

# DPH153 3G Small Cell



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# Notice to Installers

The servicing instructions in this notice are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions, unless you are qualified to do so.

## Note to System Installer

For this apparatus, the cable shield/screen shall be grounded as close as practical to the point of entry of the cable into the building. For products sold in the US and Canada, this reminder is provided to call the system installer's attention to Article 800-93 and Article 800-100 of the NEC (or Canadian Electrical Code Part 1), which provides guidelines for proper grounding of the cable shield.



This symbol is intended to alert you that uninsulated voltage within this product may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this product.

Ce symbole a pour but d'avertir toute personne qu'un contact avec une pièce interne de ce produit, sous tension et non isolée, pourrait être suffisant pour provoquer un choc électrique. Il est donc dangereux d'être en contact avec toute pièce interne de ce produit.



**CAUTION:** To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.

**WARNING**  
**TO PREVENT FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.**



This symbol is intended to alert you of the presence of important operating and maintenance (servicing) instructions in the literature accompanying this product.

Ce symbole a pour but de vous avertir qu'une documentation importante sur le fonctionnement et l'entretien accompagne ce produit.

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# IMPORTANT SAFETY INSTRUCTIONS

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 13) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as a power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

## Power Source Warning

A label on this product indicates the correct power source for this product. Operate this product only from an electrical outlet with the voltage and frequency indicated on the product label. If you are uncertain of the type of power supply to your home or business, consult your service provider or your local power company. The AC inlet on the unit must remain accessible and operable at all times.

## Ground the Product



**WARNING:** Avoid electric shock and fire hazard! If this product connects to cable wiring, be sure the cable system is grounded (earthed). Grounding provides some protection against voltage surges and built-up static charges.

## Protect the Product from Lightning

In addition to disconnecting the AC power from the wall outlet, disconnect the signal inputs.

## Verify the Power Source from the On/Off Power Light

When the on/off power light is not illuminated, the apparatus may still be connected to the power source. The light may go out when the apparatus is turned off, regardless of whether it is still plugged into an AC power source.

# IMPORTANT SAFETY INSTRUCTIONS, continued

## Eliminate AC Power/Mains Overloads



**WARNING: Avoid electric shock and fire hazard! Do not overload AC power/ mains, outlets, extension cords, or integral convenience receptacles. For products that require battery power or other power sources to operate them, refer to the operating instructions for those products.**

## Provide Ventilation and Select a Location

- Remove all packaging material before applying power to the product.
- Do not place this apparatus on a bed, sofa, rug, or similar surface.
- Do not place this apparatus on an unstable surface.
- Do not install this apparatus in an enclosure, such as a bookcase or rack, unless the installation provides proper ventilation.
- Do not place entertainment devices (such as VCRs or DVDs), lamps, books, vases with liquids, or other objects on top of this product.
- Do not block ventilation openings.

## Operating Environment

This product is designed for operation indoors with a temperature range from 32° to 104°F (0° to 40°C). Each product should have adequate spacing on all sides so that the cooling air vents on the chassis are not blocked.

## Protect from Exposure to Moisture and Foreign Objects



**WARNING: Avoid electric shock and fire hazard! Do not expose this product to dripping or splashing liquids, rain, or moisture. Objects filled with liquids, such as vases, should not be placed on this apparatus.**



**WARNING: Avoid electric shock and fire hazard! Unplug this product before cleaning. Do not use a liquid cleaner or an aerosol cleaner. Do not use a magnetic/static cleaning device (dust remover) to clean this product.**



**WARNING: Avoid electric shock and fire hazard! Never push objects through the openings in this product. Foreign objects can cause electrical shorts that can result in electric shock or fire.**

## Service Warnings



**WARNING: Avoid electric shock! Do not open the cover of this product. Opening or removing the cover may expose you to dangerous voltages. If you open the cover, your warranty will be void. This product contains no user-serviceable parts.**



**WARNING: This device has anti-tampering technology. Attempts to open the enclosure by unqualified personnel may render the device inoperable.**

## Check Product Safety

Upon completion of any service or repairs to this product, the service technician must perform safety checks to determine that this product is in proper operating condition.

## Protect the Product When Moving It

Always disconnect the power source when moving the apparatus or connecting or disconnecting cables.

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# Requirements

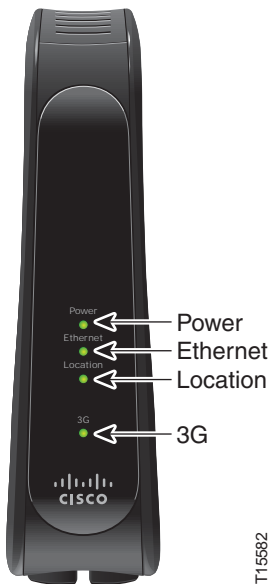
To use the DPH153 3G Small Cell, you will need:

- High-speed Internet service. For best performance, download speeds of at least 1.5 Mbps and upload speeds of at least 256 Kbps are recommended. There are no restrictions on broadband service providers. Satellite Internet service is not supported.
- Modem or optional wireless router.

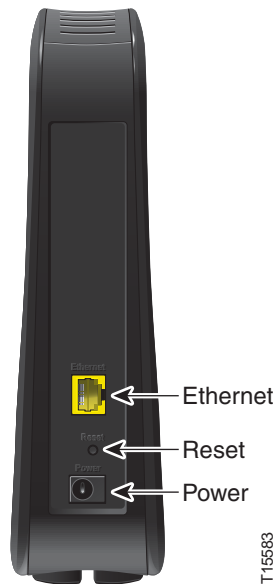
## Package Contents

- DPH153 3G Small Cell
- AC power adapter
- User Guide
- Yellow ethernet cable
- Quick Reference Guide

## Front Panel

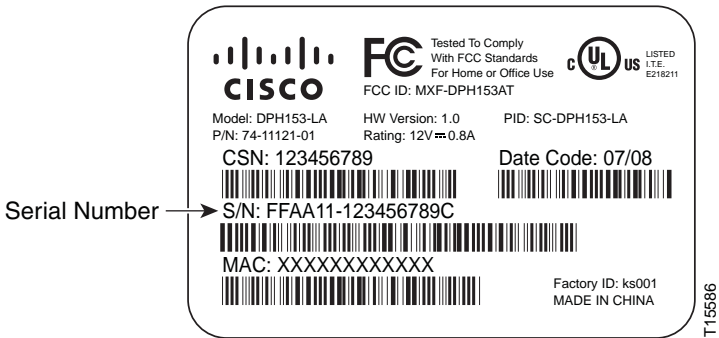


## Back Panel



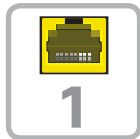
## Serial Number (S/N) Tip

Write down your DPH153 3G Small Cell's serial number; you'll need it for online activation and future reference. It can be found on the bottom of the device or on the box label.

**Serial # (S/N)**[illegible]

# Overview

This guide will take you step-by-step through configuration, activation, and confirmation.



Connect your device to the Internet.



Power on your device.



Activate your device.



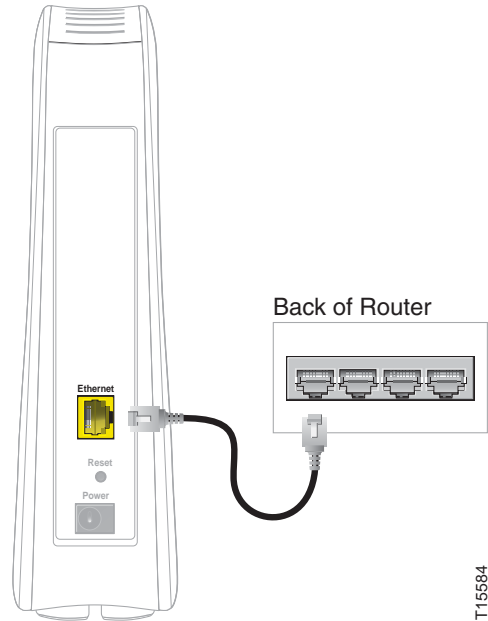
Wait while your device connects.



Confirm your success.

# Connect Your Device to the Internet

Connect the yellow ethernet cable from the “Ethernet” port on your DPH153 3G Small Cell to your router.

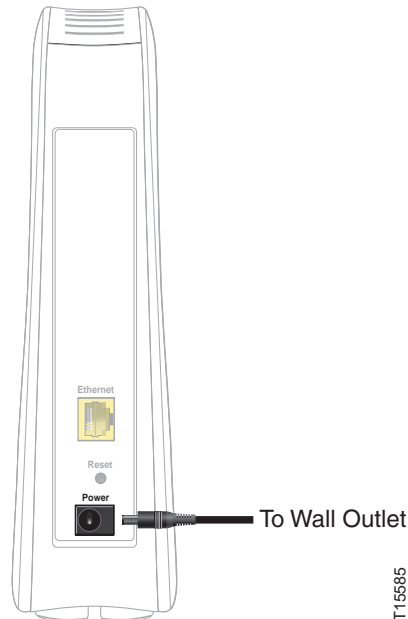


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# Power On Your Device

Connect your DPH153 3G Small Cell to a power outlet with the AC power adapter.

The Power light on the front of the device will come on immediately.



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# Activate Your Device

To activate your device, follow your service provider-specific instructions.

# Wait While Your Device Connects

Equipment and setup time may vary. Contact your service provider for instructions.

# Confirm Your Success

Your device is configured and working properly when:

- The 3G light on your DPH153 3G Small Cell is solid and green.
- You are able to place a phone call using your DPH153 3G Small Cell.
- Contact your service provider for additional details.

# Things to Know

## Cell phones may take some time to switch to the DPH153 3G Small Cell

Your cell phone may not immediately switch to your DPH153 3G Small Cell when you enter its coverage area. Depending on the signal strength of the cell tower, the time for your cell phone to switch to the DPH153 3G Small Cell can vary. It may take seconds or up to five minutes.

## Calls transfer out, but don't transfer in

Calls transfer from the DPH153 3G Small Cell to the strongest available cell tower signal. However, calls initiated on the cell tower do not transfer to the DPH153 3G Small Cell.

## Restarting fixes most problems

Like many electronic devices, the DPH153 3G Small Cell and your 3G cell phone may occasionally need to be rebooted (turned off and back on again) to reestablish their connection to each other.



# Troubleshooting

If your issue cannot be resolved via the troubleshooting steps provided in this section, please contact your service provider.

## Help With Activating Your DPH153 3G Small Cell

### **STEP 1: Have you completed activation?**

**NO:** Follow your service provider-specific instructions.

**YES:** Go to STEP 2.

### **STEP 2: Is your power light flashing red?**

**NO:** Go to STEP 3.

**YES:** Contact your service provider for instructions on how to replace the device.

### **STEP 3: Is your 3G light solid green?**

**NO:** Follow the steps below in order, until the 3G light is solid green:

- Restart your DPH153 3G Small Cell. Unplug the power adapter from the wall outlet, wait 10 seconds, then plug it back in. Wait 30 minutes for the 3G light to turn solid green. In rare instances it may take up to 24 hours.
- Ensure that your network settings are based on recommendations from your service provider.

**YES:** Your DPH153 3G Small Cell is active and connected successfully.

## Help After Activating Your DPH153 3G Small Cell

### **My range of coverage on the DPH153 3G Small Cell is limited or I experience dropped calls on the DPH153 3G Small Cell.**

- If your DPH153 3G Small Cell is located next to or in close proximity to another wireless broadcasting device, move the DPH153 3G Small Cell at least one foot away from that device.
- If your DPH153 3G Small Cell is located:
  - On the floor, then move it off the floor and onto a desk or table;
  - In a cabinet or closet, then move it out of the cabinet or closet;
  - Behind or next to any furniture or other insulated or radiating devices (such as a couch, microwave, flat panel TV, etc.) that may interfere with the DPH153 3G Small Cell's broadcasting signal, then move it to a new location where there is nothing blocking the DPH153 3G Small Cell.
- If re-locating your DPH153 3G Small Cell does not resolve the issue or does not apply to you, then run a speed test to ensure your broadband connection meets minimum requirements of 1.5 Mbps download and 256 Kbps upload speeds. If necessary, upgrade to a higher broadband speed.
- If your broadband meets minimum requirements, then place your DPH153 3G Small Cell in a central location of your residence or in a location where your DPH153 3G Small Cell is used most frequently. If necessary, use a longer Ethernet cable or a Powerline Ethernet adapter.
- It is possible as you move around your home that your DPH153 3G Small Cell is handing over your call to a cell tower, especially as you move further from the DPH153 3G Small Cell.

### **I am not satisfied with the voice quality on my DPH153 3G Small Cell**

- Run a speed test to ensure your broadband connection meets minimum requirements of 1.5 Mbps download and 256 Kbps upload speeds. If necessary, upgrade to a higher broadband speed.

### **My DPH153 3G Small Cell was active, but now the 3G light is flashing green**

- Restart your DPH153 3G Small Cell. Unplug the power adapter from the wall outlet, wait 10 seconds, then plug it back in. It may take an additional 30 minutes for the 3G light to turn solid green.

# Decoding The Lights On Your DPH153 3G Small Cell

Status Indicator	Light is	Indicates:
Power	Off	No power to the device. (check the power adapter connections, and check the power source)
	Red	Error condition
	Green	Normal operation
Ethernet	Off	No connection established.
	Green	Link is established.
Location	Off	The device is still initializing.
	Green (blinking)	An attempt to acquire device location.
	Green	The device location has been acquired.
3G	Off	The device is still initializing.
	Green (blinking)	The device is communicating (or attempting to communicate) with the provisioning systems (checking registration status, updating firmware if required, etc.)
	Green	The device has been activated.
	Red	Contact service provider for assistance.

## Pressing the Reset Button

To restart your device, press and immediately release the **Reset** button.

To reset your device to factory settings, press the **Reset** button and hold for at least five seconds and release.

Whether restarting or resetting, it may take up to 30 minutes for the 3G light to turn solid green.

# Specifications

## Power Supply

Input: AC 100V-240V, 50-60 Hz; Output: DC 12V 1.25A. Interchangeable PIN (UL, VDE)

## Status Indicators

Four lights: Power (Green, Red); Location (Green); Ethernet (Green); 3G (Green, Red)

## Dimensions

H x L x W: 8.27 x 7.09 x 2.36 inches (210 x 180 x 60 mm)

## Unit Weight

Unit: 1lb 0.8 oz (476.27 grams); Box: 2lb 1.7 oz (955.37 grams)

## Ambient Temperature Range

0-40C (32-104F)

## RF Exposure

**NOTE:** This transmitter must not be collocated or operated in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 7.9 inches (20 cm) between the radiator and your body.

## United States

This equipment complies with FCC RF exposure limits set forth for an uncontrolled environment. This system has been evaluated for RF exposure for humans in reference to ANSI C 95.1 (American National Standards Institute) limits. The evaluation was based on evaluation per ANI C 95.1 and FCC OET Bulletin 65C rev 01.01. The minimum separation distance from the antenna/radiator to a general bystander is 7.9 inches (20 cm) to maintain compliance.

This transmitter must not be collocated or operating in conjunction with any other antenna or transmitter.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

## Canada

This equipment complies with IC RF exposure limits set forth for an uncontrolled environment. This system has been evaluated for RF exposure for humans in reference to Canada Health Code 6 (2009) limits. The evaluation was based on evaluation per RSS-102 Rev 4. The minimum separation distance from the antenna to general bystander is 7.9 inches (20 cm) to maintain compliance.

# Frequently Asked Questions

## **Will all cell phones work with my DPH153 3G Small Cell?**

This depends on your service provider's implementation. Contact your service provider for details.

## **Do I need to change any settings on my cell phone to make it work with my DPH153 3G Small Cell?**

This may vary depending on your service provider's implementation. Contact your service provider for details.

## **What type of Internet service does the DPH153 3G Small Cell need?**

The DPH153 3G Small Cell uses high-speed Internet service over DSL or cable. For best performance, your service should have download speeds of at least 1.5 Mbps and upload speeds of at least 256 Kbps. You can use any high-speed Internet service provider. Satellite Internet service is not supported. Contact your Internet Service Provider if your Internet service is slower than minimum requirements.

## **Why did my DPH153 3G Small Cell lights go off during activation?**

Your DPH153 3G Small Cell automatically checks for software updates each time you turn it on. If necessary, the DPH153 3G Small Cell downloads updated software and then restarts.

## **Will my DPH153 3G Small Cell slow down my network?**

The DPH153 3G Small Cell takes up very little of your bandwidth. Downloading music, videos, or other large files may impact the bandwidth available for your DPH153 3G Small Cell and affect voice quality.

## **Should I use my DPH153 3G Small Cell for data instead of Wi-Fi?**

The DPH153 3G Small Cell supports data usage. However, it is not intended to be a replacement for your wireless network (Wi-Fi).

## **How do I move my DPH153 3G Small Cell to a new location?**

Contact your service provider.

## **I have more questions.**

Contact your service provider.

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# FCC Compliance

## United States FCC Compliance

This device 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 such interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it 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 or more of the following measures:

- Reorient or relocate the receiving antenna, if applicable.
- 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 service provider or an experienced radio/television technician for help.

Any changes or modifications not expressly approved by Cisco Systems, Inc., could void the user's authority to operate the equipment.

The information shown in the FCC Declaration of Conformity paragraph below is a requirement of the FCC and is intended to supply you with information regarding the FCC approval of this device. *The phone numbers listed are for FCC related questions only and not intended for questions regarding the connection or operation for this device. Please contact your service provider for any questions you may have regarding the operation or installation of this device.*

## Declaration of Conformity

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

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Model: DPH153  
Manufactured by: Cisco Systems, Inc.  
5030 Sugarloaf Parkway  
Lawrenceville, Georgia 30044 USA  
Telephone: **678 277-1120**



## Canada EMI Regulation

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la class B est conforme à la norme NMB-003 du Canada.

This device complies with RSS-132 and RSS-133 of the Industry Canada Rules.

Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

20081121 FCC Standard

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