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ITEM NO.	OUTGOING TRUNK*		CLASS OF OUTPULSING FROM I.S.	OUTPULSE CLASS RELAYS OPERATED							START PULSING SIGNAL REQUIRED	START PULSING SIGNAL	STOP PULSING SIGNAL	TIMING INTERVALS				NOTES	TYPE OF EQUIPMENT RECEIVING SIGNALS OR PULSES		
	TYPE	GUARDED OR UNGUARDED		M	MF	DC	DP	LPD	SXD	DLC				XDD	XSG	RTT	DLC			MFT	TGT
1	INTERTOLL-MANUAL	GUARDED	NONE	X												**NONE				UPON MARKER RELEASE THE SENDER MAKES "SL" CHECK AND RELEASES.	MANUAL SWITCHBOARD AT DISTANT TOLL OFFICE.
2	TOLL COMPLETING-MANUAL	UNGUARDED	NONE	X					X								575 MS			UPON MARKER RELEASE THE SENDER TIMES FOR DLC, MAKES "SL" CHECK AND RELEASES.	SERVICE TRUNKS SUCH AS 121, 101; TX TRUNKS, 11EX; REORDER, OVERFLOW AND MASTER BUSY.
3	TOLL COMPLETING PCI OR REVERTIVE	GUARDED	DC KEY PULSING					X												UPON MARKER RELEASE THE INCOMING SENDER MAKES "SL" CHECK, A CHECK IS THEN MADE BETWEEN THE INCOMING AND OUTGOING SENDERS VIA THE KT1 AND KR1 LEAD WHICH RESULTS IN A START PULSING SIGNAL TO THE INCOMING SENDER.	OUTGOING SENDER AT SAME 4A INSTALLATION.
4	INTERTOLL-MF PULSING	GUARDED	MF PULSING		X												375 MS	50 MS		SENDER CHECKS FOR START PULSING SIGNAL PRIOR TO "SL" CHECK, MAKES "SL" CHECK AND TRANSFERS SUPERVISORY CIRCUIT FROM KT1 AND KR1 LEADS TO KT AND KR LEADS. IF INITIAL SIGNAL IS STOP PULSING AND PERSISTS FOR DURATION OF SENDER TIMING (30-40 SEC.), A DOUBLE CONNECTION IS INDICATED AND SENDER SENDS FLASH AHEAD. IF STOP PULSING SIGNAL IS RECEIVED DURING OUTPULSING THE CALL IS ROUTED TO REORDER.	INCOMING MF SENDER AT DISTANT TOLL OFFICE.
5	TOLL COMPLETING-MF PULSING	UNGUARDED	MF PULSING		X					X							575 MS	50 MS		SENDER DOES NOT WAIT FOR START PULSING SIGNAL TO MAKE "SL" CHECK. RECEIVES STOP PULSING SIGNAL PRIOR TO START PULSING SIGNAL. ABSENCE OF INITIAL STOP PULSING SIGNAL INDICATES AN OPEN TRUNK AND SENDER WILL TIME OUT.	1. MF TERMINATING SENDER AT NO. 1 CROSSBAR OFFICE. 2. MF SENDER AT CROSSBAR TANDEM OFFICE. 3. MF INCOMING REGISTER AT NO. 5 CROSSBAR OFFICE.
6	INTERTOLL-SIMPLEX DIALING	GUARDED	SX DIALING							X							375 MS			START PULSING SIGNAL IS WAITING WHILE ROUND TRIP TRANSIT TIMING TAKES PLACE. IF STOP PULSING SIGNAL IS RECEIVED INITIALLY THIS INDICATES TROUBLE; FOR EXAMPLE, A DOUBLE CONNECTION ON A 2-WAY TRUNK OR A REVERSED 1-WAY TRUNK.	INTERTOLL S/S EQUIPMENT IN DISTANT TOLL OFFICE.
7	INTERTOLL-SIMPLEX DIALING	GUARDED	SX DIALING							X		X					375 MS			PRELIMINARY STOP PULSING SIGNAL IS ACCEPTED WITHOUT INDICATING TROUBLE, BECAUSE OF EXPECTED DIAL DELAY (XDD).	1. DP INCOMING SENDER AT DISTANT TOLL OFFICE. 2. INTERTOLL S/S TRUNK FINDING EQUIPMENT.
8	INTERTOLL-SIMPLEX DIALING	GUARDED	SX DIALING							X			X				375 MS			DURING OUTPULSING THE SENDER EXPECTS ONE STOP PULSING SIGNAL FROM THE EQUIPMENT AHEAD. OUTPULSING CONTINUES AFTER START PULSING SIGNAL IS AGAIN RECEIVED.	INTERTOLL S/S EQUIPMENT WHICH CONNECTS TO LINK TYPE OFFICES.
9	INTERTOLL-SIMPLEX DIALING	GUARDED	SX DIALING							X		X	X				375 MS			PRELIMINARY STOP PULSING SIGNAL ACCEPTED (XDD), AND IN ADDITION, ONE STOP PULSING SIGNAL IS EXPECTED DURING OUTPULSING. OUTPULSING IS RESUMED UPON RECEIPT OF A START PULSING SIGNAL.	INTERTOLL S/S TRUNK FINDING EQUIPMENT WHICH CONNECTS TO LINK TYPE OFFICES.
10	TOLL COMPLETING-LOOP DIALING	UNGUARDED	LOOP DIALING							X		X					775 MS			START PULSING SIGNAL IS RECOGNIZED BY OPERATION OF TG AND TGI RELAYS IN THE SENDER AFTER DLC TIMING. A STOP PULSING SIGNAL INDICATES A REVERSED TRUNK, AND THE SENDER WILL TIME OUT.	LOCAL S/S OFFICE WHERE CONTROLLED RING (20 CYCLE) MAY BE REQUIRED.
11	TOLL COMPLETING-LOOP DIALING	UNGUARDED	LOOP DIALING							X		X	X				775 MS			START PULSING SIGNAL IS RECOGNIZED BY THE OPERATION OF THE TG AND TGI RELAYS AFTER DLC TIMING. THE SENDER EXPECTS ONE STOP PULSING SIGNAL DURING OUTPULSING. OUTPULSING IS RESUMED UPON RECEIPT OF A START PULSING SIGNAL.	LOCAL S/S OFFICE WHICH CONNECTS TO LINK TYPE OFFICES.
12	TOLL COMPLETING-LOOP DIALING	UNGUARDED	LOOP DIALING							X		X	X				775 MS	75 MS		SUPERVISION TO THE SENDER MAY CHANGE RAPIDLY DURING SEIZURE OF THE TRUNK AT THE DISTANT END. SINCE THE SENDER IS UNABLE TO RECOGNIZE SOME OF THESE CHANGES, THE START PULSING SIGNAL IS TIMED WHEN RECEIVED (TGT).	LOCAL LINK TYPE OFFICE.
13	TOLL COMPLETING-LOOP DIALING	UNGUARDED	LOOP DIALING							X		X	X	X			775 MS	75 MS		SAME AS ABOVE EXCEPT THAT THE SENDER EXPECTS ONE STOP PULSING SIGNAL DURING OUTPULSING. OUTPULSING IS RESUMED UPON RECEIPT OF A START PULSING SIGNAL.	LINK TYPE OFFICE WHICH CONNECTS TO OTHER LINK TYPE OFFICES.
14	TOLL COMPLETING-LOOP DIALING	GUARDED	LOOP DIALING							X			X				175 MS	75 MS		SUPERVISION TO THE SENDER MAY CHANGE RAPIDLY DURING SEIZURE OF THE TRUNK AT THE DISTANT END. SINCE THE SENDER IS UNABLE TO RECOGNIZE SOME OF THESE CHANGES, THE START PULSING SIGNAL IS TIMED WHEN RECEIVED (TGT).	C.O.O. TYPE OFFICE.

X = OPERATED RELAY.
 * = 1-WAY OUTGOING TRUNK OR OUTGOING PORTION OF 2-WAY TRUNK.
 *** THE INCOMING SENDER DOES NOT EXPECT RETURN SUPERVISION, THEREFORE NO RTT TIMING IS REQUIRED.
 **** THE NATURE OF THE CHECK BETWEEN THE INCOMING AND OUTGOING SENDERS MAKES RTT TIMING UNNECESSARY.

INCOMING SENDER CKT-DP
 INCOMING SENDER CKT-MF

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INCOMING SENDER-OUTPULSING

NO. 4A TOLL

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