Table 1-2. ASR Equipment Matrix, High-Level Teletypewriter Sets

	SETS CONTAINING BOTH PERFORATOR-TRANSMITTER AND A REPERFORATOR UNIT																																													
	KEYBOARD						TYPING UNIT											PERF-XMTR		TYPING REPERF		TYPING REPERF BASES			XMTR DISTRIBUTORS		TD BASE	ELECTRICAL SERVICE UNIT					CAB	MOTORS						PAPER WINDER	GEARSETS					
NAVY DESIGNATION	MX-2643/UG	MX-2858/UG	TT-433/UG	TT-433/UG	TT-475/UG	TT-440/UG	MX-1115B/UG	MX-1422A/UG	MX-2984/UG	TT-325/UG	TT-400/UG	TT-436/UG	TT-436/UG	TT-437/UG	TT-437/UG	TT-441/UG	TT-443/UG	TT-252/UG	TT-265/UG	TT-266/UG	TT-267/UG	MT-2234/UG	MT-2625/UG	MT-3369/UG	TT-251/UG	TT-439/UG	MT-2099/UG	SB-959/UG	SB-1061/UG	SB-1302/UG	SB-2611/UG	SB-2680/UG	CY-2529/UG	PD-17A/U	PD-18A/U	PD-67/U	PD-77A/U	PD-108/UG	PD-111/U	RL-235/UG	A	B	C	D	E		
MANUFACTURE'S DESIGNATION	LAK4ARN	LAK4ARE	LAK42ARN	LAK42BRJ	LAK46ARN	LAK42ARE	LP14RN/AY	LP14RE/AY	LP14RN/AGH	LP14RN/AHF	LP14RE/ACX	LP14RN/AJE	LP14WY/AJE	LP14RN/AJG	LP14WY/AJG	LP14RE/AJG	LP14RN/AJF	LTPE1AWA	LTPE1ARE	LPR9/AWA	LPR9/ARE	LRB6	LRB36	LRB51	LXD3	LX1D27	LCXB1	LESU13	LESU12	LESU73	LESU96	LESU111	LAAC200BR	LMU3	LMU41	LMU12	LMU39	LMU38	LMU50	LPW300BR	SEE DRAWING NUMBER LIST						DRAWING NUMBER LIST
WIRING DIAGRAM	5-1	5-1	5-3	5-3	5-3	5-3	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4			5-6	5-6	5-7 5-8	5-8 5-9	5-8 5-9	5-10	5-10		5-11 5-12	5-13 5-14	5-15 5-16	5-17 5-18	5-19 5-20	5-21	5-22	5-22	5-22	5-22	5-22	5-22								
AN/UGC-6	X						X											X		X		X			X		X	X	X				X	X		X					X					A	161859
AN/UGC-6X	X						X											X		X		X			X		X	X	X				X		X		X				X						161860
AN/UGC-6A	X								X									X		X		X			X		X	X	X				X	X		X					X						161861
AN/UGC-6AX	X								X									X		X		X			X		X	X	X				X		X		X				X						
AN/UGC-6B	X									X								X		X		X			X		X	X		X			X	X		X							X			B	161859
AN/UGC-6C	X									X								X		X			X		X		X	X		X			X	X		X							X				161861
AN/UGC-6D			X				X					X						X		X			X			X	X		X				X	X		X						X					163300
AN/UGC-6E			X									X						X		X			X			X	X		X			X	X	X		X						X					
AN/UGC-6F			X											X				X		X			X			X	X		X			X	X	X		X						X				C	163300
AN/UGC-6FX			X											X				X		X			X			X	X		X			X	X		X		X					X					164580
AN/UGC-6G			X															X		X			X			X	X		X			X	X	X		X								X			164583
AN/UGC-6HX					X									X				X		X				X		X	X		X			X	X					X	X			X					
AN/UGC-6J				X											X			X		X			X			X	X				X	X	X	X		X				X		X				D	161859
AN/UGC-6JX				X											X			X		X			X			X	X				X	X	X		X		X			X		X					161860
AN/UGC-6K				X											X			X		X			X			X	X				X	X	X	X		X						X					161861
AN/UGC-6L				X									X					X		X			X			X	X				X	X	X	X		X											159660
AN/UGC-6MY				X									X					X		X				X		X	X				X	X	X					X	X	X							159700
AN/UGC-6NX				X													X	X		X			X			X	X				X	X	X		X		X			X							305577
AN/UGC-8		X						X											X		X	X	X		X		X	X	X				X	X		X					X						305579
AN/UGC-8X		X						X											X		X	X			X		X	X	X				X		X		X				X						
AN/UGC-8A		X									X								X		X	X			X		X	X	X				X	X		X					X					E	160677
AN/UGC-8AX		X									X								X		X	X			X		X	X	X				X		X		X								X		161859
AN/UGC-8B						X										X			X		X					X	X		X			X	X	X		X						X					161861

Table 1-3. ASR Equipment Matrix High-Level Teletypewriter Sets

	SETS CONTAINING A REPERFORATOR ON THE PERFORATOR TRANSMITTER AND NO AUXILIARY REPERFORATOR																																			
	CABINETS		KEYBOARDS								TYPING UNITS							PERF XMTR		TYPING REPERFORATOR					REPERF BASE	TRANSMITTER DISTRIBUTORS				TD BASES		ELECTRICAL SERVICE UNIT			MOTOR UNIT									
NAVY DESIGNATION	CY-2529/UG	CY-3682/UG	MX-2643/UG	MX-2858/UG	TT-371/UG	TT-377/UG	TT-433/UG	MX-1115B/UG	MX-1422A/UG	MX-2984/UG	TT-372/UG	TT-374/UG	TT-378/UG	TT-437/UG	TT-252/UG	TT-265/UG	TT-373/UG	TT-375/UG	TT-379/UG	TT-380/UG	TT-375/UG	MT-2272/UG	TT-251/UG	TT-311/UG	TT-439/UG	MT-2099/UG	MT-2452/UG	SB-959/UG	SB-1061/UG	SB-2680/UG	PD-17A/U	PD-18A/U	PD-67/U	PD-77A/U	A	B	C	D	E
MANUFACTURERS DESIGNATION	LAAC200BR	LAAC237BR	LAK4ARE	LAK4ARE	LAK31ARN	LAK31ARE	LAK42BRJ	LP14RN/AY	LP14RE/AY	LP14RN/AGH	LP108RN/AY	LP108RN/AGH	LP108RE/ACX	LP14WY/AJG	LTPE1AWA	LTPE1ARE	LPR51BRP	LPR51BWA	LPR51BRH	LPR52BRH	LPR52BWA	LRB42	LXD3	LXD11	LXD27	LCXB1	LCXB13	LESU13	LESU12	LESU111	LMU3	LMU41	LMU12	LMU39	SEE DRAWING NUMBER LIST				
WIRING DIAGRAM	5-21	5-21	5-1	5-1	5-2	5-2	5-3	5-4	5-4	5-4	5-4	5-5	5-4	5-4			5-6 5-23	5-6	5-6 5-23	5-6	5-6	5-8 5-9	5-10	5-24	5-10	5-25	5-25	5-11 5-12	5-13 5-14	5-19 5-20	5-22	5-22	5-22	5-22					
AN/UGC-5	X		X					X						X									X			X			X									
AN/UGC-5X	X		X					X						X									X			X			X						X			
AN/UGC-5A	X		X							X				X									X			X			X									
AN/UGC-5AX	X		X							X				X									X			X			X						X			
AN/UGC-5B	X												X	X										X	X				X			X				X		
AN/UGC-5BX	X												X	X										X	X				X						X		X	
AN/UGC-5C	X												X	X										X	X				X			X			X			X
AN/UGC-7	X			X					X						X								X			X						X						X
AN/UGC-7X	X			X					X						X								X			X					X		X					X
AN/UGC-15		X			X						X						X				*			X		X	X					X						X
AN/UGC-15X		X			X						X					X					*			X		X	X						X						X
AN/UGC-16		X			X						X						X				X			X		X	X	X		X		X						
AN/UGC-16A		X			X							X					X			X	X			X		X	X	X		X		X						
AN/UGC-18		X				X							X						X	X		X			X		X	X	X		X		X					

*INFORMATION NOT CURRENTLY AVAILABLE

DRAWING NUMBER LIST

A. 161859
161860
161861

B. 161859
161861
163300

C. 164583
164584
164585

D. 160675
160676
160677

E. 163454
163457
163499
163502
163504
163505
173776
173795
173992

Table 1-4 ASR Equipment Matrix Low-Level Teletypwriter Sets

	CABINET				NUMBERING MODULES	PAPER WINDER	KEYBOARD				TYPING UNIT				TYPING REPERFORATOR							TYPING REPERF BASE	TD		TD BASE	ESU	ELECTRICAL SERVICE ASSY			PRINTED CIRCUIT BOARDS				MOTOR UNIT					GEARSET												
NAVY DESIGNATION					•	RL-235/UG	TT-598/UG				TT-596/UG	TT-596/UG	TT-597/UG	TT-597/UG	TT-600/UG		TT-601/UG					TT-602				ESA	ESA	ESA	LLK(POLAR LINE KEYER)	0.5 AMP POWER SUPPLY	CLUTCH MAGNET DRIVER	SELECTOR MAGNET DRIVER	PD-17A/U	PD67/U	PD-108/UG	PD-111/U	PD-77A/U	PD-18A/U	BAUD												
MANUFACTURERS DESIGNATION	LAAC251BR	LAAC252BR	LAAC255BR	LAAC259BR	328000	328010	LPK300BR	LAK508SS	LAK514RN	LAK518RJ	LAK558SS	LP134RN/AJG	LP134WY/AJG	LP135YD/AGM	LP135B6/AGM	LPR72/BRP	LPR73/BRP	LTPE18RP	LPR74/BRP	LTPE68RP	LPR82/BRP	LPR85/BRP	LRB59	LRB60	LXD37	LXD38	LCX824	LCX827	LESU/23	323811(S19)	323812(CLUTCH)	323815(S19)	303142	321290	321991	323810	LMU3	LMU12	LMU38	LMU50	LMU39	LMU41	158027	74.2	74.2	74.2	75	75	75	75	75	75	75	75	75	75	75
WIRING DIAGRAM	5-26	5-27	5-26	5-28	5-39 5-40	5-39 5-40	5-29	5-30	5-31	5-31	5-31	5-32	5-32	5-33	5-33								5-34	5-34	5-35	5-35	5-36	5-37	5-38	5-41 5-42	5-43 5-44	5-45 5-46	5-47	5-50	5-52	5-51	5-22	5-22	5-22	5-22	5-22	5-22															
AN/UGC-48	X								X			X				X		X						X		X	X		X	X		X	X	X	X	X					X										
28RFX4800A/005/AAR/BR																																																			
AN/UGC-48X	X								X			X				X		X						X		X	X		X	X		X	X	X	X			X	X			X								
28RFX4800A/005/ANX/BR																																																			
AN/UGC-48A			X							X			X						X		X			X		X		X	X	X		X	X	X	X	X													
28RFX4801A/012/AAR/BR																																																			
AN/UGC-48BY			X							X			X						X		X			X		X		X	X	X		X	X	X	X					X								
AN/UGC-49		X						X						X		X		X				X		X		X		X	X	X	X	X	X	X	X													
28RFX4000B/009/AYF/RR																																																		
AN/UGC-49X		X						X						X		X		X				X		X		X		X	X	X		X	X	X						X	X			X	X	X			
28RFX4000B/009/BWP/BR																																																		
AN/UGC-54		X					X			X				X		X				X		X		X		X		X	X	X		X	X	X						X	X			X	X	X	X		
28RFX4001B/009/AWF/BR																																																		
AN/UGC-54B		X					X			X			X			X				X		X		X		X		X	X	X		X	X	X														
AN/UGC-57		X					X			X				X		X				X		X		X		X		X	X	X		X	X	X	X	X													
28RFX4002B/009/AYF/BR																																																		
AN/UGC-90				X	X	X		X						X		X		X				X		X			X	X	X	X		X	X	X	X	X													
28RFX4004B/013/DAF/BR																																																		
AN/UGC-90X				X	X	X		X						X		X		X				X		X			X	X	X	X		X	X	X														
		X					X						X															X	X	X																				
28RFX4001A/005/ABE/BR																																																		

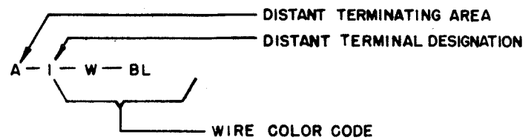
Table 5-3. Index of Schematic and Wiring Diagrams for Troubleshooting

Table 5-3. Index of Schematic and Wiring Diagrams for Troubleshooting - Continued

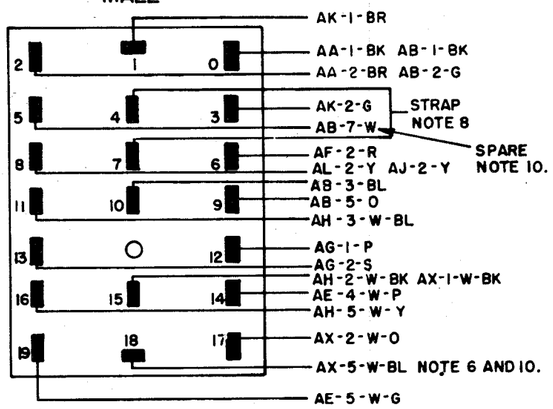
Table 5-3. Index of Schematic and Wiring Diagrams for Troubleshooting - Continued

Table 5-3. Index of Schematic and Wiring Diagrams for Troubleshooting - Continued

Table 5-3. Index of Schematic and Wiring Diagrams for Troubleshooting - Continued

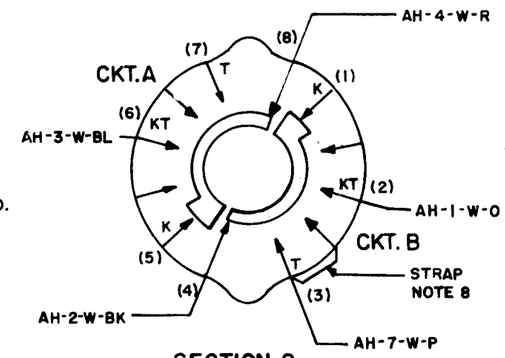
NO	NOTES
1.	WIRING LEGEND 
2.	COLOR CODES. BK — BLACK BR — BROWN R — RED O — ORANGE Y — YELLOW G — GREEN BL — BLUE P — PURPLE W — WHITE S — SLATE W—BK — WHITE - BLACK W—BR — WHITE - BROWN W—R — WHITE — RED W—O — WHITE—ORANGE W—Y — WHITE — YELLOW W—G — WHITE— GREEN W—BL — WHITE — BLUE W—P — WHITE — PURPLE W—S — WHITE — SLATE
3.	UNIT WIRED FOR 115 VOLTS AC OR DC POWER INPUT.
4.	PLUGS VIEWED FROM SOLDER TERMINAL ENDS.
5.	ALL CONTACTS SHOWN IN UNOPERATED POSITION IN KEYBOARD.
6.	SPARE TERMINAL OF F-18 RESERVED FOR POLAR OPERATION OF KEYBOARD SIGNAL GENERATOR AND AL LAMP ON LAK 44.
7.	ASSOCIATED CABLES 158224 CABLE ASSEMBLY, AUXILIARY 158249 CABLE ASSEMBLY, KEYBOARD 155992 CABLE ASSEMBLY, BACK SPACE 159343 CABLE ASSEMBLY, BACK SPACE MAGNET 304613 CABLE ASSEMBLY, LAMP AND SWITCHES (LAK 44)
8.	BARE WIRE STRAP 39522 RM
9.	PART OF ASSOCIATED UNIT (LPE, LPR, LRPE OR LTPE)
10.	ON LAK 44 ONLY. REMOVE WHITE LEAD FROM F5 AND CUT OFF NEAR TUBING OF CABLE 158249.

F
KEYBOARD CONNECTOR MALE

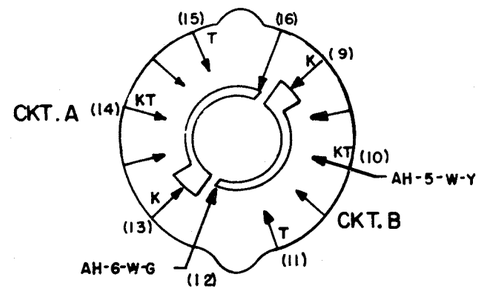


AC
AUXILIARY SWITCH

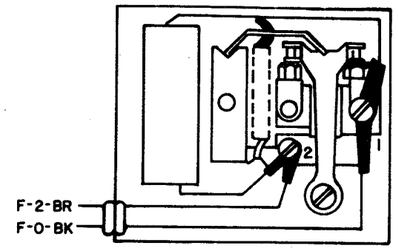
SECTION 1



SECTION 2

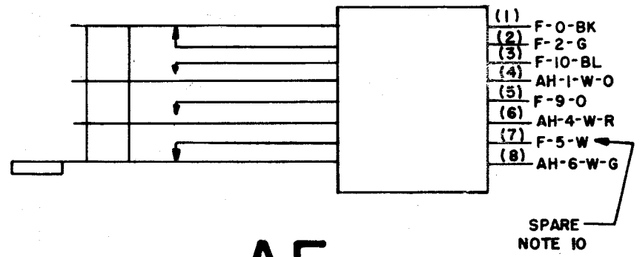


AA
KEYBOARD SIGNAL GENERATOR



CONTACT BOX ASSEMBLY WITH ARC SUPPRESSION NETWORK ACCESSORY.

AB
LOCK BAR SWITCH



AF
END-OF-LINE MARGIN INDICATOR SELECTOR SWITCH

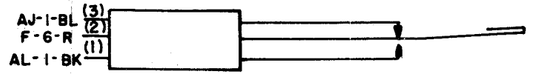
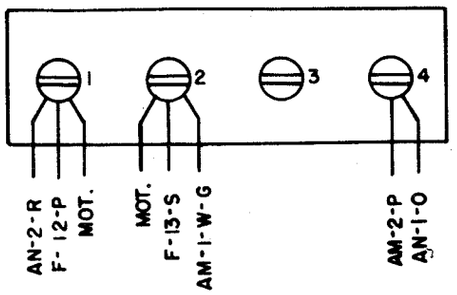
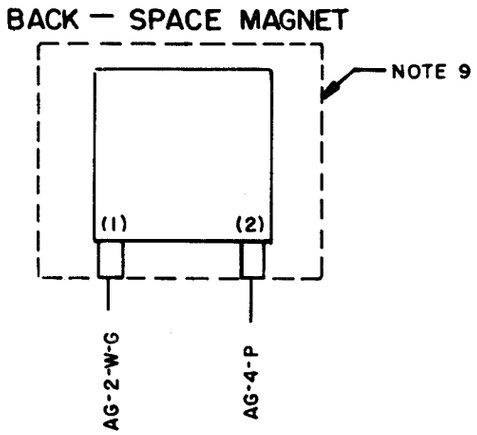
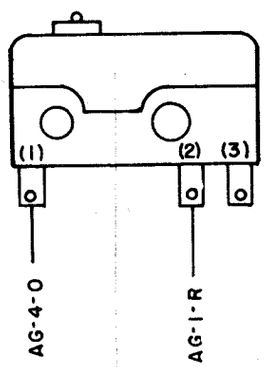
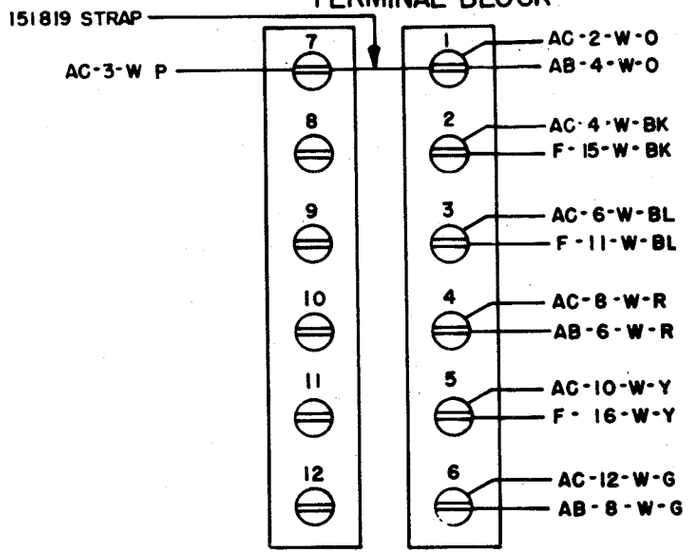


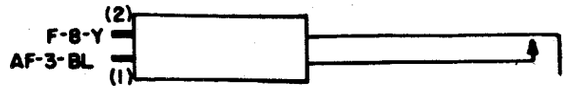
Figure 5-1. LAK 4, 25, 44 Keyboard Base Wiring Diagram (Sheet 1 of 2)

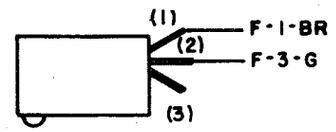


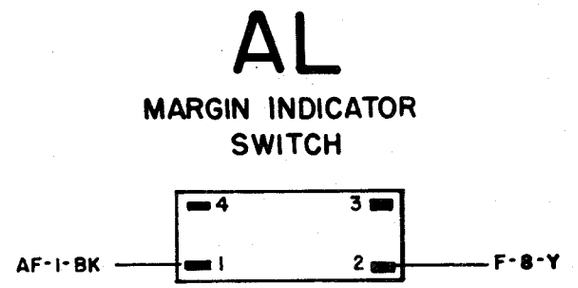












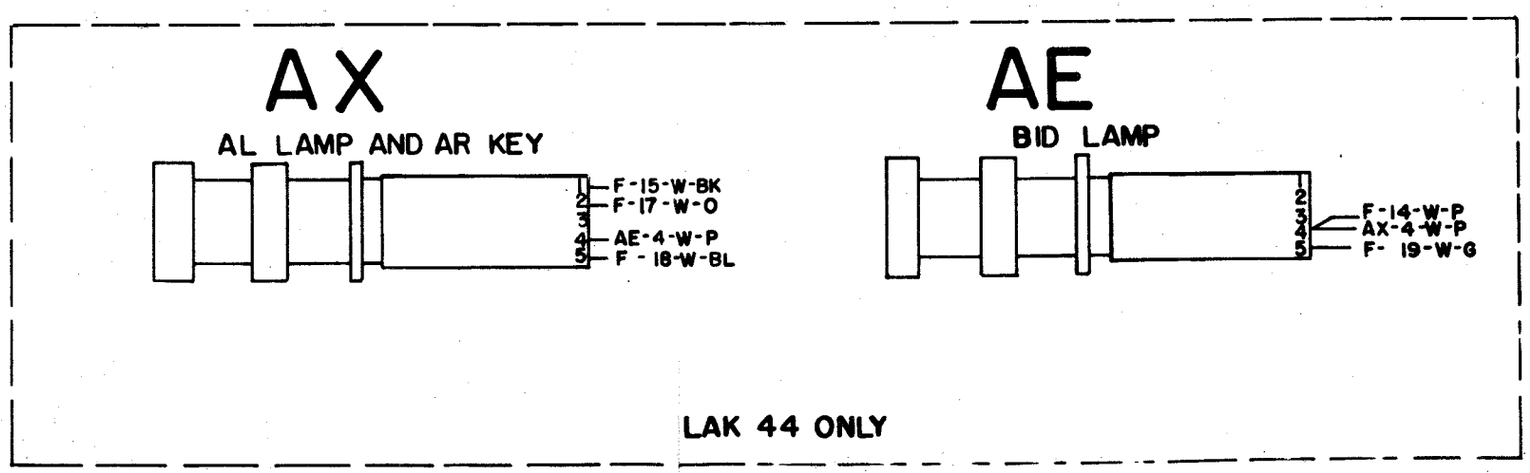
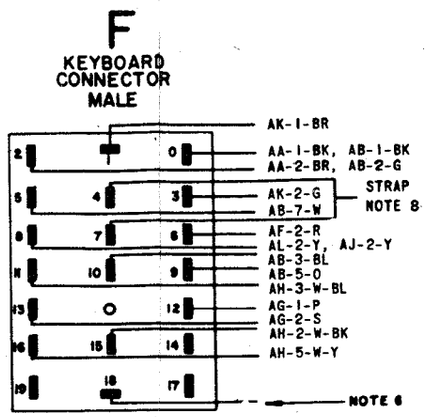
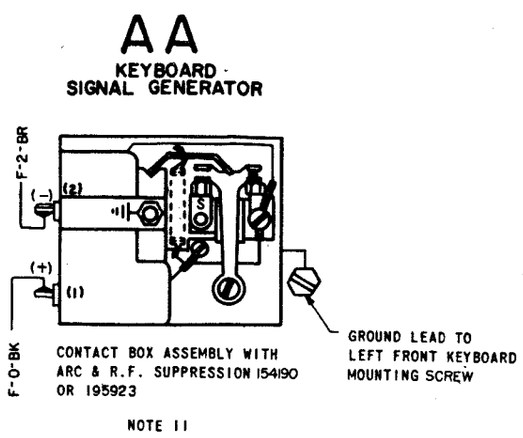
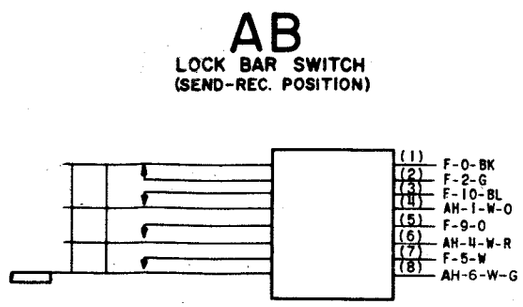


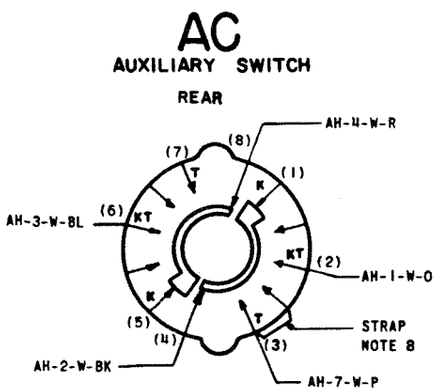
Figure 5-1. LAK 4, 25, 44 Keyboard Base Wiring Diagram (Sheet 2 of 2)

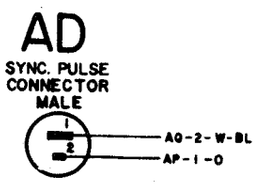
NO.	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA DISTANT TERMINATING DESIGNATION A-1-W-BL WIRE COLOR CODE
2.	COLOR CODE BK - BLACK G - GREEN BR - BROWN BL - BLUE R - RED P - PURPLE O - ORANGE W - WHITE Y - YELLOW S - SLATE
3.	UNIT WIRED FOR 115 VOLTS 50-60 CYCLE AC POWER INPUT.
4.	CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS.
5.	ALL CONTACTS SHOWN IN UNOPERATED POSITION IN KEYBOARD.
6.	SPARE TERMINAL OF F-18 RESERVED FOR POLAR OPERATION OF KEYBOARD SIGNAL GENERATOR.
7.	ASSOCIATED CABLES: 158224 CABLE ASSEMBLY, AUXILIARY 158249 CABLE ASSEMBLY, KEYBOARD 155992 CABLE ASSEMBLY, BACKSPACE 159343 CABLE ASSEMBLY, BACKSPACE MAGNET 179362 CABLE ASSEMBLY, SYNC. PULSE
8.	BARE WIRE STRAP 39522RM
9.	PART OF ASSOCIATED UNIT (LPE, LPR, LRPE, OR LTPE)
10.	UNCOIL, ROUTE, AND CONNECT 179362 CABLE TO TWO OPEN CABINET TERMINALS, TYING UP ANY SLACK
11.	POLARITY MUST BE MAINTAINED ONLY WHEN 154190 FILTER IS USED. POLARITY MAY BE DISREGARDED WHEN 195923 FILTER IS USED.

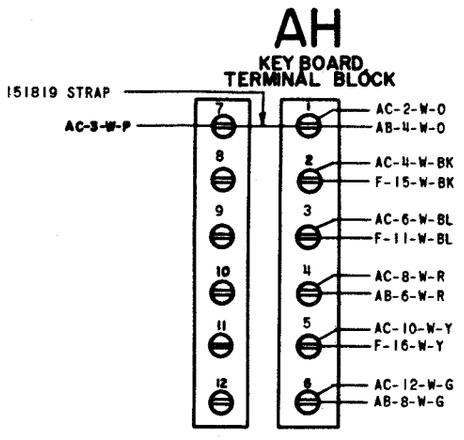


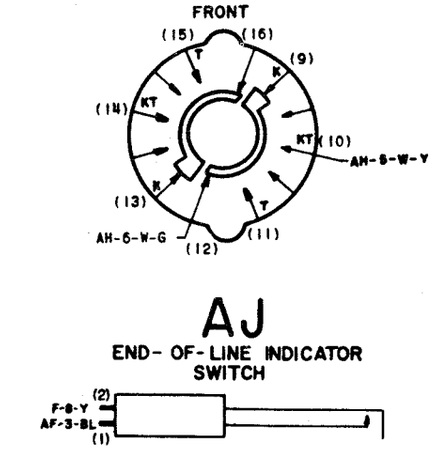


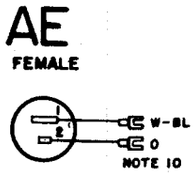


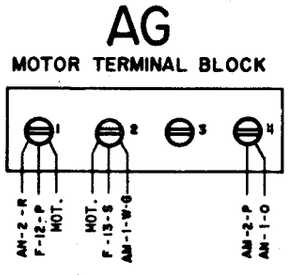


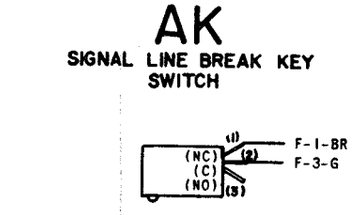


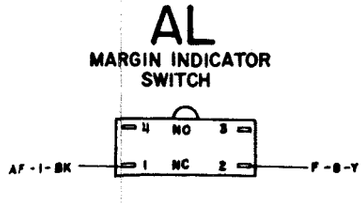


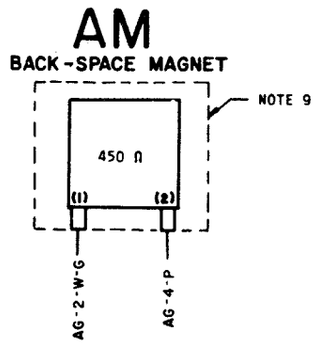


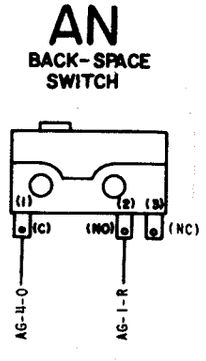


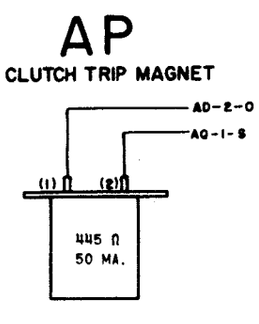












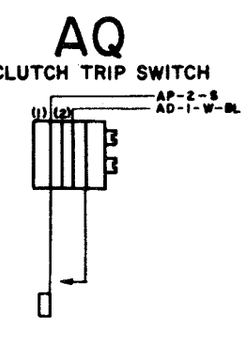
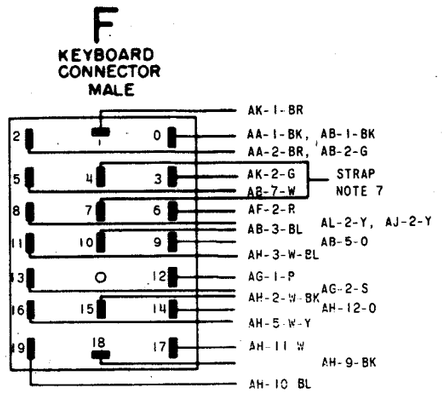
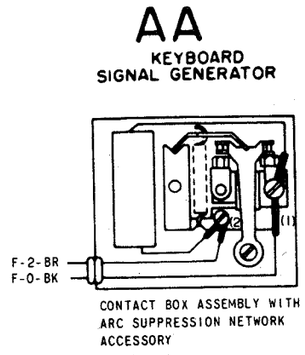
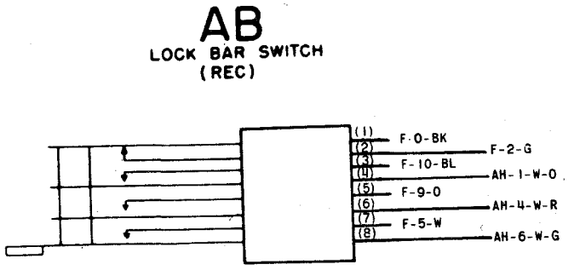


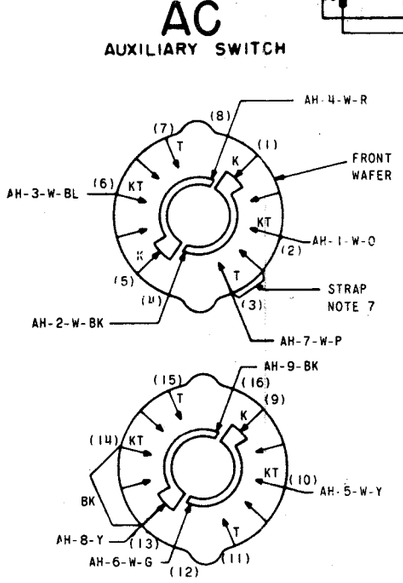
Figure 5-2. LAK 31 Keyboard Base Wiring Diagram

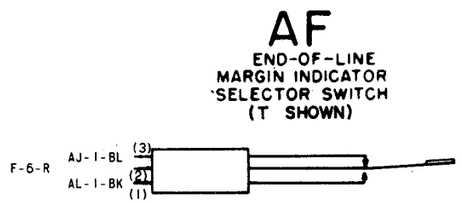
NO.	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA DISTANT TERMINATING DESIGNATION A-1-W BL WIRE COLOR CODE
2.	COLOR CODE: BK - BLACK, G - GREEN BR - BROWN, BL - BLUE R - RED, P - PURPLE O - ORANGE, W - WHITE Y - YELLOW, S - SLATE
3.	UNIT WIRED FOR 115 VOLTS AC OR DC POWER INPUT.
4.	PLUGS VIEWED FROM SOLDER TERMINAL ENDS.
5.	ALL CONTACTS SHOWN IN UNOPERATED POSITION IN KEYBOARD.
6.	ASSOCIATED CABLES: 198353 CABLE ASSEMBLY, AUXILIARY 198352 CABLE ASSEMBLY, KEYBOARD 155992 CABLE ASSEMBLY, BACKSPACE 159343 CABLE ASSEMBLY, BACKSPACE MAGNET 198351 CABLE ASSEMBLY, SYNC. PULSE TRIP MAGNET
7.	BARE WIRE STRAP 39522RM
8.	PART OF ASSOCIATED UNIT (LPE, LPR, LRPE, OR LTPE)
9.	FOR SCHEMATIC SEE 6460WD AND 7016WD.
10.	TAPE AND TIE BACK BLUE AND WHITE LEADS TO THE OTHER END OF 196353 CABLE ASSEMBLY.

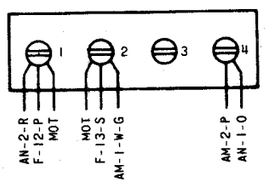


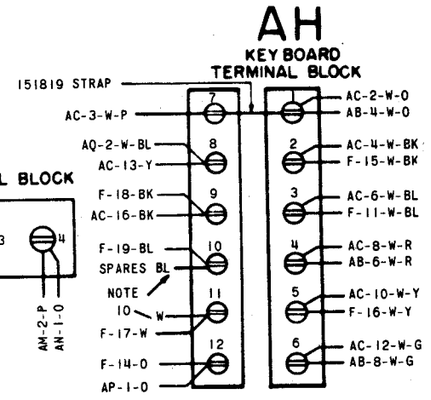


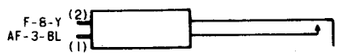


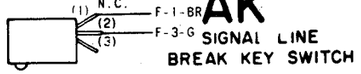


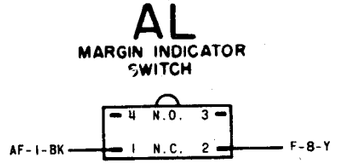


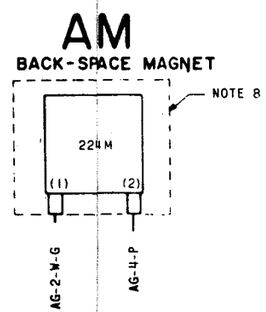


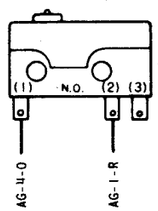


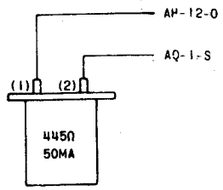












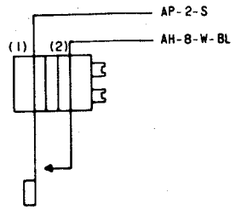
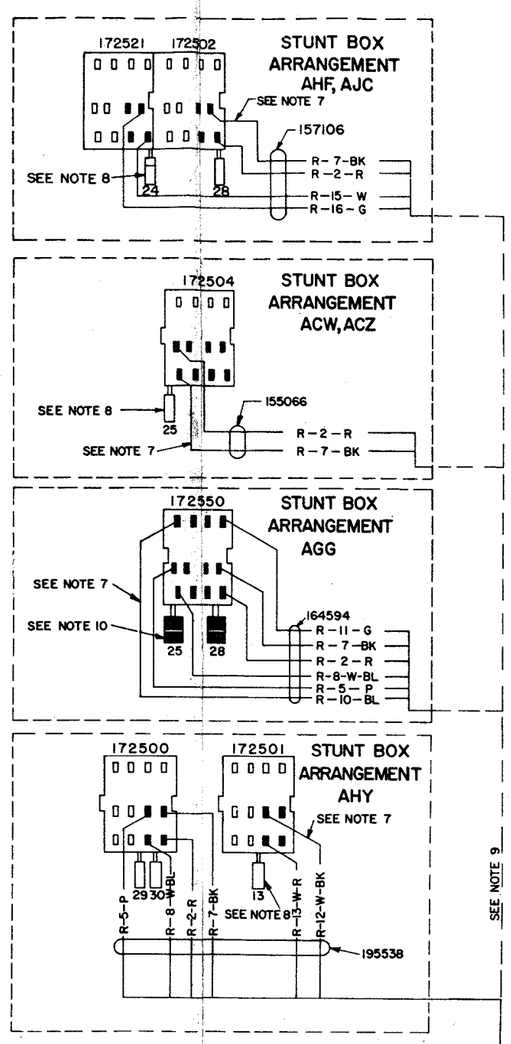


Figure 5-3. LAK 42, 46 Keyboard Base Wiring Diagram

NO.	NOTES
1	WIRING CHANNEL DESIGNATED BY "R" DOES NOT REPRESENT CABLES, BUT ASSISTS IN TRACING CONNECTIONS.
2.	COLOR CODE: BK—BLACK BL—BLUE W —WHITE R —RED Y —YELLOW BR—BROWN P —PURPLE O —ORANGE S —SLATE G —GREEN
3.	COLOR LEGEND: R- CHANNEL IDENTIFICATION 8- CHANNEL WIRE NUMBER W WIRE COLOR CODE
4.	
5.	CONNECTOR VIEWED FROM SOLDERED TERMINAL ENDS.
6.	
7.	THESE LEADS FURNISHED WITH FUNCTION BOX.
8.	NORMALLY OPEN CONTACTS NORMALLY CLOSED CONTACTS
9.	A COMPLETE LP UNIT USES ONLY ONE STUNT BOX. MAKE APPROXIMATE (____) CONNECTIONS TO COMPLETE CIRCUIT.
10.	TRANSFER CONTACTS REAR CONTACTS NORMALLY OPEN REAR CONTACTS NORMALLY CLOSED
11.	THE FOLLOWING STUNT BOXES ARE WITHOUT SWITCH ASSEMBLIES: AX, ADL.
12.	THESE TWO TERMINALS ARE USED WHEN LP IS EQUIPPED WITH XD CONT. PAGE FEED OUT OR XD CONT. HORIZ. TAB. IF BOTH FEATURES ARE USED, THEY ARE WIRED IN SERIES TO THESE TERMINALS.
13.	USE 39522RM STRAP FOR LP 95,96,97,102,122
14.	THE 159611 SIGNAL BELL AND THE 195353 CABLE ASSEMBLY ARE CONTAINED ON THE LP111 ONLY.
15.	A. THE LP111 IS FACTORY WIRED FOR 60MA OPER. B. THE LP 111 MAY BE CONVERTED FOR 20-30MA. OPERATION BY THE CUSTOMER.
16.	FOR AFY STUNT BOX, CONTACT IS OVER SLOT 30.
17.	195269 STRAP CONNECTED FROM TERMINAL 6 TO CONNECTOR BRACKET MOUNTING SCREW FOR 179613 AND 179644 R.F. SUPPRESSION MODIFICATION KITS.



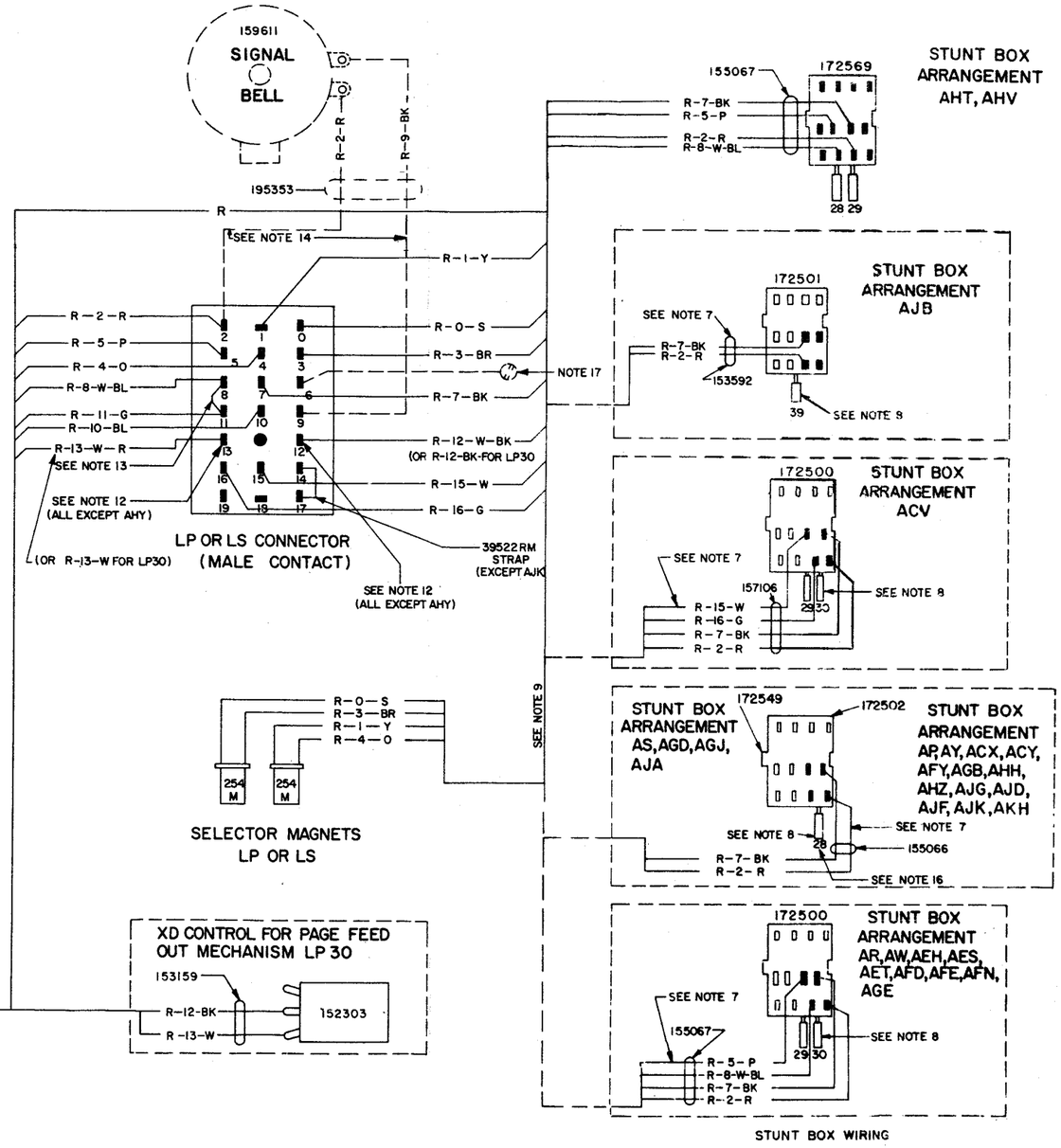


Figure 5-4. Model 28 ASR Typing Unit and Stunt Box Wiring Diagram

NO.	NOTES:
1.	WIRING CHANNEL DESIGNATED BY "C" DOES NOT REPRESENT CABLE BUT ASSISTS IN TRACING CONNECTIONS.
2.	CHANNEL LEGEND C – 8 – W CHANNEL IDENTIFICATION CHANNEL WIRE NUMBER WIRE COLOR CODE
3.	COLOR CODE: BK – BLACK R – RED W – WHITE G – GREEN O – ORANGE Y – YELLOW S – SLATE BR – BROWN
4.	CONNECTORS VIEWED FROM SOLDERED TERMINAL ENDS.
5.	THESE CABLES ARE FURNISHED WITH STUNT BOX.
6.	NORMALLY OPEN CONTACT NORMALLY CLOSED CONTACT

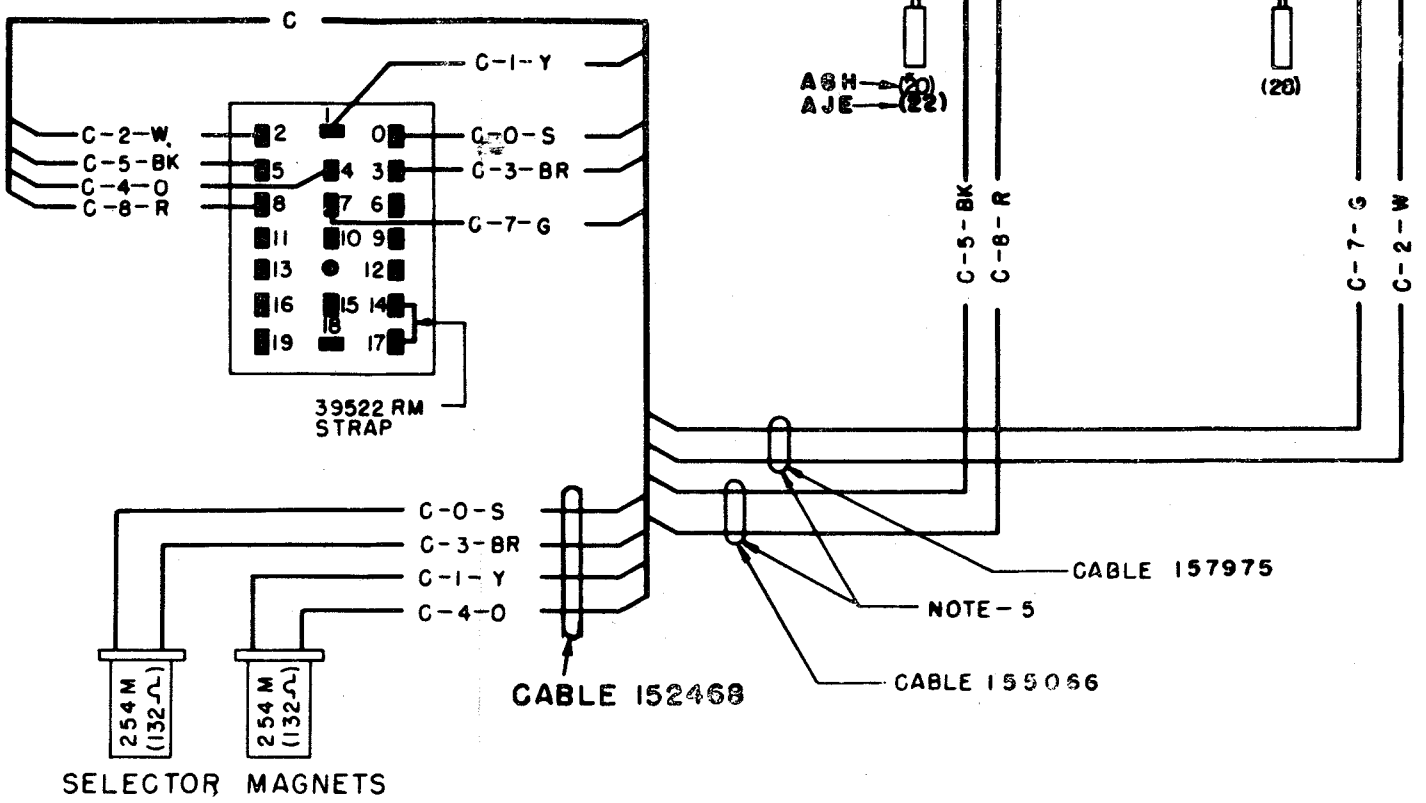


Figure 5-5. LP 14, 108, 109 Typing Unit Wiring Diagram

5-51/5-52 blank

NO.	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA DISTANT TERMINATING DESIGNATION F-W-BL WIRE COLOR CODE
2.	COLOR CODE: BK - BLACK G - GREEN BR - BROWN BL - BLUE R - RED P - PURPLE O - ORANGE S - SLATE Y - YELLOW W - WHITE
3.	TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESES ARE FOR REFERENCE AND ARE NOT MARKED ON COMPONENTS.
4.	TERMINALS ON CONNECTOR SHOWN AS VIEWED FROM SOLDER END.
5.	NORMALLY OPEN (NO) AND NORMALLY CLOSED (NC) CONTACTS ARE SHOWN WHEN THE REPERFORATOR IS IN THE STOP (IDLE) POSITION.
6.	THE SPACING (S) SIDE ON THE CODE READING CONTACTS ARE NORMALLY CLOSED. THE MARKING (M) SIDE OF THE CODE READING CONTACTS ARE NORMALLY OPEN.
7.	WHEN THE AUXILIARY CONTACTS ARE OPERATED FROM A SINGLE CYCLE FUNCTION CAM, THE CONTACTS NEAREST THE MOUNTING BRACKET ARE NORMALLY CLOSED. WHEN THE AUXILIARY CONTACTS ARE OPERATED FROM A DOUBLE CYCLE FUNCTION CAM, THE CONTACTS FARTHEST FROM THE MOUNTING BRACKET ARE NORMALLY CLOSED.
8.	GENERAL NOTE: WIRING OF INDIVIDUAL COMPONENTS IS DETERMINED BY REFERRING TO THE CABLE ASSEMBLIES SPECIFIED ON THE UNIT B/M.
9.	WHEN USING THE 162306 CABLE ASSEMBLY WITH THE LRPE8, CONNECT THE W-BL WIRE (NORMALLY CONNECTED TO GN) TO G6.

10.	
11.	WHEN COMMON CONNECTION IS USED, D.C. MUST BE PROVIDED FOR MAGNETS OTHER THAN 224W WHICH OPERATES ON A.C. OR D.C.
12.	FOR WIRING OF BACKSPACE MAGNET ON LAK KEYBOARD MOUNTED PERFORATORS, REFER TO ASSOCIATED LAK WIRING DIAGRAM.
13.	SELECTOR MAGNETS MUST BE STRAPPED FOR 60 MILLIAMPERE OPERATION WHEN 179615 AND 179616 R.F. SUPPRESSION MODIFICATION KITS ARE USED WITH REPERFORATOR SET.
10	ON UNITS EQUIPPED WITH THE 173850 SHIELDED CABLE, THE STRAP BETWEEN TERMINALS C-35 AND C-36 IS OMITTED AND THE "G" WIRE OF THE CABLE IS CONNECTED TO TERMINAL C-35. IF THE UNIT EQUIPPED WITH THE 173850 SHIELDED CABLE IS USED ON A BASE NOT CONTAINING PROVISIONS FOR R.F SUPPRESSION (INCLUDING BELL SYSTEM) REMOVE THE "G" WIRE FROM TERMINAL C-35 AND ADD STRAP BETWEEN TERMINALS C-35 AND C-36.
14	THE LPR 66 SELECTOR MAGNET ASSEMBLY SHALL BE STRAPPED IN PARALLEL FOR 500 MA OPERATION

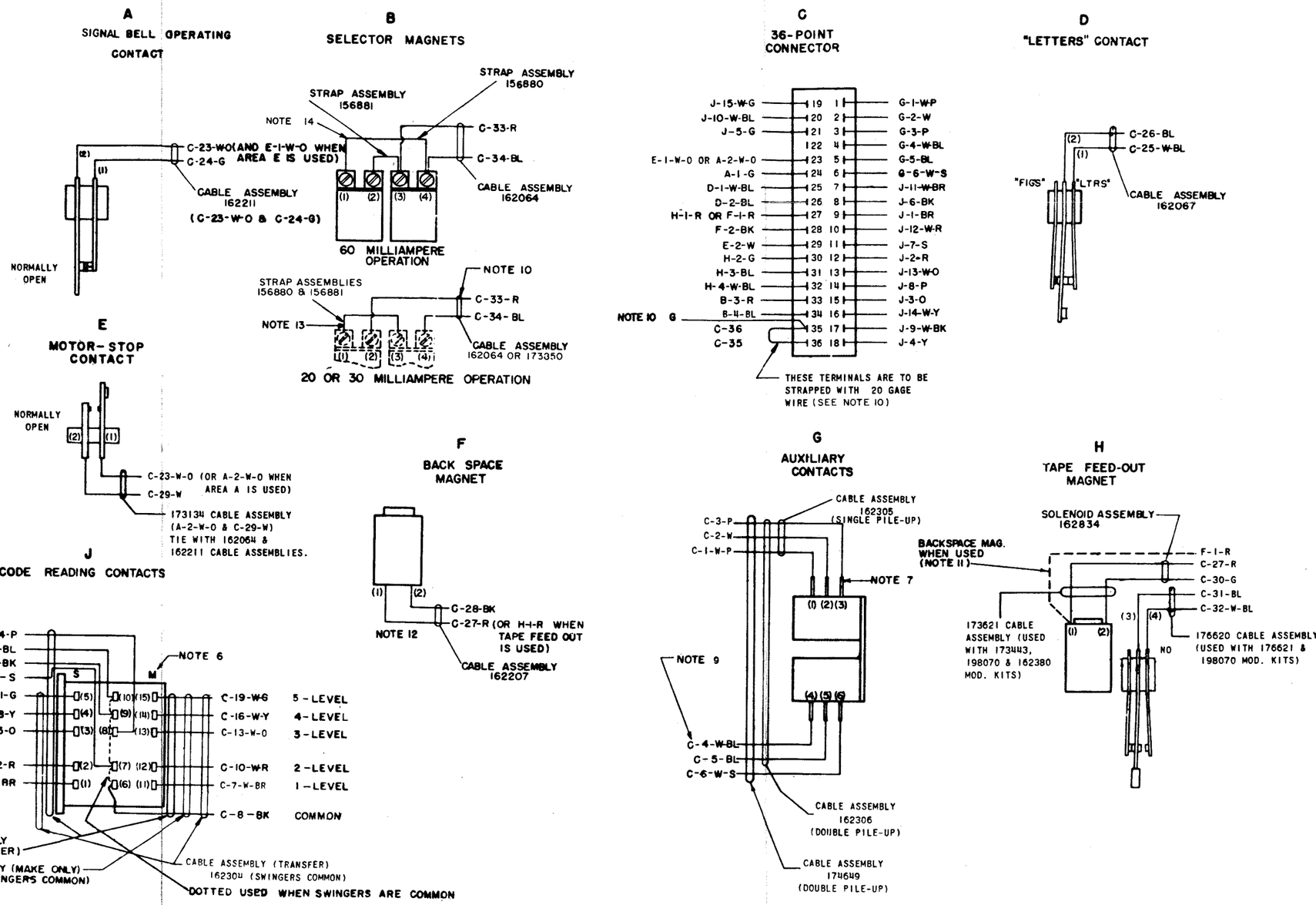


Figure 5-6. LPR, LPE, LRPE Typing and Non-Typing Reperforator Wiring Diagram

NO.	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA DISTANT TERMINATING DESIGNATION WIRE COLOR CODE AB—2—W
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 S—SLATE W—S WHITE—SLATE P—PURPLE W—P WHITE—PURPLE W—WHITE
3.	ASSOCIATED CABLE ASSEMBLIES 161886, 161887 & 161888.
4.	ALL CONNECTORS VIEWED FORM SOLDER END.
5.	TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESIS ARE NOT MARKED ON COMPONENTS.
6.	FOR SCHEMATIC WIRING DIAGRAM SEE 3591 WD.

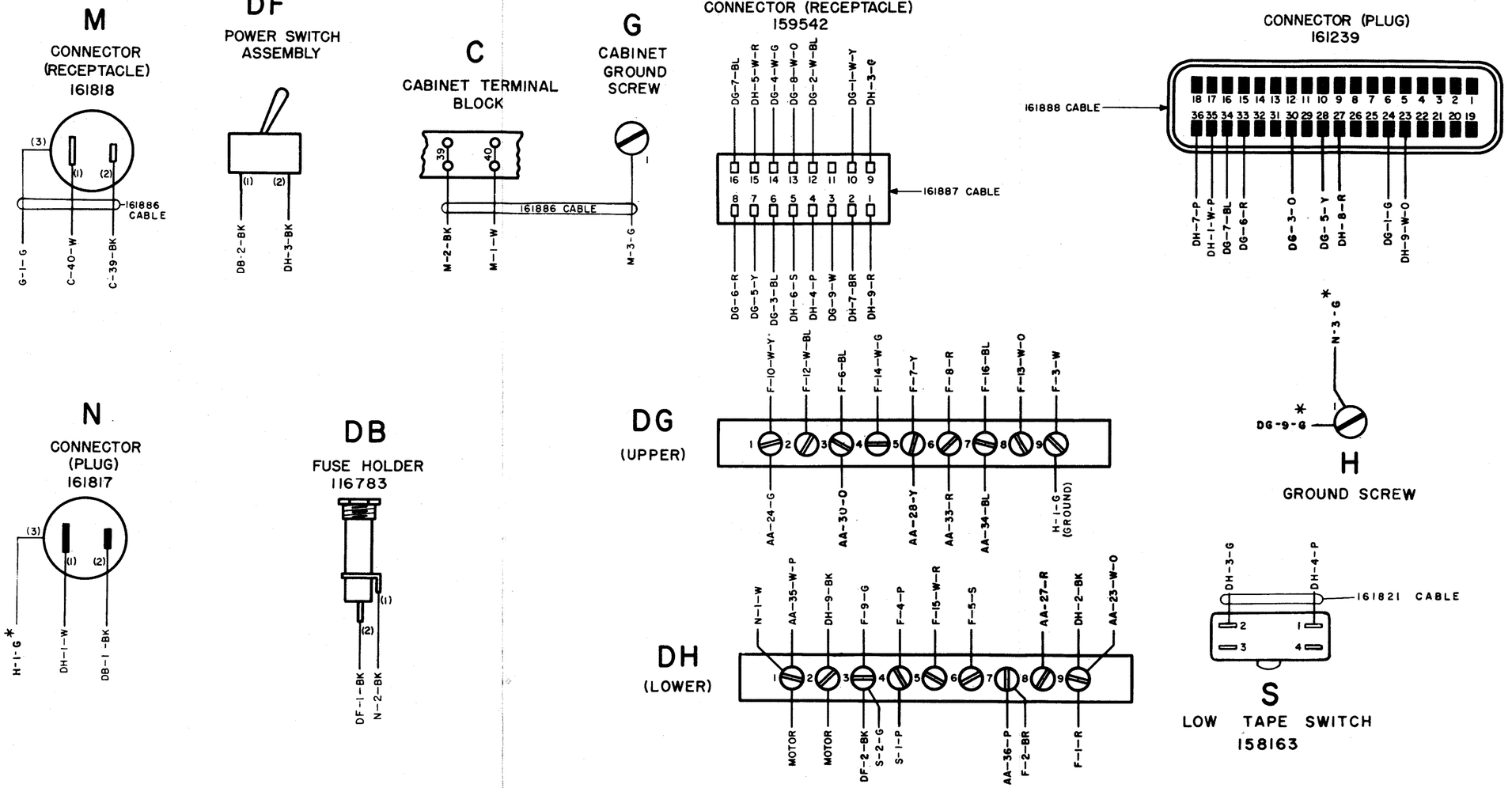


Figure 5-7. LRB 5, 6 Reperforator Base Wiring Diagram

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—LMU 3,4,6 3590 WD TYPING REPERFORATOR BASE LRB 5, LRB 6
2.	LEGEND ○ DG TERMINAL BLOCK (ON BASE) ○ DH TERMINAL BLOCK (ON BASE) ◁ F 16-POINT CONNECTOR ○ A TERMINAL BLOCK (IN LESU) ○ B TERMINAL BLOCK (IN LESU) ○ D TERMINAL BLOCK (IN LESU) ○ E TERMINAL BLOCK (IN LESU) ○ J ①TERMINAL STRIP ON LINE RELAY (IN LESU) ◁ J ② LINE RELAY CONNECTOR (IN LESU) ○ J ③ LINE RELAY FILTER(IN LESU) ◁ AA 36 POINT CONNECTOR (ON BASE) C CABINET TERMINAL BLOCK ≪ P CONTROL PANEL CONNECTOR ≪ R CONTROL PANEL 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 (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 ~ (±1%) A.C. POWER ONLY. GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60 ~ UNREGULATED A.C.
8.	LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING LINE RELAY COIL.
9	TAPE FEED OUT AND/OR BACKSPACE MAGNETS ARE AVAILABLE ONLY WITH SPECIFIC CODED LPR UNITS.
10	WHEN COMMON CONNECTION IS USED, D.C. MUST BE PROVIDED FOR MAGNETS OTHER THAN 224M WHICH OPERATES ON A.C. OR D.C.
11.	WIRING FOR LRB6 (EQUIPPED WITH 178838 MOD. KIT) OR LRB36, LRB51

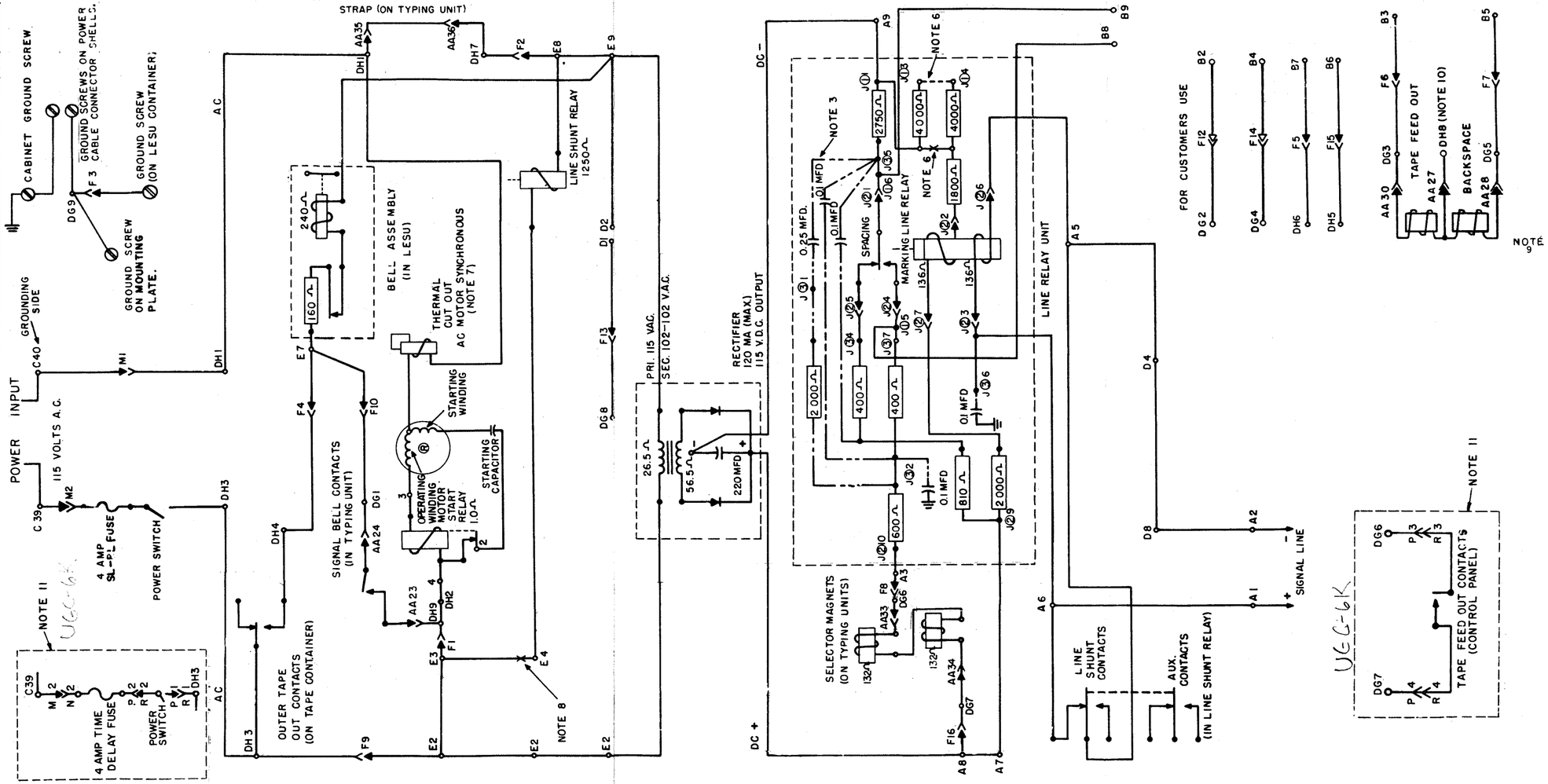


Figure 5-8. LRB 5, 6, 36, 42, 51 Reperforator Base Schematic Wiring Diagram

NO.	NOTES
1.	WIRING LEGEND: AB—2—W AB — DISTANT TERMINATING AREA 2 — DISTANT TERMINATING DESIGNATION W — 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 S—SLATE, W—S WHITE—SLATE P—PURPLE, W—P WHITE—PURPLE W—WHITE
3.	ALL CONNECTORS VIEWED FROM SOLDER END.
4.	TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESIS ARE NOT MARKED ON COMPONENTS.
5.	FOR SCHEMATIC WIRING DIAGRAM SEE 3591WD.
6	ASSOCIATED CABLE ASSEMBLIES 161886, 161887, 161888, 312475 AND 312476
7.	MAKE THIS CONNECTION BY (SPLICE, SOLDER, AND TAPE) BLACK LEAD FROM 161887 CABLE ASSEMBLY AND BLUE LEAD FROM 312476 CABLE ASSEMBLY.
8.	TIE BLACK JUMPER WIRE BACK IN CABLE.
9.	COVER TERMINAL T-6 WITH A 155753 INSULATING SLEEVE.

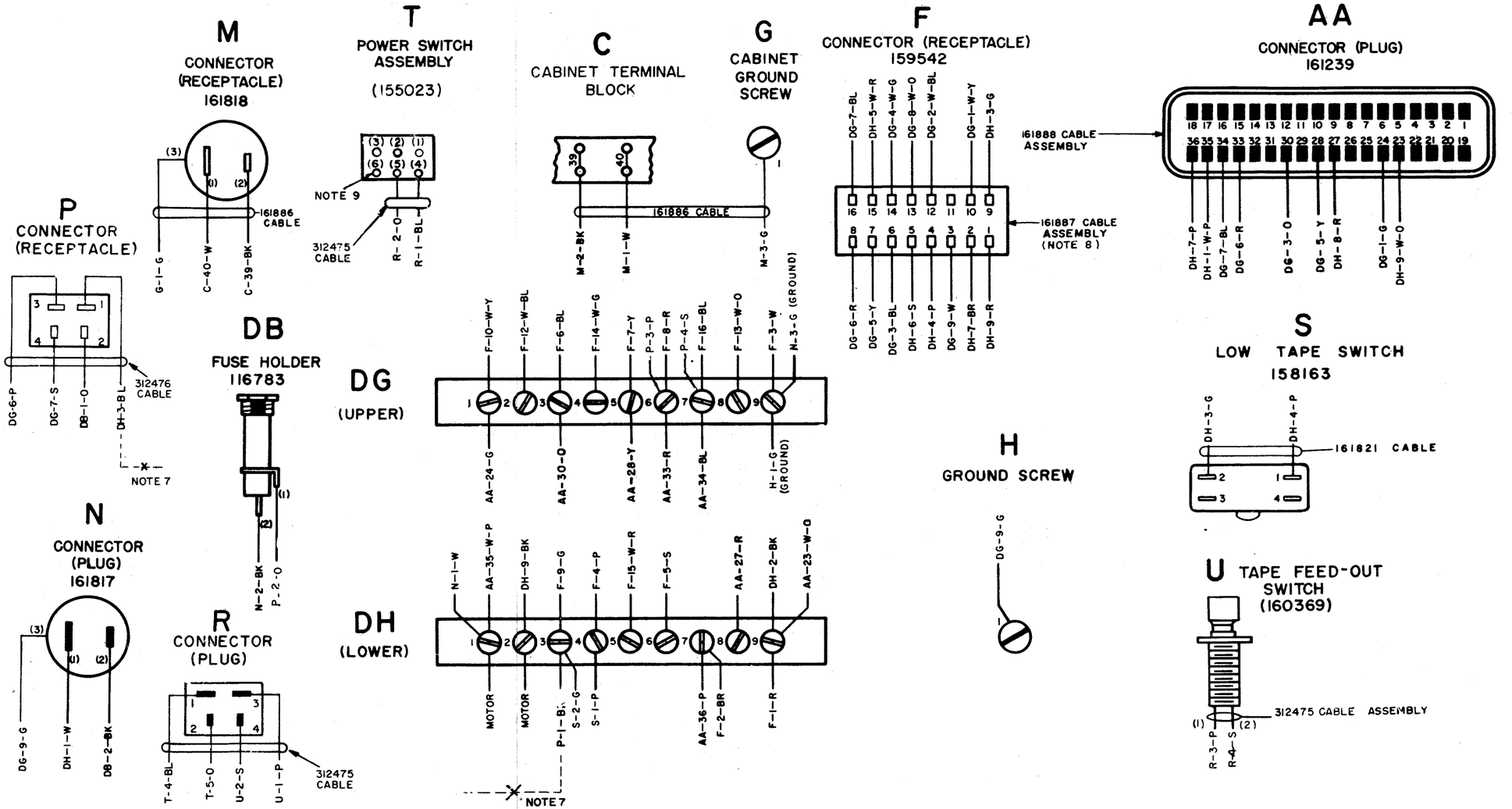
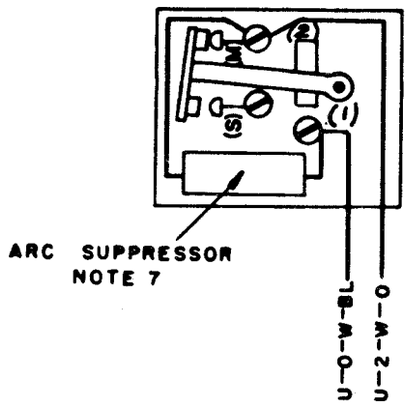


Figure 5-9. LRB 36, 42 and 51 Reperforator Base Wiring Diagram

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 W—BK— WHITE-BLACK W—BR— WHITE-BROWN W— R— WHITE-RED W— O— WHITE-ORANGE W— Y— WHITE-YELLOW W— G— WHITE-GREEN W—BL— WHITE-BLUE W— P— WHITE-PURPLE W— S— WHITE-SLATE
4.	CONNECTOR VIEWED FROM SOLDER TERMINAL ENDS.
5.	ALL CONTACTS SHOWN IN UNOPERATED POSITION.
6.	SPARE TERMINAL OF U-18 RESERVED FOR POLAR OPERATION OF TRANSMITTER DISTRIBUTOR SIGNAL GENERATOR.
7.	DISCONNECT ONE TERMINAL WHEN TESTING SIGNAL GENERATOR.
8.	THE NUMBERS ENCASED BY PARENTHESES ARE USED FOR REFERENCE AND ARE NOT NECESSARILY SHOWN ON THE PARTS.
9.	A. 115 V ±10% AC POWER TO BE USED ON CLUTCH TRIP MAGNET ASSEMBLY CIRCUIT. (256M COIL ASSEMBLIES, 74Ω EACH) FOR DC OPERATION ADD SUFFICIENT EXTERNAL RESISTANCE TO LIMIT CURRENT TO 100 M.A. B. LXD27 EQUIPPED WITH 262M COIL ASSEMBLIES (RESISTANCE, 210Ω EACH) THE OPERATING CURRENT MUST BE 50 MA, 115VDC WIRED AS SHOWN. FOR AC OPERATION CONNECT IN PARALLEL.
10.	GROUND STRAP 117366 OF LCXB SHOULD BE SECURED TO RIGHT REAR MTG. STUD OF LAAC RAIL (SEE SPEC. 5941S).

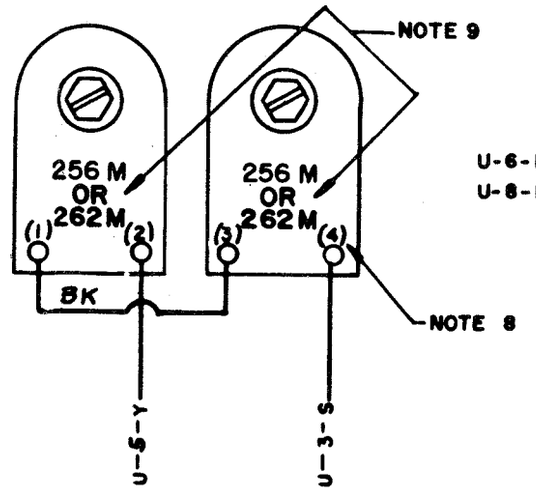
A

TRANSMITTER DISTRIBUTOR SIGNAL GENERATOR



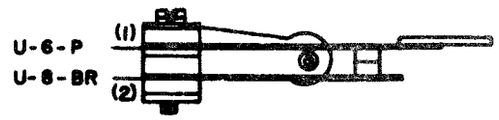
B

TRANSMITTER DISTRIBUTOR CLUTCH MAGNETS



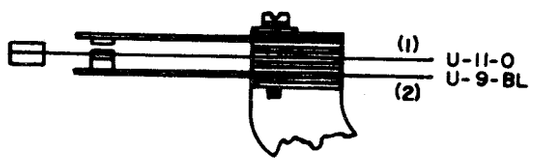
C

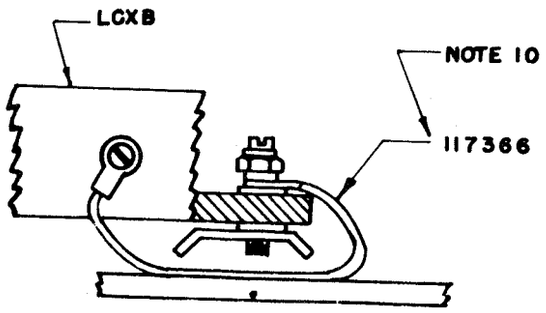
CONTROL LEVER CONTACT ASSEMBLY



D

TAPE — OUT CONTACT ASSEMBLY (TAPE IN UNIT)





U

TRANSMITTER DISTRIBUTOR CONNECTOR MALE

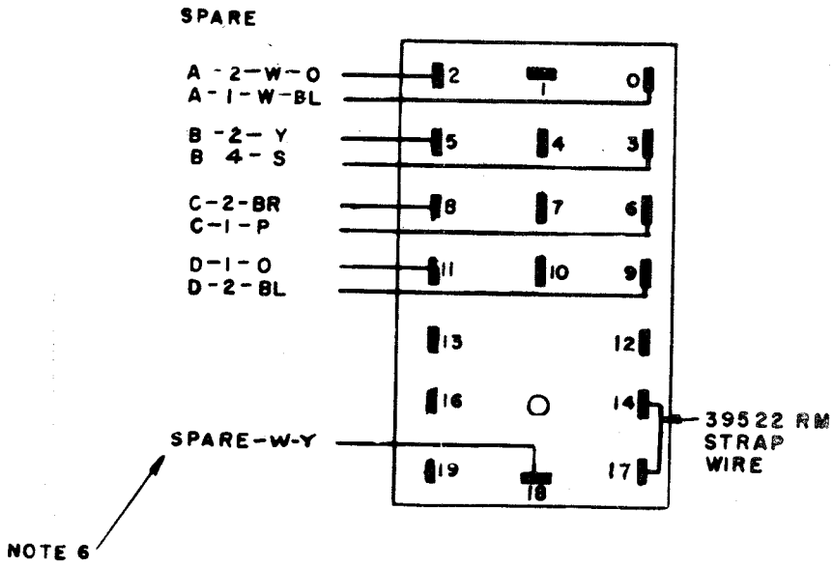
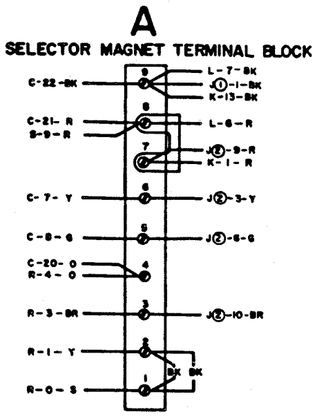


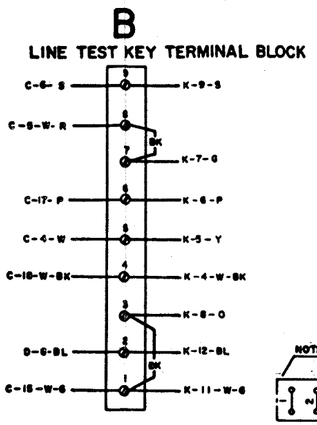
Figure 5-10. LXD 3, 27 Transmitter Distributor Wiring Diagram

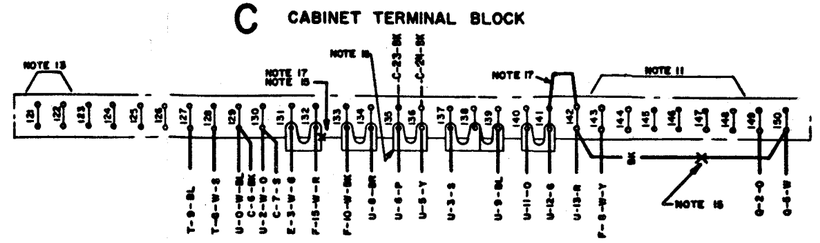
NO.	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA; DISTANT TERMINATING DESIGNATION (A-W-BL); WIRE COLOR CODE
2.	COLOR CODE: BK - BLACK; BR - BROWN; R - RED; O - ORANGE; Y - YELLOW; G - GREEN; BL - BLUE; P - PURPLE; W - WHITE; S - SLATE
3.	UNIT WIRED FOR 115 VOLTS, 50 TO 60 CYCLE A.C. POWER INPUT ONLY.
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:
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.

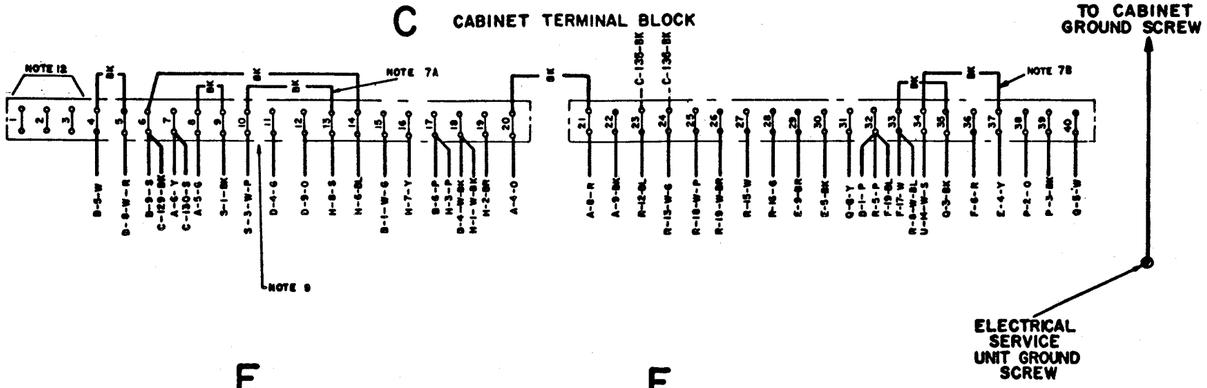
SIGNAL LINE CURRENT	CONNECTIONS REMOVED	CONNECTIONS ADDED
.020 AMP.	K1-K2, J①1-J①2	J①3-J①4

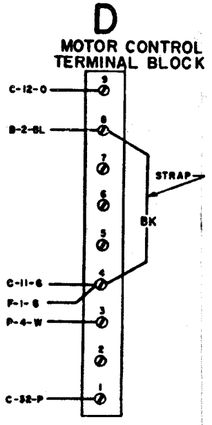
NO.	NOTES
13.	TERMINALS C-121 - C-122 RESERVED FOR PERFORATOR LOW-TAPE SWITCH.
14.	CONTACTS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.
15.	WHEN LXD IS USED IN PLACE OF LXD, MAKE THE FOLLOWING CHANGES: OMIT CONNECTIONS ADD CONNECTIONS C-142 TO C-160 C-131 TO C-132
16.	WHEN LXD5 IS USED, REMOVE THE 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.

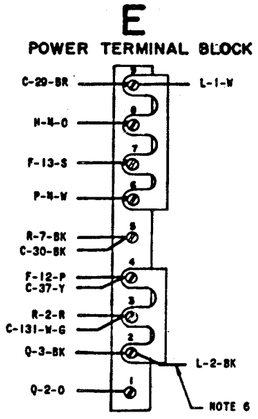












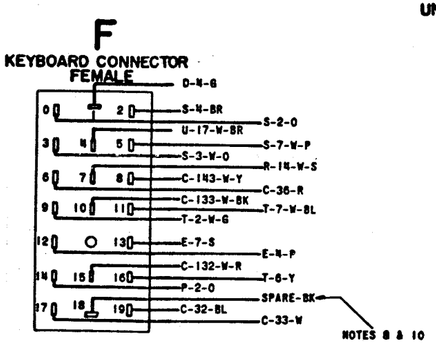
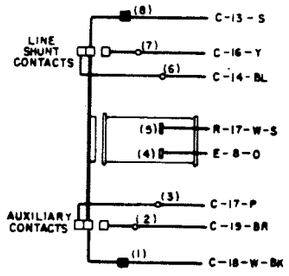
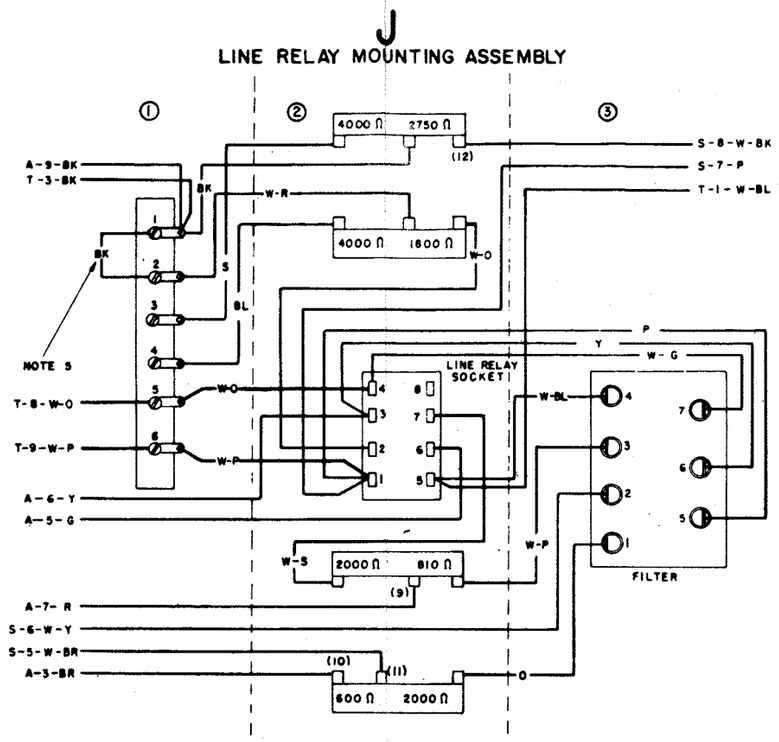
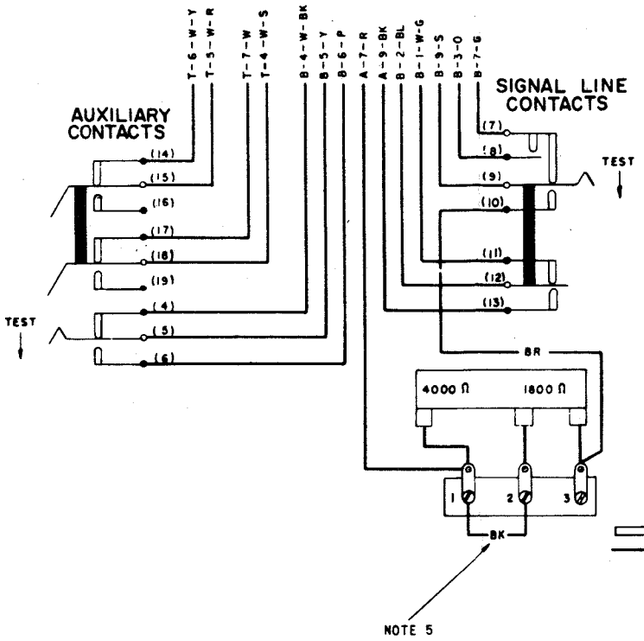
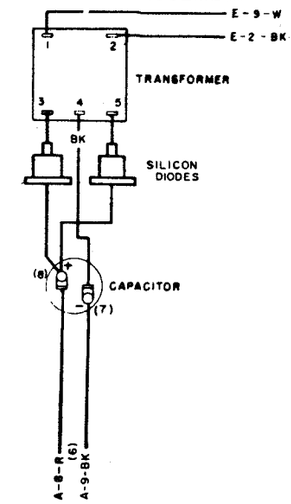


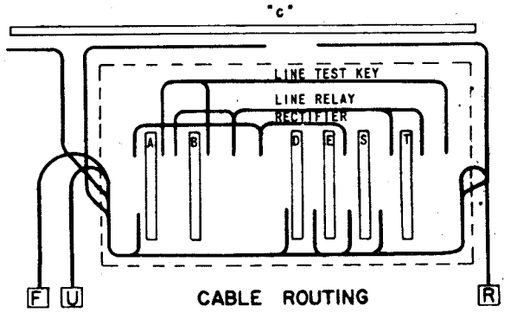
Figure 5-11. LESU 13 Electrical Service Unit Wiring Diagram (Sheet 1 of 2)

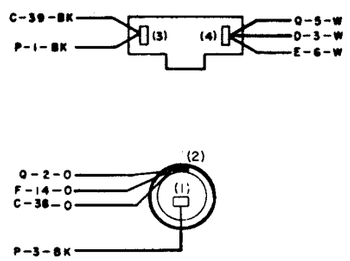


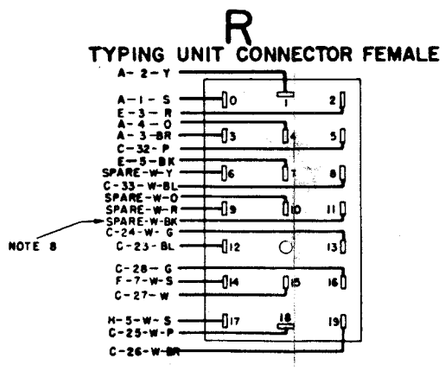


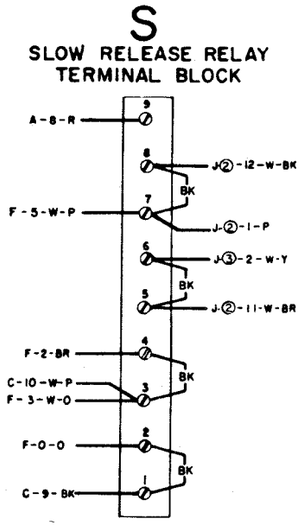


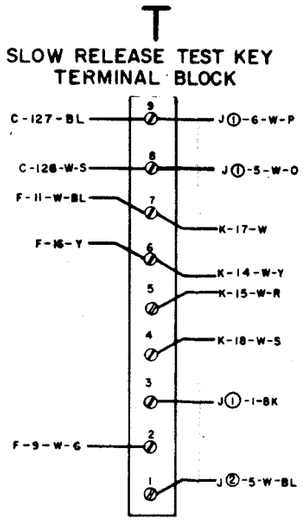












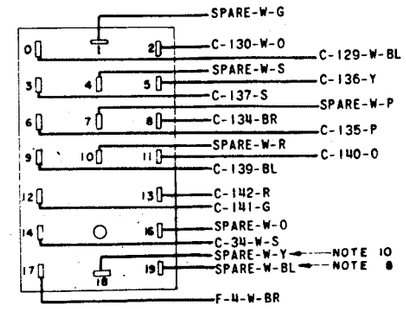
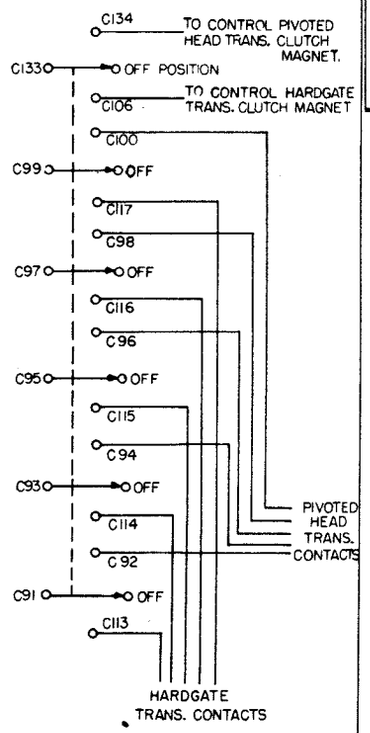


Figure 5-11. LESU 13 Electrical Service Unit Wiring Diagram (Sheet 2 of 2)

NO.	NOTES
1.	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE: WD NO. — UNITS DIRECTLY OPERABLE WITH LESU 3264WD — CABINETS-LAAC209,210 3292WD — ELECTRICAL SERVICE UNIT LESU13 3302WD — KEYBOARDS-LAK4 2900WD — MOTOR UNITS-LMU12 OR 14. 2864WD — PAGE TYPING UNITS-LP 3300WD — TRANSMITTER DISTRIBUTOR-LXD3 3288WD — TRANSMITTER DISTRIBUTOR-LAXD 3 & LCXD1 3251WD — TRANSMITTER DISTRIBUTOR-LBXD5 3452WD — TRANSMITTER DISTRIBUTOR BASE -LCXB7
2.	LEGEND: ○ 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 CONN (LBXD).
3.	DOT DASH(---) LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS.
4.	ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.
5.	A. RESISTANCE IN OHMS (Ω) B. INDUCTANCE VALUES IN 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%) AC POWER ONLY. GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60~ UNREGULATED AC.

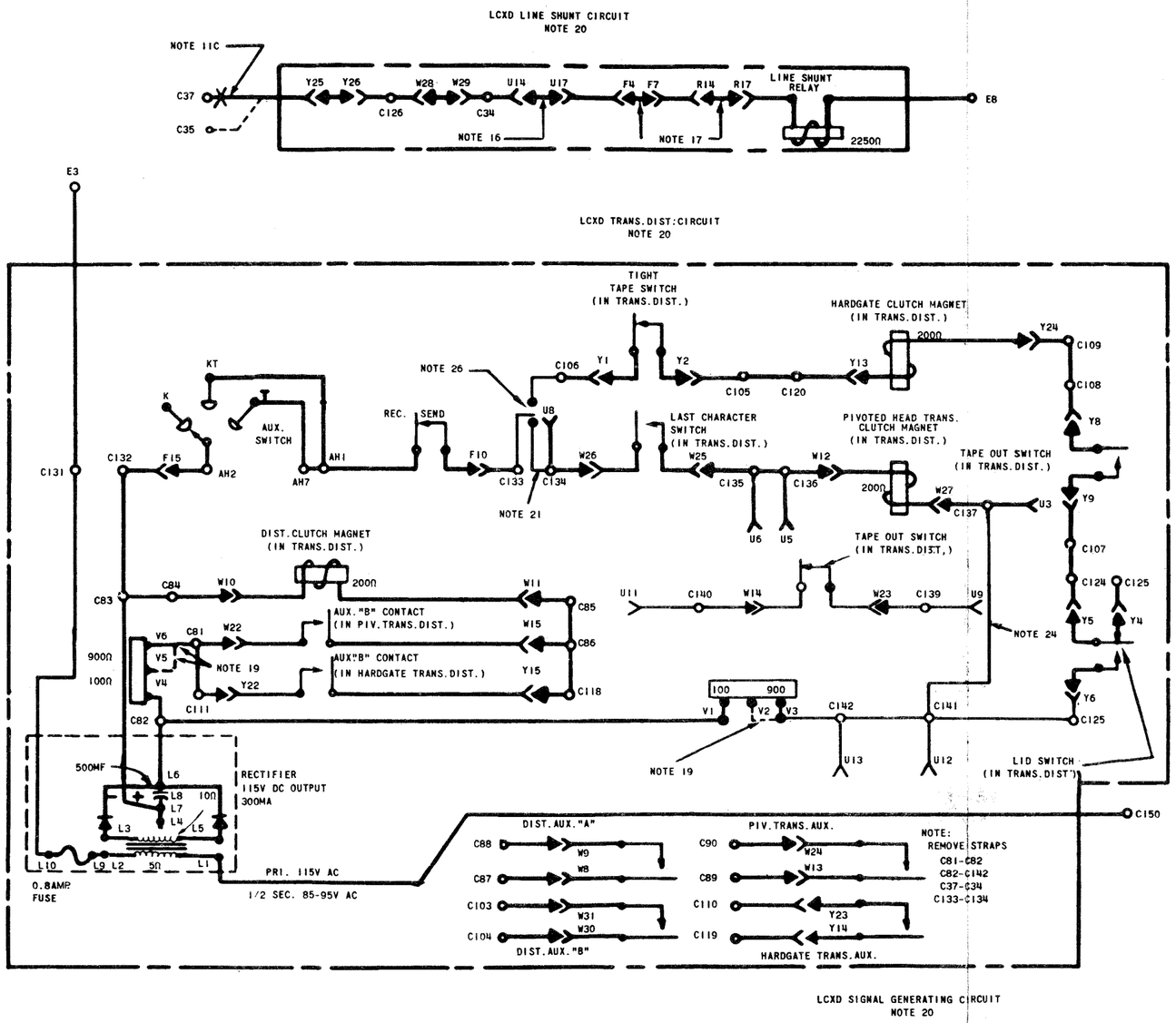
NO.	NOTES
9.	RECTIFIER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION, MOVE RECTIFIER LEAD L2 FROM E2 TO E1.
10.	A. TO OPERATE MOTOR CONTROL, SET MUST BE EQUIPPED WITH EITHER 1. TIME DELAY MECH. OR 2. MOTOR STOP CONTACTS B IF TAPE POSITION IS TO BE USED IN THE ASR SET THE TIME DELAY MECHANISM MUST BE EITHER ELECTRICALLY OR MECHANICALLY DISABLED.
11.	A. LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHOWN SHUNTING LINE RELAY COIL, TRANS.DIST.SIG. GENERATOR AND KEYBOARD SIG.GEN. B. IF KEYBOARD SHUNTING IS NOT DESIRED MOVE STRAP FROM C10 TO C9. C. FOR DIRECT CONTROL OF LINE SHUNT RELAY FROM POWER SWITCH, ADD DASHED (———) CONNECTIONS AND OMIT CONN. MARKED (✳) AT CABINET TERMINALS C34, C35. C37. CUSTOMER MAY THEN SELECT PORTION OF SIG.LINE CKT. TO BE SHUNTED BY CONNECTING TERM. C13 TO EITHER C9, C10, C11, C15.
12.	CIRCUIT SHOWS BOTH HORIZONTAL TABULATOR AND FORM START CONTROL USED ON TYPING UNIT. WHEN ONLY ONE CONTROL IS USED, OMIT CONNECTION MARKED (—✳—) AND ADD PROPER DASHED (----) CONNECTION IN TYPING UNIT CIRCUITS.
13.	FORM PAPER OUT ALARM CONTACTS MAY BE MOUNTED ON EITHER THE TYPING UNIT OR EXTERNAL TO THE CABINET. IN LATTER EVENT, CONNECTIONS ARE MADE DIRECTLY TO TERMINALS C25 AND C26.
14.	WHEN PAPER FEED OUT SWITCH IS NOT USED DISCONNECT MOTOR LEAD FROM AG3 AND CONNECT TO AG1.
15.	WHEN SIGNAL LINE BREAK SWITCH IS NOT USED IN KEYBOARD ADD DASHED (----) CONNECTION AT CABINET TERMINAL BLOCK BETWEEN C10 AND C11.
16.	IN ALL TRANS.DIST.U14 MUST BE CONNECTED TO U17 EXCEPT FOR LXD4 AND UP. (SEE NOTE 25)
17.	IN ALL KEYBOARDS F4 MUST BE CONNECTED TO F7. IN ALL TYPING UNITS R14 MUST BE CONNECTED TO R17.
18	SPARE LEADS FROM U18 AND F18 ARE RESERVED FOR POLAR OPERATION OF SIGNAL GENERATOR.

NO	NOTES
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) 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.



NO	NOTES
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 SUITABLE CIRCUITRY. THE TAPE OUT CONTACTS MAY NOT BE USED DIRECTLY SINCE THEY OPEN MOMENTARILY.
25.	U14 IS CONNECTED TO U17 THROUGH THE TRANS.DIST. LXD 4 AND UP: H22 M22 U17; H23 M23 U14
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.

Figure 5-12. LESU 13 Schematic Wiring Diagram (Sheet 1 of 6)



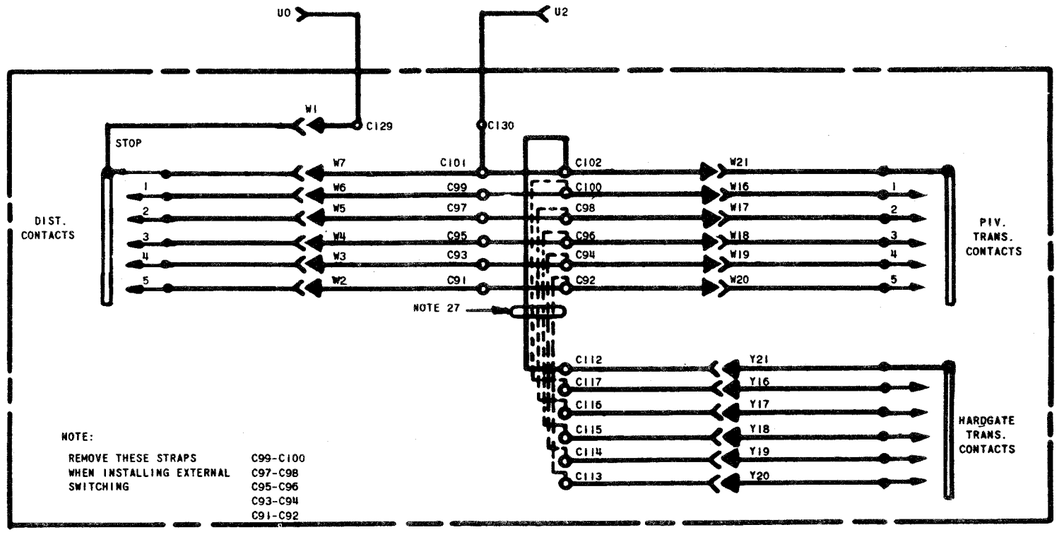
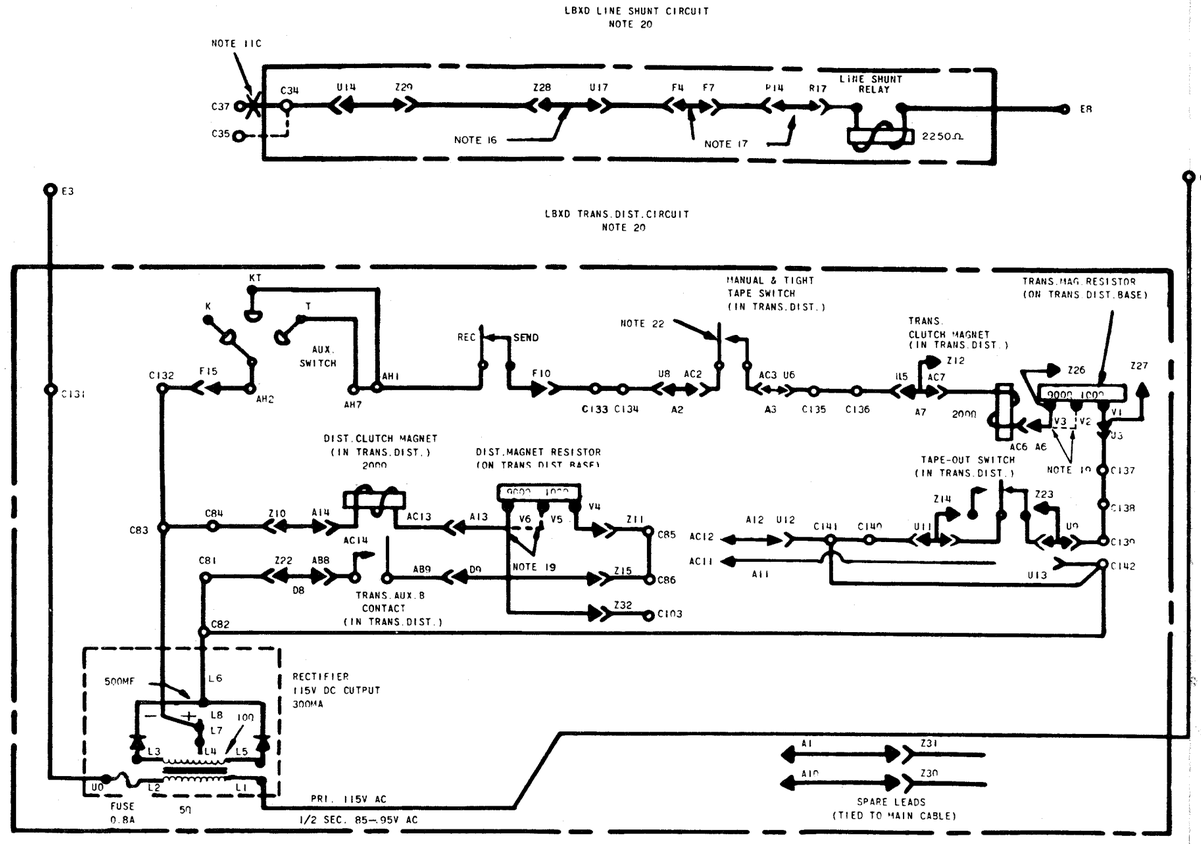


Figure 5-12. LESU 13 Schematic Wiring Diagram (Sheet 2 of 6)



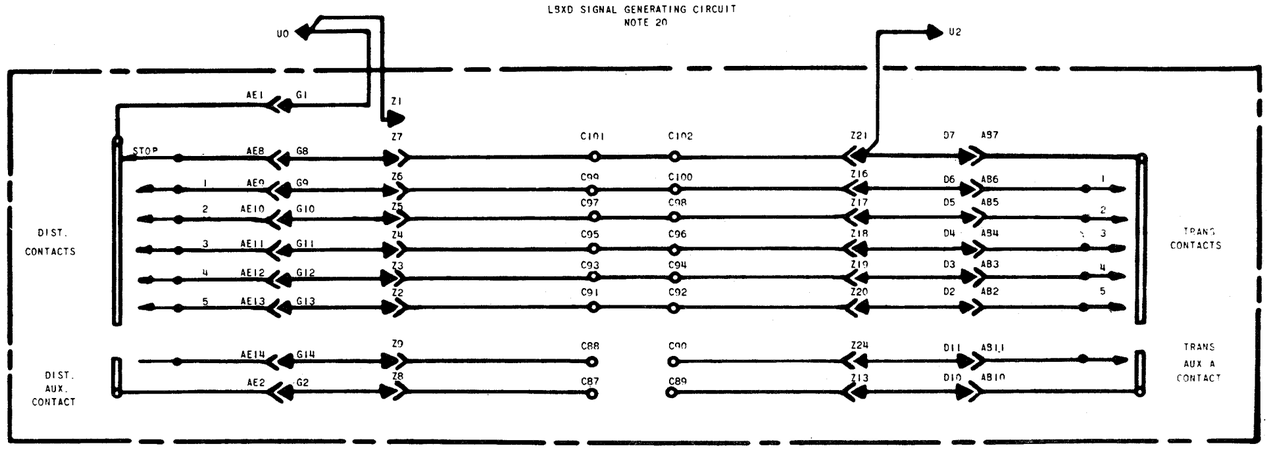


Figure 5-12. LESU 13 Schematic Wiring Diagram (Sheet 3 of 6)

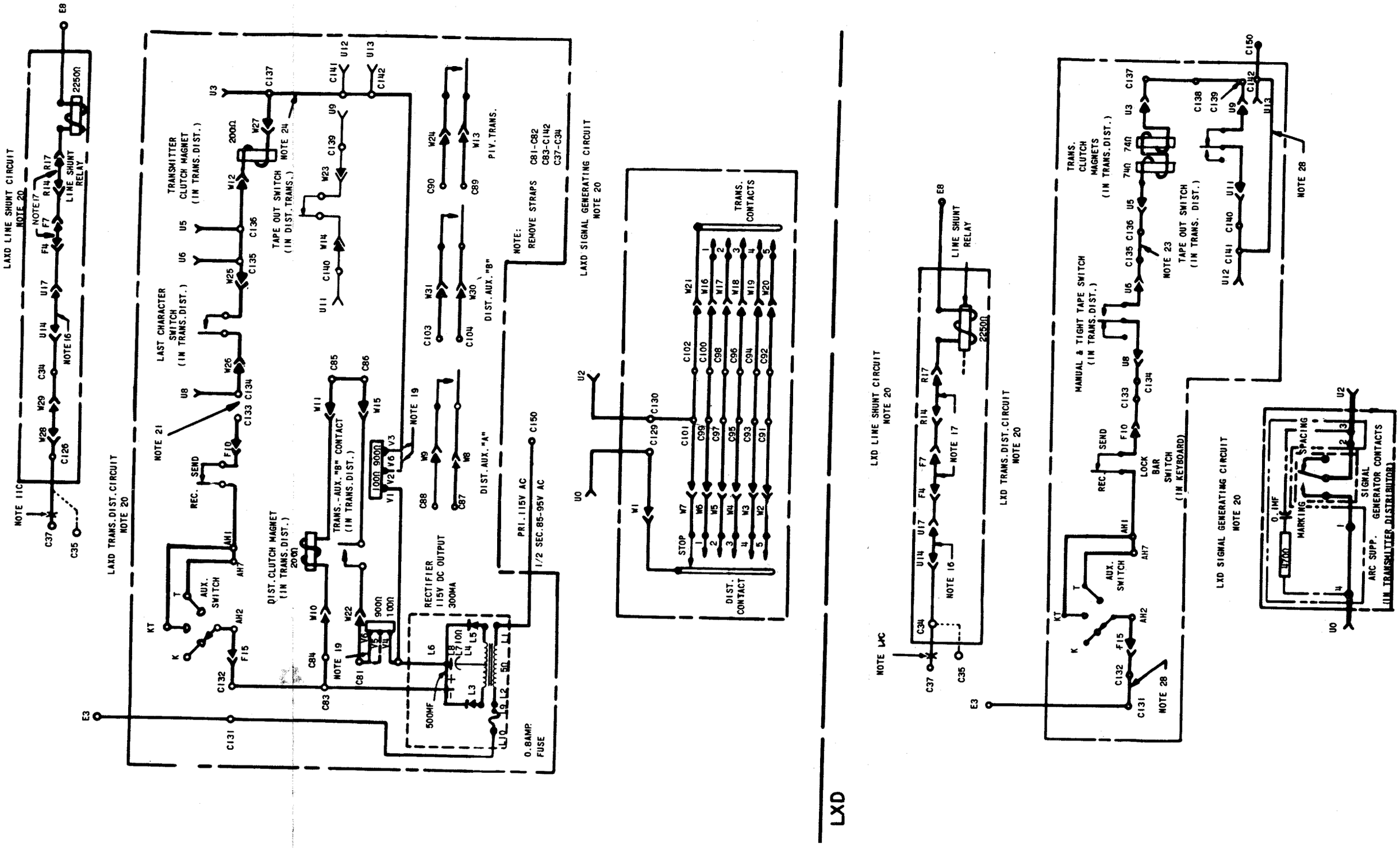


Figure 5-12. LESU 13 Schematic Wiring Diagram (Sheet 4 of 6)

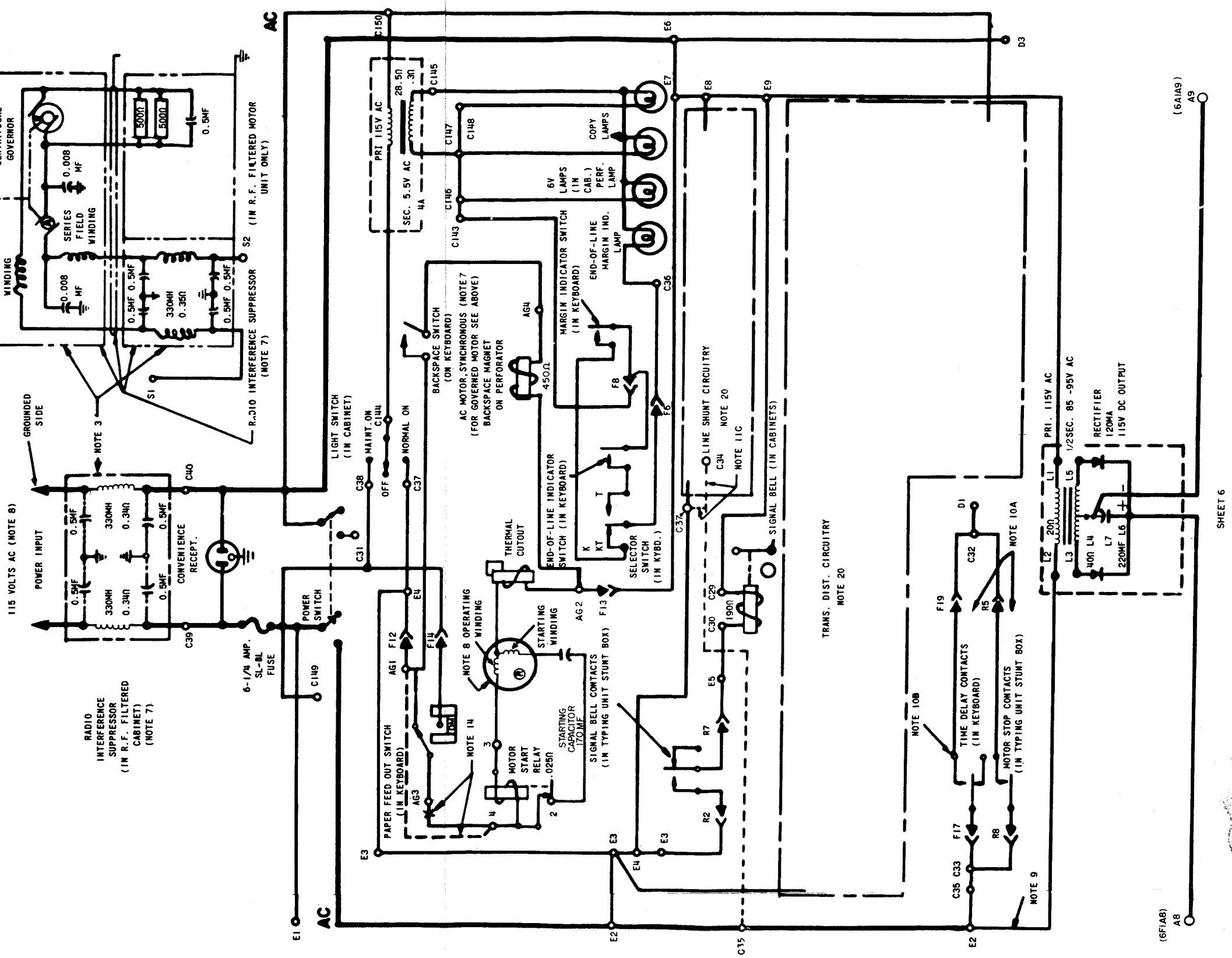


Figure 5-12. LESU 13 Schematic Wiring Diagram (Sheet 5 of 6)

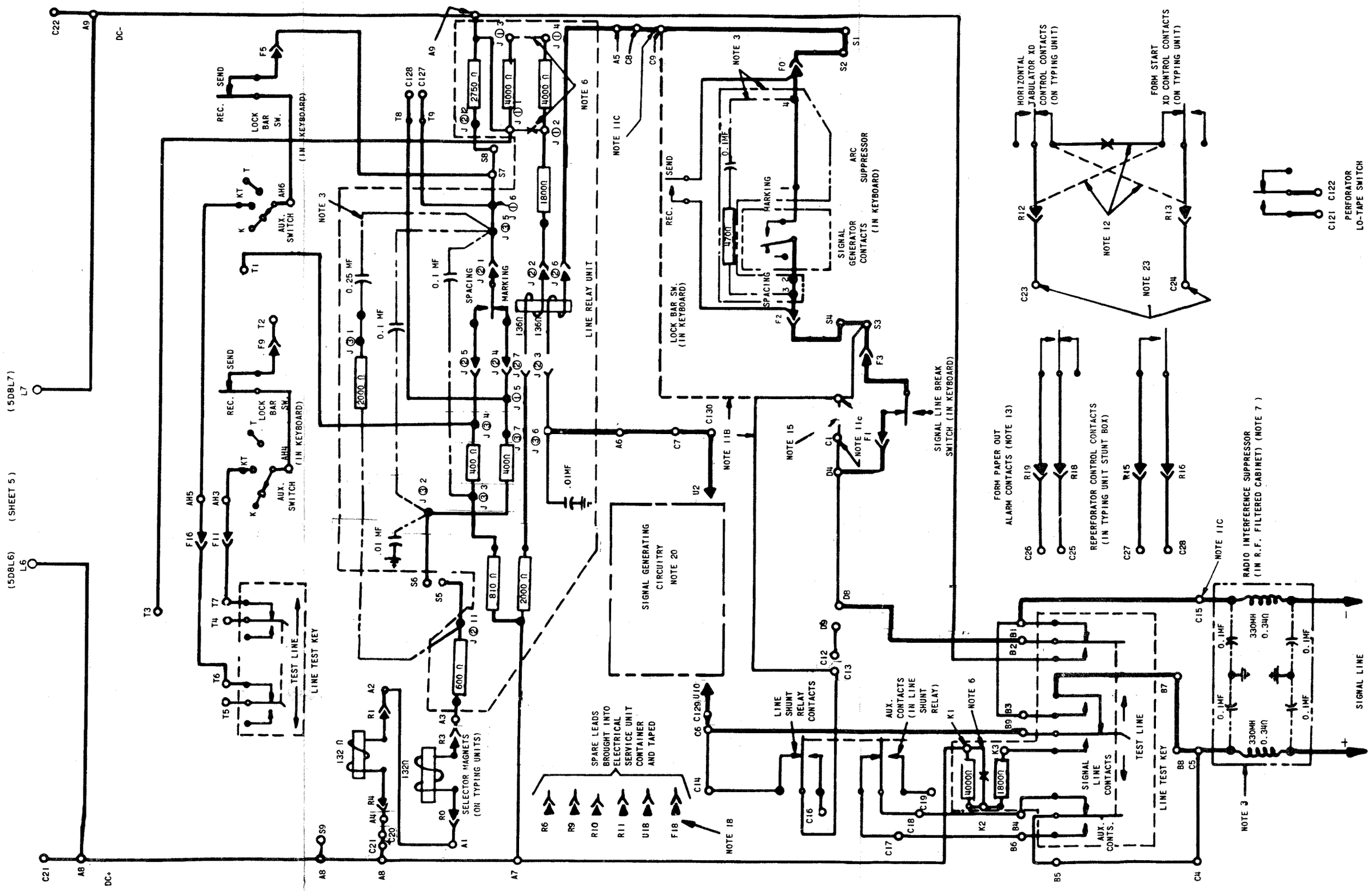


Figure 5-12. LESU 13 Schematic Wiring Diagram (Sheet 6 of 6)

NO	NOTES
1.	WIRING LEGEND: A-1-W-BL — DISTANT TERMINATING AREA; DISTANT TERMINAL DESIGNATION; WIRE COLOR CODE
2.	COLOR CODE: BK - BLACK; BR - BROWN; R - RED; O - ORANGE; Y - YELLOW; G - GREEN; BL - BLUE; P - PURPLE; W - WHITE; S - SLATE; W-BK - WHITE-BLACK; W-BR - WHITE-BROWN; W-R - WHITE-RED; W-O - WHITE-ORANGE; W-Y - WHITE-YELLOW; W-G - WHITE-GREEN; W-BL - WHITE-BLUE; W-S - WHITE-SLATE
3.	UNIT WIRED FOR 115 VOLTS 50 TO 60 CYCLE A.C. POWER INPUT ONLY.
4.	CONNECTOR VIEWED FROM SOLDER TERMINAL END.
5.	CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP OPERATION REMOVE AND ADD CONNECTIONS AS TABULATED BELOW.

SIGNAL LINE CURRENT	CONNECTION REMOVED	CONNECTION ADDED
.020 AMP.	J①1-J①2,	J①3-J①4

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

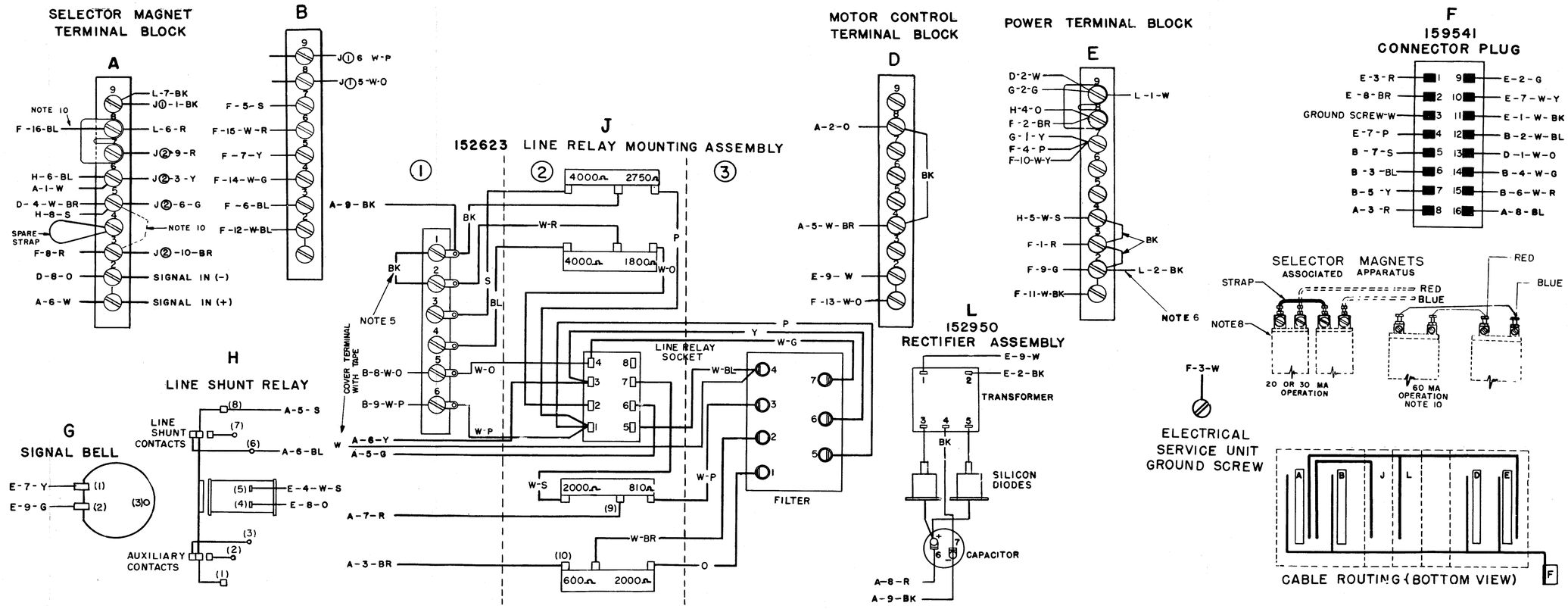


Figure 5-13. LESU 12 Electrical Service Assembly Wiring Diagram

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 - LMU 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 ∿ (±1%) A.C. POWER ONLY GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60 ∿ UNREGULATED A.C.
8.	RECTIFIER SHOWN CONTROLLED BY POWER SWITCH A FOR CONTINOUS OPERATION MOVE PRIMARY (INPUT) 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)

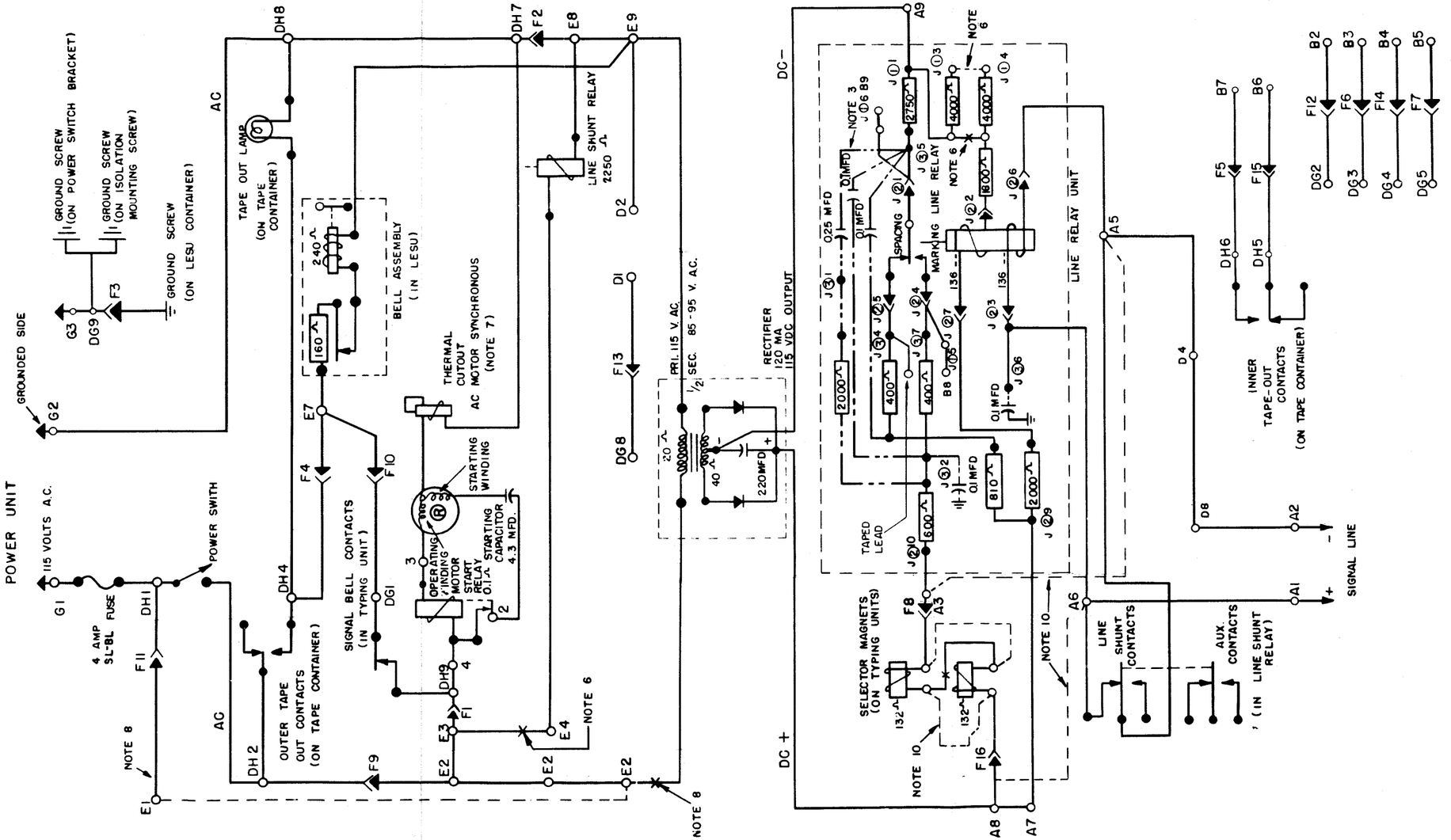


Figure 5-14. LRB 3 and 11 - LESU 12 Electrical Service Assembly Schematic Wiring Diagram

NOTES

LEGEND:

- DISTANT TERMINATING AREA
- DISTANT TERMINAL DESIGNATION
- WIRE COLOR CODE

ODE

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

RED FOR 115 VOLTS 50 TO 60 CYCLE A C POWER ONLY

TOR VIEWED FROM SOLDER TERMINAL END.

S SHOWN FOR 060 AMP NEUTRAL SIGNAL LINE ION. FOR 020 AMP OPERATION REMOVE AND NNECTIONS AS TABULATED BELOW.

LINE CURRENT	CONNECTION REMOVED	CONNECTION ADDED
0 AMP	J①1 - J①2	J①3 - J①4

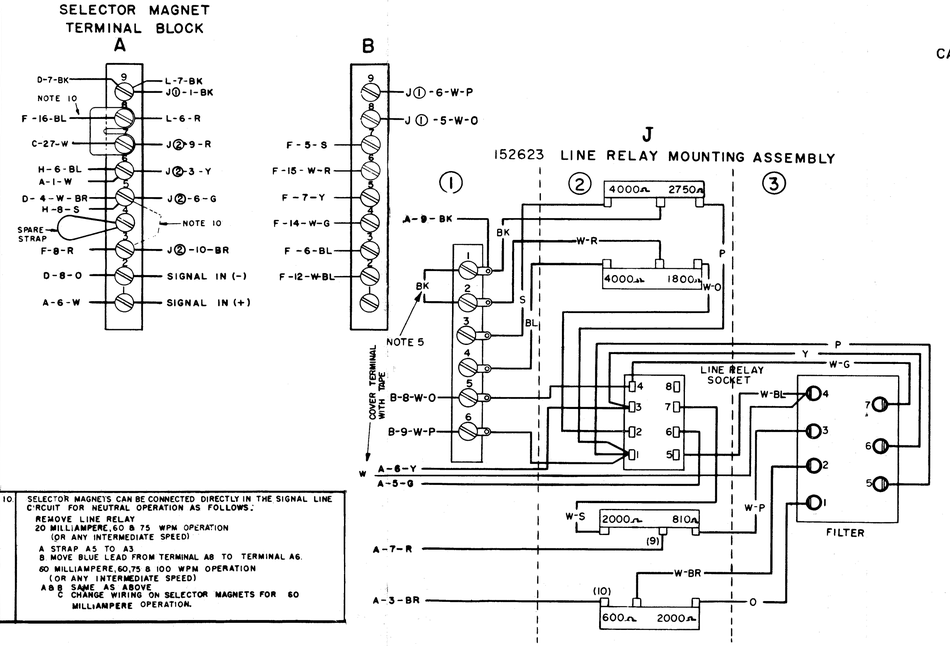
R SHOWN CONTROLLED BY POWER SWITCH.
NTINUOUS OPERATION REMOVE LEAD L-2-BK FROM AL E-2 AND CONNECT TO TERMINAL E-1.

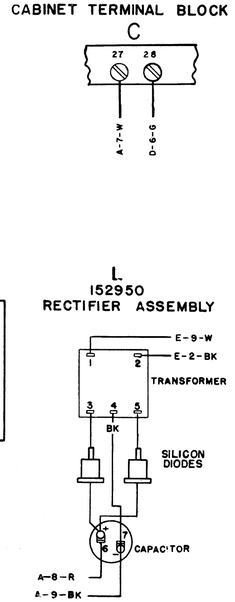
NUNT RELAY SHOWN CONTROLLED BY POWER AND MOTOR CONTROL RELAY.

R MAGNETS ARE TO BE WIRED AS SHOWN O MILLIAMPERE OPERATION WHEN THE RELAY IS USED.

CABLE NUMBERS.
447 CABLE ASSEM., MOTOR CONTROL.
939 CABLE ASSEM., LESU 73
477 CABLE ASSEM., RECTIFIER
030 CABLE ASSEM., LINE RELAY MTG. ASSEM.

10. SELECTOR MAGNETS CAN BE CONNECTED DIRECTLY IN THE SIGNAL LINE CIRCUIT FOR NEUTRAL OPERATION AS FOLLOWS.
REMOVE LINE RELAY
20 MILLIAMPERE, 60 & 75 WPM OPERATION (OR ANY INTERMEDIATE SPEED)
A STRAP A5 TO A3
B MOVE BLUE LEAD FROM TERMINAL A8 TO TERMINAL A6.
60 MILLIAMPERE, 60, 75 & 100 WPM OPERATION (OR ANY INTERMEDIATE SPEED)
A & B SAME AS ABOVE
C CHANGE WIRING ON SELECTOR MAGNETS FOR 60 MILLIAMPERE OPERATION.





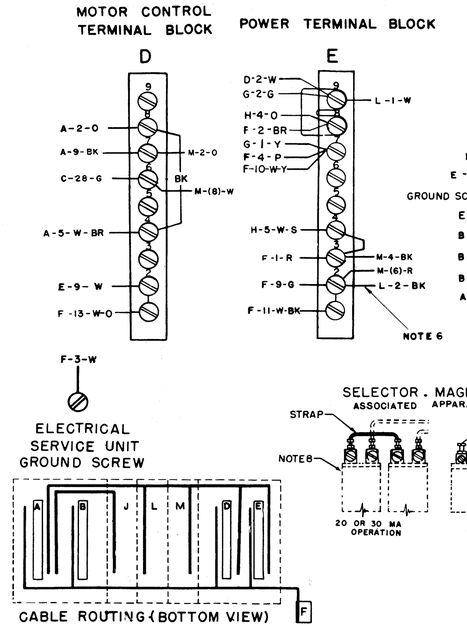
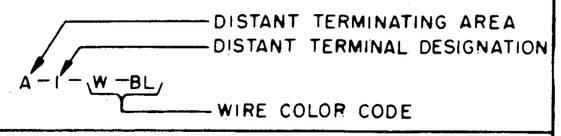


Figure 5-15. LESU 73 Electrical Service Unit Wiring Diagram

Figure 5-15 Part 1 of 2

NOTES

1. WIRING LEGEND:



2. COLOR CODE

BK - BLACK	W-BK - WHITE - BLACK
BR - BROWN	W-BR - WHITE - BROWN
R - RED	W-R - WHITE - RED
O - ORANGE	W-O - WHITE - ORANGE
Y - YELLOW	W-Y - WHITE - YELLOW
G - GREEN	W-G - WHITE - GREEN
BL - BLUE	W-BL - WHITE - BLUE
P - PURPLE	
W - WHITE	W-S - WHITE - SLATE
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.	J①1 - J①2	J①3 - J①4

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

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

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

9. ASSOC. CABLE NUMBERS.
   - 176447 CABLE ASSEM., MOTOR CONTROL.
   - 159939 CABLE ASSEM., LESU 73
   - 153477 CABLE ASSEM., RECTIFIER
   - 164030 CABLE ASSEM., LINE RELAY MTG. ASSEM.

10. SELECTOR MAGNETS CAN BE CONNECTED DIRECTLY IN THE SIGNAL LINE CIRCUIT FOR NEUTRAL OPERATION AS FOLLOWS:
    - REMOVE LINE RELAY
    - 20 MILLIAMPERE, 60 & 75 WPM OPERATION (OR ANY INTERMEDIATE SPEED)
      - A STRAP A5 TO A3
      - B MOVE BLUE LEAD FROM TERMINAL A8 TO TERMINAL A6.
    - 60 MILLIAMPERE, 60, 75 & 100 WPM OPERATION (OR ANY INTERMEDIATE SPEED)
      - A & B SAME AS ABOVE
      - C CHANGE WIRING ON SELECTOR MAGNETS FOR 60 MILLIAMPERE OPERATION.

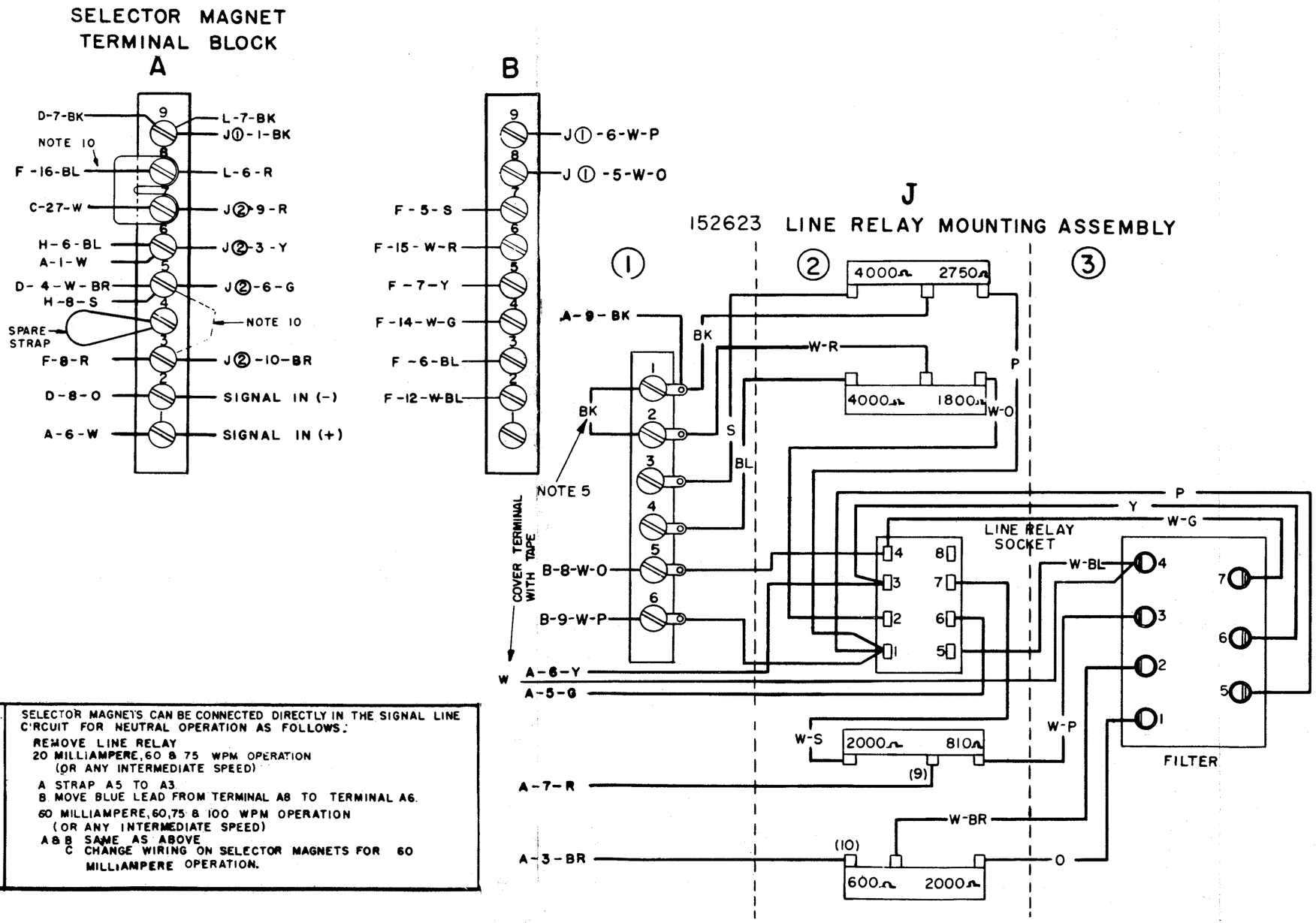


Figure 5-15 part 2 of 2

NO.	NOTES
1.	FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE WD NUMBER UNITS DIRECTLY OPERABLE WITH LESU 73 4385 WD ELECTRICAL SERVICE UNIT LESU 73 2900 WD MOTOR UNITS—LMU 3,4,6 3590 WD TYPING REPERFORATOR BASE LRB 5, LRB 6
2.	LEGEND ○ DG TERMINAL BLOCK (ON BASE) ○ DH TERMINAL BLOCK (ON BASE) ◁ F 16-POINT CONNECTOR ○ A TERMINAL BLOCK (IN LESU) ○ B TERMINAL BLOCK (IN LESU) ○ D TERMINAL BLOCK (IN LESU) ○ E TERMINAL BLOCK (IN LESU) ○ J ①TERMINAL STRIP ON LINE RELAY (IN LESU) ◁ J ②LINE RELAY CONNECTOR (IN LESU) ○ J ③LINE RELAY FILTER(IN LESU) ◁ AA 36 POINT CONNECTOR (ON BASE) C CABINET TERMINAL BLOCK ○ M MOTOR CONTROL RELAY (IN LESU)
3.	DOT-DASH(———)LINES INDICATE FILTERING SHIELDING AND SUPPRESSION NETWORKS.
4.	ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS.
5.	(Ω) RESISTANCE VALUES IN OHMS-(Ω) (H) 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~ (±1%) AC. POWER ONLY. GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60 ~ UNREGULATED A.C.
8.	LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND MOTOR CONTROL RELAY. FOR CONTROL OF LINE SHUNT BY POWER SWITCH ONLY REMOVE CONNECTION MARKED (-✳-) AND ADD DASH LINE (---) CONNECTION.
9.	TAPE FEED OUT AND/OR BACKSPACE MAGNETS ARE AVAILABLE ONLY WITH SPECIFIC CODED LPR UNITS.

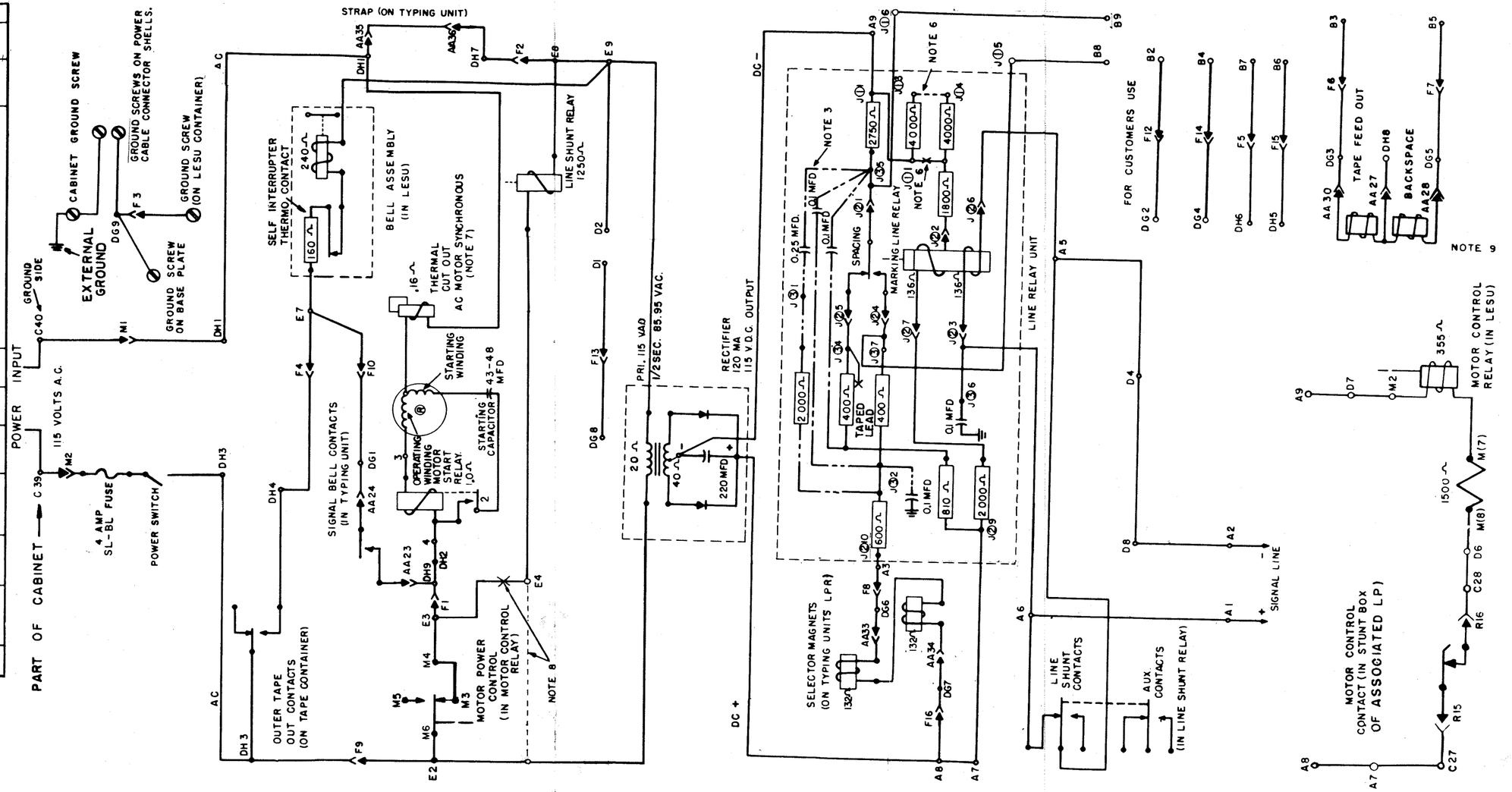


Figure 5-16. LESU 73 Electrical Service Unit Schematic Diagram

NO.	NOTES
1.	WIRING LEGEND: A-1-W-BL/ DISTANT TERMINATING AREA DISTANT TERMINAL DESIGNATION WIRE COLOR CODE
2.	COLOR CODE BK - BLACK BR - BROWN R - RED O - ORANGE Y - YELLOW G - GREEN BL - BLUE P - PURPLE W - WHITE S - SLATE
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.	SELECTORS MAGNETS CAN BE CONNECTED DIRECTLY IN THE SIGNAL LINE CIRCUIT FOR NEUTRAL OPERATION AS FOLLOWS: DISCONNECT AND TAPE ALL SELECTOR MAGNET DRIVER LEADS SHOWN (-X-). 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) A. STRAP A5 TO A3 B. MOVE BLUE LEAD FROM TERMINAL A8 TO A6 C. CHANGE WIRING ON SELECTOR MAGNETS FOR 60 MILLIAMPERE OPERATION.

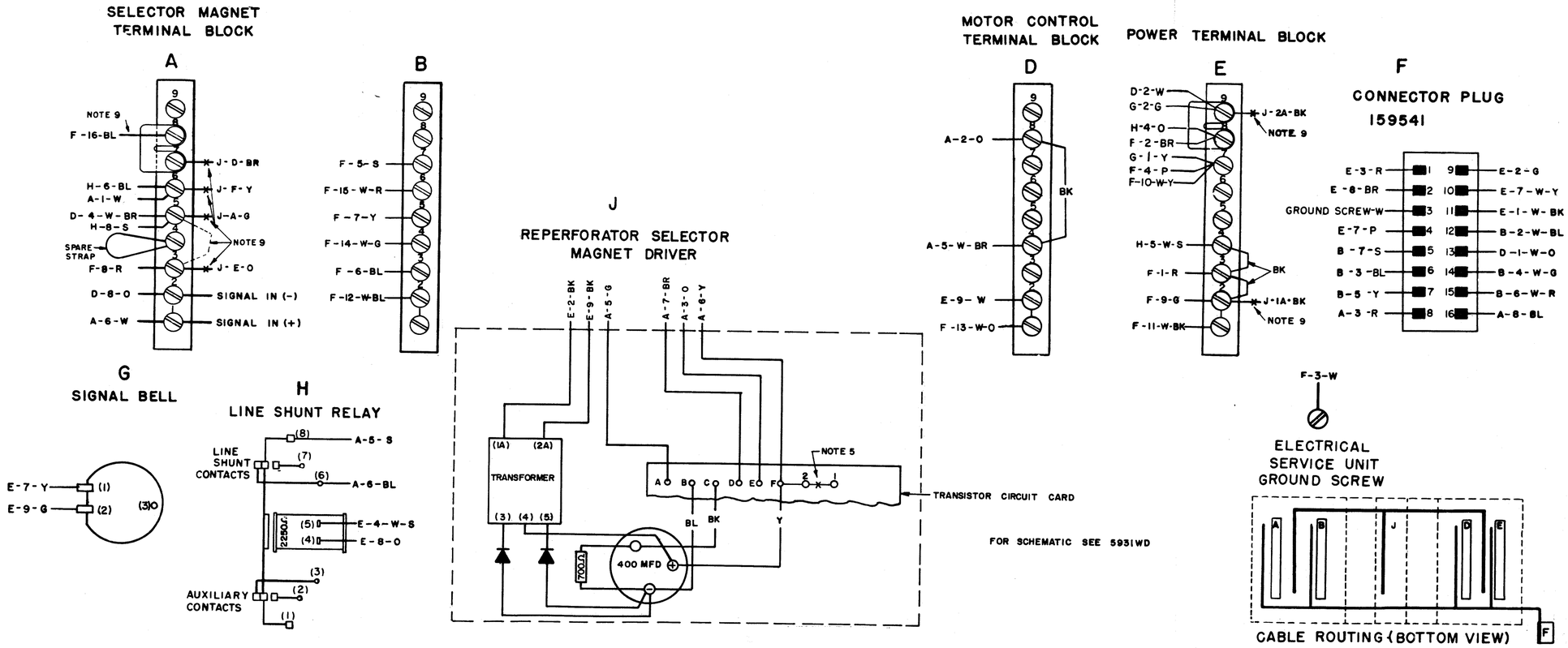


Figure 5-17. LESU 96 Electrical Service Unit Wiring Diagram

NO.	NOTES
1.	WIRING DIAGRAMS OF INDIVIDUAL UNITS UNITS DIRECTLY OPERABLE WITH LESU96 4445WD — SELECTOR MAGNET DRIVER- 177010 5930WD — ELECTRICAL SERVICE UNIT LESU96 2900 WD — MOTOR UNITS - LMU 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 — 18-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 - (~) (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 ~ (±1%) A.C. POWER ONLY. GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60 ~ 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, 60, 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.

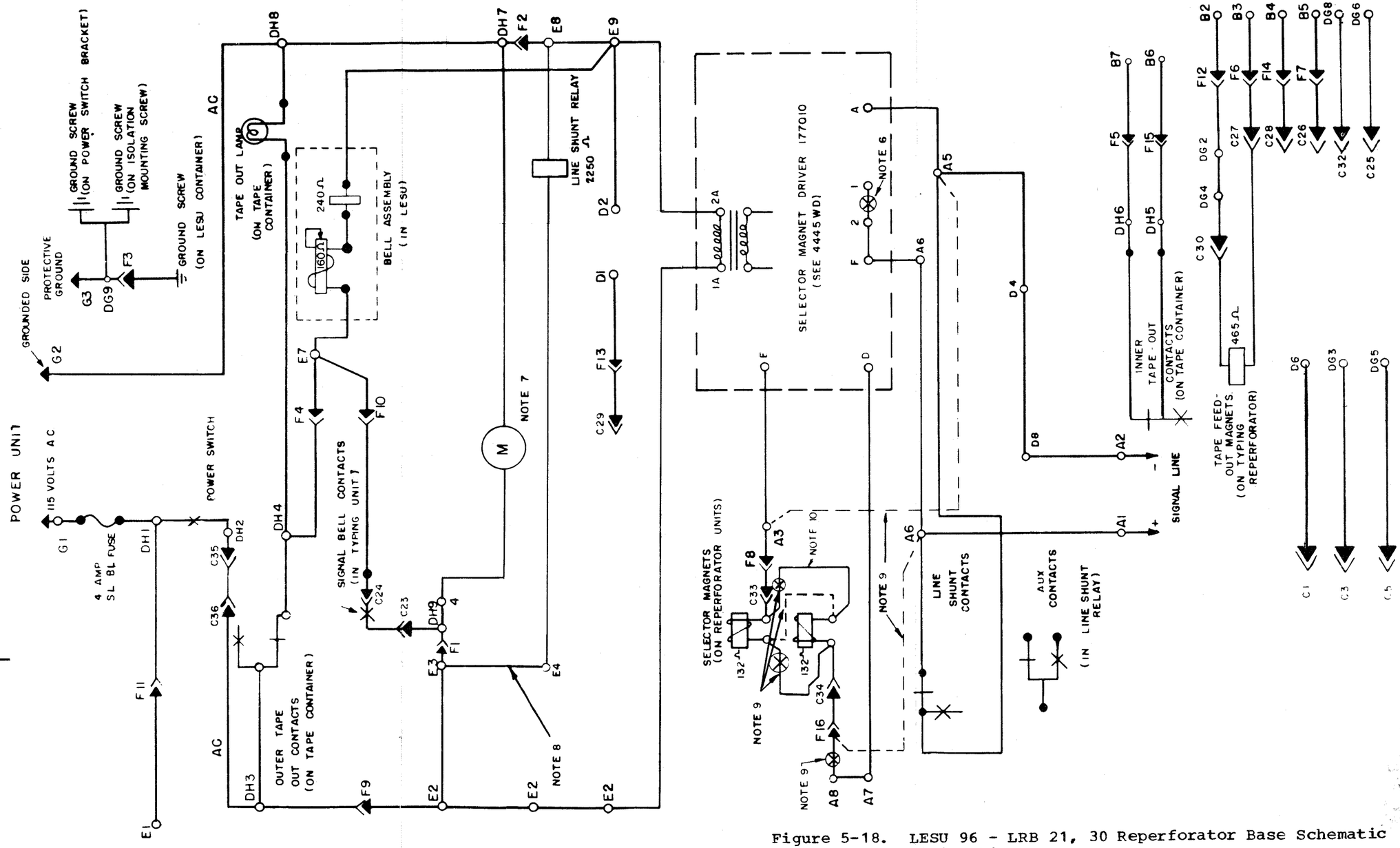


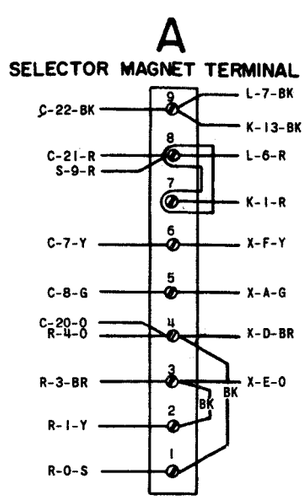
Figure 5-18. LESU 96 - LRB 21, 30 Reperforator Base Schematic Wiring Diagram

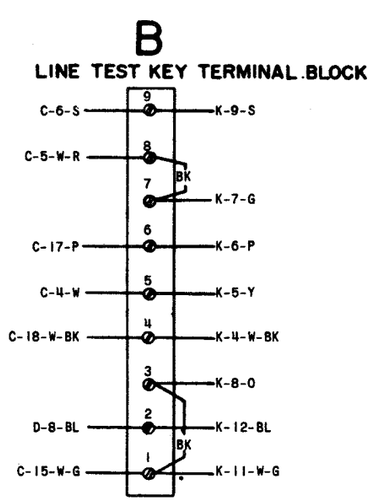
NO.	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA DISTANT TERMINATING DESIGNATION A-1-W-BL WIRE COLOR CODE
2.	COLOR CODE: BK - BLACK BR - BROWN BL - BLUE R - RED Y - YELLOW P - PURPLE W - WHITE S - SLATE O - ORANGE G - GREEN
3.	UNIT WIRED FOR 117 VOLTS. 50 TO 60 CYCLE AC POWER INPUT ONLY.
4.	CONNECTORS 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.

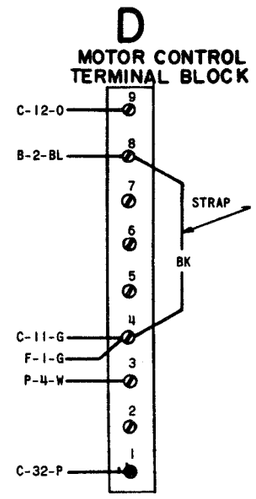
SIG. LINE CURRENT	CONNECTION REMOVED	CONNECTIONS ADDED
.020 AMP.	K1-K2	

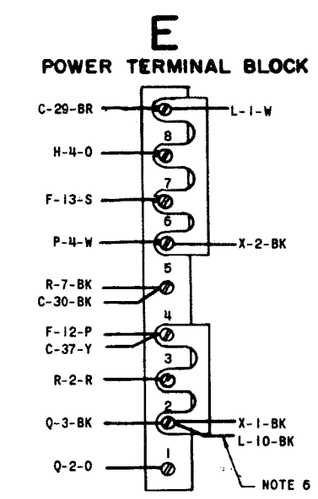
FOR .020 AMP. OPERATION OF SELECTOR MAGNET DRIVER, REFER TO 4445WD.

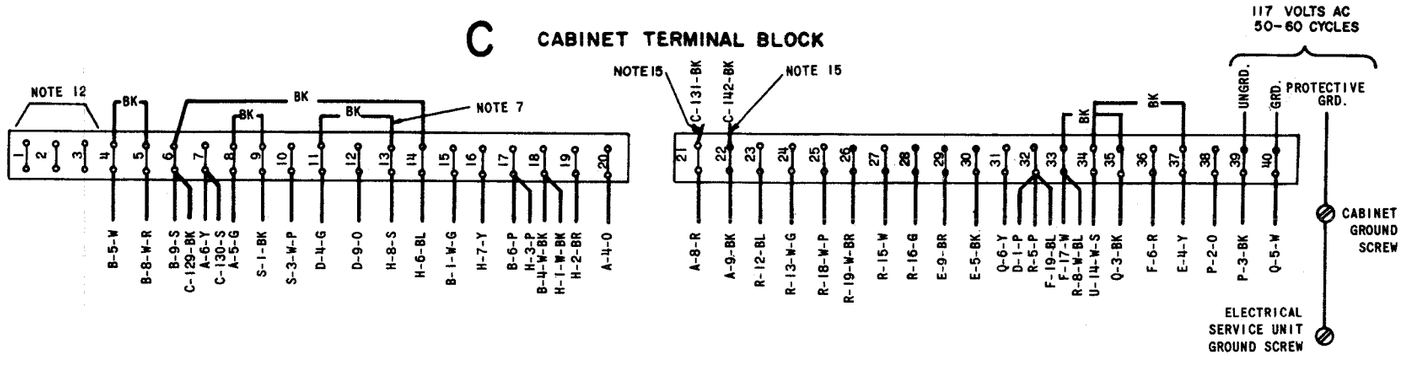
6.	RECTIFIER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION, REMOVE LEADL-10-BK FROM TERMINAL E-2 AND CONNECT TO TERMINAL E-1.
7.	LINE SHUNT RELAY SHOWN CONTROLLED BY POWER SWITCH AND SHUNTING LINE RELAY COIL AND KEYBOARD AND TRANSMITTER DISTRIBUTOR SIGNAL GENERATOR.
8.	THE SPARE LEADS FROM 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.
9.	ADD STRAP BETWEEN C10 & C11 IF SIGNAL LINE BREAK SWITCH IS NOT USED.
10.	SPARE LEAD FROM U18 IS RESERVED FOR POLAR OPERATION OF KEYBOARD AND TRANSMITTER DISTRIBUTOR SIGNAL GENERATORS.
11.	TERMINALS C143 TO C148 RESERVED FOR CABINET LAMP OPERATION.
12.	TERMINALS C1 TO C3 RESERVED FOR CUSTOMER USE.
13.	TERMINALS C121 - C122 RESERVED FOR PERFORATOR LO-TAPE SWITCH.
14.	CONTACTS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.
15.	SYNC. PULSE CURRENT SHOWN SUPPLIED FROM SET RECTIFIER, TO PULSE SET EXTERNALLY REMOVE STRAPS AND CONNECT EXTERNAL SOURCE IN ACCORDANCE WITH INSTALLATION REQUIREMENTS: C124 - C131 C21 - C131 C125 - C142 C22 - C142
16.	FOR SCHEMATIC WIRING DIAGRAM SEE 7016WD.

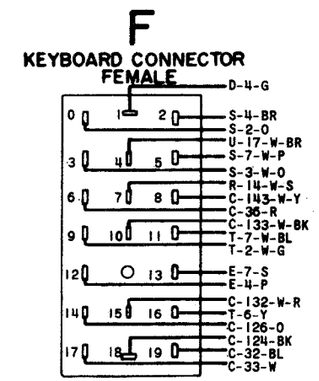


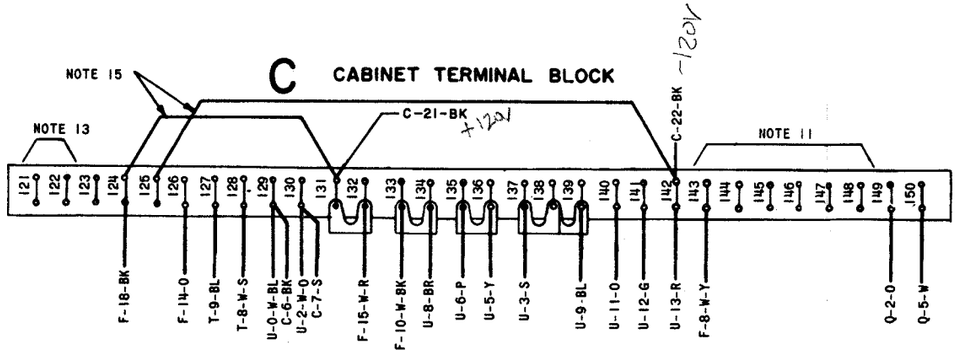












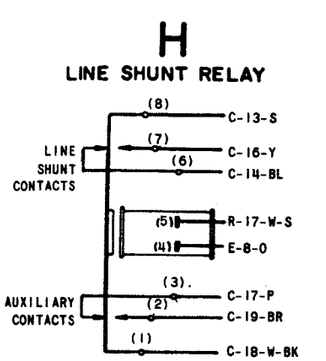
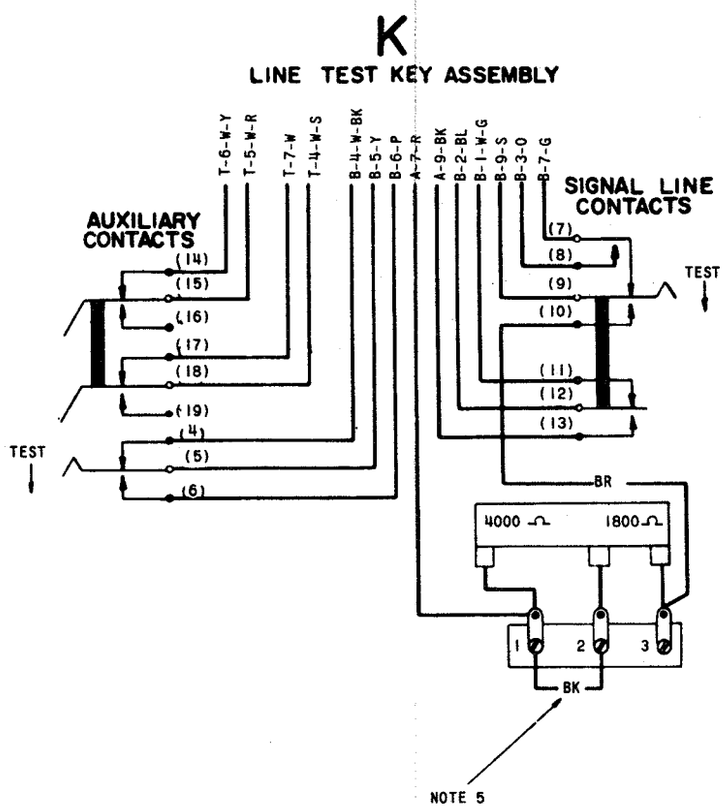
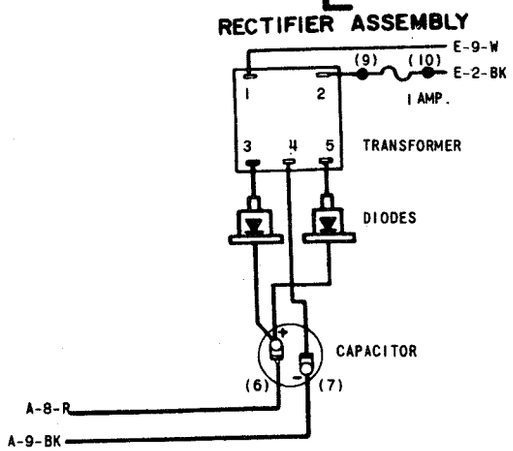
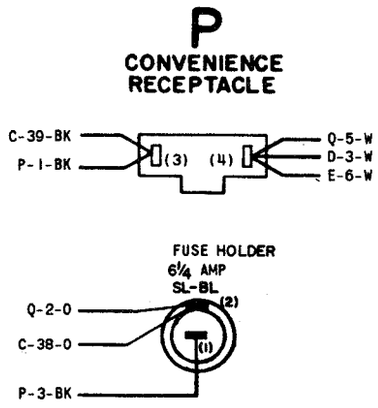
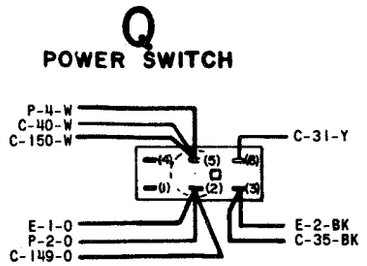


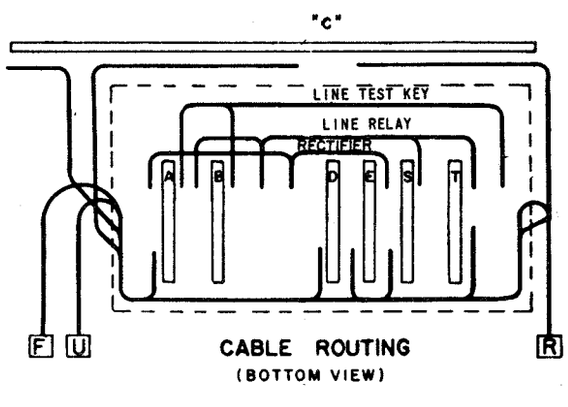
Figure 5-19. LESU III Electrical Service Unit Wiring Diagram (Sheet 1 of 2)

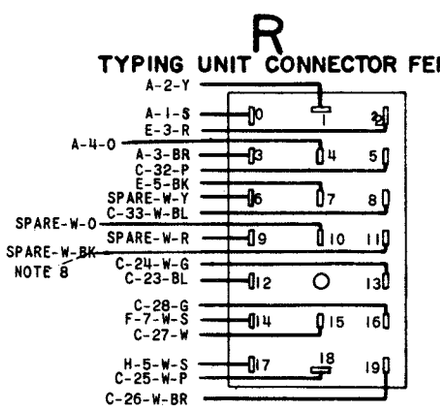


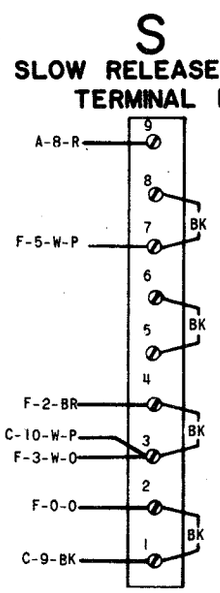


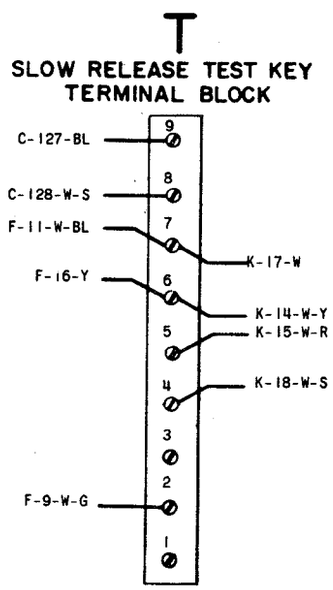


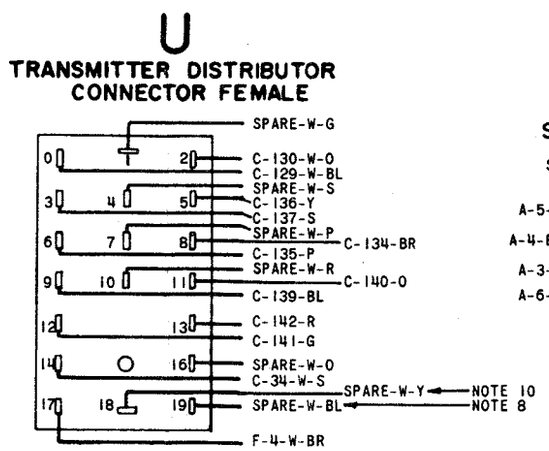












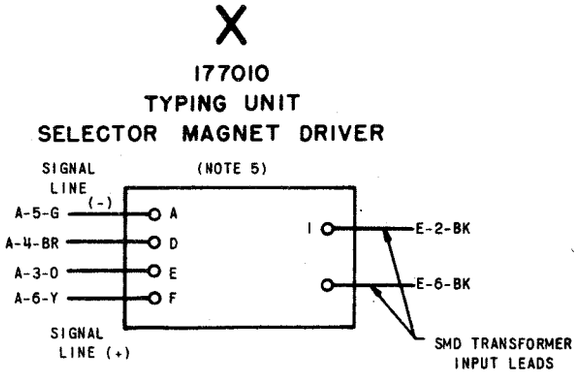


Figure 5-19. LESU III Electrical Service Unit Wiring Diagram (Sheet 2 of 2)

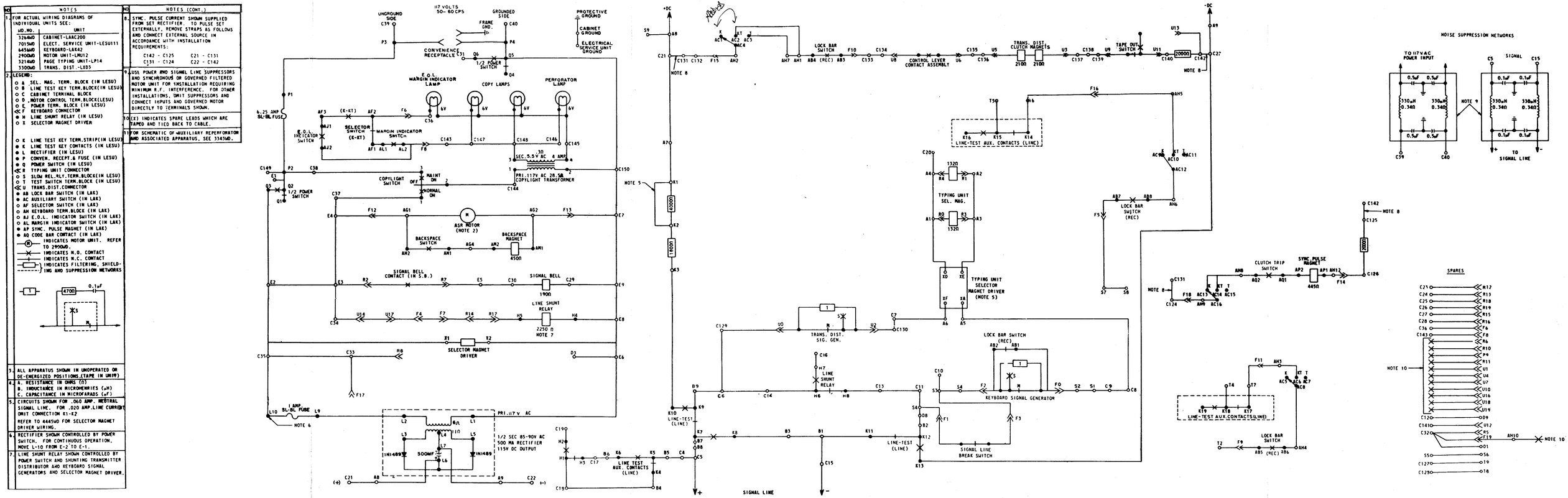
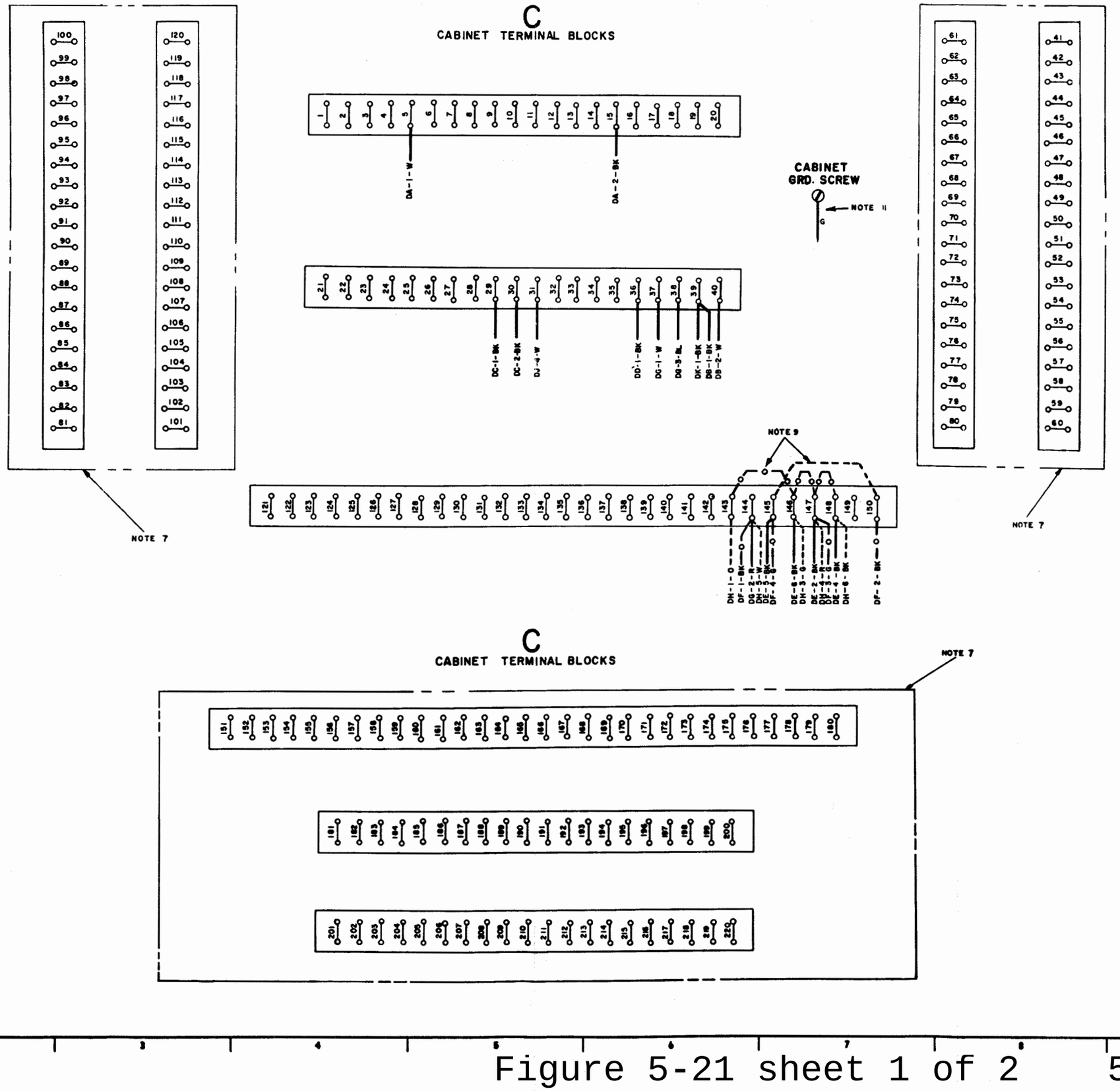


Figure 5-20. LESU III ASR Schematic Wiring Diagram

NO	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA DISTANT TERMINATING DESIGNATION WIRE COLOR CODE
2.	COLOR CODE: BK-BLACK BR-BROWN BL-BLUE R-RED P-PURPLE G-GREEN S-SLATE Y-YELLOW W-WHITE O-ORANGE
3.	-*- DENOTES SPLICED AND TAPED WIRES.
4.	USE POWER AND SIGNAL LINE INTERFERENCE SUPPRESSORS FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE. FOR OTHER INSTALLATIONS, OMIT SUPPRESSORS AND CONNECT POSITIVE AND NEGATIVE LEADS OF THE INCOMING SIGNAL LINE TO CABINET TERMINALS C5 & C15 RESPECTIVELY. CONNECT THE INCOMING GROUNDED AND UNGROUNDED POWER LEADS TO CABINET TERMINALS C40 & C39 RESPECTIVELY.
5.	USE PROPER COPYLIGHT SYSTEM FOR THE TYPE OF CURRENT USED.
6.	CABINET RECEPTACLES REQUIRED WHEN TAPE WINDER OR TAPE STUFFER IS USED.
7.	OPTIONAL FEATURES, REFER TO APPLICABLE WD.
8.	CABINET POWER MUST BE 115V, 50-60~AC WHEN THIS ACCESSORY IS USED.
9.	------ FOR DC APPLICATION — — FOR AC APPLICATION ——— NORMAL WIRING
10.	ASSOCIATED CABLES: 158267 TRANSFORMER AND CABLE 159329 TAPE WINDER CABLE 154440 CABINET LIGHTS, SWITCH CABLE 159330 RESISTOR PACK CABLE
11.	GROUND WIRE MAY BE ATTACHED TO THE RIGHT 154412 TERMINAL BLOCK ASSEMBLY MOUNTING STUD BY MEANS OF THE TERMINAL BLOCK COVER MOUNTING SCREW AND LOCK WASHER.



3264 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
A	7-9-57	TP-2027
B	9-16-57	TP-2399
C	2-24-58	28-8517
D 5	5-27-58	28-9036
E 6	9-17-58	28-9902
F 7	10-7-58	28-9996
8	11-28-58	28-10256
9	4-9-59	28-10928
10	5-22-59	28-11108
11	8-4-59	28-11508
12	9-22-61	71027
13	2-14-62	72426
14	3-23-62	72707
15	4-11-62	73068
16	12-10-62	75290
17	2-19-63	75725
18	3-14-63	75290-1
19	10-3-63	77579
20	10-17-63	78376

SHEET 1 OF 2

ACTUAL WIRING DIAGRAM FOR MODEL 28 AUTOMATIC SEND-RECEIVE CABINETS LAAC200, 201, 202, 205, 209, 210, 213, 218, 219, 235, 236 AC-DC APPLICATION 225, 237

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

E-NUMBER	
PROD. NO.	3264WD
DATE	4-16-57
P.D. FILE NO.	28-A65AA
DRAWN R.W.D.	CHKD. R.D.
ENGD. J.M.	APPD. J.A.

TELETYPE CORPORATION

3264 WD

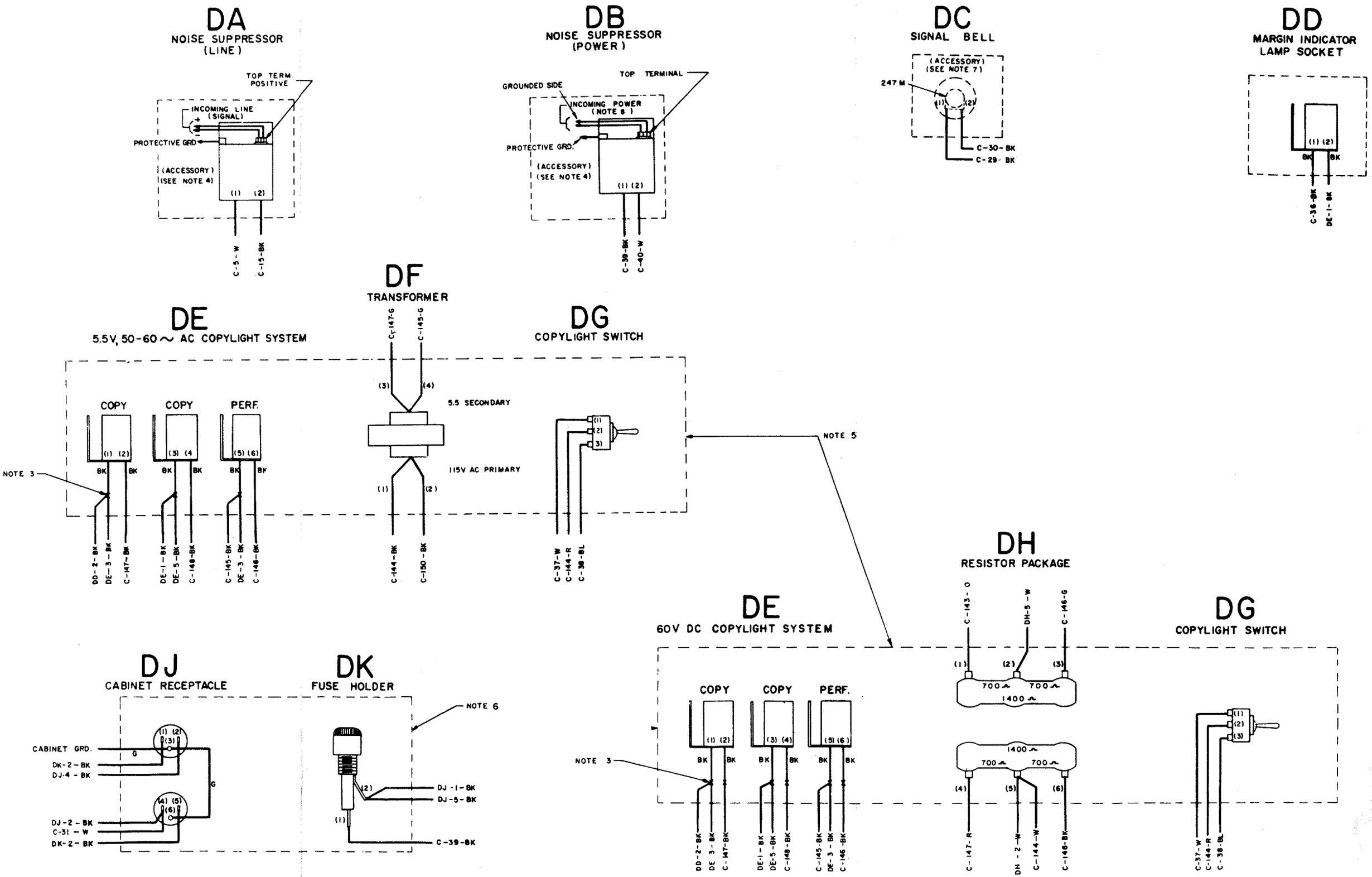
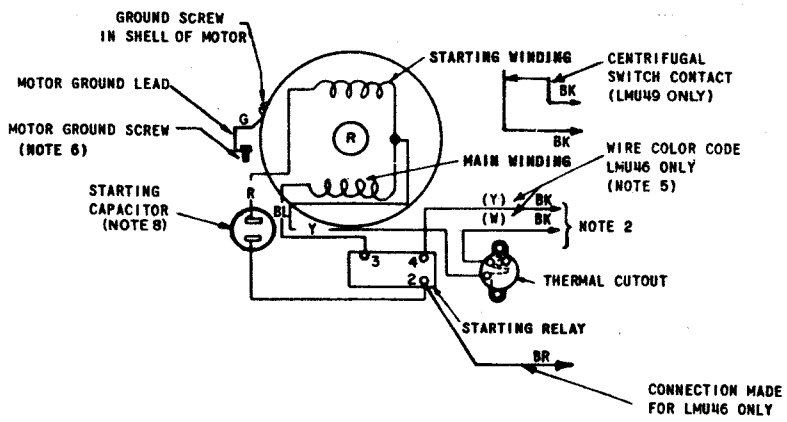


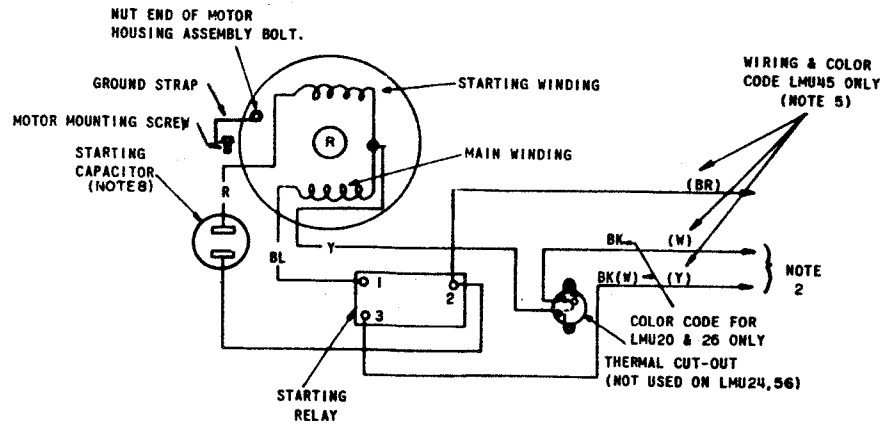
Figure 5-21. LAAC 200, 201, 202, 204, 209, 210, 213, 214, 219, 235, 236 ASR Cabinet Wiring Diagram (Sheet 2 of 2)

SYNCHRONOUS MOTOR UNITS

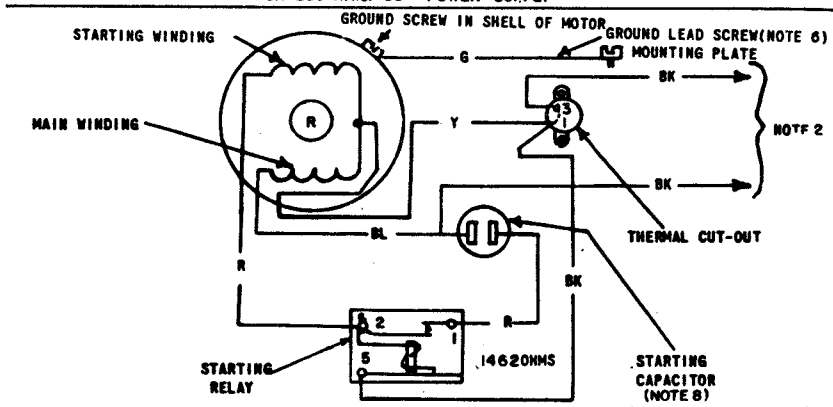
NO.	NOTES
1.	SYNCHRONOUS MOTOR OPERATES ON REGULATED FREQUENCY (± 0.75%) MAXIMUM AC ONLY.
2.	CONNECT EITHER WIRE TO DESIGNATED TERMINALS OF UNIT TERMINAL BLOCK, PER WIRING DIAGRAM OF ASSOCIATED UNIT
3.	MOTOR LEADS OF SAME COLOR ARE INTERCHANGEABLE.
4.	EXTERNAL NOISE SUPPRESSION NETWORK CONSISTING OF 100 OHM, 1/2 WATT RESISTOR IN SERIES WITH 0.25 MFD IK V CAPACITOR CONNECTED ACROSS YELLOW AND BROWN WIRES. (FOR LMU45,46)
5	MOTOR GROUND LEAD (GREEN) TERMINAL MUST BE FASTENED TO MOUNTING CRADLE OF MOTOR UNDER A SEPARATE GROUND SCREW ONLY. A SCREW USED FOR ANOTHER PURPOSE CANNOT BE USED FOR GROUNDING (UNDERWRITERS LABORATORIES REQUIREMENT).
6	WIRE COLOR CODE: BK - BLACK, R - RED BL - BLUE, O - ORANGE BR - BROWN, Y - YELLOW P - PURPLE, S - SLATE W - WHITE, G - GREEN
7	LMU: STARTING CAPACITOR VALUE 3,15,21,30,33, 36,37,38,42, 46,49,51,52: 43 – 48 MFD 11,12: 170 – 226 MFD 35: 64-77 MFD 55: 15–18 MFD 19,20,24,26, 31,45,56: 88–108 MFD 50,: 161–193 MFD



LMU 3,11,12,15,21,30,37,42,46,49
FOR USE WITH 115V.A.C. 60~POWER SUPPLY
LMU 33, 36,38, 51,52
FOR 115V.AC 50~POWER SUPPLY.
LMU 55
FOR 230 V.A.C. 50~POWER SUPPLY



LMU 19,20,24,26,31,45,56
FOR USE WITH 115V AC 60~POWER SUPPLY ONLY



LMU 50,
FOR USE WITH 115V AC 50~POWER SUPPLY ONLY

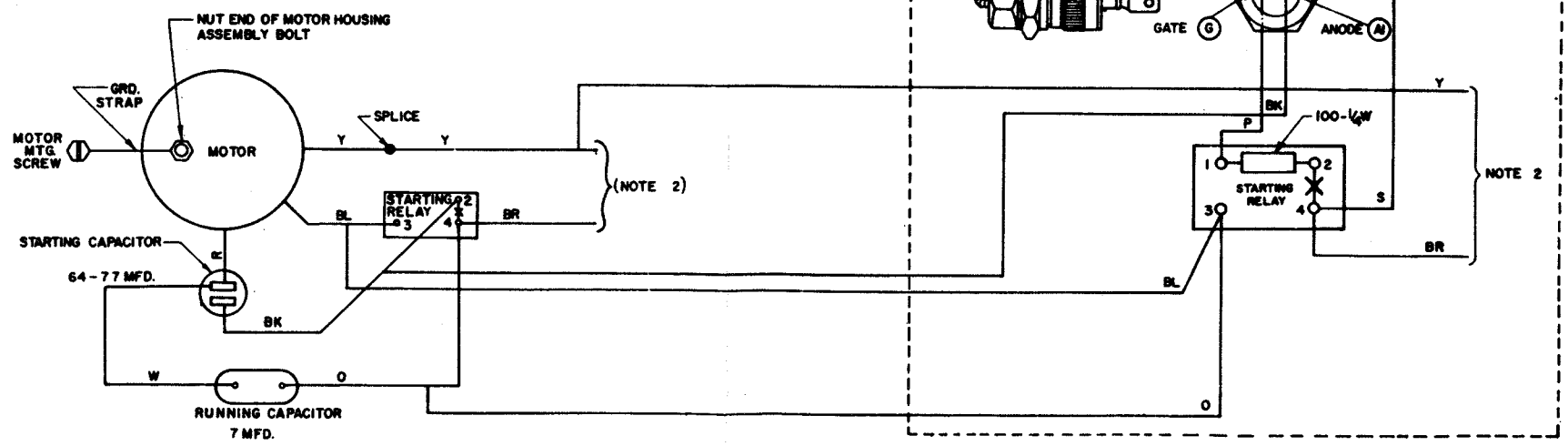
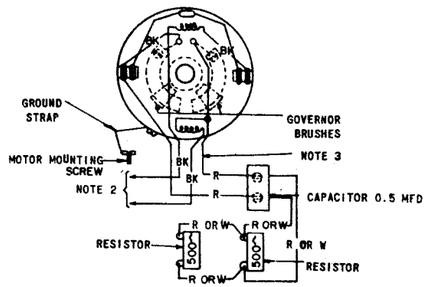


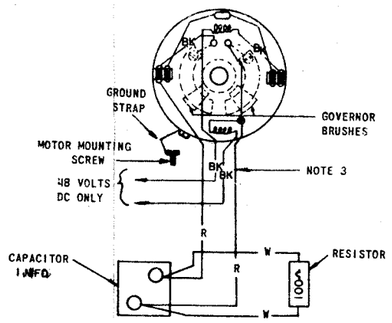
Figure 5-22. LMU3, 41, 12, 39, 38, 50 Wiring Diagrams (Sheet 1 of 2)

SERIES GOVERNED MOTOR UNITS

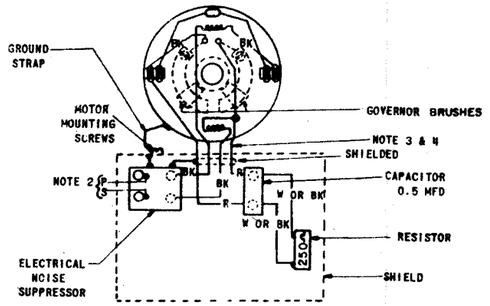
NO.	NOTES
1.	A. AC SERIES MOTOR UNITS OPERATE ON UN-REGULATED AC POWER. B. ASSOCIATED LESU MUST BE EQUIPPED WITH CAPACITOR-RESISTOR ASSEMBLY FOR DC OPERATION OF GOVERNED MOTORS.
2.	CONNECT EITHER WIRE TO DESIGNATED TERMINALS OF UNIT TERMINAL BLOCK, PER WIRING DIAGRAM OF ASSOCIATED UNIT.
3.	MOTOR LEADS OF SAME COLOR ARE INTER-CHANGEABLE.
4.	MOTOR LEADS ARE ENCLOSED IN APPROXIMATLY 10" LONG COPPER SHIELDING & FASTENED TO MOTOR AND CONTROL PARTS COMPARTMENT. (FOR LMU28).
5.	LMU4, 10, AND 14 MOTOR UNITS (UNIVERSAL SERIES GOVERNED) CONTAIN TWO 500 OHM RESISTORS WIRED IN PARALLEL EQUIVALENT TO 250 OHMS. LMU4 MOTOR UNIT SUPERSEDED BY LMU41 MOTOR UNIT. LMU10 MOTOR UNIT SUPERSEDED BY LMU47 MOTOR UNIT. LMU14 MOTOR UNIT SUPERSEDED BY LMU39 MOTOR UNIT.
6.	WIRE COLOR CODE: BK - BLACK R - RED BL - BLUE O - ORANGE BR - BROWN Y - YELLOW P - PURPLE S - SLATE W - WHITE G - GREEN



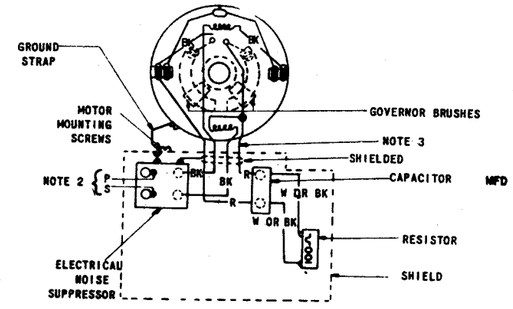
LMU 6,13 (UNIVERSAL)
WITHOUT RADIO FREQUENCY SUPPRESSORS
FOR USE WITH EITHER 115V AC 50-60~OR 115V DC POWER SUPPLY (NOTE 1B).



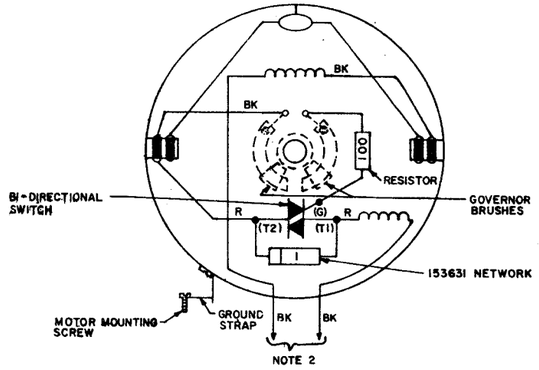
LMU 23 (48 VOLTS)
WITHOUT RADIO FREQUENCY SUPPRESSORS
FOR USE ON 48 V.D.C. POWER SUPPLY ONLY



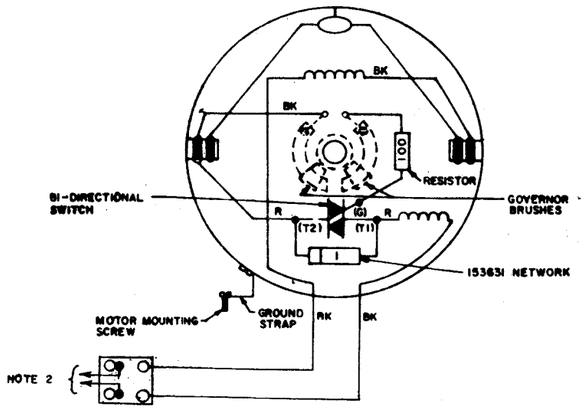
LMU 28,32,39,41,47 (UNIVERSAL)
WITH RADIO FREQUENCY SUPPRESSORS
FOR USE WITH EITHER 115V AC 50-60~115 V DC POWER SUPPLY (NOTE 1B)



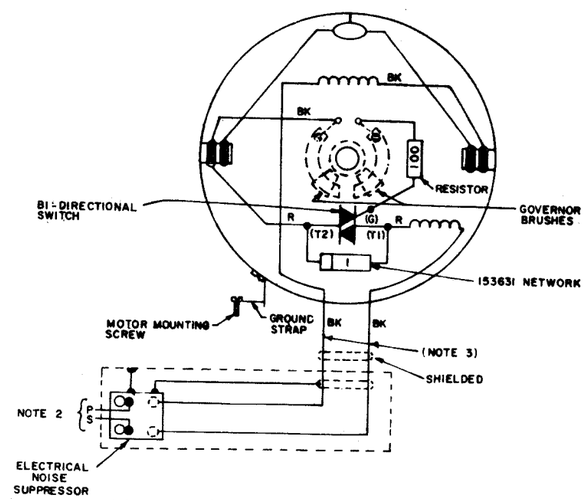
LMU 29 (48 VOLTS)
WITH RADIO FREQUENCY SUPPRESSORS
FOR USE ON 48 VOLT DC POWER SUPPLY ONLY



LMU 57, (115 VOLTS AC)
WITHOUT RADIO FREQUENCY SUPPRESSORS
FOR USE ON 115 VOLTS AC ONLY

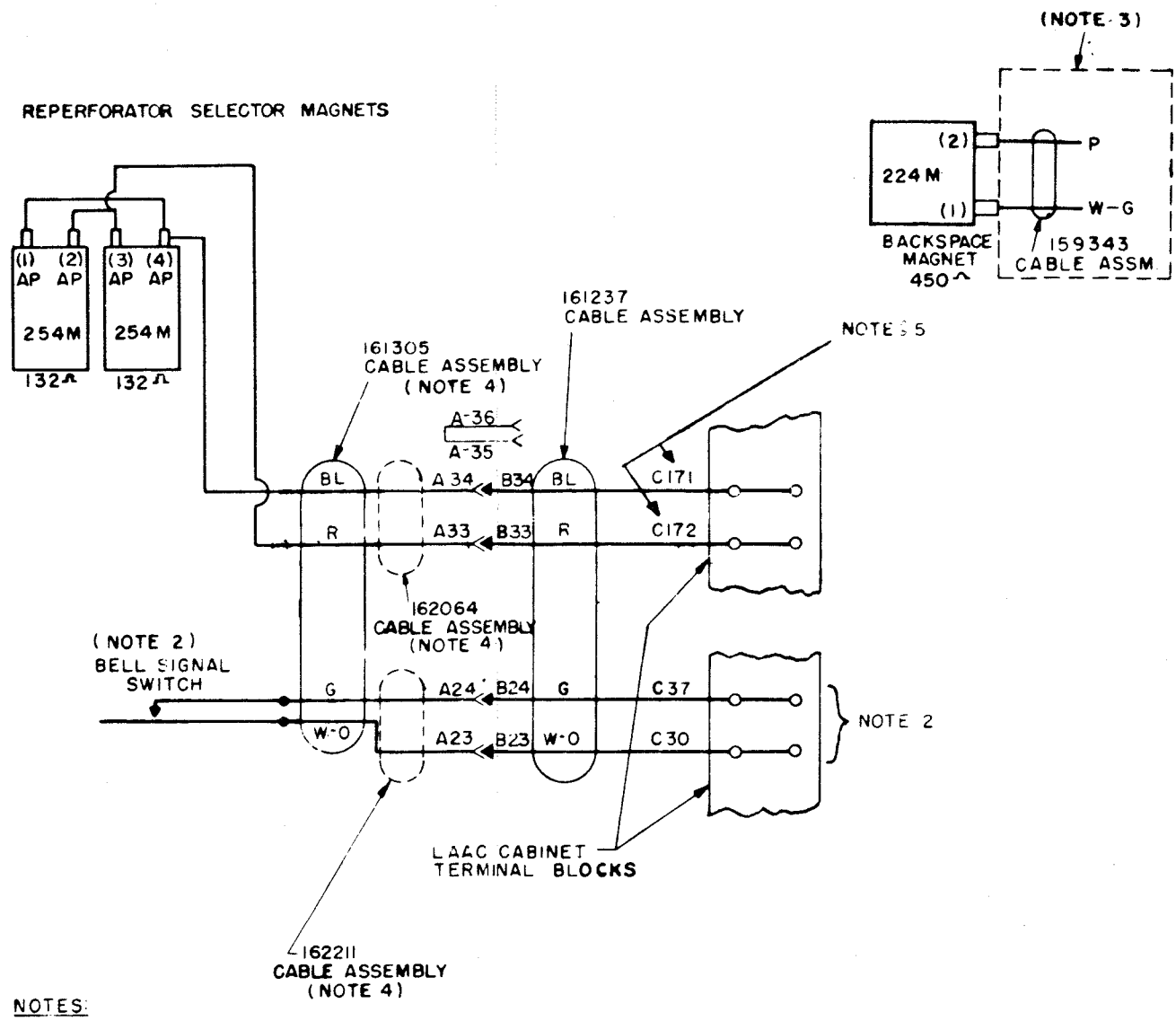


LMU 60,61,64 (115 VOLTS AC)
WITH RADIO FREQUENCY SUPPRESSORS
FOR USE ON 115 VOLTS AC ONLY



LMU 63 (115 VOLTS A.C.)
WITH RADIO FREQUENCY SUPPRESSORS
FOR USE ON 115 VOLTS AC ONLY.

Figure 5-22. LMU3, 41, 12, 39, 38, 50 Wiring Diagram (Sheet 2 of 2)



NOTES:

REPERFORATOR SELECTOR MAGNETS SHOWN FOR .060 AMP OPERATION. FOR .020 AMP OPERATION REMOVE AND ADD CONNECTIONS AS TABULATED BELOW

	CONNECTION REMOVED	CONNECTION ADDED
.020 AMPS.	A33 - AP3 AP2 - AP3 AP1 - AP4	A33 - AP2 AP1 - AP3

2. BELL SIGNAL SWITCH NOT USED ON LRPE6. TIE BACK W-O AND G WIRES ALONG CABLE 161237 WHEN USED WITH LRPE 6

3. PART OF LAK 4 & LAK 18

4. LPR 51 & 56 USE 162064 & 162211 CABLE ASSEMBLIES. LRPE 6 USES 162064 CABLE ASSEMBLY LPR 77 USES 162064 CABLE ASSEMBLY.

5 WHEN THESE TERMINALS ARE NOT AVAILABLE, THE 159396 MODIFICATION KIT TO ADD TERMINALS C-151 TO C-180, MAY BE ORDERED.

Figure 5-23. LPR 10, 33, 56, 51, 77, and LRPE 6 Schematic Wiring Diagram

NOTES:

1. WIRING LEGEND:

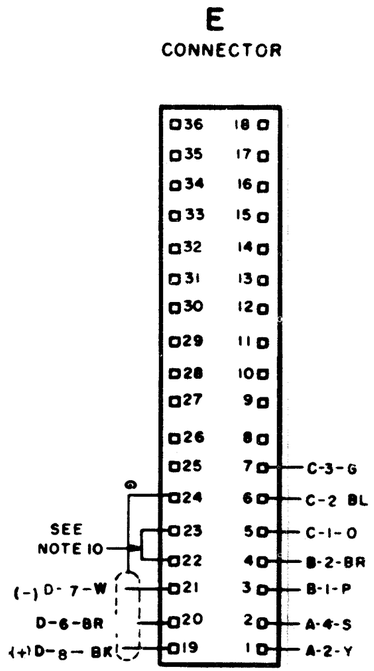
   A-1-W
   - A — DISTANT TERMINATING AREA
   - 1 — DISTANT TERMINAL DESIGNATION
   - W — WIRING COLOR CODE

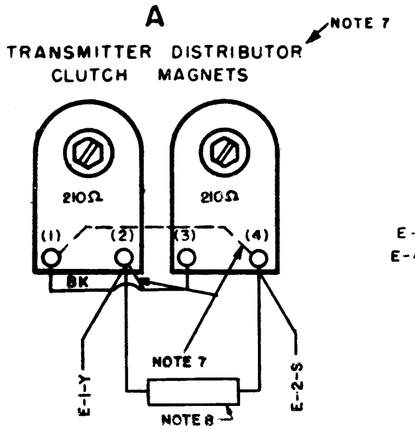
2. COLOR CODE:

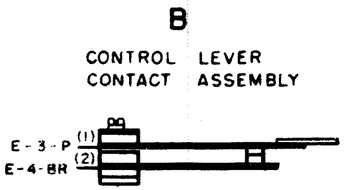
BK-BLACK	W-BK-WHITE-BLACK
BR-BROWN	W-BR-WHITE-BROWN
R-RED	W-R — WHITE-RED
O-ORANGE	W-O — WHITE-ORANGE
Y-YELLOW	W-Y — WHITE-YELLOW
G-GREEN	W-G — WHITE-GREEN
BL-BLUE	W-BL-WHITE-BLUE
P-PURPLE	W-P — WHITE-PURPLE
S-SLATE	W-S — WHITE-SLATE
W-WHITE	

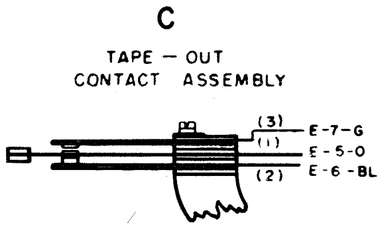
3. CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS
4. ALL CONTACTS SHOWN IN UNOPERATED POSITION.
5. ASSOCIATED CABLES:
   173440 CABLE ASSEMBLY (LXD 11)
   307288 CABLE ASSEMBLY (LXD 29,35)
6. THE NUMBERS ENCLOSED BY PARENTHESES ARE USED FOR REFERENCE AND ARE NOT MARKED ON THE PARTS.
7. UNIT EQUIPPED WITH 262 COIL ASSEMBLY (RESISTANCE 210Ω EACH). THE OPERATING CURRENT MUST BE 50 MA. 120 V DC FOR EXTERNAL PULSING.
   FOR 110V AC. NON-PULSING OPERATION, RELOCATE STRAP ON TERMINAL (1) TO TERMINAL (2). ADD STRAP BETWEEN TERMINALS (1) AND (4) FOR PARALLEL OPERATION OF MAGNETS.
8. 178535 SPARK SUPPRESSOR ASSEMBLY (153631 NETWORK) USED ON LXD 29 ONLY.
9. TERMINAL NO. 21 ON CONNECTOR E IS RESERVED FOR POLAR SIGNAL.
10. STRAP WITH 22 GAUGE WIRE AS INDICATED.
11. FOR PROPER R.F. FILTERING POLARITY OF FILTERS MUST BE MAINTAINED WHEN 174422 FILTER IS USED. UNIT AS FURNISHED IS WIRED FOR "MARKING" CONTACT POSITIVE (+) "SPACING" CONTACT NEGATIVE (-). TO REVERSE POLARITY OF CONTACTS SO THAT THE "MARKING" CONTACT IS NEGATIVE (-) AND "SPACING" POSITIVE (+) MAKE THE FOLLOWING CONNECTIONS IN CONTACT BOX ASSEMBLY.
    1. MOVE BLACK LEAD OF BOTTOM FILTER FROM "MARKING" CONTACT TO "SPACING" CONTACT.
    2. MOVE GREEN LEAD OF TOP FILTER FROM "SPACING" CONTACT TO "MARKING" CONTACT.

    POLARITY MAY BE DISREGARDED WHEN UNITS ARE FURNISHED WITH 174421 FILTER. COLOR CODING OF FILTER LEADS DOES NOT APPLY TO 174421 FILTER.









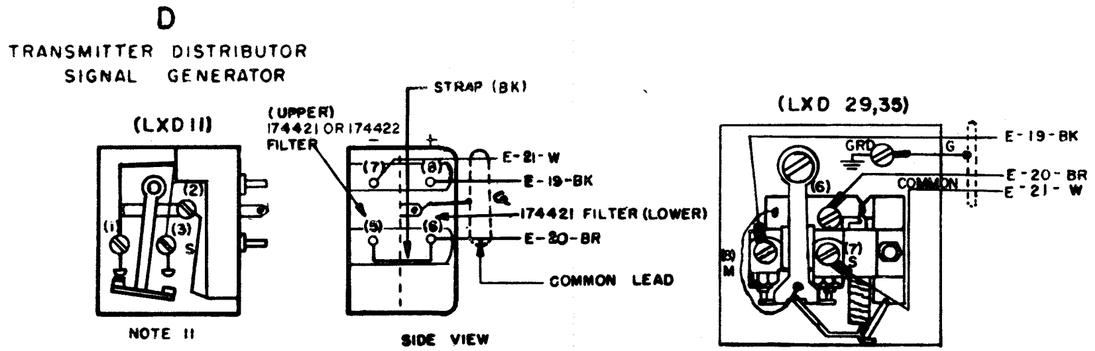


Figure 5-24. LXD 11, 29, 35 Transmitter Distributor Wiring Diagram

NO.	NOTES
1.	WIRING LEGEND A-1-W DISTANT TERMINAL AREA DESIGNATED DISTANT TERMINAL WIRE COLOR
2.	COLOR CODE: BK BLACK, BR BROWN, Y YELLOW, S SLATE, P PURPLE, O ORANGE, BL BLUE, W WHITE
3.	CONNECTIONS VIEWED FROM SOLDER TERMINAL ENDS.
4.	ASSOCIATED CABLE 173448
5.	ASSOCIATED SCHEMATIC WIRING DIAGRAM 4275WD
6.	(*) ASTERISK INDICATES 3 WIRE SHIELDED CABLE.

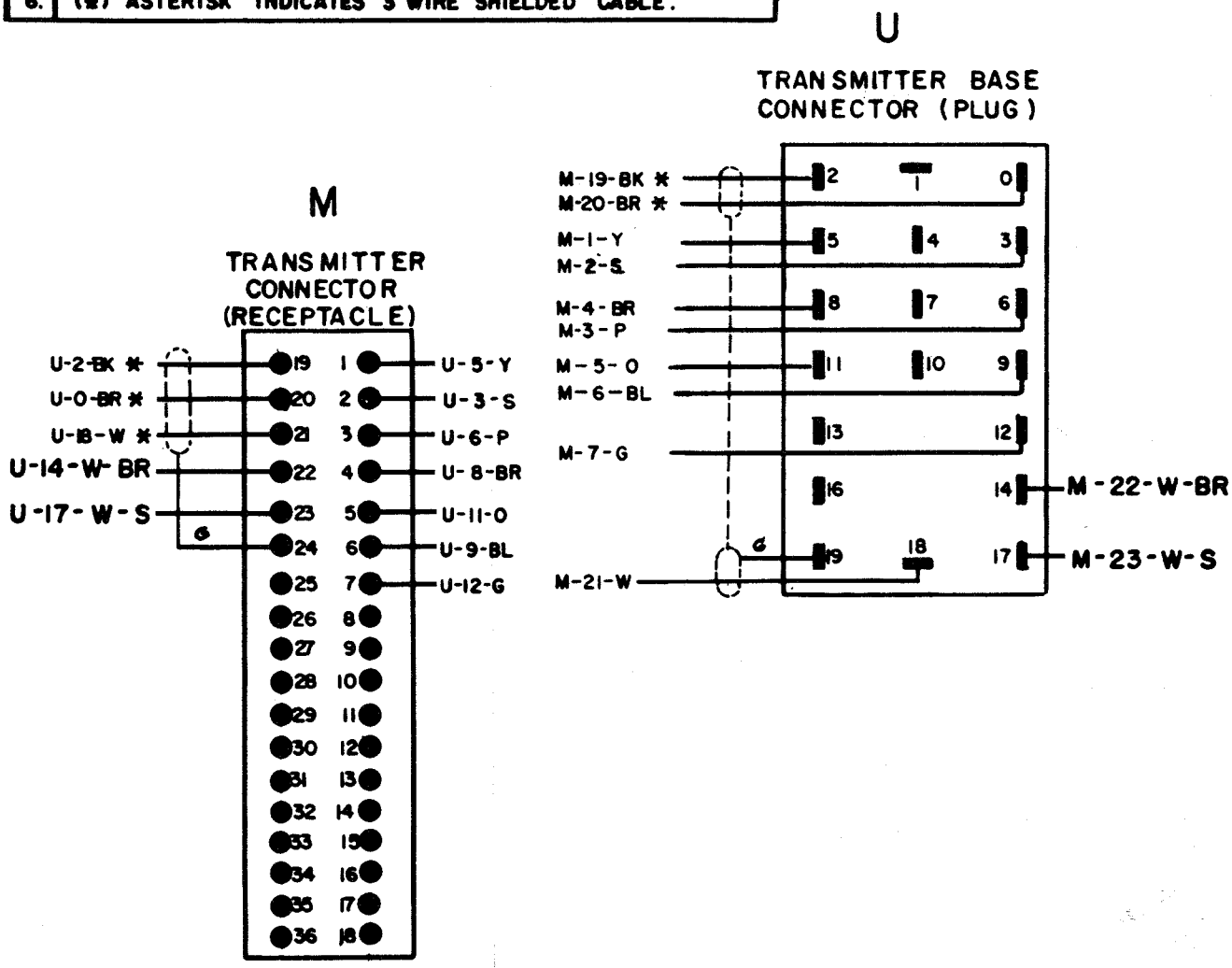
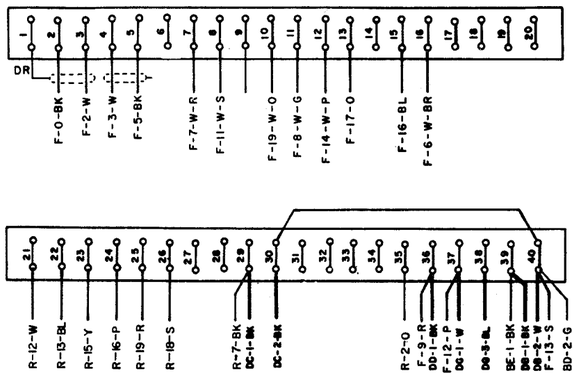
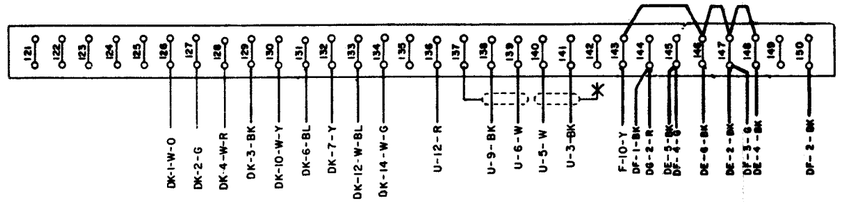


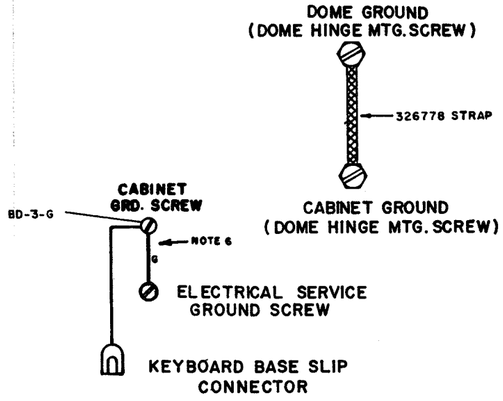
Figure 5-25. LCXB 13 Wiring Diagram

NO	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA DISTANT TERMINATING DESIGNATION A-1-W WIRE COLOR CODE
2.	COLOR CODE: BK-BLACK BR-BROWN BL-BLUE R-RED P-PURPLE G-GREEN S-SLATE Y-YELLOW W-WHITE O-ORANGE
3.	-*- DENOTES SPLICED AND TAPED WIRES.
4.	CABINET POWER 100 - 130V AC 45 - 66 HZ
5.	ASSOCIATED CABLES: 158267 TRANSFORMER AND CABLE 154440 CABINET LIGHTS, SWITCH CABLE 324157 T-D BASE CABLE 324158 REPERFORATOR BASE CABLE 324159 KEYBOARD BASE CABLE 324895 TYPING UNIT CABLE
6.	THE CABINET GROUND SCREW IS ON THE 158682 BRACKET AT THE RIGHT OF THE CABINET TERMINAL BLOCKS.
7.	DENOTES SHIELD LEADS DENOTES TAPED SHIELD ENDS
8.	TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESIS ARE FOR REFERENCE AND ARE NOT MARKED ON COMPONENT.
9.	REFER TO . 8405, AND 8141WD FOR SCHEMATIC WIRING DIAGRAMS.
10.	DR INDICATES DRAIN
11.	FUSE NUMBER 118510 1/4 AMP.

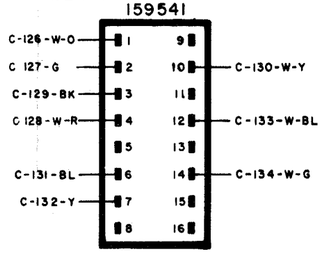
C
CABINET TERMINAL BLOCKS
153459



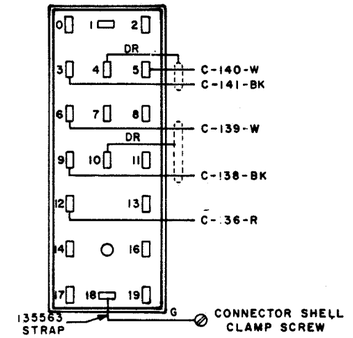




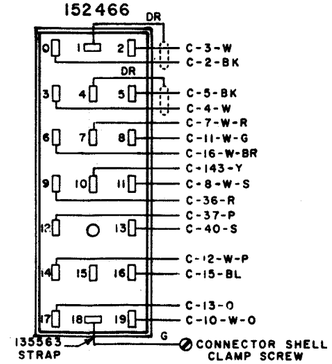
DK
LAAC251 ONLY
AUX. REPERFORATOR BASE
POWER CONNECTOR
159541



U
TRANSMITTER DISTRIBUTOR
CONNECTOR
158259



F
KEYBOARD CONNECTOR
152466



R
TYPING UNIT
CONNECTOR
152466

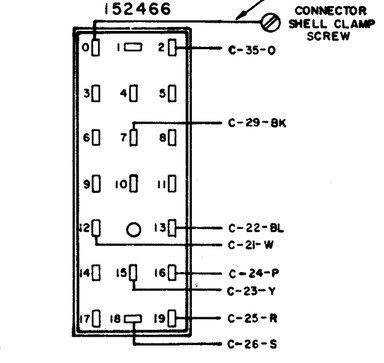


Figure 5-26. LAAC 251, 256, 255 ASR Cabinet Wiring Diagram (Sheet 1 of 2)

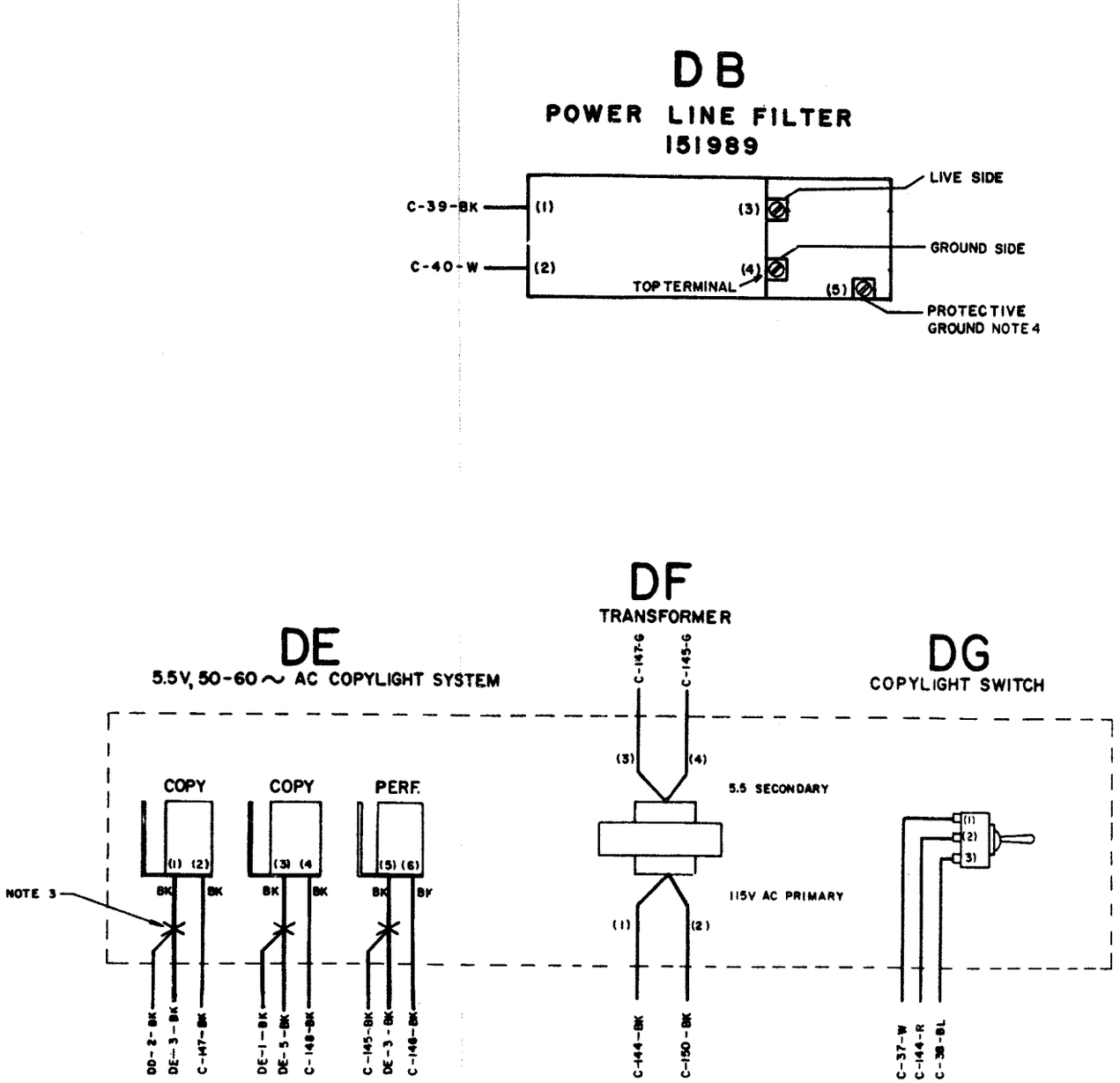


Figure 5-26. LAAC 251, 256, 255 ASR Cabinet Wiring Diagram Sheet 2 of 2)

NO.	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA; DISTANT TERMINATING DESIGNATION; A-1-W; WIRE COLOR CODE
2.	COLOR CODE: BK - BLACK; BR - BROWN; R - RED; O - ORANGE; Y - YELLOW; G - GREEN; BL - BLUE; P - PURPLE; W - WHITE; S - SLATE
3.	ASSOCIATED CABLES: 159279 TRANSFORMER CABLE; 158NNO CABINET LIGHTS, SWITCH CABLE; 324159 KEYBOARD CABLE; 324156 PAGE PRINTER CABLE; 324157 TRANSMITTER DISTRIBUTOR BASE CABLE; 324158 AUXILIARY TYPING REPERFORATOR BASE CABLE; 326373 FAN CABLE ASSEMBLY.
4.	THE CABINET GROUND SCREW IS ON THE 158682 BRACKET AT THE RIGHT OF THE CABINET TERMINAL BLOCKS.
5.	ACCESSORY PART OF 173778 CONTROL PANEL ASSEMBLY.
6.	DENOTES SPLICED AND TAPED WIRES.; DENOTES SHIELDED CABLE
7.	CABINET WIRED FOR 100-130 VAC, 48-66 HZ AS IS ASSOCIATED LESU123. THE MOTORS MUST BE CHOSEN IN ACCORDANCE WITH AVAILABLE LINE FREQUENCY AND REGULATION.
8.	CONNECT POWER LINE SHIELDS TO H4 AND J3. UNIT AS SHIPPED IS WIRED FOR SEPARATE MOTOR POWER AND SIGNAL POWER. IF A SINGLE POWER CIRCUIT IS BROUGHT IN, REMOVE KNOCK OUT IN POWER CONNECTOR BOX AND STRAP J1 TO H1, J2 TO H3, J4 TO H5 AND H4 TO J3.
9.	REFER TO 8313 WD FOR SCHEMATIC WIRING DIAGRAM
10.	FUSE NUMBER 118510 1/4 AMP.

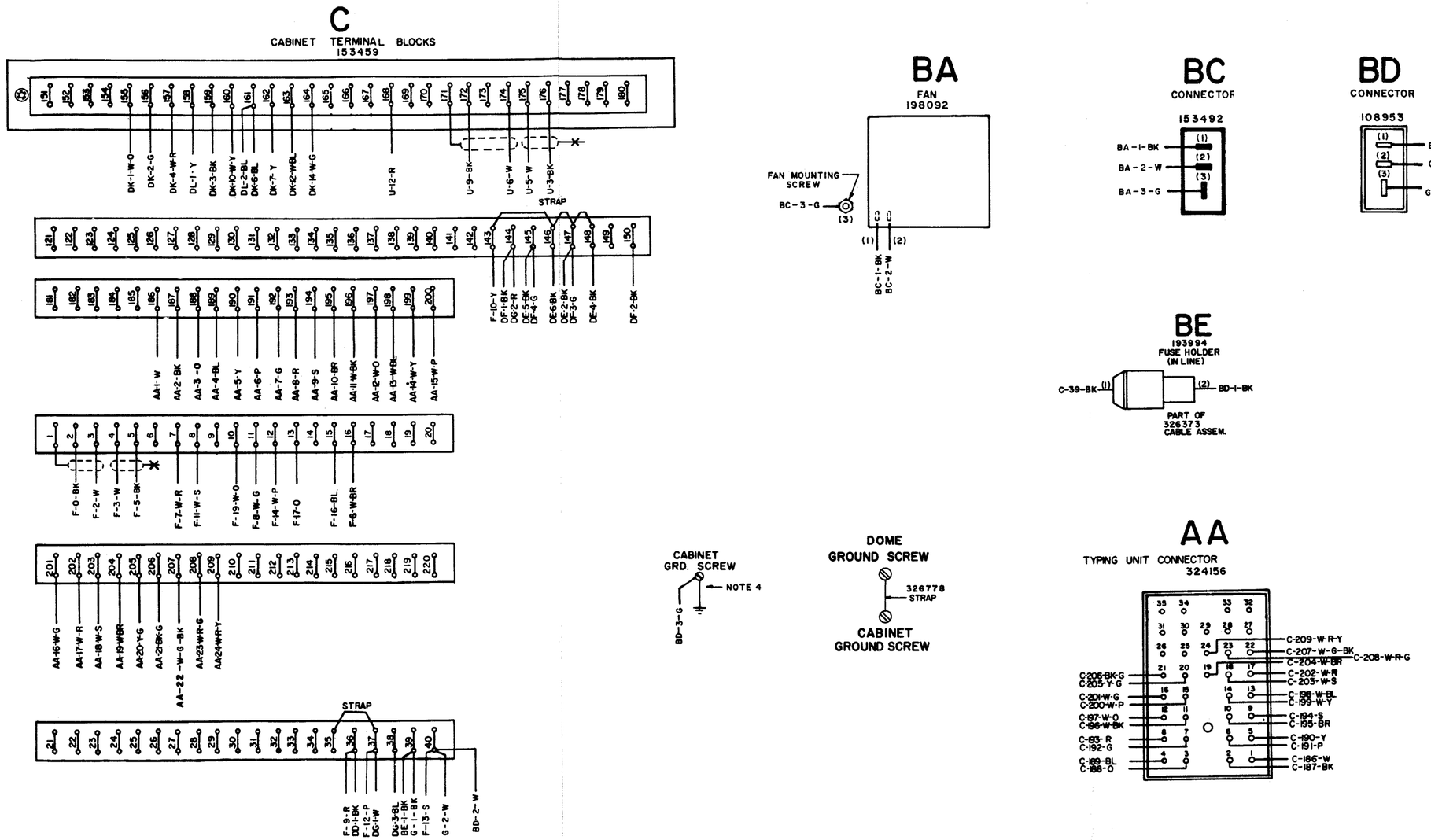
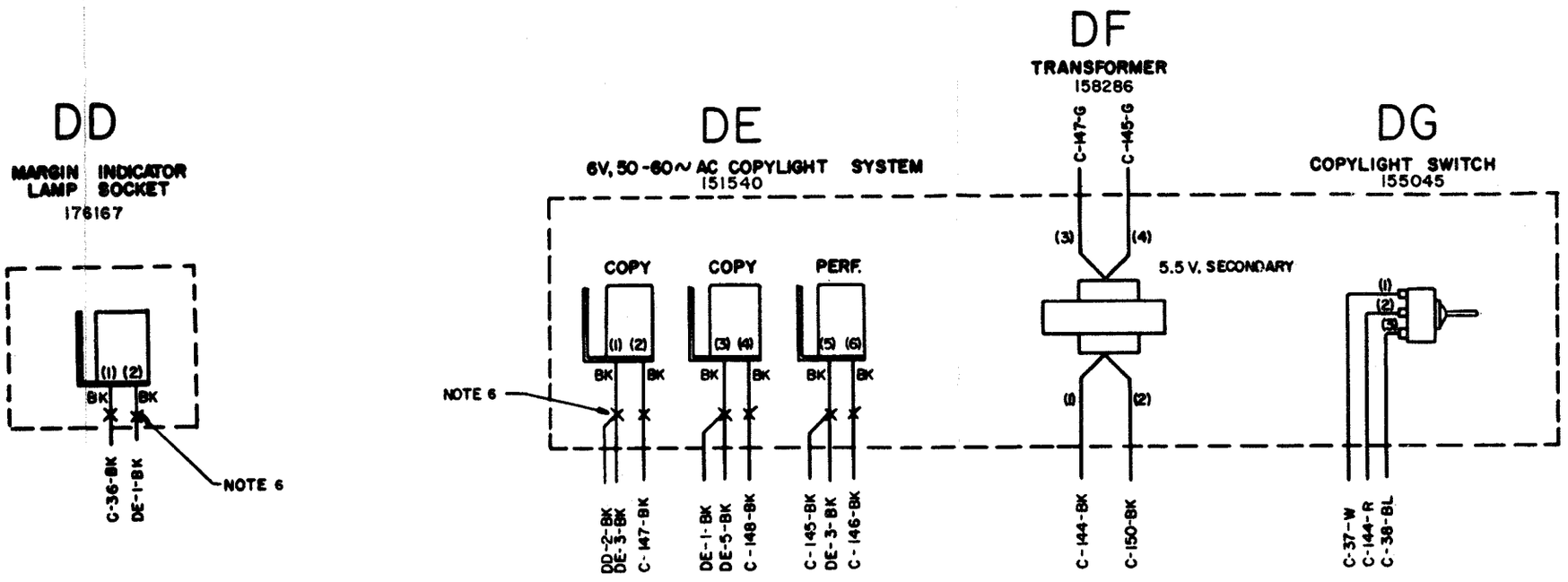
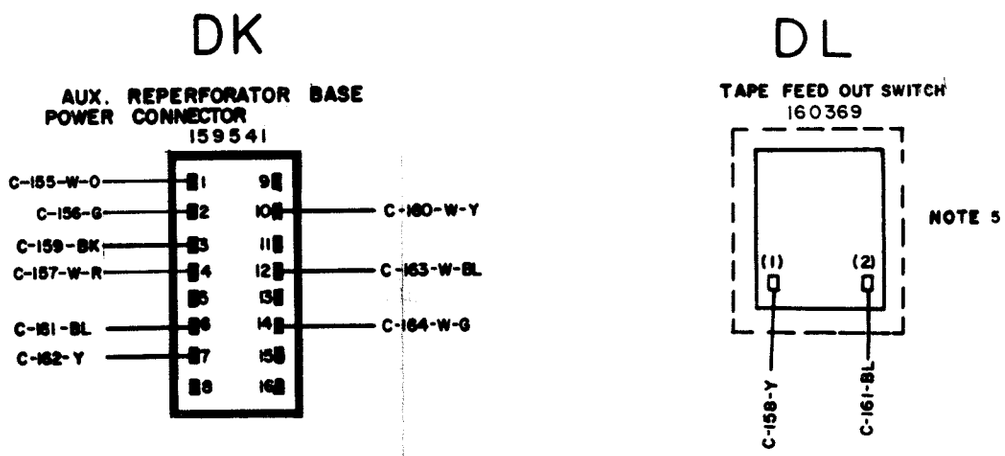


Figure 5-27. LAAC 252 Cabinet Wiring Diagram (Sheet 1 of 3)





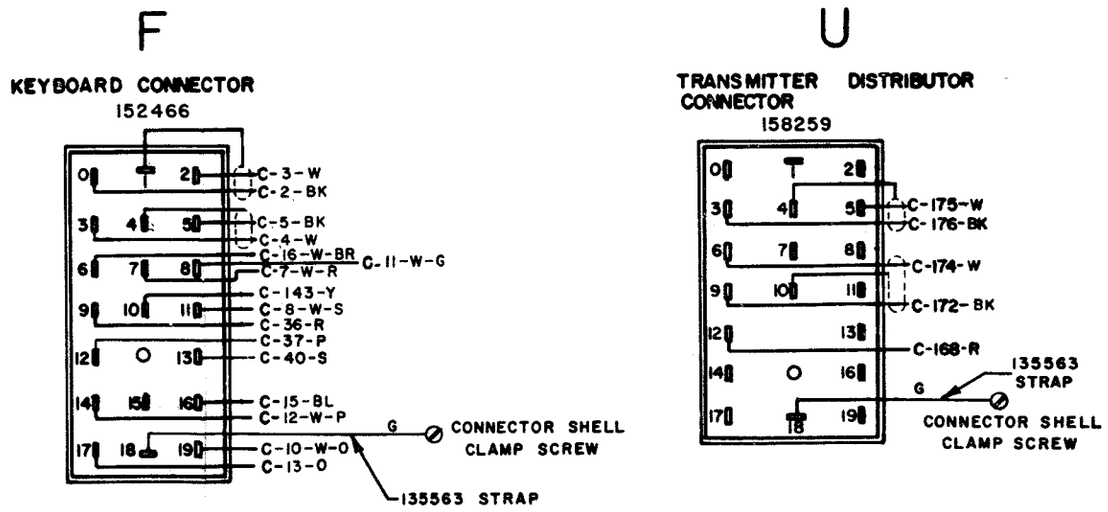


Figure 5-27. LAAC 252 Cabinet Wiring Diagram (Sheet 2 of 3)

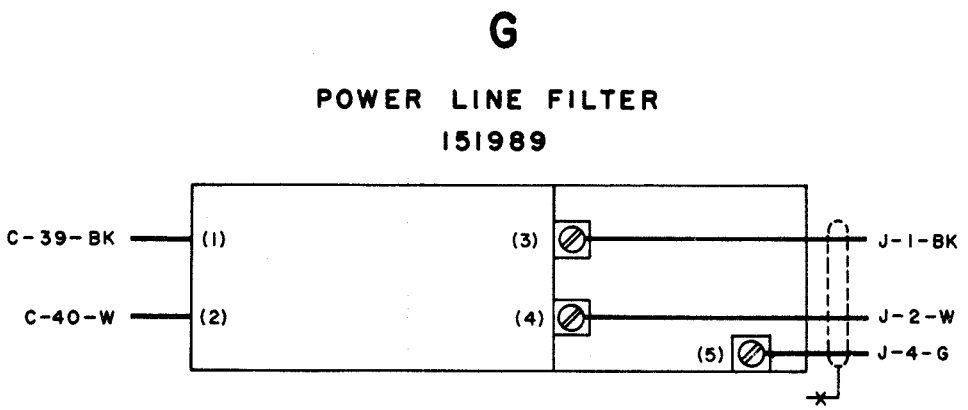
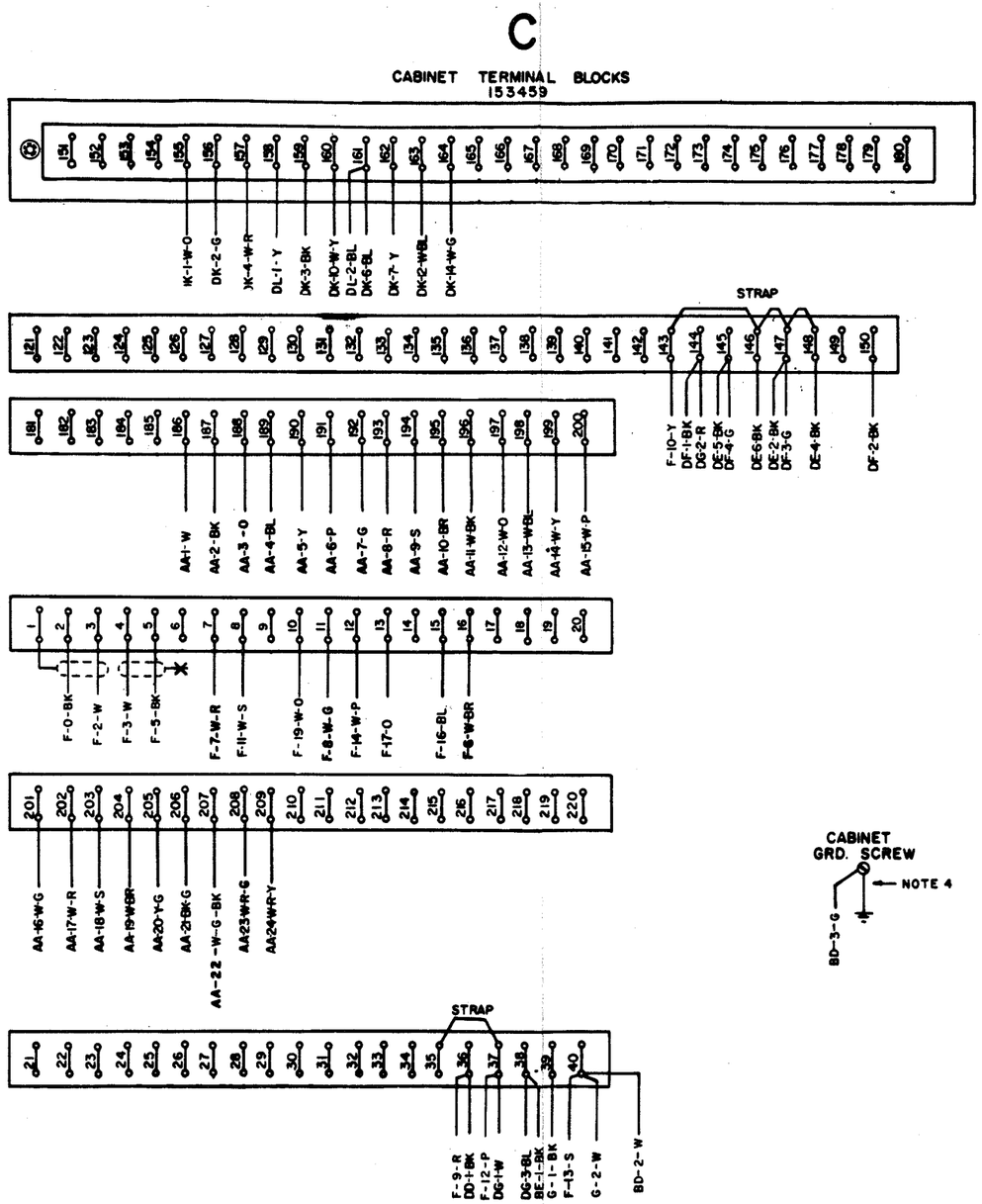
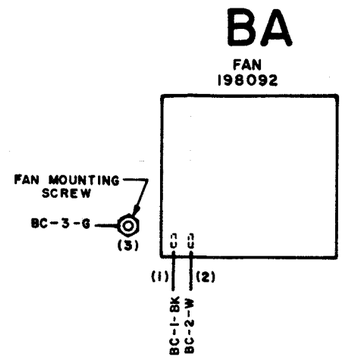
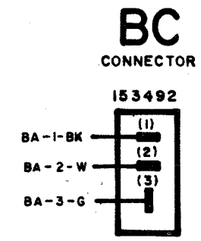


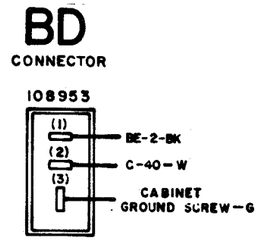
Figure 5-27. LAAC 252 Cabient Wiring Diagram (Sheet 3 of 3)

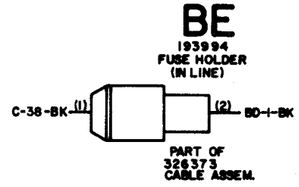
NO.	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA DISTANT TERMINATING DESIGNATION A-1-W WIRE COLOR CODE
2.	COLOR CODE: BK - BLACK G - GREEN BR - BROWN BL - BLUE R - RED P - PURPLE O - ORANGE W - WHITE Y - YELLOW S - SLATE
3.	ASSOCIATED CABLES: 159279 TRANSFORMER CABLE 154440 CABINET LIGHTS, SWITCH CABLE 324159 KEYBOARD CABLE 324156 PAGE PRINTER CABLE 324158 AUXILIARY TYPING REPERFORATOR BASE CABLE 326373 FAN CABLE ASSEMBLY.
4.	THE CABINET GROUND SCREW IS ON THE 158682 BRACKET AT THE RIGHT OF THE CABINET TERMINAL BLOCKS.
5.	ACCESSORY PART OF 173778 CONTROL PANEL ASSEMBLY.
6.	DENOTES SPLICED AND TAPED WIRES. DENOTES SHIELDED CABLE
7.	CABINET WIRED FOR 100-130VAC, 45-66 HZ AS IS ASSOCIATED LESU123. THE MOTORS MUST BE CHOSEN IN ACCORDANCE WITH AVAILABLE LINE FREQUENCY AND REGULATION.
8.	CONNECT POWER LINE SHIELDS TO H4 AND J3. UNIT AS SHIPPED IS WIRED FOR SEPARATE MOTOR POWER AND SIGNAL POWER. IF A SINGLE POWER CIRCUIT IS BROUGHT IN, REMOVE KNOCK OUT IN POWER CONNECTOR BOX AND STRAP J1 TO H1, J2 TO H3, J4 TO H5 AND H4 TO J3.
9.	REFER TO 8910 WD FOR SCHEMATIC WIRING DIAGRAM
10.	FUSE NUMBER 118510 1/4-AMP.

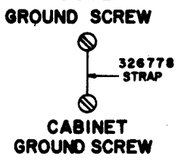












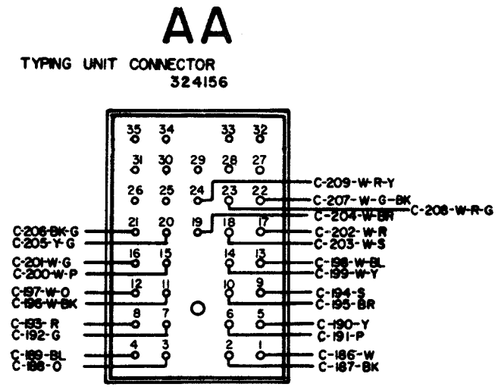
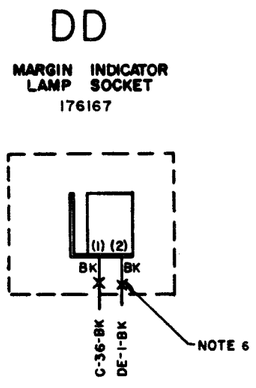
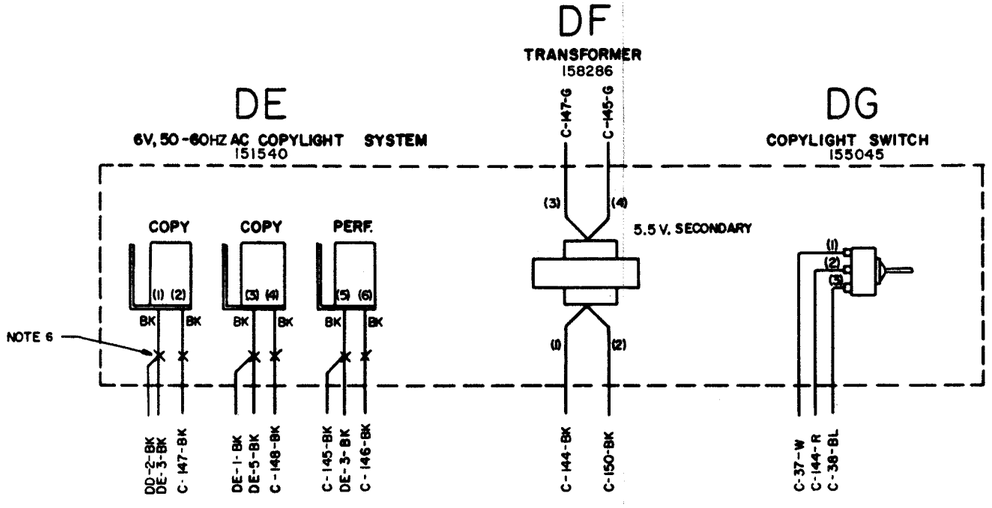
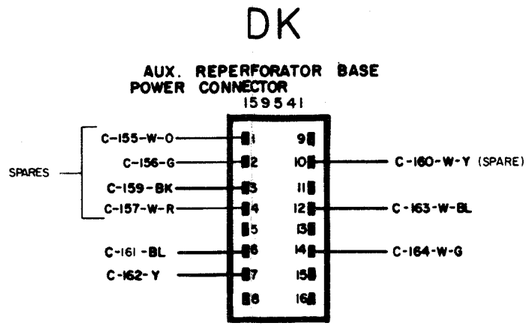
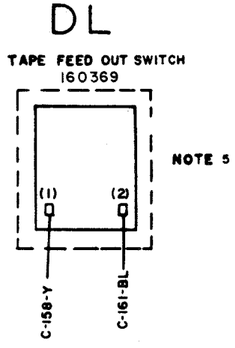


Figure 5-28. LAAC 259 Cabinet Wiring Diagram (Sheet 1 of 3)









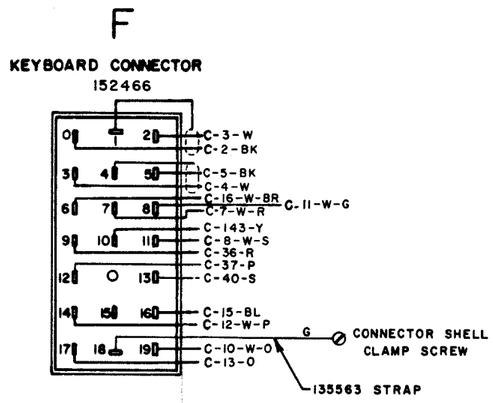


Figure 5-28. LAAC 259 Cabinet Wiring Diagram (Sheet 2 of 3)

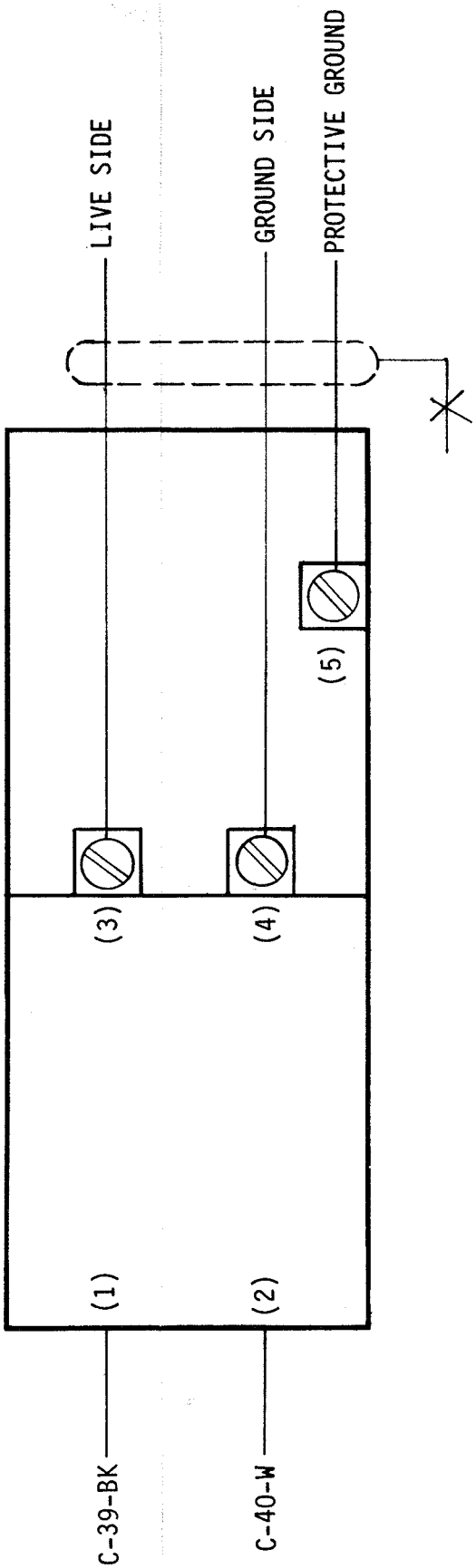


Figure 5-28. LAAC 259 Cabinet Wiring Diagram (Sheet 3 of 3)

	NOTES
1.	WIRING LEGEND DISTANT TERM. AREA DISTANT TERM. DESIG. A–1–R WIRE COLOR CODE
2.	COLOR CODE: R–RED W–WHITE BK–BLACK
3.	MATING CONNECTOR 114466 IS FURNISHED WITH UNIT. WIRING BETWEEN A.C. POWER AND 114466 IS TO BE PROVIDED IN FIELD AT INSTALLATION TIME.
4.	REMOVE AND TAPE RESISTOR LEADS WHEN LPW300 IS OPERATED WITH MODEL32AND 33 PAGE PRINTERS.
5.	MOTOR OPERATES ON 50-60 CYCLE 110 V.A.C.
6.	THE NUMBERS ENCLOSED BY PARENTHESES ARE USED FOR REFERENCE AND ARE NOT SHOWN ON THE PART.
7.	THE 195298 CABLE IS REPLACED BY 337963 CABLE ON DAPW 3

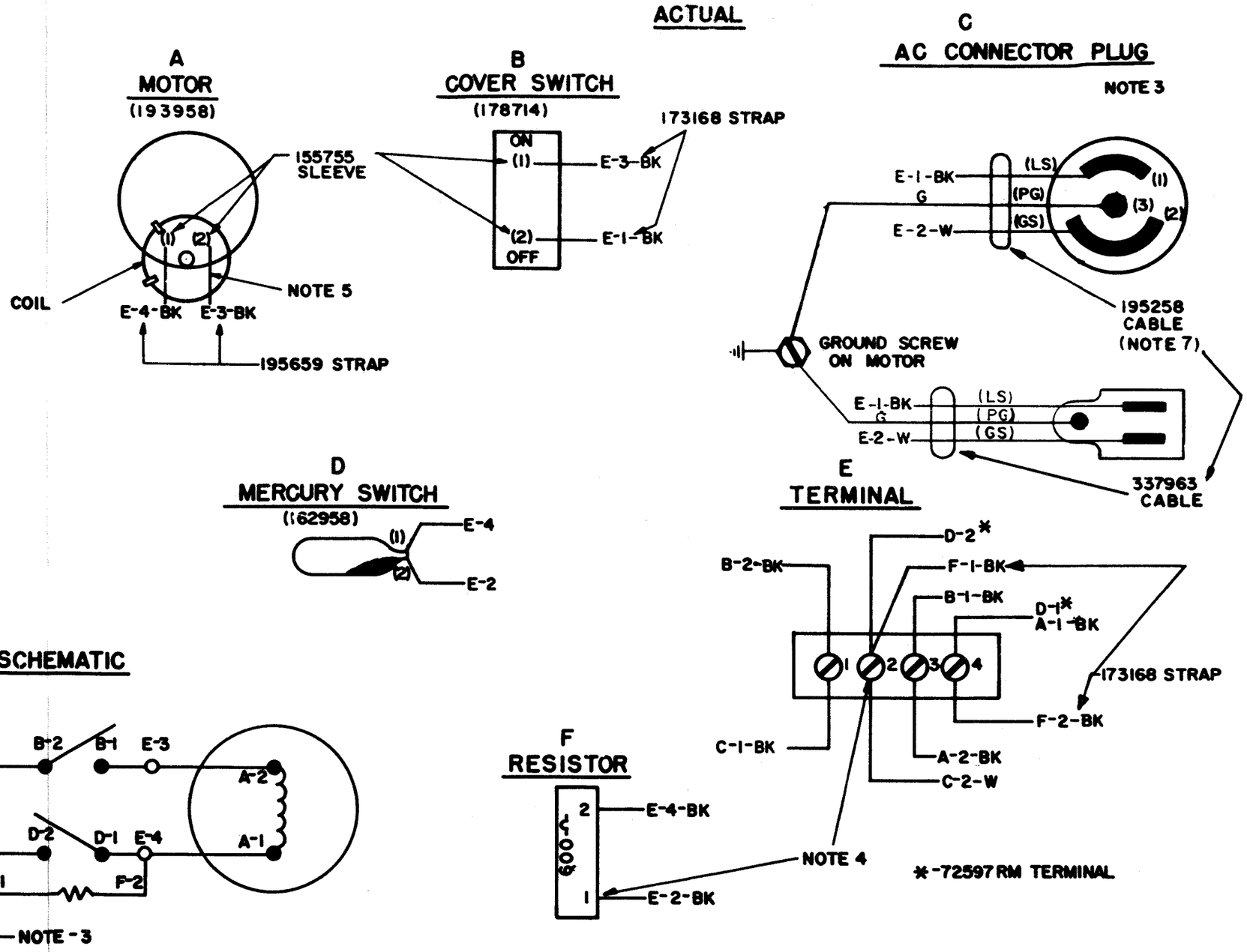
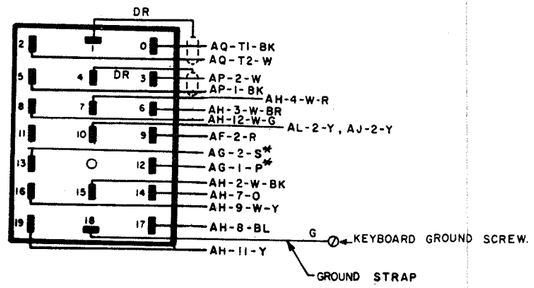


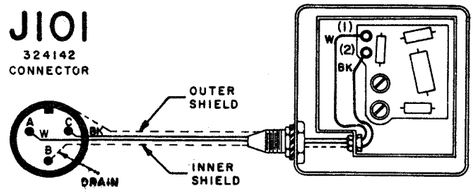
Figure 5-29. LPW 300 Paper Winder

NO.	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA DISTANT TERMINATING 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
3.	UNIT WIRED FOR 115 VOLTS AC OR DC POWER INPUT.
4.	PLUGS VIEWED FROM SOLDER TERMINAL ENDS.
5.	ALL CONTACTS SHOWN IN UNOPERATED POSITION IN KEYBOARD.
6.	ASSOCIATED CABLES: 326355 CABLE ASSEMBLY, CLUTCH TRIP 324683 CABLE ASSEMBLY, KEYBOARD BASE 174314 CABLE ASSEMBLY, AUX. SWITCH 324684 CABLE ASSEMBLY, MARGIN INDICATOR
7.	BARE WIRE STRAP 39522RM.
8.	—x— TAPED END
9.	REFERENCE SPEC. FOR TELETYPE CORPORATION EMPLOYEES ONLY 6155S
10	FOR SCHEMATIC WIRING REFER TO 8413WD-8405WD
11.	COVER DIODE LEADS WITH TWO LENGTHS (APPROX. 1 INCH) OF INSULATING TUBING (60019 RM).
12	DR INDICATES DRAIN
13	* DENOTES 18 A WG

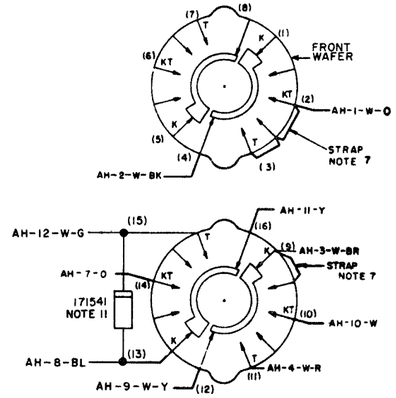
F
KEYBOARD CONNECTOR



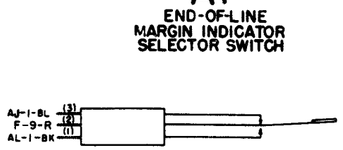
AA
323644 CONTACT BOX ASSEMBLY



AC
AUXILIARY SWITCH

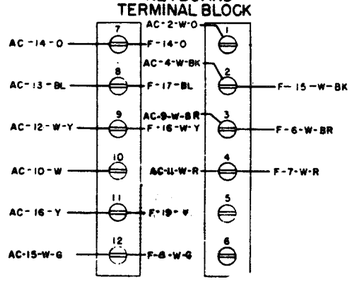


AF
END-OF-LINE MARGIN INDICATOR SELECTOR SWITCH

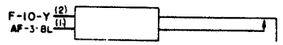


AG
MOTOR TERMINAL BLOCK

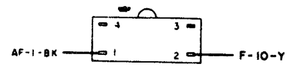
AH
KEYBOARD TERMINAL BLOCK



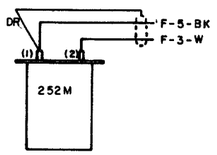
AJ
END-OF-LINE INDICATOR SWITCH



AL
MARGIN INDICATOR SWITCH



AP
CLUTCH TRIP MAGNET



AQ
326357 CLUTCH TRIP SWITCH ASSEM.

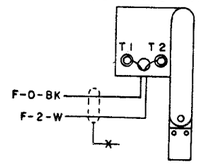
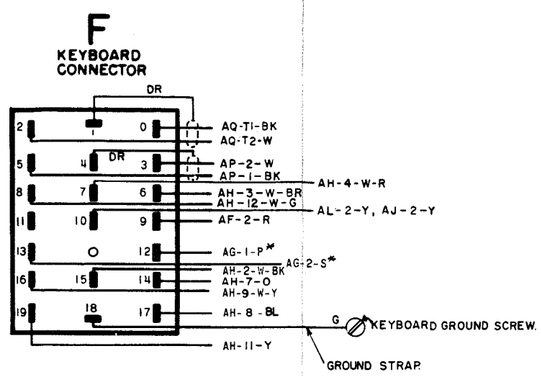
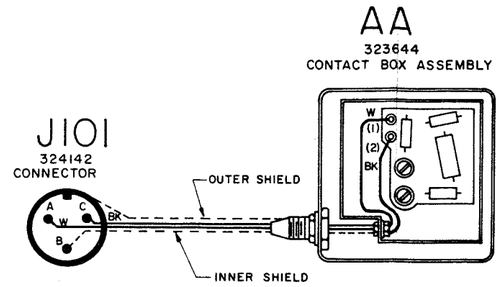
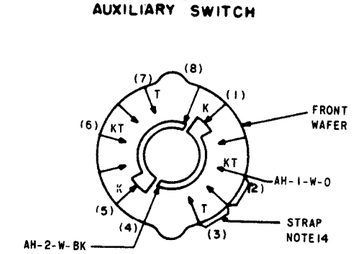


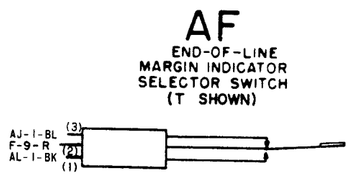
Figure 5-30. LAK 50 Keyboard Wiring Diagram

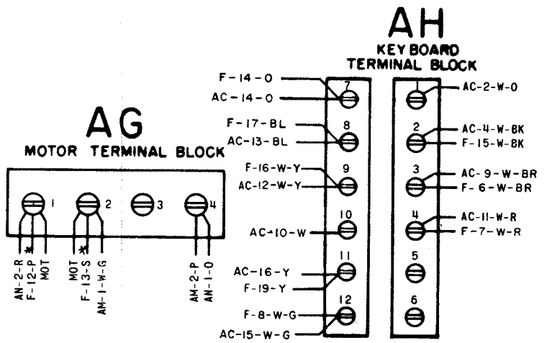
NO.	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA; DISTANT TERMINATING DESIGNATION; A-1-W-BL; WIRE COLOR CODE
2.	COLOR CODE: BK - BLACK; BR - BROWN; R - RED; O - ORANGE; Y - YELLOW; G - GREEN; BL - BLUE; P - PURPLE; W - WHITE; S - SLATE
3.	UNIT WIRED FOR 115 VOLTS AC OR DC POWER INPUT.
4.	PLUGS VIEWED FROM SOLDER TERMINAL ENDS.
5.	ALL CONTACTS SHOWN IN UNOPERATED POSITION IN KEYBOARD.
6.	ASSOCIATED CABLES: 324684 CABLE ASSEMBLY, MARGIN INDICATOR; 174314 CABLE ASSEMBLY, AUXILIARY; 324683 CABLE ASSEMBLY, KEYBOARD; 155992 CABLE ASSEMBLY, BACKSPACE; 159343 CABLE ASSEMBLY, BACKSPACE MAGNET; 326355 CABLE ASSEMBLY, CLUTCH TRIP MAGNET
7.	-X- DENOTES TAPED SHIELD END.; DENOTES SHIELDED CABLE
8.	FOR SCHEMATIC SEE 8313 WD
9.	REFERENCE SPEC. FOR TELETYPE CORPORATION EMPLOYEES ONLY 6155S
10.	COVER DIODE LEADS WITH TWO LENGTHS (APPROX. 1 INCH) OF INSULATING TUBING (60019 RM).
11.	PART OF ASSOCIATED UNIT (LPE, LPR, LRPE, OR LTPE)
12.	TERMINAL DESIGNATION ENCLOSED IN PARENTHESIS ARE FOR REFERENCE AND ARE NOT MARKED COMPONENTS
13.	DR INDICATES DRAIN
14.	BARE WIRE STRAP 39522 RM.
15.	* DENOTES 18 AWG

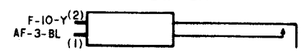


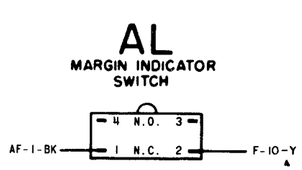


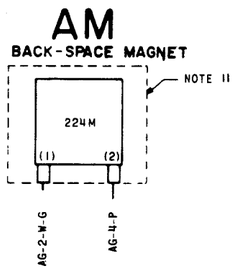


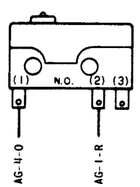


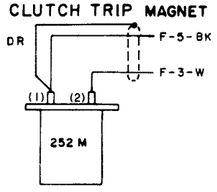












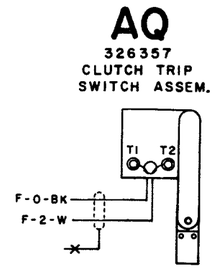


Figure 5-31. LAK 51 and 55 Keyboard Wiring Diagram

NO.	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA DISTANT TERMINATING DESIGNATION A-1-BK COLOR CODE
2.	COLOR CODE: BK-BLACK BL-BLUE W-WHITE BR-BROWN Y-YELLOW O-ORANGE P-PURPLE G-GREEN S-SLATE R-RED
3.	CONNECTORS VIEWED FROM SOLDERED TERMINAL END.
4.	THESE LEADS FURNISHED WITH STUNT BOX.
5.	NORMALLY OPEN CONTACTS NORMALLY CLOSED CONTACTS
6.	135563 STRAP CONNECTED TO TERMINAL TO BE CONNECTED TO CONNECTOR BRACKET MOUNTING SCREW ON LP 134, LP 138, LP 149, LP150.
7.	LEGEND: DR-DRAIN LEAD CL-CLEAR INSULATION
9.	TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESIS ARE FOR REFERENCE AND ARE NOT MARKED ON COMPONENT.
10.	TAPE ENDS AND TIE BACK 152468 CABLE IF NECESSARY.
11.	337989 CABLE ASSEMBLY IS REQ'D ONLY WHEN THE LP 134 IS USED WITH THE LAAC 252.

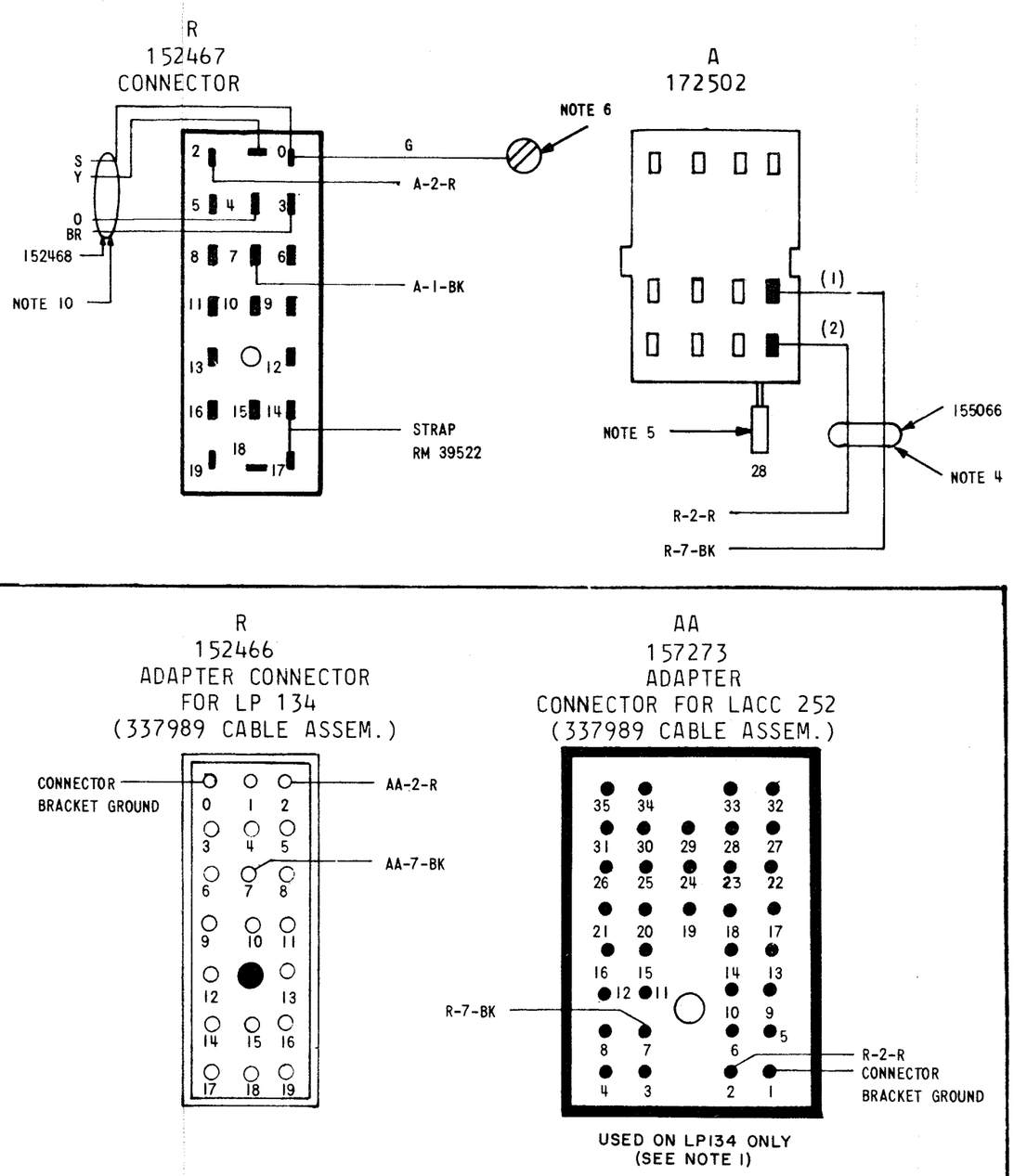
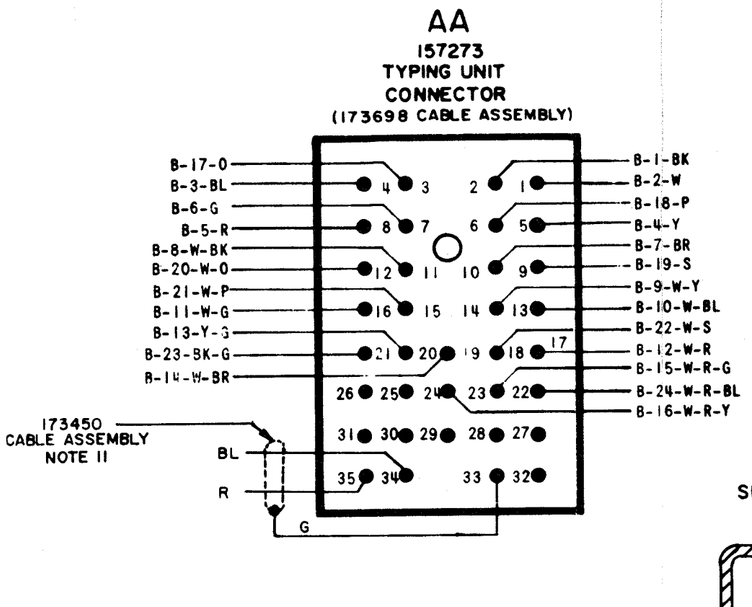
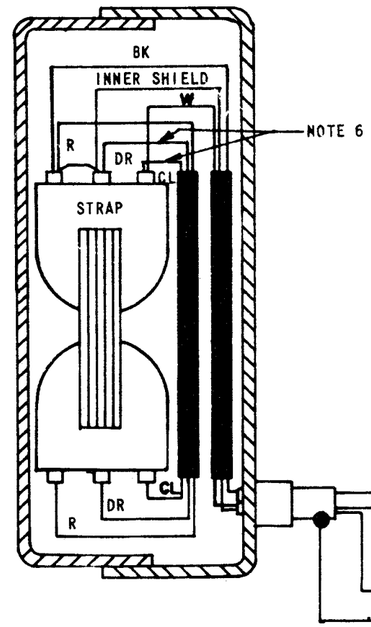


Figure 5-32. LP 134, 138, 149 and 150 Page Printer Wiring Diagram

NO.	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA DISTANT TERMINATING DESIGNATION AA-8-R WIRE COLOR CODE
2.	COLOR CODE: W - WHITE R - RED O - ORANGE BL - BLUE P - PURPLE S - SLATE Y - YELLOW G - GREEN BR - BROWN BK - BLACK
3.	CONNECTORS VIEWED FROM WIRING SIDE.
4.	NORMALLY OPEN CONTACT NORMALLY CLOSED CONTACT
5.	INDICATED SLOT LOCATION.
6.	LEGEND: DR - SHIELD DRAIN CL - CLEAR INSULATION
7.	SELECTOR MAGNET WIRED FOR 60 MA OPERATION.
8.	REFER TO 8331 WD & 8332 WD FOR SCHEMATIC DIAGRAM.
9.	TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESIS ARE FOR REFERENCE AND ARE NOT MARKED ON COMPONENTS.
10	A UNIT OR STUNT BOX MAY BE EQUIPPED WITH A 173450 CABLE ASSEMBLY. IF PRESENT, TAPE TERMINALS AND TIE BACK CABLE ASSEMBLY.





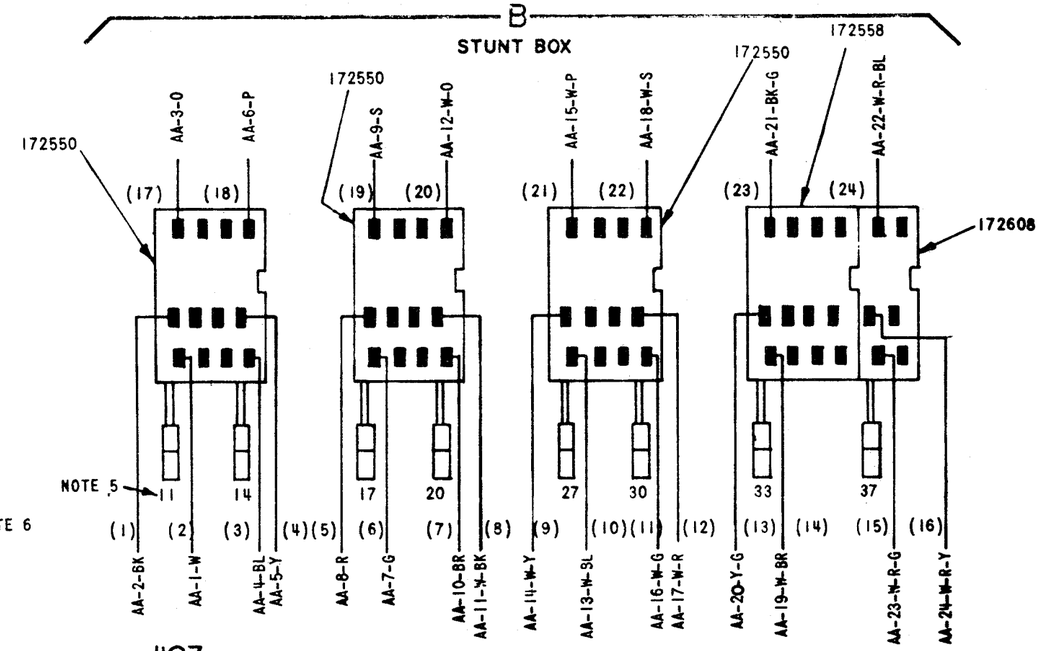


Figure 5-33. LP 135 Stunt Box Wiring Diagram

NO.	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA DISTANT TERMINATING DESIGNATION WIRE COLOR CODE AA-2-W
2.	COLOR CODE: BK - BLACK BR - BROWN R - RED O - ORANGE Y - YELLOW G - GREEN BL - BLUE S - SLATE P - PURPLE W - WHITE
3.	ASSOCIATED CABLE ASSEMBLIES: 161886, 173441, 324155, 326396, 312475, 312476,
4.	ALL CONNECTORS VIEWED FROM SOLDER END.
5.	TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESIS ARE NOT MARKED ON COMPONENTS.
6.	FOR SCHEMATIC WIRING DIAGRAM SEE 8313WD.
7.	ON LRB60 SPLICE, SOLDER AND TAPE BLACK LEAD FROM DH-2 IN THE 173441 CABLE ASSEMBLY, TO THE BLUE LEAD OF THE 312476 CABLE ASSEMBLY. TAPE AND TIE THE BLACK LEAD THAT RUNS FROM DB1 TO DF1 OF THE 173441 CABLE.
8	LRB 59 - CONNECT BLACK LEAD DB-1 TO DF-1. LRB60 - CONNECT ORANGE LEAD FROM 312476 TO DB-1

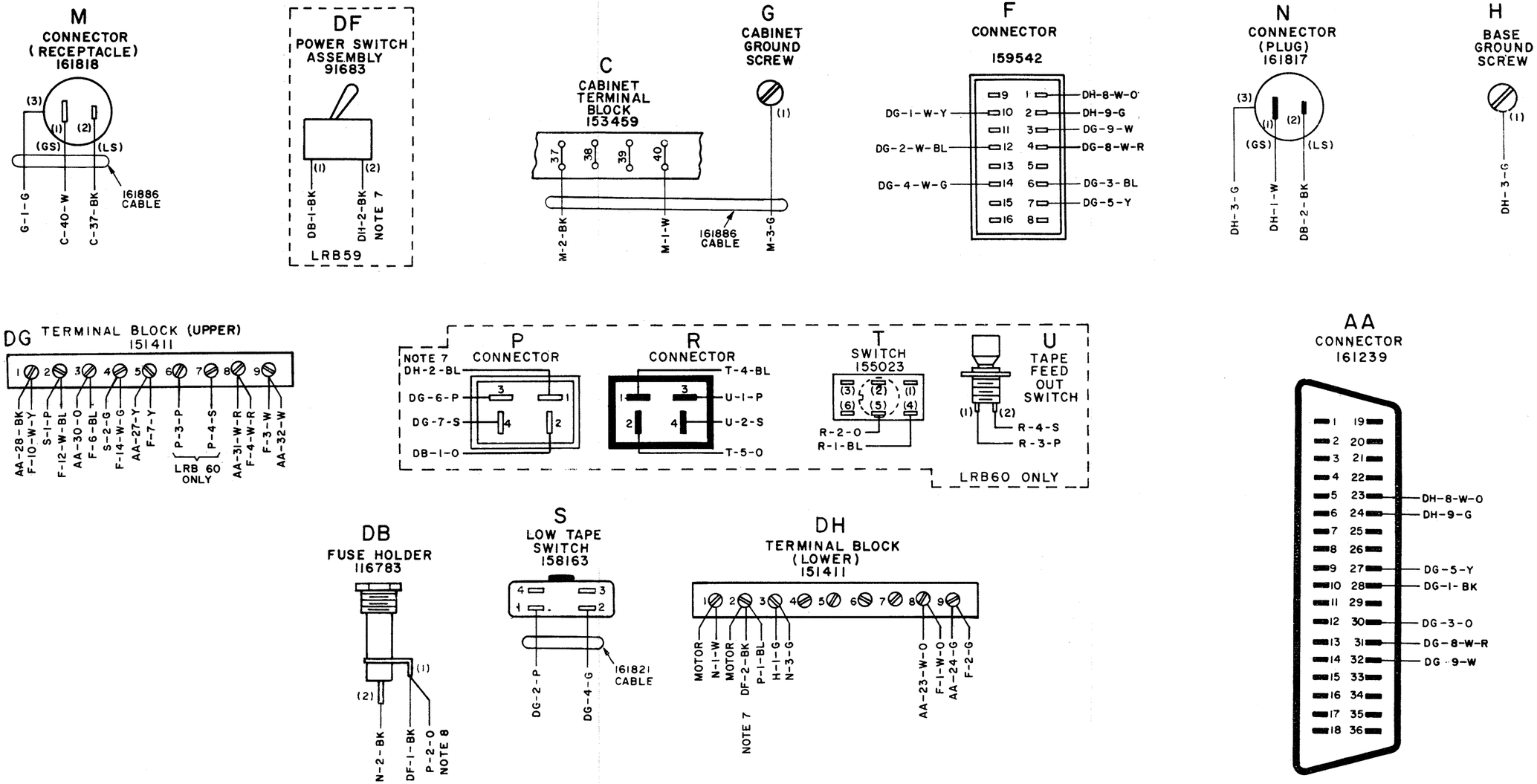
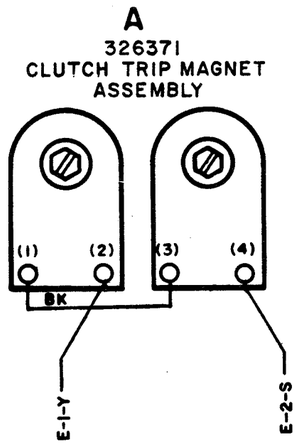
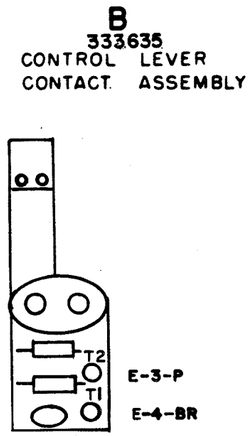
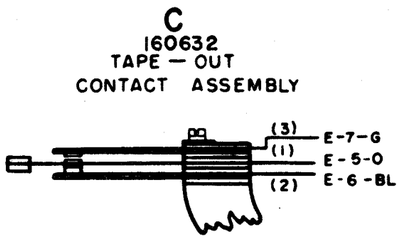


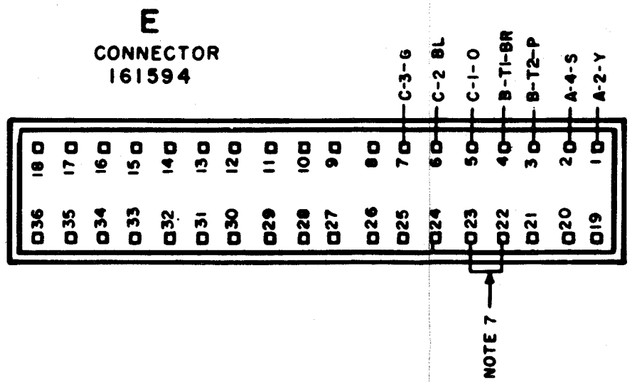
Figure 5-34. LRB 59 and 60 Reperforator Base Wiring Diagram

NOTES:	
1.	WIRING LEGEND: A-1-W DISTANT TERMINATING AREA DISTANT TERMINAL DESIGNATION WIRING COLOR CODE
2.	COLOR CODE: BK-BLACK BR-BROWN R-RED O-ORANGE Y-YELLOW G-GREEN BL-BLUE P-PURPLE S-SLATE W-WHITE W-BK-WHITE-BLACK W-BR-WHITE-BROWN W-R — WHITE-RED W-O — WHITE-ORANGE W-Y — WHITE-YELLOW W-G — WHITE-GREEN W-BL-WHITE-BLUE W-P — WHITE-PURPLE W-S — WHITE-SLATE
3.	CONNECTORS VIEWED FROM SOLDER TERMINAL ENDS
4.	ALL CONTACTS SHOWN IN UNOPERATED POSITION.
5.	ASSOCIATED CABLES: 324681 CABLE ASSEMBLY TRANS.-DIST.
6.	THE NUMBERS ENCLOSED BY PARENTHESES ARE USED FOR REFERENCE AND ARE NOT MARKED ON THE PARTS.
7	STRAP WITH 22 GAUGE WIRE AS INDICATED.
8.	FOR SCHEMATIC WIRING REFER TO 8313 WD WIRING DIAGRAM.









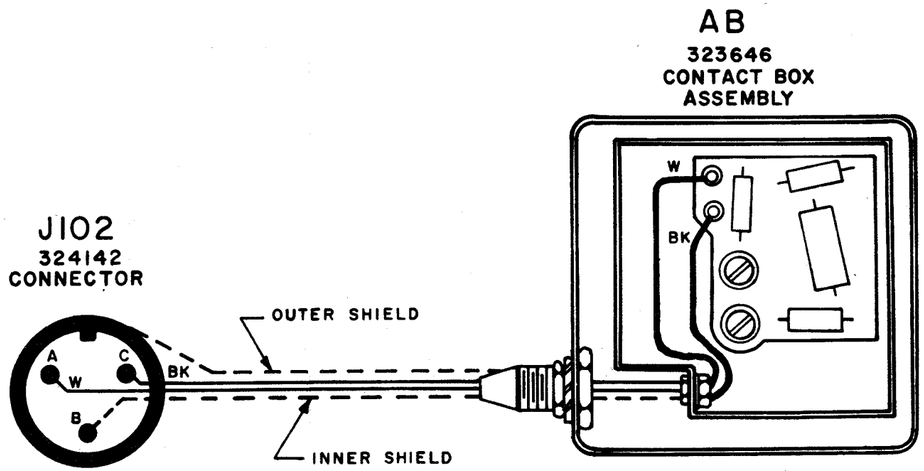
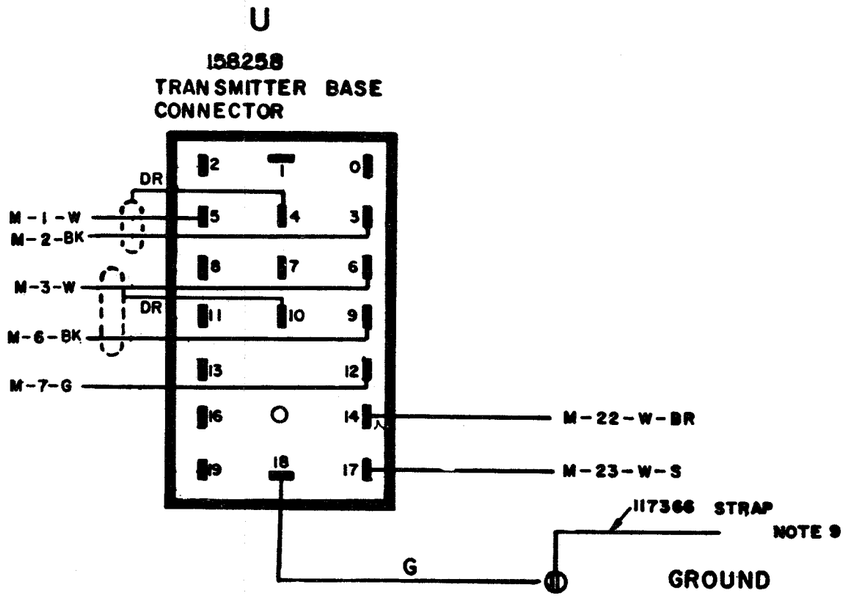


Figure 5-35. LXD 37 and 38 Wiring Diagram

NO.	NOTES
1.	WIRING LEGEND A-1 W DISTANT TERMINAL AREA DISTANT TERMINAL DESIGNATION WIRE COLOR
2.	COLOR CODE: BK BLACK — BR BROWN Y YELLOW — S SLATE P PURPLE — O ORANGE BL BLUE — W WHITE
3.	CONNECTIONS VIEWED FROM SOLDER TERMINAL ENDS.
4.	ASSOCIATED CABLE 324682
5.	ASSOCIATED SCHEMATIC WIRING DIAGRAM 8313 WD.
6.	STRAP WITH 22 GAUGE WIRE AS INDICATED.
7.	DR INDICATES DRAIN WIRE
8.	INDICATES SINGLE SHIELDING
9.	GROUND STRAP 117366 OF LCXB SHOULD BE SECURED TO RIGHT REAR MTG. STUD OF LAAC RAIL (SEE SPEC. 5941S).



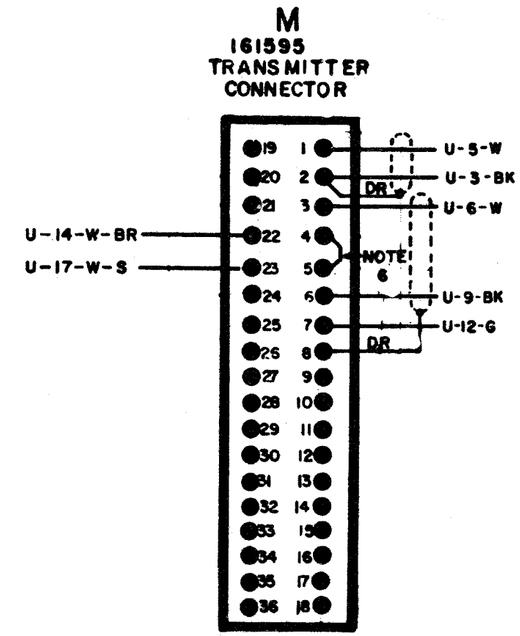
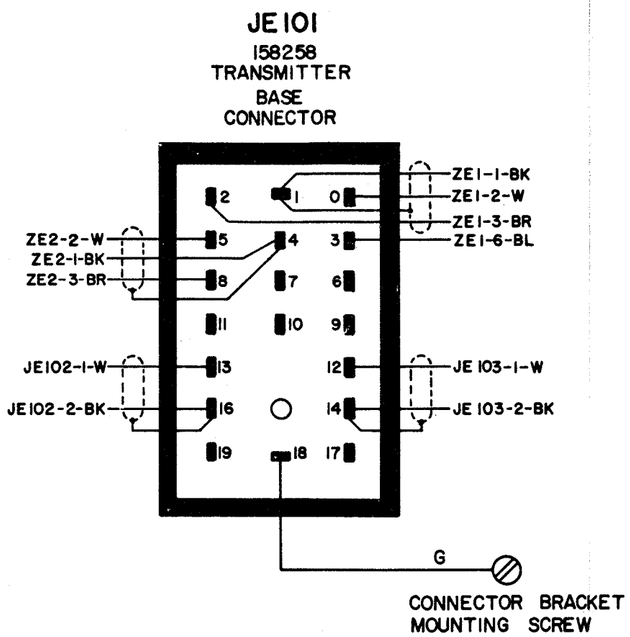
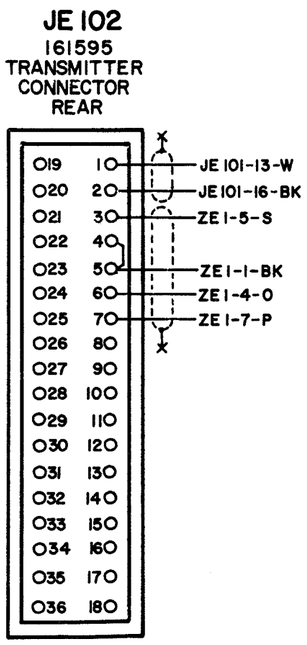
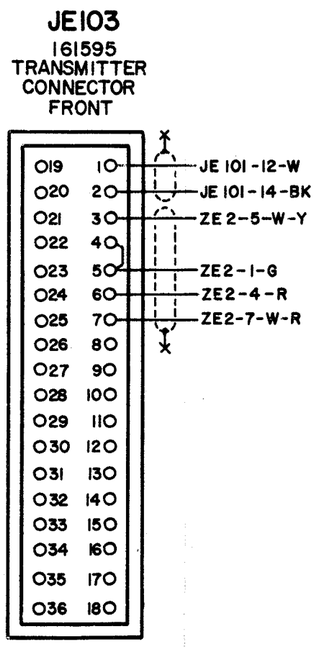


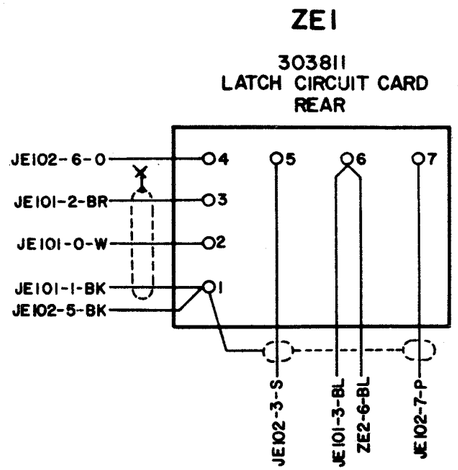
Figure 5-36. LCXB 24 Wiring Diagram

NO.	NOTES
1.	WIRING LEGEND DISTANT TERMINATING AREA DISTANT TERMINATING DESIG. WIRE COLOR CODE A-1-BK
2.	WIRE COLOR CODE BK-BLACK G-GREEN BR-BROWN BL-BLUE R-RED W-WHITE O-ORANGE S-SLATE Y-YELLOW P-PURPLE
3.	INDICATES SHIELDED CABLE
4.	ALL WIRE 24AWG. UNLESS OTHERWISE SPECIFIED.
5.	ASSOCIATED CABLE ASSEMBLY 333632
6.	FOR SCHEMATIC WIRING REFER TO 8910WD. OR 8913WD









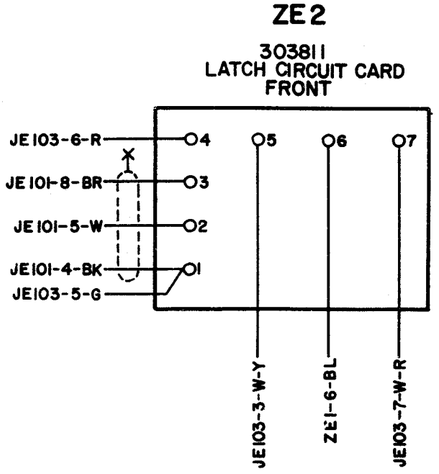
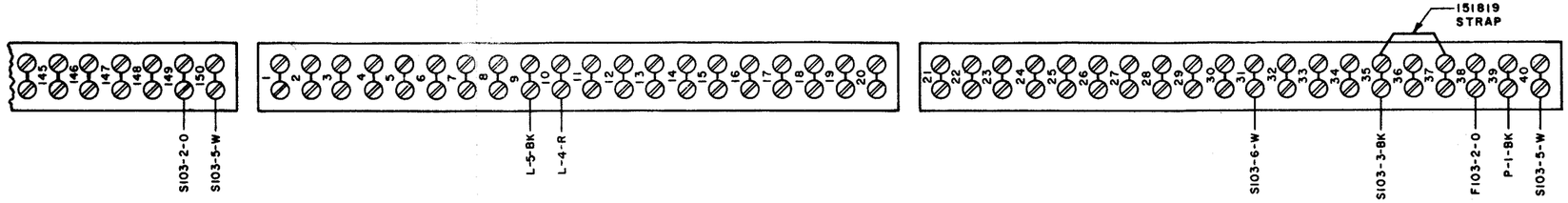


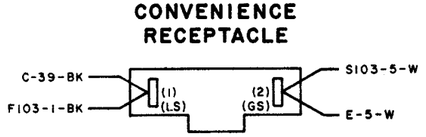
Figure 5-37. LCXB 27 Dual Transmitter Distributor Base Wiring Diagram

NO.	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA DISTANT TERMINATING DESIGNATION A-1-BK WIRE COLOR CODE
2.	COLOR CODE: BK - BLACK, O - ORANGE BL - BLUE, R - RED BR - BROWN, P - PURPLE Y - YELLOW, S - SLATE W - WHITE, G - GREEN
3.	TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESIS ARE FOR REFERENCE AND ARE NOT MARKED ON COMPONENT.
4.	FUSE NUMBER: 161136 6 1/4 AMP SLOW-BLOWING
5	REFER TO 8313 WD FOR SCHEMATIC WIRING DIAGRAM.
6.	REFERENCE SPEC FOR TELETYPE CORPORATION EMPLOYEES ONLY. 61397S
7.	305143 ASSEMBLY IS STRAPPED BETWEEN TERMINALS 3 AND 4. REMOVE STRAP FOR THIS APPLICATION.
8.	ASSOCIATED CABLE ASSEMBLY 324685

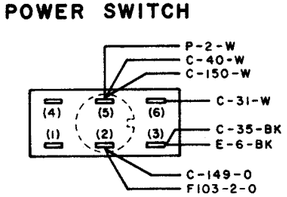
C
153459
CABINET TERMINAL BLOCKS



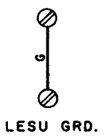
P
178831
CONVENIENCE RECEPTACLE



S103
155023
POWER SWITCH

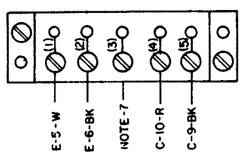


CABINET GRD.



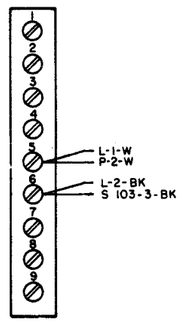
LESU GRD.

L
305150
RECTIFIER TERMINAL BLOCK

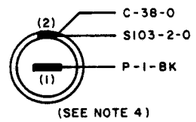


PART OF 305143
POWER SUPPLY ASSEMBLY

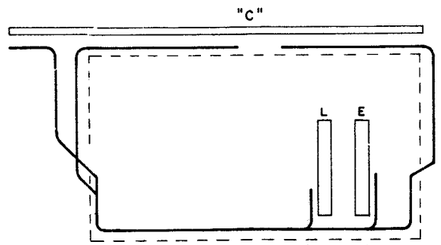
E
151411
POWER TERMINAL BLOCK



F103
116783
FUSE HOLDER



(SEE NOTE 4)



CABLE ROUTING
(BOTTOM VIEW)

Figure 5-38. LESU 123 Electrical Service Unit Wiring Diagram

NO.	NOTES
1.	ALL SURFACE WIRING 24 AWG SOLID GREEN 31784PL UNLESS OTHERWISE SPECIFIED.
2.	WIRING CODE —PART OF 328011 ASSEMBLY —PART OF 328025 ASSEMBLY —PART OF 328024 ASSEMBLY —20 AWG SOLID BARE
3.	TIE POWER SUPPLY COMMON TO CHASSIS AT CONNECTOR WITH STRAP.
4.	ALL VOLTAGES DC UNLESS OTHERWISE SPECIFIED.
5.	REFER TO 8580WD FOR SCHEMATIC WIRING DIAGRAM.
6.	COLOR CODE BK—BLACK G—GREEN BR—BROWN O—ORANGE BL—BLUE P—PURPLE R—RED Y—YELLOW S—SLATE W—WHITE
7.	C1 THRU C7 0.01 MFD CAPACTOR, 319999. PART OF CABLE ASSEMBLY 328025.
8.	ALL SOLID GREEN SURFACE WIRING SHALL TAKE THE SHORTEST ROUTE BETWEEN CONNECTOR TERMINALS.
9.	REFERENCE SPECIFICATION FOR TELETYPE CORPORATION EMPLOYEES ONLY: 61,527S.
10.	L1, 22 uH CHOC
10.	L1, 22 uH CHOKE, 329078. PLACE 60391 RM TUBING ON BOTH LEADS AND MOUNT L1 UNDER XZ4 ON TERMS. 16 & 23.
11.	18 GA. GREEN 2-1/4" MAX. WITH 7271IRM TERMINAL.

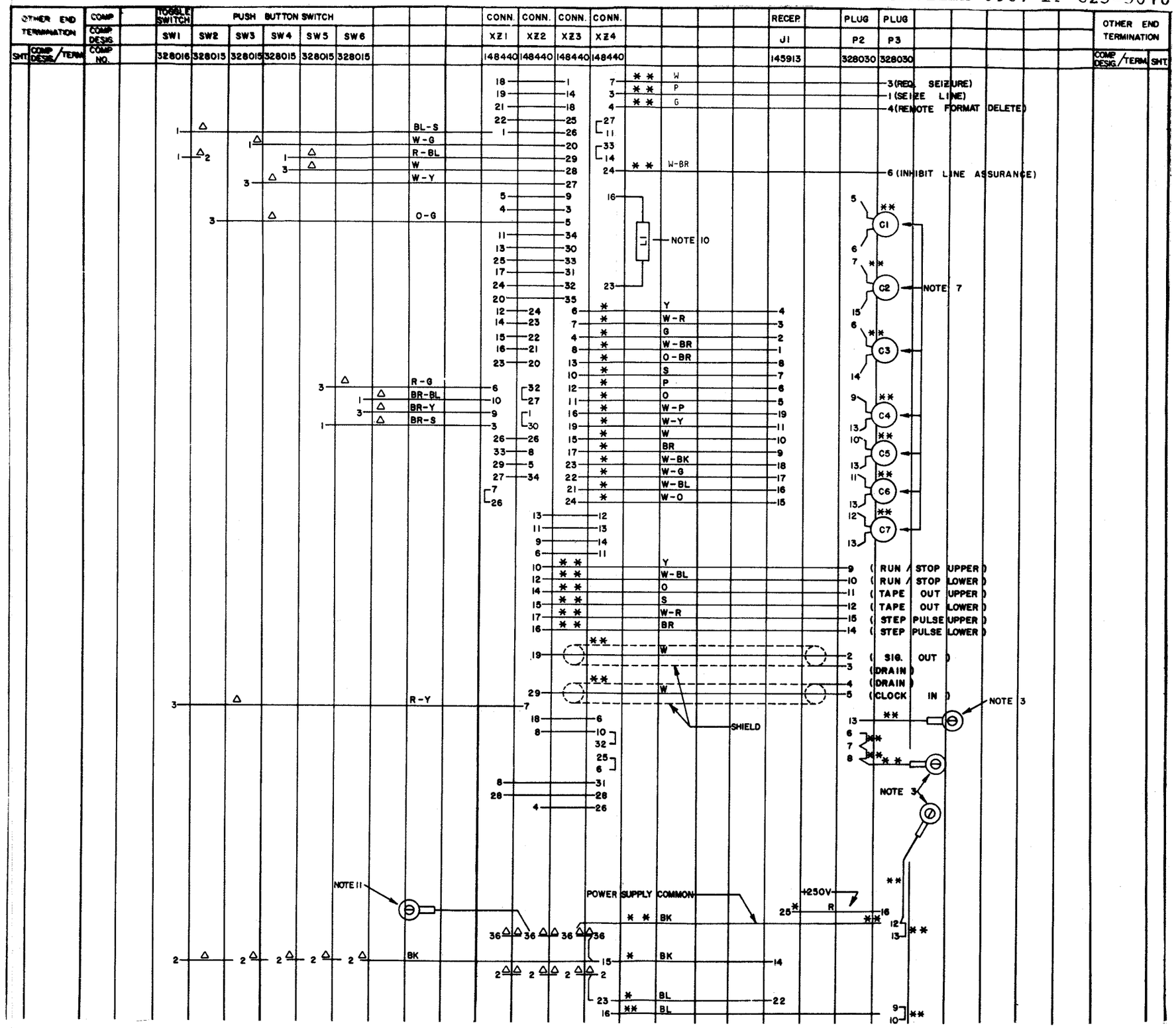


Figure 5-39. 328010 and 328000 Electronic Message Numbering Module Wiring Diagram (Sheet 1 of 2)

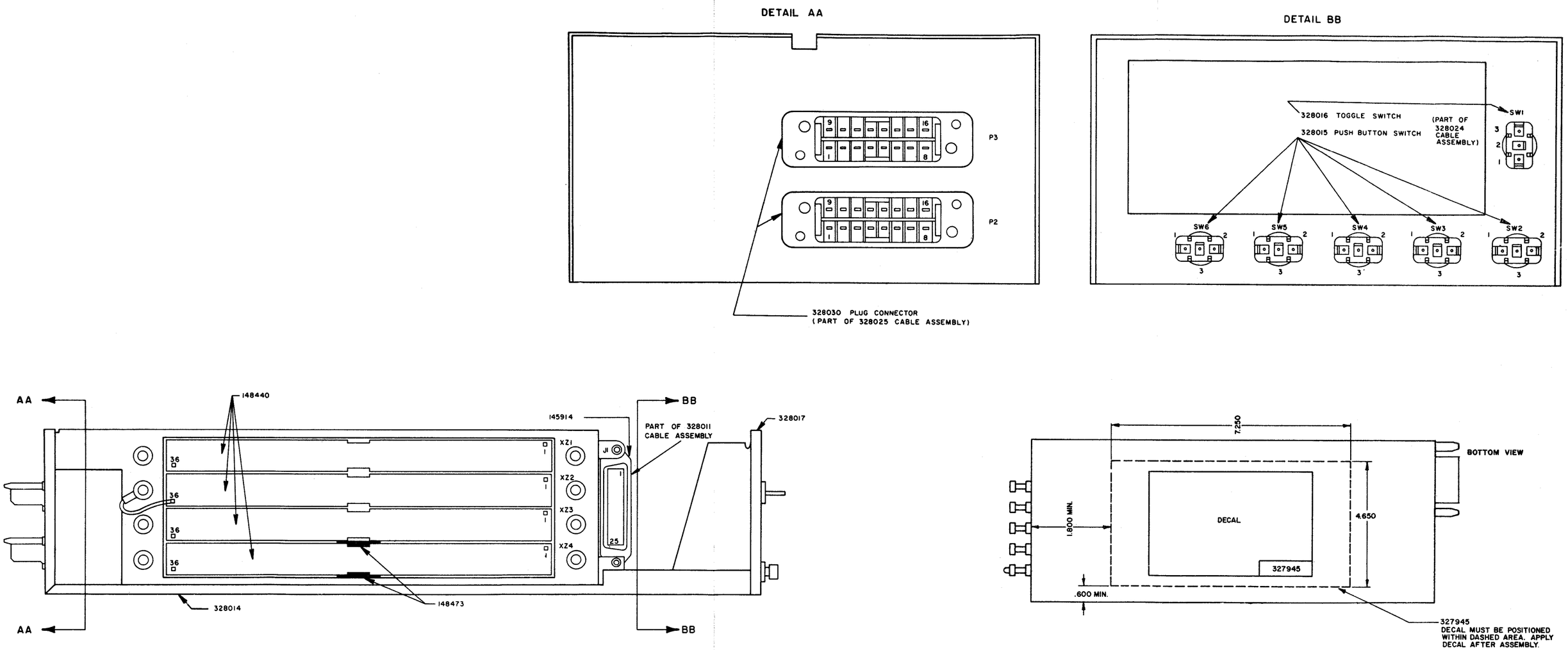


Figure 5-39. 328010 and 328000 Electronic Message Numbering Module Wiring Diagram (Sheet 2 of 2)

NO.	NOTES
1.	ALL VOLTAGES DC, UNLESS OTHERWISE SPECIFIED.
2.	◯ INDICATES SHIELDED WIRE.
3.	⟩— INDICATES FEMALE AND INDICATES MALE TERMINALS. —→
4.	▽ INDICATES POWER SUPPLY COMMON.
5.	FOR ACTUAL WIRING REFER TO 6579WD
6.	CIRCUIT CARD 322025 IS USED ONLY WITH THE 328000 ELECTRONIC MESSAGE NUMBERING MODULE TO PROVIDE LINE SEIZURE AND TANDEM DELAY LOGIC.
7.	CIRCUIT CARD 322080 IS USED TO PROVIDE A PLUG IN LINE ASSURANCE FEATURE NOT INCLUDED WITH 328000 OR 328010.
8.	REFERENCE SPECIFICATION FOR TELETYPE CORPORATION EMPLOYEES ONLY 61,527S

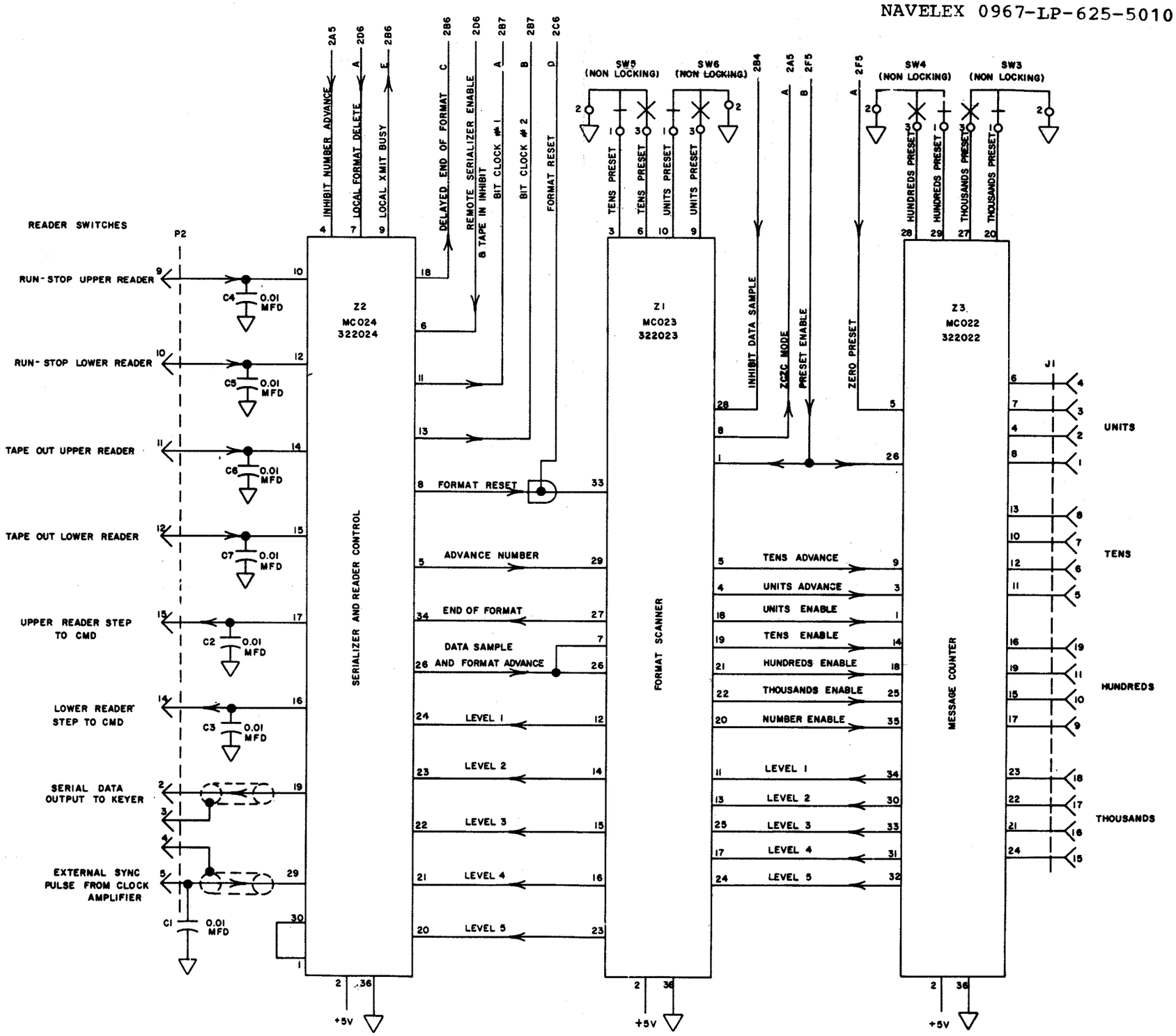


Figure 5-40. 328010 and 328000 Electronic Message Numbering Module Schematic Wiring Diagram (Sheet 1 of 2)

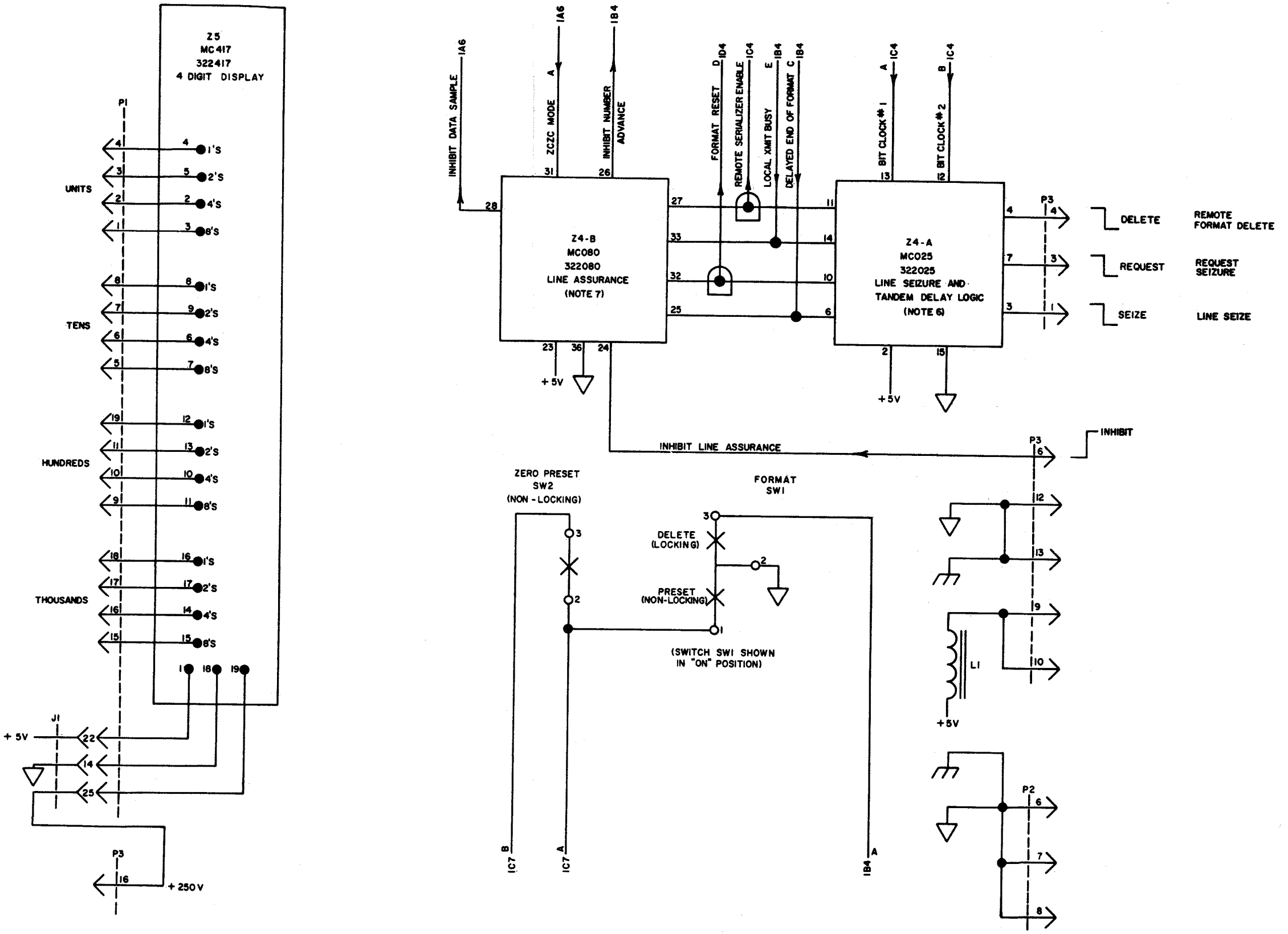


Figure 5-40. 328010 and 328000 Electronic Message Numbering Module Schematic Wiring Diagram (Sheet 2 of 2)

NO.	NOTES
1	ALL RESISTORS 1/2 WATT, RESISTANCE VALUES IN OHMS, CAPACITANCE VALUES IN MICROFARADS UNLESS OTHERWISE SPECIFIED
2	TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESIS APE FOR REFERENCE AND ARE NOT MARKED ON COMPONENT.
3	SL-BL INDICATES SLOW BLOWING
4	INDICATES FEMALE TERMINAL INDICATES MALE TERMINAL
5.	REFERENCE SPEC FOR TELETYPE CORPORATION EMPLOYEES ONLY: 61,267S
6	T1 SECONDARY 50V AC TO CENTER TAP WITH 115V AC INPUT; 8 OHMS (MAX) PRIMARY RESISTANCE; 10 OHMS (MAX) SECONDARY RESISTANCE TO CENTER TAP)
7	INDICATES CIRCUIT COMMON.
8	
9	REFER TO 8322WD FOR ACTUAL WIRING DIAGRAM.
10	REFER TO RELATED SET DIAGRAMS FOR EXTERNAL CIRCUITS
11	INDICATES SINGLE SHIELDING INDICATES DOUBLE SHIELDING
12	TERMINAL TC-5 IS AN AUXILIARY KEYER OUTPUT TERMINAL TC-6, AN AUXILIARY SELECTOR MAGNET DRIVER INPUT AS SHIPPED. THESE TERMINALS ARE STRAPPED SO THE PAGE PRINTER WILL MONITOR ALL TRANSMISSIONS FROM THE KEYER
13	TERMINAL TD-5 AND TD-6 PROVIDE AUXILIARY INPUTS TO EACH OF THE TWO KEYERS CARDS AS SHIPPED. THESE TERMINALS ARE STRAPPED SO THAT BOTH THE LXD AND LAK CAN USE A SINGLE KEYER CARD FOR NON-SIMULTANEOUS OPERATION WITH THIS ARRANGEMENT DO NOT PUT A 303142 KEYER CARD IN KB CONNECTOR.
14.	KEYER OUTPUTS + 6V MARK - 6V SPACE
15.	INDICATES INNER SHIELD INDICATES OUTER SHIELD
16.	IF EXTERNAL BATTERY IS SUPPLIED FOR POLAR LINE KEYER, REMOVE STRAPS BETWEEN TD-1, TD-2 AND TD-3, TC-4. APPLY + BATTERY (6.6 TO 7.8V) TO TD-2, AND - BATTERY (6.6 TO 7.8V) TO TD-4. IF ±6V IS SUPPLIED, THE KEYER OUTPUT WILL DROP TO ±4.5V.

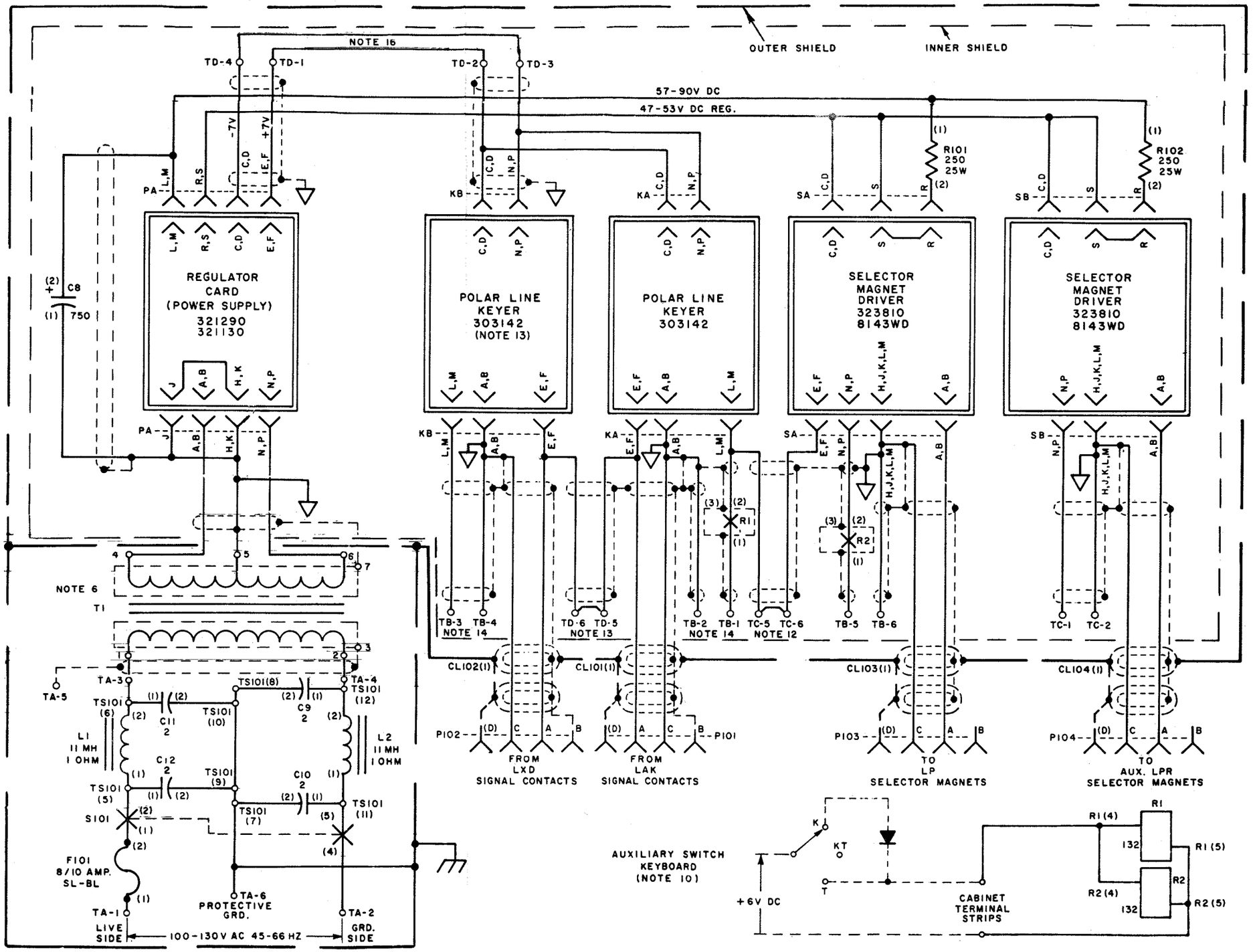
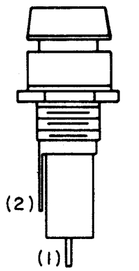


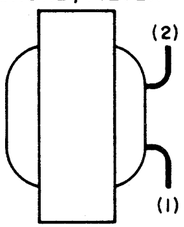
Figure 5-41. 323811 Electrical Service Assembly (Signal) Schematic Wiring Diagram

NO.	NOTES
1.	ALL VOLTAGES DC UNLESS OTHERWISE SPECIFIED.
2.	TERMINAL DESIGNATION ENCLOSED IN PARENTHESIS ARE FOR REFERENCE AND ARE NOT MARKED ON COMPONENT.
3.	FUSE NUMBER 162360 8/10 AMP SLOW BLOWING.
4.	TERMINAL NUMBERS APPEAR ON ASSOCIATED MARKING STRIP.
5.	⊣ INDICATES TO TAPE END TERMINATING POINT.
6.	INDICATES SINGLE SHIELDING
7.	INDICATES DOUBLE SHIELDING
8.	ALL STRAPPING WIRE 24 AWG BARE, 39603RM. USE SLEEVING WHERE REQUIRED. ① INDICATES 18 AWG STRANDED WIRE. ② INDICATES 24 AWG STRANDED WIRE. ③ INDICATES 24 AWG 2 LEAD SINGLE SHIELDED CABLE. ALL SURFACE WIRE 24 AWG GREEN, 31784RM UNLESS OTHERWISE SPECIFIED.
9.	REFER TO 8141WD FOR SCHEMATIC WIRING DIAGRAM.
10.	COLOR CODE: BK-BLACK P-PURPLE BL-BLUE R-RED BR-BROWN S-SLATE G-GREEN W-WHITE O-ORANGE Y-YELLOW
11.	TERMINAL TC-5 IS AN AUXILIARY KEYER OUTPUT. TERMINAL TC-6, AN AUXILIARY SELECTOR MAGNET DRIVER INPUT. AS SHIPPED, THESE TERMINALS ARE STRAPPED SO THE PAGE PRINTER WILL MONITOR ALL TRANSMISSIONS FROM THE KEYER.
	NOTES CONTINUED ON SHEET 2

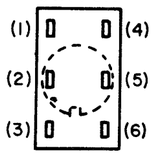
F101
116783
FUSE HOLDER



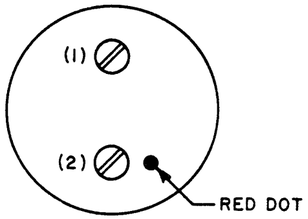
L1, L2
321133
CHOKE, FILTER



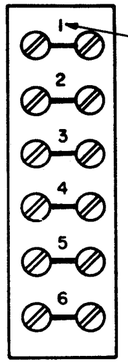
S101
118659
SWITCH



C8
321129
CAPACITOR

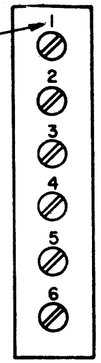


TA
111284
TERMINAL BOARD

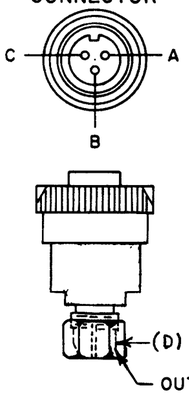


NOTE 4

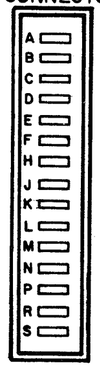
TB, TC, TD
158250
TERMINAL BOARD



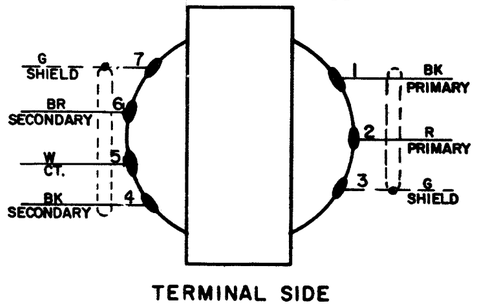
P101, P102, P103, P104,
324141
CONNECTOR



KA, KB, PA SA, SB,
326270
CONNECTOR

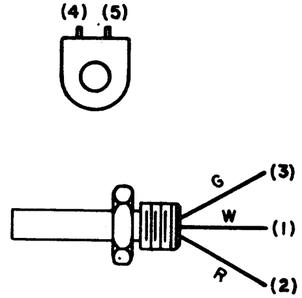


T1
326351
TRANSFORMER ASSY

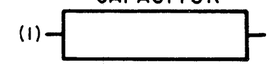


TERMINAL SIDE

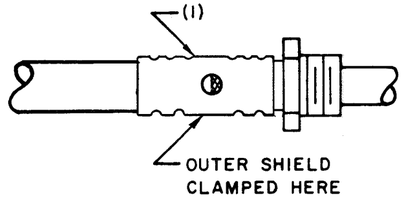
R1, R2
323562
RELAY



C9, C10, C11, C12
327444
CAPACITOR



CL101, CL102, CL103 CL104, CL105
321276, 321238
CLAMP



TS101
321207
TERMINAL STRIPS

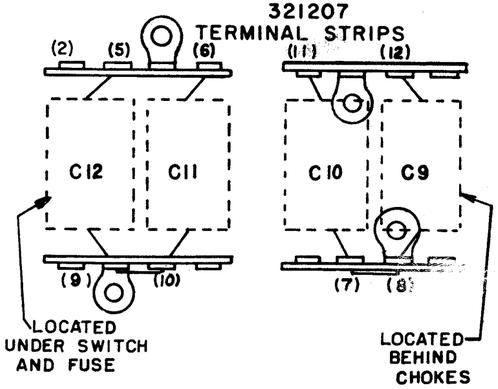
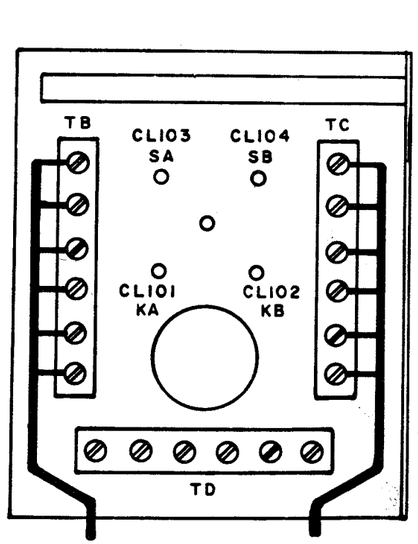
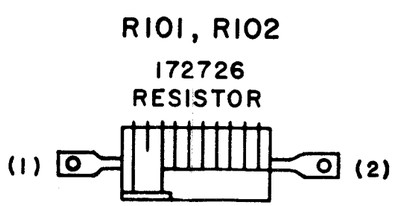


Figure 5-42. 323811 Electrical Service Assembly (Signal) Wiring Diagram (Sheet 1 of 5)

NO.	NOTES
12.	IF EXTERNAL BATTERY IS SUPPLIED FOR POLAR LINE KEYER, REMOVE STRAPS BETWEEN TD 1, TD 2 & TD 3, TD 4. APPLY + BATTERY (6.6 TO 7.80V) TO TD 2 AND — BATTERY (6.6 TO 7.80V) TO TD 4. IF ± 6V IS SUPPLIED, KEYER OUTPUT WILL DROP TO ± 4.5V.
13.	TERMINAL TD 5 & TD 6 PROVIDE AUXILIRY INPUTS TO EACH OF THE TWO KEYER CARDS. AS SHIPPED, THESE TERMINALS ARE STRAPPED SO THAT BOTH THE LXD & LAK CAN USE A SINGELE KEYER CARD FOR NONSIMULTANEOUS OPERATION. WITH THIS ARRANGEMENT DO NOT PUT A303142 KEYER IN KB CARD CONNECTOR
14.	REFER TO RELATED SET DIAGRAMS FOR EXTERNAL CIRCUITRY.





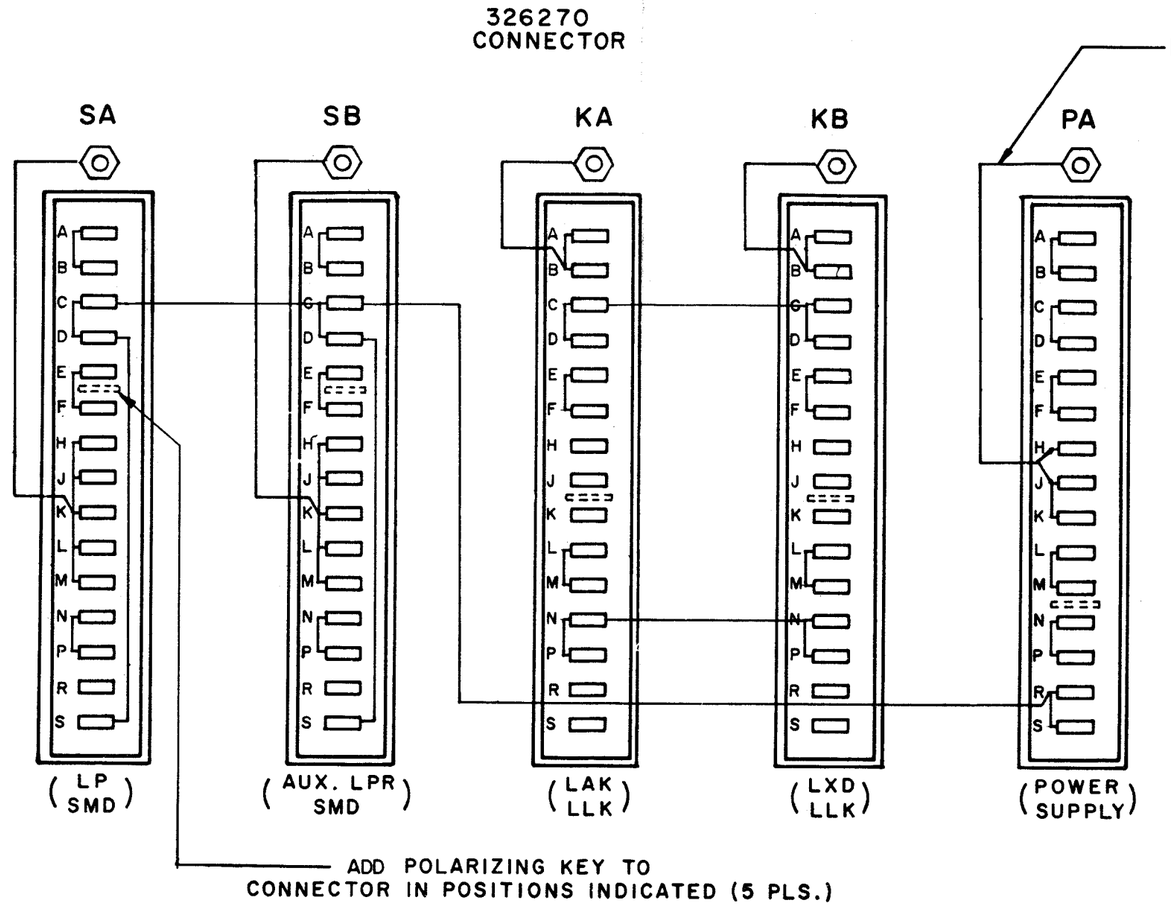


Figure 5-42. 323811 Electrical Service Assembly (Signal) Wiring Diagram (Sheet 2 of 5)

NO.	NOTES
1	REFER TO SHEET 1 AND 2 FOR NOTES.

OTHER END TERMINATION		COMP.		CONN.	CONN.	CONN.	CONN.	TERM. BD	TERM. BD			CLAMP	CONN.	CLAMP	CONN.	OTHER END TERMINATION	
SHT.	COMP. DESIG. /TERM.	COMP. NO.		P104	P103	P102	P101	TC	TB			CL104	SB	CL103	SA	COMP. DESIG. /TERM.	SHT.
				324141	324141	324141	324141	158250	158250			321238	326270	321238	326270		
													C D		C D	PA -R	4
												W				RI -(1) RI -(3)	5
												R				KA - A	4
												W				KB - L	4
												BK				KB - A	4
													H J K L M G		H J K L M	R2 -(3) R2 -(2)	5 5
												W	N P		P N G		
												BK	M				
												W				R2 -(1) R2 -(3)	5 5
												O			L M		
												W				CL101-(1) KA- F KA- B	4 4 4
												BK					
												W				CL102-(1) KB - F KB - B	4 4 4
												BK					
												BK				J	
												W				A B	
														(1)			
												W					
													A B				
												BK	J				
													E F		D S		
															R BL ②	R101-(2)	5
													D S				
															R BL ②	R102-(2)	5
												W			M	KA -L	3
												BK					
															E F		

326391 STRAP-OUTPUT LAK LLK → 1
326390 STRAP-COMMON → 2
324139 CABLE ASSEMBLY { OUTPUT LXD LLK → 3 ; COMMON → 4 }
324135 CABLE ASSEMBLY { INPUT AUX. LPR SMD → 1 ; COMMON → 2 }
326392 STRAP-INPUT LP SMD → 5
326393 STRAP-COMMON → 6
LAK CABLE 321248 CABLE ASSEMBLY (D, A, C, B)
LXD CABLE 321249 CABLE ASSEMBLY (D, A, C, B)
LP CABLE 321247 CABLE ASSEMBLY (C, A, (D))
AUX. LPR CABLE 321245 CABLE ASSEMBLY ((D), A, C)
326365 CABLE ASSEMBLY
NOTE 11 (5, 6)

Figure 5-42. 323811 Electrical Service Assembly (Signal) Wiring Diagram (Sheet 3 of 5)

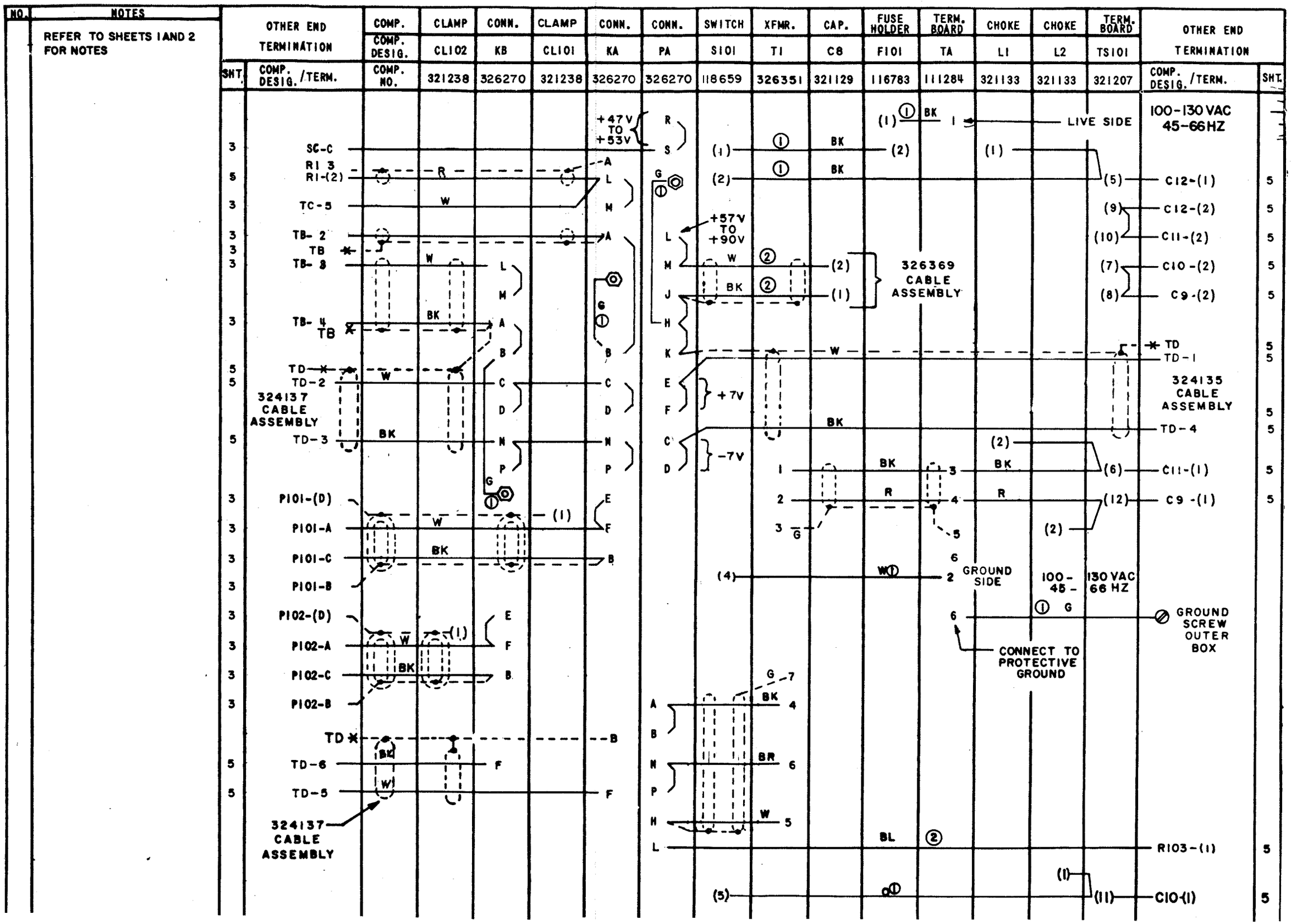


Figure 5-42. 323811 Electrical Service Assembly (Signal) Wiring Diagram (Sheet 4 of 5)

5-163/5-164 blank

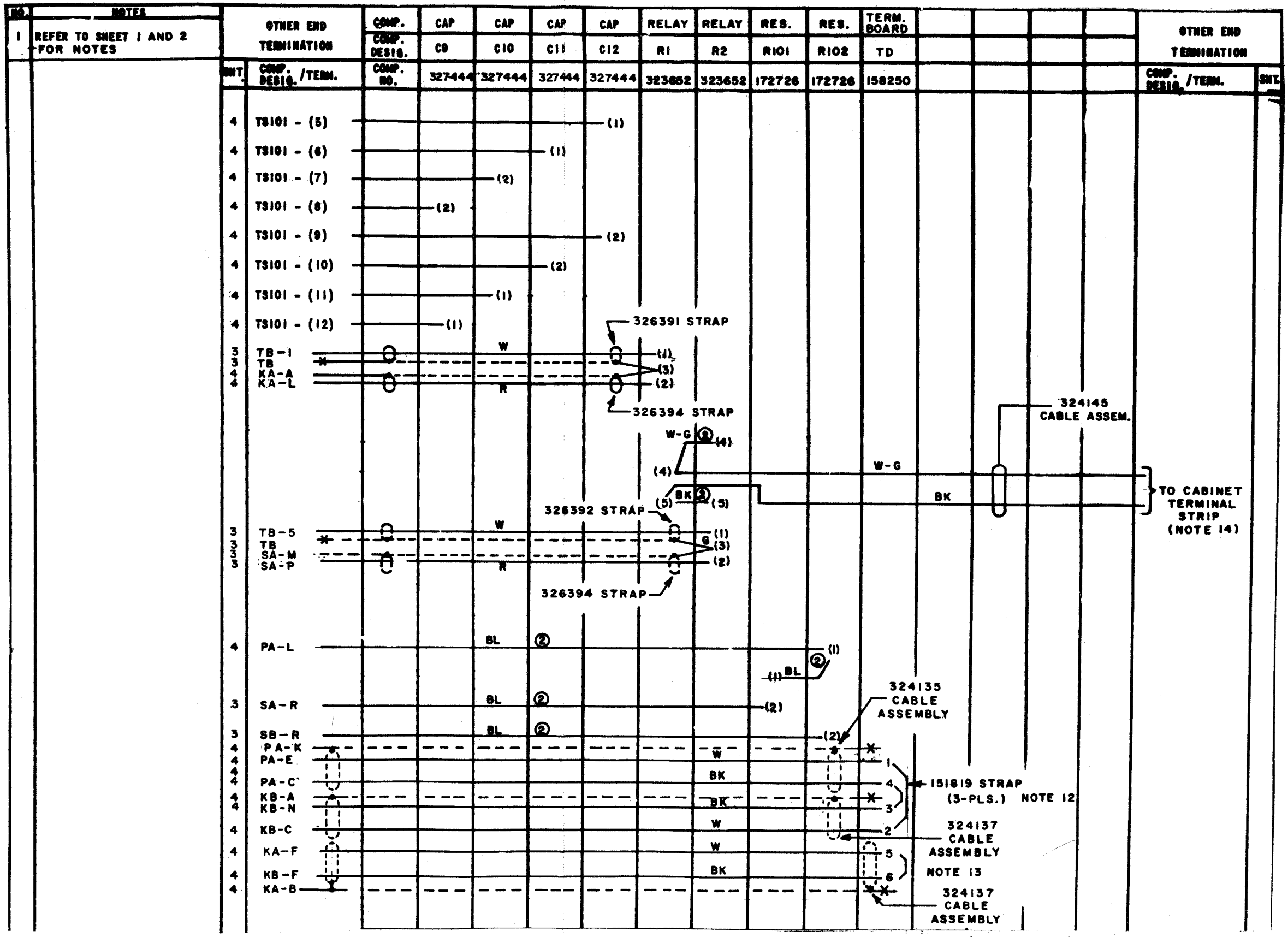
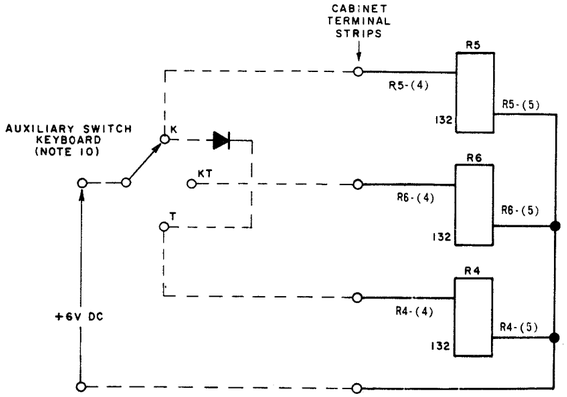


Figure 5-42. 323811 Electrical Service Assembly (Signal) Wiring Diagram (Sheet 5 of 5)

5-165/5-166 blank

NO.	NOTES:
1.	ALL RESISTORS 1/2 WATT. RESISTANCE VALUES IN OHMS. CAPACITANCE VALUES IN MICROFARDS UNLESS OTHERWISE SPECIFIED.
2.	INDICATES FEMALE TERMINAL INDICATES MALE TERMINAL
3.	INDICATES CIRCUIT COMMON
4.	TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESIS ARE FOR REFERENCE AND ARE NOT MARKED ON COMPONENT.
5.	SL-BL INDICATES SLOW-BLOWING.
6.	REFER TO 8316WD FOR ACTUAL WIRING DIAGRAM.
7.	REFERENCE SPEC. FOR TELETYPE CORPORATION EMPLOYEES ONLY: 61.267S
8.	INDICATES SINGLE SHIELDING INDICATES DOUBLE SHIELDING
9.	T1 SECONDARY 50 V AC TO CENTER TAP WITH 115 V AC INPUT. 8 OHMS (MAX.) PRIMARY RESISTANCE 10 OHMS (MAX.) SECONDARY RESISTANCE TO CENTER TAP.
10.	REFER TO RELATED SET DIAGRAMS FOR EXTERNAL CIRCUITS.
11.	ALL VOLTAGES GIVEN WITH RESPECT TO CIRCUIT COMMON.
12	+6 VOLT INPUT CLUTCH MAGNETS ENERGIZED −6 VOLT INPUT (OR OPEN LINE) CLUTCH MAGNETS DE-ENERGIZED.



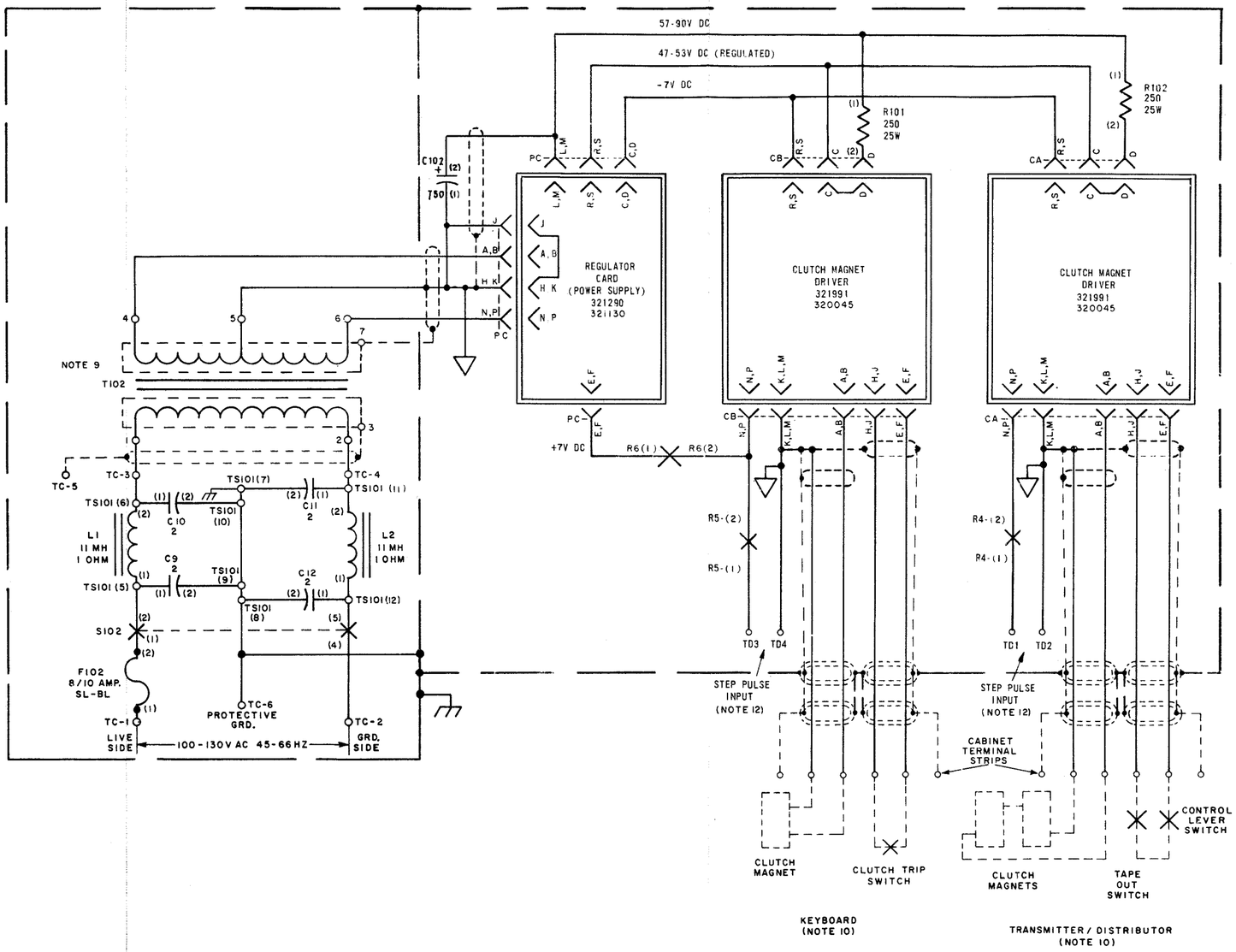
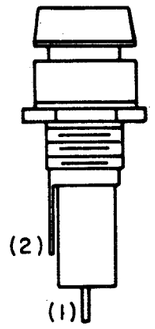


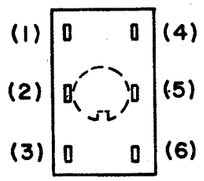
Figure 5-43. 323812 Electrical Service Assembly (Clutch) Schematic Wiring Diagram

NO.	NOTES
1.	ALL VOLTAGES DC UNLESS OTHERWISE SPECIFIED.
2.	TERMINAL DESIGNATION ENCLOSED IN PARENTHESIS ARE FOR REFERENCE AND ARE NOT MARKED ON COMPONENT.
3.	FUSE NUMBER: 162360 8/10 AMP. SLOW BLOWING.
4.	TERMINAL NUMBERS APPEAR ON ASSOCIATED MARKING STRIP.
5.	✳ INDICATES TO TAPE END TERMINATING POINT.
6.	INDICATES SINGLE SHIELDING
7.	INDICATES DOUBLE SHIELDING
8.	ALL STRAPPING WIRE 24 AWG BARE, 39603RM. USE SLEEVING WHERE REQUIRED. ① INDICATES 18 AWG STRANDED WIRE. ② INDICATES 24 AWG STRANDED WIRE. ③ INDICATES 24 AWG 2 LEAD SINGLE SHIELDED CABLE. ALL SURFACE WIRE 24 AWG GREEN, 31784 RM, UNLESS OTHERWISE SPECIFIED
9.	REFER TO 8405WD FOR SCHEMATIC WIRING DIAGRAM.
10.	COLOR CODE: BK-BLACK P-PURPLE BL-BLUE R-RED BR-BROWN S-SLATE G-GREEN W-WHITE O-ORANGE Y-YELLOW
11.	OUTER SHIELD CONNECTED TO BOX AT CONNECTOR.

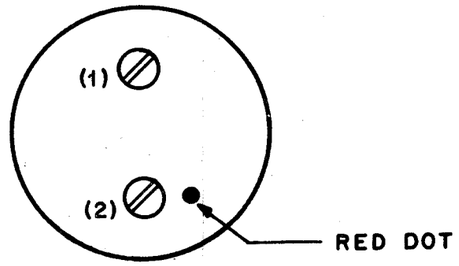
F102
116783
FUSE HOLDER



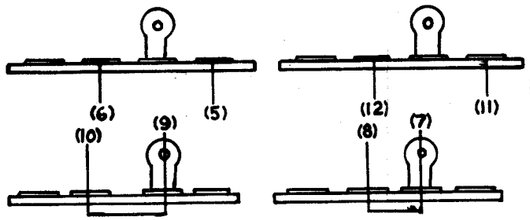
S102
118659
SWITCH



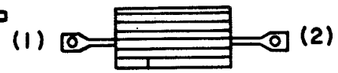
C102
321129
CAPACITOR



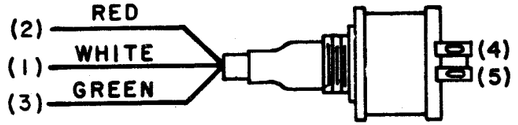
TS101
321207
TERMINAL STRIPS



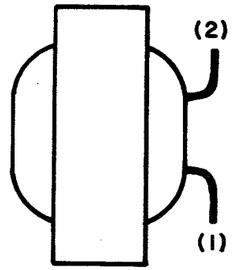
R101, R102
172726
RESISTOR



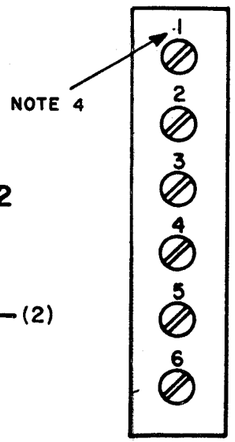
R4, R5, R6
323652
RELAY



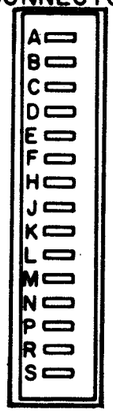
L1, L2
321133
CHOKE, FILTER



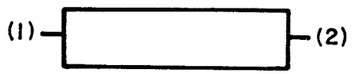
TC, TD
158250
TERMINAL BOARD



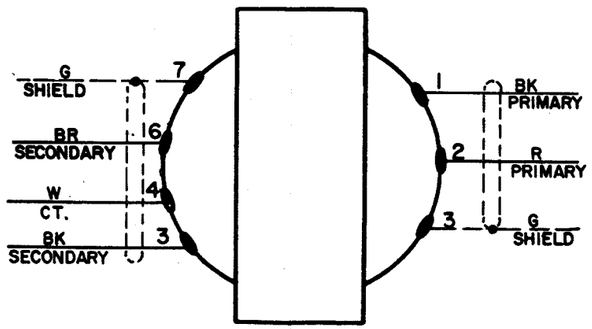
CA, CB, PC
326270
CONNECTOR



C9, C10, C11, C12
327444
CAPACITOR



T102
326351
TRANSFORMER ASSEM.



TERMINAL SIDE

Figure 5-44. 323812 Electrical Service Assembly (Clutch) Wiring Diagram (Sheet 1 of 4)

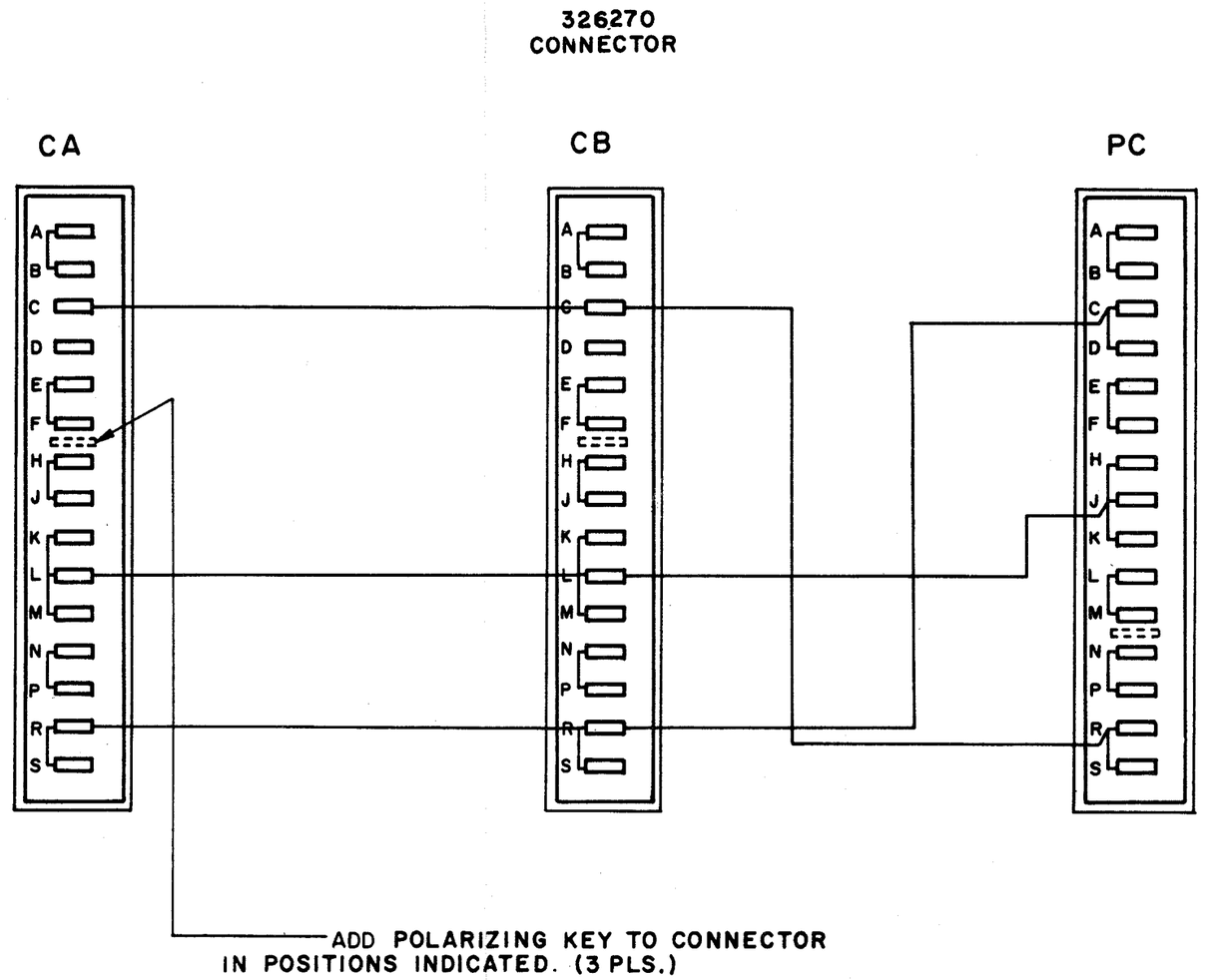


Figure 5-44. 323812 Electrical Service Assembly (Clutch) Wiring Diagram (Sheet 2 of 4)

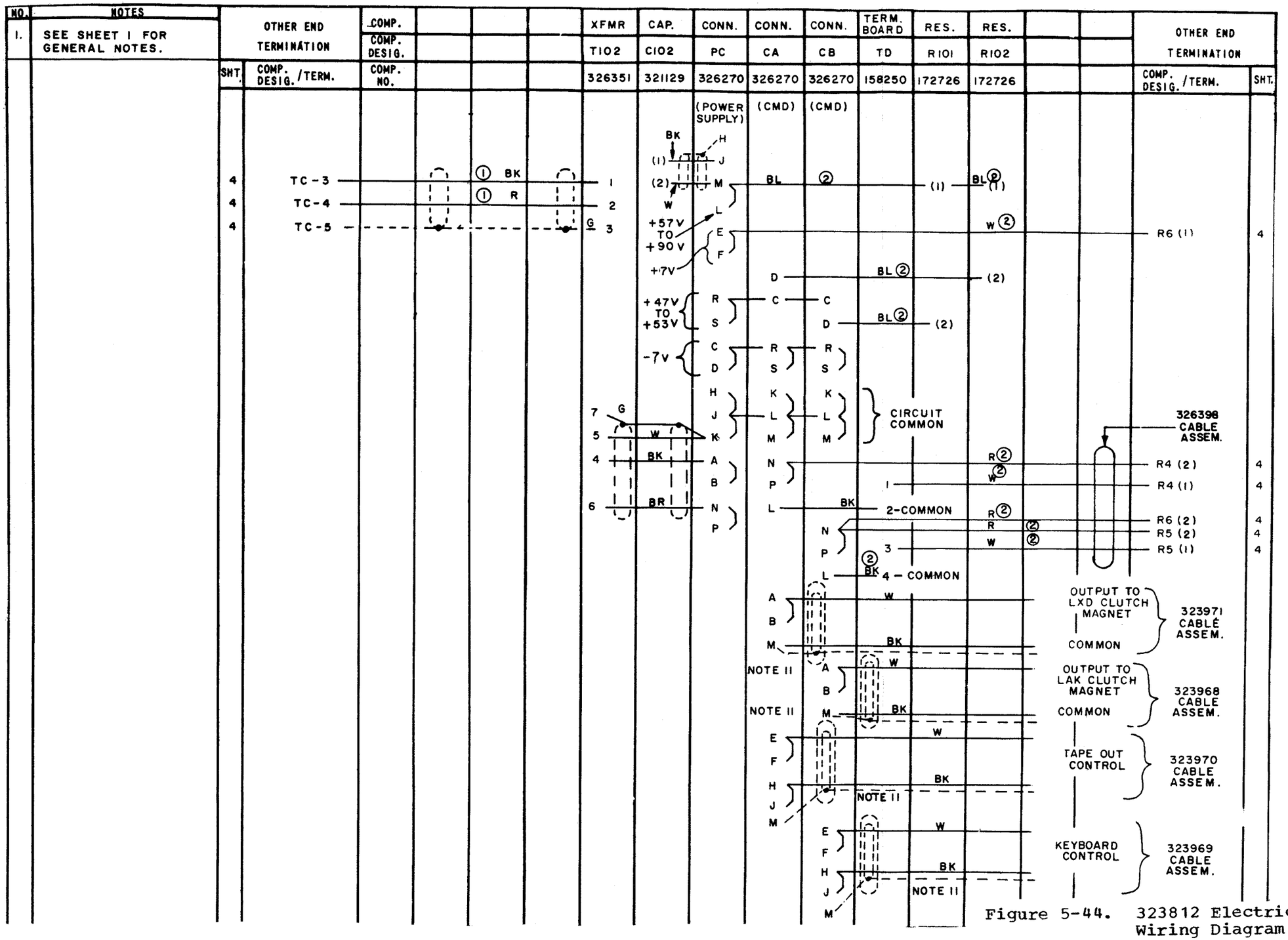


Figure 5-44. 323812 Electrical Service Assembly (Clutch) Wiring Diagram (Sheet 3 of 4)

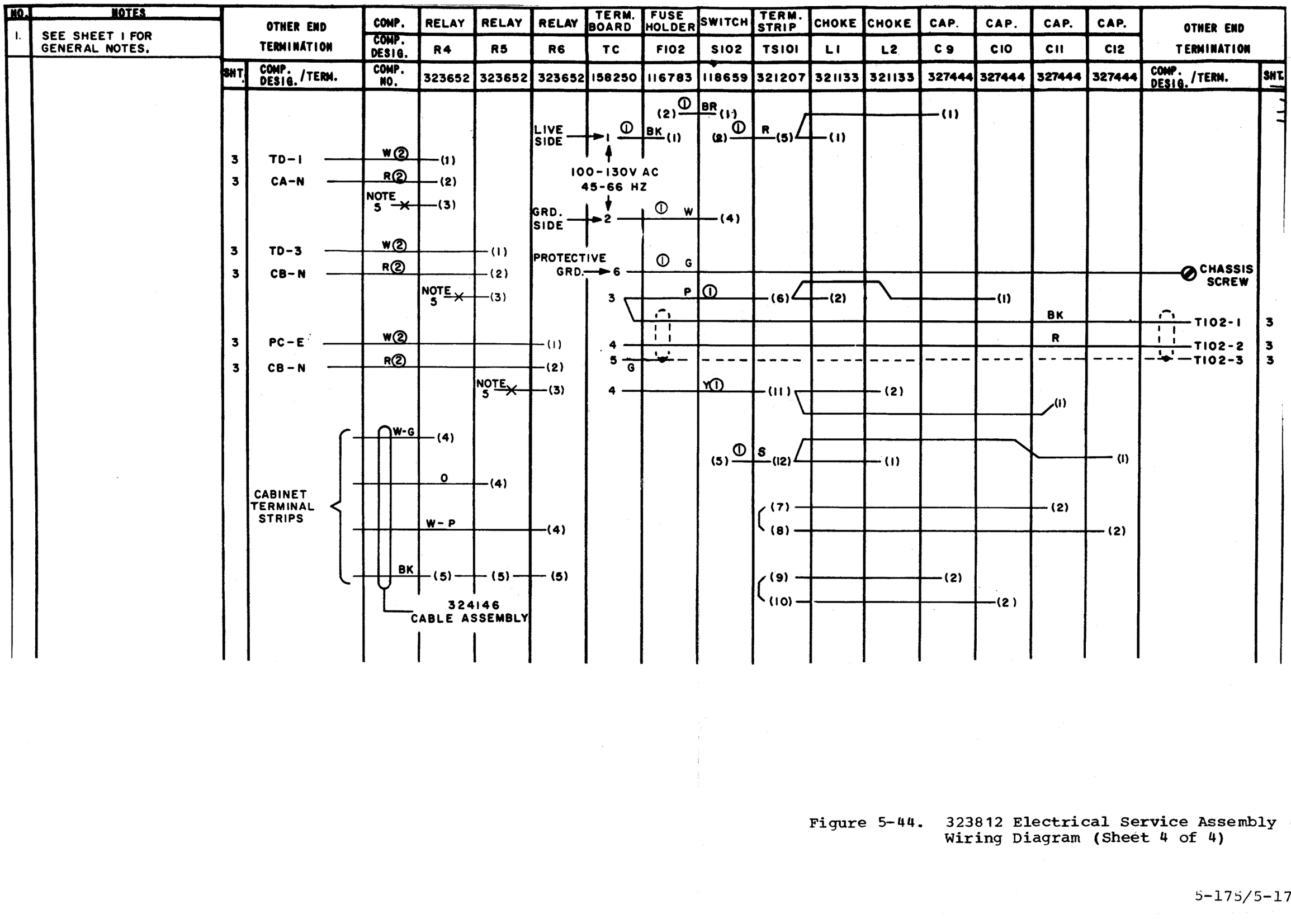


Figure 5-44. 323812 Electrical Service Assembly (Clutch) Wiring Diagram (Sheet 4 of 4)

NO.	NOTES
1.	ALL RESISTORS 1/2 WATT, RESISTANCE VALUES IN OHMS, CAPACITANCE VALUES IN MICROFARADS UNLESS OTHERWISE SPECIFIED.
2.	TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESIS ARE FOR REFERENCE AND ARE NOT MARKED ON COMPONENT.
3.	SL-BL INDICATES SLOW BLOWING.
4.	⟩— INDICATES FEMALE TERMINAL —⟨ INDICATES MALE TERMINAL
5.	REFERENCE SPEC. FOR TELETYPE CORPORATION EMPLOYEES ONLY 61267S
6.	T1 SECONDARY 50V AC TO CENTER TAP WITH 115V AC INPUT; 8 OHMS (MAX.) PRIMARY RESISTANCE; 10 OHMS (MAX.) SECONDARY RESISTANCE TO CENTER TAP.
7.	▽ INDICATES CIRCUIT COMMON.
8.	IF EXTERNAL BATTERY IS SUPPLIED FOR POLAR LINE KEYER REMOVE STRAPS BETWEEN TD-1, TD-2 & TD-3, TD-4. APPLY + BATTERY (6.6-7.80V) TO TD-2 AND − BATTERY (6.6-7.80V) TO TD-4. IF ±6V IS SUPPLIED, KEYER OUTPUT WILL DROP ± 4.5 V.
9.	REFER TO 8315WD FOR ACTUAL WIRING DIAGRAM.
10.	REFER TO RELATED SET DIAGRAMS FOR EXTERNAL CIRCUITS.
11.	INDICATES SINGLE SHIELDING INDICATES DOUBLE SHIELDING
12.	TERMINAL TC-5 IS AN AUXILIARY KEYER OUTPUT. TERMINAL TC-6, AN AUXILIARY SELECTOR MAGNET DRIVER INPUT. AS SHIPPED, THESE TERMINALS ARE STRAPPED SO THE PAGE PRINTER WILL MONITOR ALL TRANSMISSIONS FROM THE KEYER.
13.	TERMINAL TD-5 AND TD-6 PROVIDE AUXILIARY INPUTS TO EACH OF THE TWO KEYER CARDS. AS SHIPPED, THESE TERMINALS ARE STRAPPED SO THAT BOTH THE LXD AND LAK CAN USE A SINGLE KEYER CARD FOR NON-SIMULTANEOUS OPERATION. WITH THIS ARRANGEMENT DO NOT PUT A 303142 KEYER CARD IN KB CARD CONNECTOR.
14	KEYER OUTPUTS + 6V MARK − 6V SPACE
15	——— INNER SHIELD — — — OUTER SHIELD

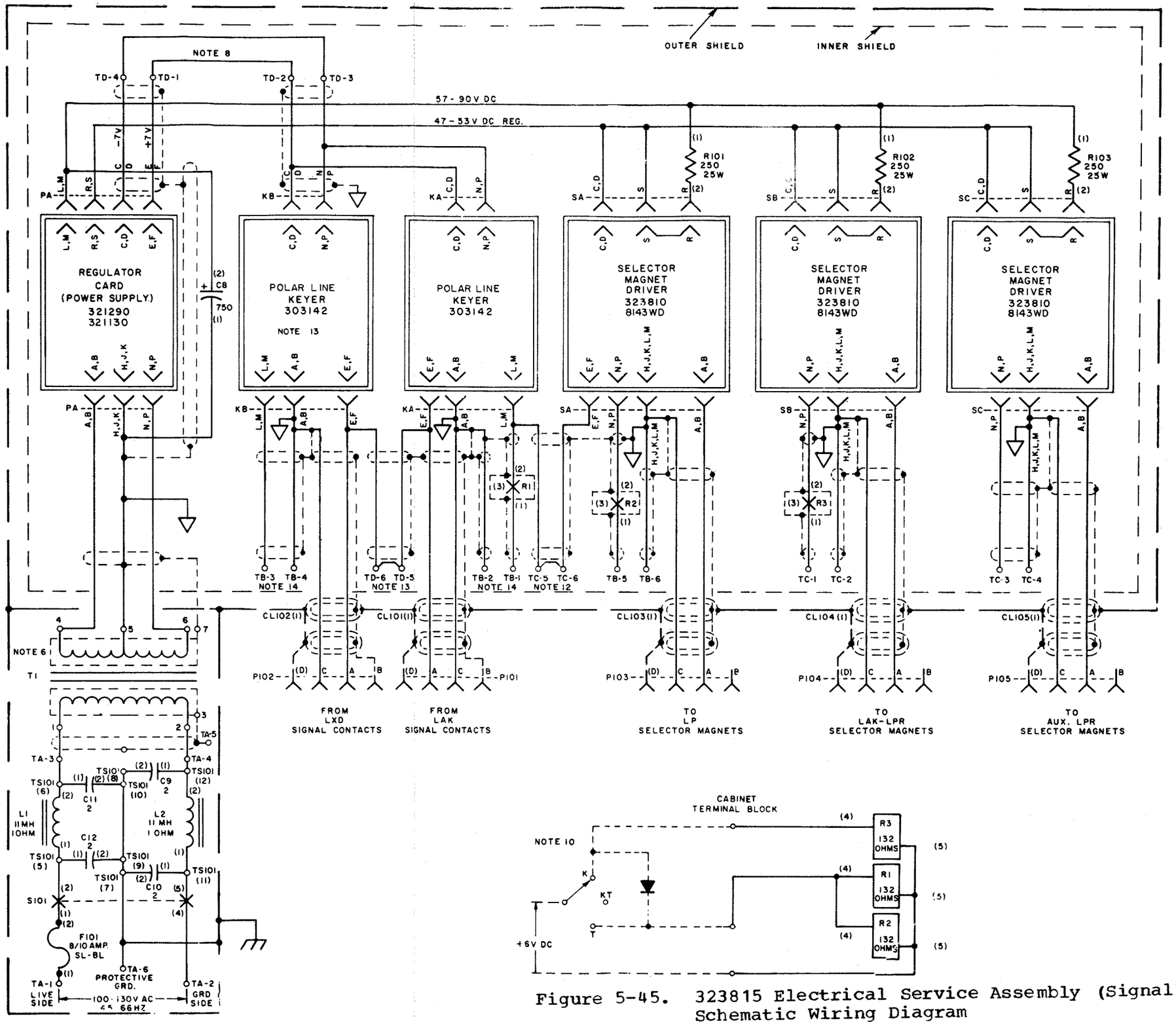
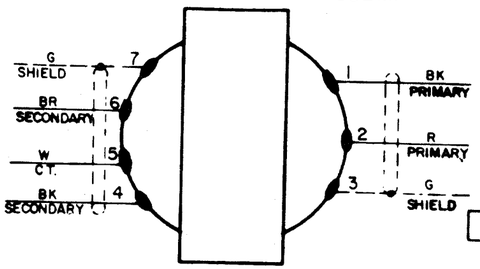


Figure 5-45. 323815 Electrical Service Assembly (Signal) Schematic Wiring Diagram

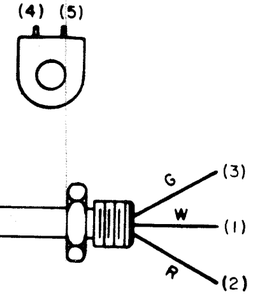
NO.	NOTES
1.	ALL VOLTAGES DC UNLESS OTHERWISE SPECIFIED.
2.	TERMINAL DESIGNATION ENCLOSED IN PARENTHESIS ARE FOR REFERENCE AND ARE NOT MARKED ON COMPONENT.
3.	FUSE NUMBER - 162360 8/10 AMP. SLOW BLOWING
4.	TERMINAL NUMBERS APPEAR ON ASSOCIATED MARKING STRIP
5.	✱ INDICATES TO TAPE END TERMINATING POINT.
6.	INDICATES SINGLE SHIELDING
7	INDICATES DOUBLE SHIELDING
8.	ALL STRAPPING WIRE 24 AWG BARE, 39603 RM. USE SLEEVING WHERE REQUIRED. ① INDICATES 18 AWG STRANDED WIRE. ② INDICATES 24 AWG STRANDED WIRE. ③ INDICATES 24 AWG 2 LEAD SINGLE SHIELDED CABLE. ALL SURFACE WIRE 24 AWG GREEN, 31784 RM UNLESS OTHERWISE SPECIFIED.
9.	IF EXTERNAL BATTERY IS SUPPLIED FOR POLAR LINE KEYER, REMOVE STRAPS BETWEEN TD-1, TD-2 AND TD-3, TD-4. APPLY + BATTERY (6.6 TO 7.8V) TO TD-2, AND, -BATTERY (6.6 TO 7.8V) TO TD-4. IF ±6V IS SUPPLIED, THE KEYER OUTPUT WILL DROP TO ± 4.5V.
10.	REFER TO 8413 WD FOR SCHEMATIC WIRING DIAGRAM
11.	TERMINAL TC-5 IS AN AUXILIARY KEYER OUTPUT. TERMINAL TC-6 IS AN AUXILIARY SELECTOR MAGNET DRIVER INPUT. AS SHIPPED, THESE TERMINALS ARE STRAPPED SO THE PAGE PRINTER WILL MONITOR ALL TRANSMISSIONS FROM THE KEYER.
12.	TERMINAL TD-5 AND TD-6 PROVIDE AUXILIARY INPUTS TO EACH OF THE TWO KEYER CARDS. AS SHIPPED, THESE TERMINALS ARE STRAPPED SO THAT BOTH THE LXD AND LAK CAN USE A SINGLE KEYER CARD FOR NON-SIMULTANEOUS OPERATION. WITH THIS ARRANGEMENT DO NOT PUT A 303142 KEYER CARD IN KB CARD CONNECTOR.
13.	COLOR CODE: BK - BLACK P - PURPLE BL - BLUE R - RED BR - BROWN S - SLATE G - GREEN W - WHITE O - ORANGE Y - YELLOW

T1
326351
TRANSFORMER ASSEM.

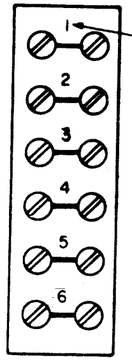


TERMINAL SIDE

R1, R2, R3
323652
RELAY

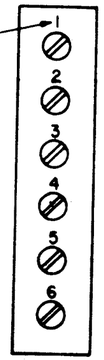


TA
111284
TERMINAL BOARD

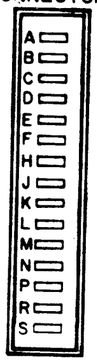


NOTE 4

TB, TC, TD
158250
TERMINAL BOARD

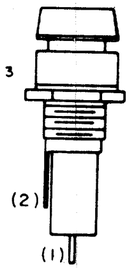


KA, KB, PA, SA, SB, SC
326270
CONNECTOR

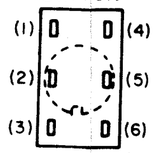


F101
116783
FUSE HOLDER

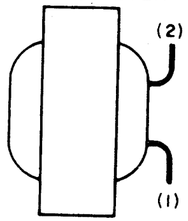
NOTE 3



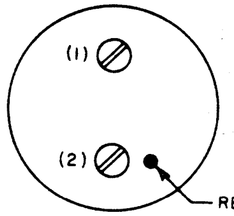
S101
118659
SWITCH



L1, L2
321133
CHOKE, FILTER



C8
321129
CAPACITOR



C9, C10, C11, C12
327444
CAPACITOR

TS101
321207
TERMINAL STRIPS

P101, P102, P103, P104, P105
324141
CONNECTOR

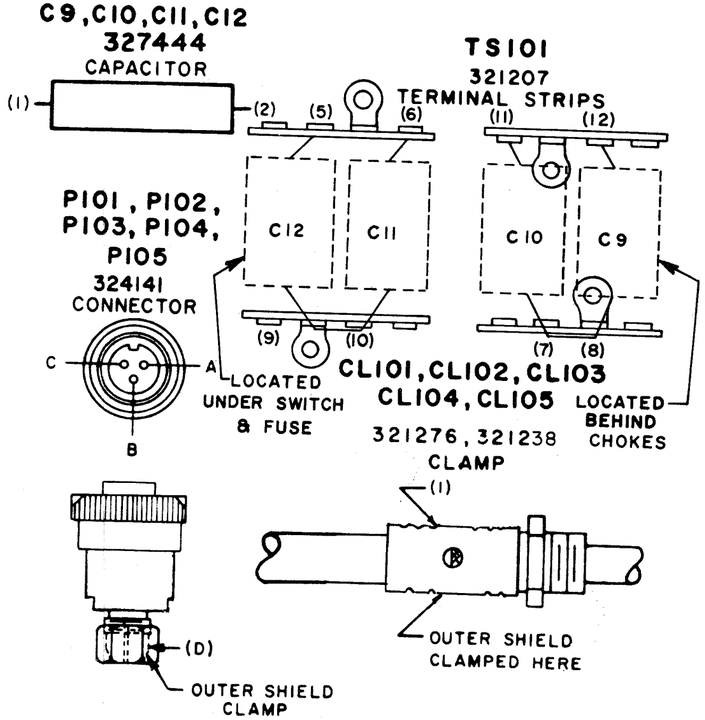
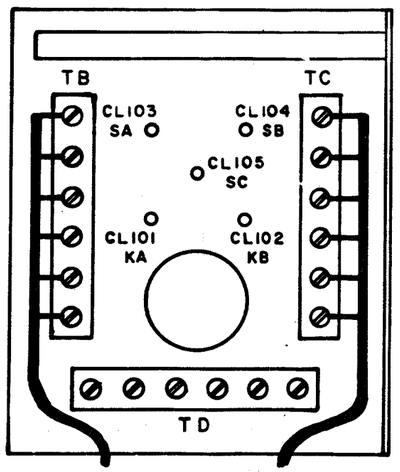
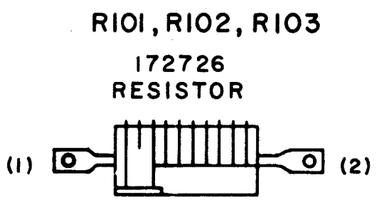


Figure 5-46. 323815 Electrical Service Assembly (Signal) Wiring Diagram (Sheet 1 of 5)





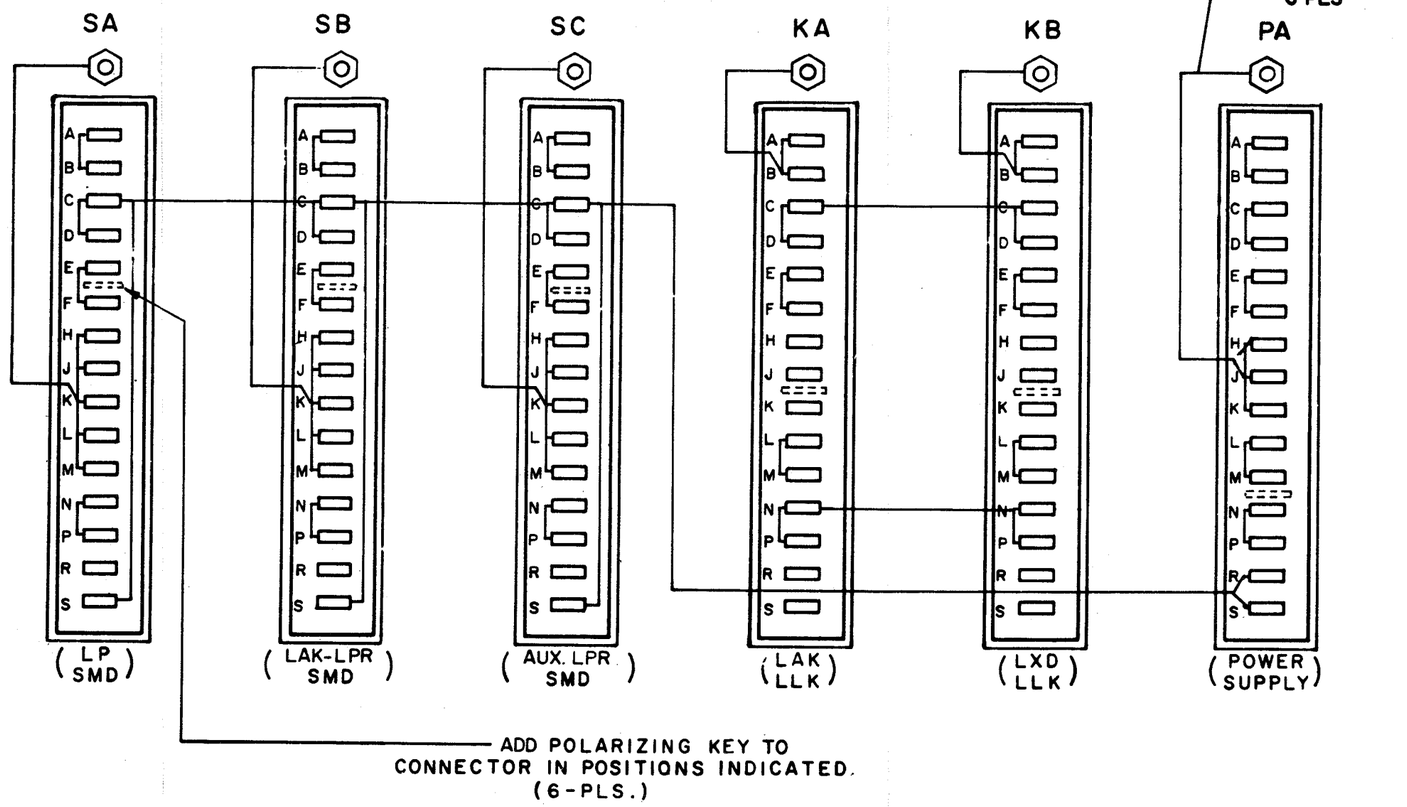


Figure 5-46. 323815 Electrical Service Assembly (Signal) Wiring Diagram (Sheet 2 of 5)

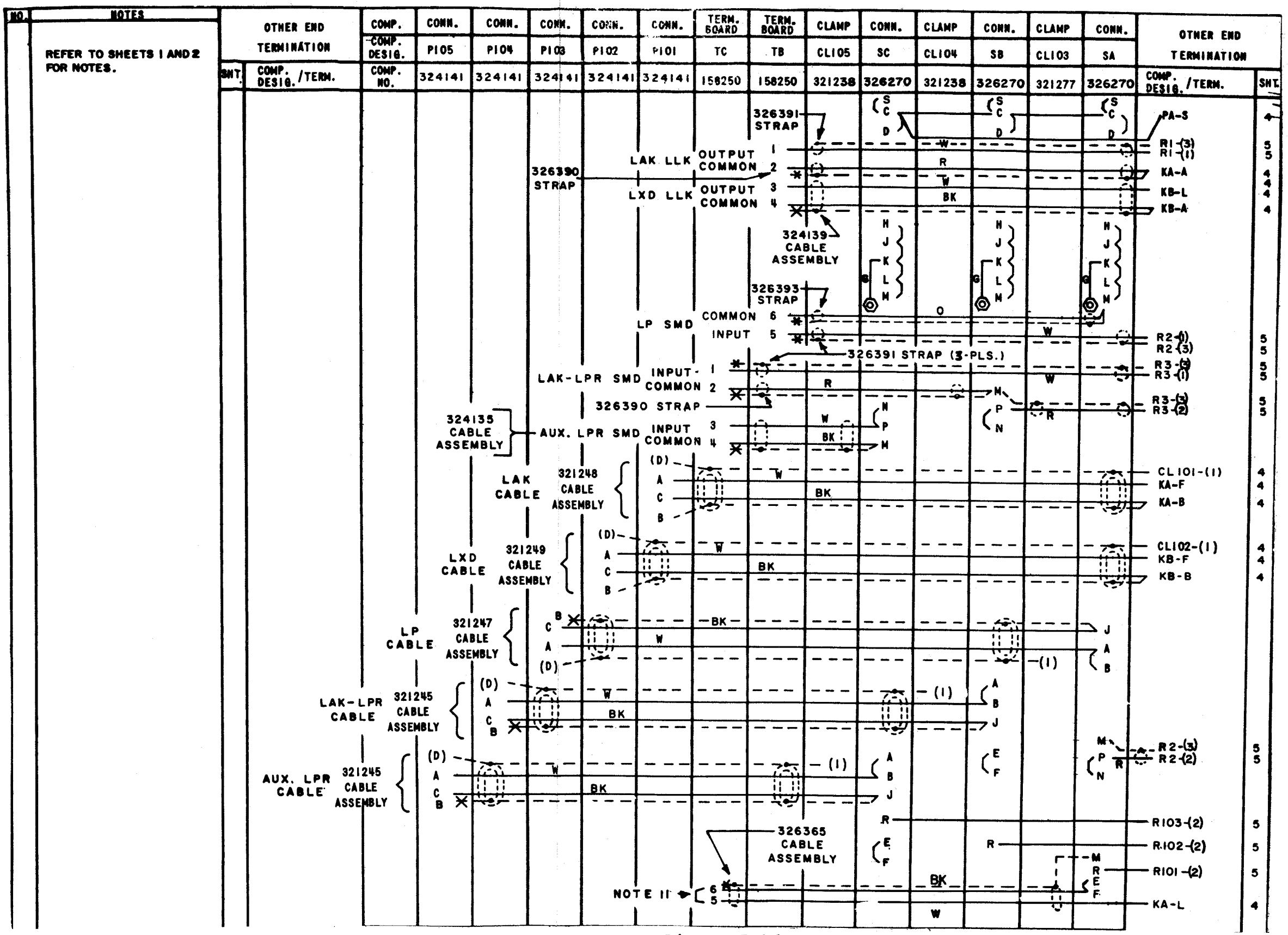


Figure 5-46. 323815 Electrical Service Assembly (Signal) Wiring Diagram (Sheet 3 of 5)

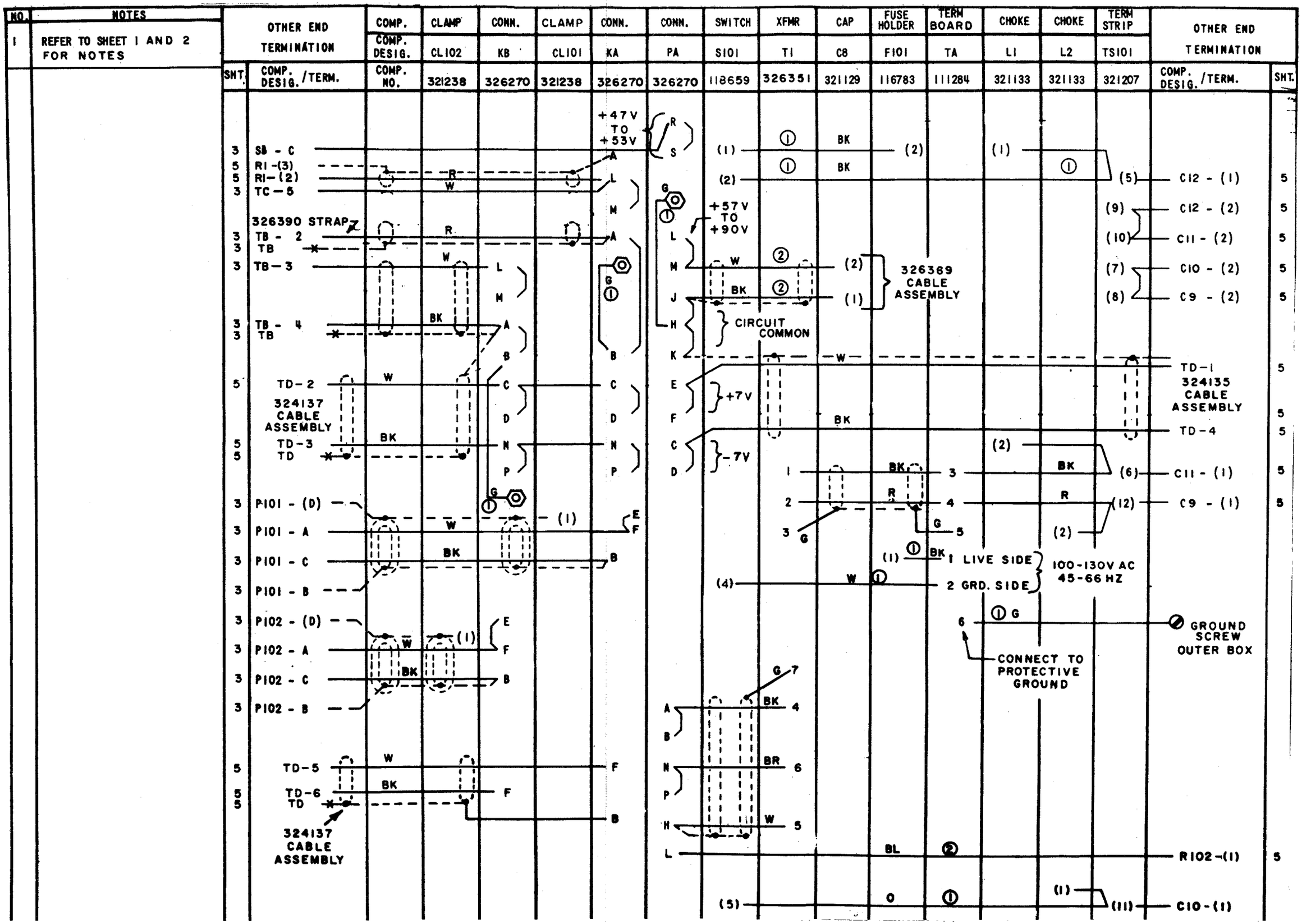


Figure 5-46. 323815 Electrical Service Assembly (Signal) Wiring Diagram (Sheet 4 of 5)

NO. NOTES

REFER TO SHEETS 1 AND 2 FOR NOTES.

OTHER END TERMINATION		COMP.	CAP.	CAP.	CAP.	CAP.	RELAY	RELAY	RELAY	RES.	RES.	RES.	TERM. BOARD			OTHER END TERMINATION	
	COMP. DESIG.		C9	C10	C11	C12	K1	K2	K3	R101	R102	R103	TD				
SHT	COMP. DESIG. /TERM.	COMP. NO.	327444	327444	327444	327444	323652	323652	323652	172726	172726	172726	158250			COMP. DESIG. /TERM.	SHT
4	TS101-(5)					(1)											
4	TS101-(6)				(1)												
4	TS101-(7)			(2)													
4	TS101-(8)		(2)														
4	TS101-(9)					(2)											
4	TS101-(10)				(2)												
4	TS101-(11)			(1)													
4	TS101-(12)		(1)														
							326391 STRAP										
3	TB-1		W				(1)										
3	TB *						>(3)										
4	KA-A																
4	KA-L		R				(2)										
					326394 STRAP			326391 STRAP									
3	TB-5		W				(1)										
3	TB *						>(3)										
3	SA-M																
3	SA-P		R				(2)										
						326394 STRAP		326391 STRAP									
3	TC-1		W				(1)										
3	TC *						>(3)										
3	SB-M																
3	SB-P		R				(2)										
							326394 STRAP										
							(4)										
							W-G (2) (4)										
							(4)										
							(5) BK (2) (5) BK (2) (5)										
4	PA-L			BL (2)					(1)								
							(1) BL (2) (1) BL (2)										
3	SA-R			BL (2)					(2)								
3	SB-R			BL (2)					(2)								
3	SC-R			BL (2)					(2)								
4	PA-K																
4	PA-E								W								
4																	
4	PA-C								BK								
4	KB-N								BK								
4	KB-C								W								
4	KB-A																
4	KA-F								W								
4	KB-F								BK								
4	KA-B																

324699 CABLE ASSEM.

W-G

O

BK

TO CABINET TERMINAL STRIP

324135 CABLE ASSEMBLY

+7V

7V

1

4

3

2

5

6

NOTE 9

151619 STRAP (5-PLS.)

NOTE 12

324137 CABLE ASSEMBLY

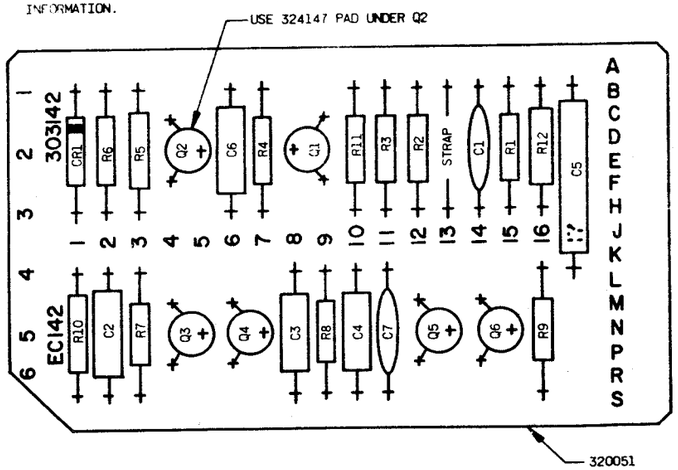
324137 CABLE ASSEMBLY

Figure 5-46. 323815 Electrical Service Assembly (Signal) Wiring Diagram (Sheet 5 of 5)

ALPHA NUMERIC CONVERSION CHART		
STAMPING ON CIRCUIT BOARD	NUMERICAL CONVERSION FOR 15 PT. CARDS WHEN USED WITH 36 PT. CONNECTOR	
	WHEN INSERTED IN UPPER HALF OF CONNECTOR	WHEN INSERTED IN LOWER HALF OF CONNECTOR
A	1	22
B	2	23
C	3	24
D	4	25
E	5	26
F	6	27
H	7	28
J	8	29
K	9	30
L	10	31
M	11	32
N	12	33
P	13	34
R	14	35
S	15	36

REF DESIG.	PAR. NO. REQ.	QTY.	DESCRIPTION	FUNCTION
R1	116720	2	RESISTOR 100K 5% 1/2W	RC FILTER
R2	118178	1	RESISTOR 220K 5% 1/2W	Q1 BASE BIAS
R3			RESISTOR SAME AS R1	Q1 EMITTER BIAS
R4	129854	2	RESISTOR 10K 5% 1/2W	Q1 COLLECTOR BIAS
R5	321204	2	RESISTOR 13K 1% 1/2W	Q2 COLLECTOR BIAS
R6			RESISTOR SAME AS R5	RC BIAS EQUALIZER
R7	118147	2	RESISTOR 6.8K 5% 1/2W	Q3,4 BASE BIAS
R8			RESISTOR SAME AS R4	Q5,6 BASE BIAS
R9	137438	1	RESISTOR 100Ω 5% 1/2W	RC FILTER
R10			RESISTOR SAME AS R7	Q3,4 BASE BIAS
R11	118146	2	RESISTOR 4.7K 5% 1/2W	Q1 EMITTER BIAS
R12			RESISTOR SAME AS R11	OUTPUT LOAD
CR1	181619	1	DIODE 1N482	R6 SHUNT SWITCH
C1	321157	2	CAPACITOR 500 PFD	INPUT FILTER
C2	320048	1	CAPACITOR .5 MFD.	ACTIVE FILTER FEEDBACK
C3	320049	2	CAPACITOR .15 MFD.	ACTIVE FILTER INTEGRATOR
C4			CAPACITOR SAME AS C3	RC FILTER INTEGRATOR
C5	320047	1	CAPACITOR 2 MFD	RC FILTER INTEGRATOR
Q1	315930	3	TRANSISTOR, 2N3568	1st AMPLIFIER
Q2	324144	1	TRANSISTOR 2N4121	2nd AMPLIFIER
Q3	315931	2	TRANSISTOR 2N3638	ACTIVE COMPLIMENTARY FILTER
Q4			TRANSISTOR SAME AS Q1	ACTIVE COMPLIMENTARY FILTER
Q5			TRANSISTOR SAME AS Q3	COMPLIMENTARY SYMMETRY EMITTER
Q6			TRANSISTOR SAME AS Q1	FOLLOWER AMPLIFIER
C6	181618	1	CAPACITOR .01MFD	RC FILTER
C7			CAPACITOR SAME AS C1	RF BY PASS
EC	320051	1	BOARD, ETCHED CIRCUIT	
		1	STRAP, BARE 24 AWG.	
	324147	1	PAD, TRANSISTOR	
	144495	5	PAD, TRANSISTOR	

NOTE: MANUFACTURE PER MR2001
REFER TO 5016WD FOR MARKING INFORMATION.



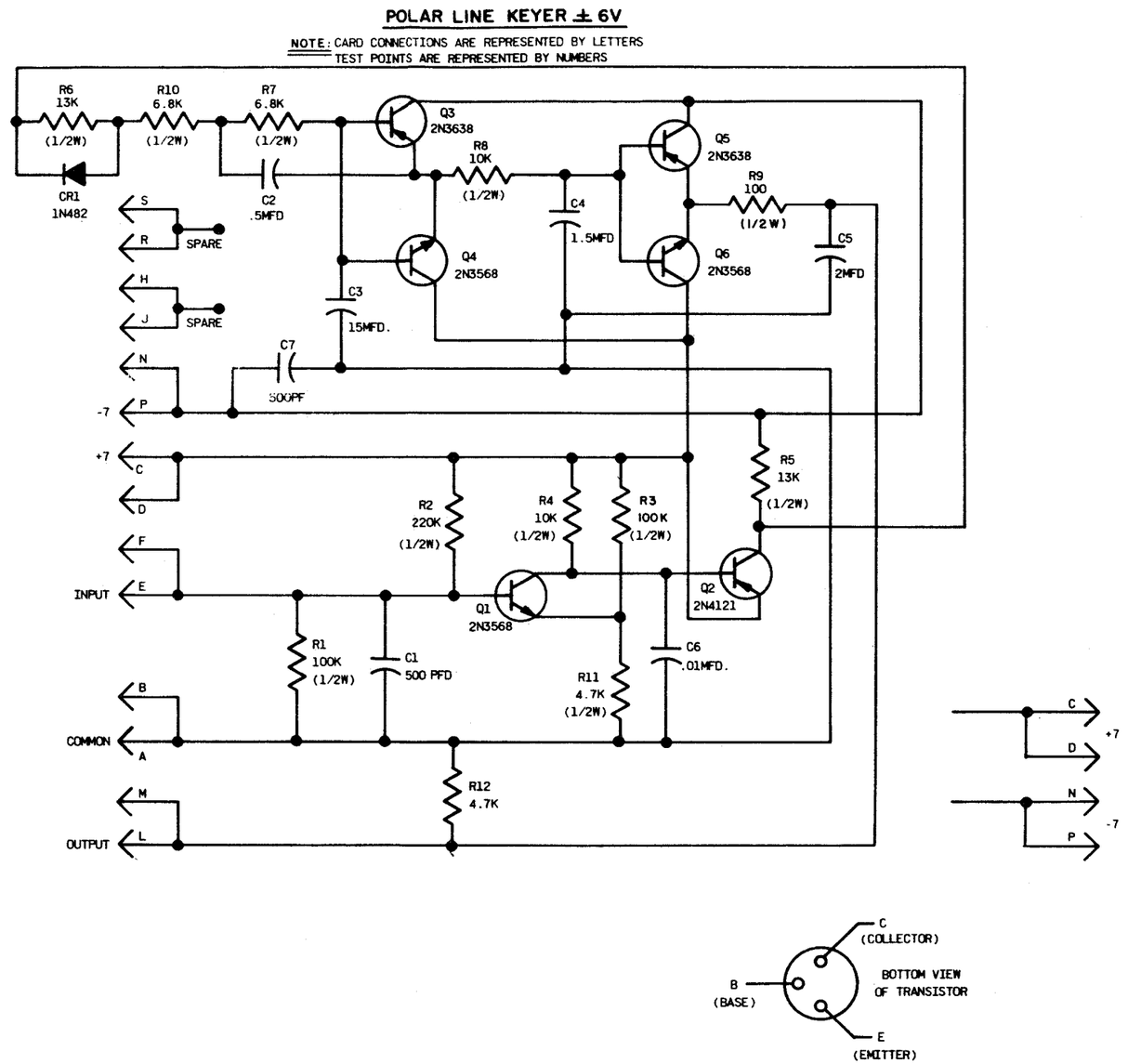
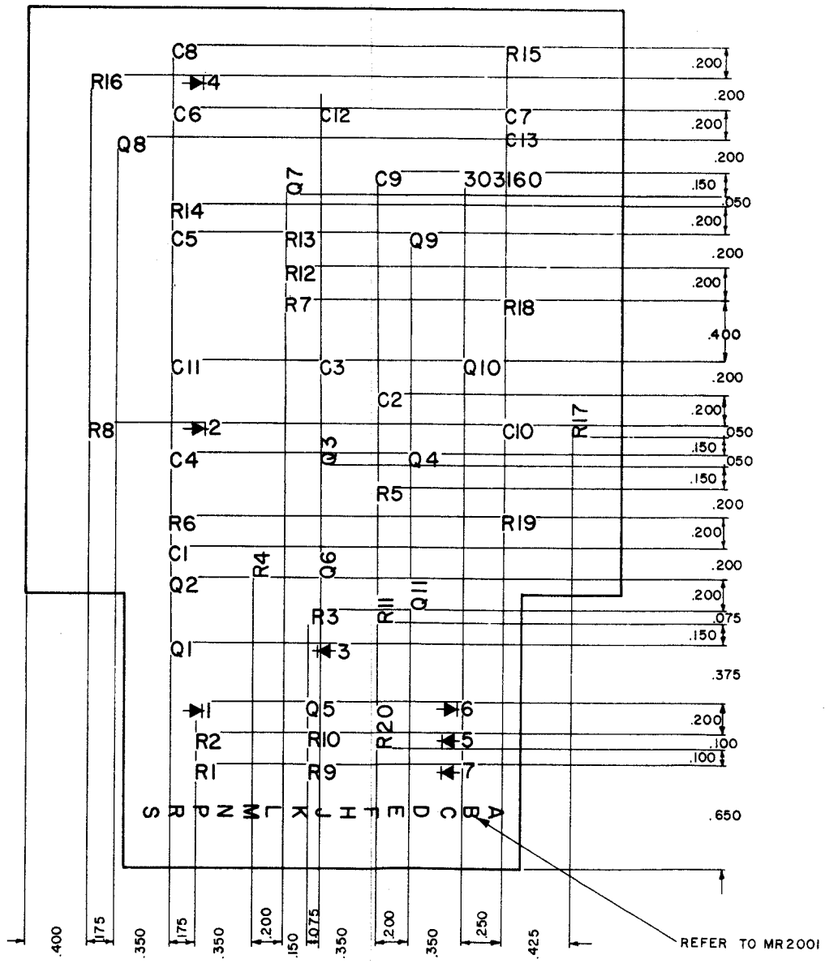


Figure 5-47. LLK Polar Line Keyer 303142 Circuit Card Wiring Diagram

NO.	NOTES
1.	ALL RESISTANCE VALUES IN OHMS, 1/4 WATT UNLESS OTHERWISE SPECIFIED.
2.	ALL CAPACITANCE VALUES IN MFD UNLESS OTHERWISE SPECIFIED.
3.	PINS A,B - CIRCUIT 2 OUTPUT, 100MA TO CLUTCH COIL. PINS C,D - +50 VOLTS DC POWER INPUT PINS E,F - CIRCUIT 1 OUTPUT, 100MA TO CLUTCH COIL. PINS H,J - CIRCUIT 2 SIGNAL INPUT, REF. A,B OUTPUT. PINS L,M - CIRCUIT COMMON. PINS N,P - CIRCUIT 1 SIGNAL INPUT REF. E,F OUTPUT.
4.	▽ DENOTES CIRCUIT COMMON.
5.	REFERENCE SPEC. FOR TELETYPE CORPORATION EMPLOYEES 61530 S
6.	TRANSISTOR Q9 HAS 323847 HEAT SINK PRESSED ON.
7.	POWER REQTS: +47 TO +53 V.D.C 0.2 AMPS. INPUT REQTS: +3.2 TO +6.6 V.D.C. TO ENERGIZE CLUTCH COILS. 0 TO +.5 V.D.C. TO DEENERGIZE COILS. OUTPUT REQTS: .088 TO .115 AMPS ENERGIZED CURRENT TO TWO SERIES 256 M COILS. 0 AMPS CURRENT TO DEENERGIZE COILS.
8.	FOR SCREEN PRINTING INFORMATION REFER TO MR 2001.
9.	MAINTAIN 1/8 IN. CLEARANCE BETWEEN C3, C11 AND R7, AND C7, C12 AND R15.
10.	MOUNT C9 FLAT AGAINST CIRCUIT BOARD TO ALLOW CLEARANCE FOR 323847 HEAT SINK.
11.	BEND LEFT LEAD OF R7 SHARPLY AT TERMINAL AND MOUNT R7 AS SHOWN.

CIRCUIT DESCRIPTION

THIS BOARD ASSEMBLY HAS TWO IDENTICAL LXD CLUTCH MAGNET DRIVERS, INTENDED FOR TANDEM OPERATION. EACH CIRCUIT HAS FOUR CASCADED TRANSISTOR STAGES; THE FIRST INTERFACES WITH IC LOGIC OUTPUTS AND THE LAST DRIVES LXD CLUTCH COILS AT 0.1 AMPS, WITH OPEN OR ZERO INPUTS, THE OUTPUT CURRENT IS ZERO. WITH A POSITIVE INPUT THE ASSOCIATED CLUTCH COILS WILL BE ENERGIZED.
THE CIRCUIT AND CLUTCH CURRENT IS SUPPLIED BY A CONSTANT CURRENT AMPLIFER Q11, Q9 AND Q10 SAMPLE THE CHANGING Q11 COLLECTOR VOLTAGE AND CHANGE CONDUCTION LEVEL THE AMOUNT REQUIRED TO KEEP THE SUPPLY CURRENT CONSTANT.

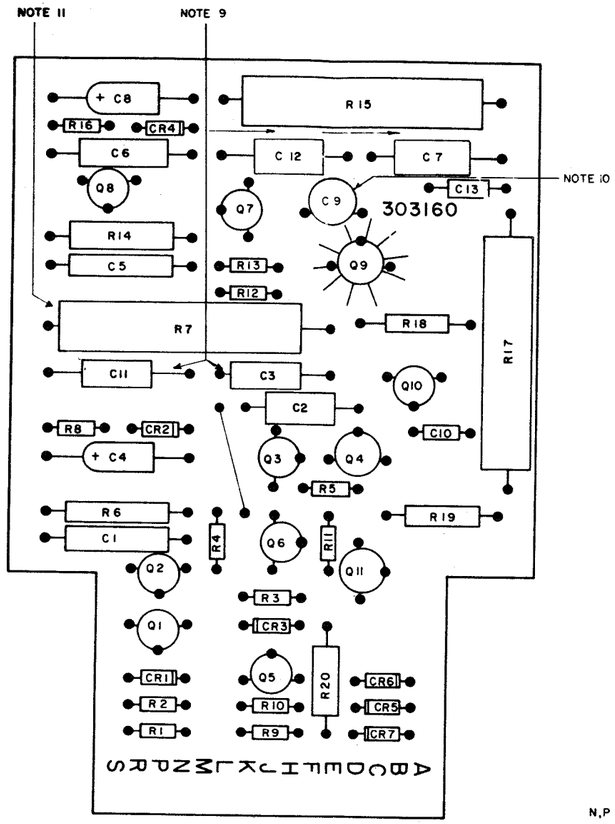


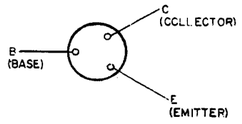
CIRCUIT BOARD EC 160				
REF. DESIG.	TELETYPE PART NO.	TOTAL QTY.	NAME AND DESCRIPTION	LOCATING FUNCTION
R1	323148	4	RESISTOR 18K	INPUT RESISTOR
R4			SAME AS R1	Q2 LOAD
R9			SAME AS R1	INPUT RESISTOR
R12			SAME AS R1	Q6 LOAD
R2	330643	2	RESISTOR 56 K	Q1 BIAS
R10			SAME AS R2	Q5 BIAS
R3	323147	2	RESISTOR 36 K	Q1 LOAD
R11			SAME AS R3	Q5 LOAD
R5	315955	2	RESISTOR 2.2 K	Q3 BIAS
R13			SAME AS R5	Q7 BIAS
R6	178863	2	RESISTOR 3.3K	Q3 LOAD
R14			SAME AS R6	Q7 LOAD
R7	193229	3	RESISTOR 300 Ω	COIL CURRENT LIMIT
R15			SAME AS R7	COIL CURRENT LIMIT
R17			SAME AS R7	Q9 EMITTER LOAD
R8	315957	2	RESISTOR 3.3 K	C4 BLEEDER
R16			SAME AS R8	C8 BLEEDER
R18	118180	1	RESISTOR 10K	Q10 LOAD
R19	120424	1	RESISTOR 4.3 K	REG. REF. LIMIT
R20	327793	1	RESISTOR 18 Ω	REG. LIMITER
C1	330593	8	CAPACITOR .02 MFD	Q3 FEED BACK
C5			SAME AS C1	Q7 FEED BACK
C2			SAME AS C1	Q4 FEED BACK
C6			SAME AS C1	Q8 FEED BACK
C3			SAME AS C1	R.F. BY-PASS
C7			SAME AS C1	R.F. BY-PASS
C4	321264	2	CAPACITOR 2.7 MFD	TRANSIENT SUPPRES.
C8			SAME AS C4	TRANSIENT SUPPRES.
C9	321157	3	CAPACITOR 500 PF	Q9 FEED BACK
C10			SAME AS C9	Q10 FEED BACK
CR1	321156	4	DIODE IN482A	Q1 EMITTER REF.
CR3			SAME AS CR1	Q5 EMITTER REF.
CR5			SAME AS CR1	VOLTAGE REF.
CR6			SAME AS CR1	VOLTAGE REF.
CR2	321154	2	DIODE IN457A	TRANSIENT SUPPRES.
CR4			SAME AS CR2	TRANSIENT SUPPRES.
CR7	321161	1	DIODE IN748A	VOLTAGE REF.
Q1	315930	4	TRANSISTOR 2N3568	D.C. AMP.
Q2			SAME AS Q1	D.C. AMP.
Q5			SAME AS Q1	D.C. AMP.
Q6			SAME AS Q1	D.C. AMP.
* Q3	302865	3	TRANSISTOR 2N4354	D.C. AMP.
* Q7			SAME AS Q3	D.C. AMP.
** Q10			SAME AS Q3	SHUNT REG. AMP.
Q4	321261	2	TRANSISTOR 2N4036	D.C. AMP.
Q8			SAME AS Q4	D.C. AMP.
Q9	323844	1	TRANSISTOR 2N3053	SHUNT REGULATOR
Q11	323845	1	TRANSISTOR 40319	SERIES REG.
	144495	11	PAD, TRANSISTOR	
	323847	1	HEAT SINK	
	328066	1	CIRCUIT BOARD, ETCHED	
	39603 RM	1	STRAP, 24 AWG. BARE	
C11			SAME AS C1	R.F. BY-PASS
C12			SAME AS C1	R.F. BY-PASS
C13			SAME AS C9	R.F. BY-PASS

* TELETYPE PART NO. 315931, 2N3638 MAY BE SUBSTITUTED FOR Q3 OR Q7.

** Q10 MAY BE THE SAME AS Q4.

Figure 5-48. 303160 Dual - Circuit CMD Schematic Wiring Diagram (Sheet 1 of 2)





ALPHA NUMERIC CONVERSION CHART		
STAMPING ON CIRCUIT BOARD	NUMERICAL CONVERSION FOR 15 PT. CARDS WHEN USED WITH 36 PT. CONNECTOR	
	WHEN INSERTED IN UPPER HALF OF CONNECTOR	WHEN INSERTED IN LOWER HALF OF CONNECTOR
A	1	22
B	2	23
C	3	24
D	4	25
E	5	26
F	6	27
H	7	28
J	8	29
K	9	30
L	10	31
M	11	32
N	12	33
P	13	34
R	14	35
S	15	36

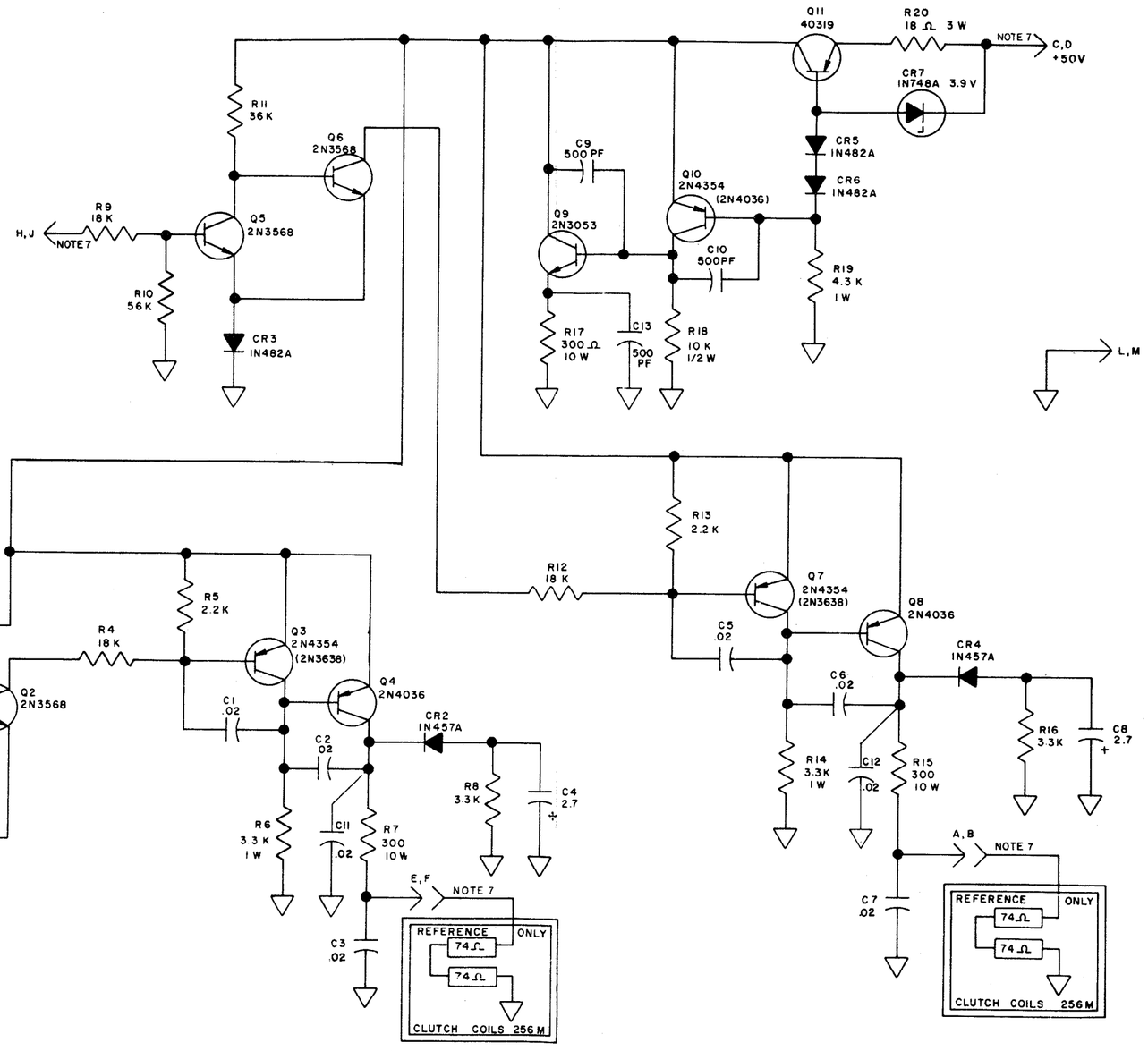


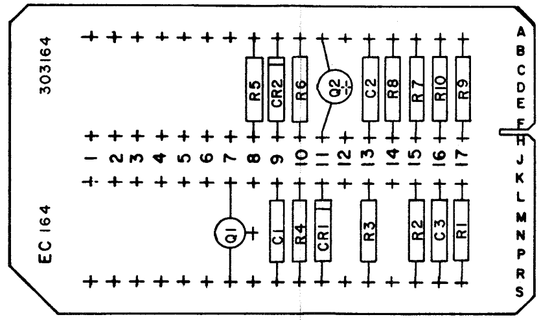
Figure 5-48. 303160 Dual - Circuit CMD Schematic Wiring Diagram (Sheet 2 of 2)

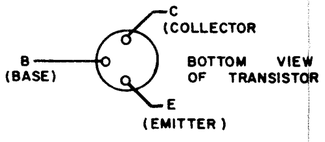
CLOCK AMPLIFIER

CIRCUIT DESCRIPTION

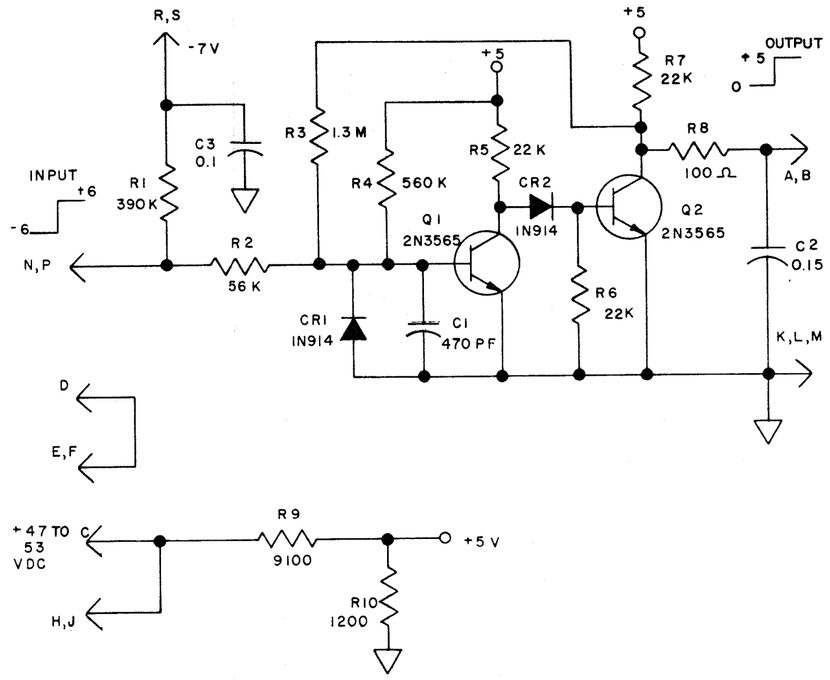
THIS AMPLIFIER PROVIDES A MIL 188B INTERFACE WITH LOGIC CIRCUITS. A MIL 1888 POLAR INPUT AT PIN N,P WILL PRODUCE A NEUTRAL OUTPUT AT PIN A,B . THE RANGE OF INPUT SIGNALS CAN BE FROM ± 5V TO ±7V. THE TYPICAL HYSTERESIS IS 0.20V. WHEN THE INPUT AT PIN N,P IS POSITIVE +0.5V, Q1 IS FORWARD BIASED AND ITS COLLECTOR GOES TO 0 VOLTS. THIS ACTION ZERO BIASES Q2 AND ITS COLLECTOR GOES TO +5 VOLTS. A NEGATIVE INPUT -0.5V CAUSES A 0 VOLT OUTPUT. A SPACE HOLD FEATURE KEEPS THE OUTPUT AT 0 VOLTS IF THE INPUT IS DISCONNECTED. OUTPUT PIN A, B CAN SINK UP TO 5 MA TO POWER SUPPLY COMMON.

REF. DESIGN.	TELETYPE PART NO.	TOTAL QTY.	NAME AND DESCRIPTION	LOCATING FUNCTION
R1	330644	1	RESISTOR 390K 1/4 W.	PULL UP
R2	118156	1	RESISTOR 56K	BIAS
R3	330642	1	RESISTOR 1.3M 1/4W.	FEEDBACK
R4	118166	1	RESISTOR 560K	BIAS
R5	118177	3	RESISTOR 22K	COLLECTOR LOAD
R6			SAME AS R5	BIAS
R7			SAME AS R5	COLLECTOR LOAD
R8	137438	1	RESISTOR 100 OHMS	OUTOUT
R9	165072	1	RESISTOR 9100 OHMS	VOLTAGE DIVIDER
R10	137441	1	RESISTOR 1200 OHMS	VOLTAGE DIVIDER
C1	315976	1	CAPACITOR 470 PF	INTERGATING
C2	310926	1	CAPACITOR 0.15 MFD	FILTER
C3	312385	1	CAPACITOR 0.1 MFD	FILTER
CR1	197464	2	DIODE IN914	CLAMP
CR2			SAME AS CR1	GATE
Q1	323934	2	TRANSISTOR 2N3565	SWITCH
Q2			SAME AS Q1	
EC	333603	1	BOARD, ETCHED CIRCUIT	
	324147	2	PAD, TRANSISTOR	





NOTE:
REFER TO MR2001 TYPE I FOR MARKING INFORMATION.



NOTE: THE +5V OUTPUT MUST RANGE BETWEEN +3.3 AND +5.5V.

NOTE:
CARD CONNECTIONS ARE REPRESENTED BY LETTERS
TEST POINTS ARE REPRESENTED BY NUMBERS.

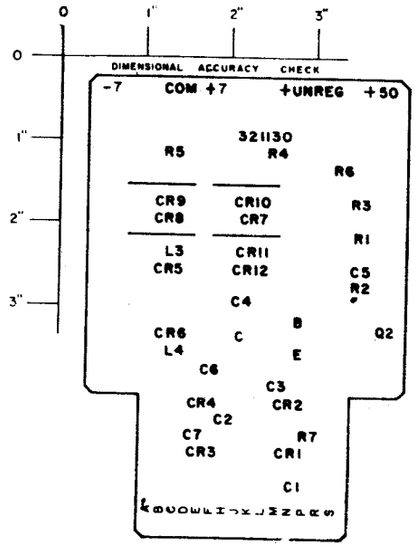
Figure 5-49. 303164 Clock Amplifier, Circuit Board EC 164

CIRCUIT BOARD ASSEMBLY, POWER SUPPLY (47-53V.D.C. .5AMP. MAX.)

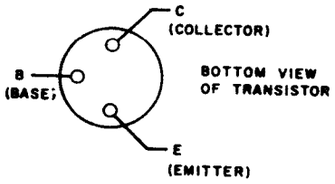
REF. DESIGN.	PART NO.	TOTAL QTY.	NAME AND DESCRIPTION	FUNCTION
C1	312284	1	CAPACITOR, 1.5 MFD 400V	RF FILTER
C2,3	171585	2	CAPACITOR, .22MFD 200V	RF FILTER
C4	171831	1	CAPACITOR, 10MFD 150V	RECTIFIER FILTER
C5	178860	1	CAPACITOR, .022MFD 100V	RF FILTER
C6,7	312385	2	CAPACITOR, .1MFD 10V	RF FILTER
R1	198937	1	RESISTOR, 2.7K 2W	
R2	182180	2	RESISTOR, 200 OHM 1/2W	
R3	171533	1	RESISTOR 4 OHM 5W	
R4,5	311664	2	RESISTOR, 2.5K 8W	DROPPING
R6			SAME AS R2	RF FILTER
R7	305298	1	RESISTOR, 3.3K 3W	BLEEDER
CR1-4	182520	4	DIODE (IN4383)	RECTIFIER
CR5,6	327794	2	DIODE, ZENER (7.2V)	REFERENCE
CR7	321286	2	DIODE, ZENER (1N4749A)	REFERENCE
CR8-11	178844	4	VARISTOR (W.E. 100A)	REFERENCE
CR12			SAME AS CR7	REFERENCE
L3,4	321159	2	INDUCTOR 39 uH	RF FILTER
Q2	321145	1	TRANSISTOR (2N2270)	GAIN
FC1,2	311068	2	FUSE CLIP	
F102	131807	1	FUSE .5 AMP.	
TP1	320042	1	JACK, TEST (SLATE)	
TP2	320041	1	JACK, TEST (GREEN)	
TP3	320039	1	JACK, TEST (BLACK)	
TP4	320040	1	JACK, TEST (ORANGE)	
TP5	320038	1	JACK, TEST (RED)	
P1-3	137471	3	TERMINAL POST	CONNECTOR
	321140	1	CIRCUIT CARD	
S1-S4	336470	4		
1	151637	2	SCREW 4-40	
2	151880	2	NUT 4-40	
3	110743	2	LOCK WASHER	
4	125011	2	FLAT WASHER	

CIRCUIT DESCRIPTION (SEE SHEET 2)

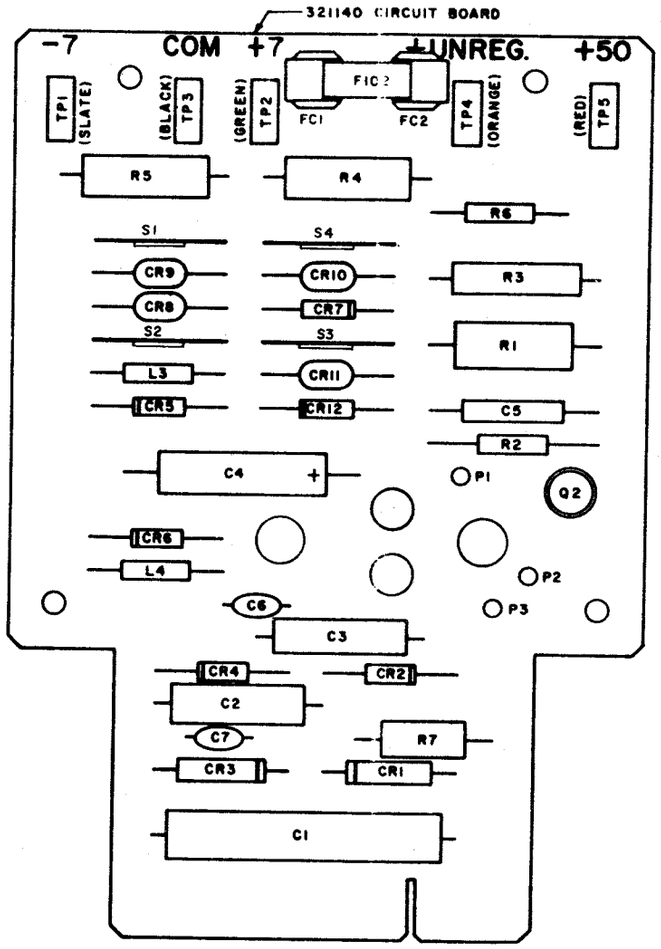
DIODES CR1 AND CR3 FORM A RECTIFIER WITH ASSOCIATED TRANSFORMER (321123) T1 AND CAPACITOR C8 (321129) TO OBTAIN A MINIMUM +58V DC UNREGULATED. Q1 IS AN EMITTER FOLLOWER VOLTAGE REGULATING ELEMENT WHICH ABSORBS THE VOLTAGE DIFFERENCE BETWEEN THE UNREGULATED DC AND THE CONSTANT +50V DC REFERENCE ESTABLISHED BY DIODES CR7-CR12. Q2 PROVIDES GAIN FOR Q1. DIODES CR3,CR4, TRANSFORMER T1 AND CAPACITOR C4 FORM A FULL WAVE RECTIFIER TO OBTAIN NEGATIVE UNREGULATED DC. R4 AND CR6. R5 AND CR5 FORM BASIC SHUNT REGULATORS TO OBTAIN +7 AND -7V DC.



SCALE 1/1



1) TELETYPE REFERENCE ONLY: SPECIFICATION 61,267S
2) SEE SHEET2 FOR SCHEMATIC WIRING
3) ALL CHARACTERS TO BE .125 HIGH AND PRINTED WITH WHITE ENAMAL.
4) ALL PRINTED CHARACTERS TO BE LOCATED ±.031 FROM NOMINAL POSITION.



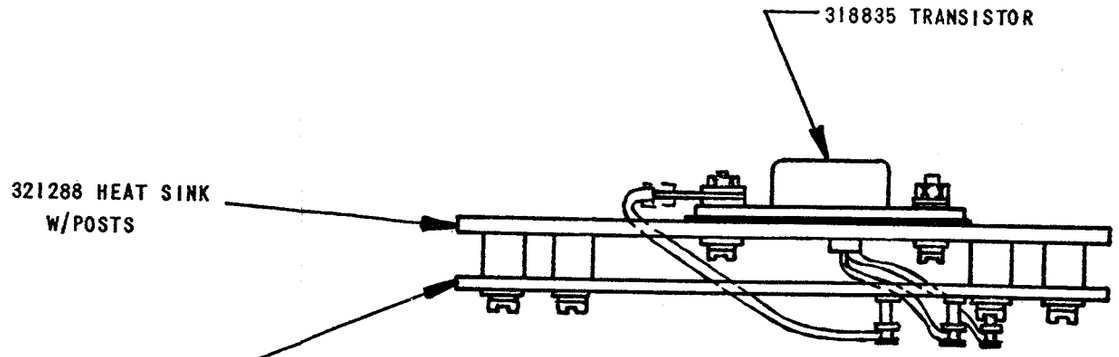


Figure 5-50. 321290 Circuit Board Assembly w/Heat Sink (Sheet 1 of 2)

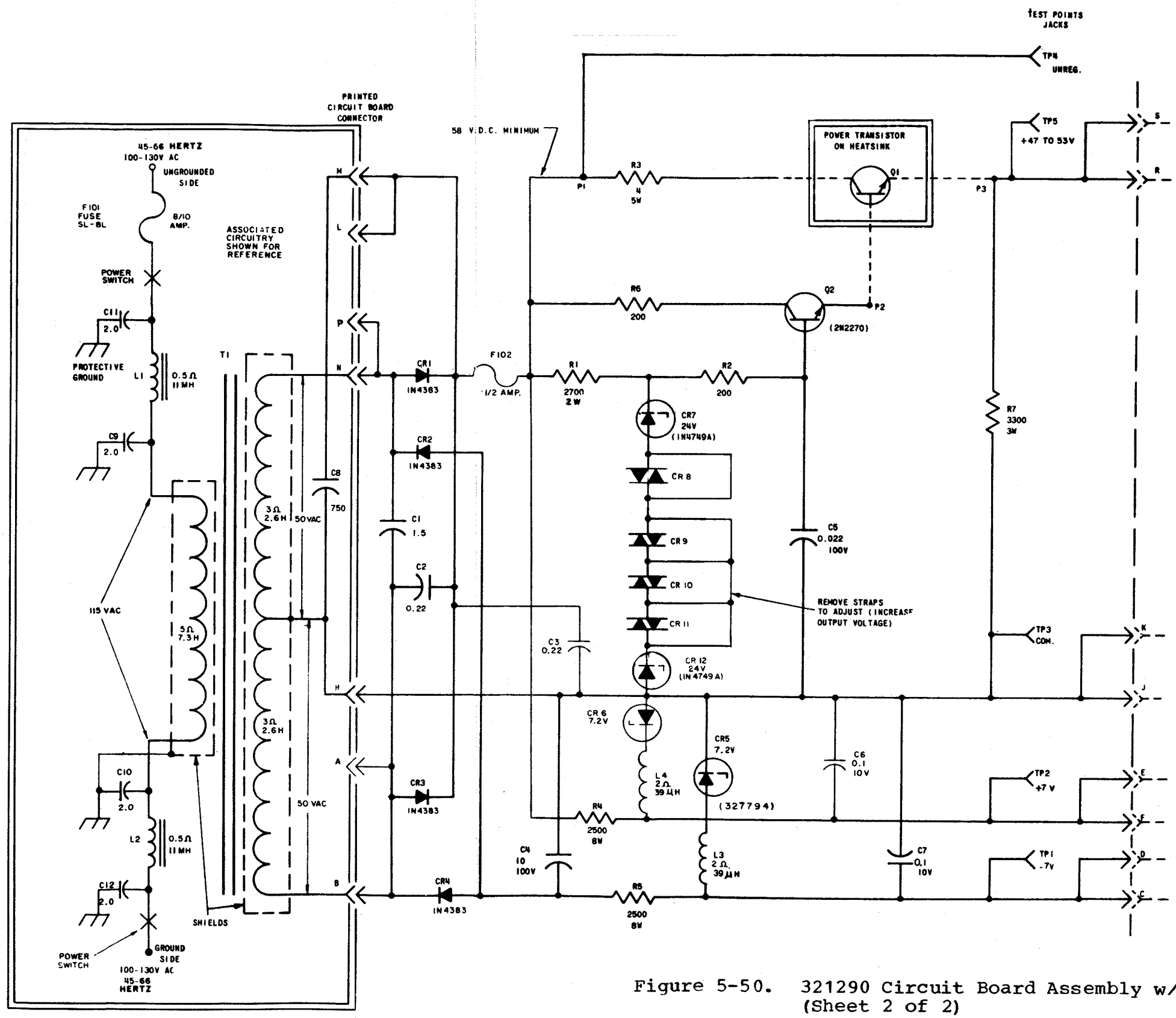


Figure 5-50. 321290 Circuit Board Assembly w/Heat Sink (Sheet 2 of 2)

NO	NOTES
1.	R3 AND R15 ARE ADJUSTED FOR SYMMETRICAL SWITCHING ABOUT ZERO VOLTS FOR INPUT 1 AND 2 RESPECTIVELY.
2.	PINS A,B. - 60MA TO COILS PINS C,D - 47 TO 53V DC POWER INPUT PINS N,P - MS 188B SIGNAL INPUT 1 PINS E,F - MS 188B SIGNAL INPUT 2 PINS H,J,K,L,M, - CIRCUIT COMMON (ALL INPUTS AND OUTPUTS REFERRED TO CIRCUIT COMMON).
3.	REFERENCE SPEC. FOR TELETYPE CORP. EMPLOYEES ONLY: 61,264S.
4.	ALL RESISTORS ARE 5%, 1/2 WATT UNLESS OTHERWISE SPECIFIED.
5.	ALL CAPACITANCE VALUES IN PICOFARADS UNLESS OTHERWISE SPECIFIED.
6.	⏚ DENOTES CIRCUIT COMMON.

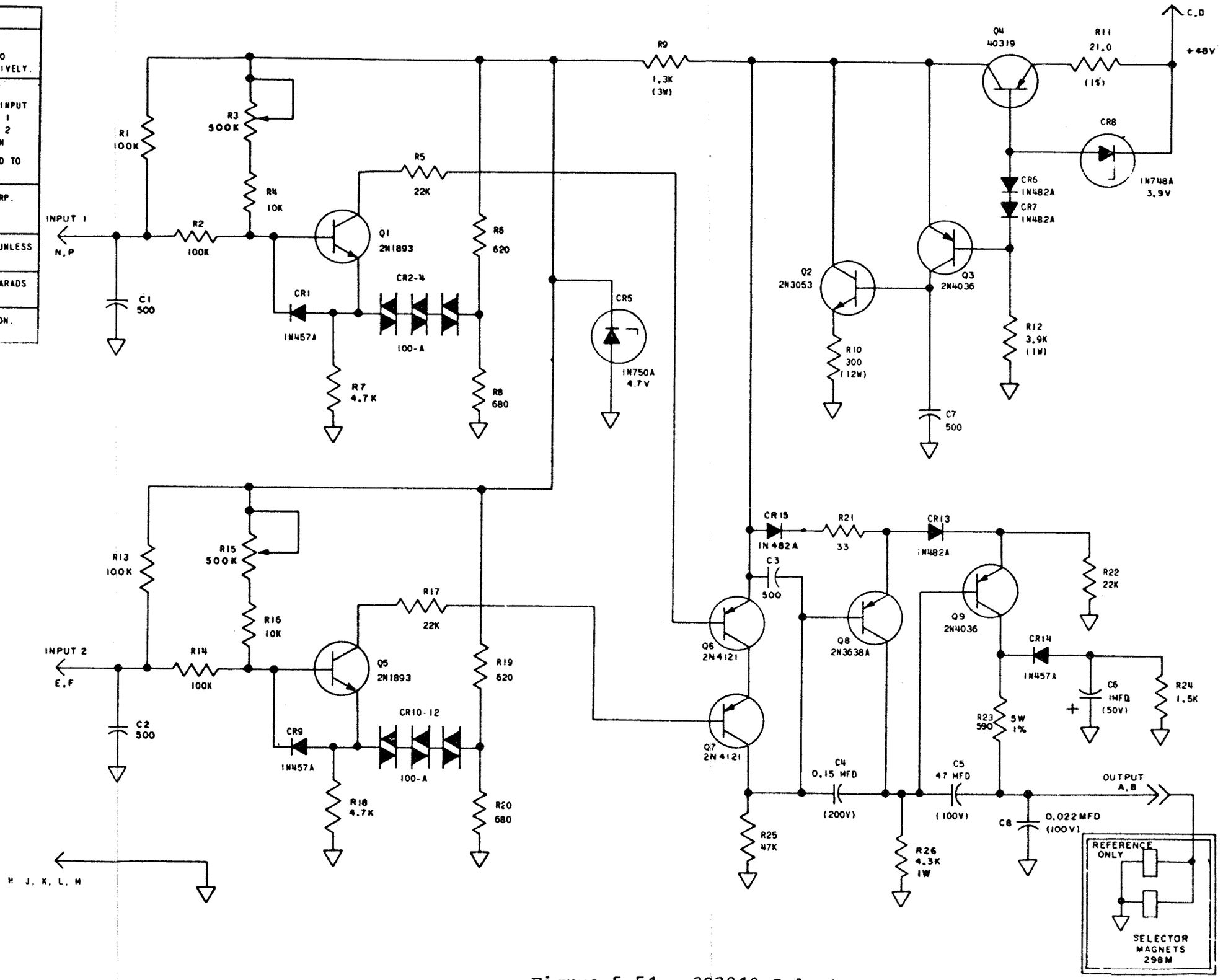
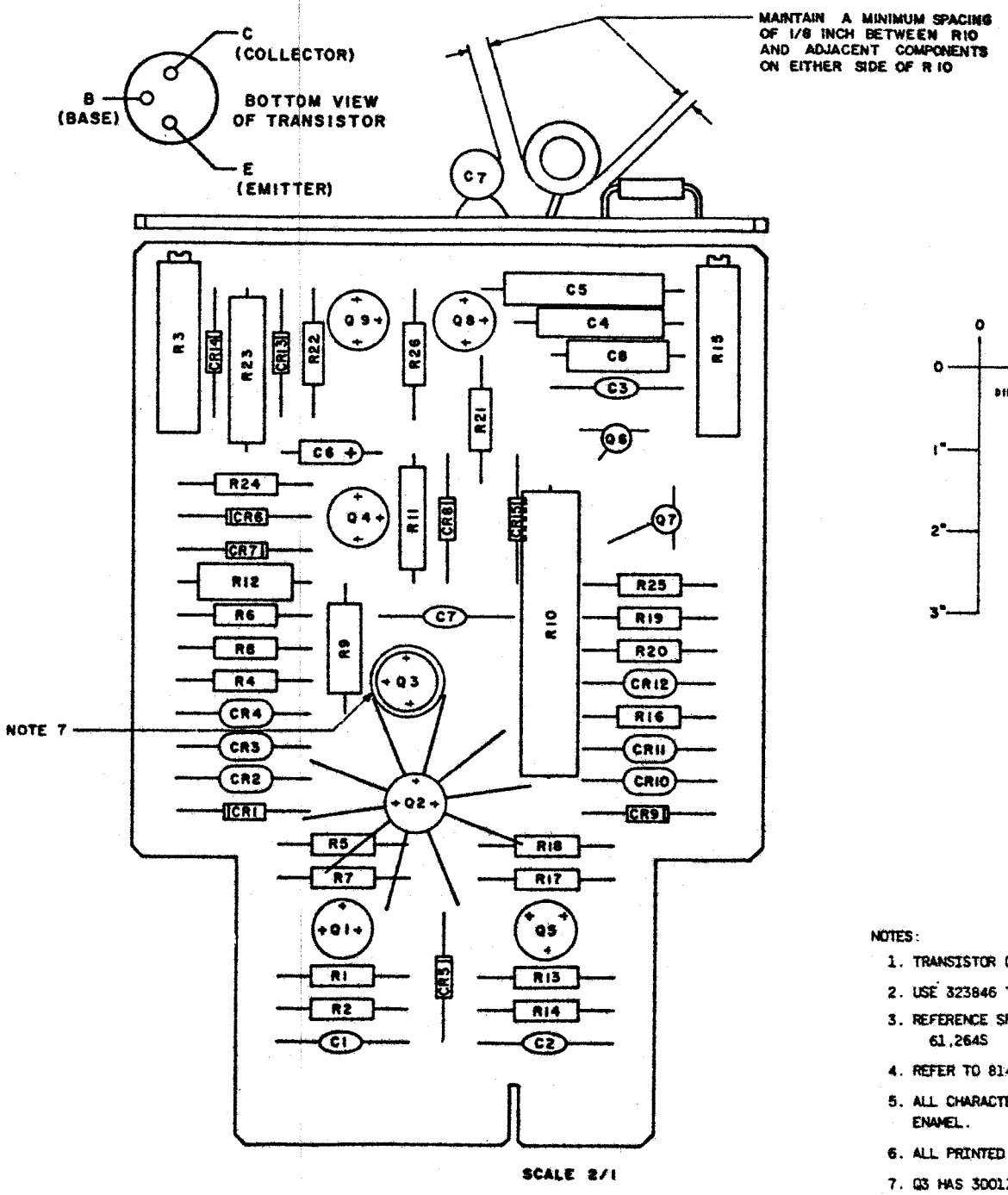
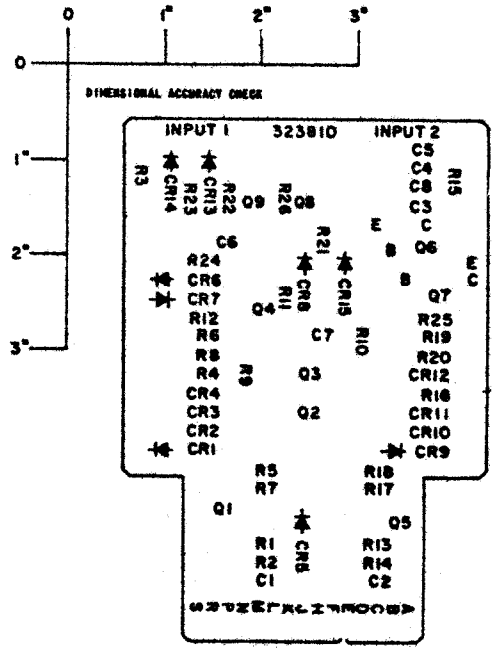


Figure 5-51. 323810 Selector Magnet Driver (SMD) With Siganl Combiner Schematic Wiring Diagram (Sheet 1 of 2)

REF. DESIG.	TELETYPE PART NO.	TOTAL QTY.	NAME AND DESCRIPTION	LOCATING FUNCTION
C1	321157	1	CAPACITOR, 500 pf	R.F. BY-PASS CAP.
C2	321157	1	CAPACITOR, 500 pf	R.F. BY-PASS CAP.
C3	321157	1	CAPACITOR, 500 pf	R.F. BY-PASS CAP.
C4	171829	1	CAPACITOR, .15 MFD	Q8 FEEDBACK CAP.
C5	326776	1	CAPACITOR, .47 MFD	Q9 FEEDBACK CAP.
C6	321260	1	CAPACITOR, 1 MFD 50V	TRANSIENT SUPP.
C7	321157	1	CAPACITOR, 500 pf	R.F. BY-PASS CAP.
C8	178880	1	CAPACITOR, .022 MFD	R.F. BY-PASS CAP.
R1	118720	1	RESISTOR, 100K, 1/2W	Q1 OPEN LINE BIAS
R2	118720	1	RESISTOR, 100K, 1/2W	INPUT 1 RES
R3	323964	1	POTENTIOMETER 500K	Q1 BIAS
R4	129854	1	RESISTOR, 10K, 1/2W	Q1 BIAS
R5	118177	1	RESISTOR, 22K, 1/2W	Q1 LOAD RES.
R6	137604	1	RESISTOR, 620, 1/2W	VOLTAGE DIVIDER
R7	118146	1	RESISTOR, 4.7K, 1/2W	Q1 EMITTER RES.
R8	129850	1	RESISTOR, 680, 1/2W	VOLTAGE DIVIDER
R9	309868	1	RESISTOR, 1.3K, 3W	CR5 CURRENT LIMITER
R10	323861	1	RESISTOR, 300, 12 W	Q2 LOAD RES.
R11	323892	1	RESISTOR, 21, 1/2W, 1%	REG. CURRENT SET
R12	178884	1	RESISTOR, 3.9K, 1W	CR8 CURRENT LIMITER
R13	118720	1	RESISTOR, 100K 1/2W	Q5 OPENLINE BIAS
R14	118720	1	RESISTOR, 100K, 1/2W	INPUT 2 RES.
R15	323964	1	POTENTIOMETER 500K	Q5 BIAS
R16	129854	1	RESISTOR, 10K, 1/2W	Q5 BIAS
R17	118177	1	RESISTOR, 22K, 1/2W	Q5 LOAD RES.
R18	118146	1	RESISTOR, 4.7K, 1/2W	Q5 EMITTER RES.
R19	137604	1	RESISTOR, 620, 1/2W	VOLTAGE DIVIDER
R20	129850	1	RESISTOR, 680, 1/2W	VOLTAGE DIVIDER
R21	321975	1	RESISTOR, 33, 1/2W	Q8 EMITTER RES.
R22	118177	1	RESISTOR, 22K, 1/2W	CR13 BIAS RES.
R23	323853	1	RESISTOR, 590, 5W, 1%	COIL CURRENT LIMITER
R24	137442	1	RESISTOR, 1.5K, 1/2W	C6 BLEEDER RES.
R25	118154	1	RESISTOR 47K, 1/2W	Q6,Q7 LOAD RES.
R26	120424	1	RESISTOR 6.3K, 1W	Q8 LOAD RES.
CR1	321154	1	DIODE, 1N457A	Q1 BASE PROT.
CR2	178848	1	VARISTOR, 100-A	TEMP. COMP.
CR3	178848	1	VARISTOR, 100-A	TEMP. COMP.
CR4	178848	1	VARISTOR, 100-A	TEMP. COMP.
CR5	181667	1	DIODE, 1N750A	TEMP. COMP. REF.
CR6	321156	1	DIODE, 1N482A	Q8 COLLECTOR CLAMP
CR7	321156	1	DIODE, 1N482A	Q9 COLLECTOR CLAMP
CR8	321161	1	DIODE, 1N748A	REG. VOLT REF.
CR9	321154	1	DIODE, 1N457A	Q5 BASE PROT.
CR10	178848	1	VARISTOR, 100-A	TEMP. COMP.
CR11	178848	1	VARISTOR, 100-A	TEMP. COMP.
CR12	178848	1	VARISTOR, 100-A	TEMP. COMP.
CR13	321156	1	DIODE, 1N482A	Q9 EMITTER DIODE
CR14	321154	1	DIODE, 1N457A	TRANSIENT SUPP.
CR15	321156	1	DIODE, 1N482A	Q8 EMITTER DIODE
Q1	321166	1	TRANSISTOR, 2N1893	DC AMP.
Q2	323848	1	TRANSISTOR, 2N3053	SHUNT REG
Q3	321261	1	TRANSISTOR, 2N4036	SHUNT REG. AMP.
Q4	323845	1	TRANSISTOR, 40319	SERIES REG.
Q5	321166	1	TRANSISTOR, 2N1893	DC AMP
Q6	329144	2	TRANSISTOR, 2N4121	DC AMP.
Q7			SAME AS Q6	
Q8	321165	1	TRANSISTOR, 2N3638A	DC AMP.
Q9	321261	1	TRANSISTOR, 2N4036	DC AMP.
	329147	2	PAD, TRANSISTOR	
	144495	8	PAD, TRANSISTOR	
	323846	1	PAD, TRANSISTOR	
	323847	1	HEAT SINK	
	323835	1	CIRCUIT BOARD, ETCHED	
	300116	1	COVER, INSULATING	

ASSEMBLY, CIRCUIT (SMD WITH SIGNAL COMBINER)

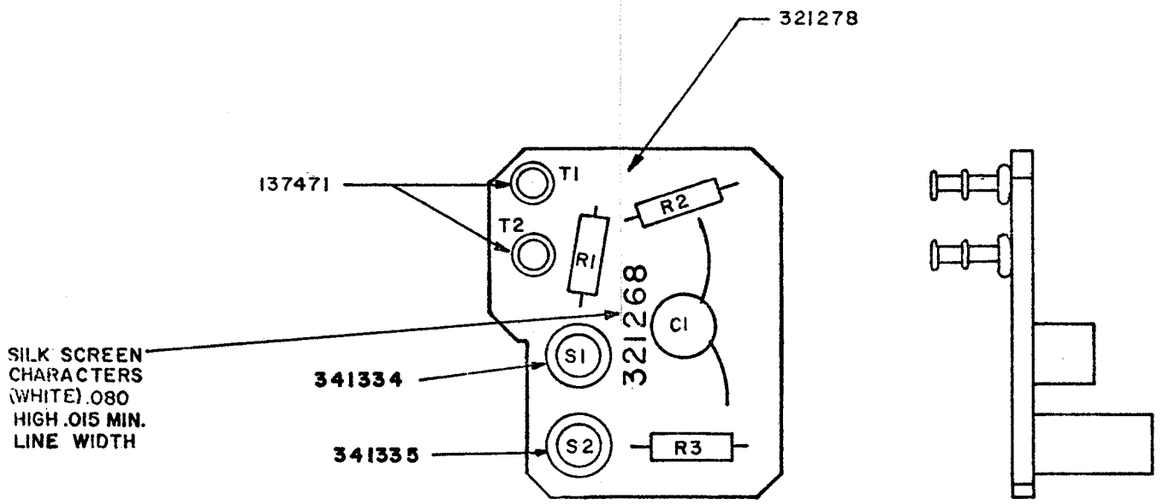


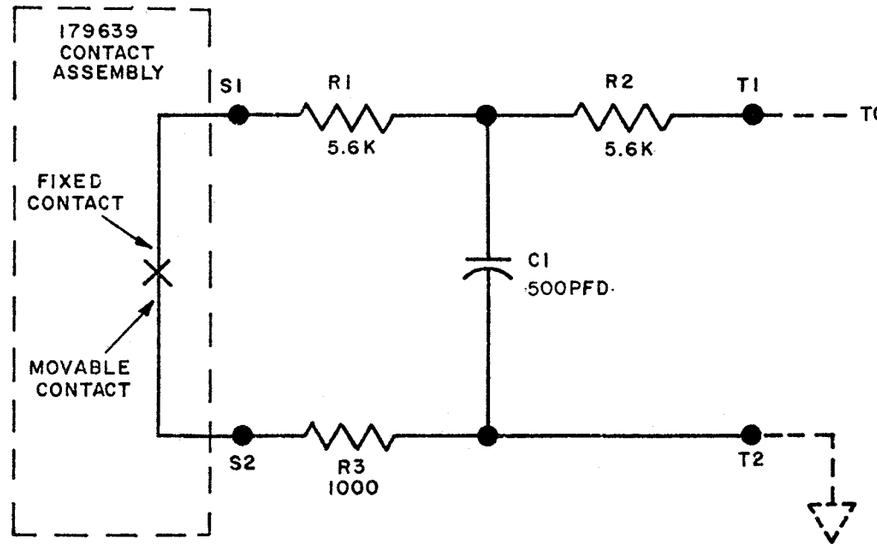


NOTES:

1. TRANSISTOR Q2 HAS 323847 HEAT SINK PRESSED ON.
2. USE 323846 TRANSISTOR PAD UNDER TRANSISTOR Q3.
3. REFERENCE SPECIFICATION FOR TELETYPE CORP. EMPLOYEES ONLY: 61,264S
4. REFER TO 8143MD FOR SCHEMATIC WIRING DIAGRAM.
5. ALL CHARACTERS TO BE .125 HIGH AND PRINTED WITH WHITE ENAMEL.
6. ALL PRINTED CHARACTERS TO BE LOCATED +.031 FROM NOMINAL.
7. Q3 HAS 300116 INSULATING COVER. POSITION Q3 (WITH COVER) SO THAT 323847 HEAT SINK MAY BE FULLY SEATED ON Q2.
8. 144495 TRANSISTOR PAD REQUIRED ON Q1, Q4, Q5, Q8 AND Q9, AND Q2.

Figure 5-51. 323810 Selector Magnet Driver (SMD) With Signal Combiner Schematic Wiring Diagram (Sheet 2 of 2)





REF. DESIGN	TELETYPE PART NO.	TOTAL QTY.	NAME AND DESCRIPTION	LOCATING FUNCTION
R1	315960	2	RESISTOR, 5.6K 1/4 WATT	RC FILTER
R2	"		SAME AS R1	"
R3	321213	1	RESISTOR, 1000 Ω 1/4 WATT	"
C1	321157	1	CAPACITOR, 500 PFD	"
T1	137471	2	TERMINAL, SOLDER	
T2	"		"	
S1	341334	1	STUD, CONNECTOR	
S2	341335	1	"	
321278	321278	1	BOARD, ETCHED CIRCUIT	

NOTE:

DASHED LINES INDICATE EXTERNAL CIRCUITRY.

Figure 5-52. 321268 Filter Card Assembly

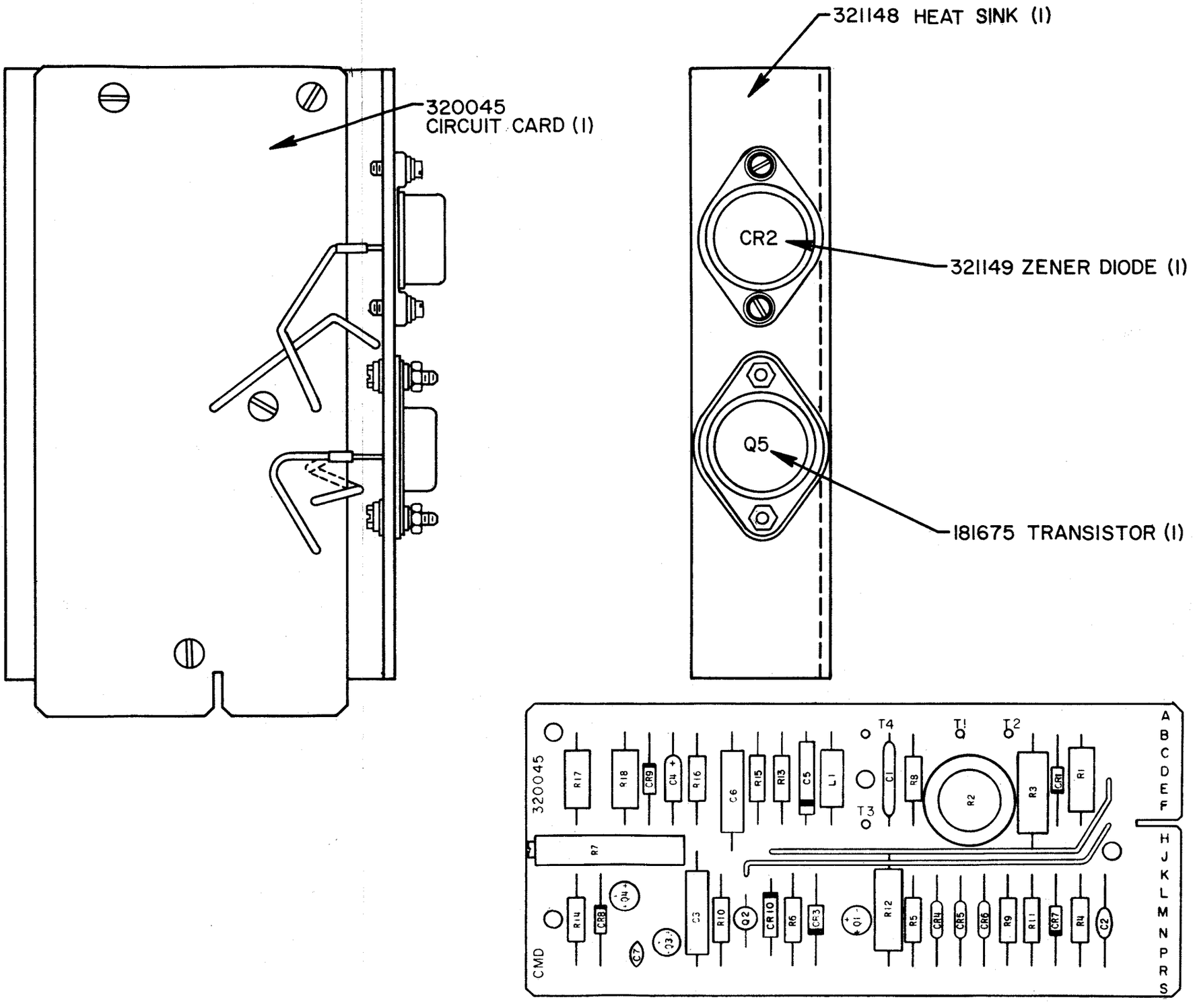


Figure 5-53 Clutch Magnet Driver 321991 (Sheet 1 of 2)

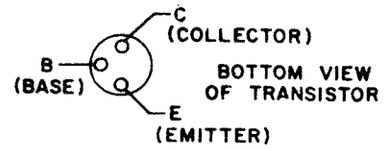
USED ON 321991

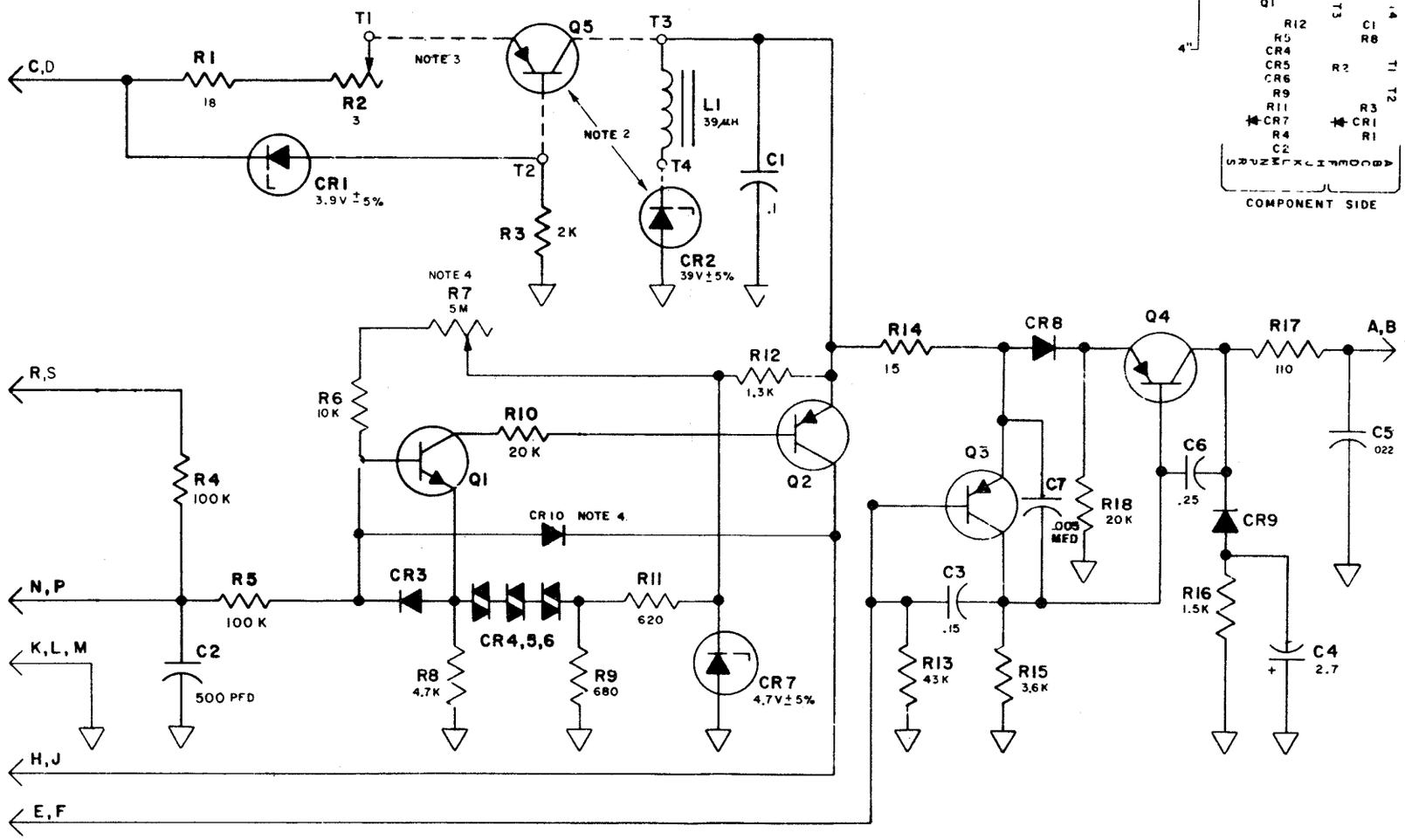
NO B/M

ASSEMBLY, CIRUIT CARD (CMD)

REF. DESIG.	TELETYPE PART NO.	TOTAL QTY.	NAME AND DESCRIPTION	LOCATING FUNCTION
R1	327793	1	RESISTOR, 18 OHM 3W, ±1%	REG. CURRENT LIMITER
R2	182773	1	POTENTIOMETER, 3 OHM, 2.5W	REG. CURRENT ADJ.
R3	321155	1	RESISTOR, 2K, 2W, 5%	CR1 CURRENT LIMITER
R4	118720	1	RESISTOR, 100K, 1/2W, 5%	Q1 OPEN LINE BIAS
R5	118720	1	RESISTOR, 100K, 1 2W, 5%	INPUT RESISTOR
R6	129854	1	RESISTOR, 10K, 1 2W	Q1 BIAS
R7	321160	1	POTENTIOMETER, 5M	Q1 BIAS
R8	118146	1	RESISTOR, 4.7K, 1 2W, 5%	Q1 EMITTER RES
R9	129850	1	RESISTOR, 680 OHM, 1 2W, 5%	VOLTAGE DIVIDER
R10	321258	1	RESISTOR, 20K, 1/2W, 5%	Q1 LOAD RES
R11	137604	1	RESISTOR, 620 OHM, 1 2W, 5%	VOLTAGE DIVIDER
R12	321292	1	RESISTOR, 1.3K, 2W, 5%	CR7 CURRENT LIMITE
R13	139143	1	RESISTOR, 43K, 1 2W, 5%	Q2 LOAD RES.
R14	321259	1	RESISTOR, 15 OHM, 1 2W, 5%	Q3 EMITTER RES.
R15	165178	1	RESISTOR, 3.6K, 1 W, 5%	Q3 LOAD RES.
R16	137442	1	RESISTOR, 1 5K, 1/2W, 5%	Q4 BLEEDER RES
R17	321151	1	RESISTOR, 110 OHM, 3W, 1%	COIL CURRENT LIMITER
R18	321258	1	RESISTOR, 20K, 1/2W, 5%	CR8 BIAS RES.
C1	321158	1	CAPACITOR, .1 MFD.	R.F. BY-PASS CAP
C2	321157	1	CAPACITOR, 500 PFD.	R.F. BY-PASS CAP
C3	171829	1	CAPACITOR, .15 MFD.	Q3 FEEDBACK CAP
C4	321264	1	CAPACITOR, 50V, 2.7 MFD.	TRANSIENT SUPP.
C5	178860	1	CAPACITOR, 100V, .022 MFD.	R.F. BY-PASS
C6	171587	1	CAPACITOR, 200V, .25 MFD.	Q4 FEEDBACK CAP.
C7	171583	1	CAPACITOR, .003 MFD	R.F. BY-PASS CAP.
L1	321159	1	CHOKE, 39.0μH	R.F. CHOKE
CR1	321161	1	DIODE, 1N748A, 3.9V ± 5%	REG. VOLT. REF.
CR3	321154	1	DIODE, 1N457A	Q1 BASE PROT.
CR4	178844	1	VARISTOR, 100-A	TEMP. COMP.
CR5	178844	1	VARISTOR, 100-A	TEMP. COMP.
CR6	178844	1	VARISTOR, 100-A	TEMP. COMP.
CR7	181667	1	DIODE, 1N704A, 4.7V ± 5%	TEMP. COMP. REF.
CR8	177611	1	DIODE, 1N382	Q4 EMITTER DIODE
CR9	321154	1	DIODE, 1N457A	TRANSIENT SUPP.
NOTE 4 CR10	321154	1	DIODE, 1N457A	SHORT PROT.
Q1	321166	1	TRANSISTOR, 2N1893	D.C. AMP.
Q2	324144	1	TRANSISTOR, 2N4121	D.C. AMP.
Q3	321165	1	TRANSISTOR,	D.C. AMP.
Q4	321261	1	TRANSISTOR, 2N4036	D.C. AMP.
	324147	1	PAD, TRANSISTOR	Q2
	144495	3	PAD, TRANSISTOR	Q1,Q3,Q4
	321299	1	CIRCUIT BOARD, ETCHED	
	321171	2	LEAD (BK)	
T1-T4	137471	4	LUG, TERMINAL	

NO.	NOTES
1.	ALL RESISTORS 1/2 WATT, ALL RESISTANCE VALUES IN OHMS AND ALL CAPACITANCE VALUES IN MFD. UNLESS OTHERWISE SPECIFIED.
2.	Q5 (181675) AND CR2 (321149) ARE MOUNTED TO 321148 HEAT SINK. SEE CMD ASSEMBLY 321991
3.	R2 IS ADJUSTED FOR 15 MA IN CR2 WITH INPUT MARKING (+6) AND OUTPUT CONNECTED TO A 150 OHM RESISTOR (5W)
4.	R7 IS ADJUSTED FOR SYMMETRICAL SWITCHING ABOUT ZERO.
5.	PINS A,B 140 MA TO COILS PINS R,S -6V DC PINS C,D +47 TO 53V DC POWER PINS E,F,H,J CONTROL CONTACT PROVISION PINS N,P MS 1888 SIGNAL INPUT PINS K,L,M COMMON (ALL INPUTS AND OUTPUTS REFERRED TO COMMON)
6.	$-NUMBER 61,263$





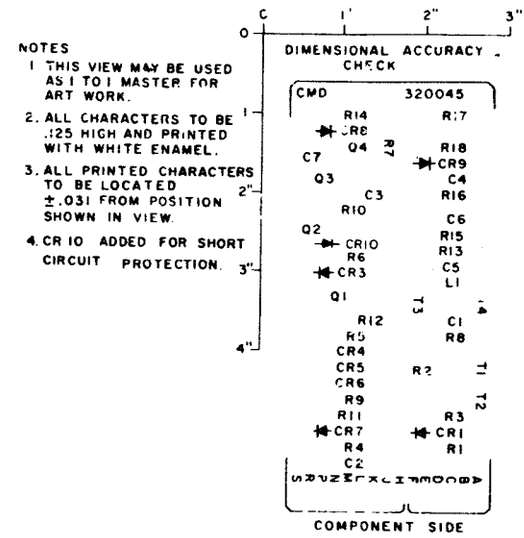


Figure 5-53 Clutch Magnet Driver 321991 (Sheet 2 of 2)