

**TRUNK FRAMES  
(ANI—TYPE B AND C)  
EQUIPMENT DESIGN REQUIREMENTS  
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 automatic number identification (ANI) trunk frames for No. 1, 350A, 355A, and 35E97 step-by-step offices.

**1.02** This specification is reissued to:

- (a) Change 1.05 and 1.07 Table B.
- (b) Change lists 4, 5, and 8 of J38943M.
- (c) Change lists 6, 7 and 10 of J38943N.
- (d) Add J38943P,L15 and 16 and Notes G and H, and change lists 2, 8, and 14.
- (e) Change J38943R,L6 and 8.
- (f) Add J38943S,L9 and Notes E and F and change list 1.
- (g) Change J38943V,L1.
- (h) Add SD-35071-01 under Circuit Schematic Index.

**1.03** This specification replaces those portions of specification J95108 relating to step-by-step frames and equipment.

**CAPACITY**

**1.04** The number of trunk units that may be mounted on the various types of 9-foot 0-inch high and 11-foot 6-inch high trunk frames is shown in Table A.

**TABLE A**

**TYPE OF 9-FOOT 0-INCH HIGH  
AND 11-FOOT 6-INCH HIGH  
TRUNK FRAMES**

TRUNK UNITS ARRANGED FOR	FRAME CAPACITIES	
	9'0" HIGH	11'6" HIGH
Noncoin. <i>J38943m</i> station-to-station 1+	10	14
Noncoin <i>J38943A-1</i> 0 and/or 0+	8	11
Noncoin 0,0+, and 1+	10	14
Coin <i>J38943P-1</i> 0,0+, and 1+	10	14
Coin and noncoin 0,0+, and 1+ <i>J38943S-1</i>	6	6

**DESCRIPTION**

**1.05** The basic function of ANI outgoing trunks J38943M and J38943N is to provide a talking and signaling path from a local office to a CAMA tandem or toll office when both are arranged for automatic number identification. When the called number has been pulsed forward by the local office, the CAMA office signals the trunk to initiate calling number identification. Through its appearance in an output connector, the trunk seizes an output pulser that, in turn, seizes the identifier. When the identifier has been seized by the output pulser, an identification signal is generated and passed via the trunk sleeve lead through the local switchtrain to the calling line number network. The output of the number network is detected by the identifier, passed on to and registered in the output pulser, and then MF-outputted to

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the CAMA office through the ANI trunk for entry on the CAMA tape. All local ANI equipment is then released except the trunk, which is held for the duration of the call. Test connector relays are provided in each trunk and on each frame to provide access to the trunks for testing purposes with the ANI test equipment provided.

**1.06** The ANI trunks per J38943P, J38943R, J38943S, and J38943V are intended for use in offices where toll traffic (coin and/or noncoin) is routed through a TSPS No. 1. The trunks transmit a class signal that indicates the type of service required (operator, assist special toll, local office, or station-to-station) to the TSPS. The ANI equipment performs in the same manner as described in 1.05. The TSPS can perform the same functions as the CAMA office. A record of all calls handled in the TSPS is made on magnetic tape. This applies to both operator assisted and station-to-station calls over the direct distance dialing (DDD) facilities.

**1.07** Six types of trunks (see Table B) are available for use with either ANI-B or -C. The type required is a function of the type of pulsing required and the type of traffic to be handled. The trunks can be ordered to handle either of two identification signals: the 5800-Hz tone used with ANI-B or the dc pulse used with ANI-C.

**1.08** There are five basic types of trunk frames. These are ordered according to the type of traffic to be handled and the type of ANI (B or C)

**1.09** The ANI trunk frames are arranged for 23-inch mounting plates and are of the single bay, bulb angle type, 2-feet 5/8-inch wide, either 11 feet 6 inches high with 10-inch guardrails, or 9-feet 0-inch high with 10- or 12-inch guardrails. Frames, 9-feet 0-inch high with 12-inch guardrails and their own section of 5-inch cable rack, should be used in No. 355A and other types of offices using the same type of framework. The miscellaneous equipment consists of a modular fuse panel located 10 inches from the floor and a trunk test connector and miscellaneous unit located 4 feet 4 inches from the floor. The trunk connector unit occupies two 2- by 23-inch mounting plate spaces and is located above the last trunk position on each frame. Space is provided on all ANI-B trunk frames for two oscillator units directly above the trunk test connector and miscellaneous unit. The ANI-C trunk frames require space for one pulse generator unit. Fig. 1 and 2 show typical ANI-B and ANI-C (11-foot 6-inch high) trunk frame arrange-

**TABLE B**  
**TRUNKS AVAILABLE FOR USE**  
**WITH ANI-B OR -C**

TRUNK TYPE	CODE	NO. PLATES
Station-to-station E&M signaling	J38943M	4
Station-to-station loop pulsing	J38943N	4
Special toll and operator assistance coin combined loop — E&M signaling	J38943P 5032344	4
Special toll and operator assistance noncoin combined loop — E&M signaling	J38943R 5032342	5
Operator assisted, special toll, and station-to-station combined coin and noncoin E&M signaling	J38943V	4
Operator assisted, special toll, and station-to-station combined coin and noncoin E&M signaling	J38943S	7

AC 9' frame

ments. Fig. 3 shows a typical ANI-B or ANI-C (9-foot 0-inch) trunk frame arrangement.

**1.10** The oscillator unit used with ANI-B is a 1-plate surface-wired unit. Two units serve a maximum of three adjacent trunk frames. OSC 0 or 1 is normally used by the identifier having the corresponding 0 or 1 designation. In the event that either oscillator should fail, a plug inserted into the MB jack causes the other oscillator to function with either identifier and removes the defective oscillator from service. The output of the oscillator is multiplied to all trunks on the frame and the immediately adjacent frames. This output is the 5800-Hz tone that the trunk applies to the sleeve lead of the calling party for identification purposes.

**1.11** The pulse generator unit used with ANI-C is a 2-plate unit consisting of a surface-wired unit and printed wiring boards. A single-pulse generator

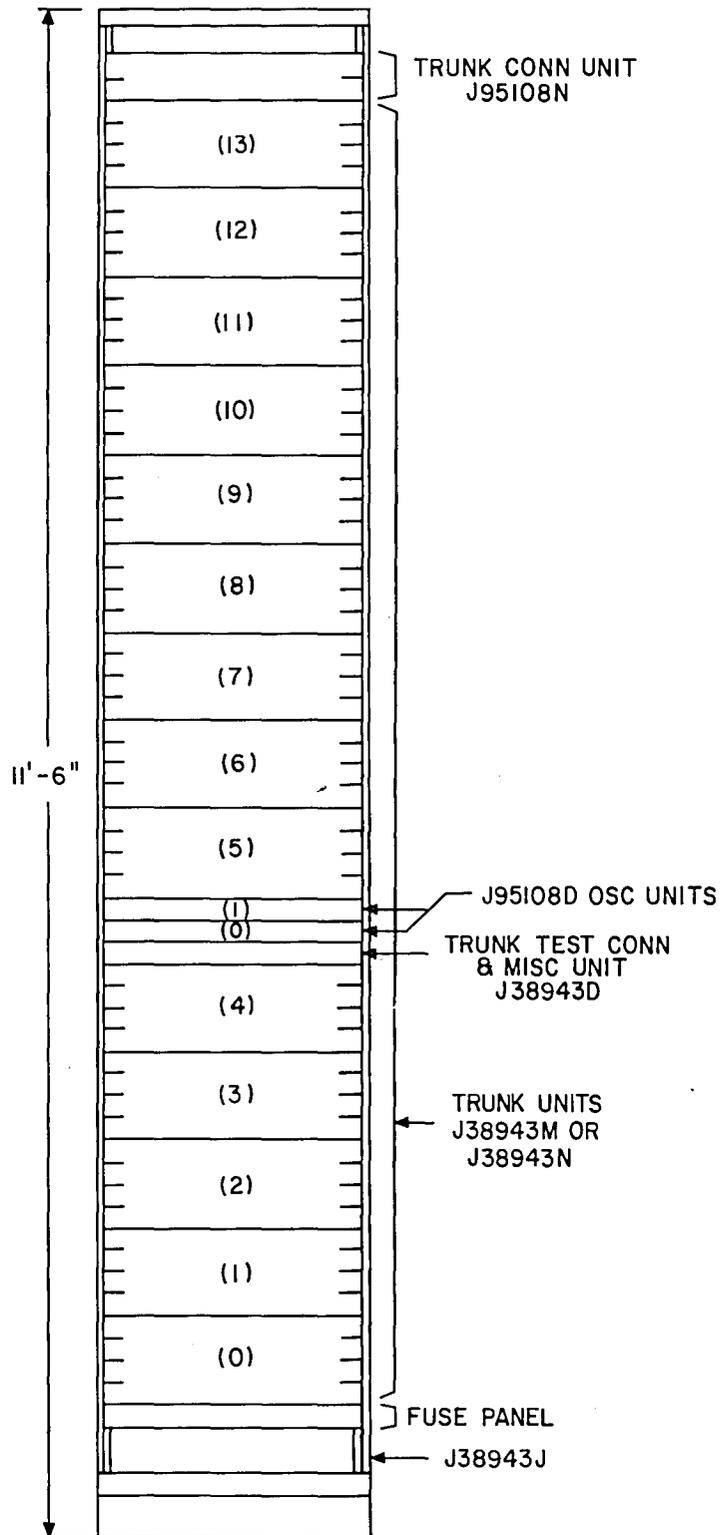


Fig. 1—Typical ANI-B Frame—11 Feet 6 Inches High

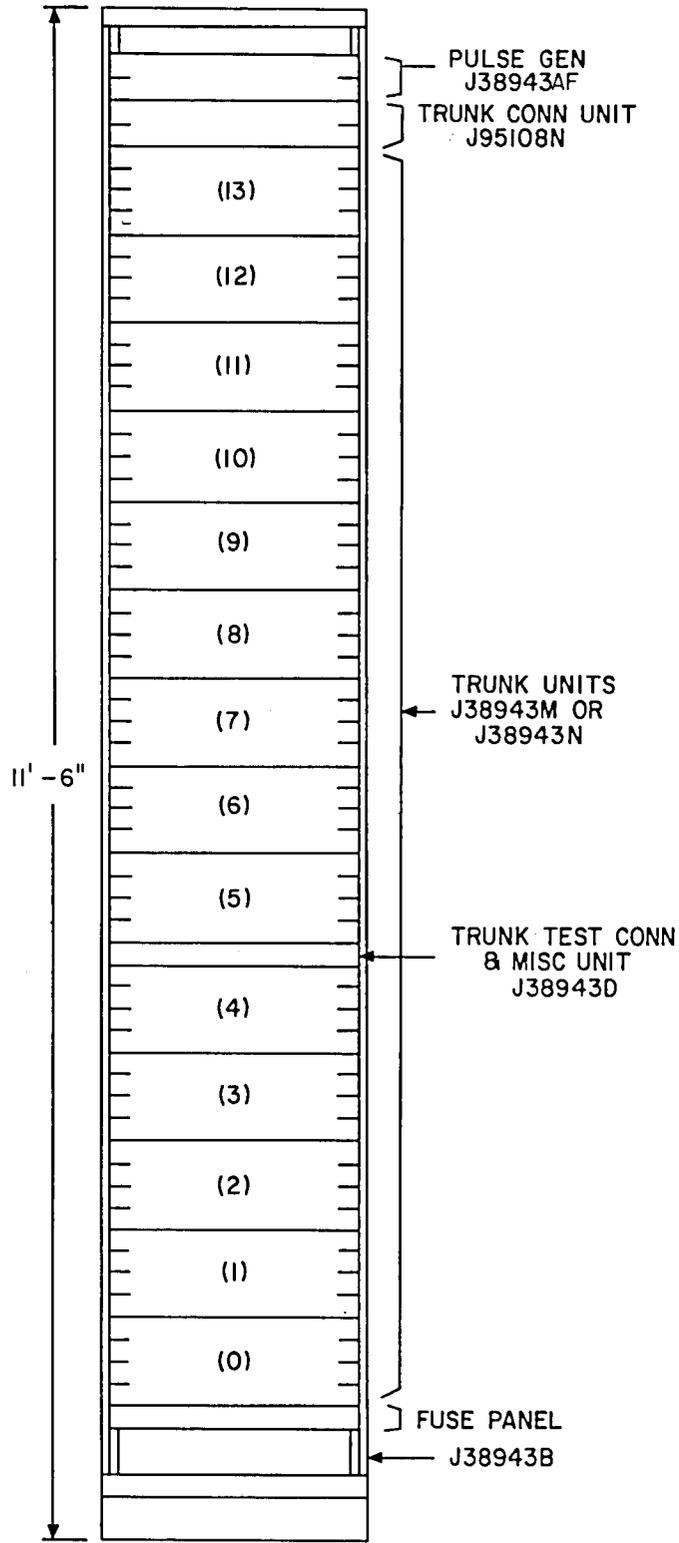


Fig. 2—Typical ANI-C Frame—11 Feet 6 Inches High

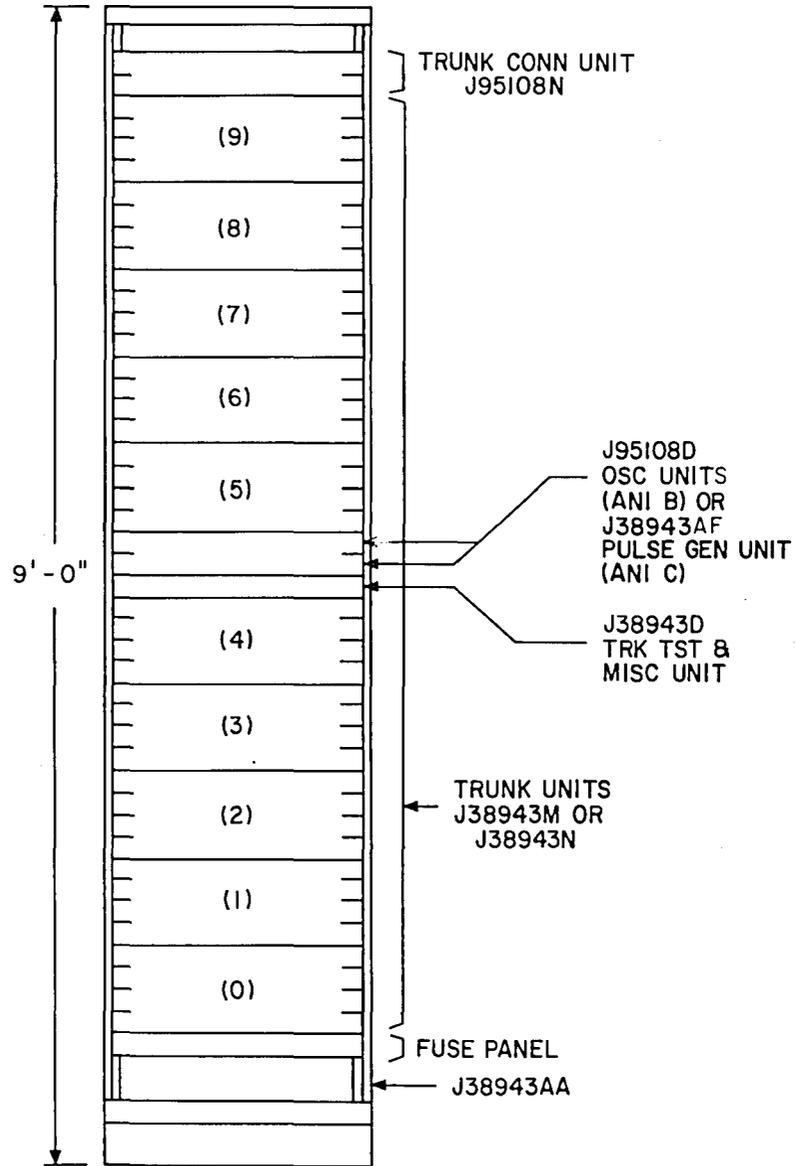


Fig. 3—Typical ANI-B or -C Frame—9 Feet 0 Inch High

unit serves all ANI-C trunk frames in an installation. The pulse generator output is multiplied to all trunks in an installation. This output is a 340-volt dc positive pulse, having a duration of approximately 150  $\mu$ s, which is applied via the trunk and office switchtrain to the sleeve lead of the calling party for identification purposes.

**1.12** The outpulser connector equipment is divided into three parts:

- (a) Trunk connector unit
- (b) Outpulser connector unit
- (c) Outpulser connector busy unit.

**1.13** The trunk connector unit is a 2-plate unit, arranged for one subgroup that may vary in capacity from 8 to 14 trunks, according to the frame capacity. Line verification and permanent signal connectors, when required, are furnished with the first trunk connector unit.

**1.14** A special trunk connector unit arranged for one subgroup of three trunks for use when outpulsing of called line to an automatic intercept center is required and provided herein for ANI-B. This is a 1-plate unit but is not mounted on an ANI trunk frame. It shall be mounted on a relay rack as closely as possible to the step-by-step outgoing trunks it will serve. It shall never be connected as the first trunk subgroup to an ANI outpulser connector unit. When ANI-C is to function with an automatic intercept center, see J33029 for the equipment arrangements.

**1.15** Offices specifying the combined coin and non-coin, operator assisted, special toll, and station-to-station trunks require the 2-plate trunk connector unit arranged for subgroups of 12 trunks. The second bay of the subgroup is equipped with miscellaneous alarm unit J38943Y.

**1.16** The outpulser connector unit is a 2-plate surface-wired unit arranged to connect five trunk subgroups to one or two outpulsers. Additional outpulser connector units may be required, depending on the number of outpulsers and trunk subgroups in a given installation. This unit is designed for relay rack or frame mounting and should be mounted near the trunk frames.

**1.17** The outpulser connector busy unit is a 1-plate unit arranged for a maximum of 10 outpulsers

and 12 trunk subgroups. This unit makes an outpulser busy to all trunk subgroups by operating the OB relays that transfer the start lead to the next outpulser. This unit is designed for relay rack or frame mounting and should be mounted near the trunk frames.

**1.18** Each frame is provided with a fuse panel to accommodate trunk units up to the capacity of the frame. Fusing is also provided for the trunk connector unit, trunk test connector and miscellaneous unit, and two oscillator units (ANI-B) or one pulse generator unit (ANI-C), depending upon the type of system.

**1.19** One talking battery filter of 30-ampere capacity shall be provided for each four or fraction of four frames in the same lineup.

**1.20** The ANI trunks are placed on the frame from the bottom up and are numbered 0, 1, 2, etc, on all frames. The number of trunks per subgroup varies in accordance with the frame capacity.

## FLOOR PLAN ARRANGEMENT

**1.21** The preferred location of ANI-T frames is with the outpulser and test equipment frame. As these frames will frequently be installed adjacent to other frames having guardrails of a different width, consideration must be given to the provision of junction details.

## 2. SUPPLEMENTARY INFORMATION

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

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

J33015—814-523-151—Coin and Noncoin Register Trunks and Auxiliary Trunk and Line Circuit Unit—Relay Rack Unit (2- by 23-Inch Mounting Plates)

J33029—814-526-150—Intercept TRK FR AIS with ANI-C or ANI-D

J38941—814-203-150—Number Network and Identifier Frame (ANI-C)

J38942—814-204-151—Outpulser and Test Equipment Frame (ANI-C)

J93402—814-607-150—Outpulser-Identifier Trunk Test Frame (ANI-B)

J93403—814-600-150—Trouble Ticketer Frame (ANI-B)

J95105—814-201-150—Identifier Frame (ANI-B)

- J95107—814-204-150—Outpulser Frame (ANI-B)
- J95108—814-507-151—Trunk Frames (ANI-B)
- J95109—814-202-150—Number Network Frames (ANI-B)
- J99226—801-025-168—Battery Filters
- Floor Plan Data—Section 7.1, Sheet 48
- Current Drain Data—
  - SD-31359-02—No. 1 Step-by-Step
  - SD-31364-02—No. 350A Step-by-Step
  - SD-31780-02—No. 355A Step-by-Step
  - SD-32325-02—35E97 Step-by-Step

**3. DRAWINGS**

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

**Keysheets**

- SD-31359-01—No. 1 Step-by-Step
- SD-31364-01—350A Step-by-Step
- SD-31780-01—355A Step-by-Step
- SD-32325-01—35E97 Step-by-Step

**Circuits**

- SD-31351-01—Methods of Running Power Feeders—Step-by-Step Systems
- SD-80728-01—Battery Distributing Circuit

**Equipment, Wiring, and Cabling**

- ED-25529-70—Guardrail Junction Details
- ED-31296-10—Method of Running Power Feeders—Step-by-Step Systems
- ED-32316-30—Pulse Generator Component Assembly
- ED-32340-10—ANI-Type C Trunk Frame—Switchboard Cabling Details for J38943A, B
- ED-32341-10—ANI-Type B Trunk Frame—Switchboard Cabling Details for J38943J
- ED-32344-30—Component Assembly for Trunk Unit J38943R
- ED-32389-()—ANI-Type C Trunk Frame—Switchboard Cabling Details for J38943T
- ED-32390-()—ANI-Type B or C Trunk Frame—Switchboard Cabling Details for J38943U or J38943W
- ED-32391-()—ANI-Type B or C Trunk Frame—Switchboard Cabling Details for J38943X
- ED-35137-()—Electronic Multiwink Receiver
- ED-91837-()—Relay-Rack Assembly—Angle Type

- ED-91839-70—Junction Details—Angle-Type Relay Rack
- ED-92171-71—Talking Battery Supply Filter
- ED-94898-()—Common Systems Frame Assemblies—Angle Type With Sheet Metal Base
- ED-95131-10—Modular Fuse Blocks and Accessories for Fuse Panel Arrangements Adapted for 2-Inch Mounting Plates and 70-Type Fuses

**4. EQUIPMENT**

**J38943B—AT&TCo Std—ANI-Type C Trunk Frames for Station-to-Station Trunk Units—11 Feet 6 Inches High**

*List 1*—Framework, assembly, wiring, and common equipment for one ANI-C trunk frame arranged for station-to-station trunk units. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32244-01 or SD-32245-01:	14	0	
Pulse Gen Ckt, SD-32378-01:			
ANI, Fig. 2	1	0	
AMARS, Fig. 2	2	0	
Fig. 3,4	1	0	
Outpulser Conn. Ckt, SD-95890-01:			
Fig. 1	14	0	
Misc Ckt, SD-32248-01:			
Fig. 1,2,3,7,9, and 10	1	0	
Fig. 4	15	Reqd	As
Fig. 6, Option N	1	Reqd	As
Fig. 23	2	Reqd	
Fig. 29	1	0	

*List 2*—Assembly, wiring, and equipment per SD-32248-01, Fig. 7 required in addition to list 1 to arrange one fuse panel for talking battery filter alarm. (See Note B.)

**Notes**

- A. Trunk units per J38943M or J38943N (as required), pulse generator unit per J38943AF (one per office), miscellaneous unit per J38943D, and trunk connector unit per J95108N are ordered

separately and are mounted on the frame and connected in the shop. (See Note C.)

- B. Talking battery filters shall be furnished as required for the particular job. Furnish one list 2 on the trunk frame nearest each filter.
- C. SD-95890-01, Fig. 1, S wiring shall always be connected to the J95108N unit.

**J38943C—A&M Only—ANI-Type C Pulse Generator Unit**

- List 1**—Assembly, wiring, and equipment for one pulse generator unit per SD-32378-01, Fig. 1. (See Note A.)

**Note**

- A. Spare plug-in component assemblies per ED-32316-30 may be ordered and stocked by the telephone company.

**J38943D—AT&TCo Std—ANI-Type B and C Trunk Test Connector and Miscellaneous Unit**

- List 1**—Assembly, wiring, and equipment for one trunk test connector and miscellaneous unit per SD-32248-01, Fig. 1.

- List 2**—Wiring and equipment per SD-32248-01, Fig. 11, with option S required in addition to list 1 when additional trunk test connector relay is required for special toll trunk frame (trunks requiring CL3 through CL8 class leads). (See Note A.)

- List 3**—Wiring and equipment per SD-32248-01, Fig. 3 required in addition to list 1 for an out-pulsor seizure failure peg-count relay, one for each identifier group (ANI-B) or one per office (ANI-C). (See Note C.)

- List 4**—Assembly, wiring, and equipment per SD-32248-01, Fig. 2, less option X required in addition to list 1 for second, fifth, eighth, etc, adjacent trunk frames and on each isolated trunk frame.

- List 5**—Wiring and apparatus per SD-32248-01, Fig. 2, option X only required in addition to list 4 when jack RC is required (ANI-B offices only).

- List 6**—Wiring and apparatus per SD-32248-01, Fig. 9 required in addition to list 4 when 130-volt test jack is required.

- List 7**—Wiring and equipment per SD-32248-01, Fig. 22 required in addition to list 1 to provide additional trunk test relay for combined coin and noncoin station toll and special toll trunk frames requiring CL14 class leads.

- List 8**—Wiring and equipment per SD-32248-01, Fig. 29 required in addition to list 1 to provide an alarm release when automatic message accounting recording (AMAR) is required (one list 8 per installation of all ANI-C trunk frames). (See Note B.)

**Notes**

- A. When trunk using C1 and CL13 leads (SD-32543-01) is specified, list 2 shall be modified to remove option S and add option R.
- B. Provide only on ANI-C trunk frame equipped with pulse generator per J38943AF-( ).
- C. Add option ZB for ANI-B.

**J38943F—AT&TCo Std—ANI-Type C Trunk Frame for Special Toll or Operator Assistance—Outgoing Coin Trunks—11Feet 6 Inches High**

- List 1**—Framework, assembly, wiring, and common equipment for one trunk frame. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32344-01	14	0	
Outputser Conn Ckt, SD-95890-01: Fig. 1	14	0	
Pulse Gen Ckt, SD-32378-01: ANI, Fig. 2	1	0	
AMARS, Fig. 2	2	0	
Fig. 3,4	1	0	
Misc Ckt, SD-32248-01: Fig. 1,7, and 11	1	0	
Fig. 2	1	0	
Fig. 3	1	0	
Fig. 4	1	As	
Fig. 6, Option N	1	Reqd	
Fig. 10	1	0	
Fig. 12	1	0	

	WIRE	EQUIP	NOTES
		As	
Fig. 21	14	Reqd	
		As	
Fig. 23	2	Reqd	
		As	
Fig. 24	2	Reqd	
		As	
Fig. 25	14	Reqd	
		As	
Fig. 26	14	Reqd	
Fig. 27	1	1	
Fig. 28	1	1	
Fig. 29	1	0	

**List 2**—Assembly, wiring, and equipment per SD-32248-01, Fig. 7 required in addition to list 1 to arrange one fuse panel for talking battery filter alarm. (See Note B.)

**Notes**

- A. Trunk units per J38943P (as required), pulse generator unit per J38943AF (one per office), miscellaneous unit per J38943D, and trunk connector unit per J95108N are ordered separately and are mounted on the frame and connected in the shop. (See Note C.)
- B. Talking battery filters shall be furnished as required for the particular job. Furnish one list 2 on the trunk frame nearest each filter.
- C. SD-95890-01, Fig. 1, S wiring shall always be connected to the J95108N unit.

**J38943H—AT&TCo Std—ANI-Type C Trunk Frame for Special Toll or Operator Assistance—Outgoing Noncoin Trunks—11 Feet 6 Inches High**

**List 1**—Framework, assembly, wiring, and common equipment for one trunk frame. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32342-01	11	0	
Outputser Conn Ckt, SD-95890-01: Fig. 1	11	0	
Pulse Gen Ckt, SD-32378-01:			
ANI, Fig. 2	1	0	
AMARS, Fig. 2	2	0	
Fig. 3,4	1	0	

**Misc Ckt, SD-32248-01:**

	WIRE	EQUIP	NOTES
Fig. 1,7, and 11	1	0	
Fig. 2	1	0	
Fig. 3	1	0	
		As	
Fig. 4	12	Reqd	
Fig. 6, Option N	1	1	
Fig. 10	1	0	
Fig. 12	1	0	
		As	
Fig. 23	2	Reqd	
Fig. 29	1	0	

**List 2**—Assembly, wiring, and equipment per SD-32248-01, Fig. 7 required in addition to list 1 to arrange one fuse panel for talking battery filter alarm. (See Note B.)

**Notes**

- A. Trunk units per J38943R (as required), pulse generator unit per J38943AF (one per office), miscellaneous unit per J38943D, and trunk connector unit per J95108N are ordered separately and are mounted on the frame and connected in the shop. (See Note C.)
- B. Talking battery filters shall be furnished as required for the particular job. Furnish one list 2 on the trunk frame nearest each filter.
- C. SD-95890-01, Fig. 1, S wiring shall always be connected to the J95108N unit.

J 43108K-1

**J38943J—AT&TCo Std—ANI-Type B Trunk Frame for Station-to-Station Outgoing Trunk Units—11 Feet 6 Inches High**

**List 1**—Framework, assembly, wiring, and common equipment for one ANI-B trunk frame arranged for station-to-station trunk units. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32244-01 or SD-32245-01	14	0	
Osc Ckt, SD-95827-01	2	0	
Outputser Conn Ckt, SD-95890-01: Fig. 1	14	0	
Misc Ckt, SD-32248-01: Fig. 1,2,4,7,9, 10, and 12	1	0	

J.P.

	WIRE	EQUIP	NOTES
		As	Fig. 12
Fig. 4	15	Reqd	
Fig. 6, Option N	1	1	Fig. 21
		As	
Fig. 23	4	Reqd	Fig. 23
		As	Fig. 24
Fig. 24	2	Reqd	Fig. 25

*List 2*—Assembly, wiring, and equipment per SD-32248-01, Fig. 7 required in addition to list 1 to arrange one fuse panel for talking battery filter alarm. (See Note B.)

#### Notes

- A. Trunk units per J38943M or J38943N (as required); oscillator units per J95108D, miscellaneous unit per J38943D, and trunk connector unit per J95108N are ordered separately and are mounted on the frame and connected in the shop. (See Note C.)
- B. Talking battery filters shall be furnished as required for the particular job. Furnish one list 2 on the trunk frame nearest each filter.
- C. SD-95890-01, Fig. 1, S wiring shall always be connected to the J95108N unit.

#### ***J38943K—AT&TCo Std—ANI-Type B Trunk Frame for Special Toll and Operator Assistance—Outgoing Coin Trunk Unit—11 Feet 6 Inches High***

*List 1*—Framework, assembly, wiring, and common equipment for one trunk frame. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32344-01	14	0	
Osc Ckt, SD-95827-01	2	0	
Outputer Conn Ckt, SD-95890-01: Fig. 1	14	0	
Misc Ckt, SD-32248-01: Fig. 1,7, and 11	1	0	
Fig. 2	1	0	
Fig. 3	1	0	
		As	
Fig. 4	1	Reqd	
Fig. 6, Option N	1	1	
Fig. 10	1	0	

	WIRE	EQUIP	NOTES
	1	0	
		As	
	14	Reqd	
		As	
	4	Reqd	
	2	2	
		As	
	14	Reqd	
		As	
	14	Reqd	
	1	1	
	1	1	

*List 2*—Assembly, wiring, and equipment per SD-32248-01, Fig. 7 required in addition to list 1 to arrange one fuse panel for talking battery filter alarm. (See Note B.)

#### Notes

- A. Trunk units per J38943P (as required), oscillator units per J95108D, trunk connector unit per J95108N, and trunk test connector and miscellaneous unit per J38943D are ordered separately and are mounted on the frame and connected in the shop. (See Note C.)
- B. Talking battery filters shall be furnished as required for the particular job. Furnish one list 2 on the trunk nearest each filter.
- C. SD-95890-01, Fig. 1, S wiring shall always be connected to the J95108N unit.

#### ***J38943L—AT&TCo Std—ANI-Type B Trunk Frame for Special Toll and Operator Assistance—Outgoing Noncoin Trunk Unit—11 Feet 6 Inches High***

*List 1*—Framework, assembly, wiring, and common equipment for one trunk frame. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32342-01, Option E	11	0	
Osc Ckt, SD-95827-01	2	0	
Outputer Conn Ckt, SD-95890-01: Fig. 1	11	0	
Misc Ckt, SD-32248-01: Fig. 1,7, and 11	1	0	

	WIRE	EQUIP	NOTES
Fig. 2	1	0	
Fig. 3	1	0	
		As	
Fig. 4	12	Reqd	
Fig. 6, Option N	1	1	
Fig. 10	1	0	
Fig. 12	1	0	
		As	
Fig. 23	4	Reqd	
		As	
Fig. 24	2	Reqd	

**List 2**—Assembly, wiring, and equipment per SD-32248-01, Fig. 7 required in addition to list 1 to arrange one fuse panel for talking battery filter alarm. (See Note B.)

#### Notes

- A. Trunk units per J38943R (as required), oscillator units per J95108D, trunk connector unit per J95108N, and trunk test connector and miscellaneous per J38943D are ordered separately and are mounted on the frame and connected in the shop. (See Note C.)
- B. Talking battery filters shall be furnished as required for the particular job. Furnish one list 2 on the trunk frame nearest each filter.
- C. SD-95890-01, Fig. 1, S wiring shall always be connected to the J95108N unit.

#### **J38943M—AT&T Co Std—ANI-Type B or C—E and M Signaling—Station-to-Station—Outgoing Trunk Unit**

- List 3**—Wiring and equipment per SD-32244-01, Fig. 1, option R only required in addition to list 1 or 2, 4, or 5 in ANI-type B offices (omit Q wiring).
- List 4**—Assembly, wiring, and equipment for one outgoing trunk for use in offices with a -48V timer per SD-32244-01, Fig. 1 and options E, M, Q, ZB, ZC, ZE, ZF, ZK, ZM, ZU, ZX, and ZZ. (See Note B.)
- List 5**—Assembly, wiring, and equipment for one outgoing trunk for use in offices with a +130V timer per SD-32244-01, Fig. 1 and options E, N, Q, ZB, ZC, ZE, ZF, ZK, ZM, ZT, ZU, ZX, and ZZ. (See Note C.)

**List 6**—Wiring and equipment per SD-32244-01, options A and ZA, required in addition to list 4 or 5 when timed disconnect on partial dial calls is required in No. 355A or 35E97 offices (omit option ZB). (See Note D.)

**List 7**—Wiring and equipment per SD-32244-01, option A, required in addition to list 4 or 5, when timed disconnect on partial dial call is required in No. 1 or 350A offices (omit option ZB). (See Note D.)

**List 8**—Wiring and equipment per SD-32244-01, option ZN and ZV required in addition to list 4 and 5 when timed disconnect on partial dialed calls is furnished by the crossbar tandem office equipped with 10-digit registers (omit option ZM and ZU).

#### Notes

- A. Wiring per SD-32244-01, option V to be connected when this circuit is to be connected to a traffic usage recorder circuit.
- B. When the trunk is arranged for a -48 volt timer and automatic number identification is required, provide ZH and ZJ straps at the unit terminal strip. When ANI is temporarily not required, provide ZG strap.
- C. When the trunk is arranged for a +130 volt timer and automatic number identification is required, provide ZH strip at the unit terminal strip. When ANI is temporarily not required, provide ZG and ZI straps.
- D. Provide list 6 or 7 only when this trunk terminates in an incoming trunk which is associated with a 3-digit incoming register circuit at the crossbar tandem office.

#### **J38943N—AT&T Co Std—ANI Type B or C—Loop Signaling—Station-to-Station—Outgoing Trunk Unit**

- List 3**—Wiring and equipment per SD-32245-01, Fig. 1, option M only required in addition to lists 1 and 2, 6, or 7 in ANI-B offices (omit option K).
- List 4**—Transformer per SD-32245-01, Fig. 1, X apparatus only required in addition to list 1, 2, 6, or 7 for use with trunk having 1100-ohm (or less) impedance at 1000 Hz.

- List 5**—Transformer per SD-32245-01, Fig. 1, W apparatus only required in addition to list 1, 2, 6, or 7 for use with trunk having greater than 1100-ohm impedance at 1000 Hz.
- List 6**—Assembly, wiring, and equipment for one outgoing trunk for use in offices equipped with a -48V timer per SD-32245-01, Fig. 1, and options F, K, Y, Z, YA, YF, ZE, ZL, ZM, ZR, ZT, and ZW. (See Notes A and C.)
- List 7**—Assembly, wiring, and equipment for one outgoing trunk for use in offices equipped with +130V timer per SD-32245-01, Fig. 1, and options G, K, YA, YE, YF, ZA, ZE, ZK, ZL, ZM, ZR, ZT, and ZW. (See Notes A and D.)
- List 8**—Wiring and equipment per SD-32245-01, options ZC and ZD, required in addition to list 6 or 7, where timed disconnect on partial dial calls is required in a No. 355A or 35E97 office (omit option ZE.) (See Note E.)
- List 9**—Wiring and equipment per SD-32245-01, option ZC required in addition to list 6 or 7 where timed disconnect on partial dial calls is required in a No. 1 or 350A office (omit option ZE). (See Note E.)
- List 10**—Wiring, and equipment per SD-32245-01, options YC, YG, and ZU required in addition to list 6 or 7 when timed disconnect on partial dial calls is furnished by the crossbar tandem office equipped with 10-digit registers or TSPS No. 1. (Omit option YF and ZT.)

### Notes

- A. The installation force shall remove the Y wiring straps between the terminals of the M and Q resistors if the trunk consists of 8 to 14 miles of cable, or both the Y and Z wiring straps if the trunk consists of 14 to 32 miles of cable.
- B. Wiring per SD-32245-01, option R to be connected when this circuit is to be connected to the traffic usage recorder circuit.
- C. When the trunk is arranged for a -48 volt timer and ANI is required, provide ZP and ZQ straps at the unit terminal strip. When ANI is temporarily not required, provide ZN strap.
- D. When the trunk is arranged for a +130 volt timer and ANI is required, provide ZQ strap at the unit terminal strip. When ANI is temporarily not required, provide ZN and ZO straps.
- E. Provide list 8 or 9 only when this trunk terminates in an incoming trunk that is associated with a 3-digit incoming register circuit at the crossbar tandem office.

### **J38943P—AT&TCo Std—ANI-Type B or C—Loop or E and M Signaling—Special Toll and Operator Assistance—Outgoing Coin Trunk Unit**

- List 1**—Framework, assembly, wiring, and equipment for one outgoing coin trunk per SD032344-01, Fig. 1, with options E, J, ZD, ZI, ZJ, and ZM. (See Notes A and B.)
- List 2**—Assembly, wiring, and equipment per SD-32344-01, Fig. 2, with options E, V, W, X, Y, ZL, ZP, and ZY, required in addition to list 1 to arrange trunk for loop signaling. (See Notes C and D.)
- List 6**—Wiring and equipment per SD-32344-01, option K required in addition to list 1 to arrange trunk for return of initial coin deposit. (Omit option J.)
- List 7**—Equipment and wiring per SD-32344-01, options A, M, and T required in addition to list 6 when trunk is not to be arranged for ANI.
- List 8**—Equipment and wiring per SD-32344-01, options B and ZV only, required in addition to lists 1 and 2 or 3 to provide positive talk battery to coin station sets arranged for dial-tone-first operation. (Omit option E.)
- List 14**—Assembly, wiring, and equipment per SD-32344-01, Fig. 3, with options E, J, N, ZD, ZE, ZO, ZP, ZS, ZT, and ZX, and SD-35052-01, Fig. 1 required in addition to list 1 to arrange trunk for E and M signaling. (See Note C.)
- List 15**—Equipment and wiring per SD-32344-01, Fig. 6 and option ZW, required in addition to list 14 to arrange trunk for multiwink coin control. Omit options ZO and ZX and SD-35052-01, Fig. 1. (See Note G.)
- List 16**—Equipment and wiring per SD-32344-01, Fig. 6, required in addition to list 2 to arrange trunk for multiwink coin control (omit option ZY). (See Note G.)
- List 17**—Equipment and wiring per SD-32344-01, option ZU only, required in addition to lists 15 or 16, when +48V battery toward station upon initial answer is required. (Omit option ZV.)

**Notes**

- A. This unit is furnished with mounting bars for four mounting plates in order to provide mounting facilities for the supplementary equipment per list 2 or 14.
- B. This unit shall be wired with a sewed local cable rather than surface wiring. This is to facilitate the possible conversion from loop to E and M lead signaling or vice versa by the telephone companies rather than for manufacturing reasons. The conversion will be expedited if the supplementary equipment per list 2 or 14 is wired with an applique local cable which has the usual color code and can be secured to and supported by the main local cable. For this particular unit, this procedure should result in a completed product superior to one having a mixture of local cable wiring and surface wiring.
- C. This supplementary equipment per list 2 or 14 shall be wired with an applique local cable that provides all leads required from it to the unit.
- D. The straps across the W, X, and Y resistors shall be provided in all cases and cut by the installation force as required for the particular job.
- E. Wiring per SD-32344-01, options H, Z, and ZB required in addition to lists 1 and 6 to arrange trunk for ANI and return of initial coin deposit.
- F. Wiring per SD-32344-01, option ZN required when connection to rotary out trunk switch is required. (Omit option ZM.)
- G. The electronic multiwink receiver ED-35137-( ) shall be mounted behind the trunk unit and connected to the trunk by means of a connector cable assembly when lists 15 or 16 are specified.

**J38943R—AT&T Co Std—ANI-Type B or C—Loop or E and M Signaling—Special Toll and Operator Assistance—Outgoing Noncoin Trunk Unit**

- List 3**—Assembly, wiring, and equipment per SD-32342-01, Fig. 3, with options ZC and ZH required in addition to lists 1 and 6 to arrange for E and M lead signaling. (See Note C.)
- List 4**—Equipment per SD-32342-01, Fig. 1, option E apparatus only required in addition to list 1 or 6 for ANI-B.
- List 6**—Framework, assembly, wiring, and equipment for one outgoing trunk per SD-32342-01, Fig.

1, with options, A, ZE, ZP, ZS, and with options E and ZW wiring only, less all other options. (See Notes A and B.)

- List 7**—Wiring and equipment per SD-32342-01, Fig. 1, option ZA only, omit option A, required in addition to list 6, where 00 emergency code to CAMA or where combined special toll and operator assistance traffic to TSPS No. 1 office, with or without 00 emergency code, is required.
- List 8**—Wiring and equipment per SD-32342-01, Fig. 2, with options B, ZC, and ZU, required in addition to list 6 to arrange trunk for loop signaling. (See Notes C and D.)
- List 9**—Wiring and equipment per SD-32342-01, Fig. 1, option ZQ only required in addition to list 6 to arrange this trunk for use in office equipped with supercombined trunks. (Omit option ZP.)

**Notes**

- A. This unit is furnished with mounting bars for five mounting plates in order to provide mounting facilities for the supplementary equipment per list 3 or 8.
- B. This unit shall be wired with a sewed local cable rather than surface wiring. This is to facilitate the possible conversion from loop to E and M lead signaling or vice versa by the telephone companies rather than for manufacturing reasons. The conversion will be expedited if the supplementary equipment per list 3 or 8 is wired with an applique local cable which has the usual color code and can be secured to and supported by the main local cable. For this particular unit, this procedure should result in a completed product superior to one having a mixture of local cable wiring and surface wiring.
- C. The supplementary equipment per list 3 or 8 shall be wired with an applique local cable that provides all leads required from it to the unit.
- D. The straps across the AL1, BL, CL, DL, EL, and FL resistors shall be provided in all cases and cut by the installation force as required for the particular job.
- E. Wiring per SD-32342-01, Fig. 2, option K only required in addition to list 2, 5, or 8 when trunk is used for special toll traffic or combined special toll and operator assistance traffic to TSPS No. 1

office, with or without 00 emergency code, shall be furnished at the unit terminal strip.

- F. Wiring per SD-32342-01, Fig. 1, option M only required in addition to list 2, 5, or 8 when trunk is used for operator assistance traffic, shall be furnished at the unit terminal strip.
- G. Wiring per SD-32342-01, Fig. 1, option F only required in addition to list 3 when trunk is used for operator assistance traffic and is arranged for E and M lead signaling, shall be furnished at the unit terminal strip.
- H. Wiring per SD-32342-01, Fig. 1, option J only required in addition to list 1 or 6 when ANI is required, shall be furnished at the unit terminal strip.
- I. Wiring per SD-32342-01, Fig. 1, option N only required in addition to list 1 or 6 when ANI is temporarily not required, shall be furnished at the unit terminal strip.
- J. Wiring per SD-32342-01, Fig. 1, option H only required in addition to list 1 or 6 when it is desired to ring back against subscriber off-hook only, shall be furnished at the unit terminal strip.
- K. Wiring per SD-32342-01, Fig. 1, option G only required in addition to list 1 or 6 when it is desired to ring back against subscriber off-hook and on-hook (only if office has no party lines), shall be furnished at the unit terminal strip.
- L. Wiring per SD-32342-01, Fig. 1, option ZF only required in addition to list 7 when trunk is used for combined special toll and operator assistance traffic to TSPS No. 1 office, with or without 00 emergency code.
- M. Wiring per SD-32342-01, Fig. 1, option ZF only required in addition to list 7 when trunk is used for combined special toll and operator assistance traffic to TSPS No. 1 office, with or without 00 emergency code.

***J38943S—AT&T Co Std—ANI-Type B or C—E and M Signaling—Special Toll, Operator Assistance, Station-to-Station—Outgoing Coin and Noncoin Trunk Unit***

**List 1**—Assembly, wiring, and equipment for one outgoing trunk unit per SD-32542-01, Fig. 1

with options A, B, and F for offices with ANI-Type B or C. See Notes A, B, C, and D. (Seven mounting plates, one circuit.)

- List 2**—Wiring and equipment, required in addition to list 1, provides inband signaling and a dual-channel receiver per SD-32542-01, Fig. 2 with option G and SD-35052-01, Fig. 1.
- List 3**—Wiring and equipment required in addition to list 1 when return of initial deposit is required per SD-32542-01, Fig. 1, Z wiring and apparatus only. (See Note A.)
- List 4**—Wiring and equipment, required in addition to list 1, when 2-party lines are served per SD-32542-01, Fig. 4. (See Note C.)
- List 5**—Wiring and equipment, required in addition to list 1 when +48 volt talk battery is not required toward station while connected to operator (prepay coin service), SD-32542-01, Fig. 1, W wiring and apparatus only.
- List 6**—Wiring and equipment, required in addition to list 1 when +48 volt talk battery is required toward station while connected to operator (coinless access to specified numbers) per SD-32542-01, Fig. 1, X wiring and apparatus only.
- List 7**—Wiring and equipment, required in addition to list 1 for one ringing current lamp per SD-32542-01, Fig. 5, provide one list 7 for each bay.
- List 9**—Wiring and equipment per SD-32542-01, Fig. 7, required in addition to list 1 to arrange trunk for multiwink coin control. See Notes E and F. (Omit option A.)

**Notes**

- A. When return of initial coin deposit is not required, add Y wiring to list 1.
- B. In offices equipped with ANI-Type B, add N wiring to list 1.
- C. In offices where 2-party service is provided, add S wiring to list 1.
- D. Service options K and M appear on unit terminal strips.
- E. The electronic multiwink receiver [ED-35137-( )] shall be mounted behind the trunk unit and connected to the trunk by means of a connector cable assembly when list 9 is specified.

F. Wiring per SD-32542-01, option ZA, required in addition to list 6 when multiwink coin control is required.

**J38943U—AT&T Co Std—ANI-Type B or C Trunk Frame for Special Toll, Operator Assistance, Station-to-Station Outgoing Coin and Noncoin Trunks— 11 Feet 6 Inches High**

**List 1**—Framework, assembly, wiring, and common equipment for one trunk frame. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32542-01	6	0	
Pulse Gen Ckt, SD-32378-01:			
ANI, Fig. 2	1	0	
AMARS, Fig. 2	2	0	
Fig. 3,4	1	0	
or			
Osc Ckt, SD-95827-01	2	0	
Outpulser Conn Ckt, SD-95890-01:			
Fig. 1	6	0	
Misc Ckt, SD-32248-01:			
Fig. 1 and 22	1	0	
Fig. 2	1	0	
Fig. 3	1	0	
Fig. 4	6	As	Reqd
Fig. 6, N Wiring	1	1	
Fig. 10	1	0	
Fig. 12	1	0	
Fig. 23	As	As	Reqd
Fig. 24	Reqd	As	Reqd
Fig. 25	6	As	Reqd
Fig. 26	6	As	Reqd
Fig. 27	1	1	
Fig. 28	1	1	
Fig. 29	1	0	

**List 2**—Assembly, wiring, and equipment per SD-32248-01, Fig. 7 required in addition to list 1 to arrange one fuse panel for talking battery filter alarm. (See Note B.)

**Notes**

A. The trunk frames are equipped with:

1. Oscillator units per J95108D are required two per three adjacent trunk frames, or on each isolated frame (ANI-B).
2. One pulse generator unit per J38943AF is required per office (ANI-C).
3. One miscellaneous unit per J38943D is required per frame.
4. One trunk connector unit per J95108N is required per subgroup of trunks and is mounted in the first frame of a subgroup.
5. One alarm unit per J38943Y is required in the second frame of a subgroup.

The above equipment is ordered separately, mounted on the frame, and connected in the shop. (See Note C.)

B. Talking battery filters shall be furnished as required for the particular job. Furnish one list 2 on the trunk frame nearest each filter.

C. SD-95890-01, Fig. 1, S wiring shall always be connected to the J95108N unit.

**J38943V—AT&T Co Std—ANI-Type B or C—E and M Signaling Special Toll, Operator Assistance, Station-to-Station—Outgoing Noncoin Trunk Unit (No. of Mtg Plts—4; No. of Ckts—1)**

**List 1**—Assembly, wiring, and equipment for one outgoing trunk unit per SD-32543-01, Fig. 1 and 2 with option R. (See Notes A and B.)

**List 2**—Equipment per SD-32543-01, Fig. 1, option Z, apparatus only required in addition to list 1 for ANI-B.

**Notes**

- A. One Fig. 2 required per five Fig. 1 maximum.
- B. Fig. 2 (resistance lamp) is mounted on the miscellaneous fuse bay.

**J38943X—AT&T Co Std—ANI-Type B or C Trunk Frame for Special Toll, Operator Assistance, Station-to-Station—Outgoing Noncoin Trunks—11-Feet 6-Inches High**

**List 1**—Framework, assembly, wiring, and common equipment for one trunk frame. (See Note B.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32543-01	14	0	
Outputer Conn Ckt, SD-95890-01: Fig. 1	14	0	
Pulse Gen Ckt, SD-32378-01:			
ANI, Fig. 2	1	0	
AMARS, Fig. 2	2	0	
Fig. 3, 4	1	0	
Osc Ckt, SD-95827-01	1	0	
Misc Ckt, SD-32248-01:			
Fig. 1 and 11, Option R	1	0	
Fig. 2	1	0	
Fig. 3	1	0	
Fig. 4	1	0	
Fig. 6, Option N	1	1	
Fig. 10	1	0	
Fig. 12	1	0	
	As	As	
Fig. 21	Reqd	Reqd	
	As	As	
Fig. 23	Reqd	Reqd	
	As	As	
Fig. 24	Reqd	Reqd	
Fig. 29	1	0	

**List 2**—Assembly, wiring, and equipment per SD-32248-01, Fig. 7 required in addition to list 1 to arrange one fuse panel for talking battery filter alarm. (See Note B.)

#### Notes

A. The trunk frames are equipped with:

1. Trunk units per J38943V as required.
2. Oscillator units per J95108D are required two per three adjacent trunk frames or on each isolated frame (ANI-B).
3. One pulse generator unit per J38943AF is required per office.
4. One miscellaneous unit per J38943D is required per frame.
5. One trunk connector unit per J95108N is required per frame.

The above equipment is ordered separately, mounted on the frame, and connected in the shop. (See Note C.)

B. Talking battery filters shall be furnished as required for the particular job. Furnish one list 2 on the trunk frame nearest each filter.

C. SD-95890-01, Fig. 1, S wiring shall always be connected to the J95108N unit.

#### **J38943Y—AT&T Co Std—Alarm Unit for ANI-Type B or C Trunk Frames Not Equipped With Trunk Connector Unit**

**List 1**—Framework, assembly, wiring, and apparatus for one alarm unit per SD-32248-01, Fig. 10 and 12 with options B and Y. (See Note A.)

**List 2**—Wiring and equipment required per SD-32248-01, option Z required in addition to list 1 in No. 35E97 offices with ANI-type C. (See Note B.)

**List 3**—Wiring and apparatus required in addition to list 1 to provide an alarm indication to CSACS per SD-32248-01, option E.

#### Notes

A. Provide units per J38943Y on all trunk frames per J38943U or J38943AE that are not equipped with connector units per J95108N.

B. When list 2 is specified, remove SD-32248-01, option Y from list 1.

C. Terminal strip A is provided on this unit to provide a point for trunks mounted with this unit to be cabled over the trunk bay equipped with associated trunk connector J95108N-1.

#### **J38943AA—AT&T Co Std—ANI-Type B or C Trunk Frame for Station-to-Station Outgoing Trunk Units—9-Feet 0-Inch High**

**List 1**—Framework, assembly, wiring, and common equipment for one ANI-B or ANI-C trunk frame, 10-inch base without 5-inch cable rack. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32244-01 or SD-32245-01	10	0	

	WIRE	EQUIP	NOTES
Osc Ckt, SD-95827-01	2	0	
Pulse Gen Ckt, SD-32378-01:			
ANI, Fig. 2	1	0	
AMARS, Fig. 2	2	0	
Fig. 3, 4	1	0	
Outputpulser Conn Ckt, SD-95890-01:			
Fig. 1	10	0	
Misc Ckt, SD-32248-01:			
Fig. 1,2,3,7,9,10 (Less Option Z) & 12	1	0	
		As	
Fig. 4	11	Reqd	
Fig. 6, Option N	1	1	
		As	
Fig. 23	4	Reqd	
		As	
Fig. 24	2	Reqd	
Fig. 29	1	0	

**List 2**—Framework, assembly, wiring and common equipment for one ANI-B or ANI-C trunk frame, 1-foot 0-inch base with 5-inch cable rack. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32244-01 or SD-32245-01	10	0	
Osc Ckt, SD-95827-01	2	0	
Pulse Gen Ckt, SD-32378-01:			
ANI, Fig. 2	1	0	
AMARS, Fig. 2	2	0	
Fig. 3,4	1	0	
Outputpulser Conn Ckt, SD-95890-01:			
Fig. 1	10	0	
Misc Ckt, SD-32248-01:			
Fig. 1,2,3,7,9,10 (Less Option Z) & 12	1	0	
		As	
Fig. 4	11	Reqd	
Fig. 6, Option N	1	1	
		As	
Fig. 23	4	Reqd	
		As	
Fig. 24	2	Reqd	
Fig. 29	1	0	

**List 3**—Assembly, wiring, and equipment per SD-32248-01, Fig. 7 required in addition to list 1 or 2 to arrange one fuse panel for talking battery filter alarm. (See Note B.)

**Notes**

A. Trunk unit per J38943M or J38943N as required, pulse generator unit per J38943AF (one per office, ANI-C), oscillator units per J95108D (two per each three adjacent frames, or on each isolated frame, ANI-B). Miscellaneous unit per J38943D and trunk connector unit per J95108N are ordered separately and are mounted on the frame and connected in the shop. (See Note C.)

B. Talking battery filters shall be furnished as required for the particular job. Furnish one list 3 on the trunk frame nearest each filter.

C. SD-95890-01, Fig. 1, S wiring shall always be connected to the J95108N unit.

**J38943AB—AT&TCo Std—ANI-Type B or C Trunk Frame for Special Toll and Operator Assistance—Outgoing Coin Trunks—9-Foot 0-Inch High**

**List 1**—Framework, assembly, wiring, and common equipment for one ANI-B or ANI-C trunk frame, 10-inch base without 5-inch cable rack. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32344-01	10	0	
Osc Ckt, SD-95827-01	2	0	
Pulse Gen Ckt, SD-32378-01:			
ANI, Fig. 2	1	0	
AMARS, Fig. 2	2	0	
Fig. 3, 4	1	0	
Outputpulser Conn Ckt, SD-95890-01	10	0	
Misc Ckt, SD-32248-01;			
Fig. 1, 7, and 11	1	0	
Fig. 2	1	0	
Fig. 3	1	0	
Fig. 4	1	1	
Fig. 6, Option N	1	1	
Fig. 10	1	0	
Fig. 12	1	0	

	WIRE	EQUIP	NOTES
Fig. 21	10	As Reqd	
Fig. 23	4	As Reqd	
Fig. 24	2	As Reqd	
Fig. 25	10	As Reqd	
Fig. 26	10	Reqd	
Fig. 27	1	1	
Fig. 28	1	1	
Fig. 29	1	0	

**List 2**—Framework, assembly, wiring, and common equipment for one ANI-B or ANI-C trunk frame, 1-foot 0-inch base with 5-inch cable rack. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32344-01	10	0	
Osc Ckt, SD-95827-01	2	0	
Pulse Gen Ckt, SD-32378-01:			
ANI, Fig. 2	1	0	
AMARS, Fig. 2	2	0	
Fig. 3, 4	1	0	
Outpulser Conn Ckt, SD-95890-01	10	0	
Misc Ckt, SD-32248-01:			
Fig. 1, 7, and 11	1	0	
Fig. 2	1	0	
Fig. 3	1	0	
Fig. 4	1	1	
Fig. 6, Option N	1	1	
Fig. 10	1	0	
Fig. 12	1	0	
Fig. 21	10	As Reqd	
Fig. 23	4	As Reqd	
Fig. 24	2	As Reqd	
Fig. 25	10	As Reqd	
Fig. 26	10	Reqd	
Fig. 27	1	1	
Fig. 28	1	1	
Fig. 29	1	0	

**List 3**—Assembly, wiring, and equipment per SD-32248-01, Fig. 7 required in addition to list 1 or list 2 to arrange one fuse panel for talking battery filter alarm. (See Note B.)

**Notes**

A. Trunk units per J38943P as required, pulse generator per J38943AF (one per office, ANI-C), oscillator units per J95108D (two per three adjacent trunk frames or on each isolated frame, ANI-B). Miscellaneous unit per J38943D and trunk connector unit per J95108N are ordered separately and are mounted on the frame and connected in the shop. (See Note C.)

B. Talking battery filters shall be furnished as required for the particular job. Furnish one list 3 on the trunk frame nearest each filter.

C. SD-95890-01, Fig. 1, S wiring shall always be connected to the J95108N unit.

**J38943AC—AT&T Co Std—ANI-Type B or C Trunk Frame for Special Toll and Operator Assistance—Outgoing Noncoin Trunks—9-Foot 0-Inch High**

**List 1**—Framework, assembly, wiring, and common equipment for one ANI-B or ANI-C trunk frame, 10-inch base without 5-inch cable rack. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32342-01:			
Option E	8	0	
Osc Ckt, SD-95827-01	2	0	
Pulse Gen Ckt, SD-32378-01:			
ANI, Fig. 2	1	0	
AMARS, Fig. 2	2	0	
Fig. 3, 4	1	0	
Outpulser Conn Ckt, SD-95890-01:			
Fig. 1	8	0	
Misc Ckt, SD-32248-01:			
Fig. 1, 7, and 11	1	0	
Fig. 2	1	0	
Fig. 3	1	0	
Fig. 4	9	As Reqd	
Fig. 6, Option N	1	1	
Fig. 10 and 12	1	0	

	WIRE	EQUIP	NOTES
Fig. 23	3	As Reqd	
Fig. 24	2	As Reqd	
Fig. 29	1	0	

**List 2**—Framework, assembly, wiring, and common equipment for one ANI-B or ANI-C trunk frame, 1-foot 0-inch base with 5-inch cable rack. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32342-01:			
Option E	8	0	
Osc Ckt, SD-95827-01	2	0	
Pulse Gen Ckt, SD-32378-01:			
ANI, Fig. 2	1	0	
AMARS, Fig. 2	2	0	
Fig. 3, 4	1	0	
Outpulser Conn Ckt, SD-95890-01:			
Fig. 1	8	0	
Misc Ckt, SD-32248-01:			
Fig. 1, 7, and 11	1	0	
Fig. 2	1	0	
Fig. 3	1	0	
Fig. 4	9	As Reqd	
Fig. 6, Option N	1	1	
Fig. 10 and 12	1	0	
Fig. 23	3	As Reqd	
Fig. 24	2	As Reqd	
Fig. 29	1	0	

**List 3**—Assembly, wiring, and equipment per SD-32248-01, Fig. 7 required in addition to list 1 or 2 to arrange one fuse panel for talking battery filter alarm. (See Note B.)

**Notes**

A. Trunk units per J38943R as required, pulse generator unit per J38943AF (one per office, ANI-C), oscillator units per J95108D (two per three adjacent trunk frames or on each isolated frame, ANI-B). Miscellaneous unit per J38943D and trunk connector unit per J95108N are ordered separately and are mounted on the frame and connected in the shop. (See Note C.)

B. Talking battery filters shall be furnished as required for the particular job. Furnish one list 3 on the trunk frame nearest each filter.

C. SD-95890-01, Fig. 1, S wiring shall always be connected to the J95108N unit.

**J38943AD—AT&TCo Std—ANI-Type B or C Trunk Frame for Noncoin Trunks Arranged To Provide Operator Assistance, Special Toll, and Station Toll to a TSPS Office—9 Feet 0-Inch High**

**List 1**—Framework, assembly, wiring, and common equipment for one ANI-B or ANI-C trunk frame, 10-inch base without 5-inch cable rack. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32543-01	10	0	
Outpulser Conn Ckt, SD-95890-01:			
Fig. 1	10	0	
Pulse Gen Ckt, SD-32378-01:			
ANI, Fig. 2	1	0	
AMARS, Fig. 2	2	0	
Fig. 3, 4	1	0	
Osc Ckt, SD-95827-01	2	0	
Misc Ckt, SD-32248-01:			
Fig. 1, 7, and 11, Option R	1	0	
Fig. 2 and 3	1	0	
Fig. 4	1	0	
Fig. 6, N Wiring	1	1	
Fig. 10 and 12	1	0	
Fig. 21	10	As Reqd	
Fig. 23	4	As Reqd	
Fig. 24	2	As Reqd	
Fig. 29	1	0	

**List 2**—Framework, assembly, wiring, and common equipment for one ANI-B or ANI-C trunk frame, 1-foot 0-inch base with 5-inch cable rack. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32543-01	10	0	
Outpulser Conn Ckt, SD-95890-01:			
Fig. 1	10	0	

	WIRE	EQUIP	NOTES
Pulse Gen Ckt, SD-32378-01:			
ANI, Fig. 2	1	0	
AMARS, Fig. 2	2	0	
Fig. 3, 4	1	0	
Osc Ckt, SD-95827-01	2	0	
Misc Ckt, SD-32248-01:			
Fig. 1, 7, and 11, Option R	1	0	
Fig. 2 and 3	1	0	
Fig. 4	1	1	
Fig. 6, N Wiring	1	1	
Fig. 10 and 12	1	0	
		As	
Fig. 21	10	Reqd	
		As	
Fig. 23	4	Reqd	
		As	
Fig. 24	2	Reqd	
Fig. 29	1	0	

**List 3**—Assembly, wiring, and equipment per SD-32248-01, Fig. 7 required in addition to list 1 or 2 to arrange one fuse panel for talking battery filter alarm. (See Note B.)

#### Notes

A. Trunk units per J38943V as required, pulse generator unit per J38943AF (one per office, ANI-C), oscillator units per J95108D (two per three adjacent trunk frames or on each isolated frame, ANI-B). Miscellaneous unit per J38943D and trunk connector unit per J95108N are ordered separately and are mounted on the frame and connected in the shop. (See Note C.)

B. Talking battery filters shall be furnished as required for the particular job. Furnish one list 3 on the trunk frame nearest each filter.

C. SD-95890-01, Fig. 1, S wiring shall always be connected to the J95108N unit.

**J38943AE—AT&T Co Std—ANI-Type B or C Trunk Frame for Coin and Noncoin Trunks Arranged to Provide Operator Assistance, Special Toll, and Station Toll to a TSPS Office—9 Feet, 0 Inch High**

**List 4**—Framework, assembly, wiring and common equipment for one ANI-B or ANI-C trunk frame, 10-inch base without 5-inch cable rack. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32542-01	6	0	
Pulse Gen Ckt, SD-32378-01:			
ANI, Fig. 2	1	0	
AMARS, Fig. 2	2	0	
Fig. 3, 4	1	0	
Osc Ckt, SD-95827-01	2	0	
Outputpulser Conn Ckt, SD-95890-01: Fig. 1	6	0	
Misc Ckt, SD-32248-01:			
Fig. 1, 7, and 22	1	0	
Fig. 2	1	0	
Fig. 3	1	0	
		As	
Fig. 23	10	Reqd	
		As	
Fig. 24	2	Reqd	
		As	
Fig. 4	7	Reqd	
Fig. 10 and 12	1	0	
Fig. 6, N Wiring	1	1	
		As	
Fig. 25	6	Reqd	
		As	
Fig. 26	6	Reqd	
Fig. 27	1	1	
Fig. 28	1	1	
Fig. 29	1	0	

**List 5**—Framework, assembly, wiring, and common equipment for one ANI-B or ANI-C trunk frame, 1-foot 0-inch base with 5-inch cable rack. (See Note A.)

	WIRE	EQUIP	NOTES
Trunk Ckt, SD-32542-01	6	0	
Pulse Gen Ckt, SD-32378-01:			
ANI, Fig. 2	1	0	
AMARS, Fig. 2	2	0	
Fig. 3, 4	1	0	
Osc Ckt, SD-95827-01	2	0	
Outputpulser Conn Ckt, SD-95890-01: Fig. 1	6	0	

	WIRE	EQUIP	NOTES
Misc Ckt, SD-32248-01:			
Fig. 1, 7, and 22	1	0	
Fig. 2 and 3	1	0	
		As	
Fig. 23	10	Reqd	
		As	
Fig. 24	2	Reqd	
		As	
Fig. 4	7	Reqd	
Fig. 10 and 12	1	0	
Fig. 6, N Wiring	1	1	
		As	
Fig. 25	6	Reqd	
		As	
Fig. 26	6	Reqd	
Fig. 27	1	1	
Fig. 28	1	1	
Fig. 29	1	0	

**List 6**—Assembly, wiring, and equipment per SD-32248-01, Fig. 7 required in addition to list 4 or 5 to arrange one fuse panel for talking battery filter alarm. (See Note B.)

**Notes**

- A. The trunk frames are equipped with:
1. Oscillator units per J95108D are required two per three adjacent trunk frames, or on each isolated frame (ANI-B).
  2. One pulse generator unit per J38943AF is required per office (ANI-C).
  3. One miscellaneous unit per J38943D is required per frame.
  4. One trunk connector unit per J95108N is required per subgroup of trunks and is mounted in the first frame of a subgroup.
  5. One alarm unit per J38943Y is required in the second and third frames of a subgroup.

The above equipment is ordered separately, mounted on the frame, and connected in the shop. (See Note C.)

- B. Talking battery filters shall be furnished as required for the particular job. Furnish one list 6 on the trunk frame nearest each filter.

C. SD-95890-01, Fig. 1, S wiring shall always be connected to the J95108N unit.

**J38943AF—AT&T Co Std—Pulse Generator Unit**

**List 1**—Framework, wiring, and equipment for one pulse generator per SD-32378-01, Fig. 2 and 3 with options S and V.

**List 2**—Equipment per SD-32378-01, two Fig. 2 and one Fig. 4 with options R and T required in addition to list 1 when automatic message accounting recording is required. (Omit options S and V.)

**Miscellaneous Equipment**

**J95108D—ANI Oscillator Unit**

**J95108N—Trunk Connector and Alarm Unit**

**J95108R—Outpulser Connector Unit for 7 Outpulser and 12 Subgroups**

**J95108Y—Trunk Connector Unit for Outgoing Trunks to an Automatic Intercept Center**

**J95108AJ—Outpulser Connector Busy Unit for 10 Outpulser and 12 Trunk Subgroups**

**J95108AS—Outpulser Connector for Two Outpulser and Five Trunk Subgroups**

**5. GENERAL NOTES AND INDEXES**

**5.01** The outpulser connector unit and the outpulser connector busy unit shall be mounted on a frame or relay rack near the ANI trunk frames. Spare space should be allowed for the ultimate number of outpulser and trunk subgroups. It is recommended that all outpulser connector units for all outpulser associated with the same trunk subgroups should be mounted together.

**5.02** The ANI trunk frames are equipped with a frame local cable that contains all external leads that interconnect the trunk units with each other and with other equipment on the frame.

**5.03** The oscillator units shall be furnished on the basis of two units for each three adjacent ANI-B trunk frames in the same lineup and located

on the second, fifth, eighth, etc, such frames and on each isolated ANI-B trunk frame.

**5.04** The pulse generator unit shall be furnished on the first ANI-C trunk frame installed. The output is multiplied to successive trunks on the same frame and via a separate cable to succeeding trunk frames.

**5.05** A No. 6 lead shall be connected from the battery feeder to the talking battery supply filter. One No. 6 lead shall be connected from the battery filter to each associated fuse panel.

**5.06** ANI-B installations in step-by-step offices may fill out partially equipped trunk frames (J95108L now Mfr Disc.) using the new station-to-station trunk units, J38943M or N that replace former trunk types J95108J and K, respectively. This will be handled on a job basis. The principal difference between the two trunks involves the use of -48 volt supply for party test as opposed to the +130 volt supply required with earlier trunks.

**5.07** Equipment covered by this specification replaces the following:

REPLACING UNIT	MFR DISC. UNIT
J38943J	J95108L
J38943K	J95108AG*
J38943L	J95108AE*
J38943M	J95108J
J38943N	J95108K
J38943P	J95109AH*
J38943R	J95108AF*

\* Mfr Disc. prior to issuance of equipment drawings.

#### 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
J38943A	Mfr Disc.	5	J38943AA
J38943C	A&M Only	6	J38943AF
J38943E	Mfr Disc.	5	J38943AB
J38943G	Mfr Disc.	5	J38943AC
J38943M,L1	Mfr Disc.	1	J38943M,L4
L2	Mfr Disc.	1	L5
J38943N,L1	Mfr Disc.	1	J38943N,L6
L2	Mfr Disc.	1	L7
J38943P,L3;			
L4,L5	Mfr Disc.	6	J38943P,L14
L9	*	6	—
L10	*	6	—
L11	*	6	—
L12	*	6	—
L13	*	6	—
J38943R,L1	Mfr Disc.	3	J38943R,L6
L2	Mfr Disc.	3	L7
L5	Mfr Disc.	3	L8
J38943S,L8	Mfr Disc.	6	—
J38943T	Mfr Disc.	5	J38943AE
J38943W	Mfr Disc.	5	J38943AD
J38943AE,L1	Mfr Disc.	6	J38943AE,L4
L2	Mfr Disc.	6	L5
L3	Mfr Disc.	6	L6

\* Removed on a no-record basis.

## 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	CKT PER UNIT	MTG PLATES PER UNIT
J38943B	Std	ANI-Type C Trunk Frames for Station-to-Station Trunk Units—11 Feet 6 Inches High	J38943B-( )	SD-32244-01 SD-32245-01 SD-32248-01 SD-32378-01 SD-95890-01		
J38943C	A&M Only	ANI-Type C Pulse Generator Unit	J38943C-( )	SD-32378-01	1	1
J38943D	Std	ANI-Type B and C Trunk Test Connector and Miscellaneous Unit	J38943D-( )	SD-32248-01	1	1
J38943F	Std	ANI-Type C Trunk Frame for Special Toll or Operator Assistance—Outgoing Coin Trunks	J38943F-( )	SD-32248-01 SD-32344-01— SD-32378-01 SD-95890-01		
J38943H	Std	ANI-Type C Trunk Frame for Special Toll or Operator Assistance—Outgoing Noncoin Trunks	J38943H-( )	SD-32248-01 SD-32342-01 SD-32378-01 SD-95890-01		
J38943J	Std	ANI-Type B Trunk Frame for Station-to-Station Outgoing Trunk Units	J38943J-( )	SD-32244-01 SD-32245-01 SD-32248-01 SD-95827-01 SD-95890-01		
J38943K	Std	ANI-Type B Trunk Frame for Special Toll and Operator Assistance—Outgoing Coin Trunk Unit	J38943K-( )	SD-32248-01 SD-32344-01 SD-95827-01 SD-95890-01		
J38943L	Std	ANI-Type B Trunk Frame for Special Toll and Operator Assistance—Outgoing Noncoin Trunk Unit	J38943L-( )	SD-32248-01 SD-32342-01 SD-95827-01 SD-95890-01		
J38943M	Std	ANI-Type B or C—E and M Signaling—Station-to-Station Outgoing Trunk Unit	J38943M-( )	SD-32244-01	1	4
J38943N	Std	ANI-Type B or C—Loop Signaling—Station-to-Station—Outgoing Trunk Unit	J38943N-( )	SD-32245-01	1	4

EQUIPMENT CODE	AT&T RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING	CKT PER UNIT	MTG PLATES PER UNIT
J38943P	Std	ANI-Type B or C—Loop or E and M Signaling—Special Toll and Operator Assistance—Outgoing Coin Trunk Unit	J38943P-( )	SD-32344-01 SD-35052-01	1	4
J38943R	Std	ANI-Type B or C—Loop or E and M Signaling—Special Toll and Operator Assistance—Outgoing Noncoin Trunk Unit	J38943R-( )	SD-32342-01	1	5
J38943S	Std	ANI-Type B or C—E and M Signaling—Special Toll, Operator Assistance Station-to-Station—Outgoing Coin and Noncoin Trunk Unit	J38943S-( )	SD-32542-01 SD-35052-01	1	7
J38943U	Std	ANI-Type B or C Trunk Frame for Special Toll, Operator Assistance, Station-to-Station—Outgoing Coin and Noncoin Trunks	J38943U-( )	SD-32248-01 SD-32378-01 SD-32542-01 SD-95827-01 SD-95890-01		
J38943V	Std	ANI-Type B or C—E and M Signaling Special Toll, Operator Assistance, Station-to-Station—Outgoing Noncoin Trunk Unit	J38943V-( )	SD-32543-01	1	4
J38943X	Std	ANI-Type B or C Trunk Frame for Special Toll, Operator Assistance, Station-to-Station—Outgoing Noncoin Trunks	J38943X-( )	SD-32248-01 SD-32378-01 SD-32543-01 SD-95827-01 SD-95890-01		
J38943Y	Std	Alarm Unit for ANI-Type B or C Trunk Frames Not Equipped With Trunk Connector Unit	J38943Y-( )	SD-32248-01		
J38943AA	Std	ANI-Type B or C Trunk Frame for Station-to-Station Outgoing Trunk Units	J38943AA-( )	SD-32244-01 SD-32245-01 SD-32248-01 SD-32378-01 SD-95827-01 SD-95890-01		
J38943AB	Std	ANI-Type B or C Trunk Frame for Special Toll and Operator Assistance—Outgoing Coin Trunks	J38943AB-( )	SD-32248-01 SD-32344-01 SD-32378-01 SD-95827-01 SD-95890-01		

EQUIPMENT CODE	AT&T RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING	CKT PER UNIT	MTG PLATES PER UNIT
J38943AC	Std	ANI-Type B or C Trunk Frame for Special Toll and Operator Assistance—Outgoing Noncoin Trunks	J38943AC-()	SD-32248-01 SD-32342-01 SD-32378-01 SD-95827-01 SD-95890-01		
J38943AD	Std	ANI-Type B or C Trunk Frame for Noncoin Trunks Arranged To Provide Operator Assistance, Special Toll, and Station Toll to a TSPS Office	J38943AD-()	SD-32248-01 SD-32378-01 SD-32543-01 SD-95827-01 SD-95890-01		
J38943AE	Std	ANI-Type B or C Trunk Frame for Coin and Noncoin Trunks Arranged To Provide Operator Assistance Special Toll and Station Toll to a TSPS Office	J38943AE-()	SD-32248-01 SD-32378-01 SD-32542-01  SD-95827-01 SD-95890-01		
J38943AF	Std	Pulse Generator Unit	J38943AF-()	SD-32378-01	3	2

**Circuit Schematic Index**

CIRCUIT DRAWING	J38943 EQPT CODE
SD-32244-01	B,J,M,AA
SD-32245-01	B,J,N,AA
SD-32248-01	B,D,F,H,J,K,L,U,X,Y,AA,AB,AC,AD,AE
SD-32342-01	H,L,R,AC
SD-32344-01	F,K,P,AB
SD-32378-01	B,C,F,H,U,X,AA,AB,AC,AD,AE,AF
SD-32542-01	S,U,AE
SD-32543-01	V,X,AD,AE
SD-35052-01	P,S
SD-35071-01	P,S
SD-95827-01	J,K,L,U,X,AA,AB,AC,AD,AE
SD-95890-01	B,F,H,J,K,L,U,X,AA,AB,AC,AD,AE

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