

EQUIPMENT TEST LIST
SIGNALING CIRCUITS

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1. GENERAL

1.01 This section provides an index and access system to locate the standard tests applicable to equipment listed in the preceding table of contents. Test classification and frequency of periodic routine are also provided.

1.02 This Equipment Test List (ETL) is reissued to incorporate changes which are indicated by an arrow to the left of each line which has been changed.

1.03 Comments on this section should be made by following the instructions in Bell System Practices (BSP), Section 000-010-015.

1.04 Routine test information is arranged in the following order from left to right: Section number, issue/addendum, test letter or paragraph number, test title, test class, frequency, and the last space is for a locally assigned job number.

1.05 Section 010-300-011 provides Equipment Test List instructions.

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

2.0 SIGNALING CKT

2.1 SIGNALING CKT; MULTIFREQUENCY

SELECT ONLY ONE CATEGORY

SD-95391-01 CURRENT SUPPLY

179-602-501	(10/0)	A	SWITCHING BATTERY ALARM	MW 12M	-----
		B	TRANSFER FEATURE	MW 12M	-----
		C	OSCILLATOR OUTPUT POWER	MW 12M	-----
		D	FREQUENCY TEST	MW 12M	-----
		E	PLATE BATTERY ALARM	MW 12M	-----
		F	ALARM TEST FOR GROUND ON OUTPUT LEADS	MW 12M	-----
		G	VOLTAGE ALARM	MW 12M	-----
		H	ALARM TEST FOR GROUND ON TRANSFER LEADS TO SENDERS	MW 12M	-----

SD-95867-01 SIGNAL GENERATOR

179-603-501	(5/0)	A	COMPARATIVE FREQ TEST	MW 6M	-----
		B	OSCILLATOR OUTPUT VOLTAGE	MW 12M	-----

SD-99328-01 SIGNAL GENERATOR

179-606-501	(2/0)	A	OSCILLATOR OUTPUT VOLTAGE TEST	MW 12M	-----
		B	FREQUENCY TEST	MW 12M	-----

SD-95086-01 PULSING SUPPLY

179-604-501	(4/0)	A	SWITCHING BAT ALARM	MW 6M	-----
		B	TRANSFER FEATURE	MW 6M	-----
		C	FREQ TEST USING OSC UNDER TEST	MW 6M	-----
		E	OSCILLATOR OUTPUT VOLTAGE	MW 12M	-----
		G	PLATE BATTERY ALARM	MW 12M	-----
		H	ALARM TEST, GRD ONOUTPUT LEADS	MW 12M	-----
		I	VOLTAGE ALARM-USING AC VOLTMETER	MW 12M	-----
		K	CURRENT ALARM	MW 6M	-----

SD-95087-01 RECEIVING CKT WITH SENDER TST FR SD-68226-01

179-610-701	(5/1)	A	MF RECEIVER ADJ-1000 HZ TONE	MW 6M	-----
		C	MF RCVR ADJ-4A & 4M SYSTEMS	MW 24M	-----

SD-95087-01 RECEIVING CKT WITH SENDER TST FR SD-68491-01

179-610-701	(5/1)	A	MF RECEIVER ADJ-1000 HZ TONE	MW 6M	-----
		D	MF RCVR ADJ-4A & 4M SYSTEMS	MW 24M	-----

SD-95676-01 FILAMENT SUPPLY CKT

179-612-501	(6/0)	A	ADJUST TRANSFER VOLTAGE	MW 6M	-----
		B	AUTO. TRANSFER FEATURE	MW 3M	-----
		C	ALARMS-FALSE GRD OR BAT IN FILTER CKT OF ASSOC MF RCV CKT	MW 6M	-----
		D	INDIVIDUAL FUSE ALARMS	MW 6M	-----
		E	FIL VOLTAGE AT MF RCVR	MW 6M	-----

SD-95536-01 RECEIVING CKT (TUBE TYPE) WITH ADJUSTING CKT
SD-95664-01

179-612-701 (10/0)	A	TEST OF OUTPUT LEVEL OF ADJUSTING CIRCUIT	MW 6M	-----
	B	ADJUSTMENT OF MF RCVR (ZP OPTION)	MW 6M	-----
	D	TEST OF PULSE CORRECTOR LEADS	MW 12M	-----
SD-95536-01 RECEIVING CKT (HIN TYPE) WITH ADJUSTING CKT SD-95664-01				
179-612-701 (10/0)	A	TEST OF OUTPUT LEVEL OF ADJUSTING CIRCUIT	MW 6M	-----
	C	TEST & ADJUSTMENT OF MF RCVR (ZQ OPTION)	MW 6M	-----
	D	TEST OF PULSE CORRECTOR LEADS	MW 12M	-----
SD-95536-01 RECEIVING CKT (TUBE TYPE) WITH ADJUSTING CKT SD-95779-01				
179-612-702 (9/0)	A	TEST OF OUTPUT FREQUENCY OF SD-95779-01 ADJUSTING CIRCUIT	MW 6M	-----
	B	TEST OF OUTPUT LEVEL OF SD-95779-01 ADJUSTING CIRCUIT	MW 6M	-----
	C	ADJUSTMENT OF MF RCVR	MW 6M	-----
	E	TEST OF PULSE CORRECTOR LEADS	MW 12M	-----
SD-95536-01 RECEIVING CKT (HIN TYPE) WITH ADJUSTING CKT SD-95779-01				
179-612-702 (9/0)	A	TEST OF OUTPUT FREQUENCY OF SD-95779-01 ADJUSTING CIRCUIT	MW 6M	-----
	B	TEST OF OUTPUT LEVEL OF SD-95779-01 ADJUSTING CIRCUIT	MW 6M	-----
	C	TEST & ADJUSTMENT OF MF RCVR	MW 6M	-----
	D	TEST OF PULSE CORRECTOR LEADS	MW 12M	-----
SD-95956 DUAL CHANNEL RECEIVER CIRCUIT				
179-615-701 (4/0)	A	SENSITIVITY CHECK OF 700 HZ	MW 6M	-----
	B	SENSITIVITY CHECK OF 1100 HZ	MW 6M	-----
SD-95087-01 RECEIVER CKT WITH SENDER TST FR SD-25364-01 OR SD25963-01				
179-610-701 (5/1)	A	MF RECEIVER ADJ-1000 HZ TONE	MW 6M	-----
	B	MF RECEIVER ADJ-CSBR TDM OFF.	MW 6M	-----
SD-26348-05 DUAL CHANNEL RECEIVER CKT				
179-615-505 (2/0)	A	700-HZ CHANNEL	MW 6M	-----
	B	1100-HZ CHANNEL	MW 6M	-----
	C	941-HZ CHANNEL	MW 6M	-----
	D	1336-HZ CHANNEL	MW 6M	-----
SD-95391 CURRENT SUPPLY WITHOUT TRANSFER AND ALARM				
179-602-502 (1/0)	A	OSCILLATOR OUTPUT LEVEL	MW 12M	-----
	B	FREQUENCY TEST	MW 12M	-----
SD-1C450-01 AUXILIARY				
179-602-503 (1/0)	A	OUTPUT POWER AND SUPPLY TRANSFER TEST	MW 6M	-----
	B	FREQUENCY TEST	MW 12M	-----
	C	ALARMS TEST	MW 6M	-----
TROUBLE TESTS				
SD-95867-01 SIGNAL GENERATOR				

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◆	179-603-501	(5/0)	C	FREQUENCY TEST	TT	-----
◆			D	OSCILLATOR OUTPUT VOLTAGE ADJ	TT	-----
◆	SD-95086-01 PULSING SUPPLY					
◆	179-604-501	(4/0)	D	FREQ TST USING VAR FREQ OSC	TT	-----
◆			J	VOLTAGE ALM USING TMS	TT	-----
◆			L	FREQ TST USING 72A FREQ METER	TT	-----
◆	SD-99328-01 SIGNAL GENERATOR					
◆	179-606-501	(2/0)	C	OSCILLATOR OUTPUT VOLTAGE ADJ	TT	-----
◆	SD-95676-01 FILAMENT SUPPLY CKT					
◆	176-612-501	(6/0)	F	REMOVING AC & EMG DC FIL SUPPLIES	TT	-----
◆	2.2 SIGNALING CKT; DIRECT CURRENT					
◆	SELECT ONLY ONE CATEGORY					
◆	SD-98130-01 LOOP SIGNALING CONVERTER					
◆	179-721-501	(3/0)	A	IN-SVC TST OF LOGIC	MR 24M	-----
◆			B	43A1 CHAN TERM LINE-UP	MR 24M	-----
◆			C	TEST OF TRANSMISSION PATH	MR 24M	-----
◆			D	TEST OF TIMERS	MR 24M	-----
◆			E	OUT-OF-SVC TST OF LOGIC	MR 24M	-----
◆	SD-98131-01 LOOP SIGNALING CONVERTER					
◆	179-722-501	1-E	A-E	TESTS	MR 24M	-----
◆	TROUBLE TESTS					
◆	M LEAD PULS CORR					
◆	179-724-501	(2/0)	A	SUPPLY VOLTAGE TEST	TT	-----
◆			B	PERFORMANCE TESTS--USING 2B TEST SET	TT	-----
◆			C	PERFORMANCE TEST--USING 4A TEST SET	TT	-----
◆	2.3 SIGNALING CKT; SIG CONV SD-5G149-01					
◆	FOR ALL UNITS					
◆	179-300-501	(1/0)	A	AUTOMATIC	MW 6M	-----
◆	2.4 SIGNALING CKT; SUP CKT SD-56305					
◆	SELECT ONLY ONE CATEGORY					
◆	TRANSFER CIRCUIT PROVIDED					
◆	179-301-501	(3/0)	A	OUTPUT POWER-WITH TR CKT	MW 6M	-----
◆			D	FILAMENT ACTIVITY-TR CKT PROVIDED	MW 6M	-----
◆			F	OUTPUT FREQUENCY-72A WITH TR CKT	MW 6M	-----
◆			J	MANUAL LOAD TRANSFER	MW 6M	-----
◆			K	AUTOMATIC LOAD TRANSFER	MW 6M	-----
◆			L	DOUBLE FAILURE	MW 6M	-----
◆			M	LOAD ALARM	MW 6M	-----
◆	LOAD TRANSFER JACK PROVIDED					
◆	179-301-501	(3/0)	B	OUTPUT POWER-WITH LOAD JACKS	MW 6M	-----
◆			E	FILAMENT ACTIVITY-TR CKT NOT PROVIDED	MW 6M	-----

♦	179-301-501 (3/0)	G	OUTPUT FREQUENCY-72A WITH LOAD TR JACKS	MW 6M	-----
♦		J	MANUAL LOAD TRANSFER	MW 6M	-----
♦		K	AUTOMATIC LOAD TRANSFER	MW 6M	-----
♦		L	DOUBLE FAILURE	MW 6M	-----
♦		M	LOAD ALARM	MW 6M	-----
♦	NO TRANSFER CIRCUIT OR LOAD JACKS PROVIDED				
♦	179-301-501 (3/0)	C	OUTPUT POWER-NO TRCKT OR LOAD JACKS PROVIDED	MW 6M	-----
♦		E	FILAMENT ACTIVITY-TR CKT NOT PROVIDED	MW 6M	-----
♦		H	OUTPUT FREQUENCY-72A WITHOUT TR CKT OR LOAD JK	MW 6M	-----
♦		J	MANUAL LOAD TRANSFER	MW 6M	-----
♦		K	AUTOMATIC LOAD TRANSFER	MW 6M	-----
♦		L	DOUBLE FAILURE	MW 6M	-----
♦		M	LOAD ALARM	MW 6M	-----
♦	2.5 SIGNALING CKT; OSCILLATOR SUP. SD-98081,-91,-92				
♦	FOR ALL UNITS				
♦	179-305-501 (5/0)	A	OSCILLATOR OUTPUT LEVEL	MW 12M	-----
♦		B	MANUAL TRANSFER OF LOAD	MW 12M	-----
♦		C	2400- OR 2600-CYCLE AUTO. TR OF LOAD	MW 12M	-----
♦		D	2000-HERTZ AUTO TR OF LOAD	MW 12M	-----
♦		E	DOUBLE FAILURE	MW 12M	-----
♦		F	LOAD TROUBLE ALARM	MW 12M	-----
♦		G	2400- OR 2600-CYCLE OUTPUT FREQUENCY	MW 12M	-----
♦		H	2000-HERTZ OUTPUT FREQUENCY	MW 12M	-----
♦	2.6 SIGNALING CKT; TONE SUPPLY SD-1C224				
♦	FOR ALL UNITS				
♦	179-360-501 (3/0)	A	OUTPUT POWER LEVEL	MW 12M	-----
♦		B	OUTPUT FREQUENCY	MW 12M	-----
♦		C	LOCAL TRANSFER	MW 12M	-----
♦	TROUBLE TESTS				
♦	179-360-501 (3/0)	D	DOUBLE FAILURES	TT	-----
♦	2.7 SIGNALING CKT; E TYPE SIGNALING SYSTEM				
♦	2B SIGNALING TEST SET J64730				
♦	FOR ALL UNITS				
♦	179-302-501 (4/1)	A1/2	LP PULSING WITH ADAPTER-METHOD 1 OR METHOD 2	MR 12M	-----
♦		B1/2	PULSING ON M LEAD-METHOD 1 OR METHOD 2	MR 12M	-----
♦	OPTIONAL FEATURES				
♦	E&M SIGNALING				
♦	179-302-501 (4/1)	C	SUPERVISORY AND MISCELLANEOUS TESTS	MR 12M	-----
♦	TROUBLE TESTS				
♦	179-315-501 (4/0)	G	RELAY PULSING	TT	-----

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179-316-502	(6/2)	A	PULSING OF TRANSMITTER M RELAY	TT	-----
		B	HOLD OF HL RELAY AND FOR ALL E2B, ALL E3B, OR ALL E4B UNITS, RELEASE OF CO RELAY	TT	-----
		C	TRANSMITTER VOICE PATH AND TRANSMITTED TONE LEVEL	TT	-----
		D	VOICE AMPLIFIER CUTOFF TRANSISTOR	TT	-----
		E	GAIN OF RECEIVER VOICE AMPLIFIER AND INSERTION OF BAND-ELIMINATION FILTER	TT	-----
		F	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
		G	TIMING OF RECEIVING R, RG, AND G RELAY	TT	-----
		H	RECEIVING GUARD ACTION AND 2-WIRE CONTROLS	TT	-----
		I	FINAL ADJUSTMENT OF RECEIVER SENSITIVITY	TT	-----
179-318-502	(3/1)	A	PULSING OF TRANSMITTER M RELAY	TT	-----
		B	HOLD OF HL RELAY	TT	-----
		C	TRANSMITTED TONE LEVEL	TT	-----
		D	BIAS OF TRANSISTOR Q10	TT	-----
		E	TEST OF 4-WIRE TERMINATING CIRCUIT, GAIN OF RECEIVER VOICE AMPLIFIER, BLOCKING OF AMPLIFIER, AND INSERTION OF BAND-ELIMINATION FILTER	TT	-----
		F	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
		G	TIMING OF RECEIVER R, RG, AND G RELAY	TT	-----
		H	RECEIVER GUARD ACTION	TT	-----
179-320-502	(8/0)	A	PULSING OF TRANSMITTER A RELAY	TT	-----
		B	HOLD OF B RELAY	TT	-----
		C	TRANSMITTER TONE LEVEL	TT	-----
		D	CUTOFF VOLTAGE OF Q9 TRANSISTOR	TT	-----
		E	TEST OF 4-WIRE TERMINATING CIRCUIT, GAIN OF RECEIVER VOICE AMPLIFIER, BLOCKING OF AMPLIFIER, AND INSERTION OF BAND-ELIMINATION NETWORK	TT	-----
		F	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
		G	TIMING OF RECEIVER R RELAY	TT	-----
		H	RECEIVER GUARD ACTION	TT	-----
179-322-502	(6/1)	A	OPERATION OF TRANSMITTER CS RELAY AND OPERATION OF CS1 AND HL RELAYS IN E2D AND E3D UNITS	TT	-----
		B	TRANSMITTED TONE LEVEL	TT	-----
		C	CUTOFF VOLTAGE OF Q9 TRANSISTOR	TT	-----
		D	TEST OF 4-WIRE TERMINATING CIRCUIT, GAIN OF RECEIVER VOICE AMPLIFIER, AND BLOCKING OF AMPLIFIER	TT	-----
		E	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
		F	TIMING OF RECEIVER R AND RG RELAYS	TT	-----
		G	RECEIVER GUARD ACTION	TT	-----

◆	179-327-501 (1/0)	A	ADJUSTMENT OF TRANSMITTER M RELAY	TT	-----
◆		B	HOLD OF HL RELAY AND RELEASE OF CO RELAY	TT	-----
◆		C	TRANSMITTER VOICE PATH AND TRANSMITTED TONE LEVEL	TT	-----
◆		D	VOICE AMPLIFIER CUTOFF TRANSISTOR	TT	-----
◆		E	GAIN OF RECEIVER VOICE AMPLIFIER AND INSERTION OF BAND-ELIMINATION FILTER	TT	-----
◆		F	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
◆		G	TIMING OF RECEIVING R, RG, AND G RELAYS	TT	-----
◆		H	RECEIVER GUARD ACTION	TT	-----
◆	179-328-501 (6/0)	B	VOICE AMPLIFIER CUTOFF TRANSISTOR	TT	-----
◆		F	TIMING OF RECEIVER R AND RG RELAYS	TT	-----
◆	179-328-502 (6/0)	E	FORWARD DISCONNECT DELAY CKT TST	TT	-----
◆	179-330-501 (6/0)	A	PULSING OF TRANSMITTER A RELAY	TT	-----
◆		F	VOICE AMPLIFIER CUTOFF TRANSISTOR	TT	-----
◆	179-353-501 (3/1)	A	PULSING OF TRANSMITTER A RELAY	TT	-----
◆		C	HOLD OF B RELAY	TT	-----
◆		H	TIMING OF R AND RG RELAY	TT	-----
◆		J	VOICE AMPLIFIER CUTOFF TRANSISTOR	TT	-----
◆	179-354-501 (3/0)	A	OPERATION OF TRANSISTOR CS, CS1, AND HL RELAYS	TT	-----
◆		F	TIMING OF RECEIVER R AND RG RELAYS	TT	-----
◆		H	VOICE AMPLIFIER CUTOFF TRANSISTOR	TT	-----
◆	4A SIGNALING TEST SET J94743				
◆	FOR ALL UNITS				
◆	179-302-502 (1/0)	A	PULSING ON LOOP	MR 12M	-----
◆		B	PULSING ON M LEAD	MR 12M	-----
◆	OPTIONAL FEATURES				
◆	E&M SIGNALING				
◆	179-302-502 (1/0)	C	SUPERVISORY AND MISCELLANEOUS TESTS	MR 12M	-----
◆	TROUBLE TESTS				
◆	179-315-501 (4/0)	H	M RELAY PULSING	TT	-----
◆	179-316-503 (2/0)	A	PULSING OF TRANSMITTER M RELAY	TT	-----
◆		B	HOLDING OF HL RELAY AND FOR ALL E2B, E3B, AND E4B UNITS, RELEASE OF CO RELAY	TT	-----
◆		C	TRANSMITTER VOICE PATH AND TRANSMITTED TONE LEVEL	TT	-----
◆		D	GAIN OF RECEIVER VOICE AMPLIFIER AND INSERTION OF BAND-ELIMINATION FILTER	TT	-----
◆		E	OPERATION SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
◆		F	TIMING OF RECEIVER R, RG, AND G RELAYS	TT	-----
◆		G	VOICE AMPLIFIER CUTOFF TRANSISTOR	TT	-----
◆		H	RECEIVER GUARD ACTION AND 2-WIRE CONTROL	TT	-----

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◆	179-316-503	(2/0)	I	FINAL ADJUSTMENT OF RECEIVER SENSITIVITY	TT	-----
◆	179-318-503	(1/0)	A	PULSING OF TRANSMITTER M RELAY	TT	-----
◆			B	HOLD OF HL RELAY	TT	-----
◆			C	TRANSMITTED TONE LEVEL	TT	-----
◆			D	TEST OF 4-WIRE TRANSMITTING CIRCUIT, GAIN OF RECEIVER VOICE AMPLIFIER, BLOCKING OF AMPLIFIER, AND INSERTION OF BAND-ELIMINATION NETWORK	TT	-----
◆			E	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
◆			F	TIMING OF RECEIVER R, RG, AND G RELAYS	TT	-----
◆			G	VOICE AMPLIFIER CUTOFF TRANSISTOR	TT	-----
◆			H	RECEIVER GUARD ACTION	TT	-----
◆	179-320-503	(1/0)	A	PULSING OF TRANSMITTER A RELAY	TT	-----
◆			B	HOLD OF B RELAY	TT	-----
◆			C	TRANSMITTER TONE LEVEL	TT	-----
◆			D	TEST OF 4-WIRE TERMINATING CIRCUIT, GAIN OF RECEIVER VOICE AMPLIFIER, BLOCKING OF AMPLIFIER, AND INSERTION OF BAND-ELIMINATION FILTER	TT	-----
◆			E	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
◆			F	TIMING OF RECEIVER R RELAY	TT	-----
◆			G	VOICE AMPLIFIER CUTOFF TRANSISTOR	TT	-----
◆			H	RECEIVER GUARD ACTION	TT	-----
◆	179-322-503	(1/0)	A	OPERATION OF TRANSMITTER CS RELAY AND OPERATION OF CS1 AND HL RELAYS IN E2D AND E3D UNITS	TT	-----
◆			B	TRANSMITTED TONE LEVEL	TT	-----
◆			C	TEST OF 4-WIRE TERMINATING CIRCUIT, GAIN OF RECEIVER VOICE AMPLIFIER, AND BLOCKING AMPLIFIER	TT	-----
◆			D	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
◆			E	TIMING OF RECEIVER R AND RG RELAYS	TT	-----
◆			F	VOICE AMPLIFIER CUTOFF TRANSISTOR	TT	-----
◆			G	RECEIVER GUARD ACTION	TT	-----
◆	179-327-502	(1/0)	A	ADJUSTMENT OF TRANSMITTER M RELAY	TT	-----
◆			B	HOLD OF HL RELAY AND RELEASE OF CO RELAY	TT	-----
◆			C	TRANSMITTER VOICE PATH AND TRANSMITTED TONE LEVEL	TT	-----
◆			D	GAIN OF RECEIVER VOICE AMPLIFIER AND INSERTION OF BAND-ELIMINATION FILTER	TT	-----
◆			E	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
◆			F	TIMING OF RECEIVER R, RG, AND G RELAYS	TT	-----
◆			G	VOICE AMPLIFIER CUTOFF TRANSISTOR	TT	-----
◆			H	RECEIVER GUARD ACTION	TT	-----
◆	179-328-501	(6/0)	C	VOICE AMPLIFIER CUTOFF TRANSISTOR	TT	-----

◆	179-328-501 (6/0)	G	TIMING OF RECEIVER R AND RG RELAYS	TT	-----
◆	179-328-502 (6/0)	F	FORWARD DISCONNECT DELAY CKT TST	TT	-----
◆	179-330-501 (6/0)	B	PULSING OF TRANSMITTER A RELAY	TT	-----
◆		G	VOICE AMPLIFIER CUTOFF TRANSISTOR	TT	-----
◆	179-353-501 (3/1)	B	PULSING OF TRANSMITTER A RELAY	TT	-----
◆		D	HOLD OF B RELAY	TT	-----
◆	179-354-501 (3/0)	B	OPERATION OF TRANSMITTER CS, CS1, AND HL RELAYS	TT	-----
◆		G	TIMING OF RECEIVER R AND RG RELAYS	TT	-----
◆		I	VOICE AMPLIFIER CUTOFF TRANSISTOR	TT	-----
◆	TROUBLE TESTS				
◆	SD-95877 TEST SET				
◆	179-314-501 (5/0)	A	TRANSMITTED TONE LEVEL	TT	-----
◆		B	RECEIVED TONE LEVEL	TT	-----
◆		C	INSERTION OF BAND-ELIMINATION NETWORK OR BLOCKING OF VOICE AMPLIFIER	TT	-----
◆		D	OVERALL RECEIVER OPERATION	TT	-----
◆		E	CIRCUIT MONITORING	TT	-----
◆		F	SIGNALING MONITORING	TT	-----
◆	SD-96519 TEST SET				
◆	179-314-501 (5/0)	A	TRANSMITTER TONE LEVEL	TT	-----
◆		B	RECEIVED TONE LEVEL	TT	-----
◆		C	INSERTION OF BAND-ELIMINATION NETWORK OR BLOCKING OF VOICE AMPLIFIER	TT	-----
◆		D	OVERALL RECEIVER OPERATION	TT	-----
◆		E	CIRCUIT MONITORING	TT	-----
◆		F	SIGNAL MONITORING	TT	-----
◆	179-315-501 (4/0)	A	SIGNALING TONE SUPPLY LEVEL	TT	-----
◆		B	SIGNALING TONE SUPPLY FREQUENCIES	TT	-----
◆		C	TEST AMPLIFIER GAIN	TT	-----
◆		D	MONITORING AMPLIFIER GAIN	TT	-----
◆		E	MIXING PAD LOSS	TT	-----
◆		F	CO KEY	TT	-----
◆		I	20-KHZ SIGNALING LEVEL	TT	-----
◆		J	2000 HZ BAND ELIMINATION FILTER	TT	-----
◆		K	CONTROL CIRCUITS	TT	-----
◆	179-324-501 (6/0)	A	TRANSMITTED TONE LEVEL	TT	-----
◆		B	CUTOFF CURRENT Q6 OR Q7 TRANSISTOR	TT	-----
◆		C	GAIN OF RECEIVER VOICE AMPLIFIER BLOCKING OF SIGNAL TONE, AND 4-WIRE TERMINATING CIRCUIT	TT	-----
◆		D	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIERS	TT	-----
◆		E	M RELAY AND RELAY SEQUENCE CIRCUIT OPERATION TEST	TT	-----

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‡	179-324-501	(6/0)	F	RECEIVER GUARD ACTION	TT	-----
‡	179-324-502	(3/1)	A	TRANSMITTED TONE LEVEL	TT	-----
‡			B	RECEIVED TONE LEVEL	TT	-----
‡			C	MONITORING	TT	-----
‡	179-326-501	(5/0)	A	TRANSMITTED TONE LEVEL AND OPERATION OF CT RELAY CIRCUIT	TT	-----
‡			B	CUTOFF CURRENT OF Q5 OR Q57 TRANSISTOR	TT	-----
‡			C	GAIN OF RECEIVER VOICE AMPLIFIER, BLOCKING OF SIGNAL TONE, AND 4-WIRE TERMINATING CIRCUIT	TT	-----
‡			D	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
‡			E	OPERATE TEST OF RP RELAY	TT	-----
‡			F	RECEIVER GUARD ACTION	TT	-----
‡	179-326-502	(3/1)	A	TRANSMITTED TONE LEVEL	TT	-----
‡			B	RECEIVED TONE LEVE	TT	-----
‡			C	MONITORING	TT	-----
‡	179-328-501	(6/0)	A	TRANSMITTED TONE LEVEL AND 20-HZ OPERATION	TT	-----
‡			D	FOUR-WIRE TERMINATING CIRCUIT AND RECEIVER VOICE AMPLIFIER	TT	-----
‡			E	OPERATE SENSITIVITY OF RECEIVER AMPLIFIER	TT	-----
‡			H	RECEIVER GUARD ACTION	TT	-----
‡	179-328-502	(6/0)	A	TRANSMITTED TONE LEVEL	TT	-----
‡			B	OSCILLATOR OUTPUT	TT	-----
‡			C	RINGING DETECTOR ACTION	TT	-----
‡			D	TRANSMISSION TEST	TT	-----
‡	179-330-501	(6/0)	C	TRANSMITTED TONE LEVEL	TT	-----
‡			D	4-WIRE TERMINATING CIRCUIT AND RECEIVER VOICE AMPLIFIER	TT	-----
‡			E	SENSITIVITY OF RECEIVER AMPLIFIER AND TIMING OF RECEIVER R RELAY	TT	-----
‡			H	RECEIVER GUARD ACTION	TT	-----
‡			I	RT RELAY OPERATION	TT	-----
‡	179-330-502	(3/1)	A	OPERATION OF AMP. & FREQ DETECTOR	TT	-----
‡			B	TRANSMISSION TEST	TT	-----
‡	179-332-501	(1/0)	A	TRANSMITTER VOICE PATH AND TRANSMITTED TONE LEVEL	TT	-----
‡			B	PULSING OF TRANSMITTER A RELAY	TT	-----
‡			C	TRANSMITTER CUT	TT	-----
‡			D	RING TRIP	TT	-----
‡			E	GAIN OF RECEIVER VOICE AMPLIFIER AND INSERTION OF BAND-ELIMINATION FILTER	TT	-----
‡			F	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
‡			G	20-HZ RING DETECTOR AND TIMING OF RECEIVER R RELAY	TT	-----
‡			H	HOLDOVER OF GS RELAY	TT	-----

♦	179-332-501 (1/0)	I	TIMING OF GS RELAY	TT	-----
♦		J	RECEIVER GUARD ACTION	TT	-----
♦	179-353-501 (3/1)	E	TRANSMITTED TONE LEVEL	TT	-----
♦		F	TEST OF 4-WIRE TERMINATING CIRCUIT, GAIN OF RECEIVING VOICE AMPLIFIER, BLOCKING OF AMPLIFIER, AND INSERTION OF BAND-ELIMINATION NETWORK	TT	-----
♦	179-354-501 (3/0)	C	TRANSMITTED TONE LEVEL AND RMB CHECK	TT	-----
♦		D	TEST OF 4-WIRE TERMINATING CIRCUIT, GAIN OF RECEIVER VOICE AMPLIFIER, AND BLOCKING OF AMPLIFIER	TT	-----
♦		E	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
♦		J	RECEIVER GUARD ACTION	TT	-----
♦	SD-56335 & SD-95874 TEST SET				
♦	179-316-501 (3/2)	A	PULSING OF TRANSMITTER M RELAY	TT	-----
♦		B	HOLD OF HL RELAY AND ALSO FOR ALL E2B AND ALL E3B UNITS, RELEASE OF CO RELAY	TT	-----
♦		C	TRANSMITTER VOICE PATH AND TRANSMITTED TONE LEVEL	TT	-----
♦		D	VOICE AMPLIFIER CUTOFF TRANSISTOR	TT	-----
♦		E	GAIN OF RECEIVER VOICE AMPLIFIER AND INSERTION OF BAND-ELIMINATION FILTER	TT	-----
♦		F	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
♦		G	TIMING OF RECEIVER R, RG, AND G RELAY	TT	-----
♦		H	RECEIVER GUARD ACTION AND 2-WIRE CONTROLS	TT	-----
♦		I	FINAL ADJUSTMENT OF RECEIVER SENSITIVITY	TT	-----
♦	179-318-501 (1/0)	A	PULSING TRANSMITTER OF M RELAY	TT	-----
♦		B	HOLD OF HL RELAY	TT	-----
♦		C	TRANSMITTED TONE LEVEL	TT	-----
♦		D	BIAS OF Q83 TRANSISTOR	TT	-----
♦		E	TEST OF 4-WIRE TERMINATING CIRCUIT, GAIN OF RECEIVER VOICE AMPLIFIER, BLOCKING OF AMPLIFIER AND INSERTION OF BAND-ELIMINATION NETWORK	TT	-----
♦		F	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
♦		G	TIMING OF RECEIVER R AND RG RELAY	TT	-----
♦		H	RECEIVER GUARD ACTION AND PERMANENT SIGNAL	TT	-----
♦	179-320-501 (1/0)	A	PULSING OF TRANSMITTER A RELAY	TT	-----
♦		B	HOLD OF B RELAY	TT	-----
♦		C	TRANSMITTED TONE LEVEL	TT	-----
♦		D	BIAS OF Q64 TRANSMITTER	TT	-----
♦		E	TEST OF 4-WIRE TERMINATING CIRCUIT, GAIN OF RECEIVER VOICE AMPLIFIER, BLOCKING OF AMPLIFIER, AND INSERTION OF BAND-ELIMINATION FILTER	TT	-----
♦		F	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----

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♦	179-320-501 (1/0)	G	TIMING OF RECEIVER R RELAY	TT	-----
♦		H	RECEIVER GUARD ACTION	TT	-----
♦	179-322-501 (1/0)	A	OPERATION OF TRANSMITTER CS RELAY	TT	-----
♦		B	TRANSMITTED TONE LEVEL	TT	-----
♦		C	BIAS OF Q78 TRANSISTOR	TT	-----
♦		D	TEST OF 4-WIRE TERMINATING CIRCUIT, GAIN OF RECEIVER VOICE AMPLIFIER, AND BLOCKING OF AMPLIFIER	TT	-----
♦		E	OPERATE SENSITIVITY OF RECEIVER SIGNALING AMPLIFIER	TT	-----
♦		F	TIMING OF RECEIVER R AND RG RELAYS	TT	-----
♦		G	RECEIVER GUARD ACTION	TT	-----

♦ 2.8 SIGNALING CKT; SD-56202-02

♦ FOR ALL UNITS

♦	179-310-501 (1/0)	A	SENSITIVITY OF RECEIVER	MR 24M	-----
♦		B	PULSING PERFORMANCE OF RECEIVER	MR 24M	-----
♦		C	GUARD SENSITIVITY	MR 24M	-----
♦		D	TRANSMITTER PERFORMANCE	MR 24M	-----
♦		E	MOMENTARY HIGH LEVEL SIGNALING TONE TEST	MR 24M	-----
♦		F	TIMING OF CO RELAY	MR 24M	-----
♦		G	TIMING OF T RELAY	MR 24M	-----
♦		H	GAIN TEST OF VOICE AMPLIFIER	MR 24M	-----
♦		I	VOICE AMPLIFIER NETWORK INSERTION LOSS USING 13A TMS	MR 24M	-----
♦		J	VOICE AMPLIFIER NETWORK INSERTION LOSS USING 40B TMS	MR 24M	-----
♦		K	GAIN TEST OF BLOCKING AMPLIFIER	MR 24M	-----
♦		L	BLOCKING AMPLIFIER NETWORK INSERTION LOSS USING 13A TMS	MR 24M	-----
♦		M	BLOCKING AMPLIFIER NETWORK INSERTION LOSS USING 40B TMS	MR 24M	-----

♦ 2.9 SIGNALING CKT; SF 1600, 2000 HZ

♦ SELECT ONLY ONE CATEGORY

♦ SUPPLY CIRCUIT SD-55962-01

♦	179-205-501 (4/0)	A	MANUAL TRANSFER OF LOAD	MW 6M	-----
♦		B	AUTOMATIC TRANSFER OF LOAD	MW 6M	-----
♦		C	DOUBLE FAILURE	MW 6M	-----
♦		D	LOAD TROUBLE ALARM	MW 6M	-----
♦		E	OUTPUT AMPLITUDE & REGULATION	MW 6M	-----
♦		F	OUTPUT FREQUENCY	MW 6M	-----

♦ SUPPLY CIRCUIT SD-56239-01

♦	179-206-501 (1/0)	A	OUTPUT POWER USING 13A TMS	MW 24M	-----
♦		B	OUTPUT POWER USING 40B TMS	MW 24M	-----
♦		C	OUTPUT FREQUENCY USING 72A FREQ M	MW 24M	-----

179-206-501 (1/0)	D	OUTPUT FREQUENCY USING BEAT FREQ METHOD	MW 24M	-----
	E	ALARMS	MW 24M	-----
SUPPLY CIRCUIT SD-55954-01 & SD-55954-02				
179-215-501 (4/0)	A	SENSITIVITY OF RECEIVER	MR 24M	-----
	B	PULSING PERFORMANCE OF RECEIVER	MR 24M	-----
	C	GUARD SENSITIVITY	MR 24M	-----
	D	TRANSMITTER PERFORMANCE	MR 24M	-----
	E	MOMENTARY HIGH LEVEL SIGNALING TONE	MR 24M	-----
	F	TIMING OF CO RELAY	MR 24M	-----
	G	TIMING OF T RELAY	MR 24M	-----
	H	TIMING OF RR RELAY	MR 24M	-----
	I	GAIN OF VOICE AMPLIFIER	MR 24M	-----
	J	VOICE AMPLIFIER NETWORK INSERTION LOSS	MR 24M	-----
	K	GAIN OF BLOCKING AMPLIFIER	MR 24M	-----
	L	BLOCKING AMPLIFIER NETWORK INSERTION LOSS	MR 24M	-----
	M	BLOCKING NETWORK INSERTION LOSS	MR 24M	-----
SUPPLY CIRCUIT SD-56202-01				
179-217-501 (3/0)	A	SENSITIVITY OF RECEIVER	MR 12M	-----
	B	PULSING PERFORMANCE OF RECEIVER	MR 12M	-----
	C	GUARD SENSITIVITY	MR 12M	-----
	D	TRANSMITTER PERFORMANCE	MR 12M	-----
	E	MOMENTARY HIGH LEVEL SIGNALING TONE TEST	MR 12M	-----
	F	TIMING OF CO RELAY	MR 12M	-----
	G	TIMING OF T RELAY	MR 12M	-----
	H	TIMING OF RR RELAY	MR 12M	-----
	I	GAIN TEST OF VOICE AMPLIFIER	MR 12M	-----
	J	VOICE AMP. NETWORK INSERTION LOSS 13A TMS	MR 12M	-----
	K	VOICE AMP. NETWORK INSERTION LOSS 40B TMS	MR 12M	-----
	L	GAIN TEST OF BLOCKING AMPLIFIER	MR 12M	-----
	M	BLOCKING AMPLIFIER NETWORK INSERTION LOSS TEST USING 13A TMS	MR 12M	-----
	N	BLOCKING AMPLIFIER NETWORK INSERTION LOSS TEST USING 40B TMS	MR 12M	-----
TROUBLE TESTS				
OVER-ALL PULS & SUPV TST USING 2B SIG TST SET ON E & M LDS				
179-210-501 (4/0)	A	IDLE CONDITION	TT	-----
	B	SEIZURE	TT	-----
	C	ANSWER SUPERVISION AND STOP PULSING	TT	-----
	D	START PULSING	TT	-----
	E	PULSING	TT	-----
	F	RERING	TT	-----
	G	LOCATING RERING TROUBLE	TT	-----

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2.10 SIGNALING CKT; F TYPE

2B SIGNALING TEST SET J64730

FOR ALL UNITS

179-302-501	(4/1)	A1/2	LP PULSING WITH ADAPTER-METHOD 1 OR METHOD 2	MR 12M	-----
		B1/2	PULSING ON M LEAD-METHOD 1 OR METHOD 2	MW 12M	-----

OPTIONAL FEATURES

E&M SIGNALING

179-302-501	(4/1)	C	SUPERVISORY AND MISCELLANEOUS TESTS	MR 12M	-----
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4A SIGNALING TEST SET J94743

FOR ALL UNITS

179-302-502	(1/0)	A	PULSING ON LOOP	MR 12M	-----
		B	PULSING ON M LEAD	MR 12M	-----

OPTIONAL FEATURES

E&M SIGNALING

179-302-502	(1/0)	C	SUPERVISORY AND MISCELLANEOUS TESTS	MR 12M	-----
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2.11 SIGNALING CKT; SD-56292-01

TROUBLE TESTS

USING TST CKT SD-56335-01

179-312-501	(4/0)	A	PULSING OF TRANSMITTER M RELAY	TT	-----
		B	RELEASE OF TRANSMITTER CO AND HL RELAYS	TT	-----
		C	TRANSMITTED TONE LEVEL	TT	-----
		D	GAIN OF RECEIVER VOICE AMPLIFIER AND INSERTION OF BAND ELIMINATION FILTER	TT	-----
		E	CUTOFF CURRENT OF R AND RF RELAYS AND SENSITIVITY OF RECEIVER	TT	-----
		F	OPERATION OF RF AND R RELAYS AND RELEASE OF G RELAY	TT	-----
		G	RECEIVER REGULATION	TT	-----
		H	RECEIVER GUARD ACTION, PERMANENT SIGNAL, AND 2-WIRE CONTROLS	TT	-----
		I	FINAL ADJUSTMENT OF RECEIVER SENSITIVITY	TT	-----
179-312-502	(3/0)	A	OVERALL RECEIVER OPERATION	TT	-----
		B	RECEIVER TONE LEVEL	TT	-----
		C	INSERTION OF BAND-ELIMINATION NETWORK	TT	-----
		D	TRANSMITTED TONE LEVEL	TT	-----
		E	MONITORING	TT	-----
		F	SIGNAL MONITORING	TT	-----

2.12 SIGNALING CKT; TYPE B CX, DX, AND SX

TROUBLE TESTS

PULSE REPEATING TEST SET SD-64540-01

179-708-501	(1/0)	A	OVRL AND SECTNL PCT BRK PULSING AT SDG END USING PULS RPT AND PULSING TST ST	TT	-----
		B	OVRL AND SECTNL PCT BRK PULSING AT SDG END USING PULS RPT TST ST ONLY	TT	-----

◆	179-708-501 (1/0)	C	OVRL PCT BRK MEASUREMENTS OF CONTS PULS AT RCVG END	TT	-----
◆		D	OVRL PCT BRK MEASUREMENTS OF 12 PPS AT RCVG END	TT	-----
◆		E	SECTNL PCT BRK MEASUREMENTS OF CONTS PULS AT RCVG END	TT	-----
◆		F	SECTNL PCT BRK MEASUREMENTS OF 12 PPS AT RCVG END	TT	-----
◆	179-708-504 (1/0)	A	OVRL PCT BRK PULSING AT SDG END USING PULS RPT AND PULSING TST ST	TT	-----
◆		B	OVRL PCT BRK PULSING AT SDG END USING PULS RPT TST ST ONLY	TT	-----
◆		C	OVRL PCT BRK MEASUREMENTS OF CONTS PULS AT RCVG END	TT	-----
◆		D	OVRL PCT BRK MEASUREMENTS OF 12 PPS AT RCVG END	TT	-----
◆	179-708-507 (1/1)	A	OVRL PCT BRK PULSING TST AT NO. 5 TOLL TST BD (TRMTG END) USING PULS RPT AND PULSING TST ST	TT	-----
◆		B	OVRL PCT BRK PULSING TST AT NO. 5 TOLL TST BD (TRMTG END) USING PULS RPT TST ST ONLY	TT	-----
◆		C	OVRL PCT BRK PULSING TST AT NO. 17B OR 18B TOLL TST BD (TRMTG END) USING PULS RPT AND PULSING TST ST	TT	-----
◆		D	OVRL PCT BRK PULSING TST ST AT NO. 17B OR 18B TOLL TST BD (TRMTG END) USING PULS RPT TST ST ONLY	TT	-----
◆		E	OVRL PCT BRK PULSING TST AT MULT TYPE NO. 8 TST AND CONT BD (TRMTG END) USING PULS RPT AND PULSING TST ST	TT	-----
◆		F	OVRL PCT BRK PULSING TST AT MULT TYPE NO. 8 TST AND CONT BD (TRMTG END) USING PULS RPT TST ST ONLY	TT	-----
◆		G	OVRL PCT BRK PULSING TST AT NONMULT TYPE NO. 8 TST AND CONT BD (TRMTG END) USING PULS RPT AND PULSING TST ST	TT	-----
◆		H	OVRL PCT BRK PULSING TST AT NONMULT TYPE NO. 8 TST AND CONT BD (TRMTG END) USING PULS RPT TST ST ONLY	TT	-----
◆		I	OVRL PCT BRK MEASUREMENTS OF CONTS PULS AT THE RCVG END	TT	-----
◆		J	OVRL PCT BRK MEASUREMENTS OF 12 PPS AT THE RCVG END	TT	-----
◆	2B SIGNALING TEST SET J-64730				
◆	179-708-502 (1/0)	A	OVRL AND SECTNL PCT BRK PULSING AT SDG END USING 2B TST ST	TT	-----
◆		B	OVRL PCT BRK MEASUREMENTS OF CONTS PULS AT RCVG END	TT	-----
◆		C	SECTNL PCT BRK MEASUREMENTS OF CONTS PULS AT RCVG END	TT	-----
◆	179-708-505 (1/0)	A	OVRL PCT BRK PULSING (AT TRMTG END) USING 2B TST ST	TT	-----
◆		B	OVRL PCT BRK MEASUREMENTS OF CONTS PULS (AT RCVG END) USING 2B TST ST	TT	-----
◆	179-708-508 (1/0)	A	OVRL PCT BRK PULSING TST AT NO. 5 TOLL TST BD (TRMTG END) USING 2B TST ST	TT	-----

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◆	179-708-508 (1/0)	B	OVRL PCT BRK PULSING TST AT NO. 17B OR 18B TOLL TST BD (TRMTG END) USING 2B TST ST	TT	-----
◆		C	OVRL PCT BRK PULSING TST ST AT MULT TYPE NO. 8 TEST AND CONT BD (TRMTG END) USING 2B TST ST	TT	-----
◆		D	OVRL PCT BRK PULSING TST AT NONMULT TYPE NO. 8 TST AND CONT BD (TRMTG END) USING 2B TST ST	TT	-----
◆		E	OVRL PCT BRK MEASUREMENTS OF CONTS PULS AT THE RCVG END	TT	-----