

Panasonic
Communication Systems Division
Technical Advisory

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Subject: KXT- D1232/816 External Modem Installation

Document Number: KXTD1232002

Installing a Modem on the KXT- D1232/816-1 or greater Phone System

The Panasonic KX-TD1232/816-1 phone system can be programmed remotely by connecting a modem to the RS232/EIA port of the phone system. ***This can only be done with the KX-TD1232/816-1 or greater. It is also advised that you have a good working knowledge of modems and the Hayes AT Command Sets.*** It is important to remember that even though there are some basic standards for these modems, ***each manufacturer may have a different method of making the same function work in their modem design. It is strongly advised that you consult with the manufacturer of the modem you choose should you experience trouble.***

Your Modem should be able to do the following:

- Ignore the Data Terminal Ready signal of the serial port (DTR Ignored).
- Disable flow control.
- Be able to set the DTR operating mode to asynchronous mode with no speed buffering of data (normal).
- Disable Data compression.

You will need to consult your modem manual or contact the modem manufacturer's tech support department to construct the proper AT command string.

There are 2 ways to program the necessary AT command sets into the modem that will be attached to the KX-TD1232/816.

1. By entering the AT commands in the External Modem Setting screen of the KX-TD1232/816 using the latest Operating & Maintenance Tool. And then dialing the code for Modem Initialization 791x from the main phone with the modem connected to the KX-TD1232/816
2. By entering the AT commands directly in the external modem with a computer using standard communication software or a Data Terminal and then connecting the modem to the KX-TD1232/816 cabinet.

Installing a Modem on the KX-TD1232/816

Using the KX-TD1232/816 Operating and Maintenance Tool:

While connected to the KX-TD1232/816 KSU in interactive mode locate the programming screen EXTERNAL MODEM SETTING which is located under the AUX. PORTS MENU.

Enter the following AT Command in the Manual Initialization Command Area #1

REMEMBER THE (0) IN THE AT COMMANDS MEAN THE # NUMBER ZERO!!!!!!

MODEM Manual Initialization Command

```
1 - [Enter the string you constructed here. ]
2 - [ ]
3 - [ ]
4 - [ ]
5 - [ ]
```

MODEM Automatic Initialization Command

```
-----1-----2-----3-----4-----5-----6-----7-----8
ATQ0E0V1S0=1X0&D0
-----1-----2-----3-----4-----5-----6-----7-----8
```

MODEM Result Messages

Connect Messages		No Connect Messages	
1 - [CONNECT]	1 - [NO CARRIER]
2 - []	2 - []
3 - []	3 - []
4 - []	4 - []
5 - []	5 - []

Save this screen then exit from programming by entering #3 in the DSHS CONNECT/DISCONNECT area of the DSHS programming tool. Disconnect your computer from the KX-TD1232/816.

Using an industry standard DB25 Male to Male Modem cable connect the modem to the KX-TD1232/816 cabinet. This is done by connecting one side of the DB25 cable to the RS232/EIA communication port of the KX-TD1232/816 and the other side of the DB25 Modem cable to the RS232 port of the Modem. Turn the power switch of the Modem on.

Next go to the main programming station jack (01) and either by lifting the handset or pressing the speaker-button of the proprietary set get intercom dial tone and dial the External Modem Initialization Command 791(1). This will instruct the KX-TD1232/816 to use the string programmed in area number (1) of the Modem Initialization Command screen.

Connecting Remotely. To The KX-TD1232/816 With An External Modem Attached

From the Remote location computer enter the MODEM CONNECT screen of your programming tool this is found in the DSHS CONNECT/DISCONNECT choice (5) of the main screen.

MODEM Connect	Off-Line	Empty
COM Port NO	[1]	
Interface	External MODEM:9600BPS	
ORG CON TYPE	Auto	
NL Code	CR+LF	
Dial Mode	Tone	
Modem Init.	[]
Dial Number	[12345678]
Password	[1234]

---1-INITIAL-----2-----3-----4--HELP-----5-----6-----7-CONNECT-8

1. Enter the Communication Port of your computer that will be used by your modem to connect to the remote KX-TD1232/816 system.
2. Set the Interface to 9600BPS
3. Set the connection type to AUTO
4. Set the NL (New Line) Code to CR+LF
5. Set Dial Mode TONE or PULSE
6. Enter in the number to be dialed by the modem attached to your computer to reach the modem attached to the KX-TD1232/816.
7. Enter the password of the KX-TD1232/816.
8. Press the F7 Key to begin remote connection.