

28 ELECTRICAL SERVICE UNITS  
SCHEMATIC AND WIRING DIAGRAMS

1. GENERAL

1.01 This section shows the wiring of the 28 electrical service units and 28 electrical service unit subassemblies.

1.02 The section is reissued to change format and to provide most recent engineering information. Since 28A and 28J units are no longer manufactured, wiring information on them has been deleted. The 28B-1, 28U, 28Y, 28AB, and 28AC electrical service unit wiring information has been added.

1.03 The wiring diagrams, which are attached as part of this publication are listed in the diagram index. The index lists the subject matter and current issue of each diagram. When a diagram has an issue control sheet, only the control sheet is listed.

1.04 These drawings show schematic and wiring diagrams. Notes are included to explain the symbols used or point out special conditions that should be observed.

2. WIRING DIAGRAM INDEX (ATTACHMENTS)

TITLE	DIAGRAM NUMBER	CONTROL AND DIAGRAM SHEETS	ISSUE NO.
<b>ELECTRICAL SERVICE UNIT WIRING DIAGRAMS</b>			
Wiring Diagram for LESU7/184 (Bell 28B)	2874WD	1	7
Schematic Wiring Diagram for LESU7/184 (Bell 28B)	2875WD	1	H
Wiring Diagram for LESU7/134 (Bell 28E)	2878WD	CTRL	1
Schematic Wiring Diagram for LESU7/134 (Bell 28E)	2879WD	1	19
Wiring Diagram for LESU11 (Bell 28C)	3286WD	1	H
Schematic Wiring Diagram for LESU11 (Bell 28C)	3289WD	1	G
Wiring Diagram for LESU13 (Bell 28F)	3292WD	CTRL	1
Schematic Wiring Diagram for LESU13 (Bell 28F)	3294WD	6	24

## SECTION 573-133-400

TITLE	DIAGRAM NUMBER	CONTROL AND DIAGRAM SHEETS	ISSUE NO.
Wiring Diagram for LESU15 (Bell 28G)	3296WD	CTRL	2
Schematic Wiring Diagram for LESU15 (Bell 28G)	3298WD	3	12
Schematic Wiring Diagram for LESU12 (Bell 28D)	3343WD	1	P
Wiring Diagram for LESU12 (Bell 28D)	3344WD	1	K
Wiring Diagram for LESU27 (Bell 28K)	3624WD	1	A
Schematic Wiring Diagram for LESU27 (Bell 28K)	3625WD	1	B
Wiring Diagram for LESU30 (Bell 28D-1)	3638WD	1	B
Schematic Wiring Diagram for LESU30 (Bell 28D-1)	3639WD	1	C
Wiring Diagram for LESU31 (Bell 28E-1)	3640WD	1	C
Schematic Wiring Diagram for LESU31 (Bell 28E-1)	3641WD	1	F
Wiring Diagram for LESU32 (Bell 28H)	3642WD	2	6
Schematic Wiring Diagram for LESU32 (Bell 28H)	3643WD	2	E
Schematic Wiring Diagram for LESU35 (Bell 28F-1)	3659WD	2	C
Wiring Diagram for LESU35 (Bell 28F-1)	3660WD	CTRL	1
Schematic Wiring Diagram for LESU36 (Bell 28G-1)	3661WD	2	D
Wiring Diagram for LESU36 (Bell 28G-1)	3662WD	1	C
Wiring Diagram for LESU56 (Bell 28LA)	4205WD	1	F
Wiring Diagram for LESU58 (Bell 28LC, 28LC-1)	4206WD	1	H
Wiring Diagram for LESU57 (Bell 28LB)	4211WD	1	6
Wiring Diagram for LESU59 (Bell 28LD, 28LD-1)	4219WD	1	H
Schematic Wiring Diagram for LESU66 (Bell 28L)	4335WD	2	B
Wiring Diagram for LESU66 (Bell 28L)	4336WD	1	B

TITLE	DIAGRAM NUMBER	CONTROL AND DIAGRAM SHEETS	ISSUE NO.
Schematic Wiring Diagram for LESU67 (Bell 28M)	4341WD	1	C
Wiring Diagram for LESU67 (Bell 28M)	4342WD	2	D
Wiring Diagram for LESU75 (Bell 28D-2)	4430WD	1	A
Schematic Wiring Diagram for LESU75 (Bell 28D-2)	4431WD	1	B
Wiring Diagram for LESU72 (Bell 28T)	4486WD	CTRL	2
Schematic Wiring Diagram for LESU72 (Bell 28T)	4487WD	1	12
Schematic Wiring Diagram for LESU80 (Bell 28N)	4900WD	1	5
Wiring Diagram for LESU80 (Bell 28N)	4901WD	1	B
Schematic Wiring Diagram LESU82 (Bell 28P)	4909WD	1	D
Wiring Diagram for LESU82 (Bell 28P)	4910WD	CTRL	1
Wiring Diagram for LESU86 (Bell 28R)	4911WD	1	B
Schematic Wiring Diagram for LESU86 (Bell 28R)	4912WD	1	C
Wiring Diagram for LESU87 (Bell 28S)	4913WD	1	A
Schematic Wiring Diagram for LESU87 (Bell 28S)	4914WD	1	B
Schematic Wiring Diagram for LESU81 (Bell 28N-1)	4918WD	1	D
Wiring Diagram for LESU81 (Bell 28N-1)	4919WD	1	C
Wiring Diagram for LESU83 (Bell 28P-1)	4931WD	1	C
Schematic Wiring Diagram for LESU83 (Bell 28P-1)	4932WD	1	C
Wiring Diagram for LESU95 (Bell 28W)	5928WD	CTRL	2
Schematic Wiring Diagram for LESU95 (Bell 28W)	5929WD	1	A
Wiring Diagram for LESU96 (Bell 28U)	5930WD	1	1
Schematic Wiring Diagram for LESU96 (Bell 28U)	5931WD	1	3
Wiring Diagram for LESU107 (Bell 28B-1)	6489WD	1	3

## SECTION 573-133-400

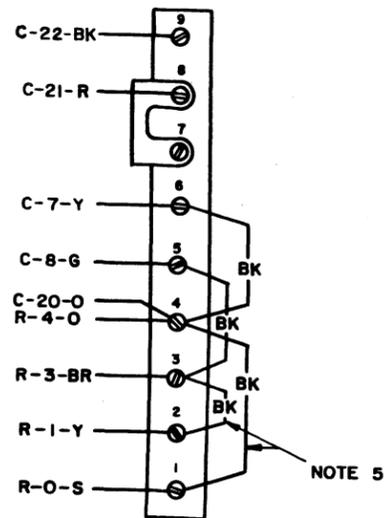
TITLE	DIAGRAM NUMBER	CONTROL AND DIAGRAM SHEETS	ISSUE NO.
Schematic Wiring Diagram for LESU107 (Bell 28B-1)	6490WD	1	2
Wiring Diagram for LESU113 (Bell 28AB)	7156WD	2	5
Schematic Wiring Diagram for LESU113 (Bell 28AB)	7157WD	4	3
Wiring Diagram for LESU112 (Bell 28AC)	7158WD	CTRL	2
Schematic Wiring Diagram for LESU112 (Bell 28AC)	7159WD	3	4
Wiring Diagram for LESU116 (Bell 28Y)	7762WD	CTRL	2
SUBASSEMBLY WIRING DIAGRAMS			
Line Relay Mounting Assembly	152623	-	-
Capacitor Resistor Assembly	152624	-	-
Line Test Key Assembly	152625	-	-
Rectifier Assembly	152950	-	-
Electrical Motor Control Assembly	153251	-	-

- NO. NOTES**
- WIRING LEGEND:**
  - COLOR CODE:**  
 BK-BLACK      R-RED  
 BR-BROWN      G-GREEN  
 BL-BLUE        S-SLATE  
 W-WHITE        P-PURPLE  
 Y-YELLOW       O-ORANGE
  - UNIT WIRED FOR 115 VOLTS 50 TO 60 CYCLE AC POWER INPUT ONLY.
  - PLUGS VIEWED FROM SOLDERED TERMINAL ENDS.
  - CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION, REMOVE AND ADD CONNECTIONS AS FOLLOWS:  

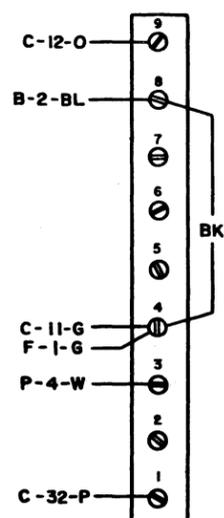
SIGNAL LINE	CONNECTIONS REMOVED	CONNECTIONS ADDED
.020 AMP. A1-A4, A2-A3	A1-A2*	

 \*PLACE TWO STRAPS IN PARALLEL
  - THE SPARE LEADS FROM THE KEYBOARD (OR REC. ONLY BASE) AND TYPING UNIT CONNECTOR PLUGS ARE TERMINATED IN THE RIGHT AND LEFT ENDS OF THE ELECTRICAL SERVICE UNIT RESPECTIVELY.
  - REMOVE THIS STRAP WHEN ASSOCIATED KEYBOARD OR REC-ONLY BASE IS EQUIPPED WITH AN ELECTRICAL BREAK SWITCH.
  - FOR SCHEMATIC WIRING DIAGRAM, SEE 2875WD.

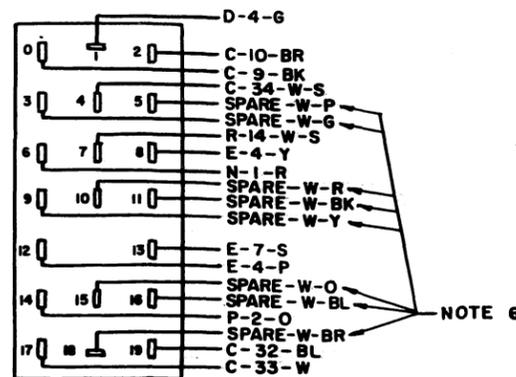
**A**  
SELECTOR MAGNET TERMINAL BLOCK



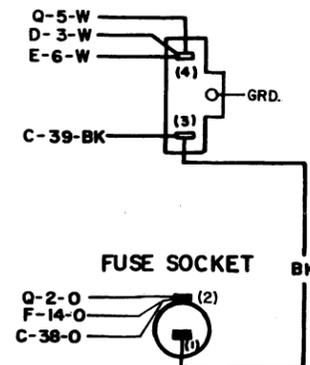
**D**  
MOTOR CONTROL TERMINAL BLOCK



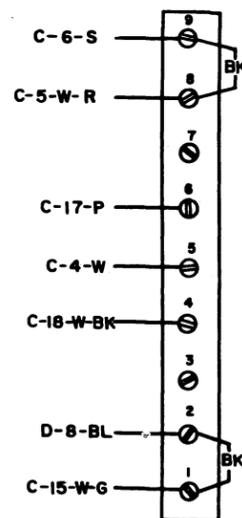
**F**  
KEYBOARD FOR RECEIVING ONLY  
BASE CONNECTOR PLUG



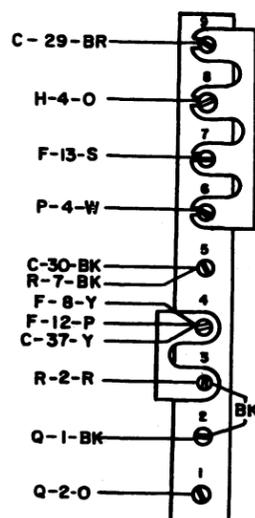
**P**  
CONVENIENCE RECEPTACLE



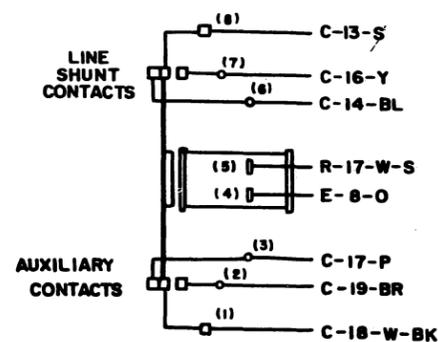
**B**  
LINE TEST KEY TERMINAL BLOCK



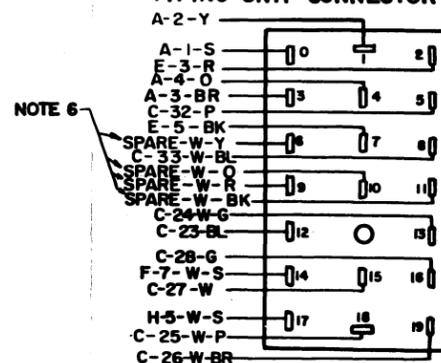
**E**  
POWER TERMINAL BLOCK



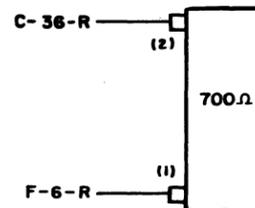
**H**  
LINE SHUNT RELAY



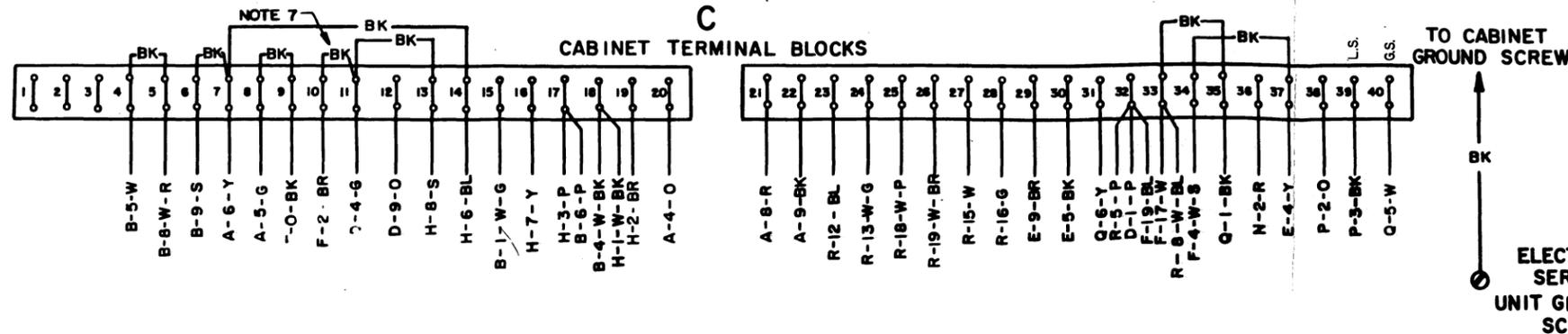
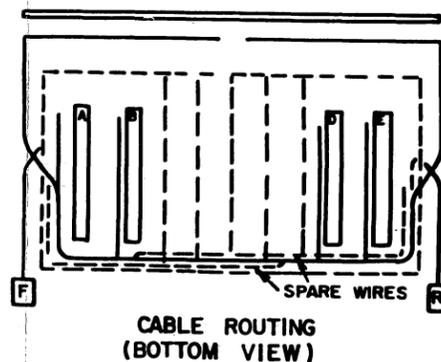
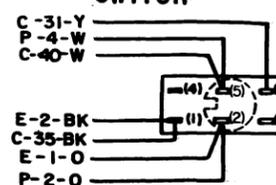
**R**  
TYPING UNIT CONNECTOR PLUG



**N**  
MARGIN INDICATOR LAMP RESISTOR



**Q**  
POWER SWITCH



2874 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
E4	5-8-57	28-7615
B5	3-28-62	69768-10
E6	4-17-62	73132
7	3 22 68	97526 RC

ACTUAL  
WIRING DIAGRAM  
FOR  
MODEL 28  
ELECTRICAL  
SERVICE UNIT  
LESU7/184

APPROVALS

D AND R      E OF M

E-NUMBER

PROD. NO. 2874WD

DATE 2-20-54

P.D. FILE NO. 2-30.65.156A

DRAWN N.A.R.      CHKD.

ENGD. G.A.O.      APPD.

TELETYPE  
CORPORATION

2874 WD

NO. NOTES

FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS, SEE: WDNUMBER UNITS DIRECTLY OPERABLE WITH LESU 7

2883WD BASE, RECEIVING ONLY - LB4  
 3236WD CABINETS - LAC 203, 204, 205  
 2874WD ELECTRICAL SERVICE UNIT LESU 7/184  
 2882WD KEYBOARDS - LK4, 5  
 2900WD MOTOR UNITS - LMU 3, 4, 6  
 2884WD PAGE TYPING UNITS - LP4, 5, 7  
 2880WD PAGE TYPING UNITS - LP6, 8

LEGEND

A SELECTOR MAGNET TERMINAL BLOCK (IN LESU)  
 B LINE TEST KEY TERMINAL BLOCK (IN LESE)  
 C CABINET TERMINAL BLOCK  
 D MOTOR CONTROL TERMINAL BLOCK (IN LESU)  
 E POWER TERMINAL BLOCK (IN LESU)  
 F KEYBOARD OR REC. ONLY BASE CONNECTOR.  
 R TYPING UNIT CONNECTOR  
 S MOTOR TERMINAL BLOCK (ON LK OR LB)

DO - DASH --- LINES INDICATE FILTERING SHIELDING AND SUPPRESSION NETWORKS.

ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS

a RESISTANCE VALUES IN OHMS (Ω)  
 b INDUCTANCE VALUES IN MICRohenRIES (μH)  
 c CAPACITANCE VALUES IN MICROFARADS (μF)

CIRCUITS SHOW FOR 100 AMP. NEUTRAL SIGNAL LINE OPERATION FOR 20 AMP. LINE CURRENT, AND DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (X) IN SELECTOR MAGNET CIRCUIT.

d USE POWER AND SIGNAL LINE SUPPRESSORS AND SYNC. OR GOV. - FILTER MOTOR FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE  
 e FOR OTHER INSTALLATIONS, OMIT SUPPRESSORS AND CONNECT INPUTS AND GOV. MOTOR, IF USED, DIRECT TO TERMINALS SHOWN

USE SYNCHRONOUS MOTOR ON REGULATED 80 V. 60 C.P.S. A.C. POWER ONLY. GOVERNED MOTOR AND OTHER POWER CIRCUITS OPERABLE ON 55-80 V. UNREGULATED A.C.

CIRCUITS SHOW BOTH HORIZONTAL TABULATOR AND FORM START CONTROL USED ON TYPING UNIT. WHEN ONLY ONE CONTROL IS USED, OMIT CONNECTION MARKED (X) AND ADD PROPER CONNECTION IN TYPING UNIT CIRCUIT.

NO. NOTES

10 FORM PAPER OUT ALARM CONTACTS MAY BE MOUNTED ON EITHER THE TYPING UNIT OR EXTERNAL TO THE CABINET. IN LATTER EVENT, CONNECTIONS ARE MADE DIRECTLY TO TERMINALS C 25 AND C 26

11 WHEN PAPER FEED-OUT SWITCH IS NOT USED, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (X) IN MOTOR POWER CIRCUITS

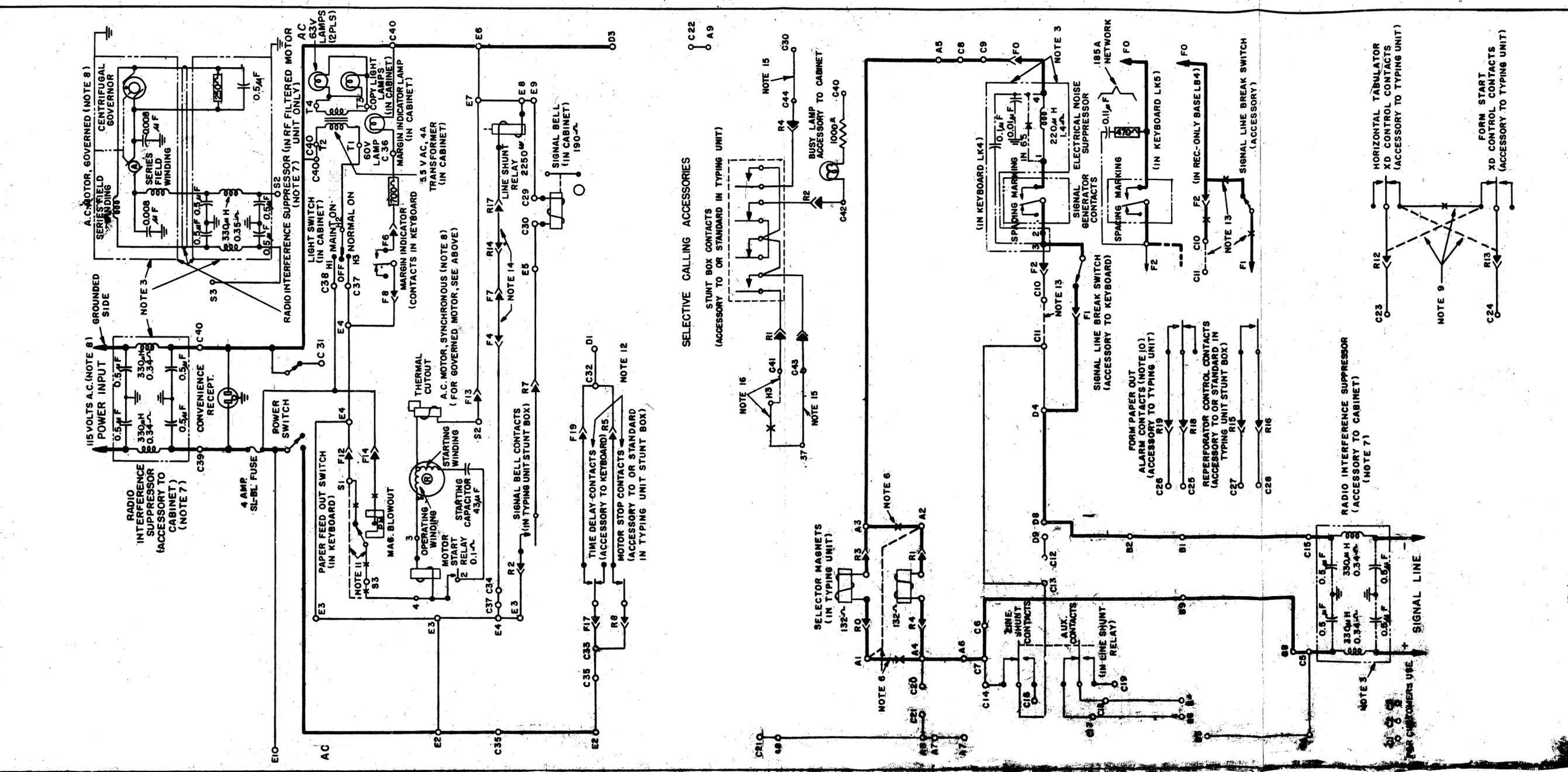
12 ASSOCIATED APPARATUS MAY CONTAIN INACTIVE ACCESSORY COMPONENTS

13 CIRCUITS SHOW A SIGNAL LINE BREAK SWITCH IN BOTH KEYBOARD AND RECEIVING ONLY BASE, WHEN SWITCH NOT USED, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (X)

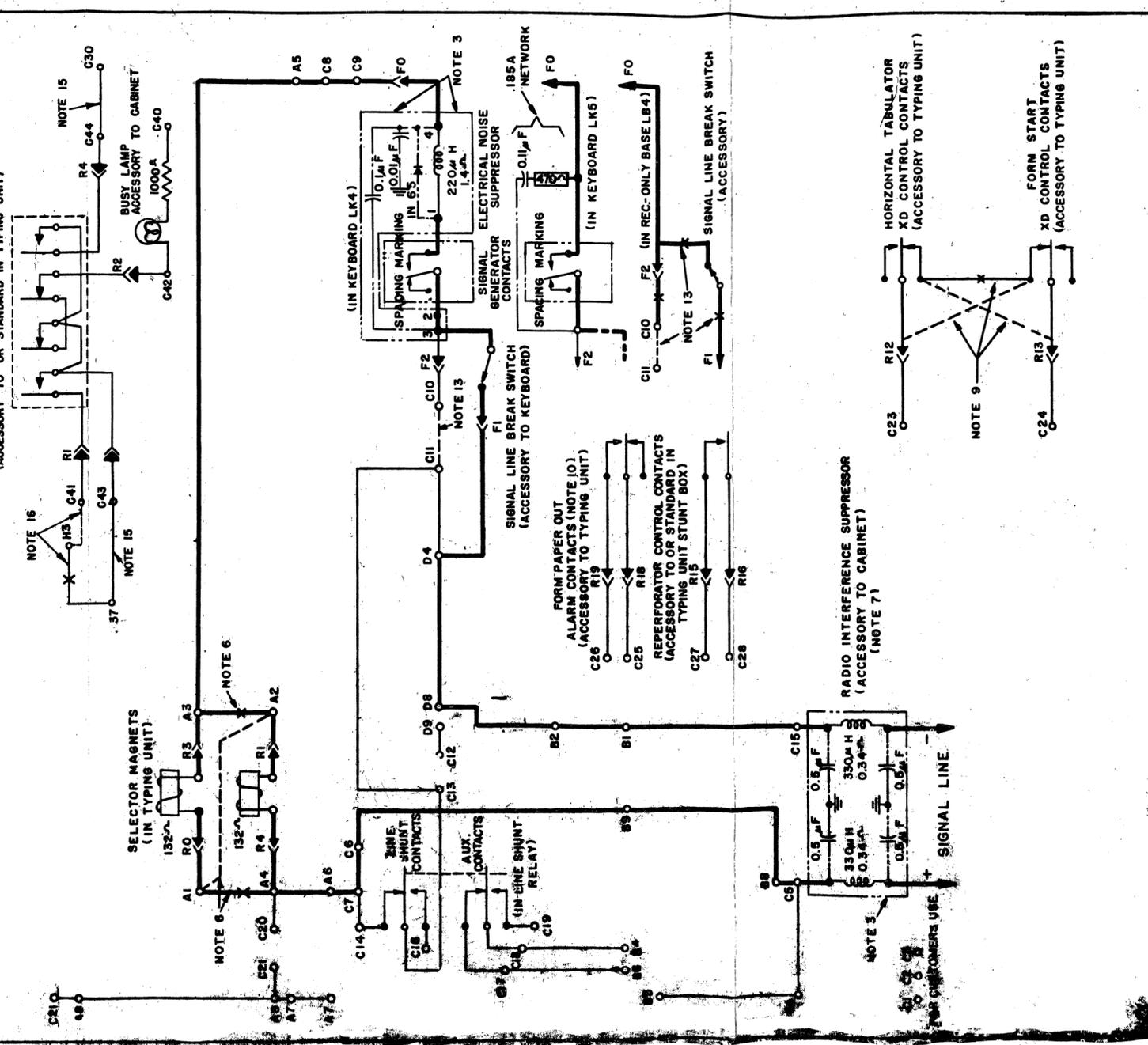
14 IF LK3 KEYBOARD LB3 REC. ONLY BASE, OR LP3 TYPING UNIT IS TO BE USED WITH LESU 7/184, STRAP F4 TO F7 AND/OR R14 TO R17 MUST BE ADDED TO ITS CONNECTORS IN ORDER TO COMPLETE LINE SHUNT RELAY CIRCUIT. (EITHER STRAP MAY ALREADY BE IN CIRCUIT)

15 CONNECTIONS FURNISHED BY THE CUSTOMER

16 WHEN BUSY LAMP AND AUXILIARY TERMINALS ARE USED OMIT CONNECTIONS MARKED (X) AND ADDED DASHED (---) CONNECTIONS.



SELECTIVE CALLING ACCESSORIES

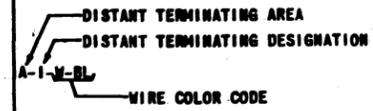


2875WD

REVISIONS		
ISSUE	DATE	AUTH. NO.
D	12-30-55	28-7206
E	3-8-57	28-7206
F	7-11-57	28-7206
G	3-18-61	28-7206
H	11-20-63	78899

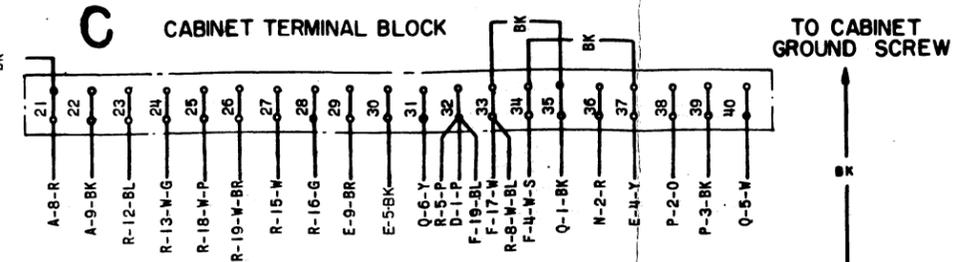
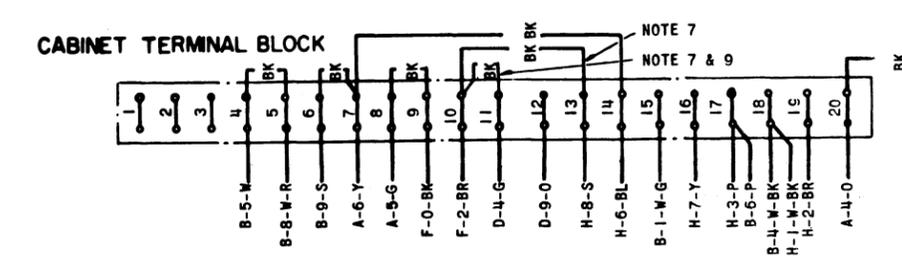
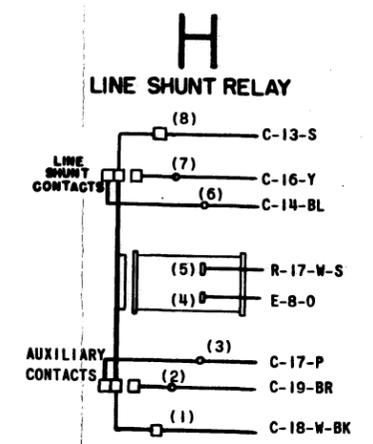
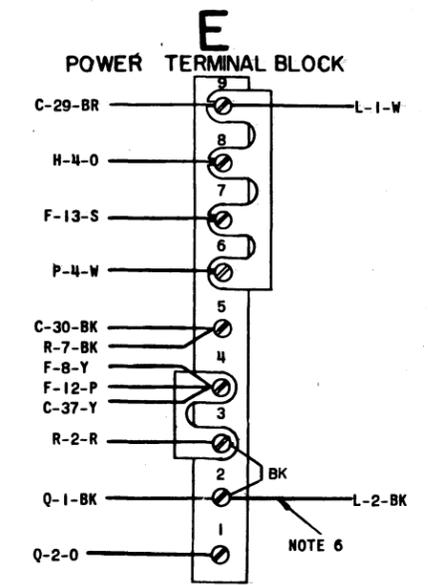
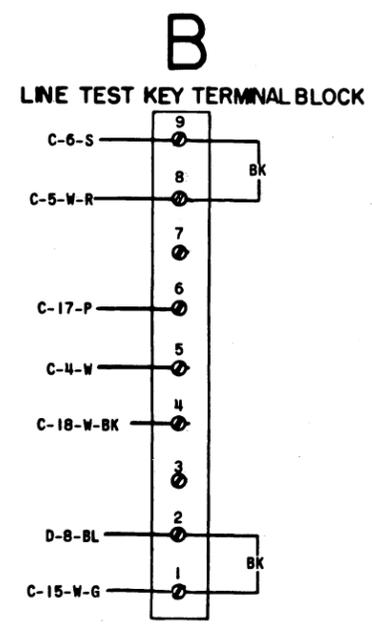
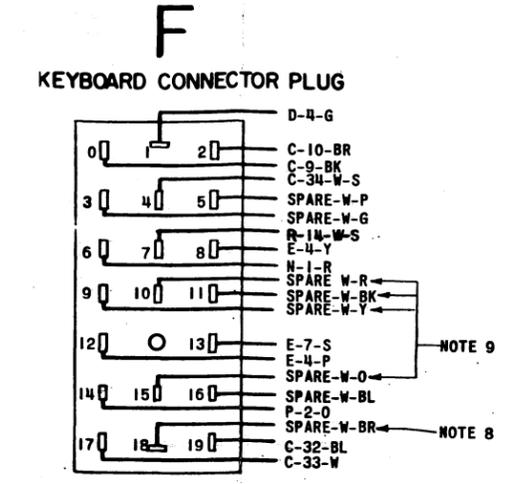
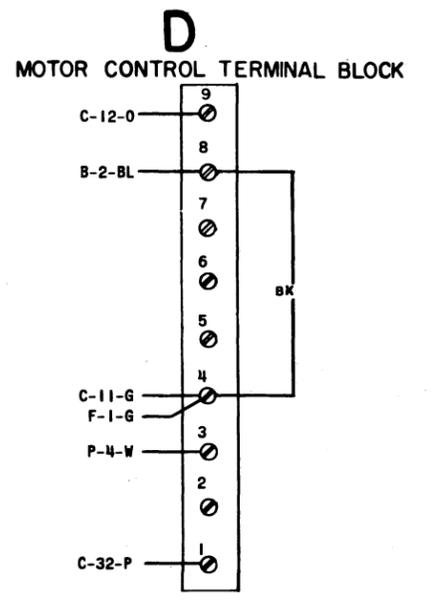
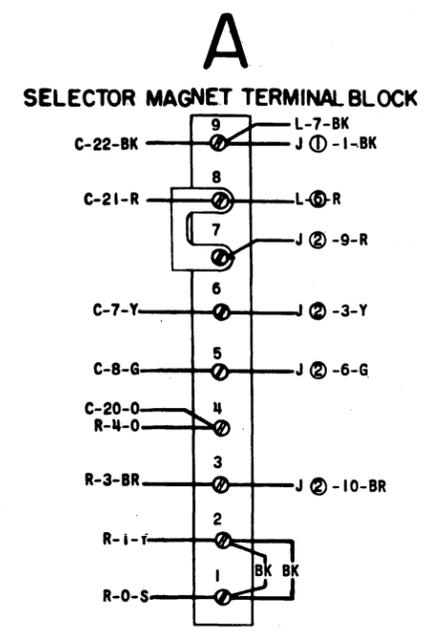
SCHEMATIC WIRING DIAGRAM MODEL 2875WD PAGE NUMBER 100 WITH PARTS LIST ELEC. SERVICE UNIT AND DATE



- NO. NOTES**
- WIRING LEGEND:**  

  - COLOR CODE:**  

BK-BLACK	BR-BROWN
R-RED	O-ORANGE
Y-YELLOW	G-GREEN
BL-BLUE	P-PURPLE
W-WHITE	S-SLATE
  - UNIT WIRED FOR 115 VOLTS, 50 TO 60 CYCLE - AC POWER INPUT ONLY.
  - PLUGS VIEWED FROM SOLDERED TERMINAL ENDS.
  - CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION REMOVE AND ADD CONNECTIONS AS TABULATED BELOW:  

SIGNAL LINE	CONNECTIONS REMOVED	CONNECTIONS ADDED
CURRENT	J ① 1	J ① 3-J ① 4
.020 AMP.	J ① 2	
  - RECTIFIER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION, REMOVE LEAD L-2-BK FROM TERMINAL E-2 AND CONNECT TO TERMINAL E-1.
  - LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH.  
 A. FOR KEYBOARD OPERATION TERMINAL 13 MAY BE CONNECTED TO EITHER TERMINAL C-9, C-10, C-11 OR C15 TO OBTAIN DESIRED SHUNTING OF THE SIGNAL LINE CIRCUIT.  
 B. FOR RECEIVING ONLY BASES CONNECT C-10 TO C-11.
  - THE SPARE LEADS FROM THE KEYBOARD AND TYPING UNIT CONNECTOR PLUGS ARE TERMINATED IN THE RIGHT AND LEFT ENDS OF THE ELECTRICAL SERVICE UNIT RESPECTIVELY.
  - FOR ACCESSORY GROUP 134 SPLICE AND TAPE SPARE LEADS AS FOLLOWS: F-9-W-Y TO R-6-W-Y, F-10-W-R TO R-9-W-R, F-11-W-BK TO R-11-W-BK, AND F-15-W-0 TO R-10-W-0 CONNECT C-10 TO C-11.
  - FOR SCHEMATIC WIRING DIAGRAM SEE 2879WD.



TO CABINET GROUND SCREW

ELECTRICAL SERVICE UNIT GROUND SCREW

NOTE:  
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

2878WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
(A) 2	9-15-54	28-4472
3	1-26-55	28-4936
4	2-28-55	28-5008
B5	3-4-55	28-5047
E6	3-30-55	28-5192
F7	5-8-57	28-7615
8	3-16-61	68761-4
9	12-7-61	71880
10	3-28-62	69768-10
11	4-7-66	90222

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.  
SHEET 1

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT LESU7/134, 151

**APPROVALS**

D AND R	E OF M
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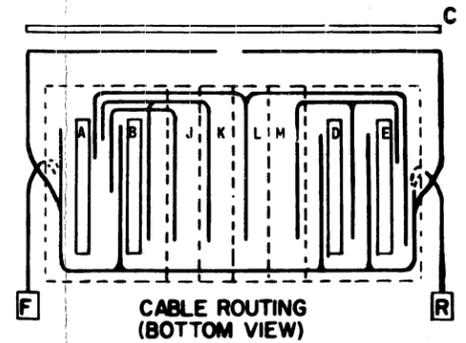
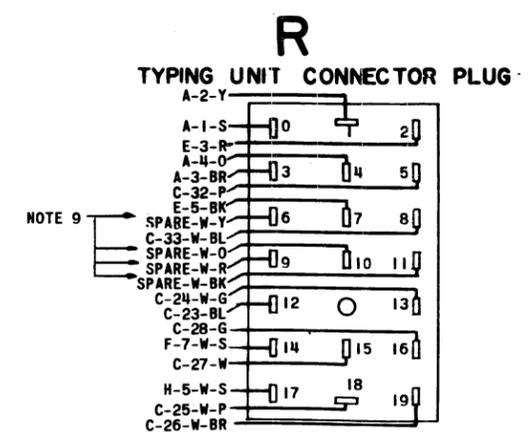
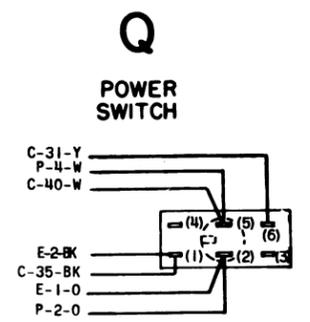
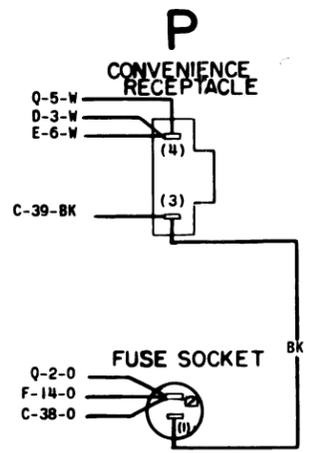
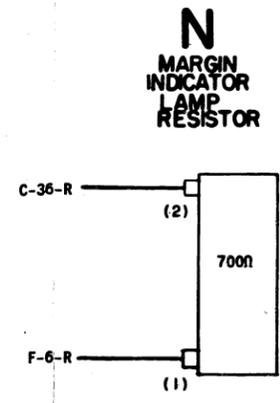
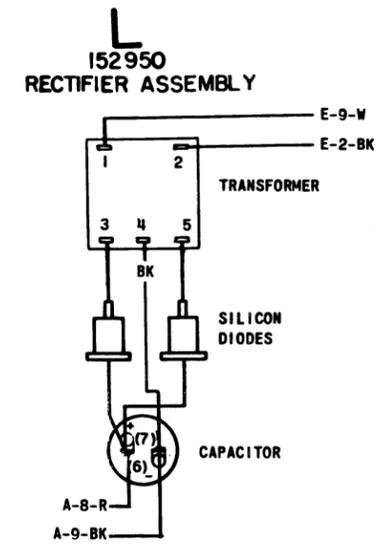
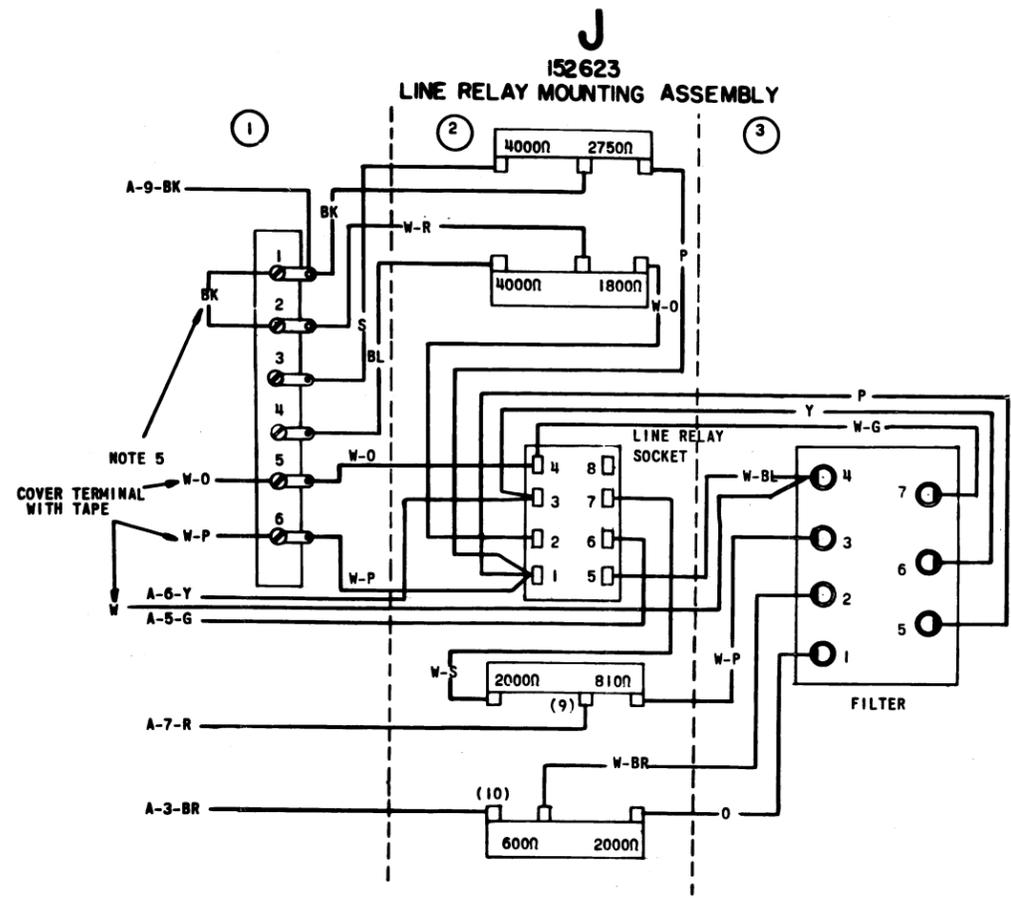
E-NUMBER  
PROD. NO. 2878WD  
DATE 2-20-54  
P.D. FILE NO. 2-30.65.156A  
DRAWN M.K.G. CHKD.  
ENGD. R.H.K. APPD.

**TELETYPE CORPORATION**

**2878WD**

NOTE:  
REVISION INFORMATION MUST BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

REVISIONS		
ISSUE	DATE	AUTH. NO.
(A) 2	9-15-54	28-4472
J 3	1-26-55	28-4926
K 4	2-28-55	28-5008
B5	3-4-55	28-5047
E6	3-30-55	28-5192
F7	5-8-57	28-7615
8	3-16-61	68761-4
9	12-7-61	71860
10	3-28-62	69768-10
- 11	4-7-66	90222



SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 2

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT LESU7/134, 151

APPROVALS

D AND R	E OF M
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E-NUMBER

PROD. NO. 2878WD

DATE 2/20/64

P.D. FILE NO. 2-30.65.156A

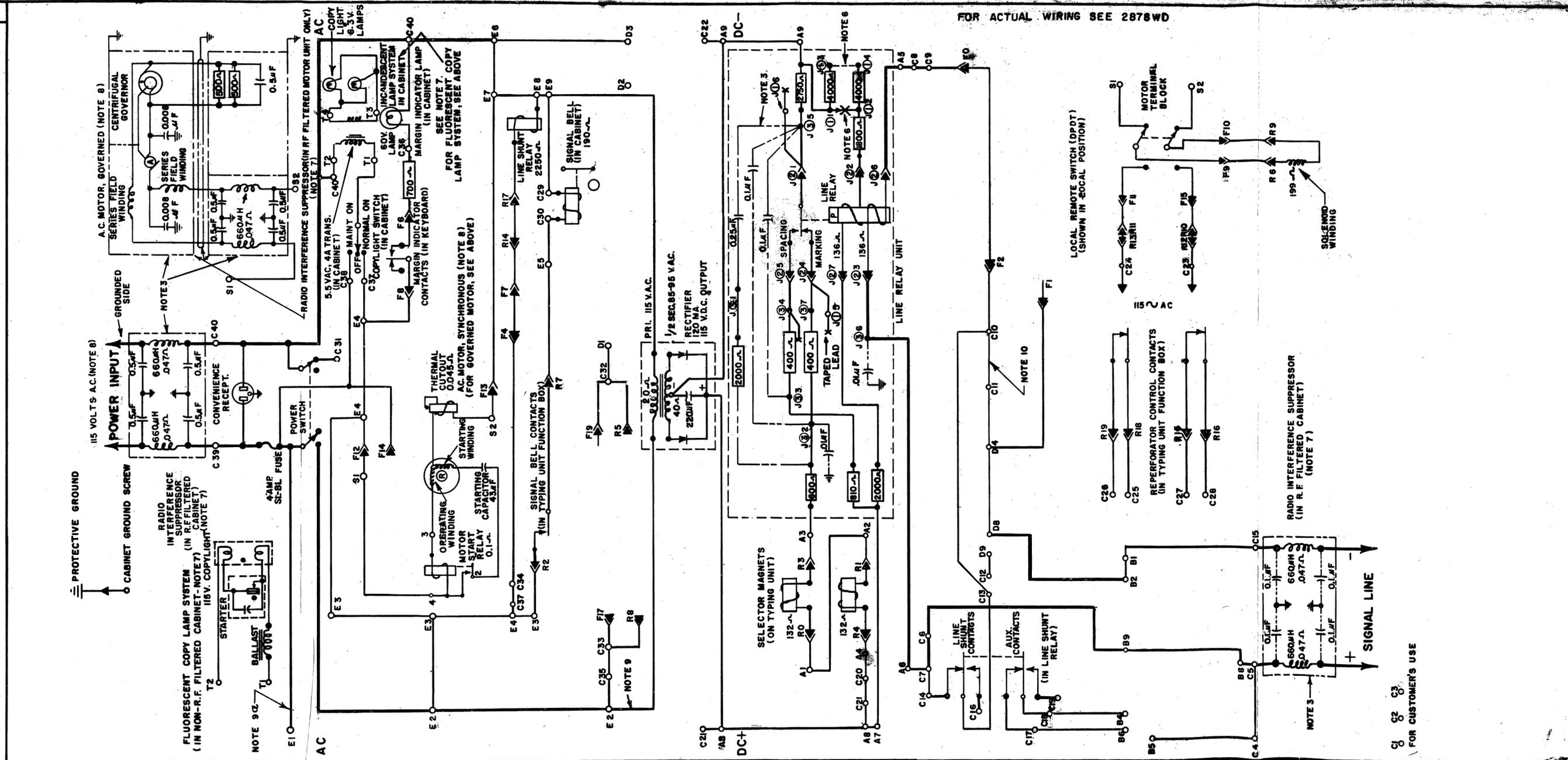
DRAWN H.K.G.	CHKD.
ENGD. R.H.K.	APPD.

TELETYPE CORPORATION

2878WD

NO	NOTES
1	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS, SEE: WD NUMBER UNITS DIRECTLY OPERABLE WITH LESU 7 2883WD BRIDGE RECEIVER ONLY-L 8 4 3236WD CABINETS-LAC 203, 204, 205 2672WD ELECTRICAL SERVICE UNIT-LESU 7/134, 151 2882WD KEYBOARDS-LK 4, 5 2900WD MOTOR UNITS-L MU 3, 4, 5 2884WD PAGE TYPING UNITS-LP 4, 5, 7 2880WD PAGE TYPING UNITS-LP 6, 8 5973WD CABINET (FLUORESCENT COPYLIGHT) LAC220
2	LEGEND ○ A SELECTOR MAGNET TERMINAL BLOCK (IN LESU). ○ B LINE TEST KEY TERMINAL BLOCK (IN LESU). ○ C CABINET TERMINAL BLOCK. ○ D MOTOR CONTROL TERMINAL BLOCK (IN LESU). ○ E POWER TERMINAL BLOCK (IN LESU). ○ F KEYBOARD CONNECTOR. ○ J1 TERMINAL STRIP (ON LINE RELAY ASSEM. IN LESU). ○ J2 LINE RELAY CONNECTOR (IN LESU). ○ J3 LINE RELAY FILTER (IN LESU). ○ R TYPING UNIT CONNECTOR. ○ S MOTOR TERMINAL BLOCK (IN LK). ○ T COPYLIGHT TERMINAL BLOCK (IN LAC).
3	DOT-DASH—LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.
4	ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.
5	A. RESISTANCE VALUES IN OHMS (Ω) B. INDUCTANCE VALUES IN MICRohenries (μH) C. CAPACITANCE VALUES IN MICROFARADS (μF)
6	CIRCUITS SHOWN FOR .060 AMP NEUTRAL SIGNAL LINE OPERATION. FOR 0.20 AMP LINE CURRENT, ADD DASHED CONNECTION AND OMIT CONNECTION MARKED (X) IN LINE RELAY CIRCUIT.
7	A. USE POWER AND SIGNAL LINE NOISE SUPPRESSORS, SYNC. OR FILT. GOV. MOTOR, AND INCANDESCENT LAMP SYSTEM FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE. B. FOR OTHER INSTALLATIONS, OMIT SUPPRESSORS AND CONNECT INPUTS AND GOV. MOTOR DIRECT TO TERMINALS SHOWN.
8	USE SYNCHRONOUS MOTOR ON REGULATED 60±1% A.C. POWER ONLY. GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60 UNREGULATED A.C.
9	RECTIFIER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION, MOVE PRIMARY (INPUT) LEAD FROM E 2 TO E 1.
10	WHEN RECEIVING ONLY BASE IS USED CONNECT C-10 TO C-11
11	LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING SIGNAL LINE.

NO	NOTES
1	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS, SEE: WD NUMBER UNITS DIRECTLY OPERABLE WITH LESU 7 2883WD BRIDGE RECEIVER ONLY-L 8 4 3236WD CABINETS-LAC 203, 204, 205 2672WD ELECTRICAL SERVICE UNIT-LESU 7/134, 151 2882WD KEYBOARDS-LK 4, 5 2900WD MOTOR UNITS-L MU 3, 4, 5 2884WD PAGE TYPING UNITS-LP 4, 5, 7 2880WD PAGE TYPING UNITS-LP 6, 8 5973WD CABINET (FLUORESCENT COPYLIGHT) LAC220
2	LEGEND ○ A SELECTOR MAGNET TERMINAL BLOCK (IN LESU). ○ B LINE TEST KEY TERMINAL BLOCK (IN LESU). ○ C CABINET TERMINAL BLOCK. ○ D MOTOR CONTROL TERMINAL BLOCK (IN LESU). ○ E POWER TERMINAL BLOCK (IN LESU). ○ F KEYBOARD CONNECTOR. ○ J1 TERMINAL STRIP (ON LINE RELAY ASSEM. IN LESU). ○ J2 LINE RELAY CONNECTOR (IN LESU). ○ J3 LINE RELAY FILTER (IN LESU). ○ R TYPING UNIT CONNECTOR. ○ S MOTOR TERMINAL BLOCK (IN LK). ○ T COPYLIGHT TERMINAL BLOCK (IN LAC).
3	DOT-DASH—LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.
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5	A. RESISTANCE VALUES IN OHMS (Ω) B. INDUCTANCE VALUES IN MICRohenries (μH) C. CAPACITANCE VALUES IN MICROFARADS (μF)
6	CIRCUITS SHOWN FOR .060 AMP NEUTRAL SIGNAL LINE OPERATION. FOR 0.20 AMP LINE CURRENT, ADD DASHED CONNECTION AND OMIT CONNECTION MARKED (X) IN LINE RELAY CIRCUIT.
7	A. USE POWER AND SIGNAL LINE NOISE SUPPRESSORS, SYNC. OR FILT. GOV. MOTOR, AND INCANDESCENT LAMP SYSTEM FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE. B. FOR OTHER INSTALLATIONS, OMIT SUPPRESSORS AND CONNECT INPUTS AND GOV. MOTOR DIRECT TO TERMINALS SHOWN.
8	USE SYNCHRONOUS MOTOR ON REGULATED 60±1% A.C. POWER ONLY. GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60 UNREGULATED A.C.
9	RECTIFIER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION, MOVE PRIMARY (INPUT) LEAD FROM E 2 TO E 1.
10	WHEN RECEIVING ONLY BASE IS USED CONNECT C-10 TO C-11
11	LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING SIGNAL LINE.



FOR ACTUAL WIRING SEE 2878WD

2879WD	
REV.	DATE
1	1-17-57
2	4-22-57
3	7-25-57
4	10-1-57
5	12-1-57
6	2-1-58
7	4-1-58
8	6-1-58
9	8-1-58
10	10-1-58
11	12-1-58
12	2-1-59
13	4-1-59
14	6-1-59
15	8-1-59
16	10-1-59
17	12-1-59
18	2-1-60
19	4-1-60

SCHEMATIC WIRING DIAGRAM  
ELECTRICAL SERVICE UNIT  
LESU 7/134, 151.8  
ASSOCIATED MODEL 29 APPARATUS

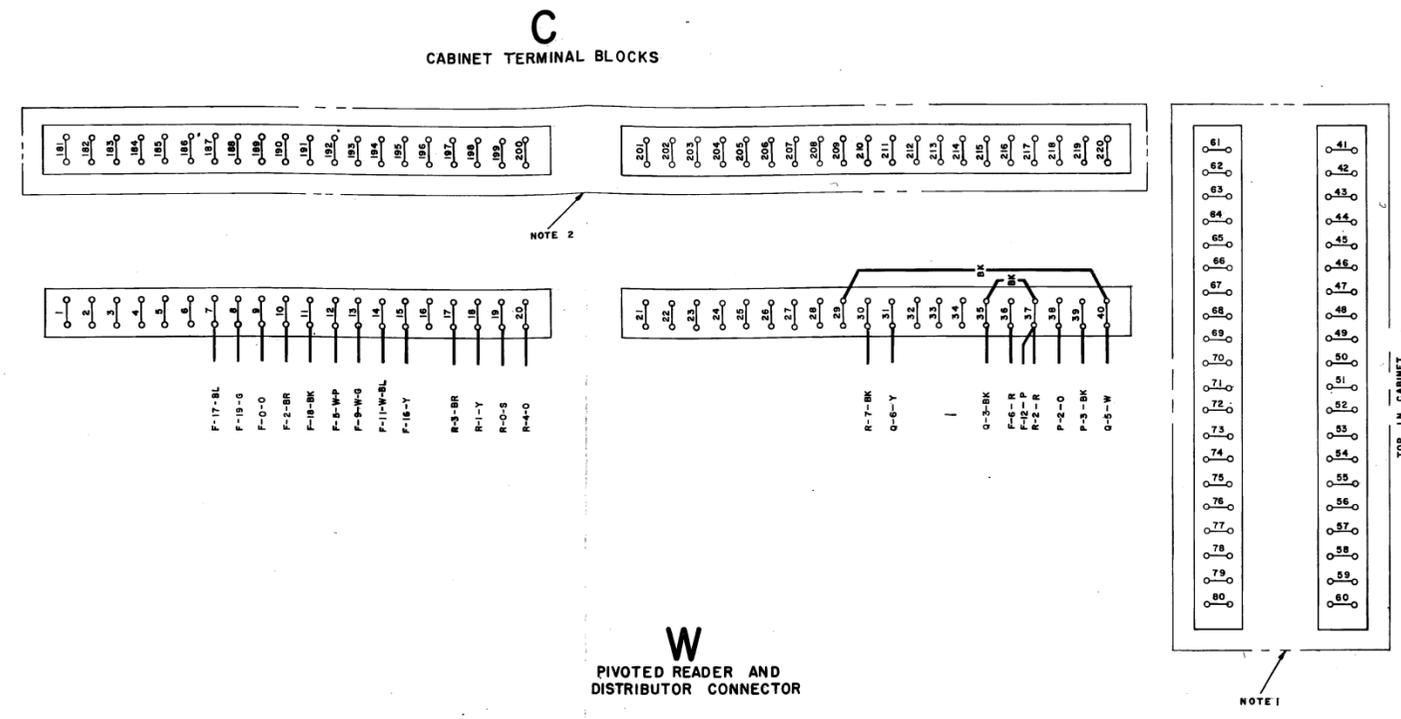
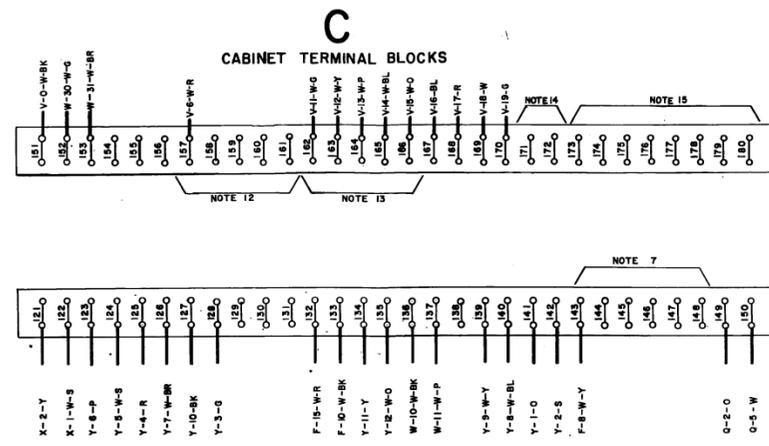
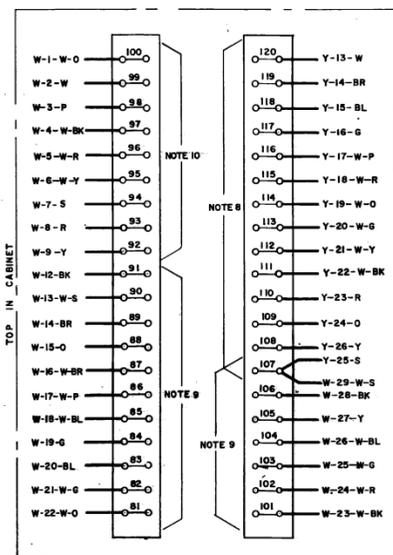
INCLUDES:  
LOCAL REMOTE SWITCH  
LINE RELAY  
RECTIFIER (LOCAL CIRCUIT SUPPLY)

DATE: 10-17-58  
P.O. FILE NO.  
DRAWN BY: [Signature]  
ENGR. R.H. [Signature]  
TELETYPE CORPORATION  
2879WD

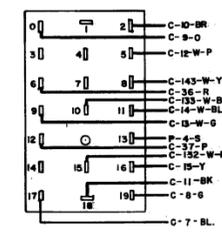
FOR CUSTOMER'S USE

3286WD		
REV.	DATE	AUTH. NO.
A	5-3-57	TP-1637
B	7-2-57	TP-1637
C	9-5-57	TP-1637
D	10-16-57	TP-1637
E	12-16-57	TP-1637
F	1-3-58	TP-1637
G	11-2-61	71008
H	1-24-62	14726

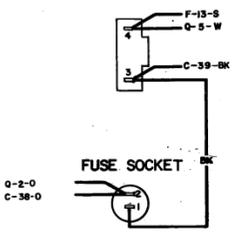
- NOTES
- FOR USE WITH SELECTIVE CALL ONLY.
  - SUPPLIED IF REQUESTED BY CUSTOMER.
- WIRING LEGEND:
- DISTANT TERMINATING AREA  
DISTANT TERMINAL DESIGNATION
- WIRE COLOR CODE
- COLOR CODE
- |            |                      |
|------------|----------------------|
| BK - BLACK | W-BK - WHITE - BLACK |
| BR - BROWN | W-BR - WHITE - BROWN |
| R - RED    | W-R - WHITE - RED    |
| O - ORANGE | W-O - WHITE - ORANGE |
| Y - YELLOW | W-Y - WHITE - YELLOW |
| G - GREEN  | W-G - WHITE - GREEN  |
| BL - BLUE  | W-BL - WHITE - BLUE  |
| P - PURPLE | W-P - WHITE - PURPLE |
| W - WHITE  | W-S - WHITE - SLATE  |
| S - SLATE  |                      |
- UNIT WIRES FOR 115 VOLTS, 50 TO 60 CYCLE A.C. POWER INPUT ONLY.
  - CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS.
  - TERMINALS C-143 TO C-148 RESERVED FOR CABINET LAMP OPERATION.
  - TERMINALS C-107 TO C-108 RESERVED FOR HARDGATE READER.
  - TERMINALS C-101 TO C-107 & C-81 TO C-81 RESERVED FOR PIVOTED READER.
  - TERMINALS C-92 TO C-100 RESERVED FOR DISTRIBUTOR.
  - ASSOCIATED CABLE 158282
  - TERMINALS C-157 TO C-161 RESERVED FOR PUNCH COMMON CONTACTS.
  - TERMINALS C-152 TO C-166 RESERVED FOR PUNCH MARKING CONTACTS.
  - TERMINALS S-171 TO C-172 RESERVED FOR KEYBOARD SELECTOR MARKETS.
  - TERMINALS C-173 TO C-180 RESERVED FOR TYPING KEYBOARD REPERFORATOR FUNCTION CONTACTS.



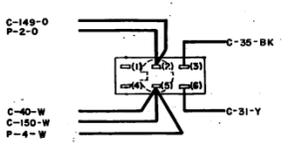
F  
KEYBOARD CONNECTOR



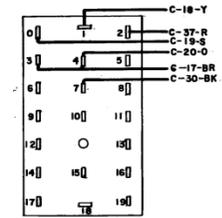
P  
CONVENIENCE CONNECTOR



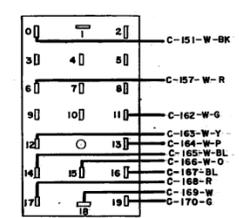
Q  
POWER SWITCH



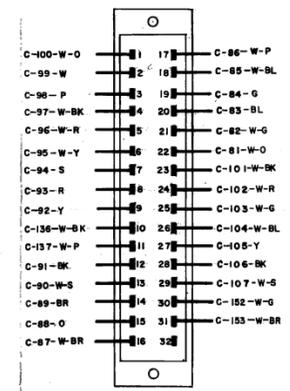
R  
TYPING UNIT CONNECTOR



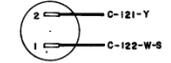
V  
REPERFORATOR CONNECTOR



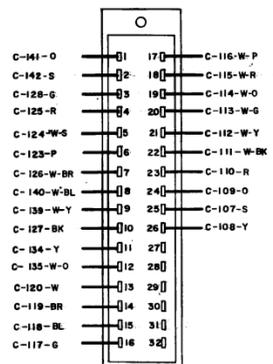
W  
PIVOTED READER AND DISTRIBUTOR CONNECTOR



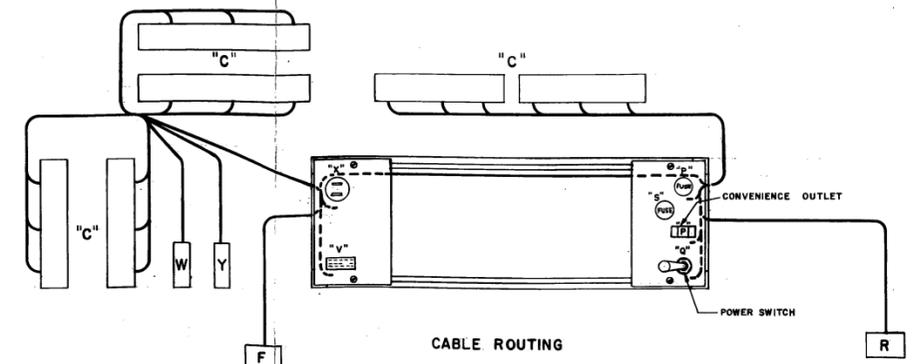
X  
TAPE OUT CONNECTOR



Y  
AUXILIARY HARDGATE READER CONNECTOR



S  
FUSE SOCKET



APPROVALS

DRAWN BY: [Signature]

ELECTRICAL SERVICE UNIT ASST - SR LESU 11

DATE: 1-5-57

P.D. FILE NO. 3286WD

TELETYPE CORPORATION

3286WD

d/33-C

1074X201W

D-8213 R 2012

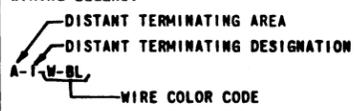


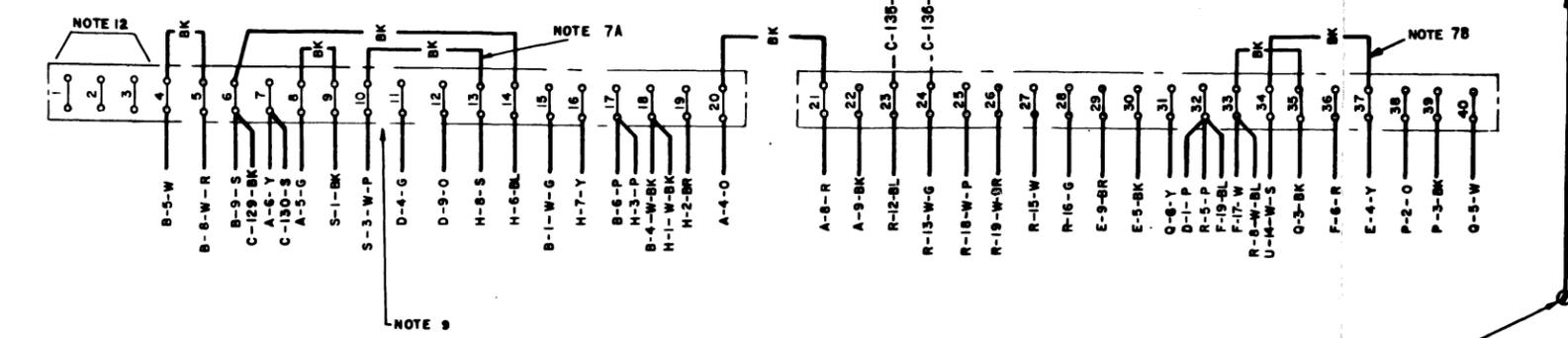
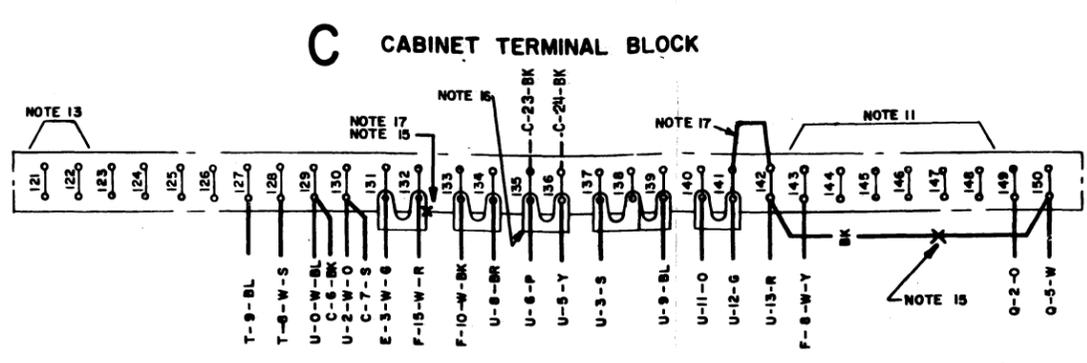
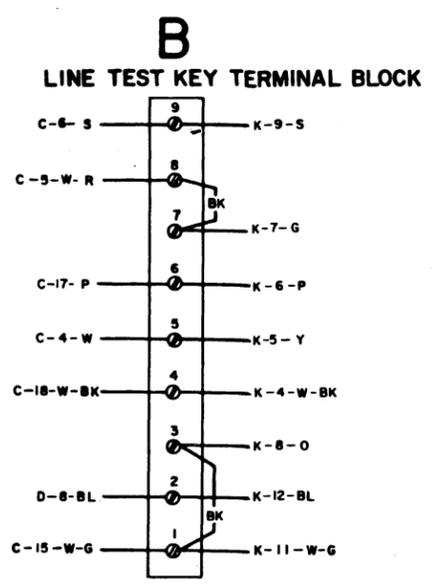
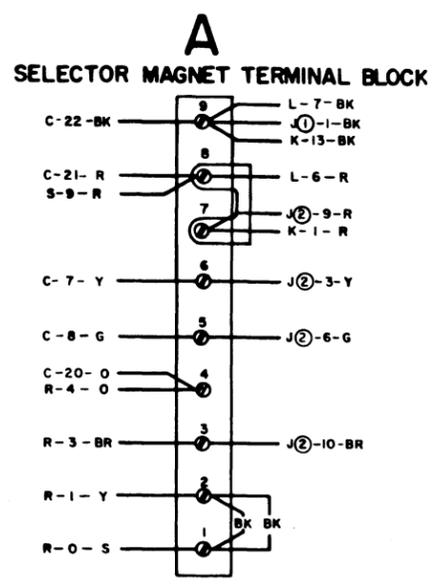


REVISIONS

ISSUE	DATE	AUTH. NO.
14	3-28-62	69762-1
15	2-11-64	79910
16	8-28-64	82637
17	10-26-64	83790
18	2-26-65	86062
19	4-7-66	90222

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

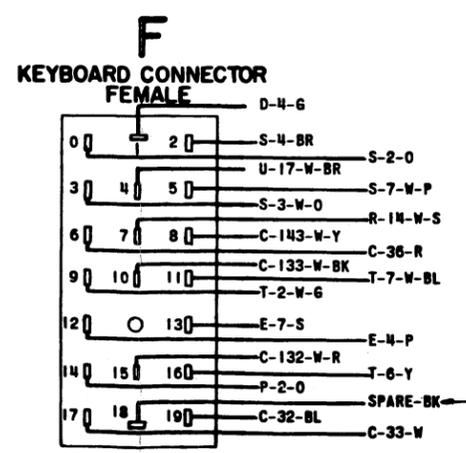
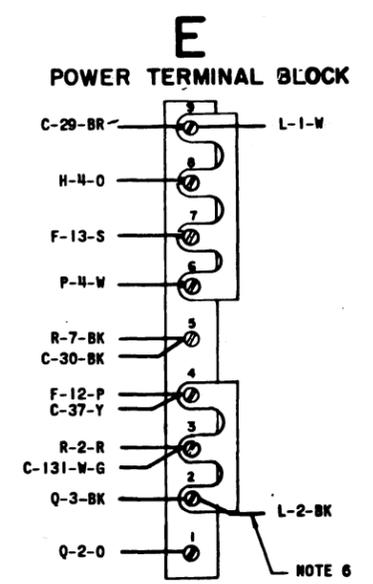
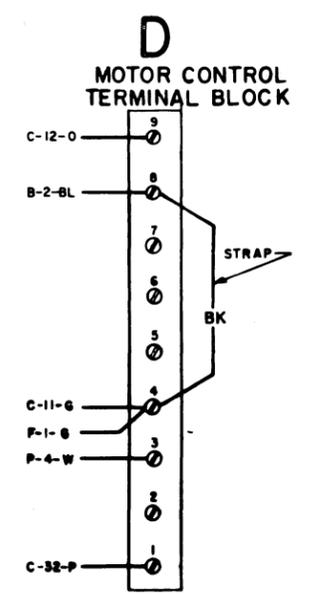
1. WIRING LEGEND:  

2. COLOR CODE:  
 BK - BLACK      G - GREEN  
 BR - BROWN    BL - BLUE  
 R - RED        P - PURPLE  
 O - ORANGE    W - WHITE  
 Y - YELLOW    S - SLATE
3. UNIT WIRED FOR 115 VOLTS, 50 TO 60 CYCLE A.C. POWER INPUT ONLY.
4. CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS.
5. CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION, REMOVE AND ADD CONNECTIONS AS TABULATED BELOW:
- | SIGNAL LINE CURRENT | CONNECTIONS REMOVED | CONNECTIONS ADDED |
|---------------------|---------------------|-------------------|
| .020 AMP.           | K1-K2, J①1-J②2      | J①3-J①4           |
6. RECTIFIER SHOWN CONTROLLED BY POWER SWITCH.  
 A. FOR CONTINUOUS OPERATION, REMOVE LEAD L-2-BK FROM TERMINAL E-2 AND CONNECT TO TERMINAL E-1.  
 B. FOR OPERATION FROM MOTOR CONTROL, REMOVE LEAD L-2-BK FROM TERMINAL E-2 AND CONNECT TO TERMINAL E-3.
7. LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING LINE RELAY COIL AND KEYBOARD AND TRANSMITTER DISTRIBUTOR SIGNAL GENERATOR.  
 A. IF KEYBOARD SHUNTING IS NOT DESIRED, OR WHEN SIGNAL LINE BREAK SWITCH IS PRESENT, REMOVE THE BLACK STRAP CONNECTED BETWEEN TERMINALS C-10 AND C-13 AND CONNECT TERMINALS C-9 AND C-13.  
 B. FOR DIRECT CONTROL OF THE LINE SHUNT RELAY FROM THE POWER SWITCH, REMOVE STRAP BETWEEN TERMINALS C-34 AND C-37 AND CONNECT TERMINALS C-34 AND C-35. TERMINAL C-13 MAY THEN BE CONNECTED TO EITHER TERMINALS C-9, C-10, C-11 OR C-15 TO OBTAIN THE DESIRED SHUNTING OF THE SIGNAL LINE CIRCUIT.
8. THE SPARE LEADS FROM THE KEYBOARD AND TRANSMITTER DISTRIBUTOR UNITS CONNECTORS ARE TERMINATED IN THE RIGHT END OF THE ELECTRICAL SERVICE UNIT. THE SPARE LEADS FROM THE TYPING UNIT CONNECTORS ARE TERMINATED IN THE LEFT END OF THE ELECTRICAL SERVICE UNIT.
9. ADD STRAP BETWEEN C-10 AND C-11, IF SIGNAL LINE BREAK SWITCH IS NOT USED.
10. SPARE LEADS FROM F-18 AND U-18 ARE RESERVED FOR POLAR OPERATION OF KEYBOARD AND TRANSMITTER DISTRIBUTOR SIGNAL GENERATORS.
11. TERMINALS C-143 TO C-148 ARE RESERVED FOR CABINET LAMP OPERATION.
12. TERMINALS C1-C3 RESERVED FOR CUSTOMER USE.
13. TERMINALS C-121 - C-122 RESERVED FOR PERFORATOR LOW-TAPE SWITCH.
14. CONTACTS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.
15. WHEN L8XD IS USED IN PLACE OF LX1, MAKE THE FOLLOWING CHANGES:  
 OMIT CONNECTIONS C-142 TO C-150  
 ADD CONNECTIONS C-142 TO C-150  
 C-131 TO C-132
16. WHEN LX1B IS USED, REMOVE THE STRAP BETWEEN TERMINALS C-135 - C-136. ADD TWO STRAPS, ONE BETWEEN TERMINALS C-23 - C-136 AND ONE BETWEEN C-24 -C-136
17. WHEN THE LX1 I IS USED DO NOT INSTALL STRAPS BETWEEN TERMINALS C11 AND C12 OR C131 AND C132. THE INTERNAL CLUTCH MAGNET INPUT SHOULD BE CONNECTED TO TERMINALS C132 & C131. RESISTANCE PER COIL 210 OHMS.



TO CABINET GROUND SCREW

ELECTRICAL SERVICE UNIT GROUND SCREW

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.



NOTES 8 & 10

SHEET 1

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT ASR - GP - OPT. IAC LESU13

APPROVALS

D AND R	E OF M
-----	-----

E-NUMBER

PROD. NO. 3292WD

DATE 10-10-66

R.D. FILE NO. 27-A.66.AA

DRAWN E.K.S. CHKD. R.D.

ENGD. H.S.P. APPD.

TELETYPE CORPORATION

3292WD

SEE SHEET 1 FOR NOTES.

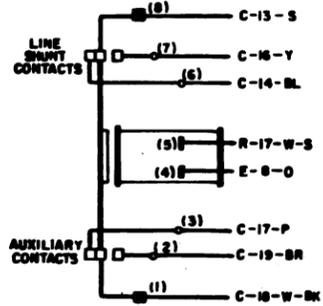
3292WD

REVISIONS

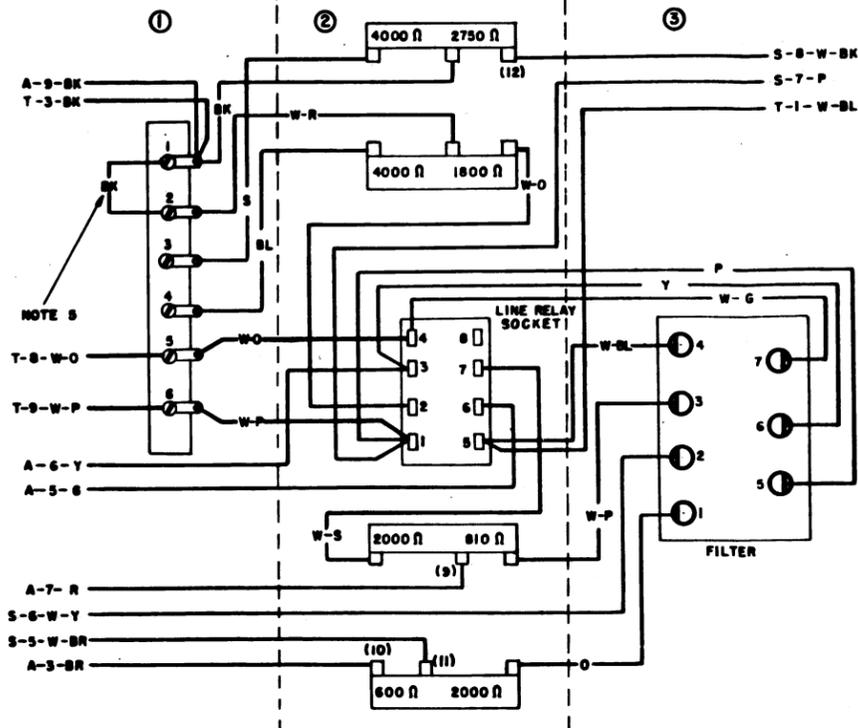
ISSUE	DATE	AUTH. NO.
14	3-28-62	69782-1
15	2-11-64	79910
16	8-28-64	82637
17	10-26-64	83780
18	2-26-65	86062
19	4-7-66	90222

NOTE:  
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

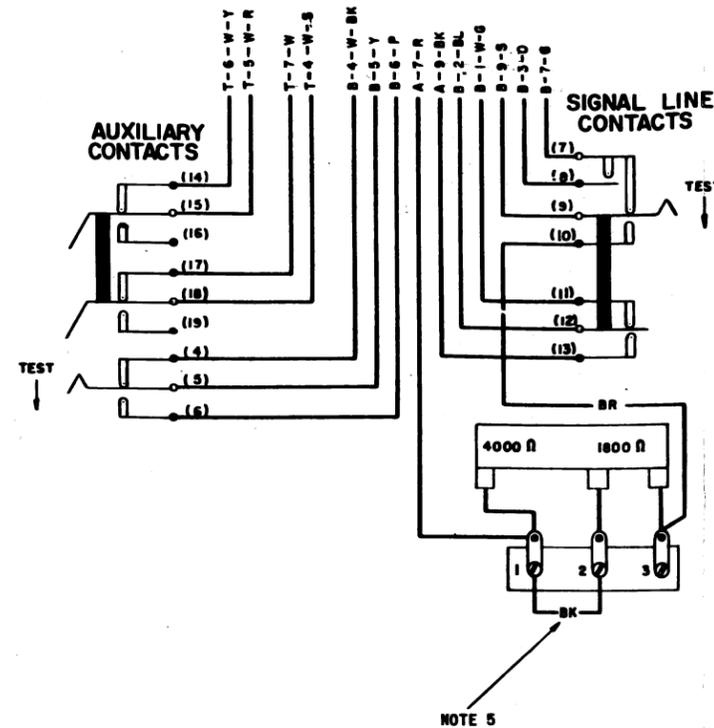
**H**  
LINE SHUNT RELAY



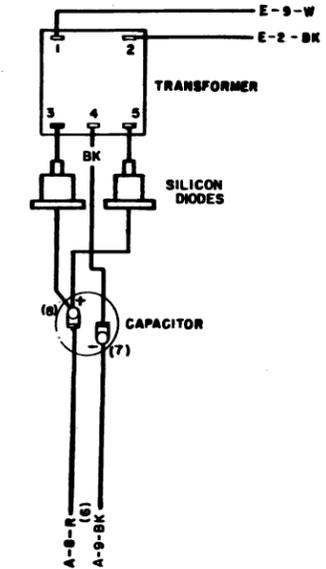
**J**  
LINE RELAY MOUNTING ASSEMBLY



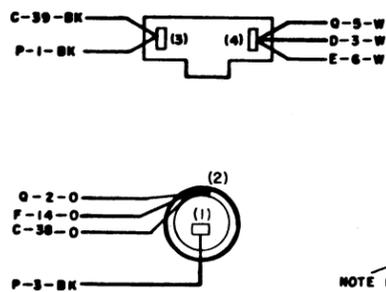
**K**  
LINE TEST KEY ASSEMBLY



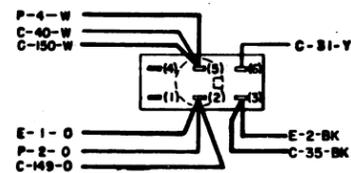
**L**  
RECTIFIER ASSEMBLY



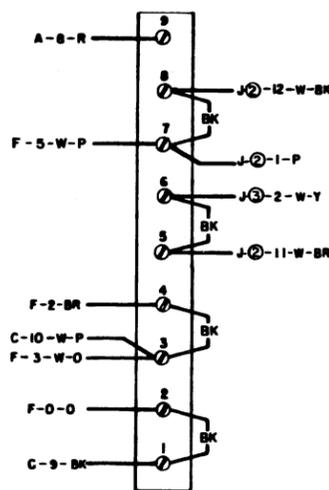
**P**  
CONVENIENCE RECEPTACLE



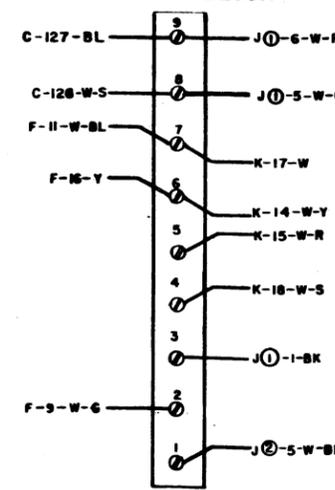
**Q**  
POWER SWITCH



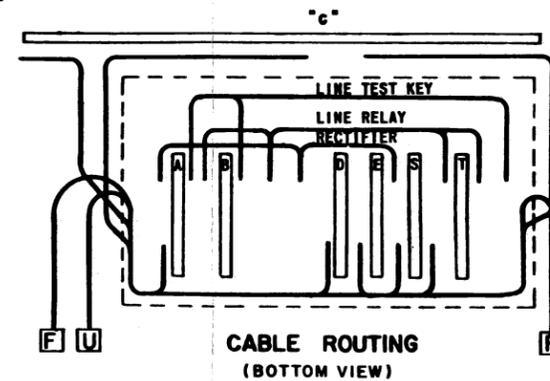
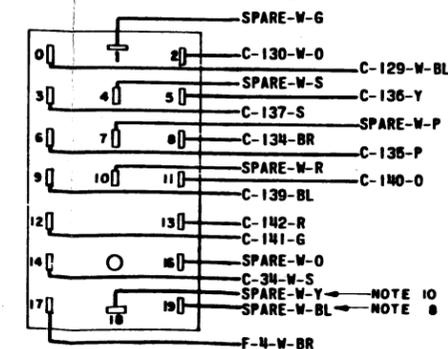
**S**  
SLOW RELEASE RELAY TERMINAL BLOCK



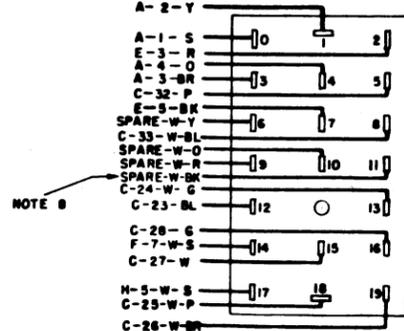
**T**  
SLOW RELEASE TEST KEY TERMINAL BLOCK



**U**  
TRANSMITTER DISTRIBUTOR CONNECTOR FEMALE



**R**  
TYPING UNIT CONNECTOR FEMALE



SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D. SHEET 2

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT ASR - GP - OPT. IAC LESU13

APPROVALS  
D AND R  
E OF M

E-NUMBER  
PROD. NO. 3292WD  
DATE 10-10-56  
P.D. FILE NO. 27-A.65.AA  
DRAWN E.K.S. CHKD. R.D.  
ENGD. H.S.P. APPD.

TELETYPE CORPORATION

3292 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
0	3-30-60	28-12924
R	4-21-60	28-12936
518	10-12-60	28-14077
719	4-15-61	68761-33
W20	4-26-61	69589
21	3-28-62	69768-33
22	11-26-63	78875
23	2-11-64	79910
24	8-28-64	82637

SHEET 1 OF 6

SCHEMATIC  
WIRING DIAGRAM  
FOR  
MODEL 28  
ASR-GP-OPT 1 AC  
WITH FACILITIES  
PROVIDED BY  
ELECT. SERVICE UNIT  
LESU13  
AND ASSOCIATED  
UNITS

APPROVALS

D AND R	E OF M
<i>HJK</i>	<i>[Signature]</i>

E-NUMBER  
PROD. NO. 3294WD  
DATE 11-17-59  
P.D. FILE NO. 27-A65AA  
DRAWN A.C. CHKD.  
ENSD. APPD.

TELETYPE  
CORPORATION

1. FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE:  
WD NO. UNITS DIRECTLY OPERABLE WITH LESU  
3264WD CABINETS-LAAC209,210  
3292WD ELECTRICAL SERVICE UNIT LESU13  
3302WD KEYBOARDS-LAK4  
2900WD MOTOR UNITS-LMU12 OR 14.  
2864WD PAGE TYPING UNITS-LP  
3300WD TRANSMITTER DISTRIBUTOR-LXD3  
3288WD TRANSMITTER DISTRIBUTOR-LAXD 3 & LCXD1  
3251WD TRANSMITTER DISTRIBUTOR-LBXD5  
3452WD TRANSMITTER DISTRIBUTOR BASE -LCXB7

2. LEGEND:  
O A SELECTOR MAGNET TERMINAL BLOCK (IN LESU)  
O B LINE TEST KEY TERMINAL BLOCK (IN LESU)  
O C CABINET TERMINAL BLOCK  
O D MOTOR CONTROL TERMINAL BLOCK (IN LESU)  
O E POWER TERMINAL BLOCK (IN LESU)  
F KEYBOARD CONNECTOR  
J 1 TERMINAL STRIP (ON LINE RELAY ASSEMBLY IN LESU)  
J 2 LINE RELAY CONNECTOR (IN LESU)  
J 3 LINE RELAY FILTER (IN LESU)  
K TERMINAL STRIP (ON LINE TEST KEY IN LESU)  
R TYPING UNIT CONNECTOR  
S SLOW RELEASE RELAY TERMINAL BOARD (IN LESU)  
T TEST SWITCH TERMINAL BOARD (IN LESU)  
U TRANSMITTER DISTRIBUTOR CONNECTOR  
AG MOTOR TERMINAL BLOCK (ON LAK)  
AH AUXILIARY SWITCH TERMINAL BLOCK (ON LAK)  
Z TRANSMITTER DISTRIBUTOR CONN (LBXD).

3. DOT DASH(---) LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.

4. ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.

5. A. RESISTANCE IN OHMS (Ω)  
B. INDUCTANCE VALUES IN MICROWHENRIES(MH)  
C. CAPACITANCE VALUES IN MICROFARADS(MF)

6. CIRCUITS SHOWN FOR .050 AMP. NEUTRAL SIGNAL LINE OPERATION, FOR .020 AMP. LINE CURRENT, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED ( \* ) IN LINE TEST KEY, AND LINE RELAY CIRCUITS.

7. USE POWER & SIGNAL LINE SUPPRESSOR AND SYNC. OR GOV.-FILT. MOTOR FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE. FOR OTHER INSTALLATIONS OMIT SUPPRESSORS AND CONNECT INPUTS AND GOV. MOTOR DIRECTLY TO TERMINALS SHOWN.

8. USE SYNCHRONOUS MOTOR ON REGULATED 60W (± 1%) AC POWER ONLY. GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60W UNREGULATED AC.

9. RECTIFIER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION, MOVE RECTIFIER LEAD L2 FROM E2 TO E1.

10. A. TO OPERATE MOTOR CONTROL, SET MUST BE EQUIPPED WITH EITHER  
1. TIME DELAY MECH. OR  
2. MOTOR STOP CONTACTS  
B IF TAPE POSITION IS TO BE USED IN THE ASR SET THE TIME DELAY MECHANISM MUST BE EITHER ELECTRICALLY OR MECHANICALLY DISABLED.

11. A. LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHOWN SHUNTING LINE RELAY COIL, TRANS. DIST. SIG. GENERATOR AND KEYBOARD SIG. GEN.  
B. IF KEYBOARD SHUNTING IS NOT DESIRED MOVE STRAP FROM C10 TO C9.  
C. FOR DIRECT CONTROL OF LINE SHUNT RELAY FROM POWER SWITCH, ADD DASHED (---) CONNECTIONS AND OMIT CONN. MARKED ( \* ) AT CABINET TERMINALS C34, C35, C37. CUSTOMER MAY THEN SELECT PORTION OF SIG. LINE CKT. TO BE SHUNTED BY CONNECTING TERM. C13 TO EITHER C9, C10, C11, C15.

12. CIRCUIT SHOWS BOTH HORIZONTAL TABULATOR AND FORM START CONTROL USED ON TYPING UNIT. WHEN ONLY ONE CONTROL IS USED, OMIT CONNECTION MARKED (---) AND ADD PROPER DASHED (---) CONNECTION IN TYPING UNIT CIRCUITS.

13. FORM PAPER OUT ALARM CONTACTS MAY BE MOUNTED ON EITHER THE TYPING UNIT OR EXTERNAL TO THE CABINET. IN LATTER EVENT, CONNECTIONS ARE MADE DIRECTLY TO TERMINALS C25 AND C26.

14. WHEN PAPER FEED OUT SWITCH IS NOT USED DISCONNECT MOTOR LEAD FROM AG3 AND CONNECT TO AG1.

15. WHEN SIGNAL LINE BREAK SWITCH IS NOT USED IN KEYBOARD ADD DASHED (---) CONNECTION AT CABINET TERMINAL BLOCK BETWEEN C10 AND C11.

16. IN ALL TRANS. DIST. U14 MUST BE CONNECTED TO U17 EXCEPT FOR LXD4 AND UP. (SEE NOTE 25)

17. IN ALL KEYBOARDS F4 MUST BE CONNECTED TO F7. IN ALL TYPING UNITS R14 MUST BE CONNECTED TO R17.

18. SPARE LEADS FROM U18 AND F18 ARE RESERVED FOR POLAR OPERATION OF SIGNAL GENERATOR.

19. CIRCUIT SHOWN FOR 115V DC POWER INPUT TO TRANS. DIST. CLUTCH MAGNETS. FOR 48V DC POWER INPUT MOVE WIRE CONNECTIONS AS FOLLOWS:  
UNIT WIRE INVOLVED MOVE CONN. FROM TO  
LAXD C81 TO V6 V6 V5  
LCXD C142 TO V3 V3 V2  
LBXD A13 TO V6 V6 V5  
A6 TO V3 V3 V2  
POWER SUPPLY MUST DELIVER 300MA @ 48V DC OR 200MA @ 115V DC.

20. USE APPROPRIATELY LABELED LXD, LAXD, LBXD OR LCXD CIRCUITRY AND MAKE CONN. AS SHOWN.

21. CUSTOMER MUST SUPPLY EXTERNAL SWITCHING AS FOLLOWS:  
LXD - NONE  
LAXD - BETWEEN C133 AND C134 TO CONTROL TRANS. CLUTCH MAGNET  
LBXD - NONE  
(CONTINUED)

21. CONTINUED  
LCXD - AS PER DIAGRAM BELOW LEVER KEY SWITCH  
6 NORMAL OPEN CONTACTS ON EACH SIDE

22. WHEN A SEPARATE TIGHT SWITCH IS USED IN LBXD THIS SWITCH BECOMES A MANUAL ON-OFF SWITCH ONLY.

23. WHEN LXD5 IS USED, REMOVE THE STRAP BETWEEN TERMINALS C135-C136. ADD TWO 176162 STRAPS, ONE BETWEEN TERMINALS C23-C135 AND ONE BETWEEN C24-C136.

24. TO CONTROL PIVOTED READER FROM ITS TAPE-OUT CONTACTS, REMOVE THE STRAP FROM TERMINALS I37 TO I41 AND PROVIDE SUIT-CIRCUITRY. THE TAPE OUT CONTACTS MAY NOT BE USED DIRECTLY SINCE THEY OPEN MOMENTARILY.

25. U14 IS CONNECTED TO U17 THROUGH THE TRANS. DIST.

26. CUSTOMER MUST SUPPLY THIS SWITCH WHEN EXTERNAL SWITCHING IS NOT USED.

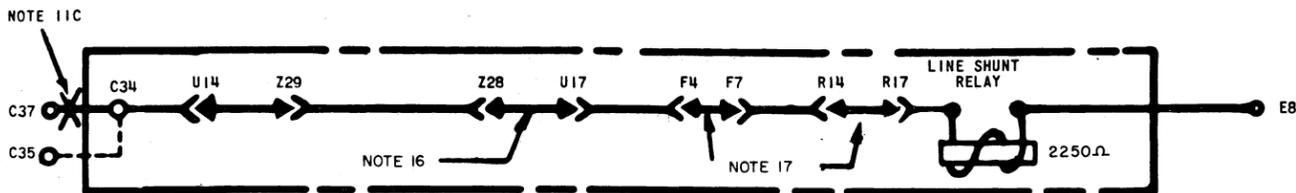
27. CUSTOMER MUST SUPPLY THESE STRAPS WHEN EXTERNAL SWITCHING IS NOT USED.

28. WHEN THE LXD11 IS USED DO NOT INSTALL STRAPS BETWEEN TERMINAL C141 AND C142, OR C131 AND C132. THE INTERNAL CLUTCH MAGNET INPUT SHOULD BE CONNECTED TO TERMINALS C132 AND C141. RESISTANCE PER COIL 210 OHMS.

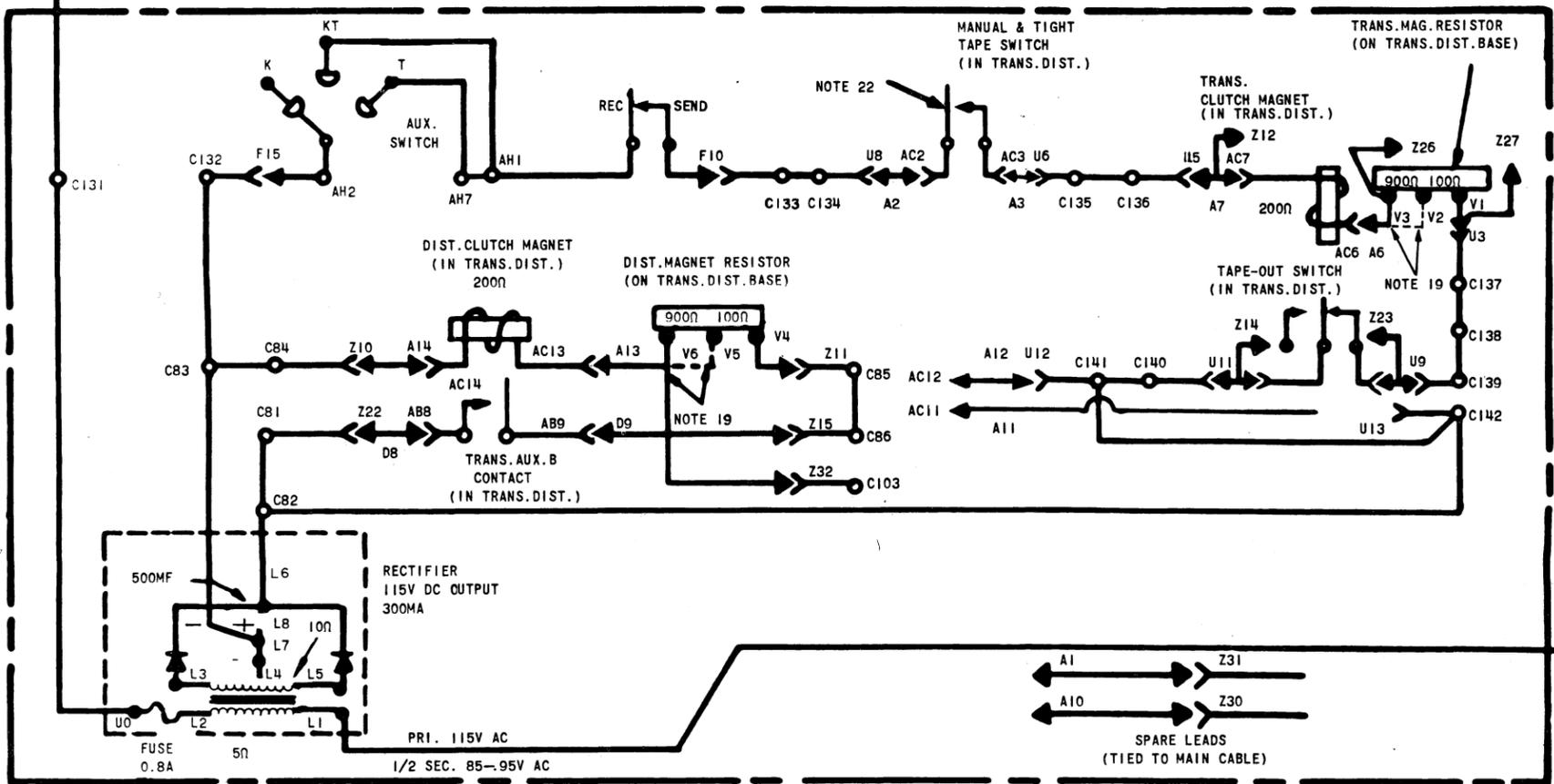


LBXD

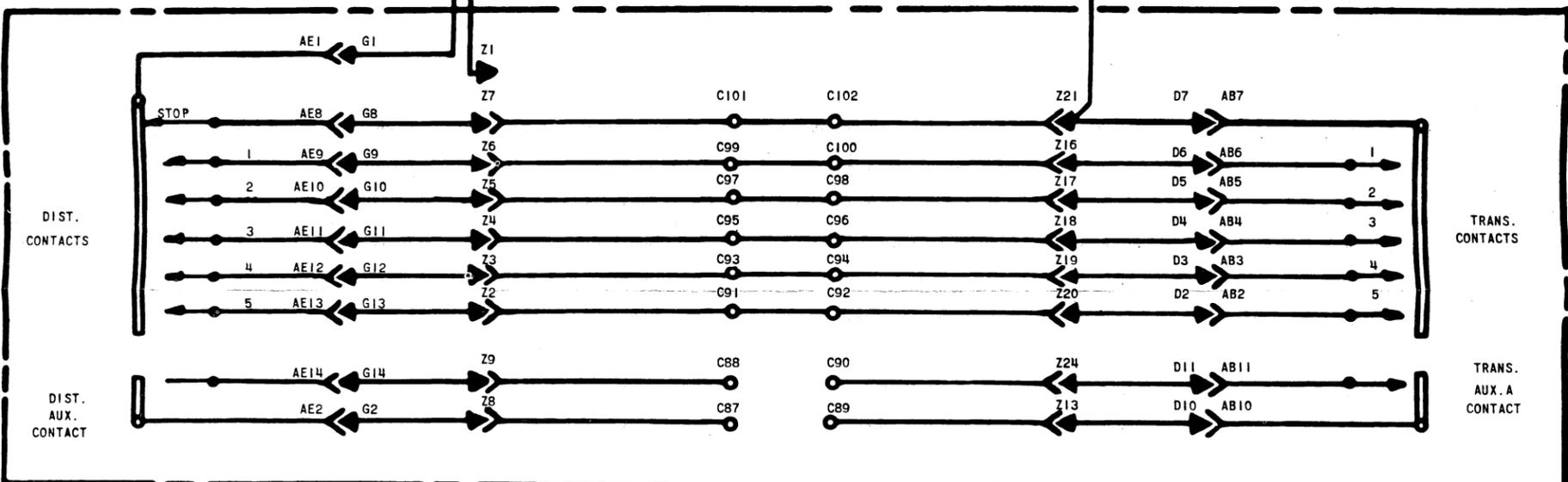
LBXD LINE SHUNT CIRCUIT  
NOTE 20



LBXD TRANS. DIST. CIRCUIT  
NOTE 20



LBXD SIGNAL GENERATING CIRCUIT  
NOTE 20



SHEET 3 OF 6

SCHEMATIC  
WIRING DIAGRAM  
FOR  
MODEL 28  
ASR-GP-OPT I AC  
WITH FACILITIES  
PROVIDED BY  
ELECT. SERVICE UNIT  
LESU13  
AND ASSOCIATED  
UNITS

APPROVALS

D AND R E OF M

E-NUMBER	3294WD
PROD. NO.	3294WD
DATE	11-17-59
R.D. FILE NO.	27-465AA
DRAWN A.C.	CHKD.
EMOD.	APPD.

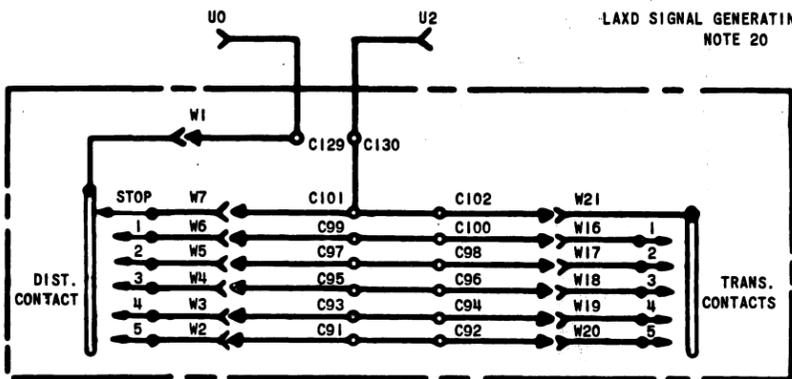
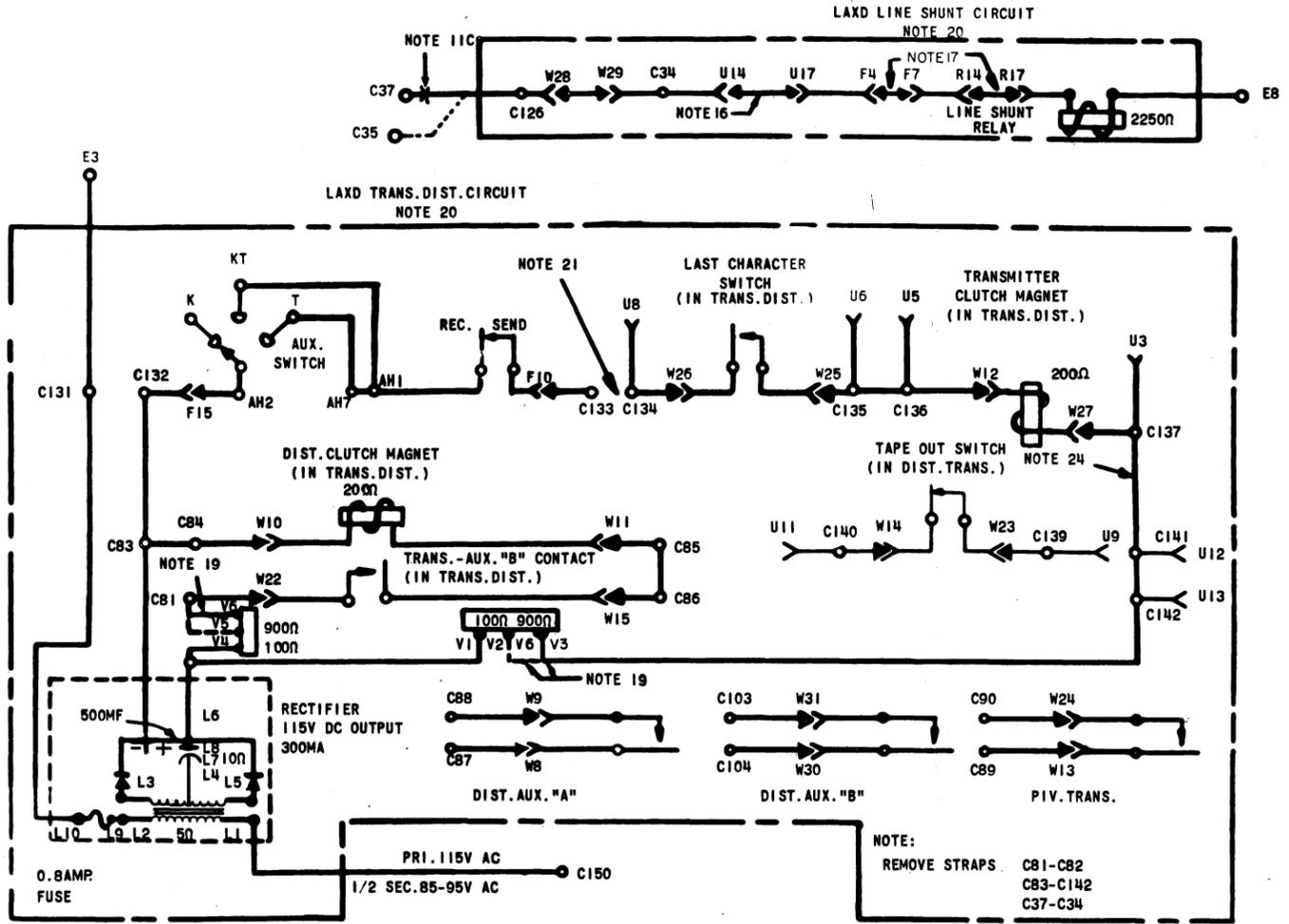
REVISIONS		
ISSUE	DATE	AUTH. NO.
0	3-30-60	28-12924
R	4-21-60	28-12936
S18	10-12-60	28-14077
T19		68761-33
U20	3-28-62	69768-10
21	11-26-63	78875
22	2-11-64	79910
23	8-28-64	82637

3294WD

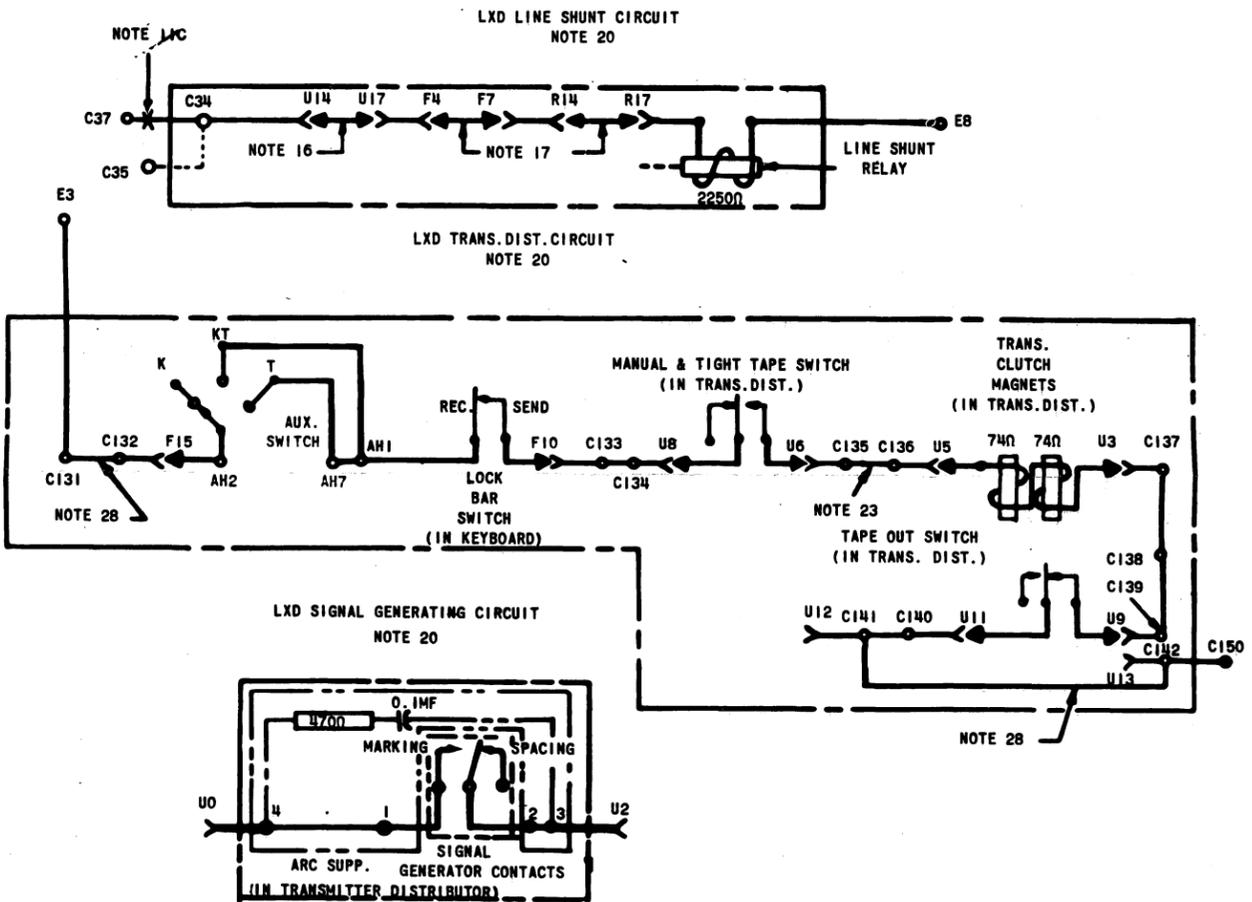
3294WD

TELETYPE CORPORATION

LAXD



LXD



SEE SHEET 1 FOR NOTES

3294WD

REVISIONS		
ISSUE	DATE	AUTH. NO.
0	3-30-60	28-12924
R	4-21-60	28-12935
R	10-12-60	28-14077
T19	4-5-61	68761-33
W20	3-28-62	69769-10
22	11-26-63	72825
23	2-11-64	79910
24	8-28-64	82637

SHEET 4 OF 6

SCHEMATIC WIRING DIAGRAM FOR MODEL 28 ASR-GP-OPT I AC WITH FACILITIES PROVIDED BY ELECT. SERVICE UNIT LESUIS AND ASSOCIATED UNITS

APPROVALS

D AND R E OR M

DATE 11-17-59

PROJ. NO. 3294WD

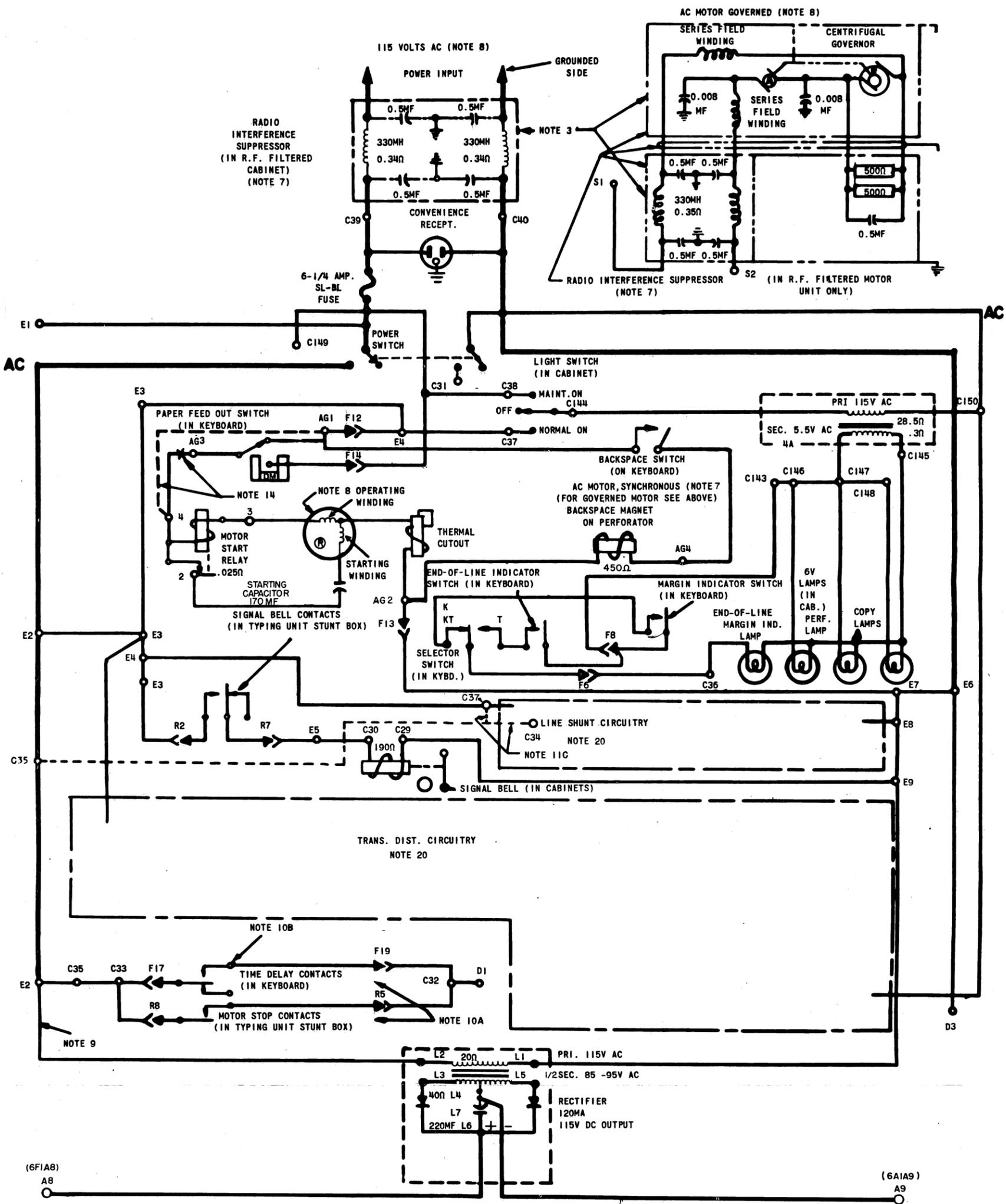
RD. FILE NO. 27-465A1

DRAWN A.C. CHKD.

EMD. APPLD.

TELETYPE CORPORATION

3294WD



SHEET 6

SHEET 5 OF 6

SCHEMATIC WIRING DIAGRAM

MODEL 28  
ASR-GP-OPT 1 AC  
WITH FACILITIES  
PROVIDED BY  
ELECT. SERVICE UNIT  
LESU13  
AND ASSOCIATED  
UNITS

APPROVALS

D AND R E OF M

*HJK* *CM*

E-NUMBER

PROD. NO. 3294WD

DATE 11-17-59

R.D. FILE NO. 27-465A

DRAWN A.C. CHKD.

ENGD. APPD.

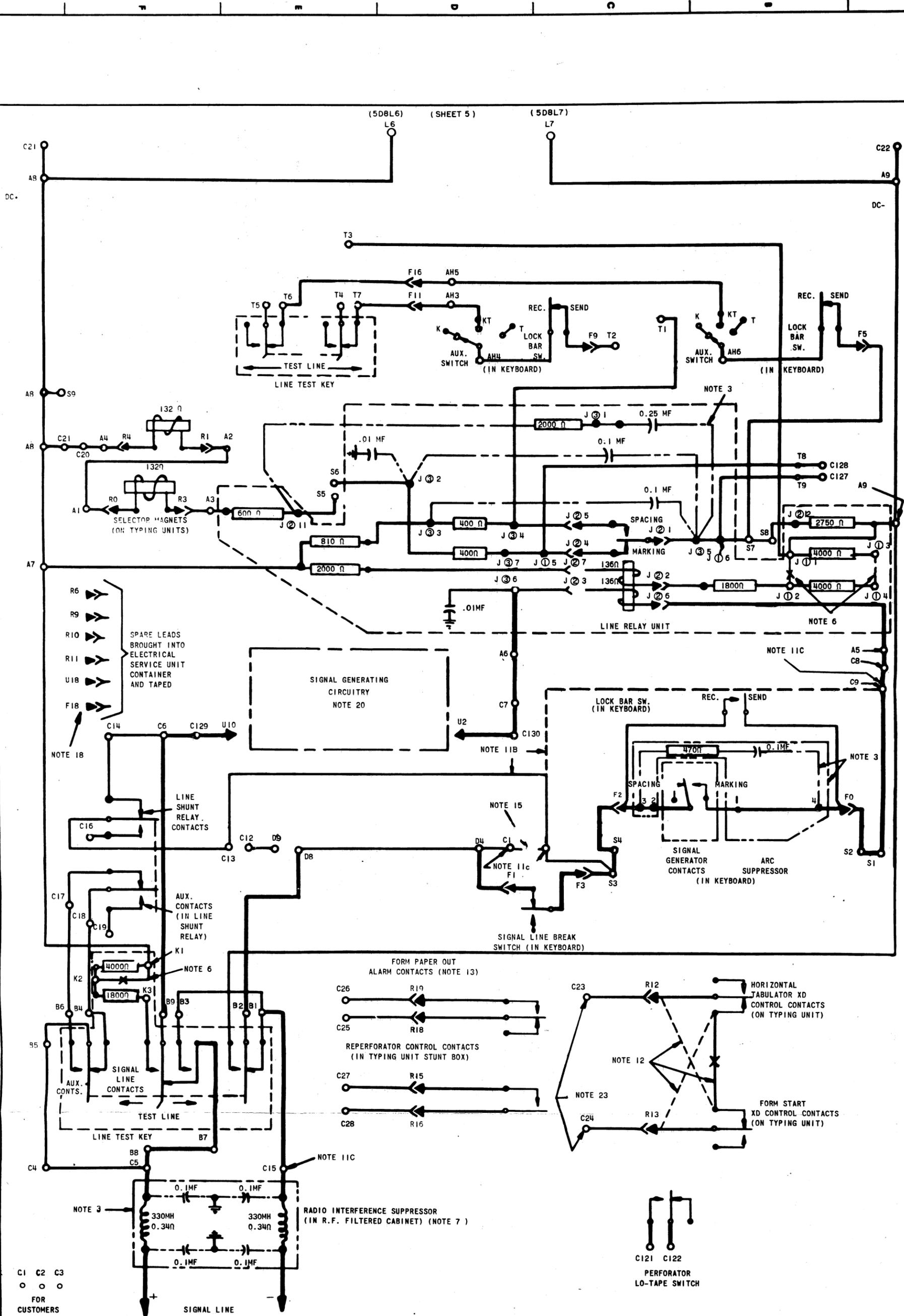
TELETYPE CORPORATION

3294WD

3294WD

REVISIONS

ISSUE	DATE	AUTH. NO.
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1/8	10-12-60	28-14077
7/9	4-61	68761-33
1/20		
21	3-28-62	69768-10
22	11-26-63	78875
23	2-11-64	79910
24	8-28-64	82637



C1 C2 C3  
 ○ ○ ○  
 FOR  
 CUSTOMERS  
 USE

SHEET 6 OF 6

SCHEMATIC  
 WIRING DIAGRAM  
 FOR  
 MODEL 28  
 ASR-GR-OPT I AC  
 WITH FACILITIES  
 PROVIDED BY  
 ELECT. SERVICE UNIT  
 LESU13  
 AND ASSOCIATED  
 UNITS

APPROVALS

D AND R E OF M

E-NUMBER

PROG. NO. 3294WD

DATE 11-17-59

R.D. FILE NO. 27-A651A

DRAWN A.C. CHNO.

ENGR. APPD.

TELETYPE  
 CORPORATION

3294WD

REVISIONS		
ISSUE	DATE	AUTH. NO.
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1	10-12-60	28-14077
1/20	4-61	68261-33
21	3-28-62	69768-10
22	11-26-63	79875
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24	6-28-64	82637

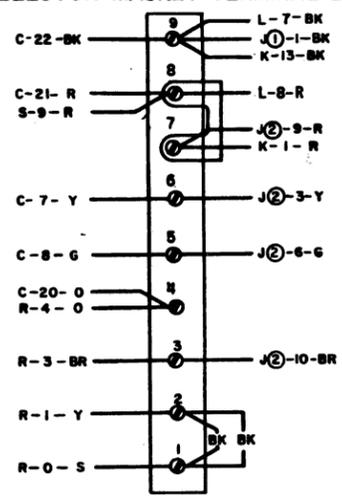


- NO. NOTES**
- WIRING LEGEND:**
  - COLOR CODE:**  

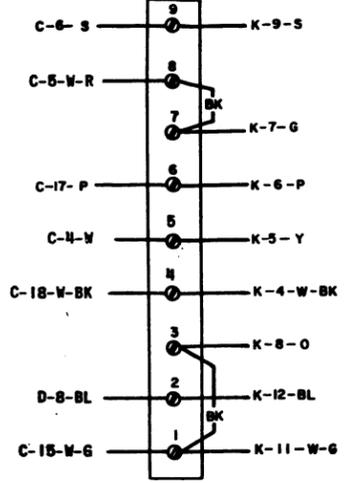
BK - BLACK	G - GREEN
BR - BROWN	BL - BLUE
R - RED	P - PURPLE
O - ORANGE	W - WHITE
Y - YELLOW	S - SLATE
  - UNIT WIRED FOR 115 VOLTS. 50 TO 60 CYCLE A.C. POWER INPUT ONLY.
  - CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS.
  - CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION, REMOVE AND ADD CONNECTIONS AS TABULATED BELOW:  

SIGNAL LINE CONNECTIONS	CONNECTIONS
CURRENT REMOVED	ADDED
.020 AMP. K1-K2, J1-J2	J13-J14
  - RECTIFIER SHOWN CONTROLLED BY POWER SWITCH.  
 A. FOR CONTINUOUS OPERATION, REMOVE LEAD L-2-BK FROM TERMINAL E-2 AND CONNECT TO TERMINAL E-1.
  - LINE SHUNT RELAY SHOWN SHUNTING LINE LINE RELAY COIL AND KEYBOARD AND TRANSMITTER DISTRIBUTOR SIGNAL GENERATOR.  
 A. IF KEYBOARD SHUNTING IS NOT DESIRED, OR WHEN SIGNAL LINE BREAK SWITCH IS PRESENT, REMOVE THE BLACK STRAP CONNECTED BETWEEN TERMINALS C-10 AND C-13 AND CONNECT TERMINALS C-9 AND C-13.
  - THE SPARE LEADS FROM THE KEYBOARD AND TRANSMITTER DISTRIBUTOR UNITS CONNECTORS ARE TERMINATED IN THE RIGHT END OF THE ELECTRICAL SERVICE UNIT. THE SPARE LEADS FROM THE TYPING UNIT CONNECTOR ARE TERMINATED IN THE LEFT END OF THE ELECTRICAL SERVICE UNIT.
  - ADD STRAP BETWEEN C-10 AND C-11, IF SIGNAL LINE BREAK SWITCH IS NOT USED.
  - TO PREVENT SLOW RELEASE RELAY FROM OPERATING, REMOVE STRAP CONNECTING T-3, T-4 AND T-5.
  - SPARE LEADS FROM F-18 AND U-18 ARE RESERVED FOR POLAR OPERATION OF KEYBOARD AND TRANSMITTER DISTRIBUTOR SIGNAL GENERATORS.
  - TERMINALS C-143, C-148 RESERVED FOR CABINET LAMP OPERATION.
  - TERMINALS C-1 - C-3 RESERVED FOR CUSTOMER'S USE.
  - TERMINALS C-121 - C-122 RESERVED FOR PERFORATOR LOW-TAPE SWITCH.
  - CONTACTS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.

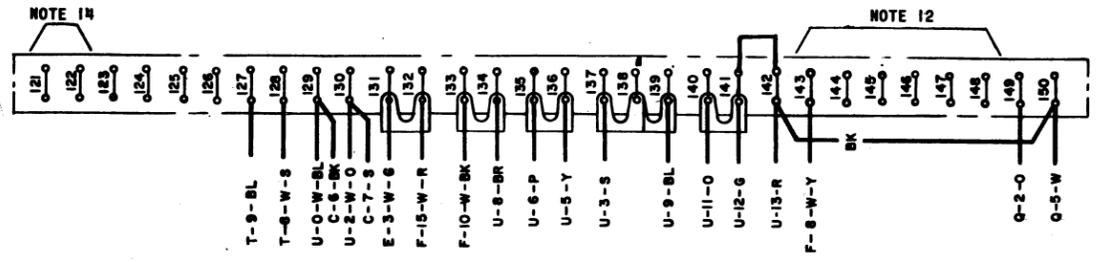
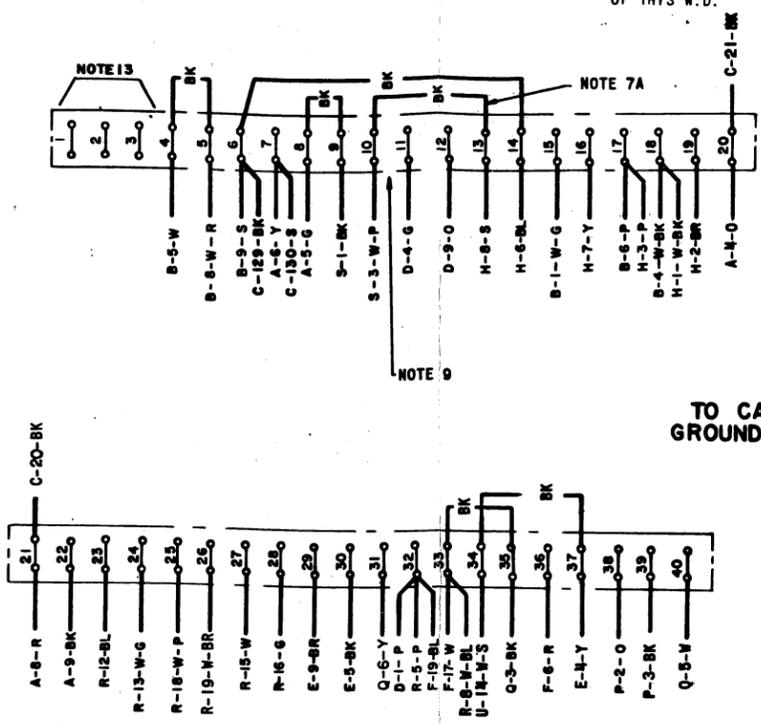
**A**  
SELECTOR MAGNET TERMINAL BLOCK



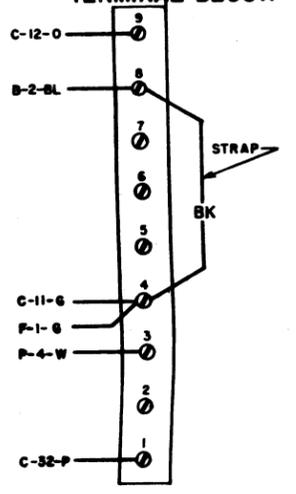
**B**  
LINE TEST KEY TERMINAL BLOCK



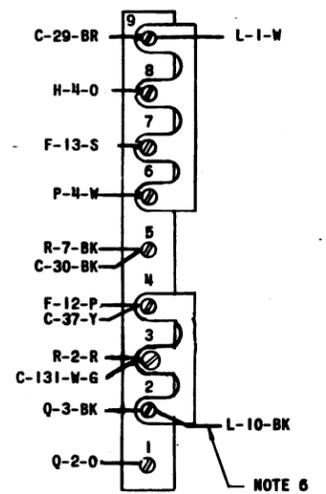
**C** CABINET TERMINAL BLOCK



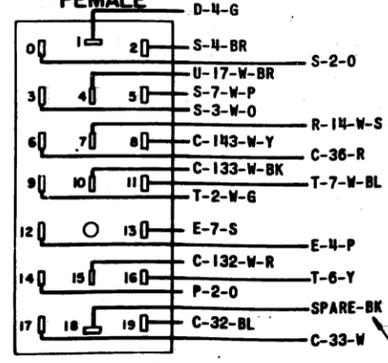
**D**  
MOTOR CONTROL TERMINAL BLOCK



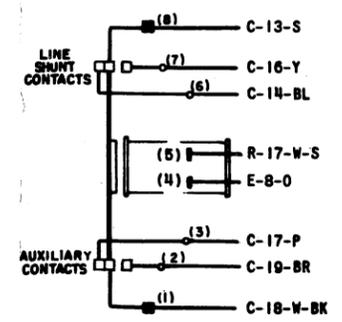
**E**  
POWER TERMINAL BLOCK



**F**  
KEYBOARD CONNECTOR FEMALE



**H**  
LINE SHUNT RELAY



NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

<b>3296 WD</b>		
<b>REVISIONS</b>		
ISSUE	DATE	AUTH. NO.
A	1-6-59	28-10286
B	5-20-59	28-11103
C	6-18-59	28-10488-1
D	8-4-59	28-11508
E	3-20-61	69286
F	5-31-61	69920
G	3-28-62	69768-10
H	7-29-65	88100
I	4-13-66	88100-1

TO CABINET GROUND SCREW

ELECTRICAL SERVICE UNIT GROUND SCREW

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 1

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT ASR - GP - OPT II - AC LESU15

APPROVALS	
D AND R	E OF M
-----	-----
E-NUMBER	
PROD. NO. 3296WD	
DATE 10-10-66	
P.D. FILE NO. 27A.65AA	
DRAWN R.W.D.	CHKD.
ENGD. J.C.T.	APPD.

**TELETYPE CORPORATION**

**3296 WD**

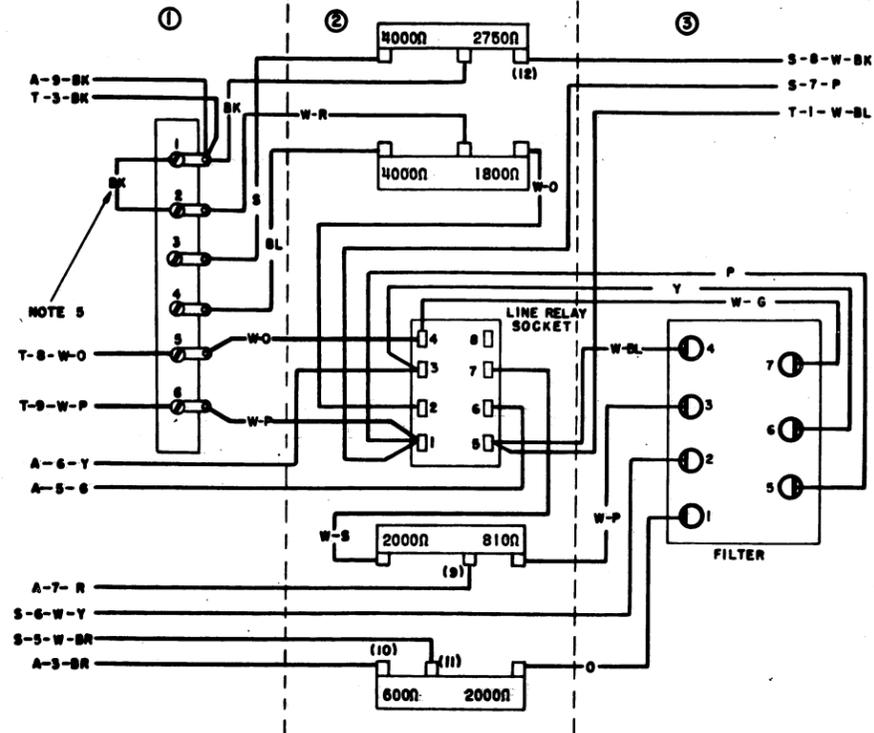
NOTE:  
REVISION INFORMATION MUST ALSO  
BE REFLECTED ON THE ISSUE  
CONTROL RECORD, WHICH IS PART  
OF THIS W.D.

3296WD

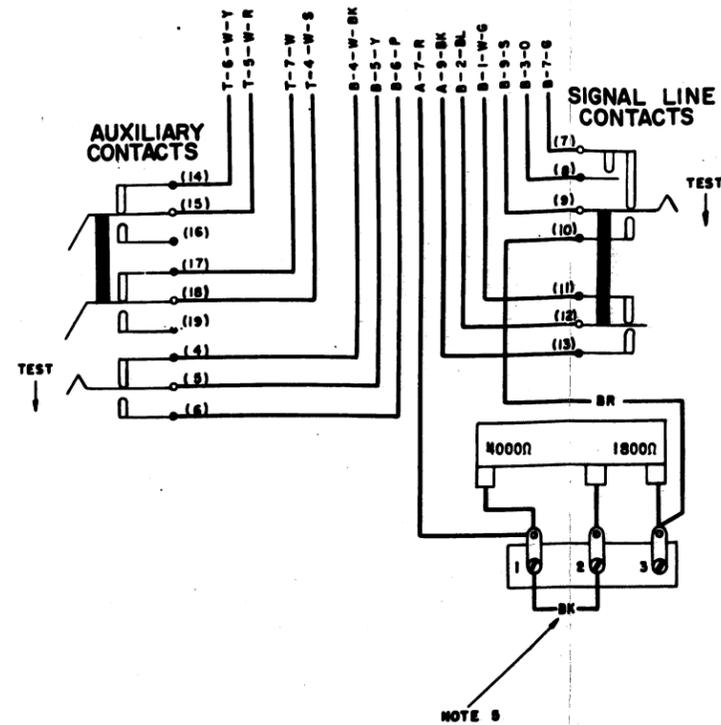
REVISIONS

ISSUE	DATE	AUTH. NO.
A	1-6-59	28-10286
B	5-20-59	28-11103
C	6-18-59	28-10488-1
D 5	8-4-59	28-11808
E 6	3-20-61	69286
F 7	5-31-61	69920
8	3-28-62	69768-10
9	7-29-65	88100
10	4-13-66	88100-1

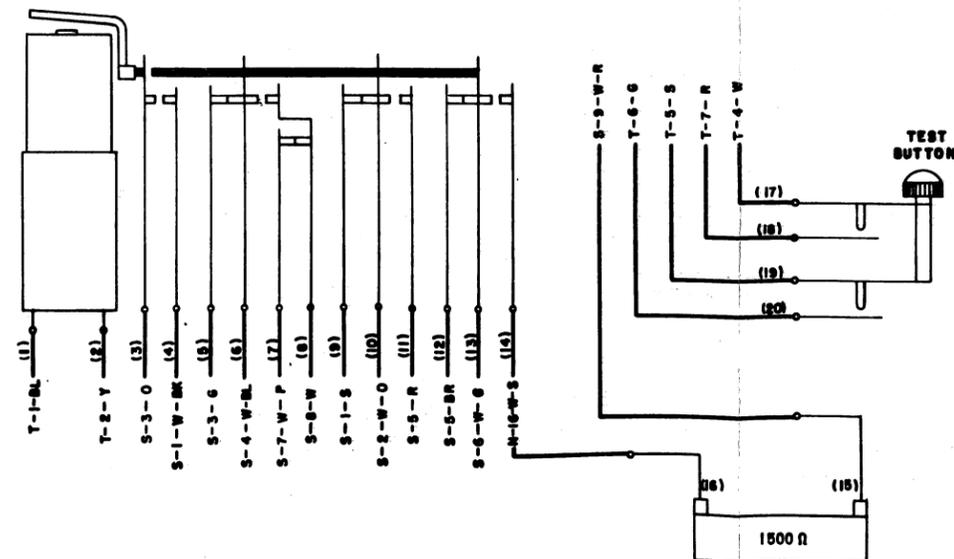
J  
LINE RELAY MOUNTING ASSEMBLY



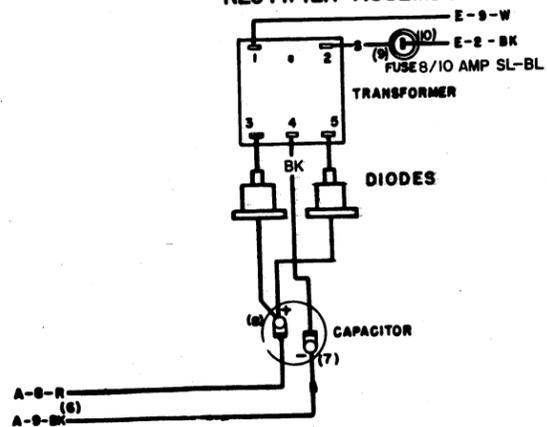
K  
LINE TEST KEY ASSEMBLY



N  
SLOW RELEASE RELAY ASSEM.



L  
RECTIFIER ASSEMBLY



SEE ISSUE CONTROL RECORD FOR  
COMPLETE LIST OF SHEETS  
COMPRISING THIS W.D.

SHEET 2

ACTUAL  
WIRING DIAGRAM  
FOR  
MODEL 28  
ELECTRICAL  
SERVICE UNIT  
ASR - GP - OPT II - AC  
LESU1B

APPROVALS

D AND R      E OF M

E-NUMBER

PROD. NO. 3296WD

DATE 10-10-56

P.D. FILE NO. 27A.65AA

DRAWN R.V.D.      CHKD. R.D.

ENGD. J.C.T.      APPD.

TELETYPE  
CORPORATION

3296WD

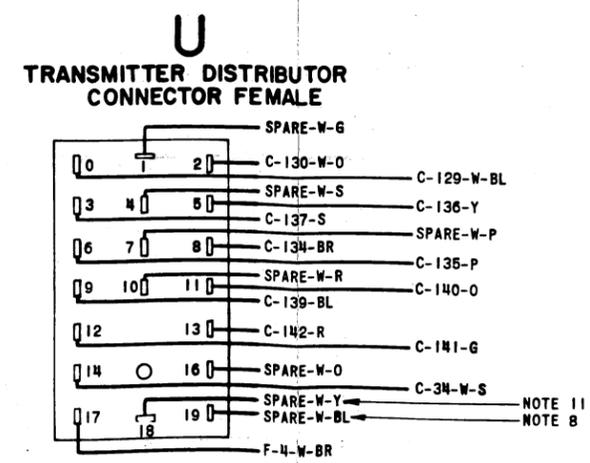
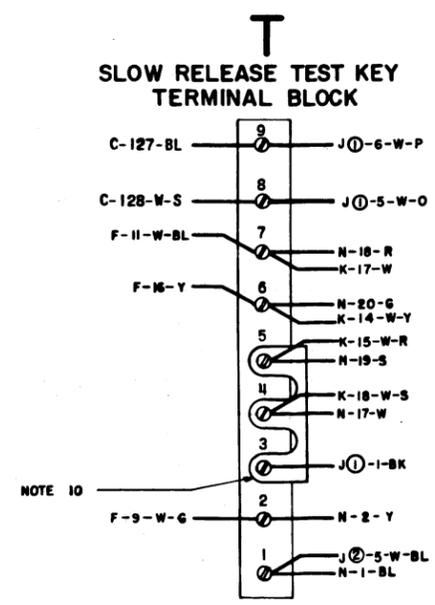
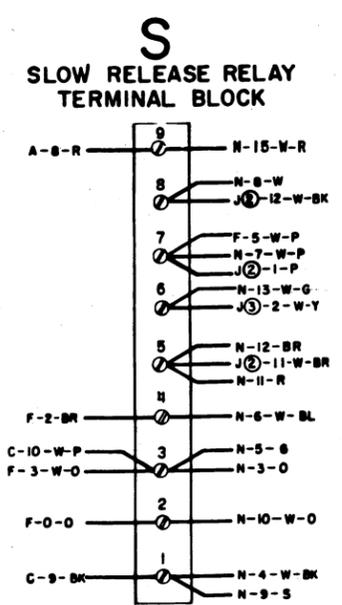
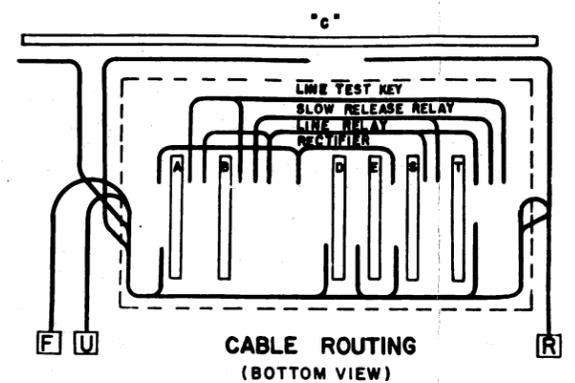
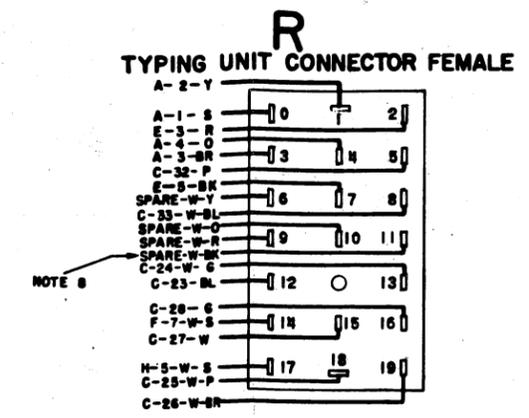
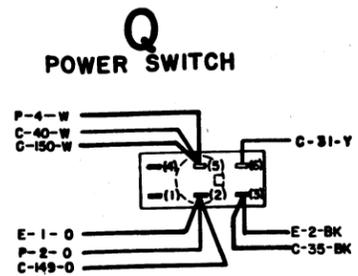
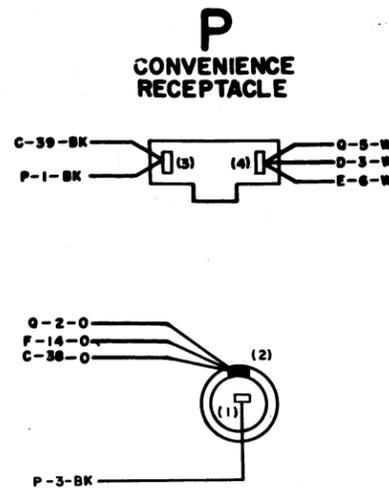
SEE SHEET 1 FOR NOTES.

NOTE:  
REVISION INFORMATION MUST ALSO  
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OF THIS W.D.

3296 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
A	1-6-59	28-10286
B	5-20-59	28-11103
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F	5-31-61	69980
G	3-28-62	69768-10
H	7-29-65	88100
I	4-13-66	88100-1



SEE ISSUE CONTROL RECORD FOR  
COMPLETE LIST OF SHEETS  
COMPRISING THIS W.D.

SHEET 3

ACTUAL  
WIRING DIAGRAM  
FOR  
MODEL 28  
ELECTRICAL  
SERVICE UNIT  
ASR - GP - OPT II - AC  
LESU15

APPROVALS

D AND R	E OF M
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E-NUMBER

PROD. NO. 3296WD

DATE 10-10-55

R.D. FILE NO. 27A.65AA

DRAWN R.W.D. CHKD.

ENG. J.C.T. APPD.

TELETYPE  
CORPORATION

3296 WD





REVISIONS

ISSUE	DATE	AUTH. NO.
12	2-11-64	79910

SCHEMATIC WIRING DIAGRAM MODEL 28 ASR-GP-OPT II AC WITH FACILITIES PROVIDED BY ELECT. SERVICE UNIT LESU 15 AND ASSOCIATED UNITS

TELETYPE CORPORATION

NO.	NOTES	NO.	NOTES	NO.	NOTES																				
1	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE: WD NUMBER UNITS DIRECTLY OPERABLE WITH LESU 3264 WD CABINETS-LAAC 209,210 3292 WD ELECTRICAL SERVICE UNIT LESU 15 3302 WD KEYBOARDS-LAK 4 2900WD MOTOR UNITS-LMU 12 OR 14 2864 WD PAGE TYPING UNITS-LP 3300 WD TRANSMITTER DISTRIBUTOR-LXD3 3288 WD TRANSMITTER DISTRIBUTOR-LAXD3 & LCXD1 3251 WD TRANSMITTER DISTRIBUTOR-LBXD5 3452 WD TRANSMITTER DISTRIBUTOR BASE-LCXB 7	10	A. TO OPERATE MOTOR CONTROL, SET MUST BE EQUIPPED WITH EITHER 1. TIME DELAY MECH. OR 2. MOTOR STOP CONTACTS. B. IF TAPE POSITION IS TO BE USED IN THE ASR SET THE TIME DELAY MECHANISM MUST BE EITHER ELECTRICALLY OR MECHANICALLY DISABLED.	21	(21 CONT.) LCXD — AS PER DIAGRAM BELOW: 																				
2	LEGEND O A SELECTOR MAGNET TERMINAL BLOCK (IN LESU) O B LINE TEST KEY TERMINAL BLOCK (IN LESU) O C CABINET TERMINAL BLOCK O D MOTOR CONTROL TERMINAL BLOCK (IN LESU) O E POWER TERMINAL BLOCK (IN LESU) ◀ F KEYBOARD CONNECTOR O J ① TERMINAL STRIP (ON LINE RELAY ASSEM. IN LESU) ◀ J ② LINE RELAY CONNECTOR (IN LESU) ● J ③ LINE RELAY FILTER (IN LESU) O K TERMINAL STRIP (ON LINE TEST KEY IN LESU) ◀ R TYPING UNIT CONNECTOR O S SLOW RELEASE RELAY TERMINAL BOARD (IN LESU) O T TEST SWITCH TERMINAL BOARD (IN LESU) ◀ U TRANSMITTER DISTRIBUTOR CONNECTOR O AG MOTOR TERMINAL BLOCK (ON LAK) O AH AUXILIARY SWITCH TERMINAL BLOCK (ON LAK)	11	A. LINE SHUNT RELAY SHOWN SHUNTING LINE RELAY COIL, TRANS. DIST. SIG. GENERATOR AND KEYBOARD SIG. GEN. B. IF KEYBOARD SHUNT IS NOT DESIRED MOVE STRAP FROM C10 TO C9. C. FOR DIRECT CONTROL OF LINE SHUNT RELAY FROM POWER SWITCH, ADD DASHED (-----) CONNECTIONS AND OMIT CONN. MARKED (—X—) AT CABINET TERMINALS C34, C35, C37 CUST. MAY THEN SELECT PORTION OF SIG. LINE CKT. TO BE SHUNT. BY CONNECTING TERM. C13 TO EITHER C3, C10, C11, C15.	22	WHEN A SEPARATE TIGHT TAPE SWITCH IS USED IN LBXD THIS SWITCH BECOMES A MANUAL ON-OFF SWITCH ONLY.																				
3	DOT DASH (— · —) LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.	12	CIRCUIT SHOWS BOTH HORIZONTAL TABULATOR AND FORM START CONTROL USED ON TYPING UNIT. WHEN ONLY ONE CONTROL IS USED, OMIT CONNECTION MARKED (—X—) AND ADD PROPER DASHED (---) CONNECTION IN TYPING UNIT CIRCUITS.	23	WHEN LXD IS USED, REMOVE THE STRAP BETWEEN TERMINALS C135-C136, ADD TWO 176162 STRAPS, ONE BETWEEN TERMINALS C23-C135 AND ONE BETWEEN C24-C136.																				
4	ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.	13	FORM PAPER OUT ALARM CONTACTS MAY BE MOUNTED ON EITHER THE TYPING UNIT OR EXTERNAL TO THE CABINET. IN LATTER EVENT, CONNECTIONS ARE MADE DIRECTLY TO TERMINALS C25 AND C26.	24	TO CONTROL PIVOTED READER FROM ITS TAPE OUT CONTACTS, REMOVE THE STRAP FROM TERMINALS 137 TO 141 AND PROVIDE SUITABLE CIRCUITRY. THE TAPE OUT CONTACTS MAY NOT BE USED DIRECTLY SINCE THEY OPEN MOMENTARILY.																				
5	a. RESISTANCE IN OHMS (Ω) b. INDUCTANCE VALUES IN MICROHENRIES (MH) c. CAPACITANCE VALUES IN MICROFARADS (MF)	14	WHEN PAPER FEED SWITCH IS NOT USED, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (—X—) IN MOTOR POWER CIRCUITS.																						
6	CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. LINE CURRENT, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (—X—) IN LINE TEST KEY, AND LINE RELAY CIRCUITS.	15	WHEN SIGNAL LINE BREAK SWITCH IS NOT USED IN KEYBOARD ADD DASHED (---) CONNECTION AT CABINET TERMINAL BLOCK BETWEEN C10 AND C11.																						
7	USE POWER & SIGNAL LINE SUPPRESSOR AND SYNC. OR GOV.-FILT. MOTOR FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE. FOR OTHER INSTALLATIONS, OMIT SUPPRESSORS AND CONNECT INPUTS AND GOV. MOTOR DIRECTLY TO TERMINALS SHOWN.	16	TO PREVENT SLOW RELEASE RELAY FROM ENERGIZING REMOVE CONNECTIONS MARKED (—X—).																						
8	USE SYNCHRONOUS MOTOR ON REGULATED 60~ (±1%) A.C. POWER ONLY. GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60~ UNREGULATED A.C.	17	IN ALL KEYBOARDS F4 MUST BE CONNECTED TO F7 IN ALL TRANS. DIST. U14 MUST BE CONNECTED TO J17 IN ALL TYPING UNITS R14 MUST BE CONNECTED TO R17																						
9	RECTIFIER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION, MOVE RECTIFIER LEAD L10 FROM E2 TO E1.	18	SPARE LEADS FROM U18 AND F18 ARE RESERVED FOR POLAR OPERATION OF SIGNAL GENERATOR.																						
		19	CIRCUIT SHOWN FOR 115 V.D.C. POWER INPUT TO TRANS. DIST. CLUTCH MAGNETS. FOR 48 V.D.C. POWER INPUT MOVE WIRE CONNECTIONS AS FOLLOWS: <table border="1"> <thead> <tr> <th>UNIT</th> <th>WIRE INVOLVED</th> <th>MOVE CONNECTION FROM</th> <th>TO</th> </tr> </thead> <tbody> <tr> <td>LAXD &amp; LCXD</td> <td>C81 TO V6</td> <td>V6</td> <td>V5</td> </tr> <tr> <td></td> <td>C142 TO V3</td> <td>V3</td> <td>V2</td> </tr> <tr> <td>LBXD</td> <td>A13 TO V6</td> <td>V6</td> <td>V5</td> </tr> <tr> <td></td> <td>A6 TO V3</td> <td>V3</td> <td>V2</td> </tr> </tbody> </table> <p>POWER SUPPLY MUST DELIVER 300 MA @ 48 V.D.C. OR 200 MA @ 115 V.D.C.</p>	UNIT	WIRE INVOLVED	MOVE CONNECTION FROM	TO	LAXD & LCXD	C81 TO V6	V6	V5		C142 TO V3	V3	V2	LBXD	A13 TO V6	V6	V5		A6 TO V3	V3	V2		
UNIT	WIRE INVOLVED	MOVE CONNECTION FROM	TO																						
LAXD & LCXD	C81 TO V6	V6	V5																						
	C142 TO V3	V3	V2																						
LBXD	A13 TO V6	V6	V5																						
	A6 TO V3	V3	V2																						
		20	USE APPROPRIATELY LABELED LXD, LAXD, LBXD OR LCXD CIRCUITRY AND MAKE CONNECTIONS AS SHOWN.																						
		21	CUSTOMER MUST SUPPLY EXTERNAL SWITCHING AS FOLLOWS:  LXD — NONE LAXD — BETWEEN C133 AND C134 TO CONTROL TRANS. CLUTCH MAGNET. LBXD — NONE  (CONTINUED)																						

- NO. NOTES
- FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE WD NUMBER UNITS DIRECTLY OPERABLE WITH LESU 12
 

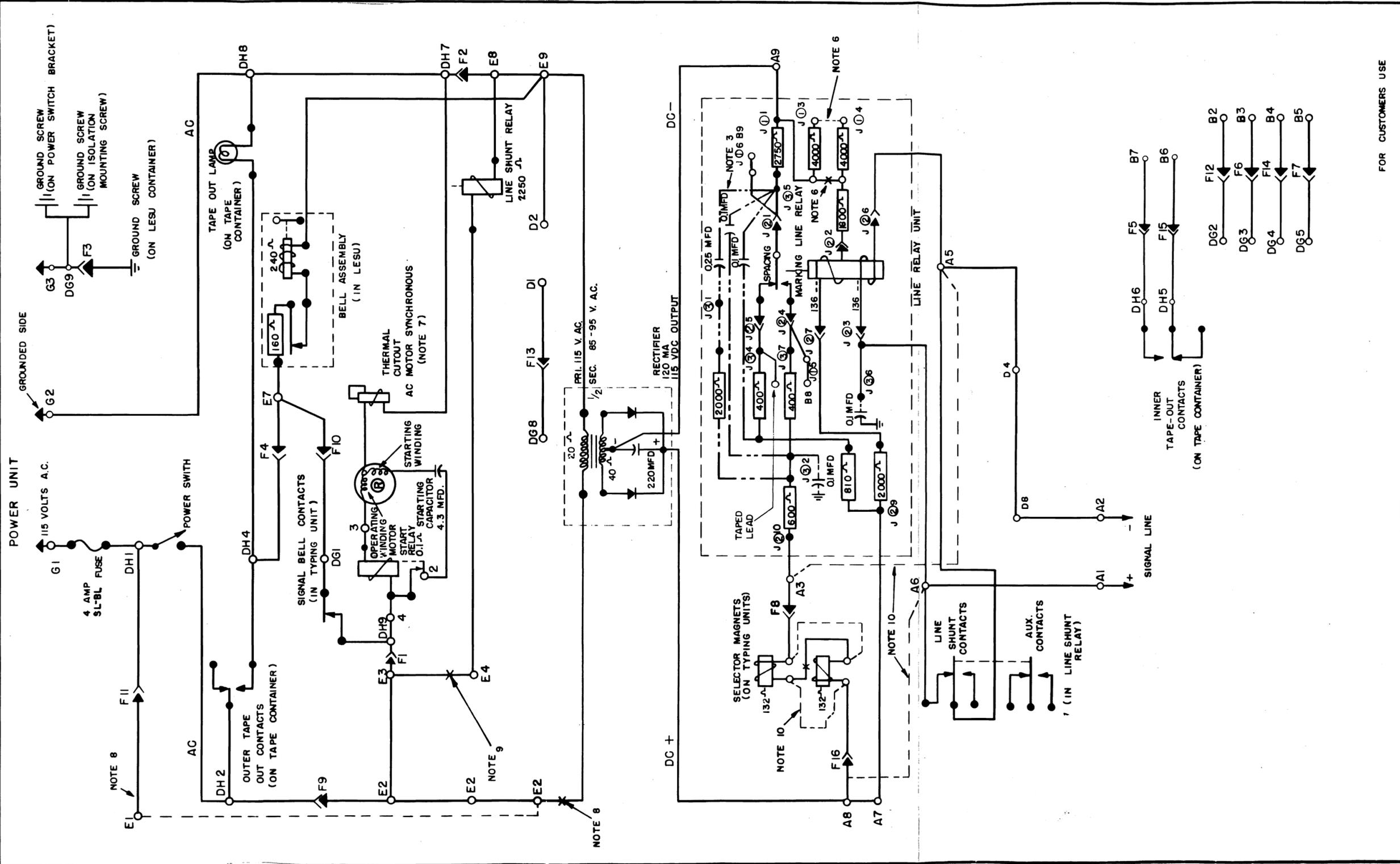
3344 WD	ELECTRICAL SERVICE UNIT LESU 12
2900 WD	MOTOR UNITS - L M U 3,4,6.
3319 WD	TYPING REPERFORATOR BASE LRB 3,II
  - LEGEND
    - O G 3-POINT CONNECTOR (ON BASE)
    - O DG TERMINAL BLOCK (ON BASE)
    - O DH TERMINAL BLOCK (ON BASE)
    - ◀ F 16-POINT CONNECTOR
    - O A TERMINAL BLOCK (IN LESU)
    - O B TERMINAL BLOCK (IN LESU)
    - O D TERMINAL BLOCK (IN LESU)
    - O E TERMINAL BLOCK (IN LESU)
    - O J ① TERMINAL STRIP ON LINE RELAY (IN LESU)
    - ◀ J ② LINE RELAY CONNECTOR (IN LESU)
    - O J ③ LINE RELAY FILTER (IN LESU)
  - DOT-DASH (---) LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.
  - ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.
  - (A) RESISTANCE VALUES IN OHMS (Ω)  
(B) INDUCTANCE VALUES IN MICROHENRIES (MH)  
(C) CAPACITANCE VALUES IN MICROFARADS (MFD)
  - CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP LINE CURRENT, ADD DASH LINE (---) CONNECTION AND OMIT CONNECTION MARKED (---) IN LINE RELAY.
  - USE SYNCHRONOUS MOTOR ON REGULATED 60 Hz (±1%) A.C. POWER ONLY. GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60 Hz UNREGULATED A.C.
  - RECTIFIER SHOWN CONTROLLED BY POWER SWITCH
    - FOR CONTINUOUS OPERATION MOVE PRIMARY (INPUT) LEAD FROM TERMINAL E2 TO TERMINAL E1.
  - LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING LINE RELAY COIL.
  - FOR SPECIAL APPLICATIONS WHEN LESU 12 IS USED WITH LRB 20, THE FOLLOWING NOTE APPLIES: SELECTOR MAGNETS CAN BE OPERATED DIRECTLY IN A NEUTRAL SIGNAL LINE AS FOLLOWS:
 

REMOVE LINE RELAY FOR 20 MILLIAMPERE, 60 AND 75 WPM OPERATION (OR ANY INTERMEDIATE SPEED.)

    - STRAP A5 TO A3
    - MOVE BLUE LEAD FROM TERMINAL A8 TO A6.

FOR 60 MILLIAMPERE, 60, 75 & 100 WPM OPERATION (OR ANY INTERMEDIATE SPEED.)

    - 1 AND 2 SAME AS ABOVE
    - ADD DASHED (---) LEAD, OMIT \* LEAD ON SELECTOR MAGNETS (REFER TO 3342 WD)



3343 WD

REVISIONS		
ISSUE	DATE	AUTH. NO.
H	4-21-60	28-13089-1
J	11-2-60	28-13973-1
K	3-24-61	68761-19
L	12-7-61	71860
M	3-28-62	69768-10

FOR CUSTOMERS USE

SIGNAL LINE

INNER TAPE-OUT CONTACTS (ON TAPE CONTAINER)

LINE RELAY UNIT

LINE SHUNT RELAY

AUX. CONTACTS (IN LINE SHUNT RELAY)

SELECTOR MAGNETS (ON TYPING UNITS)

REPERFORATOR BASE LRB 3,II  
ELECT SERVICE UNIT  
LESU 12

APPROVALS

D AND R E OF M

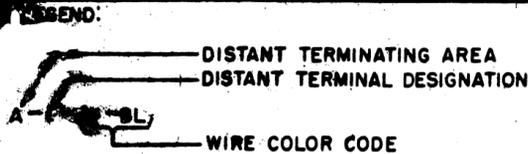
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DATE 6-27-67  
P.D. FILE NO. 1-48.68AA  
DRAWN E.R. CHKD G.C.  
ENGD H.S.P. APPROVED

TELETYPE CORPORATION

3343 WD

REVISIONS	
ISSUE	DATE
A	7-2-54
B	1-2-55
C	1-2-55
D	1-2-55
E	1-2-55
F	1-2-55
G	4-15-55
H	12-7-55
I	3-24-56
J	12-7-56
K	12-7-56

NOTES



2. COLOR CODE

BK - BLACK	W-BK - WHITE - BLACK
BR - BROWN	W-BR - WHITE - BROWN
R - RED	W-R - WHITE - RED
O - ORANGE	W-O - WHITE - ORANGE
Y - YELLOW	W-Y - WHITE - YELLOW
G - GREEN	W-G - WHITE - GREEN
BL - BLUE	W-BL - WHITE - BLUE
P - PURPLE	W-S - WHITE - SLATE
W - WHITE	
S - SLATE	

UNIT WIRED FOR 115 VOLTS 50 TO 60 CYCLE A.C. POWER INPUT ONLY.

CONNECTOR VIEWED FROM SOLDER TERMINAL END.

CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION REMOVE AND ADD CONNECTIONS AS TABULATED BELOW.

SIGNAL LINE CURRENT	CONNECTION REMOVED	CONNECTION ADDED
.020 AMP.	J01-J02,	J03-J04

RECTIFIER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION REMOVE LEAD L-2-BK FROM TERMINAL E-2 AND CONNECT TO TERMINAL E-1.

LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING LINE RELAY COIL.

SELECTOR MAGNETS ARE TO BE WIRED AS SHOWN FOR 50 MILLIAMPERE OPERATION WHEN THE LINE RELAY IS USED

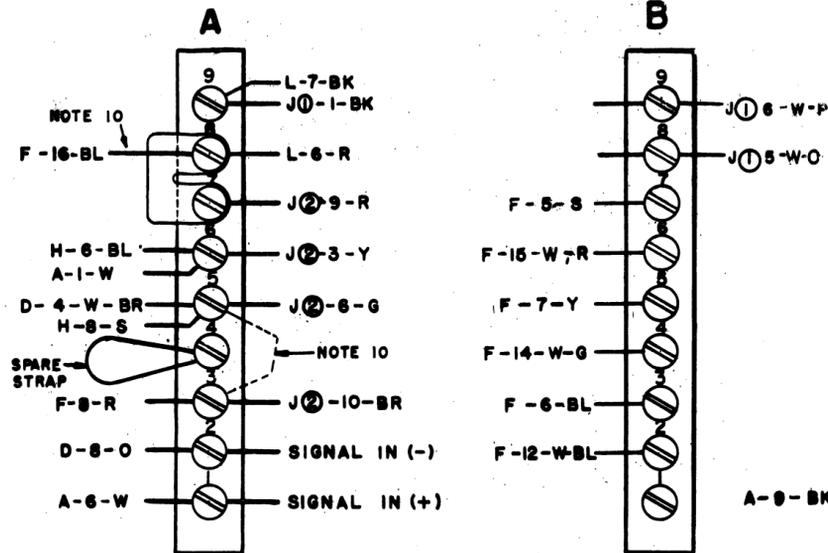
9. ASSOC. CABLE NUMBERS

159939 CABLE ASSEM., LESU 12  
 153477 CABLE ASSEM., RECTIFIER  
 164030 CABLE ASSEM., LINE RELAY MTG. ASSEM.

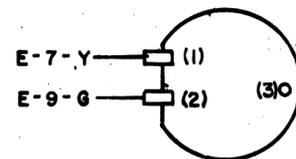
10. SELECTOR MAGNETS CAN BE CONNECTED DIRECTLY IN THE SIGNAL LINE CIRCUIT FOR NEUTRAL OPERATION AS FOLLOWS:

- REMOVE LINE RELAY
- 20 MILLIAMPERE, 50 & 75 WPM OPERATION (OR ANY INTERMEDIATE SPEED)
- A. STRAP AS TO AS.
- B. MOVE BLUE LEAD FROM TERMINAL AS TO TERMINAL AS
- 50 MILLIAMPERE, 50, 75 & 100 WPM OPERATION (OR ANY INTERMEDIATE SPEED)
- A & B SAME AS ABOVE.
- C. CHANGE WIRING ON SELECTOR MAGNETS FOR 50 MILLIAMPERE OPERATION.

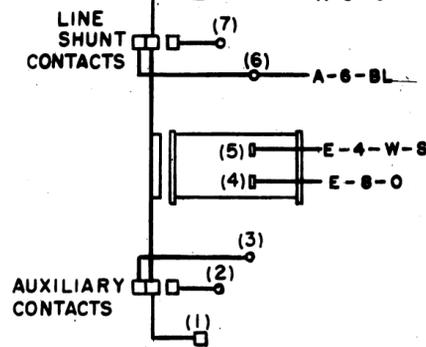
SELECTOR MAGNET TERMINAL BLOCK



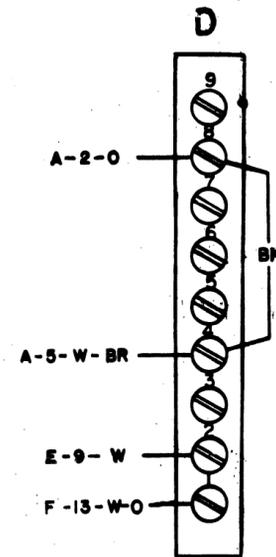
G SIGNAL BELL



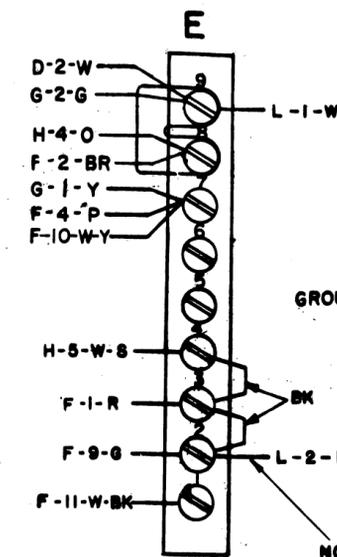
H LINE SHUNT RELAY



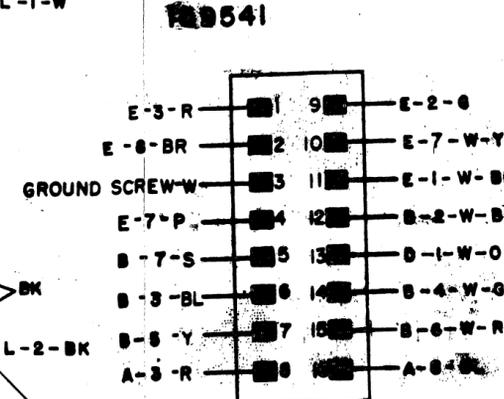
MOTOR CONTROL TERMINAL BLOCK



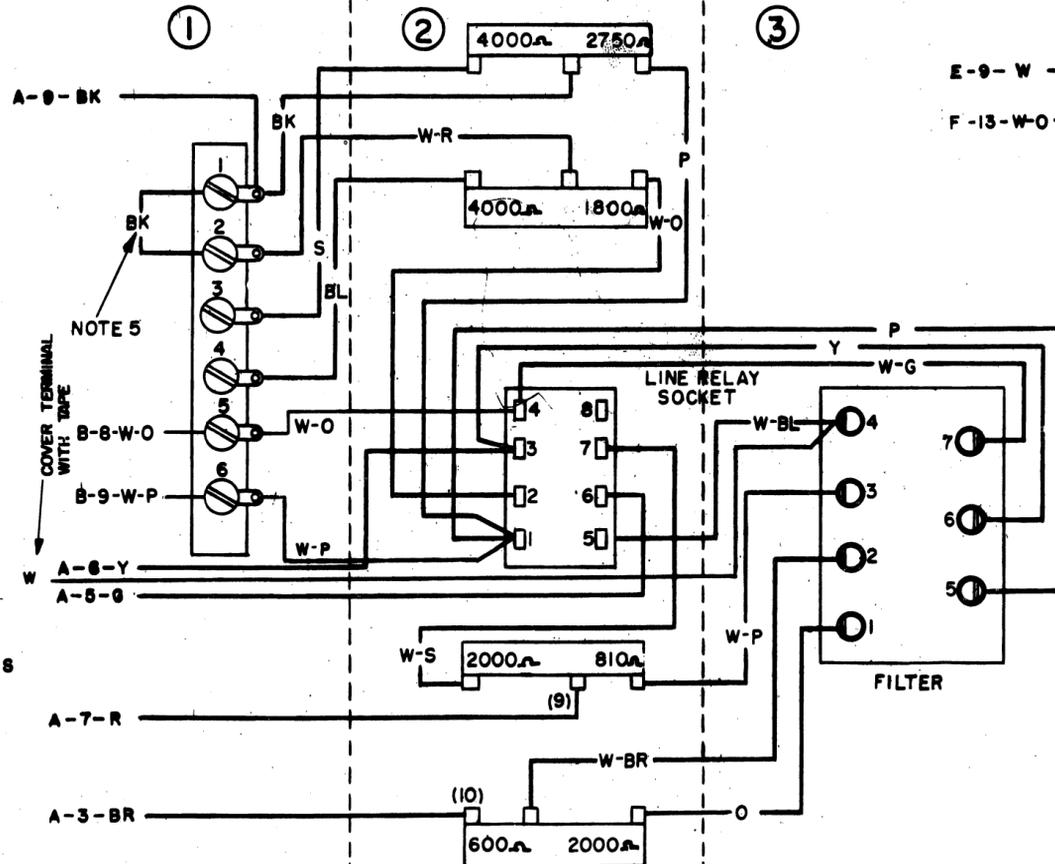
POWER TERMINAL BLOCK



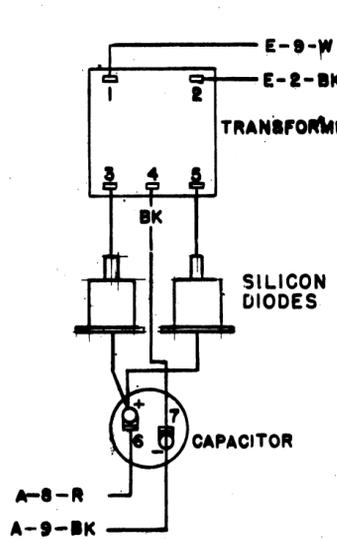
F CONNECTOR PLUG



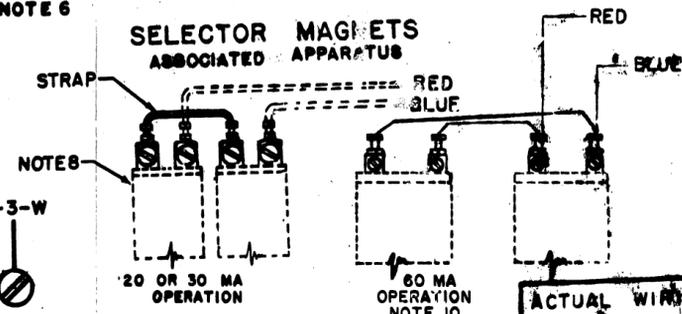
J 152623 LINE RELAY MOUNTING ASSEMBLY



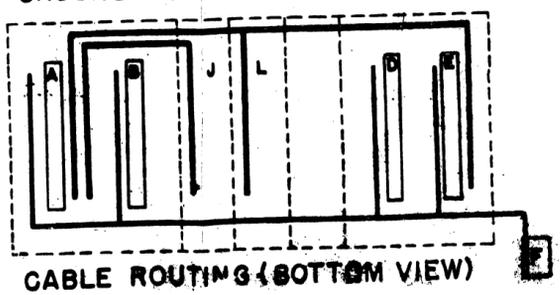
L 152950 RECTIFIER ASSEMBLY



SELECTOR MAGNETS ASSOCIATED APPARATUS



ELECTRICAL SERVICE UNIT GROUND SCREW



ACTUAL WIRING DIAGRAM, MODEL 12  
 ELECTRICAL SERVICE UNIT, LESU 12

APPROVALS  
 D AND R E OF M

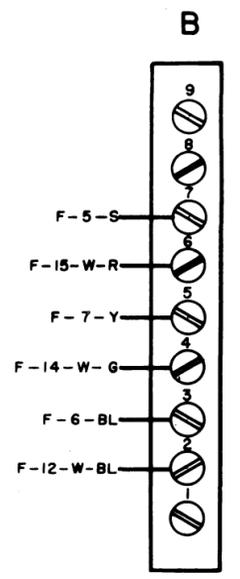
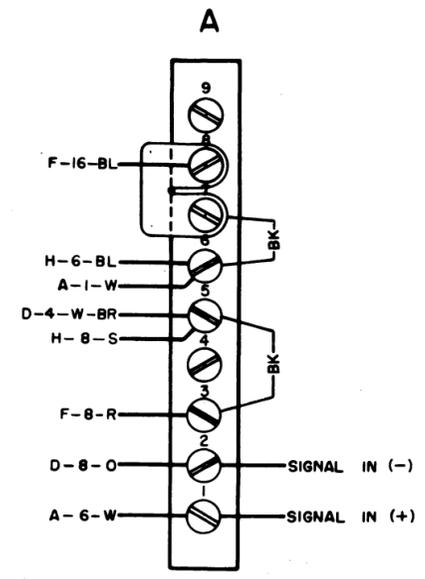
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 DATE: 7-15-57  
 RD. FILE NO. 1-4855A  
 DRAWN: CHAS. C.  
 ENG'D H.S. [unclear]  
 TELETYPE COMPANY  
 3544-00

28X107

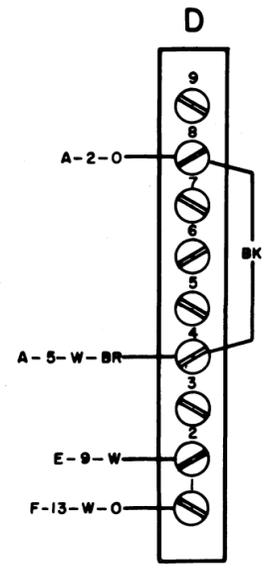
- NOTES**
1. WIRING LEGEND:
  2. COLOR CODE:  

BR - BROWN	W - BK	WHITE - BLACK
R - RED	W - BR	WHITE - BROWN
O - ORANGE	W - R	WHITE - RED
Y - YELLOW	W - O	WHITE - ORANGE
G - GREEN	W - Y	WHITE - YELLOW
BL - BLUE	W - G	WHITE - GREEN
S - SLATE	W - BL	WHITE - BLUE
P - PURPLE	W - S	WHITE - SLATE
W - WHITE		
  3. UNIT WIRED FOR 115 VOLTS. 50 TO 60 CYCLE A. C. POWER INPUT ONLY.
  4. CONNECTOR VIEWED FROM SOLDER TERMINAL END.
  5. CIRCUITS SHOWN FOR EXTERNAL SIGNAL LINE OPERATION.
  6. LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING LINE RELAY COIL.

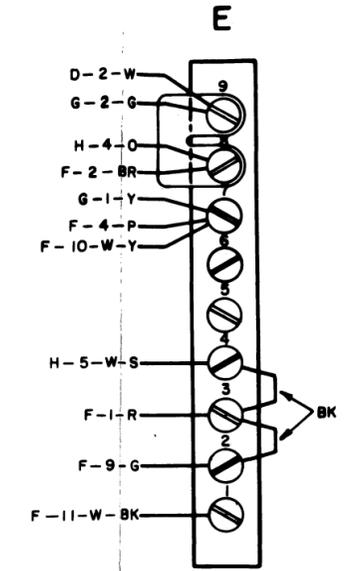
**SELECTOR MAGNET TERMINAL BLOCK**



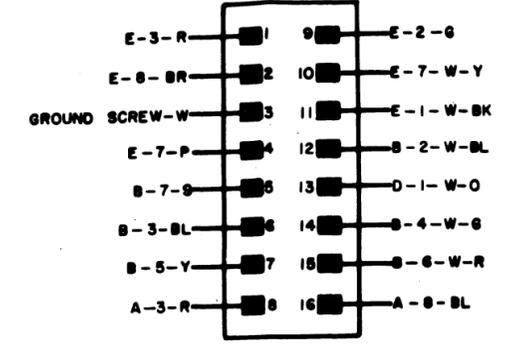
**MOTOR CONTROL TERMINAL BLOCK**



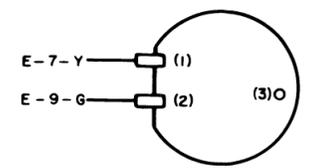
**POWER TERMINAL BLOCK**



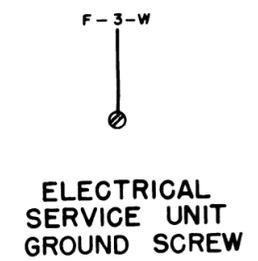
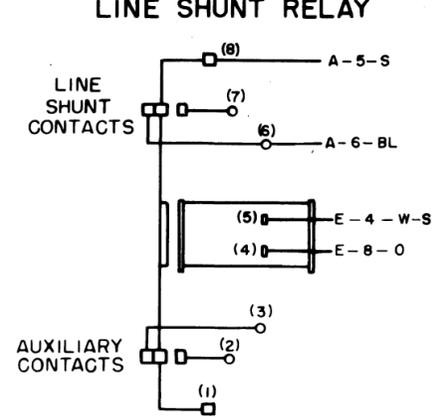
**F - CONNECTOR, PLUG 159541**



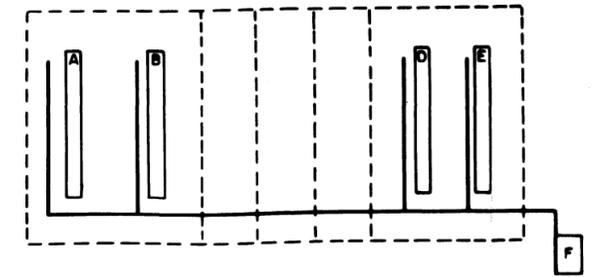
**G SIGNAL BELL**



**H LINE SHUNT RELAY**



**CABLE ROUTING (BOTTOM VIEW)**



**3624 WD**

REVISIONS		
ISSUE	DATE	AUTH. NO.
A	8-15-58	28-11292

**APPROVALS**

D AND	E OF M
E-NUMBER	
PROD. NO. 3624 WD	

ACTUAL WIRING DIAGRAM, MODEL 28 ELECTRICAL SERVICE UNIT, LESU 27

DATE: 11-3-58
PD. FILE NO. G-159 68 A A
DRAWN J.W.R. CHKD.
ENGD. J.R.H. APPD.

**TELETYPE CORPORATION**  
3624 WD



**NOTES**

1. WIRING LEGEND:

2. COLOR CODE  
 BK - BLACK      W-BK - WHITE - BLACK  
 BR - BROWN    W-BR - WHITE - BROWN  
 R - RED        W-R - WHITE - RED  
 O - ORANGE    W-O - WHITE - ORANGE  
 Y - YELLOW    W-Y - WHITE - YELLOW  
 G - GREEN      W-G - WHITE - GREEN  
 BL - BLUE      W-BL - WHITE - BLUE  
 P - PURPLE  
 W - WHITE  
 S - SLATE      W-S - WHITE - SLATE

3. UNIT WIRED FOR 115 VOLTS 50 TO 60 CYCLE A.C. POWER INPUT ONLY.

4. CONNECTOR VIEWED FROM SOLDER TERMINAL END.

5. CIRCUITS SHOWN FOR .020 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP OPERATION REMOVE AND ADD CONNECTIONS AS TABULATED BELOW.

SIGNAL LINE CURRENT	CONNECTION REMOVED	CONNECTION ADDED
.020 AMP.	J ① - J ②	J ③ - J ④

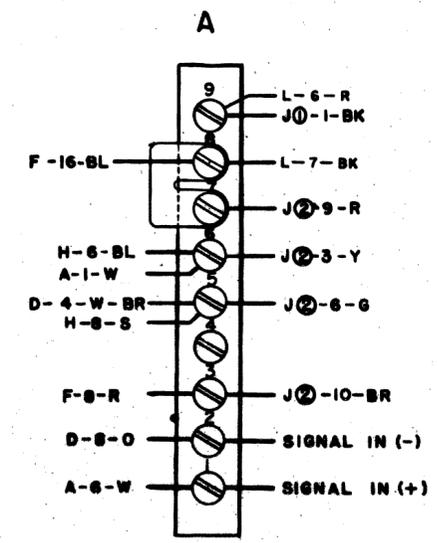
6. RECTIFIER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION REMOVE LEAD L-2-BK FROM TERMINAL E-2 AND CONNECT TO TERMINAL E-1.

7. LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING LINE RELAY COIL.

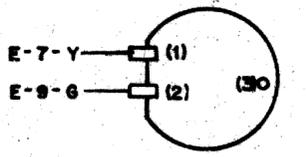
8. SELECTOR MAGNETS ARE TO BE WIRED AS SHOWN FOR 30 MILLIAMPERE OPERATION WHEN THE LINE RELAY IS USED.

9. ASSOC. CABLE NUMBERS  
 159939 CABLE ASSEM., LESU  
 153477 CABLE ASSEM., RECTIFIER  
 153475 CABLE ASSEM., LINE RELAY MTG. ASSEM.

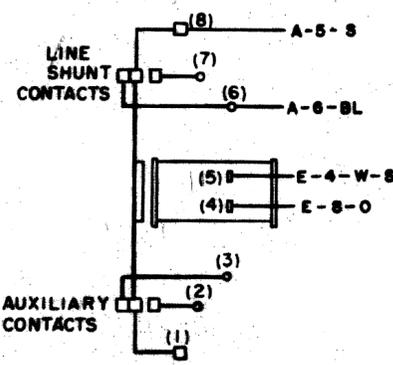
**SELECTOR MAGNET TERMINAL BLOCK**



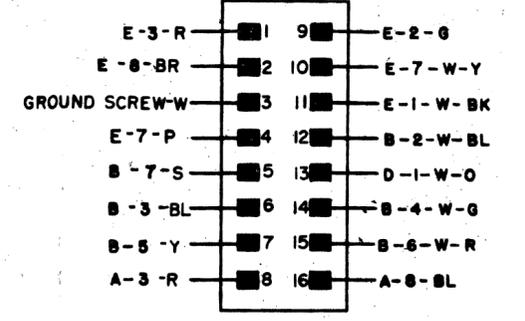
**G SIGNAL BELL**



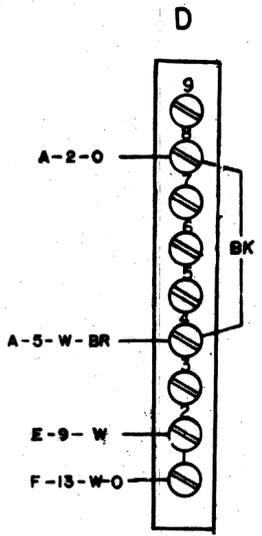
**H LINE SHUNT RELAY**



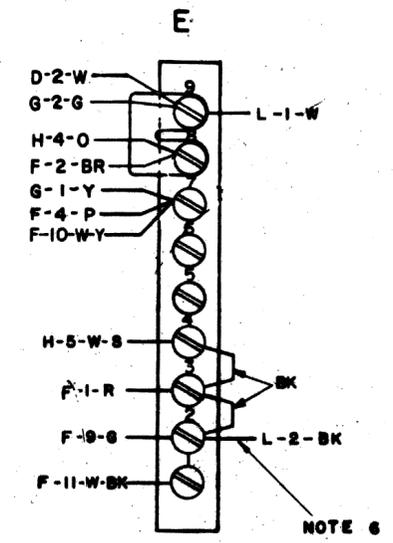
**F - CONNECTOR, PLUG 159541**



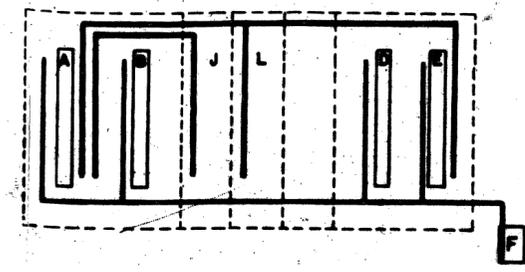
**MOTOR CONTROL TERMINAL BLOCK**



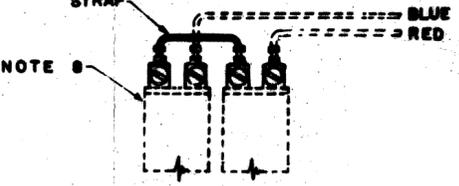
**POWER TERMINAL BLOCK**



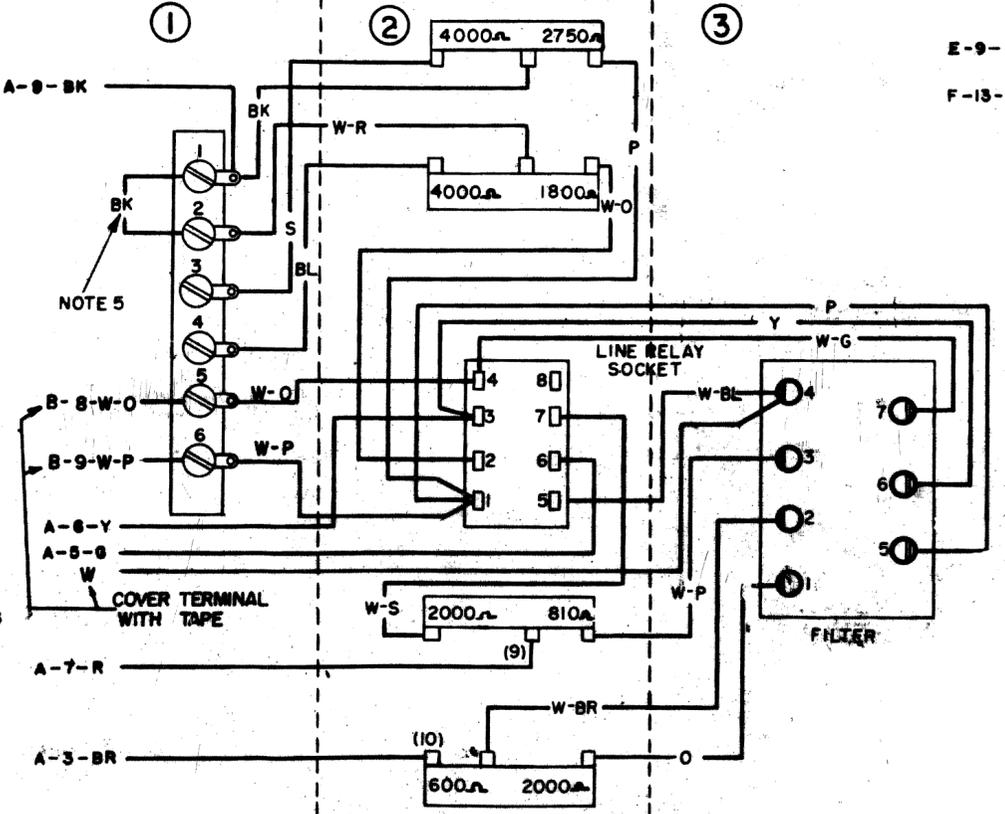
**CABLE ROUTING (BOTTOM VIEW)**



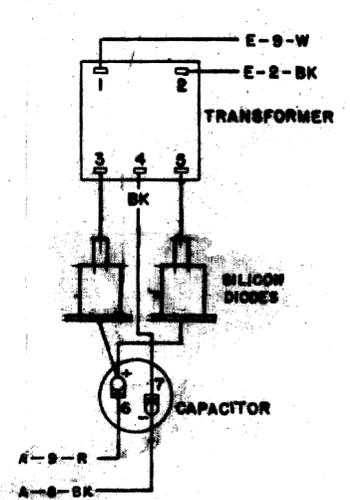
**SELECTOR MAGNETS ASSOCIATED APPARATUS**



**J 152623 LINE RELAY MOUNTING ASSEMBLY**



**L 152950 RECTIFIER ASSEMBLY**



**3638 WD**

ISSUE	DATE	AUTH. NO.
1	12-1-61	6721-01
2	12-7-61	7180

**ACTUAL WIRING DIAGRAM, MODEL 88 ELECTRICAL SERVICE UNIT, LESU 10**

**APPROVES**

D. ANDERSON      E. O. H.

E. NUMBER

PROD. NO. 153475

DATE: 12-15-61

P.D. FILE NO. 6-71-10

DRWG. S.C.L. 6721-01

ENG'D. CL. 6721-01

**TELETYPE**

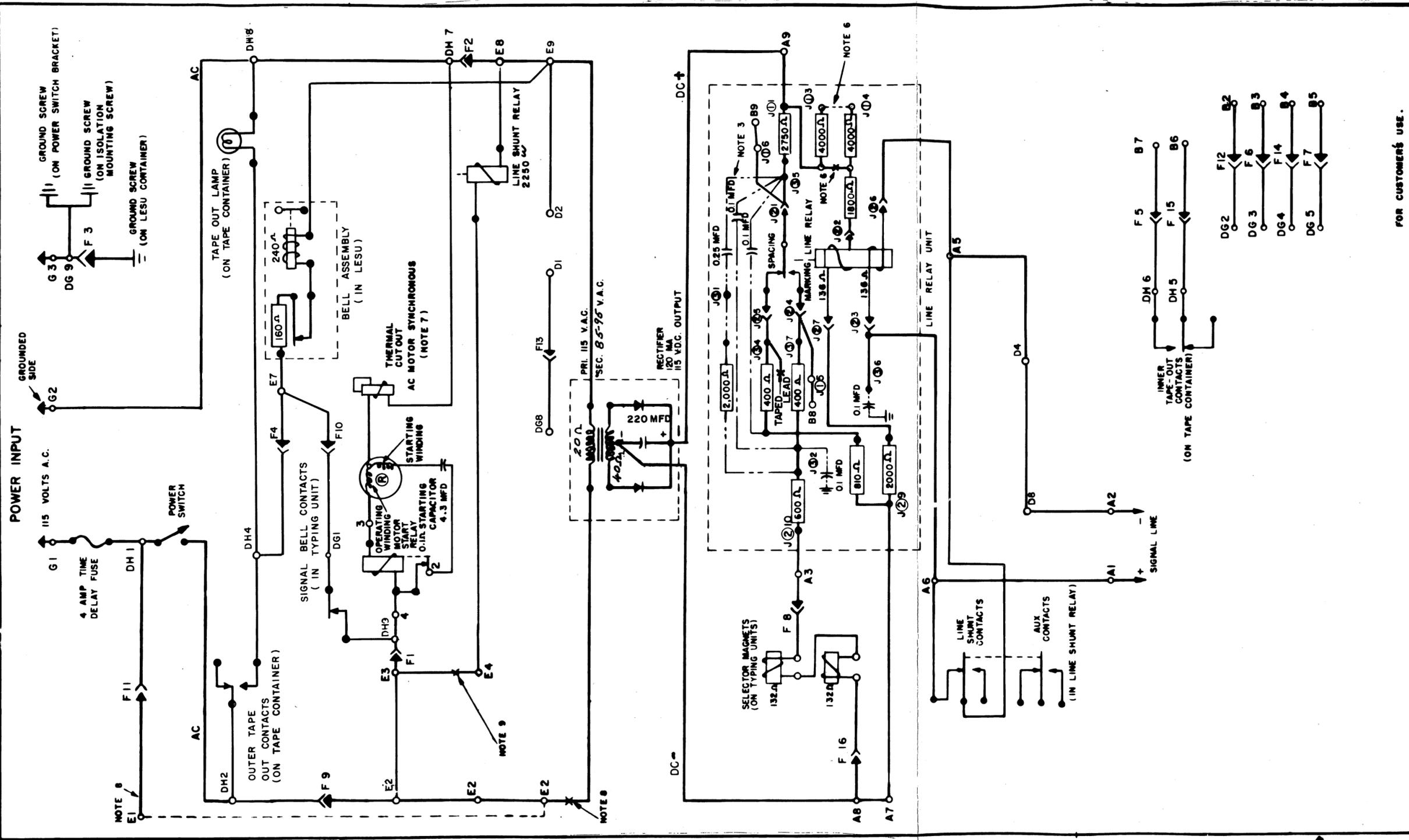
3638 WD

FROM WRE 1/50

R 3 1/2

2 4 1/4 X 10 3/4

- NO. NOTES
- FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE WD NUMBER UNITS DIRECTLY OPERABLE WITH LESU30  
 3639 WD ELECTRICAL SERVICE UNIT LESU 30  
 2900 WD MOTOR UNITS - LMU 3,4,6,  
 3319 WD TYPING REPERFORATOR BASE LRB3,11
  - LEGEND  
 ○ G 3-POINT CONNECTOR (ON BASE)  
 ○ DG TERMINAL BLOCK (ON BASE)  
 ○ DH TERMINAL BLOCK (ON BASE)  
 △ F 16-POINT CONNECTOR  
 ○ A TERMINAL BLOCK (IN LESU)  
 ○ B TERMINAL BLOCK (IN LESU)  
 ○ D TERMINAL BLOCK (IN LESU)  
 ○ E TERMINAL BLOCK (IN LESU)  
 ○ J ① TERMINAL STRIP ON LINE RELAY (IN LESU)  
 △ J ② LINE RELAY CONNECTOR (IN LESU)  
 ○ J ③ LINE RELAY FILTER (IN LESU)
  - DOT-DASH (---) LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.
  - ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.
  - (a) RESISTANCE VALUES IN OHMS (Ω)  
 (b) INDUCTANCE VALUES IN MICRORHMS (MH)  
 (c) CAPACITANCE VALUES IN MICROFARADS (MFD)
  - CIRCUITS SHOWN FOR 0.020 AMP NEUTRAL SIGNAL LINE OPERATION. FOR 0.020 AMP LINE CURRENT, ADD DASH LINE (---) CONNECTION AND OMIT CONNECTION MARKED (---) IN LINE RELAY.
  - USE SYNCHRONOUS MOTOR ON REGULATED 60 Hz (±1%) A.C. POWER ONLY. GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60 Hz UNREGULATED A.C.
  - RECTIFIER SHOWN CONTROLLED BY POWER SWITCH.  
 A. FOR CONTINUOUS OPERATION MOVE PRIMARY (INPUT) LEAD FROM TERMINAL E2 TO TERMINAL E1.
  - LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING LINE RELAY COIL.



3639 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
1	1-21-57	1111
2	2-7-58	71839
3	7-27-58	12897-20

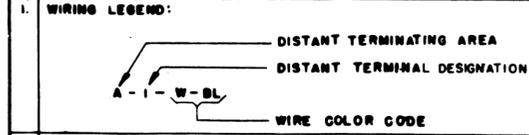
FOR CUSTOMER'S USE.

SCHMATIC WIRING DIAGRAM MODEL 28  
 REPERFORATOR BASE LRB3,11  
 ELECT SERVICE UNIT LESU30

APPROVALS  
 DATE: 12-23-59  
 PD. FILE NO. 6-159.0700  
 DRAWN A.D. CHKD  
 ENGR. D.C.L. APPR.

TELETYPE CORPORATION  
 3639 WD

**NOTES**



**2. COLOR CODE**

BK - BLACK	W - BK - WHITE - BLACK
BR - BROWN	W - BR - WHITE - BROWN
R - RED	W - R - WHITE - RED
O - ORANGE	W - O - WHITE - ORANGE
Y - YELLOW	W - Y - WHITE - YELLOW
G - GREEN	W - G - WHITE - GREEN
BL - BLUE	W - BL - WHITE - BLUE
P - PURPLE	W - P - WHITE - PURPLE
W - WHITE	W - S - WHITE - SLATE
S - SLATE	

**3. UNIT WIRED FOR 115 VOLTS, 50 TO 60 CYCLE A.C. POWER INPUT ONLY.**

**4. PLUGS VIEWED FROM SOLDER TERMINAL ENDS**

**5. CIRCUITS SHOWN FOR .050 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION REMOVE AND ADD CONNECTIONS AS TABULATED BELOW.**

SIGNAL LINE CURRENT	CONNECTION REMOVED	CONNECTIONS ADDED
.020 AMP	J① - J②, J③ - J④	J① - J②, J③ - J④

**6. RECTIFIER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION REMOVE LEAD L-2 - BK FROM TERMINAL E-2 AND CONNECT TO TERMINAL E-1.**

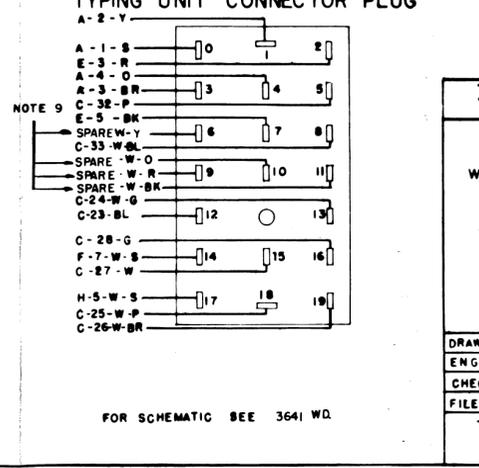
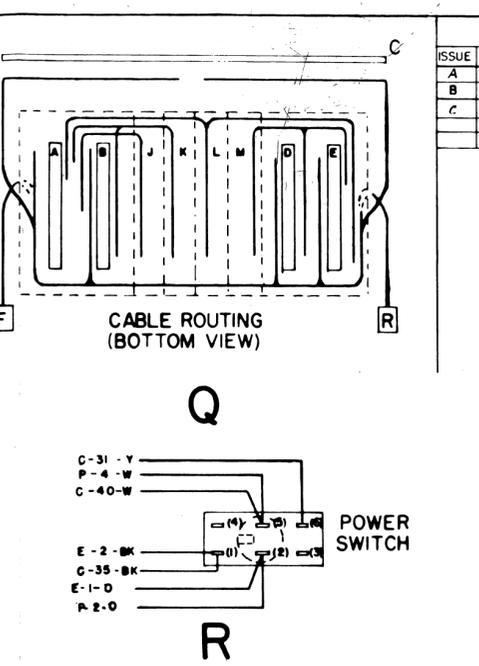
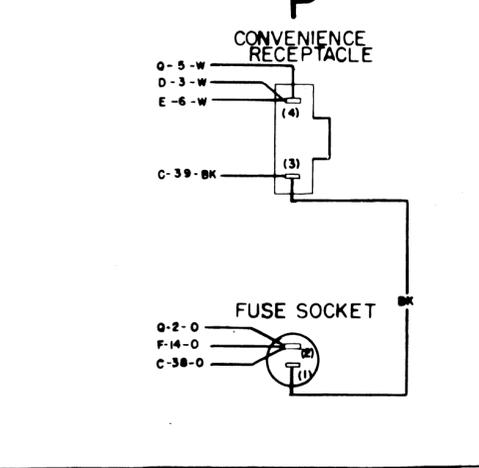
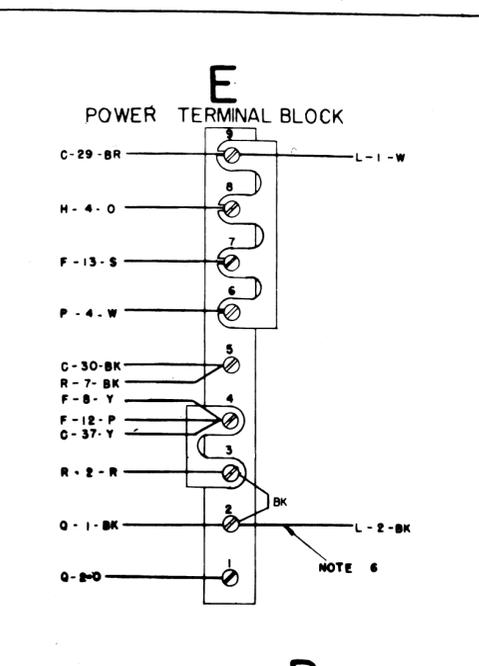
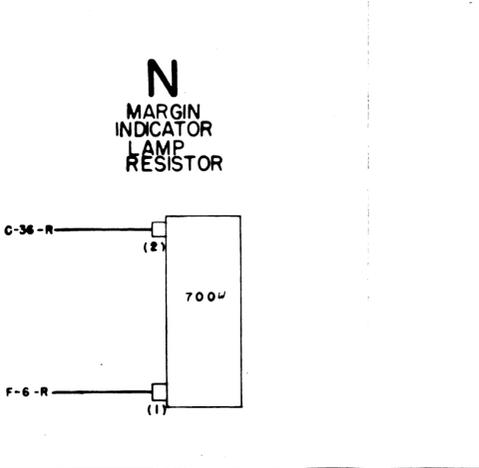
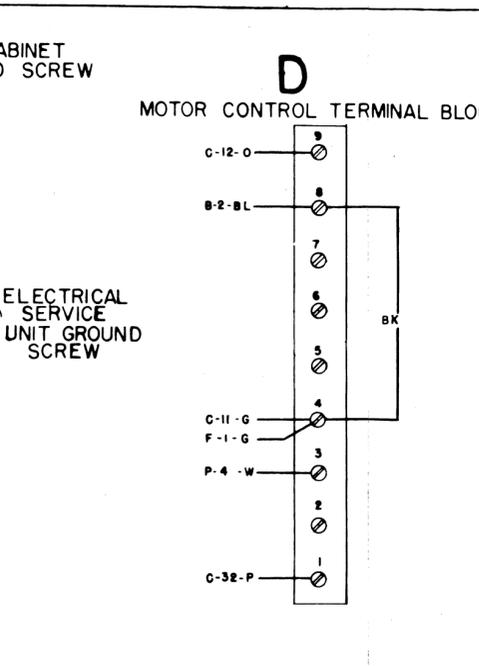
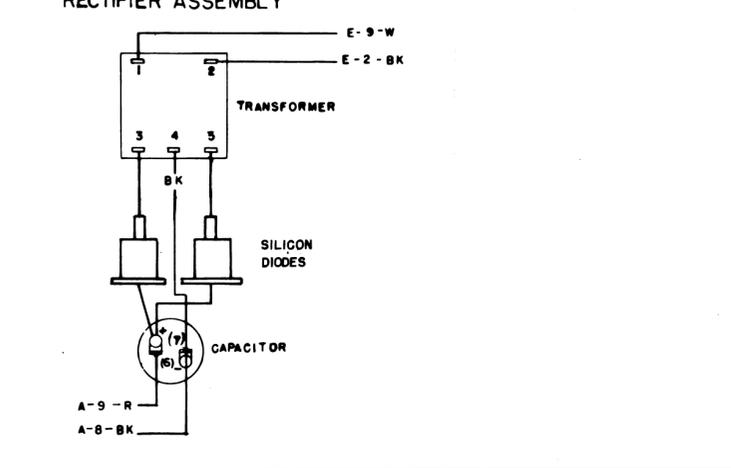
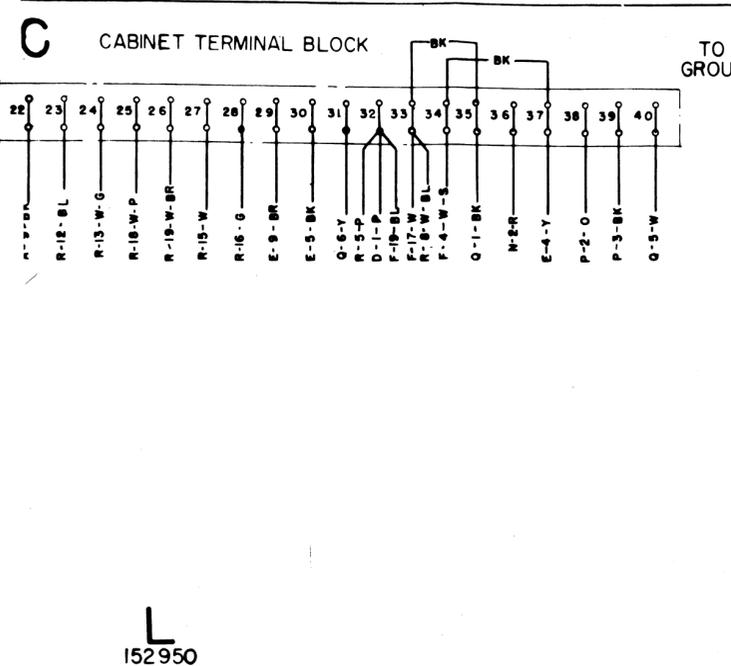
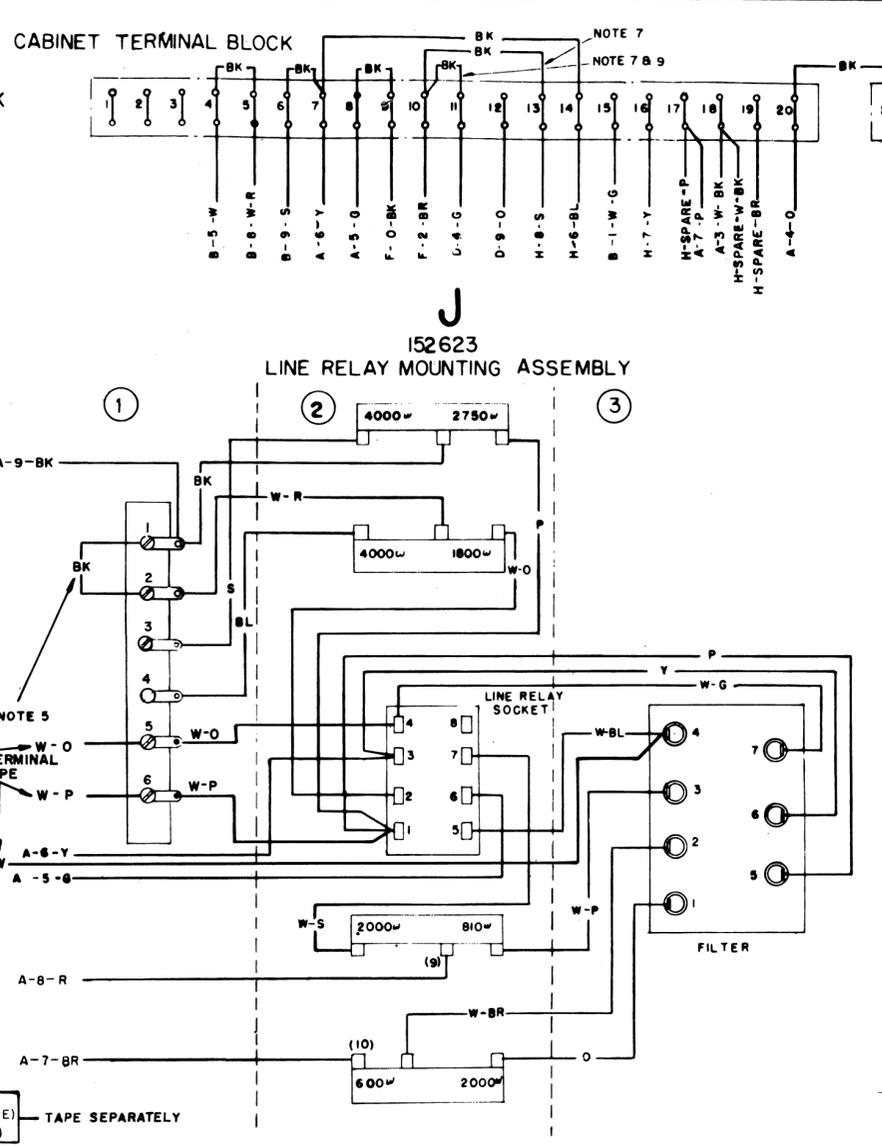
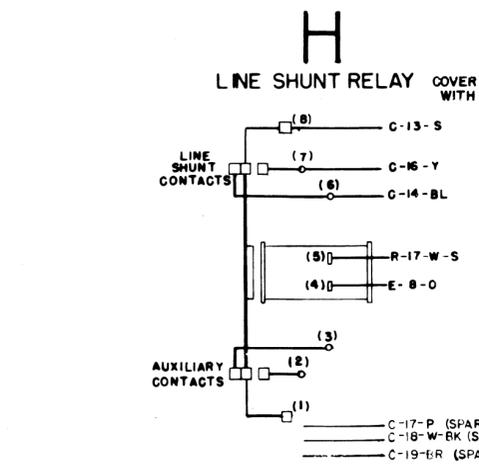
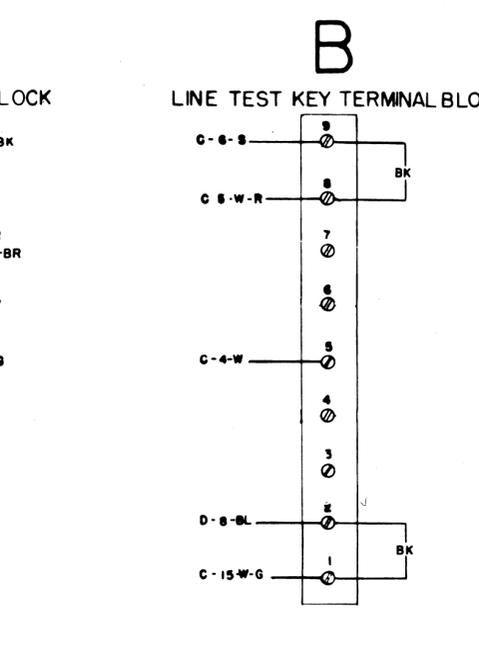
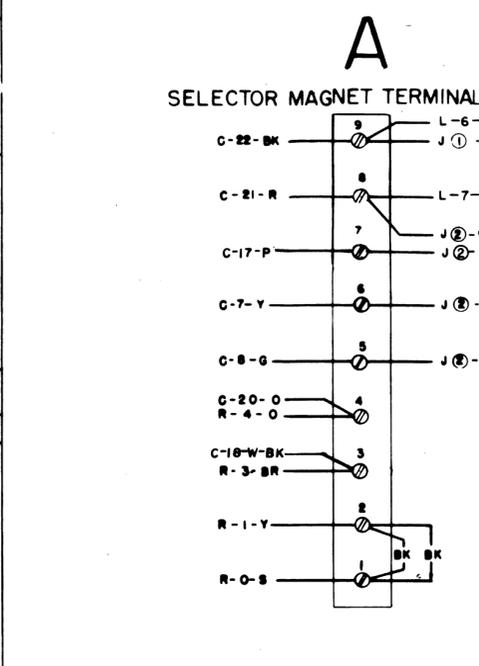
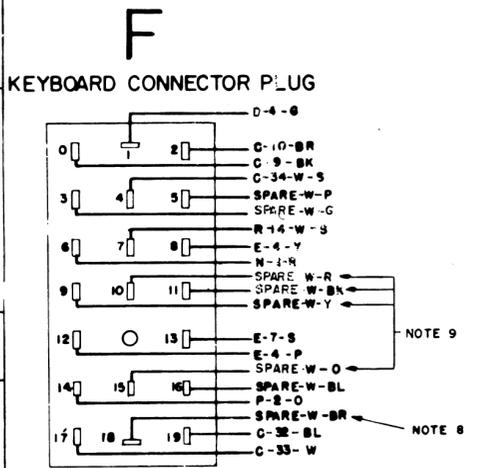
**7. LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH.**

**a. FOR KEYBOARD OPERATION**  
TERMINAL 13 MAY BE CONNECTED TO EITHER TERMINAL C-9, C-10, C-11 OR C-15 TO OBTAIN DESIRED SHUNTING OF THE SIGNAL LINE CIRCUIT

**b. FOR RECEIVING ONLY BASES**  
CONNECT C-10 TO C-11

**8. THE SPARE LEADS FROM THE KEYBOARD AND TYPING UNIT CONNECTOR PLUGS ARE TERMINATED IN THE RIGHT AND LEFT ENDS OF THE ELECTRICAL SERVICE UNIT RESPECTIVELY.**

**9. FOR LESU 31** SPlice AND TAPE SPARE LEADS AS FOLLOWS: F-9-W-Y TO R-6-W-Y, F-10-W-R TO R-9-W-R, F-11-W-BK TO R-11-W-BK, AND F-15-W-O TO R-10-W-O. CONNECT C-10 TO C-11



FOR SCHEMATIC SEE 3641 WD.

**REVISIONS**

ISSUE	DATE	AUTH. NO.
A	3-27-61	68761-2R
B	12-7-61	71451
C	3-7-67	69763-1A

**3640 WD**  
12-19-58

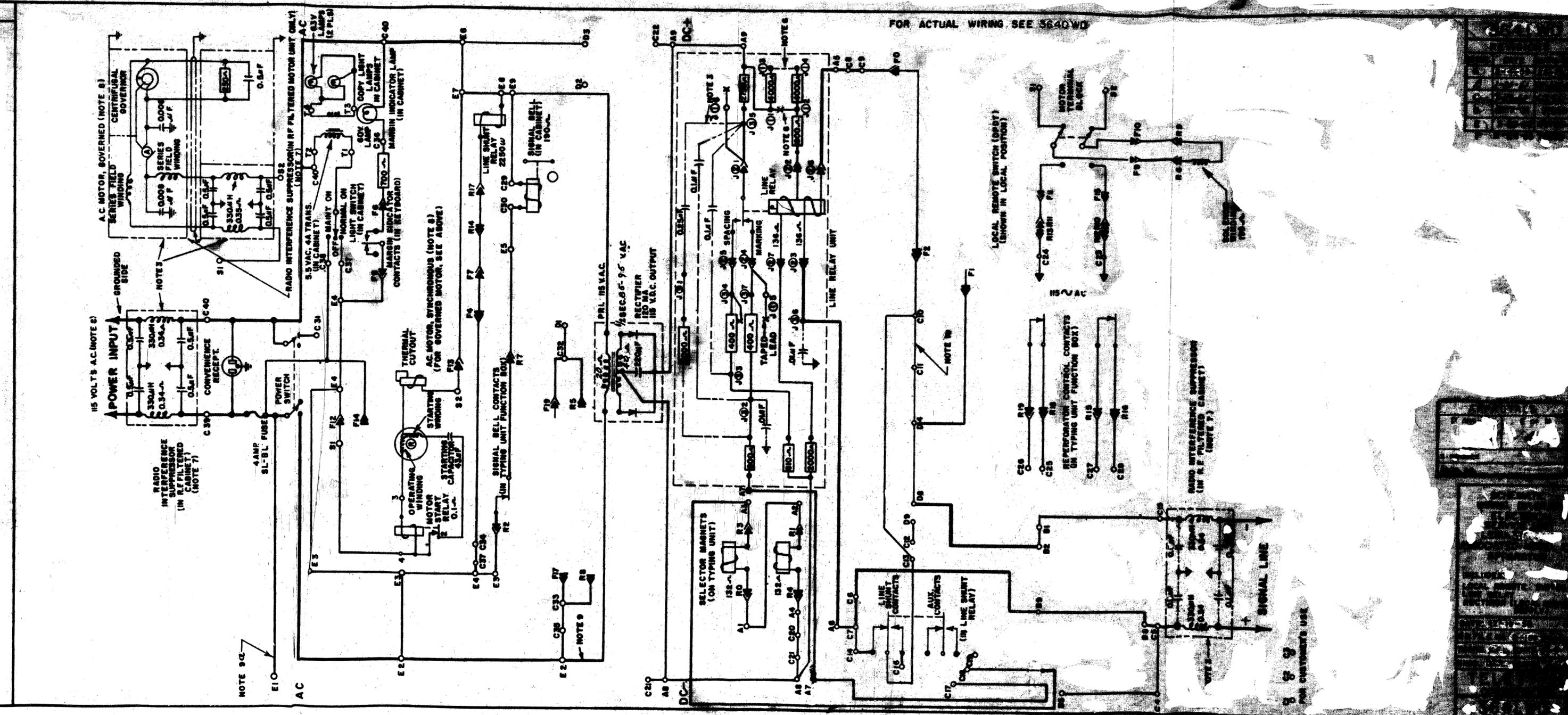
ACTUAL WIRING DIAGRAM MODEL 28 ELECTRICAL SERVICE UNIT LESU 31

DRAWN: E.M. APPROVED: [Signature]  
ENGR: D.C.I.  
CHECKED: [Signature]  
FILE: G-159.65 AA

TELETYPE CORPORATION

NO	NOTES
1	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS, SEE: UNIT NUMBER UNITS DIRECTLY OPERABLE WITH LESU IN
2	BASE, RECEIVING ONLY - L 3 4 CABINETS - LAC 203, 204, 205 ELECTRICAL SERVICE UNIT - LESU 2 KEYBOARD - LK 4, 5 MOTOR UNITS - L M U 3, 4, 5 PAGE TYPING UNITS - LP 4, 5, 7 PAGE TYPING UNITS - LP 6, 8
3	LEGEND A SELECTOR MAGNET TERMINAL BLOCK (IN LESU) B LINE TEST KEY TERMINAL BLOCK (IN LESU) C CABINET TERMINAL BLOCK D MOTOR CONTROL TERMINAL BLOCK (IN LESU) E POWER TERMINAL BLOCK (IN LESU) F KEYBOARD CONNECTOR G TERMINAL STRIP (ON LINE RELAY ASSEMBLY IN LESU) H LINE RELAY CONNECTOR (IN LESU) I LINE RELAY FILTER (IN LESU) J TYPING UNIT CONNECTOR K MOTOR TERMINAL BLOCK (IN LK)
4	KEY BOARD - LINES INDICATE FILTERING, SHUNTING AND SUPPRESSOR NETWORKS.
5	ALL COMPONENTS IS SHOWN IN UNOPERATED OR OFF POSITION.
6	RESISTANCE VALUES IN OHMS (Ω) RESISTANCE VALUES IN MEGOHMS (MΩ) CAPACITANCE VALUES IN MICROFARADS (μF)
7	VALUES SHOWN FOR 250 AMP NEUTRAL SIGNAL LINE CURRENT. FOR 250 AMP LINE CURRENT, ADD DAMPED CONNECTION AND OMIT CONNECTION MARKED IN LINE RELAY CIRCUIT.
8	IN THE POWER AND SIGNAL LINE SUPPRESSOR AND SYNC. IN CASE OF LINE SUPPLY FOR INSTALLATIONS REQUIRING SHUNTING NETWORKS.
9	FOR OTHER INSTALLATIONS, OMIT SUPPRESSOR AND DAMPED CONNECTIONS AND CONNECT MOTOR DIRECT TO TERMINALS.
10	THE SYNCHRONOUS MOTOR OR REGULATED 50-60% A.C. POWER ONLY GOVERNED MOTORS AND OTHER POWER CIRCUITS SHOULD BE TO 50 TO 60% UNREGULATED A.C.
11	RECTIFIER SHOWN CONTROLLED BY POWER SWITCH FOR CONTINUOUS OPERATION, MOVE PRIMARY (INPUT) LEAD FROM E 2 TO E 1.
12	WHEN RECEIVING ONLY BASE IS USED CONNECT C-10 TO C-5.
13	LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING SIGNAL LINE.

NO	NOTES
1	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS, SEE: UNIT NUMBER UNITS DIRECTLY OPERABLE WITH LESU IN
2	BASE, RECEIVING ONLY - L 3 4 CABINETS - LAC 203, 204, 205 ELECTRICAL SERVICE UNIT - LESU 2 KEYBOARD - LK 4, 5 MOTOR UNITS - L M U 3, 4, 5 PAGE TYPING UNITS - LP 4, 5, 7 PAGE TYPING UNITS - LP 6, 8
3	LEGEND A SELECTOR MAGNET TERMINAL BLOCK (IN LESU) B LINE TEST KEY TERMINAL BLOCK (IN LESU) C CABINET TERMINAL BLOCK D MOTOR CONTROL TERMINAL BLOCK (IN LESU) E POWER TERMINAL BLOCK (IN LESU) F KEYBOARD CONNECTOR G TERMINAL STRIP (ON LINE RELAY ASSEMBLY IN LESU) H LINE RELAY CONNECTOR (IN LESU) I LINE RELAY FILTER (IN LESU) J TYPING UNIT CONNECTOR K MOTOR TERMINAL BLOCK (IN LK)
4	KEY BOARD - LINES INDICATE FILTERING, SHUNTING AND SUPPRESSOR NETWORKS.
5	ALL COMPONENTS IS SHOWN IN UNOPERATED OR OFF POSITION.
6	RESISTANCE VALUES IN OHMS (Ω) RESISTANCE VALUES IN MEGOHMS (MΩ) CAPACITANCE VALUES IN MICROFARADS (μF)
7	VALUES SHOWN FOR 250 AMP NEUTRAL SIGNAL LINE CURRENT. FOR 250 AMP LINE CURRENT, ADD DAMPED CONNECTION AND OMIT CONNECTION MARKED IN LINE RELAY CIRCUIT.
8	IN THE POWER AND SIGNAL LINE SUPPRESSOR AND SYNC. IN CASE OF LINE SUPPLY FOR INSTALLATIONS REQUIRING SHUNTING NETWORKS.
9	FOR OTHER INSTALLATIONS, OMIT SUPPRESSOR AND DAMPED CONNECTIONS AND CONNECT MOTOR DIRECT TO TERMINALS.
10	THE SYNCHRONOUS MOTOR OR REGULATED 50-60% A.C. POWER ONLY GOVERNED MOTORS AND OTHER POWER CIRCUITS SHOULD BE TO 50 TO 60% UNREGULATED A.C.
11	RECTIFIER SHOWN CONTROLLED BY POWER SWITCH FOR CONTINUOUS OPERATION, MOVE PRIMARY (INPUT) LEAD FROM E 2 TO E 1.
12	WHEN RECEIVING ONLY BASE IS USED CONNECT C-10 TO C-5.
13	LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING SIGNAL LINE.

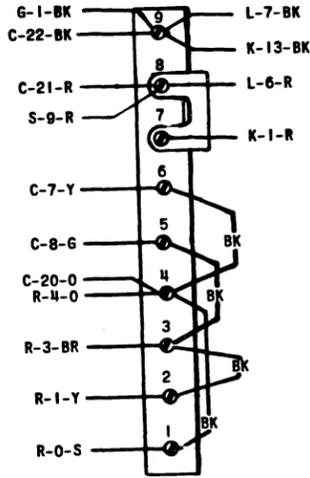


REVISIONS

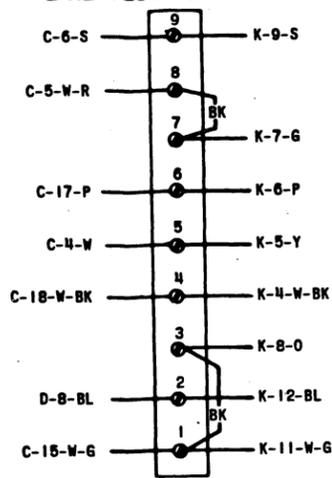
ISSUE	DATE	AUTH. NO.
# 2	8-4-59	28-11808
# 3	10-5-59	28-11799
# 4	3-20-61	69286
# 5	3-27-61	68761-28
# 6	3-28-62	68768-10

- 1. WIRING LEGEND:**  
 DISTANT TERMINATING AREA  
 DISTANT TERMINATING DESIGNATION  
 WIRE COLOR CODE
- 2. COLOR CODE:**  
 BK - BLACK      G - GREEN  
 BR - BROWN    BL - BLUE  
 R - RED          P - PURPLE  
 O - ORANGE     W - WHITE  
 Y - YELLOW      S - SLATE
- 3. UNIT WIRED FOR 115 VOLTS, 50 TO 60 CYCLE A.C. POWER INPUT ONLY.**
- 4. CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS.**
- 5. CIRCUITS SHOWN FOR .050 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION, REMOVE AND ADD CONNECTIONS AS TABULATED BELOW:**
- | SIGNAL LINE CURRENT | CONNECTIONS REMOVED | CONNECTIONS ADDED |
|---------------------|---------------------|-------------------|
| .020 AMP.           | K1-K2, A1-A4, A2-A3 | A1-A2             |
- 6. RECTIFIER SHOWN CONTROLLED BY POWER SWITCH.**  
**A.** FOR CONTINUOUS OPERATION, REMOVE LEAD L-2-BK FROM TERMINAL E-2 AND CONNECT TO TERMINAL E-1.  
**B.** FOR OPERATION FROM MOTOR CONTROL, REMOVE LEAD L-2-BK FROM TERMINAL E-2 AND CONNECT TO TERMINAL E-3.
- 7. LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING SELECTOR MAGNETS AND KEYBOARD AND TRANSMITTER DISTRIBUTOR SIGNAL GENERATOR.**  
**A.** IF KEYBOARD SHUNTING IS NOT DESIRED, OR WHEN SIGNAL LINE BREAK SWITCH IS PRESENT, REMOVE THE BLACK STRAP CONNECTED BETWEEN TERMINALS C-10 AND C-13 AND CONNECT TERMINALS C-9 AND C-13.  
**B.** FOR DIRECT CONTROL OF THE LINE SHUNT RELAY FROM THE POWER SWITCH, REMOVE STRAP BETWEEN TERMINALS C-34 AND C-37 AND CONNECT TERMINALS C-34 AND C-35. TERMINAL C-13 MAY THEN BE CONNECTED TO EITHER TERMINALS C-9, C-10, C-11, OR C-15 TO OBTAIN THE DESIRED SHUNTING OF THE SIGNAL LINE CIRCUIT.
- 8. THE SPARE LEADS FROM THE KEYBOARD AND TRANSMITTER DISTRIBUTOR UNITS CONNECTOR PLUGS ARE TERMINATED IN THE RIGHT END OF THE ELECTRICAL SERVICE UNIT. THE SPARE LEADS FROM THE TYPING UNIT PLUG ARE TERMINATED IN THE LEFT END OF THE ELECTRICAL SERVICE UNIT.**
- 9. ADD STRAP BETWEEN C-10 AND C-11, IF SIGNAL LINE BREAK SWITCH IS NOT USED.**
- 10. SPARE LEADS FROM F-18 AND U-18 ARE RESERVED FOR POLAR OPERATION OF KEYBOARD AND TRANSMITTER DISTRIBUTOR SIGNAL GENERATORS.**
- 11. TERMINALS C-143 - C-148 RESERVED FOR CABINET LAMP OPERATION.**
- 12. TERMINALS C1 - C3 RESERVED FOR CUSTOMER USE.**
- 13. TERMINALS C-121 - C-122 RESERVED FOR PERFORATOR LOW-TAPE SWITCH.**
- 14. CONTACTS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.**
- 15. WHEN L8XD IS USED IN PLACE OF LX0, MAKE THE FOLLOWING CHANGES:**  
 OMIT CONNECTIONS    ADD CONNECTIONS  
 C-142 TO C-150  
 C-131 TO C-132

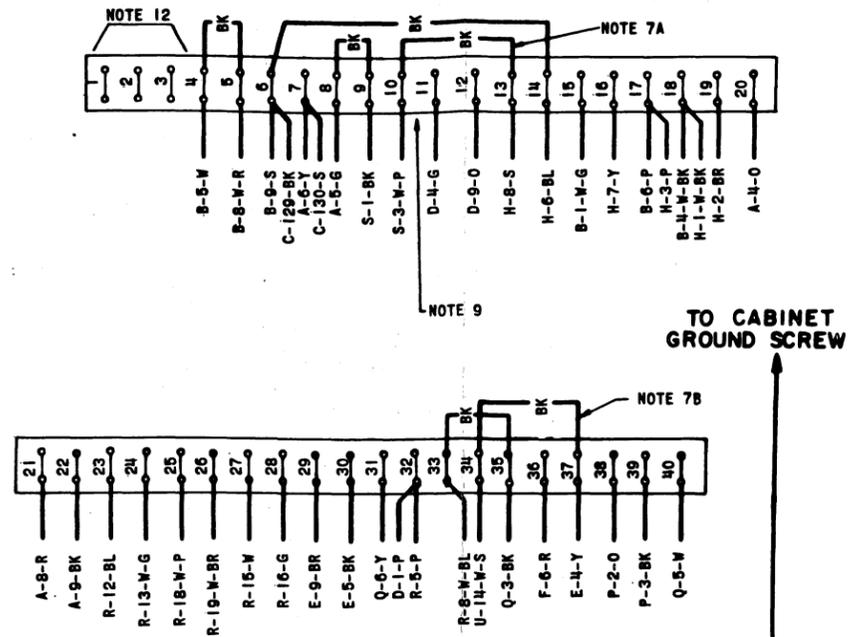
**A** SELECTOR MAGNET TERMINAL BLOCK



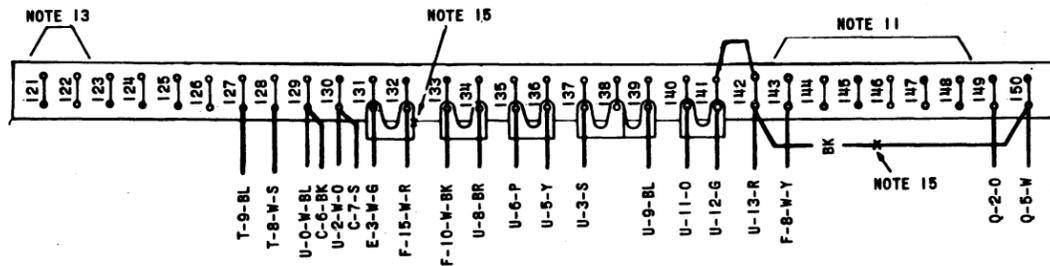
**B** LINE TEST KEY TERMINAL BLOCK



**C** CABINET TERMINAL BLOCK



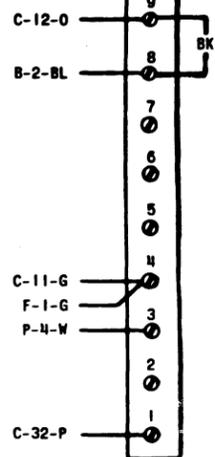
**C** CABINET TERMINAL BLOCK



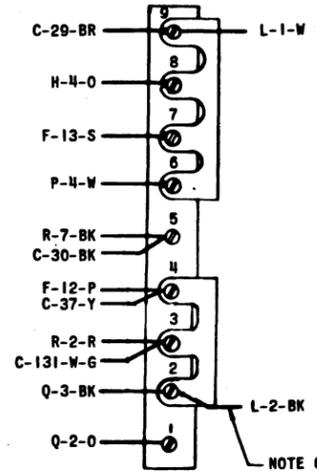
ELECTRICAL SERVICE UNIT GROUND SCREW

TO CABINET GROUND SCREW

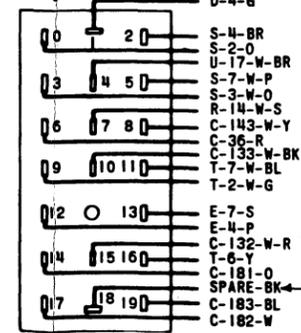
**D** MOTOR CONTROL TERMINAL BLOCK



**E** POWER TERMINAL BLOCK



**F** KEYBOARD CONNECTOR (FEMALE)



ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT LESU32

APPROVALS

D AND R	E OF M
-----	-----

E-NUMBER

PROD. NO. 3642WD

DATE 12-12-58

P.D. FILE NO. 6-159.65AA

DRAWN

CHKD.

ENGD. D.C.L.

APPD.

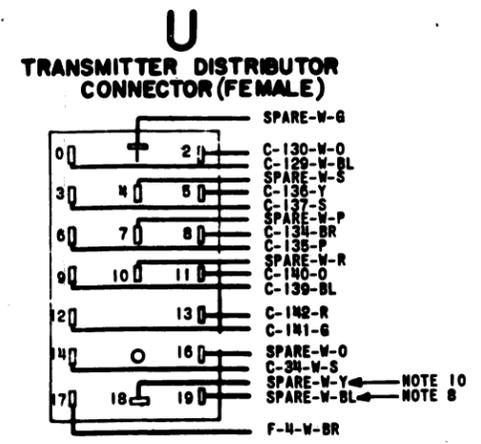
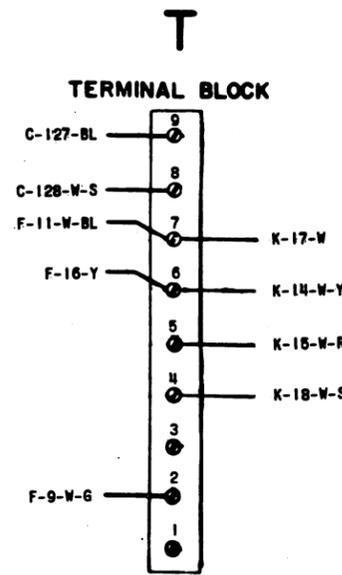
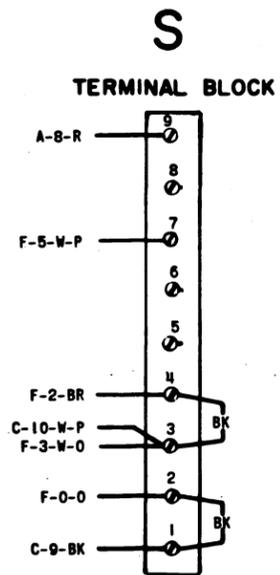
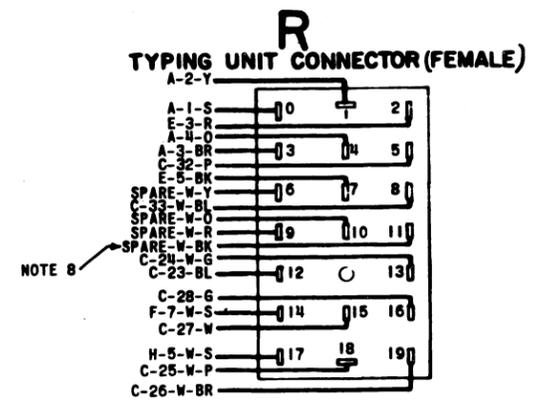
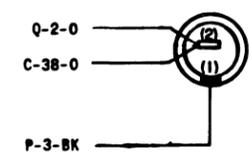
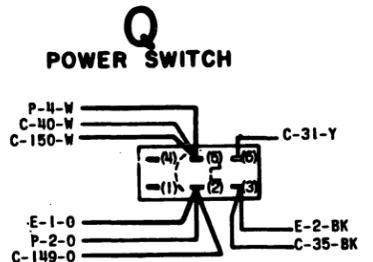
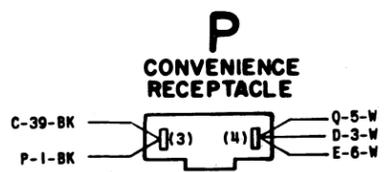
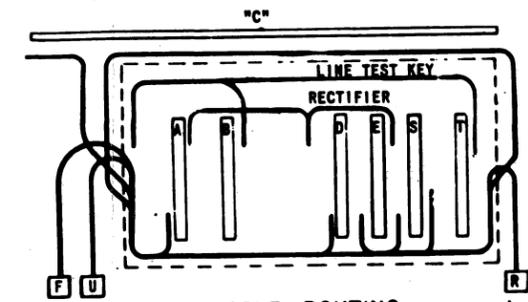
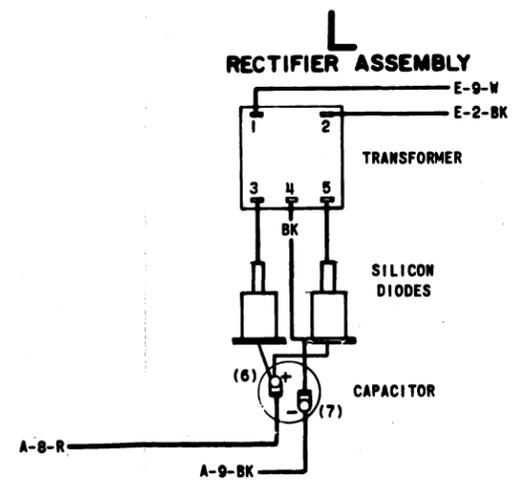
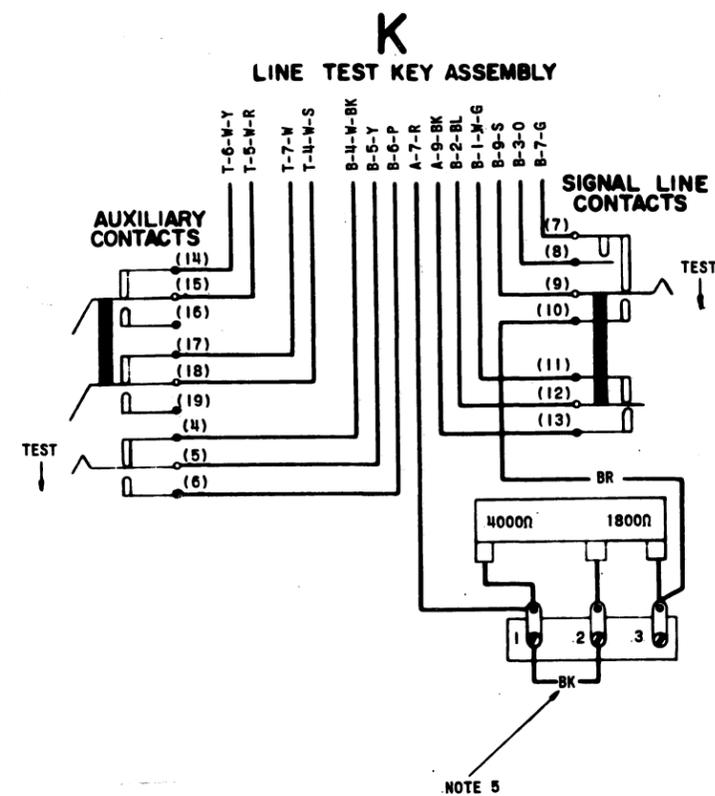
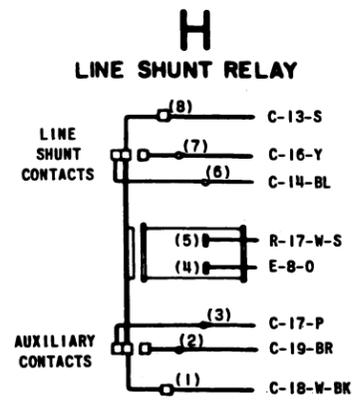
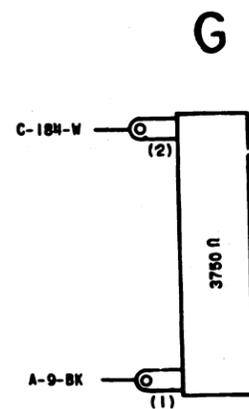
TELETYPE CORPORATION

SEE SHEET 1 FOR NOTES.

3642WD

REVISIONS

ISSUE	DATE	AUTH. NO.
A 2	8-4-59	28-11508
B 3	10-5-59	28-11799
C 4	3-20-61	69286
5	3-27-61	68761-28
6	3-28-62	69768-10



SHEET 2 OF 2

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT LESU32

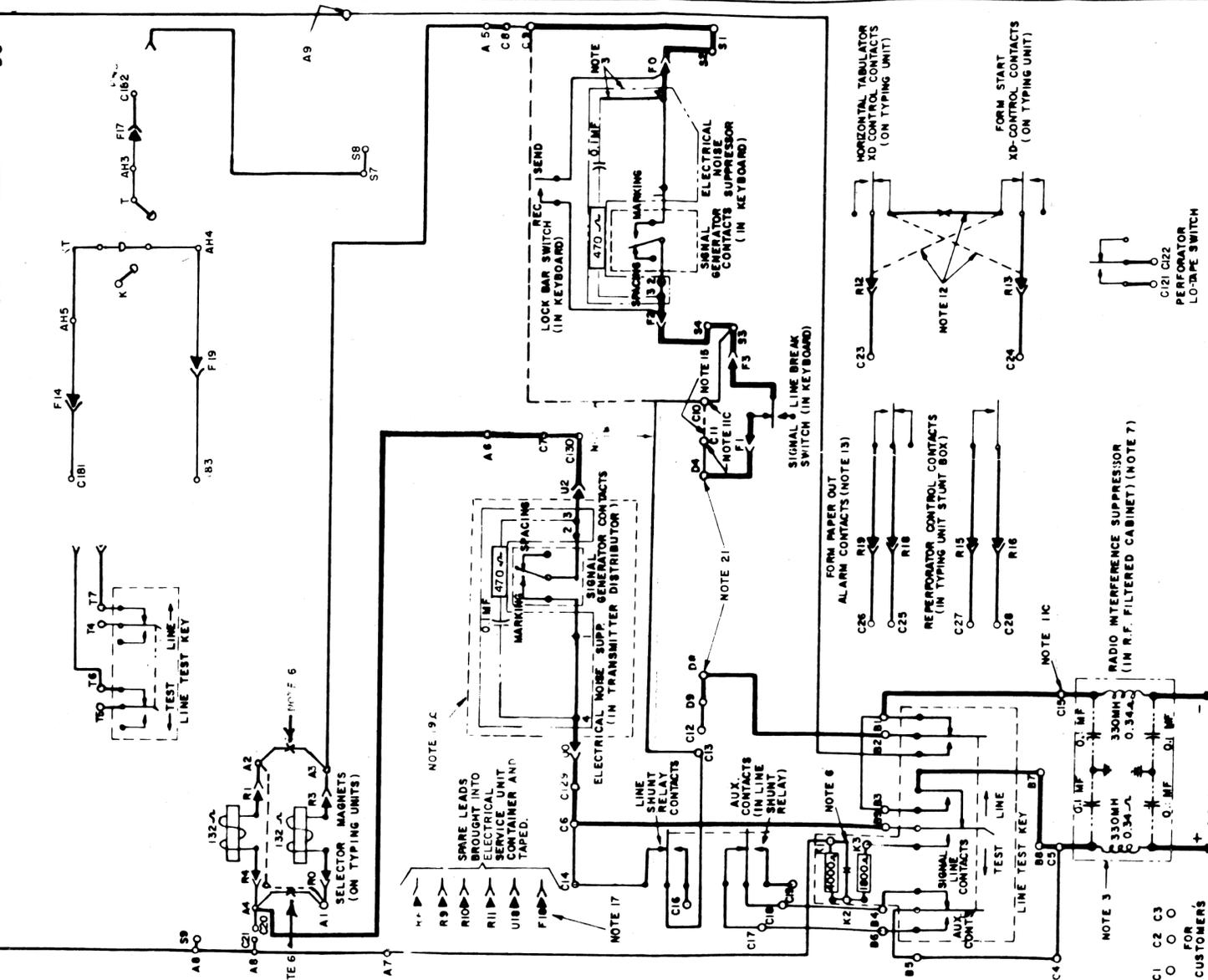
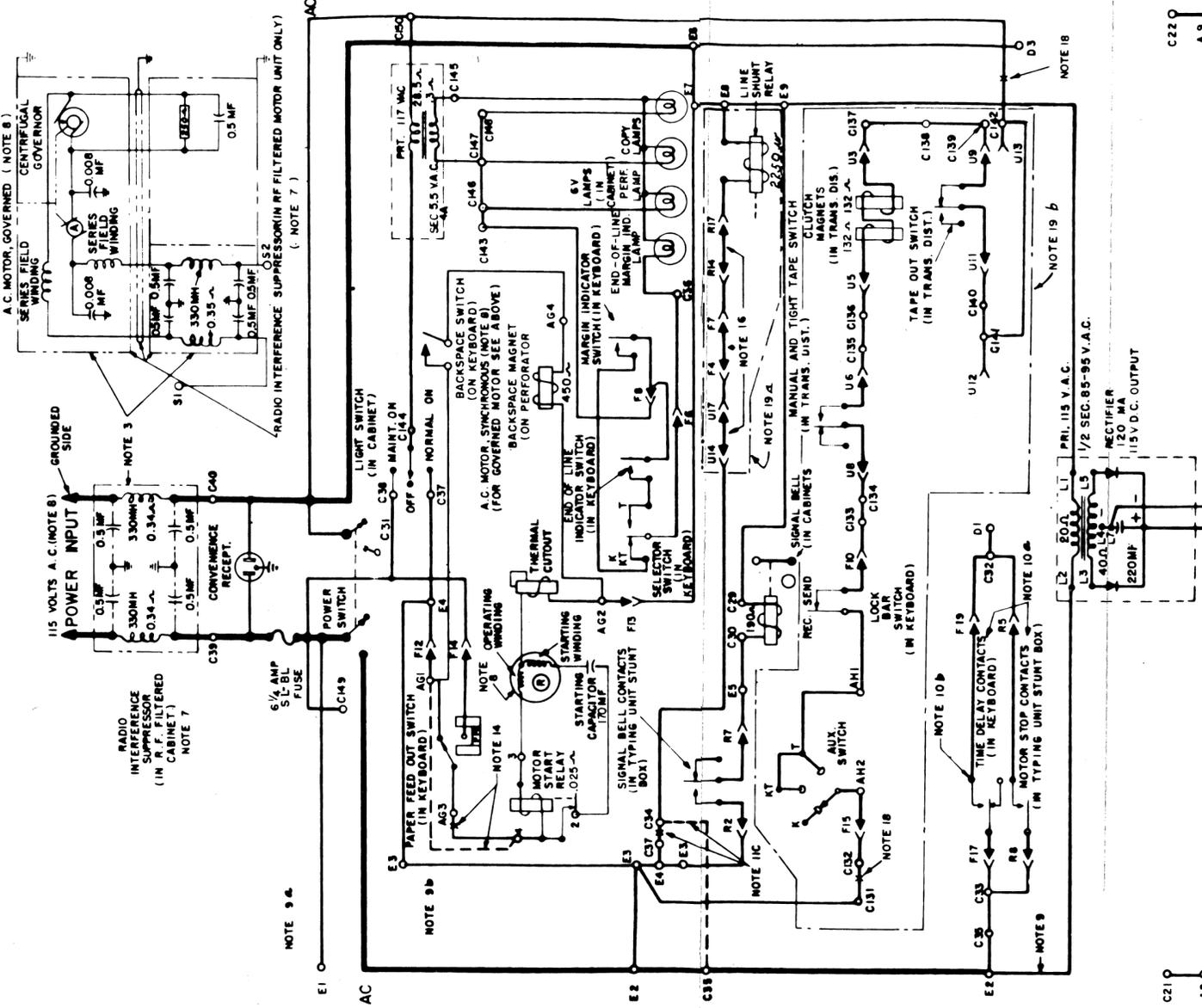
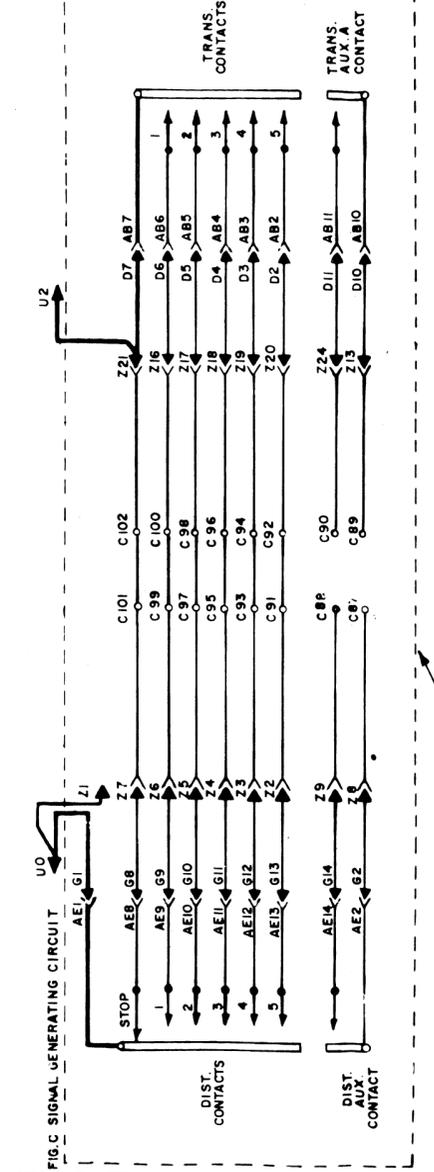
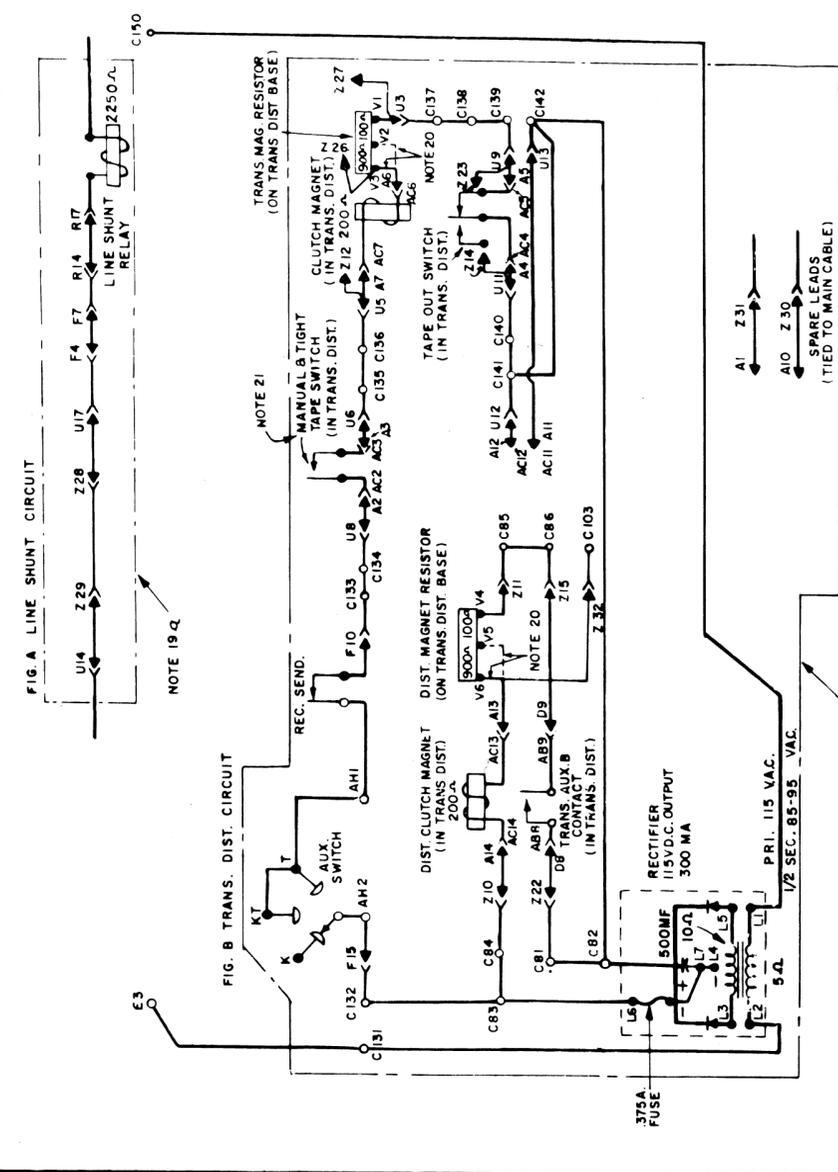
APPROVALS

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E-NUMBER	
PROD. NO. 3642WD	
DATE	12-12-58
R.D. FILE NO. 6-159.65AA	
DRAWN	CHKD.
ENSD. D.C.L.	APPD.

TELETYPE CORPORATION

3642WD



3643 WD			
REVISIONS			
ISSUE	DATE	AUTH. NO.	BY
A	8-4-59	28-11508	
B	10-5-59	28-11795	
C	11-2-59	28-11795	
D	11-2-59	28-11795	
E	11-2-59	28-11795	

APPROVALS	
D AND R	E P M
E NUMBER	
PROD NO. 3643 WD	
SCHEMATIC WIRING DIAGRAM MODEL 28	
WITH FACILITIES PROVIDED BY ELECT. SERVICE UNIT LESU 82 AND ASSOCIATED UNITS	
DATE 12-0-58	
P.D. FILE NO G-159,652A	
DRAWN H.K. F.	
ENGD. D.C.L. M.P.V.	
TELETYPE CORPORATION	
3643 WD	

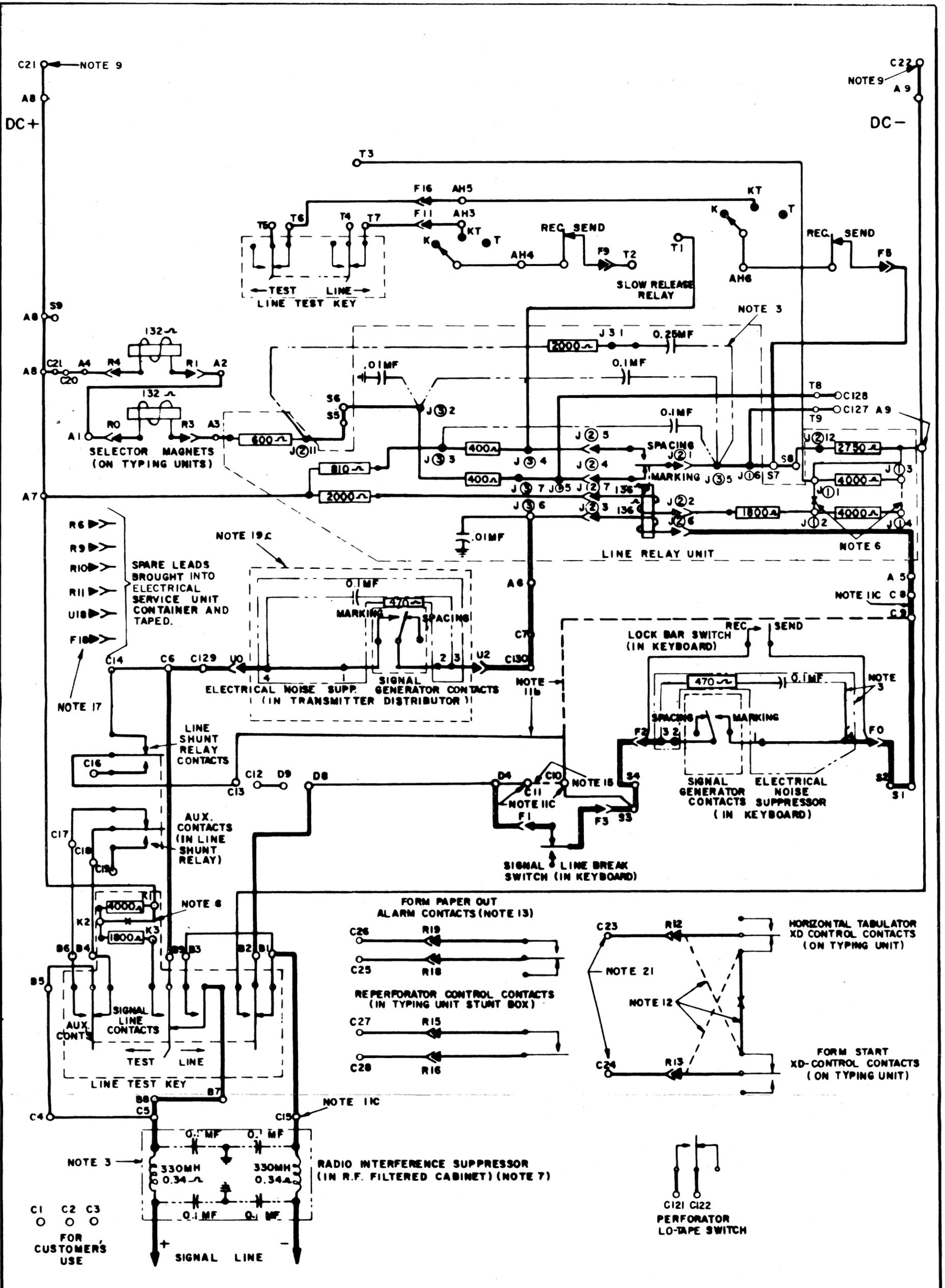
ISSUE	DATE	AUTH-NO.
E	11-26-63	78860

NO.	NOTES
1.	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE: WD NUMBER UNITS DIRECTLY OPERABLE WITH LESU32 CABINETS - LAAC 200, 201 ELECTRICAL SERVICE UNIT LESU KEYBOARDS-LAK MOTOR UNITS - LMU PAGE TYPING UNITS-LP PAGE TYPING UNITS-LP
2.	LEGEND: ○ A SELECTOR MAGNET TERMINAL BLOCK (IN LESU). ○ B LINE TEST KEY TERMINAL BLOCK (IN LESU). ○ C CABINET TERMINAL BLOCK. ○ D MOTOR CONTROL TERMINAL BLOCK (IN LESU). ○ E POWER TERMINAL BLOCK (IN LESU) ◀ F KEYBOARD CONNECTOR. ○ J ⊕ TERMINAL STRIP (ON LINE RELAY ASSEM. IN LESU). ◀ J ⊕ LINE RELAY CONNECTOR (IN LESU). ○ J ⊕ LINE RELAY FILTER (IN LESU). ○ K TERMINAL STRIP (ON LINE TEST KEY IN LESU). ◀ R TYPING UNIT CONNECTOR. ○ S SLOW RELEASE RELAY TERMINAL BOARD (IN LESU). ○ T TEST SWITCH TERMINAL BOARD (IN LESU). ◀ U TRANSMITTER DISTRIBUTOR CONNECTOR. ○ AG MOTOR TERMINAL BLOCK (ON LAK). ○ AH AUXILIARY SWITCH TERMINAL BLOCK (ON LAK). ◀ Z TRANSMITTER DISTRIBUTOR CONNECTOR (LBXD)
3.	DOT DASH --- LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.
4.	ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.
5.	a. RESISTANCE IN OHMS (Ω) b. INDUCTANCE VALUES IN MICROMHENRIES (MH) c. CAPACITANCE VALUES IN MICROFARADS (MF)
6.	CIRCUITS SHOWN FOR .060 AMP NEUTRAL SIGNAL LINE OPERATION FOR .020 AMP LINE CURRENT, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (---) IN LINE TEST KEY, LINE RELAY, AND ELECTRICAL MOTOR CONTROL START MAGNETS CIRCUITS.
7.	a. USE POWER & SIGNAL LINE SUPPRESSOR AND SYNC OR GOV.-FLT. MOTOR FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE. b. FOR OTHER INSTALLATIONS, OMIT SUPPRESSORS AND CONNECT INPUTS AND GOV. MOTOR DIRECTLY TO TERMINALS SHOWN.
8.	USE SYNCHRONOUS MOTOR ON REGULATED 60~(±1%) A.C. POWER ONLY. GOVERNED MOTORS & OTHER POWER CIRCUITS OPERABLE ON 50 TO 60~ UNREGULATED A.C.
9.	RECTIFIER SHOWN CONTROLLED BY POWER SWITCH a. FOR CONTINUOUS OPERATION, MOVE RECTIFIER LEAD L2 FROM E2 TO E1. b. FOR OPERATION FROM MOTOR CONTROL, MOVE L2 LEAD FROM E2 TO E3.
10.	a. TO OPERATE MOTOR CONTROL, SET MUST BE EQUIPPED WITH EITHER: 1. TIME DELAY MECH. OR 2. MOTOR STOP CONTACTS. b. IF TAPE POSITION IS TO BE USED IN THE ASR SET THE TIME DELAY MECHANISM MUST BE EITHER ELECTRICALLY OR MECHANICALLY DISABLED.
11.	a. LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHOWN SHUNTING SELECTOR MAGNETS TRANS. DIST. SIG. GEN. AND KEYBOARD SIG. GEN.

(CONT'D ABOVE)

NO.	NOTES				
b.	IF KEYBOARD SHUNTING IS NOT DESIRED MOVE STRAP FROM C10 TO C9.				
c.	FOR DIRECT CONTROL OF LINE SHUNT RELAY FROM POWER SWITCH, ADD DASHED(---) CONNECTIONS AND OMIT CONNECTION MARKED(---) AT CABINET TERMINALS C34, C35, C37. CUSTOMER MAY THEN SELECT PORTION OF SIGNAL LINE CIRCUIT TO BE SHUNTED BY CONNECTING TERMINAL C13 TO EITHER C9, C10, C11, OR C18.				
12.	CIRCUIT SHOWS BOTH HORIZONTAL TABULATOR AND FORM START CONTROL USED ON TYPING UNIT. WHEN ONLY ONE CONTROL IS USED, OMIT CONNECTION MARKED (---) AND ADD PROPER DASHED (---) CONNECTION IN TYPING UNIT CIRCUITS.				
13.	FORM PAPER OUT ALARM CONTACTS MAY BE MOUNTED ON EITHER THE TYPING UNIT OR EXTERNAL TO THE CABINET. IN LATTER EVENT, CONNECTIONS ARE MADE DIRECTLY TO TERMINALS C25 AND C26.				
14.	WHEN PAPER FEED OUT SWITCH IS NOT USED, DISCONNECT MOTOR LEAD FROM AG3 AND CONNECT TO AG1.				
15.	WHEN SIGNAL LINE BREAK SWITCH IS NOT USED IN KEYBOARD ADD (---) CONNECTION AT CABINET TERMINAL BLOCK BETWEEN C10 & C11.				
16.	IN ALL KEYBOARDS F4 MUST BE CONNECTED TO F7 IN ALL TRANS. DIST. UM4 MUST BE CONNECTED TO U17. IN ALL TYPING UNITS R14 MUST BE CONNECTED TO R17.				
17.	SPARE LEADS FROM U18 AND F18 ARE RESERVED FOR POLAR OPERATION OF SIGNAL GENERATOR.				
18.	WHEN LBXD IS USED IN PLACE OF LXD: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>OMIT</th> <th>ADD</th> </tr> </thead> <tbody> <tr> <td>C-142 TO C-150 C-131 TO C-132</td> <td></td> </tr> </tbody> </table>	OMIT	ADD	C-142 TO C-150 C-131 TO C-132	
OMIT	ADD				
C-142 TO C-150 C-131 TO C-132					
19.	WHEN LBXD USED IN PLACE OF LXD USE FOLLOWING FIGURES: a. FIG A --- LINE SHUNT CIRCUIT b. FIG B --- TRANS. DIST. CIRCUIT c. FIG C --- SIGNAL GENERATING CIRCUIT				
20.	CIRCUIT SHOWN FOR 115 V.D.C. POWER INPUT TO TRANS. DIST. CLUTCH MAGNETS. FOR 48 V.D.C. POWER INPUT REMOVE AND ADD CONNECTIONS AS FOLLOWS: DISCONNECT THE WHITE LEAD FROM V6 AND CONNECT TO V5. DISCONNECT THE PURPLE LEAD FROM V3 AND CONNECT TO V2  POWER SUPPLY MUST DELIVER 300 MA @ 48 V.D.C. OR 200 MA @ 115 V.D.C.				
21.	COMPONENT OF 8IDI SYSTEM TO BE WIRED TO TERMINALS D8 AND D4.				

SCHMATIC WIRING DIAGRAM MODEL 28  
WITH FACILITIES PROVIDED BY ELECT. SERVICE UNIT LESU 32 AND ASSOCIATED UNITS



3659 WD		REVISIONS	
ISSUE	DATE	AUTH. NO.	
A	8-4-59	28-11508	
B	3-28-62	67768-10	
C	11-26-63	78860	

SHEET 1 OF 2	
APPROVALS	
D AND B	E OF M
E NUMBER	
PROJ. NO. 3659 WD	
SCHEMATIC WIRING DIAGRAM MODEL 28 ASR-GP-OPT. I.A.C. WITH FACILITIES PROVIDED BY ELECT. SERVICE UNIT LESU 35 AND ASSOCIATED UNITS	
DATE: 1-19-59	
P.D. FILE NO. G-159.65AA	
DRAWN K.F.L. CHKD. [Signature]	
ENG. J.R.H. APPD. [Signature]	
TELETYPE CORPORATION	
3659 WD	

SEE SHEET 2 FOR NOTES





# 3660WD

## REVISIONS

ISSUE	DATE	AUTH. NO.
A2	8-4-59	28-11508
B3	3-20-61	69286
C4	3-28-62	69768-10
D5	4-7-66	90222

NOTE:  
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 1

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT ASR-GP-OPT. 1-AC LESU35

## APPROVALS

D AND R	E OF M
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E-NUMBER  
 PROD. NO. 3660WD  
 DATE 1-19-59  
 P.D. FILE NO. G-159.65AA  
 DRAWN K.F.L. CHKD.  
 ENGD. J.R.H. APPD.

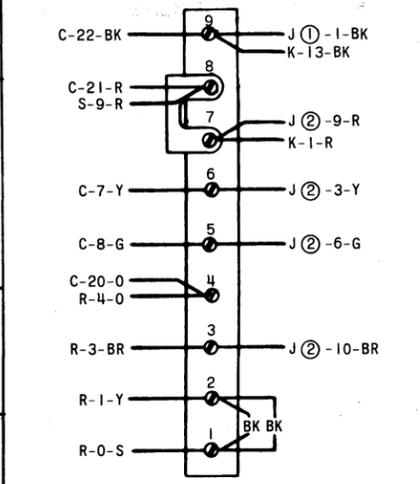
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# 3660WD

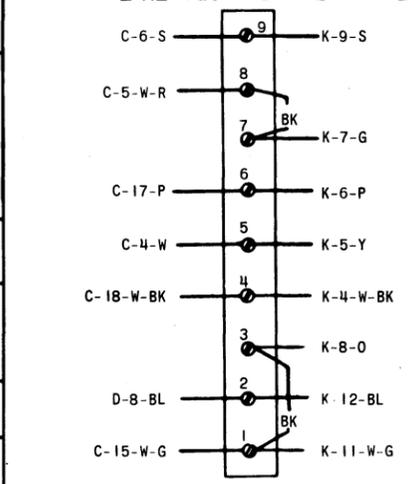
- | NO.                 | NOTES  |                     |                    |                   |           |                |         |
|---------------------|--|---------------------|--------------------|-------------------|-----------|----------------|---------|
| 1.                  | <b>WIRING LEGEND:</b><br>  |                     |                    |                   |           |                |         |
| 2.                  | <b>COLOR CODE:</b><br>BK-BLACK            R-RED<br>BL-BLUE            O-ORANGE<br>BR-BROWN          S-SLATE<br>G-GREEN            W-WHITE<br>P-PURPLE           Y-YELLOW   |                     |                    |                   |           |                |         |
| 3.                  | UNIT WIRED FOR 115 VOLTS 50 TO 60 CYCLE AC POWER INPUT ONLY.   |                     |                    |                   |           |                |         |
| 4.                  | CONNECTORS VIEWED FROM SOLDERED TERMINAL ENDS.   |                     |                    |                   |           |                |         |
| 5.                  | CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION REMOVE AND ADD CONNECTIONS AS TABULATED BELOW.<br><table border="1"> <thead> <tr> <th>SIGNAL LINE CURRENT</th> <th>CONNECTION REMOVED</th> <th>CONNECTIONS ADDED</th> </tr> </thead> <tbody> <tr> <td>.020 AMP.</td> <td>K1-K2, J①1-J①2</td> <td>J①3-J①4</td> </tr> </tbody> </table>  | SIGNAL LINE CURRENT | CONNECTION REMOVED | CONNECTIONS ADDED | .020 AMP. | K1-K2, J①1-J①2 | J①3-J①4 |
| SIGNAL LINE CURRENT | CONNECTION REMOVED   | CONNECTIONS ADDED   |                    |                   |           |                |         |
| .020 AMP.           | K1-K2, J①1-J①2   | J①3-J①4             |                    |                   |           |                |         |
| 6.                  | CIRCUIT SHOWN FOR OPERATION FROM AN EXTERNAL DC POWER SUPPLY, LEADS OF WHICH ARE TO BE CONNECTED TO CABINET TERMINALS C21 & C22. POSITIVE DC SHOULD BE CONNECTED TO TERMINAL C21.  |                     |                    |                   |           |                |         |
| 7.                  | LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING LINE RELAY COIL AND KEYBOARD AND TRANSMITTER DISTRIBUTOR SIGNAL GENERATOR.<br>a. IF KEYBOARD SHUNTING IS NOT DESIRED OR WHEN SIGNAL LINE BREAK SWITCH IS PRESENT, REMOVE THE BLACK STRAP CONNECTED BETWEEN TERMINALS C-10 AND C-13 AND CONNECT TERMINALS C-9 AND C-13<br>b. FOR DIRECT CONTROL OF THE LINE SHUNT RELAY FROM THE POWER SWITCH, REMOVE STRAP BETWEEN TERMINALS C-34 AND C-37 AND CONNECT TERMINALS C-34 AND C-35 TERMINAL C-13 MAY THEN BE CONNECTED TO EITHER TERMINALS C-9, C-10, C-11 OR C-15 TO OBTAIN THE DESIRED SHUNTING OF THE SIGNAL LINE CIRCUIT. |                     |                    |                   |           |                |         |
| 8.                  | THE SPARE LEADS FROM THE KEYBOARD AND TRANSMITTER DISTRIBUTOR UNITS CONNECTOR PLUGS ARE TERMINATED IN THE RIGHT END OF THE ELECTRICAL SERVICE UNIT. THE SPARE LEADS FROM THE TYPING UNIT PLUG ARE TERMINATED IN THE LEFT END OF THE ELECTRICAL SERVICE UNIT.   |                     |                    |                   |           |                |         |
| 9.                  | ADD STRAP BETWEEN C-10 & C-11 IF SIGNAL LINE BREAK SWITCH IS NOT USED.   |                     |                    |                   |           |                |         |
| 10.                 | SPARE LEADS FROM F-18 AND U18 ARE RESERVED FOR POLAR OPERATION OF KEYBOARD AND TRANSMITTER DISTRIBUTOR SIGNAL GENERATORS.  |                     |                    |                   |           |                |         |
| 11.                 | TERMINALS C-143, C148 RESERVED FOR CABINET LAMP OPERATION.   |                     |                    |                   |           |                |         |
| 12.                 | TERMINALS C1-C3 RESERVED FOR CUSTOMERS USE.  |                     |                    |                   |           |                |         |
| 13.                 | TERMINALS C-121, C-122 RESERVED FOR PERFORATOR LO TAPE SWITCH.   |                     |                    |                   |           |                |         |
| 14.                 | CONTACTS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.   |                     |                    |                   |           |                |         |
| 15.                 | WHEN LBXD USED IN PLACE OF LXD MAKE THE FOLLOWING CHANGES:<br>OMIT CONNECTIONS C-142 TO C 150, C 131 TO C-132.   |                     |                    |                   |           |                |         |

- | NO. | NOTES  |
|-----|--|
| 16. | WHEN LXD5 IS USED, REMOVE THE STRAP BETWEEN TERMINALS C135-C136. ADD TWO 162365 STRAPS, ONE BETWEEN TERMINALS C23-C135 AND ONE BETWEEN C24-C136. |

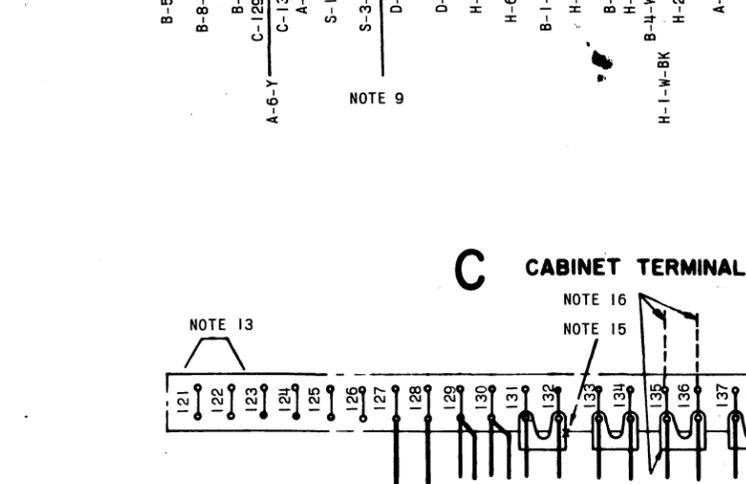
**A** SELECTOR MAGNET TERMINAL BLOCK



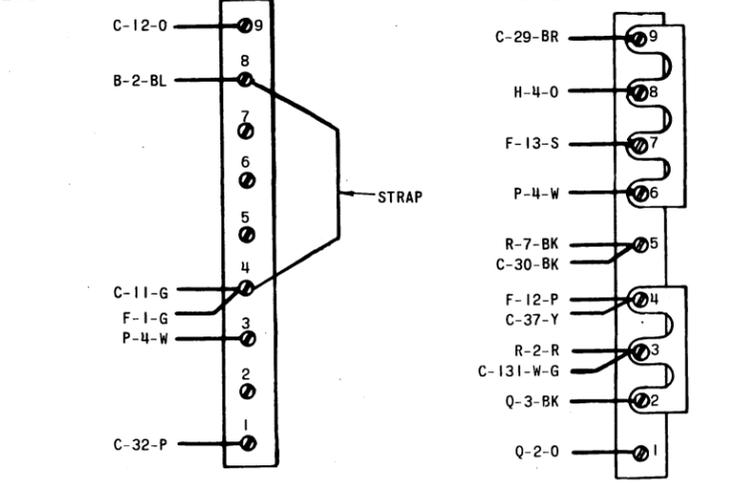
**B** LINE TEST KEY TERMINAL BLOCK



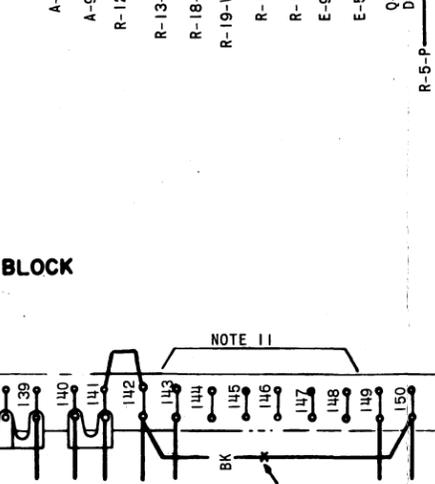
**C** CABINET TERMINAL BLOCK



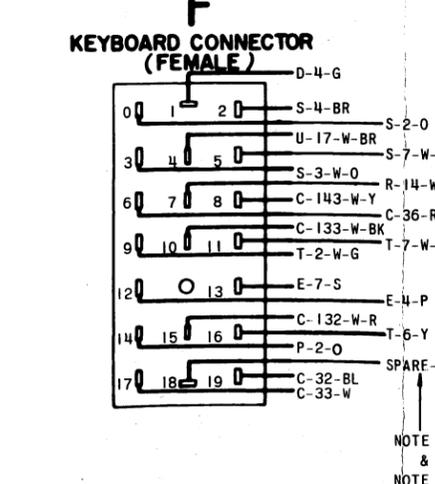
**D** MOTOR CONTROL TERMINAL BLOCK



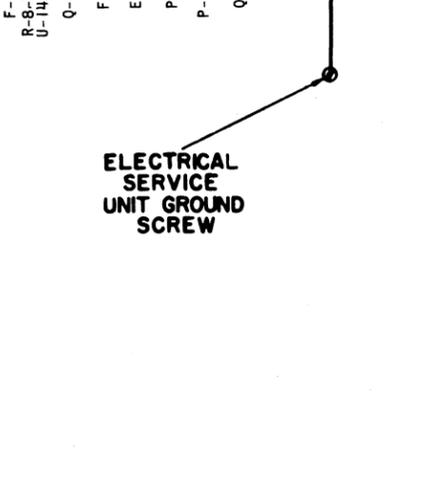
**C** CABINET TERMINAL BLOCK



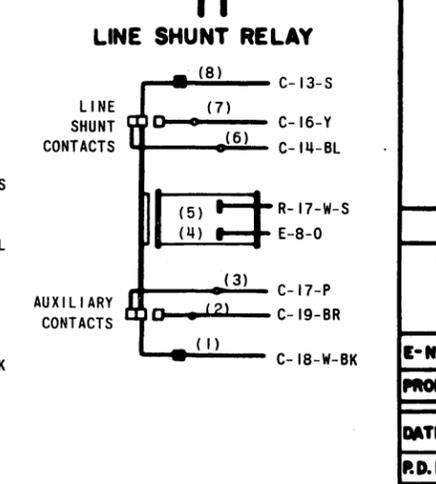
**E** POWER TERMINAL BLOCK



**F** KEYBOARD CONNECTOR (FEMALE)



**H** LINE SHUNT RELAY

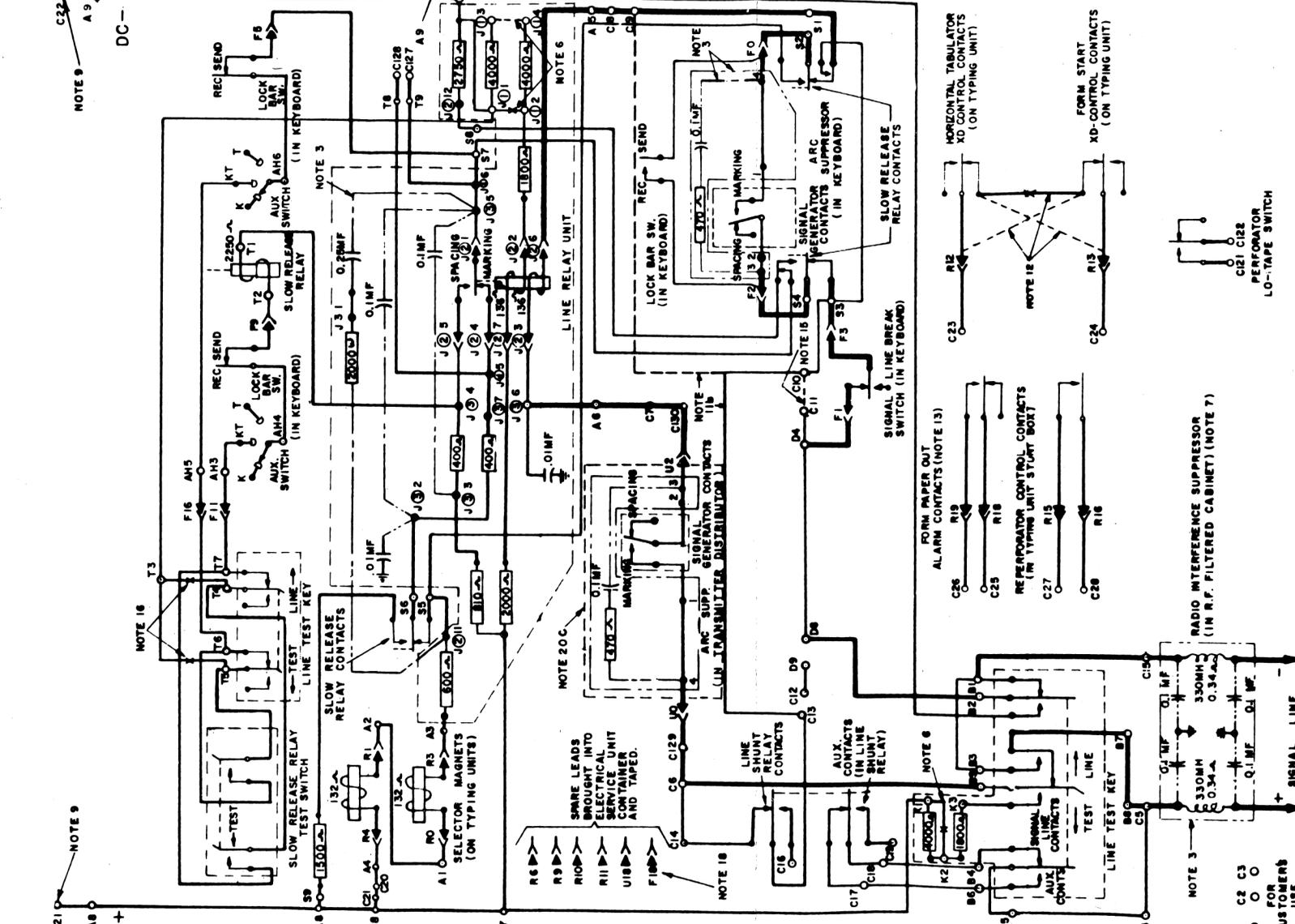
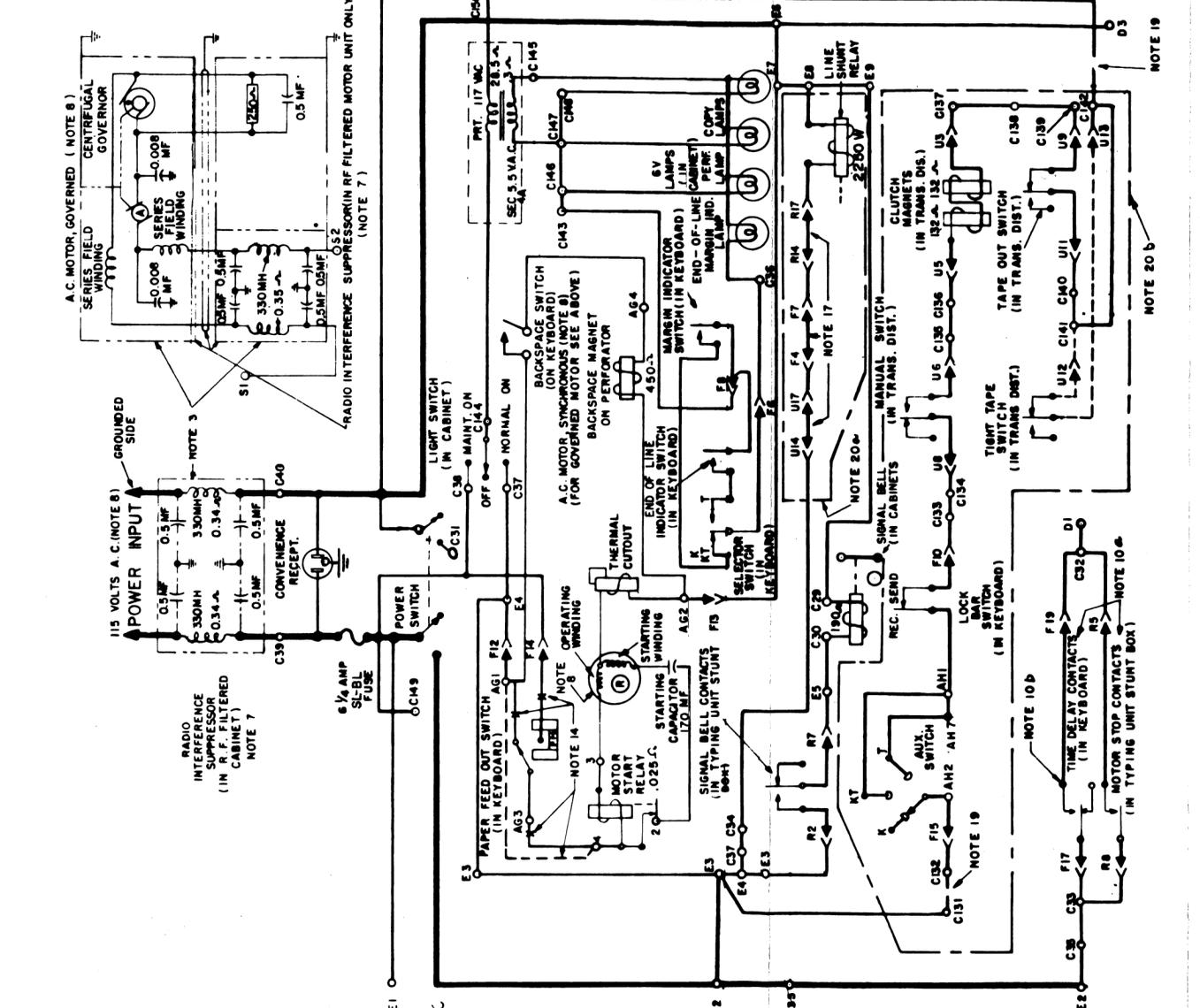
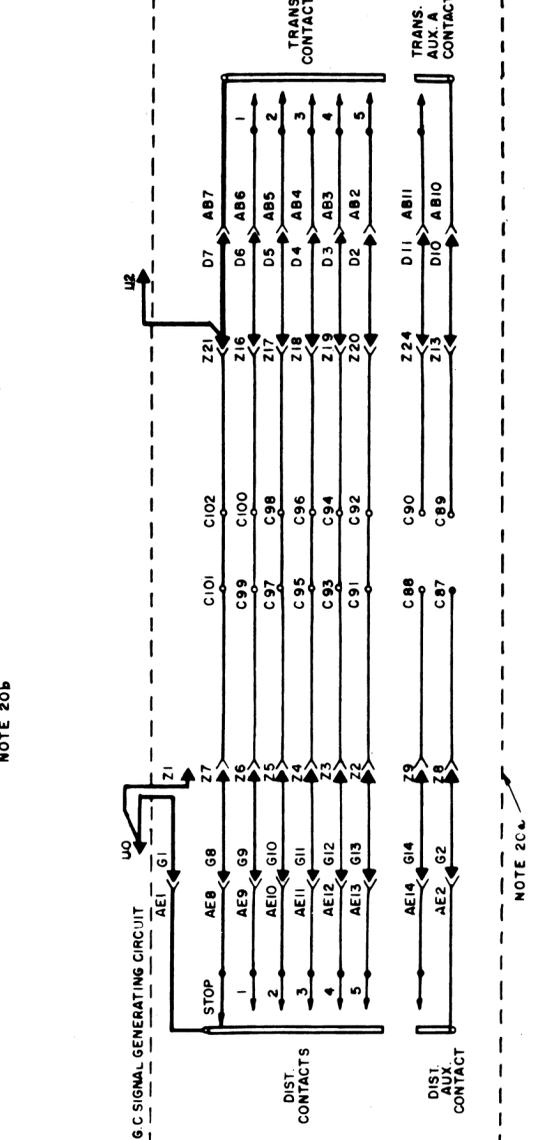
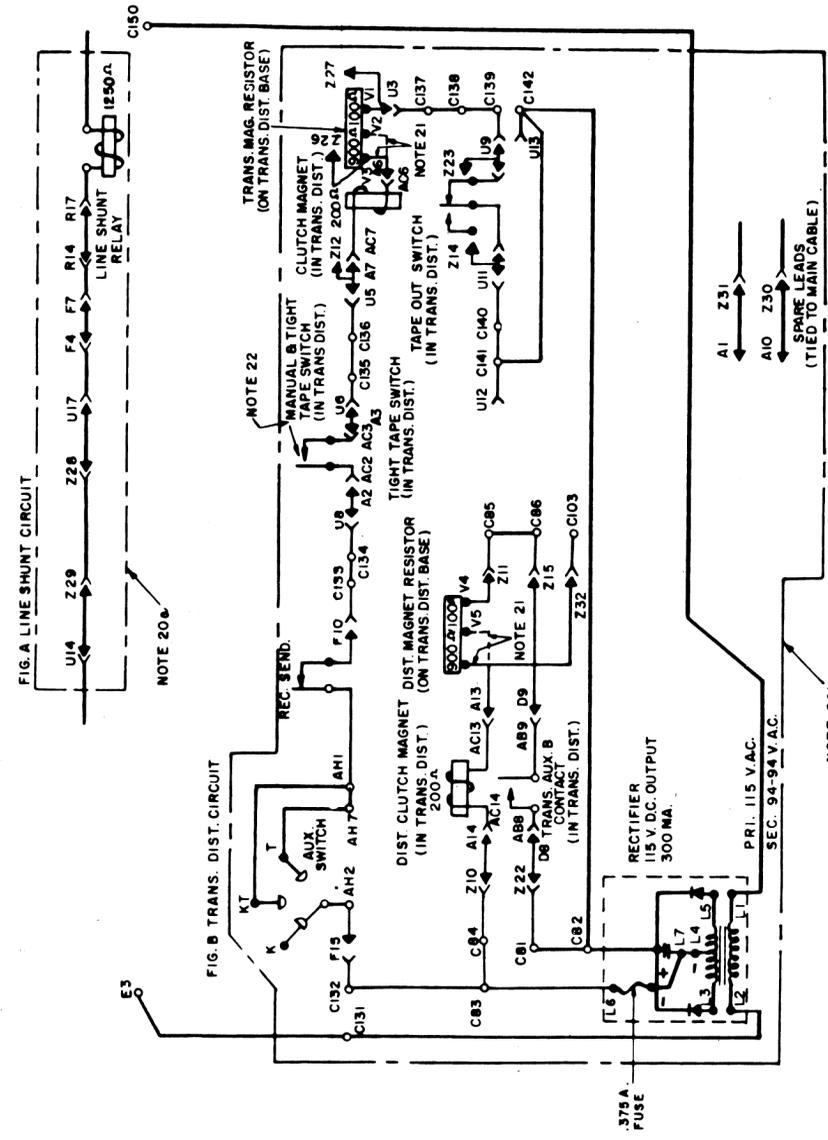


ELECTRICAL SERVICE UNIT GROUND SCREW

TO CABINET GROUND SCREW

NOTE 8 & NOTE 9





3661 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
1	4-1-54	24-118508
2	4-30-54	24-118508
3	4-29-54	24-118508
4	11-27-53	24-118508

SHEET 1 OF 2

APPROVALS  
D AND E OF M

E NUMBER  
PROJ. NO. 3661 WD

SCHEMATIC WIRING DIAGRAM  
MODEL 28  
ASR-GP-OPT. II A.C.  
WITH FACILITIES PROVIDED BY  
LESU 36 AND ASSOCIATED UNITS

DATE: 1-19-59  
P. D. FILE NO. 0-559.65AA  
DRAWN R.F.L. CHKD. J.R.M.  
ENGD. J.R.M. APPD. J.R.M.

TELETYPE CORPORATION  
3661 WD

3661 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
5	11-27-63	78857

SHEET 2 OF 2

SCHEMATIC  
WIRING DIAGRAM  
MODEL 28  
ASR-GP-OPT. II A.C.  
WITH FACILITIES  
PROVIDED BY  
LESU 36  
AND ASSOCIATED  
UNITS

TELETYPE  
CORPORATION

3661 WD

NO.	NOTES	NO.	NOTES						
1.	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE:  WD NUMBER   UNITS DIRECTLY OPERABLE WITH LESU 3264 WD   CABINETS - LAAC 200,201 3662WD   ELECTRICAL SERVICE UNIT LESU 3263WD   KEYBOARDS-LAK MOTOR UNITS-LMU PAGE TYPING UNITS-LP PAGE TYPING UNITS-LP		b. IF KEYBOARD SHUNTING IS NOT DESIRED MOVE STRAP FROM C10 TO C9.						
2.	LEGEND:  ○ A SELECTOR MAGNET TERMINAL BLOCK (IN LESU). ○ B LINE TEST KEY TERMINAL BLOCK (IN LESU). ○ C CABINET TERMINAL BLOCK. ○ D MOTOR CONTROL TERMINAL BLOCK (IN LESU). ○ E POWER TERMINAL BLOCK (IN LESU) ◀ F KEYBOARD CONNECTOR. ○ J ⊕ TERMINAL STRIP (ON LINE RELAY ASSEM. IN LESU). ◀ J ⊕ LINE RELAY CONNECTOR (IN LESU). ○ J ⊕ LINE RELAY FILTER (IN LESU). ○ K TERMINAL STRIP (ON LINE TEST KEY IN LESU). ◀ R TYPING UNIT CONNECTOR. ○ S SLOW RELEASE RELAY TERMINAL BOARD (IN LESU). ○ T TEST SWITCH TERMINAL BOARD (IN LESU). ◀ U TRANSMITTER DISTRIBUTOR CONNECTOR. ○ AG MOTOR TERMINAL BLOCK (ON LAK). ○ AH AUXILIARY SWITCH TERMINAL BLOCK (ON LAK).	12.	CIRCUIT SHOWS BOTH HORIZONTAL TABULATOR AND FORM START CONTROL USED ON TYPING UNIT. WHEN ONLY ONE CONTROL IS USED, OMIT CONNECTION MARKED (—X—) AND ADD PROPER DASHED (---) CONNECTION IN TYPING UNIT CIRCUITS.						
		13.	FORM PAPER OUT ALARM CONTACTS MAY BE MOUNTED ON EITHER THE TYPING UNIT OR EXTERNAL TO THE CABINET. IN LATTER EVENT, CONNECTIONS ARE MADE DIRECTLY TO TERMINALS C25 AND C26.						
		14.	WHEN PAPER FEED OUT SWITCH IS NOT USED, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (—X—) IN MOTOR POWER CIRCUITS.						
		15.	WHEN SIGNAL LINE BREAK SWITCH IS NOT USED IN KEYBOARD ADD (---) CONNECTION AT CABINET TERMINAL BLOCK BETWEEN C10 & C11						
		16.	TO PREVENT SLOW RELEASE RELAY FROM ENERGIZING REMOVE CONNECTIONS MARKED (—X—).						
		17.	IN ALL KEYBOARDS F4 MUST BE CONNECTED TO F7. IN ALL TRANS. DIST. U14 MUST BE CONNECTED TO U17. IN ALL TYPING UNITS R14 MUST BE CONNECTED TO R17.						
3.	DOT DASH --- LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.	18.	SPARE LEADS FROM U18 AND F18 ARE RESERVED FOR POLAR OPERATION OF SIGNAL GENERATOR.						
4.	ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.	19.	WHEN LBXD IS USED IN PLACE OF LXD;  <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>OMIT</th> <th>ADD</th> </tr> </thead> <tbody> <tr> <td>C-142 TO C-150</td> <td></td> </tr> <tr> <td>C-131 TO C-132</td> <td></td> </tr> </tbody> </table>	OMIT	ADD	C-142 TO C-150		C-131 TO C-132	
OMIT	ADD								
C-142 TO C-150									
C-131 TO C-132									
5.	a. RESISTANCE IN OHMS (Ω) b. INDUCTANCE VALUES IN MICROHENRIES (MH) c. CAPACITANCE VALUES IN MICROFARADS (MF)	20.	WHEN LBXD USED IN PLACE OF LXD USE FOLLOWING FIGURES:  FIG. A --- LINE SHUNT CIRCUIT FIG. B --- TRANS. DIST. CIRCUIT FIG. C --- SIGNAL GENERATING						
6.	CIRCUITS SHOWN FOR .060 AMP NEUTRAL SIGNAL LINE OPERATION FOR .020 AMP LINE CURRENT, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (—X—) IN LINE TEST KEY, AND LINE RELAY CIRCUITS	21.	CIRCUIT SHOWN FOR 115 V. D.C. POWER INPUT TO TRANS. DIST. CLUTCH MAGNETS FOR 48 V. D.C. POWER INPUT REMOVE AND ADD CONNECTIONS AS FOLLOWS:  DISCONNECT THE WHITE LEAD FROM V6 AND CONNECT TO V5. DISCONNECT THE PURPLE LEAD FROM V3 AND CONNECT TO V2.  POWER SUPPLY MUST DELIVER 300 MA @ 48 V. D.C. OR 200 MA @ 115 V. D.C.						
7.	a. USE POWER & SIGNAL LINE SUPPRESSOR AND SYNC. OR GOV. -FLT. MOTOR FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE. b. FOR OTHER INSTALLATIONS, OMIT SUPPRESSORS AND CONNECT INPUTS AND GOV. MOTOR DIRECTLY TO TERMINALS SHOWN.	22.	WHEN A SEPARATE TIGHT TAPE SWITCH IS USED IN LBXD THIS SWITCH BECOMES A MANUAL ON-OFF SWITCH ONLY.						
8.	USE SYNCHRONOUS MOTOR ON REGULATED 60~(±1%) A.C. POWER ONLY. GOVERNED MOTORS & OTHER POWER CIRCUITS OPERABLE ON 50 TO 60~ UNREGULATED A.C.								
9.	CIRCUITS SHOWN FOR OPERATION FROM AN EXTERNAL D.C. POWER SUPPLY, LEADS OF WHICH ARE TO BE CONNECTED TO CABINET TERMINALS C21 & C22.								
10.	a. TO OPERATE MOTOR CONTROL, SET MUST BE EQUIPPED WITH EITHER: 1. TIME DELAY MECH. OR 2. MOTOR STOP CONTACTS. b. IF TAPE POSITION IS TO BE USED IN THE ASR SET THE TIME DELAY MECHANISM MUST BE EITHER ELECTRICALLY OR MECHANICALLY DISABLED.								
11.	a. LINE SHUNT RELAY SHOWN SHUNTING LINE RELAY COIL, TRANS. DIST. SIG. GEN. AND KEYBOARD SIG. GEN.  (CONT'D ABOVE)								



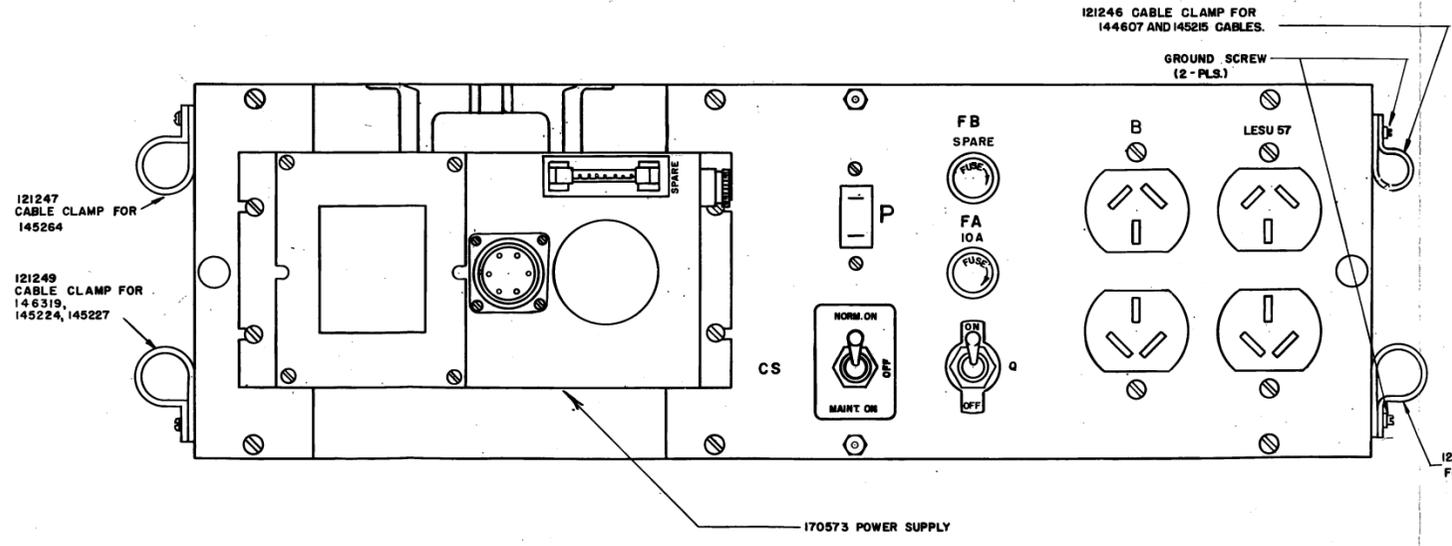
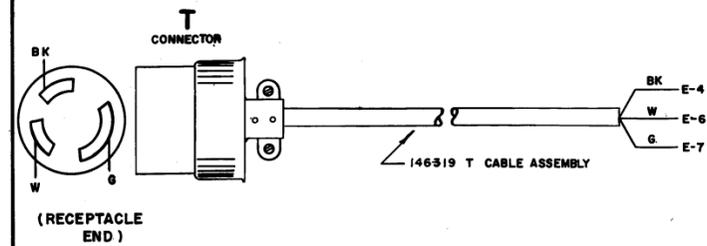
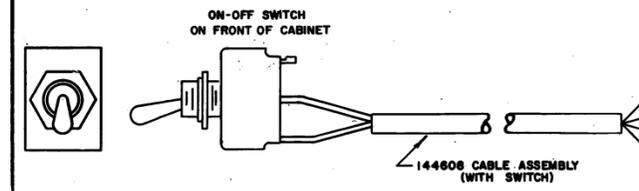
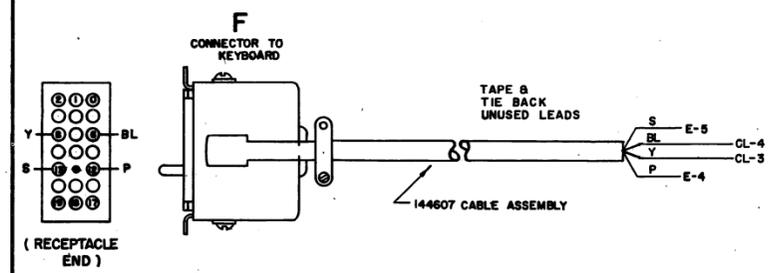
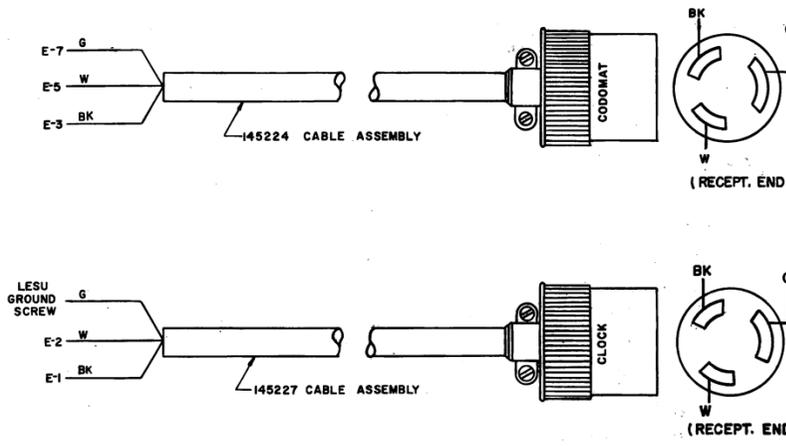
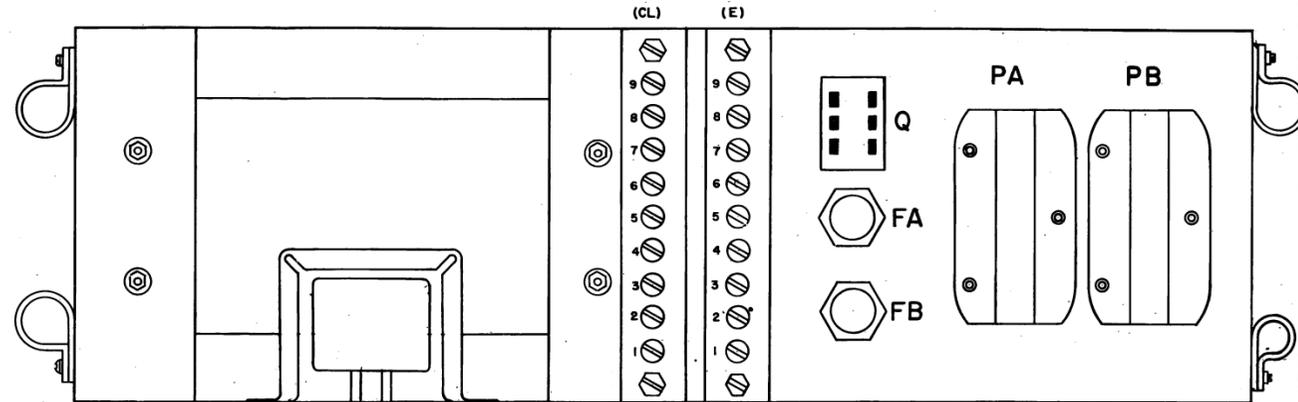
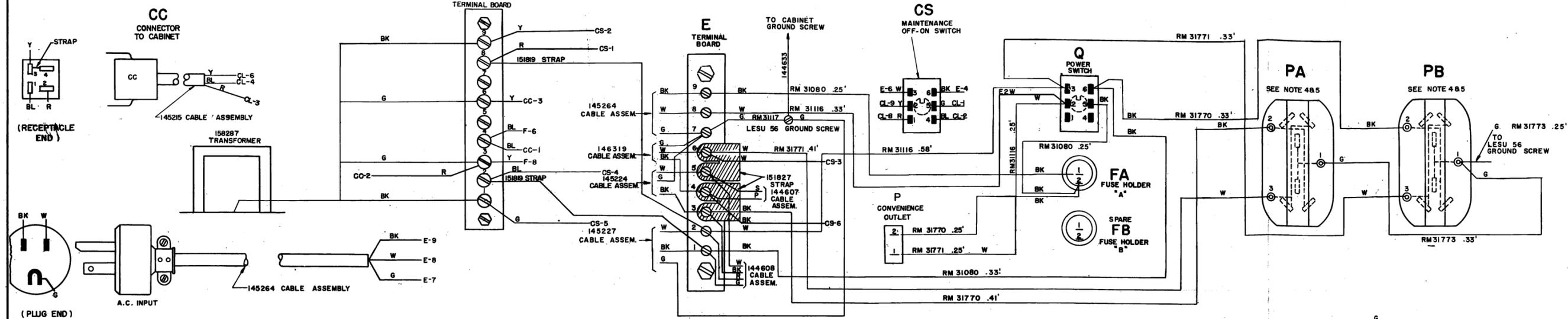
4205WD

ISSUE	DATE	AUTH. NO.
A	3-17-61	DA-463
B	4-5-61	DA-518
C	5-8-61	DA-546
D	5-31-61	69827
E	10-25-61	71386
F	1-27-62	72597

5955E

10 3/4 X 20

R2711



- NOTES
- UNIT WIRED FOR 115 VOLTS. 60. CYCLE A.C. POWER INPUT ONLY.
  - CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS.
  - CONTACTS SHOWN IN UNOPERATED OR DEENERGIZED POSITION.
  - SWITCH Q CONTROLS ALL OF LESU AND RELATED OUTGOING CABLES EXCEPT FOR CONVENIENCE OUTLET P.
  - SWITCH ON FRONT OF CABINET CONTROLS F, T & CODOMAT CABLES AND PA OUTLETS.
  - WIRING LEGEND
    - DISTANT TERMINATING AREA
    - DISTANT TERMINAL DESIGNATION
    - WIRE COLOR CODE

7. COLOR CODE
- BK - BLACK
  - BR - BROWN
  - R - RED
  - G - GREEN
  - P - PURPLE
  - W - WHITE
  - S - SLATE
  - Y - YELLOW
  - BL - BLUE

ACTUAL WIRING DIAGRAM OF LESU 56

APPROVALS

D AND R	E OF M
---------	--------

E-NUMBER  
PROD. NO. 4205WD

DATE: 8-29-60  
RD. FILE NO. 1-A25/65.219A

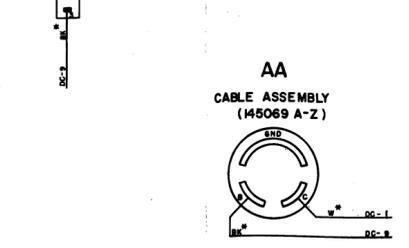
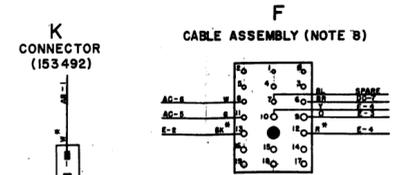
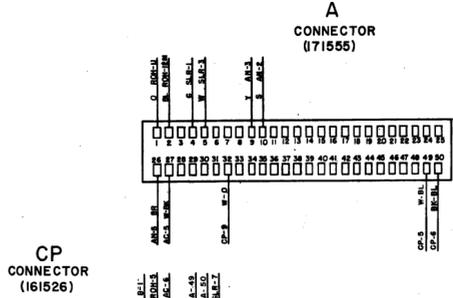
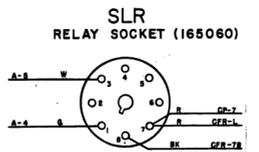
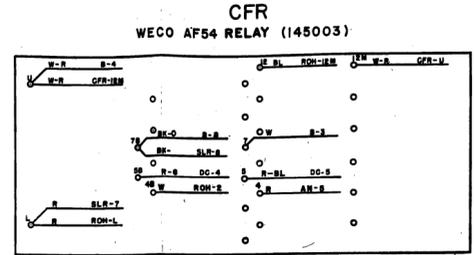
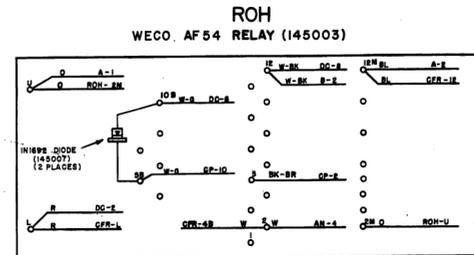
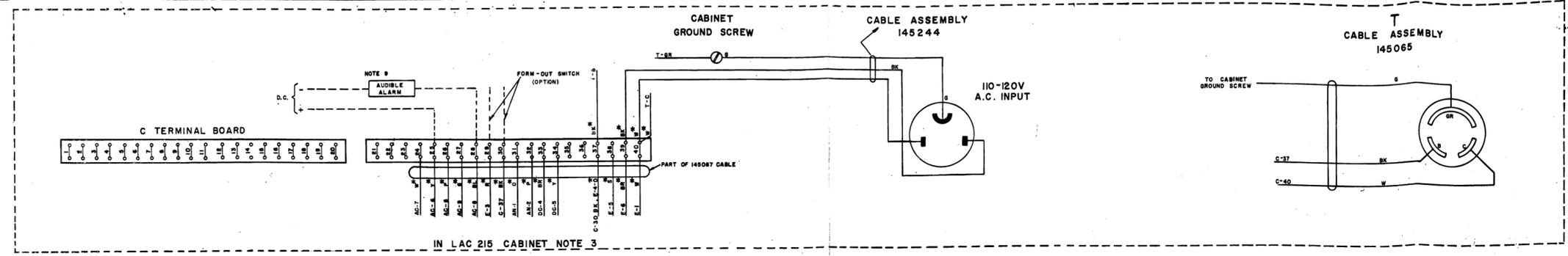
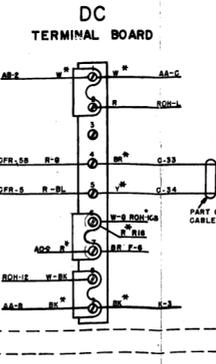
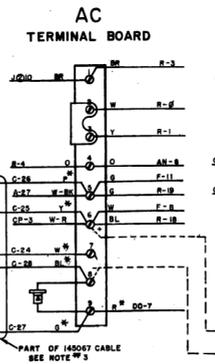
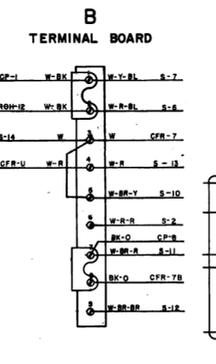
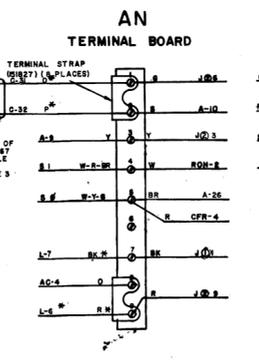
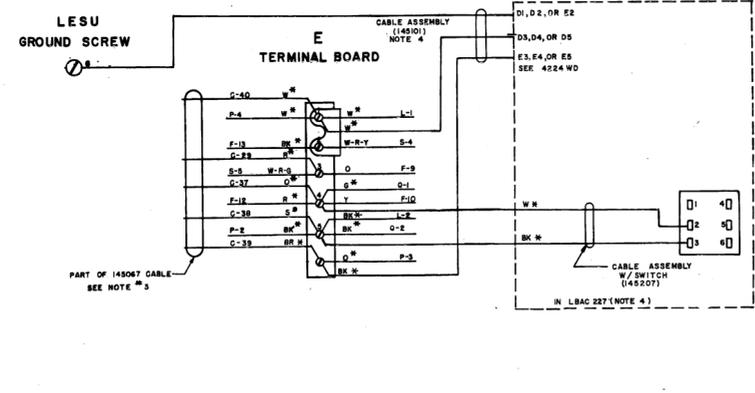
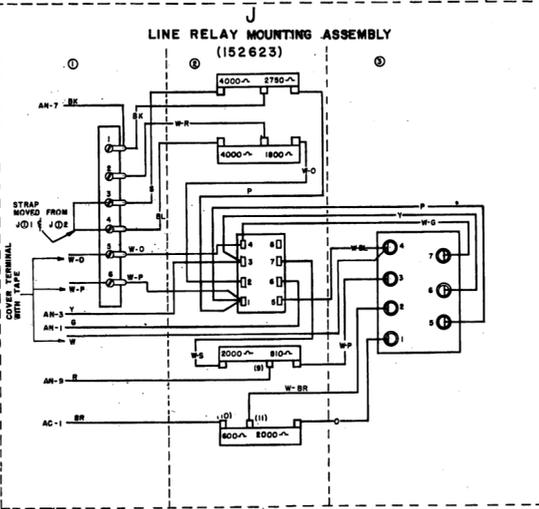
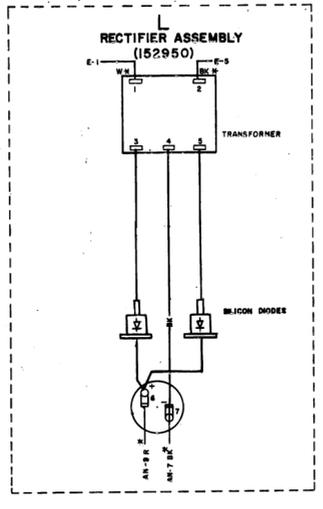
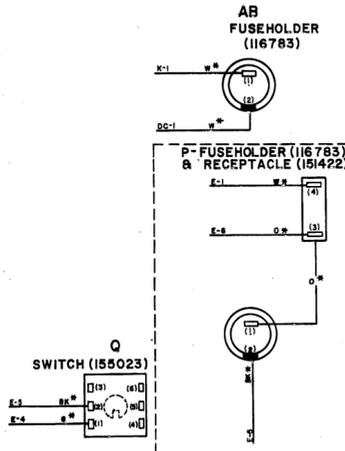
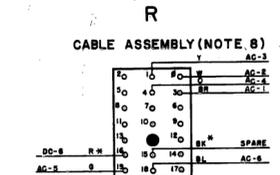
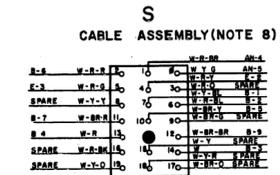
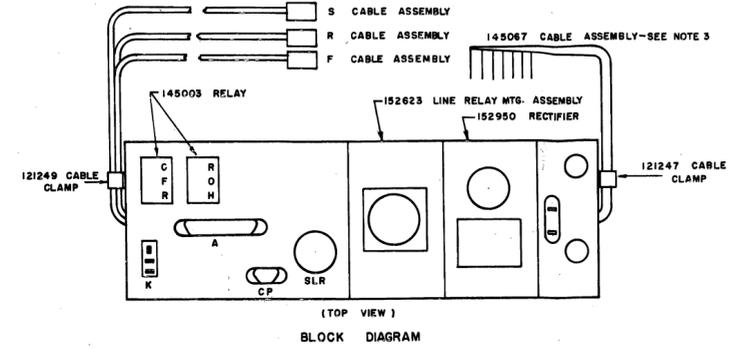
DRAWN	WAM	CHKD.
ENGD.	GRC	APPR.

TELETYPE CORPORATION  
4205WD

4206 WD	
REV.	DATE
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2	10-17-60
3	10-17-60
4	10-17-60
5	10-17-60
6	10-17-60
7	10-17-60
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44	10-17-60
45	10-17-60
46	10-17-60
47	10-17-60
48	10-17-60
49	10-17-60
50	10-17-60

4206  
4049-1

- NOTES**
1. WIRING LEGEND: DISTANT TERMINATING AREA, DISTANT TERMINAL DESIGNATION, WIRE COLOR CODE.
  2. COLOR CODE: BK-BLACK, BR-BROWN, R-RED, O-ORANGE, Y-YELLOW, G-GREEN, BL-BLUE, W-WHITE, SL-SLATE.
  3. WHEN LESU IS USED IN LAC 215.
  4. WHEN LESU IS USED IN LAC 227.
  5. S DENOTES IS AWG.
  6. TAPE & THE BACK SPARE LEADS.
  7. SWITCH Q MUST BE IN "OFF" POSITION WHEN LESU IS INSTALLED IN LAC 227.
  8. CABLES USED: CABLE ASSEMBLY, W/LAC 215, W/LAC 227.
  9. AUDIBLE ALARM TO BE FURNISHED BY CUSTOMER.
  10. TO CONNECT AUXILIARY PRINTER OR REPERFORATOR WITH LINE RELAY: A. REMOVE STRAP CONNECTING AN-1 TO AN-2. B. CONNECT + LINE SIDE OF LINE RELAY COIL TO AN-1 OR C-31. C. CONNECT - LINE SIDE OF LINE RELAY COIL TO AN-2 OR C-32.
  11. TO RECEIVE ON AUXILIARY UNIT ONLY AFTER CONFIRMATION HAS BEEN RECEIVED BY THE RECEIVING SET, CONNECT DC-4 AND DC-5 OR C-38 AND C-39 ACROSS THE AUXILIARY LINE RELAY CONTACTS.
  12. AUXILIARY LOOP BATTERY BIAS WINDING, MOUNTING FACILITIES, ETC. MUST BE PROVIDED BY THE CUSTOMER AND ARE NOT SHOWN.
  13. CABLES USED 145013, 145210.
  14. ASSOCIATED SCHEMATIC 4242WD.
  15. RELAY CORE PLATES TO BE STAMPED WITH CIRCUIT DESIGNATIONS AS INDICATED ON BLOCK DIAGRAM USING 1/8" BLACK 60THIC LETTERS.



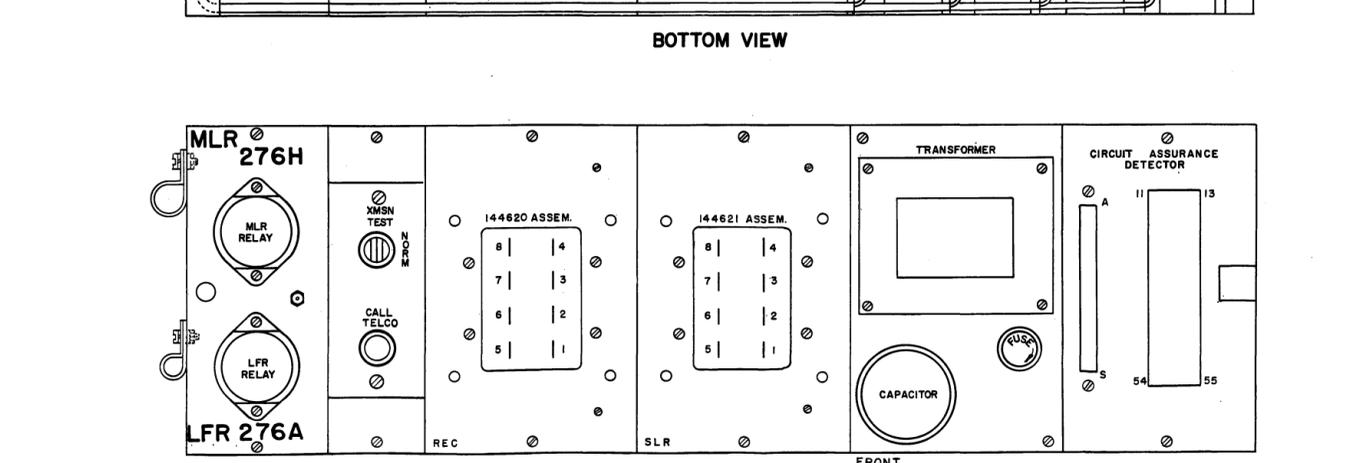
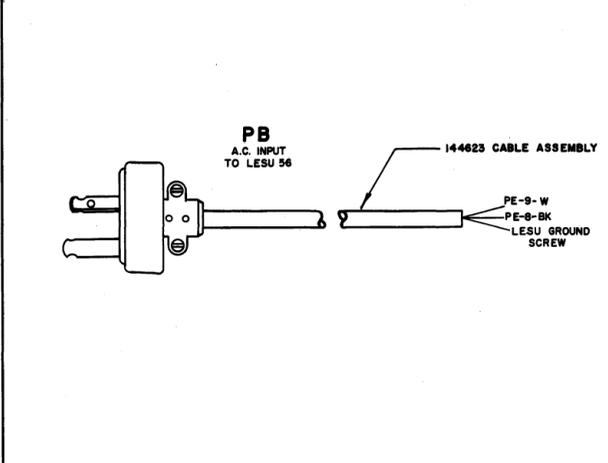
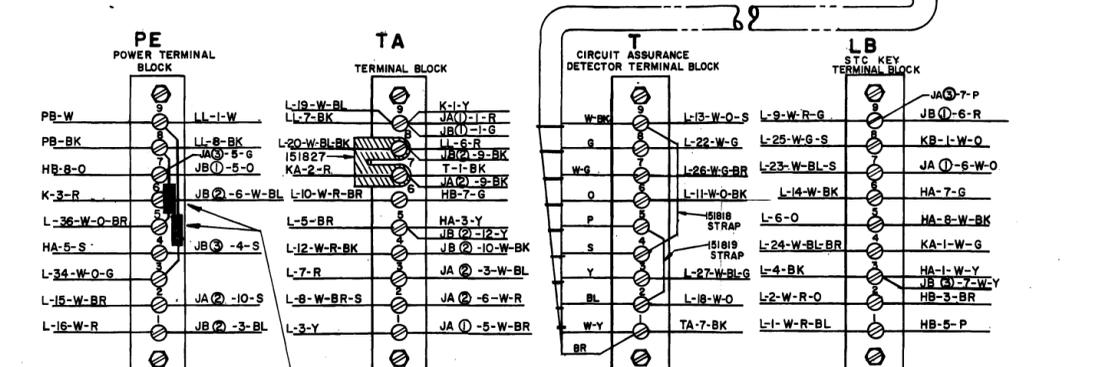
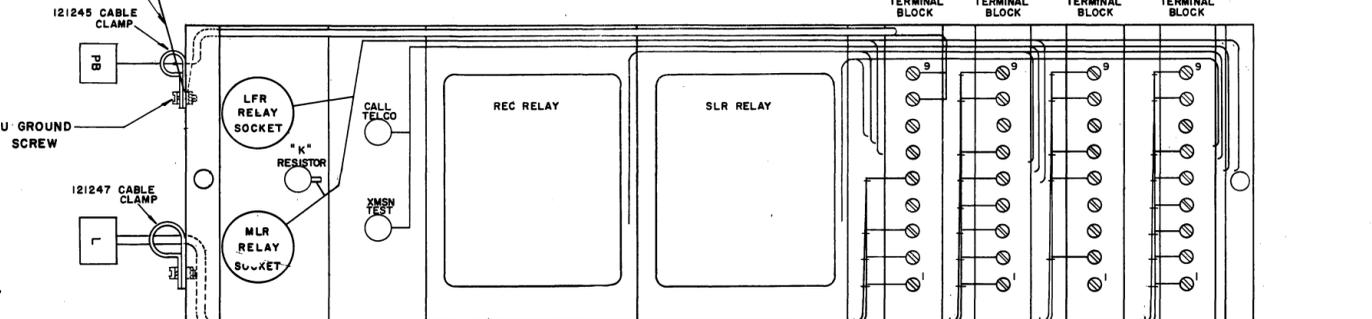
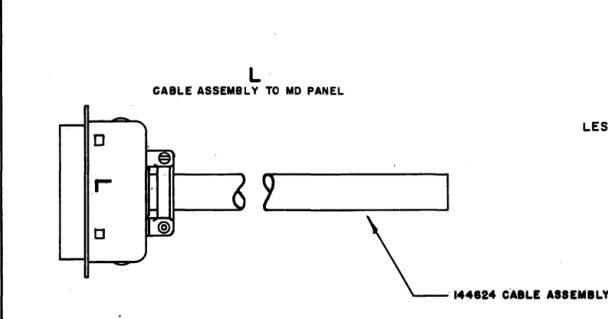
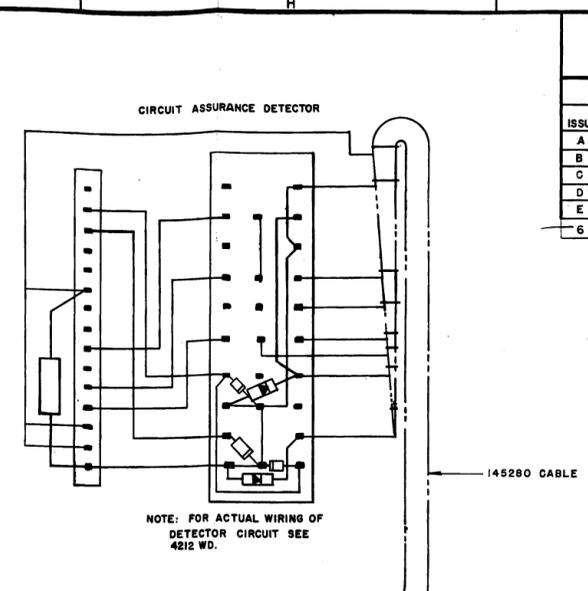
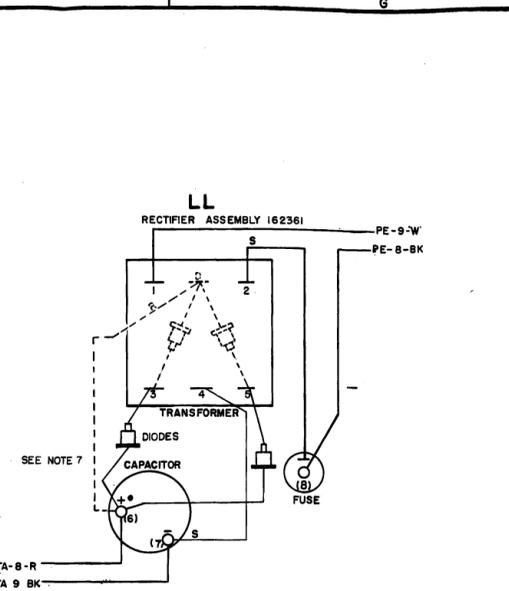
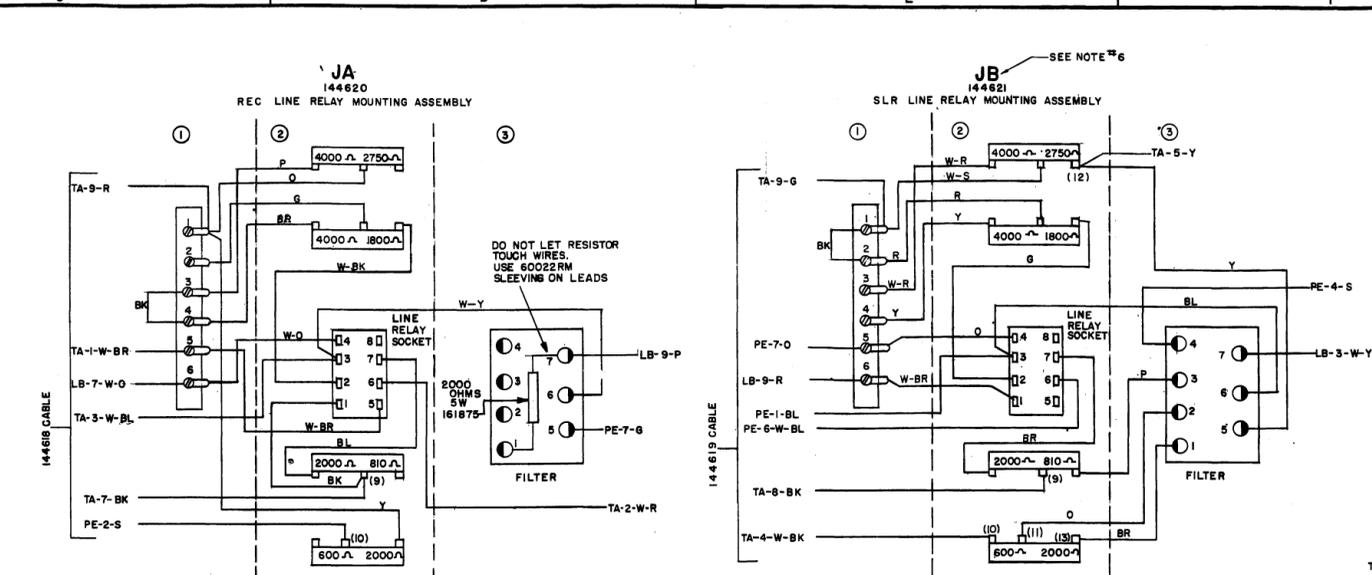
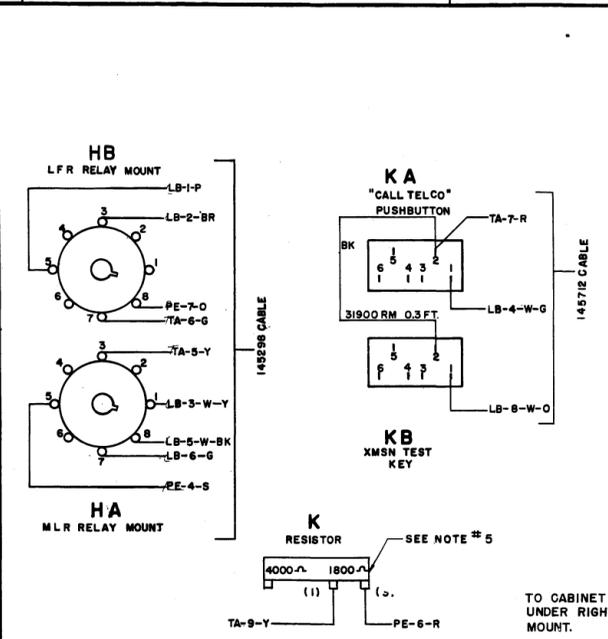
4049-1

4206  
4049-1

ACTUAL WIRING DIAGRAM FOR LESU 58  
APPROVALS  
DATE: 10-17-60  
PROJ. FILE NO. 4206 WD  
DRAWN BY: J. J. COOK  
ENGR. R. P. APPROVED  
TELETYPE SOLUTIONS  
4206 WD

ISSUE	DATE	AUTH. NO.
A	1-31-61	DA398
B	2-21-61	DA488
C	6-5-61	69794
D	6-6-61	69916
E	4-2-63	76521
6	1-28-69	96295

- NOTES**
1. WIRING LEGEND:  
 DISTANT TERMINATING AREA  
 DISTANT TERMINAL DESIGNATION  
 WIRE COLOR CODE
  2. BK-BLACK BR-BROWN  
 R-RED O-ORANGE  
 Y-YELLOW G-GREEN  
 BL-BLUE P-PURPLE  
 W-WHITE S-SLATE
  3. UNIT WIRED FOR 115 VOLTS, 60 CYCLE AC. POWER INPUT ONLY.
  4. PLUGS VIEWED FROM SOLDER TERMINAL END.
  5. MOUNT "K" RESISTOR WITH 1800 OHM TERMINALS NEAR MOUNTING PLATE. USE 60022 SLEEVING ON TERMINALS, 3/4 IN. LONG.
  6. CONNECT CABLE 145280 FIRST AND RECTIFIER ASSEMBLY NEXT.
  7. EARLIER 162361 ASSEMBLIES WERE WIRED WITH DIODES CONNECTED TO "D" POST ON TRANSFORMER AND WITH RED WIRE FROM "D" POST ON CAPACITOR (SHOWN DOTTED). LATER MODELS WERE WIRED AS SHOWN WITH SOLID LINES.



165448  
 100 Ω 1W  
 RESISTORS  
 2 PLS  
 USE 60022 RM SLEEVING  
 OVER LEADS  
 DO NOT LET RESISTOR  
 TOUCH OTHER WIRES.

**ACTUAL WIRING DIAGRAM OF LESU 57**

**APPROVALS**

D AND R	E OF M
---------	--------

E-NO. 15E55-2  
 PROD. NO. 4211 WD  
 DATE: 8-16-60  
 RFD. FILE NO. 1-A25/65.219A  
 DRAWN: WAW  
 GIC CHKD: [Signature]  
 ENGD: GC  
 APPD: [Signature]

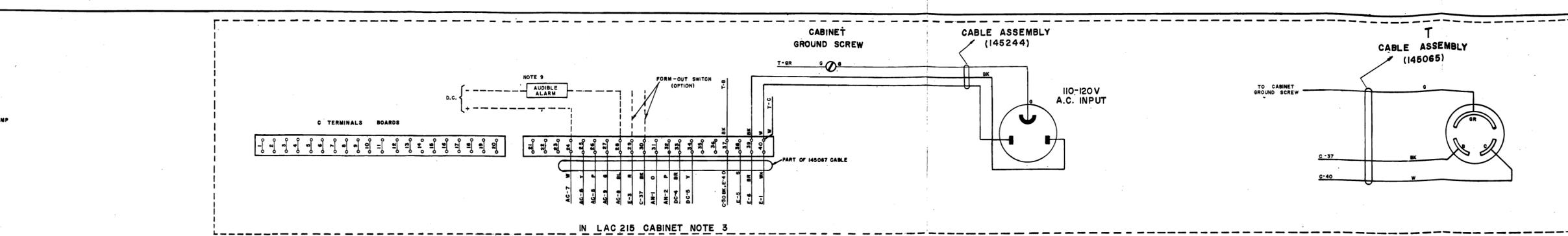
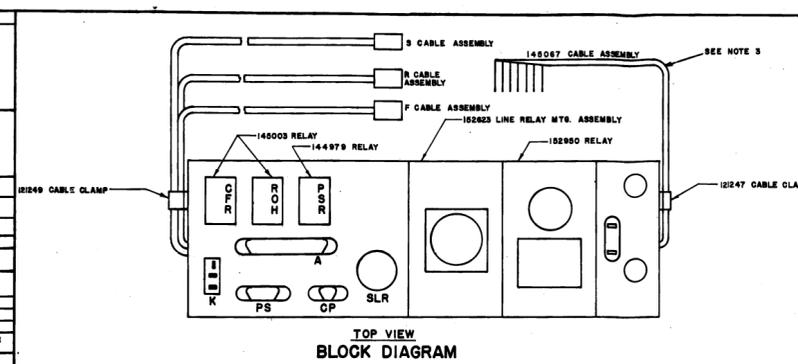
**TELETYPE CORPORATION**

4211 WD

10 3/4 x 26  
 P-27

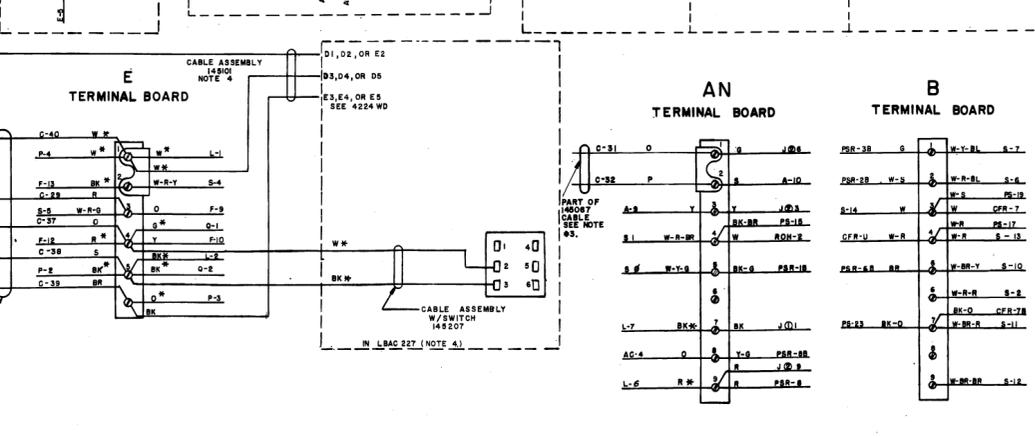
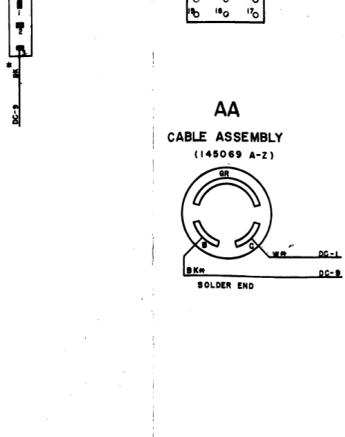
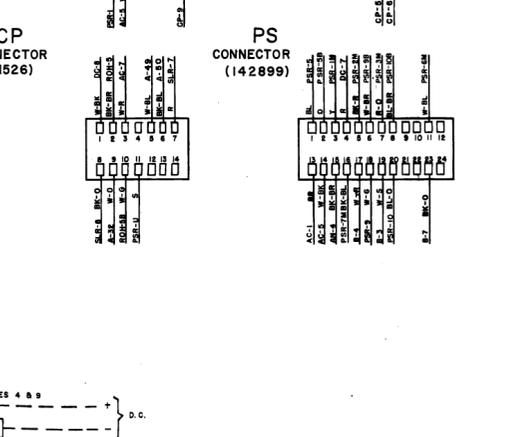
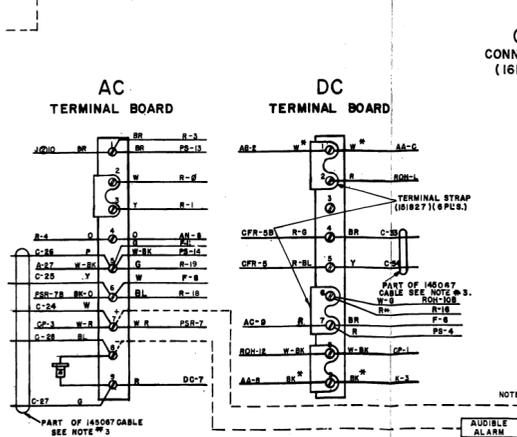
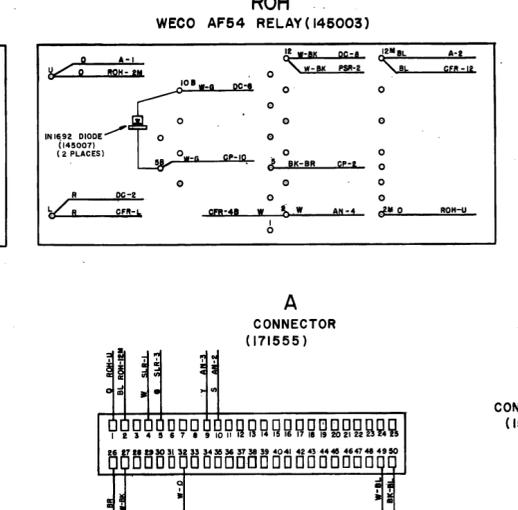
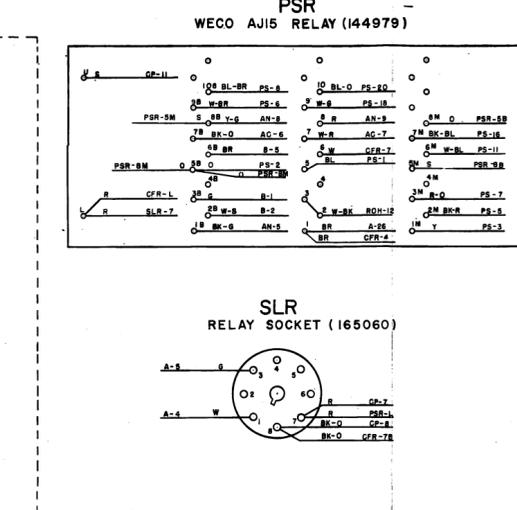
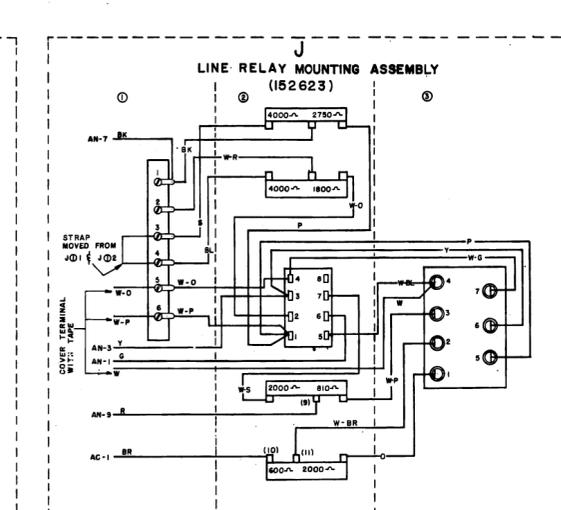
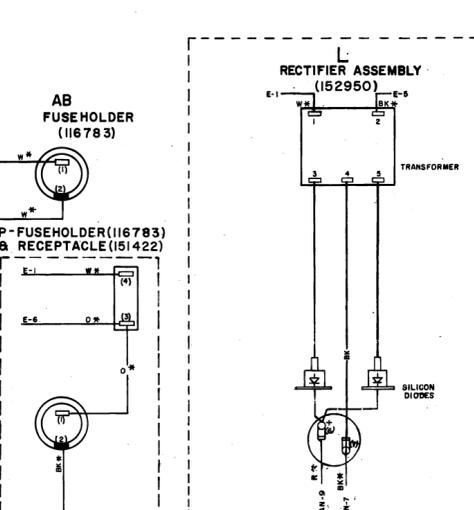
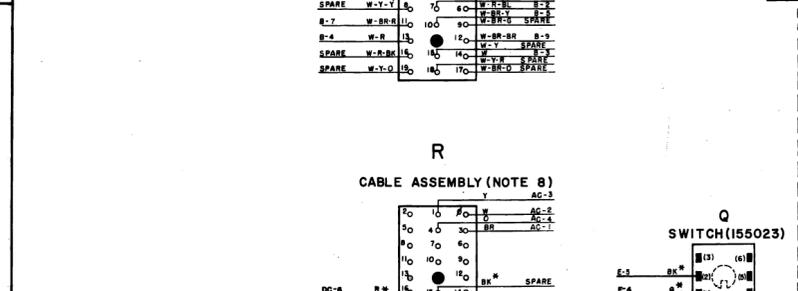
419  
7502-1  
10 X 33  
R-23

- NOTES**
1. WIRING LEGEND: DISTANT TERMINATING AREA - DISTANT TERMINAL DESIGNATION (E-BL) WIRE COLOR CODE.
  2. COLOR CODE: BK-BLACK, BR-BROWN, G-GREEN, BL-BLUE, RD-RED, O-ORANGE, Y-YELLOW, W-WHITE, P-PURPLE, S-SLATE.
  3. WHEN LESU IS USED IN LAC 215.
  4. WHEN LESU IS USED IN LAC 217.
  5. R DENOTES 15 AWG.
  6. TAPES & TIE BACK SPARE LEADS.
  7. SWITCH Q MUST BE IN OFF POSITION WHEN LESU IS INSTALLED IN LAC227.
  8. CABLES USED: 145014, 145210.
  9. ASSOCIATED SCHEMATIC WD 4843.
  10. RELAY COME PLATES TO BE STAMPED WITH CIRCUIT DENOTATION AS INDICATED ON BLOCK DIAGRAM UNLESS BLACK LETTERS.



**CABLES USED**

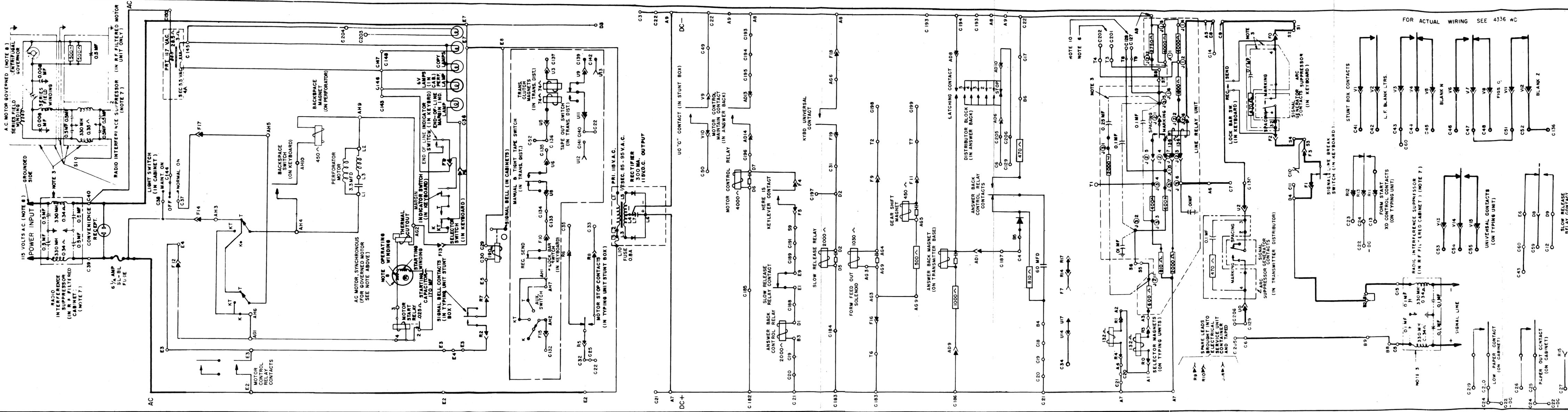
CABLE ASSEMBLY	W/LAC 215	W/LAC 217
F	145282	145064
R	145283	145062
S	145284	145063



**4219 WD**

REV.	DATE	BY	APP.	DESCRIPTION
1	10-17-60			INITIAL DESIGN
2	10-17-60			REVISED
3	10-17-60			REVISED
4	10-17-60			REVISED
5	10-17-60			REVISED
6	10-17-60			REVISED
7	10-17-60			REVISED
8	10-17-60			REVISED
9	10-17-60			REVISED
10	10-17-60			REVISED

**ACTUAL WIRING DIAGRAM FOR LESU59**  
**APPROVALS**  
DATE: 10-17-60  
DRAWN: R.L. CHAS. W. APPROV.:  
ENGR. P.P. APPROV.:  
**TELETYPE CORPORATION**  
4219 WD



4335 WD	
REVISONS	
ISSUE	DATE
1	3-1-61
2	7-2-61

SEE SHEET 2 FOR NOTES

SHEET 1 OF 2

APPROVALS	
D AND	E OF M

SCHEMATIC WIRING DIAGRAM  
 MODEL 28 ASR  
 WITH FACILITIES PROVIDED BY ELECT. SERVICE UNIT LESU 66 AND ASSOCIATED UNITS

NUMBER PROD. NO. 4335 WD  
 DATE: 2-10-61  
 P.D. FILE NO. 22-A65.219A  
 DRAWN J.W.P. CHKD. G.W.A.  
 ENGD. G.E.W. APPD.

TELETYPE CORPORATION  
 4335 WD

5730-C

54 X 10 3/4

R4

NO	NOTES
	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE: WD NUMBER   UNITS DIRECTLY OPERABLE WITH LESU
1	4337 WD CABINETS - LAAC 233 4336 WD ELECTRICAL SERVICE UNIT LESU 66 4738 WD KEYBOARDS - LAK 27 2900 WD MOTOR UNITS - LMU 3,4,6 4340 WD PAGE TYPING UNITS - LP 93 3573 WD TRANSMITTER DISTRIBUTOR - LXD 5 4359 WD TRANSMITTER DISTRIBUTOR - BASED LDXCWD
2	<b>LEGEND</b> O A SELECTOR MAGNET TERMINAL BLOCK (IN LESU) O B TERMINAL BLOCK (IN LESU) O C CABINET TERMINAL BLOCK O D MOTOR CONTROL TERMINAL BLOCK (IN LESU) O E POWER TERMINAL BLOCK (IN LESU) ▲ F KEYBOARD CONNECTOR J ① TERMINAL STRIP (ON LINE RELAY ASSEMB. IN LESU) J ② LINE RELAY CONNECTOR (IN LESU) J ③ LINE RELAY FILTER (IN LESU) L TERMINAL BLOCK (ON LPE) ▲ R TYPING UNIT CONNECTOR O S TERMINAL BLOCK (IN LESU) O T TERMINAL BLOCK (IN LESU) ▲ U TRANSMITTER DISTRIBUTOR CONNECTOR O AB MOTOR TERMINAL BLOCK (ON LAK) O AH AUXILIARY SWITCH TERMINAL BLOCK (ON LAK) ▲ Z TRANSMITTER DISTRIBUTOR CONNECTOR (LBXD) ▲ AD ANSWER BACK CONNECTOR (ON LAXB) ▲ V STUNT BOX CONNECTOR
3	DOT DASH - - - LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.
4	ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.
5	a RESISTANCE IN OHMS (Ω) b INDUCTANCE VALUES IN MICROHENRIES (MH) c CAPACITANCE VALUES IN MICROFARADS (MF)
6	FOR .060 AMP OPERATION ADD STRAP BETWEEN C201 AND C202.
7	USE POWER & SIGNAL LINE SUPPRESSOR AND SYNC. OR GOV. FILT. MOTOR FOR INSTALLATIONS REQUIRING MINIMUM R F INTERFERENCE. FOR OTHER INSTALLATIONS, OMIT SUPPRESSORS AND CONNECT INPUTS AND GOV. MOTOR DIRECTLY TO TERMINALS SHOWN.
8	USE SYNCHRONOUS MOTOR ON REGULATED 60~ (±1%) A.C. POWER ONLY GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60~ UNREGULATED A.C.
9	WHEN SIGNAL LINE BREAK SWITCH IS NOT USED IN KEYBOARD ADD TAPPED (---) CONNECTION AT CABINET TERMINAL BLOCK BETWEEN G10 AND G11.
10	CONNECT G12 TO G123 TO BLIND PAGE PRINTER SELECTOR MAGNETS.

NO	NOTES

4335 WD		
REVISIONS		
ISSUE	DATE	AUTHNO.
R	III-23-63	78858

SHEET 2 OF 2

SCHEMATIC  
 WIRING DIAGRAM  
 MODEL 28 ASR

WITH FACILITIES  
 PROVIDED BY  
 ELECT. SERVICE UNIT  
 LESU 66  
 AND ASSOCIATED  
 UNITS

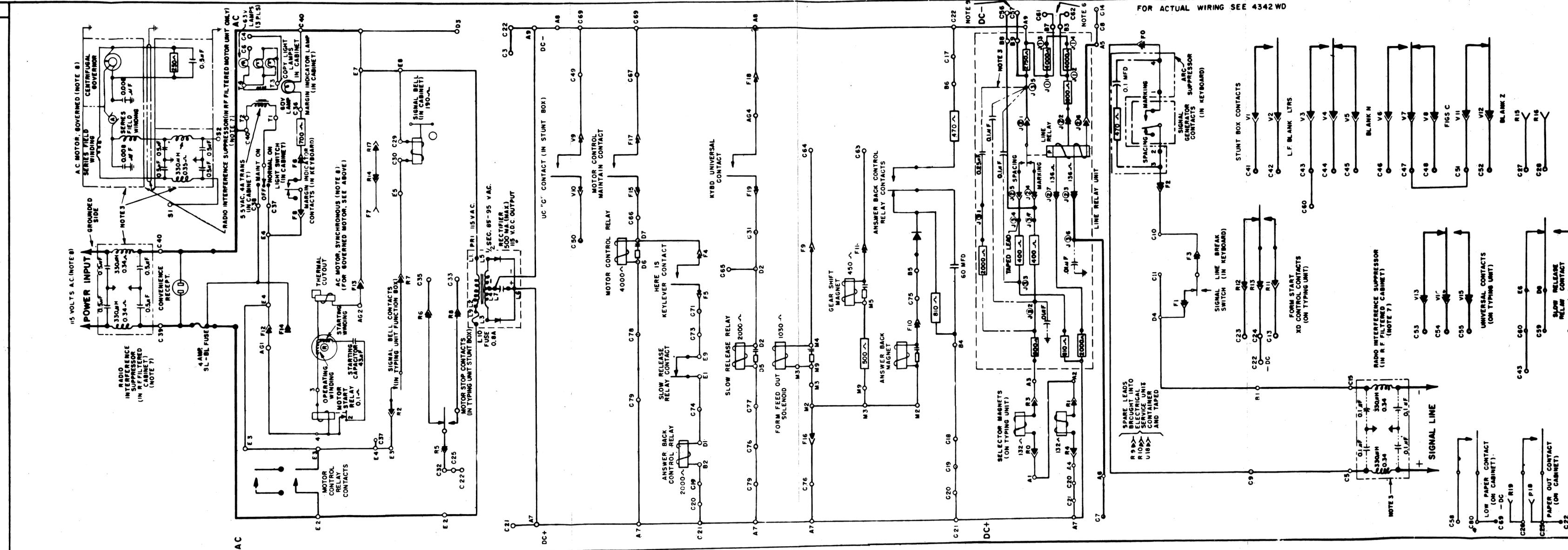
TELETYPE CORPORATION

4335 WD



- NO** NOTES
- 1 FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS, SEE: WB NUMBER UNITS DIRECTLY OPERABLE WITH LESU
- |         |                              |
|---------|------------------------------|
| 4344 WD | CABINET LAC216               |
| 4342 WD | ELECTRICAL SERVICE UNIT-LESU |
| 4343 WD | KEYBOARDS-LK                 |
| 2900 WD | MOTOR UNITS-LMU,4,6          |
| 4340 WD | PAGE TYPING UNITS-LP         |
- 2 LEGEND
- V STUNT BOX CONNECTOR (IN LP)
  - A SELECTOR MAGNET TERMINAL BLOCK (IN LESU)
  - B CABINET TERMINAL BLOCK
  - C MOTOR CONTROL TERMINAL BLOCK (IN LESU)
  - D POWER TERMINAL BLOCK (IN LESU)
  - E KEYBOARD CONNECTOR
  - F TERMINAL STRIP (ON LINE RELAY ASSEM. IN LESU)
  - G LINE RELAY CONNECTOR (IN LESU)
  - H LINE RELAY FILTER (IN LESU)
  - I TYPING UNIT CONNECTOR
  - J AG MOTOR TERMINAL BLOCK (IN LK)
  - K TERMINAL BLOCK (IN LK)
- 3 DOT DASH LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.
- 4 ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.
- 5 R. RESISTANCE VALUES IN OHMS (Ω)  
L. INDUCTANCE VALUES IN MICRORHENNES (μH)  
C. CAPACITANCE VALUES IN MICROPARADS (μF)
- 6 FOR .050 AMP OPERATION ADD STRAP BETWEEN C61 AND C62
- 7 G. USE POWER AND SIGNAL LINE SUPPRESSOR AND SYNC. OR GOV.-FLT. MOTOR FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE.  
A. FOR OTHER INSTALLATIONS, OMIT SUPPRESSORS AND CONNECT INPUTS AND GOV. MOTOR DIRECT TO TERMINALS SHOWN.
- 8 USE SYNCHRONOUS MOTOR OR REGULATED 60±1% A.C. POWER ONLY GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60 UNREGULATED A.C.
- 9 CONNECT C66 TO C57 TO BLIND PAGE PRINTER SELECTOR MAGNETS.

- NO** NOTES



**4341 WD**

REV.	DATE	AUTH. NO.
A	11-24-61	71782
B	1-21-63	75770
C	1-13-63	78858

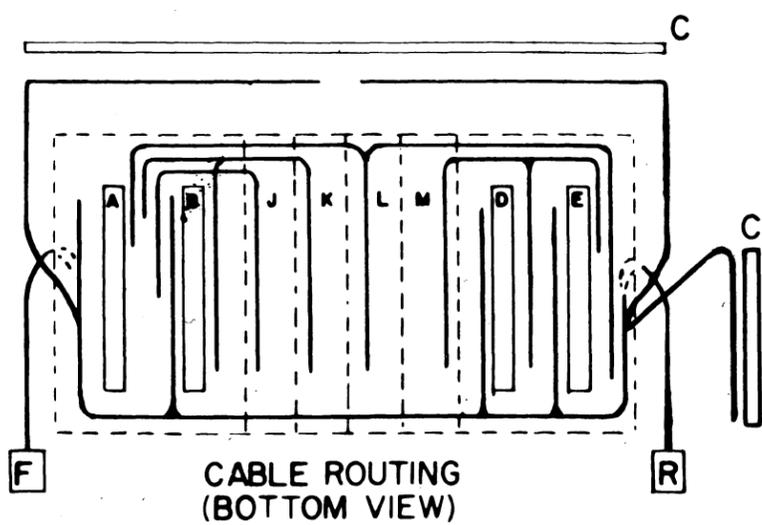
**APPROVALS**

DESIGNED BY	W. E. W.
DRAWN BY	W. E. W.
CHECKED BY	W. E. W.
ENG'D BY	W. E. W.

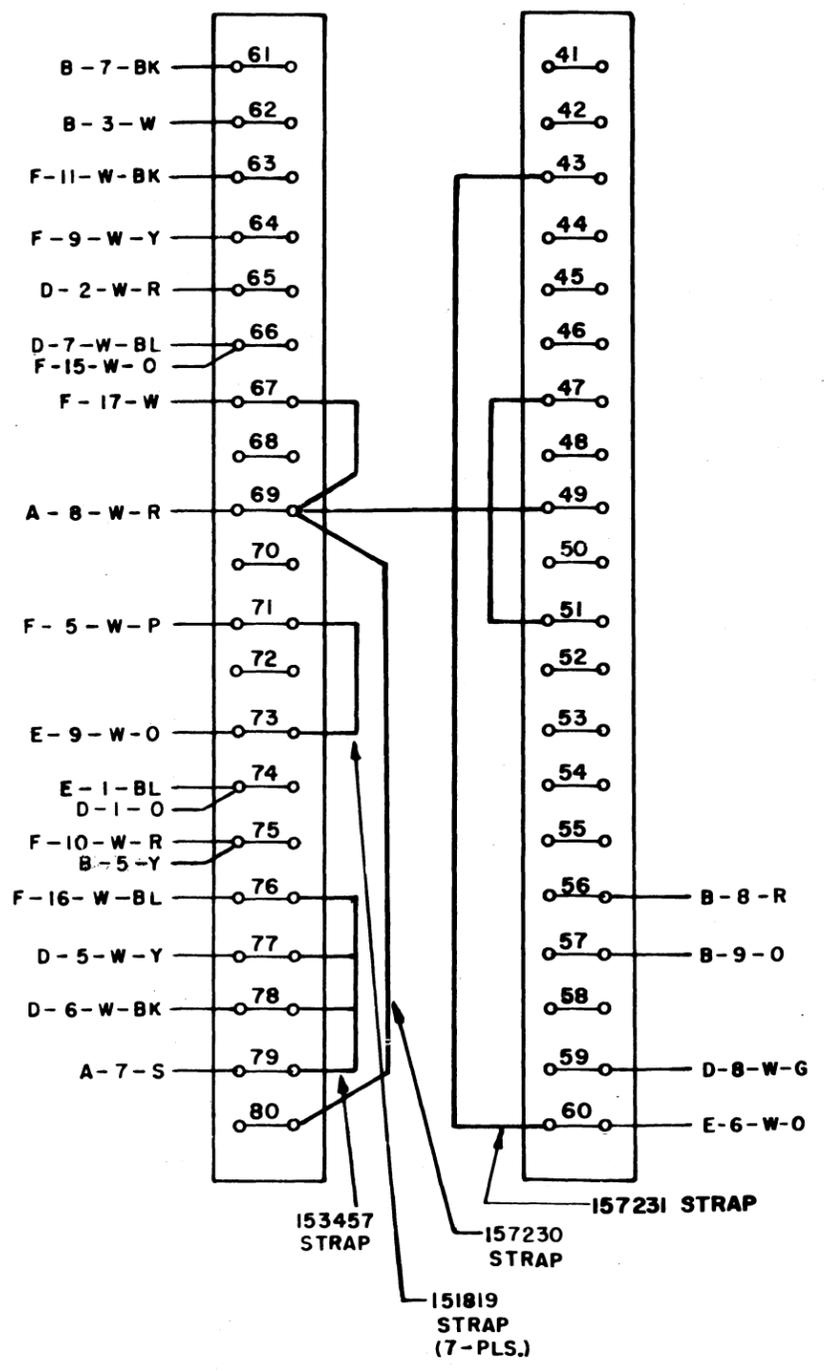
SCHEMATIC WIRING DIAGRAM MODEL 28 KSR WITH FACILITIES PROVIDED BY ELECT. SERVICE UNIT LESU 67 AND ASSOCIATED UNITS

DATE: 1-11-61  
 P.D. FILE NO: 22-485219A  
 DRAWN: W. E. W.  
 ENG'D: W. E. W.  
**TELETYPE CORPORATION**  
 4341 WD

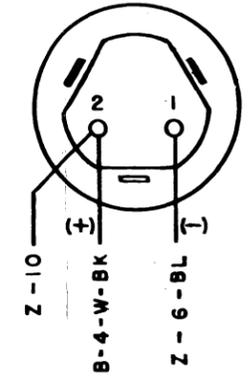
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ISSUE	DATE	AUTH. NO.
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B	8-30-61	70817
C	11-25-61	71752
D	1-21-63	75770



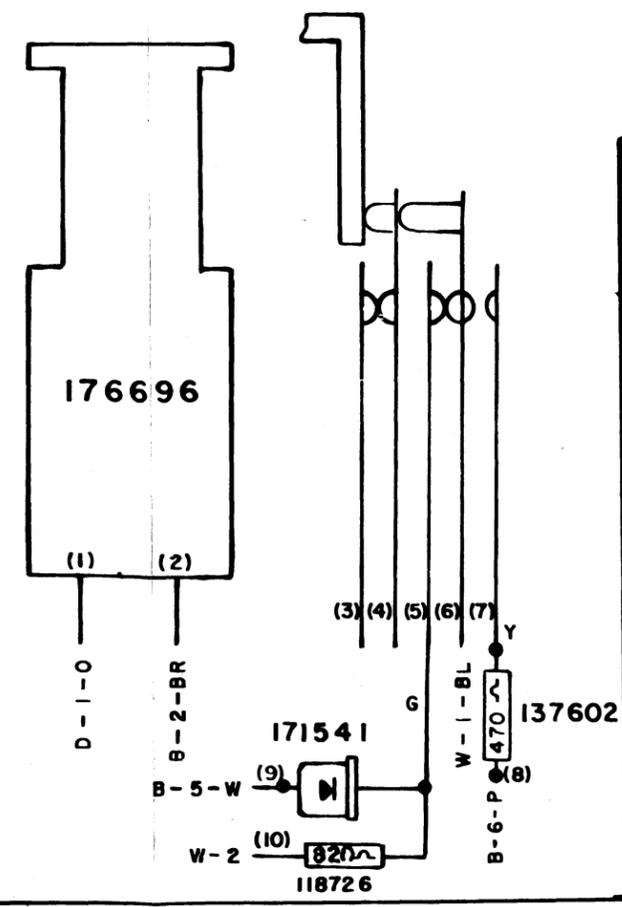
C  
CABINET TERMINAL BLOCK



W  
CAPACITOR  
176788



Z  
SLOW RELEASE RELAY,  
DIODE AND RESISTORS



SEE SHEET 2  
FOR NOTES

SHEET 1 OF 2

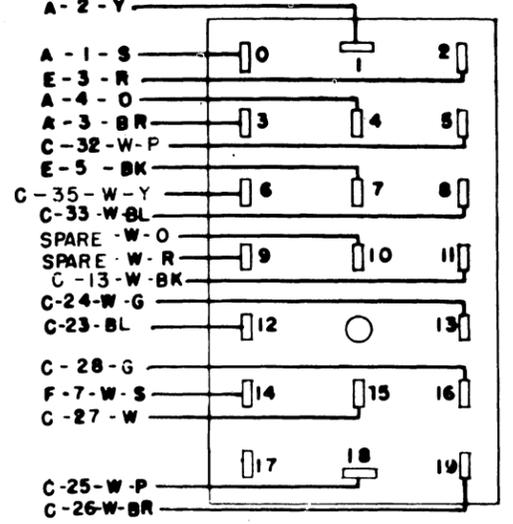
APPROVALS	
D AND B	E OF M
E-NUMBER	
PROD. NO. 4342 WD	

ACTUAL  
WIRING DIAGRAM  
MODEL 28  
ELECTRICAL  
SERVICE UNIT  
LESU 67  
(FOR KSR)

DATE:	1-4-61
P.D. FILE NO.	22-A65.219A
DRAWN	CHKD. <i>[Signature]</i>
ENGD. G.E.W.	APPD.

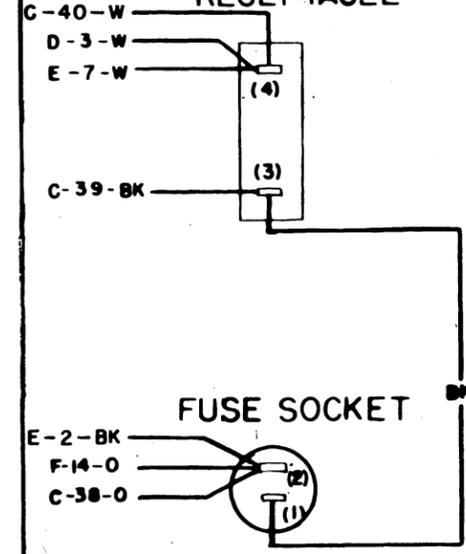
TELETYPE  
CORPORATION  
4342 WD

R  
TYPING UNIT CONNECTOR PLUG



FOR SCHEMATIC SEE 4341 WD

P  
CONVENIENCE  
RECEPTACLE



FUSE SOCKET

**NO NOTES**

**1. WIRING LEGEND:**  
 DISTANT TERMINATING AREA  
 DISTANT TERMINAL DESIGNATION  
 WIRE COLOR CODE

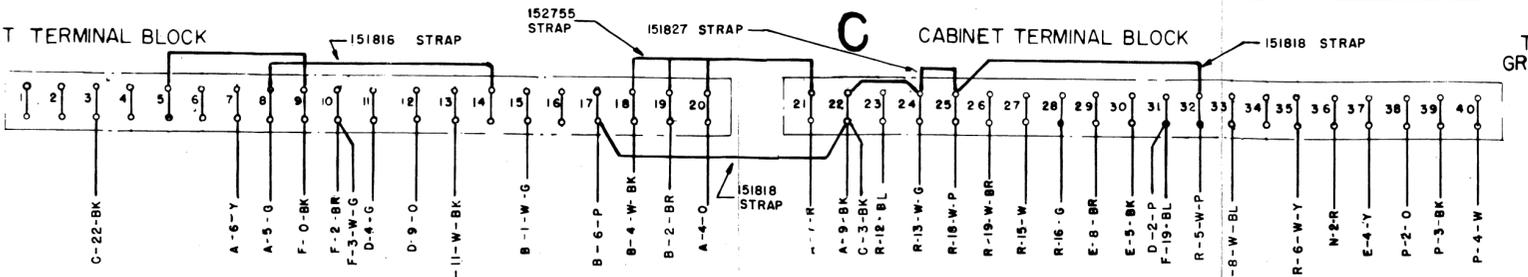
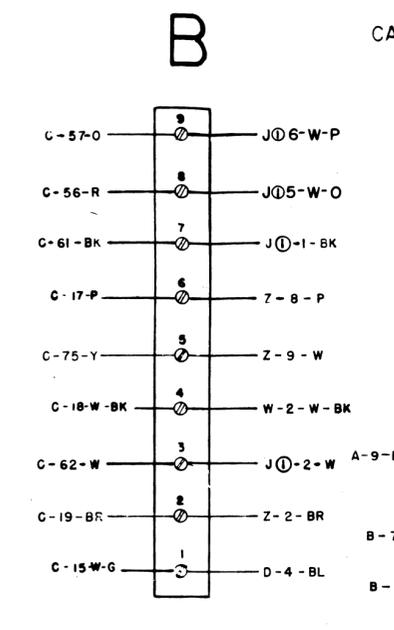
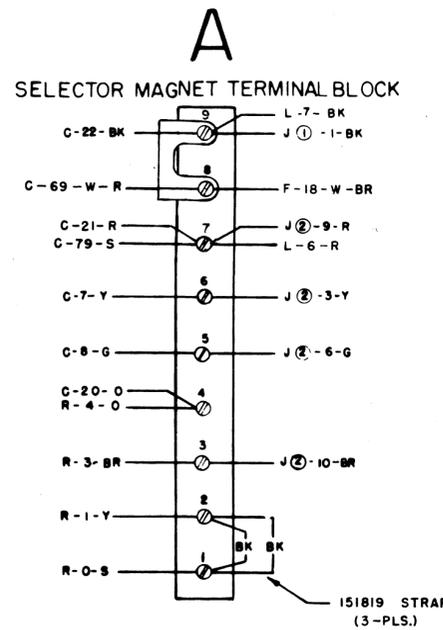
**2. COLOR CODE**

BK - BLACK	W-BK - WHITE-BLACK
BR - BROWN	W-BR - WHITE-BROWN
R - RED	W-R - WHITE-RED
O - ORANGE	W-O - WHITE-ORANGE
Y - YELLOW	W-Y - WHITE-YELLOW
G - GREEN	W-G - WHITE-GREEN
BL - BLUE	W-BL - WHITE-BLUE
P - PURPLE	W-P - WHITE-PURPLE
W - WHITE	W-S - WHITE-SLATE
S - SLATE	

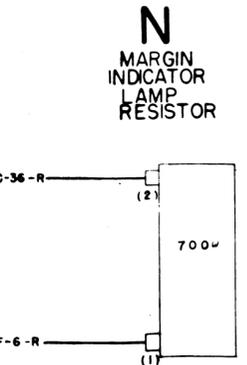
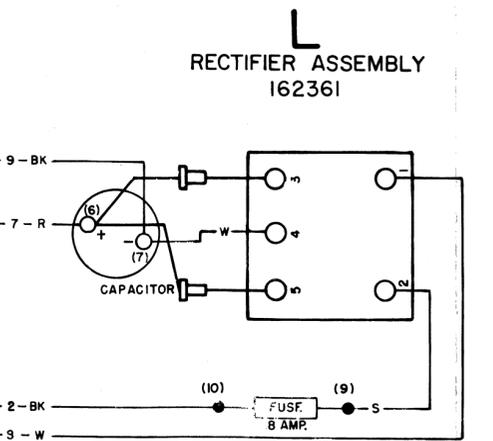
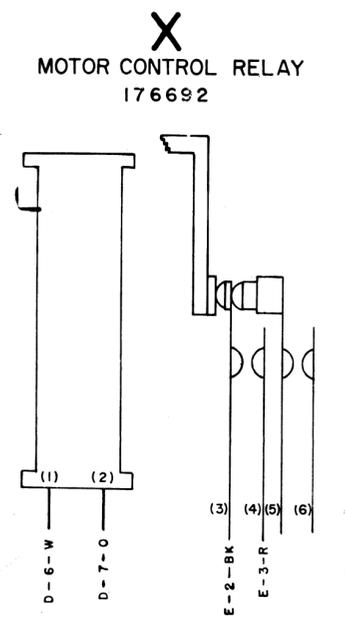
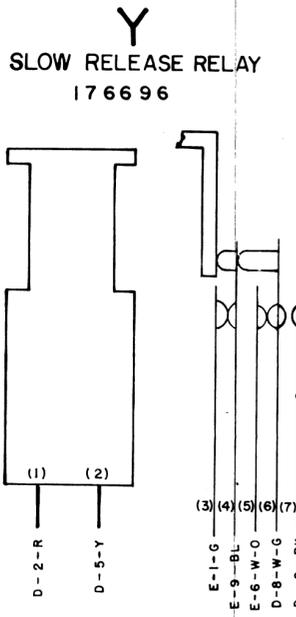
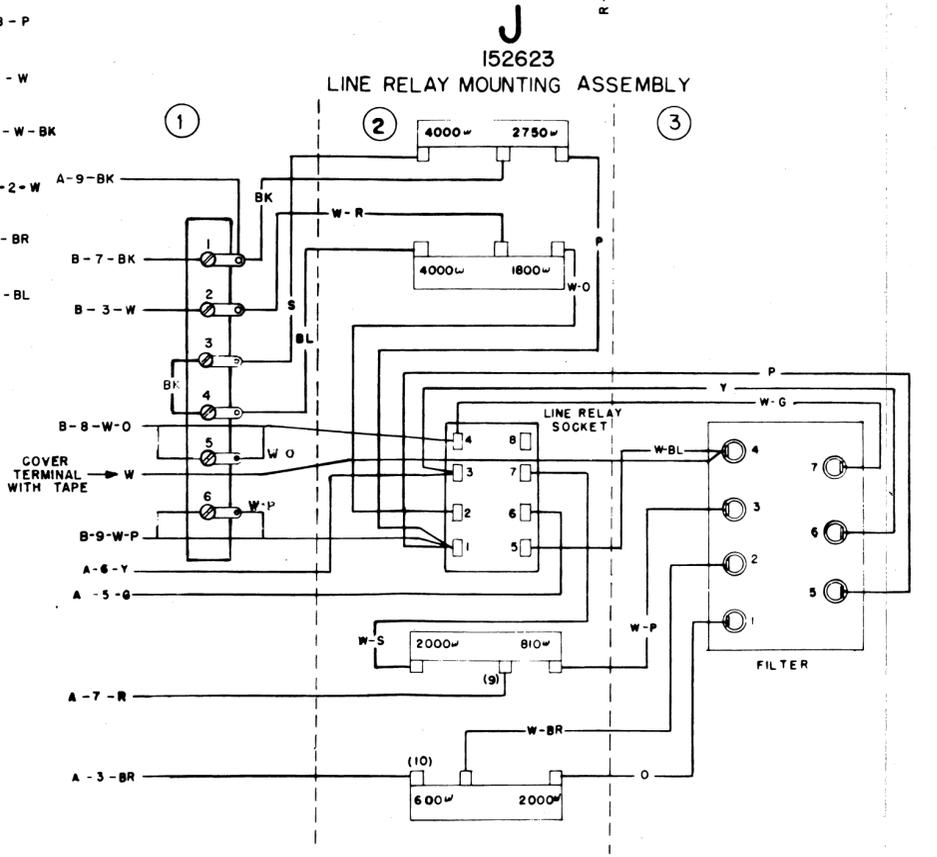
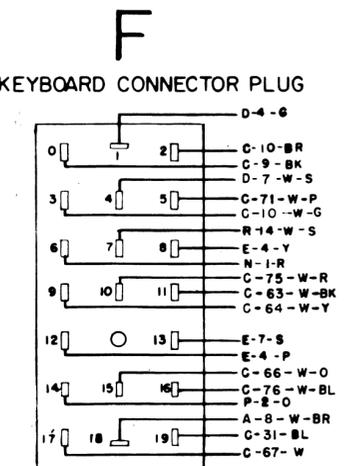
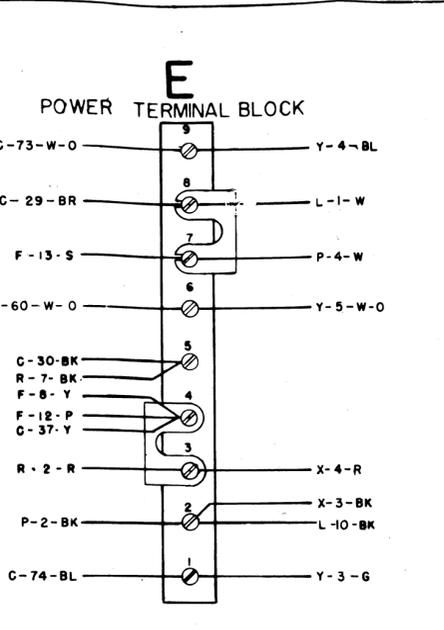
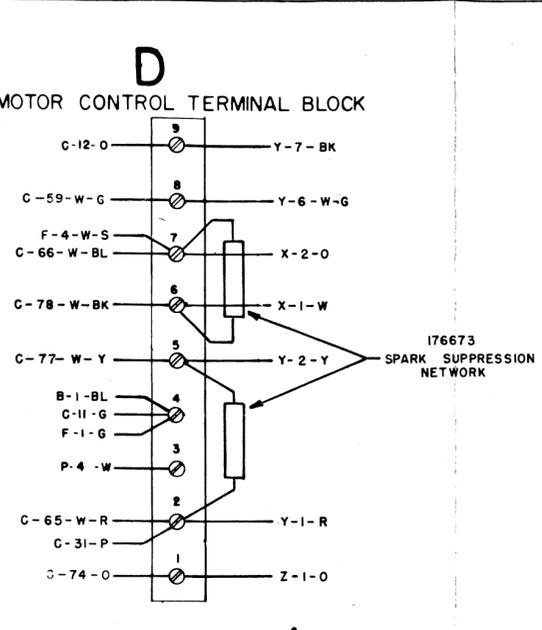
**3. UNIT WIRED FOR 115 VOLTS, 50 TO 60 CYCLE A.C. POWER INPUT ONLY.**

**4. PLUS VIEWED FROM SOLDER TERMINAL ENDS**

**5. CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION.**



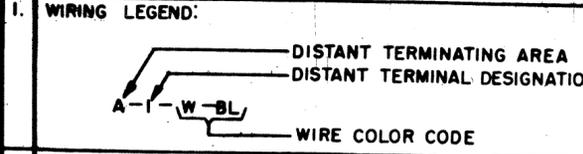
**TO CABINET GROUND SCREW**  
 BK  
 ELECTRICAL SERVICE UNIT GROUND SCREW



4342 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
D	1-21-63	75770

ACTUAL WIRING DIAGRAM MODEL 28 ELECTRICAL SERVICE UNIT LESU 67 (FOR KSR)

**NOTES**



2. COLOR CODE

BK - BLACK	W-BK - WHITE - BLACK
BR - BROWN	W-BR - WHITE - BROWN
R - RED	W-R - WHITE - RED
O - ORANGE	W-O - WHITE - ORANGE
Y - YELLOW	W-Y - WHITE - YELLOW
G - GREEN	W-G - WHITE - GREEN
BL - BLUE	W-BL - WHITE - BLUE
P - PURPLE	W-S - WHITE - SLATE
W - WHITE	
S - SLATE	

3. UNIT WIRED FOR 115 VOLTS 50 TO 60 CYCLE A.C. POWER INPUT ONLY.

4. CONNECTOR VIEWED FROM SOLDER TERMINAL END.

5. CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP OPERATION REMOVE AND ADD CONNECTIONS AS TABULATED BELOW.

SIGNAL LINE CURRENT	CONNECTION REMOVED	CONNECTION ADDED
.020 AMP.	J ① - J ②	J ③ - J ④

6. RECTIFIER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION REMOVE LEAD L-2-BK FROM TERMINAL E-2 AND CONNECT TO TERMINAL E-1.

7. LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND MOTOR CONTROL RELAY.

8. SELECTOR MAGNETS ARE TO BE WIRED AS SHOWN FOR 30 MILLIAMPERE OPERATION WHEN THE LINE RELAY IS USED.

9. ASSOC. CABLE NUMBERS

159939 CABLE ASSEM., LESU75  
 153477 CABLE ASSEM., RECTIFIER  
 164030 CABLE ASSEM., LINE RELAY MTG. ASSEM.

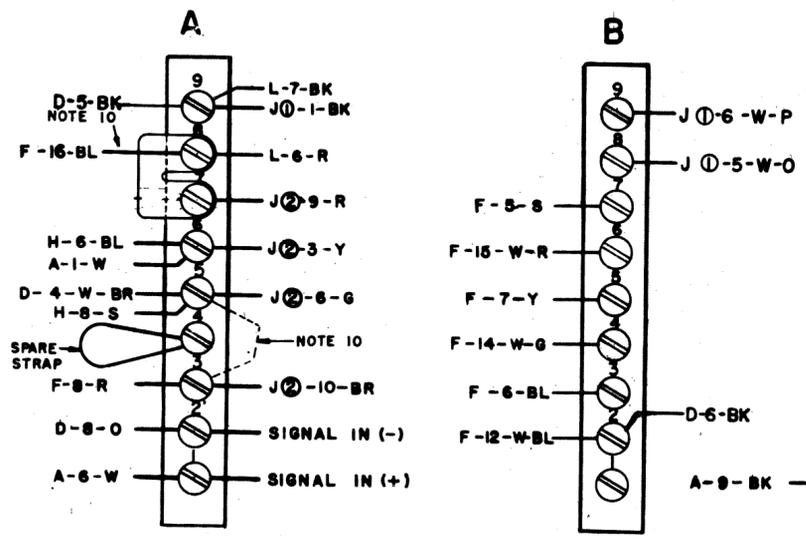
10. SELECTOR MAGNETS CAN BE CONNECTED DIRECTLY IN THE SIGNAL LINE CIRCUIT FOR NEUTRAL OPERATION AS FOLLOWS:

REMOVE LINE RELAY

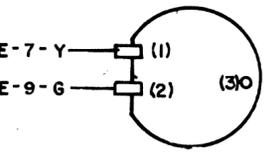
20 MILLIAMPERE, 60 & 75 WPM OPERATION (OR ANY INTERMEDIATE SPEED)

A. STRAP A5 TO A3.  
 B. MOVE BLUE LEAD FROM TERMINAL A8 TO TERMINAL A6.  
 60 MILLIAMPERE, 60, 75 & 100 WPM OPERATION (OR ANY INTERMEDIATE SPEED)  
 A & B. SAME AS ABOVE.  
 C. CHANGE WIRING ON SELECTOR MAGNETS FOR 60 MILLIAMPERE OPERATION.

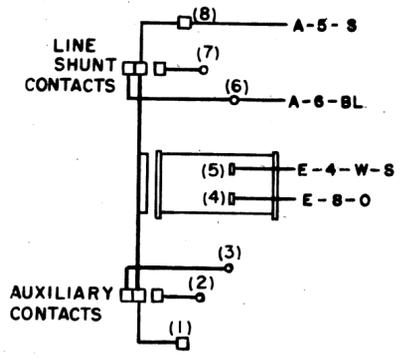
**SELECTOR MAGNET TERMINAL BLOCK**



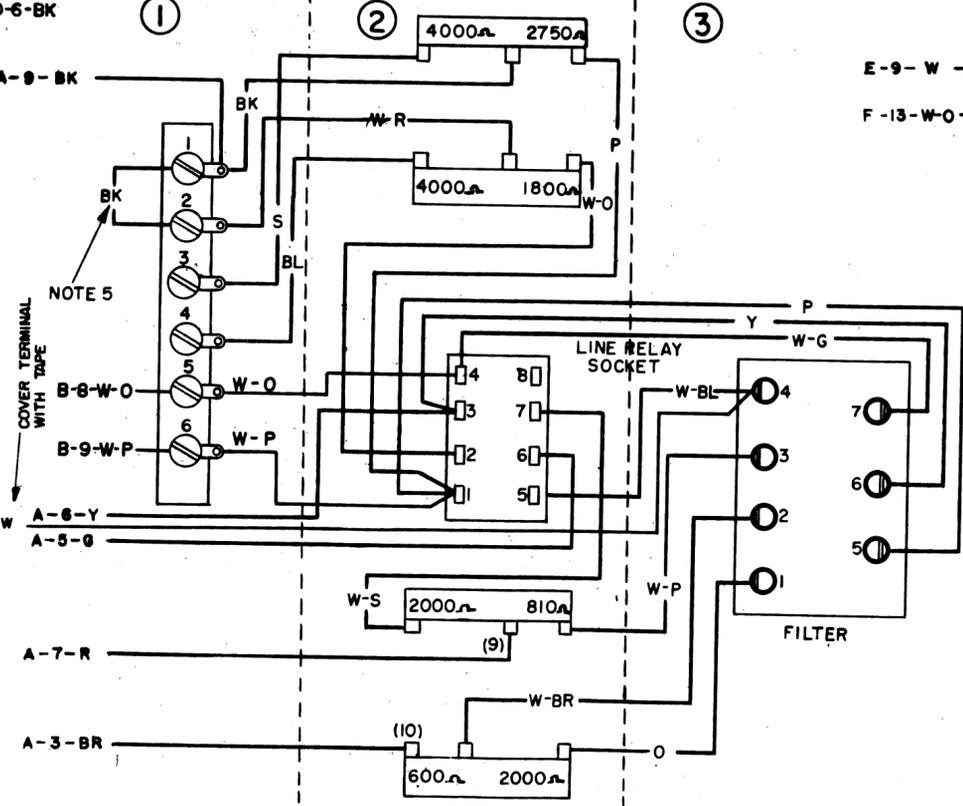
**G SIGNAL BELL**



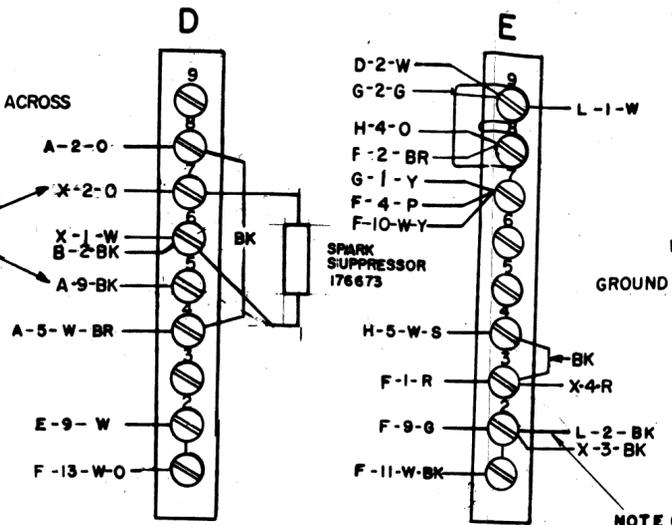
**H LINE SHUNT RELAY**



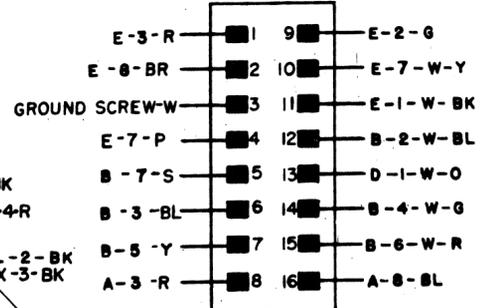
**J 152623 LINE RELAY MOUNTING ASSEMBLY**



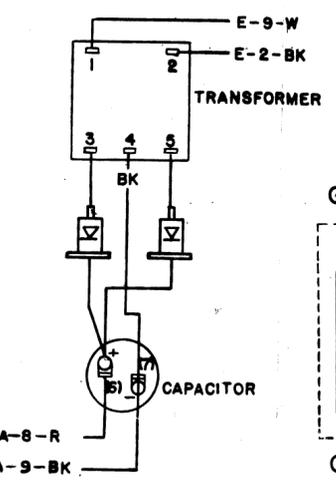
**MOTOR CONTROL TERMINAL BLOCK POWER TERMINAL BLOCK**



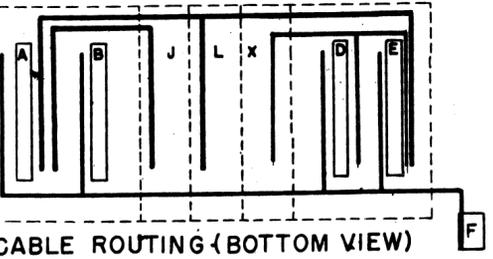
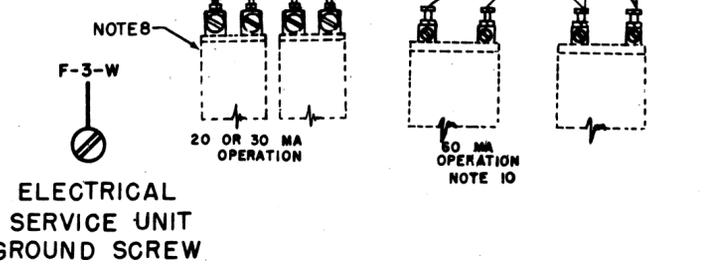
**F CONNECTOR PLUG 159541**



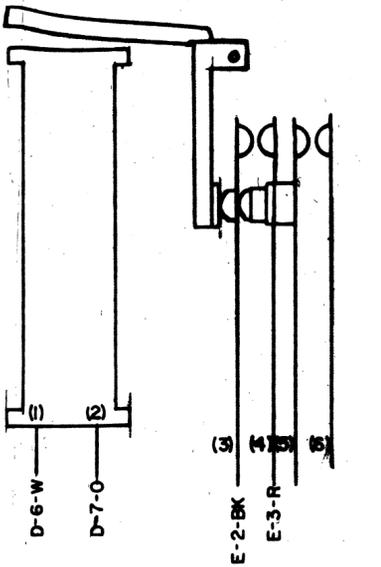
**L 152950 RECTIFIER ASSEMBLY**



**SELECTOR MAGNETS ASSOCIATED APPARATUS**



**X MOTOR CONTROL RELAY**



**4430WD**

REVISIONS		
NO.	DATE	AUTH. NO.
1	3-27-61	

**ACTUAL WIRING DIAGRAM MODEL 28 ELECTRICAL SERVICE UNIT LESU75**

**APPROVALS**

D AND B E OF M

ENGINEER

PROD. NO. 4430WD

DATE: 3-27-61

P.D. FILE NO. 22-465-93A

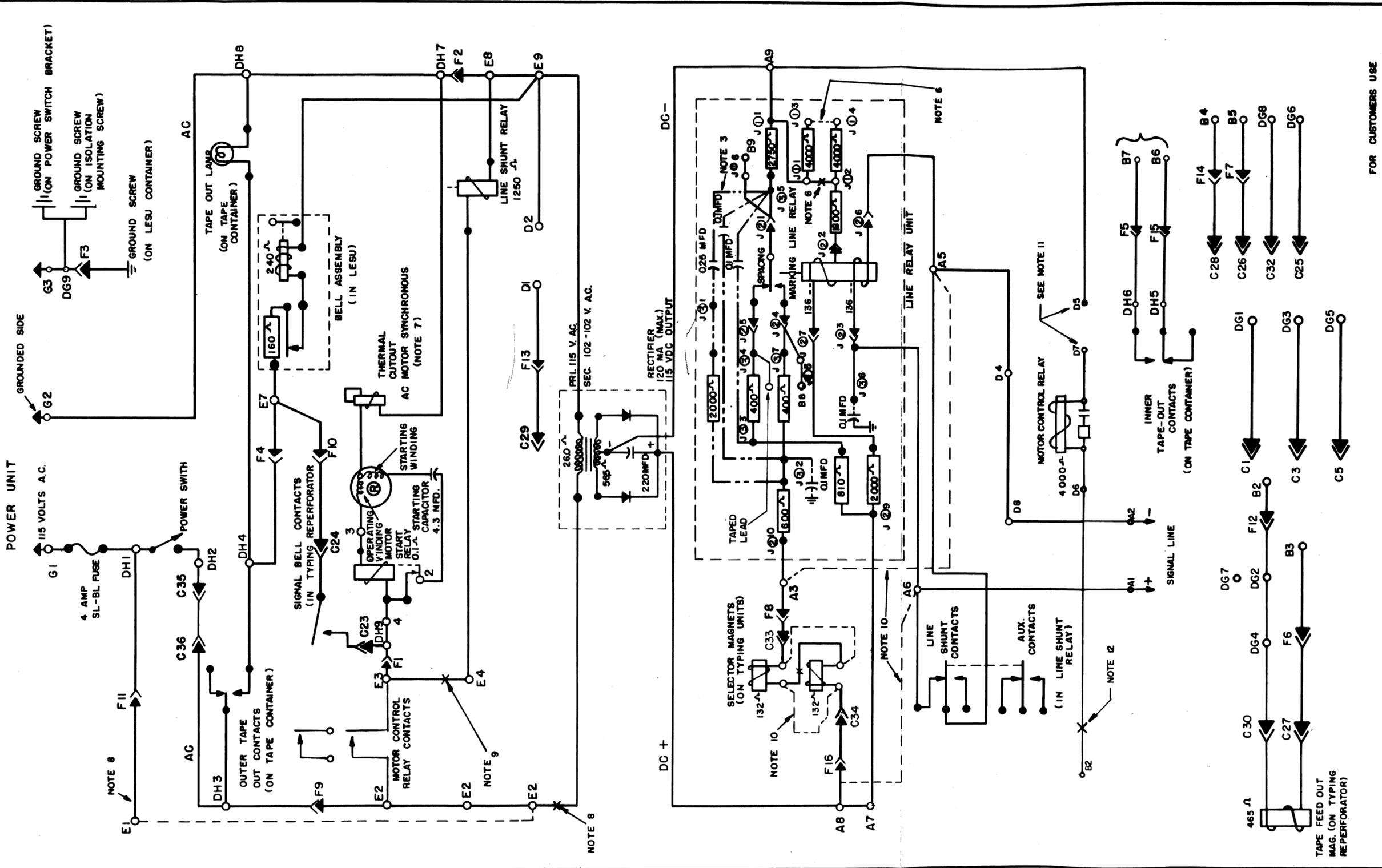
DRAWN N.K.G. CHKD

ENG'D L.M.S. APP'D

**TELETYPE CORPORATION**

**4430WD**

- NO. NOTES
- FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE WD NUMBER UNITS DIRECTLY OPERABLE WITH LESU75  
 4430 WD ELECTRICAL SERVICE UNIT LESU75  
 2900 WD MOTOR UNITS - L MU 3,4,6.  
 3736 WD TYPING REPERFORATOR BASE LRB21  
 3628 WD TYPING REPERFORATOR LPR42
  - LEGEND  
 O G 3-POINT CONNECTOR (ON BASE)  
 O DG TERMINAL BLOCK (ON BASE)  
 O DH TERMINAL BLOCK (ON BASE)  
 ◀ F 16-POINT CONNECTOR  
 O A TERMINAL BLOCK (IN LESU)  
 O B TERMINAL BLOCK (IN LESU)  
 O C 36-POINT CONNECTOR (ON BASE)  
 O D TERMINAL BLOCK (IN LESU)  
 O E TERMINAL BLOCK (IN LESU)  
 O J ① TERMINAL STRIP ON LINE RELAY (IN LESU)  
 ◀ J ② LINE RELAY CONNECTOR (IN LESU)  
 O J ③ LINE RELAY FILTER (IN LESU)
  - DOT-DASH (---) LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.
  - ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.
  - (A) RESISTANCE VALUES IN OHMS (Ω)  
 (B) INDUCTANCE VALUES IN MICROHENRIES (MH)  
 (C) CAPACITANCE VALUES IN MICROFARADS (MFD)
  - CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP LINE CURRENT, ADD DASH LINE (---) CONNECTION AND OMIT CONNECTION MARKED (---) IN LINE RELAY.
  - USE SYNCHRONOUS MOTOR ON REGULATED 60 Hz (±1%) A.C. POWER ONLY. GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60 Hz UNREGULATED A.C.
  - RECTIFIER SHOWN CONTROLLED BY POWER SWITCH  
 A. FOR CONTINUOUS OPERATION MOVE PRIMARY (INPUT) LEAD FROM TERMINAL E2 TO TERMINAL E1
  - LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND MOTOR CONTROL RELAY.
  - FOR SPECIAL APPLICATIONS WHEN LESU75 IS USED WITH LRB 20, THE FOLLOWING NOTE APPLIES: SELECTOR MAGNETS CAN BE OPERATED DIRECTLY IN A NEUTRAL SIGNAL LINE AS FOLLOWS  
 REMOVE LINE RELAY  
 FOR 20 MILLIAMPERE, 60 AND 75 WPM OPERATION (OR ANY INTERMEDIATE SPEED.)  
 1. STRAP A5 TO A3  
 2. MOVE BLUE LEAD FROM TERMINAL A8 TO A6.  
 FOR 60 MILLIAMPERE, 60, 75 & 100 WPM OPERATION (OR ANY INTERMEDIATE SPEED.)  
 1 AND 2 SAME AS ABOVE  
 3. ADD DASHED (---) LEAD, OMIT \* LEAD ON SELECTOR MAGNETS (REFER TO 4430WD)
  - CUSTOMER SWITCH ACROSS D5 AND D7.
  - TERMINAL B2 IS PROVIDED TO CONNECT MOTOR CONTROL RELAY FOR 48 V.D.C. OPERATION  
 FOR 120 V.D.C. OPERATION, REMOVE STRAP FROM B2 AND CONNECT TO A7.



**4431 WD**

REVISIONS		
ISSUE	DATE	AUTH. NO.
A	12-7-61	71860
B	11-14-63	78852

FOR CUSTOMERS USE

**SCHEMATIC WIRING DIAGRAM MODEL 28**

REPERFORATOR BASE LRB21 & LPR42

ELECT SERVICE UNIT LESU75

APPROVALS

D AND E OF M

E NUMBER

PROD. NO. 4431WD

DATE 3-29-61

P.D. FILE NO. 22-A6529A

DRAWN N.K.G. CHKD

ENGLIM.B. APPD

**TELETYPE CORPORATION**

**4431 WD**



REVISIONS

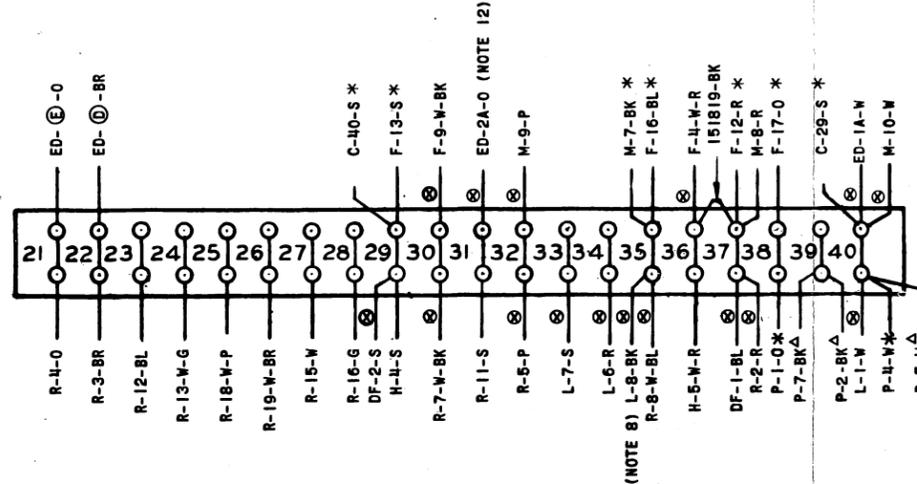
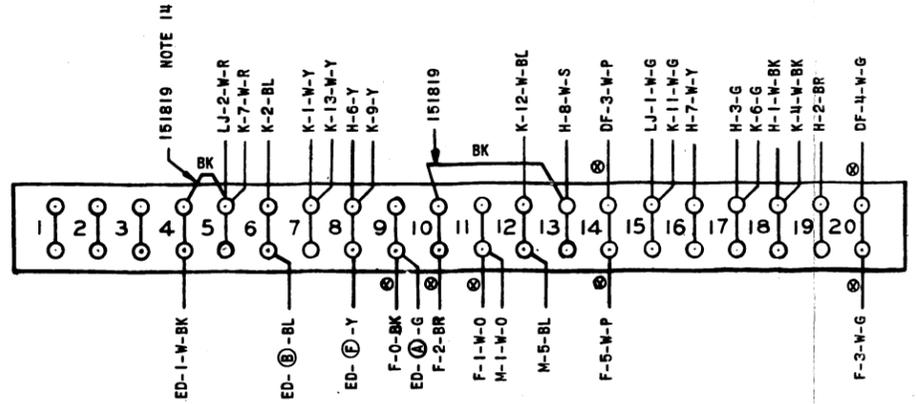
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B	10-4-62	7472
C	10-26-62	7493
D 5	1-28-63	7571
E 6	2-4-63	7581
F 7	3-1-63	7617
8	3-11-63	7593
9	8-26-63	7611
10	11-14-63	7881
11	10-7-65	8871
12	1-25-67	920

NOTE:  
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

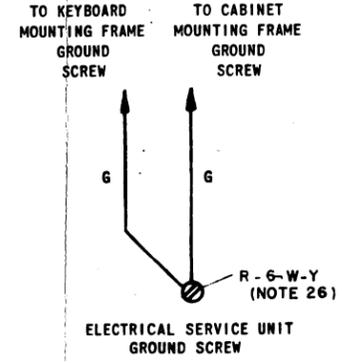
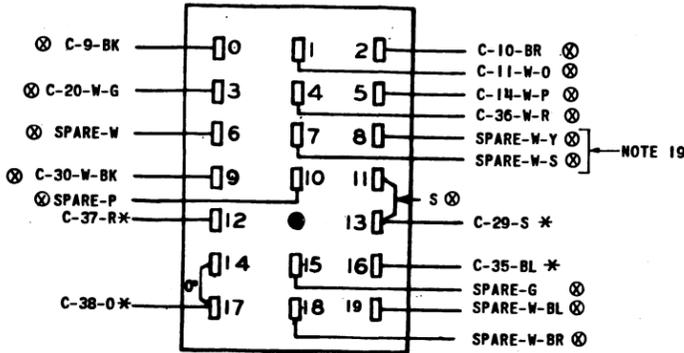
- | NO. | NOTES   |
|-----|---|
| 1.  | <p>WIRING LEGEND:</p>   |
| 2.  | <p>COLOR CODE:</p> <p>BK - BLACK    Δ DENOTES 16 GA. WIRE<br/>                 BR - BROWN   * DENOTES 18 GA. WIRE<br/>                 R - RED<br/>                 O - ORANGE   ⊗ DENOTES 22 GA. WIRE<br/>                 Y - YELLOW<br/>                 G - GREEN    ALL OTHER WIRE 24 GA.<br/>                 BL - BLUE<br/>                 P - PURPLE<br/>                 W - WHITE<br/>                 S - SLATE</p> |
| 3.  | UNIT WIRED FOR 115 VOLTS, 60 CYCLE AC POWER INPUT ONLY.   |
| 4.  | CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS.  |
| 5.  | TERMINALS C1 TO C3 ARE RESERVED FOR CUSTOMER USE.   |
| 6.  | CONTACTS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.   |
| 7.  | SPARE LEADS FROM THE KEYBOARD CONNECTOR PLUG ARE TERMINATED AT THE LEFT END OF THE ELECTRICAL SERVICE UNIT. SPARE LEADS FROM THE TYPING UNIT CONNECTOR ARE TERMINATED AT THE RIGHT END OF THE ELECTRICAL SERVICE UNIT.  |
| 8.  | RECTIFIER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION, MOVE L-9-BK WIRE FROM C-35 TO C-39. 110V DC C-34 (+) C-33 (-)   |
| 9.  | WHEN SIGNAL LINE BREAK SWITCH IS NOT USED, ADD STRAP BETWEEN C-10 AND C-11.   |
| 10. | A. LINE SHUNT RELAY SHOWN CONTROLLED BY MOTOR CONTROL POWER CONTACTS. FOR DIRECT CONTROL OF LINE SHUNT RELAY FROM POWER SWITCH, REMOVE STRAP BETWEEN C-35 - C-37 AND ADD STRAP BETWEEN C-35 - C-36.   |
| 11. | TO DISABLE MOTOR CONTROL FEATURE ELECTRICALLY, ADD STRAP BETWEEN C-35 - C-37.   |
| 12. | SELECTOR MAGNET DRIVER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION, MOVE ED-2A-0 WIRE FROM C-31 TO C-38.   |
| 13. | BEFORE INSTALLING SELECTOR MAGNET DRIVER, REMOVE STRAP BETWEEN TERMINALS 1 AND 2 ON CIRCUIT CARD.   |
| 14. | WIRING SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. NEUTRAL OPERATION, REMOVE STRAPS BETWEEN C-4 AND C-5, M-1 AND M-2, M-2 AND M-4. MOVE STRAP BETWEEN M-3 AND M-12 TO M-3 AND M-4.   |
| 15. | FOR SCHEMATIC WIRING DIAGRAM, SEE 4487WD.   |
| 16. | USE 155755 INSULATING SLEEVES (2 PLS.)  |
| 17. | RECTIFIER SUPPLIED WITH 27,000 OHM BLEEDER RESISTOR. THE RESISTOR MAY BE REMOVED FOR CUSTOMER CIRCUITRY NOT DESIRING THIS FEATURE.  |
| 18. | KEYBOARD TERMINAL F18 RESERVED FOR POLAR SIGNAL APPLICATION. FOR POLAR OPERATION, REMOVE STRAP BETWEEN C-4 AND C-5. SEE 4485WD FOR ASSOCIATED STRAPPING CHANGES IN ELECTRONIC DRIVER.   |
| 19. | THE W-Y AND W-S SPARE LEADS ON THE F CONNECTOR ARE RESERVED FOR THE BUSY LAMP APPLICATION OF THE 194086 MODIFICATION KIT FOR SELECTIVE CALLING.   |

- | NO. | NOTES   |
|-----|---|
| 20. |   |
| 21. | LOCATE RESISTOR ON THE SIDE OF THE CAPACITOR NEAREST THE RECTIFIER FUSE HOLDER.   |
| 22. | TIE AND/OR ROUTE CABLES TO AVOID CONTACT WITH THESE RESISTORS.  |
| 23. | SL-BL INDICATES SLOW-BLOWING.   |
| 24. | X DENOTES SPLICED AND TAPED WIRE.   |
| 25. | IF THE AC INPUT POWER PLUG IS NOT USED AND THE AC POWER IS WIRED DIRECTLY TO TERMINALS C39 AND C40, THEN IT IS NECESSARY THAT THE OFFICE GROUND LEAD BE ATTACHED TO THE TERMINAL BLOCK MOUNTING PLATE. A NO. 6 SCREW, FLATWASHER, AND STAR WASHER ARE INCLUDED IN A BAG FOR THIS PURPOSE. REMOVE THE WIRES IN THE 199233 CABLE FROM TERMINALS C 39 AND C40 AND TAPE AND TIE THEM BACK TO THE CABLE. |
| 26. | NOT INCLUDED ON SOME SETS.  |

LESU TERMINAL BLOCK



F  
KEYBOARD CONNECTOR  
RECEPTACLE  
178520 CABLE ASSEMBLY



SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 1

ACTUAL  
WIRING DIAGRAM  
FOR  
MODEL 28  
ELECTRICAL SERVICE UNIT  
LESU72

APPROVALS

D AND R	E OF
---	---

E-NUMBER  
PROD. NO. 4486WD  
DATE 9-11-61  
P.D. FILE NO. 66-30.65AA  
DRAWN E.C.W. CHKD.  
ENGD. B.P.K. APPD. T.

TELETYPE CORPORATION

SEE SHEET 1 FOR NOTES

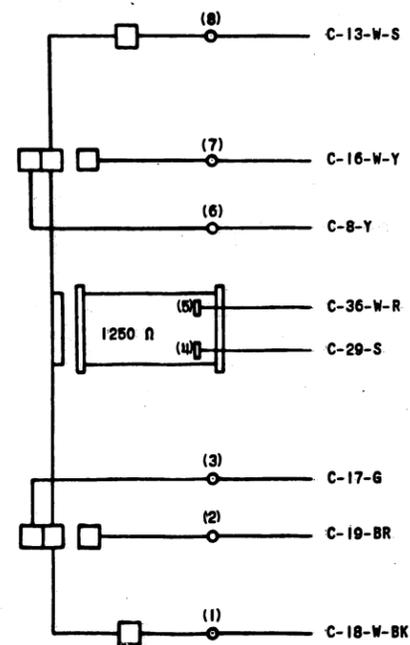
NOTE:  
REVISION INFORMATION MUST ALSO BE  
REFLECTED ON THE ISSUE CONTROL REC-  
ORD, WHICH IS A PART OF THIS DRAWING.

4486WD

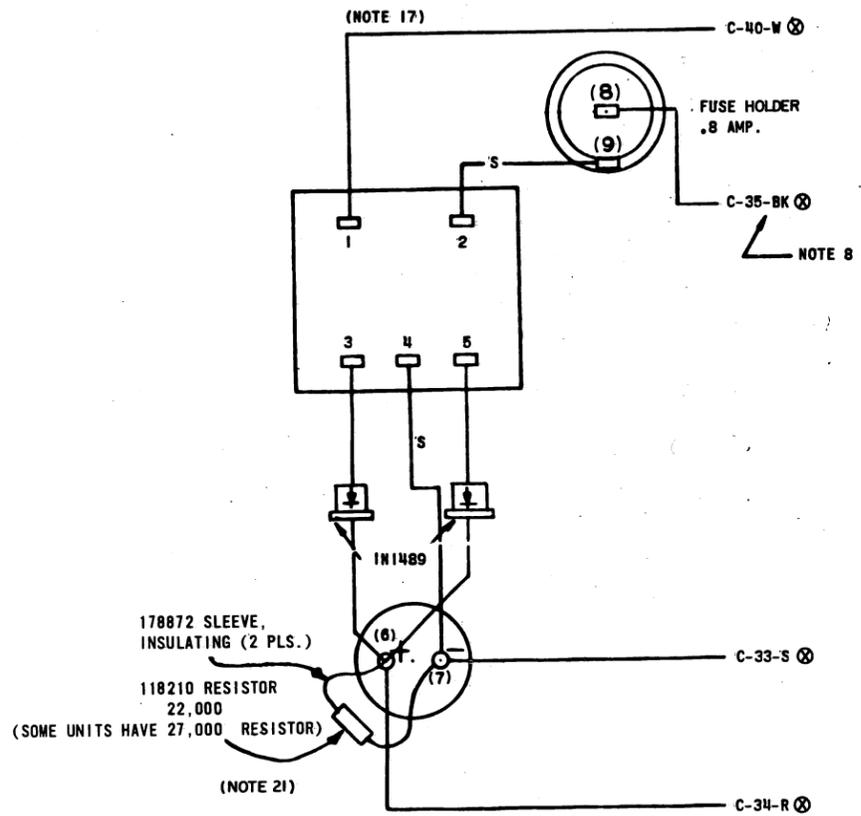
REVISIONS

ISSUE	DATE	AUT
A	9-21-62	745
B	10-4-62	747
C	10-26-62	749
D 5	1-28-63	757
E 6	2-4-63	758
F 7	3-1-63	761
8	3-11-63	759
9	8-26-63	761
10	11-14-63	788
11	11-23-66	921

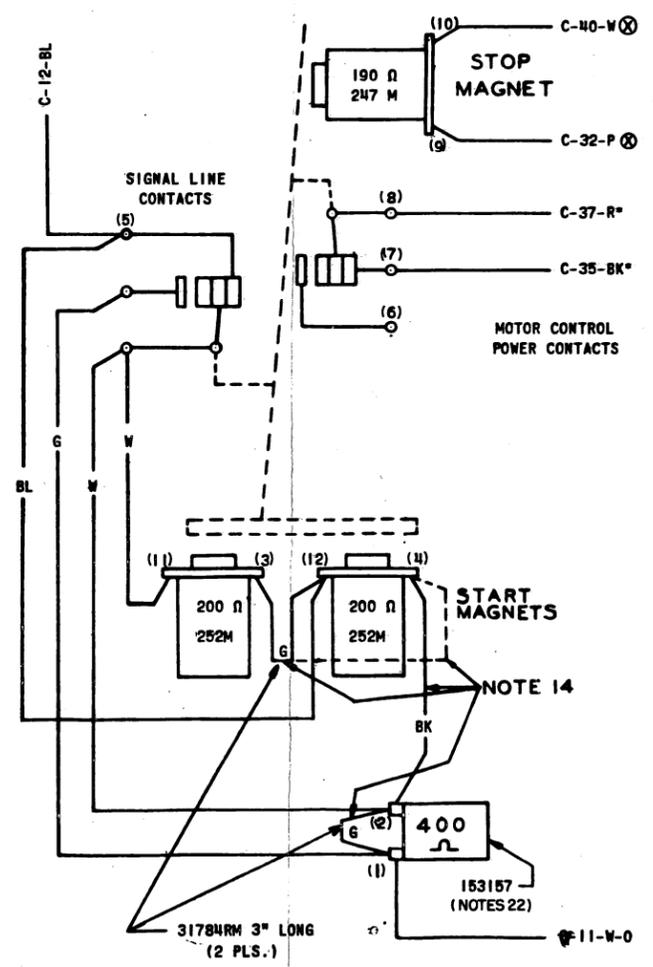
**H**  
LINE SHUNT RELAY  
178515 CABLE ASSEMBLY



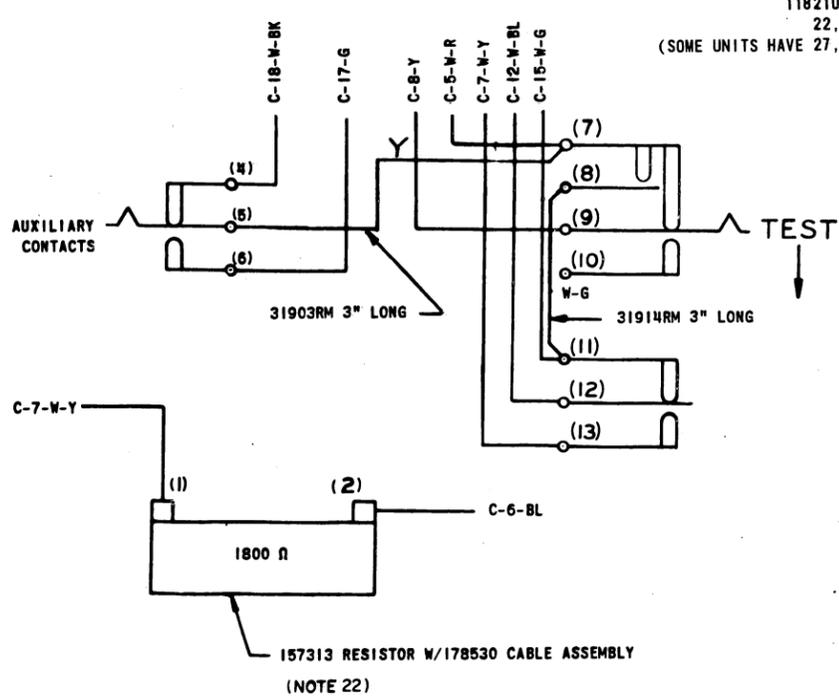
**L**  
RECTIFIER  
178521 CABLE ASSEMBLY



**M**  
MOTOR CONTROL  
ASSEMBLY  
178519 CABLE ASSEMBLY



**K**  
LINE TEST KEY  
178513 CABLE ASSEMBLY



SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING W.D.

SHEET 2

ACTUAL  
WIRING DIAGRAM  
FOR  
MODEL 28  
ELECTRICAL SERVICE UNIT  
LESU72

APPROVALS

D AND R	E OF
---	---

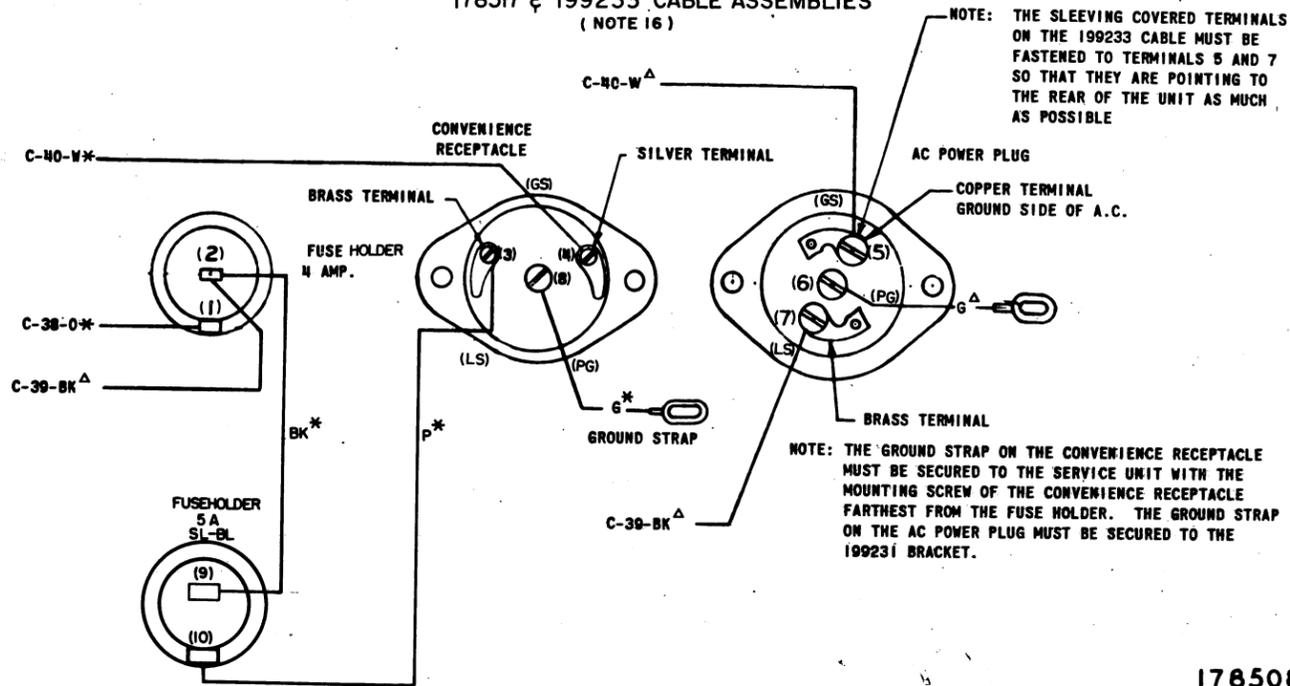
E-NUMBER  
PROD. NO. 4486WD  
DATE 9-11-61  
RD. FILE NO. 66-30.05AA  
DRAWN E.C.V. CHKD.  
ENDD. B.P.K. APPD. T.I.

TELETYPE CORPORATION

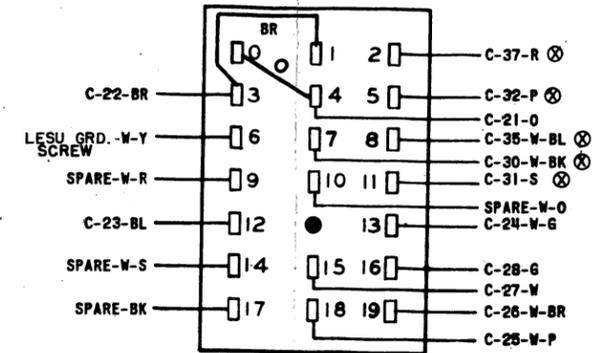
4486WD

SEE SHEET 1 FOR NOTES

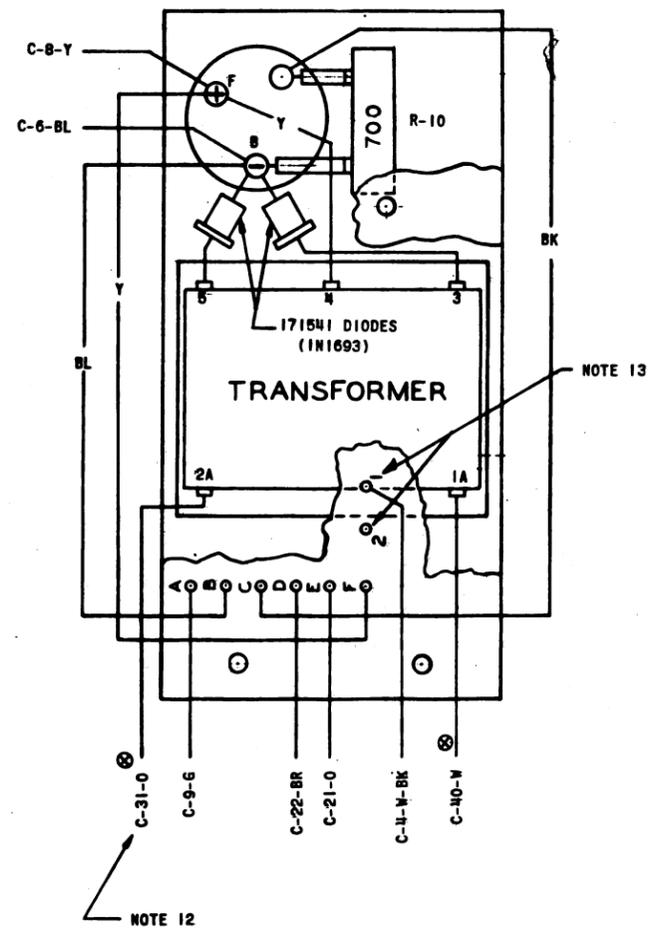
**P**  
A.C. SERVICE FACILITY  
178517 & 199233 CABLE ASSEMBLIES  
(NOTE 16)



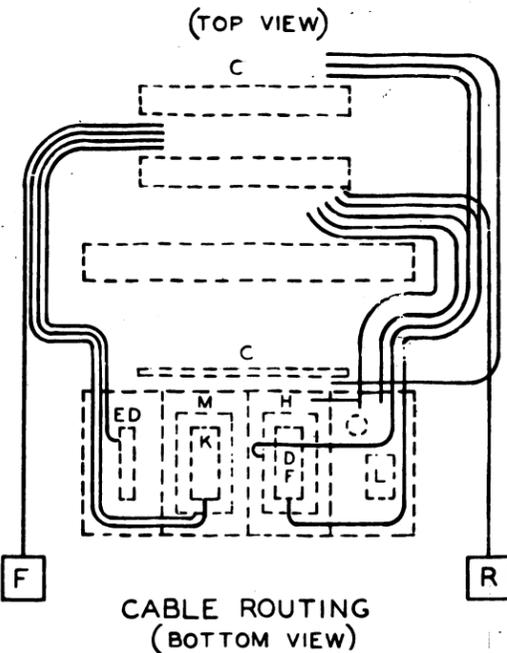
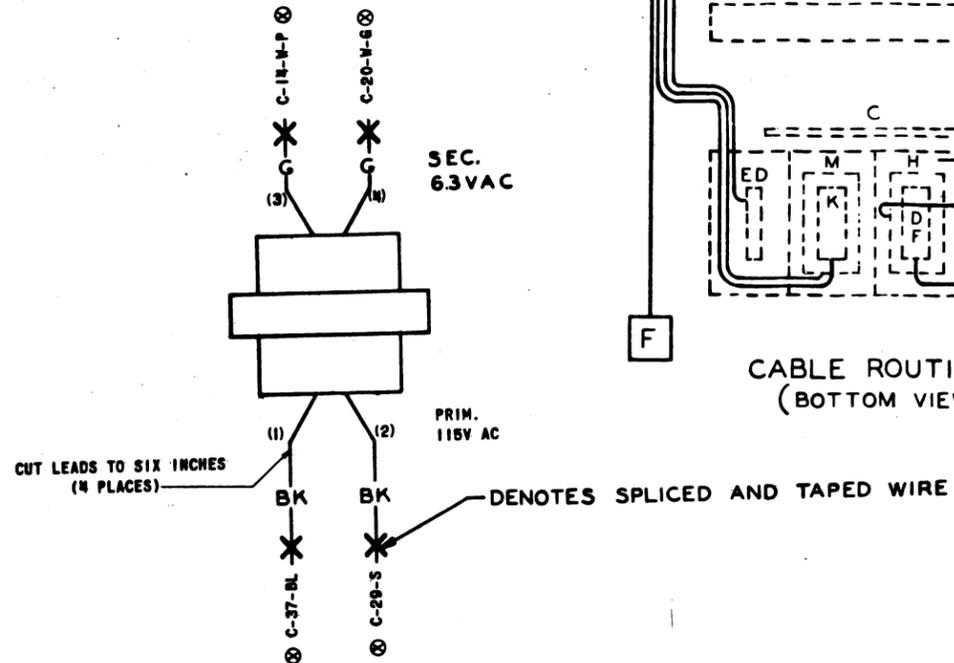
**R**  
TYPING UNIT CONNECTOR  
RECEPTACLE  
178523  
CABLE ASSEMBLY



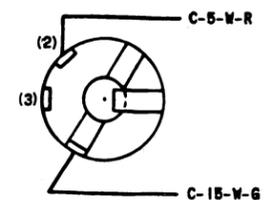
**ED**  
SELECTOR MAGNET  
DRIVER  
178508 CABLE ASSEMBLY  
(NOTE 13)



**DF**  
COPYLAMP TRANSFORMER  
178509 CABLE ASSEMBLY



**LJ**  
LINE JACK  
178511  
CABLE ASSEMBLY



NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

4486 WD

REVISIONS

ISSUE	DATE	AUTH
A	9-21-62	74690
B	10-4-62	74724
C	10-26-62	74934
D	1-28-63	75784
E	2-4-63	75957
F	3-1-63	76170
G	3-11-63	76964
H	8-26-63	76157
I	11-14-63	78844
J	10-7-65	8878
K	1-24-67	9205

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 3

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT LESU72

APPROVALS

D AND R	E OF M
---	---

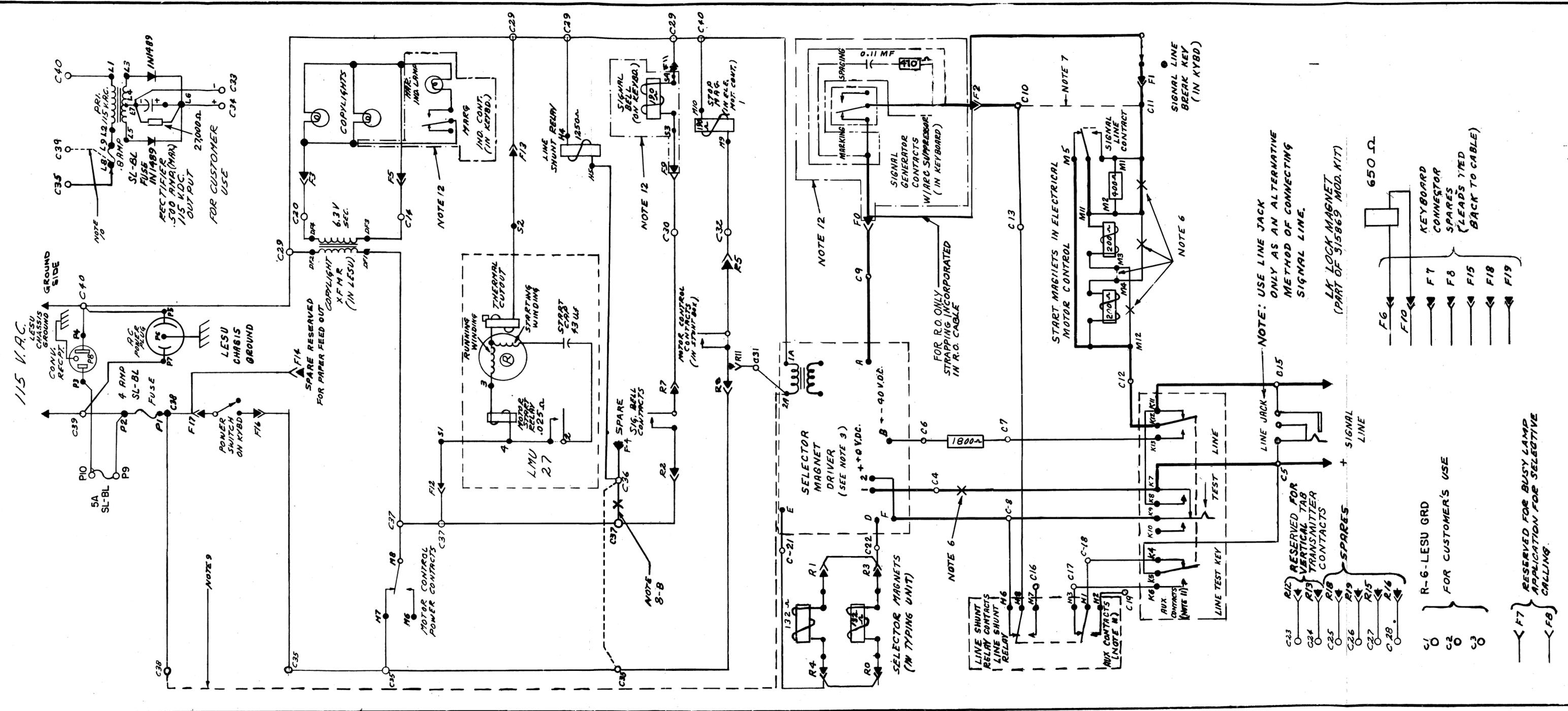
E-NUMBER  
PROD. NO. 4486WD  
DATE 9-11-61  
P.D. FILE NO. 66-30.68AA  
DRAWN E.C.W. CHKD.  
ENGD. B.P.H. APPD. T.I.

TELETYPE CORPORATION

4486 WD

R-3 1/2 29 3/4 x 10 3/4

- 100 NOTES
- LEGEND  
 O C LESU TERMINAL BLOCK  
 K F KEYBOARD CONNECTOR  
 S MOTOR TERMINAL BLOCK, KYBD.  
 R TYPING UNIT CONNECTOR  
 H LINE SHUNT RELAY  
 L RECTIFIER ASSEMBLY  
 K LINE TEST KEY  
 M MOTOR CONTROL ASSEMBLY  
 P RC SERVICE FACILITY  
 OF COPY LAMP TRANSFORMER
  - ASSOCIATED ACTUAL WIRING DIAGRAM  
 4484 WD KEYBOARD ACTUAL W.D.  
 2900 WD LMU 2Z MOTOR UNIT W.D.  
 4486 WD LESU 72 ACTUAL W.D.
  - REFER TO 4445 WD FOR SCHEMATIC  
 WIRING DIAGRAM OF ELECTRONIC DRIVER
  - ALL APPARATUS IS SHOWN IN  
 UNOPERATED OR DE-ENERGIZED  
 POSITIONS.
  - USE SYNCHRONOUS MOTOR ON  
 REGULATED 60 CYCLE (±1%) A.C.  
 POWER ONLY.
  - CIRCUIT SHOWN .060 AMP. NEUTRAL  
 SIGNAL LINE OPERATION. FOR .020  
 AMP. NEUTRAL SIGNAL LINE CURRENT  
 REMOVE CONNECTIONS MARKED  
 (X) AT C4, C5, M1, M2, M12. ADD  
 CONNECTIONS MARKED (---) AT M3, M4
  - WHEN SIGNAL LINE BREAK SWITCH  
 IS NOT USED ADD CONNECTIONS  
 MARKED (---) AT TERMINALS  
 C10 AND C11.
  - A. LINE SHUNT RELAY SHOWN  
 CONTROLLED BY ELECTRICAL MOTOR  
 CONTROL POWER CONTACTS
  - B FOR DIRECT CONTROL OF LINE  
 SHUNT RELAY FROM POWER SWITCH  
 OMIT CONNECTION MARKED (X)  
 AT C36 - C37 AND ADD CONNECTIONS  
 MARKED (---) AT C35 - C36.
  - SELECTOR MAGNET DRIVER  
 SHOWN CONTROLLED BY POWER  
 SWITCH, FOR CONTINUOUS  
 OPERATION MOVE CONNECTION  
 FROM C31 TO C30.
  - RECTIFIER SHOWN CONTROLLED  
 BY POWER SWITCH. FOR  
 CONTINUOUS OPERATION, MOVE  
 CONNECTION FROM C35 TO C39.
  - TERMINALS C1, C2, C3 PLUS  
 LINE SHUNT AND LINE TEST  
 AUX. TERMINALS ARE RESERVED  
 FOR CUSTOMER USE.
  - FOR R.O. OMIT THE FOLLOWING COMPONENTS  
 OUTLINE WITH MARK (---)  
 A. MARGIN IND. LAMP  
 B. MARGIN IND. CONTACT (IN KEYBOARD)  
 C. SIGNAL BELL ON KEYBOARD  
 D. SIGNAL GENERATOR CONTACTS  
 W/ARC SUPPRESSOR (IN KEYBOARD)



4487 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
1	6-26-62	73872
2	9-21-62	74570
3	8-2-63	75857
4	8-1-63	75858
5	8-4-63	76176
6	3-11-63	75994
7	9-24-63	78054
8	11-14-63	78862
9	10-7-65	88785
10	8-24-66	91437
11	1-25-67	92056

SCHMATIC  
 WIRING DIAGRAM  
 MODEL 28  
 (WALL MOUNT)  
 WITH FACILITIES  
 PROVIDED BY ELECT  
 SERVICE UNIT LESU72  
 AND ASSOCIATED UNITS

APPROVALS  
 D AND B E OF M

E-NUMBER  
 REC'D NO 4487WD

DATE 9-18-61  
 PD FILE NO 56-30,689  
 DRANKEM, CHKD  
 ENGR BAK, APP'D

TELETYPE  
 CORPORATION

4487 WD



RESERVED FOR BUSY LAMP  
 APPLICATION FOR SELECTIVE  
 CALLING.

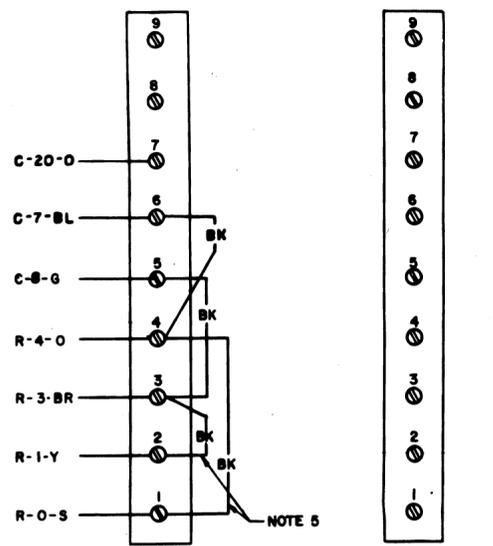


- NO. NOTES:
- WIRING LEGEND:  
 DISTANT TERMINATING AREA  
 DISTANT TERMINAL DESIGNATION  
 A-1-W-BL  
 WIRE COLOR CODE
  - COLOR CODE  
 BK - BLACK G - GREEN  
 BR - BROWN BL - BLUE  
 R - RED P - PURPLE  
 O - ORANGE W - WHITE  
 Y - YELLOW S - SLATE  
 \* 18 GA WIRE
  - UNIT WIRED FOR 115 VOLTS, 60 CYCLE AC POWER IN PUT ONLY.
  - PLUGS VIEWED FROM SOLDER TERMINAL END.
  - CIRCUITS SHOWN FOR .060 AMP NEUTRAL SIGNAL LINE OPERATION. FOR 0.20 AMP OPERATION REMOVE AND ADD CONNECTIONS AS FOLLOWS.  

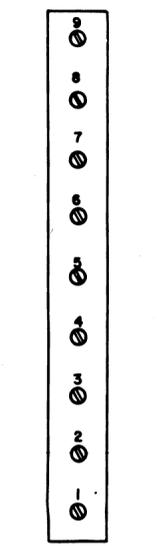
SIGNAL LINE CURRENT	CONNECTION REMOVED	CONNECTION ADDED
.020AMP.	A1-A4, A2-A3	A1-A2

 PLACE TWO STRAPS IN PARALLEL
  - THE SPARE LEADS FROM THE KEYBOARD AND TYPING UNIT ARE TERMINATED IN THE RIGHT AND LEFT ENDS OF THE ELECTRICAL SERVICE UNIT RESPECTIVELY
  - STRAP TERMINALS C10 TO C11 TO DISABLE LINE BREAK SWITCH.
  - TERMINALS C1, C2, C13, C14, C20, C25, A7 ARE RESERVED FOR IOIA DATA SET USE.

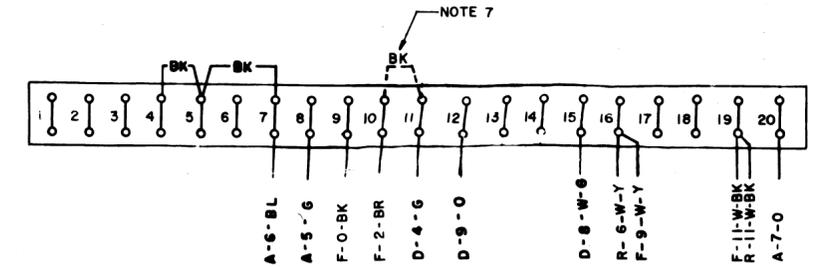
**A**  
 SELECTOR MAGNET  
 TERMINAL BLOCK



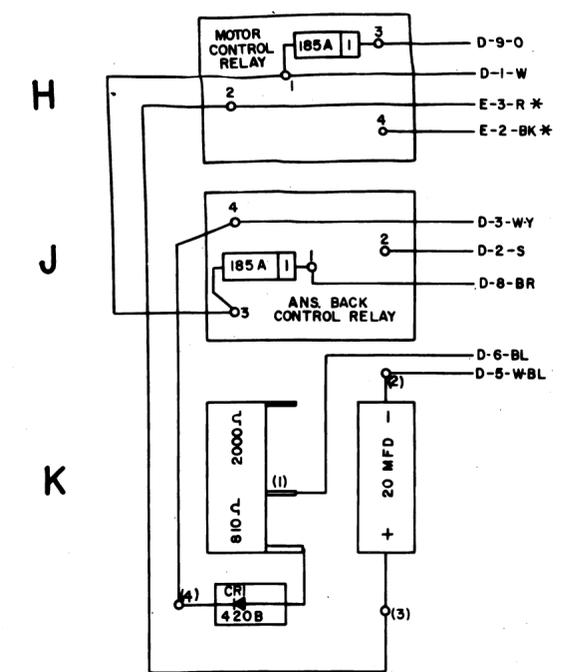
**B**  
 TERMINAL  
 BLOCK



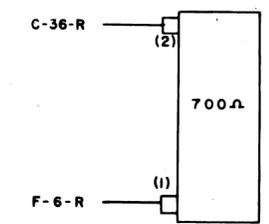
**C**  
 CABINET TERMINAL BLOCK



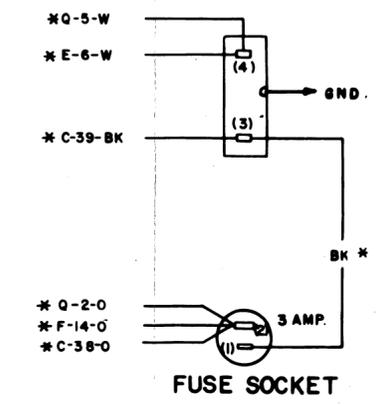
**H**  
 MOTOR CONTROL &  
 ANSWER BACK RELAYS



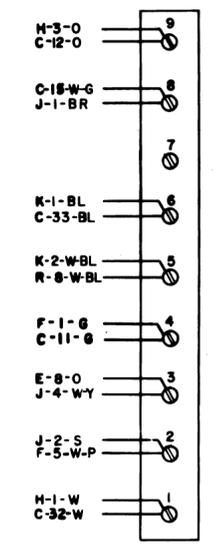
**N**  
 MARGIN  
 INDICATOR  
 LAMP  
 RESISTOR



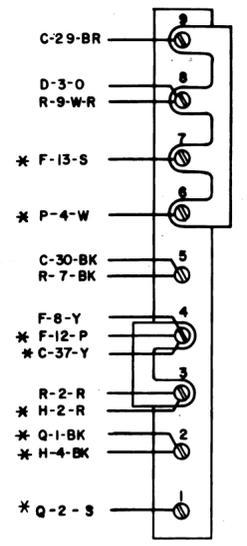
**P**  
 CONVENIENCE  
 RECEPTACLE



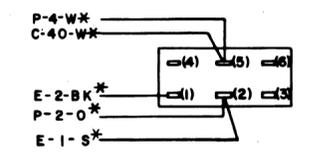
**D**  
 TERMINAL  
 BLOCK



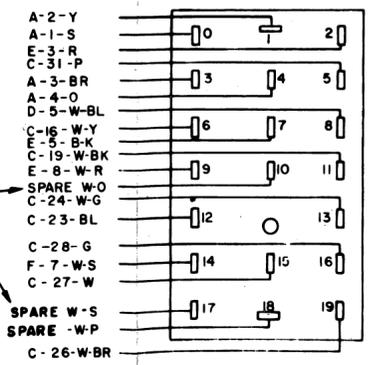
**E**  
 TERMINAL  
 BLOCK



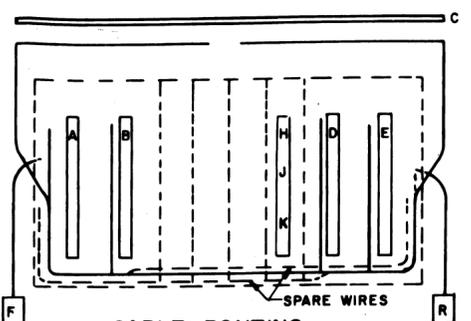
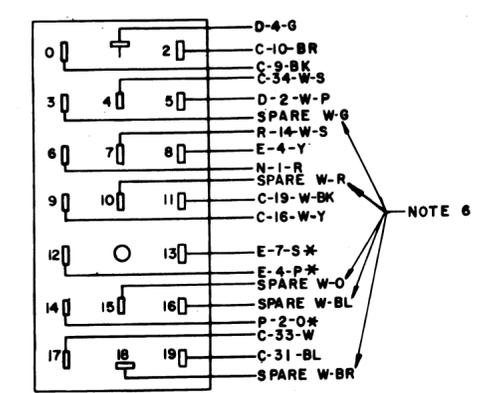
**Q**  
 POWER  
 SWITCH



**R**  
 TYPING UNIT  
 CONNECTOR  
 RECEPTACLE



**F**  
 KEYBOARD  
 CONNECTOR  
 RECEPTACLE



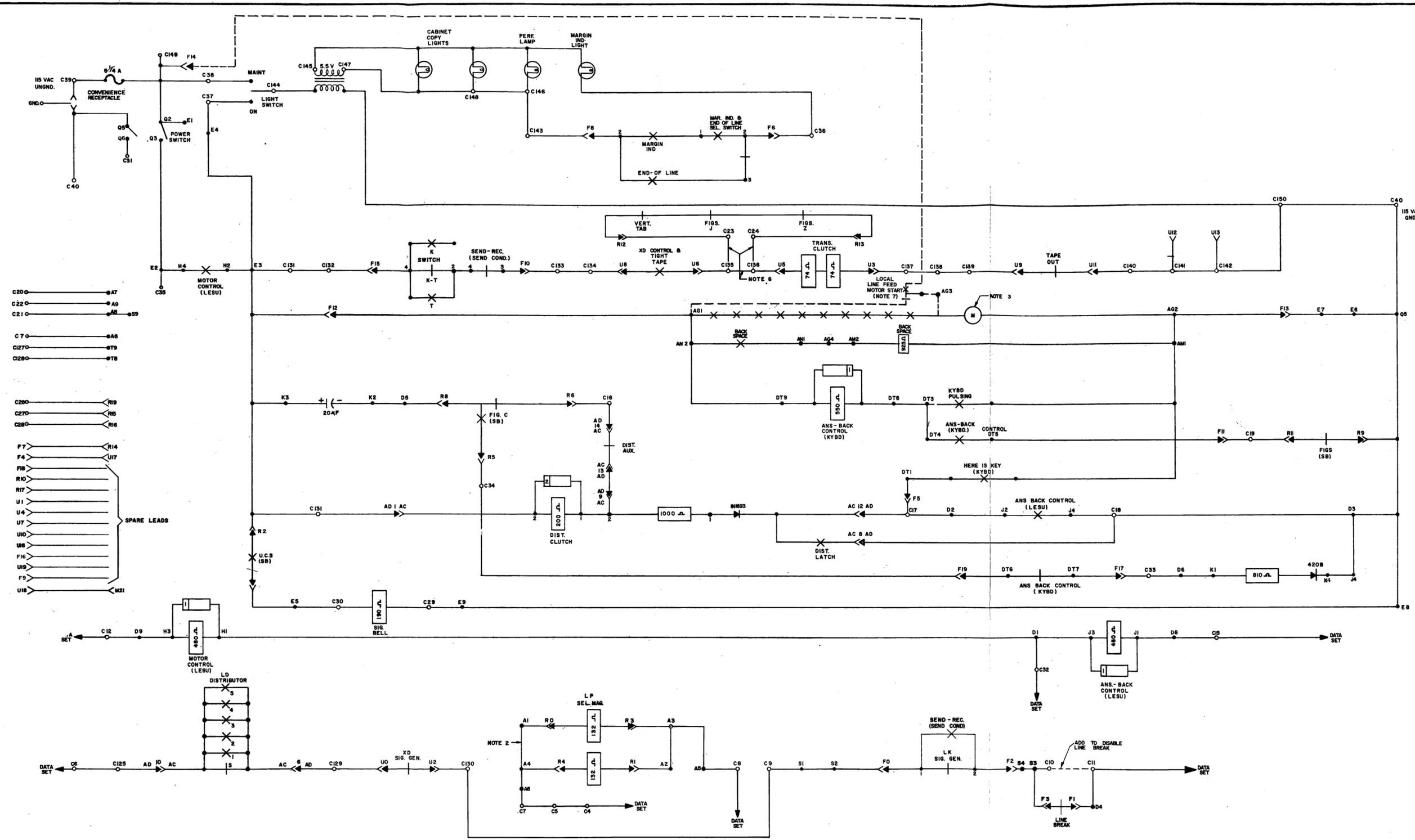
FOR SCHEMATIC SEE 4900WD

4909WD	
ISSUE DATE	AUTH. NO.
A 1-23-58	74359
B 11-1-62	74978
C 7-23-64	75930
D	
E	
F	
G	
H	
I	
J	
K	
L	
M	
N	
O	
P	
Q	
R	
S	
T	
U	
V	
W	
X	
Y	
Z	

- LEGEND:
- A ● SELECTOR MAGNET TERMINAL BLOCK (LESU)
  - C ○ CABINET TERMINAL BLOCKS (LAAC)
  - D ○ TERMINAL BLOCK (LESU)
  - E ○ TERMINAL BLOCK (LESU)
  - F → KEYBOARD CONNECTOR (LAK-LESU)
  - H ● MARGIN IND. LAMP RESISTOR (LESU)
  - Q ● POWER SWITCH (LESU)
  - R → TYPING UNIT CONNECTOR (LP-LESU)
  - S ○ TERMINAL BLOCK (LESU)
  - T ○ TERMINAL BLOCK (LESU)
  - H ● MOTOR CONTROL RELAY (LESU)
  - J ● ANSWER BACK CONTROL RELAY (LESU)
  - K ● CAPACITOR-RESISTOR TERMINALS (LESU)
  - DT ● ANS-BACK CONTROL RELAY (LAK)
  - NORMALLY OPEN CONTACT (MAKE)
  - NORMALLY CLOSED CONTACT (BREAK)
  - Ω RESISTANCE VALUES IN OHMS
  - μH INDUCTANCE VALUES IN MICROHENRIES
  - μF CAPACITANCE VALUES IN MICROFARADS
  - 115A NETWORK □ 115B NETWORK
  - U → TRANSMITTER DISTRIBUTOR CONNECTOR (LXD-LESU)
  - AD AC DISTRIBUTOR CONNECTOR (LD)
  - AM ANS BACK SPACE (LAK)

- NOTES:
- CIRCUITS SHOWN FOR .050 AMP NEUTRAL SIGNAL LINE OPERATION FOR .020 AMP LINE CURRENT, ADD STRAP BETWEEN TERMINALS A1 & A2 AND REMOVE CONNECTION BETWEEN TERMINALS A1-A4 & A2-A5.
  - USE SYNCHRONOUS MOTOR ON REGULATED 60% (±1%) AC POWER ONLY.
  - FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE:
 

WD NUMBER	UNITS DIRECTLY OPERABLE WITH LESU 82
3575WD	TRANSMITTER DISTRIBUTOR LXD18
3584WD	CABINETS LAA2236
4910WD	ELECTRICAL SERVICE UNIT LESU 82
4915WD	KEYBOARD LAK 29, LAK 39
2900WD	MOTOR UNITS LMU 12
4905WD	TYPING UNITS LP 106, 107
4918WD	TRANSMITTER DISTRIBUTOR BASE LXD17
  - ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.
  - WHEN LXD5 OR 18 IS USED WITH LP107, REMOVE THE STRAP BETWEEN TERMINALS C135-C138. ADD TWO 176182 STRAPS, ONE BETWEEN TERMINALS C23-C135 AND ONE BETWEEN C24-C138.
  - FOR LAK 39 - ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (---) IN MOTOR POWER CIRCUITS.



R-28 21 1/2, 103/4

SCHEMATIC WIRING DIAGRAM MODEL 28 ASR SET WITH FACILITIES PROVIDED BY LESU 82 DIAL TWX STATION

APPROVALS  
 D AND B E OF M  
 E-NUMBER  
 PRG. NO. 4909WD

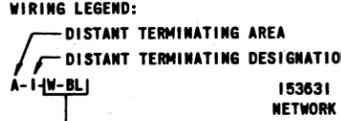
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 DRAWN M.K. CHKD. [Signature]  
 ENGD. T.D.C. APPR. [Signature]

TELETYPE CORPORATION  
 4909WD



REVISIONS		
ISSUE	DATE	AUT
A	6-8-62	736
B 3	8-23-62	743
B 4	11-1-62	749
B 5	2-11-64	795
B 6	4-7-66	902

NOTE:  
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

- NO. NOTES
1. WIRING LEGEND:  


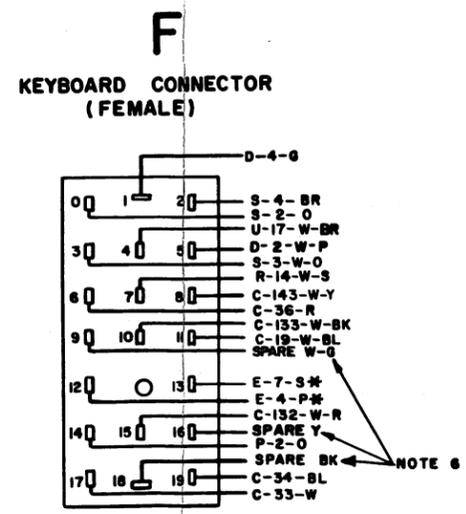
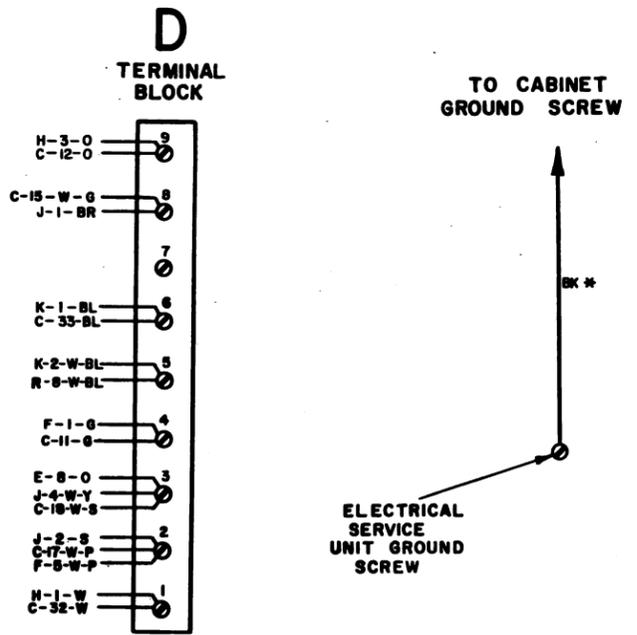
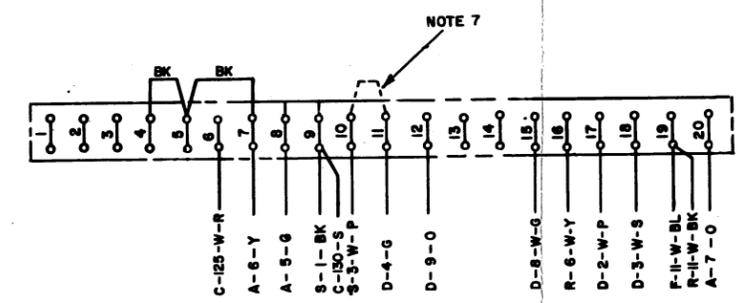
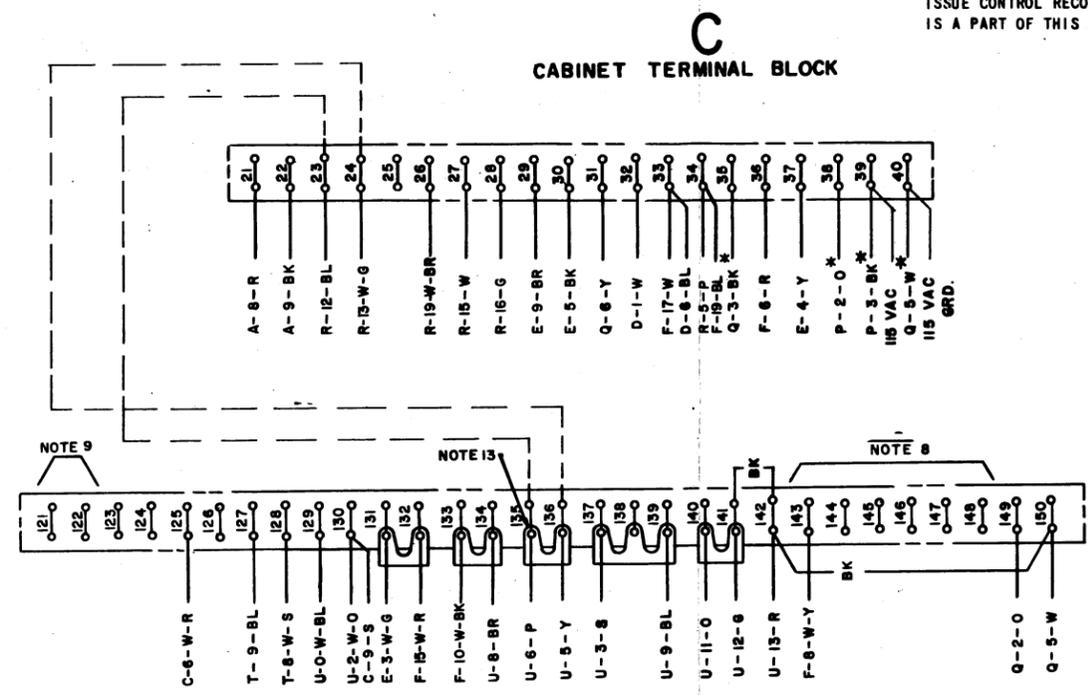
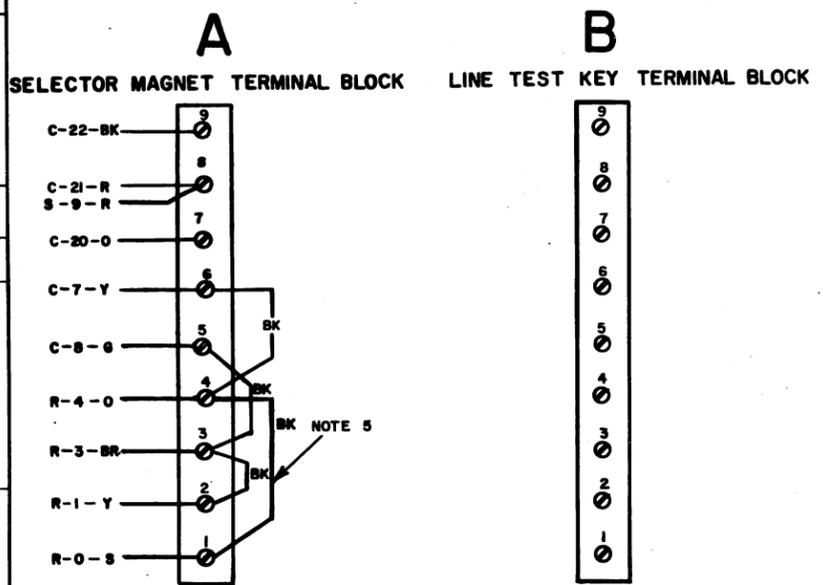
153631 NETWORK  
WIRE COLOR CODE
  2. COLOR CODE:  

BK - BLACK	G - GREEN
BR - BROWN	BL - BLUE
R - RED	P - PURPLE
O - ORANGE	W - WHITE
Y - YELLOW	S - SLATE

\* DENOTES 18 GA.
  3. UNIT WIRED FOR 115 VOLTS, 50-60 CYCLE AC POWER INPUT ONLY.
  4. CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS.
  5. CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION, REMOVE AND ADD CONNECTIONS AS FOLLOWS:  

SIGNAL LINE CURRENT	CONNECTION REMOVED	CONNECTION ADDED
.020 AMP.	A1-A4, A2-A3	A1-A2

\* PLACE TWO STRAPS IN PARALLEL.
  6. THE SPARE LEADS FROM THE KEYBOARD AND TRANSMITTER DISTRIBUTOR UNITS CONNECTOR PLUGS ARE TERMINATED IN THE RIGHT END OF ELECTRICAL SERVICE UNIT. THE SPARE LEADS FROM THE TYPING UNIT PLUG ARE TERMINATED IN THE LEFT END OF THE ELECTRICAL SERVICE UNIT.
  7. ADD STRAP BETWEEN C-10 AND C-11, IF SIGNAL LINE BREAK SWITCH IS NOT USED.
  8. TERMINALS C-143 AND C-148 RESERVED FOR CABINET LAMP OPERATION.
  9. TERMINALS C-121 AND C-122 RESERVED FOR PERFORATOR LOW TAPE SWITCH.
  10. CONTACTS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.
  11. TERMINALS C1, C2, C13, C14, C20, C25 AND A7 RESERVED FOR IO1A DATA SET USE.
  12. ASSOCIATED CABLE ASSEMBLIES:  
 165609 LESU CABLE  
 165602 MOTOR CONTROL AND ANSWER-BACK CABLE
  13. WHEN LX05 OR 18 IS USED WITH LP107, REMOVE THE STRAP BETWEEN TERMINALS C135 AND C136. ADD TWO 176102 STRAPS, ONE BETWEEN TERMINALS C23 AND C135, AND ONE BETWEEN C24 AND C136.
  14. FOR SCHEMATIC WIRING DIAGRAM, SEE 4909WD.



SEE ISSUE CONTROL RECORD COMPLETE LIST OF SHEETS COMPRISING THIS W.D.  
SHEET 1

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT LESU82

APPROVALS	
D AND R	E OF
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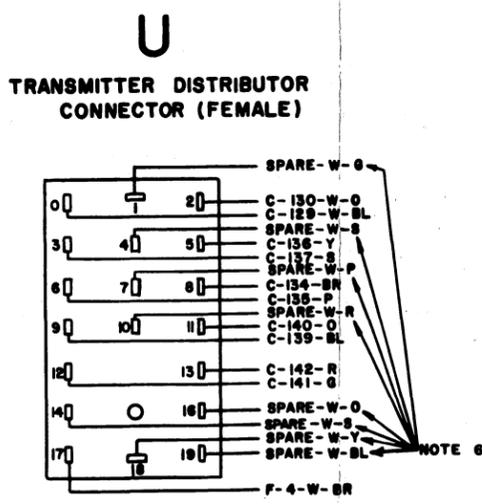
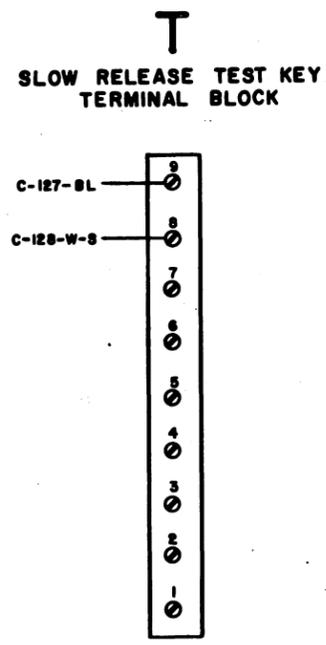
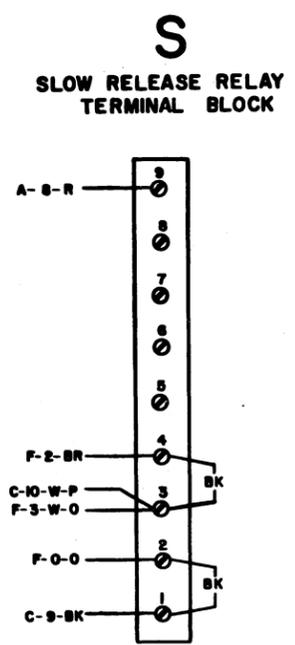
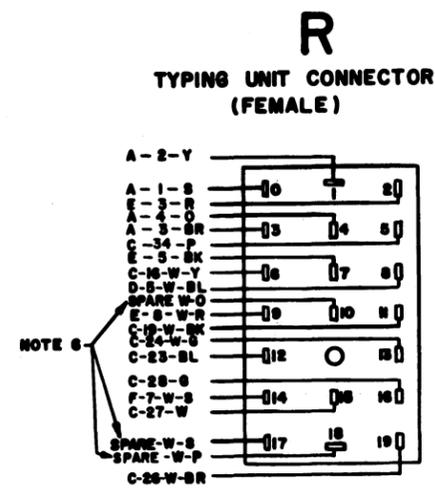
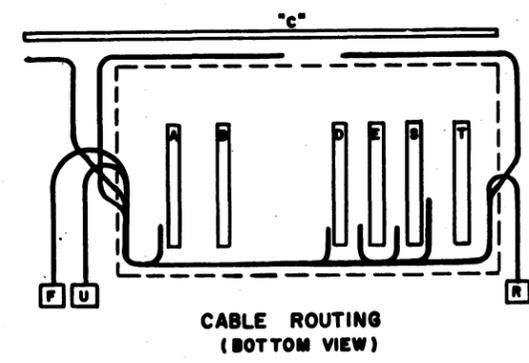
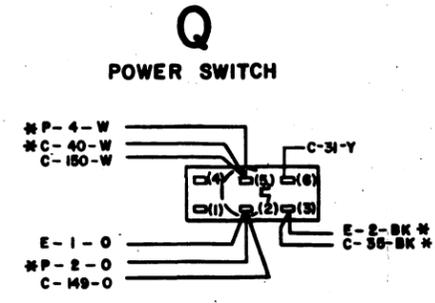
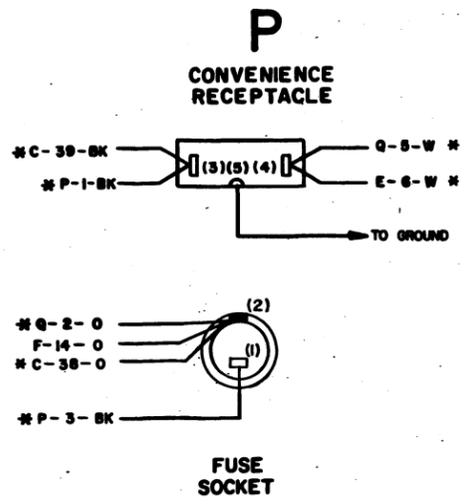
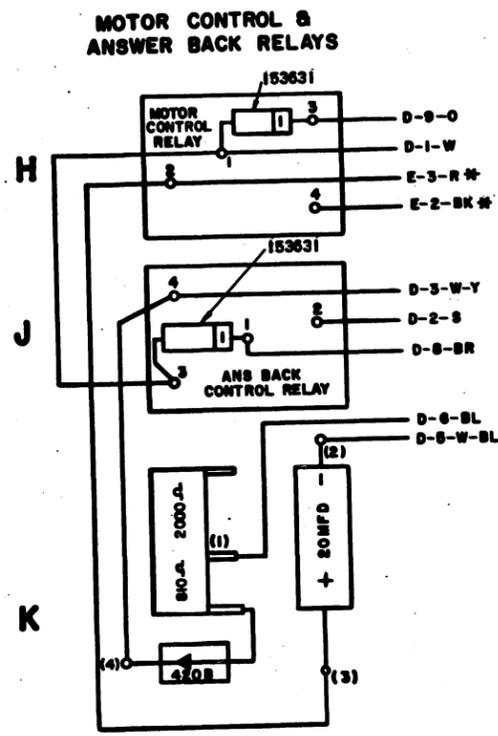
E-NUMBER  
 PROD. NO. 4910WD  
 DATE 11-14-61  
 P.D. FILE NO. 5-A100AA  
 DRAWN M.K. CHKD.  
 ENGD. T.D.C. APPD.

TELETYPE CORPORATION

SEE SHEET 1 FOR NOTES.

NOTE:  
REVISION INFORMATION MUST ALSO  
BE REFLECTED ON THE ISSUE  
CONTROL RECORD, WHICH IS PART  
OF THIS W.D.

<b>4910.WD</b>		
<b>REVISIONS</b>		
ISSUE	DATE	AUTH.
#2	6-9-62	73664
#3	8-23-62	74329
#4	11-1-62	74978
#5	2-11-64	79910
#6	4-7-66	90222



SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 2

ACTUAL  
WIRING DIAGRAM  
FOR  
MODEL 28  
ELECTRICAL SERVICE UNIT  
LESUB2

APPROVALS

D AND R	E OF M
-----	-----

E-NUMBER  
PROD. NO. 4910WD  
DATE 11-14-61  
P.D. FILE NO. 5-A100AA  
DRAWN H.K. CHKD.  
ENGD. T.D.C. APPD.

TELETYPE CORPORATION

**4910 WD**

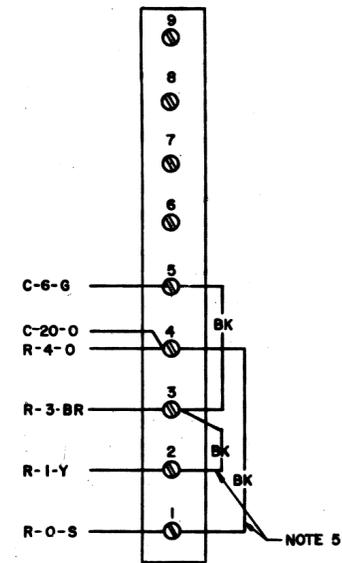
4911 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
A	2-23-62	72467
B	5-15-62	73437

- NOTES:**
- WIRING LEGEND:  
 DISTANT TERMINATING AREA  
 DISTANT TERMINAL DESIGNATION  
 A-1-W-BL  
 WIRE COLOR CODE
  - COLOR CODE  
 BK-BLACK G-GREEN  
 BR BROWN BL BLUE  
 R RED P PURPLE  
 O ORANGE W WHITE  
 Y YELLOW S SLATE  
 \* 18 GA. WIRE
  - UNIT WIRED FOR 48 VOLTS DC POWER IN PUT ONLY.
  - PLUGS VIEWED FROM SOLDER TERMINAL END.
  - CIRCUITS SHOWN FOR .060 AMP NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP OPERATION REMOVE AND ADD CONNECTIONS AS FOLLOWS.  

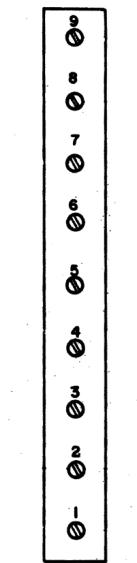
SIGNAL LINE CURRENT	CONNECTION REMOVED	CONNECTION ADDED
.020AMP.	A1-A4, A2-A3	A1-A2

 PLACE TWO STRAPS IN PARALLEL
  - THE SPARE LEADS FROM THE KEYBOARD AND TYPING UNIT ARE TERMINATED IN THE RIGHT AND LEFT ENDS OF THE ELECTRICAL SERVICE UNIT RESPECTIVELY
  - STRAP TERMINALS C10 TO C11 TO DISABLE LINE BREAK SWITCH.

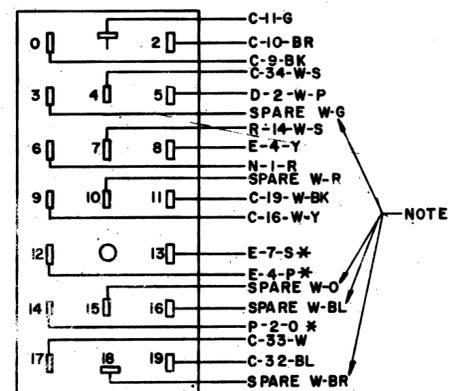
**A**  
SELECTOR MAGNET  
TERMINAL BLOCK



**B**  
TERMINAL  
BLOCK

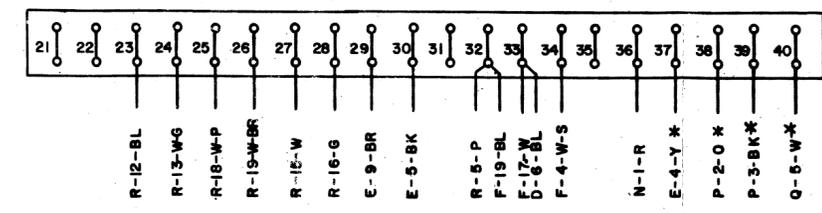
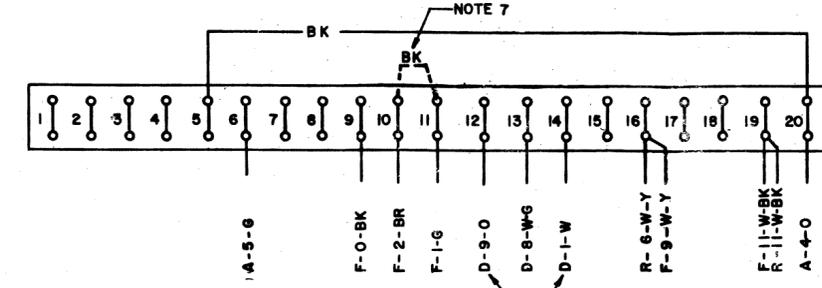


**F**  
KEYBOARD CONNECTOR  
RECEPTACLE

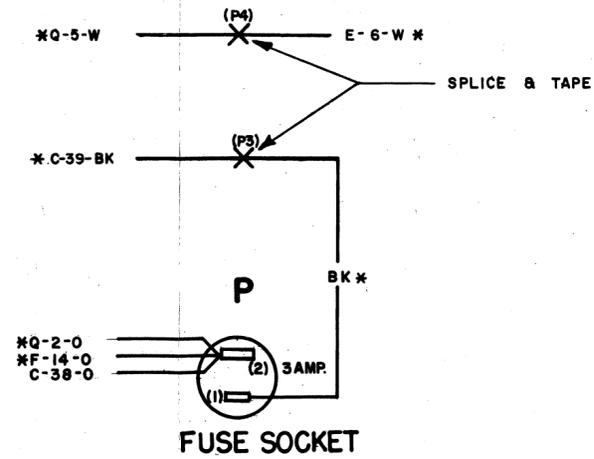
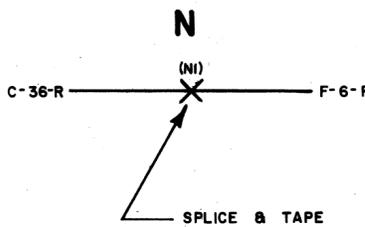
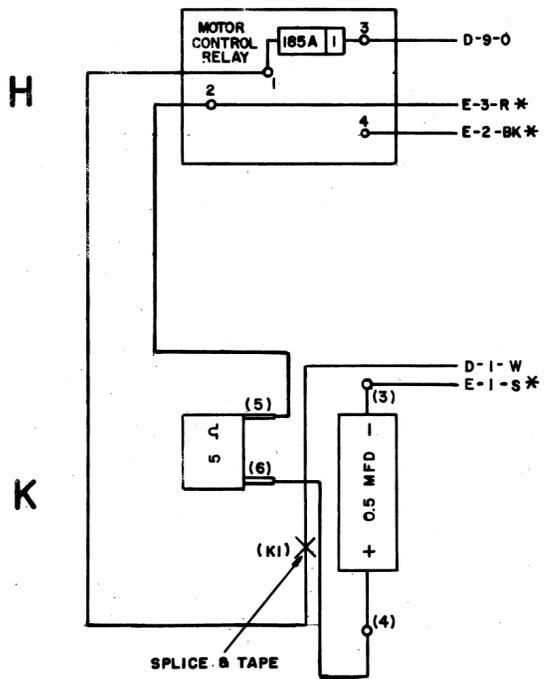


NOTE 6

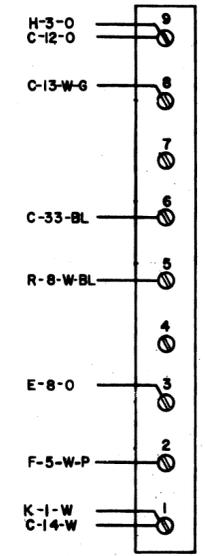
**C**  
CABINET TERMINAL BLOCK



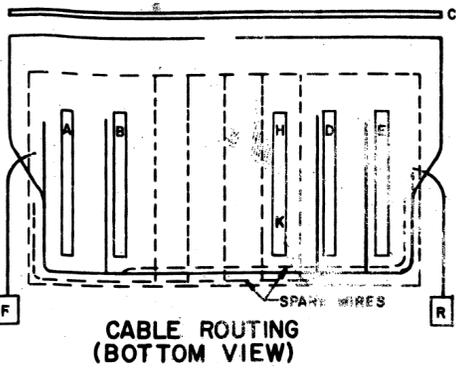
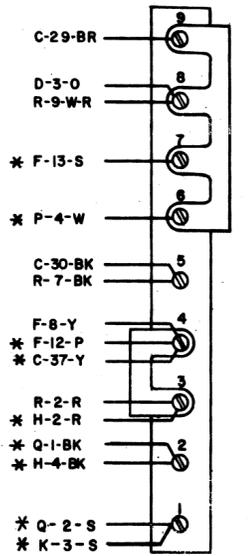
**H**  
MOTOR CONTROL  
RELAY



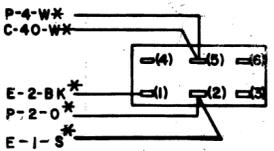
**D**  
TERMINAL  
BLOCK



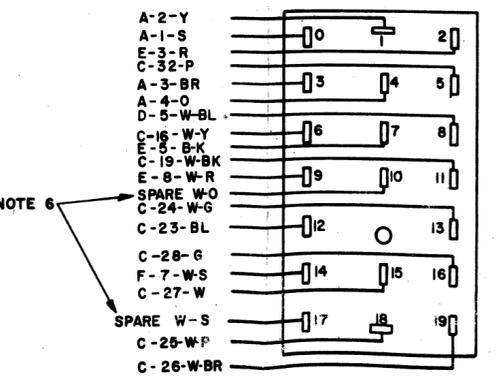
**E**  
TERMINAL  
BLOCK



**Q**  
POWER  
SWITCH



**R**  
TYPING UNIT  
CONNECTOR RECEPTACLE



NOTE 6

FOR SCHEMATIC SEE 4912 WD

28R  
ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT LESU 86

APPROVALS  
 D AND R E OF M

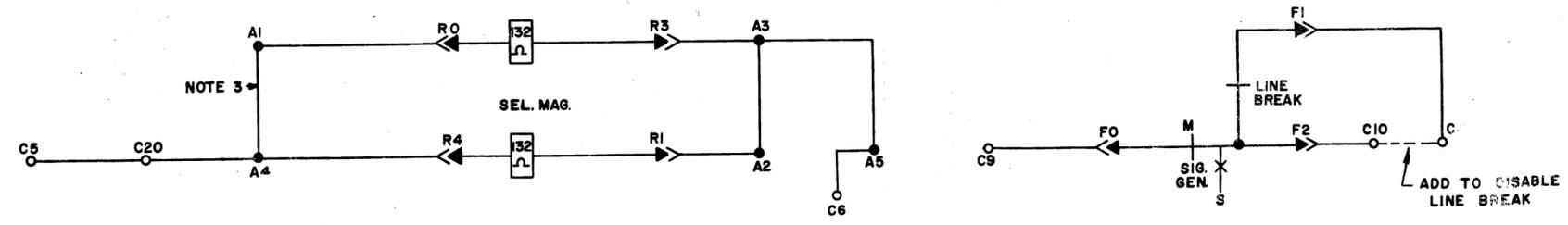
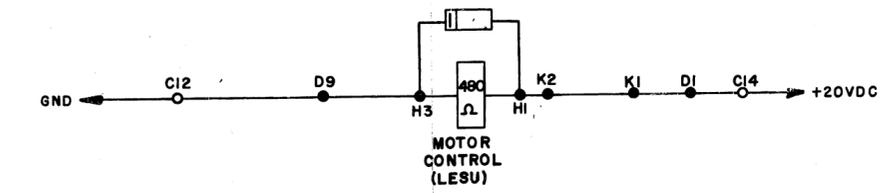
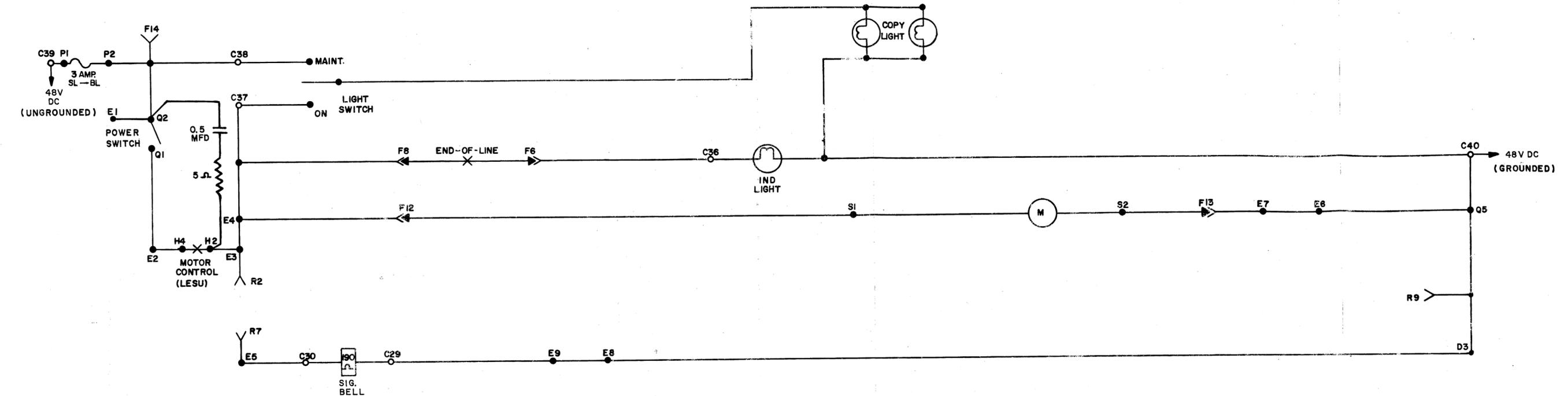
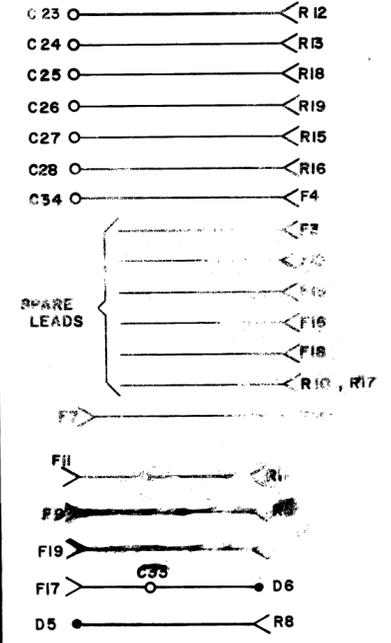
E NUMBER  
 PROD. NO. 4911 WD

DATE: 11-30-61  
 PD. FILE NO. 5-A100 AA  
 DRAWN M.K. CHKD. [Signature]  
 ENGD. W.T.C. APPD. [Signature]

TELETYPE CORPORATION  
 4911 WD

4912 WD		
REVISIONS		
ISSUE	DATE	AUTH NO.
A	2-23-62	72467
B	5-15-62	73337
C	11-18-63	78869

- NO. NOTES
- LEGEND:
- A ● SELECTOR MAGNET TERMINAL BLOCK (LESU)
  - B ● TERMINAL BLOCK (LESU)
  - C ○ CABINET TERMINAL BLOCKS (LAC)
  - D ● TERMINAL BLOCK (LESU)
  - E ● TERMINAL BLOCK (LESU)
  - F → KEYBOARD CONNECTOR (LK-LESU)
  - N ● MARGIN IND. LAMP RESISTOR (LESU)
  - Q ● POWER SWITCH (LESU)
  - R → TYPING UNIT CONNECTOR (LP-LESU)
  - S ● MOTOR TERMINAL BLOCK (LK)
  - T ● COPY LIGHT TRANSFORMER TERMINALS (LAC)
  - H ● MOTOR CONTROL RELAY (LESU)
  - J ● ANSWER BACK CONTROL RELAY (LESU)
  - K ● CAPACITOR-RESISTOR TERMINALS (LESU)
  - ⊗ NORMALLY OPEN CONTACT (MAKE)
  - ⊕ NORMALLY CLOSED CONTACT (BREAK)
  - (Ω) RESISTANCE VALUES IN OHMS
  - (μH) INDUCTANCE VALUES IN MICROHENRIES
  - (μF) CAPACITANCE VALUES IN MICROFARADS
  - 185A NETWORK
2. ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.
3. CIRCUITS SHOWN FOR .060 AMP NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP LINE CURRENT, ADD STRAP BETWEEN TERMINALS A1 & A2 AND REMOVE CONNECTION BETWEEN TERMINALS A1-A4 & A2-A3
4. USE SERIES GOVERNED MOTOR ON 48V DC POWER ONLY.
5. FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE
- | WD NUMBER | UNITS DIRECTLY OPERABLE WITH LESU 86 |
|-----------|--------------------------------------|
| 4917 WD   | CABINETS LAC 219                     |
| 4911 WD   | ELECTRICAL SERVICE UNIT LESU 86      |
| 2928 WD   | KEYBOARD LK 32                       |
| 2900 WD   | MOTOR UNITS LMU 29                   |
| 4905 WD   | PAGE TYPING UNITS LP106, AHR         |



28R

SCHEMATIC WIRING DIAGRAM MODEL 28

PAGE PRINTER SET WITH FACILITIES PROVIDED BY ELEC. SERVICE UNIT LESU 86 DIAL TWX CENTER

APPROVALS

D AND R OF M

E-NUMBER

PROD NO. 4912 WD

DATE: 12-1-61

PD FILE NO. 5 A100AA

DRAWN M.K. CHKD [Signature]

ENGD. W.T.C. APPD [Signature]

TELETYPE CORPORATION

4912 WD

# 4913 WD

## REVISIONS

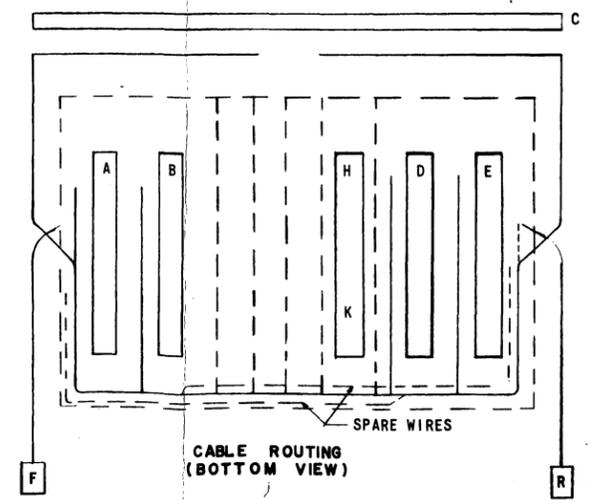
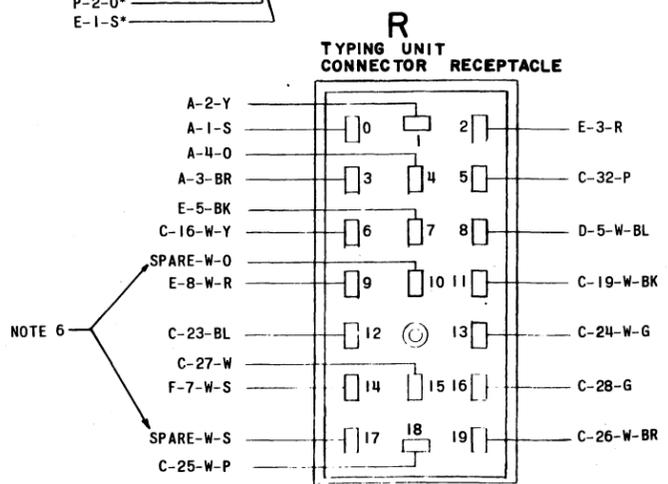
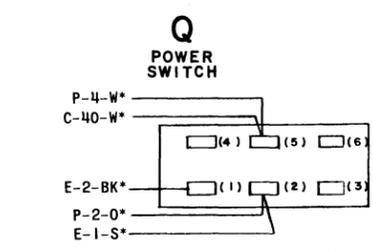
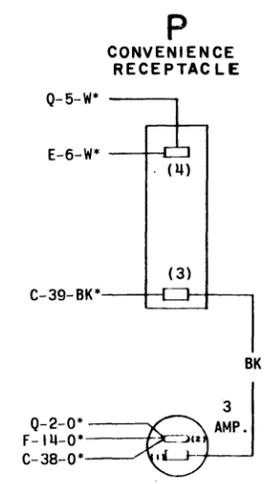
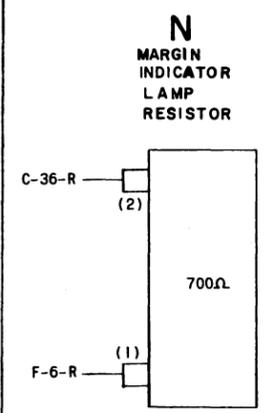
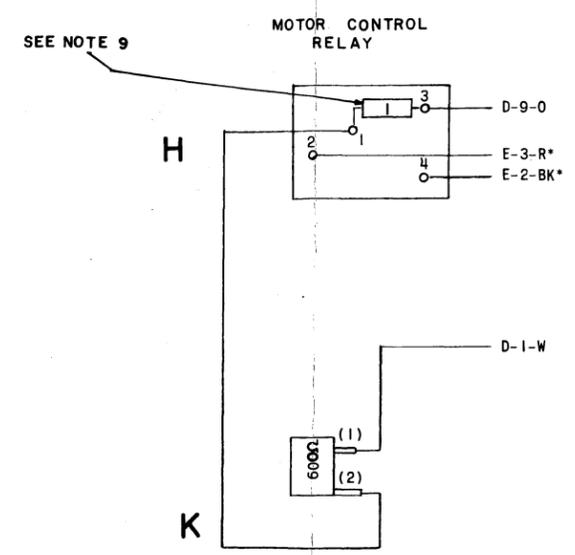
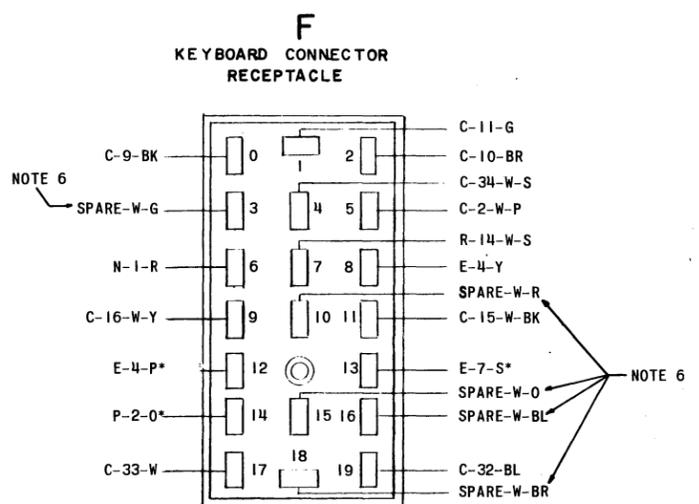
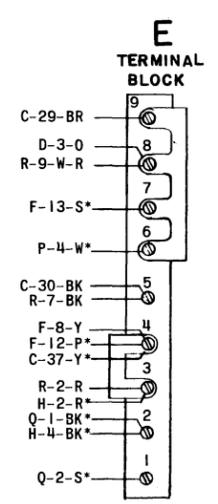
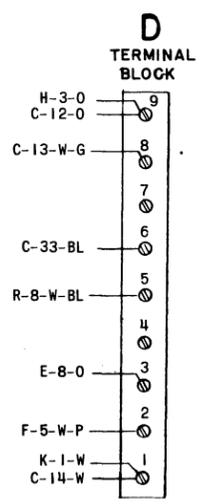
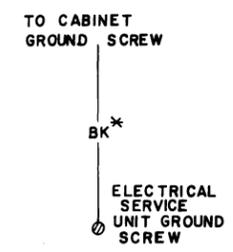
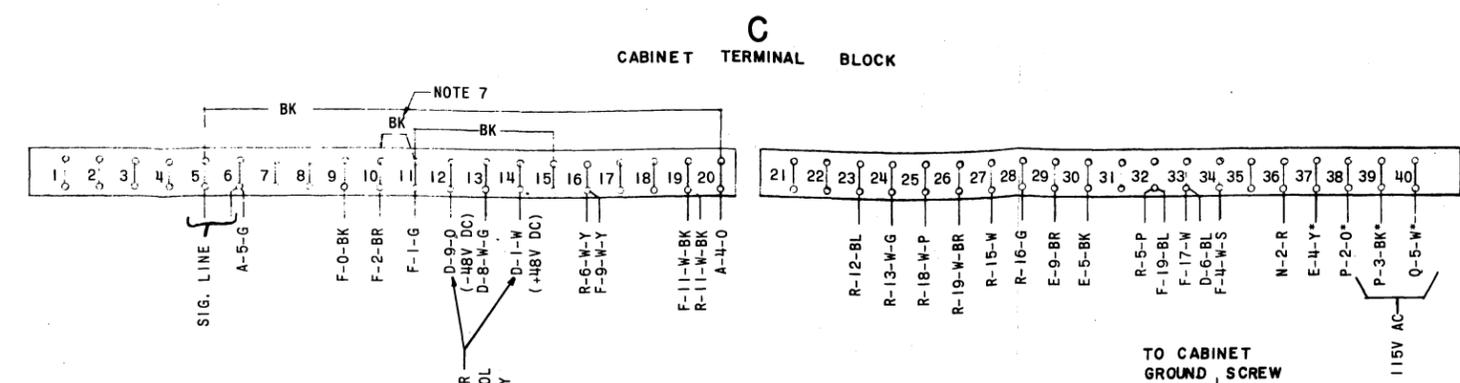
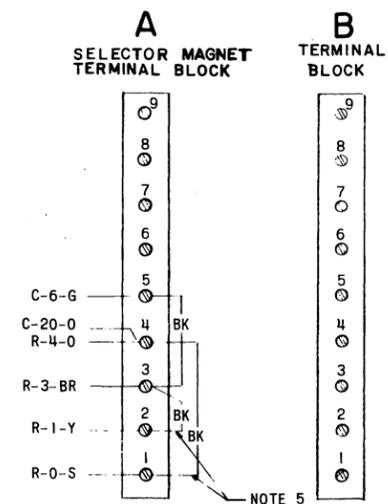
ISSUE	DATE	AUTH. NO.
A	7-31-62	74071

- NOTES**
- WIRING LEGEND:**  
 DISTANT TERMINATING AREA  
 DISTANT TERMINATING DESIGNATION  
 A-1-W-BL WIRE COLOR CODE
  - COLOR CODE:**  
 BK - BLACK      G - GREEN  
 BR - BROWN    BL - BLUE  
 R - RED          P - PURPLE  
 O - ORANGE      W - WHITE  
 Y - YELLOW      S - SLATE  
 \* 18 GA. WIRE
  - UNIT WIRED FOR 115 VOLTS, 60 CYCLE AC POWER INPUT ONLY.
  - PLUGS VIEWED FROM SOLDER TERMINAL END.
  - CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION, REMOVE AND ADD CONNECTIONS AS FOLLOWS:
 

SIGNAL LINE CURRENT	CONNECTION REMOVED	CONNECTION ADDED
.020 AMP.	A1-A4, A2-A3	A1-A2

 PLACE TWO STRAPS IN PARALLEL
  - THE SPARE LEADS FROM THE KEYBOARD AND TYPING UNIT CONNECTORS ARE TERMINATED IN THE RIGHT AND LEFT ENDS OF THE ELECTRICAL SERVICE UNIT, RESPECTIVELY.
  - STRAP TERMINALS C10 TO C11 TO DISABLE LINE BREAK SWITCH.
  - FOR SCHEMATIC, SEE 4914WD.
  - NETWORK VALUES**  



ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT LESU87

**APPROVALS**

D AND R F.L.	E OF M 
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E-NUMBER  
PROD. NO. 4913WD

DATE 12-1-61  
P.D. FILE NO. 5-A.100.AA

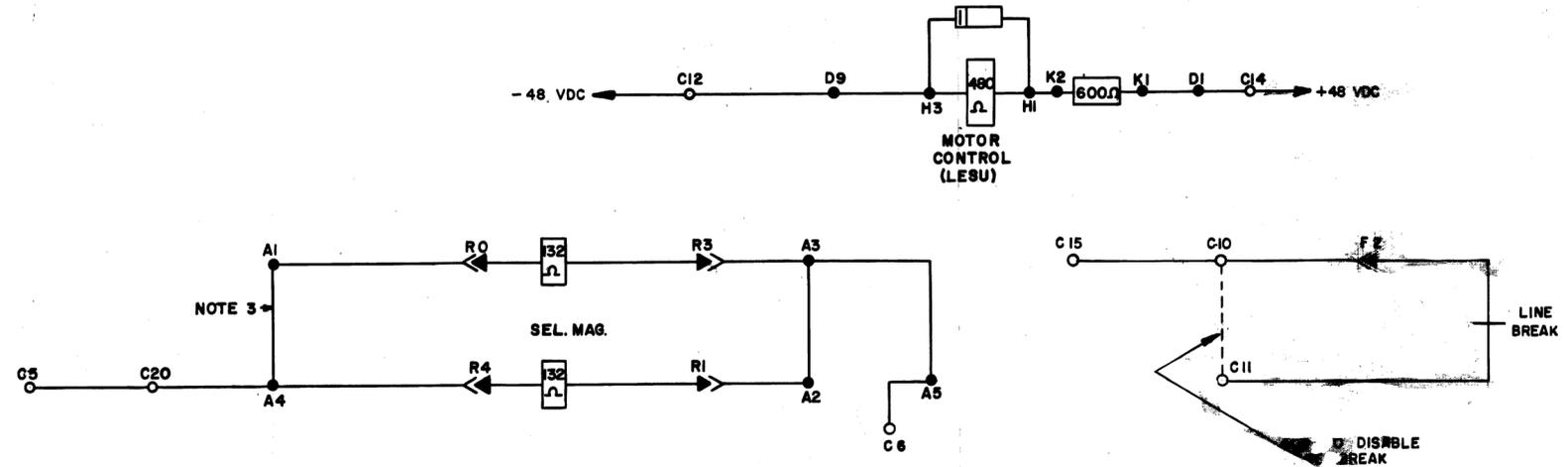
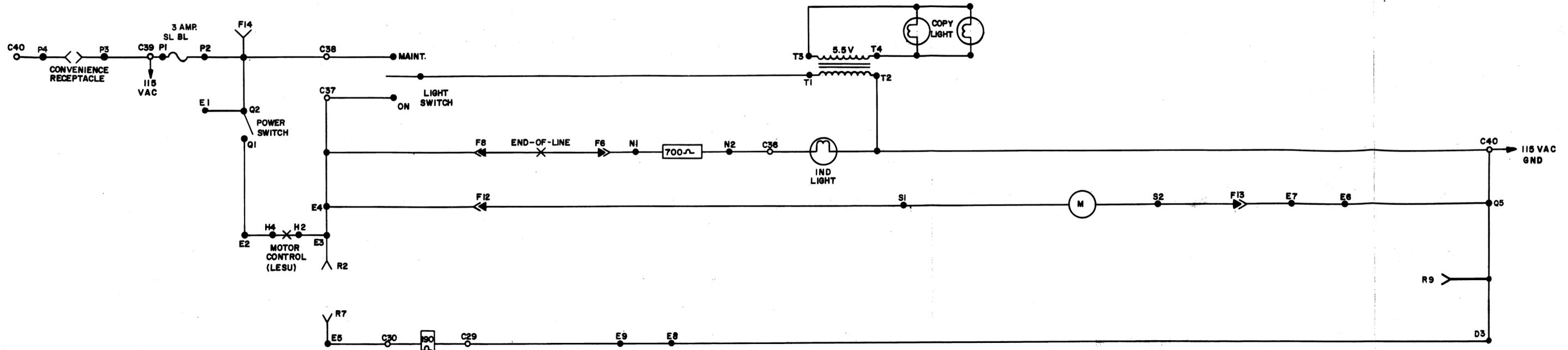
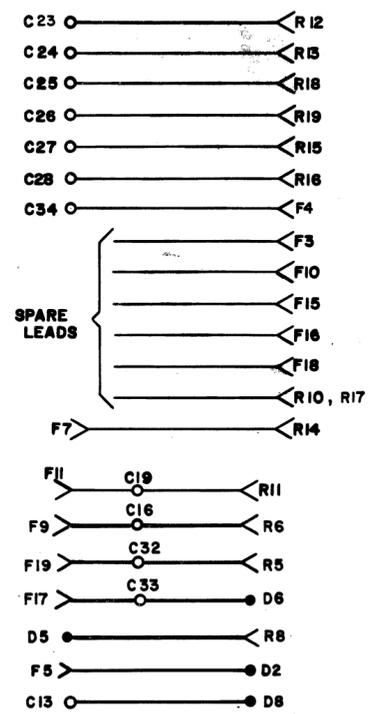
DRAWN M.K.	CHKD.
ENGD. W.T.C.	APPD. D.E.H.

**TELETYPE CORPORATION**

# 4913 WD

REVISIONS		
ISSUE	DATE	AUTH NO.
A	7-31-62	74071
B	11-14-62	78849

- NO. NOTES
- LEGEND:
- A ● SELECTOR MAGNET TERMINAL BLOCK (LESU)
  - B ● TERMINAL BLOCK (LESU)
  - C ○ CABINET TERMINAL BLOCKS (LAC)
  - D ● TERMINAL BLOCK (LESU)
  - E ● TERMINAL BLOCK (LESU)
  - F → KEYBOARD CONNECTOR (LK-LESU)
  - N ● MARGIN IND. LAMP RESISTOR (LESU)
  - Q ● POWER SWITCH (LESU)
  - R → TYPING UNIT CONNECTOR (LP-LESU)
  - S ● MOTOR TERMINAL BLOCK (LK)
  - T ● COPY LIGHT TRANSFORMER TERMINALS (LAC)
  - H ● MOTOR CONTROL RELAY (LESU)
  - J ● ANSWER BACK CONTROL RELAY (LESU)
  - K ● CAPACITOR-RESISTOR TERMINALS (LESU)
  - X ✕ NORMALLY OPEN CONTACT (MAKE)
  - + + NORMALLY CLOSED CONTACT (BREAK)
  - (Ω) RESISTANCE VALUES IN OHMS
  - (μH) INDUCTANCE VALUES IN MICROHENRIES
  - (μF) CAPACITANCE VALUES IN MICROFARADS
  - 185A NETWORK
- ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.
  - CIRCUITS SHOWN FOR .060 AMP NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. LINE CURRENT, ADD STRAP BETWEEN TERMINALS A1 & A2 AND REMOVE CONNECTION BETWEEN TERMINALS A1 - A4 & A2 - A3
  - USE SYNCHRONOUS MOTOR ON REGULATED 60 Hz (± 1%) A.C. POWER ONLY.
  - FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE
- | WD NUMBER | UNITS DIRECTLY OPERABLE WITH LESU 87 |
|-----------|--------------------------------------|
| 3236 WD   | CABINETS LAC 204                     |
| 4913 WD   | ELECTRICAL SERVICE UNIT LESU 87      |
| 4908 WD   | KEYBOARD LK 33                       |
| 2900 WD   | MOTOR UNITS LMU 3                    |
| 4905 WD   | PAGE TYPING UNITS LP 106, 107        |



289

SCHMATIC WIRING DIAGRAM MODEL 28 PAGE PRINTER SET WITH FACILITIES PROVIDED BY ELEC. SERVICE UNIT LESU 87 DIAL TWX CENTER

APPROVALS

D AND B E OF M

E-NUMBER

PROD NO. 4914 WD

DATE: 11-17-61

PD FILE NO. 5-A100AA

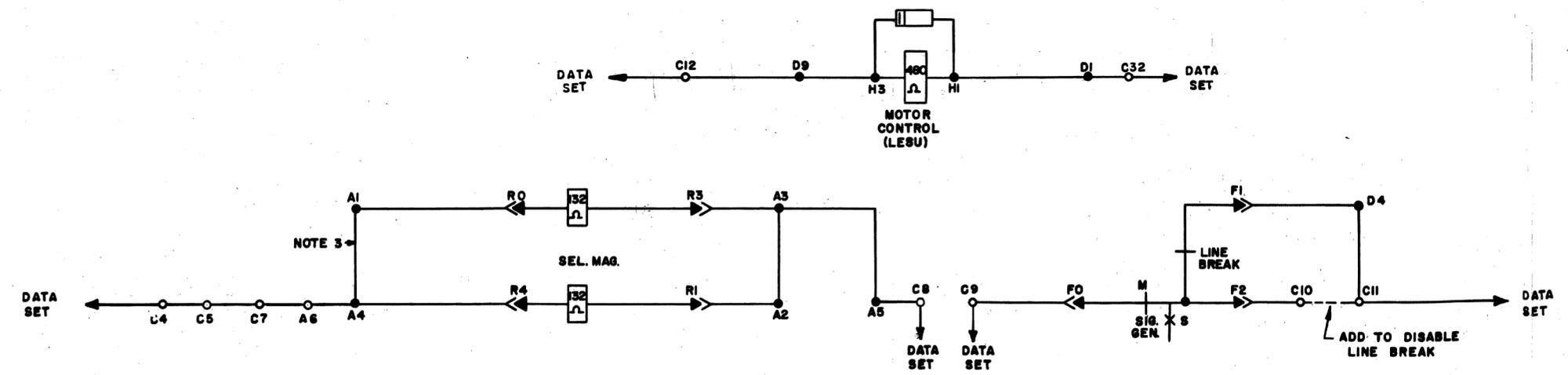
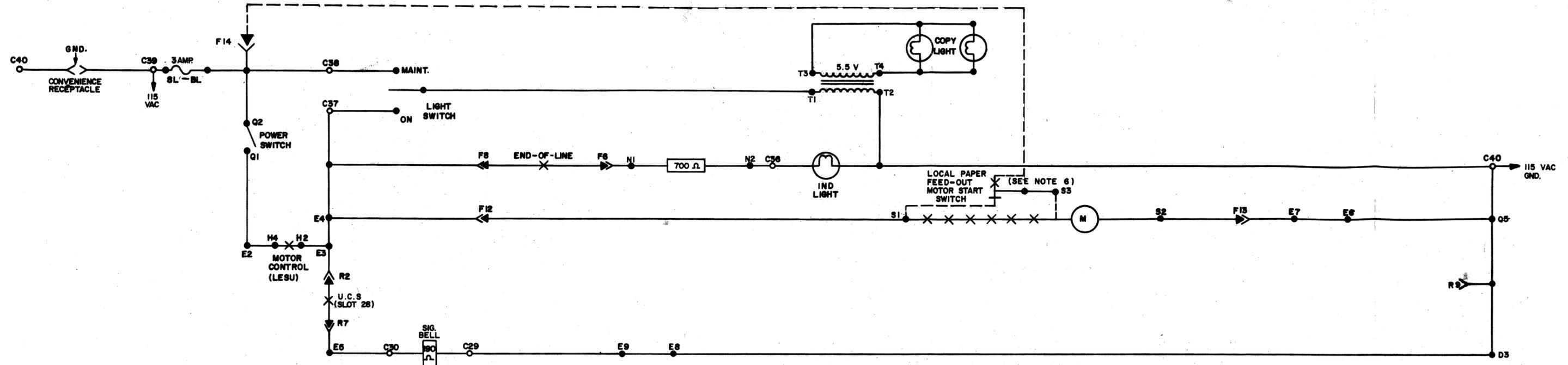
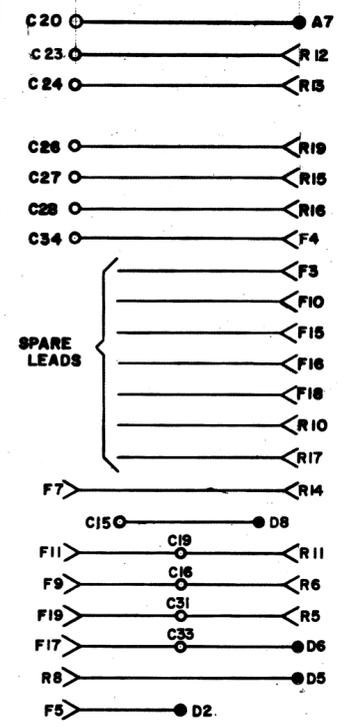
DRAWN E.E. CHKD. APPR. ENGD. T.D.C.

TELETYPE CORPORATION

4914 WD

4918WD		
REVISIONS		
ISSUE	DATE	AUTH NO.
A	2-23-62	72467
B	4-5-62	72474
C	7-31-63	72470
D	11-14-63	72474

- NO. NOTES
- LEGEND:
- A ● SELECTOR MAGNET TERMINAL BLOCK (LESU)
  - B ● TERMINAL BLOCK (LESU)
  - C ○ CABINET TERMINAL BLOCKS (LAC)
  - D ● TERMINAL BLOCK (LESU)
  - E ● TERMINAL BLOCK (LESU)
  - F → KEYBOARD CONNECTOR (LK-LESU)
  - N ○ MARGIN IND. LAMP RESISTOR (LESU)
  - Q ● POWER SWITCH (LESU)
  - R → TYPING UNIT CONNECTOR (LP-LESU)
  - S ● MOTOR TERMINAL BLOCK (LK)
  - T ○ COPY LIGHT TRANSFORMER TERMINALS (LAC)
  - M ● MOTOR CONTROL RELAY (LESU)
- X NORMALLY OPEN CONTACT (MAKE)
  - + NORMALLY CLOSED CONTACT (BREAK)
  - Ω RESISTANCE VALUES IN OHMS
  - μH INDUCTANCE VALUES IN MICROHENRIES
  - μF CAPACITANCE VALUES IN MICROFARADS
  - 188A NETWORK
- ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.
  - CIRCUITS SHOWN FOR .060 AMP NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP LINE CURRENT, ADD STRAP BETWEEN TERMINALS A1 & A2 AND REMOVE CONNECTION BETWEEN TERMINALS A1 - A4 & A2 - A3
  - USE SYNCHRONOUS MOTOR ON REGULATED 60 ~ (±1%) A.C. POWER ONLY.
  - FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE
- |           |                                      |
|-----------|--------------------------------------|
| WD NUMBER | UNITS DIRECTLY OPERABLE WITH LESU 81 |
| 3236 WD   | CABINETS LAC 204                     |
| 4919 WD   | ELECTRICAL SERVICE UNIT LESU 81      |
| 4906 WD   | KEYBOARD LK 34, 47                   |
| 2900 WD   | MOTOR UNITS LMU 3                    |
| 4905 WD   | PAGE TYPING UNITS LP 106, 107        |
- FOR LK 47 ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (---X---) IN MOTOR POWER CIRCUITS.



28N-1

SCHMATIC WIRING DIAGRAM MODEL 28 PAGE PRINTER SET WITH FACILITIES PROVIDED BY ELEC. SERVICE UNIT LESU 81 DIAL TWX SECTION

APPROVALS

D AND E OF M

E-NUMBER

PROD NO. 4918 WD

DATE: 1-10-62

PD FILE NO. 5-A100A

DRAWN JJK CHKD [Signature]

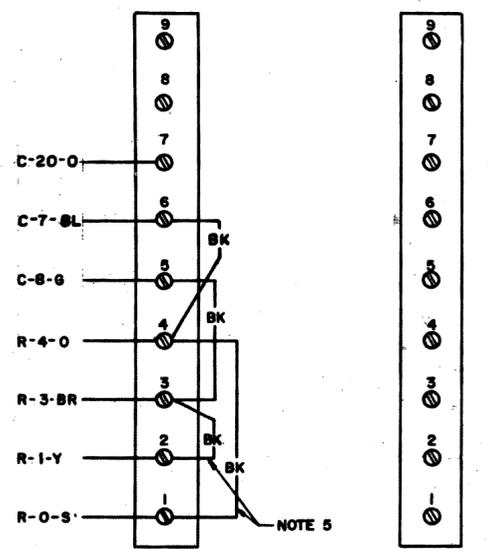
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TELETYPE CORPORATION

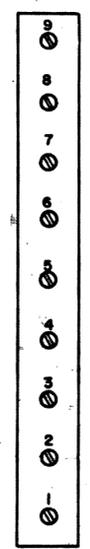
4918WD

- NOTES:**
- WIRING LEGEND:  
DISTANT TERMINATING AREA  
DISTANT TERMINAL DESIGNATION  
A-1-W-BL  
WIRE COLOR CODE
  - COLOR CODE  
BK-BLACK G-GREEN  
BR-BROWN BL-BLUE  
R-RED P-PURPLE  
O-ORANGE W-WHITE  
Y-YELLOW S-SLATE  
\* 18 GA. WIRE
  - UNIT WIRED FOR 115 VOLTS 60 CYCLE AC POWER IN PUT ONLY.
  - PLUGS VIEWED FROM SOLDER TERMINAL END.
  - CIRCUITS SHOWN FOR .050 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION REMOVE AND ADD CONNECTIONS AS FOLLOWS.
- | SIGNAL LINE CURRENT | CONNECTION REMOVED | CONNECTION ADDED |
|---------------------|--------------------|------------------|
| .020AMP             | A1-A4, A2-A3       | A1-A2            |
- PLACE TWO STRAPS IN PARALLEL
- THE SPARE LEADS FROM THE KEYBOARD AND TYPING UNIT ARE TERMINATED IN THE RIGHT AND LEFT ENDS OF THE ELECTRICAL SERVICE UNIT RESPECTIVELY
  - STRAP TERMINALS C10 TO C14 TO DISABLE LINE BREAK SWITCH.
  - TERMINALS C1, C2, C13, C14, C20, C25, A7 ARE RESERVED FOR 101A DATA SET USE.

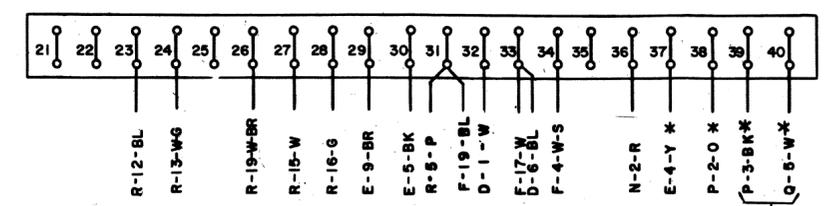
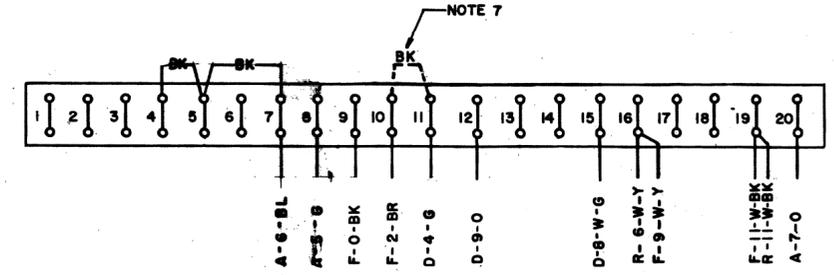
**A SELECTOR MAGNET TERMINAL BLOCK**



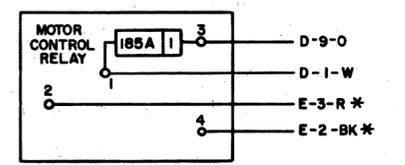
**B TERMINAL BLOCK**



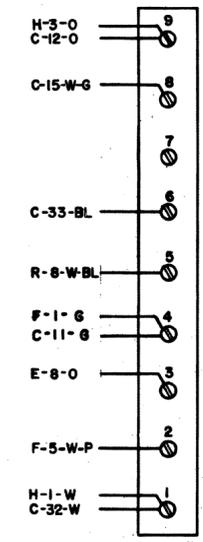
**C CABINET TERMINAL BLOCK**



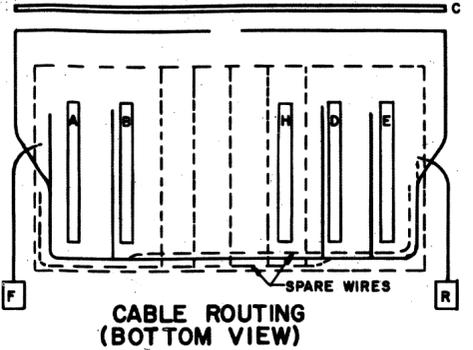
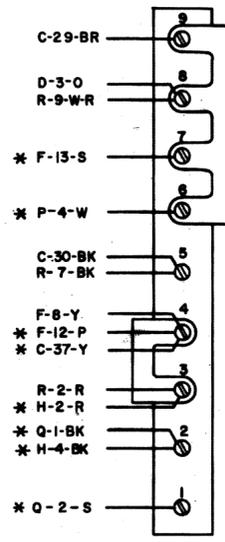
**MOTOR CONTROL RELAY**



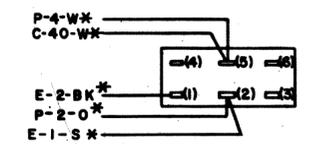
**D TERMINAL BLOCK**



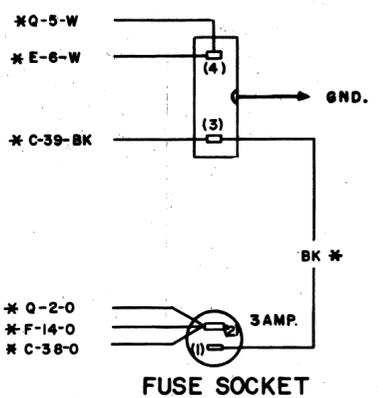
**E TERMINAL BLOCK**



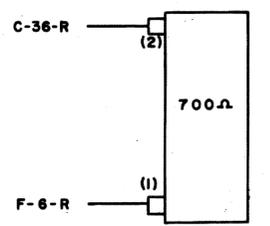
**Q POWER SWITCH**



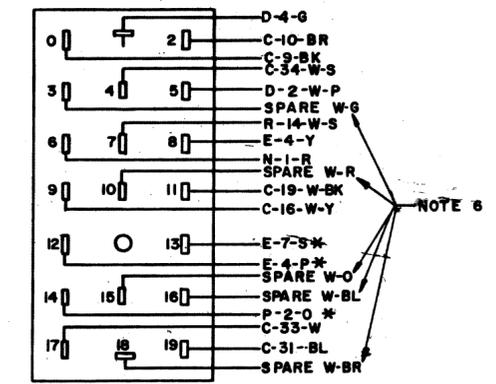
**P CONVENIENCE RECEPTACLE**



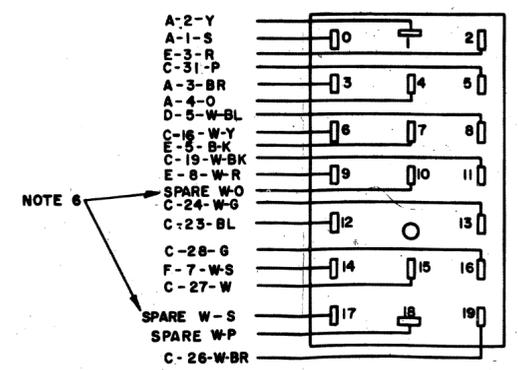
**N MARGIN INDICATOR LAMP RESISTOR**



**F KEYBOARD CONNECTOR RECEPTACLE**



**R TYPING UNIT CONNECTOR RECEPTACLE**



**4919 WD**

ISSUE	DATE	AUTH NO.
A	2-25-62	72467
B	4-3-62	72972
C	6-8-62	73664

281-1  
ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT LESU 81

APPROVALS  
D AND R E OF M

E-NUMBER  
PRD. NO. 4919 WD

DATE: 1-11-62  
PD. FILE NO. 5-A100  
DRAWN JJK CHKD  
ENGD. TDC APPD

TELETYPE CORPORATION  
**4919 WD**

FOR SCHEMATIC SEE 4918 WD

4931 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
A	8-8-62	75664
B	8-23-62	74329
C	11-1-62	74976

**WIRING LEGEND**

DISTANT TERMINATING AREA  
DISTANT TERMINAL DESIGNATION  
185A NETWORK  
WIRE COLOR

**COLOR CODE**

BK - BLACK  
BR - BROWN  
R - RED  
O - ORANGE  
Y - YELLOW  
G - GREEN  
BL - BLUE  
P - PURPLE  
W - WHITE  
S - SLATE

\* 185A

UNIT WIRED FOR 115 VOLTS. 50 TO 60 CYCLE A.C. POWER INPUT ONLY.

CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS.

CIRCUITS SHOWN FOR .020 AMP NEUTRAL SIGNAL LINE OPERATION FOR .020 AMP OPERATION REMOVE AND ADD CONNECTIONS AS FOLLOWS

SIGNAL LINE CURRENT	CONNECTION REMOVED	CONNECTION ADDED
.020 AMP	A1-A4, A2-A3	A1-A2 *

\* PLACE TWO STRAPS IN PARALLEL.

THE SPARE LEADS FROM THE KEYBOARD AND TRANSMITTER DISTRIBUTOR UNITS CONNECTOR PLUGS ARE TERMINATED IN THE RIGHT END OF ELECTRICAL SERVICE UNIT. THE SPARE LEADS FROM THE TYPING UNIT PLUG ARE TERMINATED IN THE LEFT END OF THE ELECTRICAL SERVICE UNIT.

ADD STRAP BETWEEN C-10 & C-11 IF SIGNAL LINE BREAK SWITCH IS NOT USED.

TERMINALS C-143 C-148 RESERVED FOR CABINET LAMP OPERATION.

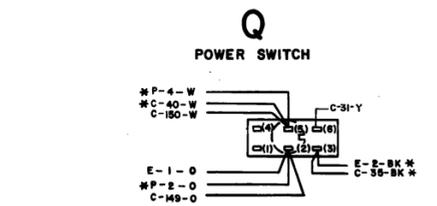
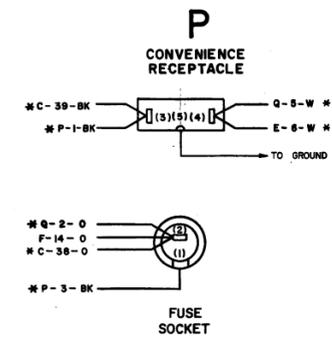
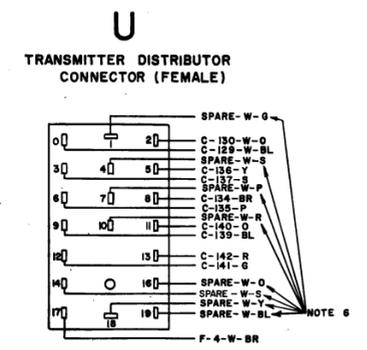
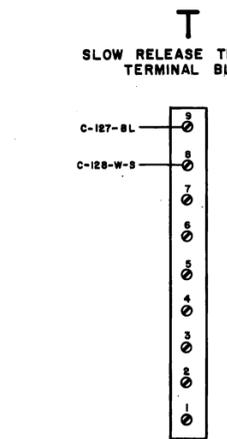
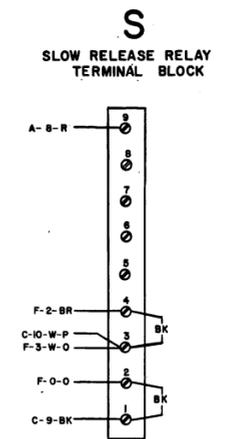
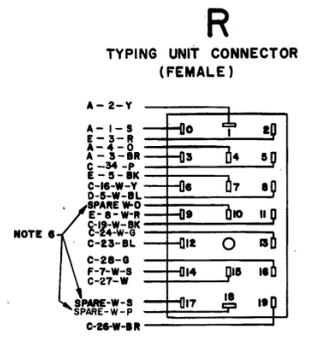
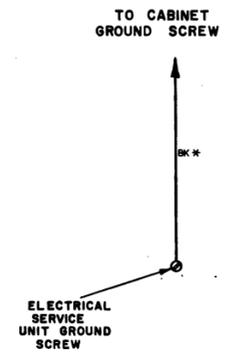
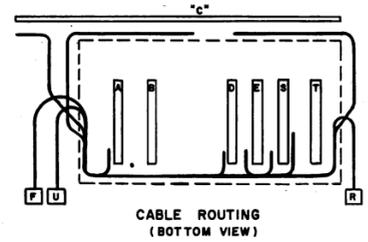
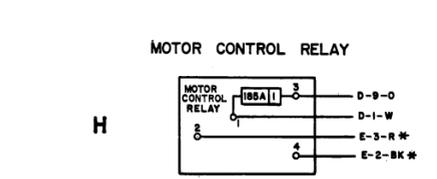
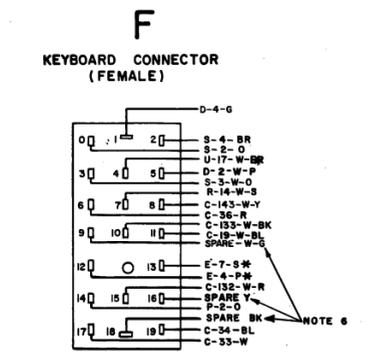
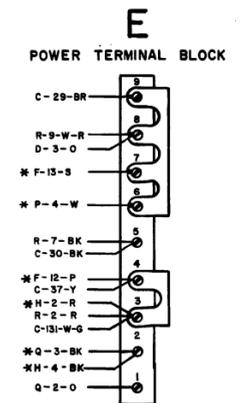
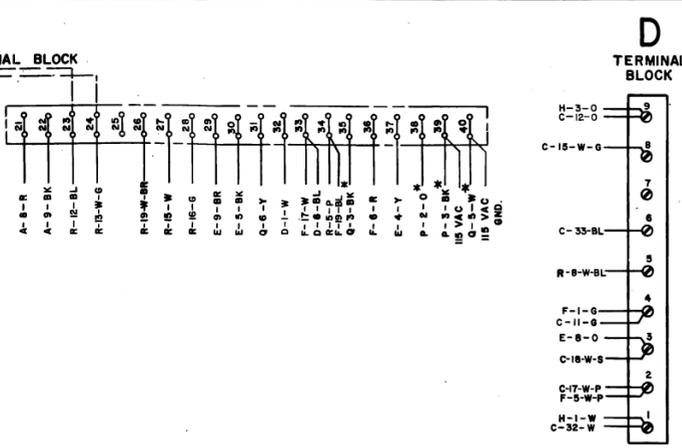
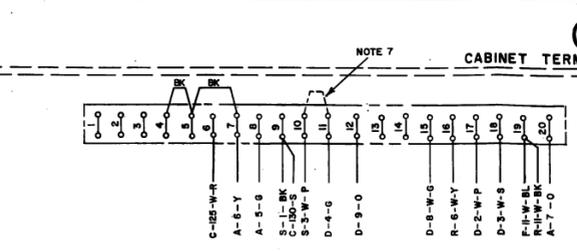
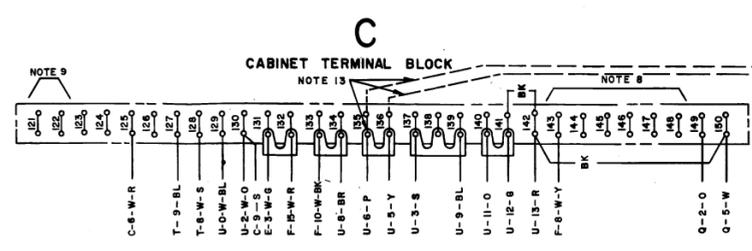
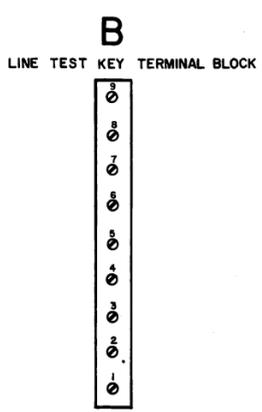
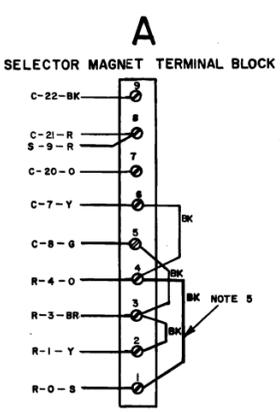
TERMINALS C-121 C-122 RESERVED FOR PERFORATOR LOW TAPE SWITCH.

CONTACTS SHOWN IN UNOPERATED OR DEENERGIZED POSITION.

TERMINALS C1, C2, C13, C4, C20, C25 & A7 ARE RESERVED FOR 185A DATA SET USE

ASSOCIATED CABLE ASSEMBLIES  
16569 LESU CABLE  
178308 MOTOR CONTROL RELAY CABLE

WHEN LX05 OR 18 IS USED WITH LPI07, REMOVE THE STRAP BETWEEN TERMINALS C155-C156. ADD TWO 162566 STRAPS, ONE BETWEEN TERMINALS C23-C198 AND ONE BETWEEN C24-C198.



APPROVALS	
D. ANDERSON	E. OF M.
E. NUMBER	
PROD. NO. 4931WD	
ACTUAL WIRING DIAGRAM MODEL 28 ELECTRICAL SERVICE UNIT LESU 93	
DATE: 1-18-62	
RD. FILE NO. 5-A10044	
DRAWN BY: [initials] CHKD BY: [initials]	
ENGR. WTC   APPR. [initials]	
TELETYPE CORPORATION	
4931 WD	

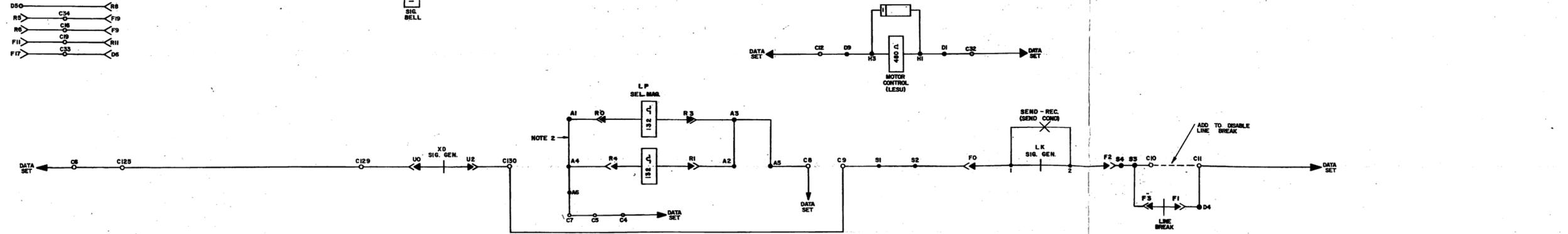
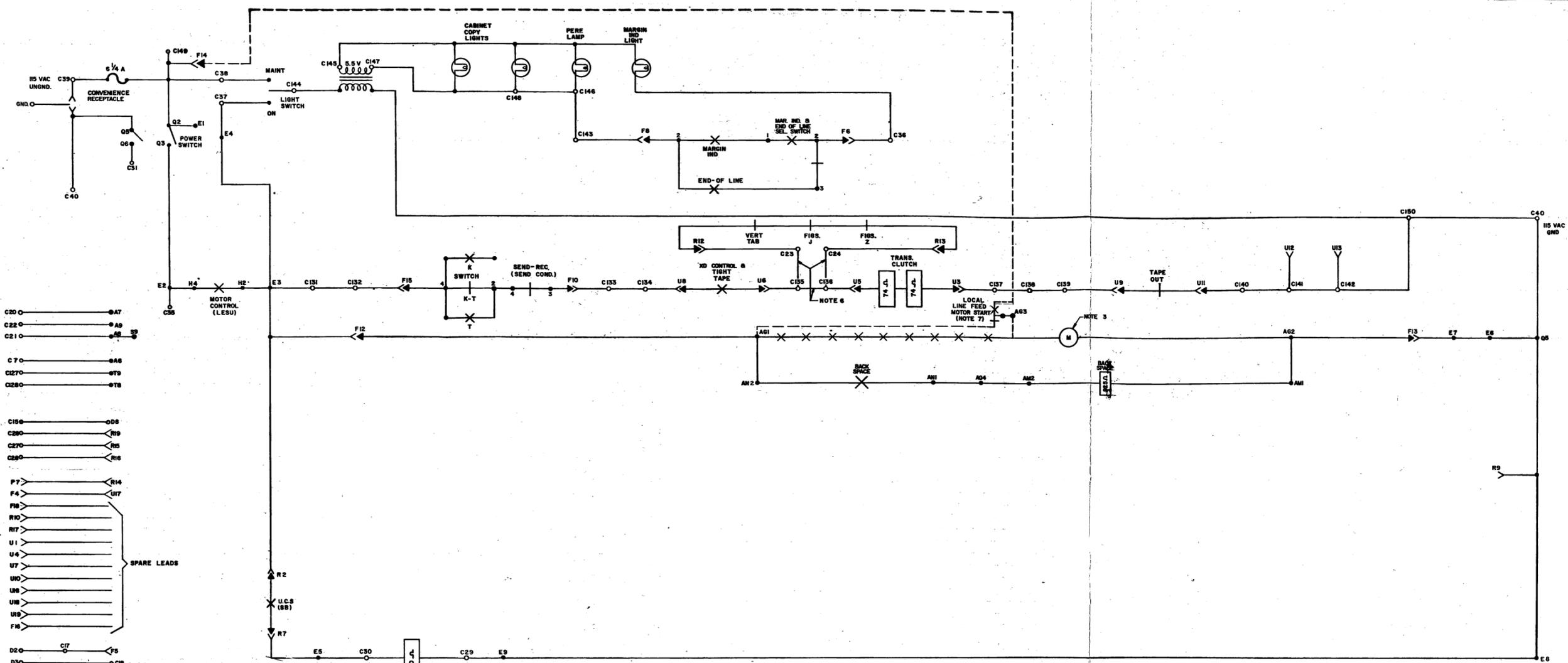
SCHEMATIC WIRING DIAGRAM 4932 WD

4932 WD		
REV.	DATE	AUTH.
1	1-15-62	JAK
2	1-15-62	JAK
3	1-15-62	JAK
4	1-15-62	JAK
5	1-15-62	JAK

- LEGEND:**
- A ● SELECTOR SWITCH TERMINAL BLOCK (LESU)
  - C ○ CABINET TERMINAL BLOCKS (LAAC)
  - D ● TERMINAL BLOCK (LESU)
  - E ● TERMINAL BLOCK (LESU)
  - F → KEYBOARD CONNECTOR (LAK-LESU)
  - H ● MARGIN IND. LAMP RESISTOR (LESU)
  - Q ● POWER SWITCH (LESU)
  - R → TYPING UNIT CONNECTOR (LP-LESU)
  - S ● TERMINAL BLOCK (LESU)
  - T ● TERMINAL BLOCK (LESU)
  - H ● MOTOR CONTROL RELAY (LESU)
  - AM, AN ● BACK SPACE (LAK)
- NORMALLY OPEN CONTACT (MAKE)  
 —●— NORMALLY CLOSED CONTACT (BREAK)  
 Δ RESISTANCE VALUES IN OHMS  
 μH INDUCTANCE VALUES IN MICROHENRIES  
 μF CAPACITANCE VALUES IN MICROFARADS  
 —|— 185A NETWORK  
 —U— TRANSMITTER DISTRIBUTOR CONNECTOR (LXD-LESU)
- AS MOTOR TERMINAL BLOCK (LAK)**
- CIRCUITS SHOWN FOR .080 AMP NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP LINE CURRENT, ADD STRAP BETWEEN TERMINALS A1 & A2 AND REMOVE CONNECTION BETWEEN TERMINALS A1-A4 & A2-A3.
  - USE SYNCHRONOUS MOTOR ON REGULATED 60% (±1%) AC POWER ONLY.
  - FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE:

WD NUMBER	UNITS DIRECTLY OPERABLE WITH LESU3
4918 WD	CABINETS LAAC236
4931 WD	ELECTRICAL SERVICE UNIT LESU3
3673 WD	KEYBOARD LAK 30, 40
2900 WD	MOTOR UNITS LMU 12
4905 WD	TYPING UNITS LP 105, 107
3573 WD	TRANSMITTER DISTRIBUTOR LXD 18

5. ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.  
 6. WHEN LXD5 OR 18 IS USED WITH LP107, REMOVE THE STRAP BETWEEN TERMINALS C135-C134. ADD TWO 182365 STRAPS, ONE BETWEEN TERMINALS C23-C135 AND ONE BETWEEN TERMINALS C24-C135.  
 7. FOR LAK 40 ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (---X---) IN MOTOR CIRCUITS.



SCHEMATIC WIRING DIAGRAM  
 MODEL 28 ASR  
 SET WITH FACILITIES PROVIDED BY LESU 83  
 DIAL TWX STATION

**APPROVALS**  
 D AND S E OF M  
 E NUMBER  
 PROD. NO. 4932 WD  
 DATE: 1-15-62  
 PD FILE NO. 5-A1004  
 DRAWN JAK  
 ENGR. WTC  
**TELETYPE CORPORATION**  
 4932 WD



5928WD

REVISIONS

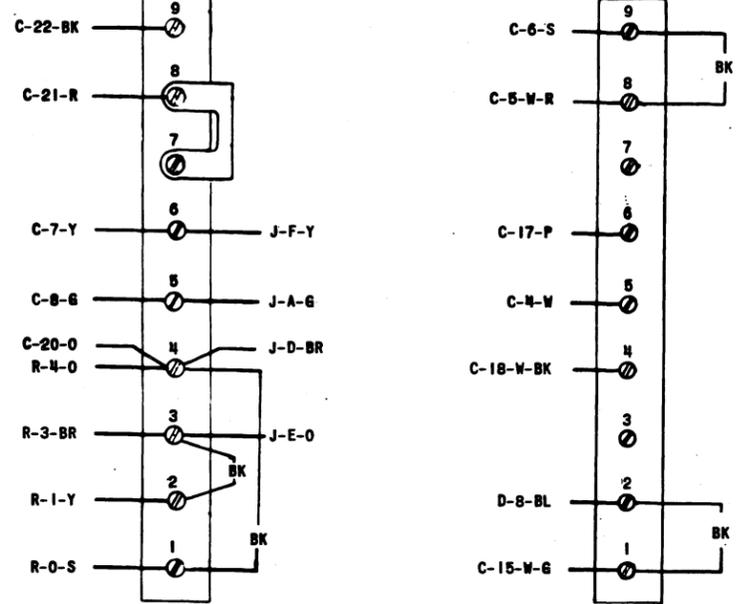
ISSUE	DATE	AUTH. NO.
2	4-7-66	90222
3	10-26-67	90222-1-B

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

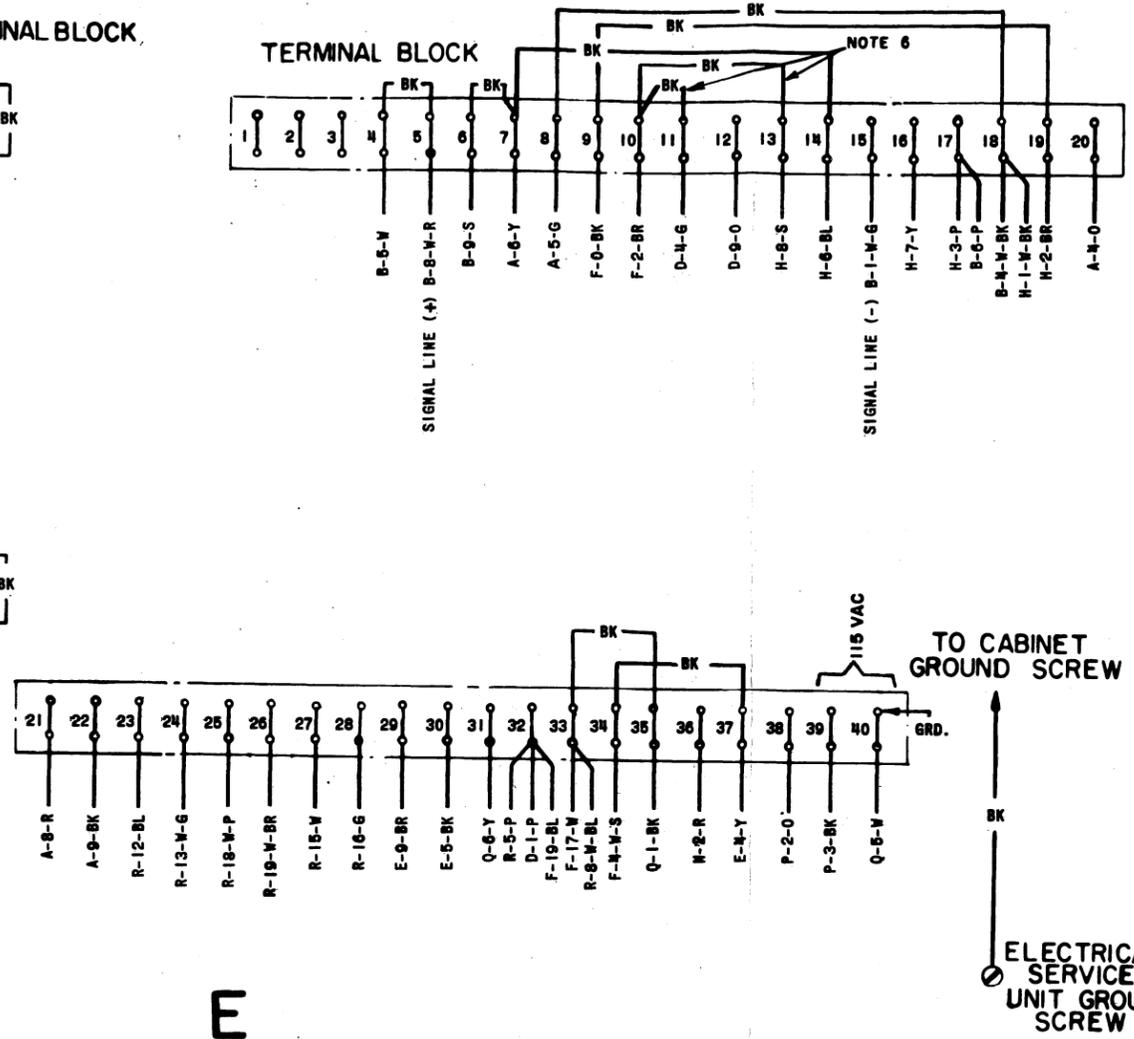
- NO. NOTES**
- 1. WIRING LEGEND:**
  - 2. COLOR CODE:**  
 BK - BLACK      G - GREEN  
 BR - BROWN    BL - BROWN  
 R - RED        P - PURPLE  
 O - ORANGE    W - WHITE  
 Y - YELLOW    S - SLATE
  - 3. UNIT WIRED FOR 115 VOLTS, 50-60 CYCLE A.C. POWER INPUT ONLY.**
  - 4. PLUGS VIEWED FROM SOLDER TERMINAL ENDS.**
  - 5. CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. NEUTRAL OPERATION, REMOVE CONNECTIONS AS SHOWN BELOW:**  

SIGNAL LINE CURRENT	CONNECTION REMOVED
.020 AMP.	J1 TO J2
  - 6. LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH.**  
**A. FOR KEYBOARD OPERATION, TERMINAL 13 MAY BE CONNECTED TO EITHER TERMINAL C-9, C-10, C-11 OR C-15 TO OBTAIN DESIRED SHUNTING OF THE SIGNAL LINE CIRCUIT.**  
**B. WHEN SIGNAL LINE BREAK SWITCH IS NOT USED, CONNECT C-10 TO C-11.**
  - 7. THE SPARE LEADS FROM THE KEYBOARD AND TYPING UNIT CONNECTOR PLUGS ARE TERMINATED IN THE RIGHT AND LEFT ENDS OF THE ELECTRICAL SERVICE UNIT, RESPECTIVELY.**
  - 8. FOR SCHEMATIC WIRING DIAGRAM, SEE 5929WD.**

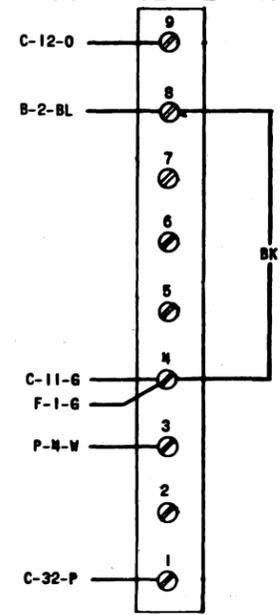
**A** SELECTOR MAGNET TERMINAL BLOCK    **B** LINE TEST KEY TERMINAL BLOCK



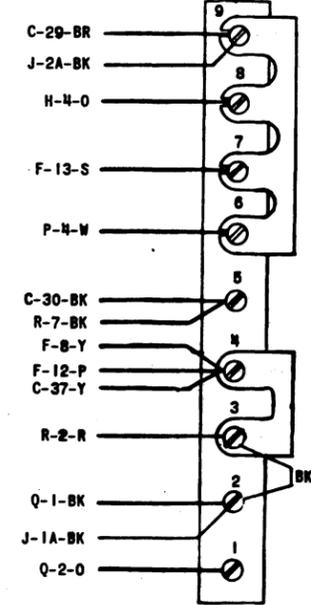
**C** CABINET TERMINAL BLOCK



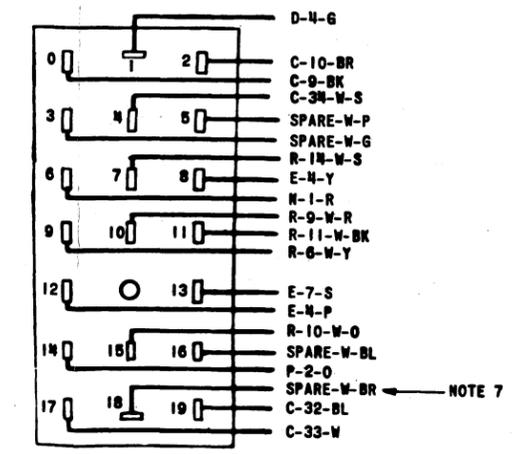
**D** MOTOR CONTROL TERMINAL BLOCK



**E** POWER TERMINAL BLOCK



**F** KEYBOARD CONNECTOR RECEPTACLE



SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D. SHEET 1

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT LESU95

APPROVALS  
 D AND R      E OF M  
 -----

E-NUMBER  
 PROD. NO. 5928WD  
 DATE 9-1-62  
 P.D. FILE NO. 1-159/159.65AA  
 DRAWN E.E.      CHKD.  
 ENGD. R.S.P.      APPD.

TELETYPE CORPORATION  
 5928WD

SEE SHEET 1 FOR NOTES.

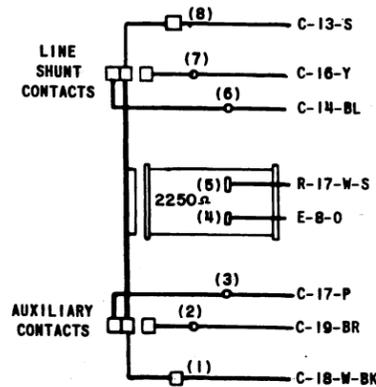
NOTE:  
REVISION INFORMATION MUST  
ALSO BE REFLECTED ON THE  
ISSUE CONTROL RECORD, WHICH  
IS A PART OF THIS DRAWING.

**5928 WD**

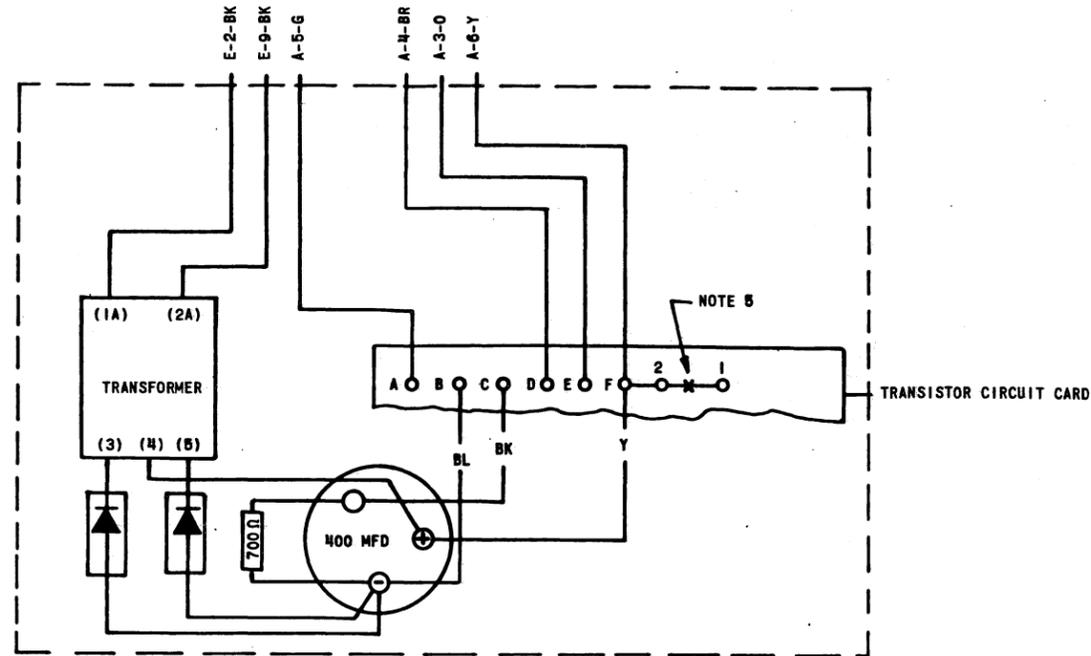
**REVISIONS**

ISSUE	DATE	AUTH. NO.
- 2	4 - 7 - 66	90222

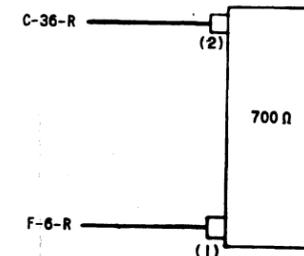
**H**  
**LINE SHUNT RELAY**



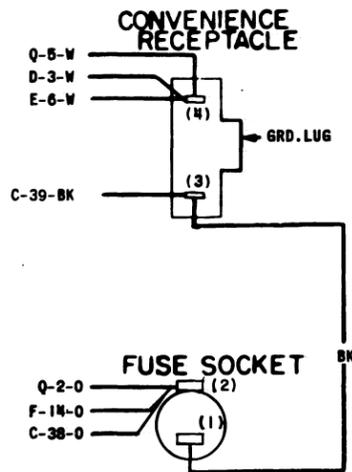
**J**  
**TYPING UNIT SELECTOR  
MAGNET DRIVER**



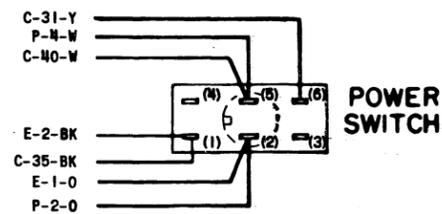
**N**  
**MARGIN  
INDICATOR  
LAMP  
RESISTOR**



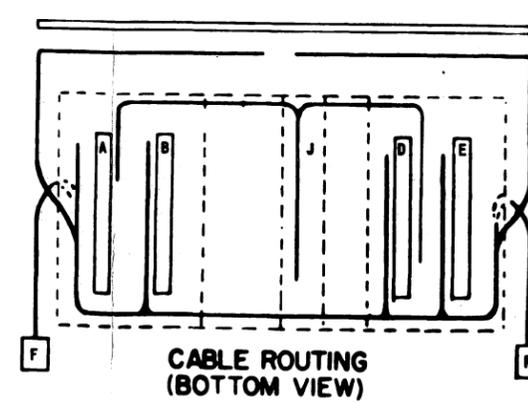
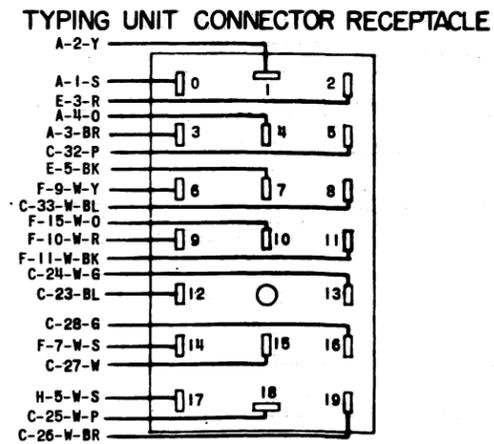
**P**



**Q**



**R**



SEE ISSUE CONTROL RECORD FOR COMPLETE  
LIST OF SHEETS COMPRISING THIS W.D.  
SHEET 2

ACTUAL  
WIRING DIAGRAM  
FOR  
MODEL 28  
ELECTRICAL  
SERVICE UNIT  
LESU05

**APPROVALS**

D AND R	E OF M
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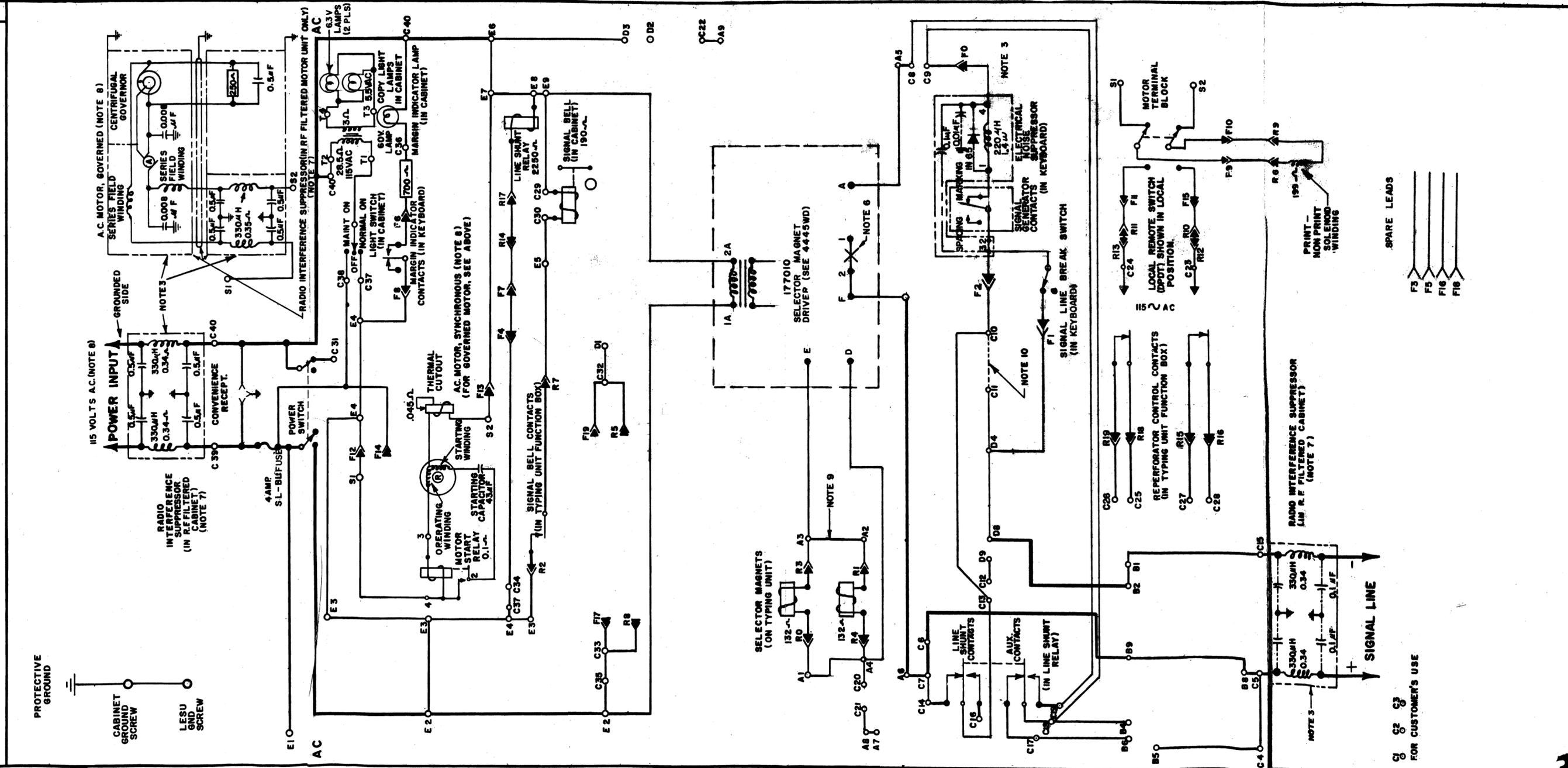
E-NUMBER  
PROD. NO. 5928WD  
DATE 9-1-62  
P.D. FILE NO. 1-159/158.85AA  
DRAWN E.E. CHKD.  
ENGD. R.S.P. APPD.

**TELETYPE  
CORPORATION**

**5928WD**

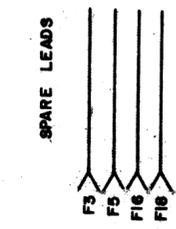
NO	NOTES
1	ACTUAL WIRING DIAGRAMS FOR INDIVIDUAL UNITS DIRECTLY OPERABLE WITH LESU95
2	2883 WD BASE, RECEIVING ONLY—LB 4 2876 WD CABINETS—LAC 203, 204, 5928 WD ELECTRICAL SERVICE UNIT—LESU 95 2928 WD KEYBOARDS—L K16 2900 WD MOTOR UNITS—L M U 3, 4 3214 WD PAGE TYPING UNIT—L P 15 4445 WD SELECTOR MAGNET DRIVER—177010
3	○ A SELECTOR MAGNET TERMINAL BLOCK (IN LESU). ○ B LINE TEST KEY TERMINAL BLOCK (IN LESU) ○ C CABINET TERMINAL BLOCK. ○ D MOTOR CONTROL TERMINAL BLOCK (IN LESU) ○ E POWER TERMINAL BLOCK (IN LESU) ▲ F KEYBOARD CONNECTOR.  ▲ R TYPING UNIT CONNECTOR. ○ S MOTOR TERMINAL BLOCK (IN LK)
4	DOT DASH—LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.
5	α. RESISTANCE VALUES IN OHMS (Ω) β. INDUCTANCE VALUES IN MICROHENRIES (μH) γ. CAPACITANCE VALUES IN MICROFARADS (μF)
6	CIRCUITS SHOWN FOR .060 AMP NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP LINE CURRENT, OMIT CONNECTION MARKED (—X—) IN SELECTOR MAGNET DRIVER CIRCUIT.
7	α. USE POWER AND SIGNAL LINE SUPPRESSOR AND SYNC. OR GOV.—FILT. MOTOR FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE. β. FOR OTHER INSTALLATIONS, OMIT SUPPRESSORS AND CONNECT INPUTS AND GOV. MOTOR DIRECT TO TERMINALS SHOWN.
8	USE SYNCHRONOUS MOTOR ON REGULATED 60±1% A.C. POWER ONLY. GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60 UNREGULATED A.C.
9	SELECTOR MAGNETS MUST BE CONNECTED IN PARALLEL.
10	WHEN SIGNAL LINE BREAK SWITCH IS NOT USED, ADD DASHED (---) CONNECTION AT CABINET TERMINAL BLOCK BETWEEN C10 AND C11.
11	LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING SIGNAL LINE.

NO	NOTES



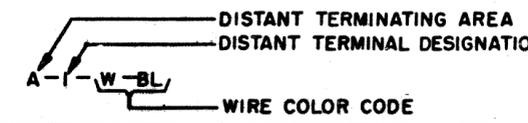
5929 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
A	12-10-62	78661

PROD. NO. 5929WD  
 SCHEMATIC WIRING DIAGRAM  
 ELECTRICAL SERVICE UNIT  
 LESU 95 AND  
 ASSOCIATED MODEL 29  
 APPARATUS  
 DATE: 9-1-62  
 R.D. FILE NO. 159/158.95AA  
 DRAWN. E.E. CHKD. [Signature]  
 ENGD. R.S.P. APPD. [Signature]  
 TELETYPE CORPORATION  
 5929 WD



C1 C2 C3  
 FOR CUSTOMER'S USE

**NOTES**

1. WIRING LEGEND:  


2. COLOR CODE  
 BK - BLACK      W-BK - WHITE - BLACK  
 BR - BROWN    W-BR - WHITE - BROWN  
 R - RED         W-R - WHITE - RED  
 O - ORANGE     W-O - WHITE - ORANGE  
 Y - YELLOW     W-Y - WHITE - YELLOW  
 G - GREEN       W-G - WHITE - GREEN  
 BL - BLUE       W-BL - WHITE - BLUE  
 P - PURPLE  
 W - WHITE  
 S - SLATE  
 W-S - WHITE - SLATE

3. UNIT WIRED FOR 115 VOLTS 50 TO 60 CYCLE A.C. POWER INPUT ONLY.

4. CONNECTOR VIEWED FROM SOLDER TERMINAL END.

5. CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. NEUTRAL OPERATION REMOVE CONNECTIONS AS TABULATED BELOW.

SIGNAL LINE CURRENT	CONNECTION REMOVED
.020 AMP.	J1 TO J2

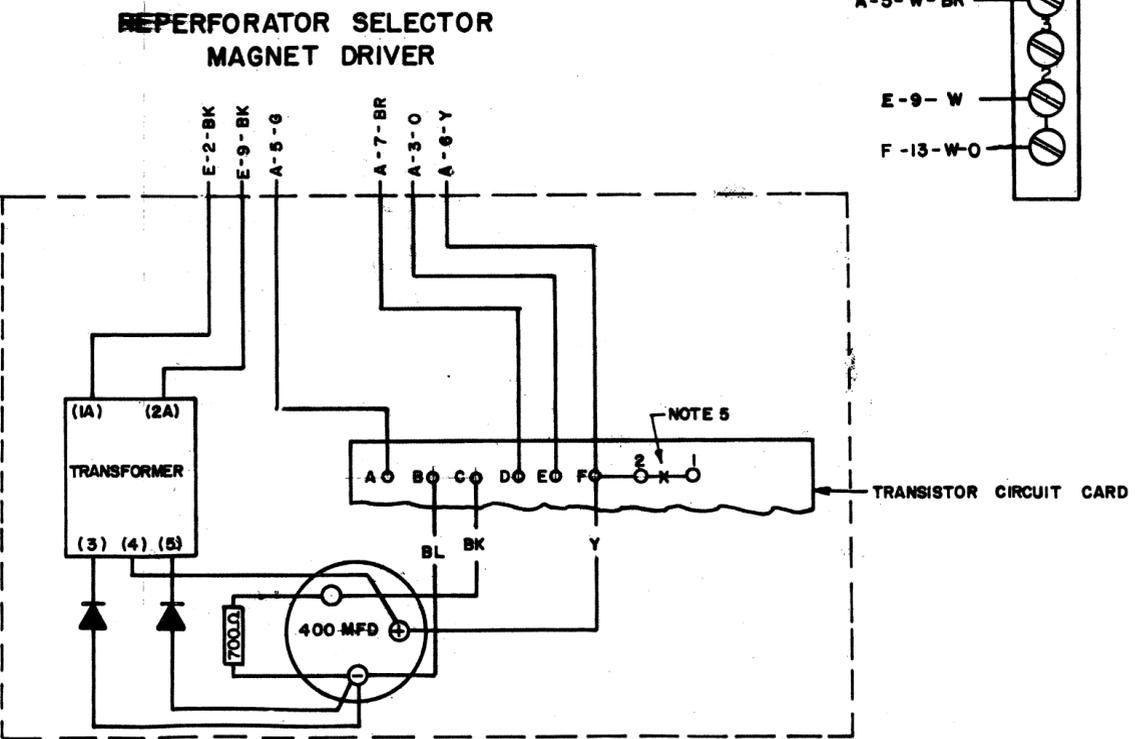
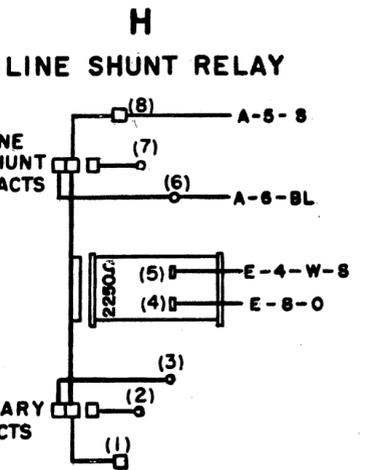
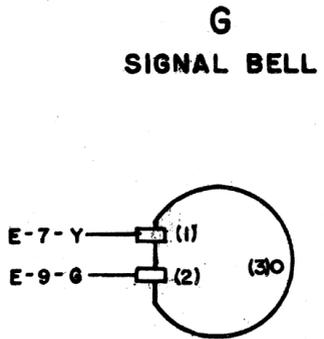
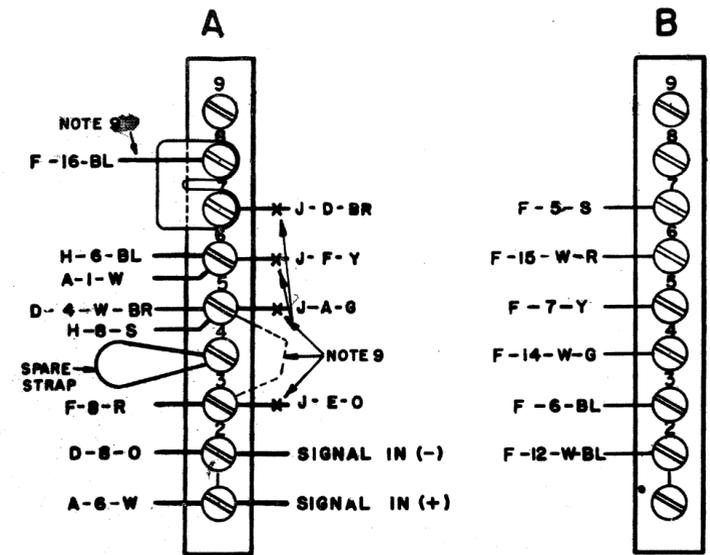
6. LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING SELECTOR MAGNET DRIVER.

7. SELECTOR MAGNETS ARE TO BE WIRED IN PARALLEL FOR 80 MILLIAMPERE OPERATION

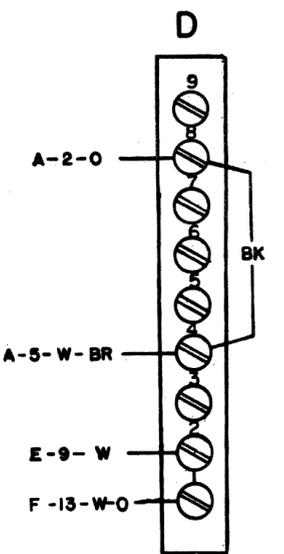
8. ASSOC. CABLE NUMBERS  
 159939 CABLE ASSEM, LESU

9. SELECTOR MAGNETS CAN BE CONNECTED DIRECTLY IN THE SIGNAL LINE CIRCUIT FOR NEUTRAL OPERATION AS FOLLOWS: DISCONNECT AND TAPE ALL SELECTOR MAGNET DRIVER LEADS SHOWN (NOTE 9). 20 MILLIAMPERE, 60 & 75 WPM OPERATION (OR ANY INTERMEDIATE SPEED).  
 A. STRAP A5 TO A5  
 B. MOVE BLUE LEAD FROM TERMINAL A8 TO A8.  
 60 MILLIAMPERE, 60, 75 & 100 WPM OPERATION (OR ANY INTERMEDIATE SPEED).  
 A. STRAP A5 TO A5  
 B. MOVE BLUE LEAD FROM TERMINAL A8 TO A8  
 C. CHANGE WIRING ON SELECTOR MAGNETS FOR 80 MILLIAMPERE OPERATION.

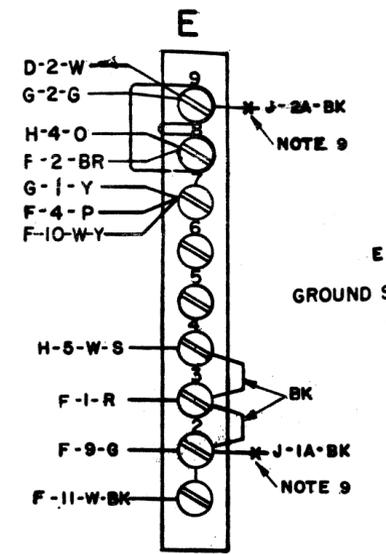
**SELECTOR MAGNET TERMINAL BLOCK**



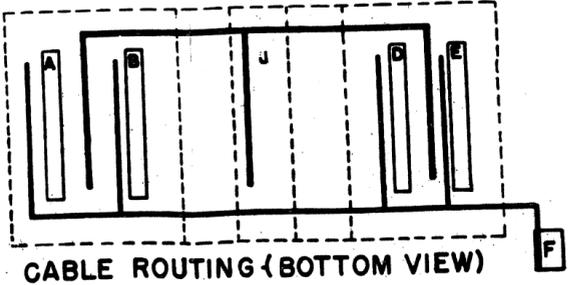
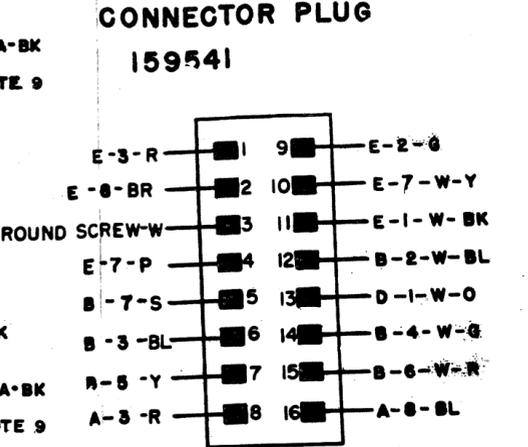
**MOTOR CONTROL TERMINAL BLOCK**



**POWER TERMINAL BLOCK**



**CONNECTOR PLUG 159541**



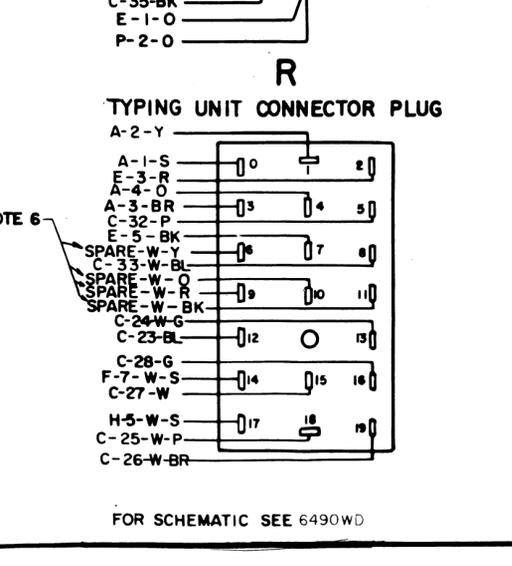
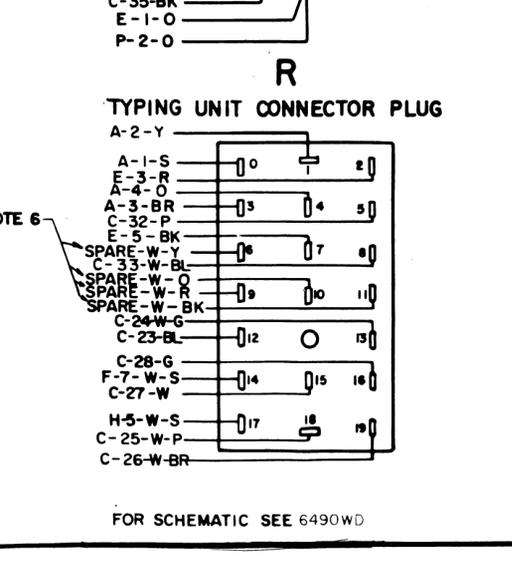
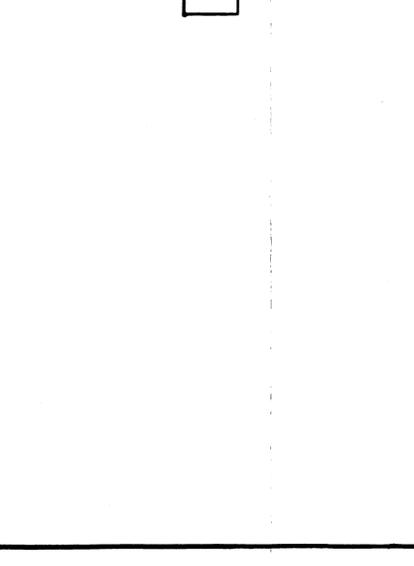
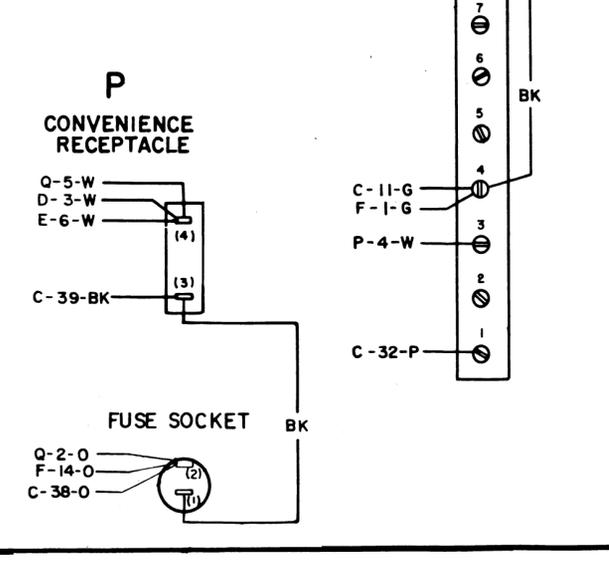
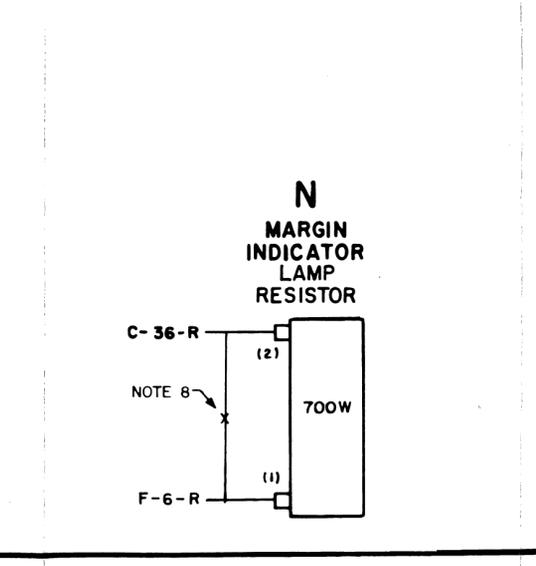
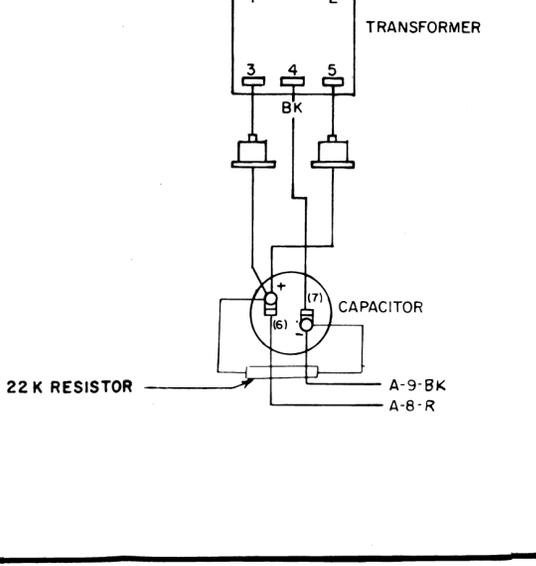
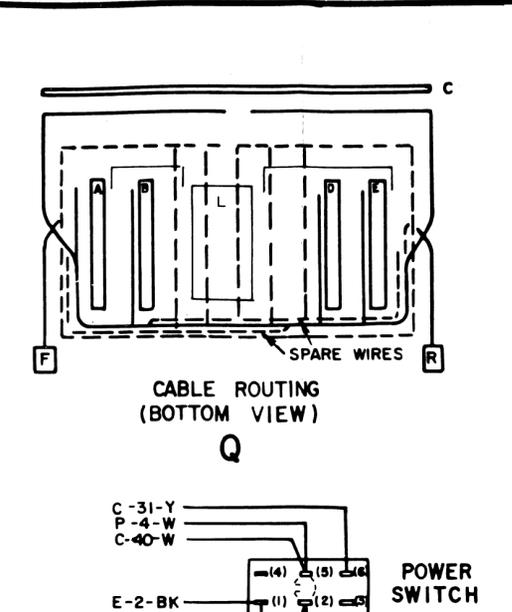
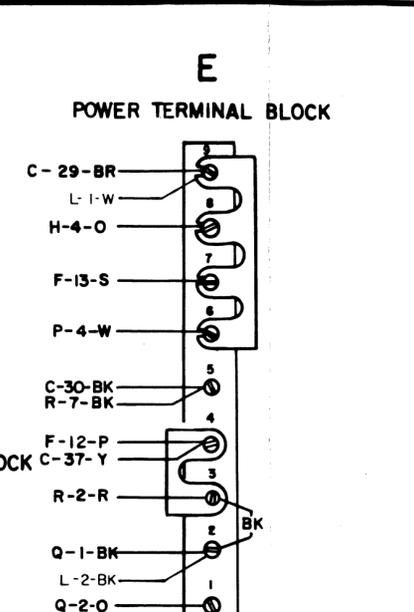
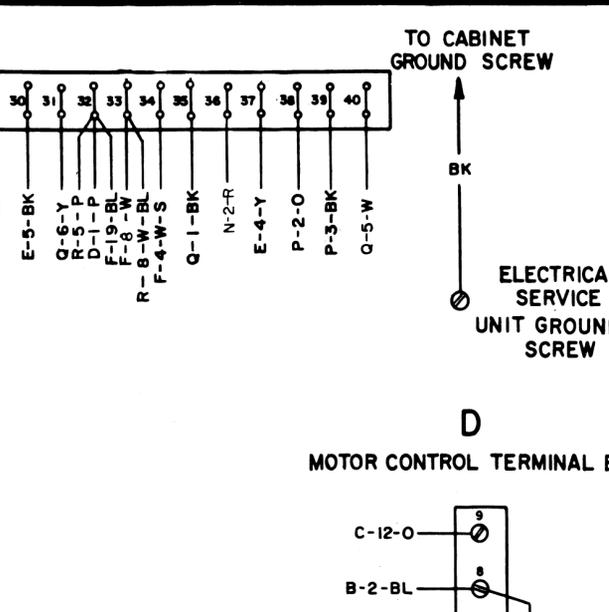
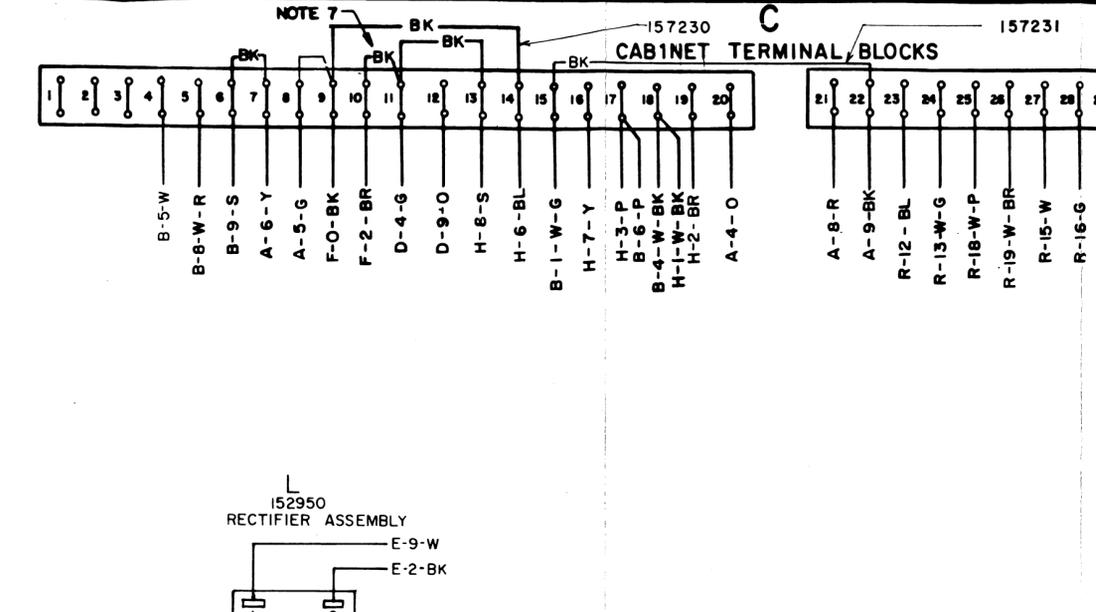
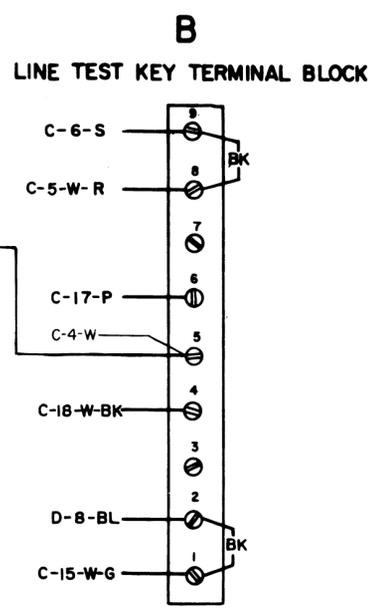
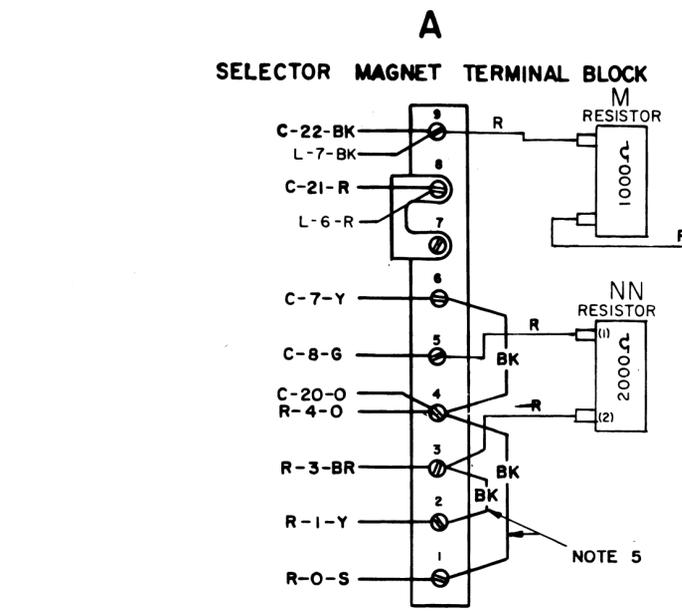
FOR SCHEMATIC SEE 5931WD

ACTUAL WIRING DIAGRAM, MODEL 28 ELECTRICAL SERVICE UNIT, LESU 86

APPROVALS  
 D AND R      E OF M  
 B-NUMBER  
 PROD. NO. 5930 WD  
 DATE: 9-1-62  
 P.D. FILE NO. 1-15-5930A  
 DRAWN E E      CHKD T L  
 ENG'D R S P      APPD.  
**TELETYPE CORPORATION**  
 5930 WD



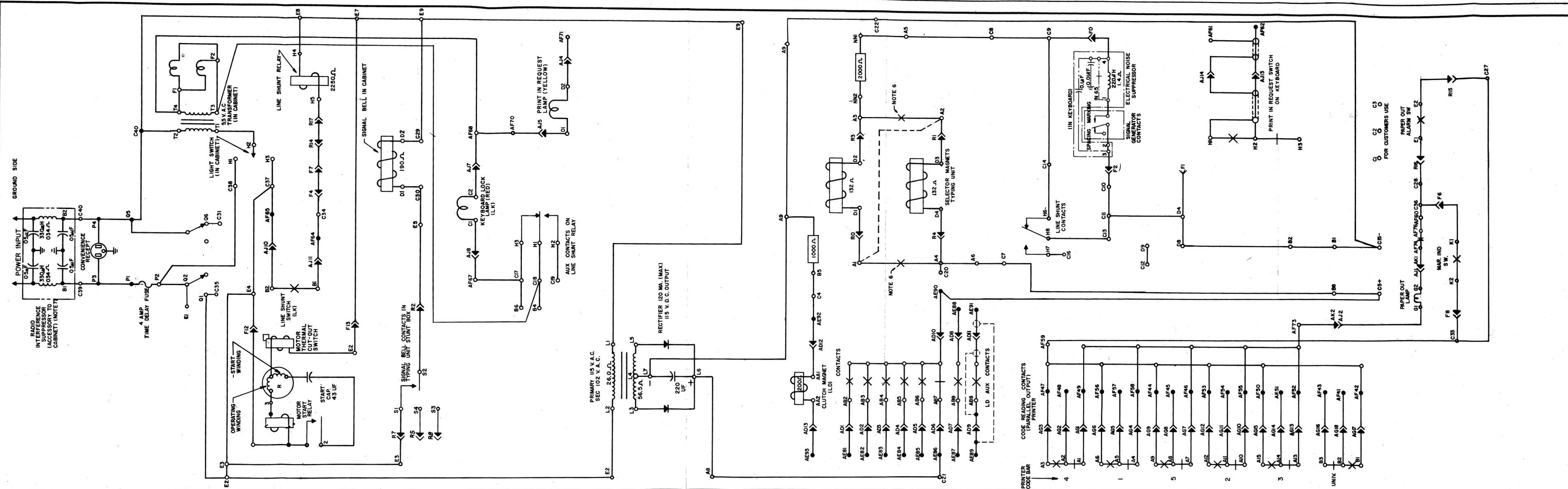
- NOTES**
- WIRING LEGEND:**
1. DISTANT TERMINATING AREA  
 DISTANT TERMINAL DESIGNATION  
 WIRE COLOR CODE
2. COLOR CODE  
 BK-BLACK  
 BR-BROWN  
 R-RED  
 O-ORANGE  
 Y-YELLOW  
 G-GREEN  
 BL-BLUE  
 P-PURPLE  
 W-WHITE  
 S-SLATE  
 W-BK-WHITE-BLACK  
 W-BR-WHITE-BROWN  
 W-R-WHITE-RED  
 W-O-WHITE-ORANGE  
 W-Y-WHITE-YELLOW  
 W-G-WHITE-GREEN  
 W-BL-WHITE-BLUE  
 W-P-WHITE-PURPLE  
 W-S-WHITE-SLATE
3. UNIT WIRED FOR 115 VOLTS, 50 TO 60 CYCLE A.C. POWER INPUT ONLY.
4. PLUGS VIEWED FROM SOLDER TERMINAL ENDS
5. CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION REMOVE AND ADD CONNECTIONS AS FOLLOWS:
- | SIGNAL LINE CURRENT | CONNECTIONS REMOVED | CONN. ADDED |
|---------------------|---------------------|-------------|
| .020 AMP.           | A1-A4, A2-A3        | A1-A2*      |
- \* PLACE TWO STRAPS IN PARALLEL
6. THE SPARE LEADS FROM THE KEYBOARD (OR REC. ONLY BASE) AND TYPING UNIT CONNECTOR PLUGS ARE TERMINATED IN THE RIGHT AND LEFT ENDS OF THE ELECTRICAL SERVICE UNIT RESPECTIVELY.
7. REMOVE THIS STRAP WHEN ASSOCIATED KEYBOARD OR REC-ONLY BASE IS EQUIPPED WITH AN ELECTRICAL BREAK SWITCH.
8. RESISTOR OMITTED-SPLICE AND TAPE C-36-R TO F-6-R
9. TAPE AND TUCK UNUSED LEADS ON "C" BLOCK AND "E" BLOCK
10. REMOVE Y LEAD FROM F-8 TAPE & TUCK. REMOVE W FROM F-17 AND PLACE ON F-8.



FOR SCHEMATIC SEE 6490WD

**NOTES**

- FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE UNITS DIRECTLY OPERABLE WITH LESU107.  
 6486WD ACTUAL LK45  
 6487WD ACTUAL LPH5  
 6488WD ACTUAL LAC22  
 6489WD ACTUAL LESU107  
 2900WD MOTOR UNIT
- LEGEND**  
 ○ ○ ○ ○ ○ SELECTOR MAGNET TERMINAL BLOCK (IN LESU)  
 ○ ○ ○ ○ ○ LINE TEST KEY TERMINAL BLOCK (IN LESU)  
 ○ ○ ○ ○ ○ CABINET TERMINAL BLOCK  
 ○ ○ ○ ○ ○ MOTOR CONTROL TERMINAL BLOCK (IN LESU)  
 ○ ○ ○ ○ ○ POWER TERMINAL BLOCK (IN LESU)  
 ○ ○ ○ ○ ○ KEYBOARD BASE CONNECTOR  
 ○ ○ ○ ○ ○ TYPING UNIT CONNECTOR  
 ○ ○ ○ ○ ○ MOTOR TERMINAL BLOCK ON LK  
 ○ ○ ○ ○ ○ AC CABINET TERMINAL BLOCK  
 ○ ○ ○ ○ ○ AF CABINET TERMINAL BLOCK  
 ○ ○ ○ ○ ○ AH CABINET CONNECTOR  
 ○ ○ ○ ○ ○ AK CABINET CONNECTOR  
 ○ ○ ○ ○ ○ AJ CABINET CONNECTOR  
 ○ ○ ○ ○ ○ AP CABINET CONNECTOR  
 ○ ○ ○ ○ ○ AC DISTRIBUTOR CONNECTOR  
 ○ ○ ○ ○ ○ AD CABINET CONNECTOR
- DOT DASH --- LINES INDICATE FILTERING SHIELDING AND SUPPRESSION NETWORKS
- ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS
- ▲ RESISTANCE VALUES IN OHMS (Ω)  
 ▽ INDUCTANCE VALUES IN MICROHENRIES (μH)  
 □ CAPACITANCE VALUES IN MICROFARADS (μF)
- CIRCUITS SHOWN FOR .060 AMP NEUTRAL SIGNAL LINE. OPERATION FOR .020 AMP LINE CURRENT ADD DASHED (---) CONNECTIONS MARKED (---) IN SELECTOR MAGNET CIRCUIT.
- USE POWER AND SIGNAL LINE SUPPRESSORS AND SYNC. OR GOV. FILTER MOTOR FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE.  
 FOR OTHER INSTALLATIONS OMIT SUPPRESSORS AND CONNECT INPUT AND GOV MOTOR IF USED DIRECT TO TERMINALS SHOWN.
- USE SYNCHRONOUS MOTOR REGULATED 60V(±1%) A.C. POWER ONLY GOVERNED MOTOR AND OTHER POWER CIRCUITS OPERABLE ON 50-60V UNREGULATED A.C.



<b>6490 WD</b>		
REVISONS		
ISSUE	DATE	AUTH. NO.
2	4-27-65	86827

**SCHEMATIC WIRING DIAGRAM**  
**MODEL 28**  
**PAGE PRINTER SET**  
 WITH FACILITIES PROVIDED BY  
 ELECTRICAL SERVICE  
 UNIT LESU107  
 AND ASSOCIATED UNITS

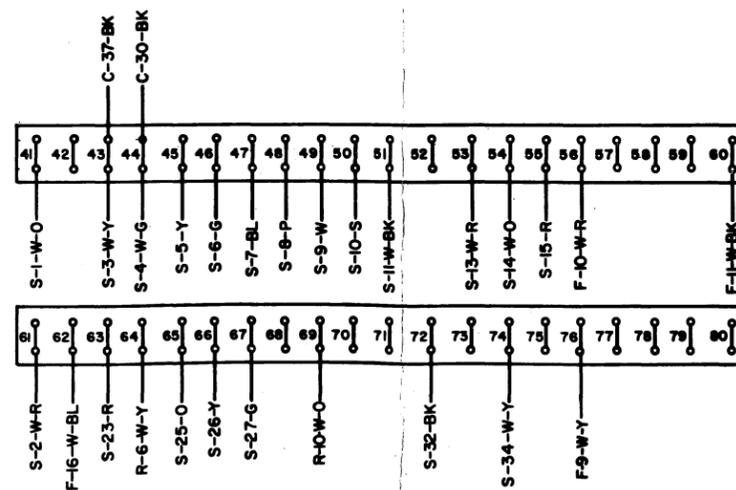
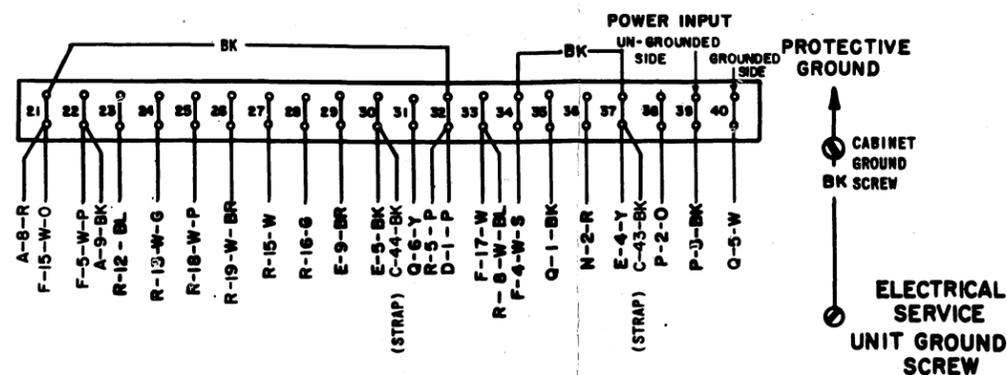
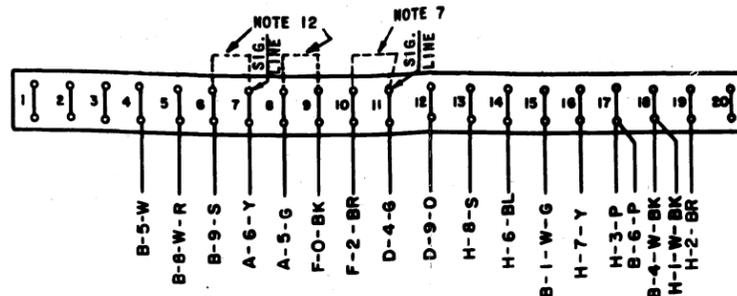
<b>APPROVALS</b>	
D AND R	E OF M
<i>[Signature]</i>	<i>[Signature]</i>
E-NUMBER	
PROD. NO. 6490WD	
DATE: 6-15-63	
P.D. FILE NO. 25445-000	
DRAWN BY	CHKD.
ENG. J.C.F.	APPD. <i>[Signature]</i>
<b>TELETYPE CORPORATION</b>	
<b>6490 WD</b>	

7156 WD

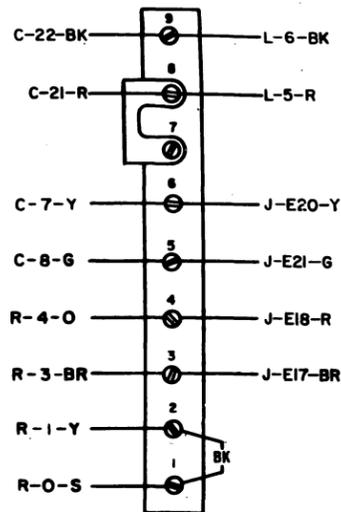
REVISIONS

ISSUE	DATE	AUTH. NO.
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B 3	4-16-64	81755
4	5-14-64	81758
5	1-7-65	84189

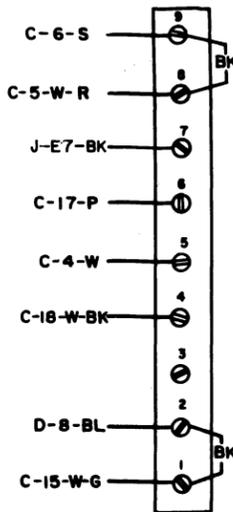
CABINET TERMINAL BLOCKS



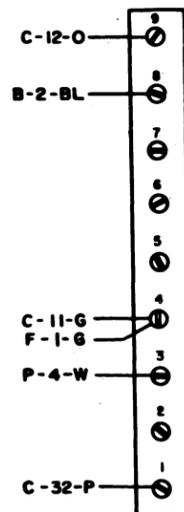
A SELECTOR MAGNET TERMINAL BLOCK



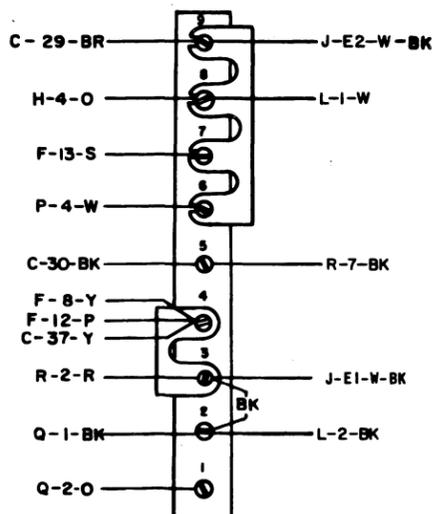
B LINE TEST KEY TERMINAL BLOCK



D MOTOR CONTROL TERMINAL BLOCK



E POWER TERMINAL BLOCK



- NO. NOTES
1. WIRING LEGEND:
  2. COLOR CODE:  
BK - BLACK      G - GREEN  
BR - BROWN    BL - BLUE  
R - RED        P - PURPLE  
O - ORANGE    W - WHITE  
Y - YELLOW    S - SLATE
  3. UNIT WIRED FOR 115 VOLTS, 60 CYCLE A.C. POWER INPUT ONLY.
  4. PLUGS VIEWED FROM SOLDER TERMINAL ENDS.
  5. ASSOCIATED CABLES:  
157260 CABLE ASSEMBLY  
304687 CABLE ASSEMBLY (MAIN)  
FOR SCHEMATIC WIRING DIAGRAM, SEE 7157WD.
  6. THE SPARE LEADS FROM THE KEYBOARD (OR RECEIVE-ONLY BASE) AND TYPING UNIT CONNECTOR PLUGS ARE TERMINATED IN THE RIGHT AND LEFT ENDS OF THE ELECTRICAL SERVICE UNIT, RESPECTIVELY.
  7. ADD THIS STRAP WHEN ASSOCIATED KEYBOARD OR RECEIVE-ONLY BASE IS NOT EQUIPPED WITH A SIG. LINE BREAK SWITCH.
  8. TERMINAL DESIGNATIONS SHOWN IN PARENTHESES ARE FOR REFERENCE AND ARE NOT MARKED ON COMPONENTS.
  9. FOR SCHEMATIC WIRING DIAGRAM OF SELECTOR MAGNET DRIVER, SEE 7178WD.
  10. SPARE LEADS ARE TO BE TAPED AND TIED BACK TO 157260 CABLE. TERMINALS 41-80 AND CABLE ARE PART OF 154741 MOD. KIT.
  11. FOR SCHEMATIC WIRING DIAGRAM OF 109876 RECTIFIER, REFER TO 7127WD. FOR 306631, REFER TO 7287WD.
  12. EXTERNAL CIRCUITS TO BE SUPPLIED BY CUSTOMER.

SHEET 1 OF 2

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT LESU113

APPROVALS

D AND R	E OF M
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E-NUMBER

PROD. NO. 7156WD

DATE 1-7-63

P.D. FILE NO. 11-A28AA

DRAWN P. J. S.      CHKD.

ENGD. F. G. H.      APPD.

TELETYPE CORPORATION

7156 WD

SEE SHEET 1 FOR NOTES.

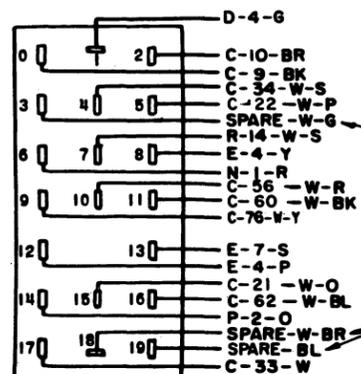
NOTE:  
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

# 7156 WD

## REVISIONS

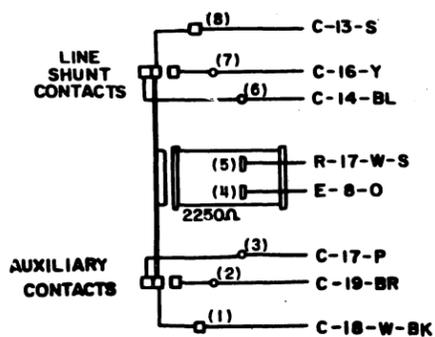
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A 2	4-14-64	81763
B 3	4-16-64	81765
4	5-14-64	81768
5	1-7-65	84189
6	3-22-68	97526 RC

### F KEYBOARD OR RECEIVING ONLY BASE CONNECTOR RECEPTACLE

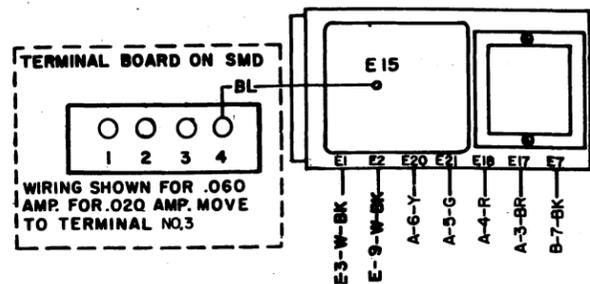


NOTE 6

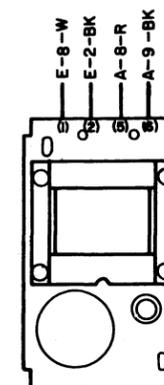
### H LINE SHUNT RELAY



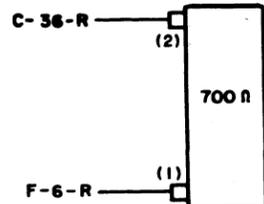
### J SELECTOR MAGNET DRIVER W/ SEMICONDUCTOR RECTIFIER (NOTE 8 & 9)



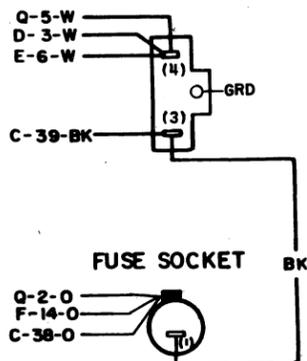
### L RECTIFIER ASSEMBLY (NOTE 11)



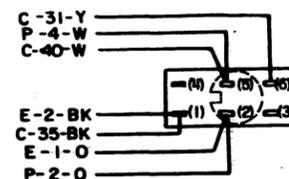
### N MARGIN INDICATOR LAMP RESISTOR



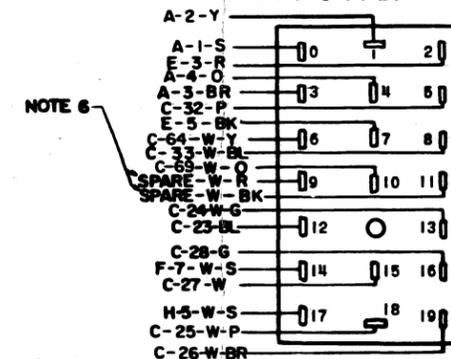
### P CONVENIENCE RECEPTACLE



### Q POWER SWITCH

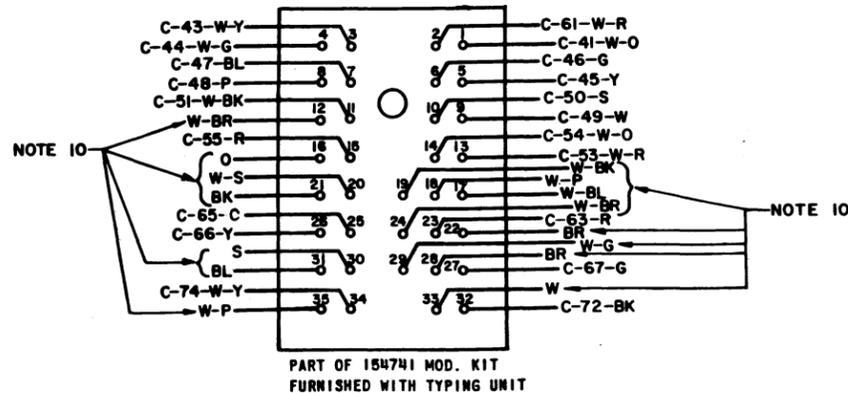


### R TYPING UNIT CONNECTOR RECEPTACLE



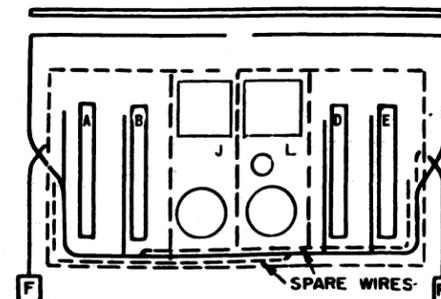
NOTE 6

### S RIGHT CONNECTOR RECEPTACLE & CABLE ASSEMBLY



NOTE 10

PART OF 154741 MOD. KIT  
FURNISHED WITH TYPING UNIT



CABLE ROUTING  
(BOTTOM VIEW)

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 2 OF 2

ACTUAL  
WIRING DIAGRAM  
FOR  
MODEL 28  
ELECTRICAL  
SERVICE UNIT  
LESU113

#### APPROVALS

D AND R	E OF M
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E-NUMBER

PROD. NO. 7156WD

DATE 1-7-63

P.D. FILE NO. 11-A25AA

DRAWN P.J.S. CHKD.

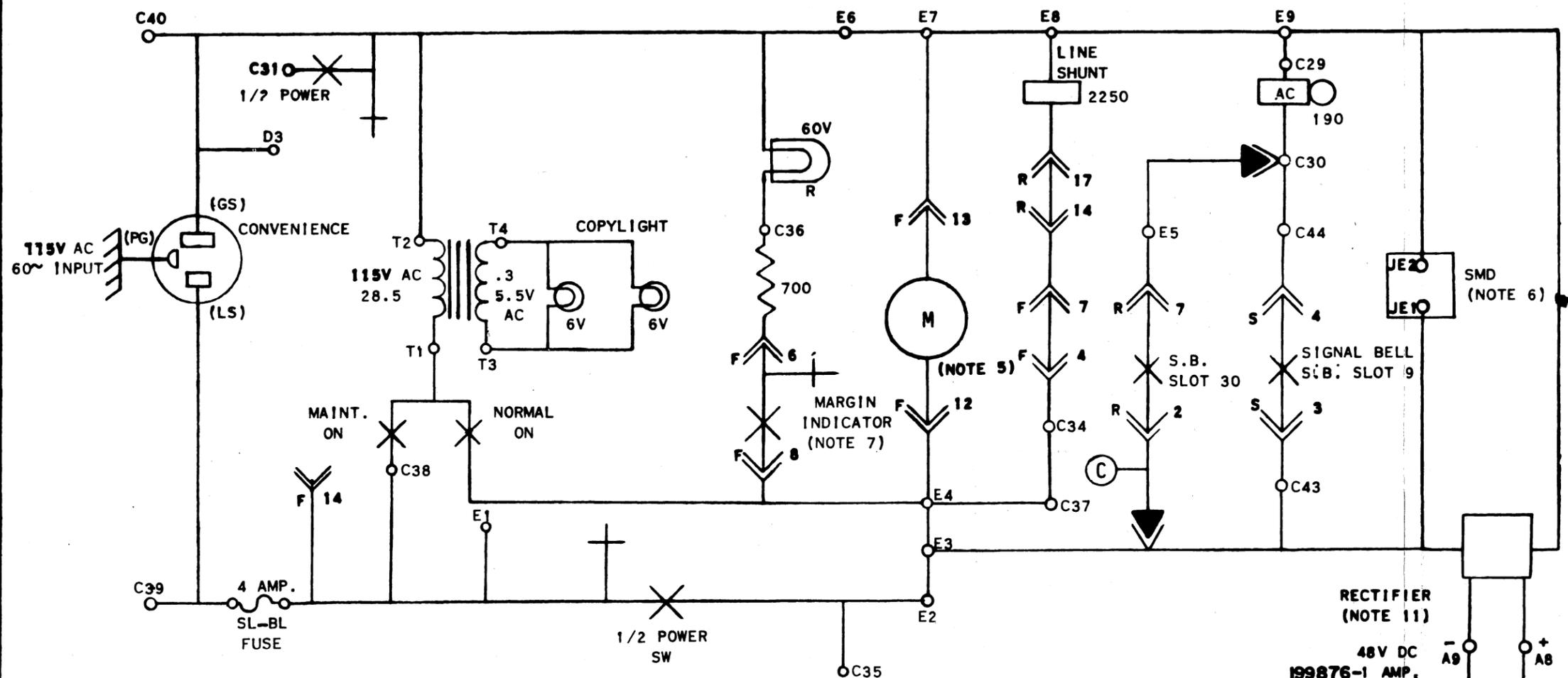
ENGD. F.G.H. APPD.

TELETYPE  
CORPORATION

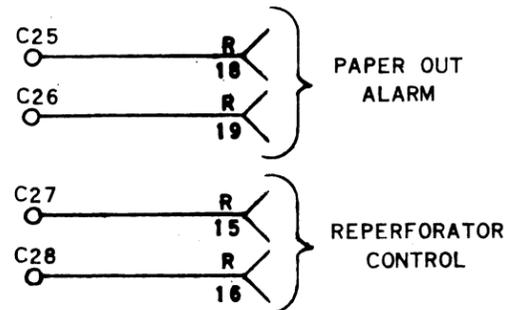
# 7156 WD

ISSUE	DATE	AUTH. NO.
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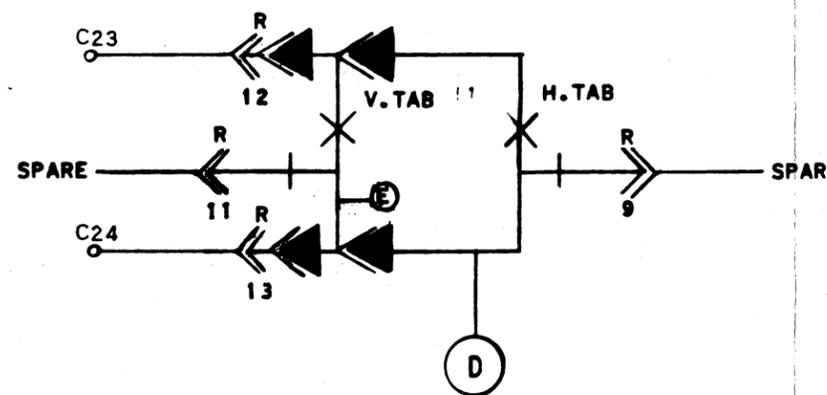
POWER CIRCUIT



WIRED FOR ACCESSORIES TO STUNT BOX OR TYPING UNIT.



SEE SHEET 4 FOR NOTES.



SEE SHEET 2

SHEET 1 OF 4

SCHEMATIC WIRING DIAGRAM FOR MODEL 20 LESU113

APPROVALS

D AND R ECFM  
*[Handwritten signatures]*

PROJ. NO. 7157WD

DATE: 1-6-64

P.D. FILE NO. 11-A25AA

DRAWN. PJS CHKD *[Signature]*

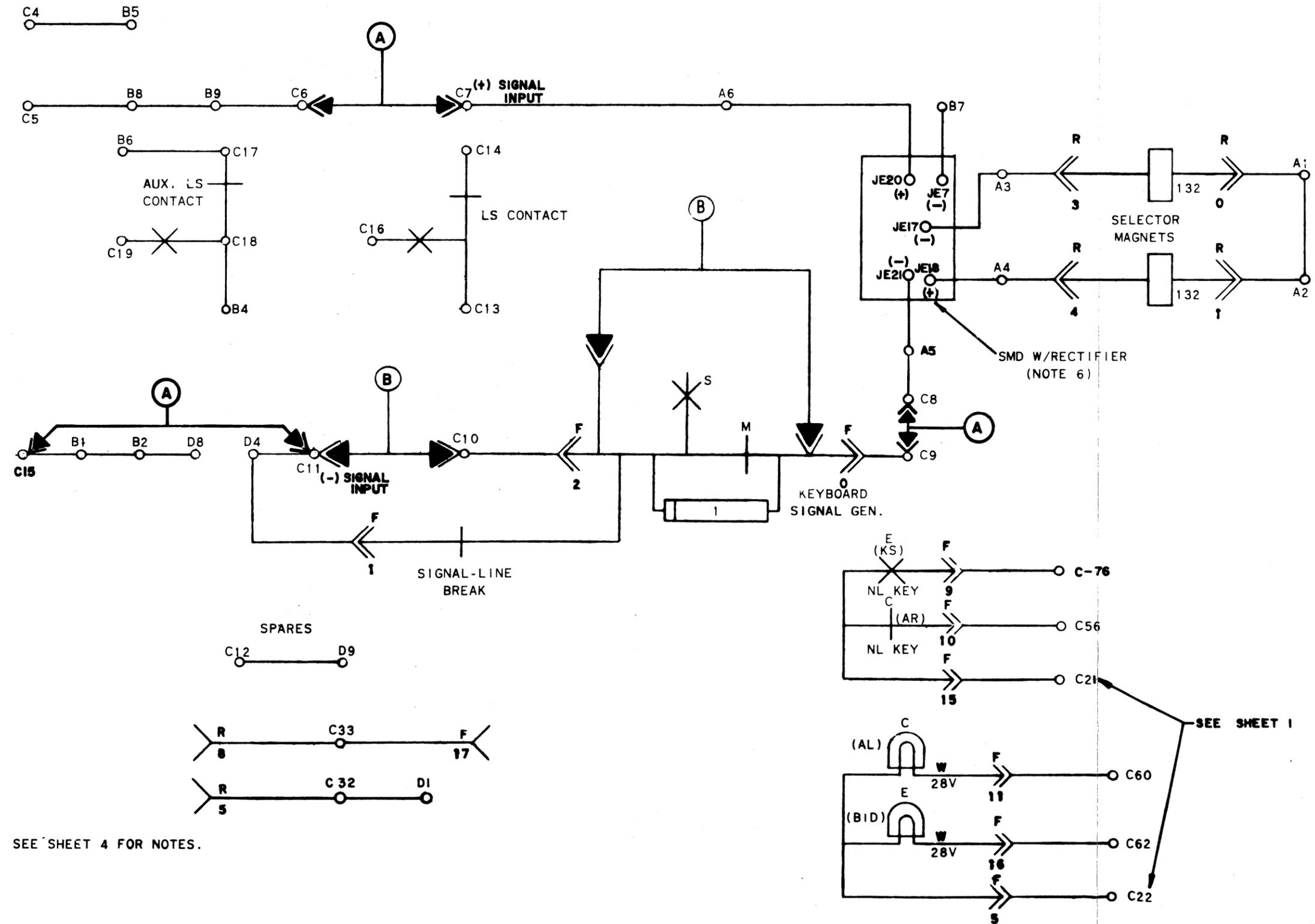
ENGD. FGH APPD *[Signature]*

TELETYPE CORPORATION

3 7157 WD

ISSUE	DATE	AUTH. NO.
2	4-14-64	81753
3	5-14-64	81758

SIGNAL CIRCUIT



SHEET 2 OF 4

SCHEMATIC  
WIRING DIAGRAM  
FOR MODEL 28  
LESU113

APPROVALS

DANGER EOPM  
HAR 3/16/64

REVISION

PROJ. NO. 7157WD

DATE: 1-7-64

P.D. FILE NO. 11-A25AA

DRAWN PJS CHKD *[Signature]*

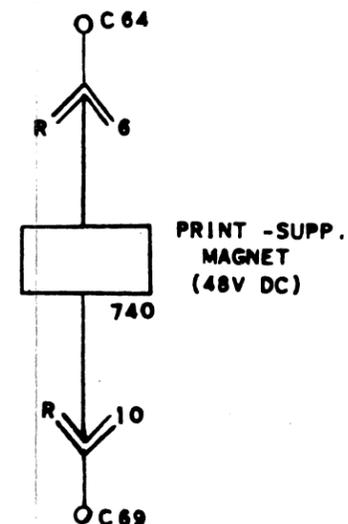
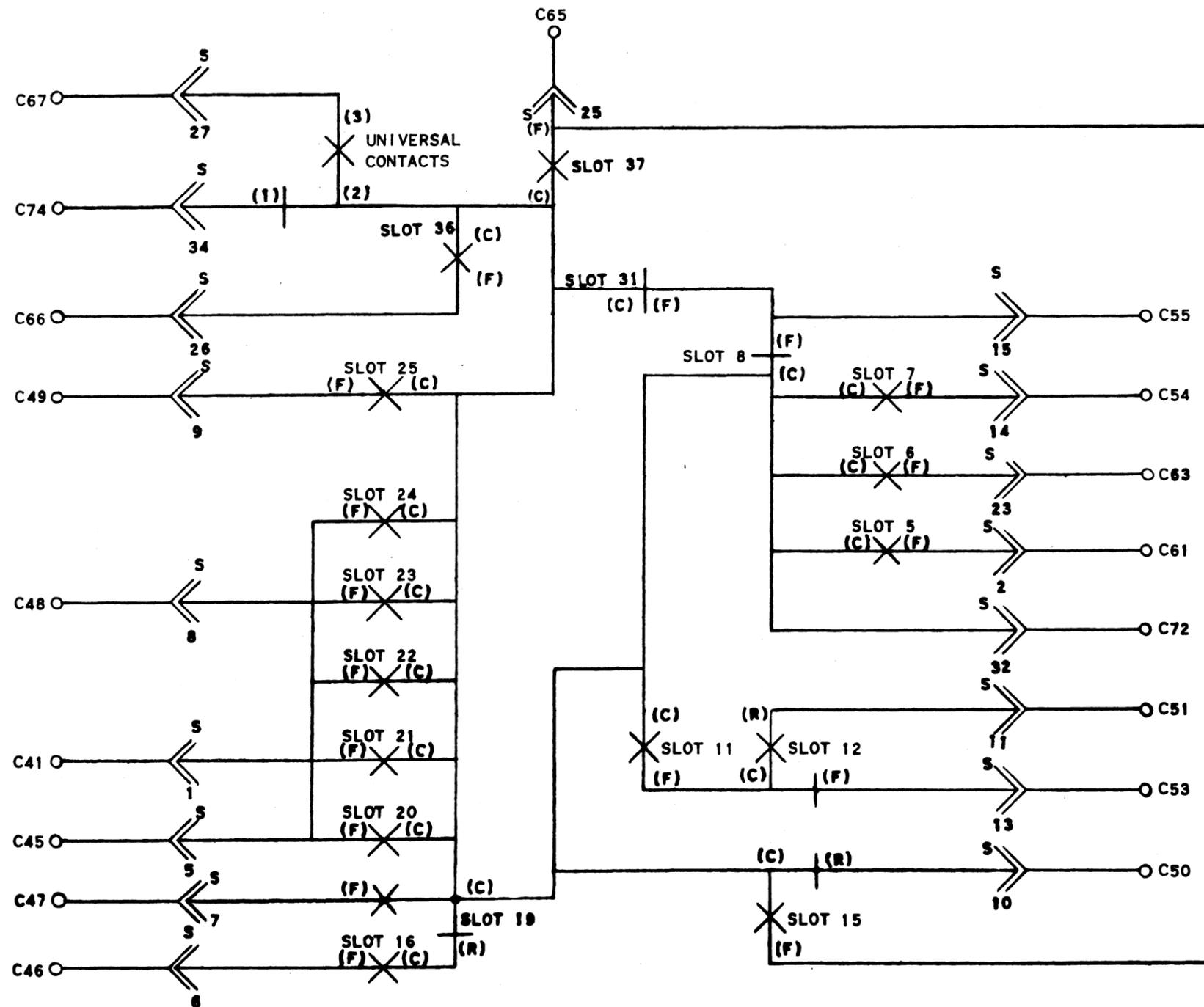
ENGD. FGH APPD. *[Signature]*

TELETYPE  
CORPORATION

3 7157 WD

ISSUE	DATE	AUTH. NO.

STUNT BOXES AJM, AJN, AJP  
(NOTE 8)



F - FRONT CONTACT  
C - COMMON CONTACT  
R - REAR CONTACT

SEE SHEET 4 FOR NOTES.

SHEET 3 OF 4

SCHEMATIC  
WIRING DIAGRAM  
FOR MODEL 28  
LESU113

APPROVALS

DESIGNED <i>[Signature]</i>	ECOM <i>[Signature]</i>
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PROB. NO. 7157WD

DATE: 1-7-64  
P.D. FILE NO. 11-A25AA

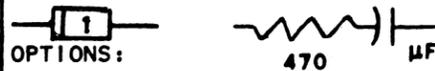
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ENGD. FGH APPD *[Signature]*

TELETYPE  
CORPORATION

7157 WD

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4	8-14-64	81759
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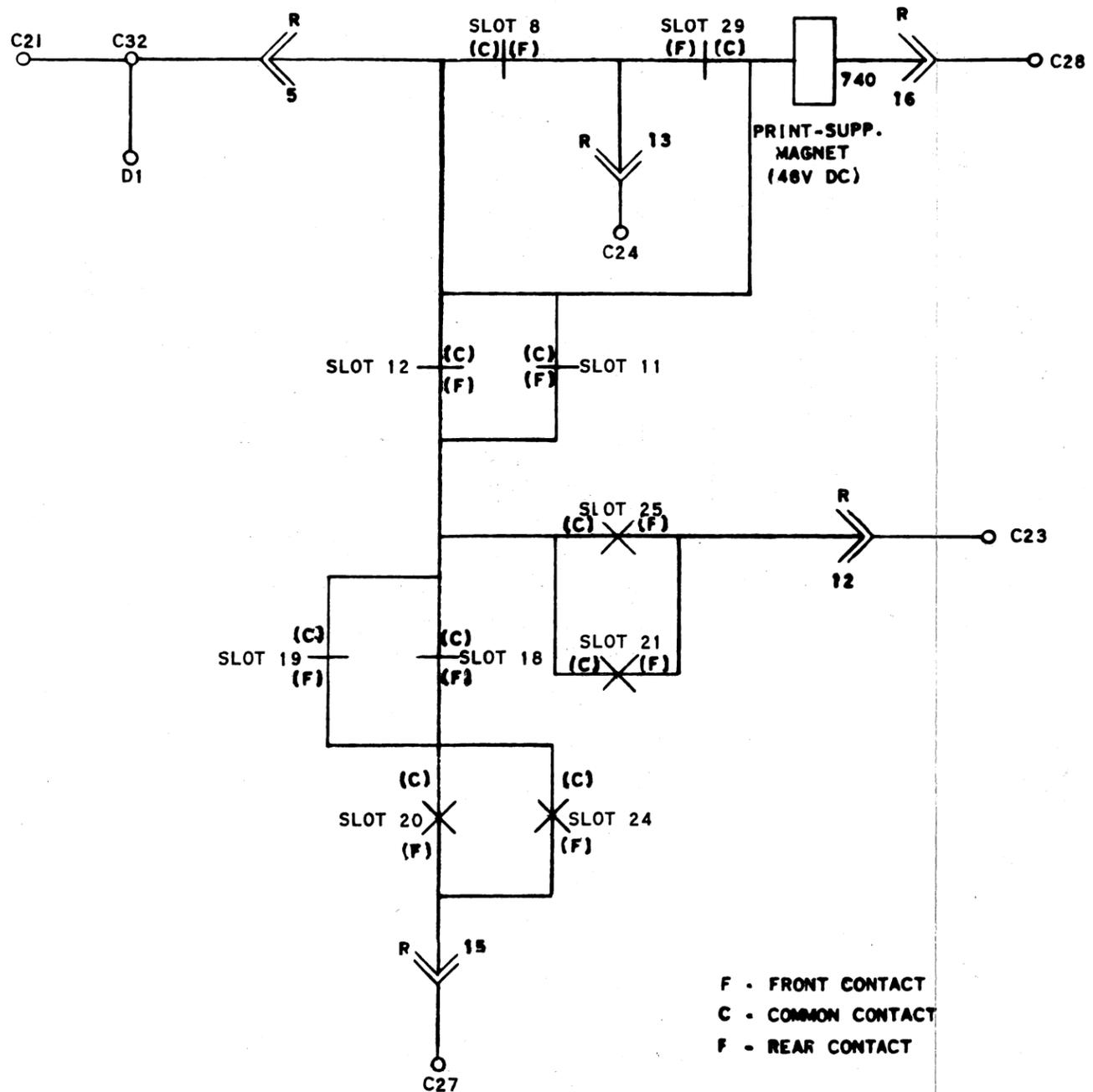
- NO. NOTES
- FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS, SEE:
 

WD NO.	UNITS OPERABLE WITH LESU
7160WD	KEYBOARD LK50
3236WD	CABINETS LAC217, LAC203/238
2900WD	MOTOR UNITS LMJ3, LMJ6
7020WD	PAGE TYPING UNITS LP118, LP119, LP120
7156WD	ELECTRICAL SERVICE UNIT LESU113
2883WD	BASE, RECEIVING ONLY LB4
7021WD	BASE TYPING UNIT LB121
  - LEGEND:
    - o A SELECTOR MAGNET TERMINAL BLOCK (IN LESU)
    - o B LINE TEST KEY TERMINAL BLOCK (IN LESU)
    - o C CABINET TERMINAL BLOCK
    - o D MOTOR CONTROL TERMINAL BLOCK (IN LESU)
    - o E POWER TERMINAL BLOCK (IN LESU)
    - << F KEYBOARD OR REC. ONLY BASE CONNECTOR
    - << R TYPING UNIT CONNECTOR
    - << S STUNT BOX CONNECTOR
    - o JE SMD TERMINALS

OPTIONS:

    - A EXTERNAL CIRCUITRY SUPPLIED BY CUSTOMER.
    - B STRAP IS USED ON REC. ONLY BASE (LB4/146)
    - C USED ON REC. ONLY SET
    - D HORIZONTAL TAB (LP120 ONLY)
    - E VERTICAL TAB (LP119 & LP120)
  - ALL APPARATUS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.
  - A. RESISTANCE VALUES IN OHMS  
B. INDUCTANCE VALUES IN MICROHENRIES (μH)  
C. CAPACITANCE VALUES IN MICROFARADS (μF)
  - FOR MOTOR WIRING DIAGRAM, SEE 2900WD.
  - SELECTOR MAGNET DRIVER, 304605, WIRED FOR .060 AMP. NEUTRAL SIGNAL. FOR OTHER CURRENT OPTIONS, SEE 7175WD SCHEMATIC WIRING DIAGRAM.
  - MARGIN INDICATOR IS NOT USED ON REC. ONLY BASE (LB4/146).
  - STUNT BOXES AJM, AJN AND AJP ARE USED WITH LP118, LP119 AND LP120 IN THE KSR SET.
  - STUNT BOX AJQ IS USED WITH LP121 IN THE REC. ONLY SET.
  - FOR SCHEMATIC WIRING DIAGRAM OF 199876 RECTIFIER, SEE 7121WD. FOR 305631 RECTIFIER SEE 7287 WD.

STUNT BOX AJQ  
(NOTE 9)



F - FRONT CONTACT  
C - COMMON CONTACT  
R - REAR CONTACT

SCHEMATIC  
WIRING DIAGRAM  
FOR MODEL 28  
LESU113

**APPROVALS**

D AND R <i>[Signature]</i>	E OF M <i>[Signature]</i>
NUMBER	
PROD. NO. 7157WD	
DATE: 1-8-64	
P.D. FILE NO. 11-A25AA	
DRAWN. PJS	CHKD. <i>[Signature]</i>
ENG. FGH	APPD. <i>[Signature]</i>

**TELETYPE  
CORPORATION**

5 7157 WD

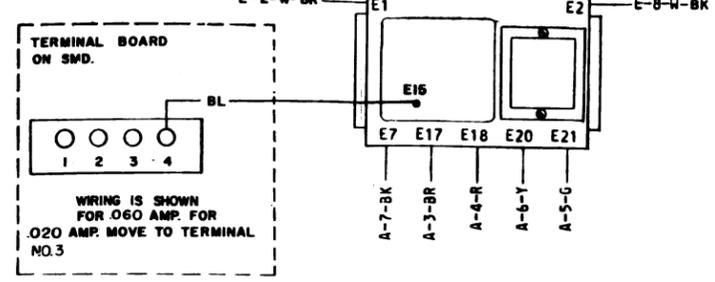
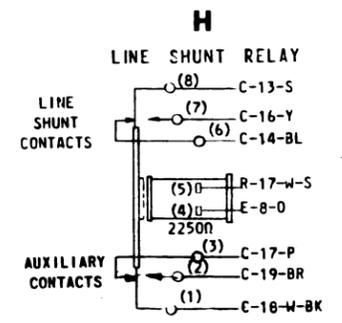
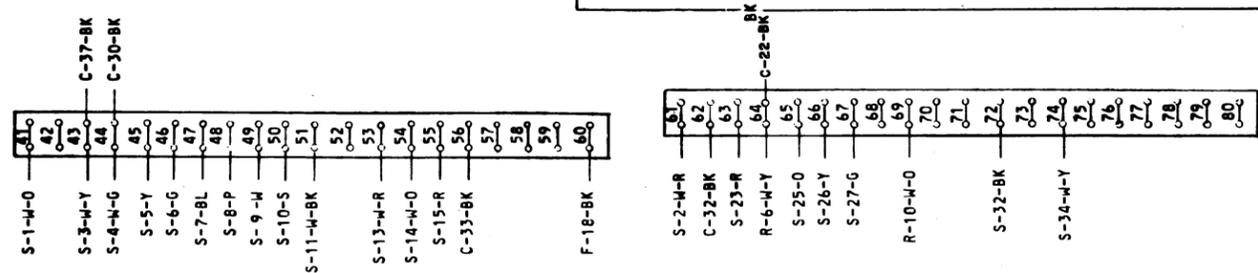
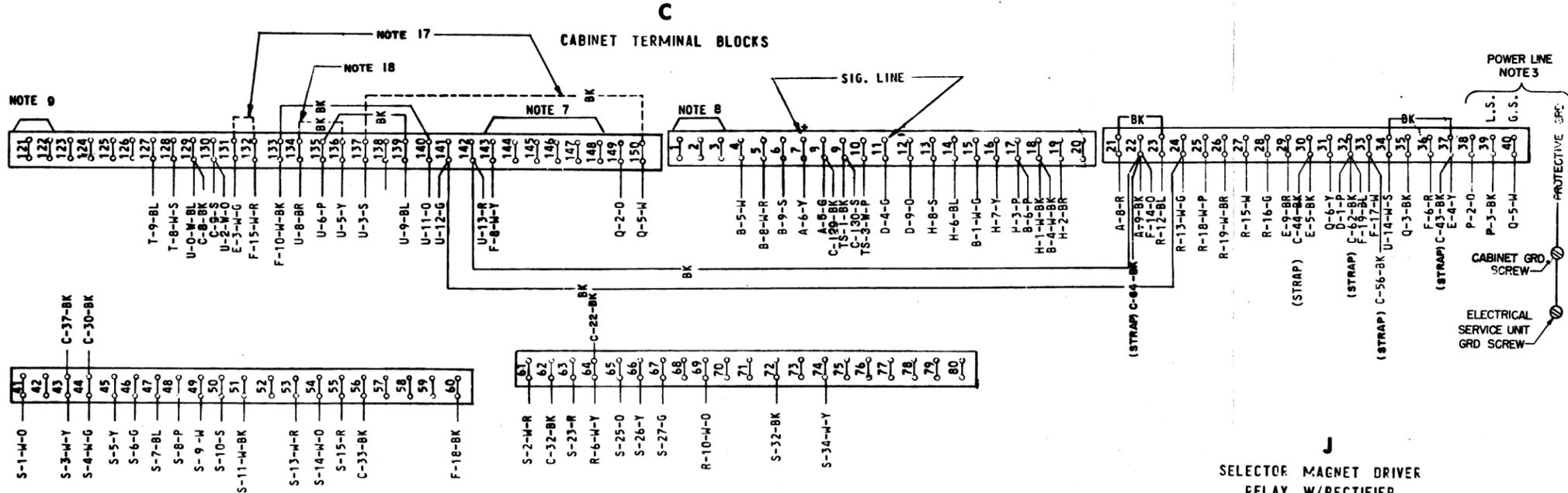
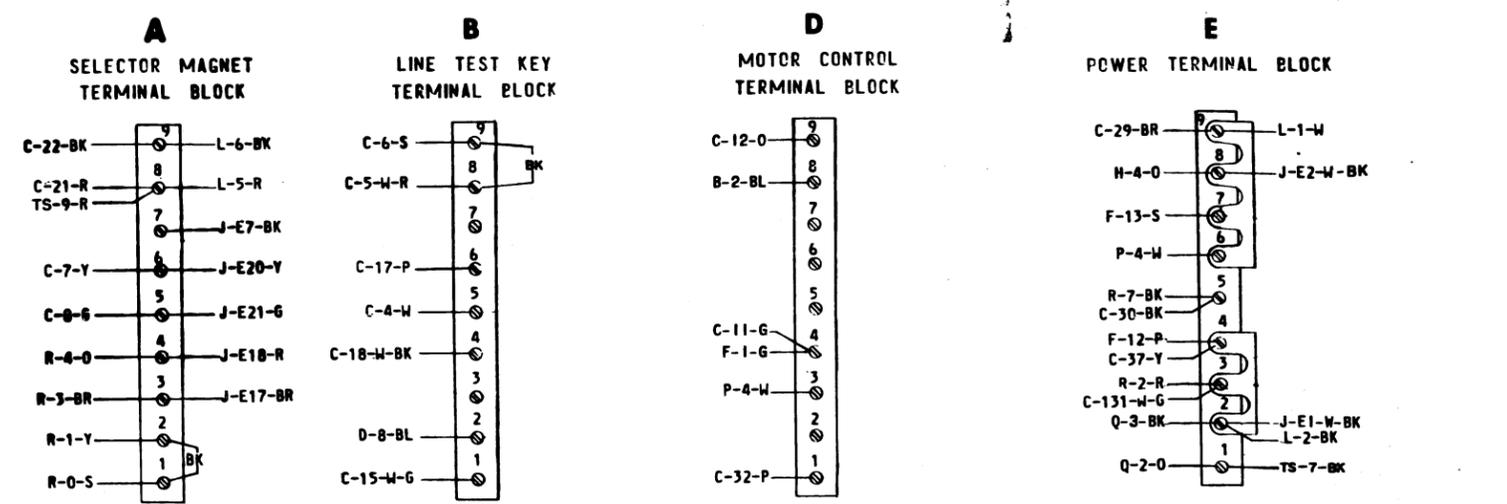


REVISIONS

ISSUE	DATE	AUTH. NO.
A 2	4-10-64	81160
B 3	4-18-64	81755
4	5-14-64	81758
5	1-7-65	84189
- 6	12-11-65	89127
7	4-7-66	90222

NOTE:  
REVISION INFORMATION MUST  
ALSO BE REFLECTED ON THE  
ISSUE CONTROL RECORD, WHICH  
IS A PART OF THIS DRAWING.

- NOTES**
1. WIRING LEGEND:  
DISTANT TERMINATING AREA  
DISTANT TERMINATING DESIGNATION  
A-T-W-BL  
WIRE COLOR CODE
  2. COLOR CODE:  
BK - BLACK G - GREEN  
BR - BROWN BL - BLUE  
R - RED P - PURPLE  
O - ORANGE W - WHITE  
Y - YELLOW S - SLATE
  3. UNIT WIRED FOR 115 VOLTS, 60 CYCLE AC POWER ONLY.
  4. CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS.
  5. CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION, REMOVE CONNECTION K1 TO K2.
  6. THE SPARE LEADS FROM THE TRANSMITTER DISTRIBUTOR UNIT CONNECTOR PLUG ARE TERMINATED IN THE RIGHT END OF THE ELECTRICAL SERVICE UNIT. THE SPARE LEADS FROM THE TYPING UNIT PLUG ARE TERMINATED IN THE LEFT END OF THE ELECTRICAL SERVICE UNIT.
  7. TERMINALS C-143 TO C-148 RESERVED FOR CABINET LAMP OPERATION.
  8. TERMINALS C1 TO C3 RESERVED FOR CUSTOMER'S USE.
  9. TERMINALS C-121 TO C-122 RESERVED FOR PERFORATOR LOW TAPE SWITCH.
  10. CONTACTS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.
  11. SPARE LEADS SHOULD BE TAPED AND TIED BACK TO 157260 CABLE (PART OF 154741 MOD. KIT FURNISHED WITH TYPING UNIT.)
  12. FOR SCHEMATIC WIRING DIAGRAM OF 304806 SELECTOR MAGNET DRIVER, REFER TO 7178WD.
  13. FOR SCHEMATIC WIRING DIAGRAM, SEE 7169WD.
  14. TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESES ARE NOT MARKED ON COMPONENTS.
  15. ASSOCIATED CABLES:  
304806 MAIN CABLE (LESU)  
157260 CABLE (PART OF MOD. KIT 154741)
  16. FOR SCHEMATIC WIRING DIAGRAM OF 199876 RECTIFIER, REFER TO 7127WD. FOR 308631 RECTIFIER, REFER TO 7287WD.
  17. TO OPERATE TO CIRCUIT ON OPTIONAL POWER, REMOVE STRAPS AT C131 & C132, AND C137 & C180. 48V DC CURRENT MUST BE LIMITED TO 100 MA. BY AN EXTERNAL RESISTOR.
  18. ALL EXTERNAL CIRCUITRY TO BE SUPPLIED BY CUSTOMER



SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 1

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT (ASR SET) LESU112

APPROVALS

D AND R: \_\_\_\_\_

E OF M: \_\_\_\_\_

E-NUMBER: \_\_\_\_\_

PROD. NO.: 7158WD

DATE: 2-19-64

P.D. FILE NO.: 11-A25AA

DRAWN P.J.S. CHKD. \_\_\_\_\_

ENGD. F.G.H. APPD. E.J.C.

TELETYPE CORPORATION

7158 WD

SEE SHEET 1 FOR NOTES.

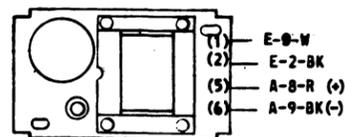
7158 WD

REVISIONS

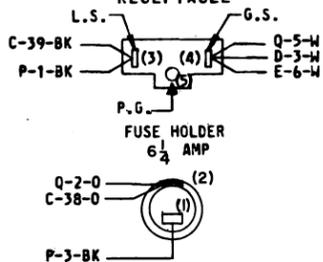
ISSUE	DATE	AUTH. NO.
A 2	4-10-64	81160
B 3	4-15-64	81755
4	5-14-64	81758
5	1-7-65	84189
6	4-7-66	90222
7	10-26-67	90222-1-B

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

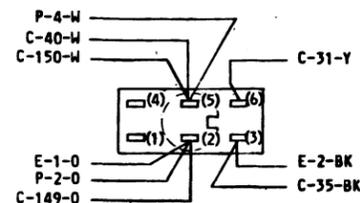
**L**  
RECTIFIER ASSEMBLY  
(NOTE 16)



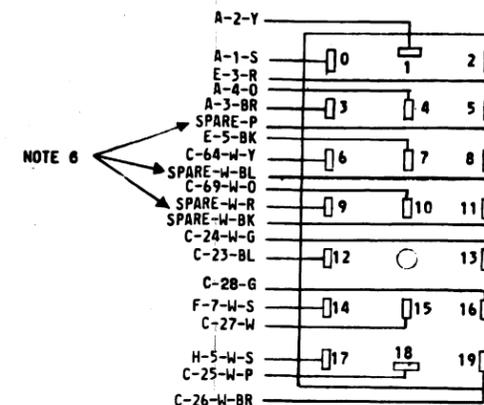
**P**  
CONVENIENCE  
RECEPTACLE



**Q**  
POWER SWITCH

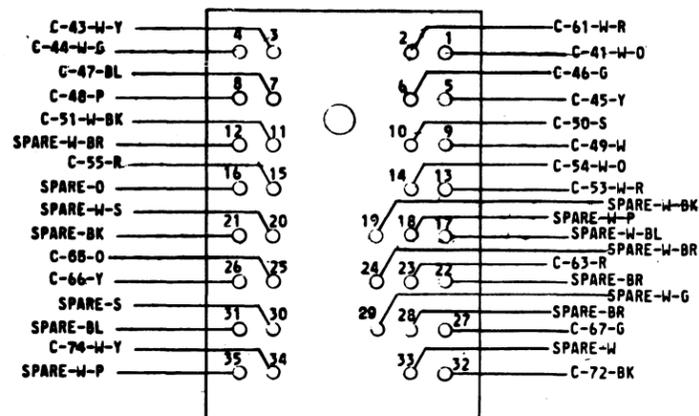


**R**  
TYPING UNIT CONNECTOR  
RECEPTACLE

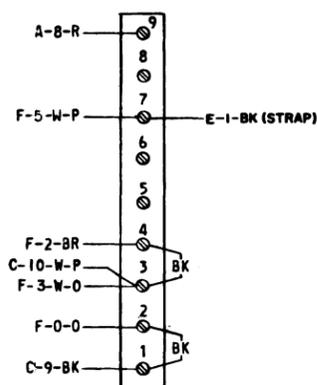


NOTE 6

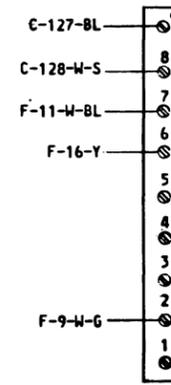
**S**  
RIGHT CONNECTOR  
AND CABLE ASSEMBLY  
(NOTE 11)



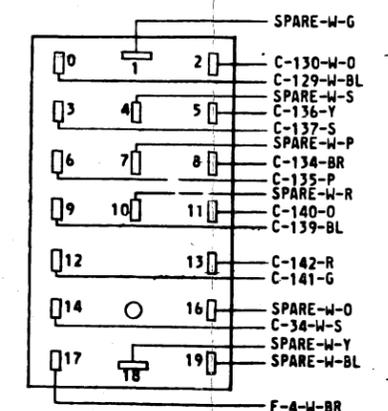
**TS**  
SLOW RELEASE RELAY  
TERMINAL BLOCK



**T**  
SLOW RELEASE TEST KEY  
TERMINAL BLOCK



**U**  
TRANSMITTER DISTRIBUTOR  
CONNECTOR RECEPTACLE



NOTE 6

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D. SHEET 2

ACTUAL  
WIRING DIAGRAM  
FOR  
MODEL 28  
ELECTRICAL SERVICE UNIT  
(ASR SET)  
LE8U112

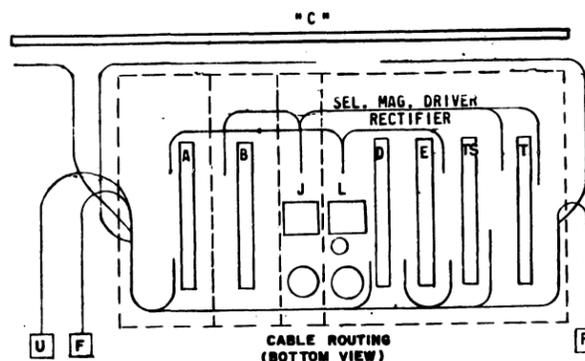
APPROVALS

D AND R	E OF M
-----	-----

E-NUMBER	
PROD. NO.	7158WD
DATE	2-19-64
P.D. FILE NO.	11-A25AA
DRAWN P.J.S.	CHKD.
ENGD. F.G.H.	APPD. E.J.C.

TELETYPE  
CORPORATION

7158WD



7159 WD

REVISIONS

NO.	DATE	AMTL. NO.
1	1-9-63	21160
2	1-15-63	21161
3	1-17-63	24189

SHEET 9 OF 9

SCHEMATIC WIRING  
DIAGRAM FOR  
MODEL 28  
ASB SET (LESU112)

APPROVALS

<i>HAK</i>	<i>[Signature]</i>
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PREP. NO. 7159WD

DATE: 1-9-63

RD. FILE NO. 11A25AA

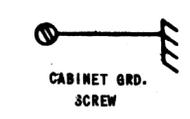
BRN. PJS ENG. 726

ENGR. FGH APPR. 628

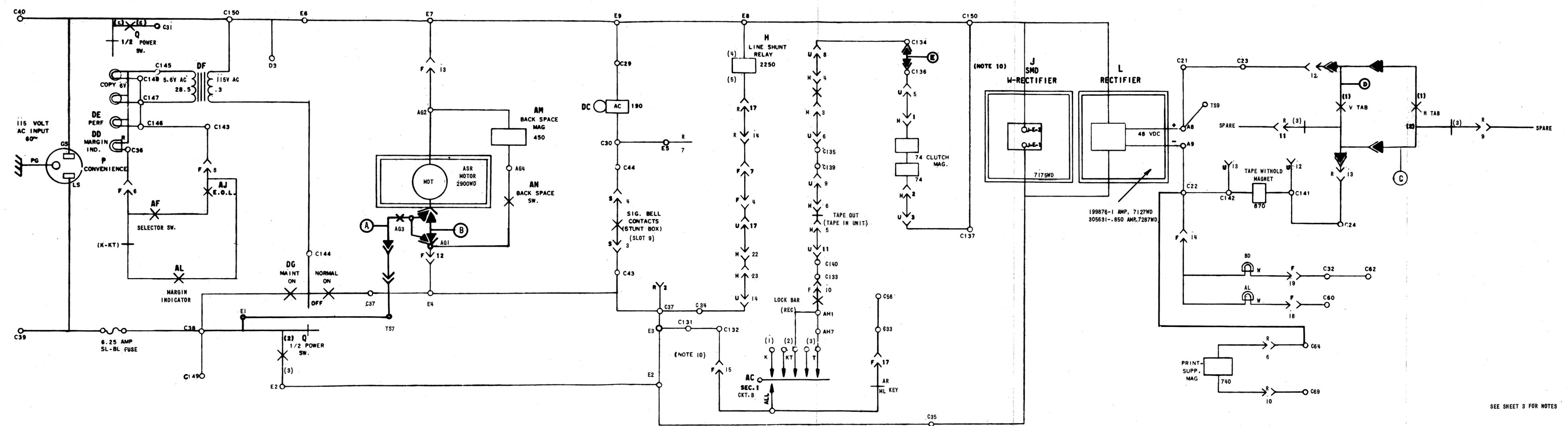
TELETYPE  
CORPORATION

7159 WD

41/2 X 10 3/4  
R31/2



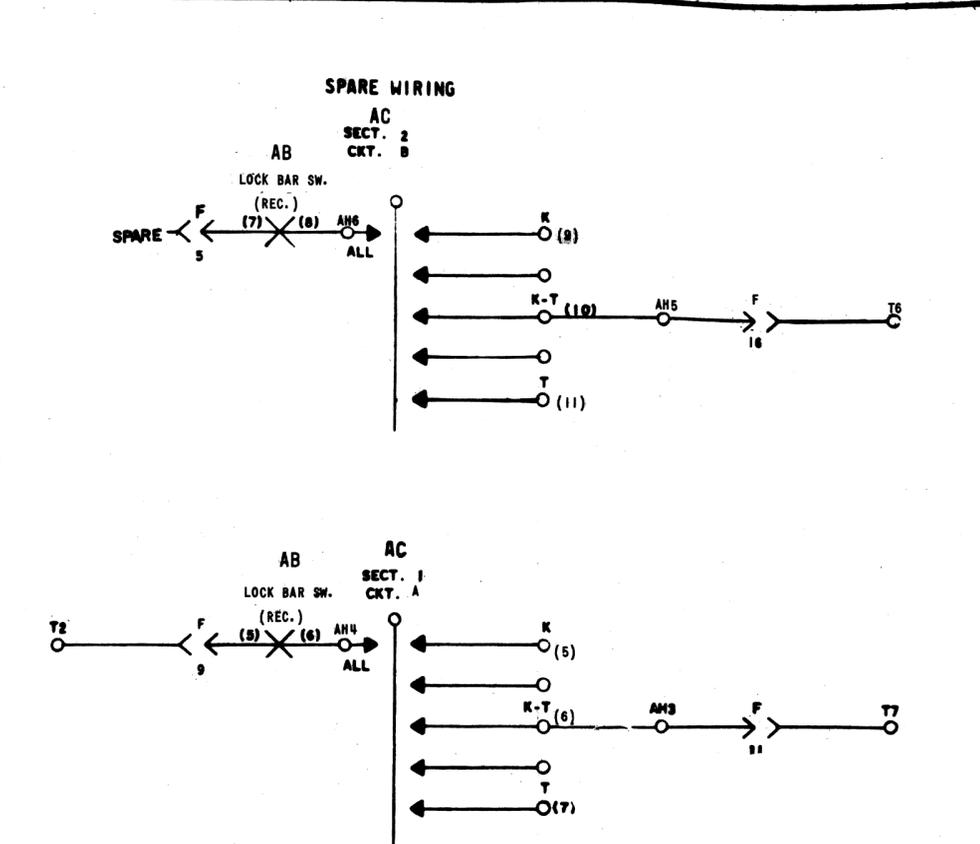
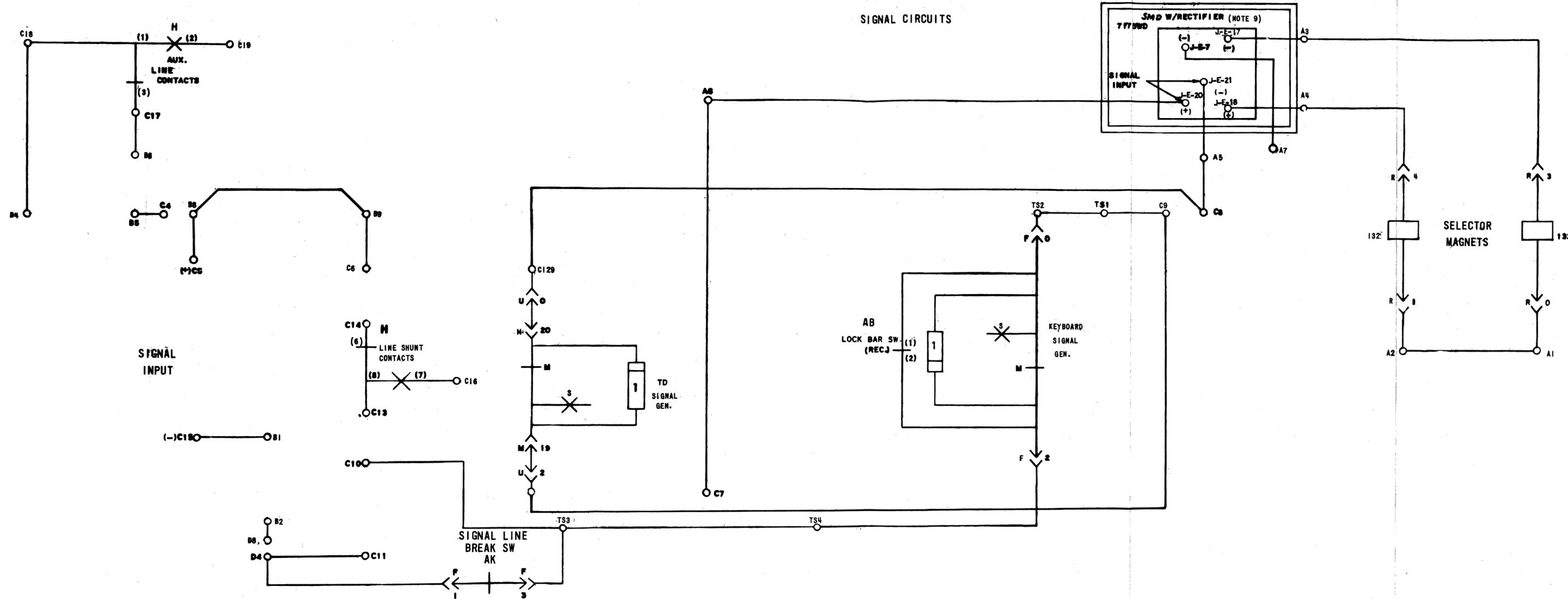
### AC POWER CIRCUIT



SEE SHEET 3 FOR NOTES

414 X1034

R 3 1/2



SEE SHEET 3 FOR NOTES

SIGNAL CIRCUITS

SPARE WIRING

7159 WD		
REVISIONS		
NO.	DATE	AUTH. NO.
1	2-17-54	1119
2	3-12-54	21734

SHEET 2 OF 3

SCHEMATIC WIRING DIAGRAM FOR MODEL 28 ASR SET (LES1112)

APPROVALS

DATE: 2-17-54

RD. FILE NO. 11-A25AA

DRWN. P. J. S. ENGR. TDC

ENGR. F. G. H. APPR. EJC

TELETYPE CORPORATION

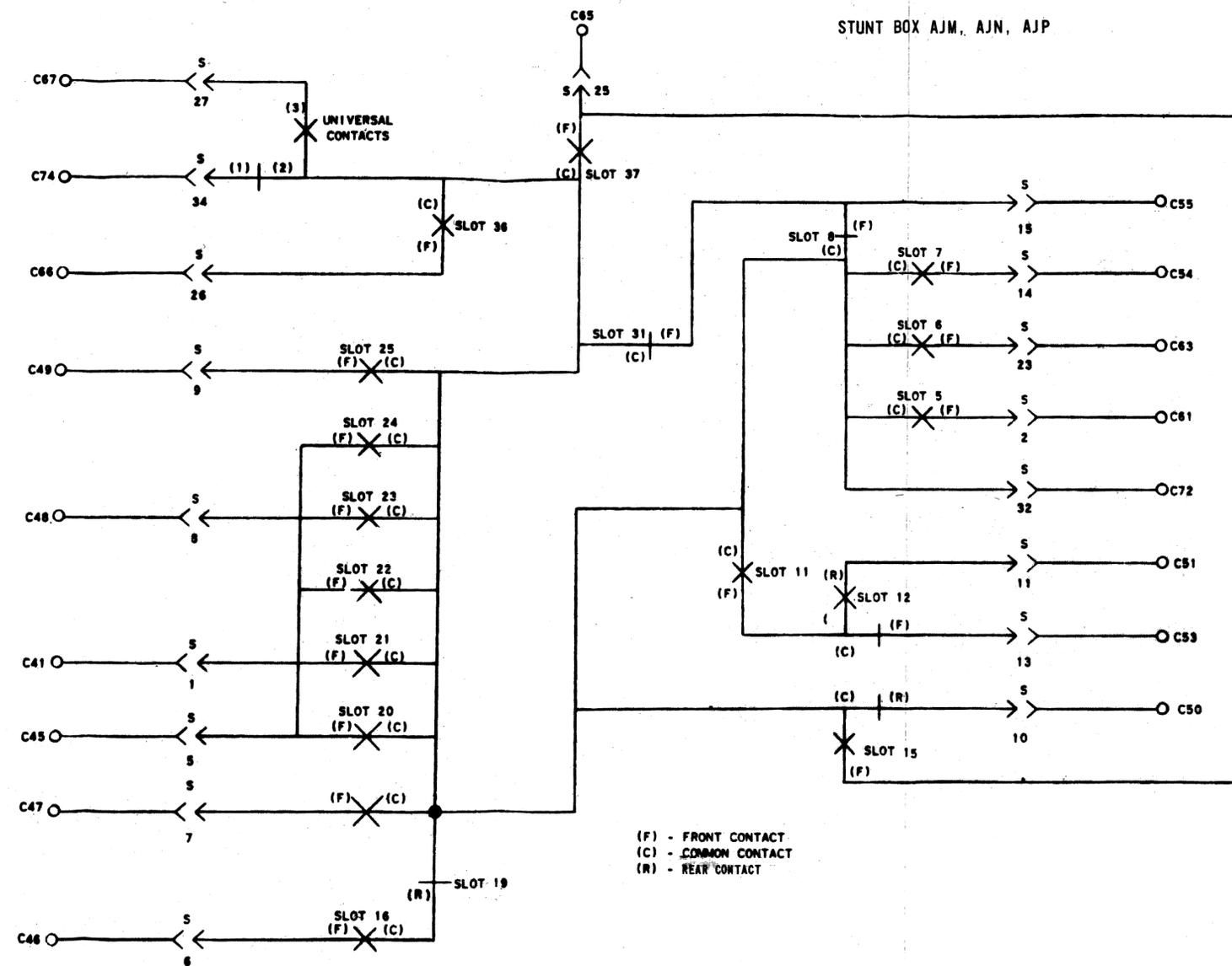
7159 WD

7159 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
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2	4-29-64	81754
3	5-14-64	81754
4	11-7-65	84189

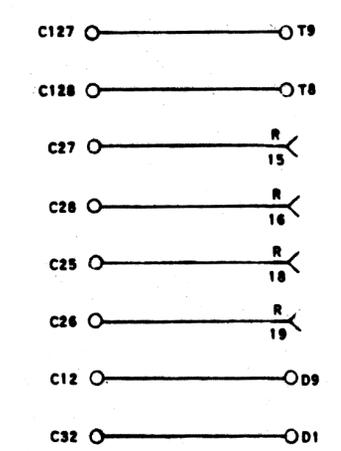
1. FOR ASSOCIATED WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE.
- WD NO. UNITS OPERABLE WITH LESU
- |        |                                      |
|--------|--------------------------------------|
| 3302WD | KEYBOARD LAK44                       |
| 3264WD | CABINET LAAC236                      |
| 2900WD | MOTOR UNIT LMU12 & LMU14             |
| 7020WD | PAGE TYPING UNIT LP118, LP119, LP120 |
| 7158WD | ELECTRICAL SERVICE UNIT LESU112      |
| 3573WD | TRANSMITTER DISTRIBUTOR LXD26        |
| 3571WD | TRANSMITTER DISTRIBUTOR BASE LCK88   |
| 7175WD | 304605 SELECTOR MAGNET DRIVER RLY    |
| 7287WD | 305631 RECTIFIER                     |
| 7127WD | 199876 RECTIFIER                     |
2. LEGEND:
- O A SELECTOR MAGNET TERMINAL BLOCK (IN LESU)
  - O B LINE TEST KEY TERMINAL BLOCK (IN LESU)
  - O C CABINET TERMINAL BLOCK
  - O D MOTOR CONTROL TERMINAL BLOCK (IN LESU)
  - O E POWER TERMINAL BLOCK (IN LESU)
  - << F KEYBOARD CONNECTOR
  - O K TERMINAL STRIP ON LINE TEST KEY-(LESU)
  - << M TRANS. DIST. & BASE CONNECTOR
  - << R TYPING UNIT CONNECTOR
  - << S STUNT BOX CONNECTOR
  - O TS SLOW RELEASE RELAY TERMINAL BLOCK (IN LESU)
  - O T SLOW RELEASE TEST KEY TERMINAL BLOCK (IN LESU)
  - << U TRANSMITTER DISTRIBUTOR CONNECTOR
  - O AG MOTOR TERMINAL BLOCK (ON LAK)
  - O AH AUX. SWITCH TERMINAL BLOCK (ON LAK)
- INDICATES FEMALE AND → INDICATES MALE TERMINALS ON CONNECTORS
3. 18BA NETWORK
4. OPTIONS:
- A PAPER FEED SWITCH (WHEN REQUIRED BY CUSTOMER)
  - B WHEN PAPER FEED-OUT SWITCH IS NOT USED
  - C HORIZONTAL TAB (USED ON LP120; TYPING UNIT)
  - D VERTICAL TAB (USED ON LP119 & LP120)
  - E EXTERNAL CIRCUITRY SUPPLIED BY CUSTOMER
5. ALL APPARATUS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.
6. A. RESISTANCE VALUES IN OHMS  
B. INDUCTANCE VALUES IN MICRORHENRIES (μH)  
C. CAPACITANCE VALUES IN MICROFARADS (μF)

7. TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESES ARE FOR REFERENCE AND NOT MARKED ON COMPONENT.
8. SPARE LEADS TAPED AND TIED BACK TO MAIN CABLE ASSEMBLY.
9. SELECTOR MAGNET DRIVER WIRED FOR .060 AMP. NEUTRAL SIGNAL OPERATION. FOR OTHER CURRENT OPTIONS SEE 7175WD SCHEMATIC WIRING DIAGRAM.
10. TO OPERATE TD CIRCUIT ON OPTIONAL POWER, REMOVE STRAPS AT C131 & C132 AND C137 & C150. 48V DC CURRENT MUST BE LIMITED TO 100MA BY AN EXTERNAL RESISTANCE.

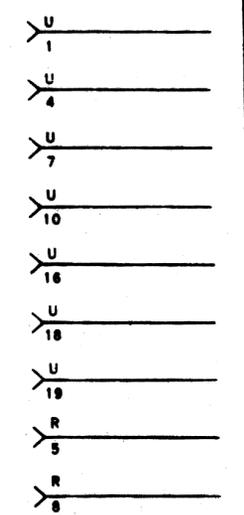
STUNT BOX AJM, AJN, AJP



SPARE WIRING



SPARES



NOTE 8

SHEET 3 OF 3

SCHEMATIC WIRING DIAGRAM FOR MODEL 28 ASR SET (LESU112)

APPROVALS

DATE: 3/2/64

RD. FILE NO. 11-A25AA

DRWN. PJS

ENGR. FGH

TELETYPE CORPORATION

7159 WD



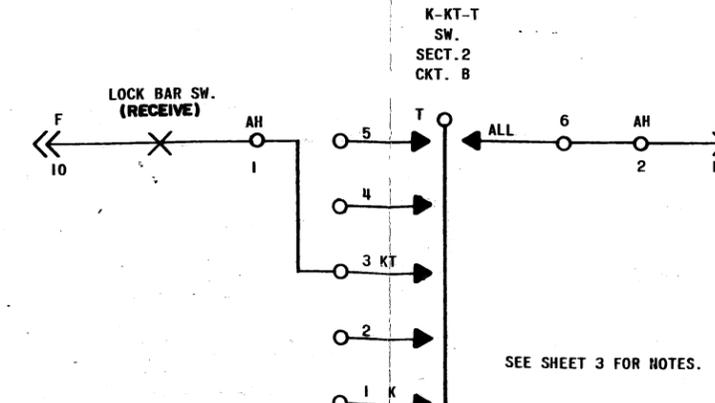
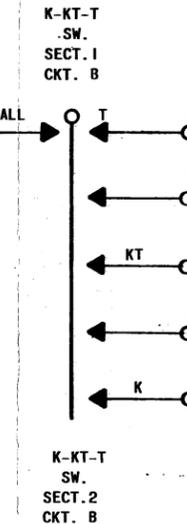
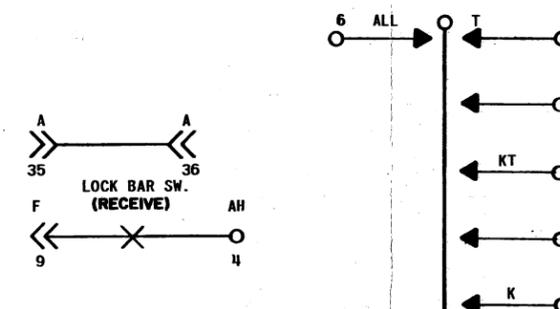
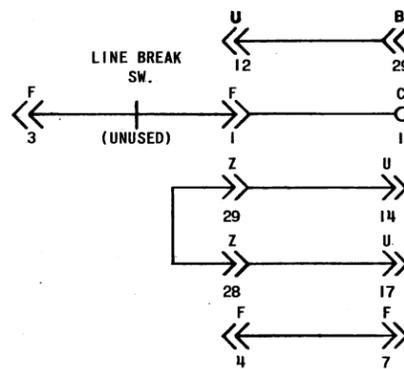
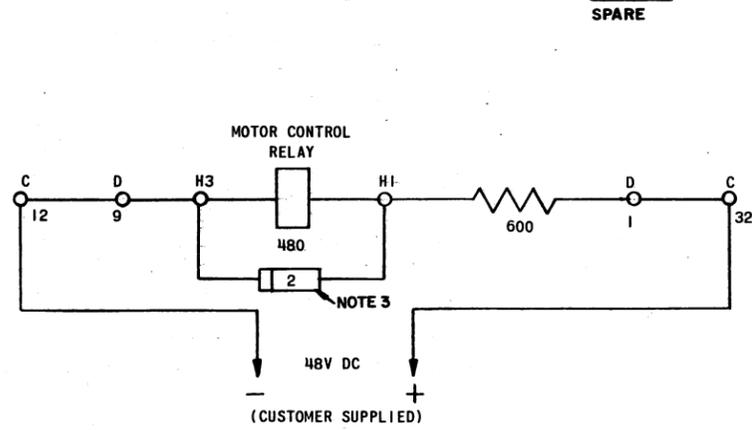
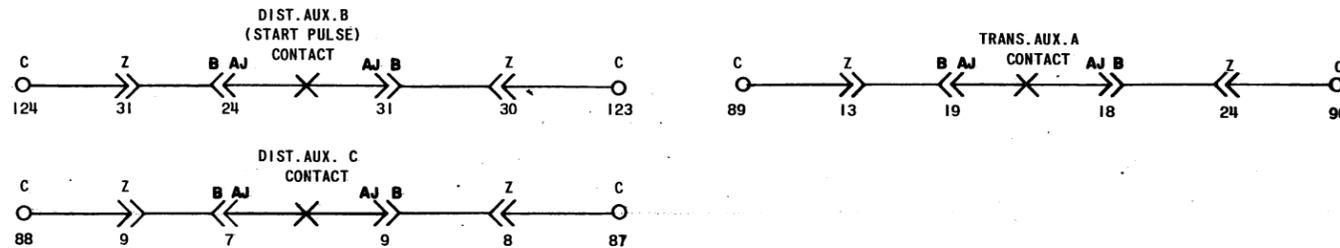
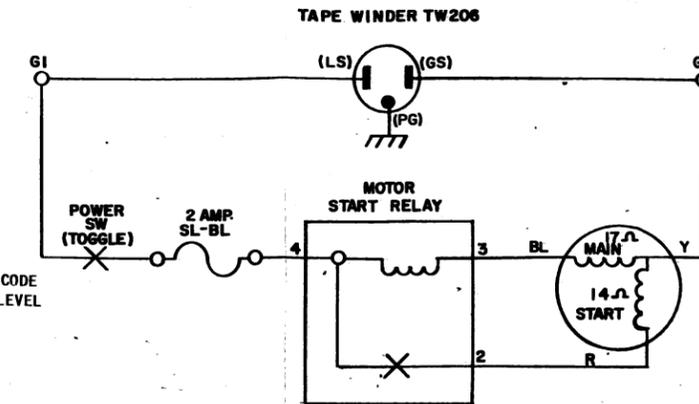
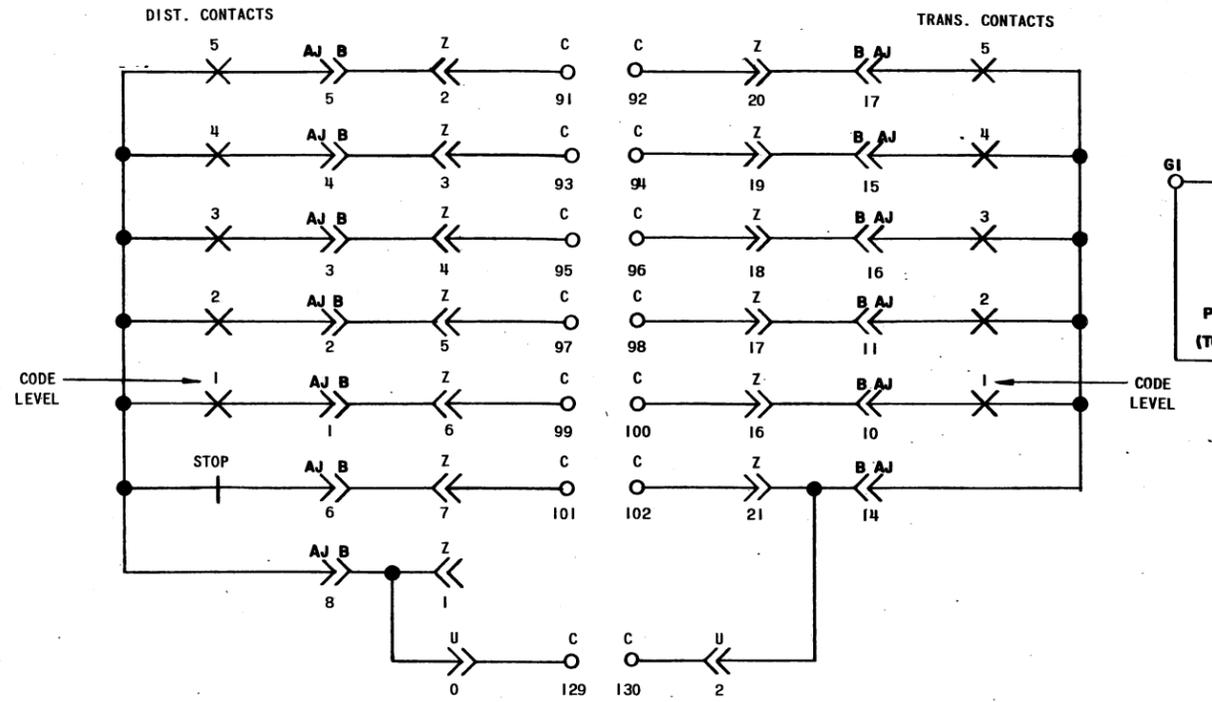
TRANSMITTER DISTRIBUTOR SIGNAL GENERATING CIRCUIT

NOTE:  
REVISION INFORMATION MUST ALSO  
BE REFLECTED ON THE ISSUE  
CONTROL RECPD, WHICH IS PART  
OF THIS W.D.

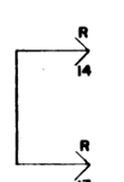
7762 WD

REVISIONS

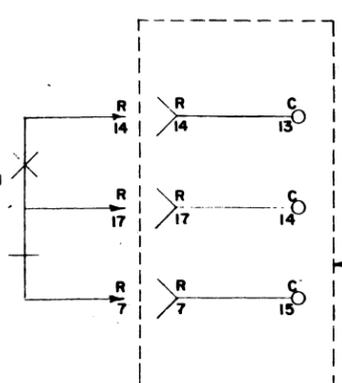
ISSUE	DATE	AUTH. NO.
1	4-8-65	16768-R
2	9-9-65	87339
3	1-13-66	89018
4	4-13-66	90373



STRAP  
PRESENT ON  
LP129AUH  
ONLY



HOR.  
TAB.  
(U.C.V.)  
PRESENT ON  
LP133 AKA  
ONLY



NEW STYLE WIRING

SEE ISSUE CONTROL RECORD FOR  
COMPLETE LIST OF SHEETS  
COMPRISING THIS W.D.

SHEET 1

SCHEMATIC  
WIRING DIAGRAM  
FOR  
MODEL 28 ASR SETS  
VSL 515 (28A)  
VSL 526 (28B)

APPROVALS

D AND R *[Signature]* E OF M *[Signature]*

E-NUMBER  
PROD. NO. 7762WD  
DATE 2-17-65  
P.D. FILE NO. 26-58.65AA  
DRAWN D.D.G. CHKD. *[Signature]*  
ENGD. R.E.P. APPD. *[Signature]*

TELETYPE  
CORPORATION

7762 WD

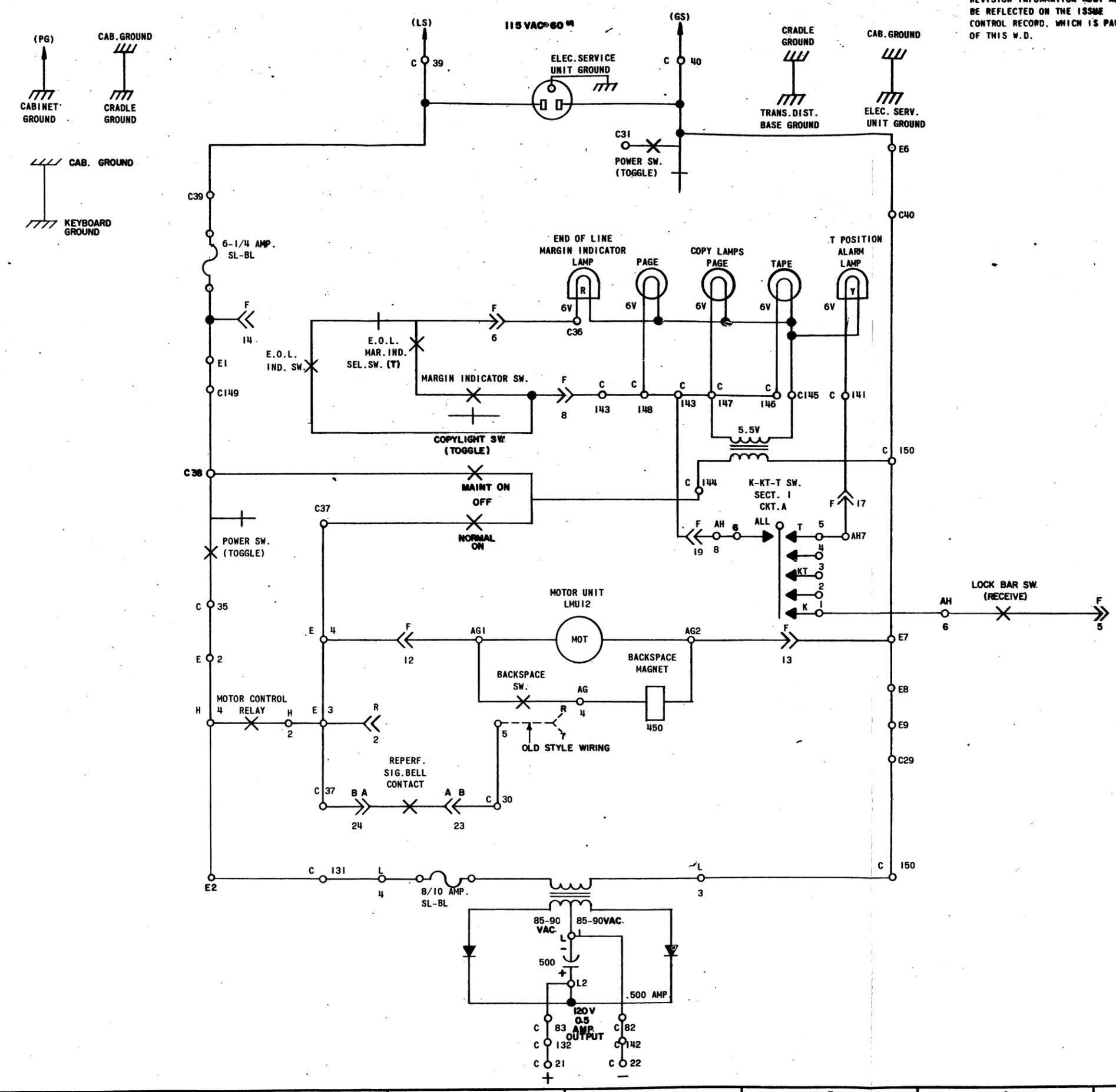
SEE SHEET 3 FOR NOTES.



7762 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
1	4-8-65	16768-R
2	9-9-65	87339
3	1-13-66	89018
4	4-13-66	90373

NOTE:  
REVISION INFORMATION MUST ALSO  
BE REFLECTED ON THE ISSUE  
CONTROL RECORD, WHICH IS PART  
OF THIS W.D.

1. FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE:
- |        |                                       |
|--------|---------------------------------------|
| WD NO. | UNIT                                  |
| 7764WD | CABINET LAAC249                       |
| 7768WD | TAPE WINDER TW206                     |
| 3495WD | MOD. KIT. RECTIFIER IN CABINET 160422 |
| 3619WD | BASE, TRANS. DIST. LCB99              |
| 3536WD | TRANS. DIST. LBD29                    |
| 3404WD | HOUSING, TRANS. DIST. 160888          |
| 7767WD | VCL513, MODEL 28 ASR SET LESS PRINTER |
| 7766WD | ELEC. SERVICE UNIT LESU116            |
| 7763WD | TYPING UNIT LP129/AUH/VSL515 ONLY)    |
| 7765WD | KEYBOARD, ASR LAK49                   |
| 3567WD | REPERF. TYPING LPR33                  |
| 2900WD | MOTOR UNIT-LMU12 (ACTUAL & SCHEM.)    |
| 7763WD | TYPING UNIT-LP133AKA (VSL526 ONLY)    |
2. LEGEND:
- A TYPING UNIT LINE RELAY TERM. BLOCK (IN LESU)
  - B REPERF. LINE RELAY TERM. BLOCK (LESU)
  - G TAPE WINDER TERM. BLOCK
  - C CABINET TERM. BLOCK
  - D MOTOR CONTROL TERM. BLOCK (IN LESU)
  - E POWER TERM. BLOCK (IN LESU)
  - F KEYBOARD CONNECTOR
  - H MOTOR CONTROL RELAY (IN LESU)
  - J TYPING UNIT LINE RELAY TERM. STRIP (IN LESU)
  - J ⊕ TYPING UNIT LINE RELAY CONN.
  - L RECTIFIER TERM. BLOCK (IN LAAC)
  - R TYPING UNIT CONNECTOR
  - S SLOW RELEASE RELAY TERM. BLOCK (IN LESU)
  - T SEL. MAG. BLINDING TERM. BLOCK (IN LESU)
  - U TRANS. DIST. BASE-ELECT. SERVICE UNIT CONNECTOR
  - Z TRANS. DIST. BASE-CABINET CONN.
  - A-B REPERFORATOR CONNECTOR
  - AG MOTOR TERMINAL BLOCK (IN LAK)
  - AH KEYBOARD TERM. BLOCK (IN LAK)
  - AJ TRANS. DIST. CONNECTOR
  - AP REPERF. SEL. MAG. TERMINALS (IN LPR)
  - AQ SLOW TAPE ALARM CONN. (IN LAK)
  - BJ REPERF. LINE RELAY TERM. STRIP (IN LESU)
  - BJ ⊕ REPERF. LINE RELAY CONNECTOR
  - 120V NEGATIVE 120VDC AT C22.
  - COMMON RETURN TO POS 120VDC AT C21.
3. NETWORK VALUES:
- | NET. NO. | WE CODE | RESISTANCE-Ω | CAPACITANCE-μF |
|----------|---------|--------------|----------------|
| 1        | 186A    | 120          | 0.35           |
| 2        | 186A    | 470          | 0.13           |
4. ALL APPARATUS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.
5. A. RESISTANCE IN OHMS -Ω  
B. CAPACITANCE IN MICROFARADS -μF
6. OPTIONS WIRING
- |   |     |
|---|-----|
| 60 MILLIAMPERE SIGNAL LINE                | (A) |
| 20 MILLIAMPERE SIGNAL LINE                | (B) |
| 48V DC TRANS. AND DIST. CLUTCH OPERATION  | (C) |
| 115V DC TRANS. AND DIST. CLUTCH OPERATION | (D) |
- EQUIPMENT IS FURNISHED WITH (A) AND (C) WIRING.
7. SL-BL INDICATES SLOW BLOWING.
- 8.
9. ALL VOLTAGES DC UNLESS OTHERWISE SPECIFIED.
10. FOR TELETYPE PERSONNEL ONLY. TO OPERATE LBXD FOR TEST PURPOSES, FURNISH STRAPS ON THE CABINET TERMINAL BLOCKS AS FOLLOW:
- |         |           |           |
|---------|-----------|-----------|
| C91-C92 | C97-C98   | C137-C139 |
| C93-C94 | C99-C100  | C85-C86   |
| C95-C96 | C101-C102 |           |
- FURNISH 48VDC: POS. ON C84 AND C136, NEG. ON C81 AND C134 TO OPERATE CLUTCH MAGNETS. MONITOR SIGNAL ON C129 AND C130. REMOVE STRAPS AFTER TEST.



SEE ISSUE CONTROL RECORD FOR  
COMPLETE LIST OF SHEETS  
COMPRISING THIS W.D.

SHEET 3

SCHEMATIC  
WIRING DIAGRAM  
FOR  
MODEL 28 ASR SETS  
VSL515 (28A)  
VSL526 (28B)

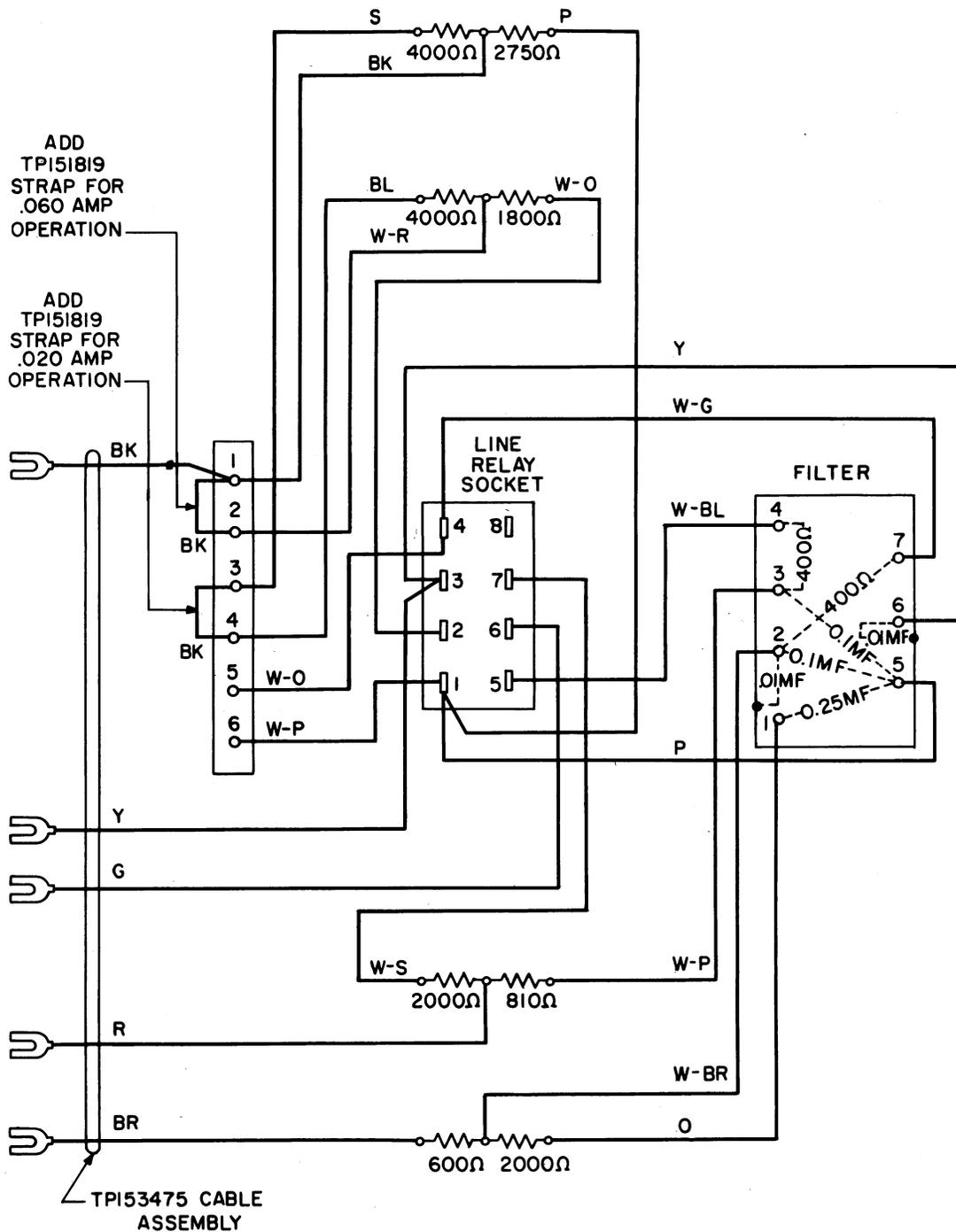
APPROVALS

D AND R <i>ADK</i>	E OF M <i>CM</i>
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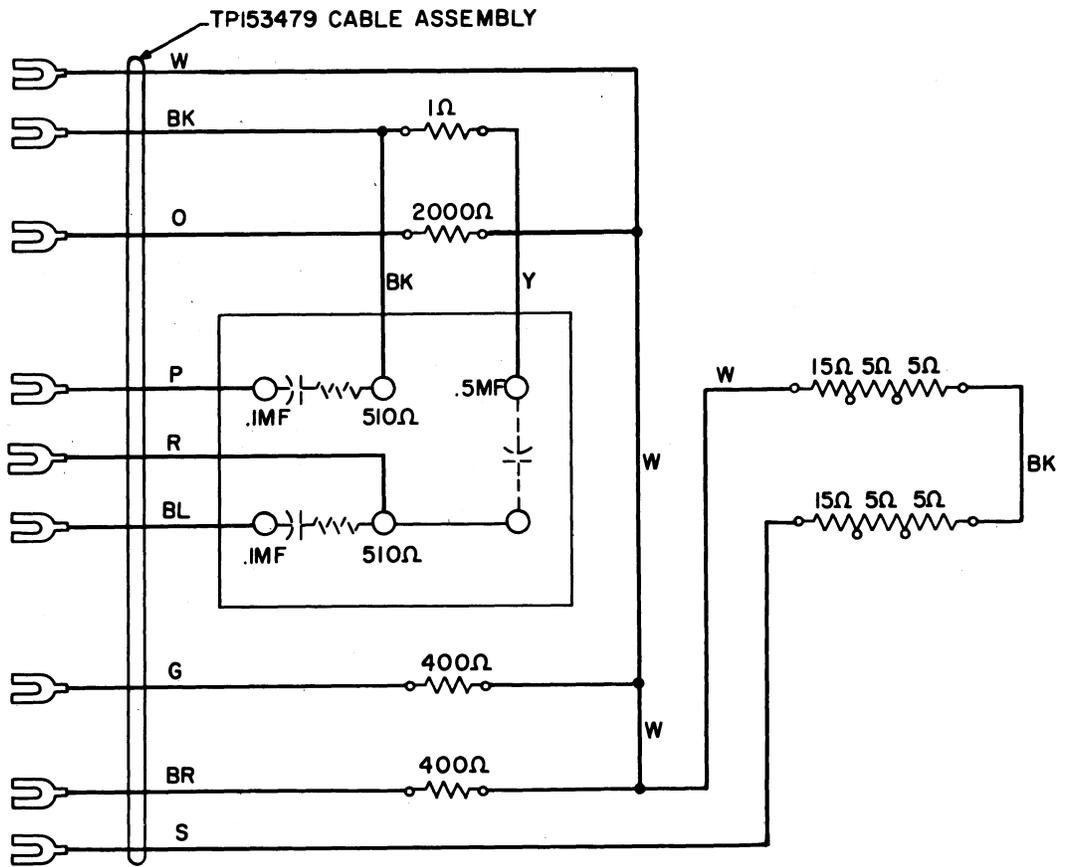
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PROD. NO. 7762WD  
DATE 2-17-65  
P.D. FILE NO. 26-58.651A  
DRAWN D.D.G. CHKD. *H. T. L.*  
ENGD. R.E.P. APPD. *R.R.S.*

TELETYPE CORPORATION

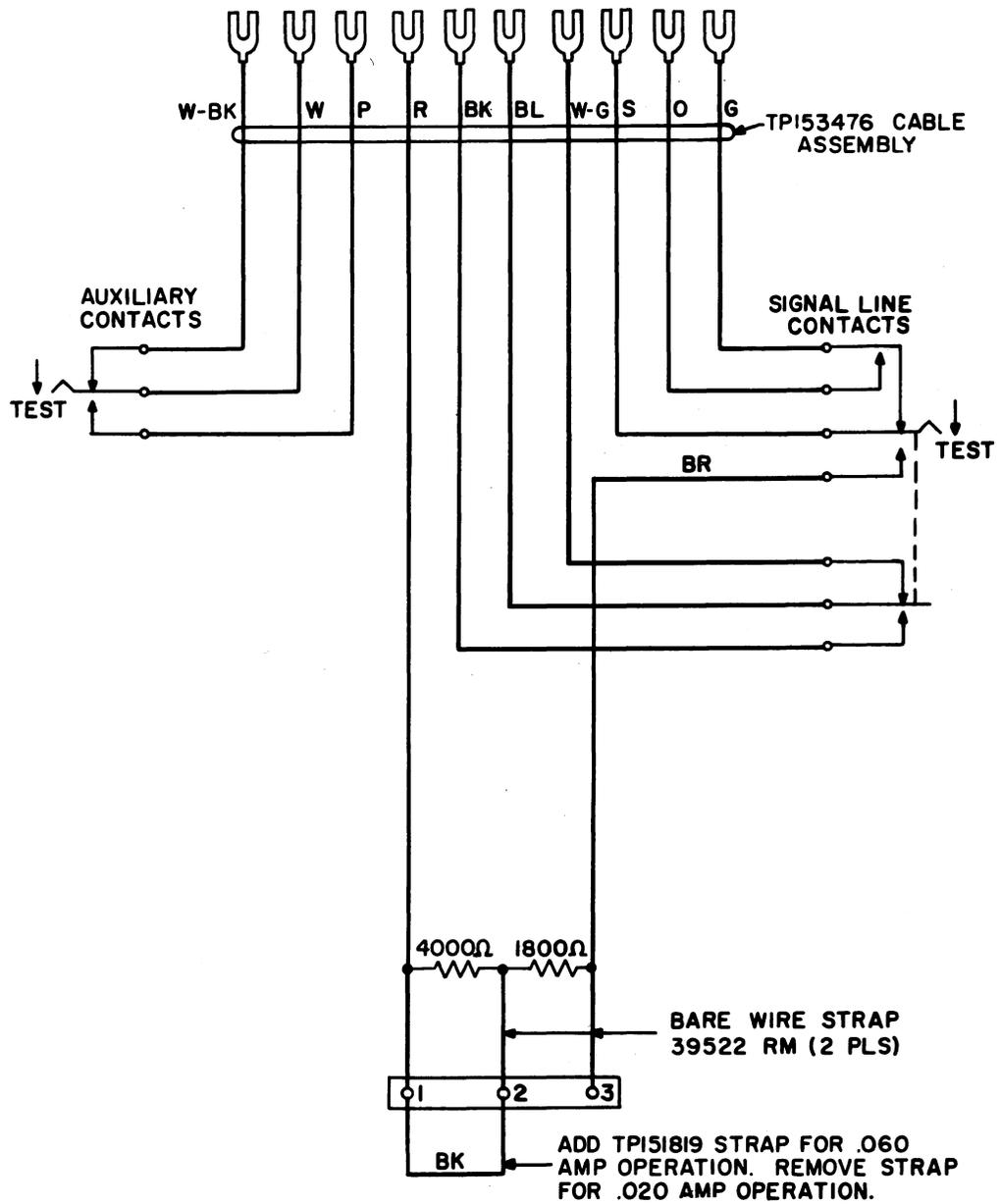
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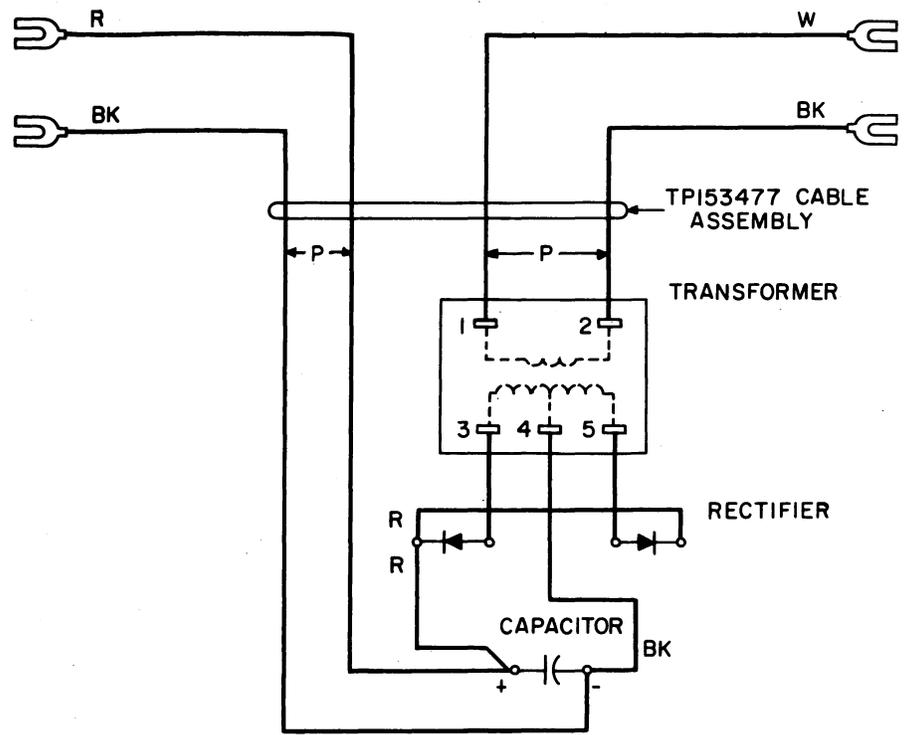
TP152623 Line Relay Mounting Assembly



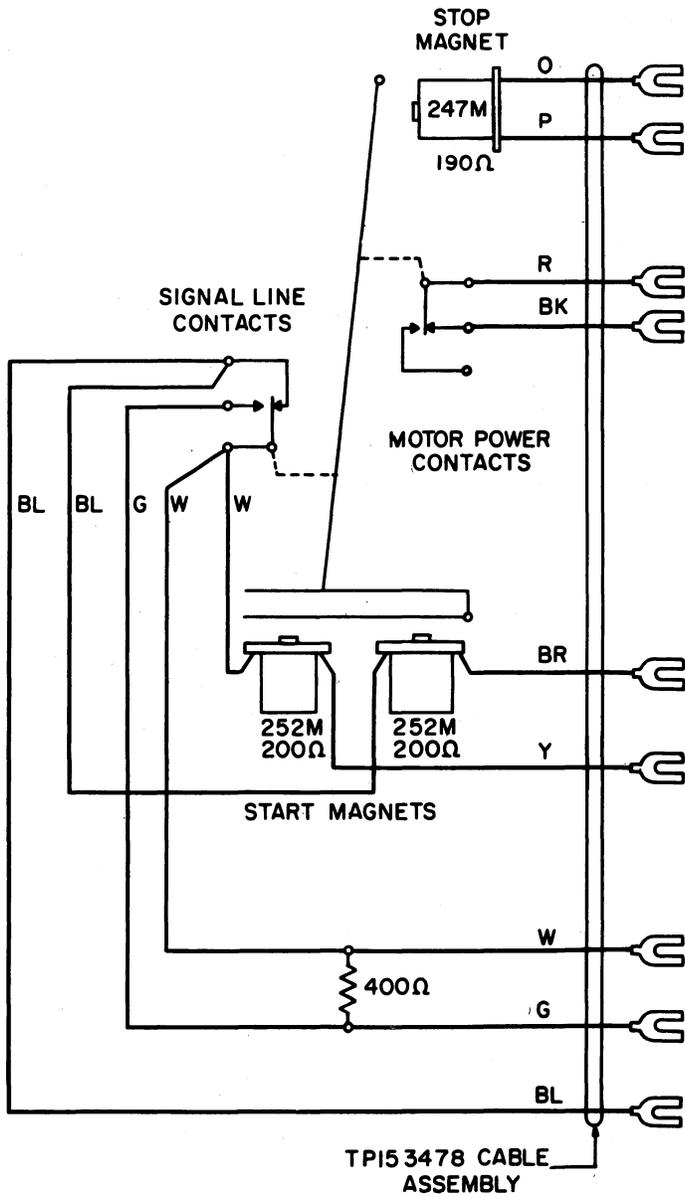
TP152624 Capacitor Resistor Assembly



TP152625 Line Test Key Assembly



TP152950 Rectifier Assembly (120 Mil Output)



TP153251 Electrical Motor Control Assembly