

CIRCUIT NOTES:

101. (A) PROVIDE ONE 1 1/3 AMP FUSE FROM 36 OR 48V TALKING BATTERY FOR EACH FIG. 1 AND 3.
 (B) PROVIDE ONE 13C OR EQUIVALENT RESISTANCE LAMP FOR EACH GROUP OF FIVE CIRCUITS. CONNECT TO CONTINUOUS CENTRAL OFFICE RINGING CURRENT SUPPLY.
 (C) PROVIDE ONE 3 AMP FUSE FROM 36 OR 48V SIGNAL BATTERY FOR 10 OR LESS FIGURES 2. (SEE NOTE 106)

(A&M ONLY)

FEATURE OR OPTION		PROVIDE	
		FIG.	QUANTITY
(A) RESISTOR	32-48V	X	
	44-52V	W	
(B) RESISTOR & (B) CAPACITOR		N, N8M OR Y SEE NOTE 105	
WHEN THE LINE IS IN AERIAL CABLE OR OPEN WIRE AND WHERE INDUCED VOLTAGES WOULD OTHERWISE CAUSE BURNED OUT LAMPS		3	
REPEATED RINGING		R	
BYPASS RINGING		Q	

RECORD OF FIGURES, WIRING AND APPARATUS CHANGES						
CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT		
				STD	A&M	MD
2D	178EK REL	178EH		178EK		178EH
2D	X OR W	X		X, W		
2D	Y OR Z	Y		Y, Z		
6D	V OR T	V		T		V
6D	12C OR 13C LAMP	5C LAMP		13C	12C	8C
6D	12A OR 13A LAMP	5A LAMP		13A	12A	8A
7D	M OR N	Z OR Y	102	M, N		Z
7D	R OR Q	R	102	R, Q		
8D	K	NONE		K		
8D				FIG. 3	FIG. 2	
11D	H OR J	J		H		J

104. THE WINDING RESISTANCE AND TERMINAL CONNECTIONS FOR T AND V APPARATUS ARE AS FOLLOWS:

CODE	APPARATUS	WDG RES		TERMINAL CONNECTIONS						
		2-1 OR 6-5	4-3 OR 8-7	S	T	U	V	W	X	Z
101A	V	6Ω	6Ω	4	3	3	7	2	1	6
94N	T	5.5Ω	7.4Ω	2	1	6	5	4	3	8

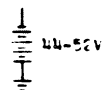
105. PROVIDE M, N OR Y OPTIONS AS REQUIRED TO COMPENSATE THE LOOP RESISTANCE TO CONFORM WITH VALUES SHOWN IN THE RANGE CHART.
 106. PRIOR TO ISSUE 9D, ONE 3 AMP FUSE WAS PROVIDED FROM 36 OR 48V SIGNAL BATTERY FOR 20 OR LESS FIGURES 2.

INFORMATION NOTES:

301. UNLESS OTHERWISE SPECIFIED: RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS.
 302. THE (A) CAPACITOR IN FIG. 1 WAS CHANGED FROM 2.0-2.5 UF (439A) CAPACITOR TO A 2.14-2.18 UF (439QA) CAPACITOR TO FACILITATE THE TESTING OF THE WIRED CIRCUIT IN THE WIRING SHOP.

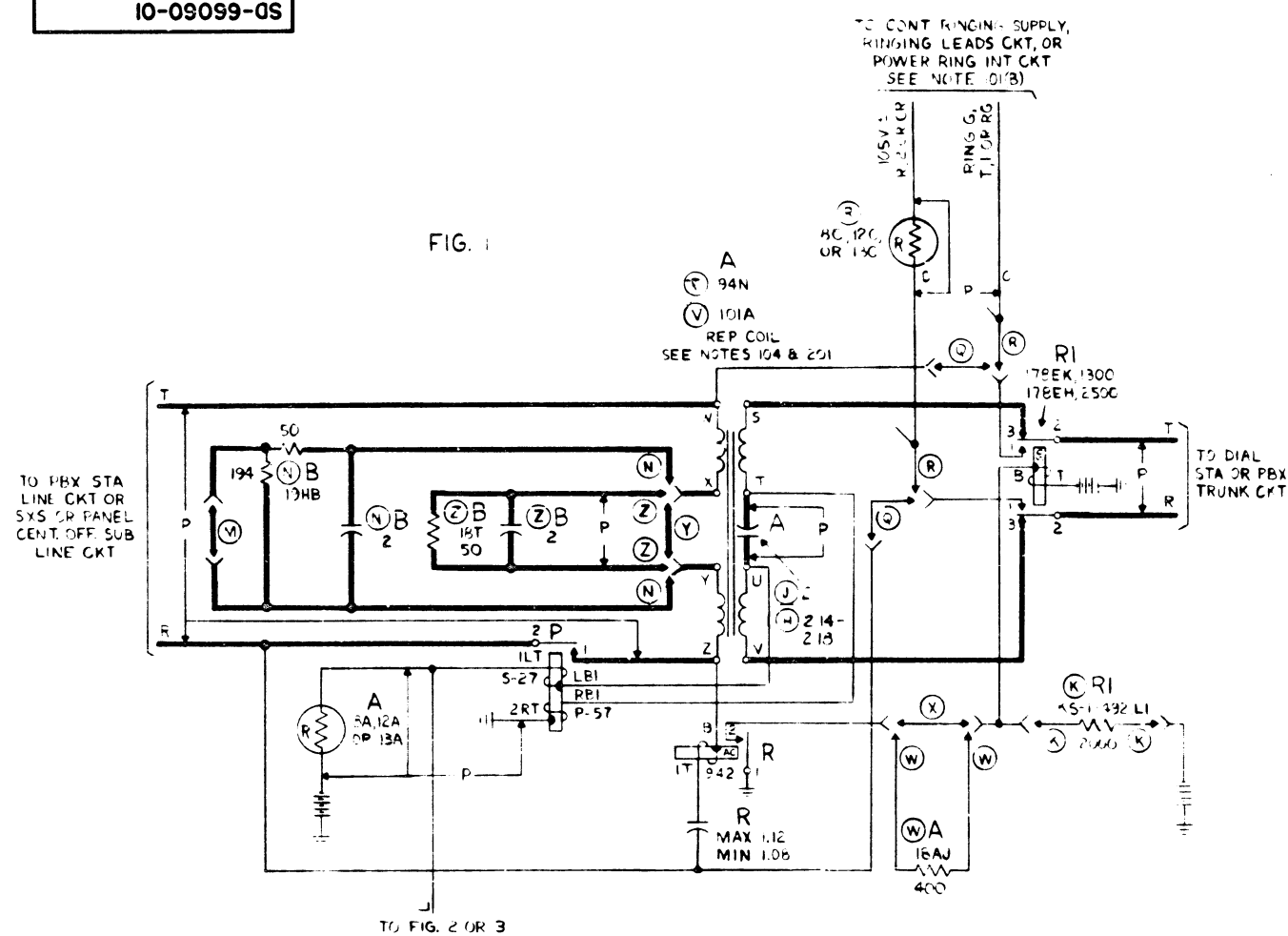
TRANSMISSION TEST REQUIREMENTS (1000 CYCLE LOSS BETWEEN 400 OHM LINES)					
MAX ALLOWABLE CKT LOSS (db)			MAX ALLOWABLE CKT LOSS (db)		
1.0			1.4		
ALLOWABLE INDIVIDUAL APPARATUS LOSSES (db)					
APPARATUS	DESIG	CODE	MAX LOSS	MIN LOSS	REMARKS
CAPACITOR	A, B	2UF	13.7	11.7	
CAPACITOR	A	2.14-2.18UF	12.8	12.1	*H* OPTION
REPEATING COIL	A	94N OR 101A	0.7		
*INDICATES APPARATUS FOR WHICH INDIVIDUAL LOSSES ARE NOT REQUIRED					

*INDICATES APPARATUS FOR WHICH INDIVIDUAL LOSSES ARE NOT REQUIRED



WORKING LIMITS:
SHOWN ON LONG LINE RANGE CHART

FIG. 1



TO FIG. 2 OR 3

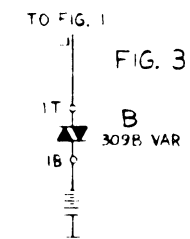
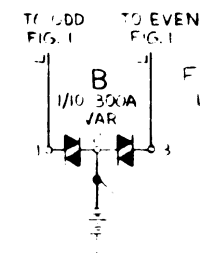


FIG. 3

FIG. 2 (A&M ONLY)
LAMP PROTECTION CKT

FIGURES AND OPTIONS ON THIS DWG	
CKT FIG.	APP OR WIRING
1	Z
2	Y
3	X
	W
	V
	U
	T
	S
	R
	Q
	P
	O
	N
	M

J58824AK
-ED-66060-03
EQUIPMENT INFO

SD-66060-01

PBX SYSTEMS
DIAL LONG LINE CIRCUIT
10 PPS REPEATING
FOR LONG PBX STATION LINES OR
FOR LONG MANUAL SELECTED PBX TRUNKS
TO DIAL CENTRAL OFFICE
FOR USE IN PBX'S WITH
VOLTAGE RANGE OF 32 TO 46V OR 44 TO 52V

BELL TELEPHONE LABORATORIES
INCORPORATED

(DLL)

6S

AT&T
STANDARD

A&M ONLY FOR 700C AND 710C PBX

SD-66060-011
3 SHEETS

PRINTED IN U.S.A.

DIAL LONG LINE CIRCUIT (DLL)

DRAWING ISSUE	
NO	DATE
1	11/1/88
2	11/1/88
3	11/1/88
4	11/1/88
5	11/1/88
6	11/1/88
7	11/1/88
8	11/1/88
9	11/1/88
10	11/1/88
11	11/1/88
12	11/1/88
13	11/1/88
14	11/1/88
15	11/1/88
16	11/1/88
17	11/1/88
18	11/1/88
19	11/1/88
20	11/1/88
21	11/1/88
22	11/1/88
23	11/1/88
24	11/1/88
25	11/1/88
26	11/1/88
27	11/1/88
28	11/1/88
29	11/1/88
30	11/1/88
31	11/1/88
32	11/1/88
33	11/1/88
34	11/1/88
35	11/1/88
36	11/1/88
37	11/1/88
38	11/1/88
39	11/1/88
40	11/1/88
41	11/1/88
42	11/1/88
43	11/1/88
44	11/1/88
45	11/1/88
46	11/1/88
47	11/1/88
48	11/1/88
49	11/1/88
50	11/1/88
51	11/1/88
52	11/1/88
53	11/1/88
54	11/1/88
55	11/1/88
56	11/1/88
57	11/1/88
58	11/1/88
59	11/1/88
60	11/1/88
61	11/1/88
62	11/1/88
63	11/1/88
64	11/1/88
65	11/1/88
66	11/1/88
67	11/1/88
68	11/1/88
69	11/1/88
70	11/1/88
71	11/1/88
72	11/1/88
73	11/1/88
74	11/1/88
75	11/1/88
76	11/1/88
77	11/1/88
78	11/1/88
79	11/1/88
80	11/1/88
81	11/1/88
82	11/1/88
83	11/1/88
84	11/1/88
85	11/1/88
86	11/1/88
87	11/1/88
88	11/1/88
89	11/1/88
90	11/1/88
91	11/1/88
92	11/1/88
93	11/1/88
94	11/1/88
95	11/1/88
96	11/1/88
97	11/1/88
98	11/1/88
99	11/1/88
100	11/1/88

1. CONNECT DIRECT BATTERY TO 1LT(P).
2. ARM. BASE GAP MIN 8, MAX 7.
3. ARM. TRVL IS OBTAINED BY MEETING CONTACT SEPARATION AND CONTACT FOLLOW.
4. CONTACT SEPARATION MIN 7, MAX 8.
5. WITH RELAY OPERATED ON SOAK CURRENT, FRONT CONTACT SHALL CLOSE WITH 3 AND NOT CLOSE WITH 8 GAUGE BETWEEN STOP PINS AND CORE.
6. OPEN TIP AND RING OF LINE TOWARD PBX STATION LINE CIRCUIT OR CENTRAL OFFICE SUBSCRIBER LINE CIRCUIT OR INSULATE 3T & 3E(RI).
7. WHEN ADJUSTING RELAY NOT CONNECTED IN CIRCUIT IT SHALL BE SHUNTED BY A 2.14-2.18UF CAPACITOR.
8. OPEN TIP AND RING OF LINE TOWARD PBX STATION LINE CIRCUIT OR CENTRAL OFFICE SUBSCRIBER LINE CIRCUIT.
9. OPEN TIP AND RING OF LINE TOWARD PBX TRUNK CIRCUIT OR DIAL STATION OR INSULATE 1B(RI).
10. TEST AND READJUST (R) RELAY FOR OPERATION ON RINGING CURRENT BY CONNECTING MIN 95V (1100-1200 RPM) RINGING CURRENT IN SERIES WITH ONE 13C RESISTANCE LAMP (OR EQUIVALENT) AND 7000Ω NON-INDUCTIVE RESISTOR TO 2T(P) AND RINGING GROUND TO 1T(P). SATISFACTORY OPERATION OF (R) RELAY IS INDICATED BY STEADY OPERATION OF (RI) RELAY.

PRINTED IN U.S.A.

6S

FIG. K (MFR DISC.)
FOR USE WHERE EQUIPMENT
IS NOT ON A CIRCUIT UNIT BASIS

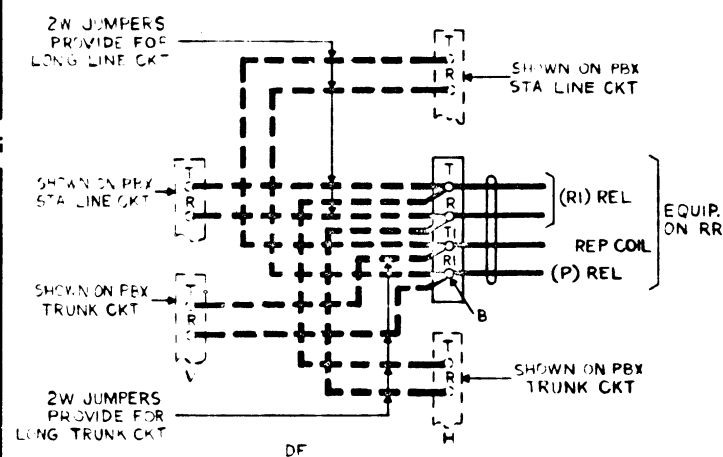


FIG. M (MFR DISC)
NUMBERS 605A, 701A, & 711A PBX
EQUIPMENT ON A CIRCUIT UNIT BASIS

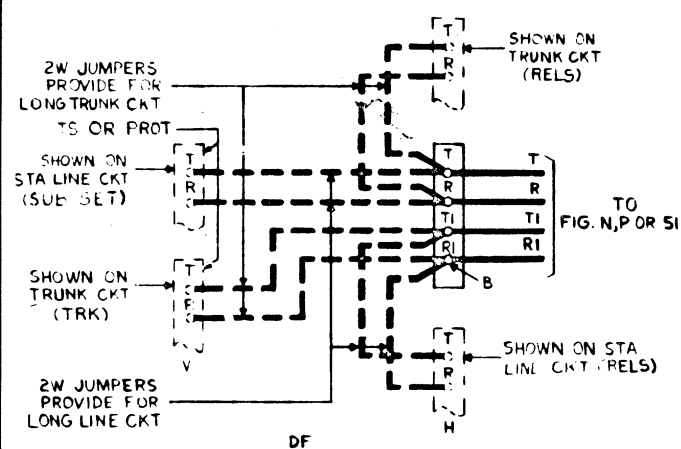


FIG. N (MFR DISC.)
SEE NOTE 202

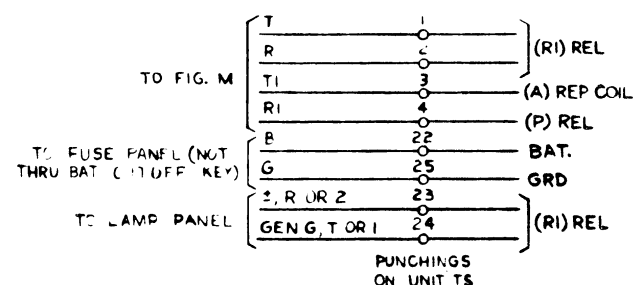


FIG. P (MFR DISC.)
SEE NOTE 202

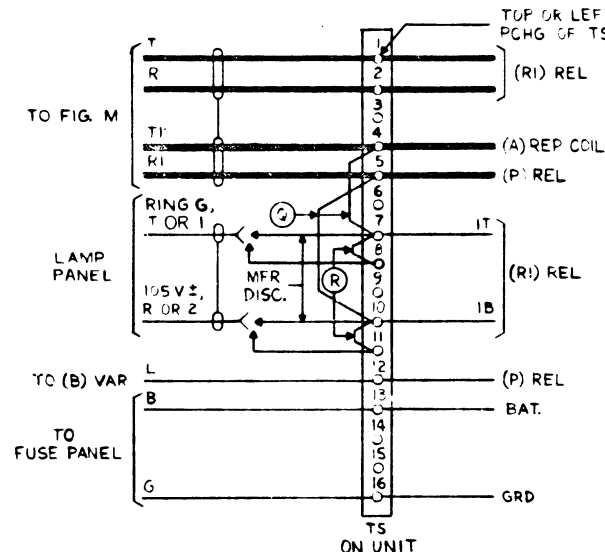


FIG. 51
(FOR FIGURES 1 & 3)

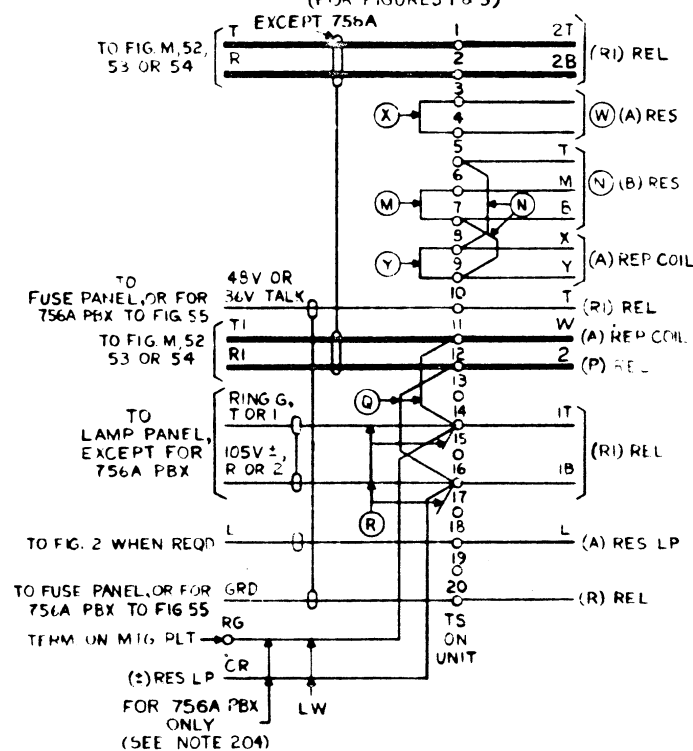


FIG. 52
(FOR 701A, 701B, 711A, 711B PBX)
LONG LINE EQUIPMENT LOCATED AT PBX

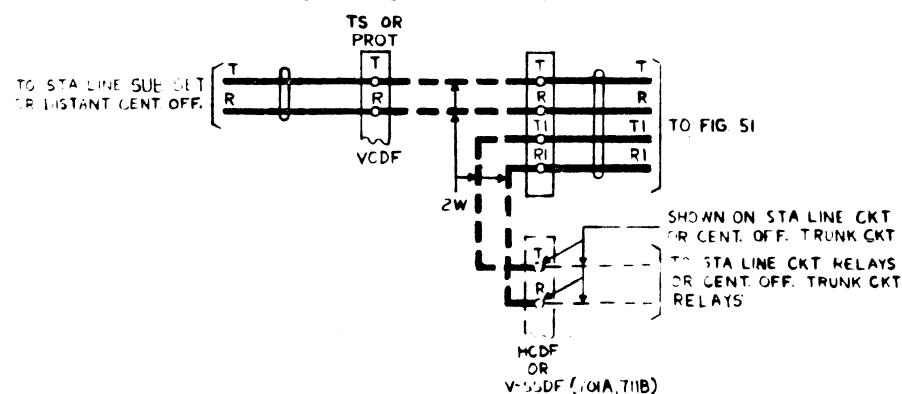


FIG. 53
(FOR 740E PBX)
LONG LINE EQUIPMENT LOCATED AT PBX

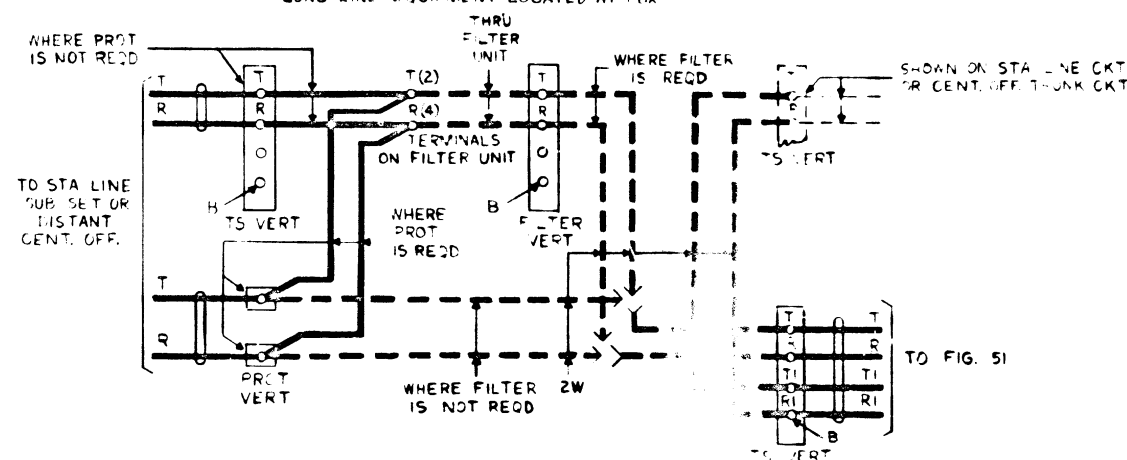


FIG. 54
(FOR 756A PBX)
LEADS TO STATION LINE

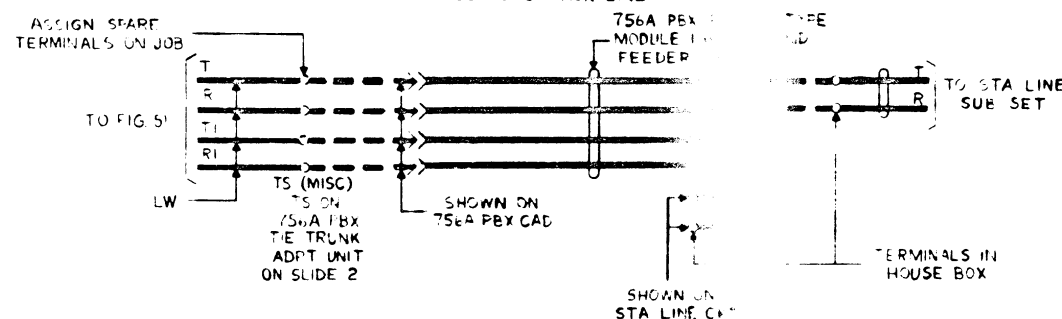
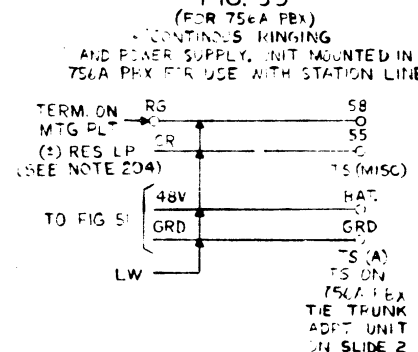
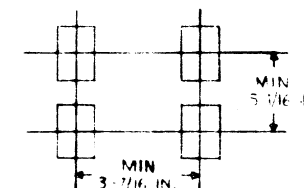


FIG. 55



REQUIREMENT NOTES:
2.1. 101A REPEATING COIL (A) IN ADJACENT CIRCUITS SHALL BE MOUNTED AS INDICATED IN THE DIAGRAM. WHEN COILS ARE MOUNTED BASE TO BASE THERE SHALL BE A SEPARATION OF MINIMUM 7/8 IN. BETWEEN BASE PLATES UNLESS A 1/8 IN. STEEL PLATE OF THE SAME SIZE AS THE BASE OF THE COIL IS INSERTED BETWEEN ONE COIL AND THE MOUNTING DETAIL IN WHICH CASE THE MOUNTING DETAIL MAY BE MINIMUM 7/16 IN. THICK.



202. PRIOR TO ISSUE 5D FIG. P WAS NOT SHOWN, FIG. N WAS PART
OF FIG. M AND FIG. N WAS NOT RATED "MFR. DISC."
203. FOR FIG. 2 THE CONDUCTOR BETWEEN THE BATTERY SUPPLY
AND THE VARISTOR FUSE SHALL BE AT LEAST NO. 14 NO. 14
SPRANDED FIBRE CORD SHALL BE USED BETWEEN THE BATTERY
FUSE AND (B) VARISTOR, FURNISHING ONE BATTERY
LEAD FOR EACH 20 AMP LESS FIGURE 2.
204. WHEN LONG LINE UNIT IS USED WITH 754A PBX THE SHORT-
DISTANCE LAMP SHALL BE MOUNTED ON A MOUNTING PLATE
ASSOCIATED WITH LONG LINE UNITS. THIS MATERIAL
SHALL BE ORDERED SEPARATELY AND WIRE LOCALLY.