

DWG ISS	CD	DWG ISS	CD	DWG ISS	CD
1	1	2D	APP ID	3D	APP 2D
4D	2D	SD	APP ID	6D	APP 2D
7D	2D	SD	APP ID	9D	APP 2D
10D	2D	APP ID	2D	APP 7D	3D
13D	3D	APP ID			
DWG ISS	CD	DATE ISSUED	DWN	APP	
14D	4D	11-16-61	O.L.	14D	
15D	4D	6-19-64	ES	15D	
16D	4D	10/14/80	APP 2D	16D	

CIRCUIT NOTES:

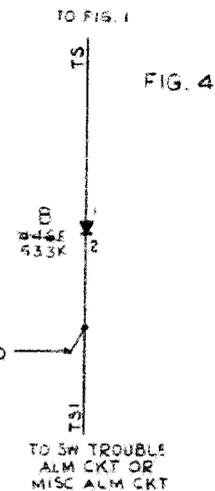
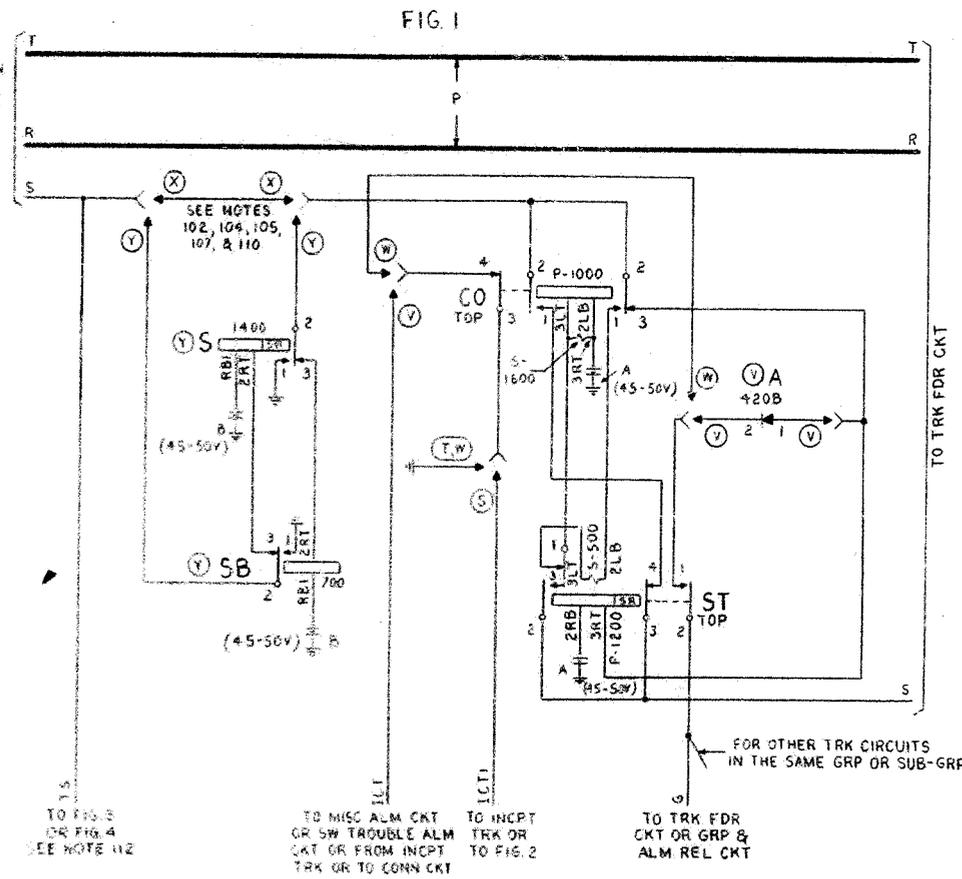
- (MFR DISC.) 101. PROVIDE ONE 1-1/3 AMP FUSE EACH FOR BAT. A AND BAT. B FROM 48V SIG BAT. FOR EACH 10 CIRCUITS.
- (MFR DISC.) 102. FURNISH Y OPTION WHEN THIS CKT CONNECTS WITH VACANT TOLL SELECTOR LEVELS ASSOCIATED WITH FOUR WIRE TOLL SWITCHING TRUNK. OTHERWISE FURNISH X OPTION.
- 103. PROVIDE ONE 1-1/3 AMP FUSE FOR BAT. B FROM 48V SIG BAT. FOR EACH 10 CIRCUITS. PROVIDE ONE 1-1/3 AMP FUSE FOR BAT. A FROM 48V SIG BAT. EACH 21 CIRCUITS AND THE ONE OR TWO GROUP RELAYS WHICH MAY BE ASSOCIATED WITH THESE CIRCUITS.
- (MFR DISC.) 104. FURNISH X OPTION FOR CONNECTOR MULTIPLE AND TOLL TRANSMISSION SELECTOR MULTIPLE. ALSO FURNISH X OPTION FOR TOLL INTERMEDIATE SELECTOR MULTIPLE WHERE ALL CALLS ARE ROUTED THRU A TOLL TRANSMISSION SELECTOR. OTHERWISE FURNISH Y OPTION.
- 105. THE USE OF Y OPTION IS RATED MFR DISC., SUPERSEDED BY X OPTION ON ISS 9D.
- 106. THE T AND R LEADS SHALL BE REVERSED FOR MACHINE INTERCEPT.
- (MFR DISC.) 107. USE V AND X OPTIONS WHEN AUTOMATIC DISCONNECT OF CONNECTORS IS REQUIRED. OTHERWISE USE W AND X OPTIONS.
- (MFR DISC.) 108. WHEN AUTOMATIC DISCONNECT OF CONNECTORS IS SPECIFIED; PROVIDE FIG. 2 AND S OPTION IF OFFICE IS EQUIPPED WITH PLUGGING UP LINE CIRCUITS. PROVIDE T OPTION IF PLUGGING UP LINE CIRCUITS ARE NOT FURNISHED.

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	PROV
12D	FIG. 2		108				FIG. 2
12D	S, T, V, W	T&W	107, 108	W			S, T&V
13D			108	S, T&V			
13D			107, 108	FIG. 2			
14D			110	FIG. 3			
14D	Q OR N	V&S OR T	110	Q, N			V, S, T
15D	FIG. 4	FIG. 3 Q, N OR NONE	112	FIG. 4			FIG. 3 Q, N

- (MFR DISC.) 110. PROVIDE FIG. 3 AND OPTIONS Q, W, AND X WHEN AUTOMATIC DISCONNECT OF CONNECTORS IS REQUIRED AND TWO OR MORE INTERCEPT TRUNKS OR AN INTERCEPT TRUNK AND ONE OR MORE TRUNKS ARRANGED TO TRIP RINGING WITHOUT CHARGING ARE FURNISHED IN THE SAME CONNECTOR GROUP. PROVIDE FIG. 3 AND OPTIONS H, W, AND X WHEN ONLY ONE INTERCEPT TRUNK IS PROVIDED PER CONNECTOR GROUP AND NO TRUNK ARRANGED TO TRIP RINGING WITHOUT CHARGING IS PROVIDED IN THE SAME GROUP. PROVIDE OPTIONS W AND X WHEN THE AUTOMATIC DISCONNECT TIMING FEATURE IS NOT REQUIRED.
- 111. PROVIDE FIG. 2 WHEN AUTOMATIC DISCONNECT OF CONNECTORS IS REQUIRED AND OFFICE IS EQUIPPED WITH PLUGGING UP LINE CIRCUITS.
- 112. PROVIDE FIG. 4 AND OPTIONS W AND X WHEN CONNECTORS HAVING DIRECT ACCESS TO THIS TRUNK CIRCUIT ARE ARRANGED FOR AUTOMATIC DISCONNECT ON CALLING PARTY HOLDS. PROVIDE OPTIONS W AND X WHEN CONNECTORS HAVING DIRECT ACCESS TO THIS TRUNK CIRCUIT ARE NOT ARRANGED FOR AUTOMATIC DISCONNECT.

FIGURES AND OPTIONS ON THIS DWG	
CKT FIG.	APP OR WIRING
1	
2	Y
3	X
4	W
	V
	T
	S
	Q
	N

FROM TOLL TRANSMISSION OR TOLL INTERMEDIATE SEL MULT OR AUX INCPY TRK CKT FOR 8 PARTY TPL (CONN MULT / MFR DISC) OR FROM CONN MULT. SEE NOTES 105 & 106



TO ALL OTHER INCPY TRUNKS & TRUNKS ARRANGED TO TRIP RINGING WITHOUT CHARGING SERVING SAME CONNECTOR GROUP

INFORMATION NOTES:
101. UNLESS OTHERWISE SPECIFIED: RESISTANCE VALUES ARE IN OHMS. CAPACITANCE VALUES ARE IN MICROFARADS.

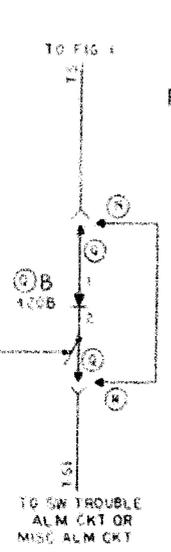


FIG. 3 (MFR DISC.)

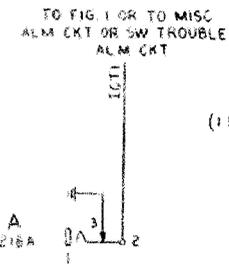


FIG. 2
(1 PER CONN HUNDREDS GROUP FOR 100 PT CONN)
(1 PER CONN SHELF FOR 200 PT CONN)

NOTICE
NOT FOR USE OR DISCLOSURE OUTSIDE THE BELL SYSTEM EXCEPT UNDER WRITTEN AGREEMENT

REPLACED BY SD-31768-01 FOR USE WITH TOLL SEL MULT

1099

STEP-BY-STEP SYSTEMS
NO. 1 350A OR 355A INTERCEPTING TRUNK CIRCUIT

FROM CONNECTOR OR TOLL TRAIN SELECTOR MULTIPLE OR FROM AUXILIARY INTERCEPTING TRUNK FOR 8 PTY TPL CONNECTOR MULTIPLE

(CONN MULT)

BELL TELEPHONE LABORATORIES INCORPORATED

AT&CO STANDARD
MFR DISC. FOR USE WITH TOLL SEL MULT A & M ONLY FOR 350A

SD-31337-01-1
3 SHEETS

ISSUE 16D

PRINTED IN U.S.A.

SD-31337-01															CIRCUIT REQUIREMENTS															DRAWING
NO. 1, 350A OR 355A INTERCEPTING TRUNK CIRCUIT (CONN MULT)															ISSUE															
APPARATUS				MECH REQT			CIRCUIT PREPARATION				DIRECT CURRENT FLOW REQT				REMARKS															
DESIG	CODE	OPT	FIG.	BSP FIG.	CONT PRESS.	ARM. TRVL	BLOCK OR INSULATE	TEST CLIP DATA		TEST SET PREP	SEE TEST NOTE	TEST WDG	TEST FOR	AFTER SOAK MA.		TEST MA.	READJ MA.													
RELAYS				CONN BAT.		CONN GRD																								
CO	R1647		1	10/3	H	20	(ST)NO, 1B(ST)	LT(CO)	GRD			P	0	20	19		WDG ALONE													
												P/S	0	34	32		PAR AIDING													
S	R26	Y	1	3	H	20		RT(S)	GRD				0	8	7.6															
SB	R246	Y	1	3	H	20	2B(CO)	RT(SB)	GRD				0	8.3	7.9															
ST	R1837		1	10/14	H	35	2B(CO)	RT(ST)	GRD	1			0	19	18															
								RT(ST)	GRD	1			NO	11.4	12															

TEST NOTES:
 1. WITH W OPTION, BLOCK (CO) OPERATED.
 WITH V OPTION, INSULATE 1T(ST).

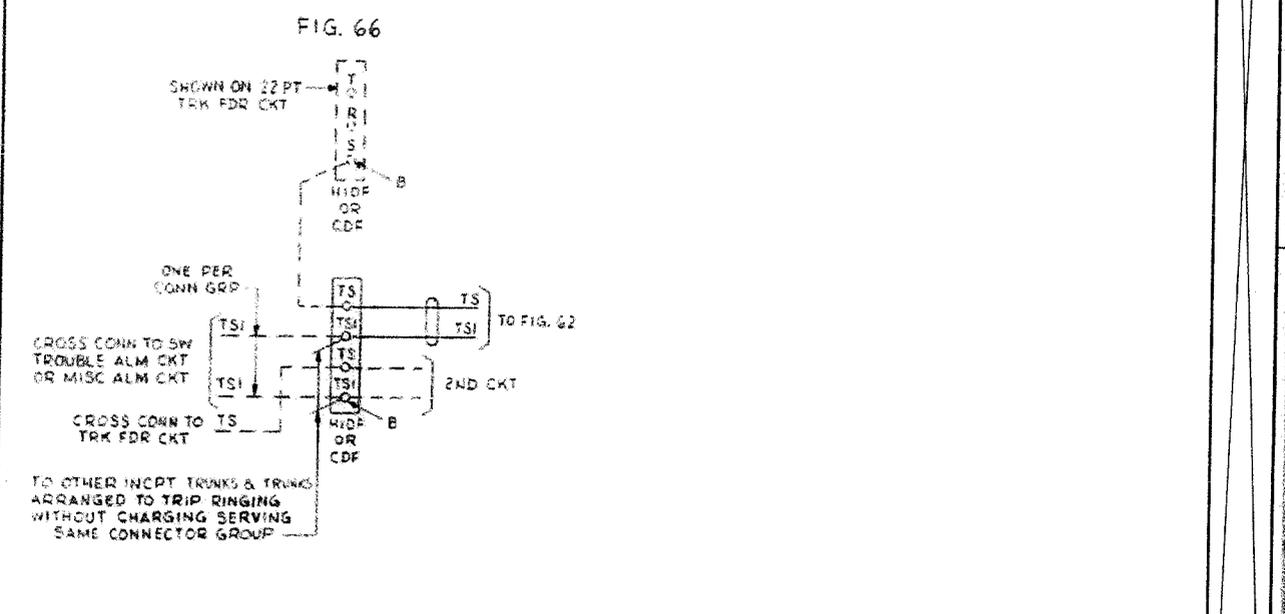
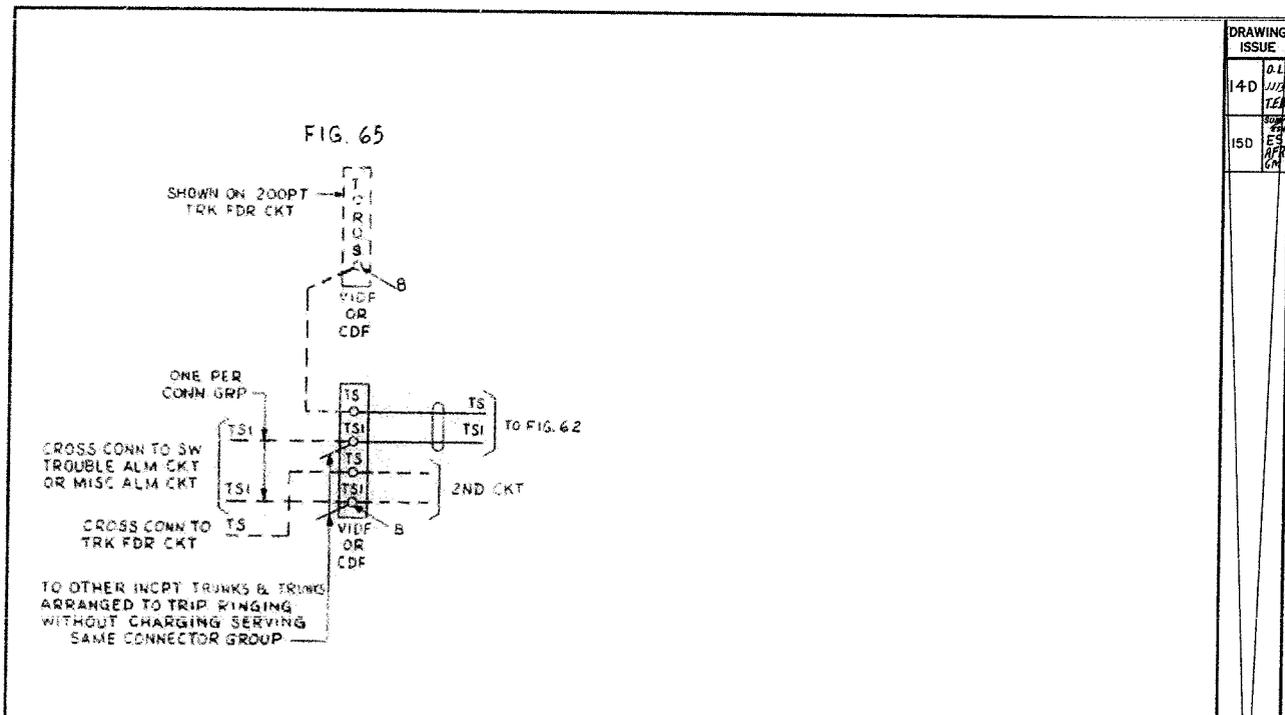


FIG. 1 (MFR DISC.)
CROSS CONNECTIONS FOR
TOLL SEL INCP T

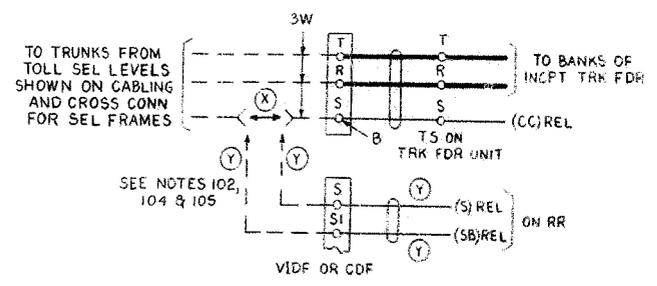


FIG. 51 (MFR DISC.)
CROSS CONNECTIONS FOR CONN INCP T WHEN
(CO) AND (ST) RELAYS ARE NOT LOCATED ON TRK
FOR UNIT

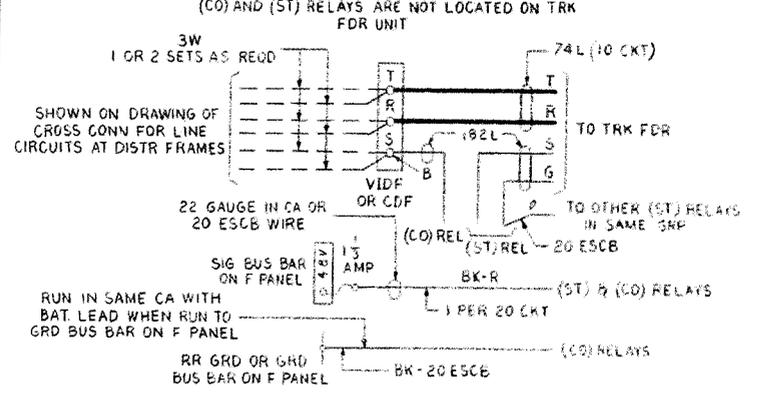


FIG. 52 (MFR DISC.)
CROSS CONNECTIONS WHEN (CO)
AND (ST) RELAYS ARE LOCATED
ON TRK FOR UNIT
SEE NOTE 201

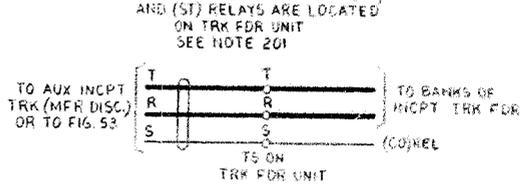
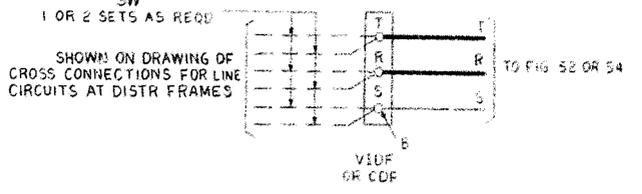


FIG. 53 (MFR DISC.)
INCP T AT CONN MULT
SEE NOTE 201



- EQUIPMENT NOTES:
- AS OF ISS 11D, FIG. 52 IS MFR DISC. AND FIG. 53 IS MFR DISC. FOR USE WITH 100PT AND 200PT TRK FINDERS, REPLACED BY CORRESPONDING INFORMATION ON 200PT TRK FINDER CKT SD-33013-01.
 - PRIOR TO ISS 13D, T AND W OPTIONS WERE NOT SPECIFIED.
 - ON ISS 14D REFERENCE TO T OPTION IS REMOVED.
 - THE (B) DIODE IS MOUNTED ON A MISCELLANEOUS MOUNTING PLATE COVERED ON J33016A; EQUIPPED WITH 70 DIODES PER UNIT.

FIG. 54
CROSS CONNECTIONS FOR CONN INCP T WHEN (CO)
AND (ST) RELAYS ARE LOCATED ON REL RACK

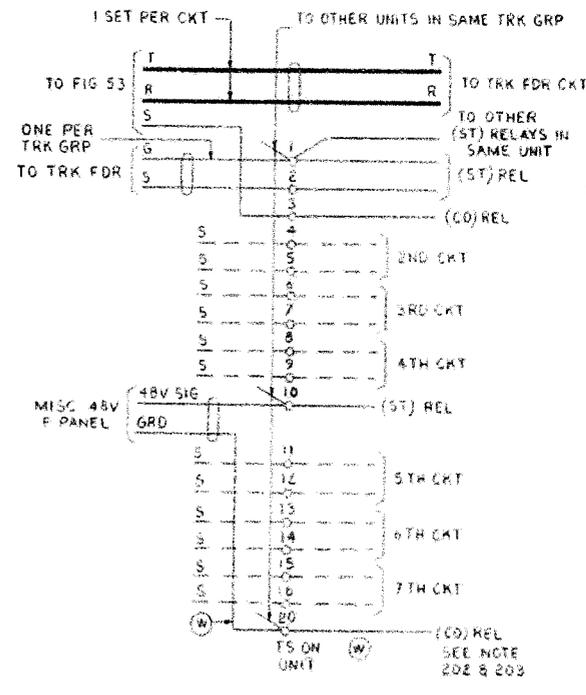


FIG. 55 (MFR DISC.)
CROSS CONN FOR AUTO DISC OF CONN
WHEN (CO) RELAYS ARE LOCATED ON
REL RACK OR TRK FDR UNIT

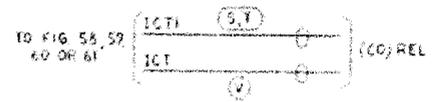


FIG. 56
(FOR FIG. 54)

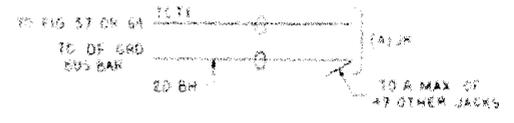


FIG. 57 (MFR DISC.)

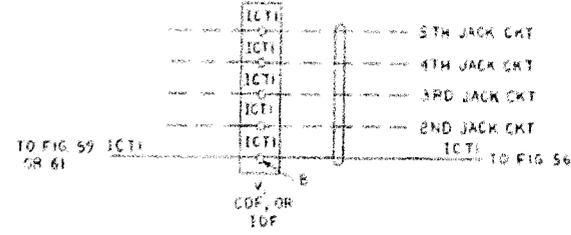


FIG. 58 (MFR DISC.)
FOR ONE INCP T TRK PER CONN HUNDREDS
GRP FOR 100 PT CONN OR PER SHELF FOR
200PT CONN AND PLUS UP LINE CIRCUITS
ARE NOT PROVIDED

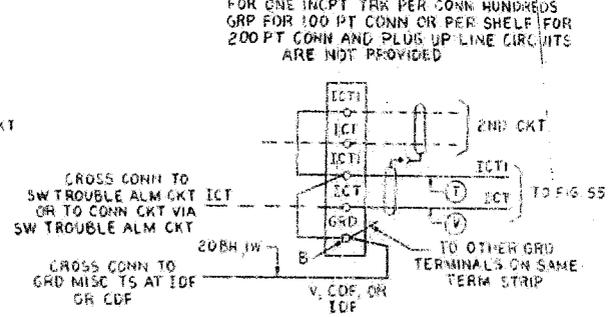


FIG. 59 (MFR DISC.)
FOR ONE INCP T TRK PER CONN HUNDREDS
GRP FOR 100PT CONN OR PER SHELF FOR
200 PT CONN AND PLUS UP LINE CIRCUITS
ARE PROVIDED

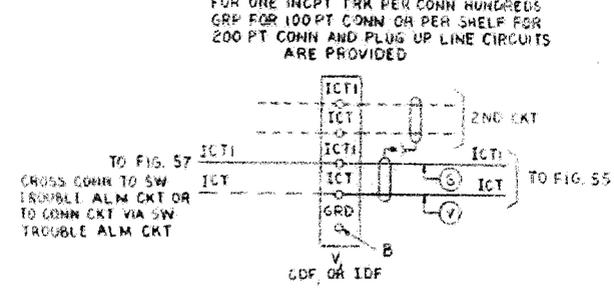


FIG. 60 (MFR DISC.)
FOR MORE THAN ONE INCP T TRK PER CONN
HUNDREDS GRP FOR 100PT CONN OR PER
SHELF FOR 200PT CONN AND PLUS UP LINE
CIRCUITS ARE NOT PROVIDED

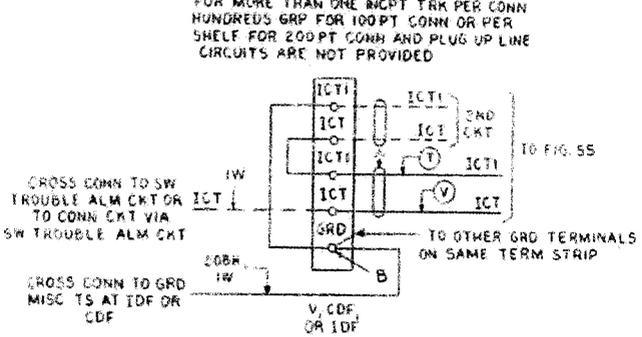


FIG. 61 (MFR DISC.)
FOR MORE THAN ONE INCP T TRK PER
CONN HUNDREDS GRP FOR 100PT CONN
OR PER SHELF FOR 200PT CONN AND
PLUS UP LINE CIRCUITS ARE PROVIDED

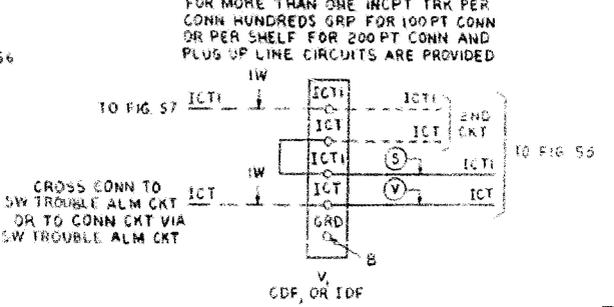


FIG. 62
(FOR FIG. 3 & 4)
SEE NOTE 204

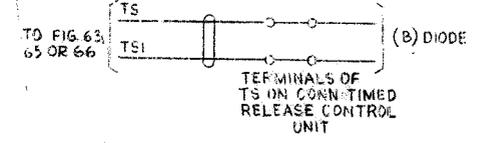


FIG. 63 (MFR DISC.)

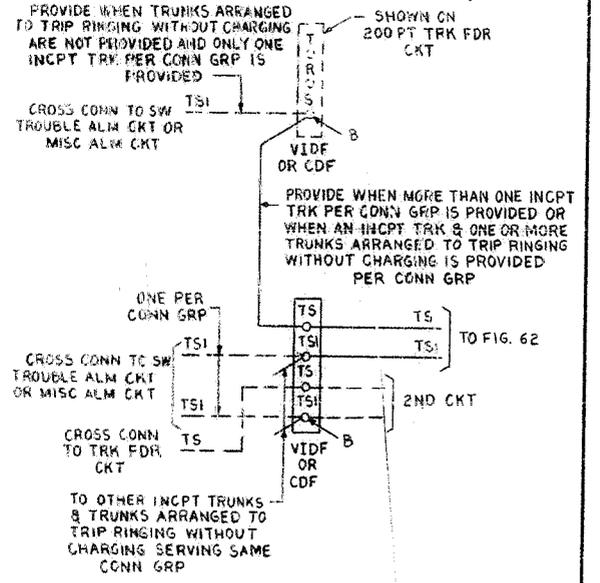
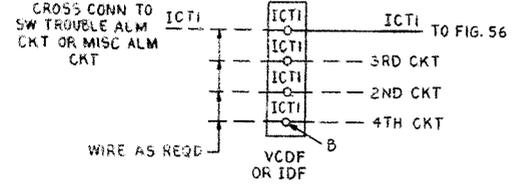


FIG. 64
(FOR FIG. 2)



(CONT ON OI-2)