LINE VERIFICATION AND MISCELLANEOUS RELAY RACK EQUIPMENT 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 line verification and miscellaneous relay rack mounted equipment associated with automatic number identification, type B (ANI-B) in decoder panel, No. 1 crossbar, and No. 1, 350A, and 355A step-by-step offices.

1.02 This specification is being reissued to add a new BSP division number 815-304-150, and to bring it into conformity with the general Plant Series plan.

Capacity

1.03 The line verification equipment is arranged to serve a maximum of six central offices in a building, associated with one ANI-B identifier group. Where an identifier group serves both panel and No. 1 crossbar offices, the basic line verification equipment is arranged to operate with both types of offices.

Description

1.04 The subscriber number display lamps for the verification equipment are provided on a location basis which will be determined for each central office building. A location may be considered as a group of frames associated with one identifier group and one or more central offices, in a continuous row or in several rows, facing a common aisle, from which the verification work will originate, and where the number display lamps will be easily visible from any point at this location or from a point within a reasonable walking distance. Typical locations will be as follows.

1.05 Step-by-Step Offices

(a) On the control position units. See 1.10 for recommended locations for these units.

1.06 Panel and No. 1 Crossbar Offices

(a) Line Message Register Racks: A line-up of racks for one or more offices, or several line-ups facing a common aisle, one or both types of offices at one location.

(b) Number Network Frames: A line-up of frames for one or more offices or several line-ups facing a common aisle, one or both types of offices at one location.

1.07 The automatic number identification type B system, referred to as ANI-B provides a high speed, one-at-a-time identification of the calling subscriber directory number on CAMA calls from single- and 2-party lines and PBX trunks. A system serves a maximum of six central offices (panel, No. 1 crossbar, or step-by-step) in a building, and is referred to as an identifier group. One or more identifier groups may be provided in a building. The subscriber number sleeves are connected to a passive network on the number network frames where they are connected by short wire straps to a coordinate bus system. The crosspoints of this bus system represent the subscribers directory numbers. On a CAMA call, a 5800-cycle signal is placed on the sleeve of an ANI trunk by an oscillator and this signal is sent back through the switching train to the sleeve of the subscriber number at the local distributing frame, then to a passive network on the number network frame, through a secondary network on an identifier frame. Amplifier detectors on the identifier frame locate and identify this signal from its crosspoints in the bus system, cause it to be registered in an outpulser, which then transmits the complete office code and digits of the calling number to the CAMA office on a multifrequency basis. If the call is from a multiparty line, or if identification cannot be made, the call is automatically routed to an operator for manual identification.

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1.08 The verification equipment covered herein provides a means of access to the subscriber number, identifies these numbers one at a time through the ANI equipment, checks the accuracy of the connections at the number network frames, and causes the subscriber numbers to be displayed on indicator lamps for visual verification. The numbers displayed will be the ANI arbitrary office number (0 to 5) followed by the four digits of the directory number. In the case of a PBX group, the number displayed will be the billing number. Other lamp indications are provided to indicate idle or busy conditions, faulty connections, or failures to properly identify numbers.

1.09 The 5800-cycle signal used for line verification is obtained from a standard ANI, single-plate, oscillator unit, J95108D. A separate oscillator unit is used for verification work and is mounted on a relay rack near the message rack bay on which the line verification connector and display units are mounted in panel and No. 1 crossbar offices, and on a miscellaneous number network frame or a relay rack bay with the line verification equipment in step-by-step offices, as covered in 1.10.

1.10 In step-by-step offices, line verification is accomplished by dialing at a relay rack mounted line verification control position unit, a 4- or 5-digit number through the test train (four-subscriber number digits through a test distributor and test connector plus an office code digit if a test distributor selector is employed) to the connector terminal of the number to be verified. Identification tone is supplied through the test train sleeve to the connector terminal. If the line is properly identified, the number being verified will be displayed on a lamp display panel on the control position unit consisting of five (OF, TH, H, T, and U) NIXIE-type numerical indicating tubes. The verification equipment consists in part of two relay rack mounted units. One is a 5-mounting plate basic unit containing the common equipment for accommodating six central office units and five verification control positions maximum, and the other a 3-plate supplementary unit required for the functioning of the control position. The line verification oscillator unit, per J95108D, shall be located immediately below these units in the same bay. The control position unit consists of a 2-plate relay rack mounted unit including a dial and the lamp display unit. Additional facilities may also be furnished, when specified for verification, by applying identification tone through the office switch train as in regular service. Under this method, after the connector terminal is reached through the test train, a key on the dial control position unit is operated to seize the subscriber line circuit and a line finder. A particular code is then dialed through selectors in the office switch train to a selector level connected to a trunk back to the line verification circuit, from which identification tone is applied over the sleeve of the office switch train. The office switch train method permits identification as on regular service but requires additional control positional equipment, including a handset on the control position unit for talking to a subscriber when necessary. This method is required for verifying tip stations on 2-party message rate lines by dialing. However, an optional arrangement is available for verification of 2-party message rate lines which may be considered satisfactory with smaller numbers of these lines to save the additional first cost of dialing through the office switch train. This consists of a 2-conductor cable circuit from the control position unit to a B jack in the regular VIDF or HCDF jack box field and a service-observing type patching cord. The cord is patched between the B jack and the S and TR terminals of the 2-party message rate line circuit termination. The identification tone is then transmitted through this connection, and verification proceeds at the control position without dialing. This B jack shall also be specified on any frame having one-way outgoing subscriber lines where the line circuits are not cross-connected to connector terminals, but have their sleeves cross-connected to miscellaneous number networks which are not accessible from connector terminals. The cord is patched between a B jack and the line circuit termination so as to extend the sleeve lead to the control position. The number displayed at the control position will be the billing number for the subscriber. In all cases, the B jacks shall be associated with particular control positions and have multiple appearances at the distributing frame as specified. As previously indicated, a maximum of five control positions may be provided. The minimum basic equipment provides for three positions. It is believed that the most useful location for a control position unit is in an aisle with number network bays, since this location affords ready coordination of line verification with the application and inspection of the network strapping. Where a miscellaneous number network frame for one-way outgoing subscriber lines is provided, this frame shall be utilized for mounting all of the line verification relay rack mounted equipment, as indicated on the equipment layout drawing for the miscellaneous number network frame. Another possible location may be in a miscellaneous relay rack bay in the same line-up with number network bays at the approximate level indicated on the miscellaneous number network frame drawing.

1.11 In panel and No. 1 crossbar offices, the ANI verification equipment consists of common relay units and numerical display lamps mounted at the top of the line message register rack. Control jacks and lamps are arranged, with existing line verification and message register testing features, at the bottom of the message register rack. Control jacks, lamps, and a few associated relays, and the numerical display lamps, may be provided at the bottom of a number network frame. The number network frame location is optional, and when provided, verification can be initiated at either location. All of the common relay equipment for an identifier group is located on one message register rack bay, while the control jacks and lamps are provided on all even-numbered register rack bays associated with the same identifier group.

1.12 Where more than one location is provided for, the display lamps will light only at the location where the verification is originated. These display lamps include the NIXIE lamps OF, TH, H, T, and U, and the 2-type lamps MP, TBL, and TO.

1.13 In No. 1 crossbar offices, access to the subscriber numbers is obtained through the existing line message register incoming trunk by dialing, MF keying, or with the assistance of a B operator. This incoming trunk must be modified for ANI operation, and as at present, will serve one or two central offices. The present manual patching of the subscriber lines at the line link frames for verification will be optional with ANI. The insertion of plugs into appropriate jacks provided with ANI will cause the line verification connector and display circuit to identify the subscriber number through the outpulser, identifier, and number network, and display this number on the indicator lamps at the line message register rack or number network frames. The displayed number, using only the ANI verification feature, will verify the LDF, block relay, and number network connections.

1.14 In panel offices, access to the subscriber line is obtained by patching the T and T1 jacks at the VIDF to the required line. These jacks are multipled at the line message register rack where they also connect to an ANI line verification trunk serving a maximum of six offices. This trunk connects to the line verification connector and display circuit which includes the numerical display lamps identifying the calling subscriber number. Individual office jacks and other control jacks and lamps are provided at the bottom of the line message register rack, and, on an optional basis, at each number network frame location. When these optional jacks and lamps are provided, line verification can be initiated at any location. The insertion of plugs into the office OF, tip T, ring R, and start ST jacks, at any one of these locations, locks out all other locations and operates through the associated line verification and the regular ANI circuits to display the subscriber number which has been patched at the IDF. The display of the correct number verifies only the number sleeve connections between the IDF and the number network frame and the cross-connections at the number network frames.

Floor Plan Arrangement

1.15 The preferred location for the line verification equipment will be at the locations indicated under Capacity as specified by the telephone company.

Subdivisions of Equipment and Detailed Index

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

Equipment Code	Rating of Unit	Title	Equipment Drawing	Circuit Drawing	No. of Ckts Per Plates	No. of 2- by 23-Inch Mtg Plates
J99250A	AT&TCo Std	ANI Line Verification Common Equipment Basic Unit - No. 1, 350A, or 355A Step-by-Step	J99250A-( )	SD-32246-01	1	4
J99250B	AT&TCo Std	ANI Line Verification Supplementary Unit for Use in Addition to Basic Unit J99250A for Dialing Through Test Train or Test and Office Switch Trains - No. 1, 350A, or 355A Step-by-Step	J99250B-( )	SD-32246-01	1	3

Equipment Code	Rating of Unit	Title	Equipment Drawing	Circuit Drawing	No. of Ckts Per Plates	No. of 2- by 23-inch Mtg Plates
J99250C	AT&TCo Std	ANI Line Verification Control Position Unit for Dialing Through Test Train or Test Train and Office Switch Train - No. 1, 350A, or 355A Step-by-Step	J99250C-( )	SD-32246-01	1	2
J99250J	AT&TCo Std	Line Verification Connector and Display Lamp Panel - Panel and No. 1 Crossbar	J99250J-( )	SD-95828-01	1	1
J99250K	AT&TCo Std	Lamp Mounting Arranged for Five NIXIE Indicator Tubes	J99250K-( )	SD-95828-01	1	1
J99250M	AT&TCo Std	Line Verification Connector and Display Unit - Panel and No. 1 Crossbar	J99250M-( )	SD-95828-01	1	4
J99250N	AT&TCo Std	Line Verification - Office Display Unit - For a Maximum of Six Offices in One Identifier Group - Panel and No. 1 Crossbar	J99250N-( )	SD-95828-01	6	1
J99250P	AT&TCo Std	Line Verification Trunk Control Unit - Panel and No. 1 Crossbar	J99250P-( )	SD-95828-01	1	1
J99250R	AT&TCo Std	Line Verification Display and Control Equipment at Number Network Frame - Maximum of Six Offices in One Identifier Group - Panel and No. 1 Crossbar	J99250R-( )	SD-95888-01	1	1
J99250S	AT&TCo Std	Line Verification Jack Equipment at the Number Network Frame - No. 1 Crossbar	J99250S-( )	SD-95888-01	3	1
J99250T	AT&TCo Std	Line Verification Miscellaneous Equipment at Number Network Frame - No. 1 Crossbar	J99250T-( )	SD-95888-01	6	1
J99250U	A&M Only	Line Verification Jack Equipment at Number Network Frame - Panel System	J99250U-( )	SD-95888-01	3	1
J99250W	A&M Only	Line Verification Trunk Unit - Panel System	J99250W-( )	SD-21973-01	1	2

Circuit Schematic Index

Circuit Drawing	J99250 Equip Code
SD-21973-01	W

Circuit Drawing	J99250 Equip Code
SD-32246-01	A,B,C
SD-95828-01	J,K,M,N,P
SD-95888-01	R,S,T,U

2. SUPPLEMENTARY INFORMATION

814-000-000 - Step-by-Step Systems Index
815-000-000 - Panel Systems Index
816-000-000 - No. 1 Crossbar System Index
AA128.002 - List of Equipment Design Sections
AA128.006 - List of General Equipment Requirements Sections
J27050 (816-025-150) - Message Register Rack - Crossbar System
J27751 (816-700-150) - Incoming Trunk Frame - (A&M Only) No. 1 Crossbar
J28650 (816-702-150) - Incoming Trunk Frame - No. 1 Crossbar
J95108 (814-507-151, 815-302-150, 816-207-150) - Trunk Frames - ANI (Oscillator Unit) - Common Systems
J95109 (814-202-150, 815-303-150, 816-203-150) - Number Network, "X" Number Network and Miscellaneous Number Network Frames - ANI - Common Systems
J97021 (AA381.302) - Message Register Rack - Common Systems
Floor Plan Data - Section 7.1, Sheet 21

Current Drain Data:
SD-21300-01 - Panel System - Battery Cut-Off (not available for ground cut-off)
SD-25000-02 - No. 1 Crossbar System
SD-31359-02 - No. 1 Step-by-Step System
SD-31364-02 - No. 350A Step-by-Step
SD-31780-02 - No. 355A 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-21300-01 - Panel System - Battery Cut-Off Office
SD-21680-01 - Panel System - Ground Cut-Off Office
SD-25000-01 - Crossbar System No. 1
SD-31359-01 - Step-by-Step System No. 1
SD-31364-01 - Step-by-Step System No. 350A
SD-31780-01 - Step-by-Step System No. 355A

Framework

ED-25278-30 - Jack, Key, and Lamp Panel
ED-90569-70 - Message Register Rack Assembly

Equipment, Wiring, and Cabling

ED-25209-14 - Message Register Rack - Equipment - No. 1 Crossbar
ED-27114-01 - Wire Gauges and Type of Insulation - Panel, No. 1 Crossbar, and Step-by-Step - ANI
ED-90587-10 - Message Register Rack - Cabling - Common Systems
ED-90588-11 - Message Register Rack - Equipment - Panel
ED-95091-10 - Number Network, "X" Number Network and Miscellaneous Number Network Frames - Switchboard Cabling Details
J95108D-( ) - Unit for One Oscillator - ANI

4. EQUIPMENT

J99250A (AT&TCo Std) - ANI Line Verification Common Equipment Basic Unit - No. 1, 350A, or 355A Step-by-Step

Equipment - J99250A-( )

List 1 - Framework, assembly, wiring, and equipment for a line verification unit arranged for connection to three control positions and for use with two central office units per SD-32246-01, Fig. 1 and three Fig. 8. (See note A.)

List 2 - Wiring and equipment per SD-32246-01, Fig. 3, required in addition to list 1 for each two additional central office units up to six.

List 3 - Wiring and equipment per SD-32246-01, two Fig. 8, required in addition to list 1 for two additional control positions.

List 4 - Wiring and equipment per SD-32246-01, Fig. 17, required in addition to lists 1 and 2 for office unit 6. (See note B.)

Notes

A. The unit per list 1 is arranged to be interconnected with the unit per J99250B by installer placed straight wire strapping, terminal for terminal, between interunit terminal strips on the two units.

B. The additional office unit relay covered by list 4 is intended only to make available an extra office digit when it is desired to identify PBX lines arranged for automatic identified outward dialing (PBX-AIOD) without affecting the established maximum of six central office units that may be associated with this equipment.

J99250B (AT&TCo Std) - ANI Line Verification Supplementary Unit for Use in Addition to Basic Unit J99250A for Dialing Through Test Train or Test and Office Switch Trains - No. 1, 350A, or 355A Step-by-Step

Equipment - J99250B-( )

List 5 - Framework, assembly, wiring, and equipment for a line verification unit required in addition to the unit per J99250A for dialing through test train only, for use

with test distributor selector, or without test distributor selector in offices with two central office units maximum, per SD-32246-01, Fig. 2, with "S" and "R" options. (See notes A and D.)

List 6 - Framework, assembly, wiring, and equipment for a line verification unit required in addition to the unit per J99250A for dialing through test train and office switch train, for use with test distributor selector, or without test distributor selector in offices with two central office units maximum, per SD-32246-01, Fig. 2, with "S" and "R" options and Fig. 14. (See notes A and D.)

List 7 - Wiring and equipment per SD-32246-01, one Fig. 4 with "S" and "R" options required in addition to list 5 or 6 for use in offices with four central office units maximum, when test distributor selector is not used.

List 8 - Assembly, wiring, and equipment required in addition to list 5 or 6 and list 7 for use in offices with six central office units maximum, when test distributor selector is not used, per SD-32246-01, one Fig. 4 with "S" and "R" options. (See notes B and D.)

Notes

A. The units per lists 5 and 6 are furnished with mounting bars for three mounting plates in order to provide mounting facilities for the equipment per lists 7 and 8 when required. They are arranged with interunit terminal strips in the upper left corner of the units for interconnection by means of straight installer strapping, terminal per terminal, with adjacent like interunit terminal strips in the lower left corner of basic unit J99250A. For accomplishing this, the J99250B unit must be mounted immediately below the J99250A unit. If the mounting space assigned does not permit this, the two units may be interconnected by loose wire or switchboard cable. "Z" installer wiring to test distributors or test distributor selector is required in conjunction with list 6.

B. The equipment per list 8 is arranged with all necessary local surface wiring, and for the interconnection of common wiring to the equipment per list 7 by means of installer loose wiring between unit terminal strips.

C. When a test distributor selector is not used and test distributors are used in common with test trunks or test lines from test desks, "X" installer wiring to these circuits is required.

D. Provide "Q" wiring and omit "R" wiring when connection is required to local test cabinet No. 3 test trunk to test distributor.

J99250C (AT&TCo Std) - ANI Line Verification Control Position Unit for Dialing Through Test Train or Test Train and Office Switch Train - No. 1, 350A, or 355A Step-by-Step

Equipment - J99250C-( )

List 1 - Assembly, wiring, and equipment for a line verification control position unit arranged for dialing test train only, for use with test distributor selector, or without est distributor selector in offices with two central office units maximum.

	Equip	See Notes
Line Verification Ckt, SD-32246-01, Keys and Lamps per Fig. 7	1	
Lamp Mounting, J99250K	1	A

List 2 - Wiring and equipment per SD-32246-01, Fig. 11, required in addition to list 1 for each two additional central office units to the maximum of six units, when test distributor selector is not used.

List 3 - Wiring and equipment per SD-32246-01, Fig. 15, required in addition to list 1 for dialing through test train and office switch train.

Notes

A. The lamp mounting, J99250K, furnished as part of list 1, comprises a numerical indicator tube display unit (including tubes) in accordance with SD-32246-01, Fig. 10. List 1 also includes a bracket mounted tube pin straightener.

B. The 2P11A or 2P35A cords are furnished per SD-32246-01, Fig. 9, as specified by the telephone company.

J99250J (AT&TCo Std) - Line Verification Connector and Display Lamp Panel - Panel and No. 1 Crossbar

Equipment - J99250J-( )

List 1 - Framework, assembly, wiring, and equipment for one line verification connector and display lamp panel for use at the top of the line message register rack, wired per SD-95828-01, Fig. 3. (See notes A and B.)

Notes

A. This unit includes the lamp panel per J99250K, List 2, and is interconnected with associated units by loose wiring.

B. This lamp panel is located on the bottom of the line verification connector and display unit J99250M or in an equivalent location at the top of other line message register rack locations associated with the same identifier group.

J99250K (AT&TCo Std) - Lamp Mounting Arranged for Five NIXIE Indicator Tubes

Equipment - J99250K-( )

List 1 - Framework, assembly, wiring, and equipment per SD-95828-01, Fig. 3, for one lamp mounting including five-B5031 NIXIE indicator tubes tilted upward (Burroughs Corp., Plainfield, N. J.). (See notes A and B.)

List 2 - Framework, assembly, wiring, and equipment per SD-95828-01, Fig. 3, for one lamp mounting including five-B5031 indicator tubes tilted downward (Burroughs Corp., Plainfield, N. J.). (See note C.)

Notes

A. The indicator tubes in this mounting are tilted upward to provide a display from a low location. A low location near the bottom of the number network frame is a typical location for this lamp mounting.

B. In step-by-step offices, the circuit apparatus figure used for this lamp mounting is SD-32246-01, Fig. 10, and is the same as SD-95828-01, Fig. 3.

C. The indicator tubes in this mounting are tilted downward to provide a display from a high location. A location at the top of the line message register rack is a typical location for this lamp mounting.

J99250M (AT&TCo Std) - Line Verification Connector and Display Unit - Panel and No. 1 Crossbar

Equipment - J99250M-( )

List 1 - Framework, assembly, wiring, and equipment for one line verification connector and display unit for a maximum of six offices in one identifier group.

	Wire	Equip	See Notes
Line Verification Connector and Display Ckt, SD-95828-01, Fig. 1.	1	1	A,B,C

Notes

A. This unit is surface wired and interconnected with associated units by loose wiring.

B. The MP, TBL, and TO lamps per SD-95828-01, Fig. 4, are located at the bottom of each even-numbered line message register rack bay and at the bottom of one of a group or number network frames, and are ordered on the associated frame equipment drawings.

C. An oscillator unit per J95108D (SD-95827-01) is required for use with this line verification unit. This single-plate oscillator unit shall be mounted on a relay rack near the associated line message register rack. The 5800-cycle tone from this oscillator is placed on the subscriber number sleeve by the line verification connector and display circuit. The

detection of this tone by the identifier determines the number being verified.

J99250N (AT&TCo Std) - Line Verification - Office Display Unit - For a Maximum of Six Offices in One Identifier Group - Panel and No. 1 Crossbar

Equipment - J99250N-( )

List 1 - Framework, assembly, wiring, and equipment for one office display unit arranged for seven and equipped for two offices.

	Wire	Equip	See Notes
Line Verification Connector and Display Circuit, SD-95828-01, Fig. 5	6	2	A

List 2 - Wiring and equipment per SD-95828-01, Fig. 5 (OF relay), required in addition to list 1 to equip for the third, fourth, fifth, or sixth office.

List 3 - Wiring and equipment per SD-95828-01, Fig. 6, required in addition to list 1 to equip the seventh office. (See note A.)

Notes

A. This unit is surface wired and interconnected with associated units by loose wiring.

B. Specify list 3 only when AIOD unit is required in an existing office where the identifier group already serves six physical office number series.

J99250P (AT&TCo Std) - Line Verification Trunk Control Unit - Panel and No. 1 Crossbar

Equipment - J99250P-( )

List 1 - Framework, assembly, wiring, and equipment for one trunk control unit associated with an incoming trunk from line message register rack, No. 1 crossbar, or a line verification trunk, panel system.

	Wire	Equip	See Notes
Line Verification Connector and Display Circuit, SD-95828-01, Fig. 2, less "Y" option	1	1	A,B

List 2 - Wiring and equipment per SD-95828-01, Fig. 2, "Y" option only (NLP relay), required in addition to list 1 to provide display lamp control at the number network frames.

Notes

A. This unit is surface wired and interconnected with associated units by loose wiring.

B. "Y" option is used when access to a number frame is required. "Z" wiring is used when access to a number network frame is not required.

J99250R (AT&TCo Std) - Line Verification Display and Control Equipment at Number Network Frame - Maximum of Six Offices in One Identifier Group - Panel and No. 1 Crossbar

Equipment - J99250R-( )

List 1 - Framework, assembly, wiring, and common equipment for one line verification display and control unit at the number network frame, installer wired.

	Equip	See Notes
Line Verification Circuit, SD-95888-01, Fig. 8, 12, and 13	1	A,B

List 2 - Wiring and equipment per SD-95888-01, Fig. 14 (ANI-G jack), required in addition to list 1 where both GCO and BCO panel numbers are to be verified at the same number network frame location. (See note A.)

Notes

A. The ANI-G jack is used only for verifying GCO panel numbers in a combination of GCO and BCO panel offices. The ANI jack is used in all cases.

B. Unit J99250R, which includes the display lamps, shall be located above all other units at the bottom of the number network frame.

J99250S (AT&TCo Std) - Line Verification Jack Equipment at the Number Network Frame - No. 1 Crossbar

Equipment - J99250S-( )

List 1 - Framework, assembly, wiring, and equipment for one jack panel arranged for three and equipped

for one miscellaneous circuit for line message register rack, installer wired.

	Equip	See Notes
Line Verification Circuit, SD-95888-01, Fig. 1, 4, and 5	1	A,B

List 2 - Wiring and equipment per SD-95888-01, Fig. 7 (KP jack only), required in addition to list 1 to equip for one keying signal circuit per miscellaneous circuit for line message register rack. (See note A.)

List 3 - Wiring and equipment per SD-95888-01, Fig. 1, 4, and 5, required in addition to list 1 to equip for one additional miscellaneous circuit for line message register rack.

List 4 - Wiring and equipment per SD-95888-01, Fig. 2 (B TRK and BX TRK jacks), required in addition to list 1 to equip the trunk jacks for the second office associated with the same miscellaneous circuit for line message register rack. (See note A.)

List 5 - Apparatus per SD-95888-01, Fig. 3 (hand telephone set), required in addition to list 1, when completion is to be done by dialing or with B operator assistance. To be furnished only when ordered by the telephone company. (See note C.)

Notes

A. The jack equipment per lists 1, 2, and 4 is required for one miscellaneous circuit for line message register rack and may serve one or two offices. A jack panel has a capacity of three miscellaneous circuits. A second jack panel, per J99250S, is required for the fourth, fifth, and sixth miscellaneous circuits.

B. The X TRK and BX TRK jacks are used in offices with X numbers and are furnished in all cases for present or future use.

C. This telephone set will be located in a nearby end-guard on mounting ED-92840-70, G1, when specified by the telephone company.

J99250T (AT&TCo Std) - Line Verification Miscellaneous Equipment at Number Network Frame - No. 1 Crossbar

Equipment - J99250T-( )

List 1 - Framework, assembly, wiring, and equipment for one unit for miscellaneous equipment, installer wired.

	Equip	See Notes
Line Verification Circuit, SD-95888-01, Fig. 10	1	A

List 2 - Equipment per SD-95888-01, Fig. 6 and 7 (MFP socket and KP relay only), required in addition to list 1 to equip for the first keying signal circuit.

List 3 - Equipment per SD-95888-01, Fig. 7 (KP relay only), required in addition to list 1 to equip the second, third, fourth, fifth, or sixth keying signal circuit.

Note

A. This mounting plate provides for the equipment for a maximum of six keying signal circuits, a common buzzer for subscriber signaling, and an H.B. Jones socket for connecting to the MF keypulsing set J27060A, when required.

J99250U (A&M Only) - Line Verification Jack Equipment at Number Network Frame - Panel System

Equipment - J99250U-( )

List 1 - Framework, assembly, and equipment for one jack panel arranged for a maximum of six offices and four line message register locations, and equipped for one line message register rack location, installer wired. (See note B.)

	Equip
Line Verification Circuit, SD-95888-01, Fig. 8	1

List 2 - Equipment per SD-95888-01, Fig. 9, required in addition to list 1 to equip for one OF jack. (See note A.)

List 3 - Equipment per SD-95888-01, Fig. 8 (T, R, and ST jacks), required in addition to list 1 to equip for the second, third, or fourth line message register rack location.

Note

A. One OF jack is required for each office where two or more offices are associated with one message register location.

B. This unit is required at all number network locations for panel offices only and for locations serving both panel and No. 1 crossbar offices.

J99250W (A&M Only) - Line Verification Trunk Unit - Panel System

Equipment - J99250W-( )

List 1 - Framework, assembly, wiring, and common equipment for one line verification trunk unit for use at the line message register rack, with or without number network frame access. (See note A.)

	Wire	Equip
Line Verification Trunk Circuit, SD-21973-01, Fig. 1, and Q, R, S, X, Y, or Z	1	1

List 2 - Apparatus and wiring per SD-21973-01, Fig. 1,"Y"option only (BSY1 resistor), required in addition to list 1 to equip for GCO offices.

List 3 - Apparatus and wiring per SD-21973-01, Fig. 1,"Z"option only (BSY resistor), required in addition to list 1 to equip for BCO offices.

List 4 - Framework and equipment required in addition to list 1 where two or more offices are provided at one location or where access to number network frame is required. (See note B.)

List 5 - Apparatus and wiring per SD-21973-01, Fig. 2, less"W"option, required in addition to lists 1 and 4 where number network frame access is required.

List 6 - Apparatus and wiring per SD-21973-01, Fig. 4 (GC- relay), required in addition to lists 2 and 4 per each GCO office at a location having both GCO and BCO offices.

Notes

A. The miscellaneous jack and lamp per SD-21973-01, Fig. 3, 5, and 6, are shown on and ordered from line message register rack drawing ED-90588-11. These jacks and lamps are furnished on each even-numbered frame.

B. This list includes a mounting plate and a D5A terminal strip for equipment per lists 5 and 6.

5. GENERAL NOTES

5.01 In panel and No. 1 crossbar offices, the ANI line verification display and relay equipment shall be located on an even-numbered line message register rack bay near the center of a lineup of racks associated with one identifier group, as shown on ED-25209-14 (No. 1 crossbar) and ED-90588-11 (panel). Where more than one message register rack location is provided in a building, the location where the line verification relay equipment will be mounted will be determined by the telephone company. The lamp display unit J99250J is required at all locations and is located in the same position at each location. The relay units J99250M, J99250N, J99250P, and J99250W are always located at the main location selected by the telephone company. The miscellaneous control jacks and lamps associated with ANI line verification are located at the bottom of all even-numbered message register rack bays near the present line verification and register checking lamp and jack panels. The present message register rack miscellaneous circuits (SD-25352-01, SD-25065-01, and SD-21271-01) are modified for use with ANI and require changes in wiring and relay equipment located at the bottom of the associated line message register racks.

5.02 Where both panel and crossbar register racks are provided at one location, the ANI line verification equipment may be located on a bay of either system as designated by the telephone company.

5.03 At the number network frame, the ANI line verification equipment, when required, shall be located on a frame near the center of the line-up of number network frames as shown on the associated equipment drawings. In panel and No. 1 crossbar offices, this may be a regular number network frame, an X number network frame, or a miscellaneous number network frame. In step-by-step offices, this may be a regular number network frame or a miscellaneous number network frame. Typical locations for this equipment are shown on the associated J drawings for the three types of number network frames.

5.04 The existing incoming trunk circuits to line message register racks (SD-25433-01 and SD-25192-01) for No. 1 crossbar are modified for use with ANI line verification. One of these incoming trunks may serve one or two central offices.

5.05 A new line verification trunk circuit (SD-21973-01) will be used in panel offices and one of these trunks will be furnished for each line message register rack location. However, all of these trunk units will be located at the main line message register rack location selection by the telephone company.

5.06 Codes J99250D through J99250H, and J99250L are unassigned.

List of "A&M Only" and "Mfr Disc." Equipment

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

Equipment	Rating	Details Last Shown in Issue	Replacing Equipment
J99250B,L1 to L4	Mfr Disc.	1	J99250B,L5 to L8
J99250C,L4 to L6	Mfr Disc.	1	-
J99250U	A&M Only	1	-
J99250W	A&M Only	1	-

Bell Telephone Laboratories, Incorporated

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