REMOTE OFFICE TEST LINE
CROSSBAR TANDEM AND NO. 1 CROSSBAR SWITCHING SYSTEM
EQUIPMENT DESIGN REQUIREMENTS
TOLL SYSTEMS

1. GENERAL

SCOPE

1.01 This specification, together with the supplementary information listed herein, covers the equipment design requirements for the framework, equipment, and circuits to be used in the engineering, manufacture, and installation of the remote office test line frame.

CAPACITY

1.02 The Remote Office Test Line (ROTL) frame is arranged for testing a maximum of 8000 incoming (distant office) trunks. Access to these trunks is provided by the Incoming Trunk Test (ITT) connector frames.

DESCRIPTION

1.03 The ROTL frame serves as the called office access for testing trunks under the supervision of the Centralized Automatic Reporting on Trunks (CAROT). The CAROT controller performs the following functions.

1. Calls office from which trunks are to be tested.
2. Directs equipment in ROTL office to a specific trunk.
3. Directs connection of measuring equipment to each end of trunk.
4. Directs 2-way measurement of trunk performance.
5. Provides a printout if the trunk does not meet expected performance or cannot be accessed.

1.04 The primary equipment requirements to perform the CAROT-ROTL trunk test procedure for crossbar tandem and No. 1 crossbar offices are:

1. ROTL frame.
2. Incoming trunk test connector frame(s).
3. Near end responder and associated 105-type test line.
4. Far end responder and associated test lines.

Equipment Arrangement

1.05 The ROTL frame is a single-bay bulb-angle frame 2 feet 8-1/8 inches wide by 11 feet 6 inches high. The frame, (see Fig. 1) is equipped with surface wired J-coded units, interconnected by a frame local cable. A frame fuse panel is located at the top of the bay and supplies 48 volts for the frame and MF receiver unit located on the frame.

1.06 Miscellaneous apparatus for the frame line telephone circuits, test battery supply, and test ground are located on a welded frame support above the tone detector units.

1.07 The ROTL frame is provided in accordance with list 1. Optional lists 2 and 3 provide for terminating lines accessing the ROTL frame from No. 1 crossbar in same building (list 2) or distant No. 1 crossbar or other systems in same or distant building (list 3). Limiting conductor lengths determine if a No. 1 crossbar is a distant or near office in the same building. Section 4 provides limiting conductor length information.

1.08 The ROTL frame provides trunk selection ability for 8000 incoming (distant office)

trunks. Access to the incoming trunks is via the ITT connector frames, which provide 200 trunk appearances on each of 40 crossbar switches. An individual trunk is selected by CAROT/ROTL control of 40 (RSW—) or 40 (BSW—) leads and 10 (SEL-) and 20 (H—) leads.

1.09 A switchboard cabling configuration may be provided where a single ROTL frame may serve two separate ITT connectors. Each ITT connector(s) serving its own office, tandem or No. 1 crossbar, and the total combined trunk capacity will not exceed the maximum 8000 incoming trunk capacity of ROTL.

1.10 Multiple office cabling is accomplished by assigning the (RSW—), (BSW—) leads in a consecutive order to both office ITT connector frames. The (SEL-) and (H-) leads are multipled for dual access to both office ITT connector circuits.

Floor Plan Arrangments

1.11 The preferred location for the ROTL frame is near the associated 105 test lines and J94052A or J94051B responder.

SUBDIVISIONS OF EQUIPMENT AND DETAILED INDEX

WE J drawings should be ordered by referring to the prefix and base number and requesting the current dash (—) number.

EQUIPMENT CODE	RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
J28555A	AT&TCo Std	Remote Office Test Line Frame	J28555A-( )	SD-28067-01
J28555AA	AT&TCo Std	Balance and Test Control Unit	J28555AA-( )	SD-28067-01
J28555AB	AT&TCo Std	Transmission Test Control Unit	J28555AB-( )	SD-28067-01
J28555AC	AT&TCo Std	Incoming Line Unit	J28555AC-( )	SD-28067-01
J28555AD	AT&TCo Std	Input Port Unit	J28555AD-( )	SD-28067-01
J28555AE	AT&TCo Std	Insteering Registration and Trunk Identity Unit	J28555AE-( )	SD-28067-01
J28555AF	AT&TCo Std	Signal Receiving and Trunk Control Unit	J28555AF-( )	SD-28067-01
J28555AG	AT&TCo Std	Type of Test Unit	J28555AG-( )	SD-28067-01
J28555AH	AT&TCo Std	Class of Service and Selection Progress Unit	J28555AH-( )	SD-28067-01
J28555AJ	AT&TCo Std	Fundamental Pulsing and Outsteering Control	J28555AJ-( )	SD-28067-01
J28555AK	AT&TCo Std	Pulsing Control and Generator Unit	J28555AK-( )	SD-28067-01
J28555AL	AT&TCo Std	Counting Relay Unit	J28555AL-( )	SD-28067-01
J28555AM	AT&TCo Std	Fuse Panel Unit	J28555AM-( )	SD-28067-01

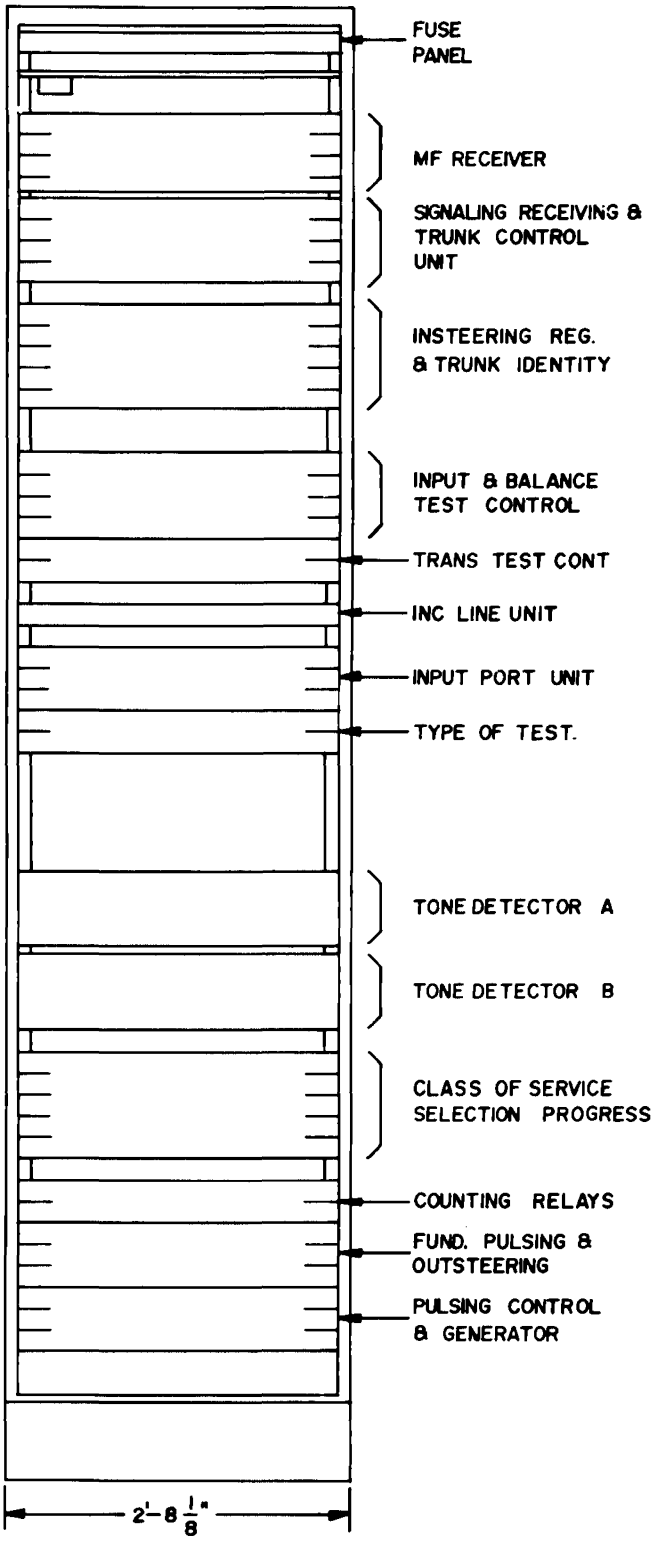

Fig. 1—Remote Office Test Line Frame

Circuit Schematic Index

CIRCUIT DRAWING	J28555 EQPT CODE
SD-28067-01	J28555A, AA, AB, AC, AD, AE, AF, AG, AH, AJ, AK, AL, AM

2. SUPPLEMENTARY INFORMATION

817-000-000—Crossbar Tandem System Index
816-000-000—No. 1 Crossbar System Index
J25551—817-060-150—End Guard Aisle Pilot Lamp and DPTS Support, Fuse Record Book and Holder and Spare Fuse Mountings
J25552—817-037-150—Frame Lighting and Appliance Outlets
J29253—817-010-100—General Outline Crossbar Tandem System

Floor Plan Data

Remote Office Test Line Frame Section - 9.3
Sheet - 40

3. DRAWINGS

For additional drawings forming a part of this specification, see listings under Subdivisions of Equipment and Detailed Index.

Keysheets

SD-25435-01—Crossbar Tandem Office
SD-25000-01—No. 1 Crossbar Office

Circuits

SD--28067-01—Remote Office Test Line Circuit

Equipment

J99337A—Multifrequency Pulsing Receiver
J94008A—No. 8A Tone Detector Transmission Measuring

4. EQUIPMENT

J28555A—AT&TCo Std — Remote Office Test Line Frame

Equipment—J28555A-( )

List 1—Framework, assembly, wiring, and equipment for one remote office test line frame.

		WIRE	EQUIP	NOTES
Remote Office Test Line Circuit, SD-28067-01:				
Fig. 1, 2, 5, 6, 7, 8, 9, 10 11, 12, 13, 14, 15, & 16		1	0	
Fig. 3		0	0	
Fig. 4		0	0	C
J28555AA-( )	Balance and Test Control	0	1	
J28555AB-( )	Transmission Test Control	0	1	
J28555AD-( )	Input Port	0	1	
J28555AE-( )	Trunk Identity	0	1	
J28555AF-( )	Signal Receiving and Trunk Control	0	1	
J28555AG-( )	Type of Test	0	1	
J28555AH-( )	Class of Service and Selection Progress	0	1	
J28555AJ-( )	Fundamental Pulsing and Outsteering Control	0	1	
J28555AK-( )	Pulsing Control and Generator Unit	0	1	
J28555AL-( )	Counting Relay	0	1	
J28555AM-( )	Fuse Panel	0	1	
J99337A-( )	MF Pulsing Receiver	0	1	A
J94008A-( )	8A Tone Detector	0	1	B

List 2—Wiring and equipment per J28555AC List 1 and 2 when incoming line unit is required for a No. 1 crossbar office in same building. (See Note C.)

List 3—Wiring and equipment per J28555AC List 1 and 3 when incoming line unit is required for a distant No. 1 crossbar office or other system in same or distant building.

Notes

A. The multifrequency pulsing receiver is provided in accordance with J99337. List 1 of J28555A-( ) provides J99337A-( ) List 2, List 3, List LA, and List LC.

B. The 8A tone detector is provided in accordance with the J94008 specification. List 1 of the remote office test line frame (J28555A-( )) provides; 8A tone detector (A) J94008A-( ), List 1 and three list 2, and 8A Tone Detector (B) J94008A-( ) List 1 and one list 2.

C. When ANS, ALS lead exceeds 100 ohms provide list 3.

J28555AA—AT&TCo Std — Balance and Test Control Unit

Equipment—J28555AA-( )

List 1—Assembly, wiring, and equipment for one input and balance test control unit in accordance with SD-28067-01, Fig. 1.

J28555AB—AT&TCo Std — Transmission Test Control Unit

Equipment—J28555AB-( )

List 1—Assembly, wiring, and equipment for one transmission test control unit in accordance with SD-28067-01, Fig. 2.

J28555AC—AT&TCo Std — Incoming Line Unit

Equipment—J28555AC-( )

List 1—Assembly, wiring, and equipment for one incoming line unit. (See Note B.)

List 2—Surface wiring and equipment required in addition to list 1 when incoming line unit is provided for a No. 1 crossbar office in same buiding in accordance with SD-28067-01, Fig. 3. (See Note A.)

List 3—Surface wiring and equipment required in addition to list 1 when incoming line unit is provided for a distant No. 1 crossbar or other system in same or distant building in accordance with SD-28067-01, Fig. 4. (See Note A.)

Notes

A. When ANS, ALS lead exceeds 100 ohms provide list 3.

B. Equipment per list 1 provides a unit less apparatus, list 2 and 3 are mutually exclusive.

J28555AD—AT&TCo Std — Input Port Unit

Equipment—J28555AD-( )

List 1—Assembly, wiring and equipment for one input port unit in accordance with SD-28067-01, Fig. 5.

J28555AE—AT&TCo Std — Insteering Registration and Trunk Identity Unit

Equipment—J28555AE-( )

List 1—Assembly, wiring, and equipment for one insteering registration and trunk identity unit in accordance with SD-28067-01, Fig. 6.

J28555AF—AT&TCo Std — Signal Receiving and Trunk Control Unit

Equipment—J28555AF-( )

List 1—Assembly, wiring, and equipment for one signal receiving and trunk control unit in accordance with SD-28067-01, Fig. 7.

J28555AG—AT&TCo Std — Type of Test Unit

Equipment—J28555AG-( )

List 1—Assembly, wiring, and equipment for one type of test unit in accordance with SD-28067-01, Fig. 8.

J28555AH—AT&TCo Std — Class of Service and Selection Progress Unit

Equipment—J28555AH-( )

List 1—Assembly, wiring, and equipment for one class of service and selection progress unit in accordance wih SD-28067-01, Fig. 9.

J28555AJ—AT&TCo Std — Fundamental Pulsing and Outsteering Control Unit

Equipment—J28555AJ-( )

List 1—Assembly, wiring, and equipment for one fundamental pulsing and outsteering control unit in accordance with SD-28067-01, Fig. 11 and 12.

J28555AL—AT&TCo Std — Pulsing Control and Generator Unit

Equipment—J28555AL-( )

List 1—Assembly, wiring, and equipment for one pulsing control and generator unit in accordance with SD-28067-01, Fig. 10 and 13.

J28555AM—AT&TCo Std — Counting Relay Unit

Equipment—J28555AM-( )

List 1—Assembly, wiring, and equipment for one counting relay unit in accordance with SD-28067-01, Fig. 14.

J28555AN—AT&TCo Std — Fuse Panel Unit

Equipment—J28555AN-( )

List 1—Assembly, wiring, and equipment for one fuse panel unit in accordance with SD-28067-01, Fig. 15.

5. GENERAL NOTES

5.01 The 52C responder test and alignment unit, per J94052C-( ) is required for alignment and trouble analysis of the J94052A-( ) responder measuring circuits.

5.02 The J94051B-( ) responder is currently rated Mfr Disc., however, a modification is available for existing 51B responders, to provide expanded ROTL operation. The 51D [J94051D-( )] alignment unit is required for test and alignment procedures when the 51B "modified" responder is used in conjunction with ROTL.

5.03 ED-92750-12 provides typical bay layouts for transmission measuring and noise checking equipment required for ROTL installations.

5.04 The gauge and type of wire used on the ROTL frame and units shall be in accordance with the wire gauge and insulation drawing ED-27127-01.

5.05 Codes J28555B through J28555Z and J28555AN through J28555AZ are unassigned.

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