SUBSCRIBER LOOP CARRIER 96 (SLC*-96) MINI-HUT
INSTALLATION OF SHELVES

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1. GENERAL

1.01 This section covers the installation of shelves and wiring of door alarms for the SLC-96 mini-hut. The installation of shelves includes interconnection between shelves, grounding, and ac power.

1.02 When this section is reissued, the reason for reissue will be listed in this paragraph.

2. EQUIPMENT AND MATERIALS REQUIRED

2.01 The equipment and materials required to fill one 7-foot bay (ED-97162, GR3, GR10, GR13, GR16, or GR19) are as follows:

- **128A Apparatus Mounting** (1 or 2-Required): Furnished with two locating pins and four No. 12-24 screws for each apparatus mounting.
  
  *Note:* The second apparatus mounting may be installed at a later time.

- **3A Battery Charger:** Furnished with two locating pins and four No. 12-24 screws.

- **1A Power and Jack Panel:** Furnished with two locating pins and four No. 12-24 screws.

- **Channel Banks** J1C141AB (1 or 2-Required): Furnished with two locating pins and six No. 12-24 screws for each bank.

  *Note:* The second channel bank may be installed at a later time.

- **Extension Cords** (obtain locally): Table A lists the lengths required for each bay.

- **BF Shielded Pair Wire:** Use for connecting door alarm switch to 1A power and jack panel.

- **Ground Wire Terminals** (1 per bay): Jasper and Blackburn No. L70, or equivalent.

- **9A Cord Hook** (1 per hut): Used to hang test cords. Mount on frame No. 1.

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**TABLE A**

<table>
<thead>
<tr>
<th>BAY NO.</th>
<th>CORD LENGTH* (FT)</th>
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<tbody>
<tr>
<td>1</td>
<td>15</td>
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<tr>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
</tr>
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<td>5</td>
<td>12</td>
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*Cords should be 14-gauge, rated SJO or better

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3. INSTALLATION OF SHELVES

3.01 Install the guide pins, furnished with each shelf, on both frame uprights at the locations shown in Fig. 1.

Fig. 1—Guide Pin Locations
3.02 Starting at the bottom of the frame, position the shelves over the guide pins and attach to the frame uprights, using the screws furnished with each shelf. See Fig. 2.

Fig. 2—Securing Shelves to Frame
Note: Four No. 10-24 screws are required to secure each shelf, except the channel banks which require six each.

4. INTERCONNECTION BETWEEN SHELVES

4.01 After the shelves are installed, make electrical connections between shelves as follows. See Fig. 3.

(1) Connect lead (P108) from protector panel (channel bank No. 1) to lead (J108A) from power and jack panel.

(2) If the second channel bank is installed, connect lead (P108) from protector panel (channel bank No. 2) to lead (J108B) from power and jack panel.

(3) Connect lead (P109) from power and jack panel to jack (J109) on 3A battery charger.

(4) Connect lead (P110) from lower battery shelf to jack (J110B) on 3A battery charger.

(5) Connect lead (P111) from lower battery shelf to jack (J111B) on 3A battery charger.

Note: Instructions (6) and (7) are not required if bay is equipped with only one channel bank and one battery shelf.

(6) Connect lead (P110) from upper battery shelf to jack (J110A) on 3A battery charger.

(7) Connect lead (P111) from upper battery shelf to jack (J111A) on 3A battery charger.

(8) Dress and tie down leads to frame using cable ties (ED-97162-52, GR16).
Fig. 3—Interconnections Between Shelves
4.02 AC power is furnished to each bay as outlined in Part 6. For splicing of the digital line, derived pair, and miscellaneous cables, refer to Section 640-250-218.

5. FRAME AND EQUIPMENT GROUNDING

5.01 After the SLC-96 equipment shelves are installed in the frame(s), three ground connections must be made between the mini-hut ground ring and the equipment frame(s) as follows.

5.02 From each protector panel (1 or 2 per bay), the 6-gauge insulated wire (furnished with channel banks) must be attached to the ground ring, using an AT-7796X connector as shown in Fig. 4, Detail 1.
Fig. 4—Equipment and Frame Grounding
5.03 A third insulated ground wire (8 feet of No. 6-gauge) with Jasper and Blackburn Clamp No. L70, or equivalent (obtain locally) is required from the ground ring to the mounting flange on the frame.

*Note:* Before connection is made to the frame, the paint within a 3/4-inch diameter of the mounting hole must be removed down to bare metal.

The lug from this lead along with the lugs from the leads to the power and jack panel and the battery charger is placed under a No. 12-24 screw (furnished with 1A power and jack panel) at the 30th mounting hole (from the bottom of frame) as shown in Fig. 4, Detail 2.

5.04 The third ground wire is connected to the ground ring, using an AT-7796X connector as shown in Fig. 4, Detail 1.

6. WIRING AC POWER TO EQUIPMENT BAYS

6.01 The 120 Vac power is supplied to each bay by means of extension cords purchased locally. The cord lengths required are listed in Table A. The outside diameter of the cords' female connector should be 1-7/16 inches or less to allow mating with the 3A battery charger.

6.02 The cords run from standard 120-volt receptacles mounted near the top of the mini-hut ac power panel to male bases mounted on the left side of the 3A battery charger (one per bay). The cords should be dressed around the area above the equipment frames on the supplied cable brackets.

6.03 The bay numbering starts clockwise with the position immediately to the left of the door as entering the hut.

6.04 The cords to bays 1 and 2 should be run clockwise (over the door) from the ac power panel. The cords to bays 3, 4, and 5 should be run counterclockwise from the ac power panel.

*Note:* The cords should never be tied down. The fastening of an extension cord is a National Electric Code violation.

6.05 An alternate method of providing ac outlets for ac power to the bays is to have receptacles distributed around the hut to allow the use of shorter cords. Optional locations for these receptacles are shown in Fig. 5. Grounding, 15-amp, 125-volt outlets or better are required.
Fig. 5—Location of Receptacles (Optional)
6.06 Each bay is provided a separate circuit (circuit breaker), and only a single receptacle should be connected to that circuit. No other equipment should be connected to any of the separate circuits providing power for each bay.

7. DOOR ALARM WIRING

7.01 A door switch is supplied with the mini-hut to provide a door alarm for the hut. When the door is opened, the switch contact closes and an alarm is activated in whichever system the switch is wired. The alarm may be retired with the door open by pulling the plunger on the door switch fully out past the detent. The switch is located as shown in Fig. 6.

Fig. 6—Location of Door Alarm
7.02 A 22-gauge BF shielded pair is required for the connection of the switch to the system carrying the alarm. The shielded pair should be connected to the *common* and *NC* (normally closed) contacts of the switch as shown in Fig. 7. The shield is not terminated at the switch, but it should be taped to prevent incidental shorts.

Fig. 7—Door Switch
7.03 The shielded alarm pair should be routed around the area above the equipment frames on the supplied cable brackets to the 1A power and jack panel of the system designated to carry the door alarm.

7.04 The alarm pair should be connected to the MN1 and MNR1 terminals of the 1A power and jack panel. The shield should terminate on the GND terminal of the 1A power and jack panel. See Fig. 8.

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**Fig. 8—Terminating Shielded Pair From Door Alarm Switch to 1A Power and Jack Panel**

**8. INSTALLATION OF 9A CORD HOOK**

8.01 The 9A cord hook should be mounted in the 55th mounting hole from the bottom of Bay No. 1 with a 12-24 X 1/2 inch pan head screw (Fig. 2).