

## 306 SWITCHING SYSTEM CONSOLE — METHOD OF OPERATION

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A. Routine Incoming Call — JCSAN, Direct, DDD, or AUTOVON Trunk . . . . .	9	<b>1. GENERAL</b>	
B. Priority Incoming Call — AUTOVON Trunk Only . . . . .	9	<b>1.01</b> This section provides a detailed description of all operations that the attendant of the 306 switching system console may be called upon to perform. This information may be used to conduct an overall operational test. For general descriptive information of the 306 switching system, refer to Section 981-208-100.	
C. Outgoing Call — JCSAN Trunk to NMCC . . . . .	9	<i>Note:</i> Necessary service releases must be obtained before any testing is performed.	
D. Outgoing Call — JCSAN Trunk Call to WASH PBX . . . . .	10	<b>1.02</b> This section is reissued to incorporate the various additions and changes made to permit the 306 switching system direct access to AUTOVON.	
E. Outgoing Call — Direct Trunk (4-Wire E and M) . . . . .	10	<b>1.03</b> The 306 switching system turret and console are shown in Fig. 1. Fig. 2 illustrates the 306 switching system key and indicator layout; the same layout is used for both console and turret. References designated by an asterisk (*) and position numbers are for illustration purposes only. All other designations appear on the keys and indicators. Table A summarizes the panel positions, keys, indicators, and their functions. All the functions shown in Fig. 2 may not be utilized at any one console location; however, if used they will appear in the positions indicated.	
F. Outgoing Call — DDD Trunk . . . . .	10	<b>1.04</b> The console keyboard has a uniform, frosty-white appearance when idle. When the attendant telephone set is on-hook, all keys are electrically inoperable except those keys associated with the control of the recorders. A set of	
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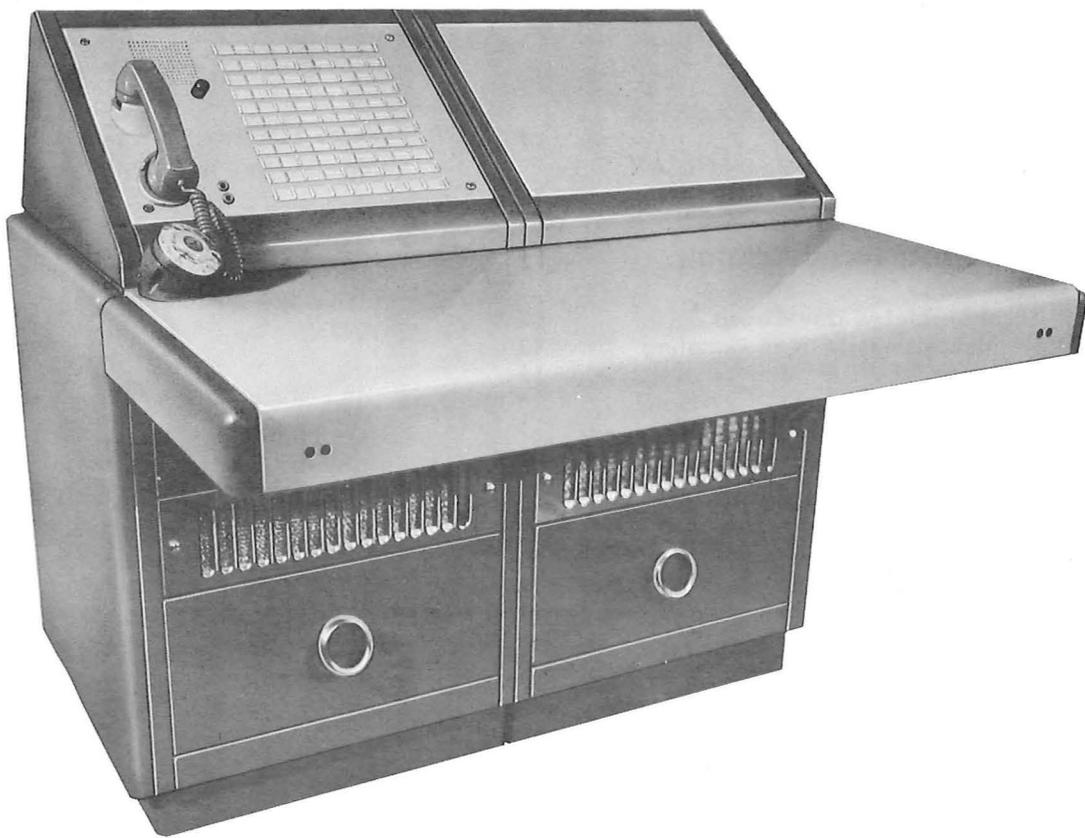


Fig. 1 — 306 Switching System — Turret and Console

* TRUNK IND, CONF. ADD KEY	* TRUNK KEYS	* BRIDGE IND	* LINE KEYS	* BRIDGE IND	* LINE KEYS	* BRIDGE IND	* LINE KEYS	* MISC KEYS
*R	PBX BSY JCSAN	*R,Y,B,G	*CKT ALM *RES	*R,Y,B,G	*CKT ALM *RES	*R,Y,B,G	*CKT ALM *RES	#1 REC ON OFF LINE
1	11	21	31	41	51	61	71	81
*Y	PBX BSY JCSAN							#2 REC ON OFF LINE
2	12	22	32	42	52	62	72	82
*B	DIRECT TRUNK							#3 REC ON OFF LINE
3	13	23	33	43	53	63	73	83
*G	DIRECT TRUNK							#4 REC ON OFF LINE
4	14	24	34	44	54	64	74	84
	DDD							REC PLAYBACK
5	15	25	35	45	55	65	75	85
	AUTOVON							REC F. FWD
6	16	26	36	46	56	66	76	86
	AUTOVON						LD SPKR	REC REW
7	17	27	37	47	57	67	77	87
								SPARE *
8	18	28	38	48	58	68	#3 REC	88
	LOCAL CONF							SPARE OR * GROUP TRFR
9	19	29	39	49	59	69	#4 REC	89
	LOCAL LINK							AUD CO
10	20	30	40	50	60	70	80	90

\* COMMON CONTROL KEYS

NNCC	WASH SW	MULTIADDRESS TOUCH-TONE * SENDER	MULTIADDRESS TOUCH-TONE * SENDER	POSITION LOCK	IDENT	LOCAL RECALL	ATT RLS	LINE RLS
91	92	93	94	95	96	97	98	99

NOTE:  
ITEMS INDICATED BY AN ASTERISK AND KEY NUMBERS ARE FOR INFORMATION ONLY AND ARE NOT PANEL STAMPED. COLORED INDICATOR SYMBOLS ARE: R, RED; B, BLUE; Y, YELLOW; G, GREEN.

Fig. 2 — 306 Switching System — Console Key Layout

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emergency jacks is provided on the console to permit a substitution of a plug-ended handset should the regular set become inoperative. Plug-in of the substitute handset completely opens connections to the regular set. The attendant is provided with a push-to-talk handset to minimize room noise that may be present at the console location and which may interfere with a conference. Operation of the talk button will also cut off the monitoring loudspeaker if connected to the same trunk as the attendant.

**1.05** Four types of supervisory lamp signals and two audible signals are employed with the console. The lamp signals and their functions are:

- (a) **Flash** — Indicates an unanswered incoming call, preempt, and circuit failures.
- (b) **Flutter** — Indicates that the console attendant is connected to that line or trunk.
- (c) **Wink** — Indicates that an outgoing call has been initiated but the distant end has not answered.
- (d) **Steady** — Indicates a busy line or trunk.

The audible signals and their functions are:

- ↗ (a) **Bell** — Steady ringing indicates a routine unanswered incoming call. Interrupted ringing indicates a priority call.
- ↘ (b) **Buzzer** — Indicates a circuit failure condition.

## 2. METHOD OF OPERATION

**2.01** Charts 1 through 8 of this section provide step-by-step descriptions of attendant operation of the 306 switching system console, including the visual and audible supervisory signals employed.

**2.02** A brief description of the attendant operations included in these charts is as follows:

Chart 1: Trunk Calls — Describes the method of handling incoming and outgoing calls on the JCSAN, direct, DDD, and AUTOVON trunks.

Chart 2: Local Line Operation — Describes the method of handling incoming and outgoing calls on the local line, including PBX and radio, and covers the selection of the console loudspeaker.

Chart 3: Conferencing — Local Line with Trunks — Describes the selection and connection of local lines in conference with a trunk.

Chart 4: Conference Identification — Describes the method of visual identification of lines associated in conference with a trunk.

Chart 5: Transferring Lines — Trunk-to-Trunk — Describes the method for the transfer of a line from one conference bridge to another conference bridge.

Chart 6: Transfer of Conference From One Conference Bridge to Another Conference Bridge — Describes the method of transferring a group of local lines as a group from one conference bridge to another.

Chart 7: Position Lock — Describes the operation of locking the attendant to a particular conference and the method of alerting an assistant attendant.

Chart 8: Recorder Operation — Describes the method of recorder selections: off-line, rewind, fast forward, playback, on-line operations, and end-of-tape alarms.

**2.03** In handling a call, the attendant may be required to perform the operations described in more than one of these charts. For example, a call comes in on a DDD trunk (Chart 1) and the calling party desires a conference with one or more local lines (Charts 2 and 3). He may also request that the conference be recorded (Chart 8).

**2.04** Some key operations have common functions.

- The AUD CO key is used to silence the bell
- on routine incoming line and trunk calls if the attendant is busy and cannot answer the call immediately. It is also used to silence the buzzer of the circuit failure alarms. When a local line is first selected by the attendant, the attendant and the local line are automatically associated on the local link. The LINE RLS key is used to release any selected local line. The LOCAL RECALL key is used to send recall signals to off-hook telephones. Details for the operations of these keys are provided in the charts.

TABLE A—PANEL POSITIONS, KEYS, INDICATORS, AND FUNCTIONS

PANEL POS	DESIG	KEY	IND	SCREEN COLOR	FUNCTION
1 through 9	Trunk Ind Conf Add	X			1-8 Adds lines to trunk conference. 9 Adds lines to local conference.
			X	R, Y, B, G, W as indicated	1-8 Indicates trunk status.* 9 Indicates local conference status.*
10	Trunk Ind Conf Add	X			Adds lines to local link.
			X	W	Lights when lines are associated with local link.
11 and 12	PBX BSY JCSAN	X			Associates attendant with trunk. Starts associated recorder.
			Upper half Lower half	W W	Indicates JCSAN PBX trunk status.* Indicates status of trunk and attendant association.*
13 through 18	DIRECT TRUNK, DDD, AUTOVON	X			Associates attendant with trunk.
			X	W	Indicates status of trunk and attendant association.*
19	LOCAL CONF	X			Associates attendant with local conference.
			X	W	Indicates attendant association with local conference.
20	LOCAL LINK	X			Associates attendant with local link.
			X	W	When fluttering — indicates attendant associated with local link.
21 through 30 41 through 50 61 through 70	Bridge Ind		X	R, Y, B, G as indicated	Lights in one of four colors corresponding to color of JCSAN or direct trunk to which line is associated in conference.

\*"Status" refers to the condition of the line or trunk as indicated by the lamp signals: flash, flutter, wink, and steady. These signals are specifically described in Charts 1 through 9.

TABLE A (Cont)					
PANEL POS	DESIG	KEY	IND	SCREEN COLOR	FUNCTION
31 through 40	Line Keys	X			Associates attendant with line. On radio lines, subsequent operations transfer receiver to or from radio loudspeaker.
51 through 60			Upper half	R	Indicates circuit failure alarm on local lines. On radio lines, indicates radio receiver transferred to radio loudspeaker.
71 through 76 and 80			Lower half	W	Indicates status of call and attendant association.*
77	LD SPKR	X			Associates attendant with loudspeaker.
			Lower half	W	Indicates status of loudspeaker and attendant association.*
78	#3 REC	X			Associates attendant with recorder.
79	#4 REC		Lower half	W	Indicates status of recorder and attendant association.*
81 82	#1 REC ON OFF LINE #2 REC ON OFF LINE	X			1st operation — takes recorder off line. 2nd operation — returns recorder on line.
			Upper half	R or Y	When lighted steadily — indicates recorder on line and lights to corresponding color of JCSAN trunk with which recorder is associated. Flashing lamp indicates recorder at end of tape.
			Lower half	W	When lighted — indicates recorder off line.

\*\*“Status” refers to the condition of the line or trunk as indicated by the lamp signals: flash, flutter, wink, and steady. These signals are specifically described in Charts 1 through 9.

TABLE A (Cont)					
PANEL POS	DESIG	KEY	IND	SCREEN COLOR	FUNCTION
83	#3 REC ON OFF LINE	X			1st operation — takes recorder off line. 2nd operation — returns recorder to line
84	#4 REC ON OFF LINE		Upper Half	W	When lighted steadily — indicates recorder on line. When flashing — indicates recorder at end of tape.
			Lower Half	W	When lighted steadily — indicates recorder off line.
85	REC PLAY- BACK	X			1st operation — starts playback. Connects recorder output to loud-speaker. 2nd operation — stops playback. Removes recorder output from loud-speaker.
			X	W	When lighted — indicates recorder in playback mode.
86	REC F. FWD	X			1st operation — starts fast forward. 2nd operation — stops fast forward.
			X	W	When lighted — indicates recorder is in fast-forward search mode.
87	REC REW	X			1st operation — starts recorder re-wind. 2nd operation — stops recorder re-wind.
			X	W	When lighted — indicates recorder in rewind condition.
88					Spare
89	GROUP TRFR	X			Operation transfers entire conference from one bridge to another (except from local link).

TABLE A (Cont)

PANEL POS	DESIG	KEY	IND	SCREEN COLOR	FUNCTION
90	AUD CO	X			Silences audible alarms.
			X	W	When lighted — indicates fuse failure.
91	NMCC	X			Sends preempt signal toward NMCC.
92	WASH SW	X			Sends automatic ring to Pentagon PBX.
93	Multi-address TOUCH-TONE Keys	X			Each key, when operated, automatically outputs a prestored telephone number of up to 11 digits, over the AUTOVON trunk.
94					
95	POSITION LOCK	X			1st operation — locks attendant telephone to associated conference. 2nd operation — releases lock on attendant telephone.
			X	W	When lighted — indicates attendant telephone is locked to a conference.
96	IDENT	X			When operated — identifies parties in conference on bridges other than JCSAN or direct with which attendant is associated.
97	LOCAL RECALL	X			Sends recall signal to local PBX or releases DDD and AUTOVON trunks for new dial tone without releasing a conference established on the associated bridge, and prevents AUTOVON trunk distant end hang-up from dropping established conference.
98	ATT RLS	X			Releases attendant from system (gives attendant on-hook effect).
99	LINE RLS	X			Disconnects local line with which attendant is associated.

**CHART 1**  
**TRUNK CALLS**

STEP	ACTION	RESULTS
<b>A. Routine Incoming Call — JCSAN, Direct, DDD, or AUTOVON Trunk</b>		
1	Incoming trunk call indicated.	Trunk key lamp flashes (for JCSAN trunks, bottom half only); bell rings steadily.
2	To silence bell without answering call, attendant operates AUD CO key.	Bell silenced.
3	To answer call, attendant goes off-hook; operates trunk key.	Trunk key lamp changes from flash to flutter; bell silenced. Trunk indicator lamp lights steadily. If call is on JCSAN trunk, associated recorder automatically starts and upper half of key No. 81 or 82 lights in color corresponding to color of associated JCSAN trunk.
4	Recall signal received against an attendant off-hook condition (JCSAN or direct trunk only).	Trunk indicator lamp flashes; bell rings.
5	Attendant operates AUD CO key.	Trunk indicator lamp lights steadily; bell silenced.
<b>B. Priority Incoming Call — AUTOVON Trunk Only</b>		
1	Priority incoming trunk call indicated.	Trunk key lamp flashes; interrupted ringing occurs.
2	To answer call (priority ringing cannot be silenced with AUD CO key) attendant goes off-hook; operates trunk key.	Trunk key lamp changes from flash to flutter; bell silenced. Trunk indicator lamp lights steadily.
<b>C. Outgoing Call — JCSAN Trunk to NMCC</b>		
1	Attendant off-hook; operates JCSAN trunk key.	JCSAN trunk key lamp, lower half, flutters. JCSAN trunk indicator lamp lights steadily. Recorder associated with JCSAN trunk automatically starts. Upper half of key No. 81 or 82 lights in color corresponding to color of associated JCSAN trunk.
2	Attendant operates NMCC key.	Preempt code sent toward NMCC. After 2 seconds attendant receives audible tone sent from NMCC.

## CHART 1 (Cont)

STEP	ACTION	RESULTS
3	NMCC controller answers.	Audible tone silenced.
4	Attendant talks directly to NMCC controller.	
<b>D. Outgoing Call — JCSAN Trunk Call to WASH PBX</b>		
1	Attendant off-hook; operates idle JCSAN trunk key (upper half of JCSAN trunk key must be dark, indicating idle condition).	JCSAN trunk key lamp, lower half, flutters. JCSAN trunk indicator lamp lights steadily. Recorder associated with JCSAN trunk automatically starts. Upper half of key No. 81 or 82 lights in color corresponding to color of associated trunk.
2	Attendant operates WASH SW key.	Ring is automatically sent on line to Pentagon PBX.
3	Attendant talks with Pentagon PBX attendant.	
<b>E. Outgoing Call — Direct Trunk (4-Wire E and M)</b>		
1	Attendant off-hook; operates DIRECT TRUNK key.	DIRECT TRUNK key lamp flutters. DIRECT TRUNK indicator lamp winks. Ringing signal sent to distant end.
2	Distant end answers; attendant talks to distant end.	DIRECT TRUNK indicator lamp changes from wink to steady.
<b>F. Outgoing Call — DDD Trunk</b>		
1	Attendant off-hook; operates DDD trunk key.	DDD trunk key lamp flutters. DDD trunk indicator lamp lights steadily.
2	Attendant listens for dial tone; dials number (manual or repertory).	Distant-end ring heard by attendant until distant end answers.
3	Distant end answers; attendant and party talk.	
4	When conference of local lines is established on idle trunk and outgoing DDD call obtains wrong number, attendant operates LOCAL RECALL key. (This avoids necessity of releasing all lines in conference to obtain new dial tone.)	Sends on-hook signal to central office; attendant receives new dial tone.

## CHART 1 (Cont)

STEP	ACTION	RESULTS
<b>G. Outgoing Call — AUTOVON Trunk</b>		
1	Attendant off-hook; operates AUTOVON trunk key.	AUTOVON trunk key lamp flutters. Trunk indicator lamp winks.
2	Attendant listens for dial tone; manually touch-tone dials number or uses multiaddress TOUCH-TONE sender.	Distant-end ring heard by attendant until distant end answers.
3	Distant end answers.	Trunk indicator lamp changes from wink to steady.
4	When conference of local lines is established on idle trunk and outgoing AUTOVON call obtains wrong number, attendant operates LOCAL RECALL key. (This avoids necessity of releasing all lines in conference to obtain new dial tone.)	Sends on-hook signal to central office; attendant receives new dial tone.
<b>H. Preemption Signal Received — AUTOVON Trunk Only</b>		
1	AUTOVON trunk is in use and preemption signal (for use or nonreuse) is received.	Trunk indicator lamp flashes. Steady ringing occurs.
2	All local lines hang up or are transferred to another conference bridge by the attendant, or attendant operates LOCAL RECALL key.	On-hook signal sent to central office. If preemption was for reuse, priority ringing (interrupted) occurs; if not for reuse, dial tone received if attendant operated LOCAL RECALL key.
<b>I. Release of Trunk by Line Disconnect (All Trunks)</b>		
1	All local lines associated with trunk hang up. Attendant, if associated with trunk, hangs up.	Trunk released. Disconnect signal sent toward distant end.
2	Distant end disconnects.	Trunk indicator lamp and trunk key lamp are extinguished.
<b>J. Incoming Disconnect Signal (JCSAN, Direct, or AUTOVON Trunk)</b>		
1	Disconnect signal received from distant end.	Releases all lines connected to the conference bridge. Trunk indicator and trunk key lamp are extinguished.

**CHART 2**  
**LOCAL LINE OPERATION**

STEP	ACTION	RESULTS
<b>A. Local Residence Line Circuit</b>		
<b>Attendant Call to Residence</b>		
1	Attendant off-hook; operates residence line key.	Line key lamp, lower half, flutters; continuous ring placed on line. LOCAL LINK conference add lamp lights steadily.
2	Residence answers.	Line key lamp, lower half, flutters.
	(a) Attendant disassociates from line before line answers.	(a) Line key lamp, lower half, winks until distant end answers; then lights steadily.
	(b) Attendant leaves line after answer.	(b) Line key lamp, lower half, lights steadily.
<b>Residence Call to Attendant</b>		
3	Incoming local call indicated.	Bell rings; line key lamp, lower half, flashes.
4	To silence bell without answering call, attendant operates AUD CO key.	Bell silenced.
5	To answer call, attendant goes off-hook; operates line key.	Line key lamp, lower half, flutters; LOCAL LINK conference add lamp lights steadily. Bell automatically silenced.
6	To rering residence when residence is off-hook:	
	(a) Attendant associates with residence line.	(a) Line key lamp, lower half, flutters.
	(b) Attendant operates LOCAL RECALL key.	(b) Continuous ring placed on line.
	(c) Attendant releases LOCAL RECALL key.	(c) Continuous ring removed from line.
<b>B. Residence Lines With SF Signaling</b>		
<b>Attendant Call to Residence</b>		
1	Attendant off-hook; operates residence line key.	Line key lamp, lower half, flutters; SF signal placed on line. LOCAL LINK conference add lamp lights steadily.

## CHART 2 (Cont)

STEP	ACTION	RESULTS
2	Residence answers; attendant talks with residence.	Line key lamp, lower half, flutters.
	(a) Attendant leaves line before answer.	(a) Line key lamp, lower half, winks until distant end answers, then lights steadily.
	(b) Attendant leaves line after answer.	(b) Line key lamp, lower half, lights steadily.
3	To rering residence when residence is off-hook:	
	(a) Attendant associates with residence line.	(a) Line key lamp, lower half, flutters.
	(b) Attendant operates LOCAL RECALL key.	(b) SF signal placed on line for as long as LOCAL RECALL key is held operated.
	<b>Residence Call to Attendant</b>	
4	Incoming local call indicated.	Bell rings; line key lamp, lower half, flashes.
5	To silence bell without answering call, attendant operates AUD CO key.	Bell silenced.
6	To answer call, attendant goes off-hook; operates line key. Attendant talks to residence.	Line key lamp, lower half, flutters. Bell automatically silenced. LOCAL LINK conference add lamp lights steadily.
	<b>C. PBX Line (2-Wire)</b>	
	<b>Attendant Call to PBX (2-Wire Manual)</b>	
1	Attendant off-hook; operates PBX line key.	Line key lamp, lower half, flutters. One-ring signal automatically sent to PBX. LOCAL LINK conference add lamp lights steadily.
2	If required to resignal PBX, attendant stays on line; operates LOCAL RECALL key.	Sends ring signal to PBX for as long as LOCAL RECALL key is operated.
3	PBX answers.	
	<b>Attendant Call to PBX (2-Wire Dial)</b>	
4	Attendant off-hook; operates PBX line key.	Line key lamp, lower half, flutters. LOCAL LINK conference add lamp lights steadily.
5	Attendant receives dial tone; dials number.	

<b>CHART 2 (Cont)</b>		
<b>STEP</b>	<b>ACTION</b>	<b>RESULTS</b>
6	PBX answers.	
<b>Releasing Existing Connection and Obtaining New Dial Tone (2-Wire Dial)</b>		
7	Attendant associates with line.	Line key lamp flutters.
8	Attendant operates LOCAL RECALL key.	On-hook signal sent to PBX office.
9	Attendant receives new dial tone; dials number.	
<b>PBX Call to Attendant</b>		
10	Incoming calls on manual or dial-type PBX are handled in the same manner as a residence call to attendant. (See Chart 2B, Steps 5, 6, and 7.)	
<b>Notes (Manual and Dial PBX):</b>		
1. There will be no wink signal indicating unanswered outgoing call.		
2. PBX line will not be released from conference by PBX disconnect.		
<b>D. PBX Line (4-Wire Dial)</b>		
<b>Attendant Call to PBX</b>		
1	Attendant off-hook; operates local PBX line key.	Line key lamp, lower half, flutters. LOCAL LINK conference add lamp lights steadily.
2	Attendant receives dial tone; dials number.	
3	PBX line answers.	
	(a) Attendant disassociates from line before line answers.	(a) Line key lamp, lower half, winks until distant end answers; then lights steadily.
	(b) Attendant leaves line after answer.	(b) Line key lamp, lower half, lights steadily.
<b>Releasing Existing Connection and Obtaining New Dial Tone</b>		
4	Attendant associates with line.	Line key lamp flutters.
5	Attendant operates and releases LOCAL RECALL key.	On-hook signal sent to central office.
6	Attendant receives dial tone; dials number.	

## CHART 2 (Cont)

STEP	ACTION	RESULTS
<b>PBX Call to Attendant</b>		
7	Incoming calls on 4-wire PBX are handled in the same manner as residence call to attendant. (See Chart 2B, Steps 5, 6, and 7.)	
<b>E. Radio Lines</b>		
<b>Attendant Call to Mobile Location Via Radio Channel</b>		
1	Attendant off-hook; operates radio line key.	Radio connection is seized from normal terminal on local administrative PBX and signal is initiated to mobile unit. Radio line key lamp, lower half, flutters. LOCAL LINK conference add lamp lights steadily.  <i>Note:</i> Since this is a radio link, there are no return supervisory signals from radio site.
<b>Switching Radio Receive Path to Local Loudspeaker</b>		
2	Attendant associates with radio line key.	Radio line key lamp, lower half, flutters.
3	Attendant operates radio line key.	Radio line key, upper half, lights steadily. Radio receive path is switched to local loudspeaker.
<b>Switching Radio Receive Path Back To Conference Bridge From Loudspeaker</b>		
4	Attendant associates with radio line.	Radio line key lamp, lower half, flutters.
5	Attendant operates radio line key.	Radio line key lamp, lower half, flutters. Upper half of radio line key lamp extinguished. Radio receive path switched back into conference.
<b>F. Selection of Console Loudspeaker Line</b>		
1	Attendant off-hook; operates LD SPKR key.	LD SPKR key lamp, lower half, flutters; LOCAL LINK conference add key lamp lights steadily.
2	Loudspeaker and attendant associated in local link. Loudspeaker may be connected to any conference bridge by operation of conference add key.	

## CHART 2 (Cont)

STEP	ACTION	RESULTS
<b>G. Local Line Failure Alarm (DC and SF Residence Lines)</b>		
1	Failure occurs on line.	Line key, upper half, flashes; buzzer sounds.
2	Attendant operates AUD CO key.	Buzzer silenced; upper half of line key lamp goes to steady condition. Remains lighted until circuit is cleared.
<b>H. Attendant Release of Local Line (DC, SF, Radio, PBX, LD SPKR, or REC)</b>		
1	Attendant operates line key of line to be released.	Line key lamp, lower half, flutters.
2	Attendant operates and releases LINE RLS key. If additional lines in same conference are to be released and attendant does not wish to remain associated with conference, LINE RLS key must be held operated while performing Step 3.	Line is released. Line key lamp, lower half, extinguished (immediately for 2-wire PBX, loudspeaker, and recorder lines and upon distant end hang-up on dc, SF, and 4-wire PBX lines). Attendant is automatically transferred to trunk or local link to which line was connected. Trunk key lamp flutters. Trunk indicator lamp remains lighted steadily.
3	With LINE RLS key held operated, line keys of additional lines to be released are operated.	Trunk key lamp lights steadily. Each line releases as associated line key is operated. Lower half of line key lamp extinguished under conditions described in Step 2. When last line is released, attendant is released from conference. If last line released was last line on conference, trunk will be disconnected and trunk key lamp and trunk indicator lamp will be extinguished.

## CHART 3

## CONFERENCING — LOCAL LINE WITH TRUNKS

Local lines, including radio and PBX, may be added to any trunk by simply operating the associated line key followed by the operation of the conference add key of the trunk to which the line is to be associated. However, when an idle local line is first selected for conferencing, the line is automatically connected with the attendant on the local link so that the console attendant may talk to the party on the line without connection to a trunk. This prevents the initial conversation with the local party from being heard on an established conference.

To add a line to a trunk for a conference connection, the attendant operates the conference add key of the trunk to which the line is to be connected. If desired, a number of lines may be added to the local link by successive line key operation. The attendant may then brief all the selected parties as a group in a private conference and then transfer them simultaneously to the trunk conference by a single operation of the conference add key of the trunk to which the selected parties are to be connected.

To assemble a conference of only local lines, the console operations to connect, transfer, and disconnect lines are identical in all respects with those operations for regular conferencing. The conference bridge used for local conference does not have a trunk connection. Lines are transferred to the local conference bridge by operation of the LOCAL CONF conference add key.

Assume that the attendant is associated with a trunk at the beginning of the following operations.

STEP	ACTION	RESULTS
1	Attendant operates line key. (The selection of local lines is as covered in Chart 2.)	Trunk key lamp changes from flutter to steady. Line key lamp, lower half, flutters. LOCAL LINK conference add lamp lights steadily. Attendant and local line are automatically connected in local link.
2	Attendant operates conference add key of trunk to which line is to be connected.	Trunk key lamp flutters. If trunk is JCSAN or direct, line bridge indicator lamp will light to correspond in color to that of the trunk to which line is now connected. If associated with other than JCSAN or direct trunk, line bridge indicator lamp does not light. Line key lamp lights steadily. LOCAL LINK conference add lamp is extinguished.
3	Conversation between residence, attendant, and trunk parties begins.	
	<b>Note:</b> The above steps may be repeated for the individual addition of as many lines as required to a trunk, or any number may be added as a group from the local link.	
4	Line release from conference is accomplished as in Chart 2H.	

**CHART 4**  
**CONFERENCE IDENTIFICATION**

Parties in conference with the two JCSAN and two direct trunks are continuously identified in color by the bridge indicator lamps. The bridge indicators light in a color which corresponds to the trunk indicator lamp of the trunk to which they are connected.

On trunks other than the JCSAN and direct, the trunk indicator lamps light white, and line bridge indicators will not light at all when lines are connected to these trunks.

STEP	ACTION	RESULTS
<b>Identification of Parties Connected in Conference (Other Than JCSAN or Direct Trunks)</b>		
1	Attendant operates trunk key or one of the connected line keys of conference to be identified.	Trunk key lamp flutters, or lower half of line key lamp flutters.
2	Attendant operates IDENT key.	Lower half of line key lamps and trunk key lamp of all parties connected to that particular conference flutter.

## CHART 5

## TRANSFERRING LINES — TRUNK-TO-TRUNK

STEP	ACTION	RESULTS
<p><i>Note:</i> Assume that attendant is associated with conference "A"; line to be transferred is in conference "B".</p>		
1	Attendant operates line key of line to be transferred.	Line key lamp, lower half, flutters. Trunk "A" key lamp changes from flutter to steady. Attendant is now in conference "B"; may talk to line in conference "B" that is wanted in conference "A".
2	Attendant operates trunk "A" conference add key.	Trunk "A" key lamp, lower half, flutters. Line key lamp, lower half, goes steady. Line bridge indicator lamp changes from color of trunk "B" indicator lamp to color of trunk "A" indicator lamp. Attendant and party from conference "B" are now in conference "A".
3	<p>To brief party on line privately before transferring to conference "A" (after attendant associates with conference "B"):</p> <p>(a) Attendant operates LOCAL LINK conference add key.</p> <p>(b) Attendant operates trunk "A" conference add key.</p>	<p>(a) LOCAL LINK conference add key lamp lights steadily. LOCAL LINK trunk key lamp flutters. Line bridge indicator lamp is extinguished. Attendant and local party talk privately on local link.</p> <p>(b) LOCAL LINK lamps are extinguished. Trunk "A" key lamp flutters. Line bridge indicator lights in color corresponding to color of trunk "A" indicator lamp. Attendant and party from conference "B" are now in conference "A".</p>

**CHART 6**

**TRANSFER OF CONFERENCE FROM ONE CONFERENCE BRIDGE TO ANOTHER CONFERENCE BRIDGE\***

Group transfer (GROUP TRFR) key No. 94 provides for transfer of a group conference from one bridge to another. The following describes how to transfer from bridge "A" to "B".

STEP	ACTION	RESULTS
1	Attendant associates with existing conference trunk "A".	Trunk "A" key lamp flutters. Trunk "A" indicator lamp lights steadily.
2	Attendant operates and holds GROUP TRFR key and operates trunk "B" conference add key.	Trunk "A" indicator light extinguished. Trunk "B" indicator lights steadily. Trunk "B" key indicator light flutters. Group conference, including attendant on trunk "A", is now in conference on trunk "B".

\* This is an optional feature not required for JCSAN/COPAN installations.

**CHART 7**

**POSITION LOCK**

When the attendant is in an established conference and wishes to remain, the operation of the POSITION LOCK key will lock the attendant telephone to the conference in progress.

STEP	ACTION	RESULTS
1	Attendant operates POSITION LOCK key.	Attendant telephone is locked to conference. POSITION LOCK key lamp lights steadily.
2	Trunk call comes in while attendant is locked in conference.	
	(a) Attendant operates line key of nearby telephone (physically close to console).	(a) Assistant attendant answers nearby telephone.
	(b) Attendant operates trunk conference add key of trunk awaiting answer.	(b) Assistant attendant is associated with trunk and may add additional lines as required.
3	Line call comes in while attendant is locked in conference:	
	(a) Same as Step 2(a).	(a) Same as Step 2(a).
	(b) Attendant or assistant attendant operates line key of calling line.	(b) Assistant attendant and calling line party are associated on local link.
4	To release from established conferences, attendant reoperates POSITION LOCK key.	POSITION LOCK lamp extinguished. Attendant is free to operate normally.

## CHART 8

## RECORDER OPERATION

Recorders No. 1 and 2 are permanently associated with the two JCSAN trunks. Assignable recorders No. 3 and 4 may be connected to any conference bridge, including JCSAN, in the same manner as any other line.

STEP	ACTION	RESULTS
1	To select an assignable recorder, attendant operates recorder line key associated with recorder No. 3 or 4.	Lower half of recorder line key flutters. LOCAL LINK conference add lamp lights steadily. Upper half of recorder line key lights steadily. Recorder starts. Recorder and attendant are now associated in local link and conversation is being recorded.
2	To associate recorder with conference bridge, attendant operates trunk conference add key.	Lower half of recorder line key lights steadily. Recorder bridge indicator lamp lights in color corresponding to trunk indicator with which it is connected. Trunk key lamp flutters. LOCAL LINK conference add lamp is extinguished.
<p><b>Note:</b> The following operations apply to all the recorders. Only one recorder at a time can be selected for rewind, fast-forward, and playback operations.</p>		
3	To remove recorder from line, attendant operates REC ON/OFF LINE key (No. 81, 82, 83, or 84).	Lower half of key lights steadily. Upper half of key is extinguished.
4	To rewind or to search tape in backward direction, attendant operates REC REW key.	Recorder starts rewind. REC REW lamp lights steadily.
5	To stop rewind, attendant reoperates REC REW key.	Recorder stops rewind. REC REW lamp is extinguished.
6	To search tape in forward direction, attendant operates REC F. FWD key.	Recorder starts fast forward. REC F. FWD lamp lights steadily.
7	To stop fast-forward search, attendant reoperates REC F. FWD key.	Recorder stops fast forward. REC F. FWD lamp is extinguished.
8	To play back, attendant operates REC PLAYBACK key.	Recorder starts playback. REC PLAYBACK lamp lights. Recorder output is connected to loudspeaker.

CHART 8 (Cont)

STEP	ACTION	RESULTS
9	To stop playback, attendant reoperates REC PLAYBACK key.	Recorder stops playback. REC PLAYBACK lamp is extinguished. Recorder output is removed from loudspeaker.
10	To put recorder back on line, attendant operates REC ON/OFF LINE key.	OFF LINE lamp is extinguished. REC ON lamp lights steadily.
<i>Note:</i> Recorders can record up to 2 hours on a single tape. To ensure that conversations are recorded in their entirety, a 117-minute early warning alarm and a 120-minute end-of-tape alarm are provided. In case of an alarm, the attendant operations are as follows.		
11	117-minute point on tape is reached.	REC ON lamp flashes; buzzer sounds.
12	Attendant operates AUD CO key.	Buzzer silenced; REC ON lamp continues to flash.
13	120-minute point (end of tape) is reached.	Buzzer sounds.
14	Attendant operates AUD CO key.	Buzzer silenced; REC ON lamp continues to flash.
15	Attendant operates flashing REC ON/OFF LINE key.	REC ON lamp continues to flash. OFF LINE lamp lights steadily.
16	Attendant operates REC REW key.	REC REW key lamp lights steadily. REC ON lamp continues to flash.
17	Tape rewound past 117-minute point.	REC ON lamp is extinguished.
<i>Note:</i> A reversible tape index message register type of indicator is provided for each recorder. An in-use lamp, provided on each remote location tape index unit, lights when recorder is selected to indicate that the unit itself is operating.		