

6A KEY TELEPHONE SYSTEM SINGLE-TALKING LINK ARRANGEMENT MAINTENANCE

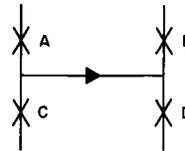
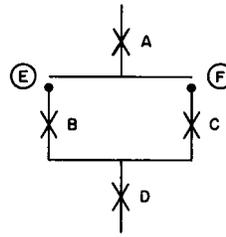
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USE OF SEQUENCE CHARTS AND OPERATIONAL SKETCHES

2.04 After it has been determined that the trouble is in the 6A equipment, proceed as follows:

- Watch relay operation of equipment and compare it to that of the sequence charts as shown on the various figures.
- Where circuit failure occurs, the operational sketch either will show the complete path for the circuit that failed or it will refer to the figure where the complete path may be found.

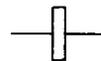
2.05 The following are samples of some of the symbols used in the preparation of the sequence charts and operational sketches contained in this practice.



Option: Relay *A*, in operating, operates relay *B* or *C* depending on the wiring option provided. Relay *B* or *C* in operating would in turn operate relay *D*.

Both relays *A* and *B* must operate before relay *D* can operate. The arrow is used to indicate one-way action. In this illustration, relay *C* operates from relay *A* only.

OPERATIONAL SKETCH SYMBOLS



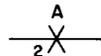
Relay core and winding.



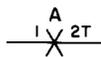
Apparatus operated (keys, telephone sets, etc).



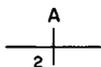
Apparatus normal (keys, telephone sets, etc).



Make contact of an operated wire-spring-type relay. Relay will be designated above and contact number below. The position of the number indicates the location of the fixed contact in the circuit.



Make contact of an operated relay having a top and bottom pile up. Relay will be designated above and a contact number on each side. Letter T or B would indicate that the contacts are in the top or bottom pile up, respectively.



Normally closed contact of an unoperated wire-spring-type relay. Relay will be designated above and contact number below.

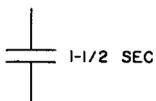
SEQUENCE CHART SYMBOLS



Relay or other apparatus in a fully operated position.



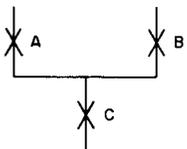
Relay or other apparatus in an unoperated or normal position.



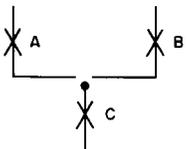
Time delay circuit (time will be designated).



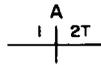
Operation of relay *A* causes the operation of relay *B*.



Both relays *A* and *B* have to be operated before relay *C* can operate.



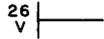
Operation of either the *A* or *B* relay will cause the operation of relay *C*.



Normally closed contact of an unoperated wire-spring-type relay. Relay will be designated above and a contact number on each side.

the 6A Key Telephone System is not covered in this section. Reference should be made to the sections pertaining to these specific items.

2.09 The following wiring options are applicable to this section.



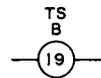
Battery symbol.

OPTIONS ASSOCIATED WITH SYSTEM

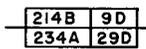


Ground symbol.

WIRING	OPTION	
X	Without (max nine codes)	Transfer Ckt
W	With (over nine codes)	
K	With	Preset Conference
J	Without	
G	With	Camp-On
N	Without	
H	Without	Aux Rel Busy Lamp Ckt
M	With	
S	Without	Aux Rel Lamp Flash Ckt
V	With	
AK	Interrupted	Audible Signal
AL	Single Spurt	
AJ	Dial, busy, and aud tone	
AQ	Busy signal & camp-on control ckt when used with a 207B KTU	
A	Single or 2-Talking Link Arrangements	
AR	With Conference Time-Out Circuit	



Point of termination. Terminal strip B, terminal 19.



Point of termination. Terminal strip D, terminal 9 if the 214B KTU is provided or terminal strip D, terminal 29 if the 234A KTU is provided.

2.06 A description of the operation, supplementing the sequence charts, is provided to specify the functions of the equipment.

2.07 The sequence charts and operational sketches in this section supplement, but do not replace, CD and SD-69286-01.

2.08 General maintenance of telephone sets, dials, keys, relays, power plants, etc, used with

OPTIONS ASSOCIATED WITH STATIONS

WIRING	OPTION	
E	With	Automatic Cutoff
F	Without	
Y	Over <i>T & R</i> leads	Sta Aud Signal
Z	Over sep sig pair	
AA	Sta assoc with com aud arr	
Q	With	Aux Rel Sta Ckt (MD)
AG	Without	
AG	Without	Add-On Transfer Ckt
AO	With	
AE	Local sta or off-premise sta when <i>AKopt</i> is provided	Sig Key Selection of Station
AF	Off-prem sta when <i>AL</i> opt is provided	
AB	Sta to originate add-on conference (MD)	
AS	Without	Station Busy Circuit
AT	With	

2.10 The following manufacture discontinued KTUs and suggested replacement KTUs are applicable to this section.

KTU (MD)	SUGGESTED REPLACEMENT
207B	207C
209A, 212A, 232A	232B
217A	217B
224A	224B
226A	226B
227A	227B

2.11 The 227A key telephone units used in this system have been identified for clarity as follows:

- 227A- or B-1 Ringing and Tone Control Circuit
- 227A- or B-2 Single Add-On Transfer Circuit
- 227A-3 Auxiliary Relay Busy Lamp Circuit
- 227A-4 Auxiliary Relay Lamp Flash Circuit
- 227A-5 Auxiliary Relay Station Circuit (MD).

Each of the above circuits utilizes the *MS* relay of the 227A (MD) KTU.

3. LINE SEIZURE

3.01 The *T* and *R* leads of a 6A Key Telephone System station are connected to battery and ground through the windings of the *A* relay. As a station picks up, relay *A* operates. The station's *L* relay in the station line circuit also operates, but performs no useful function at this time. Operation of the *A* relay causes operation of relay *B*. The *B* relay in operating (a) operates the vibrator if provided and (b) operates the *BI* relay under control of the *TBI* relay and the camp-on control circuit if provided. The *BI* relay in operating (a) lights the busy lamp steadily at all stations (as described in 10.), (b) starts the associated flashing circuit, and (c) operates the time-out control circuit of the associated key telephone system if so connected.

3.02 When dial tone is provided, the output of the network in the vibrator circuit is returned to the tip side of the *A* relay, under control of the *MS* relay in the ringing and tone control circuit.

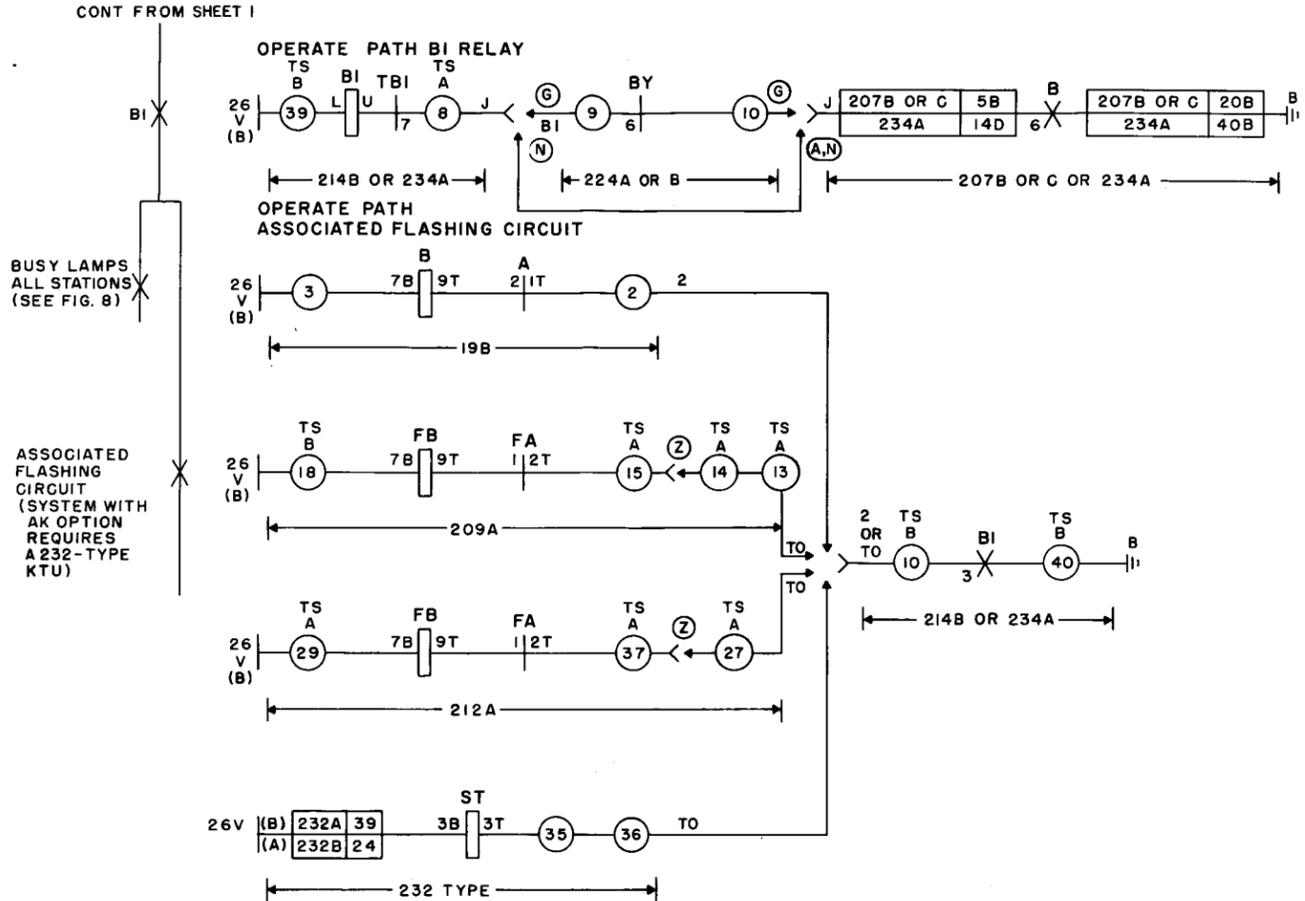
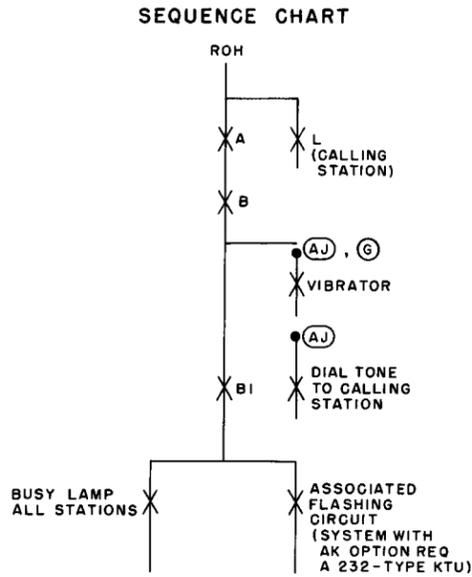
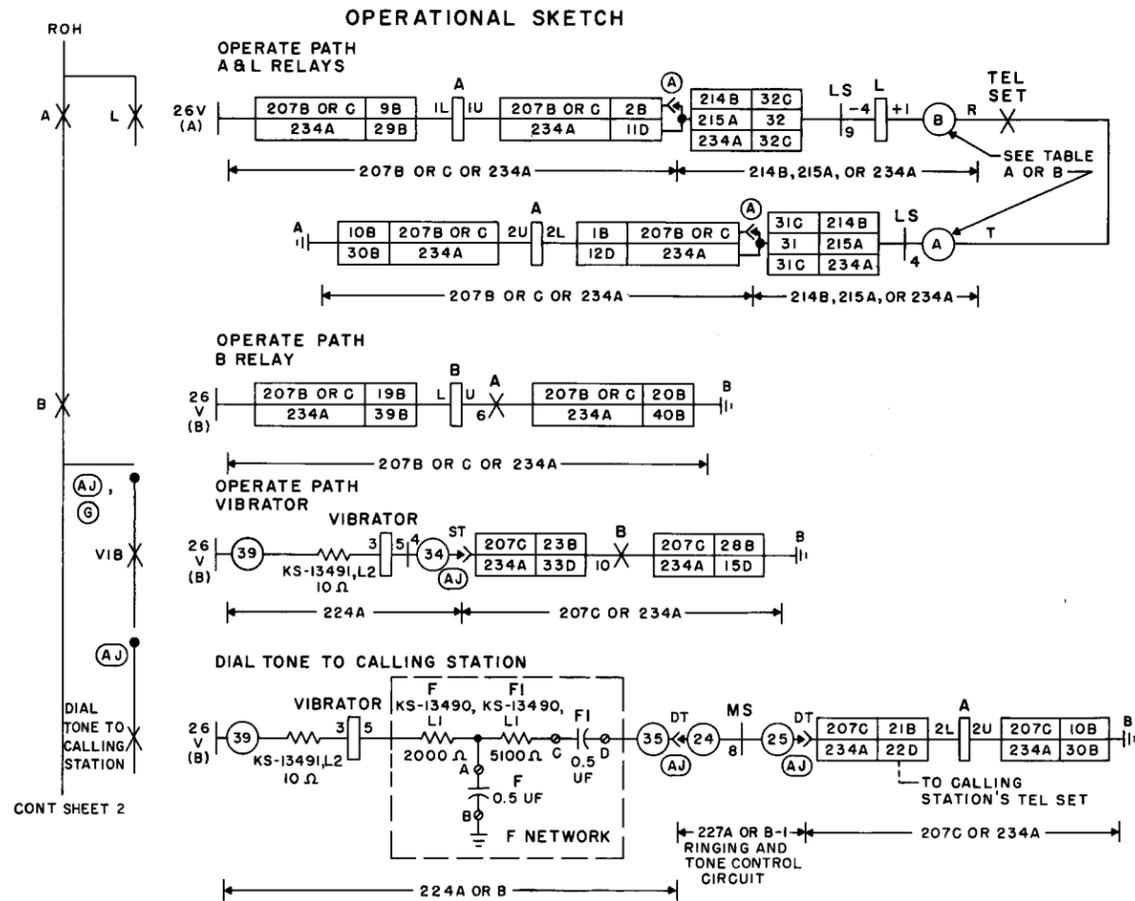


TABLE A

REF DESIG	TERMINALS ON 214B OR 234A								
	CKT 1	CKT 2	CKT 3	CKT 4	CKT 5	CKT 6	CKT 7	CKT 8	CKT 9
A	1A	11A	21A	31A	1B	11B	21B	31B	1C
B	2A	12A	22A	32A	2B	12B	22B	32B	2C

TABLE B

REF DESIG	TERMINALS ON 215A		
	CKT 1	CKT 2	CKT 3
A	1	11	21
B	2	12	22

Fig. 1—Line Seizure

4. BASIC OPERATION OF SELECTOR CIRCUIT (ROTARY DIAL)

4.01 The relays *A* and *B* have previously been operated as described in 3. As each digit is dialed, relay *A* releases and reoperates in unison with the dial pulses. Slow release relay *B* remains operated during dialing. As the *A* relay pulses, a ground is connected to the rotary magnet causing the selector switch to step in unison with the dialed pulses. (See Note.)

4.02 A slow releasing relay *C* operates on the first release of relay *A* and remains operated during the pulse train. This relay causes operation of the *T* relay which in turn connects a resistor and capacitor across its winding. The capacitor is charged during pulsing, and its discharge after the release of relay *C* holds the *T* relay operated for approximately 1-1/2 seconds.

4.03 When dial tone is provided, relay *C* in operating operates the *MS* relay in the ringing and tone control circuit. The *MS* relay in operating (a) locks up under control of the *B* relay and (b) opens the path supplying dial tone to the tip side of the line through the winding of the *A* relay.

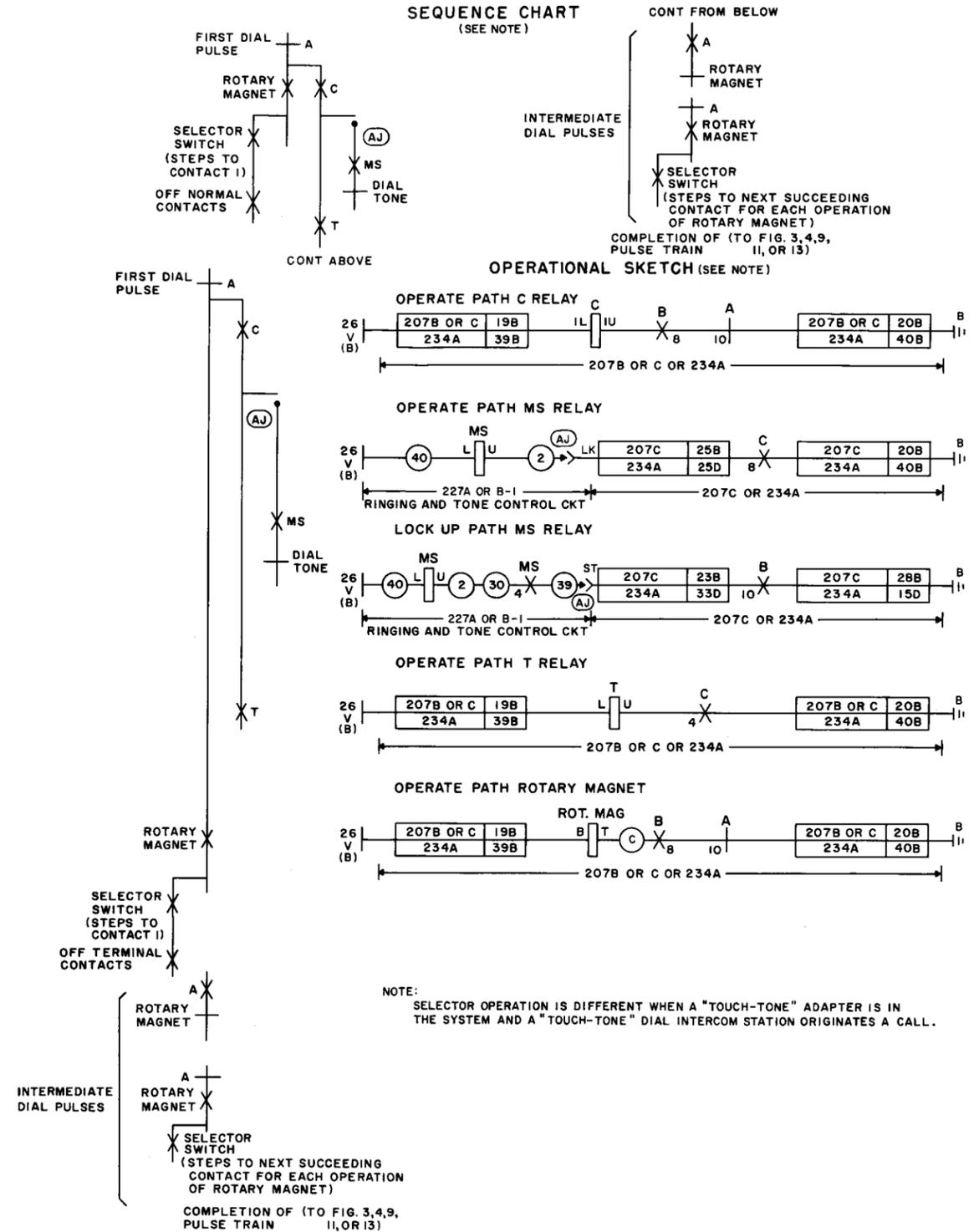


Fig. 2—Basic Operation of Selector Circuit Using Rotary Dial

5. STATION SELECTION, DIALING SINGLE-DIGIT CODE OR SECOND DIGIT OF 2-DIGIT CODE (DIALING FIRST DIGIT OF 2-DIGIT CODE, SEE 6.)

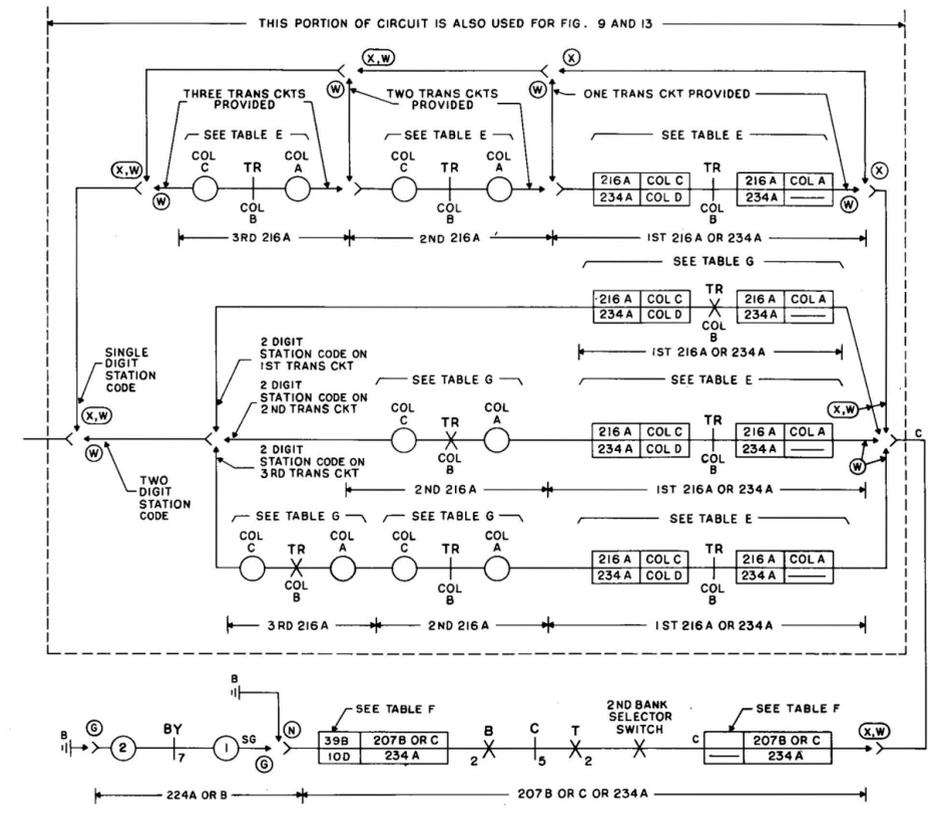
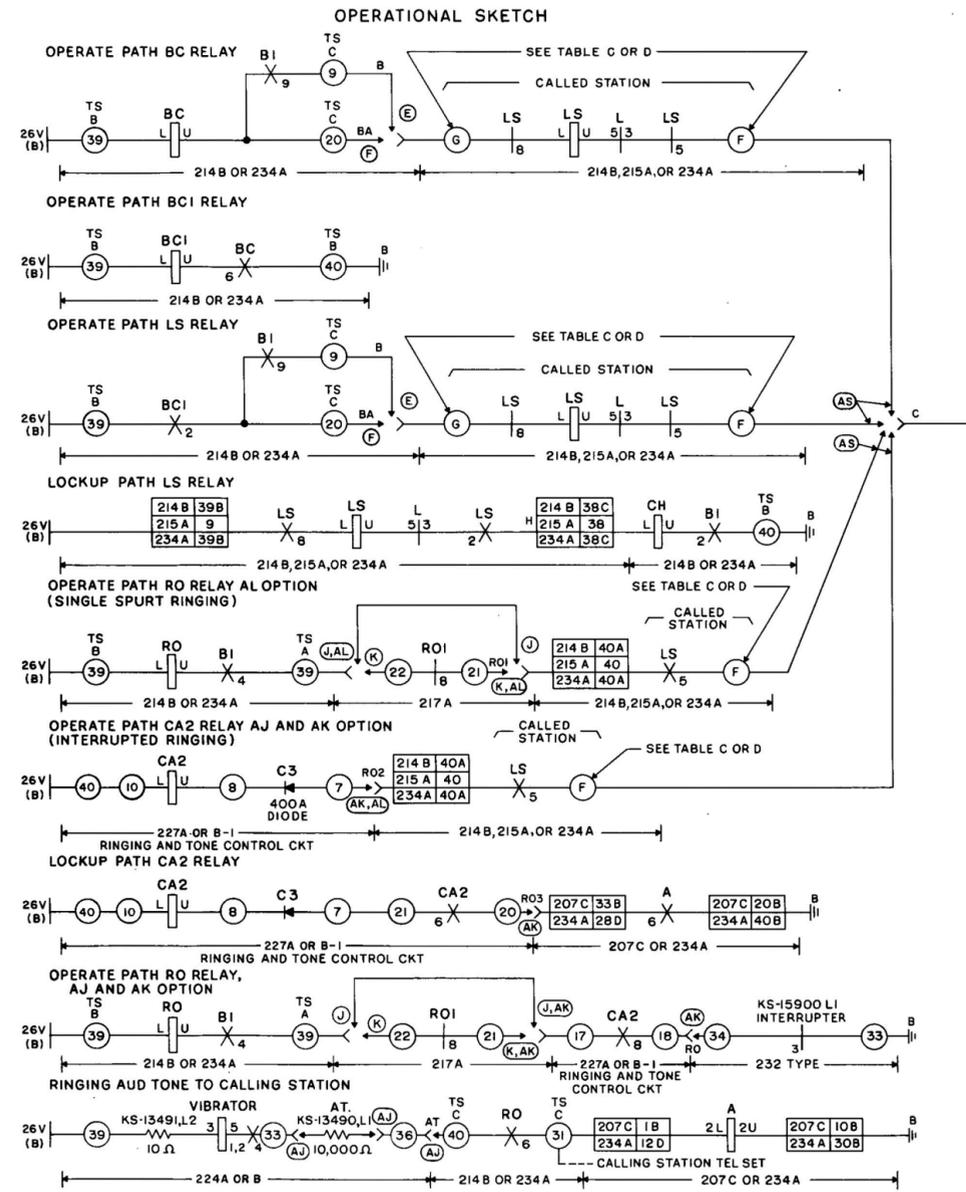
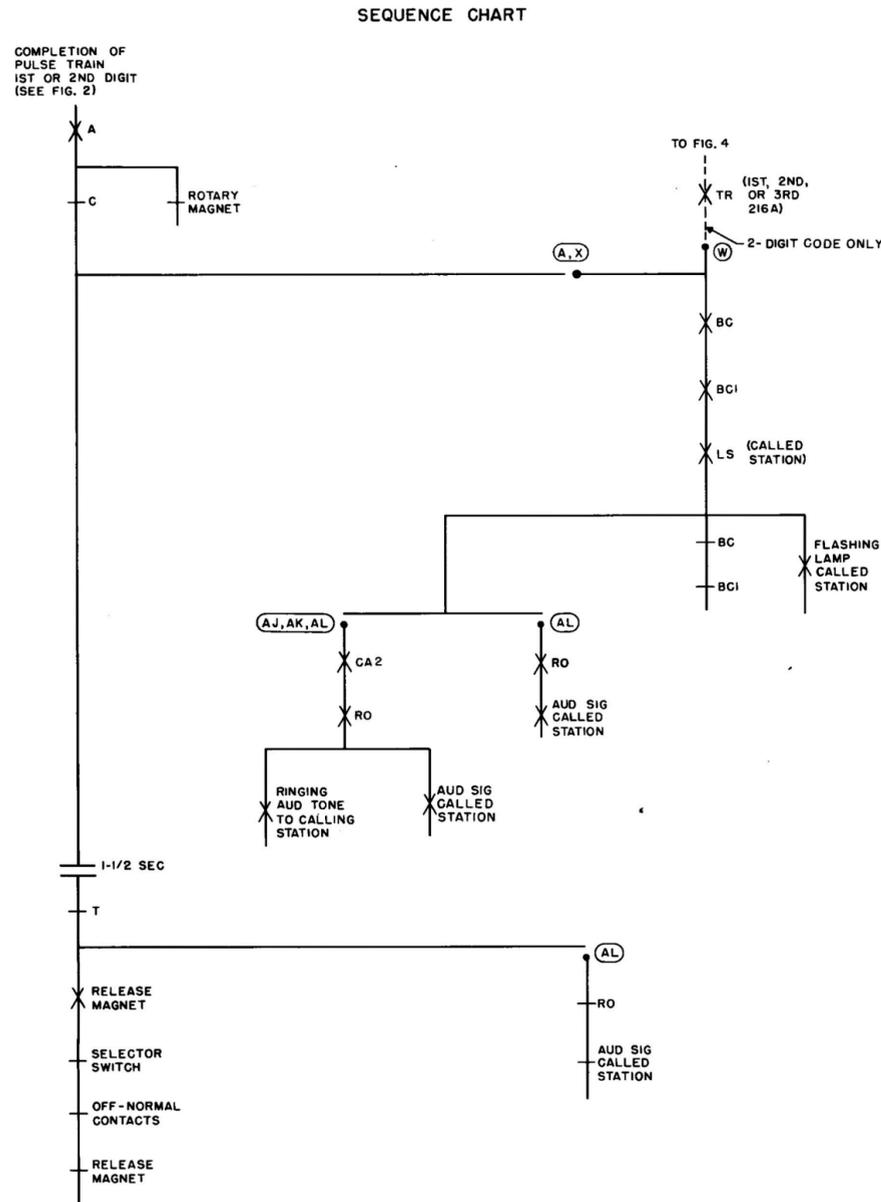
5.01 At the completion of the pulse train, relay *A* reoperates and relay *C* releases. The *C* relay in releasing (a) opens the operate path for relay *T* and (b) connects a ground to the station signaling circuit under control of the second bank of the selector switch and the *TR* relays, if provided.

5.02 This ground operates relay *BC*, which in turn operates relay *BCI*. Operation of the *BCI* relay shunts the winding of the *BC* relay, thus allowing the called station's *LS* relay to operate. Relays *BC* and *BCI* return to normal. The *LS* relay in operating (a) locks up and (b) connects the called station's lamp to the associated flashing circuit, as described in 10.

5.03 When *AL* option is provided, the operation of the *LS* relay connects the ground from the second bank of the selector switch to the *RO* relay. The *RO* relay in operating operates the audible signal at the called station, as described in 9.

5.04 When *AJ, AK* and *AL* options are provided, the operation of the *LS* relay connects the ground from the second bank of the selector switch to the ringing and tone control circuit to operate the *CA2* relay. The *CA2* relay in operating (a) locks up and (b) connects the *RO* relay to the interrupter in the associated flashing circuit. The interrupter operates and releases the *RO* relay with a 1-second operate and a 3-second release timing cycle. The *RO* relay in operating operates the audible signal at the called station, as described in 9, and completes a path to send ringing audible tone to the calling party.

5.05 After a nominal 1-1/2 second time delay, relay *T* releases. The release of relay *T* (a) opens the operate path of the *RO* relay, when *AL* option is provided, and (b) provides an operate path for the release magnet. The release magnet in operating returns the selector switch to normal which in turn restores the off-normal contacts to their original position. This in turn opens the operate path of the release magnet.



REFERENCE DESIGNATION	TERMINALS ON 214B OR 234A								
	CKT 1	CKT 2	CKT 3	CKT 4	CKT 5	CKT 6	CKT 7	CKT 8	CKT 9
F	7A	17A	27A	37A	7B	17B	27B	37B	7C
G	11C	12C	13C	14C	15C	16C	17C	18C	19C

REFERENCE DESIGNATION	TERMINALS ON 215A		
	CKT 1	CKT 2	CKT 3
F	7	17	27
G	18	19	20

DIGIT DIALED	216A OR 234A 1 st RELAY NORMAL			
	COL A TERM. 216A	COL B CONTACT	COL C TERM. 216A	COL D TERM. 216A
1*	1	3	11	11E
2	2	1	12	12E
3	3	2	13	13E
4	4	3	14	14E
5	5	4	15	15E
6	6	5	16	16E
7	7	6	17	17E
8	8	7	18	18E
9	9	8	19	19E
0	10	9	20	20E

LEAD	TERMINAL
C	11A
C	12A
C	13A
C	14A
C	15A
C	16A
C	17A
C	18A
C	19A
C	20A

DIGIT DIALED	216A OR 234A TR RELAY OPERATED			
	COL A TERM. 216A	COL B CONTACT	COL C TERM. 216A	COL D TERM. 234A
1	1	8	21	21E
2	2	1	22	22E
3	3	2	23	23E
4	4	3	24	24E
5	5	4	25	25E
6	6	5	26	26E
7	7	6	27	27E
8	8	7	28	28E
9	9	8	29	29E
0	10	9	30	30E

* USED WITH 2-DIGIT CODE ONLY

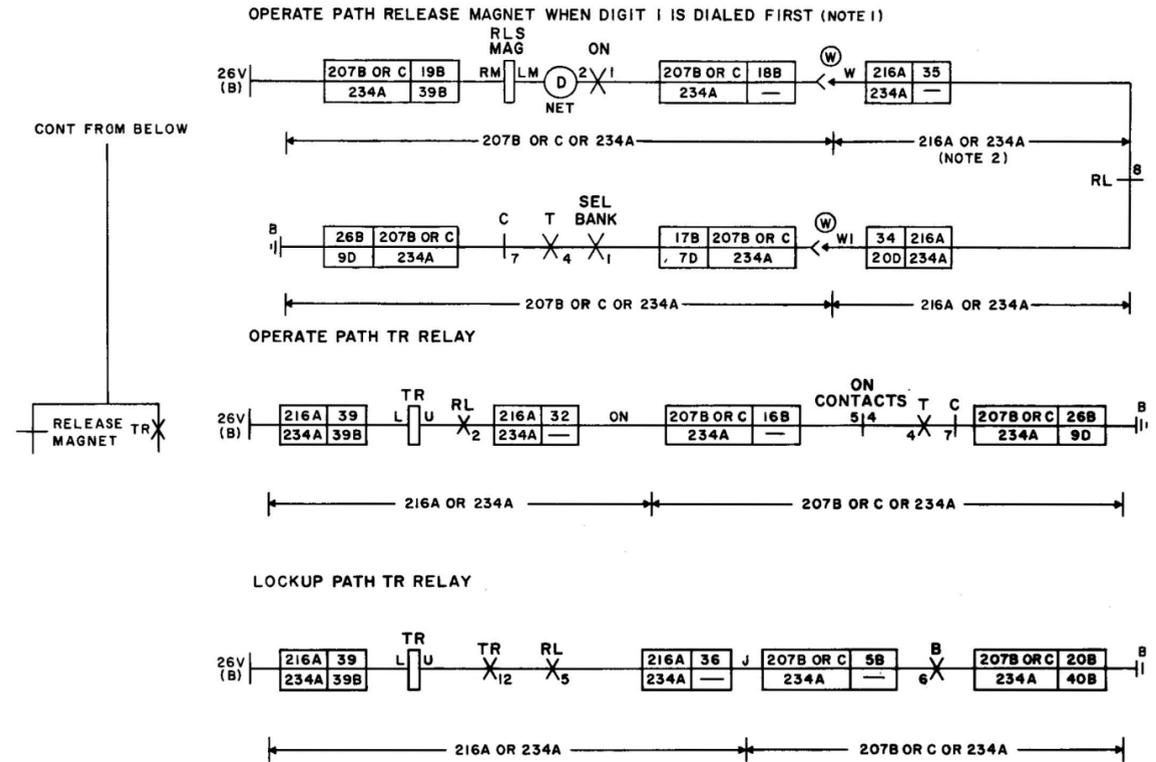
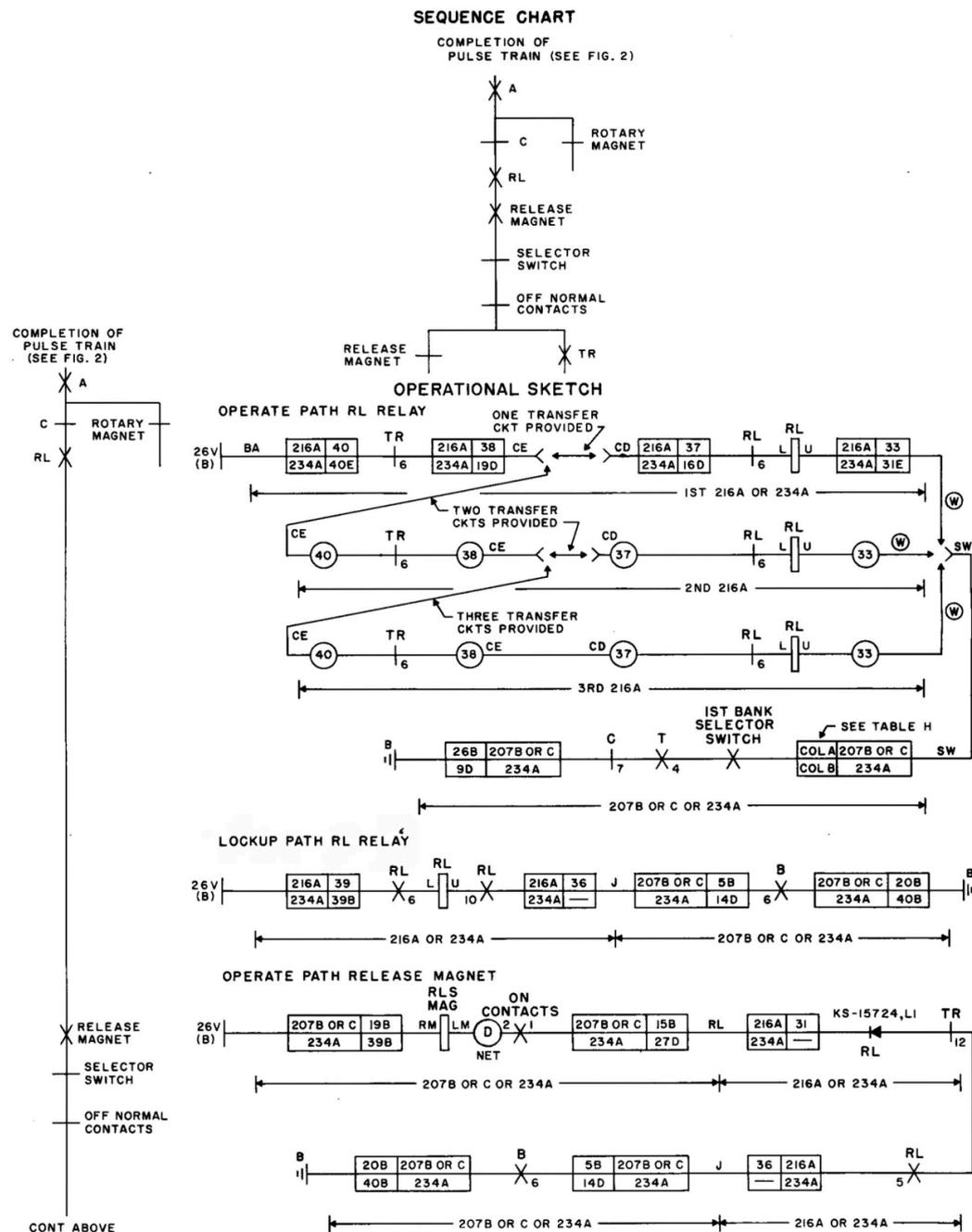
Fig. 3—Station Selection, Dialing Single-Digit Code or Second Digit of 2-Digit Code

6. STATION SELECTION, DIALING FIRST DIGIT OF A 2-DIGIT CODE (DIALING SECOND DIGIT, SEE 5.)

6.01 The first digit of a 2-digit code is used as a transfer code. After completion of the pulse train, relay *A* reoperates and relay *C* releases. The release of relay *C* operates the *RL* relay under control of all normal *TR* relays and the selected *SW* lead on the first bank of the selector switch.

6.02 The *RL* relay locks to the operated *B* relay and connects an operate path for the release magnet of the selector circuit under control of the off-normal contacts and the *TR* relay.

6.03 The release of the selector switch causes the operation of the *TR* relay under control of the *RL* relay, the off-normal contacts, and relays *T* and *C*. The *TR* relay locks to the operated *B* relay and (a) transfers the *C* leads (connected to the second bank of the selector switch) to the selected group of 2-digit code stations, (b) opens the operate path of the selector-release magnet, and (c) opens the operate path of any other *RL* relay which may be provided.



NOTES:
 1. THE DIGIT I CANNOT BE USED AS AN INITIAL DIGIT.
 2. WHEN MORE THAN ONE 216A KTU IS PROVIDED, THE PATH IS THROUGH BB CONTACTS OF ALL RL RELAYS IN SERIES.

TABLE H

DIGIT DIALED	COL A TERM. ON 207B OR C	COL B TERM. ON 234A
2	2A	2E
3	3A	3E
4	4A	4E
5	5A	5E
6	6A	6E
7	7A	7E
8	8A	8E
9	9A	9E
0	10A	10E

Fig. 4—Station Selection, Dialing First Digit of 2-Digit Code

7. STATION SELECTION, USING SIGNAL KEY

7.01 After line seizure has been accomplished as described in 3, the signal key, furnished on a one-per-called station basis, is operated. Operation of the signal key operates relay *BC* which in turn operates relay *BCI*. The *BCI* relay shunts the winding of the *BC* relay, thus allowing the called station's *LS* relay to operate. Relays *BC* and *BCI* return to normal. The *LS* relay in operating (a) locks up and (b) connects the called station's lamp to the associated flashing circuit as described in 10.

7.02 When *AL* option is provided, the operation of the *LS* relay connects the ground from the signal key to the *RO* relay. The *RO* relay in operating operates the audible signal at the called station as described in 9. The audible signal at the called station will operate as long as the signal key is depressed.

7.03 When *AJ* and *AK* options are provided, the operation of the *LS* relay connects the ground from the signal key to the ringing and tone control circuit to operate relays *MS* and *CA2*. The *MS* relay in operating (a) locks up and (b) opens the path supplying dial tone to the calling station. The *CA2* relay in operating, (a) locks up and (b) connects the *RO* relay to the interrupter in the associated flashing circuit. The interrupter operates and releases the *RO* relay with a 1-second operate and a 3-second release timing cycle. The *RO* relay in operating, operates the audible signal at the called station as described in 9 and completes a path to send ringing audible tone to the calling party. The signal key can be released, as the *RO* relay is now under control of the interrupter.

7.04 A selected conference call can be originated by the simultaneous operation of a number of signal keys (maximum 6). The operation of the signal keys operates the associated station circuits (see 7.01) which in turn control the audible signals at the called stations (see 7.02 or 7.03). For answering the conference call see Preset Conference 11.08 to 11.10.

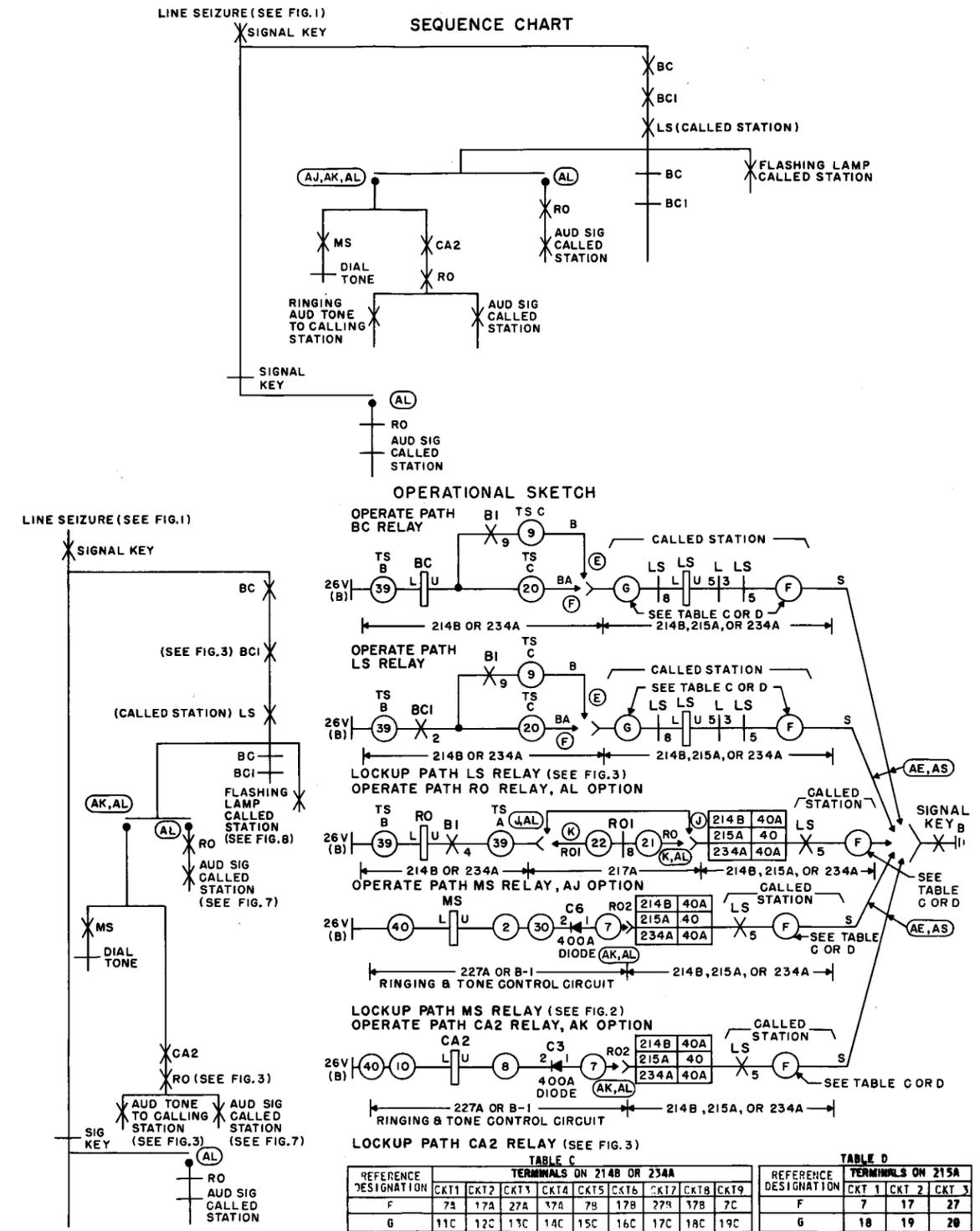


Fig. 5—Station Selection, Using Signal Key

10. VISUAL SIGNALS

BUSY LAMPS ALL STATIONS, LINE SEIZURE

10.01 The *B1* relay operates on pickup. Relay *B1* in operating lights the busy lamp at all stations (*H* option) or operates an auxiliary relay busy lamp circuit (*M* option). The auxiliary relay in operating lights the busy lamp at all stations.

FLASHING LAMP, CALLED STATION

10.02 When a station is called, its *LS* relay operates. The *LS* relay in operating connects the called station lamp to the flashing circuit (*S* option) or connects the called station lamp to an auxiliary relay lamp flash circuit (*V* option), which in turn is under control of the flashing circuit.

BUSY LAMP CALLING AND CALLED STATION, PRIMARY LINK

10.03 The called station in answering operates relay *TB1*. The *TB1* relay in operating (a) operates the *LS* relay of the calling station, (b) releases the *B1* relay, and (c) operates the auxiliary relay lamp flash circuit steadily, if provided (*V* option). The operated *LS* relays of the calling and called station connect the station lamp to the lamp power supply through a contact of the released *B1* relay (*S* option) or through a contact of the operated auxiliary relay lamp flash circuit (*V* option).

BUSY LAMP IDLE STATIONS, PRIMARY LINK

10.04 The called station in answering operates relay *TB1*. The *TB1* relay in operating takes over control of the busy lamps at the idle stations directly (*H* option) or takes over control of the operated auxiliary relay busy lamp circuit (*M* option). The auxiliary relay then controls the busy lamp at all idle stations.

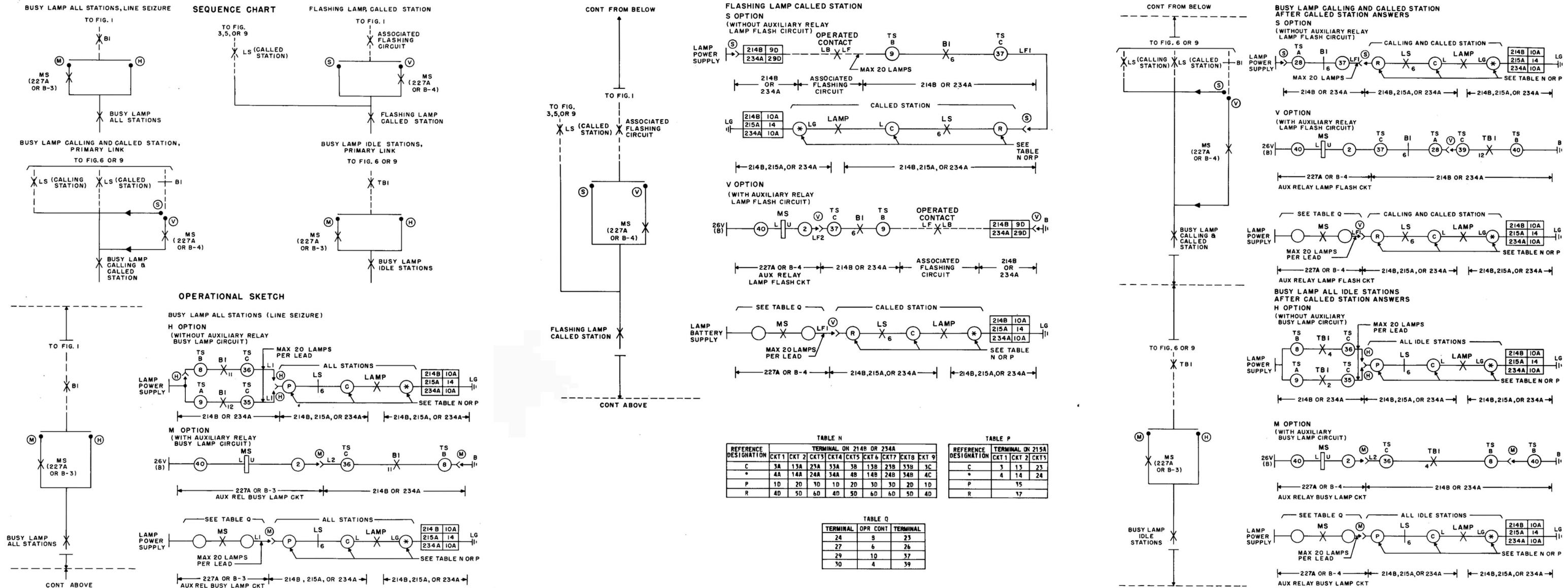


Fig. 8—Visual Signals

11. PRESET CONFERENCE

11.01 A preset conference can be established by dialing an assigned code or by the use of a signal key.

11.02 After line seizure has been accomplished, as described in 3, a ground is connected to the preset conference circuit under control of the selector circuit, if the dial was used, or under control of an operated signal key. This ground will cause the operation of relay *ROI*, under control of either the *PC1* or *PC2* relay. In operating, the *ROI* relay (a) connects battery to the *PC1* and *PC2* relays, (b) locks up under control of the *PC1* and *PC2* relays, and (c) opens the operate path of the *RO* relay to prevent operation of the audible signals until all *LS* relays have operated.

11.03 The *PC1* or *PC2* relay will now operate. The operation of the *PC1* or *PC2* relay will (a) lock up, (b) release the *ROI* relay, and (c) connect ground through a maximum of six station-line circuits to operate the *BC* relay. The *BC* relay operates the *BC1* relay which in turn connects battery ahead of the *BC* relay to operate all called station *LS* relays (maximum 6) associated on the conference.

11.04 The *LS* relays in operating (a) lock up to the operated *B1* relay through the winding of the *CH* relay, causing it to operate, and (b) connect all the called station lamps to the associated flashing circuit.

11.05 When *AL* option is provided, the operation of the *LS* relays connects the ground from the *PC1* or *PC2* relay to the *RO* relay. The *RO* relay in operating operates the audible signals (as described in 9).

11.06 When *AJ* and *AK* options are provided, the operation of the *LS* relays connects the ground from the *PC1* or *PC2* relay to the ringing and tone control circuit to operate the *CA2* relay. If a signal key was used to establish a conference, this ground would also operate the *MS* relay of the ringing and tone control circuit.

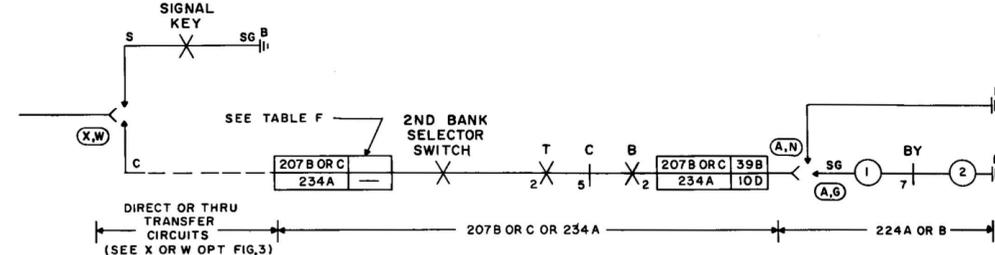
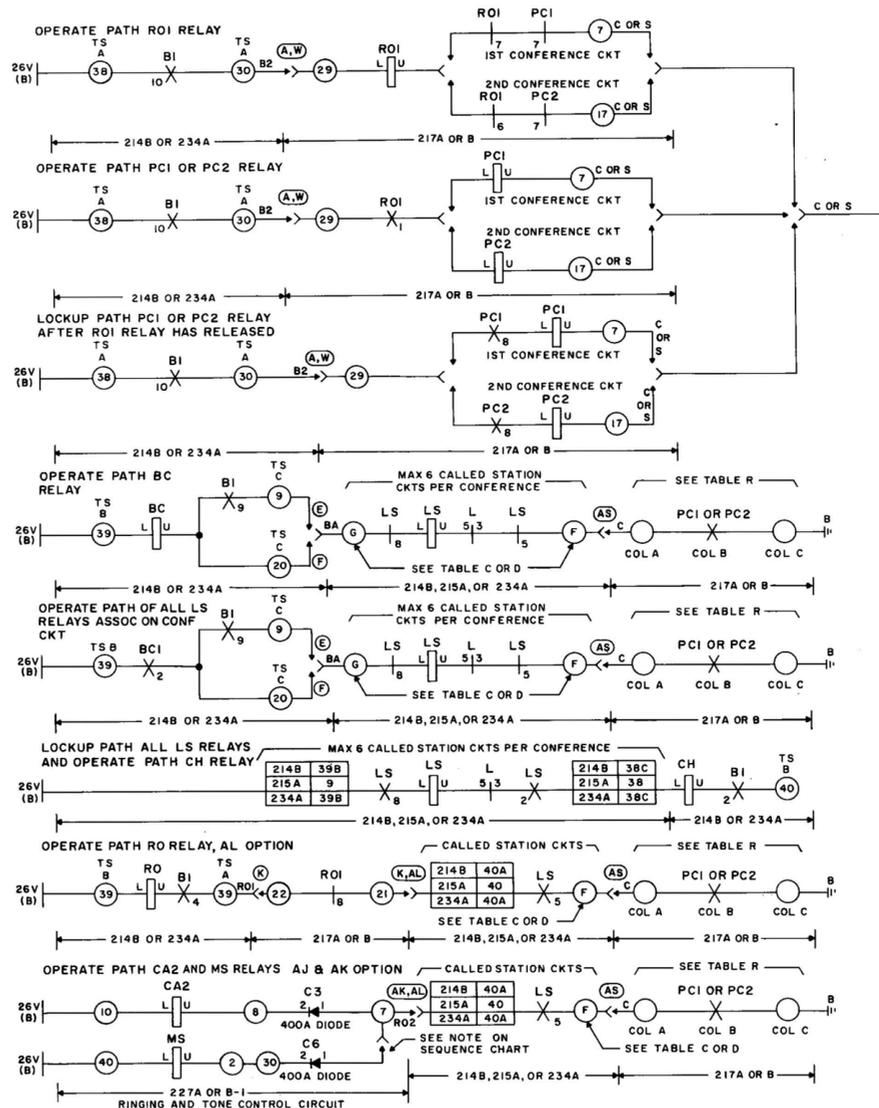
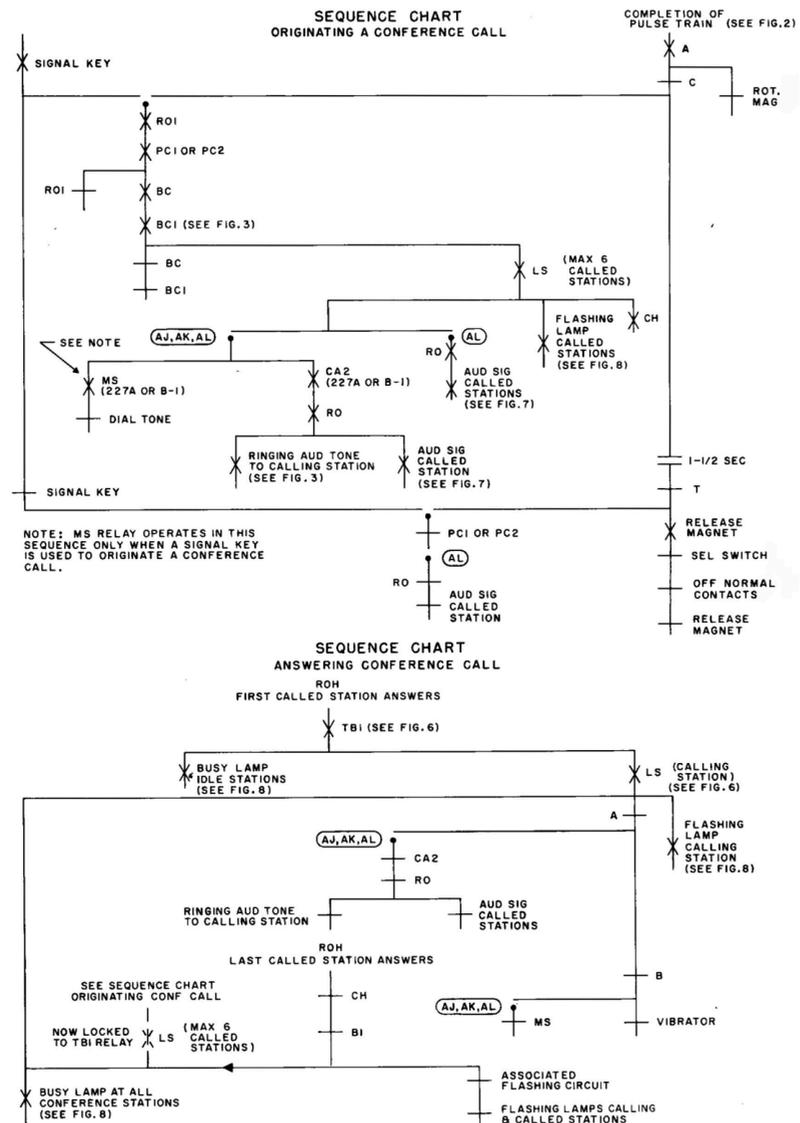
The *MS* relay in operating opens the dial tone path to the calling station. The *CA2* relay in operating (a) locks up and (b) connects the *RO* relay to the interrupter in the associated flashing circuit. The *RO* relay in operating operates the audible signals as described in 9 and completes a path to send ringing audible tone to the calling party.

11.07 The release of the selector switch, after a nominal 1-1/2 seconds, or the release of the signal key will release the *PC1* or *PC2* relay. The release of the *PC1* or *PC2* relay will open the operate path of the *RO* relay if *AL* option is provided. The release of the *RO* relay opens the audible signal path to all called stations.

11.08 When the first called station answers, the *TB1* relay will operate. The *TB1* relay in operating (a) provides a holding path for relay *B1* under control of the operated *CH* relay and (b) operates and locks operated the calling station's *LS* relay, thus allowing the calling station to receive a flashing lamp signal. The lamp will continue to flash until the last called station answers. The operation of the calling station's *LS* relay releases the selector circuit. When *AJ* and *AK* options are provided, the release of the selector circuit releases the *MS* and *CA2* relays in the ringing and tone control circuit. The release of the *CA2* relay opens the operate path of the *RO* relay. The release of the *RO* relay opens the audible signal path to all called stations and the ringing audible tone to the calling station.

11.09 As each called station answers, the lockup path for the associated *LS* relay is transferred from the *B1* relay to the *TB1* relay.

11.10 When the last called station answers, the operate path for the *CH* relay is opened and the relay releases. The release of relay *CH* releases the *B1* relay thereby allowing the lamps to light steadily at all stations. When the lamp at the calling station lights steadily, it is an indication that all stations on the conference call have answered.



LOCKUP PATH CA2 RELAY (SEE FIG. 3)

LOCKUP PATH MS RELAY (SEE FIG. 2)

TABLE C

REFERENCE DESIGNATION	TERMINAL ON 214B OR 234A								
	CKT 1	CKT 2	CKT 3	CKT 4	CKT 5	CKT 6	CKT 7	CKT 8	CKT 9
F	7A	17A	27A	37A	7B	17B	27B	37B	7C
G	11C	12C	13C	14C	15C	16C	17C	18C	19C

TABLE D

REFERENCE DESIGNATION	TERMINAL ON 215A		
	CKT 1	CKT 2	CKT 3
F	7	17	27
G	18	19	20

TABLE F

207B OR C	
LEAD	TERMINAL
C	11A
C	12A
C	13A
C	14A
C	15A
C	16A
C	17A
C	18A
C	19A
C	20A

TABLE R

RELAY	CKT	COL A	COL B	COL C
		15 TERM.	CONTACT NO.	TS TERM.
PC1	1	1	1	35
	2	2	2	36
	3	3	4	37
	4	4	10	28
	5	5	11	28
	6	6	12	28
PC2	1	11	1	28
	2	12	2	28
	3	13	4	28
	4	14	10	28
	5	15	11	28
	6	16	12	28

Fig. 9—Preset Conference

12. ADD-ON CONFERENCING

12.01 The incoming central office or PBX line is picked up under control of an associated key telephone system or key equipment line circuit. When it is ascertained that one of the 6A stations is to be conferenced with this call, a hold is placed on the central office or PBX line.

12.02 The 6A station to be conferenced is selected, signaled, and a talking path established as previously described.

12.03 Originating the conference (AB and AG, AB and Q or AO option)

- AB and AG options: The operation of the add-on signal key at the control station causes the operation of relay M through a contact of the control station's operated LS relay.
- AB and Q or AO option: The operation of the control station's LS relay operates an auxiliary relay. The operation of the add-on signal key at the control station causes the operation of relay M through a contact of the operated auxiliary relay.
- AB and AG, and AB and Q options are MD.

12.04 The M relay in operating (a) locks operated under control of the TB1 relay, (b) opens the operate path of any other M relay, thus preventing the interconnection of two or more outside lines (see inset on operational sketch), and (c) bridges the incoming central office or PBX line and the 6A station through the 120F repeat coil.

12.05 The add-on conference circuit is equipped with A lead control.

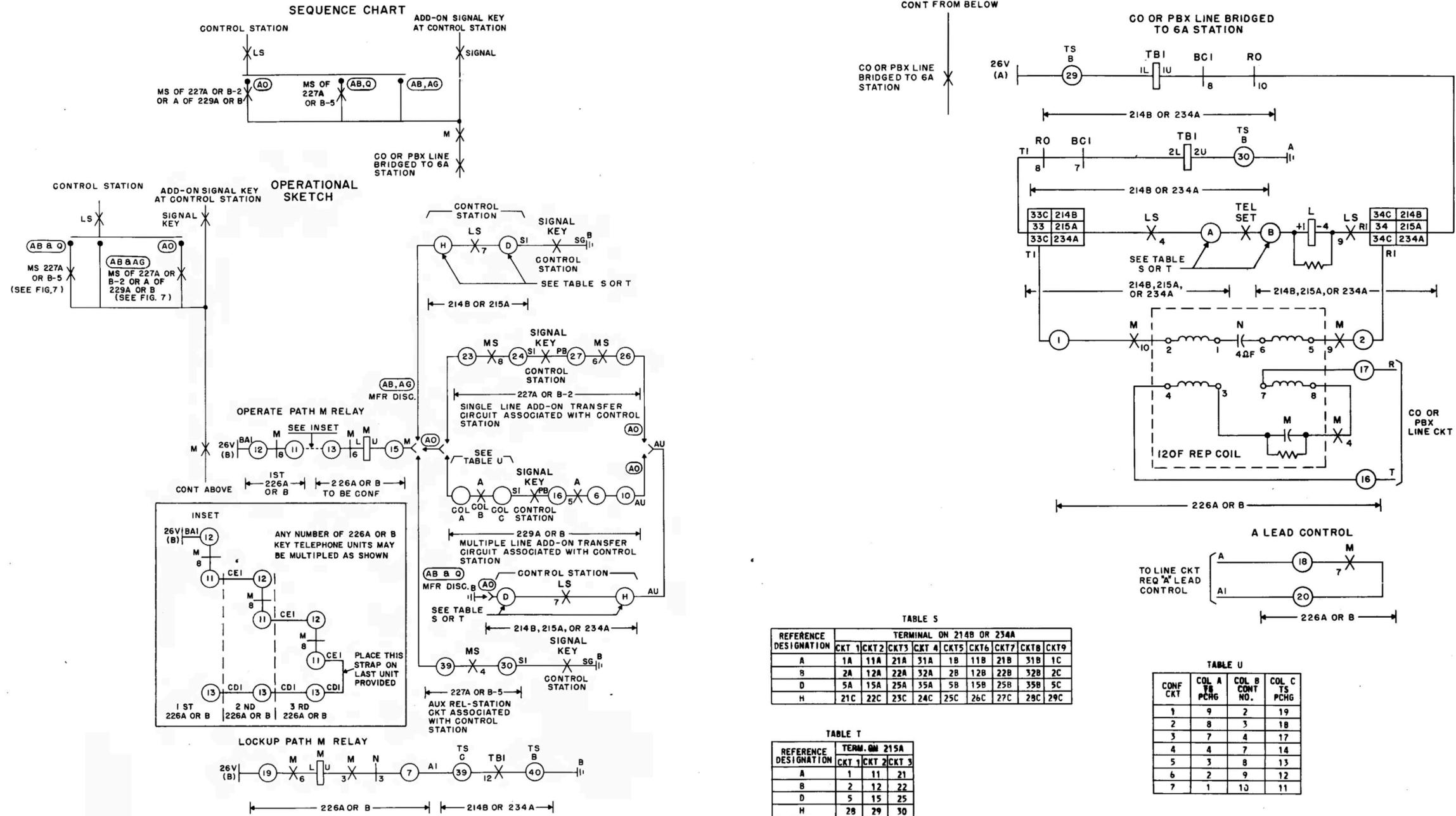


TABLE S

REFERENCE DESIGNATION	TERMINAL ON 214B OR 234A								
	CKT 1	CKT 2	CKT 3	CKT 4	CKT 5	CKT 6	CKT 7	CKT 8	CKT 9
A	1A	11A	21A	31A	1B	11B	21B	31B	1C
B	2A	12A	22A	32A	2B	12B	22B	32B	2C
D	5A	15A	25A	35A	5B	15B	25B	35B	5C
H	21C	22C	23C	24C	25C	26C	27C	28C	29C

TABLE T

REFERENCE DESIGNATION	TERM. ON 215A		
	CKT 1	CKT 2	CKT 3
A	1	11	21
B	2	12	22
D	5	15	25
H	28	29	30

TABLE U

CONF CKT	COL A TB PCRG	COL B CONT NO.	COL C TS PCRG
1	9	2	19
2	8	3	18
3	7	4	17
4	4	7	14
5	3	8	13
6	2	9	12
7	1	10	11

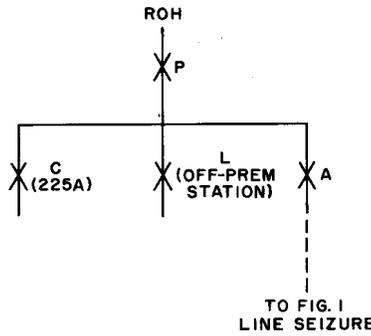
Fig. 10—Add-On Conference

14. OFF-PREMISE STATION, LINE SEIZURE

14.01 When an off-premise station initiates a call, it is connected to the selector circuit under control of the *P* relay in the long line circuit and the *LS* relay in its associated line and signaling circuit. As the station picks up, the *P* relay

operates and closes a path through the windings of the *C* relay in the long line circuit to operate relay *A* in the selector circuit. Upon dialing, the *P* relay repeats dial pulses causing relay *A* to release and reoperate in unison with the dial pulses. This action causes the selector circuit to operate as described in 4.01 through 4.03.

SEQUENCE CHART



OPERATIONAL SKETCH

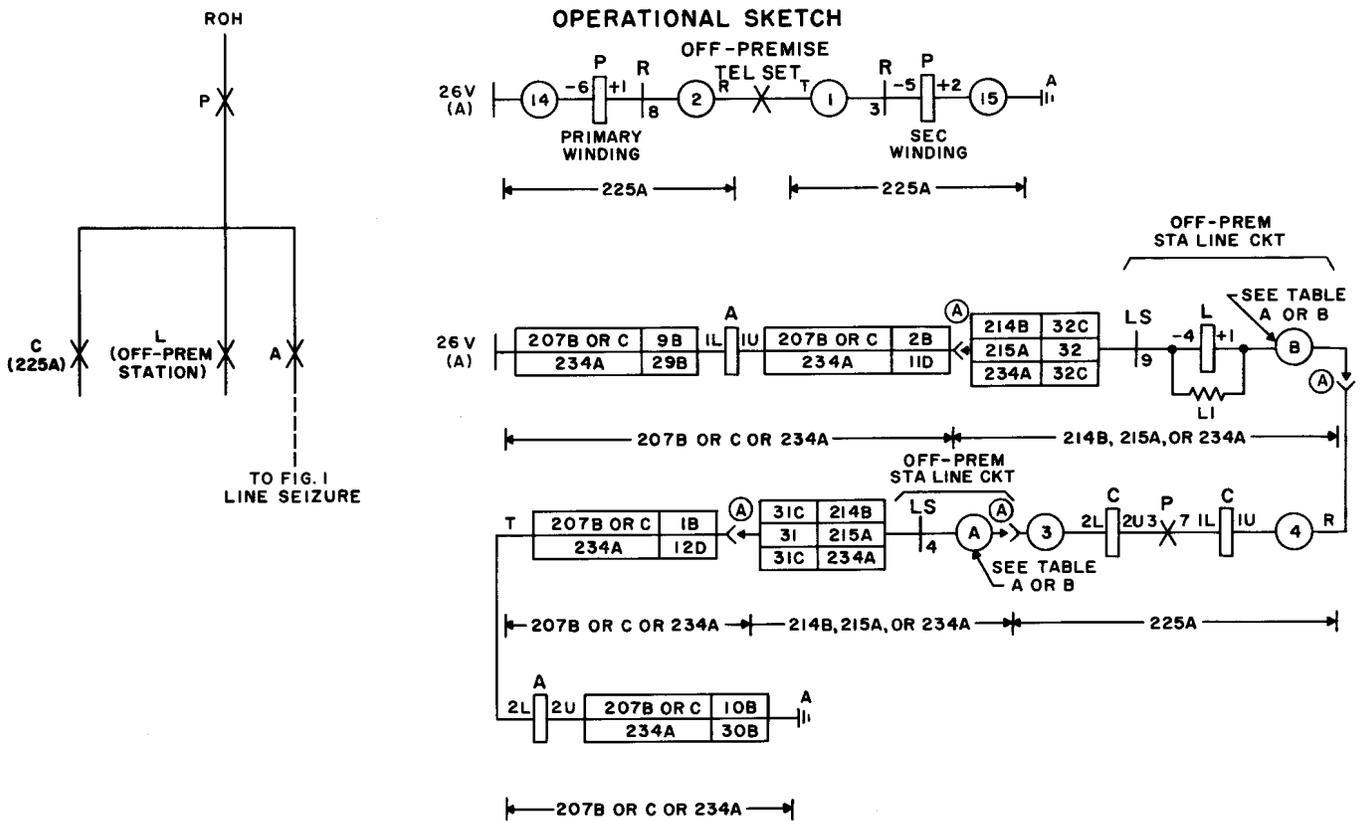


TABLE A

REFERENCE DESIGNATION	TERMINAL ON 214B OR 234A								
	CKT 1	CKT 2	CKT 3	CKT 4	CKT 5	CKT 6	CKT 7	CKT 8	CKT 9
A	1A	11A	21A	31A	1B	11B	21B	31B	1C
B	2A	12A	22A	32A	2B	12B	22B	32B	2C

TABLE B

REFERENCE DESIGNATION	TERMINAL ON 215A		
	CKT 1	CKT 2	CKT 3
A	1	11	21
B	2	12	22

Fig. 12—Off-Premise Station, Line Seizure

SECTION 518-410-301

15. OFF-PREMISE STATION, INCOMING CALL

15.01 An off-premise station is selected by dialing a station code or by the use of a signal key.

AL OPTION

15.02 Ground from the operated selector circuit or the operated signal key operates the *R* relay in the long line circuit. The *R* relay in operating (a) opens the transmission path between the off-premise station and local stations, (b) connects generator to the off-premise station's *T* and *R* leads operating the audible signal, and (c)

operates the *BC* relay. The functions of the *BC*, *BCI*, and *LS* relays are as described in 5.02 or 7.01.

AK OPTION

15.03 Same as described in 5.01, 5.02, and 5.04 when the dial is used, or 7.01 and 7.03 when the signal key is used, with the exception that the *RO* relay operates the *R* relay. The *R* relay in turn operates the audible signal at the off-premise station.

15.04 No provision is made to supply the off-premise station with illumination from the 6A Key Telephone System.

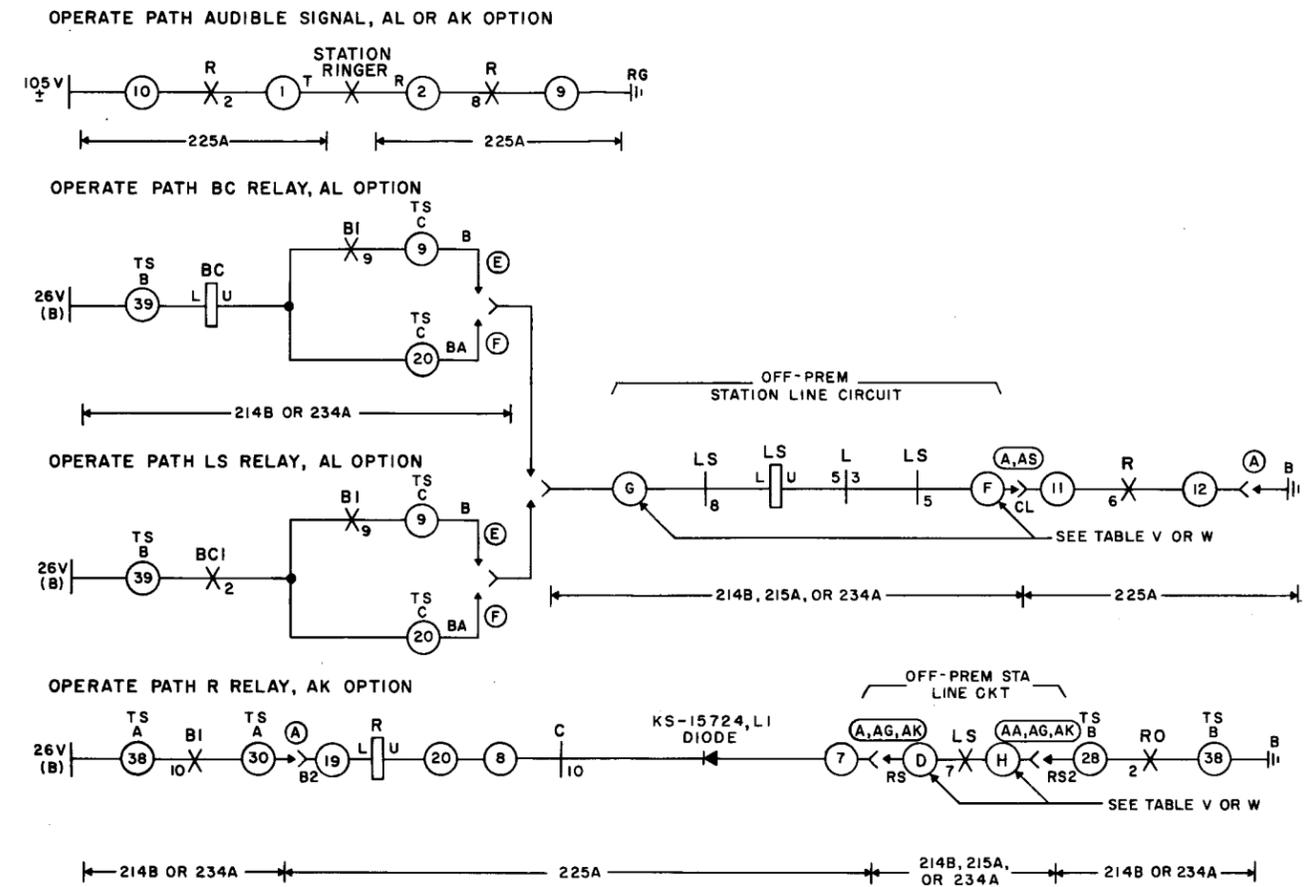
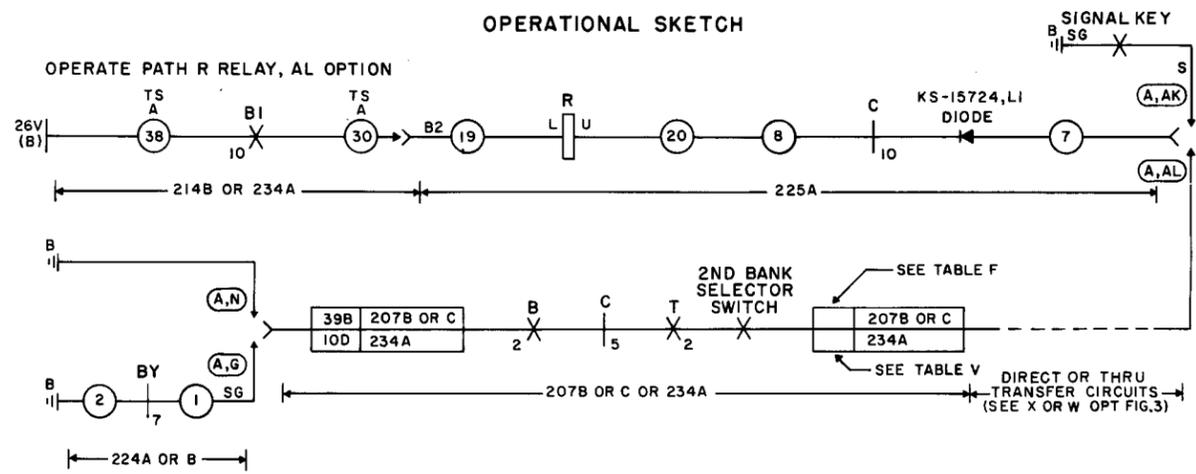
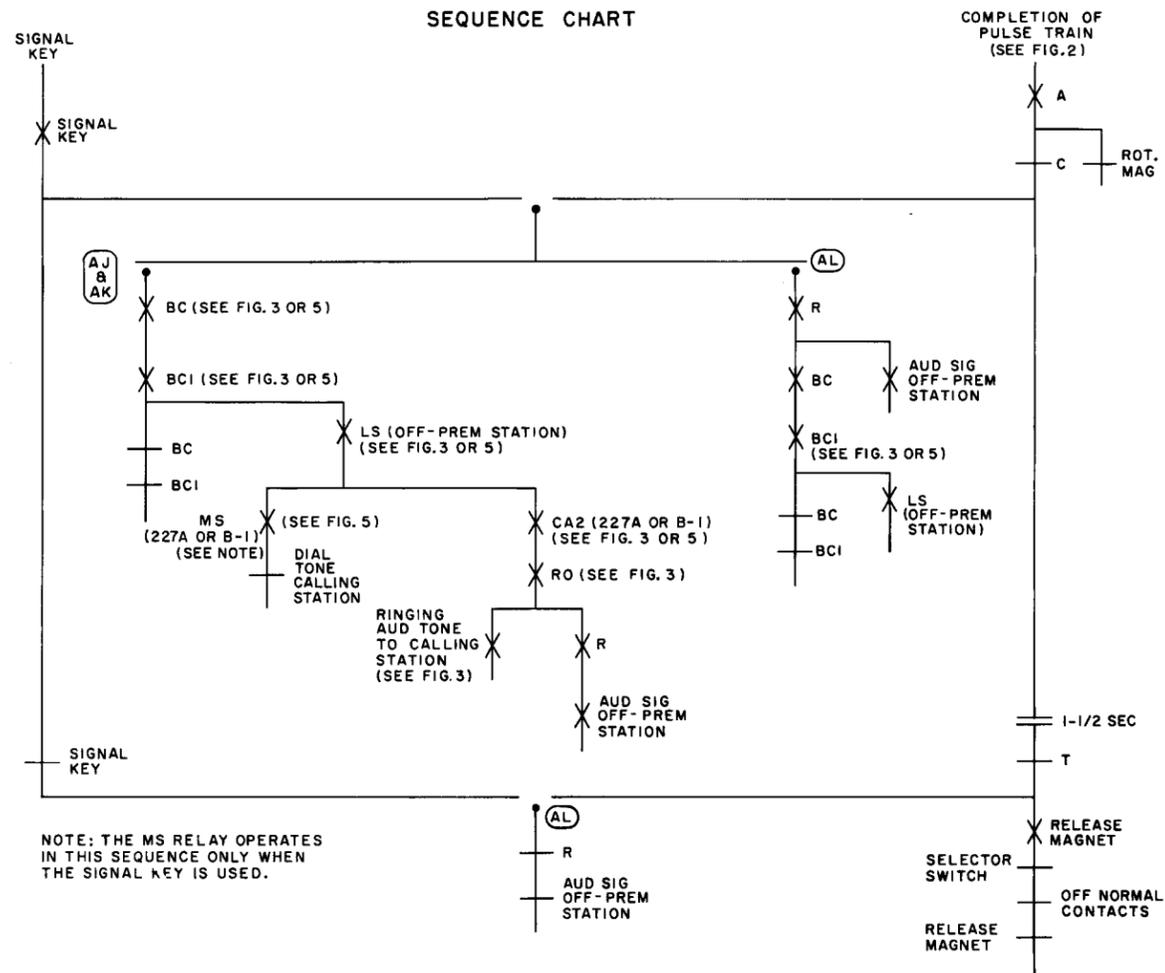


TABLE V

REF DESIG	TERMINAL ON 214B OR 234A								
	CKT 1	CKT 2	CKT 3	CKT 4	CKT 5	CKT 6	CKT 7	CKT 8	CKT 9
D	5A	15A	25A	35A	5B	15B	25B	35B	5C
F	7A	17A	27A	37A	7B	17B	27B	37B	7C
G	11C	12C	13C	14C	15C	16C	17C	18C	19C
H	21C	22C	23C	24C	25C	26C	27C	28C	29C

TABLE W

REF DESIG	TERMINAL ON 215A		
	CKT 1	CKT 2	CKT 3
D	5	15	25
F	7	17	27
G	18	19	20
H	28	29	30

TABLE F

207B OR C	
LEAD	TERMINAL
C	11A
C	12A
C	13A
C	14A
C	15A
C	16A
C	17A
C	18A
C	19A
C	20A

Fig. 13—Off-Premise Station, Incoming Call

16. OFF-PREMISE STATION, ANSWERING INCOMING CALL—TALKING PATH

ANSWERING INCOMING CALL

16.01 When an off-premise station picks up in response to the audible signal, the *P* relay will operate. The operation of the *P* relay operates the *C* relay in the long line circuit, the *L* relay in the station line circuit, and the *TBI* relay in the battery supply and signaling circuit. The functions of the *TBI* and related relays are as described in 8.01.

TALKING PATH

16.02 Talking battery for the local station is supplied from the *TBI* relay, and for the off-premise station it is supplied from the *P* relay. The two circuits are bridged together through the *P1* and *D* capacitors.

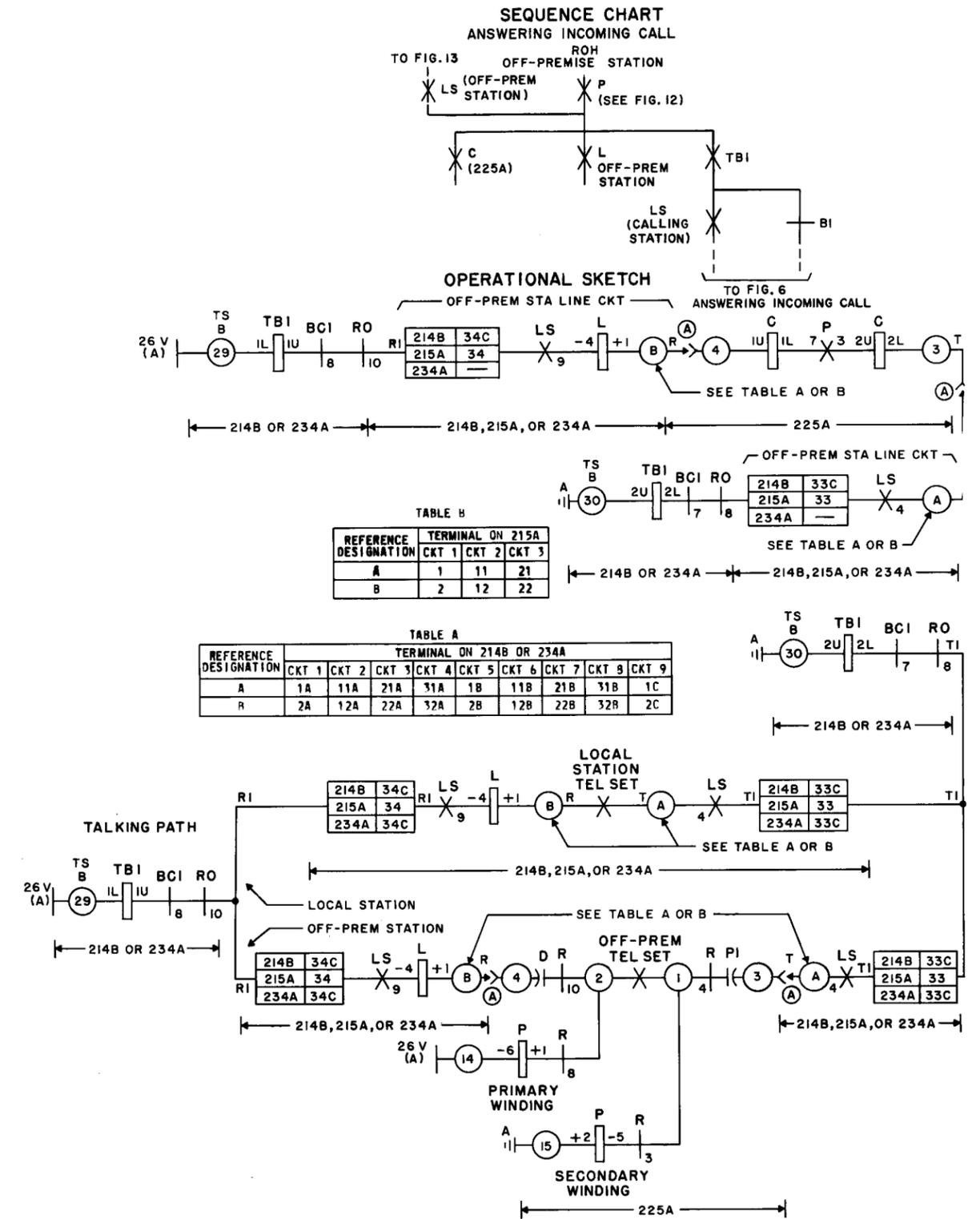


Fig. 14—Off-Premise Station, Answering Incoming Call, Talking Path