# Iridium GO!° Vehicular Kit (WVMTKT2001)

Installation Guide





Prior to installing or using Iridium GO!, read and understand this Installation Guide, the Wall Mounting Instruction Guide and the Iridium GO! User Manual including the safety warnings and information. Failure to do so could result in serious injury or death.



#### **Legal Notices**

This Vehicular Kit Installation Guide ("Installation Guide") provides installation information for the Iridium GO! Vehicular Kit. Iridium expects there may be additions and or modifications to this document as product development continues, or as new features are developed, so Iridium reserves the right to revise this Installation Guide or withdraw it at any time without prior notice. You can find the current version of this Installation Guide for the Iridium GO! at <a href="https://www.iridium.com">www.iridium.com</a>.

Your Iridium GO! Vehicular Kit contains Iridium Accessories subject to the 1-year Limited Warranty including Exclusions, Disclaimers, Limitations of Liability and Conditions of Use that is in the Legal Information Booklet that came with your Iridium GO!, and that is also available online at www.Iridium.com. Installation of the Iridium GO! Vehicular Kit does nothing to change or extend the original Limited Warranty on your Iridium GO! device itself. You are permitted to use Iridium GO! Vehicular Kit only as described and specified in this Installation Guide, the Iridium GO! User Manual, and the Limited Warranty. By using the Iridium GO! Vehicular Kit, you are indicating that you agree to comply with the terms set forth in this Installation Guide as well as the User Manual, including without limitation the Limited Warranty, including the section describing permitted use of Iridium GO! (the "Conditions of Use"). If you fail to comply with the Limited Warranty and the Conditions of Use, Iridium may void certain protections offered under the Limited Warranty, and Iridium reserves the right to terminate your right to use the Iridium GO! on the Iridium® system. If you do not accept the terms of the Limited Warranty and Conditions of Use, do not use the Iridium GO! Vehicular Kit.

If you do not have the Iridium GO! User Manual, it can be found at <a href="www.iridium.com">www.iridium.com</a> or call 1-866-947-4348 (or +1-480-752-5155 for outside U.S.) and request that a User Manual be sent to you.

#### **Third-Party Information**

This Installation Guide might refer to third-party sources of information, hardware or software, products or services and/or third-party web sites ("third party information"). Iridium does not control, and is not responsible for, any third-party information, including without limitation the content, accuracy, copyright compliance, compatibility, performance, trustworthiness, legality, decency, links, or any other aspect of third-party information. The inclusion of such third-party information does not imply endorsement by Iridium of the third-party information. ANY THIRD-PARTY INFORMATION THAT IS PROVIDED WITH IRIDIUM'S FACILITIES, SERVICES, PRODUCTS OR USER INFORMATION IS PROVIDED "AS IS". IRIDIUM MAKES NO REPRESENTATIONS, GUARANTEES OR WARRANTIES IN RELATION TO THIRD-PARTY INFORMATION, AND IRIDIUM SHALL NOT BE LIABLE FOR ANY LOSSES, DAMAGES, LIABILITIES, JUDGMENTS, AND FINES, AMOUNTS PAID IN SETTLEMENT, EXPENSES OR COSTS OF DEFENSE SUSTAINED IN RELATION TO ANY SUCH THIRD-PARTY INFORMATION.

#### Intellectual Property, Trade Secret, Proprietary or Copyrighted Information

To protect Iridium proprietary and confidential information and/or trade secrets, this Installation Guide may describe some aspects of Iridium technology in generalized terms. Iridium products may include copyrighted Iridium and third-party software. Any such copyrighted software contained in Iridium products may not be modified, reverse engineered, distributed or reproduced in any manner to the extent provided by law. The purchase of any Iridium products shall not be deemed to grant either directly or by implication or otherwise, any license under copyrights, patents, or patent applications of Iridium or any third-party software provider, except for the normal, nonexclusive, royalty-free license to use that arises by operation of law in the sale of a product.

#### **Content Copyright**

You are exclusively responsible for the use of the Iridium GO! Vehicular Kit, including proper use of third-party copyrighted materials. If you violate these terms, you agree to defend, indemnify and hold Iridium harmless with respect to any claims or actions by third parties related to your improper use of copyrighted material and to pay all costs, damages, fines and other amounts incurred by Iridium, or on its behalf, in the defence of any such claims or actions.

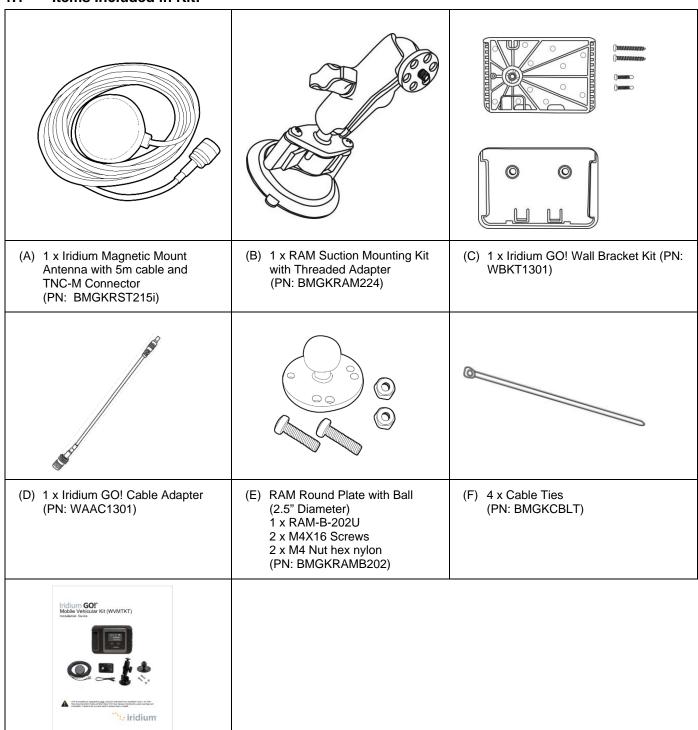
## **Table of Contents**

1	Kit Co	Kit Contents4		
	1.1	Items included in kit:	4	
2	Anter	nna and Cable Installation	5	
3	RAM	<sup>®</sup> Mount Installation1	2	
	3.1	Twist Lock Mount Assembly – Suction Cup Twist Lock Base (A), Ball Diamond Base (B and C) and Double Socket Arm (D)		
	3.2	Mounting Option 1: Wall Bracket Kit (G), RAM Round Plate with Ball (F) with the Twist Lock Mounting kit (from 4.1)		
	3.3	Mounting Option 2: 1" Ball Round Plate with Camera Thread (E) with the Twist Lock Mount Assembly (from 3.1) 1	4	
4	Speci	ifications1	5	
	4.1	Iridium Magnetic Mount Antenna	5	
	4.2	Wall Mount Bracket Kit	5	
	4.3	RAM Suction Mounting Kit with Threaded Adapter	6	
	4.4	RAM Round Plate with Ball	6	
	4.5	Iridium GO! Cable Adapter	16	

## 1 Kit Contents

#### 1.1 Items Included in Kit:

(G) 1 x User Installation Guide (PN: WVMUG2001)



## 2 Important Safety Information



Prior to installing or using Iridium GO!, read and understand this Installation Guide, the Wall Mounting Instruction Guide and the Iridium GO! User Manual including the safety warnings and information. Failure to do so could result in serious injury or death.

## **A** WARNING



Do not drive distracted. Discontinue or decline to take a call if you cannot concentrate on driving. Use only in hands-free mode. Failure to do so may cause serious injury or death.



Do not use the antenna on vehicles at speeds greater than 145kmph / 90mph under normal driving conditions, and do not use the antenna under extreme driving conditions or subject to extreme vibration. Use at greater speeds or in extreme conditions could dislodge the antenna from the vehicle allowing it to strike persons or property, resulting in serious injury or death, or in damage to the vehicle or other property.



Before mounting antenna on vehicle, clean all oil, dirt, snow, and ice from the surface of the vehicle and the bottom of the magnet, and dry all moisture from both surfaces. Failure to do so could prevent a proper magnetic bond, allowing it to become detached and strike persons or property, resulting in serious injury or death, or in damage to the vehicle or other property.



Carefully place the magnet mount onto a flat steel, factory-painted surface avoiding any bumps, grooves or damaged surfaces. Failure to do so could prevent a proper magnetic bond, allowing it to become detached and strike persons or property, resulting in serious injury or death, or in damage to the vehicle or other property.



Use a secondary retention system to prevent unintentional detachment or loss of the antenna. The properly tightened feeder cable could be used for this purpose. Failure to secure the antenna could allow the antenna to dislodge from the vehicle allowing it to strike persons or property, resulting in serious injury or death, or in damage to the vehicle or other property.



Without bending the cable, minimize the amount of cable between the vehicle and the antenna to reduce wind drag. Do not exceed 500mm of exposed cable. Too much cable could cause the wind to bounce the cable against the vehicle or could allow the antenna to dislodge from the vehicle, allowing it to strike persons or property, resulting in serious injury or death, or in damage to the vehicle or other property.



The Iridium GO! device utilizes a negative ground system. When using a DC power source, such as a car or boat, the power system must be a negative ground system. Do not use the device with positive ground systems. Failure to properly ground the Iridium GO! device could cause fire or could cause the device to fail so that it is unavailable in an emergency situation, preventing or delaying an emergency response. These hazards could cause serious injury or death.



Use the Iridium GO! device with Iridium supplied power accessories ONLY. Use of non-Iridium supplied power accessories could result in exposing the device to excessive voltage, which could cause fire or could cause the device to fail so that it is unavailable in an

#### Iridium GO! Vehicular Kit

emergency situation, preventing or delaying an emergency response. These hazards could cause serious injury or death.

Persons with Pacemakers:

• Should ALWAYS keep Iridium GO! and the antenna more than eight inches from their pacemaker when the device is turned ON.

• Should turn Iridium GO! OFF immediately if there is any reason to suspect that interference is taking place.

Failure to heed this warning could result in serious injury or death.

Do not leave power and antenna ports uncovered. Open power cover only for as long as recharging is required, and open antenna cover only when actively using the external antenna. Leaving the covers open allows moisture and water vapor to enter the device which in turn could lead to corrosion and damage to the device. This could cause fire or could cause the device to fail so that it is unavailable in an emergency situation, preventing or delaying an emergency response. These hazards could cause serious injury or death.



Avoid pinching injuries: do not place fingers between or at edge of magnetic mount and metal surface.

**NOTICE:** Do not try to reposition the antenna by sliding it on a painted metal surface, as this may scratch the surface.

## 3 Antenna and Cable Installation

**Note:** It is recommended that prior to installation, pre-test the complete set-up. This can be done on a bench or on the vehicle outdoors. Connect all components to test if everything works fine. Doing so will familiarize the user on how the parts go together and guarantees it works prior to installation. Make sure the antenna is located outside and the Iridium GO! shows good signal reception for at least 5 minutes during this test before you proceed with the installation. Always maintain a separation of at least 30 cm (12 in) from other antennas.

## Step 1) Identifying Location & Installing the Iridium GO!

- a) The magnetic antenna when mounted on the vehicle roof will provide reception for the Iridium network only but will not provide GPS reception. To obtain GPS reception, the Iridium GO! device itself is required to have a direct line of sight of the sky with a 7-degree view above the horizon. In a vehicle, the area between the dashboard and windscreen is suitable.
- b) Find a suitable location to securely install the Iridium GO! inside the vehicle, using the mounting bracket provided. See RAM Mount Installation on how to secure the Iridium GO! device in the vehicle. (Section 4, pgs. 12-13).
- c) Also make sure the Iridium GO! is installed near a power source and does not obstruct view of the driver.

#### Step 2) Identifying Location & Installing the Iridium Antenna

**Antenna Positioning:** The antenna must not be mounted at a location such that during radio transmission, any person or persons can come closer than the indicated minimum safe distance to the antenna: 20 cm (7.8 in). Always maintain a separation of at least 30 cm (12 in) from other antennas. See Iridium GO! User Manual for a discussion of exposure to radio frequency (RF) energy.

- a) Find a suitable location to place the magnetic antenna on the vehicle's roof, ensuring the antenna cable will reach to the location of the Iridium GO!. The location must be on a flat section of the roof, that is steel and factory painted. Aftermarket or excess paint can increase the thickness and reduce the magnetic adhesion.
- b) The coax cable exiting the mount's base should be orientated towards the point at which it will enter into the interior of the vehicle; for safety, the cable should not exceed 500mm or 18" before it enters the vehicle.



Use a secondary retention system to prevent unintentional detachment or loss of the antenna. The properly tightened feeder cable could be used for this purpose. Failure to secure the antenna could allow the antenna to dislodge from the vehicle allowing it to strike persons or property, resulting in serious injury or death, or in damage to the vehicle or other property.

Without bending the cable, minimize the amount of cable between the vehicle and the antenna to reduce wind drag. Do not exceed 500mm of exposed cable. Too much cable could cause the wind to bounce the cable against the vehicle or could allow the antenna to dislodge from the vehicle, allowing it to strike persons or property, resulting in serious injury or death, or in damage to the vehicle or other property.

c) Thoroughly clean the bottom of the magnetic mount and the selected vehicle mounting surface by removing all dust, dirt, oil, etc.

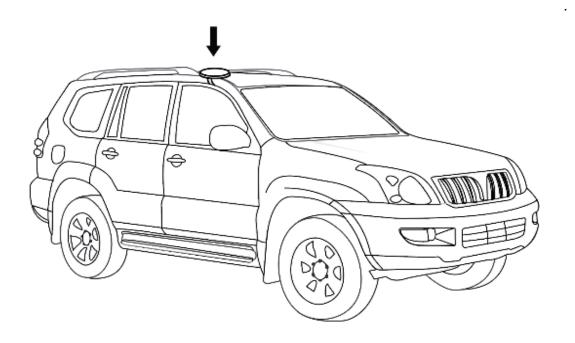


Before mounting antenna on vehicle, clean all oil, dirt, snow, and ice from the surface of the vehicle and the bottom of the magnet, and dry all moisture from both surfaces. Failure to do so could prevent a proper magnetic bond, allowing it to become detached and strike persons or property, resulting in serious injury or death, or in damage to the vehicle or other property.

d) Carefully place the magnet mount onto the metal surface of the vehicle at the selected location,

#### Iridium GO! Vehicular Kit

avoiding any bumps, grooves or damaged surfaces of the vehicle.





Carefully place the magnet mount onto a flat steel, factory-painted surface avoiding any bumps, grooves or damaged surfaces. Failure to do so could prevent a proper magnetic bond, allowing it to become detached and strike persons or property, resulting in serious injury or death, or in damage to the vehicle or other property.



Avoid pinching injuries: do not place fingers between or at edge of magnetic mount and metal surface.

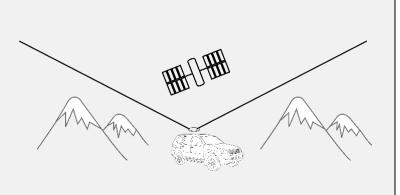
**NOTICE:** Do not try to reposition the antenna by sliding it on a painted metal surface, as this may scratch the surface.

## Step 3 ) Installing & Securing the Iridium Antenna Cable

- a) Identify the easiest path for the cables to run to ensure the following;
  - Use existing slots and channels in the vehicle for routing cables securely and to keep them protected
  - Route cables so that they will not tangle or interfere with movement of seats, pedals and emergency brakes.
  - Avoid routing cables under floor mats so cables do not catch on your feet.
  - Route cables so that they are at least 152.4 mm (6 in) from vehicle electrical cables to avoid electrical interference
  - Do not put stress on the cable. Ensure that the bend radius of the cable doesn't go below 49.5 mm (1.94 in) slack.
  - Do not run the cable through a window because when the window is rolled up and the door is opened the antenna cable will be pulled this is likely to destroy your antenna and/or scratch your paint.
  - Route the coaxial cable to the satellite terminals location, passing it by the trunk lid's perimeter gasket, door perimeter gasket, etc., as necessary.
- b) Route and restrain cables (with the supplied cable ties) to prevent them from vibrating or moving under normal conditions which could result in damage to the antenna or the coaxial cable connections.
- c) A gentle hand pull test should be performed to ensure that the antenna is attached to the vehicle adequately before driving.

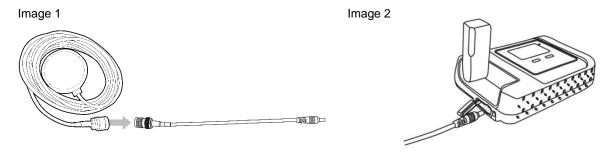
#### Notes:

- a) Wherever the cable contacts a structure, protect the cables from chafing or abrasion. If a cable needs to be bent, avoid kinking it, and ensure that the bend radius limit is followed.
- b) To ensure maximum performance of the antenna and to maximize availability and reliability of service, the position of the antenna must:
  - have clear line of sight to the sky
  - be clear and free of obstructions
  - be clear of metal objects
  - not be located indoors



#### Step 4) Connecting the Iridium Antenna to the Iridium GO!

Take the Iridium GO! Cable Adapter, connect the larger TNC-F Connector to the TNC-M Connector of the Iridium Magnetic Mount Antenna and ensure they are screwed together tightly (refer to image 1). Then once the Iridium GO! is ready to be connected to the Iridium Magnetic Mount Antenna, take the small TS9 Connector and gently plug that into the antenna port of the Iridium GO! (refer to image 2). The antenna port is located behind the cover found directly below the device antenna. The cable should stay connected once plugged in.



### **Important Note:**

1) When an external antenna is connected, <u>YOU MUST</u> still raise the device antenna; this action turns the unit on and allows for transmission with the Iridium network, while lowering the device antenna can disable transmission or effectively switch the device off.

#### Step 5) Charging the Iridium GO!

Open the USB Port cover and insert the micro USB connector to the USB Port of the Iridium GO!

Connect the other end of the USB cable to the USB car charger adaptor (included in the Iridium GO!), a compatible power bank, or the vehicle's USB charging port.



Do not leave power and antenna ports uncovered. Open power cover only for as long as recharging is required, and open antenna cover only when actively using the external antenna. Leaving the covers open allows moisture and water vapor to enter the device which in turn could lead to corrosion and damage to the device. This could cause fire or could cause the device to fail so that it is unavailable in an emergency situation, preventing or delaying an emergency response. These hazards could cause serious injury or death.

## 4 RAM Mount Installation

To keep the Iridium GO! Mounting Bracket securely in place, install the RAM Mount provided.



A - 3.3" Suction Cup Twist Lock Base



E – 1" Ball Round Plate with 1/4" – 20 Camera Thread



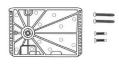
**B** - Stainless Steel Metal Screws x 2



**F** - RAM Round Plate with Ball (2.5" Diameter)



C – 1" Ball, Diamond Base w/ Post





**G** – Iridium GO! Wall Bracket Kit



**D** - Double Socket Arm

## **3.1** Twist Lock Mount Assembly – Suction Cup Twist Lock Base (A), Ball Diamond Base (B and C) and Double Socket Arm (D)

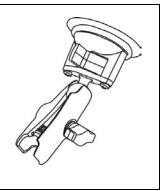
## Step 1)

Align the 1" Ball Diamond Base (C) on top of Suction Cup Twist Lock Base (A) and fasten with two screws (B).



### Step 2)

Loosen knob on Double Socket Arm (E) and attach to assembled unit in Step 1. Make sure the spring is located on the opposite end of the suction cup as shown in the image.



## **3.2 Mounting Option 1:** Wall Bracket Kit (G), RAM Round Plate with Ball (F) with the Twist Lock Mounting kit (from 4.1)

### Step 1)

Screw the Mounting Plate to the back of the Iridium GO!



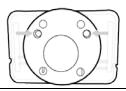


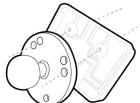
## Step 2)

Note: To route cables on the mounting bracket, refer to the Wall Mounting Instruction Guide included in the kit.

Screw together the RAM Round Plate with Ball to the Wall Bracket using the two M4 x 16 screws and M4 nylon hex nut. Make

nylon hex nut. Make sure the two holes of the mount align with the bracket as shown in the drawing.

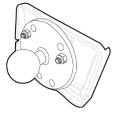




## Step 3)

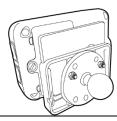
The RAM plate and the wall bracket screwed together is shown below.





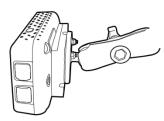
## Step 4)

Slide the Iridium GO! into the wall bracket as shown. Make sure it sits secure and locks in place.



Step 5)

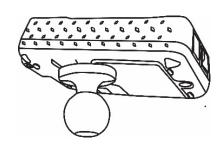
Assemble the Iridium GO! In the bracket with the RAM mount as shown in the drawing below. This is now ready to install on a windscreen or a glass window.



**3.3 Mounting Option 2:** 1" Ball Round Plate with Camera Thread (E) with the Twist Lock Mount Assembly (from 3.1)

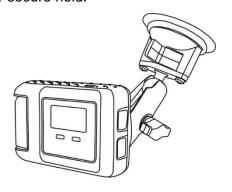
## Step 1)

Screw the 1" Ball Round Plate (E) that came with the RAM Mounting Suction Kit to the Iridium GO!.



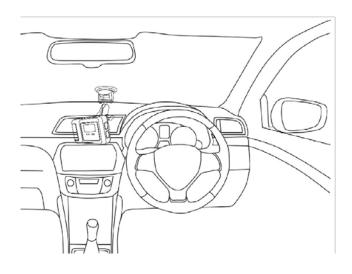
## Step 2)

Place in open socket of the Twist Lock Mount Assembly and tighten knob on Double Socket Arm for secure hold.



Step 3)

Mount to the windscreen. Adjust position accordingly. See image below for reference.



## 5 Specifications

## 5.1 Iridium Magnetic Mount Antenna

Certified passive Iridium Antenna for use with the Iridium GO!

• Requires no pointing towards satellite

Electrical Specifications		
Frequency	1616 - 1627 MHz (L-band)	
Impedance	50 ohm	
VSWR	~1.1:1	
Satellite System	Iridium	
Polarisation	RHCP	
Average Gain	~ -0.8 dB	
Peak Gain	~ 5.1 dBi	
Mechanical Specifications		
Color	Black	
Height	14.7 mm / 0.58"	
Diameter	Ø 60 mm / 2.36"	
Mounting	Magnetic Mount	
Mounting Place	Land Based Vehicle	
Mounting Place Materials	Land Based Vehicle ABS	
-		
Materials	ABS	

## 5.2 Wall Mount Bracket Kit

Mechanical Specifications		
Color	Black Textured MT11010 Surface	
Mounting	On Wood or Metal Surface with Bracket Puck Plate and Screws	
Mounting Place	Twist Lock Mount Assembly	
Materials	Hard Plastic	
Screws	1/4 inch (9560 Mounting Plate)	
	Parts included in the kit but not recommended for use:	
	<ul> <li>M4 PANPOZI head x 20mm (0.78") (Recommended for metal)</li> </ul>	
	M4 PANPOZI head x 30mm (1.18") (Recommended for wood)	

#### Iridium GO! Vehicular Kit

Dimensions	9560 Mounting Plate – 85mm x 57mm x 5.45mm (3.30" x 2.24" x 0.21")
	Wall Bracket – 90.25mm x 59.90mm x 11mm (3.55" x 2.35" x 0.433")

## 5.3 RAM Suction Mounting Kit with Threaded Adapter

Physical Specifications		
Suction Size	3.3" / 83.82mm Diameter Suction Cup Twist Lock Base	
Socket-to-Socket Length	3" / 76.2	
Ball/Socket Size	B Size 1" / 25.4mm	
Weight Capacity	2 lbs / 0.90 kg	
Materials	Marine-grade Aluminium. High Strength Composite	
Ball Round Plate	1" / 25.4mm Ball Connected to a Round Plate with 1/4" – 20 Stainless Steel Camera Thread	
Ball Material	Patented Rubber	

## 5.4 RAM Round Plate with Ball

Physical Specifications	nysical Specifications		
Plate size	2.5" / 63.5 mm Diameter		
Ball/Socket Size	B Size 1" / 25.4 mm		
Weight Capacity	4 lbs / 1.81 kg		
Material	Marine-grade Aluminium		
Hole Pattern	4-hole AMPS: 30mm x 38mm / 1.181" x 1.496" 3-hole 120-Degree: 46mm /1.812" Diameter		

## 5.5 Iridium GO! Cable Adapter

Physical Specifications	
Connectors	TS9 (Iridium GO!) TNC-F (Magnetic Mount Passive Antenna)
Cable Length	15cm / 6"

For Customer Support, please contact:

web: www.iridium.com email: info@iridium.com toll free: +1.866.947.4348 phone: +1.480.752.5155 address: Iridium Satellite LLC

1800 S.Price Road

Chandler, AZ 85286, USA

©Copyright 2020 Iridium Satellite LLC and its affiliates. All rights reserved.

Iridium®, Iridium GO!® and the Iridium Logo are registered trademarks of Iridium Satellite LLC and its affiliates ("Iridium"). All other trademarks, service marks and logos are the property of their respective holders, which have not been endorsed, sponsored or otherwise affiliated with Iridium or Iridium GO!.