

STANDARD DRAWINGS

MANUFACTURING SPECIFICATIONS

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<u>1.</u>	<u>GENERAL</u>	<u>4.</u>	<u>TYPES OF MANUFACTURING SPECIFICATIONS</u>
1.1	<u>Scope of Section</u>	4.1	<u>"J" Specifications</u>
1.11	This section describes and explains Western Electric Company equipment manufacturing specifications.	4.11	"J" specifications are specifications prepared in drawing form from the corresponding laboratories specifications and bear the same numbers as the laboratory specifications except that a dash number is added. An example is J12801A-1. The <u>dash number</u> is added to indicate the vintage of the Western Electric Company specification. This dash number also allows for the replacement of the Western Electric Company specification while retaining the same laboratories code number. The second specification for the example cited would be numbered J12801A-2 and would be issued when more or less minor design changes are made but where it is desirable to have a separate record of the offices using J12801A-1 and J12801A-2.
<u>2.</u>	<u>DEFINITION</u>	4.2	<u>"ED" Specifications</u>
2.1	Western Electric Company equipment manufacturing specifications are specifications that provide the manufacturing requirements for the assembly and wiring of apparatus and framework parts into units of equipment which perform specific functions in communication systems. These specifications are in drawing form and contain a list of the material required and assembly or assembly and wiring requirements for this material.	4.21	An "ED" Specification is prepared to code small wired units such as step-by-step switches, units which mount like switches (i.e., on step-by-step shelves) or for certain relay rack units for which the Bell Telephone Laboratories have issued the "SD" drawing and "ED" drawing with the same base number.
<u>3.</u>	<u>PURPOSE</u>	4.22	For some small wired units such as step-by-step switches or units which mount like switches (i.e., on step-by-step shelves) the wiring diagram
3.1	Equipment manufacturing specifications provide the detailed information for engineering, manufacturing, installing and associated functions incident to the process of applying equipment on customers' orders. In so far as possible they are arranged to have the shop assemble or mount all items, consistent with practical shipping practices and without interfering with installing operations. All items which are required when erecting and assembling the frames or units are tied to the associated frame or unit or shipped in the same container.		

(made in manufacturing schematic form) and the equipment layout may be combined on one "ED" drawing with no wiring diagram included. In the latter case the "SD" drawing is used as the wiring diagram as well as the schematic.

- 4.23 When the ED drawing is a combination wiring diagram and equipment drawing the information is prepared using the multi-sheet wiring diagram format with the 3 groups of sheets each numbered from 1 up. The first group of sheets are the information sheets and designated "A". The second group of sheets are the wiring diagram sheets and are designated "B". The third group of sheets are the equipment portion and designated "C". This group consists of the stock list and equipment arrangement.
- 4.3 "X" Equipment Specifications
- 4.31 The Bell Telephone Laboratories assign "X" equipment codes to certain assemblies of a trial nature and to other special equipments. The equipment manufacturing specifications for these codes are similar to "J" manufacturing specifications except they are prefixed with "X" instead of "J".
- 4.4 "H" Equipment Manufacturing Specifications
- 4.41 "H" equipment manufacturing specifications are prepared by the Western Electric Company for equipment assemblies which have not been coded or shown on "ED" drawings by the Bell Telephone Laboratories. These specifications are prepared to facilitate engineering, manufacturing and installing. "H" Specifications are similar in format to "J" Specifications.
- 4.5 "C" Specifications
- 4.51 Western Electric Company "C" Specifications were prepared in typed form from Bell Laboratories "X" Specifications. Originally "C" Specifications were numbered in the 61000 series for dial systems and 63000 series for manual, power and toll systems.
- 4.52 No new "C" Specifications are issued. When replacing revisions are necessary, they are issued as "H" Specifications.

5. MANUFACTURING NOTES

- 5.1 "Manufacturing Notes" on manufacturing specifications are arranged to distinguish between notes affecting the shop and notes affecting the installer by the use of two columns to the left of the notes. The column to the immediate left of the notes is designated "INST." and the other column "SHOP" and an "X" is placed in the appropriate column.
- 5.2 These notes are numbered consecutively from 1 up.
- 5.3 The following Manufacturing Notes are provided as required on drawings to provide assembly and shipping instructions for specific stocklist items. Symbols used in notes appear in stocklists adjacent to items involved. Unless individual items are so annotated all parts shown in the stocklist of the drawing are considered to be assembled for shipment. Where the typical notes cited are not adaptable to a shipping or assembly condition presented on a particular stocklist drawing, a suitable note is shown and, where necessary, specific reference to the note is included after affected stocklist items.
- (a) "S" Parts Not Assembled, Shipped Separate - (Used when only a portion of the items listed in the stocklist are shipped separate.)
- (b) All Parts Shall Be Shipped Separate - (Used where all items in stocklist are shipped separate.)
- (c) All Parts To Be Assembled For Fitting And Knocked-Down For Shipment - (Used when all items are assembled for fitting in the shop and then knocked-down for shipment.)
- (d) "W" - Assembled at Same Time Equipment is Mounted - Used when (a) Parts involved cannot be assembled until the associated equipment is being mounted (b) Dismantling of parts involved would be necessary to permit mounting of associated equipment. The "W" symbol is applied to all items, including general use parts, such as screws, nuts, washers, etc., directly associated with and specifically required to mount or assemble the basic "W" items.

- (e) Parts Required for Installation - (Used only for identifying general use parts such as screws, nuts, washers, etc.)
- (f) Parts Required for Manufacture when Equipment is to be Shop Mounted or by the Installer when the Equipment is to be Mounted by the Installer - (Used only for identifying general use parts such as screws, nuts, washers, etc.)
- (g) Parts that are to be Shipped Attached to, or Enclosed in the Same Container with, the Associated Assembled Item (See Note A)
- (h) Parts (a) Required for Manufacture when equipment involved is Shop Mounted or (b) to be shipped attached to, or enclosed in the same container with, the associated assembled item when Field Mounted (See Note A)

NOTE A: Used only for identifying such items as screws, nuts, washers, brackets, etc., and some pieces of apparatus required by the installer when erecting, aligning, or mounting shop assembled frameworks and equipment units. The types of parts (or apparatus) to be treated in this manner is limited to those items which have been reviewed by and agreed upon by the Equipment Engineers, Engineer of Manufacture and Installation Division.

- (i) () Indicates designations to be stamped in accordance with job information.
- (j) [] Indicates designations shown for information only and are not to be stamped.
- (k) < > Indicates designations which are provided in accordance with other information.
- (l) ○ or ◻ Indicates designations to be stamped on wiring side only.
- (m) C indicates apparatus to be mounted in consecutive order in positions indicated.
- (n) W* indicates Miscellaneous apparatus which is (a) to be shop mounted but which cannot be assembled until the associated equipment is being mounted or (b) to be shipped attached to or

enclosed in the same container with the associated assembled equipment when field mounted.

- (o) Disregard the (indicates the parts replaced) provided with the (indicates the associated apparatus) and replace with the (indicates the replacement parts furnished).

6. ENGINEERING NOTES

- 6.1 Engineering notes on manufacturing Specifications provide the engineer with instructions and information. They are not directed to the installer.

7. TABLE A - SUBDIVISION OF EQUIPMENT

- 7.1 Column A - Equipment
- 7.11 Column A sets forth the criteria employed by the engineer in ordering, wiring, and equipping the lists or groups on a specification for a job.
- 7.2 Column B - Rating
- 7.21 Column B shows the rating of the lists or groups when they are different from the rating of the specification drawing. When any list is associated with a Preselected Feature Combination (PFC) list, the letter "P" will appear in this column to indicate the fact.
- 7.3 Column C - List (or Group)
- 7.31 Lists or group numbers are assigned to subdivide the units of the equipment and to provide optional features. The main list or group covers the common or basic equipment. Other lists or groups cover equipment or apparatus required in addition to the main list or group to provide supplementary or optional features to the basic unit.
- 7.32 When a numbered list or group assigned to cover a certain basic operational or traffic feature is rated Manufacture Discontinued (MD), it is not re-assigned on a dash number specification to cover different basic features.
- 7.33 Lettered lists order equipment not included in the laboratories lists but which are required for operating or maintenance purposes. These lists are also used to separate equipment from a numbered list for convenience of manufacture. Changes required on lettered lists in general are made by

rating the lettered list "MD" and adding a new lettered list.

- 7.34 Optional lists for wiring (no apparatus forming a part of the option) are assigned lettered designations prefixed with the letter "W". These lists are not shown in their own stocklists, but may be shown in the stocklist of a major specification.
- 7.35 Optional lists for test and adjust (no apparatus or wiring directly forming a part of the option) are assigned lettered designations prefixed with the letter "T". These lists are not shown in their own stock list, but may be shown in the stock list of a major specification.
- 7.36 Optional lists for stamping are assigned lettered lists prefixed with the letter "S". These lists are not shown in their own stock list, but may be shown in the stock list of a major specification.
- 7.4 Column D - Number
- 7.41 Column D shows the quantity of circuits which are furnished per list or group.
- 7.5 Column E - Circuit
- 7.51 Column E which is headed "Circuit" shows the Wiring Diagram number of the circuit being equipped. When a component unit is furnished in the stocklist the J specification number of the component will also appear in this column.
- 7.6 Column F - Figure
- 7.61 Column F which is headed "Figure" shows the figures which are furnished per List or Group. When a component J specification unit is furnished in the stocklist the Lists of the component being furnished appear in this column.
- 7.7 Column G - Wiring
- 7.71 Column G which is headed "Wiring" shows which wiring options are furnished with the list or group.
- 7.8 Column H - Apparatus
- 7.81 Column H which is headed "Apparatus" shows which apparatus options are furnished with the list or group.

8. TABLE B - DRILLING INFORMATION

- 8.1 When needed, a table is added on the specification drawing to show the mounting plate position drillings not apparent in the stock list. Information in Table B is shown with the "Sketches" arranged vertically and the types of apparatus "Drilled For" arranged horizontally.

9. TABLE C - LIST OF COMPONENT UNITS TO BE ORDERED SEPARATELY

- 9.1 When the basic list of a component unit is provided and, in addition, one or more supplementary lists of component units are provided on an optional basis, the basic list of the component unit is ordered as part of the basic list of the major unit, and supplementary lists of the component unit are ordered in the supplementary lists of the major code. Any supplementary lists of a component unit which are provided are included in the basic list of the major code along with the basic list of the same component unit.
- 9.2 An exception to the above would be where the number of optional component units and/or lists is very large and would result in an excessively large number of supplementary lists in the major code. In this case the supplementary units are not ordered in the major code stock list but are indicated in a table similar to Table C. This table directs the engineer to the appropriate Component Unit Specification for further action.

10. ENGINEERING GUIDE TO THE APPLICATION OF LISTS

- 10.1 When a specification drawing contains a large number of lists covering numerous features under different conditions and proper ordering of these lists is made difficult, an additional table may be added to the drawing showing the grouping of lists by feature, system, condition, etc., to facilitate ordering of lists. This table is assigned the next available alphabetical letter and is titled "Engineering Guide to the Application of Lists." All notes required for interpretation of items in this table will be included as part of the table.

11. WIRING LIST

11.1 The wiring list shows the wiring provided in the local cable, wiring provided by the installer, and/or surface wiring. When a specification has local cables, installer wired equipment and surface wired equipment, separate tables are shown for each. The tables are continuous and appear one above the other. Table headings are as follows: "Wiring provided in the local cable;" "Surface (SW1 or D3) wiring provided by the shop."

11.11 When there are combinations of local cable and surface wired equipment the drawing numbers, figures, optional wiring, and the quantity are shown complete on the wiring list for local cables. For surface or direct wiring, the term "as covered in Table A for lists specified in the order" is shown in the column headed, "Figure," "Optional Wiring" and "Wired."

11.12 When more than one local cable drawing is involved, the drawing numbers of the local cable are shown in the local cable column, as illustrated on Figure 1, to indicate the circuits to which each local cable drawing applies.

11.13 The wiring of component specifications are not shown in the Wiring List.

12. LIST OF ASSOCIATED DRAWINGS

12.1 The list of associated drawings shows drawings that are useful to the engineer, the shop and the installer for maintenance purposes.

12.2 Drawings which are not required by the installer are designated with an equal (=) sign. The following are the types of drawings which the installer normally does not require, local cable plan (LC), surface wire running list, local cable running list and connecting information drawings (soldering record).

12.3 Drawings which the installer requires are those that have stamping, mounting and assembly information and also those that have manufacturing notes which affect the installer. These drawings normally fall into the following categories: Frame Assemblies, Fuse Panels, Jack Panels, Equipment, cross connection, cable connecting charts, cable detail, method of cabling,

miscellaneous connection, critical wiring drawings and component equipment manufacturing specifications all of which are ordered in the stocklist of the specification.

12.4 Maintenance type application schematic drawing and "SD" drawing covering printed wiring circuit packages (CPS) used with the equipment are also listed.

12.5 Specification drawings for printed wiring board and AMPLAS assemblies are required by the installer and will also be shown in the list of associated drawings on the ordering specification.

13. STOCKLIST

13.1 All material required for the equipment covered by a particular specification, including component specification codes, framework, assemblies, and subassemblies are ordered in a list which is designated as the stock list.

13.2 In so far as possible items ordered in the stock lists of equipment manufacturing specifications appear in the following sequence: framework, panels, local cables, terminal strips, details, equipment assemblies, mounting plates and then miscellaneous items.

13.21 Mounting plates and all of the pieces of apparatus mounted thereon are shown together. Spaces are left between the mounting plate items.

13.22 Mounting plates shown as SK.A, SK.B, etc., are listed in alphabetical sequence.

13.23 General use parts, such as screws, nuts and washers may be listed at the bottom of any column.

13.24 Component coded units may be ordered in the stock list of the basic "J" Specification. When they are so ordered all required lists of the component specification are shown.

13.25 Pigtail components are ordered in the stocklist by quantity and description with the functional designation shown in brackets. Exceptions to this are when (1) pigtail components are used

as contact protection and are associated with and carry the same functional designation as the relay; (2) when the specification is for small subassemblies e.g., printed wiring boards, AMPLAS, terminal boards, terminal strips, apparatus mountings etc.

13.26 Mounting screws, nuts and washers, for terminal strips soldered to local and factory cable that are shipped unmounted direct to the job are ordered in the stock list of equipment manufacturing specifications as separate "Non-X" items. A "Manufacturing Note" associated with the terminal strips, mounting screws, nuts, and washers similar to the following will appear:

"Terminal strips to be shipped less mounting screws, nuts, and washers. These parts are listed as separate "Non-X" items."

13.27 Screws required for fastening piece parts or details on a relay rack unit assembly, or directly on relay rack framework or cabinets in the shop, are ordered in the stock list of the equipment manufacturing specification.

13.28 Unit mounting bars are ordered in the stock list of the equipment manufacturing specification by piece part number rather than by equipment drawing number and group, except in the case of units involving 206 selectors.

13.3 The symbol "E/W" (equipped with) is used to indicate items mounted or assembled on other apparatus or parts in the stock list.

13.4 The catalogue number or code of outside suppliers equipment is shown in the description column of the stock list. "KS" Specification numbers are shown in the code column.

13.5 Each list number, including the main list number, is shown in the list column opposite each item to which the list applies. When like quantities of an item are required for more than one list, all such list numbers are shown in the list column opposite the item.

13.6 A note column subdivided into two columns is included in the stock list as illustrated in Figure 1. In

general the subcolumn to the left is used for the lettered or symbol note reference and the subcolumn to the right is used for the numbered note reference. When a subcolumn does not provide sufficient space, both subcolumns are used for one type of note.

13.7 When three or more similar types of apparatus are shown consecutively in the stock list the name of the apparatus is listed once per column. A vertical line is drawn from this one appearance includes all the following lines of the same type of apparatus.

13.8 Mounting Screws for Relay Rack Units and Panels

13.81 Screws required for mounting equipment units and panels on relay rack framework are ordered in the stock lists of the unit or panel equipment manufacturing specification.

13.82 For all units (one or more mounting plates) or panels, the proper length mounting screws are listed in the stock list and designated as (asterisk-spare) items.

13.83 Screws required for fastening coded apparatus, designed for direct mounting, on a relay rack unit assembly or directly on relay rack framework or cabinets in the shop, are not listed in the stock list of the equipment manufacturing specification, since they are provided automatically from "Shop Findings."

13.9 Apparatus Changes in Stock List

13.91 Changes in codes of apparatus in the stock list are made by lining out the replaced code with a horizontal line and adding the new code. The use of this horizontal line out method signifies that either the replaced or replacing apparatus may be furnished at the discretion of the shop in order to meet supply problems.

13.92 When stock list changes result from wiring diagram changes involving record options, or where the change consists of replacing two or more items that are dependent on each other so that all affected items must be replaced at the same time, the change is made by adding new lists or by raising the dash number of the specification drawing.

13.921 When new lettered lists are added the following method is used if sufficient space is available and in all cases when it is possible to order the present associated number list without the new lettered list:

List	Qty	Ident..No.	Description
1	1	() 192A Mtg Plate E/W Sk. E	
1	1	101224640	239 FP Relay Pos 15
A Omit	1	101224640	239 FP Relay 15
A	1	100412501	280F Relay 15

13.922 The following alternative method (diagonal line out) may be used when a new lettered list is ordered with the present associated numbered list, and there is insufficient space in the stock list for the preferred method. A diagonal line is used in this method to clearly distinguish it from the horizontal line out method where no options are involved.

List	Qty	Ident. No.	Description
1	1	() 192A Mtg Plate E/W Sk. E	
A	1	100412501	280F Relay 239 FP Pos 15

14. MOUNTING PLATE DRILLING CODES

- 14.1 Drilling code numbers are specified for mounting plates ordered in the stock lists of all equipment manufacturing specifications.
- 14.2 Drilling code dash numbers are shown in parenthesis in the description column of the stock list of the equipment manufacturing specification. They are shown on the same line with the mounting plate code number as illustrated in Figure 1.
- 14.3 For each drilling code required, a drilling code identification number is assigned consisting of the mounting plate code number followed by an assigned dash number.

EXAMPLES: 189A-20
601B-4A19
609AD-7516
884AW-5W04

14.4 Drilling code drawings are originated to show the apparatus code number of the plate, the positions in which the various pieces are mounted, and the "A" drawing for the drilling, bushing, and figure number if required for every mounting plate position. Not more than ten drilling codes are shown on any one drawing.

14.41 These drawings are numbered with a prefix letter ("H" for Chicago and Columbus, "K" for Kearny, "U" for Denver, "V" for Merrimack Valley), the mounting plate code number, and a dash number. The dash number is the same number as the drilling code with the last digit omitted.

For Example:

H-189A-1H00	Columbus
H-601B-4A19	Chicago
K-609DA-7516	Kearny
V-884AN-5W04	Merrimack Valley
U-189A-0V00	Denver

15. MODIFICATION OF MANUFACTURING SPECIFICATIONS

- 15.1 Modifications are made in equipment manufacturing specifications by the following methods:
- 15.2 Adding lettered lists to existing equipment manufacturing specifications and the addition of figures on existing wiring diagrams.
- 15.3 Creating an "H" specification to cover the modified standard equipment and adding figures on existing wiring diagrams or creating a new wiring diagram.
- 15.4 Showing an equipment arrangement on the equipment manufacturing specification.

16. EQUIPMENT VIEWS AND FIGURES

16.1 Equipment views and figures show the apparatus arrangement and codes, framework assemblies, cross sections, functional designations and numbering, together with the component equipment assemblies, including all designations necessary for identification purposes. Numbered figures are used for main assembly views of front, side and rear elevations while lettered

figures are used to show detail views of component parts of the main numbered figures including front and rear equipment views, detail and partial assembly views, and break away figures. Sketches (Sk. A, Sk. B, etc.) are used for identification of assemblies of equipment in the stock list, such as a mounting plate equipped with relays and resistances, and the location of the equipment on the assembly and/or equipment figures.

- 16.11 All equipment is identified by code or piece part number and description at least once per drawing. Exceptions are when mounting material is the same in various figures in which case the material is identified in each figure.
- 16.12 Since "KS" Specifications are not normally made available to the shop or installer, all special instruction, sketches or other information in these specifications covering the mounting or assembly of apparatus or equipment are shown on the equipment manufacturing specification in which the "KS" Specification items are ordered.
- 16.2 Mounting Plate Positions which are drilled for but unequipped, are indicated by a plus "+" symbol on the front or apparatus view for drilled type mounting plates. Exceptions to this rule are as follows:
- 16.21 On mounting plates where the apparatus is arranged symmetrically across the plate, a plus "+" symbol representing a drilled for an unequipped position is shown for the first and last circuit only. Such positions on intermediate circuits are not designated. On mounting plates arranged for two circuits only, positions for both circuits are shown.

→ Indicates new or changed information.

ATTACHMENT

Figures 1 and 2 on Pages 9 and 10.

- 16.3 On standard relay rack bay equipment (toll only) covered by a specification drawing, the bottom mounting plate position of component units will be identified by a letter designation which will appear in the equipment view. These lettered designations are A to DK for 1-3/4" plates and FA to JA for 2" plates.
- 16.4 Locating information for pigtail components are indicated in the equipment manufacturing specification in accordance with one of the following:
- 16.41 The position number at which one end of the component connects and the functional designation, are shown in the stocklist.
- 16.42 The outline of the component with the functional designation bracketed within the outline is shown in the assembly view or figure positioned near the apparatus to which one end of the component connects.
- 16.43 The "PIGTAIL COMPONENT IDENTIFICATION" Table is shown only on equipment assembly drawings, and only in association with chassis type equipment. This table appears when the equipment contains a substantial number of pigtail components.

17. CASING ENCLOSED EQUIPMENT

- 17.1 When equipment is enclosed in relay casings and apparatus designation charts are required, the chart is ordered in the stock list of the equipment manufacturing specification drawing and listed in the table of associated drawings. The issue number of the chart will also be shown in the stock list.

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Reason for Reissue:

Addition of Paragraph 5.3 (1).

STOCK LIST				SHEET INDEX			
AB	AC	AD	AE	AF	AG	ALINE	ISSUE
LIST	QTY	CODE	DESCRIPTION	NOTE	LINE	1	2
1	2	J00005V-1	LIST 1,2,14A. AUX PLS UNIT		101		
1	2	J00005V-1	LIST 14B. AUX PLS UNIT		101		
1	1	ED-00003-30	G-2 FRAME ASSY		105		
1	1	ED-00005-59	G-11 FUSE PNL		105		
1	1	LCJ0000A-1A	G-1 LOCAL CABLE		110		
2	1	LCJ0000A-1A	G-2 LOCAL CABLE		110		
2,3	1	LCJ0000A-1A	G-3 LOCAL CABLE		110		
1,2,3	1	189A	(2581) MTG PLY E/W SK A		5		
1,2,3	1	D3A	TS POS 10				
1,2,3	10	AF50A	REL. 24,36,48,60, 72,84,96,108, 120,132		115		
1,2,3	10	185A	NET. 24R,36R,48R, 60R,72R,84R, 96R,108R, 120R,132R		120		
1,2,3	2	D5A	TS 146,161				
1,2,4,5	1	189A	(2602) MTG PLY E/W SK B		5		
1,2,4,5	1	D5A	TS POS 14				
1,2,4,5	5	AF20	REL. 30,50,86,114,142, 44,72,100,129,156				
1,2,4,5	5	AF24	REL. 120R,132R				
1,2,4,5	5	KS-13491	L-3, RES. (TP1500 OHM 44R, 72R, 100R, 128R, 156R		130		
1,2	1	189A	(2603) MTG PLY E/W SK C		135		
1,2,3	5	S9R	RES POS 4,18,32,46,60				
1,2,3	5	190W	RES 11,24,39,53, 67 MTG UPSIDE DOWN				
1,2,3	5	AJ46	REL. 82,95,109,121,134				
1,2	1	D2A	TS 155		140		
1	1	189A	(2604) MTG PLY E/W SK D		145		
1	1	ED-0000-51	JK, KEY & LP PNL ASSY E/W POS 20		145		
1	3	1A	TEST POST 1,2,3				
1	2	238A	JK 4,5				
1	1	KS-13492	L-2 RES (G1200 OHM 2R				
1	1	P-130987	BRKT -50				
1	1	467A	JK		150		
1	1	103D	INS 66				
1,2	1	189A	(2601) MTG PLY E/W SK E		155		
1,2	1	19A	RES POS 3				
1,2	1	441D	CRP 8				
1,2	1	D12	REL 16				
1,2	1	S0b	MTG PLY COVER WITH GUIDES IN 25,114		160		
1,2	1	R37	REL 30				
1,2	1	E1492	38				
1,2	1	U6160	46				
1,2	1	R219	52				
1,2	1	R144	60		165		
1,2	1	E202	68				
1,2	1	U142	77				
1,2	1	U489	87				
1,2	1	U310	99				
1,2	1	439A	CRP 110		170		
1	1	P-129732	RWR SCR -130-32 X 3/16				
3,4,5	4	P-353446	SPL OHM SCR -216-24 X 3/8		180		
A	2	P-353447	SPL RWR SCR -216-24 X 1/2				
A	2	P-423635	ITFLM, STL -025				
1	14	P-423635	ITFLM, STL -025		185		

TABLE C (SEE NOTE 53)
FRAME
(UNITS SHALL BE EQUIPPED AND CONNECTED AS SPECIFIED IN THIS TABLE)

UNIT CODE	UNIT CODE LIST	QUANTITY ALWAYS REQUIRED	QUANTITY FOR OPTIONS INDICATED	DESCRIPTION OF FEATURE OR OPTION
J00005A-50	1, A	1	1	FOR THREE DIGIT TOLL CODES-1XX
J00005A-50	2	3	3	FOR THREE DIGIT TOLL CODES-1XX
J00005A-72	1, A	1	1	FOR AWA
J00005A-90	1, A	1	1	FOR AWA

TABLE A

COL	A	B	C	D	E	F	G	H	M
EQUIPMENT	ART- ING	LIST	NO.	CKT	FIG	JRG	APP		
FRAMEWORK, ASSEMBLY, WIRING AND COMMON EQUIPMENT FOR ONE SENDER TRUNK CONNECTOR FRAME EQUIPPED FOR TOP 50-TRUNK SENDER CONNECTOR UNIT AND FOR TEN TRUNKS AND ONE SENDER.	1	1	1	1	1,2,4	1,14			
ASSEMBLY, WIRING AND COMMON EQUIPMENT REQUIRED IN ADDITION TO LIST 1 FOR BOTTOM 50-TRUNK SENDER TRUNK CONNECTOR UNIT EQUIPPED FOR TEN TRUNKS AND ONE SENDER.	2	5	1	1	1,1A	4 OR 5			
ASSEMBLY, SURFACE WIRING AND EQUIPMENT REQUIRED IN ADDITION TO LIST 1 FOR SECOND, THIRD, FOURTH OR FIFTH TEN TRUNKS IN EACH 50-TRUNK SENDER TRUNK CONNECTOR UNIT.	3	5	1	1	1,1A	9			
ASSEMBLY, SURFACE WIRING AND EQUIPMENT REQUIRED IN ADDITION TO LIST 1 FOR EACH OF 2ND THROUGH 20TH SENDER IN TOP 50-TRUNK SENDER TRUNK CONNECTOR UNIT.	4	5	1	1	1,1B	2 OR 3			
ASSEMBLY, WIRING AND EQUIPMENT REQUIRED IN ADDITION TO LIST 2 FOR EACH OF 2ND THROUGH 20TH SENDER IN THE BOTTOM 50-TRUNK SENDER TRUNK CONNECTOR UNIT.	5	5	1	1	1,1B	4 OR 5			
CABLE SUPPORT REQUIRED IN ADDITION TO LIST OF TOP SENDER EQUIPMENT AND/OR BOTTOM TRUNK FRAME EQUIPMENT IN EACH FINDER GROUP WHEN THESE SENDER CONNECTORS OR TRUNK CONNECTORS ARE NOT EQUIPPED.	A								
ALWAYS REQUIRED IN ADDITION TO LIST 1	B	2	J00005V-1	L-WB					
STAMPING REQUIRED IN ADDITION TO LIST 1 WHEN FRAME IS IN AN									
WIRING REQUIRED IN ADDITION TO EACH LIST 4 OR 5 FOR THE LAST EQUIPPED SENDER CONNECTOR IN EACH FINDER GROUP.	HA	5	OMIT	5	T-00009-30		HB		
							HA		

MANUFACTURING NOTES

- PARTS (A) REQUIRED FOR MANUFACTURE WHEN EQUIPMENT INVOLVED IS SHOP MOUNTED OR (B) TO BE SHIPPED ATTACHED TO, OR ENCLOSED IN THE SAME CONTAINER WITH, THE ASSOCIATED ASSEMBLED ITEM WHEN FIELD MOUNTED.
- () INDICATES DESIGNATION TO BE STAMPED IN ACCORDANCE WITH JOB INFORMATION.
- [] INDICATES DESIGNATIONS SHOWN FOR INFORMATION ONLY AND ARE NOT TO BE STAMPED.
- <> INDICATES DESIGNATIONS WHICH ARE PROVIDED IN ACCORDANCE WITH OTHER INFORMATION.
- MOUNTING PLATES TO BE SURFACE WIPED IN ACCORDANCE WITH SMD00005A-1.
- TRUNK FRAME NUMBERS AND SENDER NUMBERS SHALL BE STAMPED IN ACCORDANCE WITH THE FOLLOWING:

SDR TAX CONN FR NO.	TRUNK FRAME NOS FOR GRP A FOR GRP B	SDR NOS-1-20	SDR GRP NOS-21-40
1	1-5	1-15	1
2	6-10	16-20	1
3	21-25	31-35	21-40
4	26-30	36-40	2
5	41-45	51-55	41-60
6	46-50	56-60	3
7	61-65	71-75	61-80
8	66-70	76-80	4
9	81-85	91-95	81-100
10	86-90	96-100	5

7. T-00009-31 FIGS 2 & 4 ARE FOR ODD NUMBERED STC FR'S & FIGS 3 & 5 ARE FOR EVEN NUMBERED STC FR'S.

ENGINEERING NOTES

THIS DRAWING AGREES WITH	ISSUE	1	2	3	4	5
BSP	ISS					
ADDCO. DC	APP					

- FOR MOUNTING PLATE DRILLING DATA NOT APPARENT IN STOCKLIST, SEE TABLE B.
- THIS FRAME SHALL BE EQUIPPED WITH UNITS AS REQUIRED IN ACCORDANCE WITH TABLE C. THE COMPONENT UNITS SHALL BE WIRED AND EQUIPPED IN ACCORDANCE WITH UNIT 2 DWS.

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LINE	NAME	SCHEMATIC	ONE NUMBER	FIG	OPT WIRING	WIRED	NOTES	REMARKS
COL	R	H	P	R	S	T	U	V
36	STC CKT		SD-00009-01	T-00009-3			AS COVERED IN TABLE A FOR LISTS SPEC IN THE ORDER.	
SURFACE WIRING PROVIDED BY THE SHOP								
35	MISC CKT		SD-00007-01	T-00007-31	4	1		
30	STC CKT		SD-00009-01	T-00009-30	9	13	1	
25					4 OR 5	1		
21					2 OR 3	1		
					1A	95		
					1A	100		

WIRING PROVIDED IN THE LOCAL CABLE

LINE	NAME	NUMBER	LINE	NAME	NUMBER
COL	N	X	COL	N	X
4	SOLDERING RECORD	#SRJ00005A-1	12	JK, KEY & LP, PNL ASSY.	#ED-0000-51
5	SURFACE WIRING RUNNING LIST	#SMJ00005A-1	11	AWA UNIT	J00005A-50
	MISC MTG DETAILS	ED-00000-51	10	TRANSLATOR RELAY UNIT	J00005A-50
	LOCAL CABLE PLAN	ED-00007-01	9	AUX PLS UNIT	J00005V-1
	FUSE PANEL	ED-00005-59	8	SMD CABLE COMM. CHART	CCED-00005-10
	FRAME ASSY	ED-00003-30	7	AWA UNIT	J00005A-2

DRILLINGS FOR WIRE SPRING RELAYS ON 1 1/2 INCH HORIZONTAL MOUNTING CENTERS UNLESS OTHERWISE SPECIFIED IN THIS DRAWING.

LIST OF ASSOCIATED DRAWINGS

DRAWINGS DESIGNATED * ARE NOT REQUIRED BY THE INSTALLER

LOCAL CABLE

SHEET INDEX NOTES

- WHEN CHANGES ARE MADE IN THIS DRAWING ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
- THIS SHEET INDEX WILL BE REISSUED AND BROUGHT UP TO DATE EACH TIME ANY SHEET OF THE DRAWING IS REISSUED, OR A NEW SHEET IS ADDED.
- THE ISSUE NUMBER ASSIGNED TO A CHANGE OR A NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE SHEET INDEX.
- SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
- THE ISSUE NUMBER OF THE SHEET INDEX IS REISSUED AS THE LATEST ISSUE NUMBER OF THE DRAWING.

J00005A-1

AT&T CO RATING

AT&T CO STANDARD

IEEE CO RATING

STANDARD

TYPICAL WESTERN ELECTRIC CO INC BELL SYSTEM "M" SPECIFICATION

J00005A-1

2 SHEETS, SHEET 1

WESTERN ELECTRIC COMPANY, INC.

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FIGURE 1

