

2-WAY INTEROFFICE TRUNKS
RELAY RACK UNITS
EQUIPMENT DESIGN REQUIREMENTS
STEP-BY-STEP SYSTEMS

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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 manufacture and installation of relay-rack mounted, 2-way interoffice trunks in step-by-step offices.

1.02 This specification is reissued to:

- (a) Rate J33014A A&M Only
- (b) Revise J33014A List 8
- (c) Revise J33014F List 8
- (d) Rate J33014F List 12 Mfr Disc
- (e) Rate J33014G List 7 Standard
- (f) Remove J33014G Note C
- (g) Revise J33014G Lists 13 and 14 and Note J
- (h) Revise J33014N List 5
- (i) Revise J33014W List 6
- (j) Revise J33014AL Lists 1 and 4
- (k) Add J33014AL List 5
- (l) Revise J33014AP List 10.

DESCRIPTION

1.03 It is intended eventually to include in this specification all relay-rack units for 2-way

interoffice trunks which are arranged on 2-inch wide mounting plates.

1.04 These relay-rack units consist of one or more mounting plates, 2 inches wide by 23 inches long, on which the apparatus for one or more circuits is mounted and surface wired to one or more unit terminal strips. The terminal strips facilitate shop testing of the circuit, provide a place for strapping used to obtain circuit options, and serve as a convenient place for the installer to make the necessary external connections. These 2-inch units may be mounted on relay racks drilled for 1-3/4 inch mounting plates by using adapters per ED-92243-() as illustrated on ED-92242-01.

1.05 All units covered by this specification are surface wired.

1.06 The choice of a trunk circuit to be used for a particular installation is covered on the keysheet for that system.

1.07 When making an incoming trunk busy, it is ordinarily necessary to do this at the preceding equipment, usually in the distant originating office. As an indication or reminder to this effect, a transparent, red-tinted plastic sheet designation card cover per P-40C869 is available for inserting in the trunk designation card holder over the designation card. This imparts a red color to the designation card but does not appreciably reduce the visibility of the information. These covers are available in package lots of 100. They may be applied by the installer or telephone company maintenance forces, as required.

2. SUPPLEMENTARY INFORMATION

814-000-000—Step-by-Step Systems Index

800-600-000—Checking List — General Equipment Requirements

J33013—814-520-150—One-Way Interoffice Trunks—Relay Rack Units

NOTICE

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

J33107—814-005-151 — Miscellaneous Realy Rack Units — 2- by 23-Inch Mounting Plates
 J38805—814-005-151 — 355A Dial Office
 J39206—814-005-150 — List of Requirement Specifications for No 1 and 350A Offices

3. DRAWINGS

ED-91837-01—Relay Rack Assembly—Angle Type—1-Foot 0-Inch Sheet-Metal Base, 9 Feet 0 Inch, 10 Feet 6 Inches, and 11 Feet 6 Inches High
 ED-92242-01—Application of 2-Inch Plates or Units to 1-3/4 Inch Racks or 1-3/4 Inch Plates or Units to 2-Inch Racks — Typical
 ED-92243-()—Relay Rack Unit Framework
 ED-92465-01—Relay Rack Assembly — Floor-Supported — Bulb-Angle Uprights — Height 6 Feet 10-1/2 Inches
 SD-31250-01—No 360A Dial Offices — Keysheet
 SD-31359-01—No 1 Offices — Keysheet
 SD-31364-01—No 350A Offices — Keysheet
 SD-31780-01—No 355A Offices — Keysheet
 SD-90250-01—Master Keysheet — All Systems — Keysheet

4. EQUIPMENT

J33014A—A&M Only — 2-Way Trunk Unit — To Manual or Toll Office — AB Toll — Loop Signaling and Toll Grade Transmission

List 2—Wiring and equipment per SD-31712-01, Fig A required in addition to list 1 or 8 when trunk pulsing loop is less than 1200 ohms.
List 3—Wiring and equipment per SD-31712-01, Fig B required in addition to list 1 or 8 when trunk pulsing loop is more than 1200 ohms.
List 4—Wiring and equipment per SD-31712-01, Fig 1, X apparatus only, required in addition to list 1 or 8 when required to furnish dial tone to a distant manual or toll office.
List 5—Repeating coil per SD-31712-01, Fig 1, A apparatus only, required in addition to list 1 or 8 for use with trunk having less than 735-ohm impedance at 1000 hertz.
List 6—Repeating coil per SD-31712-01, Fig 1, B apparatus only, required in addition to list 1 or 8 for use with trunk having between 735- and 1100-ohm impedance at 1000 hertz.
List 7—Repeating coil per SD-31712-01, Fig 1, C apparatus only, required in addition to list 1 or

8 for use with trunk having greater than 1100-ohm impedance at 1000 hertz.

List 8—Framework, assembly, wiring, and equipment for one 2-way trunk unit to manual or toll office, AB toll loop signaling and toll grade transmission per SD-31712-01, Fig 1 with G, H, ZB, and ZE wiring and ZE apparatus. (See Notes A, B, C, and D.) (One circuit per unit, two mounting plates per unit.)

Notes

- A. When release of calls from operator to subscriber is under control of both operator and subscriber, Fig 1, Y wiring only shall be specified (A&M Only)
- B. When release of calls from operator to a subscriber is under control of the operator only, Fig 1, V wiring only shall be specified.
- C. The A resistance lamp shall be mounted on the miscellaneous fuse and lamp panel bays.
- D. When tandem selectors are used with this unit, the installer shall connect H strapping at the unit terminal strip.
- E. Wiring per SD-31712-01, Fig 1, ZC wiring only shall be specified in addition to list 8 when connection to a coin control trunk circuit is required.

J33014C—AT&T Co Std—2-Way Operator Office Trunk Unit — One-Digit Tandem Operations — CX Signaling Type B — For Use in Office Beyond Tandem (No 355A Dial Office)

- List 1*—Framework, assembly, wiring, and equipment for one 2-way operator office trunk unit not arranged for busy flash to operator per SD-31823-01, Fig 1, with X wiring. (One circuit per unit, two mounting plated per unit.)
List 2—Wiring and equipment per SD-31823-01, Fig A required in addition to list 1 for fuse failure make-busy feature for one trunk. (See Note C.)
List 3—Wiring and equipment per SD-31823-01, Fig 2 required in addition to list 1 for fuse failure make-busy battery supply, (See Note C.)
List 4—Wiring and equipment per SD-31823-01, Fig 3 required in addition to list 1 for one class-of-service tone.

- List 5**—Wiring and equipment per SD-31823-01, Fig 4 required in addition to list 1 for two class-of-service tones.
- List 6**—Wiring and equipment per SD-31823-01, Fig 1, T apparatus only, required in addition to list 1 when this trunk connects to a signaling circuit which provides only E and M leads such a N1 carrier. (See Note B.)
- List 7**—Wiring and equipment per SD-31823-01, Fig 1, Q apparatus only, required in addition to list 1 for idle line termination.
- List 8**—Wiring and equipment per SD-31823-01, Fig 1, W apparatus only, required in addition to list 1 when busy flash to operator is to be provided.

Notes

- A. Wiring per SD-31823-01, Fig B shall be specified in addition to list 1 when fuse failure make-busy feature is not furnished.
- B. Wiring per SD-31823-01, Fig 1, V wiring only, shall be specified in addition to list 1 when this trunk connects to a signaling circuit which provides E, M, and N leads such as CX signaling circuit.
- C. For trunks with fuse failure make-busy feature, the first trunk in the office must be provided with a special battery supply per list 3.

J33014D—AT&T Co Std—2-Way Operator Office Trunk Unit — One-Digit Tandem Operation — CX Signaling Type B — One-Way Automatic, One-Way Dialing — For Use in Office With Tandem Feature

- List 4**—Framework, assembly, wiring, and equipment for one 2-way trunk unit, less fuse failure make-busy feature and emergency battery circuit per SD-31821-01, Fig 1, B, and C, with S apparatus. (One circuit per unit, two mounting plates per unit.)
- List 5**—Framework, assembly, wiring, and equipment for one 2-way trunk unit, with fuse failure make-busy feature but less emergency battery circuit per SD-31821-01, Fig 1, A, and C, with S apparatus. (See Note A.) (One circuit per unit, two mounting plates per unit.)
- List 6**—Framework, assembly, wiring, and equipment for one 2-way trunk unit, with fuse failure

make-busy feature and emergency battery circuit per SD-31821-01, Fig 1, 2, A, and C, with S apparatus. (See Note A.) (One circuit per unit, two mounting plates per unit.)

- List 7**—Wiring and equipment per SD-31821-01, Fig 1, X apparatus only, required in addition to list 4, 5, or 6 for use when a telephone repeater is used in an associated trunk.

Notes

- A. For trunks with the fuse failure make-busy feature, the first trunk in the office must be per list 6, with subsequent trunks per list 5.
- B. Wiring per SD-31821-01, Fig D required in addition to list 4, 5, or 6 when trunk circuit is reached through incoming selector arranged for returning busy flash on calls from operators (omit Fig C).

J33014E—A&M Only — 2-Way Trunk Unit — To Manual or Toll Office — Arranged for CX Signaling, Tandem Operation, and Local Grade Transmission

- List 6**—Wiring and equipment required in addition to list 7, 8, or 9 when trunk is connected to tandem selector banks per SD-31685-01, R wiring and apparatus only, less N wiring.
- List 9**—Framework, assembly, wiring, and equipment for one 2-way trunk to manual or toll office, arranged for CX signaling, tandem operation, and local grade transmission per SD-31685-01, Fig 1 and B, with A, M, N, X, Y, and ZB wiring and ZB apparatus. (See Notes A, B, C, and D.) (One circuit per unit, two mounting plates per unit.)
- List 10**—Wiring and equipment per SD-31685-01, Fig 4 required in addition to list 9 when signaling circuit is N1 carrier or similar.

Notes

- A. X and Y wiring is provided for at the unit terminal strip.
- B. The A resistance lamp shall be located on a lamp panel on the miscellaneous fuse and lamp panel bay.
- C. Provide J wiring on unit terminal strip when a carrier or voice-frequency repeater other than type E is used.

- D. Wiring per SD-31685-01, Fig 1, K wiring only, omit M wiring, shall be specified in addition to list 9 when connection to a coin control trunk circuit is required.
- E. List 7 (Mfr Disc) for No 350A office may be modified for connection to a coin control trunk circuit by adding A, K, and ZB wiring and ZB apparatus and omitting B, M, and ZA wiring.

J33014F—A&M Only — 2-Way AB Toll CX Trunk Unit — To Manual or Toll Office — CX Signaling Type B

- List 2**—Wiring and equipment per SD-31749-01, Fig 1, V wiring, and Fig 2, required in addition to list 1 or 8 when fuse failure make-busy feature is required. (See Note B.)
- List 5**—Wiring and equipment per SD-31749-01, Fig 1, H apparatus only, required in addition to list 1 or 8 when an idle line termination is required.
- List 6**—Wiring and equipment per SD-31749-01, Fig 1, B apparatus only, required in addition to list 1 or 8 when class-of-service tone to operator is required in No 350A office. (See Note D.)
- List 7**—Wiring and equipment per SD-31749-01, Fig 1, E apparatus only, required in addition to list 1 or 8 when one or two class-of-service tones are required in No. 355A office. (See Note F.)
- List 8**—Framework, assembly, wiring, and equipment for one 2-way trunk circuit per SD-31749-01, Fig 1 and D with G, Q, W, and ZA wiring and ZG and ZH apparatus. (See Note A.)
- List 9**—Wiring and equipment per SD-31749-01, Fig 5 required in addition to list 8 for pulse repeating feature when trunk is connected to a signaling circuit which provides only E and M leads, such as the N1 carrier.
- List 10**—Wiring and equipment per SD-31749-01, Fig 1, J and ZB apparatus only, required in addition to list 8 for one-digit tandem trunks on banks of toll incoming selector. (See Note E.)
- List 11**—Wiring and equipment per SD-31749-01, Fig 1, F apparatus only, required in addition to list 8 when tandem selectors have access to this circuit. (See Note C.)
- List 13**—Wiring and equipment per SD-31749-01, Fig 1, Y apparatus and wiring and M, N, and T wiring only, required in addition to list 7 for two class-of-service tones (interrupted tone

to operator if resistance ground is on A lead from selector; steady tone to operator if direct ground is on A lead).

- List 14**—Wiring and equipment per SD-31749-01, Fig 1, Y apparatus and wiring and K, L, and T wiring only, required in addition to list 7 for two class-of-service tones (interrupted tone to operator if direct ground is on A lead from selector; steady tone to operator if resistance ground is on A lead).

Notes

- A. R wiring (A&M Only) per SD-31749-01, Fig 1 shall be provided in place of Q wiring in list 8 when joint (operator and subscriber) control of the trunk in No 355A office is required.
- B. W wiring in list 8 shall be omitted when list 2 is specified and connection to traffic usage recorder circuit is not required.
- C. G wiring in list 8 shall be omitted when list 11 is specified.
- D. M, S, and Z wiring in Fig 1 of SD-31749-01 shall be provided when list 6 is specified.
- E. ZA wiring in list 8 shall be omitted when list 10 is specified.

J33014G—AT&T Co Std — 2-Way Trunk Unit — To Manual or Toll Office — CX Signaling Type B — Local Grade Transmission.

- List 3**—Wiring and equipment per SD-31775-01, Fig 1, M, N, T, and Y wiring and Y apparatus only, required in addition to list 1, 8, 11, 12, 13, or 14 for two class-of-service tones (steady tone to operator if direct ground is on lead from selector; interrupted tone to operator if resistance ground is on A lead).
- List 4**—Wiring and equipment per SD-31775-01, Fig 1, K, L, T, and Y wiring and Y apparatus only, required in addition to list 1, 8, 11, 12, 13, or 14 for two class-of-service tones (interrupted tone to operator if direct ground is on A lead from selector; steady tone to operator if resistance ground is on A lead).
- List 5**—Wiring and equipment per SD-31775-01, Fig 1, Q apparatus only, required in addition to list 1, 8, 11, 12, 13, or 14 when telephone repeater is used in trunk at manual or toll

office or when carrier channels are used for trunks to master offices.

List 7—Wiring and equipment per SD-31775-01, Fig 1, A wiring and apparatus only, required in addition to list 1, 8, 11, 12, 13, or 14 when tandem operation is required.

List 9—Wiring and equipment per SD-31775-01, Fig 4, required in addition to list 1, 8, 11, 12, 13, or 14 when pulse repeating feature is required for connecting signal circuit such as N1 carrier.

List 13—Framework, assembly, wiring, and equipment for one 2-way trunk per SD-31775-01, Fig 1, 2, and B, with G, W, ZA, ZG, ZM, ZQ, ZS, ZU, YB, and YE wiring and G apparatus for use in a 355A office or in a No 1 or 350A office with precise tone supply. (See Notes A, B, C, E, F, G, H, I, and J. (One circuit per unit, two mounting plates per unit.)

List 14—Framework, assembly, wiring, and equipment for one 2-way trunk per SD-31775-01, Fig 1, 2, and B, with W, ZA, ZG, ZH, ZM, ZO, ZS, ZU, YB, and YE wiring and ZH apparatus for use in a No 1 or 350A office without a precise tone supply. (See Notes A, B, C, F, G, H, I, J and K. (One circuit per unit, two mounting plates per unit.)

Notes

- A. For one class-of-service tone (steady tone to operator), Fig 1, M, S, and X wiring only, shall be provided.
- B. For one class-of-service tone (interrupted tone to operator), Fig 1, L, T, and X wiring only, shall be provided.
- C. Wiring per SD-31775-01, Fig 1, ZF wiring only, omit ZG wiring, shall be specified in addition to list 1, 8, 11, 12, 13, or 14 when connection to a coin control trunk circuit is required.
- D. The RT audible ringing lamp shall be located on a miscellaneous fuse and lamp panel bay (No 1 or 350A).
- E. When this unit is used in a No. 355A office, SD-31775-01, Fig 1, ZJ wiring only, shall be provided.
- F. A&M Only — Wiring per SD-31775-01, Fig 1, ZN wiring only, omit ZM wiring, shall be specified in addition to list 11, 12, 13, or 14 when

some inward calls completed through tandem trunks with others completed through local connectors.

- G. A&M Only — Wiring per SD-31775-01, Fig 1, ZM wiring only, omit ZN wiring, is required on existing trunks when all inward calls are completed through local and/or combination connectors.
- H. Wiring per SD-31775-01, Fig 1, ZR, ZT, and ZV wiring only, required in addition to list 13 or 14 when the positive talk battery and trunk busy when fuse operates feature is required. (Omit ZQ, ZS, and ZU wiring.)
- I. When units per lists 13 or 14 are associated with No 4A, 4M toll crossbar or No 5 crossbar (toll) or No 4 ESS office; and timed off-hook signal on seizure is required, furnish one integrity check timing unit J33017EH (20 circuits) per SD-35077-01 Fig 1 for each 20 or fewer trunk units. Each unit per J33017EH must be located so that the cable length does not exceed 1000 feet to the associated trunks. Furnish YC wiring and omit YB wiring.
- J. When this unit is associated with positive talk battery and trunk busy when fuse operates feature, per SD-31775-01, Fig 2, an applique unit J33017CB must be furnished.
- K. For field modification of trunk units per list 14 when precise tone supply is required, the J resistor (ZH apparatus) shall be strapped out.

J33014H—AT&T Co Std—2-Way Operator Office Trunk Unit — One-Digit Tandem Operation — Loop Signaling—One-Way Automatic, One-Way Dialing — For Use in Office With Tandem Feature

- List 2**—Repeating coil per SD-31820-01, Fig 1, A apparatus only, required in addition to list 1 or 6 for use with trunk having less than 735-ohm impedance at 1000 hertz.
- List 3**—Repeating coil per SD-31820-01, Fig 1, B apparatus only, required in addition to list 1 or 6 for use with trunk having between 735- and 1100-ohm impedance at 1000 hertz.
- List 4**—Repeating coil per SD-31820-01, Fig 1, C apparatus only, required in addition to list 1 or 6 for use with trunk having greater than 1100-ohm impedance at 1000 hertz.

List 5—Wiring and equipment per SD-31820-01, Fig 2 required in addition to list 1 or 6 for fuse failure make-busy feature for one trunk.

List 6—Framework, assembly, wiring, and equipment for one 2-way operator office trunk unit per SD-31820-01, Fig 1, with M apparatus and Y wiring. (See Notes A, B, and C.) (One circuit per unit, two mounting plates per unit.)

Notes

A. For a trunk having conductor loop resistance greater than 1200 ohms, SD-31820-01, Fig 1, Z wiring only, shall be provided.

B. When fuse failure make-busy feature per list 5 is specified, Y wiring in list 6 shall be omitted.

C. The installer shall, according to job requirements, connect J or K wiring to the unit terminal strip for connection either to a group busy register or the traffic usage recorder circuit.

J33014J—AT&TCo Std — Trunk Release Unit — For Alarm Sender — For Use With No 355A One-Digit Tandem Combined Operator Office and Interlocal Trunks

List 1—Assembly, wiring, and equipment for one trunk release unit per SD-31993-01, Fig 1. (One circuit per unit, two mounting plates per unit.)

J33014K—AT&TCo Std—2-Way Operator Office Trunk Unit — One-Digit Tandem Operation—Reverse Battery Supervision — Type A or B Transmission Battery Supply — For Use in Office Beyond Tandem

List 1—Framework, assembly, wiring, and equipment for one 2-way operator office trunk unit per SD-31822-01, Fig 1, less all optional features. (See Note A.) (One circuit per unit, three mounting plates per unit.)

List 2—Repeating coil per SD-31822-01, Fig 1, A apparatus only, required in addition to list 1 for use with trunk having less the 735-ohm impedance at 1000 hertz.

List 3—Repeating coil per SD-31822-01, Fig 1, B apparatus only, required in addition to list 1 for use with trunk having between 735- and 1100-ohm impedance at 1000 hertz.

List 4—Repeating coil per SD-31822-01, Fig 1, C apparatus only, required in addition to list 1 for

use with trunk having greater than 1100-ohm impedance at 1000 hertz.

List 5—Wiring and equipment per SD-31822-01, Fig 2 required in addition to list 1 for fuse failure make-busy feature.

List 6—Wiring and equipment per SD-31822-01, Fig 3 required in addition to list 1 for one class-of-service tone.

List 7—Wiring and equipment per SD-31822-01, Fig 4 required in addition to list 1 for two class-of-service tones.

Note

A. When fuse failure make-busy feature per list 5 is not specified, SD-31822-01, Fig 1 X wiring only, shall be provided in addition to list 1.

J33014L—AT&TCo Std — 2-Way Trunk Unit — Between Step-by-Step Offices — Arranged to Repeat Dial Pulses

List 1—Framework, assembly, wiring, and equipment for one 2-way trunk between step-by-step offices per SD-31602-01, Fig 1 and B, with Y and Z wiring. (One circuit per unit, two mounting plates per unit.)

List 2—Wiring and equipment per SD-31602-01, V and X apparatus only, required in addition to list 1 when associated trunks in distant office connect directly into an incoming selector.

J33014M—AT&TCo Std — 2-Way Combined Operator Office and Interlocal Trunk Unit — One-Digit Tandem Operation — Loop Signaling — Battery and Ground Pulsing—Type B Transmission Battery Supply — For Use in Offices With Tandem Feature

List 1—Framework, assembly, wiring, and equipment for one 2-way combined operator office and interlocal trunk unit per SD-31886-01, Fig 1 less all optional features. (See Notes A, B, and C.) (One circuit per unit, two mounting plates per unit.)

List 2—Repeating coil per SD-31886-01, Fig 1, P apparatus only, required in addition to list 1 for use with trunk having less than 735-ohm impedance at 1000 hertz.

List 3—Repeating coil per SD-31886-01, Fig 1, N apparatus only, required in addition to list 1 for use with trunk having between 735- and 1100-ohm hertz.

List 4—Repeating coil per SD-31886-01, Fig 1, X apparatus only, required in addition to list 1 for use with trunk having greater than 1100-ohm impedance at 1000 hertz.

List 5—Wiring and equipment per SD-31886-01, Fig 1, M wiring only, and Fig 2 required in addition to list 1 for fuse failure make-busy feature.

Notes

A. For a trunk having conductor loop resistance greater than 1200 ohms, Fig 1, W wiring only, shall be specified.

B. When fuse failure make-busy feature per list 5 is not specified, Fig 1, K wiring only, shall be provided.

C. When this unit is to be used in No 35E97 offices, Fig 1, J wiring only, shall be provided.

J33014N—AT&T Co Std — 2-Way Interlocal Trunk Unit — CX Signaling Type B or SX Signaling — With Pulse Correction on Incoming Calls

List 3—Wiring and equipment per SD-31867-01, R wiring and apparatus required in addition to list 1 or 5 when trunk is connected to a signaling circuit which provides E, M, and N leads such as a CX signaling circuit.

List 4—Wiring and equipment per SD-31867-01, Q wiring and Q and E apparatus required in addition to list 1 or 5 when connected to a signaling circuit which provides E and M leads only, such as N1 carrier.

List 5—Framework, assembly, wiring, and equipment per SD-31867-01, Fig 1 and B, with A, B, F, and G wiring and, A, B, F, G, K, N, and T apparatus.

List 6—A&M Only — Wiring and equipment per SD-31867-01, M apparatus and wiring required in addition to list 5 when this trunk is used in No 35E97 offices.

List 7—Wiring and equipment per SD-31867-01, J apparatus and wiring required in addition to list 5 when carrier or voice frequency repeaters other than type E are used.

J33014P—AT&T Co Std — 2-Way Combined Operator Office and Interlocal Trunk Unit — One-Digit Tandem Operation — Loop Signaling — Battery and Ground

Pulsing—Type B Transmission Battery Supply — For Use in Office Beyond Tandem

List 2—Framework, assembly, wiring, and equipment for one 2-way combined operator office and interlocal trunk unit required in addition to list 8 when it is required to dial a manual office via tandem office per SD-31877-01, Fig B (omit Fig A). (See Note A.) (One circuit per unit, one additional mounting plate per unit.)

List 3—Repeating coil per SD-31877-01, Fig 1, W apparatus only, required in addition to list 8 for use with trunk having less than 735-ohm impedance at 1000 hertz.

List 4—Repeating coil per SD-31877-01, Fig 1, V apparatus only, required in addition to list 8 for use with trunk having between 735- and 1100-ohm impedance at 1000 hertz.

List 5—Repeating coil per SD-31877-01, Fig 1, U apparatus only, required in addition to list 8 for use with trunk having greater than 1100-ohm impedance at 1000 hertz.

List 6—Wiring and equipment per SD-31877-01, Fig 2 required in addition to list 8 for one class-of-service tone.

List 7—Wiring and equipment per SD-31877-01, Fig 3 required in addition to list 8 for two class-of-service tones.

List 8—Framework, assembly, wiring, and equipment for one 2-way combined operator office and interlocal trunk unit with busy flash per SD-31877-01, Fig 1, A and E, less all optional apparatus. (See Note B.) (One circuit per unit, three mounting plates per unit.)

Notes

A. The installer shall connect the A and B leads, as required.

B. For a trunk having conductor loop resistance greater than 1200 ohms, SD-31877-01, Fig 1, X wiring only, shall be specified in addition to list 1.

J33014R—AT&T Co Std—Interlocal Trunk Unit For 2-Way Dialing Between Step-by-Step Dial Offices—Arranged To Repeat Dial Pulses on Outgoing Calls

List 1—Framework, assembly, wiring, and equipment for one interlocal trunk for 2-way dialing

between offices, per SD-31658-01, Fig 1, with Z wiring. (See Note A.) (One circuit per unit, one mounting plate per unit.)

Note

- A. When trunk conductor loops exceed 400 ohms, SD-31658-01, Fig 1, X wiring only, shall be specified in addition to list 1.

J33014S—AT&T Co Std — 2-Way Trunk Unit — To Manual or Toll Office — With Loop Signaling and Local Grade Transmission — For Loops Up to 2000 Ohms

- List 2**—Repeating coil per SD-31709-01, Fig 1, A apparatus only, required in addition to list 7 or 8 for use with trunk having less than 735-ohm impedance at 1000 hertz.
- List 3**—Repeating coil per SD-31709-01, Fig 1, B apparatus only, required in addition to list 7 or 8 for use with trunk having between 735- and 1100-ohm impedance at 1000 hertz.
- List 4**—Repeating coil per SD-31709-01, Fig 1, C apparatus only, required in addition to list 7 or 8 for use with trunk having greater than 1100-ohm impedance at 1000 hertz.
- List 5**—Equipment per SD-31709-01, Fig 1, E apparatus only, required in addition to list 7 or 8 when pulsing loop is more than 1200 ohms.
- List 6**—Equipment per SD-31709-01, Fig 1, D apparatus only, required in addition to list 7 or 8 when pulsing loop is 1200 ohms or less.
- List 7**—Framework, assembly, wiring, and equipment for one 2-way trunk to manual or toll office, with loop signaling and local grade transmission, for loops up to 2000 ohms and for use in No 350A offices per SD-31709-01, Fig 1 and A, with H wiring and X, V, and U apparatus, less all other options. (See Note A.) (One circuit per unit, two mounting plates per unit.)
- List 8**—A&M Only — Framework, assembly, wiring, and equipment for one 2-way trunk to manual or toll office, with loop signaling and local grade transmission, for loops up to 2000 ohms and for use in No 360A dial offices per SD-31709-01, Fig 1 and B, with T and R apparatus and H and Y wiring. (One circuit per unit, two mounting plates per unit.)
- List 9**—Equipment per SD-31709-01, Fig 1, S wiring and apparatus only, required in addition to list 7 or 8 when trunk is connected to tandem selector banks.

Notes

- A. The A resistance lamp shall be mounted on the miscellaneous fuse and lamp panel bay.
- B. Wiring per SD-31709-01, Fig 1, G wiring only, omit H wiring, shall be specified in addition to list 7 or 8 when connection to a coin control trunk circuit is required.

J33014W—A&M Only — 2-Way Trunk Unit — To Manual or Toll Office — With Toll Grade Transmission and for Loops Up to 2000 Ohms

- List 2**—Repeating coil per SD-31684-01, Fig 1, A apparatus only, required in addition to list 6 for use with trunk having less than 735-ohm impedance at 1000 hertz.
- List 3**—Repeating coil per SD-31684-01, Fig 1, B apparatus only, required in addition to list 6 for use with trunk having between 735- and 1100-ohm impedance at 1000 hertz.
- List 4**—Repeating coil per SD-31684-01, Fig 1, C apparatus only, required in addition to list 6 for use with trunk having greater than 1100-ohm impedance at 1000 hertz.
- List 5**—Capacitor per SD-31684-01, Fig 1, Y apparatus only, required in addition to list 6 when dial tone is required.
- List 6**—Framework, assembly, wiring, and equipment for one 2-way trunk to manual or toll office with toll grade transmission and for loops up to 2000 ohms per SD-31684-01, Fig 1, with ZB wiring and N and ZB apparatus. (See Notes A and B.) (One circuit per unit three mounting plates per unit.)
- List 7**—Wiring and equipment per SD-31684-01, Fig 1, M apparatus only, required in addition to list 6 when trunk is connected to tandem selector banks.

Notes

- A. The T and R resistance values shall be selected as required for each particular job. See SD-31684-01, Note 102.
- B. The A resistance lamp shall be located on a miscellaneous fuse and lamp panel bay.

J33014AA—AT&T Co Std—Unit for One Trunk— One or 2-Way Incoming or Outgoing Trunk Unit — To Manual Office

- List 1**—Assembly, wiring, and equipment per SD-31449-01, Fig 1 and B, with options R, V, and W less all other options for one trunk. (See Note A.) (One circuit per unit, two mounting plates per unit.)
- List 2**—Wiring and equipment per SD-31449-01, Fig 2 required in addition to list 1 when used as a 2-way trunk.
- List 3**—Wiring and equipment per SD-31449-01, Fig A required in addition to list 1 when required to absorb extra digits (omit Fig B).
- List 4**—Wiring and equipment per SD-31449-01, Fig 1, Y apparatus only, required in addition to list 1 when used in tandem office or in offices where toll grade transmission is not required.
- List 5**—Wiring and equipment per SD-31449-01, Fig 1, X apparatus only, required in addition to list 1 when list 4 is not specified.
- List 6**—Repeating coil per SD-31449-01, Fig 1, A apparatus only, required in addition to list 1 when connecting to a toll switchboard or used as a tandem trunk and when the ratio of trunk-to-office impedance at 1000 hertz is 0.8 to 1.25.
- List 7**—Repeating coil per SD-31449-01, Fig 1, B apparatus only, required in addition to list 1 when connecting to a toll switchboard or used as a tandem trunk when the ratio of trunk-to-office impedance at 1000 hertz is less than 0.8 and office impedance at 1000 hertz is 1100 ohms or less.
- List 8**—Repeating coil per SD-31449-01, Fig 1, C apparatus only, required in addition to list 1 when connecting to a toll switchboard or used as a tandem trunk and when the ratio of trunk-to-office impedance at 1000 hertz is less than 0.8 and office impedance at 1000 hertz is greater than 1100 ohms.
- List 9**—Repeating coil per SD-31449-01, Fig 1, F apparatus only, required in addition to list 1 when connecting to a toll switchboard or used as a tandem trunk and when the ratio of trunk-to-office impedance at 1000 hertz is above 1.25 and office impedance at 1000 hertz is 735 ohms or less.
- List 10**—Repeating coil per SD-31449-01, Fig 1, G apparatus only, required in addition to list 1 when connecting to a toll switchboard or used as tandem trunk and when the ratio of trunk-to-office impedance at 1000 hertz is above 1.25 and office impedance at 1000 hertz is greater than 735 ohms.
- List 11**—Repeating coil per SD-31449-01, Fig 1, D apparatus only, required in addition to list 1

when used as a local interoffice trunk and when the ratio of trunk-to-office impedance at 1000 hertz is 1.25 or less.

- List 12**—Repeating coil per SD-31449-01, Fig 1, E apparatus only, required in addition to list 1 when used as a local interoffice trunk and when the ratio of trunk-to-office impedance at 1000 hertz is above 1.25.
- List 13**—Wiring and equipment per SD-31449-01, Fig 3 required in addition to list 1 to give a distinctive signal to the distant operator for coin and noncoin lines.

Note

- A. Straps V and W shall be cut as required to provide the various conductor loops.

J33014AB—AT&T Co Std — 2-Way Combined Operator Office and Interlocal Trunk Unit — One-Digit Tandem Operation— CX Signaling Type B — Pulse Correction on Incoming Calls — Type B Transmission Battery Supply — For Use in Office With Tandem Feature

- List 1**—Framework, assembly, wiring, and equipment for one 2-way combined operator office and interlocal trunk unit per SD-31885-01, Fig 1, with Q apparatus.
- List 2**—Wiring and equipment per SD-31885-01, Fig 1, Y wiring only, and Fig 2 required in addition to list 1 for fuse failure make-busy feature.
- List 3**—Wiring and equipment per SD-31885-01, Fig 3 required in addition to list 2 for emergency battery supply (one required per office having fuse failure make-busy feature).
- List 4**—Wiring and equipment per SD-31885-01, Fig 1, H apparatus only, required in addition to list 1 when this trunk is used in a No 1, 350A, or 355A office.
- List 5**—A&M Only — Wiring and equipment per SD-31885-01, Fig 1, G apparatus only, required in addition to list 1 when the trunk is used in a No 35E97 office.
- List 6**—Wiring and equipment per SD-31885-01, Fig 1, S apparatus only, required in addition to list 1 when connecting to a signaling circuit which provides E, N, and M leads, such as CX signaling circuit.
- List 7**—Wiring and equipment per SD-31885-01, Fig 1, M wiring only, required in addition to list 1 when connecting to a signaling circuit

which provides only E and M leads, such as N1 carrier.

List 8—Wiring and equipment per SD-31885-01, Fig 1, J apparatus, required in addition to list 1 for idle line termination.

Note

A. Wiring per SD-31885-01, Fig 1, Z wiring only, shall be specified when fuse failure make-busy signal is not provided.

J33014AD—AT&TCo Std — 2-Way Line or Trunk Unit—To Magneto Offices, Magneto Subscribers, or Magneto Offices and Magneto Subscribers — Incoming Ringdown — Outgoing Dial Selected Code Ringing—For Tandem Operation to Operator Office

List 1—Framework, assembly, wiring, and equipment for one 2-way line or trunk circuit unit per SD-31983-01, Fig 1, less all options. (Two circuits per unit, two mounting plates per unit.)

List 2—Wiring and equipment per SD-31983-01, Fig D, relay F only, required in addition to list 1 to arrange trunk for divided ringing.

List 3—Wiring and equipment per SD-31983-01, Fig C required in addition to list 1 to arrange trunk for bridged ringing, or required in addition to list 2 when list 2 is specified (one per ten list 1 or 2).

List 4—Repeating coil per SD-31983-01, Fig 1, Z apparatus only, required in addition to list 1 for use with trunk having less than 735-ohm impedance at 1000 hertz.

List 5—Repeating coil per SD-31983-01, Fig 1, Y apparatus only, required in addition to list 1 for use with trunk having between 735- and 1100-ohm impedance at 1000 hertz.

List 6—Repeating coil per SD-31983-01, Fig 1, X apparatus only, required in addition to list 1 for use with trunk having greater than 1100-ohm impedance at 1000 hertz.

J33014AG—A&M Only — 2-Way Trunk Unit — From Manual or Toll Office to Toll Intermediate Selector — To Manual or Toll From Selector Banks or From Line Switch Banks of Nondial Subscriber Line

List 1—Framework, assembly, wiring, and equipment for one 2-way trunk unit per SD-31369-01,

Fig 1. (One circuit per unit, two mounting plates per unit.)

List 2—Repeating coil per SD-31369-01, Fig 1, W apparatus only, required in addition to list 1 for use with trunk having less than 735-ohm impedance at 1000 hertz.

List 3—Repeating coil per SD-31369-01, Fig 1, T apparatus only, required in addition to list 1 for use with trunk having between 735- and 1100-ohm impedance at 1000 hertz.

List 4—Repeating coil per SD-31369-01, Fig 1, K apparatus only, required in addition to list 1 for use with trunk having greater than 1100-ohm impedance at 1000 hertz.

List 5—Repeating coil per SD-31369-01, Fig 1, V apparatus only, required in addition to list 1 for use with trunk having less than 735-ohm impedance at 1000 hertz. (See Note A.)

List 6—Repeating coil per SD-31369-01, Fig 1, Q apparatus only, required in addition to list 1 for use with trunk having between 735- and 1100-ohm impedance at 1000 hertz. (See Note A.)

List 7—Repeating coil per SD-31369-01, Fig 1, J apparatus only, required in addition to list 1 for use with trunk having greater than 1100-ohm impedance at 1000 hertz. (See Note A.)

Note

A. The 120-type coils (options V, Q, and J) shall be provided only when the transmission gain of this coil compared to the 94-type coil (options W, T, and K) warrants its use.

J33014AJ—AT&TCo Std — 2-Way Combined Operator Office and Interlocal Trunk Unit — One-Digit Tandem Operation—For Use in Office Beyond Tandem — CX Signaling Type B or SX Signaling Type B Transmission Battery Supply

List 1—Framework, assembly, wiring, and equipment for one 2-way combined operator office and interlocal trunk unit per SD-31884-01, Fig 1 and A, with H apparatus. (See Note A.) (One circuit per unit, three mounting plates per unit.)

List 2—Wiring and equipment per SD-31884-01, Fig B (omit Fig A) required in addition to list 1 when it is required to reach the manual office via tandem office. (See Note B.)

- List 3**—Wiring and equipment per SD-31884-01, Fig 2 required in addition to list 1 when class-of-service tone is required.
- List 4**—Wiring and equipment per SD-31884-01, Fig 3 required in addition to list 1 when two class-of-service tones are required.
- List 5**—Wiring and equipment per SD-31884-01, Fig 1, F and W wiring only, and Fig 4 required in addition to list 1 for fuse failure make-busy feature without busy flash on calls from operator feature.
- List 6**—Wiring and equipment per SD-31884-01, Fig 1, E and W wiring and E apparatus only, and Fig 4 required in addition to list 1 for fuse failure make-busy feature and busy flash on calls from operator feature. (See Note C.)
- List 7**—Wiring and equipment per SD-31884-01, Fig 5 required in addition to list 5 or 6 for emergency battery supply (one required per office having fuse failure make-busy feature).
- List 8**—Wiring and equipment per SD-31884-01, Fig 1, K apparatus only, required in addition to list 1 when connecting to a signaling circuit which provides E, N, and M leads such as CX signaling circuit.
- List 9**—Wiring and equipment per SD-31884-01, Fig 1, J apparatus only, required in addition to list 1 when connecting to a signaling circuit which provides only E and M leads, such as N1 carrier.
- List 10**—Wiring and equipment per SD-31884-01, Fig 1, G apparatus only required in addition to list 1 for idle line termination.

Notes

- A. Provide F and X wiring of Fig 1 in addition to list 1 when neither fuse failure make-busy feature nor busy flash on calls from operator is required.
- B. B lead shall be connected to terminals 2 to 10 of selector. The installer shall cut B strap on terminal corresponding to digit dialed to reach the manual office and strap this terminal to terminal 1.
- C. When busy flash on calls-from-operator feature is required, the fuse failure feature covered by lists 6 and 7 must also be furnished.

J33014AL—AT&T Co Std — 2-Way Operator Office Trunk Unit — To Manual DSA or Toll Switchboard—High-Low Reverse Battery or E and M Lead Supervision —

With or Without One-Digit Tandem Operation — For Use in Office Beyond Tandem

- List 1**—Framework, assembly, wiring, and equipment for one trunk unit for 2-way trunk to manual or toll office, wired universal for a direct trunk, or with applique unit, for a trunk via tandem office, for use with trunk having up to 1100-ohm impedance at 1000 hertz per SD-32190-01, Fig 1 and 2 with ZB and ZF wiring and Z apparatus. (See Notes A, B, and D.) (One circuit per unit, three mounting plates per unit.)
- List 2**—Assembly, wiring, and equipment for one trunk applique unit required in addition to list 1 or 4 for operation on a CX signaling basis and via tandem office per SD-32190-01, Fig 3 and A. (See Note C.) (One circuit per unit, one mounting plate per unit.)
- List 3**—Assembly, wiring, and equipment for one trunk applique unit required in addition to list 1 or 4 for operation on a loop signaling basis and via tandem office per SD-32190-01, Fig 3 and B. (See Note C.) (One circuit per unit, one mounting plate per unit.)
- List 4**—Framework, assembly, wiring, and equipment for one trunk unit for 2-way trunk to manual or toll office, wired universal for a direct trunk, or with applique unit, for a trunk via tandem office, for use with trunk having greater than 1100-ohm impedance at 1000 hertz per SD-32190-01, Fig 1 and 2 with ZB and ZF wiring and ZD apparatus. (See Notes A, B, and D.) (One circuit per unit, three mounting plates per unit.)
- List 5**—Wiring and equipment per SD-32190-01, ZG wiring and apparatus required in addition to list 1 or 4 when positive talk battery is required (omit ZF wiring).

Notes

- A. The strapping required at the terminal strips for the various features and options shall be supplied by the installer.
- B. The installer shall add strapping on T1 and R1 resistor terminals where required for loops over 600 ohms.
- C. The applique unit shall be located immediately below the associated basic trunk unit and the two units interconnected by loose wiring between the terminal strips.

- D. Wiring per SD-32190-01, Fig 1, ZC wiring only, omit ZB wiring, required in addition to list 1 or 4 when connection to a coin control trunk circuit is required.

J33014AN—A&M Only — 2-Way Trunk Unit — To Manual or Toll Office — With Local Grade Transmission — Busy Flash to Operator — Reverse Battery Supervision—Class-of-Service Tone

- List 1**—Framework, assembly, wiring, and equipment for one 2-way trunk unit per SD-31683-01, Fig 1 and B, with X apparatus. (See Notes A, B, and C.) (One circuit per unit, two mounting plates per unit.)

Notes

- A. The A resistance lamp shall be mounted on the miscellaneous fuse and lamp panel bay.
- B. When this circuit is used in a No 360A dial office per SD-31683-01, Y wiring only shall be specified in addition to list 1 and applied on the terminals of the A resistor.
- C. When busy flash to operator is not to be used, the connections shall be made for Fig A by the installer by strapping at the unit terminal strips.

J33014AP—A&M Only — 2-Way AB Toll CX Trunk Unit — To Manual or Toll Office— E and M Lead Supervision — With or Without Coin Control and Rering Using Two Frequencies Over Tip and Ring

- List 2**—Wiring and equipment per SD-32340-01, Fig 1, B apparatus and wiring and M, S, and Z wiring only, required in addition to list 1 or 10 when class-of-service tone to operator without a precise tone supply is required in 350A offices.

- List 3**—Wiring and equipment per SD-32340-01, Fig 1, E wiring and apparatus only, required in addition to list 1 or 10 when one or two class-of-service tones are required in 355A offices or when precise tone supply in a 350A or 355A office is specified. (See Notes D and E.)

- List 4**—Wiring and equipment per SD-32340-01, Fig 1, H apparatus and wiring only, required in addition to list 1 or 10 when an idle line termination is required.

- List 6**—Wiring and equipment per SD-32340-01, Fig 5, required in addition to list 1 or 10 for pulse repeating feature when trunk is connected to a signaling circuit which provides E and M leads, such as the N1 carrier.

- List 8**—Wiring and equipment per SD-32340-01, Fig 1, Y apparatus and wiring and M, N, and T wiring only, required in addition to list 3 for two class-of-service tones (interrupted tone to operator if resistance ground is on A lead from selector, steady tone to operator if direct ground is on A lead).

- List 9**—Wiring and equipment per SD-32340-01, Fig 1, Y apparatus and wiring and K, L, and T wiring only, required in addition to list 3 for two class-of-service tones (interrupted tone to operator if direct ground is on A lead from selector; steady tone to operator if resistance ground is on A lead).

- List 10**—Framework, assembly, wiring, and equipment for one 2-way AB toll CX trunk unit per SD-32340-01, Fig 1, 2, and D with F, Q, and ZE wiring. (See Notes A and B.)

- List 11**—Wiring and equipment per SD-32340-01, Fig 2, ZF apparatus and wiring only, required in addition to list 10 when positive talk battery feature is required. (Omit ZE wiring.)

Notes

- A. Wiring per SD-32340-01, Fig 1, G wiring only, omit F wiring, required in addition to list 1 or 10 when connection to a coin control trunk is required.

- B. Wiring per SD-32340-01, Fig 1, R wiring only, omit Q wiring, required in addition to list 1 or 10 when joint (operator and subscriber) control of the trunk in No 355A office is required.

- C. The A resistance lamp per SD-32340-01, Fig 4 for No 350A offices shall be mounted on the miscellaneous fuse and lamp panel bay.

- D. When one class-of-service tone to operator with direct ground on lead A from the selector for steady tone in No 355A office is required, options M, S, and Z must be furnished.

- E. When one class-of-service tone to operator is required with direct ground on lead A from the

selector for interrupted tone in No 355A office, options L, T, and Z must be furnished.

5. GENERAL NOTES AND INDEXES

List Of A&M Only and Mfr Disc Equipment

The following 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.

EQUIPMENT	RATING	DETAILS LAST SHOWN IN ISSUE	REPLACING EQUIPMENT
J33014A,L1	Mfr Disc	3	J33014A,L8
J33014A	A&M Only	6	—
J33014B	Mfr Disc	5	—
J22014D, L1 to L3	Mfr Disc	2	J33014D, L4 to L6
J33014E, L1 & L2	Mfr Disc	2	J33014E, L3 & L5
L3 & L4	Mfr Disc	2	L7 & L8
L5	Mfr Disc	3	L10
L7	Mfr Disc	3	—
L8	Mfr Disc	3	J33014E,L9
J33014F	A&M Only	3	—
L1, L3 & L4	Mfr Disc	2	J33014F,L8, L9 & L11
L12	Mfr Disc	6	—
J33014G,L1	Mfr Disc	4	J33014G,L11
L2	Mfr Disc	5	—
L6	Mfr Disc	3	J33014G,L9
L8	Mfr Disc	4	J33014G,L12
L10	Mfr Disc	5	—
L11	Mfr Disc	5	J33014G,L13
L12	Mfr Disc	5	J33014G,L14

EQUIPMENT	RATING	DETAILS LAST SHOWN IN ISSUE	REPLACING EQUIPMENT
J33014H,L1	Mfr Disc	2	J33014H,L6
J33014N,L1	Mfr Disc	2	J33014N,L5
&L2	Mfr Disc	2	&L7
L6	A&M Only	2	—
J33014P,L1	Mfr Disc	2	J33014P,L8
J33014S,L1	Mfr Disc	2	J33014S,L7
L8	A&M Only	2	—
J33014T	Mfr Disc	2	J33014AN
J33014U	Mfr Disc	3	—
J33014W	A&M Only	1	—
L1	Mfr Disc	2	J33014W,L6
J33014Y	Mfr Disc	4	—
J33014AB,L5	A&M Only	2	—
J33014AC	Mfr Disc	4	—
J33014AE	Mfr Disc	5	—
J33014AF	Mfr Disc	5	—
J33014AG	A&M Only	2	—
J33014AH	Mfr Disc	4	—
J33014AK	Mfr Disc	3	—
J33014AM	Mfr Disc	5	—
J33014AN	A&M Only	5	—
J33014AP	A&M Only	3	—
L1	Mfr Disc	5	J33014AP,L10
L5	Mfr Disc	5	—
L7	Mfr Disc	5	—

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	AT&T RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
J33014A	A&M Only	2-Way Trunk Unit—To Manual or Toll Office—AB Toll—Loop Signaling and Toll Grade Transmission	J33014A-()	SD-31712-01
J33014C	Std	2-Way Operator Office Trunk Unit—One-Digit Tandem Operation — CX Signaling Type B—For Use in Office Beyond Tandem (No 355A Dial Office)	J33014C-()	SD-31823-01
J33014D	Std	2-Way Operator Office Trunk Unit—One-Digit Tandem Operation — CX Signaling Type B—One-Way Automatic, One-Way Dialing—For Use in Office With Tandem Feature	J33014D-()	SD-31821-01
J33014E	A&M Only	2-Way Trunk Unit—To Manual or Toll Office—Arranged for CX Signaling, Tandem Operation, and Local Grade Transmission	J33014E-()	SD-31685-01
J33014F	A&M Only	2-Way AB Toll CX Trunk Unit—To Manual or Toll Office—CX Signaling Type B	J33014F-()	SD-31749-01
J33014G	Std	2-Way Trunk Unit—To Manual or Toll Office—CX Signaling Type B—Local Grade Transmission	J33014G-()	SD-31775-01
J33014H	Std	2-Way Operator Office Trunk Unit—One-Digit Tandem Operation—Loop Signaling—One-Way Automatic One-Way Dialing—For Use in Office With Tandem Feature	J33014H-()	SD-31820-01
J33014J	Std	Trunk Release Unit—For Alarm Sender—For Use With No. 355A One-Digit Tandem Combined Operator Office and Interlocal Trunks	J33014J-()	SD-31993-01
J33014K	Std	2-Way Operator Office Trunk Unit—One-Digit Tandem Operation—Reverse Battery Supervision—Type A or B Transmission Battery Supply—For Use in Office Beyond Tandem	J33014K-()	SD-31822-01

EQUIPMENT CODE	AT&T RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
J33014L	Std	2-Way Trunk Unit—Between Step-by-Step Offices—Arranged To Repeat Dial Pulses	J33014L-()	SD-31602-01
J33014M	Std	2-Way Combined Operator Office and Interlock Trunk Unit—One-Digit Tandem Operation—Loop Signaling—Battery and Ground Pulsing—type B Transmission Battery Supply—For Use in Offices With Tandem Feature	J33014M-()	SD-31886-01
J33014N	Std	2-Way Interlocal Trunk Unit—CX Signaling Type B or SX Signaling—With Pulse Correction on Incoming Calls	J33014N-()	SD-31867-01
J33014P	Std	2-Way Combined Operator Office and Interlocal Trunk Unit—One-Digit Tandem Operation—Loop Signaling—Battery and Ground Pulsing—Type B Transmission Battery Supply—For Use in Office Beyond Tandem	J33014P-()	SD-31877-01
J33014R	Std	Interlocal Trunk Unit—For 2-Way Dialing Between Step-by-Step Dial Offices—Arranged To Repeat Dial Pulses on Outgoing Calls	J33014R-()	SD-31658-01
J33014S	Std	2-Way Trunk Unit—To Manual or Toll Office—With Loop Signaling and Local Grade Transmission—For Loops Up to 2000 Ohms	J33014S-()	SD-31709-01
J33014W	A&M Only	2-Way Trunk Unit—To Manual or Toll Office—With Toll Grade Transmission and for Loops Up to 2000 Ohms	J33014W-()	SD-31684-01
J33014AA	Std	Unit for One Trunk—One- or 2-Way Incoming or Outgoing Trunk Unit—To Manual Office	J33014AA-()	SD-31449-01
J33014AB	Std	2-Way Combined Operator Office and Interlock Trunk Unit—One-Digit Tandem Operation—CX Signaling Type B—Pulse Correction on Incoming Calls—Type B Transmission Battery Supply—For Use in Office With Tandem Feature	J33014AB-()	SD-31885-01

EQUIPMENT CODE	AT&T RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
J33014AD	Std	2-Way Line or Trunk Unit—To Magneto Offices, Magneto Subscribers, or Magneto Offices and Magneto Subscribers—Incoming Ringdown—Outgoing Dial Selected Code Ringing—For Tandem Operation to Operator Office	J33014AD-()	SD-31983-01
J33014AG	A&M Only	2-Way Trunk Unit—From Manual or Toll Office to Toll Intermediate Selector—To Manual or Toll From Selector Banks or From Line Switch Banks of Nondial Subscriber Line	J33014AG-()	SD-31369-01
J33014AJ	Std	2-Way Combined Operator Office and Interlocal Trunk Unit—One-Digit Tandem Operation—For Use in Office Beyond Tandem—CX Signaling Type B or SX Signaling Type B Transmission Battery Supply	J33014AJ-()	SD-31884-01
J33014AL	Std	2-Way Operator Office Trunk Unit—To Manual DSA or Toll Switchboard—High-Low Reverse Battery or E and M Lead Supervision—With or Without One-Digit Tandem Operation—For Use in Office Beyond Tandem	J33014AL-()	SD-32190-01
J33014AN	A&M Only	2-Way Trunk Unit—To Manual or Toll Office—With Local Grade Transmission—Busy Flash to Operator—Reverse Battery Supervision—Class-of-Service Tone	J33014AN-()	SD-31683-01
J33014AP	A&M Only	2-Way AB Toll CX Trunk Unit—To Manual or Toll Office—E and M Lead Supervision—With or Without Coin Control and Rering Using Two Frequencies Over Tip and Ring	J33014AP-()	SD-32340-01

Circuit Schematic Index

CIRCUIT DRAWING	J33014 EQPT CODE	CIRCUIT DRAWING	J33014 EQPT CODE
SD-31369-01	AG	SD-31821-01	D
SD-31449-01	AA	SD-31822-01	K
SD-31602-01	L	SD-31823-01	C
SD-31658-01	R	SD-31867-01	N
SD-31683-01	AN	SD-31877-01	P
SD-31684-01	W	SD-31884-01	AJ
SD-31685-01	E	SD-31885-01	AB
SD-31709-01	S	SD-31886-01	M
SD-31712-01	A	SD-31983-01	AD
SD-31749-01	F	SD-31993-01	J
SD-31775-01	G	SD-32190-01	AL
SD-31820-01	H	SD-32340-01	AP

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