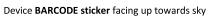


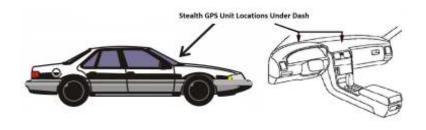
# IQ-SPARROW 8-Bit Device Install Guide

#### **GPS UNIT PLACEMENT**

- When determining the mounting location, the primary consideration is GPS satellite visibility. Locate a suitable mounting location, preferably above any metal that could obstruct receiving GPS signals. GPS signals can be received through glass and plastic.
- A typical installation will place the unit under the dashboard of the vehicle close to the front windshield, or in the trunk. It is important that the unit does not interfere with the vehicle's air bag system in any manner.
- Ensure unit is positioned in the vehicle with the BARCODE sticker facing UPWARDS towards the sky.
- The unit should be mounted so it will not be exposed to the elements sun, heat or moisture or potential damage caused by people or objects.
- Attach the unit to the solid body of the vehicle, not to plastic panels, and be sure that the cables to the unit are not cut, bent or constricted in any way. Secure the unit and any excess wire with nonconductive fasteners and ties. Do not re-use the wire tie that surrounds the cable as shipped to you.







#### **POWER CABLE**

Wire Color	Description	Feature
RED	Primary power	
WHITE	Input 0 – Ignition	Ignition detection
BLACK	Ground	
GREEN	Output 0 – Starter disable	Starter Disable/Enable – Output 0 is grounded when starter is
	relay driver	disabled. Output 0 is neutral when starter is enabled.
BLUE	Input 1 – Digital input	Alarm 2 – triggered when low

Pre-install NOTE: Do NOT wire your device behind/into your vehicle's ECM port.

This is not recommended as the connection is unreliable and will affect the performance of the device.

#### **PRE-INSTALL NOTE 2:**

IF YOU REQUIRE ANY OF THE FOLLOWING FEATURES:

- Engine Hours
- Unauthorized Movement
- Ignition On/Off Alerts

PLEASE BE SURE TO WIRE THE DEVICE HARNESS TO YOUR VEHICLE'S ENGINE IGNITION. These features are captured using engine ignition, so it is required for them to perform correctly. The wiring diagram with full instructions can be found on page 3.



#### **Power Cable Installation**

Before you begin:

### **IMPORTANT INFORMATION FOR ANY PRODUCT WARRANTY RETURNS:**

AirlQ's product warranty terms state that any form of modification or alteration to a device will void the warranty. As a result, in the event you need to return a device, please be sure to remove and return it in its entirety or you may be charged for the full replacement value of the unit.

Pre-install NOTE: Do NOT wire your device behind/into your vehicle's ECM port.

This is not recommended as the connection is unreliable and will affect the performance of the device.

Wire Color Scheme for the Power Cable

- 1. Connect the RED wire to a +12/24V constant power source.
- 2. Connect the WHITE wire to a +12/24V ignition power source.
- 3. Connect the BLACK wire to negative ground or a metal surface on the vehicle frame.



All 3 of these wires must be connected. Failure to connect these wires in the manner described may result in discharge of the vehicle battery.

#### **POWERING UNIT**

- Connect the power cable to the unit. The unit should now be powered. PLEASE NOTE: Once the unit powers up
  it will automatically connect to AirlQ's network and download its configuration. PLEASE WAIT 5-10 MINUTES
  BEFORE YOU TEST ANY OF YOUR FEATURES SO THAT YOU DO NOT INTERRUPT THE DOWNLOAD PROCESS. In
  addition, do not disconnect the device from the power source during this time as it may also interrupt the
  download process.
- 2. Every unit has an internal backup battery. The unit is shipped with the battery enabled.

# **LED OPERATION**

The device is equipped with two status LED's – one for GPS and one for COMM (wireless network status). The LED's are located on the end of the device – as shown below – and use the blink patterns shown in the table below:



**GPS LED** 

GPS LED (GREEN LIGHT)			
Condition	GPS LED		
GPS Off	Off		
GPS On	Slow Blinking		
GPS Time Sync	Fast Blinking		
GPS Fix	Solid		

**COMM LED** 

COMM LED (RED/AMBER LIGHT)			
Condition	COMM LED		
Modem Off	Off		
COMM On – Searching	Slow Blinking		
Network Available	Fast Blinking		
Registered but no Inbound	Alternates from Solid to		
Acknowledgement	Fast Blink every 1 second		
Registered & Received	Solid		
Inbound			
Acknowledgment			



#### **CONFIRMING PROPER OPERATION**

It is **highly recommended** to perform an Action request from the AirlQ Fleet<sup>TM</sup> website to confirm GPS Fix with current location and test other optional features **before releasing the vehicle**.

#### **TROUBLESHOOTING**

# NO GPS FIX (SOLID LED)

- Ensure the vehicle is outside.
- Ensure the unit is not mounted directly under metal and the P/N sticker on the unit faces upwards.

# NO POWER (NO LED)

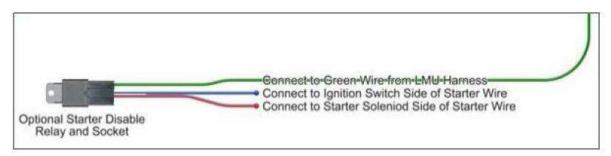
- Verify there is constant power on the RED wire on the power cable.
- The BLACK wire on the power cable must be attached to a good ground source.

#### **OPTIONAL OUTPUTS ON POWER CABLE**

Output Starter Disable (GREEN WIRE)

NOTE: OPTIONAL SUPPLIED RELAY IS FOR +12 VOLT INSTALLATIONS ONLY

# IF YOU HAVE A THREE (3) WIRE RELAY:



- 1. Locate the +12V starter wire in vehicle's ignition harness and cut it.
- 2. Connect the BLUE wire from the disable relay to ignition Switch side of the cut starter wire.
- 3. Once cut, this wire will show voltage during cranking.
- 4. Connect the RED wire from the disable relay to the Solenoid side of the cut Starter Wire.
- 5. Using a butt connector, crimp the GREEN wire from the Starter disable relay and the GREEN wire from the device harness together.

# IF YOU HAVE A FIVE (5) WIRE RELAY:

Wire Color	Description
GREEN (85)	To GREEN wire on harness
BROWN (86)	To WHITE wire on harness
BLUE (30)	To Ignition Side of Cut Starter Wire
RED (87a)	To Starter Side of Cut Starter Wire
YELLOW (87)	Not used



- 1. Locate the starter wire in vehicle and cut it. Connect the BLUE wire from the relay and connect it to the ignition side of the starter wire. Connect the RED wire on the relay and connect to the starter side of the starter wire.
- 2. Connect the GREEN wire on the relay to the GREEN wire on the harness/power cable.
- 3. Connect the BROWN wire from the relay to TRUE IGNITION (a wire with +12VDC when the engine is cranked and running).



# For assistance, please contact your AirlQ Reseller.

PLEASE NOTE – THE FOREGOING INSTALLATION INSTRUCTIONS ARE FOR TYPICAL INSTALLS IN VEHICLES WITH STANDARD FEATURES AND REPORTING. INSTRUCTIONS MAY VARY DEPENDING ON MAKE, MODEL, TYPE OF ASSET OR SPECIAL REPORTING REQUIREMENTS. PLEASE CONFIRM WITH AIRIQ PRIOR TO INSTALLATION IF ANY SPECIAL INSTRUCTIONS ARE REQUIRED.

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