

Blue Sky Network

BEARCAT Docking Station

User Guide



BLUE SKY NETWORK, LLC
16559 N 92nd St, Suite 101
Scottsdale, AZ 85260

BEARCAT Docking Station

User Guide

Version 3.1

Part Number: 9575P-HQ-DOD

NOTICE

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ABOUT THIS DOCUMENT

This user guide was designed to be easy to read and follow. It is organized based on the steps needed to set up and use the 9575P-HQ-DOD 'BEARCAT' Docking Station.

SAFETY INFORMATION

Precautions

Please read and understand this user guide before installing your docking station. Careless or incorrect installation can degrade performance, damage new and existing equipment, and incur unexpected network airtime charges.

1. FAA Regulations

Blue Sky Network products are not FAA-approved and are not intended for aircraft use.

2. Exposure to Radio Frequency Signals

Your Iridium-designed satellite unit is a low power radio transmitter and receiver. When it is on, it receives and sends out radio frequency (RF) signals.

International agencies have set standards and recommendations for the protection of public exposure to RF electromagnetic energy:

- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1996
- Verband Deutscher Elektrotechniker (VDE) DIN-0848
- United States Federal Commission, Radio Frequency Exposure Guidelines (1996)
- National Radiological Protection Board of the United Kingdom, GS 11, 1988
- American National Standards Institute (ANSI) IEEE C95, 1-1992
- National Council on Radiation Protection and Measurements (NCRP) Report 86
- Department of Health and Welfare Canada, Safety Code 6

These standards are based on extensive scientific review. Over 120 scientists, engineers, and physicians from universities, government health agencies, and industry reviewed the available body of research to develop the updated ANSI standard. Your phone's design complies with these standards when used as described under "Unit Operation."

3. Antenna Care

Use only the antenna supplied by your service provider or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could degrade performance or damage the phone and may violate local agency regulations.

4. Unit Operation

Do not operate the unit when a person or object is within 4 in. (10 cm) of the antenna, as it may result in impaired call quality and cause the unit to operate at a higher power level than necessary. It may also expose that person to excessive RF energy levels established by the FCC RF Exposure Guidelines.

5. Driving

Obey all laws and regulations on cellphone use in the areas where you drive. Observe the following guidelines when using your phone while driving:

- Use hands-free phone operation, if available.
- Pull off the road and park before making or answering a call if driving conditions so require.
- Give full attention to driving; driving safely is your first responsibility.

6. Electronic Devices

Certain modern electronic equipment may not be shielded against RF signals from your Iridium-designed satellite unit.

7. Pacemakers

The Health Industry Manufacturers Association recommends that a minimum separation of 6 in. be maintained between a wireless phone's antenna and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by, and recommendations of, Wireless Technology Research.

PERSONS WITH PACEMAKERS

- Should ALWAYS keep the Iridium-designed satellite unit more than 6 in. from their pacemaker when the unit is turned ON.
- Should turn the unit OFF immediately if you suspect that interference is taking place.

8. Other Medical Devices

If you use any other personal medical device, consult the device's manufacturer to determine if it is adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information.

Turn your unit OFF in healthcare facilities when any posted regulations instruct you to do so, as these areas may be using equipment that is sensitive to external RF energy.

9. Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with your vehicle's manufacturer or representative. You should also consult the manufacturer of any equipment that has been added to your vehicle.

10. Posted Facilities

Turn your unit OFF in any facilities where posted notices so require.

11. Blasting Areas

To avoid interfering with blasting operations, turn your unit OFF when in a “blasting area” or in areas posted “Turn off two-way radio.” Obey all signs and instructions.

12. Potentially Explosive Atmospheres

Turn your unit OFF and disconnect the power supply in any area with a potentially explosive atmosphere. Obey all signs and instructions.

These areas are not always clearly marked and include:

- Fuel or chemical transfer and storage facilities and fueling areas (e.g., gas stations)
- Below deck on boats
- Areas where fuel odors are present (e.g., a gas/propane leak in a car or home), the air contains chemicals or particles (e.g., grain, dust, or metal powders), or any other area you may normally be advised to turn off your vehicle engine.

Sparks from your battery or power source in such areas could cause an explosion or fire, resulting in bodily injury or death.

13. For Vehicles Equipped with Airbags

DO NOT place objects, including installed or portable wireless equipment, in the area over the airbag or where it could be deployed. Serious injury could occur if in-vehicle wireless equipment is improperly installed, and the airbag inflates.

14. Important Notes for PABX System Users

If using the docking station with a PABX system, the following precautions must be followed to prevent damage to your unit.

The docking station emulates a standard landline wall jack and generates the required operating and ringing voltages. Connect to a PABX as either a central office (CO) or trunk line. Never connect the docking station to a PABX as an extension to avoid potential damage.

PRODUCT OVERVIEW

Features

- A** Iridium 9575A Handset (not incl.)
- B** Wall Mount Bracket
- C** UpLink LED Indicator (Green)
- D** Voice LED Indicator (Blue)
- E** Error LED Indicator (Red)
- F** Handset Restraint Lock

Connections

- G** Iridium Antenna Connection (TNC F)
- H** GPS Antenna Connection (SMA F)
- I** RJ11 / POTS Connection
- J** Power Input
- K** RJ-45 (Reserved)
- L** Handset Audio Connection



INSTALLATION

Common Wire Connections

The instructions shown below are for the most common wire connections. Please contact Blue Sky Network if you have any questions about the connectivity or mounting during installation.

ATTACH EXTERNAL ANTENNAS

The 9575A dock accepts a male TNC for Iridium and a male SMA for GPS. **NOTE:** Do not exceed cable lengths and keep cable splices to a minimum.



ATTACH AND LOCK POWER INPUT JACK

Align the pin of the cord and the receptacle, pressing the plug firmly in place. Twist the collar to lock the cord to the docking station.

NOTE: The lock collar on this cable should only be tightened by hand. Do not use pliers as this will overtighten the cable and potentially damage the connector housing.



Optional Wire Connections

The following information may not apply to every installation and should be considered optional.

ATTACH RJ-11 ANALOG PHONE / PABX INTERFACE

Connect your telephone line to the RJ-11 jack as shown. The plug should be pressed into the socket until an audible 'click' is heard, indicating that the plug is fully seated and locked in position. To remove, use your finger to squeeze and unlock the small plastic tab on the plug.



ATTACH PRIVACY HANDSET

Connect the optional privacy handset to the docking station via the latching RJ-45 connector. The privacy handset shows system status information while providing a convenient interface for calls when in close proximity to the docking station.



GENERAL USE

Docking Your 9575A Handset

The 9575A handset has 2 connections and the docking station self-aligns with its electrical connections. Care should be taken to avoid using excess force when docking.

After completing the docking process, apply power and connect to the Iridium network. The satellite connection LED will blink while searching and turn solid **GREEN** when ready.

- 1.** Open the protective cover on the 9575A handset and install the provisioned SIM.



- 2.** Open the handset lock on the docking station.



- 3.** Slide the 9575A handset into the dock until fully seated.



- 4.** Rotate the handset lock to secure the handset.



- 5.** Press down on the protective cover to expose the handset's contacts.



- 6.** Slide the mating connector through the guide slot and 'click lock' with the handset.



- 7.** Install audio cable from docking station into the handset's hands-free port.



- 8.** Plug in until fully seated.



Power On Messages

The 9575A Docking Station cycles through several stages of system-checks and network registrations before being ready to use. Follow the system status by monitoring the 9575A handset, the docking station icon indicators, and the audio output from a connected telephone.

Start-Up Stage	Description
1. Dock Power / Power-On Self-Test (POST)	Dock Power-On / Internal Systems Check
2. Handset Power / POST	Handset Power-On / Internal Systems Check
3. Satellite Search	Handset searches for Iridium satellite network
4. Network Registered	Handset is ready for use

STAGE 1: DOCK POWER & POST

When first powered on or reset, the docking station initiates a series of system checks which take approximately 15 seconds to complete.

Other Status Indicators:

RJ-11 audio: Short-long (repeat)

Dock LEDs: Will scroll through each



STAGE 2: HANDSET POWER & POST

When plugged in, the intelligent handset powers up, initializes immediately, and displays the system status.

Other Status Indicators:

RJ-11 audio: Short-long (repeat)

Dock LEDs: **RED** error icon will blink



STAGE 3: SATELLITE NETWORK SEARCH

Once the 9575A handset has completed its start-up process, it will begin searching for the Iridium satellite network.

Other Status Indicators:

RJ-11 audio: Short-long (repeat)

Dock LEDs: Satellite icon will blink



STAGE 4: NETWORK REGISTERED

Once the satellite network has been found, the handset will register and be ready to use. Please see the Troubleshooting section if you need assistance.

Other Status Indicators:

RJ-11 audio: Dial tone

Dock LEDs: **GREEN** satellite icon remains lit



STAGE 5: 9575A UNDOCKED

The docking station indicates when the 9575A handset has been removed.

Other Status Indicators:

RJ-11 audio: Long-short repeat

Dock LEDs: **RED** error icon remains lit



MAKING OR ANSWERING A CALL: NON-SECURE MODE

SmartDial is a special technology developed to simplify satellite dialing, making the process similar to landline dialing. This technology also simplifies PABX to RJ-11 interface.

Calling with SmartDial

SmartDial, when used with the 9575A handset, inserts special codes as needed to assist with satellite dialing procedures. It recognizes country and area codes, automatically dialing when the correct number of digits are entered.

Example: 14804431424 (automatically dials)

Example: 0014804431424# (requires # to initiate)

SmartDial automatically disengages itself when standard satellite dialing prefixes are recognized. See the section below for more information. If the dialing sequence is unrecognized, the call cannot be initiated and the '0 0 #' dialing method must be used.

Calling without SmartDial

RJ-11 / POTS

SmartDial turns off automatically when you enter the following dialing sequence:

1. 0 0 (zero zero)
2. The country code
3. The area code and telephone number
4. # to place the call

The docking station does not recognize country codes or number string lengths with SmartDial off. You must enter all digits correctly and press # to initiate the call. The docking station does not automatically dial with SmartDial off.

PRIVACY HANDSET

1. Remove from hang-up cup.
2. Enter the number to call using international dialing sequences.
3. Press the green SEND button to initiate the dialing sequence.
4. Press the red END button to terminate the call.

Answering a Call

An incoming call will ring the 9575A handset as well as an RJ-11 / POTS-connected phone.

RJ-11 / POTS

Go off-hook or press the on / off button on your connected 2-wire phone.

PRIVACY HANDSET

1. Remove from hang-up cup.
2. Press the green SEND button to answer.
3. Press the red END button to terminate the call.

MAKING OR ANSWERING A CALL: SECURE MODE

Secure calls must be placed or answered via the docked 9575A keypad.

COMSEC NOTICE: This product was designed for making secure calls via the Iridium 9575A satellite phone. The 9575A is certified by the National Security Agency (NSA) to provide end-to-end security for voice and data communications up to “Top Secret” classification. This protection is ensured for the secure communications portion of use—from the handset to the final destination. Follow all applicable government secure call policies/procedures when operating the Bearcat Secure Sleeve and Iridium 9575A.

Making a Call

1. Enter the dialing sequence on the 9575A keypad.
2. Connect with a secure destination.
3. Once connected, voice audio settings will default to the privacy handset, unless the handsfree headset is connected.

NOTE: When installed in the Blue Sky Network 9575A-HQ-DOD ‘Bearcat’ Docking Station, the Iridium 9575A satellite phone (U. S. government only) disables the speakerphone function when the Iridium Secure Module (ISM2) is installed in the phone. This is to prevent compromise of secure information by an uncleared and unauthorized person. However, the handsfree headset will operate with the ISM installed. Therefore, when the 9575A is installed in the Bearcat docking station, the only method of making a secure phone call is to use the handsfree headset.

Answering a Call

1. The docked 9575A will ring upon an incoming call.
2. The call can be answered via the 9575A keypad. Answering via the keypad is required for privacy handset use.
3. The voice audio will default to the privacy handset unless the handsfree headset is connected, in which case, it will default to the handsfree headset. Note RJ-11 / POTS is not supported for secure mode operation..
4. The call is terminated via the 9575A keypad or by the connected party hanging up.

POWER LOSS WARNING: If power to the docking station is lost or removed while on a voice or data call, it is possible that the 9575A will NOT terminate the call – nor will the docking station be able to terminate the call when re-powered. The docking station will blink the error indicator button and the message “SEARCHING...” will display on the intelligent handset. Additionally, the 9575A will be unresponsive to any key press including the on/off button. The call MUST be terminated at the remote end to regain control of the 9575A. Alternatively, the 9575A may be removed from the docking station so the battery pack on the 9575A can be removed and reinserted, forcing a hard reset of the phone.

TROUBLESHOOTING

Booting the System

Once the satellite network is found, the handset will register and be ready for use.

1. Verify that the Iridium handset PIN code is turned off and there is sufficient battery power.
2. Install the phone in the docking station.
3. Lock the handset in place using the latch located in the upper lefthand corner of the device.
4. The 9575A handset will power-up automatically or turn off and restart, depending on its state when docked.



NOTE: If the dock cannot sync with the phone, the status LED (A) will continue to blink, and the dock will eventually re-boot itself and try to sync again. When the top LED turns solid, the phone will remain on, and the dock is ready to use. If the LED keeps blinking and the dock continues to reboot, the most common problem is poor Iridium signal strength.

Checking Signal Strength

Follow these steps to check the handset's signal strength while installed in the dock:

1. Remove power from the docking station.
2. Turn on only the Iridium handset while it is still in the dock.
3. Verify the phone registers with the Iridium network and that the signal strength displays at least 4 out of 5 bars.
4. Place a call directly using the handset's keypad and verify that the signal strength remains at 4 to 5 bars once connected.
5. If the signal strength drops below 4 bars during any of these tests, check the antenna location for obstructions and confirm the antenna cable length has not been exceeded.



NOTE: Each cable splice will reduce signal strength, so it is recommended to keep splices to a minimum.

Antenna Cable Runs

If a longer length is needed, you can purchase an extender offered in multiple lengths. Additionally, cable diagrams can be created for specific installations upon request. Please contact us for more information about available accessories, installation kits, and diagrams.

Installation and Startup Troubleshooting

Symptom	Cause	Resolution
GREEN satellite icon LED never stays solid and continues to blink; system keeps rebooting.	The docking station is unable to synchronize with the handset and Iridium network.	<ol style="list-style-type: none"> 1. Check the dock mating cable connection. 2. Ensure the docked handset's PIN code is turned off. 3. Check antenna signal strength.
Busy signal present on RJ-11 analog phone.	The dock cannot sync with the Iridium network.	<ol style="list-style-type: none"> 1. Ensure the docked handset's PIN code is turned off. 2. Check antenna signal strength.
Signal strength drops when a call is placed.	<ol style="list-style-type: none"> 1. A 360 degree, clear view of the sky is required for proper operation. 2. The antenna cable length is exceeded or there are too many splices in the cable run. 	<ol style="list-style-type: none"> 1. Check and re-position the antenna away from obstructions. 2. Verify cable length has not been exceeded; eliminate unnecessary cable splices.

PRODUCT WARRANTY

PLEASE READ -- THIS DOCUMENT CONTAINS IMPORTANT NOTICES, WARRANTY INFORMATION, AND LIMITATIONS ON YOUR RIGHTS.

Upon the signed verification of the attached Quotation (see Equipment Purchase & Service Agreement Terms & Conditions) by the Customer (“**Customer**”), the Quotation and these Terms and Conditions shall constitute a binding contract (“**Contract**”) between Customer and Blue Sky Network, LLC, a Delaware limited liability company (“**Blue Sky**”) for the purchase of the products and services described in the Quotation.

Product Terms and Conditions

Blue Sky Network, LLC (“Blue Sky”) warrants that the Products it manufactured shall be free from defects in materials and workmanship. This warranty (i) shall apply to Customer (as named in the Quotation) only and no other and (ii) shall not apply to any Product which is not stored, handled, installed, or used in strict accordance with Blue Sky’s specifications and instruction manuals, or which is altered without Blue Sky’s express consent, or which has been subject to misuse, negligence, or accident.

Blue Sky’s sole obligation shall be to replace or repair defective Products covered by this warranty provided that Customer returns such defective Product within two (2) years of the date of the Quotation. Customer hereby agrees that the replacement or repair of defective Products shall be Customer’s sole remedy in the event of a breach of warranty and shall be in lieu of any other remedy. Except as provided above with respect to Products only, **Blue Sky makes no warranties relating to the Products (see section on Warranty Disclaimer/Limitation of Liability).**

Warranty Disclaimer/Limitation of Liability

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Blue Sky’s only duties in connection with the sale of the Products shall be to honor the limited warranty for the Products as set forth herein. To the extent assignable, any manufacturer warranty for Products other than the Products shall be assigned by Blue Sky and passed through to the Customer. Blue Sky’s sole liability, if any, for loss or damage arising out of mistakes, omissions, interruptions, errors, or any other causes relating to the services, INCLUDING THE NEGLIGENCE OF BLUE SKY, shall be limited to the credit for service interruption for each separate period of interruption as described in the section on Availability of Service.

EXCEPT FOR THE FOREGOING, CUSTOMER WAIVES ANY RIGHT OF RECOVERY AGAINST BLUE SKY FOR ANY CLAIMS, DEMANDS, ACTIONS, LIABILITIES, LOSSES, COSTS OR EXPENSES (INCLUDING, WITHOUT LIMITATION, ATTORNEYS' FEES, OR COSTS) ("**CLAIMS**") BY OR DUE TO THIRD PARTIES AND SUFFERED BY CUSTOMER, DIRECTLY OR INDIRECTLY RELATING TO OR ARISING FROM THE NEGLIGENCE OF BLUE SKY OR THE MANUFACTURE, DISTRIBUTION, SALE, USE OR INSTALLATION OF ANY PRODUCT OR THE PROVISION OF THE SERVICES. CUSTOMER SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS BLUESKY AGAINST ANY AND ALL CLAIMS BY THIRD PARTIES RELATED TO OR ARISING FROM THE SALE OF THE PRODUCTS OR PROVISION OF THE SERVICES DESCRIBED HEREIN. The provisions of this section shall survive termination of services.

SOME STATES DO NOT ALLOW DISCLAIMERS OF IMPLIED WARRANTIES OR LIMITS ON REMEDIES FOR BREACH; THEREFORE, THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY. THIS CONTRACT SETS FORTH SPECIFIC LEGAL RIGHTS AND CUSTOMER MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

DECLARATION OF CONFORMITY

Declaration of Conformity

Application of Council Directive: 2014/30/EU

Standards To Which Conformity Is Declared:	IEC60945: 2002	
	Conducted Emissions	Clause 9.2
	Radiated Emissions	Clause 9.3
	Conducted RF Disturbance	Clause 10.3
	Radiated RF Immunity	Clause 10.4
	Electrical Fast Transients	Clause 10.5
	Electrostatic Discharge	Clause 10.9
	Compass Safe Distance	Clause 11.2

Manufacturer's Name:	Applied Satellite Engineering, Inc.
Manufacturer's Address:	16559 N. 92nd Street, Ste 101 Scottsdale, AZ 85260 480-443-1424
Equipment Description:	Iridium Docking Station
Equipment Class:	Maritime Navigation and Radio Communication Equipment and Systems
Model Numbers:	BEARCAT

*I the undersigned, hereby declare that the equipment specified above, conforms to the above
Directive(s) and Standard(s).*

Place: Scottsdale, AZ 85260 USA

Signature: Bill Reddy

Full Name: CTO/Dir. Engineering

Position: _____

TECHNICAL SUPPORT

Blue Sky Network is committed to providing the highest level of service and support. If you have any questions or concerns, please feel free to contact us by email or phone; contact information is available at the bottom of this page. For self-help, please visit <https://support.blueskynetwork.com/>.

Thank you for choosing Blue Sky Network!



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