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AMPHENOL SALES DIVISION
2875 S. 25th Ave., Broadview, Illinois 60153

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M39012/02-0007	82-338	
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M39012/02-0012	82-394	*
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M39012/02-0016	82-343	26
M39012/02-0017	82-334	*
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M39012/02-0502	82-4430	25
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M39012/03-0001	Use UG-159B/U	
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M39012/03-0003	82-347	*
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M39012/03-0503	82-4438	26
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M39012/18-0002	31-3333	10
M39012/18-0003	31-3335	10
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M39012/18-0005	Use M39012/18-0014	
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M39012/18-0008	Use M39012/18-0015	
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M39012/18-0014	31-4243	10
M39012/18-0015	31-4244	10
M39012/18-0016	31-4245	*

* Available but not shown in catalog.

MILITARY NUMBER	AMPHENOL NUMBER	PAGE NO.
M39012/18-0501	31-4433	10
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M39012/20-0501	31-4444	8
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M39012/61-4002	901-117	*
M39012/62-4001	901-161	*
M39012/62-4002	901-162	*

* Available but not shown in catalog.

APPLICATION NOTES

- **New Amphenol BNC plugs and jacks for RG-58/U and RG-59/U**
- **Revolutionary assembly concept**
- **Assemble much faster than standard BNC**
- **Performance comparable to standard BNC**
- **Replace UHF series connectors and get the superior performance and convenience of BNC with no assembly fuss.**
- **Plated with ASTROplate®, Amphenol's lustrous non-tarnish finish**
- **Amphenol quality and performance**

At long last, BNC connectors that assemble on RG-58/U and RG-59/U easier than most UHF connectors, yet achieve the performance level and convenience of standard BNC!

The lab technician and active CB'er/ham will hail these new Amphenol BNC plugs and jacks as a major advance in coax connector technology. Assembly is so easy, yet performance is comparable to conventional BNC's requiring up to five times as long to assemble. Trim the coax, solder the center contact and slide the parts together. It's that easy. Now the active CB'er/ham can upgrade his system to BNC connectors without the tedious task of assembling up to six separate components. The simplified design reduces this number to three easily handled items; and, braid trimming is less critical.

TYPICAL PERFORMANCE SPECIFICATIONS

Electrical

Impedance — 50 or 75 ohm nominal
Frequency range — 0-4GHz, 1.3:1 max V.S.W.R.
Voltage rating — 500 volts peak

Environmental

Thermal limits — -67° to 390°F (-55° to 199°C)
Weather — non-weatherproof

Mechanical

Mating — standard BNC 2-stud bayonet lock
Cable affixment — clamp to braid
— solder to center conductor
Center contact — captivated

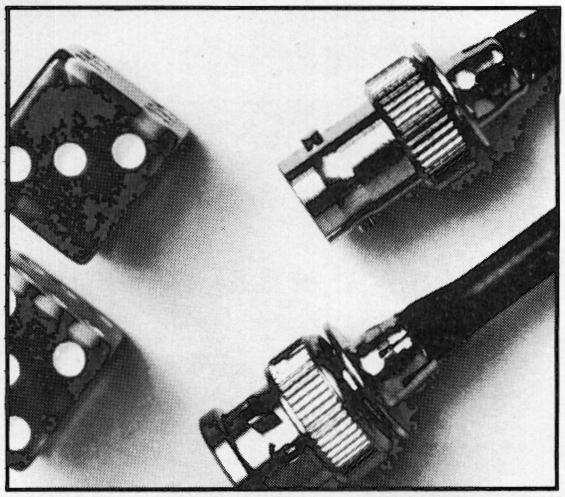
Material

Center contact — plug: phosphor bronze or equal
— jack: phosphor bronze or equal
Other metal parts — brass
Insulator — TFE
Plating — contact: silver
— other metal parts: ASTROplate

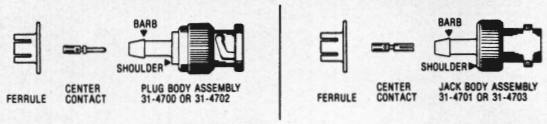
CABLE	DESCRIPTION	PART NO.
RG-58/U	BNC Plug	31-4700
	BNC Jack	31-4701
RG-59/U	BNC Plug	31-4702
	BNC Jack	31-4703

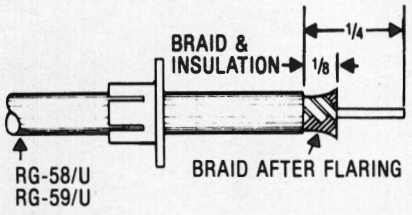
NEW BNC PLUGS & JACKS

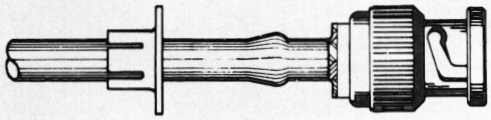
Fast Assembly on RG-58/U and RG-59/U for Instrument Cables, CB, Amateur 2-Way Radios

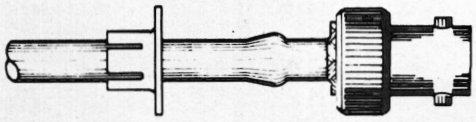


ASSEMBLY INSTRUCTIONS



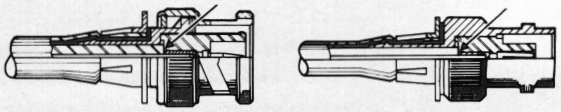




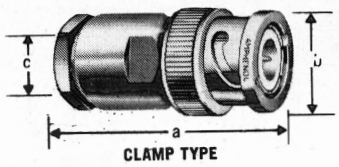


1. Slide ferrule over cable end, slotted end first.
2. Strip cable to dimensions shown. Cut square. Do not nick center conductor.
3. Tin exposed center conductor, solder center contact on center conductor. Use minimum heat to avoid damaging cable insulation. Remove any excess solder so contact will fit body.
4. Flare braid slightly with finger.
5. Slide body over contact and cable insulation with barb going *under* flared braid. Push body until shoulder is against outer jacket. Braid will flair out against body shoulder.
6. Grasp cable with hand and push ferrule over barb until braid is captured between ferrule and body flange. Assembly is complete.

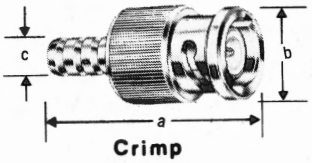
CABLE DIELECTRIC MUST BUTT INSULATOR



BNC STRAIGHT PLUGS



CLAMP TYPE



Crimp

a INCLUDES OUTER FERRULE NOT SHOWN ON ILLUSTRATION

MALE CONTACTS • WEATHERPROOF • 50 OHM IMPEDANCE • TFE INSULATION

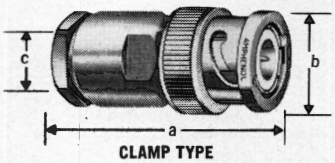
CABLE RG-/U	CANNOT BE USED WITH	CABLE TERMINATION	DIMENSIONS, inches a	b	c	TOOL DATA▲ DIE SET P/N	CONSTRUCTION NOTES	MILITARY NUMBER	AMPHENOL NUMBER
8, 9	—	STD-CLAMP	1 21/32	1 1/16	.437	—	"b" dim. is body O.D.	UG-959	6775
6	—	STD-CLAMP	1 1/4	9/16	.348	—	REXOLITE INSULATION	—	9350
	71	MIL-CRIMP II	1 3/32	9/16	.259	227-1221-13	—	M39012/16-0015	31-4321
	71	MIL-CRIMP I	1 13/64	9/16	.261	227-1221-13	—	M23329/3-05	31-321
	71	QUICK-CRIMP	1 17/64	9/16	.259	227-1221-13	—	—	68175
	71	ORIG.-CRIMP	1 15/32	9/16	.259	227-1221-13	—	—	31-359
59, 62, 71, 140	—	STD-CLAMP	1 1/16	9/16	.259	—	REXOLITE INSULATION	UG-260	31-012
210, 302	—	STD-CLAMP	1 1/16	9/16	.259	—	NON-WEATHERPROOF/REX.INS.	UG-260A	31-021
	—	MIL-CLAMP I	1 3/32	9/16	.259	—	—	UG-260B	31-212
	—	C.C. CLAMP II	1 5/32	9/16	.259	—	CAPTIVATED CONT.	—	31-304
	—	MIL-CLAMP I	1 3/32	9/16	.259	—	BERYL. OUTER CONT.	UG-260C	31-2212
	—	MIL-CLAMP I	1 3/32	9/16	.259	—	BERYL. OUTER CONT.	UG-260D	31-3212
	—	MIL-CLAMP I	1 1/16	9/16	.259	—	75 OHM	—	86475
	—	MIL-CLAMP II	1 3/32	9/16	.259	—	—	M39012/16-0002	31-3302
	58, 141	QUICK-CRIMP	1 17/64	9/16	.220	227-1221-11	—	—	36875
	58, 141, 400	MIL-CRIMP I	1 3/32	9/16	.220	227-1221-11	—	M39012/16-0014	31-4326
	58, 141, 400	MIL-CRIMP I	1 13/64	9/16	.220	227-1221-11		M23329/3-02-04	31-326
	58, 141	CRIMP-CRIMP	17/32	9/16	.220	227-1221-11	—	M39012/16-0503	31-4427
	55A, 223	STD-CLAMP	31/32	9/16	.214	—	—	UG-88	31-002
	55A, 223	STD-CLAMP	31/32	9/16	.214	—	—	UG-88A	14525
	55A, 223	STD-CLAMP	1	9/16	.214	—	FEMALE CONTACT/POLARIZED	—	14625
55, 58, 141, 142	55A, 223	STD-CLAMP	31/32	9/16	.214	—	NON-WEATHERPROOF	UG-88B	31-018
223, 400	—	MIL-CLAMP I	1 1/16	9/16	.214	—	—	UG-88C	31-202
	—	C.C. CLAMP	1 5/32	9/16	.214	—	CAPT. CONTACT	—	31-301
	—	MIL-CLAMP I	1 1/16	9/16	.214	—	BERYL. OUTER CONT.	UG-88D	31-2202
	—	MIL-CLAMP I	1 1/16	9/16	.214	—	BERYL. OUTER CONT.	UG-88E	31-3202
	—	MIL-CLAMP II	1 1/16	9/16	.214	—	—	M39012/16-0001	31-3301
	—	MIL-CRIMP II	1 3/32	9/16	.206	227-1221-11	—	M39012/16-0013	31-4320
	—	MIL-CRIMP	1 13/64	9/16	.206	227-1221-11	—	M23329/3-01-03	31-320
58, 141	—	QUICK-CRIMP	1 17/64	9/16	.206	227-1221-11	—	—	36775
	—	ORIG.-CRIMP	1 15/32	9/16	.206	227-1221-11	—	—	31-351
71	—	MIL-CRIMP I	1 13/64	9/16	.275	227-1221-15			31-322

"c" ACCOMMODATES CABLE DIAMETER

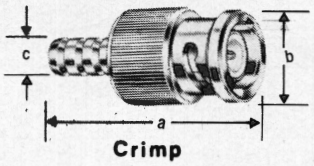
▲ USE WITH TOOL HANDLE P/N 227-944

BUNKER RAMO AMPHENOL RF PRODUCTS

BNC STRAIGHT PLUGS



CLAMP TYPE



Crimp

a INCLUDES OUTER FERRULE NOT SHOWN ON ILLUSTRATION

MALE CONTACTS • WEATHERPROOF • 50 OHM IMPEDANCE • TFE INSULATION

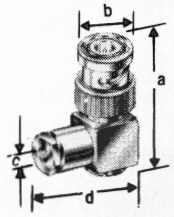
CABLE RG-/U	CANNOT BE USED WITH	CABLE TERMINATION	DIMENSIONS, inches a	b	c	TOOL DATA▲ DIE SET P/N	CONSTRUCTION NOTES	MILITARY NUMBER	AMPHENOL NUMBER
122, 180, 195	180, 195	CRIMP-CRIMP	1 7/32	9/16	.175	227-1221-09	—	M39012/16-0501	31-4425
	122	MIL-CRIMP I	1 13/64	9/16	.175	227-1221-09	—	M23329/3-07	31-323
	180, 195	QUICK-CRIMP	1 17/64	9/16	.175	227-1221-09	—	—	99575
	122	CRIMP-CRIMP	1 7/32	9/16	.175	227-1221-09	—	M39012/16-0502	31-4426
	122	QUICK-CRIMP	1 17/64	9/16	.175	227-1221-09	—	—	36650
	180	MIL-CLAMP I	1 1/16	9/16	.175	—	—	UG-1033	84975
	—	MIL-CLAMP II	15/32	9/16	.175	—	—	M39012/16-0003	31-3303
	122, 195	STD-CLAMP	1	9/16	.150	—	—	—	16300
.141" DIA. SEMI-RIGID	—	SOLDER TYPE	1 1/16	19/16	.144	—	—	—	31-4214
174, 179, 187, 188	174, 188	MIL-CRIMP I	1 13/64	9/16	.115	227-1221-09	—	—	31-242
	179, 187	MIL-CRIMP I	1 13/64	9/16	.115	227-1221-09	—	—	31-315
	—	ORIG.-CRIMP	1 11/32	9/16	.128	WT200	—	—	31-371
	—	MIL-CLAMP I	1 1/16	9/16	.115	—	—	—	69475
178, 196	—	STD-CLAMP	1	9/16	.094	—	—	—	15875
BELDON 8281	—	QUICK-CRIMP	15/16	9/16	.342	—	CONTACT FACTORY FOR ASSY. INST.	—	31-321-1000
ESSEX 21-597 OR EQUIV.	—	MIL-CRIMP I	1 13/64	9/16	.175	227-1221-09	—	—	31-325
	—	QUICK-CRIMP	1 17/64	9/16	.175	227-1221-09	—	—	99600
WE724A	—	STD-CLAMP	1 1/4	9/16	.328	—	—	—	9325
No. 18,20,22 H.V. WIRE shld. & unshld.	—	STD-CLAMP	1	9/16	.123	—	—	—	13925

"C" DIMENSION ACCOMMODATES CABLE DIAMETER

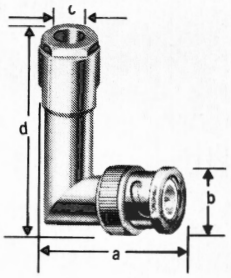
▲ USE WITH TOOL HANDLE P/N 227-944

BUNKER RAMO AMPHENOL RF PRODUCTS

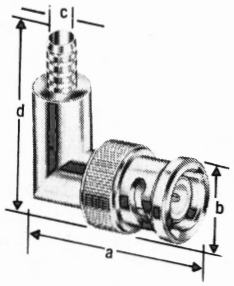
BNC
ANGLE PLUGS



CUBIC BODY



TYPICAL CLAMP & SOLDER TYPE



CRIMP

d INCLUDES OUTER FERRULE NOT SHOWN ON ILLUSTRATION

MALE CONTACTS • WEATHERPROOF • 50 OHM IMPEDANCE • TFE INSULATION • MITRE BODY

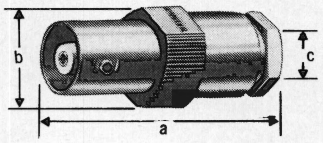
CABLE RG-/U	CANNOT BE USED WITH	CABLE TERMINATION	DIMENSIONS, inches a	b	c	d	TOOL DATA▲ DIE SET P/N	CONSTRUCTION NOTES	MILITARY NUMBER	AMPHENOL NUMBER
71	—	CRIMP-CRIMP	1 1/8	9/16	.175	1 9/16	227-1221-09	—	M39012/20-0501	31-4444
	71	MIL-CRIMP I	1 3/16	9/16	.259	1 19/32	227-1221-13	—	—	31-336
	71	QUICK-CRIMP	1 1/8	9/16	.259	1 9/16	227-1221-13	—	—	95625
59, 62, 71, 140	—	STD-CLAMP	1 1/4	9/16	.259	1 1/32	—	REXOLITE INS./CUBIC	—	31-850
210	—	STD-CLAMP	1 1/4	9/16	.259	1	—	CUBIC BODY	—	8575
	—	STD-CLAMP	29/32	9/16	.259	1 5/32	—	CUBIC BODY	—	33750
	—	MIL-CLAMP I	1 1/16	9/16	.259	1 9/16	—	—	—	86225
	58, 141	MIL-CRIMP I	1 3/16	9/16	.220	1 19/32	227-1221-11	—	—	31-334
	58, 141	QUICK-CRIMP	1 1/8	9/16	.220	1 9/16	227-1221-11	—	—	95575
55, 58, 141, 142	58, 141	MIL-CRIMP II	1 3/32	9/16	.220	1 21/32	227-1221-11	—	M39012/20-0003	31-3365
	58, 141	CRIMP-CRIMP	1 1/8	9/16	.220	1 21/32	227-1221-11	—	M39012/20-0503	31-4446
223, 400	—	STD-CLAMP	1 3/32	9/16	.214	1 11/16	—	—	UG-913	31-204
	—	MIL-CLAMP I	1 3/32	9/16	.214	1 5/8	—	BERYL. OUTER CONT.	UG-913A	31-2204
	55A, 223	STD-CLAMP	1 1/4	9/16	.214	1	—	CUBIC BODY	—	8525
	55A, 223	STD-CLAMP	29/32	9/16	.214	1 5/32	—	CUBIC BODY	—	38250
	—	MIL-CLAMP II	1 3/32	9/16	.214	1 5/8	—	—	M39012/20-0001	31-3361
	—	MIL-CRIMP I	1 3/16	9/16	.206	1 19/32	227-1221-11	—	—	31-335
58, 141	—	QUICK-CRIMP	1 1/8	9/16	.206	1 9/16	227-1221-11	—	—	95600
	—	MIL-CRIMP II	1 1/8	9/16	.206	1 21/32	227-1221-11	—	M39012/20-0002	31-3364
	180, 195	MIL-CRIMP I	1 3/16	9/16	.175	1 19/32	227-1221-09	—	—	31-339
	122	MIL-CRIMP I	1 3/16	9/16	.175	1 19/32	227-1221-09	—	—	31-338
122, 180, 195	122	CRIMP-CRIMP	1 1/8	9/16	.175	1 21/32	227-1221-09	—	M39012/20-0502	31-4445
	180	STD-CLAMP	1 1/4	9/16	.175	1	—	CUBIC BODY	—	33775
	122, 195	STD-CLAMP	1 1/4	9/16	.150	1	—	CUBIC BODY	—	16975
.141" DIA. SEMI-RIGID	—	SOLDER TYPE	1 1/16	9/16	.144	1 9/16	—	—	—	31-4216
174, 179, 187, 188	174, 188	MIL-CRIMP I	1 3/16	9/16	.115	1 19/32	227-1221-09	—	—	31-243
	179, 187	MIL-CRIMP I	1 3/16	9/16	.115	1 19/32	227-1221-09	—	—	31-316
	—	STD-CLAMP	1 1/4	9/16	.115	1	—	CUBIC BODY	—	33275
178, 196	—	STD-CLAMP	1 1/4	9/16	.096	1	—	CUBIC BODY	—	21975
ESSEX 21-597	—	MIL-CRIMP I	1 3/16	9/16	.175	1 19/32	227-1221-09	—	—	31-340
OR EQUIV.	—	QUICK-CRIMP	1 1/8	9/16	.175	1 9/16	221-1221-09	—	—	99650

"C" DIMENSION ACCOMMODATES CABLE DIAMETER

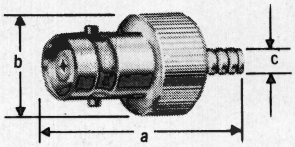
▲ USE WITH TOOL HANDLE P/N 227-944

BUNKER RAMO AMPHENOL RF PRODUCTS

BNC STRAIGHT JACKS



TYPICAL CLAMP & SOLDER TYPE



CRIMP

a INCLUDES OUTER FERRULE NOT SHOWN ON ILLUSTRATION

FEMALE CONTACTS • WEATHERPROOF • 50 OHM IMPEDANCE • TFE INSULATION

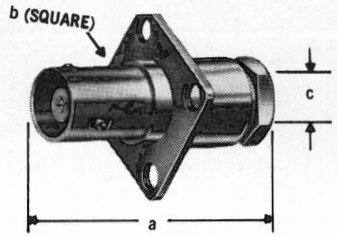
CABLE RG-/U	CANNOT BE USED WITH	CABLE TERMINATION	DIMENSIONS, inches a	b	c	TOOL DATA▲ DIE SET P/N	CONSTRUCTION NOTES	MILITARY NUMBER	AMPHENOL NUMBER
	71	MIL-CRIMP II	1 11/64	9/16	.259	227-1221-13	—	M39012/17-0015	31-4328
	71	QUICK-CRIMP	1 11/32	9/16	.259	227-1221-13	—	—	68150
59, 62, 71, 140	—	STD-CLAMP	1 9/64	9/16	.259	—	70 OHM	UG-261	31-015
210	—	STD-CLAMP	1 9/64	9/16	.259	—	NON-WEATHERPROOF/70 OHM	UG-261A	31-022
	—	MIL-CLAMP I	1 9/64	9/16	.259	—	—	UG-261B	31-215
	—	C.C. CLAMP II	1 15/64	9/16	.259	—	CAPTIVATED CONTACT	—	31-305
	—	MIL-CLAMP I	1 9/64	9/16	.259	—	—	UG-261C	31-2215
	—	MIL-CLAMP II	1 9/64	9/16	.259	—	—	M39012/17-0002	31-3320
	55A	STD-CLAMP	1 9/64	9/16	.214	—	—	UG-89	31-005
	55A	STD-CLAMP	1 9/64	9/16	.214	—	NON-WEATHERPROOF	UG-89A	31-019
55, 58, 141, 142	—	MIL-CLAMP I	1 9/64	9/16	.214	—	—	UG-89B	31-205
223, 400	—	C.C. CLAMP I	1 15/64	9/16	.214	—	CAPTIVATED CONTACT	—	31-302
	—	MIL-CLAMP I	1 9/64	9/16	.214	—	—	UG-89C	31-2205
	—	MIL-CLAMP II	1 9/64	9/16	.214	—	—	M39012/17-0001	31-3319
	58,141	CRIMP-CRIMP	1	7/16	.220	227-1221-09	—	M39012/17-0503	31-4431
	58,141	QUICK-CRIMP	1 11/32	9/16	.220	227-1221-11	—	—	36900
58, 141	—	QUICK-CRIMP	1 11/32	9/16	.206	227-1221-11	—	—	36800
	—	MIL-CRIMP II	1 11/64	9/16	.206	227-1221-11	—	M39012/17-0013	31-4327
	180,195	CRIMP-CRIMP	1	7/16	.175	227-1221-09	—	M39012/17-0501	31-4429
	180,195	QUICK-CRIMP	1 11/32	9/16	.175	227-1221-09	—	—	99675
122, 180, 195	122	QUICK-CRIMP	1 11/32	9/16	.175	227-1221-09	—	—	36675
	—	MIL-CLAMP II	1 9/64	9/16	.175	—	—	M39012/17-003	31-3321
	122	MIL-CRIMP I	1 25/64	9/16	.175	227-1221-09	—	M23329/3-14	31-330
	122, 195	STD-CLAMP	15/64	9/16	.150	—	—	—	16925
	122	CRIMP-CRIMP	1	7/16	.175	227-1221-09	—	M39012/17-0502	31-4430
.141" DIA. SEMI-RIGID	—	SOLDER TYPE	1 9/64	9/16	.144	—	—	—	31-4218
174, 179, 187,	174, 188	MIL-CRIMP I	1 25/64	9/16	.115	227-1221-09	—	—	31-244
188	179, 187	MIL-CRIMP I	1 25/64	9/16	.115	227-1221-09	—	—	31-317
ESSEX 21-597	—	MIL-CRIMP I	1 25/64	9/16	.175	227-1221-09	—	—	31-332
OR EQUIV.	—	QUICK-CRIMP	1 11/32	9/16	.175	227-1221-09	—	—	99700

"C" DIMENSION ACCOMMODATES CABLE DIAMETER

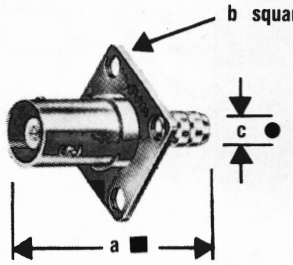
▲ USE WITH TOOL HANDLE P/N 227-944

BUNKER RAMO AMPHENOL RF PRODUCTS

BNC PANEL JACKS

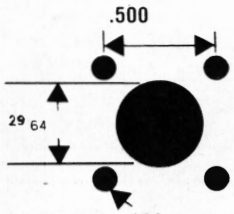


TYPICAL CLAMP

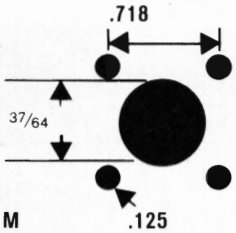


TYPICAL CRIMP

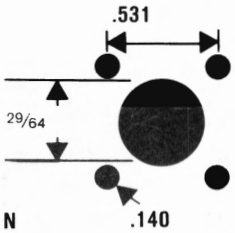
a dimension includes outer ferrule not shown on illustration



L .109 DIA. 4 HOLES



M .125 DIA. 4 HOLES



N .140 DIA. 4 HOLES

FEMALE CONTACTS • WEATHERPROOF • 50 OHM IMPEDANCE • No. 3-56 TAPPED FLANGE HOLES • FRONT OR REAR MOUNTED • TFE INSULATION

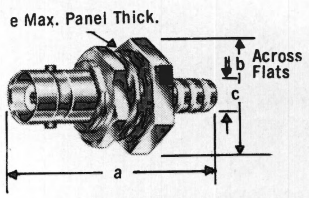
CABLE RG-/U	CANNOT BE USED WITH	CABLE TERMINATION	DIMENSIONS, inches a	b	c	MTG. HOLE	TOOL DATA ▲ DIE SET P/N	CONSTRUCTION NOTES	MILITARY NUMBERS	AMPHENOL NUMBERS
8	—	STD-CLAMP	1 15/32	1	.438	M	—	.125 DIA. FLANGE HOLES/ REAR MOUNTED ONLY	—	6750
	71	MIL-CRIMP II	1	11/16	.259	L	227-1221-13	—	M39012/18-0015	31-4244
	—	STD-CLAMP	1 1/8	11/16	.259	L	—	REXOLITE INSULATION	UG-262	31-011
59, 62, 71, 140,	—	STD-CLAMP	15/64	11/16	.259	L	—	NON-WEATHERPROOF/ REXOLITE INSULATION	UG-262A	31-023
210	—	MIL-CLAMP I	19/64	11/16	.259	L	—	—	UG-262B	31-211
	—	C.C. CLAMP II	1 15/64	11/16	.259	L	—	CAPTIVATED CONTACT	—	31-303
	—	MIL-CLAMP I	19/64	11/16	.259	L	—	—	UG-262C	31-2211
	—	MIL-CLAMP II	19/64	11/16	.259	L	—	—	M39012/18-0001	31-3334
	55A, 223	STD-CLAMP	1 1/8	11/16	.214	L	—	—	UG-291	31-001
	55A, 223	STD-CLAMP	15/64	11/16	.214	L	—	NON-WEATHERPROOF	UG-291A	31-020
	55A, 223	MIL-CLAMP I	19/64	11/16	.214	L	—	—	UG-291B	31-201
	—	C.C. CLAMP I	1 15/64	11/16	.214	L	—	CAPTIVATED CONTACT	—	31-300
55, 58, 141, 142,	—	MIL-CLAMP I	19/64	11/16	.214	L	—	—	UG-291C	31-2201
223, 400	55A, 223	STD-CLAMP	15/64	3/4	.214	N	—	.136 DIA. FLANGE HOLES /REAR MOUNTED ONLY	UG-90	1300
	—	MIL-CLAMP II	19/64	11/16	.214	L	—	—	M39012/18-0002	31-3333
	58, 141	MIL-CRIMP II	1 11/64	11/16	.220	L	227-1221-11	—	M39012/18-0014	31-4243
	58, 141	CRIMP-CRIMP	1 11/64	11/16	.220	L	227-1221-11	—	M39012/18-0503	31-4435
58, 141	—	MIL-CRIMP II	1 11/64	11/16	.206	L	227-1221-11	—	M39012/18-0013	31-4242
	—	STD-CLAMP	15/64	11/16	.175	L	—	REXOLITE INSULATION	—	16475
122, 180, 195	180, 195	CRIMP-CRIMP	1 11/64	11/16	.175	L	227-1221-09	—	M39012/18-0501	31-4433
	122	CRIMP-CRIMP	1 11/64	11/16	.175	L	227-1221-09	—	M39012/18-0502	31-4434
	—	MIL-CLAMP II	19/64	11/16	.175	L	—	—	M39012/18-0003	31-3335
174, 179, 187, 188	—	MIL-CLAMP I	19/64	11/16	.117	L	—	—	—	86425

"C" DIMENSION ACCOMMODATES CABLE DIAMETER

▲ USE WITH TOOL HANDLE P/N 227-944

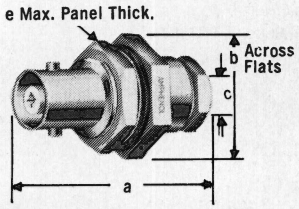
BUNKER RAMO AMPHENOL RF PRODUCTS

BNC BULKHEAD JACKS

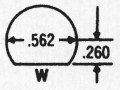


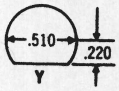
CRIMP

a dimension includes outer ferrule not shown on illustration



TYPICAL CLAMP & SOLDER TYPE





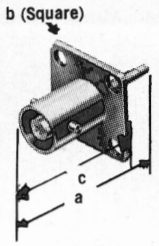
FEMALE CONTACTS ● WEATHERPROOF ● 50 OHM IMPEDANCE ● REAR MOUNTED ● TFE INSULATION

CABLE RG-/U	CANNOT BE USED WITH	CABLE TERMINATION	DIMENSIONS, inches a	b	c	e	MTG. HOLE	TOOL DATA▲ DIE SET P/N	CONSTRUCTION NOTES	MILITARY NUMBER	AMPHENOL NUMBER
	71	MIL-CRIMP II	1 13/32	1 1/16	.259	.125	Y	227-1221-13	—	M39012/19-0015	31-4343
	71	MIL-CRIMP I	1 25/64	1 1/16	.261	.115	Y	227-1221-13	—	M23329/3-19	31-343
	71	QUICK-CRIMP	1 5/16	1 1/16	.259	.125	Y	227-1221-13	—	—	95750
	71	ORIG.-CRIMP	1 19/32	1 1/16	.259	.125	Y	227-1221-13	—	—	31-365
59, 62, 71,	—	MIL-CLAMP I	1 1/8	1 1/16	.259	.218	Y	—	—	UG-910	31-207
140, 210	—	MIL-CLAMP I	1 9/64	1 1/16	.259	.218	Y	—	—	UG-910A	31-2207
	—	MIL-CLAMP I	1 9/64	1 1/16	.259	.218	Y	—	—	UG-910B	31-3207
	—	MIL-CLAMP II	1 11/64	1 1/16	.259	.218	Y	—	—	M39012/19-0002	31-3348
	—	STD-CLAMP	1 1/16	5/8	.259	.125	W	—	FRONT MTG./REX.INS.	UG-624	2075
	—	STD-CLAMP	1 5/64	5/8	.259	.125	W	—	REXOLITE INSULATION	—	2675
	55A, 223	MIL-CLAMP I	1 1/8	1 1/16	.214	.218	Y	—	—	UG-909	31-206
	55A, 223	STD-CLAMP	1 1/16	5/8	.214	.125	W	—	FRONT MOUNTING	—	2475
55, 58, 141	55A, 223	STD-CLAMP	1 5/64	5/8	.214	.125	W	—	—	—	2575
142, 223, 400	—	MIL-CLAMP I	1 9/64	1 1/16	.214	.218	Y	—	—	UG-909A	31-2206
	—	MIL-CLAMP I	1 9/64	3/4	.214	.218	Y	—	—	UG-909B	31-3206
	—	MIL-CLAMP I	1 49/64	5/8	.214	.156	Y	—	HERM. SEALED	—	17725
	—	MIL-CLAMP II	1 11/64	1 1/16	.214	.218	Y	—	—	M39012/19-0001	31-3347
	—	CRIMP-CRIMP	1 13/32	1 1/16	.220	.218	Y	227-1221-11	—	M39012/19-0503	31-4439
	400	MIL-CRIMP I	1 13/32	1 1/16	.220	.127	Y	227-1221-11	—	M39012/19-0014	31-4341
55, 142, 223	—	QUICK-CRIMP	1 5/16	1 1/16	.220	.125	Y	227-1221-11	—	—	95700
400	—	ORIG.-CRIMP	1 19/32	1 1/16	.220	.125	Y	227-1221-11	—	—	31-357
	—	MIL-CRIMP II	1 13/32	1 1/16	.206	.218	Y	227-1221-11	—	M39012/19-0013	31-4342
58,141	—	QUICK-CRIMP	1 5/16	1 1/16	.206	.125	Y	227-1221-11	—	—	95725
	—	ORIG.-CRIMP	1 19/32	1 1/16	.206	.125	Y	227-1221-11	—	—	31-358
	122	MIL-CRIMP I	1 3/8	1 1/16	.175	.125	Y	227-1221-11		M23329/3-21	31-345
	122	CRIMP-CRIMP	1 13/32	1 1/16	.175	.218	Y	227-1221-09	—	M39012/19-0502	31-4438
122, 180, 195	122	QUICK-CRIMP	1 5/16	1 1/16	.175	.125	Y	227-1221-09	—	—	95800
	180, 195	CRIMP-CRIMP	1 13/32	1 1/16	.175	.218	Y	227-1221-09	—	M39012/19-0501	31-4437
	—	ORIG.-CRIMP	1 19/32	1 1/16	.175	.125	Y	227-1221-09	—	—	31-372
	400	STD-CLAMP	1 9/64	1 1/16	.177	.240	Y	—	—	—	84725
.141"DIA. SEMI-RIGID	—	SOLDER-TYPE	1 1/8	1 1/16	.144	.125	Y	—	—	—	31-4220
	174, 188	MIL-CRIMP I	1 3/8	1 1/16	.115	.125	Y	227-1221-09	—	—	31-245
174, 179, 187,	179, 187	MIL-CRIMP I	1 3/8	1 1/16	.115	.125	Y	227-1221-09	—	—	31-318
188	—	ORIG.-CRIMP	1 15/32	1 1/16	.128	.125	Y	227-1221-09	—	—	31-369
	—	STD-CLAMP	1 9/64	1 1/16	.115	.250	Y	—	—	—	86350
179	179 A, B	STD-CLAMP	1 5/64	5/8	.094	.125	W	—	FRONT MOUNTING	—	17825
178, 196	—	MIL-CLAMP I	1 9/64	1 1/16	.098	.250	Y	—	—	—	86850
ESSEX 21-597	—	MIL-CRIMP I	1 3/8	1 1/16	.175	.125	Y	227-1221-09	—	—	31-347
OR EQUIV.	—	QUICK-CRIMP	1 5/16	1 1/16	.175	.125	Y	227-1221-09	—	—	99750

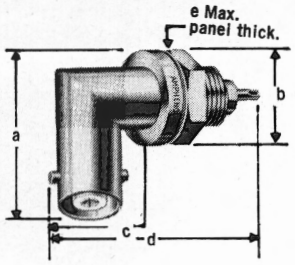
● ACCOMMODATES CABLE DIAMETER
▲ USE WITH TOOL HANDLE P/N 227-944

BUNKER RAMO AMPHENOL RF PRODUCTS

BNC RECEPTACLES



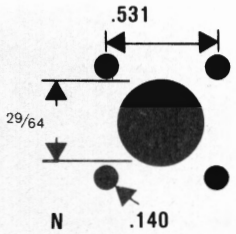
PANEL



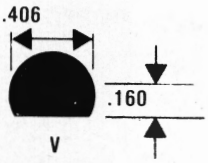
ANGLE BULKHEAD

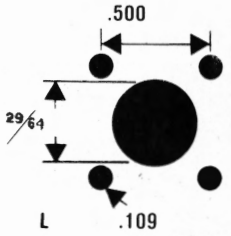


DIA. 5 HOLES



DIA. 4 HOLES





DIA. 4 HOLES

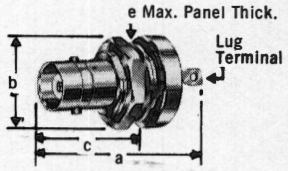
FEMALE CONTACTS • 50 OHM IMPEDANCE • TFE INSULATION

CONSTRUCTION	DESCRIPTION	TERMINAL STYLE	DIMENSIONS, inches					MTG. HOLE	MILITARY NUMBER	AMPHENOL NUMBER
			a	b	c	d	e			
PANEL	PRINTED CIRCUIT PINS, .040" DIA. BY 1/8" LONG	P.C. PIN	49/64	11/16	41/64	—	—	I	—	18225
	NO. 3-56 TAPPED FLANGE HOLES	SOLDER CUP	1 1/16	11/16	23/32	—	—	L	M39012/22-0001	31-3377
	NO. 3-56 TAPPED FLANGE HOLES	SOLDER CUP	1 1/16	11/16	23/32	—	—	L	UG-290A	31-203
	NO. 3-56 TAPPED FLANGE HOLES	SOLDER CUP	1 1/16	11/16	23/32	—	—	L	UG-290	31-003
	NO. 3-56 TAPPED FLANGE HOLES	SOLDER CUP	1 1/32	11/16	23/32	—	—	L	—	31-842
	.109" DIA. FLANGE HOLES, REXOLITE INSULATION	SOLDER CUP	1 1/32	11/16	23/32	—	—	L	UG-447	31-817
	.120" DIA. FLANGE HOLES, REXOLITE INSULATION	SOLDER CUP	1 1/32	11/16	23/32	—	—	L	—	31-105
	.136" DIA. FLANGE HOLES, REXOLITE INSULATION	TURRET	15/64	3/4	39/64	—	—	N	UG-185	4500
	.136" DIA. FLANGE HOLES, REXOLITE INSULATION	SPADE	27/32	3/4	19/32	—	—	N	UG-928	1100
	.140" DIA. FLANGE HOLES, POLYSTYRENE INSULATION	TURRET	15/32	3/4	43/64	—	—	N	—	31-104
	PLUG MATING FACE (MALE CONTACT), .136" DIA. FLANGE HOLES	SOLDER CUP	1 1/4	3/4	55/64	—	—	N	—	3150
ANGLE	NO. 3-56 TAPPED FLANGE HOLES	SOLDER CUP	1 1/16	11/16	3/4	15/16	—	L	—	5075
	.136" DIA. FLANGE HOLES	SOLDER CUP	1 3/32	3/4	3/4	15/16	—	N	UG-535	5675
	FRONT MOUNT BULKHEAD, EXTERNAL TOOTHED LOCKWASHER	SOLDER CUP	29/32	19/32	3/4	19/32	.156	V	UG-1098	31-222 □
	FRONT MOUNT BULKHEAD, THICK PANEL, EXTERNAL TOOTHED LOCKWASHER	SOLDER CUP	29/32	19/32	3/4	1 3/8	.312	V	UG-1098A	31-2222 □

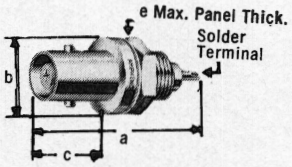
□ TO GROUND CABLE SHIELD USE LUG P/N 31-759

AMPHENOL RF PRODUCTS

BNC BULKHEAD RECEPTACLES

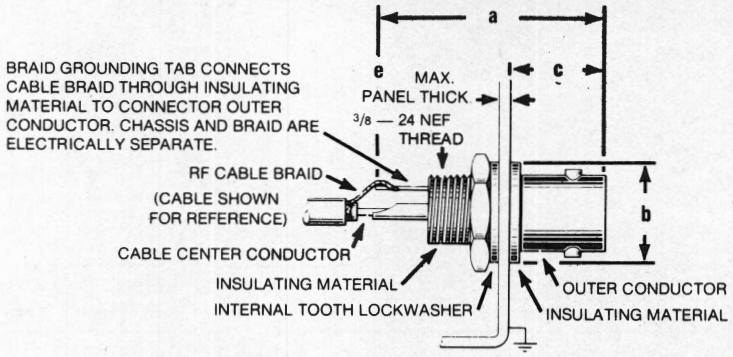


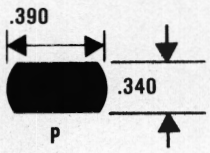
REAR MOUNT

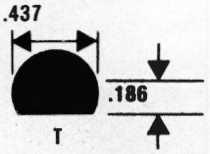


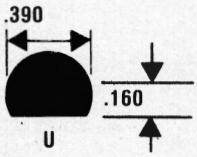
FRONT MOUNT

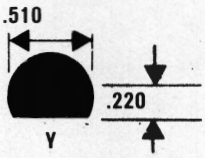
ISOLATED FRONT MOUNT INSTALLATION P/N 31-010











FEMALE CONTACTS • 50 OHM IMPEDANCE • INTERNAL TOOTH LOCKWASHER • TFE INSULATION

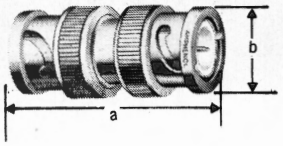
CONSTRUCTION	DESCRIPTION	TERMINAL STYLE	DIMENSIONS, inches a	b	c	d	e	MTG. HOLE	MILITARY NUMBER	AMPHENOL NUMBER
FRONT MOUNT	ISOLATED FROM PANEL, WHITE MOLDED THERMO PLASTIC INSULATION	SOLDER CUP	13/16	1/2	31/64	—	.187	U	—	31-010
	GOLD PLATED CONTACT	SOLDER CUP	13/16	1/2	31/64	—	.250	U	M39012/21-0002	31-3376 ☐
	STANDARD TYPE	SOLDER CUP	13/16	1/2	31/64	—	.250	U	UG-1094A	31-2221 ☐
	THIN PANEL	SOLDER CUP	11/16	1/2	31/64	—	.125	U	UG-1094	31-221 ☐
	GOLD PLATED CONTACT	SOLDER CUP	11/16	1/2	15/32	—	.156	T	M39012/21-0001	31-3375 ☐
	STANDARD TYPE	SOLDER CUP	11/16	1/2	15/32	—	.156	T	UG-625B	31-236 ☐
	STANDARD TYPE	SOLDER CUP	11/16	1/2	15/32	—	.156	T	UG-625	5575 ☐
	STANDARD TYPE	SOLDER CUP	11/32	1/2	1/2	—	.156	T	—	11300 ☐
	POLARIZED, MALE CONTACT	SOLDER CUP	11/32	1/2	1/2	—	.156	T	—	11325 ☐
	PRESSURIZED	SOLDER CUP	119/64	37/64	19/32	—	.250	P	UG-657A	31-239 ☐
	PRESSURIZED	SOLDER CUP	119/64	37/64	19/32	—	.250	P	UG-657	31-102 ☐
	HERMETIC SEALED, GOLD PLTD. CONT.	SPADE	113/64	19/32	33/64	—	.250	U	M39012/24-0002	31-4238 ☐
	HERMETIC SEALED, EXTERNAL TOOTH LOCKWASHER	SPADE	113/64	19/32	33/64	—	.250	U	UG-912	31-238 ☐
	HERMETIC SEALED	SPADE	113/32	3/4	5/8	—	.312	P	—	87225 ☐
	PLUG MATING FACE, MALE CONTACT HERMETIC SEALED	SPADE	113/32	9/16	7/8	—	.156	U	—	86250 ☐
REAR	HERMETIC SEALED, GOLD PLTD. CONT.	SPADE	111/32	11/16	53/64	—	.250	Y	M39012/24-0001	31-4237
	PRESSURIZED, EXTERNAL TOOTH LOCKWASHER	SOLDER CUP	115/32	13/16	53/64	—	.250	.516 dia.	UG-254A	31-016

☐ TO GROUND CABLE SHIELD USE LUG P/N 31-759

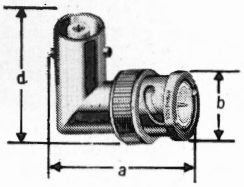
BUNKER RAMO AMPHENOL RF PRODUCTS

BNC ADAPTERS

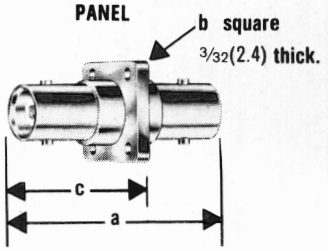
STRAIGHT

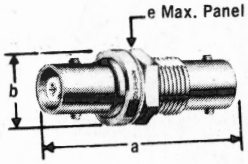


ANGLE

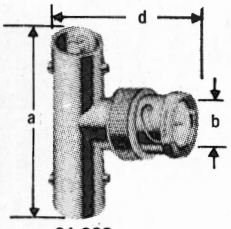


PANEL



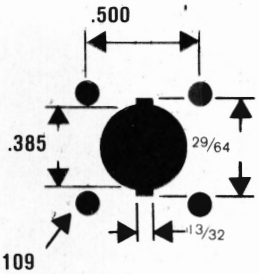


BULKHEAD

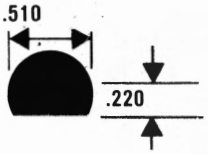


31-008

TEE



E



Y

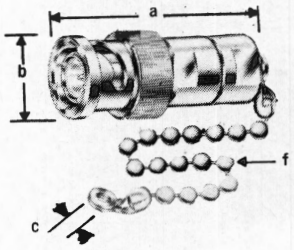
50 OHM IMPEDANCE • TFE INSULATION

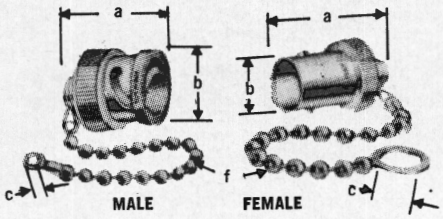
CONSTRUCTION	ADAPTER ENDS	DIMENSIONS, inches a	b	c	d	e	MTG. HOLE	CONSTRUCTION NOTES	MILITARY NUMBER	AMPHENOL NUMBER
STRAIGHT	PLUG-PLUG	1 1/4	9/16	—	—	—	—	—	UG-491A	31-218
	PLUG-PLUG	1 1/4	9/16	—	—	—	—	BERYL. OUTER CONTACT	UG-491B	31-2218
	JACK-JACK	19/32	7/16	—	—	—	—	—	UG-914	31-219
	PLUG-PLUG	1 1/4	9/16	—	—	—	—	—	UG-491	8425
	JACK-PLUG	1 17/32	9/16	—	—	—	—	—	—	21925
ANGLE	JACK-PLUG	1	9/16	—	31/32	—	—	—	UG-306	31-009
	JACK-PLUG	1 1/16	9/16	—	57/64	—	—	BERYL. OUTER CONTACT	UG-306A	31-209
	JACK-PLUG	1 1/16	9/16	—	57/64	—	—	BERYL. OUTER CONTACT	UG-306B	31-2209
PANEL	JACK-JACK	19/32	1 1/16	19/32	—	.250	E	8-56 TAPPED FLANGE HOLES	UG-414	47000
	JACK-JACK	19/32	1 1/16	1 1/16	—	.187	E	3-56 TAPPED FLANGE HOLES	UG-414A	47025
BULKHEAD	JACK-JACK	1 13/32	1 1/16	43/64	—	.187	Y	HERM. SEALED/GLASS-TFE INSUL./INTERNAL LOCK-WASHER TEETH	UG-492A	31-220
	JACK-JACK	1 25/64	1 1/16	43/64	—	.156	Y	HERM. SEALED/GLASS-TFE INSUL./EXTERNAL LOCK-WASHER TEETH	UG-492B	31-2220
	JACK-JACK	1 17/32	1 1/16	43/64	—	.281	Y	HERM. SEALED/GLASS-TFE INSUL./EXTERNAL LOCK-WASHER TEETH/THICK PANEL	UG-492D	31-3220
	JACK-JACK	1 13/32	1 1/16	43/64	—	.187	Y	STANDARD TYPE/INTERNAL LOCKWASHER TEETH	—	4525
TEE	JACK-PLUG-JACK	19/32	9/16	—	13/32	—	—		UG-274	31-008
	JACK-PLUG-JACK	19/32	9/16	—	1 1/16	—	—	BERYL. OUTER CONTACT	UG-274A	31-208
	JACK-PLUG-JACK	19/32	9/16	—	1 1/16	—	—	BERYL. OUTER CONTACT	UG-274B	31-2208
	PLUG-PLUG-PLUG	13/16	9/16	—	1 17/32	—	—	—	—	4725
	JACK-JACK-JACK	19/32	1 1/16	1 1/16	1 7/16	.281	E	PANEL MOUNT/3-56 TAPPED FLANGE HOLES/REXOLITE INSUL.	—	17450
	PLUG-JACK-JACK	1 17/32	3/8	—	1	—	—	—	—	21900
	PLUG-JACK-PLUG	1 13/16	7/16	—	13/16	—	—	—	—	27750
	CABLE-PLUG-CABLE	13/4	9/16	—	29/32	—	—	RG-58/U CABLE/STANDARD CLAMP	—	33725

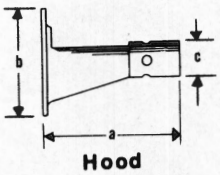
BUNKER RAMO AMPHENOL RF PRODUCTS

BNC CAPS AND ACCESSORIES

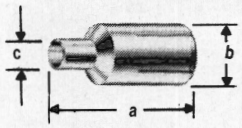
Resistor Terminated



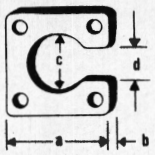




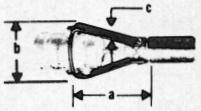
Hood



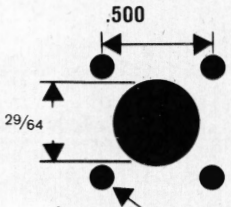
HOOD



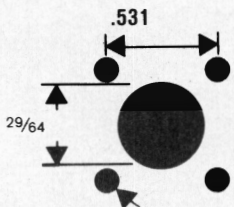
Nut Strap



Lug



THD. 4 HOLES



DIA. 4 HOLES

CONSTRUCTION	DESCRIPTION	DIMENSIONS, inches a	b	c	d	f	MTG. HOLE	MILITARY NUMBER	AMPHENOL NUMBER
RESISTOR TERMINATED CAPS	REXOLITE INSULATION/100 OHM	1 1/4	9/16	.144	—	3 1/2	—	MX-554	4700 ☐
● MALE CONTACTS	100 OHM	1 1/4	9/16	.144	—	3 1/2	—	MX-554A	39575
● WEATHERPROOF	—	1 1/4	9/16	.144	—	3 1/2	—	—	35650 ☐
● TFE INSULATION	—	1 13/64	9/16	—	—	—	—	—	35725 ☐
	REXOLITE INSULATION	1 9/64	9/16	—	—	—	—	—	47050 ☐
	51 OR 75 OHM 1 WATT RESISTOR	1 1/2	9/16	—	—	—	—	—	46650 ☐
	SHORTING MALE CONTACT	11/16	9/16	.144	—	2 1/4	—	CW-159	31-017
	SHORTING MALE CONTACT	11/16	9/16	.144	—	2 1/2	—	M39012/25-0016	31-3017
	SHORTING MALE CONTACT	19/32	9/16	—	—	—	—	—	5275
MALE CAPS	SOLDER LUG	23/32	9/16	.510	—	2 1/2	—	—	87300
● WEATHERPROOF	—	23/32	9/16	.375	—	3 1/2	—	—	900
	—	11/16	9/16	.142	—	2 1/4	—	CW-123	31-006
	—	45/64	9/16	.130	—	2 1/4	—	M39012/25-0006	31-026
	—	37/64	9/16	—	—	—	—	CW-155	31-007
	—	37/64	9/16	—	—	—	—	CW-155A	31-027
	—	37/64	9/16	—	—	—	—	M39012/25-0015	31-3027
	—	11/16	1/2	9/32	—	3	—	CW-282	31-210
FEMALE CAPS	—	11/16	1/2	.281	—	3 1/4	—	M39012/25-0008	31-3210
● WEATHERPROOF	—	25/32	9/16	—	—	—	—	—	1750
ACCESSORIES	**HOOD** WITH SQUARE FLANGE FOR USE WITH RG-55,58/U CABLE	7/8	11/16	7/32	—	—	J	MX-195	10900
● NON-WEATHERPROOF	**HOOD** FOR USE WITH RG-55,58, 59,62,71,223/U CABLE	13/16	11/32	3/16	—	—	—	M39012/25-0010	99150
	NUT STRAP, 4 HOLES WITH 4-40 NC-23 THREADS	3/4sq.	.081	7/16	.200	—	N	MT-412	1600
	SHIELD GROUNDING LUG USED ON FRONT MOUNT RECEPTACLES AS SHOWN	29/32	37/64	1/8	—	—	—	—	31-759

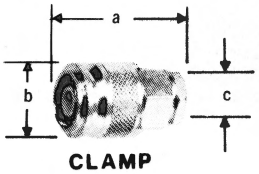
☐ TO ORDER WITHOUT RESISTOR, ADD -1 TO PART NUMBER; TO ORDER WITH RESISTOR, ADD RESISTOR VALUE TO PART NUMBER.
1/2 WATT 5% RESISTOR VALUES (OHMS) STOCKED: 47, 51, 68, 75, 82, 91, 100, 120, 130, 150, 180, 240, 270, 300, 470, 510, 560, 680, 750, 820, 1000, 1500, 3900, 4700, 10000, 100000, 150000

BUNKER RAMO AMPHENOL RF PRODUCTS

Threaded coupling TNC Connectors are designed for aircraft, missile and other applications in which extreme vibration may be encountered. They are small, weatherproof types and have a constant impedance of 50 ohms.

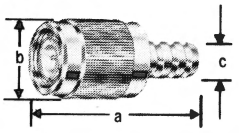
Mil-Crimps are recommended as the optimum TNC connector, especially for high-volume production assemblies. They are designed to give maximum operating performance at lowest possible installed cost. These units assemble in a fraction of the time normally required for standard braid-clamp type connectors by eliminating critical assembly and soldering operation and reducing the number of parts to handle. The cable retention of the crimps are superior to the field serviceable types.

TNC SERIES



CLAMP

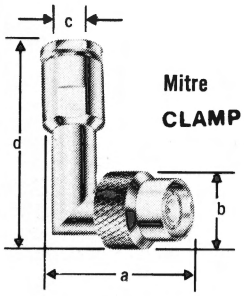
CRIMP



A DIM. INCLUDES OUTER..FERRULE NOT SHOWN ON ILLUSTRATION

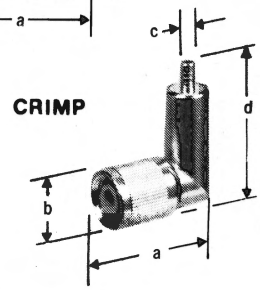
STRAIGHT PLUGS / Teflon Insulation • Male Contacts • Weatherproof • 50 Ohm Impedance

Cable RG-/U	Dimensions, inches a	b	Max. Cable O.D. c	Cable Termination	Notes	Military Part Number	Amphenol Part Number
55, 142, 223	17/32	9/16	.220	Crimp	▲	M23329/4-02-04	31-2373
55, 58, 141, 142, 223	1 1/8	5/8	.219	Clamp	—	—	77175
58, 141	1 1/8	1/2	.206	Crimp	Safety wire holes	M39012/26-0010	31-2252
	17/32	9/16	.206	Crimp	▲		31-2367
59, 62	1 1/8	1/2	.220	Crimp	—	M39012/26-0012	31-2254
210	17/32	9/16	.261	Crimp	▲	M23329/4-05	31-2368
	1 1/8	19/32	.257	Clamp	Spring brass outer contact	—	79525
122	1 1/8	1/2	.175	Crimp	Safety wire holes	M39012/26-0501	31-4450
	17/32	9/16	.175	Crimp	▲	—	31-2371
142, 400	1 1/8	1/2	.220	Crimp	Safety wire holes	M39012/26-0503	31-4452
180, 195	1 1/8	1/2	.175	Crimp	Safety wire holes	M39012/26-0502	31-4451
	17/32	9/16	.175	Crimp	▲	M23329/4-06	31-2370
174, 188	17/32	9/16	.115	Crimp	▲	—	31-2315
174, 179, 187, 188	1 1/16	19/32	.126	Clamp	Spring brass outer contact	—	73475
179, 187	17/32	9/16	.115	Crimp	▲	—	31-2242
.141 Semi Rigid	1 1/8	7/16	.144	Solder	—	—	31-4215



Mitre

CLAMP



CRIMP

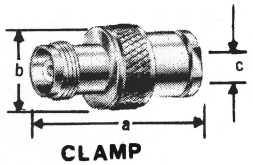
ANGLE PLUGS Teflon Insulation • Male Contacts • Weatherproof • 50 Ohm Impedance Capt. Contact, Gold Plated

Cable RG-/U	Dimensions, inches a	b	Max. Cable O.D. c	d	Cable Termination	Notes	Military Part Number	Amphenol Part Number
55, 142, 223	13/16	9/16	.220	1 37/64	Crimp	▲	—	31-2381
55, 58, 141, 142, 223	1 1/8	19/32	.219	1 37/64	Clamp	Mitre	—	79075
58, 141	1 1/8	5/8	.206	1 5/8	Crimp	—	M39012/30-0010	31-2272
	13/16	9/16	.206	1 37/64	Crimp	▲	—	31-2382
59, 62	1 1/8	5/8	.261	1 5/8	Crimp		M39012/30-0012	31-2274
210	13/16	9/16	.261	1 37/64	Crimp	▲	—	31-2383
	13/32	5/8	.257	1 29/32	Clamp	—	—	79400
122	13/16	9/16	.175	1 37/64	Crimp	▲	—	31-2386
142, 400	1 1/8	5/8	.220	1 5/8	Crimp	—	M39012/30-0503	31-4474
174, 188	13/16	9/16	.115	1 37/64	Crimp	▲	—	31-2316
179, 187	13/16	9/16	.115	1 37/64	Crimp	▲	—	31-2243
180, 195	1 1/8	5/8	.175	1 5/8	Crimp	—	M39012/30-0501	31-4473
	13/16	9/16	.175	1 37/64	Crimp	▲	—	31-2385
.141 Semi Rigid	1 9/16	19/32	.144	1 37/64	Solder	—	—	31-4217

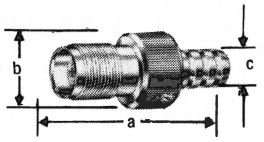
STRAIGHT JACKS
Teflon Insulation • Female Contacts • Weatherproof • 50 Ohm Impedance

Cable RG-/U	Dimensions, inches a	b	Max. Cable O.D. c	Cable Termination	Notes	Military Part Number	Amphenol Part Number
55, 142, 223, 400	1 3/8	9/16	.220	Crimp	—	M23329/4-08	31-2380
55, 58, 141, 142, 223	1 1/4	5/8	.219	Clamp	Gold plated contact	—	79600
58	1	7/16	.220	Crimp	—	M39012/27-0010	31-2257
59, 62, 210	1	7/16	.261	Crimp	—	M39012/27-0012	31-2259
122	1	7/16	.160	Crimp	—	M39012/27-0501	31-4454
	1 3/8	9/16	.175	Crimp	—	—	31-2378
174, 188	1 3/8	9/16	.115	Crimp	—	—	31-2317
179, 187	1 3/8	9/16	.115	Crimp	—	—	31-2244
142, 400	1	7/16	.220	Crimp	—	M39012/27-0503	31-4456
180, 195	1	7/16	.175	Crimp	—	M39012/27-0502	31-4455
.141 Semi Rigid	1 1/4	5/8	.144	Solder	—	—	31-4219

▲ Add 1000 to part number for safety wiring holes, b dimension increases to 1/16



CLAMP

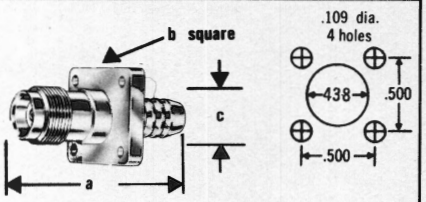


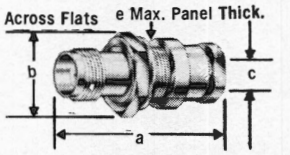
MIL-Crimp

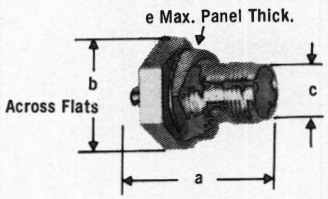
A DIM. INCLUDES OUTER FERRULE (NOT SHOWN)

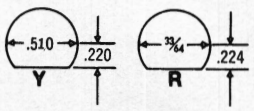
BUNKER RAMO AMPHENOL RF PRODUCTS

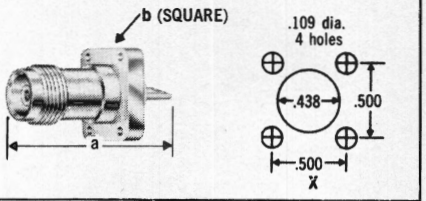
TNC SERIES

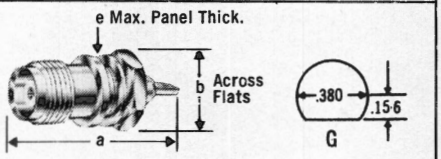


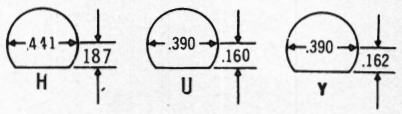


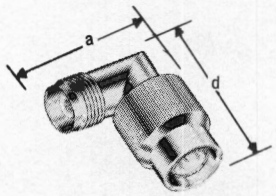


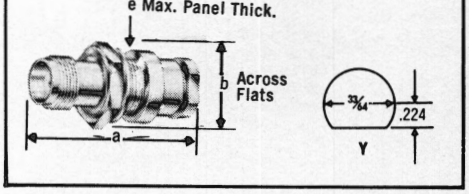












PANEL JACKS

Female Contacts • Weatherproof • 50 Ohm Impedance • Rear Mount • Teflon Insulation

Cable RG-/U	Dimensions, inches a	b	Max. Cable O.D. c	Cable Termination	Notes	Military Part Number	Amphenol Part Number
58	1 11/64	11/16	.206	Crimp	—	M39012/29-0010	31-2267
59, 62, 210	1 11/64	11/16	.261	Crimp	—	M39012/29-0012	31-2269
122	1 11/64	11/16	.160	Crimp	—	M39012/29-0501	31-4462
142, 400	1 11/64	11/16	.220	Crimp	—	M39012/29-0503	31-4464
180, 195	1 11/64	11/16	.175	Crimp	—	M39012/29-0502	31-4463

BULKHEAD JACKS

Teflon Insulation • Female Contacts • Weatherproof • 50 Ohm Impedance • Rear Mounted

Cable RG-/U	Dimensions, inches a	b	Max. Cable O.D. c	e	Mtg. Hole	Cable Termination	Notes	Military Part Number	Amphenol Part Number
55, 142, 223, 400	1 5/16	11/16	.220	.115	Y	Crimp	—	M23329/4-14	31-2388
55, 58, 141, 142, 223	1 9/64	11/16	.224	.109	R	Clamp	—	—	79425
58, 141	1 13/32	11/16	.206	.218	Y	Crimp	—	M39012/28-0010	31-2262
	1 5/16	11/16	.206	.115	Y	Crimp	—	M23329/4-13	31-2389
59, 62, 110	1 13/32	11/16	.261	.218	Y	Crimp	—	M39012/28-0012	31-2264
	1 5/16	11/16	.261	.115	Y	Crimp	—	M23329/4-17	31-2390
122	1 13/32	11/16	.160	.240	Y	Crimp	—	M39012/28-0501	31-4458
	1 5/16	11/16	.175	.115	Y	Crimp	—	—	31-2393
142, 400	1 13/32	11/16	.220	.240	Y	Crimp	—	M39012/28-0503	31-4460
174, 188	1 5/16	11/16	.115	.115	Y	Crimp	—	—	31-2318
179, 187	1 5/16	11/16	.115	.115	Y	Crimp	—	—	31-2245
180, 195	1 13/32	11/16	.175	.240	Y	Crimp	—	M39012/28-0502	31-4459
.141 Semi Rigid	1 9/16	11/16	.144	.125	Y	Solder	—	—	31-4221

PANEL RECEPTACLES

Teflon Insulation • Female Contacts • Weatherproof • 50 Ohm Impedance
#3-56 Tapped Flange Holes

Dimensions, inches a	b	c	Notes	Military Part Number	Amphenol Part Number
1 1/16	11/16	5/8	Rear Mount	M39012/32-0001	31-2277
1 1/16	11/16	5/8	Front Mount	—	31-2300
3/4	11/16	7/16	Front Mount, Hermetic	—	79750

BULKHEAD RECEPTACLES

Teflon Insulation • Female Contacts • Weatherproof • 50 Ohm Impedance • Front Mounting

Dimensions, inches a	b	e	Mtg. Hole	Terminal Style	Notes	Military Part Number	Amphenol Part Number
1 3/32	1/2	.125	H	Solder Cup	Internal Tooth Lockwasher	M39012/31-0001	31-2275
1 3/16	1/2	.250	G	Solder Cup	Internal Tooth Lockwasher	M39012/31-0002	31-2276
1 1 1/32	3/4	.250	Y	Spade	Rear Mnt., Hermetic, Int. Tooth	M39012/34-0001	31-2278
1 13/64	19/32	.250	U	Spade	Hermetic, Int. Tooth	M39012/34-0002	31-2279
1 1/16	1/2	.156	U	Solder Cup	Internal Tooth Lockwasher	—	31-2301

TEE ADAPTER / Teflon Insulation • Weatherproof • 50 Ohm Impedance

Military Part Number	Dimensions, inches a	b	d		Adapter Ends	Notes	Amphenol Part Number
—	1 9/32	5/8	1 3/16		Jack-Plug-Jack	—	79700

ANGLE ADAPTERS

Teflon Insulation • Weatherproof • 50 Ohm Impedance

Military Part Number	Dimensions, inches a	d		Adapter Ends	Notes	Amphenol Part Number
—	1 1/32	1 1/32		Plug-Jack	—	79125

BULKHEAD ADAPTER / 50 Ohm Impedance

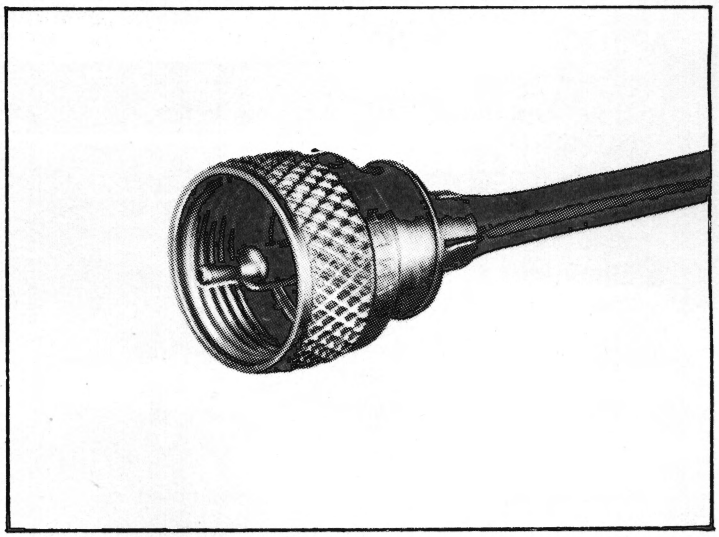
Military Part Number	Dimensions, inches a	b	e	Mtg. Hole	Adapter Ends	Notes	Amphenol Part Number
—	1 13/32	3/4	.171	Y	Jack-Jack	Hermetically Sealed	79100

CAPS / Weatherproof

Military Part Number	Dimensions, inches a	b	c	Chain Length		Notes	Amphenol Part Number
—	3/8	9/16	.130	4		Male	78750
—	37/64	1/2	—	—		Female	78400

UHF PLUG 83-58FCP
Quick Assembly on RG-58/U for CB, Amateur 2-Way Radios

- **Revolutionary concept allows quick, easy assembly without soldering or special tools**
- **Performance identical to 83-1SP (PL-259)**
- **Rated for maximum CB power or ham kilowatt**
- **No separate reducing adapter to buy**
- **Shorter, smaller for tight installations**
- **Plated with ASTROplate® , Bunker Ramo's lustrous non-tarnish finish**



At long last, a UHF plug assembled of RG-58/U without soldering and with no special assembly tools, yet does the same job as the PL-259 connector! All this and it goes on faster!

If you are an active CB'er or ham and have installed the PL-259 plug plus reducing adapter on RG-58/U, you will immediately hail the 83-58FCP* as a major advance in coax connectors. Assembly is so easy yet performance is identical to the 83-1SP. Trim the RG-58/U, slide the parts together, pinch the center contact with pliers and you're done. It's that easy.

Whether you're running maximum CB power or a ham kilowatt, use the 83-58FCP on RG-58/U wherever you would use the PI-259 and RG-58/U reducing adapter. An added bonus—no separate reducing adapter to buy.

For those tight installations,the 83-58FCP is more than $\frac{1}{2}$" shorter than the PL-259 and reducing adapter combination.

Once you have tried this new Amphenol connector, you will know how easily a coax connector can be assembled.

*Patent applied for.

TYPICAL PERFORMANCE SPECIFICATIONS

Electrical

Impedance — 50 ohm nominal
Frequency range — 0-300 MHz
Voltage rating — 500 V peak

Environmental

Thermal limits — -67° to 300° F (-55° to 149° C)
Weather — non-weatherproof

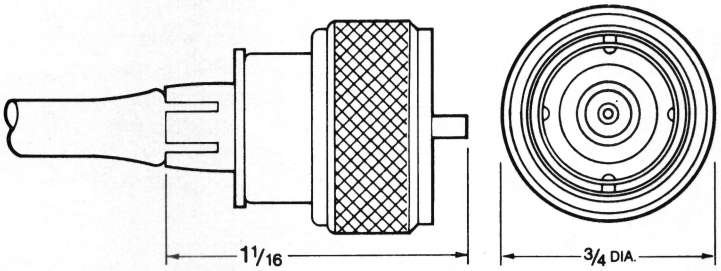
Mechanical

Mating — standard $\frac{5}{8}$ - 24 thread; mates with standard UHF receptacles and adapters
Cable affixment — clamp to braid, sqeeze-crimp or solder to center conductor

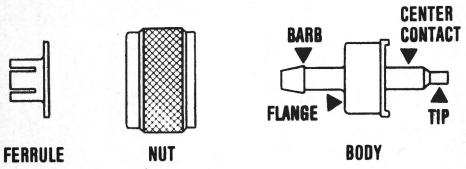
Material

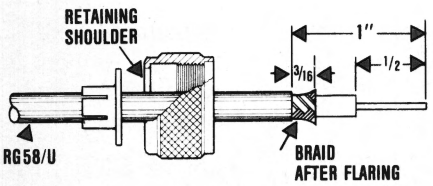
Body, nut, contact — brass
Plating — ASTROplate®
Insulator — Bakelite or equal

DIMENSIONS



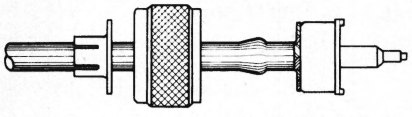
ASSEMBLY INSTRUCTIONS



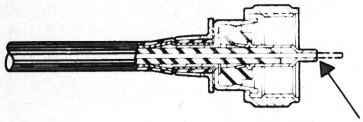


1. Slide ferrule over cable end, slotted end first. Slide nut over cable end, retaining shoulder end first.

2. Strip cable to dimensions shown. Flare braid slightly by rotating center conductor and insulator in a circular motion (do not twist). Leave center conductor straight.



3. Slide body on insulation with barb going under flared braid. Push body until flange is against outer jacket. Braid will flare out against body flange.



4. Slide nut forward over body. Grasp cable with hand and push ferrule over barb until braid is captured between ferrule and body flange.

5. Squeeze-crimp center contact (tip only) pliers. Trim center conductor. Assembly is complete.
Alternate 5. Solder conductor to center contact tip. Trim conductor. Connector may be disassembled and reused. Grasp tip with pliers and push nut back to unseat ferrule. Unsolder conductor.

AMPHENOL Connector Systems BUNKER RAMO

APPLICATION NOTES

- **New Amphenol UHF cable jack for RG-58/U**
- **Revolutionary assembly concept**
- **Quickly, easily assembled without soldering or special tools**
- **Eliminates need for PL-258 adapter**
- **Easily reusable without soldering**
- **Plated with ASTROplate®, Amphenol's lustrous non-tarnish finish**
- **Amphenol quality and performance**

At long last, a UHF cable jack assembled on RG-58/U without soldering and with no special assembly tools. No sacrifice in performance. All this and it goes on faster!

With the introduction of the 83-58FCP plug, Amphenol gave the active CB'er and ham a major advance in coax connectors. The 83-58FCJ is the companion connector, utilizing the revolutionary "FCP" termination style. Assembly is fast. Strip the cable, insert the center conductor into the back of the connector and slide the ferrule into place. It's that easy!

The 83-58FCJ easily handles maximum legal CB power and is rated for higher amateur power levels within maximum ratings of RG-58/U cable.

Want reusability? The 83-58FCJ can be disassembled and reassembled many times.

The 83-58FCJ is the modern way to terminate RG-58/U cable when an in-line splice is required. No need to use a PL-258 adapter to join two PL-259 plugs. The 83-58FCJ cable jack mates directly with any PL-259 type connector.

The 83-58FCJ is the perfect mate for the 83-58FCP plug. Assembly is *fast*, without the fuss and care that soldered connectors demand.

TYPICAL PERFORMANCE SPECIFICATIONS

Electrical

Impedance — 50 ohm nominal
Frequency range — 0-300 MHz
Voltage rating — 500 V peak

Environmental

Thermal limits — -67° to 300°F (-55° to 149°C)
Weather — non-weatherproof

Mechanical

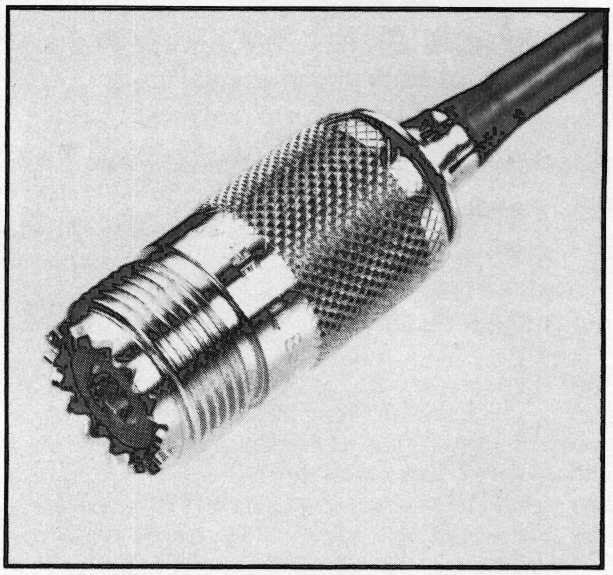
Mating — standard 5/8 - 24 thread; mates with standard UHF plugs and adapters
Cable affixment — clamp to braid, force fit to center conductor

Material

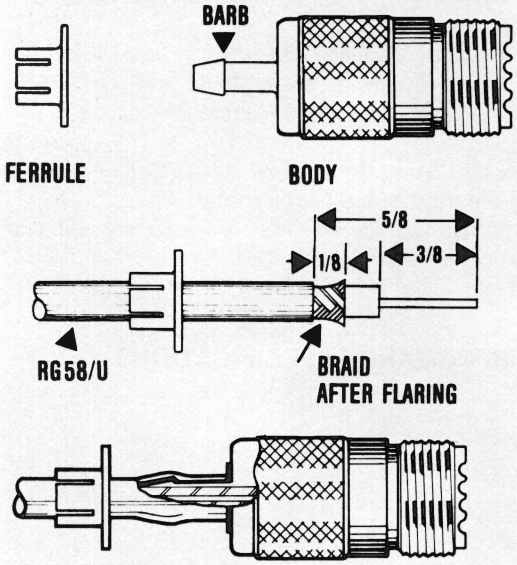
Body, contact — brass
Plating — ASTROplate
Insulator — Polystyrene or equal

BUNKER RAMO AMPHENOL

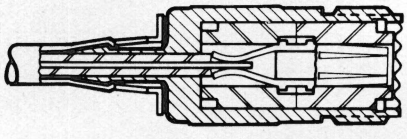
UHF cable jack 83-58FCJ quick assembly on RG-58/U for CB, amateur 2-way radios



ASSEMBLY INSTRUCTIONS

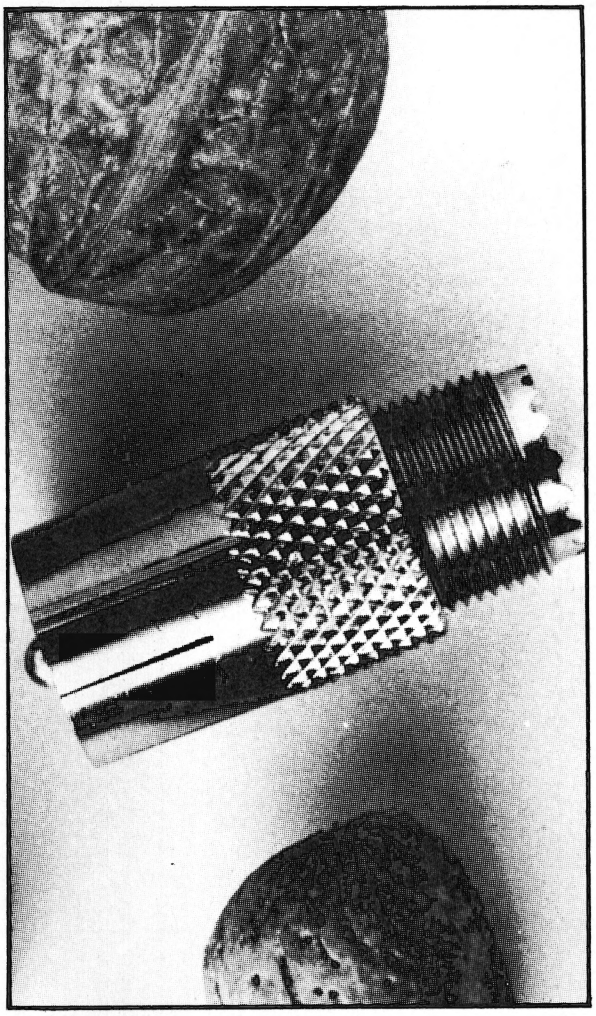


1. Slide ferrule over cable end, slotted end first.
2. Strip cable to dimensions shown. Flare braid slightly by rotating center conductor and insulator in a circular motion (do not twist). Leave center conductor straight.
3. Slide body on insulation with barb going *under* flared braid. Push body until shoulder is against outer jacket. Braid will flare out against body shoulder and center conductor will engage center contact.



4. Grasp cable with hand and push ferrule over barb until braid is captured between ferrule and body shoulder. Assembly is complete.

UHF PUSH-ON ADAPTER
For CB, Amateur 2-Way Radios
Part No. 83-5SPA



APPLICATION NOTES

- **Converts any PL-259 type antenna plug to a quick-disconnect connector.**
- **Prevents theft of mobile rig.**
- **Requires no change to mobile rig or antenna connector.**
- **Rated for maximum CB power or ham kilowatt.**
- **Ideal for test equipment.**
- **Plated with ASTROplate®, Amphenol's lustrous non-tarnish finish.**

The new Amphenol 83-5SPA adapter quickly converts any PL-259 to a push-on connector. No change to either the rig or PL-259 is required. The PL-259 is simply screwed onto the adapter. Now the rig can be easily removed from the car and replaced by simply slipping the adapter off and on — no threading!

The 83-5SPA plug easily handles maximum CB power or a ham kilowatt. It may be used wherever the quick-disconnect feature is needed. It permits fast removal of the mobile rig to prevent theft or for use as a base station.

Ideal for test instruments with UHF connectors; terminate frequently disconnected coax test cables with the 83-5SPA.

The Amphenol 83-5SPA makes the CBer's and ham's life just a little bit easier.

TYPICAL PERFORMANCE SPECIFICATIONS

Electrical

Impedance — 50 ohm nominal
Frequency range — 0-300 MHz
Voltage rating — 500 V Peak

Environmental

Thermal limits — -67° to 300°F (-55° to 149° C)
Weather — non-weatherproof

Mechanical

Mating — mates with standard UHF plugs (PL-259 type) and receptacles (SO-239, etc.)

Material

Body and contact — brass
Finish — ASTROplate
Insulator — PBT polyester or equal

ASSEMBLY INSTRUCTIONS

1. **Screw 83-5SPA onto PL-259 type connector.**
2. **Tighten hand tight.**

BUNKER RAMO AMPHENOL

BUNKER RAMO AMPHENOL RF PRODUCTS

Threaded coupling UHF series are low-cost, general purpose connectors used in applications at lower frequency where no serious mismatch is introduced. They will operate satisfactorily at frequencies up to 300 MHZ and have a peak voltage rating of 500 volts.

STRAIGHT PLUGS

Non-constant Impedance • Male Contacts • Non-weatherproof

Cable RG-/U	Insulation	Dimensions, inches: Lgth. a	Largest O.D. b	Max. Cable O.D. c	Wt. Lbs.	Notes	Military Part Number	Amphenol Part Number
8, 11, 149, 213	Filled Bake.	1 5/16	11/16	.418	.050	Crimp	—	83-8SP
8, 9, 11	Filled Bake.	1 1/2	3/4	.444	.050	UG Std.	PL-259	83-1SP-1050*
13, 63, 87	Teflon	1 1/2	11/16	.437	.050	UG Std.	PL-259	83-822
149, 213	Filled Bake.	1 5/16	23/32	.444	.050	Clamp Set Screw	PL-259A	83-1SPN
214, 216	Teflon	1 5/16	13/16	.450	.050	Clamp Set Screw	PL-259A	83-756
225	Filled Bake.	1 43/64	3/4	.444	.082	Solderless Braid Clamp	—	83-851
	Filled Bake.	1 1/2	23/32	.444	.050	Push-on PL-259	—	83-5SP
11, 149	Filled Bake.	1 43/64	3/4	.437	.083	Solderless Braid Clamp & Contact	—	83-850
17, 218	Teflon	2 1/8	1 5/16	.900	.276	UG Std.	—	83-86
	Rexolite	2 1/8	1 5/16	.900	.276	UG Std.	—	10450
58, 141	Filled Bake.	1 5/16	11/16	.206	.050	Crimp	—	83-58SP
	Filled Bake.	1 5/16	23/32	.214	.050	Clamp Set Screw	UG203/U	83-776
59, 62	Filled Bake.	1 5/16	11/16	.251	.050	Crimp	—	83-59SP
140, 210	Filled Bake.	1 11/16	25/32	.257	.065	UG Std.	UG111/U	83-750

*For silver plated body, order 83-1SP.

ANGLE PLUGS

Non-constant Impedance • Male Contacts • Non-weatherproof

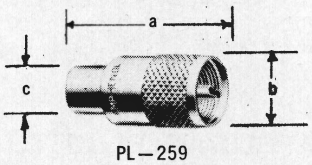
Cable RG-/U	Insulation	Dimensions, inches: a	b	Max. Cable O.D. c	d	Wt. Lbs.	Notes	Amphenol Part Number
8, 9, 11, 13, 63, 87	Teflon	1 3/8	3/4	.444	1 35/64	.076	—	83-67
149, 213, 214, 216, 225	Polystyrene	1 3/8	3/4	.444	1 35/64	.076	—	83-59

REDUCING ADAPTERS

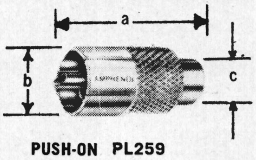
Non-weatherproof • For use with 83-1SP, -5SP, -59, -67, -750, -822, -850, -851

Cable RG-/U	Dimensions, inches: a	b	Max. Cable O.D. c	Wt. Lbs.	Notes	Military Part Number	Amphenol Part Number
55, 58, 141, 142 (except 55A)	1	7/16	.209	.019	—	UG175/U	83-185
59, 62, 71, 140, 210	1	7/16	.257	.015	—	UG176/U	83-168

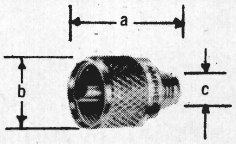
UHF SERIES



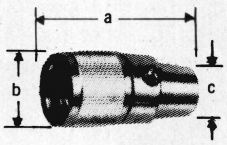
PL—259



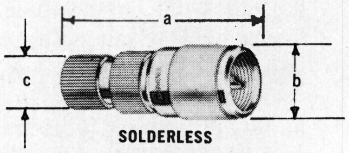
PUSH-ON PL259



CRIMP TYPE PL-259

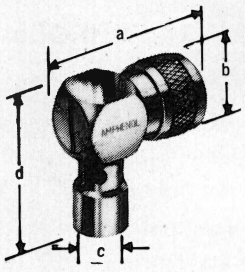


CLAMP SET SCREW

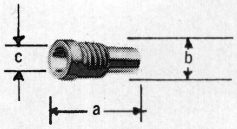


SOLDERLESS

ANGLE PLUG

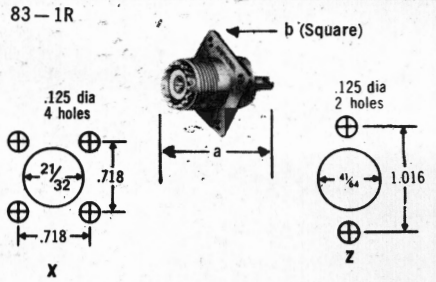


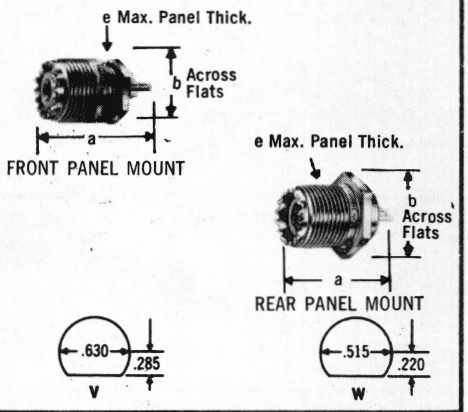
REDUCING ADAPTER



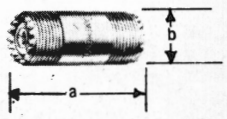
UHF SERIES

83—1R

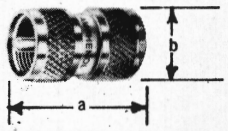




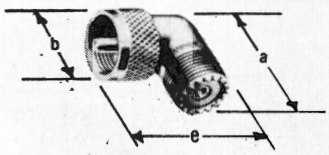
83—1J



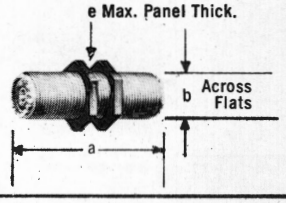
83—877



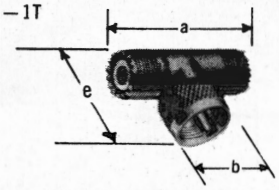
83—1AP



83—1F



83—1T



PANEL RECEPTACLES

Non-constant Impedance • Female Contacts • Non-weatherproof • .125 Dia. Flange Holes

Insulation	Dimensions, inches a	b	Wt. Lbs.	Mtg. Hole	Notes	Military Part Number	Amphenol Part Number
Filled Bakelite	1 1/16	1	.040	X	—	SO-239	83-1R
Polystyrene	1 1/16	1	.040	X	—	SO-239	83-1RTY
Teflon	1 1/16	1	.040	X	—	SO-239	83-798
Ceramic	1 3/16	1	.052	X	Pressurized	—	83-716
Filled Bakelite	1 1/16	1 19/64	.040	Z	Oval Flange	—	83-876

BULKHEAD RECEPTACLES

Non-constant Impedance • Female Contacts • Non-weatherproof

Insulation	Dimensions, inches a	b	e	Wt. Lbs.	Mtg. Hole	Notes	Military Part Number	Amphenol Part Number
Rexolite-Teflon	1 3/32	9/16	.156	.075	W	Front Mount	—	83-875
Filled Bakelite	1 3/32	9/16	.156	.075	W	Front Mount	—	83-875-1002
Filled Bakelite	1 1/16	3/4	.093	.075	V	Rear Mount	—	83-878
Rexolite	1 13/32	7/8	.515	.090	41/64 dia.	Rear Mount, Pressurized	UG266/U	4575
Glass-Teflon	1 13/32	7/8	.515	.090	41/64 dia.	Rear Mount, Hermetic	—	74525

ADAPTERS

Non-constant Impedance • Non-weatherproof

Construction	Adapter Ends	Insulation	Dimensions, inches a	b	e	Wt. Lbs.	Mtg. Hole	Notes	Military Part Number	Amphenol Part Number
Straight	Jack-Jack	Polystyrene	1 1/8	5/8	—	.048	—	—	PL-258	83-1J
	Jack-Jack	Teflon	1 1/8	5/8	—	.048	—	—	—	11850
	Plug-Plug	Polystyrene	1 5/16	25/32	—	.070	—	—	—	83-877
Angle	Jack-Plug	Polystyrene	1 9/32	3/4	1 3/16	.076	—	UG646/U	M359	83-1AP
	Jack-Plug	Polystyrene	1 7/32	3/4	1 1/16	.076	—	—	M359A	83-58
Bulkhead Mount	Jack-Jack	Polystyrene	2	5/8	57/64	—	41/64	—	UG363/U	83-1F
	Jack-Jack	Rexolite	1 3/8	5/8	9/32	—	41/64	—	UG224/U	29500
Tee	Jack-Plug-Jack	Polystyrene	1 5/8	3/4	1 13/64	.092	—	—	M358	83-1T

RF CONNECTORS

BUNKER RAMO AMPHENOL

HOODS

Non-weatherproof

Cable RG-/U	Dimensions, inches a	b	Max. Braid Dia. c	Wt. Lbs.	Mtg. Hole	Notes	Military Part Number	Amphenol Part Number
8, 11, 63, 149, 213	3/4	1	.345	.011	Z	—	UG106/U	83-1H
8, 9, 11, 63, 87, 149, 213	7/8	1	.360	.011	Z	—	UG372/U	83-1HP
58, 141	3/4	1	.155	.009	Z	—	UG177/U	83-765
55, 59, 140, 142, 223	1	1 1/16	.201	.010	—	Gold Pltd., Threaded	MX539	5375

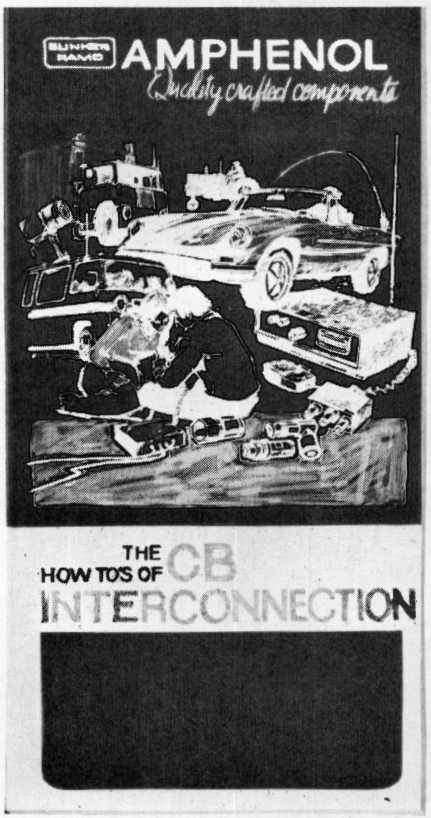
CAPS

Weatherproof

Dimensions, inches a	b	c	Chain Length	Wt. Lbs.	Notes	Amphenol Part Number
15/32	3/4	.130	4 9/16	.033	Male Cap	83-1AC
1 1/16	5/8	9/16	4 1/4	.025	Female Cap	83-1BC

ACCESSORIES

	Dimensions, inches a	b	c	Notes	Amphenol Part Number
Binding Post	1 7/8	23/32	—	Non-weatherproof, Male Contact, Rexolite	58000
Adapter	1 41/64	.650	—	Adapter to Motorola Pin Plug	83-10
Lightning Arrestor	2 13/16	3/4	—	—	83-23
Dummy Load	1 1/2	1 1/16	—	52 Ohm Load, 5 Watts	83-887
Power Output Indicator	2-1/4	11/16	—	Illuminated, with Dummy Load	83-888
Alternator Noise Filter	2-9/16	1	14-1/4	—	575-654

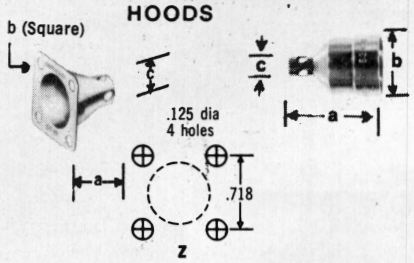


Amphenol Quality Crafted Components are playing a large role in furthering the rapidly expanding CB Market.

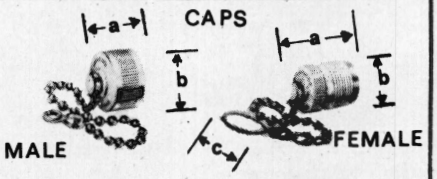
Our newly published Handbook illustrated here assists the CBer in the application of our cable and connector components, along with helpful hints relating to the proper overall operation of his equipment.

UHF SERIES

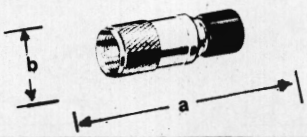
HOODS



CAPS



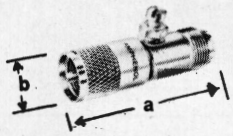
BINDING POST



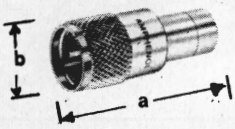
PIN PLUG ADAPTER



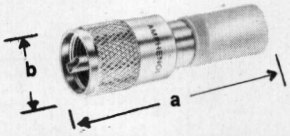
LIGHTNING ARRESTOR



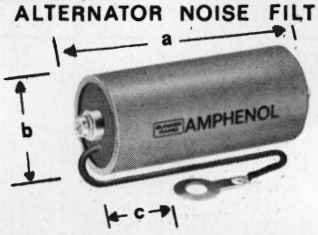
DUMMY LOAD



POWER OUTPUT INDICATOR



ALTERNATOR NOISE FILTER



BUNKER RAMO AMPHENOL RF PRODUCTS

Bayonet-lock coupling MHV series connectors are small, high voltage types which may be used up to 5000 volts peak at frequencies up to 50 MHZ. Impedance is non-constant. These series are similar to the BNC series; however, they are not designed to intermate.

PLUGS

Teflon Insulation • Non-constant Impedance • Male Contacts • Weatherproof

RG-( )/U Cable	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c	d	Notes	Amphenol Part Number
54A	—	1 33/64	1/2	.257	—	Improved Straight Plug	28375
55, 58, 141, 142	—	1 1/2	9/16	.212	—	Straight Plug	29100
59, 62, 71,	UG932/U	1 1/2	9/16	.257	—	Straight Plug	28000
140, 210	UG932A/U	1 33/64	1/2	.257	—	Improved Straight Plug	27975
55, 58, 141, 142	—	1 9/16	9/16	.212	1 15/64	Angle Plug, 2000 Volts Peak	28125
59, 62, 71, 140, 210	—	1 9/16	9/16	.258	1 15/64	Angle Plug, 2000 Volts Peak	28100

JACKS

Teflon Insulation • Non-constant Impedance • Male Contacts • Weatherproof

RG-( )/U Cable	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c	Notes	Amphenol Part Number
55, 58, 141, 142	—	1 15/32	9/16	.212	Straight Jack	28325
59, 62, 71, 140, 210	UG1016A/U	1 7/16	1/2	.257	Improved Straight Jack	27075
55, 58, 141, 142	—	1 7/16	11/16	.212	Panel Jack▲	28275
59, 62, 71, 140, 210	UG961/U	1 7/16	11/16	.257	Panel Jack▲	28225

▲Panel Jacks have #3-56 tapped flange holes; rear mounted

RECEPTACLES

Teflon Insulation • Non-constant Impedance • Female Contacts • Weatherproof • Rear Mounted

Military Part Number	Dimensions, inches a	b	e	Mtg. Hole	Notes	Amphenol Part Number
UG931/U	1 7/16	11/16	—	X	Panel Type, #3-56 Tapped Flange Holes	27000
—	1 11/16	11/16	.250	Y	Bulkhead Type, Hermetically Sealed	10400
—	1 1/16	5/8	.109	Z	Bulkhead Type	27025
—	1 11/16	11/16	.328	Y	Bulkhead Type, Hermetically Sealed	28400

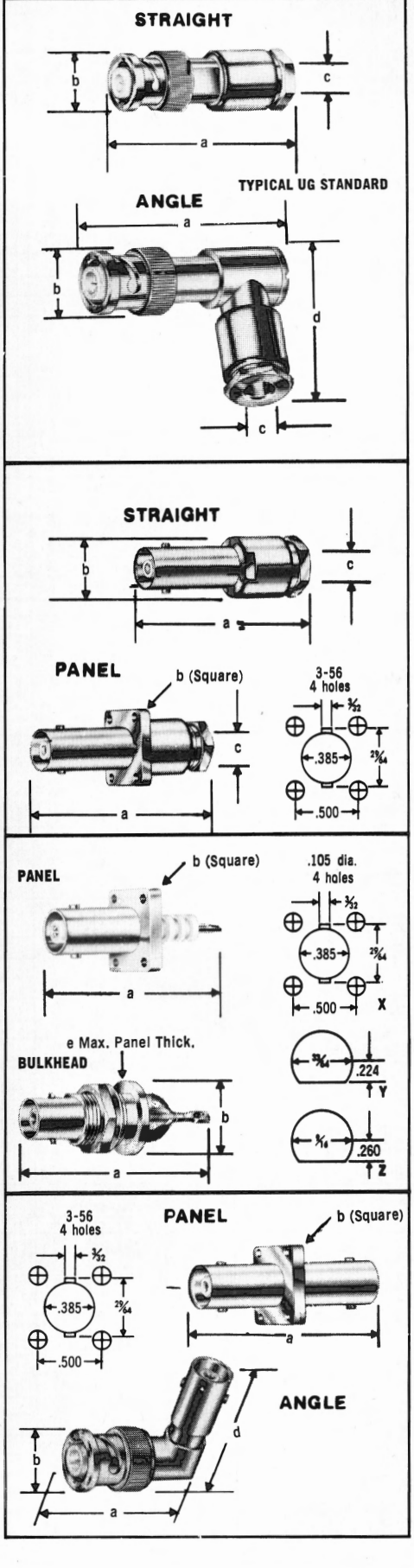
ADAPTERS

Teflon Insulation • Non-constant Impedance • Weatherproof

Military Part Number	Dimensions, inches a	b	d	Adapter Ends	Notes	Amphenol Part Number
—	1 1/2	11/16	—	Plug-Jack	Panel Mount Adapter	12650
—	1 7/32	9/16	1 1/16	Jack-Jack	Angle Adapter	10425

NOTE: Use BNC Caps for MHV Connectors.

MHV SERIES



BUNKER RAMO AMPHENOL RF PRODUCTS

Series N connectors are medium size, weatherproof, threaded coupling units with a frequency limit of 11GHZ. They have a peak voltage rating of 1500 volts and are impedance matched to either 50 or 70 ohm cables as listed.

Clamp type as well as crimp type designs are available.

STRAIGHT PLUGS

Teflon Insulation • Male Contacts • Weatherproof • 50 Ohm Impedance

Cable RG-/U	Dimensions, inches a	b	c	Notes	Military Number M39012/	Amphenol Part Number
5, 21, 143, 212, 222	2.00	.827	.342	Crimp	01-0006	82-341
	1½	25/32	.347	—	UG18C/U	82-203
	1½	13/16	.347	Safety Wire Holes	UG18D/U	82-3203
8, 213	2.00	.827	.418	Crimp	01-0007	82-340
9, 214	2.00	.827	.438	Crimp	01-0008	82-332
8, 9, 213, 214, 225	1½	13/16	.437	—	UG21B/U	82-61
	1½	13/16	.437	—	UG21C/U	82-96
	1½	25/32	.443	—	UG21D/U	82-202
	1½	25/32	.443	—	UG1185/U	82-312
	1½	13/16	.443	—	UG21E/U	82-3202
	1½	25/32	.443	—	UG1185A/U	82-3312
	1.875	.827	.443	—	01-0005	82-4352
	1.875	.827	.443	—	01-0002	82-4352-1
10, 12, 116, 215, 227	2.5	.827	.447	—	01-0025	82-4367
11, 149	2.0	.827	.418	Crimp	01-0013	82-342
11, 13, 149, 216	1⅞	13/16	.437	70 Ohm	UG94A/U	82-84
4, 217	1 21/32	⅞	.574	—	UG204C/U	82-214
	1.875	.906	.562	—	01-0003	82-4365
17, 218	2⅜	1 5/16	.900	—	UG167A/U	82-104
	2.5	1.343	.900	—	01-0004	82-4366
65, 142, 223	1 31/64	13/16	.220	Crimp	—	82-5370
58, 141	1 31/64	13/16	.206	Crimp	—	82-5375
58, 141, 142	1.375	.812	.224	—	UG536B/U	34025
59, 62, 71, 140, 210	1 31/64	13/16	.261	Crimp	—	82-5380
	1⅜	13/16	.257	—	UG603A/U	34525
	1⅝	13/16	.260	—	—	34750
142, 400	2.0	.827	.220	Crimp	01-0503	82-4427
213	2.0	.827	.418	Crimp	01-0502	82-4426
214, 225, 393	2.0	.827	.438	Crimp	01-0501	82-4425

ANGLE PLUGS

Teflon Insulation • Male Contacts • Weatherproof • 50 Ohm Impedance

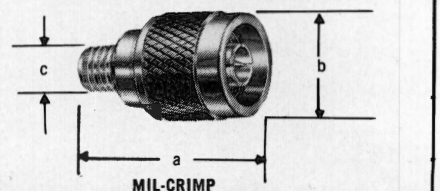
Cable RG-/U	Dimensions, inches a	b	c	d	Notes	Military Number M39012/	Amphenol Part Number
8, 213	1.531	.827	.418	2.375	Crimp	05-0002	82-349
9, 214	1.531	.827	.438	2.375	Crimp	05-0003	82-336
8, 9, 213, 214, 225	1 15/32	13/16	.437	1 59/64	—	05-0001	82-4357
	1 19/64	13/16	.443	1 15/16	Capt. Contact	—	82-326
	1 7/16	13/16	.437	1⅞	—	—	82-835
	1 7/16	13/16	.437	2 1/32	—	UG594A/U	15425
55, 142, 223	1 9/16	13/16	.220	2 1/64	Crimp	—	82-5374
58, 141	1 15/32	13/16	.206	2 1/64	Crimp	—	82-5379
58, 141, 142	1⅝	13/16	.212	1 7/32	—	—	18750
213	1.531	.827	.418	2.375	Crimp	05-0502	82-4441
214, 225	1.531	.827	.438	2.375	Crimp	05-0501	82-4440
223, 400	1.531	.827	.220	2.375	Crimp	05-0503	82-4442

STRAIGHT JACKS

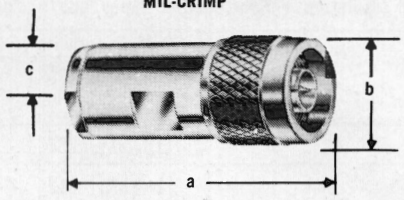
Teflon Insulation • Female Contacts • Weatherproof • 50 Ohm Impedance

Cable RG-/U	Dimensions, inches a	b	c	Notes	Military Number M39012/	Amphenol Part Number
5, 21, 143, 212, 222	1.672	.781	.346	—	02-0001	82-358
8, 213	1.938	.781	.418	Crimp	02-0008	82-337
8, 9, 213, 214, 225	1 15/16	1 1/16	.437	—	UG23B/U	82-63
	1 9/16	1 1/16	.443		UG23D/U	82-209
	1 9/16	¾	.443	Capt. Contact	UG1186/U	82-313
	1.672	.781	.443	—	02-0003	82-4356
	1.672	.781	.443		02-0002	82-4356-1
11, 13, 149, 216	1 15/16	1 1/16	.437	70 Ohm	UG95A/U	82-89
55, 142, 223	1 9/16	1 1/16	.220	Crimp	—	82-5371
58, 141	1 9/16	1 1/16	.206	Crimp	—	82-5376
	1½	⅝	.214	—	—	35025
59, 62, 71, 140, 210	1 27/32	1 1/16	.260	Rexolite Ins.	UG602/U	36500
122	1.938	.781	.438	Crimp	02-0501	82-4429
142, 400	1.938	.781	.220	Crimp	02-0503	82-4431
180	1.938	.781	.418	Crimp	02-0502	82-4430

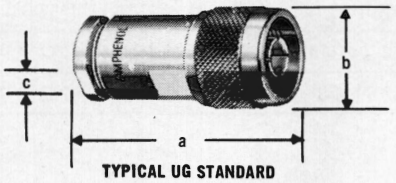
N SERIES



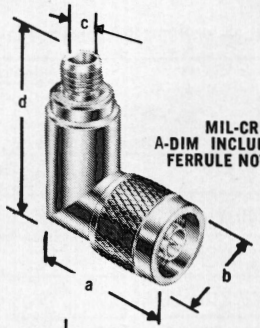
MIL-CRIMP



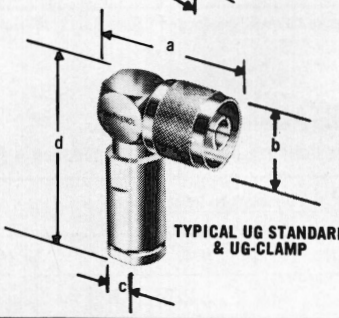
MIL-CLAMP



TYPICAL UG STANDARD

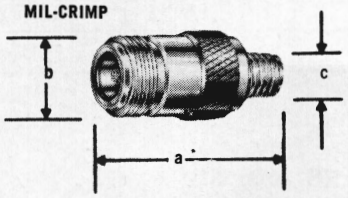


MIL-CRIMP
A-DIM INCLUDES OUTER FERRULE NOT SHOWN



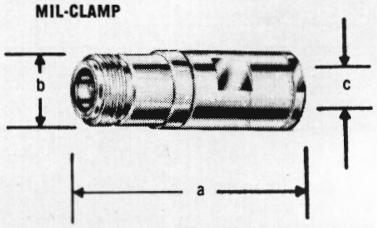
TYPICAL UG STANDARD & UG-CLAMP

MIL-CRIMP

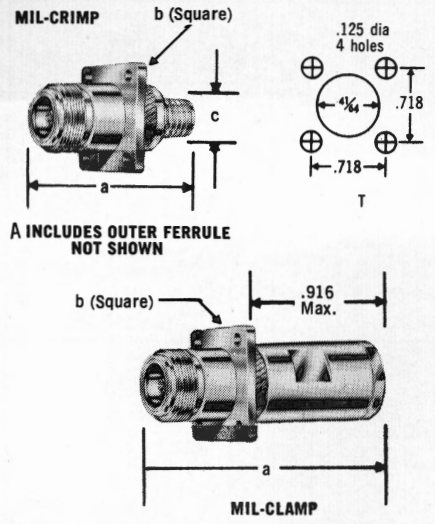


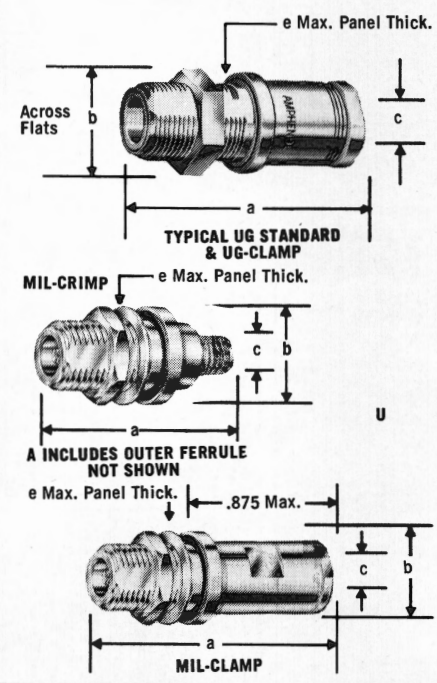
A INCLUDES OUTER FERRULE NOT SHOWN

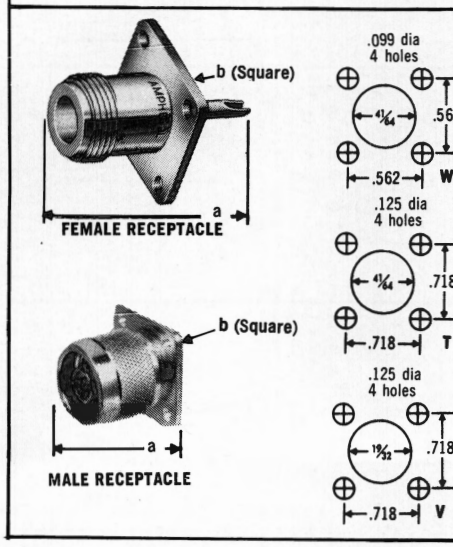
MIL-CLAMP



N SERIES







PANEL JACKS / Teflon Insulation • Female Contacts • Weatherproof • 50 Ohm Impedance
.125 Dia. Flange Holes • Mounting Hole "T" • Rear Mounted

Cable RG-/U	Dimensions, inches a	b	c	Notes	Military Number M39012/	Amphenol Part Number
5, 21, 143, 212, 222	1 9/16	1	.347	—	UG19D/U	82-3207
8, 213	1.938	1.005	.418	Crimp	02-0016	82-343
8, 9, 213, 214, 225	1.672	1.005	.443	—	02-0006	82-4360
	1.672	1.005	.443	—	02-0005	82-4360-1
	1 13/16	1.00	.437	—	UG22B/U	82-62
	1 9/16	1.00	.443	—	UG22D/U	82-208
	1 9/16	1.00	.443	—	UG22E/U	82-3208
11, 13, 149, 216	1 13/16	1.00	.437	70 Ohm	UG96A/U	82-90
55, 142, 223	1 9/16	1.00	.220	Crimp	—	82-5372
55, 58, 141, 142, 223	1 1/2	1.00	.224	—	UG1095A/U	36250
59, 62, 71, 140, 210	1 13/16	1.00	.260	—	UG593/U	35500
213	1.938	1.005	.418	Crimp	02-0512	82-4433
214, 225, 393	1.938	1.005	.438	Crimp	02-0511	82-4432
142, 400	1.938	1.005	.220	Crimp	02-0513	82-4434

BULKHEAD JACKS
Female Contacts • Weatherproof • 50 Ohm Impedance • Mounting Hole "U" • Rear Mounted

Cable RG-/U	Dimensions, inches a	b	c	e	Notes	Military Number M39012/	Amphenol Part Number
5, 21, 143, 212, 222	1 3/4	7/8	.343	.334	—	UG159B/U	15550
8, 213, 225	2.031	.900	.418	.250	Crimp	03-0004	82-346
9, 214, 225	2.031	.900	.438	.250	Crimp	03-0005	82-335
8, 9, 213, 214	1.900	.900	.413	.250	—	03-0002	82-4364
8, 9, 213, 214, 225	1 13/16	13/16	.437	.343	—	UG160A/U	82-67
55, 142, 223	1 27/32	7/8	.220	.250	Crimp	—	82-5373
58, 141	1 27/32	7/8	.206	.250	Crimp	—	82-5378
55, 58, 141, 142, 223	1 43/64	.815	.224	.317	—	UG556B/U	35275
142, 400	2.031	.900	.220	.250	Crimp	03-0503	82-4438
213	2.031	.900	.418	.250	Crimp	03-0502	82-4437
214, 225, 393	2.031	.900	.438	.250	Crimp	03-0501	82-4436

PANEL RECEPTACLES

Military Part Number	Dimensions, inches a	b	e	Mtg. Hole	Notes	Amphenol Part Number
UG58/U	1 7/64	1.00	—	T	—	82-24
UG58A/U	1 7/64	1.50	—	T	—	82-97
M39012/04-0002	1.156	1.005	—	T	—	82-368
—	1.114	1.00	—	T	70 Ohm Imp.	82-112
—	1 7/64	3/4	—	W	.100 flange holes	9575
—	1 3/32	1.00	—	V	Plug Recp., male contact, Rex.	49000
UG997A/U	1 29/64	1.00	—	V	Angle Recp.	8975

BUNKER RAMO AMPHENOL RF PRODUCTS

BULKHEAD RECEPTACLES

Military Part Number	Dimensions, inches a	b	e	Mtg. Hole	Notes	Amphenol Part Number
UG680/U	1 37/64	13/16	.209	U	Hermetic	82-811
M39012/04-0001	1.750	.885	.250	U	Hermetic	82-369
—	1 1/2	13/16	.364	U	Hermetic	13275
—	1 13/64	13/16	—	U	Hermetic, Male Recep.	19550

ADAPTERS / Teflon Insulation • Weatherproof • 50 Ohm Impedance

Military Part Number	Adapter Ends	Configuration	Dimensions, inches a	b	c	Mtg. Hole	Notes	Amphenol Part Number
UG29B/U	Jack-Jack	Straight	1 3/4	21/32	—	—	—	82-101
UG57B/U	Plug-Plug	Straight	1 19/32	13/16	—	—	—	82-100
UG27C/U	Plug-Jack	Angle	1.300	13/16	1.400	—	—	82-213
UG30/U	Jack-Jack	Bulkhead	1 5/8	13/16	.312	U	Pressurized, Rex.	82-66
UG30D/U	Jack-Jack	Bulkhead	1 17/32	.875	1/4	U	Hermetic	91100
UG28A/U	J-J-J	Tee	1.750	1 7/32	—	—	—	82-99
UG107B/U	J-P-J	Tee	1 3/4	1 31/64	—	—	—	82-102
—	P-P-P	Tee	2 11/32	1 11/64	—	—	—	4850
—	J-J-J-J	Cross	2 1/4	2 1/4	—	—	—	17125

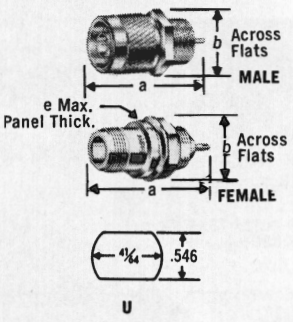
CAPS / Weatherproof

Military Part Number	Dimensions, inches a	b	c	Chain Length	Notes	Amphenol Part Number
UG-913/U	9/16	3/4	.144	1 3/4	—	82-106
—	7/16	3/4	—	—	Cap Only	9225
—	13/16	13/16	.144	2 1/2	Shorting Male Contact	13700
—	9/16	3/4	.144	3	—	18575
—	31/32	5/8	3/16	2 1/4	Female	6950
—	1.000	5/8	—	—	Female, Shorting Contact	13675

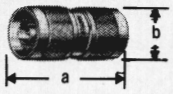
SHIELD GROUNDING LUG

Dimensions, inches a	b	c		Notes	Amphenol Part Number
1	37/64	1/8		Used on Front Mount Receptacles as Shown	82-1275

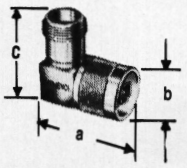
N SERIES



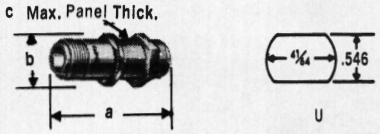
STRAIGHT ADAPTER



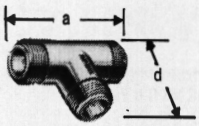
ANGLE ADAPTER



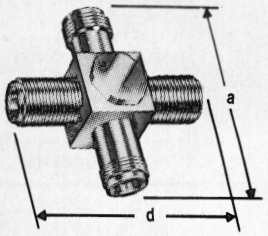
BULKHEAD ADAPTER

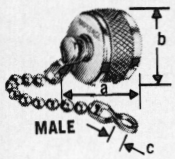


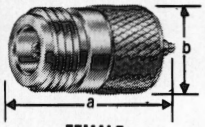
TEE ADAPTER

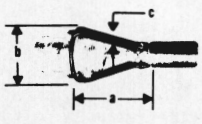


CROSS ADAPTER



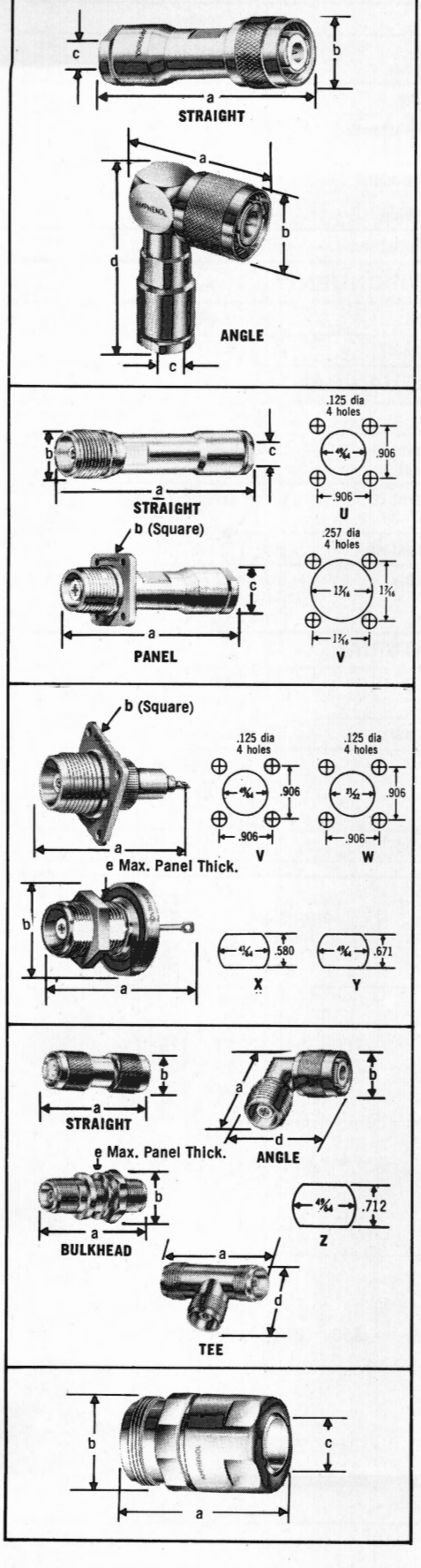






BUNKER RAMO AMPHENOL RF PRODUCTS

HN SERIES



Series HN connectors are medium sized, 50 ohm constant impedance, high voltage, threaded coupling types. This series has a frequency limit of 4GHZ and a voltage rating of 1500 volts peak. Dielectric withstanding voltage is 5000 volts RMS.

STRAIGHT/ANGLE PLUGS/ Male Contacts • Weatherproof • 50 Ohm Impedance

RG-( )/U Cables	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c	d	Insulation	Configuration		Notes	Amphenol Part Number
8, 9, 87, 213, 214, 225	UG59B/U	2⅜	⅞	.444	—	Teflon	Straight		▲	82-804
	—	1½	⅞	.444	25/16	Rexolite	Angle		—	82-833
	—	1½	⅞	.444	25/16	Teflon	Angle		—	82-856
10, 12, 116, 215, 227	UG925/U	249/64	27/32	.511	—	Teflon	Straight		Armor Clamp	9375
14, 217	UG494/U	2	1	.562	—	Rexolite	Straight		—	8125
17	—	211/16	15/16	.900	—	Rexolite	Straight		Capt. Cont.	82-325
54A	—	113/16	⅞	.257	—	Teflon	Straight		—	82-816
55, 58, 141, 142	—	113/16	27/32	.214	—	Teflon	Straight		—	16750
	—	1⅜	⅞	.214	1⅝2	Teflon	Angle		1500 VRMS	19625

STRAIGHT/PANEL JACKS

Female Contacts • Weatherproof • 50 Ohm Impedance

RG-( )/U Cables	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c	Insulation	Configuration	Mtg. Hole		Notes	Amphenol Part Number
8, 9, 87, 213, 214, 225	UG60B/U	2½	11/16	.444	Teflon	Straight	—		▲	82-814
	UG61B/U	2½	13/16	.444	Teflon	Panel	U		▲	82-815
10, 12, 116, 215, 227	UG927/U	3	¾	—	Teflon	Straight	—		Armor Clamp	33250
17	UG333A/U	27/16	15/16	.960	Rexolite	Straight	—		—	82-107
	UG334A/U	27/16	15/16	.900	Rexolite	Panel	U		—	82-108
18	UG333/U	2¾	1⅜	.900	Rexolite	Straight	—		Armor Clamp	82-56
	UG334/U	2¾	2	.984	Rexolite	Panel	V		Armor Clamp	82-57

RECEPTACLES/ Female Contacts • Weatherproof • 50 Ohm Impedance

Military Part Number	Dimensions, inches a	b	e	Insulation	Configuration	Mtg. Hole		Notes	Amphenol Part Number
UG496/U	117/32	13/16	—	Rexolite	Panel	V		—	82-92
UG560/U	1⅞	13/16	—	Teflon	Panel	W		—	82-805
—	1¾	13/16	.187	Glass-Teflon	Bulkhead	X		Hermetic, Front Mtg.	82-836
—	149/64	1¼	.187	Glass-Teflon	Bulkhead	Y		Hermetic, Rear Mtg.	82-843

ADAPTERS/ Teflon Insulation • Weatherproof • 50 Ohm Impedance

Military Part Number	Dimensions, inches a	b	d	e	Configuration	Adapter Ends		Notes	Amphenol Part Number
—	2⅛	⅞	—	—	Straight	Plug-Plug		—	16800
UG212C/U	115/32	⅞	1½	—	Angle	Jack-Plug		—	82-115
UG1019/U	131/32	1	—	.343	Bulkhead	Jack-Jack		Use Mtg. Hole Z	11050
—	115/16	—	15/16	—	Tee	Jack-Jack-Jack		—	11950

ARMOR CLAMPS/ Assemble to Connectors Designed for Identical Cable Without Armor

RG-( )/U Cables	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c		Notes	Amphenol Part Number
10, 12, 79, 116, 215, 227	MX-564A	1 1/16	11/16	.511		—	82-109

CAPS/ Weatherproof

Dimensions, inches Length	Dia	Chain Length	Notes	Amphenol Part Number
19/32	⅞	2 5/16	Male Cap	82-130
29/32	⅞	4	Female Cap	13650

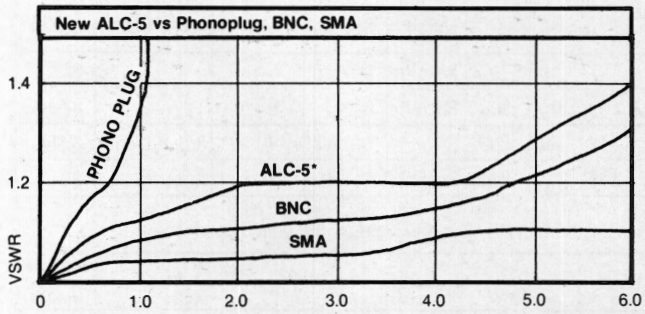
▲Amphenol adapter kit 82-887 will adapt connector for use with ALJAK/CUJAK metal jacketed cables

New Cost Efficient Sub-Miniature Coax Connector...the ALC-5

Here is the first sub-miniature connector family (under 1" long mated) to combine low price with top performance. Designed for medium to high frequency mobile radio, test equipment and telecommunications applications, the ALC-5 rivals the phono plug in assembled cost and the SUB-Minax 27 Series in size and low reflection performance. VSWR for a mated pair with 2' of RG-58C/U cable is less than 1.22:1 at 1 GHz and under 1.40:1 at 6 GHz.

All ALC-5 cable connectors are crimped to cable. Center contact can be crimped or soldered making possible the use of automated procedures eliminating time-consuming soldering. Hand crimp tools are available incorporating both outer ferrule and center contact dies.

You may have your choice of push-on or snap-on style mating. And, because of the universal design of the ALC-5 jack and receptacle mating faces, they can either slide or lock into position depending upon the plug chosen.



*The VSWR of plug 904-10001 mated with jack 904-10002 on RG-58C/U cable.

ELECTRICAL

Impedance	50 Ohm nominal
Frequency	0-6. GHz
Voltage Rating	500 VRMS
Dielectric Withstanding Voltage	1500 Volts RMS
VSWR typical mated cable assemblies	0-2. GHz 1.20 2.-4. GHz 1.25 4.-6. GHz 1.40
Insulation Resistance	500 Megohms

ENVIRONMENTAL

Thermal Limits	−67° to 390°F (−55° to 199°C)
Shock (Snap-ons)	MIL-STD-202 Method 107

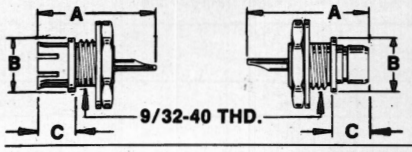
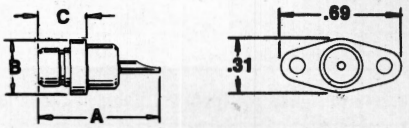
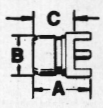
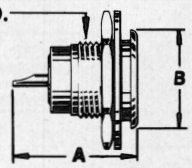
MECHANICAL

Mating	Push-on or snap-on
Cable affixment to braid or jacket	Crimp
Cable affixment to center conductor	Crimp or solder
Captivated contact	Yes
Cable Assembly	Use Amphenol crimp tool 227-525 Outer ferrule cavity A Center contact cavity B

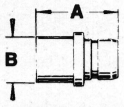
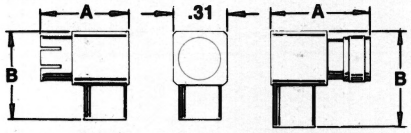
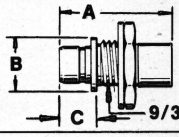
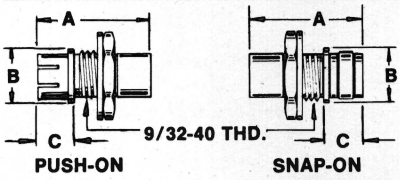
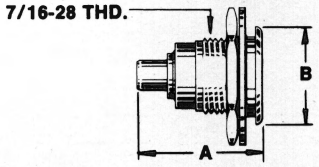
MATERIAL

Contacts	Male-Brass Female-Beryllium Copper
Other metal parts	Half hard brass
Plating	Center contacts—tin plate Other metal parts—Astroplate
Insulators	Teflon
Crimp Ferrules	Copper—Astroplate

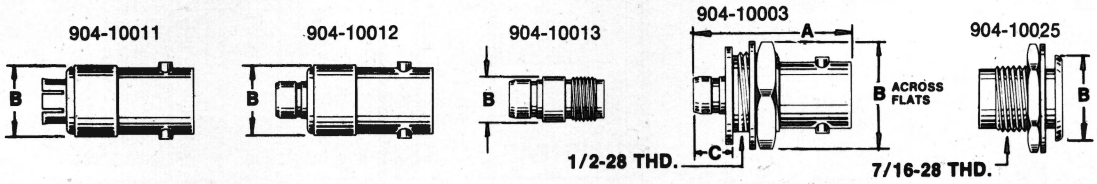
ALC-5 Receptacles

	DESCRIPTION	PART NUMBER	DIMENSIONS INCHES A	B	C	MAX. PANEL	MTG. HOLE OR DIA.
	**BLKH. RECEPTACLE**						
	PUSH-ON (Plug)	904-10007	.760	.312	.250	.125	W
	FEMALE (Jack)	904-10006	.730	.312	.250	.125	W
	SNAP-ON (Plug)	904-11007	.760	.312	.250	.125	W
	**PANEL RECEPTACLE OVAL FLANGE 2 HOLE MOUNT**						
	FEMALE CONTACT	904-10010	.730	.312	.310	—	Y
	**PRINTED CIRCUIT RECEPTACLE**						
	FEMALE CONTACT	904-10008	.350	.210	.260	.050	Z
	**FLUSH MOUNT MALE BLKH. RECEPTACLES**						
	PUSH-ON	904-10027	.814	.500	—	.188	.453
	SNAP-ON	904-11027	.814	.500	—	.188	.453

ALC-5 Cable Connectors

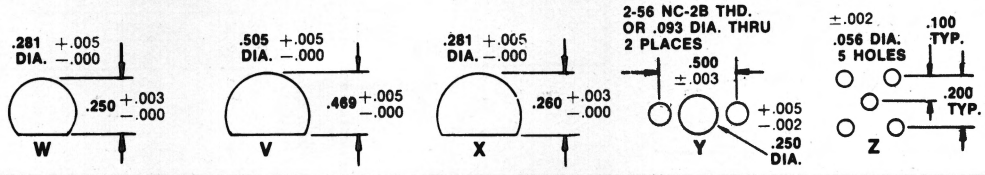
	DESCRIPTION	PART NUMBER	DIMENSIONS INCHES A	B	C	MAX. PANEL	MTG. HOLE OR DIA.
 PUSH-ON PLUG SNAP-ON PLUG	**STRAIGHT PLUGS**						
	PUSH-ON RG-58	904-10001	.725	.281	—	—	—
	PUSH-ON RG-188	904-10018	.725	.281	—	—	—
	SNAP-ON RG-58	904-11001	.725	.281	—	—	—
	SNAP-ON RG-188	904-11018	.725	.281	—	—	—
 JACK	**STRAIGHT JACK**						
	RG-58	904-10002	.530	.281	—	—	—
	RG-188	904-10019	.565	.281	—	—	—
 RIGHT ANGLE PUSH-ON RIGHT ANGLE SNAP-ON	**RIGHT ANGLE PLUG**						
	PUSH-ON RG-58	904-10009	.550	.580	—	—	—
	PUSH-ON RG-188	904-10020	.550	.612	—	—	—
	SNAP-ON RG-58	904-11009	.550	.580	—	—	—
	SNAP-ON RG-188	904-11020	.550	.612	—	—	—
 BLKH. JACK 9/32-40 THD.	**BULKHEAD JACK**						
	RG-58	904-10004	.755	.312	.250	.125	W
	RG-188	904-10022	.790	.312	.250	.125	W
 PUSH-ON 9/32-40 THD. SNAP-ON	**BULKHEAD PLUG**						
	PUSH-ON RG-58	904-10005	.915	.312	.250	.125	W
	PUSH-ON RG-188	904-10021	.950	.312	.250	.125	W
	SNAP-ON RG-58	904-11005	.915	.312	.250	.125	W
	SNAP-ON RG-188	904-11021	.950	.312	.250	.125	W
 7/16-28 THD.	**FLUSH MOUNT BULKHEAD PLUGS**						
	PUSH-ON RG-58	904-10026	.970	.500	—	.188	.453
	PUSH-ON RG-188	904-10028	1.010	.500	—	.188	.453
	SNAP-ON RG-58	904-11026	.970	.500	—	.188	.453
	SNAP-ON RG-188	904-11028	1.010	.500	—	.188	.453

Adapters

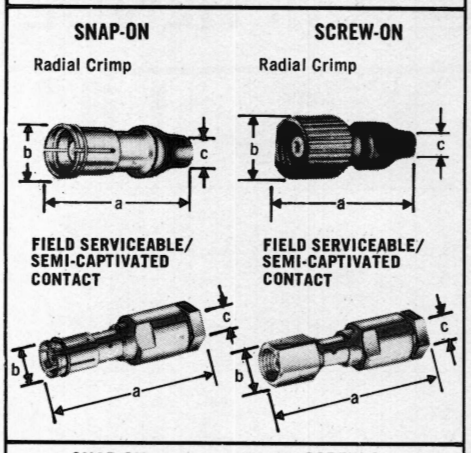


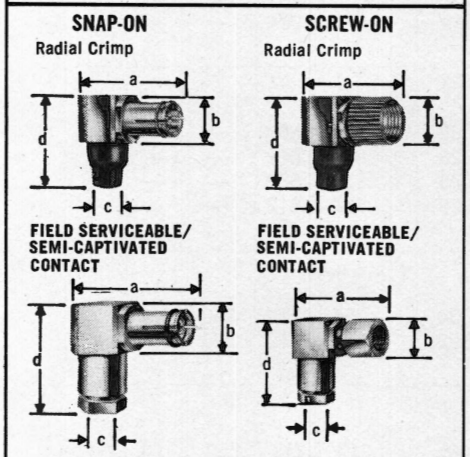
DESCRIPTION	PART NUMBER	DIMENSIONS INCHES A	B	C	MAX PANEL THICKNESS	MTG. HOLE
ALC-5 PLUG—BNC JACK	904-10011	.920	.390	—	—	—
ALC-5 JACK—BNC JACK	904-10012	.960	.390	—	—	—
ALC-5 JACK—SMA JACK	904-10013	.570	.250	—	—	—
ALC-5 JACK—BNC BULKHEAD JACK	904-10003	.950	.620	.250	.125	V
FLUSH MOUNT BLKH. ADAPTER	904-10025	.500	.500	—	.188	.453 DIA.

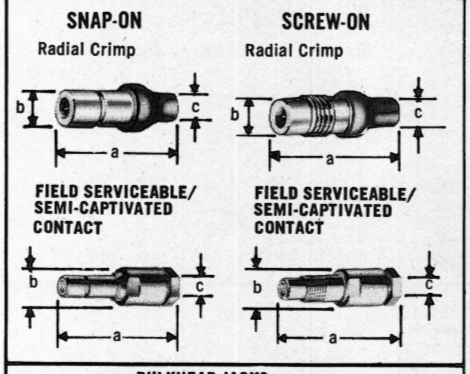
MOUNTING HOLE DIMS.

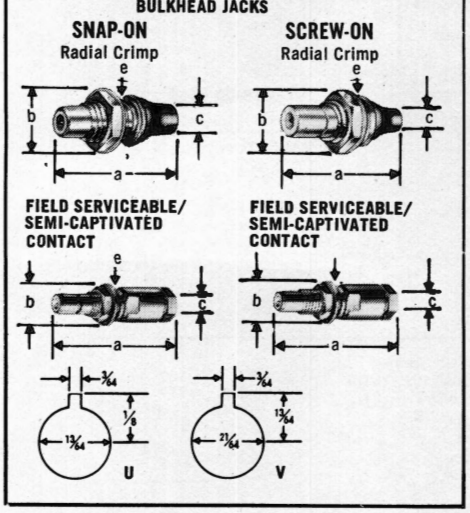


SUBMINAX 27









Subminax 27 series connectors are constant impedance (50 or 75 ohm) types with a voltage rating of 500 volts peak and a frequency limit of 10GHZ.

Two types of coupling mechanisms are available: snap-on (push-on) for frequent fast mating and limited space; and screw-on, for vibration type applications, or where maintaining contact is critical. The two types do do not intermate nor do 50 and 75 ohm types intermate.

STRAIGHT PLUGS/ Teflon Insulation • Female Contacts • Gold Plated

RG-( )/U Cables	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c	Imped-ance (ohms)	Type		Notes	Amphenol Part Number
174, 179, 187, 188	—	19/32	3/16	.120	50	Snap-on		Radial Crimp	27-1
	—	19/32	1/4	.120	50	Screw-on		Radial Crimp	27-7
	—	27/32	1/4	.120	50	Screw-on		Field Serviceable	27-106
180, 195	—	5/8	9/32	.165	75	Snap-on		Radial Crimp	27-13
	—	19/32	3/8	.165	75	Screw-on		Radial Crimp	27-19
178, 196	—	25/32	7/32	.090	50	Snap-on		Field Serviceable	27-30
	—	25/32	1/4	.090	50	Screw-on		Field Serviceable	27-34
	UG1460/U	27/32	1/4	.090	50	Screw-on		Field Serviceable	27-104

ANGLE PLUGS/ Teflon-Kel-F Insulation • Female contacts • Gold Plated

RG-( )/U Cables	Dimensions, inches a	b	Max. Cable O.D. c	d	Imped-ance (ohms)	Type		Notes	Amphenol Part Number
174, 179, 187, 188	9/16	3/16	.120	15/32	50	Snap-on		Radial Crimp	27-6
	35/64	1/4	.120	15/32	50	Screw-on		Radial Crimp	27-26
180, 195	39/64	9/32	.165	17/32	75	Snap-on		Radial Crimp	27-18
	5/8	3/8	.165	17/32	75	Screw-on		Radial Crimp	27-25
178, 196	9/16	3/16	.090	9/16	50	Snap-on		Field Serviceable	27-33
	35/64	1/4	.090	9/16	50	Screw-on		Field Serviceable	27-37

STRAIGHT JACKS/ Teflon Insulation • Male Contacts • Gold Plated

RG-( )/U Cables	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c	Imped-ance (ohms)	Type		Notes	Amphenol Part Number
174, 179 187, 188	—	35/64	9/64	.120	50	Snap-on		Radial Crimp	27-2
	—	19/32	3/16	.120	50	Screw-on		Radial Crimp	27-8
	UG1467/U	3/4	1/4	.120	50	Screw-on		Field Serviceable	27-105
180, 195	—	9/16	1/4	.165	75	Snap-on		Radial Crimp	27-14
	—	19/32	5/16	.165	75	Screw-on		Radial Crimp	27-20
178, 196	—	47/64	9/64	.090	50	Snap-on		Field Serviceable	27-31
	—	3/4	3/16	.090	50	Screw-on		Field Serviceable	27-35
	UG1462/U	3/4	1/4	.090	50	Screw-on		Field Serviceable	27-107

BULKHEAD JACKS/ Teflon Insulation • Male Contacts • Gold Plated

RG-( )/U Cables	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c	Imped-ance (ohms)	Type	Mtg. Hole		Notes	Amphenol Part Number
174, 179, 187, 188	—	41/64	1/4	.120	50	Snap-on	U		Radial Crimp	27-4
	—	21/32	15/64	.120	50	Screw-on	U		Radial Crimp	27-10
	UG1468/U	7/8	1/4	.120	50	Screw-on	W		Field Serviceable	27-103
180, 195	—	41/64	3/8	.165	75	Snap-on	V		Radial Crimp	27-16
	—	21/32	3/8	.165	75	Screw-on	V		Radial Crimp	27-22
178, 196	—	13/16	15/64	.090	50	Snap-on	U		Field Serviceable	27-32
	—	53/64	15/64	.090	50	Screw-on	U		Field Serviceable	27-36
	UG1463/U	7/8	1/4	.090	50	Screw-on	W		Field Serviceable	27-102

BULKHEAD RECEPTACLES

Teflon Insulation • Male Contacts • Gold Plated • Rear Mount

Military Part Number	Dimensions, inches a	b	Max. Panel Thickness e	Impedance (Ohms)	Type	Mtg. Hole		Notes	Amphenol Part Number
—	37/64	1/4	3/32	50	Snap-on	U		—	27-3
—	45/64	11/32	3/32	50	Snap-on	Y		Hermetically Sealed	27-27
—	19/32	15/64	3/32	50	Screw-on	U		—	27-9
—	47/64	11/32	3/32	50	Screw-on	Y		Hermetically Sealed	27-12
UG1619/U	5/8	1/4	3/32	50	Screw-on	W		—	27-101
—	37/64	3/8	3/32	75	Snap-on	V		—	27-15
—	23/32	15/32	3/32	75	Snap-on	—		Hermetically Sealed Mtg. Hole 21/64 dia.	27-45
—	19/32	3/8	3/32	75	Screw-on	V		—	27-21
—	11/16	15/32	3/32	75	Screw-on	—		Hermetically Sealed Mtg. Hole 21/64 dia.	27-24
UG1464/U	41/64	1/4	3/32	50	Screw-on	W		Front Mount	27-108
—	43/64	19/64	3/16	50	Screw-on	Z		Printed Circuit	27-800

BULKHEAD ADAPTERS/ Teflon Insulation • Gold Plated

Dimensions, inches a	b	Max. Panel Thickness e	Impedance (Ohms)	Type	Adapter Ends	Mtg. Hole		Notes	Amphenol Part Number
5/8	1/4	3/32	50	Snap-on	Jack-Jack	U		—	27-5
21/32	15/64	3/32	50	Screw-on	Jack-Jack	U		—	27-11
5/8	3/8	3/32	75	Snap-on	Jack-Jack	V		—	27-17
21/32	3/8	3/32	75	Screw-on	Jack-Jack	V		—	27-23

TEE ADAPTERS/ Teflon Insulation • Male Contacts • Gold Plated

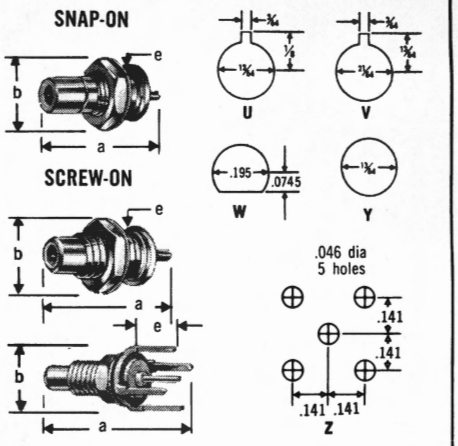
Dimensions, inches a	b	Impedance (Ohms)	Type	Adapter Ends		Notes	Amphenol Part Number
1.050	.681	75	Screw-on	Jack-Jack-Jack		—	27-70

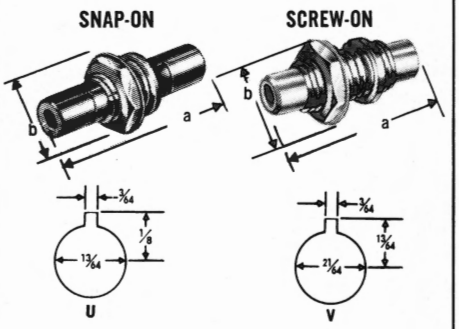
SUBMINAX 27 TO BNC & TNC ADAPTERS/ Teflon Insulation

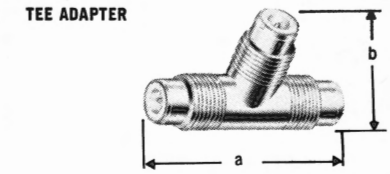
Dimensions, inches a	b	Adapter Ends Subminax Jack	To	Use With Connector No.	Construction		Notes	Amphenol Part Number
1 5/16	.333	50 Ohm Screw-on	BNC Plug	31-002(UG88/U)	UG Standard		—	27-28
1 5/16	.333		BNC Jack	31-005(UG89/U)	UG Standard		—	27-40
1 5/16	.333		BNC Panel Jack	31-001(UG291/U)	UG Standard		—	27-40
1 5/16	.333	50 Ohm Snap-on	BNC Plug	31-002(UG88/U)	UG Standard		—	27-29
1 17/64	7/16	75 Ohm Screw-on	BNC Plug	31-212(UG260B/U)	Improved		—	27-805
1.355	.393		BNC Jack	31-215(UG261B/U)	Improved		—	27-42
1.355	.393		BNC Panel Jack	31-211(UG262B/U)	Improved		—	27-42
1 17/64	7/16		TNC Plug	79525	Improved		—	27-805
1.355	.393		TNC Jack	79500	Improved		—	27-42
1 1/4	.395	75 Ohm	BNC Plug	31-212(UG260B/U)	Improved		—	27-41
1 1/4	.395	Snap-on	TNC Jack	79525	Improved		—	27-41

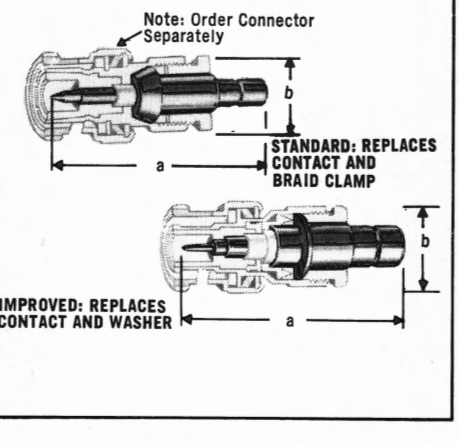
AMPHENOL SUBMINAX 27 Series adapters quickly convert standard or improved type BNC and TNC plugs and jacks into between series adapters. The adapter replaces the contact and braid clamp in connectors with standard-type clamping parts. In the improved versions, the adapter replaces the contact and washer. No solder or crimping is required . . . modification is quick and easy.

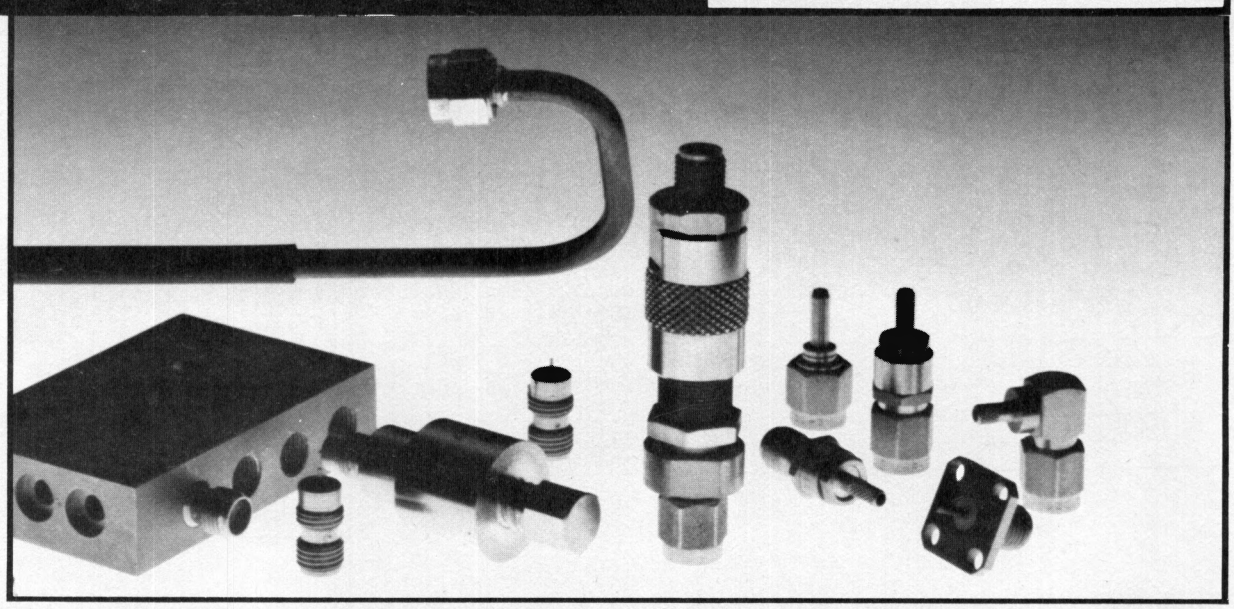
SUBMINAX 27











Amphenol stainless steel SMA connectors will help you meet the most stringent application requirements. Simply choose from our wide range of high quality stainless steel configurations for semi-rigid or flexible cable, bulkhead-mounted receptacles, and stripline flange-mounted panel jacks featuring a variety of terminations. But if that's not enough, we remain at your disposal for connector design modifications and customer designed cable assemblies for semi-rigid .141" and .085" diameter metal jacketed cable. Contact your nearest Amphenol Sales Engineer or the RF Division for assistance with special SMA needs.

Amphenol stainless steel SMA connectors are available for immediate delivery from your Amphenol Industrial Distributor in prototype or production quantities. Contact your Amphenol Distributor or sales office for a quotation.

CHARACTERISTICS*

ELECTRICAL

Impedance	50 ohms.
Frequency range	.141" & .085" O.D. metal jacket semi-rigid cable: 0-18 GHz. Flexible cables: 0-12.4 GHz.
Dielectric withstanding voltage	RG-402 (.141" dia. semi-rigid cable): 1500 VRMS. RG-55, 58, 141, 142, 223, 303, 400 & 405 (.085" dia. semi-rigid cable): 1000 VRMS. RG-174, 188 & 316: 750 VRMS.
Voltage rating	RG-402: 500 VRMS. RG-55 group & RG-405: 335 VRMS. RG-174 group: 250 VRMS.
VSWR	M39012, par. 3.15, method 4.6.12
Insertion loss	M39012, par. 3.29, method 4.6.26
Contact resistance	Center: 2.0 milliohms. Body: 2.0 milliohms. Braid to body: 0.5 milliohms.
Insulation resistance	5000 megohms
RF leakage	M39012, par. 3.28, method 4.6.25

ENVIRONMENTAL

Temperature	−67° to 390° F (−55° to 199° C).
Weatherproof	Crimp type: with heat shrink tubing. Solder type: with gaskets.
Shock	MIL-STD-202, Method 202; acceleration: 50 G at 7 milliseconds.
Vibration	MIL-STD-202, Method 204 (test cond. D).
Moisture resistance	MIL-STD-202, Method 106 (high humidity measurements do not apply).
Corrosion	MIL-STD-202, Method 101 (test cond. B); 5% salt solution.
Temperature cycling	MIL-STD-202, Method 102 (test cond. C).
Attitude (corona)	MIL-STD-202, Method 105 (test cond. C); no corona at 70,000 ft. RG-402: 375 Volts. RG-55 group & RG-405: 250 Volts. RG-174 group: 190 Volts.

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

MECHANICAL

Mating	¼-36 threaded coupling, 500 cycles.
Mating Torque	Recommended: 7-10 inch-pounds. Non-destructive: 25 inch-pounds max.
Cable affixment to braid or jacket	Crimp type: hex braid crimp. Solder type: screw thread solder nut.
Cable affixment to center conductor	All types: solder only.
Captivated contact	Epoxy captivation.
Cable retention	RG-402: 60 lbs. min. RG-405: 30 lbs. min. Crimp type for RG-55, 142, 223, 400: 80 lbs. min.
Coupling nut retention force	100 pounds minimum.

MATERIAL

Principal metal parts	Type 303 stainless steel, gold-plated.
Contacts	Beryllium copper, gold-plated to .0001-inch thickness.
Plating	Center contacts .0001" gold per MIL-G-45204 Type II, Class 2. Other metal parts gold plated and meet corrosion requirements of MIL-C-39012.
Dielectric	TFE Fluorocarbon per MIL-P-19468.
Weatherproof gaskets	Silicone rubber.
Lockwashers	Phosphor bronze, internal tooth supplied with all bulkhead mounted connectors.
Crimp ferrules	Copper.
Heat-shrink tubing	Crimp connectors: thermofit plastic.

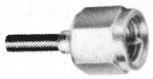
MILITARY SPECIFICATIONS

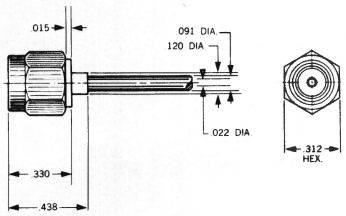
MIL-C-39012 SMA specification sheets	As applicable.

SEMI-RIGID CABLE CONNECTORS/Stainless Steel

RG-405 (.085″ Dia. Metal Jacketed) Cable/Solder Type

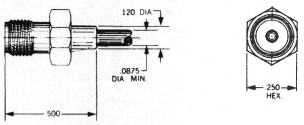
STRAIGHT PLUG
P/N 901-9201-2A



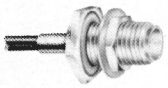


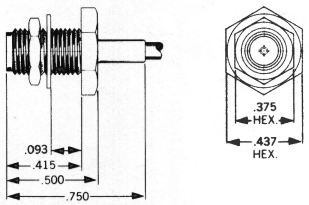
STRAIGHT JACK
P/N 901-9202-2A



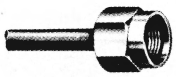


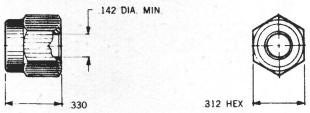
BULKHEAD MTD. JACK
P/N 901-9210-2





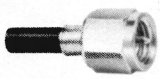
RG-402 (.141 Dia. Metal Jacketed) Cable/Solder Type





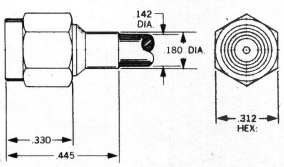
STRAIGHT PLUG
P/N 901-9183-1

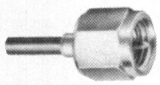
A unique solder-type plug for copper jacketed cable. It is extremely short, designed for applications where space is critical and minimum bend radius is required. This connector uses the cable center conductor and TFE insulation as its mating face.



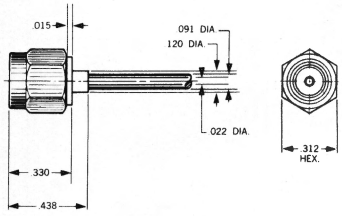
STRAIGHT PLUG
P/N 901-9201-1A

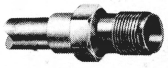
Cable center conductor & TFE insulation is mating face.



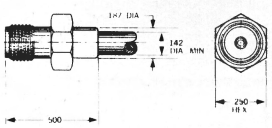


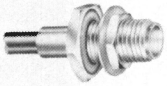
STRAIGHT PLUG
P/N 901-9207-1



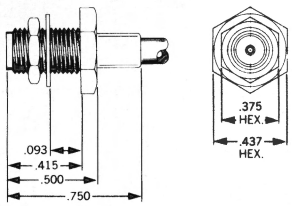


STRAIGHT JACK
P/N 901-9202-1A



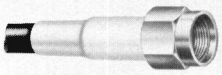


BULKHEAD MTD. JACK
P/N 901-9210-1

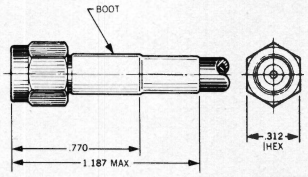


FLEXIBLE CABLE CONNECTORS/Stainless Steel

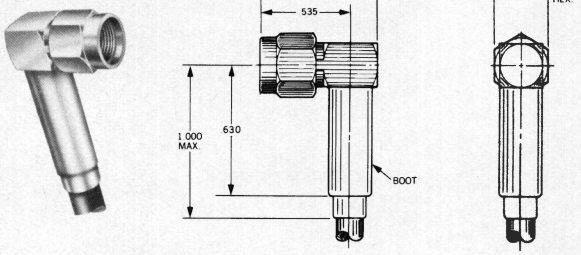
RG-55B, 58C, 141A, 142B, 223, 303, 400 CABLE/Solder Type



STRAIGHT PLUG
P/N 901-9501-1



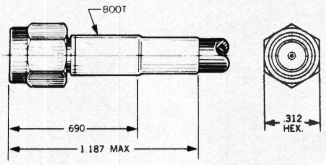
ANGLE PLUG
P/N 901-9521-1
Epoxy captivated contact.

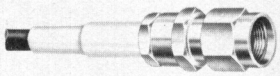


RG-55B, 142B, 223, 400 CABLE/Crimp Type

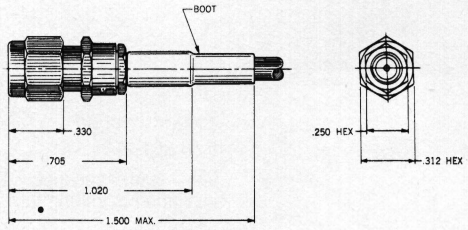


STRAIGHT PLUG
P/N 901-9511-1

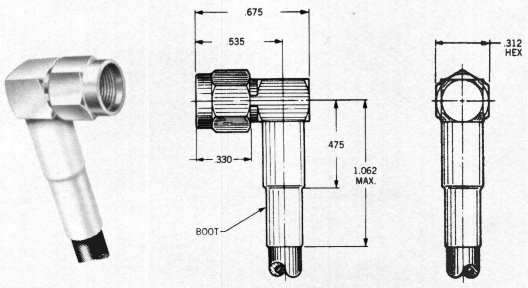




STRAIGHT PLUG
P/N 901-9601-1

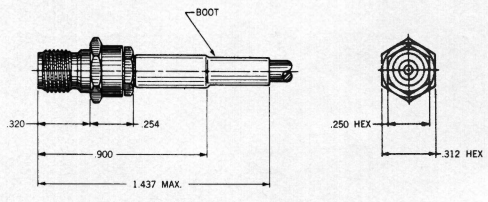


ANGLE PLUG
P/N 901-9531-1
Epoxy captivated contact.



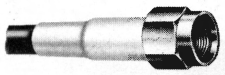


STRAIGHT JACK
P/N 901-9602-1

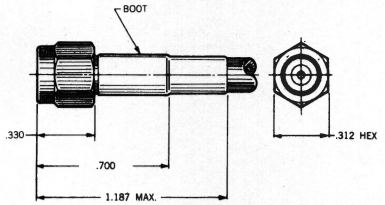


FLEXIBLE CABLE CONNECTORS/Continued

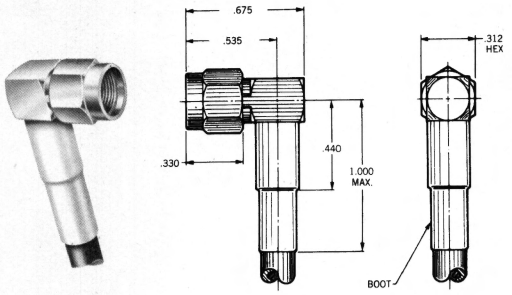
RG-174, 179B, 187A, 188A, 316/U CABLE/Solder Type



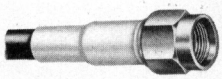
STRAIGHT PLUG
P/N 901-9501-3



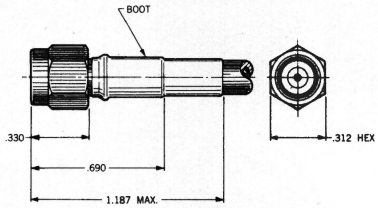
ANGLE PLUG
P/N 901-9521-3
Epoxy captivated contact.

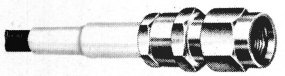


RG-174, 179B, 187A, 316/U CABLE/Crimp Type

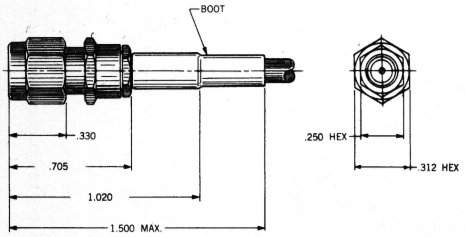


STRAIGHT PLUG
P/N 901-9511-3

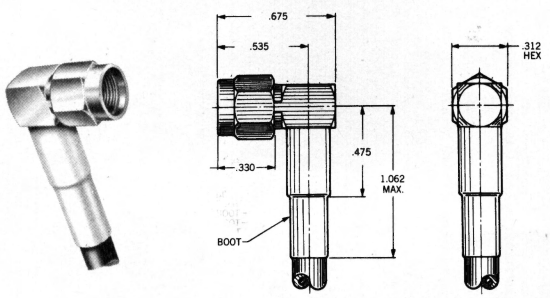


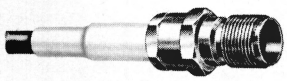


STRAIGHT PLUG
P/N 901-9601-3

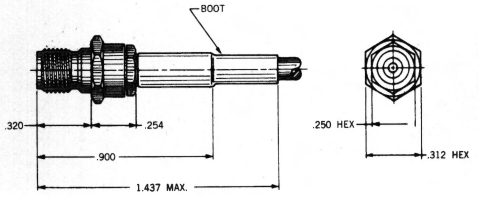


ANGLE PLUG
P/N 901-9531-3
Epoxy captivated contact.

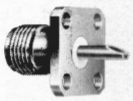




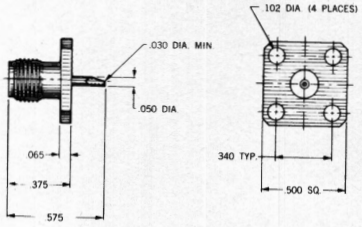
STRAIGHT JACK
P/N 901-9602-3

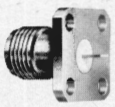


RECEPTACLES/Stainless Steel

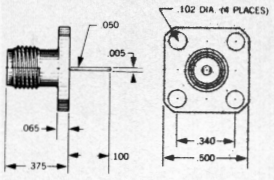


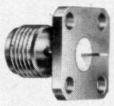
SQ. FLANGE MTD.
P/N 901-9215
Solder cup terminal exposed in rear for direct wire or cable affixment, epoxy captivated contact.



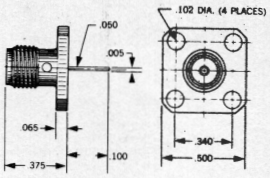


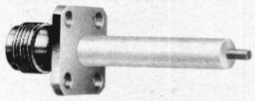
SQ. FLANGE MTD.
P/N 901-9215-3
Tab terminal.



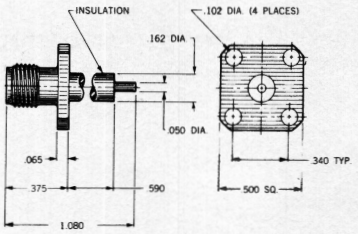


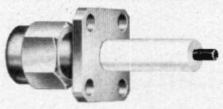
SQ. FLANGE MTD.
P/N 901-9215-3CC
Tab terminal, epoxy captivated contact.



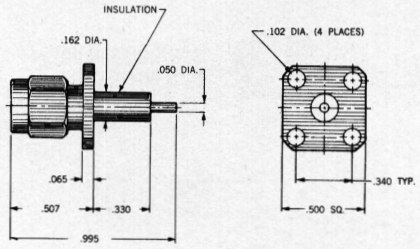


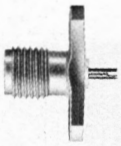
SQ. FLANGE MTD.
P/N 901-9204CC
TFE insulation and blunt terminal exposed in rear for direct substrate or circuit board affixment, epoxy captivated contact.



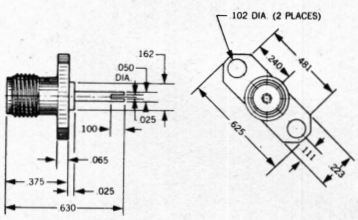


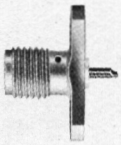
SQ. FLANGE MTD. PLUG
P/N 901-9214CC
TFE insulation and blunt terminal exposed in rear for direct substrate or circuit board affixment, epoxy captivated contact.



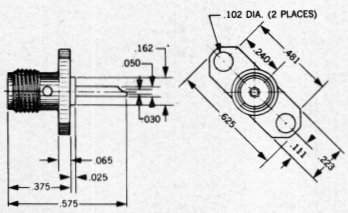


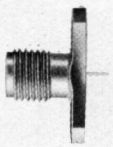
TRIM-LINE
FLANGE MTD.
P/N 901-9244-1
Slotted terminal.



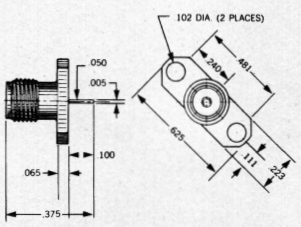


TRIM-LINE
FLANGE MTD.
P/N 901-9244-2
Solder cup terminal, epoxy captivated contact.





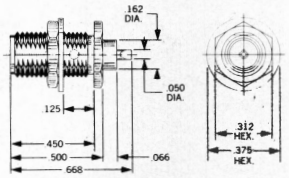
TRIM-LINE
FLANGE MTD.
P/N 901-9244-3
Tab terminal.



RECEPTACLES/Continued

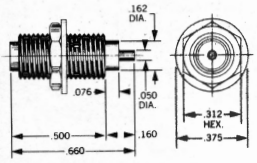


BULKHEAD MTD.
P/N 901-9211
Solder cup terminal, rear mount, epoxy captivated contact.

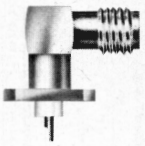


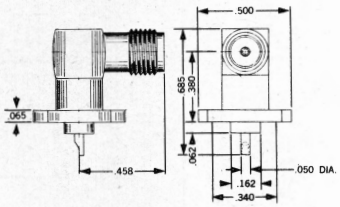


BULKHEAD MTD.
P/N 901-9220
Blunt terminal.

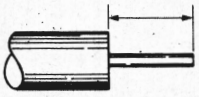
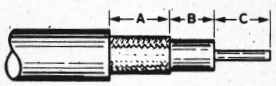


RIGHT ANGLE
SQ. FLANGE MTD.
P/N 901-9224
Solder cup terminal, epoxy captivated contact.



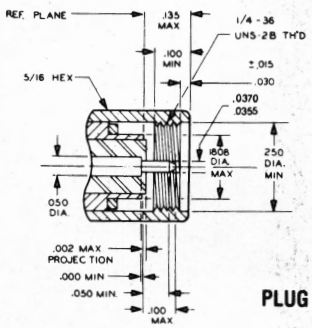


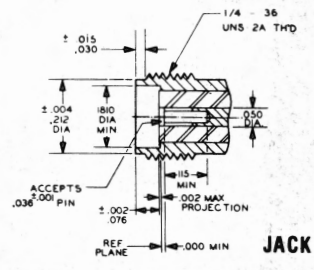
CABLE STRIPPING DIMENSIONS & CRIMP TOOL DATA

SEMI-RIGID CABLE CONNECTORS	 STRIPPING DIMENSIONS ±.005			
901-9201-1A	.090±.010			
901-9201-2A, -9202-1A & 2A, -9207-1, -9210-1 & 2	.125			
FLEXIBLE CABLE CONNECTORS				TOOL DATA ♦ DIE SET P/N
	a	b	c	
901-9501-1 & -3	.310	.040	.090	—
901-9511-1	.310	.040	.090	227-1221-11
901-9511-3	.310	.040	.090	227-1221-03
901-9521-1 & -3	.240	.107	.090	—
901-9531-1	.240	.145	.090	227-1221-11
901-9531-3	.240	.145	.090	227-1221-03
901-9601-1	.270	.230	.120	227-1221-11
901-9601-3	.270	.230	.120	227-1221-03
901-9602-1	.270	.230	.110	227-1221-11
901-9602-3	.270	.230	.110	227-1221-03

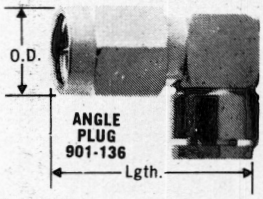
♦ Use with Tool Handle 227-944

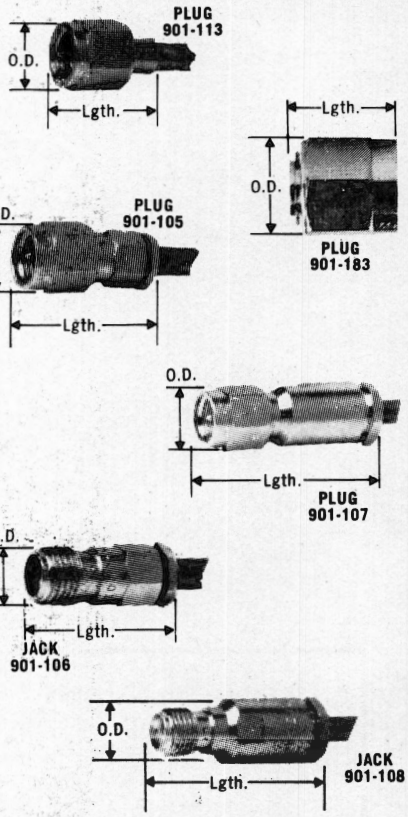
SMA Mating Face Dimensions

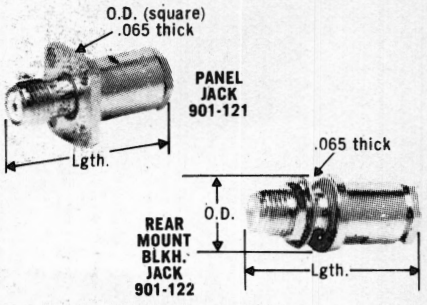


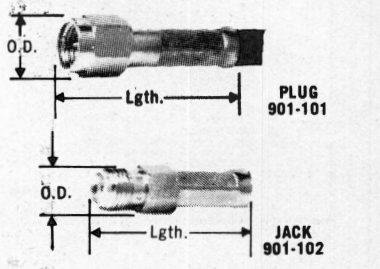


SMA SERIES









CABLE CONNECTORS/Beryllium Copper

Dimensions, inches		Cable Entry	Mtg. Hole	Config-uration	Cable Affixment	Description	Amphenol Part Number
Length	O.D.						
.085" DIA. SEMI-RIGID CABLE							
43/64	5/16 hex	.088	—	Plug	Solder	With contact & insulator	901-126
11/16	5/16 hex	.C88	—	Plug	Solder	Angle	901-136■
41/64	1/4 hex	.088	—	Jack	Solder	Straight	901-127
41/64	1/2 sq.	.088	Y	Jack	Solder	Panel mounted	901-151
41/64	7/16 hex	.088	Z	Jack	Solder	Bulkhead mounted, rear	901-158
57/64	3/8 hex	.088	X	Jack	Solder	Bulkhead mounted, rear	901-193
.141" DIA. SEMI-RIGID CABLE							
1/2	5/16 hex	.144	—	Plug	Solder	Less contact & insulator	901-113■
21/64	5/16 hex	.144	—	Plug	Solder	Less C & I, short skirt	901-183■
43/64	5/16 hex	.144	—	Plug	Solder	With contact & insulator	901-105■
21/32	5/16 hex	.144	—	Plug	Solder	Angle, with C & I	901-142
63/64	11/32 dia.	.144	—	Plug	Clamp	Less contact & insulator	901-111
63/64	11/32 dia.	.144	—	Plug	Clamp	With contact & insulator	901-107■
41/64	1/4 hex	.144	—	Jack	Solder	Straight	901-106■
41/64	1/2 sq.	.144	Y	Jack	Solder	Panel mounted	901-141
41/64	7/16 hex	.144	Z	Jack	Solder	Bulkhead mounted, rear	901-157
57/64	3/8 hex	.144	X	Jack	Solder	Bulkhead mounted, rear	901-195
59/64	11/32 dia.	.144	—	Jack	Clamp	Straight	901-108■
59/64	7/16 dia.	.144	Z	Jack	Clamp	Bulkhead mounted, rear	901-159
RG-55, 58, 141, 142, 223/U CABLE (Clamp Type)							
31/32	11/32 dia.	.219	—	Plug	Clamp	Straight	901-103
11/16	5/16 hex	.220	—	Plug	Clamp	Angle	901-130
15/16	11/32 dia.	.219	—	Jack	Clamp	Straight	901-104
15/16	1/2 sq.	.219	Y	Jack	Clamp	Panel mounted	901-121■
15/16	7/16 dia.	.219	Z	Jack	Clamp	Bulkhead mounted, rear	901-122■

Dimensions, inches		Cable Entry	Mtg. Hole	Config-uration	Cable Affixment	Description	Amphenol Part Number
Length	O.D.						
RG-55, 142, 223/U CABLE (Crimp Type)							
1 1/32	5/16 hex	.220	—	Plug	Crimp	Straight	901-101■
1	1/4 hex	.220	—	Jack	Crimp	Straight	901-102■
1	1/2 sq.	.220	Y	Jack	Crimp	Panel mounted	901-152
RG-58, 141, 303/U CABLE (Crimp Type)							
29/32	5/16 hex	.206	—	Plug	Crimp	Straight	901-109
7/8	1/4 hex	.206	—	Jack	Crimp	Straight	901-110
1	1/2 sq.	.206	Y	Jack	Crimp	Panel mounted	901-153
RG-174, 188, 316/U CABLE							
15/16	11/32 dia.	.114	—	Plug	Clamp	Straight	901-129
63/64	11/32 dia.	.114	—	Plug	Clamp	Straight	901-128
11/16	5/16 hex	.114	—	Plug	Clamp	Angle	901-140
RG-180, 195/U CABLE							
63/64	11/32 dia.	.158	—	Plug	Clamp	Straight	901-139
3/4	5/16 hex	.175	—	Plug	Crimp	Straight	901-192
15/16	1/2 sq.	.158	Y	Jack	Clamp	Panel mounted	901-220
DOUBLE BRAIDED RG-188 TYPE (.126 Max. Dia.)							
63/64	11/32 dia.	.130	—	Plug	Clamp	Straight	901-174
11/16	5/16 hex	.130	—	Plug	Clamp	Angle	901-172
1 3/32	3/8 hex	.130	X	Jack	Clamp	Bulkhead mounted, rear	901-173

■ Illustrated

RECEPTACLES Beryllium Copper

STRIP TRANSMISSION LINE

Dimensions, inches: Length	Dimensions, inches: O.D.	Dimensions, inches: Max. Panel Thickness	□ Mtg. Hole	Description	Amphenol Part Number
.548	9/16 dia.	—	U	Plug for .031 board	901-132-1
.580	9/16 dia.	—	U	Plug for .063 board	901-132-2
.642	9/16 dia.	—	U	Plug for .125 board	901-132-3
47/64	1/4 dia.	—	U	Angle jack .031 board	901-133-1
47/64	1/4 dia.	—	U	Angle jack .063 board	901-133-2
47/64	1/4 dia.	—	U	Angle jack .125 board	901-133-3
.416	9/16 dia.	—	U	Jack for .031 board	901-131-1
.448	9/16 dia.	—	U	Jack for .063 board	901-131-2
.510	9/16 dia.	—	U	Jack for .125 board	901-131-3
.416	13/32 dia.	—	V	Jack for .031 board	901-182-1
.448	13/32 dia.	—	V	Jack for .063 board	901-182-2■
.510	13/32 dia.	—	V	Jack for .125 board	901-182-3

PRINTED CIRCUIT RECEPTACLES

17/32	1/4 sq.	5/32 pins	T	Straight receptacle	901-144
.585	1/4 sq.	5/32 pins	T	Angle receptacle	901-143

RECEPTACLES/PANEL MOUNTED (Standard Square Flange)

15/64	1/2 sq.	—	Y	.590 insulated blunt terminal	901-176-1
15/64	1/2 sq.	—	Y	with captivated contact	901-176-2
1	1/2 sq.	—	Y	Plug, .330 insulated blunt terminal	901-196-1
1	1/2 sq.	—	Y	with captivated contact	901-196-2
15/32	1/2 sq.	—	Y	Tab terminal	901-197-1
15/32	1/2 sq.	—	Y	with captivated contact	901-197-2
9/16	1/2 sq.	—	Y	Solder cup, captivated contact	901-112■
45/64	1/2 sq.	—	Y	Angle solder cup	901-124

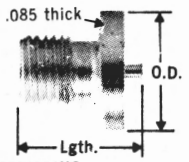
RECEPTACLES/PANEL MOUNTED (Trim-Line Flange)

5/8	5/8	—	W	Slotted terminal	901-213
37/64	5/8	—	W	Solder cup, captivated contact	901-214
15/32	5/8	—	W	Tab terminal	901-215-1■
15/32	5/8	—	W	with captivated contact	901-215-2

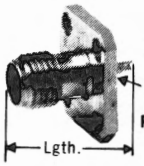
RECEPTACLES/BULKHEAD MOUNTED

21/32	7/16 dia.	.103	Z	Rear, solder cup, gasket	901-116■
21/32	7/16 dia.	.103	Z	Rear, solder cup	901-134
43/64	5/16 hex	.125	X	Rear, solder cup	901-190
21/32	7/16 dia.	.103	Z	Rear, hermetic, flat & pierced	901-161
11/16	7/16 dia.	.103	Z	Front, hermetic, flat & pierced	901-162
11/16	7/16 dia.	.103	Z	Front, solder cup, gasket, cc	901-117■
21/32	5/16 hex	—	1/4-36	Front, blunt terminal, 1/4-36 thread, cc	901-206

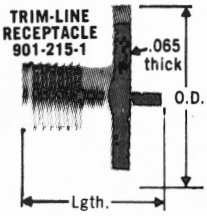
SMA SERIES

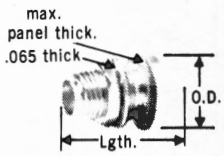


STRIPLINE JACK 901-182-2

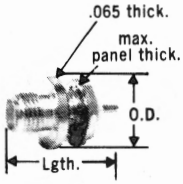


RECEPTACLE 901-112





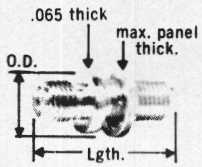
REAR MOUNT RECEPTACLE 901-116



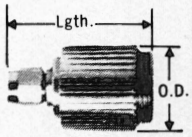
FRONT MOUNT RECEPTACLE 901-117

□ Mtg. Hole Dimensions on Following Page.

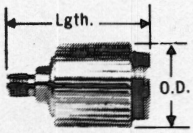
SMA SERIES



ADAPTER
901-120

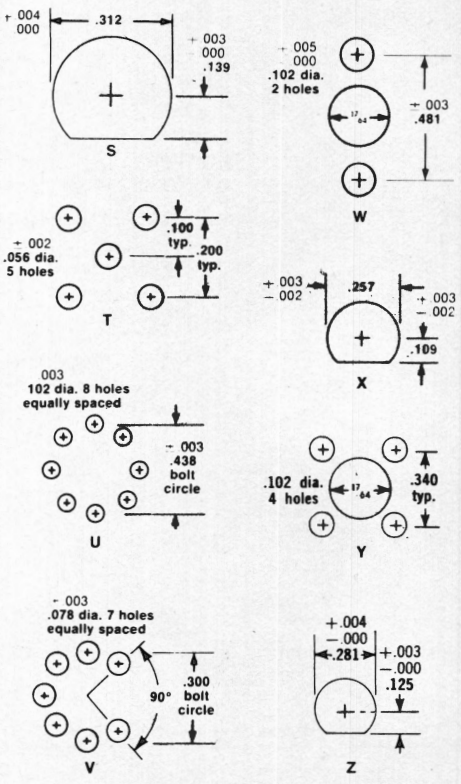


APC-7
ADAPTER
131-1028



APC-7
ADAPTER
131-1038

SMA MTG. HOLE DIMENSIONS



ADAPTERS

Dimensions, inches			Mtg. Hole	Description	Amphenol Part Number
Length	O.D.	Max. Panel Thickness			
ADAPTERS WITHIN SERIES					
57/64	5/16 hex	—	—	Straight, plug-plug	901-118
19/32	1/4 dia.	—	—	Straight, jack-jack	901-119
13/16	3/8 dia.	.103	Z	Bulkhead, jack-jack	901-120■
7/8	3/8 hex	.250	Z	Bulkhead, jack-jack	901-191
7/8	7/16 hex	.187	S	Bulkhead, herm., jack-jack	901-160
5/8	5/16 hex	—	—	Angle, plug-jack	901-125
ADAPTERS BETWEEN SERIES					
1 11/32	13/16	—	—	APC-7 — SMA jack	131-1028■
1 3/8	13/16	—	—	APC-7 — SMA plug	131-1038■
1 3/4	13/16	—	—	APC-N plug — SMA plug	131-1074
1 5/8	13/16	—	—	APC-N plug — SMA jack	131-1075
1 23/64	5/8	—	—	APC-N-jack — SMA plug	131-1076
1 19/32	5/8	—	—	APC-N jack — SMA jack	131-1077
1 3/32	9/16	—	—	BNC plug — SMA plug	901-164
1 1/16	9/16	—	—	BNC plug — SMA jack	901-165
1 5/32	9/16	—	—	BNC jack — SMA plug	901-166
1 1/8	9/16	—	—	BNC jack — SMA jack	901-167
1 1/8	19/32	—	—	TNC plug — SMA plug	901-168
1 3/32	19/32	—	—	TNC plug — SMA jack	901-169
1 5/32	9/16	—	—	TNC jack — SMA plug	901-170
1 1/8	9/16	—	—	TNC jack — SMA jack	901-171

ACCESSORIES

CAP AND CHAIN P/N 901-163. Non shorting, plug, 29/64 long by 5/16 hex, 2″ long chain with .130 dia. eyelet.

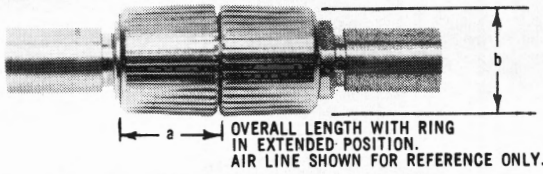
TOOL KIT P/N 901-2500. Contains recommended jacket and dielectric trim tools for precise cable preparation required to obtain the electrical performance specified. Accessory Tool P/N 901-2400 available for Cujak center conductor trimming.

CABLE ASSEMBLIES. Custom semi-precision cable assemblies are available with .141″ and .085″ dia. semi-rigid Cujak cable fitted with SMA connectors. Contact factory with your specifications.

■ Illustrated

Series 131 Precision 7mm Connectors TWO DISTINCTLY DIFFERENT LINES

— APC-7 with sexless coupling



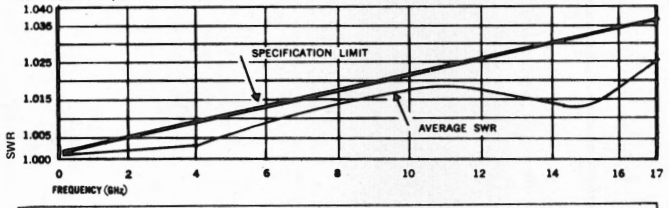
APC-7. Precision 50-ohm connector for use with 7mm (inner diameter of outer conductor) rigid air line and semi-rigid (ALJAK) coaxial cable.

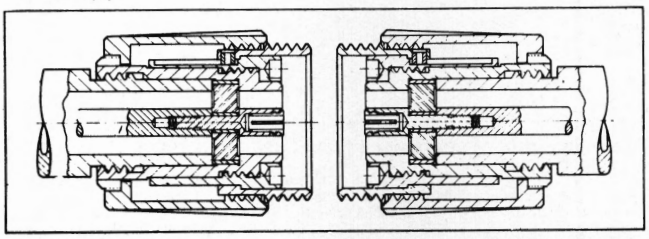
Sexless coupling permits interconnection of any two APC-7's. Identical plane of electrical and mechanical contact permits accurate determination of the electrical length of a mated pair or of an air line assembly with a connector at each end. All components held captive.

Connectors packaged in pairs in protective wooden box; assembly instructions and certified SWR test report included with each pair.

Specially designed for microwave and precision test equipment — Component manufacturers now using APC-7 fittings include: Alford, Alfred, EG&G, Hewlett-Packard, Maury Microwave, Microlab/FXR, Narda, PRD, Rantec, and Weinschel Engineering, Omni Spectra, Midwest Microwave.

SWR: Connector pins are tested and certified to have a SWR less than the limit shown by the following curve:





APC-7 components. Both connectors are identical and completely sexless.

CHARACTERISTICS (TYPICAL)

ELECTRICAL (for mated pair): **Impedance:** 50 ohm ±0.1 ohms. **Frequency Range:** 0-18 GHz. **SWR:** 1.039 max. to 18 GHz. **Insertion loss (in db):** $< 7 \times 10^{-3} \sqrt{\text{Freq. GHz}}$ (example: 0.028 db at 16.0 GHz). **RF Leakage:** < signal inside coaxial line by ratio > 120 db▲. **Electrical length:** 0.723 ±0.001 inches (1.836 ±.00254 cm). **Contact Resistance:** inner: < 1.0 milliohm, outer: < 0.1 milliohm.

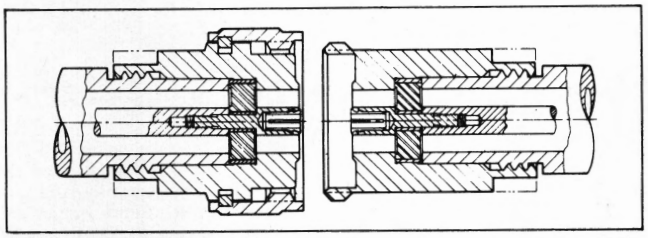
▲ RF leakage: Until satisfactory test methods are developed, the maximum frequency of measurement is limited to 6.0 GHz.

ENVIRONMENTAL: **Thermal Limits:** storage: −67° to 158°F (−55° to 70°C) operating: 55° to 91°F (13° to 33°C). **Humidity:** 20 to 80% RH. **Pressure:** 590 to 780 mm Hg. MECHANICAL: **Mating:** sexless, coplanar by means of threaded ring housed within coupling nut. **Life:** > 5000 connect/disconnect operations. MATERIAL: **Coupling Mechanism:** stainless steel. **Body:** gold plated beryllium copper. **Center Contact:** gold plated beryllium copper. **Bead Assembly:** Rexolite insulation.

For use with	APC-7 Maximum SWR for a mated pair	APC-7 (13/16" max. dia.) (b) Part No.	Lgth. (in.) (a)
7mm Air Line	1.039 to 18 GHz	131-1050	5/64
131-182 (.325 dia. semi-rigid cable)	1.10 to 12.4 GHz	131-1019	1 53/64
.250 dia. semi-rigid cable	1.10 to 12.4 GHz 1.13 to 18 GHz	131-10020	1 61/64
RG-214/U	1.15 to 12.4 GHz Crimp	131-1031	2 7/32
	1.15 to 12.4 GHz Clamp	131-1032	2 19/32
Launcher with tab .062" long x .005" thick and flange 1" x ½", 4 holes .116" dia.		131-1095	1 5/8

TOOL KIT 131-2025

For disassembly; assembly to air line. Contains collet extractor, spanner wrench, torque wrench & line wrench.



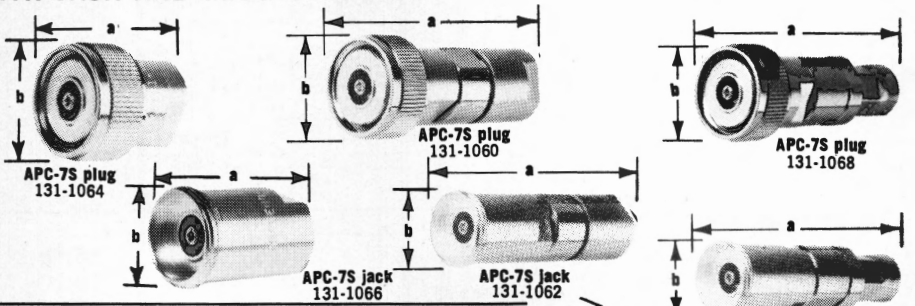
APC-7S components. Center contact, sexless; female threads on Jack; male coupling ring on Plug.

— APC-7S Economy Family WITH JACK AND PLUG COUPLING

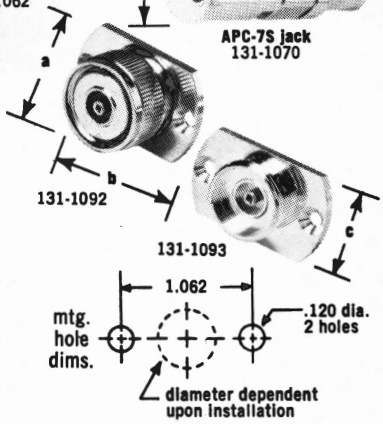
APC-7S was created to meet the need for an economical but equally precise connector. Except for the coupling mechanism all other characteristics are identical to APC-7. Performance is equal, yet APC-7S costs almost two-thirds less than the original precision 7mm connector.

CHARACTERISTICS (Same as APC-7 except:)

MECHANICAL: Mating: 11/16-24 threaded coupling. APC-7S plug and jacks also mate with APC-7 connectors. **MATERIAL:** Same as APC-7 except: Coupling nut: nickel plated brass.



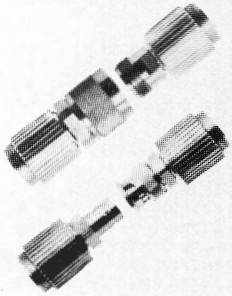
For use with	APC-7S Maximum SWR for a mated pair	Plugs (13/16" max. dia.) (b) Part No.	Lgth. (in.) (a)	Jacks (11/16" max. dia.) (b) Part No.	Lgth. (in.) (a)
7mm Air Line	1.039 to 18 GHz	131-1064	13/16	131-1066	15/16
131-182 (.325 dia. semi-rigid cable)	1.10 to 12.4 GHz	131-1060	1 51/64	131-1062	1 29/64
.250 dia. semi-rigid cable	1.10 to 12.4 GHz 1.13 to 18 GHz	131-10024	1 15/16	131-10025	2 1/32
.141" dia. semi-rigid cable	1.10 to 18 GHz	131-1102	1 1/16	—	—
RG-214/U	1.150 to 12.4 GHz Crimp	131-1068	2 7/64	131-1070	2 7/32
	1.150 to 12.4 GHz Clamp	131-1072	2 19/32	131-1073	2 11/16



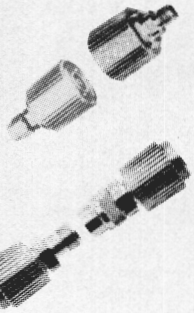
PANEL RECEPTACLES

Configuration	Maximum SWR for a mated pair	Part No.	Dimensions a	b	c
Plug	1.039 to 18 GHz	131-1092	13/16	15/16	13/16
Jack	1.039 to 18 GHz	131-1093	5/16	15/16	13/16

Precision Adapters For APC-7

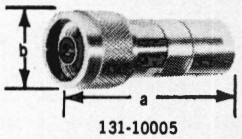


	Part No.	Maximum SWR For a Single Adapter	Dimens., Ins. Length	O.D.
APC-7 TO N				
female	131-1025	1.03 @ 4 GHz	1 43/64	13/16
male	131-1035	1.04 @ 9 GHz 1.08 @18 GHz	1 13/16	13/16
APC-7 TO BNC				
female	131-1027	1.035@ 4 GHz	1 39/64	13/16
male	131-1037	1.045@ 9 GHz 1.08 @12 GHz 1.12 @18 GHz	1 33/64	13/16



	Part No.	Maximum SWR For a Single Adapter	Dimens., Ins. Length	O.D.
APC-7 TO SMA				
female	131-1028	1.07 @12.4 GHz	1 11/32	13/16
male	131-1038	1.15 @18 GHz	1 3/8	13/16
APC-7 TO TNC				
female male	131-1026 131-1036	same as BNC	1 39/64 1 3/4	13/16 13/16

Series 131 Precision N Connectors — APC-N



131-10005



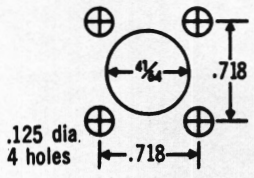
131-10006



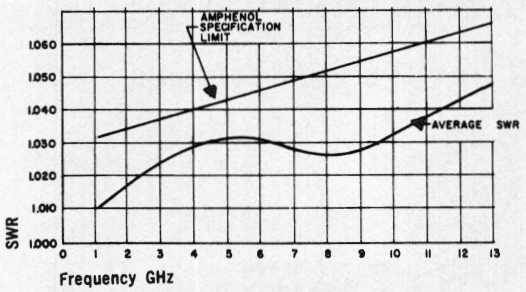
131-10003



131-10004



APC-N, 50-ohm connectors. Use interchangeably with APC-7; mate with all other type N's. Their excellent electrical performance will make them an "industry standard" for future equipment. SWR for mated pairs: only 1.06 through 12 GHz; 1.08 through 18 GHz.



CHARACTERISTICS (TYPICAL)

ELECTRICAL (for mated pair APC-N connectors). **Impedance:** 50 ohm ±0.2 ohms. **Frequency Range:** 0-18 GHz. **SWR:** 1.08 max. to 18 GHz. **Insertion Loss (in db):** $< 3 \times 10^{-2} \sqrt{\text{Freq. GHz}}$. **RF Leakage:** < signal inside coaxial line by ratio > 90 db▲. **Contact Resistance:** inner: < 1.0 milliohm; outer: < 1.1 milliohm.

▲**RF Leakage:** Until satisfactory test methods are developed, the maximum frequency of measurement is limited to 6.0 GHz.

ENVIRONMENTAL: **Thermal Limits:** storage: −67 - 158°F (−55 - 70°C); operating: 55 - 91°F (13 - 33°C). **Humidity:** 20 to 80% RH. **Pressure:** 590 to 780 mm Hg.

MECHANICAL: **Mating:** 5/8-24 threaded coupling. Mating dimensions are MIL-C-39012 Class II nominal with tighter tolerances. The APC-N mates with all existing Type N connectors including MIL-C-71.

MATERIAL: **Body and Coupling Nut:** stainless steel. **Center Contacts:** gold plated beryllium copper. **Bead Assembly:** Rexolite Insulation.

		APC-N					
		Plugs (13/16" max. dia.) (b)		Jacks (5/8" max. dia.) (b)		Panel Jacks (1" sq. fl.)	
For use with	Maximum SWR for a mated pair	Part No.	Lgth. (in.) (a)	Part No.	Lgth. (in.) (a)	Part No.	Lgth. (in.) (a)
7mm Air Line	1.08 to 18 GHz	131-10003	1 1/64	131-10004	1 1/32	—	—
131-182 (.325 dia. semi-rigid cable)	1.125 to 12.4 GHz	131-10005	2 5/32	131-10006	2 3/16	131-10013	2 1/8
.250 dia. semi-rigid cable	1.125 to 12.4 GHz 1.19 to 18 GHz	131-10021	2 3/8	131-10022	2 7/32	131-10023	2 7/32
.141 dia. semi-rigid cable	1.125 to 18 GHz	131-1103	1 21/32	—	—	—	—
RG-214/U	1.175 to 12.4 GHz Crimp	131-10009	2 27/64	131-10010	2 7/8	131-10014	2 7/8
	1.175 to 12.4 GHz Clamp	131-10011	2 29/64	131-10012	2 7/8	131-10015	2 7/8

BUNKER RAMO AMPHENOL RF PRODUCTS

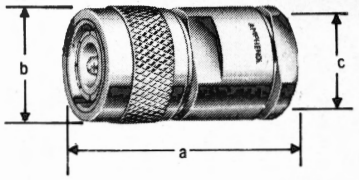
C SERIES

Series C connectors are medium size, weatherproof types of constant 50 ohm impedance with two-stud bayonet lock coupling. Standard connectors have a peak voltage rating of 1500 volts and provide good electrical performance up to 10GHZ. As noted, 4000 volt units are available with good performance up to 2GHZ.

STRAIGHT PLUGS

Teflon Insulation • Male Contacts • Weatherproof • 50 Ohm Impedance

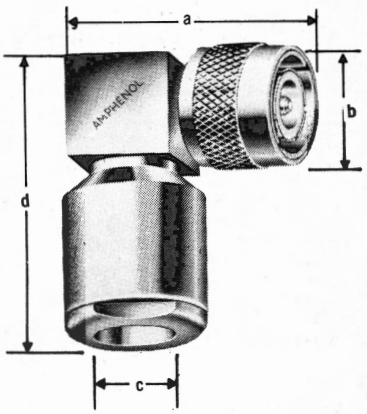
RG-( )/U Cable	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c		Notes	Amphenol Part Number
5, 21, 143, 212, 222	UG626A/U	1 31/64	3/4	.343		—	80025
8, 9, 87, 213, 214, 225	UG573A/U	1 31/64	3/4	.444		▲	82-530
	UG628A/U	1 3/4	3/4	.444		4000 Volts Peak▲	82-532
10, 12, 116, 215, 227	UG943A/U	2 1/8	3/4	—		MX-1286/U Armor Clamp▲	82-538
14, 217	UG707A/U	1 1/16	7/8	.569		—	82-533
17, 218	UG708A/U	2 5/32	1 5/16	.900		—	80075
55, 58, 141, 142, 223	UG709A/U	1 3/8	3/4	.219		—	82-534
59, 62, 71, 140, 210	—	1 1/16	3/4	.257		4000 Volts Peak	80375
	UG627A/U	1 11/32	3/4	.257		—	82-548
63, 114	—	1 31/64	3/4	.444		—	80300
117, 118	UG711A/U	2 5/32	1 5/16	.750		—	80200



ANGLE PLUGS

Teflon Insulation • Male Contacts • Weatherproof • 50 Ohm Impedance

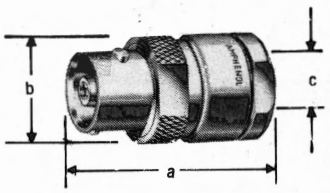
RG-( )/U Cable	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c		Notes	Amphenol Part Number
8, 9, 87, 213, 214, 225	UG710A/U	1 3/8	3/4	.444		▲	82-531
55, 58, 141, 142, 143	—	1 5/16	3/4	.219		—	80775



STRAIGHT JACKS

Teflon Insulation • Female Contacts • Weatherproof • 50 Ohm Impedance

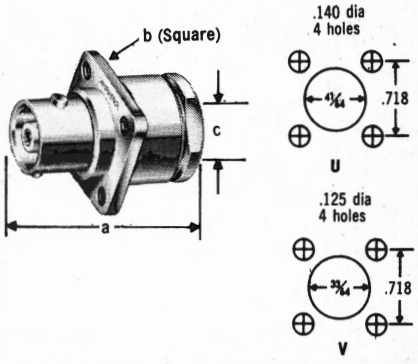
RG-( )/U Cable	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c		Notes	Amphenol Part Number
8, 9, 87, 213, 214, 225	UG572/U	1 13/32	3/4	.444		▲	82-503
55, 58, 141, 142, 223	—	1 1/4	5/8	.219		—	81575
59, 62, 71, 140, 210	—	1 1/4	5/8	.257		—	81550



PANEL JACKS

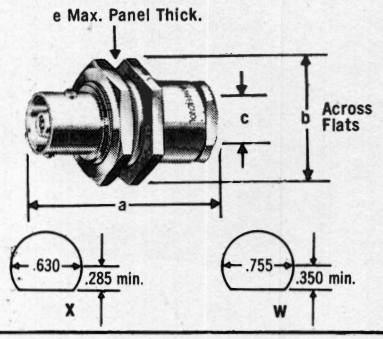
Teflon Insulation • Female Contacts • Weatherproof • 50 Ohm Impedance
#6-32 Tapped Flange Holes • Rear Mounted

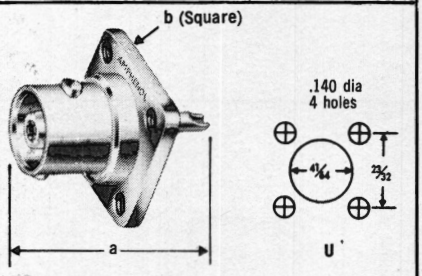
RG-( )/U Cable	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c		Mtg. Hole	Notes	Amphenol Part Number
8, 9, 87, 213, 214, 225	UG571/U	1 13/32	1	.444		U	▲	82-501
10, 12, 116, 215, 227	UG938/U	2	1	—		U	MX-1286/U Armor Clamp▲	82-523
14, 217	—	2	1	.564		U	—	81275
55, 58, 141,142	—	1 1/4	1	.212		U	—	74675
	—	1 1/4	1	.212		V	.125 dia. Flange Holes Front Mounting	81150
59, 62, 71, 140, 210	—	1 1/4	1	.257		V	.125 dia. Flange Holes Front Mounting	81100

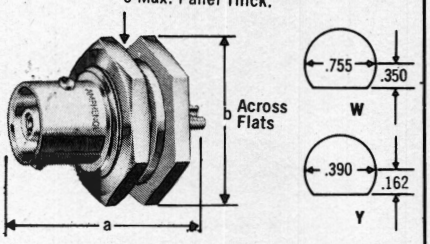


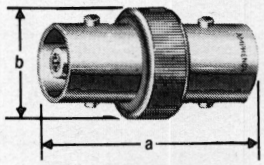
▲Amphenol adapter kit. ▲82-888 will adapt connector for use with ALJAK/CUJAK metal jacketed cables.

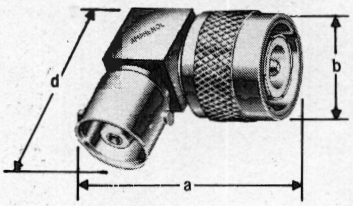
C SERIES

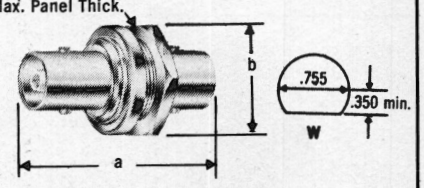


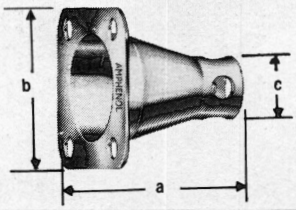












BULKHEAD JACKS

Teflon Insulation • Female Contacts • Weatherproof • 50 Ohm Impedance • Rear Mounted

RG-( )/U Cable	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c	e		Mtg. Hole	Notes	Amphenol Part Number
8, 9, 87, 213, 214, 225	UG570/U	1 19/32	1	.444	.140		W	▲	82-502
	UG632/U	1 11/16	1	.444	.140		W	4000 Volts Peak▲	82-521
55, 58, 141, 142	UG704/U	1 1/4	3/4	.214	.203		X	Front Mounting	81175
	—	1 7/8	1	.214	.140		W	Herm. Sealed Glass-Teflon Insul.	81425
59, 62, 71, 140, 210	—	1 15/32	3/4	.257	.203		X	4000 Volts Peak Front Mounting	81600

PANEL RECEPTACLES

Teflon Insulation • Female Contacts • Weatherproof • 50 Ohm Impedance

Military Part Number	Dimensions, inches a	b		Mtg. Hole	Notes	Amphenol Part Number
UG568/U	1 3/32	1		U	#6-32 Tapped Flange Holes	82-504
—	1 5/16	1		U	4000 Volts Peak/.152 dia. Flange Holes	82275

BULKHEAD RECEPTACLES

Teflon Insulation • Female Contacts • Weatherproof • 50 Ohm Impedance • Rear Mounted

Military Part Number	Dimensions, inches a	b	e		Mtg. Hole	Notes	Amphenol Part Number
UG569/U	1 3/32	1	.156		W	—	82-505
UG705/U	1 7/16	1	.218		W	Herm. Sealed/Glass-Teflon Insul.	82-511
UG634/U	1 5/16	1	.156		W	4000 Volts Peak	82-515
UG706/U	1 5/32	9/16	.140		Y	Front Mounting	82125

ADAPTERS • Teflon Insulation • Weatherproof

Military Part Number	Dimensions, inches a	b	c	Mtg. Hole	Adapter Ends	Config-uration	Notes	Amphenol Part Number
UG643/U	1 9/32	3/4	—	—	J-J	Straight	Non-Weatherproof	82-514
UG642A/U	1 29/64	3/4	—	—	P-P	Straight	—	83150
UG567A/U	1 1/4	49/64	1 1/4	—	J-P	Angle	Non-Weatherproof	82-535
UG701/U	1 9/16	1	.203	W	J-J	Blkd.	Hermetic	83050
—	2 1/32	1	.203	49/64	J-J	Blkd.	Herm., 4,000 Volts	82250
UG566A/U	1 33/64	49/64	1 21/64	—	J-P-J	Tee	—	82-536

CAPS • Weatherproof

Military Part Number	Cap Length	Chain Length	Notes	Amphenol Part Number
MX1142	51/64	2½	Male	82-512
—	7/8	3½	Male, Shorting Male Contact	83675
MX1143	27/32	3½	Female	82-513
—	13/16	3½	Female, Shorting Female Contact	83700
—	1 5/16	3½	Male, Resistor Terminated *	83925

* To order without resistor, add -1 to part number: to order with resistor, add resistor value to part number. ½ watt 5% resistor values (ohms) stocked: 47, 51, 75, 82, 91, 100, 120, 130, 150, 180, 240, 270, 300, 470, 510, 560, 680, 750, 820, 1000, 1500, 3900, 4700, 10000, 150000

HOODS/Non-weatherproof

Military Part Number	Dimensions, inches a	b	c		Notes	Amphenol Part Number
—	3/4	1	11/32		Four .149 dia. Holes, .719 Centers	82-510

▲Amphenol adapter kit ▲82-888 will adapt connector for use with ALJAK/CUJAK metal jacketed cables.

SC SERIES

Series SC are medium size, weatherproof constant 50 ohm impedance connectors with threaded coupling. Standard connectors have a peak voltage rating of 1500 volts and provide good electrical performance up to 10 GHz.

These connectors are manufactured to M39012/35 meeting mechanical and electrical requirements of Limited Coordination Specification as generated by the Air Force.

STRAIGHT PLUGS

Captivated Contacts • Crimp-Crimp • Teflon Insulation • Safety Wire Holes

RG-( )/U Cable	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c	Stock Code *	Notes	Amphenol Part Number
9, 214, 225, 393	M39012/35-0501	1 11/16	53/64	.444	N	Crimp with 227-944/1221-25	82-4450
142B, 400	M39012/35-0503	1 11/16	53/64	.195	N	Crimp with 227-944/1221-57	82-4451

ANGLE PLUGS

Captivated Contacts • Crimp-Crimp • Teflon Insulation • Safety Wire Holes

9, 214, 225, 393	M39012/39-0501	1 1/2	53/64	.444	N	2 1/8" long. Crimp with 227-944/1221-25	82-4474
142B, 400	M39012/39-0503	1 1/2	53/64	.195	N	2 1/8" long. Crimp with 227-944/1221-57	82-4475

STRAIGHT JACKS

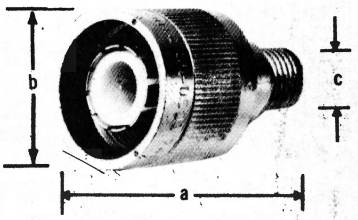
Captivated Contacts • Crimp-Crimp • Teflon Insulation

9, 214, 225, 393	M39012/36-0501	1 5/16	11/16	.444	N	Crimp with 227-944/1221-25	82-4457
142B, 400	M39012/36-0502	1 5/16	11/16	.195	N	Crimp with 227-944/1221-57	82-4458

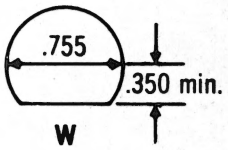
BULKHEAD JACKS

Captivated Contacts • Crimp-Crimp • Teflon Insulation

9, 214, 225, 393	M39012/40-0501	1 31/32	11/16	.444	N	5/16" max. panel thickness, mtg. hole W. Crimp with 227-944/1221-25	82-4454



a Dim. includes outer ferrule not on illustration

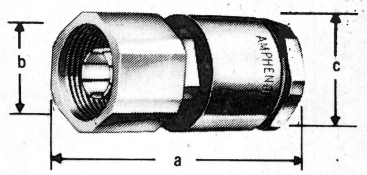


LC SERIES

Series LC connectors are large, 50 ohm constant impedance, weatherproof types designed for high voltage applications. Frequency range is 1GHz and voltage rating is 5000 volts peak.

STRAIGHT PLUGS/Male Contacts • Weatherproof • 50 Ohm Impedance

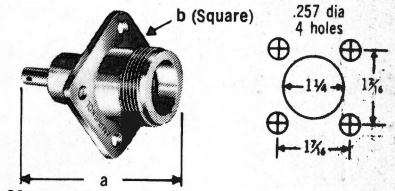
RG-( )/U Cables	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c	Clamp Gasket		Notes	Amphenol Part Number
17, 18	UG154/U	3 1/16	1 1/2	1	Syn. Rubber		Uses Cable Center Conductor and Insulation	82-59



82-59

PANEL RECEPTACLES/Female Contacts • Weatherproof • 50 Ohm Impedance

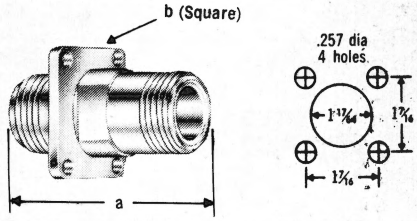
Military Part Number	Dimensions, inches a	b	Insulation		Notes	Amphenol Part Number
UG352/U	2 1/4	2	Teflon		—	82-80
UG352A/U	3 3/16	2	Rexolite		Pressurized	82-110



82-80

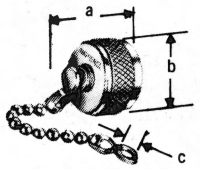
PANEL ADAPTERS/Polystyrene Insulation • Weatherproof • 50 Ohm Impedance

Military Part Number	Dimensions, inches a	b	Adapter Ends		Notes	Amphenol Part Number
UG287B/U	2 1/2	2	Jack-Jack		—	51525



MALE CAP/Weatherproof

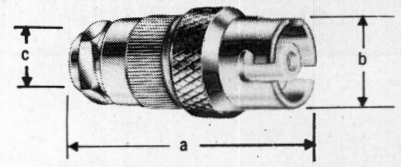
Dimensions, inches a	b	c	Chain Length f		Notes	Amphenol Part Number
23/32	1 3/8	.281	4 3/4		—	14825



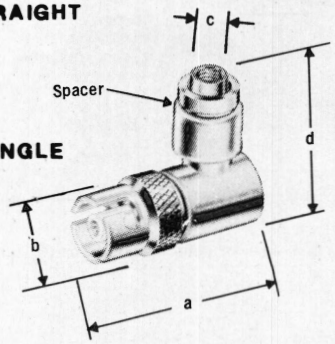
14825

BUNKER RAMO AMPHENOL RF PRODUCTS

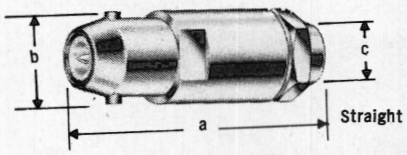
MB SERIES

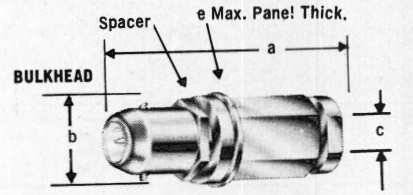


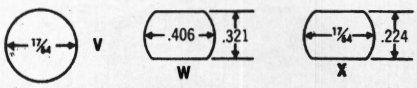
STRAIGHT

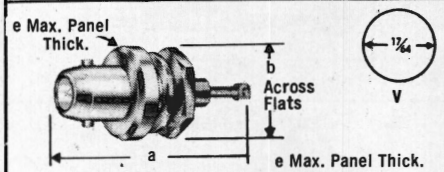


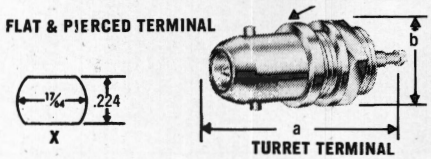
ANGLE



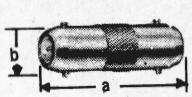




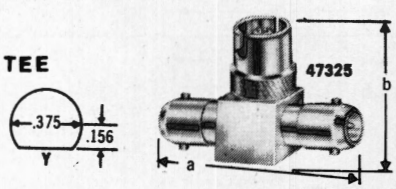




STRAIGHT



TEE



MB series are very small bayonet-lock connectors which are used with subminiature and miniature cables. These connectors offer good electrical and mechanical performance at low cost. They are non-constant impedance connectors and have a peak voltage rating of 500 V and a frequency limit of 500 MHZ.

Solderless contacts are available in some connectors, as noted and are merely assembled to the center conductor (friction fit).

Crimp designs are offered which require only a simple pair of standard pliers for the crimping operation.

PLUGS

Non-constant impedance • Female contacts • Non-weatherproof

RG-( )/U Cable	Dimensions, inches a	b	Max. Cable O.D. c	Construction	Insulation		Notes	Amphenol Part Number
55, 58, 141, 152	31/32	3/8	.214	Jacket Clamp	Kel-F		—	49200
58, 141	23/32	3/8	.203	Standard Clamp	Kel-F		—	45525
58	23/32	3/8	.203	Standard Clamp	Nylon		Solderless Contact	45000
59,62, 140, 210	27/32	3/8	.255	Standard Clamp	KEL-F		—	44800
122, 180, 195	23/32	3/8	.177	Standard Clamp	Nylon		—	45075
180, 195	25/32	3/8	.158	Crimp	Kel-F		—	48850
174, 179, 187,188	13/16	3/8	.126	Crimp	Kel-F		—	44950
	25/32	3/8	.119	Crimp	Kel-F		—	48825
	3/4	3/8	.119	Crimp	Kel-F		Angle	48800

JACKS

Non-constant Impedance • Male Contacts • Non-weatherproof • Rear Mounting

RG-( )/U Cable	Dimensions, Inches a	b	Max. Cable O.D. c	With Spacer e	W.O. Spacer e	Construction	Insu-lation	Mtg. Hole	Notes	Amphenol Part Number
58, 141	3/4	5/16	.203	.119	25/32	Std Clamp	Kel-F		Straight	46700
174, 179, 187, 188	3/4	5/16	.119			Crimp	Kel-F		Straight	48950
58,141	25/32	5/16	.203	.080	.130	Std. Clamp	Nylon	V	Bulkhead	46200
59, 62, 140, 210	15/64	11/32	.255	.080	.130	Jacket Clamp	Kel-F	X	Bulkhead	46875
122, 180, 195	25/32	5/16	.177	.080	.130	Std. Clamp	Nylon	V	Bulkhead	46375
180, 195	13/16	9/32	.119	.080	.130	Crimp	Kel-F	V	Bulkhead	48925
174, 179, 187, 188	27/32	7/16	.158	.171	—	Crimp	Kel-F	W	Bulkhead	49700

BULKHEAD RECEPTACLES

Non-constant Impedance • Male Contacts • Non-weatherproof • Front Mounted

Dimensions, inches a	b	e	Insulation	Terminal	Mtg. Hole		Notes	Amphenol Part Number
11/16	5/16	.125	Kel-F	Turret	V		—	45925
29/32	7/16	.156	Glass-Teflon	Flat & Pierce	V		Hermetically Sealed	45975
11/16	5/16	.140	Nylon	Turret	V		—	46000
11/16	5/16	.125	Kel-F	Turret	X		—	46025
11/16	5/16	.140	Nylon	Turret	V		—	46175
11/16	5/16	.125	Teflon	Turret	V		—	53475

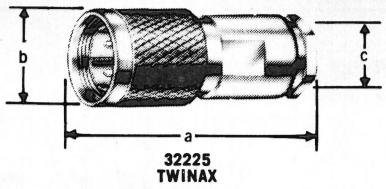
ADAPTERS/ Non-constant Impedance • Non-weatherproof

Dimensions, inches a	b	d	e	Insulation	Adapter Ends	Mtg. Hole		Notes	Amphenol Part Number
13/16	5/16	—	—	Nylon	Jack-Jack	—		Straight	47225
15/16	9/16	—	—	Glass-Teflon	Jack-Jack			Blkd. Mount, Hermetic	47300
1 1/32	3/4	—	—	Kel-F	Jack-Plug-Jack	—		Tee	47325

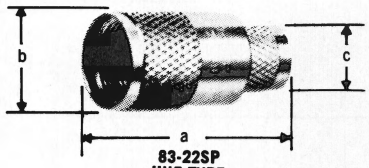
CAPS/ Non-weatherproof

Dimensions, inches a	b	c	Chain Length f		Notes	Amphenol Part Number
5/16	3/8	.281	1 1/2		Male	48225
1/2	3/8	.130	1 1/2		Female	47550

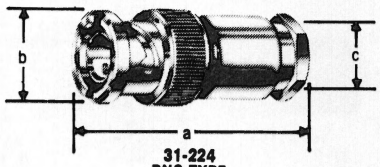
TWIN



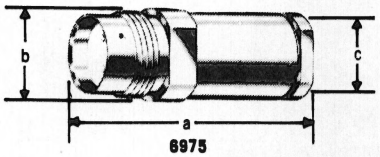
32225
TWINAX



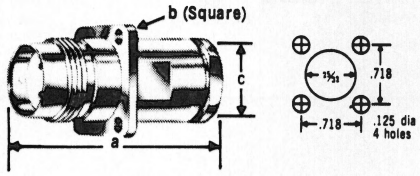
83-22SP
UHF-TYPE

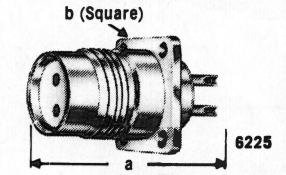


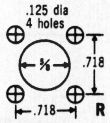
31-224
BNC-TYPE

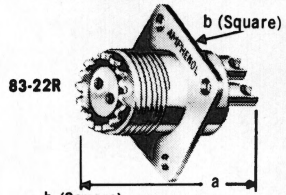


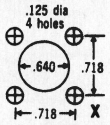
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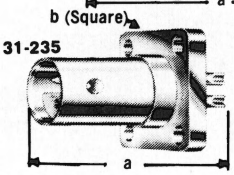


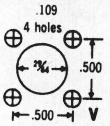












TWIN CONTACT connectors are used with 78 and 95 ohm twin conductor cables. These connectors are generally used in balanced low level and high sensitivity circuits, due to the improved shielding characteristics possible (> 30 db).

Three different constructions are available. They do **not** intermate.

TWINAX — Has polarized key and keyway construction. Frequency limit is 200MHZ and voltage rating is 500 volts peak.

UHF TYPE — Non-polarized, these connectors provide an inexpensive connecting device for laboratory and radio equipment devices. Frequency limit is 200MHz and voltage rating is 500 volts peak.

BNC TYPE — These connectors utilize a polarized contact design in which plugs and mating receptacles each have one male and one female contact. Frequency limit is 100MHZ and voltage rating is 100 volts peak.

STRAIGHT PLUGS/ Non-constant Impedance • Twin Male Contacts • Weatherproof

RG-( )/U Cables	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c	Insulation	Polarization (degrees from key)	Notes	Amphenol Part Number
22	UG421B/U	1 3/4	7/8	.444	Rexolite	Keyed 90°	—	32225
22 except 22A, 22B	UG102/U	1 1/2	3/4	.437	Filled Bakelite	—	Small, Non-weatherproof	83-22SP
	—	1 1/2	11/16	.437	Teflon	—	Small, Non-weatherproof	83-821
57, 130	UG1060/U	1 13/16	1 1/8	.625	Filled Bakelite	—	Large	83-2SP
108A	—	1 7/8	7/8	.260	Rexolite	Keyed 90°	—	22275
	—	1 5/32	9/16	.255	Rexolite	Contact Polar.	1 Male, 1 Female Cont.	31-224
	—	1 5/32	9/16	.255	Teflon	Contact Polar.	1 Male, 1 Female Cont.	31-2226

Mating Notes:

31- prefix plugs (BNC-type) mate only with receptacles and adapters bearing the same prefix.

83- prefix plugs (UHF-type) mate only with receptacles and adapters of the same size; i.e., "small" or "large" as indicated in "exceptions/notes" column.

All other plugs (TWINAX) mate with jacks/receptacles/adapters possessing the same polarization as indicated in "polarization" column.

JACKS

Rexolite Insulation • Twin Female Contacts • Weatherproof • Non-constant Impedance

RG-( )/U Cables	Military Part Number	Dimensions, inches a	b	Max. Cable O.D. c	Polarization	Notes	Amphenol Part Number
22	—	1 3/4	3/4	.437	Keyed 90°	Straight Jack	6975
22	UG423B/U	1 3/4	1	.444	Keyed 90°	Panel Jack	32200

PANEL RECEPTACLES

Twin Female Contacts • Weatherproof • Non-constant Impedance

Military Part Number	Dimensions, inches a	b	Mtg. Hole	Insulation	Polarization	Notes	Amphenol Part Number
UG422/U	1 3/16	1	R	Rexolite	Keyed 90°	—	6225
UG-103/U	1 1/32	1	X	Filled Bakelite	—	Small, Non-weatherproof	83-22R
—	1 1/32	11/16	V	Rexolite	Contact Polar.	1 Female, 1 Male Contact	31-235

BULKHEAD RECEPTACLES

Contact Polarization • Weatherproof • Non-constant Impedance • Front Mounted

Dimensions, inches			Insulation	Polarization	Notes	Amphenol Part Number
a	b	e				
1 1/32	1/2	.106	Rexolite	Contact Polar.	1 Female, 1 Male Contact	31-223
1 1/32	1/2	.106	Teflon	Contact Polar.	1 Female, 1 Male Contact	31-2225

ADAPTERS/ Rexolite Insulation • Non-constant Impedance • Weatherproof

Military Part Number	Dimensions, inches				Polarization	Config-uration	Notes	Amphenol Part Number
	a	b	d	e				
UG981/U	1 19/32	7/8	1 27/64	—	Keyed 90°	Angle	—	4775
UG493A/U	1 5/8	1	—	.343	Keyed 90°	Blkd.	Mounting Hole dia. 49/64	7925
UG105/U	1 1/8	5/8	—	—	—	Straight	Small, Non-weatherproof	83-22J
UG104/U	1 7/32	3/4	1 1/16	—	—	Angle	Small, Non-weatherproof	83-22AP
PL-275	2	5/8	—	1 1/2	—	Blkd.	Small, Non-weatherproof	83-22F
UG196/U	1 5/8	—	1 13/64	—	—	Tee	Small, Non-weatherproof	83-22T
UG1059/U	1 1/8	1	—	—	—	Straight	Large, Non-weatherproof	83-2J

REDUCING ADAPTERS/ Non-weatherproof

RG-( )/U Cable	Dimensions, inches			Notes	Amphenol Part Number
	a	b	Max. Cable O.D. c		
108A	1	7/16	.257	Use With 82-22SP and 83-821	83-65

CAPS/ Weatherproof

Dimensions, inches				Notes	Amphenol Part Number
a	b	c	f		
1 1/16	27/32	.144	3 1/2	Male, Shorting Male Contacts	6350
27/32	13/16	.144	3 1/2	Female	22250

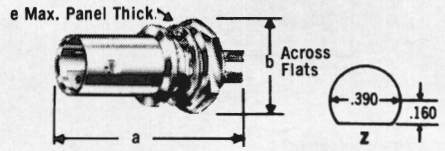
Mating Notes:

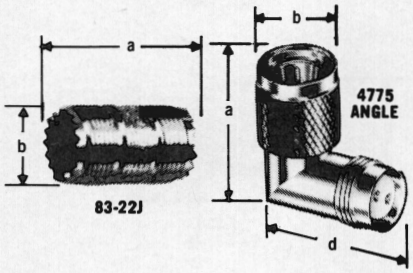
31- prefix plugs (BNC-type) mate only with receptacles and adapters bearing the same prefix.

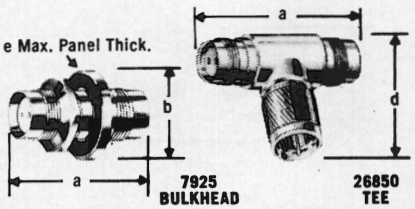
83- prefix plugs (UHF-type) mate only with receptacles and adapters of the same size; i.e., "small" or "large" as indicated in "exceptions/notes" column.

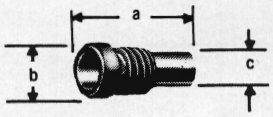
All other plugs (TWINAX) mate with jacks/receptacles/adapters possessing the same polarization as indicated in "polarization" column.

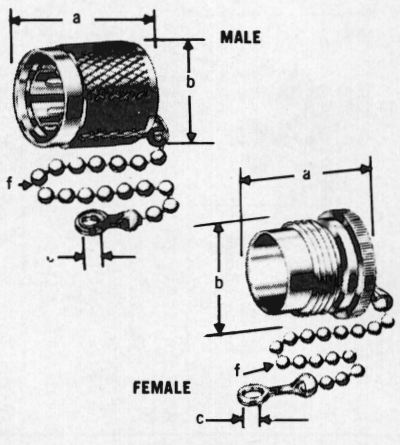
TWIN











BUNKER RAMO AMPHENOL RF PRODUCTS

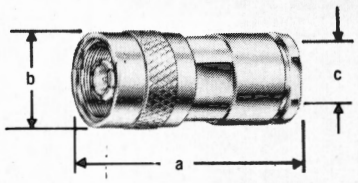
TRIAX

TRIAX connectors are used in transmission line applications where maximum RF shielding and minimum noise radiation are required. They are used with triaxial cables. These connectors have an impedance of 50 ohms, but can be used, and are so listed, with 75 ohm cable where impedance matching is not critical. Connector mating ends have different threading, as listed, and will not intermate. Frequency limit is 10GHZ and voltage rating is 1900-5000 volts depending on cable being used.

STRAIGHT PLUGS

Teflon Insulation • 50 Ohm Impedance • Male Contacts • Weatherproof

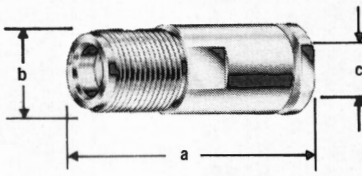
RG-( )/U Type Cable	Dimensions, inches a	b	Max. Cable O.D. c	Mating Threads		Notes	Amphenol Part Number
RG-8 type	2 3/64	1	.505	7/8-20		—	53250
RG-11 type	2 3/64	1	.475	7/8-20		—	53175
RG-58A type	1 21/32	25/32	.296	11/16-24		Gold Plated Contact	53150
RG-59 type	1 21/32	25/32	.332	11/16-24		—	53100



STRAIGHT JACKS

Teflon Insulation • 50 Ohm Impedance • Female Contacts • Weatherproof

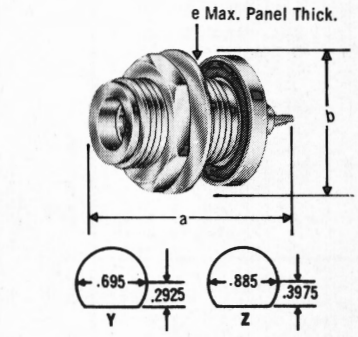
RG-( )/U Type Cable	Dimensions, inches a	b	Max. Cable O.D. c	Mating Threads		Notes	Amphenol Part Number
RG-11 type	2	7/8	.475	7/8-20		Copolymer of styrene insulation	52975
RG-58A type	1 3/4	3/4	.296	11/16-24		—	34375
RG-59 type	1 3/4	3/4	.332	11/16-24		—	34400



BULKHEAD RECEPTACLES

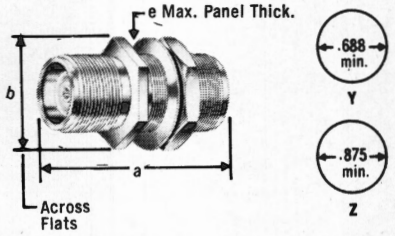
Teflon Insulation • 50 Ohm Impedance • Female Contacts • Weatherproof • Rear Mounted

Dimensions, inches a	b	e	Mating Threads	Mtg. Hole		Notes	Amphenol Part Number
1 9/32	1	.156	11/16-24	Y		—	34450
1 9/32	1 1/4	.156	7/8-20	Z		—	34475



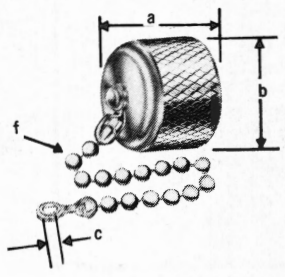
BULKHEAD ADAPTERS/ Teflon Insulation • 50 Ohm Impedance • Weatherproof

Dimensions, inches a	b	e	Mating Threads	Mtg. Hole	Adapter Ends		Notes	Amphenol Part Number
1 3/4	1 1/4	.709	7/8-20	Z	Jack-Jack		—	53200
1 3/4	15/16	.709	11/16-24	Y	Jack-Jack		—	53225



MALE CAPS/ Weatherproof

Dimensions, inches a	b	c	Chain Length f	Mating Threads		Notes	Amphenol Part Number
13/16	1	.144	5	7/8-20		—	34275



BUNKER RAMO **AMPHENOL**

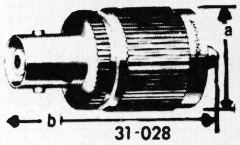
Many different combinations of between series adapters are made by Amphenol. They are of non-constant impedance, but designed so that inherent electrical discontinuities are minimal.

ADAPTERS BETWEEN SERIES

TEFLON INSULATION

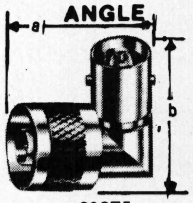
ADAPTERS BETWEEN SERIES

STRAIGHT



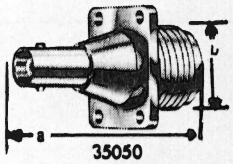
31-028

ANGLE



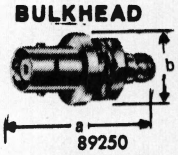
83875

PANEL



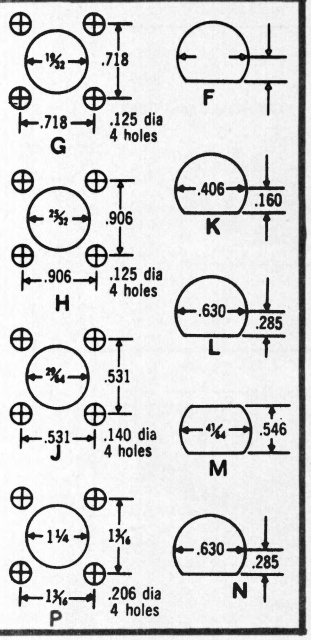
35050

BULKHEAD



89250

MOUNTING HOLE DIMENSIONS



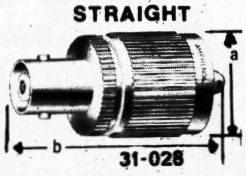
Adapter Ends		Military Part No.	Dimensions, Inches A	Dimensions, Inches B	Mtg. Hole	Mtg. Type	Notes	Amphenol Part Number
ALC-5 Plug	BNC Jack	—	.920	.390	—	—	—	904-10011
ALC-5 Jack	BNC Jack	—	.960	.390	—	—	—	904-10012
ALC-5 Jack	BNC Jack	—	.950	.620	F	Blkd.	—	904-10003
ALC-5 Jack	SMA Jack	—	.570	.250	—	—	—	904-10013
APC-7	APC-N Plug	—	1 13/16	13/16	—	—	*	131-1035
APC-7	APC-N Jack	—	1 45/64	13/16	—	—	*	131-1025
APC-7	BNC Plug	UG 1861/U	1 23/32	13/16	—	—	*	131-1037
APC-7	BNC Jack	UG 1856/U	1 39/64	13/16	—	—	*	131-1027
APC-7	SMA Plug	—	1 3/8	13/16	—	—	*	131-1038
APC-7	SMA Jack	—	1 1/32	13/16	—	—	*	131-1028
APC-7	TNC Plug	—	1 3/4	13/16	—	—	*	131-1036
APC-7	TNC Jack	—	1 39/64	13/16	—	—	*	131-1026
APC-N	SMA Plug	—	1 3/4	13/16	—	—	*	131-1074
APC-N Plug	SMA Jack	—	1 5/8	13/16	—	—	*	131-1075
APC-N Plug	TNC Plug	—	1 31/64	13/16	—	—	*	131-1078
APC-N Plug	TNC Jack	—	1 27/32	13/16	—	—	*	131-1079
APC-N Jack	SMA Plug	—	1 23/64	5/8	—	—	*	131-1076
APC-N Jack	SMA Jack	—	1 19/32	5/8	—	—	*	131-1077
APC-N Jack	TNC Plug	—	1 29/32	5/8	—	—	*	131-1080
APC-N Jack	TNC Jack	—	1 23/32	5/8	—	—	*	131-1081
BNC Plug	C Jack	UG 635/U	1 9/32	19/32	—	—	—	83175
BNC Plug	MB Jack	—	1	9/16	—	—	Kel-F Ins.	47275
BNC Plug	N Plug	UG 1034/U	1 1/2	13/16	—	—	—	5225
BNC Plug	N Jack	UG 349A/U	1 9/16	39/64	—	—	—	31-217
BNC Plug	N Jack	UG 349/U	1 3/4	5/8	—	—	Rex./Tef. Ins.	2975
BNC Plug	N Jack	UG 335/U	1 3/4	11/16	G	Panel	Rex./Tef. Rear Mnt.	3025
BNC Plug	SMA Plug	—	1 3/32	9/16	—	—	—	901-164
BNC Plug	SMA Jack	—	1 1/16	9/16	—	—	—	901-165
BNC Plug	TNC Jack	—	1 1/4	5/8	—	—	—	79025
BNC Plug	UHF Jack	UG 255/U	1 5/16	5/8	—	—	Rex. Ins.	2900
BNC Plug	UHF Jack	—	1 5/16	5/8	—	—	—	2925
BNC Jack	C Plug	UG 636A/U	1 13/64	3/4	—	—	—	83200
BNC Jack	HN Plug	UG 309/U	1 1/2	27/32	—	—	—	8900
BNC Jack	HN Jack	—	1 3/8	11/16	H	Panel	Frnt. or Rear Mnt.	35050
BNC Jack	MB Plug	—	15/16	9/16	—	—	Kel-F Ins.	47250
BNC Jack	MB Jack	—	1 3/32	.377	J	Panel	Kel-F Ins.	33200
BNC Jack	MB Jack	—	1 1/8	.595	K	Blkd.	Herm., Rear Mnt.	47200
BNC Jack	N Plug	UG 201A/U	1 5/16	13/16	—	—	—	31-216
BNC Jack	N Plug	UG 201/U	1 15/32	13/16	—	—	—	31-830
BNC Jack	N Plug	—	1 9/16	3/4	—	—	—	4250
BNC Jack	N Jack	—	1 1/2	11/16	G	Panel	Rear Mnt.	21850
BNC Jack	N Jack	—	1 27/32	13/16	L	Blkd.	Frnt. Mnt., Pressurized	5850
BNC Jack	N Jack	—	1 11/16	13/16	M	Blkd.	Hermetic	93075
BNC Jack	N Jack	—	1 7/16	11/16	G	Panel	Angle, Rear Mnt.	2800
BNC Jack	SM Jack	UG 691/U	1 1/8	19/32	K	Blkd.	Hermetic, Rear Mnt.	89250
BNC Jack	SMA Plug	—	1 3/32	9/16	—	—	—	901-166
BNC Jack	SMA Jack	—	1 1/8	9/16	—	—	—	901-167
BNC Jack	TNC Plug	—	1 1/4	5/8	—	—	—	79675
BNC Jack	TNC Jack	—	1 9/32	7/16	—	—	—	76400
BNC Jack	UHF Plug	UG 273/U	1 3/16	23/32	—	—	Rex. Ins.	31-028
BNC Jack	UHF Plug	—	1 9/32	3/4	—	—	—	12025
C Plug	HN Jack	UG 703A/U	1 1/2	3/4	—	—	—	83400
C Plug	N Jack	UG 565A/U	1 17/32	3/4	—	—	—	82-540
C Jack	HN Plug	UG 702/U	1 1/2	27/32	—	—	—	83350
C Jack	LC Jack	—	3 29/64	1 1/4	—	—	—	82350
C Jack	MB Jack	—	1 7/32	3/4	N	Blkd.	Hermetic	83950
C Jack	N Plug	UG 564/U	1 3/8	13/16	—	—	—	82-508
C Jack	N Plug	—	1 9/32	1 9/32	—	—	Angle	83875
C Jack	UHF Plug	UG 637/U	1 3/8	13/16	—	—	Non-Weatherproof	83225
HN Plug	MHV Jack	—	1 1/2	27/32	—	—	—	20625
HN Plug	N Jack	—	1 9/16	7/8	—	—	—	16050
HN Jack	N Plug	—	1 9/16	13/16	—	—	—	16075
HN Jack	N Jack	—	1 49/64	3/4	—	—	Rex./Teflon	16100
LC Jack	N Jack	UG 271A/U	2 13/64	1 9/16	P	Panel	Polyethylene Ins.	55000
MB Jack	N Jack	—	1 1/4	5/8	—	—	—	47375
MB Jack	UHF Plug	—	1 1/32	3/4	—	—	Non-Weatherproof	47400
MHV Jack	UHF Plug	—	1 9/32	3/4	—	—	—	28050

Cont'd. on following page.

ADAPTERS BETWEEN SERIES
TEFLON INSULATION

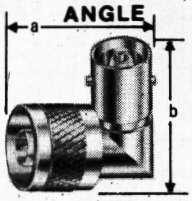
ADAPTERS BETWEEN SERIES

STRAIGHT



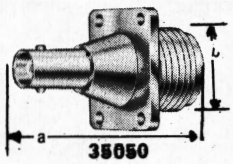
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ANGLE



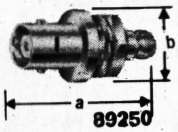
83875

PANEL



35050

BULKHEAD

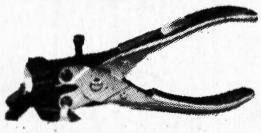


89250

CRIMP TOOLS



227-944 FRAME SHOWN WITH DIE



227-900 (227-901) RADIAL CRIMP TOOL

Adapter Ends		Military Part No.	Dimensions, Inches A	Dimensions, Inches B	Mtg. Hole	Mtg. Type	Notes	Amphenol Part Number
N Plug	SMA Plug	—	1 45/64	13/16	—	—	—	901-292
N Plug	SMA Jack	—	1 17/32	13/16	—	—	—	901-294
N Plug	TNC Plug	—	1 9/16	13/16	—	—	—	79850
N Plug	TNC Plug	—	1 9/32	13/16	—	—	—	78875
N Plug	TNC Jack	—	1 5/16	13/16	—	—	—	78800
N Plug	UHF Plug	UG 318/U	1 47/64	3/4	—	—	Rex. Ins.	26700
N Plug	UHF Jack	UG 146/U	1 13/32	13/16	—	—	Rex. Ins. Non-Weatherproof	4400
N Plug	UHF Jack	—	1 13/32	13/16	—	—	Non-Weatherproof	14650
N Jack	SMA Plug	—	1 45/64	5/8	—	—	—	901-293
N Jack	TNC Plug	—	1 21/32	5/8	—	—	—	79825
N Jack	TNC Jack	—	1 25/64	5/8	—	—	—	78825
N Jack	UHF Plug	UG 83/U	1 9/16	3/4	—	—	Rex./Teflon	14000
N Jack	UHF Plug	UG 83B/U	1 13/16	13/16	—	—	—	34125
SMA Plug	TNC Plug	—	1 1/8	19/32	—	—	—	901-168
SMA Plug	TNC Jack	—	1 5/32	9/16	—	—	—	901-170
SMA Jack	TNC Plug	—	1 3/32	19/32	—	—	—	901-169
SMA Jack	TNC Jack	—	1 1/8	9/16	—	—	—	901-171

RF CRIMP TOOLS

Amphenol crimp connectors incorporate the latest technique in connector design, and are readily available in many series. Amphenol MIL-Crimps are the highest quality crimps available and are presently offered in the N, BNC and TNC Series. In addition to providing superior performance, Amphenol crimp connectors are quick and easy to assemble. Using standard crimping tools, they assemble in approximately one-tenth the time normally needed for connectors requiring conventional cable clamping techniques. Crimp force is controlled automatically by the tool. Tedious braid combing, trimming, forming operations and soldering are eliminated as is the need for a specially skilled operator. Connectors are assembled uniformly from day-to-day and from worker to worker. Most of these connectors are also designed and tested to the applicable military specifications, including MIL-C-39012, the military specification which will eventually obsolete most existing RF connector specs.

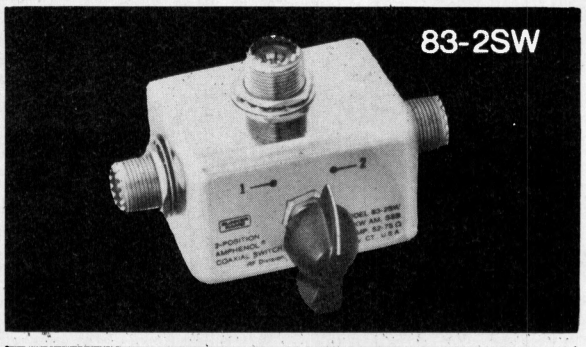
In general, cable retention is significantly improved through the use of back-end crimping. This is most frequently accomplished by crimping directly to the cable braid rather than the cable jacket. Crimping to the braid also assures improved electrical conductivity of the cable shield to the connector. Most braid crimps are of a hex configuration. Crimping of center contacts provides equally fast assembly and in many cases provides SWR results equivalent to those of soldered contacts. Most center contact crimps are of a four-indent configuration, although center contact hex crimps are also available.

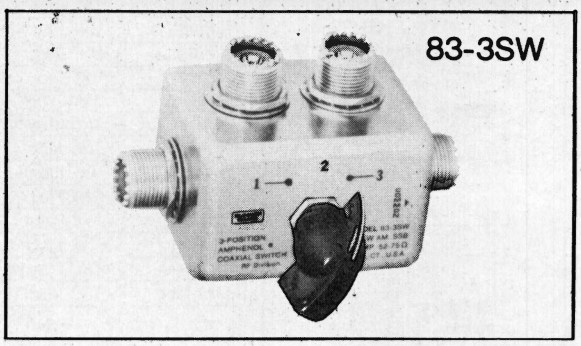
RF CRIMP TOOLS

Connector Series	For Use With RG-( )/U Cables	Hex Size Across Flats (.003) Cavity A (Braid)	Hex Size Across Flats (.003) Cavity B (Contact)	Military Part Number	Amphenol Part Number
Various	Frame Only for All 227-1221-XX Die Sets			M22520/5-01	227-944
N (Braid & Contact)	55, 58, 141, 142, 223, 303, 400	.213	.100	M22520/5-57	227-1221-57
	59, 62, 140, 210	.255	.100	M22520/5-59	227-1221-59
	5, 6, 21, 143, 212, 222, 304	.324	.100	M22520/5-29	227-1221-29
	8, 9, 11, 87A, 149, 165, 213, 214, 216, 225, 393	.429	.100	M22520/52-5	227-1221-25
BNC/TNC (Braid & Contact)	122, 174, 179, 180, 187, 188, 195	.178	.068	M22520/5-09	227-1221-09
	55, 58, 141, 142, 223, 303, 400	.213	.068	M22520/5-11	227-1221-11
	59, 62, 140, 120	.255	.068	M22520/5-13	227-1221-13
	71	.263	.068	M22520/5-15	227-1221-15
MHV (Braid Only)	55, 58, 141, 142, 223, 303, 400	.213	Solder Contact	M22520/5-11	227-1221-11
UHF (Braid Only)	55, 58, 141, 142, 223, 303, 400	.213	Solder Contact	M22520/5-11	227-1221-11
	59, 62, 140, 210	.255	Solder Contact	M22520/5-13	227-1221-13
	8, 11, 149, 213	.384	Solder Contact	M22520-5-23	227-1221-23
SMA (Braid Only)	122, 174, 179, 180, 187, 188, 195	.178	Solder Contact	M22520/5-09	227-1221-09
	55, 58, 141, 142, 223, 303, 400	.213	Solder Contact	M22520/5-11	227-1221-11
27 (Braid Only)	174, 179, 187, 188	—	Solder Contact	—	227-900
	180, 195	—	Solder Contact	—	227-901
	Adapter for Part Number 27-14 (Only)			—	227-902
	Adapter for Part Number 27-4, 27-8, 27-10			—	227-913
	Adapter for Part Number 27-16, 27-20, 27-22			—	227-914
ALC-5 (Braid & Contact)	58, 188			—	227-1228
	Economy Tool			—	227-525

ANTENNA SWITCHES

83-2SW (2-Way) and
83-3SW (3-Way)
for CB, Ham, VHF Scanners





- **Switch antennas, rigs, receivers and dummy loads**
- **Panel or cabinet mounting optional; hardware supplied**
- **Metal case for maximum shielding, best impedance match**
- **Rated for maximum CB power or ham kilowatt**
- **Nominal 52 or 75 ohm Impedance**
- **Mates with standard PL-259 connectors**
- **Ideal for permanent installation with or 83-888 dummy load Amphenol 83-887**

With the 83-2SW or 83-3SW switch permanently installed in the transmission line, you can switch your rig between antennas or switch one antenna between two rigs. Ideal for switching one antenna between rig and monitor or scanner.

Rated for maximum legal CB power, 83-2SW and 83-3SW also handle a ham kilowatt (2 KW PEP, SSB). 83-2SW is designed to provide low reflection in both 52 and 75 ohm transmission lines.

Panel or cabinet mounting is optional. Switches are supplied with mounting nut, flat washer, and lockwasher. Hint—for easier mounting and better position control, install the lockwasher *behind* the panel; the flat washer and nut are installed in front.

The entire switch case is plated *metal*. No plastic is used. You get a more rugged switch with superior shielding and a better inpedance match to your transmission line.

Want to permanently install a dummy load as part of your station? Use one switch position for a dummy load, such as the Amphenol 83-887 load or 83-888 power output indicator. You have maximum operating convenience, complete versatility to check your station performance, and you eliminate all illegal and annoying interference while tuning or adjusting the rig.

The switches are plated with ASTROplate® , Amphenol's lustrous non-tarnish finish.

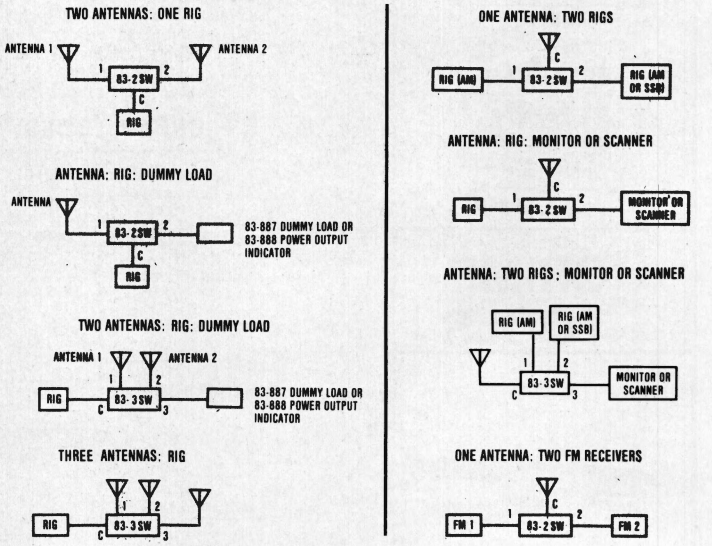
TYPICAL PERFORMANCE SPECIFICATIONS

Electrical
Frequency range—0-108 MHz
Impedance—52 or 75 ohm nominal
Voltage rating—500 V peak
Power rating—1 kilowatt CW, AM, 2KW PEP SSB
(do not switch while transmitting)

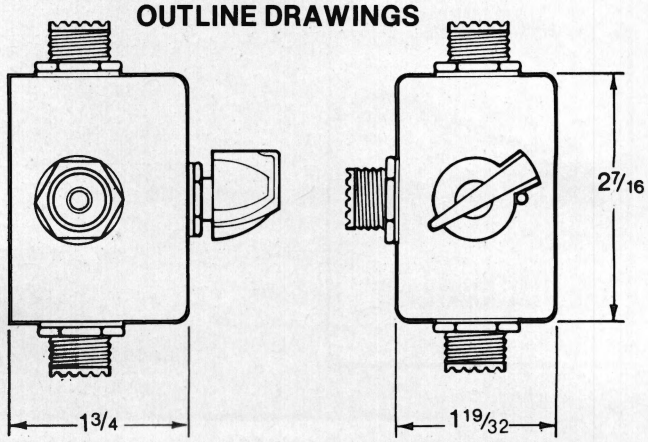
Mechanical
Mating—mates with standard UHF-PL-259 plug
($\frac{5}{8}$-24 thread)
Mounting—optional panel or cabinet mounting

Material
Body—aluminum
Connectors:
Body—brass or die cast zinc
Insulator—Bakelite or equal.
Center contact—brass, silverplated
Finish—ASTROplate

SUGGESTED INSTALLATIONS



OUTLINE DRAWINGS



AMPHENOL Connector Systems BUNKER RAMO

BUNKER RAMO AMPHENOL COAXIAL SWITCHES

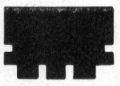
1P2T SUBMINIATURE. REMOTE FAILSAFE OR MANUAL LATCHING

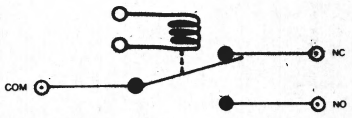
MINIform SERIES 303

Amphenol 303 Series MINIform is the industry's most inexpensive miniature high-power, high-performance line of microwave coaxial switches—offering for the first time superior operational performance through six GHz in an economical unit weighing only 1.2 ounces.

The MINIform units are ideally suited for a variety of applications where minimum size, high power, minimum crosstalk and low cost are determining factors, such as signalling, communications and EDP matrix switching.

Amphenol 303 Series MINIform switches are 1P2T configurations offered in choice of three popular termination styles: SMA connectors, Amphenol SUB-Minax 27 Series connectors, or printed circuit contacts suitable for solder and solderless wrap board termination. All switches can be provided with coil voltages of 6, 12, 26, 48 and 120 VDC.

functions and connector positions			1P2T 
conn.	term.	coil volts	AMPHENOL part no.
SMA	NS	6 DC 12 DC 28 DC MAN.	303-10002-1 303-10002-2 303-10002-3 303-10011
SUB 27 50 Ω Screw On	NS	6 DC 12 DC 28 DC MAN.	303-10003-1 303-10003-2 303-10003-3 303-10012
PC PINS	NS	6 DC 12 DC 28 DC	303-10001-1 303-10001-2 303-10001-3



1P2T

GENERAL CHARACTERISTICS

1. Electrical

Insertion Loss

0 to 3.0 GHz: 0.1 dB max.
3.0 to 5.0 GHz: 0.2 dB max.
5.0 to 6.0 GHz: 0.3 dB max.

RF Power Rating (SMA)

0.1 GHz: 400 watts
1.0 GHz: 120 watts
3.0 GHz: 70 watts
6.0 GHz: 45 watts

Switching Time (break before make)

: 15 mS max.

2. Mechanical

Mechanical Life

remote: 1,000,000 cycles minimum
manual: 25,000 cycles minimum

Weight

: 1.2 oz.

3. Environmental (Tested per MIL-S-3928B)

Temperature Range

: –55°C to 100°C

Moisture Resistance

: 10 day cycle

Shock

operating: 10 G's
non-operating: 100 G's

Vibration

operating: 10 to 55 Hz. Test Cond. B
non-operating: 20 G's, 10 to 2000 Hz.

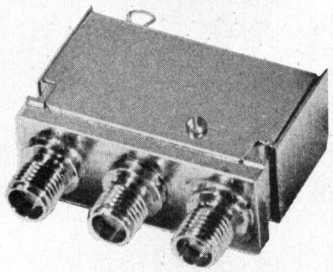
Altitude and Cold

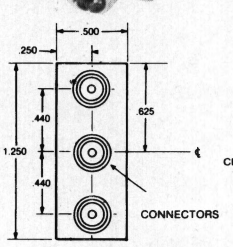
: 0 to 70,000 feet

ELECTRICAL CHARACTERISTICS

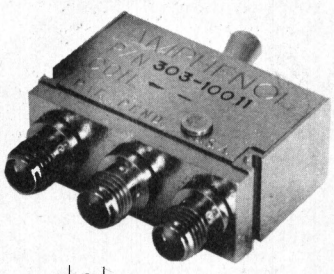
frequency GHz		0-2	2-4	4-6	0-1	1-3	3-6
conn.	term.	VSWR (maximum)			ISOLATION (minimum) -dB		
SMA	NS	1.1	1.2	1.3	80	70	60
SUB 27	NS	1.1	1.2	1.35	80	70	60
PC PINS	NS	Dependent upon application			80	70	60

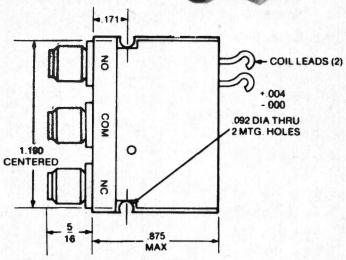
REMOTE/SMA



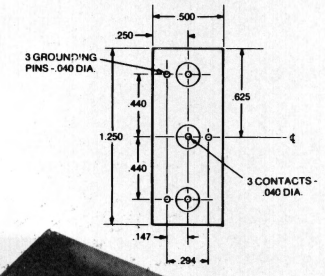


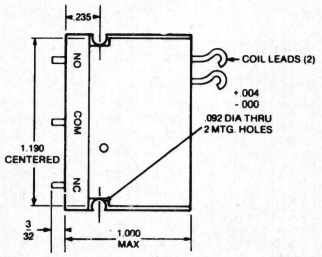
MANUAL/SMA

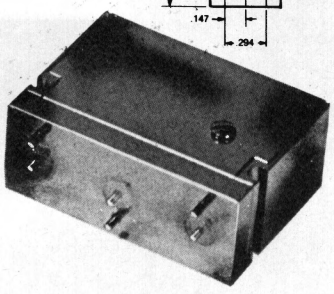




PRINTED CIRCUIT PINS







CONTINUOUS DUTY COIL CHARACTERISTICS @ 20°C

nominal voltage	operating voltage range	resistance ohms ± 10%
6 DC	5-7	25
12 DC	9-14	65
28 DC	20-32	200

BUNKER RAMO AMPHENOL COAXIAL SWITCHES

MINIATURE SERIES 303

1P2T and TRANSFER. REMOTE FAILSAFE OR MANUAL LATCHING

Ideally suited for applications where crosstalk interference must be kept to an absolute minimum, Amphenol's miniature 303 Series provides uniform characteristics through KU band (18 GHz) with isolation of 60 dB minimum, VSWR of 1.5:1 maximum and insertion loss of 0.5 dB maximum. When operating at lower frequencies, isolation can be greater than 90 dB with 0.2 dB insertion loss and VSWR of 1.2:1.

New Amphenol SMA connectors . . . offering significantly better electrical and mechanical performance than competitive designs . . . contribute to the switch's high reliability and fine electrical performance. The miniature 1P2T weighs only 2 ozs. and, excluding terminals, is less than 1-1/2 inches high by 1-11/32 inches wide by 1/2 inch. In addition to its compact design and reliable RF performance, this switch is capable of operating in environments where temperatures reach 100°C.

functions and connector positions			1P2T OUTLINE A	1P2T AUX. CONTACTS OUTLINE B	TRANSFER OUTLINE C	TRANSFER AUX. CONTACT OUTLINE C
conn.	term.	coil volts	AMPHENOL PART NUMBERS			
SMA	NS	12 DC 28 DC MAN.	303-10179-2 303-10179-3 303-10180	303-10179-52 303-10179-53 –	303-11022-2 303-11022-3 303-11028	303-11022-52 303-11022-53 –

ELECTRICAL CHARACTERISTICS

Frequency GHz		0.3	3-8	8-12.4	12.4-18	0-3	3-8	8-12.4	12.4-18
conn.	term.	VSWR (maximum)				ISOLATION (minimum) dB			
SMA	NS	1.2	1.3	1.4	1.5	90	80	70	60

GENERAL CHARACTERISTICS

1. Electrical

Insertion Loss

0 to 3.0 GHz: 0.2 dB max.
3.0 to 8.0 GHz: 0.3 dB max.
8.0 to 12.4 GHz: 0.4 dB max.
12.4 to 18.0 GHz: 0.5 dB max.

RF Power Rating @ STP

0.1 GHz: 400 watts CW
0.4 GHz: 200 watts CW
1.0 GHz: 120 watts CW
3.0 GHz: 70 watts CW
5.0 GHz: 50 watts CW
10.0 GHz: 35 watts CW
12.0 GHz: 30 watts CW
18.0 GHz: 24 watts CW

Switching Time (break before make)
: 15 mS max.

2. Mechanical

Mechanical Life
remote: 1,000,000 cycles minimum
manual: 25,000 cycles minimum

Weight
1P2T: 2 oz.
transfer: 5 oz.

3. Environmental (Tested per MIL-S-3928B)

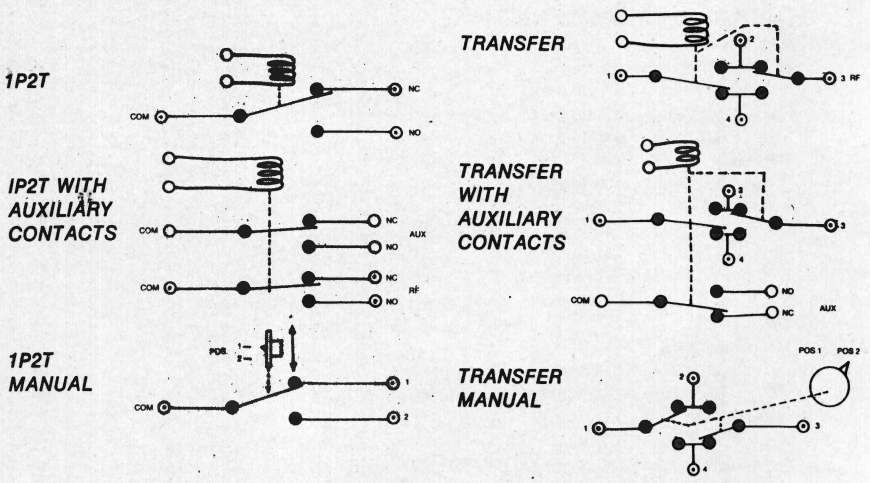
Temperature Range
: –55°C to 100°C

Moisture Resistance
: 10 day cycle

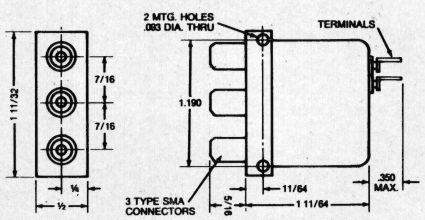
Shock
operating: 10 G's
non-operating: 100 G's

Vibration
operating: 10 to 55 Hz
Test Cond. B
non-operating: 20 G's, 10 to 2000 Hz

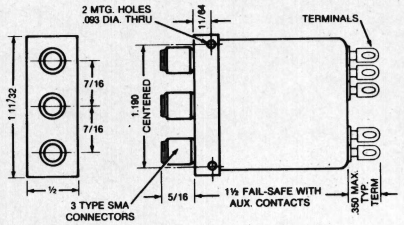
Altitude and Cold
: 0 to 70,000 feet



OUTLINE A
1P2T REMOTE



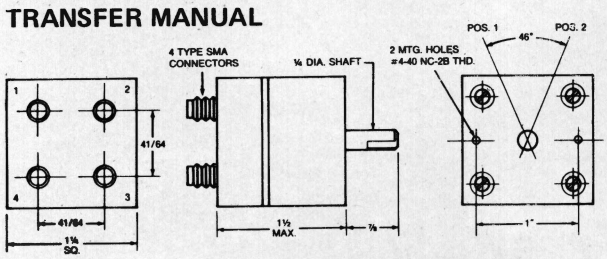
OUTLINE B
1P2T with AUXILARY CONTACTS



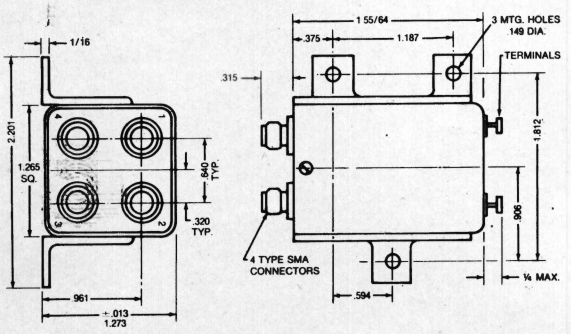
IP2T CONTINUOUS DUTY COIL CHARACTERISTICS @ 20°C

nominal voltage	operating voltage range	resistance ohms ± 10%
12 DC	9-14	65
28 DC	20-32	250

TRANSFER MANUAL



OUTLINE C
TRANSFER REMOTE



BUNKER RAMO AMPHENOL COAXIAL SWITCHES

STANDARD SIZE SERIES 303

1P1T, 1P2T and TRANSFER. REMOTE FAILSAFE OR MANUAL LATCHING

Amphenol's 303 Series of standard size switches is constantly expanding. Cataloged here are a representative collection of the more popular variations. Many combinations of these basic items are available. The ideal switching device tailored for your specific application can be selected from the options described in the table of General Characteristics. Whatever combination of specifications you select . . . whether other coil voltages, hermetic sealing, auxiliary contacts, etc. . . . the same high isolation and uniform RF performance characteristic of Amphenol's 303 Switch Series will prevail.

functions and connector positions			1P1T SHUTTER	1P2T	1P2T AUX. CONTACTS	TRANSFER	TRANSFER AUX. CONTACTS
			OUTLINE A	OUTLINE B	OUTLINE B	OUTLINE C	OUTLINE C
conn.	term.	coil volts	AMPHENOL PART NUMBERS				
SMA	NS	12 DC	—	303-10166-2	303-10166-52	303-11016-2	303-11016-52
		28 DC	—	303-10166-3	303-10166-53	303-11016-3	303-11016-53
		MAN.	—	303-10175	—	—	—
TNC	NS	12 DC	—	303-10168-2	303-10168-52	303-11020-2	303-11020-52
		28 DC	303-10969-3	303-10168-3	303-10168-53	303-11020-3	303-11020-53
		MAN.	—	303-10171	—	—	—
N	NS	12 DC	—	303-10167-2	303-10167-52	303-11017-2	303-11017-52
		28 DC	—	303-10167-3	303-10167-53	303-11017-3	303-11017-53
		MAN.	—	303-10170	—	—	—

GENERAL CHARACTERISTICS

1. Electrical

Insertion Loss

0 to 3.0 GHz: 0.25 dB max.
3.0 to 6.0 GHz: 0.35 dB max.
6.0 to 12.4 GHz: 0.5 dB max.

1P1T shutter

0 to 3.0 GHz: 0.25 dB max.
3.0 to 8.0 GHz: 0.35 dB max.
8.0 to 12.4 GHz: 0.50 dB max.

RF Power Rating @ STP (TNC&N)

0.1 GHz: 1000 watts CW
.04 GHz: 500 watts CW
1.0 GHz: 280 watts CW
3.0 GHz: 145 watts CW
5.0 GHz: 100 watts CW
10.0 GHz: 70 watts CW
12.0 GHz: 60 watts CW

Switching Time (break before make)
: 30 mS max.

2. Mechanical

Mechanical Life

remote: 1,000,000 cycles minimum
manual: 25,000 cycles minimum

Weight

1P2T: 7 oz.
transfer: 8 oz.
1P1T shutter: 4 oz.

3. Environmental (Tested per MIL-S-3928B)

Temperature Range
: –55°C to 85°C

Moisture Resistance
: 10 day cycle

Shock

operating: 10 G's
non-operating: 100 G's

Vibration

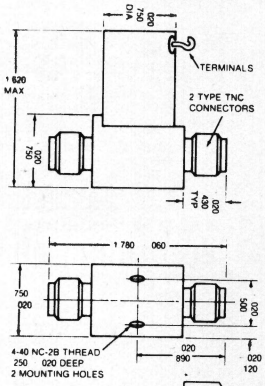
operating: 10 to 55 Hz
Test Cond. B
non-operating: 20 G's, 10 to 2000 Hz.

Altitude and Cold
: 0 to 70,000 feet

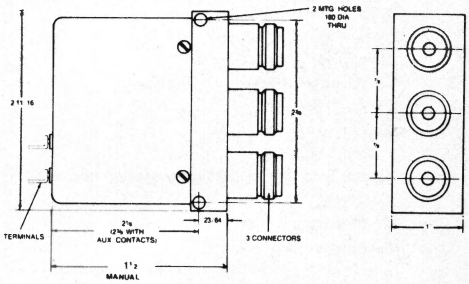
ELECTRICAL CHARACTERISTICS

frequency GHz		0-3	3-6	6-10	10-12.4	0-3	3-6	6-10	10-12.4
conn.	term.	VSWR (maximum)				ISOLATION (minimum) -dB			
SMA TNC N	NS	1.3	1.4	1.5	1.5	80	75	65	60

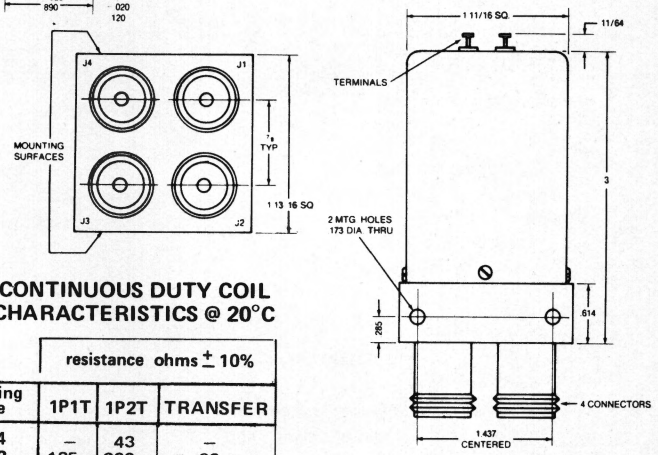
OUTLINE A 1P1T SHUTTER 303-10969-3



OUTLINE B 1P2T REMOTE

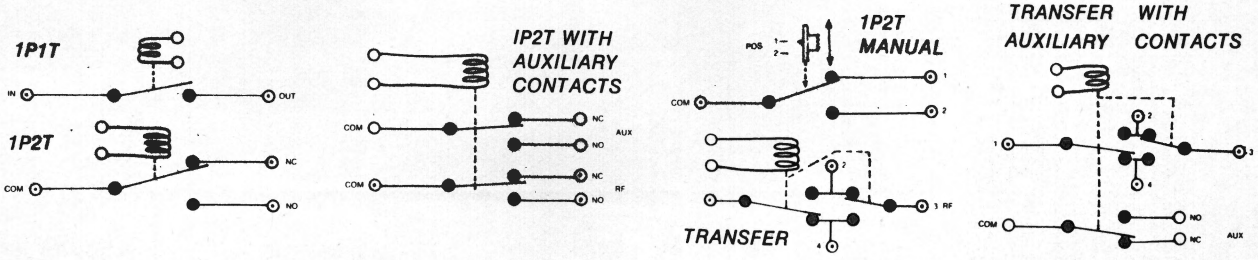


OUTLINE C TRANSFER



CONTINUOUS DUTY COIL CHARACTERISTICS @ 20°C

nominal voltage	operating range	resistance ohms ± 10% 1P1T	1P2T	TRANSFER
12 DC	9-14	—	43	—
28 DC	20-32	135	200	90



BUNKER RAMO AMPHENOL COAXIAL SWITCHES

1P2T and 2P2T REMOTE OPERATION

DYNAform SERIES 360

These switches are available either with the common connector located on the same side of the switch body as the other connectors, or on the reverse side. 2P2T switches are "Siamese Twin" versions of the basic 1P2T types: the electrical circuits are completely isolated, including the coils—normal operation requires energizing of both coils.

GENERAL CHARACTERISTICS

1. Electrical

Insertion Loss

shorting and non-shorting

0 to 0.5 GHz: .06 dB
0.5 to 3.0 GHz: .20 dB
3.0 to 6.0 GHz: .30 dB

resistor-terminated

0 to 0.5 GHz: .06 dB
0.5 to 3.0 Ghz: .25 dB
3.0 to 6.0 GHz: .50 dB

RF Power Rating (power off during switching)

0 to 0.5 GHz: 500 watts CW, 5KW peak
0.5 to 3.0 GHz: 100 watts CW, 3 KW peak
3.0 to 6.0 GHz: 50 watts CW, 2 KW peak

RF Voltage Rating

: 100 volts peak

Switching Time

operate: 25 mS max.
release: 15 mS max.

Resistor Terminations

power rating: 1/2 watt
resistance tolerance: ± 5%

VSWR into 50 ohm Termination

0 to 0.5 GHz: 1.15
0.5 to 1.0 GHz: 1.20
1.0 to 6.0 GHz: 1.50

Capacitance to ground (through two connectors)

: 5 pfd

2. Mechanical

Mechanical Life

: 1,000,000 cycles minimum

Weight

1P2T TYPES: 4 oz. approx.
2P2T TYPES: 8 oz. approx.

3. Environmental (Tested per MIL-S-3928B)

Temperature Range

: –55°C to 100°C

Moisture Resistance

: 10 day cycle

Shock

operating: 10 G's
non-operating: 100 G's

Vibration

operating: 10 to 55 Hz. Test Cond. B
non-operating: 20 G's 10 to 2000 Hz.

Altitude and Cold

: 0 to 70,000 feet

For above chassis mounting, specify Dynaform Mounting Kit, Amphenol Part No. 360-11920.

CONTINUOUS DUTY COIL CHARACTERISTICS @ 20°C.

nominal voltage		resistance ohms ± 10%
12 DC	9-14	75
26 DC	20-32	260
48 DC	38-52	1200
110 DC	85-130	5100
115 AC (50-400 Hz)	90-130	Diode Rect.
220 AC (50-400 Hz)	180-230	Diode Rect.

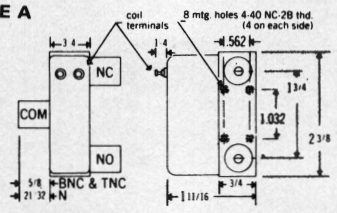
functions and connector positions			1P2T Outline A	1P2T Outline B	2P2T Outline C	2P2T Outline D
conn.	term.	coil volts	AMPHENOL PART NUMBERS			
BNC	SH	12 DC	360-11891-1	360-11891-2	360-11896-1	360-11896-2
		26 DC	360-11891-12	360-11891-13	360-11896-12	360-11896-13
		48 DC	360-11891-23	360-11891-24	360-11896-23	360-11896-24
		110 DC	360-11891-34	360-11891-35	360-11896-34	360-11896-35
		115 AC	360-11891-45	360-11891-46	360-11896-45	360-11896-46
		220 AC	360-11891-56	360-11891-57	360-11896-56	360-11896-57
	SN	12 DC	360-11891-3	360-11891-4	360-11896-3	360-11896-4
		26 DC	360-11891-14	360-11891-15	360-11896-14	360-11896-15
		48 DC	360-11891-25	360-11891-26	360-11896-25	360-11896-26
		110 DC	360-11891-36	360-11891-37	360-11896-36	360-11896-37
		115 AC	360-11891-47	360-11891-48	360-11896-47	360-11896-48
		220 AC	360-11891-58	360-11891-59	360-11896-58	360-11896-59
	50 Ω RT	12 DC	360-11891-5	360-11891-6	360-11896-5	360-11896-6
		26 DC	360-11891-16	360-11891-17	360-11896-16	360-11896-17
		48 DC	360-11891-27	360-11891-28	360-11896-27	360-11896-28
		110 DC	360-11891-38	360-11891-39	360-11896-38	360-11896-39
		115 AC	360-11891-49	360-11891-50	360-11896-49	360-11896-50
		220 AC	360-11891-60	360-11891-61	360-11896-60	360-11896-61
	75 Ω RT	12 DC	360-11891-7	360-11891-8	360-11896-7	360-11896-8
		26 DC	360-11891-18	360-11891-19	360-11896-18	360-11896-19
		48 DC	360-11891-29	360-11891-30	360-11896-29	360-11896-30
		110 DC	360-11891-40	360-11891-41	360-11896-40	360-11896-41
		115 AC	360-11891-51	360-11891-52	360-11896-51	360-11896-52
		220 AC	360-11891-62	360-11891-63	360-11896-62	360-11896-63
	95 Ω RT	12 DC	360-11891-9	360-11891-10	360-11896-9	360-11896-10
		26 DC	360-11891-20	360-11891-21	360-11896-20	360-11896-21
		48 DC	360-11891-31	360-11891-32	360-11896-31	360-11896-32
		110 DC	360-11891-42	360-11891-43	360-11896-42	360-11896-43
		115 AC	360-11891-53	360-11891-54	360-11896-53	360-11896-54
		220 AC	360-11891-64	360-11891-65	360-11896-64	360-11896-65
TNC	see above	see above	360-11892-■	360-11892-■	360-11897-■	360-11897-■
N	see above	see above	360-11890-■	360-11890-■	360-11895-■	360-11895-■

■ ADD APPROPRIATE SUFFIX

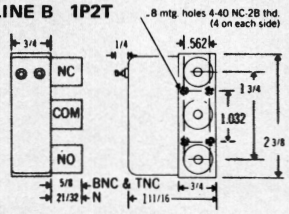
ELECTRICAL CHARACTERISTICS

frequency GHz		.03	0.1	0.2	0.4	1.0	2.0	4.0	6.0	.03	0.1	0.2	0.4	1.0	2.0	4.0	6.0
conn.	term.	VSWR (maximum)								ISOLATION (minimum -dB							
BNC	SH	1.05	1.05	1.06	1.08	1.15	1.20	1.25	1.40	70	66	63	60	53	42	30	20
TNC	NS	1.05	1.05	1.06	1.08	1.15	1.20	1.25	1.50	50	48	42	38	27	24	21	18
N	RT	1.05	1.05	1.06	1.08	1.20	1.25	1.50	—	40	38	35	31	24	17	14	—

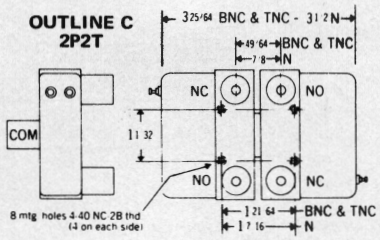
OUTLINE A 1P2T



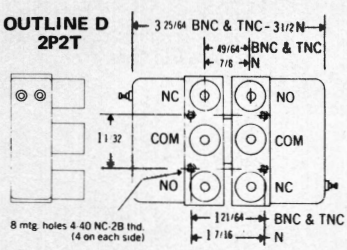
OUTLINE B 1P2T

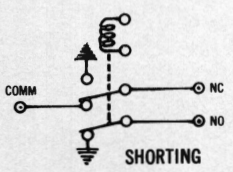


OUTLINE C 2P2T

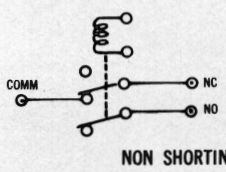


OUTLINE D 2P2T

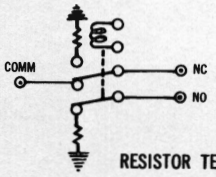




SHORTING



NON SHORTING



RESISTOR TERMINATED

BUNKER RAMO AMPHENOL COAXIAL SWITCHES

CIRCUIT INSERTION, AND TRANSFER

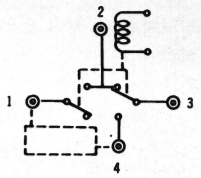
DYNAform SERIES 360

These switches are modified versions of the 1P2T Dynaform switches and are offered with the same variations of coil voltages and connectors.

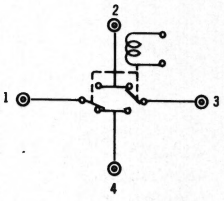
1. **Circuit Insertion**
   This is similar to the transfer switch (four connectors) except in the energized position there is no connection between one pair of connectors. It is generally used to insert an amplifier or similar active circuit element into an RF circuit, where the input and output of the element cannot be shortened.

2. **Transfer**
   This is similar to the 1P2T with the addition of a fourth connector and performs the transfer or crossover function. The useful frequency range is 0 - 1.5 GHz. in applications where crosstalk requirements are not too severe.

functions and connector positions		TRANSFER 	CIRCUIT INSERTION 
conn.	coil volts	AMPHENOL PART NUMBERS	
N	12 DC	360-11890-11	360-11890-67
	26 DC	360-11890-22	360-11890-68
	48 DC	360-11890-33	360-11890-69
	110 DC	360-11890-44	360-11890-70
	115 AC	360-11890-55	360-11890-71
	220 AC	360-11890-66	360-11890-72
BNC	12 DC	360-11891-11	360-11891-67
	26 DC	360-11891-22	360-11891-68
	48 DC	360-11891-33	360-11891-69
	110 DC	360-11891-44	360-11891-70
	115 AC	360-11891-55	360-11891-71
	220 AC	360-11891-66	360-11891-72
TNC	12 DC	360-11892-11	360-11892-67
	26 DC	360-11892-22	360-11892-68
	48 DC	360-11892-33	360-11892-69
	110 DC	360-11892-44	360-11892-70
	115 AC	360-11892-55	360-11892-71
	220 AC	360-11892-66	360-11892-72



CIRCUIT INSERTION



TRANSFER

NC	NO
1 - 4	1 - 2
2 - 3	3 - 4

GENERAL CHARACTERISTICS

1. **Electrical**
   Insertion Loss
   0 to 1.0 GHz: .08 dB
   1.0 to 2.0 GHz: .15dB
   RF Power Rating (power off during switching)
   Circuit insertion & Transfer
   0 to 0.5 GHz: 500 watts CW, 5 KW peak
   0.5 to 2.0 GHz: 100 watts CW, 3 KW peak
   RF voltage rating
   : 1000 volts peak
   Switching time
   operate: 25 mS max.
   release: 15 mS max.
   VSWR into 50 ohm Termination
   0 to 0.5 GHz: 1.15
   0.5 to 1.0 GHz: 1.20
   1.0 to 2.0 GHz: 1.50
   Capacitance to ground (through two connectors)
   : 5 pfd
2. **Mechanical**
   Mechanical life
   : 1,000,000 cycles minimum
   Weight
   : 4 oz.
3. **Environmental (Tested per MIL-S-3928B)**
   Temperature Range
   : -55°C to 100°C
   Moisture Resistance
   : 10 day cycle
   Shock
   operating: 10 G's
   non-operating: 100 G's
   Vibration
   operating: 10 to 55 Hz
   Test Cond B
   non-operating: 20 G's, 10 to 2000 Hz
   Altitude and Cold
   : 0 to 70,000 feet

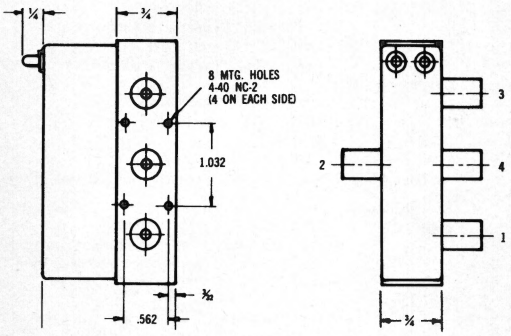
CONTINUOUS DUTY COIL CHARACTERISTICS @ 20°C.

nominal voltage	operating voltage range	resistance ohms ± 10%
12 DC	9-14	75
26 DC	20-32	260
48 DC	38-54	1200
110 DC	85-130	5100
115 AC (50-400 Hz)	90-130	Diode Rect.
220 AC (50-400 Hz)	180-230	Diode Rect.

ELECTRICAL CHARACTERISTICS

frequency GHz	.03	0.1	0.2	0.4	0.7	1.0	1.5	2.0	.03	0.1	0.2	0.4	0.7	1.0	1.5	2.0
function	VSWR (maximum)								ISOLATION (minimum) -dB							
Transfer/ Insertion	1.05	1.06	1.10	1.15	1.20	1.25	1.35	1.50	45	43	38	33	29	22	20	16

OUTLINE DATA



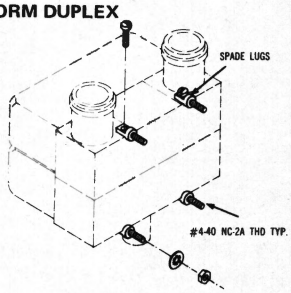
DYNAFORM MOUNTING KIT

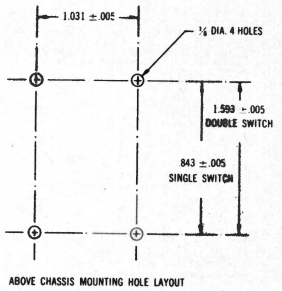
Amphenol Part No. 360-11920

Amphenol's Dynaform Mounting Kit permits above-chassis mounting of all Dynaform switches except 2P2T types. The kit includes four spade lugs, fillister-head screws, lock washers, and hex nuts.

1. Drill chassis to conform with mounting hole layout.
2. Attach spade lugs to switch with fillister-head screws as shown in illustration.
3. Attach switch to chassis by fitting threaded feet of space lugs through holes in chassis. Secure assembly from underside of chassis with lock washer and hex nut tightened in place on each lug.

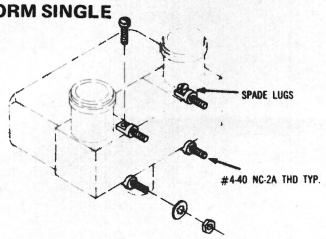
DYNAFORM DUPLEX SWITCH





ABOVE CHASSIS MOUNTING HOLE LAYOUT
(⅛ MAX. PANEL THICKNESS)

DYNAFORM SINGLE SWITCH



BUNKER RAMO AMPHENOL COAXIAL SWITCHES

1P2T. 100 & 500 WATT SWITCHES. REMOTE OR MANUAL

BLADED DESIGNS
SERIES 314, 316, 317, 318

The switches described in this section are two bladed, 1P2T, medium size switches with a 100 & 500 watt power rating. Switches for manual operation are cataloged in this section as well as the coil actuated types.

A broad selection of connector types, terminations and coil values are offered in four basic configurations: two connectors on opposite side; (Series 316) coil on one side, connectors on the other; (Series 317) two connectors and coil on one side, one connector on the opposite side; and (Series 318) coil and connectors on same side. The larger, higher power, 500 watt switches are not available with resistor terminators because of the limited power rating of most high frequency resistors.

Some types have SA and MS nomenclature and are manufactured and tested to the requirements of specification MIL-S-3928B. Most other types will also meet the applicable requirements of this specification.

GENERAL CHARACTERISTICS

Data are given for 100 watt switches. Data for 500 watt switches are enclosed in braces [ ].

1. Electrical

Typical Insertion Loss
0 to 0.5 GHz: 0.08 dB [0.06 dB]
0.5 to 3.0 GHz: 0.20 dB [0.20 dB]

RF Power Rating (non-switching)
0 to 0.5 GHz: 100 watts CW, 3 KW peak [500 watts]
0.5 to 3.0 GHz: 50 watts CW, 2 KW peak [250 watts]

Switching Time
operate: 15 mS [20 mS]
release: 10 mS [15 mS]

Resistor Terminations
½ watt RC20 per MIL-R-10D: ± 5% [not applicable]

2. Mechanical

Life
remote: 1,000,000 cycles minimum expected [same]
manual: 25,000 cycles [same]

Weight
: 4.5 to 7 oz. depending on connector types & coil [12 oz. approx.]

3. Environmental (Tested per MIL-S-3928B)

Temperature
: −55°C to 85°C [same]

Vibration
: 10 to 55 Hz, Test Cond. B [same]

Shock
: 15 G's 11 mS [same]

Salt Spray
: 48 hrs. [same]

Humidity
: 10 day test [same]

100 WATT SWITCHES.

functions and connector positions			1P2T OUTLINE A	1P2T OUTLINE B	1P2T OUTLINE C	1P2T OUTLINE D
conn.	term.	coil volts	AMPHENOL PART NUMBERS			
BNC	SH	6 DC	314-10446-1	316-10082-1	317-10202-1	318-10382-1
		12 DC	314-10446-2	316-10082-2	317-10202-2	318-10382-2
		26 DC	314-10446-3	316-10082-3	317-10202-3	318-10382-3
		48 DC	314-10446-4	316-10082-4	317-10202-4	318-10382-4
		100 DC	314-10446-5	316-10082-5	317-10202-5	318-10382-5
		120 DC	314-10446-6	316-10082-6	317-10202-6	318-10382-6
		115 AC	314-10446-8	316-10102-8	317-10215-8	318-10395-8
		MAN.	314-10441	316-10081	317-10201	318-10381
	NS	6 DC	314-10463-1	316-10117-1	317-10222-1	318-10407-1
		12 DC	314-10463-2	316-10117-2	317-10222-2	318-10407-2
		26 DC	314-10463-3	316-10117-3	317-10222-3▲	318-10407-3
		48 DC	314-10463-4	316-10117-4	317-10222-4	318-10407-4
		100 DC	314-10463-5	316-10117-5	317-10222-5	318-10407-5▲
		120 DC	314-10463-6	316-10117-6	317-10222-6	318-10407-6
		115 AC	314-10463-8	316-10117-8	317-10222-8	318-10407-8▲
		MAN.	314-10469	316-10096	317-10221	318-10401▲
	51Ω RT	6 DC	314-10443-1	316-10929-1	317-11612-1	318-11181-1
		12 DC	314-10443-2	316-10929-2	317-11612-2	318-11181-2
		26 DC	314-10443-3	316-10929-3	317-11612-3	318-11181-3
		48 DC	314-10443-4	316-10929-4	317-11612-4	318-11181-4
		100 DC	314-10443-5	316-10929-5	317-11612-5	318-11181-5
		120 DC	314-10443-6	316-10929-6	317-11612-6	318-11181-6
		115 AC	314-10443-8	316-10929-8	317-11612-8	318-11181-8
		MAN.	314-10445	316-10949	317-11613	318-11188
	75Ω RT	6 DC	314-10447-1	316-10952-1	317-11093-1	318-11165-1
		12 DC	314-10447-2	316-10952-2	317-11093-2	318-11165-2
		26 DC	314-10447-3	316-10952-3	317-11093-3	318-11165-3
		48 DC	314-10447-4	316-10952-4	317-11093-4	318-11165-4
		100 DC	314-10447-5	316-10952-5	317-11093-5	318-11165-5
		120 DC	314-10447-6	316-10952-6	317-11093-6	318-11165-6
		115 AC	314-10447-8	316-10952-8	317-11093-8	318-11576-8
		MAN.	314-10448	316-10950	317-11086	318-11189
N	SH	6 DC	314-10473-1	316-10155-1	317-10242-1	318-10430-1
		12 DC	314-10473-2	316-10155-2	317-10242-2	318-10430-2
		26 DC	314-10473-3	316-10155-3	317-10242-3▲	318-10430-3
		48 DC	314-10473-4	316-10155-4	317-10242-4	318-10430-4
		100 DC	314-10473-5	316-10155-5	317-10242-5	318-10430-5
		120 DC	314-10473-6	316-10155-6	317-10242-6	318-10430-6
		115 AC	314-10473-8	316-10155-8	317-10255-8▲	318-10430-8
		MAN.	314-10479	316-10156	317-10241	318-10427
	NS	6 DC	314-10454-1	316-10157-1	317-10262-1	318-10450-1
		12 DC	314-10454-2	316-10157-2	317-10262-2	318-10450-2
		26 DC	314-10454-3	316-10157-3	317-10262-3▲	318-10450-3
		48 DC	314-10454-4	316-10157-4	317-10262-4	318-10450-4
		100 DC	314-10454-5	316-10157-5	317-10262-5	318-10450-5
		120 DC	314-10454-6	316-10157-6	317-10262-6	318-10450-6
		115 AC	314-10454-8	316-10157-8	317-10275-8	318-10450-8
		MAN.	314-10452	316-10158	317-10261	318-10451
	51Ω RT	6 DC	314-10464-1	316-10159-1	317-11084-1	318-10460-1
		12 DC	314-10464-2	316-10159-2	317-11084-2	318-10460-2
		26 DC	314-10464-3	316-10159-3	317-11084-3	318-10460-3
		48 DC	314-10464-4	316-10159-4	317-11084-4	318-10460-4
		100 DC	314-10464-5	316-10159-5	317-11084-5	318-10460-5
		120 DC	314-10464-6	316-10159-6	317-11084-6	318-10460-6
		115 AC	314-10464-8	316-10159-8	317-11084-8	318-10460-8
		MAN.	314-10462	316-10160	317-11097	318-10459

500 WATT SWITCHES.

N	SH	6 DC	314-10751-1	316-10744-1	317-10538-1	318-10664-1
		12 DC	314-10751-2	316-10744-2	317-10538-2	318-10664-2
		26 DC	314-10751-3	316-10744-3	317-10538-3▲	318-10664-3
		48 DC	314-10751-4	316-10744-4	317-10538-4	318-10664-4
		100 DC	314-10751-5	316-10744-5	317-10538-5▲	318-10664-5
		120 DC	314-10751-6	316-10744-6	317-10538-6	318-10664-6
		115 AC	314-10751-8	316-10732-8▲	317-10538-8	318-10664-8
		MAN.	314-10765	316-10731	317-10523	318-10662▲

CONTINUOUS DUTY COIL CHARACTERISTICS @ 20°C.

nominal voltage	operating range	resistance ohms ± 10% 100 watt switches	500 watt switches
6 DC	4.5-7	25	14
12 DC	9.0-14	75	50
26 DC	19-32	280	200
48 DC	36-54	1200	900
100 DC	75-110	5000	4000
120 DC	95-130	6000	6000
115 AC (50-60 Hz)	95-125	550	550

100 WATT SWITCHES. ELECTRICAL CHARACTERISTICS

frequency GHz		.06	0.1	0.2	0.4	0.7	1.0	2.0	3.0	.06	0.1	0.2	0.4	0.7	1.0	2.0	3.0
conn	term	VSWR (maximum)								ISOLATION (minimum) -dB							
BNC	SH	1.05	1.06	1.07	1.10	1.15	1.20	1.25	1.40	75	70	64	60	55	50	40	30
TNC N	NS/RT	1.55	1.06	1.07	1.15	1.20	1.20	1.25	—	55	50	42	38	35	24	20	—

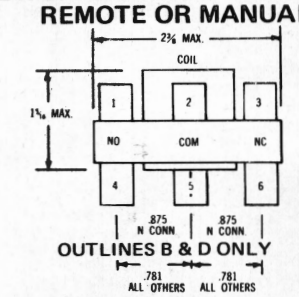
500 WATT SWITCHES. ELECTRICAL CHARACTERISTICS

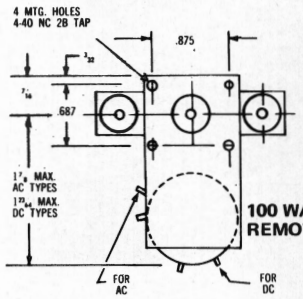
N	SH	1.04	1.05	1.06	1.08	1.10	1.12	1.25	1.50	75	70	65	55	45	40	35	30
C	NS	1.04	1.05	1.06	1.08	1.10	1.12	1.30	1.60	50	45	40	35	30	25	20	15
UHF	SH	1.06	1.10	1.20	1.40	—	—	—	—	72	67	62	55	—	—	—	—
	NS	1.06	1.10	1.20	1.40	—	—	—	—	45	42	40	33	—	—	—	—

BUNKER RAMO AMPHENOL COAXIAL SWITCHES

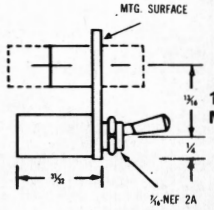
BLADED DESIGNS SERIES 314, 316, 317, 318

1P2T. 100 & 500 WATT SWITCHES. REMOTE OR MANUAL

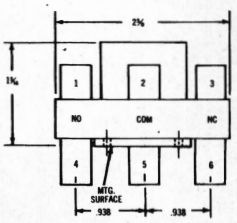


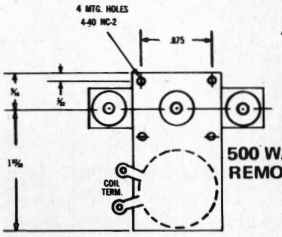


100 WATT REMOTE TYPES

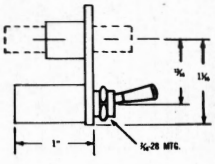


100 WATT MANUAL TYPES





500 WATT REMOTE TYPES



500 WATT MANUAL TYPES

BLADED DESIGNS SERIES 315, 321

1P2T and 2P2T FLAT-MOUNTING. REMOTE OR MANUAL

This group consists of small single blade switches for use up to 1.5 GHz and available only with non-shorting contacts. The 1P2T Series 315 is offered in coil types for above chassis mounting or manual types with through toggle stem panel mounting. The 2P2T Series 321 types are two block versions of the single pole types with similar mounting provisions.

GENERAL CHARACTERISTICS

1. Electrical

Insertion Loss
- 0 to 0.75 GHz: 0.10 dB
- 0.75 to 1.5 GHz: 0.20 dB

Power Rating (non-switching)
- 0 to 0.5 GHz: 100 watts CW, 2 KW peak
- 0.5 to 1.5 GHz: 50 watts CW, 1 KW peak

Switching Time
- 1P2T TYPES: operate 10 mS, release 8 mS
- 2P2T TYPES: operate 18 mS, release 10 mS

2. Mechanical

Life
- remote: 1,000,000 cycles minimum expected
- manual: 25,000 cycles

Weight
- 1P2T TYPES: approx. 4 oz.
- 2P2T TYPES: approx. 10 oz.

3. Environmental (Tested per MIL-S-3928B)

Temperature: –55°C to 85°C

Vibration (Test Cond. B)
- 1P2T: 10 to 500 Hz
- 2P2T: 10 to 55 Hz

Shock: 15 G's 11 mS

Salt Spray: 48 hrs.

Humidity: 10 day test

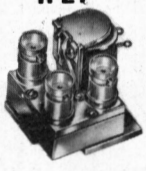
functions and connector positions			1P2T	2P2T
conn.	term.	coil volts	AMPHENOL PART NUMBERS	
BNC	NS	6 DC	315-10002-1	321-11064-1
		12 DC	315-10002-2	321-11064-2
		26 DC	315-10002-3	321-11064-3
		48 DC	315-10002-4	321-11064-4
		100 DC	315-10002-5	321-11064-5
		120 DC	315-10002-6	321-11064-6
		115 AC	315-10048-8	321-11064-8
		MAN.	315-10001	321-11062
TNC	NS	6 DC	315-10049-1	321-11060-1
		12 DC	315-10049-2	321-11060-2
		26 DC	315-10049-3	321-11060-3
		48 DC	315-10049-4	321-11060-4
		100 DC	315-10049-5	321-11060-5
		120 DC	315-10049-6	321-11060-6
		115 AC	315-10049-8	321-11060-8
		MAN.	315-10050	321-11059
SUB 27 50 Ω SCREW ON	NS	6 DC	315-10053-1	321-11048-1
		12 DC	315-10053-2	321-11048-2
		26 DC	315-10053-3	321-11048-3
		48 DC	315-10053-4	321-11048-4
		100 DC	315-10053-5	321-11048-5
		120 DC	315-10053-6	321-11048-6
		115 AC	315-10053-8	321-11048-8
		MAN.	315-10054	321-11047

ELECTRICAL CHARACTERISTICS

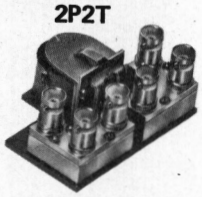
frequency GHz	.03	.06	0.1	0.2	0.4	0.7	1.0	1.5
connector	VSWR (maximum)							
BNC/TNC SUB 27	1.04	1.05	1.05	1.09	1.18	1.25	1.30	1.40
	ISOLATION (minimum) -dB							
BNC/TNC SUB 27	55	50	45	40	35	30	25	20

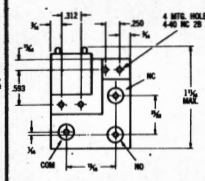
OUTLINE DATA

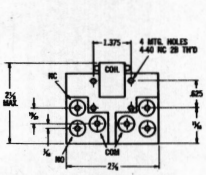
1P2T

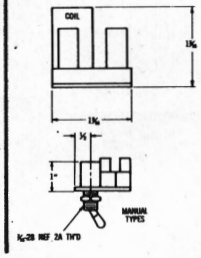


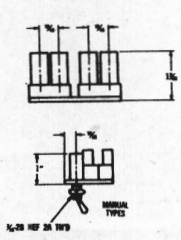
2P2T



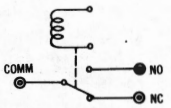




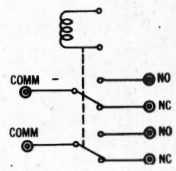




1P2T



2P2T



CONTINUOUS DUTY COIL CHARACTERISTICS @ 20°C.

nominal voltage	operating voltage range	resistance ohms ± 10% 1P2T	2P2T
6 DC	4.5-7	20	14
12 DC	9-13	75	50
26 DC	18-32	280	200
48 DC	36-54	1200	900
100 DC	75-110	5000	5000
120 DC	95-130	6000	6000
115 AC	95-125	Diode Rect.	550

BUNKER RAMO AMPHENOL COAXIAL SWITCHES

1P3T, 4T, 5T, 6T CIRCULAR SWITCHES. MANUAL

BLADED DESIGNS SERIES 322

This series of small manual switches are offered with 3, 4, 5 or 6 positions and BNC, TNC or MB connectors. A ¼ inch diameter shaft operates the switch from one position to the next when rotated 60°. Excellent crosstalk and VSWR characteristics.

functions and connector positions		1P3T	1P4T	1P5T	1P6T
		 Outline A	 Outline B	 Outline C	 Outline D
conn. type	term.	AMPHENOL PART NUMBERS			
BNC	NS	322-11421	322-11431	322-11287	322-11442
TNC	NS	322-11423	322-11433	322-11288	322-11446
MB	NS	322-11422	322-11432	322-11289	322-11443

GENERAL CHARACTERISTICS

1. **Electrical**
   - **Insertion Loss**
     - 0 to 0.5 GHz: 0.08 dB
     - 0.5 to 3.0 GHz: 0.20 dB
   - **RF Power Rating (non-switching)**
     - 0 to 0.5 GHz: 100 watts CW
     - 0.5 to 3.0 GHz: 50 watts CW
2. **Mechanical**
   - **Life** : 25,000 cycles minimum expected
   - **Weight** : 10 to 12 oz.
3. **Environmental (Tested per MIL-S-3928B)**
   - **Temperature** : –55°C to 85°C
   - **Vibration** : 10 to 500 Hz 10 G's
   - **Shock** : 25 G's 11 mS
   - **Salt Spray** : 48 hrs.
   - **Humidity** : 10 day test

ELECTRICAL CHARACTERISTICS

frequency GHz	0.1	0.2	0.4	0.7	1.0	2.0	3.0	0.1	0.2	0.4	0.7	1.0	2.0	3.0
connector	VSWR (maximum)							ISOLATION (minimum) -dB						
BNC/TNC	1.06	1.10	1.12	1.12	1.13	1.20	1.25	100	90	65	60	60	55	45
MB	1.10	1.15	1.20	1.25	1.30	–	–	90	80	60	52	45	–	–

OUTLINE DATA

outline		connector location
	A	1 thru 3
	B	1 thru 4
	C	1 thru 5
	D	1 thru 6

1P2T HIGH POWER WITH DUST COVER. REMOTE

BLADED DESIGNS SERIES 320

These switches are high power (1 KW) two-position switches with double make and break contacts. This construction gives exceptionally good crosstalk characteristics (–100 dB @ 500 MHz).

This series uses a separate actuator for each position with the coils wired in parallel for fail-safe operation. Normal operation is break before make contacts, but the coils may be rewired to an external delay circuit to provide make before break operation. These switches are supplied with a dust cover over the actuator and two one-foot coil connection leads.

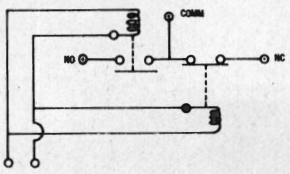
functions and connector positions			1P2T 
conn.	term.	coil volts	AMPHENOL part no.
N	NS	26 DC 48 DC 110 DC 115 AC	320-10931-3 320-10931-4 320-10931-6 320-10931-8
HN	NS	26 DC 48 DC 110 DC 115 AC	320-10932-3 320-10932-4 320-10932-6 320-10932-8

GENERAL CHARACTERISTICS

1. **Electrical**
   - **Insertion Loss**
     - 0 to 0.5 GHz: 0.05 dB
     - 0.5 to 3.0 GHz: 0.25 dB
   - **Power Rating (non-switching)**
     - 0 to 0.5 GHz: 1 KW CW, 10 KW peak
     - 0.5 to 3.0 GHz: 500 watts CW, 5 KW peak
   - **Switching Time**
     - operate: 20 mS
     - release: 30 mS
2. **Mechanical**
   - **Life** : 500,000 cycles minimum expected
   - **Weight** : 20 to 22 oz.
3. **Environmental (Tested per MIL-S-3928B)**
   - **Temperature** : –55°C to 85°C
   - **Vibration** : 10 G's 10 to 55 Hz
   - **Shock** : 15 G's 11 mS
   - **Salt Spray** : 48 hrs.
   - **Humidity** : 10 day test

ELECTRICAL CHARACTERISTICS

frequency GHz	.06	0.1	0.2	0.4	0.7	1.0	2.0	3.0	.06	0.1	0.2	0.4	0.7	1.0	2.0	3.0
connector	VSWR (maximum)								ISOLATION (minimum) -dB							
N	1.04	1.05	1.06	1.08	1.10	1.12	1.32	1.45	100	100	98	95	92	90	65	50
HN	1.04	1.05	1.07	1.12	1.15	1.25	1.35	1.55	100	100	98	92	90	85	60	48



BUNKER RAMO AMPHENOL COAXIAL SWITCHES

BLADED DESIGNS SERIES 323. 325. 326. 329

1P4T, 6T, 8T, 12T. MULTI-POSITION. REMOTE

These multi-position switches are offered with four, six, eight, or twelve positions. Each position has its individual operating coil. Its associated coaxial switching circuit is normally open (non-shorting), shorting to ground, or resistor terminated. Energizing the coil closes the circuit to the center common input (or output). Where impedance matching is not important, more than one circuit can be closed to the common, or connected to any other position via the common.

The electrical length between any position and the common varies according to their physical separation. Similarly, the VSWR, and to a minor extent the crosstalk, varies between positions. The values reported in the chart are average measurements in a 50 ohm circuit for the worst position. The VSWR between the common and the furthest positions is lower.

Four, six and eight-position switches are intended for through panel mounting or above chassis mounting by means of brackets or spacers (not supplied). Twelve-position types are intended for above chassis mounting. Note: Type N and TNC connectors as well as protective dust covers are also available.

functions and connector positions			1P4T  Outline A	1P6T  Outline B	1P8T  Outline C	1P12T  Outline D
conn.	term.	coil volts	AMPHENOL PART NUMBERS			
BNC	SH	6 DC	323-11506-1	325-11635-1	329-11230-1	326-11507-1
		12 DC	323-11506-2	325-11635-2	329-11230-2	326-11507-2
		26 DC	323-11506-3	325-11635-3	329-11230-3	326-11507-3
		48 DC	323-11506-4	325-11635-4	329-11230-4	326-11507-4
		100 DC	323-11506-5	325-11635-5	329-11230-5	326-11507-5
		120 DC	323-11506-5	325-11635-6	329-11230-6	326-11507-6
	NS	6 DC	323-11651-1	325-11641-1	329-11234-1	326-11242-1
		12 DC	323-11651-2	325-11641-2	329-11234-2	326-11242-2
		26 DC	323-11651-3	325-11641-3	329-11234-3	326-11242-3
		48 DC	322-11651-4	325-11641-4	329-11234-4	326-11242-4
		100 DC	323-11651-5	325-11641-5	329-11234-5	326-11242-5
		120 DC	323-11651-6	315-11641-6	329-11234-6	326-11242-6

CONTINUOUS DUTY COIL CHARACTERISTICS @ 20°C.

nominal voltage	operating voltage range	resistance ohms ± 10% 1P2T	2P2T
6 DC	4.5-7	20	14
12 DC	9-13	75	50
26 DC	18-32	280	200
48 DC	36-54	1200	900
100 DC	75-110	5000	5000
120 DC	95-130	6000	6000

ELECTRICAL CHARACTERISTICS

frequency GHz			.03	.06	0.1	0.2	0.4	0.7	1.0	.03	.06	0.1	0.2	0.4	0.7	1.0
funct	conn.	term.	VSWR (maximum)							ISOLATION (minimum) dB						
1P4T	BNC TNC	SH	1.05	1.05	1.05	1.06	1.10	1.15	1.36	90	80	75	60	50	42	35
		NS &RT	1.05	1.05	1.05	1.06	1.10	1.16	1.38	60	58	55	45	35	30	27
1P6T	BNC TNC	SH	1.05	1.05	1.06	1.10	1.28	1.65	2.00	90	80	75	65	50	40	30
		NS &RT	1.05	1.05	1.06	1.10	1.28	1.65	2.00	60	58	50	40	35	30	25
1P8T	BNC TNC	SH	1.05	1.10	1.20	1.35	1.60	2.00	–	85	80	75	65	50	45	–
		NS &RT	1.05	1.10	1.20	1.35	1.60	2.00	–	60	58	50	40	35	30	–
1P12T	BNC TNC	SH	1.06	1.15	1.20	1.50	2.00	–	–	80	70	65	55	45	–	–
		NS &RT	1.06	1.15	1.20	1.50	2.00	–	–	60	50	42	37	30	–	–

CATV SWITCHES SERIES 300

DUAL CABLE, HIGH PERFORMANCE

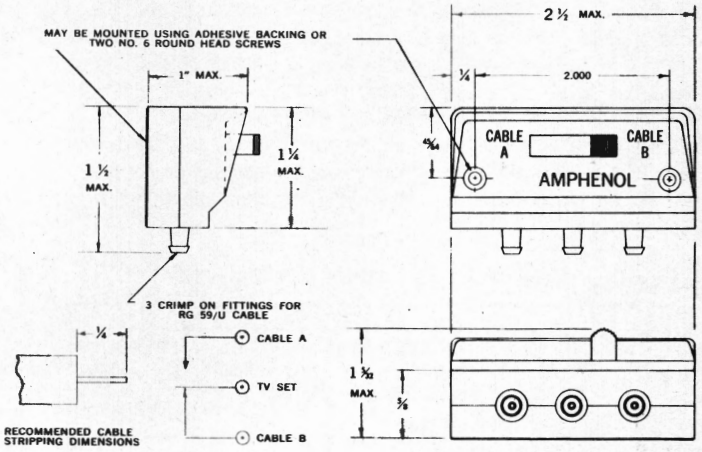
A low-cost, quality coaxial switch, specially designed for use with CATV dual-cable service, is now available from Amphenol.

Amphenol's CATV Switch 300-10100 enables a TV viewer who has access to dual-cable CATV service to materially increase the reception of his set. By merely flicking the switch, up to 12 additional channels can be received. Added to the previous optimum reception capability of only 12 channels, the CATV dual-cable service and Amphenol's CATV Switch now make it possible to choose from up to 24 different channels.

Measuring only 3 inches wide, the CATV Switch can be mounted on the rear of the TV set with a pressure-sensitive adhesive panel provided or screwed into a nearby wall. Cable wire from the switch is connected to the home's CATV antenna lead-in.

AMPHENOL PART NUMBERS

300-10100: 75 ohms
300-10139: 75 ohms inputs, 300 ohms common



GENERAL CHARACTERISTICS

Frequency: 0-250 Mc.

Return Loss: 15dB. Max 1.43:1 VSWR.

Isolation: –55 dB. Min.

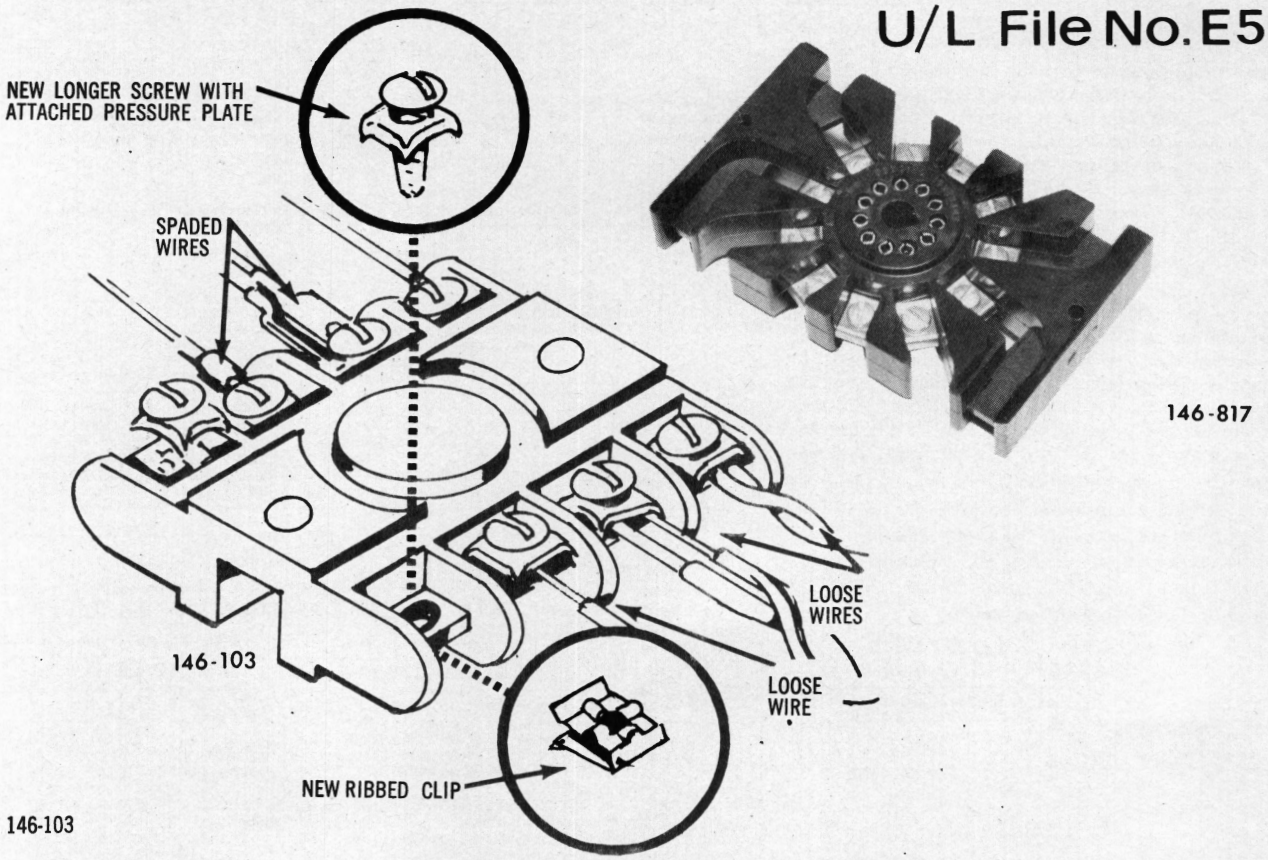
Impedance: 75 Ohms

Cable: RG 59/U

BUNKER RAMO **AMPHENOL**

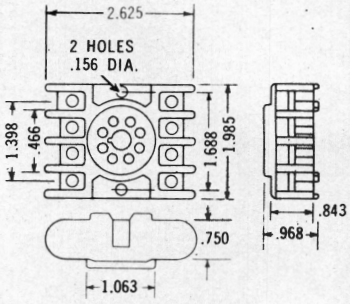
U/L RECOGNIZED – 8 CONTACT 146 SERIES RELAY SOCKETS

U/L File No. E56473

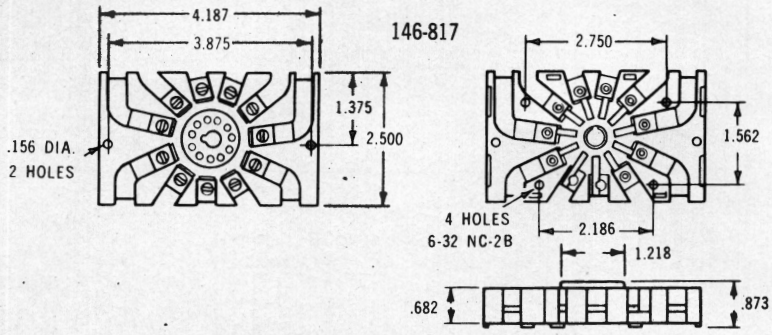


146-817

146-103



146-817



8 CONTACT TYPE

New upgraded, U/L recognized design of the 146 Series relay sockets provides better performance with longer termination screws with captivated pressure plates to terminate bare, solid or stranded wire from 20 ga. to 12 ga. Design will not allow wire to pull out or shear when termination screw is tightened. Screw and clip combination will withstand up to 45 inch pounds torque in installation. Rugged insulating barriers provide long creepage paths between contacts, and to ground. Phenolic body will withstand 300°F continuous without melting or breakdown. Screw terminals can be reversed for mounting and wiring from below the panel.

ORDERING INFORMATION

Part No.	Description
146-103	Standard Socket Without Tie Point Inserts — Top Mounted
146-104	Socket With Four Molded-in Threaded Inserts for Tie Points — Top Mounted
146-203	Same As 146-103 Except For Bottom Mounting
146-204	Same As 146-104 Except For Bottom Mounting

11 CONTACT TYPE

Same new up-graded design features as 8 contact type at left. Rated 10 amps., 600 volts. May be gang mounted above or below chassis. Socket-type contacts assure firm, smooth mating action and excellent relay retention, even after repeated matings. RETMA-numbered solderless, reversible screw terminals. Four molded-in threaded-brass insert tie points. Replaceable contacts.

ELECTRICAL & MECHANICAL CHARACTERISTICS

Dielectric: Phenolic
Threaded insert: Brass
Contacts: Phosphor bronze Grade A, plated .0002-.0004″ nickel per QQN-290

Part Number to Order: 146-817

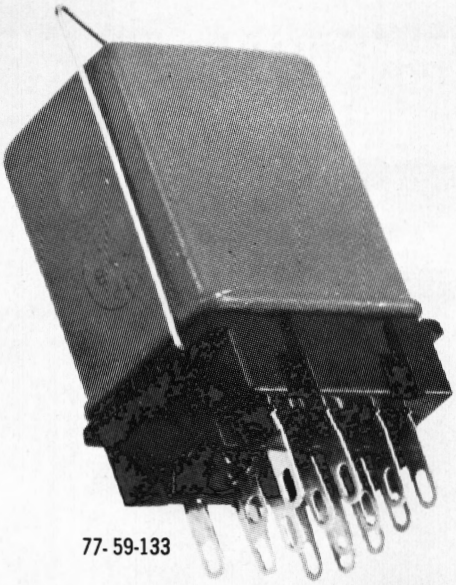
77-59 SERIES RELAY SOCKETS BUNKER RAMO AMPHENOL

U/L RECOGNIZED U/L File No. E12869

ECONOMICAL SOCKETS FOR 14-CONTACT MINIATURE RELAYS

Amphenol's line of 14-contact miniature relay sockets offers an exceptionally wide range of high quality features at remarkably low cost. The use of these sturdy sockets provides increased flexibility of equipment design and assembly procedures, and greatly simplifies testing and servicing. They are designed for use with the popular 4 PDT general purpose miniature relay, and are especially suitable in applications such as computers, data processing equipment, logic systems, business machines, and communications equipment. Sockets conform to proposed electronic industries standards and will replace higher cost types without modification.

The sockets are available with either printed circuit or solder eyelet contacts. A spring steel mounting clip is provided with each solder type socket.



77-59-133

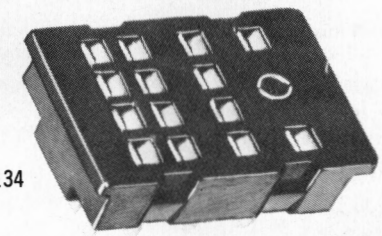
SPECIFICATIONS

Current Rating: 5.0 amps
Voltage Rating: 250 volts
Contacts: Cadmium-plated brass
Dielectric: Black phenolic

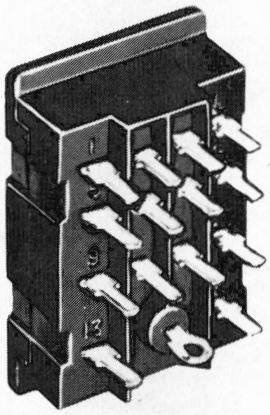
ORDERING INFORMATION

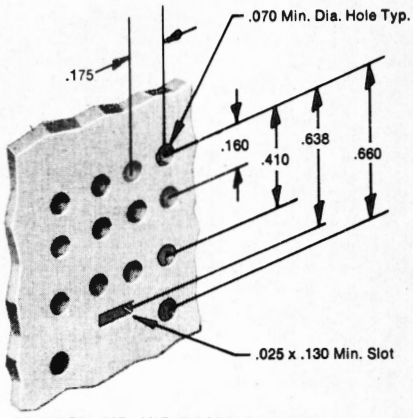
Part Number	Contact Termination
77-59-133*	Solder Eyelet
77-59-134	Printed Circuit

* Includes spring steel mounting clip

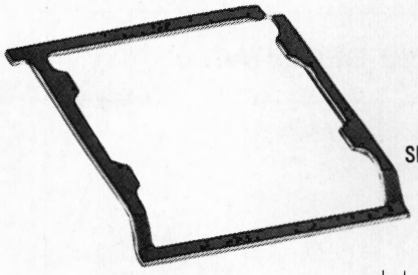


77-59-134

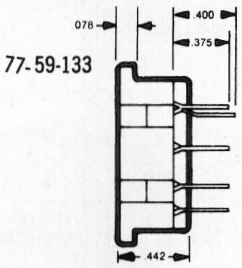




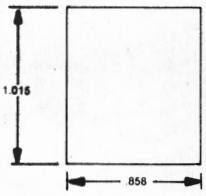
PRINTED CIRCUIT BOARD LAYOUT



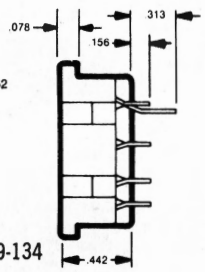
SPRING STEEL MTG. CLIP



77-59-133

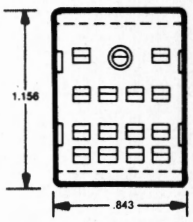


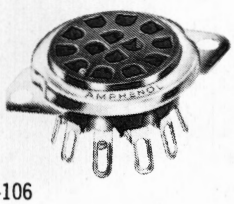
-133 Panel Cutout
Panel Thickness: .031 to .062
Punch for cutout may be ordered from Greenlee Tool Co., Rockford, Ill. Type #731R



77-59-134

77-59-133 and 77-59-134





77-59-106

14 CONTACT TYPE

Cadmium plated steel mounting plate with two .125" dia. holes on 1.125" centers. Mounting hole is .750" minimum diameter. Wrap around type contacts of silver plated phosphor bronze with hot tin dipped tails. Dielectric is mica-filled phenolic. Mates with 14-contact relay plugs.

Part Number to Order: 77-59-106

The right idea at the right time / AMPHENOL® / BUNKER RAMO®

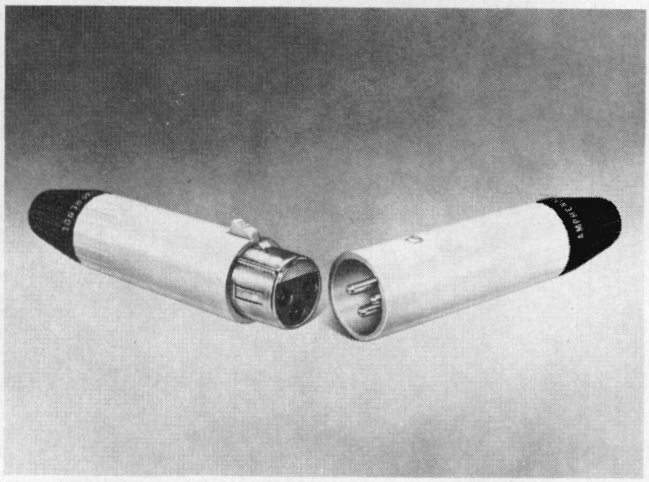
CONNECTORS FOR AUDIO/ELECTRONIC APPLICATIONS

NEW AMPHENOL 91-Q SERIES

The originator of the quick-disconnect microphone connector now brings you a new generation of connectors for audio/electronics that are intermateable and interchangeable with standard latch-lock type audio connectors.

The QWIK 91 Series is completely re-designed with rugged, high-strength zinc die-cast construction to withstand most severe uses without breakage. The non-reflective satin-nickel finish enhances the appearance of virtually any studio or test equipment.

The new 91-Q Series cable connectors also feature a "Twist-Lock" cable grip that uses no screws and needs no tools to assemble. The grip accommodates a wide range of cable diameters. This feature, plus unitized inserts, means the new 91-Q Series connectors give increased savings on connector assembly and termination.



Quality Features

Construction — Zinc die-cast connector shells and pushbutton latch.

Shell-to-Shell Ground Terminal — Separate and positive ground-to-shell terminals provided on all assemblies.

"Twist-Lock" Cable Grip — An internal, positive cable clamp activated by twisting the threaded back nut. No tools needed. No disassembly/assembly required. Quick and firm grip on 3/16" to 5/16" O.D. cables.

Anti-Vibration Springs — Place tension on mated connectors to dampen vibration and reduce hum and noise.

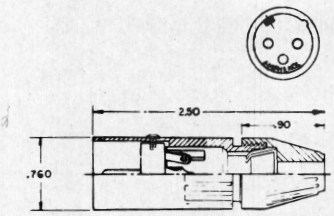
Latchlock — Pushbutton latching mechanism provides fast, positive lock and release. New die-cast construction for maximum service.

Shell Styles — Select from round or rectangular receptacle shells.

Contacts — Precision made from a copper alloy for optimum service life.

STRAIGHT CORD PLUGS

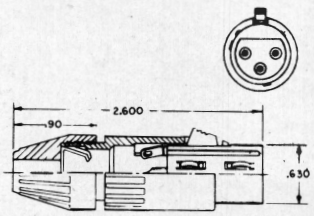
Figure A



Pin Contacts

Number of Contacts	3	4	5
Amphenol Part Number	91-3CM	91-4CM	91-5CM

Figure B

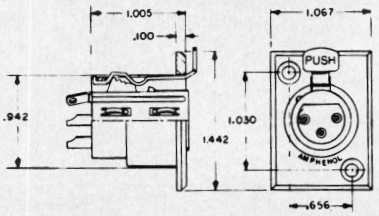


Socket Contacts

Number of Contacts	3	4	5
Amphenol Part Number	91-3CF	91-4CF	91-5CF

WALL MOUNTING RECEPTACLES

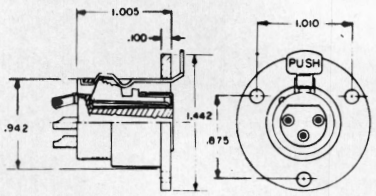
Figure A-1



Socket Contacts (mates with Fig. A)

Number of Contacts	3	4	5
Amphenol Part Number	91-3SF	91-4SF	91-5SF

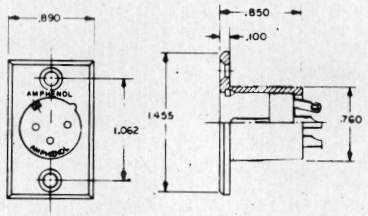
Figure A-2



Socket Contacts (mates with Fig. A)

Number of Contacts	3	4	5
Amphenol Part Number	91-3RF	91-4RF	91-5RF

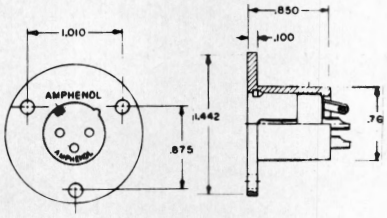
Figure B-1



Pin Contacts (mates with Fig. B)

Number of Contacts	3	4	5
Amphenol Part Number	91-3SM	91-4SM	91-5SM

Figure B-2

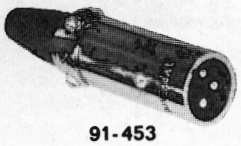


Pin Contacts (mates with Fig. B)

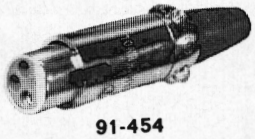
Number of Contacts	3	4	5
Amphenol Part Number	91-3RM	91-4RM	91-5RM

91 SERIES MICROPHONE CONNECTORS

BUNKER RAMO AMPHENOL



91-453



91-454

EXCELLITE CONNECTORS

A low cost, dependable audio-type connector with latchlock coupling. Made of sturdy ABS molded plastic with lustrous nickel plating, Excellite connectors resist denting, chipping, peeling or tarnishing. They are available in cable plugs and panel receptacles with 3, 4 and 5 contacts.

FEATURES

ECONOMICAL — Lower initial procurement cost, less downtime for installation, rewiring, field repairs.

LIGHTWEIGHT — Considerable weight savings over comparable die-cast zinc configurations.

WIRING — Unitized inserts (shell, button and insert are all one assembly) are easily removed and feature screw-machined solder cup type contacts for quick efficient termination.

POSITIVE GROUND — In all Excellite latchlock-type connectors, contact #1 engages first for use as ground — eliminating chance of accidental electrical damage to solid-state equipment or microphones.

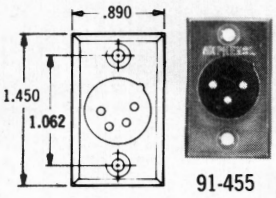
POLARIZATION — Key on female connector, lock-in keyway on male to prevent mismating.

FEMALE CABLE PLUGS

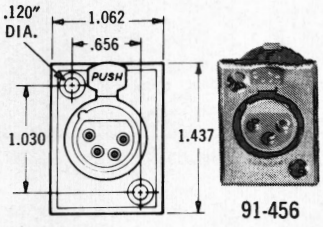
Number of Contacts		3	4	5
Part Number		91-454	91-458	91-462
Electrical	Cannon	XLR-3-11C	XLR-4-11C	XLR-5-11C
Equivalent	Switchcraft	A3F	A4F	A5F

MALE CABLE PLUGS

Number of Contacts		3	4	5
Part Number		91-453	91-457	91-461
Electrical	Cannon	XLR-3-12C	XLR-4-12C	XLR-5-12C
Equivalent	Switchcraft	A3M	A4M	A5M



91-455



91-456

CHASSIS RECEPTACLES (Mate with Female Cable Plugs)

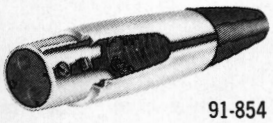
Number of Contacts		3	4	5
Part Number		91-455	91-459	91-463
Electrical	Cannon	XLR-3-32	XLR-4-32	XLR-5-32
Equivalent	Switchcraft	D3M	D4M	D5M

CHASSIS RECEPTACLES (Mate with Male Cable Plug)

Number of Contacts		3	4	5
Part Number		91-456	91-460	91-464
Electrical	Cannon	XLR-3-31	XLR-4-31	XLR-5-31
Equivalent	Switchcraft	D3F	D4F	D5F



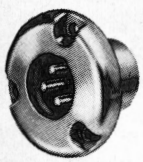
91-853



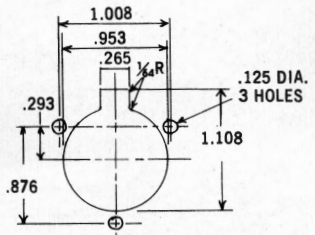
91-854

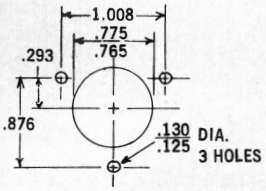


91-856



91-855





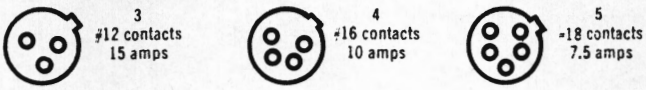
SPECIFICATIONS

- **SHELL AND CABLE CLAMP** — Molded plateable grade ABS (acrylonitrile butadiene styrene) with nickel plate over copper finish.
- **INSERT DIELECTRIC** — Molded type 6 nylon.
- **CONTACTS** — Copper alloy, silver plated and chromate dipped. Screw machine design with solder cup termination.
- **CABLE RELIEF** — General purpose 40-60 durometer neoprene rubber.
- **CABLE CLAMP** — Cable clamp and gland accepts commonly used .250" to 0.313" diameter cable.
- **ELECTRICAL CHARACTERISTICS**

	3 Contact	4 Contact	5 Contact
Voltage	133 V (RMS)	133 V (RMS)	133 V (RMS)
Current	15 A.	10 A.	7.5 A

- **TEMPERATURE RATING** — — 20°F to 160°F
- **DIELECTRIC WITHSTANDING VOLTAGE** — 1400 V at 60 Hz for one minute between any two contacts or between any contact and connector shell.

STANDARD CONTACT ARRANGEMENT
(Face View-pin insert)



QWIKS - 91 SERIES

Efficient, easy-to-operate, quick-disconnect microphone connectors. Connectors automatically lock when fully mated. To disconnect, merely slide forward the button on female cable plug or depress button on male cable plug. Cable connectors mate for cable to cable applications — or mate cable plugs with chassis receptacles.

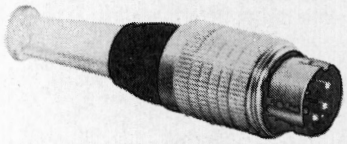
Qwiks are finished in attractive corrosion-resistant satin nickel, with bodies of high grade zinc alloy. Contacts are bronze, gold-plated over silver for high conductivity. Dielectric is diallyl phthalate.

ORDERING INFORMATION

Description	3 Contacts	4 Contacts
Male Cable Plug	91-853	91-857
Female Cable Plug	91-854	91-858
Male Chassis Receptacle	91-855	91-859
Female Chassis Receptacle	91-856	91-860

MICROPHONE CONNECTORS

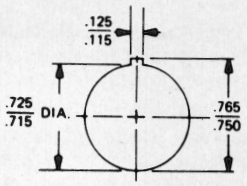
BUNKER RAMO AMPHENOL



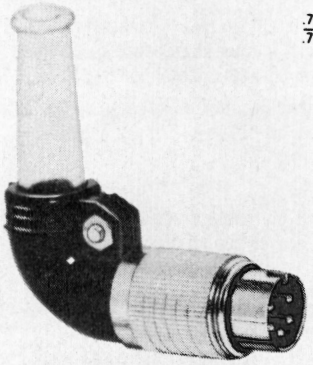
91T-3360-1



91T-3363-9



PANEL CUTOUT



91T-3360-6



91T-3363-9

91T SERIES

These miniature audio/electronic cable to panel connectors are available with up to 12 contacts in straight or right angle plug styles. They are ideal for use with microphones, recorders, two-way radios, test instruments, industrial controls and data processing. Approximately 33% smaller than Amphenol's standard 91 Series coupling ring connectors, these miniatures are intermateable with some types of imported European electronic equipment. They provide high density, low cost, top quality interconnections for many modern equipment requirements.

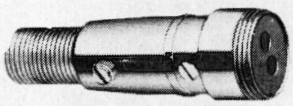


ORDERING INFORMATION

Number of Contacts	Part Numbers		
	Cable Plugs		
	Straight	Right Angle	Panel Receptacles
*2	91-T-3200-1	91-T-3200-6	91-T-3203-9
3	91-T-3260-1	91-T-3260-6	91-T-3263-9
4	91-T-3300-1	91-T-3300-6	91-T-3303-9
5	91-T-3360-1	91-T-3360-6	91-T-3363-9
6	91-T-3400-1	91-T-3400-6	91-T-3403-9
7	91-T-3475-1	91-T-3475-6	91-T-3478-9
12	91-T-3635	91-T-3635-6	91-T-3638-9

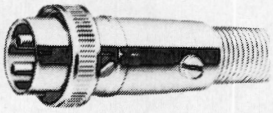
*Special Order Only.

JACK



80MC2F

PLUG



80-MC2M

PLUG

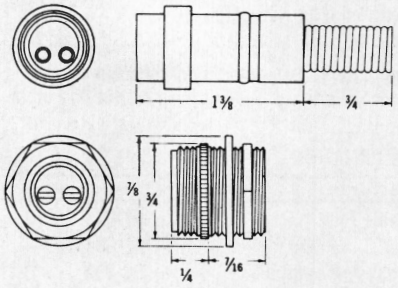
80-PC2M



RECEPTACLE



80-PC2F



80 SERIES - SINGLE AND DOUBLE CONTACTS

Connector Assemblies for use with shielded cables, single and two-conductor cables, applications for microphone cables, twisted pairs, concentric lines, photo cell leads, patch cords, and electronic instruments. Suitable for connecting many kinds of small apparatus.

Element is black phenolic; shell is machined from solid brass and finished in polished chrome.

Chassis connectors have same precision construction, assuring positive connections free from noise, leaks, or shorts. Cable plugs and panel receptacles of 80 Series are available with either male or female contacts. All mount in ⅝" holes. Maximum chassis thickness for lock-nut type receptacles is 11/32". Can be mounted directly on mike body with ⅝"-27 tapped hole. Cable spring guard accommodates cables to 5/16". Cap and chain 75-CCC1 can also be used with 80 Series connectors.

ORDERING INFORMATION

Contacts	Part No.	Description	Mates With
1	80-M	Male Cable Plug	80-C
1	80-C	Female Panel Receptacle	80-M
2	80-MC2M	Male Cable Plug	80-MC2F or 80-PC2F
2	80-MC2F1	Female Cable Plug	80-PC2Mor 80-MC2M1
2	80-MC2F	Female Cable Jack	80-MC2M
2	80-MC2M1	Male Cable Jack	80-MC2F1
2	80-PC2F	Female Panel Receptacle	80-MC2M
2	80-PC2M	Male Panel Receptacle	80-MC2F1
	75-CCC1	Cap & Chain for Receptacle	

MICROPHONE CONNECTORS

91 SERIES THREADED COUPLING MICROPHONE CONNECTORS

These are 3, 4, and 6-contact connectors designed primarily for audio equipment but used extensively on all types of portable equipment.

Positive screw-type coupling ring connection eliminates accidental disconnects. Squeeze type clamp grips cable securely after assembly and prevents pulling and twisting strain on soldered contacts.

Dielectric is molded from black phenolic cable. Shells are of brass, finished in bright chrome plating.

Cord protector springs on a 3-contact style have .281" I.D.; 4 and 6-contact styles have .385" I.D. Chassis receptacles mount in 27/32" dia. chassis holes up to 1/8" thick. Service end accommodates coupling ring on cable connector or cap and chain to seal open chassis units against dirt or tampering.

ORDERING INFORMATION

No. Contacts	P/N	Description	Mates With
3	91-MC3F	Female Cable Jack	91-MC3M
3	91-MC3F1	Female Cable Plug	91-MC3M1, 91-PC3M
3	91-MC3M	Male Cable Plug	91-MC3F, 91-PC3F
3	91-MC3M1	Male Cable Jack	91-MC3F1
3	91-PC3F	Female Panel Receptacle	91-MC3M
3	91-PC3M	Male Panel Receptacle	91-MC3F1
4	91-MC4F	Female Cable Jack	91-MC4M
4	91-MC4F1	Female Cable Plug	91-MC4M1, 91-PC4M
4	91-MC4M	Male Cable Plug	91-MC4F, 91-PC4F
4	91-MC4M1	Male Cable Jack	91-MC4F1
4	91-PC4F	Female Panel Receptacle	91-MC4M
4	91-PC4M	Male Panel Receptacle	91-MC4F1
6	91-MC6F	Female Cable Jack	91-MC6M
6	91-MC6F1	Female Cable Plug	91-MC6M1, 91-PC6M
6	91-MC6M	Male Cable Plug	91-MC6F, 91-PC6F
6	91-MC6M1	Male Cable Jack	91-MC6F1
6	91-PC6F	Female Panel Receptacle	91-MC6M
6	91-PC6M	Male Panel Receptacle	91-MC6F1
—	91-CCC3	Cap & Chain for Receptacle	

75 SERIES SINGLE CONTACT

Standard type used on microphones, amplifiers, speakers, transmitters, etc. Brass machined shells with chrome finish. Threaded coupling and unique button contact permits plugs to be converted to jacks by removal of coupling ring. Receptacles mount in .385" holes when grounding. .500" holes for ungrounded two circut operation. Spring cord protection for 1/4" cable.

ORDERING INFORMATION

Description	Part No.
Chassis Receptacle	80-75-PC1M
Straight Plug	80-75-MC1F
Cable Jack	80-75-MC1M
Angle Plug	80-75-MC1FA
Cap & Chain	80-75-CCC1
Phone Plug Adapter	80-75-MC1P

91 SERIES MINIATURE CABLE CONNECTORS ORDERING INFORMATION

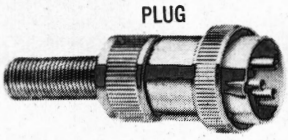
High quality compact connectors for shielded or unshielded cables. Make ideal battery or antenna connectors. Can also serve as inexpensive microphone connectors.

Black phenolic elements, housed in cadmium plated brass shells and held in place by set screws in side. Polarized contact spacing prevents incorrect insertion. Accommodate cables up to 1/4" diameter. Rated 3 amps., 500 volts.

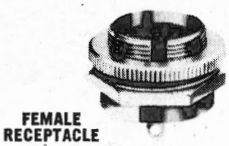
ORDERING INFORMATION

No. Contacts	Short Shell 13/16" Long	Long Shell 13/16" Long	Mating Sockets: Cable Socket Short 13/16"	Mating Sockets: Cable Socket Long 13/16"	Mating Sockets: *Chassis Shielded	Mating Sockets: Chassis Unshielded
3	91-MPM3S	91-MPM3L	91-MPF3S	91-MPF3L	78-PCG4	78-S3S
4	91-MPM4S	91-MPM4L	91-MPF4S	91-MPF4L	78-PCG3	78-S4S
5	91-MPM5S	91-MPM5L	91-MPF5S	91-MPF5L	78-PCG5	78-S5S
6	91-MPM6S	91-MPM6L	91-MPF6S	91-MPF6L	78-PCG6	78-S6S

*Note — long shell only.



91-MC3M 91-MC3F



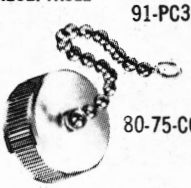
91-PC3F



91-PC3M



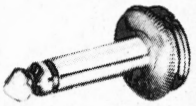
80-75-PC1M



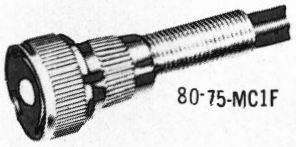
80-75-CCC1



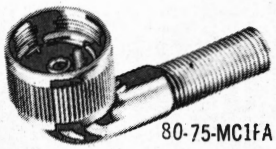
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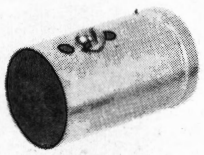
80-75-MC1P



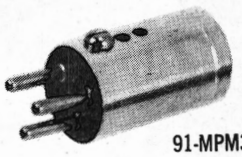
80-75-MC1F



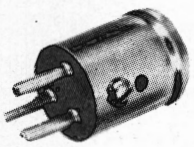
80-75-MC1FA



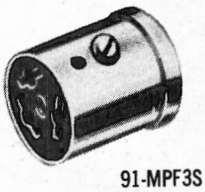
91-MPF3L



91-MPM3L



91-MPM3S



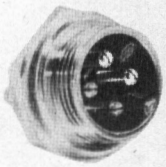
91-MPF3S

ORDERING INFORMATION — CABLE SOCKETS

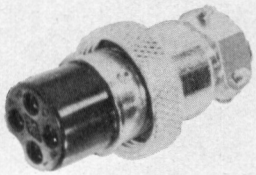
No. Contacts	Short Shell 13/16" Long	Long Shell 13/16" Long	Mating Plugs: Cable Plug Short 13/16"	Mating Plugs: Cable Plug Long 13/16"	Mating Plugs: Chassis Unshielded
3	91-MPF3S	91-MPF3L	91-MPM3S	91-MPM3L	86-CP3S
4	91-MPF4S	91-MPF4L	91-MPM4S	91-MPM4L	86-CP4S
5	91-MPF5S	91-MPF5L	91-MPM5S	91-MPM5L	
6	91-MPF6S	91-MPF6L	91-MPM6S	91-MPM6L	

MICROPHONE CONNECTORS

BUNKER RAMO AMPHENOL



80-871



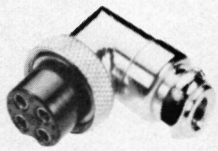
80-870

PLUG AND CHASSIS MOUNT RECEPTACLE

Coupling ring design assures positive electrical contact. Quality materials and craftsmanship provide years of trouble free preformance.

ORDERING INFORMATION

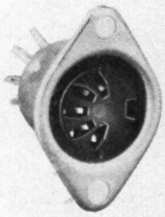
No. Contacts	Part No.	Description	Mates With
3	80-868	Female Plug	80-869(M) Chassis Receptacle
4	80-870	Female Plug	80-871(M) Chassis Receptacle
5	80-890	Female Plug	80-891(M) Chassis Receptacle
6	80-874	Female Plug	80-875(M) Chassis Receptacle



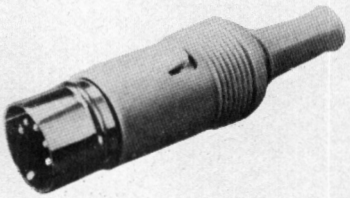
80-870AP

80-870AP 4 PIN ANGLE MIKE PLUG

Right Angle (F) connector for tight installations and where receptacle is on side of transceiver. Mates with 80-871(M) Chassis Receptacle (above).



80-883

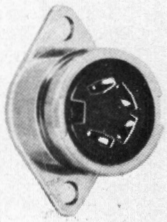


80-882

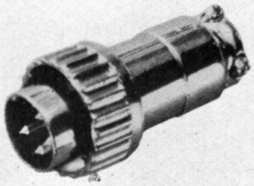
DIN TYPE PLUGS

ORDERING INFORMATION

No. Contacts	Part No.	Description	Mates With
4	80-892	Male Plug	—
5	80-882	Male Plug	80-883(F) Receptacle
6	80-884	Male Plug	80-885(F) Receptacle



80-877

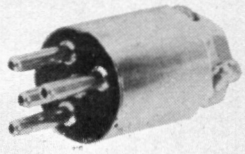


80-876

TWIST LOCK PLUGS

ORDERING INFORMATION

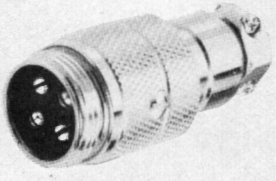
No. Contacts	Part No.	Description	Mates With
4	80-876	Male Plug	80-877(F) Receptacle
5	80-878	Male Plug	80-879(F) Receptacle



80-872

80-872 4 PIN "Y" PLUG

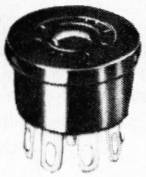
Designed for fast, reliable assembly, these "Y" configuration microphone plugs are designed to mate with the receptacles on many imported CB sets.



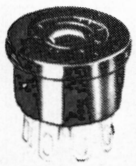
80-886

80-886 4 PIN (M) "IN-LINE" RECEPTACLE

A fast solution for extending CB mike cords for use with external PA systems . . . or for extending base station mike cords to give the operator more freedom of movement. Simply terminate the right length of mike cord with the male mike receptacle (80-886) on one end and the matching female plug (80-870) on the other.

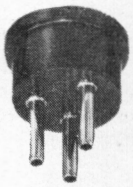


78-7P

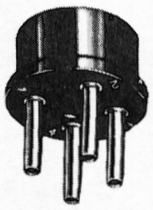


78-S6S

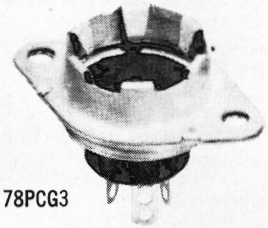




86-71-3S



86-CP-4S



78PCG3

MINIATURE WITH RETAINER RING MOUNTING

Especially designed for installations where space is at a premium, these sockets resemble AMPHENOL "S" Type Sockets but are less than half their size.

Sockets are easily mounted without screws or rivets in ⅝" round hole. Correct size retainer ring supplied with all sockets is easily assembled which assures a tight and secure mounting. Body is black phenolic. Rated 3 amps @ 500 vrms.

ORDERING INFORMATION

Contacts	Part No.	Pin Circle Diameter	Mating Plugs	
			Unshielded	Shielded
3	78-S3S	.344	86-71-3S	91-MPM3L
4	78-S4S	.406	86-71-4S	91-MPM4L
5	78-S5S	.406	86-71-5S	91-MPM5L
6	78-S6S	.406	86-71-6S	91-MPM6L
7	78-7P	.375	86-896	86-895

MINIATURE UNSHIELDED 86 - 71 SERIES

Extremely compact black phenolic plugs used extensively for speaker connections. Ideal for all plug-in connections where space is limited. Molded-in contacts are nickel plated brass. Rated 5 amps @ 500 vrms.

ORDERING INFORMATION

Contacts	Part No.	Pin Circle Diameter	Mating Sockets Unshielded
3	86- 71-3S	.343	78-S3S
4	86- 71-4S	.406	78-S4S
5	86- 71-5S	.406	78-S5S
6	86- 71-6S	.406	78-S6S

MINIATURE UNSHIELDED - 86 SERIES

Ideal for connecting speakers, carbon microphones, and antennas wherever space is at a premium. Right for test equipment, too. Retainer rings supplied with each part.

Plugs have black phenolic body, nickel plated brass contacts. Mount in ⅝" round hole. Rating 5 amps @ 500 vrms.

ORDERING INFORMATION

Contacts	Part No.	Pin Circle Diameter	Mating Sockets Shielded
3	86-CP-3S	.343	91-MPF-3S
4	86-CP-4S	.406	91-MPF-4S

SHIELDED CHASSIS TYPE

The 78PCG Series are made of standard 78 Series miniature sockets, assembled in a cadmium plated drawn steel mounting plate. Spring contacts wipe connector shell and assure good electrical connection between cable shield, connector shell and mounting surface. They also eliminate accidental disconnect.

Mount on surface or behind chassis or panel in ⅞" diameter hole on 1¼" centers. Rated 3 amps @ 500 vrms.

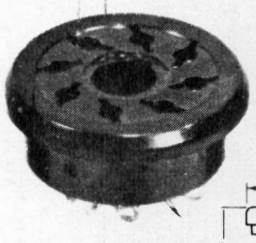
For a fully shielded connection, mate with 91 Series Long Shell Plugs.

ORDERING INFORMATION

Contacts	Part No.	Pin Circle Diameter	Mating Plugs	
			Unshielded	Shielded
3	78-PCG3	.344	86-71-3S	91-MPM3L
4	78-PCG4	.406	86-71-4S	91-MPM4L
5	78-PCG5	.406	86-71-5S	91-MPM5L
6	78-PCG6	.406	86-71-6S	91-MPM6L

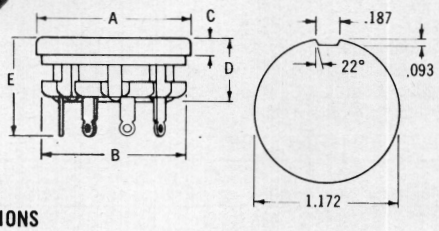
TUBE/RELAY SOCKETS

BUNKER RAMO AMPHENOL



78-S8





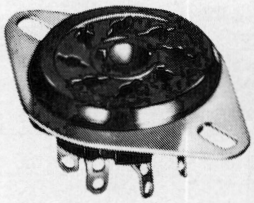
DIMENSIONS

Sockets	A	B	C	D	E
78-S4, -S5, -S6, -S7	1¼	1 5/32	.135	.420	27/32 Approx.
78-S8, -S9, -S11, -S12, -S16	1¼	1 5/32	.145	.490	7/8 Approx.

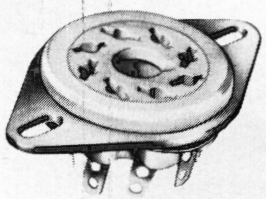
RETAINING RING SUPPLIED WITH 78 AND 49 "S" TYPE SOCKETS



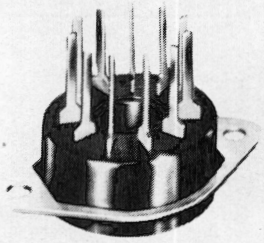
77-MIP-8



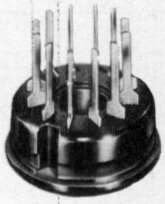
78-RS8



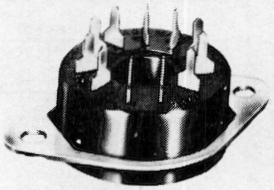
49-RSS-8



77-MIP9W-0525



78-S8W-0125



77-MIP11W-0125

SOLDERLESS WRAP SOCKETS

Standard socket series 77MIP and 78S of eight contacts or more have 1/2" long contact tails for solderless termination. Standard contacts are .016" thick, rated 3 amps for 22 ga. wire. Heavy duty contacts are .025" thick, rated 7.5 amps, for 16 ga. wire.

ORDERING INFORMATION

Part Numbers for General Purpose Phenolic Dielectric

Number of Contacts	Standard Contact		Heavy Duty Contact	
	Molded-In-Plate Style	Retaining Ring Style	Molded-In-Plate Style	Retaining Ring Style
8	77-MIP8W-0500	78-S8W-0500	77-MIP8W-0525	78-S8W-0525
*9	77-MIP-9W-0500	78-S9W-0500	77-MIP9W-0525	78-S9W-0525
11	77-MIP11W-0500	78-S11W-0500	77-MIP11W-0525	78-S11W-0525
*12	77-MIP12W-0500	78-S12W-0500	77-MIP12W-0525	78-S12W-0525

*Special Order Only.

"S" TYPE

Amphenol "S" type sockets feature the patented Amphenol Retainer Ring Mounting. These quick-mounting sockets use no screws or rivets; they are securely held by the retainer ring and can be easily mounted with a screwdriver or Amphenol hand tool 51-3. The sockets are notched around their circumference so that they may be rotated and mounted in the position that lines up the contacts for most convenient wiring. The retainer ring is furnished.

ORDERING INFORMATION

Contacts	Contacts	Black Phenolic	Mica Filled
4	Brass	78-S4	—
5	Brass	78-S5	—
6	Brass	78-S6	—
7	Brass	78-S7S	—
8 Octal	Luballoy	78-S8	78-S8T*
9	Luballoy	78-S9	—
11	Luballoy	78-S11	78-S11T*
12	Luballoy	78-S12	—
16	Luballoy	78-S16	—

MOUNTING PLATE TYPE

REPLACEMENT TYPE "S"

These superior sockets, ideal for any replacement, especially broken and noisy wafer types, are regular "S" type sockets, assembled with a retainer ring holding a sturdy nickel-plated steel mounting plate. Slotted holes in mounting plate fit centers from 1 1/2" to 1 55/64". Other dimensions and characteristics are the same as for "S" type.

MOLDED-IN-PLATE TYPE

Steel mounting plate molded directly into solid phenolic body assures dependable, secure mounting and eliminates breakage suffered by ordinary laminated sockets during riveting.

Contacts are spaced for easy, fast wiring. Two holes in each contact provide wiring and anchoring points for resistors, capacitors, chokes, and othe components.

ORDERING INFORMATION

Contacts	Black Phenolic	Steatite #	Black Phenolic	Mica Filled
4	78-RS4	49-RSS4	77-MIP-4	77-MIP-4T*
5	78-RS5	49-RSS5	77-MIP-5	—
6	—	—	77-MIP-6	—
7	—	—	77-MIP-7S	—
8 Octal	78-RS8	49-RSS8	77-MIP-8	77-MIP-8T*
9	78-RS9	—	77-MIP-9	—
11	78-RS-11	—	77-MIP-11	77-MIP-11T*
12	—	—	77-MIP-12	—
20	—	—	77-MIP-20	—

* Military version available with silver plated contacts and, where applicable, stainless steel mounting plate. Add suffix "M" to catalog number. Example: 77-MIP-8TM.

PRINTED CIRCUIT SOCKETS

Standard socket series 77MIP and 78S of eight or more contacts for mounting directly to printed circuit boards. Luballoy contact tails are 1/8" long and mount through 1/16" diameter holes.

ORDERING INFORMATION

Part Numbers for General Purpose Phenolic Dielectric

Number of Contacts	Pin Circle Diameter	Part Number Molded-In-Plate Style	Part Number "S" Style
8	.687	77-MIP8W-0125	78-S8W-0125
*9	.687	*77-MIP9W-0125	*78-S9W-0125
11	.750	77-MIP11W-0125	78-S11W-0125
*12	.750	*77-MIP12W-0125	78-S12W-0125
*20	outer 1.000 inner .687	*77-MIP20W-0125	Not Available

*Special Order Only.

PLUGS

CP TYPE

Ideal for use as chassis connectors, with plug-in units or as inexpensive cable connectors. Plugs with 4, 5, 6, and 7 contacts do not have center guide post but are polarized for corrrect insertion by use of two pins of larger diameter than others.

REPLACEMENT TYPE

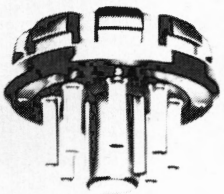
Aphenol replacement plugs are regular "CP" plugs conveniently assembled with a retainer ring holding the nickel-plated steel mounting plate. Slotted mounting plate holes fit centers from $1\frac{1}{2}$" to $1\frac{55}{64}$".

SPEAKER TYPE

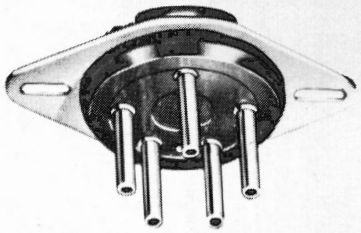
Were designed originally as speaker plugs but are very useful in test panels, intercommunication systems, public address remote control units, etc.

ORDERING INFORMATION

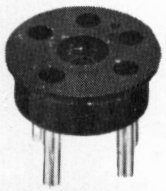
Contacts	CP Type		Replacement Type	Speaker Type
	Black Phenolic	Mica Filled	Black Phenolic	Black Phenolic
4	86-CP-4	—	86-RCP-4	86-71-4
5	86-CP-5	—	86-RCP-5	86-71-5
6	86-CP-6	—	86-RCP-6	—
7	86-CP-7S	—	—	—
8 Octal	86-CP-8	86-CP-8T	86-RCP-8	—
9	86-CP-9	—	—	—
11	86-CP-11	86-CP-11T	86-RCP-11	—
12	86-CP-12	—	—	—
16	86-CP-16	—	—	—
20	—	—	—	86-71-20



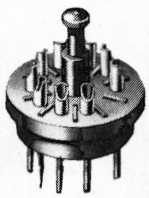
"CP TYPE"
86CP8



REPLACEMENT TYPE
86-RCP-5



MOLDED SPEAKER TYPE
86-71-5



MINIATURE "CP" TYPE
86-893

MINIATURE PLUGS

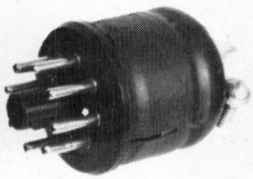
Mates with 7 and 9 pin sockets, Diallyl Phthalate with gold over silver plated brass contacts. 1500 vrms at 5 Amps.
Molded-in strain relief post.

ORDERING INFORMATION

	7 Pin	9 Pin
Plug	86-896	86-893
Plug with rubber cap	86-895	86-897
Plug with rubber cap, side outlet	86-894	—



PM AND PF STYLES
GROMMET CAP WITH
78 AND 86



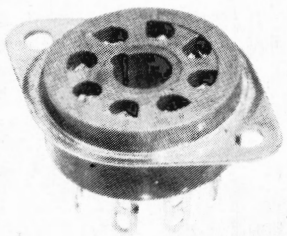
PM-11 AND PF-11 STYLES
CABLE CLAMP CAP WITH
78 AND 86

LIGHT DUTY CONNECTORS

For cable to cable application, mate with each other. For cable to panel applications, mate with type S, RS, and MIP tube sockets. Includes metal cap or use optional plastic cap.

ORDERING INFORMATION

Contacts	Pin Contacts	Socket Contacts	Pin Contacts	Socket Contacts
4	86-PM4	78-PF4	86-PM4-11	78-PF4-11
5	86-PM5	78-PF5	86-PM5-11	78-PF5-11
6	86-PM6	78-PF6	86-PM6-11	78-PF6-11
7	86-PM7S	78-PF7S	86-PM7S-11	78-PF7S-11
8	86-PM8	78-PF8	86-PM8-11	78-PF8-11
9	86-PM9	78-PF9	86-PM9-11	78-PF9-11
11	86-PM11	78-PF11	86-PM11-11	78-PF11-11
12	86-PM12	—	86-PM12-11	—



OCTAL "MIP"
77-59-103

OCTAL MIP-CLOVERLEAF CONTACTS

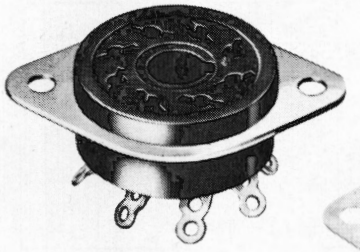
77-59-103	Octal. Same dimensions as standard MIP. Mica-filled, stainless steel mounting plate, cloverleaf contacts heavy duty type.

COMPACT "MIP" SOCKETS

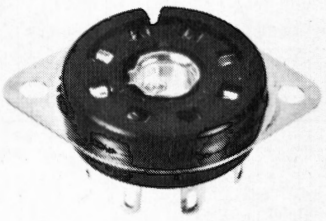
These 8-contact sockets are similar to standard "MIP" types except smaller. They mount in $1\frac{1}{8}$" diameter round hole, have two .136" diameter mounting plate holes on $1\frac{5}{16}$" centers.

ORDERING INFORMATION

78-88-8	Octal, Black Phenolic
78-88-8X	Loctal Black Phenolic



78-88-8



78-88-8X

BUNKER RAMO AMPHENOL

160 SERIES

Heavy duty outlet plugs and receptacles that meet Underwriters' Laboratories requirements for grounding home appliances and tools . . . a factor of increasing importance to electrical contractors as well as appliance manufacturers. Rated at 15 amp 125 volts or 10 amp 250 volt. 160-10N Receptacle, 160-11N Plug. U.L. Recognized.

WITH MOUNTING PLATE

Nickel plated steel mounting plate assembled to molded thermoplastic body. Mounting requires 1 9/32" dia. center hole and two 5/32" holes on 1 1/2" to 1 55/64" centers. Contacts and grounding prong are brass. Plug is U/L approved. Receptacle is recognized under the U/L component program, 160-2N 2-Pole Receptacle, 160-3N 2-Pole Plug.

Flush Motor Type

Consist of 160-10 and 160-11 inserts assembled in cadmium plated steel shells for below-surface mounting. Mount in 1 7/16" hole; two 5/32" screw holes on 1 3/4" centers. Plug is U/L approved. Receptacle is recognized under the U/L component program. 160-4N 2-Pole Flush Motor Receptacle, 160-5N 2-Pole flush Motor Plug.

SHIELDED

Consists of inserts 160-10 and 160-11 with sturdy steel plug caps finished in black epoxy. Plug caps are 1 1/16" LONG. End rubber grommets has 7/16" I.D. Cable clamp type fits cables up to 3/8" O.D. All plugs and receptacles are U/L approved. See below for ordering information.

160-60 AND 160-61 SERIES

Compact black phenolic units built to Underwriters' Laboratories standards. Rated at 15 amp, 110 volt or 10 amp, 250 volt. Available in either retainer ring or mounting plate style.

Assemble retainer ring style with plug caps for required type. Mounts in 1 11/64" keyed hole on chassis up to .125" thick. Mounting plate style requires 1 9/32" dia. hole. Mounts on 1 1/2" to 1 55/64" centers.

The two-pole receptacle accepts all standard 110-volt plugs. Contacts on three-pole receptacle are staggered so that Amphenol 160-60-M plugs can be inserted in only one way.

160-61-M plug has standard 1/4" brass blades spread 1/2". 160-61-MP has one 1/4" and one 5/16" blade spread 1/2". 160-60-M has three 1/4" blades staggered spaced. Binding screws for connecting cables are used on both plugs and receptacles.

MOLDED-IN-PLATE RECEPTACLE

High quality 110-volt receptacle identical to 160-61-F except for steel mounting plate molded into phenolic body. Mounts in 1 3/16" dia. hole on 1 1/2" centers. Mounting hole, 5/32" dia.

Receptacle is at an angle to place for close spacing or vertical mounting.

Part Number to Order: 160-61-MIP-61F.

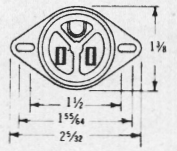
FLUSH MOTOR PLUG & RECEPTACLE

Compact plug or receptacle assembled in No. 160-61-61 steel shell for below-surface mounting. Mounts in 1 7/16" hole; two 5/32" screw holes on 1 3/4" centers.

ORDERING INFORMATION

Mounting	2-Pole Black Phenolic 15 Amp., 125 Volts		2-Pole With Ground Black Thermoplastic 15 Amp., 125 Volts		3-Pole Polarized Black Phenolic 15 Amp., 125 Volts	
	Standard Plug	Receptacle	Plug	Receptacle	Plug	Receptacle
Retaining Ring	160-61-M	160-61-F	160-11-N	160-10-N	160-60-M	160-60-F
Mounting Plate and Retainer Ring	160-61-M1	160-61-F1	160-3-N	160-2-N	—	160-60-F1
Molded-in-Plate	—	160-61-MIP - 61F	—	—	—	—
Flush Motor Type	160-61-M10	160-61-F10	160-5-N	160-4-N	—	—
WITH STEEL CAP FOR CABLE						
Rubber Grommet	—	—	160-7-N	160-6-N	—	—
Cable Clamp	—	—	160-9-N	160-8-N	—	160-60-F11

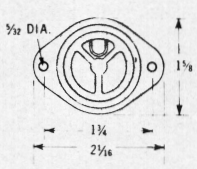
U/L APPROVED HOME & INDUSTRIAL TYPE PLUGS & RECEPTACLES



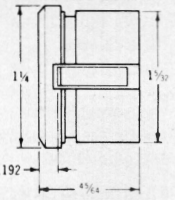
160-2-N

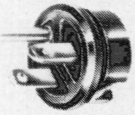


160-10-N

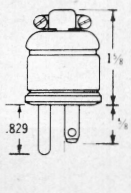


160-4-N

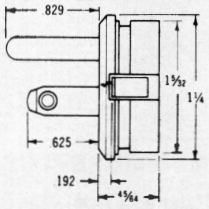


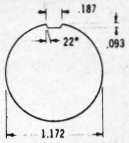


160-11-N

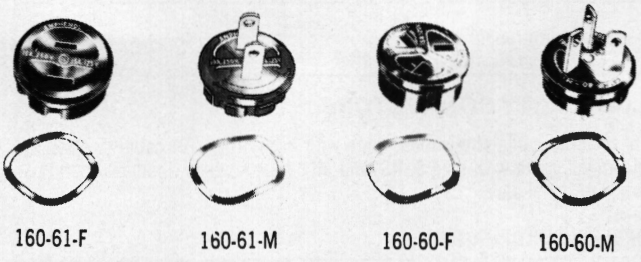


160-9-N

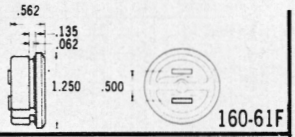




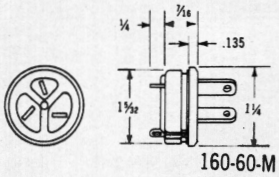
CUTOUT DIAGRAM



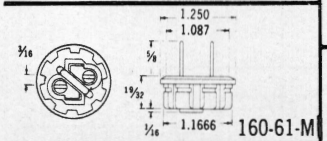
160-61-F | 160-61-M | 160-60-F | 160-60-M



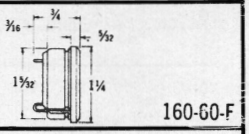
160-61F



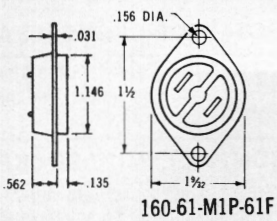
160-60-M



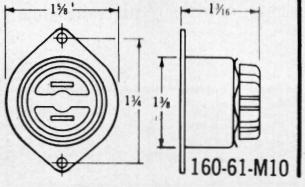
160-61-M



160-60-F



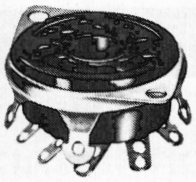
160-61-M1P-61F



160-61-M10

SADDLE TYPE OCTAL

Octal socket with 4 ground lugs for below chassis mounting and 2 $\frac{9}{64}$" holes on 1.312" centers for above chassis mounting. Black phenolic dielectric.



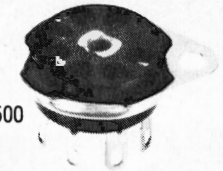
78-88-015

ORDERING INFORMATION

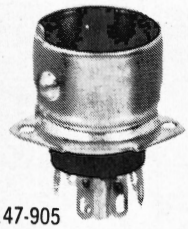
78-88-001	Wrap around contacts, Brass
78-88-015	Tuning fork contacts, Luballoy

MINIATURE SOCKETS

Phosphor bronze contacts with cadmium plating except as noted. Rated 500 V (RMS) at 1 Amp.



77-147-500



77-147-905

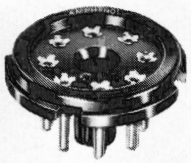
Mounting	Chassis Hole Cut Out	Mtng. Holes Cntr. to Cntr
7 Pin Sockets	$\frac{5}{8}$"	$\frac{7}{8}$"
9 Pin Sockets	$\frac{3}{4}$"	$1\frac{1}{8}$"

ORDERING INFORMATION

Contacts	Dielectric	Center Shield	Standard Bottom Mtd.	Shield Base Top Mounted
7	Black Phenolic	Large	77-147-500	77-147-905
7	Black Phenolic	None	77-147-504	—
7	Mica Filled	Small	77-147-505	—
7	Mica Filled	Small	—	—
9	Black Phenolic	Large	77-59-409	—
9	Mica	Large	77-59-410	—

RELAY AND TUBE BASE

Made of general purpose black phenolic. Nickel plated brass contacts. Four notches allow quick staking of a relay plate to either 8 or 11-pin plug base.



50-820

ORDERING INFORMATION

Part Number	Contacts	Outside Diam.	Pin Circle	Center Post
50-801	8	1.301"	.687"	Yes
50-820	11	1.301"	.750"	Yes

LAMP SOCKET

For medium base prefocused lamps. 1000 watts. 110/250 volts, UL approved.

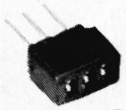


98-8

98-8	Phenolic, to 450°F.

SCR SOCKETS

Three contact receptacle designed to accept General Electric Company's C106 SCR (Silicone controlled rectifier). Nickel silver contacts. Black nylon insulator. Voltage rating: 500 volts (RMS). Current rating: 5 Amps. Contact spacing: .100" centers Mating engagement depth: .160" min. Contact length: Approximately .323" x .020" square. Contact tails designed for wire wrap or printed circuit board mounting.



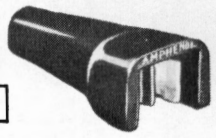
77-115

*77-115	Press fit style without flange. To fit rectangular panel or chassis cut dimensions .335 ±.005" x .1625 ±.0015".

* Special Order Only

GRID CAP

A grid cap of improved design for use with tube grid studs from ¼" to ½" diameter on standard glass and metal tubes. Contacts are spring brass in black phenolic.



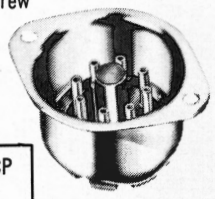
86-3 63	For tube grid caps, ¼" to ½" diameter.

RECESSING SHELLS

Cadmium plated steel shells lower S sockets, CP plugs, and outlet type connectors $1\frac{3}{16}$" below surface. Mount in $1\frac{7}{16}$" hole; have two $\frac{5}{32}$" dia. screw holes on $1\frac{3}{4}$" centers.

For use with 78S, 86CP, 160-60, 160-61 and 160 Series plugs and sockets.

160-61-61



ORDERING INFORMATION

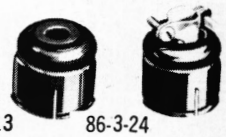
160-61-23	Aluminum. Shell raise 49, 78S, 86CP types above chassis $\frac{13}{16}$". $1\frac{3}{4}$" mounting hole, uses 3 No. 6 screws.
160-61-61	Cadmium plated steel. Recesses unit $1\frac{3}{16}$". Mounts in $1\frac{7}{16}$" hole. Two $\frac{5}{32}$" mounting holes on $1\frac{3}{4}$" centers.

CAPS

Makes inexpensive cable connectors of standard sockets, plugs and receptacles such as 78, 160-60, 160-61, 86 and 160 Series. For applications requiring frequent mating and unmating use 3-858 with molded finger grip.

86-3-858





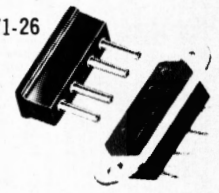
86-3-13 86-3-24

ORDERING INFORMATION

Finish		Cable Outlet	Maximum Cable O.D.
Black Thermoplastic	Black Epoxy		
—	86-3-10	None	Dust Cap
—	86-3-13	Rubber	$\frac{7}{16}$"
—	86-3-24	Cable Clamp	$\frac{3}{8}$"
86-3-858	—	Finger Grip Style	$\frac{5}{16}$"

RECTANGULAR CONNECTOR

86-71-26



86-71-26	4 contact cable plug
86-77-26	4 contact receptacle, molded-in-plate, two $\frac{5}{32}$" screw holes on $1\frac{3}{8}$" centers, $\frac{5}{16}$" x $1\frac{1}{16}$" panel cutout

BUNKER RAMO

Amphenol Quality Coaxial Cable for All Applications

▷Low Loss Cable ▷Non Tarnishing Connectors ▷Factory Assembled, Tested For 100% Reliability

RG58/U Type

Ideal for CB applications where a small diameter cable is required.

PART NUMBER	DESCRIPTION	APPLICATIONS
581-58018 *	18" length with UHF CB plugs on both ends.	Used as patch cords for mobile & base station SWR & power meters. antenna switches. and SWR matchers.
581-583 *	3' length with UHF CB plugs on both ends.	
581-585L *	5' length with UHF CB plug & spade lugs.	Used to connect mobile CB sets to trunk. mirror. gutter or bumper mount antennas using spade lug terminations to the antenna.
581-5812L *	12' length with UHF CB plug & spade lugs.	
581-5820L *	20' length with UHF CB plug & spade lugs.	
581-5812 *	12' length with UHF CB plugs on both ends.	Used to connect mobile CB sets to trunk. mirror. gutter or bumper mount antennas requiring a UHF CB plug termination to the antenna.
581-5820-259 *	20' length with UHF CB plugs on both ends.	
581-5850-420	50' length with UHF CB plugs on both ends.	Used where smaller diameter cable is required and signal loss is not critical.
581-5875-420	75' length with UHF CB plugs on both ends.	
581-58100-420	100' length with UHF CB plugs on both ends.	

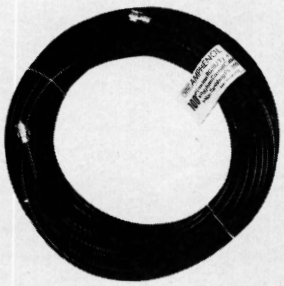
*BLISTER PACKED.
Also Available with Economy Banded/Polybaged Packaging add — 420 Deviation.



RG58/U Type



Dual Antenna Assemblies

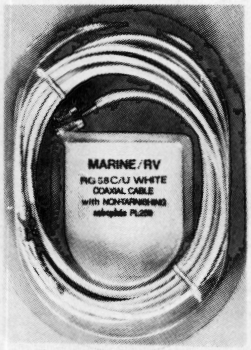


RG8/U Low Loss Type

RG8/U Low Loss Type

This larger diameter cable should be used for applications where signal loss is critical.

PART NUMBER	DESCRIPTION	APPLICATIONS
581-83 *	3' lengths with UHF CB plugs on both ends.	Used as patch cords for mobile and base station SWR and power meters. antenna switches. & SWR matchers.
581-820	20' length with UHF CB plugs on both ends.	Used to connect mobile or base stations with antennas requiring a UHF CB plug termination at the antenna.
581-850-420	50' length with UHF CB plugs on both ends.	Used to connect base station CB sets with base antennas. Where loss is critical. these cables will out perform RG 58/U cables of the same length.
581-875-420	75' length with UHF CB plugs on both ends.	
581-8100-420	100' length with UHF CB plugs on both ends.	



Marine/RV Assemblies

Dual Antenna Assemblies

"Premeasured for optimum wavelength and impedance match." These cables will help eliminate signal fade-out due to vehicle direction change.

PART NUMBER	DESCRIPTION	APPLICATION
581-5915L	(2) 7-1/2' length of low-loss cable with UHF CB plug to set and ring lugs to antenna.	Use with twin mobile antennas requiring ring lug termination to reduce signal loss caused by changes in a vehicle's direction.
581-5945L	(2) 22-1/3' lengths of low-loss cable with UHF CB plug to set and ring lugs to antenna.	
581-5915-259	(2) 7-1/2' lengths of low-loss cable with UHF CB plugs to set and antenna.	Use with twin mobile antennas requiring UHF CB plug terminations to reduce signal loss caused by changes in a vehicle's direction.
581-5945-259	(2) 22-1/3' lengths of low-loss cable with UHF CB plugs to set and antenna.	

Marine/RV Assemblies (Polybag/Banded Packaging)

This non-contaminating RG 58C/U white cable with pretinned copper braid is ideal for CB applications where the cable will be more heavily exposed to the environment.

PART NUMBER	DESCRIPTION	APPLICATIONS
581-58018L-1000	18" length with UHF CB plug and spade lugs.	Used to connect CB sets with antenna requiring spade lug terminations on small boats or where antenna is mounted directly outside the cabin.
581-583L-1000	3' length with UHF CB plug and spade lugs.	
581-585L-1000	5' length with UHF CB plug and spade lugs.	
581-5812L-1000	12' length with UHF CB plug and spade lugs.	Used to connect CB sets on medium size boats with antennas requiring spade lug termination.
581-5820L-1000	20' length with UHF CB plug and spade lugs.	
581-5850L-1000	50' length with UHF CB plug and spade lugs.	Used to connect CB sets with antennas requiring spade lugs terminations mounted on the masts.
581-5875L-1000	75' length with UHF CB plug and spade lugs.	
581-58100L-1000	100' length with UHF CB plug and spade lugs.	
581-58018-1000	18" length with UHF CB plugs on both ends.	Patch cord used to connect SWR and power meters. antenna switches. and SWR matchers.
581-583-1000	3' length with UHF CB plugs on both ends.	
581-5812-1000	12' length with UHF CB plugs on both ends.	Used to connect CB sets on medium size boats with antennas requiring UHF CB plug termination.
581-5820-259-1000	20' length with UHF CB plugs on both ends.	
581-5850-1000	50' length with UHF CB plugs on both ends.	Used to connect CB sets with antennas requiring a UHF CB plug termination mounted on a mast.
581-5875-1000	75' length with UHF CB plugs on both ends.	
581-58100-1000	100' length with UHF CB plugs on both ends.	

BUNKER RAMO **AMPHENOL**

AMPHENOL SALES DIVISION
2875 S. 25th Ave., Broadview, Illinois 60153 • Tel: 312 COlumbus 1-2020 • TWX 910 226-1961

SALES OFFICE LOCATIONS

CALIFORNIA	LOS ANGELES	District Sales Office	8939 S. Sepulveda Blvd., (Suite 400) (Westchester) 90045	213 649-5015
	SAN FRANCISCO	District Sales Office	465 S. Mathilda Ave., (Sunnyvale) 94086	408 732-8990
COLORADO	DENVER	District Sales Office	3540 S. Poplar St., (Suite #306) 80237	303 758-8033
FLORIDA	ORLANDO	District Sales Office	5400 Diplomat Circle, Diplomat Bldg., (Suite 205) 32810	305 647-5504
GEORGIA	ATLANTA	District Sales Office	7 Dunwoody Park, Suite 107 30338	404 394-6298
ILLINOIS	CHICAGO	District Sales Office	4415 W. Harrison St., Hillside 60162	312 449-1880
INDIANA	INDIANAPOLIS	Leslie M. DeVoe Co.	7172 N. Keystone Ave., (Suite C) 46240	317 257-1227
MASSACHUSETTS	BOSTON	Richard Purinton, Inc.	28 Park St., (Andover) 01810	617 475-7055
MINNESOTA	MINNEAPOLIS	District Sales Office	7701 Normandale Road 55435	612 835-4595
MISSOURI	ST. LOUIS	District Sales Office	443 N. New Ballas Rd. (Suites 221-225) (Creve Coeur) 63141	314 569-2277
	KANSAS CITY	Sales Office	25400 W. 132nd St., (Olathe) 66061	913 888-1514
NEW YORK	NEW YORK	District Sales Office	100 Crossways Park West, Woodbury, L.I., New York 11797	516 364-2270
	SYRACUSE	District Sales Office	Pickard Bldg., 5858 E. Molloy Rd. 13211	315 455-5786
NORTH CAROLINA	GREENSBORO	District Sales Office	1207 W. Bessemer Ave., (Suite 110) 27408	919 275-8644
OHIO	DAYTON	District Sales Office	3131 S. Dixie Dr., (Suite 222) 45439	513 294-0461
PENNSYLVANIA	PHILADELPHIA	District Sales Office	York House East, 214 W. Main St., (Suite 107) Moorestown, N.J. 08057	609 234-3434
TEXAS	DALLAS	District Sales Office	777 S. Central Expressway, (Suite 5C), (Richardson) 75080	214 235-8318
WASHINGTON	SEATTLE	District Sales Office	924 Bellevue Way, N.E., (Bellevue) 98009	206 455-2525
WASHINGTON D.C.		District Sales Office	1500 Wilson Blvd., (Suite 400) Arlington, Va. 22209	703 524-8700

INTERNATIONAL OPERATIONS

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