

DATA SET 113AR-L1C

INSTALLATION AND CONNECTIONS

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1. GENERAL

1.01 This section describes the procedure to be followed for the installation of data set (DS) 113AR-L1C (Fig. 1).

1.02 Whenever this section is reissued, the reason for reissue will be contained in this paragraph.

1.03 Data set 113AR-L1C is the registered replacement for the older DS 113A-type and maintains the same capabilities. Data set 113AR-L1C meets the requirements of the FCC Registration Program and is compatible with all DS 103-type, DS 113DR, and DS 212AR operating in the low-speed mode. The registration number for DS 113AR-L1C is AS593M-62999-MD-E.

1.04 General information concerning registered data sets and arrangements follows.

- Registered versions of data sets are coded with an "R" in the data set code.
- All Bell System switched network data sets not coded with an "R" in the data set code are grandfathered.

- Grandfathered DS 113A may be connected in registered arrangements provided the interface with the network is made with the appropriate jack and cord as shown in Fig. 4.

- Data set 113AR may be connected in grandfathered arrangements provided the interface with the network is made with the appropriate cords as shown in Fig. 4.

- Connections to the telephone lines must be made with the proper cords to the voice or data jack as shown in Fig. 4.

1.05 Data set 113AR-L1C must be located within range of the customer-provided interface cable. This cable should not exceed the Electronic Industries Association (EIA) recommendation of 50 feet.

1.06 A 25-pin connector is provided at the rear of the data set for connection to the customer-provided equipment (CPE). This connector is designed to connect to a customer-provided Cinch or Cannon DB-19604-432 plug equipped with a DB-51226-1 hood, or equivalent.

1.07 Data set 113AR-L1C obtains its power from an externally mounted transformer. The customer must furnish a standard 105- to 129-volt, 57- to 63-Hz ac power outlet that will accept a plug equipped with two parallel blades.

Note: The ac outlet must not be under the control of a switch.

2. OPTIONS

2.01 Data set 113AR-L1C has options that must be installed prior to placing the data set in service. These options, which should be specified on the service order, affect the control of the DM

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Fig. 1—DS 113AR-L1C and 2500SM Telephone Set

lamp and the CD interface circuit. The options are summarized in Table A and described as follows.

- When **option X** is provided, the DM lamp lights when the data set is in the data mode. This option also enables the CPE to disconnect the data set automatically.
- When **option V** is provided, the DM lamp lights when the data set is in the data mode. The data set must be disconnected manually.
- When **option W** is provided, the DM lamp does not light and the data set must be disconnected manually.

2.02 The options are installed by properly inserting two plug-in option straps in the circuit pack. Refer to Table A for the terminal assignments and to Fig. 2 for their locations on the circuit pack. The circuit pack should be removed and replaced from the rear of the housing. The circuit pack is held in position by the latching mechanism shown in Fig. 3.

3. INTERFACE LEADS

3.01 Data set 113AR-L1C provides the customer with the interface leads listed in Table B. These leads are similar to EIA Standard RS-232-C.

TABLE A
DS 113AR-L1C OPTIONS

| OPTION | | OPTION STRAP |
|-------------------------------|----|----------------|
| No Data Lamp No CD Control | W | E5-E6 E1-E3 |
| Data Lamp No CD Control | V | E4-E6 E1-E3 |
| Data Lamp CD Control | X* | E4-E6 E2-E3 |

* Factory-Furnished Option

4. CONNECTIONS

4.01 The transmit level of DS 113AR-L1C is fixed at a level not to exceed -9 dBm under any operating condition. Data set 113AR-L1C is designed to be connected to a basic access line having parameters specified in Section 314-205-501.

4.02 The station arrangement shown in the connection diagram (Fig. 4) complies with the FCC Registration Program and applies only to DS 113AR-L1C. The following parts are required for this arrangement.

- Data set 113AR-L1C
- 2012D Transformer—supplied with DS
- D4BT Cord—supplied with DS
- D4BU Cord (2)—supplied with DS
- 500SM or 2500SM Telephone Set
- 42A Connecting Block

5. INSTALLATION TEST

5.01 After installation is completed, the data set should be tested to determine if it is operating properly. Refer to Section 591-045-500.

6. REFERENCES

6.01 The following BSPs provide additional information:

| SECTION | TITLE |
|-------------|---|
| 314-205-501 | Data Systems—DATAPHONE® Service—Direct Distance Dialing Network—Test Requirements for Subscriber, Foreign Exchange, and Remote Exchange Lines |
| 590-010-200 | Data Sets and Data Access Arrangements—General Installation and Connection Information |
| 590-101-103 | Jacks for Registered Data Equipment—Single and Multiline Installations |
| 591-045-100 | Data Set 113AR-L1C—Description and Operation |
| 591-045-500 | Data Set 113AR-L1C—Test Procedure |

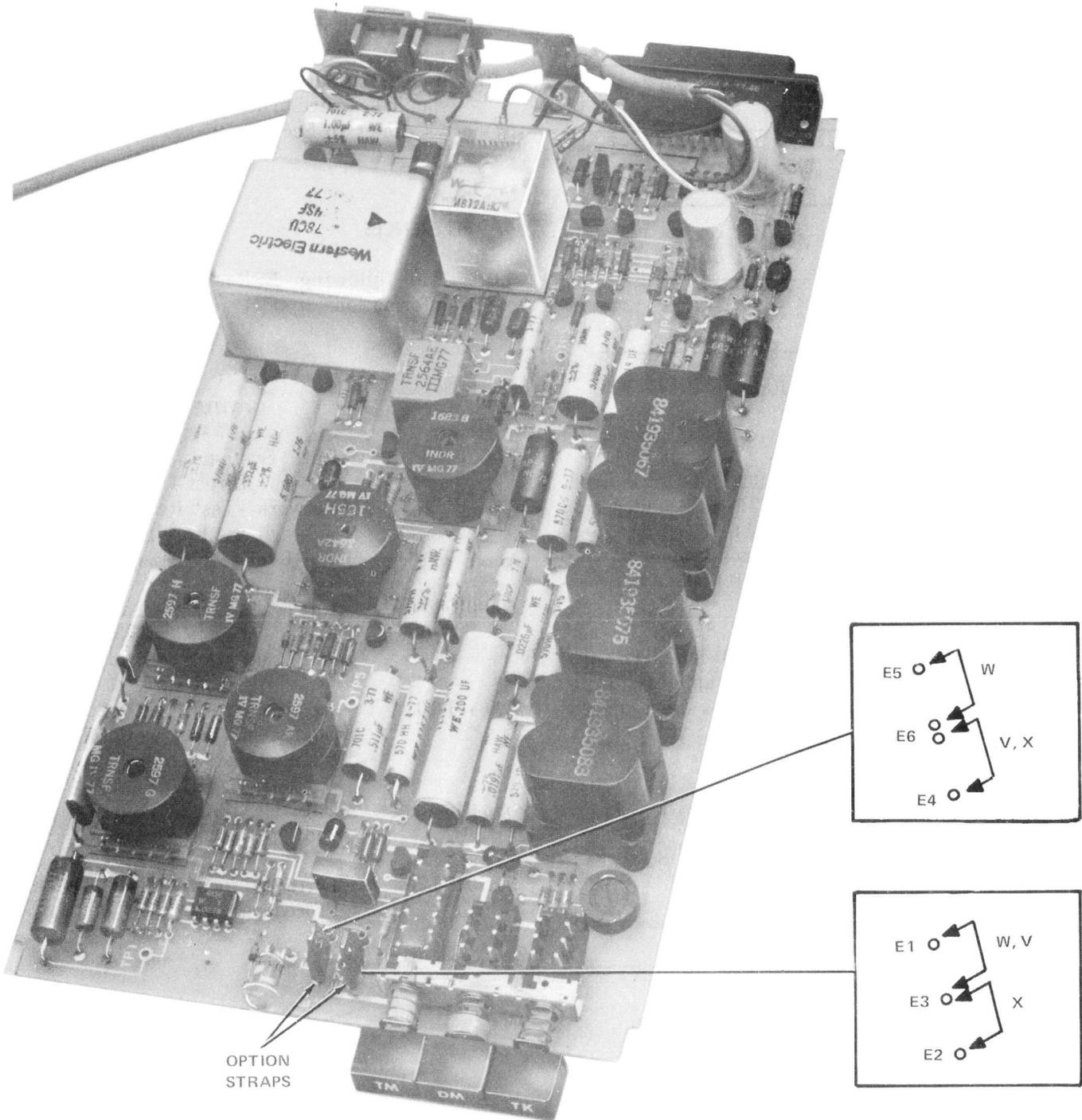


Fig. 2—Circuit Pack Showing Location of Option Straps

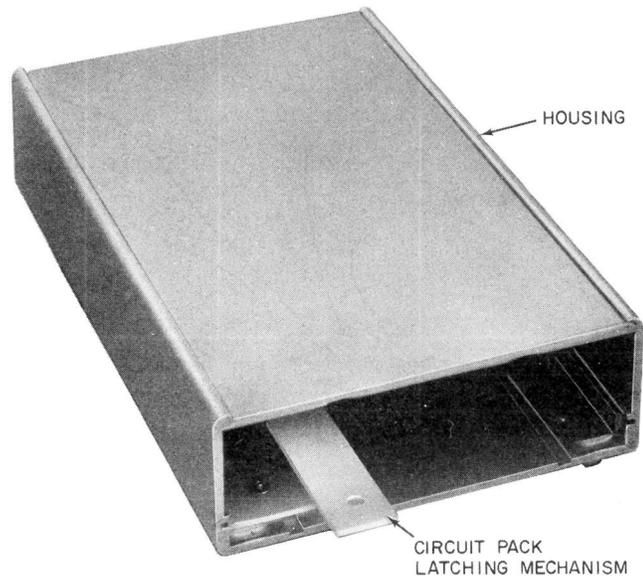


Fig. 3—Housing

TABLE B
CUSTOMER INTERFACE

| LEAD | DESIG | CONN PIN ASSIGNMENT | MARK OR OFF | SPACE OR ON |
|----------------------|-------|---------------------|-------------------------------|-------------|
| Transmitted Data | BA | 2 | Neg | Pos |
| Received Data | BB | 3 | Neg | Pos |
| Request to Send* | CA | 4 | Neg | Pos |
| Clear to Send* | CB | 5 | Same as CA | Same as CA |
| Data Set Ready | CC | 6 | Open Circuit or No Voltage | Pos |
| Data Terminal Ready† | CD | 20 | Neg | Pos |
| Signal Ground | AB | 7 | — | — |

* CA and CB leads are tied together.

† CD is an optional lead with DS 113AR-L1C.

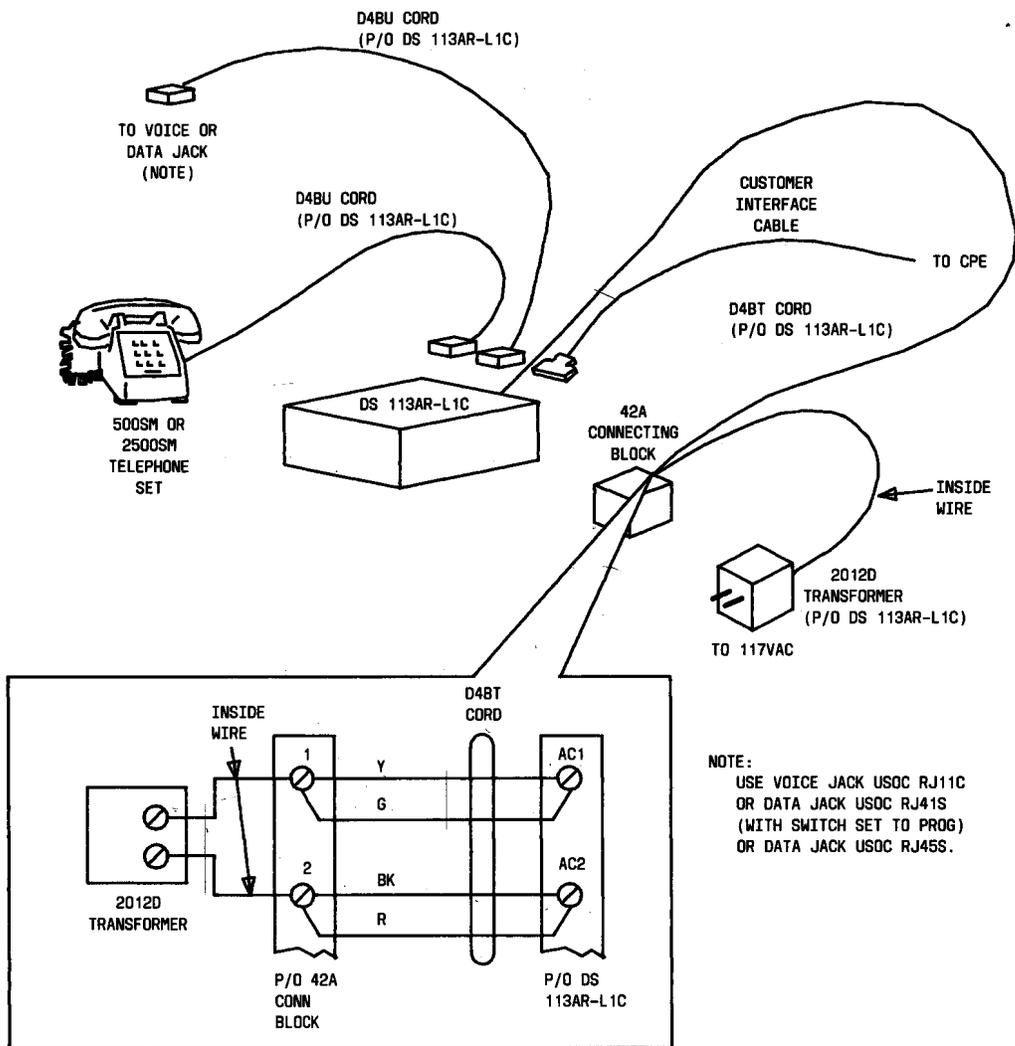


Fig. 4—DS 113AR-L1C—Connection Diagram