

REV.
A

AS34461™

RATIONALE

AS34461A 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.

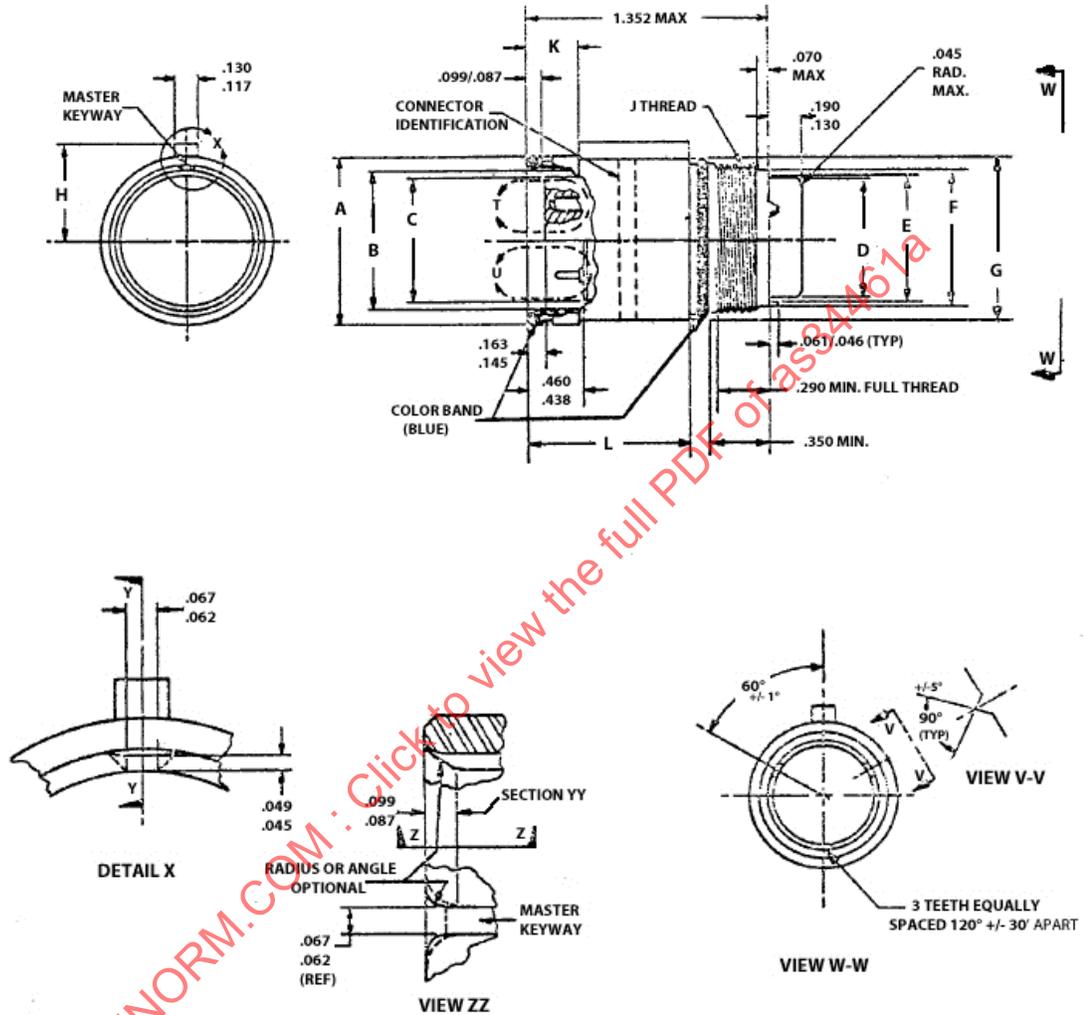
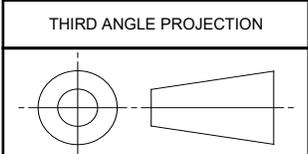


FIGURE 1A – CONNECTOR CONFIGURATIONS AND DIMENSIONS

For more information on this standard, visit
<https://www.sae.org/standards/content/AS34461A>



CUSTODIAN: AE-8C1

PROCUREMENT SPECIFICATION: AS81703



AEROSPACE STANDARD

(R) CONNECTOR, PLUG, ELECTRIC, CRIMP TYPE,
RACK AND PANEL, SERIES 3
(CLASS L AND E)

AS34461™
SHEET 1 OF 4

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ISSUED 1998-01 REVISED 2011-09 REAFFIRMED 2021-08

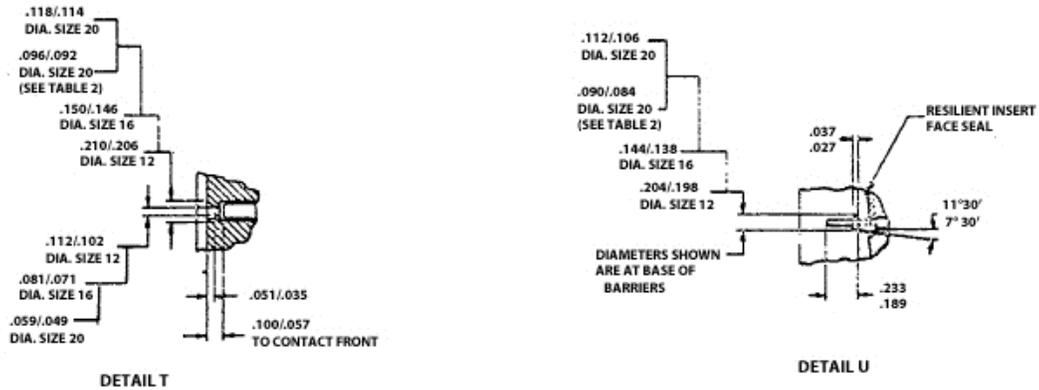
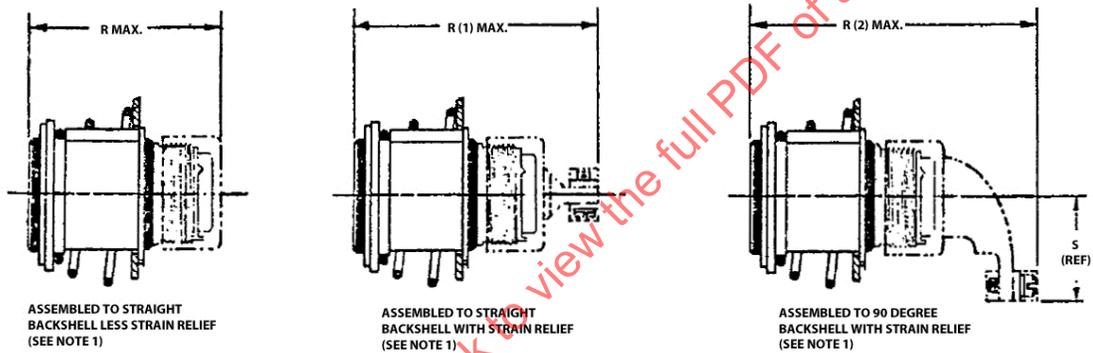


FIGURE 1B – CONNECTOR CONFIGURATIONS AND DIMENSIONS (CONTINUED)

FIGURE 1 – CONFIGURATIONS AND DIMENSIONS



NOTE 1 - CONNECTOR ASSEMBLY MUST INCLUDE A BACKSHELL TO MEET THE MOISTURE SEALING REQUIREMENTS OF AS81703. SEE AS85049/31, /51, /52, AND /60 FOR APPLICABLE BACKSHELL ACCESSORIES.

FIGURE 2 – CONNECTOR BACKSHELL/ACCESSORY DETAILS

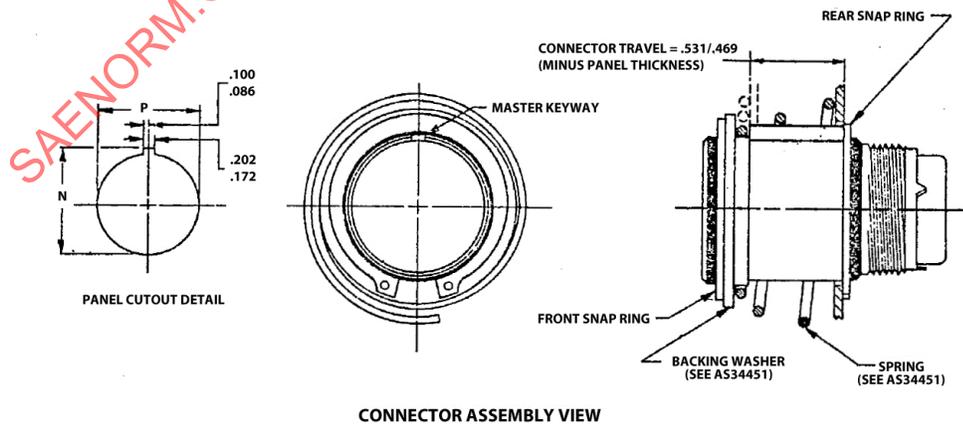


FIGURE 3 – CONNECTOR ASSEMBLY DETAILS

	AEROSPACE STANDARD (R) CONNECTOR, PLUG, ELECTRIC, CRIMP TYPE, RACK AND PANEL, SERIES 3 (CLASS L AND E)	AS34461™ SHEET 2 OF 4	REV. A

TABLE 1 – FIGURE 1 THROUGH 3 DIMENSIONS

SHELL SIZE DASH NO.	A DIA.	B SHELL I.D.	C MAX. INSERT O.D.	D MAX. GROMMET O.D.	E MIN. UNDER TEETH	F MAX. DIA.	G MAX. DIA.	H DIM. FROM CENTERLINE TO TOP OF KEY	J THREAD
-3	.641/.628	.454/.446	.330	.351	.441	.509	.615	.442/.422	9/16-24 UNEF-2A
-7	.797/.784	.589/.581	.451	.531	.613	.687	.760	.504/.484	3/4-20 UNEF-2A
-12	.920/.907	.723/.715	.553	.665	.731	.812	.867	.567/.547	7/8-20 UNEF-2A
-19	1.048/1.035	.862/.854	.738	.790	.861	.937	1.010	.639/.619	1-20 UNEF-2A
-27	1.189/1.176	1.017/1.009	.854	.869	.919	.992	1.150	.709/.689	1 1/16-18 UNEF-2A
-37	1.356/1.343	1.139/1.131	.978	.994	1.044	1.117	1.322	.796/.776	1 3/16-18 UNEF-2A
-61	1.673/1.660	1.427/1.419	1.271	1.280	1.361	1.427	1.635	.951/.931	1 1/2-18 UNEF-2A

TABLE 1 – FIGURE 1 THROUGH 3 DIMENSIONS (CONTINUED)

SHELL SIZE DASH NO.	K	L	N	P	R MAX.	R (1) MAX.	R (2) MAX.	S (REF)
-3	.283/.253	.824/.804	.858/.828	.686/.656	1.660	2.010	2.218	.850
-7	.332/.302	.817/.797	.999/.969	.827/.797				
-12	.337/.307		.805/.785	1.124/1.094	.968/.938	2.510	2.640	1.010
-19	.335/.305	1.249/1.219		1.077/1.047	2.740			
-27	.334/.304	1.390/1.360	1.218/1.188	3.132		1.190	1.335	
-37	.343/.313	1.546/1.516	1.390/1.360					
-61	.382/.352	.793/.773	1.874/1.844	1.702/1.672				

TABLE 2 – INSERT ARRANGEMENTS REQUIRING REDUCED DIAMETER SEAL BARRIER

INSERT ARRANGEMENTS REQUIRING REDUCED DIAMETERS FOR SOCKET CONTACT CHAMFER LEAD-INS AND PIN CONTACT RAISED BARRIERS (ON OUTER ROW CONTACTS OF INSERT ARRANGEMENTS INDICATED BELOW) (APPLICABLE TO THE .096/.092 SIZE 20 DIAMETER IN DETAIL T AND THE .090/.084 DIAMETER SIZE 20 IN DETAIL U)		
SHELL SIZE	INSERT ARRANGEMENT	CONTACT CAVITIES
12	12-50	5, 6, 8, 9, 11 AND 12

TABLE 3 – 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.

REQUIREMENTS: ALL REQUIREMENTS SHALL CONSIST OF THIS SPECIFICATION AND THE LATEST ISSUE OF AS81703.

1. DESIGN:

CONNECTORS AND ACCESSORIES SHALL BE DESIGNED IN ACCORDANCE WITH FIGURES 1 THROUGH 3 AND TABLES 1 THROUGH 3. DIMENSIONS ARE IN INCHES AND APPLY AFTER PLATING. TOLERANCES SHALL BE .XX = ± .01 AND .XXX = ± .005. ANGULAR TOLERANCES SHALL BE X DEGREES = ± 1 DEGREE 0 FEET AND X DEGREES X FEET = ± 30 FEET. COLOR BAND SHALL BE .100 INCHES WIDE MAXIMUM. BAND LOCATION MUST BE SUCH THAT IT IS VISIBLE WHEN THE CONNECTOR IS MOUNTED. FOR MATING INFORMATION, REFER TO AS34451.

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	(R) CONNECTOR, PLUG, ELECTRIC, CRIMP TYPE, RACK AND PANEL, SERIES 3 (CLASS L AND E)		