

ADVANCE PRINTING

REMOTE OFFICE TEST FRAME

EQUIPMENT DESIGN REQUIREMENTS

NO. 5 CROSSBAR SYSTEM

1. GENERAL

SCOPE

1.01 This specification, together with the supplementary information listed herein, covers the equipment design requirements for the framework, equipment, and wiring to be used in the engineering, manufacture, and installation of the remote office test frame, for small ROTL office, and the remote office test line register frame, the remote office test line trunk make-busy control frame, and the remote office test line trunk make-busy frame for expanded ROTL office. Either ROTL installation will function as part of CAROT-ROTL System for No. 5 Crossbar.

1.02 This specification is reissued:

- (a) To bring J23263 into agreement with SD-27727-01, Issue 8D; SD-27698-01, Issue 11A; SD-28035-01, Issue 5A; SD-28036-01, Issue 4A; and SD-28037-01, Issue 2A.
- (b) To provide for cancellation of AMA records on transmission test feature. List 3 is added to J23263AB.
- (c) To make minor miscellaneous additions and changes to the specification.

CAPACITY

Small ROTL

1.03 The remote office test frame J23263A is arranged for testing outgoing trunks in one marker group. A maximum of 20 trunk groups can be accessed for operational and transmission testing. Up to 1000 trunks can be accessed for make-busy, release from make-busy, and interrogation features.

Expanded ROTL

1.04 The ROTL register circuit and the ROTL access circuit are always provided together and can be arranged to test up to three marker groups, and in combined 2-wire/4-wire offices. The ROTL trunk make-busy circuit is divided into two portions; the ROTL trunk make-busy control and the ROTL trunk make-busy. This circuit allows for up to 88 trunks per trunk link frame to have the remote make-busy feature. The circuit allows for a maximum of three marker groups of 30 trunk link frames per marker group. The maximum number of trunks that can be made busy per trunk group or route is 9. Up to 400 routes are allowed.

DESCRIPTION

Small ROTL

Remote Office Test Frame "R"

1.05 The three circuits of the remote office test frame, Remote Office Test Line Circuit (ROTL), Remote Office Test Control Circuit (ROTC), and Remote Office Trunk Make-Busy Circuit (ROTMB), provide access to the outgoing trunks of the "remote" office for the purpose of performing transmission and operational tests, and for remotely making these trunks busy. The remote office test frame is located in the "remote" office and is controlled by an automatic or manual test frame from a distant "control" office. The two main features of the remote office test frame, providing access to outgoing trunks for test and control of trunk busy-idle status, can be provided individually or together. The trunk test features are provided by the ROTL and ROTC and the make-busy features by the ROTL and ROTMB.

1.06 The ROT frame is a single-bay 11-foot 6-inch frame, 2 feet 2-1/16 inches wide, arranged for 23-inch mounting plates. It is equipped with various units as shown in Fig. 1. The frame, local cable, miscellaneous frame circuits, fuse panels,

frame terminal strips, and key, jack, and lamp panels are included in J23263A. All other equipment units to be mounted on the frame are covered by separate J codes and shall be ordered in accordance with Table A. The frame local cable contains interunit wiring, battery and ground supply leads, wiring to control and indicating panels, and all optional wiring.

Remote Office Test Line Circuit

1.07 The ROTL is seized by a manual or automatic test frame at the control office via a random outgoing (access) trunk which is connected by the switching equipment of the remote office to the ROTL terminating test line. After seizure the ROTL sends a burst of tone to the control office which responds by sending a 5- or 6-digit code which controls the remote office test circuit actions. The ROTL contains the digit receiver, pulse counting circuitry and parts of the digit registration, steering and translation circuitry required by both the ROTC and ROTMB. It also contains the apparatus to initiate seizure and connect to a marker to prime it with information to select an outgoing trunk.

1.08 The remote office test line equipment is contained in four units:

- (a) ROTL and ROTC Multicontact Relay Unit, J23263B.
- (b) ROTL Control Unit, J23263AA.
- (c) ROTL Pulsing and Marker Control Unit, J23263AB.
- (d) ROTL Timing and Test Control Unit, J23263AC.

They are mounted on the ROT frame as specified in Table A. The dial, key, jacks, and lamps are provided in the jack, key, and lamp panel per J23263A.

Remote Office Test Control Circuit

1.09 The ROTC is seized by ROTL if a trunk is to be tested. It registers the test digits, translates them to determine the type of test and the particular trunk to be tested, and then performs the interface functions between the access trunk

and test trunk. A maximum of 20 trunk groups can be accessed for each of the following tests:

- (a) Automatic transmission tests using the Automatic Transmission Measuring System (ATMS) director at the control office, with a ATMS responder at the remote office to a new 100-, 102-, or 105-type test line at the far-end office.
- (b) Manual transmission tests (non-ATMS) from manual outgoing test circuits to 102-, 105-, or new 100-type test lines at the far-end office.
- (c) Manual or automatic operational tests to synchronous or nonsynchronous test lines at the far-end office.
- (d) Terminal balance tests on trunk which are outgoing from the remote office and incoming to the control office.

1.10 The remote office test control equipment is contained in four units:

- (a) ROTL and ROTC Multicontact Relay Unit, J23263B.
- (b) ROTC Digit Registration Control Unit, J23263BA.
- (c) ROTC Translation and Test Class Control Unit, J23263BB.
- (d) ROTC Tone and Test Control Unit, J23263BC.

They are mounted on the ROT frame as specified in Table A. The jacks are provided in the jack, key, and lamp panel per J23263A.

Remote Office Trunk Make-Busy Circuit

1.11 The ROTMB is seized by ROTL if a trunk is to be made busy, restored to service, or interrogated for a busy or idle condition. A distinctive tone is returned to the control office indicating results of a particular directive. In addition, to prevent unauthorized use of the make-busy feature, a verification call is set from the remote office to the control office when there is a directive to busy or restore a trunk to service. The ROTL expects to receive a special tone over this second connection to the control office as a verification that the control office did originate

the make-busy directive. The instruction is not carried out unless it is received.

1.12 The remote office trunk make-busy equipment is divided into three units:

- (a) Make-busy and Selection Unit, J23263CA.
- (b) Make-Busy and Release Control Unit, J23263CB.
- (c) Remote Office Trunk Make-Busy Connector Switch, J23263CC.

1.13 *The make-busy and selection unit* contains the connector switch and associated apparatus necessary to connect the remote office test line to a particular trunk. This unit is arranged to provide make-busy facilities for 100 trunks and requires the space of twelve 2-inch mounting plates. With the maximum of ten units, access to 1000 outgoing trunks is provided for make-busy and restore-to-service features. Space is provided on the Remote Office Test Frame, J23263A, for the first make-busy and selection unit. Subsequent units must be mounted on relay rack frames.

1.14 *The make-busy and release control unit* contains apparatus common to the ten make-busy and selection units. Access to any of the make-busy and selection units from the remote office test line is controlled by this unit. The make-busy and release control unit consists of four 23-inch mounting plates of apparatus and mounts on the remote office test frame.

1.15 *The ROTMB connector switch* is similar to connector switches presently used in the Step-by-Step System. This switch provides access to 100 outgoing trunks and mounts on the make-busy and selector unit. The keys and switches associated with the remote office trunk make-busy unit are mounted in the control panel on the remote office test frame per J23263A.

Expanded ROTL

Remote Office Test Line Register Frame

1.16 The remote office test line register frame (ROTL REG) has two circuits:

- (a) The remote office test line access circuit.

- (b) The remote office test line register circuit.

These circuits provide access, testing, and make-busy facilities to outgoing and intraoffice trunks in a remote office. The ROTL REG frame is part of the centralized automatic reporting on trunks—Remote Office Test Line (CAROT-ROTL) System for No. 5 Crossbar.

1.17 The ROTL REG frame is a 2-bay 11-foot 6-inch frame, 4 feet 4-1/8 inches wide, arranged for 23-inch mounting plates. It is equipped with various units as shown in Fig. 2. The frame, local cables, miscellaneous frame circuits, fuse panels, frame terminal strips, and jack panel are all included in J23263D. All other equipment units to be mounted on the frame are covered by separate J codes and shall be ordered in accordance with Table D. The frame local cables contain interunit wiring, battery and ground supply leads, and optional wiring.

Remote Office Test Line Access Circuit IN REG FRAME

1.18 The remote office test line access circuit (ROTL access) provides access to the ROTL REG frame. The controlling office seizes the ROTL access circuit through an incoming trunk via one of two test terminating line appearances. The ROTL access circuit then bids for its associated ROTL REG circuit and, if the register circuit is not busy, connects to it. The ROTL access circuit then signals the controlling office that the register circuit is connected. The controlling office then transmits a maximum of 23-MF digits of test information through the ROTL access circuit into the ROTL REG circuit. The ROTL access circuit in conjunction with other circuits monitors the requested tests and releases or recycles as directed by the controlling office. The ROTL access circuit has two test terminating line appearances and permits two separate tests to be in progress simultaneously.

1.19 The ROTL access circuit equipment is contained in four units:

- (a) ROTL Access Unit, J23263DH.
- (b) Auxiliary ROTL Access Unit, J23263DJ.
- (c) Lamp, Jack, and Key Unit, J23263DK.
- (d) ROTL Access Bal Test Unit, J23263DL

They are mounted on the ROTL register frame as specified in Table D.

Remote Office Test Line Register Circuit

1.20 The remote office test line register circuit (ROTL REG) provides registration for test information digits from the controlling office. In addition, the ROTL register can verify the identity of a maximum of 10 control locations capable of performing make-busy and release functions. The ROTL REG circuit is seized by its associated ROTL access circuit and receives a maximum of 23-MF digits of test information from the controlling office. The ROTL REG circuit then connects to a completing marker through the master test frame connector and passes the test information to it. The ROTL REG circuit then releases and is ready to be seized by another test call. The marker uses the received information to set up the connection to the trunk to be tested and releases. The test of the trunk is then conducted by the controlling office through the ROTL access circuit.

1.21 The ROTL REG circuit equipment is contained in five units:

- (a) ROTL REG Control Unit, J23263DA.
- (b) Digit Steering Unit, J23263DB.
- (c) Digit Storage Unit, J23263DC.
- (d) Marker Group Control Unit, J23263DD.
- (e) Marker Control Unit, J23263DE.

They are mounted on the ROTL REG frame as specified in Table D.

1.22 The ROTL trunk make-busy control frame and the ROTL trunk make-busy frame both are associated with the ROTL Trunk Make-Busy Circuit, SD-28037-01. This circuit is arranged to remotely make busy a maximum of 88 OGT per each trunk link frames of three marker groups in a remote office. Both frames, ROTL trunk make-busy and ROTL trunk make-busy control, are part of the CAROT-ROTL System for No. 5 Crossbar.

1.23 The ROTL trunk make-busy control frame is a 2-bay 11-foot 6-inch frame, 4 feet 4-1/8 inches wide arranged for 23-inch mounting plates. Figure 3 shows locations of associated

J-coded units which mount on the frame. The frame common equipment, local cables, miscellaneous circuits, fuse panels, and frame terminal strips are all included in the J23263E code. All units which mount on the frame have their own J codes or ED codes, and shall be ordered per Table E. One ROTL trunk make-busy control frame is required for each marker group. The ROTL trunk make-busy frame is a single-bay 11-foot 6-inch frame, 2 feet 2-1/16 inches wide. Figure 4 shows locations of various J-coded units which mount on the frame. The frame, common equipment, local cables, miscellaneous circuit equipment, fuse panels, and frame terminal strips are all included in the J23263F code. All units which mount on the frame have their own J codes and are ordered per Table F. One ROTL trunk make-busy frame is arranged to operate with 88 outgoing trunks on each of 10 trunk link frames in a same marker group.

1.24 The ROTL trunk make-busy circuit is used to make a trunk remotely maintenance busy, restore a remote maintenance busy trunk to normal, and to interrogate the remote maintenance busy status of a trunk or the trunk group containing the trunk.

1.24 The ROTL trunk make-busy circuit equipment is covered by several coded units as follows:

- (a) J23263EA, Remote Make-Busy Control Unit.
- (b) J23263EB, Route Relay Access Unit.
- (c) J23263EC, Route Relay Unit.
- (d) J23263ED, Group Interrogation Resistor Unit.
- (e) J23263EE, Lever Key Unit.
- (f) J23263EF, Auxiliary Group Interrogation Resistor Unit.
- (g) ED-94910-87, Tray Assembly Equipped With ED-27699-(), Group 42 and 43 PWB (Printed Wiring Boards).
- (h) J23263FA, Trunk Link Frame Cross-Resistor Unit.

These units shall be mounted on the appropriate frame per Table E and F.

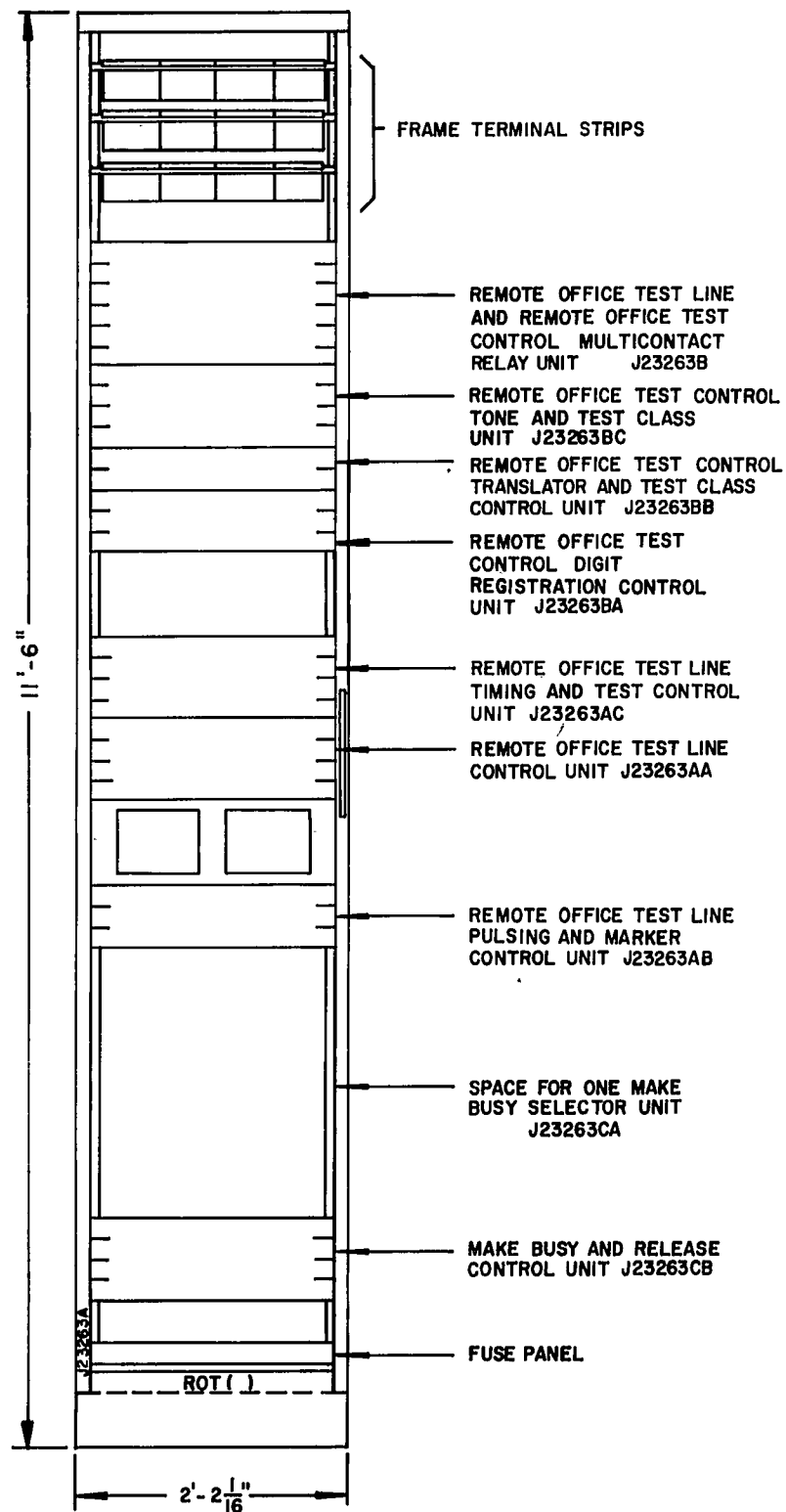


Fig. 1—Remote Office Test Frame, J23263A

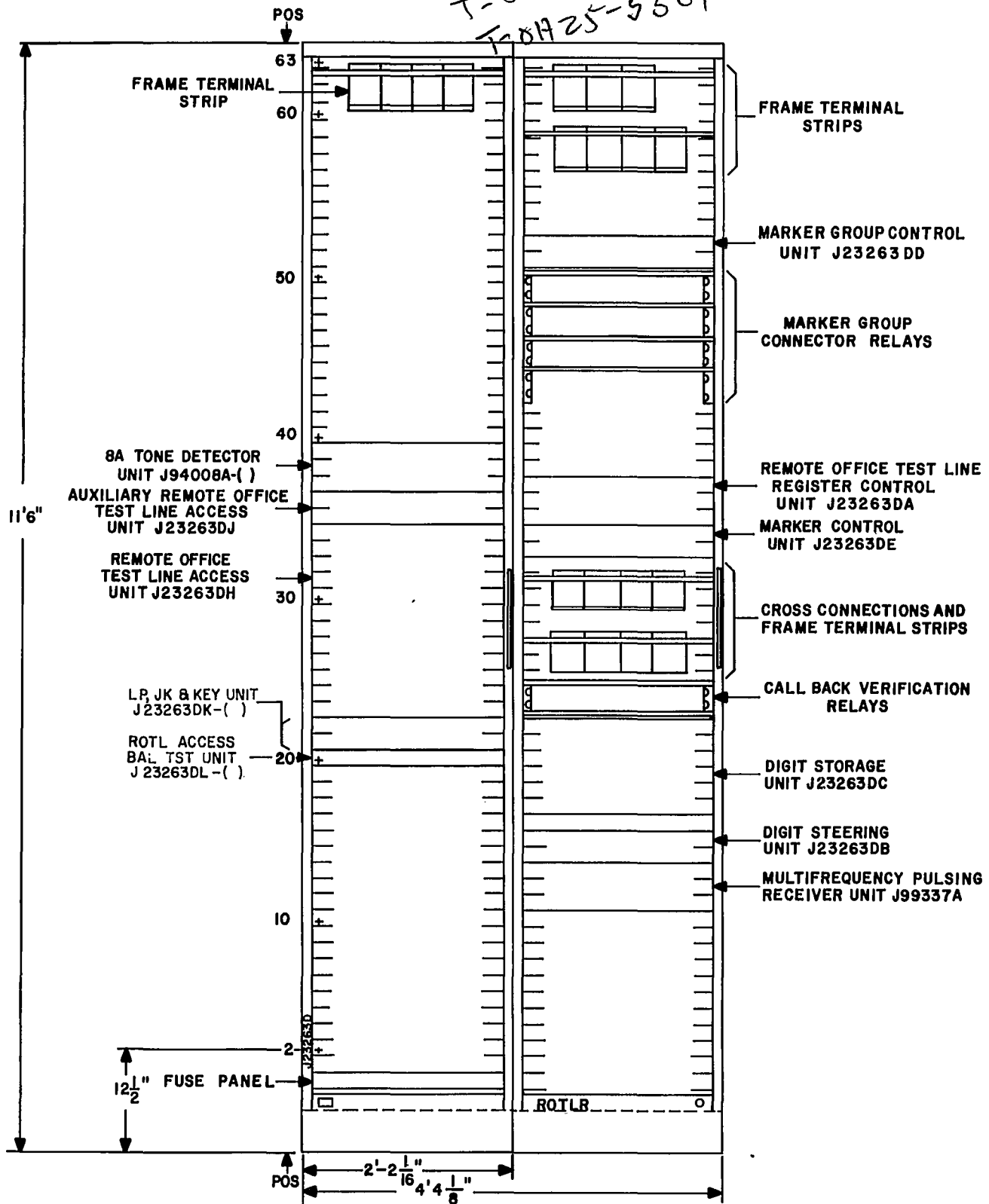


Fig. 2—ROTL Register Frame, J23263D

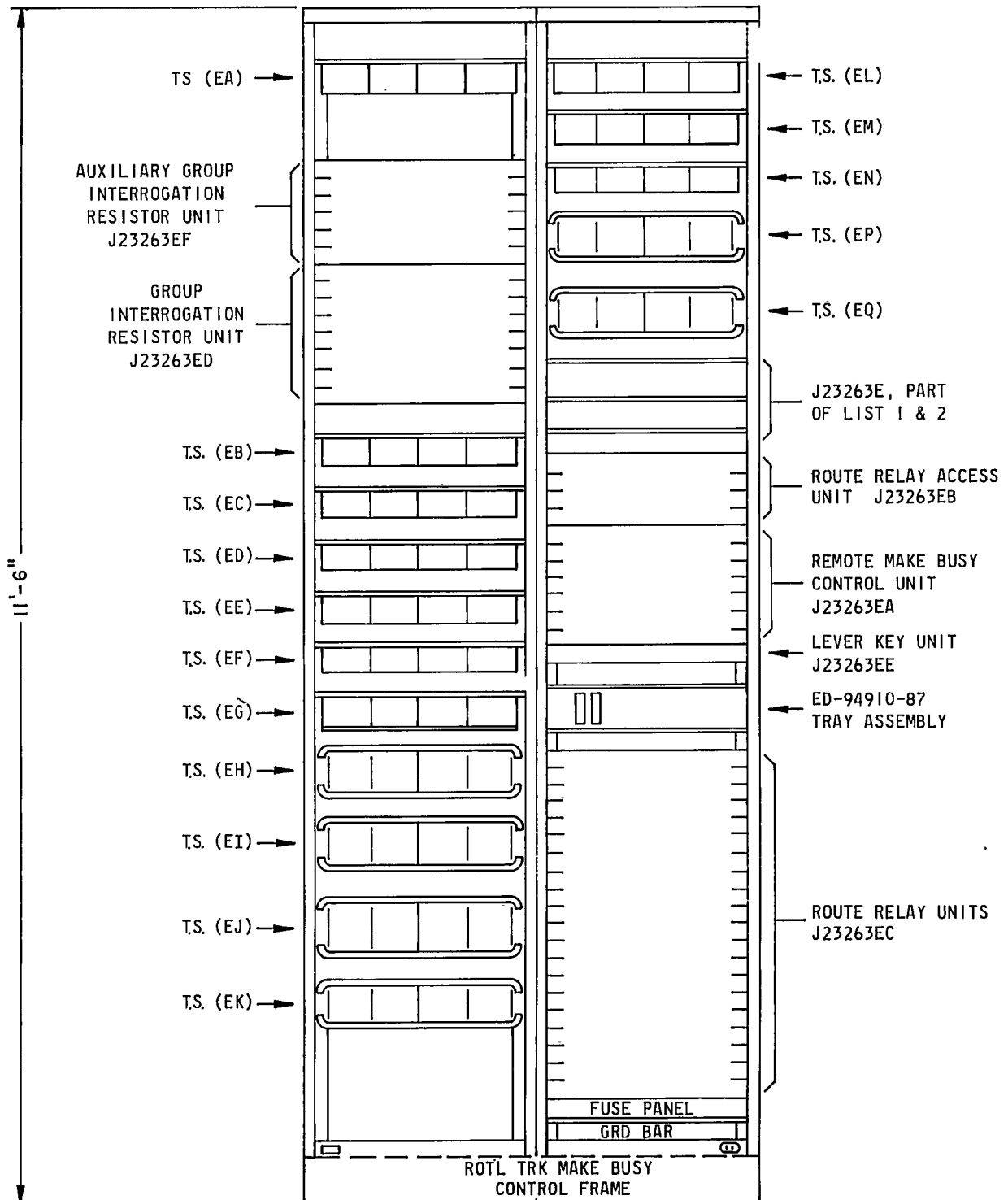


Fig. 3—ROTL Trunk Make-Busy Control Frame, J23263E

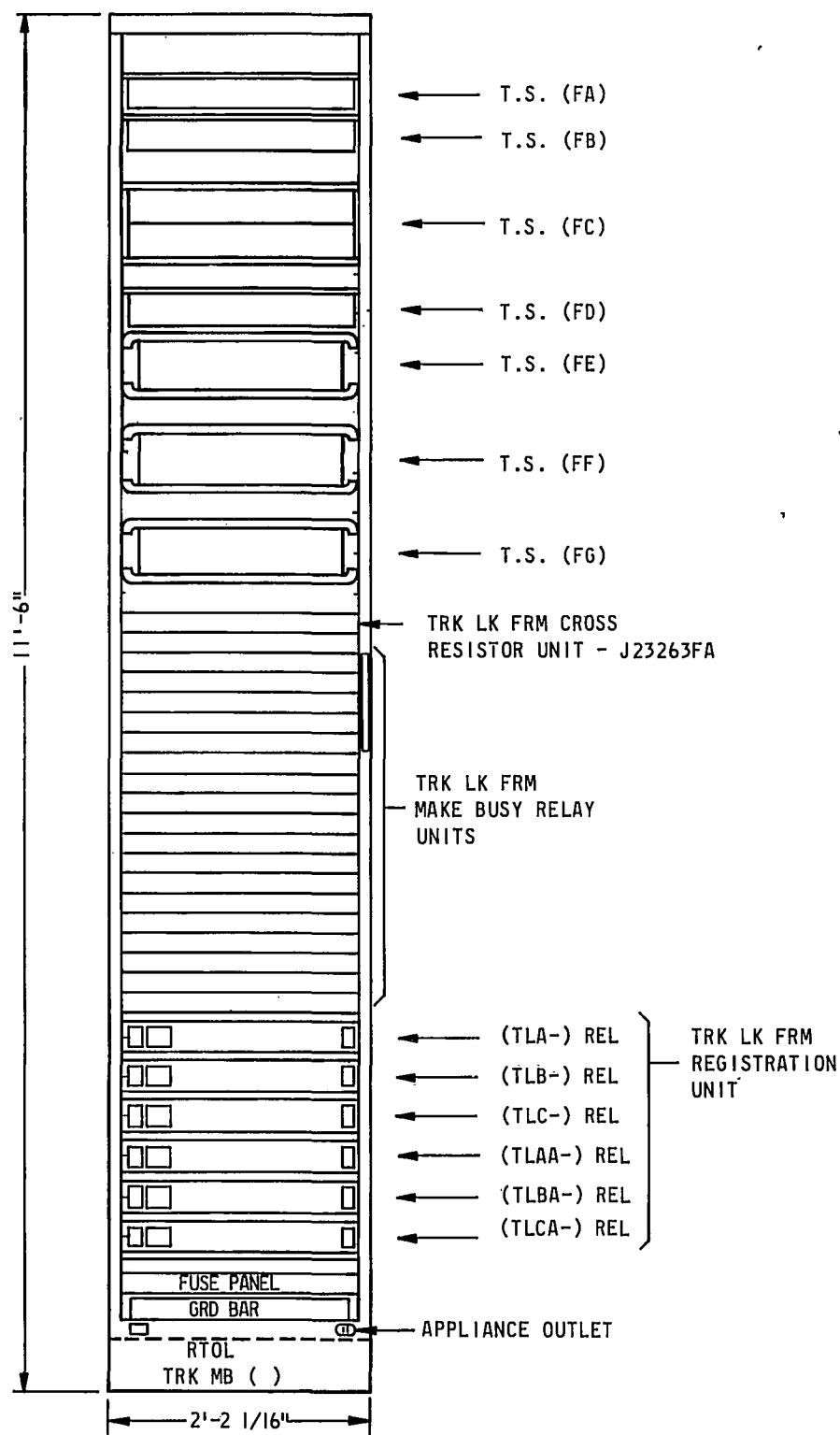


Fig. 4—ROTL Trunk Make-Busy Frame, J23263F

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	DRAWING CIRCUIT
J23263A	AT&TCo Std	Remote Office Test Frame	J23263A-()	SD-27698-01 SD-27727-01 SD-27799-01
J23262B	AT&TCo Std	ROTL & ROTC Multicontact Relay Unit	J23263B-()	SD-27698-01 SD-27727-01
<u>J23263D</u> ✓	AT&TCo Std	ROTL Register Frame	J23263D-()	SD-28036-01 SD-28035-01
J23263E ✓	AT&TCo Std	ROTL Trunk Make-Busy Control Frame	J23263E-()	SD-28037-01
J23263F ✓	AT&TCo Std	ROTL Trunk Make-Busy Frame	J23263F-()	SD-28037-01
J23263AA	AT&TCo Std	ROTL Control Unit	J23263AA-()	SD-27698-01
J23263AB	AT&TCo Std	ROTL Pulsing and Marker Control Unit	J23263AB-()	SD-27698-01
J23263AC	AT&TCo Std	ROTL Timing and Test Control Unit	J23263AC-()	SD-27698-01 SD-94820-01
J23263BA	AT&TCo Std	ROTC Digit Registration Control Unit	J23263BA-()	SD-27727-01
J23263BB	AT&TCo Std	ROTC Translation and Test Class Control Unit	J23263BB-()	SD-27727-01
J23263BC	AT&TCo Std	ROTC Tone and Test Control Unit	J23263BC-()	SD-27727-01 SD-94820-01
J23263CA	AT&TCo Std	Make-Busy and Selection Unit	J23263CA-()	SD-27799-01
J23263CB	AT&TCo Std	Make-Busy and Release Control Unit	J23263CB-()	SD-27799-01 SD-94820-01
J23263CC	AT&TCo Std	ROTMB Connector Switch	J23263CC-()	SD-27799-01
J23263DA	AT&TCo Std	ROTL Register Control Unit	J23263DA-()	SD-28036-01 SD-94820-01
J23263DB	AT&TCo Std	Digit Steering Unit	J23263DB-()	SD-28036-01
J23263DC	AT&TCo Std	Digit Storage Unit	J23263DC-()	SD-28036-01
J23263DD	AT&TCo Std	Marker Group Control Unit	J23263DD-()	SD-28036-01
J23263DE	AT&TCo Std	Marker Control Unit	J23263DE-()	SD-28036-01

EQUIPMENT CODE	RATING OF UNIT	TITLE	EQUIPMENT DRAWING	DRAWING CIRCUIT
J23263DF	Reserved			
J23263DG	Reserved			
J23263DH	AT&TCo Std	ROTL Access Unit	J23263DH-()	SD-28035-01
J23263DJ	AT&TCo Std	Auxiliary ROTL Access Unit	J23263DJ-()	SD-28035-01
J23263DK	AT&TCo Std	Lamp, Jack, and Key Unit	J23263DK-()	SD-28035-01
J23263DL	AT&TCo Std	ROTL Access Bal Test Unit	J23263DL-()	SD-28035-01
J23263EA	AT&TCo Std	Remote Make-Busy Control Unit	J23263EA-()	SD-28037-01 SD-94820-01
J23263EB	AT&TCo Std	Route Relay Access Unit	J23263EB-()	SD-28037-01
J23263EC	AT&TCo Std	Route Relay Unit	J23263EC-()	SD-28037-01
J23263ED	AT&TCo Std	Group Interrogation Resistor Unit	J23263ED-()	SD-28037-01
J23263EE	AT&TCo Std	Lever Key Unit	J23263EE-()	SD-28037-01
J23263EF	AT&TCo Std	Auxiliary Group Interrogation Resistor Unit	J23263EF-()	SD-28037-01
J23263FA	AT&TCo Std	Trunk Link Frame Cross Resistor Unit	J23263FA-()	SD-28037-01

Circuit Schematic Index

CIRCUIT DRAWING	J23263 EQPT CODE
SD-27698-01	A, B, AA, AB, AC
SD-27727-01	A, B, BA, BB, BC
SD-27799-01	A, CA, CB, CC
SD-28035-01	DH, DJ, DK
SD-28036-01	D, DA, DB, DC, DD, DE
SD-28037-01	E, EA-EF, F, FA

J29259—819-005-150—General Outline—No. 5 Crossbar
SystemJ93020—801-250-167—Transmission Measuring and
Noise Checking System

J94008—801-250-170—8A Tone Detector

J94052—801-250-163—Transmission Measuring—52
Type Automatic Transmission Measuring
System

J99337—801-620-152—Multifrequency Pulsing Receiver

SD-25760-02—Current Drain Data Sheet

Floor Plan Data—Section 11.1, Sheet 8

800-601-152—Gauge and Insulation of Wire

800-600-000—List of General Equipment Requirements
Sections**2. SUPPLEMENTARY INFORMATION**

819-000-000—Numerical Index—No. 5 Crossbar
System—Equipment Design Requirements
J20155—819-022-150—Conductor Lengths Between
Frames and Units

3. DRAWINGS

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

Keysheet

WIRE EQUIP NOTES

SD-25760-01—Crossbar System No. 5

48V Fr Tst Bat,

1 1

Circuits

Fig. 13

Spare Jk Ckt,

1 1

Fig. 16

FR Line Telephone

Jack Ckt, Fig. 17

1 1

Remote Cont Jk

Ckt, Fig. 19

1 1

Remote Office Test

Line Ckt, SD-27698-01:

ROTL Cont, Fig. 1

1 0

Pulsing Cont, Fig. 2

1 0

Mkr Cont, Fig. 3 & 7

1 0

Timing, Fig. 6

1 0

Make-Busy Cont

Fig. 4 & 8

1 0

Jk, Key, & Lp, Fig. 9

1 1

Remote Office Test Cont

Ckt, SD-27727-01:

Digit & Reg Cont,

1 0

Fig. 1

Test Class Cont,

1 0

Fig. 2

Trk Grp Translation,

1 0

Fig. 3

Digit Translation,

1 0

Fig. 4

Tone and Test Cont,

1 0

Fig. 5

Tone and Test Jks,

1 0

Fig. 5

— 1

Remote Office Test

Make-Busy Ckt,

SD-27799-01:

Make-Busy and Release

Control Unit, Fig. 1

1 0

Make-Busy Panel Lamps,

Fig. 5

5 0

Manual Busy Control,

Fig. 6

1 0

Wiring and Cabling

ED-27708-()—Local Cable Detail

ED-27857-()—ROTL Reg Fr Swbd Ca Details

ED-27883-()—ROTL Trunk Make-Busy Control
Frame Swbd Ca DetailsED-27884-()—ROTL Trk Make-Busy Fr Swbd Ca
Details**EQUIPMENT****J23263A—AT&TCo Std—Remote Office Test
Frame (See Table A)**

Equipment—J23263A-()

List 1—Framework, assembly, common equipment,
and local cable for one remote office test
frame. (See Notes B and C.)

WIRE EQUIP NOTES

Misc Ckt, SD-25574-01:

48V Fuse Ckt, Fig. 3

& ZT Option

1 1

48V Fr Fuse Alarm Ckt,

Fig. 4

1 1

Grd Feeder Ckt,

Fig. 10

1 1

NotesA. In addition, there are options involving wiring
only as follows:1. Wiring as specified in Note 102A of
SD-27698-01.2. Wiring as specified in Note 102A of
SD-27727-01.

B. The local cable for the frame shall contain the interunit wiring, battery, and ground supply leads, wiring to the key, lamp, and switch panels, wiring looped at unequipped apparatus positions, and wiring between units and the frame terminal strips for all units listed in Table A, including list 1 of this J code.

C. All units to be mounted on this frame shall be provided as required in accordance with Table A.

D. When the remote office test control circuit is provided a tone detector per J93020AH-(), and an ATMS responder per J94052A-(), must be provided. (Two responders must be provided when ROTL is used for "105" intraoffice trunk tests.) This equipment should be mounted in the lower half of a miscellaneous relay rack in the general vicinity of the ROTL frame. Modifications are required in the 51B responder to operate with the CAROT/ROTL System.

J23263B—AT&T Co Std—ROTL and ROTC Multicontact Relay Unit

Equipment—J23263B-()

List 1—Assembly and common equipment required for one ROTL and ROTC multicontact relay unit.

List 2—Wiring and equipment required in addition to list 1 for marker control per SD-27698-01, Fig. 7, less Y option.

List 3—Wiring and equipment required in addition to list 2, per SD-27698-01, Fig. 7, and Y option, required when this circuit is to function with the master test frame connector.

List 4—Wiring and equipment required in addition to list 1, per SD-27698-01, Fig. 8, when this circuit is to function with the remote office trunk make-busy circuit.

List 5—Wiring and equipment required in addition to list 1 for trunk group translation per SD-27727-01, Fig. 3, for each trunk group (maximum 20).

J23263D—AT&T Co Std—Remote Office Test Line Register Frame (See Table D)

Equipment—J23263D-()

List 1—Framework, assembly, common equipment, and wiring for one remote office test line register frame. (See Notes B, C, D, and E.)

	WIRE	EQUIP	NOTES
Remote Office Test Line Access Ckt, SD-28035-01:		-	
Access Control, Fig. 1	1	0	
Info Registration, Fig. 2	1	0	
Trunk Make Busy, Fig. 3	1	0	
4-Wire Testing, Fig. 4	1	0	
Marker Group Conn, Fig. 5	3	0	
4-Wire Testing, Fig. 6	3	0	
Test Termination Cont, Fig. 7	1	0	
Terminal Balance Cont, Fig. 8	1	0	
Remote Office Test Line Register Ckt, SD-28036-01:			
ROTL Reg Control, Fig. 1	1	0	
Digit Steering, Fig. 2	1	0	
Digit Storage, Fig. 3	1	0	
Marker Group Control, Fig. 4	1	1	
Marker Group Connector Relays, Fig. 5	1	1	
ROTL Trk Make-Busy, Fig. 6	10	0	
Marker Control, Fig. 7	1	0	
Miscellaneous Ckt, SD-25574-01:			
—48 Volt Fuse Ckt, Fig. 3, and ZT Option	1	1	
—48 Volt FR Fuse Alarm Ckt, Fig. 4	1	1	
Grd Feeder Ckt, Fig. 10	1	1	
—48 Volt Fr Test Bat., Fig. 13	1	1	
Spare Jk Ckt, Fig. 16	1	1	
Fr Line Telephone Jk Ckt, Fig. 17	1	1	

	WIRE	EQUIP	NOTES
Remote Cont Jk Ckt, Fig. 19	3	3	
Multifrequency Pulsing Receiver Ckt, SD-99493-01:			
Fig. 1	1	0	
8A Tone Detector Ckt, SD-99551-01:			
Fig. 1 and 2	1	0	

List 2—Equipment and local cable required in addition to list 1 when second marker group is provided.

	WIRE	EQUIP	NOTES
SD-28036-01:			
Fig. 4	1	1	
Fig. 5	1	1	

List 3—Equipment and local cable required in addition to list 1 and 2 when third marker group is provided.

	WIRE	EQUIP	NOTES
SD-28036-01:			
Fig. 4	1	1	
Fig. 5	1	1	

List 4—Assembly, wiring, and equipment required when ROTL trunk make-busy circuit is provided to verify the identity of control locations capable of performing trunk make-busy and release functions. (Arranged for 10 and equipped for 1.)

	WIRE	EQUIP	NOTES
ROTL REG Ckt, SD-28036-01:			
Fig. 6		1	
Strap Wire Mult Per CAD 6		1	

List 5—Wiring and equipment required in addition to list 4 for each additional control location served. (Max nine.)

ROTL REG Ckt,
SD-28036-01:
Fig. 6

1

Notes

A. In addition, there are options involving wiring only as follows:

1. Wiring as specified in Note 102B of SD-28035-01.
2. Wiring as specified in Note 102B of SD-28036-01.

B. The local cables for the frame shall contain the interunit wiring, battery and ground supply leads, wiring looped at unequipped unit and apparatus positions, and wiring between units and the frame terminal strips for all units listed in Table D, including list 1 of this J code.

C. All units to be mounted on this frame shall be provided as required in accordance with Table D.

D. Multifrequency Pulsing Receiver Unit, J99387A- () must be provided in addition to list 1.

E. The 8A Tone Detector Unit, J94008A- () must be provided in addition to list 1.

F. An ATMS responder per J94052A must also be provided for ROTL/CAROT operation. Two responders must be provided when ROTL is used for "105" intraoffice trunk test.

J23263E—AT&T Co Std—Remote Office Test Line Trunk Make-Busy Control Frame (See Table E)

Equipment and Local Cable—J23263E- ()

List 1—Framework, assembly, common equipment, and local cable for one remote office test line trunk make-busy control frame. (See Notes.)

	WIRE	EQUIP	NOTES	<i>List 2</i> —Assembly, equipment and strap wire multiple per SD-28037-01, Fig. 2, V option only required in addition to list 1 for offices arranged for 12-level trunk switch operation.
Miscellaneous Circuit, SD-25574-01:				
48-Volt Fuse Ckt, Fig. 3 and ZK Option	1	1		<i>Notes</i>
48-Volt Fr Fuse Alarm Ckt, Fig. 4	1	1		A. In addition, there are options involving wiring only as follows:
Grd Feeder Ckt, Fig. 10	1	1		1. Wiring as specified in Note 102A of SD-28037-01.
48-Volt Fr Tst Bat. Fig. 13	1	1		B. The local cable for the frame shall contain the unit wiring, battery and ground supply leads, wiring looped at unequipped apparatus positions, and wiring between units and the frame terminal strips for all units listed in Table E, including list 1 of this J code.
Spare Jk Ckt, Fig. 16	1	1		C. All units to be mounted on this frame shall be provided as required per Table E.
Fr Line Telephone Jack Ckt, Fig. 17	1	1		D. Wiring per App Fig. 1 is required only once per three marker groups and so, therefore, need only be provided on the first ROTL trunk control frame.
Remote Cont Jk Ckt, Fig. 19	1	1		
Remote Office Test Line Trunk Make-Busy Ckt, SD-28037-01:				
Remote Make-Busy Control, Fig. 1	1	0	D	
Marker Connection and Registration, Fig. 2, Less Options	1	1		
Route Relay Access, Fig. 3	40	0		
Route Registration, Fig. 4	200	0		<i>J23263F—AT&T Co Std—Remote Office Test Line Trunk Make-Busy Frame</i>
Group Interrogation Resistors, Fig. 7	150	0		Equipment and Local Cable—J23263F-()
Auxiliary Group Interrogation Resistors Fig. 9	40	0		<i>List 1</i> —Framework, assembly, common equipment, and local cable for one remote office test line trunk make-busy frame. (See Notes.)

Miscellaneous Circuit,
SD-25574-01:

48-Volt Fuse Ckt
Fig. 3 and ZK Option
48-Volt Fr Fuse Alarm
Ckt, Fig. 4
Grd Feeder Ckt,
Fig. 10
48-Volt Fr Tst Bat.
Fig. 13
Spare Jk Ckt,
Fig. 16
Fr Line Telephone
Jack Ckt, Fig. 17
Remote Cont Jk
Ckt, Fig. 19

Remote Office Test Line
Trunk Make-Busy Ckt,
SD-28037-01:

Trunk Link Frame
Registration Relays,
Fig. 5 (MC Relays
Only for 10 Trk Lk
Frs)
Trunk Link Frame
(302 Type)
Make-Busy Relays,
Fig. 5
(Make-Busy Relays for
10 Trk Lk Frs)
Auxiliary Trunk Link
Frame Registration
Relays, Fig. 10
Auxiliary Trunk Link
Frame Make-Busy
Relays, Fig. 6

WIRE EQUIP NOTES

1 1

1 1

1 1

1 1

1 1

1 1

1 1

10 1

10 1

10 0

8 0

List 2—Equipment and wiring per SD-28037-01,
Fig. 5 (MC relays only), required in addition
to list 1 to provide 58 trunk link frame
registrations and make-busy relays for each
additional trunk link frame (Max 9 list 2).

List 3—Equipment and wiring per SD-28037-01,
Fig. 10 (MC relays only) required in addition
to list 1 to provide 30 auxiliary trunk link
frame registrations for each additional
trunk link frame (Max 10 list 3).

List 4—Equipment and wiring per SD-28037-01,
Fig. 5, (302 type relay) required in addition
to list 1 to provide trunk link frame
make-busy relays for 50 trunks for each
additional trunk link frame (Max 9 list 4).

List 5—Equipment and wiring per SD-28037-01,
Fig. 6 required in addition to list 1 to
provide auxiliary trunk link frame make-busy
relays for ten trunks (Max 38) for each
addition five (Max ten) trunk link frames
(Max eight list 5).

Notes

A. In addition, there are options involving wiring
only as follows:

1. Wiring as specified in Note 102A of
SD-28037-01.

B. The local cable for the frame shall contain the
unit wiring, battery, and ground supply leads,
wiring looped at unequipped apparatus positions,
and wiring between units and the frame
terminal strips for all units listed in Table F,
including list 1 of this J code.

C. All units to be mounted on this frame shall
be provided as required per Table F.

D. This frame has potential make-busy facilities
for Max 880 trunks associated with a Max ten
trunk link frames.

J23263AA—AT&T Co Std—ROTL Control Unit

Equipment—J23263AA-()

List 1—Assembly, wiring, and equipment for ROTL
control unit per SD-27698-01, Fig. 1.

List 2—Wiring and equipment required in addition
to list 1 per SD-27698-01, Fig. 1, W option
when this circuit is to function with the
remote office test control circuit.

**J23263AB—AT&T Co Std—ROTL Pulsing and
Marker Control Unit**

Equipment—J23263AB-()

List 1—Assembly, wiring, and equipment required
for pulsing and marker control per
SD-27698-01, Fig. 2 and 3.

List 2—Wiring and equipment required in addition
to list 1 per SD-27698-01, Fig. 3, and Y
option when this circuit is to function with
the master test frame connector.

List 3—Wiring and equipment per SD-27698-01,
Fig. 3, Q option only, required in addition

to list 1 to provide the cancellation of AMA records on transmission tests feature.

J23263AC—AT&TCo Std—ROTL Timing and Test Control Unit

Equipment—J23263AC-()

List 1—Assembly, wiring, and equipment required for timing and test control per SD-27698-01, Fig. 5 and 6, and SD-94820-01, two Fig. 2 and one Fig. 3.

List 2—Wiring and equipment required in addition to list 1 per SD-27698-01, Fig. 4 when this circuit is to function with the remote office test control circuit.

J23263BA—AT&TCo Std—ROTC Digit Registration Control Unit

Equipment—J23263BA-()

List 1—Assembly, wiring, and equipment required for digit registration control per SD-27727-01, Fig. 1.

J23263BB—AT&TCo Std—ROTC Translation and Test Class Control Unit

Equipment—J23263BB-()

List 1—Assembly, wiring, and equipment required for translation and test class control per SD-27727-01, Fig. 2 and 4.

J23263BC—AT&TCo Std—ROTC Tone and Test Control Unit

Equipment—J23263BC-()

List 1—Assembly, wiring, and equipment required for tone and test control per SD-27727-01, Fig. 5, and SD-94820-01, two Fig. 2.

J23263CA—AT&TCo Std—Make-Busy and Selection Unit

Equipment—J23263CA-()

List 1—Assembly, wiring, and equipment per SD-27799-01, ten Fig. 4, three Fig. 7, one Fig. 8, and one Fig. 9 and Fig. 2 (ROTMB Connector Switch, J23263CC List 1) for one make-busy and selection unit arranged

to provide make-busy facilities for 100 outgoing trunks and equipped to serve 20 trunks. (See Notes B and C.)

List 2—Wiring and equipment per SD-27799-01, eight Fig. 4, and two Fig. 7, required in addition to list 1 to provide make-busy facilities for 16 additional trunks. (Maximum five list 2 per each list 1.)

Notes

A. Reserved.

B. The first make-busy and selection unit may be mounted on the Remote Office Test Frame, J23263A, subsequent units must be relay rack mounted.

C. The local cable for this unit shall contain the wiring for the circuit specified in list 1, wiring looped at unequipped apparatus positions, and all wiring per 100 series circuit notes.

J23263CB—AT&TCo Std—Make-busy and Release Control Unit

Equipment—J23263CB-()

List 1—Assembly, wiring, and equipment per SD-27799-01, Fig. 1, one Fig. 3 and SD-94820-01, Fig. 2, for one make-busy and release control unit arranged to serve 1000 outgoing trunks and equipped to serve 100 trunks. (See Note B.)

List 2—Wiring and equipment per SD-27799-01, one Fig. 3 required in addition to list 1 for each additional 100 outgoing trunks. (Maximum nine list 2 per each list 1.)

Notes

A. Reserved.

B. Battery and ground leads and all cabling between this unit and the remote office test line shall be run in frame local cable.

J23263CC—AT&TCo Std—Remote Office Trunk Make-busy Connector Switch

Equipment—J23263CC-()

List 1—Assembly, wiring, and equipment per SD-27799-01, Fig. 2 for one remote office trunk make-busy connector switch.

J23263DA—AT&T Co Std—ROTL Register Control Unit

Equipment—J23263DA-()

List 1—Assembly, wiring, and equipment for ROTL register control per SD-28036-01, Fig. 1, and SD-94820-01, Fig. 3.

Notes

A. Reserved.

B. This unit mounts in the ROTL register frame.

J23263DB—AT&T Co Std—Digit Steering Unit

Equipment—J23263DB-()

List 1—Assembly, wiring, and equipment for digit steering per SD-28036-01, Fig. 2.

Notes

A. Reserved.

B. This unit mounts on the ROTL REG frame.

J23263DC—AT&T Co Std—Digit Storage Unit

Equipment—J23263DC-()

List 1—Assembly, wiring, and equipment for digit storage per SD-28036-01, Fig. 3.

Notes

A. Reserved.

B. This unit mounts on the ROTL REG frame.

J23263DD—AT&T Co Std—Marker Group Control Unit

Equipment—J23263DD-()

List 1—Assembly, wiring, and equipment for marker group control per SD-28036-01, one Fig. 4 and one Fig. 8.

List 2—Wiring and equipment required in addition

to list 1 for each additional marker group control per SD-28036-01, Fig. 4 (Max two).

List 3—Apparatus required in addition to list 1 when operation with the master test frame connector is provided per SD-28036-01, Z option.

Notes

A. Reserved.

B. This unit mounts on the ROTL register frame.

J23263DE—AT&T Co Std—Marker Control Unit

Equipment—J23263DE-()

List 1—Assembly, wiring, and equipment for marker control per SD-28036-01, Fig. 7.

List 2—Apparatus required in addition to list 1 when used with office test trouble indicator connector per SD-28036-01, Y option.

List 3—Wiring and equipment required in addition to list 1 per SD-28036-01, Fig. 7, X option, for cancellation of AMA records, on transmission tests of all trunks and operational test of E and M trunks.

Notes

A. In addition there are wiring options as specified in Note 102 of SD-28036-01.

B. This unit mounts on the ROTL register frame.

J23263DH—AT&T Co Std—ROTL Access Unit

Equipment—J23263DH-()

List 1—Assembly, equipment, and wiring per SD-28035-01, Fig. 1, 2, 5, 7, and 8, and SD-94820-01, five Fig. 2 and two Fig. 3, for one remote office test line access unit.

List 2—Equipment and wiring per SD-28035-01, Fig. 5, required in addition to list 1 to provide marker group connector relays for each additional marker group (Max two list 2).

Notes

A. Reserved.

- B. The unit mounts on the J23263D frame in Pos 34, left bay.

J23263DJ—AT&TCo Std—Auxiliary ROTL Access Unit

Equipment—J23263DJ-()

List 1—Assembly, equipment, and wiring per SD-28035-01, Fig. 3, to provide trunk make-busy features for the ROTL access circuit.

List 2—Reserved.

List 3—Equipment and wiring per SD-28035-01, Fig. 6, required in addition to list 1 required for each 4-wire marker group. (Max two list 3.)

List 4—Equipment and wiring per SD-28035-01, Fig. 4, required in addition to list 1 when 4-wire testing is required.

Notes

A. Reserved.

B. This unit mounts on the J23263D frame in Pos 36, left bay.

J23263DK—AT&TCo Std—Lamp, Jack, and Key Unit

Equipment—J23263DK-()

List 1—Assembly, wiring, and equipment per SD-28035-01, Fig. 1 and 2, keys and jack only, for one lamp, jack, and key unit. (See Note B.)

Notes

A. Reserved.

B. This is a single-plate unit which mounts on the ROTL register frame in Pos 22.

J23263DL—AT&TCo Std—ROTL Access Balance Test Unit

Equipment—J23263DL-()

List 1—Assembly, wiring, and equipment per SD-28035-01, one Fig. 10 to provide build-out resistor pads for the ROTL access circuit for one marker group.

List 2—Equipment and wiring per SD-28035-01, Fig. 10, required in addition to list 1 for each additional marker group. (Max two list 2.)

List 3—Equipment and wiring per SD-28035-01, Fig. 11, required in addition to list 1 required for each 4-wire marker group. (Max two list 3.)

Notes

A. Reserved.

B. This unit is a single-plate unit which mounts on the ROTL register frame in Pos 20.

J23263EA—AT&TCo Std—Remote Make-Busy Control Unit

Equipment—J23263EA-()

List 1—Assembly, wiring, and equipment per SD-28037-01, Fig. 1, less keys, and per SD-94820-01, Fig. 2 required for remote trunk make-busy and control. (See Note B.)

Notes

A. Reserved.

B. This unit is always required once per three marker groups and so, therefore, needs only to be provided on the first ROTL trunk make-busy control frame.

J23263EB—AT&TCo Std—Route Relay Access Unit

Equipment—J23263EB-()

List 1—Assembly, wiring, and equipment per SD-28037-01, Fig. 3, consisting of one mounting plate and one AJ-type relay to provide one route relay access unit arranged for 100 routes but equipped for only ten routes. (See Note B.)

List 2—Equipment and wiring per SD-28037-01, Fig. 3 (one AK-relay), required in addition to list 1 to provide route relay access for each ten additional routes. (Max of nine list 2.) (See Note B.)

Notes

A. Reserved.

B. J23263EB, when completely equipped, provides route relay access for 100 routes; therefore, a total of four completely equipped J23263EBs are required for 400 routes. This unit mounts on the ROTL trunk make-busy control frame.

J23263EC—AT&TCo Std—Route Relay Unit

Equipment—J23263EC-()

List 1—Assembly, equipment, and wiring per SD-28037-01, Fig. 4 consisting of one mounting plate and one AK-type relay to provide one route relay unit arranged for 20 routes, but equipped for only ten routes. (See Note B.)

List 2—Equipment and wiring per SD-28037-01, Fig. 4, required in addition to list 1 to provide route relays for each ten additional routes. (Max of one list 2.) (See Note B.)

Notes

A. Reserved.

B. J23263EC when completely equipped provides route relays for 20 routes; therefore, a total of 20 completely equipped J23263EC units are required for 400 routes. This unit mounts on the ROTL trunk make-busy control frame.

J23263ED—AT&TCo Std—Group Interrogation Resistor Unit

Equipment—J23263ED-()

List 1—Assembly, equipment, and wiring per SD-28037-01, Fig. 7, less options consisting of one mounting plate and ten component assemblies equipped with ten resistors for one group interrogation resistor unit arranged for 200 trunks to be made busy, but equipped for only 100 trunks. (See Note B.)

List 2—Equipment and wiring per SD-28037-01, Fig. 7, less options, required in addition to list 1 to provide for group interrogation resistors for each 100 additional trunks to

be made busy. (Max one list 2.) (See Note B.)

Notes

A. Reserved.

B. J23263ED, when completely equipped, provides group interrogation resistors for 200 trunks; therefore, a total of seven and one-half J23263ED units are required for 1500 trunks to be made busy (50 trunks per TLF; 30 TLF). This unit mounts on the ROTL trunk make-busy control frame. J23263EF unit provides interrogation resistors for the additional 38 TRK/TLF; 30 TLF.

J23263EE—AT&TCo Std—Lever Key Unit

Equipment—J23263EE-()

List 1—Assembly, wiring, and equipment per SD-28037-01, Fig. 1, keys only, for one lever key unit. (See Note B.)

Notes

A. Reserved.

B. This unit mounts on the first ROTL trunk make-busy control frame only. The keys are required only once per three marker group.

J23263EF—AT&TCo Std—Auxiliary Group Interrogation Resistor Unit

Equipment—J23263EF-()

List 1—Assembly, equipment, and wiring per SD-28037-01, ten Fig. 9, to provide auxiliary group interrogation resistors for ten trunks when more than 50 trunks per trunk link frame are to be made busy, arranged for 20 trunk link frames, but equipped for ten trunk link frames. (See Note B.)

List 2—Equipment and wiring per SD-28037-01, ten Fig. 9, required in addition to list 1 to provide auxiliary group interrogation resistors for ten trunk link frames. (Max one list 2.)

Notes

A. Reserved.

- B. This unit mounts on the ROTL trunk make-busy control frame. Each unit has a capacity of ten trunks for each of 20 trunk link frames. Therefore, six units will accommodate 40 additional trunks for 30 trunk link frames.

***J23263FA—AT&T Co Std—Trunk Link Frame
Cross Resistor Unit***

Equipment—J23263FA-()

List 1—Assembly, equipment, and wiring per SD-28037-01, Fig. 8, for a trunk link frame cross resistor unit arranged for ten trunk link frames.

Notes

- A. Reserved.
- B. This is a single-plate unit mounted on the ROTL trunk make-busy frame.

5. GENERAL NOTES

Wiring

- 5.01** All J-coded relay units covered by this specification shall be surface wired and interconnected by the frame local cable.

Equipment

- 5.02** All designation strips for the key, jack, and lamp panel shall be furnished completely designated.

- 5.03** A ROTL System test set (RSTS) per H310-150 for manually controlling and testing remote office test lines (ROTL) shall be provided for either the small or expanded ROTL Systems.

- 5.04** Codes J23263C, E through Y, AD through AY, BD through BY, CD through CY, DF, DG, DM through DY, and EG through EY are unassigned.

Note: Table B and Table C are unassigned.

List of A&M Only and Mfr Disc. Equipment

EQUIPMENT	RATING	DETAILS	
		LAST SHOWN IN ISSUE	REPLACING EQUIPMENT
J23263BC,L2 Mfr Disc. L3		1	J23263BC,L1

The above equipment has been replaced as indicated. Where A&M Only items appear, the issue numbers shown are those of the issue in which the rating was first applied.

TABLE A

REMOTE OFFICE TEST FRAME — J23263A

COMPONENT EQUIPMENT UNITS SHALL BE EQUIPPED AS FOLLOWS:				
UNIT		QUANTITY TO BE PROVIDED		DESCRIPTION OF OPTION
J CODE	LIST NO.	ALWAYS	FOR OPTION INDICATED	
J23263B	1	1		
	2	1		
	3		1	Master test frame conn provided
	4		1	ROTMB provided
	5		20	Trunk group translation per SD-27727-01 (Maximum 20)
J23263AA	1	1		
	2		1	ROTC provided
J23263AB	1	1		
	2		1	Master test frame conn provided
	3		1	Cancel AMA records on transmission tests.
J23263AC	1	1		
	2		1	ROTC provided
J23263BA	1		1	ROTC provided
J23263BB	1		1	
J23263BC	1	1		For tone and test Control
J23263CB	1		1	Make-busy and release control unit equipped to serve 100 outgoing trunks
	2		9	Additional apparatus per list 2 to serve 100 trunks (Maximum nine list 2)

TABLE D

REMOTE OFFICE TEST LINE REGISTER FRAME – J23263D

COMPONENT EQUIPMENT UNITS SHALL BE EQUIPPED AS FOLLOWS:				
UNIT		QUANTITY TO BE PROVIDED		DESCRIPTION OF OPTION
J CODE	LIST NO.	ALWAYS	FOR OPTION INDICATED	
J23263DA	1	1		
J23263DB	1	1		
J23263DC	1	1		
J23263DD	1	1		
	2		1	For each additional marker group (max 2)
	3		1	When operation with MTFC is prov.
J23263DE	1	1		
	2		1	When operation with OTTIC is prov.
	3		1	For cancellation of AMA records on transmission tests of all trunks and operational test of E and M trunks.
J23263DF				Reserved
J23263DG				Reserved
J23263DH	1	1		
	2		1	For each additional marker group (max 2)
J23263DJ	1		1	ROTL trk make-busy provided
	2			Reserved
	3		1	For each 4-wire marker group (Max 2 list 3)
	4		1	When offices arranged for 4-wire testing
J23263DK	1	1		Lamps, jacks, and keys
J23263DL	1	1		Build-out resistor pads
	2		1	For each additional marker group (Max 2 list 2)
	3		1	For each 4-wire marker group (Max 2 list 3)
J94008A	1	1		
	2	3		8A Tone Detector
J99337A	1	1		MF pulsing Rcvr
	2	1		

TABLE E

ROTL TRUNK MAKE-BUSY CONTROL FRAME - J23263E

COMPONENT EQUIPMENT UNITS SHALL BE EQUIPPED AS FOLLOWS:							
UNIT				QUANTITY TO BE PROVIDED		DESCRIPTION OF OPTION	REMARKS
POSITION	BAY	J CODE	LIST NO.	ALWAYS	FOR OPTION INDICATED		
28	R	J23263EA	1	1		Remote make-busy control unit	Required only once per 3 marker groups (first ROTL trk MB cont Fr)
35	R	J23262EB	1	1		Route relay access unit for ten routes	Four fully equipped J23263EB units provides for 400 routes
			2		9	For ten additional routes (Max nine list 2)	
2	R	J23263EC	1	1		Route relay unit ten routes	Twenty fully equipped J23263EC units provides for 400 routes
			2		9	For ten additional routes (Max one list 2)	
42	L	J23263ED	1	1		Group interrogation resistors (100 trk M-B)	Seven and one-half equipped J23263ED units provides for 1500 trunks made busy (50 Trks/TLF; 30 TLF)
			2		1	For 100 additional trunks made-busy (Max one list 2)	
23	R	ED-27699-()	Grp 42	1		One per 3 mkr groups	Required only on the first ROTL trunk make-busy control frame
			Grp 43	1		One per 3 mkr groups	
27	R	J23263EE	1	1		Lever key unit	Required once per Mkr group
50	L	J23263EF	1		1	Aux group interrogation resistors for 20 TLF	Six equipped J23263EF units provides for the additional 1140 trunk make-busy (38 Trks/TLF; 30 TLF)
			2		1	Aux group interrogation resistors for 10 TLF	

TABLE F

ROTL TRUNK MAKE-BUSY FRAME — J23263F

COMPONENT EQUIPMENT UNITS SHALL BE EQUIPPED AS FOLLOWS:						
		UNIT		QUANTITY TO BE PROVIDED		DESCRIPTION OF OPTION
POSITION	BAY	J CODE	LIST NO.	ALWAYS	FOR OPTION INDICATED	
28	-	J23263FA	1	1		For one trunk link frame cross resistor unit arranged for 10 TLF
						1 per each Trk MB frame

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