TROUBLE TICKETER FRAME
AUTOMATIC NUMBER IDENTIFICATION-TYPE B
EQUIPMENT DESIGN REQUIREMENTS
NO. 1 CROSSBAR, PANEL AND STEP-BY-STEP SYSTEMS

1. GENERAL

SCOPE

1.01 This specification, together with the supplementary information listed herein, covers the equipment design requirements for the framework, equipment, and circuits to be used in the engineering, manufacture, and installation of the trouble ticketer (TTKT) frame used as part of the automatic number identification—Type B (ANI-B) equipment in decoder panel, No. 1 crossbar, and No. 1, 350A, and 355A step-by-step offices.

1.02 This specification is reissued to:

(a) Provide information for replacement of the 1A message ticketer with the common systems message printer.

(b) Provide for peg count of simultaneous trunk seizure failure and all outpulsers busy.

(c) Provide for the automatic trouble analysis feature.

(d) Provide for the remote identifier make-busy and verify feature.

(e) Provide for oscillator cross indication.

(f) Provide for ground removal failure register.

(g) Provide for operation with an alarm surveillance and control (ASC) system for step-by-step using E2A telemetry.

(i) Provide for identifier groups with more than 48 trunk subgroups.

(j) Provide LIT directory number translation of office codes for the second and third identifier group and/or three physical offices that each have a maximum of three associated theoretical offices.

CAPACITY

1.03 An 11-foot 6-inch high TTKT frame (Fig. 1) is arranged for use with a maximum of ten outpulsers, 2 identifiers, and 70 outpulser connector trunk subgroups in each of 3 identifier groups and for permanent signal identification on a maximum of 600 permanent signal holding trunks. It may be equipped to lock up a connection for trouble tracing purposes. This feature is arranged for a maximum of 107 ANI trunk frames in 3 identifier groups.

1.04 A 9-foot 0-inch high TTKT frame (Fig. 2) is arranged for use with a maximum of 6 outpulsers, 2 identifiers, and 70 outpulser connector trunk subgroups in one identifier group and for permanent signal identification on a maximum of 180 permanent signal holding trunks. It may be equipped to lock up a connection for trouble tracing purposes. This feature is arranged for a maximum of 70 ANI trunk frames.

DESCRIPTION

1.05 The TTKT frame uses a single-bay bulb-angle framework 11 feet 6 inches high and 2 feet 0-5/8 inch long with a 10-inch wide guardrail or a single-bay bulb-angle framework 9 feet 0 inch high a 2 feet 0-5/8 inch long with a

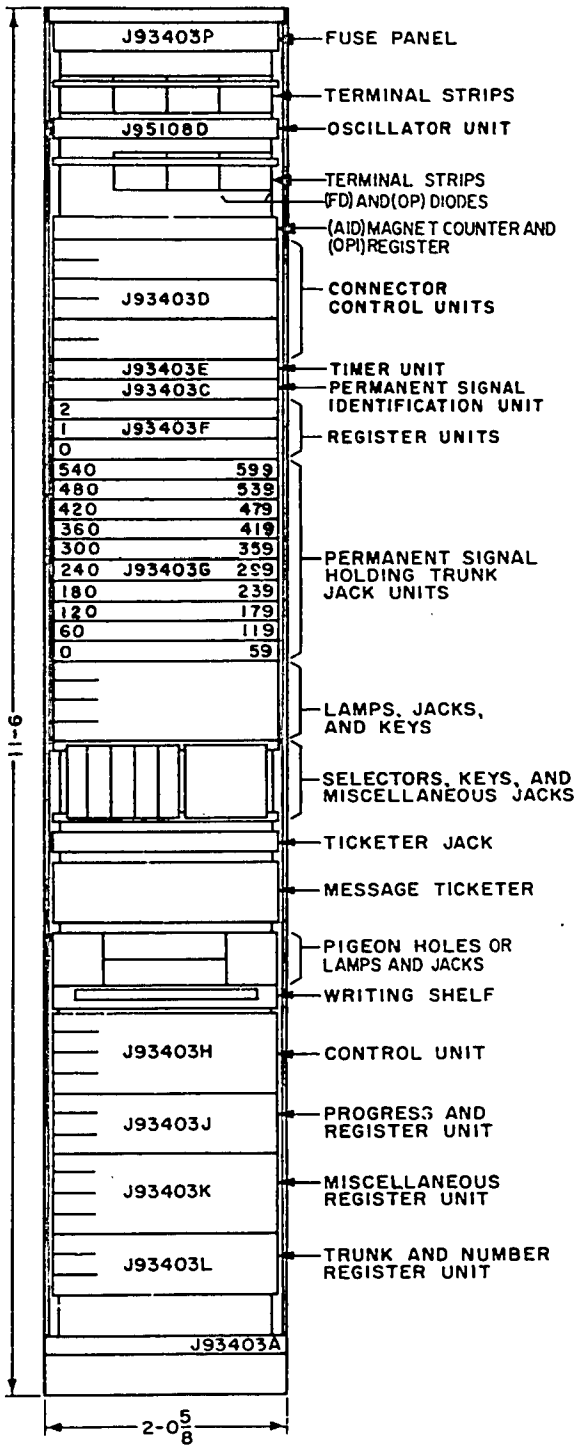

Fig. 1—Common Systems Trouble Ticketer Frame ANI

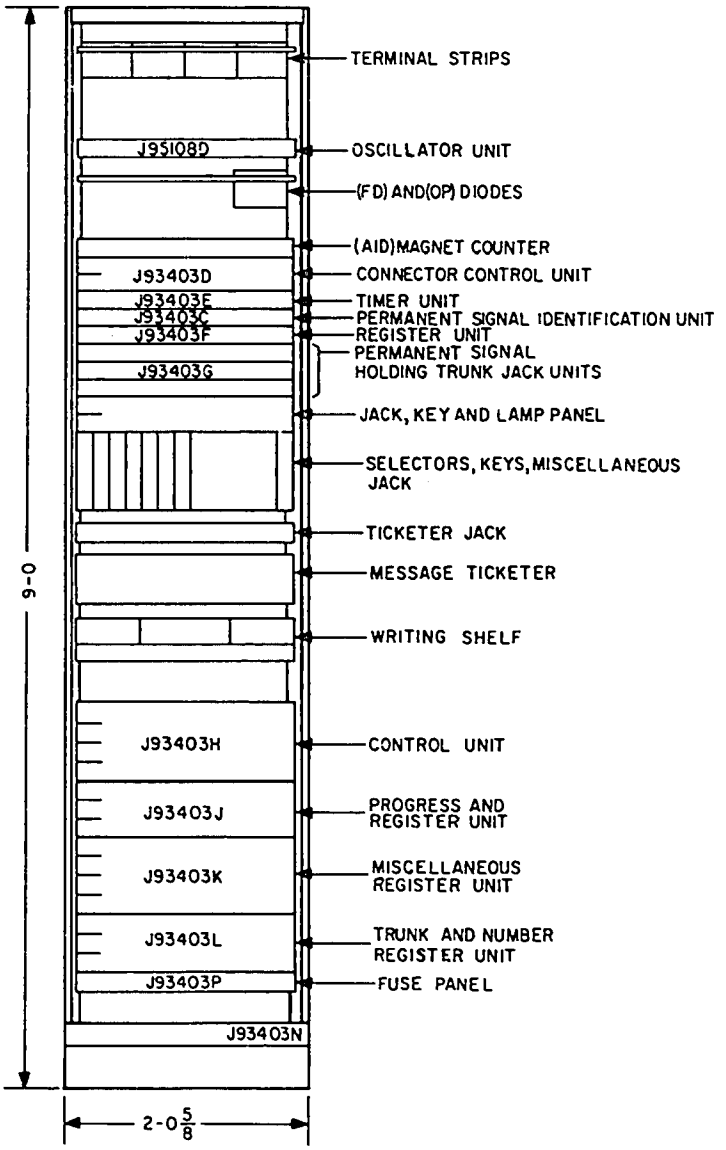

Fig. 2—Trouble Ticketer Frame

10-inch or 12-inch guardrail. It is arranged for 2- by 23-inch mounting plates.

1.06 The equipment of the TTKT frame is shown in Fig. 1 and Fig. 2. The fuse panel and the various groups of mountings identified as units are separately manufactured surface-wired units. These, and the remaining items of equipment illustrated, are interwired with a frame local cable.

1.07 The main purpose of the TTKT frame is to record available pertinent data on calls encountering trouble in the ANI equipment. Each such record is printed by a printer on the frame and consists of recording such information as type of call; trunk, outpulser, identifier, identifier group, and calling station numbers, outpulser and identifier progress; and time of day.

1.08 In panel and crossbar offices, which automatically route permanent signals to holding trunks, the ANI equipment and the TTKT frame are used to identify the station connected to such a trunk. This eliminates the need for tracing connections from the trunk back through the switching network to determine the line involved.

1.09 The TTKT frame also accommodates outpulser and identifier usage lamps, jacks for making individual outpulsers and identifiers busy, jacks for making specific identifiers busy to specific outpulsers, registers for recording identifier and outpulser failures, miscellaneous trouble and alarm lamps, and control jacks and keys.

1.10 The preferred location of the TTKT frame is in the test or maintenance center, adjacent to the ANI-B outpulser-identifier-trunk test frame. Where this is impracticable, these frames should be located near each other and near associated outpulser frames.

1.11 As ANI-B equipment will frequently be located in available space in existing offices, the frames may be located adjacent to others with guardrails of different width. This necessitates provision of appropriate junction details.

2. SUPPLEMENTARY INFORMATION

814-000-000—Numerical Index — Step-by-Step Systems
815-000-000—Numerical Index—Panel Systems
816-000-000—Numerical Index—No. 1 Crossbar System
800-600-000—Checking List—General Equipment Requirements
Floor Plan Data—Section 7.1, Sheet 51
KS-9784—Ticket Paper (1A Message Ticketer Only)
Current Drain Data—
SD-21300-01—Panel Offices—Battery Cutoff (No Current Drain Data Available for Panel Offices — Ground Cutoff)
SD-25000-02—No. 1 Crossbar
SD-31359-02—No. 1 Step-by-Step

3. DRAWINGS

For additional drawings forming part of this specification, see listings under **SUBDIVISIONS OF EQUIPMENT AND DETAILED INDEX.**

Keysheets

SD-21300-01—Panel System—Battery Cutoff Relay Offices
SD-21680-01—Panel System—Ground Cutoff Relay Office
SD-25000-01—No. 1 Crossbar System
SD-31359-01—Step-by-Step Systems—No. 350A
SD-31780-01—Step-by-Step Systems—No. 355A

Circuits

SD-95816-01—Common Systems—Trouble Ticket Circuit
SD-95817-01—Common Systems — Permanent Signal Identification Circuit
SD-95823-01—Common Systems — Miscellaneous Circuit
SD-95827-01—Common Systems—Oscillator Circuit
SD-94865-01—Common Systems Message Printer Circuit

Equipment

ED-95131-01—Fuse Panel Assembly
ED-91710-73—Bulb-Angle Frame Assembly

ED-25529-70—Guardrail Junctions
ED-94848-73—Bulb-Angle Frame Assembly
ED-91837-71—Bulb-Angle Frame Assembly

Wiring and Cabling

ED-25346-14 } —Method of Running Power
ED-25346-15 } —Feeders—No. 1 Crossbar
ED-27114-01—Table of Wire Gauges and Types of Insulation—No. 1 Crossbar
ED-31351-( )—Method of Running Power Feeders—Step-by-Step Systems
ED-95094-( )—TTKT Frame—Switchboard Cabling Details
ED-99431-10—Method of Running Power Feeders—Common Systems
SD-80728-01—Battery Distributing Circuit — Step-by-Step Systems

4. EQUIPMENT

J93403A—AT&TCo Std — Trouble Ticketer Frame

List 1—Framework, assembly, wiring, and common equipment for one trouble ticketer frame for use with step-by-step office, or panel and/or crossbar office ANI equipment. (See Notes A and B.)

	WIRE	EQUIP	NOTES
TTKT Ckt, SD-95816-01:			
Fig. 1	1	1	C
Fig. 2	3	0	
Fig. 4	1	0	
PS Ident Ckt, SD-95817-01:			
Fig. 1 With Options W & X, Fig. 2 & Fig. 4 With Option V Each	1	0	
TTKT Fr Misc Ckt, SD-95823-01:			
Fig. 1 With Option H (Lamp Only), Less T &S App	1	1	
Fig. 2	6	0	
Fig 3	21	0	
Fig. 4 & 5, Each	1	0	
Fig. 7	3	0	
Fig. 8, With Options G, F, E, A, ZA&ZB	1	0	
Fig. 9	1	0	
OSC Ckt, SD-95827-01:			
Fig. 1 & 2	1	0	

List 2—Apparatus per SD-95823-01, Fig. 1, T apparatus only, required in addition to list 1 to equip one TTKT frame for use in panel and/or crossbar offices.

List 3—Apparatus per SD-95823-01, Fig. 1, S apparatus only, required in addition to list 1 to equip one TTKT frame for use in step-by-step offices.

List 4—Apparatus per SD-95823-01, Fig. 7, lamps and jack only, required in addition to list 1 for each identifier group with which the TTKT frame is to operate.

List 5—Apparatus per SD-95823-01, Fig. 2, I-B jack and ID- lamp only, required in addition to list 1 for each identifier frame with which the TTKT frame is to operate.

List 6—Apparatus per SD-95823-01, Fig. 3, jacks and lamp only, required in addition to list 1 for each outpulser with which the TTKT frame is to operate. (See Note F.)

List 7—Apparatus per SD-95823-01, Fig. 4, lamps and key only, required in addition to list 1 to equip one TTKT frame with the trunk lockup feature.

List 8—Apparatus per SD-95817-01, Fig. 2, TO and TPD lamps only, required in addition to list 1 to equip one TTKT frame for permanent signal identification. (See Note E.)

List 9—Apparatus per SD-95823-01, Fig. 9, required in addition to list 1 for each AIOD translator when automatic identification of outward-dialed PBX calls is provided in one or more identifier groups (maximum three).

List 10—Apparatus and wiring per SD-95823-01, Fig. 4, option B, required in addition to list 7 for installations serving in excess of 48 trunk subgroups.

List 11—Equipment per SD-95823-01, two Fig. 11, required in addition to list 12 for each J93403M terminating marker unit associated with the trouble ticketer frame

List 12—Equipment per SD-95823-01, Fig. 12, lamp only, required in addition to list 1

when trouble ticketer frame is arranged to operate with No. 1 crossbar terminating markers to record calls to a particular line for calling line identification.

List 13—Apparatus per SD-95817-01, Fig. 1, option X only, required in addition to list 8 for identifying coin charge troubles on coin lines associated with first identifier group in No. 1 crossbar offices or panel offices.

List 14—Apparatus per SD-95817-01, Fig. 4, option V only, required in addition to list 8 for identifying coin charge troubles on coin lines associated with second identifier group in No. 1 crossbar offices or panel offices.

List 15—Apparatus per SD-95817-01, Fig. 1, option W only, required in addition to list 8 for identifying coin charge troubles on coin lines associated with third identifier group in No. 1 crossbar offices or panel offices.

List 16—Apparatus and wiring required in addition to list 1 when connection to an alarm surveillance control (ASC) system for step-by-step using E2A remote telemetry, or to a telecommunication alarm and surveillance control system (TASCS) is required per options ZH and ZZ of SD-95823-01, 20 Fig. 3 and one Fig. 1, less OP- and EOS relays. (See List 24.)

List 17—Apparatus and wiring required in addition to list 12 when connection to a telecommunication alarm and surveillance control system (TASCS) is required per option ZL of SD-95823-01, Fig. 12.

List 18—Mounting plate required in addition to list 1, when list 19, 20, or 23 is specified. (Maximum one list 18 per frame.)

List 19—Apparatus and wiring required in addition to lists 4 and 18, when a peg count of a simultaneous trunk seizure failure and all outpulsers busy is required per SD-95823-01, option ZQ. (One list 19 per ID group, maximum 3 lists per frame.)

List 20—Apparatus and wiring required in addition to lists 1 and 18, for No. 1 crossbar, when the automatic trouble analysis feature is required per SD-95816-01 Fig. 8, option ZW, and SD-95823-01, Fig. 13.

List 21—Apparatus and wiring required in addition to list 16, for each identifier frame, associated with identifier groups 0 and 1, when remote identifier make-busy and verify is also required, per SD-95823-01, option ZS of Fig. 2.

List 22—Apparatus and wiring required in addition to list 4 for each identifier group, when an oscillator cross indication and ticket jack is required per SD-95823-01, option ZR.

List 23—Apparatus and wiring required in addition to lists 4 and 18, when a ground removal failure register is required per SD-95823-01, option ZW. (One list 23 per ID group, maximum three per frame.)

List 24—Apparatus and wiring required in addition to list 1 without list 16, when connection to an ASC system for step-by-step using E2A satellite telemetry is required per options ZJ, ZX, ZZ of SD-95823-01, Fig. 1.

List 25—Apparatus and wiring required in addition to list 16, only when identifiers per SD-95810-01, are provided, per option YZ of SD-95823-01, less AIDO/AID1 relay. (See J93403K-( )L12.)

Notes

A. Units as follows are ordered as required:

J93403C, Maximum one
J93403D, Maximum three
J93403F, Maximum three
J93403G, Maximum ten
J95108D, Maximum one
J93403M, Maximum three

One each of the following units is always required:

J93403E
J93403H
J93403J
J93403K
J93403L
J93403P
J99391A (CSM-Printer)

These units are ordered separately and are mounted on the frame and connected in the shop and shown in Fig. 1. Other components are part of J93403A, J93403C, J93403G, and J95108D are required for permanent signal identification in step-by-step or panel and/or crossbar offices. Units per J93403D and J93403F, one each, are required per identifier group with which the frame is to operate.

B. The frame local cable, furnished with list 1, contains that wiring for the specified figures which is not furnished as surface wiring in the coded units. The local cable includes all options.

C. Equipment included in list 1 for SD-95816-01 consists of that apparatus per Fig. 1 which is not part of the coded units.

D. The small amount of frame wiring required for the permanent signal holding trunk jacks is furnished on a job basis as loose wiring.

E. The B ground required for the permanent signal holding trunk jacks consists of a No. 6 ground lead on the frame upright. This ground lead is furnished as part of list 8.

F. For installations requiring more than seven outpulsers, the additional 248A jack mounting with the necessary jacks and lamps per Fig. 3 shall be located on a job basis. Where the OITT and TTKT frames are located adjacently it is recommended that the ED-92250-70,GR1 wiring shelf location on the OITT frame be utilized.

G. Provide ZO wiring per SD-95816-01 when operation with identifier arranged for use with No. 1 AMARS and toll is not required in all identifier groups served.

H. Provide ZA wiring per SD-95816-01 when operation with identifier arranged for use with No. 1 AMARS and toll is not required in all identifier groups served, and any identifier group requires a seventh office to provide AIOD service.

J93403C—AT&TCo Std — Permanent Signal Identification Unit

List 1—Assembly, wiring, and common equipment per SD-95817-01, Fig. 1, for one permanent signal identification unit.

List 3—Apparatus and wiring per SD-95817-01, Fig. 1, option Z only, or Fig. 4, required in addition to list 1 for each of the second and third identifier groups with which the permanent signal identification unit is to operate.

J93403D—AT&TCo Std — Connector Control Unit

List 1—Framework, equipment, assembly, and wiring per SD-95823-01, Fig. 7, apparatus as shown, less option L, for one connector control unit. (See paragraph 5.01.)

List 2—Apparatus and wiring per SD-95816-01, Fig. 2, required in addition to list 1 for each outpulser in the identifier group with which the connector control unit is to operate.

List 3—Apparatus and wiring per SD-95823-01, Fig. 2, AF- and I-B relays only, required in addition to list 1 for each identifier in the identifier group with which the connector control unit is to operate.

List 4—Apparatus and wiring per SD-95823-01, Fig. 7, option L only, required in addition to list 1 to equip one connector control unit with the trunk lockup feature.

List 5—Apparatus and wiring per SD-95816-01, Fig. 3, required in addition to list 1 to equip one connector control unit for use in buildings having more than one identifier group.

List 6—Apparatus and wiring required in addition to the first list 2, when operation with No.1 crossbar terminating markers to record calls terminated to a particular line is required, per SD-95816-01, Fig. 6 (TTB) diode only. (For first ID- group only.)

List 7—Apparatus and wiring, per option YX of SD-95823-01 required in addition to list 1, for ID group 0 only, when trouble ticketer is equipped with a common systems message printer (J99391A) and connection to TASC or ASC (option ZH) is not provided.

J93403E—AT&TCo Std—Timer Unit

List 1—Equipment, assembly, and wiring per SD-95816-01, Fig. 1, for one timer unit. (See paragraph 5.01.)

J93403F—AT&TCo Std—Register Unit

List 1—Equipment, assembly, and wiring per SD-95823-01, Fig. 7, 2TF and TC registers only, for one register unit.

List 2—Apparatus and wiring per SD-95823-01, Fig. 2, 1AF- amd 1TF- registers and 1AF- resistor only, required in addition to list 1 for each identifier in the identifier group with which the register unit is to operate.

List 3—Apparatus and wiring per SD-95823-01, Fig. 3, OPF- register only, required in addition to list 1 for each outpulser in the identifier group with which the register unit is operated. (Maximum seven, see Note B.)

List 4—Apparatus and wiring per SD-95823-01, Fig. 1, option H, SCF message register only, required in addition to list 1 when a service call failure register is specified. (See Note A.)

Notes

A. List 4, when specified, shall be provided on the first unit only.

B. See frame list for more than seven outpulsers.

J93403G—AT&TCo Std — Permanent Signal Holding Trunk Jack Unit

List 1—Equipment, assembly, and wiring per SD-95817-01, ten Fig. 3, for one permanent signal holding trunk jack unit equipped with jacks for the first test trunks, 0 through 9, on the unit. (See Notes A and B.)

List 2—Apparatus and wiring per SD-95817-01, ten Fig. 3, required in addition to list 1 for each additional ten consecutive trunks on one permanent signal holding trunk jack unit. (See Note B.)

List 3—Equipment and assembly per SD-95817-01, Fig. 2, PS cord and plug only, required in addition to list 1 for the first permanent signal holding trunk jack unit, to provide an identification cord. (See Note C.)

Notes

A. Y wiring, when furnished with lists 1 and 2, consists of strapping between the jack springs and B ground leads for each five jacks, long enough to connect to the No. 6 ground lead on the frame upright. The large number of ground leads is required for current drain purposes.

B. The sleeves of all jacks are strapped together, this strapping to be cut to group the jacks by associated identifier groups and connected by loose wiring to A ground or associated GP- relay, as required.

C. List 3 includes a cord fastener detail, an unwired No. 239A jack, jack mounting modifications, and stamping.

J93403H—AT&TCo Std—Control Unit

List 1—Framework, equipment, assembly, and wiring per SD-95816-01, Fig. 1, and SD-95823-01, Fig. 1, less options R and ZH for one control unit. (See paragraph 5.01.)

List 2—Apparatus and wiring per SD-95823-01, Fig. 5, option V, FA relay only, required in addition to list 1 to equip one control unit for use with step-by-step offices.

List 3—Apparatus and wiring per SD-95823-01, Fig. 4, less option X, required in addition to list 1 to equip one control unit with the trunk lockup feature. (See paragraph 5.01.)

List 4—Apparatus and wiring per SD-95823-01, Fig. 4, option X only, required in addition to lists 1 and 3 to arrange for trunk lockup with more than 23 ANI trunk frames.

List 5—Apparatus and wiring per SD-95823-01, Fig. 1, option R only, required in addition to list 1 to equip one control unit for alarm transfer with tone identification.

List 6—Apparatus and wiring per SD-95823-01, Fig. 1, option B, required in addition to

list 1 for offices serving in excess of 48 subgroups.

List 7—Apparatus and wiring required in addition to list 1, when connection to an ASC system for step-by-step using E2A remote telemetry or to a TASCS is required per option ZH of SD-95823-01, Fig. 1, OP- relays only.

List 8—Apparatus and wiring per SD-95816-01, option ZR of Fig. 1 is required in addition to list 1 when directory number to LIT TTY on LIT test failure is required in No. 1 crossbar.

List 9—Apparatus and wiring required in addition to list 1, when operation with the No. 1 crossbar automatic trouble analysis system is required per SD-95816-01, option ZW.

J93403J—AT&TCo Std—Progress and Register Unit

List 1—Framework, equipment, assembly, and wiring per SD-95816-01, Fig. 1, less options K, M, and N, for one progress and register unit. (See paragraph 5.01.)

List 2—Apparatus and wiring per SD-95816-01, Fig. 1, options K, M, or N only, required in addition to list 1 in one progress and register unit when any associated identifier group includes outpulser 1, 3, or 5.

List 3—Apparatus and wiring per SD-95823-01, Fig. 8, option G, required in addition to list 1 to arrange for trunk lockup with more than 35 ANI trunk frames.

List 4—Apparatus and wiring per SD-95823-01, Fig. 8, option F, required in addition to list 3 to arrange for trunk lockup with more than 47 ANI trunk frames.

List 5—Apparatus and wiring per SD-95823-01, Fig. 8, option E, required in addition to list 4 to arrange for trunk lockup with more than 59 ANI trunk frames.

List 6—Apparatus and wiring per SD-95823-01, Fig. 8, option A, required in addition to list 5 to arrange for trunk lockup with more than 71 ANI trunk frames.

List 7—Apparatus and wiring per SD-95823-01, Fig. 8, option ZA, required in addition to list 6 to arrange for trunk lockup with more than 83 ANI trunk frames.

List 8—Apparatus and wiring per SD-95823-01, Fig. 8, option ZB, required in addition to list 7 to arrange for trunk lockup with more than 95 ANI trunk frames.

List 9—Apparatus and wiring per SD-95816-01, Fig. 1, option ZC, required in addition to list 1 when any associated identifier group includes outpulser 7.

List 10—Apparatus and wiring per SD-95816-01, Fig. 1, option ZD, required in addition to list 1 when any associated identifier group includes outpulser 9.

List 11—Apparatus and wiring per SD-95816-01, option ZY, required in addition to list 1, when identifier oscillator cross check circuits are required. (See Note A.)

Note

A. This list is restricted to identifier groups having identifiers per SD-95810-01, (non-AMARS) only.

J93403K—AT&TCo Std—Miscellaneous Register Unit

List 1—Framework, equipment, assembly, and wiring per SD-95816-01, Fig. 1, less options R, T, and V, for one miscellaneous register unit. (See paragraph 5.01.)

List 2—Apparatus and wiring per SD-95816-01, Fig. 1, option T only, required in addition to list 1 to equip one miscellaneous register unit for use with step-by-step offices.

List 3—Apparatus and wiring per SD-95816-01, Fig. 1, option V only, required in addition to list 1 to equip one miscellaneous register unit for use with panel offices serving 2-party lines.

List 4—Apparatus and wiring per SD-95816-01, Fig. 1, option R only, required in addition to list 1 to equip one miscellaneous register unit for permanent signal identification.

List 5—Apparatus and wiring per SD-95816-01, Fig. 1, option G only, required in addition to list 1 for use when operating with one or more identifier groups arranged for automatic identification of outward dialing (AIOD) from PBX stations.

List 6—Apparatus and wiring per SD-95816-01, Fig. 1, option E only, required in addi-

tion to list 1 for use when any identifier group contains a seventh office unit, or when the office index requires the use of digit 6 for automatic identification of outward dialing (AIOD) from PBX stations.

List 7—Apparatus and wiring per SD-95816-01, Fig. 1, option B only, required in addition to list 6 when the office index requires the use of digits 7 and 8 for AIOD from PBX stations.

List 8—Apparatus and wiring per SD-95816-01, Fig. 1, option A only, required in addition to list 5 for use when more than one PBX-AIOD translator is served.

List 10—Apparatus and wiring per SD-95816-01, Fig. 6, less TTB diodes required in addition to list 1 in No. 1 crossbar offices for operation with terminating markers to record calling line identification.

List 11—Apparatus and wiring per SD-95823-01, Fig. 12, relay only, required in addition to list 1 when trouble ticketer frame is arranged to operate with No. 1 crossbar terminating markers to record the calling line identification on calls to a particular line.

List 13—Reserved.

List 14—Apparatus and wiring per SD-95816-01, Fig. 7, option ZR required in addition to list 1 when directory number to LIT TTY on LIT test failure is provided in No. 1 crossbar. (This list provides for a maximum of two office codes. For equipment required for additional office codes, see lists 15 and 16.)

List 15—Apparatus and wiring per SD-95816-01, option ZS required in addition to list 14 to provide a maximum of four office codes.

List 16—Apparatus and wiring per SD-95816-01, option ZT required in addition to list 15 to provide a maximum of six office codes.

List 17—Apparatus and wiring per SD-95823-01, Fig. 1, option YZ, AIDO/AID1 relay only, required in addition to list 1, when connection to an ASC system for step-by-step using E2A remote telemetry or to a TASC system is required, and identified per SD-95810-01, are provided.

J93403L—AT&TCo Std—Trunk and Number Register Unit

List 1—Equipment, assembly, and wiring per SD-95816-01, Fig. 1, for one trunk and number register unit. (See paragraph 5.01 and Note A.)

List 3—Apparatus and wiring per SD-95823-01, Fig. 1 option ZH, EOS relay only required in addition to list 1 when connection to a ACS system for step-by-step using E2A remote telemetry or to a TASC system is required.

List 4—Apparatus and wiring per SD-95816-01, Fig. 1, option ZF, required in addition to list 1, when an identifier group serves more than 48 trunk subgroups.

Note

A. Furnish ZI wiring only when operation with outpulsers arranged to outpulse called numbers to an automatic intercept center is required.

J93403M—AT&TCo Std—Terminating Marker Unit

List 1—Assembly, wiring, and common equipment for one terminating marker unit arranged to serve two marker groups of up to ten terminating markers, each for use in No. 1 crossbar offices for recording calls terminated to a particular line. (See Note A.)

	WIRE	EQUIP	NOTES
TTKT Ckt, SD-95816-01: Fig. 5	20	0	
Misc Ckt, SD-95823-01: Fig. 10	2	1	

List 2—Equipment per SD-95823-01, Fig. 10, required in addition to list 1 for second marker group on unit.

List 3—Equipment per SD-95816-01, Fig. 5, required in addition to list 1 for each terminating marker associated with a group.

Note

A. A maximum of three J93403M units may be provided for use with a J93403A trouble ticketer frame. These units are to be mounted on a miscellaneous relay rack.

J93403N—AT&TCo Std — Trouble Ticketer Frame 9-Foot 0-Inch High Frames for Use in SXS Offices

List 1—Framework, assembly, wiring, and common equipment for one trouble ticketer frame without 5-inch cable rack. (See Notes A and B.)

	WIRE	EQUIP	NOTES
TTKT Ckt, SD-95816-01:			
Fig. 1 Option YJ	1	1	G
Fig. 2 & 4	2	0	
Perm Sig Ident Ckt, SD-95817-01:			
Fig. 1 & 2	1	0	
Fig. 3	0	0	D,E
Misc Ckt, SD-95823-01:			
Fig. 1 with Option S	1	1	
Fig. 2	2	0	
Fig. 3	6	0	
Fig. 4 & 5	1	0	
Fig 7 (Lamps & Jacks Only)	1	1	
Fig. 8 with A, E, F, G, ZA, & Options ZB	1	0	
Fig. 9	1	0	
OSC Ckt, SD-95827-01:			
Fig. 1 & 2	1	0	

List 2—Framework, assembly, wiring, and common equipment for one trouble ticketer frame with 5-inch cable rack. (See Notes A and B.)

	WIRE	EQUIP	NOTES
TTKT Ckt, SD-95816-01:			
Fig. 1, Option YJ	1	1	G
Fig. 2 & 4	2	0	
Perm Sig. Ident Ckt, SD-95817-01:			
Fig. 1 & 2	1	0	
Fig. 3	0	0	D,E
Misc Ckt, SD-95823-01:			
Fig. 1 with Option S	1	1	
Fig. 2	2	0	
Fig. 3	6	0	
Fig. 4 & 5	1	0	
Fig. 7 (Lamps & Jacks Only)	1	1	
Fig. 8 with Options A, E, F, G, ZA, & ZB	1	0	
Fig. 9	1	0	
OSC Ckt, SD-95827-01:			
Fig. 1 & 2	1	0	

List 3—Apparatus per SD-95823-01, Fig. 2, I-B jack and ID- lamp only, required in addition to list 1 for each identifier frame with which the TTKT frame is to operate.

List 4—Apparatus per SD-95823-01, Fig. 3, jacks and lamp only required in addition to list 1 for each outpulser with which the TTKT frame is to operate.

List 5—Apparatus per SD-95823-01, Fig. 4, lamps and key only required in addition to list 1 to equip one TTKT frame with the trunk lockup feature.

List 6—Apparatus per SD-95817-01, Fig. 2 TO and TPD lamps only, required in addition to list 1 to equip one TTKT frame for permanent siganl identification. (See Note E.)

List 7—Apparatus per SD-95823-01, Fig. 8, lamps and jacks only, required in addition to list 1 for each AIOD translator when automatic identification of outward-dialed PBX calls is provided.

List 8—Apparatus and wiring per SD-95823-01, Fig. 4, option B, required in addition to list 5 for installations serving in excess of 48 trunk subgroups.

List 9—Reserved.

List 10—Apparatus and wiring required in addition to list 1 or 2 when connection to an ACS system for step-by-step using E2A remote telemetry is required per

option ZH and ZZ of SD-95823-01, six Fig. 3 and one Fig. 1 less OP-, and EOS relays.

List 11—Reserved.

List 12—Apparatus and wiring per SD-95823-01, option ZQ, required in addition to list 1 or 2, when a peg count of a simultaneous trunk seizure failure and all outpulsers busy is required.

List 13—Apparatus and wiring per SD-95823-01, option ZS required in addition to list 10, for each identifier frame when remote identifier make-busy and verify is also required.

List 14—Apparatus and wiring per SD-95823-01, option ZR, required in addition to list 1 or 2 when an oscillator cross indication and ticket jack is required.

List 15—Apparatus and wiring per SD-95823-01, option ZW, required in addition to list 1 or 2, when a ground removal failure register is required.

List 16—Apparatus and wiring per SD-95823-01, option ZJ, ZX, and ZZ of Fig. 1, required in addition to list 1, without list 10, when connection to an ASC system for step-by-step using E2A satellite telemetry is required.

List 17—Apparatus and wiring required in addition to list 10, only when identifiers per SD-95810-01, are provided, per option YZ of SD-95823-01, less AID0/AID1 relay, (delete YY wiring, see J93403K-( ) L12).

Notes

A. Units per J93403C, J93403D, J93403E, J93403F, J93403G, J93403H, J93403J, J93403K, J93403L, J93403P, and J95108D are ordered separately and are mounted on the frame and connected in the shop as shown in Fig. 2. Other components are part of J93403N.

B. The frame local cable furnished with list 1 or 2, contains the wiring for the specified figures which is not furnished as surface wiring in the coded units. The local cable includes all options.

C. Equipment included in list 1 or 2 for SD-95816-01 includes apparatus per Fig. 1 or 2 which is not part of the coded units.

D. The small amount of frame wiring required for the permanent signal holding trunk jacks is furnished on a job basis as loose wiring.

E. The B ground required for the permanent signal holding trunk jacks consists of a No. 6 ground lead on the frame upright. This ground lead is furnished as part of list 6.

J93403P—AT&TCo Std — Trouble Ticketer Frame Fuse Panel

List 1—Assembly, wiring, and equipment for one trouble ticketer frame fuse panel arranged for step-by-step, No. 1 crossbar, and panel offices. (See Note A.)

	WIRE	EQUIP	NOTES
Misc Ckt, SD-95823-01: Alm. Ckt Fig. 5 With Option V Less FA Rel	1	1	
Ckt Fuses Fig. 6 (Max 38 Fuse Pos)		28	A,B

List 2—Apparatus and wiring per SD-95823-01, option W is required in addition to list 1 to arrange the fuse panel for No. 1 crossbar or panel offices. Remove option V. (See Notes C and D.)

Notes

A. List 1 provides Fig. 6 fusing for the following:

UNIT	QUANTITY
SD-95823-01	11
SD-95816-01	14
SD-95817-01	1
SD-95827-01	2
	28

B. Provide four Fig. 6 fuses (E100, E101, E200, E201) for SD-95823-01, in addition to list 1 when fuse panel is used on 11-foot 6-inch frames.

C. Provide one Fig. 6 fuse (B) for SD-95817-01, in addition to list 2, when directory number to LIT TTY on LIT test failures is required in a No. 1 crossbar office.

D. Provide one Fig. 6 fuse (K) for SD-95823-01, in addition to list 2, when automatic trouble analysis (ATA) is required in a No. 1 crossbar office.

J93403R—AT&TCo Std—PSI Line Insulation Test Directory Number Identification Unit—Miscellaneous Relay Rack Mounted (No. 1 Crossbar Only)

List 1—Assembly, wiring, and common equipment for one PSI LIT directory number identification unit arranged to serve three LIT control circuits when directory number identification of LIT failures in No. 1 crossbar ANI-B offices is required. (See Note A.)

	WIRE	EQUIP	NOTES
PSI Ckt, SD-95817-01:			
Fig. 5	1	1	
Fig. 6 & 7	1	0	

List 2—Apparatus and wiring per SD-95817-01, Fig. 6 required in addition to list 1 when a second LIT control circuit is provided. (See Note A.)

List 3—Apparatus and wiring per SD-95817-01, Fig. 7, required in addition to list 2 when a third LIT control circuit is provided. (See Note A.)

Note

A. Furnish S wiring when LIT control circuit is arranged to serve two marker groups.

J93403S—AT&TCo Std—Line Insulation Test Translation Unit — Miscellaneous Relay Rack Mounted (No. 1 Crossbar Only)

List 1—Assembly, wiring, and equipment for one LIT translation unit arranged to serve LIT directory number translation of office codes for the second and third identifier group and/or three physical offices that each have a maximum of three associated theoretical offices.

	WIRE	EQUIP	NOTES
TTKT Ckt, SD-95816-01:			
Fig. 9, Options YA, YB, YC	1	0	0
Fig. 10, Options YD, YE	1	0	0
Fig. 11, Options YA, YF	3	0	0
Fig. 12	3	0	

List 2—Apparatus and wiring required in addition to list 1, to provide for translation of three office codes in the second ID group per SD-95816-01, Fig. 9, options YA and YB.

List 3—Apparatus and wiring required in addition to list 2, to provide for translation of an additional three office codes in the second ID group per SD-95816-01, option YC.

List 4—Apparatus and wiring required in addition to list 2, to provide for translation of three office codes in the third ID group per SD-95816-01, Fig. 10, option YD.

List 5—Apparatus and wiring required in addition to list 4, to provide for translation of an additional three office codes in the third ID group per SD-95816-01, option YE.

List 6—Apparatus and wiring required in addition to list 1, to provide theoretical office code translation for one physical office and the first associated theoretical office per SD-95816-01, Fig. 11, options YA and YF. (Maximum 3 list 6.)

List 7—Apparatus and wiring required in addition to list 6, to provide translation for the second and third associated theoretical offices per SD-95816-01, Fig. 12. (Maximum 3 list 7.)

5. GENERAL NOTES AND INDEXES

Equipment

5.01 The apparatus included in various coded units is not completely identifiable by circuit apparatus figures. It is prescribed for each by the pertinent lists on the associated J drawings.

Wiring and Cabling

5.02 The TTKT frame is arranged for solderless-wrapped connections. ED-27114-01 covers the types and gauges of all wire and cable used in the manufacture and installation of the TTKT frame.

5.03 All coded units covered by this specification are surface wired. Interwiring between them and to other components on the frame is included in the frame local cable.

5.04 Power feeders are furnished for the ANI frames in accordance with the applicable listed drawings. The battery distribution system should be connected by a No. 6 drop lead to the fuse panel on the TTKT frame. The ground feeder for each row of frames bonded by top angle ground bars should conform to the arrangements of the particular system to which these frames are connected.

5.05 The code numbers of the switchboard cables used in cabling the TTKT frame are shown on the switchboard cabling drawing ED-95094-10. This drawing and the CAD figures on the circuits identify the leads involved and their destinations.

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 are those of the issue in which the rating was first applied.

EQUIPMENT	RATING	DETAILS LAST SHOWN IN ISSUE	REPLACING EQUIPMENT
J93403B	Mfr Disc.	6	J93403P
J93403K,L9	Mfr Disc.	8	—
J93403K,L12	Mfr Disc.	8	J93403K,L17
J93403L,L2	Mfr Disc.	8	J93403L,L4

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
J93403A	Std	Trouble Ticketer Frame	J93403A-( )	SD-95816-01 SD-95817-01 SD-95823-01 SD-95827-01
J93403C	Std	Permanent Signal Identification Unit	J93403C-( )	SD-95817-01
J93403D	Std	Connector Control Unit	J93403D-( )	SD-95816-01 SD-95823-01
J93403E	Std	Timer Unit	J93403E-( )	SD-95816-01
J93403F	Std	Register Unit	J93403F-( )	SD-95823-01
J93403G	Std	Permanent Signal Holding Trunk Jack Unit	J93403G-( )	SD-95817-01
J93403H	Std	Control Unit	J93403H-( )	SD-95816-01 SD-95823-01

EQUIPMENT CODE	AT&T RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
J93403J	Std	Progress and Register Unit	J93403J-( )	SD-95816-01
J93403K	Std	Miscellaneous Register Unit	J93403K-( )	SD-95816-01 SD-95823-01
J93403L	Std	Trunk and Number Register Unit	J93403L-( )	SD-95816-01
J93403M	Std	Terminating Marker Unit	J93403M-( )	SD-95816-01 SD-95823-01
J93403N	Std	Trouble Ticketer Frame—9-Foot 0-Inch High Frames for Use in SXS Offices	J93403N-( )	SD-95816-01 SD-95817-01 SD-95823-01
J93403P	Std	Trouble Ticketer Frame Fuse Panel	J93403P-( )	SD-95823-01
J93403R	Std	PSI Line Insulation Test Directory Number Identification Unit— Miscellaneous Relay Rack Mounted	J93403R-( )	SD-95817-01
J93403S	Std	Line Insulation Test Translation Unit— Miscellaneous Relay Rack Mounted	J93403S-( )	SD-95816-01

Circuit Schematic Index

CIRCUIT DRAWING	J93403 EQUIP CODE
SD-95816-01	A, D, E, H, J, K, L, M, N, S
SD-95817-01	A, C, G, N, R
SD-95823-01	A, B, D, F, H, K, M, N, P
SD-95827-01	A, N

Bell Telephone Laboratories, Incorporated

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