

## OUTSIDE PLANT CODES AND SYMBOLS USE AND APPLICATION

### CABLE, CABLE TERMINALS, CLOSURES, AND INTERFACES

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**1. GENERAL**

**1.01** The identification codes and symbols in this section pertain to cable, cable terminals, closures, and interfaces. Primarily, they are for use on construction work prints and plant location records, although some may be used on maps. The symbols are basic in nature and may be used in combination with other terms, symbols, or notes to portray any of the various equipment or installation configurations existing or forthcoming. Typical examples of the application portion of this section show how some combinations may be indicated. The abbreviations used in conjunction with outside plant symbols are contained in the Common Language Standard Abbreviations, Sections 751-410-101 and -102. A description of the common language standard abbreviations and an index of abbreviation subset Bell System Practices (BSPs) are included in Section 751-410-100.

**1.02** The reasons for reissuing this section are listed below.

- (a) Adds lightguide cable designations, symbols, and cable coding
- (b) Adds symbol to identify line work operations by job step to be used in Distribution Service Design Centers (DSDCs) which have the Job Management Operations System (JMOS).

In addition to the above specific changes, this section has been completely reorganized and is considered a general revision. As a result, revision arrows are not used.

**2. TERMS, ABBREVIATIONS, AND SYMBOLS**

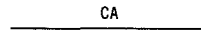
**2.01** The following are the basic graphic or letter symbols and abbreviations to be used in design-

ating the various components of cable, cable terminals, closures, and interfaces. Except where shown, the use is common to both work prints and records.

**A. Cable**

**2.02** The various symbols to be used with the cable line are as follows:

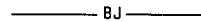
- (a) Aerial, building, or underground.



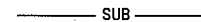
- (b) Buried.



- (c) Buried in joint trench. Buried joint (BJ) indicates buried cable plant installed in a trench used jointly with one or more utility companies. This applies to either random or normal separation between the telephone cable and the facilities of the other companies. Notes will be required to indicate the ownership and type of facilities using the joint trench. This symbol will also apply to situations where power and telephone cables are in separate trenches, but treatment for bonding and power separation is the same as for joint trench.



- (d) Submarine cable.



- (e) Cables other than those owned by telephone companies. The codes used to identify the type or ownership of the cables are listed in Section 620-040-011.

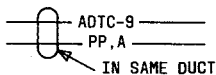
- Aerial (electric code shown)



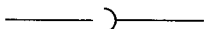
- Underground or buried (electric code shown).



(f) An oblong shaped symbol is used to depict a gas feeder pipe in the same duct with underground cable. This symbol may also be used to show that two aerial cables are lashed to the same strand or that two cables are in the same duct.



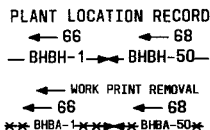
(g) Insulating joint.



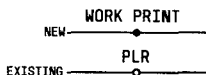
(h) Arrows in both directions indicate change in cable characteristics, mortality data, or count change (size, gauge, count, type of sheath, conductor insulation, sequence of standardization, year of placement).



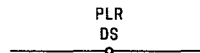
(i) Method of indicating year of placement. (Arrow points toward central office [CO].) Always shown on plant location records. Shown on work prints when cable is removed from continuing property record (CPR).



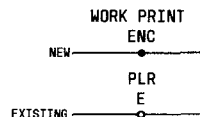
(j) Method of indicating splice. No change in cable characteristics, mortality data, or count. Solid dot for new and open dot for existing.



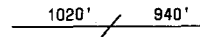
(k) Method of indicating an existing duct splice (DS) in an underground cable. This includes all types of cables.



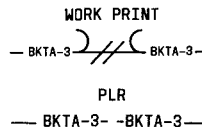
(l) Splice encapsulated.



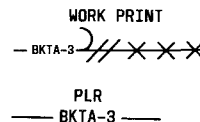
(m) Point on cable (other than a splice) where a division of measurements or point of record is required, eg, tax district boundaries, accounting classification, or structural design.



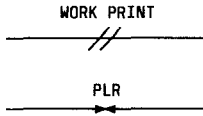
(n) Cable to be cut, pair ends cleared, and cables capped.



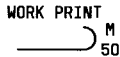
(o) Portion of cable to be removed. Remaining cable end cleared and capped.



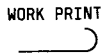
(p) Cable pairs cut and ends cleared in sleeve.



(q) Clear and preconnect cable pairs.



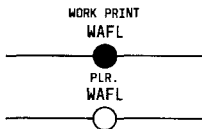
(r) Cap placed on proposed cable.



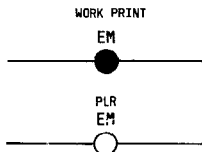
(s) Cable looped through terminal, interface, etc.



(t) Water alarm and fault location.



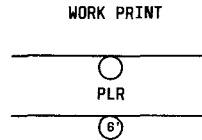
(u) Electronic marker-tuned circuit encapsulated in splice as an aid in locating cable.



(v) Buried cable, wire, or manhole marker. Number indicates the marker number. Arrow points toward cable.



(w) Loop in aerial, building, buried, or underground cable. No splice involved or sheath removed. The 6' represents length of loop in feet.

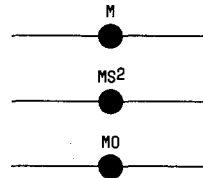


**B. Modular Splicing Systems**

2.03 Depending upon the manufacturer, the modular splice symbols are as follows:

- (a) Bell System modular
- (b) 3M modular
- (c) Other modular.

**Note:** The letter symbols are generally for work print use only. Modular symbols may be placed on records if required by the operating company.

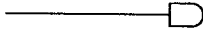


**C. Special Symbols—CONECS**

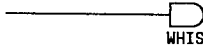
2.04 The following symbols are used for work print placing/splicing instructions only. They may

be shown on an attachment such as a route sketch or as an instructional insert.

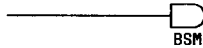
(a) Connectorized cable end.



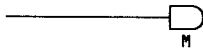
(b) Wire holding index strip connectorized end.



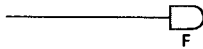
(c) Bottomless splice module connectorized end.



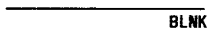
(d) Male connectorized cable end.



(e) Female connectorized cable end.



(f) Blank cable end.



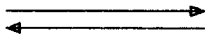
(g) Pulling eye end.



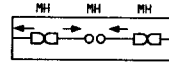
(h) Direction of placing (or pull).



(i) Direction of placing is optional.



(j) Placing block.



**D. Grounding and Bonding (Shown on Work Prints Only)**

**2.05** The various ways of showing bonding and grounding are as follows:

(a) Ground.



(b) Supplemental letter symbols may be added to indicate the termination of the ground. Length of ground wire may also be shown. For example, for ground to a cold water pipe, length of ground wire is shown.



(c) Other supplemental grounding letter symbols for:

(1) Grounding plant to power multigrounded neutral vertical ground wire.



(2) Grounding plant to power multigrounded neutral.



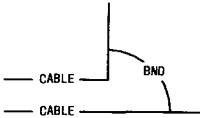
(3) Grounding plant to power company ground rod.



- (4) Grounding plant to telephone company ground rod.

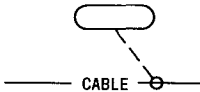


- (d) Bond between separate cable strands.



**E. Taper Codes**

**2.06** The taper code is used to identify points in the cable network at cross sections that are of major concern. This code provides a means of identifying the sections across which the fills are taken. For further details, see Section 936-312-110. The taper code symbol is shown as follows:



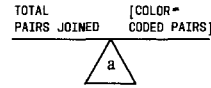
**F. Line and Splicing Symbols**

**2.07** The following are symbols required in conjunction with the Network Cost Results Plan (NCRP), JMOS, and Construction Force Management System (CFMS). To determine the number of pairs to be shown for splicing credit, refer to the Outside Plant Construction section of the NCRP. **These symbols are applicable for use on work prints only.**

- (a) Splicing location for work operations other than pair joining work, eg, clear and cap end of cable, building a plastic-insulated conductor (PIC) cable connection point, certain removal operations, etc. The letter inside the symbol is used to indicate where the splicing location number is placed.



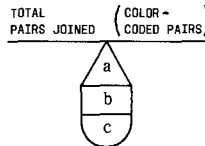
- (b) Splicing location for work operations where pairs are joined. The number inside the symbol and the data required above the symbol are identified as follows:



- (1) Total Pairs Joined—Enter the total number of pairs joined.
- (2) Color-Coded Pairs—Enter the total number of color-coded pairs joined.
- (3) Enter splicing location number.



- (c) Splicing location for work operations involving cable pair, loading coil, or inductor transfers. The letters inside the symbol and the data required above the symbol are identified as follows:



- (1) Enter splicing location number.
- (2) Enter number of regular pairs transferred.



- (3) Enter number of special pairs transferred.



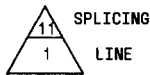
- (4) Pairs Joined—Enter the total number of pairs joined.
- (5) Color Coded—Enter the total number of color-coded pairs joined.

**2.08** The symbols identified in this part of the section are to be used on engineering work prints designed for those DSDCs that convert to the JMOS. These symbols will be used to identify job steps associated with both line and splicing operations and locations. The job step will provide specific information needed to develop basic work unit and standard time increment (STI) calculations. These symbols are intended for use on work prints only.

- (a) Line job step symbol. A trapezoid is used to identify line work locations and the material to be placed at the location. Enter line job step number.

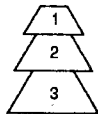


- (b) When line and splice work operations appear at the same location and the work will be completed by the same work force, a combined triangle and a trapezoid may be shown. Enter both a line and splicing job step number within the respective symbol.



- (c) Line work locations at which two or more work operations are involved may be shown with the job step symbols stacked and job step numbers assigned.

**Example 1:** Job Step 1: Place the pole.  
 Job Step 2: Place the anchor.  
 Job Step 3: Place the guy.



**Example 2:** Job Step 1a: Dig a splice pit.  
 Job Step 1b: Backfill a splice pit.



**G. Cable Terminals, Closures, and Interfaces**

**2.09** Outside terminals, closures, and interfaces of 100-pair capacity or larger and building terminals and interfaces, regardless of size, are property retirement units and must be recorded on the continuing property records.

- (a) Cross-connect (jumper wire cross-connect) capability.



- (b) Serving area interface.



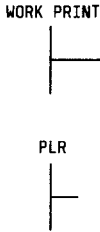
- (c) Rural area interface.



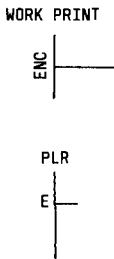
- (d) Ready-access terminal.



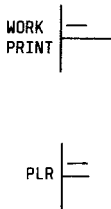
(e) Distribution cable terminal.



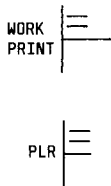
(f) Encapsulated terminal.



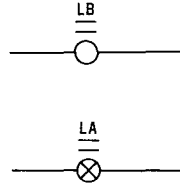
(g) One horizontal line above the terminal symbol indicates the presence of protector units suited to **cable protection**.



(h) Two horizontal lines above the terminal symbol indicates the presence of protector units suited to **station protection**.



(i) Terminals containing fuse chambers such as LA or LB type. (For record purposes only since these terminals are obsolete).

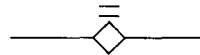


(j) This symbol, when placed adjacent to the terminal symbol, indicates the presence of protector units in an auxiliary housing. [See detailed example in paragraph 4.03(d)].

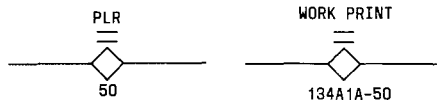
**Note:** For (i) and (j), if the operating company policy is to show information on the Exchange Customer Cable Record (ECCR), it may be deleted from location records.



(k) This symbol denotes protectors used for station protection in buildings served by exposed cable. This unique symbol is retained since it serves a twofold purpose of having not only carbon station protection but also an IN-OUT cable fuse link (134-type protectors).



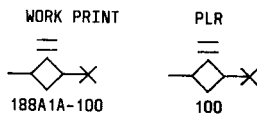
(l) The 134-type protector and the 190-type protector are used for station protection in buildings served by exposed cable. The number indicates the size. The protector is equipped with separate IN and OUT stubs.



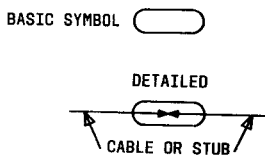


(m) The 188- and the 189-type modular protectors are used for station protection in buildings served by exposed cable and have connecting blocks built into terminal building cable or wire.

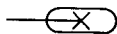
**Note:** Although these protectors are not retirement units, they should be shown on outside plant location records for engineering purposes.



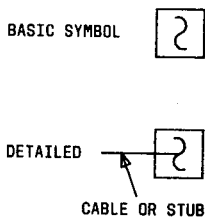
(n) Control point.



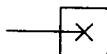
(o) Cross-connected terminal converted to a control point.



(p) Access point.



(q) Cross-connect terminal converted to an access point.



### 3. EXAMPLES OF APPLICATION

**3.01** The following examples illustrate the use of symbols and abbreviations in conjunction with cable terminals, closures, and interfaces on work prints and outside plant location records (PLRs). Since it would be an impossible task to show every example that one may encounter, only a sampling of the uses are illustrated. The 928 Division of the Bell System Practices depicts detailed actual usage for work prints and records. Along with each symbol or combination of symbols used, other information may be necessary to meet the requirements of federal or state regulatory bodies and to conform with the operating company policy or Bell System Practices. This consists of items such as:

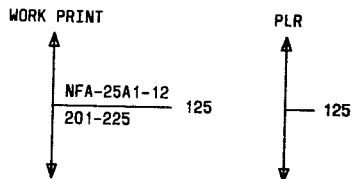
- Informational notes
- Types of hardware
- Accounting codes
- Cable counts and/or other pair assignments
- Wiring limits
- Address or other location identification
- Tax district
- Mortality information
- Detailed pair configurations.

**3.02** Selected data from the list in paragraph 3.01 is used in instances where it is considered necessary to further clarify an example.

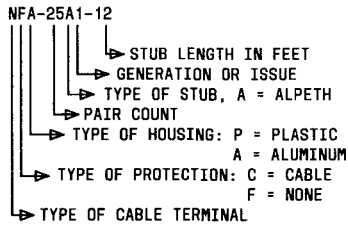
#### A. Strand-, Pole-, or Wall-Mounted Distribution Terminals

**3.03** The various types of strand-, pole-, or wall-mounted terminals are shown as follows:

(a) N-type, 25-pair capacity, fixed-count distribution terminal.

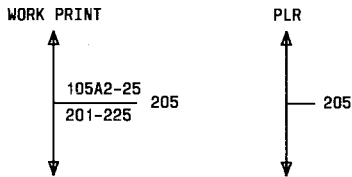


The N-type cable terminals have a coding scheme as follows:

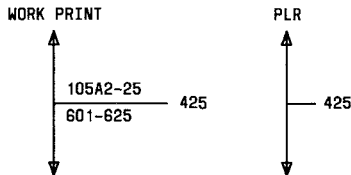


The number shown at the end of the terminal line is the nearest house address.

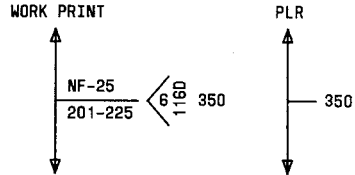
(b) 105-type terminal, 25-pair capacity, fixed-count terminal, pair count 201 through 225.



(c) 105-type terminal, 12-pair capacity, fixed-count terminal.



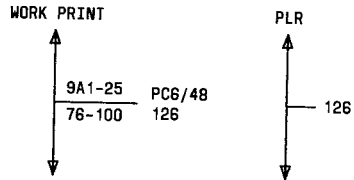
(d) The symbol  $\surd$  adjacent to the terminal symbol indicates the presence of protector units in an auxiliary housing, such as the 116D protector mounting. The number in the symbol indicates the number of pairs for which protector units have been provided.



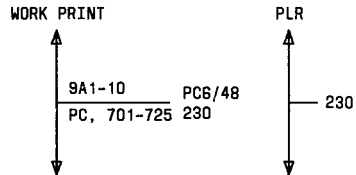
**B. Distribution Terminals—Buried Plant**

3.04 Distribution terminals on buried plant are shown in the following ways:

(a) Fixed-count, 25-pair, distribution terminal using the PC 6/48 closure equipped with 1-9A1-25 terminal block, count 76 through 100.



(b) Fixed-count, 10-pair, distribution terminal using the PC 6/48 closure equipped with 1-9A1-10 terminal block.

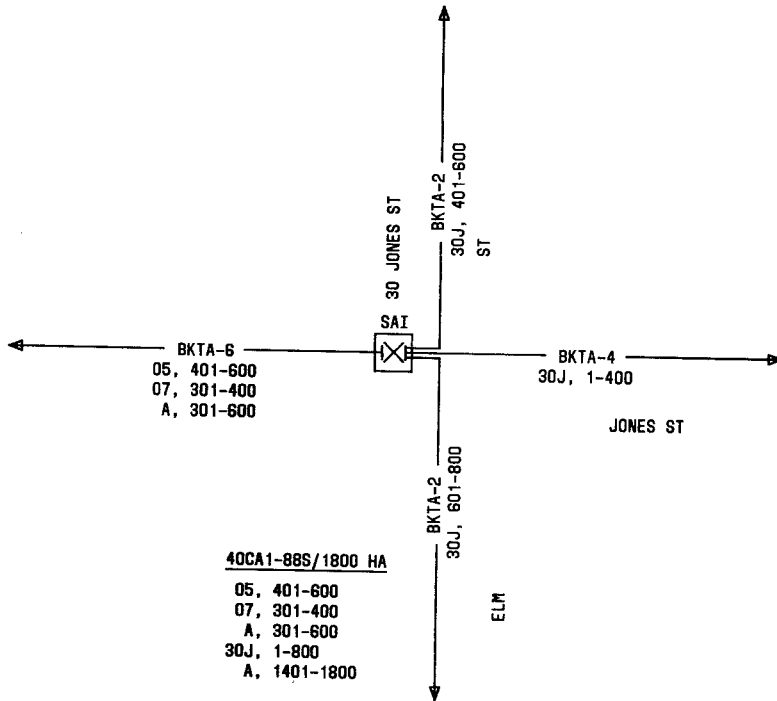


**C. Feeder-Distribution Interfaces (FDIs)**

**3.05** The various feeder-distribution interfaces are shown as follows:

- (a) Serving area interface using a 40C-type cabinet with 1800-pair capacity. Full coding is required for both work prints and records. (See Fig. 1.)

EXAMPLE: 40CA1-88S/1800 HA  
 40C—type of cabinet  
 A—aerial mounting  
 1—design issue  
 88—type of connectors  
 S—standard connector option  
 1800—number of pairs capacity  
 HA—raw-ended harness termination method.

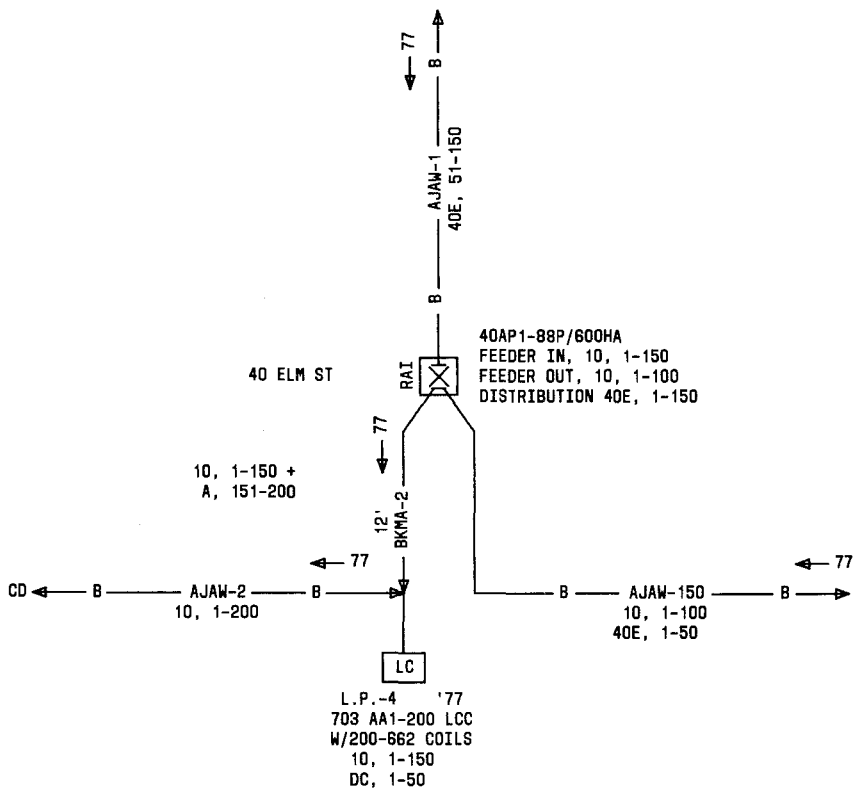


NOTE: Illustration depicts PLR posting only.

Fig. 1—Example of Feeder-Distribution Interface

(b) Rural area interface, using a 40A-type cabinet with 600-pair capacity. (See Fig. 2.) The HA denotes raw-ended harness termination method. This example has a combination of connector op-

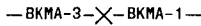
tions, ie, S—standard feeder IN and distribution and P—feeder IN and OUT with patch plugs. For a detailed explanation of Rural Area Network Design, see Section 915-890-101.



NOTE: Illustration depicts PLR posting only

Fig. 2—Example of Rural Area Interface

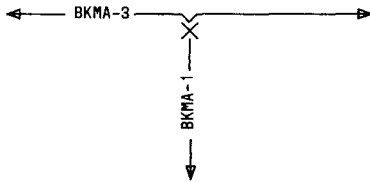
(c) Cross-connecting terminal having IN and OUT pairs in separate cables. IN and OUT pairs are terminated on separate connecting or terminal blocks. Interconnections between pairs are made by means of cross-connecting wire.



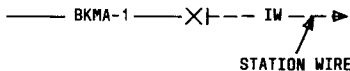
(d) Cross-connecting terminal having IN and OUT pairs in the same cable stub. Interconnections are made by means of cross-connecting wire. The example below shows a factory-terminated, sealed stub.



(e) Cross-connecting terminal having one cable "looped through" and another cable originating at the interface. Cross-connecting wires are used for making connections between cable pairs. The symbol indicates that the BKMA-3 cable is looped through. The terminal count identifies the pairs terminated.



(f) Cross-connecting terminal containing separate connecting or terminal blocks for terminating outside plant cables and station cables or wire. Cross-connecting wires are used for making connections between the outside plant cable and the station wiring.

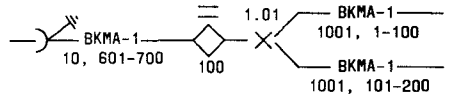


**Note:** If a stub to a cross-connecting terminal is factory-terminated, it is not necessary to record the stub data such as type, size, gauge, mortality, and length. If field-terminated, it is necessary to show this data on the location record.

**D. Building Terminals**

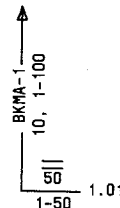
**3.06** Many types of terminals are used in buildings and are shown as follows:

(a) Protected cross-connecting terminal used to connect an exposed entrance feeder cable to building cables. The 1.01 indicates that this is the first terminal on the first floor. An insulating joint with a ground is placed at the entrance to the building.



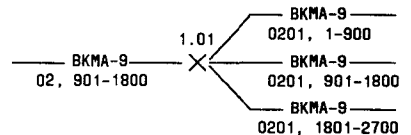
1- 134A1A-100 PROT	
2- H202 CTS	1.01
2- J202 CTS	300 PR
E/W 3- 66L3-100 CB	IN: 10, 601-700
2- 82A BB	OUT: 1001, 1-200

(b) Protected distribution terminal consisting of a 1A4A terminal block.



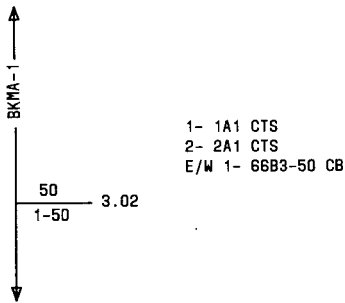
1- H202 CTS
2- J202 CTS
E/W 1- 1A4A50 TB

(c) Unprotected cross-connecting terminal installation with 5A1-type cable; terminal blocks mounted on 5A-1800 frame-type cable terminal sections.



	1.01
	3600 PR
2- 5A-1800 CTS	IN: 02, 901-1800
E/W 4- 5A1-900 CTB	OUT: 0201, 1-2700

(d) Unprotected distribution terminal consisting of 66-type connecting blocks housed in a cable terminal section.



**E. Main Distributing Frame (MDF)—Central Office or PBX**

3.07 The following examples illustrate the use of symbols in conjunction with terminating outside plant cables at central office or main frame locations.

(a) Terminating an 1800-pair 24-gauge cable by using 303B2, 100-pair connectors equipped with 50-foot, 22-gauge polyvinyl chloride (PVC) stubs. (See Fig. 3.)

(b) Terminating a 900-pair cable using C50 protectors. (See Fig. 4.) The protectors are not equipped with stubs. The 300-pair ABAM stubs, which are charged to the outside plant cable accounts, are used to terminate the cable.

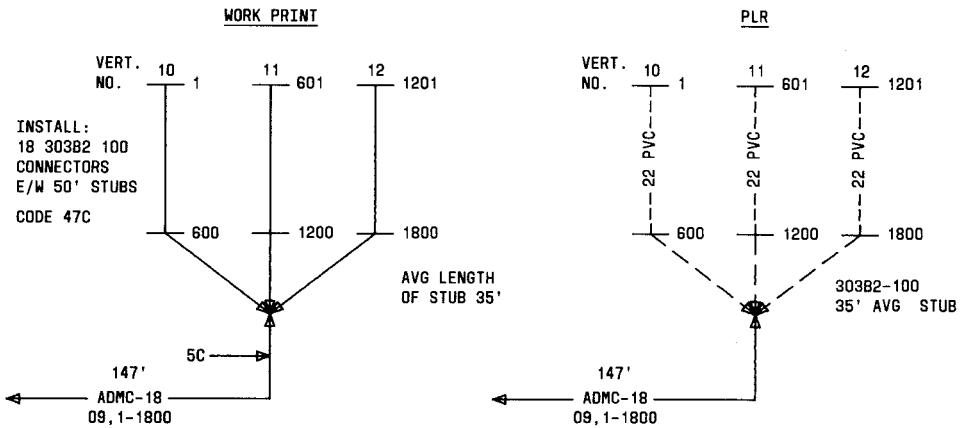


Fig. 3—Example of Terminating Cable on an MDF Using Stubs

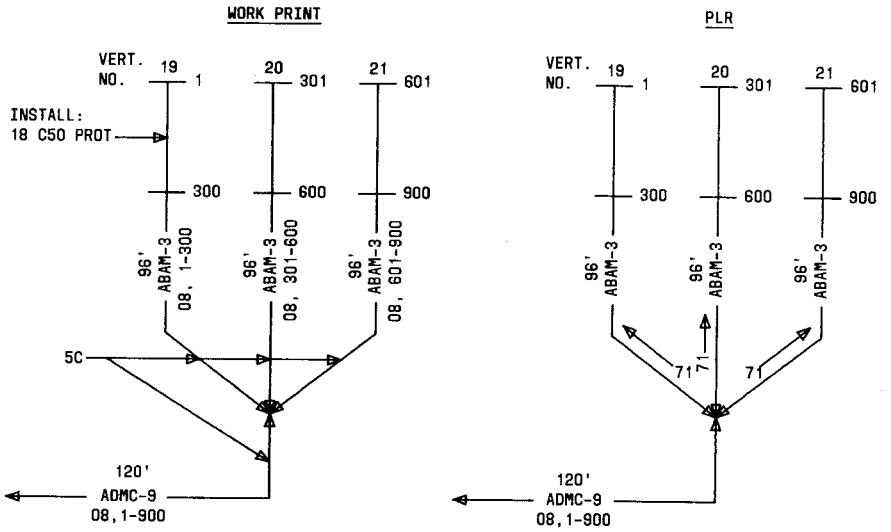


Fig. 4—Example of Terminating Cable on MDF Using Protectors

F. Taper Code

3.08 Figure 5 illustrates how the taper code symbol is shown on an outside plant cable location

record. For further details, refer to Section 936-312-110. The numerical designations #84, #85, and #86, as shown on the illustration, are sections of plant (SOP) codes as described in Section 936-312-100.

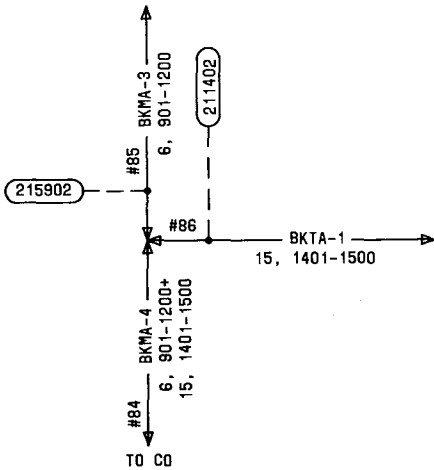


Fig. 5—Example of Taper Coding

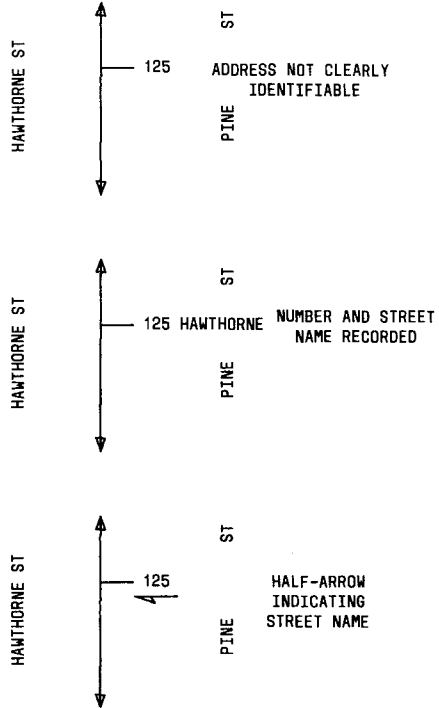


Fig. 6—Optional Method of Recording Terminal Address

**G. Optional Method of Recording Terminal Address**

**3.09** Many times, due to congestion or other restriction of space, the street name where a terminal is addressed is not clearly identifiable and both the terminal number and street name must be shown. A line with a half-arrow pointing to the applicable street eliminates the need to include the street name with the terminal number. (See Fig. 6.)

**H. Lightguide Cable and Equipment**

**3.10** Lightguide cable, interfaces, terminating units, and the remote multiplexer are shown in Fig. 7 through 11.



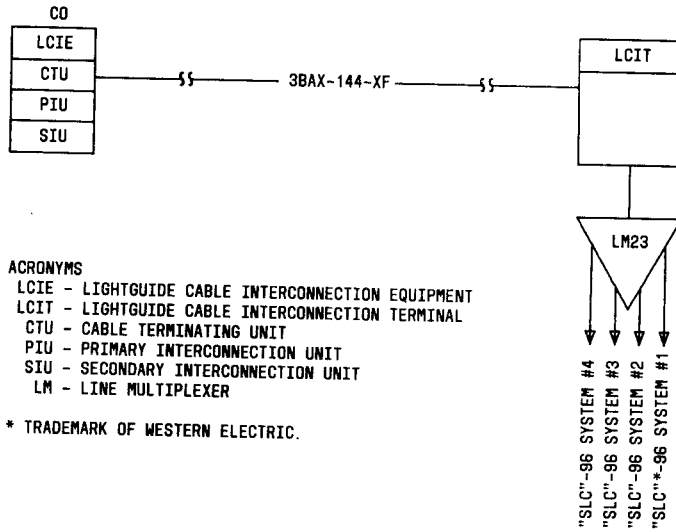


Fig. 7—Lightguide Cable and Equipment

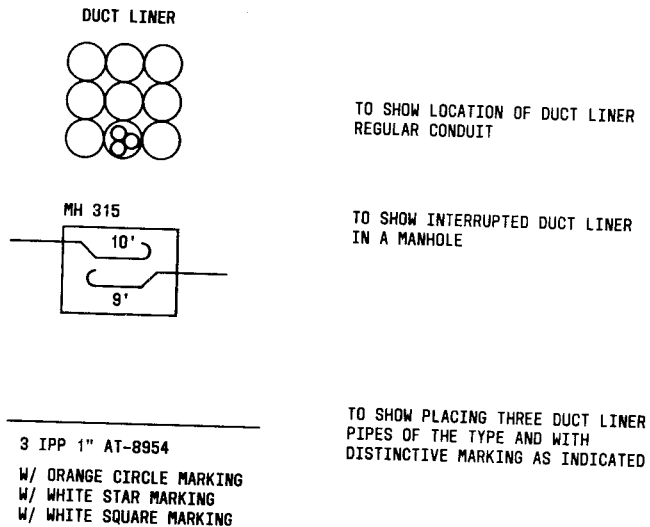


Fig. 8—Duct Liner Symbols

THE NEW LIGHTGUIDE CABLE CODE IS OF THE FORM NLLL-NNN  
 WHERE N IS A NUMBER AND L IS A LETTER.

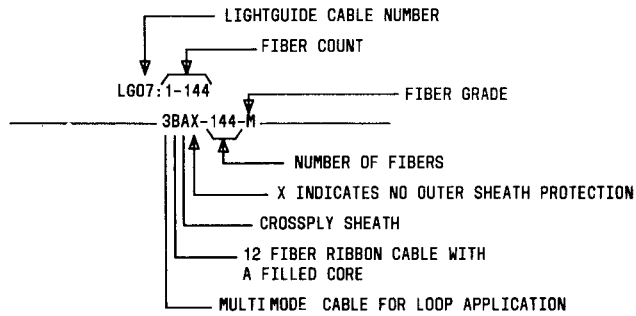


Fig. 9—Lightguide Cable Classification

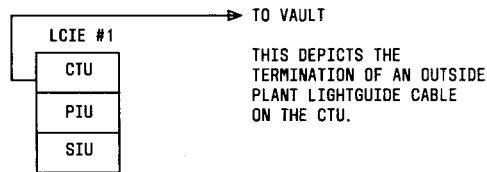
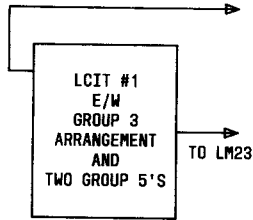


Fig. 10—Lightguide CO Equipment



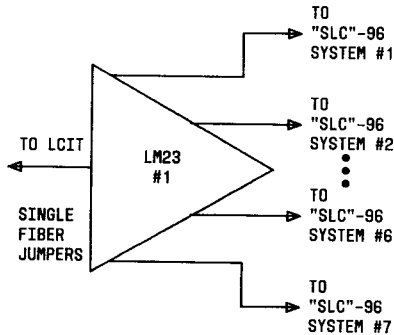
TO CO

THIS DEPICTS AN LCIT FOR DS2/DS3 RATE OPERATION. IN THIS EXAMPLE:

(A) THE OSP CABLE TERMINATES ON THE LEFT SIDE

(B) GROUP 3 INDICATES FLOOR ENTRY CABLE, GROUNDED TO FRAME

(C) TWO GROUP 5'S INDICATES TWO 12-FIBER FANOUTS



USED TO DEPICT THE MULTIPLEX SHELF REQUIRED IN THE ENCLOSURE FOR DS2/DS3 RATE OPERATION

Fig. 11—Remote Terminal Equipment

#### 4. CABLE CODE DESIGNATIONS

**4.01 Coded Exchange-Type Cables:** A 4-letter code designation is used with exchange-type cables. The 4-letter code consists of:

- (a) First letter—sequence of standardization
- (b) Second letter—type of conductor insulation
- (c) Third letter—gauge and material of conductors
- (d) Fourth letter—type of sheath.

##### A. Cable With Code Designation BHBA-2-BT

**4.02** The initial letter, B, represents the sequence of standardization of cables having certain physical characteristics of the core. The H signifies

that the conductor insulation is polyethylene. The third letter, B, represents 19-gauge copper conductors and the fourth letter, A, indicates an alpheth sheath. The 2 indicates there are 200 pairs contained in the cable.

—— BHBA-2-BT ——

##### B. Types of Outer Sheath Protective Coverings

**4.03** Outer protective coverings placed over cable sheaths are designated by 2-letter codes. In the example of the cable designation in paragraph 4.02, the suffix BT indicates buried tape armor placed over the sheath of the cable. Section 626-020-011 contains complete details related to this cable coding.

**4.04** In the examples of exchange and composite cables shown in paragraphs 4.05 through 4.13,

the cable designation numbers, counts, and in some instances, the gauge of the cable makeup are not a part of the basic symbol. Therefore, they are not shown except to clarify multiple gauge, video, and coaxial groups. Cable designations and counts are covered in Section 928-100-030.

### C. Exchange-Type Cables

4.05 There are two basic formats, depending upon size, as follows:

- (a) **Cables Containing Less Than 100 Pairs**—The pair size is literally written and the code PR is added to the designation of size. For example, a BHBA cable of 16 pairs would be shown as follows:

\_\_\_\_\_ BHBA-16 PR \_\_\_\_\_

- (b) **Cables Containing 100 Pairs or More**—This example, an ADTC cable of 2700 pairs, applies to cable sizes which are multiples of 100 pairs. For example, 27 indicates the number of 100-pair complements contained in the cable.

\_\_\_\_\_ ADTC-27 \_\_\_\_\_

### D. Special Cables

4.06 In special cables, the letter S is used as a suffix to the total pairs in the cable, ie, sized other than the normal sizing or a composite cable which may contain more than one gauge or type of conductor. For example:

- (a) A 37-pair special cable.

\_\_\_\_\_ 37S \_\_\_\_\_

- (b) A 600-pair composite cable.

\_\_\_\_\_ 600-S \_\_\_\_\_

### E. Composite Cables Containing Exchange Pairs

4.07 A 600-pair composite cable makeup detail may be associated with the proper cable designation in a specific application by indicating the total number of pairs as shown within the break of the cable line. The cable drawing number and the type of sheath are indicated below the cable line. The number of pairs of each gauge of cable, the cable number, and the pair count of the cable are shown to provide further clarity. See Section 928-100-030 for details concerning cable designations and pair counts.

\_\_\_\_\_ 600-S \_\_\_\_\_  
CA-3113-C  
2-22, 20, 1-200+  
4-24, 36, 1-400

### F. Cables Designated by Drawing Number

4.08 Cables which are manufactured with numbered cable drawings are further described as to **type of sheath** and **sheath protective covering**. **The designation shown is for a cable manufactured according to cable drawing CA-3002. The cable has a lead sheath (L) with jute protection (JP).**

\_\_\_\_\_ 606-S \_\_\_\_\_  
CA-3002-L-JP

4.09 **Composite Cables Containing Video and Exchange Pairs:** For a 606-pair composite cable, the total number of pairs (606) is shown within the break of the cable line. The cable drawing number and the type of the sheath are indicated below the cable line. The video pairs, conductor insulation, video pair count, size and gauge of nonquadded pairs, cable number, and pair count follow in that sequence.

\_\_\_\_\_ 606-S \_\_\_\_\_  
CA-3103-H  
6 PR VID PEV-L, 132,  
V1-V6  
6-24, 41, 1-600

**4.10 Composite Cables Containing Quads and Exchange Pairs:**

For a 306-pair composite cable, the total number of pairs is shown within the break of the cable line. The cable drawing number and the type of sheath are indicated below the cable line. The number, gauge, cable number, and pair count of the quads; the number of 101-pair complements; and the gauge of the exchange cable, cable number, and pair count then are indicated in that sequence.

**Note:** This is for record purposes only. The manufacture of this particular cable makeup has been discontinued.

————— 306-S —————  
 CA-590-L  
 52 QD-19, 141, 1-104  
 2-24, 37, 1-200

**4.11** The following types of composite cables are designated by the following symbols:

(a) Composite cables containing spiral-four, disc-insulated quads listed first, and standard quads.

————— 78-S —————  
 CA-577-C  
 3 DIQD-16, 176, 1-6  
 36 QD-19, 176, 7-78

(b) Composite cables containing coaxials of size 0.375 inches, interstitial conductors, and standard quads.

**Note:** This is for record purposes only. The manufacture of this particular cable makeup has been discontinued.

————— 86-S + 8 COAX —————  
 CA-1284-L-LA  
 8 COAX-0, 375, 342, 1-8  
 8 COND-19, 342, 9-12  
 41 QD-19, 342, 13-94

(c) Composite cables containing coaxials and exchange pairs. The size of the coaxial cable (0.375) and the use community antenna television

(CATV) have been added. This data may be considered as optional if the need does not exist.

**Note:** Refer to the 626 Division of the Bell System Practices to determine current cable makeups.

————— 200-S + 1 COAX —————  
 CA-3070-H  
 1 COAX-0.375 CATV  
 2-22, 02, 1-200

**G. Other Cables Not Coded or Specified by Cable Drawing Number**

**4.12** Cables purchased from commercial sources that are not made to Bell System specifications can be coded for gauge, insulation, and sheath. These are the last three letters of the 4-letter code. An X is shown for the first letter of exchange-type cables. An example is a 50-pair, alpeth sheathed, 19-gauge plastic-insulated conductor cable manufactured by other than Western Electric or its normal suppliers.

————— XHBA-50 —————

**H. Conversion From Obsolete Numerical Coding to Letter Coding**

**4.13** The present standard 4-letter exchange cable code is recorded on work prints and location records. When working on cable location records, the number codes indicating the size and gauge of the cable should be converted to the standard 4-letter code. For example:

(a) The code 12-26 could become BSTL-12 and 4-24 could become DSML-4.

NUMERICAL CODING  
 — 12-26 —→ 4-24 —

(b) The type of sheath, L, indicates that the cable has a lead sheath.

LETTER CODING  
 — BSTL-12 —→ DSML-4 —

**OUTSIDE PLANT CODES AND SYMBOLS  
 USE AND APPLICATION**

**CABLE, CABLE TERMINALS, CLOSURES, AND INTERFACES**

**1. GENERAL**

1.001 This addendum supplements Section 620-040-015, Issue 8. Place this pink sheet ahead of Page 1 of the section. Do not remove this addendum when a new Section is issued.

1.002 This addendum is issued to replace the information on Lightguide Cable and Equipment with Wisconsin Bell standards.

**2. CHANGES TO SECTION**

2.001 Fig. 7 through 11 are obsolete.

New Fig. 7 through 10 are shown in this addendum.

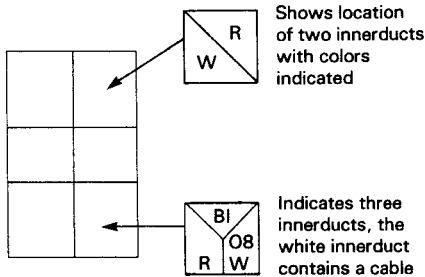


Fig. 7 - Innerduct Symbols

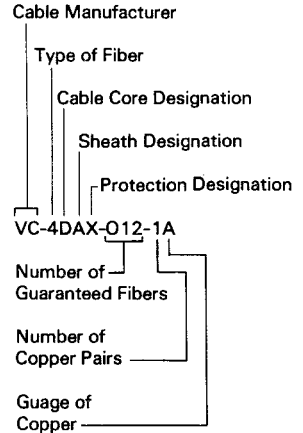


Fig. 8 - Cable Classification

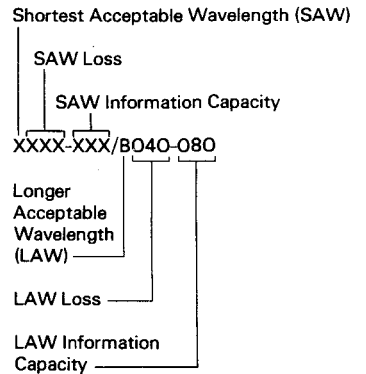
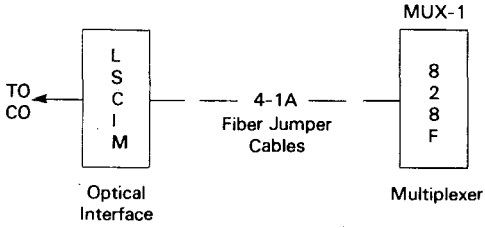


Fig. 9 - Transmission Characteristics

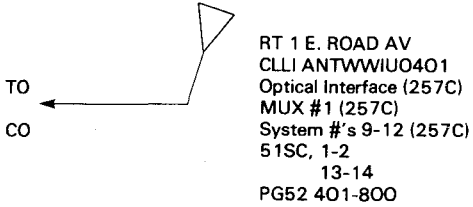
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Work Print



PLR



RT 1 E. ROAD AV  
CLLI ANTWWIU0401  
Optical Interface (257C)  
MUX #1 (257C)  
System #'s 9-12 (257C)  
51SC, 1-2  
13-14  
PG52 401-800

**Fig. 10 Remote Terminal Equipment**

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