

AERIAL SERVICE WIRE—SINGLE AND MULTIPLE PAIR

DESCRIPTION

1. GENERAL

1.01 This practice covers the description of single and multiple pair aerial service wire (ASW).

1.02 This practice is reissued to include 1-pair ASW-1/22-A. Revision arrows are used to emphasize the more significant changes.

1.03 The single pair ASW-1/18-1/2-F is furnished on 1000-foot coils. ♦The ASW-1/22-A is available in a 1000-foot REELEX* dispenser or 1100-foot coils. ♦The 2-pair ASW is furnished on 600-foot coils or on 4000-foot reels. The 5- and 6-pair ASWs are furnished on 3500-foot reels. The reels will have no more than three pieces of wire, and no length will be less than 500 feet.

1.04 The recommended clearances for placing drop wire are specified in Practice 462-070-015. See Practice 462-200-200 for termination.

2. DESCRIPTION

2.01 The nomenclature for ASW is as follows:

(a) 1 pair — ASW-1/18-1/2-F

(b) ♦1 pair — ASW-1/22-A♦

(c) 2-pair — ASW-2/22-F

(d) 5 pair — ASW-5/22-F

(e) 6 pair — ASW-6/22-F

(ASW [aerial service wire], number of pairs, wire gauge, and the former designation [F]).

2.02 ♦The ASW-1/22-A wire is a fiberglass reinforced ASW that is corrosion resistant and can be used in coastal and industrial areas. This wire is UL (Underwriters Laboratories) Listed for electrical and fire characteristics.♦

2.03 Figures 1, 2, and 3 illustrate the makeup and distinctive features of single and multiple pair ASW (ASW-1/18-1/2-F, ♦ASW-1/22-A♦, ASW-2/22-F, ASW-5/22-F, and ASW-6/22-F).

2.04 Physical characteristics of ASW-1/18-1/2-F, ♦ASW-1/22-A♦, ASW-2/22-F, ASW-5/22-F, and ASW-6/22-F are listed in Table A.

2.05 Table B lists the electrical characteristics of ASW-1/18-1/2-F, ♦ASW-1/22-A♦, ASW-2/22-F, ASW-5/22-F, and ASW-6/22-F.

3. ISSUING ORGANIZATION

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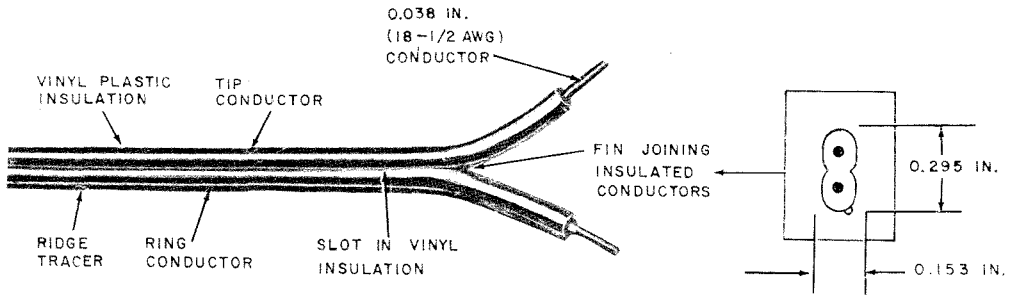


Fig. 1—ASW-1/18-1/2-F (F Drop Wire)

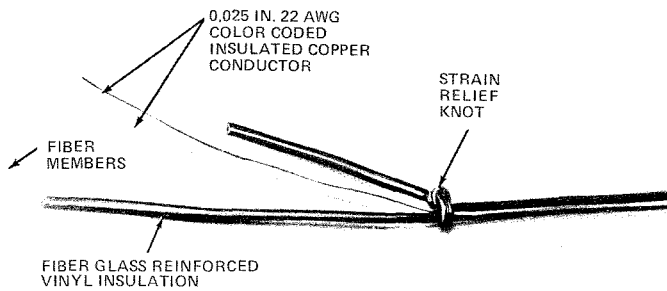
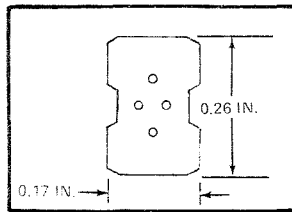
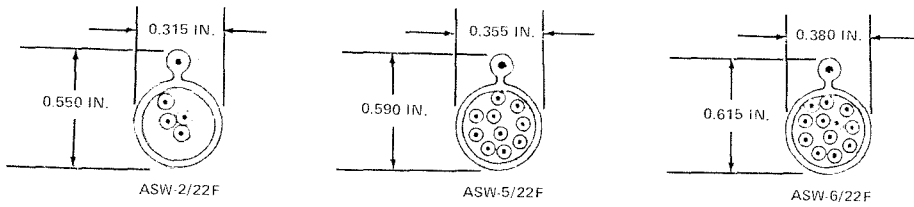
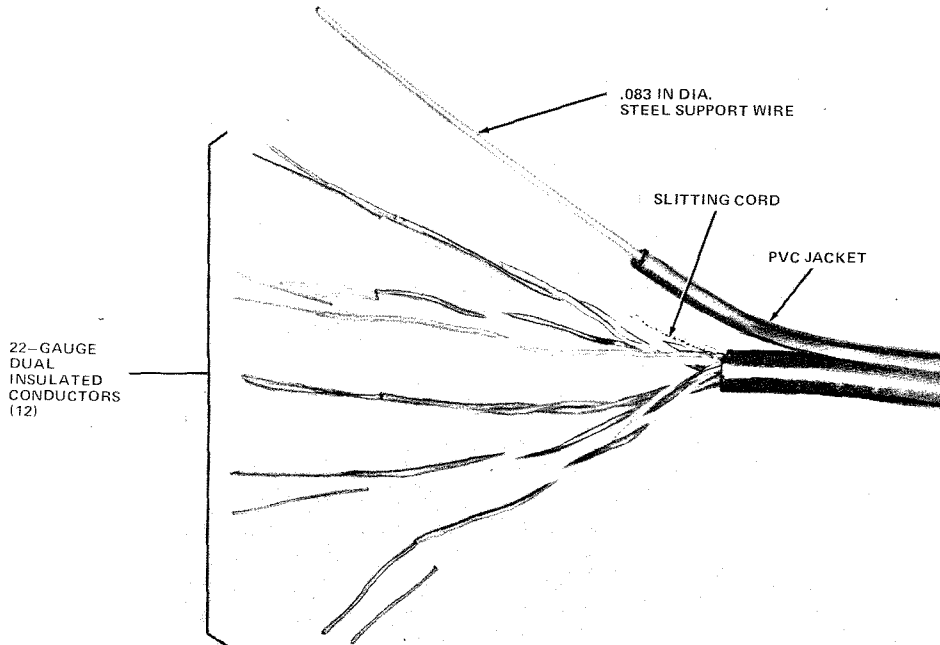


Fig. 2—ASW-1/22-A Service Wire



CROSS SECTION



(SIDE VIEW)
ASW-6/22-F

ASW-6/22-F						
ASW-5/22-F						
ASW-2/22-F						
PAIR NO.	1	2	3	4	5	6
TIP	WHITE	WHITE	WHITE	WHITE	WHITE	RED
RING	BLUE	ORANGE	GREEN	BROWN	SLATE	BLUE

Fig. 3—ASW-2/22-F, ASW-5/22-F, and ASW-6/22-F (F Multiple Drop Wire)

▶ TABLE A ◀

REPRESENTATIVE PHYSICAL CHARACTERISTICS AND SELECTION

WIRE TYPE	NO. PAIRS	GAUGE (AWG)	CONDUCTOR MATERIAL	WEIGHT (LB PER 1000 FT)	BREAKING STRENGTH (LBS)	RECOMMENDED INSTALLATION LENGTH (MAX FT) (NOTE 1)	COMMENTS
ASW-1/18½-F	1	18.5	Copper Covered Steel	33	450	500	Replaces C Drop Wire
ASW-1/22-A	1	22	Copper	29	450	700	—
ASW-2/22-F	2	22	Copper	65	850	700	—
ASW-5/22-F	5	22	Copper	86	850	700	—
ASW-6/22-F	6	22	Copper	92	850	700	Replaces E Multiple Drop Wire

Note:

1. The wire should not be used in runs exceeding the recommended length. If the recommended length must be exceeded, the resistance of the wire must be included in the conductor loop resistance calculations to assure that total loop loss does not exceed "Resistance Design Limit."

▶ TABLE B ◀

REPRESENTATIVE ELECTRICAL CHARACTERISTICS AT 68°F

TYPE WIRE	LOOP RESISTANCE (Ω/1000 FT)	ATTENUATION (1000 FT AT 1 kHz)	MUTUAL CAPACITANCE (μF/1000 FT)	BREAKDOWN VOLTAGE (DC) (NOTE 1)	INSULATION RESISTANCE (MEGOHMS—1000 FT)
ASW-1/18½-F	43	0.64	0.036	15 kV	300*
ASW-1/22-A	34.4	0.37	0.017	10 kV	5000
ASW-2/22-F ASW-5/22-F and ASW-6/22-F	33	0.34	0.015	15 kV	10K

Note:

1. Conductor-to-conductor breakdown voltage

* The reference temperature is 60°F.