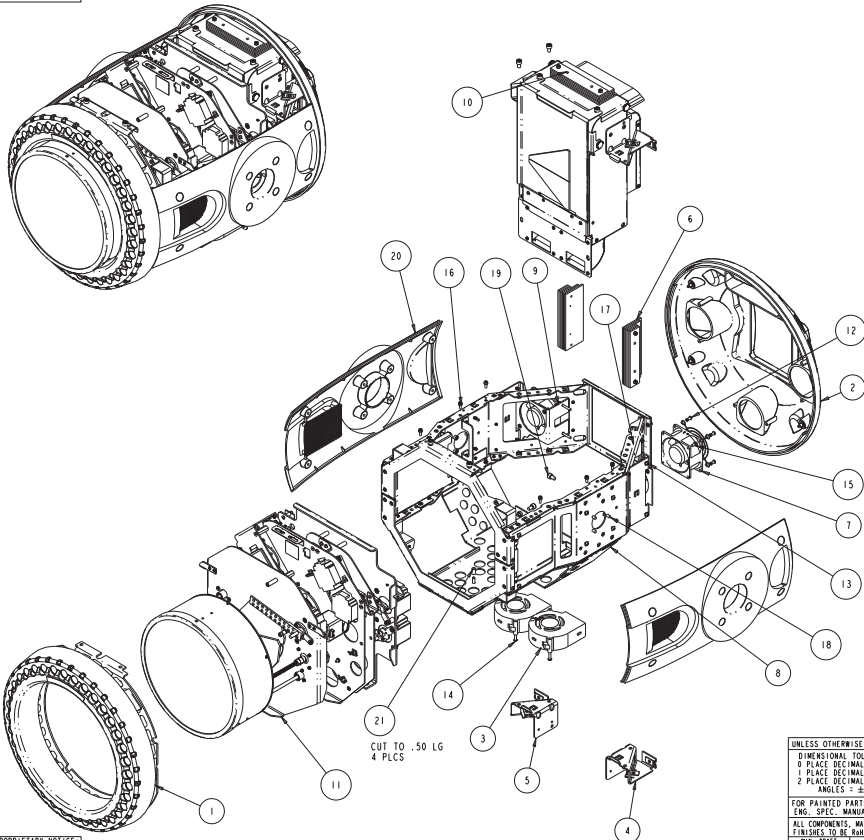
FOR PAINTED PARTS REFER TO ENG. SPEC. MANUAL WJ-0592 MATERIAL: YOKER, SUB-ASSY SG 2.5 FINISH: NA

ALL COMPONENTS: MATERIALS AND FINISHES TO BE BANS COMPLIANT

W.W. BUSH INTERPRET DIMENSIONS PER ASME Y14.5M-1994 THIRD ANGLE PROJECTION DIMENSIONS ARE IN MILLIMETERS

SI A1 INTERNAL DRAWING TTA003_SVC DO NOT SCALE SCALE: 0.143 SHEET: 1 OF 1

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**FOR SERVICE
REFERENCE ONLY**

21	4	TUBE .156-280-RUBBER	90717053	TUBE_BUNA-N RUBBER, ID .156, OD .28, BLACK
20	2	TWA210	INTERNAL	SIDE COVER ASM, SG
19	10	SCREWM4C10SS	91100810	SCREW, M6 SOCKET CAP 10 SS W/PATCH
18	6	SCREWM5C10SSP	91100510	SCREW, M5 SOCKET CAP 10 SS W/PATCH
17	4	SCREWM4F25BZ	91004425	SCREW, M4 SOCKET CSNK FLAT 25 BZ W/PATCH
16	6	SCREWM4C10W-BZ	91000410	SCREW, M4 SOCKET CAP 10 BZ SEMS
15	4	SCREWM4C08BZ	91000408	SCREW, M4 SOCKET CAP 08 BZ SEMS
14	4	SCREWM4A08BZ	91010440	SCREW, M4 BUTTON 40 BZ W/PATCH
13	16	SCREW10-16PP500BTYPE-SS	90709203	SCREW, 10-16 PHIL PAN 1/2 B TYPE SS
12	8	RIVET156X46PUSH.NY	90701336	RIVET, 5/32 PUSH .217-.256 NY BL
11	1	TTA005	INTERNAL	LAYOUT ASM OPTICAL MODULES SG 2.5
10	1	TTA040	INTERNAL	HOUSING_REFLECTOR COMPLETE, SG 2.5
9	2	GRILL_80MM-FAN	99190100	GRILL_BLACK, 80MM FAN
8	1	TWA017	80460011	FRAME_ASM, OPTICAL MODULE SG
7	2	TW03	8027003BEF	FAN_ASSY, SUNON 80 X80 X38MM 74.5 CFM
6	2	TWA080	INTERNAL	COUNTERWEIGHT ASSEMBLY, HEAD SG
5	1	TW133	99260498	BRACKET_LAMP HOUSING MOUNT RH SG
4	1	TW134	99260499	BRACKET_LAMP HOUSING MOUNT LH SG
3	2	T0710	80270049EF	BLOWER_ASM, 24VDC, 35, 307MM, 91X33mm W/TACH
2	1	TWA212	80450093	BEZEL, REAR, HEAD ASM SG SVC
1	1	TWA016	80450092	BEZEL ASSEMBLY, COMPLETE SG

BILL OF MATERIALS

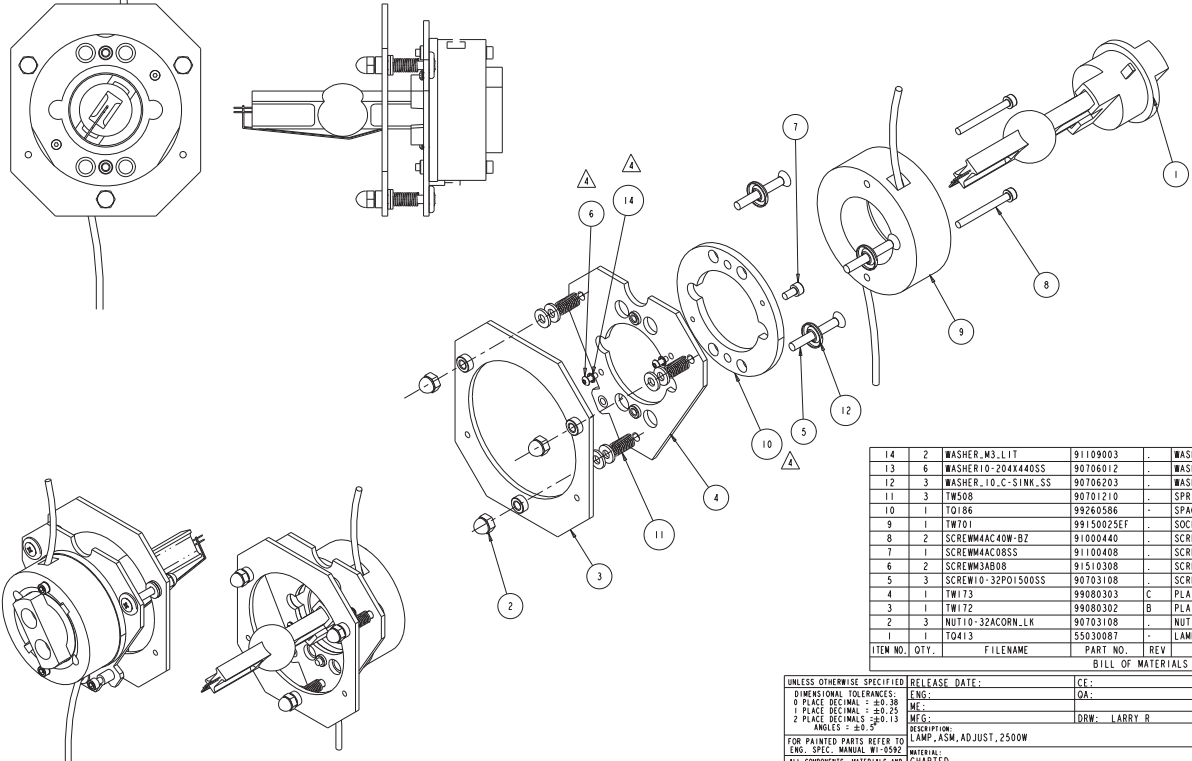
UNLESS OTHERWISE SPECIFIED:	RELEASE DATE:	CC:	High End 2105 GRACY FARMS LANE AUSTIN, TEXAS 78758 (512) 836-2240 FAX (512) 832-4128 http://www.highend.com	
DIMENSIONAL TOLERANCES:	ENG:	QA:		
0 PLACE DECIMAL: ±0.38	MEG:	DRW:		
1 PLACE DECIMAL: ±0.25	MEG:			
2 PLACE DECIMALS: ±0.13	ANGLES: ±0.5°			
FOR PAINTED PARTS REFER TO ENG. SPEC. MANUAL WJ-0592	DESCRIPTION: HEAD_ASM, SHONGUN, 2.5	MATERIAL:	FINISH:	
ALL COMPONENTS: MATURING AND FINISHES TO BE BANS COMPLIANT		CHARTED:	NA	
MIN. HOLE:	INTERPRET DIMENSIONS PER ASME Y14.5M-1994	THIRD ANGLE PROJECTION	SI METRIC A1	PART NO. INTERNAL
TOLERANCES:	DIMENSIONS ARE IN MILLIMETERS	DO NOT SCALE	SCALE: 0.25x	DRAWING NO. TTA004_SVC
VOLUME:				REV. NA

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REV. NA
 SHEET: 1 OF 1

TOA042

REV.	DESCRIPTION	DATE	ENG	ECO #	APPR
1	CREATE DRAWING	24SEP08	LR		
2	SWAP MACHINED WASHERS FOR STAMPED;;ADD FLAT WASHERS	05NOV08	LR		
3	SPRING WAS 1.5, NOW 1.0; SCREW WAS 2.0, NOW 1.75	17NOV08	LR		
4	ADD SPACER + HARDWARE TO CORRECT Z-AXIS RANGE	19NOV08	LR		

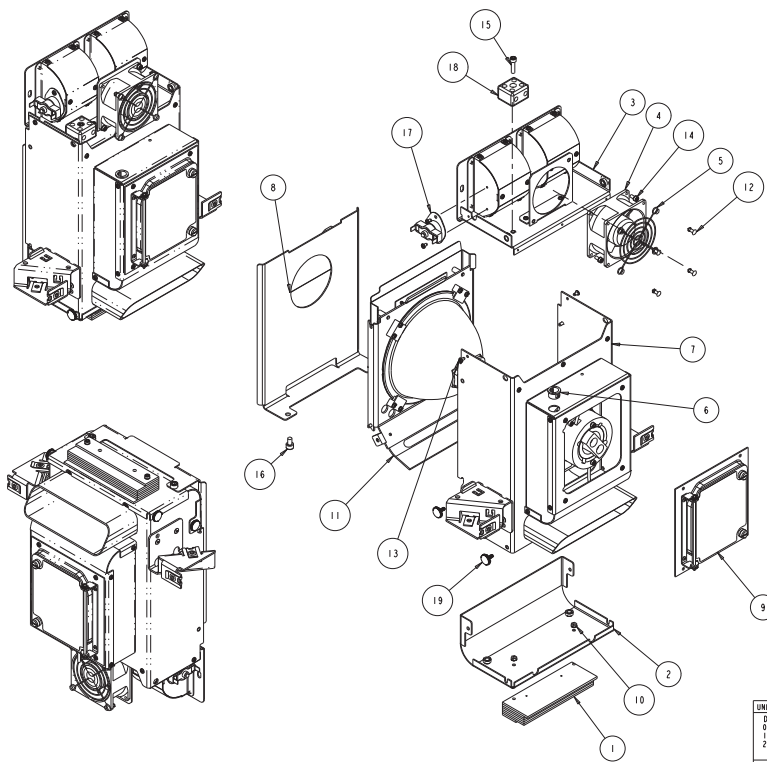


14	2	WASHER_M3_LIT	91109003	WASHER_M3 LOCK INTERNAL TOOTH SZ
13	6	WASHER10-204X440SS	90706012	WASHER_FLAT #10 SS
12	3	WASHER_10_C-SINK_SS	90706203	WASHER_#10_594 OD,CTS FINISH,18-B,SS
11	3	TW508	90701210	SPRING_COMPRESSION_ .30 OD x 1.0 L SS
10	1	T0186	99260586	SPACER_LAMP_ADJUST_Z-AXIS
9	1	TW101	99150025EF	SOCKET_LAMP_PG150
8	2	SCREW#4AC40W-BZ	91000440	SCREW_M4 SOCKET CAP 40 BZ SEMS
7	1	SCREW#4AC08SS	91100408	SCREW_M4 SOCKET CAP 08 SS
6	2	SCREW#3AB08	91510308	SCREW_M3 BUTON SOCKET HEAD 08 BZ
5	3	SCREW10-32P01500SS	90703108	SCREW_10-32,PHIL OVAL 1 1/2,18-B,SS
4	1	TW173	99080303	C PLATE_LAMP_MOUNTING SG
3	1	TW172	99080302	B PLATE_LAMP_ADJUST_ SG
2	3	NUT10-32ACORN-LK	90703108	NUT_ACORN10-32_SELF-LOCK,3/8W,13/32H SS
1	1	TQ413	55030087	LAMP_2500 WATT FASTFIT

ITEM NO., QTY.	FILENAME	PART NO.	REV	DESCRIPTION
BILL OF MATERIALS				

UNLESS OTHERWISE SPECIFIED:	RELEASE DATE:	CEL:	High End	2105 GRACY FARMS LANE AUSTIN, TEXAS 78758 (512) 836-2244 FAX (512) 832-4128 http://www.highend.com	
DIMENSIONAL TOLERANCES:	ENG:	DA:			
0 PLACE DECIMAL = ±0.38	MEG:				
1 PLACE DECIMAL = ±0.25	MEG:	DRW: LARRY R			
2 PLACE DECIMALS = ±0.13	MEG:				
ANGLES = ±0.5	DESCRIPTION:				
FOR PAINTED PARTS REFER TO ENG. SPEC. MANUAL W1-0592	LAMP_ASM_ADJUST_2500W	MATERIAL:	FINISH:	NONE	
ALL COMPONENTS: MATURING AND FINISHES TO BE BANS COMPLIANT		INTERPRET DIMENSIONS PER ASME Y14.5M-1994 THIRD ANGLE PROJECTION DIMENSIONS ARE IN MILLIMETERS	PART NO.	INTERNAL TOA042	REV. 4
DATE:			DO NOT SCALE	SCALE: 1:000	SHEET: 1 OF 1

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REFERENCE ONLY**

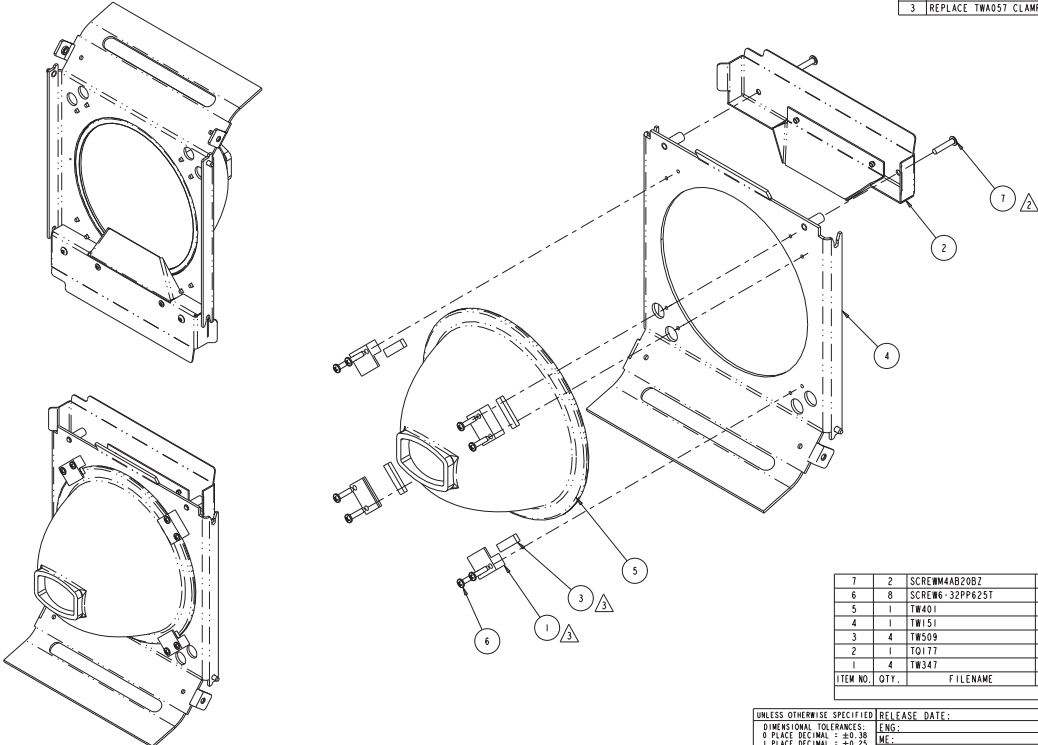
19	4	TW544	90705033	THUMBSCREW, M4, PANEL ACCESS
18	1	BLOCK, TERM-2 POLE, CERAMIC	90406197EF	TERMINAL BLOCK, 2 POLE, CERAMIC, UL
17	1	TW, THERMAL SWITCH, 90TABS	90413013EF	SWITCH, THERMAL, 250F, 3/4" NORM CLOSED MAN
16	2	SCREWM6AC10SS	91100610	SCREW, M6 SOCKET CAP, 10 SS W/PATCH
15	1	SCREWM5AC20SSP	91100520	SCREW, M5 SOCKET CAP, 20 SS W/PATCH
14	2	SCREWM4AC08BZ	91000408	SCREW, M4 SOCKET CAP, 08 BZ SEMS
13	11	SCREW6-32PP250F TYPE-BZ	90709012	SCREW, 6-32 PHIL PAN, 1/4 F TYPE BZ
12	4	RIVET156X460PUSH, NY	90701336	RIVET, 5/32 PUSH, .217-.256 NY BL
11	1	TOA071	INTERNAL	REFLECTOR, ASM, COMPLETE, SB/SG
10	2	NUTM4NEP	91201204	NUT, M4 YECS
9	1	TTA073	INTERNAL	MOUNT, ASM, LAMP ACCESS DOOR, SG 2.5
8	1	TOA074	80580044	MIRROR, HOT, ASM, PLATE, HORIZONTAL GAP
7	1	TOA041	INTERNAL	HOUSING, REFLECTOR, UPPER COMPLETE, SG
6	1	BUSHING500SNAP	90410102	GROMMET, SNAP BUSHING, .50 ID
5	1	GRILL_80MM-FAN	99190100	GRILL, BLACK, 80MM FAN
4	1	TW703	80270038EF	FAN, ASSY, SUNON 80 X80 X38MM 74.5 CFM
3	1	TOA069	INTERNAL	DUCT, INTAKE, REAR, SB/SG
2	1	TW157	80070454	COVER, HOUSING, REFLECTOR, SG
1	1	TWA086	85000264	COUNTERWEIGHT ASM, UPPER SG
ITEM NO.	QTY.	FILENAME	PART NO.	DESCRIPTION

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DIMENSIONAL TOLERANCES:	ENG:	DATE:			
0 PLACE DECIMAL = ±0.38	MEG:				
1 PLACE DECIMAL = ±0.25	MEG:	DRW:			
2 PLACE DECIMALS = ±0.13	MEG:				
ANGLES = ±0.5					
FOR PAINTED PARTS REFER TO ENG. SPEC. MANUAL W-0592	DESCRIPTION:		FINISH:		
ALL COMPONENTS: MATERIALS AND FINISHES TO BE BANS COMPLIANT	HOUSING, REFLECTOR COMPLETE, SG 2.5		NA		
W.M. BENT	INTERPRET DIMENSIONS PER ASME Y14.5M-1994		PART NO. INTERNAL		
FLATTEN:	THIRD ANGLE PROJECTION		DRAWING NO. TTA040_SVC		
TOLERANCES:	DIMENSIONS ARE IN MILLIMETERS		SCALE: 0.400		
VOLUME:			SHEET: 1 OF 1		

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TOA071

REV.	DESCRIPTION	DATE	ENG	ECO #	APPR
1	CREATE DRAWING	24SEP08	LR		
2	(12X) SCREW WAS M4 X 6, NOW M4 X 20	19NOV08	LR		
3	REPLACE TWA057 CLAMP W/INDIVIDUAL COMPONENTS	01DEC08	LR		



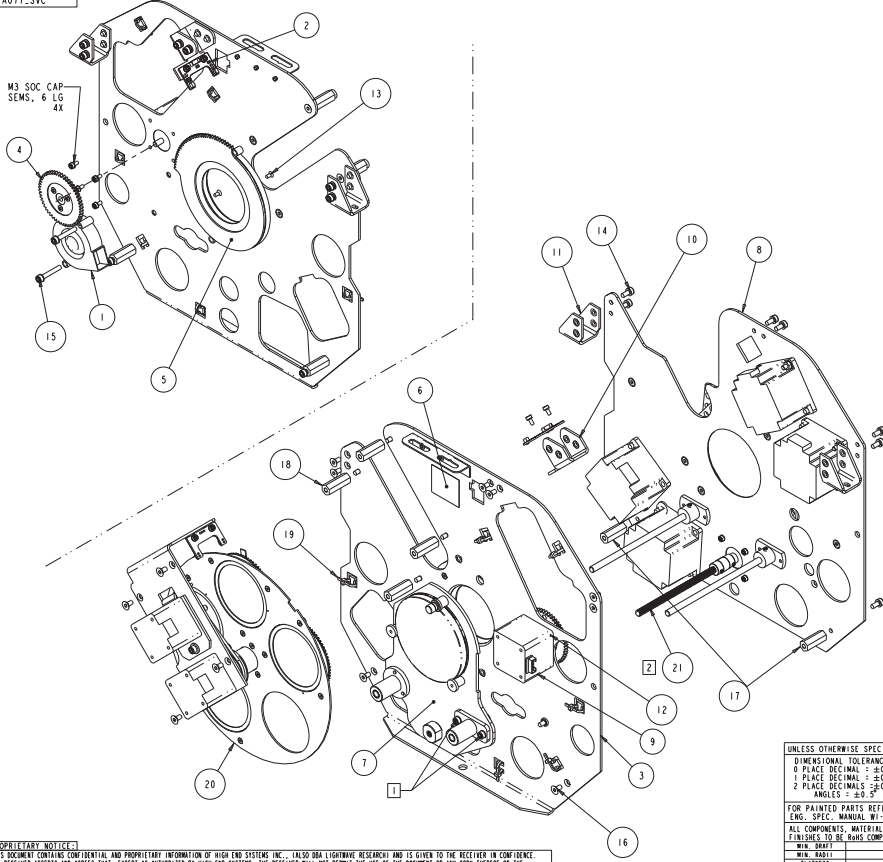
ITEM NO.	QTY.	FILENAME	PART NO.	REV	DESCRIPTION
7	2	SCREW44B20BZ	91010420	-	SCREW_M4 BUTTON 20 BZ W/PATCH
6	8	SCREW6-32PP625T	90709017	-	SCREW_6-32 PHIL PAN 5/8 TYPE Z3 SZ
5	1	TW401	99130022	-	REFLECTOR, FACETED
4	1	TW151	80070450	F	PLATE_MOUNTING_REFLECTOR_SG
3	4	TW509	99330171	I	FOAM_SILICONE_STRIP_1/8 X 1/4
2	1	TO177	99080366	-	DUCT_AIR_DEFLECTOR_LAMP_SHB/SG
1	4	TW347	99260502	A	CLAMP_MOUNTING_REFLECTOR_SG

BILL OF MATERIALS

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DIMENSIONAL TOLERANCES:	ENG:	QA:			
0 PLACE DECIMAL = ±0.38	MEG:	DRW:	PETE PHILLIPS		
1 PLACE DECIMAL = ±0.25	MEG:				
2 PLACE DECIMALS = ±0.13	MEG:				
ANGLES = ±0.5°	DESCRIPTION:				
FOR PAINTED PARTS REFER TO ENG. SPEC. MANUAL W/ 0592	REFLECTOR_ASM_COMPLETE_SHB/SG				
ALL COMPONENTS: MATTERING AND FINISHES TO BE BANS COMPLIANT	MATERIAL:				
FINISHES TO BE BANS COMPLIANT	FINISH:				
W/IN. HOLE	INTERPRET DIMENSIONS PER ASME Y14.5M-1994	PART NO.	INTERNAL	DRAWING NO.	
FLATNESS	THIRD ANGLE PROJECTION		TOA071	3	
THICKNESS	DIMENSIONS ARE IN MILLIMETERS	DO NOT SCALE	SCALE: 0.750	SHEET: 1 OF 1	
VOLUME					

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TTA077_SVC



FOR SERVICE REFERENCE ONLY

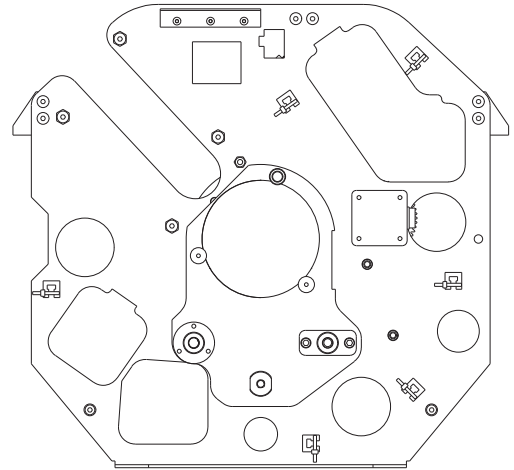
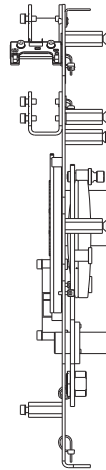
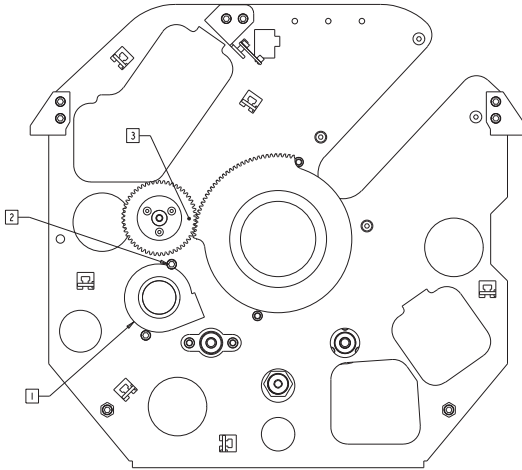
- NOTES: APPLICABLE TO VIEWS ON THIS SHEET ONLY
- 1. TIGHTEN SCREWS AFTER ACHROMAT LENS ASSEMBLY IS INSTALLED ONTO SHAFTS AND DRIVE NUT IS ENGAGED FULL TRAVEL AGAINST HOMING STOP.
 - 2. APPLY KRYTOX LUBRICANT TO DRIVE SCREW.

22	AR	NA	99250004	GREASE, KRYTOX FLOURINATED (8.02) GPL-225
20	I	TTA092	80560049	WHEEL, ASM, W/LITHO & MOTORS SG 2.5 SVC
19	6	TIE_WRAP3-4	99330007	TIE_WRAP 3in, 4in, 10SC BLK
18	4	TW368	90702370	STANDOFF, M4, FIF, L=1.115
17	2	TW369	80070478	STANDOFF, M4, FIF, L=1.000
16	16	SCREW_M4FORB2	91040408	SCREW_M4 SOCKET CSNK FLAT DR B2 W/PATCH
15	2	SCREW_M4C25W-B2	91000425	SCREW_M4 SOCKET CAP 25 B2 SEMS
14	8	SCREW_M4C08B2	91000408	SCREW_M4 SOCKET CAP 08 B2 SEMS
13	2	SCREW_M3AFO6B2P	91040306	SCREW_M3 SOCKET CSNK FLAT 06 B2 W/PATCH
12	6	SCREW_M3A06W-B2	91000306	SCREW_M3 SOCKET CAP 06 B2 SEMS
11	2	TT103	99263128	MOUNT_SUPPORT, IRIS BULKHEAD SG 2.5
10	I	TT104	99263129	MOUNT_SENSOR PCB, ROT GOBO SG 2.5
9	I	MR108_01	99270075	MOTOR_STEP 2PH MET S17 11.5mm ALNICO NMB
8	I	TTA076	NA	MODULE_ASSY_COLOR_YELLOW/CYAN, SG SVC
7	I	TWA079	80160065	LENS_ASSY_ACHROMAT SG SVC
6	I	99310452	99310452	LABEL_GOBO MOTOR COVER SG
5	I	TW501	99290033	IRIS_HIGH TEMP.75MM ID, 18 LEAF_GEARDR AI
4	I	FSA058	99430067	GEAR_ASSY DRIVE 52 TOOTH OVERMOLD
3	I	TW659	80070471	BULKHEAD_IRIS
2	I	TT425	80040045EF	BOARD_SENSOR 1" X 45" FRONT CONN ASSY
1	I	TW720	80270041EF	BLOWER_ASSY_24V, 51MM GOBO
ITEM NO.	QTY.	FILENAME	PART NO.	DESCRIPTION

UNLESS OTHERWISE SPECIFIED:				RELEASE DATE:	CEL:	High End	2105 GRACY FARMS LANE	
DIMENSIONAL TOLERANCES:				ENG:	DA:		AUSTIN, TEXAS 78758	
0 PLACE DECIMAL = ±0.38				MEG:			(512) 326-2246	
1 PLACE DECIMAL = ±0.25				WEG:	DRW:		FAX (512) 832-4128	
2 PLACE DECIMALS = ±0.13				DESCRIPTION:		http://www.highend.com		
ANGLES = ±0.5°				BULKHEAD, ASM, IRIS SG 2.5 SVC				
FOR PAINTED PARTS REFER TO ENG. SPEC. MANUAL WJ-0592				MATERIAL:		FINISH:		
ALL COMPONENTS: MATURING AND FINISHES TO BE RNS COMPLIANT				CHARTED		N/A		
MIN. HOLE:				INTERPRET DIMENSIONS PER ASME Y14.5M-1994		PART NO. 80430116		
FLATNESS:				THIRD ANGLE PROJECTION		DRAWING NO. TTA077_SVC		
SURFACES:				DIMENSIONS ARE IN MILLIMETERS		SCALE: 0.600		
VOLUME:				DO NOT SCALE		SHEET: 1 OF 2		

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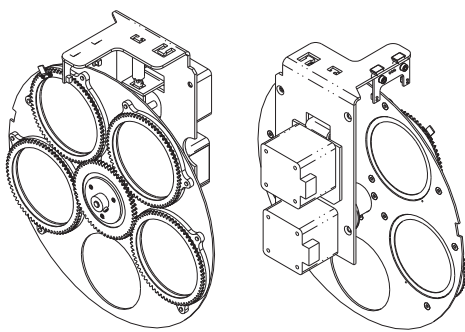
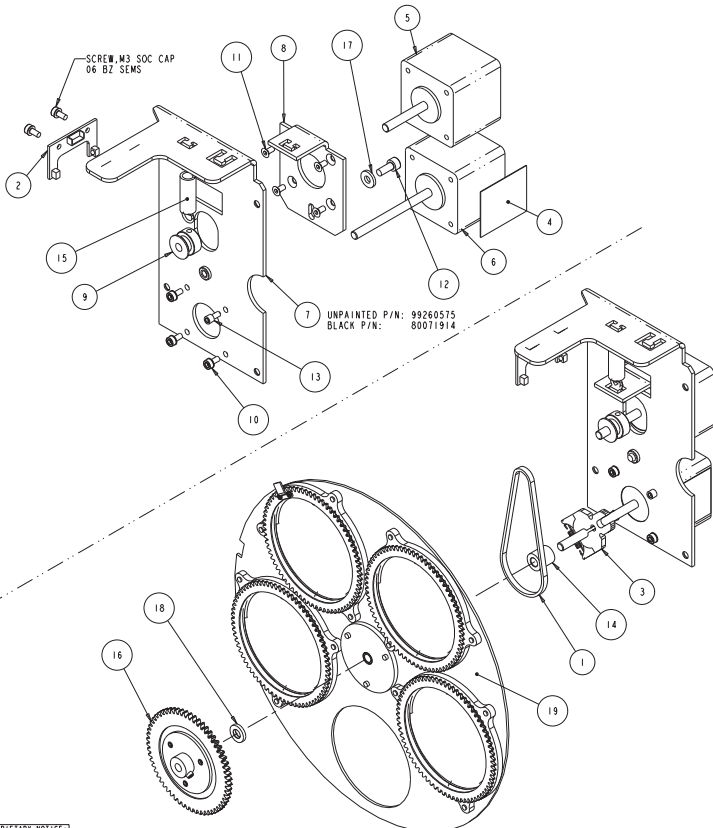
- 1. VERIFY WIRING ON BLOWER MOUNT FACE IS ENGAGED UNDER WIRE RETENTION TAB.
- 2. MAX TORQUE ON MOUNT SCREWS 6 IN POUNDS.
- 3. SET TOP FACE OF OVERMOLDED GEAR ASSEMBLY FLUSH WITH TOP FACE OF IRIS GEAR.

VARIOUS COMPONENTS REMOVED FOR CLARITY

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DIMENSIONAL TOLERANCES:	ENG:	DA:			
0 PLACE DECIMALS: ±0.38	MEG:	DRW:			
1 PLACE DECIMALS: ±0.13	MEG:				
2 PLACE DECIMALS: ±0.13	MEG:				
ANGLES: ±0.5°	DESCRIPTION:				
FOR PAINTED PARTS REFER TO:	BULKHEAD_ASM_IRIS_SG_2.5_SVC				
ENG. SPEC. MANUAL W1-0592	MATERIAL:				
ALL COMPONENTS: HONEYWELL AND CHARTERED	FINISH:				
FINISHES TO BE BANS COMPLIANT	N/A				
MIN. HOLE:	INTERPRET DIMENSIONS PER	SI	PART NO.	DRAWING NO.	REV.
FLATNESS:	ASME Y14.5M-1994	METRIC	80430116	TTA077_SVC	NA
SURFACE:	THIRD ANGLE PROJECTION	A1	DO NOT SCALE	SCALE: 0.333	SHEET: 2 OF 2
VOLUME:	DIMENSIONS ARE IN MILLIMETERS				



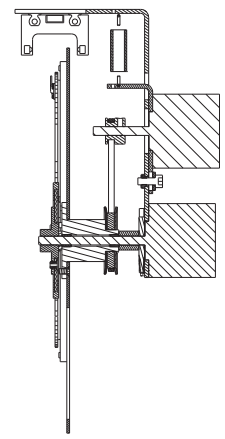
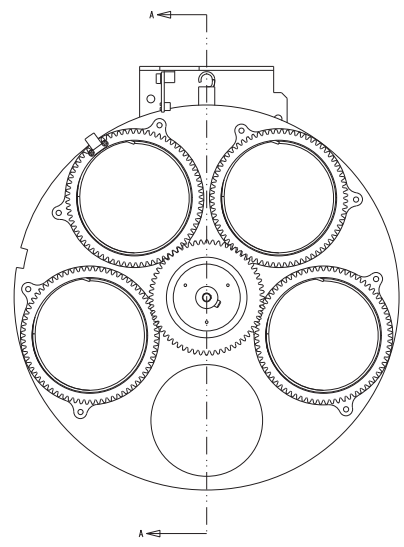
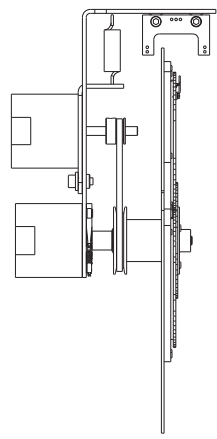
FOR SERVICE REFERENCE ONLY

ITEM NO.	QTY.	FILENAME	PART NO.	DESCRIPTION
19	1	TTA071	80560048	WHEEL_ASM,W/LITHOS SG 2.5 SVC
18	1	TW314	90706201	WASHER, FRICTION TORLON, ROT GOBO AI
17	1	TW314	90706129	WASHER, FLAT, NYLON (L:11710, .41000)
16	1	TW024	99430127	SUN GEAR ASSEMBLY, ROT GOBO AI
15	1	SPRING360_1250EXT	90701380	SPRING, EXTENSION .360 X 1.25 FREE LENGTH
14	1	TT305	90702388	SPACER, GOBO, CENTER HUB SG 2.5
13	1	TW379	90702374	SCREW, SHOULDER, M3, MOTOR MNT
12	1	SCREWM4AC10BZP	91050410	SCREW, M4 SOCKET CAP 10 BZ W/PATCH
11	4	SCREWM3AF06BZP	91040306	SCREW, M3 SOCKET CSNK FLAT 06 BZ W/PATCH
10	5	SCREWM3AC06W-BZ	91000306	SCREW, M3 SOCKET CAP 06 BZ SEMS
9	1	CC508	99360012	PULLEY, GOBO 1/8W 1/8GR ALUM 2 SET MADE TO
8	1	TW555	99080319	PLATE, MOTOR TENSIONER, ROT GOBO SG
7	1	TT105	CHARTED	MOUNT, MOTOR DRIVE, ROTATING GOBO SG 2.5
6	1	MR108_06	99270080	MOTOR, STEP 2PH MET S17 33.5mm ALNICO NMB
5	1	MR108_03	99270077	MOTOR, STEP 2PH MET S17 33.5mm ALNICO NMB
4	1	99310452	99310452	LABEL, GOBO MOTOR COVER SG
3	1	SP093	80140026	DAMPER, MOTOR BRAKE ARAMID ASSY.
2	1	TT425	80040045F	BOARD, SENSOR 1" X .45" FRONT CONN ASSY
1	1	TW531	99360047	BELT, MAL, 95 TOOTH, 1/8 WIDE, HI TEMP

UNLESS OTHERWISE SPECIFIED:		RELEASE DATE:	CEL:	High End	2105 GRACY FARMS LANE	
DIMENSIONAL TOLERANCES:	ENG:	DATE:	DA:		AUSTIN, TEXAS 78758	
0 PLACE DECIMAL = ±0.38	MEG:				(512) 936-2244	
1 PLACE DECIMAL = ±0.25	DRW:				FAX (512) 832-4128	
2 PLACE DECIMALS = ±0.13					http://www.highend.com	
ANGLES = ±0.5						
FOR PAINTED PARTS REFER TO ENG. SPEC. MANUAL W1-0592	MATERIAL:	WHEEL_ASM,W/LITHO & MOTORS SG 2.5 SVC		FINISH:	NONE	
ALL COMPONENTS: MAT'RYNG AND FINISHES TO BE RNS COMPLIANT	CHARTED:					
W1 - MNT	INTERPRET DIMENSIONS PER ASME Y14.5M-1994	SI	PART NO.	80560049	TTA092_SVC	REV.
W1 - MNT	THIRD ANGLE PROJECTION	Metric	DO NOT SCALE	SCALE: 0.500		NA
FLATTEN:	DIMENSIONS ARE IN MILLIMETERS					
TUCKERS:						
VOLUME:						

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TTA092_SVC

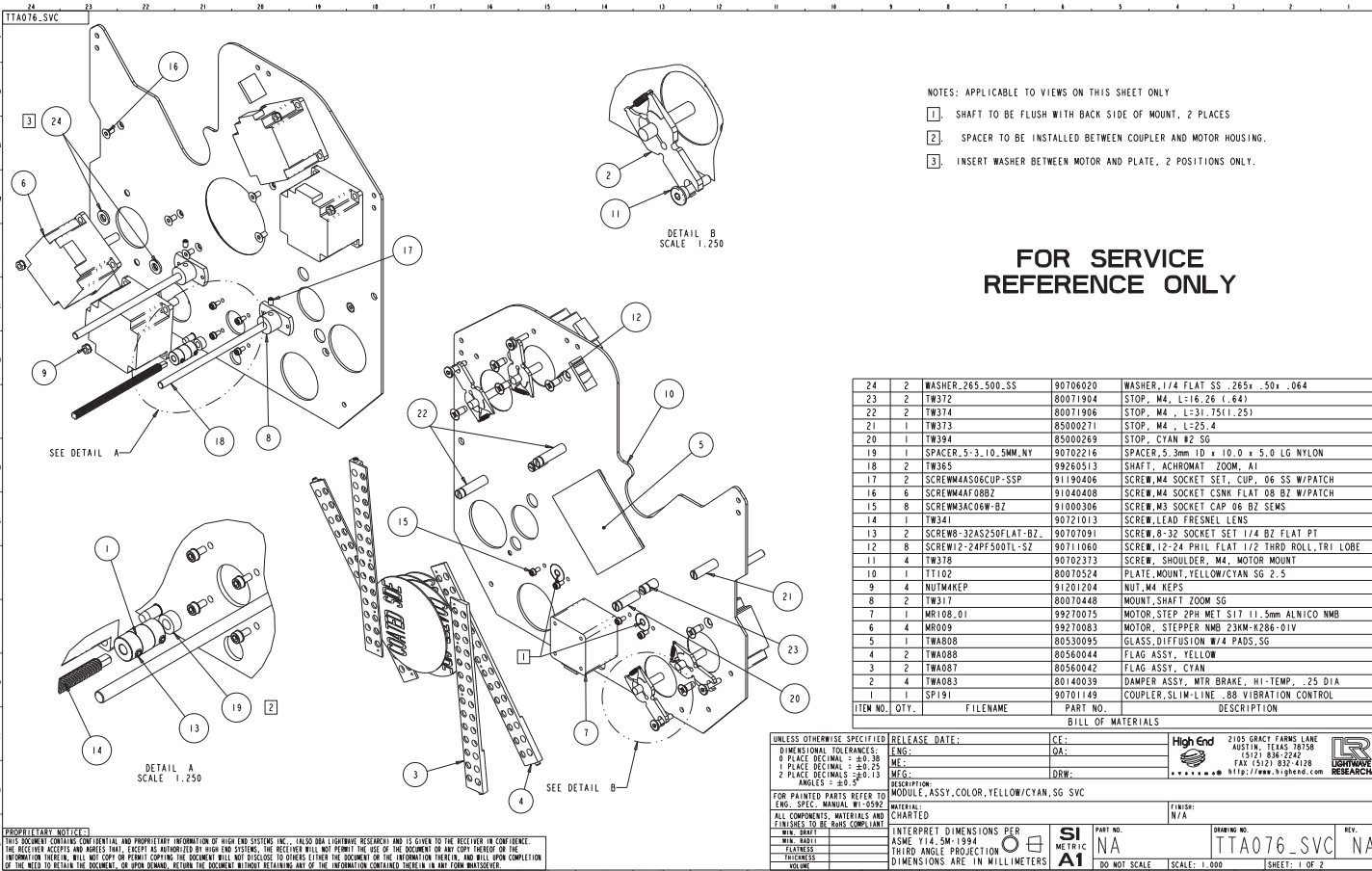


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SECTION A-A

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DIMENSIONAL TOLERANCES:	ENG:	QA:		
0 PLACE DECIMAL: ±0.38	ME:	DRW:		
1 PLACE DECIMAL: ±0.13	WEG:			
2 PLACE DECIMALS: ±0.13	ANGLES: ±0.5°			
FOR PAINTED PARTS REFER TO ENG. SPEC. MANUAL WJ-0592	DESCRIPTION: WHEEL, ASM, W/LITHO & MOTORS SG 2.5 SVC	MATERIAL:	FINISH: NONE	
ALL COMPONENTS: MATERIALS AND FINISHES TO BE BANS COMPLIANT	CHARTED:	INTERPRET DIMENSIONS PER ASME Y14.5M-1994		PART NO. 80560049
MIN. RADII		THIRD ANGLE PROJECTION		
FLATNESS		DIMENSIONS ARE IN MILLIMETERS	DO NOT SCALE	SCALE: 0.500
THICKNESS				SHEET: 2 OF 2
VOLUME				REV. NA



NOTES: APPLICABLE TO VIEWS ON THIS SHEET ONLY

- 1 SHAFT TO BE FLUSH WITH BACK SIDE OF MOUNT, 2 PLACES
- 2 SPACER TO BE INSTALLED BETWEEN COUPLER AND MOTOR HOUSING.
- 3 INSERT WASHER BETWEEN MOTOR AND PLATE, 2 POSITIONS ONLY.

FOR SERVICE REFERENCE ONLY

24	2	WASHER, 265.500,SS	90706020	WASHER, 1/4 FLAT SS .265x .50x .064
23	2	TW372	80071904	STOP, M4, L:16.26 (1.64)
22	2	TW374	80071906	STOP, M4, L:31.75(1.25)
21	1	TW373	85000271	STOP, M4, L:25.4
20	1	TW394	85000269	STOP, CYAN #2 SG
19	1	SPACER, 5.3, 10, 5MM, NY	90702216	SPACER, 5.3mm ID x 10.0 x 5.0 LG NYLON
18	2	TW365	89260513	SHAFT, ACHROMAT ZOOM, AI
17	2	SCREW#M4SOCCUP-SSP	91190406	SCREW, M4 SOCKET SET, CUP, 06 SS W/PATCH
16	6	SCREW#M4F08BZ	91040408	SCREW, M4 SOCKET CSNK FLAT 08 BZ W/PATCH
15	8	SCREW#M3C06W-BZ	91000306	SCREW, M3 SOCKET CAP 06 BZ SEMS
14	1	TW341	90721013	SCREW, LEAD FRESNEL LENS
13	2	SCREW#-32AS250FLAT-BZ	90707091	SCREW, B-32 SOCKET SET 1/4 BZ FLAT PT
12	8	SCREW#2-24FF500TL-SZ	90711060	SCREW, 1/2-24 PHIL FLAT 1/2 THRD ROLL, TRI LOBE
11	4	TW378	90702373	SCREW, SHOULDER, M4, MOTOR MOUNT
10	1	TI102	80070524	PLATE, MOUNT, YELLOW/CYAN SG 2.5
9	4	NUT#M4KEP	91201204	NUT, M4 KEPS
8	2	TW317	80070448	MOUNT, SHAFT ZOOM SG
7	1	WR108, 01	99270075	MOTOR, STEP 2PH MET S17 11.5mm ALNICO NMB
6	4	WR009	99270083	MOTOR, STEPPER NMB 23KM-K286-01V
5	1	TW408	80530095	GLASS, DIFFUSION #74 PADS, SG
4	2	TW408	80560044	FLAG ASSY, YELLOW
3	2	TW407	80560042	FLAG ASSY, CYAN
2	4	TW403	80140039	DAMPER ASSY, MTR BRAKE, HI-TEMP, .25 DIA
1	1	SP191	90701149	COUPLER, SLIM-LINE .08 VIBRATION CONTROL
ITEM NO., QTY.	FILENAME	PART NO.	DESCRIPTION	

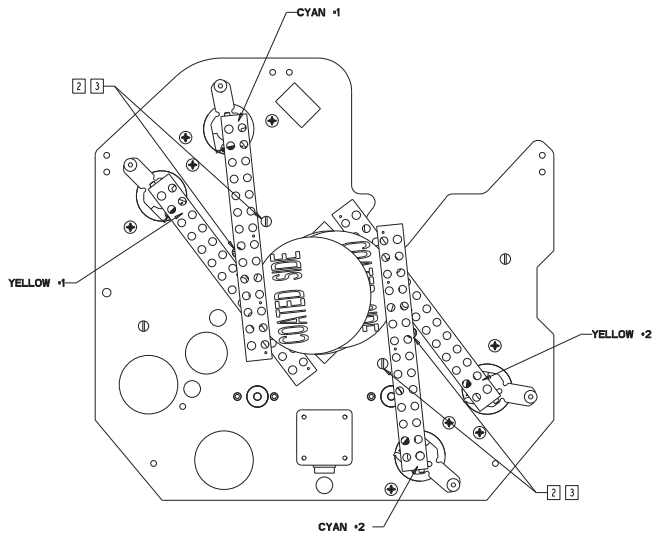
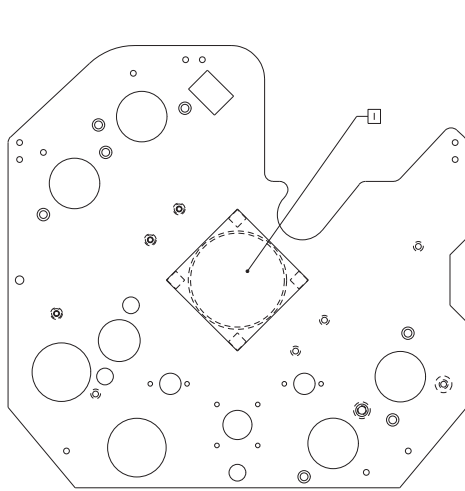
UNLESS OTHERWISE SPECIFIED		RELEASE DATE:	CEL:	High End	2105 GRACY FARMS LANE
DIMENSIONAL TOLERANCES:	ENG:	DATE:	OA:		AUSTIN, TEXAS 78758
0 PLACE DECIMAL: ±0.38	MEG:				(512) 856-2244
1 PLACE DECIMAL: ±0.25	DRW:				FAX (512) 832-4128
2 PLACE DECIMALS: ±0.13					http://www.highend.com
ANGLES: ±0.5°					
FOR PAINTED PARTS REFER TO ENG. SPEC. MANUAL WJ-0592	MATERIAL:	DESCRIPTION: MODULE, ASSY, COLOR, YELLOW/CYAN, SG VWC			
ALL COMPONENTS: MATERIALS AND FINISHES TO BE BANS COMPLIANT	FINISH:	N/A			
WJ-0592	INTERPRET DIMENSIONS PER ASME Y14.5M-1994	SI	PART NO.	DRAWING NO.	
WJ-0592	THIRD ANGLE PROJECTION	Metric	NA	TTA076_SVC	
FLATNESS:	DIMENSIONS ARE IN MILLIMETERS	A1	DO NOT SCALE	SCALE: 1:000	SHEET: 1 OF 2
THICKNESS:					
VOLUME:					

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NOTES: APPLICABLE TO VIEWS THIS PAGE ONLY

1. REMOVE PROTECTIVE LINER FROM THE 4 ADHESIVE PADS TO BOND THE DIFFUSION GLASS TO MOUNT PLATE. CENTER OVER APERTURE.
2. ENERGIZED MOTORS ARE REQUIRED TO PRODUCTION HOME FLAG ASSEMBLIES AGAINST THE CLOSED STOP.
3. ALIGN TOP EDGE OF FLAG ASSEMBLY TO BOTTOM GROOVE EDGE OF STOP FOR EACH FLAG

**FOR SERVICE
REFERENCE ONLY**

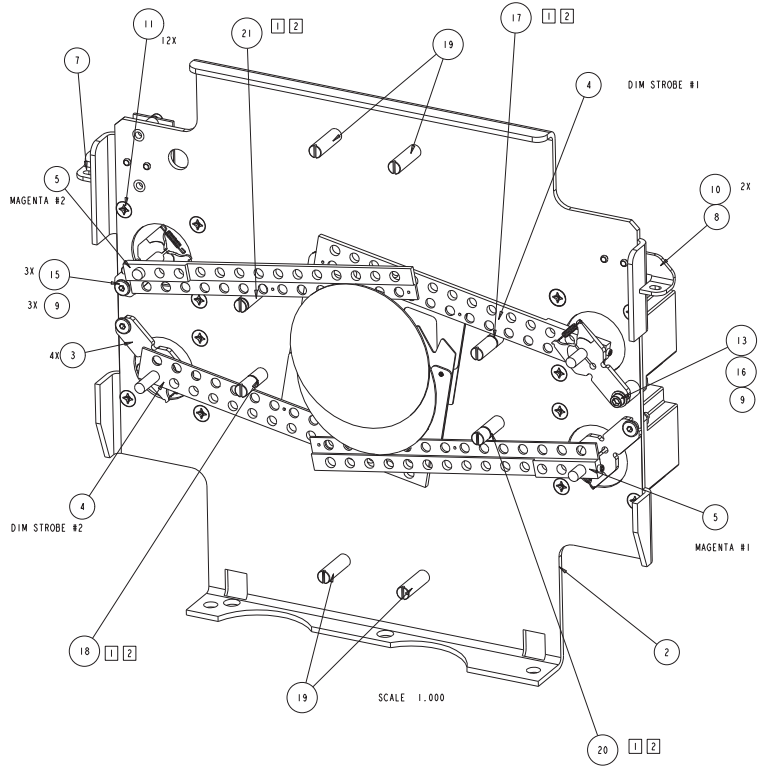


DISPENSABLE LEADY NOTICES

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DIMENSIONAL TOLERANCES:	ENG:	DA:			
0 PLACE DECIMAL = ±0.38	MEG:	DRW:			
1 PLACE DECIMAL = ±0.13	MEG:				
2 PLACE DECIMALS = ±0.13	MEG:				
ANGLES = ±0.5°	MEG:				
FOR PAINTED PARTS REFER TO:	DESCRIPTION:				
ENG. SPEC. MANUAL W1-0592	MODULE_ASSY.COLOR.YELLOW/CYAN,SG SVC				
ALL COMPONENTS: MATTERING AND FINISHES TO BE BENS COMPLIANT	MATERIAL:				FINISH: N/A
W11: 8001	INTERPRET DIMENSIONS PER	SI	PART NO.	DRWING NO.	REV.
W11: 8001	ASME Y14.5M-1994	METRIC	NA	TTA076_SVC	NA
FLATNESS:	THIRD ANGLE PROJECTION	A1			
TOLERANCES:	DIMENSIONS ARE IN MILLIMETERS		DO NOT SCALE	SCALE: 0.750	SHEET: 2 OF 2
VOLUME:					

TWA034_SVC



**FOR SERVICE
REFERENCE ONLY**

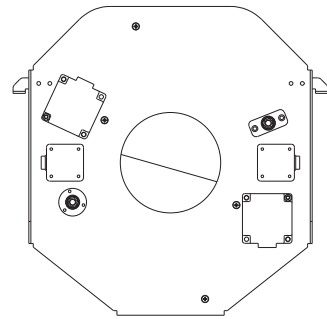
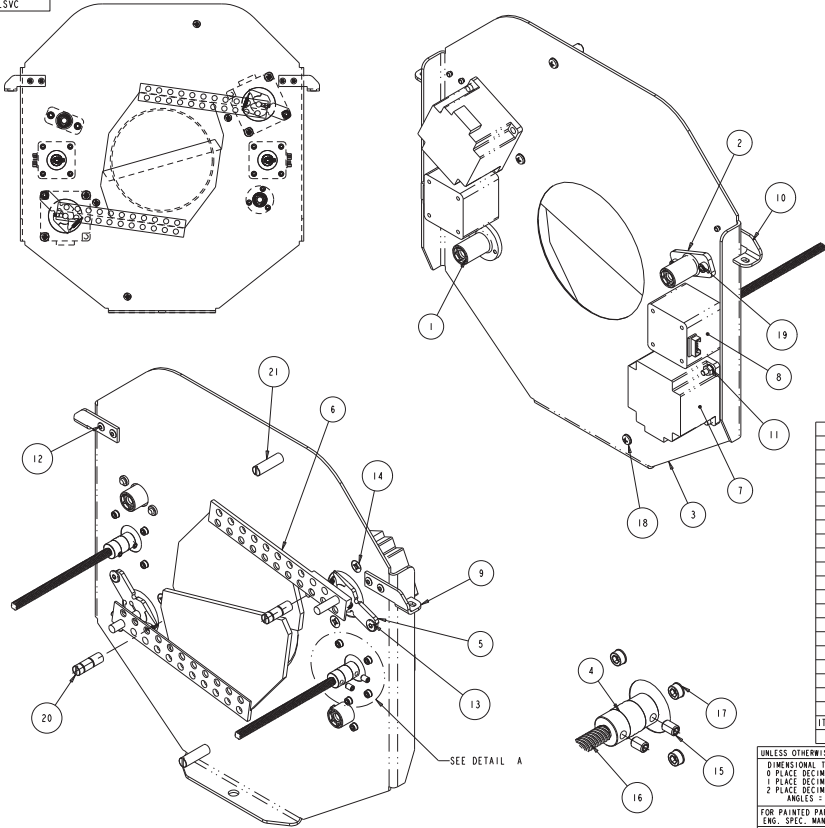
23	4	WASHER, .265, .500, SS	90706020	WASHER, 1/4 FLAT SS .265x .50x .064
22	1	WASHER, .325	90706009	WASHER, #8 FLAT SS .174 X .375 X .032
21	1	TW393	85000268	STOP, MAGENTA 2
20	1	TW392	85000267	STOP, MAGENTA 1
19	4	TW373	85000271	STOP, M4, L=25.4
18	1	TW391	85000266	STOP, DIM/STROBE #2
17	1	TW390	85000265	STOP, DIM/STROBE #1
16	1	TW377	90702375	STANDOFF, BRAKE MOUNT
15	8	SCREWM4AF06BZ	91040406	SCREW, M4 SOCKET CSNK FLAT 06 BZ W/PATCH
14	1	SCREWM4AC30W-BZ	91000430	SCREW, M4 SOCKET CAP 30 BZ SEMS
13	2	SCREWM4AC16W-BZ	91000416	SCREW, M4 SOCKET CAP 16 BZ SEMS
12	12	SCREW12-24PF500TL-SZ	90711060	SCREW, 12-24 PHIL FLAT 1/2 THRD ROLL, TRI LOBE
11	3	TW378	90702373	SCREW, SHOULDER, M4, MOTOR MOUNT
10	4	RIVET#3-45DMG, SS	90701388	RIVET, 1/8 DOMED, .188-.250, 18-8 STAINLESS
9	4	NUTM4KEP	91201204	NUT, M4 KEPS
8	1	TW664	99260508	MOUNT, ANGLE, RIGHT
7	1	TW663	99260507	MOUNT, ANGLE, LEFT
6	4	M0009	99270083	MOTOR, STEPPER NMB 23KM-K286-01V
5	2	TWA072	80560043	FLAG, ASSY, MAGENTA SG
4	2	TWA096	80560040	FLAG ASSEMBLY, DIM/STROBE
3	4	TWA083	80140039	DAMPER ASSY, WTR BRAKE, HI-TEMP, .25 DIA
2	1	TW180	80070467	BULKHEAD, DIM/STROBE
1	1	FS719	80040024EF	BOARD ASSY TEMP SENSOR

ITEM NO. QTY. FILENAME PART NO. DESCRIPTION

UNLESS OTHERWISE SPECIFIED		RELEASE DATE:	CC:	High End	
DIMENSIONAL TOLERANCES:	ENG:	DATE:	DRW:	2105 GRACY FARMS LANE AUSTIN, TEXAS 78758 (512) 836-2244 FAX (512) 832-4128 http://www.highend.com	
0 PLACE DECIMALS: ±0.38	MEG:				
1 PLACE DECIMALS: ±0.25	MEG:				
2 PLACE DECIMALS: ±0.13	MEG:				
ANGLES: ±0.5	DESCRIPTION:				
FOR PAINTED PARTS REFER TO ENG. SPEC. MANUAL W-0592		MATERIAL:		FINISH:	
ALL COMPONENTS: MAT'RYNG AND FINISHES TO BE BMS COMPLIANT		ALL COMPONENTS: MAT'RYNG AND FINISHES TO BE BMS COMPLIANT		NA	
INTERPRET DIMENSIONS PER ASME Y14.5M-1994 THIRD ANGLE PROJECTION DIMENSIONS ARE IN MILLIMETERS		SI METRIC		PART NO. 80430099 DRAWING NO. TWA034_SVC REV. NA	
DO NOT SCALE		SCALE: 0.333		SHEET: 1 OF 1	

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TWA058_SVC



**FOR SERVICE
REFERENCE ONLY**

21	2	TW373	85000271	STOP, M4, L=25.4
20	2	TW388	85000270	STOP, GROOVED, L=25.4 (1.00) RAW
19	2	SCREWM4AC10BZP	91050410	SCREW, M4 SOCKET CAP 10 BZ W/PATCH
18	4	SCREWM4PP08SBZ	91020408	SCREW, M4 PHIL PAN 08 SEMS BZ
17	11	SCREWM3AC06W-BZ	91000306	SCREW, M3 SOCKET CAP 06 BZ SEMS
16	2	TW341	90721013	SCREW, LEAD, FRESNEL, LENS
15	4	SCREWB-32AS250FLAT-BZ	90707091	SCREW, 8-32 SOCKET SET, 1/4 BZ FLAT PT
14	4	SCREW12-24PF500TL-SZ	90711060	SCREW, 12-24 PHIL FLAT 1/2 THRD ROLL, TRI LOBE
13	2	TW378	90702373	SCREW, SHOULDER, M4, MOTOR MOUNT
12	4	RIVET43-45DMG_SS	90701388	RIVET, 1/8 DOMED, .108-.250, 18-8 STAINLESS
11	2	NUTM4KEP	91201204	NUT, M4 KEPS
10	1	TW664	99260508	MOUNT, ANGLE, RIGHT
9	1	TW663	99260507	MOUNT, ANGLE, LEFT
8	2	MR100_01	99270075	MOTOR, STEP 2PH MET S17 11.5mm ALNICO NMB
7	2	MR009	99270083	MOTOR, STEPPER NMB 23KM-#286-01V
6	2	TWA089	80560041	FLAG, ASSY, SOFT EDGE, SG
5	2	TWA083	80140039	DAMPER ASSY, MTR BRAKE, HI-TEMP, .25 DIA
4	2	SP191	90701149	COUPLER, SLIM-LINE .88 VIBRATION CONTROL
3	1	TW178	80071902	BULKHEAD, DIFFUSION ME-A1
2	1	TWA807	80570042	BEARING ASSEMBLY, SLOTTED, LINEAR BALL, FRESNEL
1	1	TWA806	80570041	BEARING ASSEMBLY, LINEAR BALL, FRESNEL
ITEM NO.	QTY.	FILENAME	PART NO.	DESCRIPTION

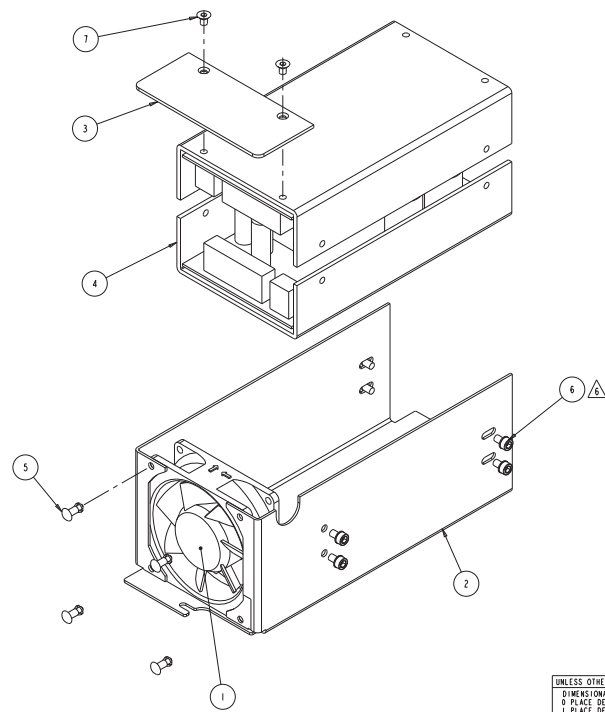
UNLESS OTHERWISE SPECIFIED:		RELEASE DATE:	CE:	 2105 GRACY FARMS LANE AUSTIN, TEXAS 78758 (512) 836-2240 FAX (512) 832-4128 http://www.highend.com	
DIMENSIONAL TOLERANCES:	ENG:	DATE:	DA:		
0 PLACE DECIMAL = ±0.38	MEG:				
1 PLACE DECIMAL = ±0.25	MEG:				
2 PLACE DECIMALS = ±0.13	MEG:				
ANGLES = ±.5°					
FOR PAINTED PARTS REFER TO:		MATERIAL:		FINISH:	
ENG. SPEC. MANUAL W1-0592		R11, SOFT EDGE BULKHEAD SHOWGUN SVC		NONE	
ALL COMPONENTS: MAT'RYNG AND FINISHES TO BE BANS COMPLIANT		CHARTED			
MIN. HOLE:	ASME Y14.5M-1994	INTERPRET DIMENSIONS PER		PART NO. 80430100	
FLATTEN:	THIRD ANGLE PROJECTION	SI METRIC A1		DRAWING NO. TWA058_SVC	
TOLERANCES:	DIMENSIONS ARE IN MILLIMETERS	DO NOT SCALE		SCALE: 0.750	
VOLUME:				SHEET: 1 OF 1	

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DETAIL A
SCALE 1:500

TWA053

REV.	DESCRIPTION	DATE	ENG	ECO #	APPR
1	CREATE DRAWING	05JAN07	MB		
2	PWR SUPPLY WAS 2 EACH PN 99070009	1MAR07	MB		
3	UPDATE DRAWING PER CHANGES TO ITEM #2	4APR07	MB		
4	ADD HARNESSSES TO PARTS LIST	01MAY07	MB		
5	UPDATE REVISIONS FOR TW170, TW169	14SEP07	KLB	#2333	MB
6	(B-X) SCREWS WAS: 91110406, NOW 91000406	19NOV08	LR		



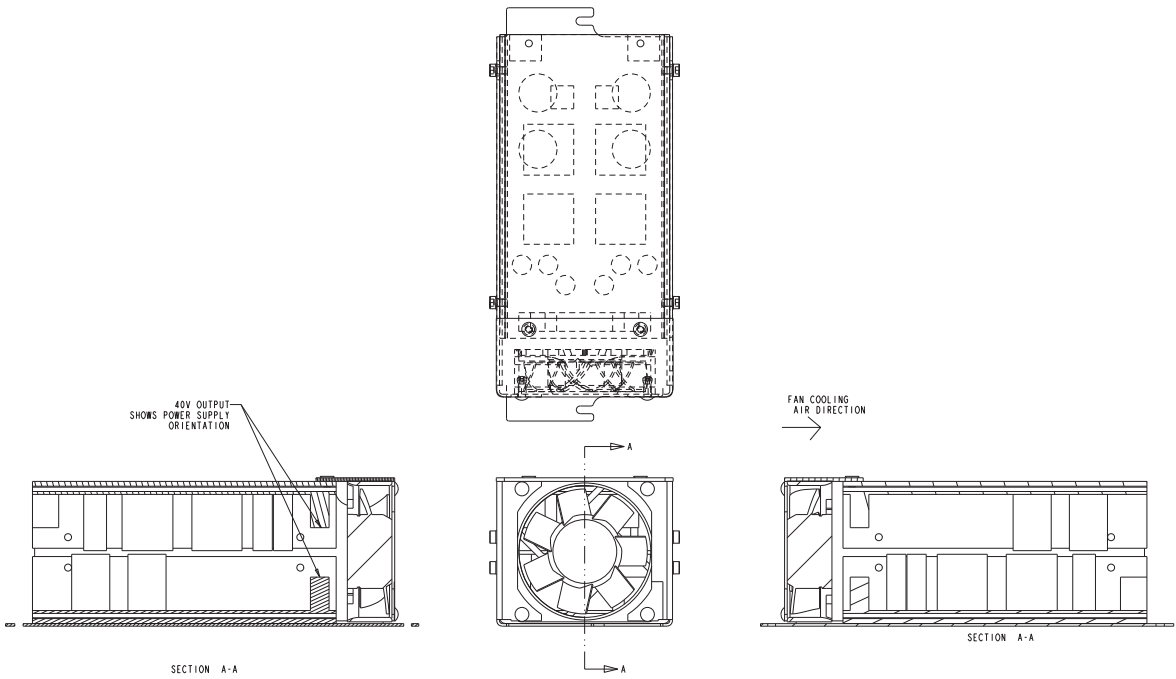
9	2	TW172	90409294EF	A	HARNES, MPS DC OUT
8	1	TW105	90409293EF	-	HARNES, 40 V PS, ME-A1
7	2	SCREWMA4F06BZ	91004406	-	SCREW_M4 SOCKET CSKN FLAT 06 BZ W/PATCH
6	8	SCREWMA4C06W-BZ	91000406	-	SCREW_M4 SOCKET CAP 06 BZ SEMS
5	4	RIVET156X460PUSH_NY	90701336	-	RIVET, 5/32 PUSH .217-.256 NY BL
4	2	DD405	99070009	-	POWER SUPPLY, SWITCHING 40 V MOTOR PFC
3	1	TW170	99080317	A	PLATE_FILL, 40 VOLT PS HOUSING
2	1	TW169	99350094	C	HOUSING_DUAL 40 VOLT POWER SUPPLY
1	1	CAT715	80270025CF	A	FAN_ASSY, 12 V BOMM 50 X 25MM DL/SG

ITEM NO.	QTY.	FILENAME	PART NO.	REV	DESCRIPTION
BILL OF MATERIALS					

UNLESS OTHERWISE SPECIFIED:	RELEASE DATE:	CE:	 2106 GRACY FARMS LANE AUSTIN, TEXAS 78758 (512) 836-2240 FAX (512) 832-4128 ***** http://www.highend.com	
DIMENSIONAL TOLERANCES:	ENG: MIKE BELL	DA:		
0 PLACE DECIMAL: ±0.38	MEG:	DRW: MIKE BELL		
1 PLACE DECIMAL: ±0.25	MEG:			
2 PLACE DECIMALS: ±0.13	DESCRIPTION:			
ANGLES: ±0.5	40 VOLT POWER SUPPLY ASSEMBLY			
FOR PAINTED PARTS REFER TO:	ENG. SPEC. MANUAL W1-0592	MATERIAL:	FINISH:	
ALL COMPONENTS: MATURING AND FINISHES TO BE BENS COMPLIANT		CHARTEED	N/A	
MIN. HOLE:	INTERPRET DIMENSIONS PER	SI METRIC	PART NO.	DRAWING NO.
FLATNESS:	ASME Y14.5M-1994		INTERNAL	TWA053
TUCKNESS:	THIRD ANGLE PROJECTION		DO NOT SCALE	SCALE: 1:000
VOLUME:	DIMENSIONS ARE IN MILLIMETERS			REV. 6

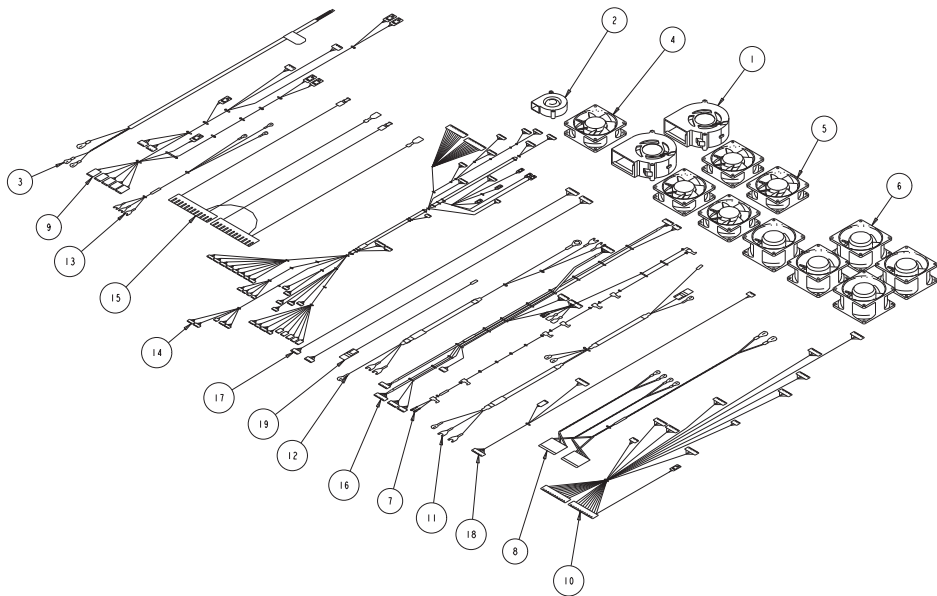
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TWA053



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DIMENSIONAL TOLERANCES:	ENG: MIKE BELL	QA:		
0 PLACE DECIMAL = ±0.38	MEG:	DRW: MIKE BELL		
1 PLACE DECIMAL = ±0.13	MEG:			
2 PLACE DECIMALS = ±0.13	MEG:			
ANGLES = ±0.5°	DESCRIPTION:			
FOR PAINTED PARTS REFER TO:	40 VOLT POWER SUPPLY ASSEMBLY			
ENG. SPEC. MANUAL W1-0592	MATERIAL:		FINISH:	
ALL COMPONENTS: MATTERING AND CHARTED	FINISHES TO BE BANS COMPLIANT		N/A	
MIN. BORE	INTERPRET DIMENSIONS PER		PART NO.	DRAWING NO.
FLATNESS	ASME Y14.5M-1994		INTERNAL	TWA053
THICKNESS	THIRD ANGLE PROJECTION	DO NOT SCALE	SCALE: 1,000	SHEET: 2 OF 2
VOLUME	DIMENSIONS ARE IN MILLIMETERS			REV. 6



**FOR SERVICE
REFERENCE ONLY**

19	1	TW715	90409308EF	HARNSSS.THERMAL SWITCH JUMPER
18	1	TW707	90409304EF	HARNSSS.STATUS LED
17	2	TW717	90409309EF	HARNSSS.SERVICE SG
16	1	TOT01	90409394EF	HARNSSS.PAN COM SHB
15	1	TOT14	90409401EF	HARNSSS.WPS.DC OUT DUAL SHB
14	1	TT701	90409398EF	HARNSSS.MAIN.TILT SB/SG
13	1	TOT05	90409392EF	HARNSSS.LPS POWER IN SHB
12	1	TOT04	90409391EF	HARNSSS.LAMP WIRE LPS TO IGNITOR SHB
11	1	TW708	90409297EF	HARNSSS.LAMP WIRE IGNITOR TO LAMP
10	1	TW702	90409301EF	HARNSSS.IRIS BULKHEAD
9	1	TOT08	90409395EF	HARNSSS.ELECTRONIC ENCLSR.FAN SHB
8	1	TW705	90409293EF	HARNSSS.DUAL WPS.AC INPUT
7	1	TOT09	90409396EF	HARNSSS.DUAL MODULE L1N1 SHB
6	5	TW703	80270038EF	FAN.ASSY.SUNON 80 X80 X38MM 74.5 CFM
5	4	TW721EF	80270040EF	FAN.ASSY.80 x 80 x 25.2K BALLAST.TACH
4	1	CAT715	80270025EF	FAN.ASSY.12 V 80MM SQ X 25MM DL/SG
3	1	TOT12	90409400EF	CORD.AC POWER ASSY SE00N 14/3. SHB
2	1	TW720	80270041EF	BLOWER.ASSY.24V.51MM.G080
1	2	TOT10	80270049EF	BLOWER.ASM.24VDC.35.3CFM.97X33mm W/TACH
ITEM NO.	QTY.	FILENAME	PART NO.	DESCRIPTION

BILL OF MATERIALS

UNLESS OTHERWISE SPECIFIED	RELEASE DATE:	CEL:	High End	2105 GRACY FARMS LANE AUSTIN, TEXAS 78758 (512) 856-2240 FAX (512) 832-4128 http://www.highend.com			
DIMENSIONAL TOLERANCES: 0 PLACE DECIMAL: ±0.38 1 PLACE DECIMAL: ±0.25 2 PLACE DECIMALS: ±0.13 ANGLES: ±0.5°	ENG:	DA:	DRW: LARRY R				
FOR PAINTED PARTS REFER TO ENG. SPEC. MANUAL W1-0592	MATERIAL:	DESCRIPTION: ASM_MISC COMPONENTS.SG 2.5		FINISH: NA			
ALL COMPONENTS: MATERIALS AND FINISHES TO BE BANS COMPLIANT	CHARTED	INTERPRET DIMENSIONS PER ASME Y14.5M-1994 THIRD ANGLE PROJECTION DIMENSIONS ARE IN MILLIMETERS		SI METH C A1			
MIN. HOLE	MAX. HOLE	PART NO.	NA	DRAWING NO.	TTA008_SVC	REV.	NA
FLATNESS	TOLERANCES	DO NOT SCALE	SCALE: 0.32x	SHEET: 1 OF 1			

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