

REGISTRATION INTERFACE

SELECTION AND GENERAL INFORMATION

1. GENERAL

1.01 This section provides information for the identification and selection of interface apparatus and general information pertaining to the Federal Communications Commission's (FCC) registration program for registered ancillary, data, and protective circuitry of the type associated with ancillary and data customer-provided equipment (CPE).

Note: Customer-provided data equipment connected to the network via the interfaces in this section must have a fixed signal power level under -9 dBm. See Section 590-101-103 for connection of other data devices.

1.02 Whenever this section is reissued, the reason(s) for reissue will be listed in this paragraph.

1.03 The FCC registration program permits the direct electrical connection to the telecommunications network of certain ancillary and data CPE which meet FCC registration standards.

1.04 Bell System Practices covering the "standard jack" interfaces under the registration program are as follows:

- Section 463-400-110—RJA1X, RJA2X, RJA3X—Adapter Arrangements
- Section 463-400-120—RJ11C, RJ11W, RJ12C, RJ12W, RJ13C, RJ13W—Bridged Single Line Tip and Ring Arrangements
- Section 463-400-121—RJ15C—Bridged Single Line Weatherproof Tip and Ring Arrangements
- Section 463-400-130—RJ31X, RJ32X, RJ33X, RJ34X, RJ35X—Series Single Line Tip and Ring Arrangements

- Section 463-400-140—RJ14C, RJ14W—Bridged Two-Line Tip and Ring Arrangements
- Section 463-400-141—RJ21X, RJ22X, RJ23X, RJ24X—Bridged Multiple Tip and Ring Arrangements.

1.05 The apparatus required to provide "standard jack" interfaces used under the FCC registration program are covered in the following sections:

- Bridging Adapters—Section 461-200-102
- Miniature Ribbon Connectors—Section 461-200-101
- Modular Jacks—Section 503-100-100
- Jacks, Plugs, and Adapters—Section 461-630-100
- 625-, 630- and 635-Type Connecting Blocks—Section 461-610-100.

2. DESCRIPTION

2.01 Table A provides Uniform Service Order Codes (USOCs), equipment used, technical references, BSP numbers, description, and typical CPE to be connected.

3. INSTALLATION

3.01 Each telephone company interface requires a specific wiring arrangement. See Table A for reference to the BSP applicable to each standard interface; these BSPs cover complete descriptions and wiring diagrams for the interfaces. Wiring diagrams of the jacks or adapters used as an interface will designate the contacts by number. The numbering arrangement is established by looking into the jack with the release clip opening at the bottom, counting the contacts from left to right. Numbering will be on the basis of the

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maximum number of contact positions although all positions of the jack may not be equipped. Unused contacts are reserved for telephone company use and are handled according to local instructions.



To assure that proper interfaces are furnished, each USO-coded termination (standard jack) must be wired according to the BSP covering that USOC.

3.02 All wiring required for connection of the interfaces in these BSPs is to be furnished and installed by the telephone company. Registered CPE must be plug-ended and connected to the telephone company switched network only through the telephone company-provided interface.

3.03 The interface equipment should be installed in a location mutually acceptable to the customer and the telephone company. The location should facilitate telephone company maintenance and/or customer disconnection for trouble isolation purposes. Where possible, and agreeable with the customer, locate the interface jack as near as possible (approximately 12 inches) to an electrical outlet.

3.04 Connecting blocks should be mounted with the modular jack facing downward. As a second choice, the jack should face to either side. Do not mount a connecting block with the jack facing up—this allows contaminants to enter the jack more easily. A minimum clearance of 3 inches is required directly in front of the modular jack entry to allow for connection and disconnection of equipment, including the possible use of adapters.

3.05 Each installation of a standard interconnection jack(s) should be tested for dial tone, audible noise, ringback, proper tip and ring polarity, and "A" lead control if applicable. Series type jacks should be tested for proper mechanical contact closure to verify that telephone company-provided equipment connected on the "field side" of the series connection will operate properly with or without the registered CPE connected to the standard jack.

Note: The telephone company is not responsible if the registered CPE fails to maintain continuity through the series connection, thus causing the telephone company-provided equipment to malfunction.

If the registered CPE device is readily available and can be quickly and conveniently connected, request the customer to connect the device(s) and verify to his satisfaction that the jack and his equipment work properly. If there is a problem other than ringing, advise the customer that the type of jack ordered is installed and functioning properly. The customer should be advised to disconnect the registered equipment, to verify with the manufacturer or supplier whether the correct standard jack has been ordered, and to follow the manufacturer's recommended repair procedures.

Note: The total number of telephone company and CPE equivalent ringers bridged across the CO/PBX line must not exceed the limitations outlined in Section 500-114-100 for individual line, capacitor-coupled ringers. If the ringer limitation is exceeded, the customer can do one or a combination of the following:

- (a) Arrange to have the ringer(s) in the CPE disconnected if possible, or arrange to obtain a similar device with a lesser ringer equivalence. **This is not to be done by telephone company personnel.**
- (b) Request the ringer(s) in the telephone company equipment be disconnected.
- (c) Cancel the existing service order.

4. MAINTENANCE

4.01 The telephone company is responsible for providing standard interfaces as described in Sections 463-400-100 through 463-400-141. The telephone company has no responsibility for CPE devices connected to the network via these interfaces. The customer is responsible for the repair of any CPE. No attempt should be made to install, test, modify, or repair customer-owned and maintained equipment.

Caution: Telephone company employees must be sure that commercially powered CPE is disconnected from power and from the telephone company jack before working on a standard interface or its associated inside wiring.

4.02 When in the judgment of repair personnel the trouble is located in or caused by the CPE, Maintenance of Service Charge Billing should

be initiated as required and as outlined in the following:

- Section 660-101-312—Maintenance of Service Charge on Services With Customer-Provided Equipment (CPE)
- Section 660-101-318—Tariff and Registration Violation Notice Procedures.

TABLE A

GENERAL INFORMATION – REGISTRATION ARRANGEMENTS

USOC	EQUIPMENT USED	DESCRIPTION	TYPICAL CPE TO BE CONNECTED	BSP NUMBER	TECH REF
RJA1X	225AW Adapter	Adapts a modular plug to a 4-prong jack*	Automatic Answering Sets and Announcement Sets	463-400-110	PUB 47102
RJA2X	267AW Adapter	Converts one modular jack to two modular jacks *			
RJA3X	224AW Adapter	Adapts a modular plug to a 12-prong jack *			
RJ11C	See Note	Bridged connection of a single line tip and ring – surface or flush mounted		463-400-120	PUB 47102
RJ11W	630A Conn Block	Same as above except for portable wall mounted device			
RJ12C	See Note	Bridged connection of a single line tip and ring ahead of the line circuit with "A" lead control – surface or flush mounted			
RJ12W	630A Conn Block	Same as above except for portable wall mounted device			
RJ13C	See Note	Bridged connection of a single line tip and ring behind the line circuit with "A" lead control – surface or flush mounted			
RJ13W	630A Conn Block	Same as above except for portable wall mounted device		2-line Ancillary Devices	463-400-140
RJ14C	See Note	Bridged connection of 2-line tip and ring – surface or flush mounted			
RJ14W	630A Conn Block	Same as above except for portable wall mounted device	Automatic Answer and Record Devices	463-400-121	PUB 47102
RJ15C	B Weatherproof Female Jack AT-8732	Bridged connection of single line tip and ring to boats in marinas – with no on-board wiring			
RJ21X	KS-16690 Connector or Equivalent	Bridged connection of the tip and ring of a multiple number of CO/PBX trunks (max. 25)	Traffic Measuring Devices	463-400-141	PUB 47102
RJ22X		Bridged connection of up to 12 CO/PBX trunks with the tip and ring bridged ahead of the line circuit with "A" lead control	Multiple Answering Sets		
RJ23X		Same as above except T, R, A, and A1 are bridged behind the line circuit			
RJ24X		Provides same T, R, and A appearances plus A1 of a standard 5-line key telephone set	Conferencing Sets		

TABLE A (Cont)

GENERAL INFORMATION – REGISTRATION ARRANGEMENTS

USOC	EQUIPMENT USED	DESCRIPTION	TYPICAL CPE TO BE CONNECTED	BSP NUMBER	TECH REF
RJ31X	635A or 635B Conn Block	When plugged in, CPE is placed in series with tip and ring ahead of all station equipment	Alarm Dialers	463-400-130	PUB 47102
RJ32X		Same as above except CPE is connected in series with one station	Series Dialers		
RJ33X		Series tip and ring connection ahead of a KTS line circuit plus bridged A and A1 behind line circuit			
RJ34X		Series tip and ring plus bridged A and A1 behind KTS line circuit			
RJ35X		Provides a series tip and ring connection of all lines appearing in a key telephone set plug bridged A and A1 leads			

* The adapters are customer-owned in all cases and may be purchased from either the telephone company or an outside supplier.

Note: For surface-mounted installations, use a 625A, 625C, 625S or 625T connecting block. For flush-mounted installations, use a 625B or 625F connecting block. The 625S and 625T have spring-loaded covers which protect the contacts from contamination. The 625S and 625T will not be available until the 4th quarter of 1976.