

Application Notes

Connecting EZReadIt Gold via Modem

These notes apply to the MultiTech MT3334ZDX modem. This is the only modem we know of that can force the data rate through the serial port to 1200 baud. Other modems may work, but if they do not connect at 1200 baud, you will not be able to communicate with the meters. The notes assume you are using Windows XP.

Remote Modem Setup. Before you install the modem at a remote site, you must configure its firmware. You do this by connecting its serial port to your computer's RS-232 port. If your computer does not have an RS-232 port, you will need a USB to RS-232 adapter.

You must know the serial port number (probably COM1, COM3 or COM4) that you have plugged into. You can find out what ports are available by selecting START | Control Panel | System | Hardware | Device Manager | Ports (COM & LPT). The available COM ports will be listed there.

Launch the Windows HyperTerminal program by selecting Start | All Programs | Accessories | Communications | HyperTerminal. If you have used this program before, there may be two HyperTerminal items. Select the one with the program icon, not the one with the Windows folder icon. When the program starts, it will ask for the name of a new connection. Type in "setup" or anything you like. Click OK. When the Connect To dialog appears, click the down arrow on the right side of the Connect Using box and select the COM port you will be using. Click OK. You will see the Port Settings screen. Set the Bits per second to 1200. Leave the rest at the default settings (Data bits: 8; Parity: None; Stop bits: 1; Flow Control: Hardware). Click OK. You will see a big empty screen. Be sure the modem is connected and the power turned on. Type "AT" and hit the Enter key. (If the modem has been configured before, you might not see the "AT".) The modem should reply "OK". This indicates you are communicating with the modem properly. In the codes that follow 0 is a zero, not a letter. Type "AT&F0" and hit Enter key. This resets the modem to the factory default setting.

Now type "ATE0L0M1X0\$SB1200&W0" and hit the Enter key. The modem is now configured for remote operation. This code will turn on the speaker while the connection is being made. If

you want the modem to be silent, change the "M1" to "M0" in the command line above.

Hardware Setup. The 4810 RS-232 to Twisted Pair Interface should be connected to the meters in the same manner as in the instructions for connecting it directly to a computer. There are two versions of the 4810. The standard one, marked "Model 4810" on its label, needs a null modem cable to connect the modem to the 4810. It should have a nine pin, male connector on one end and a twenty five pin, male connector. Adapters may be used if necessary. Including a straight through cable and a null modem adapter at one end. The other version, the 4810DTE, can use a straight through cable rather than a null modem cable.

When the modem is installed and turned on, the "33" and "TR" lights should both be on. A loose cable can cause the "TR" light to go out.

EZReadIt Gold Setup. Before you can setup the EZReadIt software, you must know what serial port your PC uses to access its modem. If there is an internal modem in your computer, it will also have a COM port assigned to it. You can find out what it is by selecting Start | Control Panel | Phone and Modem Options, then selecting the Modems tab. If you have a standalone modem connected to your PC, you will use the port number you plugged the serial cable into. If you have a modem that plugs into a USB port and

Start the EZReadIt Gold program and choose Facilities. Choose "Modem" for Communication Connection, set the COM Port to the port you determined earlier, enter the Phone Number, including "1" and the area code if needed. Enter "9," if you need it to access an outside line. The comma inserts a pause in the dialing sequence to wait for the second dial tone. If you are using a separate modem, set the baud rate at "9600". If you are using the modem built into your PC, the modem will connect at the fastest speed it can.

There are additional modem parameters, Connect Time being most important, in the Facilities table in the EZMeter database that you should not have to change, but can if you need to.