

CIRCUIT DESCRIPTION

CD-62440-01
Issue 31
Dwg. Issue 31

TOLL SYSTEMS
SWITCHBOARD NO. 3 AND
TANDEM SWITCHBOARD NO. 3
KEY SHEET

CHANGES

A. CIRCUITS REMOVED FROM OR ADDED TO KEY SHEET AND REASON FOR CHANGES

| A.1 | Block | Removed | Added | Reason for Change |
|-----|-------------|-------------|-------------|---|
| | D7 | | SD-56441-01 | To list the KEY, LAMP & TRANSFER CKT. FOR HANDLING CAMA CALLS USING MF KEY PULSING ARRANGED FOR 2 FREQUENCY REGISTER RESET. The connecting ckts. are SD-26046-01 CAMA Calls Waiting Signal Ckt. and SD-26047-01 CAMA Position Link Ckt. in Crossbar No. 5 Off. in same building, and SD-95853-01 CAMA Position Ckt. in Crossbar Tandem Off. or Toll Switching Off. No. 4A or 4M in same building. |
| | B12 | SD-62519-01 | | This TOLL SUBSCRIBER LINE CKT. MULTIPLIED IN NO. 11 POSITION OR IN NO. 11 AND NO. 3 POSITION is rated "Mfr. Disc." and is replaced by SD-56389-01 (Block A12). |
| | F13 | | SD-56501-01 | To list the TOLL SUBSCRIBER LINE CKT. FOR USE WITH PBX TRUNK CKT. ARRANGED FOR GROUND START ON RING. Typical connecting circuit is SD-65657-01 2 Way Central Office Trunk Ckt. in Dial PBX. |
| | E18 | SD-56414-01 | SD-56478-01 | Replacing but not interchangeable with the removed circuit. The new RECORDING COMPLETING TRUNK CKT., E & M LEAD SUPERVISION, ARRANGED FOR COIN CONTROL AND RECALL USING 2 FREQUENCIES OVER TIP & RING is also arranged to function with single frequency type signaling circuits with which the replaced circuit was not designed to operate. |
| | A19 | SD-55381-01 | SD-56488-01 | Replacing circuit. The new RECORDING COMPLETING TRUNK CKT., E & M LEAD SUPERVISION, WITH OR WITHOUT PULSE RERING, WITH OR WITHOUT COIN CONTROL OVER SEPARATE SINGLE TRUNK CONDUCTOR, ARRANGED FOR USE WITH EMERGENCY TRANSFER CKT. eliminates the use of A & B Leads for transmission and employs wire spring instead of nonwire spring relays. |
| | B27, B56 | SD-62610-02 | | This TOLL SWITCHING TRUNK CKT. TO LOCAL OFFICE FOR COMMON BATTERY RURAL LINES, ARRANGED FOR DELAYED CUT-THRU AFTER RINGING is rated "Mfr. Disc." since no future demand is anticipated. |
| | E27 | SD-62817-01 | | This TOLL SWITCHING TRUNK CKT. TO STEP BY STEP "B" SWITCHBOARD is rated "Mfr. Disc." to agree with the rating of the "B" Switchboard. |
| | I27 | SD-63260-01 | | This TOLL SWITCHING TRUNK CKT. TO LOCAL OFFICE FOR MAGNETO RURAL LINES is rated "Mfr. Disc." since no future demand is anticipated. |

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| Block | Removed | Added | Reason for Change |
|-------------------|---|-------------|---|
| D37 | SD-63121-01 | | This OUTGOING STRAIGHTFORWARD TRUNK CKT. TO 2 WAY AUXILIARY TRUNK CKT. TO MAGNETO OFFICE IS SXS "B" SWITCHBOARD, REVERSE BATTERY SUPERVISION is rated "Mfr. Disc." to conform with the rating of the SXS "B" Switchboard. |
| B66 G67 J67 | SD-62445-01 SD-63833-01 SD-62883-01 | | These Jack Ckts. are rated "Mfr. Disc." and are replaced by SD-64545-01 Jack Ckt. (block A67) which supplies all the features of the replaced drawings, thus reducing the number of drawings serving the same purpose. |
| J66 | SD-62848-01 | SD-95897-01 | Replacing circuit except for additions. The new AC LAMP RELAY CKT. employs wire spring instead of nonwire spring relays and supplies improved circuit arrangements. It also simplifies the circuit by omitting the "Mfr. Disc." features and options. |
| B68 C172 | SD-63962-01 SD-56126-01 | SD-56494-01 | Replacing circuit. The new MULTIPLE LAMP RELAY CKT. FOR USE WITH DC LAMPS AND FOR SUPPLYING 24 VOLT BATTERY FOR LIGHTING LAMPS WHEN CONNECTING CIRCUITS SUPPLY 48 VOLT BATTERY supplies all the features of the replaced drawings and employs wire spring instead of nonwire spring relays. |
| J70 | SD-63679-01 | | This BUSY SIGNAL RELAY CKT. is rated "Mfr. Disc." since the use of Magnetic Busy Signals is discontinued. |
| B73 | | SD-96532-01 | To list the ANSWERING TIME RECORDER CKT., MODIFICATION OF EXISTING PORTABLE CIRCUIT FOR RELAY RACK MOUNTING, WITH OR WITHOUT LAMP GROUP SWITCHING. |
| C73 | | SD-96538-01 | To list the TRAFFIC WEIGHTING APPLIQUE CKT. ARRANGED FOR RELAY RACK MOUNTING for use with Portable Answering Time Recorder Ckt. modified for relay rack mounting. |
| D111 | | SD-90411-01 | To list the TEST CKT. FOR TESTING 209-FA AND 209-FD RELAYS WITH RELAY ADJUSTING SET. |
| E111 | SD-62289-01 | | This BUSY SIGNAL TEST CKT. is rated "Mfr. Disc." since the use of Magnetic Busy Signals is discontinued. |
| D112 | SD-90469-01 | SD-90469-02 | Replacing circuit. The new TRUNK TEST SET CKT. FOR TESTING SUBSCRIBER RECORDING COMPLETING TRUNK CKTS. FROM STEP-BY-STEP OFFICE IN SAME BUILDING is arranged to test Rotary Out-Trunk Switch Ckts. Arranged for Pre-selection in Step-By-Step Offices. |
| E112 | SD-96000-01 | SD-98100-01 | Replacing circuit. The new TRANSMISSION TEST LINE CKT. supplies additional features and employs wire spring instead of nonwire spring relays. |
| H112 | | SD-56471-01 | To list the MULTIPLE LAMP TEST CKT. FOR TESTING AC OR DC IDLE INDICATING AND BUSY LAMPS. |

| Block | Removed | Added | Reason for Change |
|--------------|-------------|--|--|
| H143 | SD-56416-01 | SD-56483-01 | Replacing but not interchangeable with the removed circuit. The new TOLL SWITCHING TRUNK CKT., MF KEY PULSING, E AND M LEAD SUPERVISION, ARRANGED FOR COIN CONTROL AND RERING USING 2 FREQUENCIES OVER TIP AND RING, makes no provision for controlled initial ringing of the called station. |
| J144 | | SD-56482-01 <i>IN-BAND CORN</i> | To list the TOLL SWITCHING TRUNK CKT., MF KEY PULSING, REVERSE BATTERY SUPERVISION, ARRANGED FOR COIN CONTROL AND RERING USING 2 FREQUENCIES OVER TIP AND RING. A typical terminating ckt. with which it functions is SD-26123-01 MF Incoming Trunk Ckt. in Crossbar Office No. 5. |
| H145 | SD-56423-01 | SD-56481-01 | Replacing but not interchangeable with the removed circuit. The new TOLL SWITCHING TRK. CKT., DCKP-IN, DP-OUT, E AND M LEAD SUPERVISION, ARRANGED FOR COIN CONTROL & RERING USING 2 FREQUENCIES OVER TIP & RING, WITH OR WITHOUT ACCESS FROM DIAL SWITCHING OFFICE makes no provision for controlled initial ringing of the called station. A typical terminating ckt. with which it functions is SD-26123-01 DP Incoming Trunk Ckt. in Crossbar Office No. 5. |
| J145 | SD-56421-01 | | This TOLL SWITCHING TRUNK CKT., REPEATED DIALING, E AND M LEAD SUPERVISION, SINGLE FREQUENCY RINGING SIGNAL, COIN CONTROL USING SINGLE OR 2 FREQUENCIES OVER TIP & RING is rated "Mfr. Disc." |
| D147 | | SD-55870-01 | To list the PERMANENT SIGNAL HOLDING TRUNK CKT. FROM PANEL OR CROSSBAR OFFICE NO. 1 in the same building. |
| E147 | | SD-95399-01 | To list the PLUGGING UP LINE, TROUBLE OBSERVATION AND TEST AND COMPLETION CKT. FOR USE IN CONNECTION WITH PANEL OR CROSSBAR OFFICE NO. 1 SUBSCRIBER LINES. |
| I153 | | SD-56492-01 | To list the TRANSFERRED INFORMATION OR INTERCEPTING TRUNK CIRCUIT. The connecting circuit is SD-96514-01 Trunk Transfer Ckt. in Information Desk No. 3, 4 or 6 Type or Operating Room Desk No. 23A, B, C or D. |
| J153 | | SD-56496-01 | To list the INCOMING TRUNK CKT. FOR PBX SERVICE, REVERSE BATTERY SUPERVISION, ARRANGED TO RECALL ORIGINATING END, FOR USE WITH CROSSBAR TANDEM OFFICE. |
| H157 | | SD-56470-01 | To list the INTERTOLL DIALING DIRECTIONAL RESERVATION CIRCUIT. |
| G172 | | SD-95867-01 | To list the MULTIFREQUENCY SIGNAL GENERATOR CIRCUIT. |
| I172 D187 | SD-55775-01 | SD-96517-01 | Replacing circuit. The new EMERGENCY TRANSFER CKT. ARRANGED TO USE EXISTING TRUNK FACILITIES TO TERMINATE EMERGENCY LINES FROM DISTANT CROSSBAR NO. 5 OR STEP-BY-STEP OFFICE is arranged to function with E & M lead supervision trunk ckts. as well as loop supervision trunk ckts. and also employs wire spring instead of nonwire spring relays. |

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| Block | Removed | Added | Reason for Change |
|-------|-------------|-------------|---|
| I174 | | SD-95779-01 | To list the MF PULSING RECEIVER ADJUSTING CKT. USING ONE MILLIWATT 1000 CYCLE SUPPLY SOURCE. |
| A179 | | SD-95875-01 | To list the TRUNK TEST CKT. FOR TESTING COIN ZONE OPERATOR TRUNK CIRCUITS SD-95851-01 in Toll Swbd. and SD-95852-01 in Crossbar Office No. 5. |
| H179 | | SD-56466-01 | To list the TONE AND HOLDING TRUNK CKT. FOR TROUBLE TRACING IN 2 WIRE TOLL SWITCHING OFFICES. The connecting ckt. is SD-56466-01 Jack, Key & Lamp Ckt. in Toll Testboard No. 17B. |
| F202 | SD-56341-01 | | This INTERCEPTING TRUNK CKT. FROM SXS OFFICE IN SAME BUILDING, ARRANGED FOR MACHINE ANNOUNCEMENT MODIFICATIONS, WITH OR WITHOUT MULTIPLE IN OPERATOR ROOM DESK NO. 19 OR INFORMATION DESK NO. 2, 7 OR 7A is rated "Mfr. Disc." It is replaced by SD-95796-01 (block B202) which supplies all the features of the replaced ckt. thus reducing the number of drawings serving the same purpose. |
| D213 | | SD-56000-01 | To list the COIN SUPERVISORY AND OVERTIME MONITORING TRUNK CKT. from Crossbar No. 1 or Panel Office in the same building. |
| E214 | | SD-95851-01 | To list the COIN ZONE OPERATOR TRUNK CKT., INCOMING FROM CROSSBAR OFFICE NO. 5. The connecting ckt. is SD-26117-01 Outgoing Trk. Ckt. for use with Coin Zone Trunk or Junctor Ckt. in Crossbar Office No. 5. |

A.2 Page 45 is added to list the circuits for Centralized Automatic Message Accounting (CAMA) Operation as follows:

| Block | Circuit | Title |
|-------|-------------|--|
| G222 | SD-27018 | SUSPENSION CKT. FOR USE WHEN ALL POSITIONS ARE VACATED IN AN EMERGENCY. The connecting ckt. is SD-27018-01 CAMA Suspension Ckt. in Crossbar Tandem Office. |
| H222 | SD-95872-01 | CONTROL & ALARM CKT. FOR USE WITH CROSSBAR OFFICE NO. 5 SUSPENSION CIRCUIT. The connecting ckt. is SD-26017-01 CAMA Suspension Ckt. in Crossbar Office No. 5. |
| C223 | SD-96482-01 | INCOMING TRUNK CKT. TO CAMA POSITION. The connecting ckts. are SD-26047-01 Position Link Ckt. in Crossbar Office No. 5 and SD-96481-01 Outgoing Trunk Ckt. to CAMA Position in Crossbar Tandem Office or Toll Switching Office No. 4A. |
| E223 | SD-95776-01 | 2 WAY SIGNALING CIRCUIT. The connecting ckt. is SD-25984-01 Calls Waiting Signal Ckt. in Crossbar Tandem Office or Toll Sw. Office No. 4A in distant building. |
| F223 | SD-95868-01 | CALLS WAITING SIGNAL CIRCUIT. The connecting ckt. is SD-26046-01 Calls Waiting Signal Ckt. in Crossbar Office No. 5 in distant building. |

| Block | Circuit | Title |
|-------|-------------|---|
| C224 | SD-95775-01 | POSITION AND MF KEYSET CIRCUIT. |
| D224 | SD-27013-01 | POSITION SELECTING CKT. FOR MONITORING ON CAMA POSITIONS. |

B. OTHER CHANGES ON KEY SHEET

| B.1 | Block | Circuit | Changes |
|-----|---|---|---|
| | C8 | SD-90705-01 | In block A9, connecting information is added to this Link Ckt. to cover the connection to SD-27003-01 2 Way Intertoll Trunk Ckt. in Crossbar Tandem Office. |
| | C9 | SD-62058-01 | A connection is added from this Sender Ckt. to SD-95738-01 Traffic Usage Recorder Ckt. (block G197). |
| | A32 C32 | SD-55255-01 SD-55256-01 | In block H34, connecting information is added to these 2 Way Operator Office Trunk Ckts. to cover the connection to SD-68537-01 Auxiliary Outgoing Trunk Ckt. Arranged for Direct Connection to Community Dial Office on 4 Wire Basis. Also in block C31, connecting information is added to these same ckts. to cover the connection to SD-55823-01 Radio Telephone G2 Control Terminal Terminating Circuit. |
| | F48 G49 G66 E67 D71 I111 F115 | SD-60803-01 SD-62586-01 SD-63294-01 SD-62100-01 SD-55350-01 SD-64735-01 SD-64261-01 | These ckts. are rated "Mfr. Disc." due to low demand but are retained on the Key Sheet to indicate their interconnections with the other drawings shown on the Key Sheet. |
| | D79 | SD-55163-01 | The title is changed from "Operator Training Busy & Audible Ringing Tone Ckt., Control Position, For Simulating All Paths Busy, Line Busy & Audible Ringing Tone to Students" to "Operator Training Control Position Ckt. for Simulating NO Circuit, Reorder & Line Busy Signals & Audible Ringing Tone to Students." |
| | J117 | SD-64482-01 | In block I66, connecting information is added to this Intertoll Dialing Incoming Trunk Ckt. to cover the connection to SD-30868-01 Rotary Out-Trunk Switch Ckt. Arranged for Preselection or SD-32204-01 Outgoing Trunk Ckt. in SXS Office with AMA. |
| | B118 | SD-56036-01 | A connection is added from this Intertoll Dialing 2 Way Trunk Ckt. to SD-56290-01 Traffic Register Ckt. (block H118). |
| | I132 | SD-95801-01 | In block J133, connecting information is added to this Timing Ckt. to cover the connection to SD-80929-01 22 Volt AC Power Supply Ckt., 506A Plant. |
| | D142 H142 | SD-55380-01 SD-55386-01 | In block D141, connecting information is added to these Toll Switching Trunk Ckts. to cover the connection to SD-27040-01 Aux. Out. Trunk Ckt. in Crossbar Tandem Office. |

| Block | Circuit | Changes |
|---------------|-------------|---|
| H182 | SD-56133-01 | The title of this Intertoll Trunk Ckt. is changed to include "Arranged For Emergency Access Operation". Also, connecting information is added to this circuit to cover the connection to SD-68516-01 Auxiliary Intertoll Trunk Ckt. for Emergency Access to Intertoll Trunk Ckt. in Toll Switching Office No. 4A or 4M. |
| F187 | SD-55430-01 | A connection is added from this Subscriber Recording Completing Trunk Ckt. to SD-95738-01 Traffic Usage Recorder Ckt. (block G197). |
| Title Page | | The note "For Current Drain Data See SD-62440-03" is added. |
| Current Drain | | The Current Drain Data is removed since this information is shown on SD-62440-03 as indicated on the Title Page. |
| Pages 17, 19 | | All the circuits shown on these pages are rated "Mfr. Disc." to conform with the rating of the Tandem Switchboard No. 3. |
| Page 34 | | The ckts. on this page for the Key Listening Straightforward Switching Trunk Tandem Position are rated "Mfr. Disc." but the page is retained as part of the Key Sheet for information purposes. |

1. PURPOSE OF KEY SHEET

1.1 This KEY SHEET lists the circuits for use in SWITCHBOARD NO. 3 AND TANDEM SWITCHBOARD NO. 3 and shows the manner in which the circuits interconnect.

2. EXPLANATION OF CONVENTIONS

2.1 For explanation of conventions see Page 1 of the MASTER KEY SHEET SD-90250-01.

BELL TELEPHONE LABORATORIES, INCORPORATED

DEPT. 2325-SS-EWO-JS