

**4-WIRE PRIVATE LINE**  
**TERMINATING AND STATION EQUIPMENT**  
**EQUIPMENT DESIGN REQUIREMENTS**  
**STATION SYSTEMS**

**1. GENERAL**

**Scope**

**1.01** This specification, together with the supplementary information listed herein, covers the equipment design requirements for the equipment units and circuits to be used in the engineering, manufacture, and installation of the 4-wire private line terminating and station equipment.

**1.02** This specification is reissued to:

- (a) Revise J53045A and J53045F.
- (b) Rate J53045A, List 1 and J53045F, List 1 Mfr Disc. to be replaced by J53045A, List 4 and J53045F, List 2, respectively.
- (c) Add J53045J, J53045K, and J53045L.

**Description**

**1.03** This equipment provides termination for lines and stations in 4-wire private line systems. The units are either single 2- by 23-inch or 6-15/16 inch high key telephone unit type mounting plates arranged for mounting on miscellaneous relay racks or cabinets on customer's premises.

**2- by 23-Inch Mounting Plate Units**

**1.04 Termination Unit:** This unit, required for terminating one 4-wire private line, is equipped to provide a low-impedance bus connection to a multiple of station sets, conferencing between stations at same branch location, and transmission testing from the central office. This single-plate unit is equipped with a wire-wrap terminal strip for installer connections.

**1.05 Multiple Station Line Pickup Relay Unit:**

This unit is available to provide connection for five stations to a single 4-wire private line. Similar units associated with the same or other 4-wire private lines may be interconnected such that each 4-wire private line may be accessible to more than one station set and/or each station set may have access to more than one 4-wire private line. This single-plate unit is equipped with six wire-wrap terminal strips for installer connections.

**1.06 Station Unit:** This unit is available to provide connections for two station sets. It is intended to be used in conjunction with the multiple station line pickup relay unit in branch locations equipped with a number of station sets having access to one or more 4-wire private lines. This single-plate unit is equipped with two wire-wrap terminal strips for installer connections.

**1.07 4-Wire Private Line Unit Powered From Central Office:**

This unit is available to provide line, station, and signal connections for systems powered from the central office. This single-plate unit is equipped with one wire-wrap terminal strip for installer connections.

**1.08 Privacy Interface Unit:** This unit is available to provide private interface connections for four station sets. It is intended to be used in SS3 Selective Signaling Systems. This single-plate unit is equipped with five wire-wrap terminal strips for installer connections. Provisions have been made for dedicating two of the terminal strips for all the connections to the four associated station sets.

**6-15/16 Inch High Key Telephone Type Mounting Plate Units**

**1.09 Station and Pickup Relay Unit:** This unit is available to provide connection for

one station set to one 4-wire private line. Similar units associated with the same 4-wire private line may be interconnected. It is intended that this unit be used in branch locations with few station sets having access to only one 4-wire private line. This single 3-15/32 inch wide mounting plate unit is equipped with a screw-type terminal strip for installer connections.

**1.10 Exclusion Unit:** This unit is available to provide an exclusion function for station sets associated with the same 4-wire private line. It may be arranged for 15 excluded, one master excluder, and either four or five excluder stations. It may also be interconnected with similar units associated with the same 4-wire private line. This single 3-1/32 inch wide mounting plate unit is equipped with a screw-type terminal strip for installer connections.

**1.11 Selective Signaling Unit:** This unit is available to provide audible and visual signals where 4-wire private line is arranged for selective signaling. It may be arranged to serve three separate 2-digit codes assigned to the same 4-wire private line. This single 3-1/32 inch wide mounting plate unit is equipped with a screw-type terminal strip for installer connections.

**1.12 AC Signaling Unit:** This unit is available to provide and detect 20-Hz ac signaling on a single 4-wire private line. Upon detection of an incoming signal, it is arranged to supply audible and visual signals. This single 3-5/8 inch wide mounting plate unit is equipped with a screw-type terminal strip for installer connections.

**1.13 Dialing, Group Code, or Loudspeaker Control Unit:** This unit is available to provide: (a) control of station sets during dialing on a 4-wire private line arranged for selective signaling; (b) signaling control for a group of stations associated with the same 4-wire private line and assigned the same code; or (c) control of loudspeakers during a telephone conversation. This single 3-1/32 inch wide mounting plate is equipped with a screw-type terminal strip for installer connections.

**1.14 Time-Out Interrupter Unit:** This unit is available to provide: (a) ringing time-out circuitry which may be activated from a -24 or +24 volt dc signal; and (b) ringing and busy tone interruption. This single 3-29/32 inch wide mounting plate is equipped with a screw-type terminal strip for installer connections.

**1.15 229B Key Telephone Unit:** This unit is available to provide a single-station pickup relay, where required, in accordance with SD-69566-01, Fig. 12.

#### **Power Supply**

**1.16** Power sources supplying the following voltages are required for the operation of this equipment.

- (a) -24 volt signal battery.
- (b) -24 volt talk battery.
- (c)  $\pm$ 105 volt 20 Hz ac ringing supply.

## SUBDIVISIONS OF EQUIPMENT AND DETAILED INDEX

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

EQUIPMENT CODE	RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
J53045A	AT&TCo Std	Termination Unit	J53045A-( )	SD-69566-01
J53045B	AT&TCo Std	Multiple Station Line Pickup Relay Unit	J53045B-( )	SD-69566-01
J53045C	AT&TCo Std	Station Unit	J53045C-( )	SD-69566-01
J53045D	AT&TCo Std	Station and Pickup Relay Unit	J53045D-( )	SD-69566-01
J53045E	AT&TCo Std	Exclusion Unit	J53045E-( )	SD-69566-01
J53045F	AT&TCo Std	Selective Signaling Unit	J53045F-( )	SD-69566-01
J53045G	AT&TCo Std	AC Signaling Unit	J53045G-( )	SD-69566-01
J53045H	AT&TCo Std	Dialing, Group Code, or Loudspeaker Control Unit	J53045H-( )	SD-69566-01
J53045J	AT&TCo Std	4-Wire Private Line Unit Powered From Central Office	J53045J-( )	SD-69902-01
J53045K	AT&TCo Std	Privacy Interface Unit	J53045K-( )	SD-69566-01
J53045L	AT&TCo Std	Time-Out Interrupter Unit	J53045L-( )	SD-69566-01

## CIRCUIT SCHEMATIC INDEX

CIRCUIT DRAWING	J53045 EQUIP. CODE
SD-69566-01	A through H, K and L
SD-69902-01	J

## 2. SUPPLEMENTARY INFORMATION

800-600-000—Checking List—General Equipment Requirements  
 812-000-000—Station Systems Index  
 J53009—812-107-160—102A Key Equipment  
 J99252—AA388.107—SS1 Selective Signaling System  
 J1G027—811-019-150—SS3 Selective Signaling System  
 J1G028—811-019-151—Equipment Packages, SS3 Selective Signaling Systems

KS-19175—Interrupter  
Current Drain Data—SD-69566-01, Circuit Note 101.

### 3. EQUIPMENT

#### *J53045A—AT&TCo Std—Termination Unit*

Equipment—J53045A-( )

**List 2**—Apparatus required in addition to list 4 to provide loopback test in accordance with SD-69566-01, Fig. 10.

**List 3**—Apparatus required in addition to list 4 to provide on premise talkback amplifier in accordance with SD-69566-01, Fig. 11.

**List 4**—Equipment, assembly, and wiring for one 4-wire private line termination unit in accordance with SD-69566-01, Fig. 1.

	WIRE	EQUIP	NOTES
4-Wire Private Line Termination and Station Ckt, SD-69566-01:			
Terminating Ckt, Fig. 1	1	1	
Loopback Test Ckt, Fig. 10	1	0	
On Premise Talkback Amplifier Ckt, Fig. 11	1	0	

#### *J53045B—AT&TCo Std—Multiple Station Line Pickup Relay Unit*

Equipment—J53045B-( )

**List 1**—Equipment, assembly, and wiring for one 4-wire private line multiple station line pickup relay unit in accordance with SD-69566-01, Fig. 2 (five circuits).

#### *J53045C—AT&TCo Std—Station Unit*

Equipment—J53045C-( )

**List 1**—Equipment, assembly, and wiring for one 4-wire private line station unit in accordance with SD-69566-01, Fig. 3 (two circuits).

#### *J53045D—AT&TCo Std—Station and Pickup Relay Unit*

Equipment—J53045D-( )

**List 1**—Equipment, assembly, and wiring for one 4-wire private line station and pickup relay unit in accordance with SD-69566-01, Fig. 2 and 3 (one circuit).

#### *J53045E—AT&TCo Std—Exclusion Unit*

Equipment—J53045E-( )

**List 1**—Equipment, assembly, and wiring for one 4-wire private line exclusion unit in accordance with SD-69566-01, Fig. 4 (one circuit).

#### *J53045F—AT&TCo Std—Selective Signaling Unit*

Equipment—J53045F-( )

**List 2**—Equipment, assembly, and wiring for one 4-wire private line selective signaling unit to provide for three codes per line in accordance with SD-69566-01, Fig. 7 (one circuit).

#### *J53045G—AT&TCo Std—AC Signaling Unit*

Equipment—J53045G-( )

**List 1**—Equipment, assembly, and wiring for one 4-wire private line ac signaling unit in accordance with SD-69566-01, Fig. 6 (one circuit).

#### *J53045H—AT&TCo Std—Dialing, Group Code, or Loudspeaker Control Unit*

Equipment—J53045H-( )

**List 1**—Equipment, assembly, and wiring for one 4-wire private line dialing, group code, or loudspeaker control unit universally wired in accordance with SD-69566-01, Fig. 5, 8, or 9, respectively (one circuit).

#### *J53045J—AT&TCo Std—4-Wire Private Line Unit Powered From Central Office*

Equipment—J53045J-( )

**List 1**—Equipment, assembly, and wiring for one 4-wire private line unit powered from central office in accordance with SD-69902-01, Fig. 1 and 2 (includes circuit pack list 2).

**List 2**—Circuit pack in accordance with ED-69900-30, G1 and SD-69902-01, Fig. 2 (includes mounting

hardware for list 3) (one circuit).

**List 3**—Signal unit in accordance with SD-69902-01, Fig. 3 (one circuit).

**J53045K—AT&T Co Std—Privacy Interface Unit**

Equipment—J53045K-( )

**List 1**—Equipment, assembly, and wiring for one 4-wire private line privacy interface unit in accordance with SD-69566-01, Fig. 13 (four circuits).

**J53045L—AT&T Co Std—Time-Out Interrupter Unit**

Equipment—J53045L-( )

**List 1**—Equipment, assembly, and wiring for one - 24 volt activated time-out unit in accordance with SD-69566-01, Fig. 14 (CPS 3), option ZN.

**List 2**—Equipment, assembly, and wiring for one +24 volt activated time-out unit in accordance with SD-69566-01, Fig. 14 (CPS 4), option ZO.

**List 3**—Interrupter per KS-19175, L1 in accordance with SD-69566-01, Fig. 15.

**4. GENERAL NOTES**

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

EQUIPMENT	RATING	DETAILS LAST SHOWN IN ISSUE	REPLACING EQUIPMENT
J53045A, L1	Mfr Disc.	1	J53045A, L4
J53045F, L1	Mfr Disc.	1	J53045F, L2

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.

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