

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.
ELECTRICAL SERVICE UNIT WIRING DIAGRAMS			
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	-	-

2874WD

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

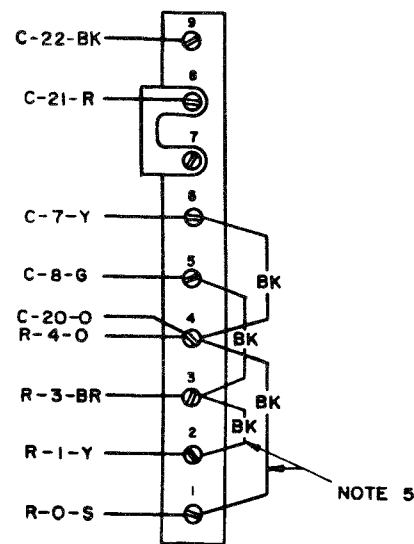
- NO. NOTES
1. WIRING LEGEND:
 2. COLOR CODE:

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

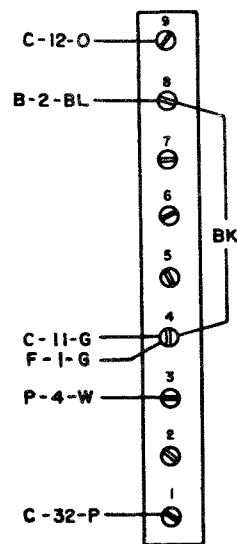
SIGNAL LINE CURRENT	CONNECTIONS REMOVED	CONNECTIONS ADDED
.020 AMP.	A1-A4, A2-A3	A1-A2*

*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. FOR SCHEMATIC WIRING DIAGRAM, SEE 2875WD.

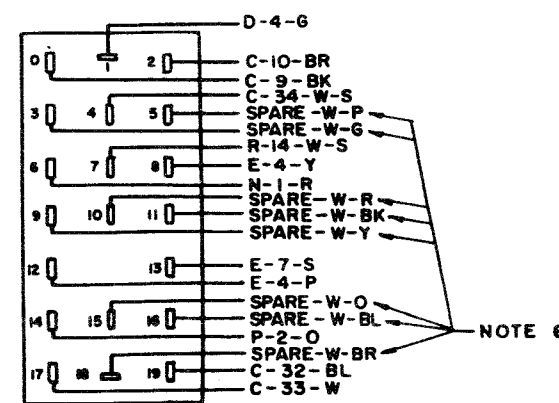
A SELECTOR MAGNET TERMINAL BLOCK



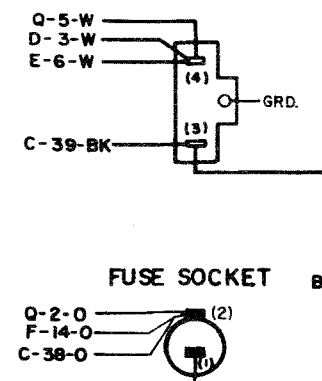
D MOTOR CONTROL TERMINAL BLOCK



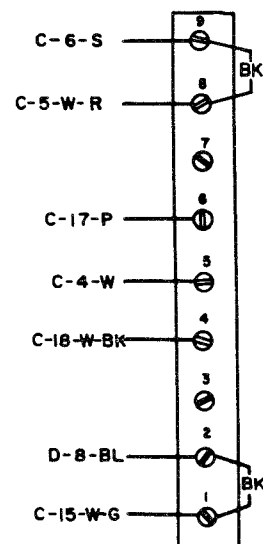
F KEYBOARD FOR RECEIVING ONLY BASE CONNECTOR PLUG



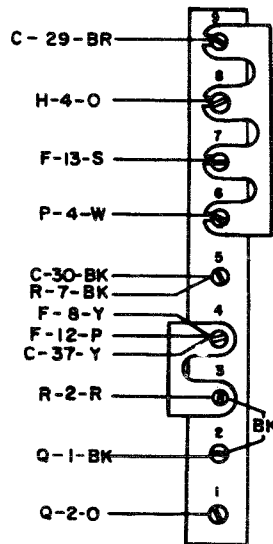
P CONVENIENCE RECEPTACLE



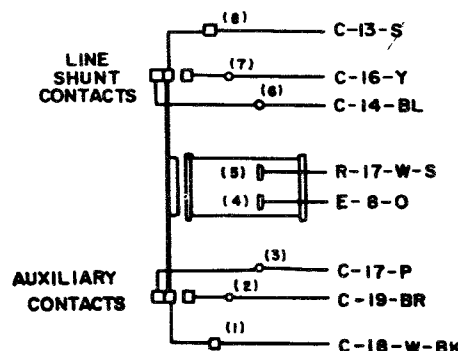
B LINE TEST KEY TERMINAL BLOCK



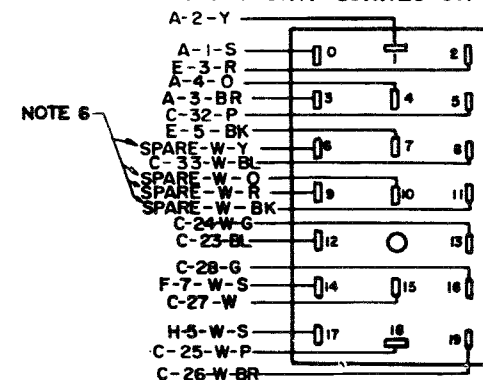
E POWER TERMINAL BLOCK



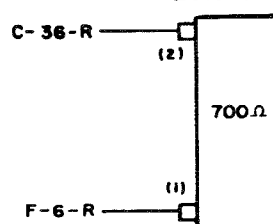
H LINE SHUNT RELAY



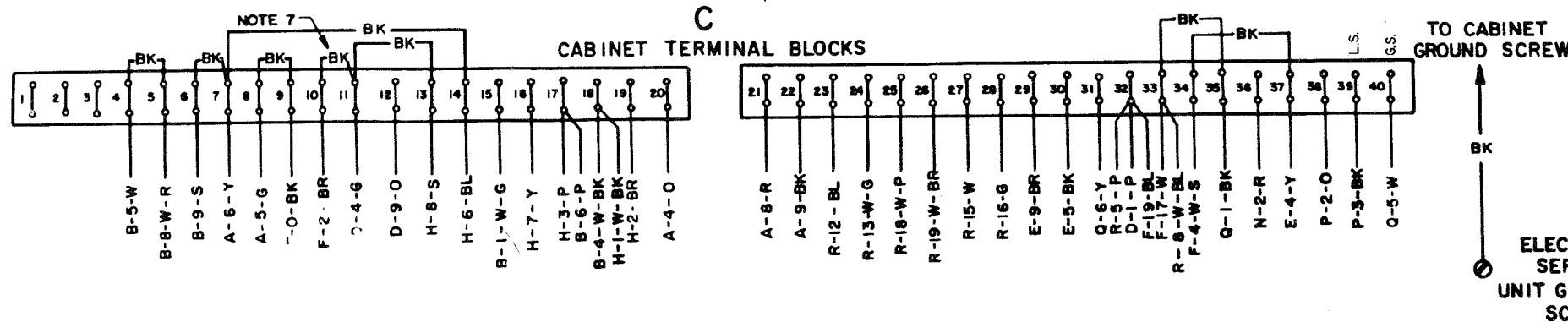
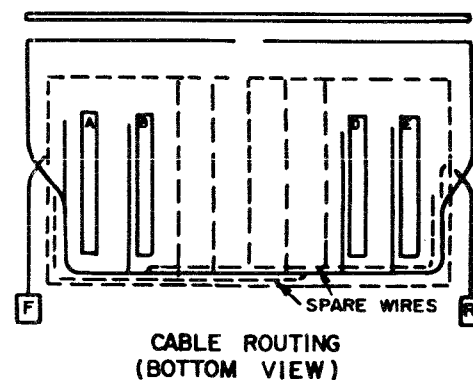
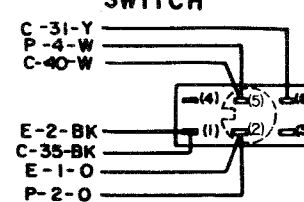
R TYPING UNIT CONNECTOR PLUG



N MARGIN INDICATOR LAMP RESISTOR



Q POWER SWITCH



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

APPROVALS

D AND R	E OF M
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E-NUMBER

PROD. NO. 2874WD

DATE 2-20-54

P.D. FILE NO. 2-30.65.156A

DRAWN N.A.R. CHKD.

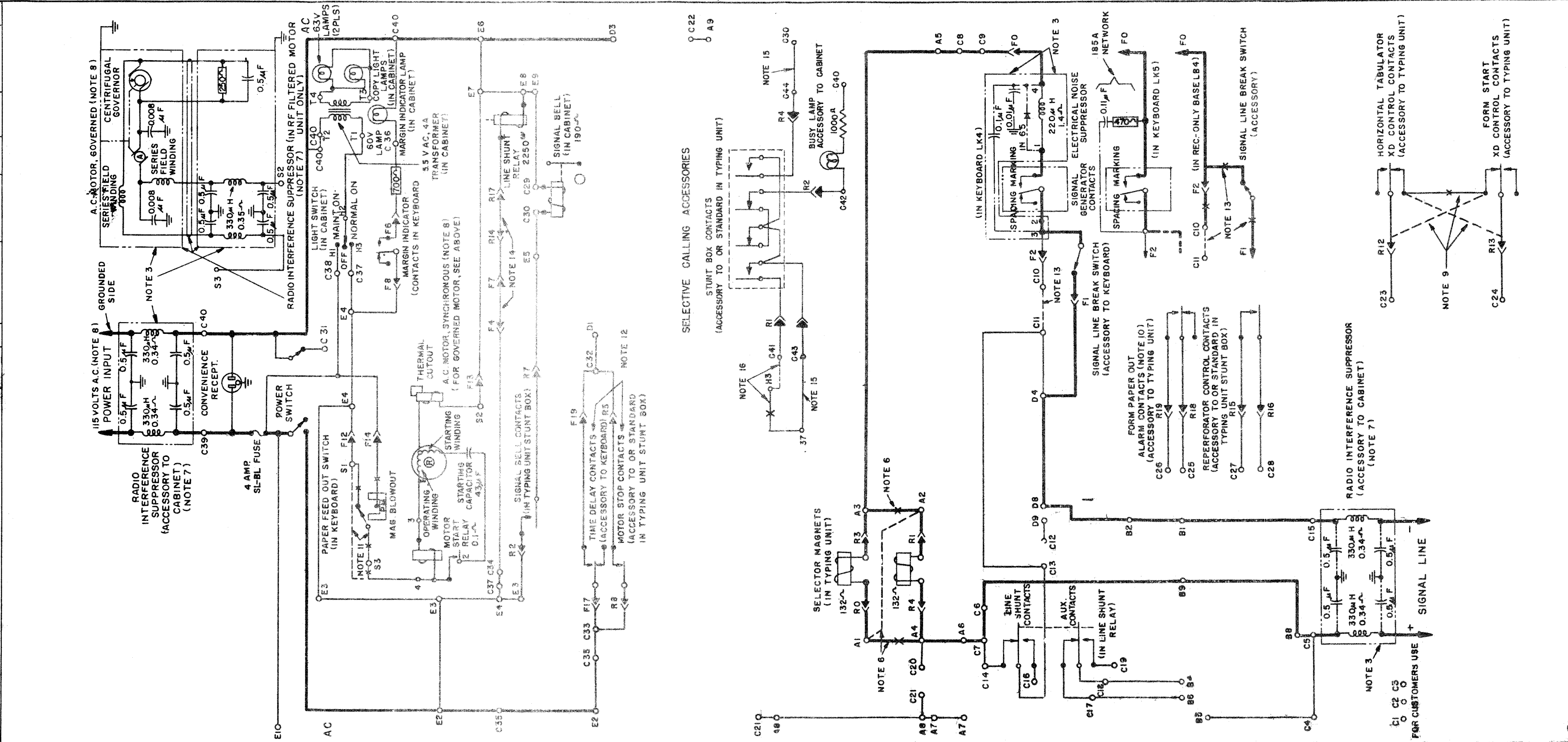
ENGD. G.A.O. APPD.

TELETYPE CORPORATION

2874WD

NO.	NOTES	NO.	NOTES
	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS, SEE: WDNUMBER UNITS DIRECTLY OPERABLE WITH LESU 7	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 C25 AND C26
1	2883WD BASE, RECEIVING ONLY - LB4 3236WD CABINETS - LAG 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	11	WHEN PAPER FEED-OUT SWITCH IS NOT USED, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (X) IN MOTOR POWER CIRCUITS.
2	LEGEND O 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)	12	ASSOCIATED APPARATUS MAY CONTAIN INACTIVE ACCESSORY COMPONENTS
3	DOT DASH --- LINES INDICATE FILTERING SHIELDING AND SUPPRESSION NETWORKS.	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).
4	ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS	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)
5	a RESISTANCE VALUES IN OHMS (Ω) b INDUCTANCE VALUES IN MICROHENRIES (μH) c CAPACITANCE VALUES IN MICROFARADS (μF)	15	CONNECTIONS FURNISHED BY THE CUSTOMER.
6	CIRCUITS SHOW FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION FOR .020 AMP. LINE CURRENT, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (X) IN SELECTOR MAGNET CIRCUIT.	16	WHEN BUSY LAMP AND AUXILIARY TERMINALS ARE USED OMIT CONNECTIONS MARKED (*) AND ADD DASHED (---) CONNECTIONS.
7	a USE POWER AND SIGNAL LINE SUPPRESSORS AND SYNC. OR GOV. FILTER MOTOR FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE. b FOR OTHER INSTALLATIONS, OMIT SUPPRESSORS AND CONNECT INPUTS AND GOV. MOTOR, IF USED, DIRECT TO TERMINALS SHOWN.		
8	USE SYNCHRONOUS MOTOR ON REGULATED 60 V (±1%) A.C. POWER ONLY. GOVERNED MOTOR AND OTHER POWER CIRCUITS OPERABLE ON 50-60V UNREGULATED A.C.		
9	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.		

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 C25 AND C26
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 (*) AND ADD DASHED (---) CONNECTIONS.



2875WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
D	12-30-56	28-7216
E	5-2-57	28-7593
F	7-11-57	28-7723
G	3-18-58	28-7880
H	11-20-58	78859

SCHEMATIC WIRING DIAGRAM
MODEL 28
PAGE PRINTER SET
WITH FACILITIES PROVIDED
BY
ELEC SERVICE UNIT
LESU 7/184
AND ASSOCIATED UNITS
DRAWN BY: [Name]
CHECKED BY: [Name]
TELETYPE CORPORATION
2875WD

2878WD

REVISIONS		
ISSUE	DATE	AUTH. NO.
(A) 2	9-15-54	28-4872
3	1-26-55	28-4936
4	2-28-55	28-5008
5	3-4-55	28-5047
6	3-30-55	28-5192
7	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

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

RTTY ELECTRONICS
TELETYPE=Sales-Service-Parts
PO Box 20101 El Sobrante, Ca.
94820. (510)222-3102
mr_rtty@pacbell.net

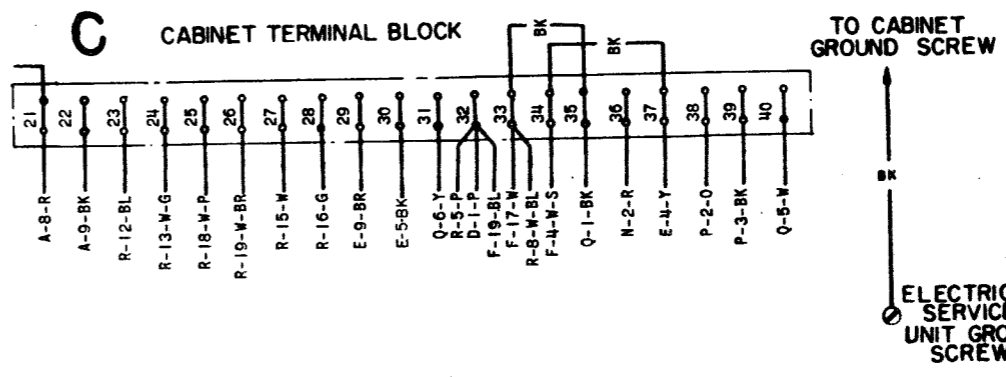
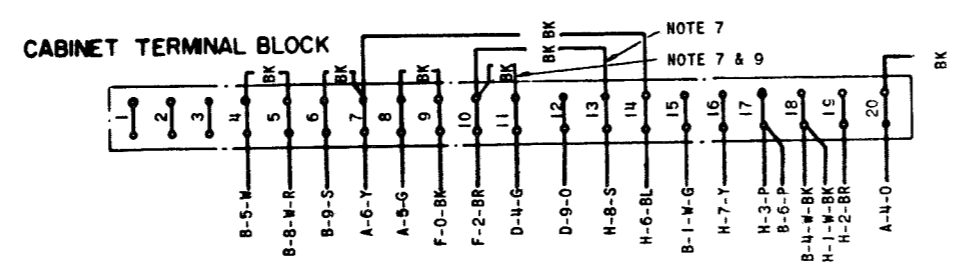
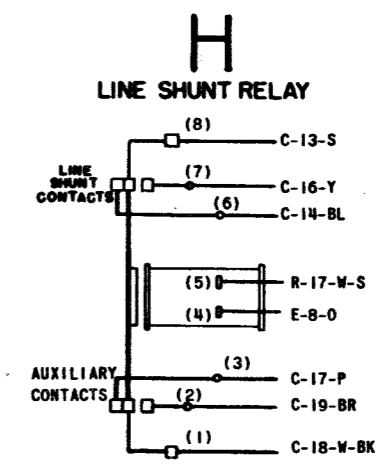
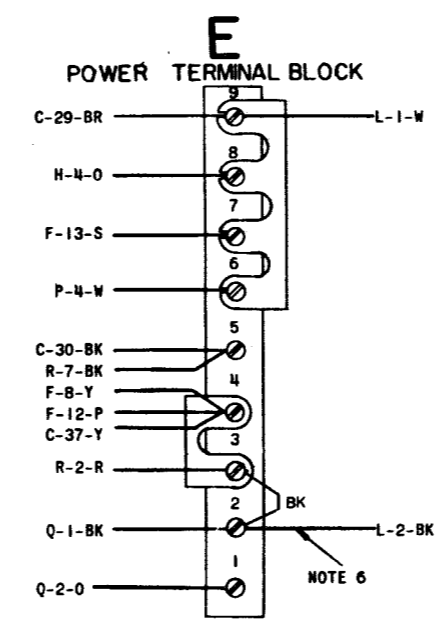
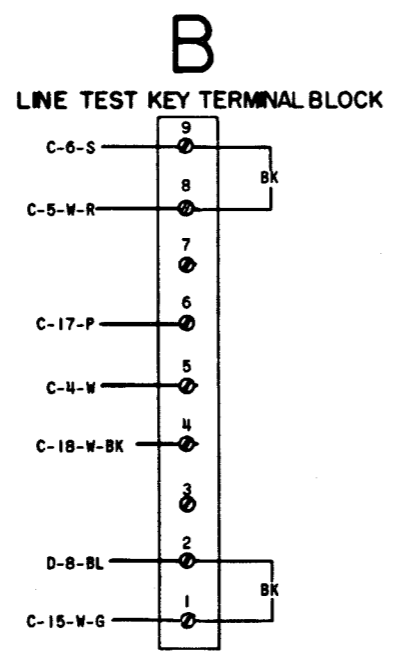
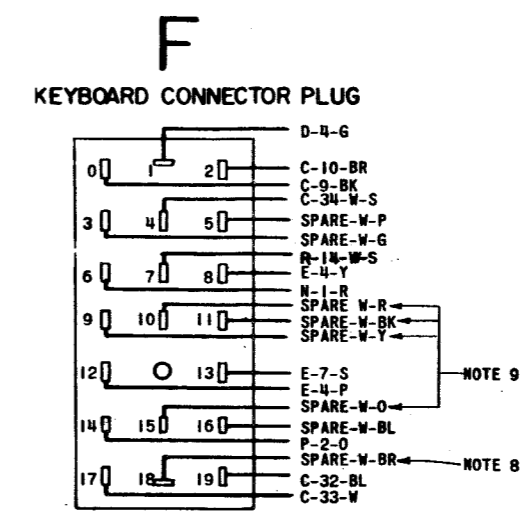
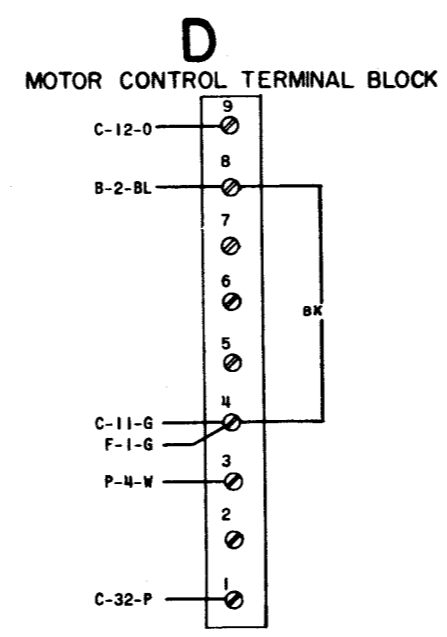
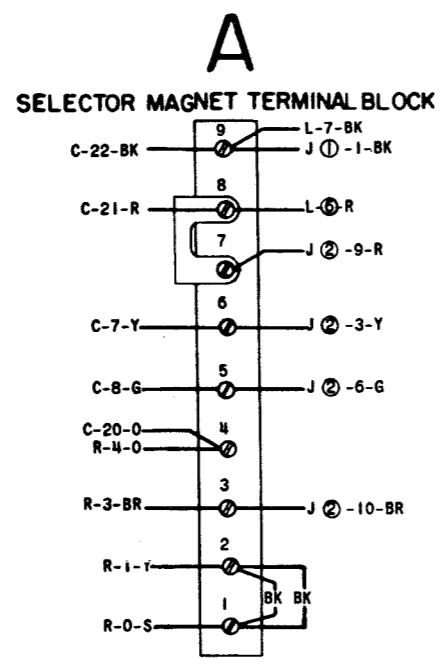
SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.
SHEET 1

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT LESU7/134, 151	
APPROVALS	
D AND R	E OF M
-----	-----
E-NUMBER	
PROD. NO. 2878WD	
DATE 2-20-54	
P.D. FILE NO. 2-30.65.156A	
DRAWN H.K.G.	CHKD.
ENSD. R.H.K.	APPD.
TELETYPE CORPORATION	
2878WD	

- NO. NOTES
1. WIRING LEGEND:
 2. COLOR CODE:

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, 50 TO 60 CYCLE - AC POWER INPUT ONLY.
 4. PLUGS 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:

SIGNAL LINE CURRENT	CONNECTION REMOVED	CONNECTIONS ADDED
.020 AMP.	J ①-1	J ①-3 J ①-4
 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.
 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.
 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 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-O TO R-10-W-O CONNECT C-10 TO C-11.
 10. FOR SCHEMATIC WIRING DIAGRAM SEE 2879WD.



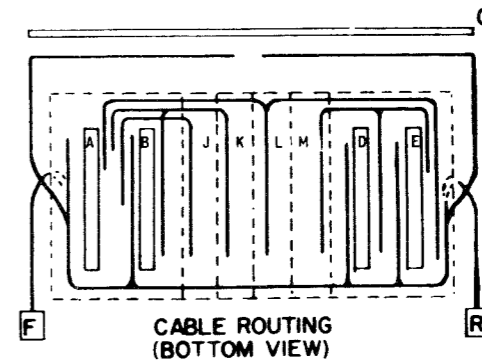
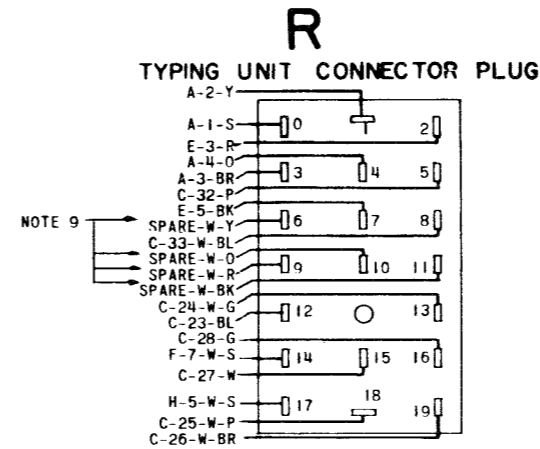
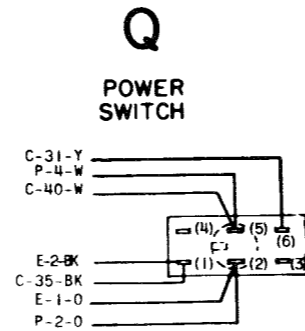
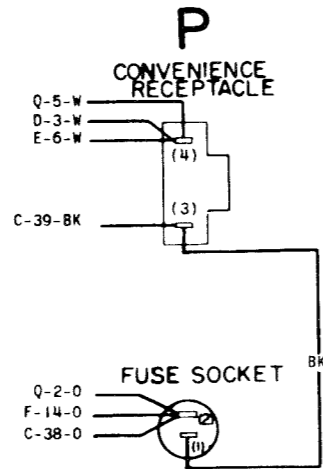
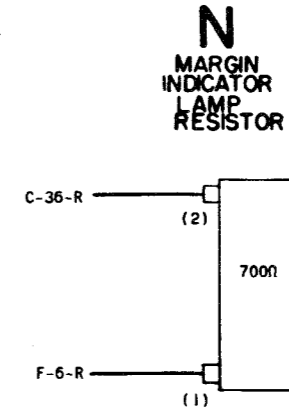
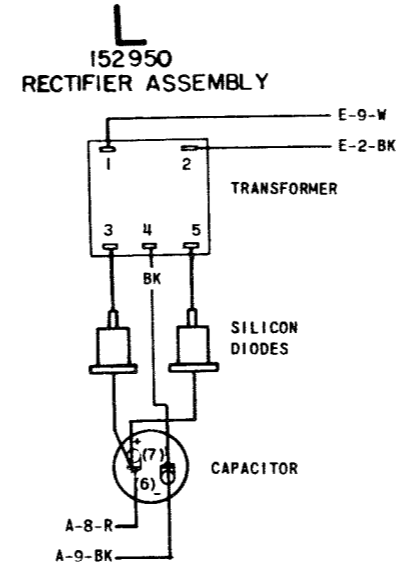
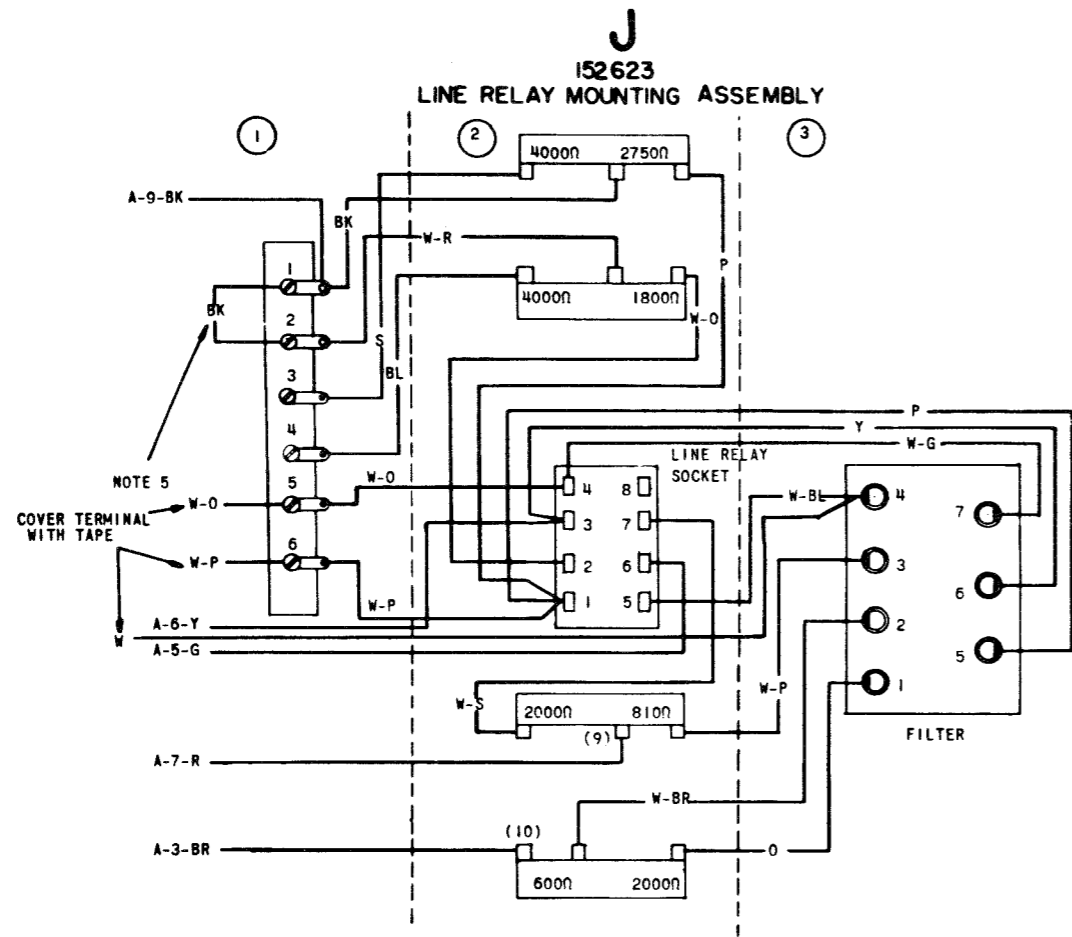
SEE SHEET 1 FOR NOTES

NOTE:
REVISION INFORMATION MUST
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	28-4926
4	2-28-55	28-5008
5	3-4-55	28-5047
6	3-30-55	28-5192
7	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: *H.K.G.*
E OF M: *[Signature]*

E-NUMBER

PROD. NO. 2878WD

DATE 2/20/64

P.D. FILE NO. 2-30.65.156A

DRAWN H.K.G. CHKD.

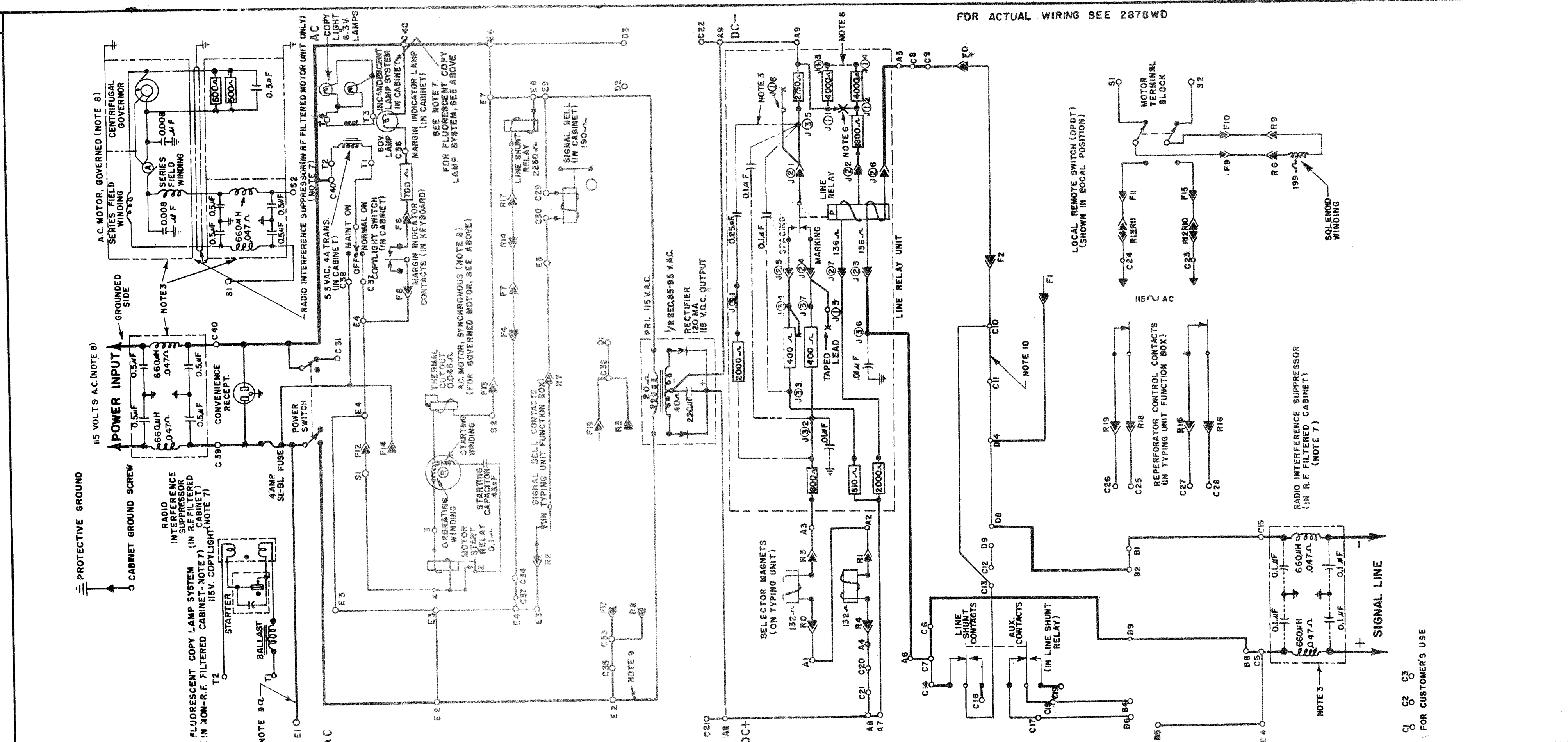
ENGD. R.H.K. APPD.

TELETYPE
CORPORATION

2878WD

NO	NOTES
1	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS, SEE: WD NUMBER UNITS DIRECTLY OPERABLE WITH LESU 7
2	LEGEND <ul style="list-style-type: none"> ○ 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 COPYRIGHT 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 .050 AMP NEUTRAL SIGNAL LINE OPERATION. FOR .020 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
2	LEGEND <ul style="list-style-type: none"> ○ 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 COPYRIGHT 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 .050 AMP NEUTRAL SIGNAL LINE OPERATION. FOR .020 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

REVISIONS		
DATE	DATE	AUTH. NO.
11-17-57	28-7723	
3-4-58	28-11509	
20-11-58	28-14524	
1-27-59	69781-15	
12-31-59	71960	
5-24-60	69768-10	
11-16-62	75143	
11-22-63	78059	
11-3-66	89875	

SCHEMATIC WIRING DIAGRAM
ELECTRICAL SERVICE UNIT
LESU 7/134, 151 8
ASSOCIATED MODEL 28 APPARATUS

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

DATE: 10-17-54

PD. FILE NO. 2-3085, 180

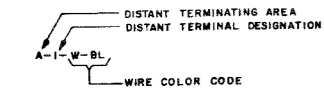
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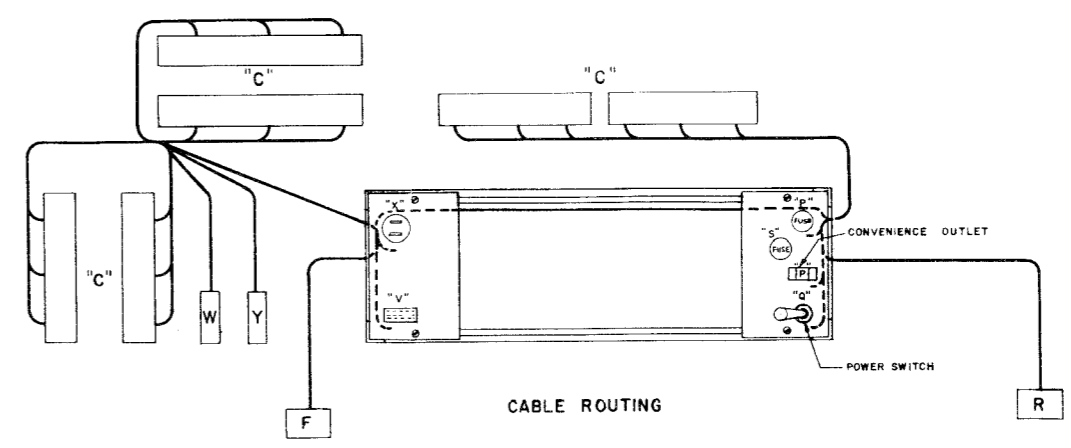
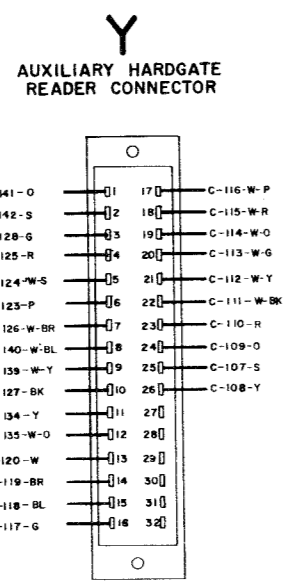
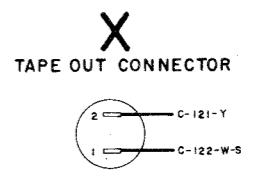
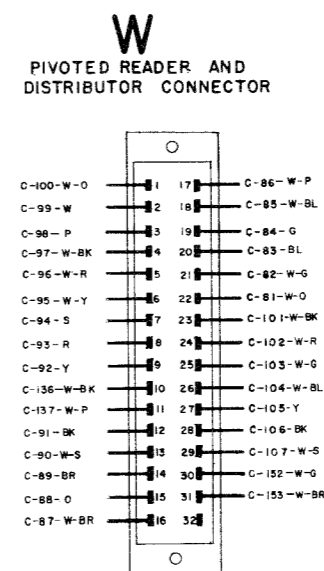
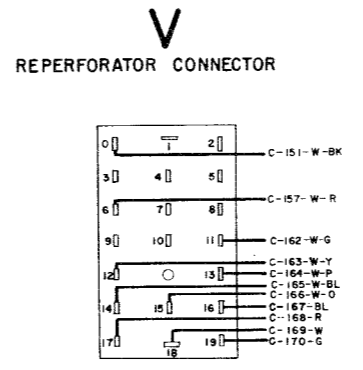
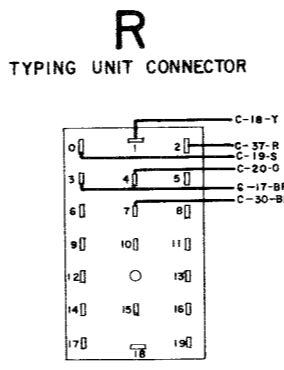
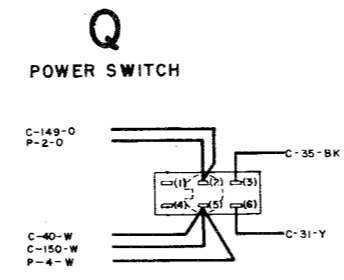
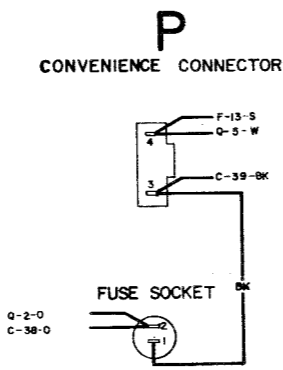
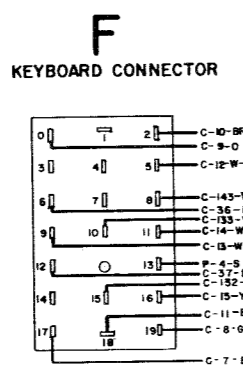
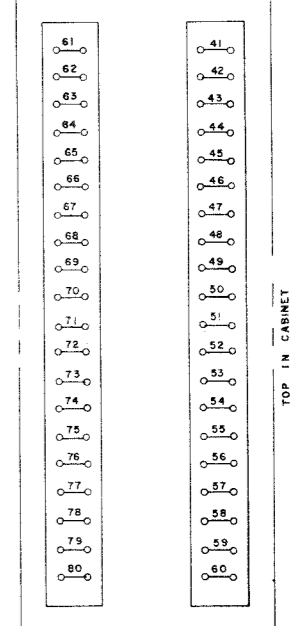
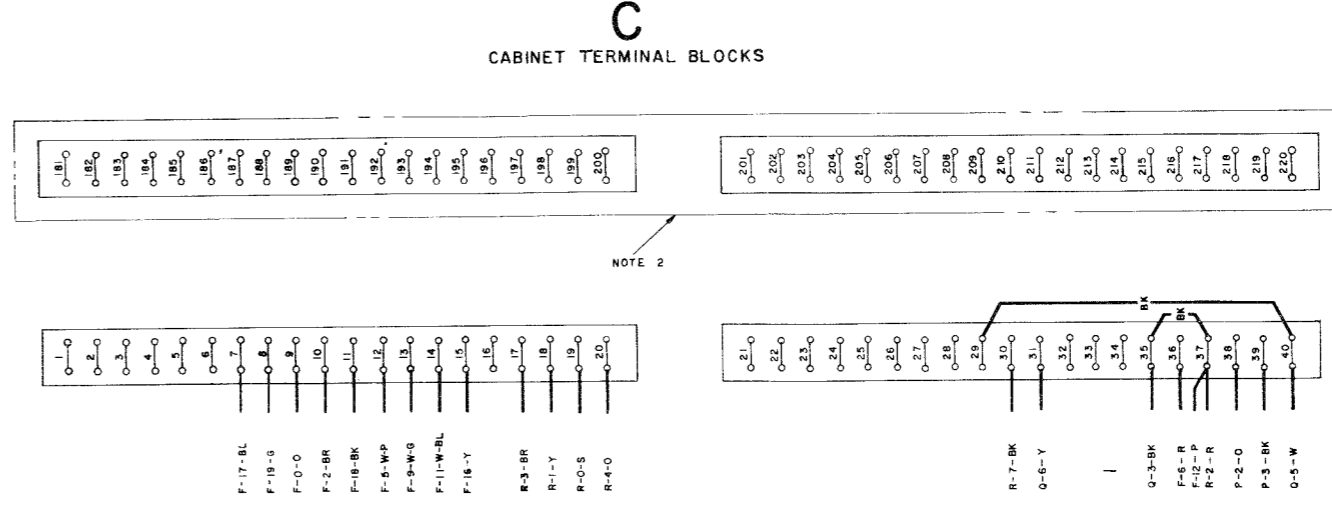
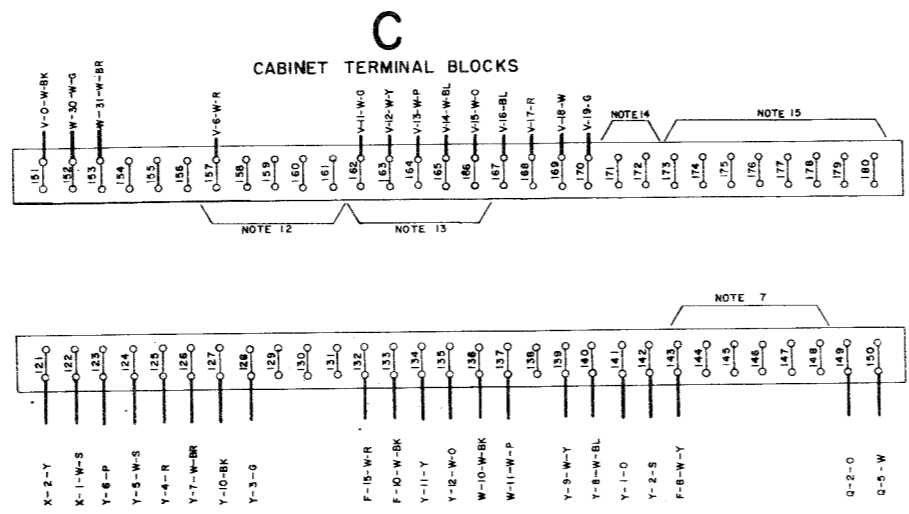
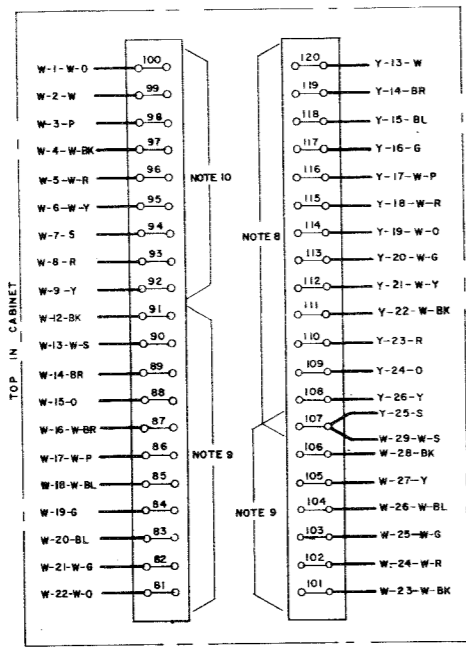
ENG. BY: [Signature]

TELETYPE CORPORATION
2879WD

FOR CUSTOMER'S USE

3286WD		
REV.	DATE	AUTH. NO.
A	5-5-57	TP-1637
B	7-1-57	TP-2000
C	8-5-57	TP-2000
D	10-6-57	28-7958
E	12-26-57	TP-2977
F	3-20-61	59288
G	11-6-61	71508
H	1-27-61	67766

- NOTES**
- FOR USE WITH SELECTIVE CALL ONLY.
 - SUPPLIED IF REQUESTED BY CUSTOMER.
- WIRING LEGEND:**
- 
- 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 WIRED 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-120 RESERVED FOR HARDGATE READER.
 - TERMINALS C-101 TO C-107 & C-81 TO C-91 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-162 TO C-166 RESERVED FOR PUNCH MARKING CONTACTS.
 - TERMINALS C-171 TO C-173 RESERVED FOR KEYBOARD SELECTOR MARKETS.
 - TERMINALS C-173 TO C-180 RESERVED FOR TYPING KEYBOARD REPERFORATOR FUNCTION CONTACTS.



APPROVALS

D AND E OF M
 E NUMBER
 PROD. NO. 3286WD
 ACTUAL WIRING DIAGRAM
 MODEL 28
 ELECTRICAL SERVICE UNIT
 ASR - SR
 LESU 11

DATE: 1-5-57
 P.D. FILE NO.
 DRAWN BY: J.L. APPS
 ENGR. J.L. APPS
 TELETYPE CORPORATION
 3286WD

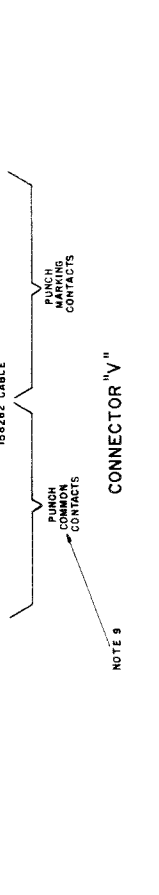
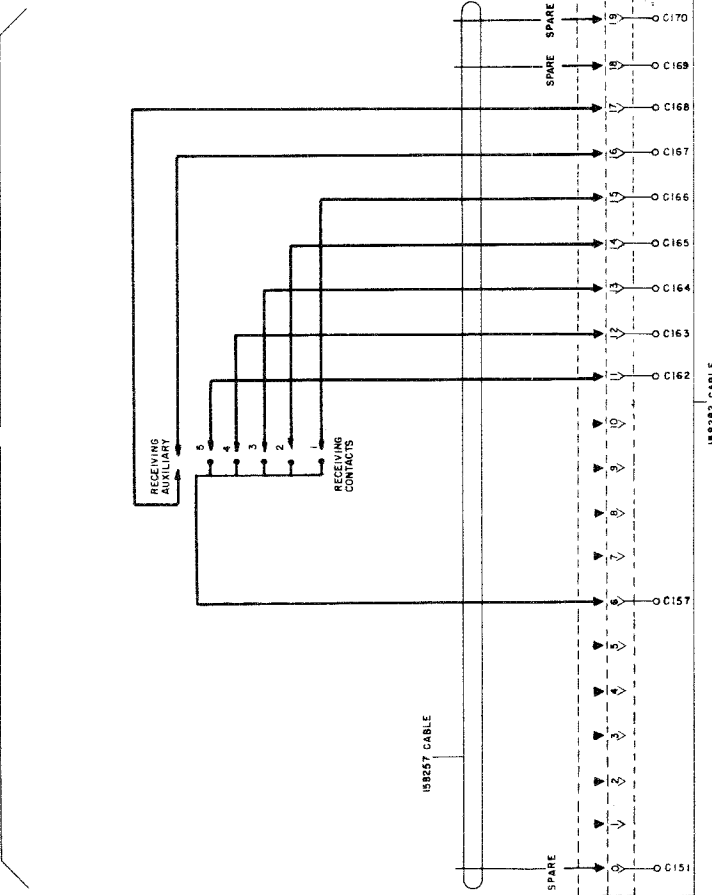
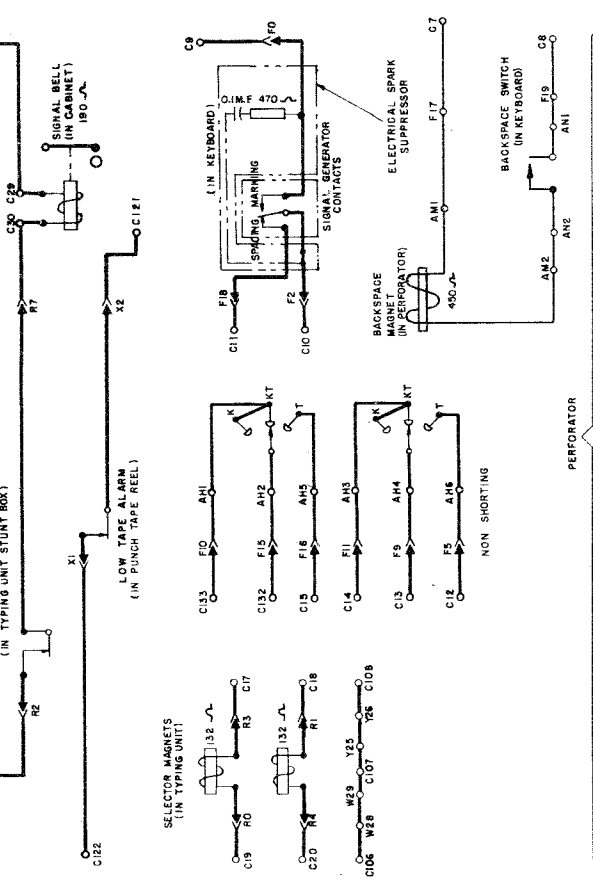
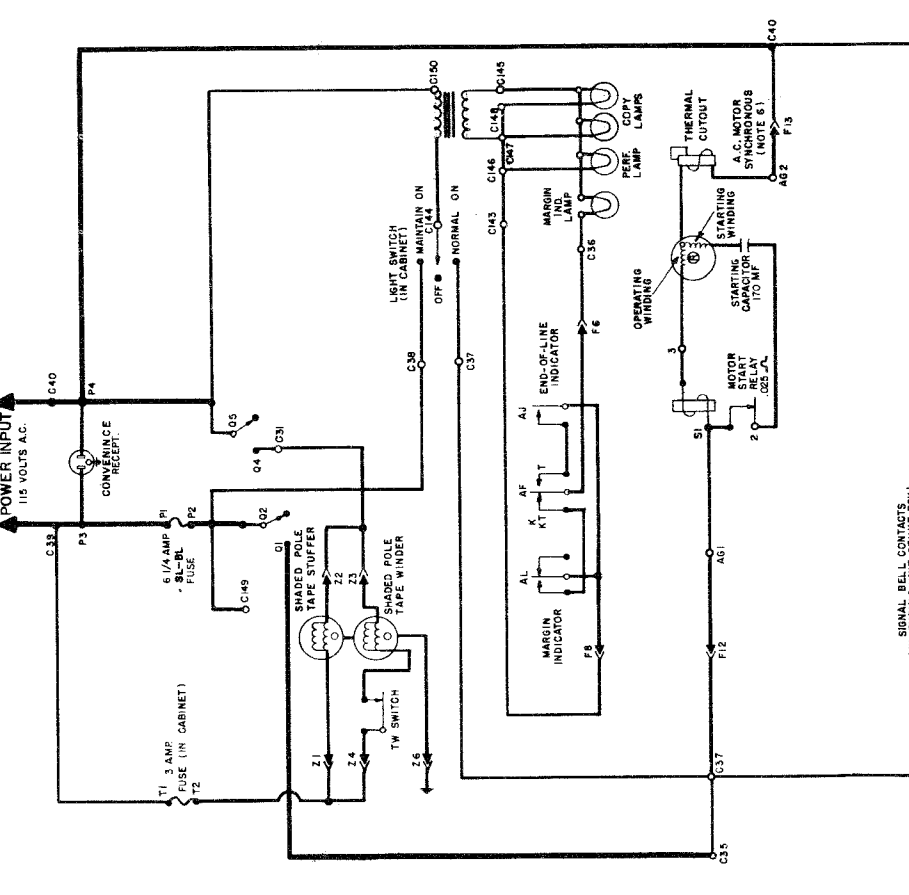
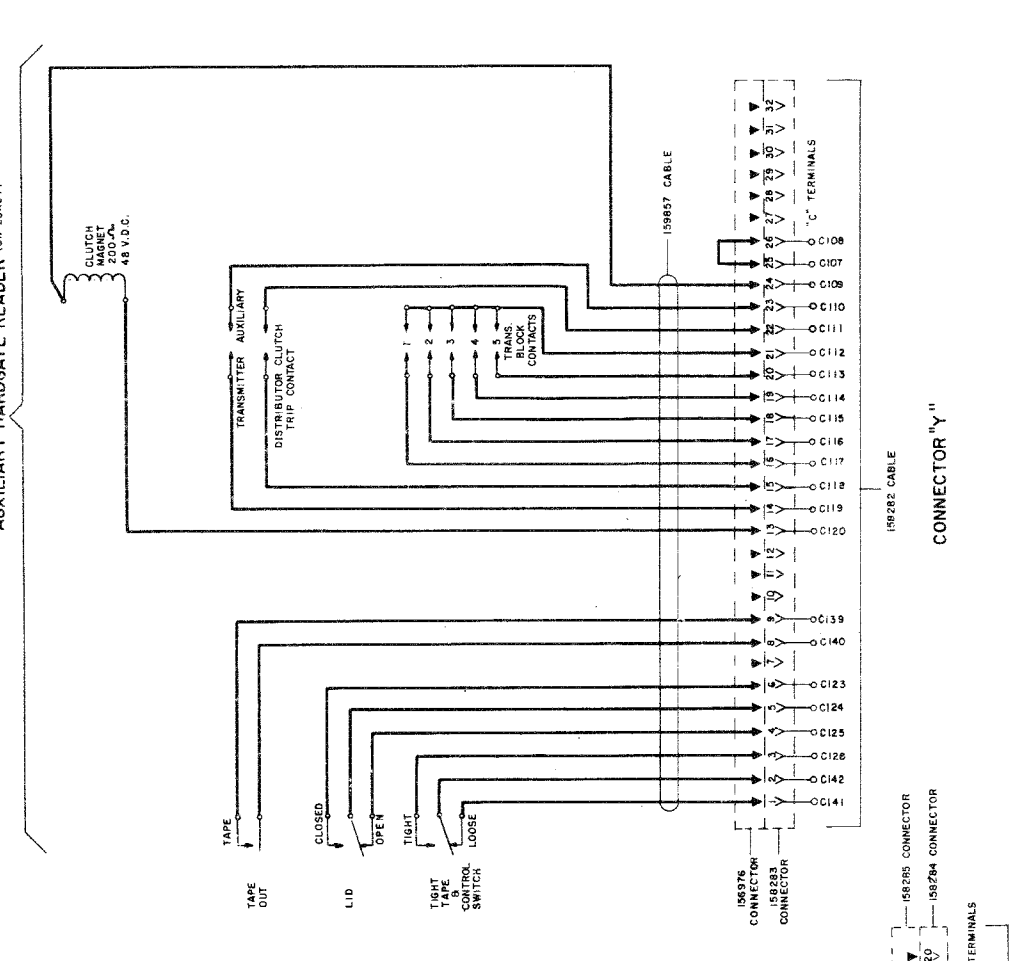
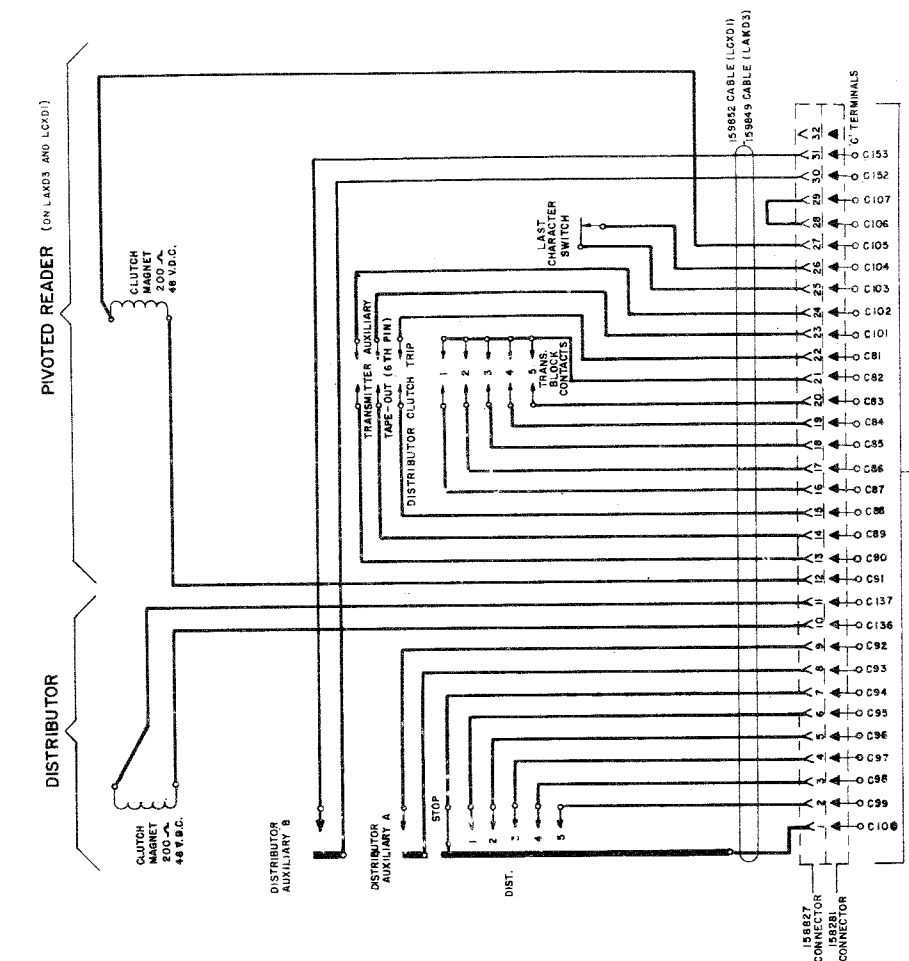
d/33-C

10 P4X 2014

D-8215 K 2014

- NOTES**
- FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE:
- WD NUMBER UNITS DIRECTLY OPERABLE WITH LESU
 - 3264WD CABINETS-LAC 201-202
 - 3266WD ELECTRICAL SERVICE UNIT LESU II
 - 3282WD KEYBOARDS-LAK 2
 - 3300WD MOTOR UNITS-LMU
 - 3280WD PAGE TYPING UNITS-LPG
 - 3284WD PAGE TYPING UNITS-LP
 - 3288WD TRANSMITTER DISTRIBUTOR-LCXDI
 - 3286WD TRANSMITTER DISTRIBUTOR-LAXDS
 - 3303WD PERFORATOR LPE-2
- LEGEND:**
- C CABINET TERMINAL BLOCK
 - △ F KEYBOARD CONNECTOR
 - R TYPING UNIT CONNECTOR
 - ◀ W TRANSMITTER DISTRIBUTOR CONNECTOR
 - AG MOTOR TERMINAL BLOCK (ON LAK)
 - AN AUXILIARY SWITCH TERMINAL BLOCK (ON LAK)
 - ◀ Z TWO 8 TAPE STUFFER RECEIPTS 8 PLUGS IN CABINET
 - ◀ Y AUXILIARY HARDGATE READER CONNECTOR
3. DOT DASH --- LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.
4. ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.
5. RESISTANCE IN OHMS (Ω).
6. INDUCTANCE VALUES IN MICROHENRIES (MH).
7. CAPACITANCE VALUES IN MICROFARADS (MF).
8. USE POWER SIGNAL LINE SUPPRESSOR AND SYNC OR GOV. - FILE MOTOR FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE.
9. FOR OTHER INSTALLATIONS, OMIT SUPPRESSORS AND CONNECT INPUTS AND GOV. MOTOR DIRECTLY TO TERMINALS SHOWN.
10. SPARE LEAD FROM F IS RESERVED FOR POLAR OPERATION OF SIGNAL GENERATOR.
11. PUNCH COMMON CONTACTS ARE STRAPPED AT SWITCH AND BROUGHT OUT ON TERMINAL V.
12. WHEN LESU II IS USED WITH LAXD, PLUS "Y" IS NOT CONNECTED BUT IS TAPED TO THE LESU CHASSIS. ADD STRAP FROM C107 TO C104.

- ASSOCIATED CABLES**
- 159852 (LCXD1)
 - 159282 (LESU11)
 - 159849 (LAXD3)
 - 159857 (LCXD1)
 - 159257 (LPE-2)

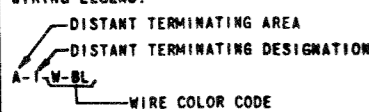


3292 WD

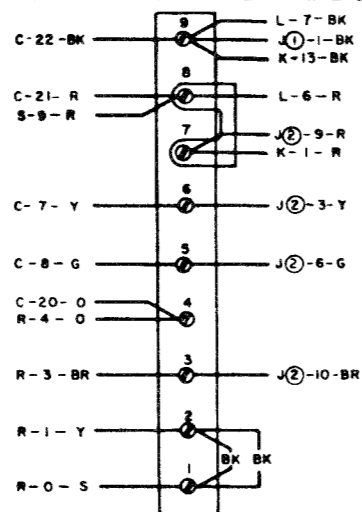
REVISIONS

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

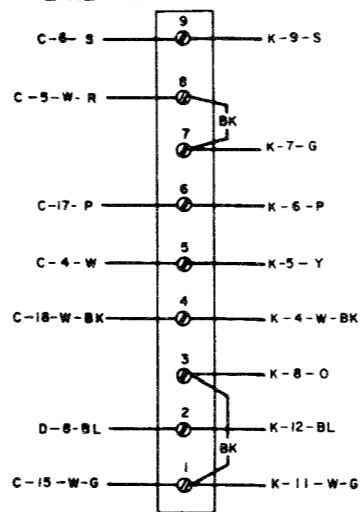
NOTE:
REVISION INFORMATION MUST
ALSO BE REFLECTED ON THE
ISSUE CONTROL RECORD, WHICH
IS A PART OF THIS DRAWING.

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 .020 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,
J ①-1-① 2 | J ① 3-J ① 4 |
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 PERFORMATOR LOW-TAPE SWITCH.
14. CONTACTS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.
15. WHEN L8XD IS USED IN PLACE OF LXD, MAKE THE FOLLOWING CHANGES:
 OMIT CONNECTIONS ADD CONNECTIONS
 C-142 TO C-150
 C-131 TO C-132
16. WHEN LXD5 IS USED, REMOVE THE STRAP BETWEEN TERMINALS C-135 - C-136. ADD TWO STRAPS, ONE BETWEEN TERMINALS C-23 - C-135 AND ONE BETWEEN C-24 - C-136
17. WHEN THE LXD 11 IS USED DO NOT INSTALL STRAPS BETWEEN TERMINALS C141 AND C142 OR C131 AND C132. THE INTERNAL CLUTCH MAGNET INPUT SHOULD BE CONNECTED TO TERMINALS C132 & C141. RESISTANCE PER COIL 210 OHMS.

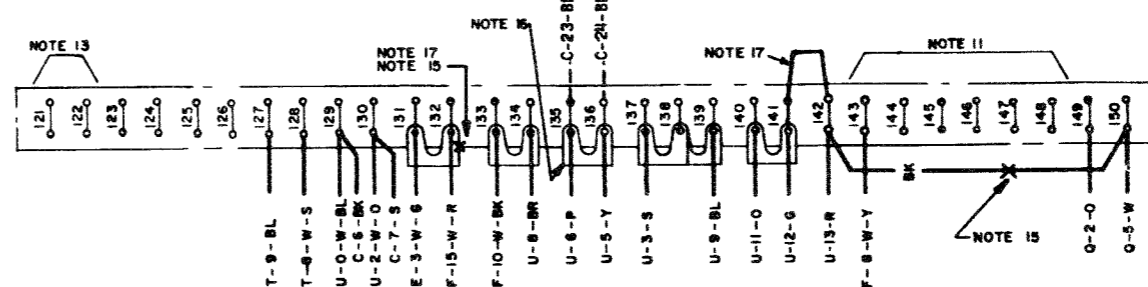
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SELECTOR MAGNET TERMINAL BLOCK



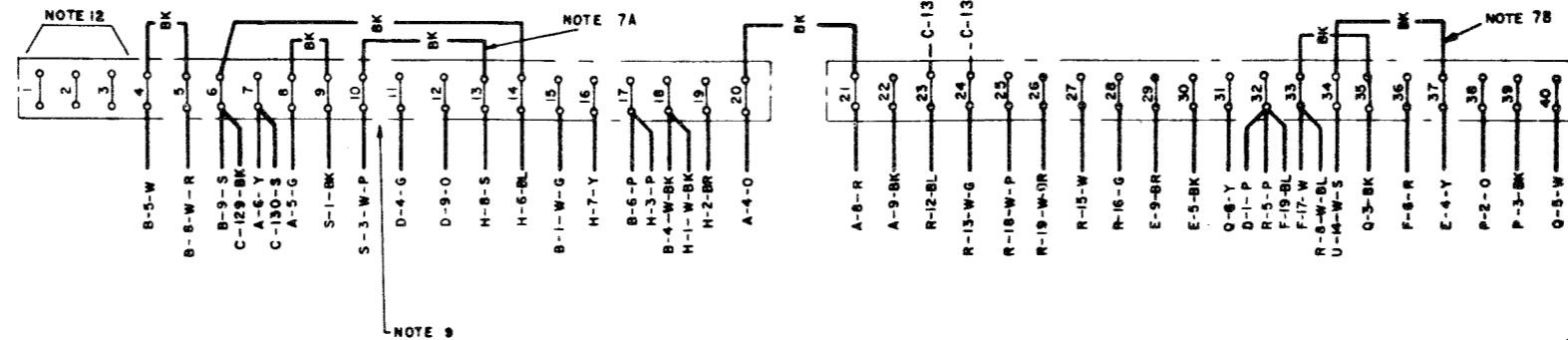
B
LINE TEST KEY TERMINAL BLOCK



C
CABINET TERMINAL BLOCK



C
CABINET TERMINAL BLOCK

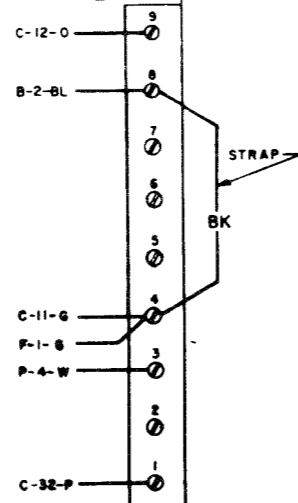


TO CABINET
GROUND SCREW

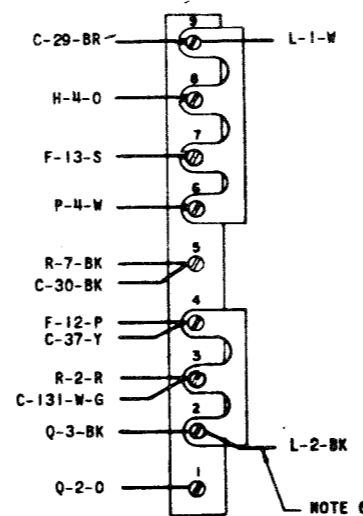
ELECTRICAL
SERVICE
UNIT GROUND
SCREW

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

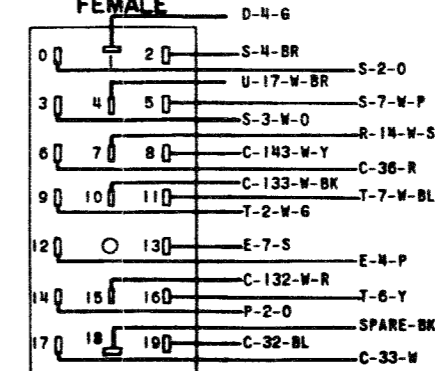
D
MOTOR CONTROL
TERMINAL BLOCK



E
POWER TERMINAL BLOCK



F
KEYBOARD CONNECTOR
FEMALE



SHEET 1

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

APPROVALS

D AND R	E OF M
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E-NUMBER

PROD. NO. 3292WD

DATE 10-10-66

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

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

ENGD. H.S.P. APPD.

TELETYPE
CORPORATION

3292WD

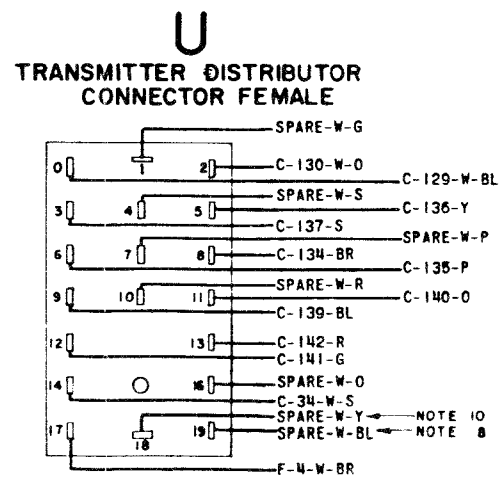
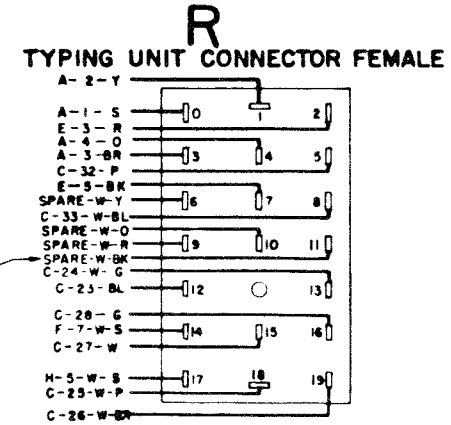
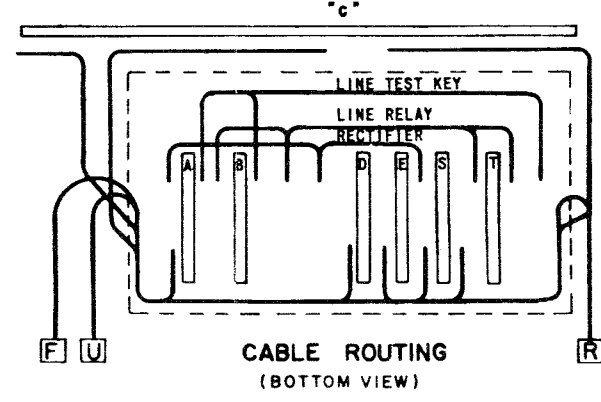
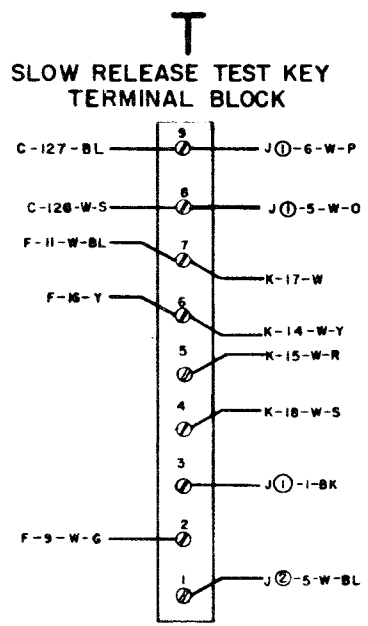
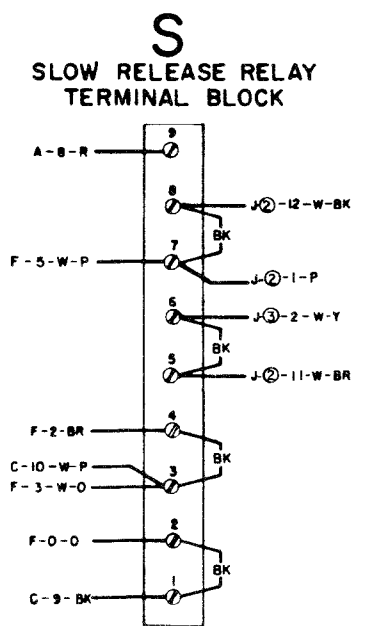
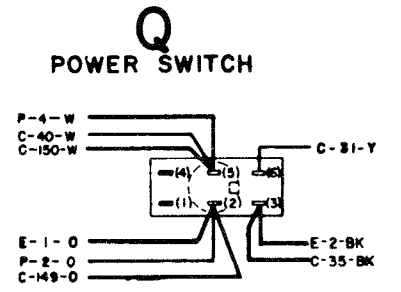
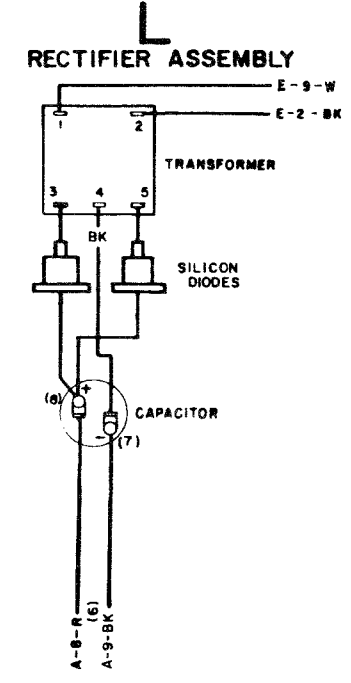
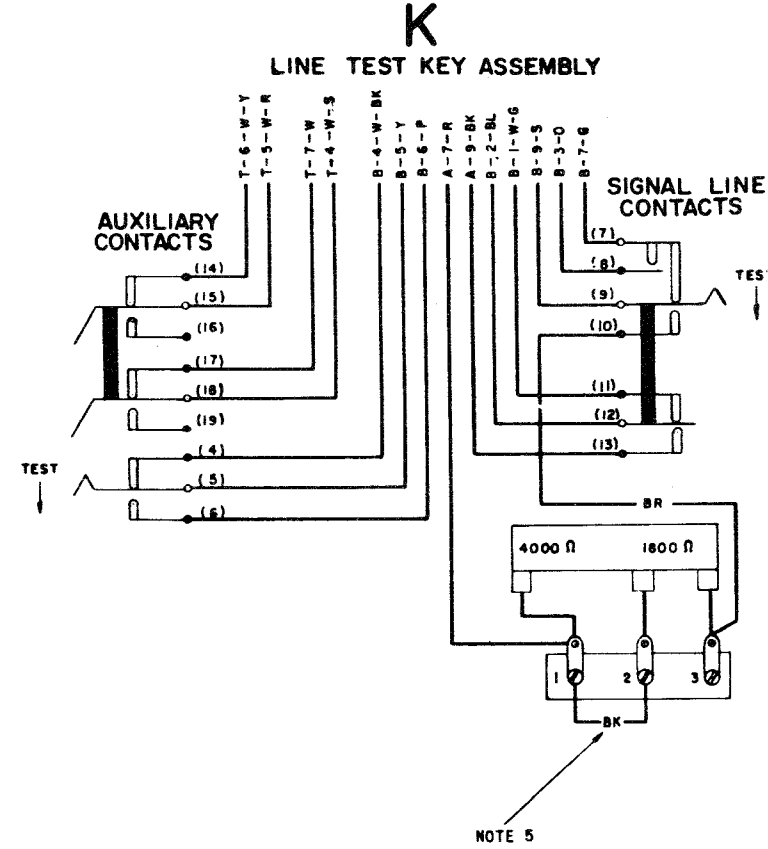
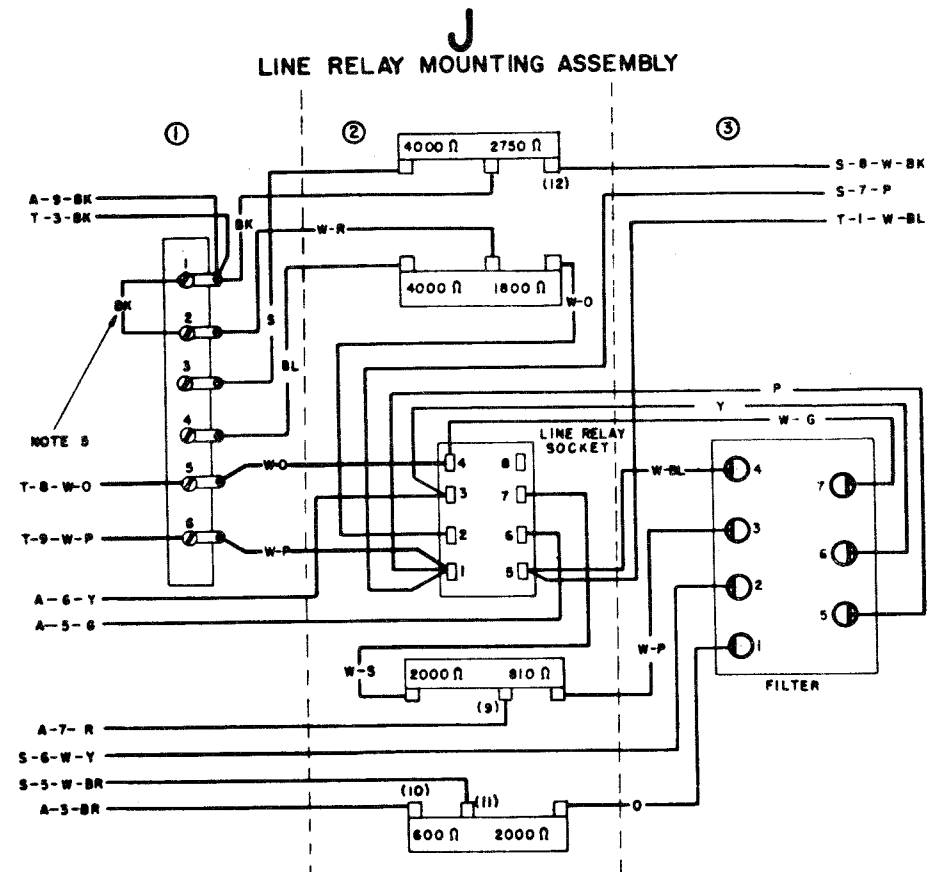
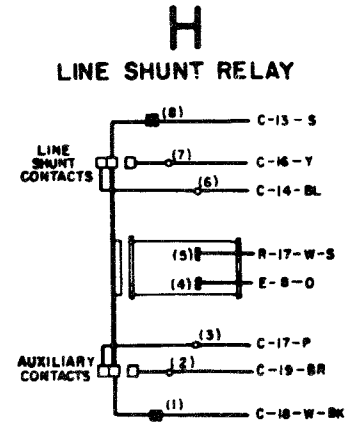
SEE SHEET 1 FOR NOTES.

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

3292WD

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



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

3292WD

3294WD

REVISIONS

ISSUE	DATE	AUTH. NO.
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R	4-21-60	28-12936
518	10-12-60	28-14077
719	4-15-61	68761-33
#20	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 I AC WITH FACILITIES PROVIDED BY ELECT. SERVICE UNIT LESU13 AND ASSOCIATED UNITS

APPROVALS

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

E-NUMBER

PROD. NO. 3294WD

DATE 11-17-59

P.D. FILE NO. 27-A65AA

DRAWN A.C. CHKD.

ENBD. APPD.

TELETYPE CORPORATION

3294WD

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-LBXD6 |
| 3462WD | TRANSMITTER DISTRIBUTOR BASE -LCXB7 |
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 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 COMM (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 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, 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. GES.
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 137 TO 141 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.

REVISIONS		
ISSUE	DATE	AUTH. NO.
Q	3-30-60	28-12924
R	4-21-60	28-12936
S18	10-12-60	28-14077
719		68761-33
W20		
21	3-28-62	69768-10
22	11-26-63	78875
23	2-11-64	79910
24	8-28-64	82637

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

APPROVALS

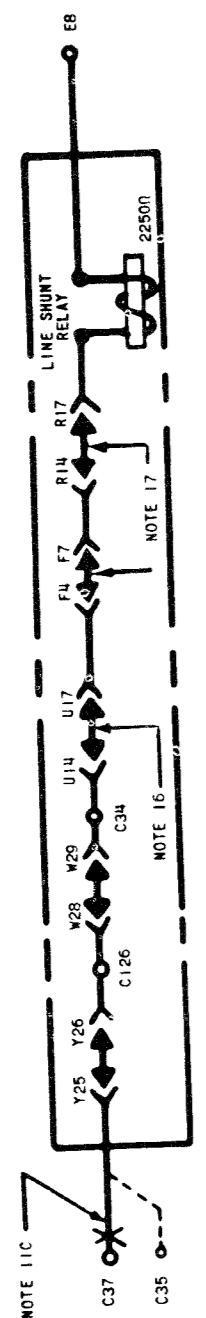
D AND R *[Signature]* E OF M *[Signature]*

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

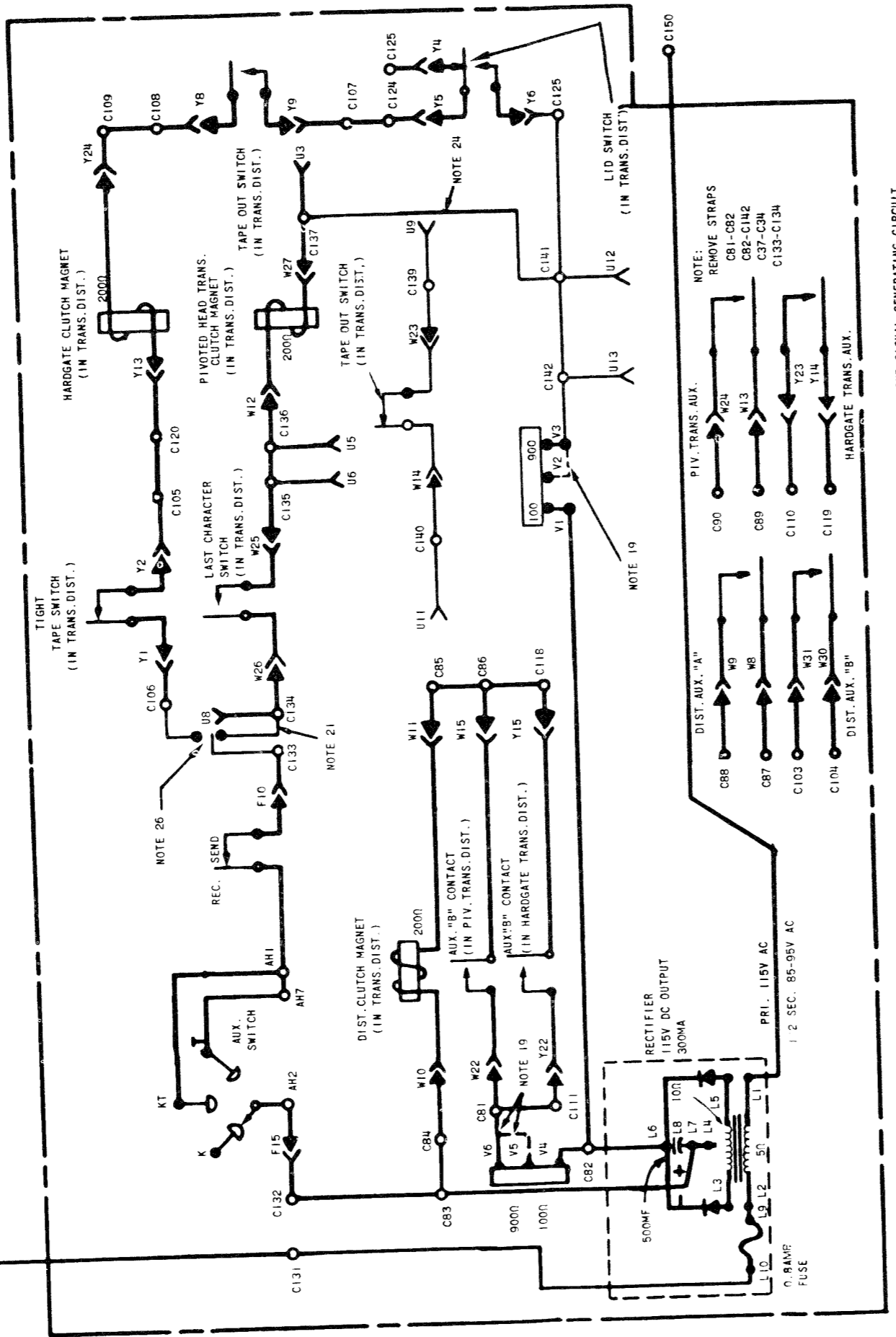
TELETYPE CORPORATION

SEE SHEET 1 FOR NOTES

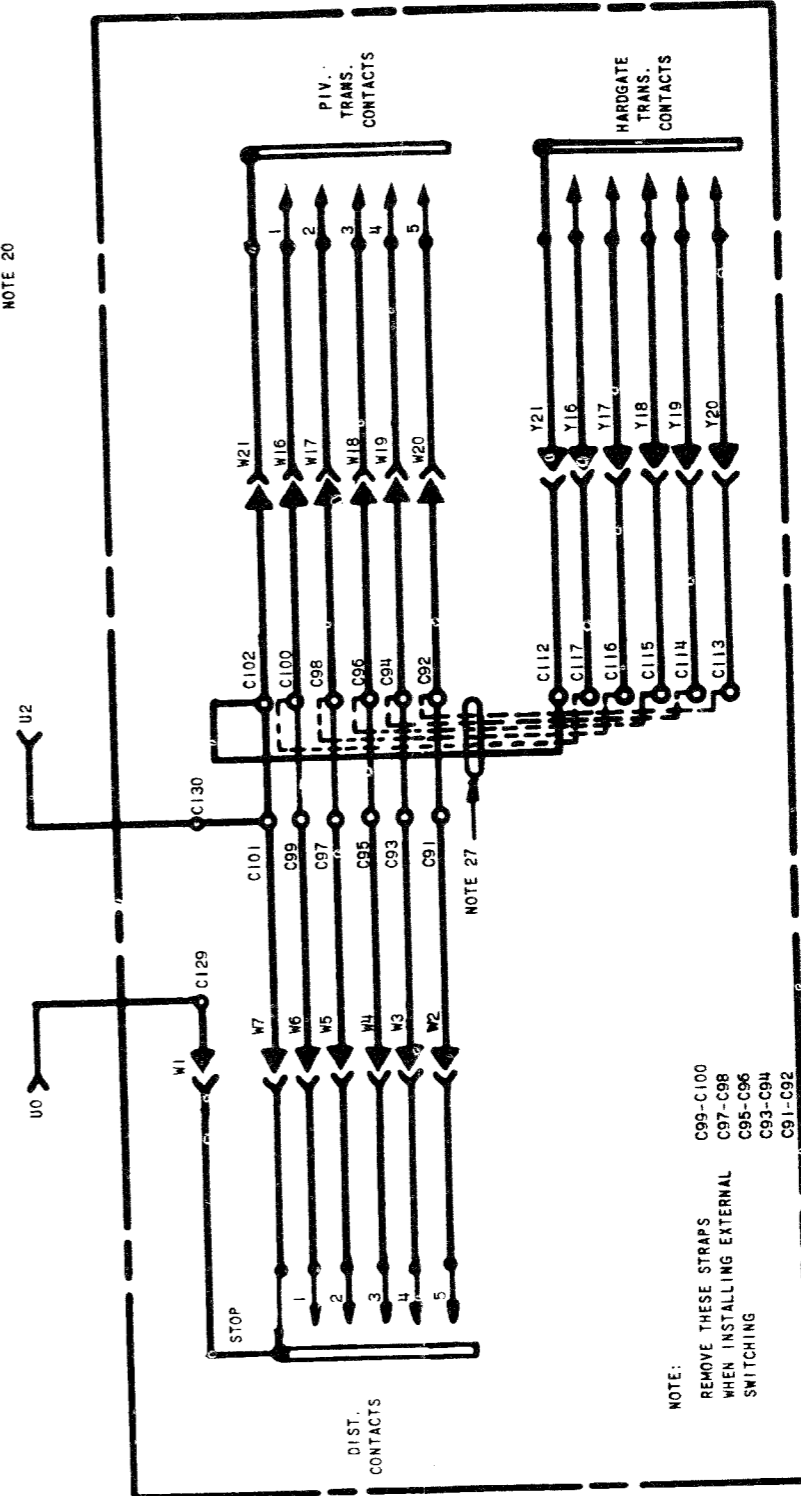
LCXD LINE SHUNT CIRCUIT
NOTE 20



LCXD TRANS. DIST. CIRCUIT
NOTE 20



LCXD SIGNAL GENERATING CIRCUIT
NOTE 20



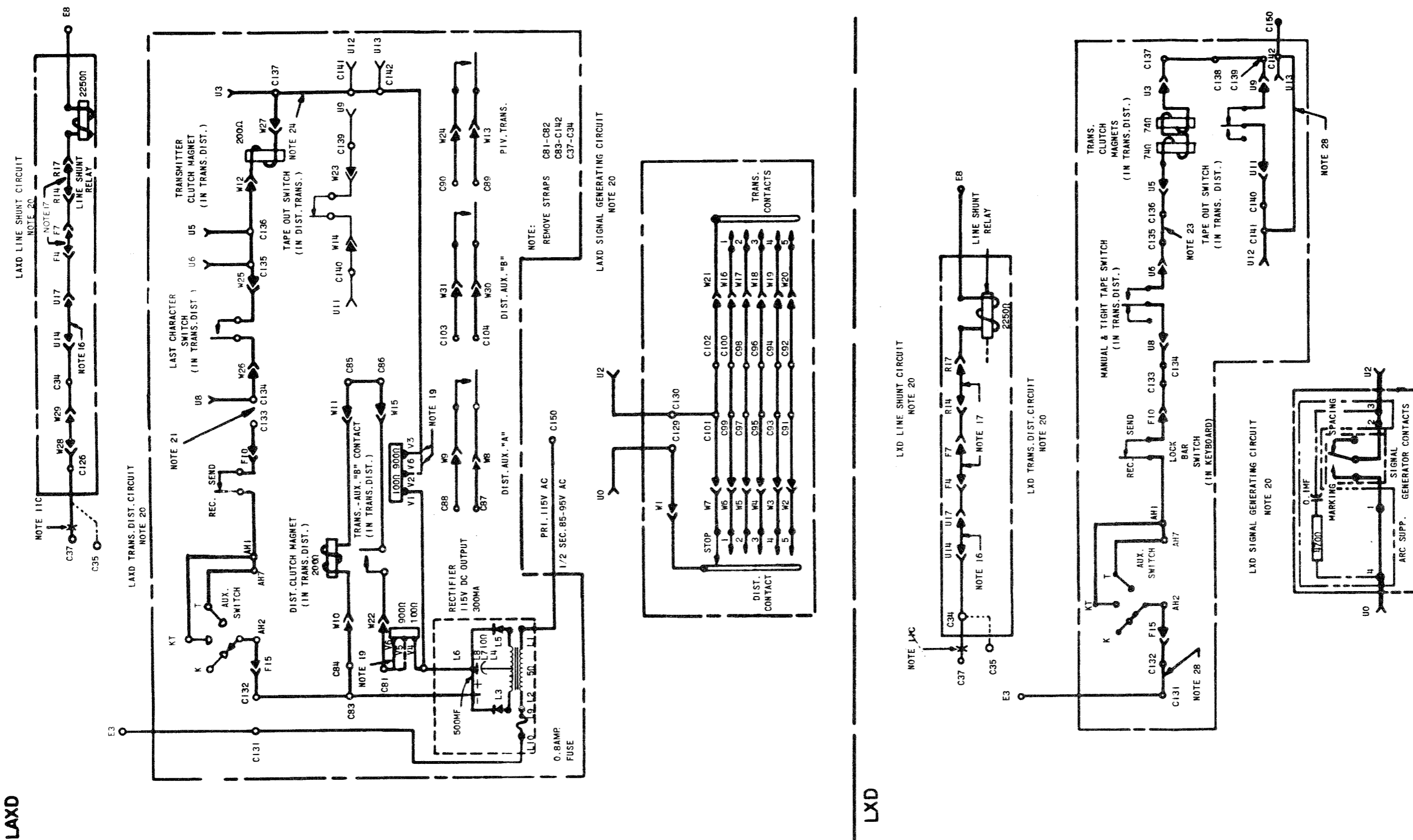
NOTE:
 REMOVE THESE STRAPS C99-C100
 WHEN INSTALLING EXTERNAL C97-C98
 AND ASSOCIATED C95-C96
 SWITCHING C93-C94
 C91-C92

LCXD

REVISIONS

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V20		
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23	2-11-64	79910
24	8-28-64	82637

SEE SHEET 1 FOR NOTES



SHEET 4 OF 6

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

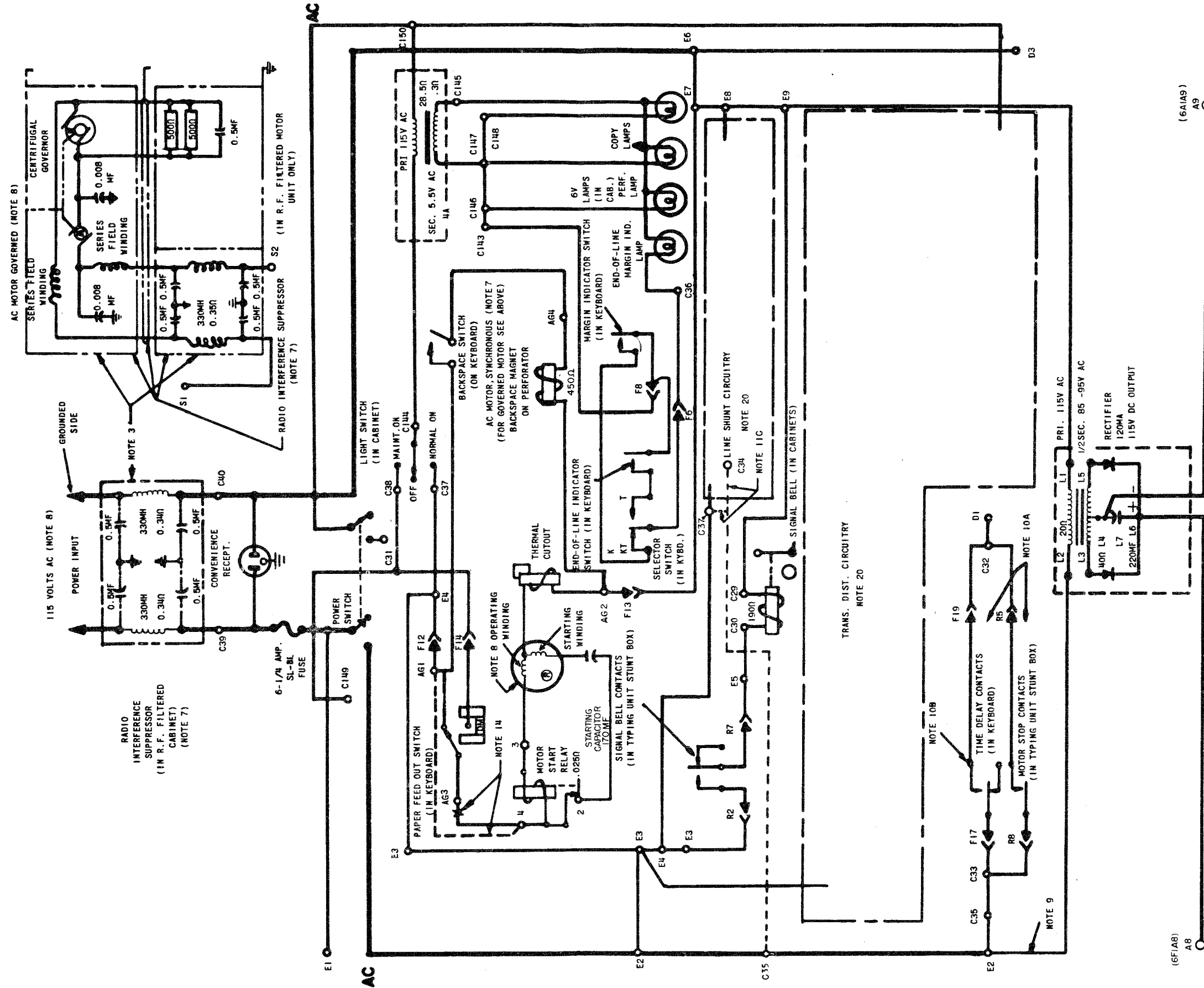
APPROVALS

D AND R E OF M
ARK *✓*

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

TELETYPE CORPORATION

SEE SHEET 1 FOR NOTES



3294WD

REVISIONS

ISSUE	DATE	AUTH. NO.
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719	4- -61	68761-33
W20		
21	3-28-62	69769-10
22	11-26-63	78875
23	2-11-64	79910
24	8-28-64	82637

SHEET 5 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: *HAX* E OF M: *LN*

E-NUMBER

PROD. NO. 3294WD

DATE 11-17-59

P.D. FILE NO. 27-A65AA

DRAWN A.C. CHKD.

ENGD. APPD.

TELETYPE CORPORATION

3294WD

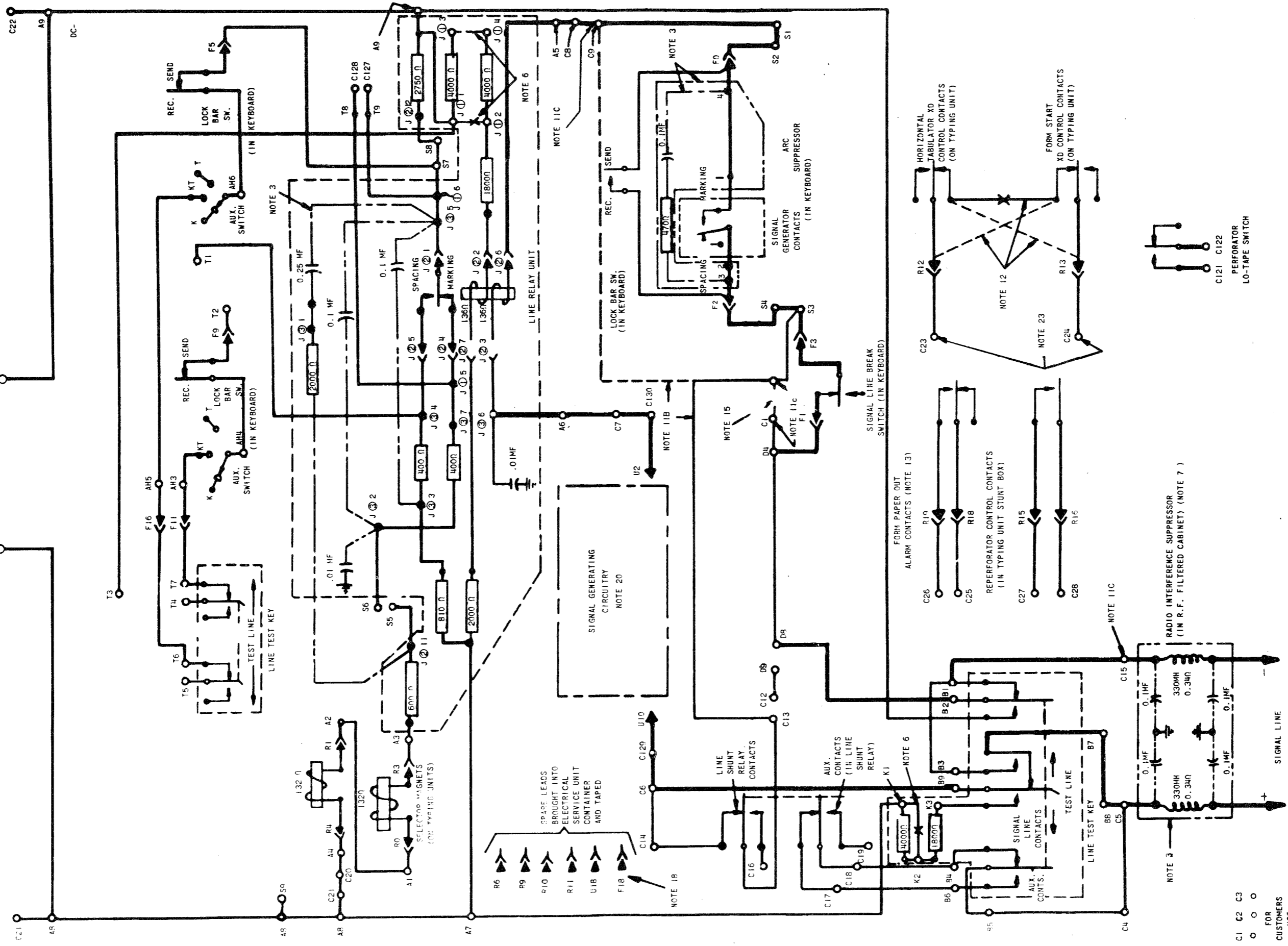
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ISSUE	DATE	AUTH. NO.
0	3-30-60	28-12924
R	4-21-60	28-12936
S18	10-12-60	28-14077
T19	4--61	68761-33
W20		
21	3-28-62	69768-10
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23	2-11-64	79910
24	8-28-64	82637

SEE SHEET 1 FOR NOTES

(508L7) (SHEET 5)

(508L6)



C1 C2 C3
O O O
FOR
CUSTOMERS
USE

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
HJK *U1*

E-NUMBER

PROD. NO. 3294WD

DATE 11-17-59

R.D. FILE NO. 27-A55AA

DRAWN A.C. CHKD.

ENGD. APPD.

TELETYPE
CORPORATION

ISSUE CONTROL RECORD

3296WD

REVISIONS APPLYING TO THIS CONTROL RECORD

ISSUE	DATE	AUTH. NO.
1	4-13-66	88100-1
2	8-3-66	88100-2

NO.

NOTES

SUPPORTING INFORMATION

CONTENTS

SHEET NO.

ISSUE

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

1
2
3

CATEGORY

NO.

ISSUE CONTROL SHEET ___ OF ___

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT GP-OPT II-AC LESU 15

WD NUMBER 3296 WD

DRAWN *P* CHKD.
ENGD. J.C.T. APPD.

TELETYPE CORPORATION

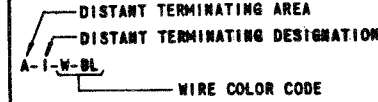
3296WD

3296 WD

REVISIONS

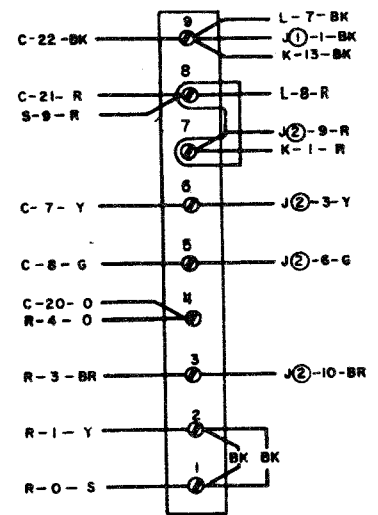
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A	1-6-59	28-10286
B	5-20-59	28-11103
C	6-18-59	28-10488-1
D	8-4-59	28-11508
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F	5-31-61	69920
G	3-28-62	69768-10
H	7-29-65	88100
I	4-13-66	88100-1

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

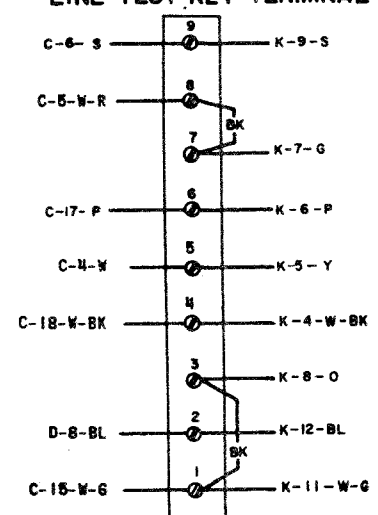
- NO. NOTES
1. WIRING LEGEND:


 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 .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, J13-J14
 J11-J12
 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.
 7. 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.
 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 CONNECTOR 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. TO PREVENT SLOW RELEASE RELAY FROM OPERATING, REMOVE STRAP CONNECTING T-3, T-4 AND T-5.
 11. SPARE LEADS FROM F-18 AND U-18 ARE RESERVED FOR POLAR OPERATION OF KEYBOARD AND TRANSMITTER DISTRIBUTOR SIGNAL GENERATORS.
 12. TERMINALS C-143, C-148 RESERVED FOR CABINET LAMP OPERATION.
 13. TERMINALS C-1 - C-3 RESERVED FOR CUSTOMER'S USE.
 14. TERMINALS C-121 - C-122 RESERVED FOR PERFORATOR LOW-TAPE SWITCH.
 15. CONTACTS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.

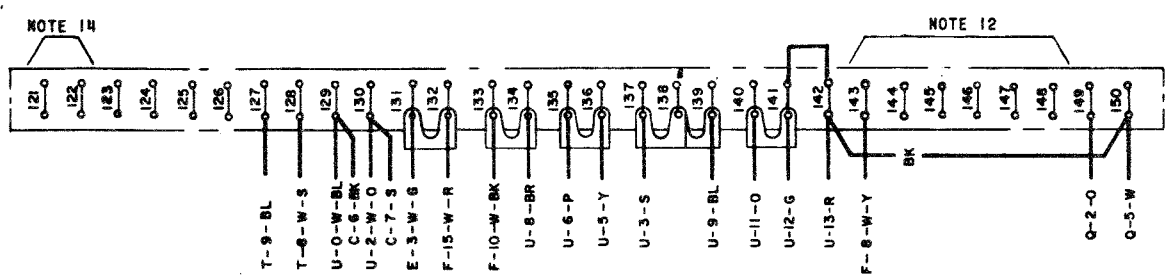
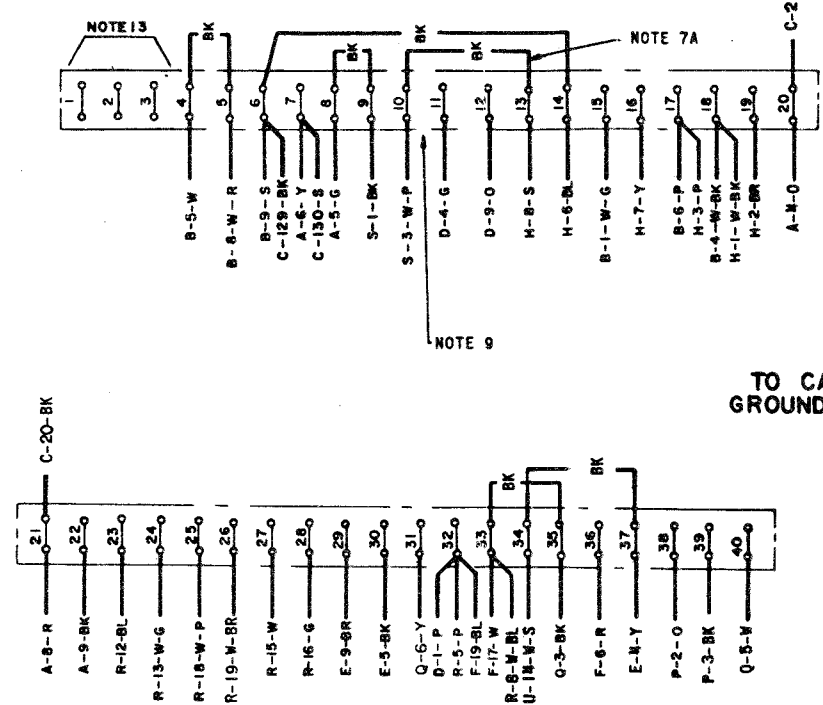
A SELECTOR MAGNET TERMINAL BLOCK



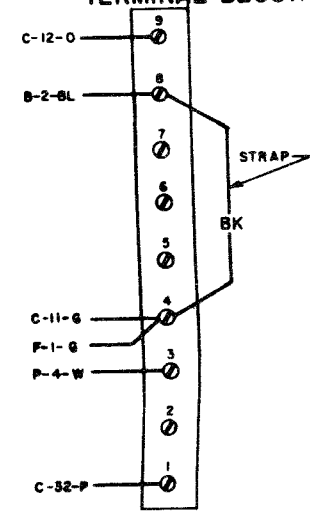
B LINE TEST KEY TERMINAL BLOCK



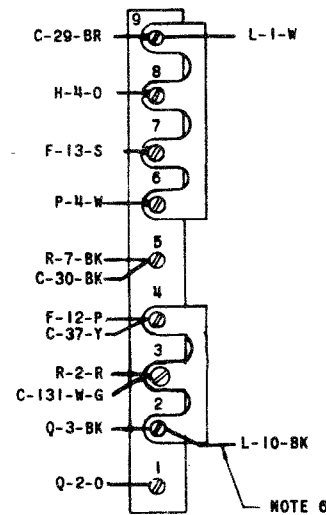
C CABINET TERMINAL BLOCK



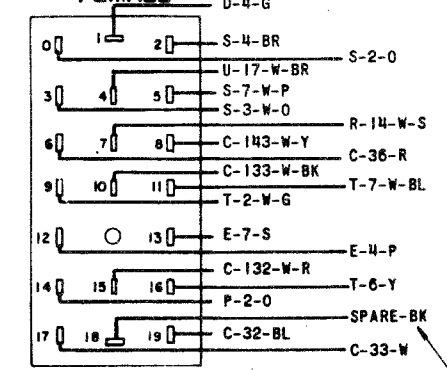
D MOTOR CONTROL TERMINAL BLOCK



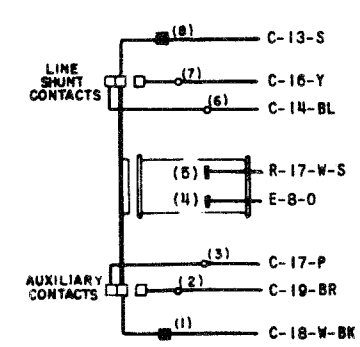
E POWER TERMINAL BLOCK



F KEYBOARD CONNECTOR FEMALE



H LINE SHUNT RELAY



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 W
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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

SEE SHEET 1 FOR NOTES

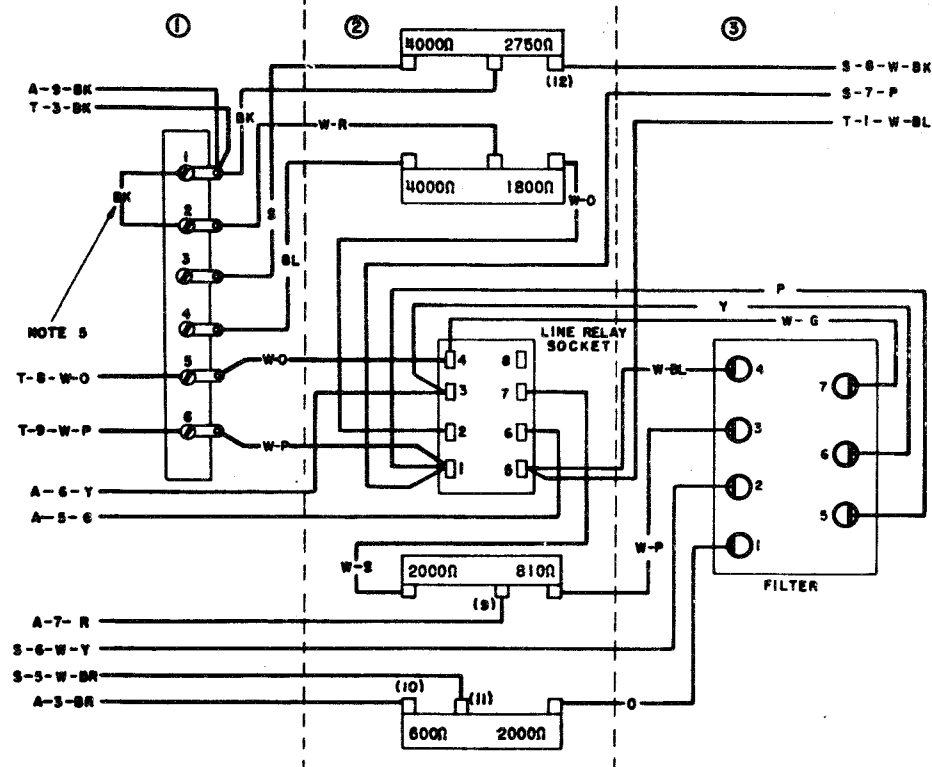
NOTE:
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3296WD

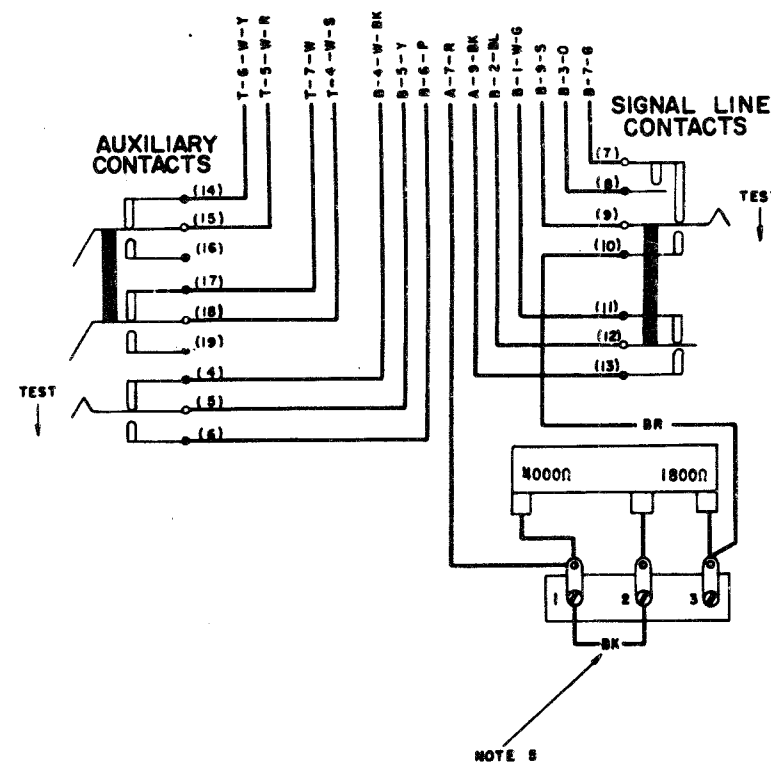
REVISIONS

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B	5-20-59	28-11103
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H	7-29-65	88100
I	4-13-66	88100-1

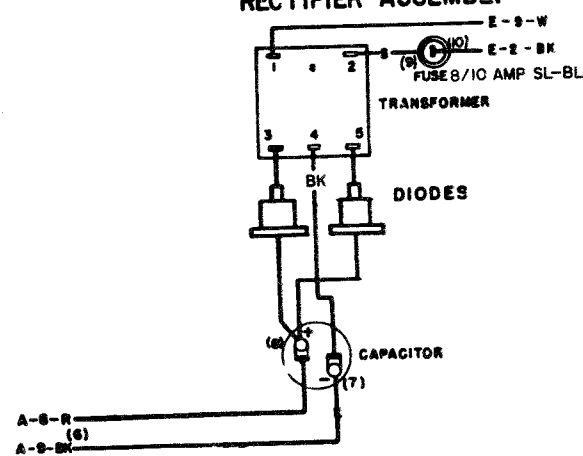
J
LINE RELAY MOUNTING ASSEMBLY



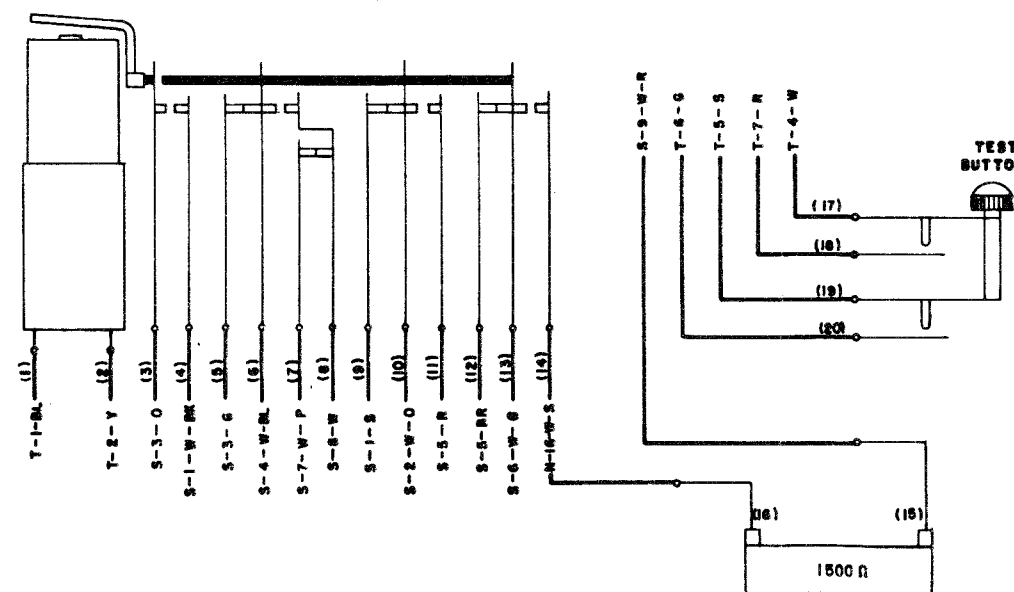
K
LINE TEST KEY ASSEMBLY



L
RECTIFIER ASSEMBLY



N
SLOW RELEASE RELAY ASSEM.



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
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E-NUMBER

PROD. NO. 3296WD

DATE 10-10-58

R.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.

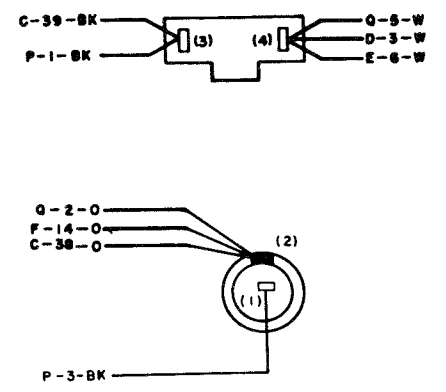
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3296 WD

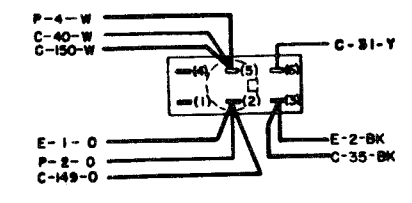
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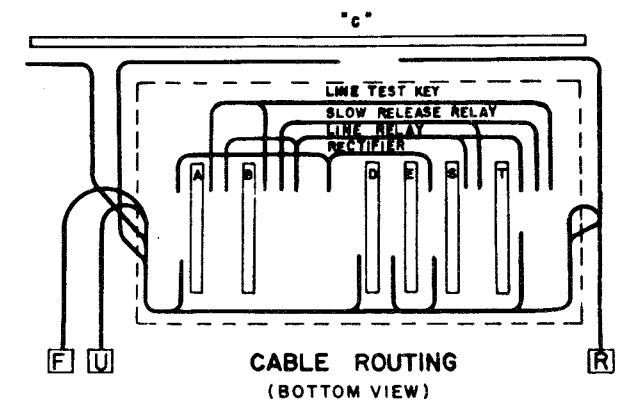
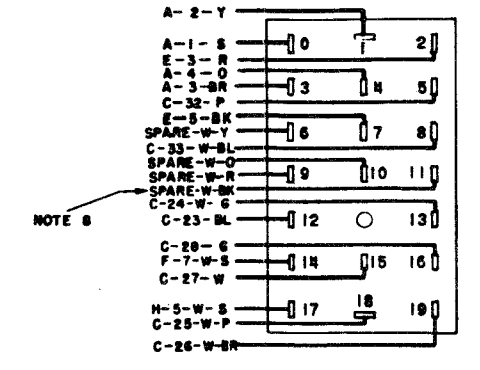
P
CONVENIENCE
RECEPTACLE



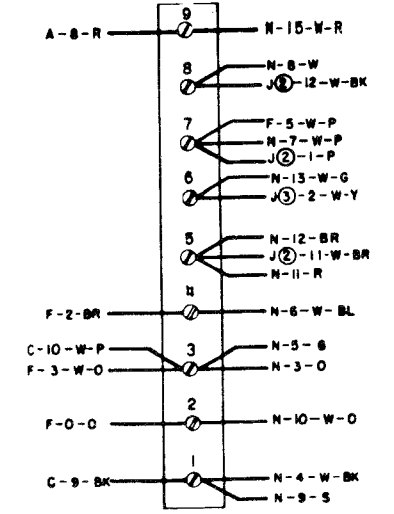
Q
POWER SWITCH



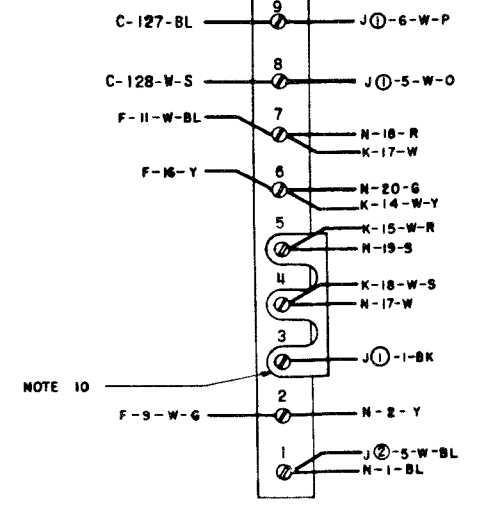
R
TYPING UNIT CONNECTOR FEMALE



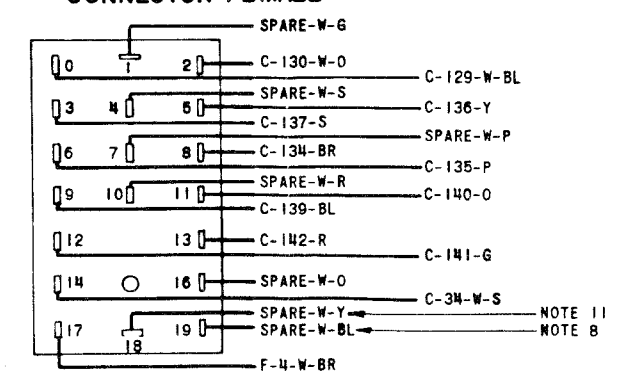
S
SLOW RELEASE RELAY
TERMINAL BLOCK



T
SLOW RELEASE TEST KEY
TERMINAL BLOCK



U
TRANSMITTER DISTRIBUTOR
CONNECTOR FEMALE



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
LESUIS

APPROVALS

D AND R	E OF M
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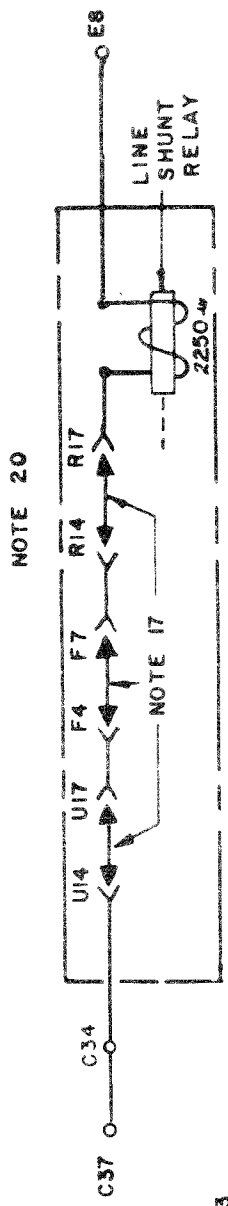
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DATE 10-10-56	
P.D. FILE NO. 27A 65AA	
DRAWN R.W.D.	CHKD.
ENGD. J.C.T.	APPD.

TELETYPE
CORPORATION

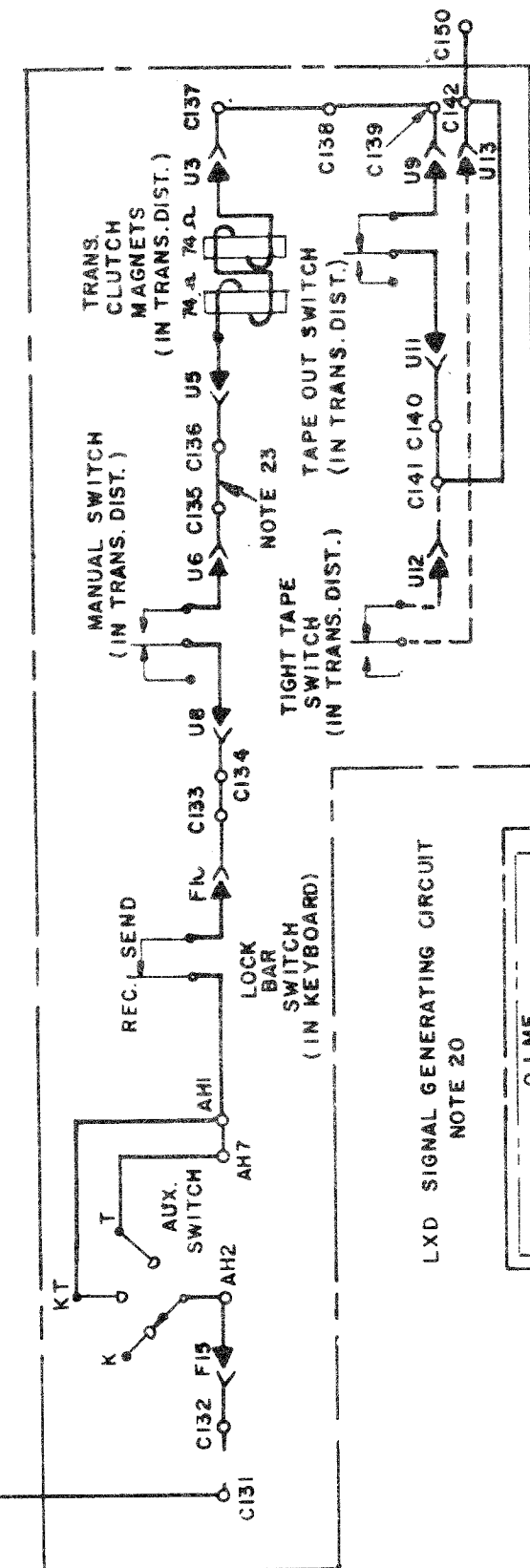
3296 WD

10

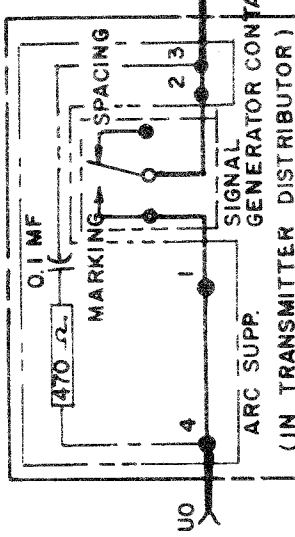
NOTE 20



LXD TRANS. DIST. CIRCUIT
NOTE 20



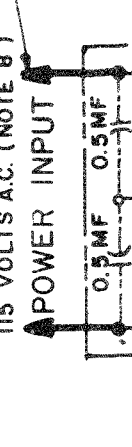
LXD SIGNAL GENERATING CIRCUIT
NOTE 20



ARC SUPP. GENERATOR CONTACTS
(IN TRANSMITTER DISTRIBUTOR)



POWER INPUT
NOTE 8



RADIO INTERFERENCE SUPPRESSOR
(IN R.F. FILTERED CABINET)
(NOTE 7)



6 1/4 AMP SL-BL FUSE
C149

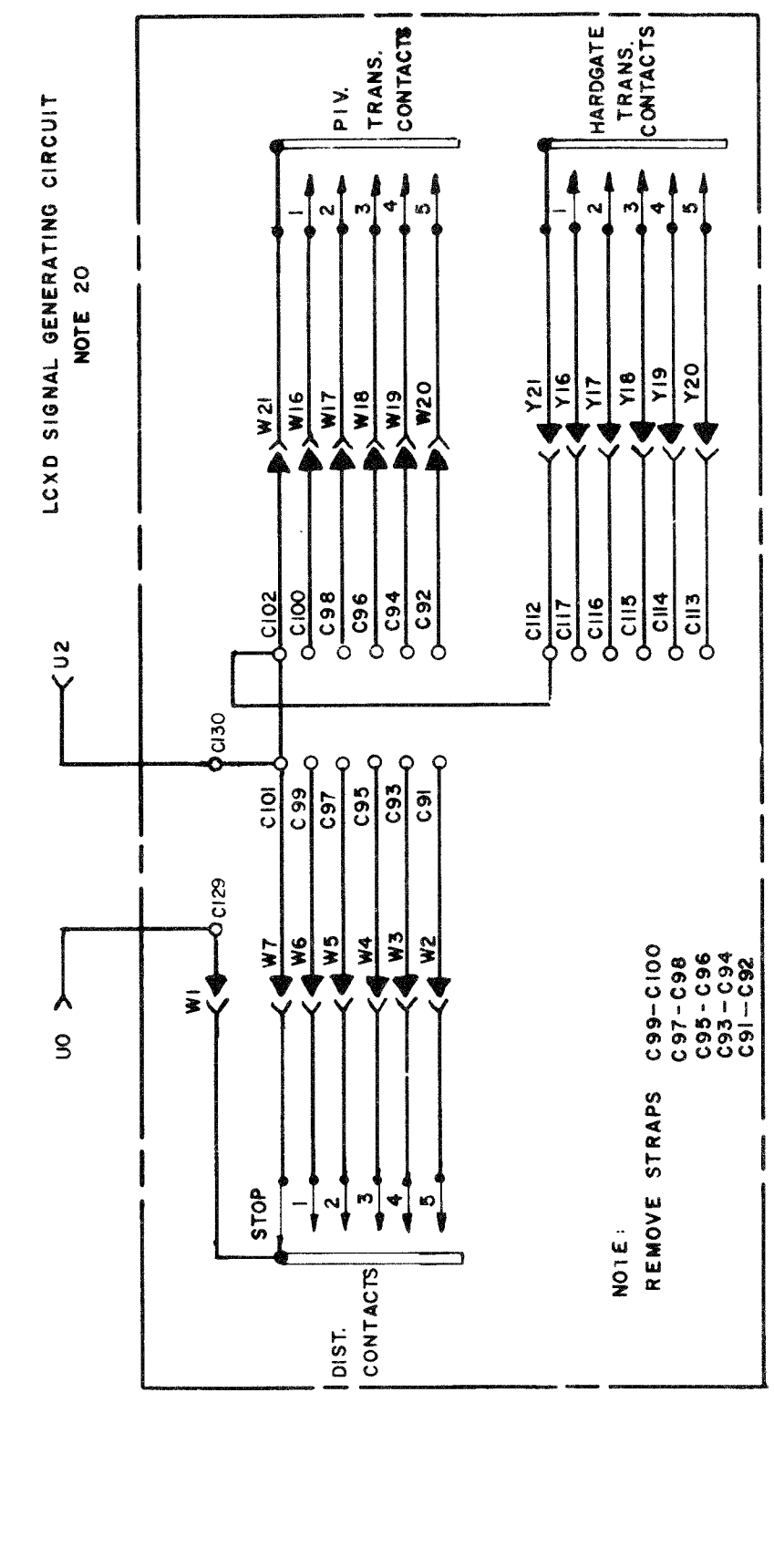
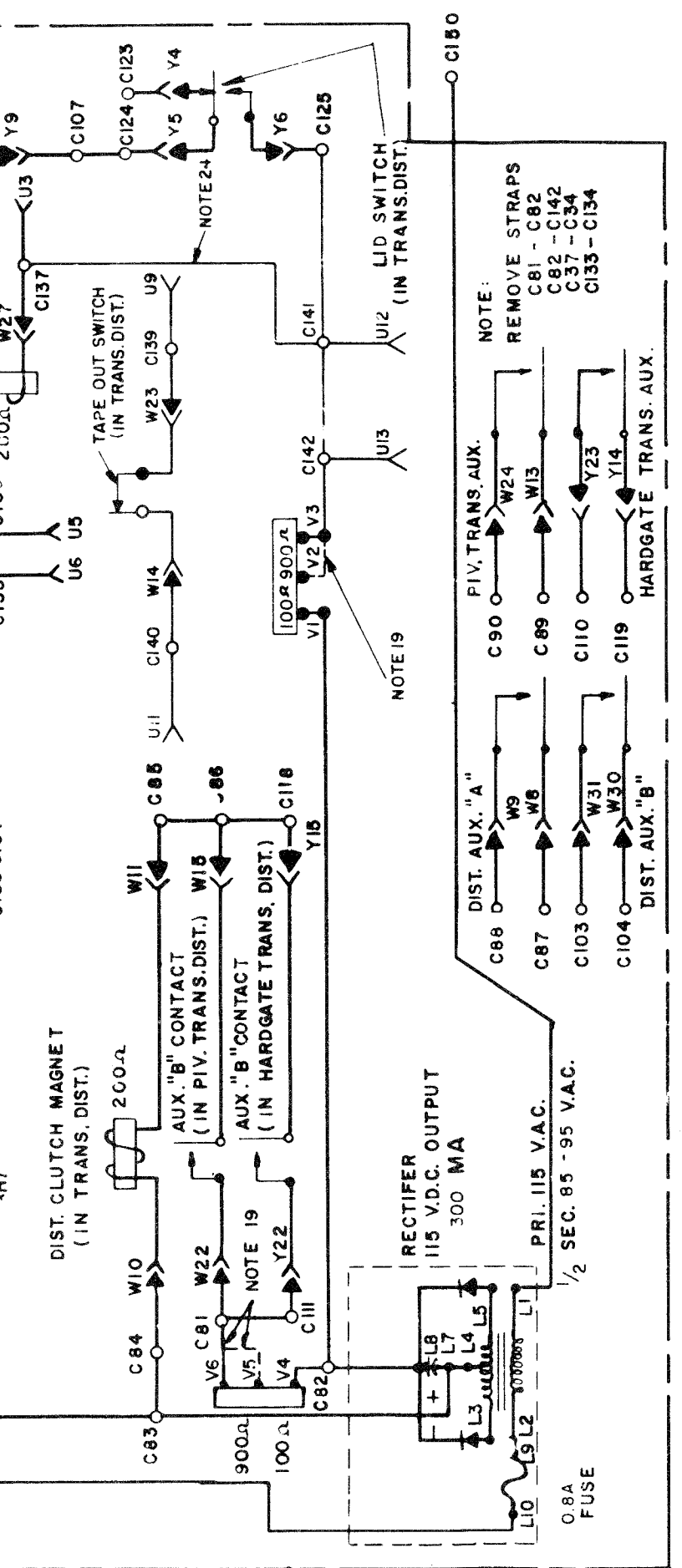


PAPER FEED OUT SWITCH
(IN KEYBOARD)
NOTE 10

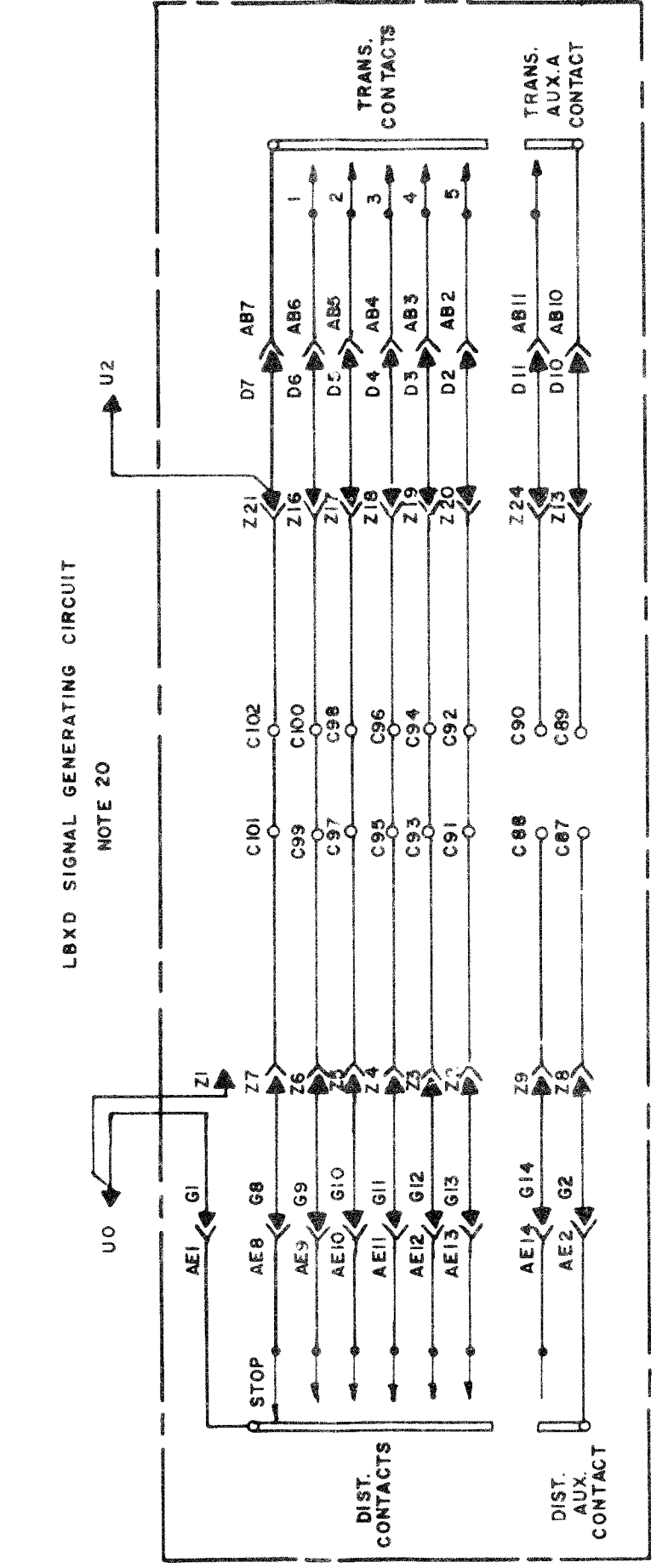
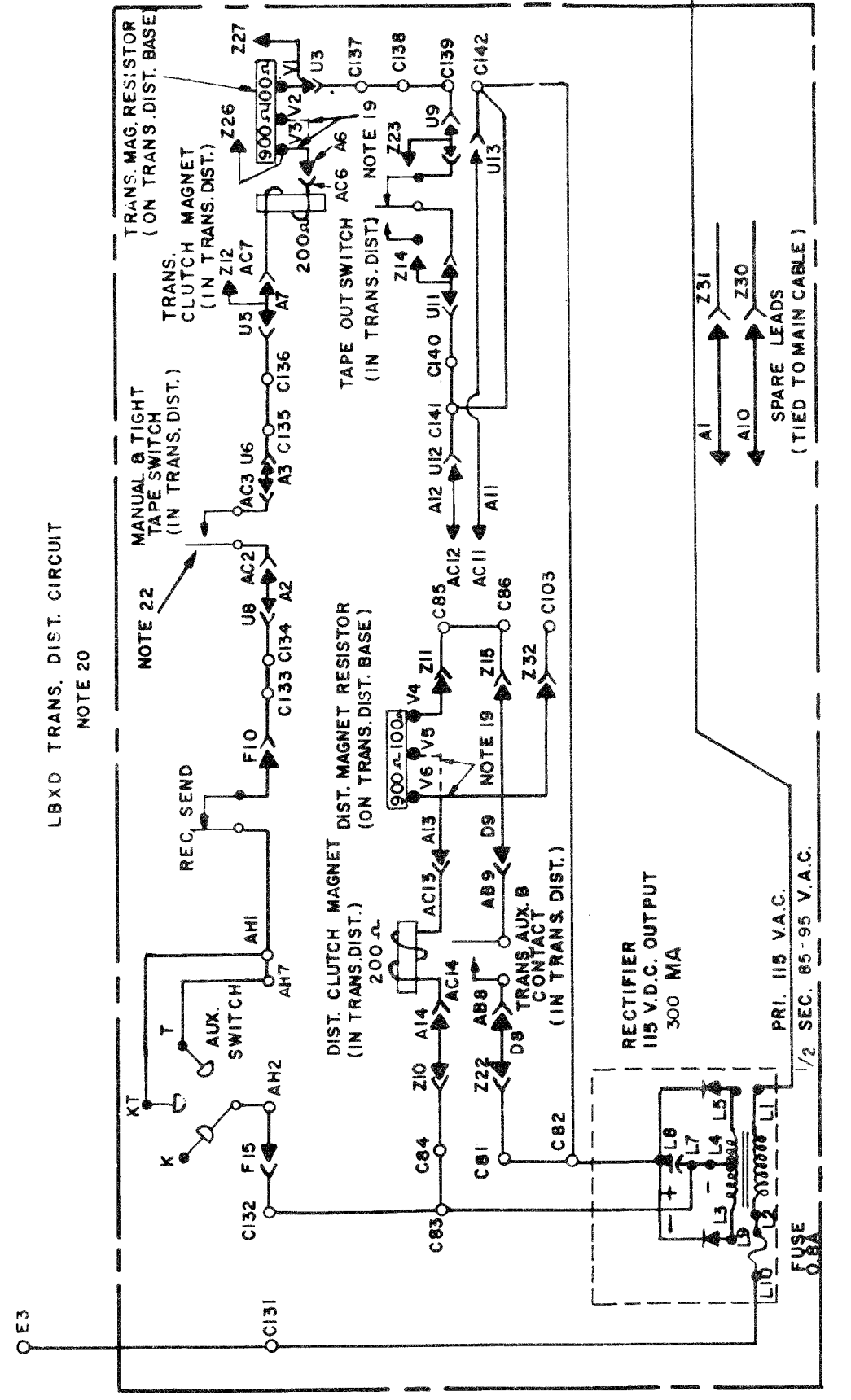
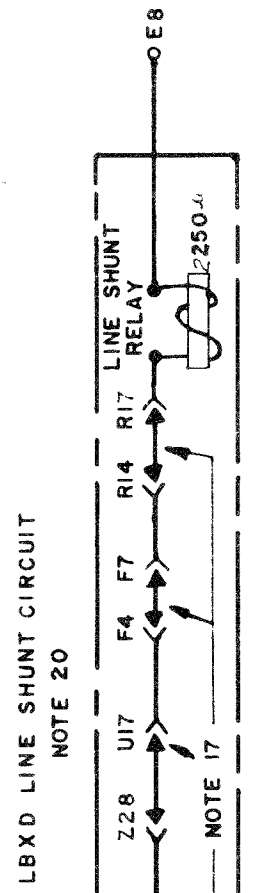


NOTE 10

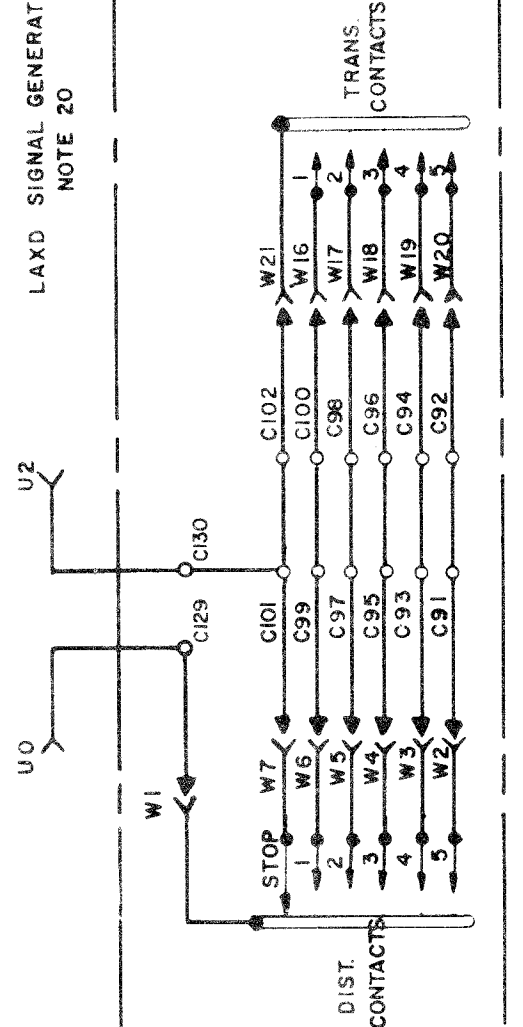
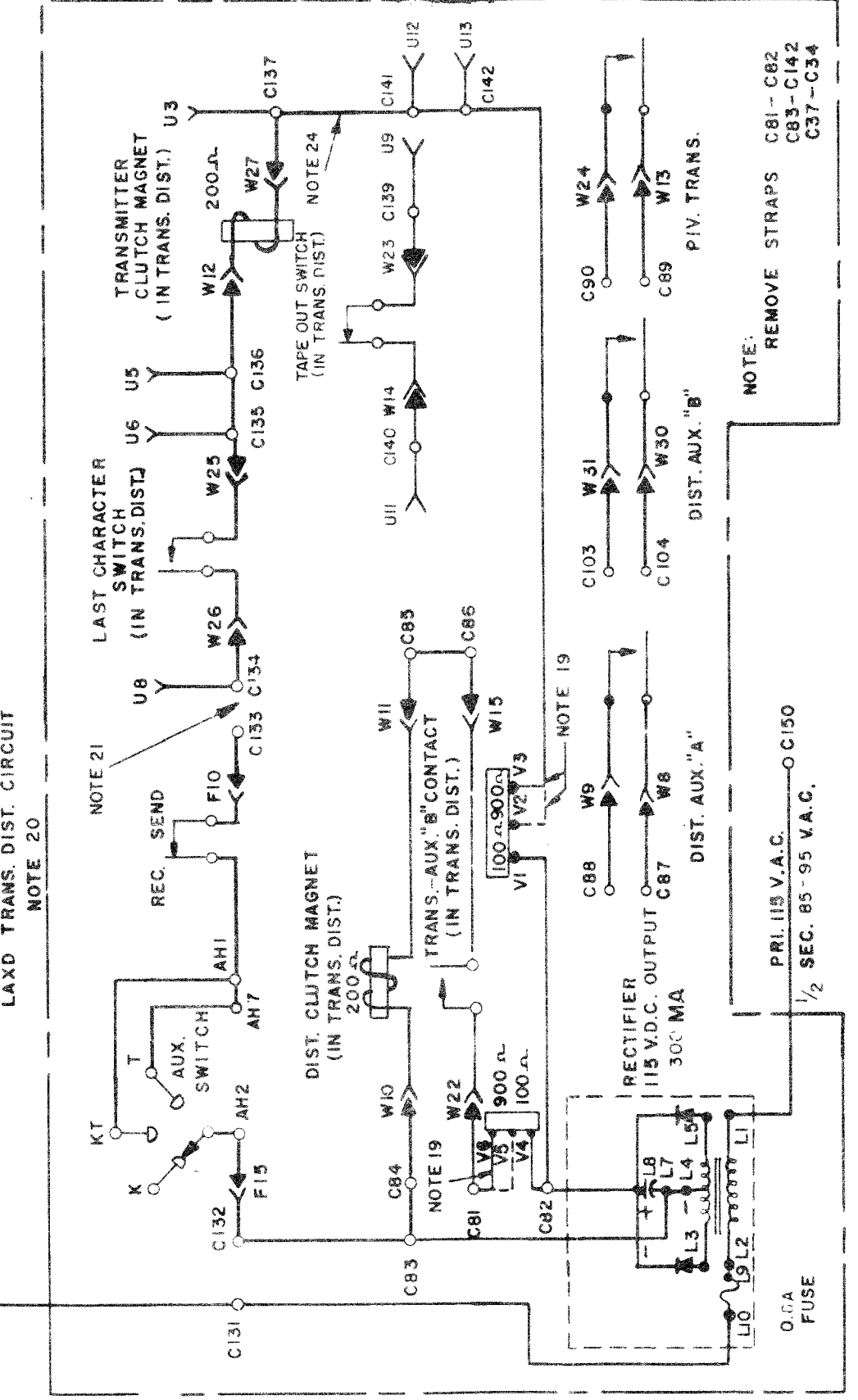
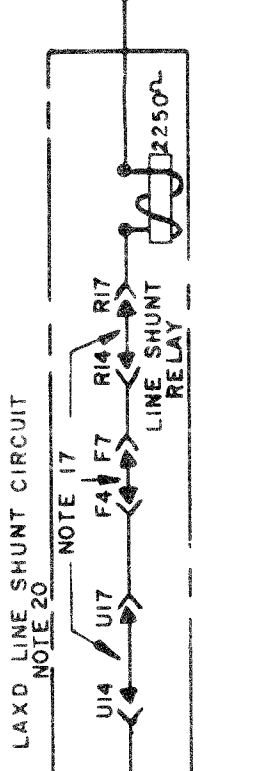




LBXD



LAXD



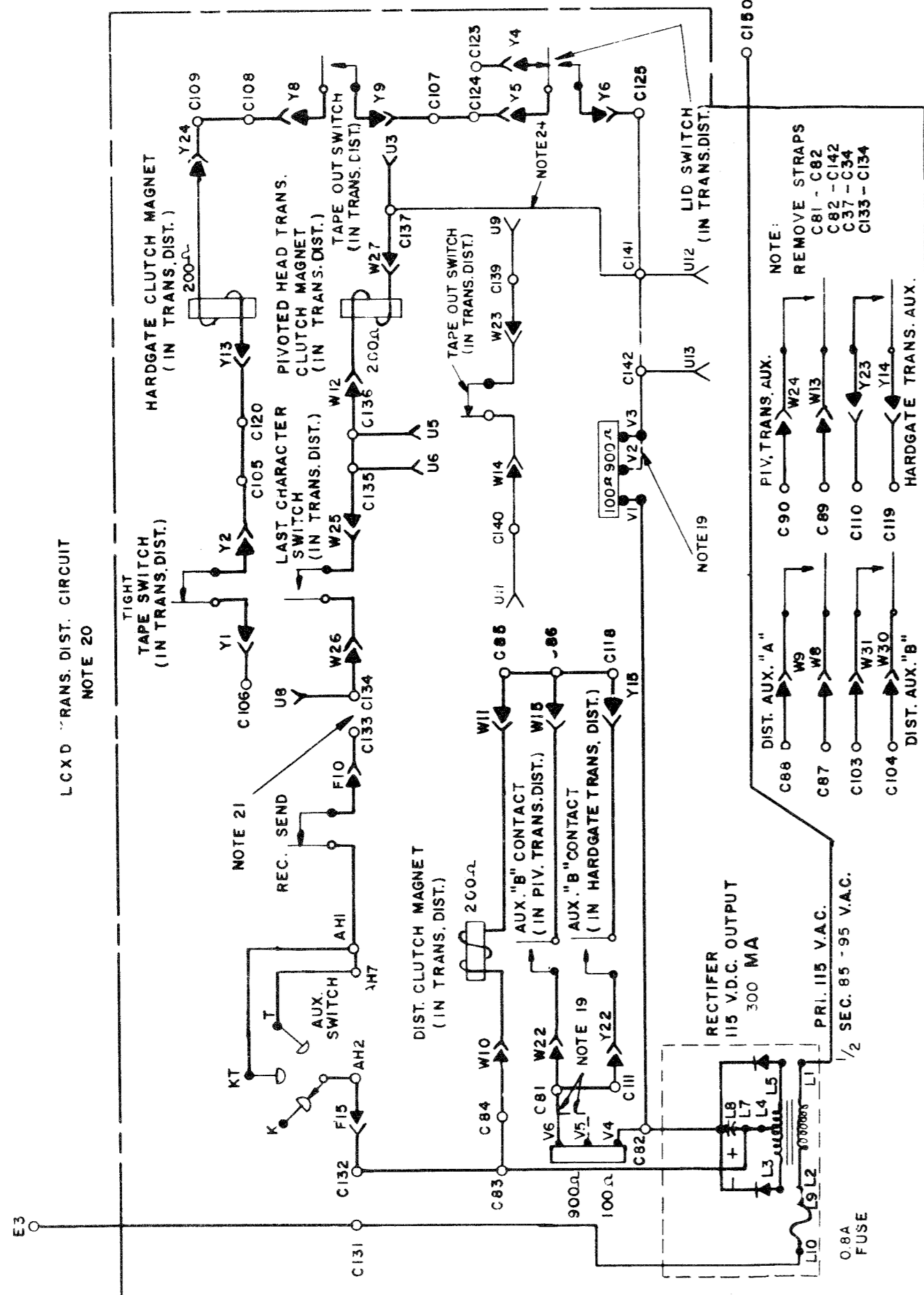
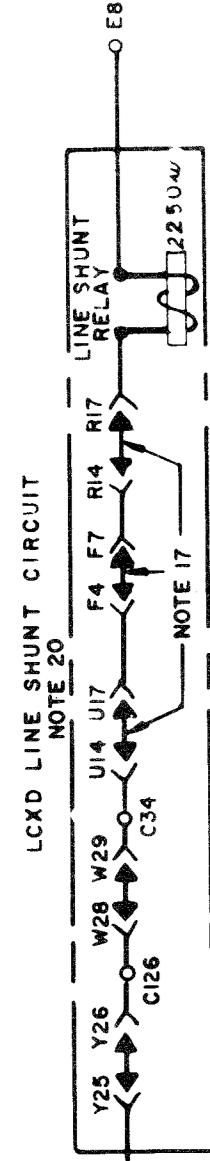
REVISIONS		
ISSUE	DATE	AUTH. NO.
12	2-11-64	79910

SHEET 2 OF 3

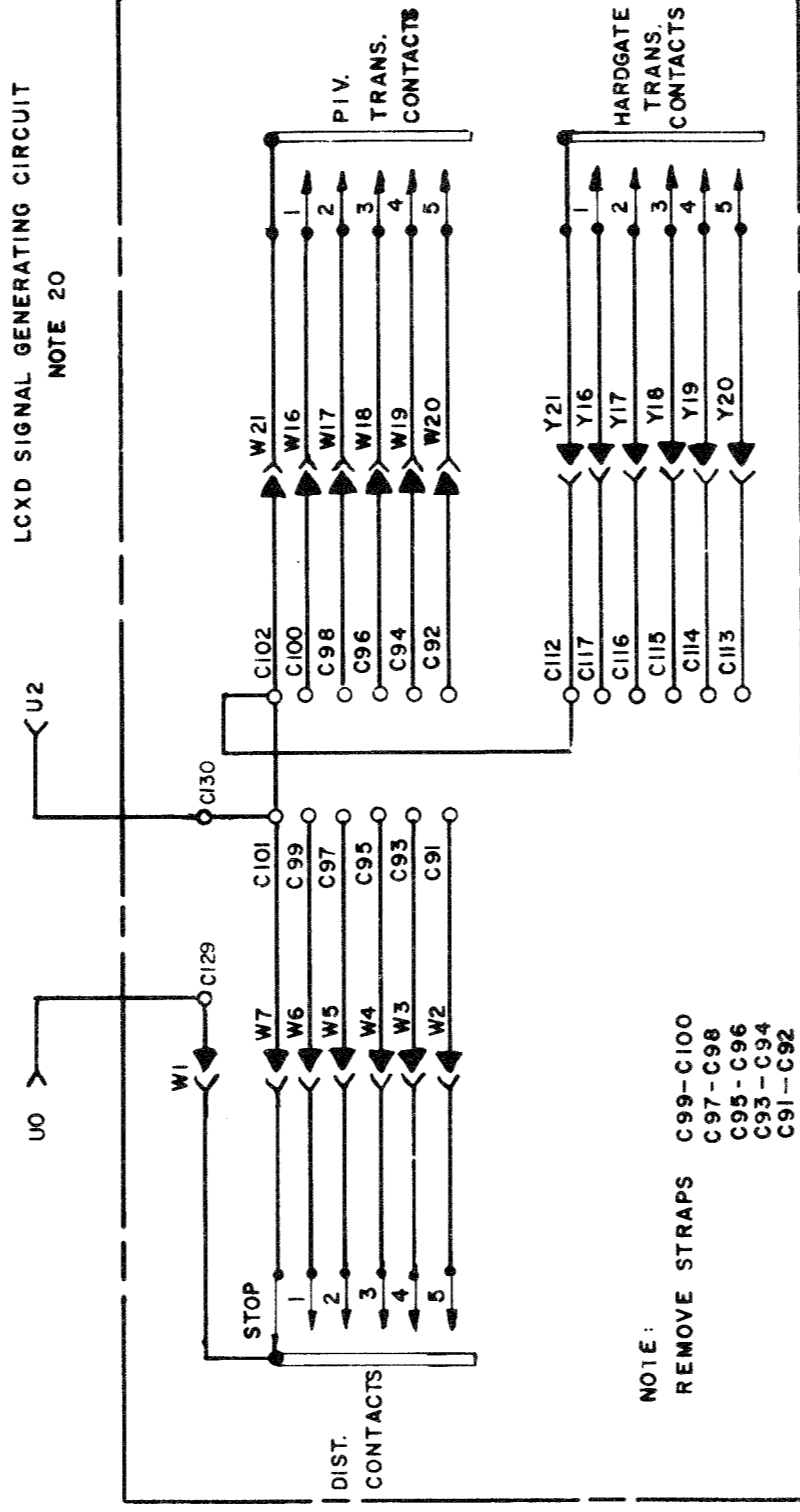
SCHEMATIC WIRING DIAGRAM MODEL 28 ASR-GP-OPT II AC WITH FACILITIES PROVIDED BY ELECT. SERVICE UNIT LESU 15 AND ASSOCIATED UNITS

TELETYPE CORPORATION
3298 WD

LCXD

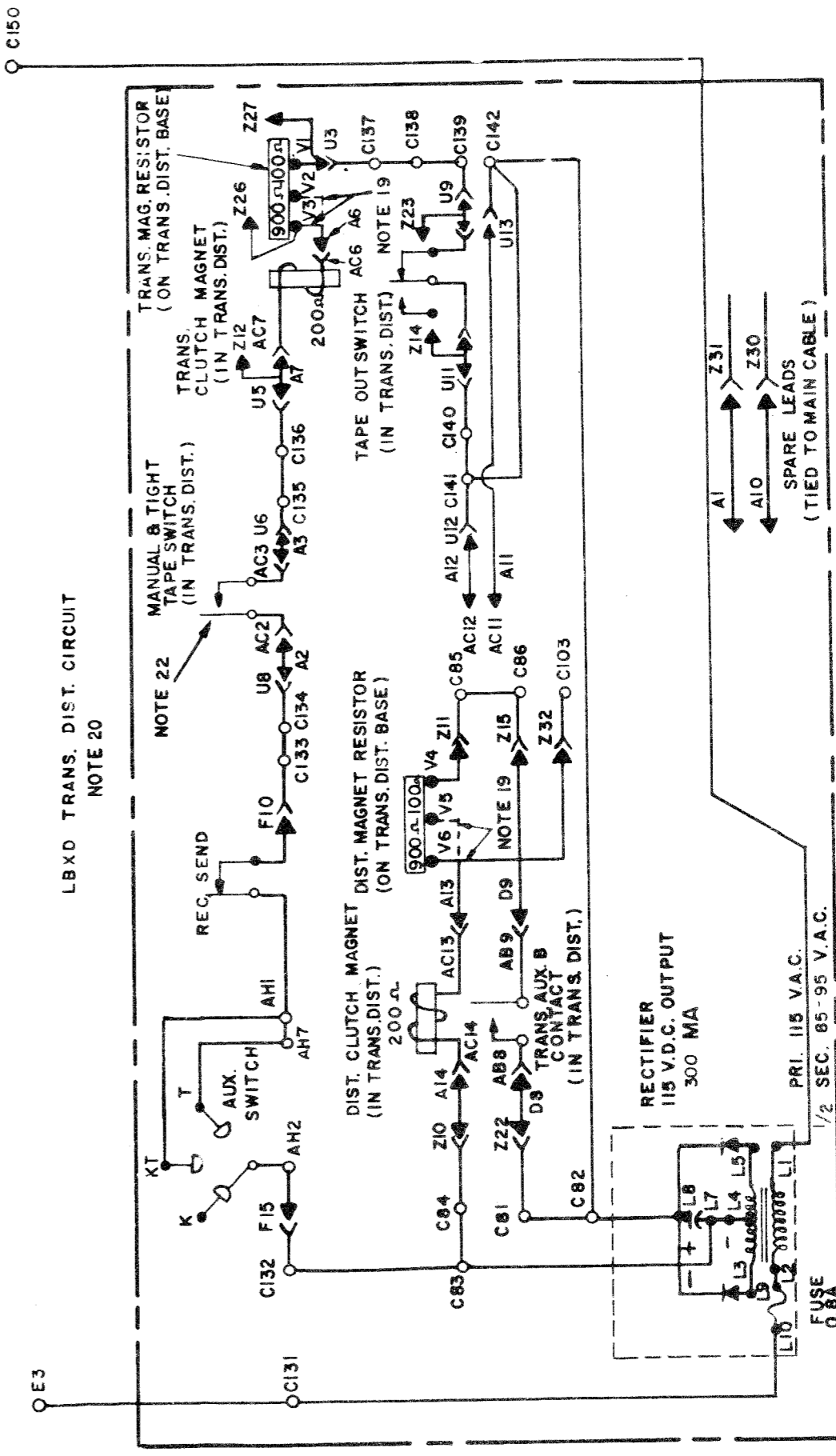
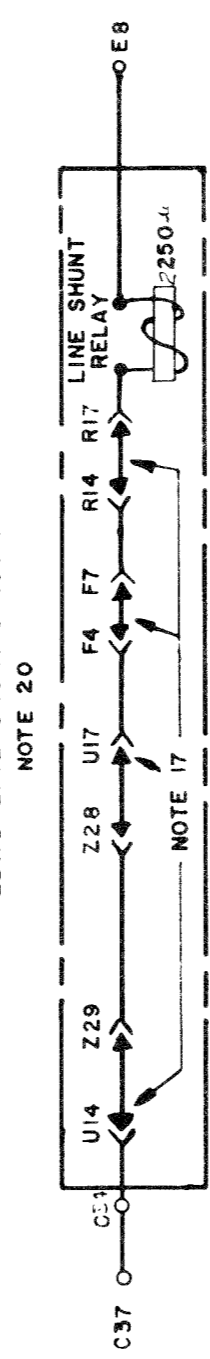


LCXD SIGNAL GENERATING CIRCUIT
NOTE 20

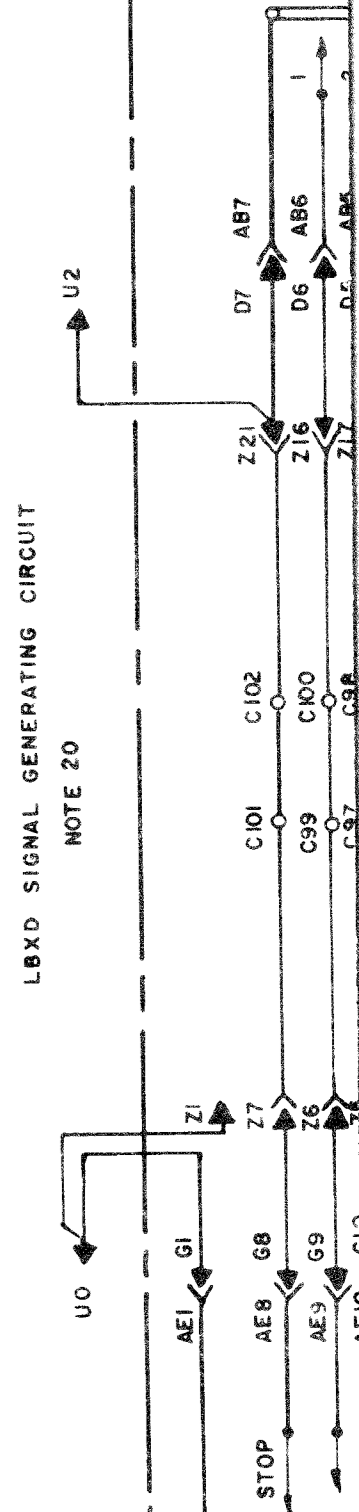


LBXD

LBXD LINE SHUNT CIRCUIT
NOTE 20

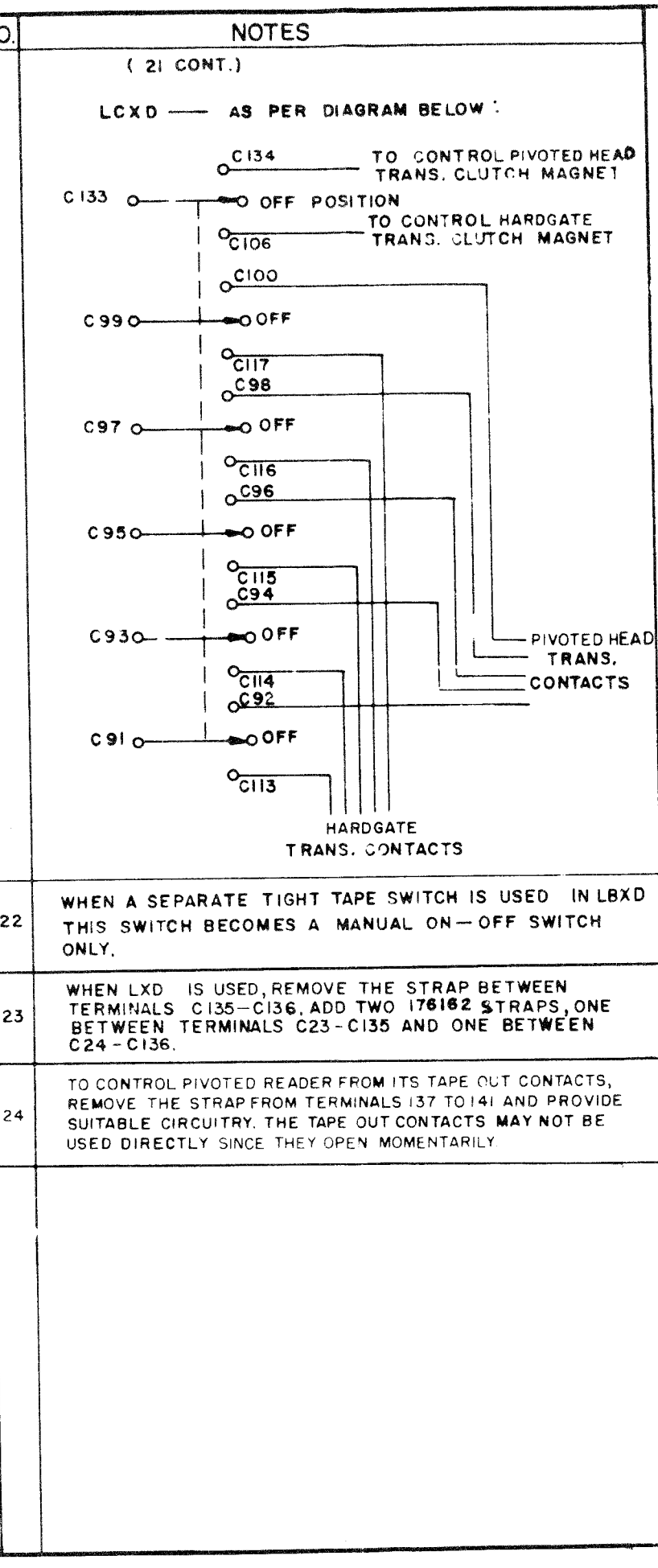


LBXD SIGNAL GENERATING CIRCUIT
NOTE 20



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
2	LEGEND <ul style="list-style-type: none"> ○ 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 ① TERMINAL STRIP (ON LINE RELAY ASSEM. 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)
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	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, 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 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 RECTIFIER LEAD L10 FROM E2 TO E1.

NO.	NOTES																				
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. 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 (---) 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.																				
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 SWITCH IS NOT USED, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (---) IN MOTOR POWER CIRCUITS.																				
15	WHEN SIGNAL LINE BREAK SWITCH IS NOT USED IN KEYBOARD ADD DASHED (---) CONNECTION AT CABINET TERMINAL BLOCK BETWEEN C10 AND C11.																				
16	TO PREVENT SLOW RELEASE RELAY FROM ENERGIZING REMOVE CONNECTIONS MARKED (---).																				
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																				
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 & 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>	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																		
	POWER SUPPLY MUST DELIVER 300 MA @ 48 V.D.C. OR 200 MA @ 115 V.D.C.																				
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)																				



3298 WD

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

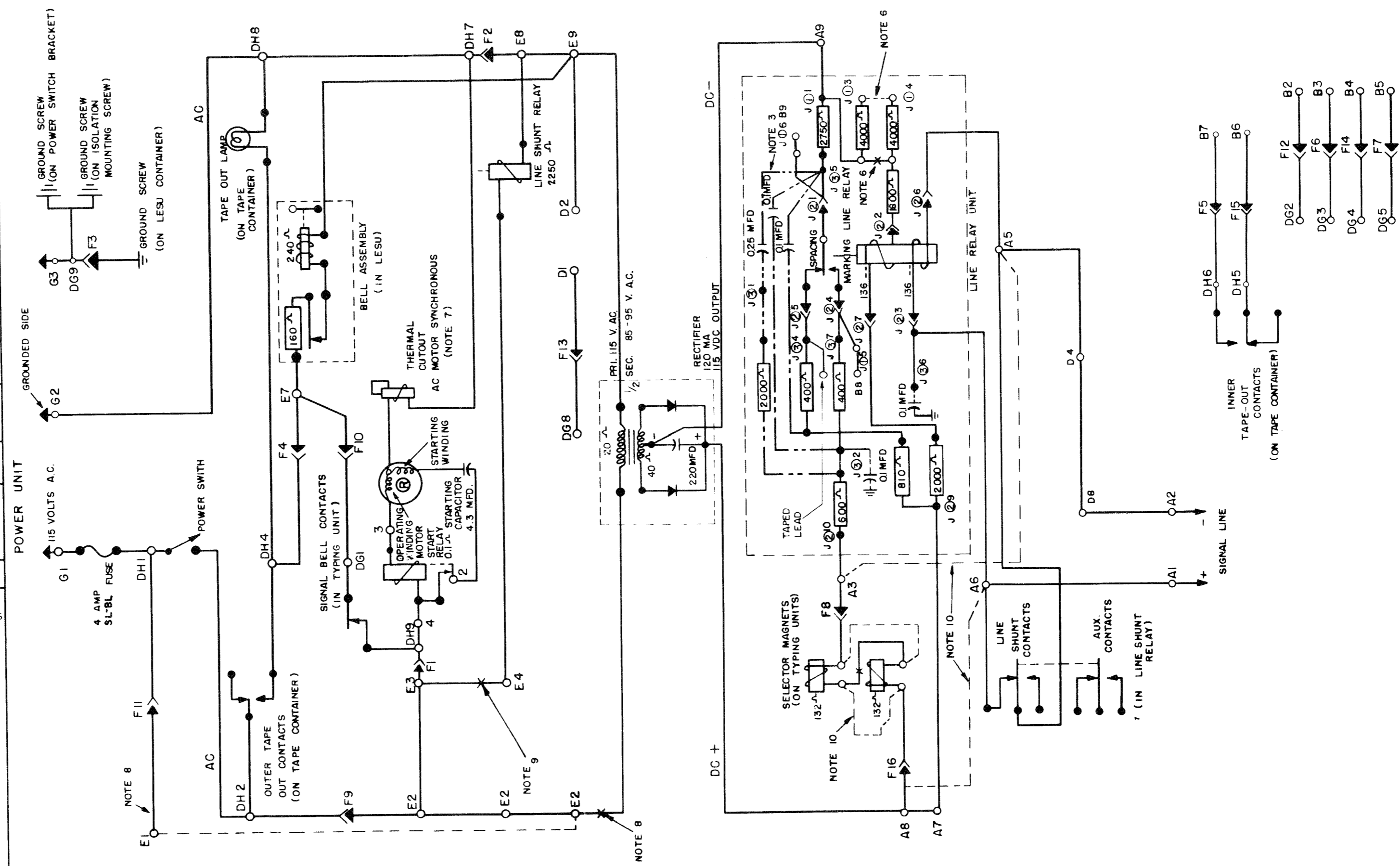
SHEET 3 OF 3

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

**TELETYPE
CORPORATION**

3298 WD

- NO NOTES
- 1 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 MU 3,4,6.
 3319 WD TYPING REPERFORATOR BASE LRB 3,11
- 2 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)
- 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 (MH)
 (C) CAPACITANCE VALUES IN MICROFARADS (MFD)
- 6 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.
- 7 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.
- 8 RECTIFIER SHOWN CONTROLLED BY POWER SWITCH
 A. FOR CONTINUOUS OPERATION MOVE PRIMARY (INPIT) LEAD FROM TERMINAL E2 TO TERMINAL E1.
- 9 LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING LINE RELAY COIL.
- 10 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)
 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 3342 WD)



FOR CUSTOMERS USE

3343 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
H	4-21-60	28-13089-1
J	11-8-60	28-13473-1
K	3-24-61	68761-19
L	12-7-61	71860
M	3-28-62	69768-10
P 11-26-63		78675

SCHEMATIC WIRING DIAGRAM MODEL 28

REPERFORATOR BASE LRB 3,11

ELECT SERVICE UNIT LESU 12

APPROVALS

D AND R E OF M

E-NUMBER 104027

PROD. NO 3343 WD

DATE 8-27-67

P.D. FILE NO. 1-49.65AA

DRAWN E.R. CHKD G.G.

ENGD H.S.P. APPD G.G.

TELETYPE CORPORATION


3343 WD

3344 WD

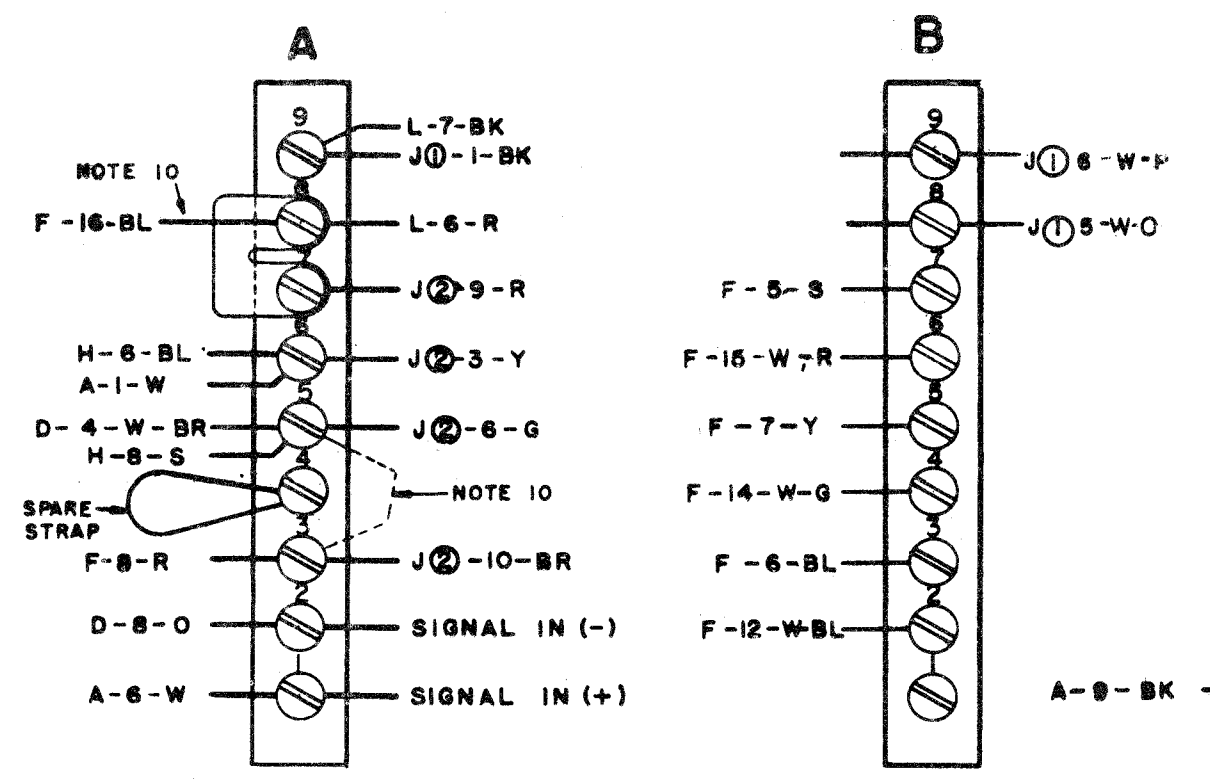
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ISSUE	DATE	AUTH.
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B	8-10-64	...
C	9-1-64	...
D	10-1-64	...
E	11-31-64	...
F	12-8-64	...
G	4-13-65	...
H	11-2-65	...
J	3-24-61	...
K	12-7-61	...

ACTUAL WIRING DIAGRAM, MODEL 28 ELECTRICAL SERVICE UNIT, LESU 12		
APPROVALS		
D AND R	E OF M	
E-NUMBER 1048		
PROD. NO. 3344 WD		
DATE: 7-12-67		
P.D. FILE NO. 1-49,66 AA		
DRAWN BY: CHS		
ENG'D H.S.P.		
TELETYPE CORPORATION		
3344 WD		

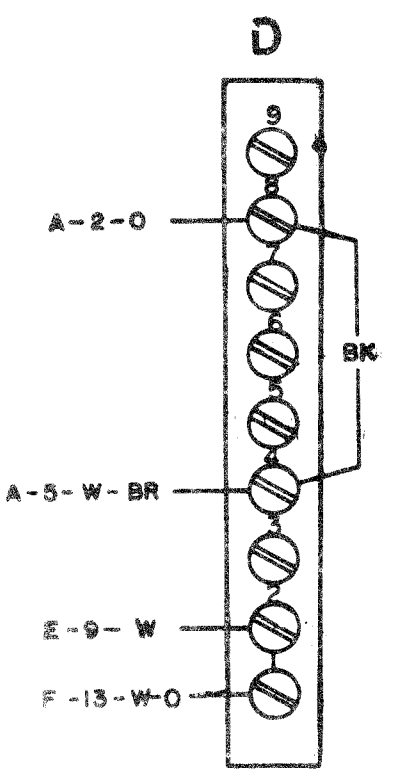
NOTES

- 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-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 SHUNTING LINE RELAY COIL.**
- 8. SELECTOR MAGNETS ARE TO BE WIRED AS SHOWN FOR 80 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, 60 & 75 WPM OPERATION
 (OR ANY INTERMEDIATE SPEED)
- A STRAP AS TO A3.
 B. MOVE BLUE LEAD FROM TERMINAL A8 TO TERMINAL A6
 80 MILLIAMPERE, 80, 75 & 100 WPM OPERATION
 (OR ANY INTERMEDIATE SPEED)
 ADD SAME AS ABOVE.
 C. CHANGE WIRING ON SELECTOR MAGNETS FOR 60 MILLIAMPERE OPERATION.

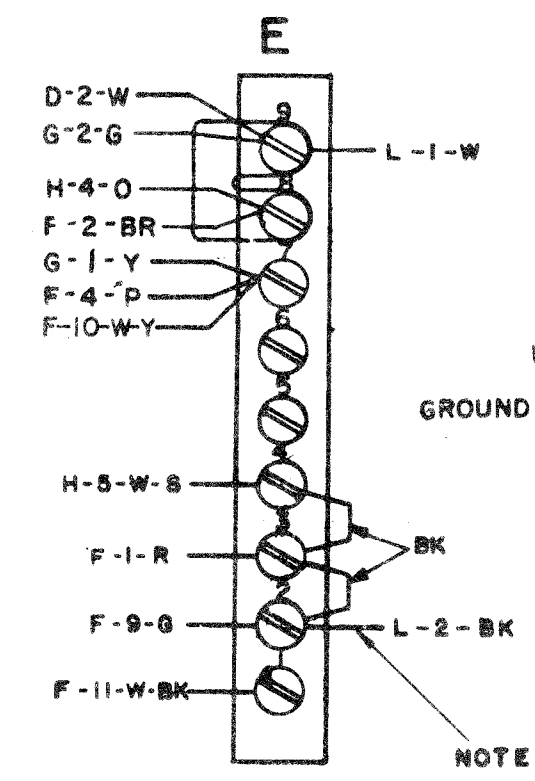
SELECTOR MAGNET TERMINAL BLOCK



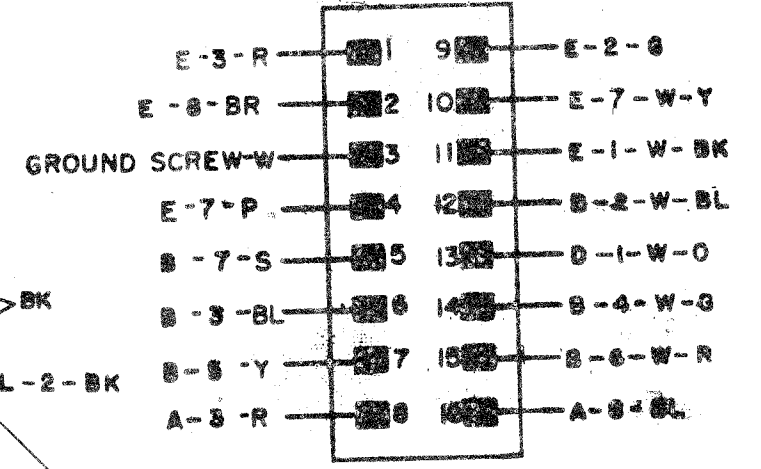
MOTOR CONTROL TERMINAL BLOCK



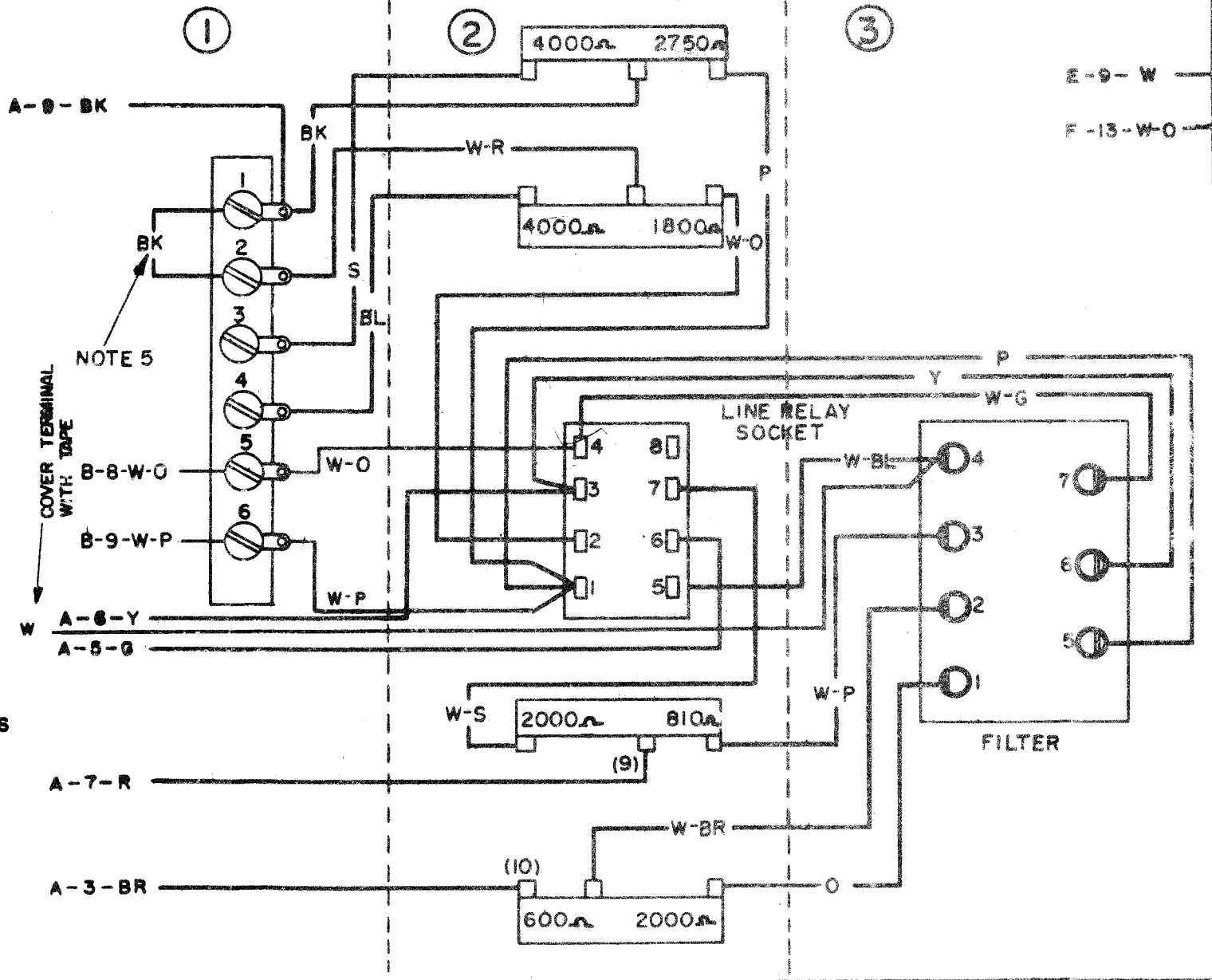
POWER TERMINAL BLOCK



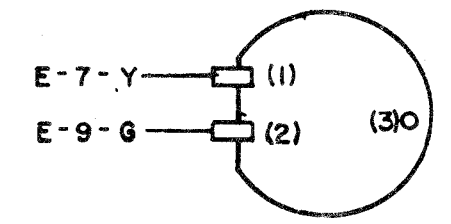
CONNECTOR PLUG 189541



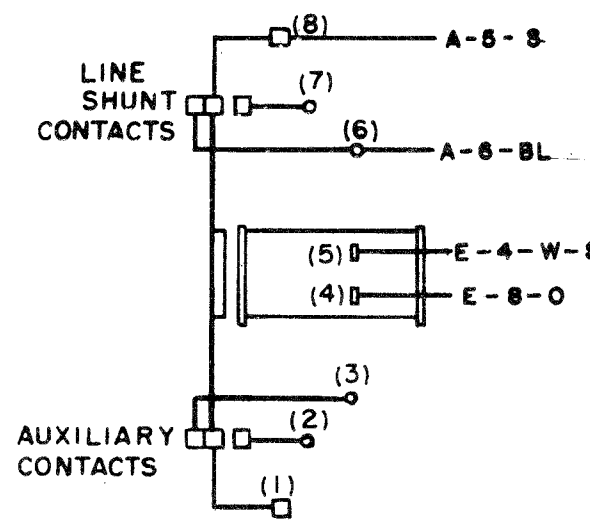
152623 LINE RELAY MOUNTING ASSEMBLY



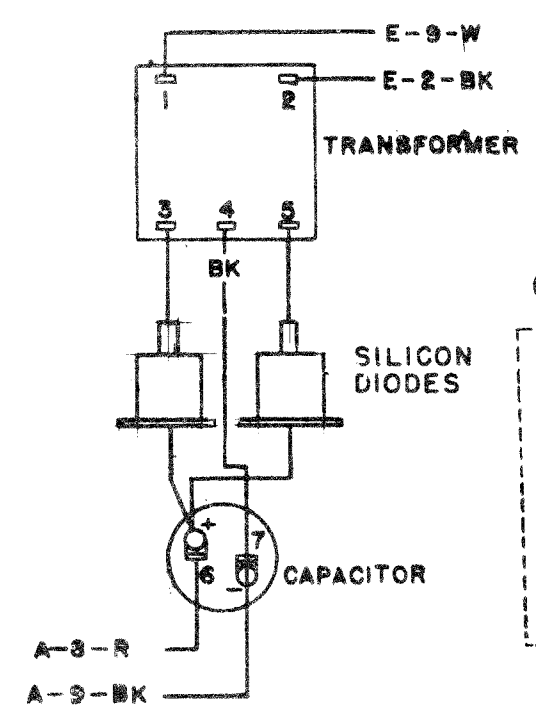
G SIGNAL BELL



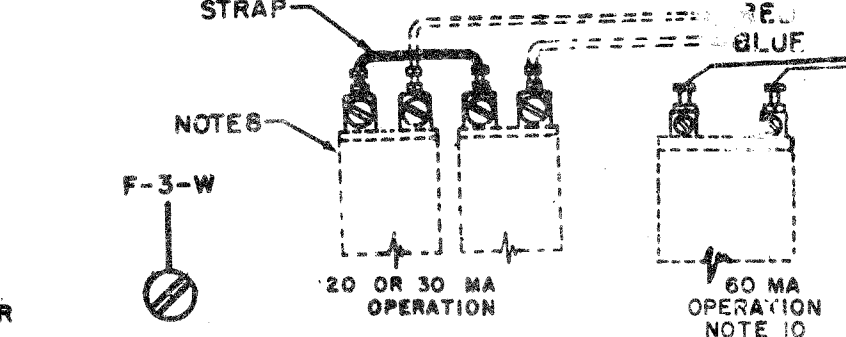
H LINE SHUNT RELAY



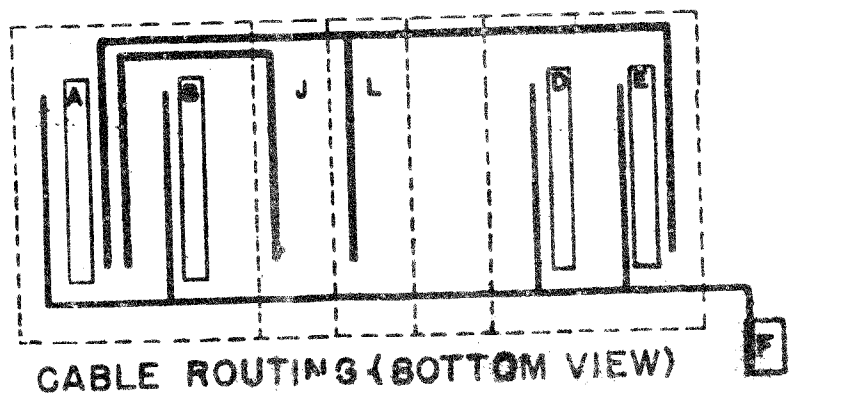
L 152950 RECTIFIER ASSEMBLY



SELECTOR MAGNETS ASSOCIATED APPARATUS



ELECTRICAL SERVICE UNIT GROUND SCREW



28 X 10 3/4

A

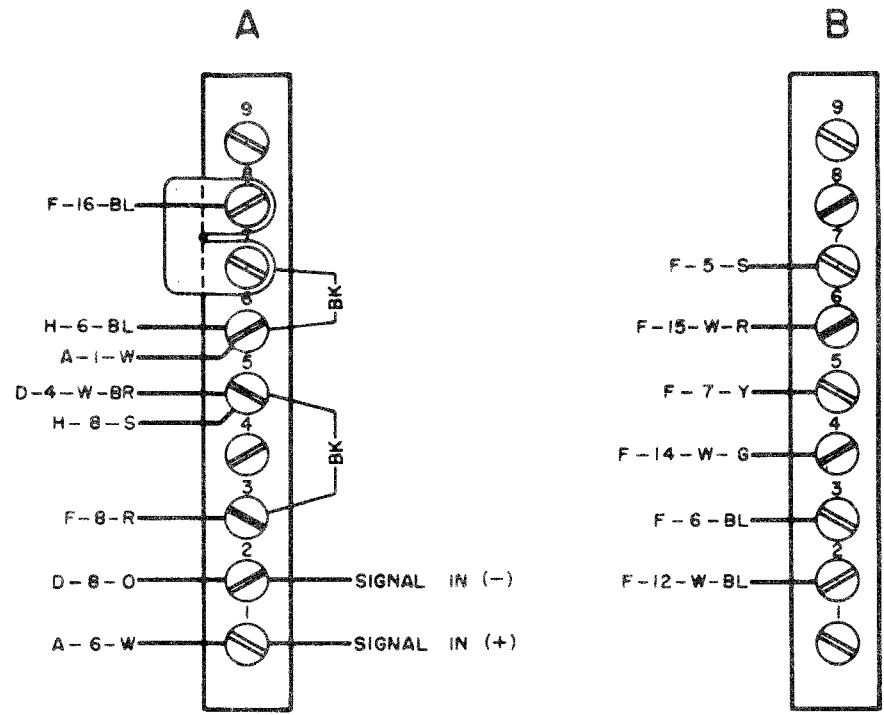
A

3624 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
A	6-15-59	28-11292

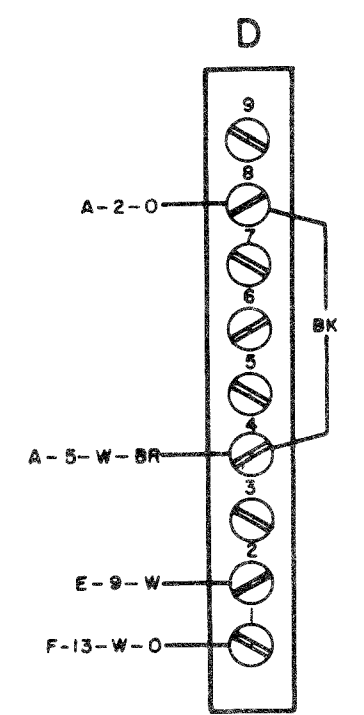
- NOTES**
1. WIRING LEGEND:
 2. COLOR CODE:

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.

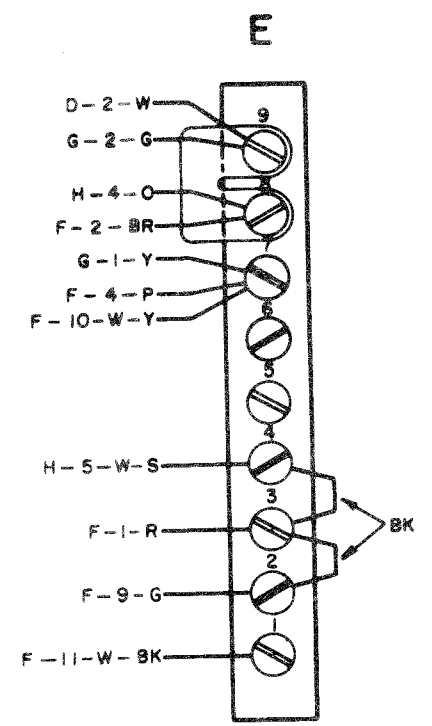
SELECTOR MAGNET TERMINAL BLOCK



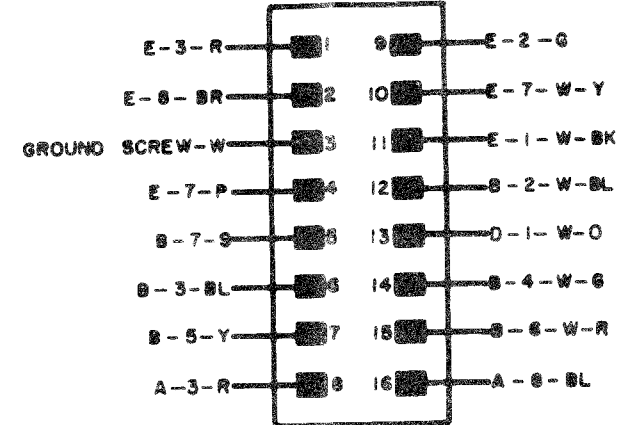
MOTOR CONTROL TERMINAL BLOCK



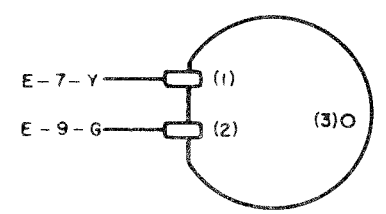
POWER TERMINAL BLOCK



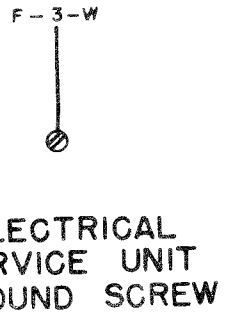
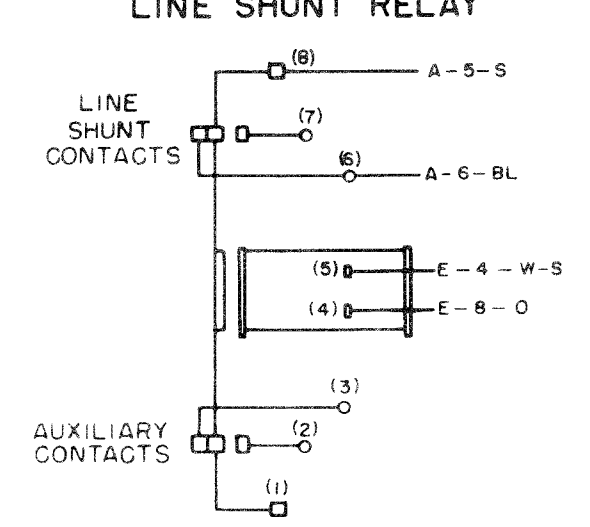
F-CONNECTOR, PLUG 159541



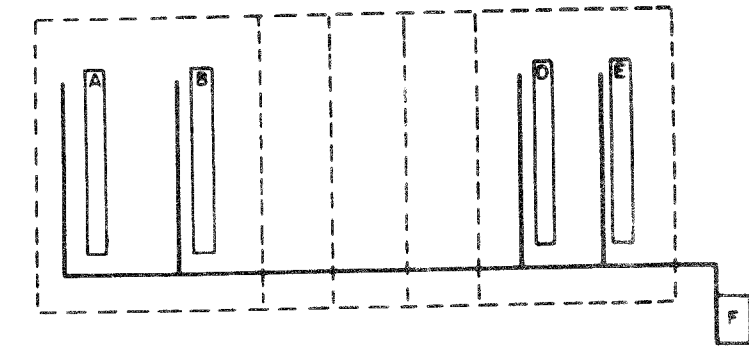
G SIGNAL BELL



H LINE SHUNT RELAY



CABLE ROUTING (BOTTOM VIEW)

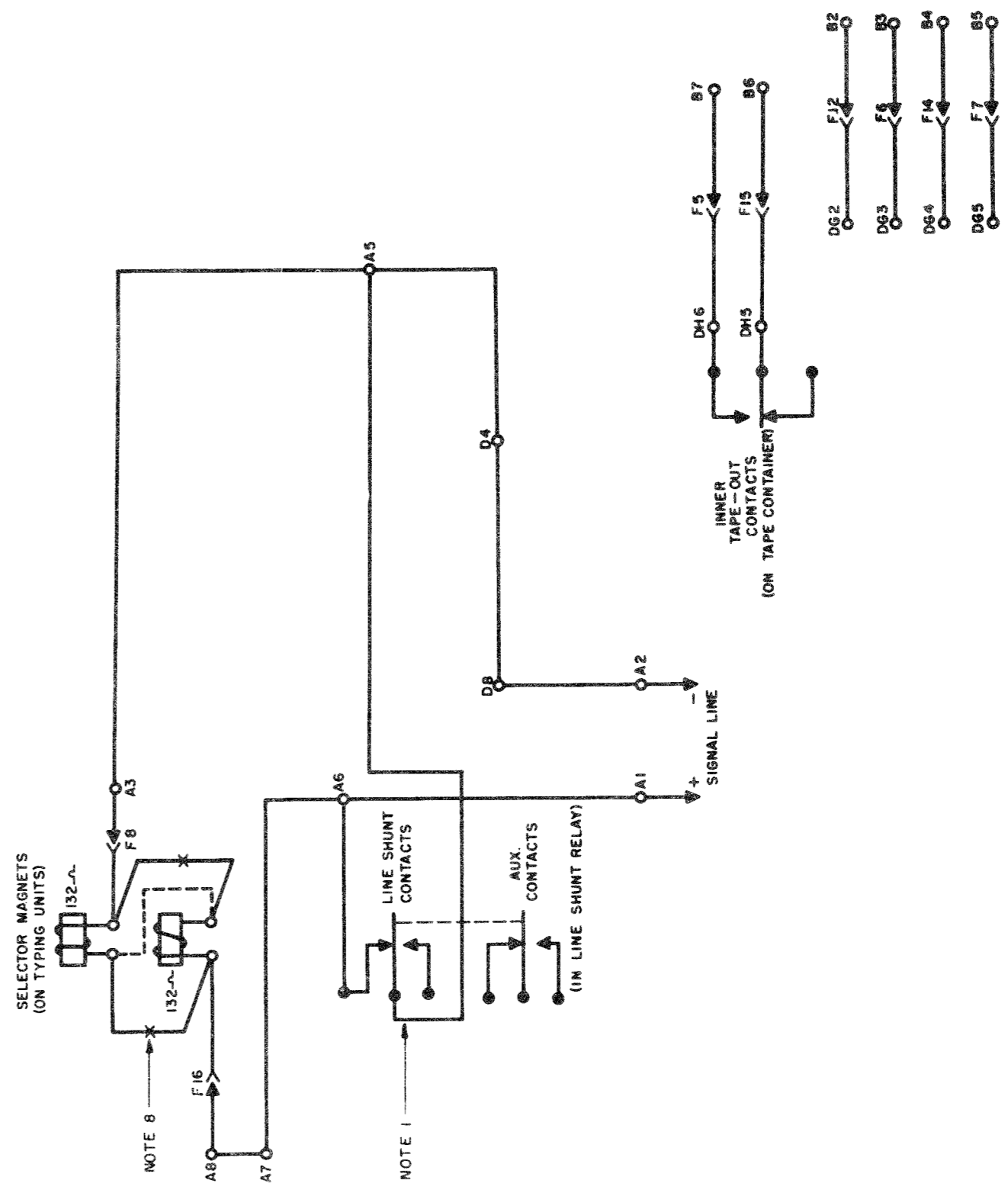
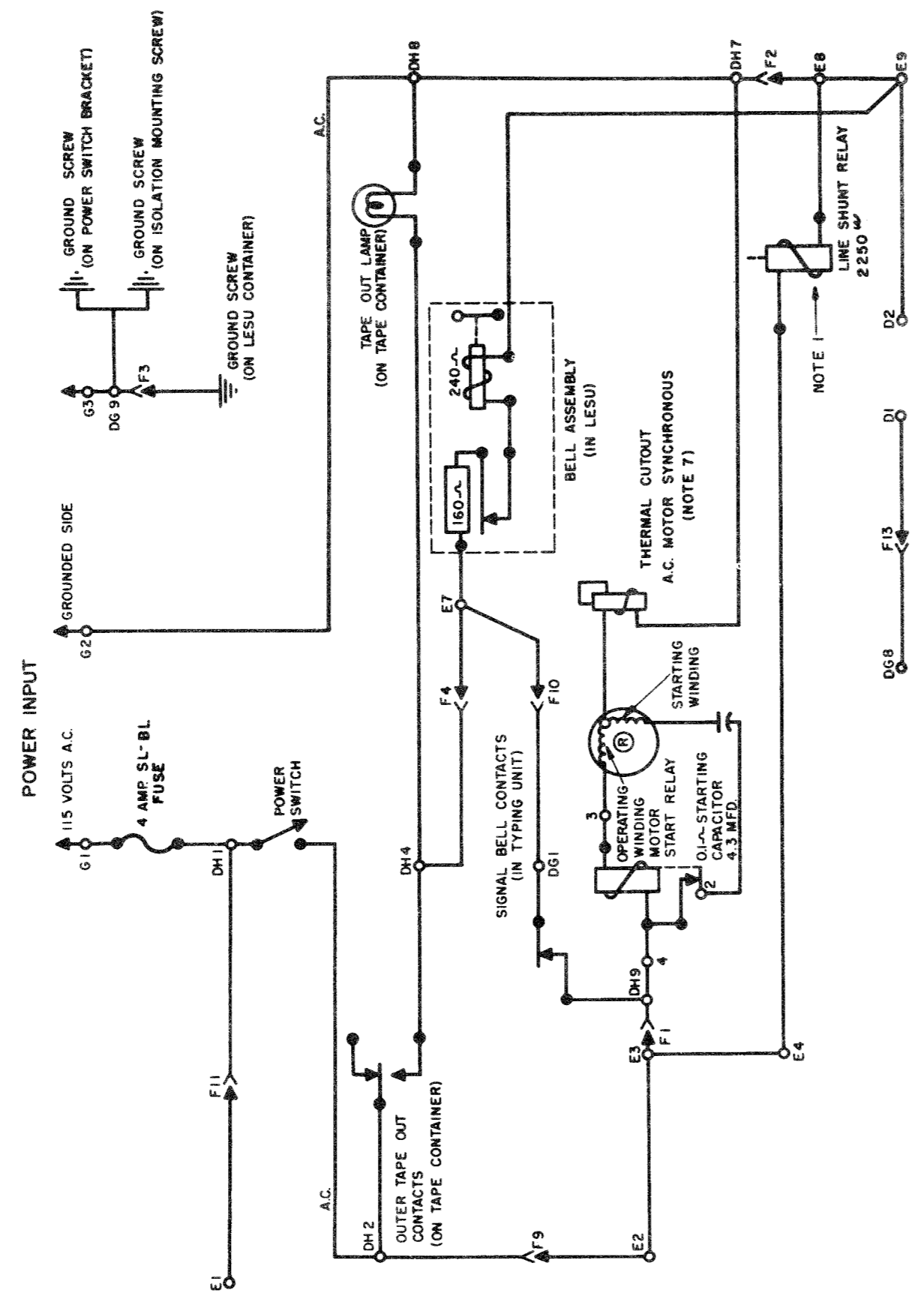


APPROVALS	
D AND	E OF M
E-NUMBER	
PROD. NO. 3624 WD	
ACTUAL WIRING DIAGRAM, MODEL 28 ELECTRICAL SERVICE UNIT, LESU 27	
DATE: 11-3-58	
RD. FILE NO. G-159 68 A A	
DRAWN J.W.R. CHKD.	
ENGD. J.R.H. APPD.	
TELETYPE CORPORATION	
3624 WD	

- NO. NOTES**
- LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING LINE RELAY COIL.
 - LEGEND:**

 - 6 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)
 - 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)
 - CIRCUIT SHOWN FOR EXTERNAL SIGNAL LINE OPERATION.
 - 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.
 - CIRCUITS SHOWN FOR 0.060 AMP NEUTRAL SIGNAL LINE OPERATION. FOR 0.020 AMP LINE CURRENT, ADD DASH LINE (---) CONNECTION AND OMIT CONNECTION MARKED (---)
 - FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE:

WD NUMBER	UNITS OPERABLE WITH LESU 27
3624 WD	ELECT. SERVICE UNIT - LESU 27.
2900 WD	MOTOR UNIT - LMU 3, 4, 6.
3319 WD	TYPING REPERF. BASE - LRB3, II



FOR CUSTOMER'S USE

3625 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
R	1-22-52	11228
M	4-26-53	78860

SCHMATIC WIRING DIAGRAM
MODEL 28
ELECTRICAL SERVICE UNIT LESU 27

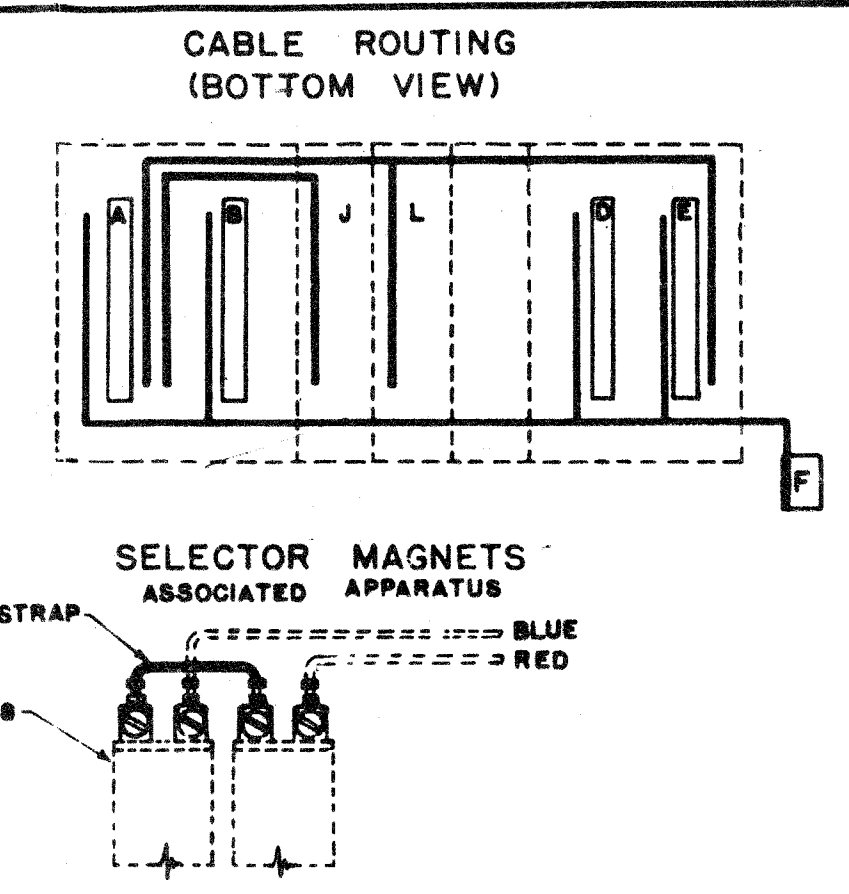
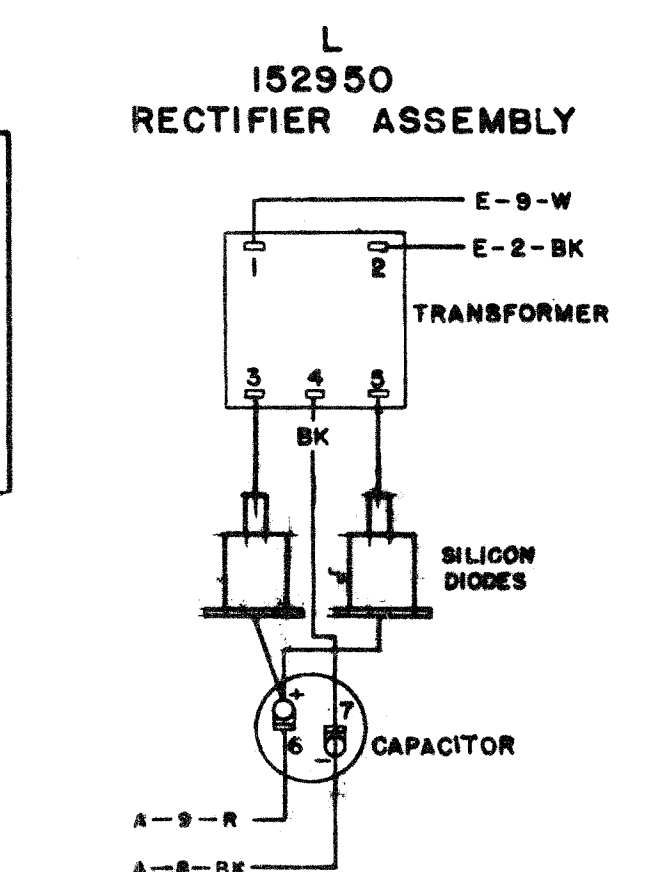
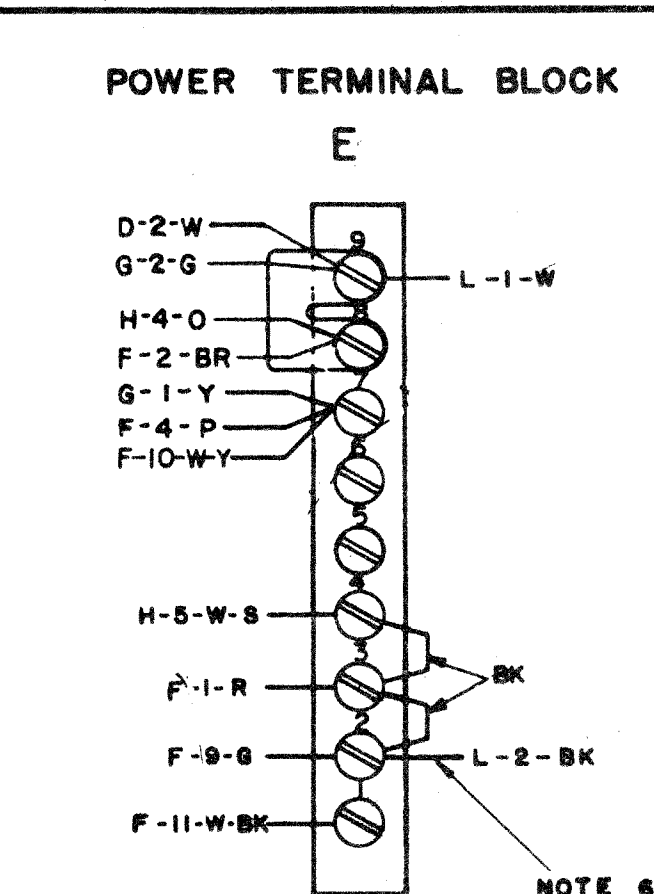
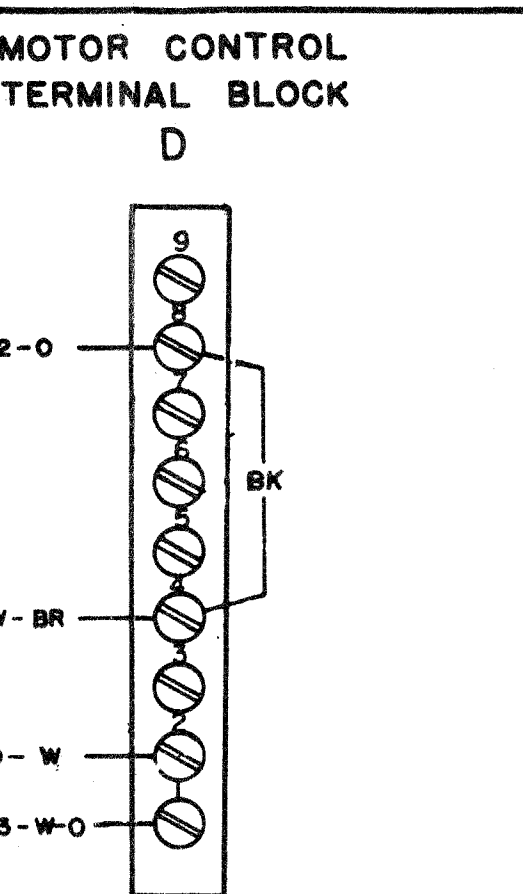
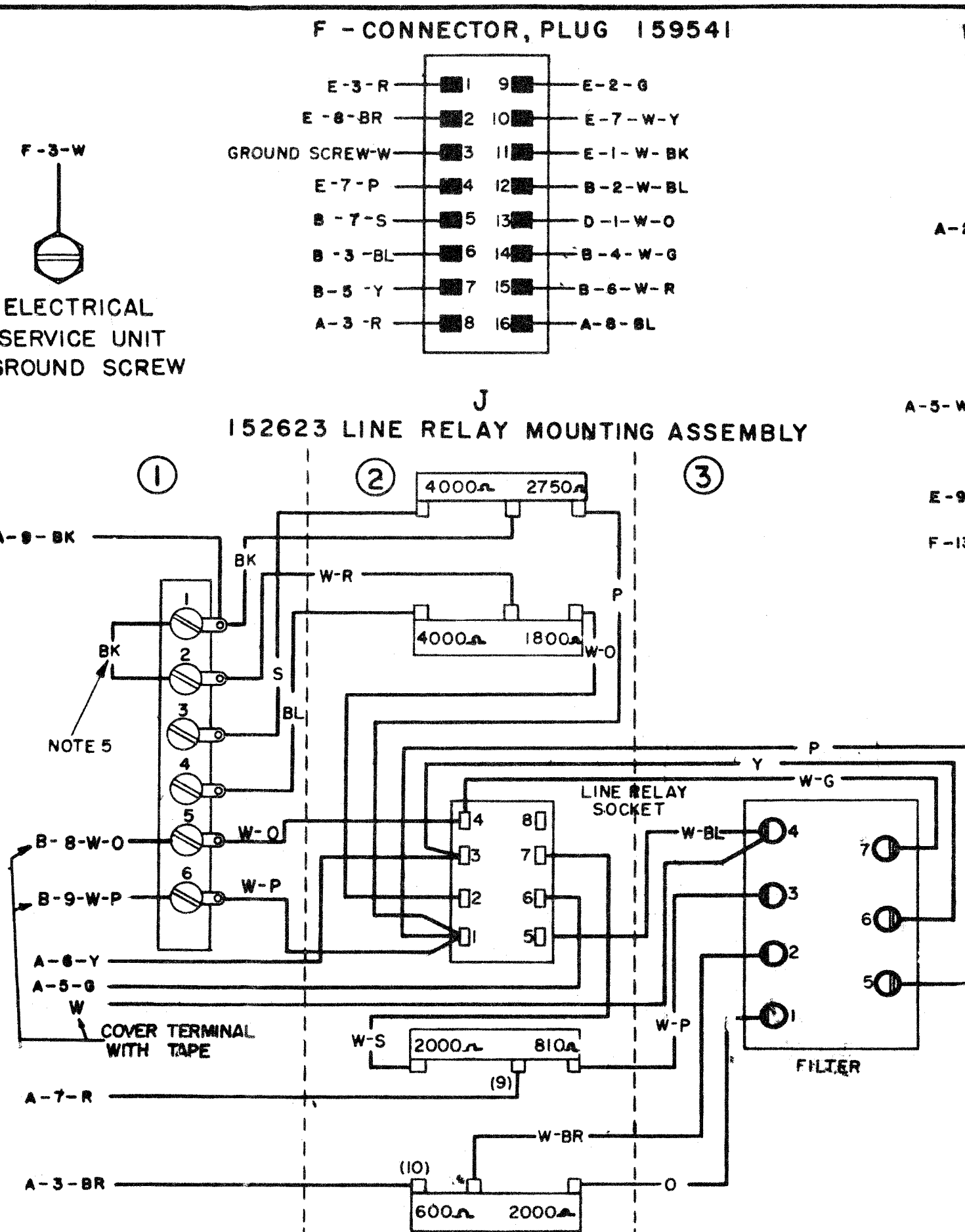
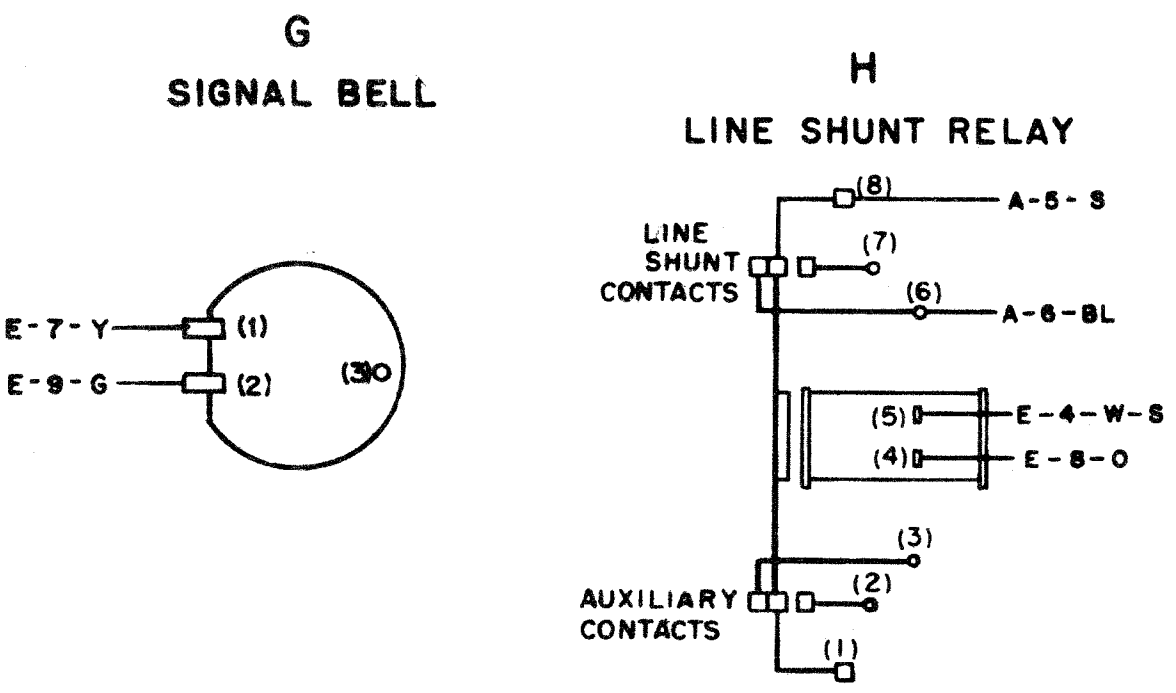
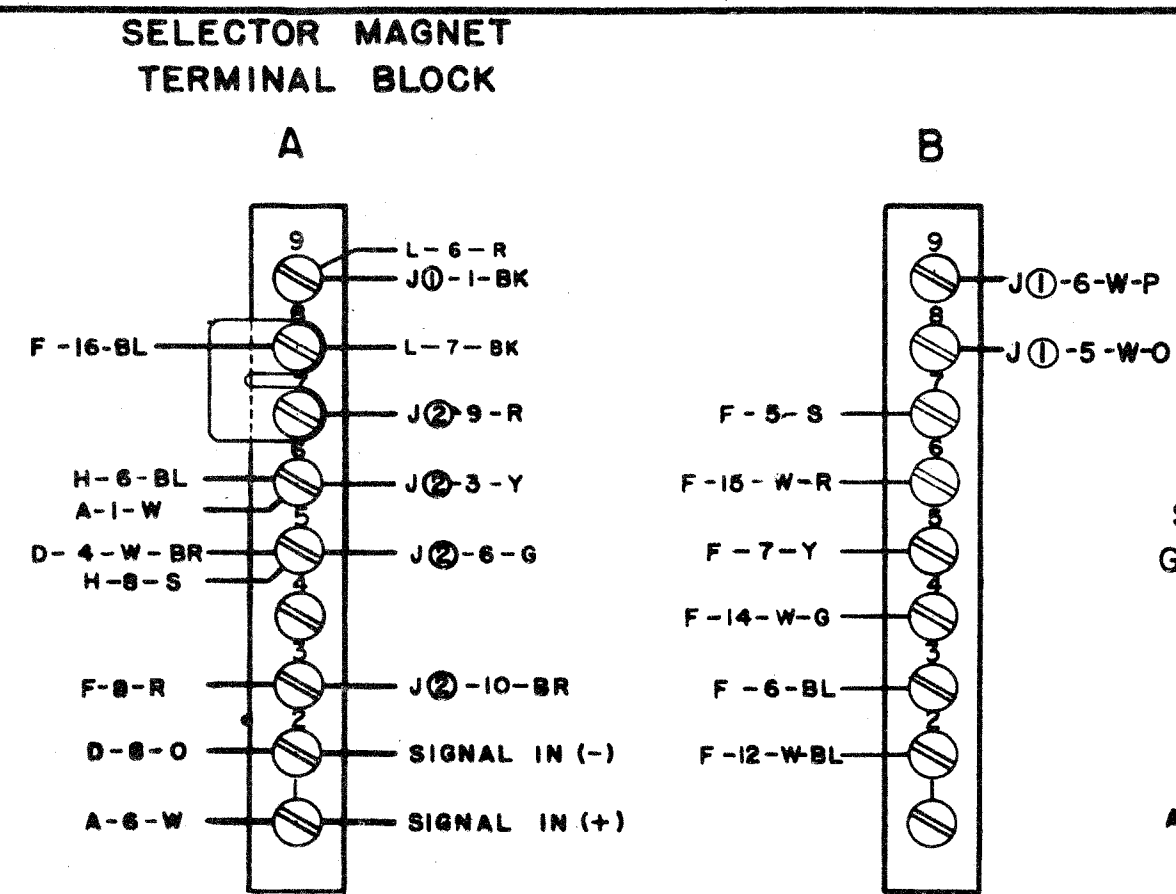
APPROVALS	
D AND R	E OF M
E-NUMBER	
PROD. NO. 3625 WD	
DATE: 12-16-58	
P.D. FILE NO. G-165, 89AA	
DRAWN: K.F.L. CHKD: [Signature]	
ENGD. J.R.H. APPD. [Signature]	
TELETYPE CORPORATION	
3625 WD	

R31/2 32A X1004

- 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-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 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.



3638 WD

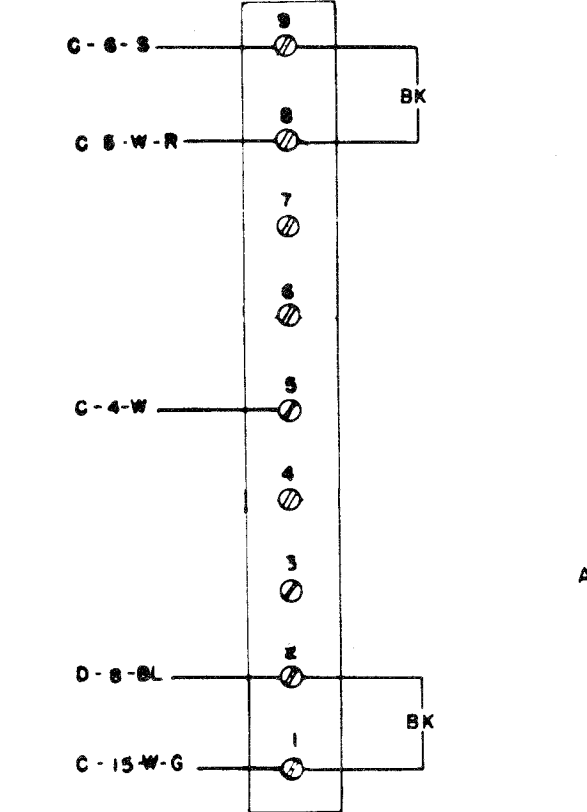
REVISIONS		
ISSUE	DATE	AUTH. NO.
A	3-27-61	68761-28
B	12-7-61	71860

ACTUAL WIRING DIAGRAM, MODEL 28 ELECTRICAL SERVICE UNIT, LESU 30

APPROVALS	
D AND S	E OF M
E-NUMBER	
PROD. NO. 3638 WD	
DATE: 12-19-58	
P.D. FILE NO. 6-159-66AA	
DRAWN K.F.L. CHKD. J.C.C.	
ENG'D D.C.L. APPG. J.C.C.	
TELETYPE CORPORATION	
3638 WD	

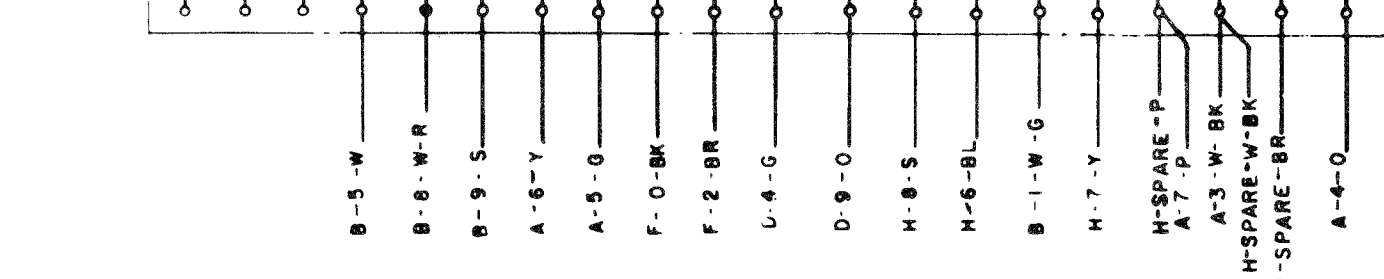
B

LINE TEST KEY TERMINAL BLOCK



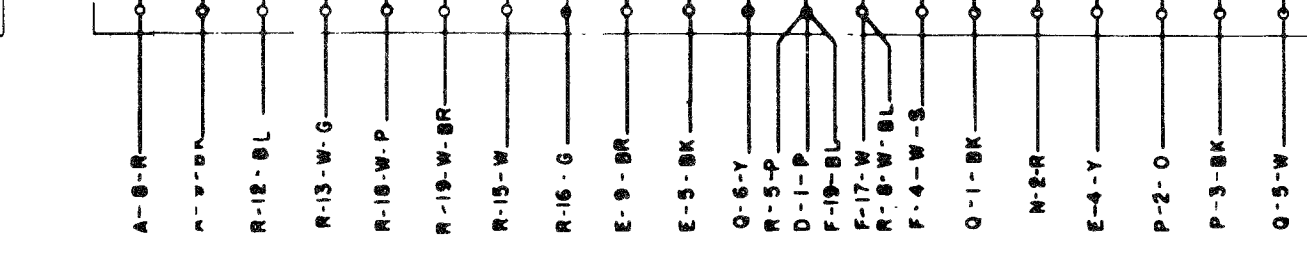
CABINET TERMINAL BLOCK

NOTE 7
NOTE 7 & 9



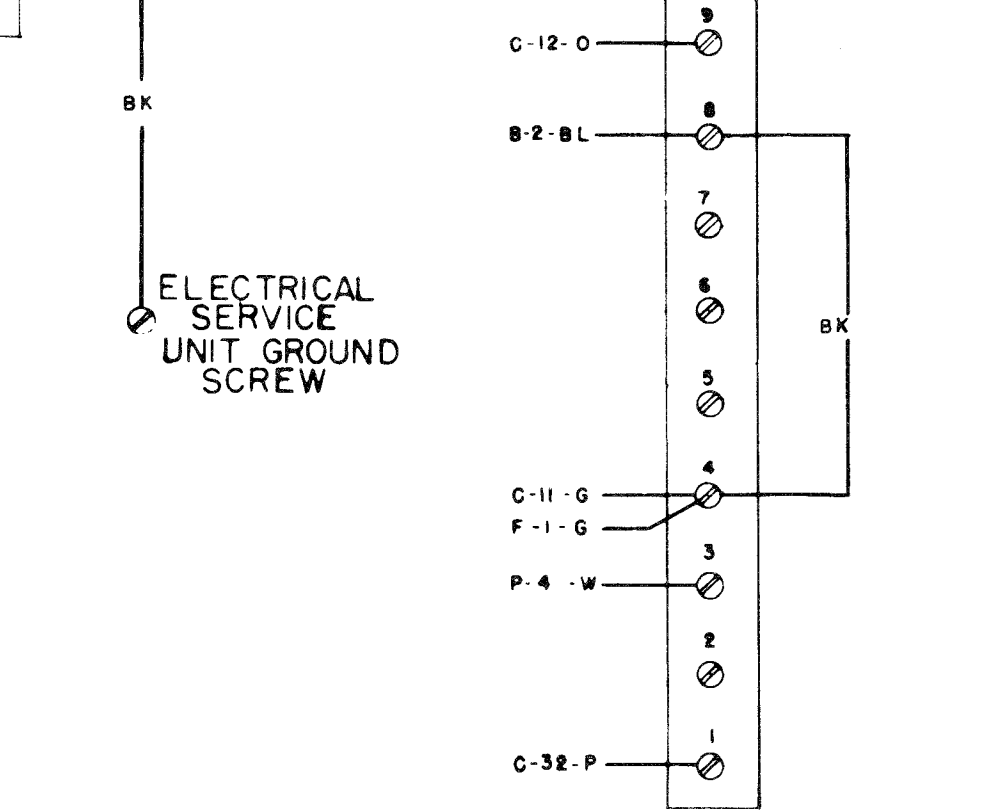
C

CABINET TERMINAL BLOCK



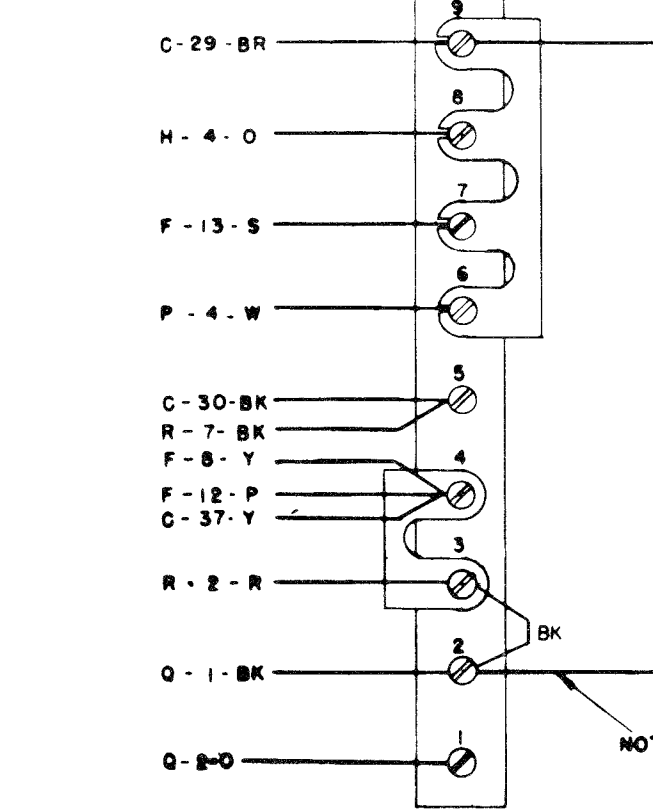
D

MOTOR CONTROL TERMINAL BLOCK



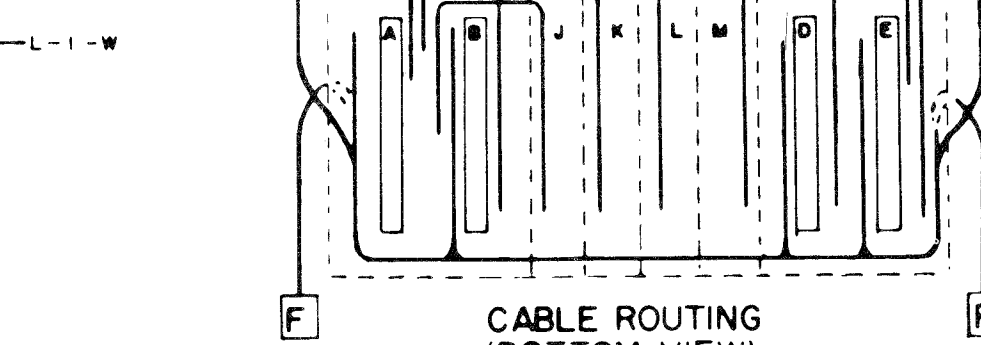
E

POWER TERMINAL BLOCK



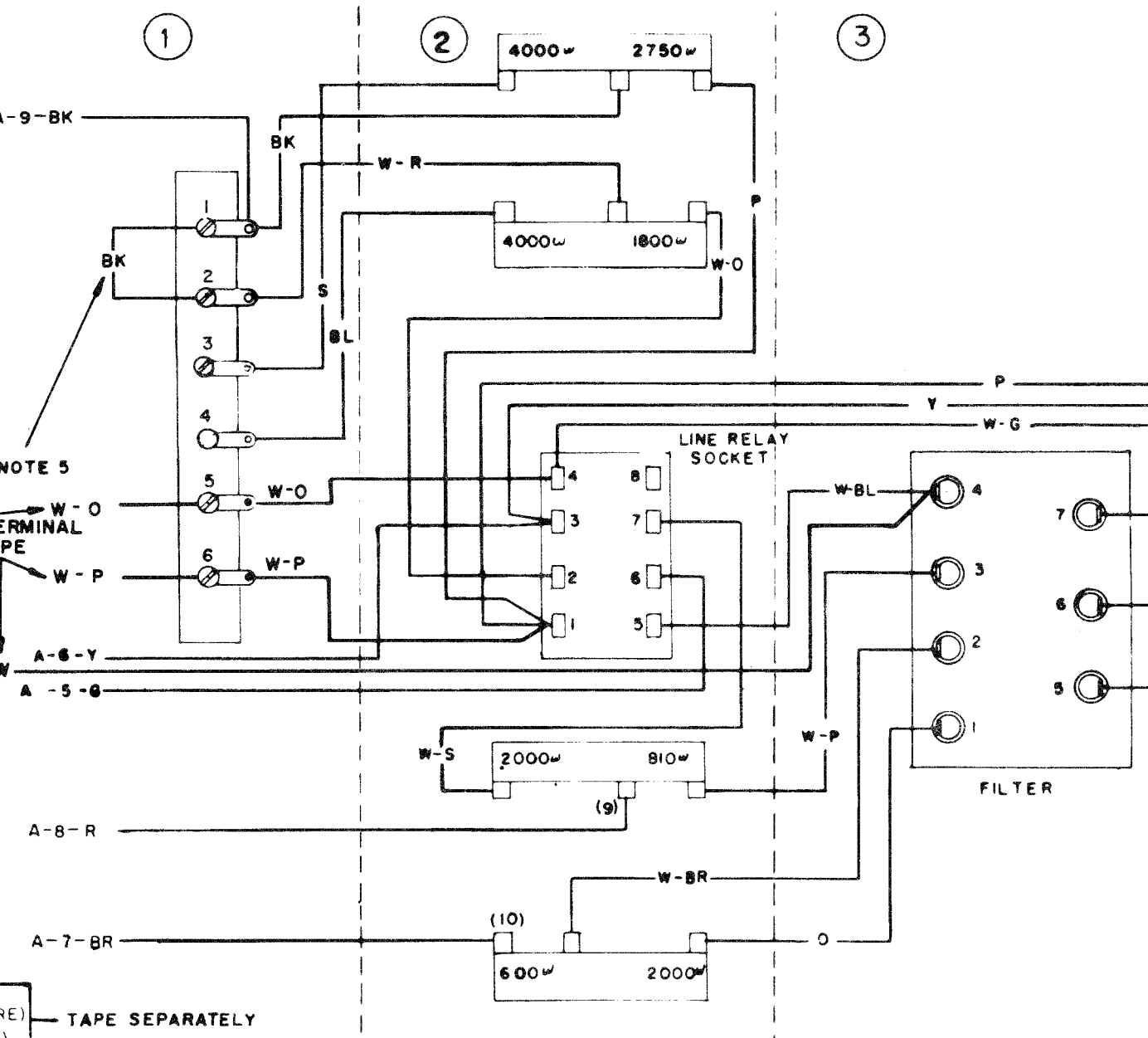
F

CABLE ROUTING (BOTTOM VIEW)



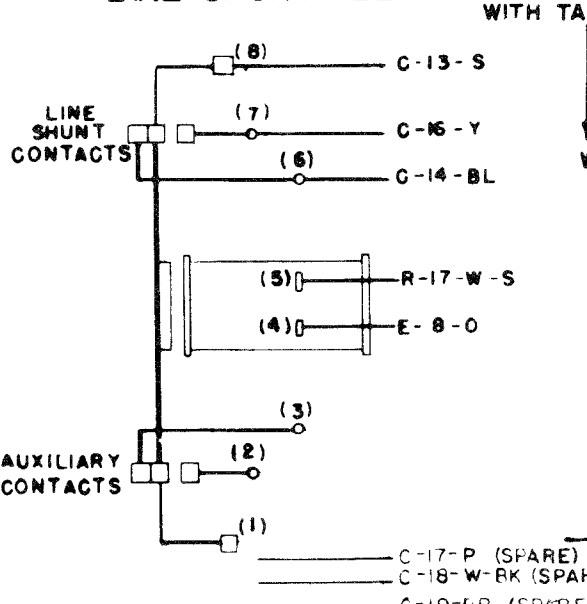
J

152623 LINE RELAY MOUNTING ASSEMBLY



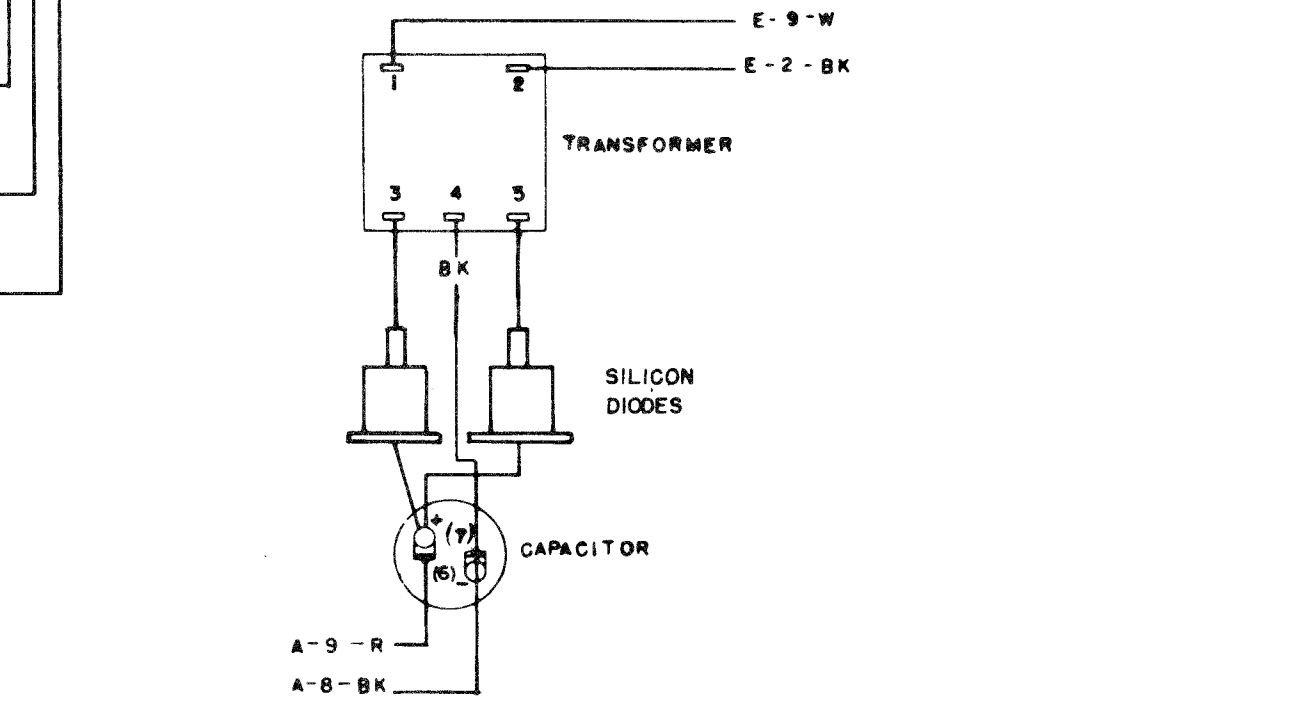
H

LINE SHUNT RELAY



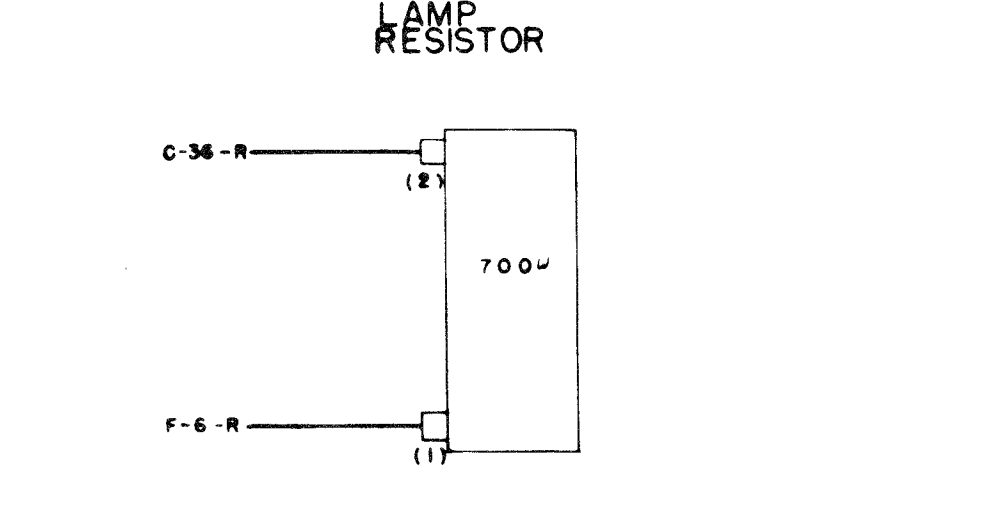
L

152950 RECTIFIER ASSEMBLY



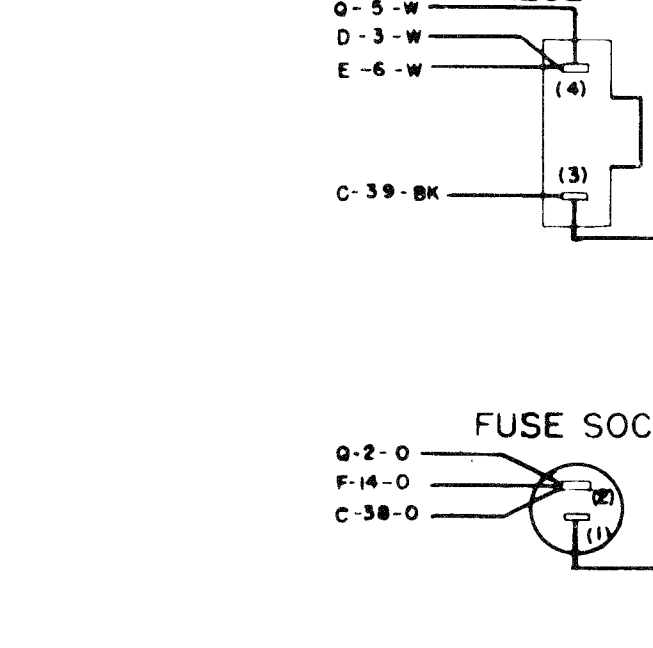
N

MARGIN INDICATOR LAMP RESISTOR



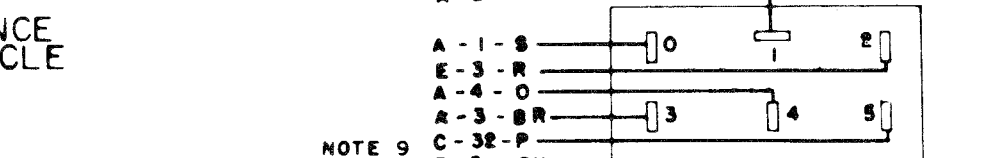
P

CONVENIENCE RECEPTACLE



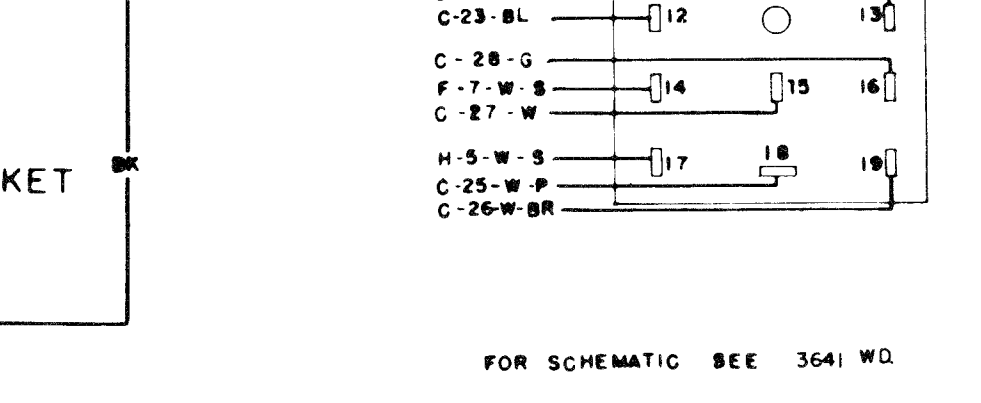
Q

POWER SWITCH



R

TYPING UNIT CONNECTOR PLUG



REVISIONS		
ISSUE	DATE	AUTH. NO.
A	3-2-61	68761-28
B	12-7-61	7145-1
C	3-7-67	69761-14

3640 WD
12-19-58

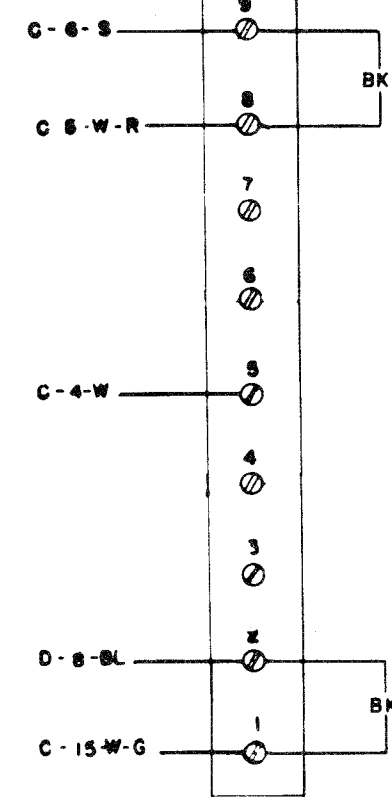
ACTUAL WIRING DIAGRAM
MODEL 28
ELECTRICAL SERVICE UNIT
LESU 31

DRAWN: E.M. APPROVED: ENGR: DCL
CHECKED: *EAK*
FILE: G-159.65 AA

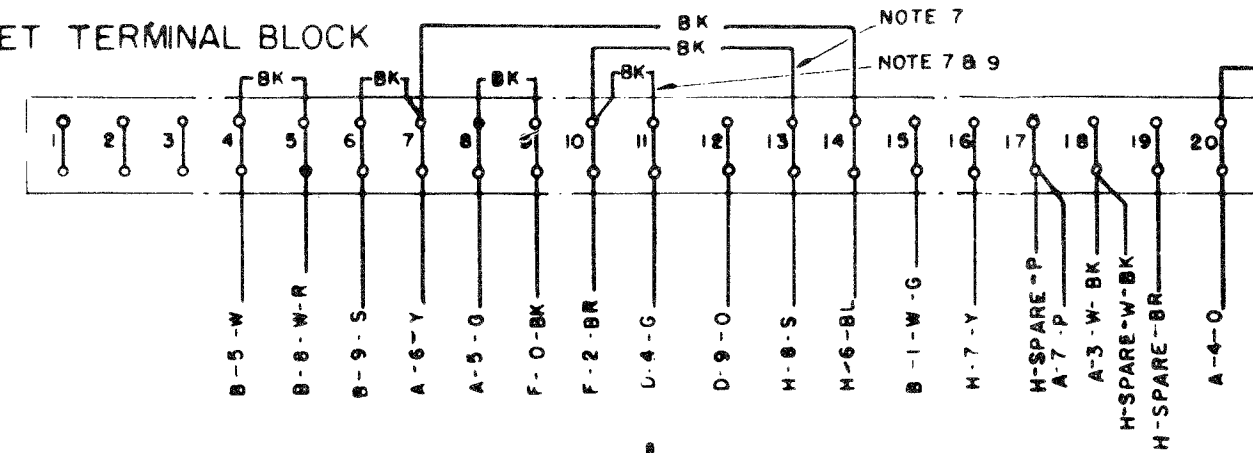
FOR SCHEMATIC SEE 3641 WD

TELETYPE CORPORATION

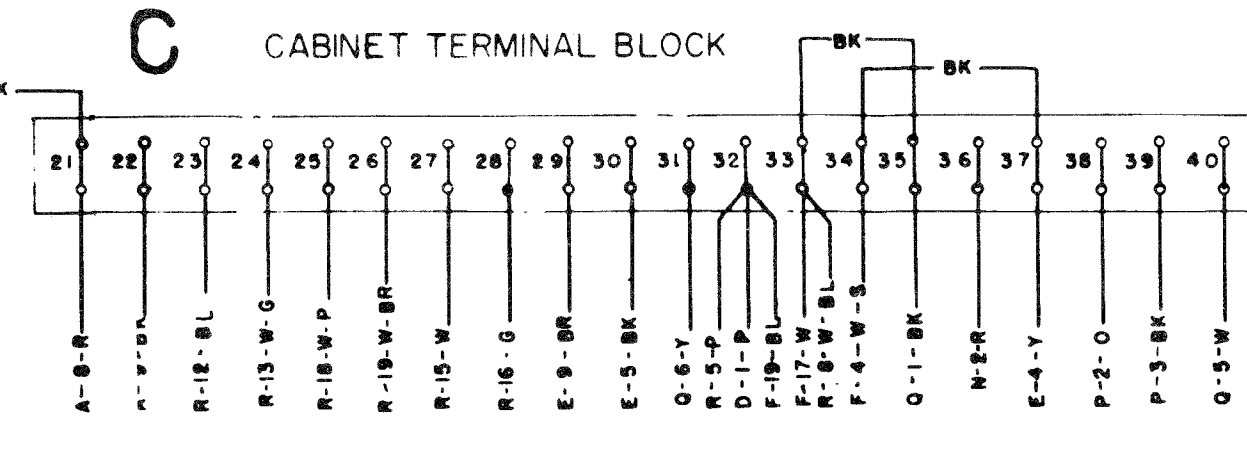
B LINE TEST KEY TERMINAL BLOCK



CABINET TERMINAL BLOCK



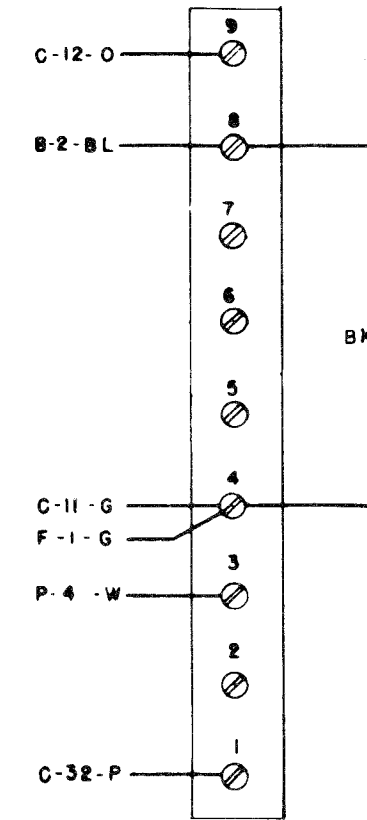
C CABINET TERMINAL BLOCK



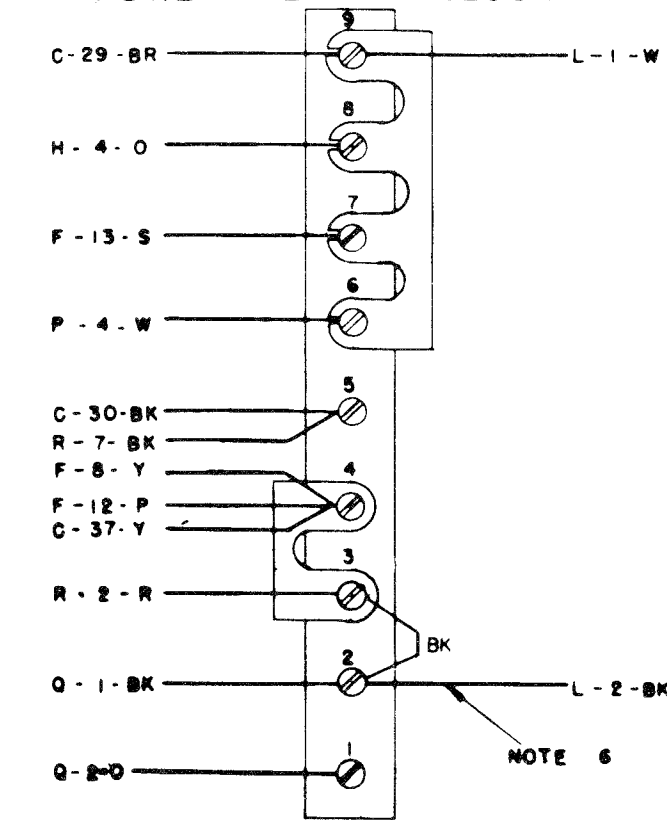
TO CABINET GROUND SCREW

ELECTRICAL SERVICE UNIT GROUND SCREW

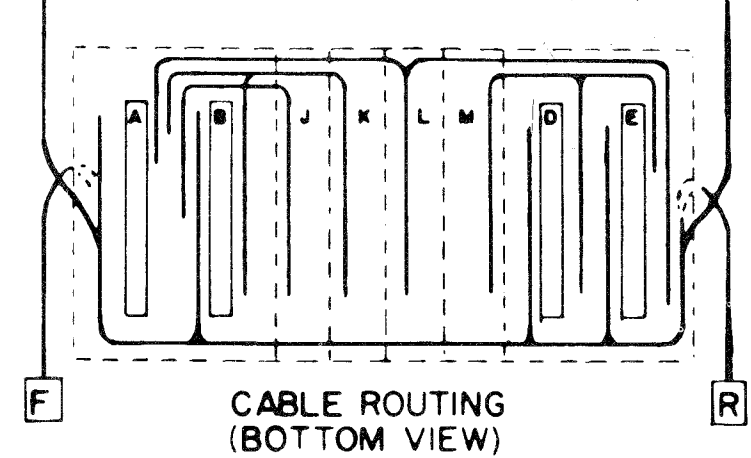
D MOTOR CONTROL TERMINAL BLOCK



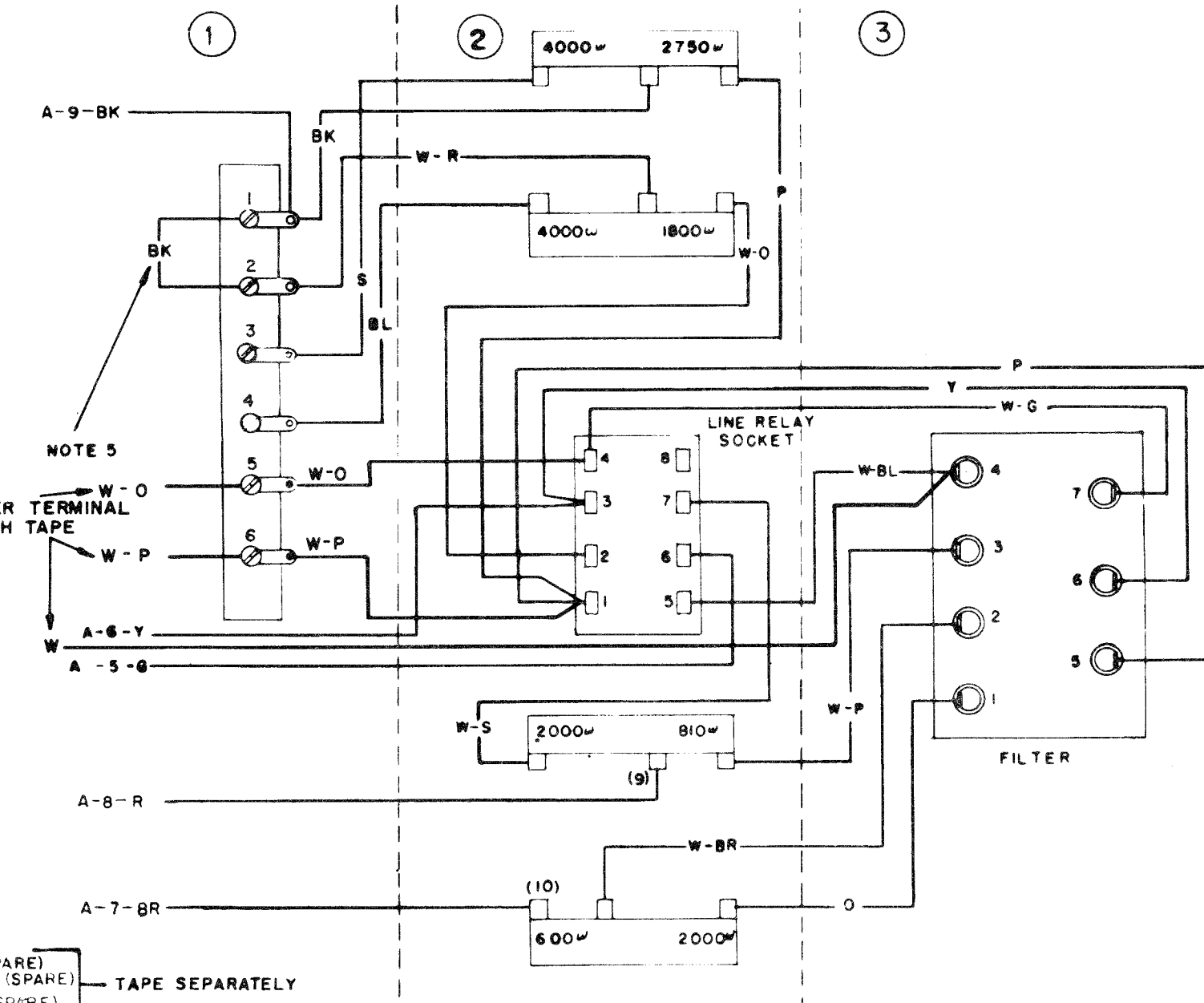
E POWER TERMINAL BLOCK



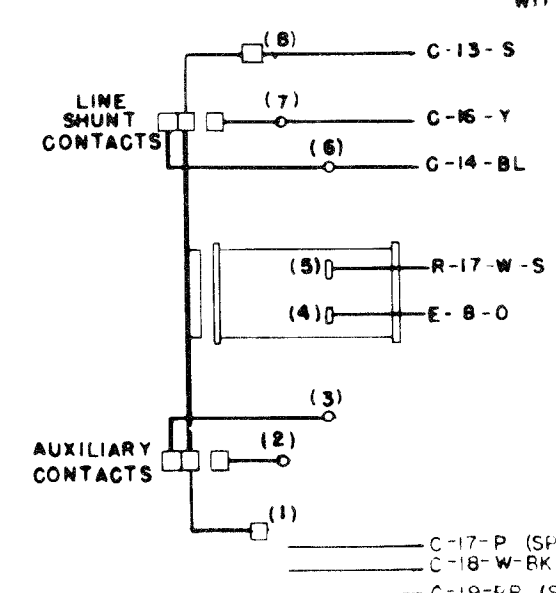
CABLE ROUTING (BOTTOM VIEW)



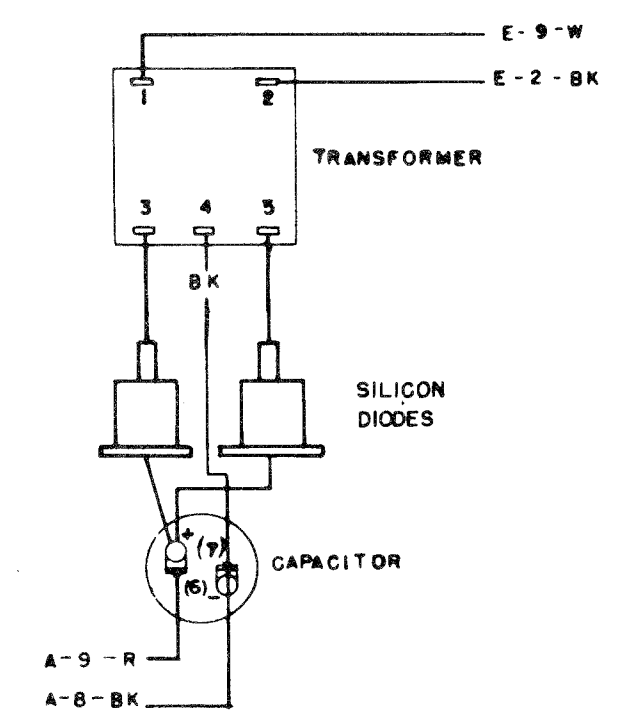
J 152623 LINE RELAY MOUNTING ASSEMBLY



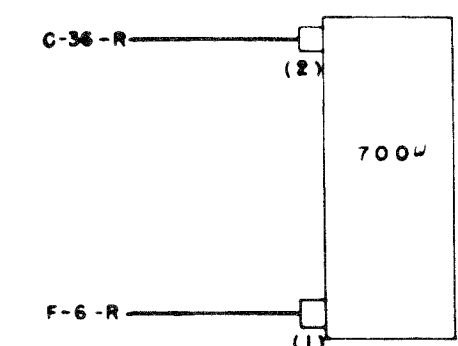
H LINE SHUNT RELAY



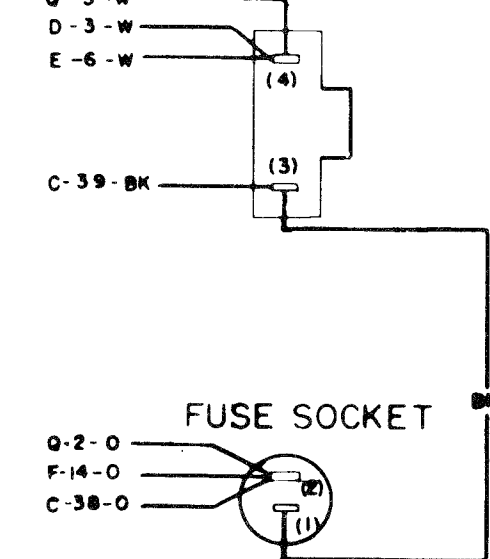
L 152950 RECTIFIER ASSEMBLY



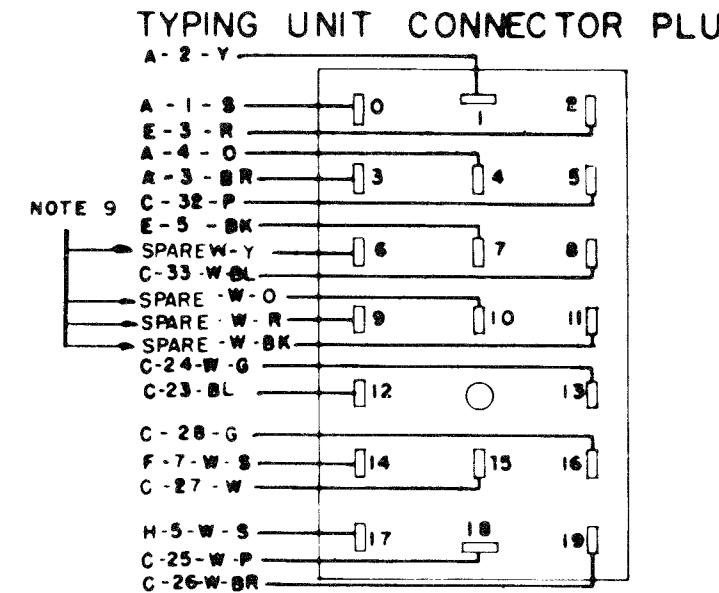
N MARGIN INDICATOR LAMP RESISTOR



P CONVENIENCE RECEPTACLE



R TYPING UNIT CONNECTOR PLUG



FOR SCHEMATIC SEE 3641 WD

REVISIONS		
ISSUE	DATE	AUTH. NO.
A	3-2-61	68761-2R
B	12-7-61	71451
C	3-28-67	69760-1A

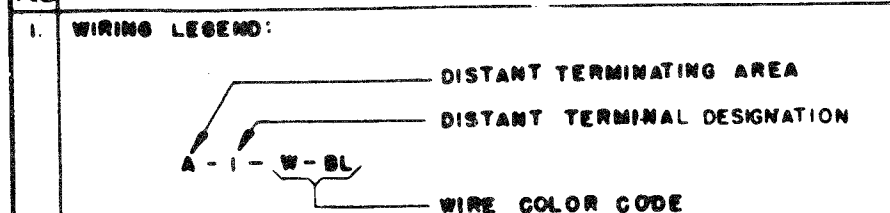
3640 WD
12-19-58

ACTUAL WIRING DIAGRAM
MODEL 28
ELECTRICAL SERVICE UNIT
LESU 31

DRAWN: E.M.	APPROVED:
ENGR/DCL	
CHECKED: <i>EJK</i>	
FILE: G-159.65 AA	

TELETYPE CORPORATION

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 .060 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	J①-1 - J①-2	J①-3 - J①-4

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.

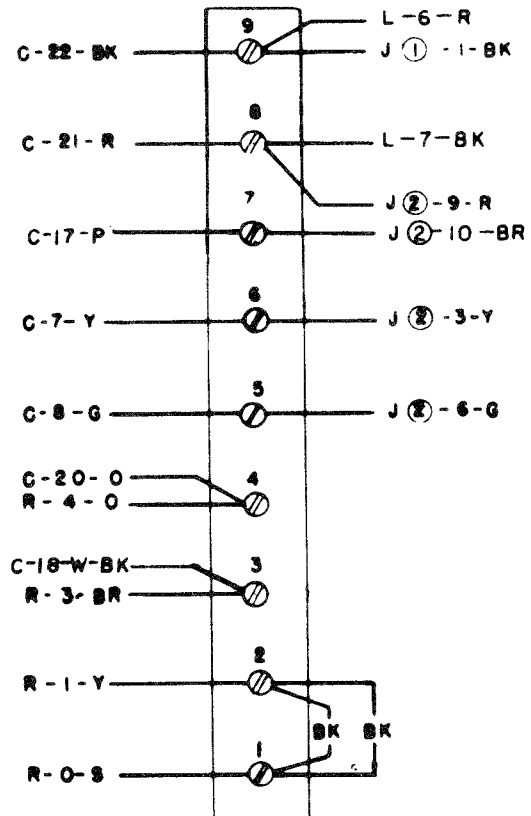
a. FOR KEYBOARD OPERATION
TERMINAL 13 MAY BE CONNECTED TO EITHER TERMINAL C-9, C-10, C-11 OR C-15 TO OBTAIN DESIRED SHUNTING OF THE SIGNAL LINE CIRCUIT

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

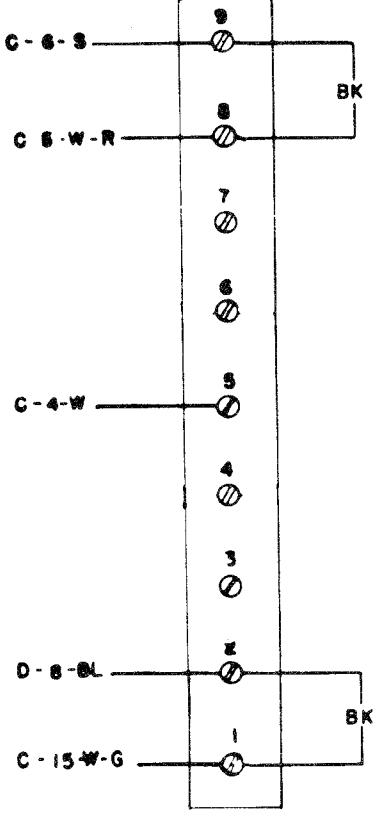
8. THE SPARE LEADS FROM THE KEYBOARD AND TYPING UNIT CONNECTOR PLUGS ARE TERMINATED IN THE RIGHT AND LEFT ENDS OF THE ELECTRICAL SERVICE UNIT RESPECTIVELY.

9. FOR LESU 31 SPlice AND TAPE SPARE LEADS AS FOLLOWS: F-9-W-Y, 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

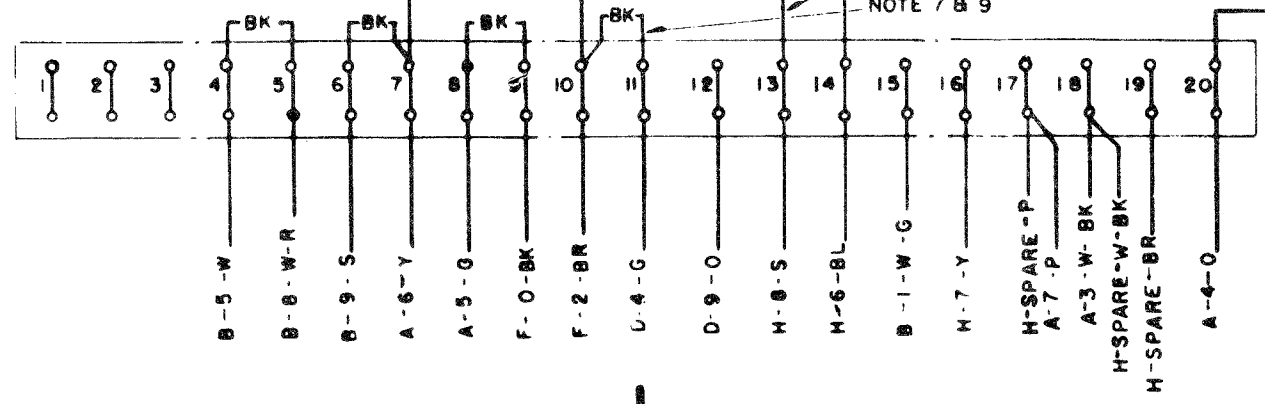
A
SELECTOR MAGNET TERMINAL BLOCK



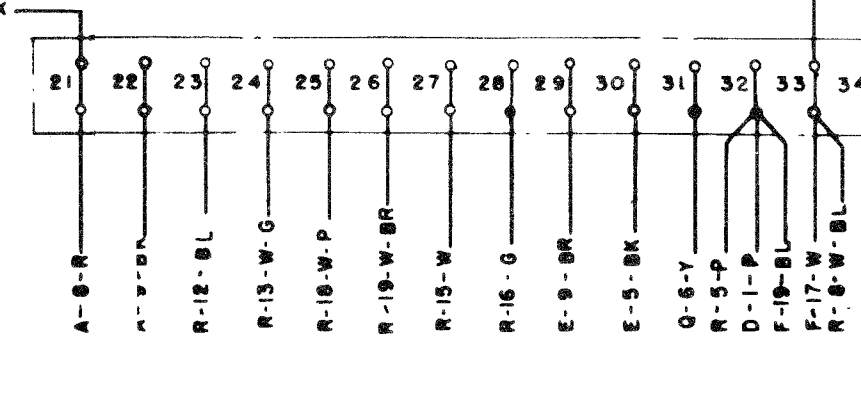
B
LINE TEST KEY TERMINAL BLOCK



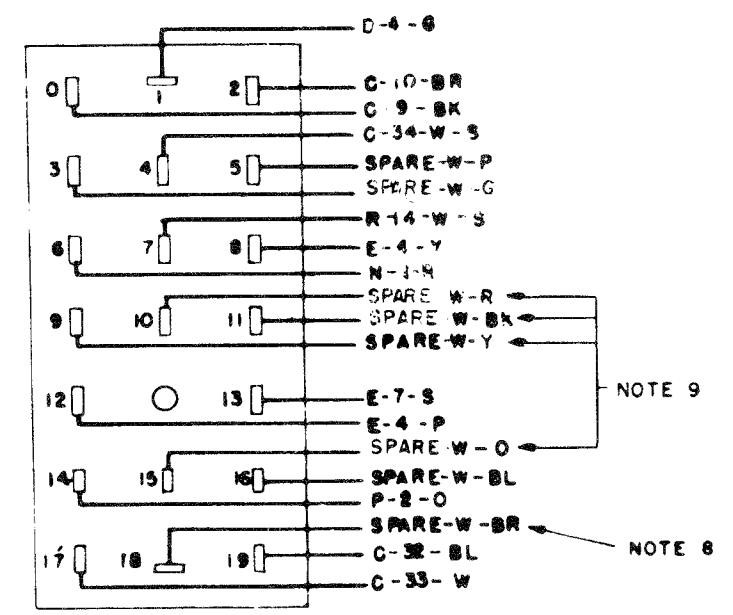
CABINET TERMINAL BLOCK



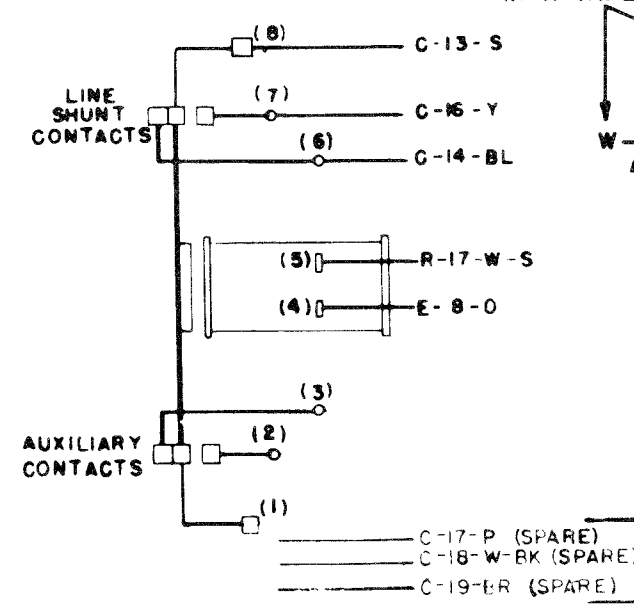
C CABINET TERMINAL BLOCK



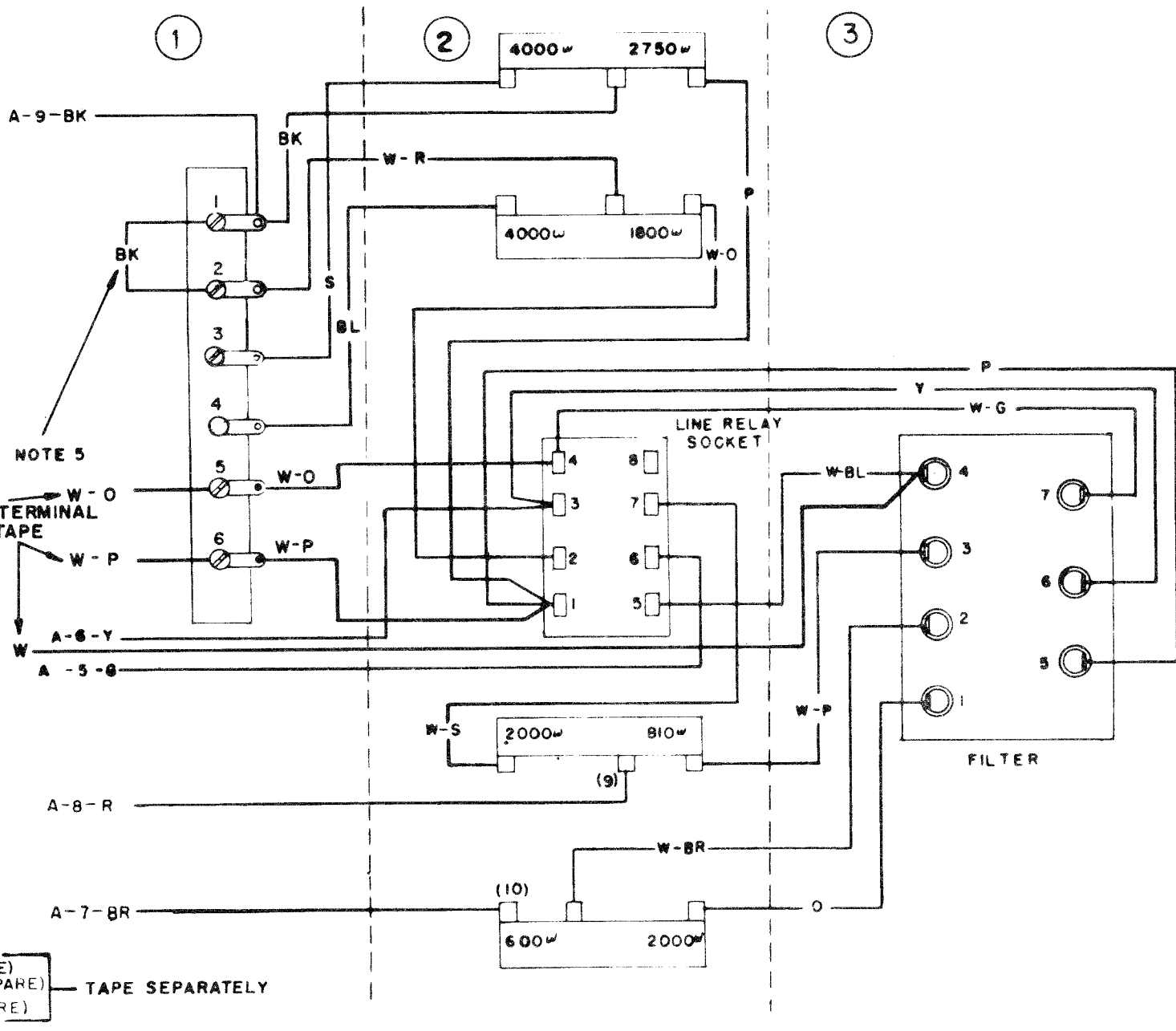
F
KEYBOARD CONNECTOR PLUG



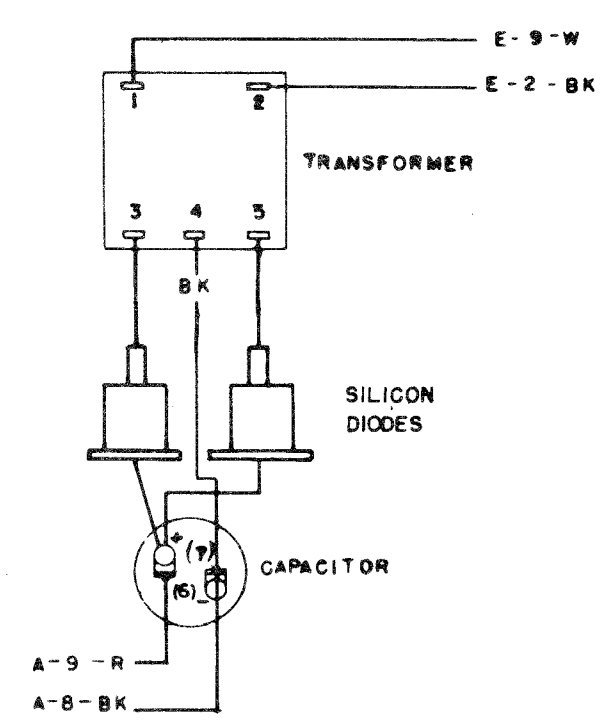
H
LINE SHUNT RELAY



J
152623
LINE RELAY MOUNTING ASSEMBLY



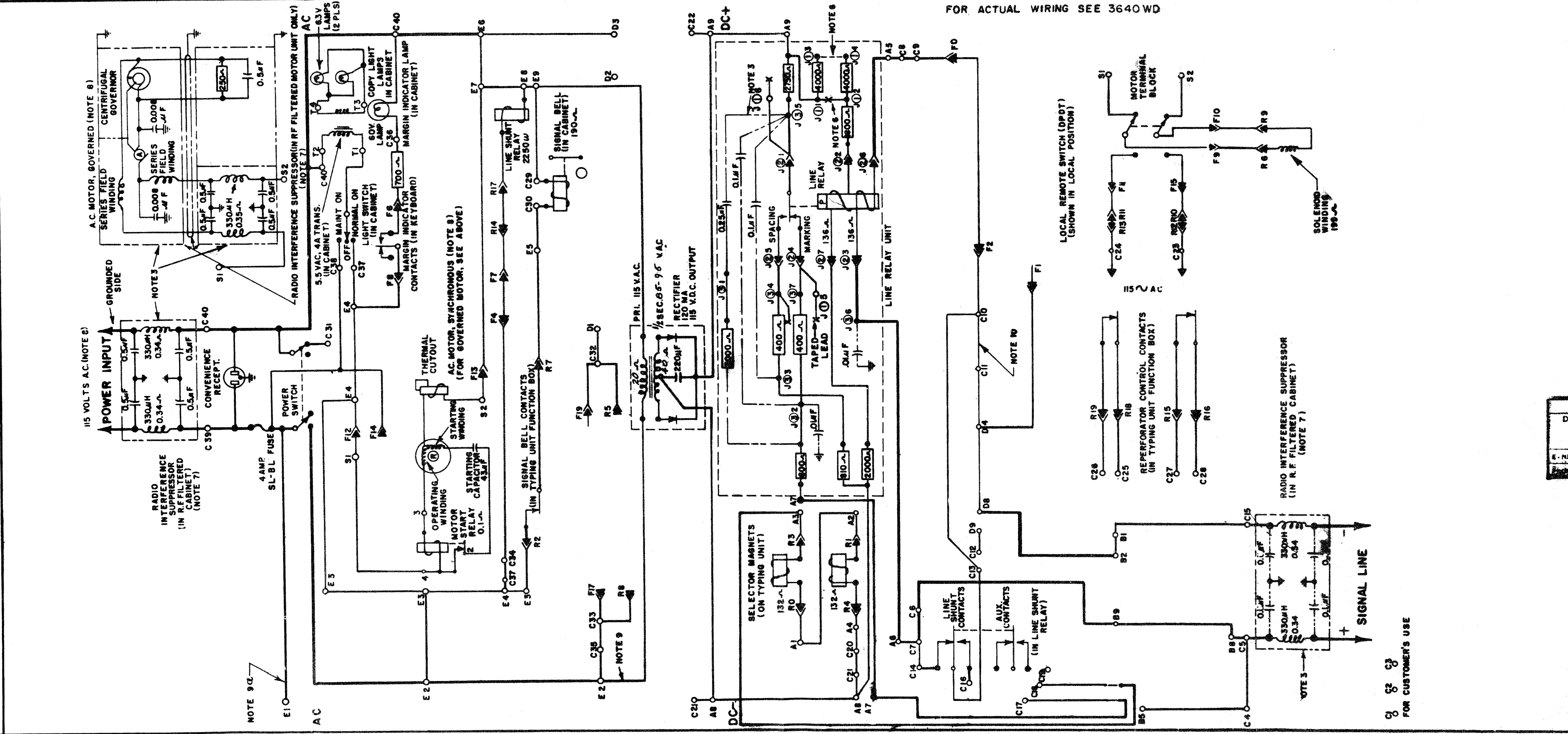
L
152950
RECTIFIER ASSEMBLY



RA 1/2
33 x 10 3/4

NO	NOTES
1	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS, SEE: WD NUMBER UNITS DIRECTLY OPERABLE WITH LESU 31
2	2833 WD BASE, RECEIVING ONLY—L B 4 2835 WD CABINETS—LAC 203, 204, 205 2840 WD ELECTRICAL SERVICE UNIT—LESU 31 2882 WD KEYBOARDS—L K 4, 5 2900 WD MOTOR UNITS—L M U 3, 4, 6 2884 WD PAGE TYPING UNITS—L P 4, 5, 7 2880 WD PAGE TYPING UNITS—L P 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 ASSEM. 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	BOT DASH—LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.
5	ALL APPARATUS IS SHOWN IN UNENERGIZED OR DE-ENERGIZED POSITIONS.
6	R RESISTANCE VALUES IN OHMS (Ω) L INDUCTANCE VALUES IN MICRohenries (μH) C CAPACITANCE VALUES IN MICROFARADS (μF)
7	CIRCUITS SHOWN FOR 600 AMP NEUTRAL SIGNAL LINE OPERATION. FOR 250 AMP LINE CURRENT, ADD DASHED CONNECTION AND OMIT CONNECTION MARKED IN LINE RELAY CIRCUIT.
8	USE POWER AND SIGNAL LINE SUPPRESSOR AND SYNC. OR GOV. FILT. MOTOR FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE. A. FOR OTHER INSTALLATIONS, OMIT SUPPRESSORS AND CONNECT INPUTS AND GOV. MOTOR DIRECT TO TERMINALS SHOWN.
9	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.
10	RECTIFIER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION, MOVE PRIMARY (INPUT) LEAD FROM E 2 TO E 1.
11	WHEN RECEIVING ONLY BASE IS USED CONNECT C-10 TO C-11
12	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 31
2	2833 WD BASE, RECEIVING ONLY—L B 4 2835 WD CABINETS—LAC 203, 204, 205 2840 WD ELECTRICAL SERVICE UNIT—LESU 31 2882 WD KEYBOARDS—L K 4, 5 2900 WD MOTOR UNITS—L M U 3, 4, 6 2884 WD PAGE TYPING UNITS—L P 4, 5, 7 2880 WD PAGE TYPING UNITS—L P 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 ASSEM. 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	BOT DASH—LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.
5	ALL APPARATUS IS SHOWN IN UNENERGIZED OR DE-ENERGIZED POSITIONS.
6	R RESISTANCE VALUES IN OHMS (Ω) L INDUCTANCE VALUES IN MICRohenries (μH) C CAPACITANCE VALUES IN MICROFARADS (μF)
7	CIRCUITS SHOWN FOR 600 AMP NEUTRAL SIGNAL LINE OPERATION. FOR 250 AMP LINE CURRENT, ADD DASHED CONNECTION AND OMIT CONNECTION MARKED IN LINE RELAY CIRCUIT.
8	USE POWER AND SIGNAL LINE SUPPRESSOR AND SYNC. OR GOV. FILT. MOTOR FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE. A. FOR OTHER INSTALLATIONS, OMIT SUPPRESSORS AND CONNECT INPUTS AND GOV. MOTOR DIRECT TO TERMINALS SHOWN.
9	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.
10	RECTIFIER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION, MOVE PRIMARY (INPUT) LEAD FROM E 2 TO E 1.
11	WHEN RECEIVING ONLY BASE IS USED CONNECT C-10 TO C-11
12	LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING SIGNAL LINE.



3641 WD REVISIONS		
ISSUE	DATE	AUTH. NO.
A	8-4-59	28-11508
B	1-20-61	28-14824
C	3-23-61	68761-27
D	12-7-61	71880
E	8-26-62	89788-40
F	11-28-63	78880

APPROVALS	
D AND	E OF M
E. REPRODUCED	

SCHEMATIC WIRING DIAGRAM
ELECTRICAL SERVICE UNIT
LESU 31
ASSOCIATED MODEL 28 APPARATUS

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

DATE: 12-19-59
R.D. FILE NO. 8-199, 85A
DRAWN: K.F.L. CHKD: [Signature]
ENGD. D.C.L. APPD: [Signature]

TELETYPE CORPORATION
3641 WD

FOR CUSTOMER'S USE

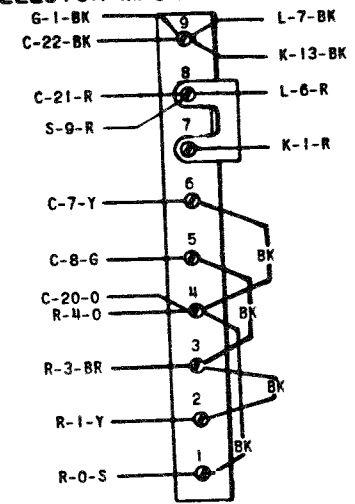
REVISIONS

ISSUE	DATE	AUTH. NO.
A 2	8-4-59	28-11508
B 3	10-5-59	28-11798
E 4	3-20-61	69286
5	3-27-61	68761-28
6	3-28-62	69768-10

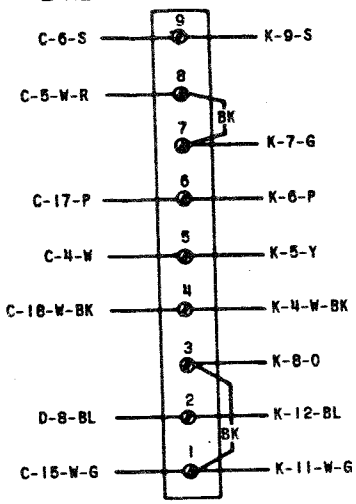
- NO. NOTES
1. WIRING LEGEND:
 DISTANT TERMINATING AREA
 DISTANT TERMINATING DESIGNATION
 WIRE COLOR CODE
 2. COLOR CODE:
 BK - BLACK G - GREEN
 BR - BROWN BL - BLUE
 R - RED P - PURPLE
 O - ORANGE W - WHITE
 Y - YELLOW S - SLATE
 3. UNIT WIRED FOR 115 VOLTS, 50 TO 60 CYCLE A.C. POWER INPUT ONLY.
 4. CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS.
 5. CIRCUITS SHOWN FOR .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, 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 LBXD IS USED IN PLACE OF LXD, MAKE THE FOLLOWING CHANGES:
 OMIT CONNECTIONS ADD CONNECTIONS
 C-142 TO C-150 C-131 TO C-132

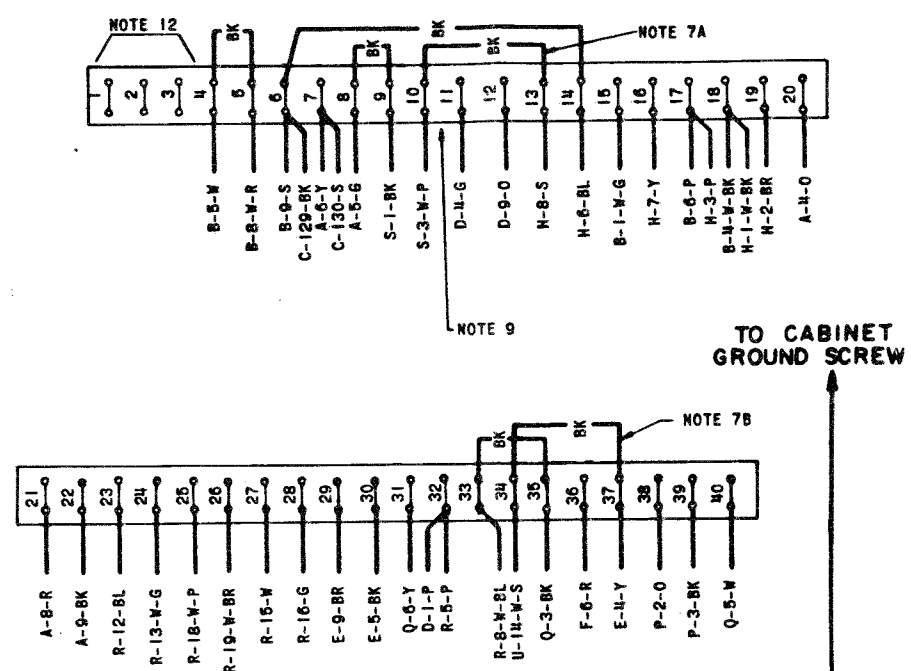
A SELECTOR MAGNET TERMINAL BLOCK



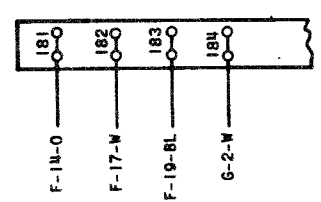
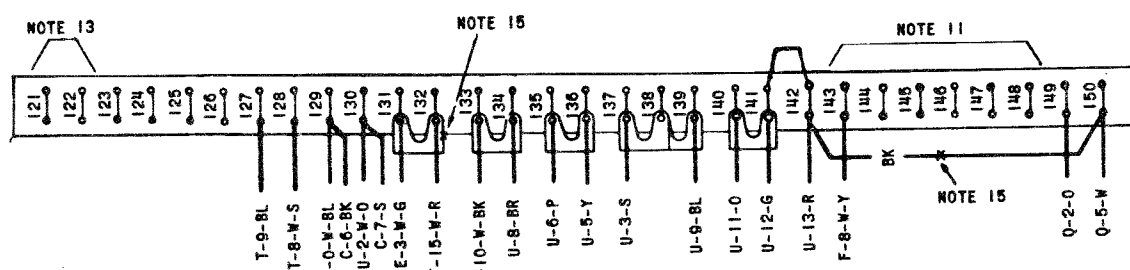
B LINE TEST KEY TERMINAL BLOCK



C CABINET TERMINAL BLOCK



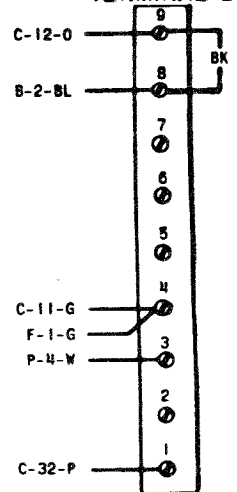
C CABINET TERMINAL BLOCK



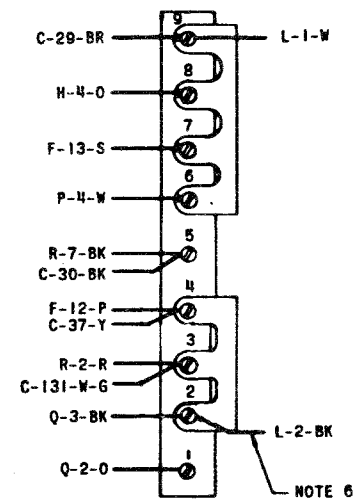
ELECTRICAL SERVICE UNIT GROUND SCREW

TO CABINET GROUND SCREW

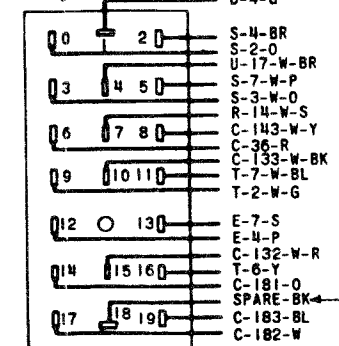
D MOTOR CONTROL TERMINAL BLOCK



E POWER TERMINAL BLOCK



F KEYBOARD CONNECTOR (FEMALE)



ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT LESU32

APPROVALS

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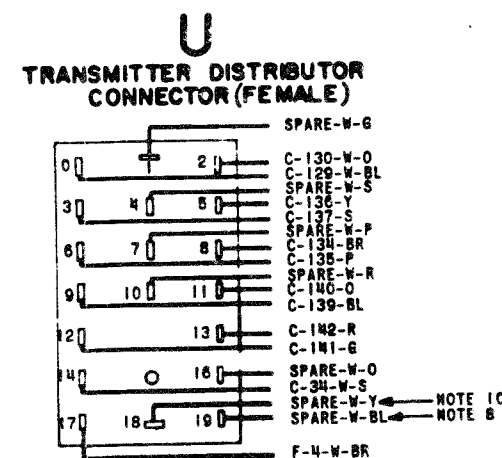
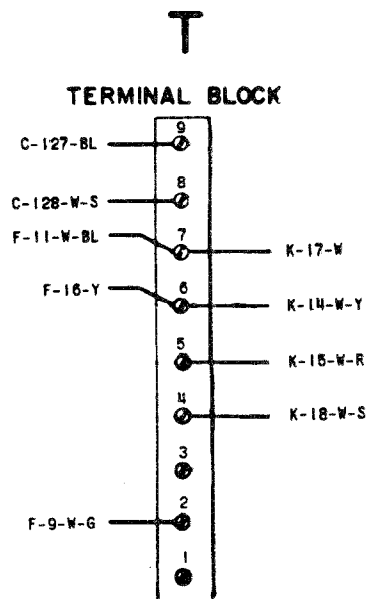
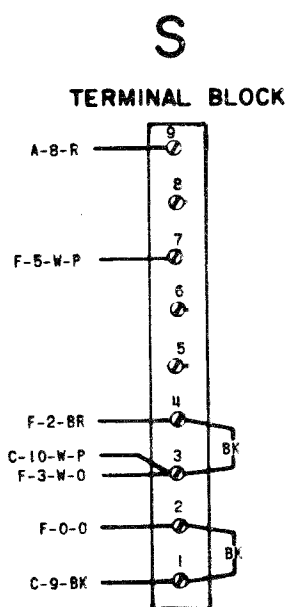
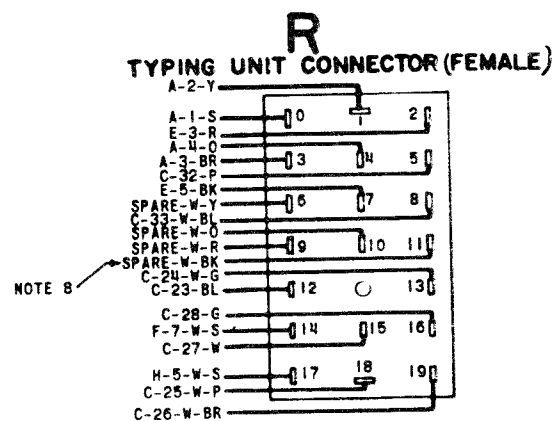
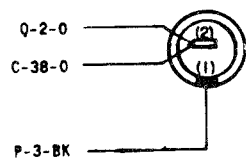
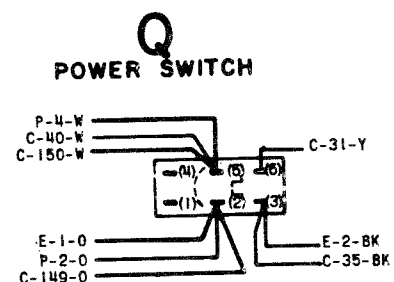
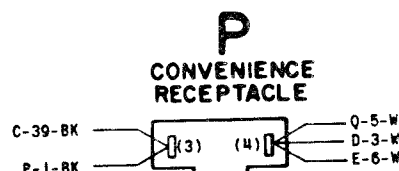
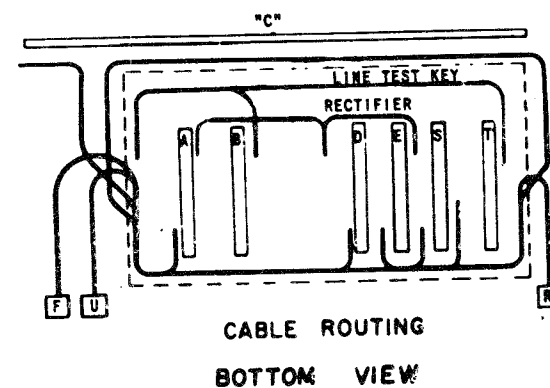
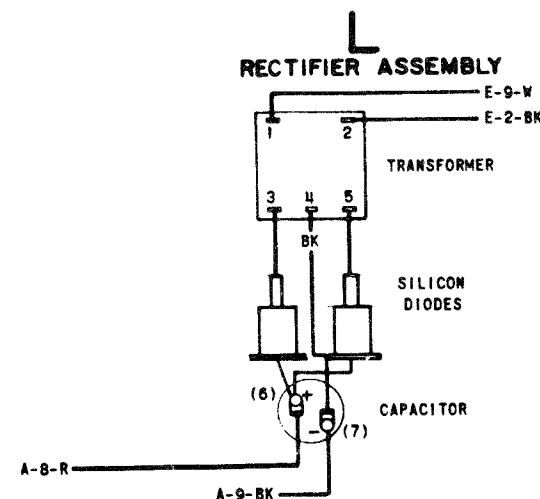
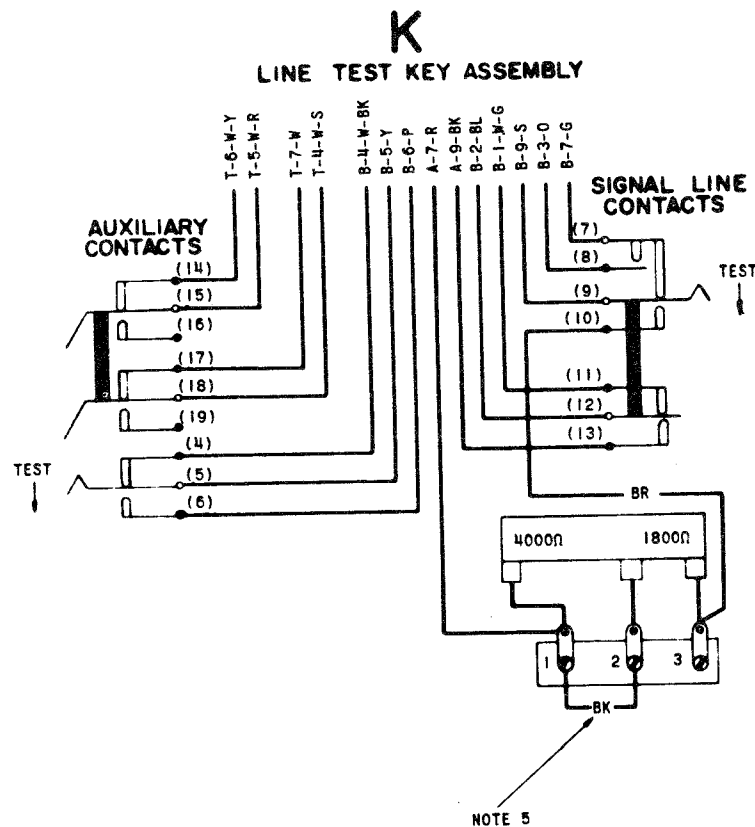
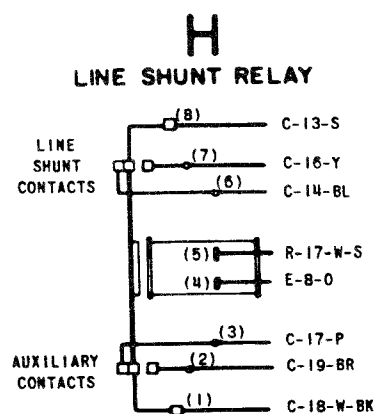
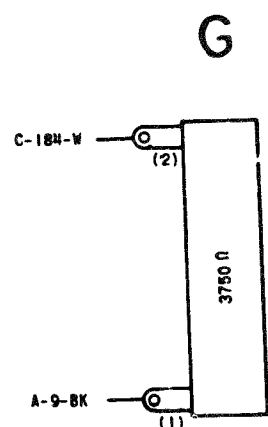
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 PROD. NO. 3642WD
 DATE 12-12-58
 P.D. FILE NO. G-159.65AA
 DRAWN CHKD.
 ENGD. D.C.L. APPD.

TELETYPE CORPORATION

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
D 5	3-27-61	68761-28
E 6	3-28-62	69768-10

SEE SHEET 1 FOR NOTES.



SHEET 2 OF 2

ACTUAL
WIRING DIAGRAM
FOR
MODEL 22
ELECTRICAL
SERVICE UNIT
LESU32

APPROVALS

D AND R	E OF M
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E-NUMBER

PROD. NO. 3642WD

DATE 12-12-58

R.D. FILE NO. G-159.65AA

DRAWN

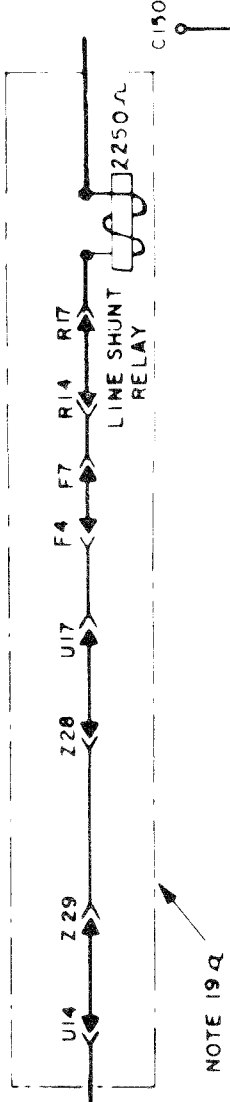
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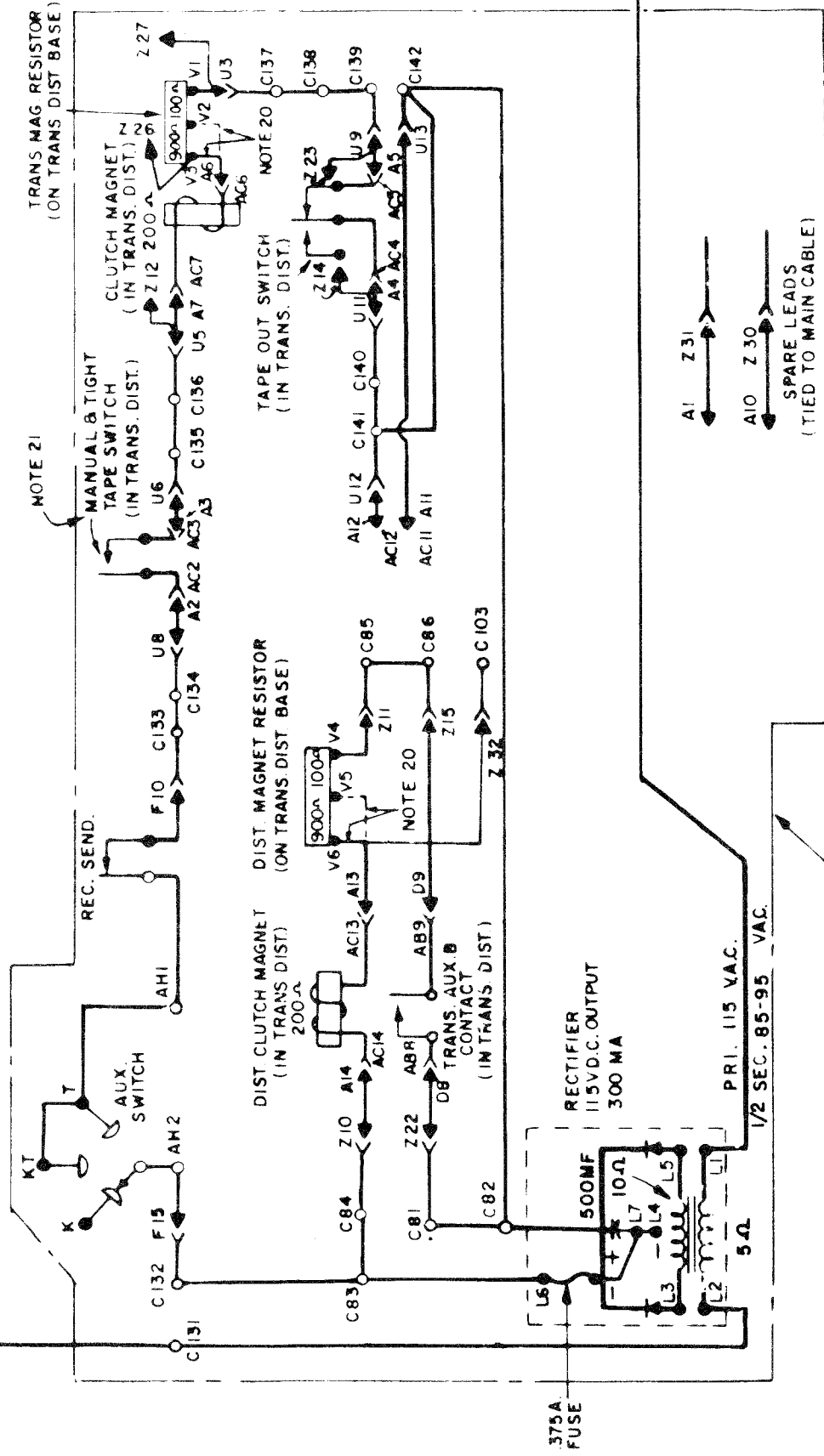
TELETYPE
CORPORATION

FIG. A LINE SHUNT CIRCUIT



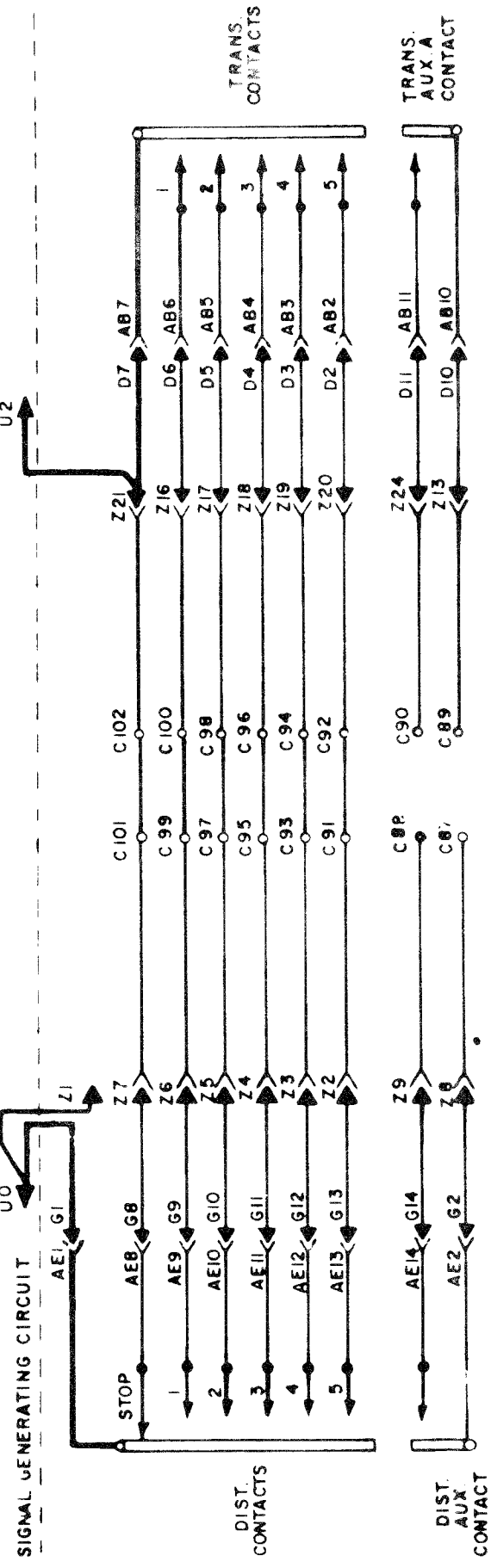
NOTE 19 Q

FIG. B TRANS. DIST. CIRCUIT

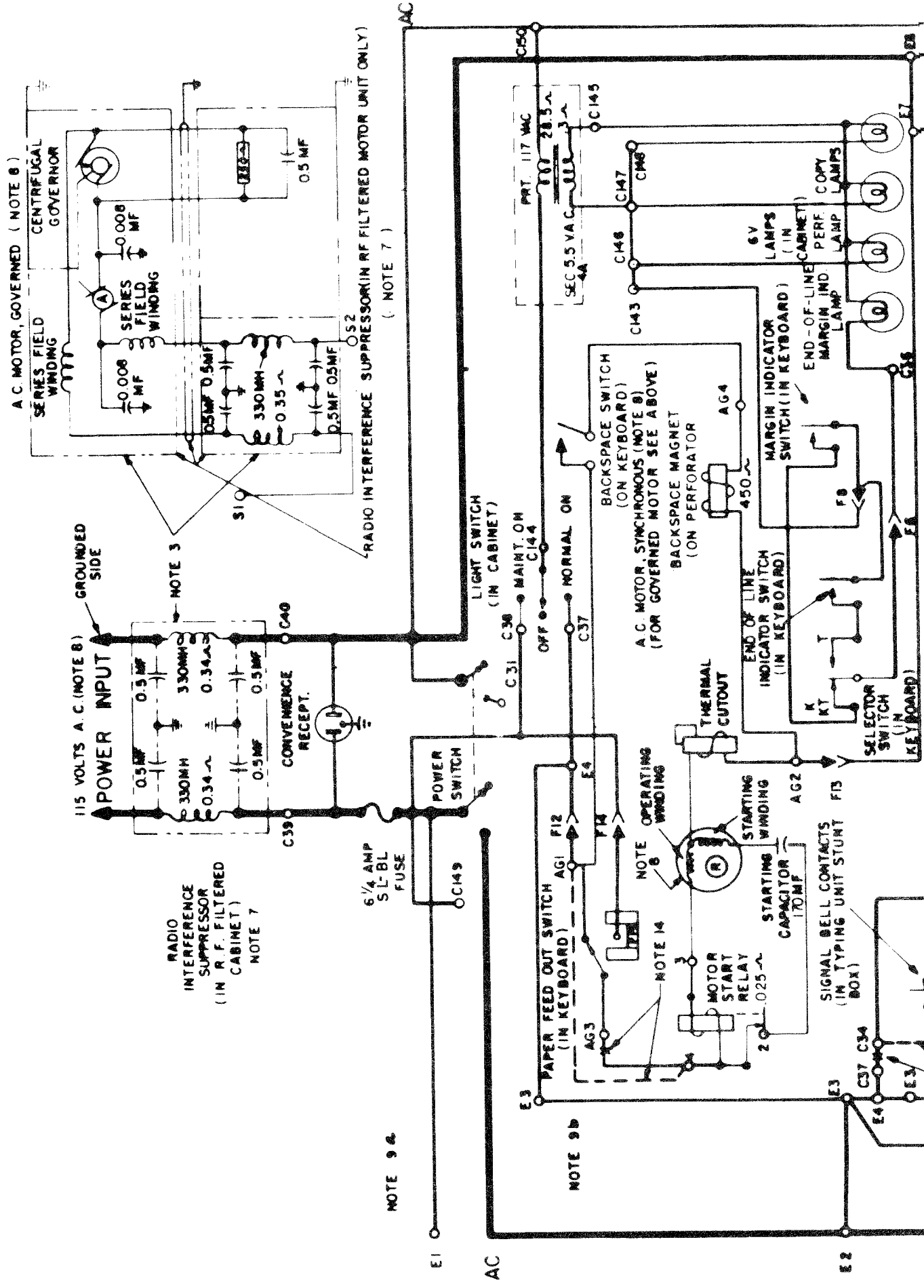


NOTE 19 P

FIG. C SIGNAL GENERATING CIRCUIT



NOTE 19 C



NOTE 9 A

3643 WD

REVISIONS

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

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NO.	NOTES
1	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE: WD NUMBER UNITS DIRECTLY OPERABLE WITH LESU 32 CABINETS - LAAC 200, 201 ELECTRICAL SERVICE UNIT LESU KEYBOARDS - LAK MOTOR UNITS - LMU PAGE TYPING UNITS - LP PAGE TYPING UNITS - LP
2	LEGEND <ul style="list-style-type: none"> ○ 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 ⊕ LME RELAY CONNECTOR (IN LESU). ○ J ⊕ LME 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	<ul style="list-style-type: none"> a RESISTANCE IN OHMS (Ω) b INDUCTANCE VALUES IN MICRohenRIES (MH) c CAPACITANCE VALUES IN MICROFARADS (MF)
6	CIRCUITS SHOWN FOR 0.60 AMP NEUTRAL SIGNAL LINE OPERATION FOR 0.20 AMP LINE CURRENT, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (---) IN LINE TEST KEY, LINE RELAY, AND ELECTRICAL MOTOR CONTROL START MAGNETS CIRCUITS.
7	<ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	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						
	<ul style="list-style-type: none"> 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 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 (---) CONNECTION AT CABINET TERMINAL BLOCK BETWEEN C10 & C11.						
16	IN ALL KEYBOARDS F4 MUST BE CONNECTED TO F7 IN ALL TRANS. DIST. U4 MUST BE CONNECTED TO U7. IN ALL TYPING UNITS R14 MUST BE CONNECTED TO R7.						
17	SPARE LEADS FROM U16 AND F16 ARE RESERVED FOR POLAR OPERATION OF SIGNAL GENERATOR.						
18	WHEN LBXD IS USED IN PLACE OF LXD: <table border="1" style="margin-left: 20px;"> <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							
19	WHEN LBXD USED IN PLACE OF LXD USE FOLLOWING FIGURES. <ul style="list-style-type: none"> 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 BIDI SYSTEM TO BE WIRED TO TERMINALS D8 AND D4.						

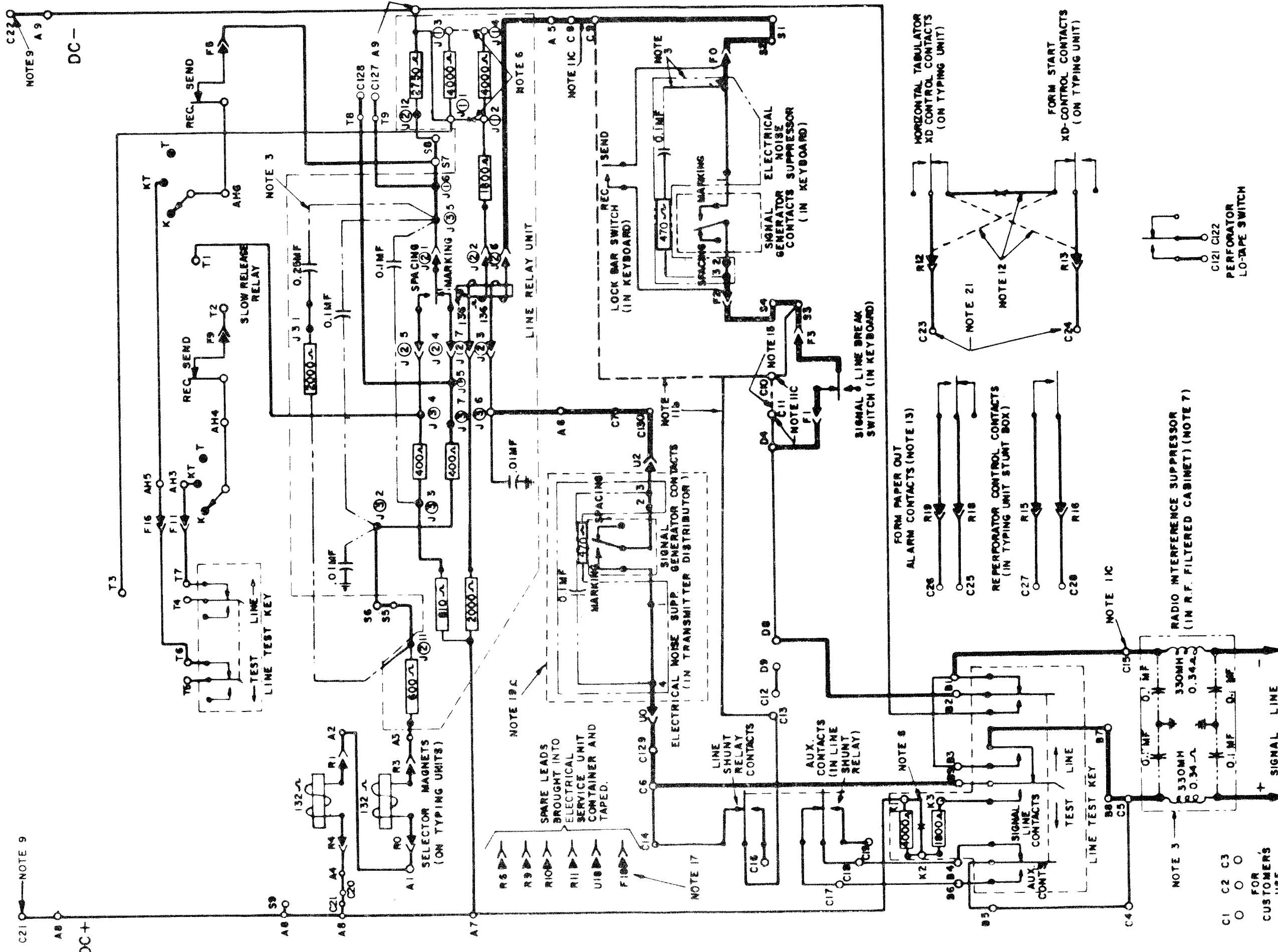
A

SHEET 2 OF 2

SCHEMATIC
WIRING DIAGRAM
MODEL 28

WITH FACILITIES
PROVIDED BY
ELECT. SERVICE UNIT
LESU 32
AND ASSOCIATED
UNITS

TELETYPE
CORPORATION
3643 WD



3659 WD

REVISIONS		
ISSUE	DATE	AUTH. NO.
A	8-4-59	28-11508
B	3-28-62	69768-10
C	11-26-63	78860

SEE SHEET 2 FOR NOTES

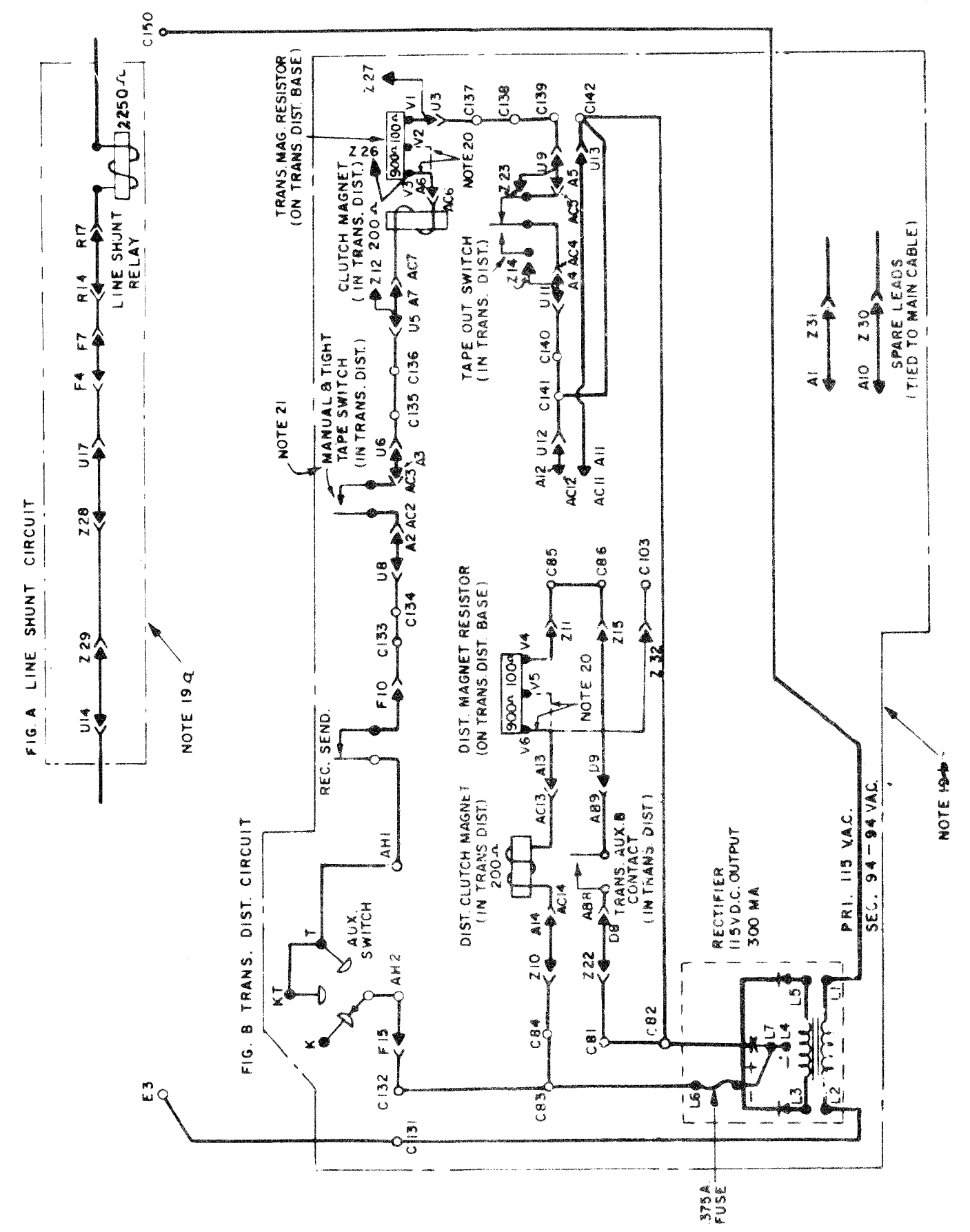
SHEET 1 OF 2

APPROVALS	
D AND G	E OF M
E NUMBER	
PROD. 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. <i>[Signature]</i>
ENGD. J.R.H.	APPD. <i>[Signature]</i>
TELETYPE CORPORATION	
3659 WD	

C1 C2 C3
O O O
FOR CUSTOMER'S USE

NO.	NOTES														
1	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE: <table border="1"> <tr> <th>WD NUMBER</th> <th>UNITS DIRECTLY OPERABLE WITH LESU</th> </tr> <tr> <td></td> <td>CABINETS - LAAC 200, 201</td> </tr> <tr> <td></td> <td>ELECTRICAL SERVICE UNIT LESU</td> </tr> <tr> <td></td> <td>KEYBOARDS-LAK</td> </tr> <tr> <td></td> <td>MOTOR UNITS-LMU</td> </tr> <tr> <td></td> <td>PAGE TYPING UNITS-LP</td> </tr> <tr> <td></td> <td>PAGE TYPING UNITS-LP</td> </tr> </table>	WD NUMBER	UNITS DIRECTLY OPERABLE WITH LESU		CABINETS - LAAC 200, 201		ELECTRICAL SERVICE UNIT LESU		KEYBOARDS-LAK		MOTOR UNITS-LMU		PAGE TYPING UNITS-LP		PAGE TYPING UNITS-LP
WD NUMBER	UNITS DIRECTLY OPERABLE WITH LESU														
	CABINETS - LAAC 200, 201														
	ELECTRICAL SERVICE UNIT LESU														
	KEYBOARDS-LAK														
	MOTOR UNITS-LMU														
	PAGE TYPING UNITS-LP														
	PAGE TYPING UNITS-LP														
2	LEGEND <ul style="list-style-type: none"> ○ 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 MICRONEERIES (MH) c. CAPACITANCE VALUES IN MICROFARADS (MF)														
6	CIRCUITS SHOWN FOR 0.60 AMP NEUTRAL SIGNAL LINE OPERATION FOR 0.20 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	CIRCUIT SHOWN FOR OPERATION FROM AN EXTERNAL D.C. POWER SUPPLY, LEADS OF WHICH ARE TO BE CONNECTED TO CABINET TERMINALS C21 AND 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 CONTROLLED BY POWER SWITCH AND SHOWN SHUNTING LINE RELAY COIL, TRANS. DIST. SIG GEN. AND KEYBOARD SIG GEN.														

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 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 (---) CONNECTION AT CABINET TERMINAL BLOCK BETWEEN C10 & C11.						
16.	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.						
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"> <tr> <th>OMIT</th> <th>ADD</th> </tr> <tr> <td>C-142 TO C-150</td> <td></td> </tr> <tr> <td>C-131 TO C-132</td> <td></td> </tr> </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.	WHEN LXD5 IS USED, REMOVE THE STRAP BETWEEN TERMINALS C135-C136. ADD TWO 162365 STRAPS, ONE BETWEEN TERMINALS C23-C125 AND ONE BETWEEN TERMINALS C24-C136						



(CONT'D ABOVE)

3660WD

REVISIONS

ISSUE	DATE	AUTH. NO.
A2	8-4-59	28-11508
B3	3-20-61	69286
C4	3-28-62	69768-10
5	4-7-66	90232

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

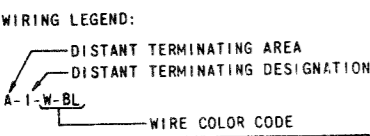
APPROVALS

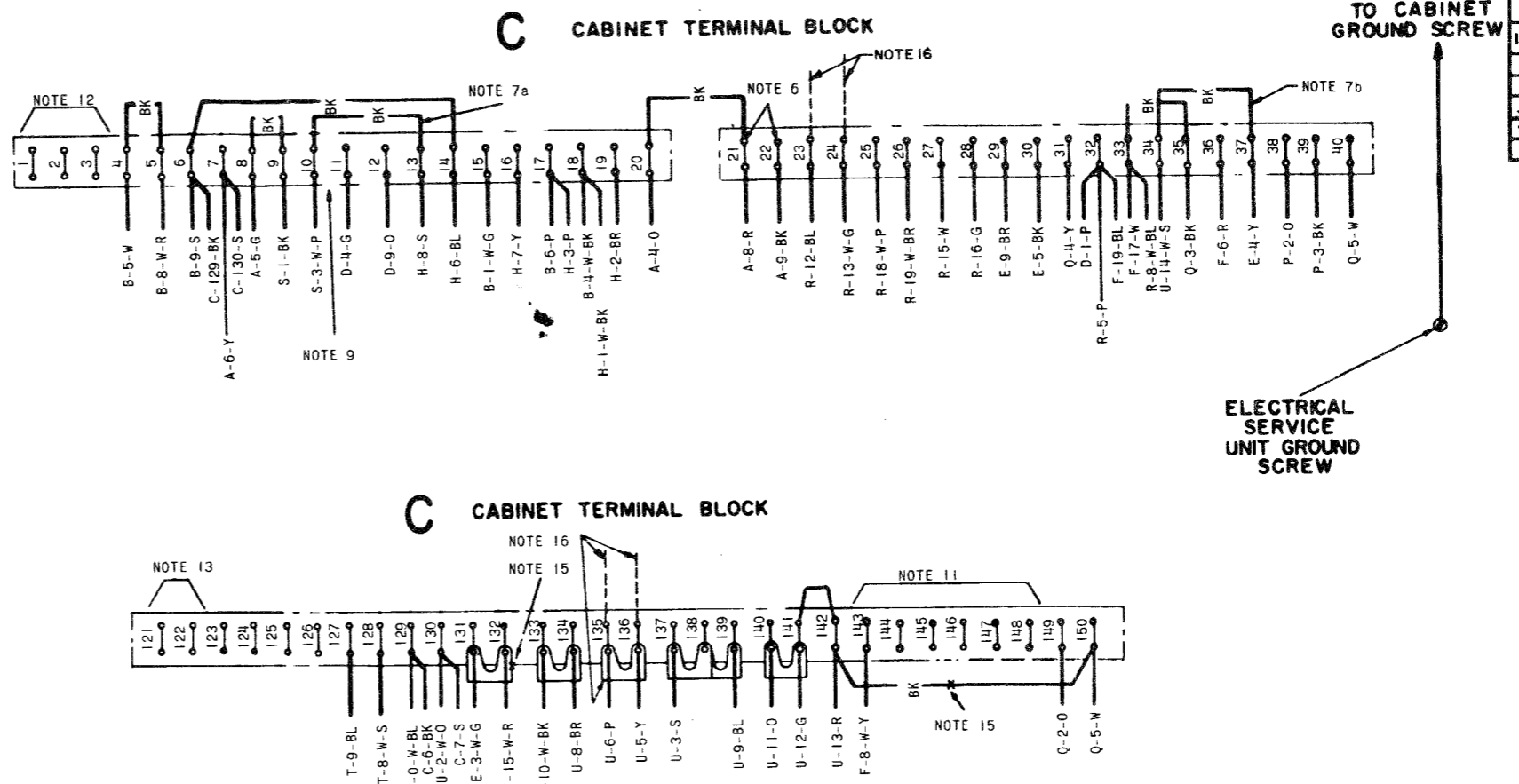
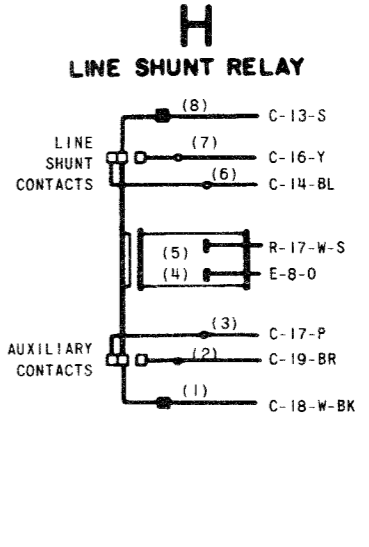
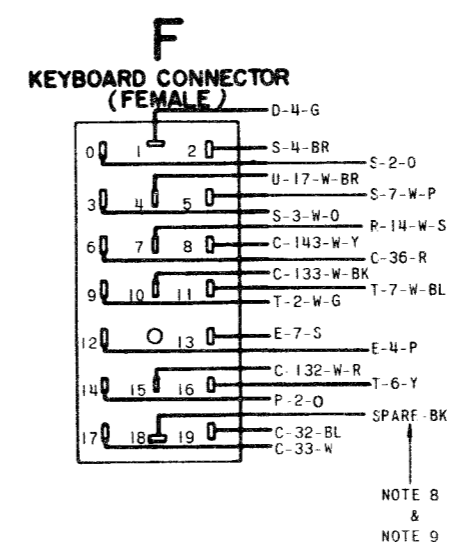
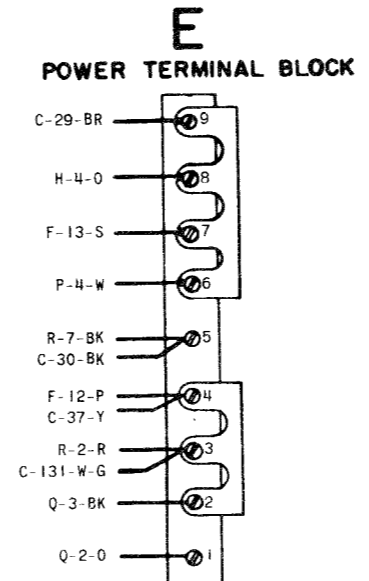
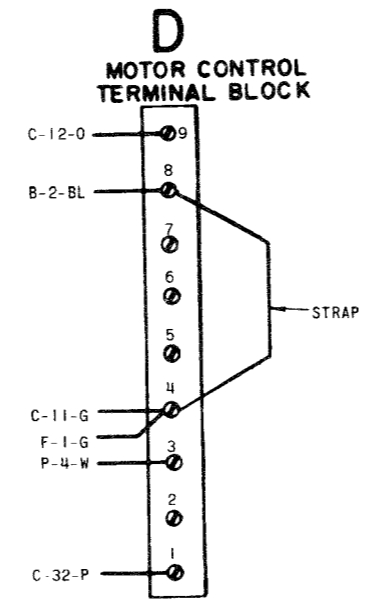
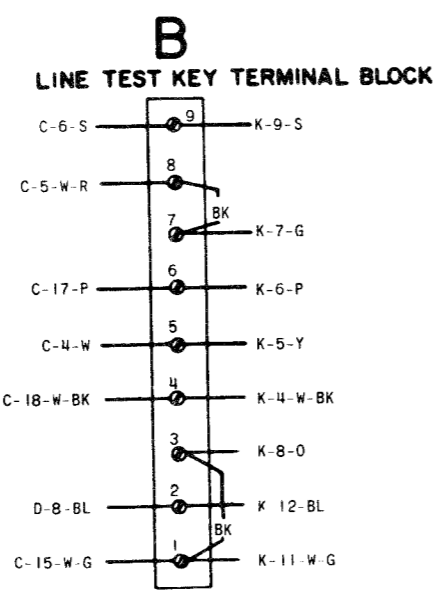
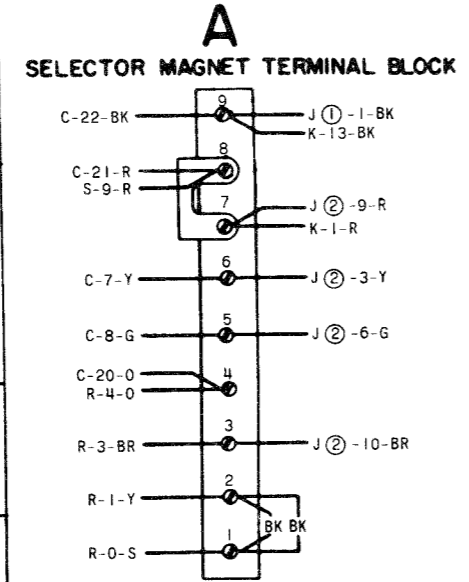
D AND R	E OF M
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E-NUMBER
 PROD. NO. 3660WD
 DATE 1-19-59
 P.D. FILE NO. G-159.65AA
 DRAWN K.F.L. CHKD.
 ENGD. J.R.H. APPD.

TELETYPE CORPORATION

3660WD

- | NO. | NOTES | | | | | | |
|---------------------|--|---------------------|--------------------|-------------------|-----------|-----------------------|-------------|
| 1. | WIRING LEGEND:

DISTANT TERMINATING AREA
DISTANT TERMINATING DESIGNATION
WIRE COLOR CODE | | | | | | |
| 2. | COLOR CODE:
BK-BLACK R-RED
BL-BLUE O-ORANGE
BR-BROWN S-SLATE
G-GREEN W-WHITE
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.
<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,
J ① 1-J ① 2</td> <td>J ① 3-J ① 4</td> </tr> </tbody> </table> | SIGNAL LINE CURRENT | CONNECTION REMOVED | CONNECTIONS ADDED | .020 AMP. | K1-K2,
J ① 1-J ① 2 | J ① 3-J ① 4 |
| SIGNAL LINE CURRENT | CONNECTION REMOVED | CONNECTIONS ADDED | | | | | |
| .020 AMP. | K1-K2,
J ① 1-J ① 2 | J ① 3-J ① 4 | | | | | |
| 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.
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 & 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, C-148 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:
OMIT CONNECTIONS
C-142 TO C-150, C-131 TO C-132. | | | | | | |
| 16. | WHEN LXDS IS USED, REMOVE THE STRAP BETWEEN TERMINALS C135-C136. ADD TWO 162365 STRAPS. ONE BETWEEN TERMINALS C23-C135 AND ONE BETWEEN C24-C136. | | | | | | |



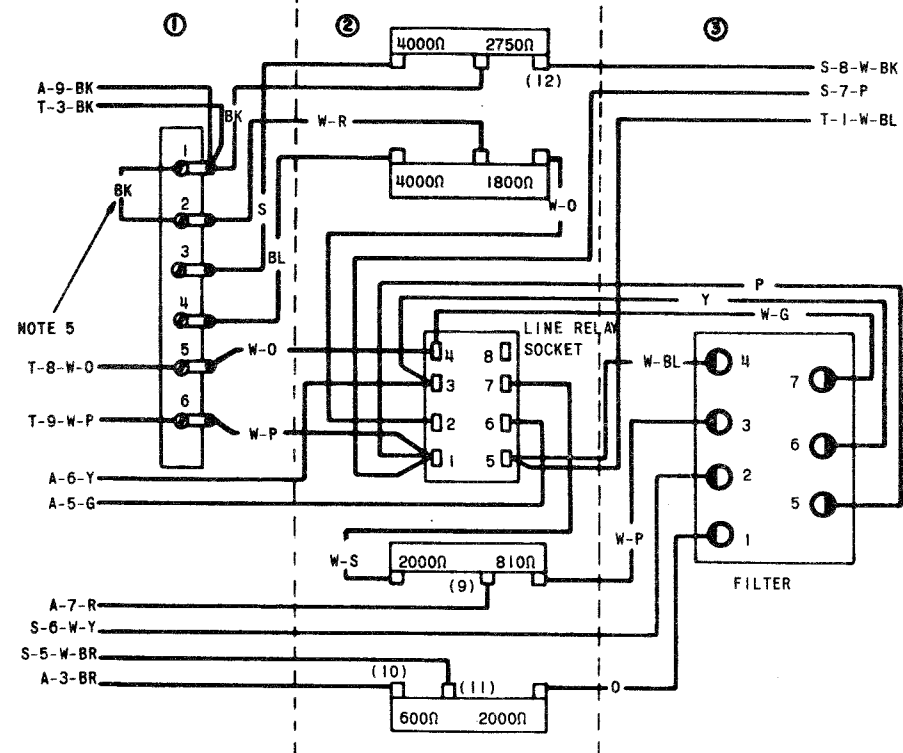
3660 WD

REVISIONS

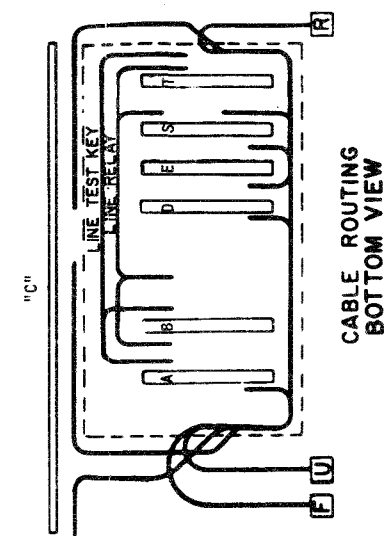
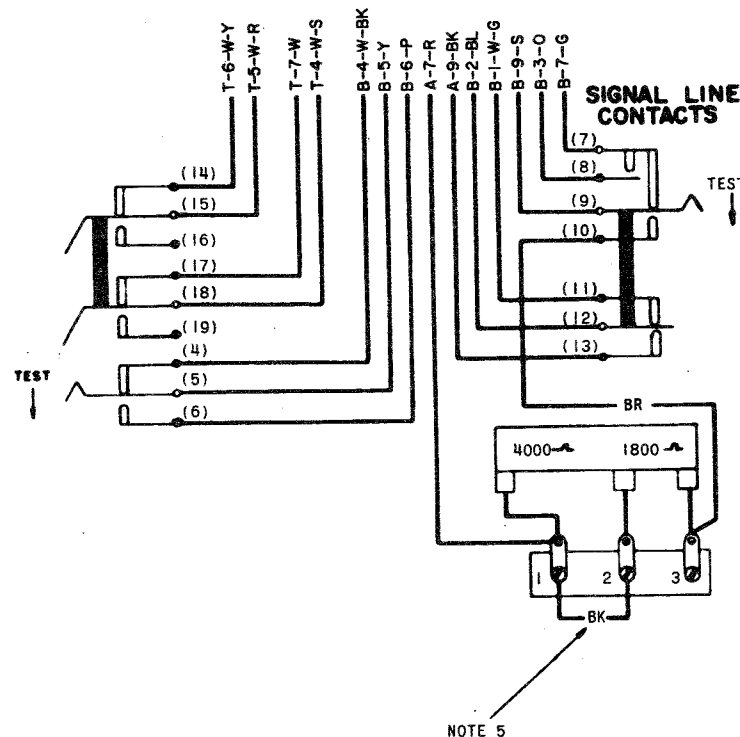
ISSUE	DATE	AUTH. NO.
A2	8-4-59	28-11508
B3	3-20-61	69286
-C4	3-28-62	69768-10
-5	4-7-66	90222

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

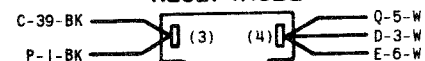
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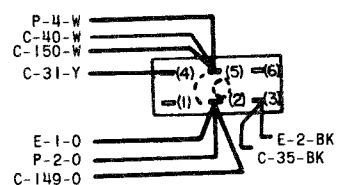
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LINE TEST KEY ASSEMBLY



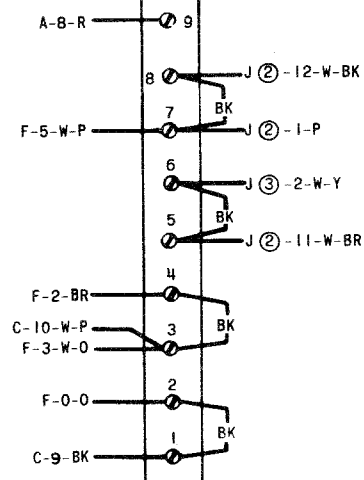
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CONVENIENCE RECEPTACLE



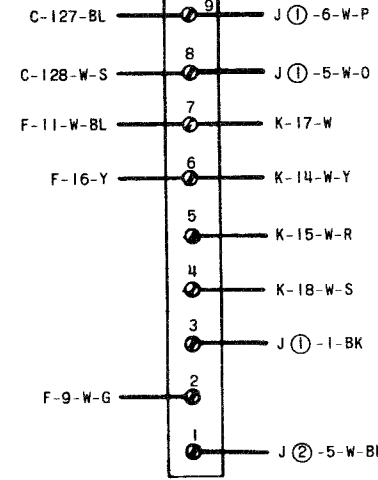
Q
POWER SWITCH



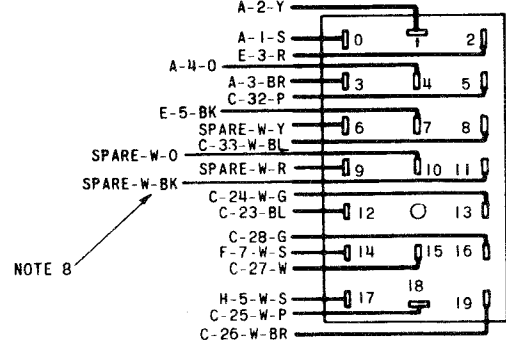
S
SLOW RELEASE RELAY TERMINAL BLOCK



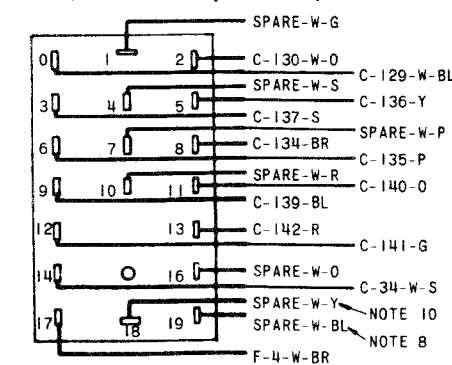
T
SLOW RELEASE TEST KEY TERMINAL BLOCK



R
TYPING UNIT CONNECTOR (FEMALE)



U
TRANSMITTER DISTRIBUTOR CONNECTOR (FEMALE)



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

SHEET 2

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

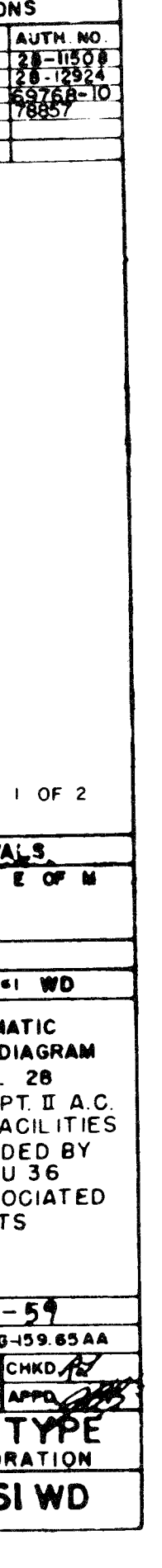
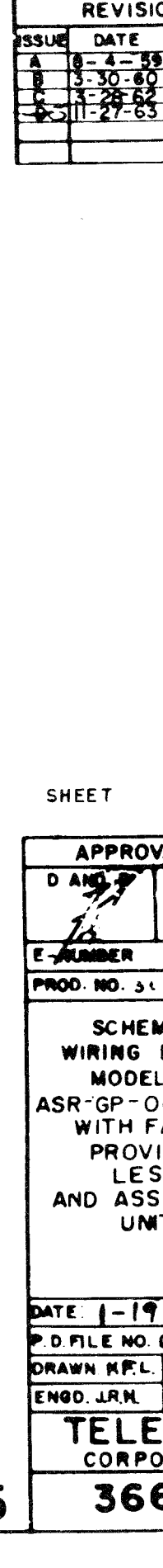
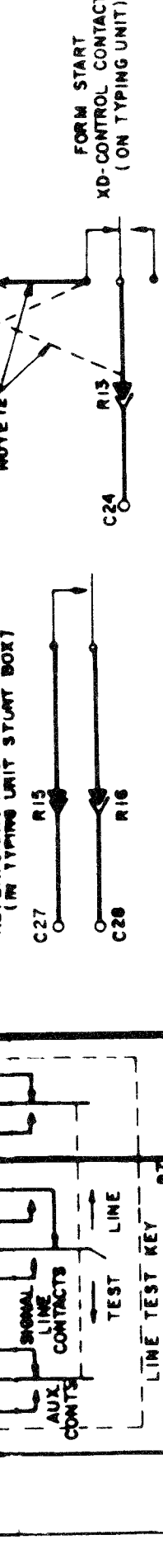
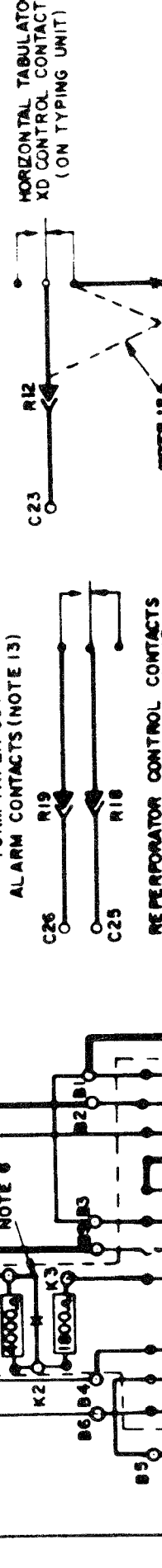
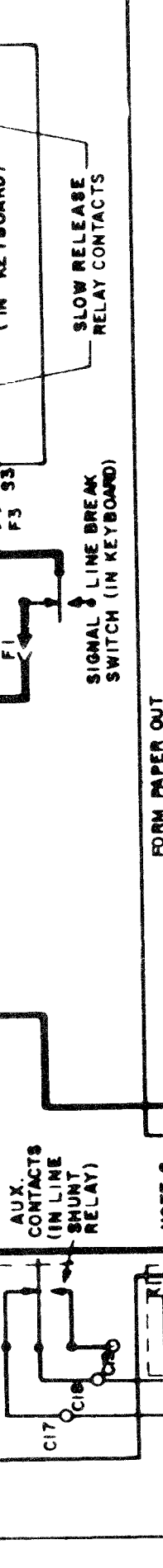
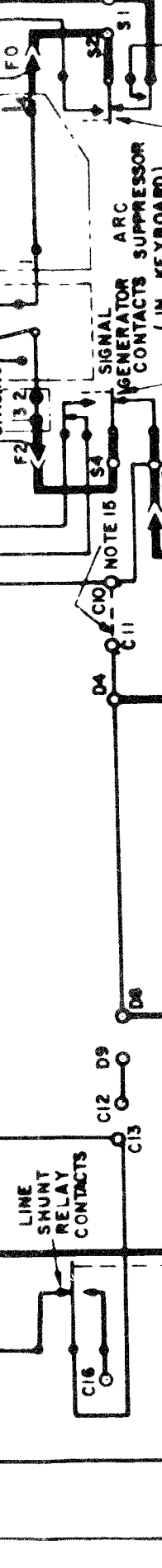
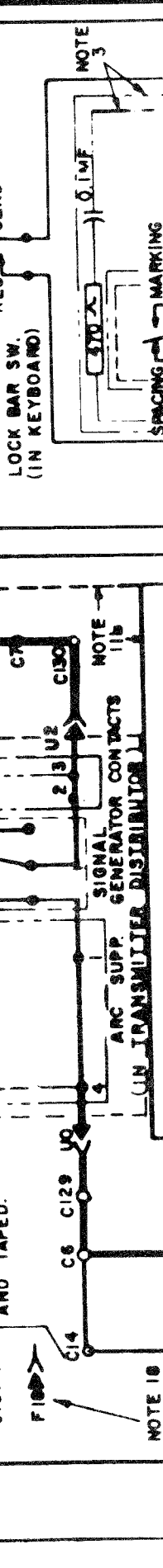
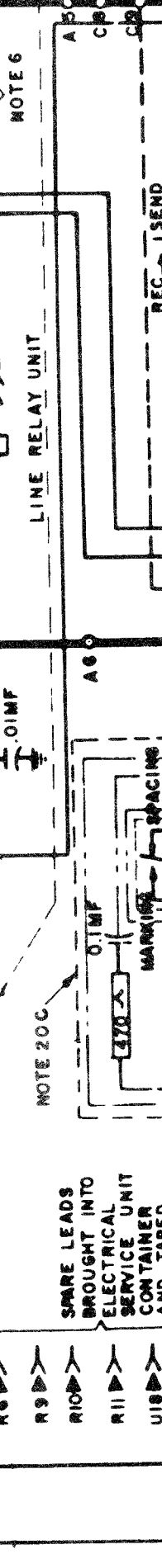
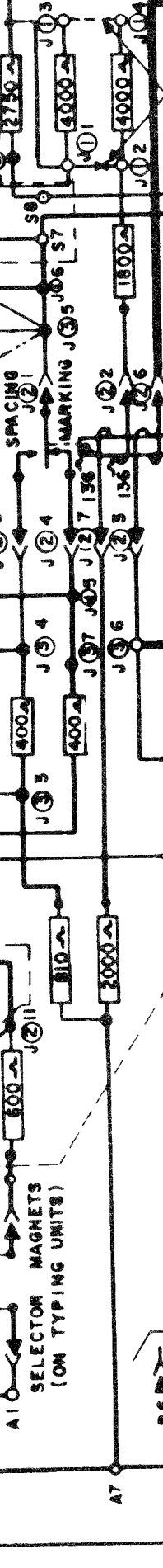
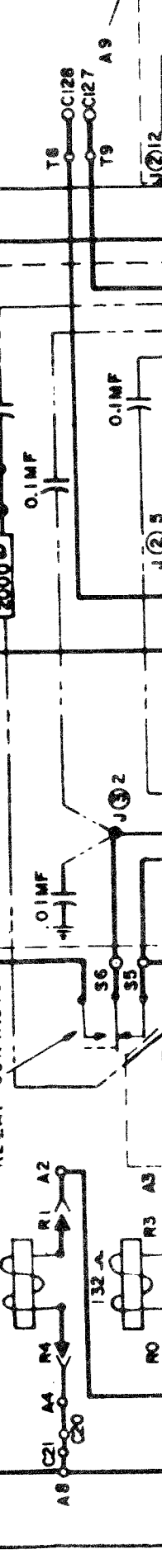
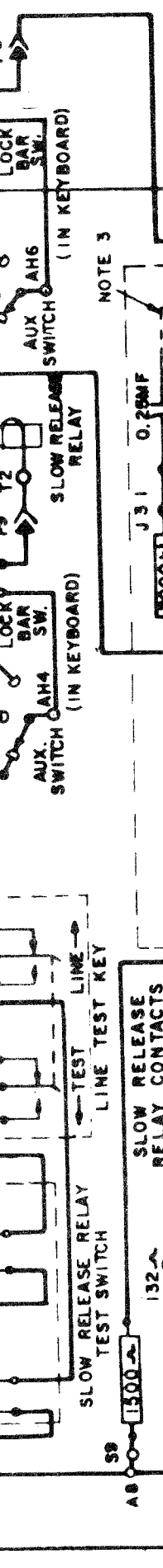
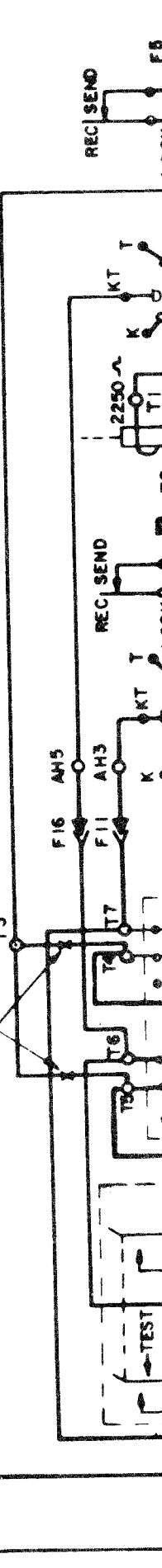
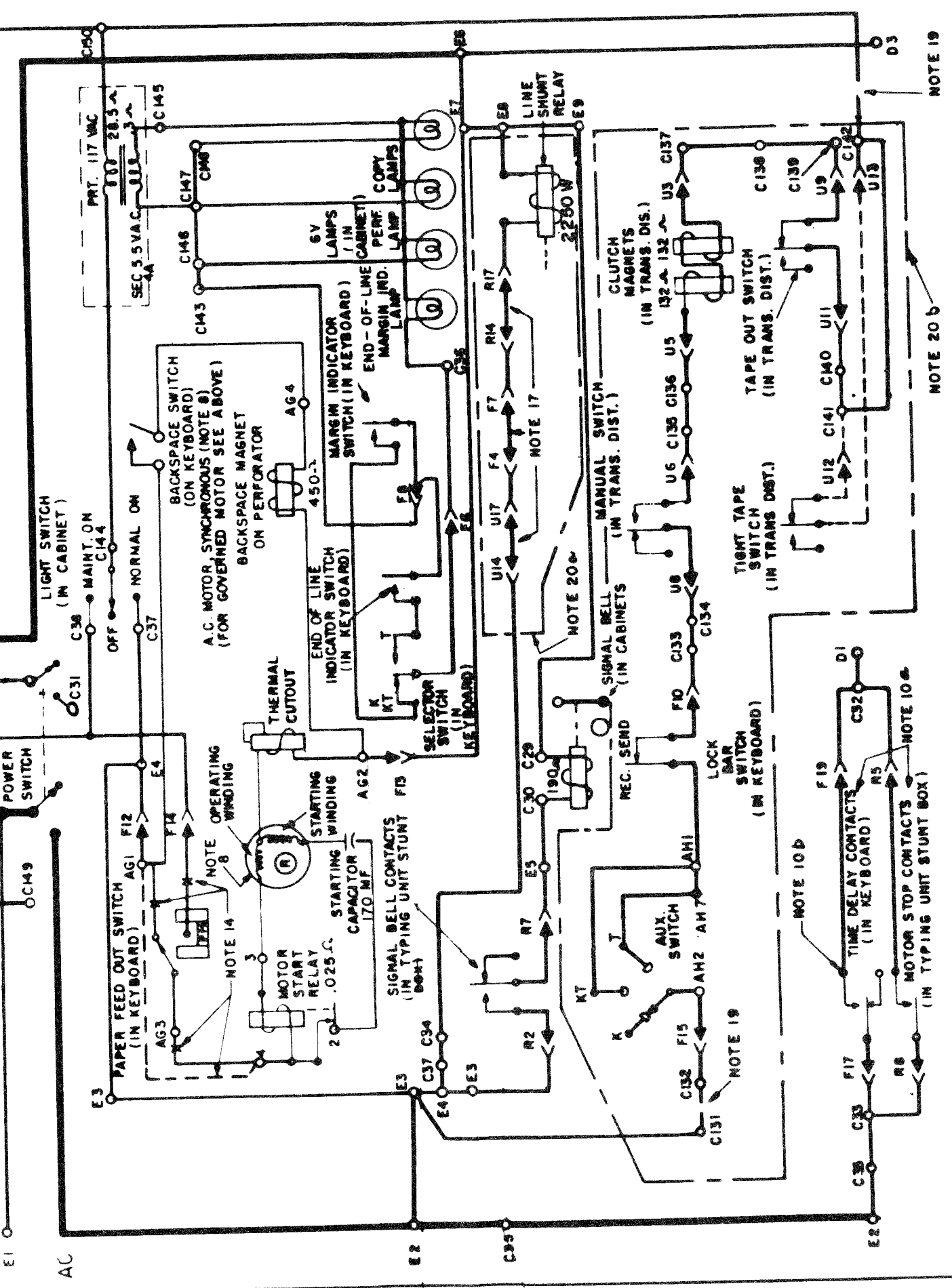
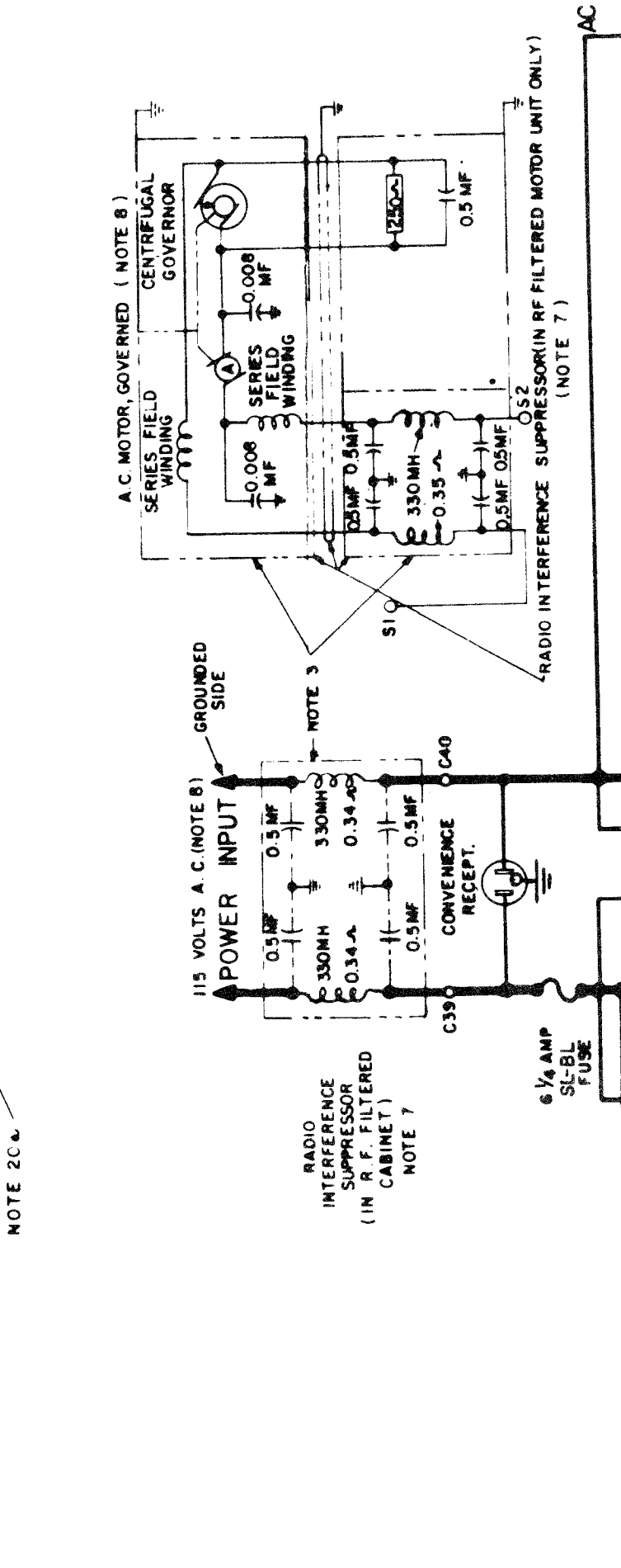
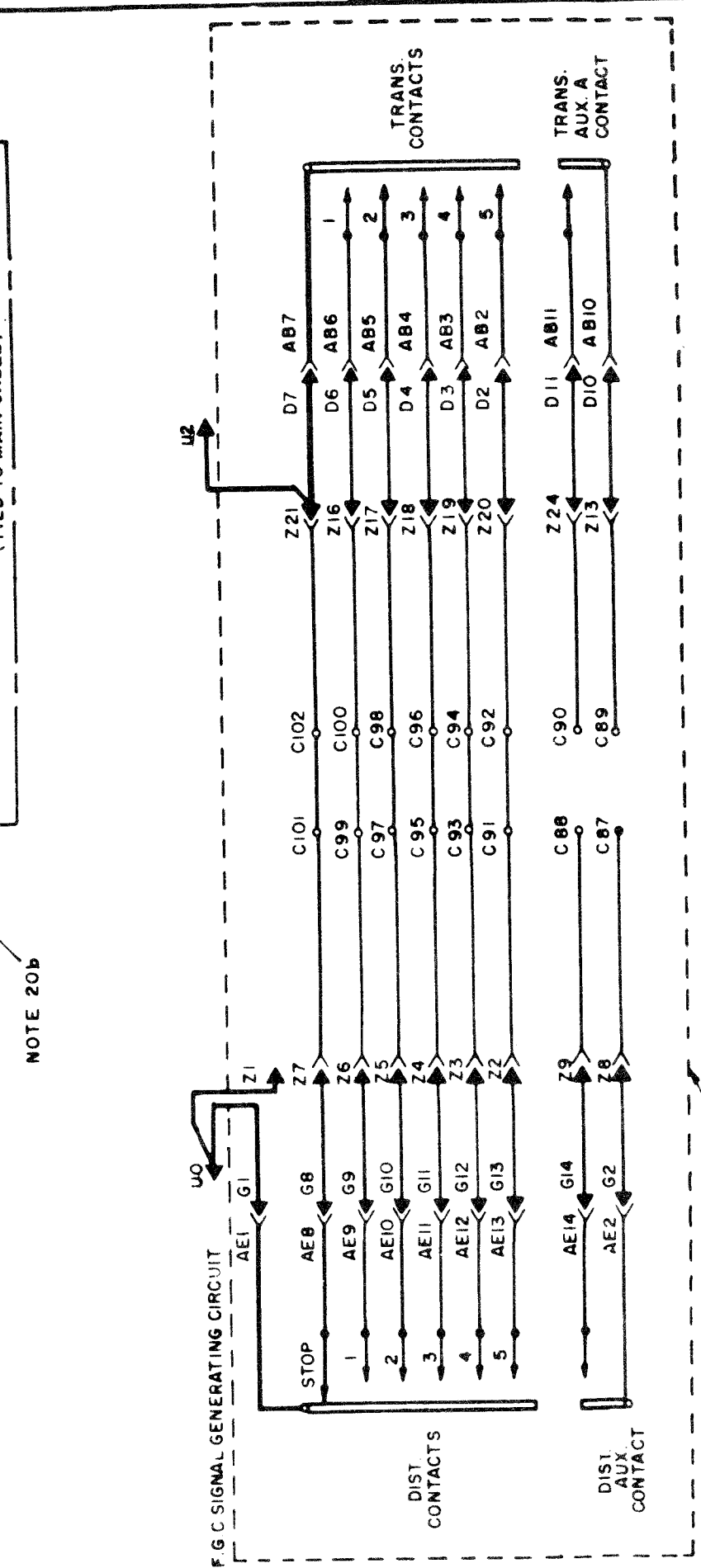
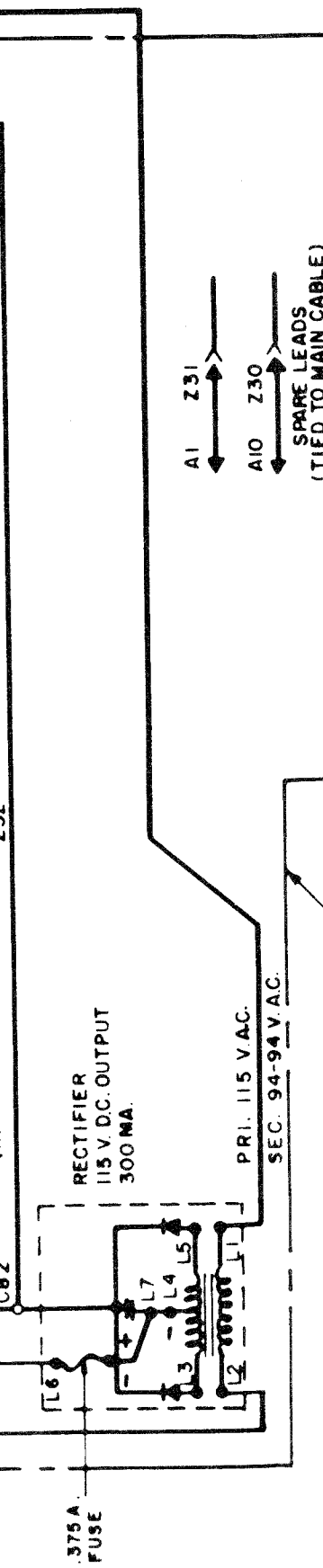
DATE 1-19-59

P.D. FILE NO. G-159.65AA

DRAWN K.F.L.	CHKD.
ENGD. J.R.H.	APPD.

TELETYPE CORPORATION

3660 WD



3661 WD			
REVISIONS			
ISSUE	DATE	AUTH. NO.	BY
1	3-4-59	28-1153	
2	3-30-59	28-1284	
3	2-28-59	28-1284	
4	2-28-59	28-1284	

SHEET 1 OF 2

APPROVALS
 D AND E OF M
 F NUMBER
 PROD. NO. 31 61 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. G-459.65 AA
 DRAWN K.F.L. CHKD. R.
 ENGD. J.R.N. APPD. R.

TELETYPE CORPORATION
 3661 WD

NO.	NOTES	NO.	NOTES														
1.	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE: <table border="1"> <thead> <tr> <th>WD NUMBER</th> <th>UNITS DIRECTLY OPERABLE WITH LESU</th> </tr> </thead> <tbody> <tr> <td>3264 WD</td> <td>CABINETS - LAAC 200, 201</td> </tr> <tr> <td>3662 WD</td> <td>ELECTRICAL SERVICE UNIT LESU</td> </tr> <tr> <td>3263 WD</td> <td>KEYBOARDS - LAK</td> </tr> <tr> <td></td> <td>MOTOR UNITS - LMU</td> </tr> <tr> <td></td> <td>PAGE TYPING UNITS - LP</td> </tr> <tr> <td></td> <td>PAGE TYPING UNITS - LP</td> </tr> </tbody> </table>	WD NUMBER	UNITS DIRECTLY OPERABLE WITH LESU	3264 WD	CABINETS - LAAC 200, 201	3662 WD	ELECTRICAL SERVICE UNIT LESU	3263 WD	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.
WD NUMBER	UNITS DIRECTLY OPERABLE WITH LESU																
3264 WD	CABINETS - LAAC 200, 201																
3662 WD	ELECTRICAL SERVICE UNIT LESU																
3263 WD	KEYBOARDS - LAK																
	MOTOR UNITS - LMU																
	PAGE TYPING UNITS - LP																
	PAGE TYPING UNITS - LP																
2.	LEGEND <ul style="list-style-type: none"> ○ 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 (—*) AND ADD PROPER DASHED (---) CONNECTION IN TYPING UNIT CIRCUITS.														
3.	DOT DASH --- LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.	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.														
4.	ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.	14.	WHEN PAPER FEED OUT SWITCH IS NOT USED, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (—*) IN MOTOR POWER CIRCUITS.														
5.	a. RESISTANCE IN OHMS (Ω) b. INDUCTANCE VALUES IN MICROHENRIES (MH) c. CAPACITANCE VALUES IN MICROFARADS (MF)	15.	WHEN SIGNAL LINE BREAK SWITCH IS NOT USED IN KEYBOARD ADD (---) CONNECTION AT CABINET TERMINAL BLOCK BETWEEN C10 & C11														
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, AND LINE RELAY CIRCUITS	16.	TO PREVENT SLOW RELEASE RELAY FROM ENERGIZING REMOVE CONNECTIONS MARKED (—*)														
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.	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.														
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.	18.	SPARE LEADS FROM U18 AND F18 ARE RESERVED FOR POLAR OPERATION OF SIGNAL GENERATOR.														
9.	CIRCUITS SHOWN FOR OPERATION FROM AN EXTERNAL D.C. POWER SUPPLY, LEADS OF WHICH ARE TO BE CONNECTED TO CABINET TERMINALS C21 & C22.	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																	
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.	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														
11.	a. LINE SHUNT RELAY SHOWN SHUNTING LINE RELAY COIL, TRANS. DIST. SIG. GEN. AND KEYBOARD SIG. GEN. (CONTD ABOVE)	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.														
		22.	WHEN A SEPARATE TAPE SWITCH IS USED IN LBXD THIS SWITCH BECOMES A MANUAL ON-OFF SWITCH ONLY.														

3661 WD		
REVISIONS		
ISSUE	DATE	AUTH. N.O.
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

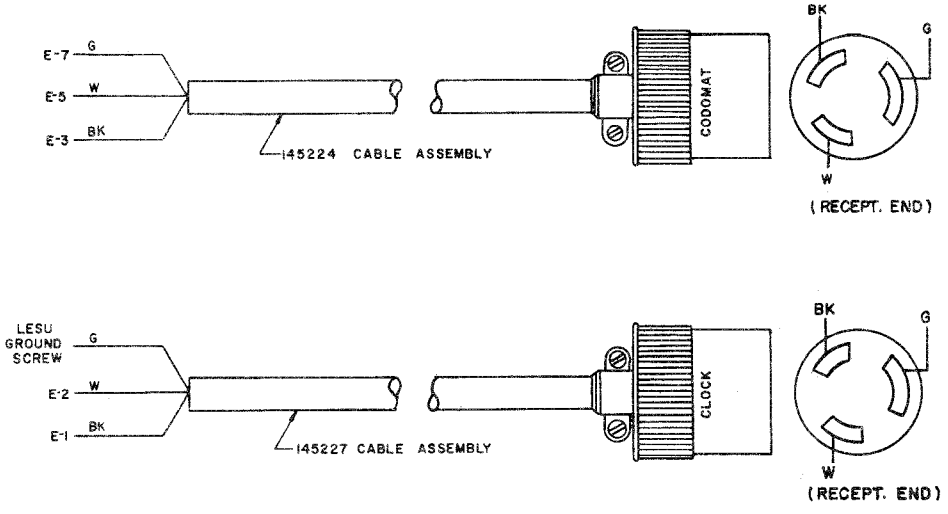
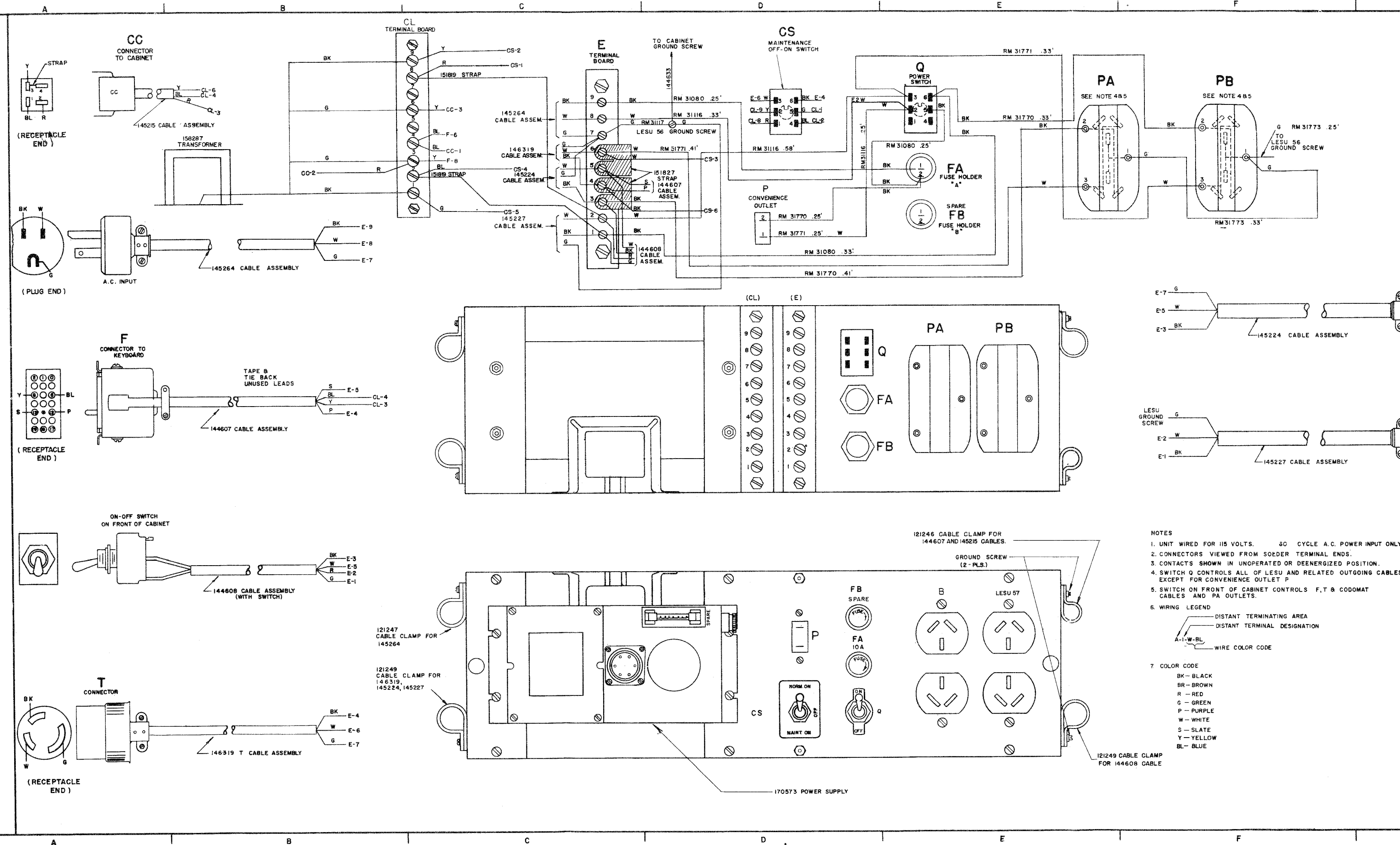
4205WD

ISSUE	DATE	AUTH. NO.
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B	4-5-61	DA-519
C	5-8-61	DA-546
D	5-31-61	69827
E	10-25-61	71386
F	1-27-62	72897

5955-E

10 3/4 X 20

R27 1/2



- NOTES
- UNIT WIRED FOR 115 VOLTS. 50 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
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
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E-NUMBER

PROD. NO. 4205WD

DATE: 8-29-60

P.D. FILE NO. 1-A25/65-219A

DRAWN: WAW, GRC, CHKD: GRC

ENGD: GRC, APPD: GRC

TELETYPE CORPORATION

4205WD

4206

4049-1

10/4/53

RSS

NOTES

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

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

3. WHEN LESU IS USED IN LAC 215

4. WHEN LESU IS USED IN LAC 227

5. * DENOTES ISAMS

6. TAKE UP 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
F	145202	145084
R	145203	145082
S	145204	145083

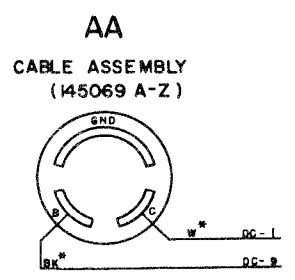
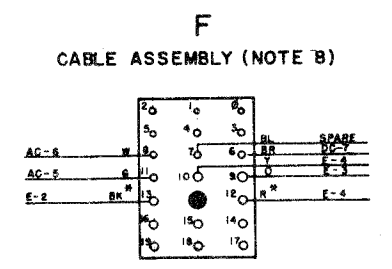
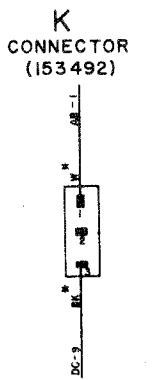
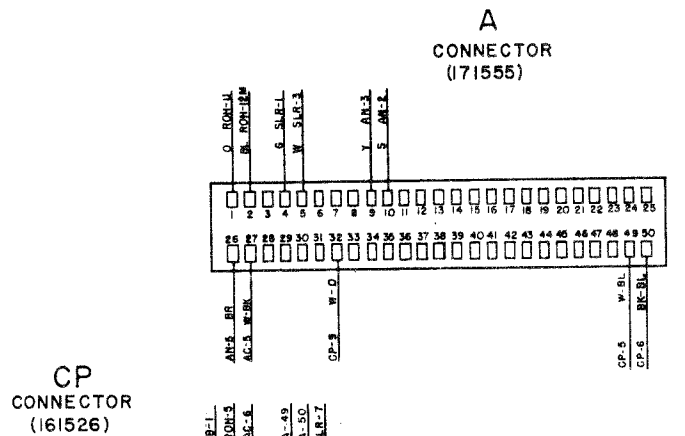
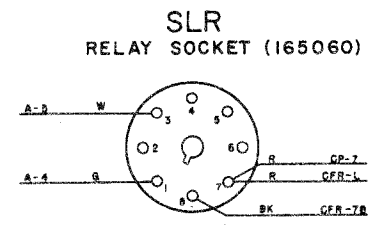
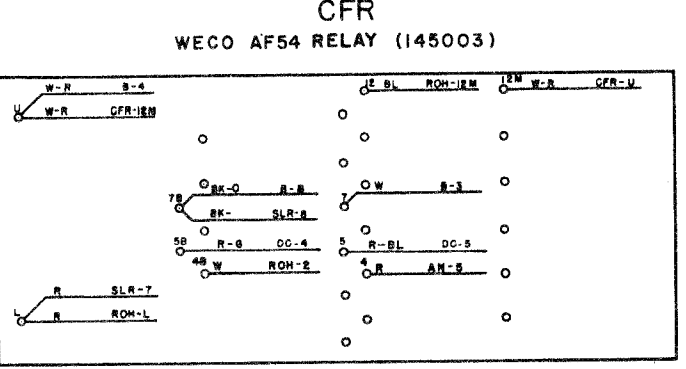
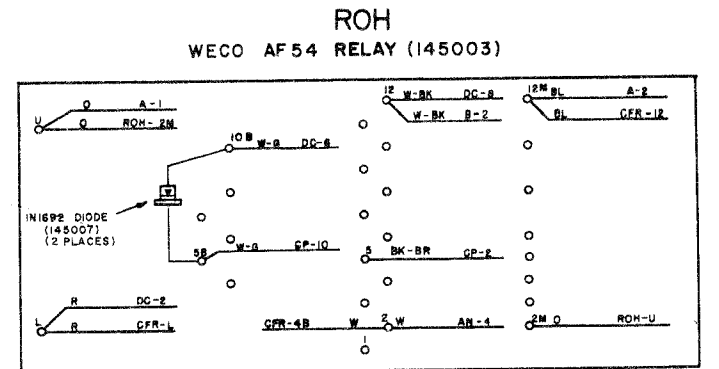
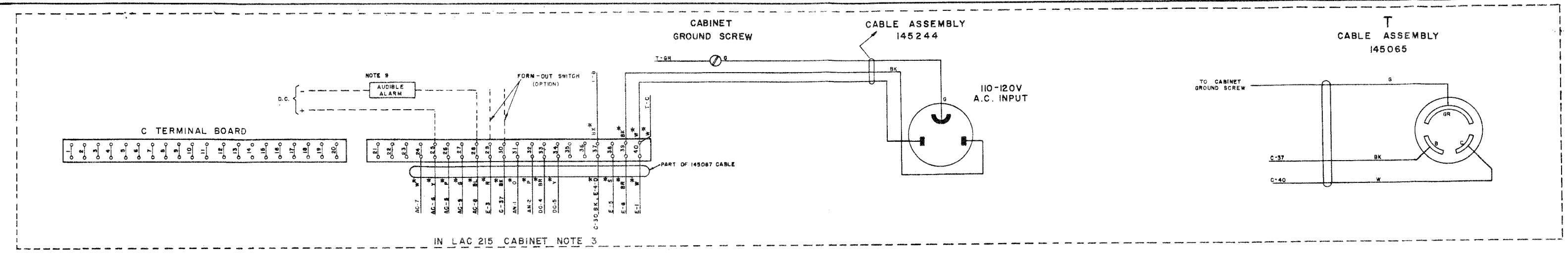
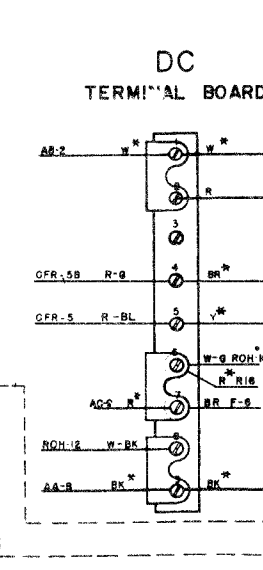
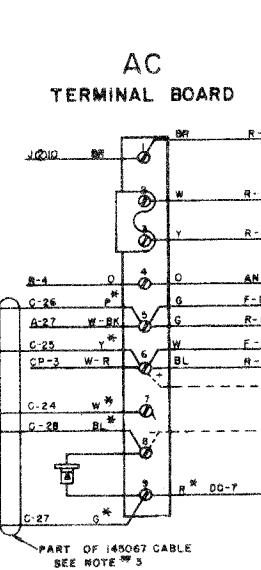
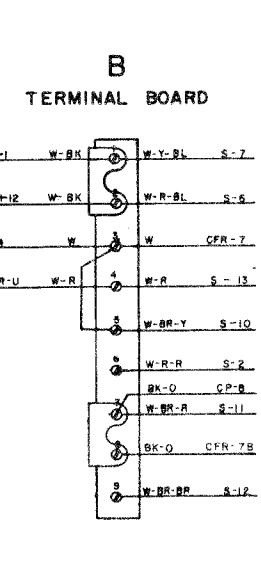
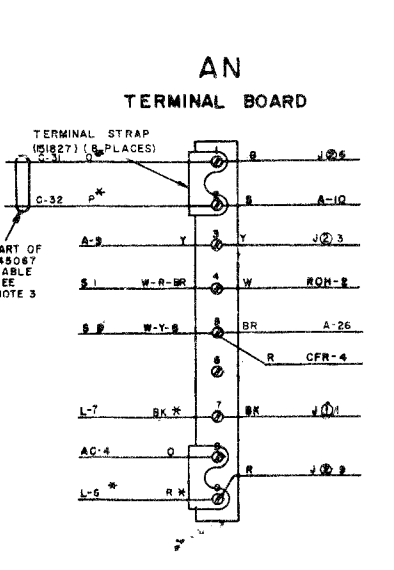
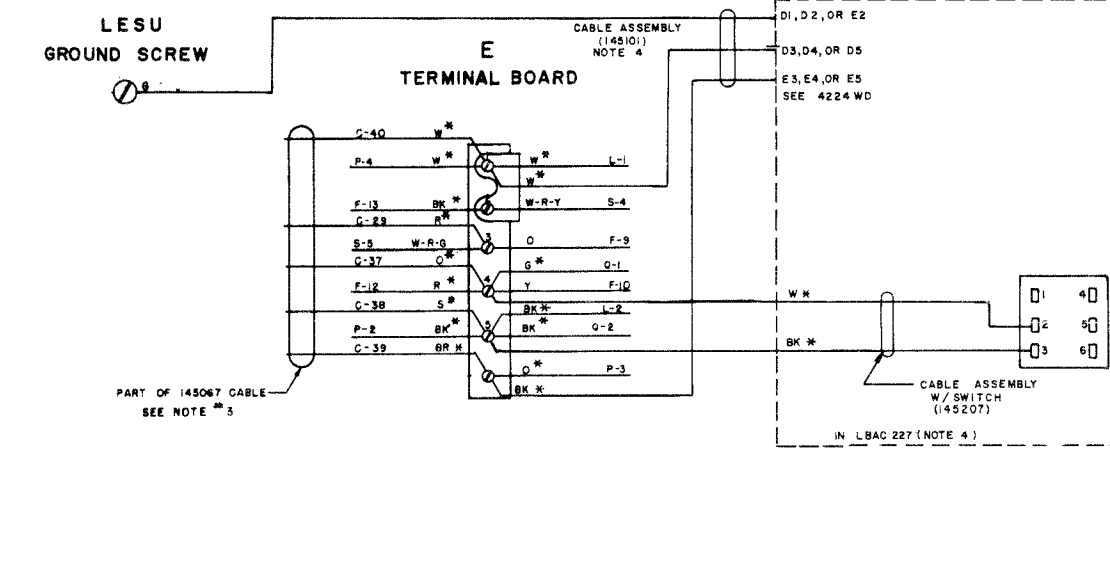
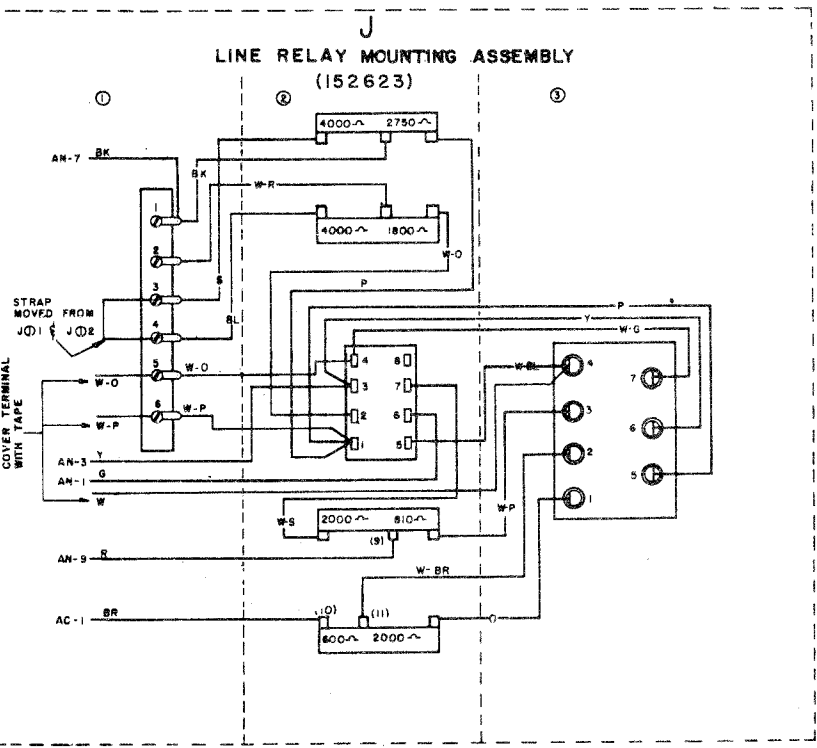
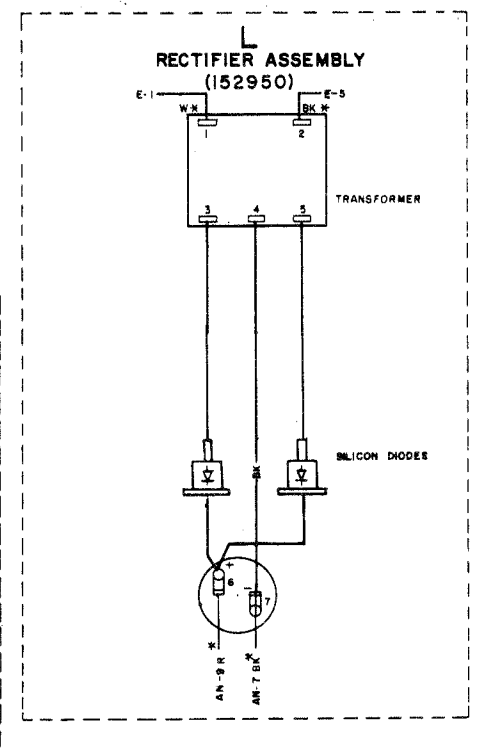
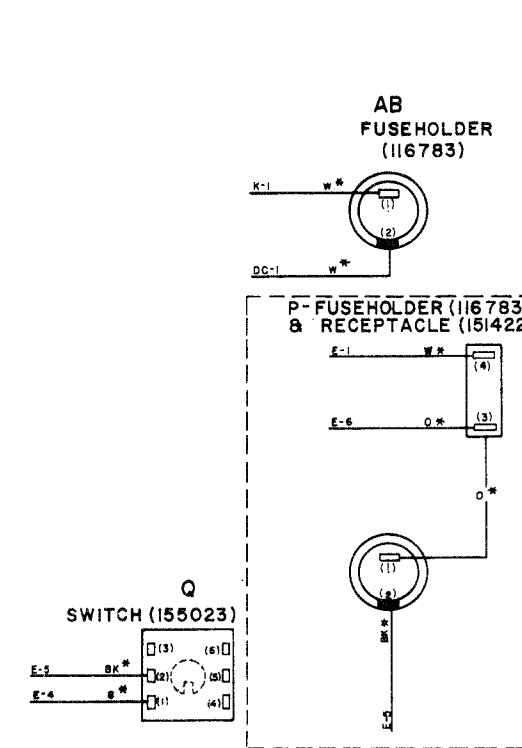
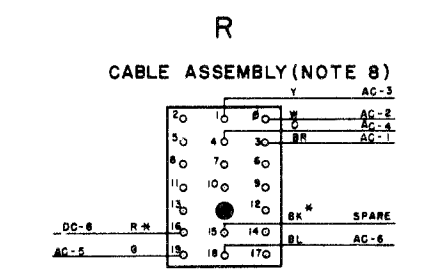
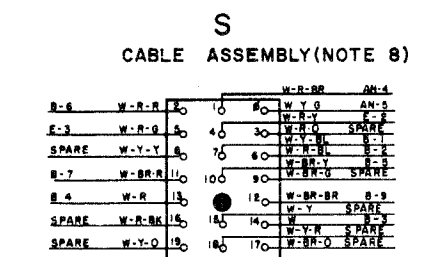
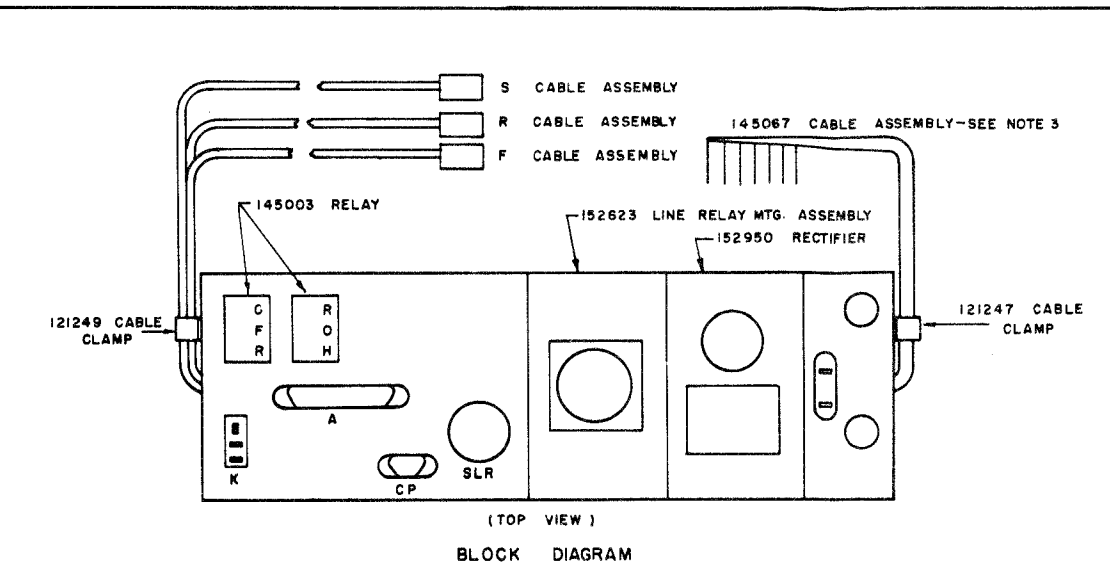
9. AUDIBLE ALARM TO BE FURNISHED BY CUSTOMER

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-33.
 C. CONNECT - LINE SIDE OF LINE RELAY COIL TO AN-2 OR C-34.
 D. TO RECEIVE ON AUXILIARY UNIT ONLY AFTER INFORMATION HAS BEEN RECEIVED BY THE RECEIVING SET, CONNECT DC-4 AND DC-5 OR C-13 AND C-14 ACROSS THE AUXILIARY LINE RELAY CONTACTS.
 E. AUXILIARY LOOP BATTERY, BIAS WINDING MOUNTING FACILITIES, ETC. MUST BE PROVIDED BY THE CUSTOMER AND ARE NOT SHOWN.

11. CABLES USED 145013, 145210

12. ASSOCIATED SCHEMATIC 4242WD

13. RELAY COIL PLATES TO BE STAMPED WITH CIRCUIT DESIGNATIONS AS INDICATED ON BLOCK DIAGRAM USING 1/8" BLACK GOTHIC LETTERS.



4206 WD

REVISIONS

REV.	DATE	AUTH.	REVISION
1	10-17-60
2
3
4
5
6
7
8
9
10

ACTUAL WIRING DIAGRAM FOR LESU

APPROVALS

DATE: 10-17-60

FILE NO. 4206 WD

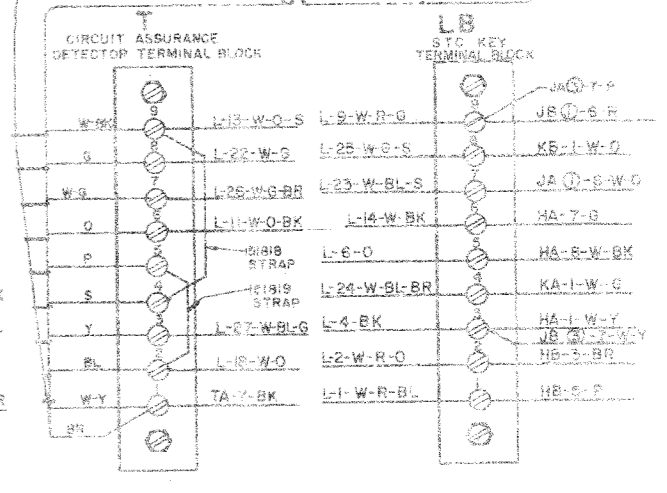
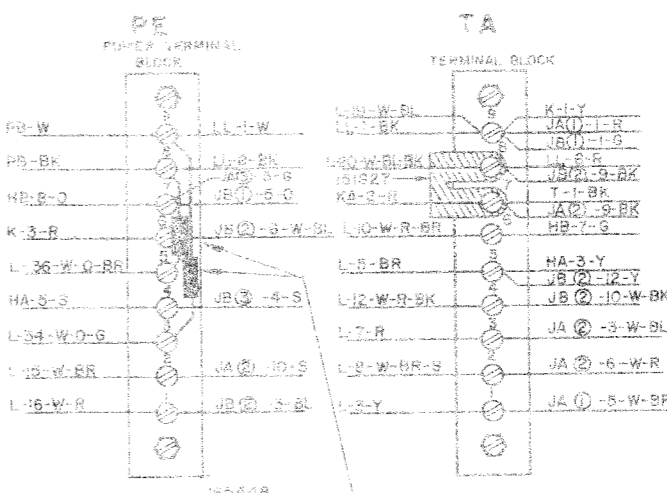
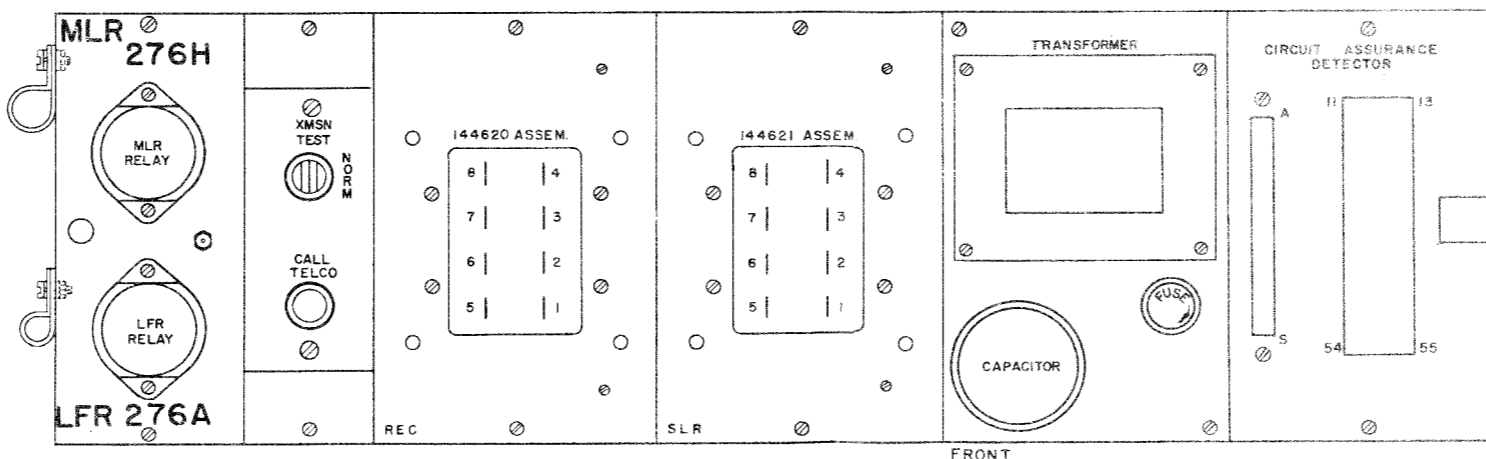
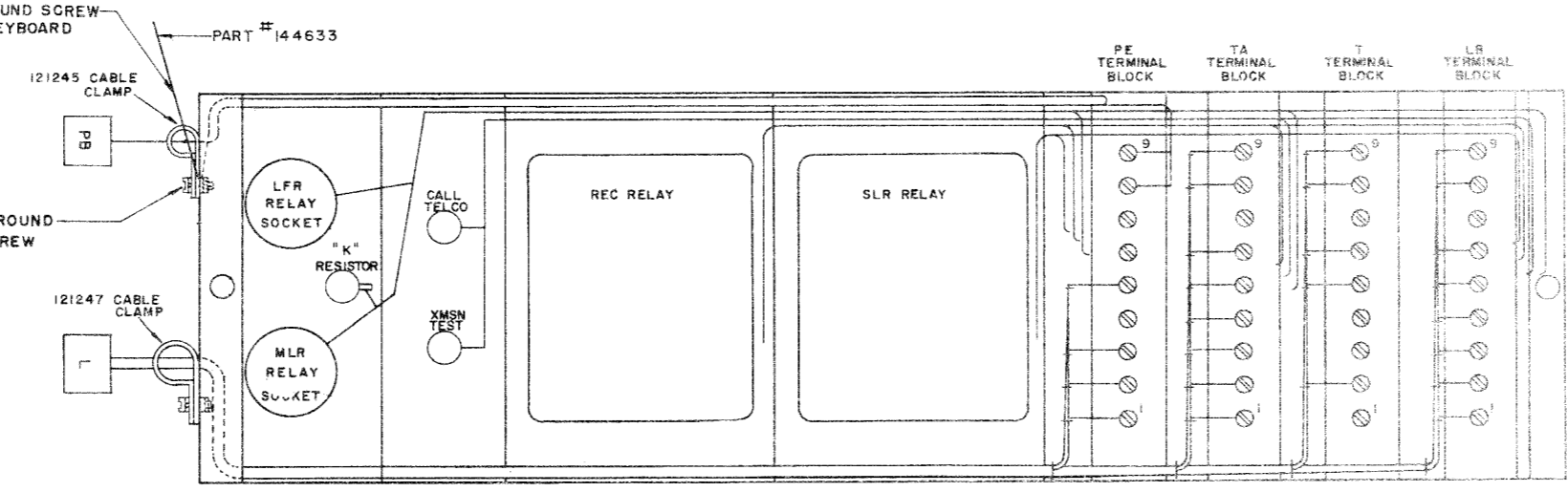
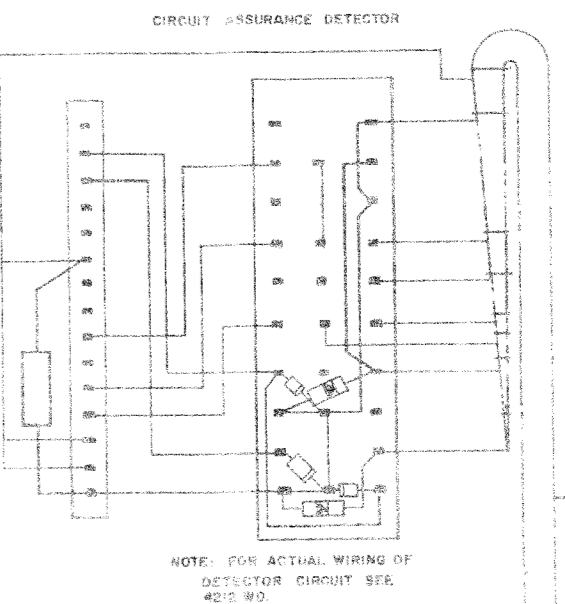
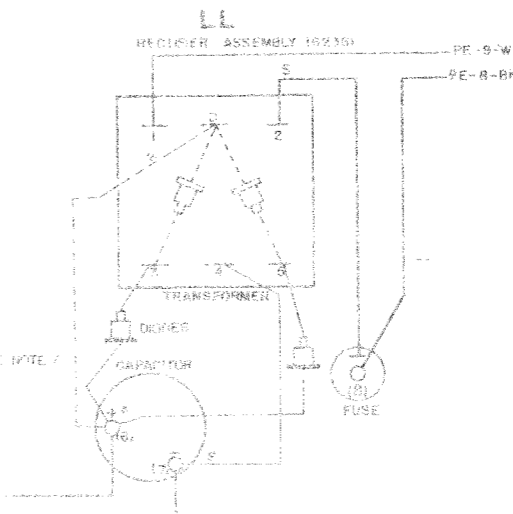
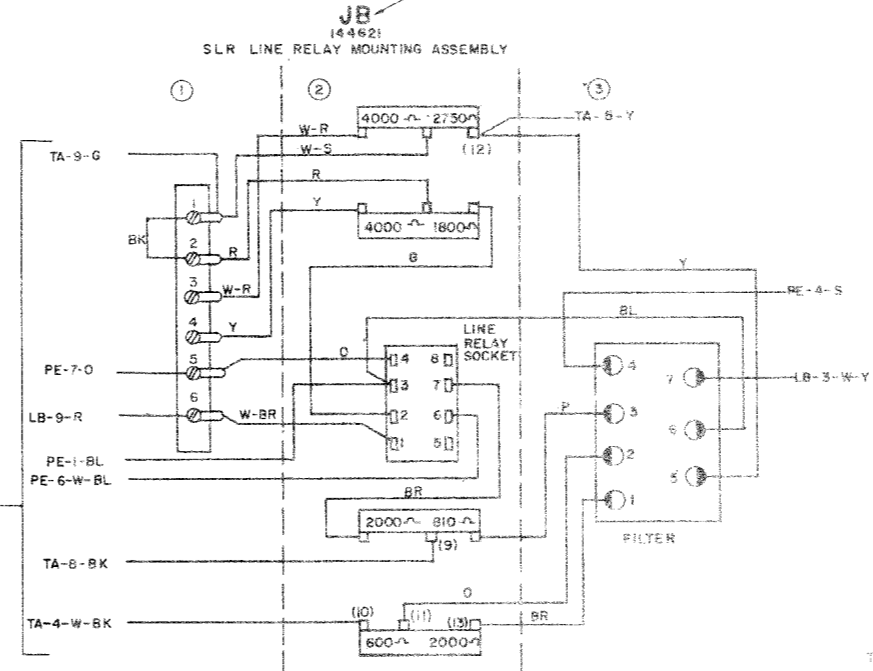
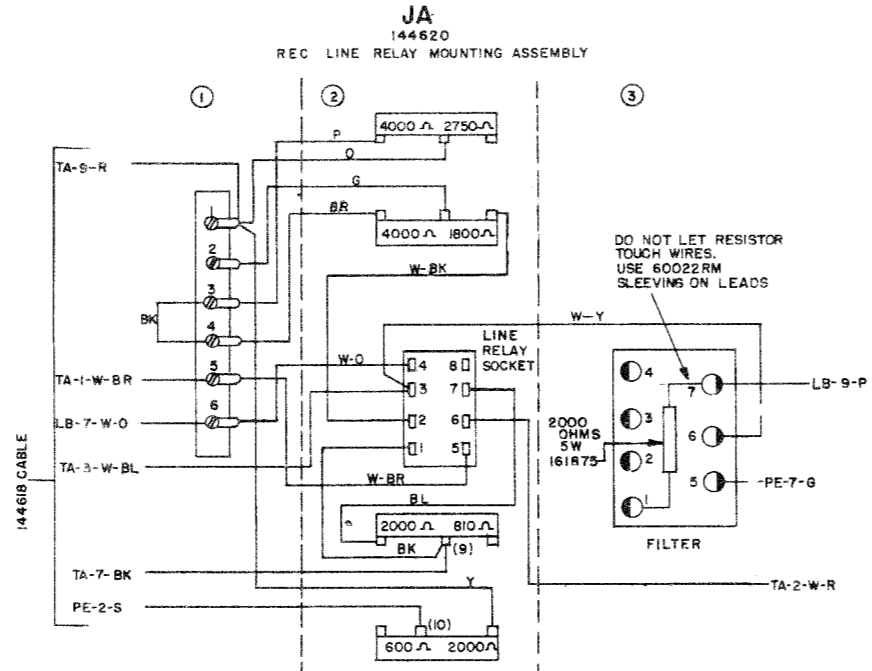
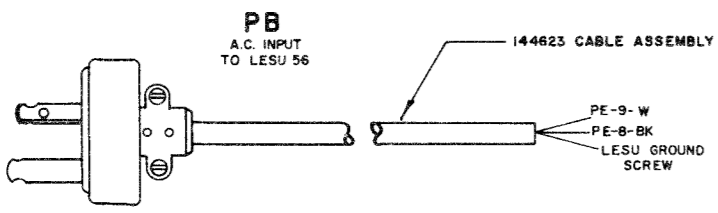
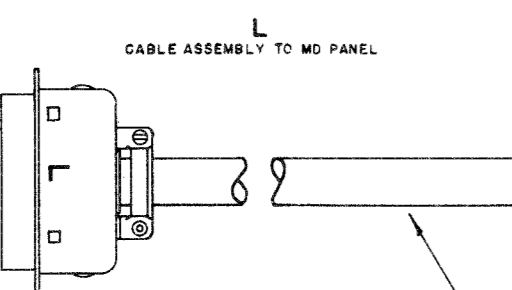
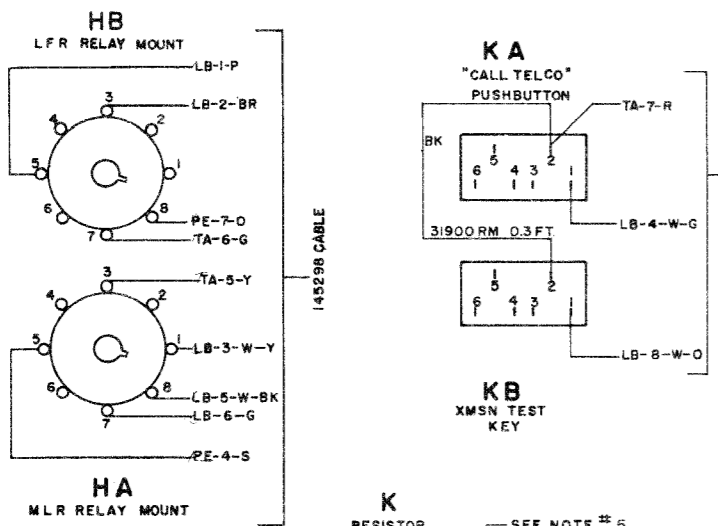
TELETYPE INFORMATION

4206 WD

ISSUE	DATE	AUTH. NO.
A	1-31-61	DA 588
B	2-21-61	DA 422
C	6-3-61	69754
D	8-6-61	69918
E	4-2-63	76821
F	1-28-69	95295

NOTES

1. WIRING LEGEND:
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 60026 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.



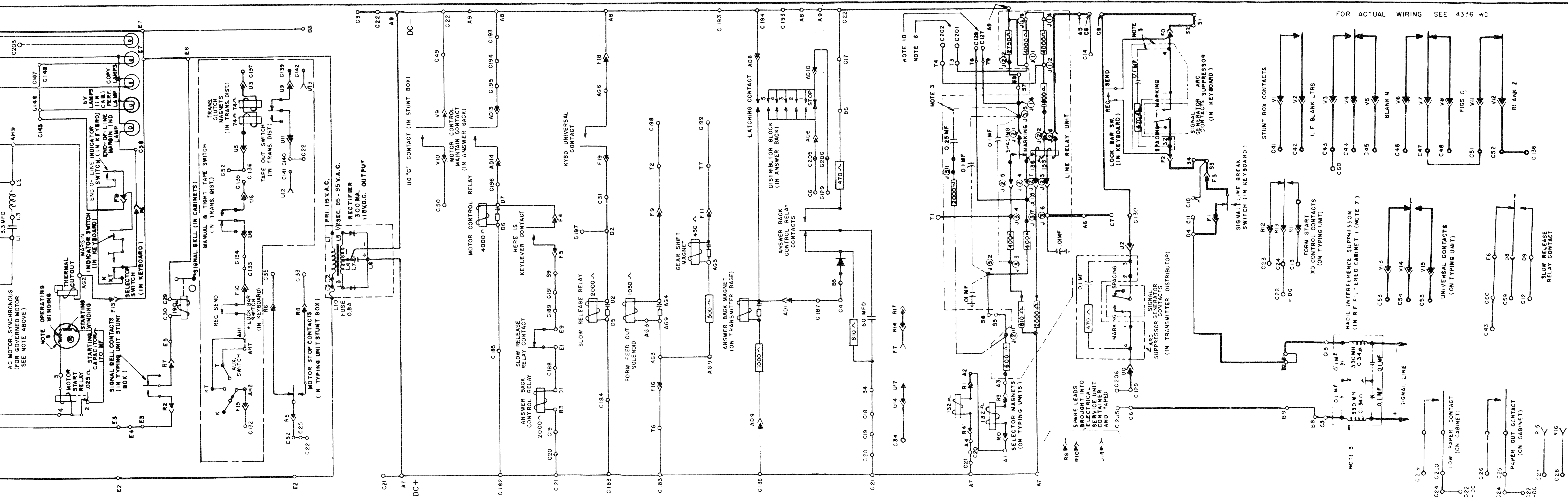
155-518
100.0 1W
RESISTORS
2 P.P.S.
USE 60026 KW SLEEVING
OVER LEADS
DO NOT LET RESISTOR
TOUCH OTHER WIRES.

ACTUAL
WIRING DIAGRAM
OF
LESU 57

APPROVALS
D AND R
E OR M

E-NR 16859-2
PROD. NO. 4211WD
DATE: 8-16-60
P.D. FILE NO. 1-A25/65.28A
DRAWN: WAW
ENGD. SC
TELETYPE CORPORATION
4211WD

10 3/4 x 26
A37



4335 WD

REVISIONS		
ISSUE	DATE	AUTH. NO.
A	2-10-61	22-62
B	7-1-62	22-62

SEE SHEET 2 FOR NOTES

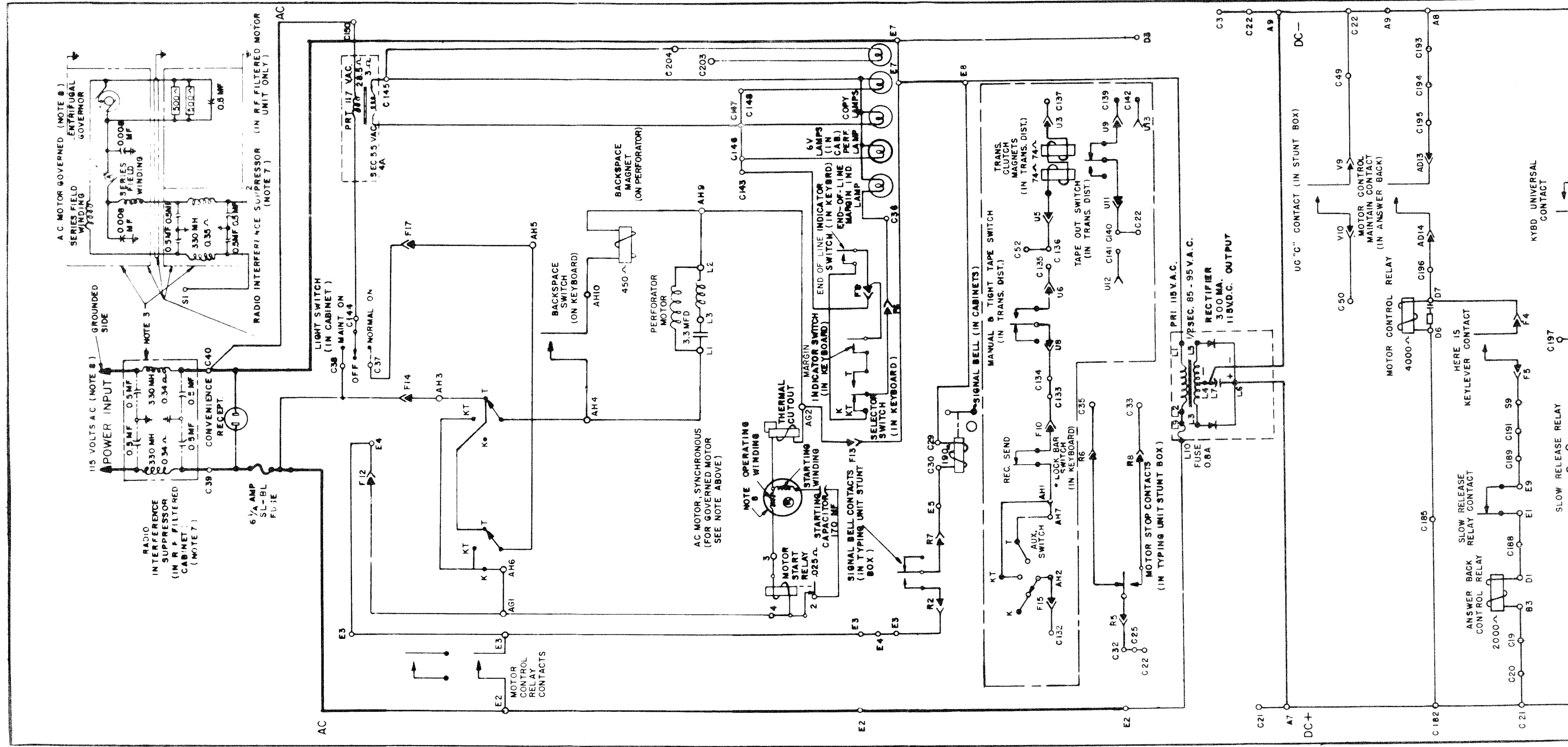
SHEET 1 OF 2

APPROVALS
 D AND R E OF M

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

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

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 95 2573 WD TRANSMITTER DISTRIBUTOR - LXD 5 4399 WD TRANSMITTER DISTRIBUTOR - BASE D - L6X16 WD
2	LEGEND <ul style="list-style-type: none"> ○ A SELECTOR MAGNET TERMINAL BLOCK (IN LESU) ○ B 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) ○ L TERMINAL BLOCK (ON LPE) △ R TYPING UNIT CONNECTOR ○ S TERMINAL BLOCK (IN LESU) ○ T TERMINAL BLOCK (IN LESU) △ U TRANSMITTER DISTRIBUTOR CONNECTOR ○ AS MOTOR TERMINAL BLOCK (ON LAK) ○ AH AUXILIARY SWITCH TERMINAL BLOCK (ON LAK) △ Z TRANSMITTER DISTRIBUTOR CONNECTOR (LBXD) △ AD ANSWER BACK CONNECTOR (ON LCXB) △ 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	<ul style="list-style-type: none"> △ RESISTANCE IN OHMS (Ω) ⊕ INDUCTANCE VALUES IN MICROHENRIES (MH) ⌒ 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%) AC. 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 C10 AND C11.
10	CONNECT C11 TO C123 TO BLIND PAGE PRINTER SELECTOR MAGNETS.

NO	NOTES

4335 WD

REVISIONS		
ISSUE	DATE	AUTHNO.
R	11-23-63	78858

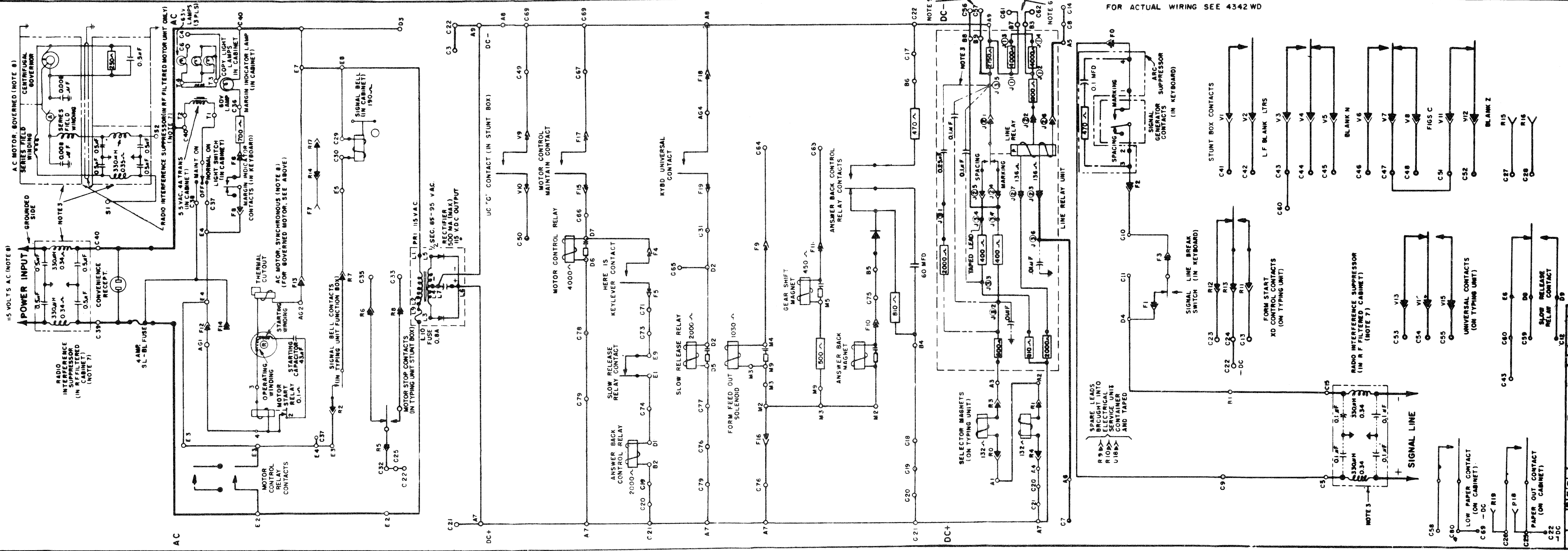
SHEET 2 OF 2

SCHEMATIC
WIRING DIAGRAM
MODEL 28 ASR

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

TELETYPE CORPORATION

4335 WD



FOR ACTUAL WIRING SEE 4342 WD

4341 WD

REVISIONS		
ISSUE	DATE	AUTH. NO.
A	11-24-61	71798
B	1-21-63	75770
C	11-13-63	78858

APPROVALS
 [Signature] [Signature]
 E-Number

PROG. NO. 4341 WD

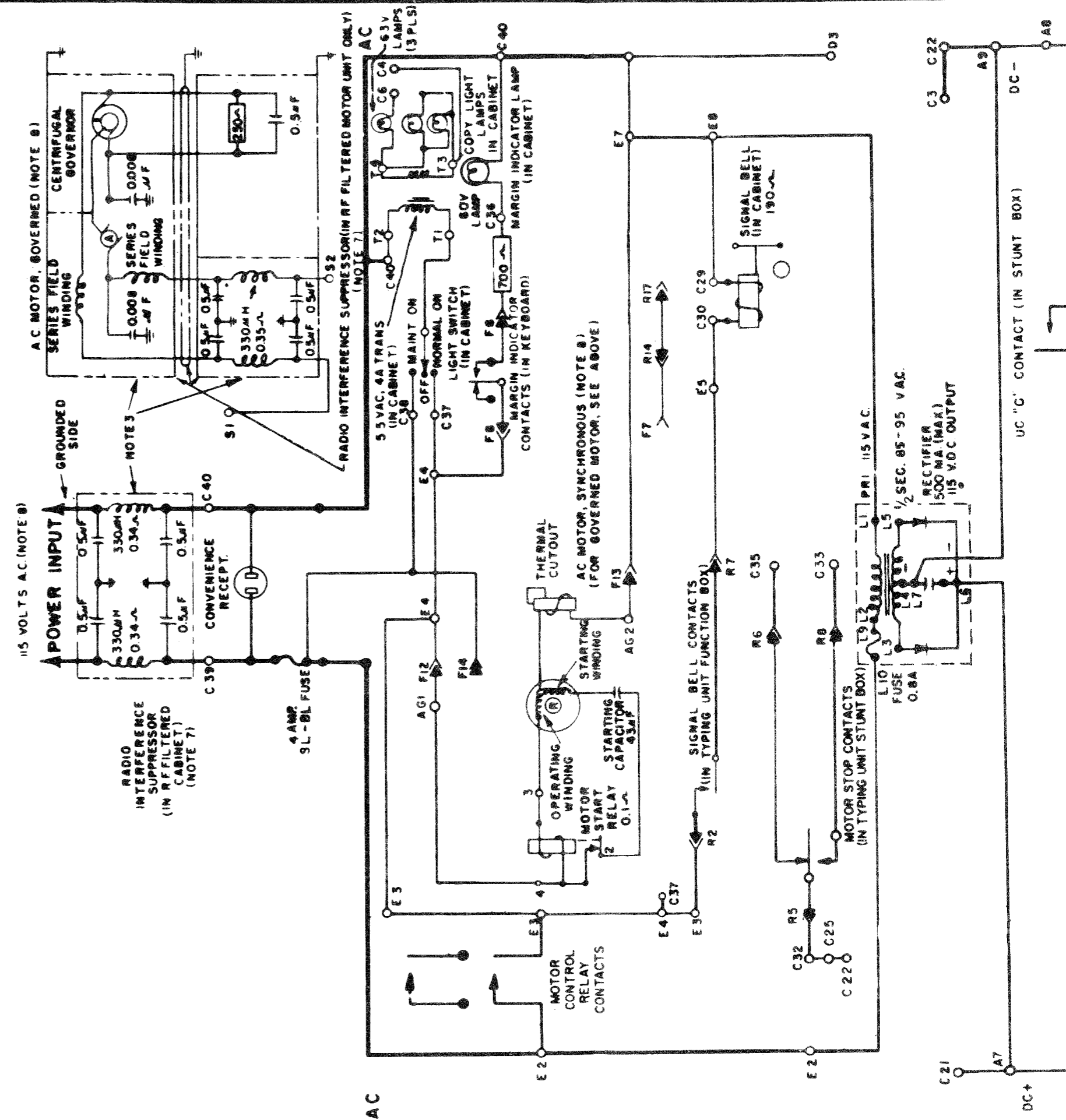
SCHEMATIC
 WIRING D-1-RAM
 MODEL 28 KSR
 WITH FEATURES
 PROVIDED BY
 ELECT. SERVICE UNIT
 LESU 67
 AND ASSOCIATED
 UNITS

DATE: 1-11-61
 P.D. FILE NO 22-465219A

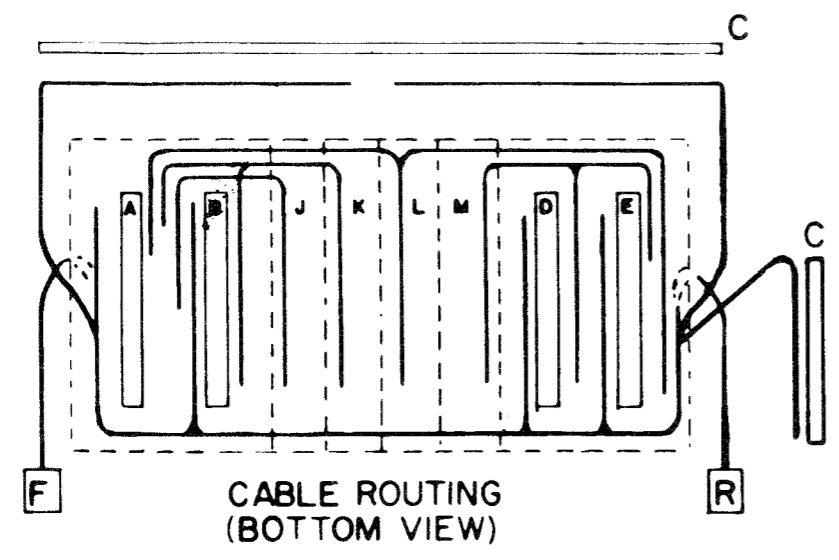
DRAWN: CMK/AM
 EMGO: G.E. BLAPPO

TELETYPE
 CORPORATION
 4341 WD

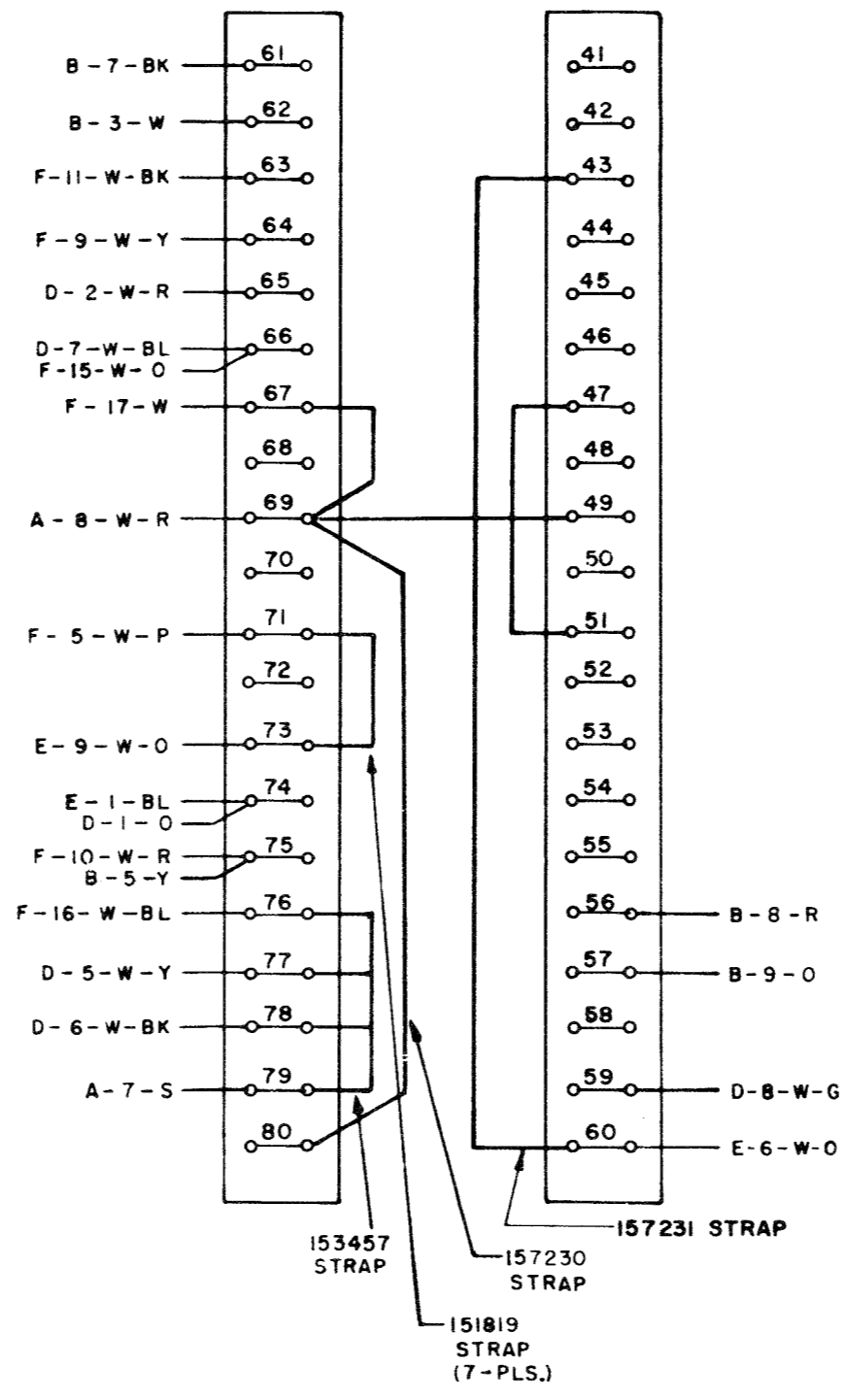
NO	NOTES	NO	NOTES
1	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS, SEE: WB NUMBER UNITS DIRECTLY OPERABLE WITH LESU		
	4344 WD CABINET LAC 216 4342 WD ELECTRICAL SERVICE UNIT-LESU 4343 WD KEYBOARDS-LK 2900 WD MOTOR UNITS-LMU3,4,6 4340 WD PAGE TYPING UNITS-LP		
2	LEGEND (V) STUNT BOX CONNECTOR (IN LP) (A) SELECTOR MAGNET TERMINAL BLOCK (IN LESU) (B) CABINET TERMINAL BLOCK (C) MOTOR CONTROL TERMINAL BLOCK (IN LESU) (E) POWER TERMINAL BLOCK (IN LESU) (F) KEYBOARD CONNECTOR (J) TERMINAL STRAP (ON LINE RELAY ASSEM. IN LESU) (K) LINE RELAY CONNECTOR (IN LESU) (L) LINE RELAY FILTER (IN LESU) (M) TYPING UNIT CONNECTOR (N) MOTOR TERMINAL BLOCK (IN LK) (O) 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) Δ. INDUCTANCE VALUES IN MICROMHYS (μH) C. CAPACITANCE VALUES IN MICROFARADS (μF)		
6	FOR .060 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. Δ. 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	CONNECT C86 TO C57 TO BLIND PAGE PRINTER SELECTOR MAGNETS.		



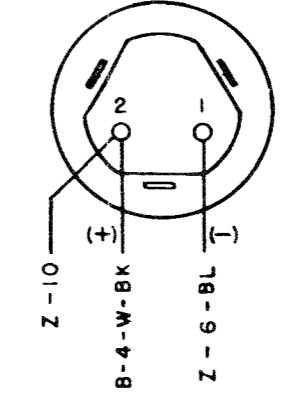
REVISIONS		
ISSUE	DATE	AUTH. NO.
A	6-9-61	BOE-141
B	8-30-61	70817
C	11-25-61	752
D	1-21-63	75-70



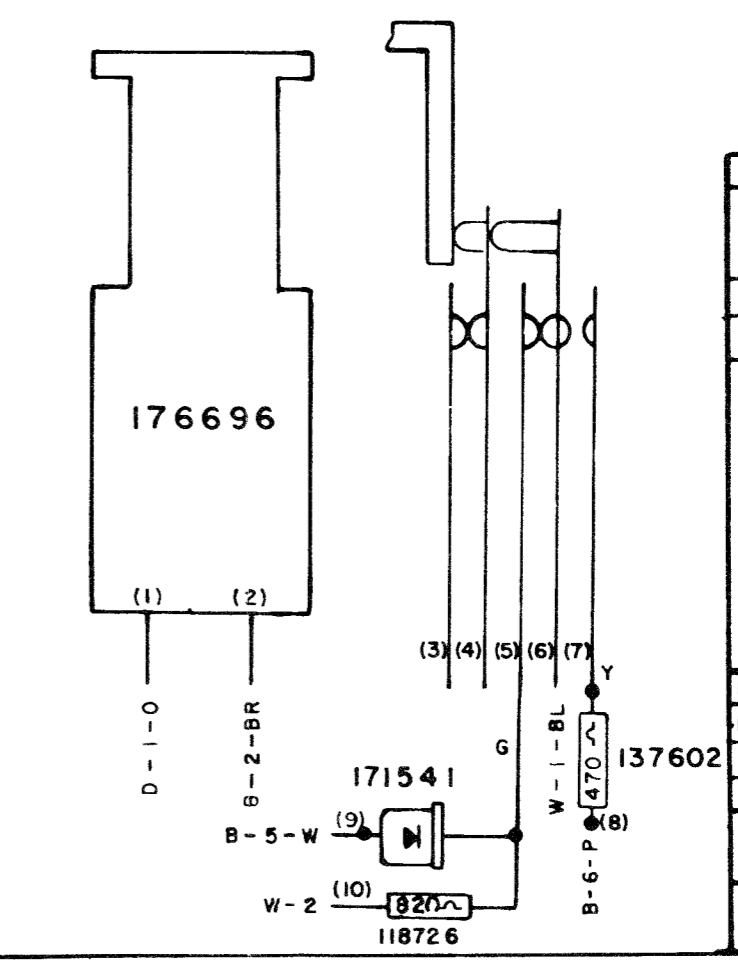
C
CABINET TERMINAL BLOCK



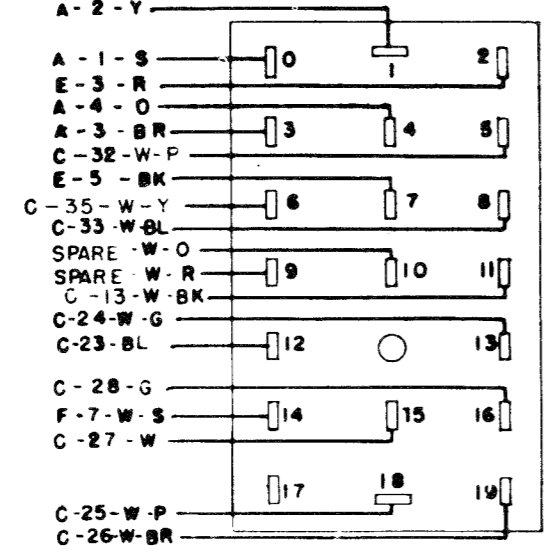
W
CAPACITOR
176788



Z
SLOW RELEASE RELAY,
DIODE AND RESISTORS

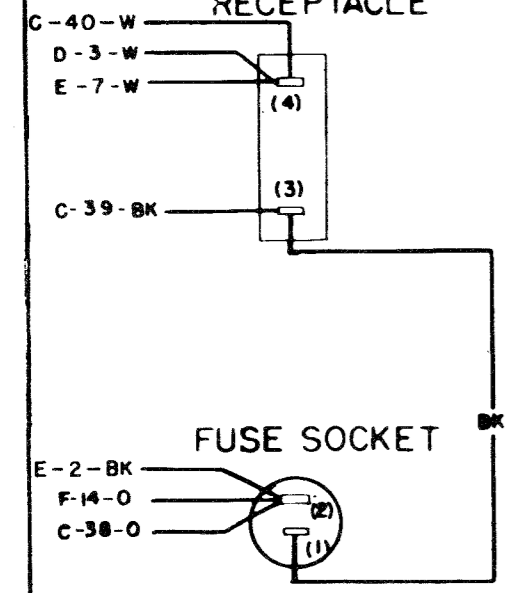


R
TYPING UNIT CONNECTOR PLUG
A-2-Y



FOR SCHEMATIC SEE 4341 WD

P
CONVENIENCE
RECEPTACLE

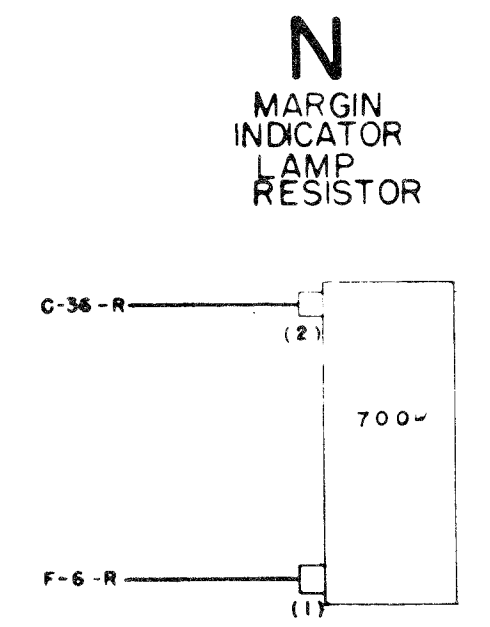
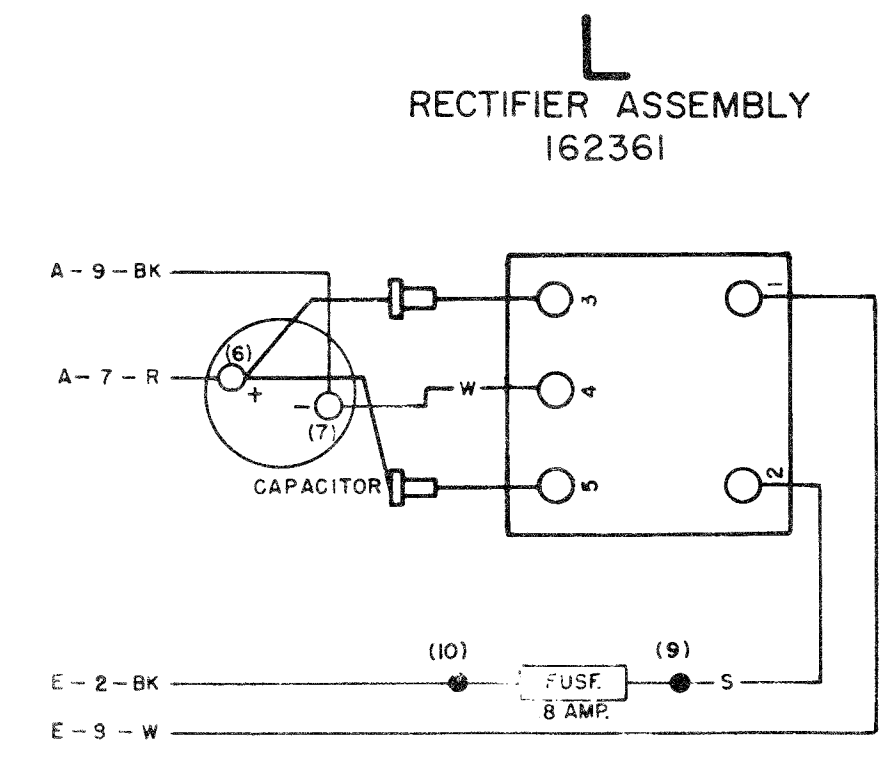
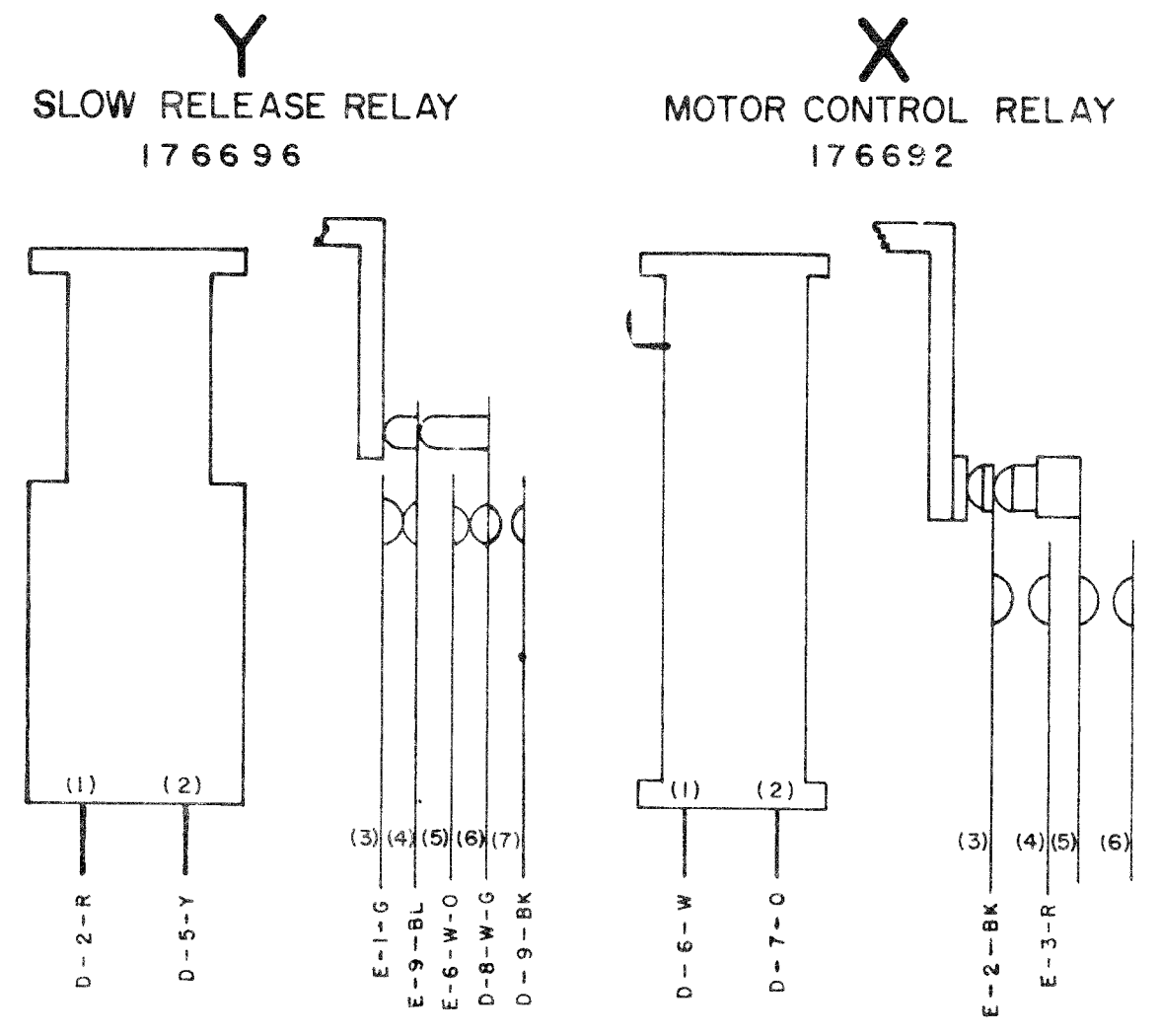
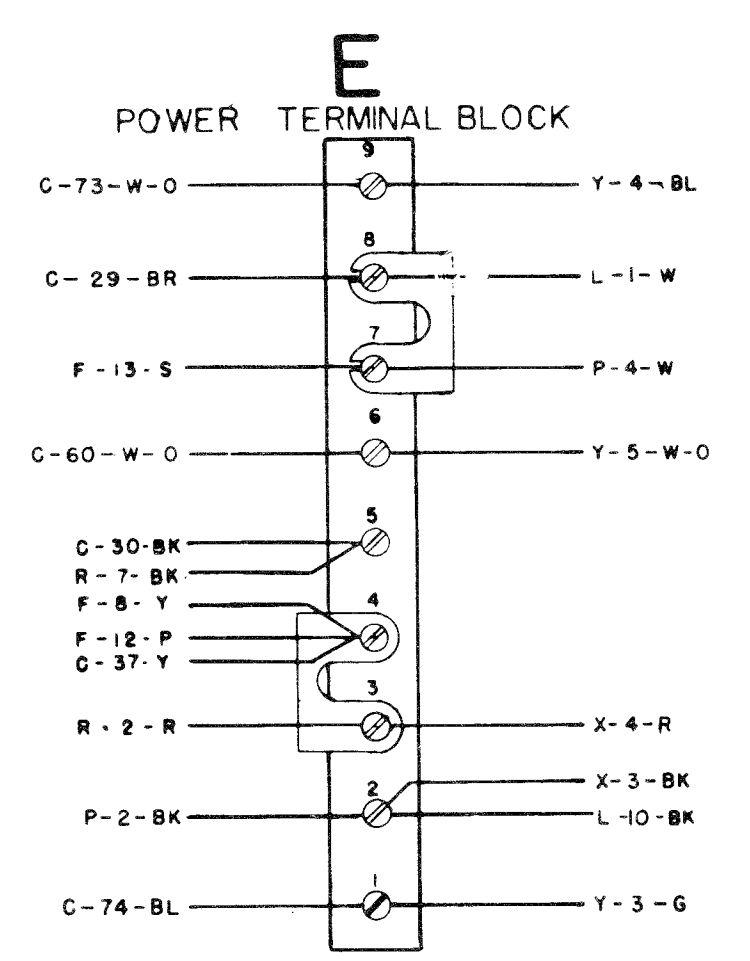
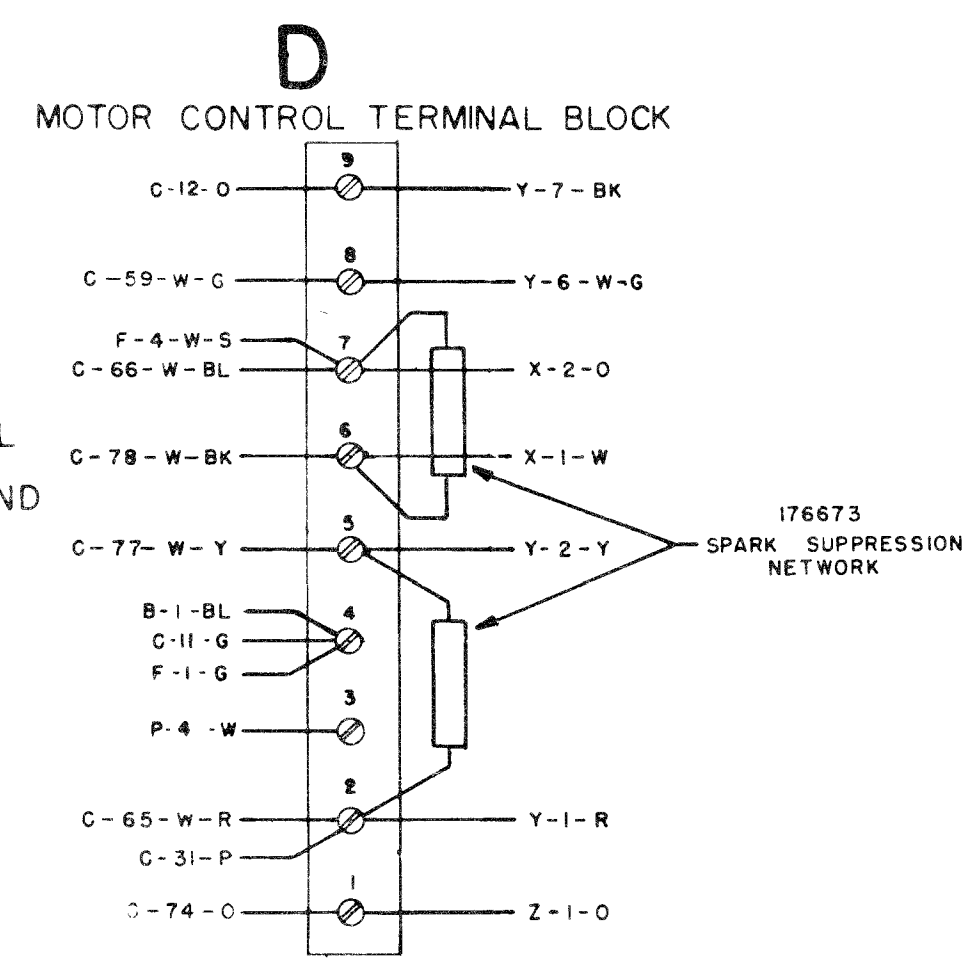
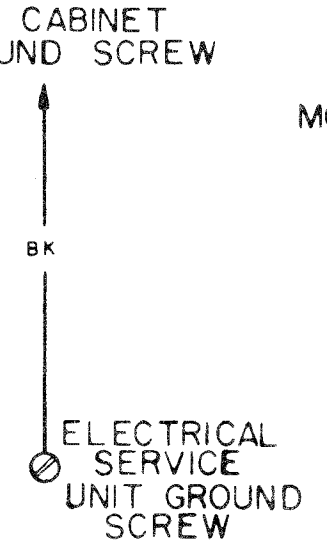
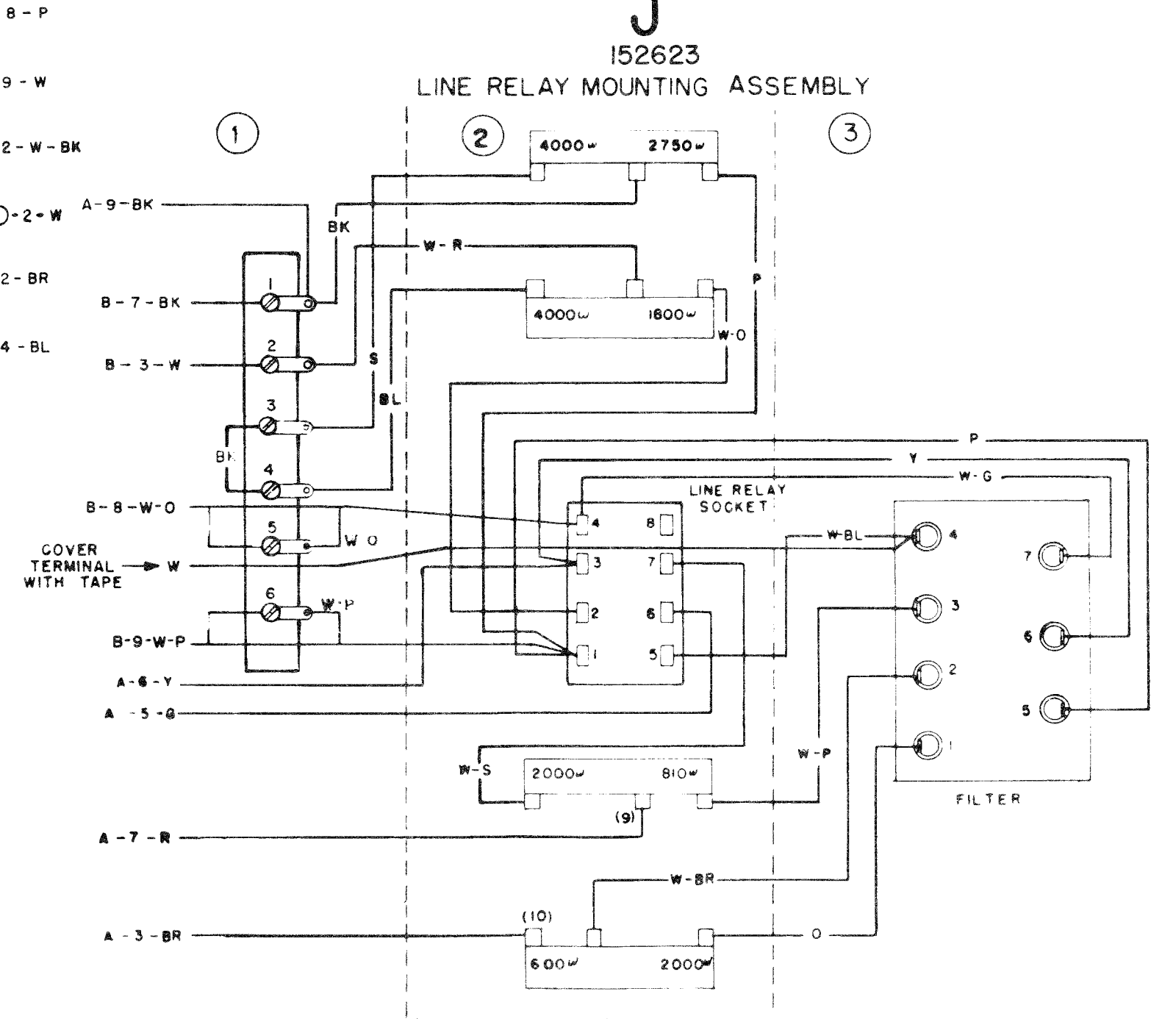
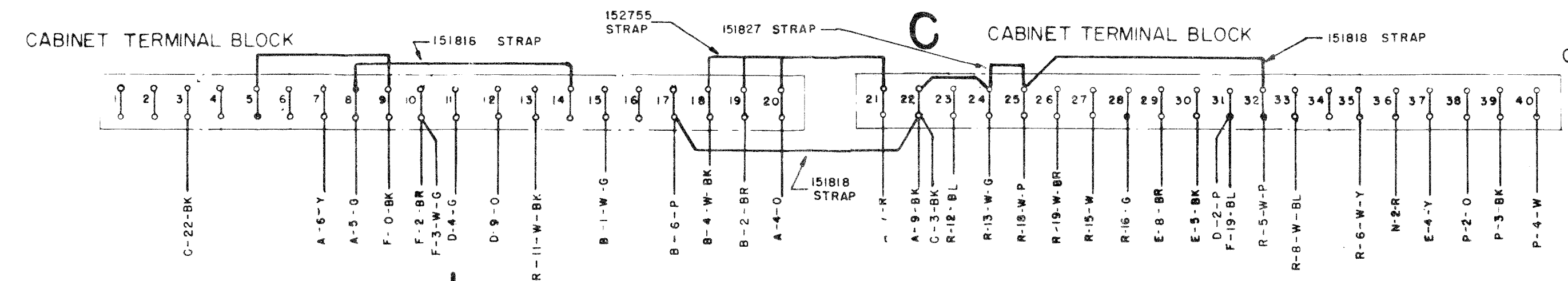
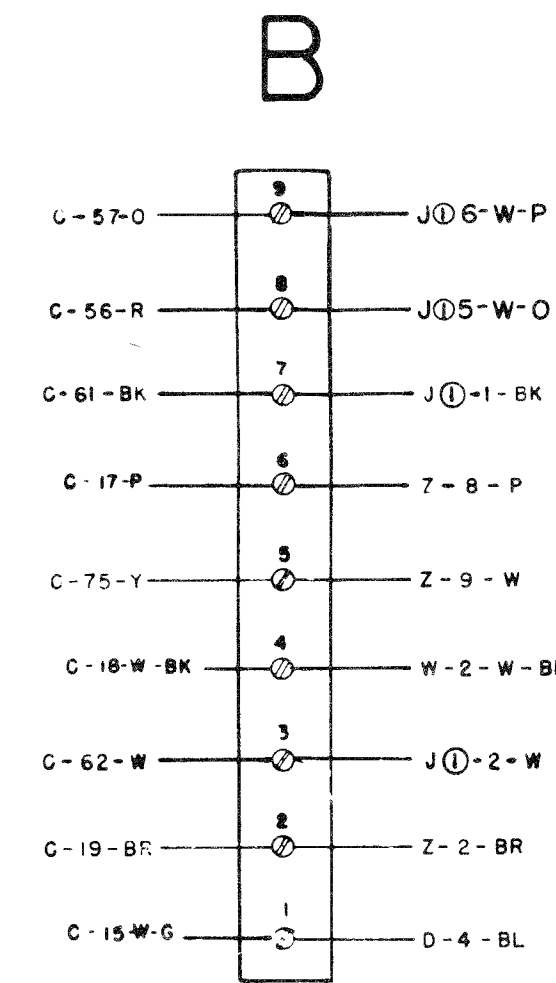


SEE SHEET 2
FOR NOTES

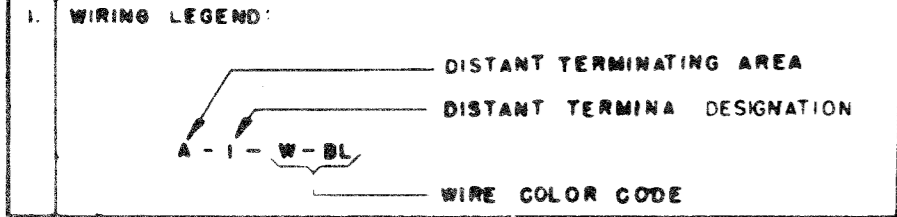
SHEET 1 OF 2

APPROVALS	
D AND R	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.
ENGD. G.E.W.	APPD.
TELETYPE CORPORATION	
4342 WD	

- TERMINAL BLOCK
- L-7-BK
- J①-1-BK
- F-18-W-BR
- J②-9-R
- L-6-R
- J②-3-Y
- J②-6-G
- J②-10-BR
- BK
- 151819 STRAP (3-PLS.)



NOTES



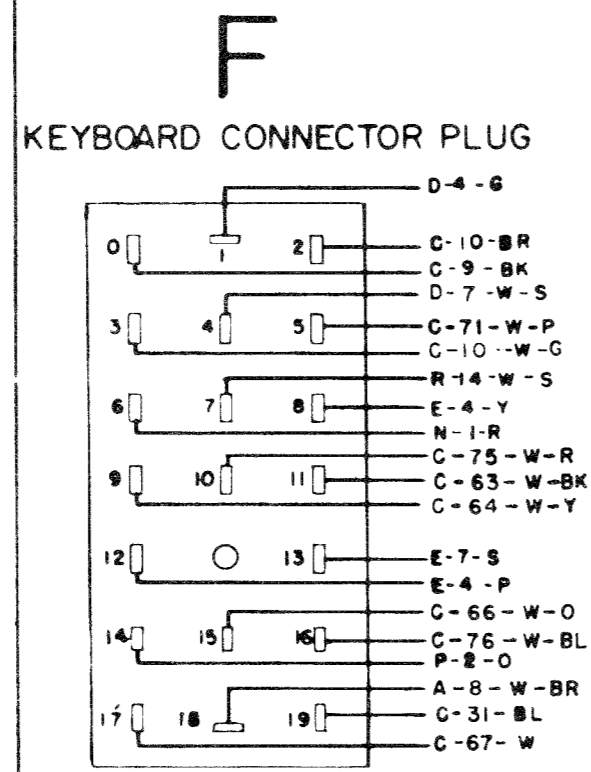
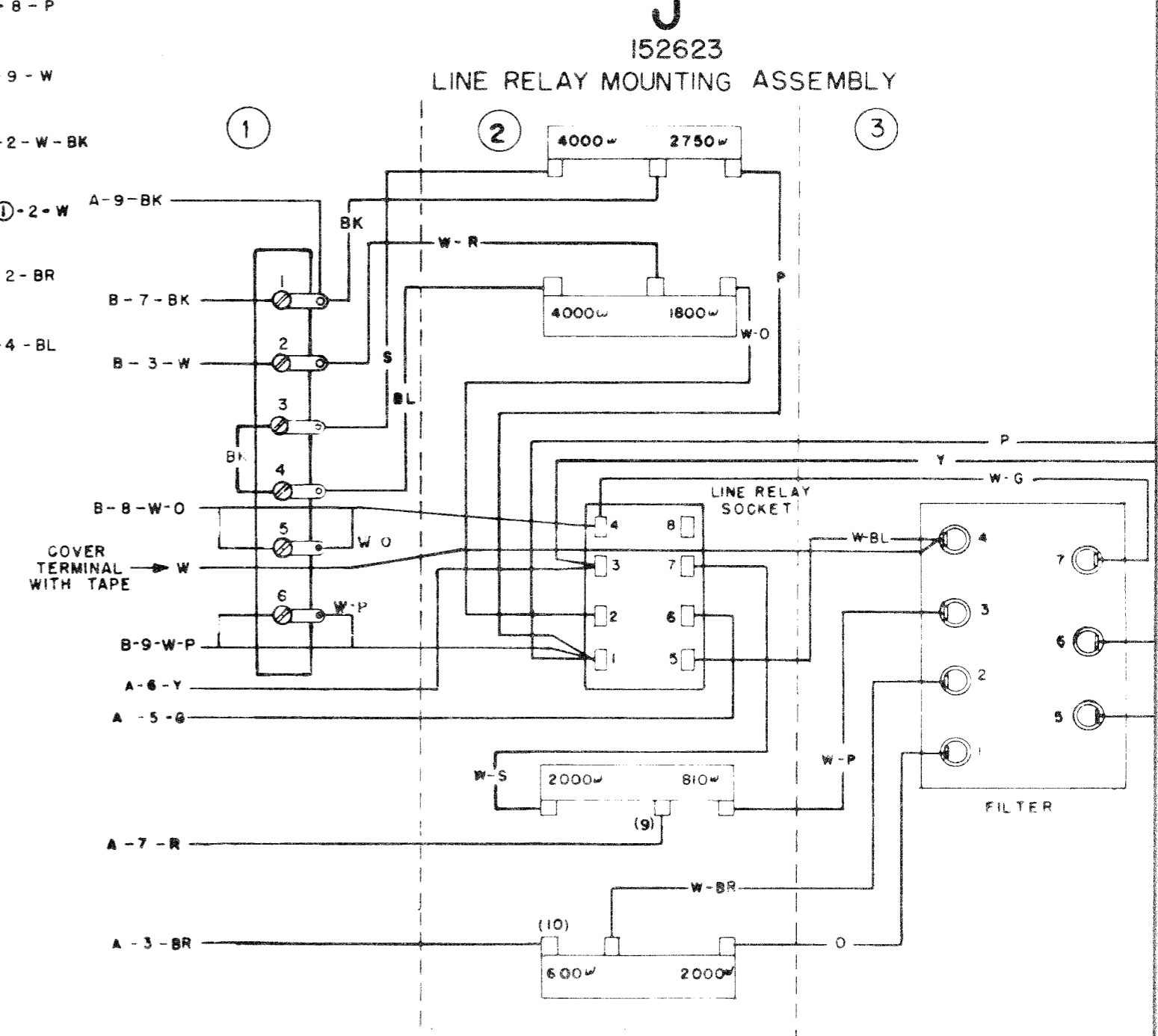
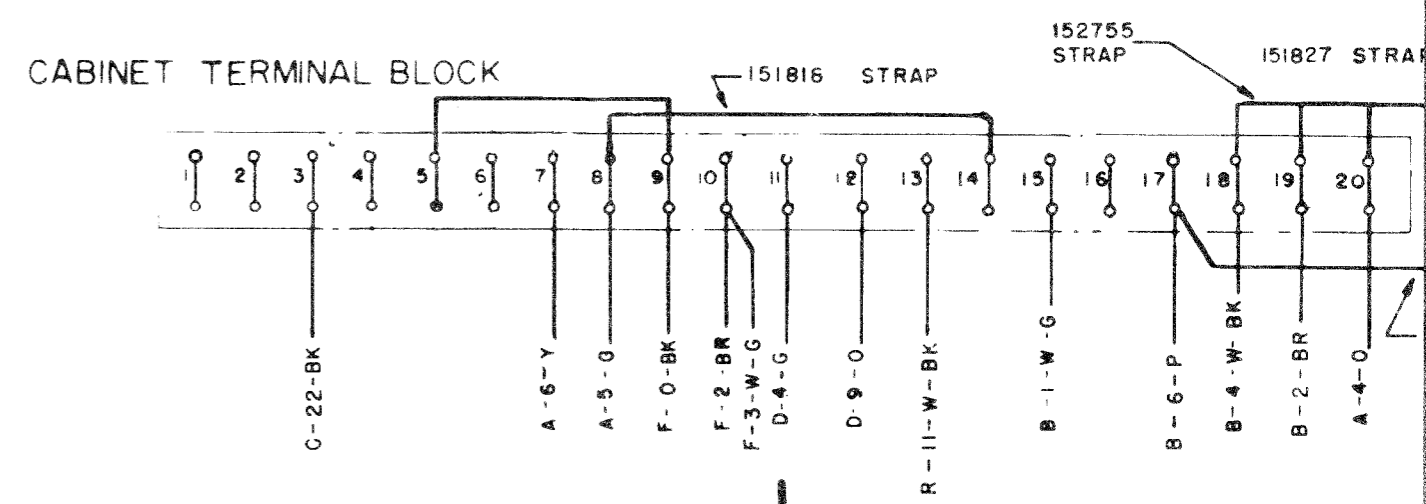
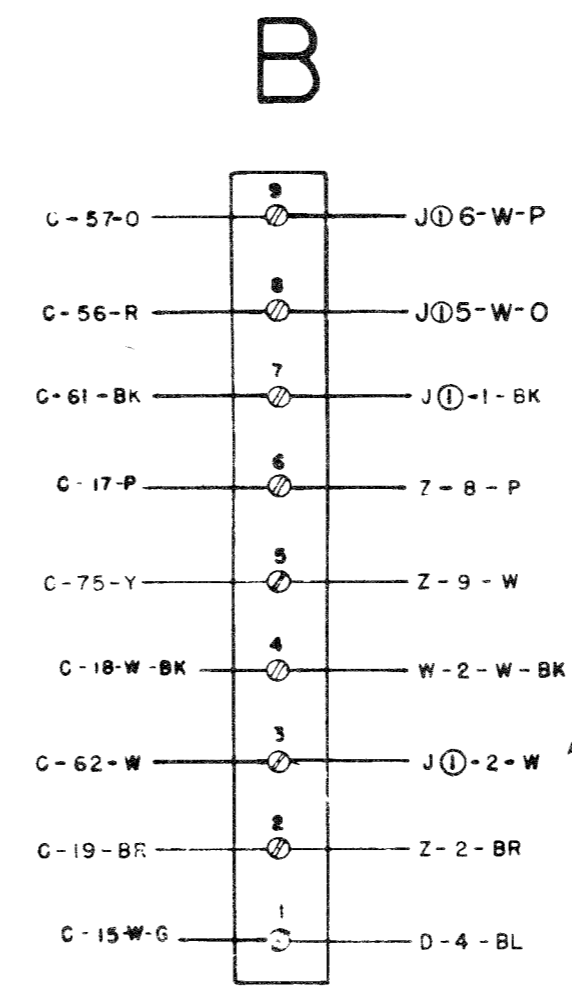
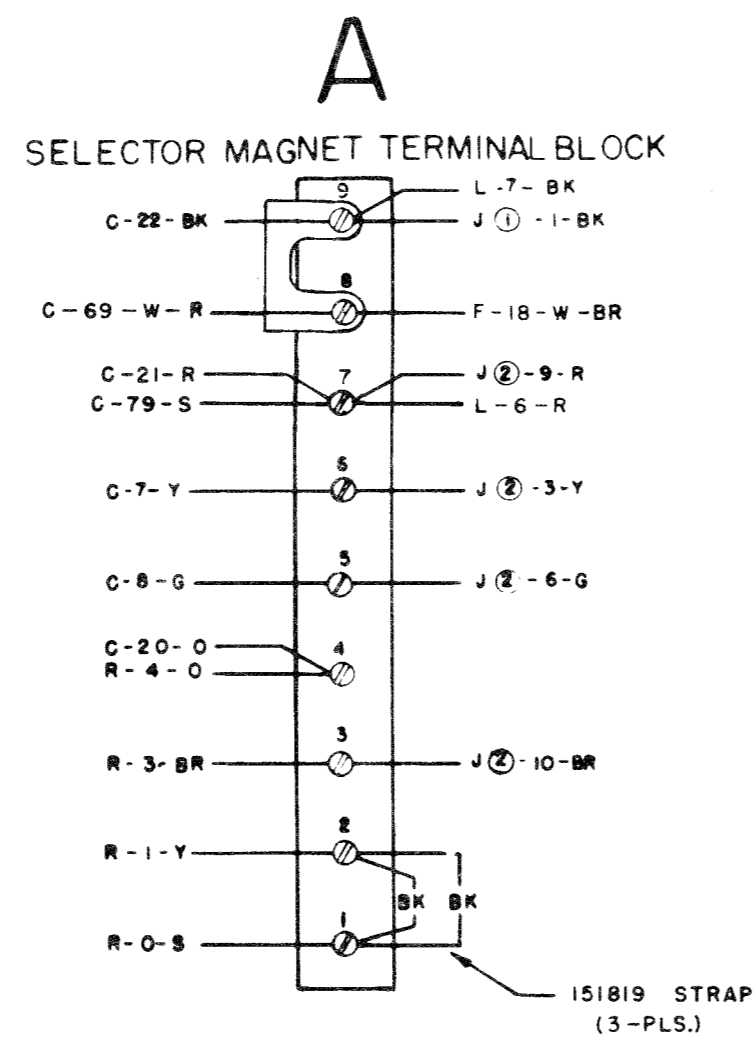
2. COLOR CODE

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 .060 AMP. NEUTRAL SIGNAL LINE OPERATION.



NOTES

WIRING LEGEND:

 DISTANT TERMINATING AREA
 DISTANT TERMINAL DESIGNATION
 A-1-W-BL
 WIRE COLOR CODE

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-S - WHITE - 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.

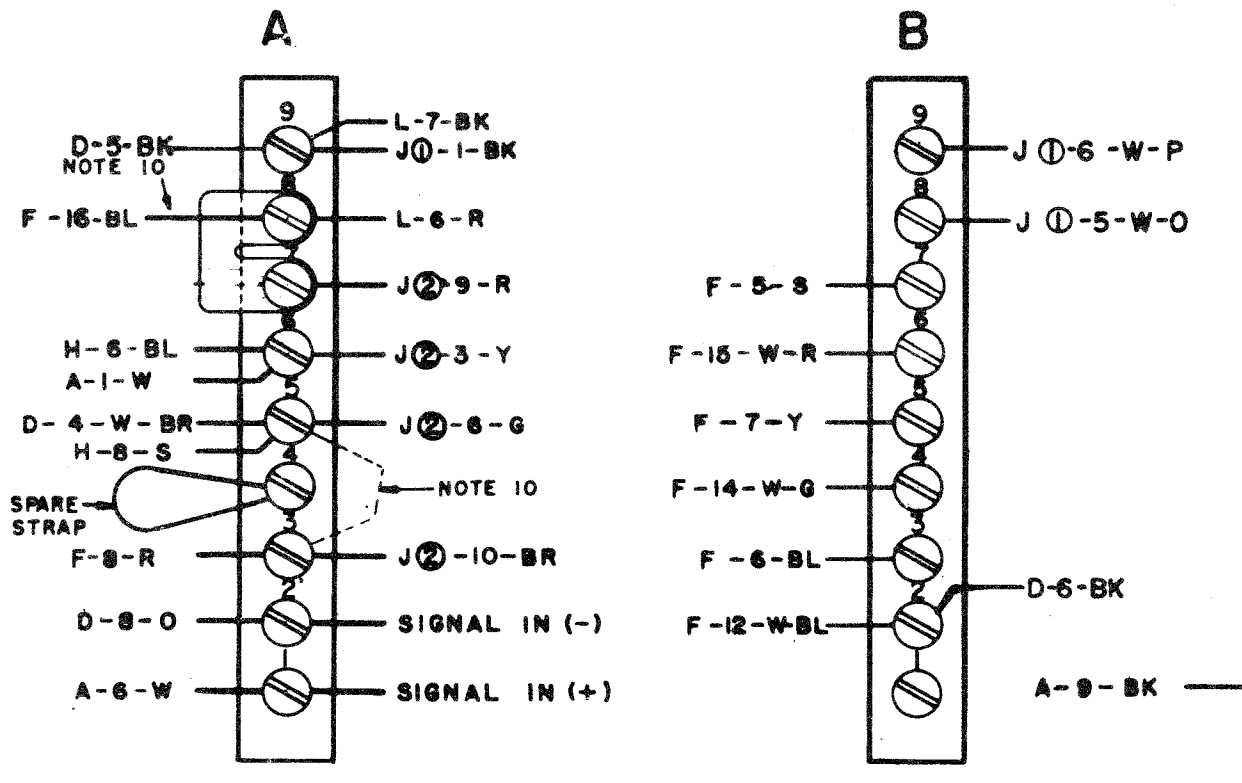
SIGNAL LINE CURRENT	CONNECTION REMOVED	CONNECTION ADDED
.020 AMP.	J 01-J 02,	J 03-J 04

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 MOTOR CONTROL RELAY.

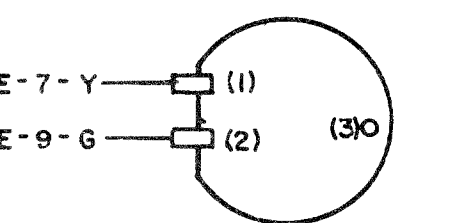
SELECTOR MAGNETS ARE TO BE WIRED AS SHOWN FOR 30 MILLIAMPERE OPERATION WHEN THE LINE RELAY IS USED.
 ASSOC. CABLE NUMBERS
 159939 CABLE ASSEM., LESU75
 153477 CABLE ASSEM., RECTIFIER
 164030 CABLE ASSEM., LINE RELAY MTG. ASSEM.

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 AS 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 80 MILLIAMPERE OPERATION.

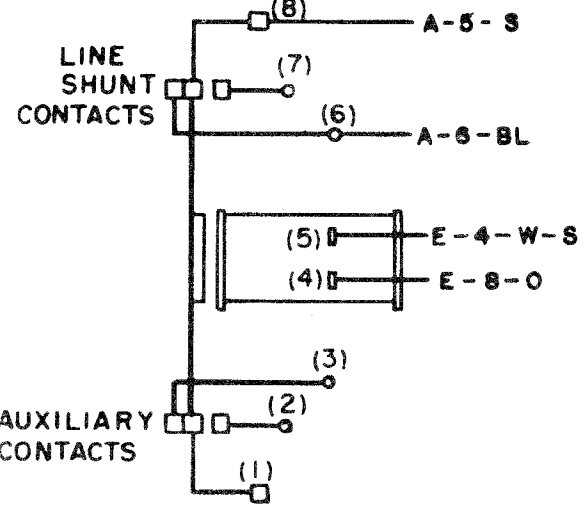
SELECTOR MAGNET TERMINAL BLOCK



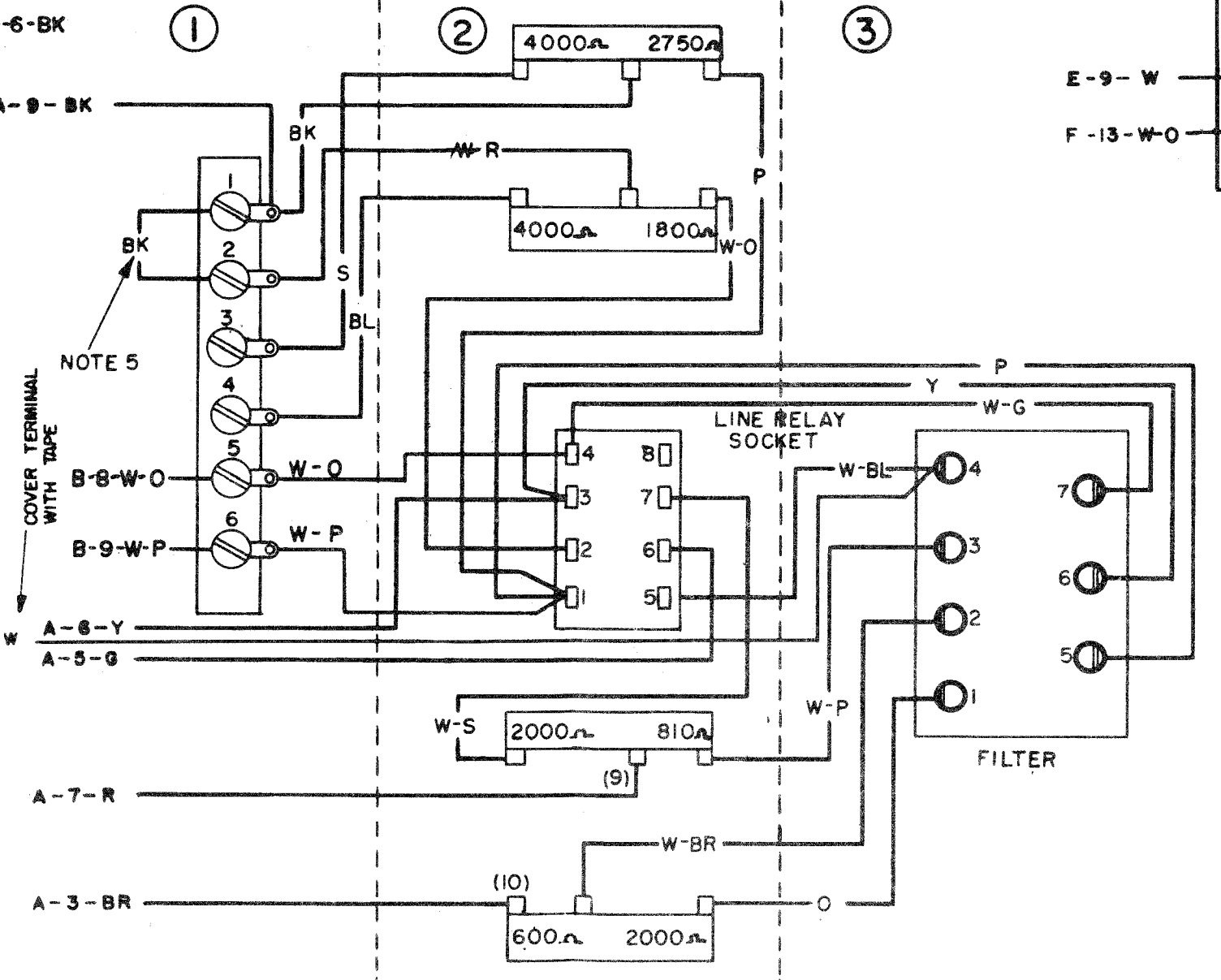
G SIGNAL BELL



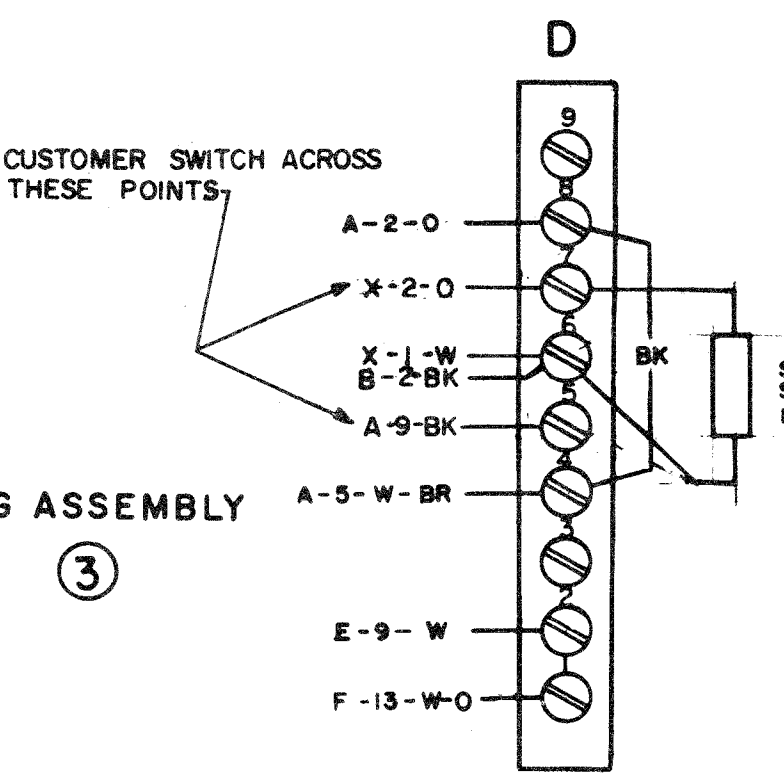
H LINE SHUNT RELAY



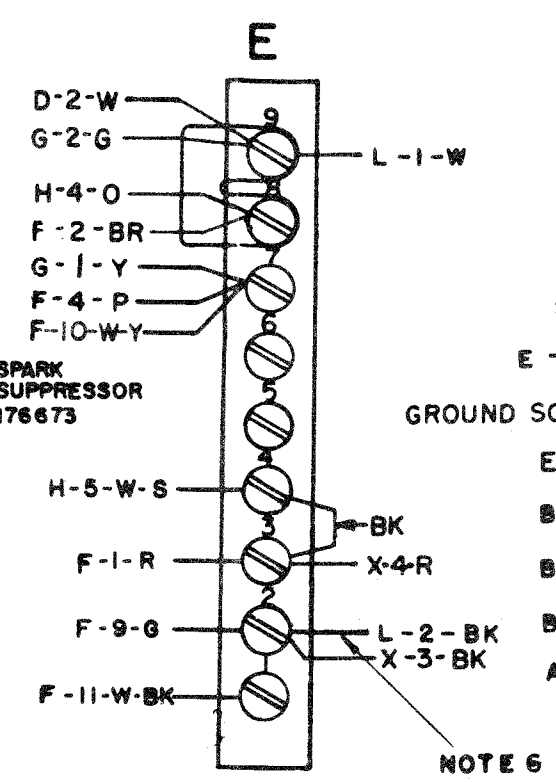
J LINE RELAY MOUNTING ASSEMBLY



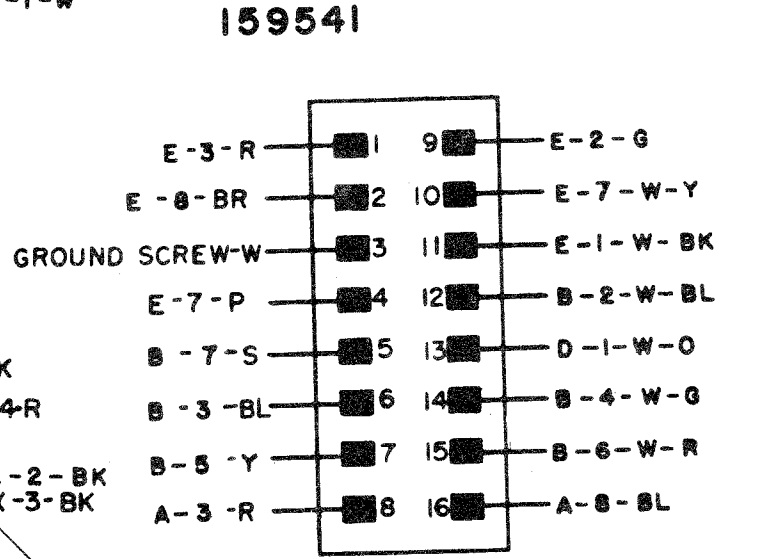
MOTOR CONTROL TERMINAL BLOCK



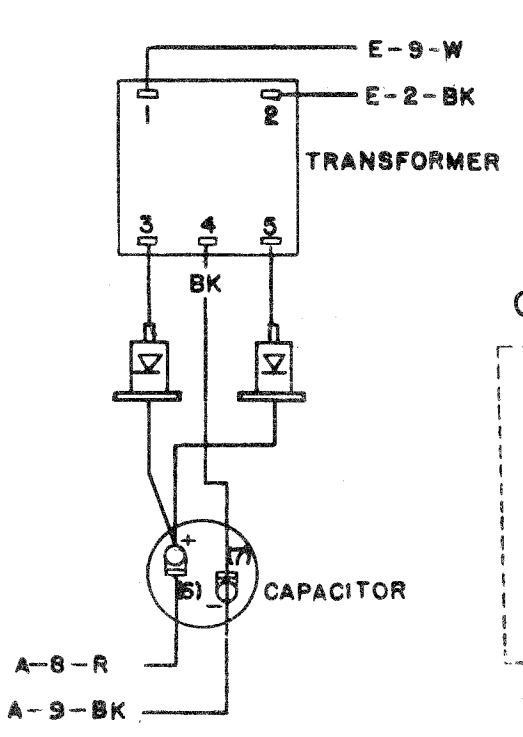
POWER TERMINAL BLOCK



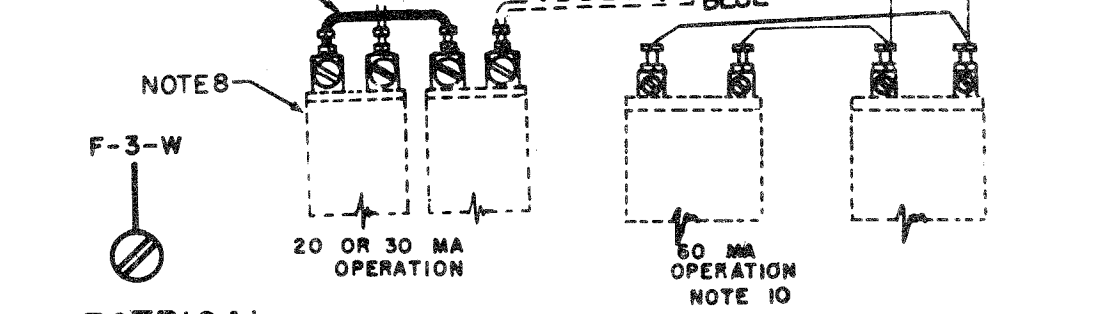
F CONNECTOR PLUG 159541



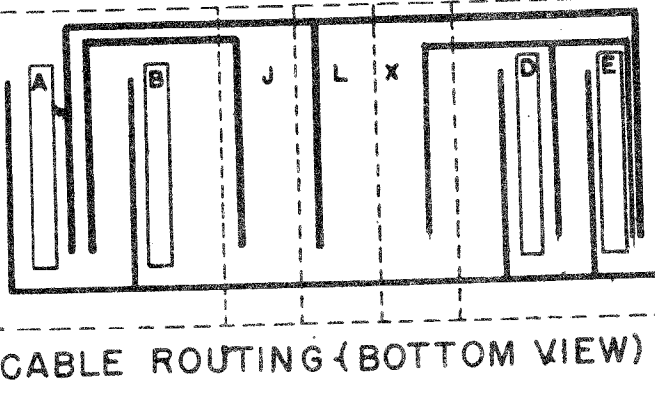
L 152950 RECTIFIER ASSEMBLY



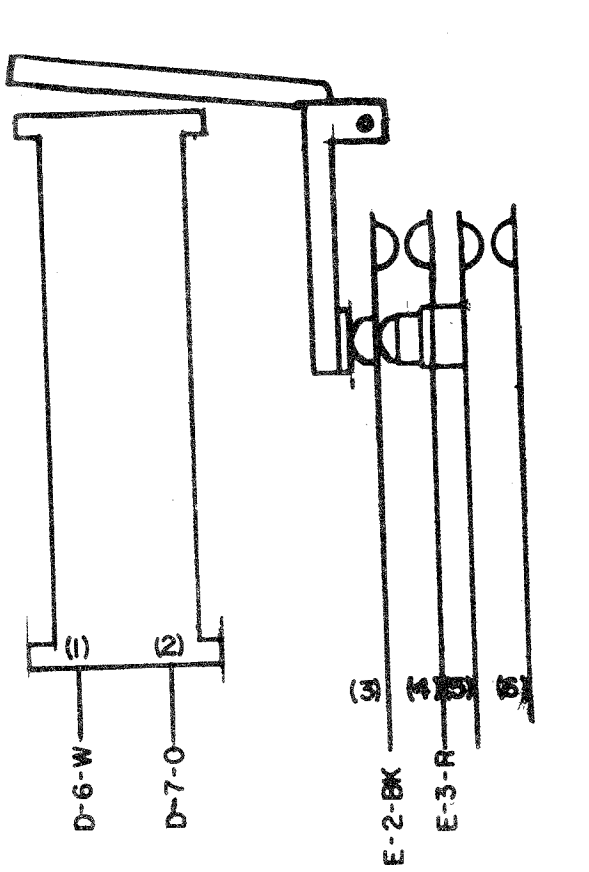
SELECTOR MAGNETS ASSOCIATED APPARATUS



ELECTRICAL SERVICE UNIT GROUND SCREW



X MOTOR CONTROL RELAY



4430WD

REVISIONS		
NO.	DATE	AUTH. NO.
A	12-7-61	71866

ACTUAL WIRING DIAGRAM MODEL 28 ELECTRICAL SERVICE UNIT LESU75

APPROVALS
 D AND E OF M

PROD. NO. 4430WD

DATE: 3-27-61
 P.D. FILE NO. 22-46503A
 DRAWN N.K.G. CHKD.
 ENG'D N.K.G. APPD.
 TELETYPE CORPORATION
 4430WD

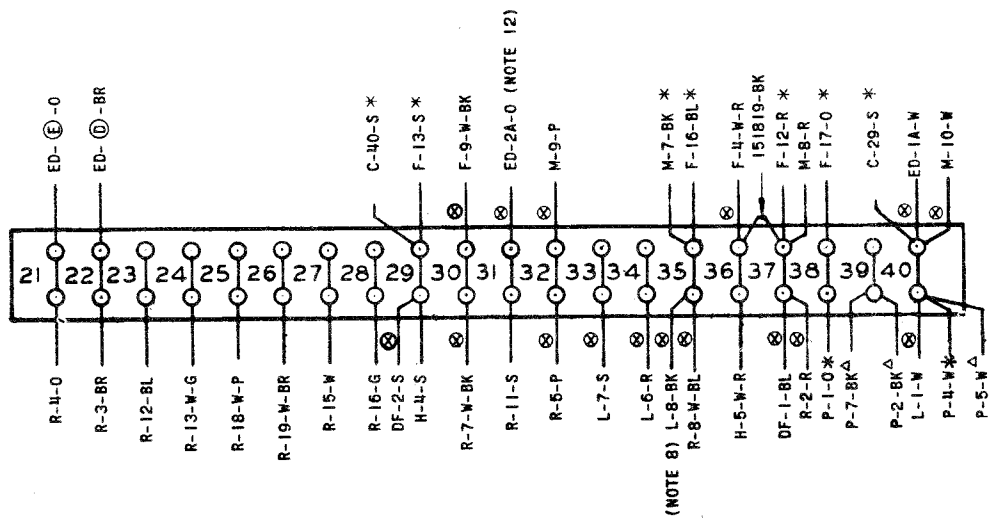
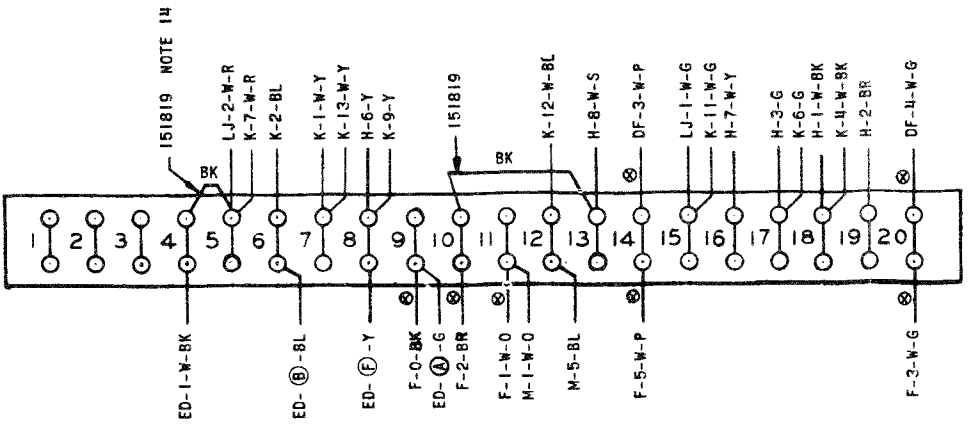
4486 WD

REVISIONS

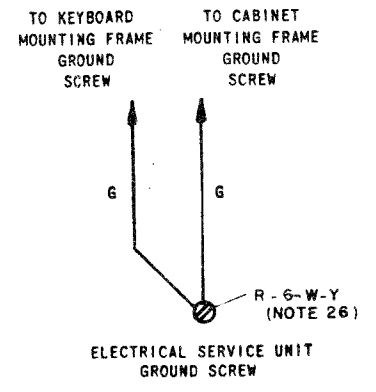
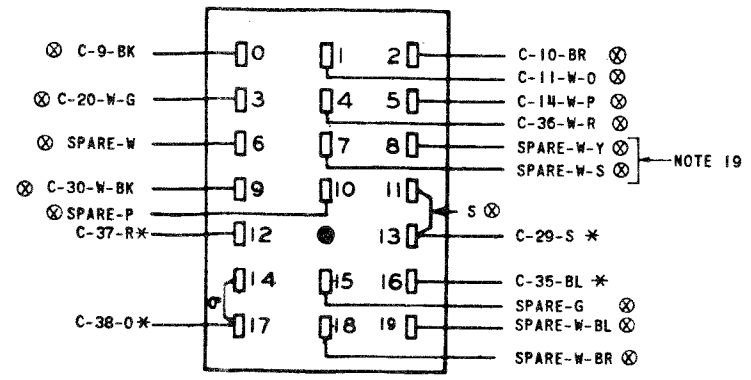
ISSUE	DATE	AUTH. NO.
A	9-21-62	74590
B	10-4-62	74722
C	10-26-62	74934
D	1-28-63	75788
E	2-4-63	75857
F	3-1-63	76176
G	3-11-63	75994
H	8-26-63	76157
I	11-14-63	78849
J	10-7-65	89785
K	1-25-67	92056

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

LESU TERMINAL BLOCK



F KEYBOARD CONNECTOR RECEPTACLE 178520 CABLE ASSEMBLY



1. WIRING LEGEND:
 DISTANT TERMINATING AREA
 DISTANT TERMINATING DESIGNATION
 A-I-W-BL
 WIRE COLOR CODE
2. COLOR CODE:
 BK - BLACK Δ DENOTES 16 GA. WIRE
 BR - BROWN * DENOTES 18 GA. WIRE
 R - RED
 O - ORANGE ⊗ DENOTES 22 GA. WIRE
 Y - YELLOW
 G - GREEN ALL OTHER WIRE 24 GA.
 BL - BLUE
 P - PURPLE
 W - WHITE
 S - SLATE
3. UNIT WIRED FOR 115 VOLTS, 60 CYCLE AC POWER INPUT ONLY.
4. CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS.
5. TERMINALS C10 TO C39 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-38 (+) 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-36 - 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 156755 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.

- 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 C39 AND C40 AND TAPE AND TIE THEM BACK TO THE CABLE.
26. NOT INCLUDED ON SOME SETS.

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 M

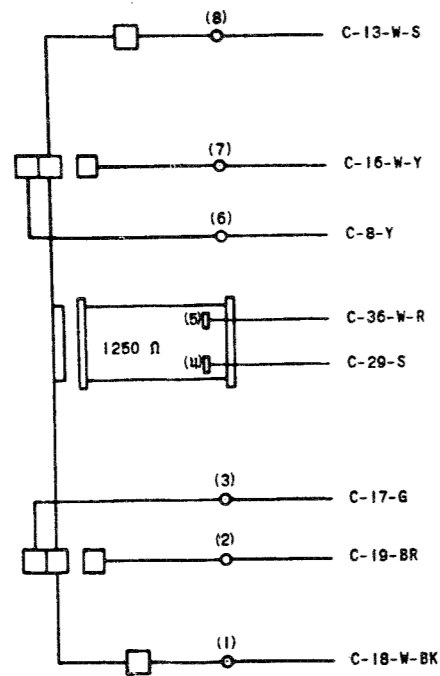
E-NUMBER
 PROD. NO. 4486WD
 DATE 9-11-61
 P.D. FILE NO. 66-30.65AA
 DRAWN E.C.W. CHKD.
 ENGD. B.P.K. APPD. T.I.P.

TELETYPE CORPORATION

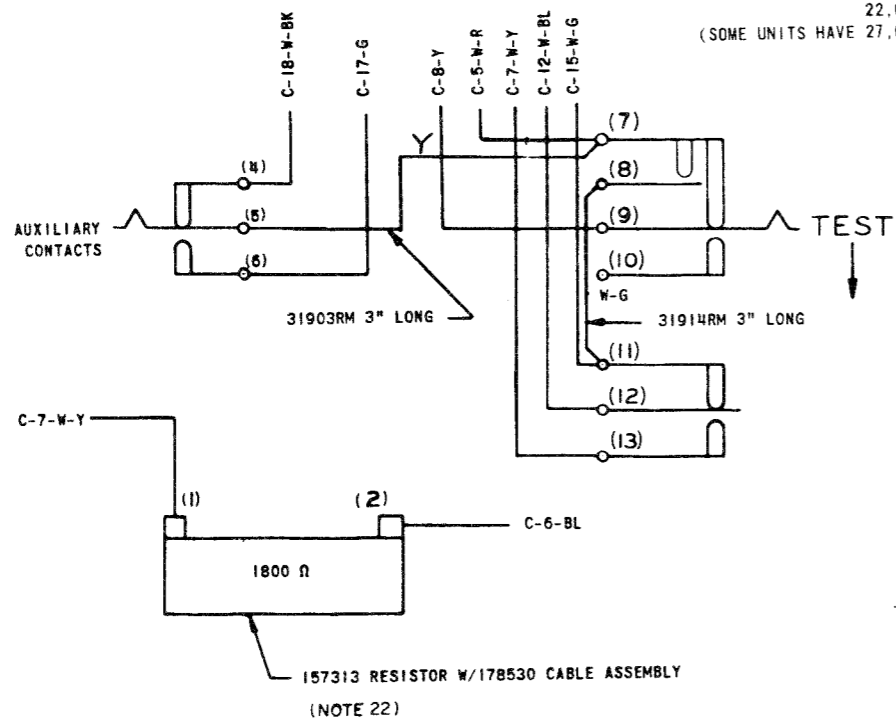
4486 WD

SEE SHEET 1 FOR NOTES

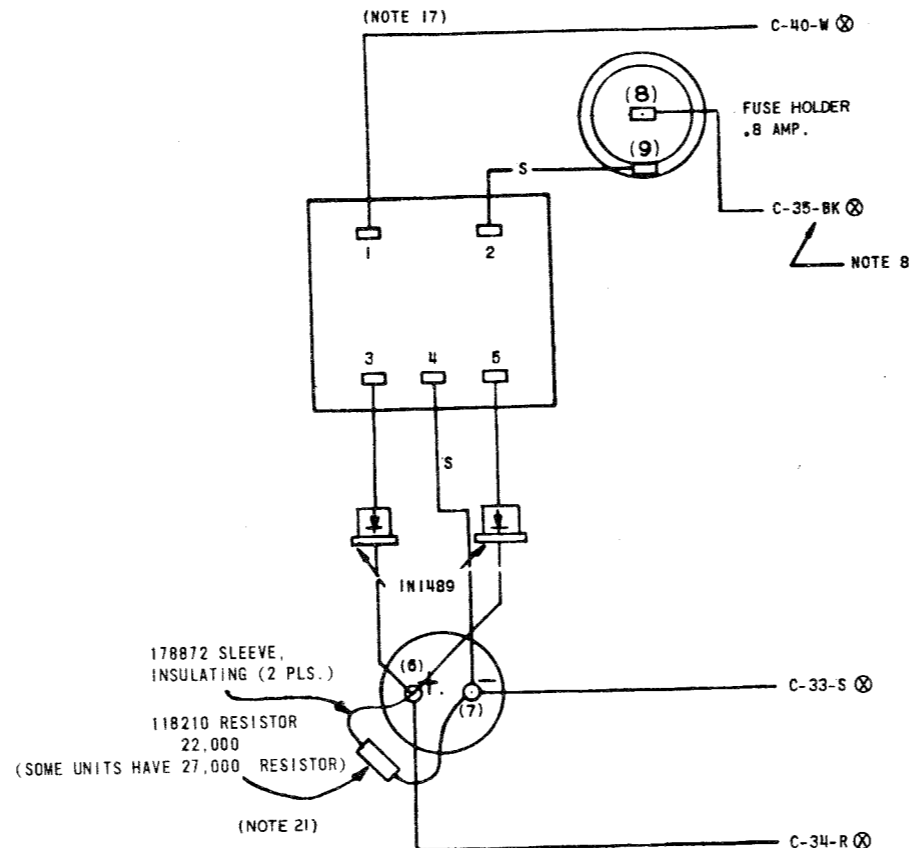
H LINE SHUNT RELAY 178515 CABLE ASSEMBLY



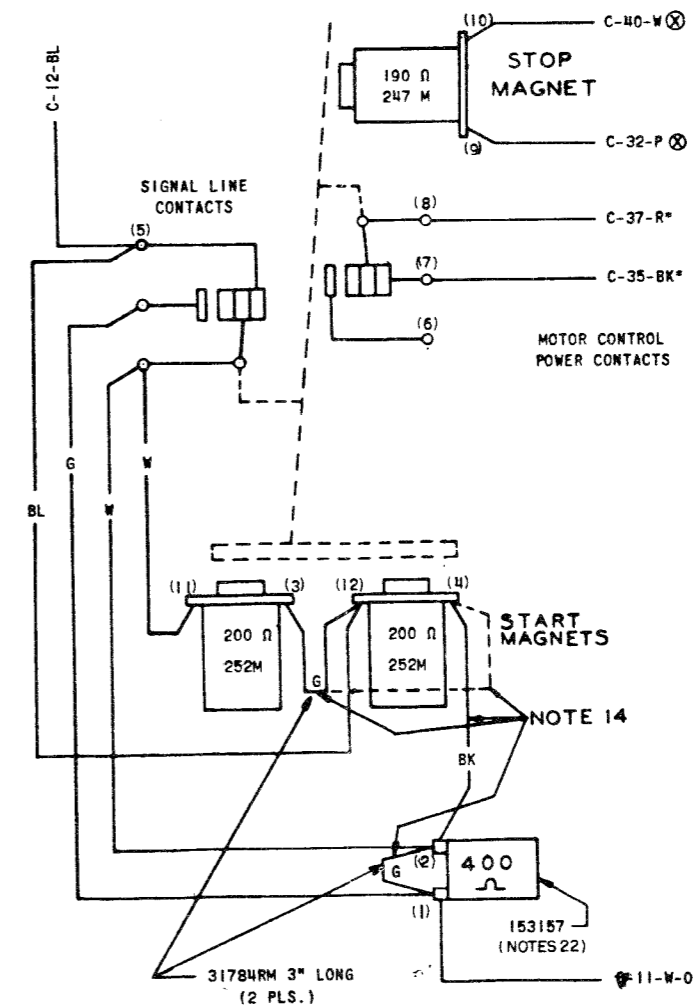
K LINE TEST KEY 178513 CABLE ASSEMBLY



L RECTIFIER 178521 CABLE ASSEMBLY



M MOTOR CONTROL ASSEMBLY 178519 CABLE ASSEMBLY



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

4486WD

REVISIONS*

ISSUE	DATE	AUTH. NO.
A	9-21-62	74590
B	10-4-62	74722
C	10-26-62	74934
D	1-28-63	75788
E	2-4-63	75857
F	3-1-63	76176
G	3-11-63	75994
H	8-26-63	76157
I	11-14-63	78849
J	11-23-66	92182

SEE ISSUE CONTROL RECORD FOR COM-
PLETE LIST OF SHEETS COMPRISING THIS
W.D.

SHEET 2

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. 66-30.65AA

DRAWN E.C.V. CHKD.

ENGD. S.P.K. APPD. T.I.P.

TELETYPE
CORPORATION

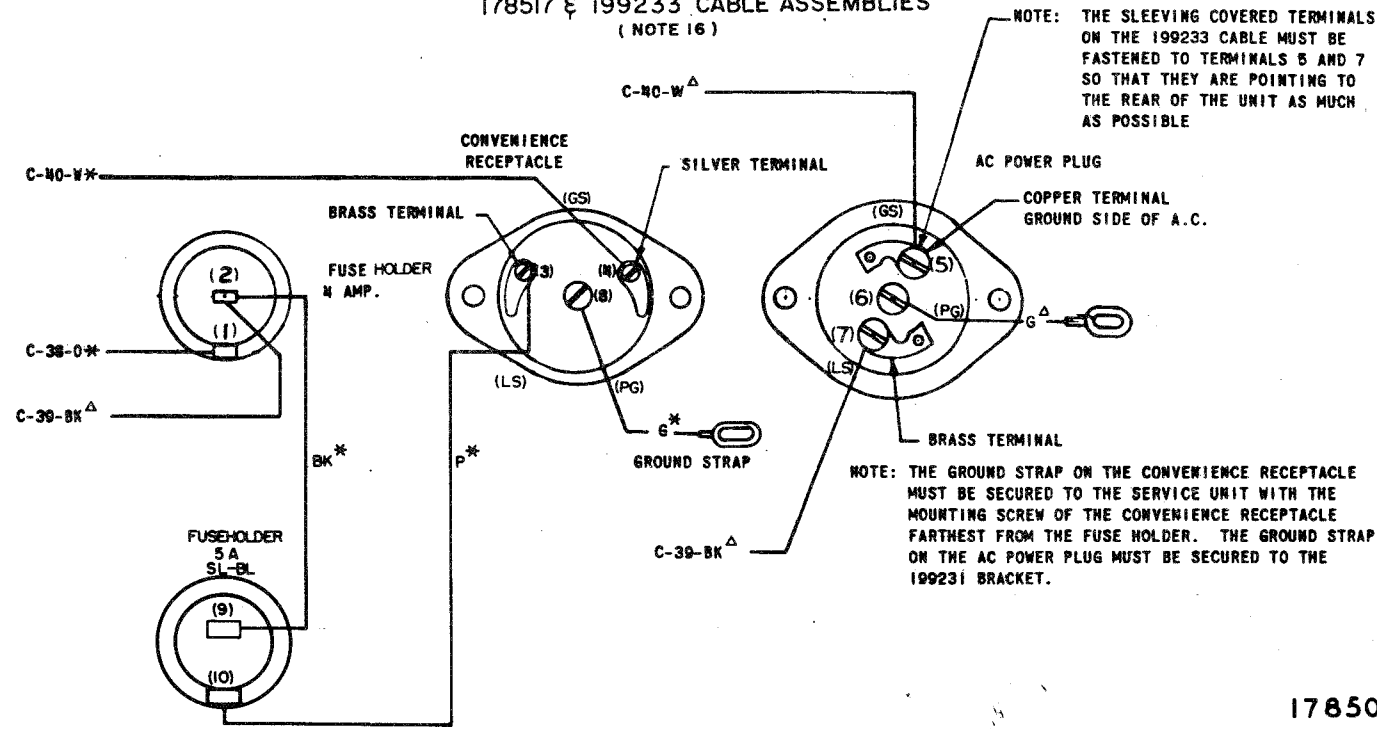
4486WD

SEE SHEET 1 FOR NOTES

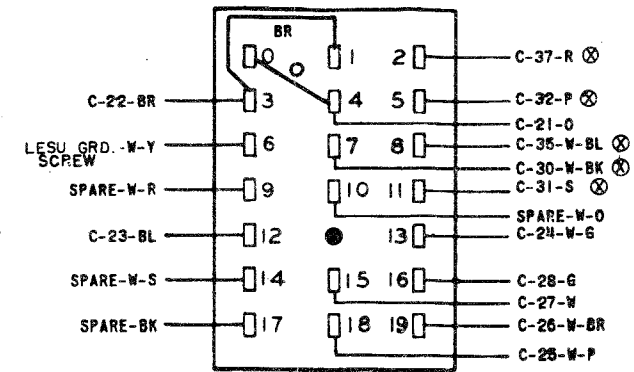
NOTE:
REVISION INFORMATION MUST ALSO BE
REFLECTED ON THE ISSUE CONTROL RE-
CORD, WHICH IS A PART OF THIS DRAWING.

4486 WD

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



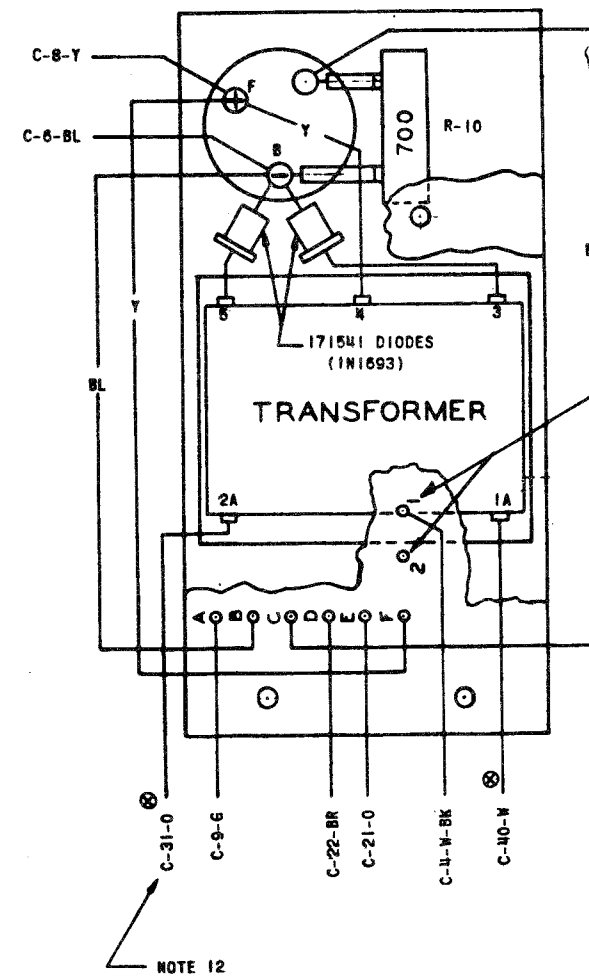
R
TYPING UNIT CONNECTOR
RECEPTACLE
178523
CABLE ASSEMBLY



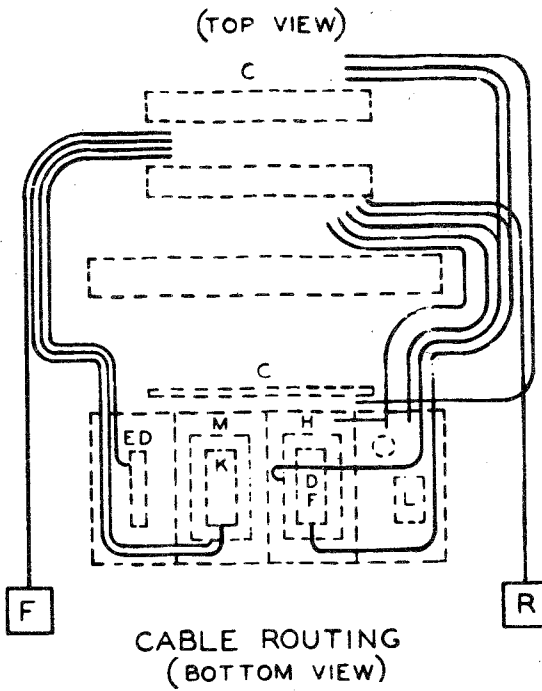
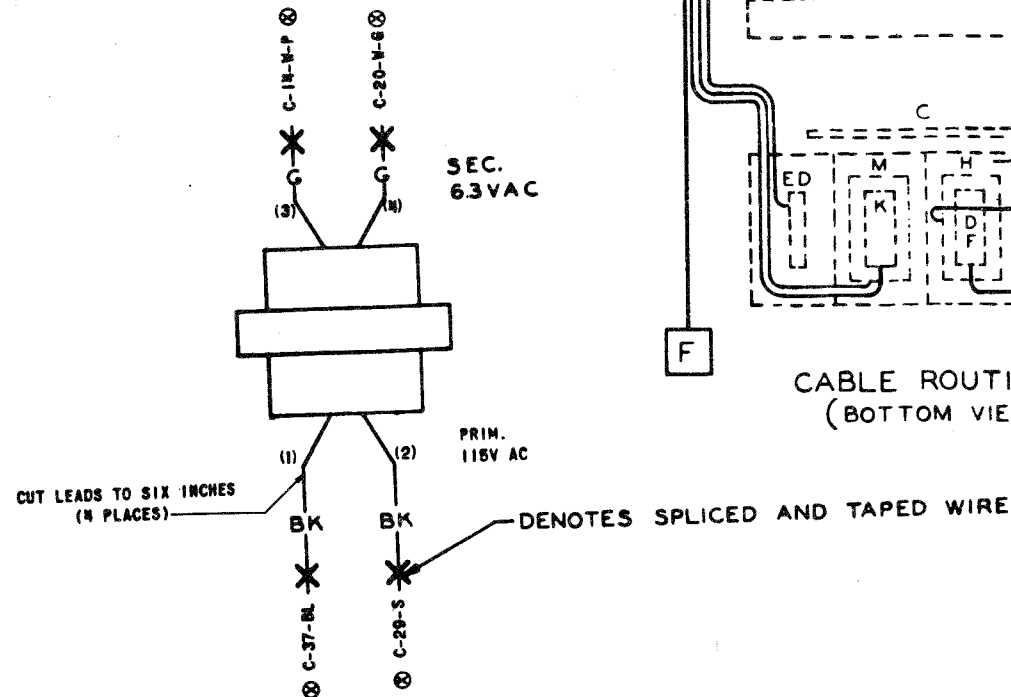
REVISIONS

ISSUE	DATE	AUTH. NO.
A	9-21-62	74590
B	10-4-62	74722
C	10-26-62	74934
D	1-28-63	75788
E	2-4-63	75897
F	3-1-63	76178
G	3-11-63	75904
H	8-26-63	76157
I	11-14-63	78849
J	10-7-65	88785
K	1-24-67	92054

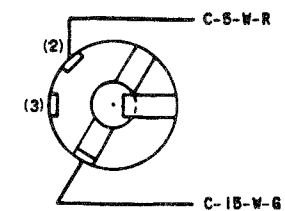
ED
SELECTOR MAGNET
DRIVER
178508 CABLE ASSEMBLY
(NOTE 13)



DF
COPYLAMP TRANSFORMER
178509 CABLE ASSEMBLY



LJ
LINE JACK
178511
CABLE ASSEMBLY



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. 66-30.65AA

DRAWN E.C.V. CHKD.

ENGD. S.P.K. APPD. T.I.P.

TELETYPE CORPORATION

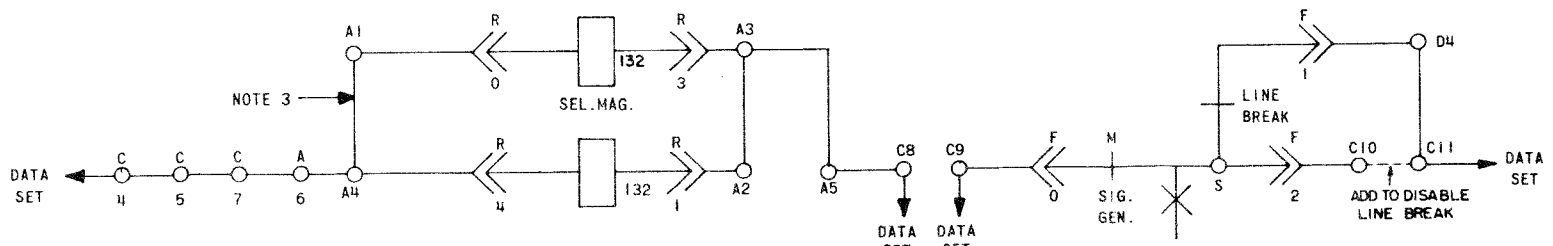
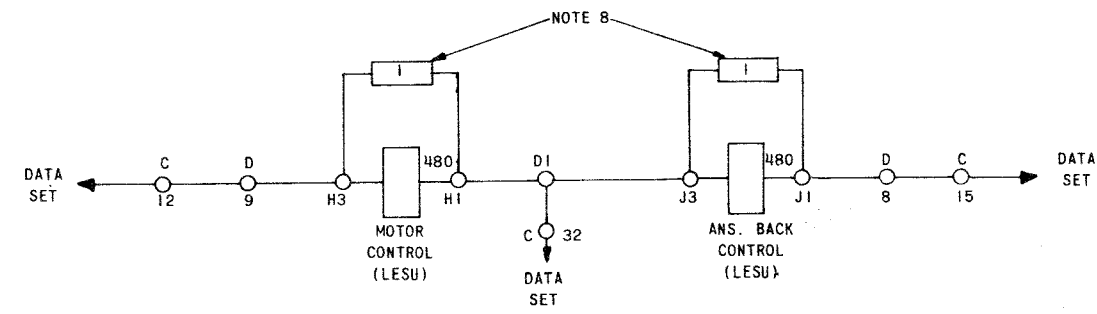
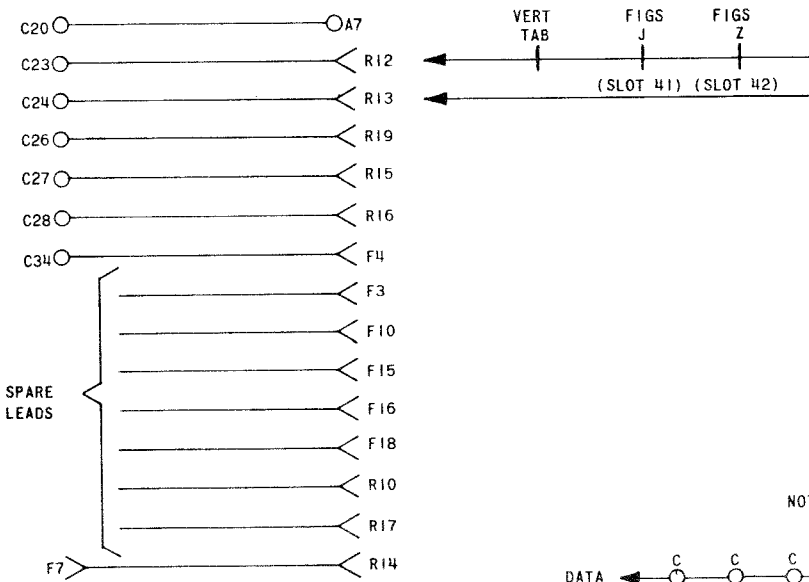
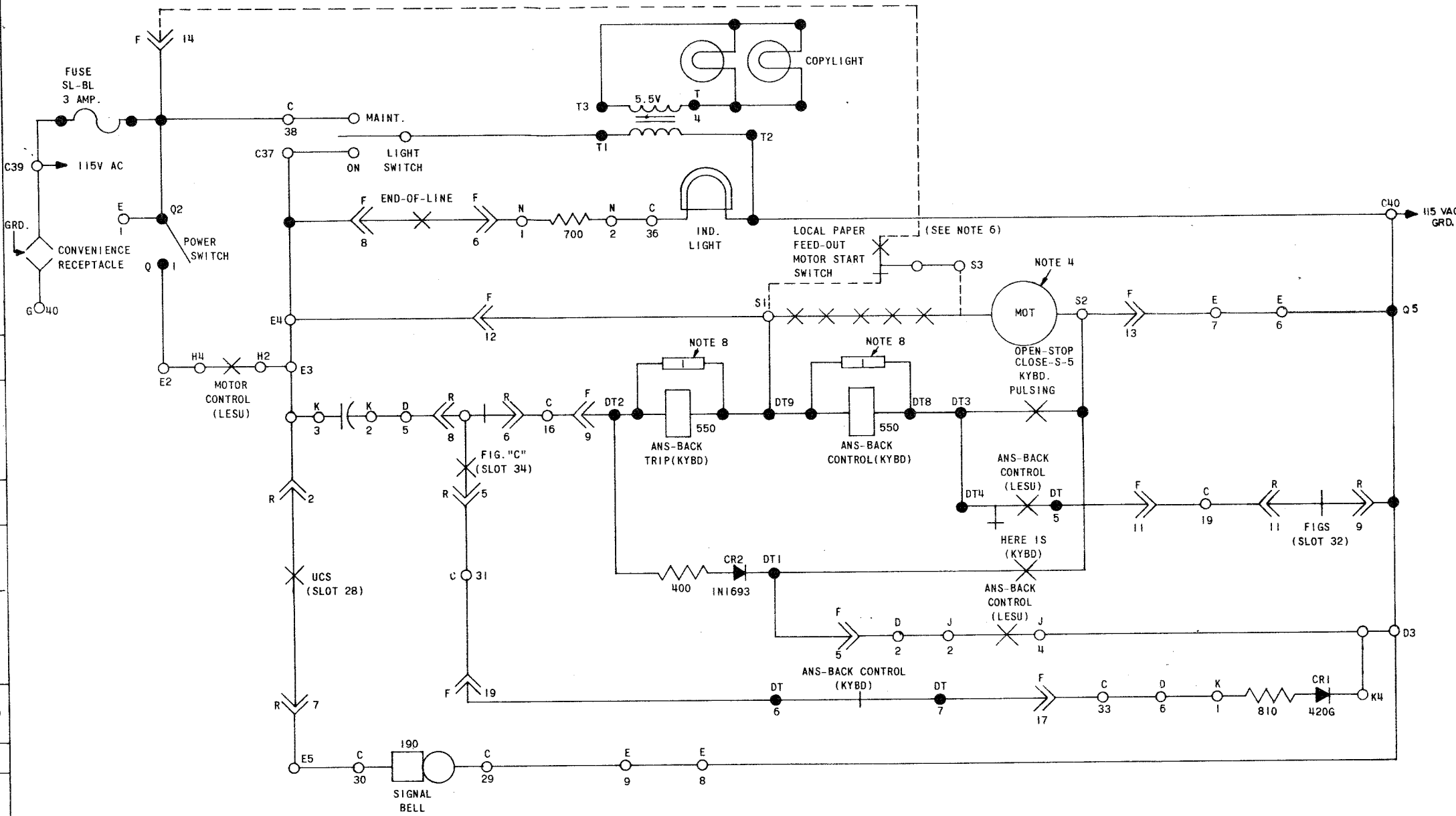
4486 WD

4900 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
2	2-23-62	72467
3	4-3-62	72972
4	7-31-63	77270
5	11-14-63	78849

- NO. 1. NOTES
- 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)
 - O ● 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)
 - DT ● ANS-BACK CONTROL RELAY (LK)
 - ⊗ NORMALLY OPEN CONTACT (MAKE)
 - ⊕ NORMALLY CLOSED CONTACT (BREAK)
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 A-1 & A-2 AND REMOVE CONNECTION BETWEEN TERMINALS A1-A4 & A2-A3
4. USE SYNCHRONOUS MOTOR ON REGULATED 60~ (± 1%) AC POWER ONLY.
5. FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE:
- | WD NO. | UNITS DIRECTLY OPERABLE WITH LESUBO |
|--------|-------------------------------------|
| 3236WD | CABINETS LAC204 |
| 4901WD | ELECTRICAL SERVICE UNIT LESUBO |
| 4906WD | KEYBOARD LK33,46 |
| 2900WD | MOTOR UNITS LMU3 |
| 4905WD | PAGE TYPING UNIT LP106, AHS |
| 4905WD | PAGE TYPING UNIT LP107, AHU |
6. FOR LK46 ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (---X---) IN MOTOR POWER CIRCUITS.
7. SL-BL INDICATES SLOW BLOWING FUSE.
8. NETWORK VALUES:
- | | | |
|--------|-----|---------|
| | | |
| 153631 | 470 | 0.11 uF |
9. RESISTANCE VALUES IN OHMS, INDUCTANCE VALUES IN MICROHENRIES, CAPACITANCE VALUES IN MICROFARADS.



SCHEMATIC WIRING DIAGRAM FOR MODEL 28 PAGE PRINTER SET WITH FACILITIES PROVIDED BY ELECTRIC SERVICE UNIT LESUBO DIAL TWX STATION

APPROVALS

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

E-NUMBER

PROD. NO. 4900WD

DATE 1-19-62

P.D. FILE NO. 5-A100-AA

DRAWN T.F.G. CHKD. R.H.H.

ENGD. T.D.C. APPD. T.I.P.

TELETYPE CORPORATION

4900 WD

NOTES

1. WIRING LEGEND:
 DISTANT TERMINATING AREA
 DISTANT TERMINAL DESIGNATION
 A-1-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
 * 18 GA WIRE

3. UNIT WIRED FOR 115 VOLTS, 60 CYCLE AC POWER INPUT ONLY.

4. PLUGS VIEWED FROM SOLDER TERMINAL END

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

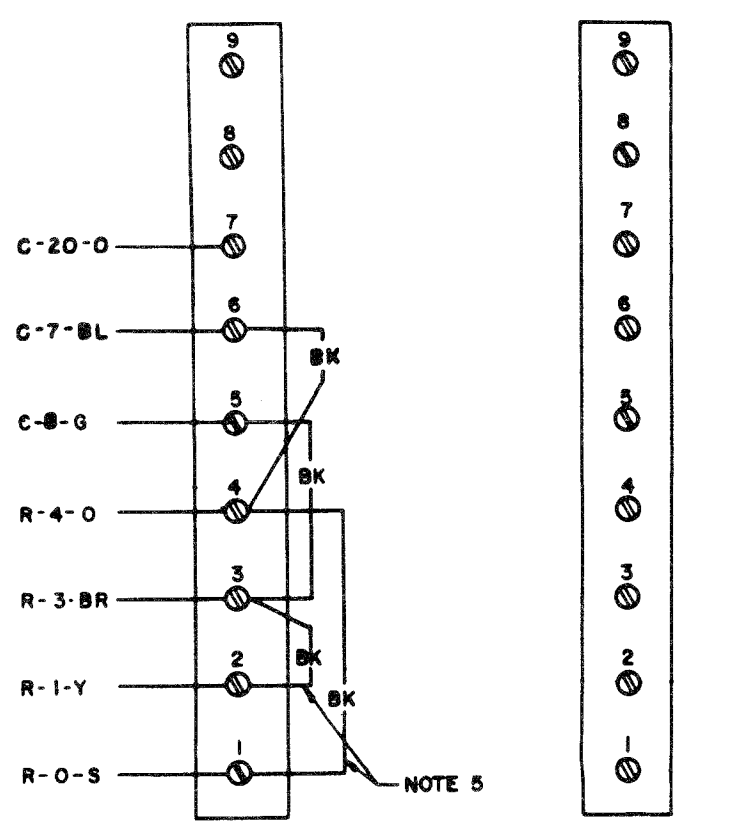
PLACE TWO STRAPS IN PARALLEL

6. THE SPARE LEADS FROM THE KEYBOARD AND TYPING UNIT ARE TERMINATED IN THE RIGHT AND LEFT ENDS OF THE ELECTRICAL SERVICE UNIT RESPECTIVELY

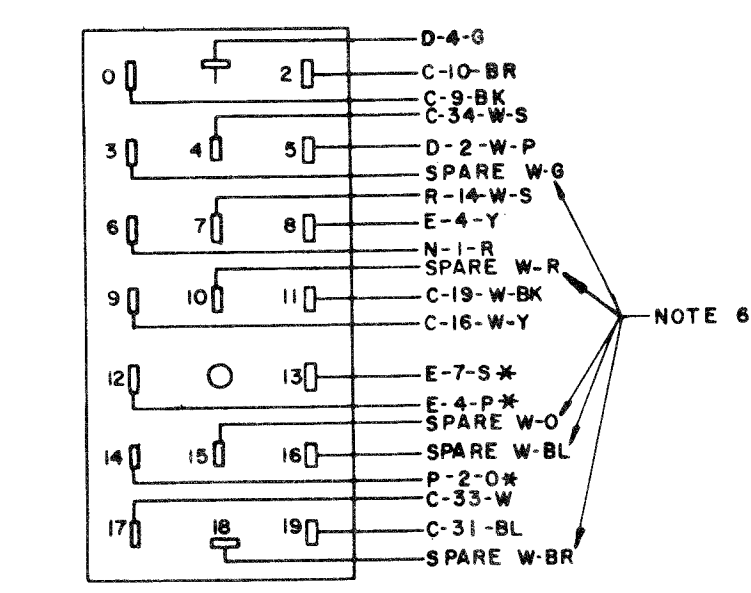
7. STRAP TERMINALS C10 TO C11 TO DISABLE LINE BREAK SWITCH.

8. TERMINALS C1, C2, C13, C14, C20, C25, A7 ARE RESERVED FOR 101A DATA SET USE.

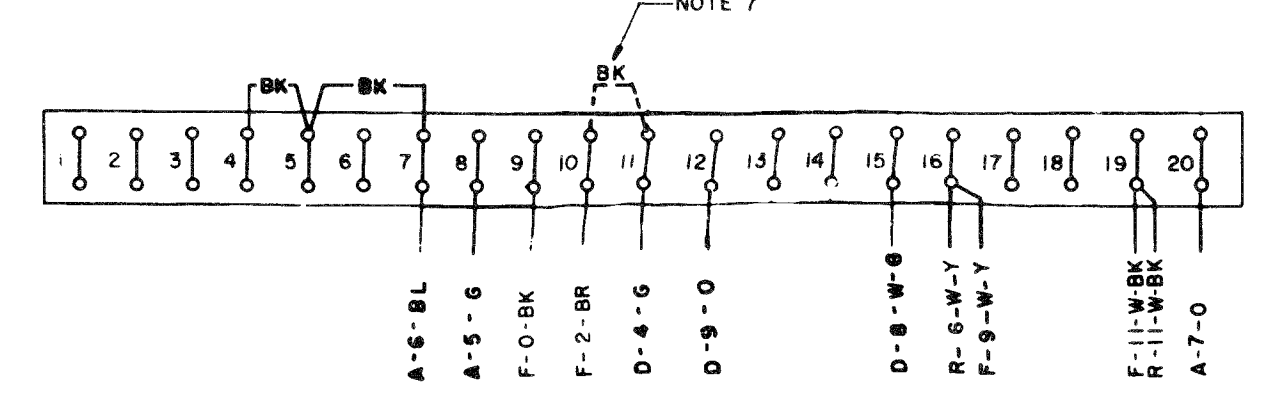
A SELECTOR MAGNET TERMINAL BLOCK



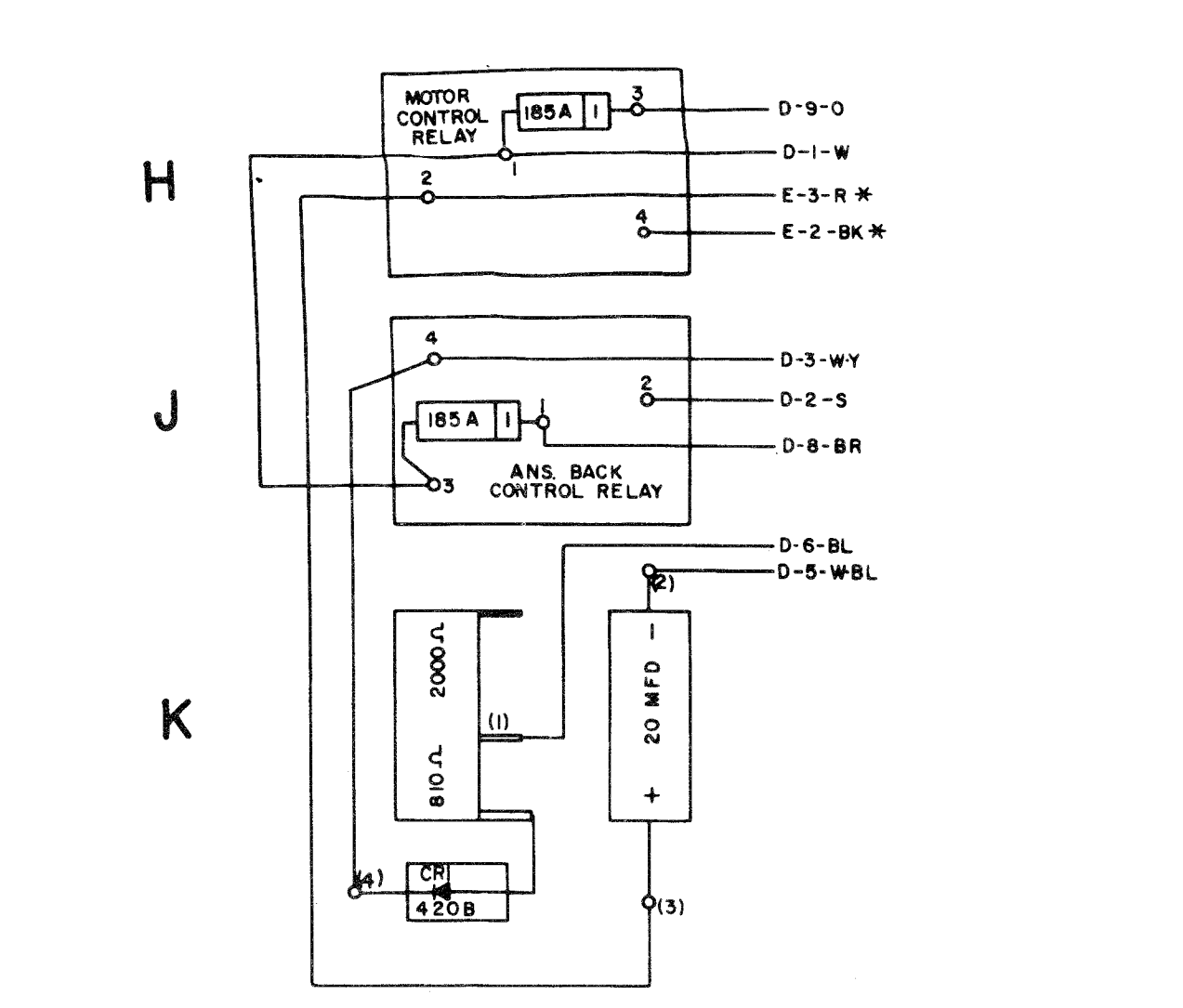
F KEYBOARD CONNECTOR RECEPTACLE



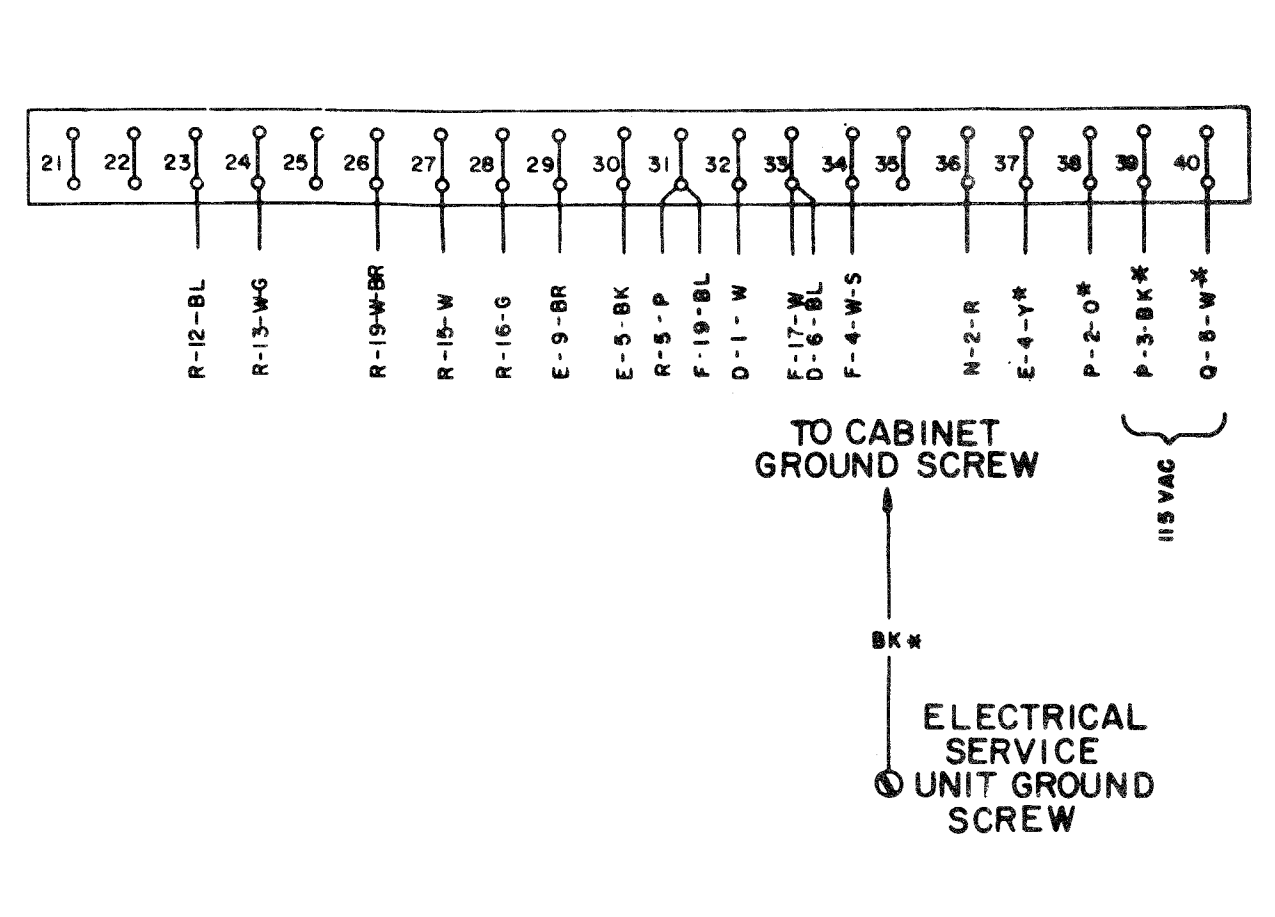
C CABINET TERMINAL BLOCK



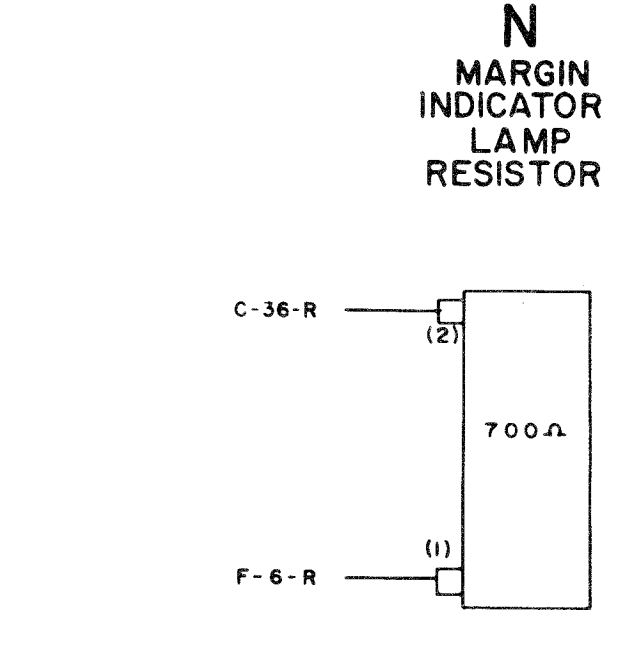
H MOTOR CONTROL & ANSWER BACK RELAYS



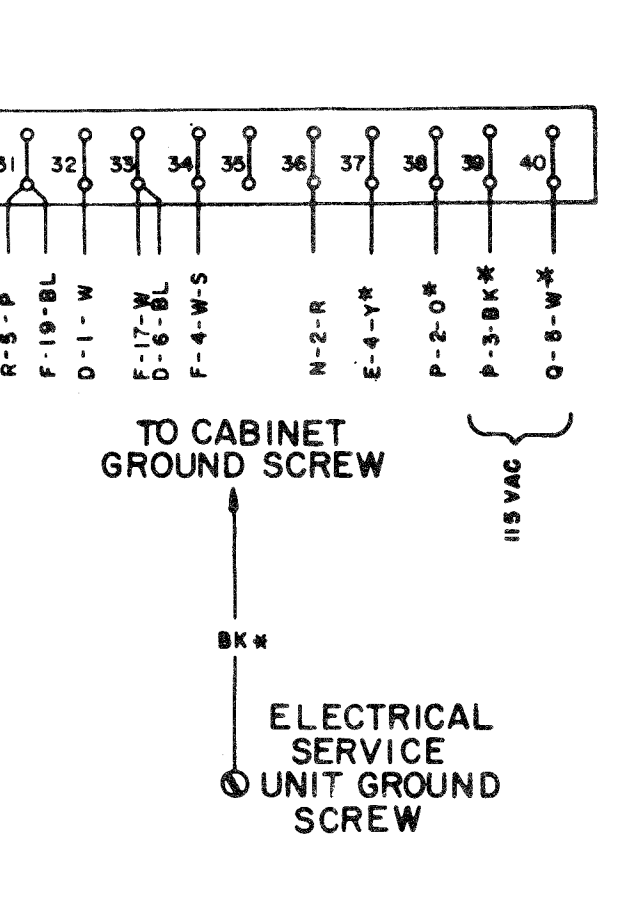
D TERMINAL BLOCK



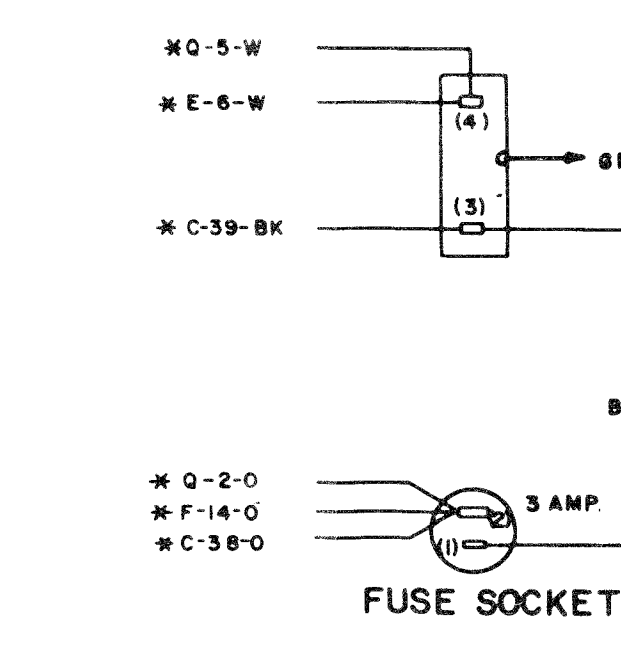
N MARGIN INDICATOR LAMP RESISTOR



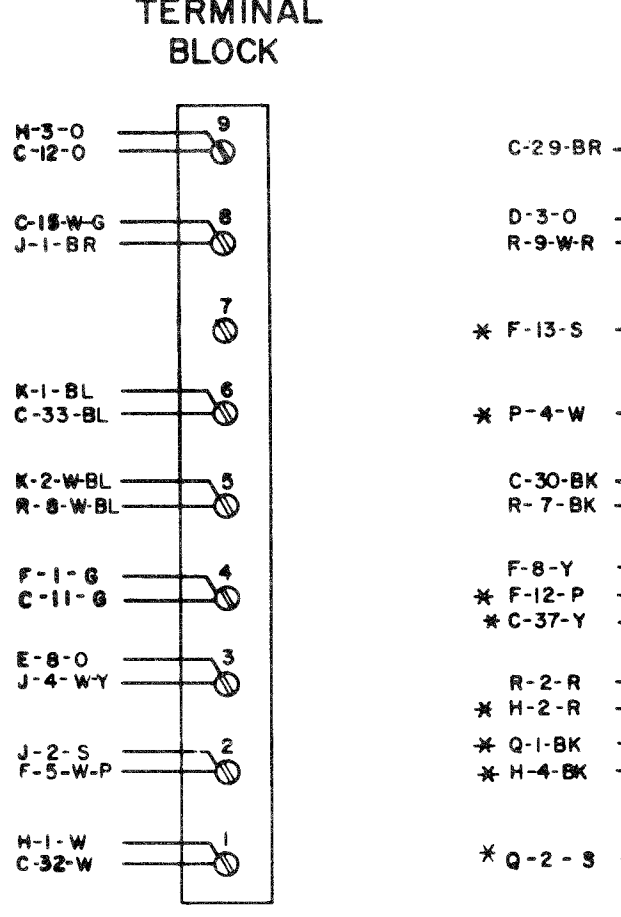
E TERMINAL BLOCK



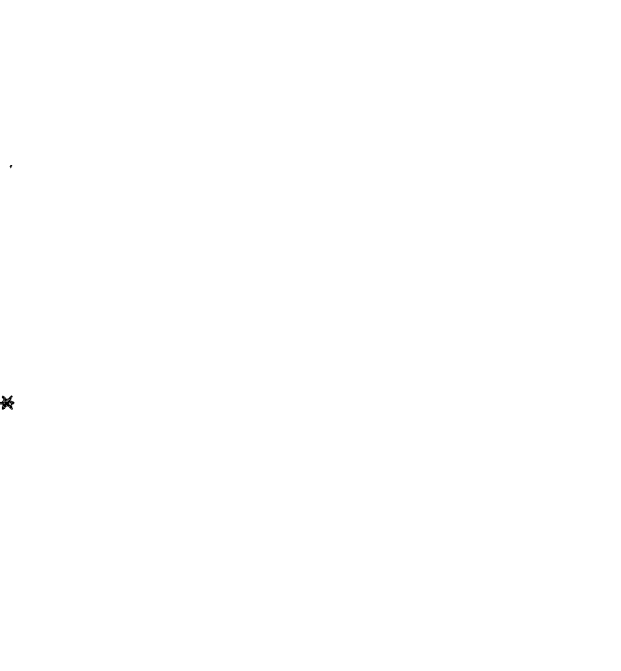
P CONVENIENCE RECEPTACLE



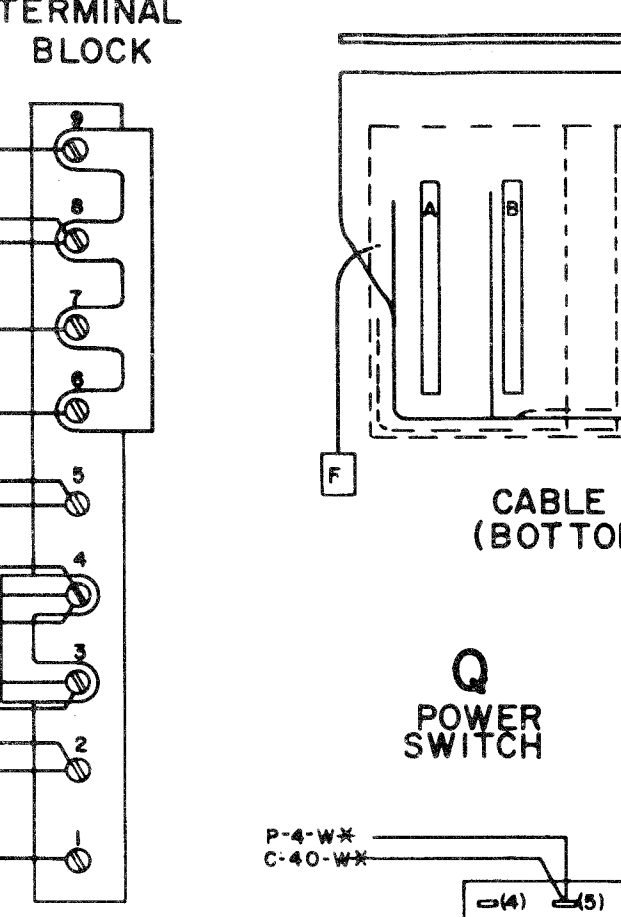
Q POWER SWITCH



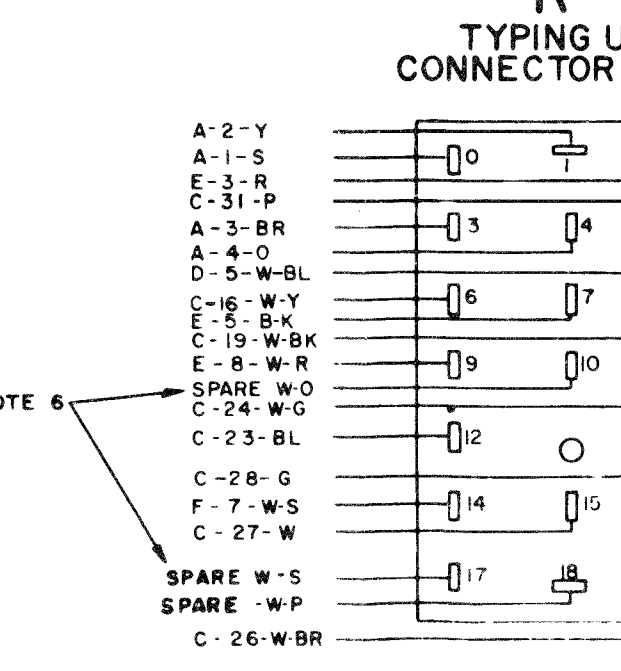
R TYPING UNIT CONNECTOR RECEPTACLE



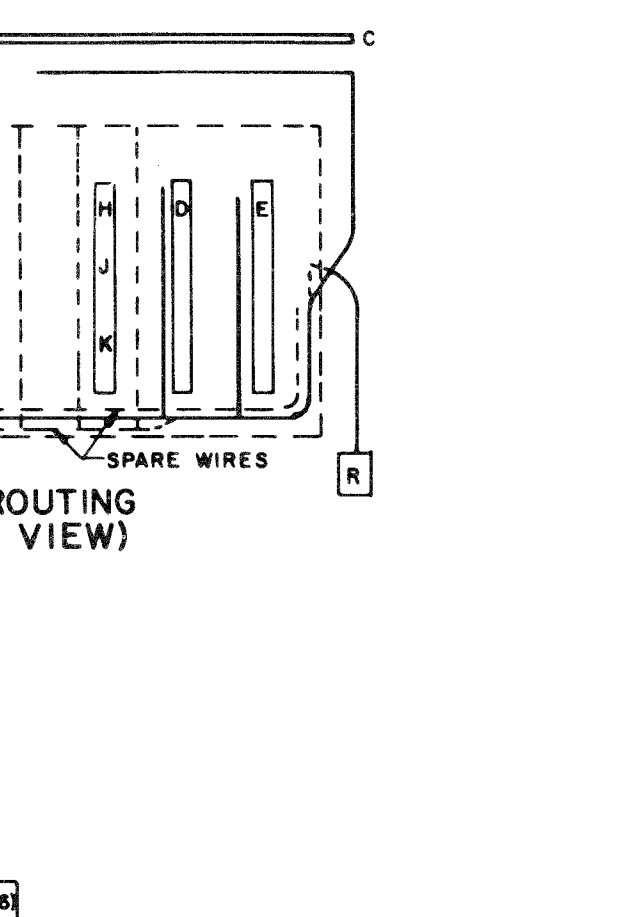
R CABLE ROUTING (BOTTOM VIEW)



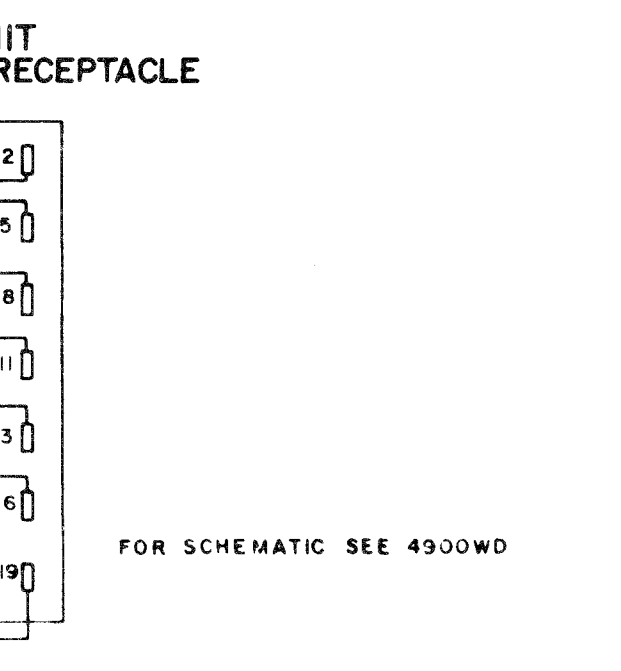
Q POWER SWITCH



F KEYBOARD CONNECTOR RECEPTACLE



N MARGIN INDICATOR LAMP RESISTOR



4901 WD

REVISIONS		
ISSUE	DATE	AUTH. NO.
A	2-23-62	72467
B	4-3-62	72578

28N

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT LESU 80

APPROVALS	
D AND R	E OF M

NUMBER

PROD. NO. 4901 WD

DATE: 1-8-62

PD. FILE NO. 5-A100 AA

DRAWN E.M. CHMD.

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

TELETYPE CORPORATION

4901 WD

FOR SCHEMATIC SEE 4900WD

4910 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
A	8-8-62	73664
B 3	8-23-62	74329
B 4	11-1-62	74978
B 5	2-11-64	79910
B 6	4-7-66	90222

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

- NOTES**
- WIRING LEGEND:**

— DISTANT TERMINATING AREA
— DISTANT TERMINATING DESIGNATION
A-1(W-BL) 153631 NETWORK
— WIRE COLOR CODE
 - COLOR CODE:**

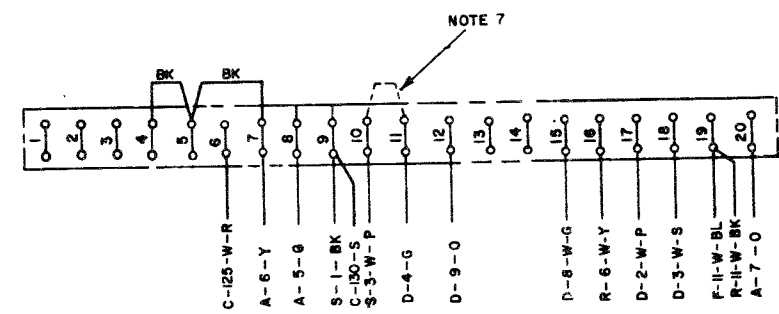
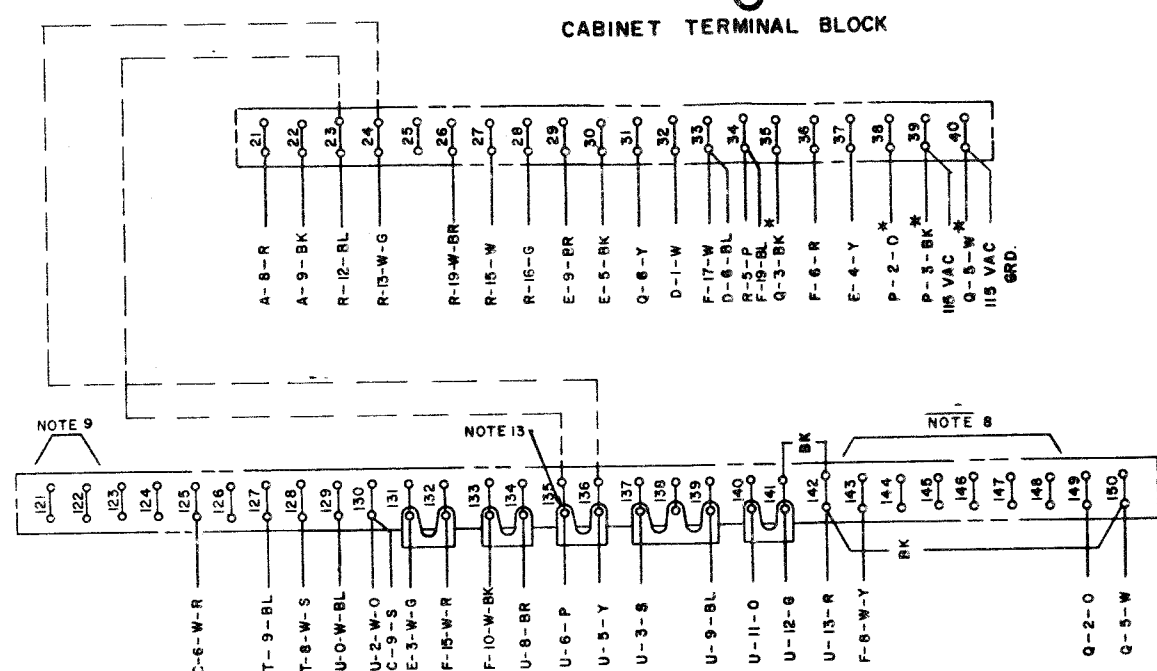
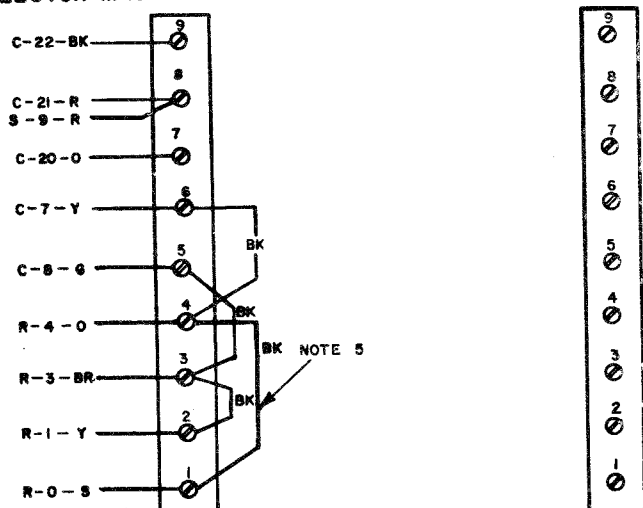
BK - BLACK	G - GREEN
BR - BROWN	BL - BLUE
R - RED	P - PURPLE
O - ORANGE	W - WHITE
Y - YELLOW	S - SLATE

* DENOTES 18 GA.
 - UNIT WIRED FOR 115 VOLTS, 50-60 CYCLE AC POWER INPUT ONLY.
 - CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS.
 - CIRCUITS SHOWN FOR .050 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION, REMOVE AND ADD CONNECTIONS AS FOLLOWS:

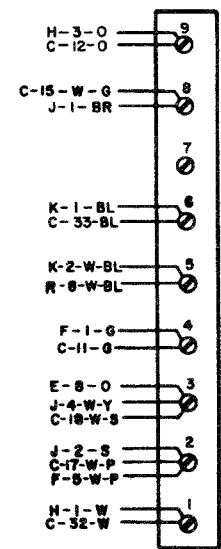
SIGNAL LINE CURRENT	CONNECTION REMOVED	CONNECTION ADDED
.020 AMP.	A1-A4, A2-A3	A1-A2

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 AND C-11, IF SIGNAL LINE BREAK SWITCH IS NOT USED.
 - TERMINALS C-143 AND C-148 RESERVED FOR CABINET LAMP OPERATION.
 - TERMINALS C-121 AND C-122 RESERVED FOR PERFORATOR LOW TAPE SWITCH.
 - CONTACTS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.
 - TERMINALS C1, C2, C13, C14, C20, C25 AND A7 RESERVED FOR 101A DATA SET USE.
 - ASSOCIATED CABLE ASSEMBLIES:
165689 LESU CABLE
165692 MOTOR CONTROL AND ANSWER-BACK CABLE
 - WHEN LX05 OR 18 IS USED WITH LP107, REMOVE THE STRAP BETWEEN TERMINALS C135 AND C136. ADD TWO 176162 STRAPS, ONE BETWEEN TERMINALS C23 AND C135, AND ONE BETWEEN C24 AND C136.
 - FOR SCHEMATIC WIRING DIAGRAM, SEE 4909WD.

A SELECTOR MAGNET TERMINAL BLOCK
B LINE TEST KEY TERMINAL BLOCK



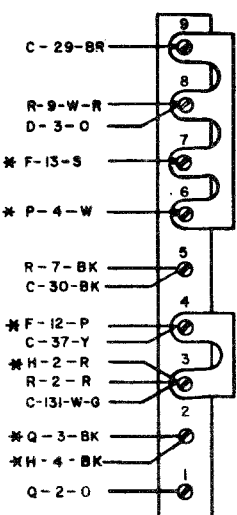
D TERMINAL BLOCK



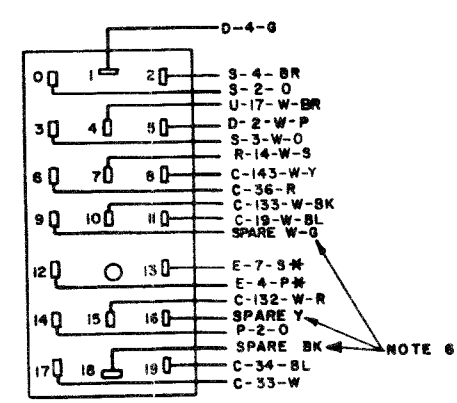
TO CABINET GROUND SCREW

ELECTRICAL SERVICE UNIT GROUND SCREW

E POWER TERMINAL BLOCK



F KEYBOARD CONNECTOR (FEMALE)



SEE ISSUE CONTROL RECORD FOR 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 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

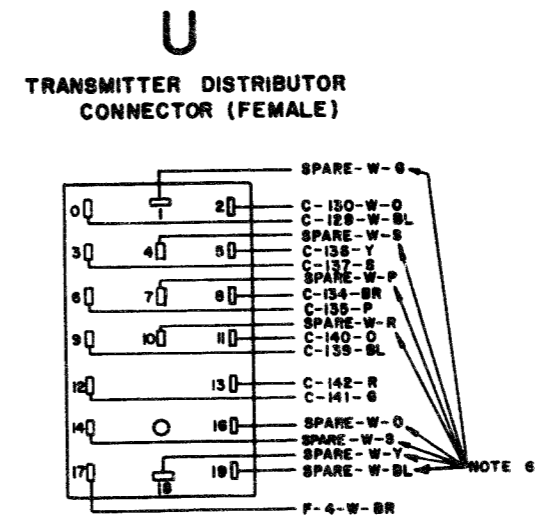
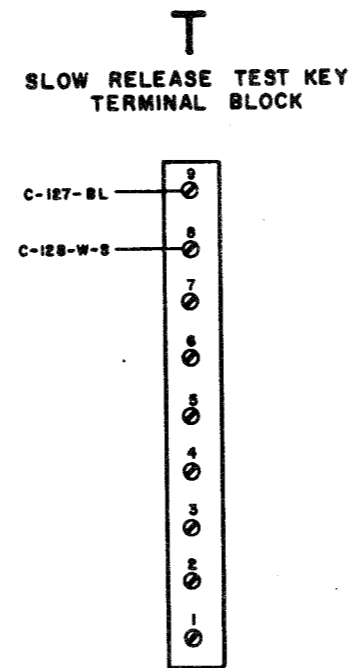
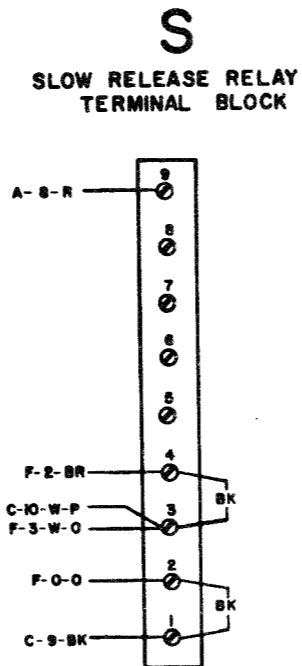
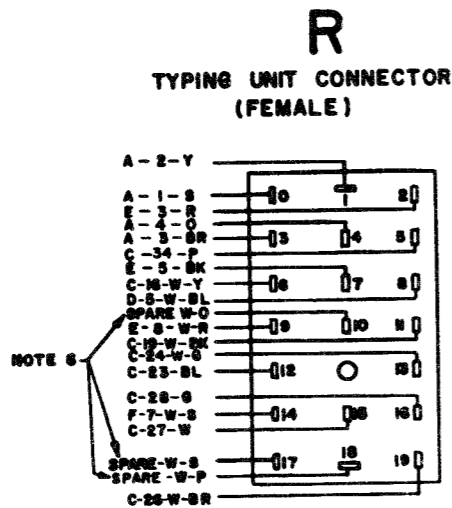
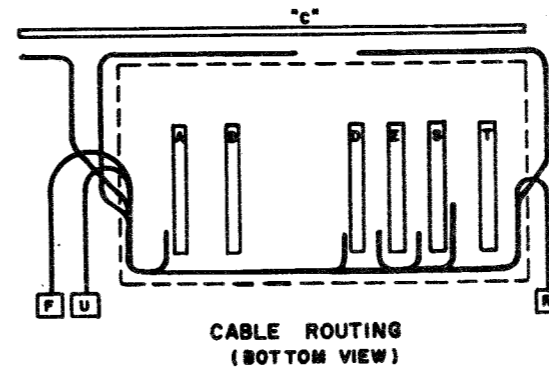
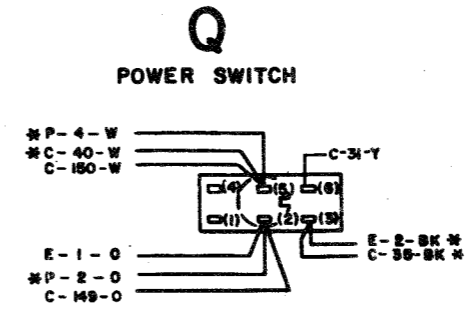
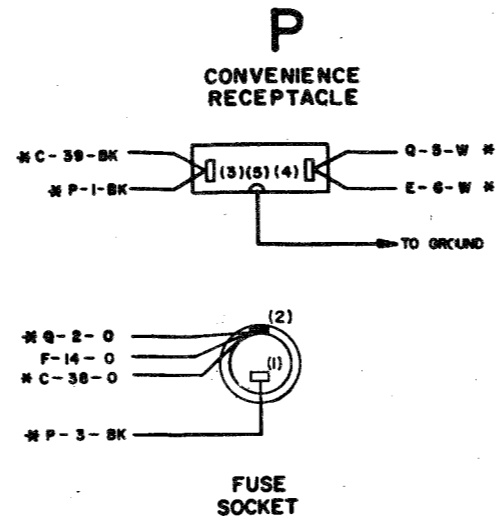
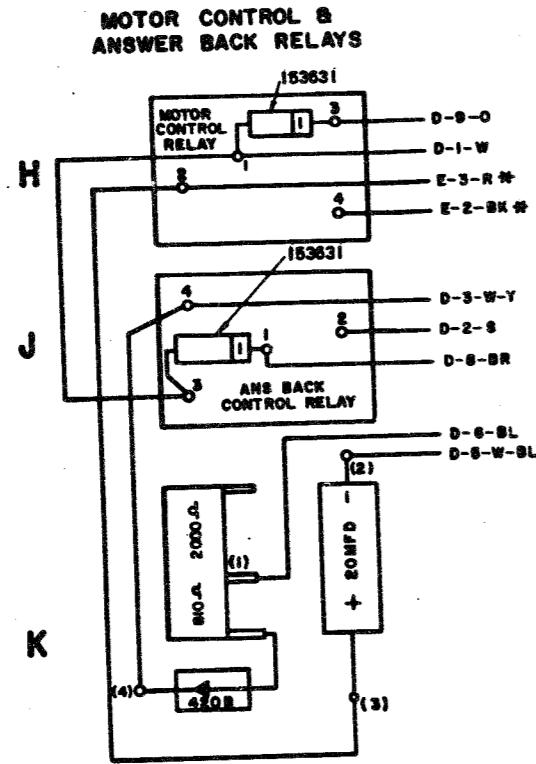
SEE SHEET 1 FOR NOTES.

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

4910 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
A 2	6-8-62	73684
B 3	8-23-62	74329
C 4	11-1-62	74978
D 5	2-11-64	79910
E 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 11-1N-61

P.D. FILE NO. 5-A100AA

DRAWN H.K. CHKD.

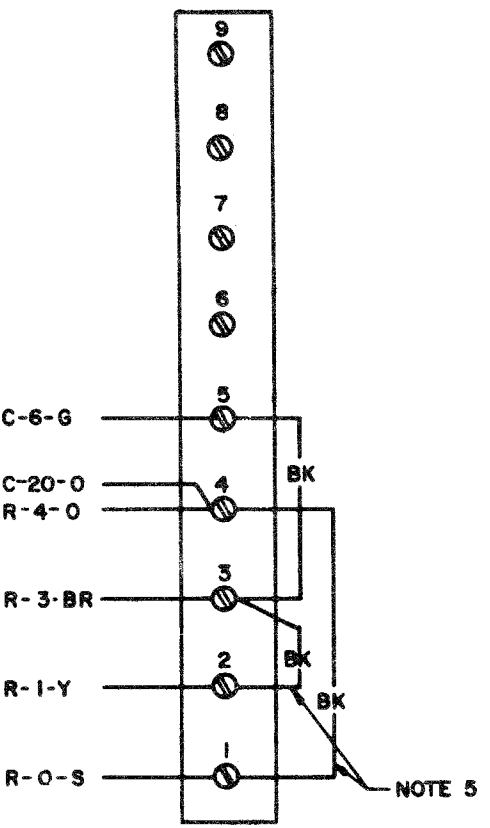
ENGD. T.D.C. APPD.

TELETYPE CORPORATION

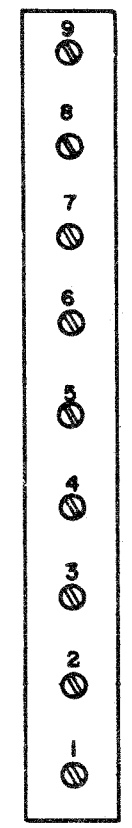
4910 WD

- 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
 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.

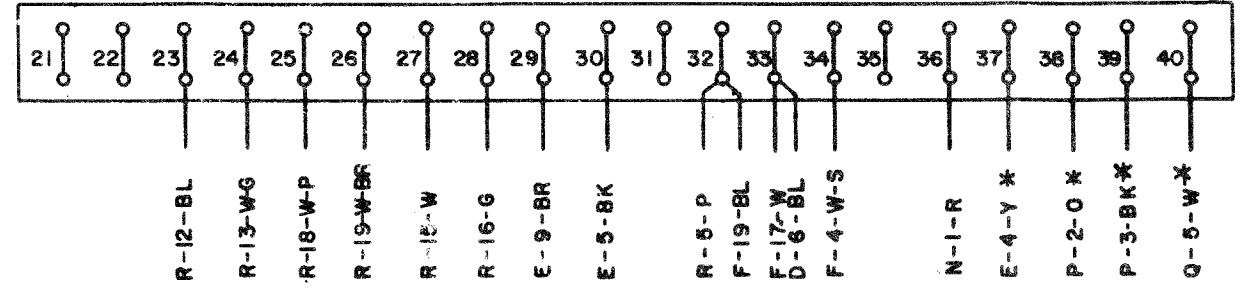
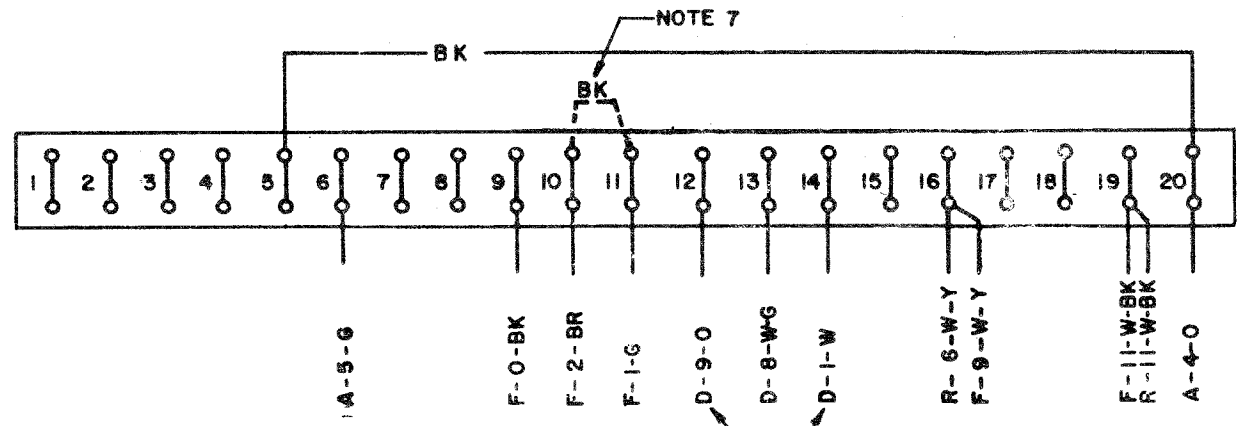
A
SELECTOR MAGNET
TERMINAL BLOCK



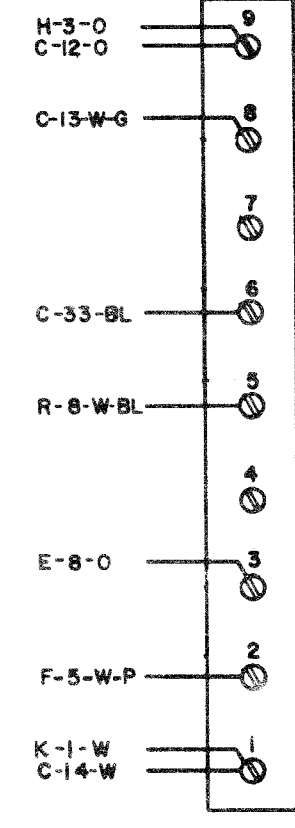
B
TERMINAL
BLOCK



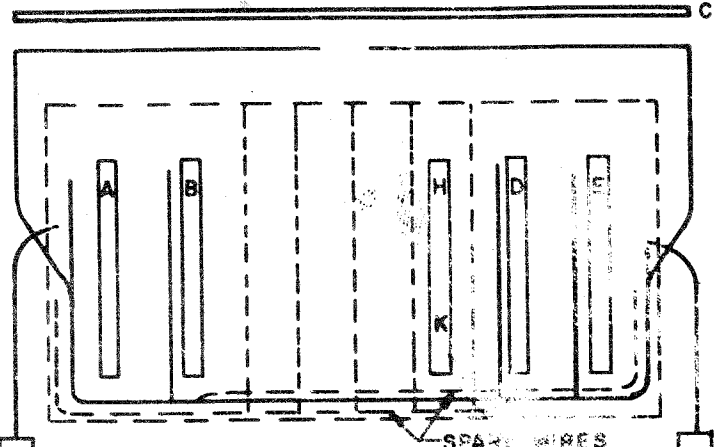
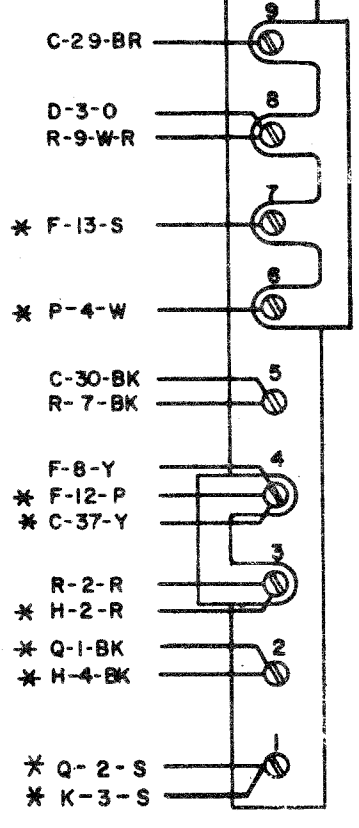
C
CABINET TERMINAL BLOCK



D
TERMINAL
BLOCK

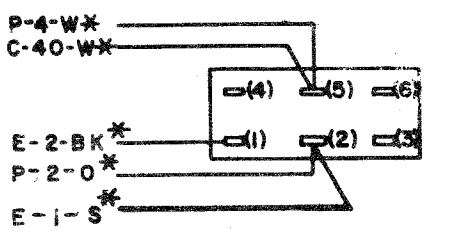


E
TERMINAL
BLOCK

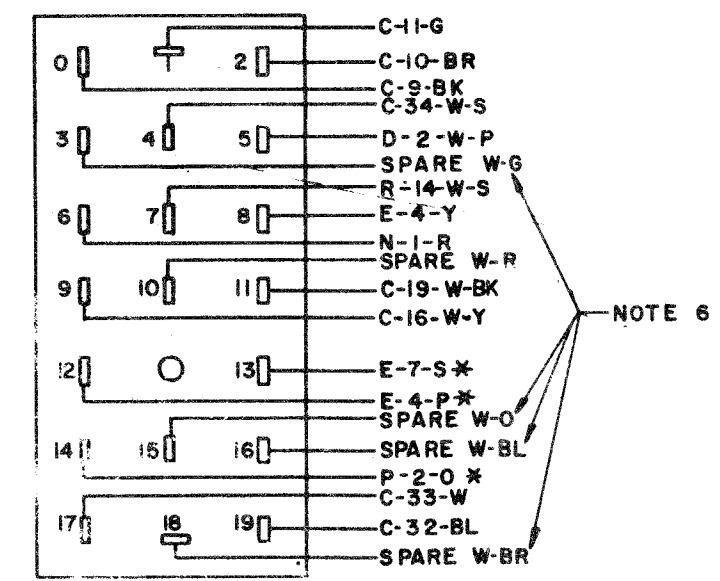


CABLE ROUTING
(BOTTOM VIEW)

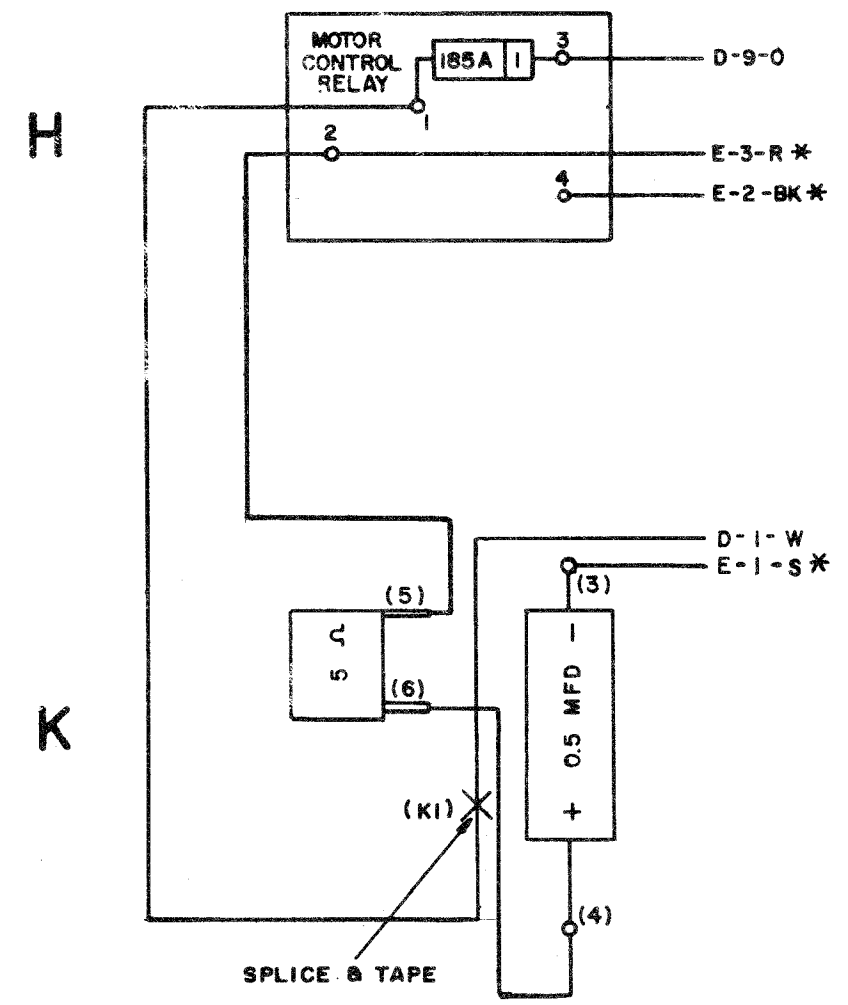
Q
POWER
SWITCH



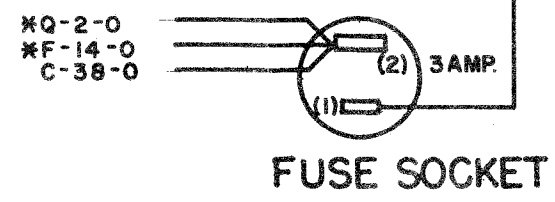
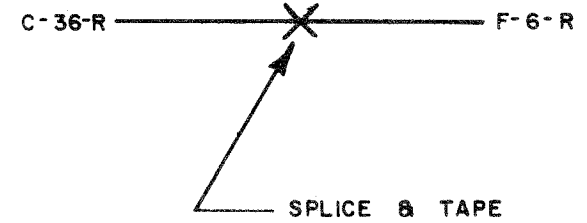
F
KEYBOARD CONNECTOR
RECEPTACLE



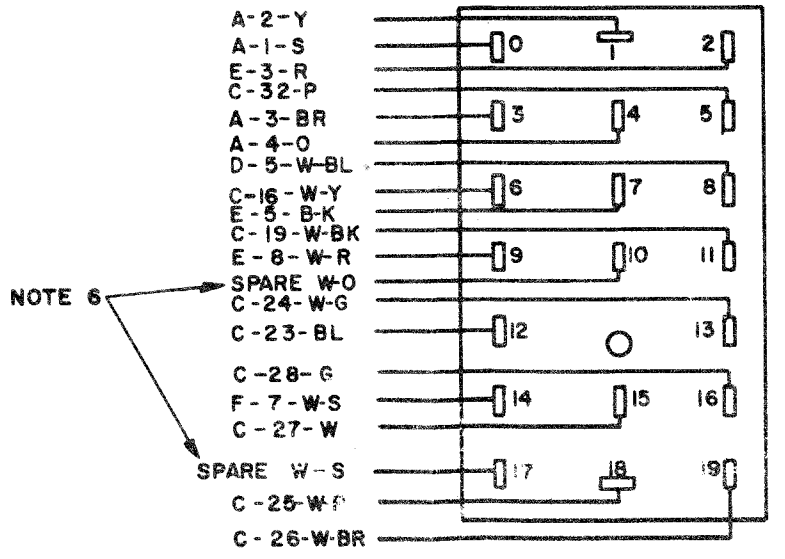
H
MOTOR CONTROL
RELAY



N



R
TYPING UNIT
CONNECTOR RECEPTACLE



4911 WD		
REVISIONS		
ISSUE	DATE	AUTH NO.
A	2-23-62	72467
B	5-15-62	73627

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

APPROVALS
 D AND R E OF M

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

FOR SCHEMATIC SET 4912 WD

REVISIONS		
ISSUE	DATE	AUTH NO.
A	2-23-62	72467
B	5-15-62	73937
C	11-14-63	75847

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

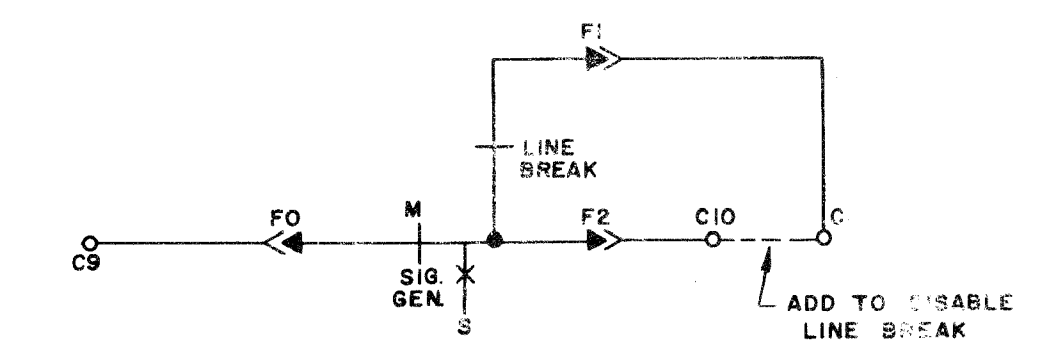
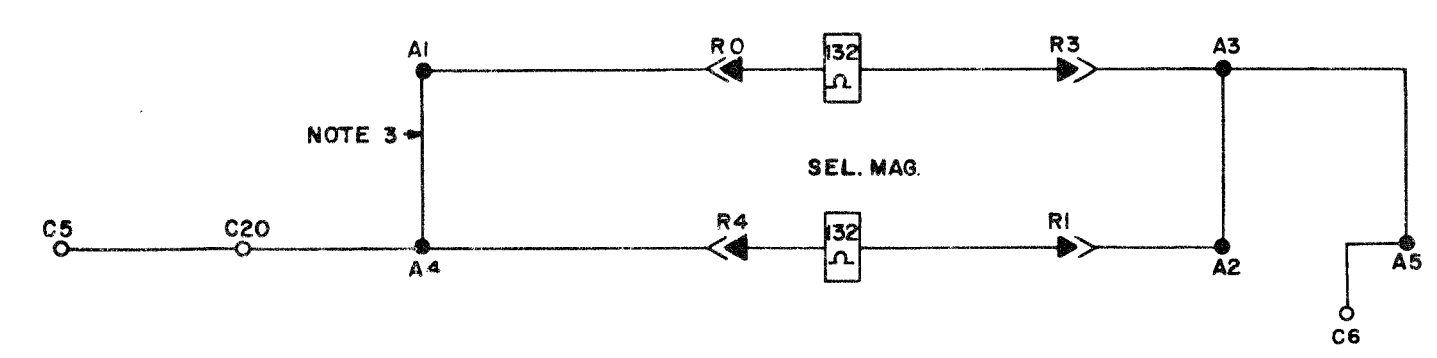
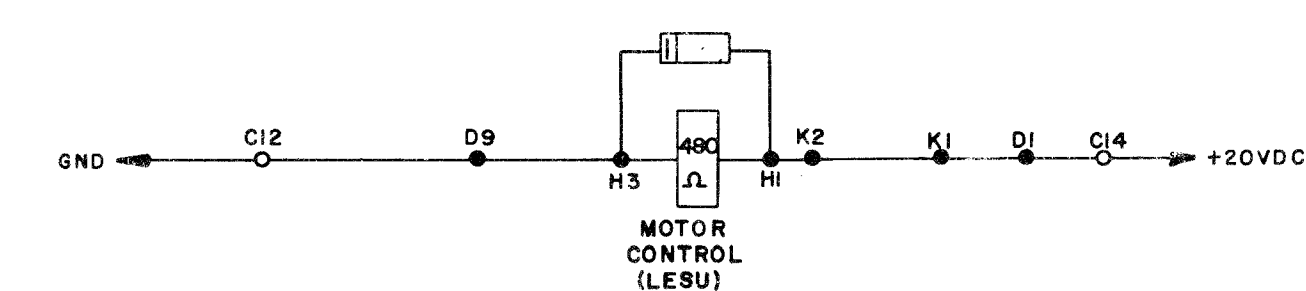
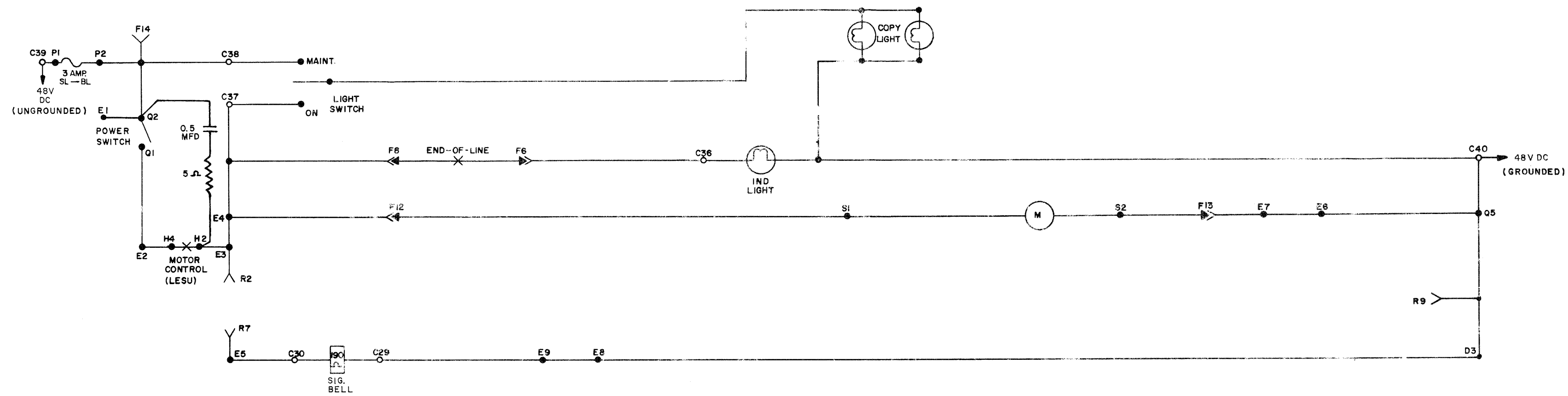
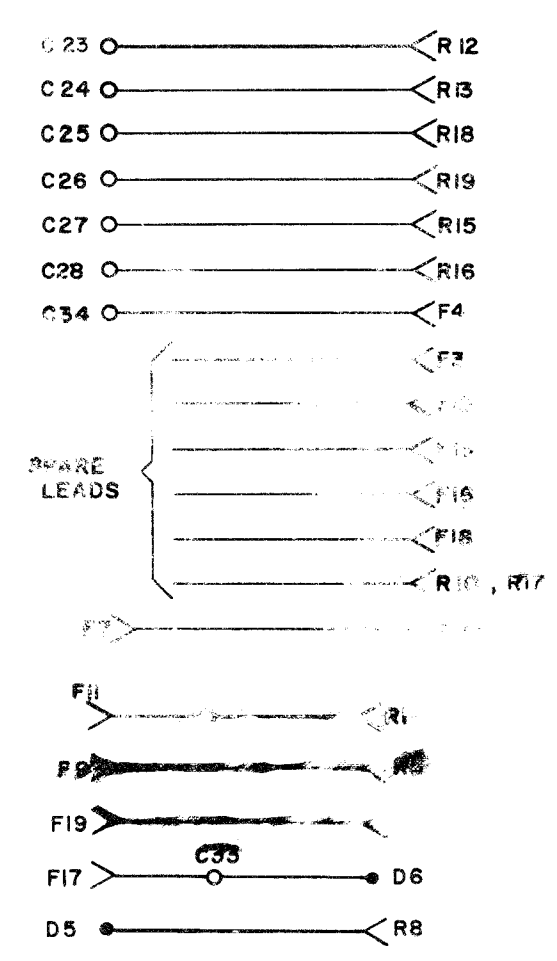
2. ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.

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.

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 LPI06, AHR



SCHEMATIC WIRING DIAGRAM
 PAGE 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

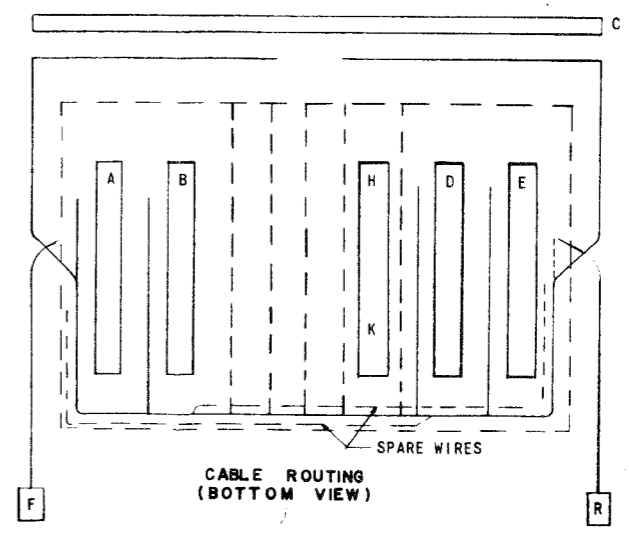
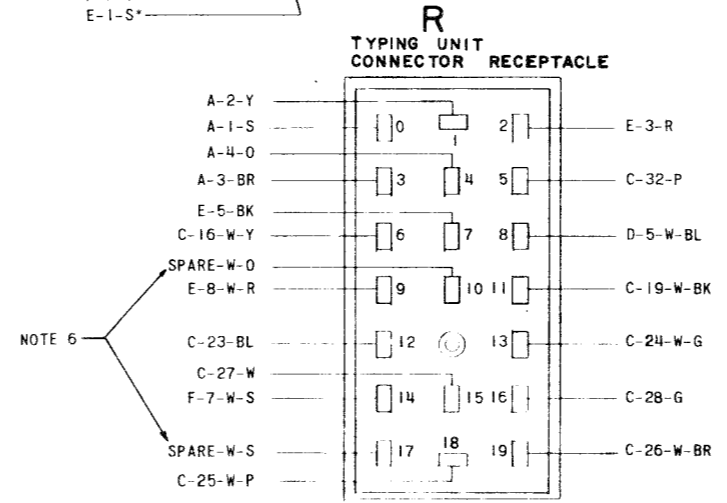
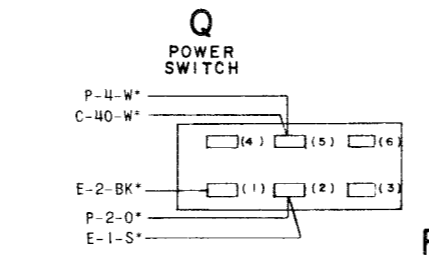
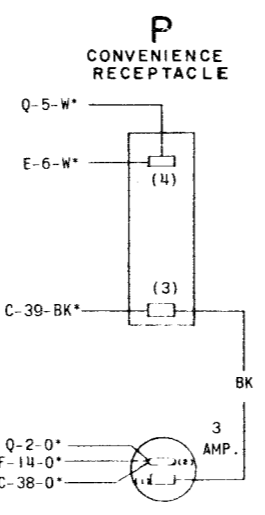
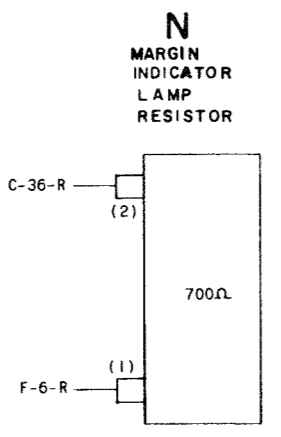
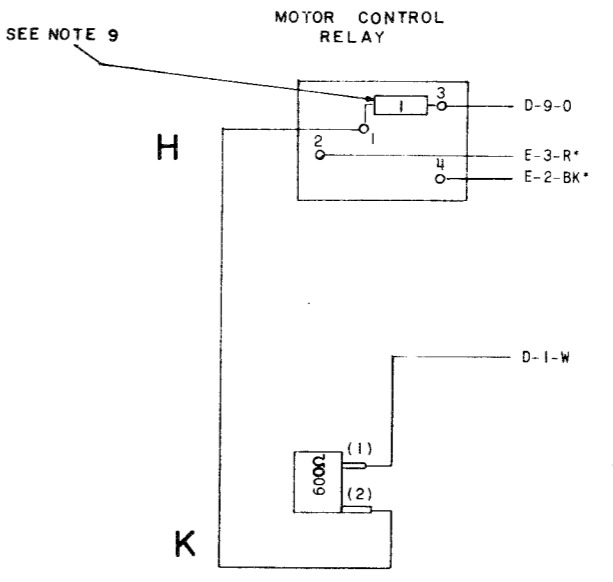
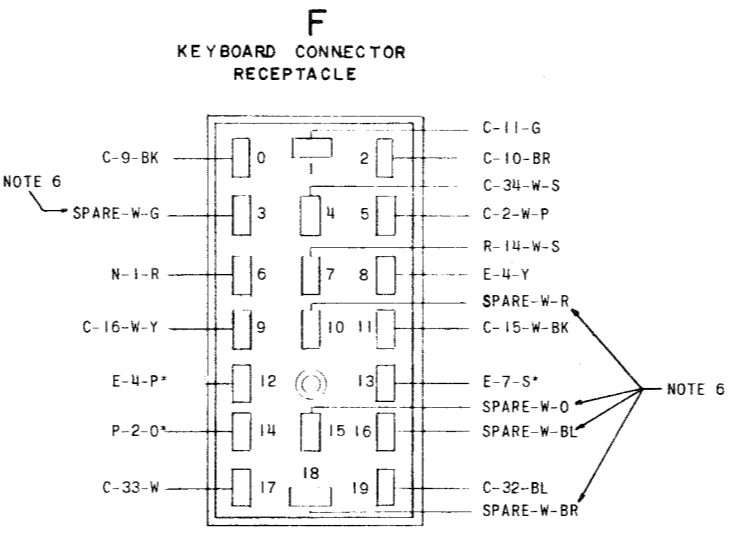
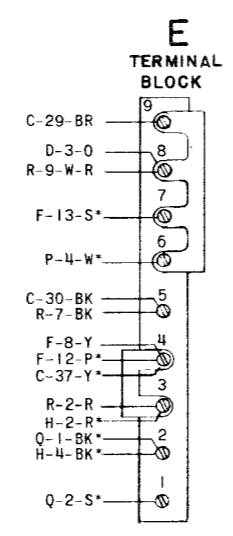
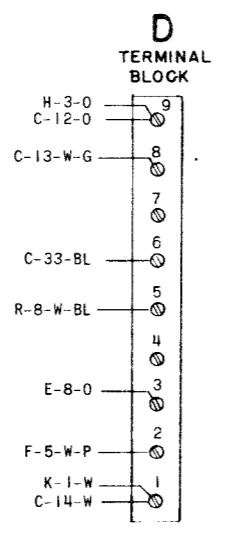
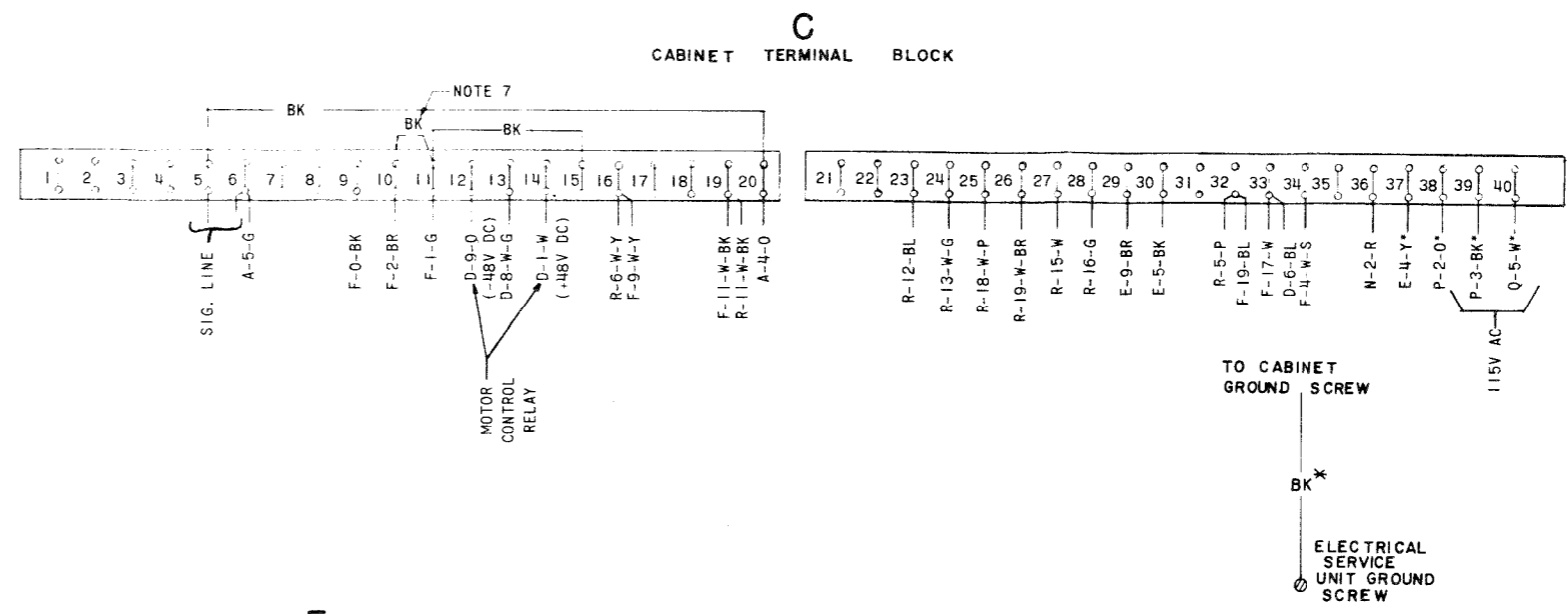
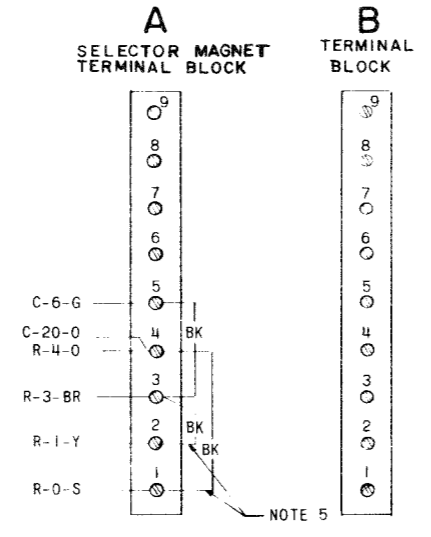
DATE: 12-1-61
 PD FILE NO. 5 A100AA
 DRAWN M.K. CHKD. [Signature]
 ENGD. W.T.C. APPD. [Signature]

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 LESUB7

APPROVALS
D AND R F.L. E OF M

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)
- G 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

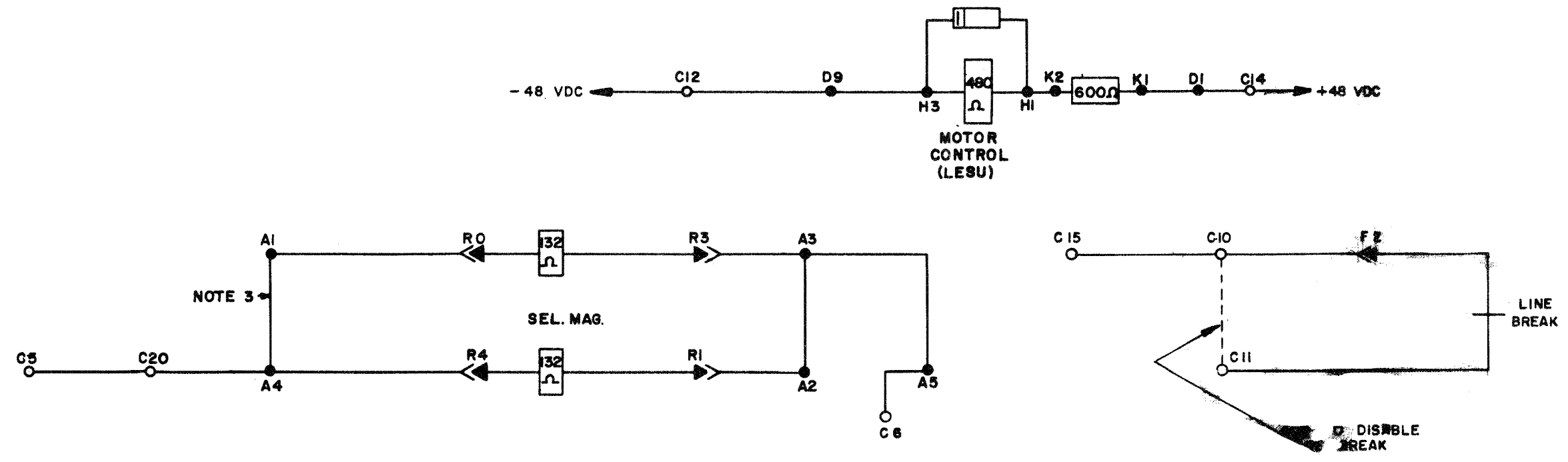
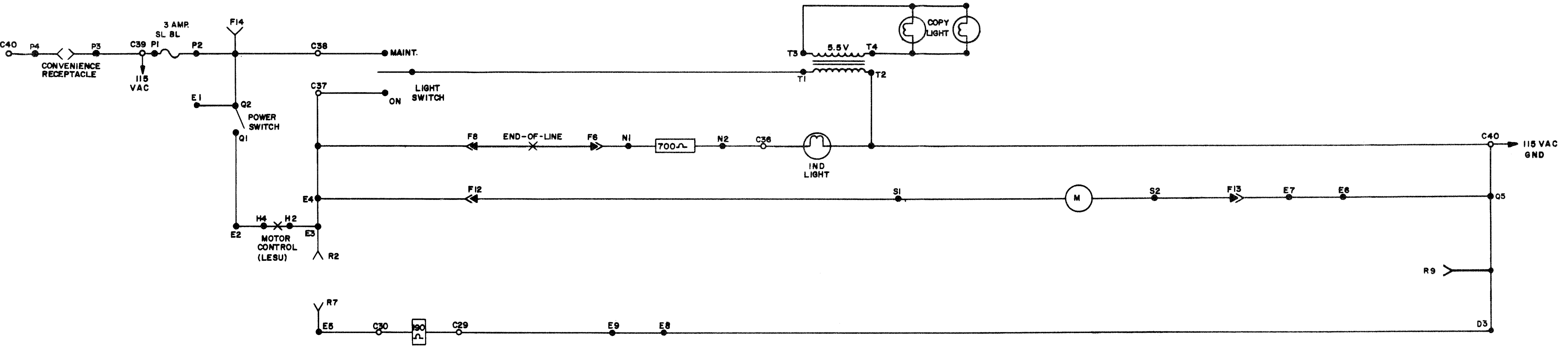
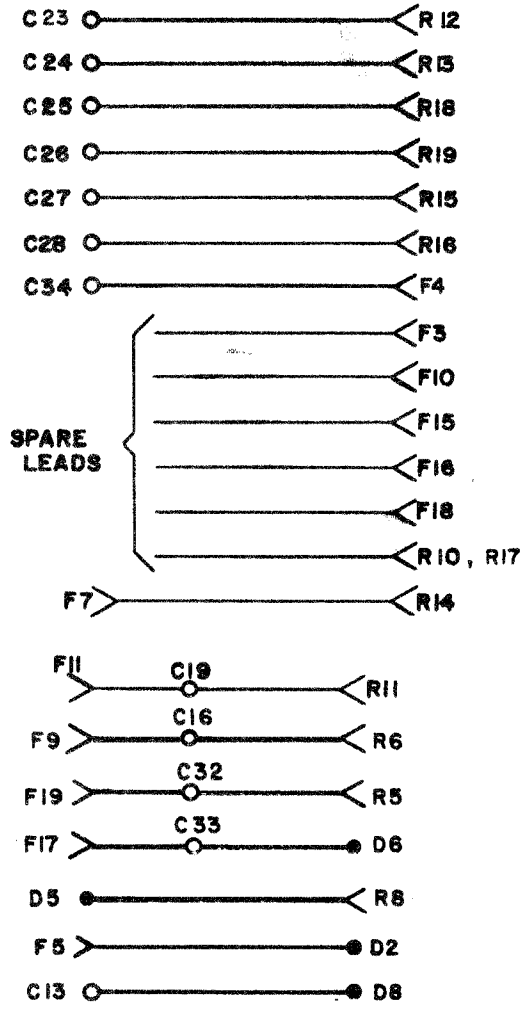
2. ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.

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 - A5

4. USE SYNCHRONOUS MOTOR ON REGULATED 60 ± 1% A.C. POWER ONLY.

5. 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
4906 WD	KEYBOARD LK 33
2900 WD	MOTOR UNITS LMU 3
4905 WD	PAGE TYPING UNITS LP 108, 107



288

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

APPROVALS

D AND R E OF M

E-NUMBER

PROD NO. 4914 WD

DATE: 11-17-61

PD FILE NO. 5-A100AA

DRAWN E.E. CHKD

ENGD. T.D.C. APPR.

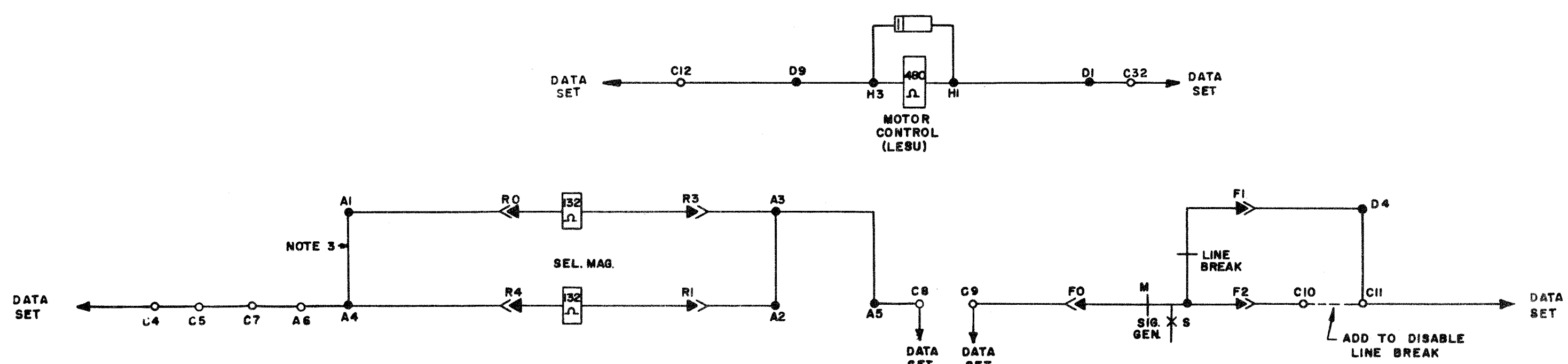
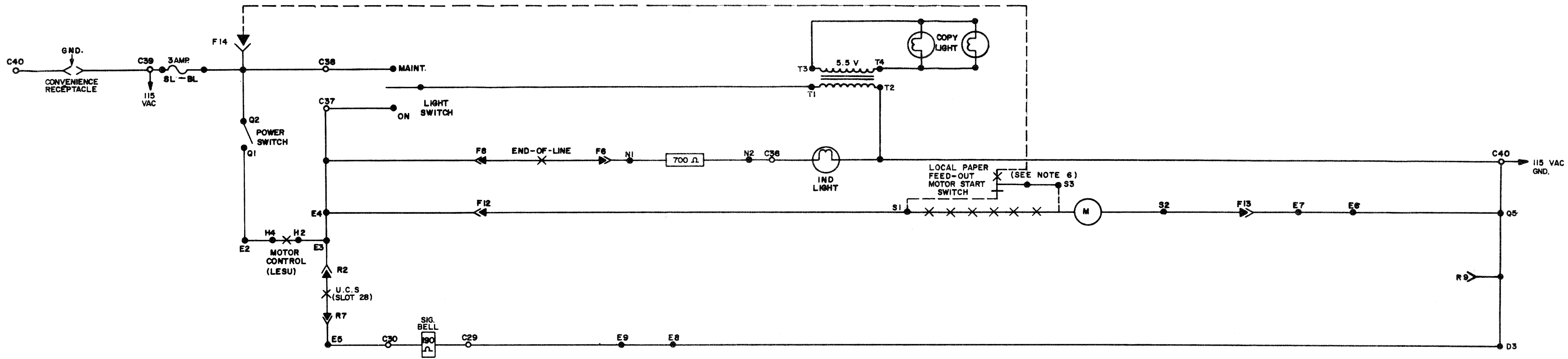
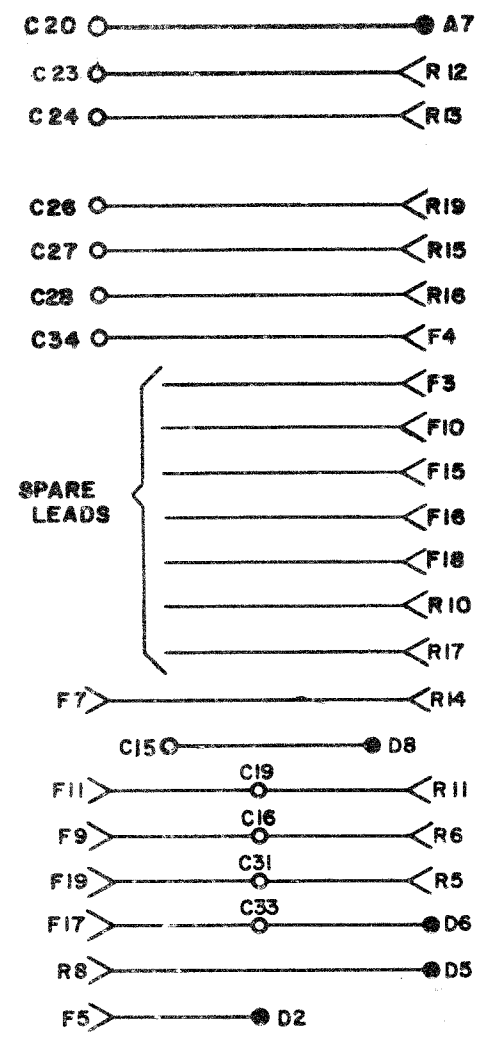
TELETYPE CORPORATION

4914 WD

4918WD

REVISIONS		
ISSUE	DATE	AUTH. NO.
A	1-23-62	72467
B	4-3-62	72372
C	7-31-62	72270
D	11-14-62	72248

- 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
 - 155A 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 |
| 4918 WD | ELECTRICAL SERVICE UNIT LESU 81 |
| 4906 WD | KEYBOARD LK 34, 47 |
| 2900 WD | MOTOR UNITS LMU 3 |
| 4908 WD | PAGE TYPING UNITS LP 106, 107 |
- FOR LK 47 ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (---X---) IN MOTOR POWER CIRCUITS.



28N-1

SCHEMATIC WIRING DIAGRAM
MODEL 28
PAGE-PRINTER SET
WITH FACILITIES PROVIDED BY
ELEC. SERVICE UNIT
LESU 81
DIAL TWX STATION

APPROVALS
D AND S E OF M

E-NUMBER
PROD NO. 4918 WD

DATE: 1-10-62
P.D. FILE NO. 5-A100AA
DRAWN JUK CHKD [Signature]
ENG. TDC APPD. [Signature]

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 .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

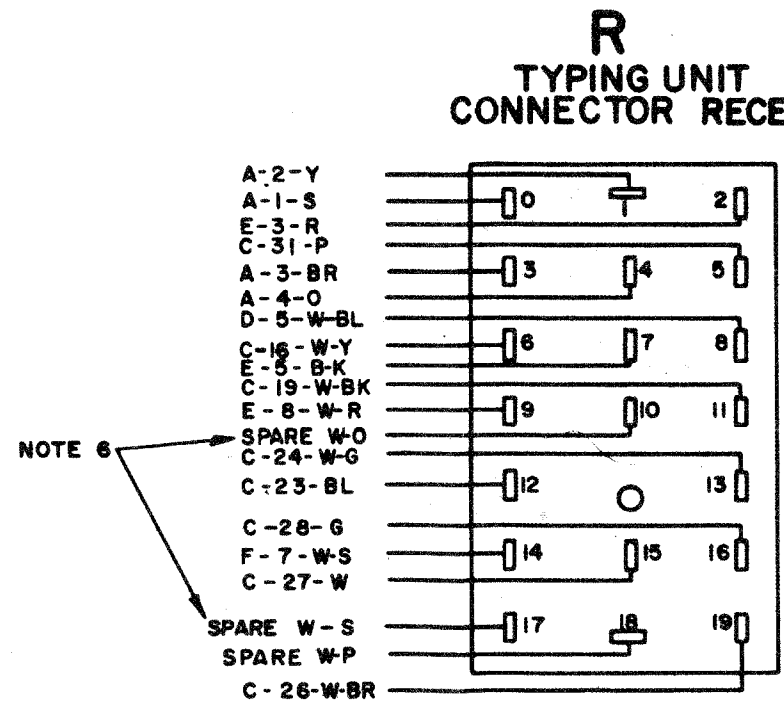
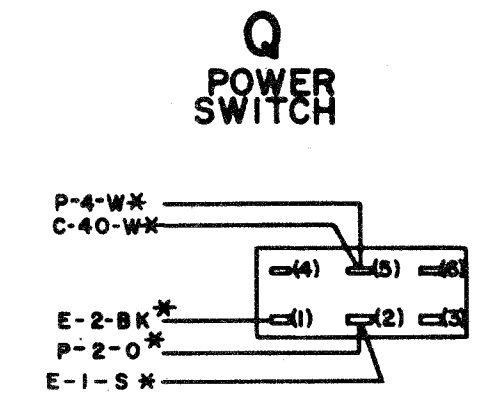
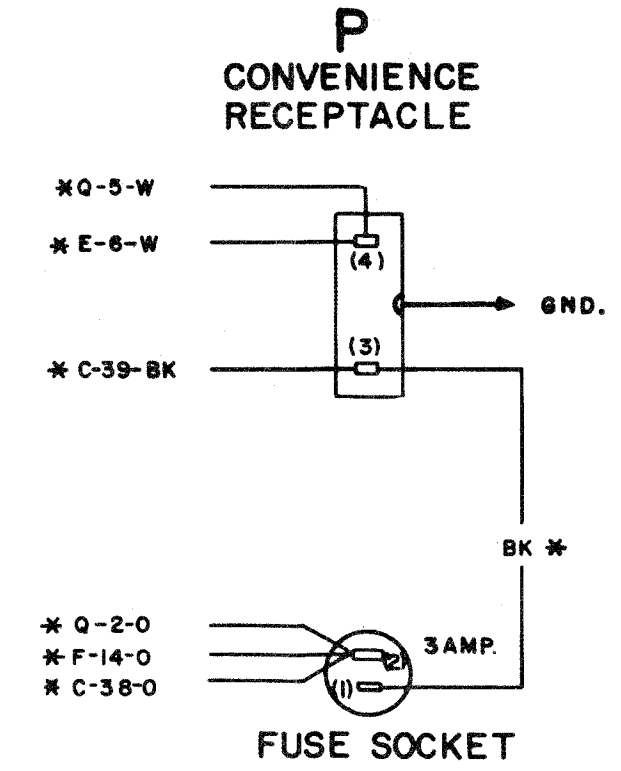
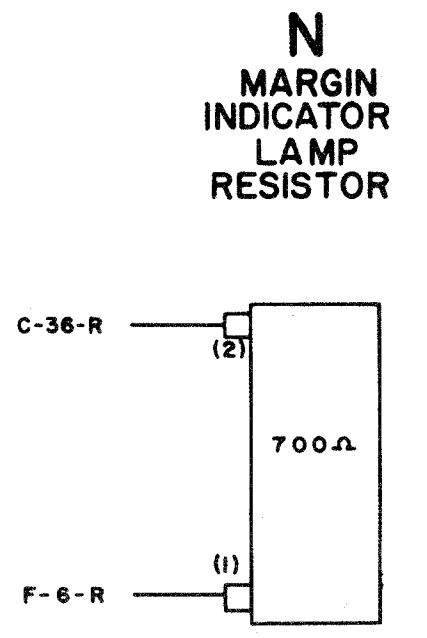
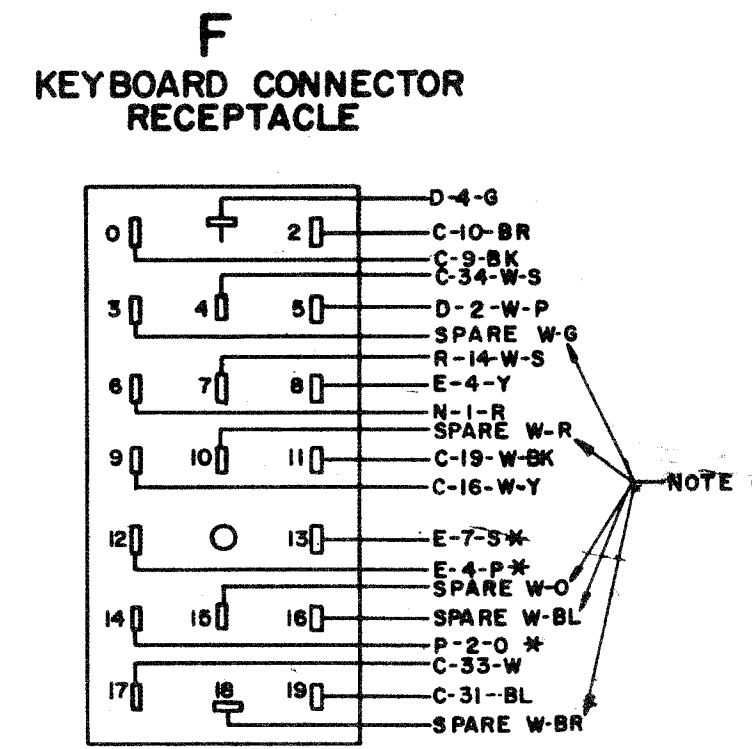
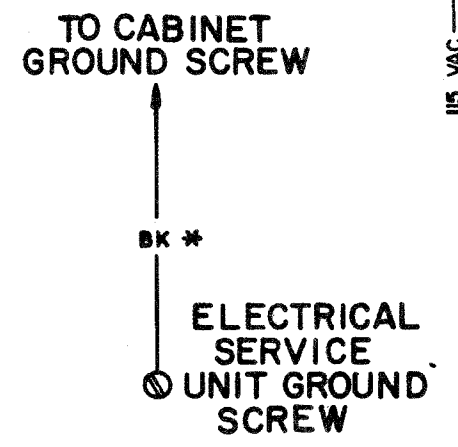
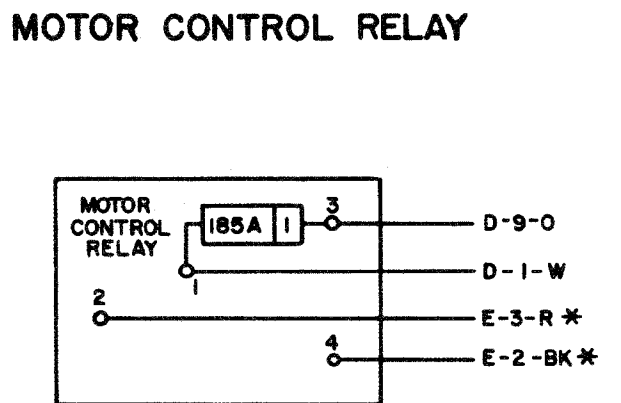
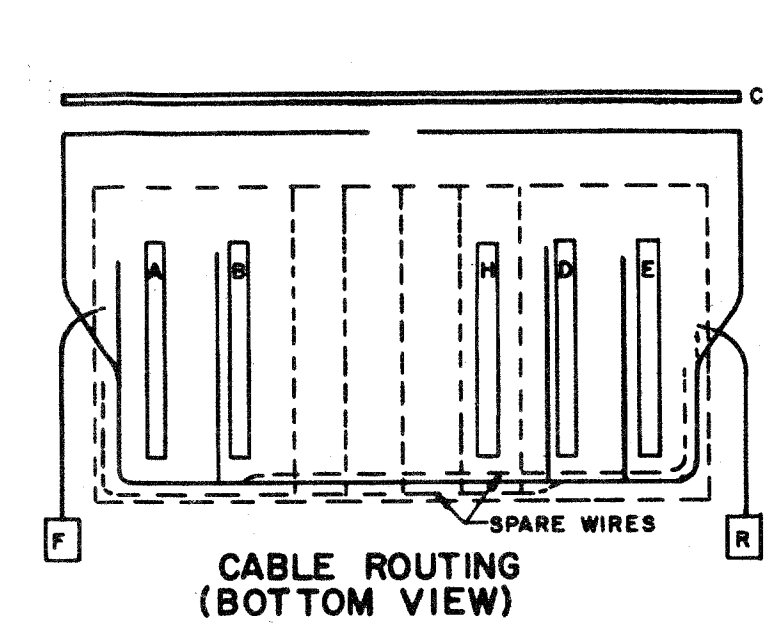
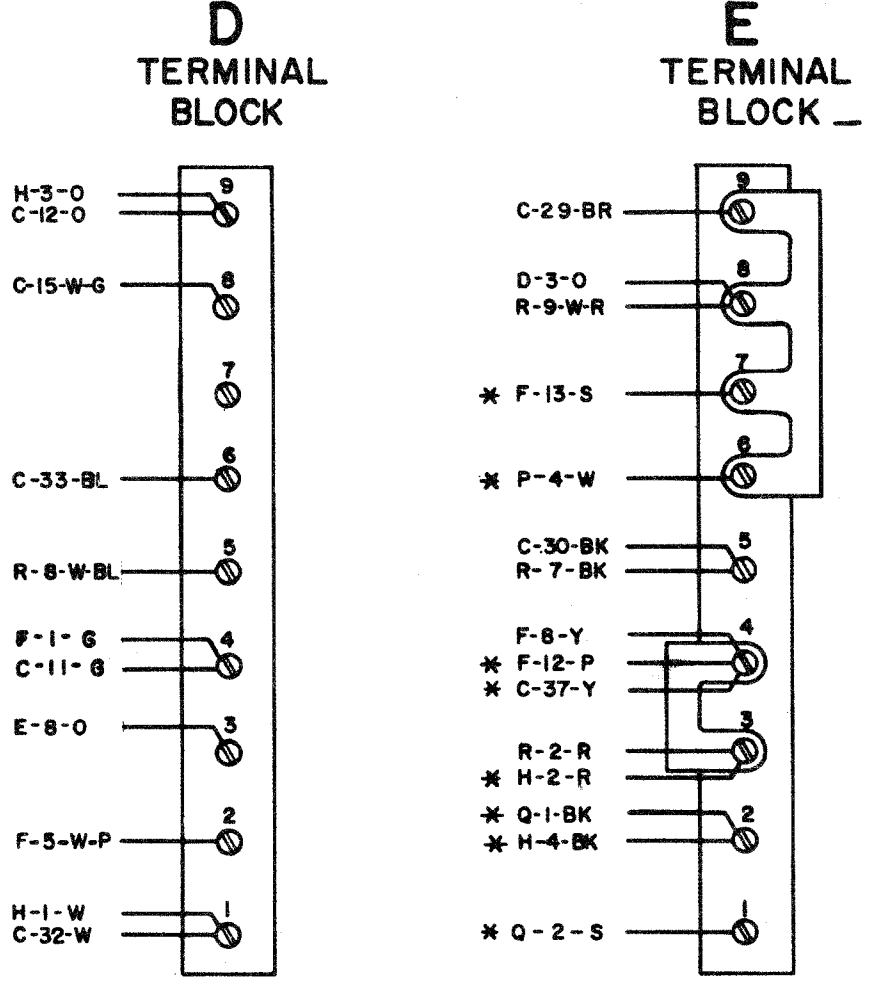
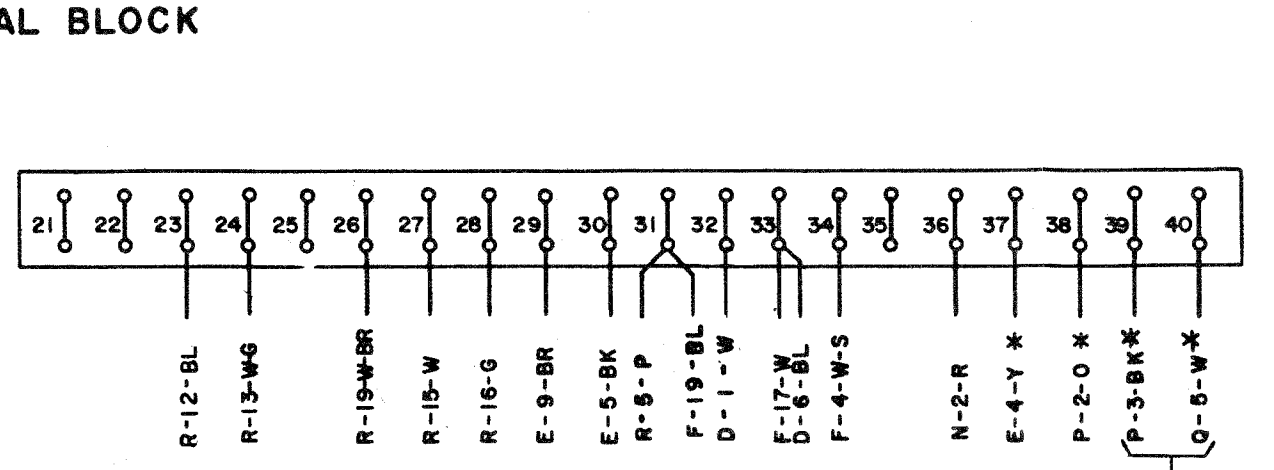
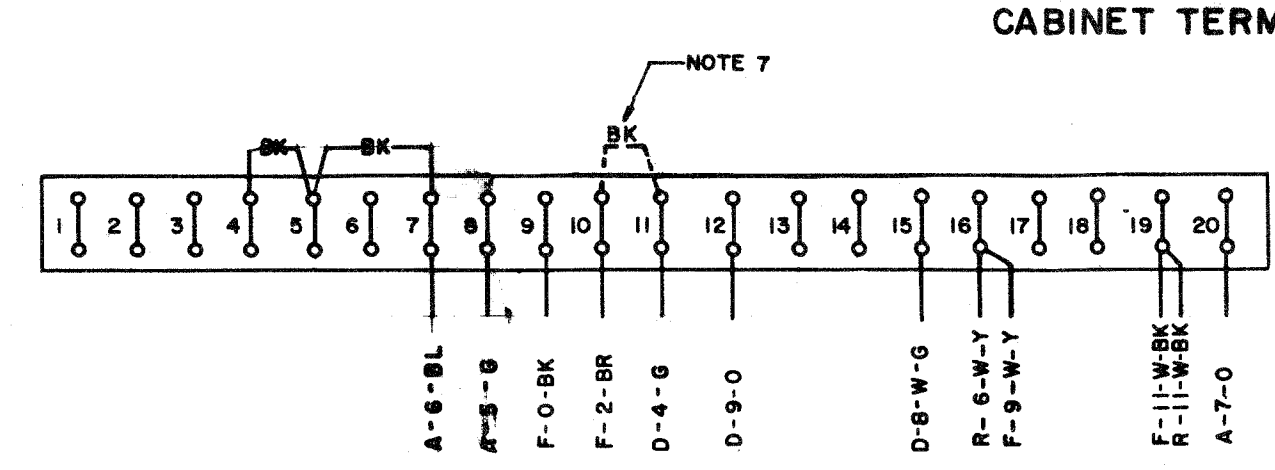
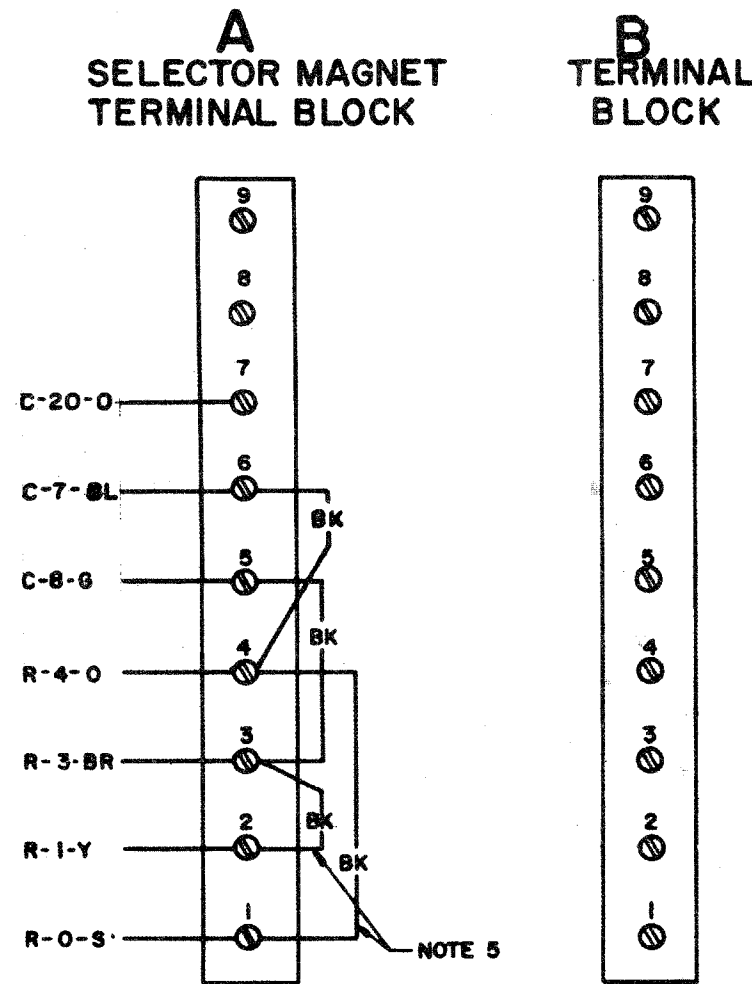
PLACE TWO STRAPS IN PARALLEL

THE SPARE LEADS FROM THE KEYBOARD AND TYPING UNIT CONNECTOR 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, C29, A7 ARE RESERVED FOR 101A DATA SET USE.

4919 WD		
ISSUE	DATE	AUTH NO.
A	2-25-62	72487
B	4-3-62	72972
C	6-9-62	75664



28K-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-A100.44

DRAWN JJK CHKD. [Signature]

ENGD. TDC APPR. [Signature]

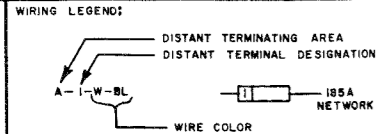
TELETYPE CORPORATION

4919 WD

FOR SCHEMATIC SEE 4918 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
A	8-8-62	75664
B	8-23-62	74329
C	11-1-62	74978



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 AC. POWER INPUT ONLY.

CONNECTORS FROM SOLDER TERMINAL ENDS.

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 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.

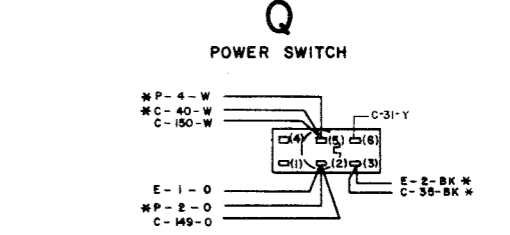
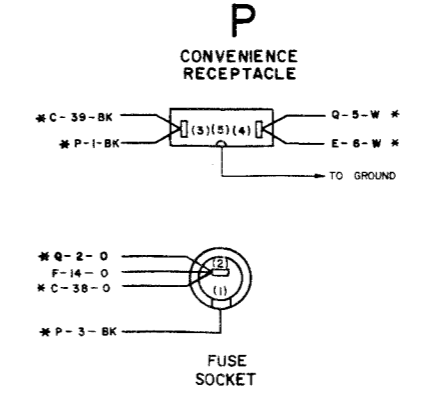
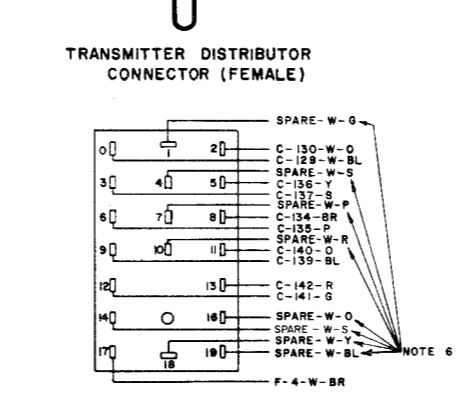
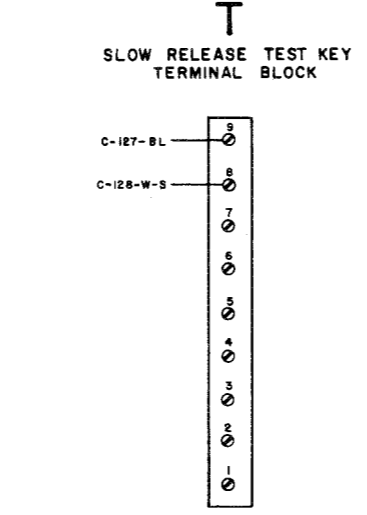
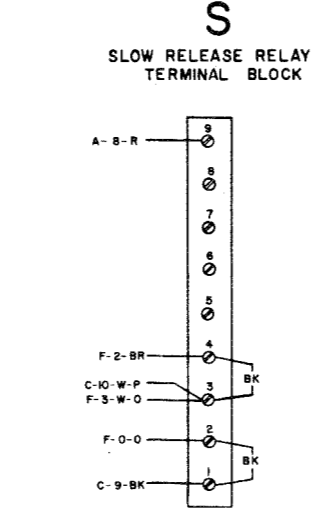
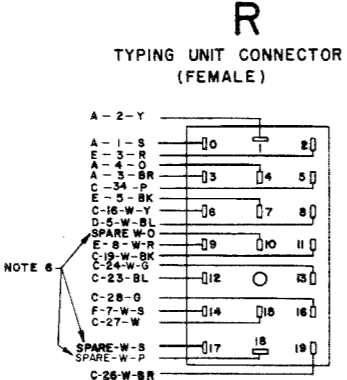
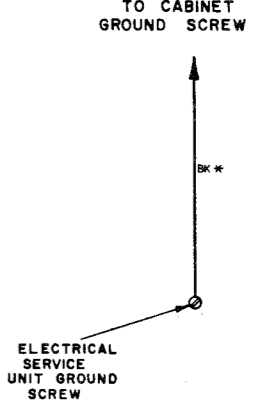
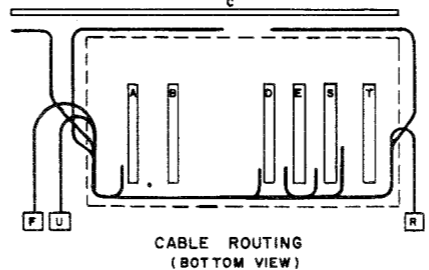
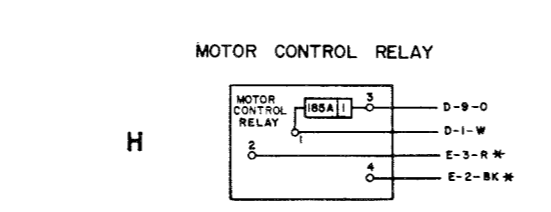
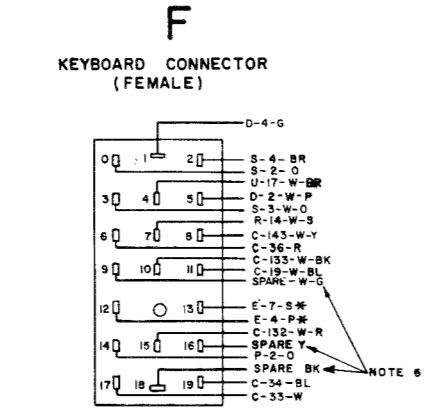
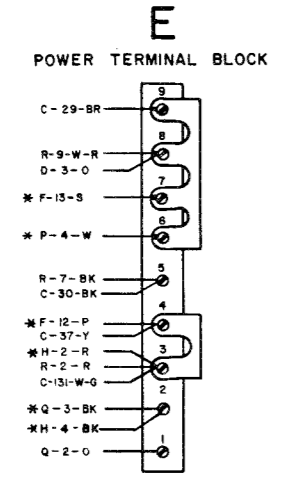
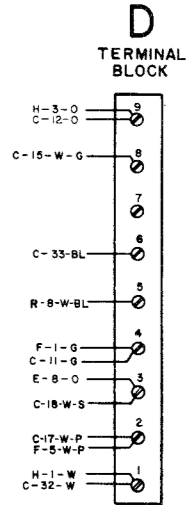
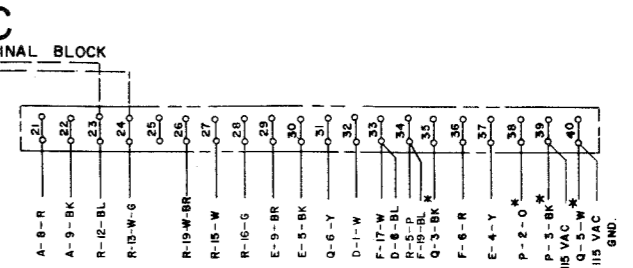
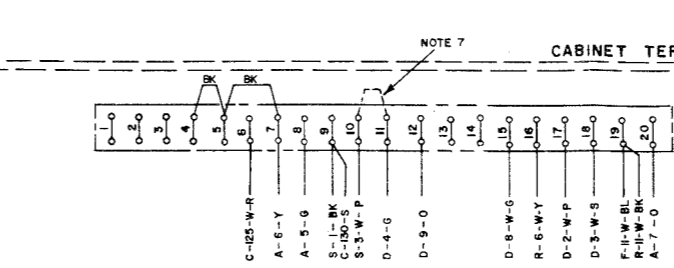
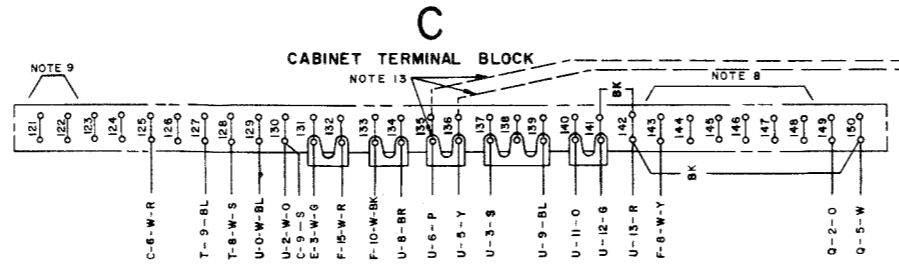
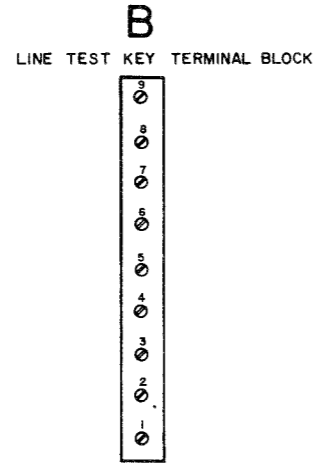
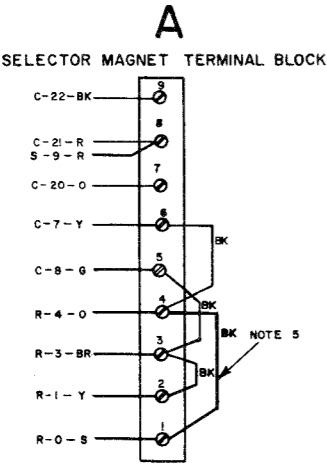
CONTACTS SHOWN IN UNOPERATED OR DEENERGIZED POSITION.

TERMINALS C1, C2, C13, C14, C20, C25 & A7 ARE RESERVED FOR 185A DATA SET USE.

ASSOCIATED CABLE ASSEMBLIES

156689 LESU CABLE
178308 MOTOR CONTROL RELAY CABLE

WHEN LX05 OR 18 IS USED WITH LPI07, REMOVE THE STRAP BETWEEN TERMINALS C135-C136. ADD TWO 182368 STRAPS, ONE BETWEEN TERMINALS C23-C135 AND ONE BETWEEN C24-C136.



APPROVALS

D	E of M
E	NUMBER
PROD. NO. 4931WD	

ACTUAL WIRING DIAGRAM MODEL 28 ELECTRICAL SERVICE UNIT LESU #3

DATE: 1-15-62

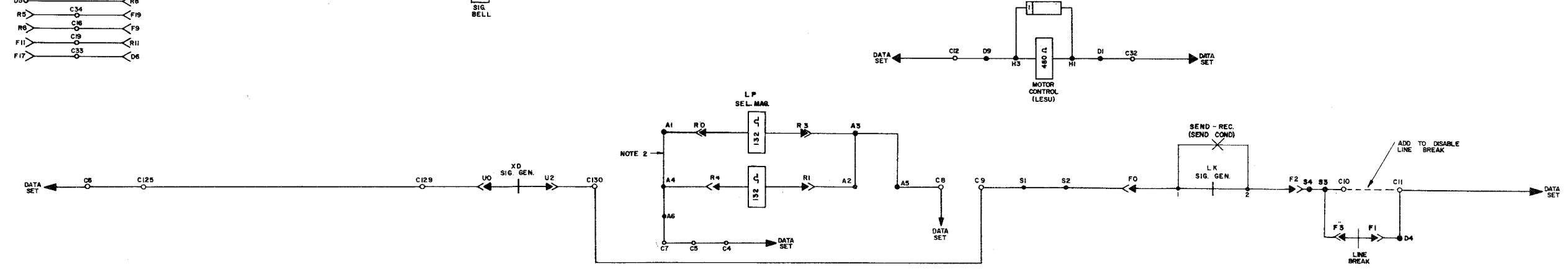
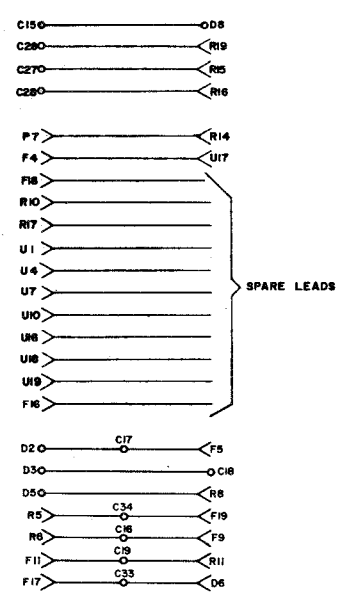
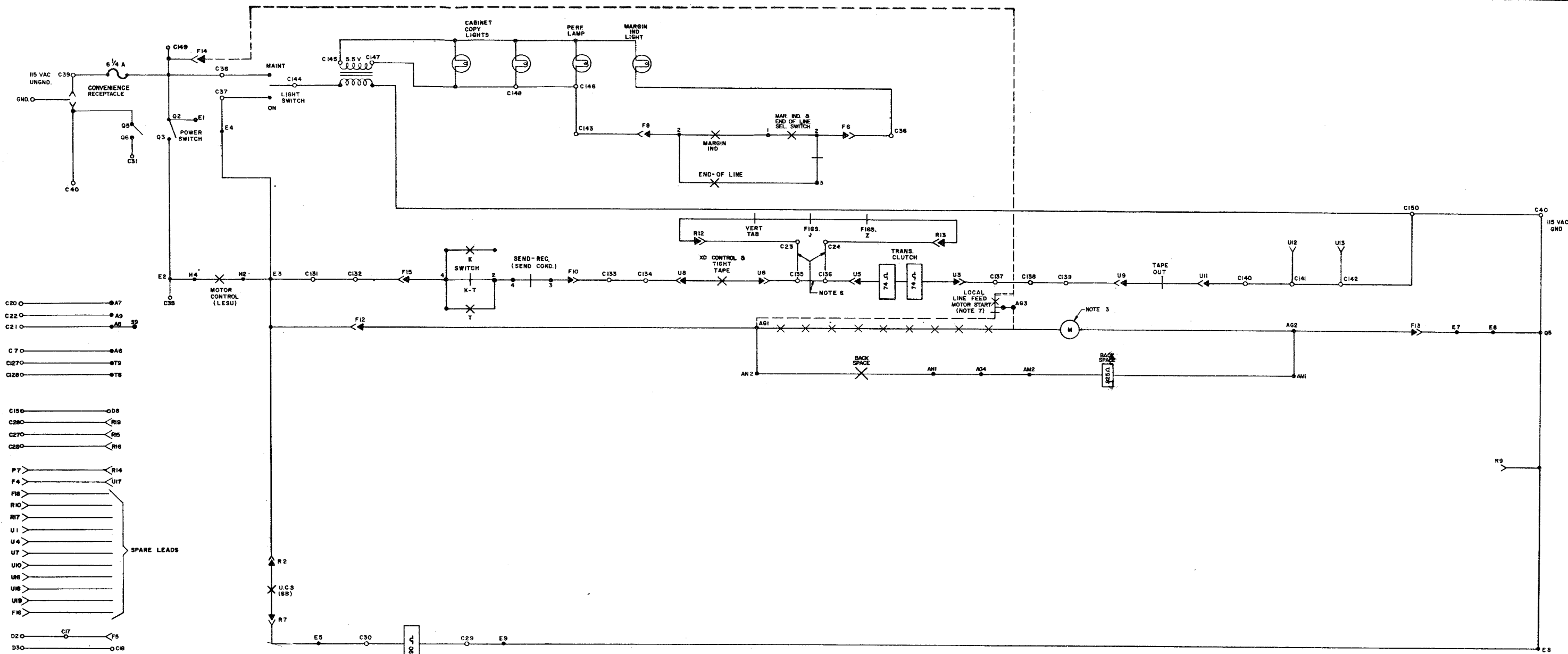
RD. FILE NO. 8-A100AAA
DRAWN: JMK
ENGR. WTC

TELETYPE CORPORATION

4932 WD			
REVISIONS			
ISSUE	DATE	AUTH	NO
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2	1-17-63	WJ	2
3	1-17-63	WJ	3
4	1-17-63	WJ	4
5	1-17-63	WJ	5
6	1-17-63	WJ	6
7	1-17-63	WJ	7
8	1-17-63	WJ	8
9	1-17-63	WJ	9
10	1-17-63	WJ	10

- 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)
 - AM, AN • BACK SPACE (LAK)
- X— NORMALLY OPEN CONTACT (MAKE)
 —|— NORMALLY CLOSED CONTACT (BREAK)
 J, L RESISTANCE VALUES IN OHMS
 M, N INDUCTANCE VALUES IN MICROHENRIES
 P, Q CAPACITANCE VALUES IN MICROFARADS
 U IS SA NETWORK
 U → TRANSMITTER DISTRIBUTOR CONNECTOR (LXD-LESU)

- AG MOTOR TERMINAL BLOCK (LAK)
- CIRCUITS SHOWN FOR 020 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 80% (±1%) AC POWER ONLY.
 - FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE:
- | WD NUMBER | UNITS DIRECTLY OPERABLE WITH LESU83 |
|-----------|-------------------------------------|
| 4916 WD | CABINETS LAAC 236 |
| 4931 WD | ELECTRICAL SERVICE UNIT LESU83 |
| 3673 WD | KEYBOARD LAK 30, 40 |
| 2900 WD | MOTOR UNITS LMU 12 |
| 4905 WD | TYPING UNITS LP 108, 107 |
| 3573 WD | TRANSMITTER DISTRIBUTOR LXD 18 |
- ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS
 - WHEN LXDS OR IS IS USED WITH LP107, REMOVE THE STRAP BETWEEN TERMINALS C135-C136. ADD TWO 162369 STRAPS, ONE BETWEEN TERMINALS C23-C135 AND ONE BETWEEN TERMINALS C24-C136.
 - 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

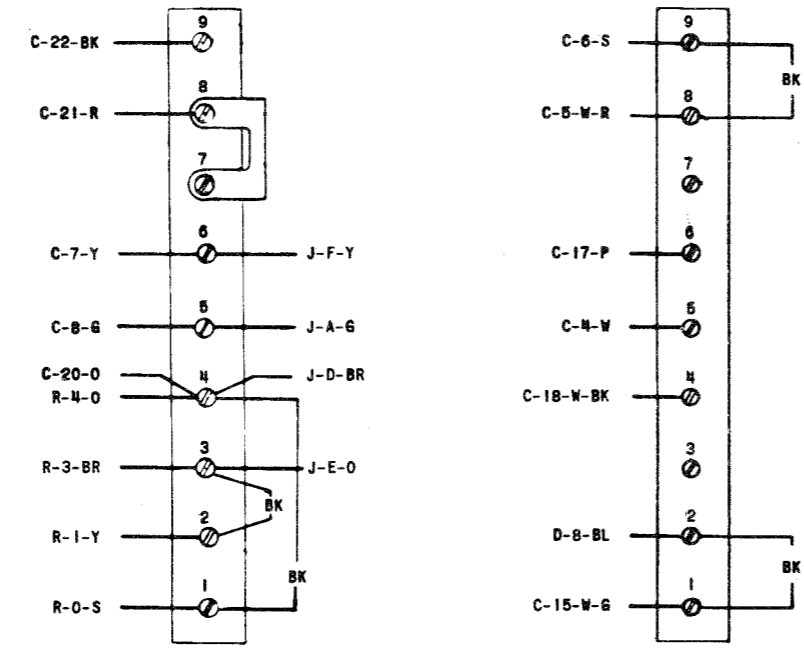
APPROVALS
 D AND S E OF M
 E NUMBER
 PROD NO. 4932 WD
 DATE: 1-15-62
 PD FILE NO. S-490044
 DRAWN BY: [Signature]
 ENGR. WTC. APPD. [Signature]
 TELETYPE CORPORATION
 4932 WD

5928 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
2	4-7-66	90222
3	10-26-67	90222-1-B

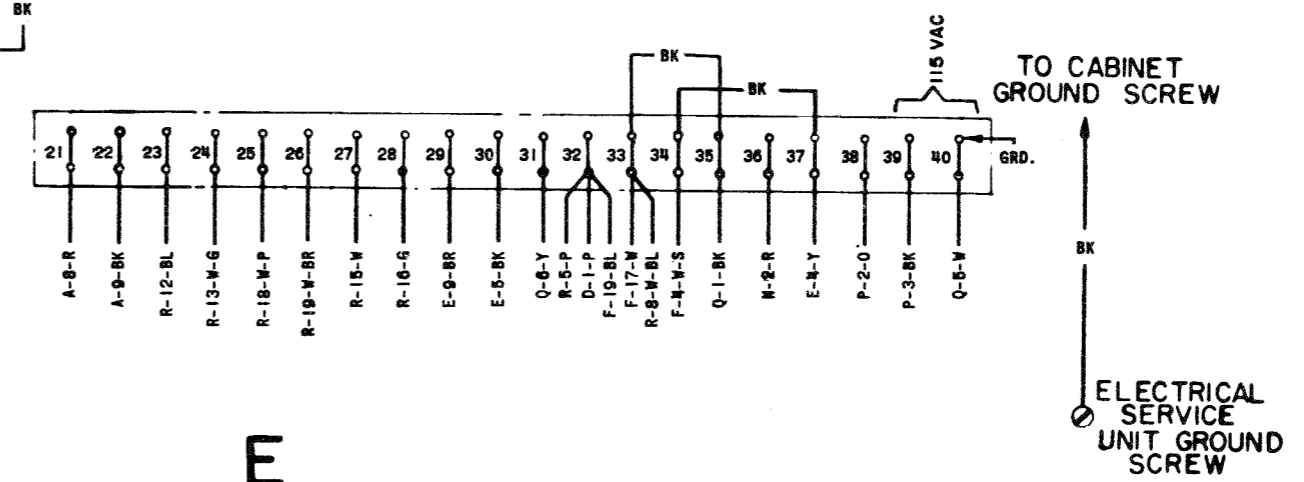
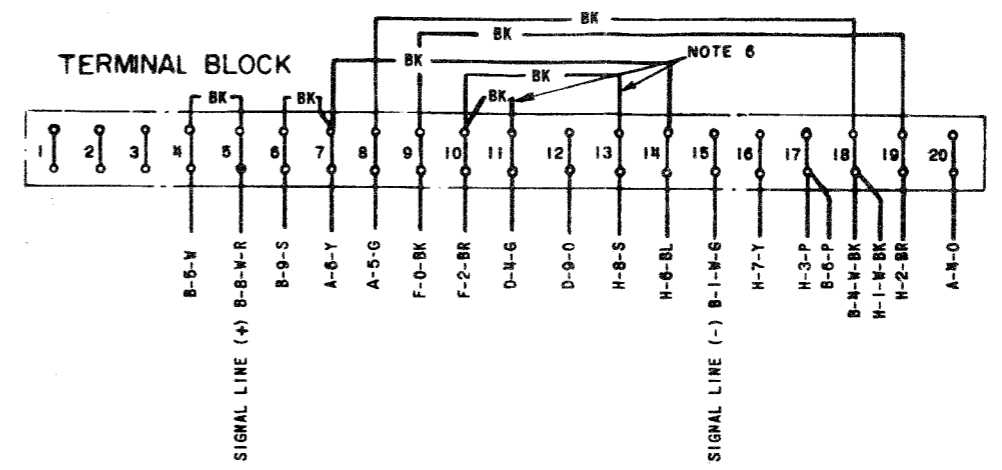
NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

- 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



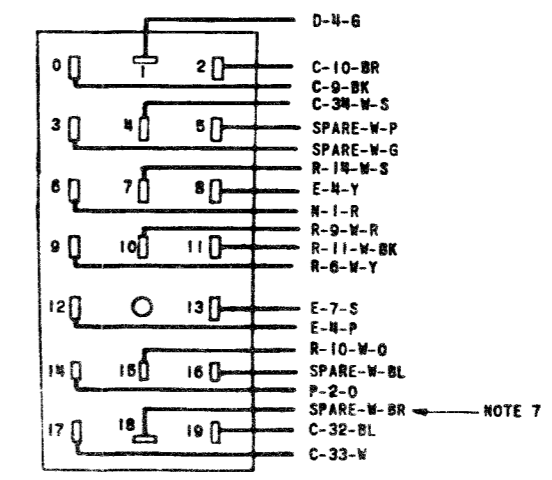
C CABINET TERMINAL BLOCK



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. 1-156/158.65AA
 DRAWN E.E. CHKD.
 ENGD. R.S.P. APPD.

TELETYPE CORPORATION
5928 WD

SEE SHEET 1 FOR NOTES.

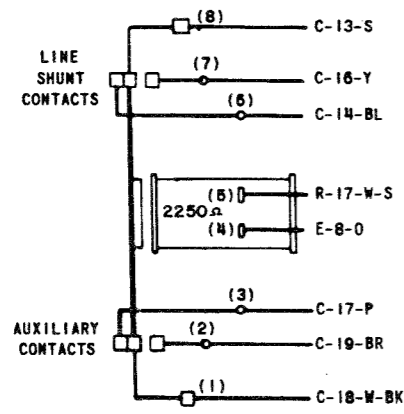
NOTE:
REVISION INFORMATION MUST
ALSO BE REFLECTED ON THE
ISSUE CONTROL RECORD, WHICH
IS A PART OF THIS DRAWING.

5928 WD

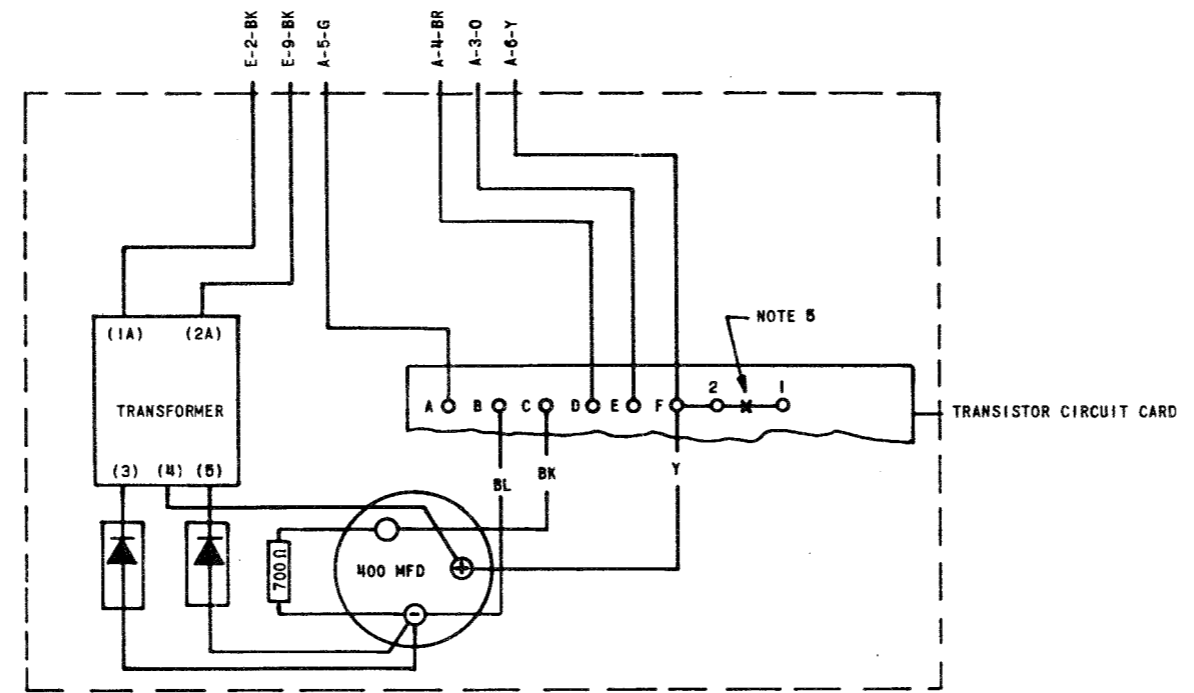
REVISIONS

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

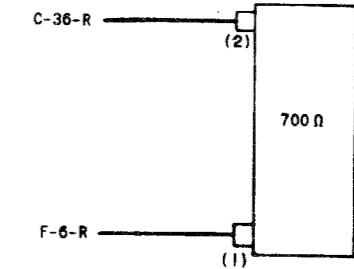
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LINE SHUNT RELAY



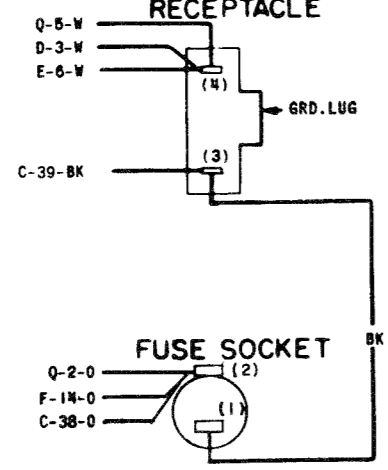
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TYPING UNIT SELECTOR
MAGNET DRIVER



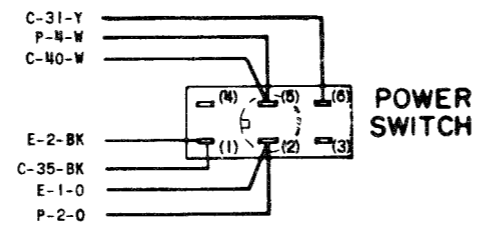
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MARGIN
INDICATOR
LAMP
RESISTOR



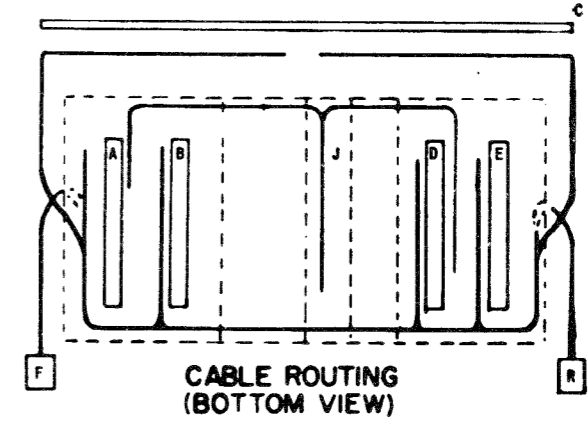
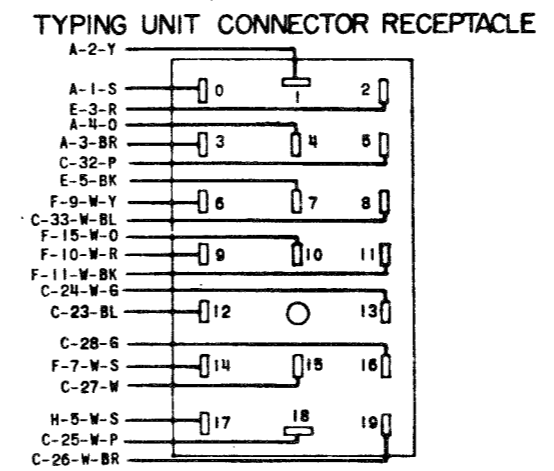
P
CONVENIENCE
RECEPTACLE



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
LES095

APPROVALS
D AND R
E OF M

E-NUMBER
PROD. NO. 5928WD
DATE 9-1-62
P.D. FILE NO. 1-159/158.65AA
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

2883WD	BASE, RECEIVING ONLY—LB 4
2876WD	CABINETS—LAC 202, 204
5928WD	ELECTRICAL SERVICE UNIT—LESU 95
2928WD	KEYBOARDS—LK16
2900WD	MOTOR UNITS—LMU3, 4
3214WD	PAGE TYPING UNIT—LP15
4445WD	SELECTOR MAGNET DRIVER—177010

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

△ R TYPING UNIT CONNECTOR
○ S MOTOR 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 A. RESISTANCE VALUES IN OHMS (Ω)
B. INDUCTANCE VALUES IN MICROHENRIES (μH)
C. CAPACITANCE VALUES IN MICROFARADS (μF)

6 CIRCUITS SHOWN FOR .050 AMP NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP LINE CURRENT, OMIT CONNECTION MARKED (---) IN SELECTOR MAGNET DRIVER CIRCUIT.

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

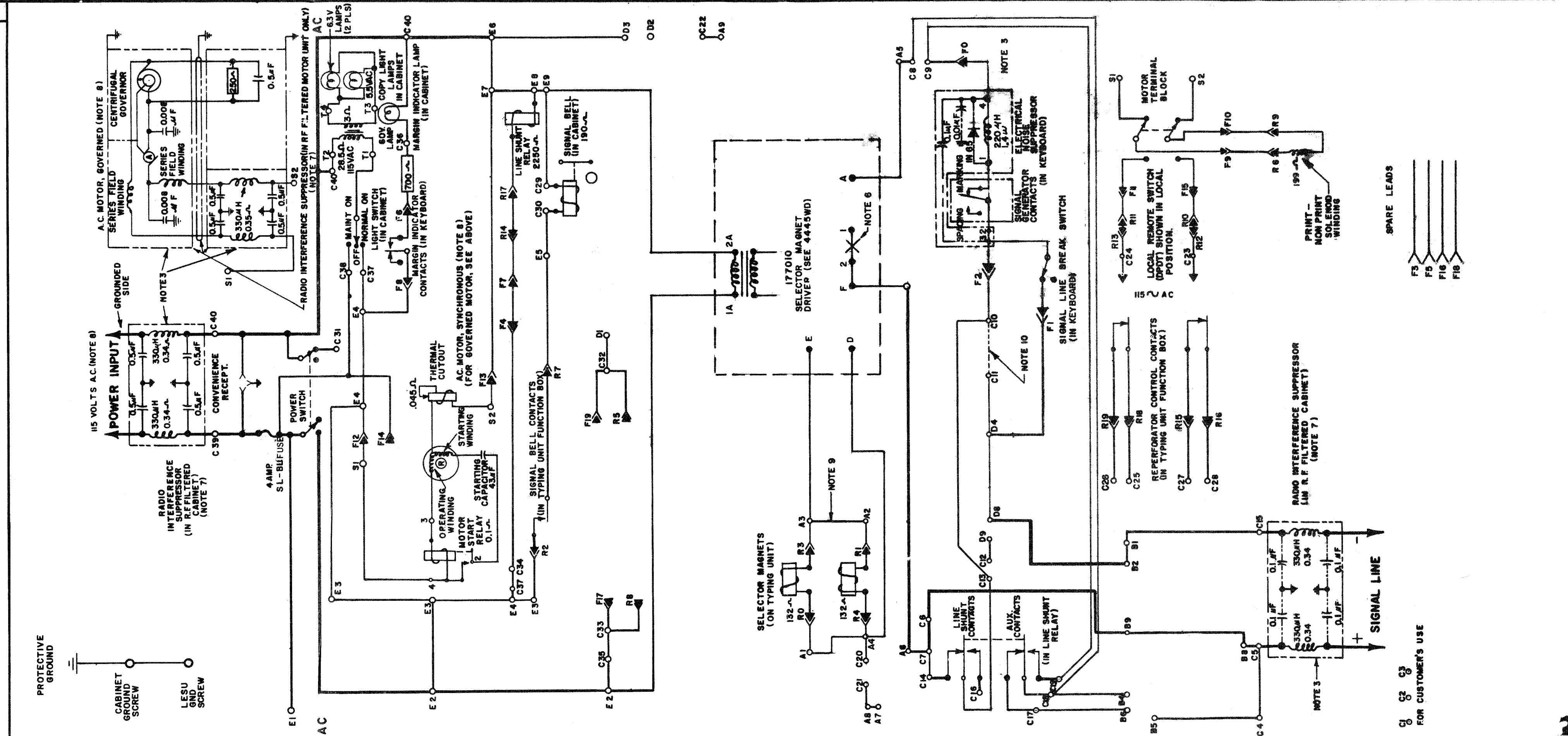
8 USE SYNCHRONOUS MOTOR ON REGULATED 60±1% A.C. POWER ONLY. GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60 UNREGULATED A.C.

9 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.

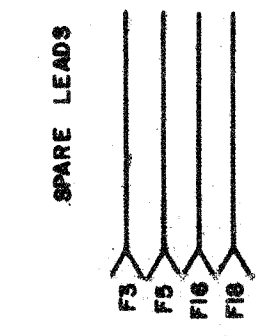
NO NOTES



5928 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
A	12-10-62	F8861

FIG. NO. 5928WD
SCHEMATIC WIRING DIAGRAM
ELECTRICAL SERVICE UNIT
LESU 95 AND ASSOCIATED MODEL 28 APPARATUS

DATE: 9-1-62
R.D. FILE NO. 1-152/116.554A
DRAWN: E.E. CHKD: [Signature]
ENGD. R.S.P. APPD. [Signature]
TELETYPE CORPORATION
5929 WD



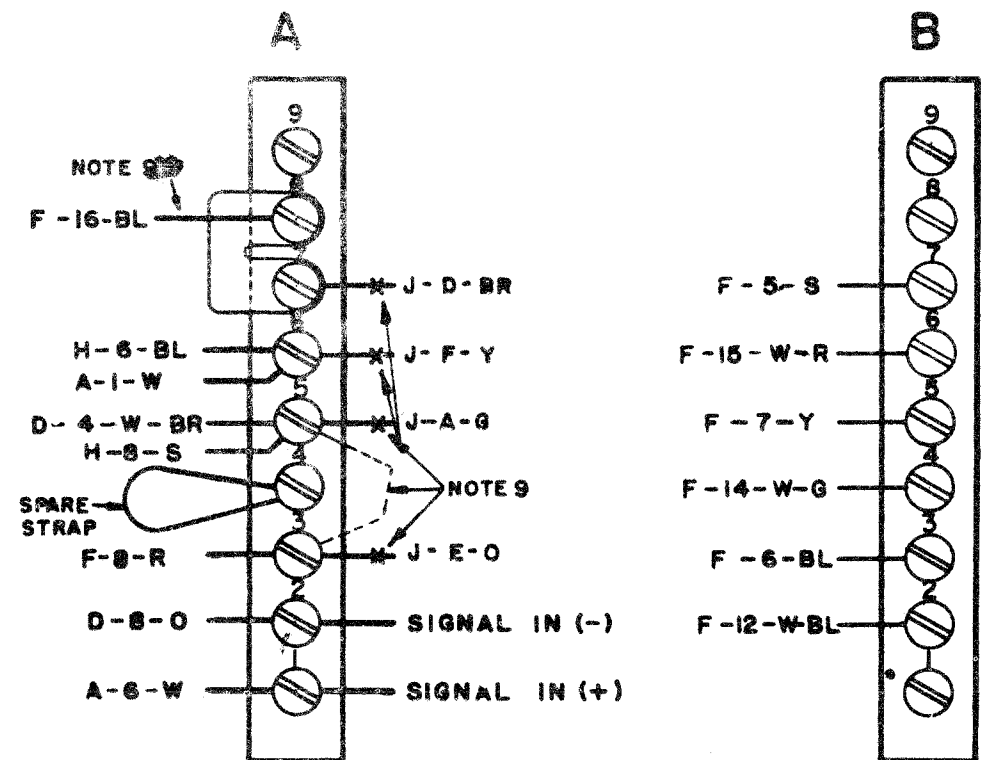
FOR CUSTOMER'S USE

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

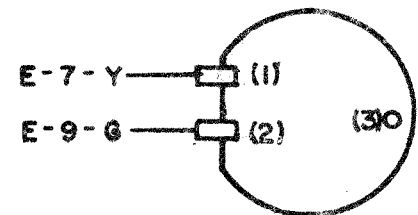
BK - BLACK	W - WHITE
BR - BROWN	W-BL - WHITE-BLUE
R - RED	
O - ORANGE	
Y - YELLOW	
G - GREEN	
BL - BLUE	
P - PURPLE	
W - WHITE	
S - SLATE	
 3. UNIT WIRED FOR 115 VOLTS 50 TO 60 CYCLE A.C. POWER INPUT ONLY.
 4. CONNECTOR VIEWED FROM SOLDER TERMINAL END.
 5. CIRCUITS SHOWN FOR .060 AMP NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP 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 60 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 (*). 20 MILLIAMPERE, 60 & 75 WPM OPERATION (OR ANY INTERMEDIATE SPEED).
 A. STRAP A5 TO A3
 B. MOVE BLUE LEAD FROM TERMINAL A8 TO A6. 60 MILLIAMPERE, 60, 75 & 100 WPM OPERATION (OR ANY INTERMEDIATE SPEED)
 C. CHANGE WIRING ON SELECTOR MAGNETS FOR 60 MILLIAMPERE OPERATION.

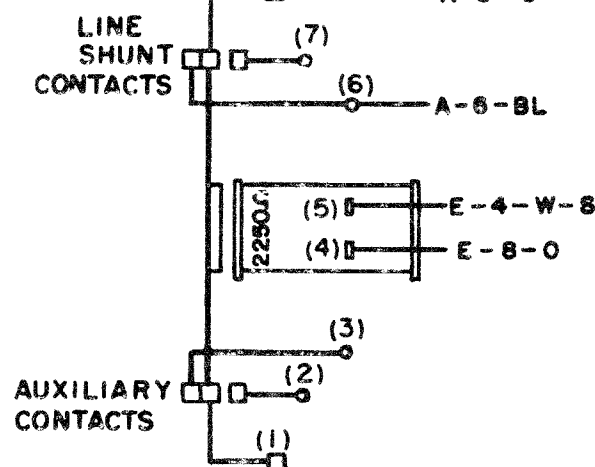
SELECTOR MAGNET TERMINAL BLOCK



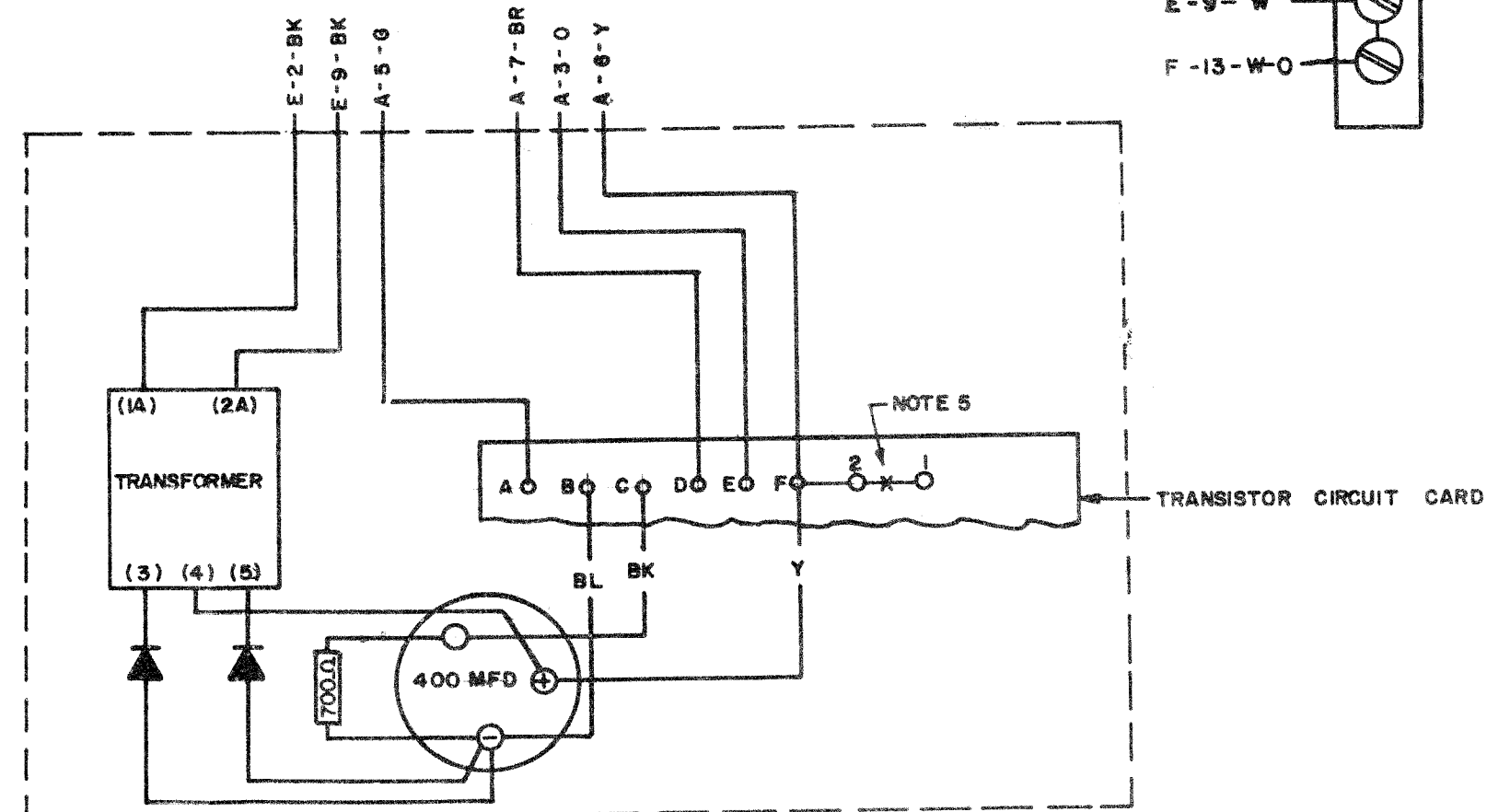
G SIGNAL BELL



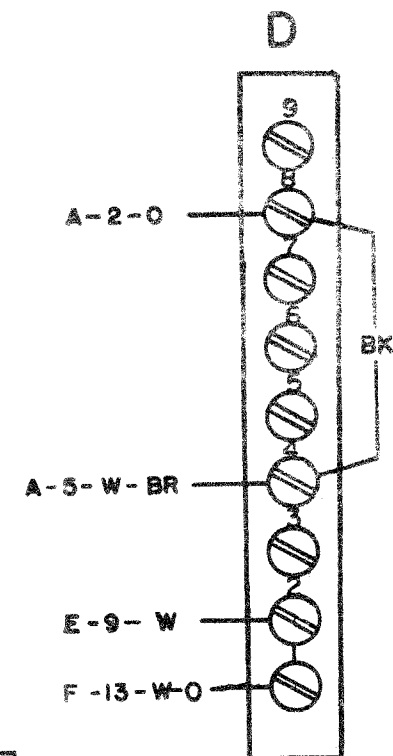
H LINE SHUNT RELAY



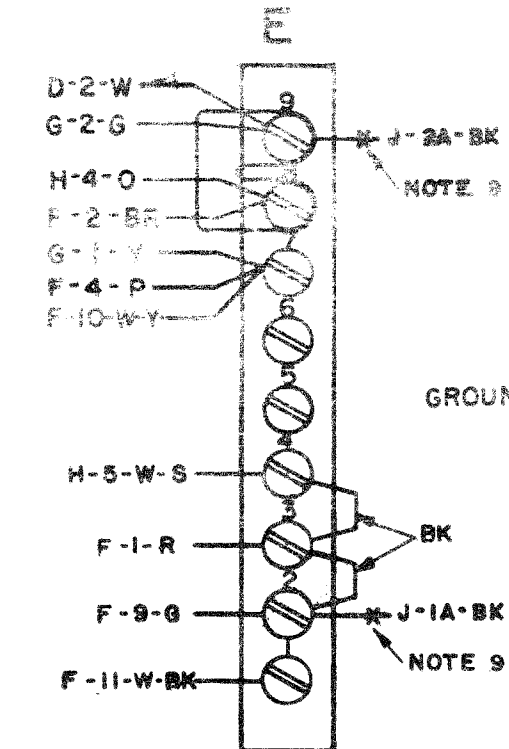
REPERFORATOR SELECTOR MAGNET DRIVER



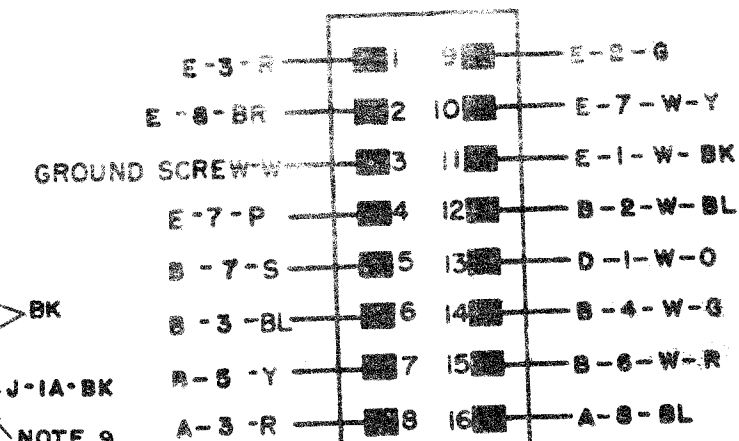
MOTOR CONTROL TERMINAL BLOCK



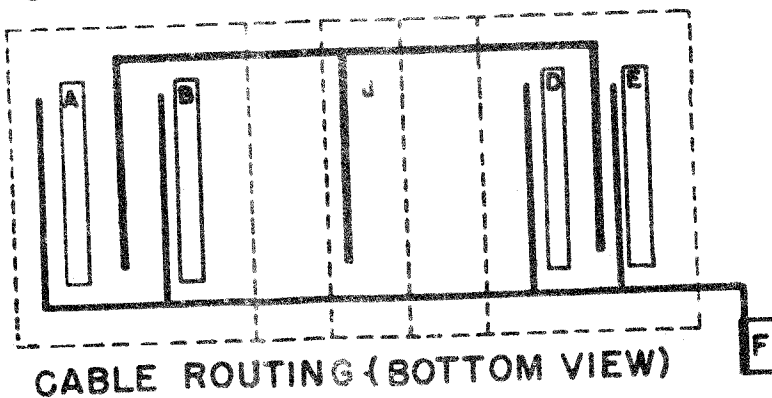
POWER TERMINAL BLOCK



F CONNECTOR PLUG 159541



ELECTRICAL SERVICE UNIT GROUND SCREW



FOR SCHEMATIC SEE 5931WD

ACTUAL WIRING DIAGRAM, MODEL 28 ELECTRICAL SERVICE UNIT, LESU 98

APPROVALS

D AND R E OF M

B-NUMBER

PROD. NO. 8980 WD

DATE: 9-1-62

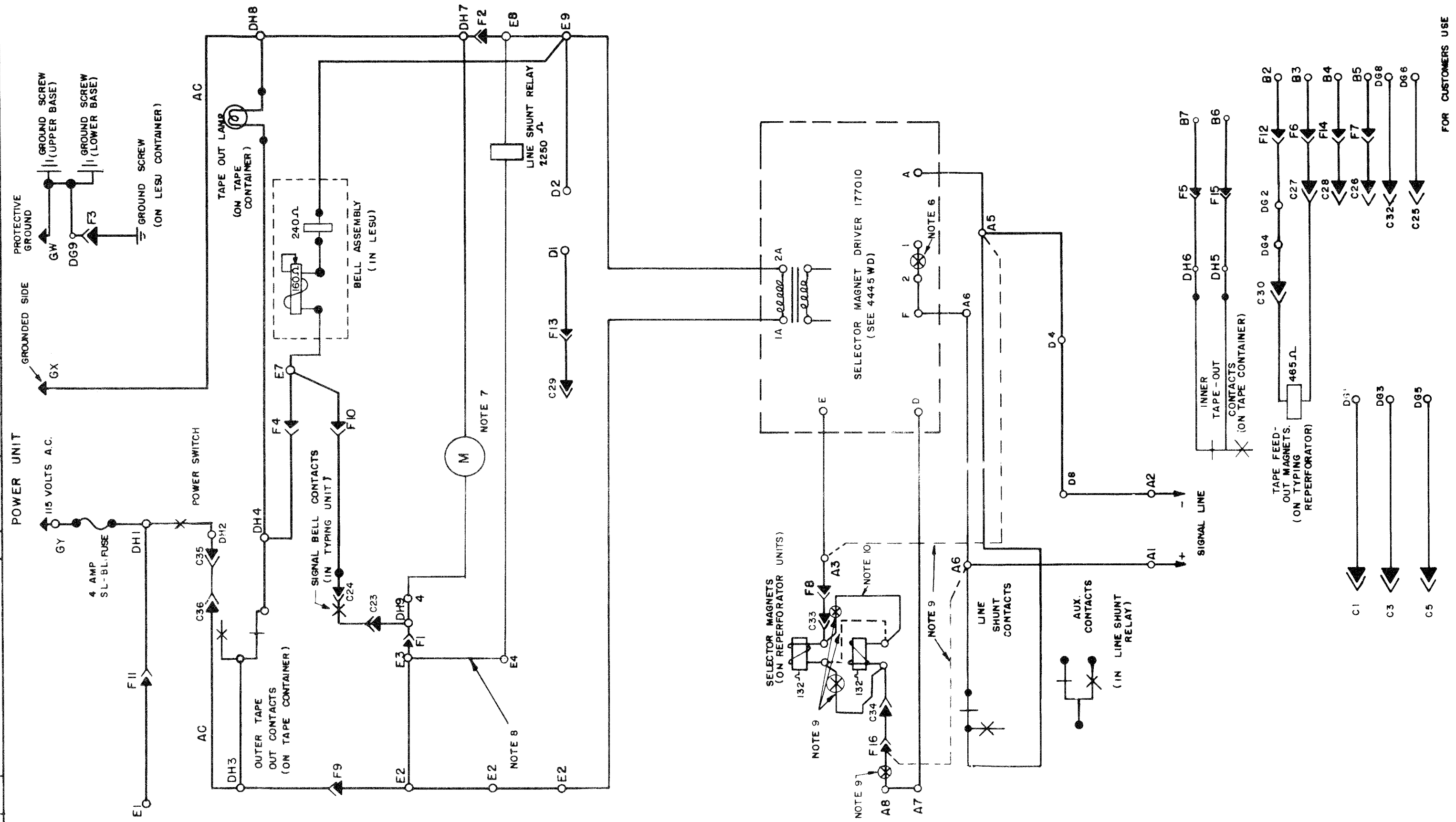
P.D. FILE NO. 1-159/5885AA

DRAWN BY CHKD

ENG'D RSP APPD.

TELETYPE CORPORATION

NO.	NOTES
1	WIRING DIAGRAMS OF INDIVIDUAL UNITS UNITS DIRECTLY OPERABLE WITH LESU96 4445WD SELECTOR MAGNET DRIVER-177010 5930WD ELECTRICAL SERVICE UNIT LESU96 2900WD MOTOR UNITS - L.M.U. 3,4,6. 3736WD TYPING REPERFORATOR BASE LRB 21,30 3828WD TYPING AND NON-TYPING REPERFORATOR
2	LEGEND C 36 POINT CONNECTOR 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) N.C. CONTACT N.O. CONTACT
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 (MH) (C) CAPACITANCE VALUES IN MICROFARADS (MFD)
6	CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP LINE CURRENT OMIT CONNECTION MARKED (⊗) IN SELECTOR MAGNET DRIVER.
7	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.
8	LINE SHUNT RELAY WHICH SHUNTS SELECTOR MAGNET DRIVER INPUT IS SHOWN CONTROLLED BY POWER SWITCH.
9	FOR SPECIAL APPLICATIONS SELECTOR MAGNETS CAN BE OPERATED DIRECTLY IN A NEUTRAL SIGNAL LINE AS FOLLOWS COMPLETELY DISCONNECT SELECTOR MAGNET DRIVER, FOR 20 MILLIAMPERE, 60 AND 75 WPM OPERATION (OR ANY INTERMEDIATE SPEED.) 1. STRAP A5 TO A3 2. MOVE LEAD FROM TERMINAL A8 TO A6 3. ADD DASHED (---) LEAD, OMIT ⊗ LEADS ON SELECTOR MAGNETS FOR 60 MILLIAMPERE, 80, 75 & 100 WPM OPERATION (OR ANY INTERMEDIATE SPEED.) 1. STRAP A5 TO A3 2. MOVE LEAD FROM TERMINAL A8 TO A6
10	FOR OPERATION WITH SELECTOR MAGNET DRIVER, SELECTOR MAGNETS MUST BE CONNECTED IN PARALLEL.



5931 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
2	12-10-63	78861
3	1-29-68	94715

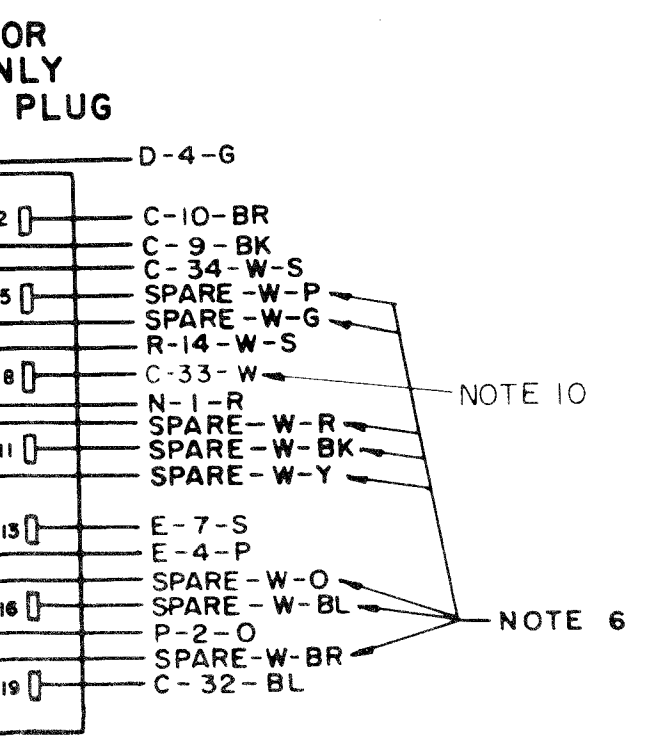
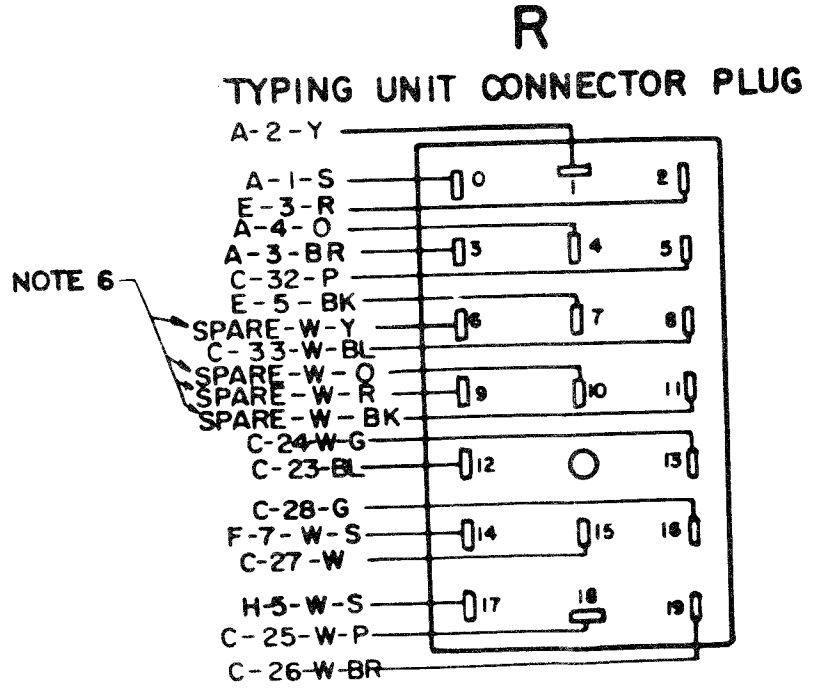
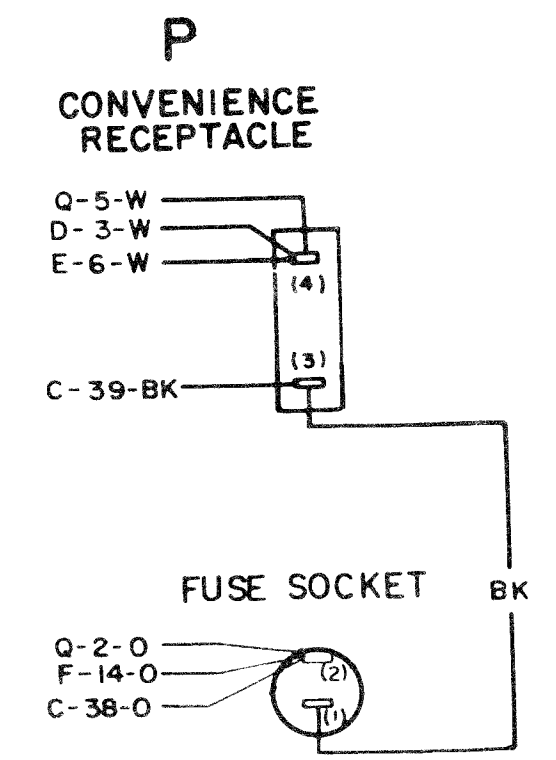
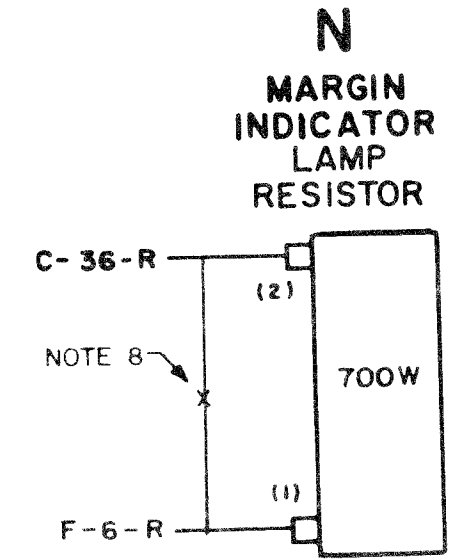
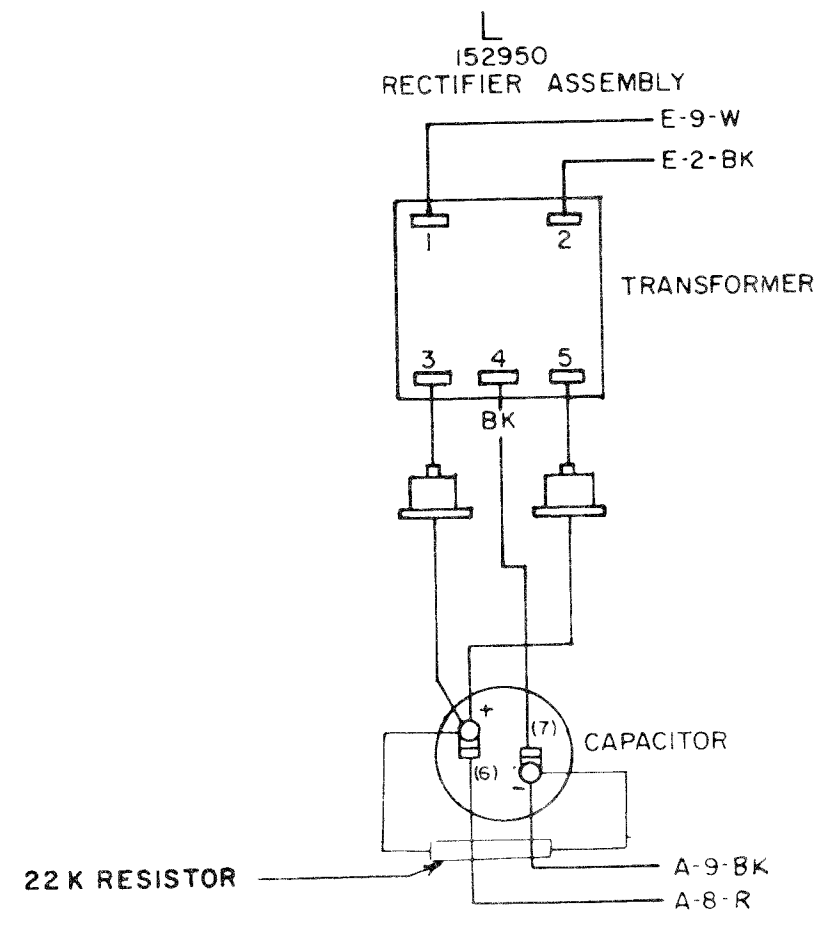
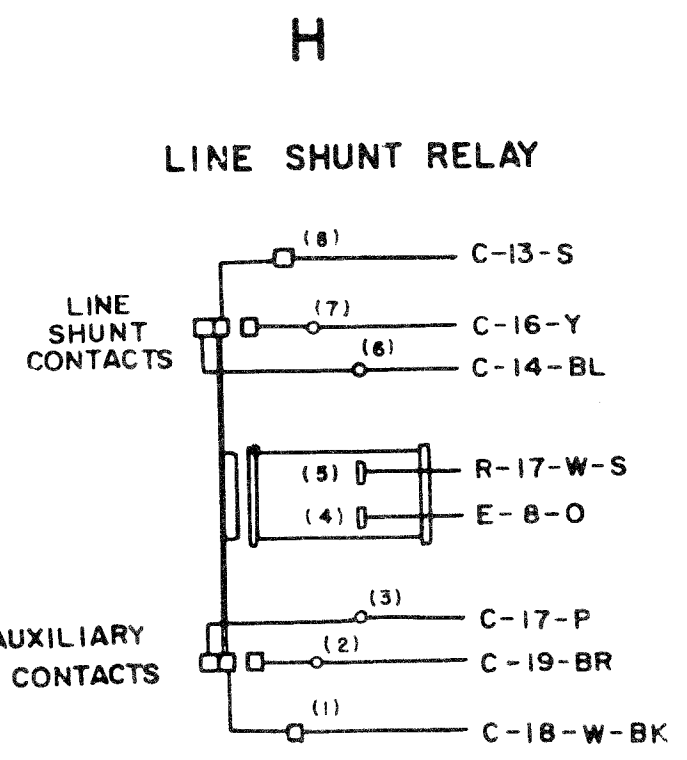
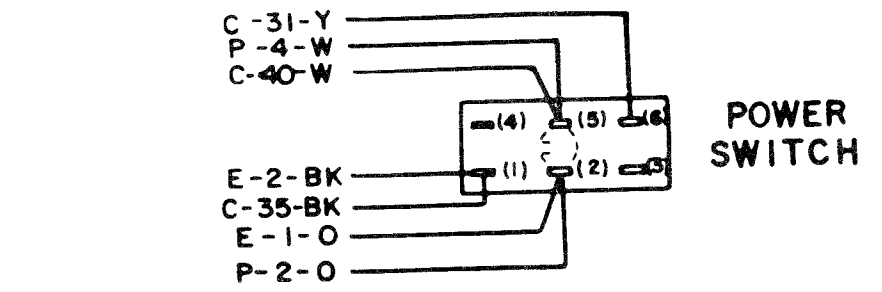
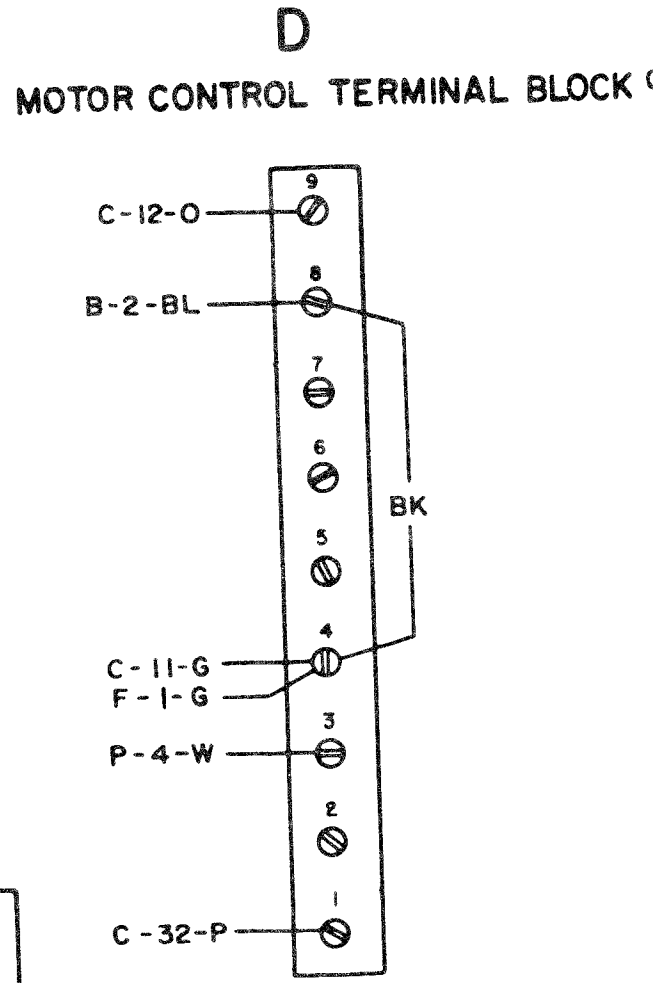
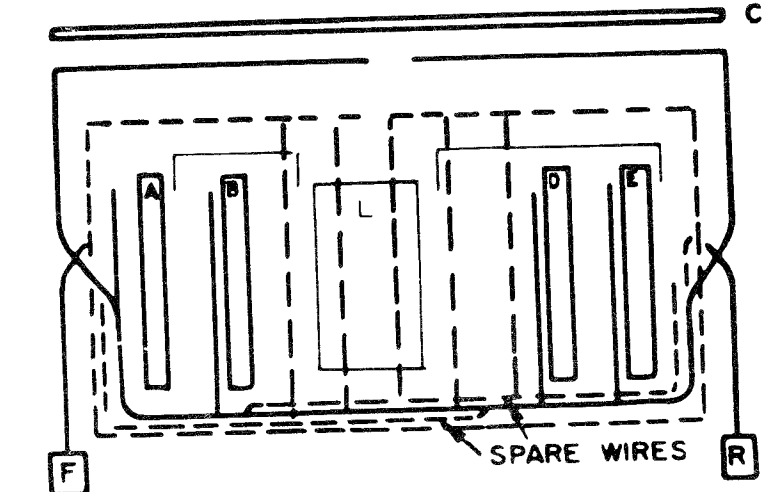
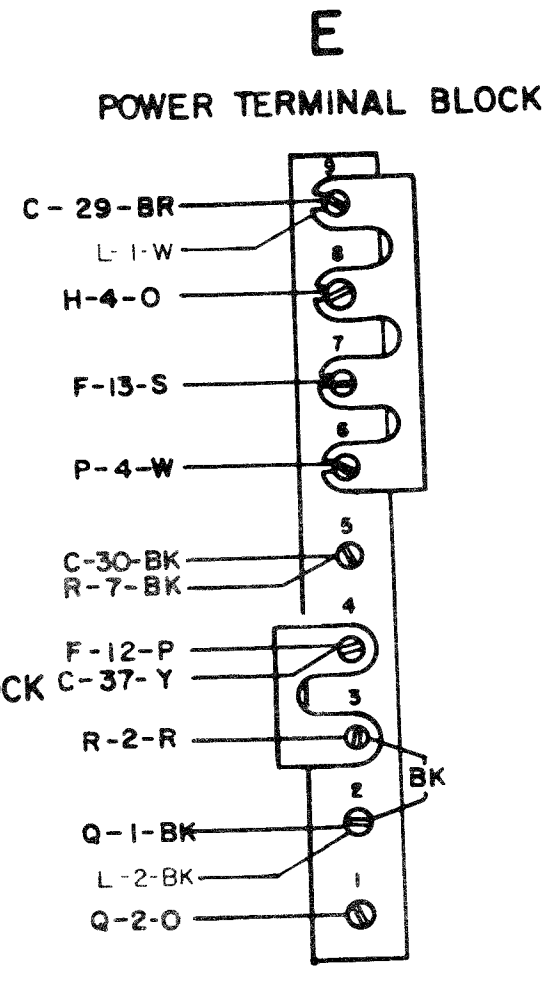
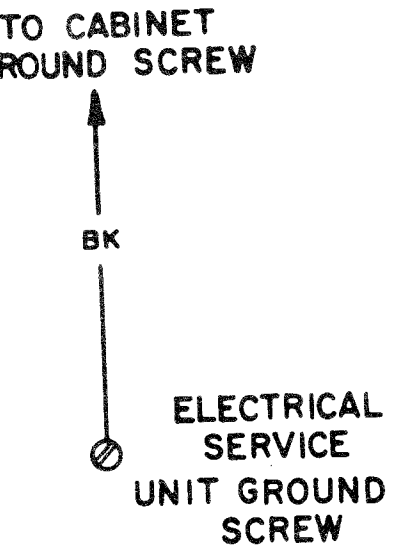
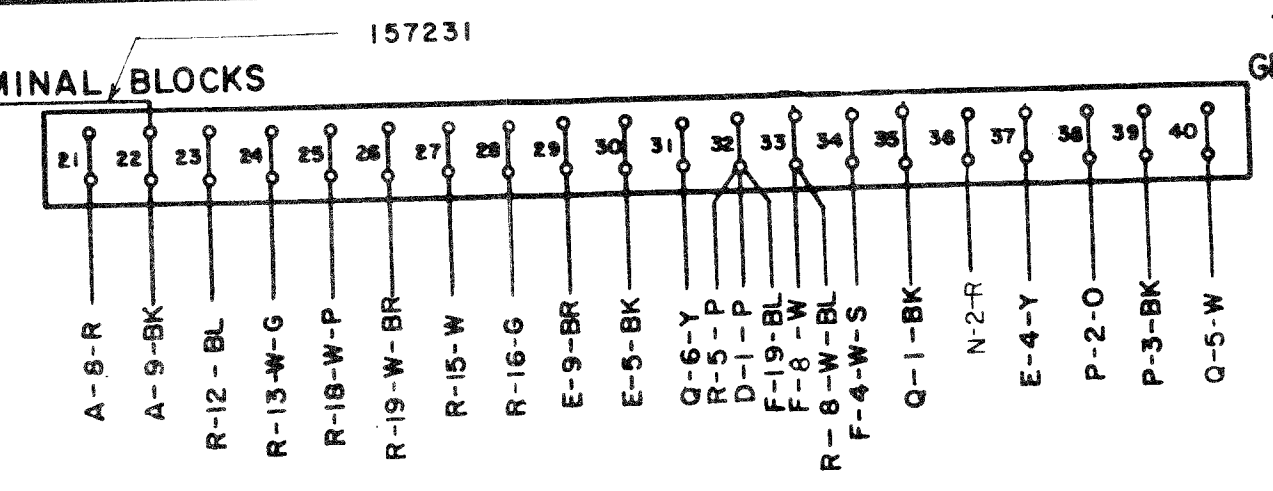
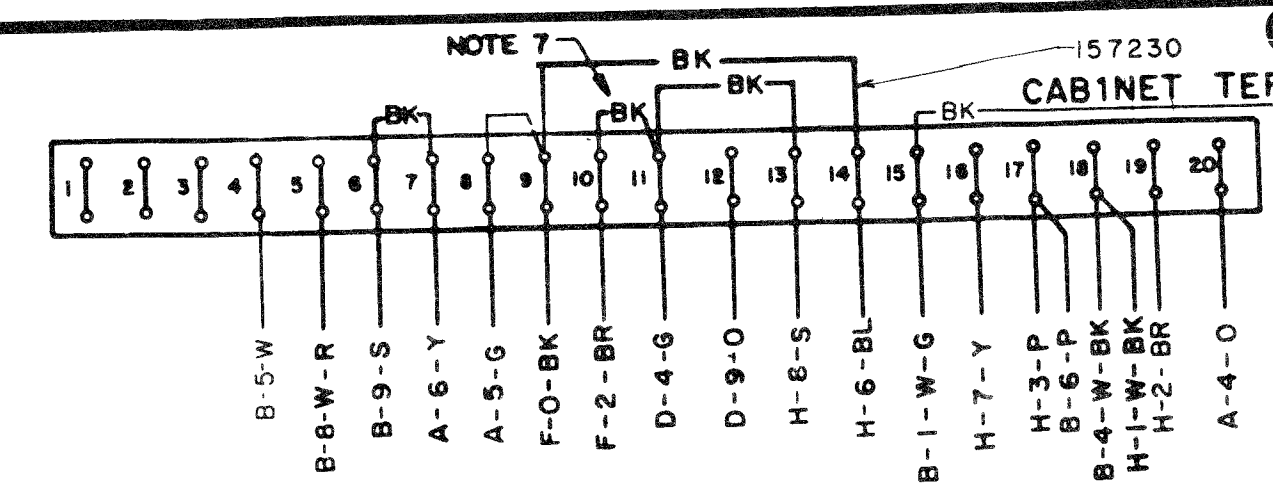
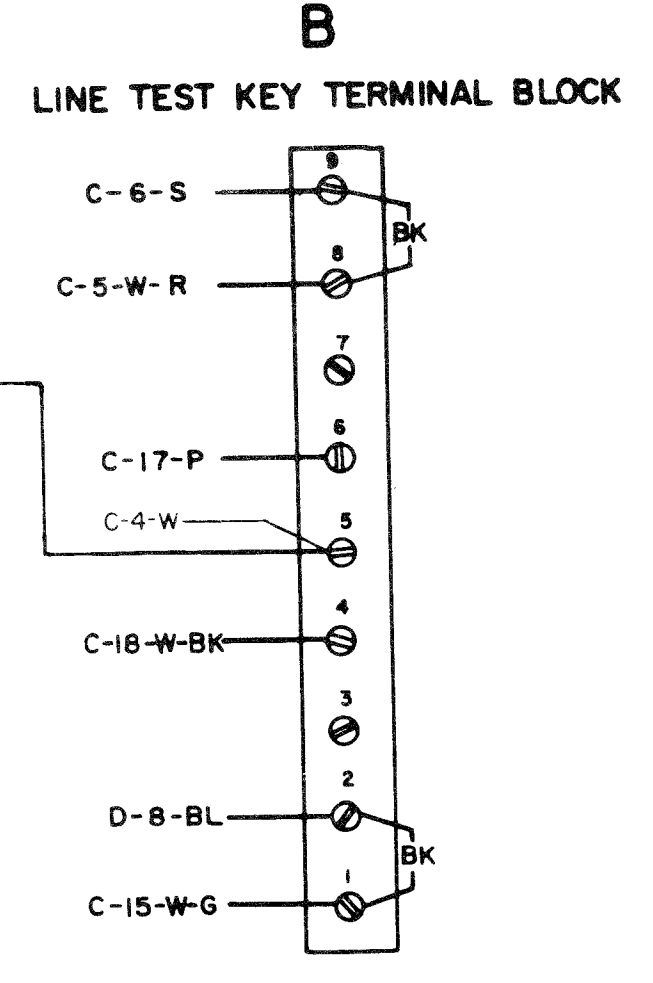
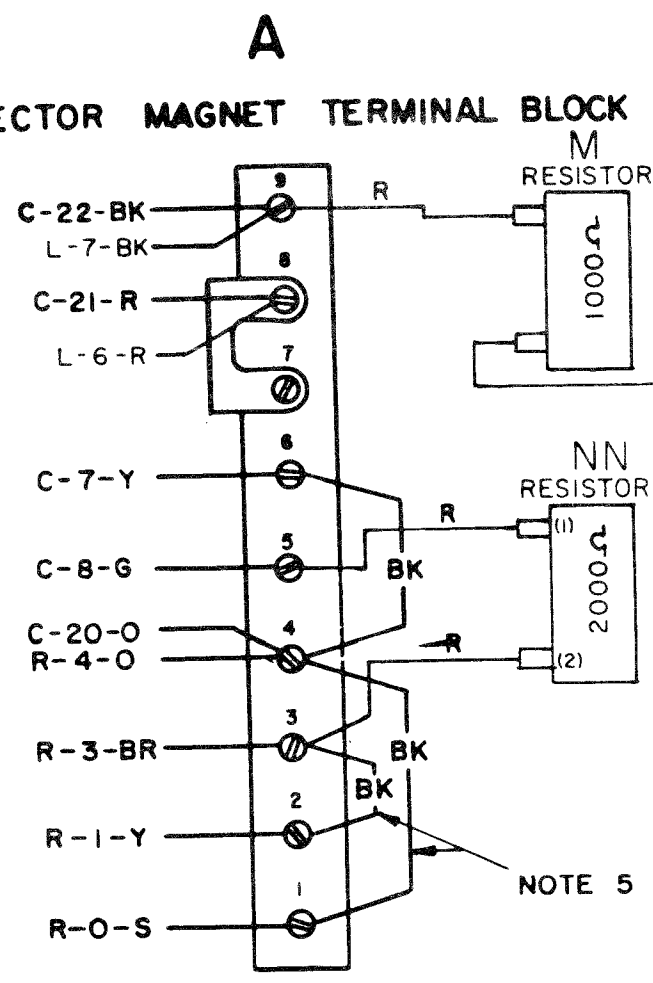
SCHEMATIC WIRING DIAGRAM
MODEL 28
REPERFORATOR BASE
LRB 21,30
ELECT SERVICE UNIT
LESU96

APPROVALS	
D AND B	E OF M
E-NUMBER	
PROD. NO 5931 WD	
DATE	
P.D. FILE NO. 1-49.65AA	
DRAWN E E	CHKD
ENGR R S P	APPC
TELETYPE CORPORATION	

FOR CUSTOMERS USE

WDP

6489 WD		
REVISIONS		
ISSUE	DATE	AUTHOR
2	7-29-63	88100
3	5-19-61	53282



FOR SCHEMATIC SEE 6490WD

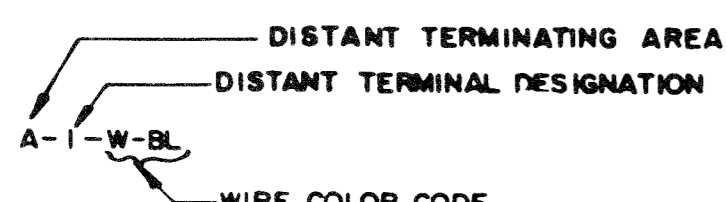
ACTUAL WIRING DIAGRAM MODEL 28 ELECTRICAL SERVICE UNIT LESU107

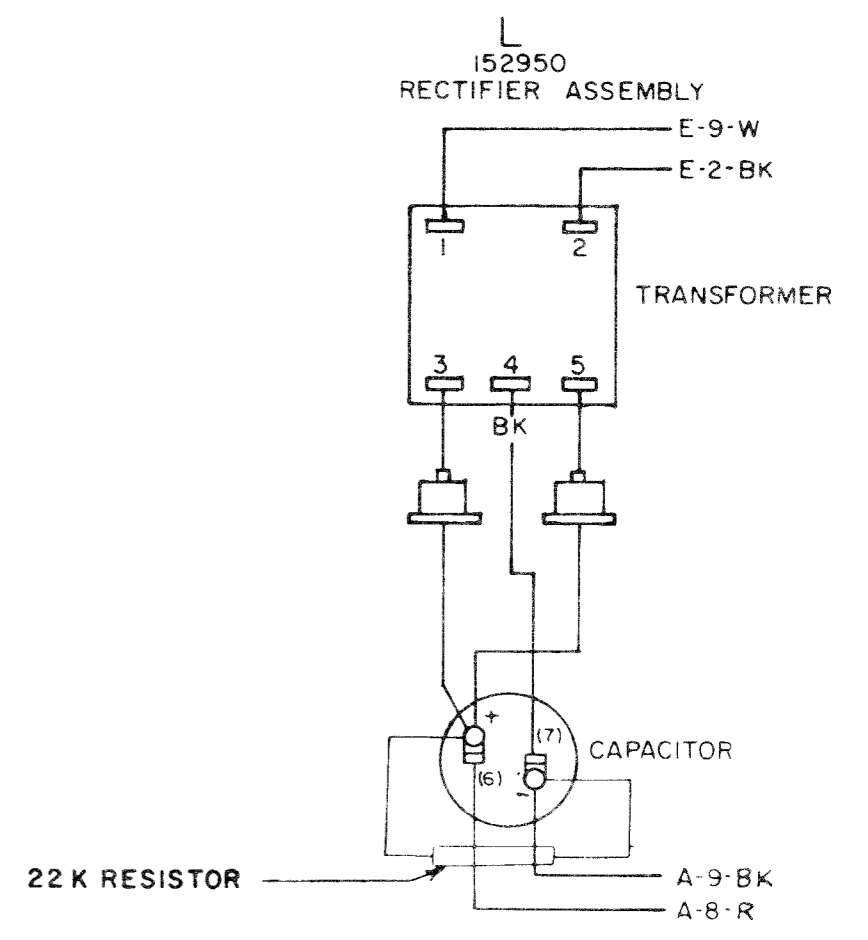
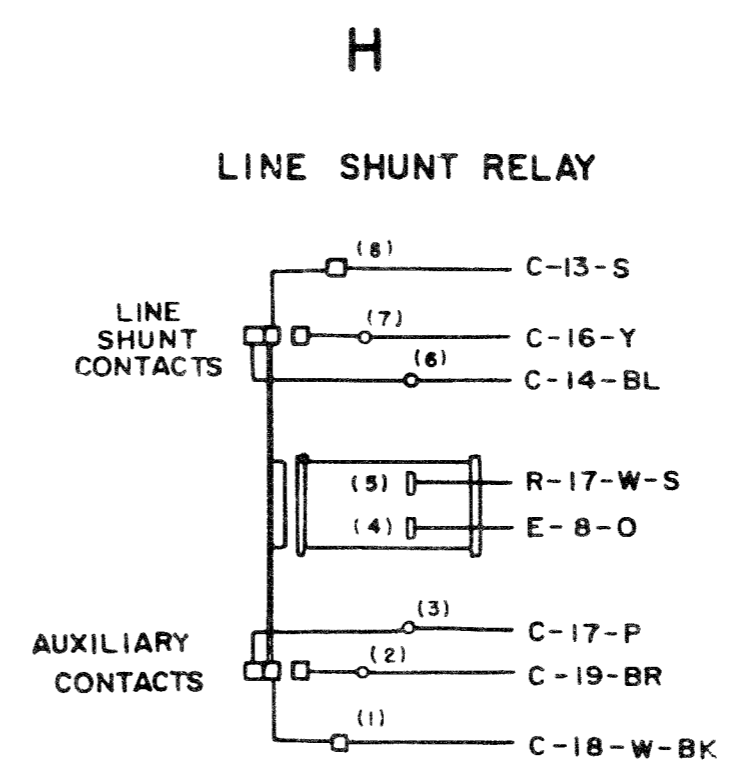
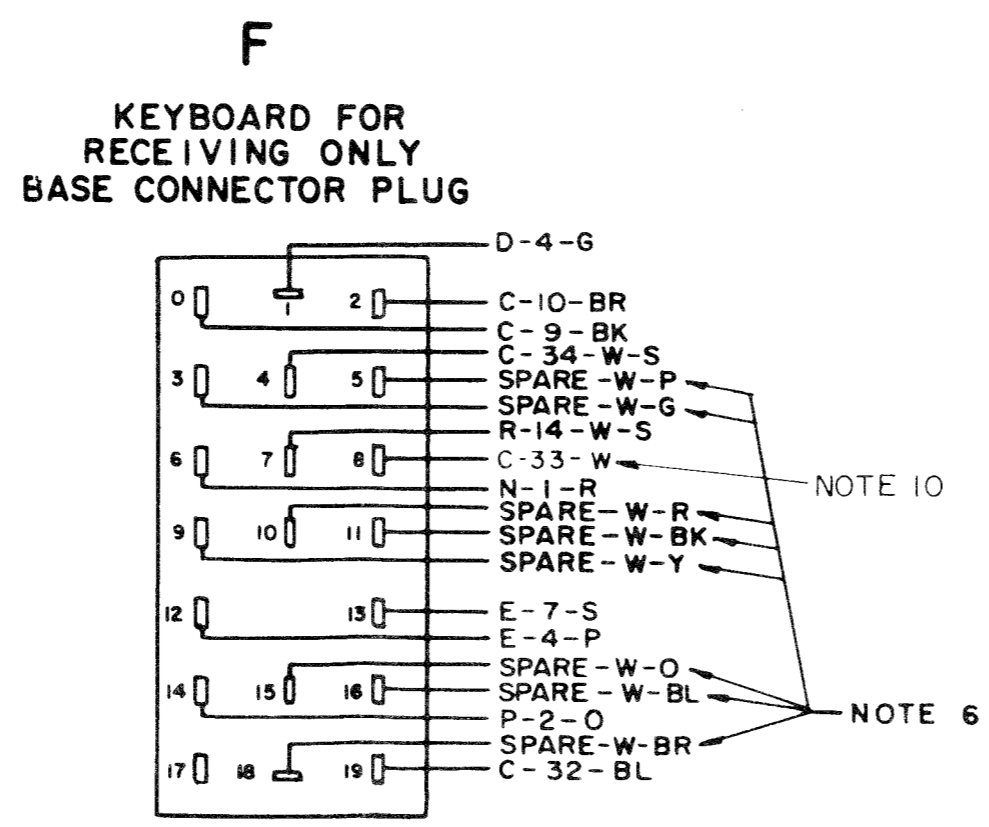
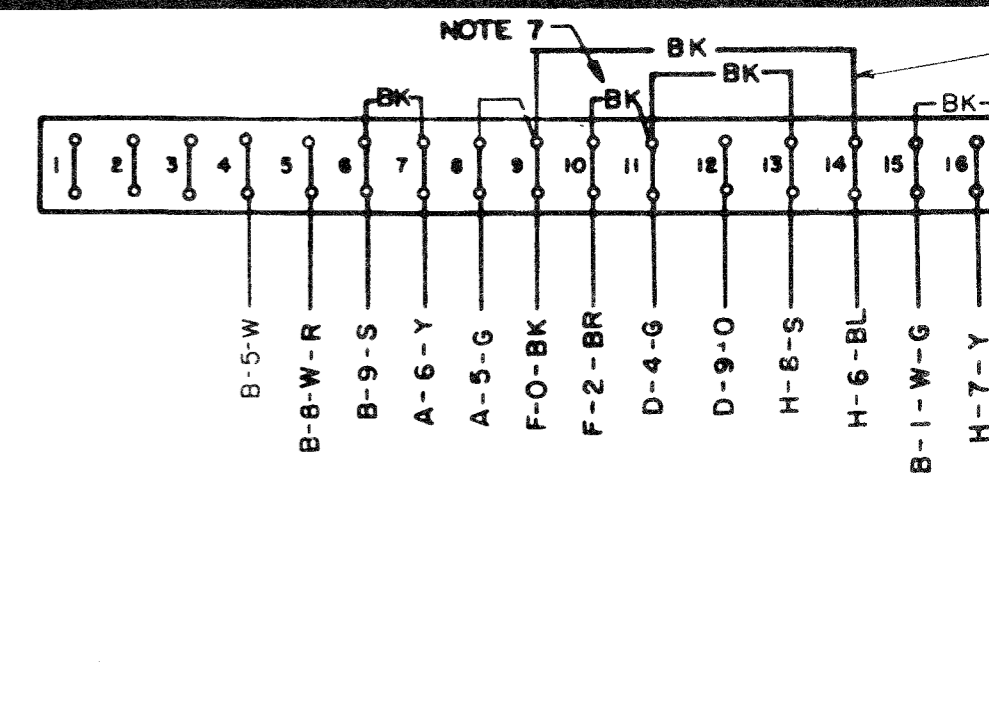
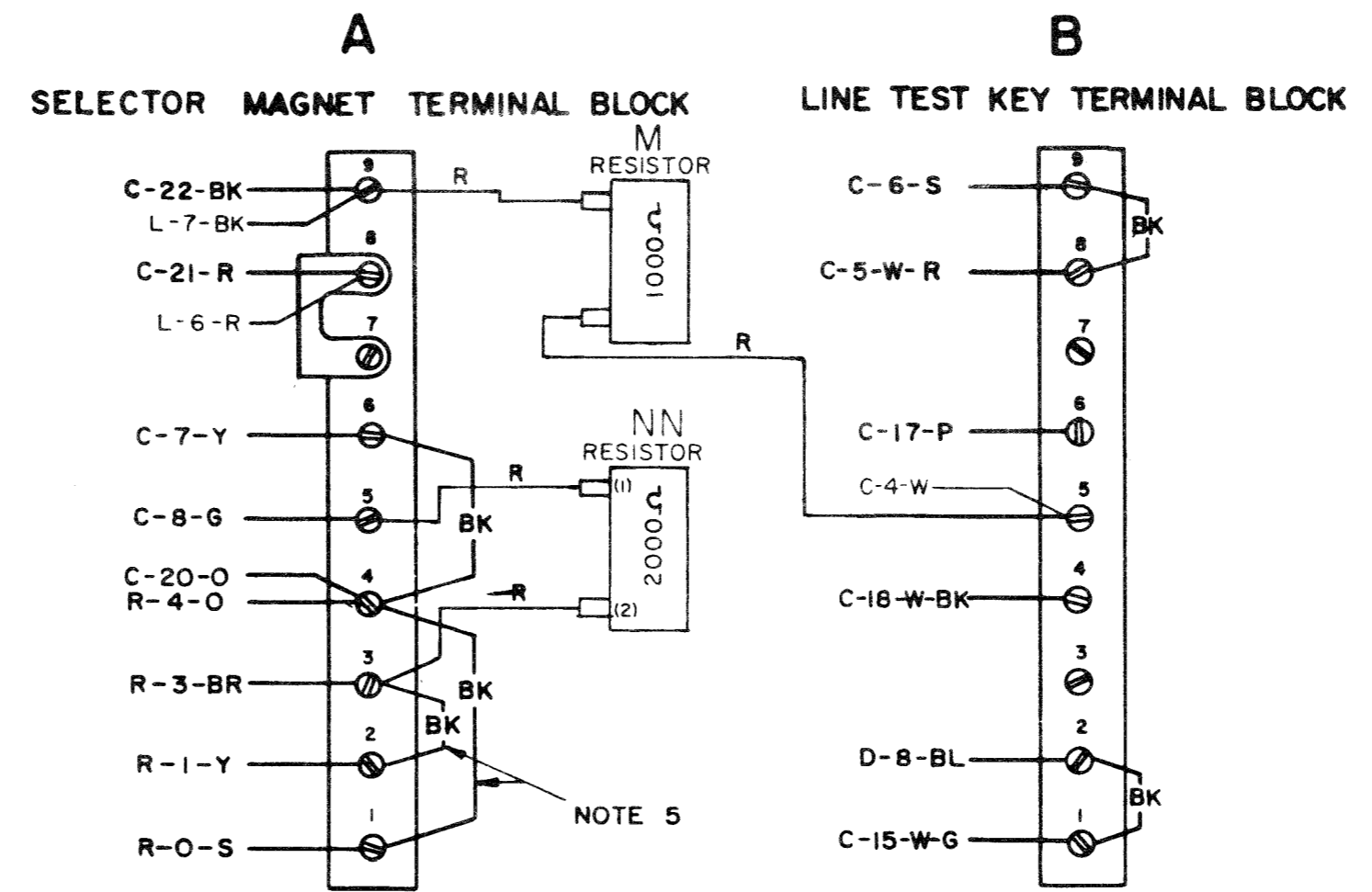
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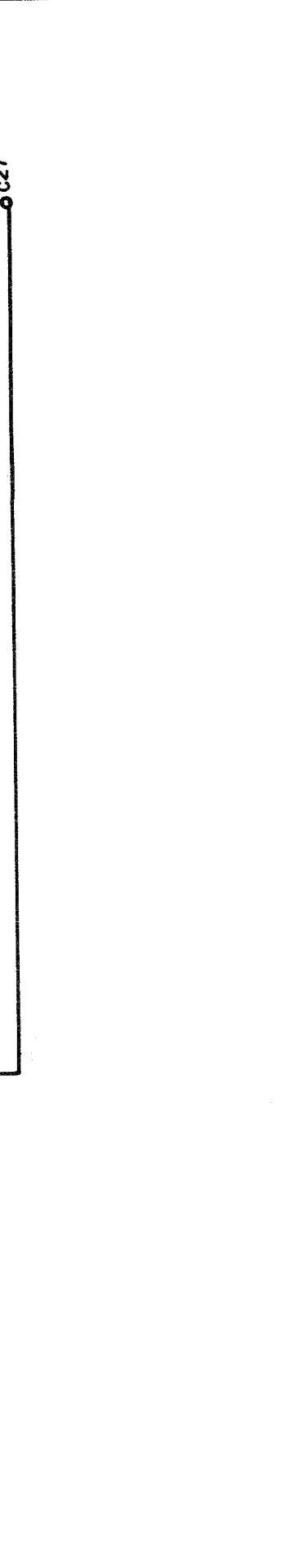
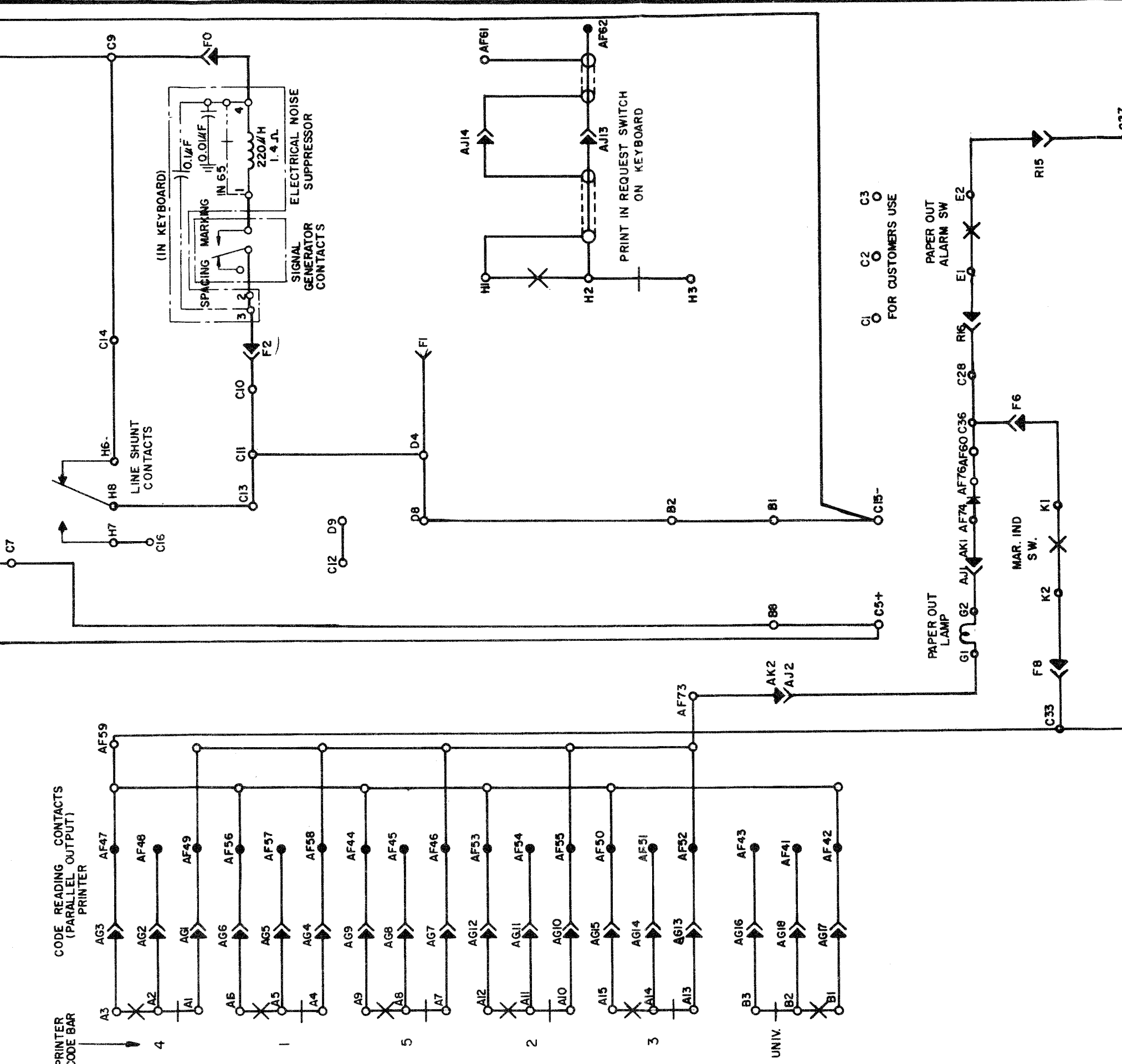
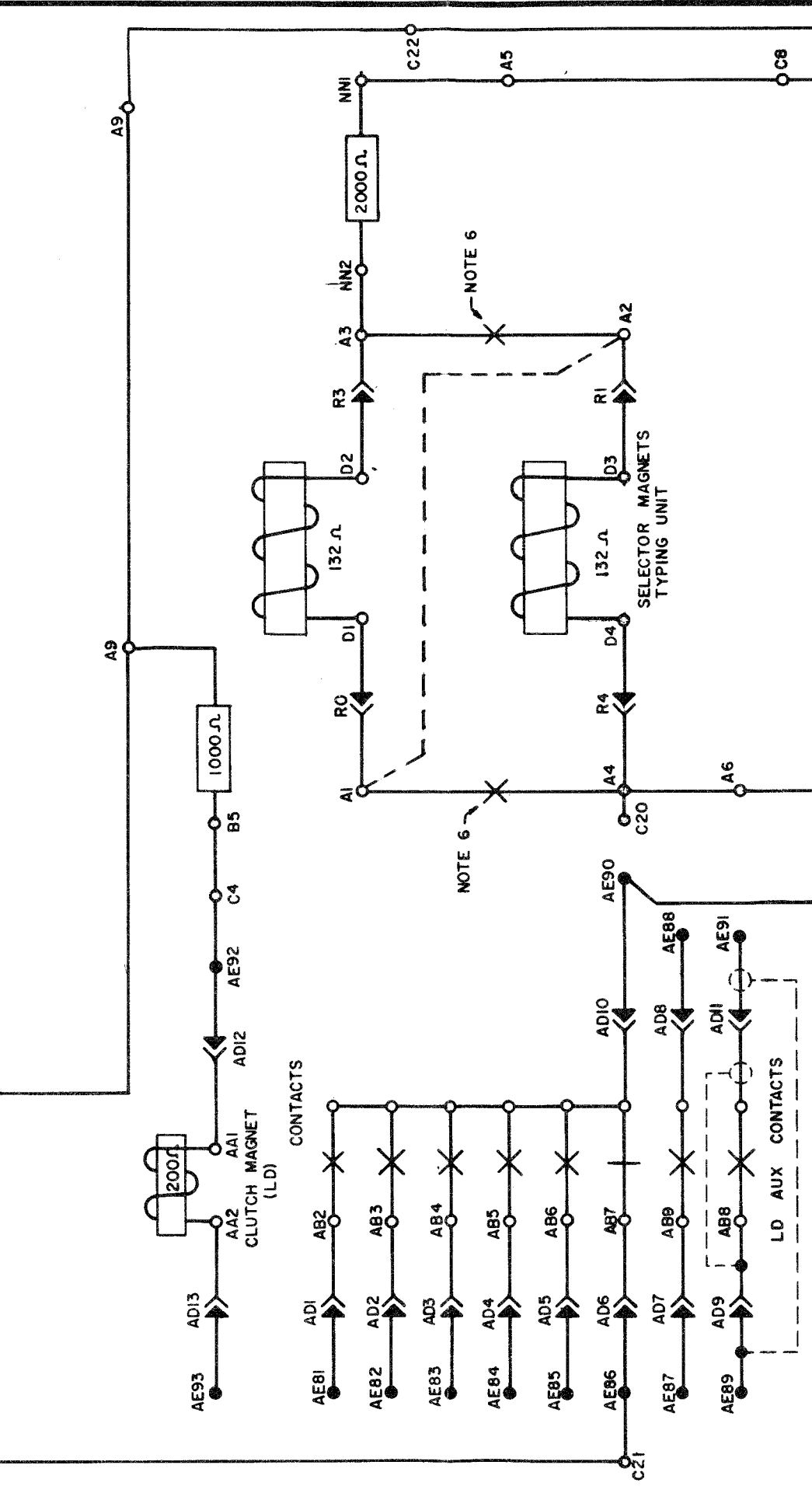
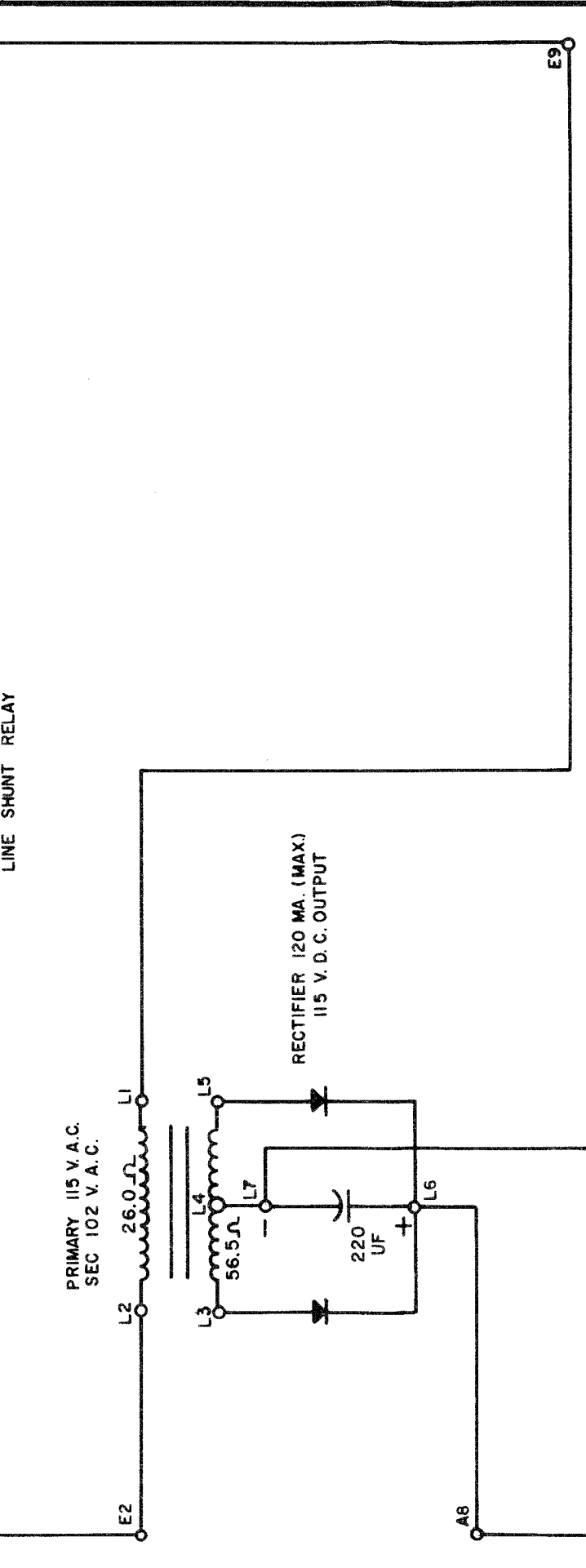
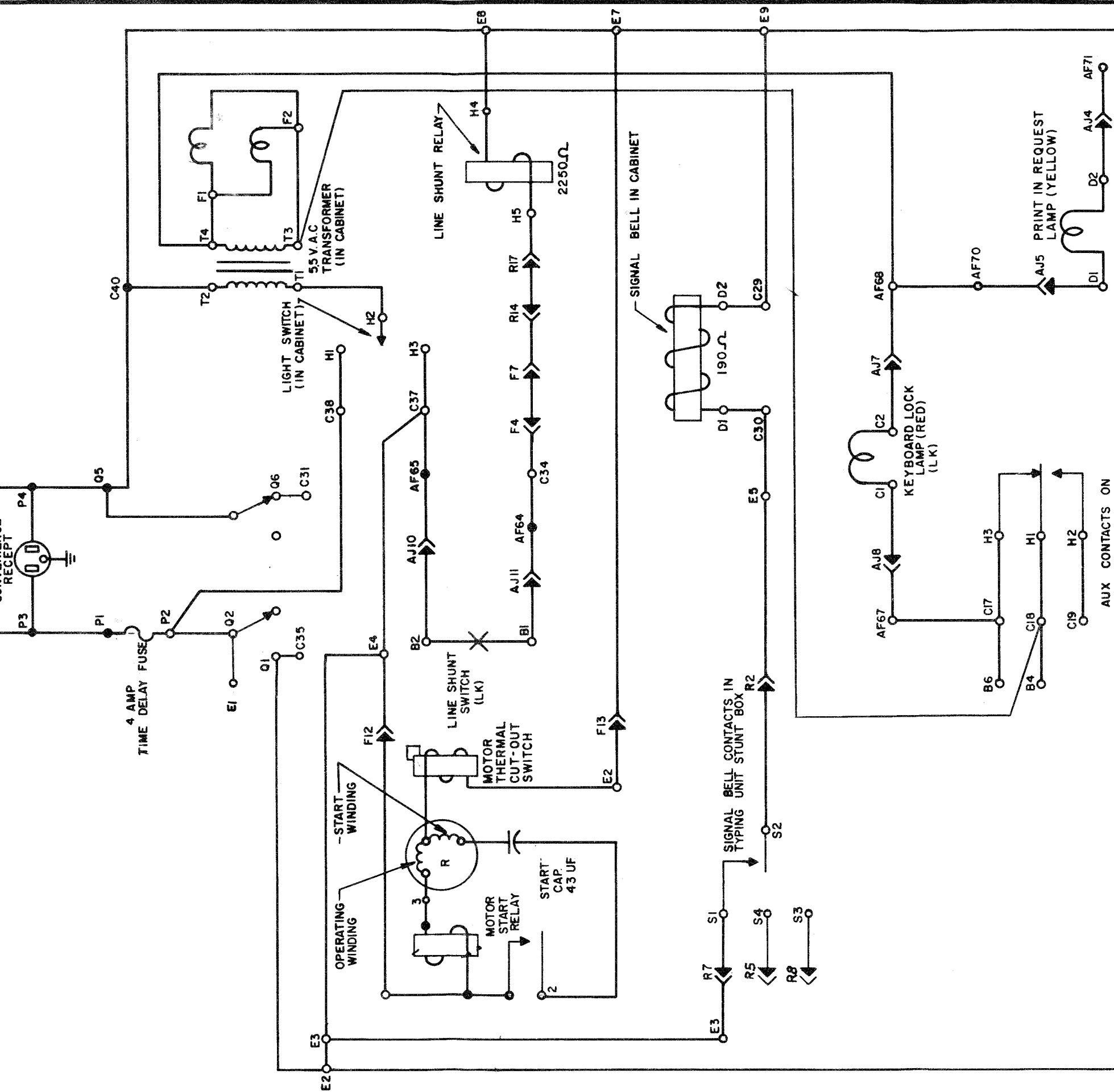
D AND R	E OF M
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DATE: 6-7-63
P.D. FILE NO. 25-A65 219A

E-NUMBER
PROD. NO. 6489WD
DRAWN BY G. CHW.3.
ENGR. J.C.F. APP. [Signature]
TELETYPE CORPORATION
6489 WD

NO.	NOTES																				
1.	WIRING LEGEND:  <p>DISTANT TERMINATING AREA DISTANT TERMINAL DESIGNATION WIRE COLOR CODE</p>																				
2.	COLOR CODE <table border="0"> <tr> <td>BK-BLACK</td> <td>W-BK-WHITE-BLACK</td> </tr> <tr> <td>BR-BROWN</td> <td>W-BR-WHITE-BROWN</td> </tr> <tr> <td>R-RED</td> <td>W-R-WHITE-RED</td> </tr> <tr> <td>O-ORANGE</td> <td>W-O-WHITE-ORANGE</td> </tr> <tr> <td>Y-YELLOW</td> <td>W-Y-WHITE-YELLOW</td> </tr> <tr> <td>G-GREEN</td> <td>W-G-WHITE-GREEN</td> </tr> <tr> <td>BL-BLUE</td> <td>W-BL-WHITE-BLUE</td> </tr> <tr> <td>P-PURPLE</td> <td>W-P-WHITE-PURPLE</td> </tr> <tr> <td>W-WHITE</td> <td>W-S-WHITE-SLATE</td> </tr> <tr> <td>S-SLATE</td> <td></td> </tr> </table>	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	
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 .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION REMOVE AND ADD CONNECTIONS AS FOLLOWS: <table border="1"> <thead> <tr> <th>SIGNAL LINE CURRENT</th> <th>CONNECTIONS REMOVED</th> <th>CONN. ADDED</th> </tr> </thead> <tbody> <tr> <td>.020 AMP.</td> <td>A1-A4, A2-A3</td> <td>A1-A2*</td> </tr> </tbody> </table> <p>* PLACE TWO STRAPS IN PARALLEL</p>	SIGNAL LINE CURRENT	CONNECTIONS REMOVED	CONN. ADDED	.020 AMP.	A1-A4, A2-A3	A1-A2*														
SIGNAL LINE CURRENT	CONNECTIONS REMOVED	CONN. ADDED																			
.020 AMP.	A1-A4, A2-A3	A1-A2*																			
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.																				





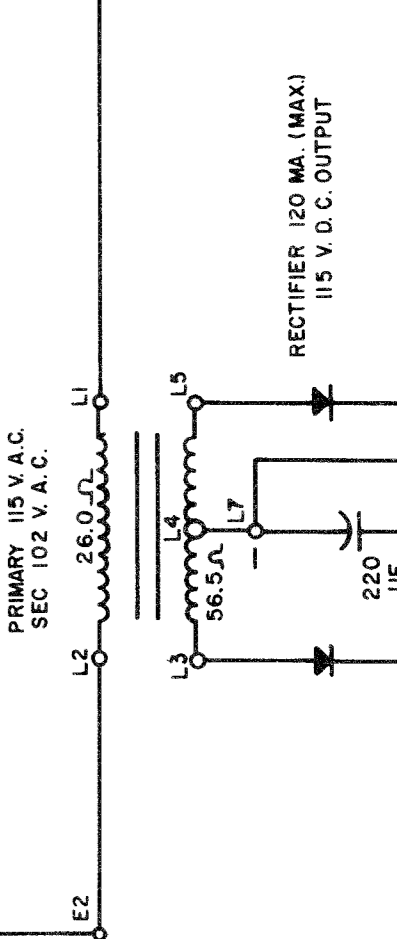
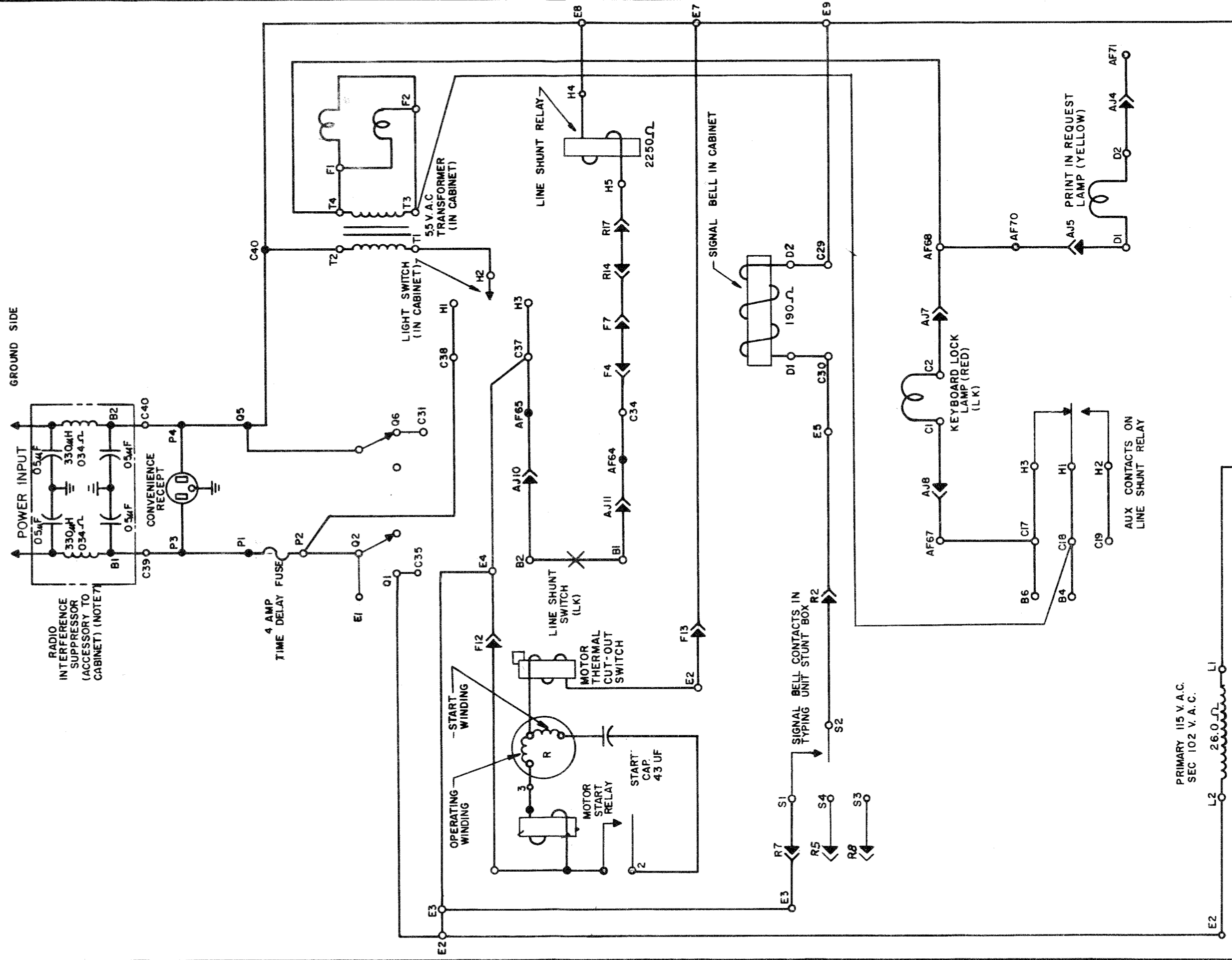
6490 WD	
REVISONS	
ISSUE DATE	AUTH. NO.
2 4-27-65	86827

SCHEMATIC WIRING DIAGRAM
MODEL 28
PAGE PRINTER SET WITH FACILITIES PROVIDED BY ELECTRICAL SERVICE UNIT LES107 AND ASSOCIATED UNITS

APPROVALS	
D AND R	E OF M
E-NUMBER	
PROD. NO. 6490WD	

DATE: 6-15-63
 P.D. FILE NO. 25A65-000A
 DRAWN: R.K.G. CHKD.: J.C.F.
 ENGR. J.C.F. APPD.: J.C.F.
TELETYPE CORPORATION
6490 WD

NO.	NOTES
1	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE UNITS DIRECTLY OPERABLE WITH LESU107. 6486WD ACTUAL LK45 6487WD ACTUAL LPI15 6488WD ACTUAL LAC222 6489WD ACTUAL LESU107 2900WD MOTOR UNIT
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 BASE CONNECTOR ○ R TYPING UNIT CONNECTOR ○ S MOTOR TERMINAL BLOCK ON LK ● AE CABINET TERMINAL BLOCK ● AF CABINET TERMINAL BLOCK ▲ AH CABINET CONNECTOR ▲ AK CABINET CONNECTOR ▲ AJ CABINET CONNECTOR ▲ AG PRINTER CONNECTOR ▲ AC DISTRIBUTOR CONNECTOR ▲ AD CABINET 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 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 .020 AMP LINE CURRENT ADD DASHED (---). CONNECTIONS MARKED (X) IN SELECTOR MAGNET CIRCUIT.
7	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.
8	USE SYNCHRONOUS MOTOR REGULATED 60V(±1%) A.C. POWER ONLY GOVERNED MOTOR AND OTHER POWER CIRCUITS OPERABLE ON 50-60V UNREGULATED A.C.



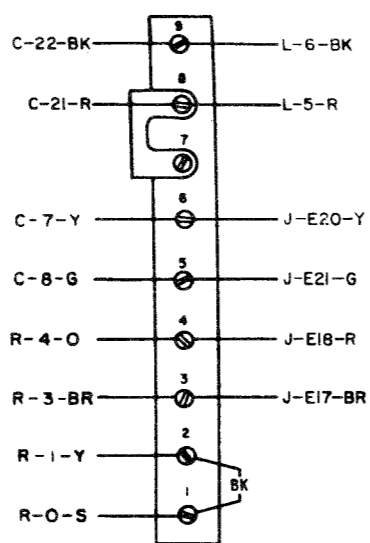
REVISIONS

ISSUE	DATE	AUTH. NO.
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4	5-14-64	81758
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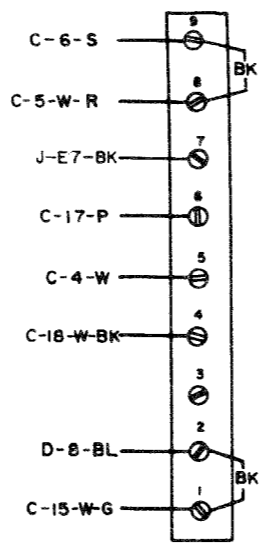
- NO. NOTES**
- WIRING LEGEND:**

 DISTANT TERMINATING AREA
 DISTANT TERMINATING DESIGNATION
 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
 - UNIT WIRED FOR 115 VOLTS, 60 CYCLE A.C. POWER INPUT ONLY.
 - PLUGS VIEWED FROM SOLDER TERMINAL ENDS.
 - ASSOCIATED CABLES:**
 157260 CABLE ASSEMBLY
 304687 CABLE ASSEMBLY (MAIN)
 FOR SCHEMATIC WIRING DIAGRAM, SEE 7167WD.
 - 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.
 - ADD THIS STRAP WHEN ASSOCIATED KEYBOARD OR RECEIVE-ONLY BASE IS NOT EQUIPPED WITH A SIG. LINE BREAK SWITCH.
 - TERMINAL DESIGNATIONS SHOWN IN PARENTHESES ARE FOR REFERENCE AND ARE NOT MARKED ON COMPONENTS.
 - FOR SCHEMATIC WIRING DIAGRAM OF SELECTOR MAGNET DRIVER, SEE 7178WD.
 - SPARE LEADS ARE TO BE TAPED AND TIED BACK TO 157260 CABLE. TERMINALS 41-80 AND CABLE ARE PART OF 154741 MOD. KIT.
 - FOR SCHEMATIC WIRING DIAGRAM OF 190876 RECTIFIER, REFER TO 7127WD. FOR 306631, REFER TO 7287WD.
 - EXTERNAL CIRCUITS TO BE SUPPLIED BY CUSTOMER.

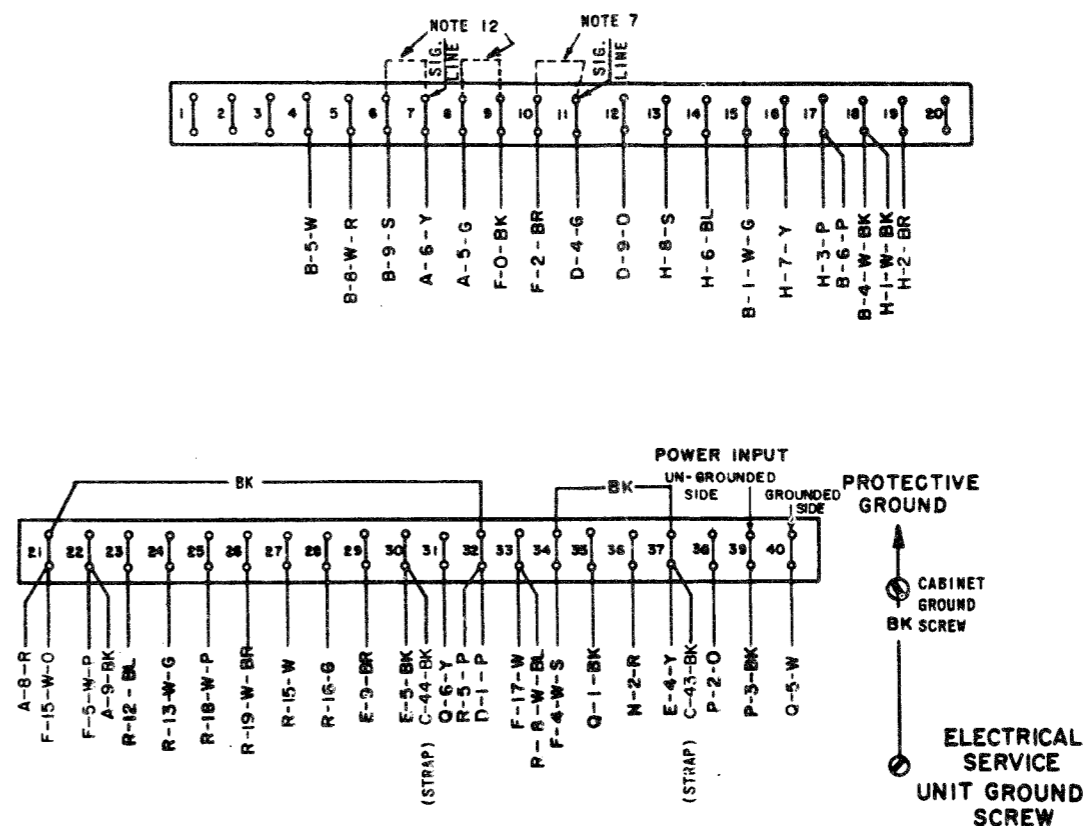
A
SELECTOR MAGNET TERMINAL BLOCK



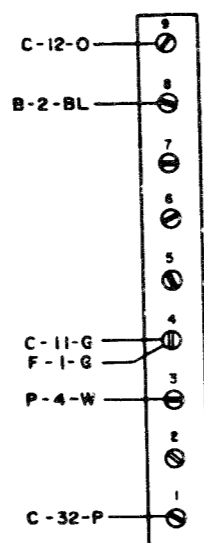
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LINE TEST KEY TERMINAL BLOCK



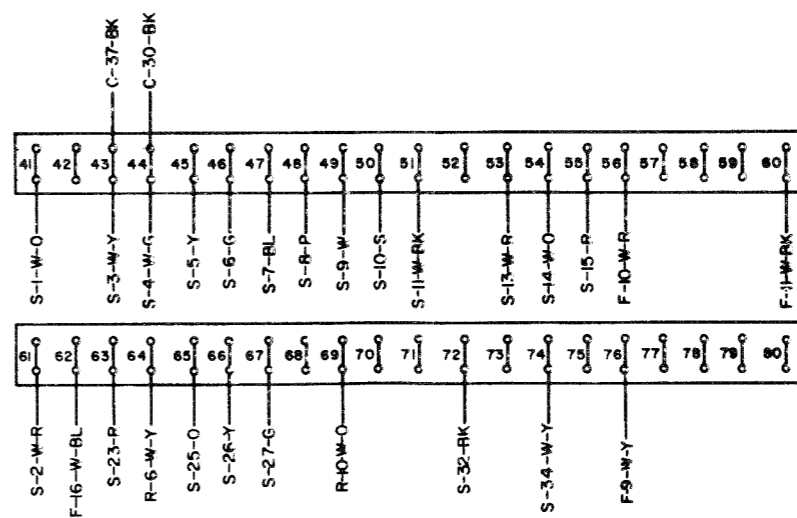
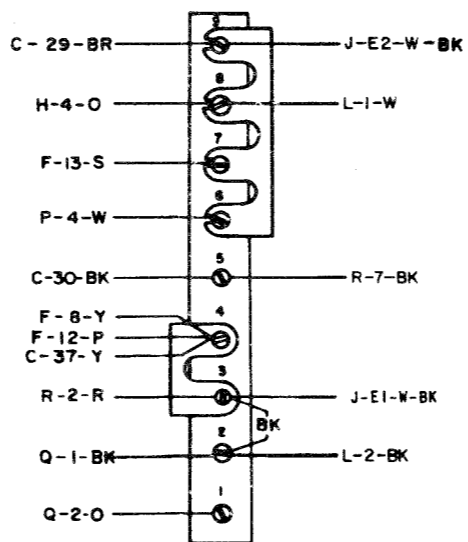
C
CABINET TERMINAL BLOCKS



D
MOTOR CONTROL TERMINAL BLOCK



E
POWER TERMINAL BLOCK



ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT LESU113

APPROVALS

D AND R	E OF M
---	---
E-NUMBER	
PROD. NO. 7156WD	
DATE 1-7-65	
P.D. FILE NO. 11-A28AA	
DRAWN P.J.S.	CHKD.
ENGD. F.G.H.	APPD.

TELETYPE CORPORATION

SEE SHEET 1 FOR NOTES.

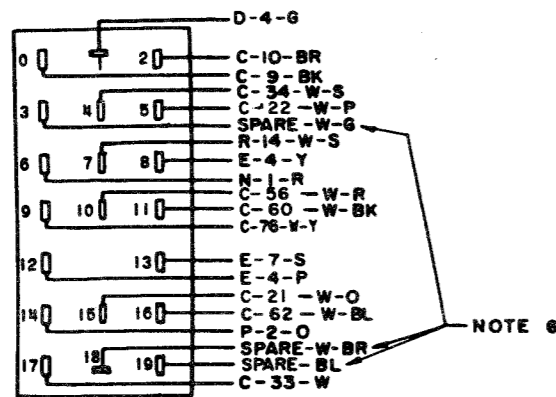
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REVISION INFORMATION MUST ALSO BE
REFLECTED ON THE ISSUE CONTROL REC-
ORD, WHICH IS A PART OF THIS DRAWING.

7156 WD

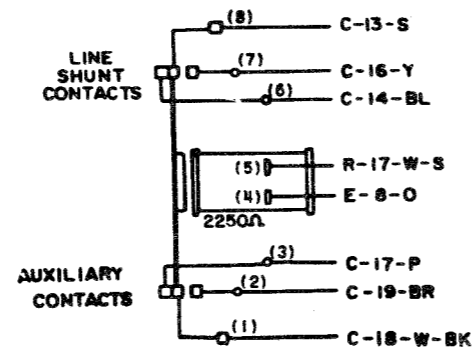
REVISIONS

ISSUE	DATE	AUTH. NO.
A 2	4-14-64	81753
B 3	4-15-64	81755
4	5-18-64	81758
5	1-7-65	84189
6	3-22-68	97526 RC

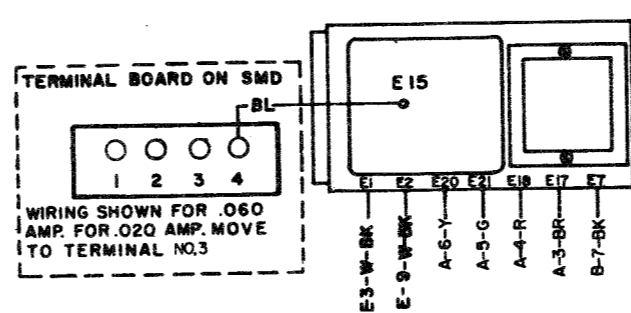
F
KEYBOARD OR
RECEIVING ONLY
BASE CONNECTOR RECEPTACLE



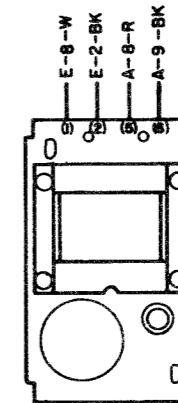
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LINE SHUNT RELAY



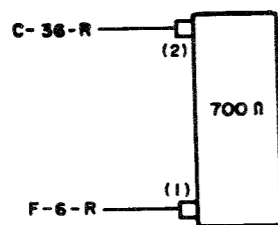
J
SELECTOR MAGNET DRIVER
W/ SEMICONDUCTOR
RECTIFIER
(NOTE 8 & 9)



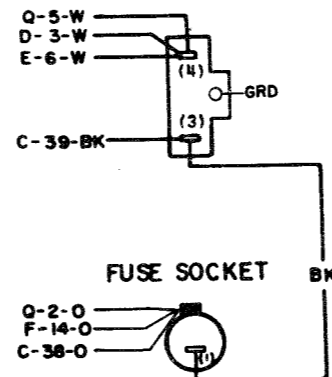
L
RECTIFIER ASSEMBLY
(NOTE 11)



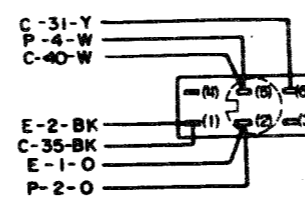
N
MARGIN
INDICATOR
LAMP
RESISTOR



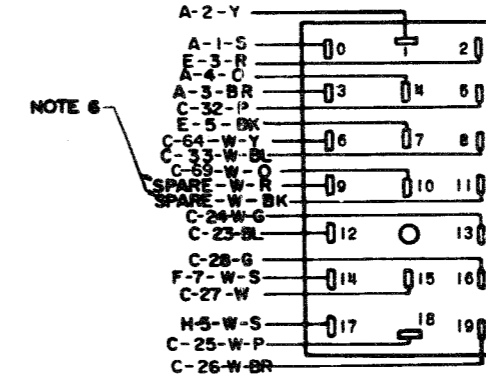
P
CONVENIENCE
RECEPTACLE



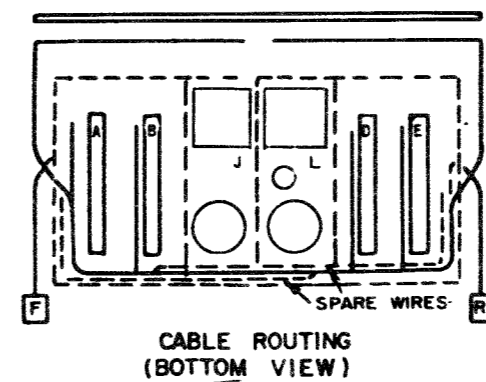
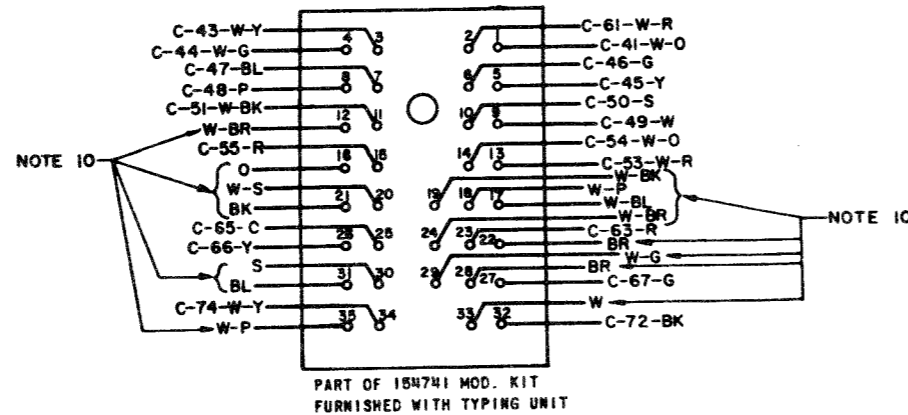
Q
POWER
SWITCH



R
TYPING UNIT CONNECTOR RECEPTACLE



S
RIGHT CONNECTOR RECEPTACLE
& CABLE ASSEMBLY



SEE ISSUE CONTROL RECORD FOR COM-
PLETE LIST OF SHEETS COMPRISING THIS
WD.

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.

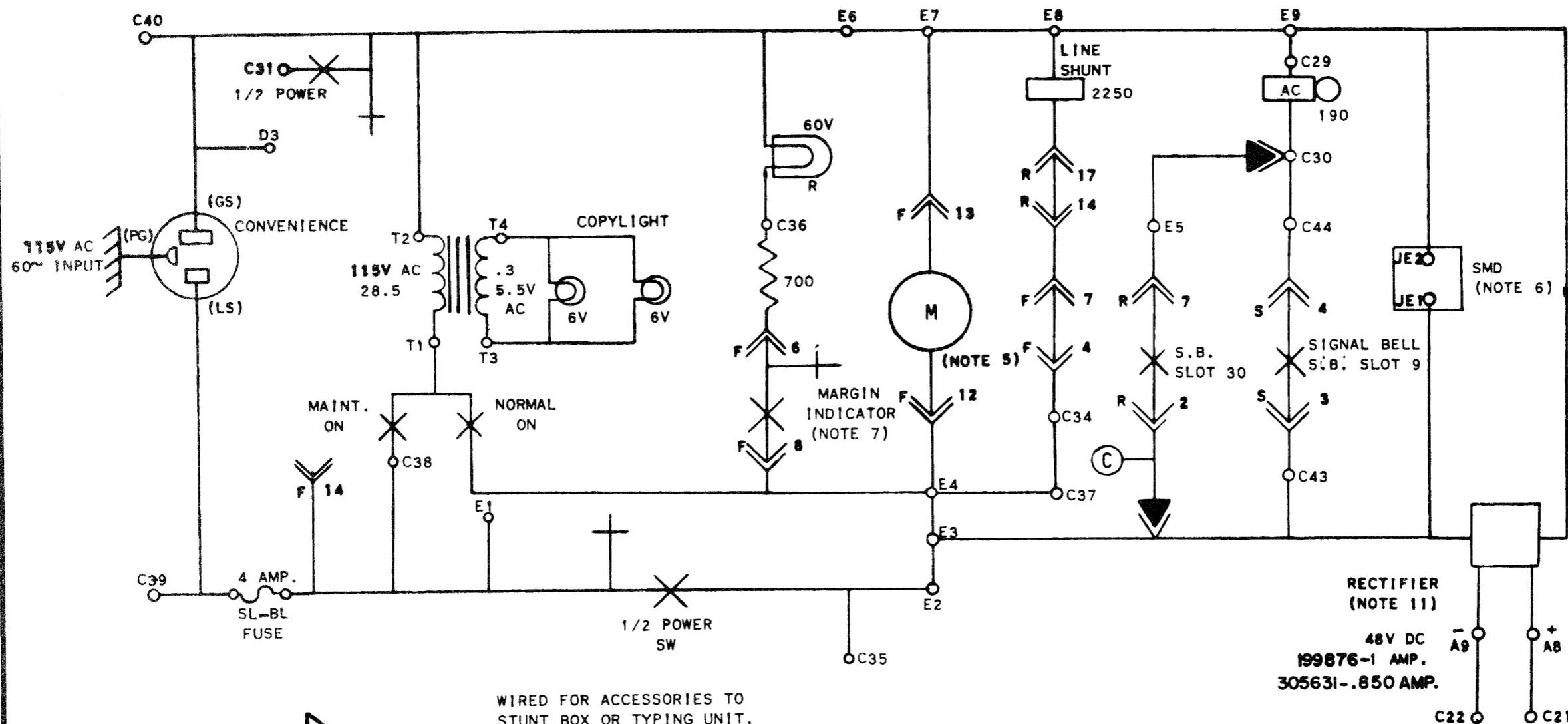
ENGD. F.G.H. APPD.

**TELETYPE
CORPORATION**

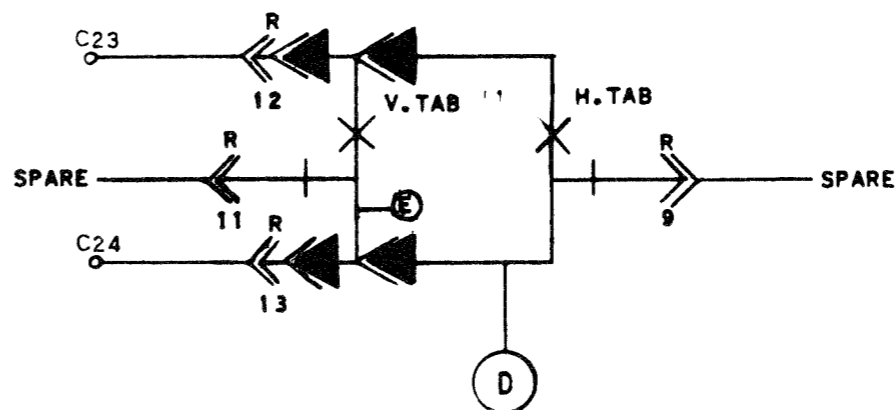
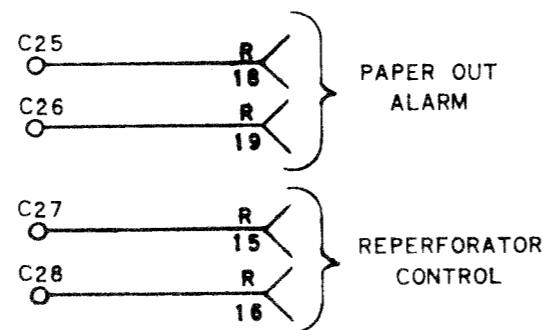
7156 WD

ISSUE	DATE	AUTH. NO.
A2	4-14-64	81753
3	1-7-65	84139

POWER CIRCUIT

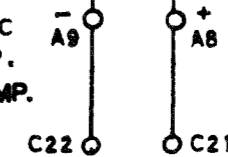


WIRED FOR ACCESSORIES TO STUNT BOX OR TYPING UNIT.



RECTIFIER (NOTE 11)

48V DC
199876-1 AMP.
305631-.850 AMP.



SEE SHEET 2

SEE SHEET 4 FOR NOTES.

SHEET 1 OF 4

SCHEMATIC WIRING DIAGRAM FOR MODEL 20 LESU113

APPROVALS

DESIGNED BY: [Signature]
 CHECKED BY: [Signature]

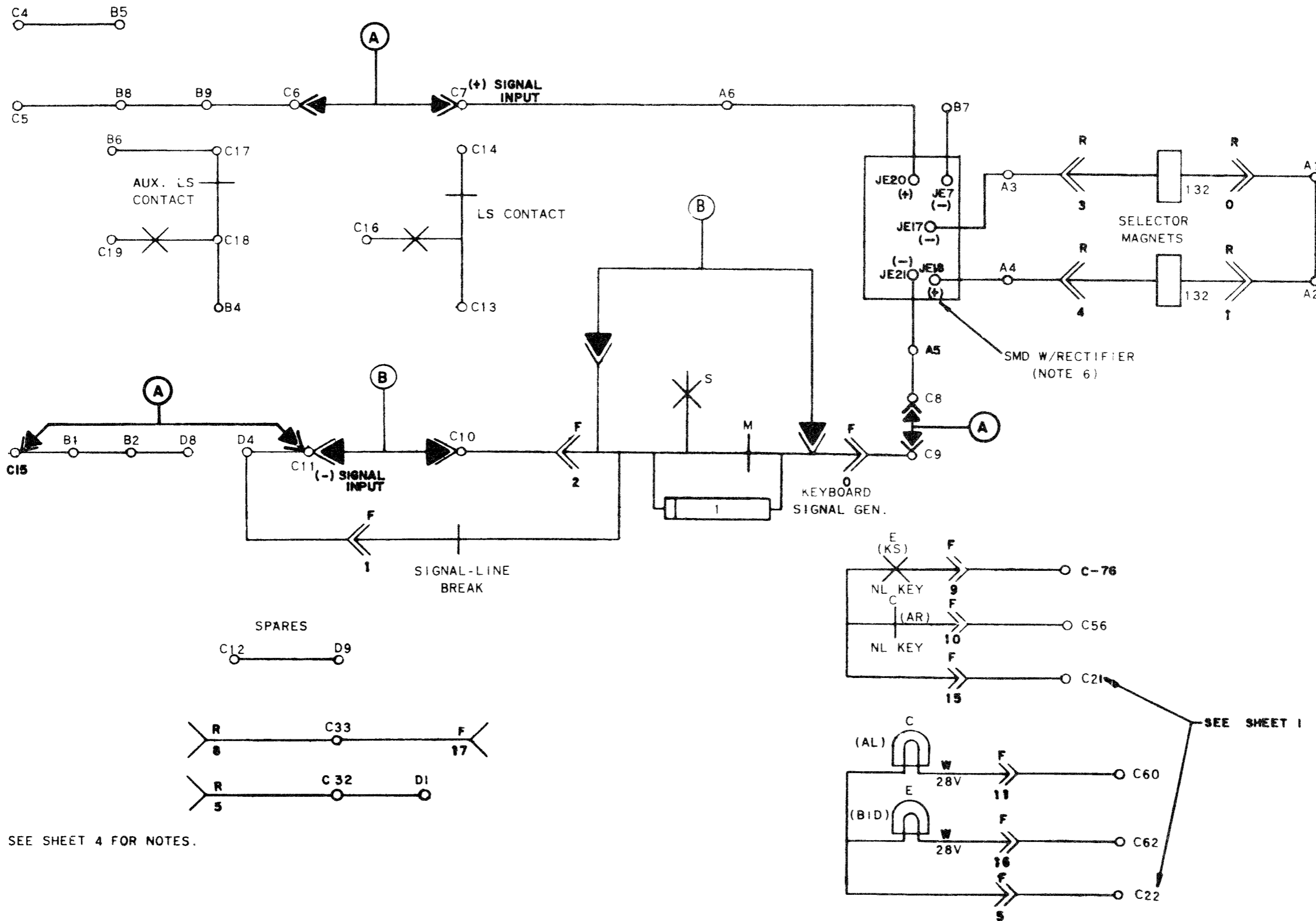
PROG. NO. 7157WD

DATE: 1-6-64
 P.D. FILE NO. 11-A25AA
 DRAWN: PJS
 ENGD: FGH

TELETYPE CORPORATION
 7157 WD

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

SIGNAL CIRCUIT



SEE SHEET 4 FOR NOTES.

SHEET 2 OF 4

SCHEMATIC
WIRING DIAGRAM
FOR MODEL 28
LESL113

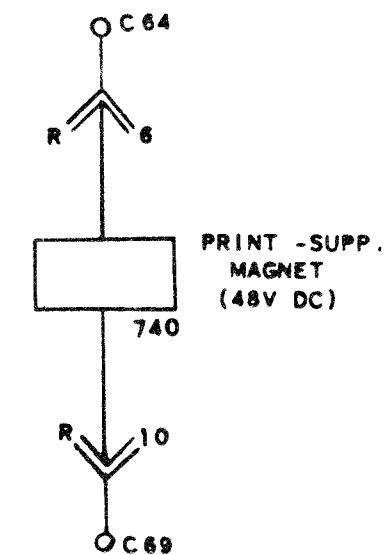
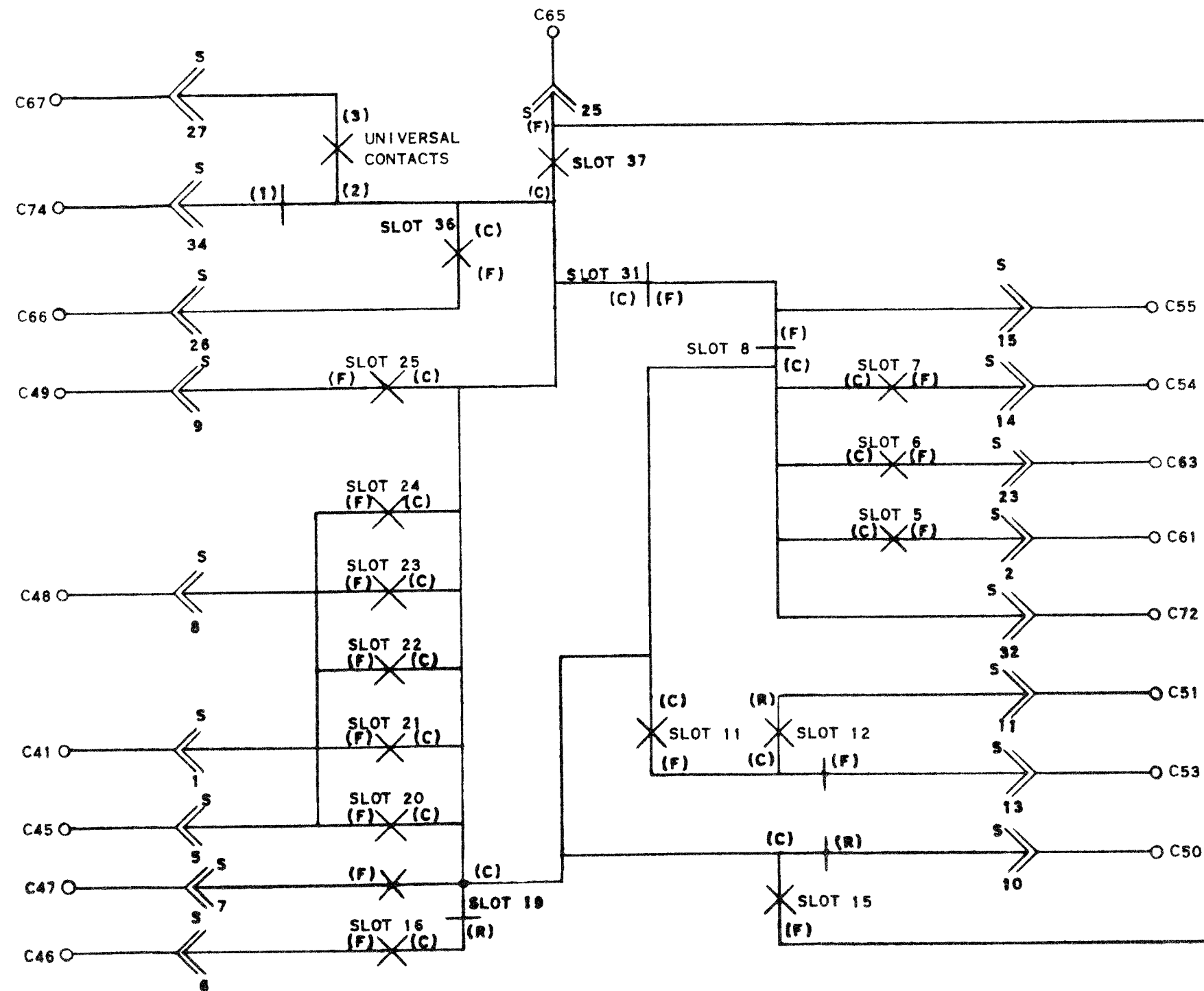
APPROVALS

DATE: 1-7-64
P.D. FILE NO. 11-A25AA
DRAWN: PJS
ENGD. FGH

TELETYPE CORPORATION
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.

SCHEMATIC
WIRING DIAGRAM
FOR MODEL 28
LESU113

APPROVALS

DESIGNED BY <i>WJ</i>	CHECKED BY <i>C1</i>
--------------------------	-------------------------

PROG. NO. 7157WD

DATE: 1-7-64

P.D. FILE NO. 11-A25AA

DRAWN: PJS CHKD: *Tal*

ENGD: FGH APPD: *WJ*

TELETYPE
CORPORATION

ISSUE	DATE	AUTH. NO.
2	4-14-64	81753
3	4-29-64	81756
4	8-14-64	81758
5	1-7-65	84189

NO. NOTES

1. 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 LMU3, LMU6
7020WD	PAGE TYPING UNITS LP118, LP119, LP120
7156WD	ELECTRICAL SERVICE UNIT LESU113
2883WD	BASE, RECEIVING ONLY LB4
7021WD	BASE TYPING UNIT LB121

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 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)

3. ALL APPARATUS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.

4. A. RESISTANCE VALUES IN OHMS
B. INDUCTANCE VALUES IN MICROHENRIES (μH)
C. CAPACITANCE VALUES IN MICROFARADS (μF)

5. FOR MOTOR WIRING DIAGRAM, SEE 2900WD.

6. SELECTOR MAGNET DRIVER, 304605, WIRED FOR .000 AMP. NEUTRAL SIGNAL. FOR OTHER CURRENT OPTIONS, SEE 7175WD SCHEMATIC WIRING DIAGRAM.

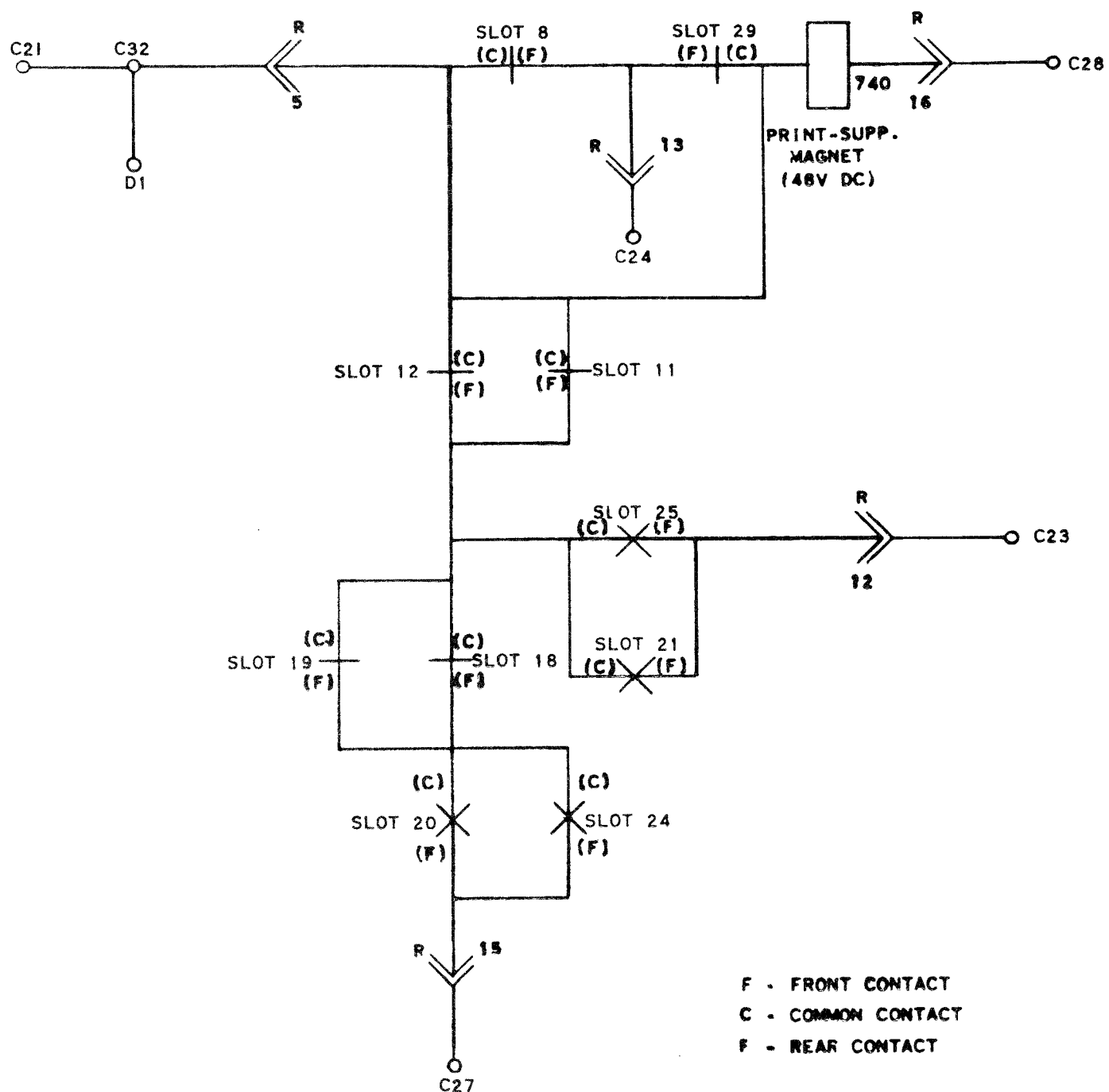
7. MARGIN INDICATOR IS NOT USED ON REC. ONLY BASE (LB4/146).

8. STUNT BOXES AJM, AJN AND AJP ARE USED WITH LP118, LP119 AND LP120 IN THE KSR SET.

9. STUNT BOX AJQ IS USED WITH LP121 IN THE REC. ONLY SET.

11. 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

DESIGNED	BY
CHKD	BY
ENG'D	BY
APP'D	BY

PROG. NO. 7157WD

DATE: 1-8-64

P.D. FILE NO. 11-A25AA

DRAWN PJS CHKD [Signature]

ENGD FGH APP'D [Signature]

TELETYPE CORPORATION

7157 WD

ISSUE CONTROL RECORD

7158 WD

NO. NOTES

SUPPORTING INFORMATION

CONTENTS

SHEET NO.

ISSUE

REVISIONS APPLYING TO THIS CONTROL RECORD

CATEGORY

NO.

1

X X X X X X

2

X X X X X X

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

ISSUE CONTROL SHEET 1 OF 1

ACTUAL WIRING DIAGRAM FOR MODEL 28 ELECTRICAL SERVICE UNIT (ASR SET) LESU 112

WD NUMBER 7158 WD

DRAWN DGS

CHKD.

ENGD. FGH

APPD.

TELETYPE CORPORATION

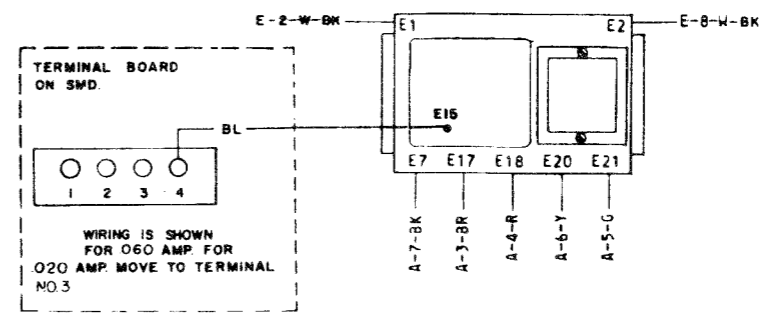
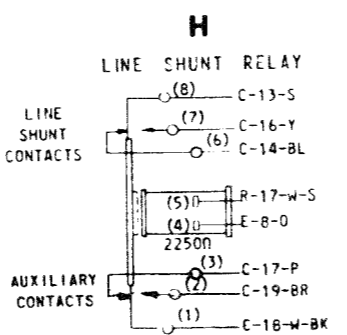
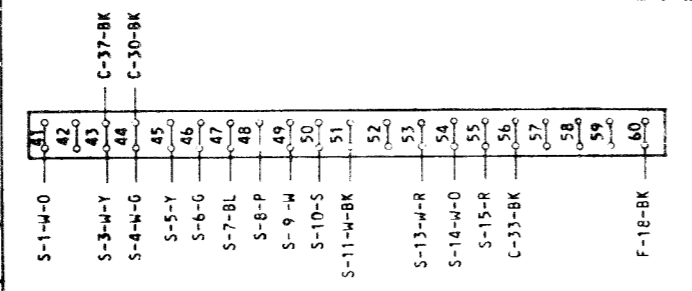
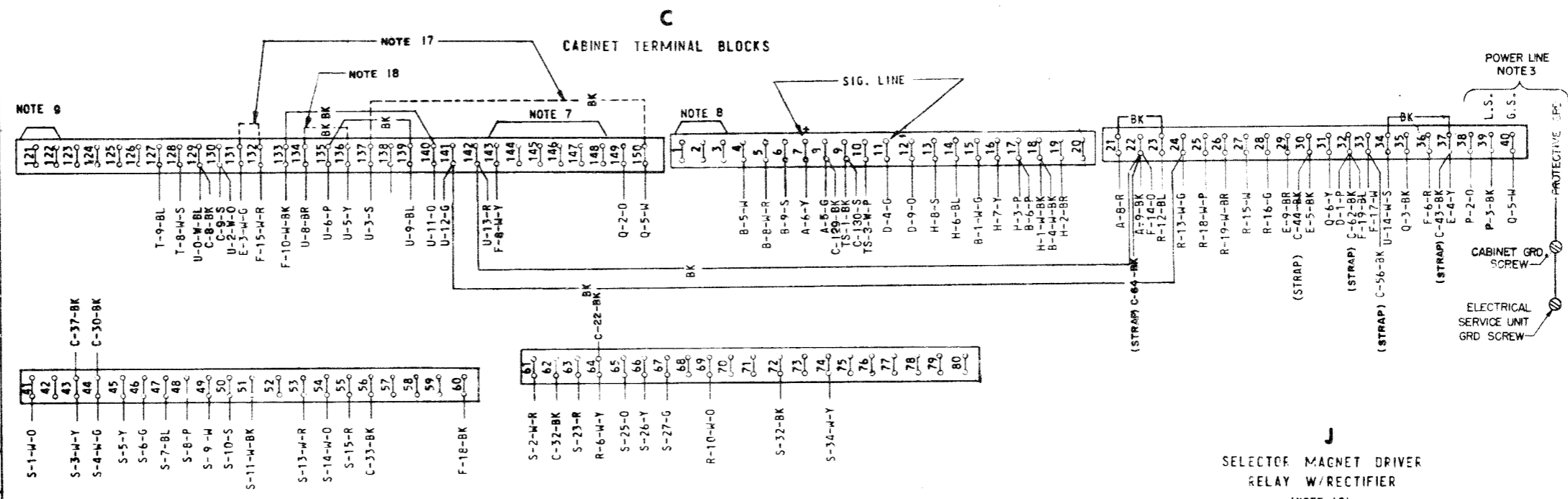
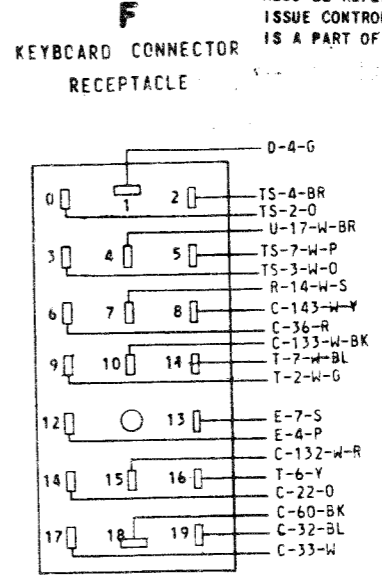
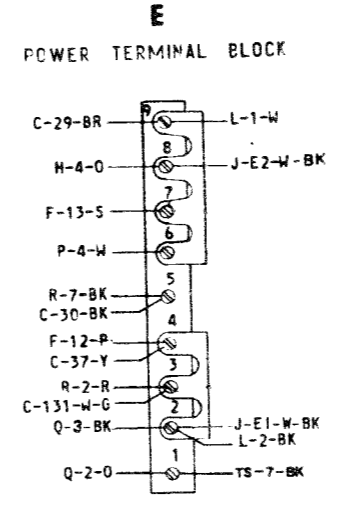
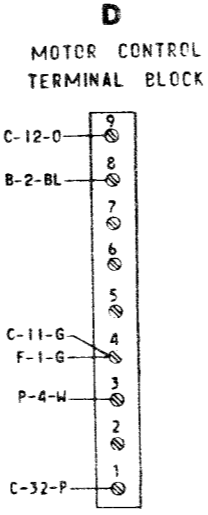
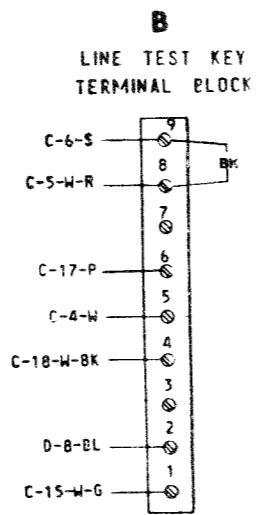
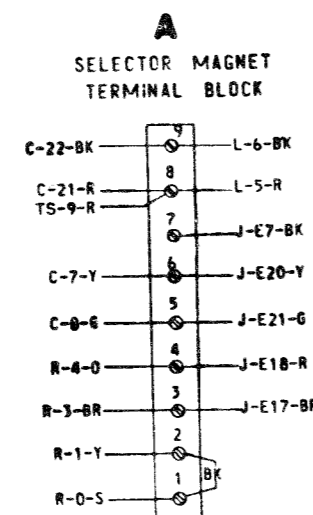
7158 WD

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	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**
- WIRING LEGEND:**
DISTANT TERMINATING AREA
DISTANT TERMINATING DESIGNATION
WIRE COLOR CODE
 - COLOR CODE:**
BK - BLACK G - GREEN
BR - BROWN BL - BLUE
R - RED P - PURPLE
C - ORANGE W - WHITE
Y - YELLOW S - SLATE
 - UNIT WIRED FOR 115 VOLTS, 60 CYCLE AC POWER ONLY.
 - CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS.
 - CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. OPERATION, REMOVE CONNECTION K1 TO K2.
 - 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.
 - TERMINALS C-143 TO C-148 RESERVED FOR CABINET LAMP OPERATION.
 - TERMINALS C1 TO C3 RESERVED FOR CUSTOMER'S USE.
 - TERMINALS C-121 TO C-122 RESERVED FOR PERFORATOR LOW TAPE SWITCH.
 - CONTACTS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.
 - SPARE LEADS SHOULD BE TAPED AND TIED BACK TO 157260 CABLE (PART OF 15N741 MOD. KIT FURNISHED WITH TYPING UNIT.)
 - FOR SCHEMATIC WIRING DIAGRAM OF 304605 SELECTOR MAGNET DRIVER, REFER TO 7178WD.
 - FOR SCHEMATIC WIRING DIAGRAM, SEE 7159WD.
 - TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESES ARE NOT MARKED ON COMPONENTS.
 - ASSOCIATED CABLES:
304686 MAIN CABLE (LESU)
157260 CABLE (PART OF MOD. KIT 15N741)
 - FOR SCHEMATIC WIRING DIAGRAM OF 109876 RECTIFIER, REFER TO 7127WD. FOR 306631 RECTIFIER, REFER TO 7287WD.
 - TO OPERATE TO CIRCUIT ON OPTIONAL POWER, REMOVE STRAPS AT C131 & C132, AND C137 & C150. 8KV DC CURRENT MUST BE LIMITED TO 100 MA. BY AN EXTERNAL RESISTOR.
 - 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

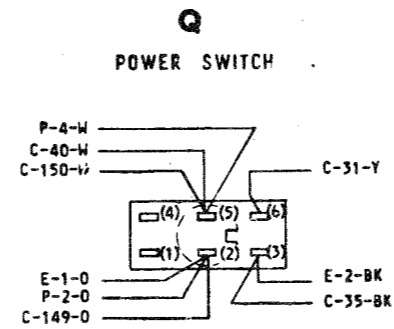
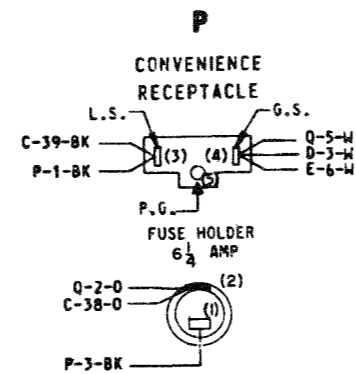
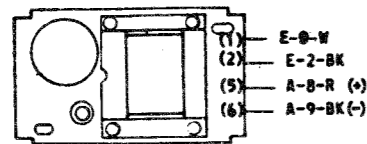
APPROVALS
D AND R _____ E OF M _____

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.

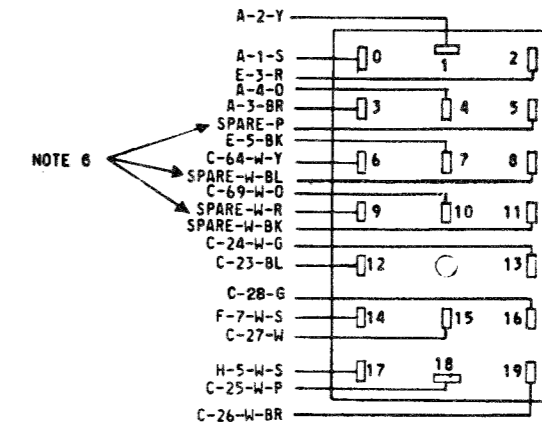
TELETYPE CORPORATION
7158 WD

SEE SHEET 1 FOR NOTES.

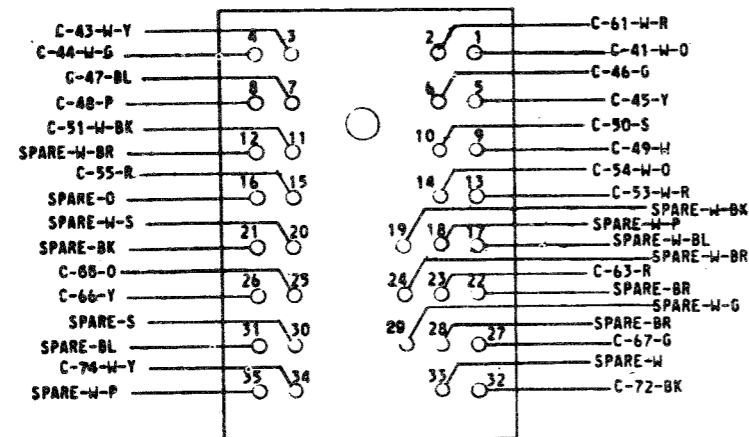
L
RECTIFIER ASSEMBLY
(NOTE 16)



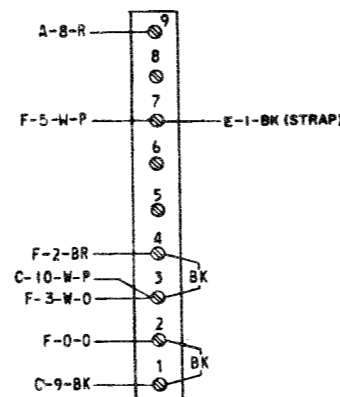
R
TYPING UNIT CONNECTOR RECEPTACLE



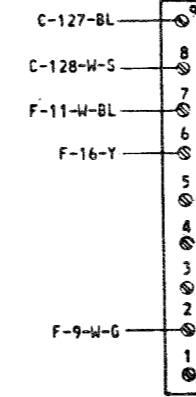
S
RIGHT CONNECTOR AND CABLE ASSEMBLY
(NOTE 11)



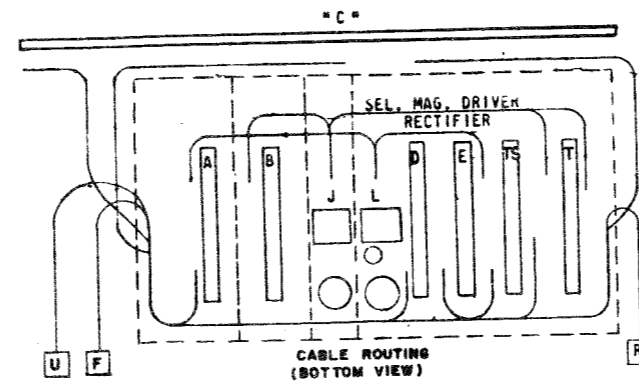
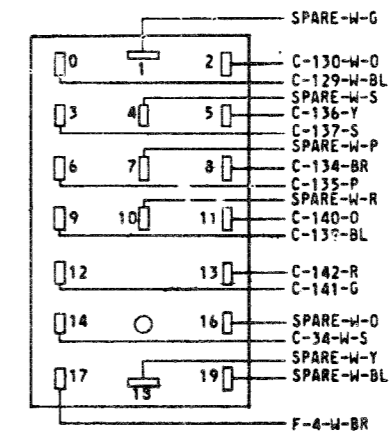
TS
SLOW RELEASE RELAY TERMINAL BLOCK



T
SLOW RELEASE TEST KEY TERMINAL BLOCK



U
TRANSMITTER DISTRIBUTOR CONNECTOR RECEPTACLE



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

7158 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
A 2	4-10-64	81180
B 3	4-15-64	81785
4	8-14-64	81788
5	1-7-65	84189
6	4-7-66	90222
7	10-26-67	90222-1-B

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) LESU112

APPROVALS

D AND R	E OF M
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E-NUMBER

PROD. NO. 7158WD

DATE 2-10-64

P.D. FILE NO. 11-A28AA

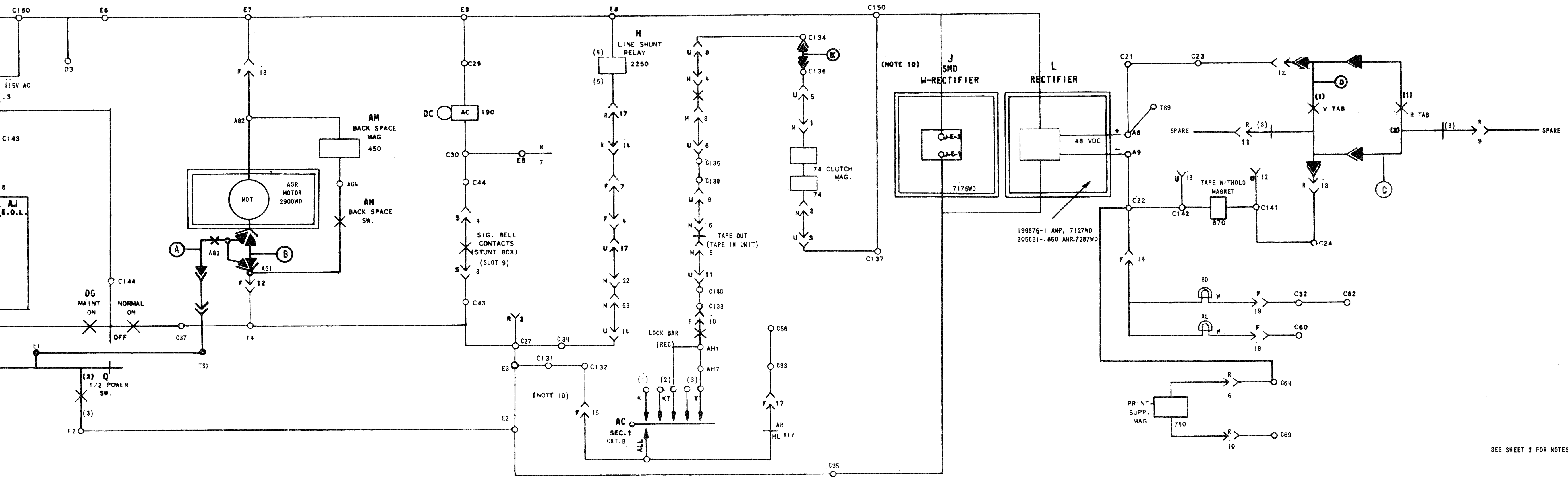
DRAWN P. J. S.	CHKD.
ENGD. F. G. H.	APPD. E. J. C.

TELETYPE CORPORATION

7158WD

7159 WD		
REVISIONS		
REV.	DATE	AUTH. NO.
1	1-9-63	7159
2	1-11-63	7159
3	1-7-64	7159

AC POWER CIRCUIT



SHEET 1 OF 3

SCHEMATIC WIRING DIAGRAM FOR MODEL 28 ASR SET (LESU112)

APPROVALS

DATE: 1-9-63

RD FILE NO. 11A25AA

DRWN PJS

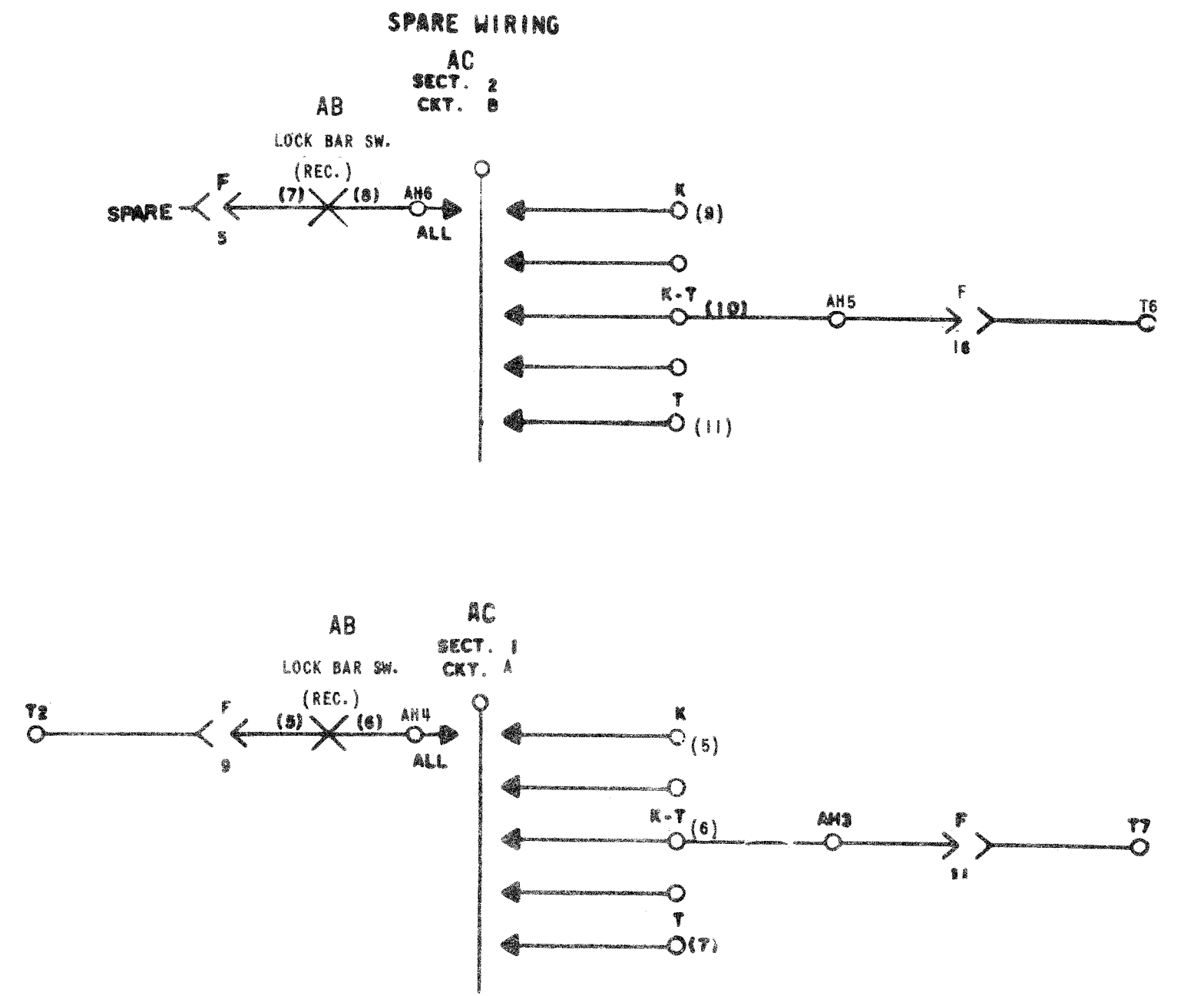
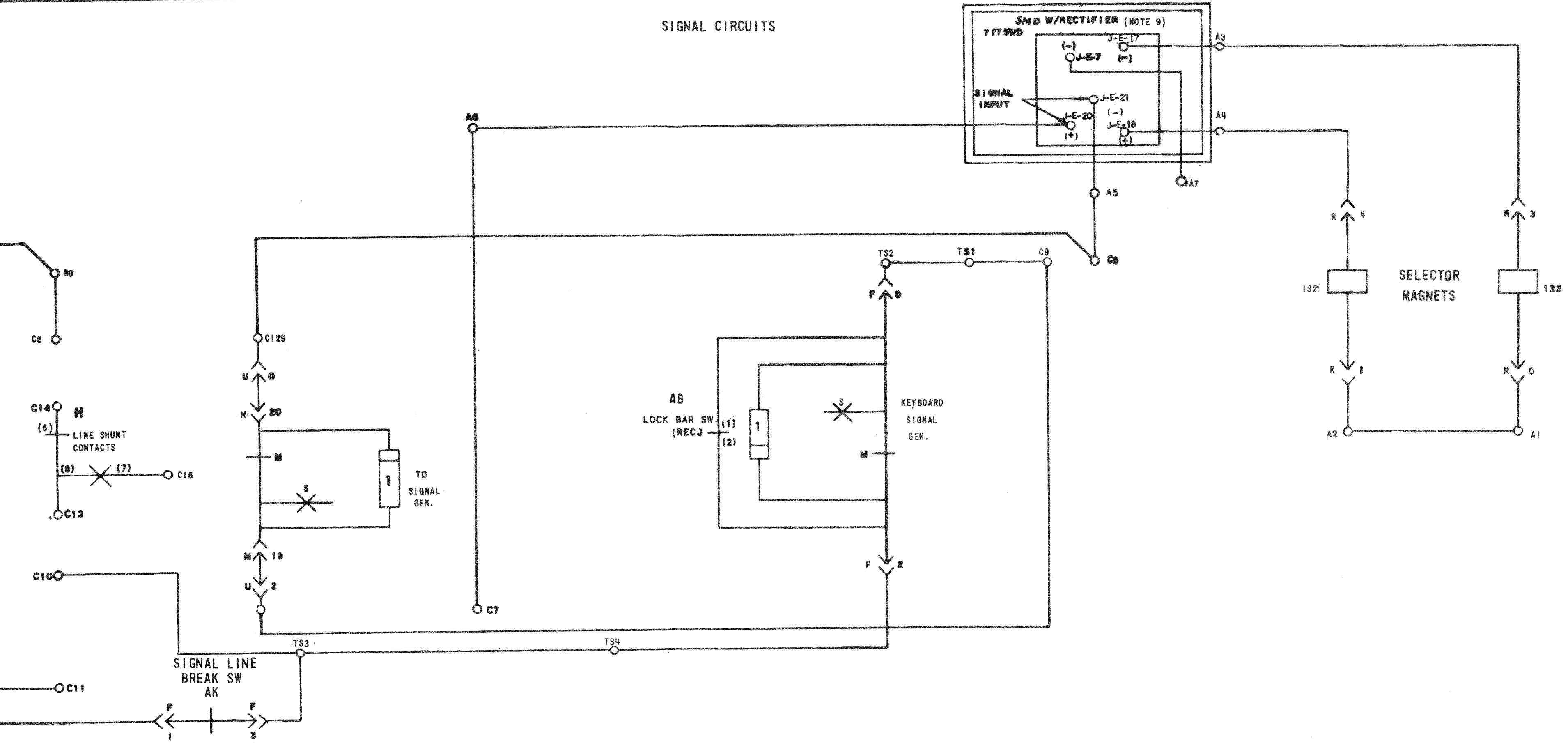
ENGR FGH

TELETYPE CORPORATION

7159 WD

SEE SHEET 3 FOR NOTES

7159 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
2	4-10-64	81180
1	3-12-64	81738



SEE SHEET 3 FOR NOTES

SHEET 2 OF 3

SCHEMATIC WIRING DIAGRAM FOR MODEL 28 ASR SET (LES1112)

APPROVALS

 DATE: 2-17-64
 PD FILE NO. 11-A25AA
 DRAWN P.J.S. *PHS*
 ENGR. F.G.H. *APP*

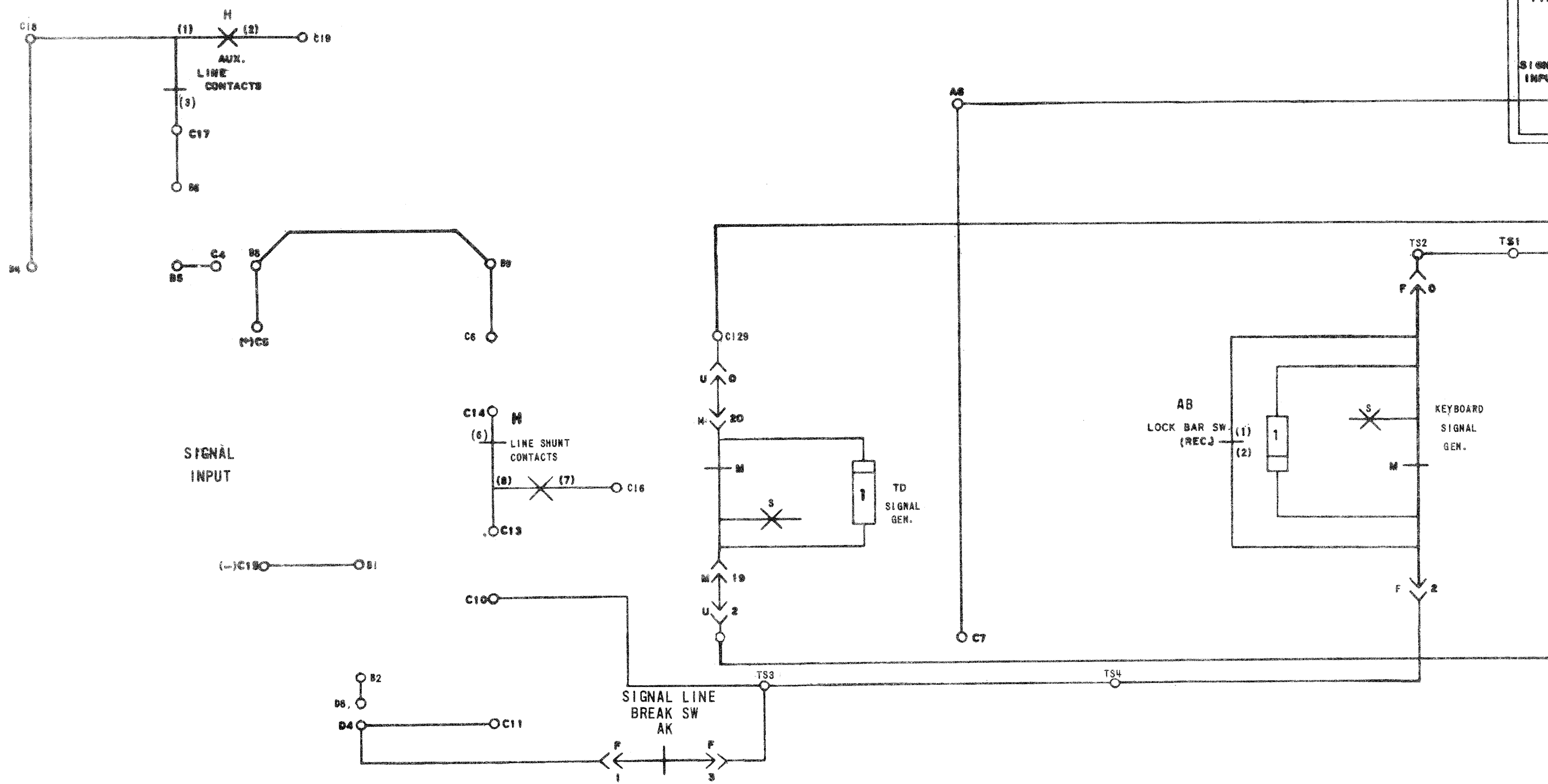
TELETYPE CORPORATION

7159 WD

SIGNAL CIRCUITS

777

SIGNAL INPUT



4/16 X10 3/4
R 3 1/2

NOTES

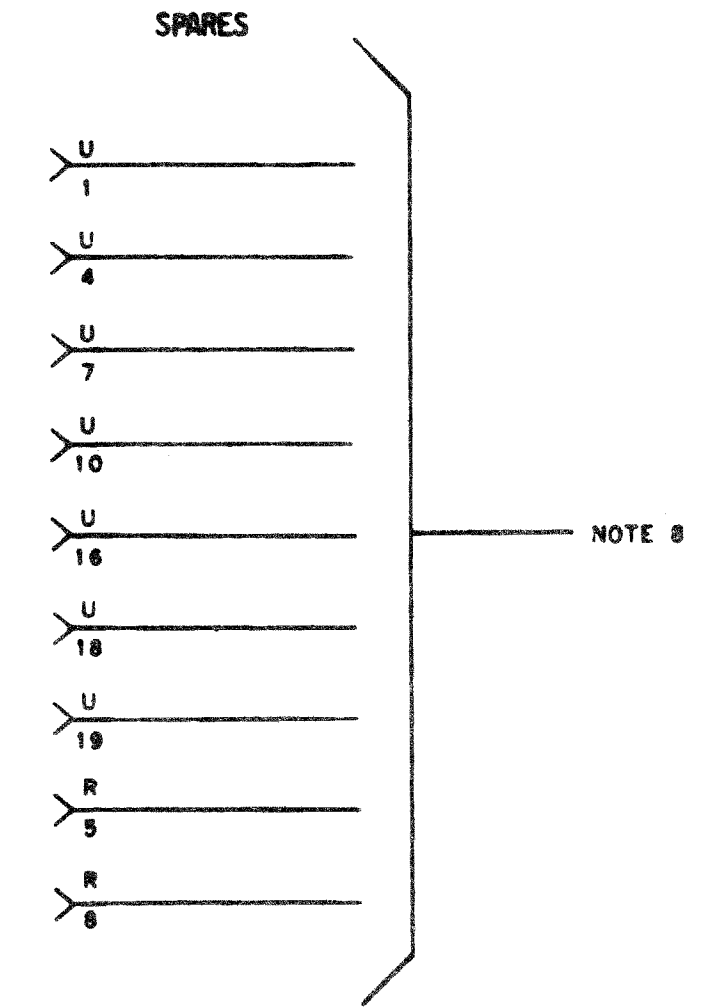
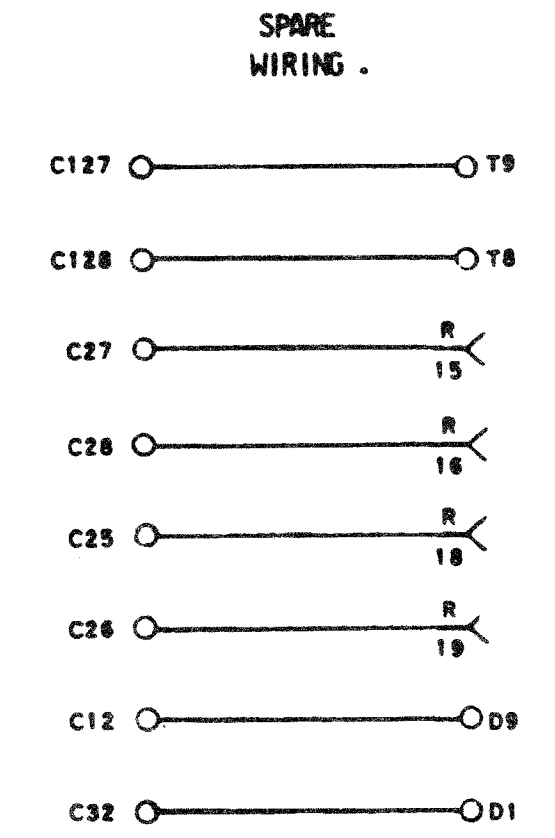
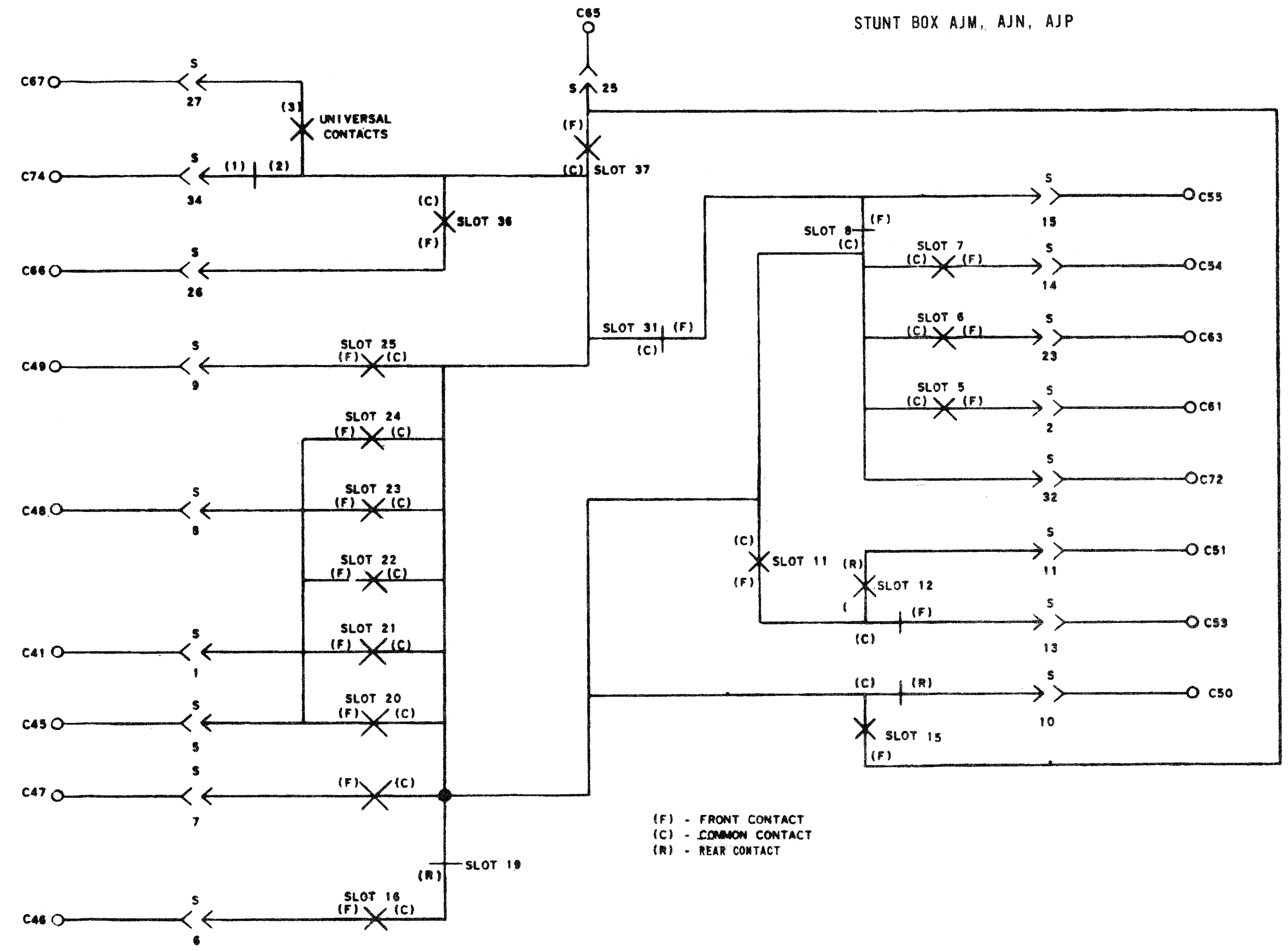
1. COMPONENTS ENCLOSED IN PARENTHESES AND NOT MARKED ON COMPONENT.

2. ALL WIRING TO BE TIED BACK TO MAIN CABLE.

3. OVER WIRING FOR .060 AMP. OPERATION. FOR OTHER CURRENT RATING SEE SCHEMATIC WIRING DIAGRAM.

4. LIMIT ON OPTIONAL POWER, C131 & C132 AND C137 & C150. CURRENT SHALL BE LIMITED TO 100MA BY AN OVERCURRENT DEVICE.

7159 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
1	4-10-64	81160
2	4-22-64	81756
3	4-14-64	81759
4	1-7-65	84189

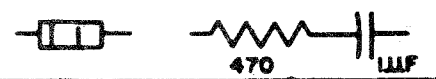


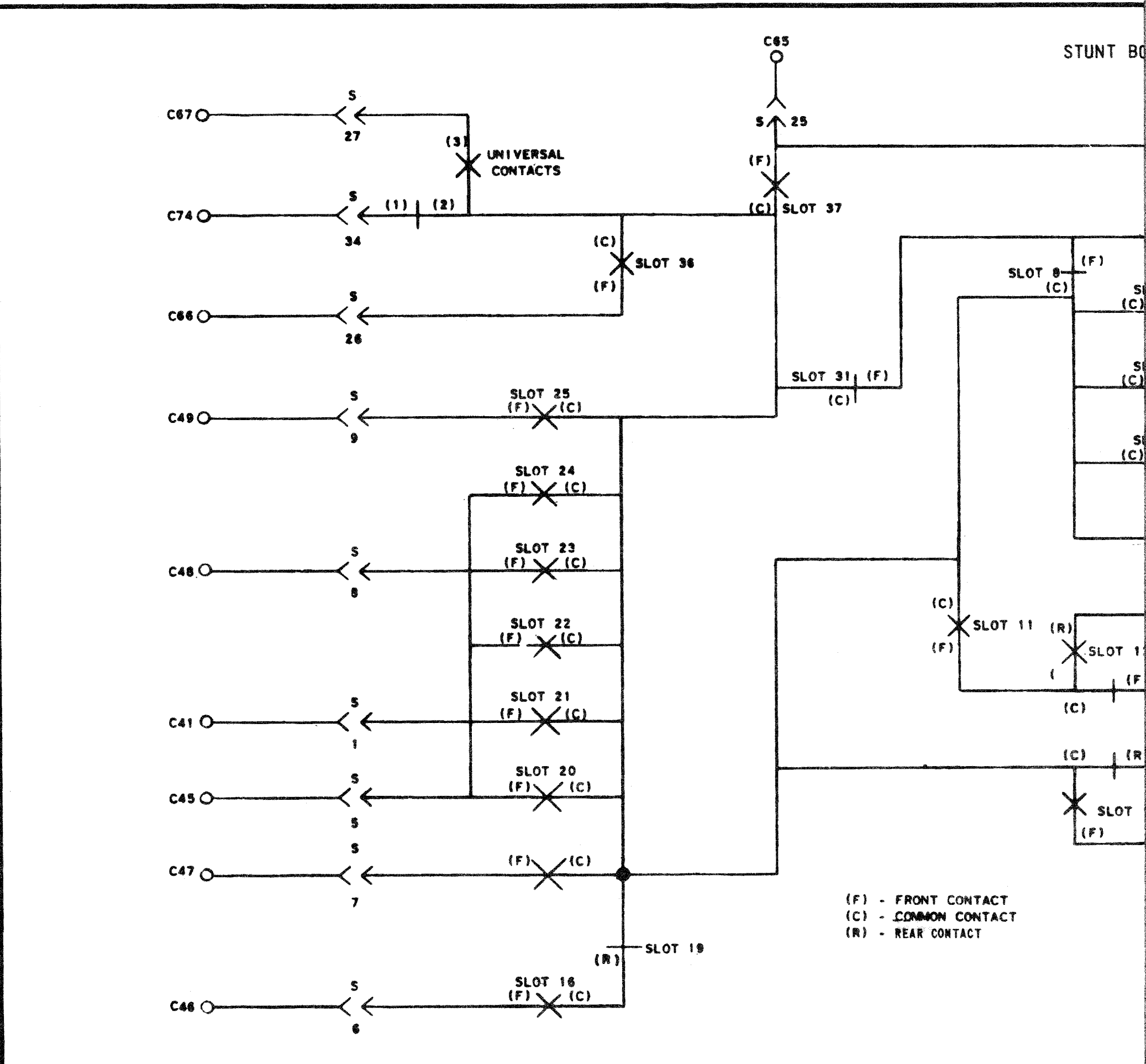
SHEET 3 OF 3

SCHEMATIC
WIRING DIAGRAM
FOR
MODEL 28
ASR SET
(LESU112)

APPROVALS

DESIGNED <i>[Signature]</i>	EXAMINED <i>[Signature]</i>
DATE: 3/2/64	
RD. FILE NO. 11-A23AA	
DRAWN PJS CHD <i>[Signature]</i>	
ENGR. FOR APPR. <i>[Signature]</i>	
TELETYPE CORPORATION	
7159 WD	

NO	NOTES	NOTES
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 LCX88 7175WD 304605 SELECTOR MAGNET DRIVER RELAY 7287WD 305631 RECTIFIER 7127WD 199876 RECTIFIER	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.
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.	188A 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 MICRohenRIES (μH) C. CAPACITANCE VALUES IN MICROFARADS (μF)	



ISSUE CONTROL RECORD

7762 WD

NO. NOTES

SUPPORTING INFORMATION

CONTENTS

SHEET NO.

ISSUE

REVISIONS APPLYING TO THIS CONTROL RECORD

ISSUE	DATE	AUTH. NO.
1	4-13-66	90373
2	11-12-66	92126

CATEGORY

NO.

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

1 X X X
2 X X X
3 X X X

ISSUE CONTROL SHEET 1 OF 1

SCHEMATIC WIRING DIAGRAM FOR MODEL 28 ASR SETS

VSL 515 (28A)
VSL 526(28B)

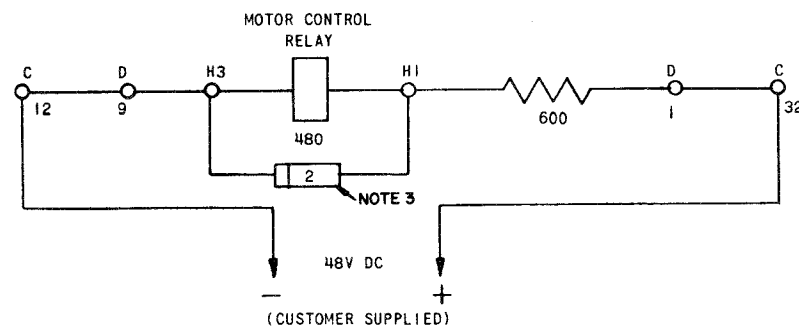
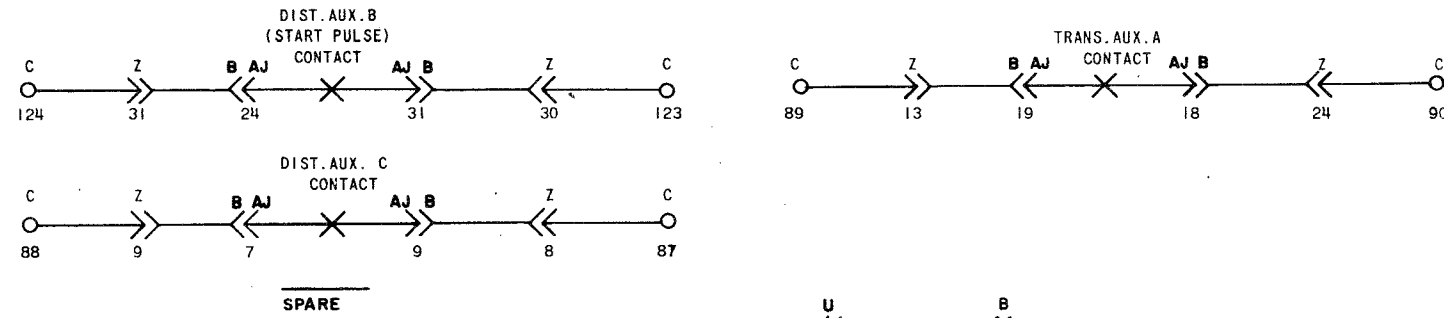
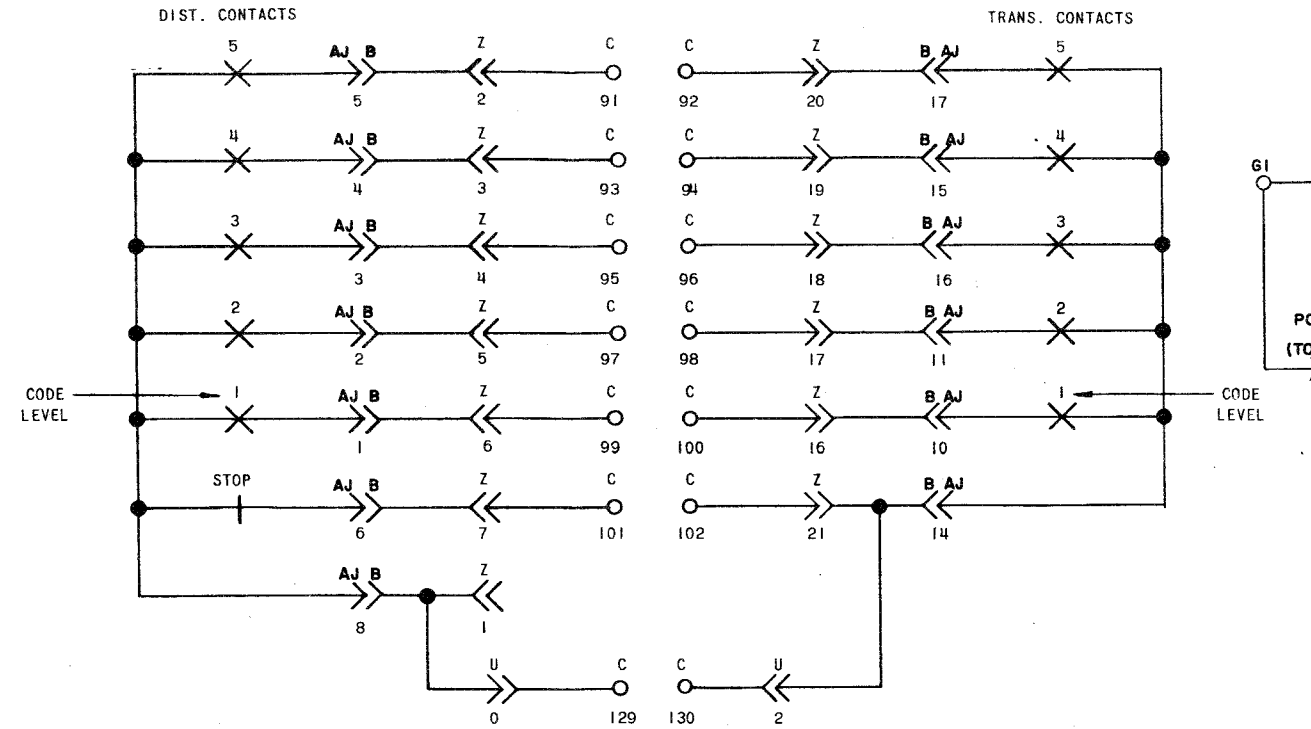
WD NUMBER 7762 WD

DRAWN R.D.P. CHKD. T.D.C.
ENGD. R.E.P. APPD. R.R.S.

TELETYPE CORPORATION

7762 WD

TRANSMITTER DISTRIBUTOR SIGNAL GENERATING CIRCUIT



STRAP PRESENT ON LPI29AUM ONLY

HOR. TAB. (U.C.V.) PRESENT ON LPI33 AKA ONLY

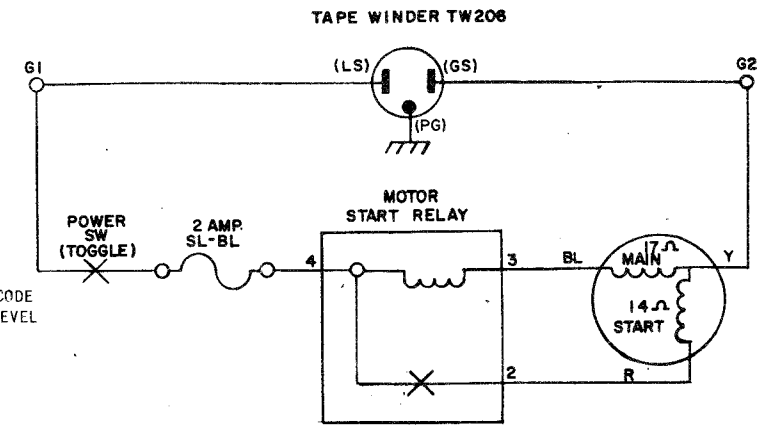
NEW STYLE WIRING

NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, 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



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 *APK* E OF M *CS*

E-NUMBER

PROD. NO. 7762WD

DATE 2-17-65

P.D. FILE NO. 26-58.65AA

DRAWN D. D. G.

CHKD. *HP Tel*

ENGD. R. E. P.

APPD. *RRS*

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	4-13-66	90373
4	11-12-66	92126

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

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

SHEET 2

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

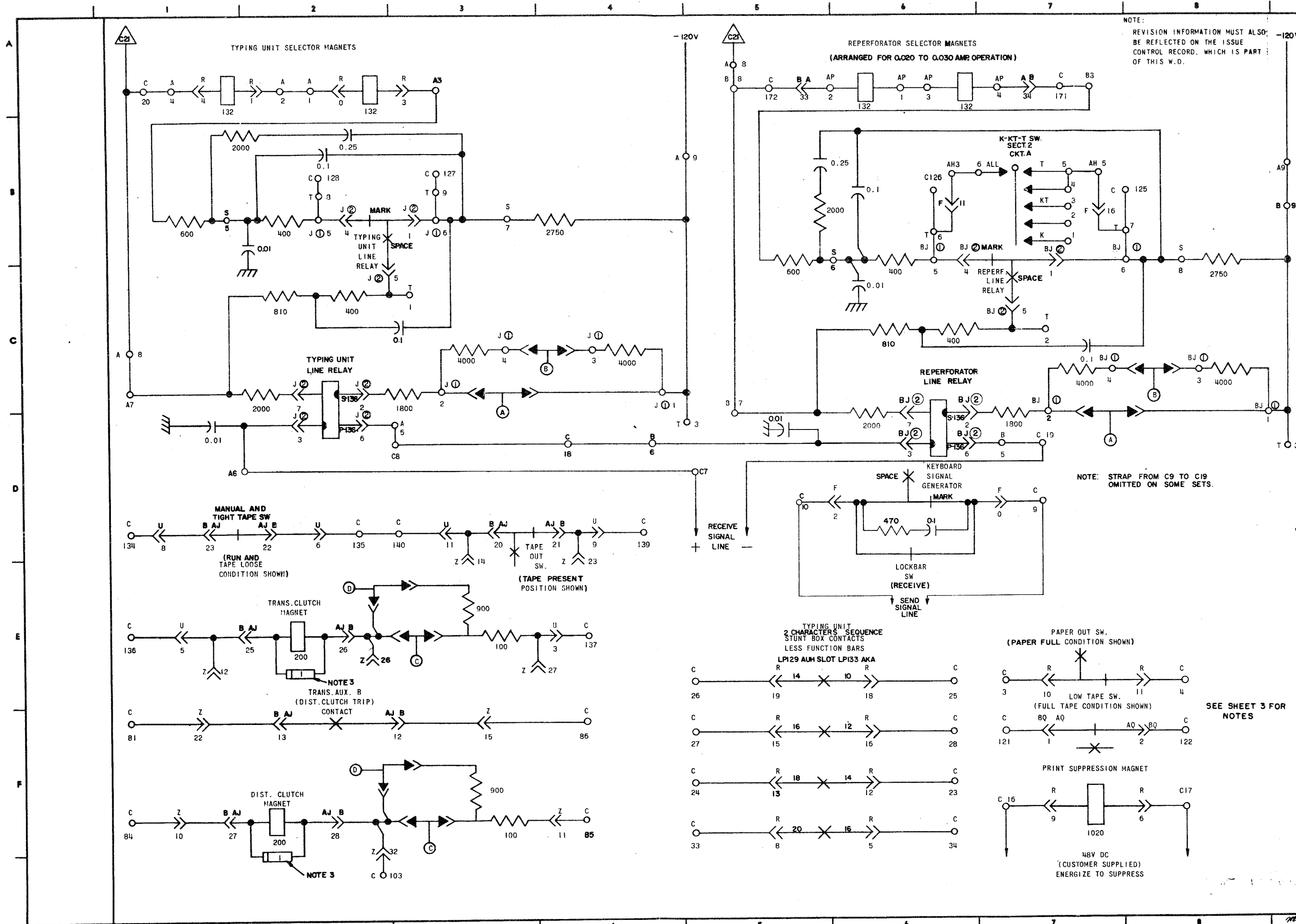
P.D. FILE NO. 26-58.65AA

DRAWN D.D.G. CHKD. *[Signature]*

ENGD. R.E.P. APPD. *[Signature]*

TELETYPE CORPORATION

7762 WD



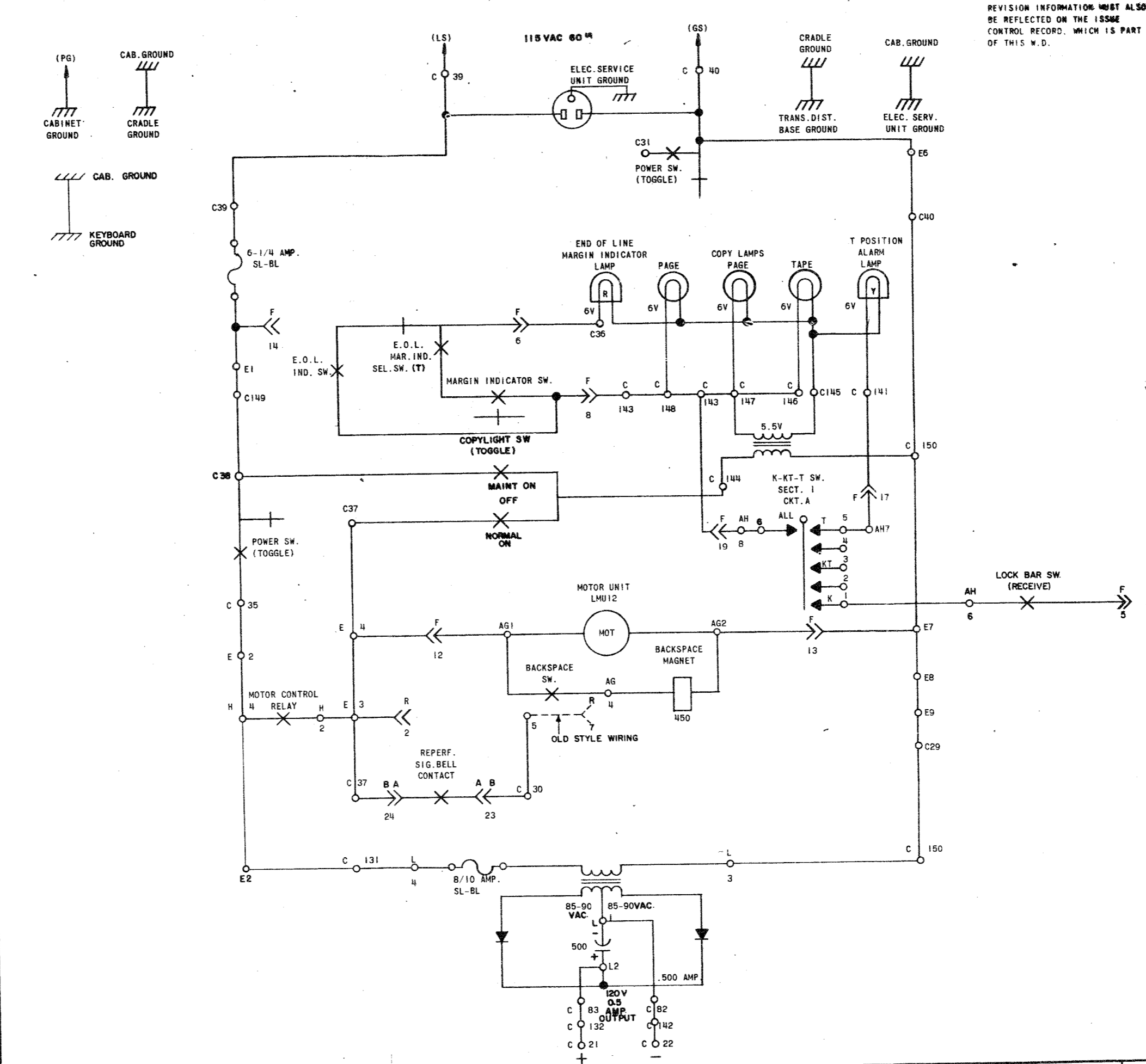
SEE SHEET 3 FOR NOTES

48V DC (CUSTOMER SUPPLIED) ENERGIZE TO SUPPRESS

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. LCXB9 |
| 3536WD | TRANS. DIST. LBXD29 |
| 3494WD | HOUSING, TRANS. DIST. 160888 |
| 7767WD | VLS13, MODEL 28 ASR SET LESS PRINTER |
| 7766WD | ELEC. SERVICE UNIT LESU116 |
| 7763WD | TYPING UNIT LPI29/AHQ/VSL515 ONLY |
| 7765WD | KEYBOARD, ASR LAK49 |
| 3567WD | REPERF. TYPING LPR33 |
| 2900WD | MOTOR UNIT-LMU12 (ACTUAL & SCHEM.) |
| 7763WD | TYPING UNIT-LPI33AKA (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)
 - K TYPING UNIT LINE RELAY CONN. 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-ELEC. 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-B TRANS. DIST. CONNECTOR
 - AP REPERF. SEL. MAG. TERMINALS (IN LPR)
 - AQ-BQ LOW 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 | 185A | 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 | (C) |
| CLUTCH OPERATION | (D) |
| 115V DC TRANS. AND DIST. | (D) |
| 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 FOLLOWS:
- | | | |
|---------|-----------|-----------|
| 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	E OF M
---------	--------

E-NUMBER

PROD. NO. 7762WD

DATE 2-17-65

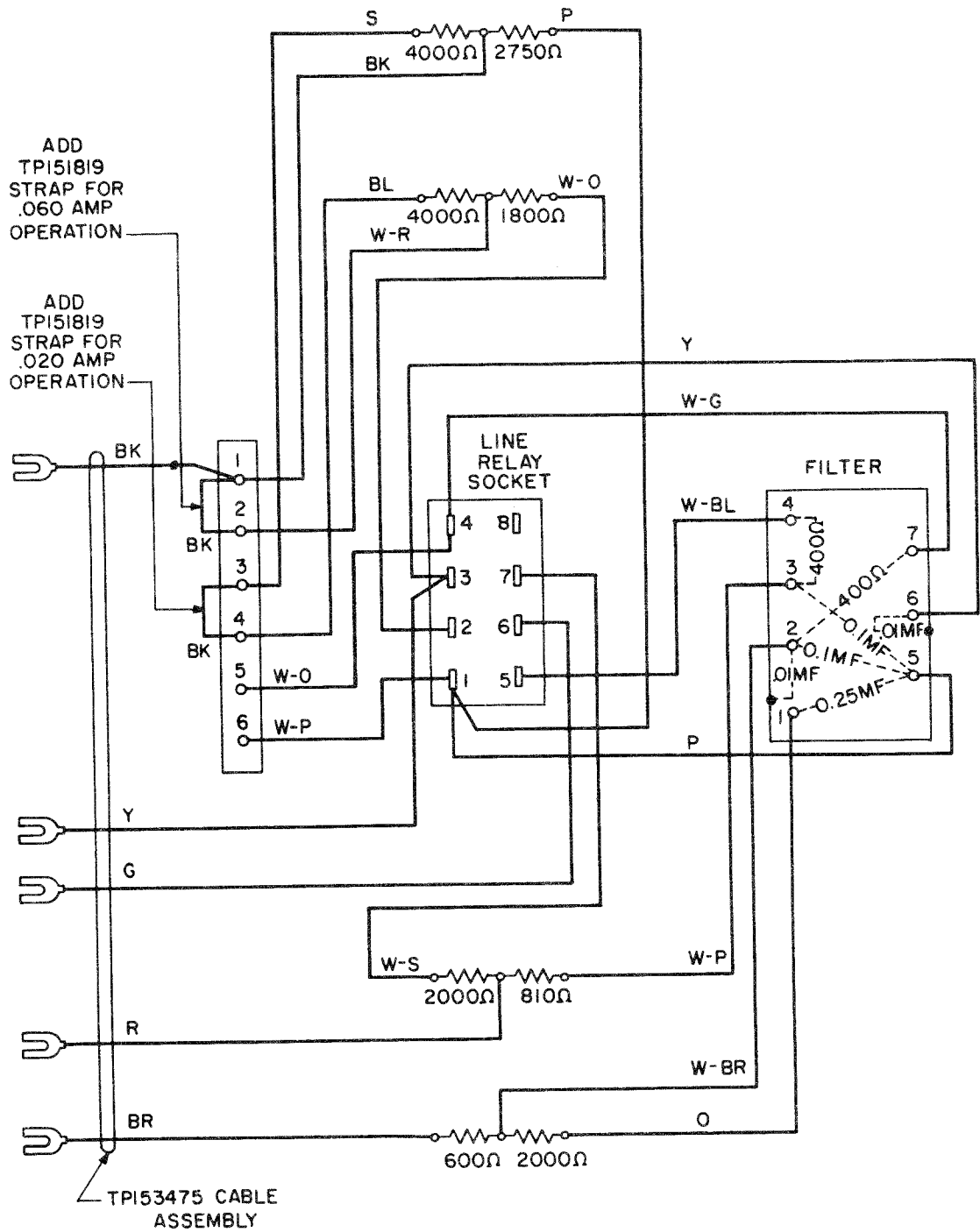
P.D. FILE NO. 26-58.65AA

DRAWN D.D.G. CHKD. *AB TRL*

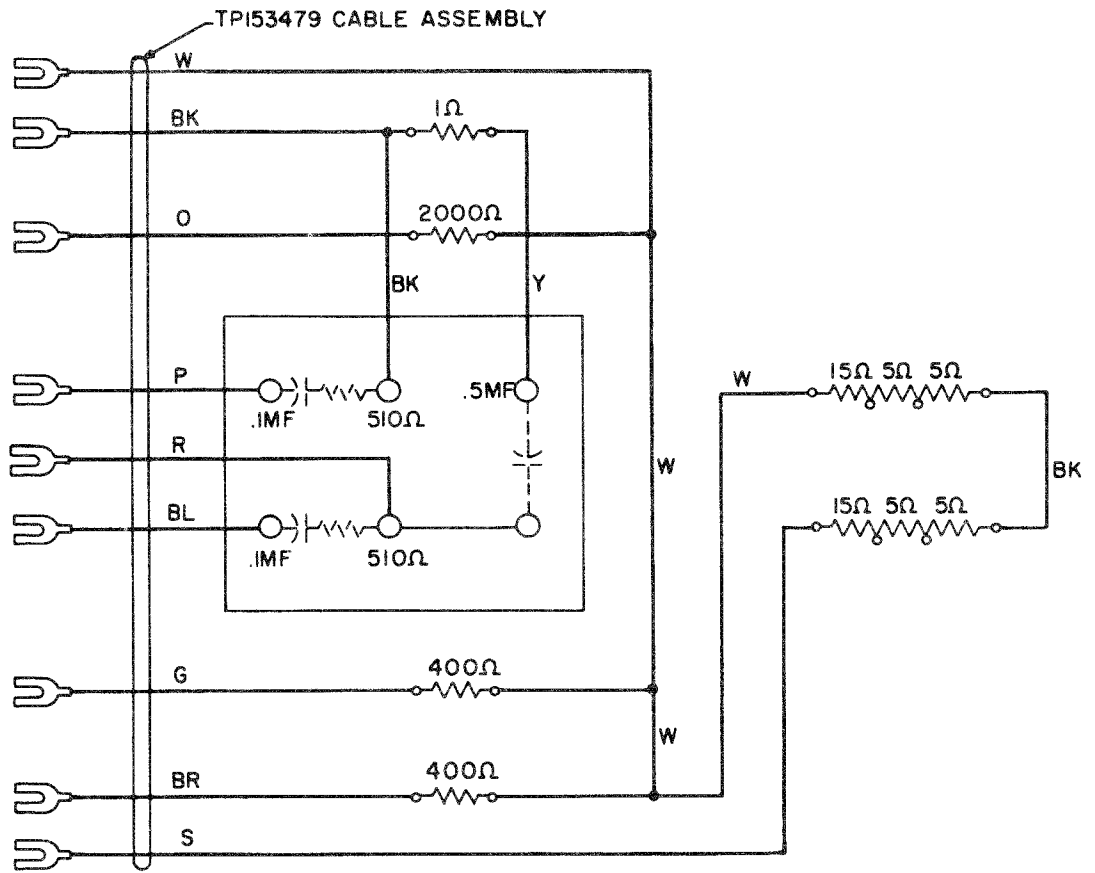
ENGD. R.E.P. APPD. *RRS*

TELETYPE CORPORATION

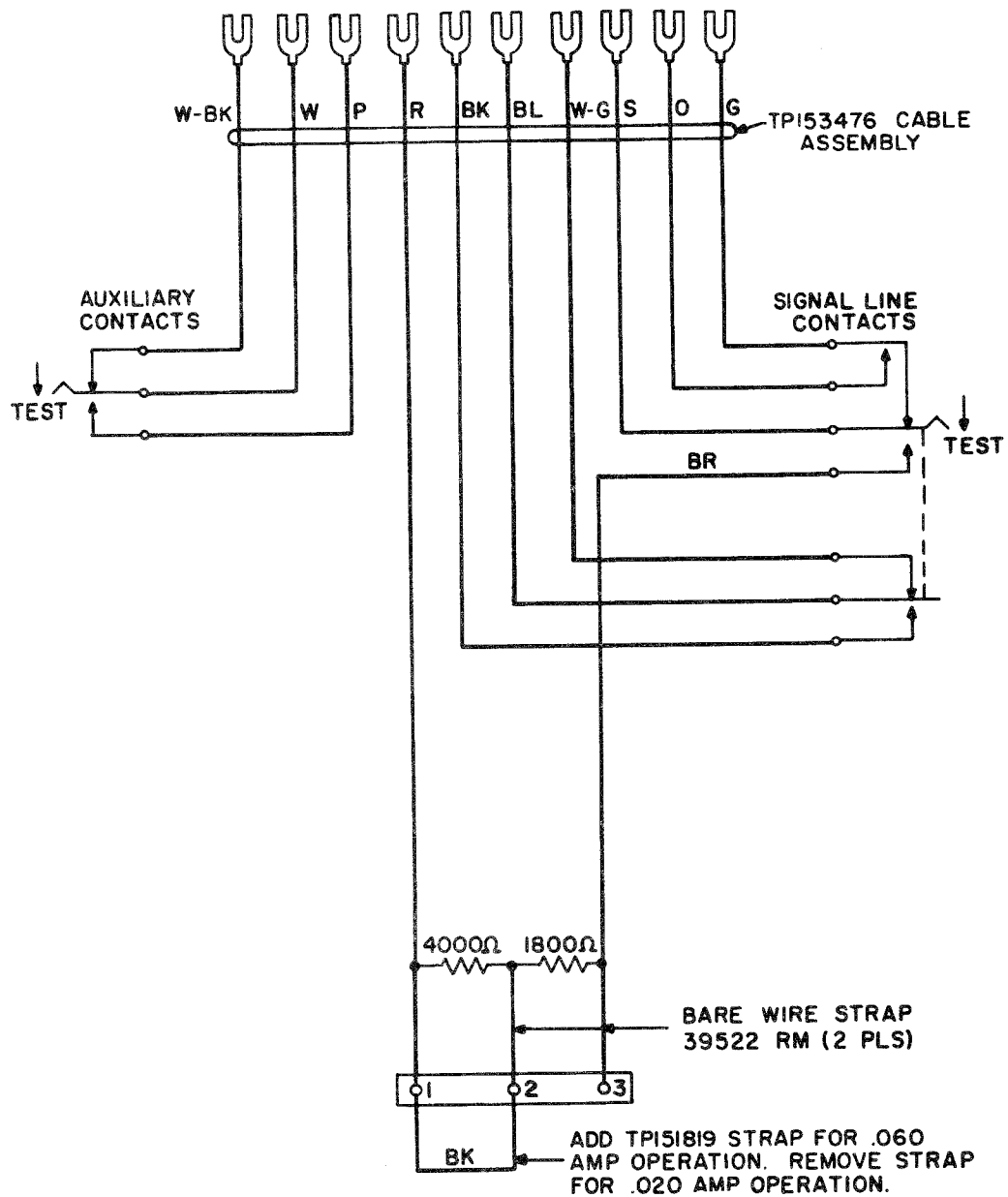
7762WD



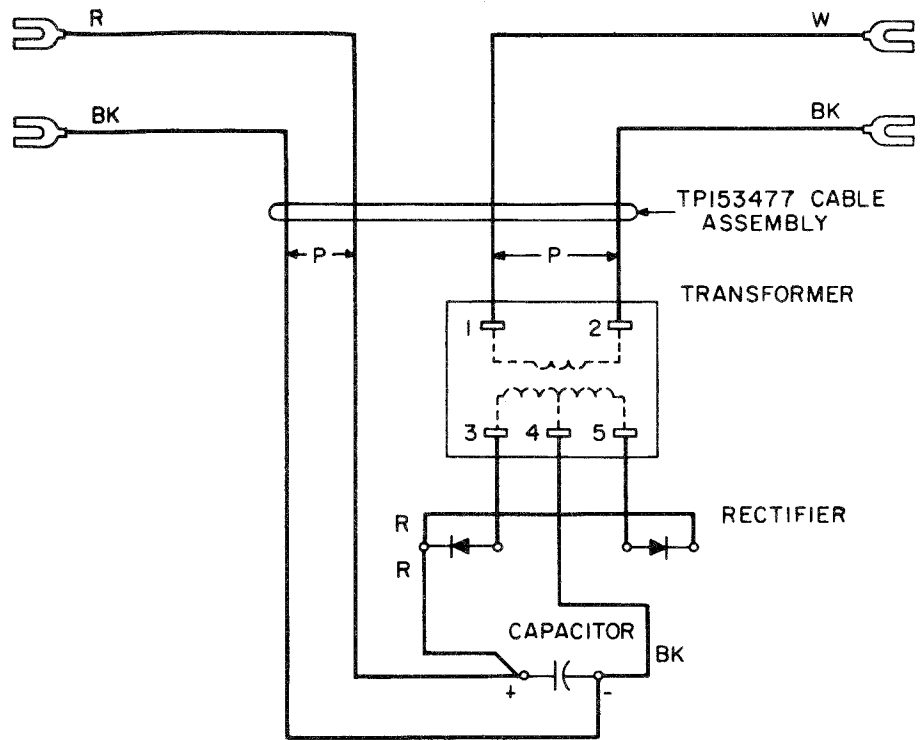
TP152623 Line Relay Mounting Assembly



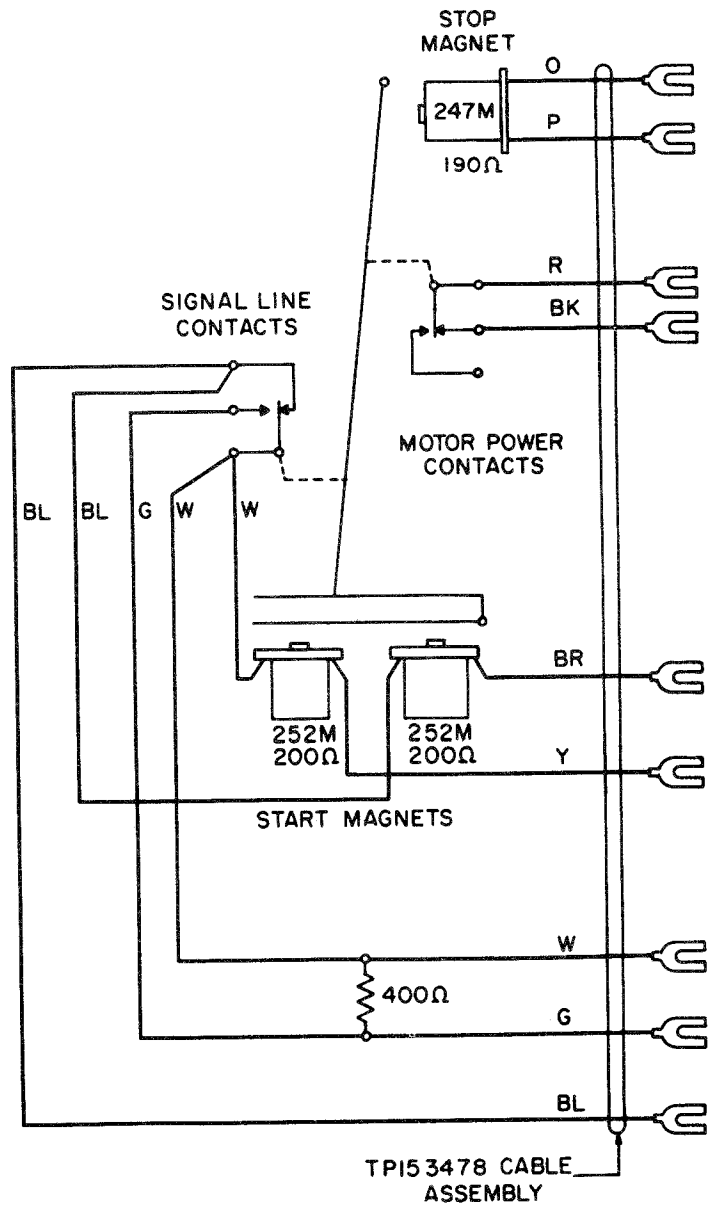
TP152624 Capacitor Resistor Assembly



TP152625 Line Test Key Assembly



TP152950 Rectifier Assembly (120 Mil Output)



TP153251 Electrical Motor Control Assembly