

FIG. 1 (2)

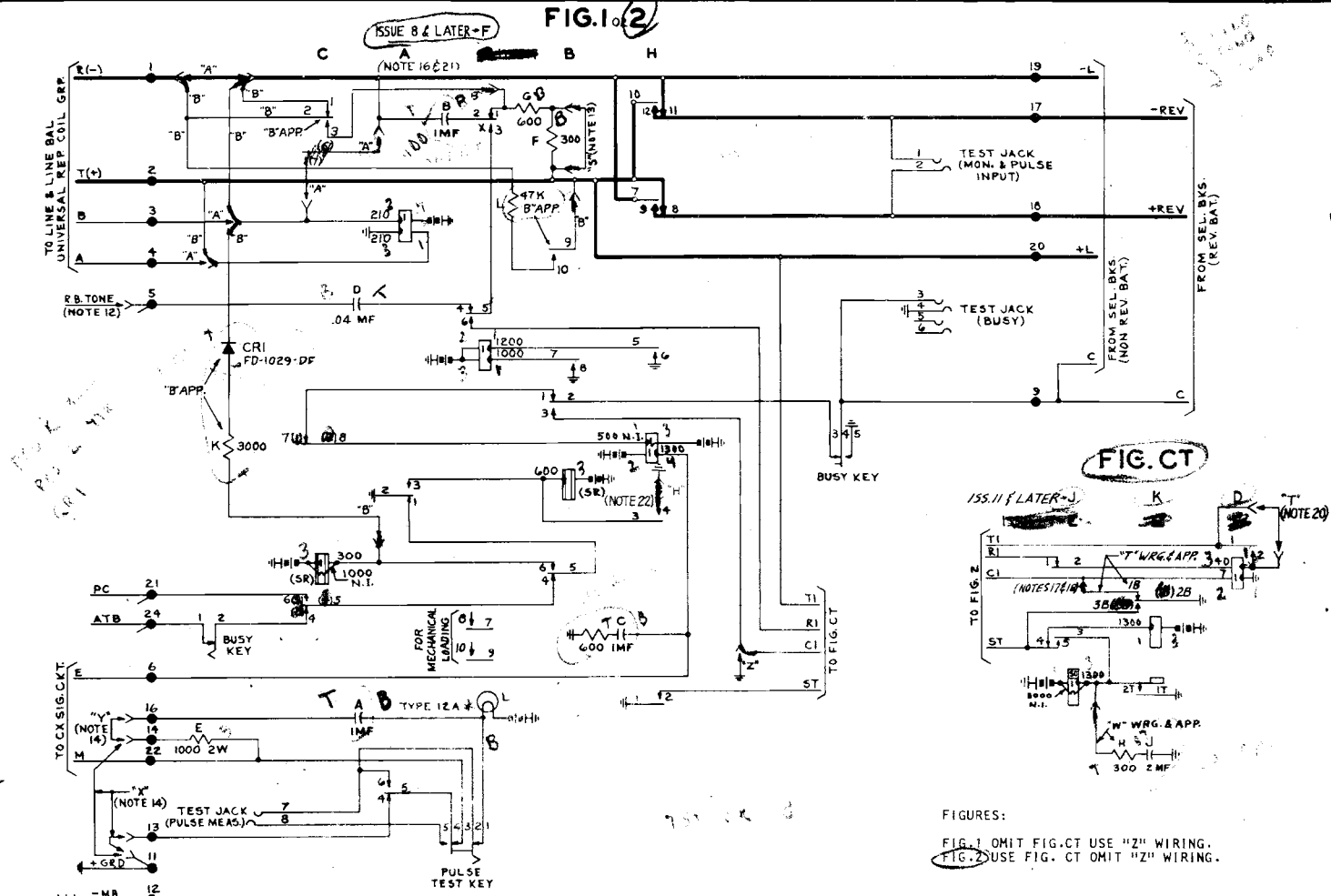
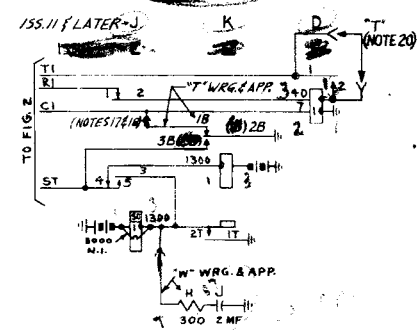


FIG. CT



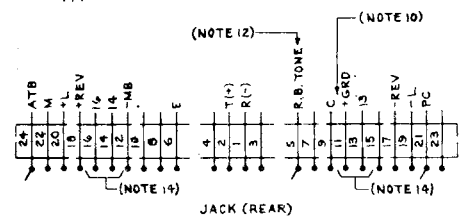
FIGURES:
FIG. 1 OMIT FIG. CT USE "Z" WIRING.
FIG. 2 USE FIG. CT OMIT "Z" WIRING.

MANUFACTURING NOTES: (CONT'D)

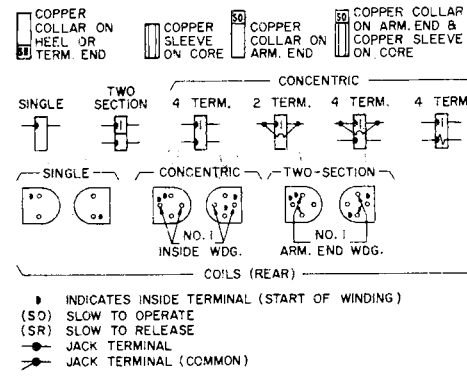
- 20- INSTALLER SHALL CONNECT "T" STRAP WHEN TONE IS REQUIRED BUT PRECEDING CIRCUIT DOES NOT PROVIDE ENOUGH CURRENT TO OPERATE RELAY "F" VIA NUMBER 1 WINDING.
- 21- PRIOR TO ISSUE 7, RELAY "A" WAS 195 X 195 OHMS. "A" WIRING & APPARATUS WERE PART OF CIRCUIT. RELAY "G" SPRINGS WERE NUMBERED AS SHOWN IN PARENTHESIS (), & "B" WIRING & APPARATUS WERE NOT SHOWN. BEGINNING WITH ISSUE 7, "B" WIRING & APPARATUS SUPERSEDE "A" WIRING & APPARATUS.
- 22- FACTORY GROUNDS RELAY H SPRING 4 WITH WIRING "H", WHICH GIVES C.L.R. HOLDING WHEN H-610057 IS USED AUTOMATIC TO MANUAL.

MANUFACTURING NOTES:

- 10- SHELF JACKS 9811 MAKE CONTACT WHEN SWITCH IS REMOVED.
- 11- CONTACTS "X" OPERATE FIRST.
- 12- REMOVE R.B. TONE LEAD WHEN TRUNK CIRCUIT IS USED FOR DIAL TO DIAL OPERATION.
- 13- INSTALLER SHALL REMOVE "S" STRAP WHEN 900 OHM LINE TERMINATION IS REQUIRED.
- 14- INSTALLER SHALL PROVIDE "X" STRAP ON SHELF JACKS WHEN CIRCUIT IS USED WITH LENKURT TYPE 4S CARRIER OR POLAR DUPLEX EQUIPMENT. INSTALLER SHALL PROVIDE "Y" STRAP ON SHELF JACKS WHEN CIRCUIT IS USED WITH LENKURT TYPE 33 OR SIMILAR CARRIER.
- 15- PRIOR TO ISSUE 2, "W" WIRING & APPARATUS WAS NOT SHOWN. "W" WIRING & APPARATUS TO BECOME PART OF CIRCUIT.
- 16- PRIOR TO ISSUE 3, COIL OF RELAY "A" WAS 200/200 OHMS, TWO SECTION.
- 17- PRIOR TO ISSUE 4, "T" WIRING & APPARATUS (FIG. CT) WAS NOT SHOWN. BEGINNING WITH ISSUE 4, "T" WIRING & APPARATUS BECOMES PART OF CIRCUIT.
- 18- SPRING NUMBERING IN PARENTHESIS () INDICATES NUMBERING PRIOR TO ISSUE 4 (IN FIGURE CT).
- 19- PRIOR TO ISSUE 5 CAPACITOR D WAS .01 MF STARTING WITH ISSUE 5 CAPACITOR D TO BE .04 MF.



SYMBOLS



1- H-610057 (REV) CHANGED RLY POS IN FIG. CT	KFS	WCM
ADDED NOTE 22, ISS 9	11-18-65	12066
1- H-610057 (REV) CHANGED RLY POS IN FIG. CT	KFS	WCM
ADDED NOTE 22, ISS 10	1-26-66	9866
1- H-610057 (REV) CHANGED RLY POS IN FIG. CT	KFS	WCM
ADDED NOTE 22, ISS 10	1-26-66	9866

CURRENT DRAIN DATA
HOLDING CURRENT AMPS
0.33

DRAWING NO.	ISS.	DESCRIPTION
AH-610057	10	ADJUSTMENT
E-610057	4	EXPLANATION

RUNNING LIST RL-610057 (FIGS. 1 & 2)
JUMPER LIST JL-610057

DESIGNED AUTO. ELEC. LABS., INC. L.L. SMITH R.R.O.	APPROVED H.G. DUNAMEL K.B. 9-11-57	DATE 8-13-57	OUTGOING TRUNK CKT. AUTO TO AUTO OR AUTO TO MANUAL-CLR HOLDING-CLASS OF SERVICE TONE-CX SIGNALLING	SIZE H-610057 -C1
3- H-610057 PHOTOGRAPHICALLY RECLAIMED ADDED NOTE 16 CON		AUTOMATIC ELECTRIC COMPANY NORTHLAKE, ILL. U.S.A.		

FIG.1,2 OR 3 (N.A.F.M.)

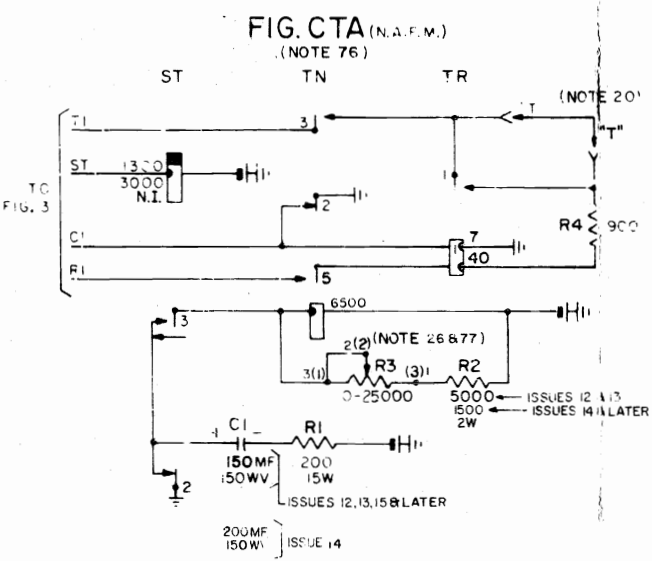
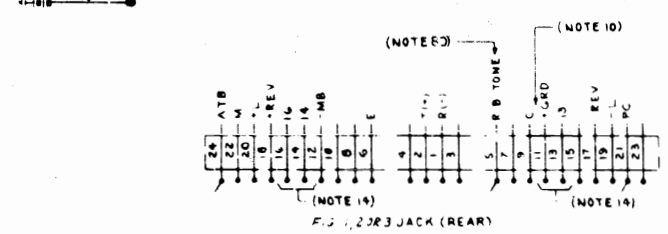
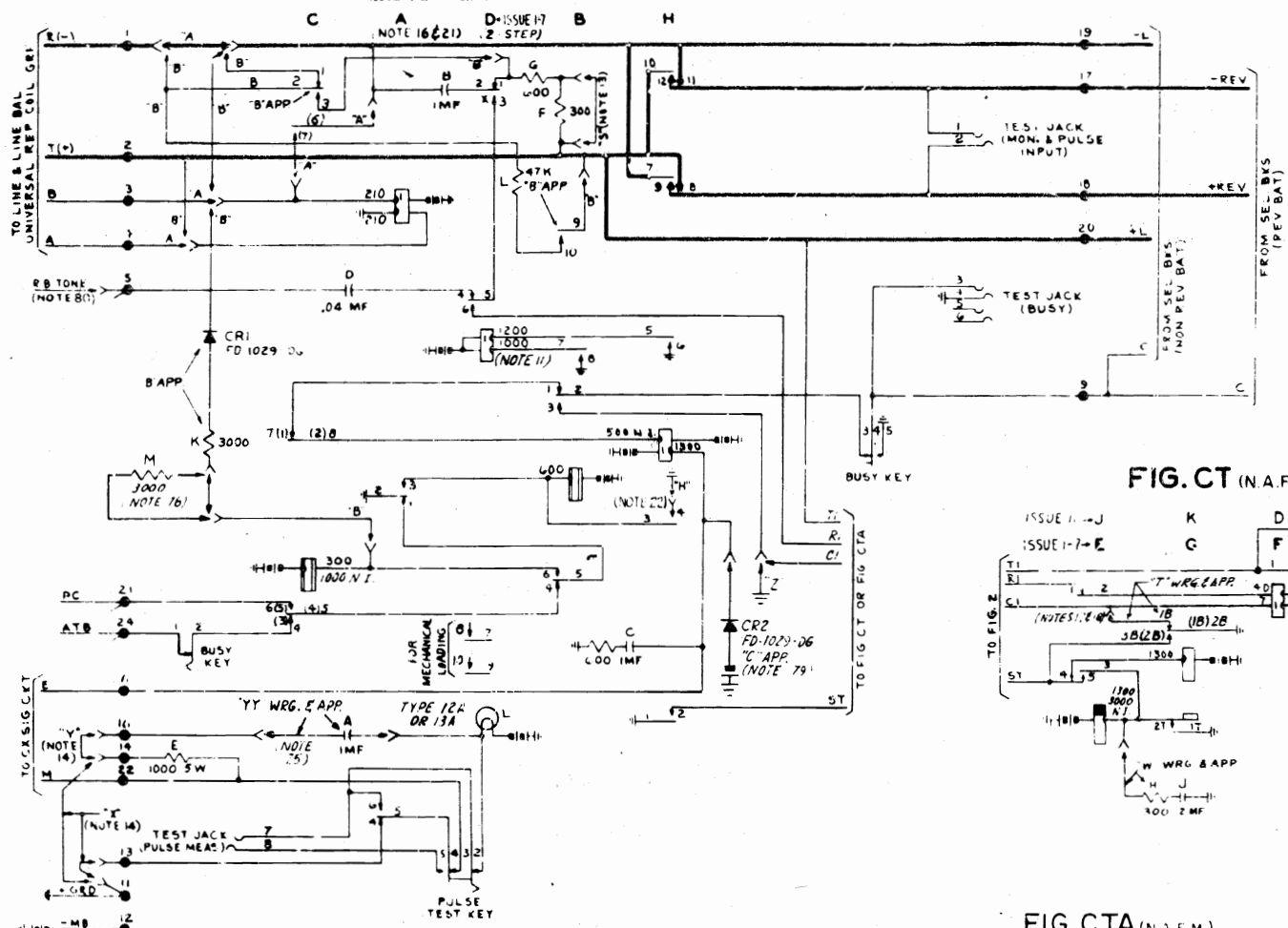


FIG. CT (N.A.F.M.)

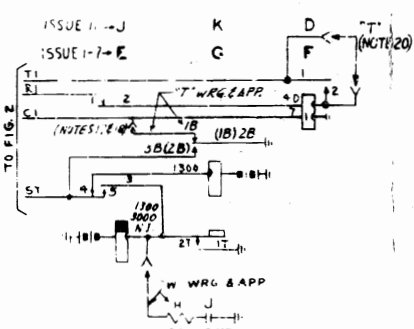
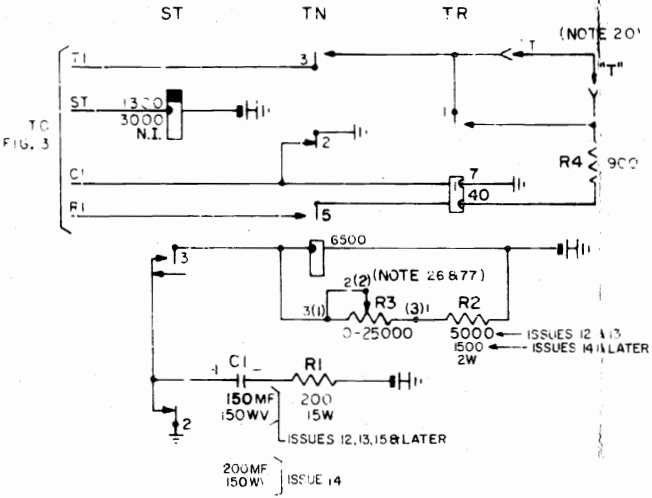


FIG. CTA (N.A.F.M.)
(NOTE 76)



MANUFACTURING NOTES: (CONT'D)

- 24- FIGURES 4A, 4B, 6A & 7A MANUFACTURED WITH STRAP "R".
- 25- PRIOR TO ISSUE 12, "YY" WIRING AND APPARATUS WERE PART OF CIRCUIT AND RESISTOR E IN FIGURES 1 & 2 WAS RATED 2 WATTS. BEGINNING WITH ISSUE 12, "YY" WIRING AND APPARATUS ARE NO LONGER PROVIDED, AND RESISTOR E IS RATED 5 WATTS.
- 26- IN ISSUES 12 AND 13, FIGURE CST AND FIGURE CTA, POTENTIOMETER R3 TERMINALS WERE NUMBERED AS IN PARENTHESES.
- 27- ON PULSE TEST KEY & BUSY KEY (FIGURES 4A-7A) SPRING NUMBERS NOT IN () ARE FOR BUSY TYPE KEY, AND T.O.S.E. IN () ARE FOR TURN KEY TYPE.
- 28- IN ISSUES 12-14, FIGURE CTA RELAY TN HAD 4000-OHM WINDING & RESISTOR R2 1WATT, AND FIGURE CST RELAY TN HAD 4000-OHM WINDING.
- 29- PRIOR TO ISSUE 17, "D" WIRING WAS PART OF FIGURES 4A, 5A, 6A & 7A, "E" WIRING WAS NOT SHOWN AND "E" APPARATUS WAS SPARE. BEGINNING WITH ISSUE 17, "E" WIRING & APPARATUS SUPERSEDE "D" WIRING.
- 30- PRIOR TO ISSUE 19, "F" OPTION SPRING NUMBERS OF RELAY C IN () WAS PART OF CIRCUIT AND "H" AND "J" OPTIONS WERE NOT SHOWN. BEGINNING WITH ISSUE 19, "G" OPTION SUPERSEDES "F" OPTION AND SPRING NUMBERS OF RELAY C NOT IN () ARE USED.

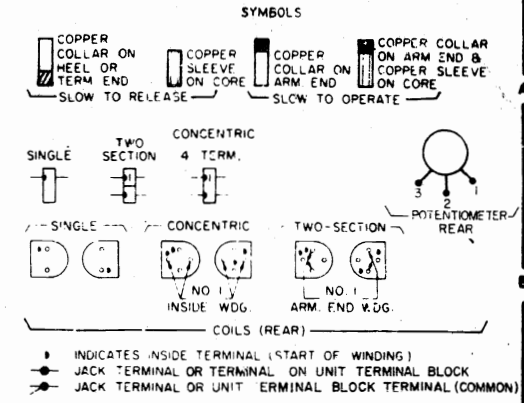
INSTALLING NOTES:

- 76-FIGURE CTA (PART OF FIGURE 3) IS FOR CONVERSION OF EXISTING FIGURE CT (PART OF FIGURE 2). RELAYS ST AND IR ARE RE-USED, BUT HAD DIFFERENT DESIGNATIONS IN FIGURE CT. UPON CONVERSION, THESE RELAYS SHOULD BE RE-STAMPED WITH FIGURE CTA DESIGNATIONS.
- 77-INSTALLER SHALL ADJUST RESISTOR R3 TO PROVIDE LENGTH OF CLASS OF SERVICE TONE REQUIRED BY TOLL OFFICE.
- 78-INSTALLER SHALL ADD RESISTOR M IN FIGURES 1,2 & 3. CUT STRAP "B" OR STRAP "B" IN FIGURES -A-5A,6A AND -A-5 AS REQUIRED. IF CIRCUIT FAILS TO MEET LEAK A TEST IN LOCAL PULSE-REPEATING TESTS WITH VARYING MACHINE -B-65681 AND LOCAL PULSE REPEATING TEST SET H-65389, OR EQUIVALENT.
- 79-WHEN FIGURE 1,2, OR 3 IS USED WITH SINGLE-FREQUENCY SIGNALING TRUNK, ENGINEER SHALL INSTRUCT INSTALLER TO ADD APPARATUS "C".
- 80-WHEN H-610057 DOES NOT SUPPLY RINGBACK (FOR EXAMPLE, AUTOMATIC- TO AUTOMATIC DIAL OPERATION, OR RINGBACK TONE SUPPLIED FROM ELSEWHERE), NOT ONLY OMIT RINGBACK TONE FROM TERMINAL 5 OR RBT, BUT ALSO OMIT OR REMOVE ANY WIRING WHICH WOULD INTERCONNECT OR "MULTIPLE" THE TERMINALS 5 OR RBT OF ALL CIRCUIT H-610057.

C.O.D.	ISSUES		NOTES & FIGS.
	FIRST USED	LAST USED	
A	1	6	21
B	7		21
C	12		79
D	1	16	29
E	17		29
F	1	18	30 4A-7A
G	19		30 4A-7A
H	10		22
I			
J	19		30, 78 4A-7A
K			
L			
M			
N			
O			
P			
Q			
R	12		24, 78
S	1		13
T	4		17, 20
U	12		FIG. 4A BE
V			
W	2		15
X	1		14
Y	1	11	14, 25
Y	1	11	25
Z	1		FIG. 1

FIGURES:

- FIG.1 - OMIT FIG.CT AND FIG.CTA, USE "Z" WIRING.
FIG.2 - USE FIG.CT, OMIT "Z" WIRING.
FIG.3 - USE FIG.CTA, OMIT "Z" WIRING.
FIG.4A - OMIT FIG.CST, USE "U" WIRING.
FIG.5A - USE FIG.CST, OMIT "U" WIRING.
FIG.6A - OMIT FIG.CST, USE "U" WIRING
FIG.7A - USE FIG.CST, OMIT "U" WIRING UNIT MOUNTING



MANUFACTURING NOTES:

- 10-SHELF JACKS J & 11 MAKE CONTACT WHEN SWITCH IS REMOVED.
- 11-CONTACTS "X" OPERATE FIRST. TWO-STEP RELAY D OR F IN FIGURES 1, 2, 3 AND RELAY D IN FIGURE 4A, 5A, 6A AND 7A WINDING NUMBER 2 OPERATES CONTACTS "X" ONLY.
- 12-SEE NOTE 80.
- 13-INSTALLER SHALL REMOVE "S" STRAP WHEN 900 OHM LINE TERMINATION IS REQUIRED.
- 14-INSTALLER SHALL PROVIDE "X" STRAP ON SHELF JACKS WHEN CIRCUIT IS USED WITH LENKURT TYPE 45 CARRIER OR POLAR DUPLEX EQUIPMENT.
~~INSTALLER SHALL PROVIDE "W" STRAP ON SHELF JACKS WHEN CIRCUIT IS USED WITH LENKURT TYPE 35 OR 45 CARRIER. (FIG. 1, 2, OR 3 ONLY).~~
- 15-PRIOR TO ISSUE 2, "W" WIRING AND APPARATUS WAS NOT SHOWN. "W" WIRING AND APPARATUS TO BECOME PART OF CIRCUIT.
- 16-PRIOR TO ISSUE 3, COIL OF RELAY A (FIGURES 1 & 2) WAS 200/200 OHMS, TWO SECTION. (SEE NOTE 21).
- 17-PRIOR TO ISSUE 4, "T" WIRING AND APPARATUS (FIGURE CT) WAS NOT SHOWN.(SEE NOTE 20)
- 18-SPRING NUMBERING IN PARENTHESES () INDICATES NUMBERING PRIOR TO ISSUE 4 (IN FIGURE CT).
- 19-PRIOR TO ISSUE 5, CAPACITOR D (FIGURES 1 & 2) WAS .01 MF.
STARTING WITH ISSUE 5, CAPACITOR D TO BE .04 MF.
- 20-INSTALLER SHALL CONNECT "T" STRAP WHEN TONE IS REQUIRED BUT PRECEDING CIRCUIT DOES NOT PROVIDE ENOUGH CURRENT TO OPERATE RELAY D, F, OR TR VIA NUMBER 1 WINDING.
- 21-PRIOR TO ISSUE 7, RELAY A (FIGURES 1 & 2) WAS 195/195 OHMS (SEE NOTE 16), "A" WIRING AND APPARATUS WERE PART OF CIRCUIT, RELAY C SPRINGS WERE NUMBERED AS SHOWN IN PARENTHESES (), AND "B" WIRING AND APPARATUS WERE NOT SHOWN.
BEGINNING WITH ISSUE 7, "B" WIRING AND APPARATUS SUPERSEDE "A" WIRING AND APPARATUS.
- 22-FACTORY GROUNDS RELAY H SPRING 4 WITH WIRING "H", WHICH GIVES C.L.R. HOLDING WHEN H-610057 IS USED AUTOMATIC TO MANUAL.
WHEN H-610057 IS USED AUTOMATIC TO AUTOMATIC (AS, FOR EXAMPLE, FOR SUBSCRIBER-DIALED FREE OR EXTENDED-AREA SERVICE), INSTALLER SHALL REMOVE WIRE "H".
- 23-FACTORY SHALL ADJUST POTENTIOMETER R3 IN FIGURE CST TO HOLD RELAY TN OPERATED APPROXIMATELY 2 SECONDS (RESISTOR R3 WAS 0-1Q,000 OHM SLIDE WIRE RESISTOR D-283907-AD FOR ISSUE #2 ONLY).

STOCKLIST DH-610057-71 (FIG. 7A)
STOCKLIST DH-610057-70 (FIG. 6A)
STOCKLIST DH-610057-43 (FIG. 5A)
STOCKLIST DH-610057-42 (FIG. 4A)
STOCKLIST DH-610057-41 (FIG. 2)
STOCKLIST DH-610057-40 (FIG. 1)

RUNNING LIST RL-610057 (FIGS. 1 & 2)
JUMPER LIST JL-610057

ASSOCIATED DRAWINGS		
DRAWING NO.	ISS	DESCRIPTION
AH- 610C57	16	ADJUSTMENT
E- 610057	5	EXPLANATION

C.M.	OUTGOING TRUNK CKT.	
A.N.	AUTO TO AUTO OR AUTO TO	
EIO-24-57	MANUAL - CLR HOLDING-CLASS OF	
REAR: 142	SERVICE TONE-E&M SIGNALING	
1. 100% 2. 100% 3. 100% 4. 100% 5. 100% 6. 100% 7. 100% 8. 100% 9. 100% 10. 100% 11. 100% 12. 100% 13. 100% 14. 100% 15. 100% 16. 100% 17. 100% 18. 100% 19. 100% 20. 100% 21. 100% 22. 100% 23. 100% 24. 100% 25. 100% 26. 100% 27. 100% 28. 100% 29. 100% 30. 100% 31. 100% 32. 100% 33. 100% 34. 100% 35. 100% 36. 100% 37. 100% 38. 100% 39. 100% 40. 100% 41. 100% 42. 100% 43. 100% 44. 100% 45. 100% 46. 100% 47. 100% 48. 100% 49. 100% 50. 100% 51. 100% 52. 100% 53. 100% 54. 100% 55. 100% 56. 100% 57. 100% 58. 100% 59. 100% 60. 100% 61. 100% 62. 100% 63. 100% 64. 100% 65. 100% 66. 100% 67. 100% 68. 100% 69. 100% 70. 100% 71. 100% 72. 100% 73. 100% 74. 100% 75. 100% 76. 100% 77. 100% 78. 100% 79. 100% 80. 100% 81. 100% 82. 100% 83. 100% 84. 100% 85. 100% 86. 100% 87. 100% 88. 100% 89. 100% 90. 100% 91. 100% 92. 100% 93. 100% 94. 100% 95. 100% 96. 100% 97. 100% 98. 100% 99. 100% 100. 100%	H-610057	SIZE
	SHEET 1 OF 2	D
TELEPHONE ELECTRIC COMPANY		
CHICAGO, ILL., U.S.A. WAUKESHA, WISC., U.S.A.		

