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# Sprint AIRAVE 4 LTE Installation Guide

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# Table of Contents

Document Information .....	2
Abstract .....	2
Revision History .....	2
About This Document.....	3
Purpose .....	3
Intended Audience .....	3
Customer Care Help Desk .....	4
Airspan Encourages Comments .....	4
1 Overview .....	5
2 AIRAVE 4 LTE Setup .....	6
2.1 Positioning the AIRAVE 4 LTE .....	8
3 Troubleshooting - Sprint AIRAVE 4 LTE .....	9
4 FCC Statement.....	11
5 UL Authorization Statement.....	12

## Figures

Figure 1: Sprint AIRAVE 4 LTE - front.....	6
Figure 14: Sprint AIRAVE 4 LTE Back .....	7
Figure 15: Sprint AIRAVE 4 LTE ETH port .....	7
Figure 16: External GPS Connection .....	8
Figure 18: AIRAVE 4 LTE DC Port Cable Connected.....	8

## Tables

Table 1: LED Display.....	9
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## Document Information

### Abstract

This document details a description of the installation of the Sprint AIRAVE 4 LTE (AV 100C) unit.

### Revision History

Revision Details	Date	Summary of Changes
0.1	October 2018	<ul style="list-style-type: none"><li>• Initial draft document</li><li>• Picture</li><li>• Troubleshooting</li><li>• FCC &amp; UL Statements</li></ul>
A	January 2019	<ul style="list-style-type: none"><li>• Comments</li><li>• Publish</li></ul>

## About This Document

### Purpose

This Installation Guide is intended as an instructional manual to provide step-by-step instructions for the installation of the Sprint AIRAVE 4 LTE (AV-100C).

### Intended Audience

This guide is intended for persons who are installing the Sprint AIRAVE 4 LTE (AV-100C) unit.

## Customer Care Help Desk

Airspan's *Customer Care Help Desk* offers prompt and efficient customer support services.

**Note:** To avail Airspan's *Customer Care Help Desk* support, you must be a registered user and must have a valid support contract. To register, click [here](#) and fill the **Registration** form.

To create and update issue logs, send e-mails to [Customer Care Help Desk](#). Once you submit your issue, the system generates a new issue and sends an issue number for your reference. The system uses this issue number to categorize and store e-mails under the appropriate issue.

To help *Customer Care Help Desk* identify your issue, include the issue number and your *Customer Care Helpdesk* account details in all further communications.

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## Airspan Encourages Comments

Airspan welcomes any feedback and suggestions that help to improve the quality of the documentation. Send your feedback to [documentfeedback@airspan.com](mailto:documentfeedback@airspan.com).

# 1 Overview

This installation guide is intended to explain how to install the Sprint AIRAVE 4 LTE.

## 2 AIRAVE 4 LTE Setup

This section provides a description of how to setup your new AIRAVE 4 LTE, including:

- Carefully remove the Sprint AIRAVE 4 LTE from the packaging
- Carefully remove the Power Supply Unit (PSU) from the packaging
- Connect the Cables
- Connect PSU into the Sprint AIRAVE 4 LTE
- Plug the PSU into the wall outlet

Follow these step-by-step instructions to connect the Sprint AIRAVE 4 LTE to the Sprint Magic Box Voice Amp.

1. Carefully remove the AIRAVE 4 LTE from its packaging.

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Figure 1: Sprint AIRAVE 4 LTE - front



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2. Carefully remove the Power Supply Unit (PSU) from its packaging and place aside.
  3. Turn the unit to expose the back of the unit as shown below.



**Figure 2: Sprint AIRAVE 4 LTE Back**



4. Connect one end of the Ethernet cable to an available LAN port on your broadband connection modem, or to a LAN port on your network. If on network:
    - Open UDP ports 53, 67, 500 and 4500 bi-directionally
    - Contact your IT administrator for assistance
  5. Place the other end of the Ethernet cable in the Airave 4 Ethernet port.
- 

**Figure 3: Sprint AIRAVE 4 LTE ETH port**



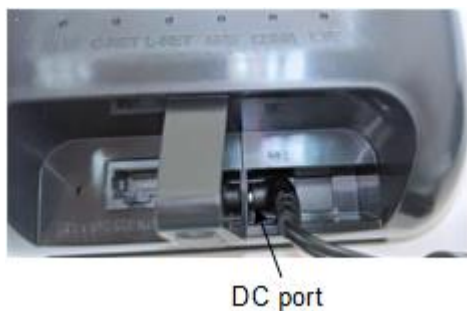
6. Connect the external GPS antenna to the GPS connection, under the cap.
-

Figure 4: External GPS Connection



7. Plug the power supply cable into the DC port on the back.

Figure 5: AIRAVE 4 LTE DC Port Cable Connected



8. Place the GPS antenna base on a flat surface next to a closed window.
9. Plug the other end of the Sprint AIRAVE 4 LTE power supply cable into an available electrical outlet. (Sprint recommends a surge protected outlet)

## 2.1 Positioning the AIRAVE 4 LTE

Place the unit:

- In an elevated location, such as the top of a shelf or tall cabinet
- Within 10 to 20 feet of a clear view of the sky
- Within reach of your broadband modem or router
- Within reach of an electrical outlet
- Turn the unit so the front faces into the room and carefully move all cables.

**Note:** There is room for the cables to come from the sides of the unit once it is facing forward.

### 3 Troubleshooting - Sprint AIRAVE 4 LTE

There is a Reset button located on the back to the left side of the Ethernet port.

**Note:** To prevent it being pressed accidentally the Reset button is accessible only by a pin or similar thin object.

- A short press (less than 9 seconds) will initiate a reset of the unit
- A long press (more than 10 seconds) will reset the unit to its factory default

**Table 1: LED Display**

LED	Color & Pattern	Description	User Action
WAN	Solid Green	WAN port is connected to peer and has obtained an IP addresses over the local network.	None
	Blinking Green	Acquiring IP Address. (DHCP process)	Wait
	Solid Red	Port is not connected or switch failure.	Connect Ethernet Cable. If continues – Contact Sprint
	Blinking Red	The device is initializing	Wait
	Off	SW Loading	
C-NET	Solid Green	CDMA IPsec Tunnel established	None
	Solid Red	CDMA IPsec Tunnel is down.	Contact Sprint
	Blinking Red	CDMA IPsec establishing	Wait
	Off	SW Loading	
L-NET	Solid Green	LTE IPsec Tunnel established	None
	Solid Red	IPsec tunnels is down or has not established a connection. (More than 15 minutes)	Contact Sprint
	Blinking Red	IPsec tunnel is establishing a connection. Blinks as long as tunnel still establishing. Tunnel have gone down for less than 15 minutes.	Wait
	Off	SW Loading	
GPS	Solid Green	GPS device has acquired a lock and is ready.	None
	Solid Red	GPS error. GPS has not achieve fix since Boot up (30 minutes or more)	Verify external antenna is connected and located outside.

LED	Color & Pattern	Description	User Action
			If continues – Contact Sprint
	Blinking Red	GPS is acquiring a lock	Wait
	Off	SW is loading	
<b>CDMA</b>	Solid Green	Voice service is up.	None
	Solid Red	Voice service error. Voice service has been down for 30 minutes.	Contact Sprint
	Blinking Red	Voice service is coming up, or voice service is down for 15 minutes.	
	Off	Voice service disabled by the operator.	Contact Sprint
<b>LTE</b>	Solid Green	LTE service is up.	None
	Solid Red	LTE service error	Contact Sprint
	Blinking Red	LTE service initializing	Wait
	Off	LTE service sector turned off. (admin down)	Contact Sprint

## 4 FCC Statement

### **Federal Communications Commission (FCC) Interference Statement (Part 15.105(b))**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### **FCC Compliance Statement (Part 15.19)**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### **FCC Caution (Part 15.21)**

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

### **FCC Radiation Exposure Statement (OET Bulletin 65)**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This device should be installed and operated at a minimum distance of **20cm** between itself and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## 5 UL Authorization Statement

NOTICE OF COMPLETION AND  
AUTHORIZATION TO APPLY THE UL MARK



2018-09-11

MS. SHARON LIN  
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Our Reference: File E199598, Vol. X2    Project Number:            4788649274  
Your Reference:                    1808T083  
Project Scope: UL/CUL 60950-1 for 1) Femto Cell (Sprint Magic Box Voice Amp); 2) Femto Cell  
(AIRAVE 4 LTE), Models 1) AVC; 2) AV100C (Report Reference Number: E199598-A172)

Dear MS. SHARON LIN:

Congratulations! UL's investigation of your product(s) has been completed under the above Reference Number and the product was determined to comply with the applicable requirements. This letter temporarily supplements the UL Follow-Up Services Procedure and serves as authorization to apply the UL Mark at authorized factories under UL's Follow-Up Service Program. To provide your manufacturer(s) with the intended authorization to use the UL Mark, you must send a copy of this notice to each manufacturing location currently authorized under File E199598, Vol. X2.

Records in the Follow-Up Services Procedure covering the product are now being prepared and will be sent in the near future. Until then, this letter authorizes application of the UL Mark for 90 days from the date indicated above.

Additional requirements related to your responsibilities as the Applicant can be found in the document "Applicant responsibilities related to Early Authorizations" that can be found at the following web-site: <http://www.ul.com/EAResponsibilities>

Any information and documentation provided to you involving UL Mark services are provided on behalf of

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We are excited you are now able to apply the UL Mark to your products and appreciate your business. Feel free to contact me or any of our Customer Service representatives if you have any questions.

Very truly yours,                    Reviewed by:

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