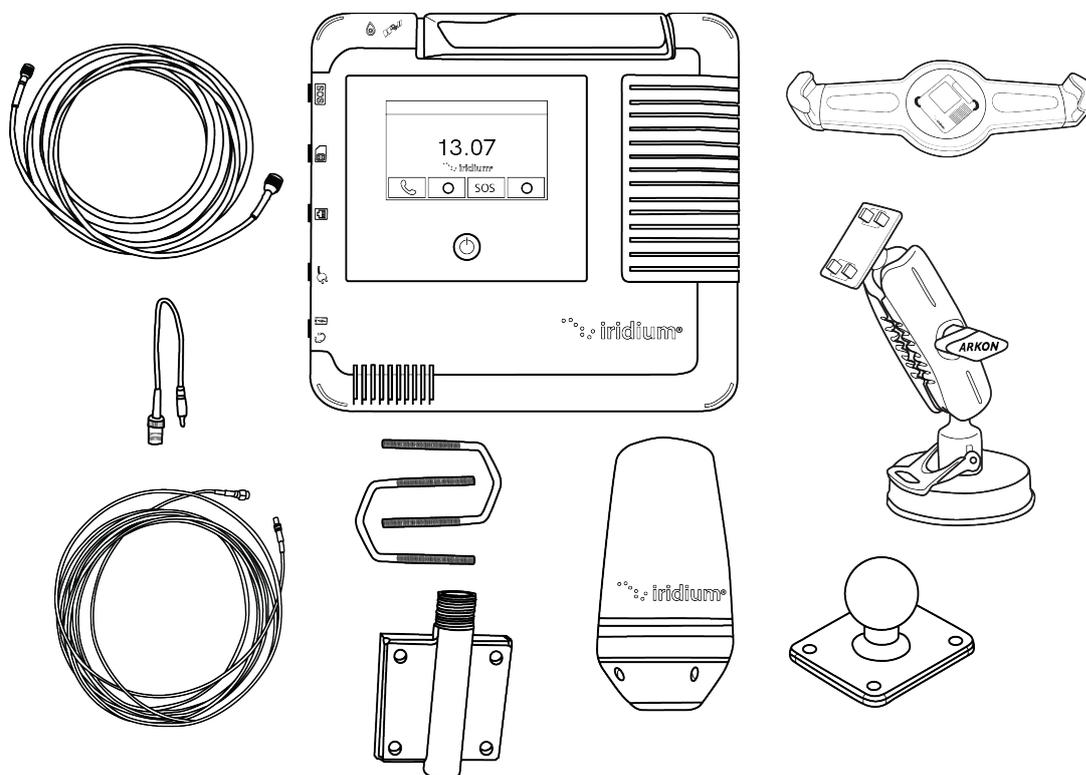


# Iridium GO! *exec*<sup>TM</sup>

## Iridium GO! *exec*<sup>TM</sup> Premium Dual Mode Antenna Kit (with GNSS)

(GEINSTKT2201)

Installation Guide V1.2



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



## Legal Notices

This Installation Guide provides installation information for the Iridium GO! exec Premium Dual Mode Antenna 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! exec at [www.iridium.com](http://www.iridium.com).

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If you do not have the Iridium GO! exec User Manual, it can be found at [www.iridium.com](http://www.iridium.com) 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.

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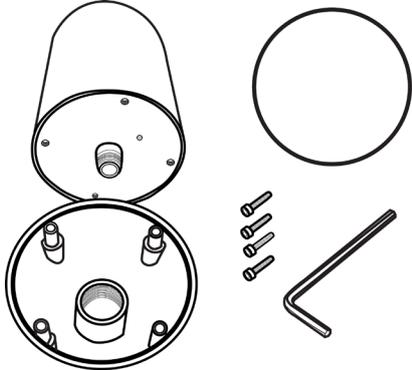
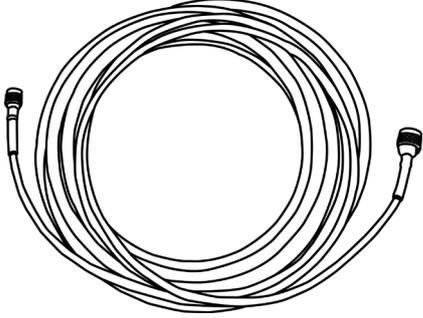
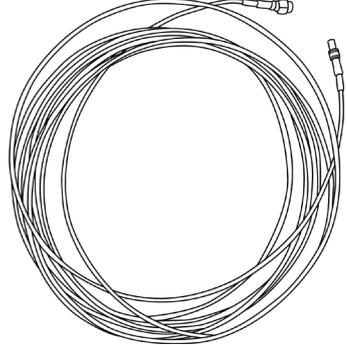
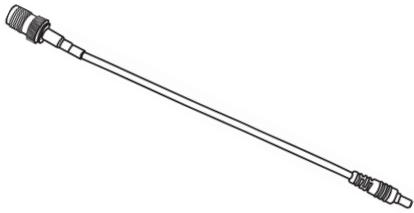
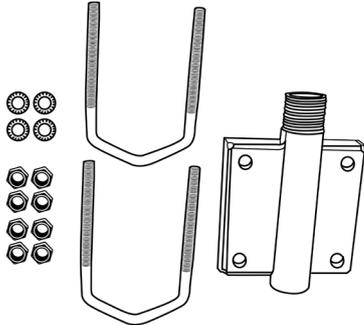
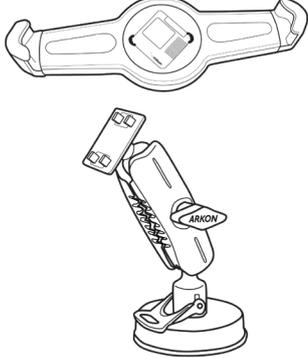
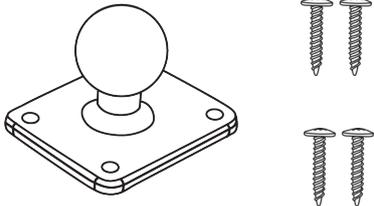
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# 1 Kit contents

## 1.1 Items included in the kit:

|  |  |   |
|--|--|---|
|           |    |    |
| <p>(A) 1 x Iridium Dual Mode Passive Omnidirectional Antenna Kit</p>                       | <p>(B) 1 x 5m/16.404ft Passive Antenna Cable</p>                                     | <p>(C) 1 x GNSS Cable for Active GNSS Antenna 5.25m/17.22ft</p>                       |
|          |   |   |
| <p>(D) 1 x Iridium GO! exec Cable Adapter 0.15m/5.90 inches</p>                            | <p>(E) 1 x Stainless Steel Mast/Rail Mount Bracket Kit</p>                           | <p>(F) 1 x Iridium GO! exec Mounting Bracket</p>                                      |
|         |  |  |
| <p>(G) 1 x 1in. ball, square base and 4 x Stainless steel metal screws for fixed mount</p> | <p>(H) 10 x Cable Ties</p>   | <p>(I) 1 x User Installation Guide</p>  |

## 2 Antenna and Cable Installation

**Note:** It is recommended that prior to installation, you pre-test the complete setup. This can be done on a bench or on the deck of the boat. Connect all components to test if everything works fine. Doing so will familiarize the user how the parts go together and guarantees it works fine prior to installation. Make sure the external antenna is located outside and the Iridium GO! exec receives good signal reception for at least 5 minutes during this test before you proceed with the installation. Maintain a separation of at least 20 cm (7.8 inches) from antenna during test.

| <b>! WARNING</b>  |  |
|---|--|
|  | <p>Persons with Pacemakers:</p> <ul style="list-style-type: none"> <li>• Should ALWAYS keep Iridium GO! exec and the antenna more than eight inches or twenty centimeters from their pacemaker when the device is turned ON.</li> <li>• Should turn Iridium GO! exec OFF immediately if there is any reason to suspect that interference is taking place.</li> <li>• Failure to heed this warning could result in serious injury or death.</li> </ul>                              |
|  | <p>The Iridium GO! exec 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 GO! exec 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.</p> |
|  | <p>Use the Iridium GO! exec device ONLY with Iridium supplied power accessories. 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 emergency situation, preventing or delaying an emergency response. These hazards could cause serious injury or death.</p>  |

### Step 1)

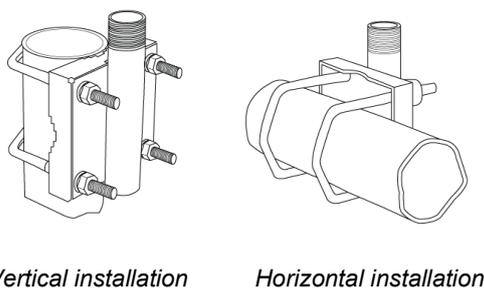
Find a dry location for Iridium GO! exec inside the vessel. Ensure that it is installed near a power source. See the Iridium GO! exec Mounting Bracket Installation on how to secure the Iridium GO! exec device in the vessel. (Section 3 and 4)

### Step 2)

Carefully consider the cable path to allow the cable length for the exterior antenna to reach the Iridium GO! exec device.

### Step 3)

**Bracket mounting:** Install the Mast/Rail mounting bracket within the 5 meter/16 feet proximity to a pole or rail.



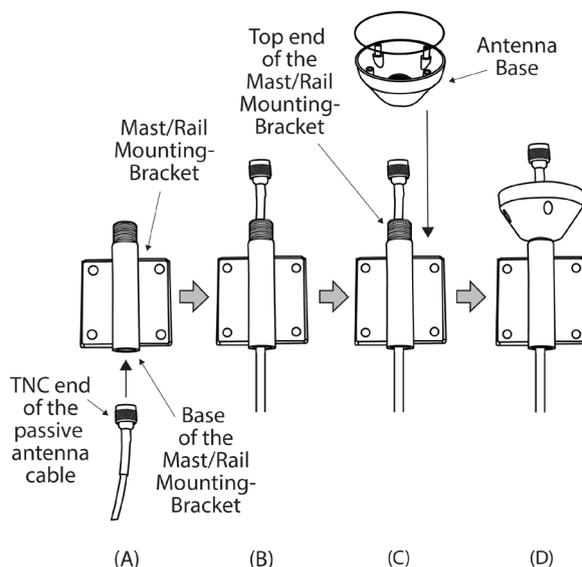
**Antenna mounting:** the antenna must not be mounted at a location such that during radio transmission, any person or persons can come closer than the indicated minimum safe distance to the antenna: 20 cm (7.8 inches). See Iridium GO! exec User Manual for a discussion of exposure to radio frequency (RF) energy.

**Note:** U-Bolts can fit pole and rail with diameter 30-60mm.

### Step 4)

Once the antenna mount bracket is securely in place:

1. Feed one end of the passive antenna cable through the base of the bracket (A and B) then, feed the cable through the Antenna base plate (C).
2. Screw the antenna base to the bracket (D).

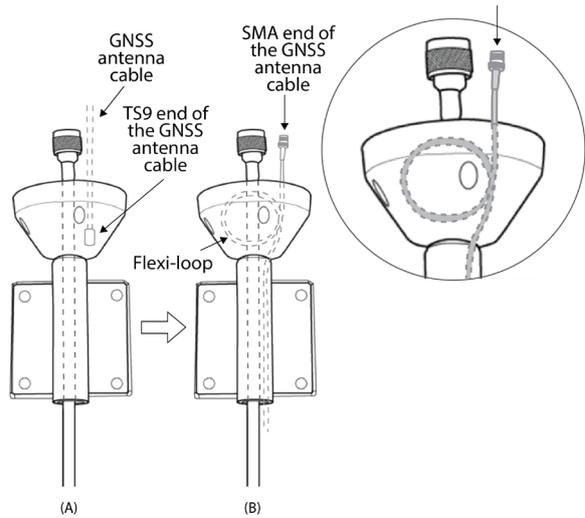


**Iridium GO! exec Premium Dual Mode Antenna Kit (with GNSS)**

**Step 5)**

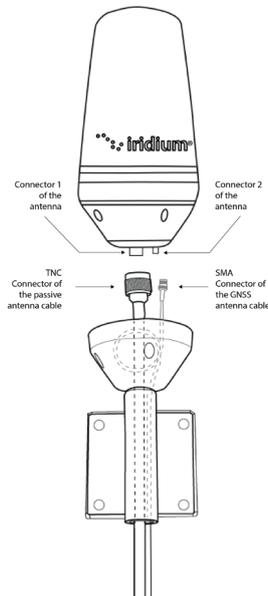
Once the satellite cable is in place

1. Feed the TS9 end of the GNSS antenna cable through the bracket tube from the top (A), and all the way to SMA end.
2. Make the single flexi-loop on the GNSS cable as shown in (B) to avoid kinking the GNSS cable when it is connected to the antenna.



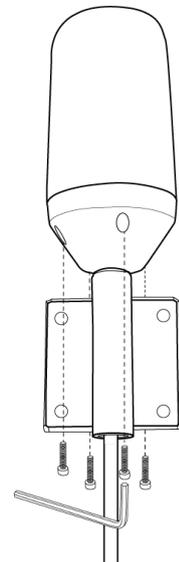
**Step 6)**

1. Connect the SAT antenna cable connector (TNC-M) to the antenna connector1 (TNC-F) and hand-tight.
2. Connect the GNSS antenna cable connector (SMA-M) to the antenna connector2 (SMA-F) and hand-tight.



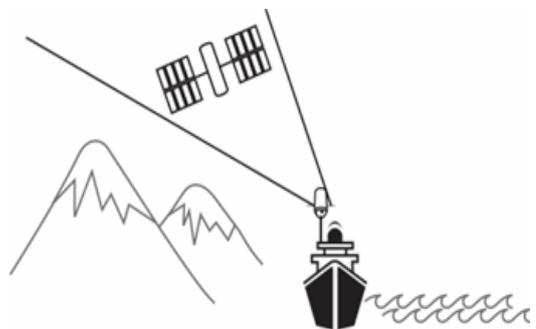
**Step 7)**

Screw the antenna base to the antenna housing using screws and Allen key provided. Ensure that you attach the black rubber seal (see step 4C above) provided to the antenna base plate.



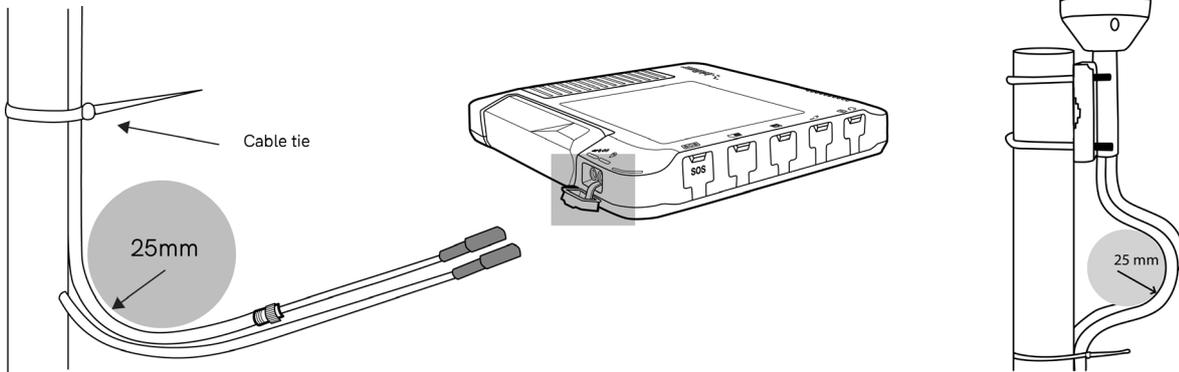
**Note:**

- 1) Use of an external antenna will provide connectivity for the Iridium network and GPS reception.
- 2) To ensure maximum performance of the antenna and to maximize availability and reliability of service, the position of the antenna must:
  - a) Have a clear view of the sky
  - b) Be clear and free of obstructions
  - c) Be clear of metal objects
  - d) Be located above and away from other transmitting devices
  - e) Be securely affixed in location
  - f) Not be located indoors
  - g) Be installed in conjunction with a certified included cable.



Step 8)

To minimize cables waving around, use the cable ties provided to fasten tight along the pole or rail path and at both the antenna end and the Iridium GO! exec end.

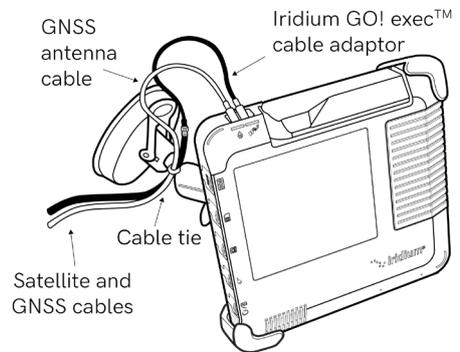


**Note:**

- 1) Do not put stress on the cable. Ensure that the bend radius of the cable doesn't go below 25mm slack (see 5.3 Passive Antenna Cable Physical Specifications).
- 2) When installing the antenna cables, follow these guidelines:
  - a. Route and restrain cables to prevent them from vibrating or moving under normal conditions which could result in damage to the antenna or the coaxial cable connections.
  - b. Wherever the cables contact structures, protect the cables from chafing or abrasion. If a cable needs to be bent or looped, avoid kinking it, and ensure that each bend radius follows the cable supplier limits.
  - c. Use coaxial sealant, shrink-wrap tubing, electrical tape, or another suitable product to seal all cable connections appropriately to prevent moisture and corrosion damage from weather exposure. Mount all antennas vertically and clear of nearby metal obstructions. Minimize horizontal obstructions as much as possible because this can create areas of poor system coverage.

Step 9)

To protect the 15cm Iridium GO! exec cable adapter from damage, cable ties shall be used at the Iridium GO! exec end to tighten the satellite cable and the GNSS cable to the double socket arm of the Plastic Mounting Bracket. See illustration to the right. It is important to make sure that the gap between the satellite antenna cable connector and the Iridium GO! exec satellite connector is close enough so that the Iridium GO! exec cable adapter is not stressed at any point when connected to the Iridium GO! exec.

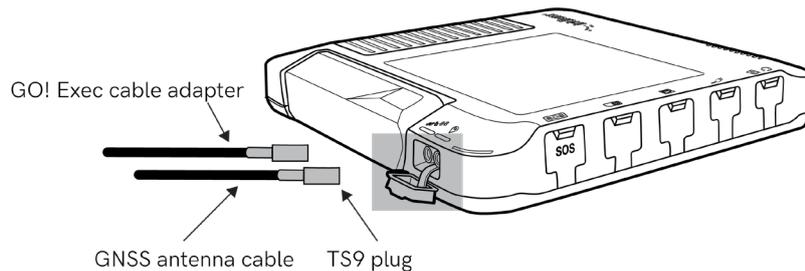


Step 10)

Connect the TNC end of the cable to Iridium GO! exec cable adapter, and then

1. Plug the GNSS antenna cable plug to the Iridium GO! exec GNSS connector.
2. Plug the Iridium GO! exec cable adapter plug to the Iridium GO! exec Satellite connector.

The connectors for satellite and GNSS on the device are located behind the cover found directly below the device antenna.



## Iridium GO! exec Premium Dual Mode Antenna Kit (with GNSS)

### Note:

- 1) When an external antenna is connected, you may still raise the device internal antenna. If the device's "Power ON/OFF based on antenna lift" is enabled, this action turns the unit on and allows for transmission over the Iridium network as well as acquiring location information using the connected external antenna, while lowering the device antenna with the external antenna connected will not switch the device off. To switch the device off with the external antenna connected, you need to use the power button on the device or use the device's Settings menu. Alternatively, with the device powered on and the device antenna in lowered position, unplugging the external antenna will switch the device off. If the device's Setting "Automatically power on the device on charger connection" is enabled, unplugging the device power supply will also switch off the device, while plugging the device to a power supply will switch the device on.
- 2) Please use provided cable ties to secure the antenna cables to the mounting bracket.

| <b>⚠ WARNING</b>  |  |
|---|--|
|  | 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. |

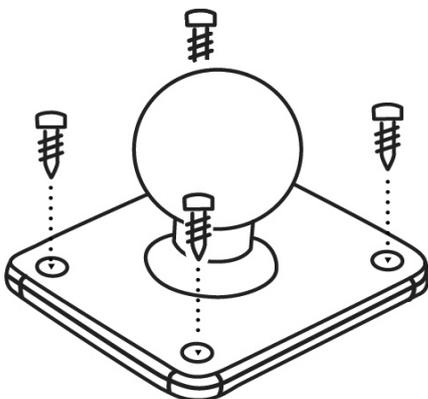
## 3 Permanent Iridium GO! exec Mounting-Bracket Installation

### Step 1:

- (A) Choose the preferred location (on a boat) where you want to permanently mount the cradle for holding the Iridium GO! exec.

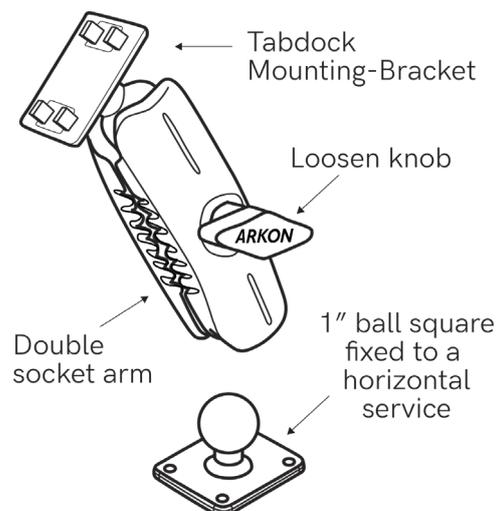
Please make sure the selected location is within the range of the satellite cable and GNSS cable.

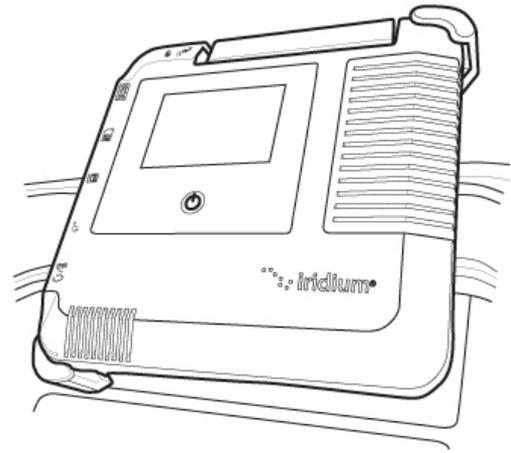
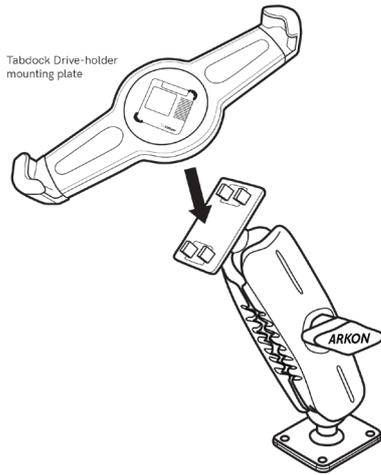
- (B) On the horizontal surface or vertical surface at the selected location, drill the 4 pilot holes which align with the four holes on the 1"-ball-square base.
- (C) Align the 1"-ball-square base on top of the 4 pilot holes and fasten with the four screws.



### Step 2:

- (A) Loosen knob on double socket arm and remove the Suction Cup Twist Lock Base.
- (B) Attach the double socket arm to the 1"-ball-square base in step 1.





**Step 3:**

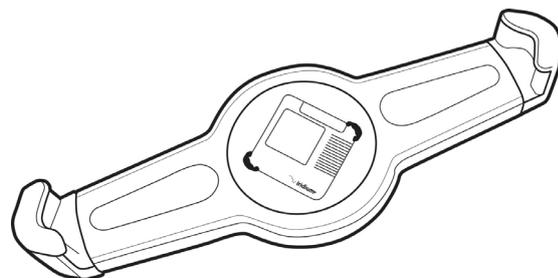
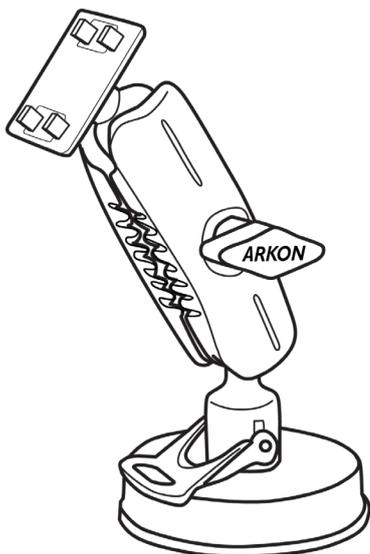
- (A) Orient the Tabdock Mounting-Bracket so that the Iridium GO! exec image is in upright position.
- (B) Align the Tabdock Mounting-Bracket with the 4 hooks on the top of the Double Socket Arm and slide toward direction with "lock" label until it is locked.

**Step 4)**

- (A) Mount the Device on the Tabdock spring-loaded Mounting-Bracket and make sure the 2 corners of the device are fully locked and secure.
- (B) Adjust position accordingly then tighten knob on double socket arm.
- (C) Connect the Satellite cable and GNSS cable to the antenna connectors, power supply to the USB power connector.

## 4 Removable Iridium GO! exec Mounting Bracket Installation

To keep the Iridium GO! exec device securely in place, install the Mounting Bracket kit provided.

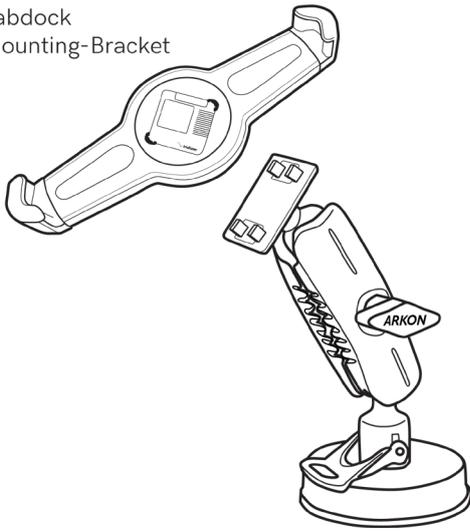


A- Double Socket Arm on Suction Cup Twist Lock Base

B- Tabdock spring-loaded Mounting Bracket

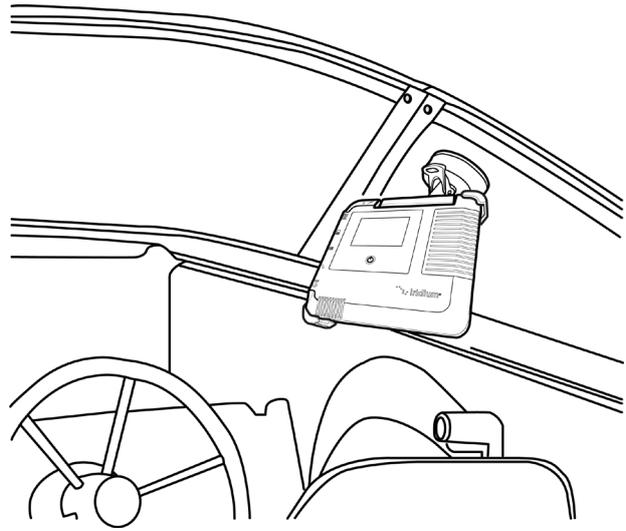
**Iridium GO! exec Premium Dual Mode Antenna Kit (with GNSS)**

Tabdock  
Mounting-Bracket



**Step 1)**

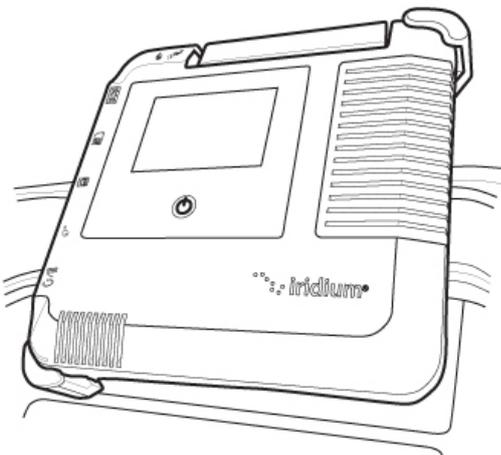
Align the Tabdock Mounting bracket (B) with the 4 hooks on the top of the Double Socket Arm (A) and slide toward direction with "lock" label until it is locked.



**Step 2)**

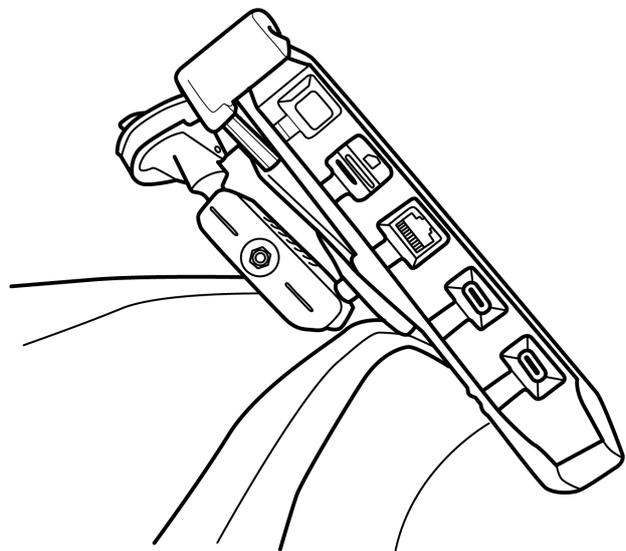
Loosen knob on double socket arm (A) and mount the suction cup of the unit in step 1 on a flat surface (vertical or horizontal) such as on glass surface ( boat windscreen), wall or on table as required.

To mount the suction cup, ensure that the lever is in the up position, push the suction cup firmly against the flat surface then push the lever down until it locks.



**Step 3)**

Mount the Device on the spring-loaded Mounting-Bracket. Please make sure the 2 corners of the device are fully locked and secure.



**Step 4)**

Connect the satellite cable and GNSS cable to the antenna connectors, power supply to the USB power connector. Adjust position accordingly then tighten knob on double socket arm (A). Please make sure the double sockets arm is resting against a surface.

## 5 Specifications

### 5.1 Iridium Dual Mode Passive Omnidirectional Antenna

Certified dual mode passive Iridium Antenna for use with the Iridium GO! exec

- Requires no pointing towards satellite
- Low loss radome

| Electrical Specifications:  |   |
|-----------------------------|---|
| Frequency                   | 1616 - 1626.5 MHz (SAT)<br>1561.1 MHz, 1575.42 MHz, 1598.1 - 1605.4 MHz (BeiDou, GPS/Galileo & GLONASS) |
| Impedance                   | 50 ohms (SAT & GNSS)  |
| VSWR                        | < 2.0 (SAT)   |
| Satellite System            | Iridium (SAT)<br>BeiDou, GPS, Galileo & GLONASS (GNSS)  |
| Polarisation                | RHCP (SAT)  |
| Axial Ratio                 | < 3.5 dB (SAT)  |
| Gain                        | 2 dBic (SAT)  |
| LNA Gain                    | 25 dB (GNSS)  |
| Noise Figure                | 1.2 dB (GNSS)   |
| Supply Voltage              | 3.0 - 5.5 V DC (GNSS)   |
| Average Current Consumption | 20 mA (GNSS)  |

| Mechanical Specifications: |   |
|----------------------------|---|
| Color                      | White (non-glossy)  |
| Height                     | 150 mm (191.5 mm mounting base included)                                |
| Diameter                   | Ø 95 mm   |
| Mounting                   | Supplied Mounting or any US-style Mounting Bracket with 1"-14NF thread. |
| Mounting place             | On marine vessel or remote homes  |
| Materials                  | ASA, copper, PCB, stainless steel and brass                             |
| Operating temperature      | -40C to +70C  |
| Connector 1                | SAT: TNC-female   |
| Connector 2                | GNSS: SMA-female  |
| IP rating                  | IP68  |
| SAT Cable                  | See 5m/16.404ft passive SAT antenna cable specifications                |
| GNSS Cable                 | See 5.25m/17.224ft GNSS antenna cable specifications                    |

## Iridium GO! exec Premium Dual Mode Antenna Kit (with GNSS)

### 5.2 Mast/Rail Mount

Stainless Steel Mast/Rail Mounting Bracket

| Mechanical Specifications: |   |
|----------------------------|---|
| Color                      | Polished  |
| Mounting                   | On pole or rail with supplied U-bolts                           |
| Mounting place             | On vertical or horizontal pole or rail with diameter Ø 30-60 mm |
| Materials                  | Polished high grade AISI-316 stainless steel                    |
| For Antenna Types          | Supplied Iridium Marine antenna                                 |
| Dimensions                 | 130 x 92.5 x 40 mm  |

### 5.3 5m/17ft Passive SAT Antenna Cable

| Electrical Specifications: |                         |
|----------------------------|-------------------------|
| Impedance                  | 50 Ω                    |
| Capacitance                | 78.41 pF/M (23.9 pF/ft) |
| Velocity of Propagation    | 84%                     |
| Voltage Withstand          | 2500 VDC                |
| Max Operating Frequency    | 8 GHz                   |

| Physical Specifications: |  |
|--------------------------|--|
| Bending Radius Static    | 25.4mm (1")  |
| Bending Radius Repeated  | 103mm (4.0")   |
| Weight                   | 0.10 kg/m or 0.068 lb/ft   |
| Connectors               | TNC-M (Iridium GO! exec – cable adaptor)<br>TNC-M (Iridium Antenna – connector1) |
| Cable diameter           | 0.405" or 10.287mm   |
| Connector Diameter       | See TNC connector specs  |

| Environmental Specifications: |                |
|-------------------------------|----------------|
| Operating Temperature         | -40°C to +85°C |

### 5.4 5.25m/17.22ft GNSS Antenna Cable

| Electrical Specifications: |                           |
|----------------------------|---------------------------|
| Impedance                  | 50 Ω                      |
| Capacitance                | 96.45 pF/M (29.399 pF/ft) |
| Velocity of Propagation    | 69.5 %                    |
| Voltage Withstand          | 12000 Vrms                |
| Max Operating Frequency    | 3 GHz                     |

| Physical Specifications: |  |
|--------------------------|--|
| Bending Radius Static    | 13mm (0.512")  |
| Bending Radius Repeated  | 30mm (1.181")  |
| Weight                   | 17gms/m  |
| Connectors               | TS9 (Iridium GO! exec GNSS antenna connector<br>SMA (Iridium Antenna – connector2) |
| Cable diameter           | 2.52.5mm (0.1")  |
| Connector Diameter       | See SMA and TS9 specs  |

| Environmental Specifications: |                |
|-------------------------------|----------------|
| Operating Temperature         | -55°C to +85°C |

## 5.5 Iridium GO! exec Cable Adapter

| Electrical Specifications: |                           |
|----------------------------|---------------------------|
| Impedance                  | 50 Ω                      |
| Capacitance                | 96.45 pF/M (29.399 pF/ft) |
| Velocity of Propagation    | 69.5 %                    |
| Voltage Withstand          | 12000 Vrms                |
| Max Operating Frequency    | 3 GHz                     |

| Physical Specifications: |   |
|--------------------------|---|
| Bending Radius Static    | 13mm (0.512")   |
| Bending Radius Repeated  | 30mm (1.181")   |
| Weight                   | 17gms/m   |
| Connectors               | Iridium GO! exec antenna connector<br>Iridium SAT Antenna - cable |
| Cable Length             | 15cm / 5.905"   |
| Cable diameter           | 2.52.5mm (0.1")   |
| Connector Diameter       | See connector specs   |

| Environmental Specifications: |                |
|-------------------------------|----------------|
| Operating Temperature         | -55°C to +85°C |

**Iridium GO! exec Premium Dual Mode Antenna Kit (with GNSS)**

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**GEIG2302**