

TAKING EQUIPMENT OUT OF SERVICE

INTERRUPTER FRAME

NO. 1 CROSSBAR OFFICES

	CONTENTS	PAGE
1. GENERAL		1
2. DESCRIPTION OF CONTACT TABLE		1
3. METHOD OF TAKING EQUIPMENT OUT OF SERVICE		1
4. RECORD BOOKS		54
5. REPORTS		55

1. GENERAL

1.01 This section covers the action to be taken when removing interrupters from service in No. 1 crossbar offices.

1.02 This section is reissued to include added interrupter contacts as follows: CKD, FIG, FL, MB, OF, P, and RB.

2. DESCRIPTION OF CONTACT TABLE

2.01 For convenience in taking individual interrupters or an entire frame out of service, an information table has been provided. The table is divided into five columns as follows:

- INTERRUPTER CONTACT DESIGNATION
- CIRCUIT
- ACTION TO BE TAKEN
- INTERRUPTER FUNCTION
- SEE NOTE

2.02 The column headed INTERRUPTEER CONTACT DESIGNATION gives the designation of the interrupter contact in the circuit. These designations are stamped on the reciprocating bar of the

interrupter, or on later installations the contacts of the interrupter are numbered and the interrupter contact designation is obtained from the interrupter contact record book.

2.03 The column headed CIRCUIT lists the circuits served by the interrupters. In earlier offices, the circuit designations are stamped on the reciprocating bars on the various interrupters. In later offices, the circuit designations are listed in the interrupter record books located at the interrupter frames.

2.04 The column headed ACTION TO BE TAKEN covers the action to be taken when any interrupter is to be removed from service. It is important that the information in the notes be taken into consideration when taking any action.

2.05 The column headed INTERRUPTEER FUNCTION covers the use of the interrupter in the circuit.

2.06 The column headed SEE NOTE refers to notes covering information that should be taken into consideraton before taking the recommended action. These notes appear immediately following the table.

3. METHOD OF TAKING EQUIPMENT OUT OF SERVICE

3.01 The information under ACTION TO BE TAKEN covers the procedures which shall be followed in taking particular interrupters out of service. When a whole frame is to be taken out of service, the procedure is to take all the interrupters out of service as specified if the traffic conditions permit removing the large quantities of equipment involved.

3.02 During periods of heavy traffic it is recommended that the information under INTERRUPTEER FUNCTION be studied and that the consequences of a stopped interrupter be weighed against the possible reaction resulting from

SECTION 216-433-301

reduced equipment in service. The reaction resulting from a stopped interrupter is in certain cases included in the notes. In certain instances, special consideration will have to be given before removing the interrupter from service and in some cases spare contacts on other working interrupters may be used.

3.03 Interrupters marked with an asterisk (*) are those which are required in the normal functioning of circuits during the progress of a call. In order to reduce service reactions to a minimum it is recommended that action be taken on those interrupters marked with an asterisk before action is taken on the other interrupters. The interrupters which are not designated with an asterisk are used in test circuits or in other circuits for providing alarms, timing of the circuits due to trouble conditions, etc.

3.04 Some of the circuits are wired to interrupters on only one frame. In such cases, special consideration will have to be given when removing

associated interrupters from service. In some cases spare contacts on other working interrupters may be used. In other cases where this is not possible, special procedures will have to be set up to avoid reaction.

3.05 When a frame is ready to be restored to service, remove all contact insulators and blocking tools. Remove any temporary wiring introduced as a result of taking a frame out of service.

3.06 The phrase "inform plant personnel" is used to imply that all interested personnel should be advised of the condition and should take the necessary steps in regard to service impairment.

3.07 The phrase "inform traffic personnel" is used to imply that the plant personnel are already aware of the situation and are requesting traffic to take the necessary steps in regard to service conditions.

CONTACT TABLE

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
A	OGT test circuit for MF and DC KP trunks	Inform plant personnel that this circuit is inoperative	Causes the sender ready lamp to flash indicating that an MF trunk is being tested	1
	Audible and visual alarm circuit — No. 3C or 3CL switchboard		Supplies 60-ipm interruptions for a major alarm	
	Major audible alarm circuit		Provides interruptions for the major audible alarm	
	Floor alarm frame miscellaneous and auxiliary alarm circuit		Provides interruptions for flashing a signal lamp to indicate that no sender is associated with the trunk	
	Toll testboard No. 18B-DC and MF keyset circuit			

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
A (cont)	First trouble tracing selector circuit	Inform plant personnel that this circuit is inoperative	Provide interruptions for flashing a lamp to indicate that the desired second selector is busy	
	Alarm circuit — No. 8A or 9A announcement system		Furnishes 60-ipm busy tone	
	Subcenter announcement trunk distribution and alarm circuit		Provides interrupted ground which in turn controls busy tone	
	Howler cord — "A" switchboard	Inform the traffic personnel that this circuit is inoperative	Flashes a lamp while howler tone is applied to a subscriber line	
	Operator training equipment No. 4A		Provides 60-ipm interruptions for busy back signal	
	Permanent signal cord circuit — Toll switchboard		Provides interruptions for flashing a lamp while howler tone is being applied	
	Timing circuit	Request plant personnel to have the associated trunks made busy	Furnishes timing for initial charge reminder	
	Incoming trunk — No. 3 or 3C switchboard		Provides interruptions for flashing recall signal for the No. 3 or 3C operator	
	Intertoll dialing trunk		Provides interruptions for timing of 2-second ringing interval	
	OGT test frame trunk and line test circuit	Inform plant personnel to take the test circuit out of service	Furnishes pulses to operate the selector which applies the subscriber line breakdown test	
Incoming trunk test circuit	Provides a time delay advance of the test circuit while various tests are being made			

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
* A (cont)	Keyset sender signal lamp	Inform traffic personnel that this signal is inoperative on the associated positions	Provides interruptions for flashing a signal lamp to indicate to the operator that no sender is associated with the trunk	
	Permanent signal holding trunk — "A" switchboard, No. 3 switchboard or sender MB frame	Inform traffic personnel to make the associated trunks busy. In addition check that no lines are connected to the trunks. If so, it is desirable that the connection should be allowed to come in on another trunk	Provides 60 or 120 ipm as required for a distinctive signal	
	MDF loudspeaker circuit	Inform plant personnel that this circuit is inoperative	Flashes a lamp signal on a frame transmitter when that transmitter is cut into the circuit	
AL	Allotter circuit — Information desk or order turret	Inform plant personnel to operate the INT SW key	Furnishes pulses for controlling the operation of the synchronizing and timing relays	2
	Dial tester and ringer test circuit	Inform plant personnel to make the test circuit busy	Causes the operation of an alarm if the test circuit fails to complete a test within a pre-determined time interval	
	Sender release failure alarm	Inform plant personnel that circuit is affected	Causes the operation of the minor alarm if a terminating sender does not release within a pre-determined time interval	
AL AL1	Volume limit indicator and alarm relay — Announcement system No. 3A	Inform plant personnel to operate the manual transfer key	These interrupters are used to time intervals in checking the level of speech during monitoring on a newly connected recording machine	

* See 3.03

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
ALM	Line and trunk, lamp and alarm control circuit	Inform traffic personnel that this circuit is inoperative	Provides interruptions for flashing an alarm lamp	
	Alarm circuit No. 8A or 9A announcement system	Inform plant personnel that this circuit is inoperative	Provides means for checking the interval of the supervisory signals from the No. 8A or 9A announcement machine	
AMB	Miscellaneous circuit for trouble indicator or trouble recorder frame	Inform plant personnel that circuit is affected	Functions a relay circuit to operate an alarm when all markers are busy	3
	All transverters busy alarm		Causes a relay circuit to operate an alarm when all transverters are busy	3
ANO	Incoming trunk frame	Inform plant personnel to take test circuit out of service	Furnishes pulses for the nonoperate test of the A relay in the incoming trunk circuit	4
AR	District junctor test circuit	Inform plant personnel that this feature of the test circuit is inoperative	Provides pulses for timing the release of the district junctor	
AS	Auxiliary signal circuit	Inform plant personnel that this circuit is inoperative	Causes intermittent operation of a buzzer or bell in the auxiliary signal circuit	
B	Howler cord — "A" switchboard	Inform traffic personnel that this circuit is inoperative	Operates the stepping magnet of the switch which varies the intensity of the howler tone	
	Incoming trunk test circuit	Inform plant personnel to take the test circuit out of service	Furnishes pulses to delay brush selection until the incoming selector has returned to normal	

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
<p>B (cont)</p> <p>* *</p> <p>* *</p>	Major audible alarm circuit	Inform plant personnel that this circuit is inoperative	Provides interruptions for the major audible alarm or signal when a major trouble condition occurs in any of the equipment in the alarm area	5
	Floor alarm frame			
	Main distributing frame loudspeaker circuit	Inform plant personnel that this circuit is inoperative	Flashes a lamp to indicate an incoming call to the frame	
	Operator training equipment No. 4A	Inform traffic personnel that this circuit is inoperative	Provides 120-ipm interruptions for reorder signal	
	Permanent signal cord circuit — Toll switchboard		Provides interruptions for varying the intensity of the howler tone	
	* Permanent signal holding trunk — "A" switchboard		Flashes a lamp if the trouble on the subscriber line clears while the DS key is operated	
	* Permanent signal holding trunk — No. 3 switchboard	Inform traffic personnel to make the associated trunks busy. In addition check that no lines are connected to the trunks. If so, it is desirable that the connection should be allowed to come in on another trunk	Provides interrupted ground to the trunk to give a howler being applied signal	
* Permanent signal holding trunk coin and noncoin "A" switchboard or sender MB frame	Flashes the trunk lamp after the permanent signal has been answered or if the coin line still remains closed after disconnection by the operator			
<p>BB</p> <p>* *</p>	District junctor test circuit	Inform plant personnel to take the test circuit out of service	Furnishes pulses for checking the CH interrupter feature in the district	
* Toll switchboard No. 3, 3B, or 3C, switchboard No. 11 2-way toll trunk circuit	Inform traffic personnel to have the associated trunks made busy	Provides interruptions for flashing manual tributary operator lamp while ringing		

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
* BB (cont)	Toll switchboard No. 3 busyback or reorder circuit	Inform traffic personnel to have the associated trunks made busy	Provides interruptions for flashing the switching trunk supervisory lamp to indicate to the connected operator that the called line is busy	
	Position test circuit— Toll switchboard No. 3C	Inform plant personnel to take test circuit out of service	Provides interruptions for busyback signal	
	Coin trunk test set		Imposes a nonoperate test on the charge delay feature	
BC	Coin station test line circuit	Inform plant personnel to take test line circuit out of service	Provides interruptions at 120-ipm to coding clock	
BCR	Coin station test line circuit	Inform plant personnel to take test line circuit out of service	Provides interruptions at 60-ipm to ringing coding clock	
BL	Operator training line— Busy and audible ringing tone circuit	Inform traffic personnel that this circuit is inoperative	Furnishes interruptions for line busy flash and tone	
	Operator training toll trunk circuit— Switchboard No. 3		Provides interruptions for flashing a busy lamp	
BR	Toll switchboard No. 3C or 3CL Operator recording-completing trunk	Inform traffic personnel to have associated trunks made busy	Provides a flashing lamp signal if the DSA operator attempts to originate a call using the wrong type of cord	
	Reorder and paths busy circuit— Switchboard No. 3 or 3C	Inform traffic personnel that this circuit is inoperative	Operates a relay which transmits reorder or paths busy flashes to originating operator	

*See 3.03.

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
* BT	Control circuit— Group alerting system	Inform plant personnel to insulate contacts and to transfer to a similar interrupter	Interrupts low tone at 120-ipm rate for use as busy tone	
BT	Line insulation breakdown test circuit— Local test desk	Inform plant personnel that this circuit is inoperative	Furnishes interruptions for timing the test	
	Zone registration test circuit	Inform plant personnel to take the test circuit out of service	Furnishes pulses to delay the test circuit until the selector of the zone registration circuit has returned to normal	
BY	Busy signal test circuit for toll switchboard No. 3	Inform plant personnel that this circuit is inoperative	Provides interruptions for testing busy signals from an operator's position	
	Position test circuit— Switchboard No. 3C		Provides busyback flashes for test purposes	
	Switch trouble alarm		Provides interruptions to indicate an all-trunks-busy condition	
	Toll switchboard No. 3, switchboard No. 11 testing circuit		Provides interruptions for flashing the toll cord supervisory lamp during ringing test	
	Zone registration test circuit	Inform plant personnel to take the test circuit out of service	Furnishes pulses for counting the busy timing interval of the test circuit	
C	Dial coin zone trunk— Timeout	Inform plant personnel that test circuit is inoperative	Operate the audible and visual alarm if the coin control functions or disconnects have not been completed in 5 to 12 seconds	

*See 3.03.

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
C (cont)	Incoming trunk test circuit	Inform plant personnel that this circuit is inoperative	Furnishes pulses to delay advance of the test circuit while various tests are being made	6
	Permanent signal holding trunk— Sender MB frame		Furnishes pulses for actuating the coin alarm circuit if the coin disposal fails	
CA	Cable insulation alarm	Inform plant personnel that this circuit is inoperative	Controls the stepping from one set of cables to another for testing	
	Originating sender test circuit	Inform plant personnel to take the test circuit out of service	Furnishes pulses to delay advance of the test circuit to permit the sender to recognize a wipe-out condition	
	Terminating sender test circuit			
CA1	Marker connector circuit	Inform plant personnel that this circuit is affected	Causes the operation of the major alarm if a marker or a transverter is not connected to a sender within the pre-determined time interval	
	Transverter connector circuit			
CA2	Marker connector circuit	Inform plant personnel that this circuit is affected	Causes the operation of the major alarm if the connector is not released within the predetermined time interval after a decoder has been connected to a sender	
	Transverter connector circuit			
CB	Coin supervisory or KP sender link and controller circuit	Inform plant personnel that the circuit is affected	Causes the operation of the minor alarm and release of the controller circuit if the call is not served within a pre-determined time interval	
	Subscriber sender link and controller circuit	Inform plant personnel to make busy the associated groups of district junctors		
	TOUCH-TONE® frequency test applique circuit	Inform plant personnel that circuit is affected	Provides interrupted tone to indicate all circuits busy	

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
CB (cont)	MJ mobile radio telephone system line circuit	Inform traffic personnel that circuit is affected	Circuits-busy indication	
CC	Coin supervisory release circuit	Inform plant personnel that no action is required during light load. During heavy load, insulate contacts and transfer to similar interrupter	Allows cancellation of coin collect check during period in which overtime coin test is canceled (See RL)	
CD *	District junctor coin supervisory circuit	Inform plant personnel to make busy the associated coin supervisory circuits	Causes a lamp to flash to indicate to the "A" operator that a coin has not been deposited for overtime	
CF *	Coin control circuit — "A" switchboard	Inform traffic personnel to advise operator to depress coin control keys intermittently until pilot light is extinguished	Causes coin control current to be repeatedly connected to the line to ensure operation of the coin magnet	
CH	Dial coin zone trunk	Inform plant personnel to make busy the associated trunks	Delays the indication that the coin should be collected to ensure that a charge will not be made on a false reversal such as on busyback	
	* District junctor	Inform traffic personnel to make busy the associated district junctors	Delays operation of the message register to ensure that a charge will not be made on a false reversal such as on busyback	7
CI	Civil air raid warning	Inform plant personnel to insulate contacts and to transfer to similar interrupter	Checks the operation of the timing relays	

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
CI	Emergency ringback circuit	Inform traffic personnel that this circuit is inoperative	This interrupter is used in ringing back party subscribers on an emergency basis	
* CI	Recording completing trunk — No. 3 switchboard Subscriber recording-completing trunks	Inform plant personnel to make busy the associated trunks	Provides a time interval for application of coin control current when the coin is to be automatically collected or returned	
CK	District junctor interrupter checking circuit	Inform plant personnel that this circuit is inoperative	Causes operation of the major alarm if the interrupter relays fail to function within a predetermined time interval	
CKD	911 Emergency trunk circuit	Inform emergency bureau personnel that associated circuits are affected	Provides interrupted tone to indicate that calling subscriber has disconnected	
	Dial coin zone trunk	Inform plant personnel to have the associated trunks made busy	Controls the application of coin control current and the check that the coin has been disposed of	
CN *	District junctor coin supervisory circuit	Inform plant personnel to make busy the associated coin supervisory circuits	Furnishes pulses to control the time of various functions of the coin supervisory circuit	
	Station ringer test circuit	Inform plant personnel to make the associated test lines busy and inform that this circuit is inoperative	Furnishes pulses for controlling the application of coin return current to the line	
	Test trunk			

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
CR	Start circuit — Information desk or order turret	Inform traffic personnel to operate the INT SW key	Furnishes pulses for controlling the timing relays of the start circuit in order to advance that circuit if the associated sequence storage circuit is not properly dismissed	
	Coin return — Permanent signal hold- ing, vacant code, and vacant code tone trunks	Inform plant personnel to make busy the associated trunks	Causes coin return cur- rent to be connected to the line for a pre- determined time interval	
CS	Operating room calling signal	Inform traffic personnel that this circuit is inoperative	Provides pulses for functioning the oper- ating room calling signal circuit	

* See 3.03.

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
CS (cont)	Operating room desk No. 23A, 23B, 23C, 23D, 23E, or 23F messenger or service assistant telephone or call circuit	Inform traffic personnel that this circuit is inoperative	Provides interruptions for flashing the service assistant's lamp to indicate that an operator is calling	
	Operating room desk No. 23A, 23B, 23C, or 23D incoming trunk switch circuit		Provides pulses for timing the completion of a connection from a trunk to a position	
	Operating room desk No. 23A, 23B, 23C, or 23D operator telephone and position circuit		Provides interruptions for flashing a position lamp in the traffic panel when the position operator is busy	
	Intercepting trunk circuit	Inform traffic personnel that this circuit is inoperative	Sends a flashing signal through the intercepting trunk to flash the switchboard lamps associated with the regular intercepting jacks	
	Trunk circuit associated with 9A announcement circuit	Inform plant personnel that this circuit is inoperative	Pulses a relay for trunk guard test timing	
	MJ mobile radio telephone system common pulse circuit	Inform traffic personnel that the circuit is affected	Timing connection	
CT	District junctor coin supervisory time alarm	Inform plant personnel to make busy the associated coin supervisory circuits	Causes intermittent operation of the minor alarm if the coin supervisory circuit fails to complete its functions within the predetermined time interval	
	Miscellaneous circuit for sender make-busy frame	Inform plant personnel that this circuit is inoperative	Provides interruptions for alarm delay for senders which are arranged for automatic priming after timeout	

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
CT (cont) *	Originating sender test	Inform plant personnel to take the test circuit out of service	Checks the preliminary coin test feature	
	Ringing interrupter and alarm circuit — 10-party lines	Inform plant personnel to operate transfer key to transfer to interrupter on the working frame	Provides pulses for the time periods used in a 10-party terminal per station code ringing	
CW	Subscriber sender link and controller circuit	Inform plant personnel to make busy the associated district junctors	Controls the time alarm for calls waiting to be served by dialing district junctor circuits	
CX	District junctor test circuit	Inform plant personnel to take the test circuit out of service	Provides a time interval during which a test for short circuits in the district junctors is made	
DB	Marker circuits (long time out)	Inform plant personnel to make busy the associated markers	Causes the sender to release and causes operation of the major alarm if the marker is not released within a predetermined time interval	8, 9
	Transverter circuit — Long timing	Inform plant personnel to make busy the associated transverters	Causes operation of an alarm and the release of the recorder in case some trouble should prevent the functioning of the short timeout relays or in case the DB lead should become permanently grounded and thus keep the transverter out of service	
DL	Delay interrupter — Link circuits	Inform traffic personnel that this circuit is inoperative	Causes a register to operate if an associated link circuit fails to function within a predetermined time interval	10, 11

* See 3.03.

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE	
DL	Intercept and vacant code trunks — "A" switchboard	Inform plant personnel to make busy the associated trunks	Furnishes pulses for delaying lighting of the trunk lamp for a sufficient time interval to permit completion of dialing		
	Switchboard No. 13C, 13D, 15C, or 15D trunk circuit		Provides long intervals to signal the intercept "A" operator that the incoming trunk is not equipped with machine ringing		
DS *	Incoming trunk from toll	Inform plant personnel to make busy the associated trunks	Delays disconnection of the trunk to insure that the trunk will not be disconnected falsely when the operator rings		
F	Flashing circuit information desk	Inform traffic personnel that this circuit is inoperative	Provides pulses for flashing circuit		12
	Incoming trunk circuit repair service desk No. 2, local test desk No. 14	Inform plant personnel that this circuit is inoperative	Allows battery supplied by an incoming trunk to be interrupted causing a lamp to flash at the repair service desk or test desk		
FAR	District junctor test circuit	Inform plant personnel to take the test circuit out of service	Provides a time interval during which a test for false automatic release of the district junctor is made		
FD	Line insulation test control circuit	Inform plant personnel to take the test circuit out of service	Provides interruptions to allow a time interval for the marker to release from a service call before operating the alarm circuit		
FIG	Timer and ringback circuit	Inform plant personnel that this circuit is affected	Provides interruptions for 6-minute timer circuit		

* See 3.03.

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
FL	Flashing circuit	Inform traffic personnel that this circuit is inoperative	Provides 60 ipm to the flashing circuit for further distribution to the operating room or maintenance desks	
	Operator training circuit, CAMA training equipment		Provides a means for flashing a lamp to simulate CAMA reorder	
	Centralized supervisors console circuit		Furnishes interrupted ground to flash a relay which controls a 60-ipm light to the operator	
	Call distributing "B" position circuit — No. 3 switchboard		Provides interruptions for flashing a sender lamp in the DSB position circuit	
	Incoming trunk flashing recall circuit — DSA switchboard		Provides interruptions for flashing supervision in the answering cord when the trunk is re-selected with a plug still in the jack on a previous call	
	Service observing circuit — Toll or DSA switchboard		Provides interruptions for a flashing lamp signal	
	Service observing desk — Multiline observing circuit		Provides interruptions for a flashing lamp signal when a DSA or similar type trunk is observed	
	Service observing desk No. 12 position circuit		Provides interruptions for flashing the position (SDR) lamp in the observer's position circuit when a preliminary digit is keyed	

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
FL (cont)	Toll switchboard No. 3, 3C, or 3CL position and telephone circuit	Inform traffic personnel that this circuit is inoperative	Provides interruptions for flashing a trunk lamp while the operator is working on a call	
	Position grouping and telephone circuit — Toll switchboard		Provides interruptions for a flashing lamp signal	
	Transfer circuit to toll cabinet flashing order		Provides pulses for operating a relay in the transfer and interrupter circuit to flash the "A" switchboard operator when the toll cabinet operator is waiting for a toll call	
	Toll operating room desks incoming trunk		Provides interruptions for changing the sleeve resistance as a flashing recall signal to the toll operator	
	Operator training equipment — No. 2B interposition trunk circuit		Furnishes pulses for flashing the special service cord supervisory lamp if the cord is inserted into a practice position jack in error	
	Operator training line busy and audible ringing tone circuit		Provides a busy flashing signal to the sleeve circuit or a busy tone signal to the tip and ring conductors of an incoming trunk	
	* Audible and flashing recall circuit — "A" switchboard	Inform traffic personnel to take the associated positions out of service	Flashes the answering supervisory lamp and causes intermittent operation of a buzzer when the calling subscriber or operator recalls the DSA operator	

* See 3.03.

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
FL (cont)	"B" position, telephone and tone circuit	Inform traffic personnel to take the associated positions out of service	Flashes the S lamp if the operator depressed the numerical key before the sender is attached	4
	Transfer trunk circuit — Toll switchboard	Inform plant personnel to have the associated trunks made busy at the originating end	Provides interruptions for flashing (D) lamp of trunk on reselection at the distant office before the cord is removed from the jack	
	Toll trunk circuit — 2-way toll switchboard		Provides interruptions for flashing the manual tributary operator cord lamp by the operation of the ringing key of the operator cord circuit	
	TX trunk circuit — Toll switchboard		Provides for flashing the cord circuit lamp if the operator TALK key is normal and the distant end momentarily opens the loop as is done on ringing from the distant end or on reseizure before disconnection	
	Trunk test circuit for testing coin zone operator trunk circuits	Inform plant personnel that the circuit is inoperative	Furnishes overtime flash for the switchboard trunk lamps when testing with the switchboard end of coin zone trunks	
	Transmission line test circuit SD-98100-01, Fig. 9		Operates a relay to flash lamps and to step a selector for circuit timing	
	Test trunk circuit SD-95737-01		Provides interruptions for flashing busy and supervisory lamps	

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
FL (cont)	Outgoing trunk test frame — Trunk and line test circuit	Inform plant personnel that the circuit is inoperative	Operates relays which time certain tests, and causes lamps to flash to indicate the progress of the test circuit	
	Call through test line circuit	Inform plant personnel to make busy the associated test lines	Provides interruptions for delaying closure of the tripping circuit, for applying interrupted tone to the line, for closing the circuit to operate the charging circuit in the district, and for applying a disconnect signal after the test has been completed	
	* Toll switchboard No. 1, 3, 3B, 3C, or 3CL sender circuit	Inform plant personnel to make busy the associated senders	Provides interruptions for flashing a relay which returns wet-dry reorder flashes to the originating operator	
	Sender circuit		Provides 60 or 120 ipm for a reorder signal	
	Intertoll trunk flashing recall circuit — No. 3 switchboard	Inform plant personnel to have the associated trunks made busy	Provides flashing recall supervisory signal on either a disconnect or a reseizure before the called operator disconnects on an incoming call	
	Local test desk test line — No. 14 test desk	Inform plant personnel that this circuit is inoperative	Flashes a dial test lamp in the primary and secondary test circuits	
	Timed ringing circuit — Toll test board		Provides a busy flashing signal to the sleeve circuit or a busy tone to the tip and ring conductors of an incoming trunk	

* See 3.03.

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
FL (cont)	Position trunk and control circuit	Inform traffic personnel that circuits are out of service	Flashes the position busy lamp in the auxiliary services position trunk and control circuit	
	Auxiliary services positions No. 1A, 2A, 2B or 2C operator outgoing trunks and selector circuit		Provides all trunks busy signal	
	Line or trunk circuit for maintenance communications or repair service	Inform plant personnel to have the associated trunks made busy	Provides 60-ipm flashing lamp	
	Line or trunk circuit for maintenance communications or repair service	Inform plant personnel that the circuit is inoperative	Provides 120-ipm flashing lamp to indicate a held line	
	Auxiliary services position No. 4A operator position circuit SD-1B191-01	Inform traffic personnel that circuit is inoperative .	Provides 120-ipm flashing lamp to indicate position busy.	

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
FL1	Alarm receive circuit	Inform plant personnel that this circuit is inoperative	Provides interruptions to indicate an alarm has come in initially or that a change in alarms has taken place	
	Centralized supervisors console circuit	Inform traffic personnel that this circuit is inoperative	Interrupts ground to flash a relay which controls a 120-ipm flashing light to an operator	
	* "B" position, telephone and tone circuit	Inform traffic personnel that circuits are out of service	Flashes the LK lamp until the order tones have been transmitted	
	* Call distributing "B" position circuit — No. 3 switchboard		Provides interruptions for flashing a link lamp in the DSB position circuit	
	Primary and secondary test circuit local test desk No. 14	Inform plant personnel that circuit is affected	Flashes the howler lamp in the primary and secondary circuit indicating the application of ROH tone to the line.	
FR	* Flashing recall for incoming and recording-completing trunk circuits — No. 1 or 3 switchboard	Inform traffic personnel that circuits are out of service	Provide interruptions for flashing recall signal on the associated trunks	
	* Flashing supervisory lamp — Ringdown inter-toll trunk circuit		Furnishes interruptions for flashing the supervisory lamp	
	* Flashing recall — Intertoll trunk No. 3 switchboard		Provides interruptions for flashing recall signal	
FS	Dial tester circuit	Inform plant personnel to make busy the associated test line	Provides rapid pulses for applying interrupted tone to indicate that the speed of the dial being tested is too high	

* See 3.03.

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
FS * (cont)	Coin supervisory or KP sender link and controller circuit	Inform plant personnel to make busy the associated controller for the A or B group as required	Causes the operation of the LF register and release of the controller circuit when the circuit has started falsely	
FT	Floating battery alarm	Inform plant personnel that circuit is affected	Delays operation of the minor alarms so that momentary fluctuations of battery voltage will not bring in the alarms	13
G	Special service trunks to central "A" switchboard (2-party selective and 4-party semiselective)	Inform plant personnel to make busy the associated trunks	Used in conjunction with interrupter R to apply ringing current to the stations on both sides of the line on an emergency ringback of the calling subscriber	
GA	Special service trunks to central "A" switchboard (4-party full selective)	Inform plant personnel that circuits are affected	Used in conjunction with interrupter (RB) to apply ringing current to all stations on the line on an emergency ringback of the calling subscriber	14
GB	Traffic register circuit — RP, DP, and MF terminating senders		Provides interruptions for operating a register and lighting a signal lamp when the sender groups are busy	15
GP1 GP2	Alarm sending circuit		Used to give battery click signals and interrupted tone signals in the alarm sending circuit	
GP3			Provides a delay to cover the time interval during which the load is transferred from the regular ringing machine to the battery driven machine	

* See 3.03.

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
HL	High-low battery alarm	Inform plant personnel that circuits are affected	Delays operation of the major alarms so that momentary fluctuations of battery voltage will not bring in the alarm	13
HR	Station ringer test circuit	Inform plant personnel that this circuit is inoperative	Provides a signal to identify a high resistance ringer	
HS	Zone registration and timing test circuit	Inform plant personnel to take the test circuit out of service	Provides half-second pulses to the test circuit to permit it to time an interval during which an OK check should be received on timing tests	
HT	Common hold jack circuit	Inform plant personnel that this circuit is inoperative	If there is a false ground on lead L or if relays A1, A2, A3, A4, or B fail to operate properly, this interrupter causes an alarm to sound and will release the A- relays after about 1 second	
I	District junctor test circuit	Inform plant personnel to take the test circuit out of service	Furnishes pulses to delay advance of the test circuit while various tests are being made	
IA IB	Line link and controller circuit	Inform plant personnel to make busy the associated controller circuits	These interrupters cause intermittent operation of the minor alarms and switching of the frame leads to the mate controller circuit if the call is not served within a predetermined time interval	16
	Terminating sender link and controller circuit			17
IB	No such number tone supply	Inform plant personnel to operate the associated transfer key	Causes a variation in the pitch of the tone	

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
IB (cont)	Tone jack circuit — Switchboard No. 3	Inform traffic personnel that this circuit is inoperative	Provides interruptions for vacant code tone	
	Vacant code trunk, overflow tone, and tone demonstration circuit	Inform plant personnel to make busy the associated trunks	Intermittently connects low tone to the associated trunks, which apply the tone to the line to indicate to the calling subscriber that a vacant number has been dialed	18
ID	* Auxiliary sender circuit	Inform plant personnel to make senders busy	Operates relays which provide a 2.5 second timing for receipt of the calling directory number	41, 42
	Terminating sender test circuit	Inform plant personnel to take the test circuit out of service	Controls a nonoperate test	
ID1	Interdigital timing test		Controls an operate test	
IDT	Terminating sender circuit — Interdigital time-out	Inform plant personnel that this circuit is inoperative	Causes the sender to release if the time between any two digits exceeds 3 to 6 seconds when all the senders in the group are busy	
IF	* Terminating sender circuits	Inform plant personnel to make busy the associated senders	Provides a time interval for incoming advance closure	
IOF	Originating sender test circuit	Inform plant personnel to take the test circuit out of service	Operates to test that the sender waits for the distant circuit to open the fundamental lead after reverse battery	
IP	Originating sender test circuit		Checks the time required for delivery of call indicator impulses	

* See 3.03.

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
IT	Terminating sender test circuit	Inform plant personnel to take the test circuit out of service	Measures the time during which the incoming trunk test set is connected to the ac key pulsing supply and, if it exceeds about 7 seconds, it will disconnect the incoming test set and seize the supply	
	Ringing interrupter and alarm circuit	Inform plant personnel to operate transfer key	Provides ground interruptions for interrupting continuous ringing	
	Subscriber sender circuit	Inform plant personnel that no action is required during light load. During heavy load, insulate contacts and transfer to a similar interrupter	Provides a means of measuring a time interval of 3 to 6 seconds in the subscriber sender circuit for intersender timing	
ITC	Traffic register circuit	Inform traffic personnel that this circuit is inoperative	Provides a time interval of 6 to 12 seconds for the release of the intersender timing control feature after one or more senders of the busy group become idle	
KM	Key monitoring circuit	Inform traffic personnel that this circuit is inoperative	Flashes the sender monitor lamp in the key monitoring circuit if the operator starts registration of the number before the sender is attached	19
KS	Keyset circuit	Inform traffic personnel to have the associated positions taken out of service	Flashes the sender monitor lamp in the associated circuits if number registration is started before the sender is attached	
	Keypulsing test set — Toll switchboard	Inform plant personnel to take the test set out of service		

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
L	Emergency cord— "A" switchboard	Inform plant personnel that this circuit is inoperative	Causes the EMG lamps at the sender monitor position to flash if the plug of the emergency cord is inserted into a stuck sender or a plugging line jack before the zero operator has answered	20
	Local station, test trunk, and 2-way trunk circuits flashing interrupter		Furnishes interruptions in the associated circuits for flashing the lamps	21
	Trunk circuit— MDF loudspeaker	Inform plant personnel that the circuit is affected	Flashes a lamp at the test desk when a call is originated at the MDF	
	Transfer and lamp circuit— Toll test board No. 183, local test desk No. 14, outgoing trunk test frame, key cabinet No. 20 or No. 21		Flashes local facility answering lamp	
	Local station line circuit— Local test desk No. 14, master test frame, chief switchmans desk, outgoing trunk test board, sender make busy frame		Flashes call lamp	
	Two way trunk circuit to subscriber line circuit		Flashes lamp on incoming call	
	2-wire trunk circuit arranged for park-on operation for centralized repair service	Inform plant personnel to make busy the trunk circuit	Flashes lamp for trunk circuit	

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
L L1 L2	Volume limit indicator and alarm relay— Announcement system No. 3A	Inform plant personnel to operate the manual transfer key	Used for checking the level and presence of speech on the load	
LB	Busy tone and flashing signal circuit	Inform plant personnel to make busy the associated signal circuits	Operates a relay which sends busy tone and flashes	
	* Incoming trunk circuit	Inform plant personnel to make busy the associated trunks	Supplies interruptions to indicate to the originating operator that the line is busy	
	* Tone demonstration circuit—"A" switchboard		Intermittently operates and releases a relay to indicate that the called line is busy	
	Tone jack circuit—toll switchboard	Inform traffic personnel that this circuit is inoperative	Provides interruptions for a busy line signal	
	Tone demonstration circuit		Intermittently operates and releases a relay to indicate that the called line is busy	
	Toll switchboard No. 1, 3, 3C or 3CL tone and flashing demonstration circuit	Inform traffic personnel that this circuit is inoperative	Provides interruptions for flashing a cord lamp to demonstrate line-busy flashes to the operator	
	Howler circuit	Inform traffic personnel that this circuit is inoperative	This interrupter times the intensity of the howler tone	
	Dial pulse outgoing sender circuit	Inform plant personnel that this circuit is inoperative	Line busy	
	MF pulsing outgoing sender circuit		Flashes sender lamp at OET test frame when sender encounters trouble	

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
LB (cont)	DID test circuit	Inform plant personnel that this circuit is inoperative	Flashes lamps in DID test frame	
	MF outgoing sender for AIS without LLP		Flashes SS lamp at AIS sender test circuit and OGTT frame on stuck sender condition	
* LBT	Incoming, line verification, and revertive call trunks	Inform traffic personnel to make busy the associated trunks	Supplies interrupted tone to indicate to the calling subscriber that the called line is busy or, for revertive call trunks, that the receiver should be replaced to permit ringing the bell of the desired station	
	Incoming trunk register and connection circuit—J1 terminal (BELLBOY®) Signal circuit or tone supply	Inform plant personnel to insulate contacts and to transfer to a similar interrupter	Supplies busy tone to the calling subscriber to indicate that no storage circuits are available	
	Signal circuit or tone supply	Inform plant personnel that this circuit is inoperative	Line busy tone	
LD	Subscriber sender load register	Inform traffic personnel that this circuit is affected	Furnishes pulses for operating a register measuring the time duration of group busy condition	15
LI	Local test cabinet No. 3 ROH tone	Inform plant personnel that this circuit is affected	Flashes a lamp to indicate application of ROH tone at the test cabinet	
LK	Coin supervisory link frame	Inform plant personnel that this circuit is affected	Causes operation of a time alarm when calls are abnormally delayed due to a link busy condition	22

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
LNO	Terminating sender test circuit	Inform plant personnel to take the test circuit out of service	Furnishes pulses for testing the nonoperate condition of the L relay in the terminating sender circuit	
LR	Station ringer test circuit	Inform plant personnel that this circuit is inoperative	Provides a signal to identify a low resistance ringer	
LSG	Auxiliary signal, flashing and transfer key circuit—Test cabinet No. 3	Inform plant personnel that this circuit is inoperative	Furnishes ground pulses for operating relays which supply battery for flashing the trunk lamps	
	MDF loudspeaker circuit		Flashes lamp to signal test desk when a key has been momentarily operated at the frame	
LT	Subscriber sender link and controller circuit	Inform plant personnel that this circuit is inoperative	Functions a relay circuit which in case of heavy traffic will impose the load release condition for a predetermined interval	
LTD	Telephone circuit for MDF loudspeaker	Inform plant personnel that circuit is affected	Indicate an incoming call to the frame	
LTT	Line insulation test control circuit	Inform plant personnel to take the test circuit out of service	Provides interruptions to delay the starting of the test until the tubes warm up	
M	Operator recording-completing trunk circuit	Inform plant personnel to make trunk busy	Operates a supervisory relay to flash a lamp if the plug of the calling cord of a special service cord circuit is inserted in a jack of the recording-completing trunk	23
MA	Operating room audible alarm	Inform plant personnel that this circuit is affected	Closes a circuit to a tone bar in the operating room when an alarm is to be sounded	24
MB	911 Emergency trunk circuit	Inform plant personnel that this circuit is affected	Flashing MB lamp at relay rack equipment and at maintenance center	

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
MB (cont)	Operator training cord No. 2B	Inform traffic personnel that this circuit is inoperative	Provides the training operator with a master busy signal	
	Relay interrupter circuit		Provides interruptions for master busy tone	
	Tone and flashing demonstration circuit		Provides interruptions for demonstrating master busy signal to an operator	
MBA	Line insulation test control circuit	Inform plant personnel to take the test circuit out of service	Provides interruptions for delaying the release of the service equipment when an all marker busy condition is encountered to allow a time interval for a marker to become idle	
MDF	MDF loudspeaker telephone circuit	Inform plant personnel that this circuit is inoperative	Indicates which frame transmitter is cut in the path. Causes station lamps to flash at 60-ipm when station is busy	
MP	Maintenance recorder printer	Inform plant personnel that this circuit is inoperative	Used with the maintenance reader and printer to operate an alarm in case an entry is not completed within a certain interval	
MR	Transfer trunk circuit to mobile radio	Inform plant personnel to make busy the associated trunk	Provides 120-ipm interrupted ground when the trunk has been re-selected before the cord is taken down from a previous call	
	Zone registration and timing test circuit	Inform plant personnel to take the test circuit out of service	Furnishes pulses to permit the test circuit to time an interval during which it checks for an extra message register pulse	

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
MR (cont)	Station ringer test circuit	Inform plant personnel that this circuit is inoperative	Provides a signal for false ground at subscriber station with receiver on hook	
NC	Tone and flashing demonstration circuit	Inform traffic personnel that this circuit is inoperative	Provides interruptions at 30-ipm for a flashing lamp indication to the originating operator that no circuits are available	
	Operator training signal cord circuit			
NC	4A operator training equipment	Inform plant personnel that circuit is affected	Provides interrupted 30-ipm ground to the 104-type test line, indicating that the noise level was too high or that reorder has occurred	
	104 test line circuit			
* OF	Incoming trunk circuit	Inform plant personnel to make busy the associated trunks	Supplies interruptions to indicate to the originating operator that all paths from the incoming trunk are busy	
	Pushbutton calling signal to dial pulse converter circuit	Inform plant personnel that this circuit is inoperative	Furnishes overflow tone to a calling subscriber when the converter encounters trouble	
	Register check and control circuit		Furnishes overflow tone to a calling subscriber when a trouble condition is encountered	
	Operator training signal cord	Inform traffic personnel that this circuit is inoperative	Furnishes ground pulses for operating a relay which supplies an overflow click signal	
	Operator training cord — No. 2B		Provides the training operator with an overflow group busy signal	

* See 3.03.

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
OF (cont)	Tone and flashing demonstration circuit	Inform traffic personnel that this circuit is inoperative	Provides interruptions for demonstrating overflow signal to an operator	
	DID test circuit	Inform plant personnel that circuit is affected	Flashes lamps in DID test frame	
	Subscriber Sender	Inform plant personnel to make sender busy	Provides reorder tone	
	911 Emergency trunk circuit	Inform plant personnel that circuit is affected	Supplies overflow tone to indicate to calling subscriber that trunk is busy	
OFL	Automatic incoming trunk test circuit	Inform plant personnel to take the test circuit out of service	Flashes the OF lamp to indicate an overflow condition of the trunk under test	
	District junctor— Step-by-step	Inform plant personnel to make busy the associated junctor circuits	Provides battery interruptions from the tone supply of the district junctor for use in step-by-step areas	
OFT	* Incoming trunk circuit	Inform plant personnel to make busy the associated trunks	Supplies interrupted tone to indicate to the calling subscriber that all paths from the incoming trunk are busy	
	Office link frame overflow circuit		Connects intermittent tone to the tip of the line to indicate to the subscriber that all trunks are busy	
	OGT circuit for dial coin zone service	Inform plant personnel to insulate contacts and to transfer to a similar interrupter	Supplies overflow tone to the subscribers line when all operator trunks through a concentrator are busy	
	Line concentrator No. 1A control circuit		Provides for interruptions of the tone supply to the line appearance	

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
OFT (cont)	MJ mobile radio telephone system duplicate switching and test access circuit	Inform plant personnel that circuit is affected	Overflow tone	
	Dial pulse outgoing sender circuit		Provides overflow tone	
	AIS line circuit without LLP	Inform plant personnel to make trunk busy	Provides under tone	
	Trunk circuit arranged for park-on operation for centralized repair service	Inform plant personnel to take the test circuit out of service	Flashes a lamp to indicate that a satisfactory test has been completed	
OK	OGT test circuit	Inform plant personnel to make busy the associated trunks	Flashes a lamp at the coin monitor position, indicating that the deposit for the overtime period should be checked	
OT	Dial coin zone trunk circuit			

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
P	Incoming trunk test line circuit	Inform plant personnel to make busy the associated test lines	Furnishes pulses for testing the incoming supervisory relays and sending tones and ringing signals to the testing personnel	
	Answering time recorder —Timing control and test circuit	Inform traffic personnel that this circuit is inoperative	Controls the progress of the timing switch used in the measurement of delay in answering calls	
	Signaling miscellaneous jack circuit	Inform plant personnel that this circuit is inoperative	Provides interruptions for testing purposes	
	Timer and ringback circuit	Inform emergency bureau personnel that circuit is affected	Supplies closures to ringback feature	
P	Answering time recorder —SO desk No. 2 or 7	Inform traffic personnel that this circuit is inoperative	Controls the start of a selector which controls the time feature in this circuit	
P1			Controls relays for distinguishing between switchhook flashes and subscriber release before the call is answered	
P1 P2			Furnishes opens and closures to control the length of the interval used in measurement of delayed answer of calls	

*See 3.03.

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
PA	Floor alarm frame and auxiliary signal circuit	Inform plant personnel that this circuit is inoperative	Operates the major audible signal at the power alarm cabinet when a major trouble condition occurs	1, 5
PB	Major audible alarm circuit			
PB	Toll switching trunk circuit	Inform plant personnel to make busy the associated trunks	Provides interrupted ground for flashing the cord supervisory lamp if the sender is unable to complete a call	
	Paths busy interrupter — "A" switchboard district junctor, "A" switchboard outgoing trunk, "A" switchboard — Number check sender or trunk, incoming trunk, toll number checking trunk	Inform plant personnel to make busy the associated trunks	Provides interruptions for operating and releasing the cord supervisory relay to flash the supervisory lamp as an indication that all trunks are busy, that the START key has been improperly operated, or that the number does not check	
	Tone demonstration circuit—"A" switchboard	Inform traffic personnel that this circuit is inoperative	Furnishes interruptions for operating a relay in the "A" switchboard circuit to send out interrupted tone to the ring of the outgoing trunk jack	
	Tone jack circuit — Toll switchboard		Provides interruptions for a path busy signal	
	Operator training inter-toll trunk circuit		Provides interruptions for all paths busy flash	
	Operating room desks 23A, 23B, 23C, and 23D outgoing trunk circuit		Indicates that all outgoing trunks are busy	
PC	District junctor test circuit	Inform plant personnel to take the test circuit out of service	Furnishes pulses to step the connector switches to a particular circuit	
	Incoming trunk test circuit			

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
PG	Plugging up frame circuit	Inform plant personnel that this circuit is inoperative	Furnishes pulses for actuating a buzzer when a disconnect signal is given on a test trunk	
PR	Operating room desks 23A, 23B, 23C, and 23D operator telephone and position circuit	Inform traffic personnel that this circuit is inoperative	Provides 60 ipm to flash position lamp while position is out of service but is still occupied	
PS	Permanent signaling holding trunk	Inform plant personnel to make busy the associated trunks	Provides interruptions to delay calls in the permanent signal holding trunk	
	Permanent signal holding trunk timing circuit sender, MB frame	Inform plant personnel that this circuit is inoperative	Furnishes ground pulses for actuating the permanent signal alarm timing circuit	25
	Originating sender test circuit	Inform plant personnel to take the test circuit out of service	Checks the time allowed by the sender before setting up the permanent signal condition	
PT	* Announcement system No. 4A announcement trunk circuit for use with operator class codes	Inform plant personnel to make busy the associated trunks	Provides interruptions for delaying trunk operation for a time interval sufficient for the sender to make the "trunk guard" test	
	* Announcement system No. 4A announcement trunk circuit with or without final heavy positive pulse		Provides interruptions for delaying trunk operation until all PCI impulses have been sent	
	Incoming trunk circuit—Announcement system No. 3A		Furnishes pulses to hold open the talking path of the incoming trunk until after pulsing has been completed	
	* Pulse test interrupter—Announcement trunk circuit			

* See 3.03.

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
PU *	Intercepting cord circuit — "A" switchboard	Inform traffic personnel to take the associated cord circuits out of service	Delays talking charge supervision so that flashes are not sent back to originating operator	
R *	No. 5 crossbar office interrupter circuit	Inform plant personnel in the No. 5 crossbar office that this circuit is inoperative	Provides interruptions for the No. 5 crossbar interrupter circuit	1
	Special service trunk circuit central "A" switchboard	Inform plant personnel to make busy the associated trunks	Used in conjunction with interrupter G to apply ringing current to both sides of the line on an emergency ring-back of the calling subscriber	
RA *	No. 5 crossbar office interrupter circuit	Inform plant personnel in the No. 5 crossbar office that this circuit is inoperative	Provides interruptions for the No. 5 crossbar interrupter circuit	1
RAE *	No. 5 crossbar office interrupter circuit		Provides interruptions for the No. 5 crossbar interrupter circuit	5
RB *	Dial coin zone trunk circuit	Inform plant personnel this this circuit is inoperative	Used with the RF interrupter to cause the release of the circuit if the calling party does not disconnect within a predetermined time interval after the called party has disconnected	
	District junctor circuit			
	Special service trunks to central "A" switchboard (4-party full selective)	Inform plant personnel to make busy the associated trunks	Used in conjunction with interrupter GA to apply ringing current to all stations on the line on an emergency ring-back of the calling subscriber	14
	911 Emergency trunk circuit	Inform emergency bureau personnel that circuit is affected	Supplies closures to emergency ringback circuit	

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
RC	Ringing battery charge alarm — Rectifiers	Inform plant personnel that this circuit is affected	Delays operation of the no-voltage alarm to ensure that normal functioning of the ringing interrupter will not cause an alarm	26
RE *	No. 5 crossbar office interrupter circuit	Inform plant personnel in the No. 5 crossbar office that this circuit is inoperative	Provides interruptions for the No. 5 crossbar interrupter circuit	5
REC	Control circuit — Announcement system No. 3A	Inform plant personnel that this circuit is inoperative	Closes ground to the "A" lead to flash a recording lamp in the control circuit	
RF	Dial coin zone trunk circuit District junctor circuit	Inform plant personnel that this circuit is affected	Used with the RB interrupter to cause the release of the circuit if the calling party does not disconnect within a predetermined time interval after the called party has disconnected	
RI	Station ringer test circuit	Inform plant personnel that this circuit is inoperative	Provides pulses for controlling the steering circuit used for 2-party and ringer identification tests	
RL	Coin supervisory release circuit District junctor release circuit	Inform plant personnel that no action should occur during light load. During heavy load, insulate contacts and transfer to similar interrupter Inform plant personnel that this circuit is affected	Times period during which overtime coin test is canceled Release the junctor circuit if the calling party does not disconnect within a predetermined time interval after the called party has disconnected	

* See 3.03.

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
RO	Common timing and alarm circuit	Inform plant personnel to operate the transfer switch	Provides interruptions for a reorder signal	
	Incoming trunk circuit— Information desk		Provides interruptions for reorder signal to the toll operator when the circuit times out	
	* Toll switchboard No. 3 busy back or reorder circuit	Inform plant personnel to have the associated trunks made busy	Provides interruptions for flashing the switching trunk supervisory lamp to indicate to the operator that all trunks to the called office are busy	
	Intertoll trunk concentrating equipment test line circuit	Inform plant personnel to take the associated test line out of service	Provides interruptions for a flashing supervisory signal to the incoming trunk on seizure of the test line	
	Operator training signal cord circuit— "A" switchboard	Inform traffic personnel that this circuit is inoperative	Provides interruptions for actuating a relay which gives a flashing reorder signal to the operator	
	* Reorder signal circuit	Make busy the associated circuits		
	Toll switchboard No. 1, 3, 3C, or 3CL tone and flashing demonstration circuit	Inform traffic personnel that this circuit is inoperative	Provides interruptions for flashing a cord lamp and tone signal to demonstrate path busy indications to an operator	
	Tone and flashing demonstration circuit	Inform traffic personnel that this circuit is inoperative	Provides interruptions for demonstrating reorder signal to an operator	
ROHT	Sender make busy frame test circuit	Inform plant personnel that this circuit is inoperative	Flashes a lamp to indicate application of ROH tone at sender make busy frame	

*See 3.03.

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
ROT	Operator training signal cord circuit	Inform traffic personnel that this circuit is inoperative	Furnishes ground pulses for operating a relay which supplies a reorder tone signal	
RP	Originating sender test circuit	Inform plant personnel to take the test circuit out of service	Provides a time interval for the sender to return to normal on a repeat test	
RS	Announcement distributing circuit announcement system No. 3A	Inform plant personnel to operate the distributing circuit transfer key	Furnishes ground pulses for controlling the signaling relays of the distributing circuit for the purpose of timing the length of a connection to the announcement bureau	
	District junctor test circuit	Inform plant personnel to take the test circuit out of service	Furnishes pulses for testing the release of the S relay in the district	
RT	Test circuit for testing 209-type relays	Inform plant personnel to take the test circuit out of service	Furnishes interruptions for testing 209-type relays with a relay adjusting test set	
RTT	Zone registration and timing test circuit	Inform plant personnel to take the test circuit out of service	Furnishes pulses for trouble timing on the rapid (message register only) test of the test circuit	
S	Cord testing circuit—"A" switchboard		Opens and closes the supervisory circuit to test supervision	
SD	Originating sender test circuit		Controls and times the station delay feature and also assists in restoring the sender to normal when the test circuit control advance key is operated	

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
SD (cont) *	Subscriber sender circuit	Inform plant personnel to make busy the associated senders	Delays the progress of the sender where station delay is required. It also causes the sender monitor to be brought in if the coin is not deposited within a predetermined time interval	
SDR	OGT test frame trunk and line test circuit	Inform plant personnel to take test circuit out of service	Causes lamps to flash to indicate the progress of the test circuit	
	Manual OGT test circuit			
SEQ	Control circuit—group alerting system	Inform plant personnel to insulate contacts and transfer to another interrupter	Provides for ringing four alerted ringing groups in sequence	
SL	Dial tester circuit	Inform plant personnel to make busy the associated test line	Supplies slow pulses for applying interrupted tone to indicate that the speed of the dial being tested is too low	
	Outgoing trunk test circuit	Inform plant personnel that this circuit feature is inoperative	Provides flashing lamp when sender switch or trunk switch is off normal	
SM	Howler circuit— Local test desk, sender MB frame	Inform plant personnel that this circuit is inoperative	Operates a relay which controls a selector switch to time the howler tone	27
SMT	Line insulation test control circuit	Inform plant personnel to take the test circuit out of service	Provides interruptions for delaying the operation of the alarm circuit to permit the seizure of a line link frame	

*See 3.03.

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
SPT	Maintenance recorder spacing circuit	Inform plant personnel that this circuit is inoperative	When new paper has been inserted into the maintenance recorder interrupter, SPT times the running of paper through the perforator to insure a sufficient length of paper to thread into the reader	
SQA *	Control circuit— Group alerting system	Inform plant personnel to insulate contacts and transfer to a similar interrupter	Provides for ringing four alerted groups in sequence and interrupts low tone at 60-ipm for use as busy tone	
SQB *	Control circuit— Group alerting system	Inform plant personnel to insulate contacts and to transfer to a similar interrupter	This interrupter is provided in a distant office from the group alerting circuit to provide for ringing four alerted groups in that office in sequence	
SS	Auxiliary sender circuit	Inform plant personnel that this circuit is inoperative	Flashes associated lamp when auxiliary sender is busy	
	Howler circuit		Provides interruptions for stepping the selector switches	
SSA	Sender supervisory alarm— Sender MB frame	Inform plant personnel that this circuit is inoperative	Provides timing periods for operation of sender supervisory alarm	
SSM	Subscriber sender supervisory meter	Inform plant personnel that circuit is affected	Provides timing periods for operation of subscriber sender supervisory meters	

*See 3.03.

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
	Air raid warning system code generating circuit and public signal control circuit	Inform plant personnel to insulate contacts and to transfer to similar interrupter	Provides interruptions for controlling the operation and release of relays which generate code signals for air raid warning purposes	1
ST	Civil air raid warning system		Provides pulses for timing relays which control the siren intervals	
*	Announcement system No. 4A announcement trunk circuit with or without final heavy positive pulse	Inform plant personnel to make busy the associated trunks	Provides interruptions for delaying trunk operation for a time interval sufficient for the sender to make the "trunk guard" test	

*See 3.03.

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
* ST (cont)	Incoming trunk circuit — Announcement system No. 3A	Inform plant personnel to make busy the associated trunks	Furnishes pulses to introduce a delay in the operation of the trunk circuit sufficient to permit a sender to make the "trunk guard" test	
	Terminating sender link and controller circuit (home and mate)	Inform plant personnel to make busy the associated controller circuits	Furnishes interruptions for operating relays to cause a second trial if the call is not served within a predetermined time interval	17
STE	Air raid warning system code generating circuit and public signal control circuit	Inform plant personnel to insulate contacts and to transfer to similar interrupter	Provides interruptions for controlling the operation and release of relays which generate code signals for air raid warning purposes	5
SY	Originating sender test circuit	Inform plant personnel to take the test circuit out of service	Checks the synchronizing of the start of selections with the dialing of each digit	
T	Common timing and alarm circuit	Inform plant personnel to operate the transfer switch	Provides a time interval of 14 or 28 seconds as required	
	Announcement system No. 4A distributing and alarm circuit	Inform plant personnel to insulate contacts and to transfer to a similar interrupter or a working frame	Provides interruptions for the timing circuit which checks at intervals the operation of the "speech level" relay	
	Control circuit for distributing center — Announcement system No. 3A		Furnishes pulses to time out the control circuit after a predetermined time if voice currents are not coming through over the tip and ring of the circuit	

* See 3.03.

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
T (cont)	PBX multiline observing circuit	Inform traffic personnel that this circuit is inoperative	Times the interval during which the observing line circuit is connected to the multiline circuit	
	Plugging-up circuit		Furnishes pulses for operating relays which provide for timing the period during which a line trouble is cleared	
	Position test circuit — Switchboard No. 3C	Inform plant personnel that this circuit is inoperative	Time the disconnect of the toll position keyset circuit	
	Originating sender test circuit	Inform plant personnel to take the test circuit out of service	Restores the circuit under test if the test of the common apparatus is not completed within a predetermined time interval	
	Terminating sender test circuit			
	Cord testing circuit — "A" switchboard		Provides a time interval for the flash test	
	Incoming trunk timing circuit	Inform plant personnel that this circuit is inoperative	Causes the release of incoming trunk after a predetermined time if called subscriber receiver is off hook	
Overflow and vacant code trunk	Inform plant personnel to make busy the associated trunk	Provides interruptions for a tone signal to the calling subscriber of an operator as an indication that an overflow condition exists		
T1	Calls waiting signal circuit — "B" switchboard	Inform traffic personnel that this circuit is inoperative	Furnishes pulses to delay the operation of an alarm which indicates that a certain number of calls have been waiting a predetermined time interval	29

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
T1 (cont)	Load control — Terminating senders	Inform plant personnel that this circuit is affected	Causes the operation of relays in the sender load control timing circuit to restore that circuit if senders become available before a predetermined time interval	30
T2	Load control — Terminating senders	Inform plant personnel that this circuit is inoperative	Furnishes pulses for controlling the effect of the timing of the T1 cycle for the 1/2- to 1-minute interval	31
TA	Auxiliary sender circuit	Inform plant personnel to insulate contacts and to transfer to a similar interrupter	Causes auxiliary sender to time out and release if call is not served within a predetermined time	
	Dial terminating manual line circuit	Inform plant personnel to make busy the associated pulse circuit	Furnishes pulses to operate a relay and to bring in an alarm if either of the common pulse circuits encounters a trouble condition	
	Load control circuit — Originating senders	If LC key is operated inform plant personnel that this circuit is inoperative. If LC key is not operated, no action is required.	Provides time interval for the release of the sender load control feature after one or more senders of a busy group become idle	32
	Vacant code trunk circuit	Inform plant personnel to make busy the associated trunks	Brings in a minor alarm if the trunk fails to apply coin return battery within a predetermined time interval after the calling subscriber has disconnected	18
	Permanent signal holding trunk, CN "A" switchboard		Furnishes interruption for controlling the time alarm circuit	33
	Ringling interrupter and alarm circuit	Inform plant personnel that this circuit is inoperative	Causes an alarm if the IT interrupter circuit is not functioning properly	

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
TA (cont)	Ringing interrupter and alarm circuit — 10-party code ringing	Inform plant personnel that this circuit is inoperative	Provides timing pulses to give an intermittent minor alarm in case of trouble	34
	District junctor test circuit	Inform plant personnel that test circuit is affected	Causes intermittent operation of the minor alarms if a busy condition or a trouble condition persists for a predetermined time interval	
	Incoming trunk test circuit			
	Originating sender test circuit	Inform plant personnel to take the test circuit out of service	Causes the operation of the minor alarms if a busy condition or a trouble condition persists for a predetermined time interval	
	Terminating sender test circuit		Causes intermittent operation of the minor alarms if a busy condition or a trouble condition persists for a predetermined time interval	
	Subscriber recording-completing trunk circuit	Inform plant personnel that this circuit is inoperative	Controls the operation of the time alarm circuit if the trunk circuit does not function within the proper time	35
Test trunk circuit — Local test desk	Furnishes interruptions for actuating the time alarm circuit			
TA1	Ringing interrupter and alarm circuit	Inform plant personnel that this circuit is inoperative	Causes an alarm if the PU, R1, or R2 leads to the auxiliary line circuits become falsely grounded	
	Automatic test circuit for incoming trunk circuits	Inform plant personnel to take test circuits out of service	Provides a shorter time-out interval on the continuity and polarity tests, then is provided on all other tests	

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
TB	Cord testing circuit — "A" switchboard	Inform plant personnel to take the test circuit out of service	Intermittently applies high tone for the flashed and trip tests	
TC	Incoming trunk test line	Inform plant personnel to make busy the associated test lines	Furnishes pulses for checking the operation of the tripping relay	
TFA	Originating trouble indicator frame	Inform plant personnel that circuit is affected	Provides an interval of time to indicate that a marker connector has been locked out from an idle marker and brings in a minor alarm	36
	Transverter trouble indicator frame		Functions to operate an alarm and to prevent blocking calls in case a trouble in the sequence circuit of a transverter connector circuit prevents the transverter circuit from being called in	
TG	Coin control circuit — "A" switchboard position	Inform plant personnel to make busy the associated test line	Furnishes pulses to delay closure of the alarm circuit to permit normal functioning of the coin control circuit	37
	Station ringer test circuit		Furnishes pulses to delay advance of the test circuit while the junctor sets up the connection beyond the sender	
TM	Emergency announcement system, low volume alarm timing	Inform plant personnel to insulate contacts and to transfer to a similar interrupter	Operates alarm circuit whenever emergency announcement is not received within a specified time interval	
	Miscellaneous circuit for sender make-busy frame	Inform plant personnel that this circuit is inoperative	Provides a timer to bring in an alarm when all auxiliary senders in a group are busy	

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
TM (cont)	"B" switchboard sender circuit	Inform plant personnel to make busy the associated senders	Causes the sender to release if the call is not served within a pre-determined time interval	8, 9
	KP sender circuits — "A" switchboard			
	Marker circuit (short timeout)	Inform plant personnel to make busy the associated markers	Causes the sender to release and causes the operation of the alarms if the call is not served within a predetermined time interval	
	Subscriber sender circuit	Inform plant personnel to make busy the associated senders	Causes the sender to release or bring in the sender monitor if the call is not served within a predetermined time interval	
	MF pulsing terminating sender circuits		Used for general time measure purposes	
	Transverter circuit	Inform plant personnel to make busy the associated transverter	Functions to bring in the trouble indicator or to operate an alarm, after a short interval, under various trouble conditions in the transverter	
TM1	Subscriber sender circuit	Inform plant personnel to insulate contacts and to transfer to a similar interrupter	Operates relays to provide 20- to 30-seconds permanent signal timing	
TN	Signal circuit — No-such number tone supply	Inform plant personnel to operate the associated transfer key	Provides periodic tone interruptions	
	Timed sender release disconnect tone	Inform plant personnel to make busy the associated senders	Supplies disconnect tone to the sender	
	* Permanent signal holding trunks	Inform plant personnel that test circuit are affected	Timed release	

* See 3.03.

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
TO	Dial coin zone trunk circuit		Causes the trunk to release if trunk closure does not take place within a predetermined time interval	
	* Announcement trunk circuit		Insures a minimum of 60 seconds of time announcement before the timed disconnect of the associated junctor is started	
	* Incoming trunk circuit — Announcement system No. 3A	Furnishes pulses to release the connection if the call should not progress in a normal manner		
	Reorder signal circuit	Causes intermittent operation of the minor alarms if the incoming trunk fails to release in a predetermined time interval after the re-order signal is given		
	Alarm circuit for trouble tracing selector circuits	Inform plant personnel that this circuit is inoperative	Actuates alarms if the selector fails to restore to normal within a specified time	
	Announcement system No. 4A announcement trunk circuit with or without final heavy positive pulse	Inform plant personnel to insulate contacts and to transfer to a similar interrupter on a working frame	Provides interruptions to allow the circuit to time out on an abandoned call	
	Announcement system No. 4A announcement trunk circuit for use with operator class codes		Removes the charge condition after a 1- or 2-minute announcement interval	

* See 3.03.

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
TO (cont)	Timeout awaiting outpulser seizure, No. 1 crossbar outgoing trunks, ANI	Inform plant personnel to insulate contacts and to transfer to a similar interrupter on a working frame	Provides 2- to 5-second timing interval for outpulser seizure	
* TO1	Announcement system No. 4A announcement trunk circuit with or without final heavy positive pulse	Inform plant personnel to make busy the associated trunk	Provides interruptions to remove the charge condition after a mini- mum time interval	
TP	Incoming trunk test line	Inform plant personnel to make busy the associated test lines	Furnishes pulses for timing the pretrip and trip tests	
	104 trunk test line		Provides interruptions to return interrupted test progress tone to test circuit	
* TR	Position circuit— "A" switchboard	Inform traffic personnel to take the associated position circuits out of service	Operates a pair of counting relays to de- lay connection of the operator telephone set until after machine ringing has been tripped	
	Revertive call trunk circuit	Inform plant personnel to make busy the associated trunks	Provides for timeout and release of connection on failure to satisfy subscriber sender and start ringing	
TRG	Operator training toll trunk circuit	Inform traffic personnel that this circuit is inoperative	Provides interrupted ground to flash a lamp to give ringing indica- tion to the operator	
TRL	Originating sender test circuit	Inform plant personnel to take the test circuit out of service	Checks the sender trouble release feature	

*See 3.03.

SECTION 216-433-301

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	
TS	Maintenance recorder splice timing	Inform plant personnel that this circuit is inoperative	When a splice is encountered, the interrupter functions to block regular entries on the tape to ensure sufficient time for the splice to pass the perforator before such entries can be made	
	Terminating senders — All types	Inform plant personnel to make busy the associated senders	Causes the sender to release if the call is not served within a predetermined time interval	
TST	Signaling miscellaneous jack circuit	Inform plant personnel that this circuit is inoperative	Provides interruptions for testing purposes	
	Multiple lamp test circuit		Supplies 60 ipm to lamp test circuit	
TSTA	Originating and auxiliary sender test circuit	Inform plant personnel that this circuit is inoperative	Provides signal to start dialing 5th digit to check that auxiliary sender does not make trunk test immediately after units digit	
TT	Trip battery test circuit — 301C power plants	Inform plant personnel to make circuits busy	Provides pulses to test at intervals the dc tripping battery for superimposed ringing	38
TTO	Transmission test line circuit		Removes 1000-Hz transmission test tone from the trunk under test, permitting effective disconnection from a toll trunk using single frequency signaling	Flashes relay which in turn flashes lamps and starts timing functions
TTT	Zone registration and timing test circuit	Inform plant personnel to take the test circuit out of service	Furnishes pulses for trouble timing on the long (timing and registration) test of the test circuit	
WU	Control circuit — Announcement system No. 3A	Inform plant personnel that the automatic transfer feature is ineffective	When a recording machine develops trouble, this interrupter functions to prepare the new recording machine for operation	

INTERRUPTER CONTACT DESIGNATION	CIRCUIT	ACTION TO BE TAKEN	INTERRUPTER FUNCTION	SEE NOTE
ZR	Zone registration circuits	Inform plant personnel to make busy the associated zone registration circuits	Operates a relay which controls timing switches in the zone registration circuit	

Notes:

1. If the interrupter frame motor slows down, it will bring in the transfer circuit automatically.
2. This will result in failure to give a signal at the terminating trouble indicator if the sender fails to release in a predetermined time interval.
3. This will result in failure to give a signal when all markers or transverters are busy.
4. This will result in failure to provide pulses for checking trunk supervisory relays.
5. There will be no reaction unless the interrupter frame on which the normally used contact is located should fail.
6. This will result in failure to bring in the alarm if the coin is not returned.
7. This will result in an alarm.
8. Care should be exercised to avoid making all markers in the office busy at one time.
9. It is not necessary to make the associated marker busy because the marker will usually function satisfactorily with either the long or short timing interrupter. However, if the TM interrupter is out of service, careful supervision is required of the MB lamps on the terminating trouble indicator frame to be assured that the markers are handling the traffic load. In addition, the continuity test feature should be canceled.
10. This will result in failure to operate a register if the link circuit fails to function in a predetermined time interval.
11. This will result in delaying service to and from the line link frame during peak load.
12. This will result in failure to change from a steady to a flashing lamp if the call is not answered in a predetermined time interval.
13. This will result in failure to bring in an alarm if the potential is high or low.
14. This will result in failure to give an alarm in the case of a permanently grounded RB interrupter lead.
15. This will prevent repeated operations of the group-busy registers.
16. The line link frame will function with its mate controller, since the contacts of the home and mate controllers appear on different interrupter frames.
17. The terminating sender link will function with its mate controller since the contacts of the mate controller appear on a different interrupter frame.
18. This will result in giving an overflow signal.
19. This will result in failure to give a flashing lamp signal in case of premature keying.
20. This will result in failure to give a lamp signal if the zero operator disconnects before the subscriber.
21. This will result in failure to obtain supervision on calls between frames.
22. This will result in failure to give an alarm when all links on a frame are busy and a coin district requires a connection.

Notes: (cont)

23. This will result in failure to give a flashing signal if the calling cord of the special service cord is inserted in error.
24. This will result in failure to obtain alarms at LTD and operating room.
25. This will result in a steady lamp signal when this trunk is seized. The flashing signal, however, will not be obtained.
26. This will result in failure to give an alarm if the power ringing circuit is released due to a decrease in voltage.
27. This will result in making the howler circuit inoperative.
28. This will result in failure to release the incoming trunks if the called subscriber does not hang up in a predetermined time interval after the calling subscriber hangs up.
29. This will result in failure to give an audible indication that a number of calls are waiting at a central or call distributing B board for a predetermined time interval. Lamp indications, however, will be obtained.
30. This will result in making the automatic load control ineffective for terminating senders.
31. This will result in failure to cancel the effect of the timing of the T1 cycle for the 1/2- to 1-minute interval.
32. This will result in failure to provide the release of the sender load control feature after one or more senders of a group become idle.
33. This will result in failure to bring in an alarm if the circuit fails to function in a predetermined time interval.
34. This will result in failure to give an alarm if trouble ground occurs on the PU lead.
35. This will result in failure to bring in an alarm if the circuit does not function in a predetermined time interval.
36. This will result in failure to give a time alarm as a result of a marker connector being locked out as a result of the effectiveness of the traffic sequence circuit.
37. This will result in failure to bring in an alarm if the E or SR leads are permanently grounded.
38. This will result in failure to give a no-voltage alarm.
39. Care should be exercised to avoid making all transverters in the office busy at one time.
40. It is not necessary to make the associated transverter busy because the transverter will usually function satisfactorily with either the long or short timing interrupter. However, if the TM interrupter is out of service, careful supervision is required of the MB lamps on the terminating trouble indicator frame to be assured that the transverters are handling the traffic load. In addition, the continuity test feature should be canceled.
41. Care should be exercised to avoid making all senders in the office busy at one time.
42. It is not necessary to make the associated senders busy because the sender will usually function satisfactorily with either the long or short timing interrupter. However, if the TM interrupter is out of service, careful supervision is required of the MB lamps on the terminating trouble indicator frame to be assured that the senders are handling the traffic load. In addition, the continuity test feature should be canceled.

4. RECORD BOOKS

Interrupter Contact Record Book

4.01 For new installations, the Western Electric Company provides an interrupter contact record book per ED-90019-01 G7 for each interrupter frame. Each of these books contains five sheets of form MD 511-U printed on both sides (Fig. 1 and 2) and as many sheets of form MD 511-T (Fig. 3) as there are interrupters on the associated interrupter frame. The back of this latter sheet is the same as MD 511-U.

4.02 The first four sheets and the front of the fifth sheet (Fig. 1 and 2) are provided to cover the action to be taken to remove the complete interrupter frame from service. The back of the fifth sheet (Fig. 4) is used to cover the action to be taken to remove interrupter A from service. The front of the sixth sheet (Fig. 3) is used to list all of the contacts of interrupter A by number and circuit designation, together with the title of the associated circuits and their equipment location. The back of the sixth sheet is similar to the back of the fifth sheet except that it applies to interrupter B. The additional sheets are used in a similar manner so that complete information on an individual interrupter is visible without turning pages.

4.03 The Western Electric Company makes the entries on the contact record sheets (Fig. 3).

4.04 The telephone company makes the entries dealing with the removal of interrupters from service (Fig. 1, 2, and 4).

4.05 For existing installations, where the telephone company provides the interrupter contact record books, all of the sheets are prepared by the telephone company.

4.06 All the information recorded in these books should preferably be typewritten or printed in ink.

Circuit Index Record Book

4.07 For new installations the Western Electric Company provides a circuit index record book per ED-90019-01 G8 containing copies of form MD 511-V (Fig. 5) for each group of interrupter frames. As indicated in Fig. 5, these forms provide for listing the circuit schematic drawing numbers arranged in numerical sequence, together with the location of the associated equipment and interrupters.

4.08 The telephone company prepares these forms whether the book is provided by the Western Electric Company or by the telephone company for existing installations. Sufficient space shall be reserved between circuit entries for the office ultimate.

4.09 All the information recorded in this book should preferably be typewritten or printed in ink.

5. REPORTS

5.01 Any required record of the equipment taken out of service, temporary connections made, and blocking of contacts should be entered on the proper form.

MD 511-U (ALSO BACK
OF MD 511-T)

OUT OF SERVICE PROCEDURE RECORD

ACTION TO BE TAKEN IN REMOVING INT. FROM SERVICE

FRAME 0 INT. ALL

MAKE BUSY THE FOLLOWING CIRCUITS:

Trunks

Sub. Recording-Completing - 0/9 and 20/29
Overflow Grp 1 - 0/4 and Grp 2 - 0/4
Vacant Code 0, 2, and 4
Announcement 0, 2, 4, 6 and 8

District Junctors FR 0 - Grps 0/9, FR 1 - Grps 0/9
FR 2 - Grps 0/7, FR 4 - Grps 0/9
FR 8 - Grps 0/9

Coin Supervisory Circuits 0, 1, 8 and 9

Terminating Marker 0

Originating Marker 2

Incoming Trunk Test Lines

Dial Tester Circuits

Senders

Key Pulsing FR 6 - 0/2, FR 8 - 0/1
Subscriber FR 0 - 0/4, FR 1 - 0/4, FR 2 0/4
Terminating FR 0 - 2/4, FR 4 - 0/4

FOR FURTHER DETAILS SEE BSP 216-433-301

Fig. 1—Typical Front of Sheet to Remove All Interrupters from Service

MD 511-U (ALSO BACK
OF MD 511-T)

OUT OF SERVICE PROCEDURE RECORD

ACTION TO BE TAKEN IN REMOVING INT. FROM SERVICE

FRAME 0 INT. ALL

TRANSFER:

Civil Air Raid Warning - Int. B Cont. 15

NOTIFY THE SWITCHMEN THAT:

District Junctor Test Circuit is Inoperative

Originating Sender Test Circuit is Inoperative

Terminating Sender Test Circuit is Inoperative

Timing Circuit for Ringing Interrupter for 10 Party
Code Ringing is Inoperative

Load Control for Terminating Senders is Inoperative

NOTIFY DESKMEN THAT:

Station Ringer Test Circuits are Inoperative

NOTIFY THE TRAFFIC PEOPLE THAT:

Intercept cord circuits in Positions 0, 2 and 4
are Inoperative

FOR FURTHER DETAILS SEE BSP 216-433-301

Fig. 2—Typical Back of Sheet to Remove All Interrupters from Service

MD 511-T

INTERRUPTER CONTACT ASSIGNMENT RECORD

TOWN _____ STATE _____

CONTACT NO.	DESIG.	TITLE	LOCATION	CKT. NO.
1	BB	District Junctor Test Frame	DJT FR 0	
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

INTERRUPTER _____ A _____ FRAME _____ 0 _____ CODE _____ 165BF _____

Fig. 3—Typical Sheet of Interrupter Contact Assignment

MD 511-U (ALSO BACK OF MD 511-T)

○ ○

OUT OF SERVICE PROCEDURE RECORD

ACTION TO BE TAKEN IN REMOVING INT. FROM SERVICE

FRAME _____ 0 _____ INT. _____ A _____

NOTIFY THE SWITCHMEN THAT:
District Junctor Test Circuit is Inoperative

FOR FURTHER DETAILS SEE BSP _____ 216-433-301 _____

○ ○

Fig. 4—Typical Sheet to Remove Each Interrupter from Service

MD 511-V

CIRCUIT INDEX RECORD

TOWN _____ STATE _____

SCHEMATIC	LOCATION	CKT. NO.	CONT. DESIG.	INT. LOC.
SD-25134-01 Vacant Code Tone Trunk (Coin)	R.R. 0 Bay 6	0	CR	OB11
		1	CR	1C28
		2	CR	OB12
		3	CR	1C29
		4	CR	OB13
		5	CR	1C30
		0/5	IB	1D1
	0/5	TA	3G29	
SD-25158-01 District Junctor Automatic Test Circuit	D.J.T. FR 0		AR	2A1
			BB	0A1
			CX	OH15
			FAR	OB10
			I	1F12
			PC	OZ12
			RS	OZ13
	TA	OG16		
SD-25159-01 Terminating Sender Test Circuit	T.S.T. FR 0		CA	OH14
			ID	3Z16
			ID-1	3A15
			IT	3F30
			LNO	1L24
			T	1L25
	TA	1G15		

Fig. 5—Typical Sheet of Circuit Index Record