# SF SIGNALING SYSTEM
# TYPE G, STANDALONE BAY
# EQUIPMENT DESIGN REQUIREMENTS
# COMMON SYSTEMS

## 1. GENERAL

### SCOPE

**1.01** This specification, together with the supplementary information listed herein, covers the equipment design requirements for the framework and equipment for the manufacture and installation of the G-Signaling Standalone Bay.

**1.02** Whenever this specification is reissued, the reason for reissue will be listed in this paragraph.

### DESCRIPTION

**1.03** The G-Signaling Standalone Bay is modular in design; this allows flexibility in plug-in selection and simplifies bay configuration and wiring information for both factory and field. The bay uses about one-half the space and dissipates internally approximately one-fourth the power of previous SF systems. The bay is available in 4 heights which accommodate 4, 6, 7, or 8 basic G modules, or 96, 144, 168, or 192 circuits per bay. A basic module is a complete operating unit and contains 24 signaling plug-ins and its own double-width common units, which are the power converter and a fuse and alarm unit. Each basic module requires a prewired backplane which is available from Material Management Center (MMC) stock.

For each basic G module, 24 signaling plug-ins are selected by the user, depending on the particular function desired, compatibility with the SF (Single Frequency) unit at the distant end, and the office or station side interface. Initial signaling plug-in selection will be from the available codes listed in **4. EQUIPMENT.**

**1.04** The G standalone bays use 23-inch unequal flange duct type frameworks in four standard heights. The backplanes and a G module for miscellaneous mounting are included as list numbers on the bay J-codes. Fig. 1 illustrates the four heights of G standalone bays and their maximum loading with G modules.

**1.05** ***Common Module Equipment***: The common equipment consists of two double width plug-in units which occupy the right side of the G-signaling module. The upper right unit is the 285A Power Unit and the lower right is the J99395YA Fuse and Alarm Unit. See Fig. 2.

**1.06** The 285A is a pulse width controlled dc-to-dc converter. This unit converts −48 Vdc office battery to ±12 Vdc and +5 Vdc for use by G-signaling plug-ins and the fuse and alarm unit.

**1.07** The J99395YA Fuse and Alarm Unit is a plug-in unit consisting of a battery filter, fuse and alarm circuit, carrier group alarm (CGA) circuit, and 2600 Hz tone supply.

**1.08** ***G-Signaling Units***: The G-Signaling Units are single-frequency units used to convert dc supervisory, ringing and address signals for transmission over the A5, A6, A6B, N2, N3, and N4 analog carrier systems. These units are described in paragraphs 1.09 to 1.22 and are available as the first part of a two phase development program. Phase two units are listed in **4. EQUIPMENT** but are not functionally described.

**1.09** The J99395AA, AB, BA, CA, and DA units are primarily intended to be used with message service trunks such as direct trunks, toll connecting trunks, and inter-toll trunks. The AA, AB, and BA units can be used

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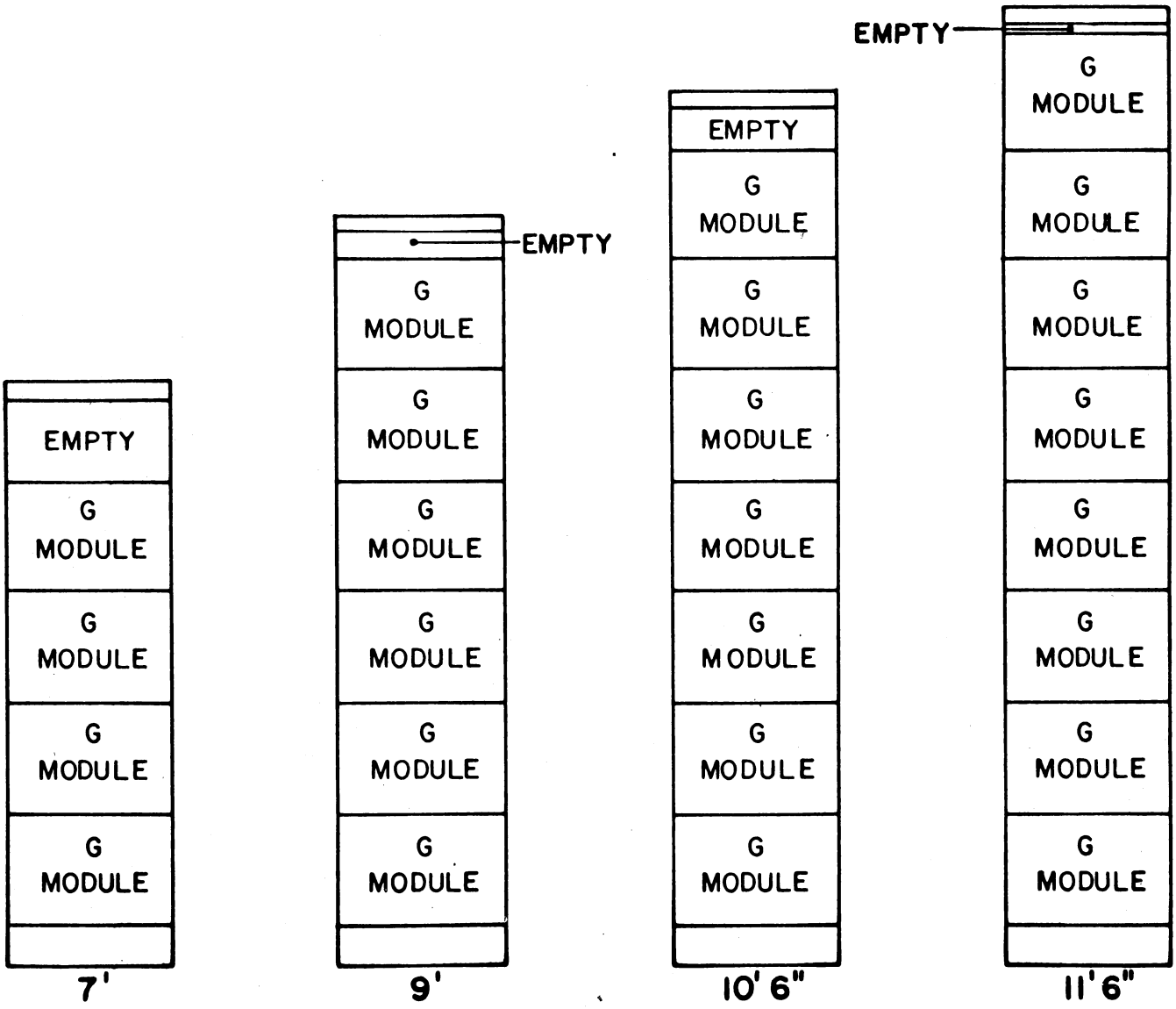


**Fig. 1—G-Signaling Standalone Bay Configurations**

in any special service applications compatible with E & M signaling. They can function as either the originating or terminating end of a circuit or at an intermediate point where more than one signaling link is used. A unit is required at each end of the facility for trunk circuits arranged for E & M signaling on multifrequency (MF) or dial pulse trunks.

**1.10** The J99395AA (GAA) is a 2-wire, 900 ohm signaling unit for E & M applications. The GAA is a single-frequency signaling unit that converts dc supervisory and address signals into 2600 Hz tone signals, for transmission over the voice path of an analog carrier facility. Tone signals from the analog carrier facility are converted into dc supervisory and address information. For a detailed description of this unit, see CD-7C061-01, SD-7C061-01, and BSP 179-405-100.

**1.11** The J99395AB (GAB) is a 2-wire, 600 ohm signaling unit for E & M applications. The GAB is a single-frequency unit that converts dc supervisory and address signals into 2600 Hz tone signals for transmission over the voice path of an analog carrier facility. Tone signals from the analog carrier facility are con-

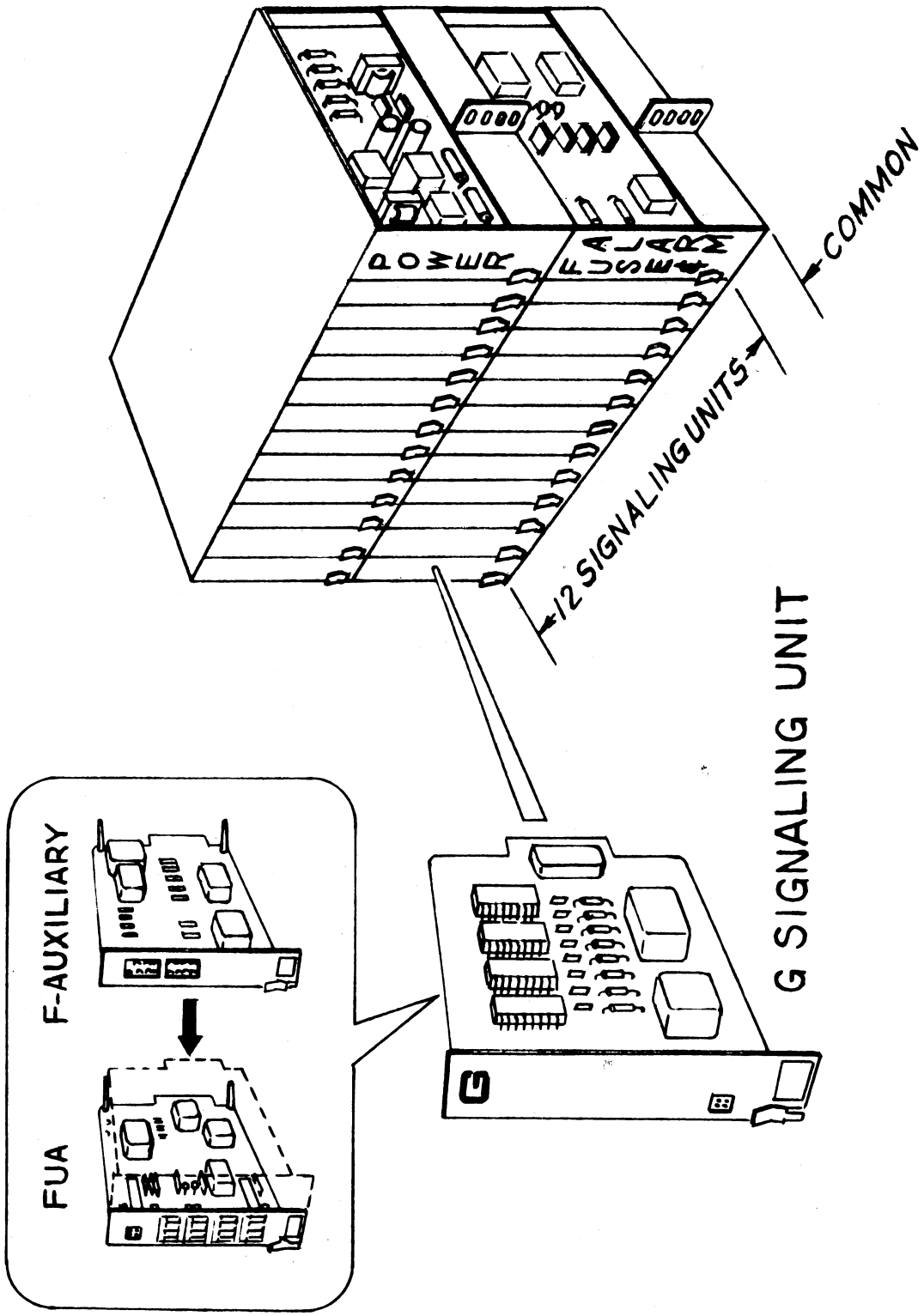


Fig. 2—G-Signaling Modular Design

verted into dc supervisory and address information. For a detailed description of this unit see CD-7C062-01, SD-7C062-01, and BSP 179-405-100.

**1.12** The J99395BA (GBA) is a 4-wire, 600 ohm signaling unit for E & M applications. The GBA is a single-frequency signaling unit that converts dc supervisory and address signals into 2600 Hz tone signals for transmission over the voice path of an analog carrier facility. Tone signals from the analog carrier facility are converted into dc supervisory and address information. For a detailed description of this unit, see CD-7C063-01, SD-7C063-01, and BSP 179-405-100.

**1.13** The J99395CA (GCA) is a 2-wire 900 ohm unit for use at the originating end of MF or dial pulsing trunks arranged for reverse battery supervision. The GCA is a single-frequency signaling unit which provides 2600 Hz signaling over analog carrier facilities. The unit converts dc supervisory and address signals into 2600 Hz tone signals for transmission over the voice path of an analog carrier facility. Tone signals are converted into dc supervisory information. For a detailed description of this unit see CD-7C064-01, SD-7C064-01, and BSP 179-406-100.

**1.14** The J99395DA (GDA) is a 2-wire 900 ohm unit for use at the terminating end of MF or dial pulsing trunks arranged for reverse battery supervision. The GDA is a single-frequency signaling unit which provides 2600 Hz signaling over analog carrier facilities. The unit converts dc supervisory signals into 2600 Hz tone signals for transmission over the voice path of an analog carrier facility. Tone signals received from the analog carrier facility are converted into dc supervisory and address information. For a detailed description of this unit see CD-7C065-01, SD-7C065-01, and BSP 179-406-100.

**1.15** The J99395LA, LB, PA, RA, SA, and SB units are primarily intended to be used on switched special access services such as FX, WATS lines and trunks, PBX-CO trunks and Off-Premises Station (OPS) lines.

**1.16** The J99395LA (GLA) is a 2-wire, 900 ohm, office-end foreign exchange unit for loop start/ground start applications. The GLA is a single-frequency signaling unit which converts dc supervision and ringing at the ET (Equipment Transmit) port to 2600 Hz tones for transmission over an analog carrier facility. Tone signals received from the carrier are converted into loop closure information at the ET port. The circuit is equipped with automatic Build Out Resistors (BOR's), short circuit protection, and Carrier Group Alarm (CGA) features. For a detailed description of this unit see CD-7C058-01, SD-7C058-01, and BSP 179-407-100.

**1.17** The J99395LB (GLB) is a 2-wire, office-end foreign exchange unit with gain transfer for loop start/ground start operation. The GLB is a single-frequency signaling unit which converts dc supervision and ringing at ET (Equipment Transmit) to 2600 Hz tones for transmission over an analog carrier. Tone signals received from the carrier are converted into loop closure information at ET. The unit provides up to 6 dB of gain transfer between the hybrid 2-wire ports for loaded and nonloaded cable. For a detailed description of this unit, see CD-7C060-01, SD-7C060-01, and BSP 179-407-100.

**1.18** The J99395MB (GMB) unit is a 4-wire transmission by-pass non-signaling unit with zero loss transmission for use in special service and through circuit applications where the signaling function is not required or is provided elsewhere. For a detailed description of this unit, see CD-7C079-01, SD-7C079-01, BSP 179-406-100.

**1.19** The J99395PA (GPA) is a 4-wire, office-end, foreign exchange unit for loop start/ground start operation. The GPA is a single-frequency signaling unit which converts dc supervision and ringing at ET (Equipment Transmit) to 2600 Hz tones for transmission over an analog carrier. Tone signals received from the carrier are converted into loop closure information at ET and ER (Equipment Receive) ports. The circuit is equipped with automatic BOR's, short circuit protection, CGA features, and post equalizations of up to 15 dB with loaded and non-loaded cables. For a detailed description of this unit, see CD-7C059-01, SD-7C059-01, and BSP 179-407-100.

**1.20** The J99395RA (GRA) unit is a 4-wire, station end, foreign exchange unit for loop

start/ground start applications. The GRA converts dc and dial pulse information at the equipment side of the unit to 2600 Hz tones for transmission over an analog carrier facility's voice path. Tone signals received from the analog carrier facility are converted into dc supervision and ringing at ET (Equipment Transmit) and ER (Equipment Receive) ports. The circuit is equipped with automatic BOR's, short circuit protection, CGA features, and post equalization of 15 dB with loaded and non-loaded cables. For a detailed description of this unit, see CD-7C055-01, SD-7C055-01, and BSP 179-407-100.

**1.21** The J99395SA (GSA) is a 2-wire, 900 ohm, station end, foreign exchange circuit for loop start/ground start applications. The GSA converts dc and dial pulse information at ET to 2600 Hz tones for transmission over an analog carrier facility's voice path. Tone signals from the analog carrier facility are converted into dc supervision and ringing at ET. The circuit is equipped with automatic BOR's, short circuit protection, and CGA features. For a detailed description of this unit see CD-7C054-01, SD-7C054-01, and BSP 179-407-100.

**1.22** The J99395SB (GSB) is a 2-wire, station end, foreign exchange unit with gain transfer. The GSB is a single-frequency signaling unit that converts dc supervisory and address signals into 2600 Hz tone signals for transmission over the voice path of an analog carrier facility. Tone signals from the analog carrier facility are converted into dc supervision and address information. The unit provides up to +6 dB of gain transfer between the hybrid 2-wire ports for loaded and non-loaded cable. For a detailed description of this unit see CD-7C056-01, SD-7C056-01, and BSP 179-407-100.

## BACKPLANES

**1.23** The ED-7C196,GR1 backplane assembly is used for all G-signaling applications. Each pair of shelves in the bay to be equipped with G-signaling plug-ins will require one backplane to be mounted. See Fig. 3. The backplane is equipped with edge-board connectors for plug-in mounts and with input/output (I/O) quick-connect mass termination devices (MTD). Fig. 4 shows the layout of the backplane with connectors and I/O MTDs. The mated I/O MTDs are the interfaces between the signaling leads of the G-modules and the central office cabling. Circuit ground and frame ground leads from the edge-board connectors are soldered to a common ground bus which is connected to a terminal block on the backplane, where the bus mates with the bay battery return and frame ground cables. Power is brought into the module (−48 volt) through another terminal on the same block where power feed mates with a group of four leads that go to the GYA unit.

**1.24** G-signaling has a standard lead plan making each of the 24 G-signaling slots capable of receiving any G-signaling plug-in for any application. See Fig. 5. On the line side of the connector are 4 transmission leads from a G plug-in which terminate on the distribution frame for standalone bays. On the drop side are 10 leads which terminate on the distribution frame for all bays. The set of 10 drop side leads is the maximum needed by any one G-signaling plug-in. The four-wire E & M units require 4 leads for transmission, 4 leads for looped E & M, and 2 make-busy leads, this being the maximum requirement. Fewer drop side leads are required for the other G-signaling plug-ins.

**1.25** The G-signaling standalone bay does not have the Switched Maintenance Access System (SMAS) option. Therefore the backplane will be equipped with the appropriate shorting straps internal to I/O MTDs J51 and J55. See SD-7C052-01.

## ALARMS

**1.26** If carrier is lost the proper signaling response will be provided to each G-signaling plug-in. The Carrier Group Alarm (CGA) functions are provided by two circuits in the J99395YA Fuse and Alarm common unit. Each CGA circuit is dedicated to a shelf of 12 circuits and provides the unified CGA response in each G-signaling plug-in. When a carrier failure occurs, the G-signaling plug-ins may be required to provide make-busy leads and conditioning of supervisory signaling such as E & M or loop signaling state. The carrier group alarm interfaces for the A & N carrier families are shown on SD-7C051-01.

**1.27** Connections are provided from the J99395YA fuse and alarm common unit for remote major, minor, major visual, minor

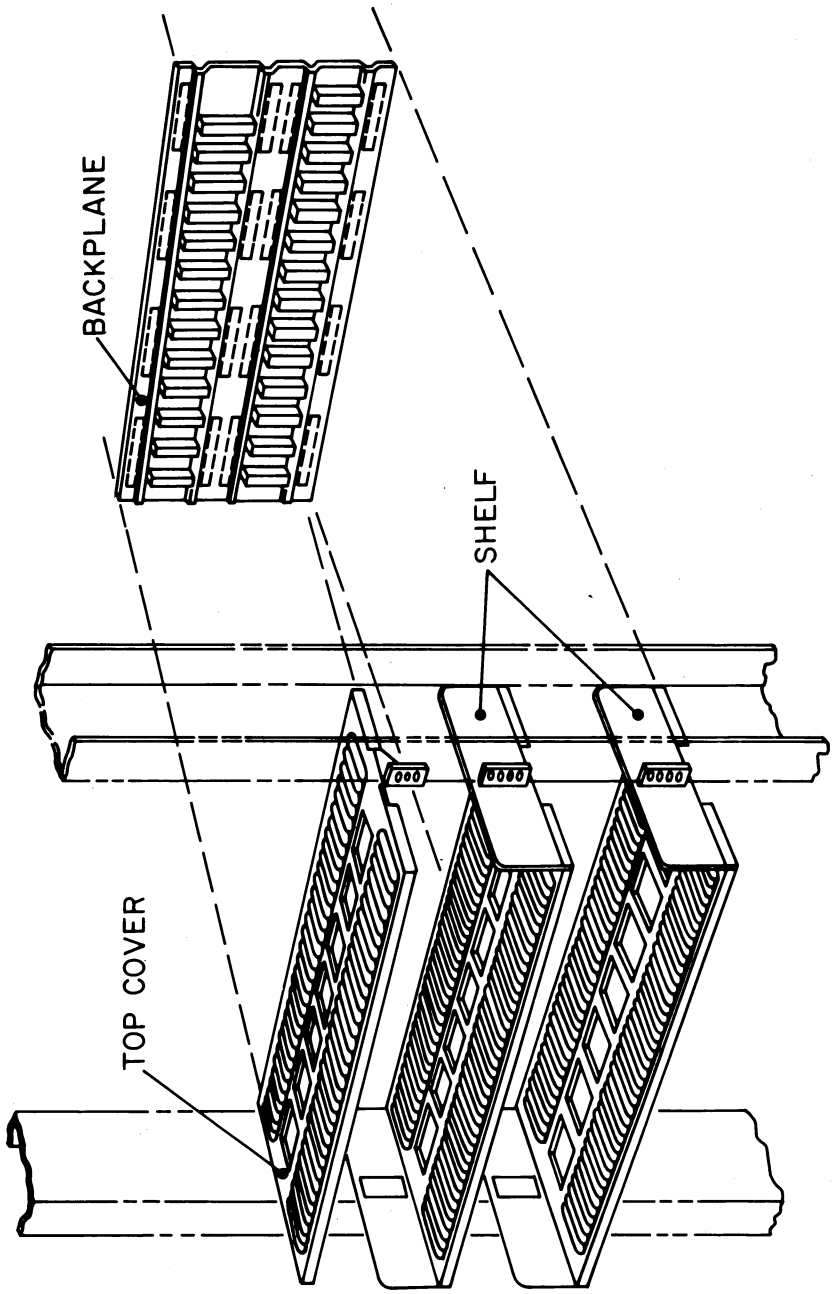


Fig. 3—G-Signaling Module

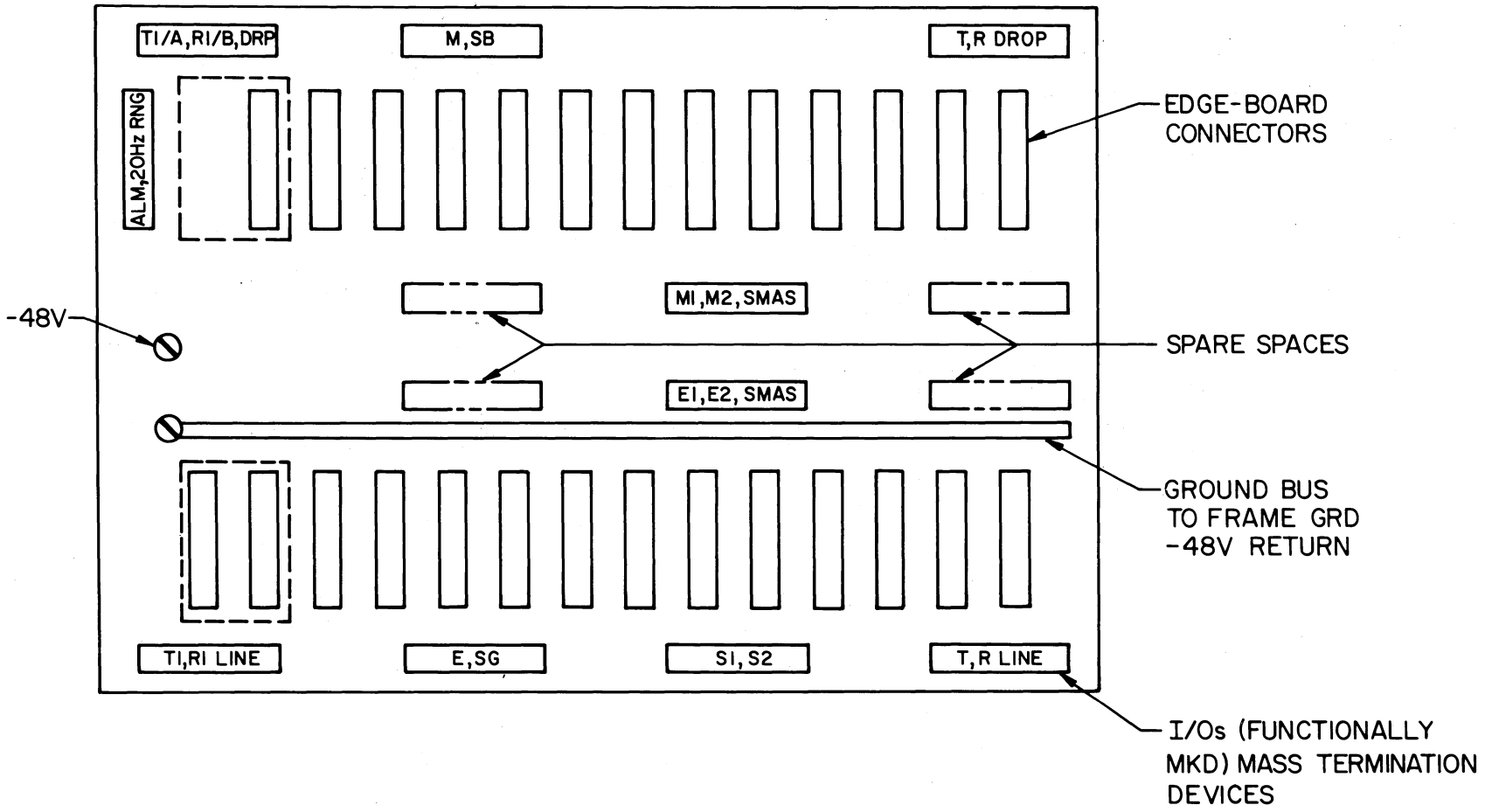


**Fig. 4—G-Signaling Backplane**

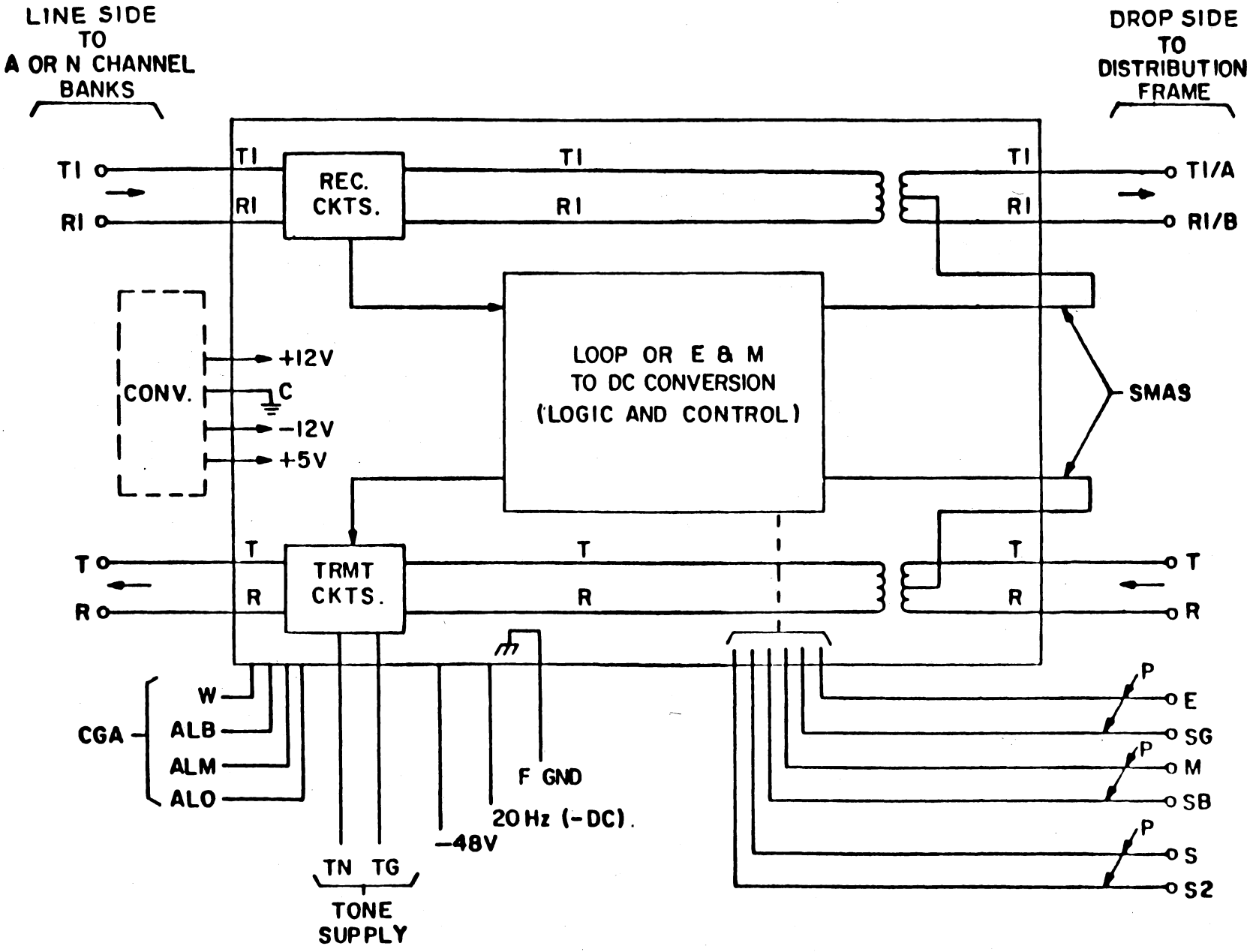


Fig. 5—G-Signaling Lead Plan

visual, major audible, and minor audible alarms. These alarm functions will be accessible via the I/O mass termination devices to provide the office alarms for each module and bay. The office alarm interfaces are shown on SD-7C051-01.

**1.28** On the fuse and alarm front panel there is a red LED that is lighted when the breaker is in the off or tripped position and not supplying −48 volts to the converter. A second red LED is lighted if there is a loss of the 2600 Hz tone supply. A third red LED is lighted if the power supply (±12V, +5V) fails. A malfunction that lights any of these three red LEDs will also light a red major alarm LED on the same panel and provide the major alarm closures to the office. A loss of 20 Hz ringing supply will light an amber LED on this panel and provide the minor alarm closures to the office.

**1.29** ***Power***: Each G-module requires connection to −48 volt office battery for power, a source of 20 Hz continuous ringing current, and battery and frame grounds. The average busy hour current drain of a G-module on the −48 volt office battery is between 0.7 and 3.3 amperes per G-module depending on the mix of units and the type of service (ie, message versus special service).

**1.30** ***Maintenance***: There is no planned routine maintenance of the G-signaling standalone bay. Should a malfunction occur, a test extender will be available to provide access to the circuit plug-ins. The standalone bays can be cross-connected to SMAS 3 or SMAS 5 at the distributing frame for centralized maintenance access to G circuits. This arrangement will allow expansion into the area-wide remote maintenance via Switched Automatic Remote Test System (SARTS).

**1.31** ***Communications Panel***: Bay loading is such that no internal bay space can be provided for a Communications Panel. Communications Panels should be telco-engineered for miscellaneous mounting in accordance with local practice.

## 2. SUPPLEMENTARY INFORMATION

801-000-000—Numerical Index—Common Systems
800-600-000—Checking List—General Equipment Requirements
801-644-151—G-Signaling Consolidated with SMAS
179-405-100—Type G-Signaling Plug-In Units
179-406-100—Type G-Signaling Plug-In Units
179-400-100—Bay Testing
179-100-312—G-Signaling Compatibility with Switching Equipment

## 3. DRAWINGS

SD-82497-01—285A Power Supply
SD-7C080-01—Test Extender

For additional drawings forming a part of this specification, see listing under **SUBDIVISIONS OF EQUIPMENT AND DETAILED INDEX.**

## 4. EQUIPMENT

### *ED-7C195-50—Equipment Framework Assembly*

***Group 1***—11-foot 6-inch framework assembly, accommodates a maximum of 8 G-signaling modules or 192 circuits.
***Group 2***—10-foot 6-inch framework assembly, accommodates a maximum of 7 G-signaling modules or 168 circuits.
***Group 3***—9-foot framework assembly, accommodates a maximum of 6 G-signaling modules or 144 circuits.
***Group 4***—7-foot framework assembly, accommodates a maximum of 4 G-signaling modules or 96 circuits.

### *ED-7C196-30—G-Signaling Backplane Assembly*

***Group 1***—Backplane wired assembly.

### *ED-7C197—Cabling Plan*

### *J99395A—AT&TCo Std—G-Signaling Standalone Bays*

***List 1***—11-foot 6-inch framework assembly (ED-7C195,GR1) equipped with 16 shelves, 1 top cover, and miscellaneous hardware. Accommodates a maximum of 8 G-signaling modules or 192 circuits.
***List 2***—10-foot 6-inch framework assembly (ED-7C195,GR2) equipped with 14

shelves, 1 top cover, and miscellaneous hardware. Accommodates a maximum of 7 G-signaling modules or 168 circuits.

*List 3*—9-foot framework assembly (ED-7C195,GR3) equipped with 12 shelves, 1 top cover, and miscellaneous hardware. Accommodates a maximum of 6 G-signaling modules or 144 circuits.

*List 4*—7-foot framework assembly (ED-7C195,GR4) equipped with 8 shelves, 1 top cover, and miscellaneous hardware. Accomodates a maximum of 4 G-signaling modules or 96 circuits.

*List 5*—One ED-7C196,GR1 Wired backplane assembly. See Section 1.20.

***J99395B—AT&TCo Std — G-Signaling Standalone Module***

*List 1*—Shelf Unit — Miscellaneously Mounted (ED-7C198) including 2 shelves, 1 top cover, and mounting hardware plus one ED-7C196,GR1, Wired backplane assembly. Miscellaneous mounting of this shelf requires 16-1/2 inches of vertical space.

***J99395AA—AT&TCo Std — 2-Wire, 900 ohm E & M Signaling***

*List 1*—Assembly, wiring and equipment for one 2-wire, 900 ohm E & M signaling unit per SD-7C061-01.

***J99395AB—AT&TCo Std — 2-Wire, 600 ohm E & M Signaling***

*List 1*—Assembly, wiring and equipment for one 2-wire, 600 ohm E & M signaling unit per SD-7C062-01.

***J99395BA—AT&TCo Std — 4-Wire, E & M Signaling***

*List 1*—Assembly, wiring and equipment for one 4-wire, E & M signaling unit per SD-7C063-01.

***J99395BM—AT&TCo Std — 4-Wire, Pulse Link Repeater***

*List 1*—Assembly, wiring and equipment for one 4-wire, pulse link repeater unit per SD-7C071-01.

***J99395CA—AT&TCo Std — 2-Wire, Loop Reverse-Battery (Originating)***

*List 1*—Assembly, wiring and equipment for one 2-wire, loop reverse-battery, (Originating) unit per SD-7C064-01.

***J99395DA—AT&TCo Std — 2-Wire, Loop Reverse-Battery (Terminating)***

*List 1*—Assembly, wiring and equipment for one 2-wire, loop reverse-battery, (Terminating) unit per SD-7C065-01.

***J99395EA—AT&TCo Std — 2-Wire, Private Line Automatic Ringdown, 900 ohm, 72 Volt***

*List 1*—Assembly, wiring and equipment for one 2-wire, private line automatic ringdown, 900 ohm, 72 volt unit per SD-7C075-01.

***J99395EB—AT&TCo Std — 2-Wire, 20 Hz Ringdown, 900 ohm***

*List 1*—Assembly, wiring and equipment for one 2-wire, 20 Hz ringdown, 900 ohm unit per SD-7C066-01.

***J99395FA—AT&TCo Std — 4-Wire, 20 Hz Private Line Automatic Ringdown***

*List 1*—Assembly, wiring and equipment for one 4-wire, 20 Hz private line, automatic ringdown unit per SD-7C074-01.

***J99395FB—AT&TCo Std — 4-Wire, 20 Hz Ringdown***

*List 1*—Assembly, wiring and equipment for one 4-wire, 20 Hz ringdown unit per SD-7C067-01.

***J99395GA—AT&TCo Std — 2-Wire, 900 ohm Duplex***

*List 1*—Assembly, wiring and equipment for one 2-wire, 900 ohm duplex unit per SD-7C068-01.

***J99395GB—AT&TCo Std — 2-Wire, 900 ohm Duplex with Gain Transfer***

*List 1*—Assembly, wiring and equipment for one 2-wire, 900 ohm duplex with gain transfer unit per SD-7C069-01.

***J99395HA—AT&TCo Std — 4-Wire, Duplex***

*List 1*—Assembly, wiring and equipment for one 4-wire, duplex unit per SD-7C070-01.

***J99395LA—AT&TCo Std — 2-Wire, Loop Start/Ground Start, 900 ohm (Office End)***

*List 1*—Assembly, wiring and equipment for one 2-wire, loop start/ground start, 900 ohm (Office End) unit per SD-7C058-01.

***J99395LB—AT&TCo Std — 2-Wire, Loop Start/Ground Start — Gain Transfer, (Office End)***

*List 1*—Assembly, wiring and equipment for one 2-wire, loop start/ground start — gain transfer, (office end) unit per SD-7C060-01.

***J99395MA—AT&TCo Std — 4-Wire, Transmission Only***

*List 1*—Assembly, wiring and equipment for one 4-wire, transmission only unit per SD-7C076-01.

***J99395MB—AT&TCo Std — 4-Wire, Transmission Bypass Unit***

*List 1*—Assembly, wiring and equipment for one 4-wire, transmission bypass unit per SD-7C079-01.

***J99395MC—AT&TCo Std — 4-Wire, Equalized Transmission Only***

*List 1*—Assembly, wiring and equipment for one 4-wire, equalized transmission only unit per SD-7C077-01.

***J99395NA—AT&TCo Std — 2-Wire, 600/900 ohm Terminal Set***

*List 1*—Assembly, wiring and equipment for one 2-wire 600/900 ohm terminal set unit per SD-7C078-01.

***J99395PA—AT&TCo Std — 4-Wire, Loop Start/Ground Start (Office End)***

*List 1*—Assembly, wiring and equipment for one 4-wire, loop start/ground start (office end) unit per SD-7C059-01

***J99395PD—AT&TCo Std — 4-Wire, Tandem (Office End)***

*List 1*—Assembly, wiring and equipment for one 4-wire, tandem (Office End) unit per SD-7C072-01.

***J99395RA—AT&TCo Std — 4-Wire, Loop Start/Ground Start (Station End)***

*List 1*—Assembly, wiring and equipment for one 4-wire, loop start/ground start (Station End) end per SD-7C055-01.

***J99395SA—AT&TCo Std — 2-Wire, Loop Start/Ground Start, 900 ohm Station***

*List 1*—Assembly, wiring and equipment for one 2-wire loop start/ground start - 900 ohm station unit per SD-7C054-01.

***J99395SB—AT&TCo Std — 2-Wire, Loop Start/Ground Start***

*List 1*—Assembly, wiring and equipment for one 2-wire, loop start/ground start unit per SD-7C056-01.

***J99395SC—AT&TCo Std — 2-Wire, Loop Start/Ground Start, Gain Transfer, 72 Volt (Station End)***

*List 1*—Assembly, wiring and equipment for one 2-wire, loop start/ground start, gain transfer, 72 volt (Station End) unit per SD-7C057-01.

***J99395TA—AT&TCo Std — Test Extender***

*List 1*—Assembly, wiring and equipment for one test extender unit per SD-7C080-01.

***J99395XA—AT&TCo Std — F to G Adapter Unit***

*List 1*—Assembly, wiring and equipment for one F to G adapter unit per SD-7C081-01.

***J99395YA—AT&TCo Std — Fuse and Alarm, CGA, Tone Generator***

*List 1*—Assembly, wiring and equipment for one fuse and alarm, CGA, tone generator unit per SD-7C051-01.

***285A—AT&TCo Std — Power Supply***

*List 1*—Assembly, wiring and equipment for one power supply per SD-82497-01.

## 5. GENERAL NOTES AND INDEXES

**5.01** Codes J99395C thru Y and J99395AC thru AY, BB thru BL and BN thru BY, CB thru CY, DB thru DY, EC thru EY, FC thru FY, GC thru GY, HB thru HY, LC thru LY, MD thru MY, NB thru NY, PB, PC and PE thru PY, RB thru RY, SD thru SY, TB thru TY, XB thru XY and YA thru YY are unassigned.

### SUBDIVISIONS OF EQUIPMENT AND DETAILED INDEX

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

| EQUIPMENT CODE | AT&T RATING OF UNIT | TITLE | EQUIPMENT DRAWING | CIRCUIT DRAWING |
|---|---|---|---|---|
| ED-7C195-50 | Std | Equipment Framework Assembly | ED-7C195-50 | |
| ED-7C196-30 | Std | G-Signaling Backplane Assembly | ED-7C196-30 | |
| ED-7C197 | Std | Cabling Plan | ED-7C197 | |
| J99395A | Std | G-Signaling Standalone Bays | J99395A-( ) | |
| J99395B | Std | G-Signaling Standalone Module | J99395B-( ) | |
| J99395AA (SFEE) | Std | 2-Wire, 900 ohm E & M Signaling | J99395AA-( ) | SD-7C061-01 |
| J99395AB (SFEE) | Std | 2-Wire, 600 ohm E & M Signaling | J99395AB-( ) | SD-7C062-01 |
| J99395BA | Std | 4-Wire, E & M Signaling | J99395BA-( ) | SD-7C063-01 |
| J99395BM | Std | 4-Wire, Pulse Link Repeater | J99395BM-( ) | SD-7C071-01 |
| J99395CA (SFDO) | Std | 2-Wire, Loop Reverse-Battery (Originating) | J99395CA-( ) | SD-7C064-01 |
| J99395DA (SFDT) | Std | 2-Wire, Loop Reverse-Battery (Terminating) | J99395DA-( ) | SD-7C065-01 |
| J99395EA | Std | 2-Wire, Private Line Automatic Ringdown, 900 ohm, 72 Volt | J99395EA-( ) | SD-7C075-01 |
| J99395EB | Std | 2-Wire, 20 Hz Ringdown, 900 ohm | J99395EB-( ) | SD-7C066-01 |

| EQUIPMENT CODE | AT&T RATING OF UNIT | TITLE | EQUIPMENT DRAWING | CIRCUIT DRAWING |
|---|---|---|---|---|
| J99395FA | Std | 4-Wire, 20 Hz Private Line Automatic Ringdown | J99395FA-( ) | SD-7C074-01 |
| J99395FB | Std | 4-Wire, 20 Hz Ringdown | J99395FB-( ) | SD-7C067-01 |
| J99395GA | Std | 2-Wire, 900 ohm Duplex | J99395GA-( ) | SD-7C068-01 |
| J99395GB | Std | 2-Wire, 900 ohm Duplex with Gain Transfer | J99395GB-( ) | SD-7C069-01 |
| J99395HA | Std | 4-Wire Duplex | J99395HA-( ) | SD-7C070-01 |
| J99395LA (SFXT) | Std | 2-Wire, Loop Start/Ground Start, 900 ohm (Office End) | J99395LA-( ) | SD-7C058-01 |
| J99395LB (SFXT) | Std | 2-Wire, Loop Start/Ground Start-Gain Transfer, (Office End) | J99395LB-( ) | SD-7C060-01 |
| J99395MA | Std | 4-Wire, Transmission Only | J99395MA-( ) | SD-7C076-01 |
| J99395MB (SFCT) | Std | 4-Wire, Transmission Bypass Unit | J99395MB-( ) | SD-7C079-01 |
| J99395MC | Std | 4-Wire, Equalizer Transmission Only | J99395ML-( ) | SD-7C077-01 |
| J99395NA | Std | 2-Wire, 600/900 ohm Terminal Set | J99395NA-( ) | SD-7C078-01 |
| J99395PA (SFXT) | Std | 4-Wire, Loop Start/Ground Start (Office End) | J99395PA-( ) | SD-7C059-01 |
| J99395PD | Std | 4-Wire, Tandem (Office End) | J99395PD-( ) | SD-7C072-01 |
| J99395RA (SFXS) | Std | 4-Wire, Loop Start/Ground Start (Station End) | J99395RA-( ) | SD-7C055-01 |
| J99395SA (SFXS) | Std | 2-Wire, Loop Start/Ground Start 900 ohm Station | J99395SA-( ) | SD-7C054-01 |
| J99395SB (SFXS) | Std | 2-Wire, Loop Start/Ground Start | J99395SB-( ) | SD-7C056-01 |
| J99395SC | Std | 2-Wire, Loop Start/Ground Start, Gain Transfer, 72 Volt (Station End) | J99395SC-( ) | SD-7C057-01 |
| J99395TA | Std | Test Extender | J99395TA-( ) | SD-7C088-01 |
| J99395XA | Std | F to G Adapter Unit | J99395XA-( ) | SD-7C081-01 |

| EQUIPMENT CODE | AT&T RATING OF UNIT | TITLE | EQUIPMENT DRAWING | CIRCUIT DRAWING |
|---|---|---|---|---|
| J99395YA (SFGA) | Std | Fuse and Alarm CGA, Tone Generator | J99395YA-( ) | SD-7C051-01 |
| 285A (SFPC) | Std | Power Supply | | SD-82497-01 |

**Circuit Schematic Index**

| CIRCUIT DRAWING | J99395 EQUIP CODE | CIRCUIT DRAWING | J99395 EQUIP CODE |
|---|---|---|---|
| SD-7C051-01 | J99395YA | SD-7C067-01 | J99395FB |
| SD-7C054-01 | J99395SA | SD-7C068-01 | J99395GA |
| SD-7C055-01 | J99395RA | SD-7C069-01 | J99395GB |
| SD-7C056-01 | J99395SB | SD-7C070-01 | J99395HA |
| SD-7C057-01 | J99395SC | SD-7C071-01 | J99395BM |
| SD-7C058-01 | J99395LA | SD-7C072-01 | J99395PD |
| SD-7C059-01 | J99395PA | SD-7C074-01 | J99395FA |
| SD-7C060-01 | J99395LB | SD-7C075-01 | J99395EA |
| SD-7C061-01 | J99395AA | SD-7C076-01 | J99395MA |
| SD-7C062-01 | J99395AB | SD-7C077-01 | J99395MC |
| SD-7C063-01 | J99395BA | SD-7C078-01 | J99395NA |
| SD-7C064-01 | J99395CA | SD-7C079-01 | J99395MB |
| SD-7C065-01 | J99395DA | SD-7C081-01 | J99395TA |
| SD-7C066-01 | J99395EB | SD-82497 | 285A |

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