

OUTSIDE PLANT SYMBOLS AND ABBREVIATIONS

CARRIER SYSTEMS

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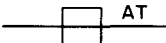
1. GENERAL

1.01 The terms, abbreviations, and symbols contained in this section pertain to carrier systems and associated items. The symbols are basic in nature and may be used in combination with other terms, abbreviations, and symbols supplemented with notes to portray any of the various equipments or installation configurations which may be existing or forthcoming in the foreseeable future. They are for use primarily on construction work prints and records, although some may be used on maps. The examples of application portion (Part 3) of this section shows how some of these combinations may be used. The abbreviations used in conjunction with outside plant symbols are provided in Sections 751-410-101 and -102. Section 620-040-020 includes specific symbols and terms for engineering and construction forces.

1.02 This section has been completely revised to reflect application of the respective terms, abbreviations, and symbols to all carrier systems. Since this section is a complete revision, no revision arrows have been used to denote significant changes.




2. TERMS, ABBREVIATIONS, AND SYMBOLS

2.01 The following are standard terms, abbreviations, and symbols to be used in designating the various components of carrier systems. Where no symbol is applicable to a term, the designation not applicable (NA) is inserted.


TERM	ABBREVIATION	SYMBOL
AC ISOLATION UNIT	ACIU	
AUTOTRANSFORMER	AT	

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement


TERM	ABBREVIATION	SYMBOL
CASE (Such as apparatus cases, load coil cases, etc)	CSE	
Case with one stub (IN and OUT leads are contained in one stub)		
Case with two stubs (IN and OUT leads are in separate stubs)		


Note: If factory-equipped stubs are *not* provided and the stub must be placed, size, gauge, and length must be shown.

CENTRAL OFFICE TERMINAL	COT	
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Note: The type of COT (such as SLC*-96 subscriber loop carrier system) should be shown.

COMMON LANGUAGE LOCATION IDENTIFICATION	CLLI	NA
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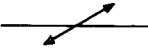



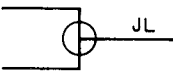



CONCENTRATOR (GFELLER)	G [†]	
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CONCENTRATOR 1A (50-pair) 1A (100-pair)	1A-50 [†] 1A-100 [†]	
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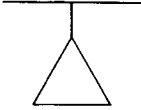



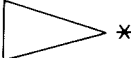
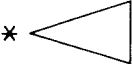
CONTROL	CONT	NA
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*Trademark of Western Electric.

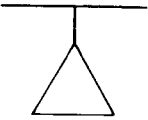
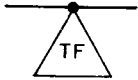

[†]See paragraph 3.03 for use of multiplexer symbol for showing concentrators in plant.

TERM	ABBREVIATION	SYMBOL
DIRECTIONAL COUPLER	DC	
EQUALIZER	EQL	NA
FAULT-LOCATING PAIR	FLP	NA
FILTERS	FLT	NA
LOW-PASS FILTER	LP	
HIGH-PASS FILTER	HP	
BYPASS FILTER	BP	
JUNCTION LINE FILTER	JL	
LINE FEED CONVERTER	LFC	NA
LINE TERMINATION UNIT	LTU	
MULTIPLEXER (Includes: Concentrators, multichannel sub- scriber carrier, subscriber loop mul- tiplex system, and other pair gain devices)	MTLXR	 (WITHOUT STUB)  (WITH STUB)

Note: If factory-equipped stubs are not provided and the stub must be placed, size, gauge, and length must be shown.

TERM	ABBREVIATION	SYMBOL
ORDER WIRE	OW	NA
PROTECTION	PROT	NA
CARBON CABLE PROTECTION	NA	—
CARBON STATION PROTECTION	NA	=
TUBE PROTECTION	NA	
RANGE EXTENDER WITH GAIN	REG	NA
REMOTE TERMINAL	RT	
REMOTE POWER FEED POINT	RPPF	
REPEATER	RPTR	NA
REPEATER STATION — ATTENDED TWO-WAY	NA	
REPEATER STATION, HUT, OR CABINET — UNATTENDED TWO-WAY	NA	
REPEATER STATION — ONE-WAY	NA	
		

*Apex points indicate direction of transmission.

TERM	ABBREVIATION	SYMBOL
SINGLE-PARTY SERVICE	SPS	NA
SUBSCRIBER	SUB	NA
SUBSCRIBER LOOP CARRIER SYSTEM	SLC*	NA
SUBSCRIBER LOOP MULTIPLEX SYSTEM	SLM*	
SUPERIMPOSED RINGING	SPR	NA
TEST ACCESS FIELD	TF	
TRANSFORMER	TRNSF	

3. EXAMPLES OF APPLICATION

3.01 The following illustrations show how the symbols and abbreviations contained in this section may be combined for use on work prints, records, and maps. (Division 928 of the Bell System Practices depicts the actual usage.) Along with each symbol or combination of symbols, other information may be necessary to meet the requirements of federal or state regulatory bodies and to conform with Bell Operating Company policy or Bell System Practices. This consists of items such as:

- Informational notes
- Abbreviations
- Type of case
- Cable counts and/or other pair assignments
- Accounting codes

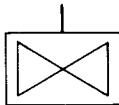
*Trademark of Western Electric.

- Area number
- Location codes
- Serial numbers
- Type of carrier system and channel numbers
- Mortality information
- Common language location identification (CLLI)
- Other items as required.

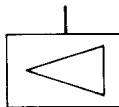
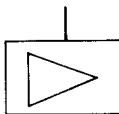
APPARATUS CASE — SUBSCRIBER LOOP CARRIER SYSTEMS

3.02 The following are symbols for apparatus cases used in subscriber loop carrier systems.

Case equipped with repeaters and factory-installed stub. Direction of transmission is two-way.

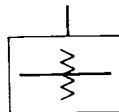


Case equipped with repeaters and factory-installed stub. Direction of transmission is one-way as shown by direction of triangle point.

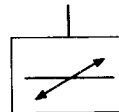


Note: Type of case, location, number and type of repeaters, counts involved, and any other information required by Bell Operating Company policy or the Bell System Practices must be shown.

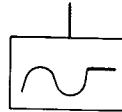
A case containing a line termination unit with a factory-installed, 1-pair stub. Location, pair assignment, and accounting code must also be shown.



A case containing a directional coupler with a factory-installed, 3-pair stub. Location, pair assignment, and accounting code must also be shown.



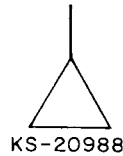
A case containing a remote power feed point equipped with a factory-installed stub. Location, pair assignment, and accounting code must also be shown.



CONCENTRATORS, MULTIPLEXERS, AND REMOTE CARRIER TERMINALS

3.03 The multiplexer symbol may be used in combination with other symbols and abbreviations to portray the installation of or existence of concentrators, multichannel subscriber loop carrier, subscriber loop multiplexer, and other pair gain devices. The following examples depict some of these combinations.

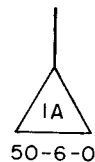
The multiplexer symbol may be used to portray a multichannel subscriber carrier remote terminal by combining it with the equipment KS or other identification number and the stub symbol. It would be further supplemented with the system number, channel number, subscriber terminal, accounting code, location code, and any other information dictated by Bell Operating Company policy or Bell System Practices. The cable stub associated with this system should be shown with the list number, accounting code, and pair count.



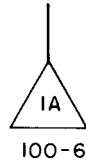
In this case, the multiplexer symbol has been combined with a cable stub and the Gfeller concentrator abbreviation, together with the number 1. This combination would represent a Gfeller-type concentrator which is number 1 in the wire center. It should be supplemented with accounting code, cable stub length, type and size, and count of stub, which would include designated subscriber, trunk, control, and dead pairs when used on work prints.



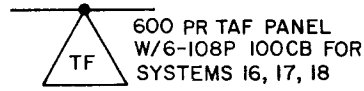
The multiplexer symbol together with the 1A (50-pair) concentrator abbreviation, concentrator number in the wire center, trunk group, and cable stub symbol is combined to show a 1A-type concentrator which is part of a network employing more than one trunk group. This would be the case if two 50-line units worked from a single 100-line central office unit. The 1A-50-6-0 indicates a 1A-type 50-line concentrator unit which is number 6 in the central office building area and trunk group 0. It should be further supplemented with accounting code, cable stub length, type, size, and count of stub, which would include designated trunk, subscriber, control, and dead pairs when used on work prints.



The 1A-100 line concentrator is depicted in the same manner with the 1A-100-6 designating a 1A-type 100-line concentrator unit which is number 6 in the central office building area. No trunk group designation is shown after the type and number of a 100-line field unit since both trunk groups (0 and 1) are assigned at this location.



Test access field. The test access field symbol is used to indicate the location, size, type of test access panel and connecting block (CB), and the systems accessible for testing.



The multiplexer symbol is used to portray a subscriber loop multiplex system by combining it with the trademark (SLC) and the cable stub symbol. Also included will be the size of carrier installation along with area code, accounting code, location, and any other pertinent information required by Company policy or Bell System Practices. If the unit is not equipped with a stub, size, gauge, length, and count, mortality must be provided.



Remote terminal (RT) with associated interface, when installed in the same cabinet.

