

REV.
A

AS34451™

FEDERAL SUPPLY CLASS
5935

RATIONALE

AS34451A HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

THE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE LATEST ISSUE OF SAE AS81703.

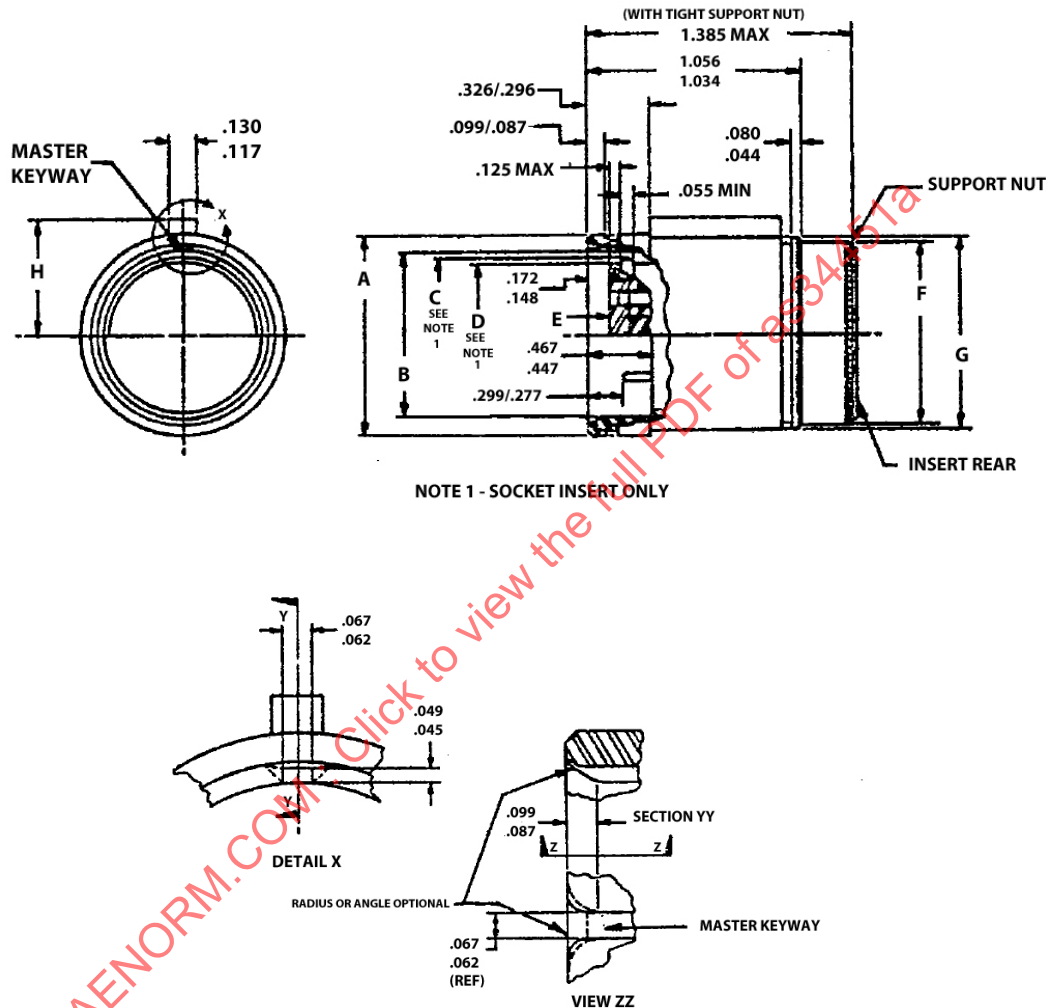
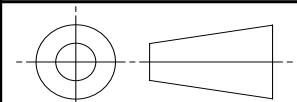


FIGURE 1 – CONNECTOR CONFIGURATIONS AND DIMENSIONS

For more information on this standard, visit
<https://www.sae.org/standards/content/AS34451A/>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS81703



AEROSPACE STANDARD

(R) CONNECTOR, PLUG, ELECTRIC, CRIMP TYPE,
RACK AND PANEL, SERIES 2
(CLASS E)

AS34451™
SHEET 1 OF 6

REV.
A

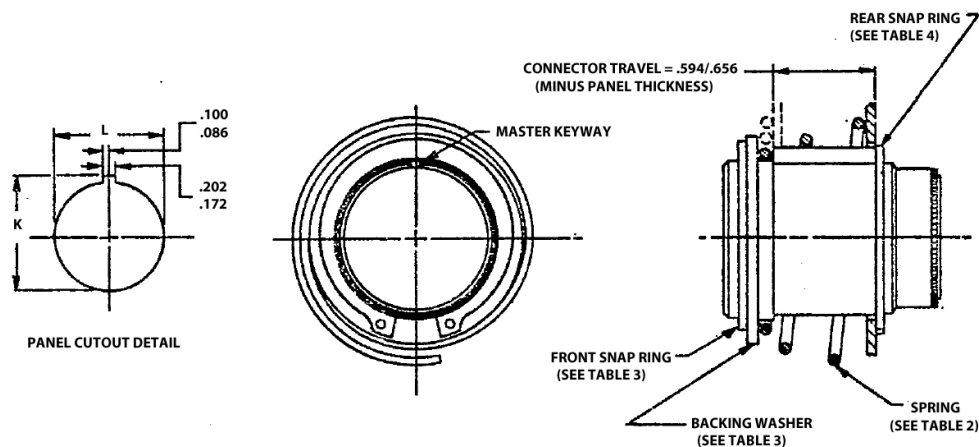


FIGURE 1A – CONNECTOR CONFIGURATIONS AND DIMENSIONS (CONTINUED)

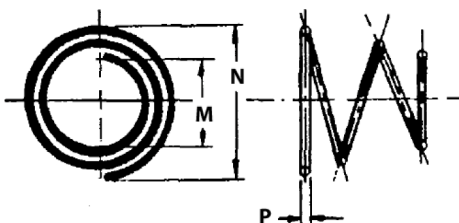
TABLE 1 – FIGURE 1 AND 1A DIMENSIONS

SHELL SIZE DASH NO.	A DIA. OVER FRONT OF SHELL	B I.D. SHELL	C DIA. INSERT SEAL ^{1/}	D DIA. INSERT ^{1/}	E POINT OF SPRING CONTACT
-3	.641/.628	.454/.446	.380/.362	.354/.334	.138 MAX. MEASURE WITH SQUARE NOSE PIN HAVING SAME BASIC DIAMETER OF MATING CONTACT
-7	.797/.784	.589/.581	.496/.478	.470/.450	
-12	.920/.907	.723/.715	.636/.618	.610/.590	
-19	1.048/1.035	.862/.854	.776/.756	.750/.726	
-27	1.189/1.176	1.017/1.009	.931/.911	.905/.880	
-37	1.356/1.343	1.139/1.131	1.053/1.038	1.027/1.003	

^{1/} SOCKET INSERT ONLY.


TABLE 1A – FIGURE 1 AND 1A DIMENSIONS (CONTINUED)

SHELL SIZE DASH NO.	F MAX. DIA. REAR	G DIA. OVER REAR OF SHELL	H DIM. FROM CENTERLINE TO TOP OF KEYWAY	K	L
-3	.625	.615/.595	.442/.422	.858/.828	.686/.656
-7	.702	.760/.740	.504/.484	.999/.969	.827/.797
-12	.828	.867/.847	.567/.547	1.124/1.094	.968/.938
-19	.953	1.010/.990	.639/.619	1.249/1.219	1.077/1.047
-27	1.102	1.150/1.130	.709/.689	1.390/1.360	1.218/1.188
-37	1.266	1.322/1.302	.796/.776	1.546/1.516	1.390/1.360



SPRING

FIGURE 2 – SPRING DETAIL

	AEROSPACE STANDARD	AS34451™ SHEET 2 OF 6	REV. A
	(R) CONNECTOR, PLUG, ELECTRIC, CRIMP TYPE, RACK AND PANEL, SERIES 2 (CLASS E)		

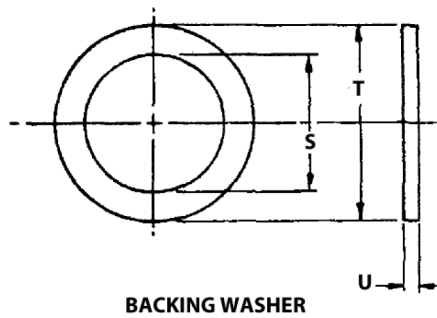


FIGURE 3 – BACKING WASHER

TABLE 2 – FIGURE 2 DIMENSIONS

SHELL SIZE DASH NO.	A --- SPRING							
	M MIN.	N MAX.	P	APPROX. FREE LENGTH	TOTAL TURNS (REF)	SPRING FORCE AT "R" HEIGHT (LBS. MIN.)	R ± .010	SPRING FORCE AT "P" + .020 HEIGHT (LBS. MAX.)
-3	.645	1.220	.071/.059	.800	3	8	.220	18
-7	.775	1.350	.073/.064	1.250	3	10	.230	
-12	.905	1.565	.097/.085	.938	2 1/3	21	.250	36
-19	1.025	1.705		1.875	2 1/2	27		45
-27	1.175	1.855	.101/.089	1.625	2 5/8	28	.260	46
-37	1.345	2.105	.126/.114	1.250	2 1/2		.280	48
-61	1.675	2.835	.141/.129	2.250		54	.295	77

TABLE 3 – FIGURE 3 DIMENSIONS

SHELL SIZE DASH NO.	B --- BACKING WASHER		
	S	T	U
-3	.660/.649	.891/.869	.070/.050
-7	.815/.804	1.172/1.150	.110/.090
-12	.932/.921	1.263/1.241	.091/.071
-19	1.060/1.049	1.391/1.369	.081/.061
-27	1.198/1.190	1.529/1.507	.072/.052
-37	1.367/1.357	1.816/1.794	.060/.040
-61	1.685/1.674	2.150/2.118	.072/.052

TABLE 4 – SNAP RING PART NUMBERS

SHELL SIZE DASH NO.	FRONT SNAP RING	REAR SNAP RING
-3	MS16624-1062	MS16626-3059 1/
-7	MS16626-1078	MS16626-3075 1/
-12	MS16626-1093	MS16626-3087 1/
-19	MS16626-1106	MS16626-3100 1/
-27	MS16626-1118	MS16626-3112 1/
-37	MS16624-1137	MS16624-3131 1/
-61	MS16624-1168	MS16624-3162 1/

1/ EXCEPT WITH BLACK FINISH IAW MIL-PRF-46010 CLASS 2.

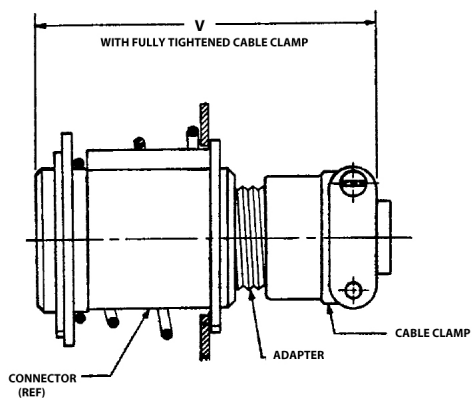


FIGURE 4 – CONNECTOR WITH ADAPTER AND CABLE CLAMP

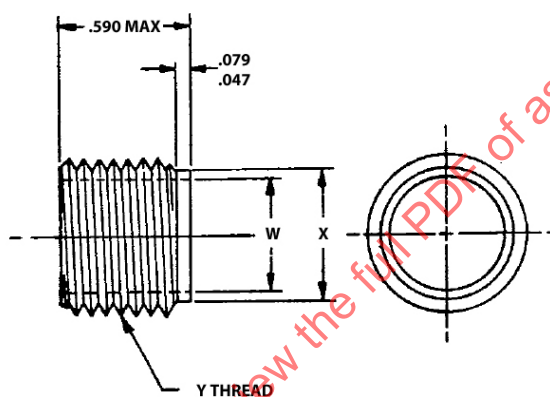


FIGURE 5 – ADAPTER DETAIL

TABLE 5 – FIGURE 4 AND 5 DIMENSIONS AND PART NUMBERS

SHELL SIZE DASH NO.	V LENGTH MAX.	W I.D.	X	Y THREAD	ADAPTER PART NUMBER	CABLE CLAMP PART NUMBER
-3	2.234	.401/.389	.451/.444	1/2 - 28 UNEF-2A	MS3445-3C	AS85049/41-3A
-7		.506/.494	.572/.565	5/8 - 24 UNEF-2A	MS3445-7C	AS85049/41-4A
-12	2.297	.651/.639	.688/.681	3/4 - 20 UNEF-2A	MS3445-12C	AS85049/41-6A
-19	2.359	.781/.769	.813/.806	7/8 - 20 UNEF-2A	MS3445-19C	AS85049/41-8A
-27		.888/.882	.938/.931	1 - 20 UNEF-2A	MS3445-27C	AS85049/41-10A
-37		1.052/1.040	1.118/1.111	1 3/16 - 18 UNEF-2A	MS3445-37C	AS85049/41-12A