DISTRICT OR AUXILIARY DISTRICT JUNCTOR FRAME EQUIPMENT DESIGN REQUIREMENTS NO. 1 CROSSBAR SYSTEM

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 district junctor frame and units and the interrupter checking unit in No. 1 crossbar offices. Unless otherwise indicated, reference to district junctor frame throughout this specification includes the auxiliary district junctor frame.

1.02 This specification is reissued:

(a) To provide equipment design requirements for calling line identification.

(b) To provide equipment design requirements for a special Message Charging System.

(c) To provide equipment design requirements for modifications of unit fuse panels to modular type fuse panels.

CAPACITY

1.03 The district junctor frame has capacity for five district junctor units of twenty circuits each or a total of 100 district junctors.

1.04 The interrupter checking unit for district junctors has three circuits for three district junctor frames or auxiliary district junctor frames. These units mount on the miscellaneous frame.

DESCRIPTION

1.05 ***The regular district junctor frame,*** Fig. 1 which mounts five district junctor units, is a 2-bay structure 6 feet 4-3/4 inches long. It is located between the associated subscriber sender link frame on the left and district link frame on the right, the three frames constituting what is called a district group. This arrangement on the floor plan facilitates maintenance and keeps the length of leads between the district junctors and the adjacent link frames to a minimum. These leads are contained in the link frame local cables which include extensions designed for connection to terminal strips on the district junctor units after the frames are in position on the floor. Switchboard cabling between the three frames is thus avoided. The miscellaneous frame circuit apparatus is mounted on a panel attached to the second unit from the floor.

1.06 ***The auxiliary district junctor frame*** Fig. 2 is restricted to use in a non-LAMA office. It differs from the regular district junctor frame in that it is located adjacent to an auxiliary subscriber sender link frame and no district link frame appears on the right. The connection of auxiliary district junctors to district link switches 10 or 11, which are mounted on the regular subscriber sender link frame, must be made by switchboard cable. The association of auxiliary district junctors to district link switches is, in general, as follows:

AUX DJ FR	AUX DJ GROUP	DISTRICT LINK SW	ON	REGULAR SSL FR
0	0-9	10		0-9
1	0-9	10		10-19
2	0-9	11		0-9
3	0-9	11		10-19

With ten district junctors in each auxiliary district junctor group, it will increase the capacity of district junctors from 2000 in the regular district groups to 2400 with the addition of the auxiliary district groups (see Fig. 2).

1.07 ***The district junctor unit*** accommodates 20 junctors, each junctor occupying a single 30-1/2 inch mounting plate. The unit is 2 feet 1-1/8 inches high and 6 feet 4-1/4 inches long with provision for two sets of ten 30-1/2 inch mounting plates side by side. The ten junctors on the lower-half of the unit are associated with an even-numbered district link primary switch and those on the upper-half with an odd-numbered primary switch, except when mounted on the auxiliary district junctor frame. Mounted vertically at the left end of the unit is a single terminal strip or a set of four terminal strips on which are terminated all outgoing leads except those to the district link frame. The local cable arm from the subscriber sender link frame is connected at this point. The leads to the district link attach to a terminal strip located in a horizontal position at the top of the right-hand side of the unit. The unit includes a fuse panel, jack and lamp panel, and a mounting plate of relays common to the unit. A motor-driven timing device is furnished when nonzone timing is required with message register operation. The wiring and equipment of all junctors on a given unit are the same.

1.08 There are five classes of junctor circuits that mount on the district junctor frame; namely, noncoin, coin, keypulsing, dial pulsing, and step-by-step district junctors. Noncoin and coin junctors provide connection between line link frames and the district link frame for originating calls and, in conjunction with the subscriber sender link frame, give the calling customer access to an originating sender. They furnish transmission and supervision for the calling customer, except on calls to an attendant; on charge calls they operate the line message register or function with the zone registration or automatic message accounting equipment. Keypulsing and dial pulsing district junctors furnish a connection between switchboard positions and the district link frame for completion of attendant calls. Keypulsing district junctors require the use of keypulsing senders and a keypulsing sender link frame; whereas dial pulsing districts use subscriber originating senders and the sender link frame. Step-by-step district junctors furnish a connection between step-by-step customers or attendants and the district link frame. Seizure is through a selector and outgoing repeater or the equivalent at the step-by-step office and an incoming repeater in the crossbar office. Dial tone is furnished from a subscriber sender seized in the usual manner. Supervision and transmission are furnished from the incoming repeater.

1.09 ***Noncoin district junctors*** may be arranged for timing of nonzone calls. The timing equipment includes a No. 51A drive common to a district junctor unit and a No. 1A timer per district junctor. With this equipment the customer line message register is operated once on nonzone calls and once for each overtime interval. Provision may also be made for operating the customer register on zone traffic. This involves additional timing equipment located on separate zone registration frames. The district junctors in this case are cabled to a zone registration district connector frame and to a zone registration control frame for access to the zone registration timers.

1.10 Noncoin district junctors are covered by the following circuits:

SD-25020-01 (A&M Only)—FR and MR
SD-26201-01 (AT&TCo Std)—FR and MR
SD-25620-02 (AT&TCo Std)—FR and MR
SD-25620-01 (AT&TCo Std)—FR and AMA

The first circuit uses U- and Y-type relays and is replaced, except for additions to existing units, by the second circuit which uses wire spring relays. The third circuit is arranged for conversion from initial message register operation to AMA operation. The last circuit is for initial AMA operation, also flat-rate service. Each of the standard message register district junctor circuits is furnished in four units with wiring as follows:

Flat Rate and MRI without Loc TMG and ZR
Flat Rate and MRI with Loc TMG and ZR
MR 2-Party without Loc TMG and ZR
MR 2-Party with Loc TMG and ZR

1.11 ***Coin district junctors*** require the assistance of a coin supervisory circuit to collect or refund a coin. Access to this circuit is obtained through the coin supervisory link frame at the time the collecting or refunding is to be done. Coin district junctors may be arranged for timing of nonzone calls, using a No. 51A drive and No. 1B timer. A coin supervisory circuit is attached at the end of each charge interval to test for and collect the additional coin. If the additional coin has not been deposited, an attendant is called in to supervise the call until the calling customer

either disconnects or makes an additional deposit. For dial coin zone traffic a supplementary trunk circuit is required in association with the office multiple. This equipment is described in J99229. There are three coin district junctor units available as listed below, which may be used for either coin-first or dial-tone-first service.

J27551E (A&M Only) SD-25210-01	— Seizure of Coin Supervisory Circuit Omitted on Attendant Call Calls
J27551L (AT&TCo Std) SD-25210-01	— Seizure of Coin Supervisory Circuit on All Calls
J27551J (Special) SD-25323-02	— Arranged for Conversion to Noncoin — Seizure of Coin Supervisory Circuit on All Calls or Omitted on Attendant Class Calls

1.12 An ***interrupter checking unit*** used to check the operation of the charging interrupter relays and give an alarm in case of trouble is included in this specification. This unit occupies the space of three mounting plates on the miscellaneous frame and has capacity for three district junctor or auxiliary district junctor frames.

Floor Plan Arrangement

1.13 The regular district junctor frame is always associated with a subscriber sender link frame and a district link frame. These three frames accordingly are treated as a unit on the floor plan, their design requiring that they be adjacent in the same line with the district junctor frame in the center, the sender link frame on the left, and the district link frame on the right. (See Fig. 1 and 2.)

1.14 The auxiliary district junctor frame appears only with an auxiliary subscriber sender link frame and no district link frame. These two frames are treated as a unit on the floor plan. (See Fig. 2.)

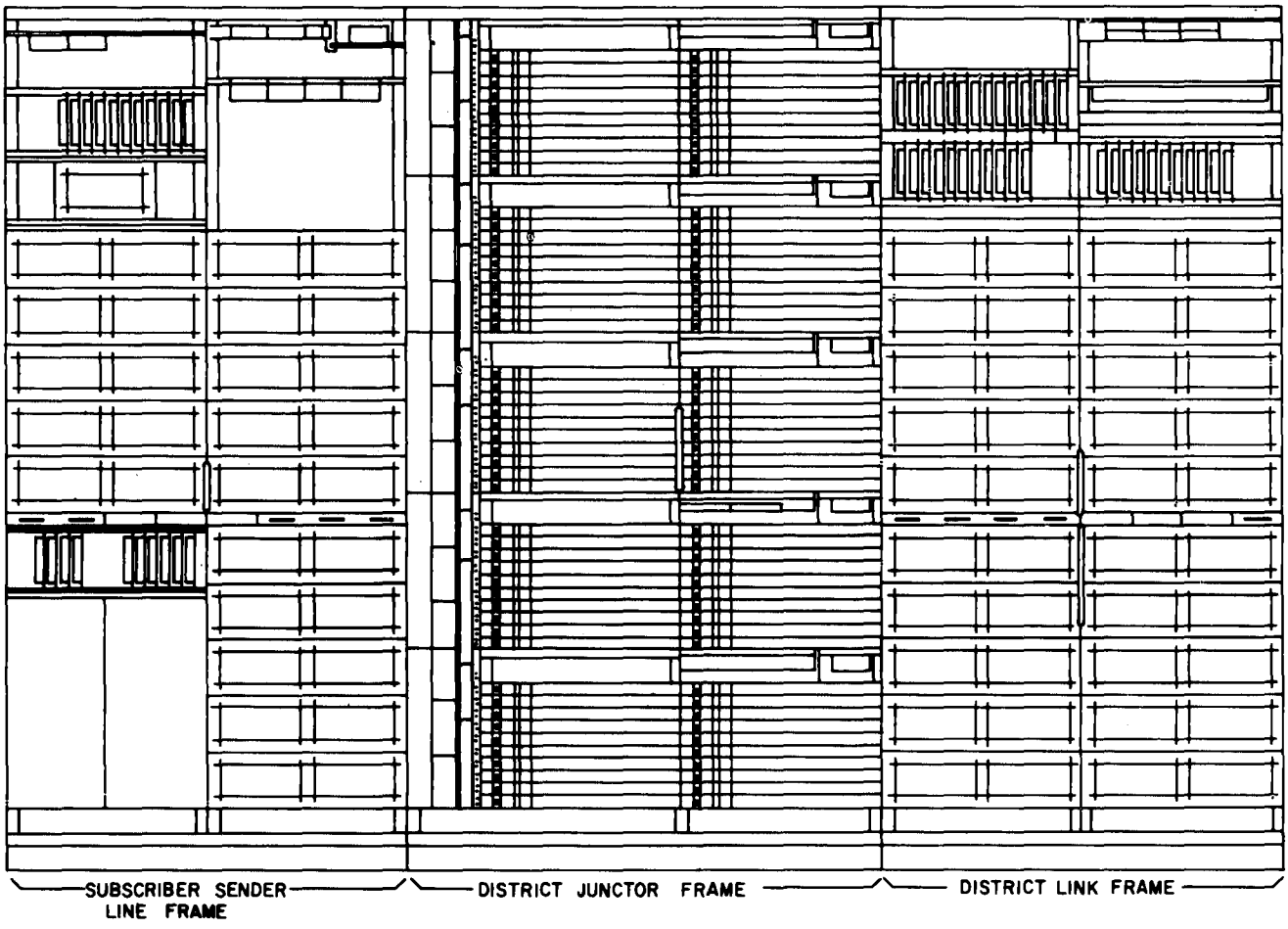

Fig. 1—Regular Subscriber Sender Link, Regular District Junctor, and District Link Frames

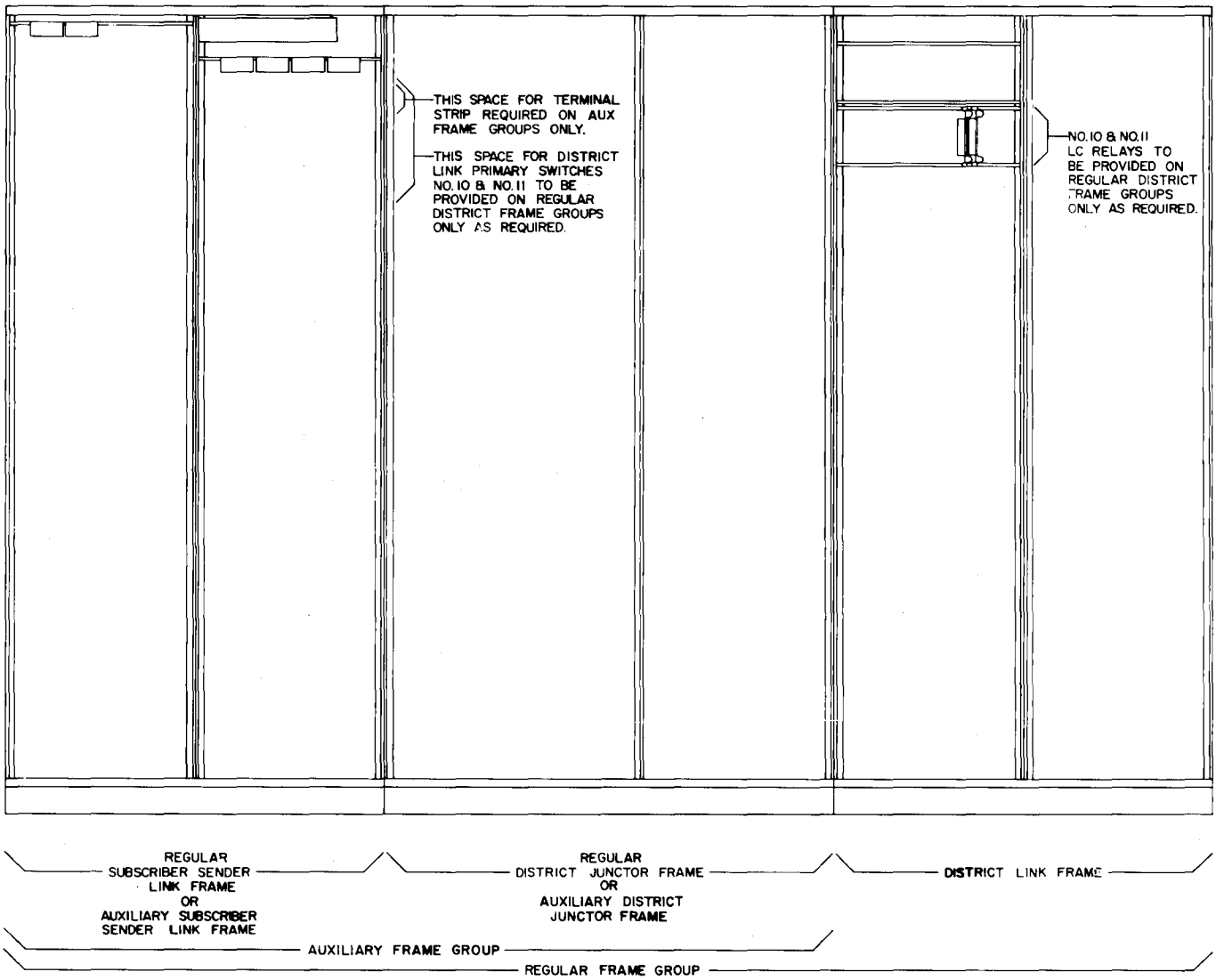

Fig. 2—Regular District Frame Group and an Auxiliary District Frame Group

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	RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
ED-25048-30	AT&TCo Std	District Junctor Frame Assembly	ED-25048-30 ED-25051-12	— SD-25204-01
ED-92171-71	AT&TCo Std	Talking Battery Supply Frame Filter	ED-92171-71	SD-95571-01
J27551A	A&M Only	Flat-Rate and MRI District Junctor Unit — Without Nonzone Timing and Zone Registration	J27551A-( )	SD-25020-01 SD-25204-01
J27551B	A&M Only	Flat-Rate and MRI District Junctor Unit — With Nonzone Timing and Zone Registration	J27551B-( )	SD-25020-01 SD-25204-01
J27551C	A&M Only	Message Rate 2-Party District Junctor Unit — Without Nonzone Timing and Zone Registration	J27551C-( )	SD-25020-01 SD-25204-01
J27551D	A&M Only	Message Rate 2-Party District Junctor Unit — With Nonzone Timing and Registration	J27551D-( )	SD-25020-01 SD-25204-01
J27551E	A&M Only	Coin District Junctor Unit — Seizure of Coin Supervisory Circuit Omitted on Operator Class Calls	J27551E-( )	SD-25210-01 SD-25204-01
J27551F	AT&TCo Std	Keypulsing District Junctor Unit	J27551F-( )	SD-25021-01 SD-25204-01
J27551J	Special	Coin District Junctor Unit — Arranged for Conversion to Noncoin	J27551J-( )	SD-25323-02 SD-25204-01
J27551K	AT&TCo Std	Dialing A Switchboard Pulsing District Junctor Unit	J27551K-( )	SD-25481-01 SD-25204-01
J27551L	AT&TCo Std	Coin District Junctor Unit Arranged for Seizure of Coin Supervisory Circuit on All Calls	J27551L-( )	SD-25210-01 SD-25204-01
J27551M	AT&TCo Std	Interrupter Checking Unit for District Junctors	J27551M-( )	SD-25268-01
J27551N	AT&TCo Std	Automatic Message Accounting District Junctor Unit or Flat-Rate District Junctor Unit Arranged for Future Automatic Message Accounting	J27551N-( )	SD-25620-01 SD-25204-01

EQUIPMENT CODE	RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
J27551P	AT&TCo Std	Message Rate Individual District Junctor Unit — Without Nonzone Timing and Zone Registration — Arranged for Conversion to Automatic Message Accounting	J27551P-( )	SD-25620-01 SD-25620-02 SD-25204-01
J27551R	AT&TCo Std	Message Rate Individual District Junctor Unit — With Nonzone Timing and Zone Registration — Arranged for Conversion to Automatic Message Accounting	J27551R-( )	SD-25620-01 SD-25620-02 SD-25204-01
J27551S	AT&TCo Std	Message Rate 2-Party District Junctor Unit — Without Nonzone Timing and Zone Registration — Arranged for Conversion to Automatic Message Accounting	J27551S-( )	SD-25620-01 SD-25620-02 SD-25204-01
J27551T	AT&TCo Std	Message Rate 2-Party District Junctor Unit — With Nonzone Timing and Zone Registration — Arranged for Conversion to Automatic Message Accounting	J27551T-( )	SD-25620-01 SD-25620-02 SD-25204-01
J27551U	AT&TCo Std	Step-by-Step District Junctor Unit	J27551U-( )	SD-25868-01 SD-25204-01
J27551V	AT&TCo Std	Flat-Rate and MRI District Junctor Unit — Without Nonzone Timing and Zone Registration	J27551V-( )	SD-26201-01 SD-25204-01
J27551W	AT&TCo Std	Flat-Rate and MRI District Junctor Unit — With Nonzone Timing and Zone Registration	J27551W-( )	SD-26201-01 SD-25204-01
J27551X	AT&TCo Std	Message Rate 2-Party District Junctor Unit — Without Nonzone Timing and Zone Registration	J27551X-( )	SD-26201-01 SD-25204-01
J27551Y	AT&TCo Std	Message Rate 2-Party District Junctor Unit — With Nonzone Timing and Zone Registration	J27551Y-( )	SD-26201-01 SD-25204-01
J27551AA	AT&TCo Std	Fuse Panel Unit	J27551AA-( )	SD-25204-01

Circuit Schematic Index

CIRCUIT DRAWING	J27551 EQPT CODE
SD-25020-01	A, B, C, D
SD-25021-01	F
SD-25204-01	A, B, C, D, E, F, J, K, L, N P, R, S, T, U, V, W, X, Y, AA, ED-25051-12
SD-25210-01	E, L
SD-25268-01	M
SD-25323-01	J
SD-25481-01	K
SD-25620-01	N, P, R, S, T
SD-25620-02	P, R, S, T
SD-25868-01	U
SD-26201-01	V, W, X, Y
SD-95571-01	ED-92171-71

2. SUPPLEMENTARY INFORMATION

816-000-000—No. 1 Crossbar System Index
J21553—816-722-150—Zone Registration Equipment
J23051—816-024-150—Miscellaneous Frame Equipment
J27053—816-401-150—District Junctor Grouping Frame
J86724—22-volt ac Supply Units
J99229—816-721-151—Dial Coin Zone Trunk Frame
J99226—Battery Filters
Floor Plan Data—Section 9.1, Sheet 4
Floor Plan Data—Section 9.1, Sheet 82

3. DRAWINGS

Keysheet

SD-25000-01—No. 1 Crossbar System

Framework

ED-25020-01—Miscellaneous Mounting Details and Cable Brackets
ED-25021-53—Jack, Key, and Lamp Panels
ED-25023-14,-15—Frame Details
ED-95131-10—Fuse Panel Assembly
ED-25028-01—Relay Rack Unit Assembly
ED-25040-51—Unit Jack Panel
ED-25046-50—Unit Framework Assembly
ED-25048-30—Frame Assembly

Equipment

ED-25051-12—District Junctor Frame Assembly and Equipment
ED-25051-13—AMA-District Junctor Unit Transition—Equipment and Modification Material For Modifying non-AMA District Junctors to AMA Operation
ED-25212-10—Designation Cards
ED-92171-( )—Talking Battery Supply Frame Filter

Wiring and Cabling

ED-25047-10—Unit Local Cable
ED-25160-10—Cabling Schematic and Switchboard Cable Details for District Junctors
ED-25257-10—Typical Distribution Diagram—District Junctors to Line Link Frames
ED-25346-14,15,16,-17—Method of Running Power Feeders
ED-91601-01—Cabling Plan—Horizontal Local Wiring—Units Using 224-type Terminal Strips
ED-25346-13,-17—Method of Connecting Talking Battery Supply Filters

4. EQUIPMENT

ED-25048-30—District Junctor Frame Assembly

Group 1—Assembly for one district junctor frame
Group 2—Assembly for one auxiliary district junctor frame.

ED-92171-71—Talking Battery Supply Frame Filter

Group 6—One filter (See Note A).

Note

A. One talking battery filter shall be furnished per district junctor frame.

J27551A—A&M Only—Flat-Rate and MRI District Junctor Unit—Without Nonzone Timing and Zone Registration

Equipment—J27551A-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits (see 5.09).

	WIRE	EQUIP	NOTES
Dist Junctor Ckt, SD-25020-01: Fig. 1, B, C, & D (Y Wiring Only)	20	0	
Dist Junctor Auto. Rls Ckt, SD-25020-01: Fig. 2	1	1	
Chg Interrupter Rel Ckt, SD-25020-01: Fig. 3	2	2	
Misc Ckt, SD-25204-01: Fig. 3, 5, 8, 13, & 16	1	As Spec	

List 2—Equipment, per SD-25020-01, Fig. 1, B, and C, required in addition to list 1 for one district junctor arranged for flat-rate service.

List 3—Equipment, per SD-25020-01, Fig. 1, B, and D, required in addition to list 1 for one district junctor arranged for MRI service.

Notes

A. This unit, equipped with district junctors per list 2, will provide flat-rate service, either individual or party, without nonzone timing or zone registration. Equipped with district junctors per list 3, it will provide MRI service without zone timing or zone registration. No wiring is provided for nonzone timing.

B. Provide ZB wiring per SD-25020-01 when calling line identification is required.

J27551B—A&M Only—Flat-Rate and MRI District Junctor Unit—With Nonzone Timing and Zone Registration

Equipment—J27551B-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits (see 5.09).

	WIRE	EQUIP	NOTES
No. 51A Drive for Timers SD-25020-01: Fig. 4 (Note B)		As Req	
Dist Junctor Ckt, SD-25020-01: Fig. 1, B, C, D, & E (X & Y Wiring)	20	0	
Dist Junctor Auto. Rls Ckt, SD-25020-01: Fig. 2	1	1	
Chg Interrupter Rel Ckt, SD-25020-01: Fig. 3	2	2	
Misc Ckt, SD-25204-01: Fig. 3, 5, 8, 13, & 16	1	As Spec	

List 2—Equipment, per SD-25020-01, Fig. 1, B, and C, required in addition to list 1 for one district junctor arranged for flat-rate service.

List 3—Equipment, per SD-25020-01, Fig. 1, B, and D, required in addition to list 1 for one district junctor arranged for MRI service without nonzone timing.

List 4—Equipment, per SD-25020-01, Fig. 1, B, and E, required in addition to list 1 for one district junctor arranged for MRI service with nonzone timing.

List 5—Special—Apparatus per SD-25020-01, ZC option, required in addition to list 1 for one district junctor when operation with a Message Charging System is required.

Notes

A. This unit, equipped with district junctors per list 2, will provide flat-rate service, with zone registration if required. Equipped with junctors per list 3, it will provide MRI service with zone registration but not nonzone timing. Equipped with junctors per list 4 it will provide MRI service with either or both nonzone timing and zone registration. The unit local cable furnishes wiring for nonzone timing and zone registration. The unit offers the possibility of its use for flat-rate service either individual or party, initially, with later conversion by the addition of apparatus to MRI service, nonzone timing or zone registration.

B. The 51A drive shall be furnished when nonzone timing is required. The 1A timers shall be furnished in accordance with the number of equipped junctors on the unit.

C. When zone registration is required, remove straps (Y wiring) between the individual punchings 18 and 25 and between 19 and 26 for each circuit on the vertical terminal strip.

D. Provide ZB wiring per SD-25020-01 when calling line identification is required.

J27551C—A&M Only—Message Rate 2—Party District Junctor Unit—Without Nonzone Timing and Zone Registration

Equipment—J27551C-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits (see 5.09).

	WIRE	EQUIP	NOTES
Dist Junctor Ckt, SD-25020-01:			
Fig. 1, A, B, C, & D (Y Wiring Only)	20	0	
Dist Junctor Auto. Rls Ckt, SD-25020-01:			
Fig. 2	1	1	
Chg Interrupter Rel Ckt, SD-25020-01:			
Fig. 3	2	2	
Misc Ckt, SD-25204,01:			
Fig. 3, 5, 8, 13, & 16	1	As Spec	

List 2—Equipment, per SD-25020-01, Fig. 1, A, and D, required in addition to list 1 for one district junctor arranged for message rate 2-party service.

List 3—Equipment, per SD-25020-01, Fig. 1, B, and C, required in addition to list 1 for one district junctor arranged for flat-rate service.

Notes

A. This unit, equippped with district junctors per list 2, will provide message rate 2-party service without nonzone timing or zone registration. Equipped with district junctors per list 3, it will provide flat-rate service, either individual or party, without nonzone timing or zone registration. No wiring is provided for either nonzone timing or zone registration but the unit may be converted from flat-rate service to message rate 2-party by the addition of two relays per district junctor.

B. Provide ZB wiring per SD-25020-01 when calling line identification is required.

J27551D—A&M Only—Message Rate 2—Party District Junctor Unit—With Nonzone Timing and Zone Registration

Equipment—J27551D-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits (see 5.09).

	WIRE	EQUIP	NOTES
No. 51A Drive for Timers, SD-25020-01:			
Fig. 4 (Note B)		As Reqd	
Dist Junctor Ckt, SD-25020-01:			
Fig. 1, A, B, C, D, & E (X & Y Wiring)	20	0	
Dist Junctor Auto. Rls Ckt, SD-25020-01:			
Fig. 2	1	1	
Chg Interrupter Rel Ckt, SD-25020-01:			
Fig. 3	2	2	
Misc Ckt, SD-25204-01:			
Fig. 3, 5, 8, 13, & 16	1	As Spec	

List 2—Equipment, per SD-25020-01, Fig. 1, A, and D, required in addition to list 1 for one district junctor arranged for message rate 2-party service without nonzone timing.

List 3—Equipment, per SD-25020-01, Fig. 1, A, and E, required in addition to list 1 for one district junctor arranged for message rate 2-party service with nonzone timing.

List 4—Equipment, per SD-25020-01, Fig. 1, A, and C, required in addition to list 1 for one district junctor arranged for 2-party flat-rate service with zone registration.

List 5—Equipment, per SD-25020-01, Fig. 1, B, and C, required in addition to list 1 for one district junctor arranged for flat-rate service.

List 6—Special—Apparatus per SD-25020-01, ZC option, required in addition to list 1 for one district junctor when operation with a Message Charging System is required.

Notes

A. While this unit is intended for use with 2-party message rate service with zone registration or nonzone timing, universal wiring is furnished permitting its use with any arrangement of flat-rate or message-rate service. Equipped with district junctors per list 2, the unit furnishes message-rate 2-party service without nonzone timing but with zone registration optional. Equipped with district junctors per list 3, it furnishes message-rate 2-party service with either or both nonzone timing and zone registration. Equipped with district junctors per list 4, 2-party lines may receive flat-rate service on nonzone calls while being charged on zone calls. Equipped with junctors per list 5, the unit may be used with individual or party flat-rate service where nonzone timing and zone registration are not required, initially, with the option of adding apparatus later to furnish message rate 2-party service with nonzone timing and zone registration if required. List 5 may be used for individual flat-rate service with zone registration.

B. The 51A drive shall be furnished when nonzone timing is required. The 1A timers shall be furnished in accordance with the number of equipped junctors on the unit.

C. When zone registration is required, remove straps (Y wiring) between the individual punchings 18 and 25 and between 19 and 26 for each circuit on the vertical terminal strip.

D. Provide ZB wiring per SD-25020-01 when calling line identification is required.

J27551E—A&M Only—Coin District Junctor Unit—Seizure of Coin Supervisory Circuit Omitted on Operator Class Calls

Equipment—J27551E-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits.

	WIRE	EQUIP	NOTES
No. 51A Drive for Timers, SD-25210-01: Fig. 4 (Note B)		As Reqd	
Dist Junctor Ckt, SD-25210-01: Fig. 1, A, B, C, & F	20	0	
Dist Junctor Auto. Rls Ckt, SD-25210-01: Fig. 2	1	1	
Chg Interrupter Rel Ckt, SD-25210-01: Fig. 3	2	2	
Misc Ckt, SD-25204-01: Fig. 3, 5, 8, 13, & 16	1	As Spec	

List 2—Equipment, per SD-25210-01, Fig. 1, B, C, and F, required in addition to list 1 for one district junctor not arranged for timing of nonzone calls or seizure of coin supervisory circuit on attendant class calls.

List 3—Equipment, per SD-25210-01, Fig. 1, A, C, and F, required in addition to list 1 for one district junctor arranged for timing of nonzone calls—not arranged for seizure of coin supervisory circuit on attendant class calls.

Notes

A. This coin district junctor unit includes wiring for timing of nonzone calls and may be used for either coin-first or dial-tone-first coin

service. It should be equipped with district junctors per list 2 when nonzone timing is not required and per list 3 when nonzone timing is required. Both lists are arranged to operate a customer line message register when provided.

B. The 51A drive shall be furnished only when nonzone timing is required. The 1B timers shall be furnished in accordance with the number of equipped junctors on the unit.

C. This unit must be modified to agree with J27551L unit in order for it to work with TSPS with or without ANI which requires the coin supervisory circuit to be seized on all calls.

D. Provide ZA wiring per SD-25210-01 when calling line identification is required.

J27551F—AT&TCo Std—Keypulsing District Junctor Unit

Equipment—J27551F-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits.

	WIRE	EQUIP	NOTES
Dist Junctor Ckt, SD-25021-01:	20	0	
Misc Ckt, SD-25204-01: Fig. 13	1	1	

List 2—Equipment, per SD-25021-02, required in addition to list 1 for one district junctor for use with 13C, 13D, 15C, or 15D switchboard.

List 3—Equipment, per SD-25021-01, less Z apparatus required in addition to list 1 for one district junctor for use with 3C or 3CL switchboard.

Note

A. The jack panel shall be drilled only for the FC1 and FC2 lamps.

J27551J—Special—Coin District Junctor Unit Arranged for Conversion to Noncoin

Equipment—J27551J-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits.

	WIRE	EQUIP	NOTES
No. 51A Drive for Timers, SD-25323-01: Fig. 4 (Note B)		As Reqd	
Dist Junctor Ckt, SD-25323-01: Fig. 1, A, B, F, G, & I with N and Q Wiring	20	0	
Dist Junctor Auto. Rls Ckt, SD-25323-01: Fig. 2	1	1	
Chg Interrupter Rel Ckt, SD-25323-01: Fig. 3	2	2	
Misc Ckt, SD-25204-01: Fig. 16	1	As Spec	

List 2—A&M Only—Equipment, per SD-25323-02, Fig. 1, B, F, and I with Q apparatus, required in addition to list 1 for one district junctor not arranged for timing of nonzone calls or seizure of coin supervisory circuit on attendant class calls.

List 3—A&M Only—Equipment, per SD-25323-02, Fig. 1, A, F, and I with Q apparatus, required in addition to list 1 for one district junctor arranged for timing of nonzone calls but not arranged for seizure of coin supervisory circuit on attendant class calls.

List 6—Equipment, per SD-25323-02, Fig. 1, B, F, and G, required in addition to list 1 for one district junctor arranged for seizure of coin supervisory circuit on all calls but not arranged for timing of nonzone messages.

List 7—Equipment, per SD-25323-02, Fig. 1, A, F, and G, required in addition to list 1 for one district junctor arranged for seizure of coin supervisory circuit on all calls and for timing of nonzone messages.

Notes

A. This unit is arranged for initial coin service, per SD-25323-02, either coin-first or dial-tone-first, with provision for converting to noncoin service per SD-25323-01. It should be equipped with district junctors per list 2 or 6 when nonzone timing is not required and per list 3 or 7 when nonzone timing is required. These lists are arranged to operate a customer line message register when provided.

B. The 51A drive shall be furnished when nonzone timing is required. The 1B timers shall be furnished in accordance with the number of equipped junctors on the unit.

C. In converting coin circuits per SD-25323-02 to noncoin service, a supplementary local cable shall be added to each district junctor unit. This supplementary local cable shall include wiring, per SD-25323-01, Fig. 1, A, B, C, D, E, and J with X and Y wiring as required for the following features.

1. Flat-rate, with or without zone registration.
2. Individual-message rate, with or without nonzone timing and zone registration.
3. Two-party message rate with or without nonzone timing.
4. Two-party flat rate, arranged for zone registration.

Equipment for the above features shall be furnished in accordance with ED-25051-03.

D. Switchboard cable shall be provided for the M2 lead from the coin district junctor terminal strip to the DJGF for use after conversion to 2-party service.

J27551K—AT&TCo Std—Dialing A Switchboard Pulsing District Junctor Unit

Equipment—J27551K-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits.

	WIRE	EQUIP	NOTES
District Junctor Ckt, SD-25481-01:	20	0	
Misc Ckt, SD-25204-01: Fig. 3, 5, 8, 13, & 16	1	As Spec	

List 2—Equipment per SD-25481-01, required in addition to list 1 for one district junctor.

Note

A. The jack panel shall be drilled only for the 20A and FA lamps or the FC1 and FC2 lamps as required.

J27551L—AT&TCo Std—Coin District Junctor Unit Arranged for Seizure of Coin Supervisory Circuit on All Calls

Equipment—J27551L-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits.

	WIRE	EQUIP	NOTES
No. 51A Drive for Timers, SD-25210-01: Fig. 4 (Note B)		As Reqd	
Dist Junctor Ckt, SD-25210-01: Fig. 1, A, B, F, &, I with W & R Wiring	20	0	
Timed Release Ckt, SD-25210-01: Fig. 2	1	1	
CH Relay Delay Ckt, SD-25210-01: Fig. 3	2	2	
Misc Ckt, SD-25204-01: Fig. 3, 5, 8, 13, & 16	1	As Spec	

List 4—Wiring to be connected and equipment, per SD-25210-01, Fig. 1, B, F, and I with R wiring, and ZB option, required in addition to list 1 for one district junctor not arranged for timing of nonzone messages.

List 5—Wiring to be connected and equipment, per

SD-25210-01, Fig. 1, A, F, and I with R wiring, and ZB option, required in addition to list 1 for one district junctor arranged for timing of nonzone messages.

Notes

A. This coin district junctor unit includes wiring for nonzone timing and it may be used for either coin-first or dial-tone-first service. The junctors are arranged to seize a coin supervisory circuit on all calls including attendant class calls. The unit should be equipped with district junctors per list 4 when nonzone timing is not required and per list 5 when nonzone timing is required. Both lists are arranged to operate a customer line message register when provided.

B. The 51A drive shall be furnished when nonzone timing is required. The 1B timers shall be furnished in accordance with the number of equipped junctors.

C. Provide ZA wiring per SD-25210-01 when calling line identification is required.

J27551M—AT&TCo Std—Interrupter Checking Unit for District Junctors

Equipment—J27551M-( )

List 1—Framework, assembly, wiring, and common equipment for one unit arranged for six test relay circuits and three alarm lamp circuits.

	WIRE	EQUIP	NOTES
Alarm Timing Interrupter Ckt, SD-25268-01:			
Fig. 2	1	1	
Test Relay Ckt, SD-25268-01:			
Fig. 3	6	2	
Alarm Lamp Ckt, SD-25268-01:			
Fig. 5	3	1	

List 2—Wiring and equipment, per SD-25268-01, Fig. 1, required in addition to list 1 for one alarm timing circuit (furnish on first checking unit only of each originating marker group).

List 3—Equipment, per SD-25268-01, Fig. 3, required in addition to list 1 for two additional test relay circuits.

List 4—Equipment, per SD-25268-01, Fig. 5, required in addition to list 1 for one additional alarm circuit.

Notes

A. The capacity of this unit is three district or auxiliary district junctor frames.

B. This unit is mounted on the miscellaneous frame.

J27551N—AT&TCo Std—Automatic Message Accounting District Junctor Unit or Flat-rate District Junctor Unit Arranged for Future Automatic Message Accounting

Equipment—27551N-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits.

	WIRE	EQUIP	NOTES
Dist Junctor Ckt, SD-25620-01:			
Fig. 1	20	0	
Timed Release Ckt, SD-25620-01:			
Fig. 2	2	2	
Charge Delay and Recorder Cancellation Ckt, SD-25620-01:			
Fig. 4	2	2	
Misc Ckt, SD-25204-01:			
Fig. 3, 5, 8, 13, & 16	1	As Spec	

List 2—Equipment, per SD-25620-01, Fig. 1, required in addition to list 1 for one AMA district junctor or one flat-rate district junctor arranged for future AMA.

Note

A. Provide ZE wiring per SD-25620-01 when calling line identification is required.

J27551P—AT&TCo Std—Message Rate Individual District Junctor Unit—Without Nonzone Timing and Zone Registration—Arranged for Conversion to Automatic Message Accounting

Equipment—J27551P-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits.

	WIRE	EQUIP	NOTES
Dist Junctor Ckts, SD-25620-01: Fig. 1 and SD-25620-02: Fig. 1, B & C (Z Wiring Only)	20	0	
Timed Release Ckt, SD-25620-01: Fig. 2 or SD-25620-02: Fig. 2	2	2	
Chg Delay and Recorder Cancellation Ckt, SD-25620-01: Fig. 4 or SD-25620-02: Fig. 4	2	2	
Misc Ckt, SD-25204-01: Fig. 3, 5, 8, 13, & 16	1	As Spec	

List 2—Equipment, per SD-25620-02, Fig. 1, B, and C, required in addition to list 1 for one district junctor arranged for MRI service.

Notes

A. This unit shall be wired universally in accordance with district junctor circuits SD-25620-01 and SD-25620-02 and connected initially in accordance with SD-25620-02.

B. Provide ZE wiring per SD-25620-01 or P wiring per SD-25620-02 when calling line identification is required.

J27551R—AT&TCo Std—Message Rate Individual District Junctor Unit—With Nonzone Timing and Zone Registration—Arranged for Conversion to Automatic Message Accounting

Equipment—J27551R-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits.

	WIRE	EQUIP	NOTES
No. 51A Drive Timers, SD-25620-02: Fig. 6 (Note C)		As Reqd	
Dist Junctor Ckt, SD-25620-01: Fig. 1 and SD-25620-02: Fig. 1, B, C, & D (Y and Z Wiring)	20	0	
Timed Release Ckt, SD-25620-01: Fig. 2 or SD-25620-02: Fig. 2	2	2	
Chg Delay and Recorder Cancellation Ckt, SD-25620-01: Fig. 4 or SD-25620-02: Fig. 4	2	2	
Misc Ckt, SD-25204-01: Fig. 3, 5, 8, 13, & 16	1	As Spec	

List 2—Equipment, per SD-25620-02, Fig. 1, B, and C, required in addition to list 1 for one district junctor arranged for MRI service without nonzone timing.

List 3—Equipment, per SD-25620-02, Fig. 1, B, and D, required in addition to list 1 for one district junctor arranged for MRI service with nonzone timing.

List 4—Special—Apparatus per SD-25620-02, N option, required in addition to list 1 for one district junctor circuit when operation with a special Message Charging System is required.

List 5—Special—Equipment and wiring per SD-25620-02, two Fig. F required in addition

to list 4 to serve 100 district junctor circuits, one list 5 per frame (without list 3).

Notes

A. This unit shall be wired universally in accordance with district junctor circuits, SD-25620-01 and SD-25620-02, and connected initially in accordance with SD-25620-02.

B. While this unit, equipped with list 2, is intended primarily for initial message-rate individual service, it is also suitable for flat-rate individual service with zone registration. When arranged for zone registration in accordance with Note A, the customers may recieve flat-rate service on nonzone calls and be charged on zone calls.

C. The 51A drive shall be furnished when nonzone timing is required. The 1A timers shall be furnished in accordance with the number of equipped junctors on the unit.

D. When zone registration is required, remove straps (Z wiring) between the individual punchings 18 and 25 and between 19 and 26 for each circuit on the vertical terminal strip.

E. Provide ZE wiring per SD-25620-01 or P wiring per SD-25620-02 when calling line identification is required.

J27551S—AT&TCo Std—Message Rate 2-Party District Junctor Unit—Without Nonzone Timing and Zone Registration—Arranged for Conversion to Automatic Message Accounting

Equipment—J27551S-( )

	WIRE	EQUIP	NOTES
List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits.			
Dist Junctor Ckts, SD-25620-01: Fig. 1 and SD-25620-02: Fig. 1, A, and C (Z Wiring Only)	20	0	
Timed Release Ckt, SD-25620-01: Fig. 2 or SD-25620-02: Fig. 2	2	2	
Chg Delay Recorder Cancellation Ckt, SD-25620-01: Fig. 4 or SD-25620-02: Fig. 4	2	2	
Misc Ckt, SD-25204-01: Fig. 3, 5, 8, 13, & 16	1	As Spec	

List 2—Equipment, per SD-25620-02, Fig. 1, A, and C, required in addition to list 1 for one district junctor arranged for message rate 2-party service.

Notes

A. This unit shall be wired universally in accordance with district junctor circuits, SD-25620-01 and SD-25620-02, and connected initially in accordance with SD-25620-02.

B. Provide ZE wiring per SD-25620-01 or P wiring per SD-25620-02 when calling line identification is required.

J27551T—AT&TCo Std—Message Rate 2-Party District Junctor Unit—With Nonzone Timing and Zone Registration—Arranged for Conversion to Automatic Message Accounting

Equipment—J27551T-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits.

	WIRE	EQUIP	NOTES
No. 51A Drive Timers SD-25620-02: Fig. 6, (Note C)		As Reqd	
Dist Junctor Ckt, SD-25620-01: Fig. 1 and SD-25620-02: Fig. 1, A, C, & D (Y and Z Wiring)	20	0	
Timed Release Ckt, SD-25620-01: Fig. 2 or SD-25620-02: Fig. 2	2	2	
Chg Delay and Recorder Cancellation Ckt, SD-25620-01: Fig. 4 or SD-25620-02: Fig. 4	2	2	
Misc Ckt, SD-25204-01: Fig. 3, 5, 8, 13, & 16	1	As Spec	

List 2—Equipment, per SD-25620-01, Fig. 1, A, and C, required in addition to list 1 for one district junctor arranged for message rate 2-party service without nonzone timing.

List 3—Equipment, per SD-25620-02, Fig. 1, A, and D, required in addition to list 1 for one district junctor arranged for message rate 2-party service with nonzone timing.

List 4—Special—Apparatus per SD-25620-02, N option, required in addition to list 1 for one district junctor circuit when operation with a special Message Charging System is required.

List 5—Special—Equipment and wiring per SD-25620-02, two Fig. F required in addition to list 4 to serve 100 district junctor circuits, one list 5 per frame (without list 3).

Notes

A. This unit shall be wired universally in accordance with district junctor circuits, SD-25620-01 and SD-25620-02, and connected initially in accordance wih SD-25620-02.

B. While this unit, equipped with list 2, is intended primarily for initial message rate 2-party service, it is also suitable for 2-party flat-rate service with zone registration. When arranged for zone registration in accordance with Note A, the customers may receive flat-rate service on nonzone calls and be charged on zone calls.

C. The 51A drive shall be furnished only when nonzone timing is required. The 1A timers shall be furnished in accordance with the number of equipped junctors on the unit.

D. When zone registration is required, remove straps (Z wiring) between the individual punchings 18 and 25 and between 19 and 26 for each circuit on the vertical terminal strip.

E. Provide ZE wiring per SD-25620-01 or P wiring per SD-25620-02 when calling line identification is required.

J27551U—AT&TCo Std—Step-by-Step District Junctor Unit

Equipment—J27551U-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits (see Note A).

	WIRE	EQUIP	NOTES
Dist Junctor Ckt, SD-25868-01: Fig. 1, D, E, G, & H	20	0	
Dist Junctor Auto. Rls Ckt, SD-25868-01: Fig. 2	1	0	
Chg Interrupter Rel Ckt, SD-25868-01: Fig. 4	2	0	
Misc Ckt, SD-25204-01: Fig. 3, 5, 8, 13, & 16	1	As Spec	

List 2—Equipment, per SD-25868-01, Fig. 1 and E, required in addition to list 1 for one district junctor not arranged for timed release.

List 3—Equipment, per SD-25868-01, Fig. 1 and D, required in addition to list 1 for one district junctor arranged for timed release.

List 4—Equipment, per SD-25868-01, one Fig. 2 and two Fig. 4, required in addition to list 1 to arrange one unit for timed release district junctors.

List 5—Equipment, per SD-25868-01, Fig. G,

required in addition to list 2 or 3 to arrange one district junctor for dial-tone start.

List 6—Equipment, per SD-25868-01, Fig. H, required in addition to list 2 or 3 to arrange one district junctor for wink start.

Notes

A. Universal wiring shall be provided in each district junctor for Fig. D and E, and Fig. G and H of SD-25868-01.

B. The 245C jacks shall be used for the MB jacks of this circuit.

C. Provide M wiring per SD-25868-01 when calling line identification is required.

J27551V—AT&TCo Std—Flat-Rate and MRI District Junctor Unit—Without Nonzone Timing and Zone Registration

Equipment—J27551V-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits (see 5.08 and 5.09).

	WIRE	EQUIP	NOTES
Dist Junctor Ckt, SD-26201-01:			
Dist Junctor, App Fig. 1 W Option, Y Wiring	20	0	
Dist Junctor Timed Rls, App Fig. 2	1	1	
Chg Rel Delay Ckt, App Fig. 3	1	1	
Misc Ckt, SD-25204-01: Fig. 3, 5, 8, 13, & 16	1	0	

List 2—Equipment, per SD-26201-01, App Fig. 1, required in addition to list 1 for one district junctor arranged for flat-rate service.

List 3—Equipment, per SD-26201-01, App Fig. 1, and W option required in addition to list 1 for one district junctor arranged for MRI service.

List 5—Talking battery filter fuse alarm equipment per SD-25204-01, Fig. 13 required on fifth unit of each district junctor frame when this unit is equipped.

List 6—Talking battery filter fuse alarm equipment, per SD-25204-01, Fig. 13, required on first unit of each district junctor frame for which list 5 has not been furnished.

List 7—Fuse alarm equipment per SD-25204-01, Fig. 16, required on each district junctor unit, FA lamp only.

Notes

A. This unit, equipped with district junctors per list 2, will provide flat-rate service, either individual or party, without nonzone timing or zone registration. Equipped with district junctors per list 3, it will provide MRI service without nonzone timing or zone registration. No wiring is provided for either nonzone timing or zone registration.

B. The wire spring relay district junctor circuits require a protective network on the S lead when these junctors are used in conjunction with junctors associated with auxiliary district frames since more than five hold magnets may be parallel under this condition. This protection is for the T relay make-contacts and is covered on SD-25601-01, Issue 5D, R option.

C. Provide P wiring per SD-26201-01 when calling line identification is required.

J27551W—AT&TCo Std—Flat-Rate and MRI District Junctor Unit—With Nonzone Timing and Zone Registration

Equipment—J27551W-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits (see 5.08 and 5.09).

	WIRE	EQUIP	NOTES
Dist Junctor Ckt, SD-26201-01:			
Dist Junctor, App Fig. 1 V & W Options, X & Y Wiring	20	0	
Dist Junctor Timed Rls, App Fig. 2	1	1	
Chg Rel Delay Ckt, App Fig. 3	1	1	
Misc Ckt, SD-25204-01: Fig. 3, 5, 8, 13, & 16	1	0	

List 2—Equipment, per SD-26201-01, App Fig. 1, required in addition to list 1 for one district junctor arranged for flat-rate service.

List 3—Equipment, per SD-26201-01, App Fig. 1, and W option required in addition to list 1 for one district junctor arranged for MRI service without nonzone timing.

List 4—Equipment, per SD-26201-01, App Fig. 1, and V option required in addition to list 1 for one district junctor arranged for MRI service with nonzone timing.

List 6—Talking battery filter fuse alarm equipment, per SD-25204-01, Fig. 13, required on fifth unit of each district junctor frame when this unit is equipped.

List 7—Talking battery filter fuse alarm equipment, per SD-25204-01, Fig. 13, required on first unit of each district junctor frame for which list 6 has not been furnished.

List 8—Common timing equipment, per SD-26201-01, App Fig. 4, required on units equipped for nonzone timing.

List 9—Special—Apparatus per SD-26201-01, N option, required in addition to list 1 for one district junctor circuit when operation with a special Message Charging System is required.

List 10—Fuse alarm equipment per SD-25204-01, Fig. 16, required on each district junctor unit, FA lamp only.

Notes

A. This unit, equipped with district junctors per list 2, will provide flat-rate service with zone registration if required. Equipped with junctors per list 3, it will provide MRI service with zone registration but not nonzone timing. Equipped with junctors per list 4 it will provide MRI service with either or both nonzone timing and zone registration. The unit local cable furnishes wiring for nonzone timing and zone registration and the unit offers the possibility of its use for flat-rate service, either individual or party, initially, with later conversion, by the addition of apparatus to MRI service, nonzone timing, or zone registration.

B. When zone registration is required, remove straps (Y wiring) between the individual punchings 18 and 25 and between 19 and 26 for each circuit, on the vertical terminal strip.

C. The wire spring relay district junctor circuits require a protective network on the S lead when these junctors are used in conjunction with junctors associated with auxiliary district frames since more than five hold magnets may be in parallel under this condition. This protection is for the T relay make-contacts and is covered on SD-25601-01, Issue 5D, R option.

D. Provide P wiring per SD-26201-01 when calling line identification is required.

J27551X—AT&TCo Std—Message Rate 2-Party District Junctor Unit—Without Nonzone Timing and Zone Registration

Equipment—J27551X-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits (see 5.08 and 5.09).

	WIRE	EQUIP	NOTES
Dist Junctor Ckt, SD-26201-01:			
Dist Jtr, App Fig. 1, W & Z Options, Y Wiring	20	0	
Dist Jtr Timed Rls, App Fig. 2	1	1	
Chg Rel Delay Ckt, App Fig. 3	1	1	
Misc Ckt, SD-25204-01: Fig. 3, 5, 8, 13, & 16	1	0	

List 2—Equipment, per SD-26201-01, App Fig. 1 and Z and W options, required in addition to list 1 for one district junctor arranged for message rate 2-party service.

List 3—Equipment, per SD-26201-01, App Fig. 1, required in addition to list 1 for one district junctor arranged for flat-rate service.

List 5—Talking battery filter fuse alarm equipment, per SD-25204-01, Fig. 13, required on fifth unit of each district junctor frame when this unit is equipped.

List 6—Talking battery filter fuse alarm equipment, per SD-25204-01, Fig. 13, required on first unit of each district junctor frame for which list 5 has not been furnished.

List 7—Fuse alarm equipment per SD-25204-01,

Fig. 16, required on each district junctor unit, FA lamp only.

Notes

A. This unit, equipped with district junctors per list 2, will provide message-rate 2-party service without nonzone timing or zone registration. Equipped with district junctors per list 3, it will provide flat-rate service, either individual or party, without nonzone timing or zone registration. No wiring is provided for either nonzone timing or zone registration but the unit may be converted from flat-rate service to message-rate 2-party by the addition of two relays per district junctor.

B. The wire spring relay district junctor circuits require a protective network on the S lead when these junctors are used in conjunction with junctors associated with auxiliary district frames since more than five hold magnets may be in parallel under this condition. This protection is for the T relay make-contacts and is covered on SD-25601-01, Issue 5D, R option.

C. Provide P wiring per SD-26201-01 when calling line identification is required.

J27551Y—AT&TCo Std—Message Rate 2-Party District Junctor Unit—With Nonzone Timing and Zone Registration

Equipment—J27551Y-( )

List 1—Framework, assembly, local cable, and common equipment for one unit of 20 circuits (see 5.08 and 5.09).

	WIRE	EQUIP	NOTES
Dist Junctor Ckt, SD-26201-01:			
Dist Jtr, App Fig. 1, V, W, & Z Options, X & Y Wiring	20	0	
Dist Jtr Timed Rls, App Fig. 2	1	1	
Chg Rel Delay Ckt, App Fig. 3	1	1	
Misc Ckt, SD-25204-01: Fig. 3, 5, 8, 13, & 16	1	0	

List 2—Equipment, per SD-26201-01, App Fig. 1 and W and Z options, required in addition to list 1 for one district junctor arranged for message rate 2-party service without nonzone timing.

List 3—Equipment, per SD-26201-01, App Fig. 1 and V and Z options, required in addition to list 1 for one district junctor arranged for message rate 2-party service with nonzone timing.

List 4—Equipment, per SD-26201-01, App Fig. 1 and Z option, required in addition to list 1 for one district junctor arranged for 2-party flat-rate service on nonzone calls.

List 5—Equipment, per SD-26201-01, App Fig. 1, required in addition to list 1 for one district junctor arranged for flat-rate service.

List 7—Talking battery filter fuse alarm equipment, per SD-25204-01, Fig. 13, required on fifth unit of each district junctor frame when this unit is equipped.

List 8—Talking battery filter fuse alarm equipment, per SD-25204-01, Fig. 13, required on first unit of each district junctor frame for which list 7 has not been furnished.

List 9—Common timing equipment, per SD-26201-01, App Fig. 4, required on units equipped for nonzone timing.

List 10—Special—Apparatus per SD-26201-01, N option, required in addition to list 1 for one district junctor circuit when operation with a special Message Charging System is required.

List 11—Fuse alarm equipment per SD-25204-01, Fig. 16, required on each district junctor unit, FA lamp only.

Notes

A. While this unit is intended for use with 2-party message-rate service with zone registration or nonzone timing, universal wiring is furnished permitting its use with any arrangement of flat-rate or message-rate service. Equipped with district junctors per list 2, the unit furnishes message-rate 2-party service without nonzone timing but with zone registration optional. Equipped with district junctors per list 3, it furnishes message-rate 2-party service with nonzone timing, and zone registration if required. Equipped with district junctors per list 4, 2-party lines may receive flat-rate service on nonzone calls while being charged on zone calls. Equipped with junctors per list 5, the

unit may be used with individual or party flat-rate service where nonzone timing and zone registration are not required, initially, with the option of adding apparatus later to furnish message-rate 2-party service with either nonzone timing or zone registration. List 5 may be used for individual flat-rate service with zone registration.

B. When zone registration is required, remove straps (Y wiring) between the individual punchings 18 and 25 and between 19 and 26 for each circuit on the vertical terminal strip.

C. The wire spring relay district junctor circuits require a protective network on the S lead when these junctors are used in conjunction with junctors associated with auxiliary district frames since more than five hold magnets may be in parallel under this condition. This protection is for the T relay make-contacts and is covered on SD-25601-01, Issue 5D, R option.

D. Provide P wiring per SD-26201-01 when calling line identification is required.

J27551AA—AT&TCo Std—Fuse Panel Unit

Equipment—J27551AA-( )

List 1—Assembly, equipment, and wiring required for one district junctor unit fuse panel per SD-25204-01, Fig. 16 arranged to provide fusing for 20 district junctor circuits.

5. GENERAL NOTES

Equipment

5.01 Keypulsing district junctors shall be limited to one unit per frame in the top position. The remaining district junctors may occupy all five positions. Subscriber district junctor units shall be equipped from the bottom up; dial pulsing and step-by-step junctor units shall be equipped from the top down. Keypulsing, dial pulsing, and step-by-step units should not be located on partially equipped frames; this is to avoid the necessity of furnishing special battery and ground bonding details between unequipped unit positions. Because the second unit from the floor includes the jack panel for the frame miscellaneous circuit, this unit should be equipped on all frames. For maintenance reasons, the preferred locations of units arranged for nonzone timing are in the second, third, and fourth positions in the order named, the first and fifth position being used on frames fully equipped with these units.

5.02 The district junctor units for each class of service should be distributed uniformly over as many district frames as possible and assigned equally to even- and odd-numbered frames. This favors efficient use of the switching paths and facilitates making up the district junctor line link frame multiple pattern.

5.03 A minimum of two district junctor units on two frames is recommended for each class of service. Partially equipped units should have the equipped junctors assigned evenly to the upper and lower-halves of the unit; thus distributing the traffic over the corresponding line link secondary switches and sender link and district link primary switches.

5.04 The 22-volt ac supply unit for the timing motors and associated fuse panels are located on the miscellaneous frame as shown on ED-26746-10 listed in J23051.

5.05 The talking battery filter is furnished once per frame and fastened with brackets to the top of the frame beneath the cable rack as shown on ED-25346-13 and -17. The two elements comprising the filter assembly are cabled to two 20-ampere fuses located on the first and third units from the floor. Battery bus bars are bonded together or battery cables are tapped into so that junctor units 0 and 1 are supplied from one filter element and units 2, 3, and 4 from the second filter element.

5.06 The contact protections for the charge and timed release interrupter circuits associated with the subscriber and step-by-step district junctors are located on the sender link frame. The leads from these networks are carried in the sender link frame local cable to the interrupter lead punchings on the bottom district junctor unit.

5.07 Subscriber noncoin district junctor units J27551P, R, S, and T are arranged for conversion from message register to automatic message accounting operation. When it is required that units, per J27551A, B, C, and D, be modified

for AMA operation, the following procedure is recommended.

(a) Furnish new district junctor units with temporary frameworks wired per SD-25620-01 and fully equipped except for terminal strips, fuse, and jack panels. Furnish one such unit for each existing unit allowed by the telephone company to be out of service during period of transition.

(b) Remove local cable and mounting plates from existing out-of-service units, and substitute the mounting plates and local cable from the new units. Connect local cable to terminal strips, fuse, and jack panels; test the unit and cut in service.

(c) As a bench operation, clean the terminals of the removed relays that are reused and, together with the new relay, reassemble on mounting plates. Assemble mounting plates on the skeleton frameworks released by the installation of the new units. Supply new shop-formed local cables and solder to mounting plate apparatus. After a wiring check, these assemblies are then available for successive conversion of existing units (see ED-25051-13).

5.08 Wire spring relay junctor units, per J27551V, W, X, and Y, require the interrupter checking circuit include protective resistances TF and TB on the F and B leads as covered by Issue 12D of SD-25268-01. Accordingly, interrupter checking units serving wire spring relay units or both wire spring relay and U- and Y-type relay junctor units shall be modified to include these resistances if furnished prior to Issue 12D of the circuit. A similar change is necessary in the markers of existing offices when wire spring relay district junctors are introduced; namely, the addition of protective reistances on the TCK and TPK relays per SD-25016-01, Issue 63D.

5.09 Junctor units J27551A, B, C, and D, List 1 are replaced by J27551V, W, X, and Y, List 1 for additions to existing frames as well as for new frames. Supplementary lists under J27551A, B, C, and D are available for additions to existing units.

Wiring

5.10 Local wiring on the district junctor frame is limited to the unit local cables, as there is no frame local cable. Leads from the sender link frame to the district junctor frame are contained in extensions on the sender link frame local cable which are soldered down by the installation force to the vertical terminal strip on the respective junctor units. Likewise, leads from the district link frame are contained in extensions on the district link frame local cable, which terminate on the horizontal terminal strip on the junctor units. All switchboard cable entering the frame terminates on the unit vertical terminal strips, except the 22-volt ac leads to the timer motors.

5.11 The 24-gauge type BU wire shall be used for all leads except common battery and ground leads which shall be 22-gauge type BU wire. Surface wiring shall be 24-gauge type BW wire.

5.12 Keypulsing districts connect to a keypulsing sender link frame and, accordingly, the arm on the subscriber sender link frame local cable to the keypulsing junctor unit is omitted. The PB lead in this circuit is extended from a punching on the unit horizontal terminal via a lead in the district link frame local cable to the miscellaneous terminal strip at the top of that frame and thence to the DPTS and traffic register equipment.

5.13 Apparatus in the miscellaneous frame circuit is mounted on a panel located on the second unit from the bottom of the frame. The frame line talking jacks and the spare jack connect to the sender link district link DPTS via leads in the district link frame local cable and the miscellaneous terminal strip at the top of the district link frame. These leads in the district link frame local cable are left long enough to reach the miscellaneous jack panel. When auxiliary district junctor frames are used no associated district link frame is provided. In this case the frame line talking jacks and the spare jack are connected to terminals provided on a terminal strip at the top of the primary bay of the auxiliary subscriber sender link frame. Leads to the test posts, battery jack, and the PC alarm lamp are included in each junctor unit local cable except the one for keypulsing districts, and are connected when the unit occupies the second position. The F lead from the FA, FC1, and FC2 lamps to the floor alarm frame is contained in each unit local cable; terminating on miscellaneous vertical terminal

strip punching 3. From this point in the bottom unit, the lead is carried in the sender link frame local cable to the miscellaneous terminal strip on the frame and from there to the SDPTS. Miscellaneous punching 3 on the 0 district junctor unit is multipled to the corresponding punching on units 2 and 4.

5.14 Nine leads per district junctor frame to the interrupter checking unit are required for coin, noncoin, and step-by-step districts. Four of the leads go to the top-equipped unit, four to the bottom unit, and one, which is carried by means of the unit local cable to the PC alarm lamp, to the second unit from the floor. One cable per district junctor frame shall be run to the interrupter checking unit for these leads. The installation force shall run the chain leads as required between units. On frames mounting one unit of keypulsing district junctors, the cable shall be terminated on the second unit from the top of the frame.

5.15 Battery and ground leads from the filter unit to the junctor unit fuse panels shall be run in the manner shown on ED-25346-( ).

5.16 Ground from the unit fuse panel to the timer springs on the 51A drive shall be furnished by two 22-gauge wires in the local cable. One wire shall be run to the timer springs for circuit 0 in each of the two groups of districts which the timer serves. From circuit 0, the ground shall be strapped to the springs for circuits 1 through 9, as required. The 22-volt ac supply is furnished over a pair of 20-gauge leads per timer motor contained in a 1400-type switchboard cable frame which is brought down the middle frame upright and terminated directly on punchings forming a part of the timer mounting plate.

5.17 District junctors are multipled to 2-, 3-, 4-, 5-, 6-, or 7-line frames, as indicated by the traffic requirements. A grouping frame is provided to facilitate this multipling. This grouping frame is of the conventional type with the switchboard cables from the district junctor frames terminated on the horizontal side and the line link appearances on the vertical side. By means of jumper cables, the district junctors are distributed to the various line link frames. Operator and step-by-step district junctors are not cabled to the grouping frame. Coin, flat-rate, MRI and AMA district junctors, however, shall be cabled to the grouping frame in either 20- or 40-circuit cables, as required. MR2P district junctors shall be cabled to the grouping frame in either 20- or 40-circuit cables but, in general, should remain separate from other classes of service.

5.18 When auxiliary district junctor frames are provided no more than one group of twenty of the added district junctors should appear at a line link frame. In addition, when district junctor distribution (with respect to the line link frames) is not exactly uniform, The junctors from the auxiliary frames should appear at those line link frames that will provide the lesser number of appearances for these junctors.

5.19 Maximum resistance and conductor lengths applying to equipment covered herein are given in J20151 (Section 816-016-150).

5.20 The code number of the switchboard cables ordinarily used in cabling the various circuits are shown on the switchboard cabling drawing. The circuits should, however, be checked to insure that the proper codes are specified to meet the latest circuit requirements. The cross-connection information of the circuits shows what groups of leads are to be combined in the same cable.

List of A&M Only and Mfr Disc. Equipment

EQUIPMENT	RATING	DETAILS LAST SHOWN IN ISSUE	REPLACING EQUIPMENT
J27551A	A&M Only	6	J27551V
J27551B	A&M Only	6	J27551W
J27551C	A&M Only	6	J27551X
J27551D	A&M Only	6	J27551Y
J27551E	A&M Only	4	J27551L
J27551E, L4 & L5	Mfr Disc.	5	—
J27551G	Mfr Disc.	2	J27551A
J27551H	Mfr Disc.	2	J27551B
J27551J, L2 & L3	A&M Only	4	J27551J, L4-L7
J27551J, L4 & L5	Mfr Disc.	5	—
J27551L, L2 & L3	Mfr Disc.	5	—
J27551V, L4	Mfr Disc.	8	J27551V, L7 & J27551AA
J27551W, L5	Mfr Disc.	8	J27551W, L10 & J27551AA
J27551X, L4	Mfr Disc.	8	J27551X, L7 & J27551AA
J27551Y, L6	Mfr Disc.	8	J27551Y, L11 & J27551AA

The above 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.

Bell Telephone Laboratories, Incorporated

Dept 5245