

2019

DATA SWITCH DS71-MD4  
Quick Start

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# DS71-MD4 Serial & 56K Modem Host Module



Replaces DS71-MD3, 33.6K modem

## Modem LED Descriptions

DS71-MD4 front plate comes with five modem activity LEDs. These LEDs are marked as *TX*, *RX*, *CD*, *OH*, and *CX*. These LEDs are described below.

**TX (Transmit Data):** Indicates the modem is transmitting data.

**RX (Receive Data):** The modem is receiving data.

**CD (Carrier Detect):** Indicates that a valid carrier has been detected.

**OH (Off Hook):** Indicates the modem is ready to communicate.

**CX (Connection):** Indicates the modem has a connection to a DS74 port.

## Unpacking

Compare the unit and serial number of the equipment you received to the packing slip located on the outside of the box. Inspect equipment carefully for damage that may have occurred in shipment. If there is damage to the equipment or if materials are missing, contact BayTech Customer Support at **228-563-7334** or call toll free inside the United States at **800-523-2702**. At a minimum, you should receive the following:

1. The DS Chassis, DS71-MD4 Host Module and DS74 Modules.
2. Manual insert describing the location of the User's Guide on BayTech's website at [www.baytech.net](http://www.baytech.net).
3. 1 ea. DE-9 (9 pin) PC com port adapter, 9FRJ45PC-1.
4. 1 ea. RJ-45 Roll over cable, RJ08X007 and RJ04X007.

## CABLING

### RJ-45 Cable

#### Control Module RJ-45 pin Signals

Pin	EIA 232 Signal	Signal Direction	Description
1	DTR	Out	Handshake, Line Driver Inactive State = High: +12V when power is applied. Used as a handshake line to enable/disable the receiving of characters.
2	GND		Signal Ground
3	RTS	Out	Handshake, Line Driver Inactive State = High: +12 V when power is applied. Not used to enable/disable.
4	TX	Out	Transmit (Data Out)
5	RX	In	Receive (Data In)
6	DSR	In	Handshake In. -12V when not used
7	GND		Signal Ground, when Jumper JP6-2 is connected to JP6-3. In order for the module to take advantage of "DCD Logon/Logoff" and "Auto Connect Port", Jumper JP6-2 is connected to JP6-1 providing DCD In.
8	CTS	In	Used as a handshake line to enable/disable the receiving of characters.

## Adapter signals

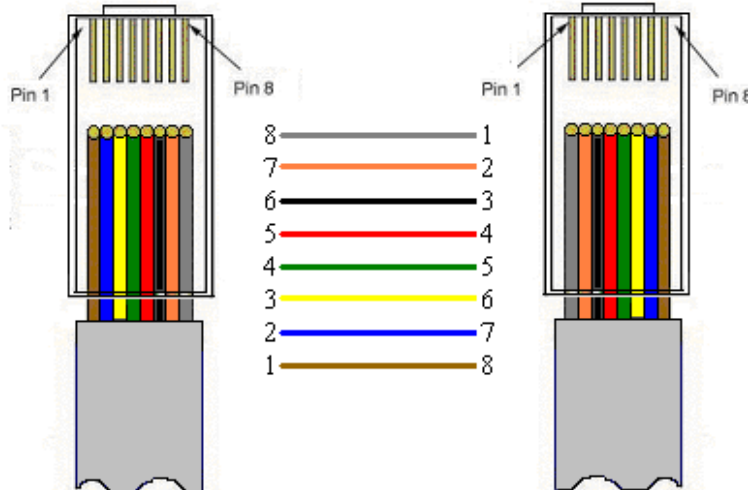
Listed are the pin specifications for the BayTech cable and adapters and the terminal COM ports:

Serial 1: Port Pin out Table

Signal	RS-232 Port (DS)	RS-232 Port (RPC)	COM Port DE-9 Pin	COM Port DB-25 Pin	Signal
DTR	1	1	4	20	DSR
GND	2	2		1	GND
RTS	3	3	7	5	CTS
TXD	4	4	3	2	RXD
RXD	5	5	2	3	TXD
DSR	6	N/C	6	6	DTR
GND	7	7	5	7	GND
CTS	8		8	4	RTS
DTR			4		DCD
DCD		8	1	8	DTR
RI	9			22	

## RJ08X007 Standard Rollover Cable – RJ45 to RJ45

Serial 2: RJ08X007 Pin out

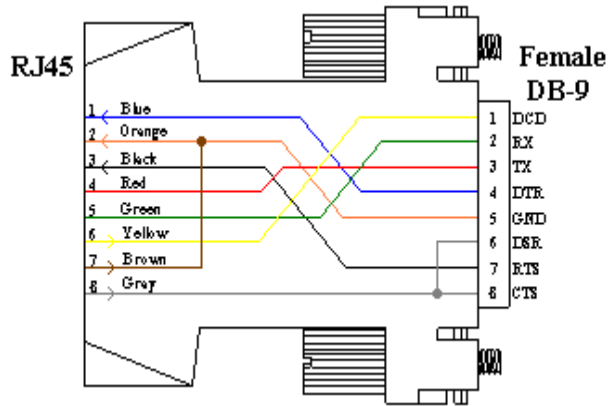


Serial 3: RJ45 Receptacle & Plug

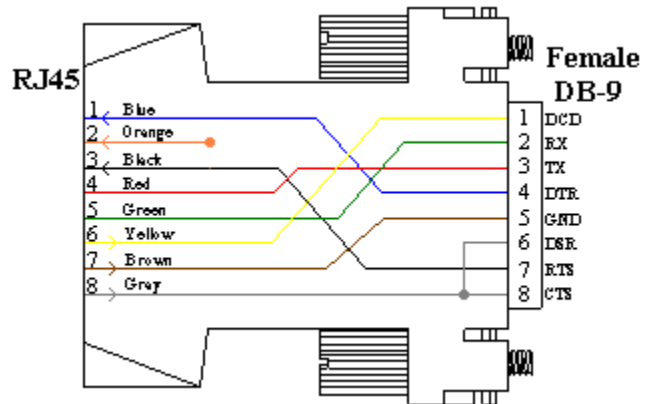


## Adapters

Serial 4: 9FRJ45PC-1 Adapter Pin Out



Serial 5: 9FRJ45PC-4 Adapter Pin out



(Use with RJ08X007 Cable and B/C switch in “B”)

## Serial Setup

- Connect the *9FRJ45PC-4* adapter to the user's computer
- Connect the MODULE EIA-232 port to the adapter via the *RJ08X007* rolled flat ribbon cable.
- Use terminal emulation software to access the unit, **9600 bps, 8 data bits, 1 stop bit and no parity, B/C switch set to 'B'**.

## QUICK START: DS71-MD4 SERIES

If this is a new unit shipped directly from Baytech, follow the steps. If this is a previously own unit, perform a factory reset to clear out any users and passwords still in the unit.

### Configuration:

1. Connect to the Serial port (EIA232) using the supplied rollover flat cable and adapter.
2. Use terminal emulation software to access the unit, (i.e. Microsoft Hyper-terminal). Set the PC serial port configuration to the following: **9600 bps, 8 data bits, 1stop bit, no parity, and No Flow Control.**
3. If you get only a blinking cursor Press **'Enter'**. If still only a blinking cursor, Type (5) Attention Characters, (factory default is the semi-colons {;}). The Attention Character will not echo on the screen. There is a one second delay before the menu is displayed. You should see a menu similar to **(Figure 1)**.
4. Select **'C'** for the configuration menu, **(Figure 2)**.
5. Select **'1'** for the DS71-MD4 module, **(Figure 3)**.
6. Select the number for **'Login Setup'** option, **(Figure 4)**.
7. Select the number for **'Manage Users'** option, **(Figure 5)**.
8. **NOTE: The 'admin' user can not be deleted.**
9. Select **'A'** to add a user. Type the name.
10. Select the number of the name just added and to enter their password, **(Figure 6)**.
11. Press **'Enter'** until get to the **'Login Setup Menu'** **(Figure 3)**.
12. Select **'Assign User Ports'** and select a user, **(Figure 7)**. Add a port or add all ports.
13. Press **'Enter'** until get to the **'Login Setup Menu'** **(Figure 3)**.
14. Repeat steps 7-13 to add additional users and to assign ports.
15. Once finished adding users, Press **'Enter'** until get to the **'Login Setup Menu'** **(Figure 3)**.
16. Select **'Access Control'** to enable User and Password prompt **(Figure 8)**.
17. At this point you have the minimum configuration to begin operations. You may wish to make other changes to meet your needs. Press **'Enter'** until you are at the main menu. Type **"T"** to end session
18. Connect the Analog telecom phone line to the modem and test the connection. You will see the same menus as seen in the serial port.

## DS71-MD4 Serial/Modem Controller Configuration:

Figure 1: Network Controller

```
Data Switch Series - F.1.04.00
Bay Technical Associates
Unit ID: DS71-MD4
Attention Character: ;
  Module 1: admin      on Host EIA-232
  Device A           (3, 1).....1
  Device B           (3, 2).....2
  Device C           (3, 3).....3
  Device D           (3, 4).....4
  DS-RPC             (5, 1).....5
  Configuration      .....C
  I/O Modules Reset  .....RM
  Unit Reset         .....RU
  Exit               .....X
  Logout            .....T
Enter Request :
```

Figure 2: Module Configuration

```
Module Configuration
DS71-MD4      (1)..... 1
DS74          (2)..... 2
DS-RPC        (3)..... 3
Exit.....X,CR
Enter Request :
```

Figure 3: DS71-MD4 Configuration

```
Copyright(C) Bay Technical Associates 2006
DS71-MD4 Data Switch Series - V90 Modem Host Module
Revision F.1.06.00
Module 1

  Status .....1
  Serial Port Configuration .....2
  Port Device Name .....3
  Port Select Code .....4
  Attention Character .....5
  Disconnect Timeguard .....6
  Connect port ID Echo .....7
  Login Setup .....8
  Local Modem Option .....9
  Unit ID .....U
  Exit .....X,CR
```



**Figure 4: Login Setup**

```
Login Setup:
Header .....1
Access Control .....2
Menu .....3
Manage Users .....4
Auto Connect .....5
Dial Back Number .....6
Assign User Ports .....7
Exit .....X,CR
Enter Request :
```

**Figure 5: Manage User**

```
    User Management Menu:
    "admin" ..... 1
    Add New User .....A
    Delete User .....D
    Change User .....C

To change user password, enter number of user
Enter Request :A

Enter User Name (maximum 10 characters): john
```

**Figure 6: User Password**

```
    User Management Menu:
    "admin" ..... 1
    "john" ..... 2
    Add New User .....A
    Delete User .....D
    Change User .....C

To change user password, enter number of user
Enter Request :2

Selected user: john
Enter New Password:****
Re-enter New Password:****
Password Changed successfully!
```

Figure 7: Assign User Ports

```
Assigned User Ports:
+-----+-----* +-M2--M3--+
|User|   Name   \ |1234|1234|
+-----+-----*-----+-----+
|  1  | admin   |1234|1234|
|  2  | john    |    |    |
+-----+-----*-----+-----+

Enter User number:2

Assigned User Ports:
+-----+-----* +-M2--M3--+
|User|   Name   \ |1234|1234|
+-----+-----*-----+-----+
|  2  | john    |....|....|
+-----+-----*-----+-----+

Add Port(s).....1
Remove Ports(s).....2
Add All Ports.....3
Remove All Ports.....4
Exit .....X,CR

Enter Request :1

Enter Module and Port number in format M:P or M,P (0=All): 2:4

Assigned User Ports:
+-----+-----* +-M2--M3--+
|User|   Name   \ |1234|1234|
+-----+-----*-----+-----+
|  2  | john    |...4|....|
+-----+-----*-----+-----+

Add Port(s).....1
Remove Ports(s).....2
Add All Ports.....3
Remove All Ports.....4
Exit .....X,CR
```

Figure 8: Access Control

```
Login Setup:
Toggle setting by entering number, CR to exit.
Access Control:
Serial Port access:
1)...Prompt for User Name: Disabled
2)...Prompt for Password : Disabled
Modem Port access:
3)...Prompt for User Name: Disabled
4)...Prompt for Password : Disabled
Enter Select :
```