COAXIAL MATERIALS AND TOOLS DESCRIPTION

CONTENTS PAGE

1. GENERAL

1.01 This section lists and illustrates the materials and tools required for joining and terminating air-dielectric coaxial cables.

1.02 This section has been reissued to:

Incorporate the B coaxial tube cutter, the 047 coaxial cutter has been rated manufacture discontinued (MD).

Remove references to cloax coaxial cable.

Incorporate the K-375 coaxial splice scale. The E-375 and G coaxial splice scales have been rated manufacture discontinued (MD).

The D-375 sleeve roller has been rated manufacture discontinued (MD).

Since this is a general revision, change arrows have been omitted.

2. DESCRIPTION AND USE OF COAXIAL MATERIALS

2.01 The description and use of coaxial materials are outlined in Tables A through G.

TABLE A

BUSHINGS

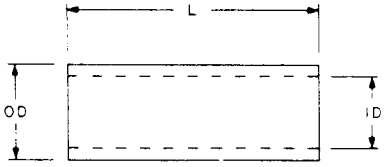
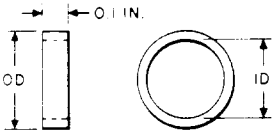
DESIGNATION	USES
 BUSHING, COAXIAL, (TYPE)(AT-8153) TYPE / L (IN.) / ID (IN.) / OD (IN.) / MATERIAL B-270 / 3/4 / 0.235 / 0.266 / PLATED STEEL B-375 / 1 / 0.334 / 0.374 / PLATED STEEL	B-270 — For joining 0.270-inch SS coaxials. Positioned under the outer conductor of 0.270-inch coaxial to support the rolled portion of the sleeve. B-375 — For joining 0.375-inch SS coaxials. Position under the outer conductor to support the rolled or pressed portion of the sleeve.

TABLE B

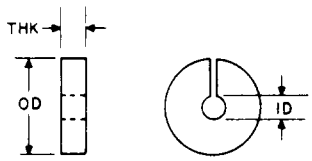
RINGS

DESIGNATION	USES
 RING, COAXIAL, (TYPE)(AT-8157)	B-270 — For securing the steel tapes of 0.270-inch SS coaxials. B-375 — For securing the steel tapes of 0.375-inch SS coaxials.

TYPE	ID (IN)	OD (IN)	MATERIAL
B-270	0.344	0.406	COPPER
B-375	0.468	0.530	COPPER

TABLE C

DISCS

DESIGNATION	USES
 DISC, COAXIALS, (TYPE) (AT-8156)	For disc-insulated coaxial cable — to support the center conductor sleeve. B-270 — Used with 0.270-inch SS coaxial. B-375 — Used with 0.375-inch SS coaxial to support 100 S brass sleeve.

TYPE	OD (IN.)	ID (IN.)	THK (IN.)	MATERIAL
B-270	0.258	0.063	0.070	POLYETHYLENE
B-375	0.361	0.090	0.085	POLYETHYLENE

TABLE D

SLEEVES – CENTER CONDUCTOR

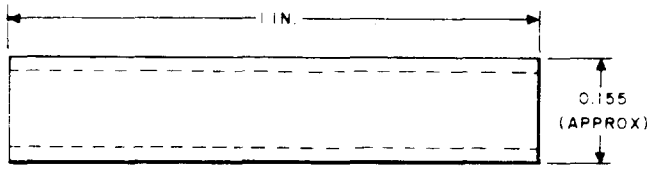
DESIGNATION	USES
 SLEEVE, BRASS, S, (TYPE)(AT-7129) TYPE 072 100 COMBINATION 100 X 072	For joining the center conductors of the following disc-insulated coaxials using the B, C, or D sleeve presser: TYPE OF S BRASS SLEEVE — COAXIAL JOINT 072 — 0.270 to 0.270 100 — 0.375 to 0.375 Combination 100 × 072 — 0.375 to 0.270

TABLE E

SLEEVES – OUTER CONDUCTOR

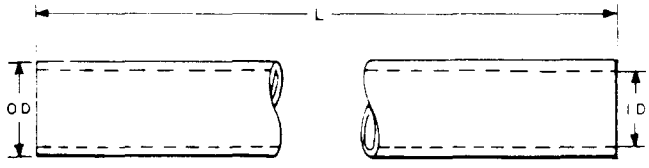
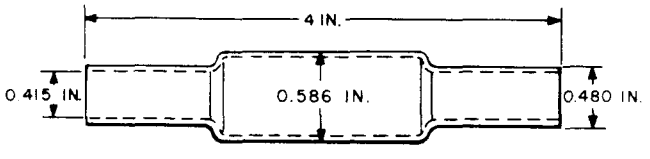
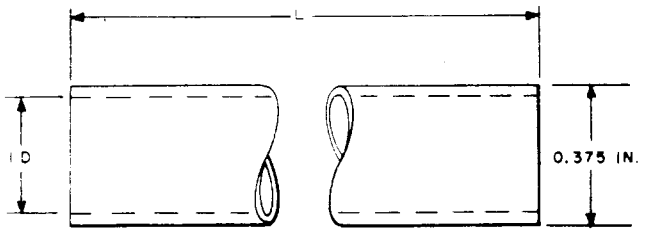
DESIGNATION	USES
 SLEEVE, COAXIAL,(TYPE) (AT-8152, AT-8158) TYPE — L (IN.) — ID (IN.) — OD (IN.) — MATERIAL B-375 — 2-3/4 — 0.415 — 0.480 — COPPER B-375 X 270 — 2-3/4 — 0.415 X 0.312 — 0.474 — COPPER C-375 — 1/2 — 0.440 — 0.488 — COPPER D-375* — 6 — 0.415 — 0.480 — COPPER * HAS SCORE MARKS 3/4 INCH FROM EACH END.	B-375, D-375 — For repairing the outer conductors of 0.375-inch SS coaxials. C-375 — For securing the steel tapes of 0.375-inch SS coaxials. B-375 × 270 — For connecting outer conductor of 0.375-inch SS coaxials to 0.270-inch SS coaxials.
 SLEEVE, COAXIAL G-375 (AT-8152)	G-375 — For joining the outer conductors of 0.375-inch SS coaxial. Use the K-375 coaxial sleeve for new installations.

TABLE E

SLEEVES – OUTER CONDUCTOR (Cont)

DESIGNATION	USES

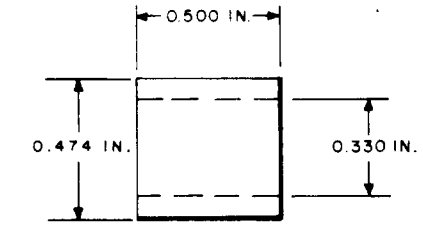


SLEEVE, COAXIAL (TYPE) (AT-8154)

TYPE	L (IN.)	I D (IN.)	MATERIAL
B-270	2.3	0.312	COPPER
C-270	0.5	0.330	COPPER
D-270	6	0.312	COPPER
E-270	4	0.312	COPPER

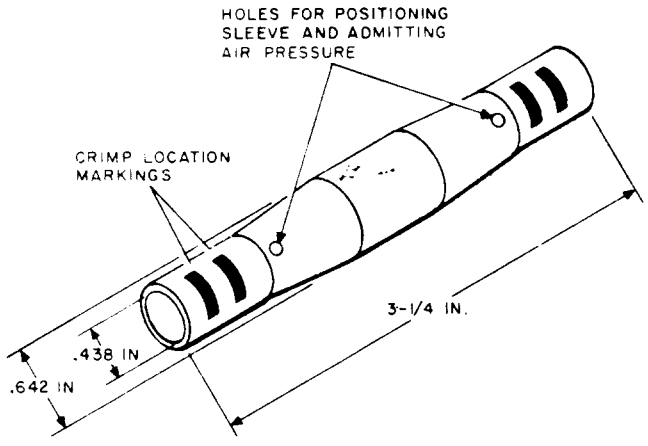
B-270, D-270, E-270 — For joining the outer conductors of 0.270-inch SS coaxials.

C-270 — For securing the steel tapes of 0.270-inch SS coaxials.



SLEEVE, COAXIAL, C-375X270 (AT-8158)

C-375 X 270 — Copper sleeve
For securing the steel tapes of 0.270-inch SS coaxial when joining to 0.375-inch SS coaxial.

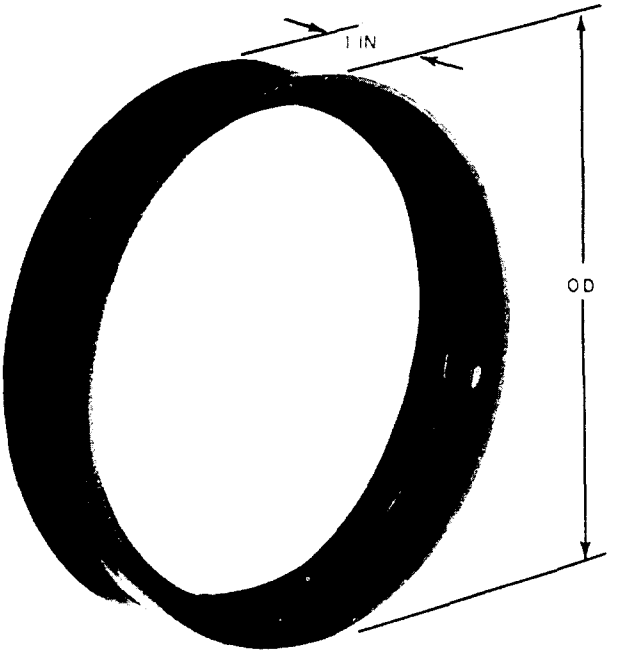


SLEEVE COAXIAL K375 AT-8578

This copper sleeve is used in splicing the outer conductors of 0.375-inch SS coaxials.

TABLE F

SUPPORT, COAXIAL

DESIGNATION	USES
 SUPPORT, COAXIAL (AT-8309)	Support, B — For supporting 0.375-inch SS coaxials baskets at splices in 18-, 20-, and 22-coaxial cable. Support, C — For supporting 0.375-inch SS coaxials baskets at splices in cables having 12 or fewer coaxials.

TYPE	OD (IN.)	WEIGHT (OZ)	MATERIAL
B	4-1/4	2	PLASTIC
C	3-1/8	1-1/2	PLASTIC

TABLE G

MARKERS, COAXIAL

DESIGNATION	USES
Markers, Coaxial C and D (AT-8302)	Self adhering numbering tapes used to identify individual coaxial tubes: C markers 1 to 12 tube; D markers 1 to 22 tube.

3. DESCRIPTION AND USE OF COAXIAL TOOLS

3.01 The description and use of coaxial tools are given in Table H.

TABLE H

TOOLS

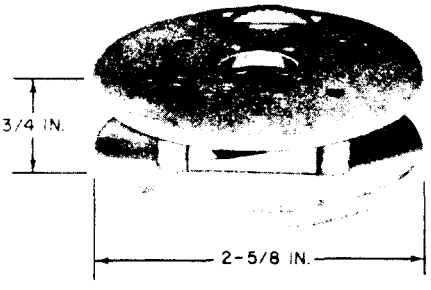
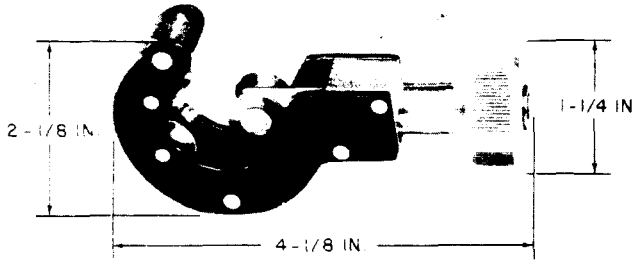
DESIGNATION	USES
 CUTTER, SLEEVE, COAXIAL, C (AT-7174)	Cutter, C — For making a spiral scoring in the B, C, D, E and the straight ends of the G and K coaxial sleeve to facilitate the removal of outer conductor sleeves when it is necessary to open joints in 0.270- and 0.375-inch coaxial conductors.
 CUTTER, SLEEVE, COAXIAL, D (AT-8349)	Cutter, D — For removing a section of outer conductor sleeve when it is necessary to open joints in 0.270- and 0.375-inch coaxial conductors.
 CUTTER, TUBE, COAXIAL, B (AT-8701)	Cutter, Tube, Coaxial, B — For cutting coaxial tubes. Replaceable blades are available.

TABLE H

TOOLS (Cont)

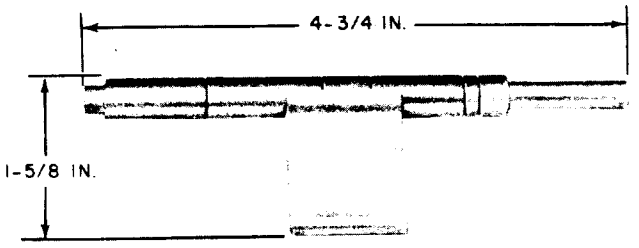
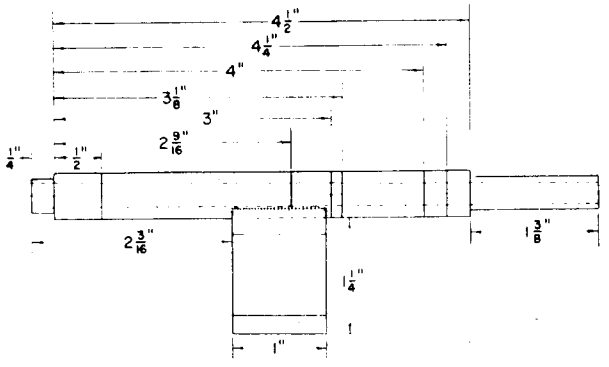
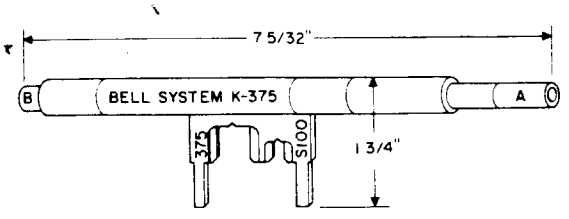
DESIGNATION	USES
 SCALE, SPLICE, COAXIAL, B-270 (AT-7177)	Scale, B-270 — For positioning insulating discs and reinforcing bushings, and for making splice measurements on 0.270-inch coaxial.
 SCALE, SPLICE, COAXIAL C-375 (AT-7177)	Scale, C-375 — For positioning insulating discs and reinforcing bushings, and for making splice measurements when joining 0.270-inch to 0.375-inch SS coaxials.
 SCALE, SPLINE, COAXIAL K-375 (AT-8722)	Scale, K-375 — For positioning insulating discs and reinforcing bushings, and for making splice measurements on 0.375-inch coaxial when using G-375 or K-375 sleeves.

TABLE H

TOOLS (Cont)

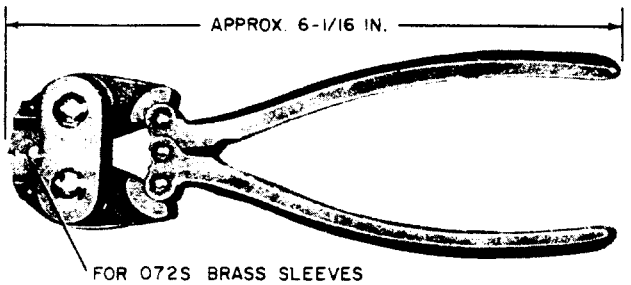
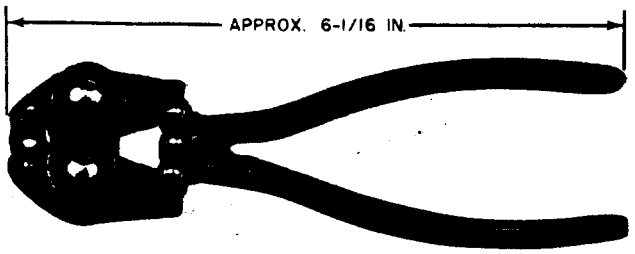
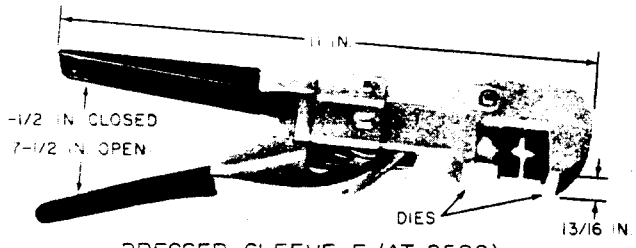
DESIGNATION	USES
 PRESSER, SLEEVE, B (AT-7149)	Presser, B — For crimping inner conductor sleeves on 0.270-inch SS coaxials.
 PRESSER, SLEEVE, C (AT-7149)	Presser, C — For crimping inner conductor sleeves on 0.375-inch coaxials.
 PRESSER, SLEEVE, F (AT-8588)	Presser, F — For crimping 0.375-inch coaxial outer conductor sleeves.

TABLE H

TOOLS (Cont)

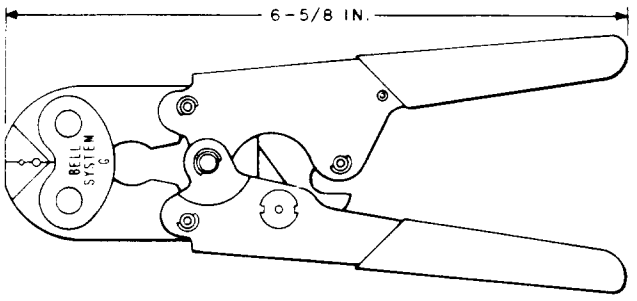
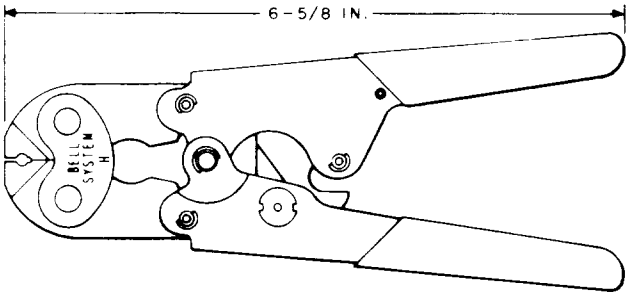
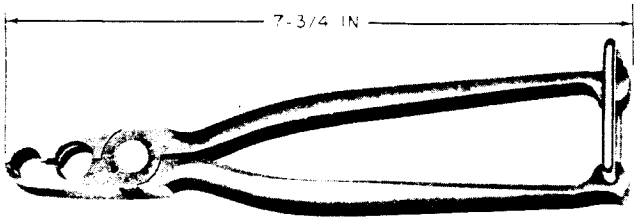
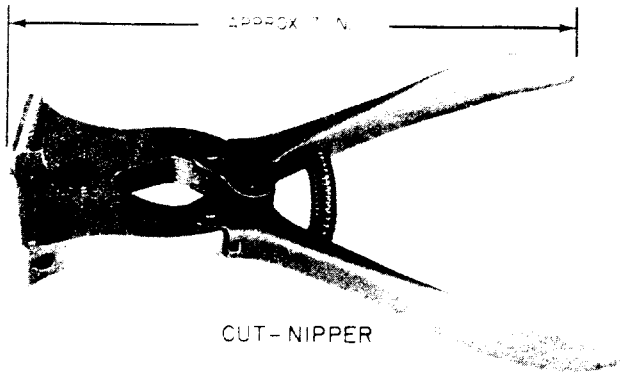
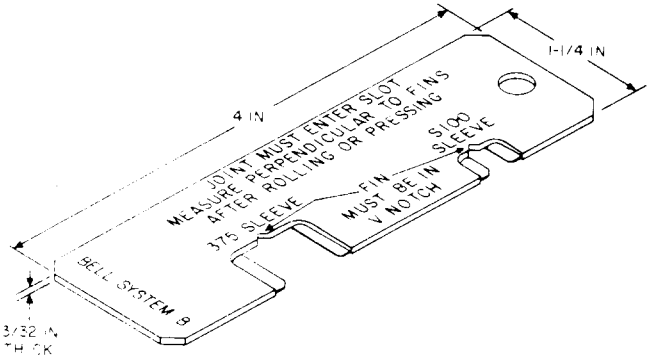
DESIGNATION	USES
 PRESSER, SLEEVE, G (AT-8737)	Presser, G — For crimping inner conductor sleeves in 0.270-inch SS coaxials. The G sleeve presser is an alternative tool for the B sleeve presser.
 PRESSER, SLEEVE, H (AT-8737)	Presser, H — For crimping inner conductor sleeves on 0.375-inch coaxials. The H sleeve presser is an alternative tool for the C sleeve presser.
 PLIERS, COAXIAL, (B-270 OR B-375) (AT-7175)	Pliers, B-270 — Used with 0.270-inch coaxial. Pliers, B-375 — Used with 0.375-inch coaxial. The jaws have two openings, one adjacent to the nose for use when forming and removing the outer conductor and to hold the steel tapes; the other is between the first opening and the pivot pin on the pliers and is used to crimp copper rings over the steel tapes.

TABLE H

TOOLS (Cont)

DESIGNATION	USES
 CUT-NIPPER	Cut-Nipper No. 1, 7-in. — Used to longitudinally cut 100S brass sleeves on the inner conductor of 0.375-inch coaxial to facilitate the removal of the 100S brass sleeve when repairing the coaxial. *Note:* This tool may be obtained commercially from L. S. Starrett Co., Athol, Massachusetts.
 GAUGE, COAXIAL, SLEEVE, B (AT-8558)	Gauge, B — To check performance of C and F sleeve presser and D-375 sleeve roller (not required when using K-375 coaxial splice scale).
Bond, Cable, C (AT-7133)	For temporary bond across splice to protect craftsman.