Installation and Operation
For MDM-1000B Modem Module

The Mircom MDM-1000B Modem Module is designed for use with Mircom Products that have a 10 pin RS-485 Interface connector. Some examples are the following products ...

TAS ADC Autodialers	J2	TAS 2000 (STANDARD BOARD)	P3
TAS NSL-9501	J5	TAS 2000 (SLIM LINE)	P2
TAS NSL-9502	J2	FA-1000	P1

Not all versions of these products can actually make use of an MDM-1000B at present; **Refer to the Product's Manual for further information.**

The MDM-1000B has a long ribbon cable for the 10-pin connection. When plugged into a product, the product supplies all necessary power for the MDM-1000B. The only other connection required is an RJ-11 phone line plugged into the MDM-1000B's Tel. Jack. **Note that one MDM-1000B may be connected to any two phone lines.**

The MDM-1000B will operate at standard North American Modem data rate of 2400 Baud.

Some future Mircom products will have mounting lugs either on the enclosure or on a module for the MDM-1000B. The MDM-1000B comes with thick foam double-sided tape for mounting to other products. In the latter case, the included Earth Ground Wire must be connected by a nut and bolt at the mounting hole by the MDM-1000B Tel. Jack to an Earth mounting screw on the product enclosure.

NOTE: Jumper JW3 remains on 1 pin and should only be installed if the modem is hard wired (ribbon cable is not used.)

For Modem operation, jumper JW1 must be installed and jumpers 1 and 3 must be removed. The MDM-1000B also has a DB-9 RS-232 connector and a set of screw terminals. This connector is used when a serial direct connection from the TAS system to a PC is required. In this application remove jumper JW1 and install jumpers 1 and 3. See diagram below for jumper location.   Jumpers 2 & 4 are for factory use to initialize modem.

MDM-1000B MODEM MODULE
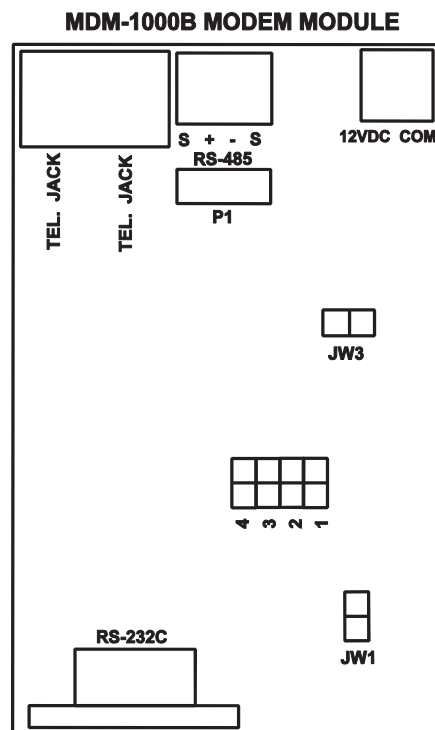
MOUNTING THE MODEM INTO THE MUS-5000 OR MCS-6000 - use the double-sided tape to mount the MODEM across the top of the backbox above the main board.

MOUNTING THE MODEM INTO THE TAS-2000 - use the four screws provided(discard the other four screws and the four hex spacers) and screw into the backbox below the TAS-2000 Main board on the four studs provided.

MOUNTING THE MODEM INTO THE TAS-2000 SLIM LINE - remove the main board and use four of the screws and the four spacers provided. Place the spacers on the four holes near the top half of the main board component side and screw the spacers in place with the four screws from the back of the board.   Use the remaining four screws and screw the modem onto the hex spacers above the TAS-2000 SLIM LINE main board. Then mount the main board back into the backbox. The modem sits above the TAS-2000 SLIM LINE main board.

DIRECT SERIAL CONNECTION - connect the RS-485 cable to the Telephone Access Controller Board and connect the RS-232 cable to the RS-232 port on the computer. Refer to the Telephone Access manual for software information. Remove jumper JW1 on the modem and install jumpers 1 and 3.

REMOTE PROGRAMMING VIA MODEM - connect the telephone jack on the modem to a telephone line, connect the RS-485 cable to the Telephone Access Controller Board. Install jumper JW1 and remove jumpers 1 and 3.

VERY IMPORTANT: For proper operation of the dialling sequence, there is a setting named CALL PREFERENCE listed under the Modem Properties which needs to be set. To set this properly, run the Mirsoft Tas2000 software (previously installed) . 1. Click the configure serial button. 2. Under the "Connect using section", click the "Modem" to select. 3. Click the "Configure" button in front of the modem text box, a new window will appear. 4. Click the "Connection" tab. 5. Under the "Call Preference" section, select the check box "Cancel the call if not connected within" and enter "60" seconds in the text box. If the "Call Preference" section is disabled, you do not have to do anything at all.

POWER FOR THE MODEM - If the distance between the Telephone Access Controller Board and the modem is greater than the available RS-485 cable, it may be hardwired using the RS-485 terminals on the modem, 22 AWG twisted shielded pair up to 2000 feet, 20 AWG twisted shielded pair up to 4000 feet and 18 AWG twisted shielded pair up to 8000 feet. In this case (when the RS-485 is hardwired) connect 12VDC from the auxiliary power terminals of the Telephone Access Controller Board to terminals marked 12V DC and COM- on the modem. If the RS-485 cable is used, then a transformer is not required and terminals 12V DC and COM- are not connected.

NOTE: FOR THIS APPLICATION JUMPER JW3 MUST BE INSTALLED.

Notice for all MDM-1000B Modem Modules Sold in Canada:

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. Industry Canada not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunication company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradations of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alteration made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the Earth Ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This is necessary both for proper operation and for protection.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

NOTICE: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

Notice for all MDM-1000B Modem Modules Sold in the U.S.A.:

Type of Service: The MDM-1000B is designed to be used on standard device telephone lines. It connects to the telephone line by means of a standard jack called the USOC RJ-11C (or USOC FJ45S). Connection to telephone company provided coin service (central office implemented systems) is prohibited. Connection to party lines service is subject to state tariffs.

Telephone Company Procedures: The goal of the telephone company of to provide you with the best service it can. In order to do this, it may occasionally be necessary for them to make changes in their equipment, operations or procedures. If these changes might affect your service or the operation of your equipment, the telephone company will give you notice, in writing, to allow you to make any changes necessary to maintain uninterrupted service.

In certain circumstances, it may be necessary for the telephone company to request information from you concerning the equipment which you have connected to your telephone line. Upon request of the telephone company, provide the FCC registration number and the ringer equivalence number (REN); both of these items are listed on the equipment label. The sum of all of the REN's on your telephone lines should be less than five in order to assure proper service from the telephone company. In some cases, a sum of five may not be useable on a given line.

If Problems Arise: If any of your telephone equipment is not operating properly, you should immediately remove it from your telephone line, as it may cause harm to the telephone network. If the telephone company notes a problem, they may temporarily discontinue service. When practical, they will notify you in advance of this disconnection. If advance notice is not feasible, you will be notified as soon as possible. When you are notified, you will be given the opportunity to correct the problem and informed of your right to file a complaint with the FCC. Contact your telephone company if you have any questions about your phone line. In the event repairs are ever needed on the MDM-1000B, they should be performed by Mircom Technologies Ltd. or an authorized representative of Mircom Technologies Ltd. . For information contact Mircom Technologies Ltd. at the address and phone numbers shown on the first page of this document.

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