## MultiModem<sup>®</sup> iCell Intelligent Wireless Modem



# **Quick Start Guide**



#### MultiModem<sup>®</sup> iCell Quick Start

Intelligent Wireless Modem MTCMR-H, MTCMR-E, MTCMR-G-F4, MTCMR-C 82100375L, Revision A

#### Copyright © 2009 by Multi-Tech Systems, Inc.

This publication may not be reproduced, in whole or in part, without prior expressed written permission from Multi-Tech Systems, Inc. All rights reserved. Multi-Tech Systems, Inc. makes no representations or warranty with respect to the contents hereof and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. Furthermore, Multi-Tech Systems, Inc. reserves the right to revise this publication and to make changes from time to time in the content hereof without obligation of Multi-Tech Systems, Inc. to notify any person or organization of such revisions or changes. Check Multi-Tech's Web site for current versions of our product documentation.

#### **Record of Revisions**

Revision	Date	Description
A	02/20/09	Initial release

#### Trademarks

MultiModem and the Multi-Tech logo are registered trademarks of Multi-Tech Systems, Inc.

#### World Headquarters

Multi-Tech Systems, Inc. 2205 Woodale Drive Mounds View, Minnesota 55112 Phone: 763-785-3500 or 800-328-9717 Fax: 763-785-9874 Internet Address: <u>http://www.multitech.com</u>

#### **Technical Support**

**Country** Europe, Middle East, Africa U.S., Canada, all others

By Email support@multitech.co.uk support@multitech.com

#### By Phone

+(44) 118 959 7774 800-972-2439 or 763-717-5863

### Introduction

This guide shows you how to set up your MultiModem iCell Intelligent Wireless modem. For detailed information, product description and specifications, activation and installation, and using your wireless modem, refer to the User Guide, available on the MultiModem iCell CD accompanying your wireless modem.

### **General Safety**

The modem is designed for and intended to be used in fixed and mobile applications. "Fixed" means that the device is physically secured at one location and is not able to be easily moved to another location. In a "Mobile" application, the device may be moved regularly from one location to another.

**Caution:** Maintain a separation distance of at least 20 cm (8 inches) between the transmitter's antenna and the body of the user or nearby persons. The modem is not designed for, nor intended to be, used in applications within 20 cm (8 inches) of the body of the user.

### **RF Interference Issues**

Avoid possible radio frequency (RF) interference by carefully following the safety guidelines below.

- Switch OFF the MultiModem when in an aircraft. The use of cellular telephones in aircraft is illegal. It may endanger the operation of the aircraft and/or disrupt the cellular network.
  Failure to observe this instruction may lead to suspension or denial of cellular services to the offender, legal action, or both.
- Switch OFF the MultiModem in the vicinity of gasoline or dieselfuel pumps or before filling a vehicle with fuel.
- Switch OFF the MultiModem in hospitals and any other place where medical equipment may be in use.
- Respect restrictions on the use of radio equipment in fuel depots, chemical plants, or in areas of blasting operations.
- There may be a hazard associated with the operation of your MultiModem in the vicinity of inadequately protected personal medical devices such as hearing aids and pacemakers.

Consult the manufacturers of the medical device to determine if it is adequately protected.

• Operation of the MultiModem in the vicinity of other electronic equipment may cause interference if the equipment is inadequately protected. Observe any warning signs and manufacturers' recommendations.

### Vehicle Safety

- Do not use your MultiModem while driving.
- Respect national regulations on the use of cellular telephones in vehicles. Road safety always comes first.
- If incorrectly installed in a vehicle, the operation of Wireless MultiModem telephone could interfere with the correct functioning of vehicle electronics. To avoid such problems, be sure that qualified personnel have performed the installation. Verification of the protection of vehicle electronics should be part of the installation.
- The use of an alert device to operate a vehicle's lights or horn on public roads is not permitted.

### Package Contents

Unbundled Package	Bundled Package
Modem with No Accessories	Modem with Accessories
1 modem 1 Quick Start Guide 1 MultiModem CD <b>Note:</b> You must supply mounting screws, AC or DC power supply, and an antenna.	1 modem 1 antenna 1 RS232 cable 1 USB cable 1 GPIO cable 1 power supply 1 Quick Start Guide 1 MultiModem CD Note: You must supply mounting screws.

#### Notes:

- Your wireless provider will supply the SIM card.
- See the User Guide for antenna specifications.

### Activate Your Wireless Account

Please refer to the wireless account Activation Notices included with your unit and located on the MultiModem CD. Choose the one for your wireless network provider and follow the directions to activate your account.

### Phone Numbers for the Wireless Modem

Every wireless modem will have its own unique phone number. The phone number may simply be given to you by your wireless service provider or it may also be on the SIM card or both. Wireless provider implementations may vary.

### Insert SIM Card into Holder, if required

The MultiModem requires the power supply connection to begin operation. It also requires a SIM card (Subscriber Identity Module) to operate on a GSM network. To install the SIM, do the following:

1. Using a small Phillips screwdriver, remove the two SIM door screws and remove the SIM door.

**Note:** When changing a SIM, ensure that power is removed from the unit.



- 2. Insert the SIM card into the card holder. The above figure illustrates the correct SIM card orientation.
- 3. Verify that the SIM card fits properly; then replace the door.

# Connect the Antenna, Serial Cable, GPIO Cable, and Power



- Antenna. Connect a suitable antenna to the SMA connector (see the User Guide for antenna/RF specifications).
- Serial Cable. Connect DB9 connector (9-pin) end of the serial cable to the RS232 connector on the modem and the other end to the serial port on the PC.
- USB Cable. The USB connector is provided for future use.
- **GPIO Cable.** Connect the GPIO cable to the I/O connector on the modem and the other end to the external device that the modem is monitoring.
- **Power Source.** Depending on the power source, connect either the power supply module with the appropriate blade or the optional DC power cable.
  - Power for Power Supply Module:
    - Remove protective shipping cover
    - Attach the appropriate interchangeable blade to the power supply module.
    - Screw-on the power lead to the power connection on the modem. Now, plug the power supply module into the power source.
  - Power for Optional Direct DC Power Connection:
    - Screw-on the DC power cable to the power connector on the modem.

- Then attach the two wires at the other end of the cable to a DC fuse/terminal block on a vehicle in which you are mounting the MultiModem.
- Connect the red wire to the "+" (positive) terminal and the black wire to the "-" (negative) terminal. Be sure the GND connection is correct.

#### Warning

Over-voltage protection is provided on the device. To ensure complete protection, you may want to add additional filtering to the DC input.

#### Note

For automotive applications, you can use permanent "+" or key-switched "+" source, according to the type of application. Connect the power supply to its source (for example, in a mobile situation, to the vehicle's DC fuse/terminal block).

### Modem Driver Installation

**Compatibility:** The MultiModem iCell modem is compatible with Windows Server 2008, Windows Vista, XP, 2003, and Linux.

Windows: To load the wireless modem's driver onto your PC, select the Control Panel's *Phone and Modem Options* option. During this installation, you will be required to browse the MultiModem CD to load the modem's INF file (located at the CD's root directory). See the User Guide for a description of each step.

Linux: Linux does not require a driver for serial modems.

### AT Commands

AT commands can be used to operate, configure, and query your modem. The AT Command Reference Guides are included on the MultiModem iCell CD and on the Multi-Tech Web site.

### Internet Access

See the User Guide for Internet access directions.

