TYPE F AC TRUNK SIGNALING SYSTEM EQUIPMENT DESIGN REQUIREMENTS COMMON SYSTEMS

1. GENERAL

SCOPE

1.01 This specification, together with the supplementary information listed herein, covers the equipment design requirements for the bays, panels, plug-in units, and circuits to be used in the manufacture and installation of type F ac trunk signaling equipment for use in common systems.

1.02 This specification is reissued:

(a) To add codes ED-7C015-30, ED-7C021-30, ED-7C035-30, ED-7C046-30, ED-7C047-30, ED-7C048-30; and J99335L, T, AE, AF, BC, BO, MG, MJ, and MK.

(b) To rate codes J99335AA, AC, AD, BB, BM, and BN Mfr Disc.

(c) To reference associated App Fig. and SD on ED-1C680-30, ED-1C829-30, ED-1C034-30, and ED-7C050-30.

(d) To revise codes J99335A through F, J99335G List 4, H List 4, J List 4, and K List 4, which were incorrectly listed in issue 6.

(e) To change all reference to FWA, FWB, and FWC, to read FW( ); and all reference to FUA to read FU( ).

1.03 The type F signaling system accepts dc supervisory and dial pulse signals and changes them into ac signals within the voiceband for transmission over a carrier or voice facility to a distant end where the ac signals are converted to a form suitable for the associated switching machine at the terminating office.

1.04 The type F system will supersede E-type signaling per J98613 in all applications except revertive signaling and signaling over 2-wire transmission facilities, but will not directly replace E-type units because of differing physical designs.

1.05 Type F units are compatible with E-type units working at the distant end of a specific circuit. However, they have substantially improved signaling and transmission performance, operating stability, and component reliability.

1.06 Power converters, tone supplies, and signal converters are arranged on plug-in chassis for ease of replacement. The units are designed to be stable with time and temperature and, as a result, have no provisions for field adjustment.

CAPACITY

1.07 The capacity of the various bays is given in the detailed information in Part 4.

DESCRIPTION

1.08 The type F ac trunk signaling system is a transistorized system operating on -24 volts dc derived from the central office -48 volt dc (42-52) supply by means of a plug-in dc-to-dc converter. Supervisory and dial pulse E and M lead signals are translated to suitable ac signals for transmission over the normal voice path of a carrier channel or voice-frequency line facility. In the talking condition, there is no degradation of the voice path.

1.09 The ac tone is supplied from one of a pair of plug-in tone supply transfer units. These units ordinarily divide the load of a full bay between them. But in the event of trouble, the load is automatically transferred from a malfunctioning unit to the associated unit while sounding an alarm.

1.10 The bay framework used in this system is the unequal flange cable duct bay with a 12-inch deep guard rail.

1.11 Wiring is 24-gauge type BU unless otherwise specified. Feeders for -48 volt dc and ground to each bay shall be not less than 12 gauge. Anticipated drain at -48 volts is as indicated on the circuit drawings.

1.12 Power is distributed by means of 70-type fuses mounted on a fuse and alarm unit in each signaling bay.

1.13 Signaling bays may not be located against a wall or back-to-back. Rows may grow in any direction.

1.14 A series of J codes has been reserved for the various types of bays and units. Single-letter codes (J99335A, etc) are reserved for bay arrangements as described in 1.17 through 1.21 and in Part 4. Double-letter codes (J99335AA, BA, etc) are reserved for units as described in 1.22 through 1.36 and in Part 4. The first letter in this unit code number refers to a basic group of units as listed in Table A, and the second letter indicates the vintage of that basic unit group; the second letter is indicated by ( ).

1.15 A "shorthand" code has been assigned for identification of signaling units. It consists of the letter F, plus the letters of the J-code, plus a number for manufactured vintage, plus a letter to identify changes introduced in the field [eg, FW( )-1A]. Units per initial production bear the number 1 which is changed, in consecutive order, whenever any change is made in manufacturing procedure. All units, as manufactured, bear the letter A and each time a unit is changed in the field, the letter is changed to a letter assigned to the specific field modification. All units bearing the same first three letters are completely interchangeable with each other.

Bay Arrangements

1.16 Five bays have been designed specifically for the FW( ) signaling units. They provide fusing, alarming, power supply, and tone supply for all the signaling units to be mounted in each bay.

1.17 The J99335A bay is an 11-1/2 foot high bay which mounts a maximum of 132 signaling units. The J99335B bay is 10-1/2 feet high and mounts 108 signaling units. The J99335C bay is 9 feet high and mounts 96 signaling units. The J99335D bay is 7 feet high and mounts 60 signaling units. The J99335L bay is 11-1/2 feet high and mounts a maximum of 144 signaling units.

1.18 For small installations of FW( ) signaling units, a J99335E signaling supply is available. This provides all common equipment including fusing and mounting arrangements required for a maximum of 20 signaling units.

1.19 In addition to the above, five universal bays have been designed for all type F signaling units except FW( ). Each provides all common equipment required for the signaling units it mounts.

TABLE A

SERIES	RESERVED FOR
A ( )	2-wire E and M auxiliary units
B ( )	4-wire E and M auxiliary units
C ( )	Loop originating auxiliary units
D ( )	Loop terminating auxiliary units
G ( )	2-wire duplex auxiliary units
H ( )	4-wire duplex auxiliary units
L ( )	2-wire special access central office end auxiliary units
M ( )	Miscellaneous signaling units
P ( )	4-wire special access central office end auxiliary units
R ( )	4-wire special access station end auxiliary units
S ( )	2-wire special access station end auxiliary units
T ( )	Test equipment
U ( )	2600-Hz signal converters
W ( )	4-wire E and M signaling units
Y ( )	Miscellaneous units other than signaling units.

1.20 The J99335G bay is 11-1/2 feet high and mounts a maximum of 72 FU( ) units plus the associated auxiliary signaling units. The J99335H bay is 10-1/2 feet high and mounts a maximum of 60 FU( ) units plus the associated auxiliary units. The J99335J bay is 9 feet high and mounts a maximum of 48 FU( ) units plus the associated auxiliary units. The J99335K bay is 7 feet high and mounts a maximum of 36 FU( ) units plus the associated auxiliary units. The J99335T bay is 11-1/2 feet high and mounts a maximum of 72 FU( ) units plus the associated auxiliary units.

1.21 For small installations of the FU( ) units plus the associated auxiliary units, the J99335F signaling supply is available. This provides all common equipment including fusing and mounting arrangements required for a maximum of 12 FU( ) units plus the associated auxiliary units.

Four-Wire E and M Signaling Units

1.22 The J99335WA message 4-wire E and M lead signaling unit consists of a printed wiring board assembly mounted in a die cast card holder. It contains all the apparatus required for the conversion of a dc input signal on the M lead of the transmission channel of the unit to a 2600-Hz tone signal and for the conversion of a 2600-Hz tone signal to a dc output signal on the E lead of the receiver channel of the unit. It is designed to operate with multifrequency (MF) or senderized dial pulsing (DP) signaling in 4-wire E and M lead message applications. It contains built-in attenuators which eliminate the need for external P pads.

1.23 The J99335WB MF Autovon 4-wire E and M signaling unit and the J99335WC MF only 4-wire E and M signaling unit are similar to the J99335WA except that they are designed for MF Autovon and MF only signaling applications, respectively.

1.24 Additional applications of the above two units through the use of external equipment are:

(a) 2-wire drop facilities through external 4-wire terminating sets.

(b) Signaling other than DP senderized, through the use of external M lead pulse correctors.

Signaling Converter

1.25 The J99335UA signaling converter is a 4-wire to 4-wire interface between the 4-wire transmission facility and the auxiliary signaling unit. It provides pads for adjusting level and terminal access for connection to echo suppressors or equalizers. One is required for each type F auxiliary signaling unit. The J99335UA is mechanically similar to the J99335WA unit.

Auxiliary Signaling Units

1.26 All auxiliary signaling units are similar mechanically to the J99335WA unit. The J99335AE auxiliary signaling unit is a 900-ohm 2-wire E and M unit with carrier group alarm and is similar to the Mfr Disc. J99335AA and J99335AC units except the J99335AE unit has two additional screw switches to enable the use of sleeve lead processing. The J99335AF is similar to the J99335AE except for 600-ohm impedance matching. The J99335BA unit is a 600-ohm, 4-wire E and M unit. The J99335BC unit is a 600-ohm, 4-wire E and M unit with carrier group alarm and is similar to the Mfr. Disc. J99335BB except the J99335BC unit has two additional screw switches to enable the use of sleeve lead processing. The J99335BO unit is pulse link repeater with carrier group alarm and has an 8-dB pad in both the receiving and transmitting paths.

1.27 The J99335CA, DA, and DR auxiliary signaling units are provided for all 900-ohm, 2-wire one-way trunk loop applications. The J99335CA unit is for the loop originating end in these applications, the J99335DA for all loop terminating ends except step-by-step, and the J99335DB for all step-by-step terminating ends.

1.28 The J99335GA and HA auxiliary signaling units are provided for duplex DX signaling applications. The J99335GA unit is a 2-wire, 900-ohm DX signaling unit with carrier group alarm. The J99335HA unit is a 4-wire, 600-ohm DX signaling unit with carrier group alarm.

1.29 The J99335GM and HM auxiliary signaling units are provided for ringdown applications. The J99335GM unit is a 2-wire, 2-way ringdown auxiliary signaling unit. The J99335HM unit is a 4-wire, 2-way, ringdown auxiliary signaling unit.

1.30 The J99335LA, LB, LC, LD, SA, SB, SC, and SD auxiliary signaling units are provided for 2-wire special access service. The J99335LA and LC units are 900-ohm 2-wire units; J99335LB and LD are 600-ohm 2-wire units. These units are for use at the central office end of special access circuits. The J99335SA and SC are 900-ohm 2-wire units; J99335SB and SD are 600-ohm 2-wire units. These units are for use at the station end of special access circuits.

1.31 The J99335PA and RA auxiliary signaling units are provided for 4-wire special access service. The J99335PA unit is for use at the central office end of 4-wire special access circuits with the J99335RA unit being used at the station end.

1.32 The J99335MF signal pad unit provides a 4-wire transmission path, with adjustable attenuators, for use in place of the FU( ) and FW( ) units when signaling is provided elsewhere. If transmission level adjustment is not required, the J99335MB unit may be substituted for the above units. This FMB signal-through unit may also be substituted for any auxiliary signaling unit. The J99335MC unit, providing only a 4-wire extension network, may be substituted for any auxiliary signaling unit. If a 4-wire terminating set is required in the auxiliary signaling unit position, either a J99335MD 900-ohm 4-wire terminating set or a J99335ME 600-ohm 4-wire terminating set may be used. The J99335MG signal pad unit is electrically equivalent to the Mfr Disc. J99335MA and is similar to the J99335MF except this unit does not have the 8-dB fixed pads. This unit may be substituted for the J99335MF where the 8-dB fixed pads are not required. Test extender J99335TA or TB must be used with this unit when making in-service transmission level adjustments because the pads are not located on the front of the unit. The transmission only unit FMJ is used only with the FMK to provide carrier group alarm on end-to-end signaling circuits over tandem analog carrier channels. The FMJ is completely interchangeable with the FMF except the FMJ must be used when carrier group alarm is required.

Test Equipment

1.33 The J99335TA test extender consists of a test stand containing jacks and a means of mounting an FW( ) unit, together with a cord assembly to connect this stand to any signaling unit position in the bay. It provides jack access to the voice paths and signaling leads while the signaling unit is electrically connected to the associated voice path circuits.

1.34 The J99335TB test extender is similar to the J99335TA described above in its construction and functions. It will, however, work with either the FW( ) type of unit or with the FU( ) plus auxiliary unit combination.

Miscellaneous Units

1.35 The J99335YA tone supply and transfer unit consists of a printed wiring board assembly mounted in a die cast card holder, two of which plug into an ED-1C231-30 mounting shelf, or an ED-7C035-30 shelf, or an ED-7C048-30 shelf. These units work in pairs to generate the 2600-Hz tone required for a full type F signaling bay. Normally they divide the bay load between them but, if one unit goes to a trouble condition, it automatically transfers its load to the other unit.

1.36 The J99335YH carrier group alarm control unit provides a means of activating the trunk processing features of auxiliary units. This includes stopping charges on a call and preventing further trunk seizures. It also returns the trunk circuits to service when the carrier is restored. The J99335YG (Mfr Disc.) and J99335YH are interchangeable in all applications except when being used with the ESS remote master scanner. In that application the FYH must be used.

Weight and Current Drain

1.37 The J87304A-( ), L1, L2 regulated converter used with bays in this specification weighs 5 pounds. The other plug-in units weigh between 2 and 3 pounds. For bay weights, see Floor Plan Data Sheets, Section 7.1, Sheet 140. Current drain information appears on the circuit schematics and Floor Plan Data Sheets. Note that maximum current drain is in the on-hook condition.

2. SUPPLEMENTARY INFORMATION

179-000-000—Numerical Index—Division 179—Signaling Circuits and Associated Ringer Circuits
801-000-000—Numerical Index—Common Systems
800-600-000—Checking List—General Equipment Requirements
800-610-157—Hardening of Central Office and Main Station—Communications Equipment
859-000-000—Numerical Index—Division 859—Signal Transmission Engineering Considerations

975-000-000—Numerical Index—Division 975—Signaling Systems—General Descriptive Information
J87304—802-223-150—Converter for VF Transfer System—48 Volts DC to 24 Volts DC, 5A
J98613—801-642-150—AC Trunk Signaling System
X-77921—Manufacturing Testing Requirements for J99335U and W series
X-78100—Manufacturing Testing Requirements for J99335A and B Series
X-78101—Manufacturing Testing Requirements for J99335C and D Series
X-78102—Manufacturing Testing Requirements for J99335L and P Series
X-78103—Manufacturing Testing Requirements for J99335R and S Series
Floor Plan Data Sheets Section 7.1, Sheet 140

3. DRAWINGS

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

ED-1C229-30—Resistor Mounting Unit—4 Inches by 23 Inches
ED-1C231—30—Tone Supply Transfer Mounting Shelf
ED-1C232-30—Fuse and Alarm Unit
ED-1C233-50—Terminal Strip Assembly
ED-1C336-30—Test Extender Unit
ED-1C357-30—Resistor Mounting Unit—2 Inches by 23 Inches
ED-1C382-30—Fuse and Alarm Circuit PWB
ED-1C519-30—Fuse and Alarm Unit for Small Installations of FW( ) and FW( ) Units
ED-1C653-30—Fuse and Alarm Unit for Use With Universal Type F Signaling Bays
ED-1C672-30—Screw Switch Assembly
ED-1C676-30—Fuse and Alarm Circuit PWB
ED-1C677-50—Bay Terminal Strip Assembly
ED-1C713-30—Auxiliary PWB for Special Access Units
ED-1C773-30—Resistor Mounting Unit for ESS-Type Offices
ED-7C045-30—Transfer Relay and Resistor Panel

4. EQUIPMENT

ED-1C680-30—AT&TCo Std—Power Distribution and Carrier Group Alarm Mounting Shelf

Group 5—Assembly, wiring, and equipment for one power distribution and carrier group alarm mounting shelf. Provides three Fig. 2 and six Fig. 9 of SD-1C240-02.

Group 6—Wiring and equipment required in addition to Group 5 when used in J99335H-( ) bay. Provides three Fig. 2 and five Fig. 9 of SD-1C240-02.

Group 7—Wiring and equipment required in addition to Group 5 when used in J99335J-( ) bay. Provides two Fig. 2 and four Fig. 9 of SD-1C240-02.

Group 8—Wiring and equipment required in addition to Group 5 when used in J99335K-( ) bay. Provides two Fig. 2 and three Fig. 9 of SD-1C240-02.

ED-1C829-30—AT&TCo Std—Signaling Supply Unit Mounting Shelf For Small Installations of FU( ) Plus AUX Units

Group 1—Assembly, wiring, and equipment for one F-type signaling supply unit mounting shelf for small installations of FU( ) plus AUX units, when carrier group alarm is not required. Provides one Fig. 2, one Fig. 5 of SD-1C240-02 and one Fig. 3, one Fig. 4 of SD-1C239-02.

Group 3—Assembly, wiring, and equipment required in addition to group 1 when carrier group alarm is required. Provides one additional Fig. 5 of SD-1C239-02.

ED-7C015-30—AT&TCo Std—Connectorized Double Shelf Back Plate Assembly for FW Type Unit Mounting

Group 1—Assembly, wiring, and equipment for a pair of shelf back plates for 24 circuits when echo suppression is not required. Provides one Fig. 1, option X of SD-7C009-01.

Group 2—Assembly, wiring, and equipment required in addition to group 1 when echo suppression is required. Provides one Fig. 1, option Y of SD-7C009-01.

ED-7C021-30—AT&TCo Std—Fuse and Alarm, Loop Resistor, Tone Alarm and Transfer Unit

Group 1—Assembly, wiring, and equipment for one fuse and alarm, tone alarm and transfer unit for use in the ED-7C035-30, Group 1

shelf assembly. Provides one Fig. 1 of SD-7C008-01.

Group 2—Equipment, wiring, and assembly required in addition to group 1 for use in the ED-7C035-30, Group 2 shelf assembly. Provides one Fig. 2 of SD-7C008-01.

ED-7C034-30—AT&TCo Std—Circuit Breaker Panel for FW( ) and Small Installations of FW( ) and FU( ) Signaling

Group 1—Wiring, equipment, and assembly for circuit breaker panel for FW( ) signaling bays containing 60 to 132 circuits per SD-1C240-01, Fig. 6.

Group 2—Wiring, equipment, and assembly for circuit breaker panel for small FU( ) plus AUX signaling containing up to 12 circuits and type I signaling per SD-1C240-02, Fig 8.

Group 3—Wiring, equipment, and assembly in addition to group 2 for a maximum of 6 FU( ) plus AUX circuits and when type II or type III signaling is required. Provides an addition of three Fig. 4 of SD-1C240-02.

Group 4—Wiring, equipment, and assembly in addition to group 3 for a maximum of 12 FU( ) plus AUX circuits and when type II or type III signaling is required. Provides an addition of three Fig. 4 of SD-1C240-02.

ED-7C035-30—AT&TCo Std—Fuse and Alarm, Loop Resistor, Tone Supply and Transfer, and Power Converter Shelf Assembly

Group 1—Assembly, wiring, and equipment for a pair of shelves and back plate assemblies arranged for the fuse and alarm, tone supply, tone transfer and power converter circuits for use in connectorized FW Type Bays when Type I E&M signaling leads are specified. Provides one Fig. 1, one Fig. 3, and up to six Fig. 4 of SD-7C008-01 and one Fig. 2 of SD-7C009-01.

Group 2—Assembly, wiring, and equipment required in addition to group 1 when Type II or Type III E&M signaling leads are specified. Provides one Fig. 2 of SD-7C008-01 and one Fig. 3 of SD-7C009-01.

ED-7C046-30—AT&TCo Std—Connectorized Double Shelf Back Plate Assembly for FU and Auxiliary Type Unit Mounting

Group 1—Assembly, wiring, and equipment for a pair of shelf back plates for 12 circuits when echo suppression is not required. Provides one Fig. 1, option X of SD-7C012-01.

Group 2—Assembly, wiring, and equipment required in addition to group 1 when echo suppression is required. Provides one Fig. 1, option Y of SD-7C012-01.

ED-7C047-30—AT&TCo Std—Fuse and Alarm, Loop Resistor, Tone Alarm and Transfer Unit

Group 1—Assembly, wiring, and equipment for one fuse and alarm, tone alarm and transfer unit for use in the ED-7C048-30, Group 1 shelf assembly. Provides one Fig. 1 of SD-7C011-01.

Group 2—Assembly, wiring, and equipment required in addition to group 1 for use in the ED-7C048-30, Group 2 shelf assembly. Provides one Fig. 2 of SD-7C011-01.

ED-7C048-30—AT&TCo Std—Fuse and Alarm, Loop Resistor, Tone Supply and Transfer, Power Converter, and Carrier Group Alarm Control Shelf Assembly

Group 1—Assembly, wiring, and equipment for a pair of shelves and back plate assemblies arranged for the fuse and alarm, tone supply, tone transfer, power converter, and carrier group alarm control circuits for use in connectorized FU and auxiliary type bays when Type I E&M signaling leads are specified. Provides one Fig. 1, one Fig. 3, up to three Fig. 4, and up to six Fig. 5 of SD-7C011-01 and one Fig. 4 of SD-7C012-01.

Group 2—Assembly, wiring, and equipment required in addition to group 1 when Type II or Type III E&M signaling leads are specified. Provides one Fig. 2 of SD-7C011-01 and one Fig. 5 of SD-7C012-01.

ED-7C050-30—AT&TCo Std—Circuit Breaker and Resistor Mounting Panel for FU( ) and AUX Signaling

Group 1—Assembly and equipment to contain circuit breaker and arranged to mount resistors required for FU( ) type and AUX signaling. Provides one Fig. 7 of SD-1C240-02. (See Note A.)

Group 2—Assembly, wiring, and equipment required in addition to group 1 for 24 signaling circuits. Provides 12 Fig. 4 of SD-1C240-02.

Group 3—Assembly, wiring, and equipment required in addition to group 2 when provision for 36 signaling circuits is required. Provides 18 Fig. 4 of SD-1C240-02.

Group 4—Assembly, wiring, and equipment required in addition to Group 3 when provision for 48 signaling circuits is required. Provides 24 Fig. 4 of SD-1C240-02.

Group 5—Assembly, wiring, and equipment required in addition to Group 4 when provision for 60 signal circuits is required. Provides 30 Fig. 4 of SD-1C240-02.

Group 6—Assembly, wiring, and equipment required in addition to Group 5 when provision for 72 signaling circuits is required. Provides 36 Fig. 4 of SD-1C240-02.

Note

A. Circuit breaker required is per SD-1C204-02, Fig. 7.

J99335A—AT&TCo Std—4-Wire E&M Lead Signaling Bay—11-1/2 Feet High (SFBF)

List 1—Framework, apparatus, assembly, and wiring for one 4-wire E and M lead signaling bay 11-1/2 feet high arranged to mount a maximum of 132 4-wire E and M lead type F signaling units, two FYA 2600-Hz tone supply transfer units, and six -48 to -24 volt dc regulated converters. Provides 132 Fig. 1, one Fig. 2, and six Fig. 3, all of SD-1C240-01; and one each of Fig. 1 and 3, 22 Fig. 2, and six Fig. 4, all of SD-1C239-01. (See 5.01, 5.02, and list 3.)

List 2—Framework, apparatus, assembly, and wiring required in addition to list 1 when type II or type III E and M signaling leads are specified. Provides 66 Fig. 4 of SD-1C240-01 as option W and one Fig. 5 and 22 Fig. 6 of SD-1C239-01. (See 5.01.)

List 3—Equipment and wiring always required in addition to list 1 to provide circuit breaker panel per ED-7C034-30,G1.

J99335B—AT&TCo Std—4-Wire E&M Lead Signaling Bay—10-1/2 Feet High (SFBF)

List 1—Framework, apparatus, assembly, and wiring for one 4-wire E and M lead signaling bay 10-1/2 feet high arranged to mount a maximum of 108 4-wire E and M lead type F signaling units, two FYA 2600-Hz tone supply-transfer units, and five -48 and -24 volt dc regulated converters. Provides 108 Fig. 1, one Fig. 2, and five Fig. 3, all of SD-1C240-01; and one each of Fig. 1 and 3, 18 Fig. 2, and six Fig. 4, all of SD-1C239-01. (See 5.01, 5.02, and List 3.)

List 2—Framework, apparatus, assembly, and wiring required in addition to list 1 when type II or type III E and M signaling leads are specified. Provides 54 Fig. 4 of SD-1C240-01 as option W and one Fig. 5 and 18 Fig. 6 of SD-1C239-01. (See 5.01.)

List 3—Equipment and wiring always required in addition to list 1 to provide circuit breaker panel per ED-7C034-30,G1.

J99335C—AT&TCo Std—4-Wire E&M Lead Signaling Bay—9 Feet High (SFBF)

List 1—Framework, apparatus, assembly, and wiring for one 4-wire E and M lead signaling bay 9 feet high arranged to mount a maximum of 96 4-wire E and M lead type F signaling units, two FYA 2600-Hz tone supply-transfer units, and four -48 to -24 volt dc regulated converters. Provides 96 Fig. 1, one Fig. 2, and four Fig. 3, all of SD-1C240-01; and one each of Fig. 1 and 3, 16 Fig. 2, and six Fig. 4, all SD-1C239-01. (See 5.01, 5.02, and list 3.)

List 2—Framework, apparatus, assembly, and wiring required in addition to list 1 when Type II or Type III E and M signaling leads are specified. Provides 48 Fig. 4 of SD-1C240-01 as option W and one Fig. 5 and 16 Fig. 6 of SD-1C239-01. (See 5.01.)

List 3—Equipment and wiring always required in addition to list 1 to provide circuit breaker panel per ED-7C034-30,G1.

J99335D—AT&TCo Std—4-Wire E&M Lead Signaling Bay—7 Feet High (SFBF)

List 1—Framework, apparatus, assembly, and wiring for one 4-wire E and M lead signaling bay 7 feet high arranged to mount a maximum of 60 4-wire E and M lead type F signaling un-

its, two FYA 2600-Hz tone supply-transfer units, and three -48 to -24 volt dc regulated converters. Provides 60 Fig. 1, one Fig. 2, and three Fig. 3, of SD-1C240-01; and one each of Fig. 1 and 3, ten Fig. 2, and six Fig. 4 of SD-1C239-01. (See 5.01, 5.02, and list 3.)

List 2—Framework, apparatus, assembly, and wiring required in addition to list 1 when type II or type III E and M signaling leads are specified. Provides 30 Fig. 4 of SD-1C240-01 as option W, and one Fig. 5 and ten Fig. 6 of SD-1C239-01. (See 5.01.)

List 3—Equipment and wiring always required in addition to list 1 to provide circuit breaker panel per ED-7C034-30,G1.

J99335E—AT&TCo Std—Signaling Supply for Small Installations of FW( ) Units (SFBF)

List 1—Framework, apparatus, assembly, and wiring for one signaling supply for small installations of FW( ) units arranged to mount a maximum of eight 4-wire E and M lead type F signaling units, one FYA 2600-Hz tone supply-transfer unit, and one -48 to -24 volt dc regulated converter. Provides one Fig. 3, one Fig. 5, and eight Fig. 1 of SD-1C240-01; and one Fig. 7 and 20 Fig. 8 of SD-1C239-01. (See Notes A and B and 5.02.)

List 2—Framework, apparatus, assembly, and wiring required in addition to list 1 to adapt the supply for 12 additional signaling units. Provides 12 Fig. 1 of SD-1C240-01. (See Notes A and B and 5.02.)

Notes

A. List 2 requires eight additional inches of vertical relay rack space above list 1.

B. This supply will meet the requirements of Section 800-610-157 when installed in a bay that meets these requirements.

C. The J99335E equipment is designed to be miscellaneously mounted in any available space. However, the equipment is designed to mount in framework described in 1.10. When other framework is used, adaptors may be required on a job-engineered basis to prevent the equipment from extending into the aisles. The equipment extends 7 inches in front and 5 inches behind the mounting surface.

J99335F—AT&TCo Std—Universal Signaling Supply for Small Installations of FU( ) Plus Auxiliary Units (SFBF)

List 5—Assembly, wiring, and equipment for one signaling unit for small installations arranged for six FU( ) plus auxiliary units, one FYA 2600-Hz tone supply-transfer unit, one -48 to -24 volt dc regulated converter, and when type II or type III signaling leads are not required. Provides one ED-7C034-30 G2 panel one ED-1C829-30 G1 shelf, and 3 Fig. 1 of SD-1C240-02. (See Note A and 5.02.)

List 6—Assembly, wiring, and equipment required in addition to list 5 for small installations arranged for six additional FU( ) plus auxiliary signaling units and when type II or type III signaling leads are not required. Provides three additional Fig. 1 of SD-1C240-02. (See Notes A and 5.02.)

List 7—Wiring and equipment required in addition to list 5 when provision for type II or type III signaling is required. Provides one ED-7C034-30 G3 panel. (See Note A.)

List 8—Wiring and equipment required in addition to list 6 when provision for type II or type III signaling is required. Provides one ED-7C034-30 G4 panel. (See Note A.)

List 9—Assembly, wiring, and equipment required in addition to list 5, when carrier group alarm is required. Mounts one FYH carrier group alarm common control circuit unit. Provides one ED-1C829-30 G3 shelf. (See Note A and 5.02.)

Note

A. The J99335F equipment is designed to be miscellaneously mounted in any available space. However, the equipment is designed to mount in framework described in 1.10. When other framework is used, adaptors may be required on a job-engineered basis to prevent the equipment from extending into the aisles. The equipment extends 7 inches in front and 5 inches behind the mounting surface.

J99335G—AT&TCo Std—Universal Signaling Bay—11-1/2 Feet High (SFBF)

List 3—Wiring required in addition to list 1 or list 4 when cross-connections to echo suppressors, equalizers, etc, are specified. (See Note A, 5.01 and 5.02.)

List 4—Framework, apparatus, assembly, and wiring for one universal signaling bay 11-1/2 feet high arranged to mount a maximum of 72 FU( ) signaling units and their associated auxiliary signaling units, two FYA 2600-Hz tone supply-transfer units, three -48 to -24 volt dc regulated converters, and six FYH carrier group alarm common control circuit units. Provides one each of Fig. 1 and 2 of SD-1C239-02, one Fig. 2 of SD-1C240-01, and 72 Fig. 1, three Fig. 2, six Fig. 9, and one Fig. 7 of SD-1C240-02. (See Note A, 5.01, and 5.02.)

List 5—Assembly, wiring, and equipment required in addition to list 4 when type II or type III signaling leads are specified. Provides 36 Fig. 4 of SD-1C240-02. (See Note A, 5.01 and 5.02.)

Note

A. When list 3 is not specified, option X is wired by the shop at the connectors. When list 3 is specified, option X is wired by the shop on the installer side of the bay terminal strip. It shall be removed by the installer when option Y is hard-wired to echo suppressors, etc, or when option Y is cabled to the distributing frame. In this last case, option X shall be wired at the distributing frame when the leads are not cross-connected to echo suppressors, etc. Option Z is wired by the shop on the installer side of the bay terminal strip. This also meets the requirement of type I signaling. It shall be removed by the installer whenever type II or type III signaling leads are specified.

J99335H—AT&TCo Std—Universal Signaling Bay—10-1/2 Feet High (SFBF)

List 3—Wiring required in addition to list 1 or list 4 when cross-connections to echo suppressors, equalizers, etc, are specified. (See Note A, 5.01 and 5.02.)

List 4—Framework, apparatus, assembly, and wiring for one type F universal signaling bay 10-1/2 feet high arranged to mount a maximum of 60 FU( ) signaling units and their associated auxiliary signaling units, two FYA 2600-Hz tone supply-transfer units, three -48 to -24 volt dc regulated converters, and five FYH carrier group alarm control circuit units. Provides one each of Fig. 1 and 2 of SD-1C239-02; one Fig. 2 of SD-1C240-01; and 60 Fig. 1, three Fig. 2, five Fig. 9, and one Fig. 7, all of SD-1C240-02. (See Note A, 5.01 and 5.02.)

List 5—Framework, apparatus, assembly, and wiring required in addition to list 4 when provision for type II or type III signaling leads is specified. Provides 36 Fig. 4 of SD-1C240-02. (See Note A, 5.01 and 5.02.)

Note

A. When list 3 is not specified, option X is wired by the shop at connectors. When list 3 is specified, option X is wired by the shop on the installer side of the bay terminal strip. It shall be removed by the installer when option Y is hard wired to echo suppressors, etc. or when option Y is cabled to the distributing frame. In this last case, option X shall be wired at the distributing frame when the leads are not cross-connected to echo suppressors, etc. The Z option is wired by the shop on the installer side of the bay terminal strip. This also meets the requirement of type I signaling. It shall be removed by the installer whenever type II or type III signaling leads are specified.

J99335J—AT&TCo Std—Universal Signaling Bay—9 Feet High (SFBF)

List 3—Wiring required in addition to list 1 or list 4 when cross-connections to echo suppressors, equalizers, etc, are specified. (See Note A and 5.01 and 5.02.)

List 4—Framework, apparatus, assembly, and wiring for one type F universal signaling bay 9 feet high arranged to mount a maximum of 48 FU( ) signaling units and their associated auxiliary signaling units, two FYA 2600-Hz tone supply-transfer units, two -48 to -24 volt dc regulated converters, and four FYH carrier group alarm common control circuit units. Provides one each of Fig. 1 and 2 of SD-1C239-02; one Fig. 2 of SD-1C240-01; and 48 Fig. 1, two Fig. 2, four Fig. 9 and one Fig. 7 of SD-1C240-02. (See Note A, 5.01 and 5.02.)

List 5—Framework, apparatus, assembly, and wiring required in addition to list 4 when provision

for type II or type III signaling leads is specified. Provides 24 Fig. 4 of SD-1C240-02. (See Note A, 5.01, and 5.02.)

Note

A. When list 3 is not specified, option X is wired by the shop at connectors. When list 3 is specified, option X is wired by the shop on the installer side of the bay terminal strip. It shall be removed by the installer when option Y is hard-wired to echo suppressors, etc., or when option Y is cabled to the distributing frame. In this last case, option X shall be wired at the distributing frame when the leads are not cross-connected to echo suppressors, etc. Option Z is wired by the shop on the installer side of the bay terminal strip. This also meets the requirement of type I signaling. It shall be removed by the installer when type II or type III signaling leads are specified.

J99335K—AT&TCo Std—Universal Signaling Bay—7 Feet High (SFBF)

List 3—Wiring required in addition to list 1 or list 4 when cross-connections to echo suppressors, equalizers, etc, are specified. (See Note A, 5.01 and 5.02.)

List 4—Framework, apparatus, assembly, and wiring for one type F universal signaling bay 7 feet high arranged to mount a maximum of 36 FU( ) signaling units and their associated auxiliary signaling units, two FYA 2600-Hz tone supply-transfer units, two -48 to -24 volt dc regulated converters, and three FYH carrier group alarm common control circuit units. Provides one each of Fig. 1 and 2 of SD-1C239-02; one Fig. 2 of SD-1C240-01; and 36 Fig. 1, two Fig. 2, three Fig. 9, and one Fig. 7, of SD-1C240-02. (See Note A, 5.01, and 5.02.)

List 5—Framework, apparatus, assembly, and wiring required in addition to list 4 when provision for type II or type III signaling leads is specified. Provides 18 Fig. 4 of SD-1C240-02. (See Note A, 5.01, and 5.02.)

Note

A. When list 3 is not specified, option X is wired by the shop at the connectors. When list 3 is specified, option X is wired by the shop on the installer side of the bay terminal strip. It shall be removed by the installer when option Y is hard-wired to echo suppressors, etc, or when option Y is cabled to the distributing frame. In this last case, option X shall be wired at the distributing frame when the leads are not cross-connected to echo suppressors, etc. Option Z is wired by the shop on the installer side of the bay terminal strip. This also meets the requirement of type I signaling. It shall be removed by the installer whenever type II or type III signaling leads are specified.

J99335L—AT&TCo Std—4-Wire E&M Lead Connectorized Signaling Bay—11-1/2 Feet High (SFBF)

List 1—Framework, apparatus, assembly and wiring for one 4-wire E&M lead connectorized signaling bay 11-1/2 feet high arranged to mount a maximum of 144 4-wire E&M lead type F signaling units, two FYA 2600-Hz tone supply-transfer units, and six -48 to -24 volt dc regulated converters when type I E&M signaling leads are specified. Provides six Fig. 1, option X and one Fig. 2 of SD-7C009-01.

List 2—Equipment and wiring required in addition to list 1 when type II or type III E&M signaling leads are specified. Provides one Fig. 3 in place of the Fig. 2 of SD-7C009-01 provided in list 1.

List 3—Equipment and wiring required in addition to list 1 when echo suppression leads are specified. Provides six Fig. 1, option Y in place of the six Fig. 1, option X of SD-7C009-01 provided in list 1.

List 4—Equipment and wiring required in addition to list 1 and list 2 when type II or type III E&M signaling leads are specified and when echo suppression leads are specified. Provides six Fig. 1, option Y in place of the six Fig. 1, option X of SD-7C009-01 provided in list 1 and list 2.

J99335T—AT&TCo Std—Universal Connectorized Signaling Bay—11-1/2 Feet High (SFBF)

List 1—Framework, apparatus, assembly, and wiring for one universal connectorized signaling bay 11-1/2 feet high arranged to mount a maximum of 72 FU( ) signaling units and their associated auxiliary signaling units, two FYA 2600-Hz tone supplies and transfer units,

three -48 to -24 volt dc regulated converters and six FYH carrier group alarm control circuit units. Provides six Fig. 1, option X, 72 Fig. 2, 72 Fig. 3, and one Fig. 4 of SD-7C012-01.

List 2—Equipment and wiring required in addition to list 1 when type II or type III E&M signaling leads are specified. Provides one Fig. 5 in place of Fig. 4 of SD-7C012-01 provided in list 1.

List 3—Equipment and wiring required in addition to list 1 when echo suppression leads are specified. Provides six Fig. 1, option Y in place of six Fig. 1, option X of SD-7C012-01 provided in list 1.

List 4—Equipment and wiring required in addition to list 1 and 2 when type II or type III E&M signaling leads are specified and when echo suppression leads are specified. Provides six Fig. 1, option Y in place of six Fig. 1, option X of SD-7C012-01 provided in lists 1 and 2.

J99335AE—AT&TCo Std—FAE 900-Ohm 2-Wire E&M Lead Signaling Unit With Carrier Group Alarm and Optional A and B Lead Capacitor (SFEE)

List 1—Framework, apparatus, assembly, and printed wiring for one FAE 900-ohm 2-wire E and M lead signaling unit with carrier group alarm and optional A and B lead capactor. Provides one each of Fig. 1, 2, 3, and 5, options X, V, T, R, and J, all of SD-1C227-01. (See 5.01 and 5.02.)

J99335AF—AT&TCo Std—FAF 600-Ohm 2-Wire E&M Lead Signaling Unit With Carrier Group Alarm and Optional A and B Lead Capacitor (SFEE)

List 1—Framework, apparatus, assembly, and printed wiring for one FAF 600-ohm 2-wire E and M lead signaling unit with carrier group alarm and optional A and B lead capacitor. Provides one each of Fig. 1, 2, 4, and 5, options X, V, R, and J, all of SD-1C227-01. (See 5.01 and 5.02.)

J99335BA—AT&TCo Std—FBA 600-Ohm 4-Wire E&M Lead Signaling Unit Without Carrier Group Alarm (SF60)

List 1—Framework, apparatus, assembly, and printed wiring for one FBA 600-ohm 4-wire E and M lead signaling unit without carrier group alarm. Provides one Fig. 1, option Z, of SD-1C227-01. (See 5.01 and 5.02.)

J99335BC—AT&TCo Std—FBC 600-Ohm 4-Wire E&M Lead signaling Unit With Carrier Group Alarm (SF60)

List 1—Framework, apparatus, assembly, and printed wiring for one FBC 600-ohm 4-wire E and M lead signaling unit with carrier group alarm. Provides one each of Fig. 1 and 5, options Z, X, R, and J, of SD-1C227-01. (See 5.01 and 5.02.)

J99335BO—AT&TCo Std—FBO Pulse Link Repeater Auxiliary Signaling Unit With Carrier Group Alarm—And Optional 8-DB Pad in Both the Receiving and Transmitting Paths (SFAX)

List 1—Framework, apparatus, assembly, and printing wiring for one FBO pulse link repeater auxiliary signaling unit with carrier group alarm and optional 8-dB pad in both the receiving path and transmitting path. Provides one each of Fig. 6 and 7, option Q and M of SD-1C227-01. (See 5.01 and 5.02.)

J99335CA—AT&TCo Std—FCA Loop Originating Signaling Unit With Reverse Battery Supervision (SFDO)

List 1—Framework, apparatus, assembly, and printed wiring for one FCA loop originating signaling unit with reverse battery supervision. Provides one each of Fig. 1, 2, and 3 of SD-1C228-01. (See 5.01 and 5.02.)

J99335DA—AT&TCo Std—FDA Loop Terminating Signaling Unit for Senderized Circuits (SFOT)

List 1—Framework, apparatus, assembly, and printed wiring for one FDA loop terminating signaling unit for senderized circuits. Provides one each of Fig. 1 and 2 of SD-1C229-01. (See 5.01 and 5.02.)

J99335DB—AT&TCo Std—FDB Loop Terminating Signaling Unit With Pulse Corrector for Step-by-Step Offices (SFDT)

List 1—Framework, apparatus, assembly, and printed wiring for one FDB loop terminating signaling unit with pulse corrector for step-by-step offices. Provides one each of Fig. 1 and 3 of SD-1C229-01. (See 5.01 and 5.02.)

J99335GA—AT&TCo Std—FGA 2-Wire 900-Ohm DX Signaling Unit With Carrier Group Alarm (SFAX)

List 1—Framework, apparatus, assembly, and printed wiring for one FGA 2-wire 900-ohm DX signaling unit with carrier group alarm. Provides one each of Fig. 1 and 3 of SD-1C373-01. (See 5.01 and 5.02.)

J99335GM—AT&TCo Std—FGM 2-Wire 2-Way Ringdown Auxiliary Signaling Unit (SFA2)

List 1—Framework, apparatus, assembly, and printed wiring for one FGM 2-wire, 2-way ringdown signaling unit. Provides one each of Fig. 1 and 2 of SD-1C153-01. (See 5.01 and 5.02.)

J99335HA—AT&TCo Std—FHA 600-Ohm 4-Wire DX Signaling Unit With Carrier Group Alarm (SFAX)

List 1—Framework, apparatus, assembly, and printed wiring for one FHA 600-ohm 4-wire DX signaling unit with carrier group alarm. Provides one each of Fig. 1 and 2 of SD-1C373-01. (See 5.01 and 5.02.)

J99335HM—AT&TCo Std—FHM 4-Wire 2-Way Ringdown Auxiliary Signaling Unit (SFA2)

List 1—Framework, apparatus, assembly, and printed wiring for one FHM 4-wire, 2-way ringdown auxiliary signaling unit. Provides one each of Fig. 1 and 3 of SD-1C153-01. (See 5.01 and 5.02.)

J99335LA—AT&TCo Std—FLA 2-Wire 900-Ohm Special Access Central Office End Signaling Unit (SFXT)

List 1—Framework, apparatus, assembly, and printed wiring for one FLA 2-wire 900-ohm special access central office end signaling unit. Provides one each of Fig. 1, 2, 3, and 5 of SD-1C231-01. (See 5.01 and 5.02.)

J99335LB—AT&TCo Std—FLB 2-Wire 600-Ohm Special Access Central Office End Signaling Unit (SFXT)

List 1—Framework, apparatus, assembly, and printed wiring for one FLB 2-wire 600-ohm special access central office end signaling unit. Provides one each of Fig. 1, 2, 3, and 6 of SD-1C231-01. (See 5.01 and 5.02.)

J99335LC—AT&TCo Std—FLC 2-Wire 900-Ohm Special Access Central Office End Signaling Unit (SFXT)

List 1—Framework, apparatus, assembly, and printed wiring for one FLC 2-wire 900-ohm special access central office end signaling unit. Provides one each of Fig. 1, 3, and 5 of SD-1C231-01. (See 5.01 and 5.02.)

J99335LD—AT&TCo Std—FLD 2-Wire 600-Ohm Special Access Central Office End Signaling Unit (SFXT)

List 1—Framework, apparatus, assembly, and printed wiring for one FLD 2-wire 600-ohm special access central office end signaling unit. Provides one each of Fig. 1, 3, and 6 of SD-1C231-01. (See 5.01 and 5.02.)

J99335MB—AT&TCo Std—FMB Signal-Through Unit for 4-Wire Transmission Path (SFCT)

List 1—Framework, assembly, and printed wiring for one FMB signal-through unit for a 4-wire transmission path. Provides option Z only of SD-1C296-01. (See 5.01 and 5.02.)

J99335MC—AT&TCo Std—FMC 4-Wire Extension Network Unit (XN4W)

List 1—Framework, apparatus, assembly, and printed wiring for one FMC 4-wire extension network unit. Provides one Fig. 1 of SD-1C296-01. (See 5.01 and 5.02.)

J99335MD—AT&TCo Std—FMD 900-Ohm 4-Wire Terminating Set (4T9F)

List 1—Framework, apparatus, assembly, and printed wiring for one FMD 900-ohm 4-wire terminating set. Provides one each of Fig. 2 and 3 of SD-1C296-01. (See 5.01 and 5.02.)

J99335ME—AT&TCo Std—FME 600-Ohm 4-Wire Terminating Set (4T6F)

List 1—Framework, apparatus, assembly, and printed wiring for one FME 600-ohm 4-wire terminating set. Provides one each of Fig. 2 and 4 of SD-1C296-01. (See 5.01 and 5.02.)

J99335MF—AT&TCo Std—FMF Signal Pad Unit for 4-Wire Transmission Path (SFCT)

List 1—Framework, apparatus, assembly, and printed wiring for one FMF signal pad unit for a 4-wire transmission path. Provides one Fig. 6 of SD-1C296-01. (See 5.01 and 5.02.)

J99335MG—AT&TCo Std—FMG Signal Pad Unit for 4-Wire Transmission Path (SFCT)

List 1—Framework, apparatus, assembly, and printed wiring for one FMG signal pad unit for a 4-wire transmission path. Provides one Fig. 7 of SD-1C296-01. (See 5.01 and 5.02.)

J99335MJ—AT&TCo Std—FMJ Signal Pad Unit for 4-Wire Transmission Path With Carrier Group Alarm

List 1—Framework, assembly, and printed wiring for one FMJ signal—through unit for a 4-wire transmission path with carrier group alarm. Provides one Fig. 8 of SD-1C296-01. (See 5.01 and 5.02.)

J99335MK—AT&TCo Std—FMK Carrier Group Alarm, Tone and Signal—Through Unit for 4-Wire Transmission Path

List 1—Framework, assembly, and printed wiring for one FMK carrier group alarm, tone and signal—through unit for a 4-wire transmission path. Provides option X only of SD-1C296-01. (See 5.01 and 5.02.)

J99335PA—AT&TCo Std—FPA 4-Wire Special Access Central Office End Signaling Unit (SFXT)

List 1—Framework, apparatus, assembly, and printed wiring for one FPA 4-wire special access central office end signaling unit. Provides one each of Fig. 1, 2, and 4 of SD-1C231-01. (See 5.01 and 5.02.)

J99335RA—AT&TCo Std—FRA 4-Wire Special Access Station End Signaling Unit (SFXS)

List 1—Framework, apparatus, assembly, and printed wiring for one FRA 4-wire special access station end signaling unit. Provides one each of Fig. 1, 3, 4, and 5 of SD-1C230-01. (See 5.01 and 5.02.)

J99335SA—AT&TCo Std—FSA 2-Wire 900-Ohm Special Access Station End Signaling Unit (SFXS)

List 1—Framework, apparatus, assembly, and printed wiring for one FSA 2-wire 900-ohm special access station end signaling unit. Provides one each of Fig. 1, 2, 3, 4, and 6 of SD-1C230-01. (See 5.01 and 5.02.)

J99335SB—AT&TCo Std—FSB 2-Wire 600-Ohm Special Access Station End Signaling Unit (SFXS)

List 1—Framework, apparatus, assembly, and printed wiring for one FSB 2-wire 600-ohm special access station end signaling unit. Provides one each of Fig. 1, 2, 3, 4, and 7 of SD-1C230-01. (See 5.01 and 5.02.)

J99335SC—AT&TCo Std—FSC 2-Wire 900-Ohm Special Access Station End Signaling Unit (SFXS)

List 1—Framework, apparatus, assembly, and printed wiring for one FSC 2-wire 900-ohm special access station end signaling unit. Provides one each of Fig. 1, 2, 4, and 6 of SD-1C230-01. (See 5.01 and 5.02.)

J99335SD—AT&TCo Std—FSD 2-Wire 600-Ohm Special Access Station End Signaling Unit (SFXS)

List 1—Framework, apparatus, assembly, and printed wiring for one FSD 2-wire 600-ohm special access station end signaling unit. Provides one each of Fig. 1, 2, 4, and 7 of SD-1C230-01. (See 5.01 and 5.02.)

J99335TA—AT&TCo Std—FTA Test Extender for FW( ) and FW( ) Units (SFTE)

List 1—Framework, apparatus, assembly, and wiring for one FTA test extender to enable jack access to voice paths and signaling leads. Provides one Fig. 1 of SD-1C241-01. (See 5.01 and 5.02.)

List 2—Framework, apparatus, assembly, and wiring required in addition to list 1 to provide a cord assembly for connecting the FTA test extender to the signaling unit operating position. Provides one Fig. 2 of SD-1C241-01.

J99335TB—AT&TCo Std—FTB Universal Test Extender for All Type F Units (SFTE)

List 1—Framework, apparatus, assembly, and wiring for one FTB universal test extender. Provides one Fig. 1 of SD-1C241-02. (See Note A, 5.01 and 5.02.)

List 2—Framework, apparatus, assembly, and wiring required in addition to list 1 for one cable assembly. Provides one Fig. 2 of SD-1C241-02. (See Note A.)

Note

A. Two list 2 assemblies are required to complete each list 1 test extender.

J99335UA—AT&TCo Std—FU( ) Signaling Converter (SF6D)

List 1—Framework, apparatus, assembly, and printed wiring for one FU( ) signaling converter. Provides one each of Fig. 1 and 2 of SD-1C226-01. (See 5.01, 5.02, and 5.05.)

J99335WA—AT&TCo Std—FW( ) Message 4-Wire E&M Lead Signaling Unit (SF60)

List 1—Framework, apparatus, assembly, and printed wiring for one FW( ) message 4-wire E and M signaling unit for use in MF or senderized DP applications. Provides one each of Fig. 1, 2, and 3, option Z, of SD-1C225-01. (See 5.01, 5.02, and 5.05.)

J99335WB—AT&TCo Std—FW( ) MF Autovon 4-Wire E&M Lead Signaling Unit (SF6P)

List 1—Framework, apparatus, assembly, and printed wiring for one FW( ) MF autovon 4-wire E and M signaling unit for MF Autovon applications. Provides one each of Fig. 1 and 2, option Y, of SD-1C225-01. (See 5.01, 5.02, and 5.05.)

J99335WC—AT&TCo Std—FW( ) MF 4-Wire E&M Lead Signaling Unit (SF60)

List 1—Framework, apparatus, assembly, and printed wiring for one FW( ) MF 4-Wire E and M signaling unit for MF applications on intraoffice bays. Provides one each of Fig. 1 of SD-1C583-01.

J99335YA—AT&TCo Std—2600-Hertz Tone Supply and Transfer Unit (SFS6)

List 1—Framework, apparatus, assembly, and printed wiring for one FYA 2600-Hz tone supply and transfer unit for use in type F signaling bays. Provides one Fig. 1 of SD-1C224-02. (See Note A, 5.01 and 5.02.)

Note

A. Two of these units are required for each type F signaling bay.

J99335YH—AT&TCo Std—FYH Carrier Group Alarm Unit (SFGA)

List 1—Framework, apparatus, assembly, and printed wiring for one FYH carrier group alarm unit. Provides one CPS1 of SD-1C284-01. (See 5.01 and 5.02.)

Miscellaneous Equipment

J87304A—DC Power Supply Equipment Assembly

List 1—Assembly, wiring, and equipment for one power supply. (See Notes A, B, and C.)

	WIRE	EQUIP	NOTES
ED-82228-( ), G1 Ckt, SD-81868-01, CPS1		1	
ED-82229-( ), G1 Ckt, SD-81868-01, CPS2		1	
ED-82370-( ), G1 Ckt, SD-81868-01, Fig.		1	
Converter Ckt, SD-81868-01, Fig. 1 & 2, Option X Only	1	1	A

List 2—Filter capacitor, per SD-81868-01, Fig. 1, option E, for reduction of longitudinal noise. (See Note C.)

Notes

A. The J87304A,L1 option X is wired for operation from a 23-cell plant or a 24-cell with countercell plant (48 to 52 Vdc). For unit operation from a 24-cell plant (48 to 52 Vdc) order the J87304A,L1 option W.

B. If this equipment is held in stock or is otherwise out of service, electrolytic capacitors shall be connected to a source of direct current of suitable voltage and polarity as covered in Section 032-110-701.

C. J87304A,L1 power supply should be ordered with list 2 filter capacitor when the supply is to be used in an F-type signaling system.

5. GENERAL NOTES AND INDEXES

5.01 Unit specifications which make reference to this paragraph meet the requirements of Section 800-610-157 as manufactured.

5.02 Plug-in units are not provided as parts of the bays. They must be ordered separately as required and shall be shipped in approved containers only.

5.03 Codes J99335M through S, U through Y, AG through AY, BD through BL, BP through BY, CB through CY, DC through FY, GB through GL, GN through GY, HB through HL, HN through KY, LE through LY, MH, ML through NY, PB through PY, RB through RY, SE through SY, TC through TY, UB through UY, WD through WY, YB through YF, and YJ through YY are unassigned.

5.04 The 1023A headset is available for in-service monitoring of the J99335UA, WA, and WB units and should be ordered separately as required.

List of A&M Only and Mfr Disc. Equipment

5.05 The equipment listed below 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
ED—1C680-30, G1 thru G4	Mfr Disc.	6	ED-1C680-30, G5 thru G8
ED-1C829-30, G2	Mfr Disc.	6	ED-1C829-30, G3
J99335F, L1 thru L4	Mfr Disc.	5	J99335F, L5 thru L9
J99335G, L1, L2	Mfr Disc.	5	J99335G, L4, L5
J99335H, L1, L2	Mfr Disc.	5	J99335H, L4, L5
J99335J, L1, L2	Mfr Disc.	5	J99335J, L4, L5
J99335K, L1, L2	Mfr Disc.	5	J99335K, L4, L5
J99335AA	Mfr Disc.	6	J99335AC
J99335AB	Mfr Disc.	2	J99335AD
J99335AC	Mfr Disc.	6	J99335AE
J99335AD	Mfr Disc.	6	J99335AF
J99335BB	Mfr Disc.	6	J99335BC
J99335BM	Mfr Disc.	6	J99335BO
J99335BN	Mfr Disc.	6	J99335BO
J99335MA	Mfr Disc.	5	J99335MF
J99335YG	Mfr Disc.	5	J99335YH

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	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
ED-1C680-30	Std	Power Distribution and Carrier Group Alarm Mounting Shelf	ED-1C680-30	SD-1C240-02
ED-1C829-30	Std	Signaling Supply Unit Mounting Shelf for Small Installations of FU( ) Plus AUX Units	ED-1C829-30	SD-1C240-02
ED-7C015-30	Std	Connectorized Double Shelf Back Plate Assembly for FW Type Unit Mounting	ED-7C015-30	SD-7C009-01
ED-7C021-30	Std	Fuse and Alarm, Loop Resistor, Tone Alarm and Transfer Unit	ED-7C021-30	SD-7C008-01
ED-7C034-30	Std	Circuit Breaker Panel for FW( ) and Small Installations of FW( ) and FU( ) Signaling	ED-7C034-30	SD-1C240-01, SD-1C240-02
ED-7C035-30	Std	Fuse and Alarm, Loop Resistor, Tone Supply and Transfer, and Power Converter Shelf Assembly	ED-7C035-30	SD-7C009-01
ED-7C046-30	Std	Connectorized Double Shelf Back Plate Assembly for FU and Auxiliary Type Unit Mounting	ED-7C046-30	SD-7C012-01
ED-7C047-30	Std	Fuse and Alarm, Loop Resistor, Tone Alarm and Transfer Unit	ED-7C047-30	SD-7C011-01
ED-7C048-30	Std	Fuse and Alarm, Loop Resistor, Tone Supply and Transfer, Power Converter, and Carrier Group Alarm Control Shelf Assembly	ED-7C048-30	SD-7C012-01
ED-7C050-30	Std	Circuit Breaker and Resistor Mounting Panel for FU( ) and AUX Signaling	ED-7C050-30	SD-1C240-02
J99335A (SFBF)	Std	4-Wire E&M Lead Signaling Bay— 11-1/2 Feet High	J99335A-( )	SD-1C239-01, SD-1C240-01
J99335B (SFBF)	Std	4-Wire E&M Lead Signaling Bay— 10-1/2 Feet High	J99335B-( )	SD-1C239-01, SD-1C240-01

EQUIPMENT CODE	AT&T RATING	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
J99335C (SFBF)	Std	4-Wire E&M Lead Signaling Bay—9 Feet High	J99335C-( )	SD-1C239-01, SD-1C240-01
J99335D (SFBF)	Std	4-Wire E&M Lead Signaling Bay—7 Feet High	J99335D-( )	SD-1C239-01, SD-1C240-01
J99335E (SFBF)	Std	Signaling Supply for Small Installations of FW( ) and/or FW( ) Units	J99335E-( )	SD-1C239-01, SD-1C240-01
J99335F (SFBF)	Std	Universal Signaling Supply for Small Installations of FU( ) Plus Auxiliary Units	J99335F-( )	SD-1C239-02, SD-1C240-02
J99335G (SFBF)	Std	Universal Signaling Bay—11-1/2 Feet High	J99335G-( )	SD-1C239-02, SD-1C240-01, SD-1C240-02
J99335H (SFBF)	Std	Universal Signaling Bay—10-1/2 Feet High	J99335H-( )	SD-1C239-02, SD-1C240-01, SD-1C240-02
J99335J (SFBF)	Std	Universal Signaling Bay—9 Feet High	J99335J-( )	SD-1C239-02, SD-1C240-01, SD-1C240-02
J99335K (SFBF)	Std	Universal Signaling Bay—7 Feet High	J99335K-( )	SD-1C239-02, SD-1C240-01, SD-1C240-02
J99335L (SFBF)	Std	4-Wire E&M Lead Connectorized Signaling Bay—11-1/2 Feet High	J99335L-( )	SD-7C009-01
J99335T (SFBF)	Std	Universal Connectorized Signaling Bay—11-1/2 Feet High	J99335T-( )	SD-7C012-01
J99335AE (SFEE)	Std	FAE 900-Ohm 2-Wire E&M Lead Signaling Unit With Carrier Group Alarm and Optional A and B Lead Capacitor	J99335AE-( )	SD-1C227-01
J99335AF (SFEE)	Std	FAF 600-Ohm 2-Wire E&M Lead Signaling Unit With Carrier Group Alarm and Optional A and B Lead Capacitor	J99335AF-( )	SD-1C227-01
J99335BA (SFGO)	Std	FBA 4-Wire 600-Ohm E&M Lead Signaling Unit Without Carrier Group Alarm	J99335BA-( )	SD-1C227-01
J99335BC (SFGO)	Std	FBC 4-Wire 600-Ohm E&M Lead Signaling Unit With Carrier Group Alarm	J99335BC-( )	SD-1C227-01

EQUIPMENT CODE	AT&T RATING	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
J99335BO (SFAX)	Std	FBO Pulse Link Repeater Auxiliary Signaling Unit With Carrier Group Alarm and Optional 8 dB Pad in Both the Receiving and Transmitting Pads	J99335BO-( )	SD-1C227-01
J99335CA (SFDO)	Std	FCA Loop Originating Signaling Unit With Reverse Battery Supervision	J99335CA-( )	SD-C228-01
J99335DA (SFOT)	Std	FDA Loop Terminating Signaling Unit for Senderized Circuits	J99335DA-( )	SD-1C229-01
J99335DB (SFDT)	Std	FDB Loop Terminating Signaling Unit With Pulse Corrector for Step-by-Step Offices	J99335DB-( )	SD-1C229-01
J99335GA (SFAX)	Std	FGQ 2-Wire 900-Ohm DX Signaling Unit With Carrier Group Alarm	J99335GA-( )	SD-1C373-01
J99335GM (SFA2)	Std	FGM 2-Wire 2-Way Ringdown Auxiliary Signaling Unit	J99335GM-( )	SD-1C153-01
J99335HA (SFAX)	Std	FHA 4-Wire 600-Ohm DX Signaling Unit With Carrier Group Alarm	J99335HA-( )	SD-1C373-01
J99335HM (SFAZ)	Std	FHM 4-Wire 2-Way Ringdown Auxiliary Signaling Unit	J99335HM-( )	SD-1C153-01
J99335LA (SFXT)	Std	FLA 2-Wire 900-Ohm Special Access Central Office End Signaling Unit	J99335LA-( )	SD-1C231-01
J99335LB (SFXT)	Std	FLB 2-Wire 600-Ohm Special Access Central Office End Signaling Unit	J99335LB-( )	SD-1C231-01
J99335LC (SFXT)	Std	FLC 2-Wire 900-Ohm Special Access Central Office End Signaling Unit	J99335LC-( )	SD-1C231-01
J99335LD (SFXT)	Std	FLD 2-Wire 600-Ohm Special Access Central Office End Signaling Unit	J99335LD-( )	SD-1C231-01
J99335MB (SFCT)	Std	FMB Signal-Through Unit for 4-Wire Transmission Path	J99335MB-( )	SD-1C296-01
J99335MC (XN4W)	Std	FMC 4-Wire Extension Network Unit	J99335MC-( )	SD-1C296-01
J99335MD (4T9F)	Std	FMD 900-Ohm 4-Wire Terminating Set	J99335MD-( )	SD-1C296-01

EQUIPMENT CODE	AT&T RATING	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
J99335ME (4T6F)	Std	FME 600-Ohm 4-Wire Terminating Set	J99335ME-( )	SD-1C296-01
J99335MF (SFCT)	Std	FMF Signal Pad Unit for 4-Wire Transmission Path	J99335JF-( )	SD-1C296-01
J99335MG (SFCT)	Std	FMG Signal Pad Unit for 4-Wire Transmission Path	J99335MG-( )	SD-1C296-01
J99335MJ	Std	FMJ Signal Pad Unit for 4-Wire Transmission Path With Carrier Group Alarm	J99335MJ-( )	SD-1C296-01
J99335MK	Std	FMK Carrier Group Alarm, Tone and Signal-Through Unit For 4-Wire Transmission Path	J99335MK-( )	SD-1C296-01
J99335PA (SFXT)	Std	FPA 4-Wire Special Access Central Office End Signaling Unit	J99335PA-( )	SD-1C231-01
J99335RA (SFXS)	Std	FRA 4-Wire Special Access Station End Signaling Unit	J99335RA-( )	SD-1C230-01
J99335SA (SFXS)	Std	FSA 2-Wire 900-Ohm Special Access Station End Signaling Unit	J99335SA-( )	SD-1C230-01
J99335SB (SFXS)	Std	FSB 2-Wire 600-Ohm Special Access Station End Signaling Unit	J99335SB-( )	SD-1C230-01
J99335SC (SFXS)	Std	FSC 2-Wire 900-Ohm Special Access Station End Signaling Unit	J99335SC-( )	SD-1C230-01
J99335SD (SFXS)	Std	FSD 2-Wire 600-Ohm Special Access Station End Signaling Unit	J99335SD-( )	SD-1C230-01
J99335TA (SFTE)	Std	FTA Test Extender for FW( ) and FW( ) Units	J99335TA-( )	SD-1C241-01
J99335TB (SFTE)	Std	FTB Universal Test Extender for All Type F Units	J99335TB-( )	SD-1C241-02
J99335UA (SF6D)	Std	FU( ) Signaling Converter	J99335UA-( )	SD-1C226-01
J99335WA (SF6O)	Std	FW( ) Message 4-Wire E&M Lead Signaling Unit	J99335WA-( )	SD-1C225-01
J99335WB (SF6P)	Std	FW( ) MF Autovon 4-Wire E&M Lead Signaling Unit	J99335WB-( )	SD-1C225-01

EQUIPMENT CODE	AT&T RATING	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
J99335WC (SF6O)	Std	FW( ) MF 4-Wire E&M Lead Signaling Unit	J99335WC-( )	SD-1C583-01
J99335YA (SFS6)	Std	2600-Hertz Tone Supply and Transfer Unit	J99335YA-( )	SD-1C224-02
J99335YH (SFGA)	Std	FYH Carrier Group Alarm Unit	J99335YH-( )	SD-1C284-01

Circuit Schematic Index

CIRCUIT DRAWING	J99335 EQPT CODE	CIRCUIT DRAWING	J99335 EQPT CODE
SD-1C153-01	GM,HM	SD-1C240-02	F,G,H,J,K,ED-7C050-30
SD-1C224-02	YA	SD-1C241-01	TA
SD-1C225-01	WA,WB	SD-1C241-02	TB
SD-1C226-01	UA	SD-1C284-01	YH
SD-1C227-01	AE,AF,BA,BC,BO	SD-1C296-01	MB,MC,MD,ME,MF,MG,MJ,MK
SD-1C228-01	CA	SD-1C373-01	GA,HA
SD-1C229-01	DA,DB	SD-1C583-01	WC
SD-1C230-01	RA,SA,SB,SC,SD	SD-7C008-01	ED-7C021-30,ED-7C035-30
SD-1C231-01	LA,LB,LC,LD,PA	SD-7C009-01	ED-7C015-30,J99335L
SD-1C239-01	A,B,C,D,E	SD-7C011-01	ED-7C047-30,ED-7C048-30
SD-1C239-02	F,G,H,J,K	SD-7C012-01	ED-7C046-30,J99335T
SD-1C240-01	A,B,C,D,E,G,H,J,K ED-7C034-30		

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