

USER ACTIVITIES:
ARMY - ME
NAVY - MC, SH

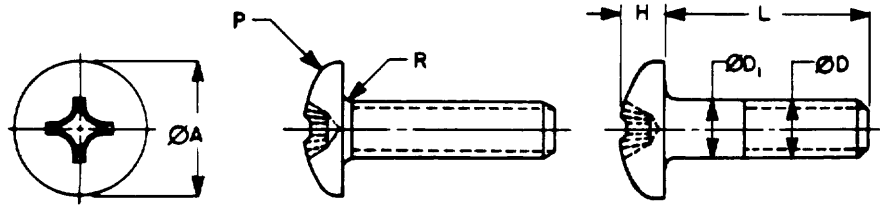


TABLE I. DASH NUMBERS AND DIMENSIONS

ØD NOMINAL SIZE		#2 .0860	#4 .1120	#6 .1380	#8 .1640
THREADS PER INCH		56UNC-2A	40UNC-2A	32UNC-2A	32UNC-2A
ØD ₁ BODY	MAX	.0860	.1120	.1380	.1640
	MIN	.0717	.0925	.1141	.1399
ØA HEAD	MAX	.1670	.2190	.2700	.3220
	MIN	.1550	.2050	.2560	.3060
H HEAD HEIGHT	MAX	.0620	.0800	.0970	.1150
	MIN	.0530	.0700	.0870	.1050
P HEAD RADIUS	MIN	.0100	.0100	.0150	.0150
R FILLET RADIUS	MAX	.0130	.0170	.0210	.0250
DRIVER SIZE		1	1	2	2
MINIMUM TENSILE STRENGTH LOAD LBS		300	480	730	1,120
L LENGTH	TOLERANCE	DASH NO	DASH NO	DASH NO	DASH NO
.125	+0 -.031	1	11	24	39
.188		2	12	25	40
.250		3	13	26	41
.312		4	14	27	42
.375		5	15	28	43
.438		6	16	29	44
.500		7	17	30	45
.562		141 ^{2/}	120 ^{2/}	123 ^{2/}	126 ^{2/}
.625		8	18	31	46
.750	9	19	32	47	
.875	+0 -.062	10	20	33	48
1.000		142	21	34	49
1.125		121 ^{2/}	124 ^{2/}	127 ^{2/}	
1.250		22 ^{1/}	35	50	
1.375		122 ^{2/}	125 ^{2/}	128 ^{2/}	
1.500		+0 -.094	23	36	51
1.750				37	52
2.000				38	53
2.250				54	
2.500		55			
2.750		56			
3.000		57			

1/ INDICATES MANUFACTURER'S NON-STOCK PRODUCTION ITEMS.
2/ INACTIVE FOR NEW DESIGN AFTER 18 JUL 86

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REVIEWER ACTIVITIES:
ARMY - AT, AV, GL, MI
AIR FORCE - 85
DLA - IS
NSA - NS

P. A. ARMY - AR Other Code NAVY - YD AIR FORCE - 99	INTERNATIONAL INTEREST	TITLE	MILITARY STANDARD
		SCREW, MACHINE-PAN HEAD, CROSS-RECESSED, CORROSION-RESISTANT STEEL, UNC-2 A	MS51957
PROCUREMENT SPECIFICATION FF-S-92	SUPERSEDES	PAGE	OF 6

AMSC N/A

APPROVED 12 DEC 63 REVISED 18 JUL 86

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TABLE I. DASH NUMBERS AND DIMENSIONS - CONTINUED

ØD NOMINAL SIZE		Ø10	1/4	5/16	3/8
THREADS PER INCH		24UNC-2A	20UNC-2A	18UNC-2A	16UNC-2A
ØD ₁ BODY	MAX	.1900	.2500	.3125	.3750
	MIN	.1586	.2127	.2712	.3287
ØA HEAD	MAX	.3730	.4920	.6150	.7400
	MIN	.3570	.4730	.5940	.7160
H HEAD HEIGHT	MAX	.1330	.1750	.2180	.2610
	MIN	.1220	.1620	.2030	.2440
P HEAD RADIUS	MIN	.0200	.0350	.0400	.0400
R FILLET RADIUS	MAX	.0290	.0380	.0470	.0560
DRIVER SIZE		2	3	4	4
MINIMUM TENSILE STRENGTH LOAD LBS		1,400	2,540	4,190	6,200
L LENGTH	TOLERANCE	DASH NO	DASH NO	DASH NO	DASH NO
.188	+0 -.031	58 ^{1/}			
.250		59	76		
.312		60	77	92	
.375		61	78	93	
.438		62			
.500		63	79	94	107
.562	129 ^{2/}	132 ^{2/}	135 ^{2/}	138 ^{2/}	
.625	+0 -.062	64	80	95	108
.750		65	81	96	109
.875		66	82	97	110
1.000		67	83	98	111
1.125		130 ^{2/}	133 ^{2/}	136 ^{2/}	139 ^{2/}
1.250		68	84	99	112
1.375	131 ^{2/}	134 ^{2/}	137 ^{2/}	140 ^{2/}	
1.500	69	85	100	113	
1.750	+0 -.094	70	86	101	114
2.000		71	87	102	115
2.250		72	88	103	116
2.500		73	89	104	117
2.750		74 ^{1/}	90 ^{1/}	105 ^{1/}	118
3.000		75 ^{1/}	91 ^{1/}	106 ^{1/}	119

^{1/} INDICATES MANUFACTURER'S NON-STOCK PRODUCTION ITEMS.

^{2/} INACTIVE FOR NEW DESIGN AFTER

APPROVED 12 DEC 63 REVISED © FOR CHANGES SEE PAGES 1, 2, 3, 4, 5 AND 6

U.S. ARMY - AR Other Code NAVY - YD AIR FORCE - 99	INTERNATIONAL INTEREST	TITLE SCREW, MACHINE-PAN HEAD, CROSS-RECESSED, CORROSION-RESISTANT STEEL, UNC-2A	MILITARY STANDARD
			MS 51957
PROCUREMENT SPECIFICATION FF-S-92	SUPERSEDED	PAGE 2 OF 6	

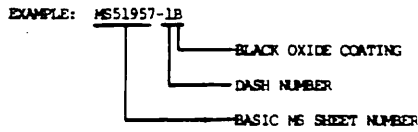
DEFENSE ACTIVITIES
 ARMY - ME
 NAVY - MC, SH

DEFENSE ACTIVITIES
 ARMY - AT, AV, GL, MI
 AIR FORCE - 85
 DLA - IS
 NSA - NS

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REQUIREMENTS:

1. **MATERIAL:** CORROSION RESISTANT STEEL, 300 SERIES, IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.
2. **CLEANED, DESCALED AND PASSIVATED:** SCREWS SHALL BE CLEANED, DESCALED AND PASSIVATED IN ACCORDANCE WITH ASTM A380.
3. **PROTECTIVE COATING AND SURFACE TREATMENT:** WHEN SPECIFIED SCREWS SHALL BE BLACK OXIDE COATED IN ACCORDANCE WITH MIL-C-13924, CLASS 4. (WHEN BLACK OXIDE COATING IS REQUIRED, THE DASH NUMBER SHALL BE FOLLOWED BY A "B").
4. **MAGNETIC PERMEABILITY:** SCREWS SHALL MEET THE MAGNETIC PERMEABILITY REQUIREMENTS OF THE PROCUREMENT SPECIFICATION.
5. **THREADS:** THREADS SHALL BE IN ACCORDANCE WITH FED-STD-H28/2. ACCEPTABILITY OF SCREW THREADS SHALL BE IN ACCORDANCE WITH FED-STD-H28/20, SYSTEM 21. THREADS SHALL EXTEND TO WITHIN 2 THREADS OR LESS OF THE BEARING SURFACE, EXCEPT THAT ALL LENGTHS OVER 2 INCHES SHALL HAVE A MINIMUM COMPLETE THREAD LENGTH OF 1 3/4 INCHES.
6. **RECESS:** THE RECESS SHALL BE IN ACCORDANCE WITH M69006.
7. **TENSILE STRENGTH:** THE MINIMUM TENSILE STRENGTH IN LOAD POUNDS, INDICATED FOR EACH SIZE IN TABLE 1, IS BASED ON 80,000 psi MINIMUM TENSILE STRENGTH. LOAD POUNDS ARE CALCULATED BY THE STRESS AREAS INDICATED IN FED-STD-H28/2.
8. **PART NUMBER:** THE PART NUMBER SHALL CONSIST OF THE BASIC M6 SHEET NUMBER, FOLLOWED BY A DASH NUMBER FROM TABLE 1 AND A CODE LETTER "B" FOR BLACK OXIDE, IF APPLICABLE.



MS51957-1B INDICATES - SCREW, MACHINE - PAN HEAD, CROSS-RECESSED, CORROSION RESISTANT STEEL; BLACK OXIDE COATING; .0860-56UNC-2A NOMINAL THREAD SIZE; .125 THREAD LENGTH.

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS STANDARD AND THE REFERENCES CITED HEREIN, THE TEXT OF THIS STANDARD SHALL TAKE PRECEDENCE.
3. REFERENCED GOVERNMENT (OR NONGOVERNMENT) DOCUMENTS OF THE ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DDOISS) SPECIFIED IN THE SOLICITATION FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN.

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P. A. ARMY - AR <small>Other Code</small> NAVY - YD AIR FORCE - 99	INTERNATIONAL INTEREST	TITLE SCREW, MACHINE - PAN HEAD, CROSS-RECESSED, CORROSION-RESISTANT STEEL, UNC - 2A	MILITARY STANDARD
			MS 51957
PROCUREMENT SPECIFICATION FF - S - 92	SUPERSEDES	PAGE 3 OF 6	

THE SCREWS COVERED BY THE DASH NUMBERS GIVEN IN MS16200, MS35216, MS35233, AN515 IN PART AND AN526 IN PART ARE CANCELLED/INACTIVATED AFTER THE DATES INDICATED ON THE DOCUMENTS. USE THE DASH NUMBERS GIVEN IN THE PRECEDING SHEETS. THE CANCELLED SCREWS CANNOT ALWAYS REPLACE THE NEW SCREWS AND SHOULD BE USED UNTIL EXISTING STOCKS ARE DEPLETED. USE ONLY THE NEW SCREWS FOR DESIGN AND REPLACEMENT. REPLACEMENT SHALL BE IN ACCORDANCE WITH THIS TABLE.

TABLE II. INTERCHANGEABILITY

CROSS REFERENCE OF PART NUMBERS						
CANCELLED						NEW
MS16200 MS35233	MS35216	AN515		AN526		MS51957
DASH NUMBER						DASH NUMBER
1	1	C2R2	C2-2			1
2	2	C2R3	C2-3			2
3	3	C2R4	C2-4			3
4	4	C2R5	C2-5			4
5	5	C2R6	C2-6			5
6	6	C2R7	C2-7			6
7	7	C2R8	C2-8			7
8	8	C2R10	C2-10			8
9	9	C2R12	C2-12			9
10						10
11	10	C3R2 thru C3R16	C3-2 thru C3-16			2/ 11
12	11	C4R3	C4-3			12
13	12	C4R4	C4-4			13
14	13	C4R5	C4-5			14
15	14	C4R6	C4-6			15
16	15	C4R7	C4-7			16
17	16	C4R8	C4-8			17
18	17	C4R10	C4-10			18
19	18	C4R12	C4-12			19
20	19	C4R14	C4-14			20
21	20	C4R16	C4-16			21
		C4R18	C4-18			121 ^{1/2}
22		C4R20	C4-20			22
		C4R22	C4-22			122 ^{1/2}
23		C4R24	C4-24			23
		C4R26	C4-26			123 ^{1/2}
		C4R28	C4-28			23
24	21	C5R3 thru C5R28	C5-3 thru C5R28			24
25	22	C6R3	C6-3			25
26	23	C6R4	C6-4	C632R4	C632-4	26
27	24	C6R5	C6-5	C632R5	C632-5	27
28	25	C6R6	C6-6	C632R6	C632-6	28
29	26	C6R7	C6-7	C632R7	C632-7	29
30	27	C6R8	C6-8	C632R8	C632-8	30
				C632R9	C632-9	123 ^{1/2}
31	28	C6R10	C6-10	C632R10	C632-10	31
32	29	C6R12	C6-12	C632R12	C632-12	32
33	30	C6R14	C6-14	C632R14	C632-14	33
34	31	C6R16	C6-16	C632R16	C632-16	34
		C6R18	C6-18	C632R18	C632-18	124 ^{1/2}
35	32	C6R20	C6-20	C632R20	C632-20	35
		C6R22	C6-22	C632R22	C632-22	125 ^{1/2}
36	33	C6R24	C6-24	C632R24	C632-24	36
		C6R26	C6-26	C632R26	C632-26	2/ 36
37	34	C6R28	C6-28	C632R28	C632-28	37
		C6R30	C6-30	C632R30	C632-30	2/ 37
38	35	C6R32	C6-32	C632R32	C632-32	38
		C6R36	C6-36	C632R36	C632-36	2/ 38
		C6R40	C6-40	C632R40	C632-40	2/ 38
				C632R44	C632-44	2/ 38
				C632R48	C632-48	2/ 38

1/ NEW DASH NUMBERS ADDED 26 AUG 1968

2/ NO REPLACEMENT

USER ACTIVITIES:
ARMY - ME
NAVY - MC, SH

REVIEWER ACTIVITIES:
ARMY - AT, AV, GL, MI
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DLA - IS
NSA - NS

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P. A. ARMY - AR Other Cont. NAVY - YD AIR FORCE - 99	INTERNATIONAL INTEREST	TITLE SCREW, MACHINE - PAN HEAD, CROSS - RECESSED, CORROSION - RESISTANT STEEL, UNC - 2A	MILITARY STANDARD
			MS51957
PROCUREMENT SPECIFICATION FF-S-92	SUPERSEDES:	PAGE 4 OF 6	5305-1558

TABLE II. INTERCHANGEABILITY - CONTINUED

CROSS REFERENCE OF PART NUMBERS						
CANCELLED						NEW
MS16200 MS35233	MS35216	ANS15		ANS26		MS51957
DASH NUMBER						DASH NUMBER
39	36					39
40	37					40
41	38	C8R4		C8-4	C832R4	C832-4
42	39	C8R5		C8-5	C832R5	C832-5
43	40	C8R6		C8-6	C832R6	C832-6
44	41	C8R7		C8-7	C832R7	C832-7
45	42	C8R8		C8-8	C832R8	C832-8
46	43	C8R10		C8-10	C832R9	C832-9
47	44	C8R12		C8-12	C832R10	C832-10
48	45	C8R14		C8-14	C832R12	C832-12
49	46	C8R16		C8-16	C832R14	C832-14
		C8R18		C8-18	C832R16	C832-16
50	47	C8R20		C8-20	C832R18	C832-18
		C8R22		C8-22	C832R20	C832-20
51	48	C8R24		C8-24	C832R22	C832-22
		C8R26		C8-26	C832R24	C832-24
					C832R26	C832-26
52	49	C8R28		C8-28	C832R28	C832-28
		C8R30		C8-30	C832R30	C832-30
53	50	C8R32		C8-32	C832R32	C832-32
54		C8R36		C8-36	C832R36	C832-36
55		C8R40		C8-40	C832R40	C832-40
56		C8R44		C8-44	C832R44	C832-44
57		C8R48		C8-48	C832R48	C832-48
58						
59	51	C10R4		C10-4	C1024R4	C1024-4
60	52	C10R5		C10-5	C1024R5	C1024-5
61	53	C10R6		C10-6	C1024R6	C1024-6
62	54	C10R7		C10-7	C1024R7	C1024-7
63	55	C10R8		C10-8	C1024R8	C1024-8
					C1024R9	C1024-9
64	56	C10R10		C10-10	C1024R10	C1024-10
65	57	C10R12		C10-12	C1024R12	C1024-12
66	58	C10R14		C10-14	C1024R14	C1024-14
67	59	C10R16		C10-16	C1024R16	C1024-16
		C10R18		C10-18	C1024R18	C1024-18
68	60	C10R20		C10-20	C1024R20	C1024-20
69	61	C10R22		C10-22	C1024R22	C1024-22
		C10R24		C10-24	C1024R24	C1024-24
		C10R26		C10-26	C1024R26	C1024-26
70	62	C10R28		C10-28	C1024R28	C1024-28
		C10R30		C10-30	C1024R30	C1024-30
71	63	C10R32		C10-32	C1024R32	C1024-32
72	64	C10R36		C10-36	C1024R36	C1024-36
73	65	C10R40		C10-40	C1024R40	C1024-40
74		C10R44		C10-44	C1024R44	C1024-44
75		C10R48		C10-48	C1024R48	C1024-48
76	66	C416R5		C416-5	C420R6	C420-6
77	67	C416R6		C416-6	C420R7	C420-7
78	68	C416R7		C416-7	C420R8	C420-8
79	69	C416R8		C416-8	C420R9	C420-9
80	70	C416R10		C416-10	C420R10	C420-10
81	71	C416R12		C416-12	C420R12	C420-12
82	72	C416R14		C416-14	C420R14	C420-14
83	73	C416R16		C416-16	C420R16	C420-16
		C416R18		C416-18	C420R18	C420-18

1/ NEW DASH NUMBERS ADDED 26 AUG 1968.

2/ NO REPLACEMENT

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			MS 51957
PROCUREMENT SPECIFICATION FF-S-92	SUPERSEDES	PAGE 5 OF 6	

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TABLE 11. INTERCHANGEABILITY - CONTINUED

CROSS REFERENCE OF PART NUMBERS						
CANCELLED						NEW
MS16200 MS35233	MS35216	ANS15		ANS26		MS51957
DASH NUMBER						DASH NUMBER
84	74	C416R20	C416-20	C420R20	C420-20	84
		C416R22	C416-22	C420R22	C420-22	134 ₂
85	75	C416R24	C416-24	C420R24	C420-24	85
		C416R26	C416-26	C420R26	C420-26	2 ₂
86	76	C416R28	C416-28	C420R28	C420-28	86
		C416R30	C416-30	C420R30	C420-30	2 ₂
87	77	C416R32	C416-32	C420R32	C420-32	87
88	78	C416R36	C416-36	C420R36	C420-36	88
89	79	C416R40	C416-40	C420R40	C420-40	89
90		C416R44	C416-44	C420R44	C420-44	90
91		C416R48	C416-48	C420R48	C420-48	91
92	80					92
93	81					93
94	82	CS16R8	CS16-8			94
95	83	CS16R10	CS16-10			95
96	84	CS16R12	CS16-12			96
97	85	CS16R14	CS16-14			97
98	86	CS16R16	CS16-16			98
		CS16R18	CS16-18			136 ₂
		CS16R20	CS16-20			99
99	87	CS16R22	CS16-22			137 ₂
100	88	CS16R24	CS16-24			100
		CS16R26	CS16-26			2 ₂
101	89	CS16R28	CS16-28			101
		CS16R30	CS16-30			2 ₂
102	90	CS16R32	CS16-32			102
103	91	CS16R36	CS16-36			103
104	92	CS16R40	CS16-40			104
105		CS16R44	CS16-44			105
106		CS16R48	CS16-48			106
107	93	CS16R8	CS16-8			107
108	94	C616R10	C616-10			108
109	95	C616R12	C616-12			109
110	96	C616R14	C616-14			110
111	97	C616R16	C616-16			111
		C616R18	C616-18			139 ₂
112	98	C616R20	C616-20			112
		C616R22	C616-22			100
113	99	C616R24	C616-24			113
		C616R26	C616-26			2 ₂
114	100	C616R28	C616-28			114
115	101	C616R30	C616-30			2 ₂
116	102	C616R32	C616-32			115
117	103	C616R36	C616-36			116
118	104	C616R40	C616-40			117
119	105	C616R44	C616-44			118
		C616R48	C616-48			119

1/ NEW DASH NUMBERS ADDED 26 AUG 1968

2/ NO REPLACEMENT

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			MS51957
PROCUREMENT SPECIFICATION FF-S-92	SUPERSEDES:	PAGE 6 OF 6	