

Description

Amphenol Triax connectors are used in applications where maximum RF shielding and minimum noise radiation are required.

Features/Benefits

- Available in 7/8-20 and 11/16-24 threading, Triax C, Triax BNC and Triax TNC coupling provides customer flexibility in their design.
- 5000V peak with Teflon insulators allows for high temperature applications.
- Solder/Clamp assembly procedure requires no special crimp tools.
- Precision machined for consistent performance provides dependability.

Applications

- MIL-Aerospace
- Air-frame
- Shipboard



Triax

Specifications	174
Triax 7/8-20, 11/16-24 Specifications	175
Triax C Specifications	176
Triax BNC Specifications	177
Triax TNC Specifications	178
Triax BNC, 180° Polarity	179
Triax-C Bayonet Lock	180
Triax threaded 7/8-20, 11/16-24	181-182
Triax TNC threaded 7/16-28	183

ELECTRICAL

Impedance	Non-constant (can be used with 50, 75 and 93 ohm triaxial cables)
Frequency range	7/8-20 & 11/16-24 triax 300 MHz Triax-C. Triax BNC Triax-TNC: 0-500 MHz
Voltage	5000 V peak with TFE insulators 1900 V peak with styrene insulators

ENVIRONMENTAL

Temperature range	TFE - 65°C to +165°C Copolymer of Styrene: - 55°C to +85°C
Weatherproof	except as noted, all Triax are weatherproof

MECHANICAL

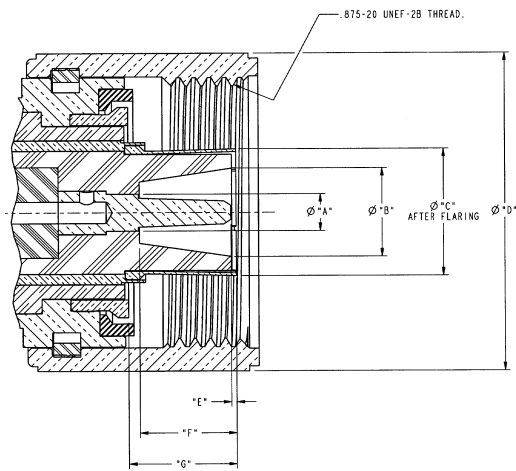
Mating	Triax: 7/8-20 or 11/16-24 threaded coupling. Triax-C and Bayonet lock
Triax-BNC:	Triax-TNC: 7/16-28 threaded coupling
Cable affixment	Screw thread-nut and two braid clamps

MATERIAL

Contacts	Male: brass Female & Outer beryllium copper. Silver plated.
Other metal parts	Brass: ASTROplate® finish
Insulators styrene	TFE or copolymer of
Clamp gaskets	Silicone rubber or synthetic rubber

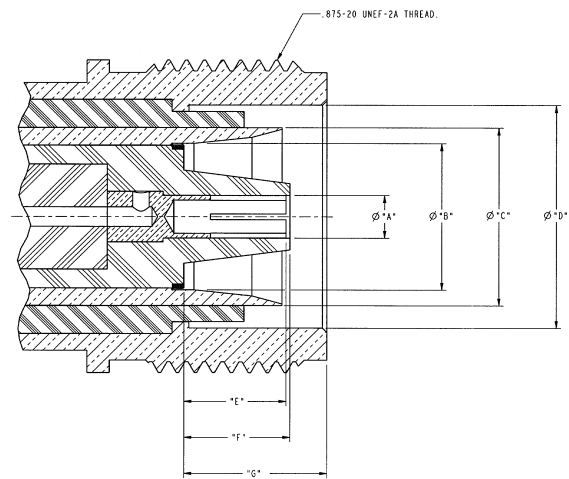
NOTE: These characteristics are typical and may not apply to all connectors.

7/8-20 PLUG



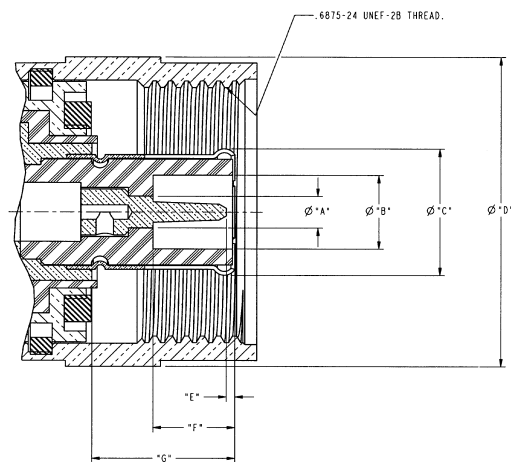
LTR	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.119	.121	3.02	3.07
B	.286	.290	7.26	7.37
C	.431	.435	10.95	11.05
D	1.029	1.035	26.14	26.29
E	0	.040	0	1.02
F	.299	.329	7.59	8.36
G	.335	.365	8.51	9.27

7/8-20 JACK



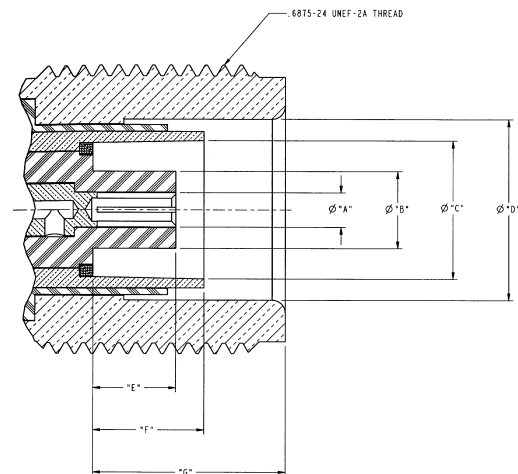
LTR	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.119	.121	3.02	3.07
B	.411	.414	10.44	10.52
C	.496	.499	12.60	12.67
D	.625	.627	15.82	15.93
E	.269	.299	6.83	7.59
F	.280	.310	7.11	7.87
G	.383	.413	9.73	10.49

11/16-24 PLUG



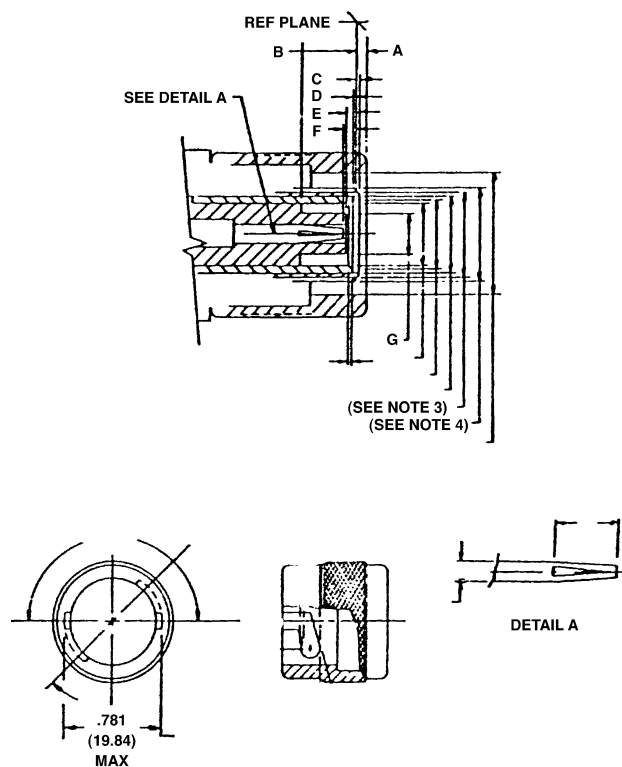
LTR	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.082	.084	2.08	2.13
B	.189	.199	4.80	5.05
C	.328	.338	8.33	8.59
D	.807	.817	20.50	20.75
E	.008	.042	0.20	1.07
F	.198	.228	5.08	5.79
G	.359	.389	9.12	9.88

11/16-24 JACK



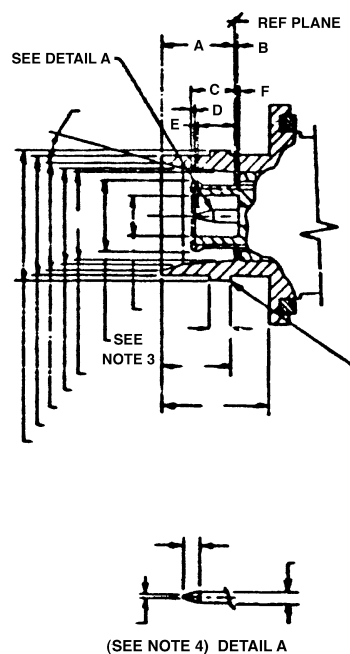
LTR	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.082	.084	2.08	2.13
B	.182	.186	4.22	4.72
C	.330	.335	8.38	8.51
D	.430	.433	10.92	11.00
E	.182	.212	4.62	5.38
F	.249	.279	6.32	7.09
G	.442	.472	11.23	11.99

PLUG



LTR	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	—	.085	—	2.16
B	.208	.250	5.28	6.35
C	.003	.021	.08	.53
D	.001	.031	.03	.79
E	.001	.043	.03	1.09
F	.001	.055	.03	1.40
G	—	.186	—	4.72

JACK

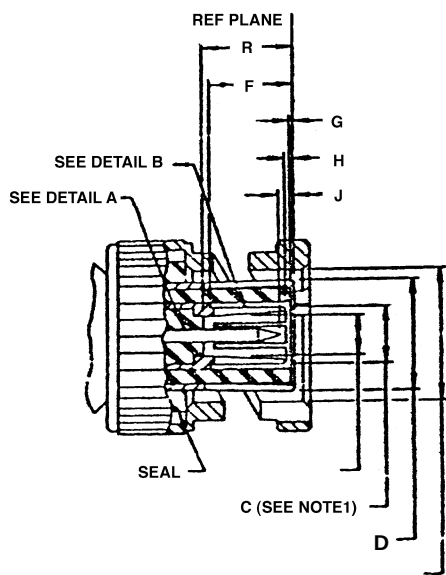


LTR	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.332	.338	9.43	8.59
B	.001	—	.03	—
C	.186	.208	4.72	5.28
D	.001	.013	.03	.33
E	.155	.201	3.94	5.11
F	.001	.039	.03	.99

Notes:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only and are based upon 1.00 inch = 25.4mm
3. Flared to meet gage test.
4. Flat or radius
5. A concave depression .100 (2.54mm) wide by .005 (.13mm) deep between studs is permissible.
6. Metric equivalents are in parentheses.

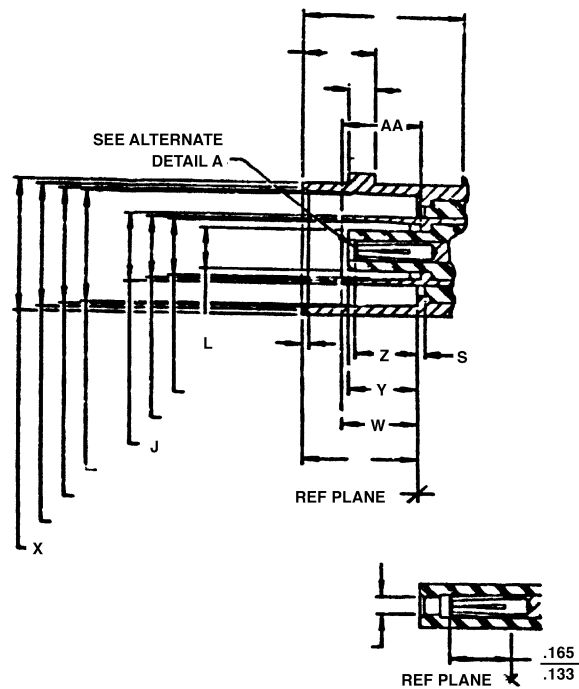
PLUG



LTR	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
C	—	See Note 1	—	—
D	—	—	—	—
F	.213	.242	5.41	6.15
G	.001	—	.03	—
H	.007	.033	.18	.84
J	.008	.042	.20	1.07
R	.213	—	5.41	—

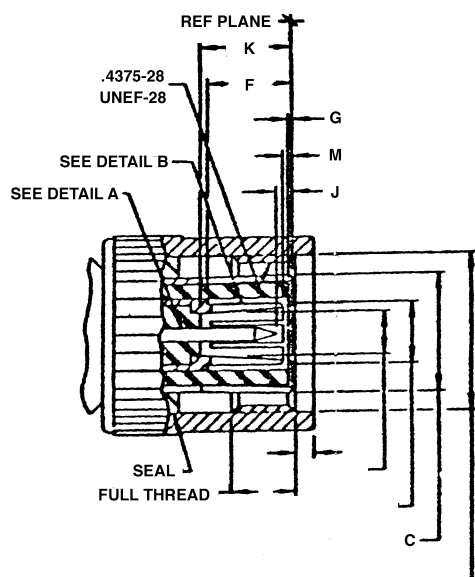
NOTE 1: Flared to meet mating characteristic test.

JACK



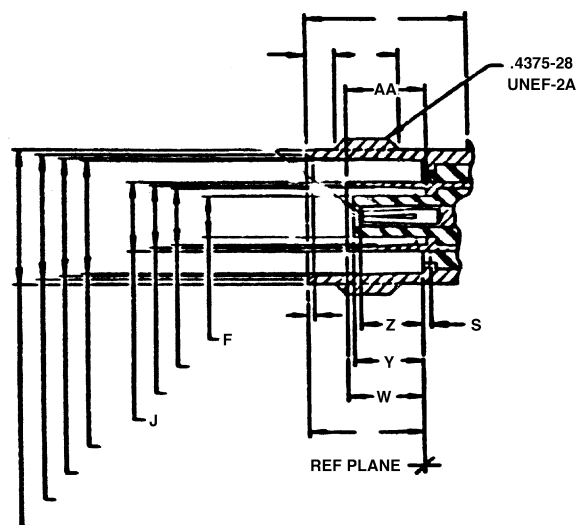
LTR	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
AA	.206	.213	5.23	5.41
J	.195	.199	4.95	5.05
R	.378	.382	9.60	9.70
S	.001	—	.03	—
W	.187	.213	4.75	5.41
Y	—	.213	—	5.41
Z	.165	.203	4.19	5.16

PLUG

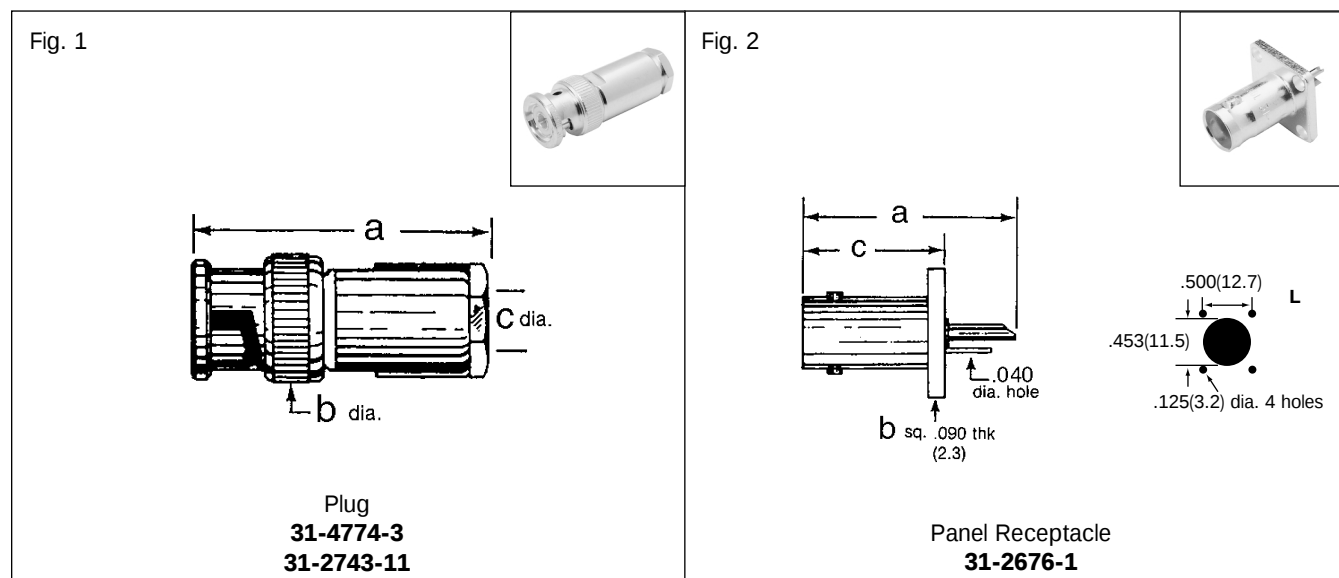


LTR	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
C	.172	.178	4.37	4.52
F	.213	.242	5.41	6.15
G	.001	—	.03	—
H	.007	.033	.18	.84
J	.008	.042	.20	1.07
K	.213	—	5.41	—

JACK



LTR	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
F	.117	.122	2.97	3.10
J	.195	.199	4.95	5.05
S	.001	—	.03	—
W	.187	.213	4.75	5.41
Y	—	.213	—	.41
Z	.165	.263	4.19	5.16
AA	.203	.213	5.23	5.41



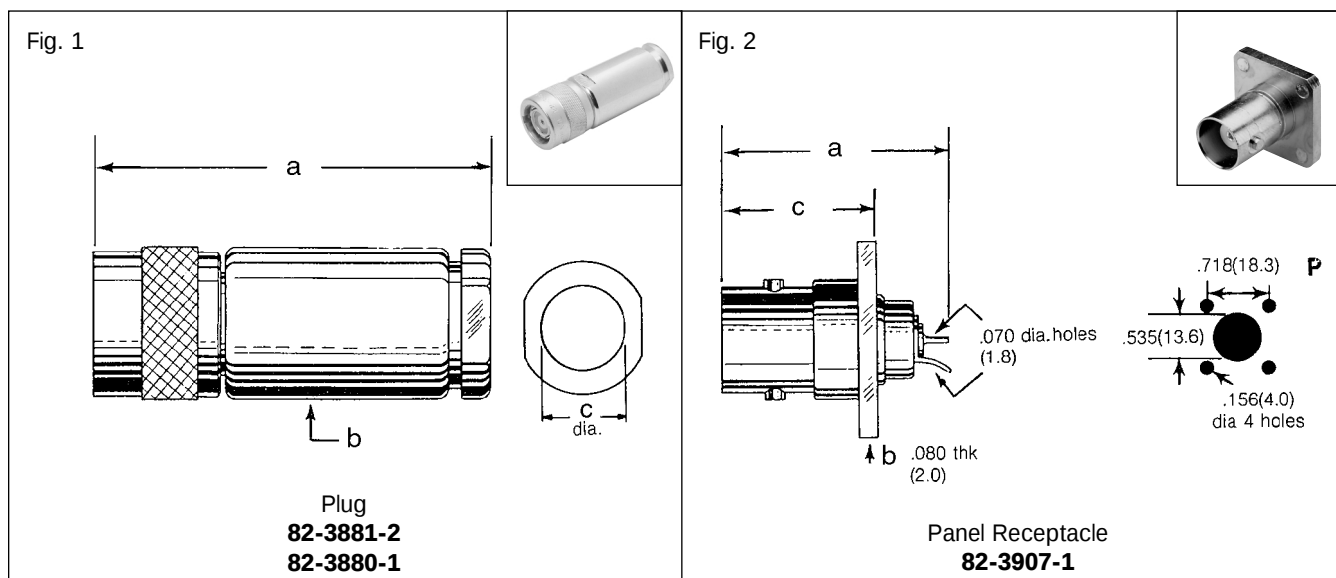
PLUGS - MALE CONTACTS

Cable	Config	Term	Construction	a	b	c Dia	MTG Hole	CAI	Plt.	Ins.	Amphenol Number	Fig
RG-307A/U 75Ω Triax	Plug	two braid clamp	Mates with two bayonet studs180°	1.37 (34.9)	0.562 (14.3)	0.298 (7.6)	—	C12	P33	D1	31-4774-3	1
50Ω Triax: Times TRF-58, Belden 9222, 72Ω Triax Amphenol 621-106	Plug	two braid clamp	Mates with two bayonet studs180°	1.37 (34.9)	0.562 (14.3)	0.257 (6.5)	—	C13	P15	D1	31-2743-11	1

RECEPTACLES

Config	Term	Construction In. (mm)	a	b	c Dia	MTG Hole	CAI	Plt.	Ins.	Amphenol Number	Fig
Panel Receptacle	Solder cup & ground tab	Two bayonet studs 180° apart	1.08 (27.4)	.687 (17.5)	.712 (18.1)	L	—	P33	D1	31-2676-1	2

- accommodates cable diameter



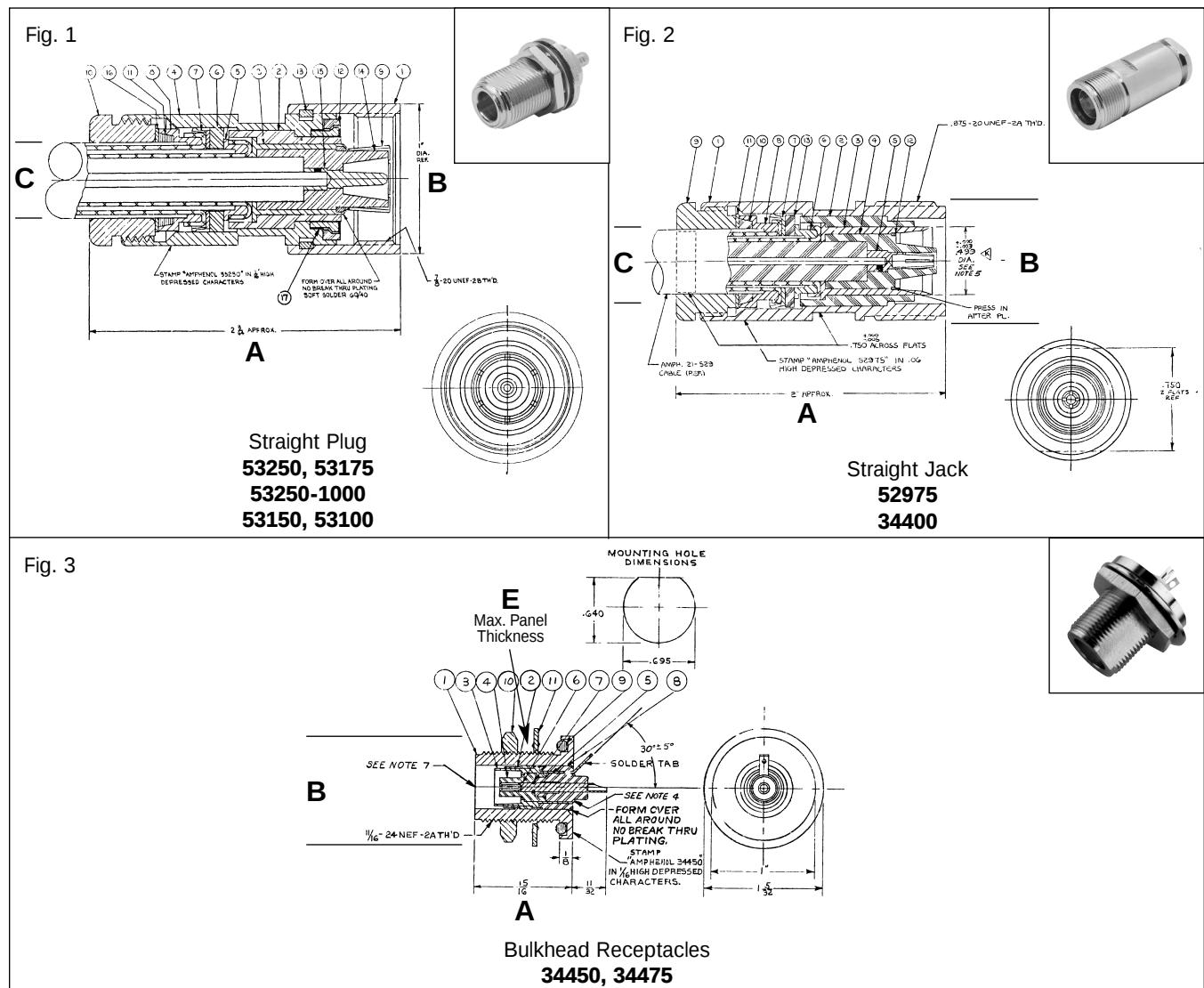
PLUGS - MALE CONTACTS

Cable	Config	Term	a	b	c Dia	MTG Notes	CAI Hole	Plt.	Ins.	Amphenol Number	Fig
11 Type	Plug	two braid clamps	2.06 (52.5)	0.79 (19.1)	0.298 (7.6)	—	C23	P33	D1	82-3881-2	1
59 Type	Plug	two braid clamps	2.06 (52.5)	0.79 (19.1)	0.34 (8.6)	—	C23	P33	D1	82-3880-1	1

RECEPTACLES - FEMALE CONTACTS

Cable	Config	Term	Construction Notes	a	b	c Dia	MTG Hole	CAI	Plt.	Ins.	Amphenol Number	Fig
—	Panel Receptacle	Spade Lug & Ground Tab	Gasketed	1.22 (30.9)	1.00 (25.4)	.750 (19.1)	P	—	P33	D1	82-3907-1	2

- accommodates cable diameter



STRAIGHT PLUGS

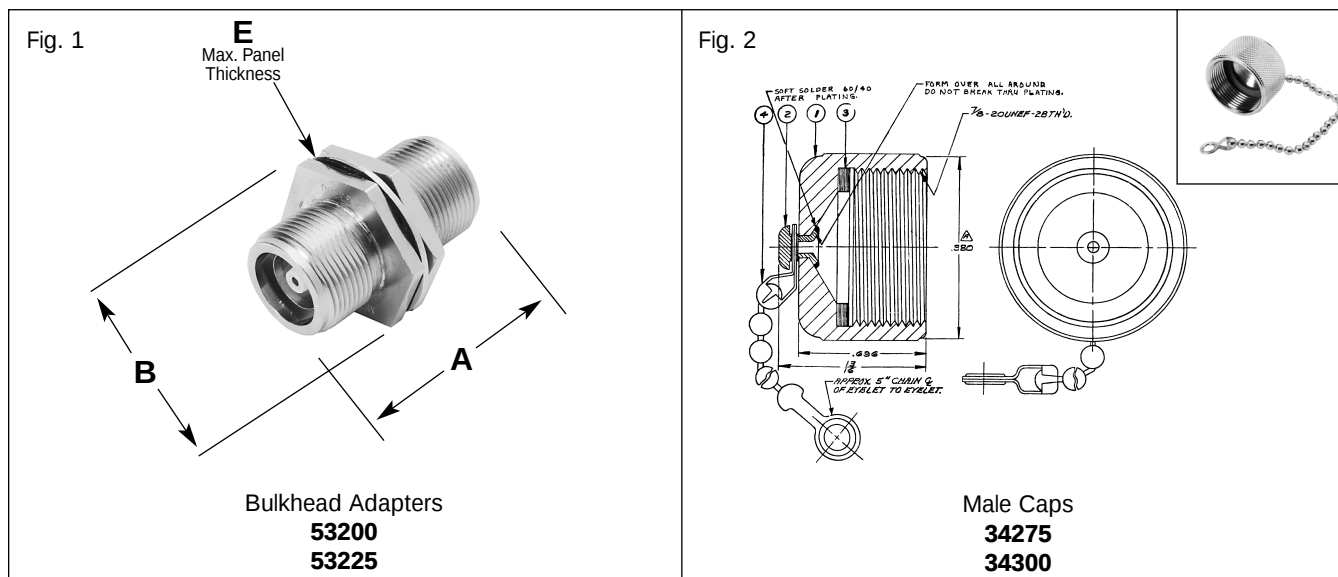
Triax Cable	Mating Threads	Dims. Inches (mm)					MTG Hole	CAI	PLT	Ins.	Amphenol Number	Fig
		a	b	c	e	f						
8 Type	7/8-20	2.05 (52.0)	1.00 (25.4)	.505 (12.8)	—	—	—	C15	P1	D1/D22	53250	1
11 Type	7/8-20	2.05 (52.0)	1.00 (25.4)	.475 (12.1)	—	—	—	C15	P1	D1/D22	53175	1
Coax RG-12 A/U	7/8-20	2.56 (65.1)	1.00 (25.4)	.484 (12.3)	—	—	—	C15	P1	D1/D22	53250-1000	1
58A Type	11/16-24	1.66 (42.1)	.781 (19.8)	.296 (7.5)	—	—	—	C15	P1	D1/D22	53150	1
59	11/16-24	1.66 (42.1)	.781 (19.8)	.332 (8.4)	—	—	—	C15	P1	D1/D22	53100	1

STRAIGHT JACKS

Triax Cable	Mating Threads	Dims. Inches (mm)					MTG Hole	CAI	PLT	Ins.	Amphenol Number	Fig
		a	b	c	e	f						
11 Type	7/8-20	2.00 (50.8)	1.00 (25.4)	.475 (12.1)	—	—	—	C15	P1	D6	52975	2
59	11/16-24	1.75 (44.5)	.750 (19.1)	.332 (8.4)	—	—	—	C15	P1	D1	34400	2

BULKHEAD RECEPTACLES

Triax Cable	Mating Threads	Dims. Inches (mm)					MTG Hole	CAI	PLT	Ins.	Amphenol Number	Fig
		a	b	c	e	f						
—	11/16-24	1.28 (32.5)	1.00 (25.4)	—	.156 (4.0)	—	Y	—	P1	D1	34450	3
—	7/8-20	1.28 (32.5)	1.25 (31.8)	—	.156 (4.0)	—	Z	—	P1	D1	34475	3

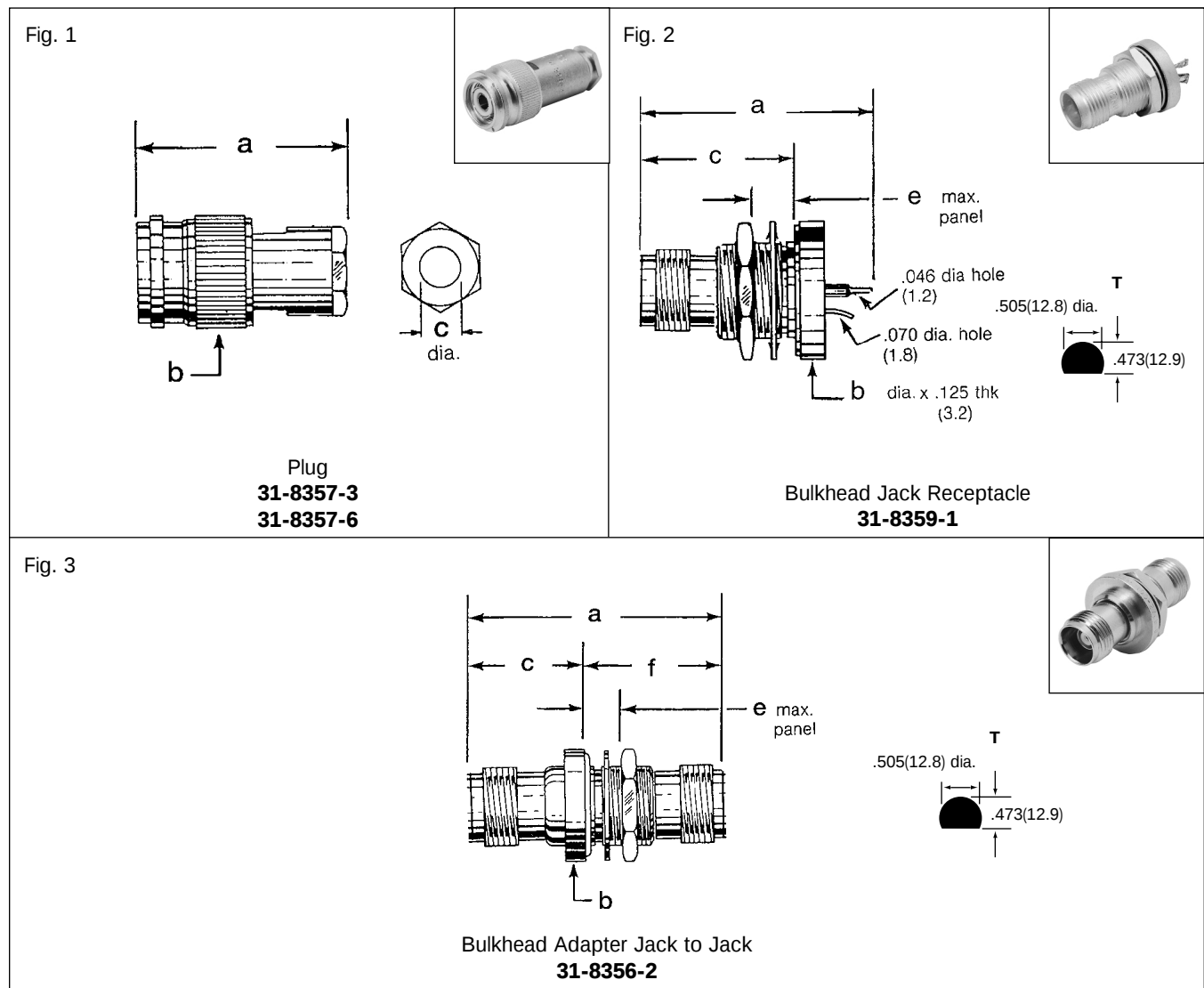


BULKHEAD ADAPTERS

Mating Threads	Dims. Inches (mm)						MTG Hole	PLT	Ins.	Amphenol Number	Fig
	a	b	c	d	e	f					
7/8-20	1.75 (44.5)	1.25 (31.8)	—	—	.709 (18.0)	—	.875 (22.2)	P1	D1	53200	1
11/16-24	1.75 (44.5)	.937 (23.8)	—	—	.709 (18.0)	—	.689 (17.5)	P1	D1	53225	1

MALE CAPS

Mating Threads	Dims. Inches (mm)						MTG Hole	PLT	Ins.	Amphenol Number	Fig
	a	b	c	d	e	f					
7/8-20	.813 (20.6)	1.00 (25.4)	.144 (3.66)	—	5.00 (127)	—	—	P3	—	34275	2
11/16-24	.781 (19.8)	.813 (20.6)	.144 (3.66)	—	5.00 (127)	—	—	P3	—	34300	2



PLUGS - MALE CONTACTS

Triax Cable	Config.	Dims. Inches (mm)					MTG Hole	CAI	PLT	Ins.	Amphenol Number	Fig
		a	b	c	e	f						
Raychem 9530-D-5117	Plug	1.43 (36.3)	.625 (15.9)	.177 (4.5)	—	—	—	C13	P15	D1	31-8357-3	1
Times TBF-58	Plug	1.43 (36.3)	.625 (15.9)	.257 (6.5)	—	—	—	C13	P33	D1	31-8357-6	1

RECEPTACLES - FEMALE CONTACTS

Description	Config.	Dims. Inches (mm)					MTG Hole	CAI	PLT	Ins.	Amphenol Number	Fig
		a	b	c	e	f						
Bulkhead Jack Receptacle	Recep.	1.20 (30.5)	.690 (17.5)	.825 (21.0)	.250 (6.4)	—	T	—	P33	D1	31-8359-1	2

ADAPTER

Description	Config.	Dims. Inches (mm)					MTG Hole	CAI	PLT	Ins.	Amphenol Number	Fig
		a	b	c	e	f						
Bulkhead Jack to Jack	Adapter	1.37 (34.8)	.730 (18.5)	.638 (16.2)	.187 (4.7)	.737 (1.87)	T	—	—	—	31-8356-2	3

- accommodates cable diameter