

TABLE A-DESCRIPTION OF LIST				
COL	A	B	C	D
EQUIPMENT	RATING	LIST	NO	CIRCUITS AND FIGURES EQUIPPED
FRAMEWORK, ASSEMBLY, WIRING AND COMMON EQUIPMENT FOR ONE INITIAL LINE FINDER SHELF UNIT FOR TWENTY 200 POINT 3 WIRE LINE FINDERS, INCLUDING 20 SETS OF 3 WIRE MULTIPLE BANKS AND 98 COMBINATORS, BUT NOT INCLUDING STATION LINE RELAYS NOR LINE FINDERS. (SEE NOTE 56)			1	20 T-65901-11 FIG 1 T-65901-12 FIG 2 T-65901-13 FIG 3, 4 T-65901-14 FIG 1, 2 T-65901-15 FIG 1 T-65901-16 FIG 2, 3
SAME AS LIST 1 EXCEPT EQUIPPED WITH (SEE NOTE 56, 57 & 58)			2	6 SAME AS LIST 1 EXCEPT IN ADDN J58318-1 L-1
60 STATION LINE RELAYS (CKTS 20 TO 79 LOWER NBD HUND GROUP)			3	8 SAME AS LIST 1 EXCEPT IN ADDN J58318-1 L-1
30 STATION LINE RELAYS (CKTS 10 TO 39 LOWER NBD HUND GROUP) (SEE NOTE 57)			4	9 SAME AS LIST 1 EXCEPT IN ADDN J58318-1 L-2
98 STATION LINE RELAYS (CKTS 00 TO 89 & 91 TO 99 LOWER NBD HUND GROUP)			5	11 SAME AS LIST 1 EXCEPT IN ADDN J58318-1 L-1 J58318-1 L-2
118 STATION LINE RELAYS (CKTS 00 TO 89 & 91 TO 99 LOWER NBD HUND GROUP)			6	13 SAME AS LIST 1 EXCEPT IN ADDN J58318-1 L-1 J58318-1 L-2
138 STATION LINE RELAYS (CKTS 00 TO 89 & 91 TO 99 LOWER NBD HUND GROUP)			7	15 SAME AS LIST 1 EXCEPT IN ADDN J58318-1 L-1 J58318-1 L-2
158 STATION LINE RELAYS (CKTS 00 TO 89 & 91 TO 99 LOWER NBD HUND GROUP)			8	17 SAME AS LIST 1 EXCEPT IN ADDN J58318-1 L-1 J58318-1 L-2
178 STATION LINE RELAYS (CKTS 00 TO 89 & 91 TO 99 LOWER NBD HUND GROUP)			9	19 SAME AS LIST 1 EXCEPT IN ADDN J58318-1 L-1 J58318-1 L-2
198 STATION LINE RELAYS (CKTS 00 TO 89 & 91 TO 99 LOWER NBD HUND GROUP)				
WIRING AND EQUIPMENT REQUIRED IN ADDITION TO LISTS 1 TO 9 ON ALL JOBS USING ISSUE 7 OR LATER OF THIS DRAWING.	MFR DISC	A	1	T-65761-11 FIG 8
WIRING AND EQUIPMENT REQUIRED IN ADDITION TO LISTS 1 TO 9 ON ALL JOBS USING ISSUE 9 OR LATER OF THIS DRAWING.	MFR DISC	B	1	T-65761-11 FIG 8 T-65901-12 FIG 0
EQUIPMENT REQUIRED IN ADDITION TO LISTS 1 TO 9 ON ALL JOBS USING ISSUE 10 OR LATER OF THIS DNG.	MFR DISC	C		
EQUIPMENT REQUIRED IN ADDITION TO LISTS 1 TO 9 ON ALL JOBS USING ISSUE 11 OR LATER OF THIS DRAWING.	MFR DISC	D	1	H-912-170 G-1
EQUIPMENT REQUIRED IN ADDITION TO LISTS 1 TO 9 ON ALL JOBS USING ISSUE 14 OR LATER OF THIS DRAWING.	MFR DISC	E	1	T-63761-11 FIG. B T-65901-12 FIG. D H-912-170 G-1
ALWAYS REQUIRED IN ADDITION TO LISTS 1 TO 9. (SEE NOTE 63)		F	1	T-65761-11 FIG. B T-65901-12 FIG. D T-65901-12 FIG. 11 H-912-170 G-1
EQUIPMENT REQUIRED IN ADDITION TO LISTS 1 THRU 9 WHEN OUTGOING RESTRICTION FEATURE IS REQUIRED. (ONE LIST G PER 200 LINES) (SEE NOTE 27 & 28)		G	1	T-66715-11 FIG. II B WRG E WRG (INSTALLER WIRED)

ENGINEERING NOTES

- INFORMATION FURNISHED PER THIS DRAWING IS IN ACCORDANCE WITH BSP 809-903-151.
- FOR MOUNTING PLATE DRILLING DATA NOT APPARENT IN STOCKLIST, SEE TABLE B.
- WIRING AND APPARATUS REQUIRED FOR COMPONENT "J" EQUIPMENT COFS COVERED IN STOCKLIST AND TABLE "A" ARE SHOWN ON THE COMPONENT "J" EQUIPMENT DRAWING.
- ASSOCIATED SWITCH FRAME ASSEMBLY ED-66556-70.
- THIS SHELF UNIT IS ARRANGED TO MOUNT LINE FINDERS PER SD-65901-01 THE UNIT SHALL BE SHIPPED WITHOUT THE SWITCHES IN ORDER TO REDUCE ITS WEIGHT AND FACILITATE HANDLING AT THE SUBSCRIBER'S PREMISES.
- LINE 19 & 10 IN LOWER NBD HUND GROUP ARE ASSIGNED FOR TEST LINES FOR 2 DIGIT PBX INSTALLATIONS AND LINES 99 & 90 IN EACH HUNDREDS GROUP ARE ASSIGNED FOR TEST LINES FOR 3 OR 4 DIGIT PBX INSTALLATIONS.
- WHEN 2 DIGIT ONLY PBX INSTALLATION IS EQUIPPED WITH 90 STATION LINE RELAYS, THE LINE AND CUT-OFF RELAYS FOR LINES 19 AND 10 SHALL BE DISCONNECTED AND LEFT IN PLACE IN CONNECTION WITH THESE LINES BEING USED FOR TEST LINES.
- LINE AND CUT-OFF RELAYS ARE OMITTED FROM LINES 99 & 90 FOR TEST LINES IN EACH HUNDREDS GROUP WHEN LIST 4, 5, 6, 7, 8 OR 9 IS FURNISHED.
- LINE FINDERS SHALL BE EQUIPPED IN THE FOLLOWING ORDER: DEPENDING UPON THE CAPACITY OF THE LINE FINDER GROUP:

LINE FOR GROUP	START LEAD ARRANGEMENT PER T-65901-16	ORDER IN WHICH LINE FORS ARE TO BE EQUIPPED
20 LINE FORS	FIG 1, A	11, 12, 13, 14, 15, 16, 17, 18, 19, 10, 11, 16, 14, 9, 12, 7, 3, 18, 5, 20
32 LINE FORS	FIG 1, B AND 2, C	1, 2, 3, 4, 5, 6, 7, 11, 12, 13, 14, 18, 19, 20, 25, 26, 27, 28, 29, 30, 31, 3, 15, 22, 9, 16, 23, 10, 17, 24, 32, 31
36 LINE FORS	FIG 1, B; 2, D AND 3	1, 2, 3, 4, 5, 6, 7, 11, 12, 13, 14, 18, 19, 20, 25, 26, 27, 28, 29, 30, 33, 34, 35, 36, 21, 8, 15, 22, 9, 16, 23, 10, 17, 24, 32, 31
40 LINE FORS	FIG 1, B; 2, E AND 4	1, 2, 3, 4, 5, 6, 7, 11, 12, 13, 14, 18, 19, 20, 25, 26, 27, 28, 29, 30, 33, 34, 35, 36, 37, 38, 39, 40, 21, 8, 15, 22, 9, 16, 23, 10, 17, 24, 32, 31
44 LINE FORS	FIG 1, B; 2, F AND 2, G	1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 17, 19, 20, 21, 22, 24, 25, 26, 27, 28, 30, 33, 34, 35, 36, 37, 38, 39, 41, 14, 29, 42, 7, 23, 16, 5, 40, 32, 44, 31, 43

- STATION LINE RELAY EQUIPMENT PER J58318-1 SHALL BE FURNISHED FOR EQUIPPING STATION LINE CIRCUITS ON EXISTING PARTIALLY EQUIPPED SHELF UNITS. LINE CIRCUITS SHALL BE EQUIPPED ON A MULTIPLE BASIS OF 20 CIRCUITS AND IN ACCORDANCE WITH THE FOLLOWING ORDER:
2 DIGIT PBX
CIRCUITS 11-10 & 91-90 OF LOWER NBD HUND GROUP
3 OR 4 DIGIT PBX
HIGHER NBD HUND GROUP CIRCUITS 01-00 & 11-10; 21-20 & 31-30; 41-40 & 51-50; 61-60 & 71-70; 81-80 & 91-90.
- RED "PLASTIC SLEEVES" P-328126, IN A PACKAGED LOT OF 200, ARE FURNISHED WITH THIS SHELF UNIT FOR USE IN INSULATING CONTACTS OF L & CO RELAYS WHEN IT IS DESIRED THAT THIS METHOD BE EMPLOYED IN CONNECTION WITH THE UNRESTRICTED SERVICE FEATURE OR NIGHT SERVICE FEATURE. UNUSED SLEEVES MAY BE RETAINED IN THE SAME PACKAGED CONTAINER TO PREVENT CONTAMINATION FROM DUST AND FOREIGN MATTER DURING STORAGE. (SEE NOTE 21)
- THE ENGINEER SHALL SPECIFY THE FOLLOWING APPARATUS FOR T-65761-11 FIG. C WHICH SHALL BE INSTALLED LOCALLY AT REAR OF THE (RM) RELAY:
210A TERM
KS8512 L-19A RES (100Ω)
KS16390 L-8 CAP (40UF)
- GRP TST LP (T-65901-12 FIG. 11) MOUNTED PER ED-31154-70 G-2 ON POS. 3) NEED NOT BE CONNECTED IN OFFICES HAVING 5 OR LESS LINE GROUPS.
- WHEN SWITCH SHELVES ARE ADDED IN UNIVERSAL SWITCH FRAMES (ED-66556-70) INSTALLED PRIOR TO AUG. 1964, THE EXISTING FRAME DROP LEADS, IF NOT EXTENDED, THEY SHALL BE EXTENDED TO SERVE AN ULTIMATE FULLY EQUIPPED BAY AS SHOWN ON ED-66574-10 FIG. 1. THE ENGINEER SHALL ORDER MATERIAL FOR EACH SIDE OF THE FRAME AS FOLLOWS:
40 FT KS-5482-01 #6 PWR WIRE.
2 KS-3537 L-105 PARA CA CONN (#6-#6).
2 KS-5537 L-109 PARA CA CONN (#6-#14) FOR EACH SHELF ADDED THEREAFTER.

TABLE B- (SEE NOTE 52)			
DRILLINGS FOR U TYPE RELAYS ARE FOR TWO WINDING TERMINALS PER SPRING COMBINATION UNLESS OTHERWISE SPECIFIED			
DRILL FOR	FIG. B	POSITIONS IN SK	SK
U REL 11/4	200, 210		

SHEET INDEX									
SH NO.	1	20	21	22	23	24	25	26	27
1									
2									
3									
4									

LINE	NAME	SCHEMATIC	DWG NUMBER	19	OPT WIRING	WIRED	NOTES	REMARKS
COL	P	R	COL	P	R	COL	P	R
CIRCUITS								
WIRING PROVIDED IN THE LOCAL CABLE								
10				20				
9				19				
8				18				
7				17				
6				16				
5	SHED CABLE DETAIL	H-912-170		15	MODULAR FUSE BLOCK MTG INFO		H-919-305	
4	STATION LINE REL UNIT	J58318-1		14	MODULAR FUSE BLOCKS & ASSY		ED-96131-10	
3	INITIAL LINE FOR UNIT LOC CA PLAN	#ED-66541-10		13	LOOSE WIRING RUNNING INFORMATION		#SHJ58318-1	
2	INITIAL LINE FOR UNIT FRWK ASSY	ED-66540-70		12	SOLDERING RECORD		#SHJ58318-1	
1	BANK SUPPORTS	#ED-30055-50		11	LAMP & JACK PANEL		ED-31154-70	
					21A FUSE BLOCK & ACCESSORIES		#ED-92999-10	
LINE	NAME	SCHEMATIC	DWG NUMBER	19	OPT WIRING	WIRED	NOTES	REMARKS
COL	P	R	COL	P	R	COL	P	R

LIST OF ASSOCIATED DRAWINGS
DRAWINGS DESIGNATED * WILL NOT BE REQUIRED BY THE INSTALLER

MANUFACTURING NOTES (CONT)

- SEE ED-92999-10 FOR ASSY OF END BLOCKS, FUSE BLOCKS AND 10M STRIPS, BUS BAR, INSULATOR AND COVER ON 2174 MTG PLT (FIG A) FOR MTG OF P-308476 TERM & OTHER RELATED INFO.
- EACH FUSE BLOCK "B" TERM SHALL BE CONNECTED TO THE BATTERY BUS BAR WITH 22GA BARE WIRE AND EACH FUSE BLOCK "A" TERM SHALL BE SLEEVED WITH KS-7851 NO 16 SLEEVE AND ALL OF THE "A" TERMS SHALL BE CONNECTED TOGETHER WITH 22GA WIRE IN THE MANNER AS INDICATED ON ED-92899-10.
- FOR 2 DIGIT PBX INSTALLATIONS ONLY, THE HUNDREDS GROUP NUMBER, RELAY FUNCTIONAL DESIGNATIONS L & CO AND SD-66715-01 STAMPING SHALL BE ON THE STATION LINE RELAY EQUIPMENT FOR CKTS 21-20 WHEN SHELF UNIT IS EQUIPPED WITH 60 STATION LINE RELAYS AND ON THE STATION LINE RELAY EQUIPMENT FOR CKTS 11-10 WHEN SHELF UNIT IS EQUIPPED WITH 80 STATION LINE RELAYS.
- THE 21A, 21A AND 23A FANNING STRIP SHALL BE MOUNTED WITH THE HOLES SERVING WIRING TO THE TERM STRIP TOWARD THE FRONT.
- THE 200 P-328126 NEW PLASTIC SLEEVES FURNISHED WITH THIS SHELF UNIT ARE FOR USE IN INSULATING IN CONTACTS OF L & CO RELAYS IN CONNECTION WITH THE UNRESTRICTED SERVICE FEATURE OR NIGHT SERVICE FEATURE AS COVERED ON STATION LINE CKT T-66715-11 AND SHALL BE USED FOR THESE FEATURES ONLY WHEN SO DIRECTED BY THE TEL CO UNLESS P-328126 SLEEVES SHALL BE STORED AS DIRECTED BY THE TEL CO.
- IN FIGURES E, F, G, H & J DESIGNATIONS ST, RT, TL, LF, C, S, 52 & 53 ARE CAST INTO THE 250A TERM STRIPS.
- SHIP IN SEPARATE CONTAINER FROM THAT OF MOUNTING DETAILS TO PREVENT DAMAGE TO DESIGN CARD.
- THE INSTALLER SHALL MAKE ALL TIES SECURE NO 12 CORD.
- SHOP SHALL ASSEMBLE FUSE EQUIPMENT (FIG A-1) IN ACCORDANCE WITH ED-95131-10 AND H-919-305.
- PROVIDED WITH ED-66556-70 G-1, THE TWO KS-5537 L-109 PARALLEL CABLE CONNECTORS SHALL BE CONNECTED TO THE 16 GA STUD LEADS PROVIDED WITH THE FUSE AND TO THE ASSOCIATED #6 FEEDER DROP LEADS.
- THE INSTALLER SHALL MOUNT THE 251H TERM STRIP ON CABLE RACK STRINGER PER FIG. U, SECT. CC AND STAMP PER FIG. T.
- DISCARD ONE OF THE THREE MOUNTING SCREWS FURNISHED WITH 251H TERM STRIP.
- "S" ITEMS NOT ASSEMBLED BUT SHIPPED SEPARATE.

MANUFACTURING NOTES

- PARTS (A) REQUIRED FOR MANUFACTURE WHEN THE EQPT INVOLVED IS SHOP MOUNTED OR (B) TO BE SHIPPED ATTACHED TO, OR ENCLOSED IN THE SAME CONTAINER WITH THE ASSOCIATED ASSEMBLED ITEM WHEN FIELD MOUNTED.
- () INDICATES DESIGNATIONS THAT ARE STAMPED IN ACCORDANCE WITH JOB INFORMATION.
- () INDICATES DESIGNATIONS SHOWN FOR INFORMATION ONLY AND ARE NOT TO BE STAMPED.
- EQUIP CIRCUITS PER TABLE A IN ACCORDANCE WITH LISTS C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- PARTS THAT ARE TO BE SHIPPED ATTACHED TO, OR ENCLOSED IN THE SAME CONTAINER WITH, THE ASSOCIATED ASSEMBLED ITEM.
- ONE BANK SUPPORT ED-30055-50 G-1 SHALL BE USED AT EACH UNEQUIPPED LINE FINDER POSITION AND MUST BE REMOVED WHEN THE SWITCH POSITION BECOMES EQUIPPED WITH A LINE FINDER SWITCH.
- INSERT ONE P-33405 INSULATOR BETWEEN ADJACENT LEVELS OF WIRING TERMINALS OF 420A, 420A AND 520A BANKS EXCEPT THE BANKS FOR LINE FINDER POSITION.
- EXISTING AND NEW MACHINE WIRED TYPE BANKS 42E, 42EA AND 52EA, REPAIRING REPLACEMENT, SHALL BE REPLACED BY 320A AND 520A TYPE BANKS 42D, 42DA AND 52DA RESPECTIVELY.
- ONE P-379927 CONNECTOR SHALL BE USED BETWEEN JACK SPRING 14 AND 16, AS SHOWN IN SK A, FOR EACH UNEQUIPPED LINE FINDER POSITION AND MUST BE REMOVED WHEN THE SWITCH POSITION BECOMES EQUIPPED WITH A LINE FINDER SWITCH.
- (A) "ALM" FUSE POSITION (B) SHALL BE EQUIPPED WITH 700 FUSE AND GREEN KS-14174 L-4 PIN.
(B) "ALM" FUSE POSITION (C) AND "TOP" FUSE POSITIONS (C), (D) & (E) SHALL BE EQUIPPED WITH 70A FUSES AND WHITE KS-14174 L-1 PINS.
(C) EACH SPARE FUSE POSITION SHALL BE EQUIPPED WITH 72A DUMMY FUSE AND NO DESIGNATION PIN.
- EACH "LF" AND "L" FUSE POSITION SHALL BE EQUIPPED WITH 70A FUSE AND WHITE KS-14174 L-1 PIN, BY THE SHOP, WITH REPLACEMENT MADE AS REQUIRED, BY THE INSTALLER, TO AGREE WITH THE FOLLOWING:
(A) EACH "LF" FUSE POSITION ASSOCIATED WITH EQUIPPED LINE FINDER SWITCH AND EACH "L" FUSE POSITION ASSOCIATED WITH EQUIPPED L & CO RELAYS SHALL BE EQUIPPED WITH 70A FUSE AND WHITE KS-14174 L-1 PIN.
(B) EACH "LF" FUSE POSITION ASSOCIATED WITH NO EQUIPPED LINE FINDER SWITCH AND EACH "L" FUSE POSITION ASSOCIATED WITH NO EQUIPPED L & CO RELAYS SHALL BE EQUIPPED WITH 72A DUMMY FUSES AND NO DESIGNATION PINS.
- SHOP SHALL CONNECT ONE OF THE 2 FT. LENGTHS OF KS-5482-01 WIRE TO P-308476 TERMINAL AND THE OTHER 2 FT. LENGTH OF KS-5482-01 WIRE TO THE BATTERY BUS BAR OF THE FUSE EQUIPMENT (FIG A) IN ACCORDANCE WITH ED-92899-10.
- ONE KS-5537 L-106 PARALLEL CABLE CONNECTOR FOR GROUND CONNECTION AND ONE FOR BATTERY CONNECTION SHALL FASTEN THE NO 8 GA WIRE FROM THE GROUND TERMINAL AND BATTERY BUS BAR RESPECTIVELY OF FIG A TO THE ASSOCIATED NO 6 FEEDER DROP LEADS.
- MOUNTING SCREWS FURNISHED WITH 238A & 241A JACKS AND 478 LAMP SOCKET SHALL BE DISCARDED AND REPLACED BY P-424316 BSHST SCREWS.
- SCREWS FURNISHED WITH 255E & 258A TERM STRIP 21A & 23A FANNING STRIP SHALL BE DISREGARDED & REPLACED BY P-424316 BSHST SCREWS.
- DESIGNATION CARD P-402917 PROVIDES INDIVIDUAL SWITCH DESIGNATION CARDS FOR THE LINE FINDERS THAT ARE TO BE MOUNTED ON THIS SHELF UNIT.

(CONT AT LEFT)

K13	L20	N21	R24		
ORIGINAL ISSUE				2-18-58	
REFURNISHED TO COMPLY WITH M.F. STANDARDS.				A.T.E.T.CO. CL: NONE	
W.E.CO. CL: DD				13	
LIST E, NOTES 25 & 26 ADDED.					
LISTS B, C & D, NOTES 12, 13, 17 & 18 RATING WAS STANDARD.					
NDD-58831-2W				A.T.T.CO. CL: D	
3-9-64				W.E.CO. CL: DD	
ON SH, NOTE 15 REF TO 258A & 23A				14	
ADDED ON SH 2 IN SL LINE 233 COL X 3 LINED OUT & 18 ADDED				A.T.E.T.CO. CL: NONE	
W.E.CO. CL: DD				15	
ON SH 1, NOTE 62 ADDED				A.T.E.T.CO. CL: DD	
W.E.CO. CL: DD				16	
ON SH 2, FIG A, ADDITIONAL STAMPING ADDED.				A.T.T.CO. CL: NONE	
W.E.CO. CL: DD				17	
IN SL LINES 246 & 247 LINED OUT, LINES 274 & 275 ADDED.				A.T.E.T.CO. CL: D	
W.E.CO. CL: DD				18	
IN NOTE 55 REF TO THE UNIT SHALL BE SHIPPED WITHOUT THE SWITCHES IN ORDER TO REDUCE ITS WEIGHT AND FACILITATE HANDLING AT THE SUBSCRIBER'S PREMISES ADDED.				A.T.E.T.CO. CL: NONE	
W.E.CO. CL: DD				19	
IN SL LINE 215 LINED OUT. REF TO ED-66556-70 ADDED TO NOTE 26				A.T.E.T.CO. CL: NONE	
W.E.CO. CL: DD				20	
NOTE 64 ADDED				A.T.E.T.CO. CL: NONE	
W.E.CO. CL: DD				21	
IN NOTE 55 REF TO THE UNIT SHALL BE SHIPPED WITHOUT THE SWITCHES IN ORDER TO REDUCE ITS WEIGHT AND FACILITATE HANDLING AT THE SUBSCRIBER'S PREMISES ADDED.				A.T.E.T.CO. CL: NONE	
W.E.CO. CL: DD				22	
IN NOTE 55 REF TO THE UNIT SHALL BE SHIPPED WITHOUT THE SWITCHES IN ORDER TO REDUCE ITS WEIGHT AND FACILITATE HANDLING AT THE SUBSCRIBER'S PREMISES ADDED.				A.T.E.T.CO. CL: NONE	
W.E.CO. CL: DD				23	
IN NOTE 55 REF TO THE UNIT SHALL BE SHIPPED WITHOUT THE SWITCHES IN ORDER TO REDUCE ITS WEIGHT AND FACILITATE HANDLING AT THE SUBSCRIBER'S PREMISES ADDED.				A.T.E.T.CO. CL: NONE	
W.E.CO. CL: DD				24	

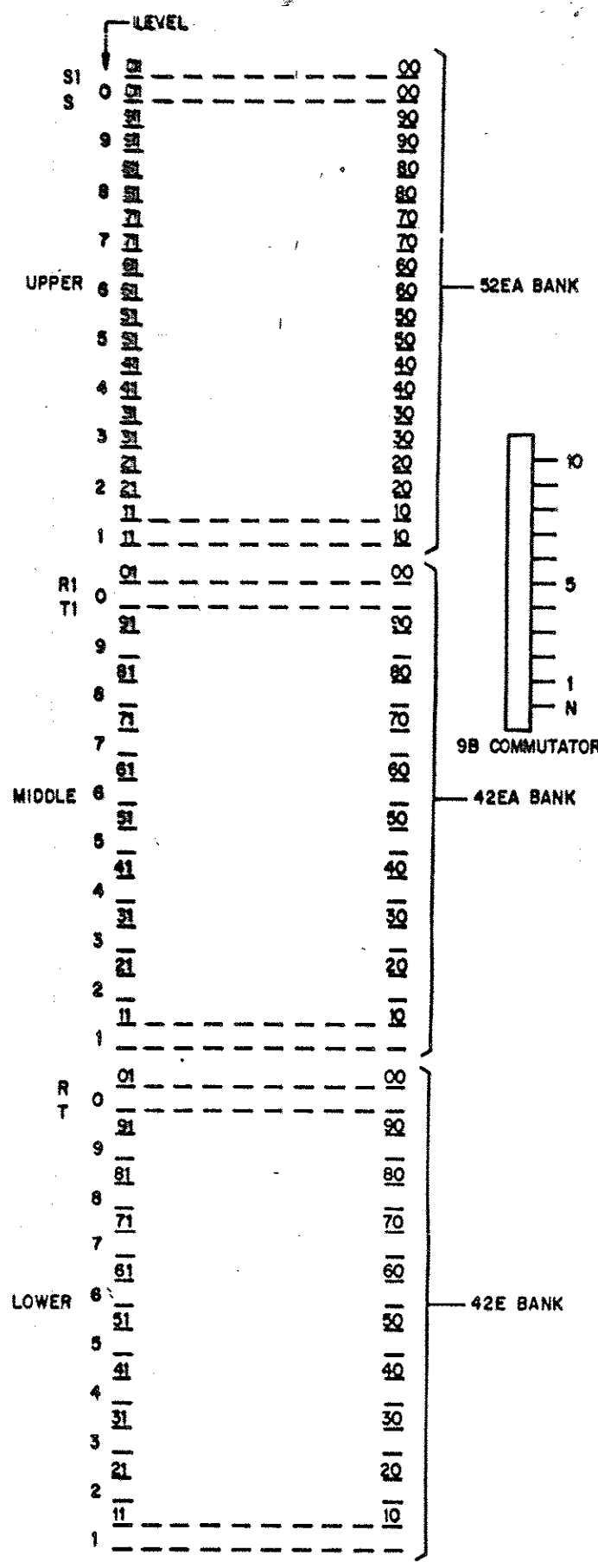


FIG. Q

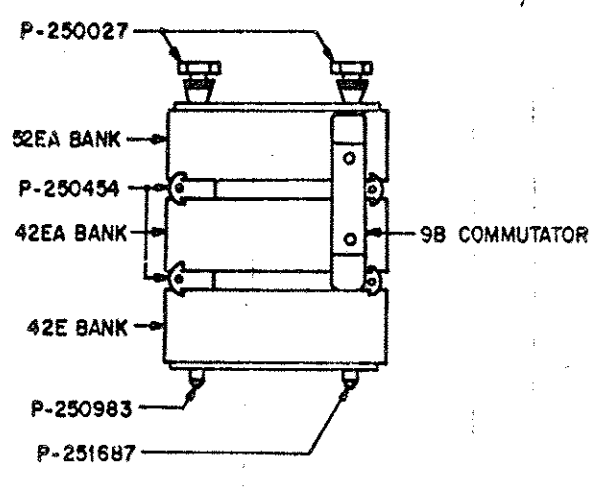


FIG. R

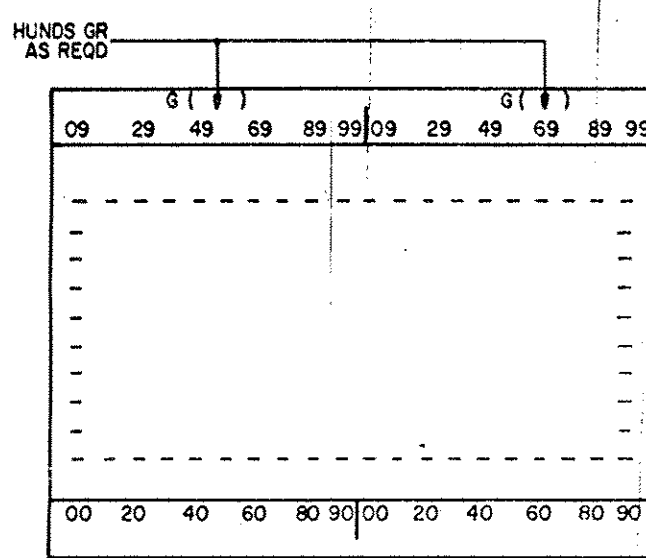


FIG. T

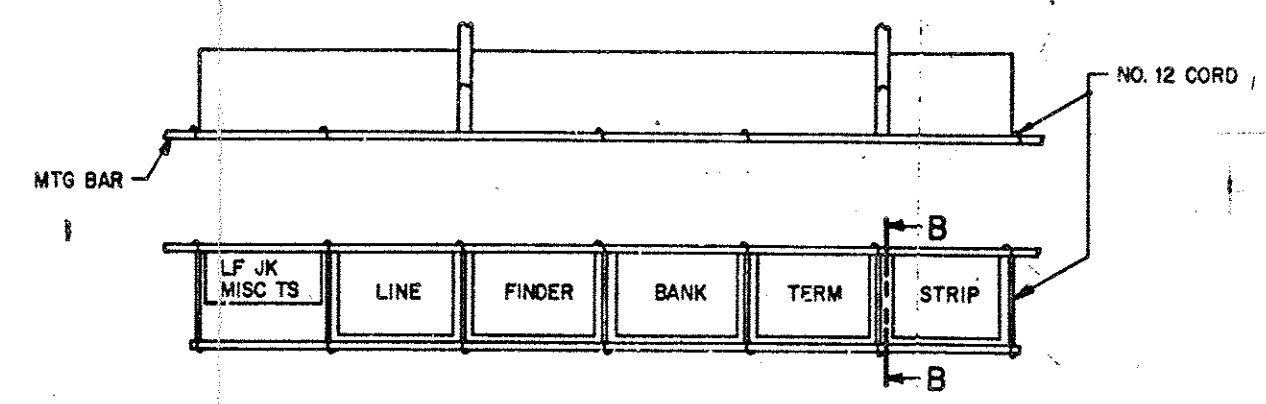
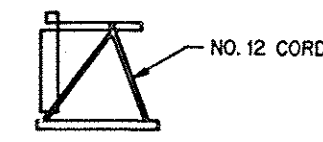


FIG. S



SECT B-B

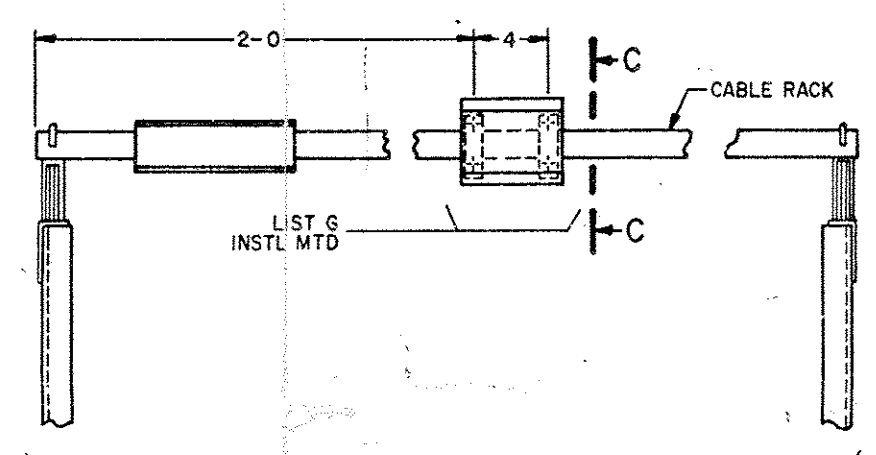
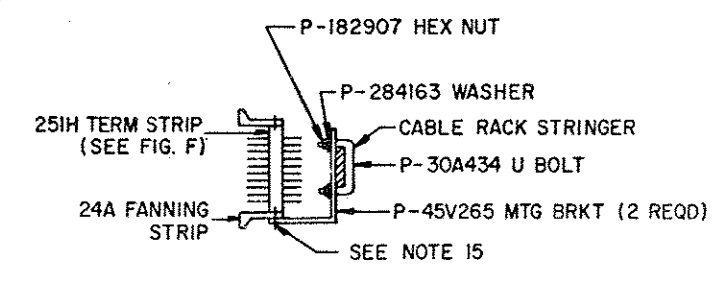


FIG. U



SECT. C-C

