ALARMS, LAMPS, JACKS, AND KEYS

SD 25087

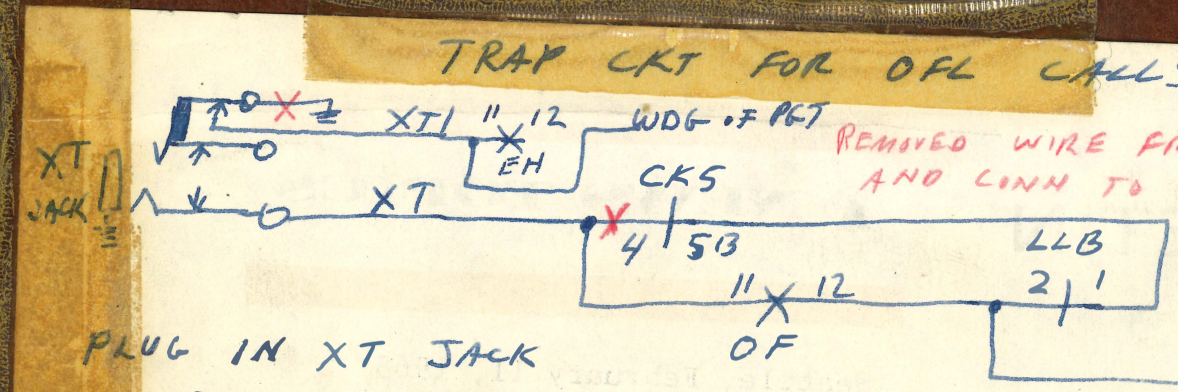
LANDER OFFICE

ANALYZING, LOCATING AND CLEARING TROUBLE 216-601-301

No. 1 XBAR

TAKING EQUIP OUT OF SERVICE 216-401-301

TRAP CKT FOR OFL CALLS



REMOVED WIRE FRM 4B CKS AND CONN TO 11T OF

PLUG IN XT JACK ON TT1, ONE PER MKR, PUTS gnd on XT LEAD THRU OPT "OF" TO "XT2 & J" BRIN

X, XT1, & OF ON OFL CALLS. RECORD

T.S. – TE

TAKING EQUIPMENT OUT OF SERVICE

MAJOR UNITS OF EQUIPMENT

NO. 1 CROSSBAR OFFICES

1. GENERAL

1.01 This section covers the action to be taken to remove units of equipment from service in No. 1 crossbar offices.

1.02 The removal from service of individual pieces of apparatus associated with units covered in this section is covered by other sections or by the circuit drawing.

1.03 Information concerning the removal of equipment units from service is presented in Table 1. The table is divided into four columns; the circuit to be removed from service, the action to be taken to make the circuit busy, the make-busy location, and the functions of the make-busy together with additional information.

1.04 Local instructions should be followed with reference to notifying all interested departments when equipment is removed from service.

2. APPARATUS

2.01 No. 322A (or the replaced No. 275A) (make-busy) Plugs.

2.02 No. 349A (or the replaced No. 298A) (make-busy) Plugs.

2.03 No. 351C (or the replaced No. 325C) (make-busy) Plugs.

2.04 No. 258C (or the replaced No. 258B) (make-busy) Plugs.

2.05 No. 508A (relay-blocking) Tools.

2.06 No. 560A (or the replaced No. 530A) (make-busy) Tool.

2.07 No. 558A (or the replaced No. 542A) (armature-blocking) Tool.

3. METHOD

3.01 Use Table 1 for taking equipment out of service.

Note: In cases where equipment is removed from service by the application of a holding tool or grounding of a lead, it must be first ascertained that the lead involved is free of ground or that the associated equipment is normal before the make busy is applied.

4. REPORTS

4.01 Where required, the record of the equipment removed from service should be entered on the proper form in accordance with local instructions.

Table 1

TYPE OF CIRCUIT	METHOD	LOCATION OF MAKE BUSY	FUNCTIONS AND REMARKS
COIN SUPERVISORY LINK AND CONTROLLER			
Controller	349A Plug in MB Jack	Link and Controller Frame	Makes controller busy to district junctors.
Primary Switch	349A Plug in MB Jack of Associated Controller Await release of all hold magnets of the primary switch to be removed from service, then insert 351C Plugs in vertical unit jack of each hold magnet. Remove plug from controller MB Jack.	Link and Controller Frame Link Frame	Removes two primary switches from service. Removes one primary switch from service.
Secondary Switch	Block operated pair of associated GB- relays.	Controller	Removes secondary switch from service.
Link	Follow procedure above for one primary switch but insert 351C Plug in hold magnet of only the link desired. Note: If A or B primary hold magnet is open insulate 1 and 2 off-normal contacts.	Link Frame	Makes one link busy.
COIN SUPERVISORY CIRCUIT	349A Plug in MB- Jack	Misc-Frame	Makes supervisory circuit busy to controller.
DISTRICT JUNCTOR FRAME	Make busy all types of district junctors associated with frame.		
Subscriber District Junctors	349A Plug in each associated group MB- Jack.	Subscriber Sender Link Frame	Makes all subscriber junctors on frame busy.
Dial and Keypulse District Junctors (13C, 13D, 15C, or 15D Switchboard)	Patch each associated OGT Jack to an MB Jack. Caution: Test each OGT jack for circuit being idle before patching cord is placed.	"A" Switchboard	Makes dial or keypulse district junctors busy individually.
Dial and Keypulse District Junctors (3C or 3CL Switchboard)	258C Plug in each associated outgoing trunk circuit MB- Jack.	Relay Rack-	Makes dial or keypulse district junctors busy individually.
DISTRICT JUNCTOR			
Subscriber	349A Plug in MB- Jack	District Junctor Frame	Makes individual subscriber district junctor busy.
Dial and Keypulse (13C, 13D, 15C, or 15D Switchboard)	Patch associated OGT Jack to an MB Jack.	"A" Switchboard	Makes individual dial or keypulse district junctor busy.
Dial and Keypulse (3C or 3CL Switchboard)	258C Plug in associated outgoing trunk circuit MB- Jack.	Relay Rack-	Makes individual dial or keypulse district junctor busy.

TYPE OF CIRCUIT	METHOD	LOCATION OF MAKE BUSY	FUNCTIONS AND REMARKS
DISTRICT LINK FRAME	Make busy the associated District Junctor Frame	Subscriber Sender Link Frame - "A" Switchboard - Relay Rack -	Removes district link frame from service.
Primary Switch	Make busy each of the associated district junctors.	District Junctor Frame - "A" Switchboard - Relay Rack -	Removes primary switch from service.
Secondary Switch	349A Plug in MB- Jack	District Link Frame	Makes secondary switch busy.
District Link	349A Plug in MB- Jack of Associated Primary Switch.	Sender Link Frame	Makes two primary switches busy.
	351C Plug in district link PH magnet vertical unit jack of link to be made busy then remove plug from primary switch MB- Jack.	District Link Frame	Makes one link busy.
Office Junctor	349A Plug in MB- Jack of associated district secondary switch.	District Link Frame	Makes busy secondary switch containing office junctor.
	With 558A tool block associated office junctor PH magnet nonoperated.	Office Link Frame	Wait for release of office PH magnet if operated on service call.
	351C Plug in vertical unit jack of office junctor SH magnet then remove plug from secondary switch MB- Jack.	District Link Frame	Makes one office junctor busy.
INCOMING TRUNK FRAME	Have all trunks on frame made busy.	Originating Offices	In approved manner.
INCOMING TRUNK	Make busy at originating end.	Originating Office	In approved manner.
INCOMING LINK FRAME	Make busy associated Incoming Trunk Frame.	Originating Offices	Removes incoming link frame from service.
Primary Switch	Have associated incoming trunks made busy.	Originating Offices	Removes primary switch from service.
Secondary Switch	349A Plug in associated MB- Jack.	Incoming Link Frame	Makes secondary switch busy.
Incoming Link	351C Plug in PH magnet vertical unit jack of link to be made busy. Caution: Plug to be placed while no select magnets are operated.	Incoming Link Frame	Makes one link busy.
Line Junctor	349A Plug in MB- Jack of associated secondary switch.	Incoming Link Frame	Removes all junctors on switch from service.
	351C Plug in SH magnet vertical unit jack of junctor to be made busy then remove plug from secondary switch MB- Jack.	Incoming Link Frame	Makes one line junctor busy.

Table 1 (Con't)

TYPE OF CIRCUIT	METHOD	LOCATION OF MAKE BUSY	FUNCTIONS AND REMARKS
INTERRUPTER	Make busy circuits that are served by interrupter.	Circuit Make Busy	Determine from office records circuits that use interrupter.
LINE CHOICE CONNECTOR	349A Plug in TMB- Jack Caution: This stops all terminating traffic to the subscribers in this line choice, hence, should be resorted to only in extreme emergency.	Line Choice Connector Frame	Makes line choice busy to all terminating traffic.
LINE LINK FRAME			
Primary Switch	This switch can not be removed from service without denying service to a group of subscribers. Therefore, trouble in this equipment must be cleared immediately.	Line Link Frame	Provide emergency service in accordance with local practice for any line on which service cannot be interrupted while trouble is being cleared.
Secondary Switch	349A Plug in SS- Jack	Line Link Frame	Makes secondary switch busy.
Line Link	560A Tool on HG- relay spring associated with link.	Line Link Frame	Makes one line link busy.
Controller	349A Plug in Controller MB Jack	Line Link Frame	Transfers calls to mate controller.
MARKER - ORIGINATING	322A Plug in DB- Jack	Originating Trouble Indicator Frame	Makes marker busy to all connectors.
MARKER CONNECTOR - ORIGINATING	322A Plug in associated sender GB- Jack.	Originating Trouble Indicator Frame	Makes all senders associated with marker connector busy.
To a Particular Marker	322A Plug in CB- Jack	Originating Trouble Indicator Frame	Makes a particular marker busy to the connector.
MARKER - TERMINATING	322A Plug in DB- Jack	Terminating Trouble Indicator Frame	Makes terminating marker busy to all connectors.
MARKER CONNECTOR - TERMINATING	322A Plug in associated sender GB- Jack.	Terminating Trouble Indicator Frame	Makes all senders associated with marker connector busy.
To a Particular Marker	322A Plug in CB- Jack	Terminating Trouble Indicator Frame	Makes a particular marker busy to the connector.
MULTIFREQUENCY CURRENT SUPPLY	Operate SWO or SWE Key.	Supply Frame	Transfers load to other supply, odd to even or even to odd.
NUMBER GROUP CONNECTOR	349A Plug in TMB- Jack Caution: This stops all terminating traffic to the subscribers in this number group, hence, should be resorted to only in extreme emergency.	Number Group Connector Frame	Makes number group busy to all terminating traffic.

Table 1 (Con't)

TYPE OF CIRCUIT	METHOD	LOCATION OF MAKE BUSY	FUNCTION AND REMARKS
OFFICE LINK FRAME	349A Plug in OMB Jack	Office Link Frame	Makes office frame of a pair busy.
Primary Switch	349A Plug in PMB- Jack	Office Link Frame	Removes primary switch from service.
Secondary Switch	349A Plug in SMB- Jack	Office Link Frame	Removes secondary switch from service.
Office Junctor	349A Plug in PMB- Jack of associated office primary switch.	Office Link Frame	Removes primary switch containing office junctor from service.
	With 558A Tool block associated office junctor SH magnet nonoperated.	District Link Frame	Wait for release of district SH magnet if operated on service call.
	351C Plug in vertical unit jack of office junctor PH magnet then remove plug from primary switch PMB- Jack.	Office Link Frame	Makes one office junctor busy.
Office Link	349A Plug in SMB- Jack of associated office secondary switch (also on extension frame where provided).	Office Link Frame	Removes secondary switch containing office link from service.
	351C Plug in vertical unit jack of office link SH magnet then remove plug from SMB- Jack.	Office Link Frame	Makes one office link busy.
SENDER - ORIGINATING	322A Plug in MB- Jack	Sender Make Busy Frame	Makes one originating sender busy.
SENDER - TERMINATING (All Types)	322A Plug in MB- Jack	Terminating Trouble Indicator Frame	Makes one terminating sender busy.
SENDER LINK FRAME - SUBSCRIBER	349A Plugs in all MB- Jacks	Sender Link Frame	Makes all groups of district junctors associated with frame busy.
Primary Switch	349A Plug in associated MB- Jack	Sender Link Frame	Removes two primary switches from service.
Secondary Switch	Block operated pair of associated GB- relays.	Sender Link Controller	Removes secondary switch from service.
Sender Link	351C Plug in associated vertical unit jack on C switch. Note: Observe that hold magnets on C and D switches operate.	Sender Link Frame	Makes one link busy.
Controller	Make busy the sender link frame.	Sender Link Frame	Removes sender link frame from service by making associated district junctors busy.
	Operate A and B switches to OFF, operate A-EM and B-EM switches to ON. Caution: Only one sender link frame may be connected to the emergency controller at any time. Release sender link frame for service.	Sender Link Frame	Transfers sender link fra to emergency controller.

Table 1 (Con't)

TYPE OF CIRCUIT	METHOD	LOCATION OF MAKE BUSY	FUNCTION AND REMARKS
SENDER LINK FRAME - SUBSCRIBER (Con't)			
Sender Selector Circuit	322A Plug in associated sender GB- Jack.	Sender Make Busy Frame	Makes associated sender group busy.
"A" SENDER LINK AND CONTROLLER FRAME			
Controller	349A Plug in MB Jack	Link and Controller Frame	Makes controller busy.
Primary Switch	349A Plug in MB Jack of associated controller.	Link and Controller Frame	Removes two primary switches from service.
	Await release of all hold magnets of the primary switch to be removed from service then insert 351C Plug in vertical unit jack of each hold magnet. Remove plug from controller MB Jack.	Link Frame	Removes one primary switch from service.
Secondary Switch	Block operated pair of associated GB- relays.	Link and Controller Frame	Removes one secondary switch from service.
Link	Follow procedure above for removing one primary switch from service but insert 351C Plug only in link desired.	Link Frame	Makes one link busy.
	Note: If A or B primary hold magnet is open, insulate 1 and 2 off-normal contacts.		
SENDER LINK FRAME - TERMINATING	Have all trunks associated with frame made busy.	Originating Offices	Removes frame from service.
Controller	349A Plug in Controller MB Jack.	Link and Controller Frame	Transfers traffic to mate controller.
Primary Switch	Have all associated trunks made busy.	Originating Offices	Removes switch from service.
Secondary Switch	Block operated associated TMB and BMB, or AMB, or BMB relays.	Controller	Removes secondary switch from service.
Link	351C Plug in associated PH magnet vertical unit jack.	Link Frame	Check that no select finger is engaged by the hold magnets operated by the 351C plug on the primary or secondary switches.
	If primary hold magnet is open, insulate 1 and 2, and the 3 and 4 off-normal contacts.		

TYPE OF CIRCUIT	METHOD	LOCATION OF MAKE BUSY	FUNCTION AND REMARKS
TROUBLE INDICATOR - ORIGINATING	322A Plug in TIB- Jack	Originating Trouble Indicator Frame	Makes indicator busy to a particular originating marker.
TROUBLE INDICATOR - TERMINATING	322A Plug in TIB- Jack	Terminating Trouble Indicator Frame	Makes indicator busy to a particular terminating marker.
TROUBLE INDICATOR - CONTROLLER	322A Plug in TIB- Jack	Controller Trouble Indicator Frame	Makes indicator busy to a particular sender link controller.
ZONE REGISTRATION CIRCUIT	349A Plug in associated MB Jack	Zone Registration Control Frame	Makes one zone registration circuit busy.
Timing Interrupter	Make busy associated zone registration circuits.	Zone Registration Control Frame	Removes timing interrupter from service.
District Connecting Switch	Make busy associated group of district junctors.	District Junctor Frame	Removes switch from service.
Control Circuit	349A Plugs in all associated district junctor group MB- Jacks.	Subscriber Sender Link Frame	Removes control circuit from service by making associated district junctors busy.
AMA EQUIPMENT			
CALL IDENTITY INDEXER	349A Plugs in all associated district junctor group MB- Jacks.	Subscriber Sender Link Frame	Indexer will be out of service when all primary hold magnets on associated district link frame have released.
	If immediate removal from service is necessary: 322A Plug in associated RCDR-MB Jack.	Transverter Trouble Indicator Frame	Removes indexer from service by making associated recorder busy.
MASTER TIMER	Operate CMBE or CMBO key.	Master Timer Frame	Makes associated master timer busy and transfers functions to other master timer, even or odd.
RECORDER AND RECORDER CONNECTOR	349A Plugs in all associated district junctor group MB- Jacks.	Subscriber Sender Link Frame	Makes associated district junctors busy to new traffic.
	When all primary hold magnets on associated district link frame have released, insert a 322A Plug in TN- Jack and restore the district groups to service.	Transverter Trouble Indicator Frame	Transfers district junctor frame to emergency recorder without straddle calls.
	If immediate removal from service is necessary: 322A Plug in TN- Jack	Transverter Trouble Indicator Frame	Transfers district junctor frame to emergency recorder and makes all calls in progress straddle calls.
	If emergency recorder is not available: 322A Plug in RCDR-MB Jack	Transverter Trouble Indicator Frame	Makes recorder busy.
TRANSVERTER	322A Plug in TV-MB Jack	Transverter Trouble Indicator Frame	Makes transverter busy to all connectors.

Table 1 (Con't)

TYPE OF CIRCUIT	METHOD	LOCATION OF MAKE BUSY	FUNCTION AND REMARKS
TRANSVERTER CONNECTOR	322A Plug in associated C-GB Jack	Transverter Trouble Indicator Frame	Makes all senders in connector busy.
To a Particular Transverter	322A Plug in associated CB- Jack	Transverter Trouble Indicator Frame	Makes a particular transverter busy to a particular connector.
TROUBLE INDICATOR - TRANSVERTER			
To Transverter	322A Plug in TV-TIB Jack	Transverter Trouble Indicator Frame	Makes indicator busy to a particular transverter.
To Recorder	322A Plug in RCDR-TIB Jack	Transverter Trouble Indicator Frame	Makes indicator busy to a particular recorder.
TRANSLATOR	322A Plug in TR-MB Jack	Transverter Trouble Indicator Frame	Makes translator busy to all transverters.

ANALYZING TROUBLE

ANALYZING, LOCATING AND CLEARING TROUBLE CONDITIONS
INDEX FOR SECTIONS COVERING TROUBLE CONDITIONS
NO. 1 CROSSBAR OFFICES

1. GENERAL

1.01 This section supplements and forms a part of Sections which deal with analyzing, locating and clearing trouble conditions in No. 1 crossbar offices.

1.02 This section is reissued to add sections to the index not previously covered and to make corrections throughout the text.

1.03 The purpose of this section is to provide an index for the use of the maintenance forces in associating related sections with a trouble condition.

1.04 The information in this section is treated under four subdivisions indicative of the manner in which the trouble condition is brought to the attention of the maintenance forces. The subdivisions are as follows:

(A) Alarms

(B) Reports (Subscriber or Employee)

(C) Tests or Observations

(D) Trouble Indicator Displays

(a) Originating

(b) Terminating

1.05 Underlining is employed wherever particular importance is attached to a lamp indication.

1.06 Space has been provided in this section so that future issues of sections may be entered in the index by the local Operating Company.

2. INDEX

(A) Alarms

Alarm	Location of Alarms	Attending Conditions			Trouble	Section
		O.T.I.	T.T.I.	Other		
AL	L.L.F.'s having access to same S.S.L.F.	-	No LOG	No alarm on S.S.L. in trouble	S.S.L. fails to start	216-615-301
AL	One L.L.F.	-	No LOG	S.S.L. alarms	L.L. LR relay X'ed or grd.	216-603-301
AL	L.L.F.'s - Various	-	No LOG	S.S.L.F.	S.S.L. G relay fails to close OG lead	216-619-301
AL	L.L.F.'s - Various	-	Various	T.M. & T.M.C. alarms	T.M. short time out failure	216-647-301
AL	S.S.L.F.'s	-	No LOG	L.L.F. alarms	S.S.L. G relay fails to close OG lead	216-619-301
AL	S.S.L.F.'s - Various	XSMI	-	-	GP relay contacts X'ed	216-611-301
AL	S.S.L.F.'s - Various	XDC	No LOG	-	False operation S.S.L. C relay	216-617-301

(A) Alarms (Cont'd)

Alarm	Location of Alarms	Attending Conditions			Trouble	Section
		O.T.I.	T.T.I.	Other		
AL	S.S.L.F.'s - Various	-	No LOG	Alarms on one L.L.F.	L.L. LR relay X'ed or grd.	216-603-301
AL	T.S.L.F.'s - Various	-	X, XPS X, XFC	-	FC lead grd. T.S.L.	216-641-301
AL	T.S.L.F.'s - Various	-	-	Alarms recur as rapidly as retired	SM lead grd.	216-643-301
AP	L.L.F.'s - Various	TB5	-	-	Cable failure	216-107-301
BB	T.T.I. (all term. B sdrs. busy)	-	No LOG	L.L.F. alarms. S.S.L. no alarms	S.S.L. fails to start	216-615-301
→ C	O.T.I. (O.M.C. alarm)	XOF XSS	-	-	Ofc. Fr. ST lead X'ed with battery	216-635-301
C	T.T.I. (T.M.C. alarm)	-	Various	T.M. & L.L.F. alarms	T.M. short time out failure	216-516-301
DL	Line Load Control Cabinet (where provided)	-	-	Many stuck sdrs.	Premature release of O.M.	216-627-301
LR	O.T.I. (load lamp)	XOF XSS	-	-	Ofc. Fr. ST lead X'ed with battery	216-635-301
PS	D.L.F.	TB5	-	Many PS	Cable failure	216-107-301
PS	D.L.F.	-	-	L.L.F. double conn.	False continuity A or B lead on DF relay	216-605-301
TA	T.M.	-	Various	T.M.C. alarms. L.L.F. alarms	T.M. short time out failure	216-647-301
TB	T.T.I. (all term. FS sdrs. busy)	-	No LOG	L.L.F.'s alarms. S.S.L. no alarm	S.S.L. fails to start	216-615-301

(B) Reports (Subscriber or Employee)

Report		Attending Conditions O.T.I.	Attending Conditions T.T.I.	Attending Conditions Other	Trouble	Section
A.R.D.A.		-	-	Inc. X-points not closed	T.M. trouble	216-657-301
Busy Line (false)	(a)	-	-	For any class sub. line	False continuity A or B lead on DF relay	216-605-301
	(b)	-	-	For P.B.X. class sub. line	T.M. trouble	216-669-301
	(c)	-	-	For any class sub. line	False tbl. release from O.M.	216-623-301
Cable Failure		-	-	AP & PS alarms	-	216-107-301
Calls Don't Go Through		-	-	-	False tbl. release from O.M.	216-623-301
Click in Place of D.T.		TB5	-	L.L.F. double connections. PS alarms	False continuity A or B lead on DF relay	216-605-301
Crosstalk		-	X, XS	Dbl. conn. False busy reports	N.G.C. NS lead X'ed or grd.	216-667-309
Double Connections	(a)	XSL No B	-	-	SS relay contacts X'ed Ofc. Lk. Fr.	216-637-301
	(b)	-	-	PS - excessive	False continuity A or B lead on DF relay	216-605-301
	(c)	-	X, XS	False busy. Crosstalk reports	N.G.C. NS lead X'ed or grd.	216-667-309
False Busy	(a)	-	-	For any class sub. line	False continuity A or B lead on DF relay	216-605-301
	(b)	-	-	For P.B.X. class sub. line	T.M. trouble	216-669-301
	(c)	-	-	For any class sub. line	False tbl. release from O.M.	216-623-301
	(d)	-	X, XS	Double conn. Crosstalk reports	N.G.C. NS lead X'ed or grd.	216-667-309
False Stuck K.P. Sdr.		-	-	KRI & KRA relays normal	Premature release talk key	216-621-301
Inc. Calls Don't Complete	(a)	-	Various	T.M. & L.L.F. alarms. Steady T.M. MB lamp	T.M. short time out failure	216-647-301
	(b)	-	-	T.S.L. alarms	SM lead grd.	216-643-301

(B) Reports (Subscriber or Employee) (Cont'd)

Report		Attending Conditions O.T.I.	T.T.I.	Other	Trouble	Section
	(c)	-	XPS	-	FC lead grd. inc. trk.	216-659-301
	(d)	-	XF, No LOG	-	Grd. N.G. - RF or TF terminal	216-667-301
	(e)	-	XF Mult. L.C.F.'s	-	RF or TF terminal X'ed in N.G.	216-667-302
	(f)	-	Ring Ck. fails in one N.G.	-	N.G.C. JF lead grd.	216-667-303
	(g)	-	Ring Ck. fails in particular HB of N.G.	-	N.G. HB relay failure	216-667-305
Inc. Test Fr. Calls Reach Intcpt.		-	-	-	Various	216-671-301
No D.T.		-	No LOG	Alarms on one L.L.F. and various S.S.L.F.'s	L.L. LR relay X'ed or grd.	216-603-301
No K.P. Sdr.		-	-	Stuck K.P. sdrs.	Premature release talk key	216-621-301
No Conn. on Inc. calls		-	No LOG	L.L.F. alarms. S.S.L. no alarm	S.S.L. fails to start	216-615-301
No Ring		-	-	-	False tbl. release from O.M.	216-623-301
O.K. Lines Reach Intcpt.		-	-	-	Various	216-671-301
Orig. Calls Don't Complete	(a)	XSL No B	-	-	SS relay contacts X'ed Ofc. Lk. Fr.	216-637-301
	(b)	XDC Multi. SW or M	-	Equip. overload orig.	Dist. junct. DC lead grd.	216-607-301
	(c)	-	No LOG	-	T.M. short time out failure	216-647-301
Stuck Sdr. Reports from Various offices		-	No LOG	F.S. term. sdrs. all busy. L.L.F. alarms. S.S.L. no alarm	S.S.L. fails to start	216-615-301
Stuck Sdrs. (K.P. & S.S.)	(a)	-	-	Dist. Lk. X-points not closed	Premature release O.M.	216-627-301
	(b)	CH, TK, SR & CHE	-	-	Open transmitting lead	216-633-301

(B) Reports (Subscriber or Employee) (Cont'd)

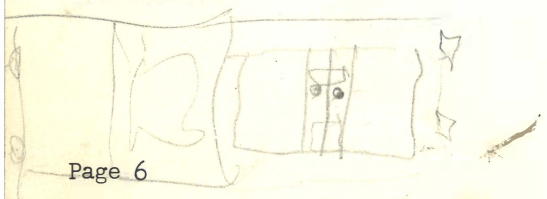
Report	Attending Conditions			Trouble	Section
	O.T.I.	T.T.I.	Other		
Stuck Sdrs. (K.P. only)	-	-	KRI & KRA relays normal	Premature release of talk key	216-621-301

(C) Tests or Observations

Condition Tested or Observed	Attending Conditions			Trouble	Section
	O.T.I.	T.T.I.	Other		
Cable Failure	TB5	-	Alarms on L.L.F.'s. PS alarms on D.L.F.'s. AP alarms	Cable failure	216-107-301
DL Lamps on Line Load Control Cabinet (where provided)	-	No LOG	L.L.F.'s alarms. S.S.L. no alarm	S.S.L. fails to start	216-615-301
Double Conn. - L.L.F.	TB5	-	PS alarms. NDT reports. Click instead DT reports	False continuity A or B lead on DF relay	216-605-301

(C) Tests or Observations (Cont'd)

Condition Tested or Observed	Attending Conditions O.T.I.	T.T.I.	Other	Trouble	Section
Double Conn. O.L.F.	XSL No B	-	Reports of cross-talk	SS relay contacts X'ed Ofc. Lk. Fr.	216-637-301
False Routing to Intcpt.	-	-	-	Various	216-671-301
Orig. Mkr. Only DB Lamp Lights	-	-	Many stuck sdrs. Dist. Lk. X-points not closed	Premature release of O.M.	216-627-301
Sub. Sdr. Lk. does not appear to be serving calls	-	No LOG	Stuck sdr. reports from various ofcs. F.S. Term. Sdr. all busy alarms	S.S.L. fails to start	216-615-301
T.M. MB Lamp Lighted Steady	-	No LOG	Orig. calls don't complete	T.M. short time out failure	216-647-301



(D) Trouble Indicator Displays

(a) Originating

Display Lamps Lighted	Out		Attending Conditions	Trouble	Section
CH, TK, SR, CHE	TKE, MS		A particular conn. involved	Open transmitting lead	216-633-301
	B		Double conn. on ofc. link	SS relay contacts X'ed Ofc. Lk. Fr.	216-637-301
TL	OF		A particular ofc. link involved	MP relay failure	216-639-301
TB5, PSI		(a)	Cable failure	-	216-107-301
		(b)	Double conn. L.L.F.'s	-	216-605-301
TM6	OF		O.M.C. time alarms - LR lamp	Ofc. Lk. Fr. ST lead X'ed with battery	216-635-301
XDC			S.S.L. AL alarms. Stuck sub. sdrs. No LOG term.	False Oprn. S.S.L. C relay	216-617-301
XDC, MS When MS is with CF, CN, SN		(a)	One O.M. involved in various O.M.C.'s and various O.M.'s in one O.M.C.	O.M. receiving lead permanently closed at DMA relay	216-631-301
		(b)	All sdrs. but one in a particular conn.	O.M. receiving lead permanently closed at SA relay	216-631-301
XDC-XSMI		(a)	One O.M. involved in various O.M.C.'s and various O.M.'s in one O.M.C.	False continuity O.M. DC lead	216-629-301
		(b)	Involving a particular D.L.F.	S.S.L. DC lead grd.	216-613-301
XDC & many SW & M			LR lamp	Dist. Junct. DC lead grd.	216-607-301
XOF, XSS or XOF, XSS, XXI & XOB			O.M.C. alarms	Ofc. Fr. ST lead X'ed with battery	216-635-301
XSL		(a)	Involving one mkr.	X'ed mkr. SL leads	216-625-301
	B	(b)	Involving various mkrs.	Ofc. Lk. SS relay contacts X'ed	216-637-301
XSL, TW			Involving one sdr.	Open shunt path OF relay	216-609-301
XSMI with same OF			S.S.L. alarms	S.S.L. GP relay contacts X'ed	216-611-301

(D) Trouble Indicator Displays (Cont'd)

(b) Terminating

Display Lamps Lighted	Display Lamps Out	Attending Conditions	Trouble	Section
	MKO, SL	-	Inc. Lk. RS relay fails to operate	216-649-301
FCG		Term. & orig. overload	Cross or ground on channel	216-651-301
	LOG	Alarm on one L.L.F. & various S.S.L.F.'s	L.L. LR relay X'ed or grd.	216-603-301
	LOG	L.L.F.'s alarms. Stuck sdr. reports from various offices. Term. sdrs. all busy	S.S.L. fails to start	216-615-301
	LOG	S.S.L. AL alarms. Stuck sdrs.	False oprn. S.S.L. C relay	216-617-301
	LOG	AL alarms on L.L.F.'s & S.S.L.F.'s	S.S.L. G relay fails to close OG lead	216-619-301
	RC, RV, RP	One N.G. involved	N.G.C. JF lead grd.	216-667-303
	TBK	One HB involved	N.G.C. HB relay fails to operate	216-667-305

(D) Trouble Indicator Displays (Cont'd)

(b) Terminating (Cont'd)

Display Lamps Lighted	Display Lamps Out		Attending Conditions	Trouble	Section
LE, XF Same LFC	L		A particular N.G. involved	Grd. N.G. RF or TF terminal	216-667-301
	NGC & TBK LOG & FC, AK, IF & FC		L.L.F. AL alarms T.M. and T.M.C. alarms	T.M. short time out failure	216-647-301
NGC (same) LCF (same two)			Calls to a particular line choice do not complete	X'ed N.G. RF and TF terminals	216-667-302
(ALL) TH, H, F, TR2, RO	U		A particular sdr. subgrp. involved	D lead grd.	216-645-301
TE, SL IF (same)			Different L.C.'s	OR-9R or OL-9L grd.	216-661-301
(ALL) TH1, TH2, U1-U5, or (ALL) TH4, TH8, T1-T5, TR2 or (ALL) H1-H5, F1-F10, DA8, RO		(a)	One T.M. involved in various T.M.C.'s and various T.M.'s in one T.M.C.	T.M. receiving lead permanently closed at TM relay	216-653-301
		(b)	All sdrs. but one in a particular conn.	T.M. receiving lead permanently closed at S relay	216-653-301
X, XC U (same)			Terminating overload during busy hours	X'ed NS and NC leads	216-667-308
X, XF NGC (same) LCF (many)			Terminating overload during busy hours	Falsely operated N.G.C. TB relay	216-667-306
XC, NGC (same) LLG-a particular one with others			Terminating overload during busy hours	N.G.C. C lead grd.	216-667-307
X, XF, XS DR (one TM with various NGC-other TM with a particular NGC) LCF (many)			Terminating overload during busy hours	Falsely operated N.G.C. MCB or MCC relay	216-667-304
X, XPS, XFC IF (various) LC (many)			Terminating overload during busy hours. Double connections	T.S.L. FC lead grd.	216-641-301

(D) Trouble Indicator Displays (Cont'd)

(b) Terminating (Cont'd)

Display Lamps Lighted	Display Lamps Out	Attending Conditions	Trouble	Section
XPS IF (same) LC, M (many)		Terminating overload during busy hours. Inc. Trks. affected unable to complete	Inc. Trk. FC lead grd.	216-659-301
XPS, XFC IF (same) LC, M (many)		Calls involved may not complete	T.S.L. FC lead grd.	216-641-301
X, XS		Dbl. conn., false busy or crosstalk reports	N.G.C. NS lead X'ed or grd.	216-667-309
XF		Terminating overload during busy hours. Failure to complete through equipment affected	X'ed NF leads	216-667-310
XRL		Terminating overload during busy hours. False release of calls	Falsely grounded RL or TRL lead	216-655-301
X, XHG All TM to one LC, only one CA or CB and one LLG		Terminating traffic fails to complete to a specific line choice	Grounded or crossed TK lead or KO-K9 res.'s	216-673-301

AISLE PILOT LAMPS

SD-25087-011

Denotes mounted above Floor Alarm Cabinet

RED - Major - Major Frame Fuse Alarm
- Marker Frame Fuse Alarm
- Emergency Alarm System
22V. - 60 Cycle Supply - No Voltage Alarm

RED - Minor - Continuous
Minor Frame Fuse Alarm
Fuse Bay Fuse Alarm
22V. - 60 Cycle Fuse Alarm
Positive 24V. Fuse Alarm
Fuse Bay - Low Tone Fuse Alarm
Fuse Bay - 24V. Fuse Alarm
Fuse Bay - Ringing Fuse Alarm
Coin Control Fuse Alarm
Clock Circuit Fuse Alarm
Time Rls. Sender Fuse Alarm

RED - Minor - Intermittent -
Idle Indicating Lamp Current Supply Alarm

YELLOW - Major-
All Major Failures from Power Room
Minor-
All Minor Failures from Power Room

GREEN - Major
Major Time Alarm on Trouble Indicators
Telephone Rep. Bat. Supply Alarm
P.B.X. or S.X.S. Office Major Alarm
Announcement Supply Alarm
Transmitting Repeater Alarm
130V. Announcement Power Major Alarm

GREEN - Minor - Continuous
Pick Up Alarm for 301C Power Plant
P.B.X. or S.X.S. Office Minor Alarm
Incoming Call to Switchman's Desk or O.G.T. Frame
DIAL TONE SPEED CKT

GREEN - Minor - Intermittent
Minor Time Alarm on Tbl. Indicators
Coin Control Circuit Time Alarm
130V. Announcement Power Minor Alarm
Connector Circuit Alarm
NO SUCH # TONE CIRCUIT

AISLE PILOT LAMPS

Denotes mounted above Floor Alarm Cabinet

RED - Major - Major Frame Fuse Alarm
- Master Frame Fuse Alarm
- Emergency Alarm System
- 22V. - 60 Cycle Supply - No Voltage Alarm

RED - Minor - Continuous
Minor Frame Fuse Alarm
Fuse Bay Fuse Alarm
22V. - 60 Cycle Fuse Alarm
Positive 24V. Fuse Alarm
Fuse Bay - Low Tone Fuse Alarm
Fuse Bay - 24V. Fuse Alarm
Fuse Bay - Ringing Fuse Alarm
Coin Control Fuse Alarm
Clock Circuit Fuse Alarm
Time Ris. Sender Fuse Alarm

RED - Minor - Intermittent -
Idle Indicating Lamp Current Supply Alarm

YELLOW - Major-
All Major Failures from Power Room
Minor-
All Minor Failures from Power Room

GREEN - Major
Major Time Alarm on Trouble Indicators
Telephone Rep. Bat. Supply Alarm
P.B.X. or S.X.S. Office Major Alarm
Announcement Supply Alarm
Transmitting Repeater Alarm
130V. Announcement Power Major Alarm

GREEN - Minor - Continuous
Pick Up Alarm for 30IC Power Plant
P.B.X. or S.X.S. Office Minor Alarm
Incoming Call to Switchman's Desk or O.G.T. Frame

GREEN - Minor - Intermittent
Minor Time Alarm on Tbl. Indicators
Coin Control Circuit Time Alarm
130V. Announcement Power Minor Alarm
Connector Circuit Alarm

WHITE - Major - Major Time Alarm, Link and Controller Circuit
Timing Circuit Alarm for Spl. Serv. Trks.
Manual Line Circuits
Misc. Circuit for Senders M.B. Frame
Interrupter Checking Circuit Alarm
" Frame Motor Stop Alarm
" Ground Alarm
Inc. Trunk Timing Circuit Alarm - Retire at Misc. Alarm Cabinet near Tone Bar - (PC Button)

WHITE - Minor - Continuous
Sender Load Register Alarm
Disconnect Tone Batt. Cross Alarm
District Link Permanent Signal Overflow Alarm
Plugging Up Circuit - Aux. Signal Circuit Alarm

WHITE - Minor - Intermittent
Minor Time Alarm - Link and Control Circuit
Coin Control Cct. Time Alarm Cent. "A" Swbd.

AMBER - Major - Sender Test Circuit Major Alarm

AMBER - Minor - Continuous
Stuck Sender Alarm
Ringer Test and Dial Tester Alarm

AMBER - Minor - Intermittent
Sender Test Circuit Minor Alarm
District and Incoming Test Circuit Alarm

MISCELLANEOUS LAMPS, JACKS, AND KEYS

1. AISLE LAMPS

COLOR	SIGNIFICANCE
Amber -----	Test Frames, Ringer Test Cct; and Dial Test Circuit
Green -----	Trouble Indicator, Misc. Equip; and Incoming Calls
Red -------	Fuse Alarm
White -----	Any Link and Controller cct; and various misc. ccts.
Yellow ----	Power Alarm

WHITE - Major - Major Time Alarm, Link and Controller Circuit
Timing Circuit Alarm for Spl. Serv. Trks.
Manual Line Circuits
Misc. Circuit for Senders M.B. Frame
Interrupter Checking Circuit Alarm
" Frame Motor Stop Alarm
" Ground Alarm
Inc. Trunk Timing Circuit Alarm - Retire at Misc. Alarm Cabinet
near Tone Bar - (PC Button)

WHITE - Minor - Continuous
Sender Load Register Alarm
Disconnect Tone Batt. Cross Alarm
District Link Permanent Signal Overflow Alarm
Plugging Up Circuit - Aux. Signal Circuit Alarm

WHITE - Minor - Intermittent
Minor Time Alarm - Link and Control Circuit
Coin Control Cct. Time Alarm Cent. "A" Swbd.

AMBER - Major - Sender Test Circuit Major Alarm

AMBER - Minor - Continuous
Stuck Sender Alarm
Ringer Test and Dial Tester Alarm

AMBER - Minor - Intermittent
Sender Test Circuit Minor Alarm
District and Incoming Test Circuit Alarm

MISCELLANEOUS LAMPS, JACKS, AND KEYS

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COLOR	SIGNIFICANCE
Amber ------	Test Frames, Ringer Test Cct; and Dial Test Circuit
Green ------	Trouble Indicator, Misc. Equipt and Incoming Calls
Red --------	Fuse Alarm
White ------	Any Link and Controller cct; and various misc. ccts.
Yellow ----	Power Alarm

REGULAR FRAMES (FOR TEST FRAMES - SEE REAR PAGES)

2. BLOCK RELAY FRAME

"A" Jack - Battery and Ground
"B" " - Spare Jack to M.D.F. (P.4 NGC)
"F" " - Remote Control for Term. Trouble Indicator
"Tel" " - Frame Line Telephone

3. COIN SUPERVISORY LINK - SD-25029

"A" Jack - Battery and Ground
"AL" Lamp - Alarm Lamp
"AR" Key - Alarm Release Key
"B" Jack - Spare Jack to M.D.F.
"G(0-9)" Lamps - Indicates sub-group links busy
"GB(0-9)" Jacks - Makes a group of 10 trunks busy
"GR" Key - Releases locked group busy alarm
"HD" Jack-Hold Jack , used to prevent timing out
"MB" Jack-Make busy jack for controller circuit
"Tel" " -Frame line telephone

4. DISTRICT JUNCTOR FRAME

DIST LINK FRAMES (100-103-106) 101-104-107 102-105-107
FR 100-101-103 Row F

"A" Jack - Battery and Ground
"B" " - Spare Jack to M.D.F.
"PC" Lamp - Open or short circuit interrupter contacts (Int. Chk. Rl. Release at Floor Alm. Cab.)
"Tel" Jack - Frame line telephone

5. DISTRICT LINK FRAME

"CH" Lamp - Indicates change in control relays
"F" Jack - Remote control jack for orig. trouble indicator
"MB(0-9)" " - Make busy jacks for secondary switches
"MTR" Key - Manual transfer key
"SA" " - Silence Alarm Key
"PS" " - Used to retire P.S. alarm
"PS" Lamp - Indicates P.S. on frame

6. INCOMING LINK FRAME

"CH" Lamp - Indicates change in control relays
"F" Jack - Remote control jack for term. trouble indicator
"MB(0-9)" " - Make busy jacks for secondary switches
"MTR" Key - Manual transfer key
"SA" " - Silence alarm key

REGULAR FRAMES (FOR TEST FRAMES - SEE REAR PAGES)

2. BLOCK RELAY FRAME

"A" Jack - Battery and Ground
"B" " - Spare Jack to M.D.F. (P.# NGC)
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"GR" Key - Releases locked group busy alarm
"HD" Jack-Hold Jack , used to prevent timing out
"MB" Jack-Make busy jack for controller circuit
"Tel" " -Frame line telephone

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"A" Jack - Battery and Ground
"B" " - Spare Jack to M.D.F.
"PC" Lamp - Open or short circuit interrupter contacts (Int. Chk. Rl. Release at Floor Alm. Cab.)
"Tel" Jack - Frame line telephone.

5. DISTRICT LINK FRAME

"CH" Lamp - Indicates change in control relays
"P" Jack - Remote control jack for orig. trouble indicator
"MB(0-9) " - Make busy jacks for secondary switches
"METR" Key - Manual transfer key
"SA" " - Silence Alarm Key
"PS" " - Used to retire P.S. alarm
"PS" Lamp - Indicates P.S. on frame

6. INCOMING LINK FRAME

"CH" Lamp - Indicates change in control relays
"P" Jack - Remote control jack for term. trouble indicator
"MB(0-9) " - Make busy jacks for secondary switches
"METR" Key - Manual transfer key
"SA" " - Silence alarm key

7. INCOMING TRUNK FRAME

"A"	Jack	- Battery and Ground
"B"	"	- Spare jack to M.D.F.
"C"	"	- Remote control jack to incoming trunk test frame
"D"	"	- Gives access to line circuit used to reach cct. under test.
"DX"	Key	- "DX" alarm locks to this key
"DX"	Lamp	- Indicates battery cross on inc. "A" lead
"E"	Jack	- Ringing Current
"INT"	"	- ANO interrupter (used with tea wagon)
"RC"	"	- Remote control to O.G.T., also provides A.C. for transmission testing.
"SUPV"	Lamp	- Indicates test call to O.G.T. in progress
"TEL"	Jack	- Frame line telephone
"TEL-1"	Jack	- Telephone jack to O.G.T. frame
"TG"	Key	- TG alarm locks to this key
"TG"	Lamp	- Indicates grounded overflow or busy-back
"TST"	Jack	- Test jack used to patch to trunk under test at the O.G.T., also used in making certain tea wagon tests.
"F"	"	- Remote control to trouble indicator

8. LINE CHOICE CONNECTOR FRAME

"A"	Jack	- Battery and ground
"B"	"	- Spare jack to M.D.F.
"CH"	Lamp	- Indicates change in control relays
"F"	Jack	- Remote control for term. trouble indicator
"MTR"	Key	- Manual transfer key for control relays
"SA"	"	- Silence alarm key
"TEL"	Jack	- Frame line telephone
"TMB"	"	- Trouble make busy jack
"TMB"	Lamp	- " " " lamp indicates frame busy

9. LINE DISTRIBUTING FRAME -25287

"BATT"	Jack	-48 volts battery for test set
"BUZ-1"	"	-Connected to test cord "B" for register checking
"BUZ-2"	"	- " " " " "T" " " "
"PBX-MB"	"	-PBX line make busy jacks
"PST"	Key	-Places tone on P.S.T. trunk sleeves
"T-BUZ"	Jack	-Talking circuit to message register rack
"TEL"	"	-Frame line telephone

10. LINE JUNCTOR FRAME

"A"	Jack	- Battery and ground
"B"	"	- Spare jack to M.D.F.
"TEL"	"	- Frame line telephone

7. INCOMING TRUNK FRAME

"A"	Jack	- Battery and Ground
"B"	"	- Spare jack to M.D.F.
"C"	"	- Remote control jack to incoming trunk test frame
"D"	"	- Gives access to line circuit used to reach cct. under test.
"DX"	Key	- "DX" alarm locks to this key
"DX"	Lamp	- Indicates battery cross on inc. "A" lead
"E"	Jack	- Ringing Current
"INT"	"	- AND interrupter (used with tea wagon)
"RC"	"	- Remote control to O.G.T., also provides A.C. for transmission testing.
"SUPV"	Lamp	- Indicates test call to O.G.T. in progress
"TEL"	Jack	- Frame line telephone
"TEL-1"	Jack	- Telephone jack to O.G.T. frame
"TG"	Key	- TG alarm locks to this key
"TG"	Lamp	- Indicates grounded overflow or busy-back
"TST"	Jack	- Test jack used to patch to trunk under test at the O.G.T., also used in making certain tea wagon tests.
"P"	"	- Remote control to trouble indicator

8. LINE CHOICE CONNECTOR FRAME

"A"	Jack	- Battery and ground
"B"	"	- Spare jack to M.D.F.
"CH"	Lamp	- Indicates change in control relays
"P"	Jack	- Remote control for term. trouble indicator
"MTR"	Key	- Manual transfer key for control relays
"SA"	"	- Silence alarm key
"TEL"	Jack	- Frame line telephone
"TMB"	"	- Trouble make busy jack
"TMB"	Lamp	- " " " lamp indicates frame busy

9. LINE DISTRIBUTING FRAME -25287

"BATT"	Jack	-48 volts battery for test set
"BUZ-1"	"	-Connected to test cord "B" for register checking
"BUZ-2"	"	- " " " "P" " " "
"PBX-MB"	"	-PBX line make busy jacks
"PST"	Key	-Place tone on P.S.T. trunk sleeves
"T-BUZ"	Jack	-Talking circuit to message register rack
"TEL"	"	-Frame line telephone

10. LINE JUNCTOR FRAME

"A"	Jack	- Battery and ground
"B"	"	- Spare jack to M.D.F.
"TEL"	"	- Frame line telephone

11. LINE LINK FRAME

"A"	Jack	- Battery and ground
"AL"	Lamp	- Alarm lamp (minor)
"B"	Jack	- Spare jack to M.D.F.
"EA"	"	- Exercise A jack, opens CB operating path
"EB"	"	- " B " " " " " "
"F"	"	- Remote control jacks to T.T.I. frame
"H"	"	- Hold jack, used for testing trouble
"MA"	Lamp	- Alarm lamp (major)
"MB"	Jack	- Make busy jack for controller circuit
"SO1"	"	- Service observing circuit #1 for this bay
"SO2"	"	- " " " #2 " " "
"SS(0-9)"	Jacks	- Make busy jacks for secondary switches
"T"	Jack	- "T" & "R" leads to message register test circuit
"T1"	"	- "M1" & "M2" leads to message register test circuit
"TEL"	"	- Frame line telephone
"TL"	"	- Provides means for connecting a sub's line to a test jack.
"TR"	Key	- Alarm Release

12. MESSAGE REGISTER RACK - 25352

"A"	Jack	- Battery and ground
"ANS"	"	- Answering jack for tripping ringing on message register test calls.
"BY"	Lamp	- Busy lamp indicates line to be tested is busy
"GRD"	Jack	- Used to cause test to be made on tip party
"H"	Lamp	- Indicates line being tested is connected hunt
"L"	Jack	- Line jack
"R"	Lamp	- Indicates line being tested is connected ring
"RECD"	Jack	- Talking line to recorder's desk
"T"	Jack	- Test jack used in testing meters
"T"	Lamp	- Indicates line being tested is connected tip
"TEL"	Jack	- Frame line telephone
"TRK"	"	- Trunk jack to associated incoming trunk circuit
"NO"	"	- Non opr. test of L relay

13. MISCELLANEOUS FRAMES

"A"	Jack	- Battery and ground
"AL"	Lamp	- Alarm lamp for emergency controller for S.S.L.
"AR"	Key	- Alarm release (minor)
"B"	Jack	- Spare jack to M.D.F.
"CF"	Lamp	- Continuity test of sleeve lead, emergency cct. S.S.L.
"DC"	"	- Double connection lamp, emergency cct. S.S.L.
"MB-TSL-EM"	Jack	- Make Busy jack for TSL emergency controller
"TEL"	Jack	- Frame line telephone
"AL-C-SR"	Lamp	- Coin Supv. cct time alarm
"HD"	Hold Jack, prevents cct timing out-TSL.	
"MB"	Jacks	- Coin Supv. Cct.

11. LINE LINK FRAME

"A"	Jack	- Battery and ground
"AL"	Lamp	- Alarm lamp (minor)
"B"	Jack	- Spare jack to M.D.F.
"EA"	"	- Exercise A jack, opens CB operating path
"EB"	"	- " B " " " " "
"P"	"	- Remote control jacks to T.T.I. frame
"H"	"	- Hold jack, used for testing trouble
"MA"	Lamp	- Alarm lamp (major)
"MB"	Jack	- Make busy jack for controller circuit
"SO1"	"	- Service observing circuit #1 for this bay
"SO2"	"	- " " " " #2 " " "
"SS(0-9)"	Jacks	- Make busy jacks for secondary switches
"T"	Jack	- "T" & "R" leads to message register test circuit
"T1"	"	- "M1" & "M2" leads to message register test circuit
"TEL"	"	- Frame line telephone
"TL"	"	- Provides means for connecting a sub's line to a test jack.
"TR"	Key	- Alarm Release

12. MESSAGE REGISTER RACK - 25352

"A"	Jack	- Battery and ground
"ANS"	"	- Answering jack for tripping ringing on message register test calls.
"BY"	Lamp	- Busy lamp indicates line to be tested is busy
"GRD"	Jack	- Used to cause test to be made on tip party
"H"	Lamp	- Indicates line being tested is connected hunt
"I"	Jack	- Line jack
"R"	Lamp	- Indicates line being tested is connected ring
"RECD"	Jack	- Talking line to recorder's desk
"T"	Jack	- Test jack used in testing meters
"T"	Lamp	- Indicates line being tested is connected tip
"TEL"	Jack	- Frame line telephone
"TRK"	"	- Trunk jack to associated incoming trunk circuit
"NO"	"	- Non opr. test of L relay

13. MISCELLANEOUS FRAMES

"A"	Jack	- Battery and ground
"AL"	Lamp	- Alarm lamp for emergency controller for S.S.I.
"AR"	Key	- Alarm release (minor)
"B"	Jack	- Spare jack to M.D.F.
"CP"	Lamp	- Continuity test of sleeve lead, emergency cct. S.S.I.
"DC"	"	- Double connection lamp, emergency cct. S.S.I.
"MB-TSL-EM"	Jack-	Make Busy jack for TSL emergency controller
"TEL"	Jack	- Frame line telephone
"AL-C-SR"	Lamp	- Coin Supv. cct time alarm
"HD"	Hold jack, prevents cct timing out-TSL.	
"MB"	Jacks	- Coin Supv. Cct.

14. MISCELLANEOUS RELAY RACK

RR 100 - Bay 2

Dial Tester - (21385)
- "MB" Jack - Make busy dial tester
- "DT" Light - Dial tester time out

Ringer Test - (96218)
- "T" Jack - Test jack
- "TL" Lamp - Test line alarm
- "L" Jack - Test and Readjustment of L

Bay 3

Gain Control Key - For loud speaker system
Switch - Power supply for loud speaker amplifier

Bay 5

"M"	Jack	- Monitor for mon. amplifier
"T"	"	- Test
"IN"	"	- Input for mon. amplifier
"FIL"	"	- Filament control
"OUT"	"	- Output for monitor amplifier
"P"	"	- Test Jack for dial recording amp. (SD-96080)
"S"	"	- " " " " " "
"OP"	"	- " " " " " "
"NO"	"	- " " " " " "

Bay 6

"MB"	Jack	- L.I.N. & T.I.N. Make busy
"PA"	"	- Test A group dial M.L. (25421-01)
"MB"	"	- Make busy " "
"GA"	Red Light	- Trans. from A to B group
"PB"	Jack	- Test B group
"MB"	"	- Make busy B group
"GB"	Red Light	- Trans. from B to A group
"LO"	White Light	- Time alarm trans.
"RL"	Button	- Rel. Alarm

Bay 7

Red Light)
Green Light) Position of contact on 209 FF & FK relays on test.

TST)
48V) Used in testing 209 FF & FK relays
DM)

MB - Trunk test line make busy

FLOOR ALARM FRAME (200) - (25298)

"PU"	Jack	- Used in adjusting BR-1-2-3 relays
"MR"	Button	- Machine ringing alarm release

OGT (NEXT TO METER)

Clock reset button

14. MISCELLANEOUS RELAY RACK

RR 100 - Bay 2

Dial Tester - (2139)
"MB" Jack - Make busy dial tester
"DT" Light - Dial tester time out
Ringer Test - (9628)
"T" Jack - Test jack
"TL" Lamp - Test line alarm
"L" Jack - Test and Readjustment of L

Bay 3

Gain Control Key - For loud speaker system
Switch - Power supply for loud speaker amplifier

Bay 5

"M" Jack - Monitor for mon. amplifier
"T" " - Test
"IN" " - Input for mon. amplifier
"FIL" " - Filament control
"OUT" " - Output for monitor amplifier
"p" " - Test jack for dial recording amp. (SD-9608O)
"S" " - " " " " " " " "
"OP" " - " " " " " " "
"NO" " - " " " " " " "

Bay 6

"MB" Jack - I.I.M. & T.I.M. Make busy
"PA" " - Test A group dial M.L. (2541-01)
"MB" " - Make busy " "
"GA" Red Light - Trans. from A to B group
"PB" Jack - Test B group
"MB" " - Make busy B group
"GB" Red Light - Trans. from B to A group
"LO" White Light - Time alarm trans.
"RL" Button - Rel. Alarm

Bay 7

Red Light) Position of contact on 209 PT & PK relays on test.
Green Light)

TST)
LBV) Used in testing 209 PT & PK relays
DM)

MB - Trunk test line make busy

FLOOR ALARM FRAME (200) - (2529B)

"PO" Jack - Used in adjusting BR-1-2-3 relays
"MR" Button - Machine ringing alarm release

OGT (NEXT TO METER)

Clock reset button

RELAY RACK - 200 (Con.)

Bay 4

"F"	Jack - Test jack for no such # tone.
"TR"	Lamp (Green) - Trans
"TR"	Key - Trans. Gen. Preference
"TR"	Lamp (White) - Gen. failure
"TST"	- Cutoff alarm and grounds both gen. ccts. for opr. & testing
"REL"	- Restores lamp and cct. to normal after trouble is cleared
"PO"	- Vary pitch on no such # tone.

T.R.R.

"Misc. Keys"	- Used when making equipment peg counts
"TST" Jack	- Test jack for D. J. and A & B trk. group busy relays.

15. NUMBER GROUP CONNECTOR

"A"	Jack - Battery and ground
"B"	" - Spare jack
"CH"	Lamp - Indicates change of control relay
"F"	Jack - Remote control for term. trouble indicator
"MTR"	Key - Manual transfer key for control relays
"SA"	" - Silence alarm key
"TEL"	Jack - Frame line telephone
"TMB"	" - Used to make number group busy
"TMB"	Lamp - Indicates that number group is made busy

16. OFFICE LINK FRAME

"A"	Jack - Battery and ground
"B"	" - Spare jack to M.D.F.
"CH"	Lamp - Indicates change of control relays
"F"	Jack - Remote control from orig. trouble indicator
"FB"	Lamp - Frame busy lamp
"MTR"	Key - Manual transfer of control relays
"OMB"	Jack - Office make busy jack
"PMB(0-9)"	Jacks - Primary switch make busy
"SA"	Key - Silence alarm key
"SMB(0-9)"	Jack - Secondary switch make busy
"TEL"	Jack - Frame line telephone

17. ORIGINATING MARKER FRAME

"A"	Jack - Battery and ground
"AL"	Lamp - Alarm lamp, indicates operated fuse removed
"AR"	Key - Alarm release key
"B"	Jack - Spare jack
"F"	Jack - Remote control for orig. trouble indicator
"TA"	Lamp - Marker time alarm
"TEL"	Jack - Frame line telephone

RELAY RACK - 200 (Con.)

Bay 4

"P"	Jack - Test jack for no auch # tone.
"TR"	Lamp (Green) - Trans
"TR"	Key - Trans. Gen. Preference
"TR"	Lamp (White) - Gen. failure
"TST"	- Cutoff alarm and grounds both gen. cots. for opr. & testing
"REL"	- Restores lamp and cct. to normal after trouble is cleared
"PO"	- Vary pitch on no auch # tone.

T.R.R.

"Misc. Keys" - Used when making equipment peg counts
"TST" Jack - Test jack for D. J. and A & B trk. group busy relays.

15. NUMBER GROUP CONNECTOR

"A"	Jack - Battery and ground
"B"	" - Spare jack
"CR"	Lamp - Indicates change of control relay
"P"	Jack - Remote control for term. trouble indicator
"MTR"	Key - Manual transfer key for control relays
"SA"	" - Silence alarm key
"TEL"	Jack - Frame line telephone
"TMB"	" - Used to make number group busy
"TMB"	Lamp - Indicates that number group is made busy

16. OFFICE LINK FRAME

"A"	Jack - Battery and ground
"B"	" - Spare jack to M.D.F.
"CR"	Lamp - Indicates change of control relays
"P"	Jack - Remote control from orig. trouble indicator
"PB"	Lamp - Frame busy lamp
"MTR"	Key - Manual transfer of control relays
"OMB"	Jack - Office make busy jack
"PMB(0-9)"	Jacks - Primary switch make busy
"SA"	Key - Silence alarm key
"SMB(0-9)"	Jack - Secondary switch make busy
"TEL"	Jack - Frame line telephone

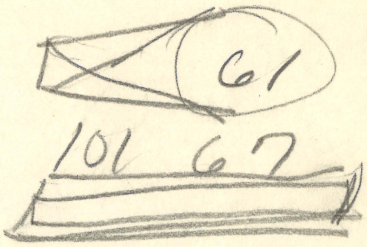
17. ORIGINATING MARKER FRAME

"A"	Jack - Battery and ground
"AL"	Lamp - Alarm lamp, indicates operated fuse removed
"AR"	Key - Alarm release key
"B"	Jack - Spare jack
"P"	Jack - Remote control for orig. trouble indicator
"TA"	Lamp - Marker time alarm
"TEL"	Jack - Frame line telephone

18. ORIGINATING MARKER CONNECTOR FRAME

"A"	Jack - Battery and ground
"B"	" - Spare jack
"TEL"	" - Frame line telephone

19. SUBSCRIBER SENDER FRAME



"A"	Jack - Battery and ground
"B"	" - Spare jack
"C"	" - Remote control jack
"TEL"	" - Frame line telephone

20. SUBSCRIBER SENDER LINK FRAME

"AL"	Lamp - Alarm lamp
"AR"	Key - Alarm release (minor)
"C"	Jack - Remote control jack to ~~sender~~ DJ test frame
"CF"	Lamp - Continuity failure of sleeve
"DC"	" - Double connection lamp
"EF"	" - Emergency controller in use on this frame
"EM"	" - " " " " " some other frame
"HD"	Jack - Hold jack, prevents cct. timing out
"MB(0-4)"	Jacks - Make busy jack for groups of 20 dist. junctors.
"TEL"	" - Frame Tel.
"B"	" - Spare jack

21. TERMINATING MARKER FRAME

"A"	Jack - Battery and ground
"AL"	Lamp - Alarm lamp, indicates fuse removed
"AR"	Key - Alarm release key
"B"	Jack - Spare jack to M.D.F.
"F"	" - Remote control jack for term. trouble indicator
"TA"	Lamp - Indicates marker has timed out
"TEL"	Jack - Frame line telephone

22. TERMINATING MARKER CONNECTOR FRAME

"A"	Jack - Battery and ground
"B"	" - Spare jack
"TEL"	" - Frame line telephone

23. TERMINATING SENDER FRAME

"A"	Jack - Battery and ground
"B"	" - Spare jack
"C"	" - Remote control of term. sender test frame
"D"	" - Gives access to a sub's line cct. used in testing "B" senders.
"MN"	" - Reverting impulse interrupter extension, max. loop
"MX"	" - " " " " min. "
"TEL"	" - Frame line telephone

18. ORIGINATING MARKER CONNECTOR FRAME

"A"	Jack - Battery and ground
"B"	" - Spare jack
"TEL"	" - Frame line telephone

19. SUBSCRIBER SENDER FRAME

"A"	Jack - Battery and ground
"B"	" - Spare jack
"C"	" - Remote control jack
"TEL"	" - Frame line telephone

20. SUBSCRIBER SENDER LINK FRAME

"AL"	Lamp - Alarm lamp
"AR"	Key - Alarm release (minor)
"C"	Jack - Remote control jack to sender test frame
"CP"	Lamp - Continuity failure of sleeve
"DC"	" - Double connection lamp
"EP"	" - Emergency controller in use on this frame
"EM"	" - " " " " " some other frame
"HD"	Jack - Hold jack, prevents cct. timing out
"MB(0-4)"	Jacks - Make busy jack for groups of 20 dial. junctors.
"TEL"	" - Frame Tel.
"B"	" - Spare jack

21. TERMINATING MARKER FRAME

"A"	Jack - Battery and ground
"AL"	Lamp - Alarm lamp, indicates fuse removed
"AR"	Key - Alarm release key
"B"	Jack - Spare jack to M.D.F.
"P"	" - Remote control jack for term. trouble indicator
"TA"	Lamp - Indicates marker has timed out
"TEL"	Jack - Frame line telephone

22. TERMINATING MARKER CONNECTOR FRAME

"A"	Jack - Battery and ground
"B"	" - Spare jack
"TEL"	" - Frame line telephone

23. TERMINATING SENDER FRAME

"A"	Jack - Battery and ground
"B"	" - Spare jack
"C"	" - Remote control of term. sender test frame
"D"	" - Gives access to a sub's line cct. used in testing "B" senders.
"MB"	" - Reverting impulse interrupter extension, max. loop
"MX"	" - " " " " " min. "
"TEL"	" - Frame line telephone

24. TERMINATING SENDER LINK FRAME

"A"	Lamp	- Alarm lamp
"D"	Jack	- Frame line cct. to various terminating links
"EA"	"	- Exercise jack, it opens operating cct. of CB relay
"EB"	"	- " " " " " " " CA "
"GB(0-9)"	"	- Incoming trunk group busy jacks
"HD"	"	- Hold jack, used to prevent timing out of control cct.
"M"	Lamp	- Major alarm
"MB"	Jack	- Controller cct. make busy
"TR"	Key	- Time alarm release

24. TERMINATING SENDER LINK FRAME

"A" Lamp - Alarm lamp
"D" Jack - Frame link cct. to various terminating links
"EA" " - Exercise jack, it opens operating cct. of CB relay
"EB" " - " " " " " " " CA "
"GB(0-9)" " - Incoming trunk group busy jacks
"HD" " - Hold jack, used to prevent timing out of control cct.
"M" Lamp - Major alarm
"MB" Jack - Controller cct. make busy
"TR" Key - Time alarm release

SENDER MAKE BUSY FRAME

SUBSCRIBER SENDER MAKE BUSY

"MB" Jack - Individual sender make busy
"S" Lamp - Indicates a stuck sender
"CTR" Key - When operated it cancels time release on its particular sender

LL and SSL "LA" Lamps - Indicates a particular line link or sub. sender link trouble.

TEST CIRCUIT

"S" Lamp - Indicates test circuit connected
"CN" " - Indicates coin collect or return is applied
"H" " - Indicates howler circuit is being applied to line

NON COIN PERMANENT SIGNAL

"PS" Lamp - Indicates a permanent signal
"ANS" Jack - For challenging and testing or permanent signal

MISCELLANEOUS

"TEL" Jack - Auxiliary to handset for using operator telephone set
"T" " - Test jack for patching to other circuits
"TD" Lamp - Indicates disconnect by test desk
"TD" Jack - Test desk patch jack

GROUP BUSY

SSL "GB" Lamp - Indicates a sub group of sub. senders busy
SSL "GB" Jack - Make busy jack for sub group of senders
CSRL "GB" Lamp - Indicates a sub group of coin supervisory ccts. busy
CSRL "GB" Jack - Make busy jack for sub group of coin supervisory cct.

SENDER MAKE BUSY FRAME

SUBSCRIBER SENDER MAKE BUSY

"MB" Jack - Individual sender make busy
"S" Lamp - Indicates a stuck sender
"CTR" Key - When operated it cancels time release on its particular sender

LL and SSL "LA" Lamps - Indicates a particular line link or sub. sender link trouble.

TEST CIRCUIT

"S" Lamp - Indicates test circuit connected
"CH" " - Indicates coin collect or return is applied
"H" " - Indicates howler circuit is being applied to line

NON COIN PERMANENT SIGNAL

"PS" Lamp - Indicates a permanent signal
"ANS" Jack - For challenging and testing or permanent signal

MISCELLANEOUS

"TEL" Jack - Auxiliary to handset for using operator telephone set
"T" " - Test jack for patching to other circuits
"TD" Lamp - Indicates disconnect by test desk
"TD" Jack - Test desk patch jack

GROUP BUSY

SSL "GB" Lamp - Indicates a sub group of sub. senders busy
SSL "GB" Jack - Make busy jack for sub group of senders
GSRL "GB" Lamp - Indicates a sub group of coin supervisory cots. busy
GSRL "GB" Jack - Make busy jack for sub group of coin supervisory cot.

MISCELLANEOUS LAMPS, JACKS & KEYS FOR TEST CENTER

DISTRICT JUNCTOR TEST FRAME

"A" Jack - Battery and ground
"ACO" Key - Used to cut-off audible alarms, but not visual
"B" Jack - Spare jack to M.D.F.
"CO" Key - Talking circuit to coin overtime monitor
"CS" Key - " " " " supervisory operator
"CS" Jack - Transmission test jack
"R" Jack - Used in testing transmission of district junctors
"S" Jack - Used to provide 1000 cycle current for transmission testing
"TA" Key - Time alarm cut-off key
"TA" Lamp - Time alarm lamp
"TEL" Jack - Frame line telephone
"OS" " - 0 DBM 1 MW FOR CALIBRATION OF 12A TST SET

INCOMING TRUNK TEST FRAME

"A" Jack - Battery and ground
"ACO" Key - Cutoff for audible alarms, but not visual
"B" Jack - Spare jack to M.D.F.
"T" Jack - Connected across the tip and ring for monitoring
"TA" Key - Time alarm release key
"TA" Lamp - Time alarm lamp
"TEL" Jack - Frame line telephone

ORIGINATING TROUBLE INDICATOR

"A" Jack - Battery and ground
"ACO" Key - Minor audible alarm cutoff key, does not affect visual
"B" Jack - Spare jack to M.D.F.
"C" Lamp - Indicates connector cct. involved in trouble record
"CB" Jack - Makes marker busy to a particular connector circuit
"CT" Lamp - Originating connector timed out-release connector.
"DB" Jack - Used to make a marker busy
"DB" Lamp - Indicates decoder busy
"DISTRICT" Lamp - Indicates district link & connector is busy
"DT" Lamp - Marker timed out-released by AR key at marker
"GB" Jack - Makes busy sender group, served by same connector
"GR" Lamp - Grounded connector release lead-release by RLA key
"LC" Key - Used to place originating load control in service
"MB" Lamp - Indicates marker busy
"OFFICE" Lamp - Indicates office link & connector is busy
"RL" Key - Release key foı trouble indicator
"RLA" Key - Releases GRA lamp due to grounded connector -release lead
"RTA" Key - Releases alarm on originating load control
"RTA" Lamp - Indicates originating load control in use
"~~RTA(T)~~" Key - Releases alarm on terminating load control
"~~RTA(T)~~" Lamp - Indicates terminating load control in use
"RTG" Lamp - Originating load control alarm guard
"~~RTG(T)~~" Lamp - Terminating load control guard
"RT-MO" Key - Terminating load control for originating marker #0
"RT-M1" Key - " " " " " " #1
"RT-M2" Key - " " " " " " #2
"RT-M3" Key - " " " " " " #3

ORIGINATING TROUBLE INDICATOR - (Continued)

"S" Lamp - Indicates order of sender in connector circuit
"TEL" Jack - Frame line telephone
"TI" Lamp - Indicates marker has summoned trouble indicator - release by RL key
"TIP" Jacks - Makes marker busy to trouble indicator

"TLO" Lamp - Release "TFA" alarm - (LORL Key)
"TFA" " - Traffic Regulator alarm
"AMB" " - All MKRS busy
"MBA" " - MKR busy alarm
"RTR" " - Orig. route transfer

OUTGOING TRUNK TEST FRAME & TEST JACK BAY

"A & B" Jacks - Used as a pair on frame telephone circuit
"CT" Jack - Continuity and polarity test jacks
"CT-BY" Lamp - " test line lamp
"LTD" Jacks - Local test desk patching jacks
"MBI" Jack - Patching jack used in testing recording - completing trunks
"RTL" " - Return test line, used when subs. called line in error
"TEL" " - Frame line telephone circuit
"T1" " - Test jack #1 associated with SDR key #1.
"T2" " - " " #2 " " " " #2.
"VS" " - Used in adjusting selective ringing circuit

PLUGGING UP PANEL

"AUX-SIG-AL" Key - Transfers cct. from buzzer to office alarm
"B" Lamp - Indicates cct. is connected to subscribers line
"CT" Key - Used to provide automatic cut-through
"DISC" Lamp - Indicates disconnect on trunk by test desk
"L" Jack - Used in testing on a subscriber's line circuit
"L" Lamp - Indicates changed condition on plugging-up circuit
"TR" Key - Used to release the alarm due to plugging-up circuit
"TT" Jack - Provides means of patching subscriber's line to test desk

SENDER MAKE BUSY FRAME

"ALM-RLS" Key - Release key for sender disconnect tone cross alarm, and for subs. sender load register alarm
"ANS" Jack - For answering and testing permanent signals
"ASB" Key - Coin supervisory alarm release key
"BEL or BUZ" Key - Releases alarm associated with test desk trunks
"C" Lamp - Indicates a stuck coin on the associated trunk circuit
"CB" Lamp - Indicates all coin supervisory circuits busy
"CC" Jack - For patching to test jack to collect or return coin
"CSRL-GB" Jack - Make busy jack for a sub group of coin supervisory circuits
"CSRL-GB" Lamp - Indicates a sub group of coin supervisory circuits
"CTR" Key - It cancels timed release for individual subs. senders

ORIGINATING TROUBLE INDICATOR - (Continued)

"S" Lamp - Indicates order of sender in connector circuit

"TEL" Jack - Frame line telephone

"TI" Lamp - Indicates marker has summoned trouble indicator - release by RL key

"TIC" Jacks - Makes marker busy to trouble indicator

"TLO" Lamp - Release "TTA" alarm - (LORL Key)

"TTA" " - Traffic Regulator alarm

"AMB" " - All MKRS busy

"MBA" " - MKR busy alarm

"RTR" " - Orig. route transfer

OUTGOING TRUNK TEST FRAME & TEST JACK BAY

"A & B" Jacks - Used as a pair on frame telephone circuit

"CT" Jack - Continuity and polarity test jacks

"CT-BY" Lamp - " test line lamp

"LTD" Jacks - Local test desk patching jacks

"MBI" Jack - Patching jack used in testing recording - completing trunks

"RTL" " - Return test line, used when subs. called line in error

"TEL" " - Frame line telephone circuit

"T1" " - Test jack #1 associated with SDR key #1.

"T2" " - " " #2 " " " #2.

"VB" " - Used in adjusting selective ringing circuit

PLUGGING UP PANEL

"AUX-SIG-AL" Key - Transfers cct. from buzzer to office alarm

"B" Lamp - Indicates cct. is connected to subscribers line

"CT" Key - Used to provide automatic cut-through

"DISC" Lamp - Indicates disconnect on trunk by test desk

"L" Jack - Used in testing on a subscriber's line circuit

"L" Lamp - Indicates changed condition on plugging-up circuit

"TR" Key - Used to release the alarm due to plugging-up circuit

"T" Jack - Provides means of patching subscriber's line to test desk

SENDER MAKE BUSY FRAME

"ALM-RLS" Key - Release key for sender disconnect tone cross alarm, and for subs. sender load register alarm

"ANS" Jack - For answering and testing permanent signals

"ASB" Key - Coin supervisory alarm release key

"BEL or BUZ" Key - Releases alarm associated with test desk trunks

"C" Lamp - Indicates a stuck coin on the associated trunk circuit

"CB" Lamp - Indicates all coin supervisory circuits busy

"CC" Jack - For patching to test jack to collect or return coin

"CSRL-GB" Jack - Make busy jack for a sub group of coin supervisory circuits

"CSRL-GB" Lamp - Indicates a sub group of coin supervisory circuits

"CTR" Key - It cancels timed release for individual subs. senders

SENDER MAKE BUSY FRAME - (Continued)

"DT"	Lamp - Disconnect tone battery cross alarm
"LI-LA"	" - Indicates particular line link in trouble
"LR"	" - Indicates a certain percentage of subs senders busy
"MB" Subs. Sender Jack	- Individual subs. sender make busy
"PS"	Lamp - Indicates a permanent signal
"RINGER TEST"	Lamp - Indicates coin stuck on line being tested with ringer
"RINGER TEST RELEASE"	Jack - To release line from ringer test
"RINGER TEST-TEST JACK"	- For attempting release of stuck coin
"RLS"	Jack - For release of alarm in case of a stuck coin on P.S. trunk
"RLS"	Jack - Release jack - To clear line from various test trunks and coin super. control cct.
"S"	Lamp - Indicates a stuck subscriber's sender
"SSL-GB"	Jack - Make busy jack for a subgroup of subs. senders
"SSL-GB"	Lamp - Indicates a subgroup of subs. senders are busy
"SSL-LA"	Lamp - Indicates a particular subs. sender link in trouble
"T"	Jack - Test jack associated with the meters and keys
"TD"	" - Test desk patching jack
"TD"	Lamp - Indicates disconnect on trunk by test desk
"TEL"	Jack - Used as auxilliary to handset for frame telephone
"LI"	Lamp - Load indicator (load control for traffic release feature) SD-25076-013 T-25076-14 W.L.-5180

SUBSCRIBER SENDER TEST FRAME

"A"	Jack - Battery and ground
"ACO"	Key - Used to cutoff audible alarm, does not affect visual
"B"	Jack - Spare jack to M.D.F.
"LC"	Jack - Used to test load control feature of senders
"LCC"	Jack - Load control coin test jack
"TA"	Key - Time alarm release key
"TA"	Lamp - Time alarm lamp

TERMINATING SENDER TEST FRAME

"A"	Jack - Battery and ground
"ACO"	Key - Used to cutoff audible alarms, does not affect visual
"B"	Jack - Spare jack to M.D.F.
"D"	Jack - Provides access to line used in testing
"TEL"	Jack - Frame line telephone

TERMINATING TROUBLE INDICATOR FRAME

"A"	Jack - Battery and ground
"ACO"	Key - Used to cutoff minor alarms, does not affect visual
"ASB"	Key - All sender busy alarm release key
"B"	Jack - Spare jack to M.D.F.

SENDER MAKE BUSY FRAME - (Continued)

"DT"	Lamp - Disconnect tone battery cross alarm
"LI-IA"	" - Indicates particular line link in trouble
"LR"	" - Indicates a certain percentage of subs sendere busy
"MB"	Subs. Sender Jack - Individual subs. sender make busy
"PS"	Lamp - Indicates a permanent signal
"RINGER TEST"	Lamp - Indicates coin stuck on line being tested with ringer
"RINGER TEST RELEASE"	Jack - To release line from ringer test
"RINGER TEST-TEST JACK"	- For attempting release of stuck coin
"RLS"	Jack - For release of alarm in case of a stuck coin on P.S. trunk
"RLS"	Jack - Release jack - To clear line from various test trunks and coin super. control cct.
"S"	Lamp - Indicates a stuck subscriber's sender
"SSL-GB"	Jack - Make busy jack for a subgroup of subs. senders
"SSL-GB"	Lamp - Indicates a subgroup of subs. senders are busy
"SSL-IA"	Lamp - Indicates a particular subs. sender link in trouble
"T"	Jack - Test jack associated with the meters and keys
"TD"	" - Test desk patching jack
"TD"	Lamp - Indicates disconnect on trunk by test desk
"TEL"	Jack - Used as auxiliary to bandset for frame telephone
"LI"	Lamp - Load indicator (load control for traffic release feature) SD-25076-013 T-25076-14 WHI-5180

SUBSCRIBER SENDER TEST FRAME

"A"	Jack - Battery and ground
"ACO"	Key - Used to cutoff audible alarm, does not affect visual
"B"	Jack - Spare jack to M.D.F.
"IC"	Jack - Used to test load control feature of senders
"ICC"	Jack - Load control coin test jack
"TA"	Key - Time alarm release key
"TA"	Lamp - Time alarm lamp

TERMINATING SENDER TEST FRAME

"A"	Jack - Battery and ground
"ACO"	Key - Used to cutoff audible alarms, does not affect visual
"B"	Jack - Spare jack to M.D.F.
"D"	Jack - Provides access to line used in testing
"TEL"	Jack - Frame line telephone

TERMINATING TROUBLE INDICATOR FRAME

"A"	Jack - Battery and ground
"ACO"	Key - Used to cutoff minor alarms, does not affect visual
"ASB"	Key - All sender busy alarm release key
"B"	Jack - Spare jack to M.D.F.

TERMINATING TROUBLE INDICATOR FRAME (Continued)

"C"	Lamp - Indicates connector circuit (Steady lamp shows stuck connector)
"CB"	Jacks - Makes marker busy to a particular connector
"CCT"	Jacks - Used to prevent marker time out on continuity test failures
"CT"	Lamp - Indicates connector has timed out, released by clearing connector
"D"	Jack - Provides access to a line circuit used in connecting to circuits under test
"DB"	Jack - Terminating marker make busy jack
"DT"	Lamp - Indicates marker timed out-release by AR key on marker
"GB"	Jacks - Connector group busy-makes busy sender group served by same connector
"GR"	Lamp - Grounded connector release lead-release by RLA key at marker
"HLD"	Jack - Causes senders to hold under trouble conditions
"I"	Lamp - Lights when associated incoming and connector frame is busy
"LC"	Lamp - Lights when associated line choice connector cct. is busy
"MB"	Jack - Sender makes busy jack
"MB"	Lamp - Lights when associated marker is busy
"NG"	Lamp - " " " number group & connector circuit busy
"RL"	Key - Release key for trouble indicator
"RLA"	Key - Releases GR lamp and alarm
"S"	Lamp - Indicates location of sender in the connector circuit
"T"	Lamp - Indicates terminating sender group busy
"TEL"	Jack - Frame line telephone
"TI"	Lamp - Indicates marker has summoned trouble indicator - releases by RL key
"TIB"	Jack - Makes marker busy to trouble indicator
"TL"	Lamp - Indicates stuck sender, not timed out
"TSS-MB"	Jacks - Sender selector circuit subgroup make busy
"TSS-S"	Lamps - Indicates sender in use on call
"XT"	Jack - Used when it is desired to place extra cross and ground tests on markers
"NPC"	Lamp - Cct on non-PBX & non-coin
"CCN"	Lamp - " " coin
"PBX"	Lamp - " " PBX
"FSB"	Lamp - All full select senders busy
"DPB"	Lamp - All dial pulse busy
"TFA"	Lamp - Traffic regulator alarm (LORL Key) SD-25036.01

TERMINATING TROUBLE INDICATOR FRAME (Continued)

"C"	Lamp - Indicates connector circuit (Steady lamp shows stuck connector)
"CB"	Jacks - Makes marker busy to a particular connector
"CCT"	Jacks - Used to prevent marker time out on continuity test failures
"CT"	Lamp - Indicates connector has timed out, released by clearing connector
"D"	Jack - Provides access to a line circuit used in connecting to circuits under test
"DB"	Jack - Terminating marker make busy jack
"DT"	Lamp - Indicates marker timed out-release by AR key on marker
"GB"	Jacks - Connector group busy-makes busy sender group served by same connector
"GR"	Lamp - Grounded connector release lead-release by RIA key at marker
"HLD"	Jack - Causes senders to hold under trouble conditions
"I"	Lamp - Lights when associated incoming and connector frame is busy
"LC"	Lamp - Lights when associated line choice connector cct. is busy
"MB"	Jack - Sender makes busy jack
"MB"	Lamp - Lights when associated marker is busy
"NC"	Lamp - " " " number group & connector circuit busy
"RL"	Key - Release key for trouble indicator
"RLA"	Key - Releases GR lamp and alarm
"S"	Lamp - Indicates location of sender in the connector circuit
"T"	Lamp - Indicates terminating sender group busy
"TEL"	Jack - Frame line telephone
"TI"	Lamp - Indicates marker has summoned trouble indicator - releases by RL key
"TIB"	Jack - Makes marker busy to trouble indicator
"TL"	Lamp - Indicates stuck sender, not timed out
"TSS-MB"	Jacks - Sender selector circuit subgroup make busy
"TSS-S"	Lamps - Indicates sender in use on call
"XT"	Jack - Used when it is desired to place extra cross and ground tests on markers
"NPC"	Lamp - Cct on non-PBX & non-coin
"CCN"	Lamp - " " coin
"PBX"	Lamp - " " PBX
"TSB"	Lamp - All full select sender busy
"DPB"	Lamp - All dial pulse busy
"TTA"	Lamp - Traffic regulator alarm (LORL Key) SD-25036.01

MAJOR ALARMS

"CB"	Lamp - Indicates all coin supervisory circuits busy
"DT"	" - Disconnect tone battery cross alarm
"LR"	" - Indicates a percentage of subscriber senders busy
"ASB"	Key - Coin supervisory alarm release key Coin supervisory control Coin vacant code, Test desk
"C"	Lamp - Indicates a stuck coin on trunk circuit
"CC"	Jack - For patching to test jack to return or collect coin
"RLS"	" - For release of circuit
"SS"	Register - Operates on each stuck subscriber sender
"PD"	" - " " " partial dial on a subscriber sender
"SF"	" - " " " false start of a sub sender
"TR"	" - " " " trouble occurring in the circuit which the register is associated
"LF"	" - Operates on each false start of a sender controller or coin supervisory circuit.

INT-CHK

PC-DJF