BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G50.700.1
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AT&TCo Standard

SPLICE CASES 20 AND 21 TYPES GENERAL

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1. GENERAL

1.01 This section has been reissued to include recently introduced small sizes of cast iron splice cases. It contains general information and precautions on the 20- and 21-type splice cases used on cables of lead, alpeth, and stalpeth sheaths, up to 2.9 inches in diameter. They may be used on aerial, buried, or underground cables with certain limitations as indicated in the following paragraphs.

1.02 In general, aluminum splice cases can be used **aerially** in areas where aluminum has proven satisfactory. In other areas use either enameled aluminum or galvanized cast iron.

1.03 Aluminum splice cases **should not be used** in the **underground plant** where they will be immersed in water at any time. If there is any possibility of corrosion in the manhole area, galvanized cast iron cases should be used.

1.04 Use only galvanized cast iron splice cases in buried cable plant.

1.05 All splice cases which are buried should be protected against corrosion as outlined in G50.701.2.

1.06 The following table lists the 20- and 21-type splice cases with general information on each. It also shows the splice case each has replaced.

Case No.	Replaces Case No.	Capacity (Maximum)		Use		
		Cable Size (inches)	No. of Cables	Aerial	① Undgd	Buried
20A1	1B	1.0	2	X	X	—
20A2	—	1.0	2	X	X	X
20A3	1BA	1.0	2	X	—	—
20B1	2A	1.6	2	X	X	—
20B2	—	1.6	2	X	X	X
20B3	2AA	1.6	2	X	—	—
20C1	3A	2.2	2	X	X	—
20C2	3B	2.2	2	X	X	X
20D1	4A	2.9	2	X	X	—
20D2	4B	2.9	2	X	X	X
21A1	5A	1.0	4	X	X	—
21A2	—	1.0	4	X	X	X
21A3	5AA	1.0	4	X	—	—
21B1	6A	1.6	4	X	X	—
21B2	—	1.6	4	X	X	X
21B3	6AA	1.6	4	X	—	—
21C1	7A	2.2	4	X	X	—
21C2	7B	2.2	4	X	X	X
21D1	8A	2.9	4	X	X	—
21D2	8B	2.9	4	X	X	X

① See ℙ 1.03

Notes:

1. Initial production runs of these new design splice cases with end compression collars eliminated were made before case number inserts 5A and 6A could be changed to the new codes 21A1 and 21B1. Arrangements were made to stencil the appropriate new code on the carton containing the splice case with the old number.

2. The quantity of splice cases which are given the baked enamel finish to assist in combatting atmospheric corrosion, such as encountered close to some industrial areas, is not sufficient to justify separate code number die castings. Therefore, these enameled splice cases bear the code for the aluminum case rather than the code for the enamel finish. Thus, a 21A3 Splice Case is a 21A1 Splice Case with baked enamel finish applied. The carton in which it is packed has the 21A3 code stamped on it, however, for identification purposes.

2. CODING

2.01 The 20- and 21-type splice cases are coded with two numbers, a letter, and a single number which indicate the following:

(a) Two numbers, for kind of splice:

"20" cases are for straight splices.

"21" cases are for "Y" or double "Y" splices.

(b) Letter, for size:

A — For cables with sheath diameters between 0.3 inch and 1.0 inch.

B — For cables with sheath diameters between 1.0 inch and 1.6 inches.

C — For cables with sheath diameters between 1.6 inches and 2.2 inches.

D — For cables with sheath diameters between 2.2 inches and 2.9 inches.

(c) Single number, for material made of:

1 — Aluminum

2 — Galvanized cast iron

3 — Aluminum, enameled

As an example, a splice case coded 20C2 would be used for a straight splice, on a cable with a sheath diameter between 1.6 inches and 2.2 inches and the case is made of galvanized cast iron.

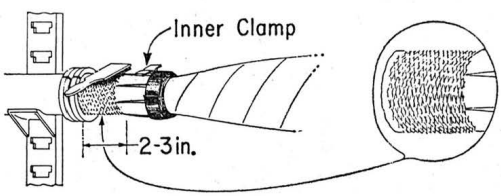
3. PRECAUTIONS

3.01 After the sheath opening has been made and tabs cut, the cables should be secured firmly in position with the cable sheaths straight and in line for a minimum length of 8 inches from the sheath butt. This is required to prevent movement of the sheath and cable while splicing the conductors.

3.02 Maintain sheath electrical continuity by temporary bonding wherever necessary. See G50.610.1.

3.03 In using the slack puller on aerial installations follow the instructions in G52.610.1. Pull slack before marking sheath opening. Complete splice case installation before removing slack puller.

3.04 In preparing the sheath for application of the sealing tape, first clean it with a clean, dry cloth. Remove with a cable file any deep scratches caused from placing operations, then scuff the sheath thoroughly with a carding brush. Use criss-cross strokes around the sheath as shown.



Inspect, using a mirror where necessary, to be sure that scuffing is completely around the cable sheath.

3.05 **Sealing tapes and sealing cord must be kept clean and dry.** In applying these materials do not stretch them. Do not make flat spots or dents in the sealing cord. Do not handle with damp or oily hands.

3.06 Clean any oil, grease, dirt, filings, moisture, desiccant, etc, from the sealing surfaces in splice cases before installation. Use a clean, dry, and lint-free cloth for this purpose.

3.07 Assemble splice cases by tightening the bolts evenly and in the sequence described in the practice on installation.

3.08 Flash test each splice case installation after a back pressure of 5 pounds has been reached. Use B, C or D pressure testing solution, as appropriate, to test.

4. RELATED BELL SYSTEM PRACTICES

4.01 Practices covering the 20- and 21-type splice cases are listed below.

Section Number	Subject
G50.700.1	General
G50.700.2	Reference Tables
G50.700.3	Description
G50.700.4	Sealing Washers
G50.700.5	Materials
G50.700.7	Sheath Preparation
G50.700.8	Installation
G50.701.1	Opening and Reassembling
G50.701.2	Buried Cable — Splice Case Protection
G50.725.2	Isolation of Aluminum Shield — Alpeth Sheath