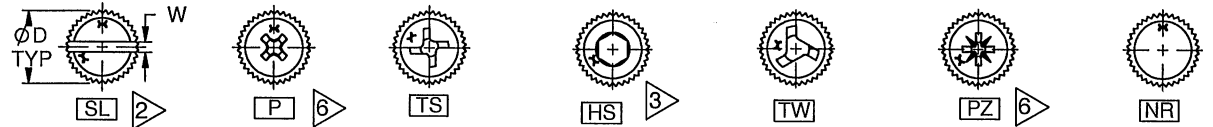
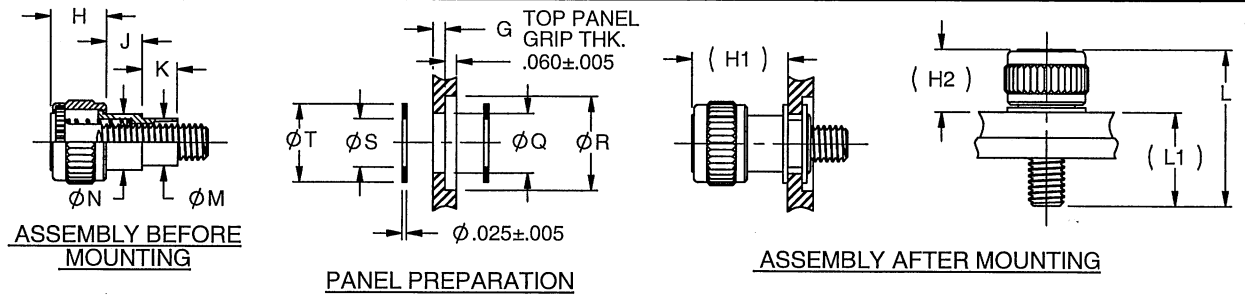


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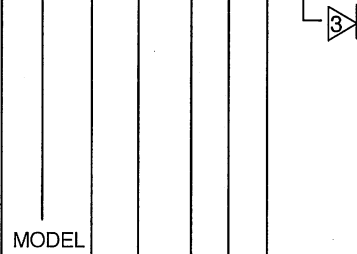
REV **AC**
S-0209
 DRAWING NO.



THREAD SIZE CODE	Ø D	H		(H1)		(H2)		J	Ø M ±.005	Ø N ±.005	Ø Q ±.001	Ø R	Ø S +.004 - .001	Ø T ±.010	W	RECESS SIZE			
		HS	P, PZ, SL, TS, TW, NR	HS	P, PZ, SL, TS, TW, NR	HS	P, PZ, SL, TS, TW, NR									P, PZ	TW	TS	HS
4, 4F, M2.5, M3	.325								.177	.206	.250	.390	.185	.309	.040	4	2	2	3/32
6, 6F, M3.5	.356	.339	.269	.549	.479	.389	.319	.176	.202	.241	.272	.406	.209	.333	.044	4	3	4	7/64
8, 8F, M4	.420								.215	.258	.281	.468	.223	.385	.049	6	4	6	9/64
10, 10C, 10F, M5	.451	.354	.284	.576	.506	.401	.331	.188	.250	.297	.316	.500	.257	.415	.055	8	5	8	5/32
12, 12C, 12F, M6	.531	.374	.304	.619	.549	.429	.354	.211	.313	.371	.386	.578	.323	.495	.062	10	6	10	3/16

PART NUMBER CALLOUT

F () 7500 () - () - () - ()



LENGTH CODE	4, 4F, M2.5, M3		6, 6F, M3.5		8, 8F, M4		10, 10C, 10F, M5		12, 12C, 12F, M6	
	L +.025 - .015	L1	L +.025 - .015	L1	L +.025 - .015	L1	L +.025 - .015	L1	L +.025 - .015	L1
1	.576	.257	.587	.268	.622	.291	.644	.310	.682	.328
1.5	.607	.288	.619	.300	.655	.324	.676	.342	.714	.360
2	.639	.320	.650	.331	.685	.354	.707	.373	.745	.391
2.5	.702	.383	.713	.394	.748	.417	.770	.436	.808	.454
3	.764	.445	.775	.456	.810	.479	.832	.498	.870	.516
3.5	.827	.508	.838	.519	.873	.542	.895	.561	.933	.579
4	.889	.570	.900	.581	.935	.604	.957	.623	.995	.641
4.5	.952	.633	.963	.644	.998	.667	1.020	.686	1.058	.704
5	1.014	.695	1.025	.706	1.060	.729	1.082	.748	1.120	.766

THREAD SIZE CODE	THREAD SIZE	LEAD	THREAD SIZE CODE	THREAD SIZE	LEAD
4	.112-40 UNC-3A	SINGLE	8F	.164-32 UNC-3A	QUAD
6	.138-32 UNC-3A		10F	.190-32 UNF-3A	
8	.164-32 UNC-3A		12F	.250-28 UNF-3A	
10	.190-32 UNF-3A		M2.5	M2.5 x 0.45-4h6h	METRIC
12	.250-28 UNF-3A		M3	M3 x 0.5-4h6h	
10C	.190-24 UNC-3A	M3.5	M3.5 x 0.6-4h6h		
12C	.250-20 UNC-3A	(COARSE)	M4	M4 x 0.7-4h6h	
4F	.112-40 UNC-3A	DOUBLE	M5	M5 x 0.8-4h6h	
6F	.138-32 UNC-3A		M6	M6 x 1.0-4h6h	

GRIP CODE	G (TOP PANEL GRIP THICKNESS)	K ±.005
A	.020-.031	.125
B	.032-.093	.187
C	.094-.155	.250
D	.156-.217	.312
E	.218-.279	.375
F	.280-.341	.437

RECESS CODE	DRIVING RECESS AND SPECIFICATION
	SLOT RECESS PER ANSI B18.6.3
HS	HEX SOCKET RECESS PER ANSI B18.3
NR	NO RECESS
P	CROSS RECESS PER MS 9006
PZ	RECESS PER TYPE 1A ANSI B18.6.3
TS	RECESS PER MS 33781
TW	RECESS PER NAS 4000

CODE	FINISH
NONE	CLEAR
B	BLACK

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AC	DCN 3972	01-24-06
REV	DESCRIPTION/EC NO.	DATE
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS IN INCHES		
TOLERANCE UNLESS OTHERWISE NOTED: X = ±.05 ANGLES ±0.5° XX = ±.02 XXX = ±.015		

Alcoa Fastening Systems
 AEROSPACE FASTENER DIVISION
 3724 EAST COLUMBIA STREET
 TUCSON, ARIZONA 85714
 PHONE 520 519-7400
 FAX 520 519-7427
 www.alcofasteners.com

TITLE TURN-LOC, LOW PROFILE, OPTIONAL RECESS, ALUM KNOB, .031 RADIAL FLOAT	
DATE 04/27/2004	PART NUMBER F7500
DRAWN JLS	DRAWING NO. S-0209
CHECK 	CAGE CODE 0HDW7
APPROVE 	REV AC
SCALE: 1:1 SHEET 1 OF 2	

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Red Ink Indicates
Original Copy

REV
AC

DRAWING NO.
S-0209

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INSTALLATION - AVAILABILITY TABLE

GRIP CODE	4, 4F, M2.5, M3, 6, 6F, M3.5					8, 8F, M4					10, 10C, 10F, M5, 12, 12C, 12F, M6																
	1	1.5	2	2.5	3	3.5	4	4.5	5	1	1.5	2	2.5	3	3.5	4	4.5	5	1	1.5	2	2.5	3	3.5	4	4.5	5
A																											
B																											
C	O									O																	
D	O	O	O							O	O	O							O	O							
E	O	O	O	O						O	O	O							O	O	O						
F	O	O	O	O	O					O	O	O	O						O	O	O	O					

- O ASSEMBLIES NOT AVAILABLE
- ARBOR PRESS FORMING TOOL
- INSTALLATION TOOL H8603-() OR ARBOR PRESS FORMING TOOL

MATERIAL

STUD: HS, NR, P, PZ, & SLOT RECESSES
 ALL SIZES - CRES PER ASTM-A-493 OR AMS 5636 (302)

STUD: TS AND TW RECESSES
 ALL SIZES - CRES PER AMS 5737 (A-286), HEAT TREAT TO 160 KSI MIN. ULTIMATE TENSILE STRENGTH

KNOB: ALUMINUM ALLOY PER QQ-A-225/8, OR AMS 4117 (6061), OR EQUIVALENT

SLEEVE: ALUMINUM ALLOY PER QQ-A-225/8, OR AMS 4117 (6061), OR EQUIVALENT

SPRING: CRES PER ASTM-A313 OR AMS 5688 (302)

WASHERS: CRES PER AMS 5901, AMS 5517 OR AMS 5519 (301)

FINISH

NONE: STUD, SPRING & WASHERS: PASSIVATE PER AMS QQ-P-35
 KNOB & SLEEVE: ANODIZE PER MIL-A-8625, TYPE II, CLASS I



B: STUD & WASHERS:
 BLACK OXIDE PER MIL-C-13924, CLASS 4 (300 SERIES)
 BLACK OXIDE PER MIL-C-13924, CLASS 3 (A-286)
 KNOB: BLACK ANODIZE PER MIL-A-8625, TYPE II, CLASS 2

NOTES:

- 1 LETTERS AT THE END OF PART NUMBER DESIGNATE SPECIAL ASSEMBLIES:
 DL - ASSEMBLIES WITH DRI LUBE THREADS PER MIL-PRF-46010
 PL - ASSEMBLIES WITH PATCH LOCK PER MIL-F-18240
- 2 NO CODE REQUIRED FOR SLOTTED HEADS.
- 3 WHEN USING THE HEX SOCKET CONFIGURATION, ADD .070 TO "L" LENGTH.
- 4 FOR LONGER LENGTHS, ADD .125 INCREMENTS PER LENGTH CODE
- 5 THREAD SIZE CODE
- 6 RECESS IS ONE SIZE SMALLER THAN NOMINAL SIZE REQUIRED FOR 100° FLAT HEAD.
- 7 -3A THREADS PER ASME B1.1. "M" THREADS PER ANSI/ASME B1.13M
- 8 COMPONENTS ARE FINISHED PRIOR TO THE ASSEMBLY PROCESS. DISCOLORATION OF THE BLACK ANODIZE MAY OCCUR ON THE CRIMPED PORTION OF THE KNOB DURING ASSEMBLY. A HIGH-ADHESION BLACK PAINT IS PERMITTED FOR TOUCH-UP AFTER ASSEMBLY.

INSTALLATION TOOLS: () = THREAD SIZE CODE

ARBOR PRESS TOOL HW7600-(), REMOVAL ADAPTER TOOL FN7505-(), NOSE PIECE HN7513-(), PULLER HP7523-(), HANDLE ASSEMBLY TA7533;

COMPLETE HAND TOOL ASS'Y: H8603-() (INCLUDES NOSE PIECE, PULLER & HANDLE)

AC			DCN 3972			01-24-06			Alcoa Fastening Systems			TITLE TURN-LOC, LOW PROFILE, OPTIONAL RECESS, ALUM KNOB, .031 RADIAL FLOAT		
AEROSPACE FASTENER DIVISION 3724 EAST COLUMBIA STREET TUCSON, ARIZONA 85714 PHONE 520 519-7400 FAX 520 519-7427 www.alcoafasteners.com			DATE 04/27/2004			PART NUMBER F7500								
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS IN INCHES TOLERANCE UNLESS OTHERWISE NOTED: .X = ±.05 ANGLES ±0.5° .XX = ±.02 .XXX = ±.015			DRAWN JLS			DRAWING NO. S-0209								
			CHECK 			CAGE CODE OHDW7			REV AC					
			APPROVE 			SCALE: 1:1			SHEET 2 OF 2					