

REVISIONS				
REV	DATE	DRWN	CHCK'D	DESCRIPTION
A	21OCT16	GFC	RC	INITIAL RELEASE
B	14NOV16	GFC	--	BOM CORRECTION
C	16NOV16	GFC	--	NOTE 2
D	06DEC16	GFC	--	TORQUE ORDER
E	12DEC16	GFC	AT	NOTE 2; HALF TORQUE ADDED
F	08FEB17	GFC	--	NOTE 4 & TABLE
G	11MAY17	GFC	WMKO	HARDWARE CHANGE
H	07FEB18	GFC	--	UPDATED STEPS 2 & 3
J	16FEB18	GFC	--	ADDED SHEETS 2 & 3
K	25JUL18	GFC	--	NOTE 5, LATERAL HW TORQUE PROCEDURE, SHEET 2
L	25JUL18	GFC	DP	TORQUE PROCEDURE ON SHEET 2 AMENDED
M	27JUL18	GFC	DP/PZ	AMENDED NOTE 2 SHEET 2
N	13NOV18	GFC	BR(KECK)	ITEMS 10 & 14

TIP/TILT DUE TO 1/4 TURN		
LEVEL PAD	Δ ANGLE (ARCSEC) ABOUT AXIS	
	MINOR	MAJOR
A	115.2	0
B	57.6	91.1
C	57.6	91.1

ITEM	QTY	P/N	DESCRIPTION
1	1	872-LM1000	CANOE SPHERE ASSEMBLY A
2	1	872-LM1008	CANOE SPHERE MOUNT B ASSY
3	1	872-LM4200	MIRROR ASSEMBLY
4	1	872-LM4520	GROOVE PLATE ASSEMBLY
5	3	872-LM4528	LEVEL PAD LOCK NUT
6	1	872-LM4530	GROOVE LOCK, TYPE 3A
7	1	872-LM4531	GROOVE LOCK, TYPE 3B
8	1	872-LM4532	GROOVE LOCK, TYPE 4A
9	1	872-LM4533	GROOVE LOCK, TYPE 4B
10	1	872-LM4535	LIFT EYE PLATE
11	1	872-LM4600	SWING ARM ASSEMBLY
12	3	872-LM8526	LEVEL PAD ASSEMBLY
13	3	91944S430	ALIGNMENT WASHER SET, 1/4, MCMASTER-CARR
14	2	96144A292	SHCS, M12-1.25 X 20 MM, MCMASTER-CARR
15	3	H/W	WASHER, M10, STAINLESS
16	6	H/W	WASHER, FLAT, STANDARD, 1/4
17	3	H/W	SCREW, HEX HEAD, 1/4-20 X 1-3/4, DRILLED HEAD
18	6	H/W	SCREW, HEX HEAD, 1/4-20 X 1-1/2, DRILLED HEAD
19	3	H/W	SHCS, M4X20, GR 12.9, DRILLED HEAD
20	6	H/W	SHCS, M4X16, GR 12.9, DRILLED HD
21	4	HW	SHCS, 1/4-28 X 7/8

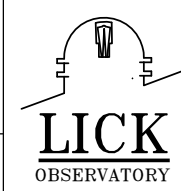
NOTES

- CAD MODEL FILENAME, 872-LM4700 Mirror & Swing Arm Assy
- TIGHTEN SCREWS, HW (ITEM 15) TO 70 INCH-LBS TORQUE IN ACCORDANCE TO STEP 3
- ATTACH MIRROR ASSY TO GROOVE PLATE BY TIGHTENING THE SCREWS (ITEM 15) IN THE ORDER NOTED IN 15 INCH-LBS INCREMENTS UNTIL THE PRESCRIBED TORQUE IN NOTE 2 IS ACHIEVED
- LEVEL PADS (ITEM 8) ARE 11/16-32 THREAD; 1/4 TURN RESULTS IN .00781 IN DISPLACEMENT; SEE TABLE FOR EFFECTS TO TIP/TILT OF MIRROR
- AFTER FINAL ALIGNMENT TIGHTEN GROOVE PLATE TO SWING-ARM SCREWS, ITEM 14, TO 70 IN-LBS

UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES & TOLERANCES ARE AS FOLLOWS

X.X: ±0.1000" X.XX: ±0.0100"
 X.XXX: ±0.0050" X.XXXX: ±0.0001"
 ANGLES: ±0.5° FINISH: 125 MICRO INCHES
 BREAK ALL SHARP EDGES & CORNERS .002" MAX

MATERIAL	FINISH
PARTS LIST	--



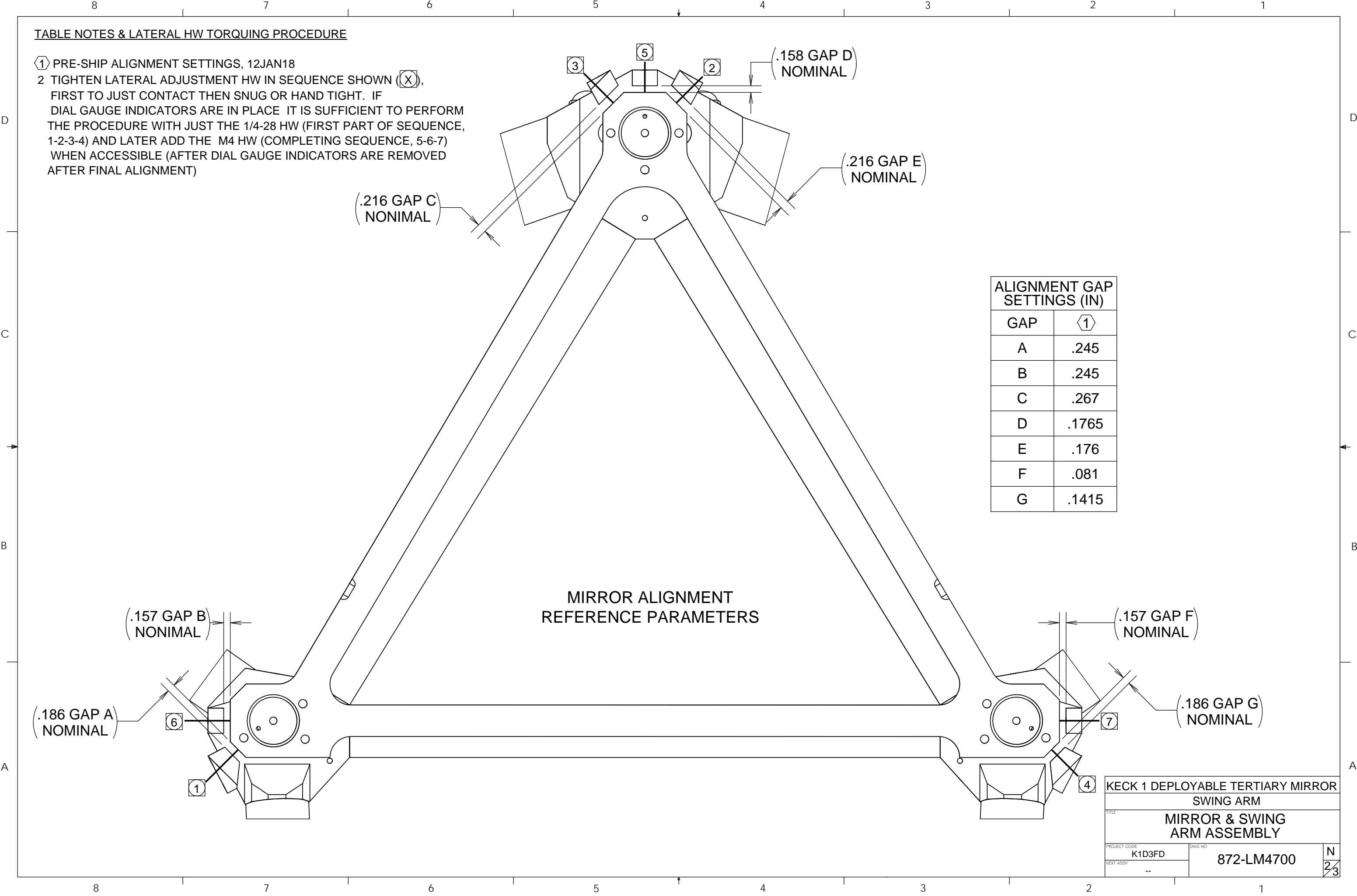
DRAWN	CABAK	--	KECK 1 DEPLOYABLE TERTIARY MIRROR SWING ARM
CHECKED	--	--	TITLE
DESIGNED	GFC/CR	--	MIRROR & SWING ARM ASSEMBLY
APPROVED	GFC/CR	--	
SW DOCUMENT FILE	1	PROJECT CODE	K1D3FD
		DWG NO	872-LM4700
		NEXT ASSY	--
			N 1/3

TABLE NOTES & LATERAL HW TORQUING PROCEDURE

- ① PRE-SHIP ALIGNMENT SETTINGS, 12JAN18
- 2 TIGHTEN LATERAL ADJUSTMENT HW IN SEQUENCE SHOWN (X), FIRST TO JUST CONTACT THEN SNUG OR HAND TIGHT. IF DIAL GAUGE INDICATORS ARE IN PLACE IT IS SUFFICIENT TO PERFORM THE PROCEDURE WITH JUST THE 1/4-28 HW (FIRST PART OF SEQUENCE, 1-2-3-4) AND LATER ADD THE M4 HW (COMPLETING SEQUENCE, 5-6-7) WHEN ACCESSIBLE (AFTER DIAL GAUGE INDICATORS ARE REMOVED AFTER FINAL ALIGNMENT)

D
C
B
A

D
C
B
A



ALIGNMENT GAP SETTINGS (IN)	
GAP	①
A	.245
B	.245
C	.267
D	.1765
E	.176
F	.081
G	.1415

MIRROR ALIGNMENT
REFERENCE PARAMETERS

KECK 1 DEPLOYABLE TERTIARY MIRROR SWING ARM		
TITLE MIRROR & SWING ARM ASSEMBLY		
PROJECT CODE K1D3FD	DWG NO 872-LM4700	N 2/3
NEXT ASSY --		

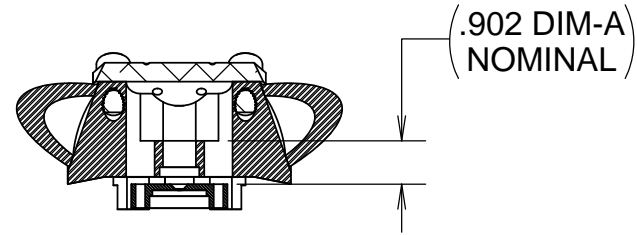
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

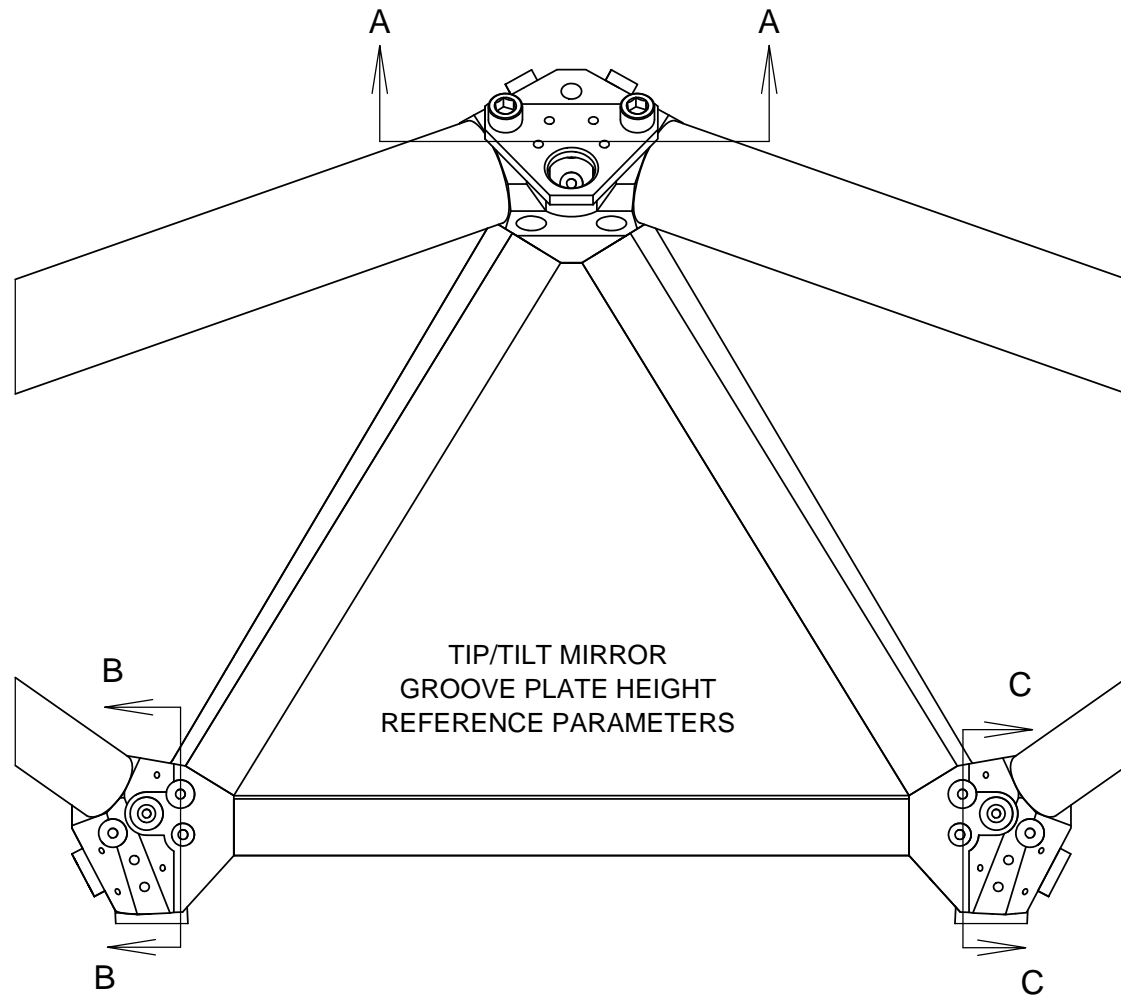
TABLE NOTES

① GAP BETWEEN GROOVE PLATE AND SWING-ARM SET TO 4 MM AT PRESHIP

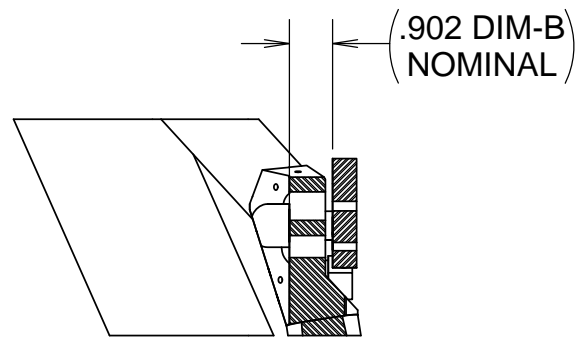


SECTION A-A

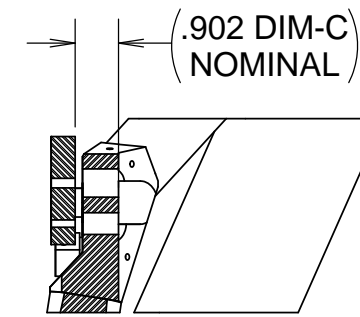
GROOVE TIP/TILT SETTINGS (IN)	
HT	①
DIM-A	.902
DIM-B	
DIM-C	



TIP/TILT MIRROR
GROOVE PLATE HEIGHT
REFERENCE PARAMETERS



SECTION B-B



SECTION C-C

KECK 1 DEPLOYABLE TERTIARY MIRROR	
SWING ARM	
TITLE MIRROR & SWING ARM ASSEMBLY	
PROJECT CODE K1D3FD	DWG NO 872-LM4700
NEXT ASSY --	N 3/3

8 7 6 5 4 3 2 1

D
C
B
A

D
C
B
A