

INTERCONNECTING DEVICES

SELECTION AND GENERAL INFORMATION

1. GENERAL

1.01 This section provides information for the identification and selection of interconnecting devices and general information on the associated equipment.

1.02 This section is reissued to:

- Include additional connecting arrangements
- Include identification information formerly shown in Section 801-026-157
- Include Technical Reference Numbers (PUB Nos)
- Update and revise Table A
- Add new illustrations.

1.03 The connecting arrangements, with the criteria published in the tariffs and in the technical reference, provide the necessary network protection to allow connection of customer-provided equipment to the Bell System network. These arrangements are designed to provide Telephone Company control of the critical signaling, transmission, and switching functions of the network.

1.04 For information on data access interconnecting arrangements, refer to Division 590.

1.05 Technical References may be obtained from the local Telephone Company Business Office or the Marketing Representative.

1.06 The following tabulation provides uniform service order codes, PUB numbers (technical references), section numbers, the interconnecting device, and a brief description.

2. EQUIPMENT FEATURES

A. Interconnecting Units, Interface and Trunk Units and Couplers

Coded Units

2.01 101A Interconnecting Unit—An 8-inch circuit pack for use in the interconnection of a Bell System central office (CO) and a customer-provided PBX CO trunk where ground start signaling is required at the CO. This unit is intended to mount in a 604-type panel or 69G apparatus mounting. (See Fig. 1.)

2.02 101B Interconnecting Unit—An 8-inch circuit pack, an improved replacement version of the 101A. Provides line impedance matching and increases the range limitation to the CPE from 18 ohms to 100 ohms maximum on the supervisory leads. (See Fig. 2.) May be used with 75A control unit for data applications. Intended to mount in a 604-type panel or 69G apparatus mounting.

2.03 102A Interconnecting Unit—An 8-inch circuit pack for use in the interconnection of a Bell System CO and a customer-provided PBX CO trunk where loop-start signaling is required. This unit is intended to mount in a 604-type panel or 69G apparatus mounting. (See Fig. 3.)

2.04 102B Interconnecting Unit—An 8-inch circuit pack, an improved replacement version of the 102A. It provides line impedance matching and increases the range limitation to the CP equipment from 18 ohms to 100 ohms maximum on the supervisory leads. (See Fig. 4.) May be used with 75A control unit of data applications. Intended to mount in a 604-type panel or 69G apparatus mounting.

2.05 103A (MD) Interconnecting Unit—An 8-inch circuit pack for use in providing percent break pulse correction where required for the CO trunk interconnecting units 101A and 102A. (See Fig. 5.) No longer required for 101- or 102-type 1Us.

SECTION 463-300-100

| USOC | PUB NUMBER | SECTION NUMBER | INTERCONNECTING DEVICE | DESCRIPTION |
|-------|------------|----------------|--|---|
| CAU | 42201 | 463-340-100 | KS-20445 | Permits dial pulse dialing and one-way outgoing transmission for use with customer-provided alarm signaling device (KS-20445 Control Unit). |
| CDA | 42302 | 463-350-100 | F58004 (MD) | Manually connects a cord switchboard position of a customer-provided system that provides supervisory signals to an exchange trunk line. |
| CDA | 42302 | 463-350-101 | 108A | |
| CDB | 42301 | 463-331-100 | F58005 (MD) | Manually connects a line from a customer-provided dial intercom system that provides supervisory signals to an exchange trunk line through a Bell System provided cord switchboard position. |
| CDB | 42301 | 463-331-101 | J53050A, L1 | |
| CDH | 42401 | 463-350-104 | 101-type | Automatically connects an exchange trunk line arranged for 2-way combination (ground-start) service to and from the attendant position and from the dial switching equipment of a customer-provided system. |
| CDN | 42303 | 463-300-140 | F58006 (MD) | Manually connects a line from a customer-provided intercom system that provides supervisory signals to an exchange line through a Bell System provided key station. |
| CDN | 42303 | 463-311-103 | 111A | |
| CDQ2W | 42502 | 463-360-101 | J53050C, L1 (MD) or L3 J53050D, L1 | Provides 2-wire tie line connection between Bell System facilities and customer-provided 2-way, 2-wire dial tie trunk designed for a contact-type signaling interface. |
| CDQ2X | 42502 | 463-360-101 | J53050C, L2 | Provides 2-wire tie line connection between Bell System facilities and customer-provided 2-way, 2-wire dial tie trunk designed for an E&M type signaling interface. |
| CDQ4W | 42501 | 463-360-100 | J53050C, L1 (MD) or L3 | Provides 4-wire tie line connection between Bell System facilities and customer-provided 2-way, 4-wire dial tie trunk designed for a contact-type signaling interface. |
| CDQ4X | 42505 | 463-360-100 | J53050C, L2 | Provides 4-wire tie line connection between Bell System facilities and customer-provided 2-way, 4-wire dial tie trunk designed for an E&M type signaling interface. |

| USOC | PUB NUMBER | SECTION NUMBER | INTERCONNECTING DEVICE | DESCRIPTION |
|------|---------------|-------------------|---------------------------|--|
| CDX | 42102 | 463-331-104 | 31B | Manually connects a customer-provided patching device that enables the connection of an incoming call on a trunk to a Bell System switchboard to an outgoing trunk from a Bell System switchboard. |
| CDY | 42307 | 463-312-100 | KTU Line Ckt | Terminates, without exchange connection, a line from a customer-provided system in a Telephone Company provided key telephone station. |
| CD1 | 42304 | 463-300-110 | F58010 (MD) | Manually connects a cord switchboard position of a customer-provided system that does not provide supervisory signals to an exchange trunk line. |
| CD4 | 42305 | 463-300-130 | F58008 (MD) | Manually connects a line from a customer-provided intercom system that does not provide supervisory signals to an exchange trunk line through a Bell System provided cord switchboard position. |
| CD4 | 42305 | 463-331-103 | 31B | |
| CD5 | 42306 | 463-300-150 | F58007 (MD) | Manually connects a line from a customer-provided intercom system that does not provide supervisory signals to an exchange line through a Bell System provided key telephone station. |
| CD5 | 42306 | 463-311-103 | 111A | |
| CD6 | 42404 | 463-350-105 | 108A | Automatically connects an exchange trunk line arranged for one-way incoming service to the attendant position of a customer-provided system. |
| CD7 | 42402 | 463-350-106 | 102-Type | Automatically connects an exchange trunk line arranged for one-way outgoing service (loop-start) from the attendant position of a customer-provided system. |
| CD8 | 42402 | 463-350-106 | 102-Type | Automatically connects an exchange trunk line arranged for one-way outgoing service (loop-start) from the dial switching equipment of a customer-provided system. |
| CD9 | 42402 | 463-350-106 | 102-Type | Automatically connects an exchange trunk line arranged for 2-way service (loop-start) to and from the attendant position of a customer-provided system. |

SECTION 463-300-100

| USOC | PUB NUMBER | SECTION NUMBER | INTERCONNECTING DEVICE | DESCRIPTION |
|-------|------------|----------------|------------------------|--|
| CEBAV | 42106 | 463-311-106 | 111A | Permits the customer to manually connect and disconnect customer-provided equipment that answers an incoming call to a specific line terminated on a Telephone Company key set. |
| CEBAW | 42107 | 463-311-106 | 111A | Permits the customer to manually connect and automatically disconnect customer-provided equipment to a specific line terminated on a Telephone Company key set. |
| CEBAX | 42103 | 463-311-104 | 111A | Permits the customer to manually connect and disconnect customer-provided conferencing equipment to a specific line terminated on a Telephone Company key set. For use with customer-provided equipment with only one supervisory contact. |
| CEBBX | 42103 | 463-311-104 | 111A | Permits the customer to manually connect and disconnect customer-provided conferencing equipment to a specific line terminated on a Telephone Company key set. For use with customer-provided equipment with two supervisory contacts. |
| CED | 42405 | 463-350-107 | 101-Type | Automatically connects an exchange trunk line arranged for 2-way service,(ground-start), i.e., outward dialing by hotel/motel guests and ringback by the operator to the operator position of a Telephone Company long distance switchboard. |
| CEK | 42601 | 463-380-100 | J53050E F58356 (MD) | Connects customer-provided message registers, where the customer is providing the communications system and the necessary equipment to associate the station with the message registers, to a central office trunk message register circuit. |
| CET | 42403 | 463-350-108 | 102-Type | Automatically connects the dial switching equipment of a customer-provided PBX to a Bell System toll operator for toll terminal service (loop-start) without ringback. |

| UNIT | PUB NUMBER | SECTION NUMBER | INTERCONNECTING DEVICE | DESCRIPTION |
|-------|---------------|-------------------|----------------------------|--|
| CEZ | 42211 | 463-311-108 | KS-20893 | Manually connects customer-provided conferencing equipment to Bell System Key Telephone System lines terminated on a 6-button plug-ended key telephone set or CALL DIRECTOR [®] set. |
| CTD | 42605 | 463-382-101 | J53050G | Connects a customer-provided toll diverter to a central office trunk line associated with a Bell System PBX. |
| C1V | 42603 | 463-382-100 | 18D KTU | Provides line status information to customer-provided elapsed time or pen register equipment. |
| C1Y | — | 463-380-102 | J92614E | Provides for the connection of a customer-provided special purpose computer to the traffic data register circuits of the Force Administration Data System (FADS). |
| C2ACP | 42207 | 463-341-100 | 102-Type | Permits the automatic connection of customer-provided terminal equipment (typically key systems) to an exchange line or WATS access line, (loop-start). |
| C2AKS | 42207 | 463-311-107 | 102-Type | Permits the automatic bridged connection of customer-provided equipment (typically call diversion or WATS extension equipment) to an exchange line or WATS access line (loop-start) to a line terminated on a Bell System station set. |
| C2H | 42407 | 463-370-101 | J53050C, L2 | Centrex application of C24 to connect customer-provided 4-wire facilities. |
| C2K | 42408 | 463-370-102 | J53050C, L2 J53050D, L1 | Centrex application of C27 to connect customer-provided 2-wire tie line facilities. |
| C22 | 42406 | 463-350-109 | 112A | Provides a connection to an exchange trunk line from customer-provided communications system for direct inward dialing (DID) service. |
| C232W | 42504 | 463-360-103 | J53050D 31B-49 | Provides 2-wire tie line connection between Bell System facilities and customer-provided 2-way, 2-wire tie trunks. No signaling is provided. |
| C234W | 42503 | 463-360-102 | 44V4A | Provides 4-wire tie line connection between Bell System facilities and customer-provided 2-way, 4-wire tie trunks. No signaling is provided. |

SECTION 463-300-100

| UNIT | PUB NUMBER | SECTION NUMBER | INTERCONNECTING DEVICE | DESCRIPTION |
|------|------------|----------------|----------------------------|---|
| C24 | 42407 | 463-370-101 | J53050C, L2 | Provides 2-wire tie line connection between Bell System PBX trunk circuit and customer-provided 4-wire facilities designed for E&M signaling interface. |
| C25 | 42604 | 463-380-101 | 118A | Connects a customer-provided ANI System via a data link to a Bell System SIF for automatic identified outward dialing (AIOD) service. |
| C27 | 42408 | 463-370-102 | J53050C, L2 J53050D, L1 | Provides 2-wire tie line connections between Bell System PBX trunk circuits and customer-provided 2-wire facilities designed for an E&M interface. |
| DCK | 42703 | 463-332-100 | J53050F | Provides access to CPE on a trunk level basis from a Bell System PBX. |
| DCT | 42701 | 463-332-110 | J58827E | Connects customer-provided dictation equipment to a Bell System PBX trunk level (recorded telephone dictation trunk circuit SD-5E038-01). |
| DCW | 42702 | 463-332-120 | J58824CD | Connects customer-provided radio paging equipment to a Bell System PBX trunk level (interface trunk circuit SD-66926-01). |
| GC2 | 42603 | 463-382-100 | 15D KTU | Provides line status information to customer-provided equipment when ringing is present on the line. |
| HZM | 42606 | 463-382-102 | J53050H, L1 | Provides line status information to customer-provided equipment through a high impedance interface. |
| LOH | 42104 | 463-331-105 | 110A | Permits the connection of customer-provided background music or other recorded material to central office lines terminated in a Telephone Company provided switchboard while the line is in the hold mode. |
| LVH | 42105 | 463-311-105 | 109A 110A | Permits the connection of customer-provided background music, or other recorded material, to central office or PBX lines terminated in Telephone Company provided key telephone set while the line is in the hold mode. |

| UNIT | PUB NUMBER | SECTION NUMBER | INTERCONNECTING DEVICE | DESCRIPTION |
|-------|---------------|-------------------|---------------------------|---|
| PVF | 44101 | 463-390-100 | 114A | Permits the connection of customer-provided video/audio terminal equipment to PICTUREPHONE [®] facilities using a Telephone Company provided TOUCH-TONE [®] telephone set. |
| QKT | 42101 | 463-311-100 | 30B | Manual connecting arrangement used for the connection of customer-provided equipment (typically phone patch equipment) to an exchange line through a Bell System provided station. |
| QKTBT | 42101 | 463-311-100 | 30B | Provides tone address signaling in the same application as QKT. |
| RCX | 42603 | 463-382-100 | 117A | Provides line status and dial pulse information to customer-provided traffic measuring equipment. |
| RCZ | 42205 | 463-340-120 | KS-19645 | Connects customer-provided recording equipment to a central office exchange line for the recording of 2-way conversations (KS-19645 Recorder Connector). |
| RC1 | 42206 | 463-340-120 | KS-19645 | Provides tone to local party under control of customer-provided call duration timer. See RTT. |
| RDL | 42204 | 463-340-110 | KS-19522 | Connects a customer-provided recorder/announcement machine to an exchange line for one-way recording or one-way announcements—not arranged for both at the same time (KS-19522 Recorder Coupler). |
| RDL | 42204 | 463-340-111 | KS-19522 | Voice Connecting Arrangement RDL using a KS-16765 Bell System announcement set as supplemental equipment. |
| RDM | 42204 | 463-340-110 | KS-19522 | Connects a customer-provided recorder/announcement machine to an exchange line for 2-way transmission (KS-19522 Recorder Coupler). |
| RDM | 42204 | 463-340-111 | KS-19522 | Voice Connecting Arrangement RDM using a KS-16765 Bell System announcement set as supplemental equipment. |

SECTION 463-300-100

| UNIT | PUB NUMBER | SECTION NUMBER | INTERCONNECTING DEVICE | DESCRIPTION |
|-------|---------------|-------------------|---------------------------|---|
| RDMZR | 42209 | 463-340-101 | KS-20721 | Connects a customer-provided recorder/announcement set to an exchange line for 2-way transmission (KS-20721 Station Coupler). |
| RDY | 42209 | 463-340-101 | KS-20721 | Same as RDM but with voice control disconnect and automatic receive volume limiting. |
| RTT | 42203 | 463-340-120 | KS-19645 | Generates a 440-Hz tone in both directions on a line under control of a customer-provided call duration timer. |
| STC | 42208 | 463-340-103 | KS-20721 | Provides for the connection of a customer-provided telephone sets to a central office exchange line or PBX station line. |
| STP | 42212 | 463-341-101 | 120A | Provides for the connection of customer-provided multiline key telephone system to CO or PBX lines on a 2-wire basis. |
| STS | 42210 | 463-340-102 | KS-20721 | Automatically connects customer-provided equipment (typically alarm systems) using tone supervision to a central office exchange line or PBX station line (KS-20721 Station Coupler). |
| SU3 | 42201 | 463-340-100 | KS-20445 | Tone signaling unit for use with Voice Connecting Arrangement CAU to permit the operation of the alarm device to be tested or verified from a remote location. |
| SU4 | 42201 | 463-340-100 | KS-20445 | CAU plus SU3 to provide alarm coupler with remote testing feature for customer-provided alarm systems. |
| SU6 | 42201 | 463-340-100 | KS-20445 | Same as CAU but with modification to provide 2-way transmission to permit detection of dial tone or proper signal from remote point. |
| SU6AQ | 42210 | 463-340-102 | KS-20721 | Automatically connects customer-provided equipment (typically alarm systems) to a central office exchange line or PBX station line (KS-20721 Station Coupler). |

| UNIT | PUB NUMBER | SECTION NUMBER | INTERCONNECTING DEVICE | DESCRIPTION |
|-------|------------|----------------|------------------------|---|
| SU7 | 42202 | 463-340-100 | KS-20445 | Modification of KS-20445 control unit to permit use of customer-provided repertory dial pulse dialers which require no transmission path. |
| SU7QW | 42210 | 463-340-104 | KS-20721 | Permits use of customer-provided dial pulse dialers that do not require a transmission path (KS-20721 Station Coupler). |
| — | — | 463-300-112 | 75A | Provides automatic level control to associated voice type IUs used for data. |
| — | — | 463-361-100 | 119A | Provides 2-wire connection between customer-provided equipment and Bell System metallic voice grade private line. |
| — | — | 463-300-101 | — | Provides information on 604A-type panel. |
| — | — | 463-300-102 | — | Provides information on 604B panel. |
| — | — | 463-300-103 | — | Provides information on 606A panel. |
| VCP | — | 463-300-109 | KS-20944 Protector | Provides protection for customer-provided dc power supply. |

2.06 105A Interconnecting Unit—A console approximately 16-1/2 inches high, 13-1/2 inches wide, and 10-1/2 inches deep. It is equipped with one 599A key, two 598A keys, and one 8C dial. It is used in association with the 700A interconnecting service unit to provide 2-wire manual access between Bell System lines and a customer-provided manual PBX. (See Fig. 6.)

2.07 108A Interconnecting Unit—A 4-inch circuit pack for use (a) in the interconnection of a Bell System CO line with a customer-provided manual cord switchboard with supervision (intended to mount in a 700A interconnecting service unit), or (b) in the interconnection of a Bell System CO line to a customer-provided one-way incoming trunk associated with the attendant position of a customer-provided PBX. For the later application, the 108A interconnecting unit may be mounted in the 604-type panel or 69G apparatus mounting. (See Fig. 7.)

2.08 109A Interconnecting Unit—A 4-inch circuit pack for use in the interconnection of a 1A2 key telephone system and a customer-provided audio source for use when the CO line is in the hold condition. This unit is intended to mount in a 69H apparatus mounting or 606A panel. (See Fig. 8.)

2.09 110A Interconnecting Unit—A 4-inch circuit pack for use in the interconnection of a cord switchboard or a 1A or 1A1 Key Telephone System and a customer-provided audio source for use when the CO line is in the hold condition. Intended to mount in a 69H apparatus mounting or 606A panel. (See Fig. 9.)

2.10 111A Interconnecting Unit—A 4-inch circuit pack for use in the interconnection of a Bell System CO line terminated on a key telephone set and customer-provided intercommunicating systems with or without supervision. This unit is intended to mount in a 69H apparatus mounting or 606A panel. (See Fig. 10.)

2.11 112A Interconnecting Unit—An 8-inch circuit pack used to provide one-way direct-inward-dialing into a customer-provided PBX on a dial pulse basis. Intended to mount in the 607A panel. (See Fig. 11.)

2.12 114A Interconnecting Unit—A PICTURE-PHONE[®] connecting arrangement consisting

of a voice coupler circuit and a video coupler circuit. It is 7-1/2 inches wide, 6 inches deep, and 12 inches long. (See Fig. 12.)

2.13 117A Interconnecting Unit—3-1/2 inches wide, 6-inches deep, and 7 inches long. One unit is required for every four lines. Used to indicate the dc supervisory condition of a CO or tie line to customer-provided equipment. Intended to mount in the 15A apparatus mounting, it can be mounted on a 23-inch rack using 67B brackets. (See Fig. 13.)

2.14 118A Interconnecting Unit—6 inches wide, 8-1/2 inches deep, and 8 inches long and consists of a 614A panel with an 8-inch HJ1 circuit pack. Provides automatic-identified-outward-dial capabilities to a customer-provided PBX. Intended to mount on a standard relay rack or in a 16C apparatus mounting using the 99B mounting bracket. (See Fig. 14.)

2.15 119A Interconnecting Unit—4-3/4 inches wide, 2 inches deep, and 7 inches long. Provides a 2-wire connection between customer-provided terminal equipment and Bell System metallic voice-grade private line facilities. Mounts on any wall or flat surface. (See Fig. 15.)

2.16 120A Interconnecting Unit—An 8-inch circuit pack. Used to connect a customer-provided key telephone system to a Bell System CO or PBX line on a 2-wire basis. Mounts in a 69G apparatus mounting or in a 604B panel. (See Fig. 16.)

Couplers

2.17 30B Voice Coupler—Approximately 4 inches long, 2-3/4 inches wide, and 2 inches high and is used to provide 2-wire connection of customer-provided voice transmitting and/or receiving equipment to Bell System lines. Mounts on any flat surface. (See Fig. 17.)

2.18 31B Voice Coupler—Approximately 4 inches long, 2-3/4 inches wide, and 2 inches high and is used to provide a means of interconnecting a Bell System manual cord switchboard and a customer-provided dial intercom system. Mounts on any flat surface. (See Fig. 18.)

J Coded Interconnecting Units

2.19 J53050A Interconnecting Unit—Provides interconnection of the Bell System manual PBX switchboard with a customer-provided dial intercommunicating system with supervision. The apparatus is mounted on a 2- by 23-inch mounting plate and is intended to be relay rack mounted. (See Fig. 19.) Replaces the F58005 (MD) interconnecting unit.

2.20 J53050C Interconnecting Applique Unit—Provides signaling for the interconnection of Bell System equipment and a customer-provided PBX dial repeating tie trunk circuit. The apparatus is mounted on a 4- by 23-inch mounting plate four circuit per unit, and is intended to be relay rack mounted. (See Fig. 20.)

2.21 J53050D Interconnecting Unit—Provides four voice coupler circuits for the interconnection of Bell System 2-wire private line facilities and a customer-provided 2-wire PBX. The apparatus is mounted on a 2- by 23-inch mounting plate, ten circuits per unit, and is intended to be relay rack mounted. (See Fig. 21.)

2.22 J53050E Interconnecting Unit—Provides for the interconnection of a Bell System central office message register and customer-provided message registers. The apparatus is mounted on a 2- by 23-inch mounting plate, ten circuits per unit, and is intended to be relay rack mounted. (See Fig. 22.) It replaces the F58356 (MD) interconnecting unit.

2.23 J53050F Interconnecting Unit—Provides connection via trunk level access between customer-provided dictation equipment, radio paging system or information retrieval system, and a Bell System PBX. The apparatus is mounted on a 2- by 23-inch mounting plate and is intended to be relay rack mounted. (See Fig. 23.)

2.24 J53050G Interconnecting Unit—Provides for connecting customer-provided toll diversion equipment to a Bell System CO trunk associated with a Bell System PBX. The apparatus is mounted on a 2- by 23-inch mounting plate and is intended to be relay rack mounted. (See Fig. 24.)

2.25 J53050H Interconnecting Unit—Provides a connection between customer-provided traffic measuring equipment and Bell System station lines, PBX CO trunks and tie lines. The apparatus is

mounted on a 2- by 23-inch mounting plate and is intended to be relay rack mounted. (See Fig. 25.)

2.26 J58827E Recorded Telephone Dictation Trunk Unit—Provides connection between a Bell System PBX and customer-provided dictation equipment via a dial access code. The apparatus is mounted on a 4- by 23-inch mounting plate and is intended to be relay rack mounted. (See Fig. 26.)

2.27 J58824CD Interface Trunk Unit—Provides connection between a Bell System PBX and customer-provided equipment via a dial access code. The apparatus is mounted on a 8- by 23-inch mounting plate and is intended for relay rack mounting. (See Fig. 27.)

2.28 J92614E Interface Unit—Provides connection between Bell System traffic data register circuits and customer-provided monitoring equipment to furnish traffic usage data. Used with Bell System Automatic Call Distributing Systems type 2A and 3A. The apparatus is mounted on a 2- by 23-inch mounting plate and is intended for frame mounting. (See Fig. 28.)

KS-Coded Interconnecting Units

2.29 KS-19522 Recorder Coupler—An apparatus box 7-inches wide, 7-3/8 inches high, and 3-3/8 inches deep. The unit contains two printed wiring boards and mounting bracket assembly. It is used with a key telephone set to connect a customer-provided recorder for transmitting prerecorded messages and recording messages from the line. Not intended for recording 2-way conversations. Intended for wall mounting. (See Fig. 29.)

2.30 KS-19645 Recorder Connector—An apparatus box measuring approximately 7 inches wide, 7-3/8 inches high, and 3-3/8 inches deep and is intended for wall mounting. The unit contains a printed wiring board and mounting bracket assembly. It is used to provide "beep" tone on a Bell System CO line when recording a 2-way conversation over a Bell System network with a customer-provided recorder reproducer. (See Fig. 30.)

2.31 KS-20445 Control Unit—Similar to the KS-19645 Recorder Connector and provides interconnection of customer-provided automatic dialing and message reproducing equipment to the

Bell System CO line. Replaces the KS-20008 (MD) alarm coupler. (See Fig. 31.)

2.32 KS-20721 Station Coupler—A general purpose station coupler used to connect various types of customer-provided equipment to the telephone line. Measures approximately 9-inches square by 3-inches deep and is intended for wall or shelf mounting. Contains up to five printed circuit wiring boards. (See Fig. 32.)

2.33 KS-20893, Multiline Station Coupler—Provides for 2-wire voice connection between customer-provided conferencing equipment and Bell System 1A1 or 1A2 Key Telephone Systems. Measures approximately 8-inches square by 4-1/2 inches deep and is intended for wall or shelf mounting. Contains up to five plug-in printed circuit interconnecting units. The List 1 includes one L11 ISU and two L10 IUs. (See Fig. 33.)

F Coded Interconnecting Units

2.34 F58010 (MD) Interconnecting Unit—A console approximately 5-5/8 inches high, 10-1/2 inches long, and 6 inches deep. It is equipped with two rows of six 540G keys and one 8C dial. It is used to provide 2-wire access between Bell System lines and a customer-provided PBX equipped with a cord switchboard and not arranged for supervision. It is used in association with a 15D KTU. (See Fig. 34.)

B. Associated Equipment

Panels

2.35 604A Panel—Approximately 23 inches wide by 16 inches high, and 8-1/2 inches deep. Provides fusing and connections to the units for a maximum of fourteen 101-type or 102-type interconnecting units or eighteen 108A interconnecting units. It is used also for the 103A (MD) interconnecting unit, where required. Use of the 103A (MD) reduces the maximum trunk capacity previously mentioned to nine. All of the previous units may be accommodated in a given 604A panel. (See Fig. 35.) The 604A2 panel is equipped with a 19C2 power unit; the 604A1 panel is without a power unit.

2.36 604B Panel—Approximately 23 inches wide by 8 inches high and 10 inches deep. Provides fusing and connections for fourteen 101-type, 102-type,

108A or 120A interconnecting units and two 75A control units. Fuse power protection is also provided for talk battery and ring supply. Option terminals are provided for 24-volt or 48-volt operation. Intended for relay rack mounting. (See Fig. 36.) Requires separate power supply.

2.37 606A Panel—Approximately 6 inches wide by 8 inches high and 9 inches deep. Provides fusing and connections for six 109A, 110A or 111A interconnecting units. Intended for relay rack mounting on a 99B bracket. (See Fig. 37.) Requires separate power supply.

2.38 607A Panel—Approximately 8 inches high by 23 inches wide and 10 inches deep. Provides fusing and connections for fourteen 112A interconnecting units. Intended for relay rack mounting. Requires separate power supply. (See Fig. 38.)

Apparatus Mountings

2.39 69G Apparatus Mounting—Approximately 8 inches high by 1-3/4 inches wide and 8-1/2 inches deep. Equipped with two connectors aligned vertically to mount one 101- or 102-type interconnecting unit (8-inch) or by adding the P-40V590 guide assembly, will mount one 108A interconnecting unit (4-inch) in upper connector. A plug on the rear accepts A25B connector cables. Mounts on a standard relay rack or in a 16C apparatus mounting using the 99B bracket.

2.40 69H Apparatus Mounting—Same as the 69G except for the internal wiring to the connectors and has one plug on rear for connector cables. Will mount 109A, 110A, or 111A IUs.

Service Units

2.41 700A Interconnecting Service Unit—Approximately 15 inches high, 9 inches wide, and 5-1/2 inches deep and is equipped with an apparatus mounting and six 20-pin connectors to house six 108A interconnecting units. The 700A2 unit is also equipped with a 28A1 plug-in type power unit which supplies 24-volt battery and ground. This unit is intended to be used in association with the 105A interconnecting unit. (See Fig. 39.)

Control Units

2.42 75A Control Unit—An 8-inch circuit pack used with 101B, 102B and 120A interconnecting units. The 75A control unit provides automatic level control (ALC) over data/voice signal voltages applied to customer tip and ring of voice type interconnecting units. Each control unit contains six ALC circuits and may be plugged into position 13 of the 604B panel to control units 1 through 6, and position 14 to control units 7 through 12. (See Fig. 40.)

Protectors

2.43 KS-20944 Protector—Approximately 8 inches high by 6-3/8 inches wide and 3-3/4 inches deep. It is intended for wall mounting. Provides a dc interface between Bell System interconnecting arrangements and a customer-provided dc power supply. Designed to trip in 25 milliseconds (maximum) on overvoltage of 38 volts (24-volt unit) and 68 volts (48-volt unit), on overload of 18.75 amperes (15-amp unit) and 36 amperes (30-amp unit). Will trip on reversed polarity or ac voltage greater than 18 volts or incorrect power supply ground. (See Fig. 41.)

3. SELECTION

3.01 The associated apparatus and equipment used with the connecting arrangements are shown in Table A.

3.02 For detailed information on the various interconnecting devices, refer to the appropriate BSP.

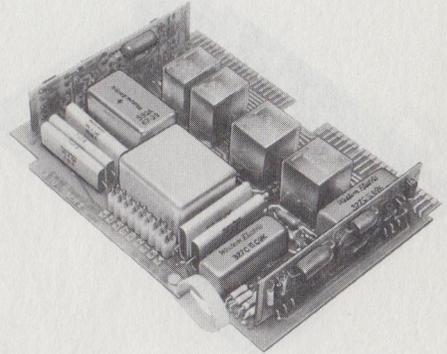


Fig. 1—101A Interconnecting Unit

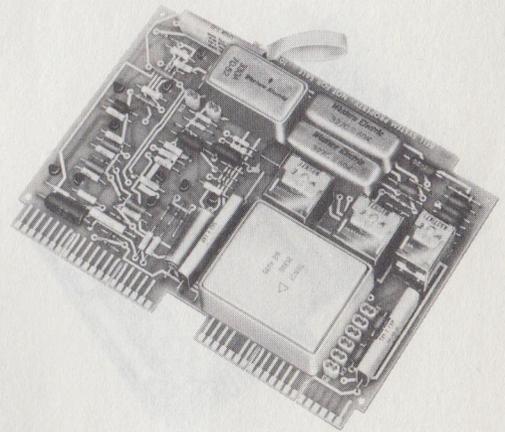


Fig. 2—101B Interconnecting Unit

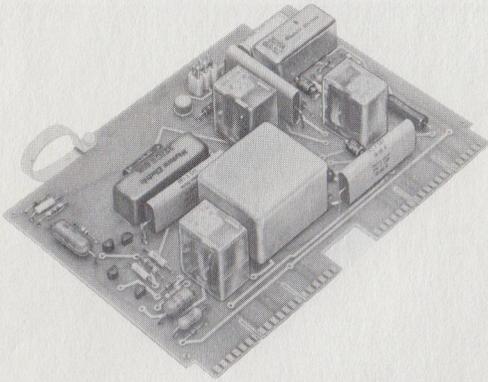


Fig. 3—102A Interconnecting Unit

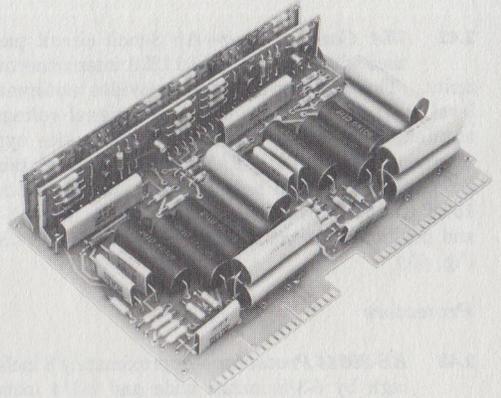


Fig. 5—103A (MD) Interconnecting Unit

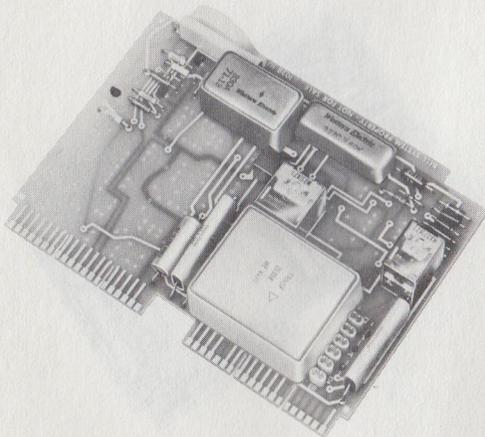


Fig. 4—102B Interconnecting Unit

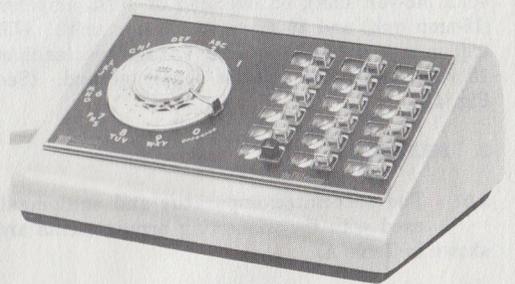


Fig. 6—105A Interconnecting Unit (formerly F58015 [MD] Console)

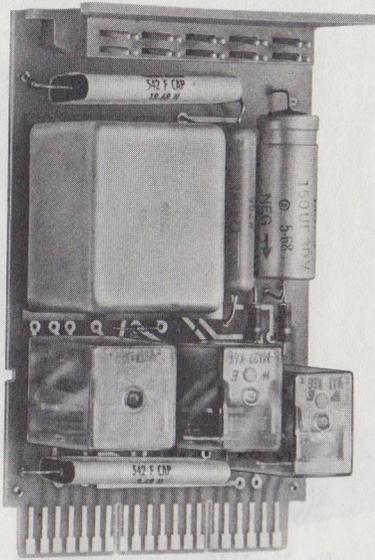


Fig. 7—108A Interconnecting Unit (formerly 433A [MD] KTU and F48004 [MD] KTU)

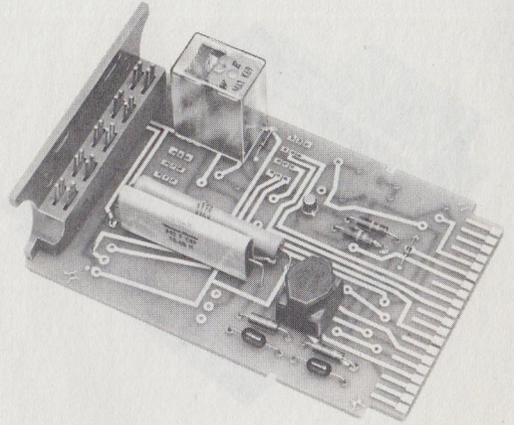


Fig. 9—110A Interconnecting Unit

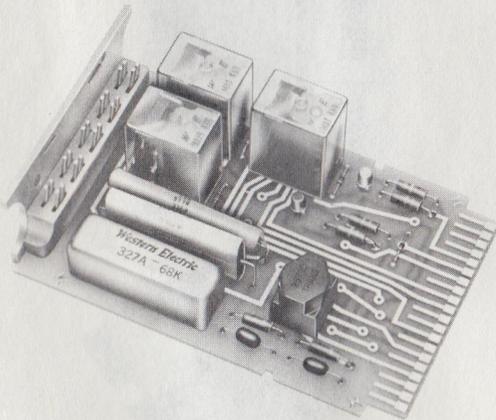


Fig. 8—109A Interconnecting Unit

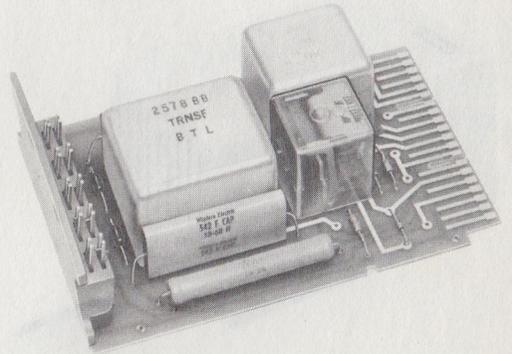


Fig. 10—111A Interconnecting Unit (formerly 432A [MD] KTU and F58006 [MD] KTU and F58007 [MD] 1U)

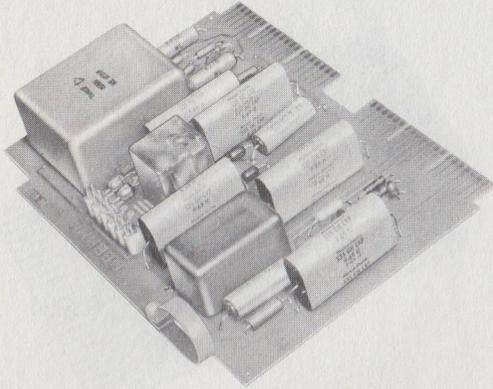


Fig. 11—112A Interconnecting Unit

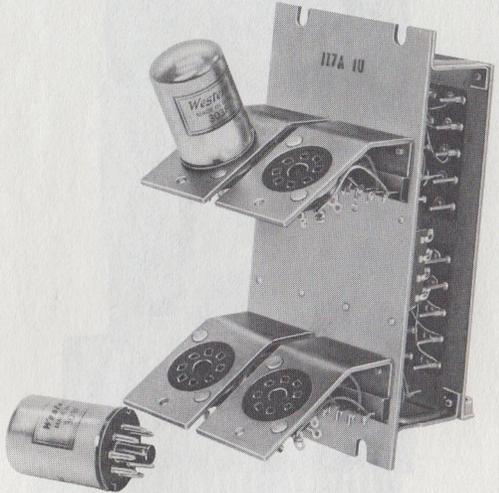


Fig. 13—117A Interconnecting Unit

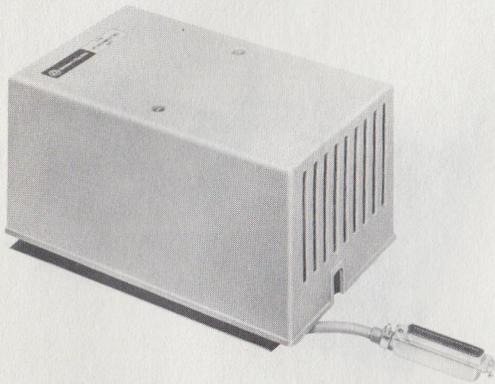


Fig. 12—114A Interconnecting Unit

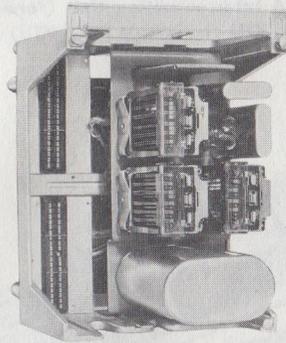


Fig. 14—118A Interconnecting Unit



Fig. 15—119A Interconnecting Unit

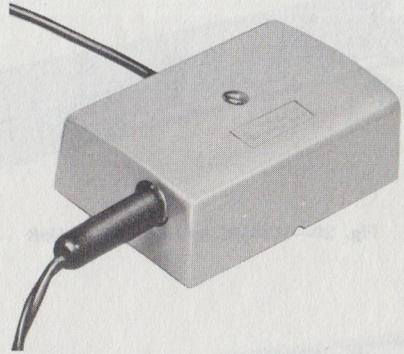


Fig. 17—30B Voice Coupler (formerly 30A [MD] VC and F57948 [MD] KTU)

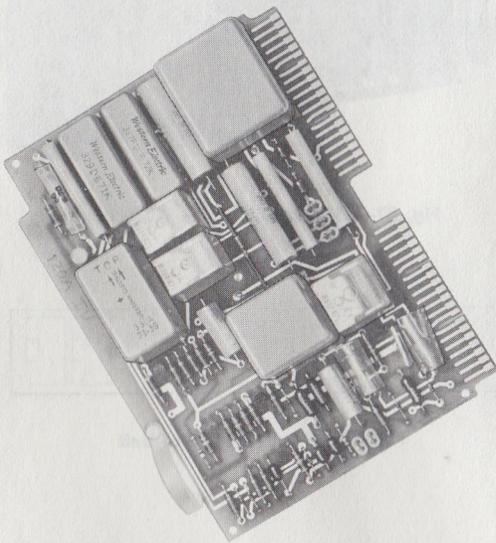


Fig. 16—120A Interconnecting Unit



Fig. 18—31B Voice Coupler (formerly 31A [MD] VC and F58008 [MD] KTU)



Fig. 19—J53050A Interconnecting Unit (formerly F58005 [MD] 1U)

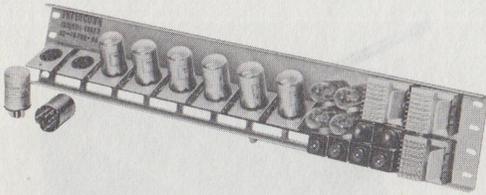


Fig. 20—J53050C Interconnecting Unit



Fig. 25—J53050H Interconnecting Unit

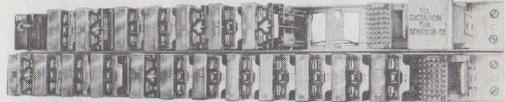


Fig. 26—J58827E Recorded Telephone Dictation Trunk Unit

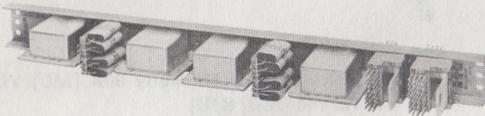


Fig. 21—J53050D Interconnecting Unit

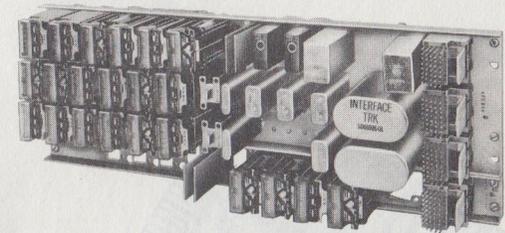


Fig. 27—J58824CD Interface Trunk Unit



Fig. 22—J53050E Interconnecting Unit (formerly F58356 [MD] 1U)



Fig. 23—J53050F Interconnecting Unit

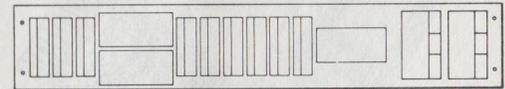


Fig. 28—J92614E Interface Unit



Fig. 24—J53050G Interconnecting Unit

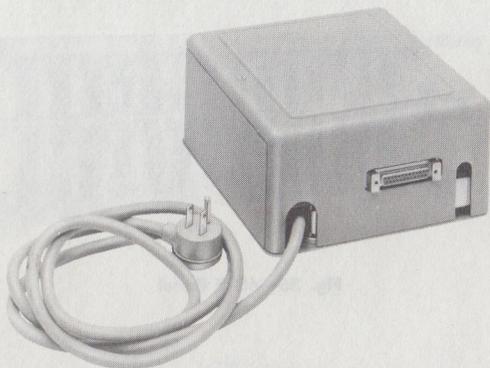


Fig. 29—KS-19522 Recorder Coupler



Fig. 31—KS-20445 Control Unit



Fig. 30—KS-19645 Recorder Connector



Fig. 32—KS-20721 Station Coupler

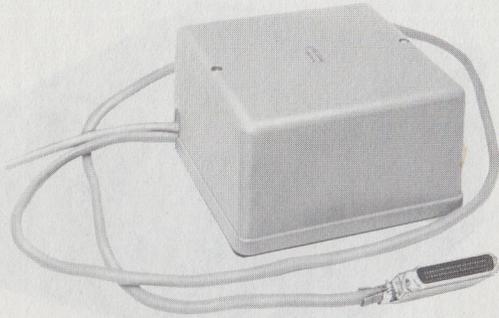


Fig. 33—KS-20893 Multiline Station Coupler

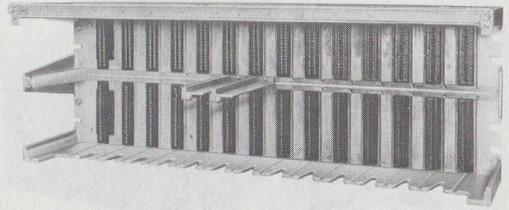


Fig. 36—604B Panel

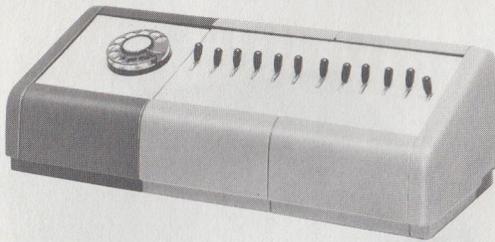


Fig. 34—F58010 Interconnecting Unit

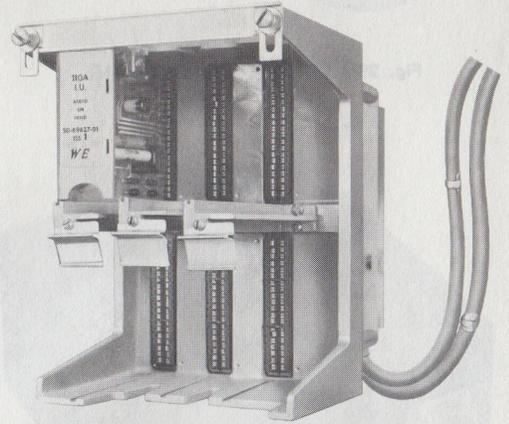


Fig. 37—606A Panel

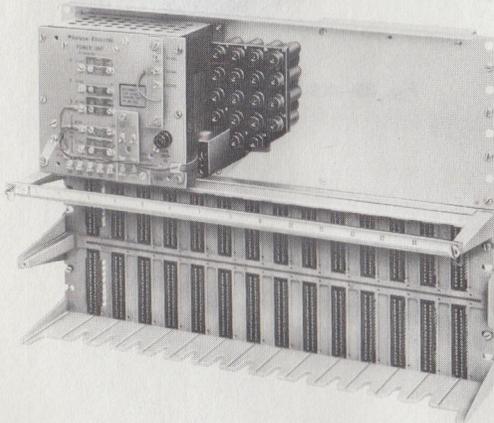


Fig. 35—604A Panel

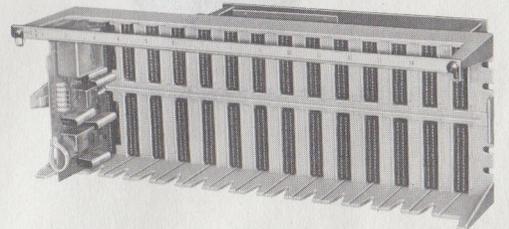


Fig. 38—607A Panel

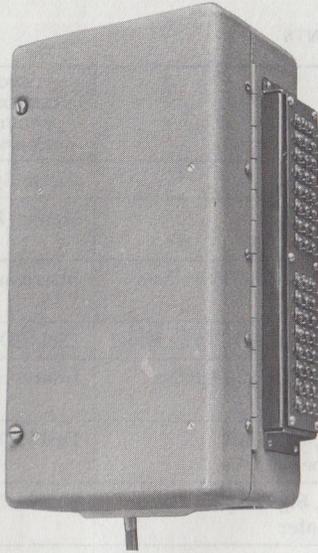


Fig. 39—700A Interconnecting Service Unit (formerly F58003 [MD] 1SU)



Fig. 41—KS-20944 Protector

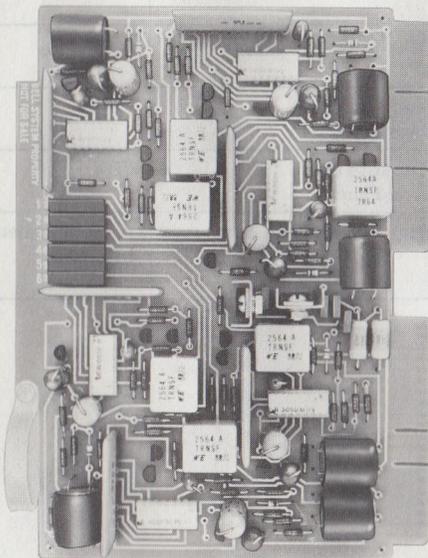


Fig. 40—75A Control Unit

◆ TABLE A ◆

CONNECTING ARRANGEMENTS

| USOC* | INTERCONNECTING DEVICE | ASSOCIATED EQUIPMENT | TYPICAL CUSTOMER-PROVIDED EQUIPMENT |
|------------------|--|--------------------------------------|-------------------------------------|
| CAU | KS-20445 Control Unit | Telephone Set | Alarm System |
| CDA | 108A IU (formerly 433A KTU and F-58004 [MD] KTU) | 700A ISU 105A IU (Console) | Manual PBX |
| CDB | J53050A, L1 IU (formerly F-58005 [MD] IU) | 23-Inch Rack or 16-Type App Mtg | Intercom |
| CDH | 101-Type IU | 69G App Mtg or 604-Type Panel | Dial PBX |
| CDN | 111A IU (formerly 432A KTU and F-58006 [MD] KTU) | 69H App Mtg or 606A Panel | Intercom |
| CDQ2W CDQ2X | J53050C, L1 (MD) or L3 IU, J53050D, L1; J53050C, L2 IU | J98605AG, Sig Unit 24V4C Repeater | Dial PBX |
| CDQ4W CDQ4X | J53050C, L1 (MD) or L3 IU, J53050C, L2 IU | J98605AG, Sig Unit 44V4 Repeater | Dial PBX |
| CDX | 31B Voice Coupler (formerly 31A and F-58008 [MD]) | Manual Switchboard | Patches |
| CDY | Key Telephone Unit | Key Telephone Set | Intercom |
| CD1 | F-58010 (MD) IU | Manual Switchboard | Intercom |
| CD4 | 31B Voice Coupler (formerly 31A and F-58008 [MD]) | Manual Switchboard | Radio System |
| CD5 | 111A IU (formerly 432A KTU and F-58007 [MD] KTU) | 69H App Mtg or 606A Panel | Intercom |
| CD6 | 108A IU (formerly 433A KTU and F-58004 [MD] KTU) | 69G App Mtg or 604-Type Panel | PBX |
| CD7, CD8, CD9 | 102-Type IU | 69G App Mtg or 604-Type Panel | PBX |
| CEBAV CEBAW | 111A IU (formerly 432A KTU and F-58006 [MD] or F-58007 [MD] KTU) | 69H App Mtg or 606A Panel | Announcement Intercom |

* Denotes uniform service order code.

◆ TABLE A (Cont) ◆

| USOC* | INTERCONNECTING DEVICE | ASSOCIATED EQUIPMENT | TYPICAL CUSTOMER-PROVIDED EQUIPMENT |
|----------------|--|---|-------------------------------------|
| CEBAX CEBBX | 111A IU (formerly 432A KTU and F-58006 [MD] KTU) | 69H App Mtg or 606A Panel | Conferencing Device |
| CED | 101-Type IU | 69G App Mtg or 604-Type Panel | PBX |
| CEK | J53050E, L1 IU (formerly F-58356 [MD] IU) | 23-Inch Rack or 16-Type App Mtg | Message Register |
| CET | 102-Type IU | 69G App Mtg or 604-Type Panel | PBX |
| CEZ CEZAW | KS-20893 Multiline Coupler | Key Telephone Set | Conferencing Device |
| CTD | J53050G, L1 IU | 23-Inch Rack or 16-Type App Mtg | Call Diverter |
| C1V | 18D KTU | 105-Type App Mtg | Traffic Measuring |
| C1Y | J92614E | 23-Inch Rack or 16-Type App Mtg | FADS |
| C2ACP | 102-Type IU | 69G App Mtg or 604-Type Panel | Key System |
| C2AKS | 102-Type IU | 69G App Mtg or 604-Type Panel | Key System Call Diverter |
| C2H | J53050C, L2 IU | J98605AH Sig Unit, 44V4, or 24V4C Repeater | Microwave Channel |
| C2K | J53050C, L2 IU J53050D, L1 IU | 23-Inch Rack or 16-Type App Mtg | Microwave Channel |
| C22 | 112A IU | 607A Panel | PBX |
| C232W | J53050D, L1 IU 31B Voice Coupler | 23-Inch Rack or 16-Type App Mtg; 24V4C Repeater | PBX or station Equipment |
| C234W | 44V4A Repeater | 23-Inch Rack F-58122 AMP | PBX |
| C24 | J53050C, L2 IU | J98605AH, Sig Unit 24V4C Repeater | Microwave Channel |

* Denotes uniform service order code.

◆ TABLE A (Cont) ◆

| USOC* | INTERCONNECTING DEVICE | ASSOCIATED EQUIPMENT | TYPICAL CUSTOMER-PROVIDED EQUIPMENT |
|----------------------|--|--|-------------------------------------|
| C25 | 118A IU | 23-Inch Rack or 16C App Mtg | PBX ANI |
| C27 | J53050C, L2 IU J53050D, L1 IU | 23-Inch Rack or 16-Type App Mtg | Microwave Channel |
| DCK | J53050F, L1 IU | 23-Inch Rack or 16-Type App Mtg | Dictation or Radio Paging Equipment |
| DCT | J58827E Trunk Ckt | 23-Inch Rack or 16-Type App Mtg | Dictation Equipment |
| DCW | J58824CD Trunk Ckt | 23-Inch Rack or 16-Type App Mtg | Radio Paging Equipment |
| GC2 | 15D KTU | 105-Type App Mtg | Ring Indicator Equipment |
| HZM | J53050H, L1 IU | 23-Inch Rack or 16-Type App Mtg | Traffic Measuring |
| LOH | 110A IU | 69H App Mtg or 606A Panel | Music-on-Hold |
| LVH | 109A IU or 110A IU | 69H App Mtg or 606A Panel | Music-on-Hold |
| PVF | 114A IU | Key Telephone Set | Video Set |
| QKT QKTBT | 30B Voice Coupler (Replaces 30A and F-57948) | Telephone Set with Exclusion Key | Patches Radio Pickup |
| RCZ, RC1, † RTT † | KS-19645-Type Recorder Connector | Telephone Set, PBX | Recorders and Timers |
| RCX | 117A IU | 15A App Mtg or 23-Inch Rack | Traffic Measuring |
| RDL, RDM † | KS-19522 Recorder Coupler | Telephone Set and KS Announcement Set (Optional) | Answering Sets |

* Denotes uniform service order code.

† Distributing house modification of basic unit.

◆ TABLE A (Cont) ◆

| USOC* | INTERCONNECTING DEVICE | ASSOCIATED EQUIPMENT | TYPICAL CUSTOMER-PROVIDED EQUIPMENT |
|--|---------------------------|------------------------------|--|
| RDMZR RDY STC STS SU6AQ SU7QW | KS-20721 Station Coupler | Telephone Set | Answer Sets Alarm Systems Key Tel Systems Telephone Apparatus |
| STP | 120A Interconnecting Unit | 69G App Mtg or 604B Panel | Key Tel Systems |
| SU3, SU4 SU6, † SU7 † | KS-20445 Control Unit | Telephone Set | Alarm Systems |
| CBF | 75A Control Unit | Voice-Type IUs | Data |
| — | 119A IU | Private Line | 2-Wire Terminal |
| VCP | KS-20944 Protector | 604-Type Panel | DC Power Supply |

* Denotes uniform service order code.

† Distributing house modification of basic unit.