

## DATA SET 113AR-L1B

### INSTALLATION AND CONNECTIONS

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- 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. GENERAL

1.01 This section describes the procedure to be followed for the installation of data set (DS) 113AR-L1B (Fig. 1).

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

1.03 Data set 113AR-L1B is the registered replacement for the older DS 113A-type and maintains the same capabilities. Data set 113AR-L1B meets the requirements of the FCC Registration Program and is compatible with all DSs 103-type, 113B, 113D, and 113DR. Data set 113AR-L1B is also compatible with DSs 212A and 212AR when operating in the low-speed mode. The registration number for DS 113AR-L1B 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.

1.05 Data set 113AR-L1B 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-L1B 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-L1B 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 DATA lamp in the associated telephone set and

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Fig. 1—DS 113AR-L1B

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

- When **option X** is provided, the DATA 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 DATA lamp lights when the data set is in the data

mode. The data set must be disconnected manually.

- When **option W** is provided, the DATA 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

**TABLE A**  
**DS 113AR-L1B 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

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-L1B provides the customer with the interface leads listed in Table B. These leads are similar to EIA Standard RS-232-C.

### 4. INSTALLATION

**4.01** If DS 113AR-L1B is being installed with a TOUCH-TONE® telephone, verify that the transmission facility to be used is arranged for TOUCH-TONE service.

**4.02** Place the data set in a location that facilitates connection to the CPE interface cable, transmission facility, and an ac power outlet. Refer to Fig. 4 for general installation information.

**4.03** The 565HKM or 2565HKM telephone set requires the following modification to work with DS 113AR-L1B.

- Remove BR wire from terminal N on terminal board and connect to terminal EH on network.

### 5. CONNECTIONS

**5.01** The transmit level of DS 113AR-L1B is fixed at a level not to exceed -9 dBm under any

operating condition. Data set 113AR-L1B is designed to be connected to a basic access line having parameters specified in Section 314-205-501.

**5.02** The station arrangement shown in the connection diagram (Fig. 4) complies with the FCC Registration Program and applies only to DS 113AR-L1B. The following parts are required for this arrangement.

Data set 113AR-L1B  
2012D Transformer—supplied with data set  
D4BT Cord—supplied with data set  
M4AS Cord—supplied with data set  
565HKM or 2565HKM Telephone Set  
42A Connecting Block

### 6. INSTALLATION TEST

**6.01** After installation is completed, the data set should be tested to determine if it is operating properly. Refer to Section 591-048-500.

### 7. REFERENCES

**7.01** 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
591-048-100	Data Set 113AR-L1B—Description and Operation
591-048-500	Data Set 113AR-L1B—Test Procedure



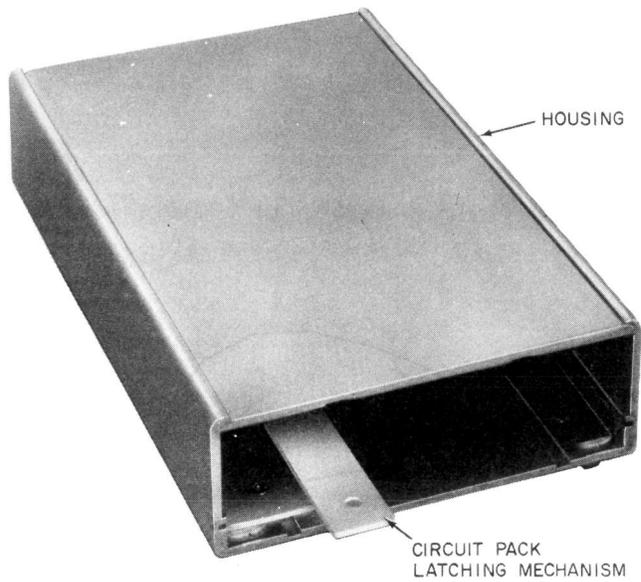


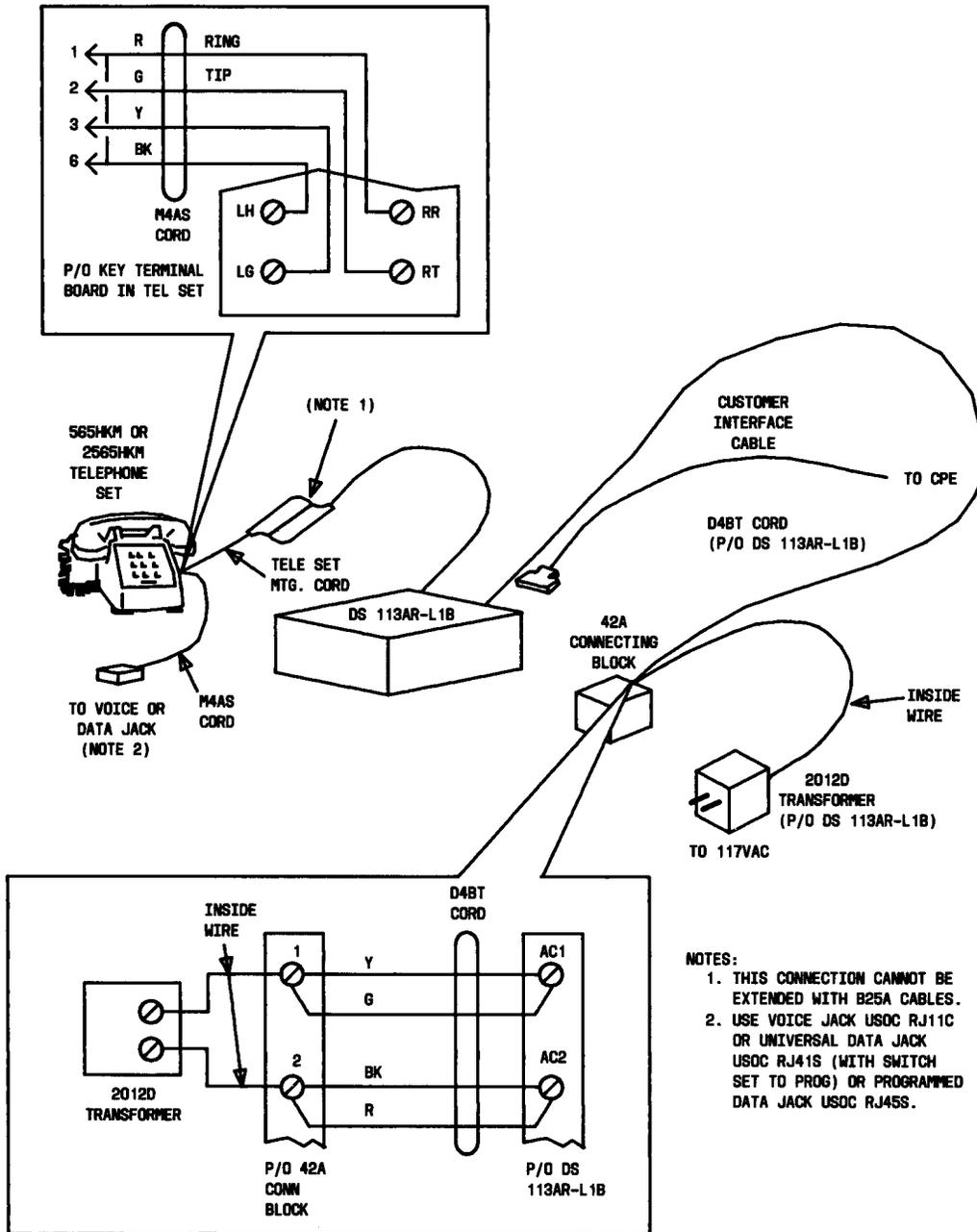
Fig. 3—Housing

**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 required for option X only.



- NOTES:
1. THIS CONNECTION CANNOT BE EXTENDED WITH B25A CABLES.
  2. USE VOICE JACK USOC RJ11C OR UNIVERSAL DATA JACK USOC RJ41S (WITH SWITCH SET TO PROG) OR PROGRAMMED DATA JACK USOC RJ45S.

Fig. 4—DS 113AR-L1B Connection Diagram