

Chapter 2 Installation

GENERAL

This chapter provides installation information for the FT 100S. If changing hardware options to meet system requirements, refer to Chapter 3 before installation.



Note

When requesting T1 network service, personnel operating this equipment must complete the affidavit in the front of this manual and file it with the telephone company providing service.

RECEIPT INSPECTION

Inspect the equipment carefully for damage that may have occurred in shipment. If there is damage or material shortage, contact the shipping agent and Motorola authorized agent for advice and assistance. Retain the shipping container and packing material for possible future shipment.

The FT 100S arrives with the following components:

- Standalone housing containing two main circuit boards
- Two user specified piggyback interface boards/adapters
- Power transformer with cable
- T1 line cables
- V.35 adapter (included with V.35 unit)
- User's Guide

The following components must be supplied by the user:

- RS-449 adapter
- Control port adapter

SITE PREPARATION

The installation area should be clean, well-lighted, and free from extremes of temperature, humidity, appreciable shock, and vibration. Allow sufficient space at the rear of the unit for cable clearance and air flow. See Figure 2-1.

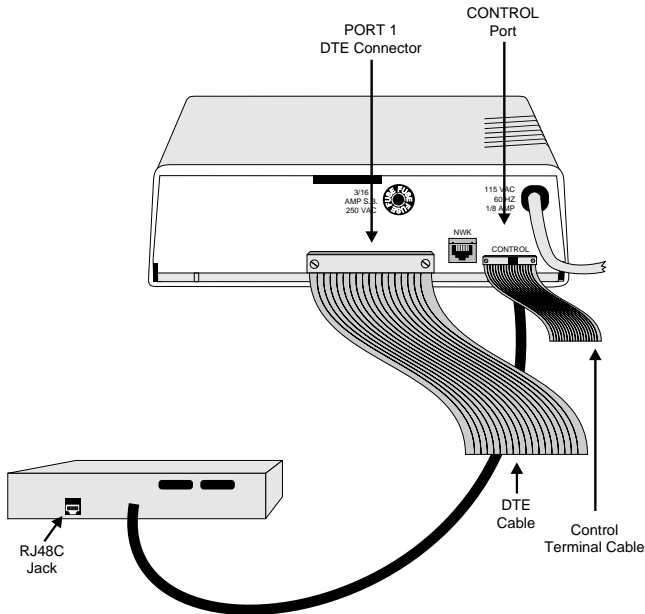


Figure 2-1
Installation

CONNECTIONS



Note

Before connecting the unit to the network or the DTE, determine whether the factory setting for Network Transmit LBO is set as required or must be changed. Refer to Chapter 3.

FT 100S to Network

Network T1 line connections are made through a standard 8-pin RJ48C jack labeled **NWK** on the rear panel. Table 2-1 list pin connections for the network connector.

To connect the unit to the network,

Table 2-1. Network Connector Pin Functions

RJ48C Pin	Function
1	Network receive ring (R1)
2	Network receive tip (T1)
3	Not used
4	Network transmit (R)
5	Network transmit (T)
6	Not used
7, 8	Ground

1. Insert one end of the supplied cable into the unit's NWK jack.
2. Insert the other end into the RJ48C on the T1 Network interface connector.

FT 100S to Remote Control Device

The 9-pin D-type male connector labeled **CONTROL** on the rear panel connects to the terminal that controls FT 100S operation, or to a modem connected to a remote terminal that controls the unit.

The interface is compatible with EIA RS-232 serial data operation and has pin functions like a DCE interface.

This is the same type of connector with the same pin connections as found on IBM PC/AT personal computers and compatibles so that standard cables can be used.

Pin connections for this interface are shown in Table 2-2.

Table 2-2. Control Port Connector Pin Functions

DB9 Pin	Function
1	Data carrier detect
2	Receive data
3	Transmit data
4	Data terminal ready
5	Ground
6	Data set ready
7	Request to send
8	Clear to send
9	Not used

To connect the unit to the network,

1. Insert one end of the cable into the unit's CONTROL port.
2. Insert the other end into the RS-232 connector on the controlling equipment.

FT 100S to DTE

The 25-pin D-type female connector on the rear panel connect to the DTE. Table 2-3 and Table 2-4 show pin connections for the optional DTE connector available.

To connect the unit to the DTE,

1. Insert the DTE cable into the DTE connector on the unit.
2. Insert the opposite end into the designated DTE.
3. Secure the screws to complete the connection.

V.35 Adapter Installation

The V.35 adapter is provided with the FT 100S. Optional adapters are available for converting the DTE connector to a 34-pin V.35 type connector or to a 37-pin RS-449 type connector. You can use the RS-449 adapter. The RS-449 adapter is not provided with the FT 100S. Pin connections for the V.35 and RS-449 adapters are listed in Table 2-3 and Table 2-4.

Table 2-3. RS-530 / RS-449 Pin Functions

RS-530 (DB25) Pin	RS-449 (DB37) Pin	Function
1	1	Protective ground
2	4	Transmit data A
3	6	Receive data A
4	7	Request to send A
5	9	Clear to send A
6	11	Data set ready A
7	19	Signal ground
8	13	Receive line signal detect A
9	26	Receive clock B
10	31	Receive line signal detect B
11	35	External transmit clock B
12	23	Transmit clock B
13	27	Clear to send B

Table 2-3. RS-530 / RS-449 Pin Functions (Continued)

14	22	Transmit data B
15	5	Transmit clock A
16	24	Receive data B
17	8	Receive clock A
18	10	Local loopback
19	25	Request to send B
20	12	Data terminal ready A
21	14	Remote loopback
22	29	Data set ready B
23	30	Data terminal ready B
24	17	External transmit clock A
25	18	Test mode

Table 2-4. V.35 Functions (Part Number 5003769-01)

V.35 (DB25) Connector Pin	V.35 (34 pin V.35) Adapter Pin	Function
1	A	Protective ground
2	P	Transmit data A
3	R	Receive data A
4	C	Request to send
5	D	Clear to send
6	E	Data set ready
7	B	Signal ground
8	F	Receive line signal detect
9-12	--	Not used
13	AA/a	Transmit clock B
14	S	Transmit data B
15	Y	Transmit clock A
16	T	Receive data B
17	V	Receive clock A
18	J	Local loopback
19	X	Receive clock B

Table 2-4. V.35 Functions (Part Number 5003769-01)

20	H	Data terminal ready
21	BB/b	Remote loopback
22	--	Not used
23	W	Ext transmit clock B
24	U	Ext transmit clock A
25	K	Test mode

POWER

Power is supplied through a 6-foot line cord with a grounded 3-wire plug (attached to the unit). If chassis ground is available through the third prong of the plug, a separate ground wire is not required.

