



oMG

Four Port oMG Quick Set-Up Guide



SIERRA
WIRELESS®

4119612
Rev 1

Important Notice

Due to the nature of wireless communications, transmission and reception of data can never be guaranteed. Data may be delayed, corrupted (i.e., have errors) or be totally lost. Although significant delays or losses of data are rare when wireless devices such as the Sierra Wireless modem are used in a normal manner with a well-constructed network, the Sierra Wireless modem should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death, or loss of property. Sierra Wireless accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the Sierra Wireless modem, or for failure of the Sierra Wireless modem to transmit or receive such data.

Safety and Hazards

Do not operate the Sierra Wireless modem in areas where blasting is in progress, where explosive atmospheres may be present, near medical equipment, near life support equipment, or any equipment which may be susceptible to any form of radio interference. In such areas, the Sierra Wireless modem **MUST BE POWERED OFF**. The Sierra Wireless modem can transmit signals that could interfere with this equipment.

Do not operate the Sierra Wireless modem in any aircraft, whether the aircraft is on the ground or in flight. In aircraft, the Sierra Wireless modem **MUST BE POWERED OFF**. When operating, the Sierra Wireless modem can transmit signals that could interfere with various onboard systems.

Note: Some airlines may permit the use of cellular phones while the aircraft is on the ground and the door is open. Sierra Wireless modems may be used at this time.

The driver or operator of any vehicle should not operate the Sierra Wireless modem while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of that vehicle. In some states and provinces, operating such communications devices while in control of a vehicle is an offence.

Limitation of Liability

The information in this manual is subject to change without notice and does not represent a commitment on the part of Sierra Wireless. SIERRA WIRELESS AND ITS AFFILIATES SPECIFICALLY DISCLAIM LIABILITY FOR ANY AND ALL DIRECT, INDIRECT, SPECIAL, GENERAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUE OR ANTICIPATED PROFITS OR REVENUE ARISING OUT OF THE USE OR INABILITY TO USE ANY SIERRA WIRELESS PRODUCT, EVEN IF SIERRA WIRELESS AND/OR ITS AFFILIATES HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR THEY ARE FORESEEABLE OR FOR CLAIMS BY ANY THIRD PARTY.

Notwithstanding the foregoing, in no event shall Sierra Wireless and/or its affiliates aggregate liability arising under or in connection with the Sierra Wireless product, regardless of the number of events, occurrences, or claims giving rise to liability, be in excess of the price paid by the purchaser for the Sierra Wireless product.

Patents

This product may contain technology developed by or for Sierra Wireless Inc. This product includes technology licensed from QUALCOMM®. This product is manufactured or sold by Sierra Wireless Inc. or its affiliates under one or more patents licensed from InterDigital Group and MMP Portfolio Licensing.

Copyright

© 2016 Sierra Wireless. All rights reserved.

Trademarks

Sierra Wireless®, AirPrime®, AirLink®, AirVantage® and the Sierra Wireless logo are registered trademarks of Sierra Wireless.

Windows® and Windows Vista® are registered trademarks of Microsoft Corporation.

Macintosh® and Mac OS X® are registered trademarks of Apple Inc., registered in the U.S. and other countries.

QUALCOMM® is a registered trademark of QUALCOMM Incorporated. Used under license.

Other trademarks are the property of their respective owners.

Contact Information

Sales information and technical support, including warranty and returns	Web: sierrawireless.com/company/contact-us/ Global toll-free number: 1-877-687-7795 6:00 am to 6:00 pm PST
Corporate and product information	Web: sierrawireless.com

Revision History

Revision number	Release date	Changes
1	July 2016	Replaced Document #oMG-ED-120605 Updated Related Publications list (Table 1-1 on page 6) Updated device image (Figure 5-3 on page 11) and related cable attachment instructions Updated device image (Figure 9-1 on page 15)

Contents

Introduction	6
Before You Begin	7
Check Your Package Contents	8
Install the SIM Card into the oMG	9
Install the oMG	10
Power Up the oMG and Connect the PC	12
Log in to the oMG	13
Testing the Installation	14
Using the oMG	15
PC Setup for Dynamic IP Addressing	16

List of Figures

Figure 2-1: Comparison of SIM Card sizes	7
Figure 5-1: oMG Mounting Holes and Recommended Clearance	10
Figure 5-2: DC Power Cable Wiring	11
Figure 5-3: oMG Rear Panel Ports	11
Figure 6-1: oMG Status Indicators	12
Figure 7-1: oMG LCI Login Screen	13
Figure 8-1: WAN Status on the LCI Screen	14
Figure 9-1: Reset Button on Rear Panel of the oMG	15

>> 1: Introduction

This document provides the steps necessary to get up and running quickly with the Sierra Wireless Four Port oMG.

The following table identifies related publications that are available at <http://source.sierrawireless.com>.

Table 1-1: Related Publications

Title and Publication Number	Description
4119192 oMG 2000 Installation Guide	Describes how to install the oMG in a vehicle.
4118621 SIM Card Installation Guide	Describes how to install SIM cards into an oMG.
4118618 oMG Operation and Configuration Guide 3.14	Provides detailed information about the operation and configuration of the oMG.

>> 2: Before You Begin

You must have the following:

- Carrier-activated mini-SIM card. Note that a mini-SIM is required and has a different sizing compared to other SIM card types, as shown in [Figure 2-1](#) below.
- Miscellaneous equipment:
 - Screwdriver—#1 Phillips

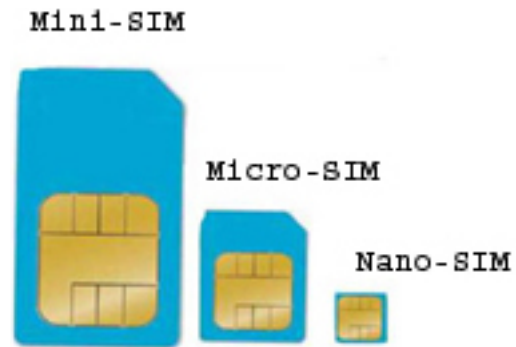


Figure 2-1: Comparison of SIM Card sizes

3: Check Your Package Contents

The following items are included with your oMG (may be separately boxed):

- oMG base unit



- WAN/GPS antennas (optional)



- DC power cable



- AC power cable adapter (optional)



- WAN cable adapter



- Wi-Fi antenna



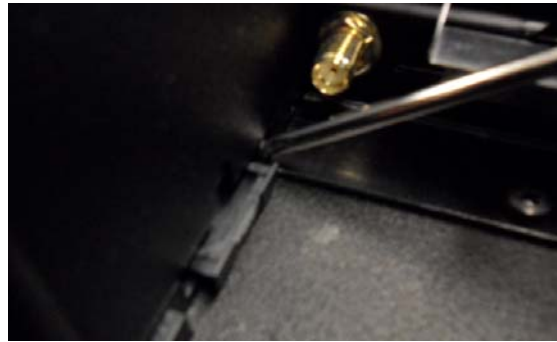
>> 4: Install the SIM Card into the oMG

Warning: Use ESD protection including a grounded wrist-strap.

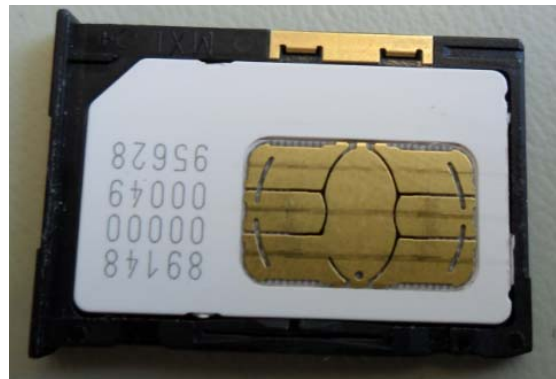
1. Open the center cover by unfastening the four Phillips screws using a #1 Phillips screwdriver.



2. Insert the SIM card as follows:
 - a. Use the screwdriver to push the SIM tray eject button.



- b. Place the SIM in the SIM tray.



- c. Insert the SIM tray.
- d. Replace the cover and refasten it.
- e. If you ordered an oMG with a dual embedded cellular radio option, refer to the SIM Card Installation Guide listed in [Table 1-1](#) on page 6.

5: Install the oMG

1. If you are bench testing using the optional AC adapter, proceed to [Chapter 7 on page 13](#).
2. Mount the unit inside the vehicle in a waterproof area using its mounting holes. Be sure there is 3.5 inches clearance as shown in [Figure 5-1](#).

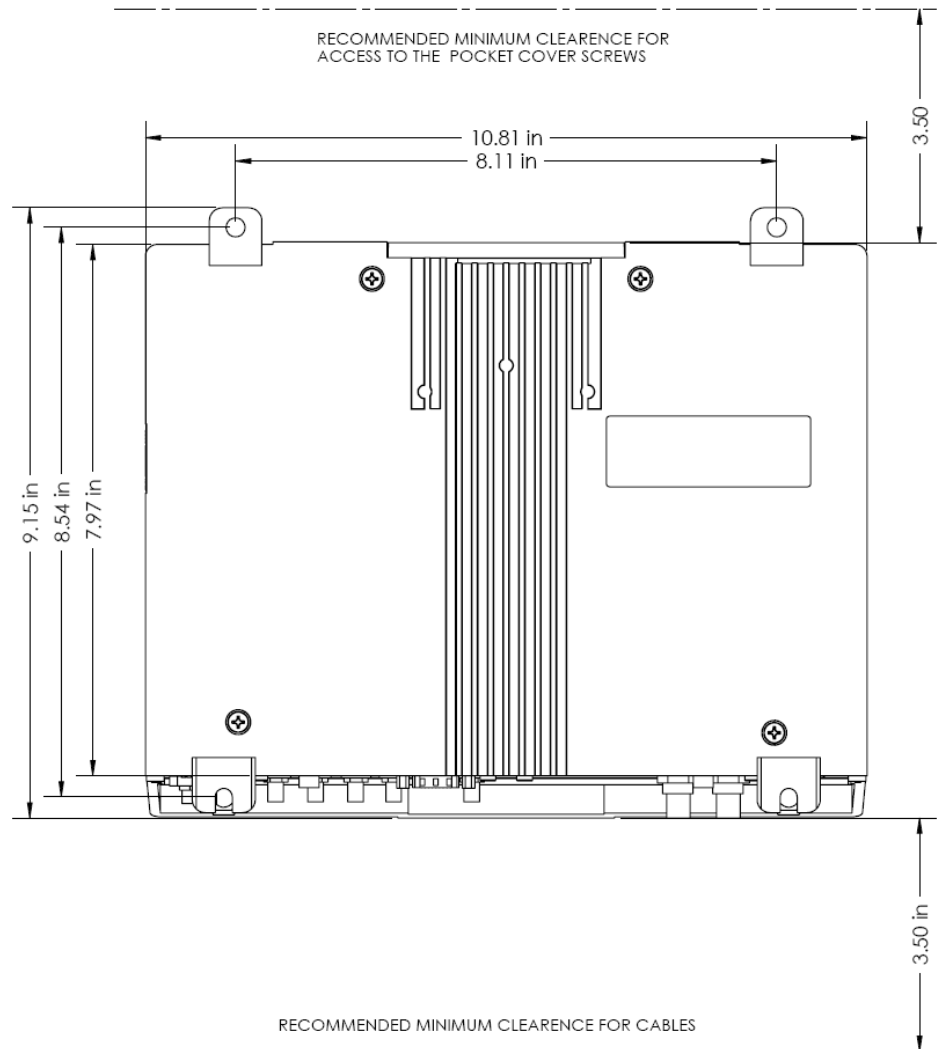


Figure 5-1: oMG Mounting Holes and Recommended Clearance

3. Wire the cable-end of the DC power cable into the vehicle's electrical system.

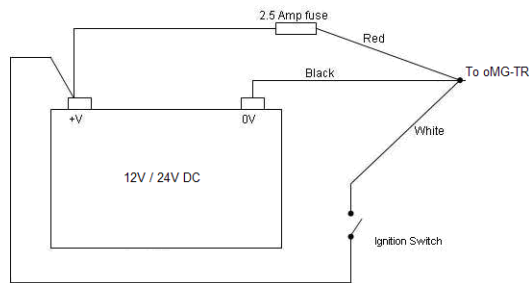


Figure 5-2: DC Power Cable Wiring

4. Attach the following cables to the ports on the rear of the oMG as shown in [Figure 5-3](#) below:
 - a. Attach Ethernet cables from client devices to ETH ports 1, 2, and 3 (if used).
 - b. Attach Wi-Fi WAN antennas (2.4–6 GHz) to WAN3-A and WAN3-B.
 - c. Attach the Wi-Fi LAN antenna(s) (2.4–6 GHz):
 - If using two antennas (MIMO)—Connect to the LAN1-A and LAN1-B connectors.
 - If using one antenna (not MIMO)—Connect to the LAN1-A connector.
 - d. Attach the GPS antenna to the GPS connector.
 - e. Attach the LTE WAN antennas (694–894 MHz and 1700–2700Mhz) to WAN1-A and WAN1-B.
 - f. If your unit was ordered with the dual embedded cellular WAN radio option, attach a second set of LTE WAN antennas (694–894 MHz and 1700–2700Mhz) to WAN2-A and WAN2-B.
 - g. With ignition OFF (or AC POWER UNPLUGGED if using adapter), attach the power cable connector to the power socket.

Warning: Do not power down without following proper procedures (see [Chapter 9](#) on page 15).

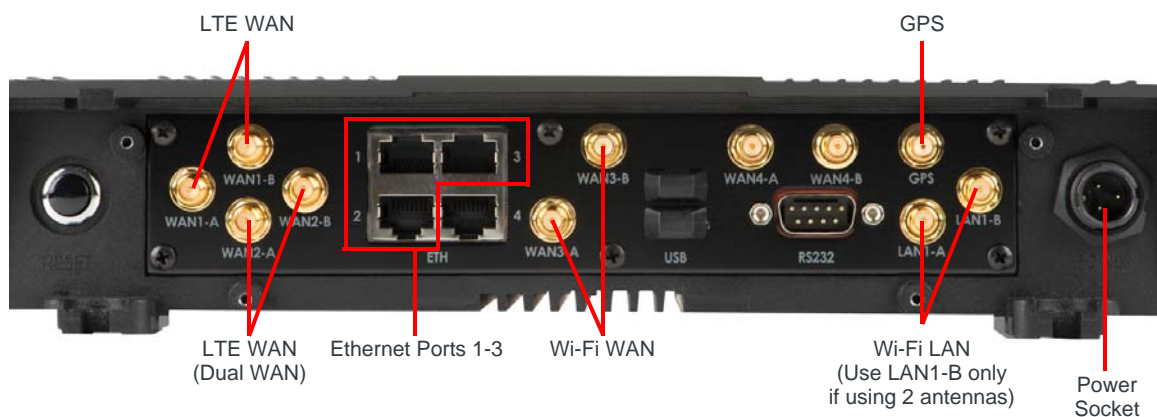


Figure 5-3: oMG Rear Panel Ports

>> 6: Power Up the oMG and Connect the PC

1. Power on the oMG. This may require you to turn on the ignition in the vehicle.

Warning: Do not power down without following proper procedures (see [Chapter 9 on page 15](#)).

2. On power-up, the Red LED indicator will blink, followed by blinking Yellow, then solid Yellow, then blinking Green until WAN connection is established. See the Installation Guide listed in [Table 1-1](#) on page 6 for a full description of status indications.



Figure 6-1: oMG Status Indicators

3. Connect your PC to the oMG using ONE of these methods:
 - Wireless: Use the 802.11 b or g Wireless interface of your PC to connect to the oMG.
 - Wired: Use an Ethernet cable between Port 1, 2 or 3 of the oMG and your PC Ethernet connector

Warning: The TCP/IP network configuration of the PC must use Dynamic IP addressing. Refer to [Appendix A on page 16](#) for instructions on how to set this up in Windows XP.

>> 7: Log in to the oMG

1. Open your web browser (e.g. Firefox, IE, or Safari) and start the Local Configuration Interface (LCI) by typing the following into the browser address bar: <http://welcome.to.inmotion/MG-LCI>.



Figure 7-1: oMG LCI Login Screen

2. Log in with:
 - User name = admin
 - Password = admin

Note: If you do not see the login page, then your PC has been unable to acquire a network address on the oMG LAN and you should verify your PC settings.

8: Testing the Installation

The oMG is pre-configured with settings for the Verizon public LTE network.

After powering on the oMG, the Green LED indicator will blink until it connects to the WAN. When the Green LED is on solid, the WAN connection is operational.

If the Green LED continues to blink:

1. In the LCI, go to Status > WAN.
2. Select Show Extended Status.
3. Confirm:
 - oMG is in network coverage
 - Network signal is between -51 to -85 dBm
 - ID can be read from the SIM
 - Correct APN is programmed (VZWINTERNET)

SIERRA WIRELESS InMotion Solutions

oMG Configuration Interface H130110035

Step 1

Step 2

WAN Link Status

Self-Update: Period: Update Show Extended Status:

Status	Score	Up Time	Type	Extended Status
UP	3000	0d 19h 03m 51s	Cellular	<p>Link Info</p> <p>IP Address: 166.154.250.228</p> <p>Broadcast Address: 166.154.250.231</p> <p>Network Mask: 255.255.255.252</p> <p>MAC Address: 00:A0:C6:00:00:00</p> <p>Default Gateway: 166.154.250.229</p> <p>Primary DNS: 198.224.173.135</p> <p>Secondary DNS Servers: 198.224.174.135</p> <p>Cellular Info</p> <p>Network Type: LTE</p> <p>RSSI: -79.0dBm</p> <p>IMEI: 990000624067015</p> <p>SIM ID: 89148000000232235458</p> <p>Programmed APN(s): vzwims, vzwadmin, VZWINTERNET, vzwapp</p> <p>VPN Info</p> <p>ManagementTunnel Status: UP</p> <p>ManagementTunnel Local Address: 10.4.0.130</p> <p>ManagementTunnel Remote Address: 10.4.0.129</p> <p>Data Statistics</p> <p>RX Bytes Received: 897479</p>

Copyright © 2007-2012 In Motion Technology, Inc. - All rights reserved.

Figure 8-1: WAN Status on the LCI Screen

>> 9: Using the oMG

When powered up, the oMG will automatically connect to the WAN, allowing external communications (e.g. you should be able to browse to <http://www.sierrawireless.com> using a web browser on your PC).

Warning: Sierra Wireless does not recommend powering down the oMG unexpectedly. When wired correctly, turning the ignition off will cause the oMG to perform a graceful shutdown.

To manually power down the oMG:

1. Press the Reset button on the unit for 2 seconds, then release.



Figure 9-1: Reset Button on Rear Panel of the oMG

2. When all LEDs stop flashing unplug the power cable.

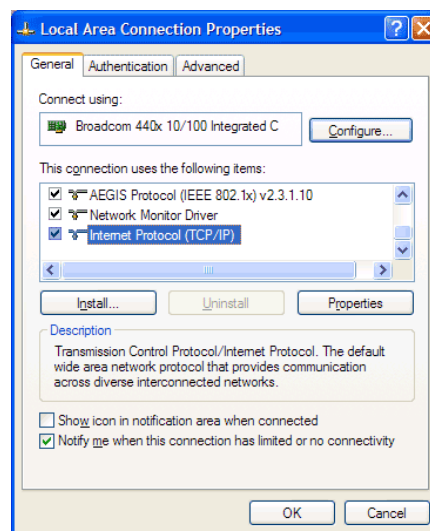
Warning: Holding down the Reset button for 30 seconds will reset the unit to its factory default configuration.

The oMG Operation and Configuration Guide listed in [Table 1-1](#) on page 6 provides details about how to customize your configuration. One essential customization is to secure the built-in Wi-Fi access point of the oMG using the WLAN Config menu in the LCI. The oMG supports WEP and WPA security.

» A: PC Setup for Dynamic IP Addressing

The following steps describe how to set up IP addressing on Windows XP. For other operating systems, consult your OS documentation.

1. Navigate to Start, right click My Network Places, and select Properties.
2. Locate the Network Connection associated with the oMG (LAN or Wireless), right click and select Properties.
3. Choose Local Area Network for wired, or Wireless Network connection for wireless.
4. Click Internet Protocol (TCP/IP).
5. Click Properties.



6. In the TCP/IP Properties popup window, click Obtain an IP address automatically.
7. Click Obtain DNS server address automatically.

