

JOB SPECIFICATION "B" SECTION

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1. SCOPE

1.1 This section explains the composition of and the information included in the "B" Section of Job Specifications prepared in accordance with the Product Oriented Information System (POIS), Regional Merchandise and Service (RMS) and Native Mode Specification Processing System (NMSPS).

2. TITLE PAGE

2.1 "B" Section title pages are not provided on job specifications. The title page of the associated "A" Section applies to the "B" Section. Where no "B" Section is required for a job specification, the title page of the "A" Section shall indicate this condition.

3. SUMMARY OF MATERIAL NOTES

3.1 This heading is used in all specifications requiring "B" Section Notes except where only Standard Content Notes are used. For such applications, the Summary of Material Notes page is not required. The Notes will be grouped in the following sequence:

- (a) Lettered Notes (A, BE, T, etc.)
- (b) Special Notes (K1, K2, etc.)
- (c) General Notes (51 to 75)

3.11 Lettered Notes: Lettered notes are used to indicate the source and disposition of material as well as commonly used instructions to the shops and installer. They are divided into two categories:

- (a) Standard Content - Notes not requiring additional information to make it a complete statement.
- (b) Standard Meaning - Notes requiring additional variable information to make it a complete statement.

The standard wording of lettered notes is shown in Paragraphs 6.11, (a) and (b). ←

3.12 Special Notes: Special notes are used for any variation of Lettered Notes or for any required note not included in the list of Lettered Notes. These notes shall be numbered consecutively, each being prefixed with the letter "K", as K1, K2, K3, etc. up to K99.

3.13 General Notes: General notes are used for information applicable to the shops that concerns a particular job condition, except that "Maintenance Notes" shall be shown on the wiring list drawing when there is such a drawing. These notes will be numbered from 51 to 75 in each specification, the numbers 1 to 50 being reserved for "Maintenance Notes" shown on wiring list drawings.

4. SUMMARY OF MATERIAL

4.1 This heading is used in all specifications in which material is to be ordered, reused, Telephone Company furnished, etc.

5. "X" AND "NON-X" MATERIAL

5.1 "X" Material is material assembled into the product prior to delivery by the Manufacturing Division.

5.2 "NON-X" Material is material delivered separately by the Manufacturing Division for assembly into the

product by the installer, Service Center, or customer, or to be turned over to the customer by the installer.

6. WORDING AND EXPLANATION OF NOTES

6.1 Standard Content and Standard Meaning Notes in "B" Section

6.11 The following is a complete listing of Lettered Notes under the headings of Standard Content Notes and Standard Meaning Notes.

→ (a) Standard Content Notes

<u>Note or Symbol Desig.</u>	<u>Standard Wording of Notes</u>	<u>Explanatory Use of Notes or Symbols</u>
ADV	Material designated "ADV" has been ordered in the Advance Order specification.	This note is used to indicate that material has been ordered in the Advance Order specification. (Not to be used until RMS is implemented in the region.)
AB1	Material designated "AB1" shall be shipped with the material ordered in the first cabling specification.	This note is used on dial jobs for cable clips and insulators which are ordered in the last cabling specification so that the clips and insulators will be available for use on the cable received with the first shipment.
AB2	Material designated "AB2" shall be shipped with the first shipment.	This note is used on Step-by-Step jobs for battery and ground feeders ordered in switch frame specifications so that the feeders will be available on the job in advance of the frames.
ASM	"ASM" denotes an assembly where an ordering quantity greater than one is required for each assembly.	This note is used as a key in order not to attempt to mechanically break down an item when the main item ordering quantity is greater than one for each assembly ordered.
C	"C" designates a formatted line of information.	This note is used against lines of formatted information to provide information to the shops for the manufacture of the item, and to enable the splitting of a composite item of dissimilar frames, racks, etc., into items of similar frames, racks, etc.
CHL	This specification is canceled completely.	This note will be generated by the Regional Specification Processing System to indicate that a spec has been canceled. The note will be included as part of the appendix header information when it is transmitted to Hawthorne and Kearny. No section of the appendix will be printed.

<u>Note or Symbol Desig.</u>	<u>Standard Wording of Notes</u>	<u>Explanatory Use of Notes or Symbols</u>
CM	The installer shall send material designated "CM" to the nearest Service Center functional for repair of the item to be modified as directed by this specification and reshipped to the installer.	This note is used when equipment cannot be modified by the installer and must be forwarded to a Service Center by the installer to be modified and returned to the job.
DWG	Job drawing required by Manufacturing (Does not apply to -010 specs and -011 specs).	This note is used to designate a job drawing which is required by the shop for manufacture, assembly, testing, inspection, etc. The note "DWG", the drawing number with its associated Table (T-), Figure (F-) LIST(L-1), Group (G) or Detail (D-1) only will be shown on the line referenced by the note.
EQ1	Material designated "EQ1" shall be taken from special equipment stock according to tag number shown after the item.	(Toll & Toll Crossbar Systems): This note is used for material to be taken from special equipment stock when so designated on the Key Item Analysis Sheet. Ordinarily this designation will be in the following form. "Spl. Eq. (Take from Tag No. ____)."
F	Material designated "F" is for transition purposes.	This note is used on remodeled jobs on which additional material is needed for transition purposes.
HL		The "HL" symbol is used in specifications against every line used in the material section as Header Line information.
IM	Material designated "IM" shall be assembled and/or mounted by the Installer.	This note is generated by the Regional editing system to designate equipment that cannot be assembled or mounted by the shop and is shipped separately to be mounted by the installer. The note shall be placed against the alpha item involved, and in the case of an equipment unit only, against the main list of the unit. (Not to be used until RMS is implemented in the region.)
LL	Material designated "LL" will be owned by A.T. & T. Co.	This note is used only at the request of the telephone company to enable the customer to allocate the cost of the equipment between the local operating company and the A.T. & T. Company for plant valuation purposes.
LM	Material designated "LM" shall have only "S" material on the stock list drawing shipped.	This note is used to indicate that only "Shipped Loose" material in the stock list of a drawing be shipped.
MA	Modified to add.	This note is used when an item is to be modified by the shop to add the material so designated. The added material will be shown immediately below the item to which it is added.

<u>Note or Symbol Desig.</u>	<u>Standard Wording of Notes</u>	<u>Explanatory Use of Notes or Symbols</u>
MM	Material designated "MM" shall be assembled and/or mounted by Manufacturing.	This note is generated by the Regional Editing System to designate point items which are to be assembled or mounted by the shop. The note is referenced against each component.
MO	Modified to omit.	This note is used when an item is to be modified by the shop to omit the material so designated. The omitted material will be shown immediately below the item in which it is provided.
MOD	Material designated "MOD" is to be used for modifying equipment, the designation "MOD" being listed for telephone company's information.	The material associated with the "MOD" note is used for converting out of date equipment into a later type. The "MOD" note is used only if requested by the telephone company. The information will enable the customer to comply with commission regulations.
MPB	This is a moisture-proof job. Material designated "MPB" shall be manufactured to conform with BSP AA610.001, Paragraph 2, Part (B).	This note is used to designate each wired equipment item that is to be moisture proofed in accordance with BSP AA610.001, Paragraph 2, Part (B) as specified by the telephone company.
MPC	This is a moisture-proof job. Material designated "MPC" shall be manufactured to conform with BSP AA610.001, Paragraph 2, Part (C).	This note is used to designate each apparatus item that is to be moisture-proofed in accordance with BSP AA610.001, Paragraph 2, Part (C) as specified by the telephone company.
MPD	This is a moisture-proof job. Material designated "MPD" shall be manufactured to conform with BSP AA610.001, Paragraph 2, Part (D).	This note is used to designate each metal work item other than apparatus parts and each metal part furnished by outside suppliers that is to be moisture-proofed in accordance with BSP AA610.001, Paragraph 2, Part (D) as specified by the telephone company.
MPE	This is a moisture-proofed job. Material designated "MPE" shall be manufactured to conform with BSP AA610.001, Paragraph 2, Part (E).	This note is used to designate each item that is to be moisture-proofed in accordance with BSP AA610.001, Paragraph 2, Part (E) as specified by the telephone company.
S		The "S" symbol will be used in long-hand specifications to indicate the start of a new item. This symbol will be shown in the "S" column of the summary of material.
SD	Special drilling required per.	This note is used to instruct the shop to provide special drilling in accordance with the information so designated.
SP	Stamped per	This note is used to instruct the shop to provide stamping (no strapping) in accordance with the information so designated.

<u>Note or Symbol Desig.</u>	<u>Standard Wording of Notes</u>	<u>Explanatory Use of Notes or Symbols</u>
SR	Strapped per	This note is used to instruct the shop to provide strapping (no stamping) in accordance with the information so designated.
SS	Stamped and strapper per.	This note is used to instruct the shop to provide stamping and strapping in accordance with the information so designated.
TTY	Material designated "TTY" is manufactured by the Teletypewriter Corporation.	Used to designate material manufactured by the Teletypewriter Corporation "TTY" to aid central editing in "sourcing" the material.
U	Material designated "U" shall be requisitioned by the Installer on a Code 10 basis in accordance with instructions from the local telephone company representative.	This note is used for a type of apparatus, associated with equipment furnished in the job specification, for which complete ordering information has not been provided by the telephone company. (In all cases, however, before using this note, the engineer will contact the telephone company to determine if the additional information can be obtained so that the exact apparatus can be ordered in the specification.)
Z	Material designated "Z" confirms information to the Local Cable Layout Department.	This note is used in appendices affecting job-made local cables to indicate that corrective action has already been taken on the change.
#	This note indicates a continuation of formatted information from the previous line.	This note is used to indicate overflow information which has been referenced to the "C" note on a previous line.
*	Items when so identified are to be shipped in lengths or combination of lengths shown.	This note is used to obtain a shipment of specific (unusual) cable lengths from the bulk cable shop. The asterisk symbol will be inserted by the computer against the related point item of the specific code of cable in the specification.

(b) Standard Meaning Notes

<u>Note Desig.</u>	<u>Standard Wording of Notes</u>	<u>Explanatory Use of Notes</u>
A	Material designated "A" has been ordered in advance on original and change memorandum. If additional changes are necessary in the future, they will be covered by an appendix to this specification. Dates of original and changed memorandum _____.	This note is used to indicate that material has been ordered in advance. It is required in the Job Specification to avoid a duplicate order. (To be used until advance order spec. is implemented for RMS in the region.)
AC	Material designated "AC" will be owned by the _____. (Indicate the local operating company.)	This is used only at the request of the telephone company to enable the customer to allocate the cost of the equipment between the local operating company and the A.T. & T. Company for plant valuation purposes.

Note Desig.

Standard Wording of Notes

Explanatory Use of Notes

AX Material designated "AX" has been purchased from one telephone company's class C stock by another telephone company for reuse. As authorized by _____ (Indicate letter (date) or Tel Co order number, the seller's and/or buyers Service Centers, whether repair or modification is required and the "AX" case no.)

This note will be used when one telephone company purchases equipment from another telephone company's class "C" stock. The equipment may be shipped directly to the job location by the selling Service Center if the item is repaired and no modification is required. On unrepaired items, the selling Service center may either (1) ship the item to the buyer's Service Center which will then repair the item and ship to the job location, or (2) ship the item unrepaired to the job location or (3) repair and ship the item to the job location, where "AX" items in the same job specification have different conditions of authorization, Service Centers, maintenance or repair, and "AX" case numbers, the item will be designated "AX," "AX1," "AX2" etc.

BE Material designated "BE" will be, or has been, delivered by the telephone company to the Service Center Class "C" stock to be reused for modifying or supplementing items designated "CE". Authorized by _____. (Indicate letter (date) or order number.)

This procedure will be authorized by correspondence or the telephone company order. The material thus delivered is considered as Class "C" material. If "BE" items in the same job specification have different authorizations, the items will be designated "BE," "BE1," etc.

CE Material designated "CE" will be, or may have been, delivered by the telephone company to the Service Center Class "C" stock who then will ship it to the job for reuse. Authorized by _____. (Indicate letter (date) or order number, and whether modification is required.)

This note will be used for the reuse of telephone company's class "C" stock. The material thus delivered may or may not require work to be done on it by the Service Center. Material referenced to this note cannot be mixed with material having any other source. Where "CE" items in the same job specification have different conditions of authorizations and modifications, the items will be designated "CE," "CE1," "CE2," etc.

CX Material designated "CX" will be assembled and tested by the Service Center and then shipped to the job, or modified by the Service Center as directed by this specification and shipped to the job. The Service Center affected, and Telephone Company authorization are _____. (Indicate Service Center and letter (date) or order number.)

This note will be used for ordering teletypewriter machines and associated teletypewriter apparatus when it is not practical to assemble and test at the Teletype Corporation or in the field. For computer keying of source information, a second "SCE" note with formatted source information in the description field as shown, will immediately follow the "CX" note as shown:

<u>Note</u>	<u>Quan</u>	<u>Mat. Ident. Description</u>	<u>Mat. Desc.</u>
CX	1	XXXX	TTY Eqpt.
CX		SCE 1/SCE 2	

No. Desig.

Standard Wording of Notes

Explanatory Use of Notes

- E Material designated "E" shall be furnished by the Service Center Authorized by _____. (Indicate letter (date) or order number.)

- E1 Material designated "E1" shall be furnished by the Service Center. The BHDS order originated by Shop Order shall include the statement "Material for this order has been obtained in advance by Service Center shops." Authorized by Telco Order _____.

- ED Nine (9) sets of erection drawings for towers designated "ED" shall be ordered from the tower manufacturer to be advance shipped to _____. (Indicate the Service Center receiving the drawings.)

- IC This specification is incomplete. Upon receipt of complete information, a Class "M" Appendix will include the following material.

- J Material designated "J" shall be taken from the following Order No. and holding Dept.: _____, _____.

This note is used for material to be obtained or furnished by the Service Center and shipped to the job, excluding "BE" and "CE" items. Generally, this procedure will be authorized in the telephone company's order or correspondence or in local instructions applying to specific material.

This note is used when telephone company orders indicate that certain items are to be furnished by the Service Center in advance and specify that this equipment is to be identified with a confirming note to be shown on the BHDS order. Other Service Center orders not involving advance material as indicated in Tel. Co. order will be handled as "E" items in accordance with standard practices.

This note is used in Turnkey Orders for towers ordered per "AT" specifications in order to provide manufacturer's tower erection drawings for Service Center use in obtaining bids from outside contractors.

This note will be used to issue an incomplete specification. The note need not be cross referenced to any specific item. Where this note is one of several Summary of Material Notes, the "IC" note will always be shown first. (This note shall be used until RMS is implemented in the regions.)

This note will be used to designate ← canceled or stored material which is the property of the telephone company and which is being disposed of at their request. Normally such requests are in the telephone company order but they may be originated by the Merchandise Department. Before preparing the specification, inform the Merchandise Department of the items to be applied so they may advise whether the material and the associated subitems will be available. Show the order, specification, item and subitem from which the material is taken at the end of the item. Source information will be keyed by entering a second "J" note immediately following the first with formatted source information in the description field as follows:

<u>Note</u>	<u>Quan</u>	<u>Mat. Ident. Description</u>	<u>Mat. Desc.</u>
J	1	J12345A1	L-1
J		SCE1/SCE2/Take from spec _____	Item _____
			Receiver Unit

Note Desig.Standard Wording of NotesExplanatory Use of Notes

JT

Material designated "JT" will be owned jointly by A.T. & T. Co. and _____. (Indicate the local operating Co.)

This note will be used only at the request of the telephone company to enable the customer to allocate the cost of the equipment between the local operating company and the A.T. & T. Company for plant valuation purposes.

LC

Requires Job _____
(Indicate local cable or loose wiring drawing.)

This note will be used to effect the distribution of a copy of the sourced summary of material to the functional standards drafting department when a job local cable is furnished in a job specification or Appendix or when a loose wiring T-drawing is required by the manufacturing location. The note is to be referenced against the separate items for an actual job local cable against a list on a manufacturing drawing that orders a job local cable, against items which include job local cables, or against wiring instructions for job LWT drawings.

MD

Material designated "MD" will be shipped to the Service Center to be modified as directed in this specification and then forwarded direct to the job. The Service Center is _____.

This note applies to equipment modified by the Service Center instead of by the local shops. In such cases the Merchandise Department or the Job Scheduling Department will have authorized the procedure called for by Note "MD".

MDE

Material designated "MDE" is rated "Mfr. Disc." and should be furnished on a do not substitute basis. A notification TWX has been sent to the Standards Engineering Dept. on the indicated date as follows:

This note will be used to indicate that the material so designated is rated "Mfr. Disc." and Standards Engineering approval has been received to order the equipment. This note will not be used when ordering "Mfr. Disc." apparatus.

(Indicate the Dept., date of TWX.)

NDD

Material designated "NDD" is an application of a New Design and Development authorized by _____ (Indicate letter (date) or order number.)

This note is used to indicate the first job application of a New Design and Development product.

Q

Material designated "Q" is being furnished on the miscellaneous order and from the holding Dept. as follows: _____
(Indicate the Order No. and the Merchandise Department which is holding the material.)

The material associated with the "Q" note will have been ordered on a miscellaneous order for application on a specific "Engineer, Furnish and Install" order. For example, previous to placing the regular switchboard order the telephone company will have entered a miscellaneous order to have the items manufactured and made available to apply on a particular short interval job without delay. Use the "Q" note if the foregoing procedure has been authorized by the telephone company, the Merchandise department or Job Scheduling Department.

Note Desig.Standard Wording of NotesExplanatory Use of Notes

R

Material designated "R" shall be reused from the present equipment by the installer. Authorized by _____ (Indicate letter (date) or order number.)

This note applies to material (other than a complete unit of equipment) which is to be reused in a new location in the same exchange on existing frames, relay racks, bays, etc., or to material (including a complete unit) which is to be reused from an existing frame, relay rack, bay, etc. on a new shop-assembled frame, relay rack, bay, etc. In certain cases such as reused Step-by-Step shelves, switches and banks for which the locating information can be covered to better advantage by an "Installer's Note," the "R" note is not required. The "R" note is not used for a complete unit of equipment which is to be moved bodily in the same exchange from an existing frame, relay rack, bay, etc. to another existing frame, relay rack, bay, etc. since such items are not to be listed in the "Summary of Material."

RQ

Material designated "RQ" has been ordered in advance on the following Installer's Requisition No. and date: _____, _____.

This note will apply to material which has been ordered in advance on Installer's Requisition in order not to adversely affect the job schedule. The material designated "RQ" shall be listed in the appendix or specification for record purposes. If several requisitions are written, material ordered on the first requisition shall be designated "RQ", material ordered on the second requisition shall be designated "RQ1", etc.

ST

Material designated "ST" shall be stamped by the Installer in accordance with _____ (Insert stamping instructions obtained from the local telephone company representative.)

This note is used to identify summary of material items to the Installer that require stamping for special ownership.

T

Material designated "T" will be furnished by the telephone company to the Installer in accordance with _____. (Indicate letter (date) or telephone company order number.)

This note is used for material which is to be furnished by the telephone company to the installer, from its own stock or from another exchange, excluding "BE" and "CE" items. Show material exactly as furnished by the telephone company. In the case of sections, relay racks, units, etc. the exact lists furnished are shown even though some lists may be removed and others added by the installer. If the equipment consists of an equipped frame or section which is to be moved bodily, the component parts as fuse panels, keyshelves and apparatus are not listed.

Note Desig.

Standard Wording of Notes

Explanatory Use of Notes

W Material designated "W" is being furnished from _____ (here mention where the installer should obtain the material.)

This note will apply to surplus material which is to be disposed of at one office and applied in some other office, the material being the property of the Western Electric Co. In those cases the "W" note will appear in the specification in which the material is to be applied in order to inform the installer where the material should be obtained.

Y Material designated "Y" confirms information sent to Manufacturing on the following form and date:

This note will be used in appendices affecting the specification summary to indicate that corrective action has already been taken on the change. If more than one complaint or form is received, indicate reference to the first with "Y", the second with "Y1", etc.

(Indicate the Mfg. Dept. form number or complaint form number, and date.)

7. RULES FOR USE OF NOTES

7.1 The following rules apply to the use of "Summary of Material Notes" and their associated note designations:

(f) Where multiple notes are referenced against one line of an item, the notes will be circled as indicated in the following example.

(a) No Lettered Standard Content notes will be shown on the "Summary of Material Notes" page. However, the Standard Wording of these notes will be generated and appear in the printed specification.

<u>S</u>	<u>Note</u>	<u>Qty</u>	<u>Mat. Ident. Description</u>	<u>Mat. Desc.</u>
S	K1 51 52	1	J27962A50	L-1
	C		OR OO/REG 0 TO 5 X CONN, CUT, LW PER T1234-5790	
	DWG SR		SHT 2	
		1	E/W	L-2

(b) Only the note designation and the associated variable portion of Lettered Standard Meaning notes will be shown on the "Summary of Material Notes" page. For notes having more than one variable, each variable will be entered on a separate line. However, the complete Standard Wording of these notes will be generated and appear in the printed specification.

When the use of multiple notes against one line of an item prevents the use of notes against a succeeding line of an item, the appropriate number of lines will be skipped to accommodate this next line of an item, as indicated above.

(c) All Summary of Material note designations will be shown in the "Note" column of the "Summary of Material" page, unless otherwise indicated in the "Explanatory Use of Notes."

8. SUMMARY OF MATERIAL PAGE IN "B" SECTION

(d) Note designations in reference to a particular line of an item of the "Summary of Material" page will be shown in the "Note" column against that line of the item.

8.1 Rules Applying to Summary of Material Page

(e) Note designations in reference to an entire item of the "Summary of Material" page will be shown in the "Note" column against that line of the item. This does not include the "A", "R", "RQ," "BE," "CE" and "T" notes. When these notes are used, they must be applied to both the main and alpha sections of the item.

(a) "B SECT NOTE" COLUMN: These notes will be posted against main items and/or subitems as described in Paragraph 6.11.

(b) "QTY" COLUMN: Will list the quantity of material to be ordered.

(c) "Material Identifier" Column: Will list the primary ordering information of the item (material identifier) in this column on the first line of the

item and immediately following an entry in the quantity column when a quantity is used. A "material identifier" may be one of the following:

- (1) Manufacturing specifications (J, ED, H, NE, NJ, LC or 6 digit T-drawing)
- (2) Comcode numbers
- (3) RM numbers
- (4) Piece part numbers
- (5) Additional lists (except for KS items)
- (6) A dash (-) for shop connected job local cable
- (7) Job drawings from which equipment may be ordered

(d) "Material Description Column" Will list the "material description" on the first line of an item and immediately following the material identifier column. A "material description" is ordering information that refers to a material identifier and may be one of the following:

- (1) Description of such items as piece part numbers
- (2) For Manufacturing Specifications
 - (a) List (L-)
 - (b) Group (G-)
 - (c) Detail (D-)
 - (d) Figure (F-)
 - (e) Chart or Print
 - (f) Item (I)

- (3) For designations such as Comcode, RM number, etc.
 - (a) KS specification number and associated lists
 - (b) Apparatus designation and associated title
 - (c) Outside Manufacturer catalog number and title

(4) When Summary of Material items are ordered in terms of units of measurement as indicated below, the unit of measurement will be identified by placing a "\$" symbol in the first position of the Material Description field and indicating the abbreviated form of the unit of measurement after it. This procedure will

only be used where a quantity appears in the "Quantity" column. The list of denominations to be used for this application is as follows:

Denomination	Abbreviation	Denomination	Abbreviation
Board Feet	BF	Milligrams	MG
Cubic Centimeter	CC	Ounces	OZ
Cubic Feet	CF	Package	PKG
Cubic Inch	CI	Pair	PR
Cubic Yards	CY	Pennyweight	PWT
Dozens	DOZ	Piece	PC
Feet	FT	Pints	PT
Gallons	GAL	Pounds	LB
Gills	GL	Quarts	QT
Grams	GM	Quires	QR
Gross	GR	Reams	RM
Half Gallons	HG	Roll	RL
Half Pints	HP	Sets	ST
Hank	HNK	Skeins	SK
Inches	IN	Square Feet	SF
Karats	KT	Square Inch	SI
Kilograms	KG	Square Yards	SY
Liters	L	Tons	T
Meters	MTR	Troy Ounces	TO
		Tube	TU
		Yards	YD

(e) "Description" Column: Will list the required information under this heading as covered in the following paragraphs and in the sequence indicated.

Equipment

(1) The second line, will list the drawing title supplemented by the appropriate word unit, panel, bay, frame, etc. If Source Editing is required (see Summary of Material Notes J, CX, EQ1, Q, SE, SCE) the source information will be entered on this line and the drawing title will appear on the next line.

(2) The succeeding line, will list the office location and circuit information, formatted as indicated in Paragraph 10.

(3) The next line, will list any shop functions requiring job drawings.

(4) The next line(s), will list the job drawing number(s).

(5) The next line, will list connectors such as E/W (equipped with), c/o (consisting of) or P/O (composed of). These symbols will always appear on a separate line with no other information, and must always immediately precede the line having the first subitem.

(6) Other information, such as "Spare, Portable, Loose Material, etc." when appropriate are listed. This information will appear in the last "Description" field of the item. References to Installers Notes will be associated with the main or subitem to which it refers, and will appear on the line immediately following the location information for the item or subitem.

Apparatus

(1) On the second line, the following information, as required is listed.

(a) For circuit apparatus where a single drawing applies to the entire item, the drawing number is listed.

(b) For apparatus, such as terminal strips, the office assignment is listed.

(c) For equipped mounting plates, the office location is listed.

(d) For noncircuit apparatus, variable information, such as usage, location or numbering, formatted as indicated in Paragraph 10 is listed.

(2) On succeeding lines enter the following:

(a) For circuit apparatus the office location is listed.

(b) For apparatus such as terminal strips, list the office assignment.

(c) For equipped mounting plates, "E/W" is listed. On individual lines immediately following this connector, the apparatus to be mounted, the positions of the apparatus on the mounting plate and the circuit drawing if required is listed.

(d) For noncircuit apparatus the variable information is listed.

Piece Parts

(1) On the second line, variable information, such as usage or location is listed.

(2) For equipped piece parts, "E/W" is listed. On individual lines immediately following this connector, the apparatus to be mounted, the positions of the apparatus on the piece part, additional variable information such as drawings, office allocation, reference to installer's Note, etc. is listed.

Outside Manufacturer's Material

(1) On the second line of the item, the name of the manufacturer is listed.

(2) On succeeding lines, variable information, such as usage or location is listed.

(f) "Issue" Column: The "issue" column of the Summary of Material Page is for use with the ordering of charts to be mounted on equipment in the field. (See Paragraph 12.11) This column will also be used in the "Advance Order" Specification to be included in this Instruction at a later date. (The use of the "issue" column shall not be applied until RMS is implemented in the region.)

9. HEADER LINE INFORMATION

9.1 Header Line information will be of a general nature, such as "Switchboard Face Equipment." Header lines will not contain specific information, such as titles (e.g., "Fuses"), name of outside supplier (e.g., "Electronics Specialty Co. Eqpt.") or locations (e.g., "RR101.01," which is necessary within each item under the headerline. Location information (e.g., RR101.01) may be used in a Header Line if it is not information required by Manufacturing.

9.11 Following are typical examples showing where a general heading is used for designating the equipment location of a group of items rather than designating a location for each item:

(a) Switchboard Specifications:

Face Equipment Material. (This includes all equipment mounted in the face of the switchboard between the key shelf and crown molding.)

Cable Turning Section Material

Switchboard Lighting Material

Pneumatic Tube Equipment

Material

Relay Rack Material-Relay

Rack _____

Material for DCS _____

(b) Power Equipment Specifications:

Charging Machine Material
T0000-546

Battery Material T0000-571

Power Board Material Bay 6
T0000-520 and T0000-533

Frame and Aisle Lighting Material (The wire applying to this heading will be included as a part of the wire ordered under power wire.)

Conduit and Conduit Fitting Material other than for Frame and Aisle Lighting

Storage Battery Material

Misc Power Material

(c) Frame and Rack Specifications:

Framework specifications ordering distributing frames relay racks, message register racks, mezzanine platforms, etc., will be so edited that the items associated with particular frames or racks will appear under specific headings which will identify the type of frame, floor location and bay or vertical numbers involved.

(1) Such items as cable racks, auxiliary framing, rolling ladders, cable hole sheathings and end guards will be grouped under specific headings which will identify the usage of the material.

Typical examples of the headings are:

- Frame Anchor Bolts
- Auxiliary Framing
- Frame Supports
- Frame Junctioning Material
- Cable Racks and Cable Rack Supports
- Frame Floor Angles and Top Angles
- Cable hole Sheathings
- Rolling Ladders
- Rolling Ladder Track and Track Supports
- End Guards
- D.P.T.S. Aisle Sign and Aisle Pilot Lamp Supports

(2) Items ordering cable hole sheathings, end guards, floor and top angles, D.P.T.S. and similar supports, and frame junctioning material, will also show the location where they are

(b) Series of Equipment Locations - A group of locations where each location is to be considered individually in the total quantity of the item it is placed against is called a "series" of locations. The series is represented by first listing the constant part of the location leaving a blank space and then the first and last variable, separated by the word "to," as indicated below.

RR 50.01 to 06 = RR 50.01, RR 50.02, RR 50.03, RR 50.04, RR 50.05, RR 50.06
 Constant Variables Total Qty = 6

used. Similarly any miscellaneous framework items which cannot properly be included under a specific heading will contain references to the locations where used.

10. FORMATTED LINES OF INFORMATION

10.1 All material ordered in equipment specifications will be identified so that its location and usage in the office will be readily apparent. The equipment location in terms of a specific relay rack, bay, frame, position, desk, fuse bay, charging unit, class designation, circuit numbering, mounting plate position, etc., will be shown after each main or subitem, or sets of related items common to an office or common to a line of frames, switchboards, etc.

10.11 The formatting of a line of location information within a Summary of Material item refers to the application of specified Summary of Material notes, indicators and associated rules and definitions which together formulate a standard ordering procedure. This enables the generation of shop information as well as the splitting of a composite item of similarly and dissimilarly equipped frames, racks, etc. into individual items of similar frames, racks, etc.

10.12 The following paragraphs will be followed in the formatting of a line of information:

(a) Equipment Location - Equipment location information is any combination of letters, numbers and symbols referenced to a Summary of Material item that indicates where the equipment is to be mounted or placed. The following are typical examples:

- (1) RR 100.01
- (2) Ckt 7
- (3) (CL) AY *1
- (4) PLT ET
- (5) FR M105D0
- (6) OR 01

(c) Sets of Equipment Locations - A group of locations where the group is to be considered as a whole in the total quantity of the item it is placed against is called a "set" of locations. The set is represented by first listing the constant part of the location and then the first and last variable, separated by a dash (-), as indicated below.

$$\frac{\text{CKT } 23 - 27}{\text{Constant Variables}} = \frac{\text{CKT } 23 - 27}{\text{Total Qty} = 1}$$

(d) Irregular Sets and/or Series - A group of locations consisting of an irregular series is represented by first listing the constant part of the locations and then the variable parts, separated by commas (,), as indicated below. An irregular set must be considered as individual sets separated by commas (,) as indicated below.

$$(1) \frac{\text{RR } 50.01, 02, 07, 31 \text{ to } 33}{\text{Constant Variables}}$$

$$= \frac{\text{RR } 50.01, \text{RR } 50.02, \text{RR } 50.07, \text{RR } 50.31, \text{RR } 50.32, \text{RR } 50.33}{\text{Total Qty} = 6}$$

$$(2) \frac{\text{CKT } 23-27, 33-37}{\text{Constant Variables}} = \frac{\text{CKT } 23 - 27, \text{CKT } 33 - 37}{\text{Total Qty} = 2}$$

(e) Separation of Series and Sets - Separation of individual series or sets will be done with the use of an ampersand (&), as indicated in the following examples:

RR 100.01 to 09 & RR 501.01 to 09 & RR 507.32

RR 100.03 - 09 & RR 501.03 - 07 & RR 507.32

Constant terms are not carried across succeeding groups of locations by the ampersand and are required in every series, set or individual location, as shown above.

(f) Level of Equipment Location - A level of equipment location is an individual, series or set of equipment locations that may be broken down into further location information. The results of this breakdown are considered additional levels of information.

(g) A series and a set of locations can not appear together in a level of information, unless the series or set of locations is placed in parenthesis and considered a modifier.

Examples of levels of equipment location are:

(a1) CKT 1-3	Numeric value = 1
(b1) RR 19.07 to 09 (PLT 39-50)	Numeric value = 3
(c1) LG 103 to 105/POS 1 to 20	Numeric value = 60
(d1) LF 2/LG 4/POS 1 to 10	Numeric value = 10
(e1) TLC 104/MKR POS 0, 1, 4, 6/CONN 0 to 2	Numeric value = 12
TLC 105/MKR POS 2, 3, 5/CONN 0 to 2	Numeric value = 9
	Total 21



(h) Qualifiers - Qualifiers are used to indicate how the quantity of an item is to be distributed over a level of equipment location on a formatted line. They precede all information in the level and are enclosed in parenthesis "()". Qualifiers may be used as multipliers or divisors of the numeric value of a level of information.

(1) (Odd) or (Even) - Indicates every alternate location in a series.

Example: (Odd) RR 210.01 to 09 refers to RR 210.01, 210.03, 210.05, 210.07, 210.09

(Even) RR 210.02 to 08 refers to RR 210.02, 210.04, 210.06, 210.08

(2) (CL) - Class designation is a method of referencing miscellaneous relay rack assignments between specification number equipment drawing and wiring list record. This qualifier will always appear in the last level of information in a formatted line.

Example: (CL) 26B

The designation (CL) representing the word "class" will only be used in a formatted line of information.

(3) (M Per N) - Indicates a quantity ordered per group of locations. The quantity ordered is always less than the total summation of the formatted line of information when the qualifier is not entered in it. If this qualifier is applicable to a level of information but is not entered in it, the qualifier will be assumed by the computer.

Example: (1 Per 4) Reg 0 to 7 refers to a quantity of 1 for Reg 0 to 3 and 1 for Reg 4 to 7. The quantity of lists or items ordered in this case is "2".

(4) (N Each) - Indicates the quantity per location in a series. If this qualifier is applicable to a level of information but is not entered in it, the qualifier will be assumed by the computer. The quantity ordered is always more than the total summation of the formatted line of information when the qualifier is not entered in it.

Example: (2 Ea) RR 105.40 to 42 refers to a quantity of 2 in RR 105.40, 2 in 105.41 and 2 in 105.42. The quantity of lists or items ordered in this case is "6".

(j) Modifiers - A modifier is an equipment location, series or set of equipment locations that may modify a level of information, but is not a level of information in itself. The modifier will always succeed its associated equipment location and is enclosed in parenthesis "()". Reference may be to the entire level of information including the modifier, or to the basic part of the level. If reference is to the basic part, all similar basic parts are referenced. A modifier can stand alone in parenthesis as formatted information, and will not be used in item analysis.

A modifier can only be an equipment location or a set of equipment locations and therefore will always have a value of one.

Example: = RR 126.14 (PLT 39-50) etc.

RR 126.14 is the basic part of the level of information, (PLT 39-50) is the modifier.

10.13 Use of Formatting Notes

(a) The "C" note will be used to indicate a line of formatted "location" information for a main or sub-item. This includes the equipment locations indicated in Paragraph 10.12 (a) and any other location information required for the item. The "C" note will also be referenced against formatted information standing alone in parenthesis, even though this information will not be used in item analysis.

Except as noted below, the "C" note on all J, H, ED, standard local cable or 6-digit T drawing Equipment and Framework items will be used.

The following items do not require formatting and therefore do not require a "C" note.

(1) Those items (J, ED, H, etc.) that do not have location and/or office circuit numbering information associated with it.

(2) Telephone company furnished items. (BE, CE1, CE2, R, T)

(3) Equipment ordered as lists or groups on telephone company drawings.

(4) Formed cable items.

(5) All apparatus ordered as a main item, including equipped mounting plates.

- (6) Outside suppliers items ordered as a main item (includes all KS items ordered by Outside Suppliers Manufacturing code).
 - (7) Piece part items.
 - (8) Plug-in units ordered as a main item.
 - (9) Consisting-of (c/o) item.
 - (10) Dimension information associated with equipment items.
 - (11) Those items not involving shop stamping when location information is shown in a Header Line.
- (b) The "#" note is used to indicate the continuation of formatted information from the previous line, and must always follow a line having either another # or C Note.
- (c) The "ASM" note will be used to key a main item when the main item ordering quantity is greater than one for each assembly ordered.
- (d) A dollar sign "\$" will be used to indicate that information which follows it will not be transmitted to Manufacturing. The "\$" sign will be placed in the first position of the line in the Description Field, but shall not be used on the same line as a "C" or "#" sign.
- (e) On all formatted lines, the singular form will be used throughout, i.e. TRK, CKT, FR, BAY, etc.
- (f) On formatted lines, the terms used to designate relay racks (RR), frames (FR), bays (BAY), positions (POS), sections (SECT), etc. will be con-

sistent within a given item. For example, if the term RR is used on the first formatted line of an item, it will be used on all succeeding formatted lines of that item, if required.

11. LOCAL CABLES ORDERED

11.1 Local Cables

11.11 Supplementary Local Cables:
When modifying or adding features to existing equipment that require extensive changes in the local cable.

12. CHART MOUNTED ON EXISTING EQUIPMENT

12.1 Chart Required Due To Field Equipment Modification

12.11 Charts mounted on equipment by the shop similar to those prepared from ED-20326-10 and H508-277 will be ordered in the stocklist of the associated equipment manufacturing specification.

12.12 When it is necessary to modify equipment in the field, which requires a change on these Charts, an up-to-date issue of the Chart will be furnished to the installer.

13. OUTSIDE SUPPLIERS' DRAWINGS AND MANUALS

13.1 Outside Suppliers' Drawings and Manuals Ordered in "B" Section

13.11 Special Distribution of Outside Suppliers' information papers such as drawings and/or manuals specified by the customer will be ordered in the Summary of Material by specifying the system or panel numerical code, the Manufacturer's name and the location to where the papers shall be shipped. Typical examples are:

(a) Drawings and/or Manuals for a Complete System

<u>SYM</u>	<u>QTY</u>	<u>MATERIAL IDENTIFIER</u>	<u>'MATERIAL DESCRIPTION</u>
S	1		'Set of Drawings

&/or Manuals
XXXX Radio/Carrier Equipment
Lenkurt Electric Co.
Ship to: Etc.

(b) Drawings and/or Manuals for Individual Panels

<u>SYM</u>	<u>QTY</u>	<u>MATERIAL IDENTIFIER</u>	<u>'MATERIAL DESCRIPTION</u> <u>DESCRIPTION</u>
S	1		'Set of Drawings &/or Manuals for the following Equipment: <u>Lenkurt Electric Co.</u> XXXX Transformer Panel XXXX Line Amplifier Panel XXXX Channel Detector Panel Ship To: Etc.

14. LOCAL CROSSBAR, PANEL AND STEP-BY-STEP RELAY RACK EQUIPMENT14.1 Equipping Local Crossbar, Panel and Step-By-Step Relay Racks in the Shop

14.11 Units which mount on channel type relay racks are mounted by the installer as the shops are not equipped to do this work. Whenever central office physical conditions such as entry and bay placing space allow, miscellaneous units, mounting plates, etc., will be shop mounted and the relay rack and units shipped as one assembly to the field.

14.111 Specifications will not specify shop mounting of units which are known to be manufactured at a location other than where the relay rack is assembled.

15. "B" SECTION OF CABLE SPECIFICATIONS15.1 Summary Information

15.11 The first 150 items in the "B" Section will contain such information as total footage, code of cables, number of runs, number of cables and total conductor ends including spare conductors, of each cable or wire item.

15.111 Additional types or amounts of miscellaneous wire or cable needed, shall be listed in the "B" Section with their proper identification number, description and footage required.

15.112 Wire in the job cable specification will be listed by piece part numbers, RM numbers (specific) or KS numbers providing the description of the wire as to gauge, type, number of conductors and color.

16. ASTERISK (*) ITEMS

16.1 All bulk cable specifications, will generate the standard content note to highlight the meaning of the asterisk (*) against computer generated items.

17. APPENDIX CONSIDERATIONS

17.1 Changes for items 1 to 150 are accomplished by an appendix to the "C" Section. Items 151 and up are changed by an appendix to the "B" Section in accordance with general practices.

18. CABLE CLIPS

18.1 The necessary cable clips for secured cable runs as prescribed on standard drawings for all new installations, extensions of existing cable runs, and additions to present runs using ladder type cable rack are shown.

18.11 Vertical power runs clamped in accordance with standard method shall not be clipped.

19. "B" SECTION OF CABLE SPECIFICATIONS-FACTORY FORMED CABLE19.1 General Requirements

19.11 Combining Similar Shop Formed Cables: In a single item, all cables required on an order which applies to a particular list, group, form or figure on the stocklist or standard drawing are included.

19.111 Identifying Cable Runs: Cable runs by the identical "unique" cable numbers assigned in the column "CKT NBG OR CA NOS" of the "C" Section are clearly identified.

19.112 Overall Length: In the "B" Section of the factory formed cable specification, the overall length, when applicable, for each unique cable is the total length defined as follows:

(a) The sum of the butt to end plus stripper length for cables formed on one end only.

(b) The sum of the butt to butt plus both stripper lengths for cables formed on both ends.

In the quantity column, for the appropriate code of cable and associated unique cable numbers, the sum of the overall lengths as a single quantity rounded upward to the next foot is shown.

→ Arrowed lines indicate new or changed information.

Manager, Engineering Practices

Reason for Reissue:
Various changes and additions.