



Cisco IP DECT 6800 Series Handset

Battery Usage Guide

October 21

Table of Contents

Cisco IP DECT 6800 Series Handset Battery Usage Guide	3
DECT and Battery Overview	3
Intended Audience	3
Users	3
Battery Operation Condition and Recommendation	4
Deployment Considerations	4
Configuration Settings.....	4
Handset Battery Charging	4
Troubleshooting Tips.....	5
Handset Battery Life	5
Handset Battery Replacement	6
Battery Usage	6
Best Practices	6
Battery Damage Prevention Tips:	7
Battery Storing Tips.....	7
Battery Disposal Tips	7

Cisco IP DECT 6800 Series Handset Battery Usage Guide



DECT and Battery Overview

DECT (Digital Enhanced Cordless Telecommunications) is a standard for wireless and mobile voice services. DECT is originally from Europe and is adopted worldwide.

Cisco IP DECT handsets use Lithium-ion battery. The following are a few notes for Cisco IP DECT handset battery:

- A new battery does not require any specific care.
- An empty battery typically takes 5 hours for a full charge.
- Charge the battery to 100% before first use.
- Recommend usage environment is 0° C to 45° C.
- In average conditions, talk-time is 17 hours and standby time is 200 hours.
- Recommend a full discharge and charge cycle to calibrate the battery.

Intended Audience

The target audience for this document include administrators, anyone who installs, and users of Cisco IP DECT 6800 Series network.

Users

The users of Cisco IP DECT 6800 phones can be classified as:

- **Shift workers:** Rotation on 8 to 12 hours shift. The workers do not have a dedicated device and the device usage is 24 hours.
- **Retail Workers:** Rotation on 8 to 12 hours shift. The workers do not have a dedicated device and the device usage is not 24 hours.
- **Office Workers:** The workers have a dedicated device, and the device usage is only during the work hours.

The talk time for the device is about 17 hours when the battery is fully charged. We recommend you charge the battery after a shift or once in 24 hours.

When you do not need the handset or you are near a charging cradle, we recommend you place the handset on the charging cradle.

Battery Operation Condition and Recommendation

The battery operating conditions affect the battery life. Usage of the handset, its configuration, and the operational environment are other significant factors that affect the battery life.

Deployment Considerations

The handset requires more power to retain connection with the base station with poor or no radio connection. The battery loses the charge faster when a handset is in a poor or no signal area for an extended period. We recommend you ensure good signal in most of the handset usage areas. Place the charging cradle in an area with good signal to use less power and charge the battery faster. For more information about the signal strength, see *Site Survey Tool* section in the *Cisco IP DECT Phone 6800 Series Deployment Guide*.

Configuration Settings

The various configuration settings can affect the battery performance. Based on your needs, you may consider the setting options to optimize the battery usage.

- **Ringer Volume and Vibrate Mode**

The handset in vibrate mode consumes more power. When you combine this mode with ringer volume setting, it further increases the power consumption. The battery life for each charging cycle reduce with an increase in power consumption.

- **Power Save**

Power Save settings allow you to configure from 5 seconds to 60 seconds. The battery life for each charging cycle is better when this setting is low. We recommend you to use 5 seconds for this setting for maximum battery life.

- **Bluetooth**

Bluetooth is supported only on 6825 Handset and 6825 Ruggedized Handset. The battery requires more power when Bluetooth is enabled, while searching for devices, and using paired devices.

- **In-Call Audio**

The wideband calls require two (2) DECT channels and narrowband calls require one DECT channel for the media between the base station and the handset. The selection of the wideband or narrowband may not change the battery life but may have some impact in an average condition and active call hours.

Handset Battery Charging

The LED indicators on the handset and the charging cradle show the battery charging status.

An empty battery takes up to 5 hours to charge the battery to 100%. The battery life and the battery usage environment affects the charging cycle.

You can use the charging cradle to charge 6825 Handset, 6825 Ruggedized Handset, and 6823 Handset. The charging cradle shipped with 6825 Handset and 6825 Ruggedized Handset has a USB port on the side of the cradle and an LED indicator in the front of the cradle. The charging cradle shipped with 6823 Handset does not have the USB port and the LED indicator.

We do not recommend you to daisy chain the cradles with USB cables for charging. We recommend you to connect each cradle to a power source individually.

The handset displays the message "Charger Connected" for a few seconds and makes an alert sound when you place the handset correctly in the charger. The LED on the charger is lit when the battery is charging.



Troubleshooting Tips

If the handset screen does not display a message when you place on the cradle, check the following:

- ❖ The handset is placed correctly on the cradle.
- ❖ The cradle is parallel to the floor.
- ❖ The cradle is connected to the power source USB or power outlet.
- ❖ The handset has a battery.

NOTE: If the handset does not have a battery and placed on the cradle, you may first see Cisco logo for handset powering on before any other display.

Handset Battery Life

The power save mode, ringer volume, in-call time, Bluetooth, and so on affect the battery life.

A device taken out of coverage area with high timeout for power save will not have a good battery life as a device in a good coverage with less timeout for power save.

The estimated average talk time is 17 hours and stand by time is 200 hours in an average condition.

The good and average conditions change in the real installation environment. The below table provides the estimated values. The individual results vary on the installation location and usage conditions. These values were taken with recommended settings, such as, low ringer volume, Bluetooth disabled,

and power save set to 5 seconds.

Handset Model	Condition	Narrowband Calls	Wideband Calls	Stand by
6825	Good	21 hours	20 hours	12 days
6825	Average	20 hours	20 hours	11 days
6823	Good	18 hours	16 hours	10 days
6823	Average	17 hours	15 hours	10 days

Handset Battery Replacement

The rechargeable battery has a limited number of charging cycle and eventually require to be replaced and disposed. The battery capacity reduces with usage. The decrease in the rate of the battery capacity depends on the depth of discharge, operation temperatures, and charging method. The increase in the depth of the battery discharge shortens the battery life.

A battery which is used less has lower damage than a battery which is used daily. The lithium-ion battery has limited charge/discharge cycles and requires to define the end of battery life. A weak battery indicates the end of battery life. We recommend you to replace a weak battery immediately.

The following are the signs of a weak battery:

- Battery life is shorter than the normal battery life.
- Battery indicator on the handset shows faster draining rate than normal battery.
- Battery charges to 100% faster than normal battery.

Battery Usage

You can use Cisco IP DECT Lithium-ion batteries with 6825 handset, 6825 ruggedized handset, and 6823 handset.

Best Practices

- Store the batteries always at room temperature. The battery damages when exposed to abnormal temperature. For example, the battery can damage if you expose the battery on a window with direct sunlight. We recommend the usage environment between 32°F(0°C) and 113°F(45°C)
- Use only the charging cradle that Cisco provides to charge the battery.
- Recharge the battery immediately after the battery is without the charge. Do not leave the battery without any charge for an extended period to avoid damage to the battery.
- Battery life reduces and may be damaged if you place the battery on the charging cradle or connect to a power source for more than 1 month.
- Avoid full discharge of the battery frequently. Discharge the battery fully after 25 to 30 partial battery discharge for recalibration.

- Remove the battery from the handset and store it correctly if you do not use the handset for over a month.

Battery Damage Prevention Tips:

- Do not short circuit, over charge, or over discharge the battery.
- Do not pierce the battery with any sharp object.
- Do not immerse the battery in water or allow the battery to get wet.
- Do not expose the battery to severe shock, such as, strike or throw.
- Do not directly solder on the terminals of the battery.
- Do not expose the battery to freezing temperature.

Battery Storing Tips

The battery ages when you do not use and store the battery. The battery capacity reduces with high temperature. You can do the following, if you want to store a battery that is not used for more than a month:

- Store the battery with half charge.
- Remove the battery from the device, and pack and seal in a clean insulated bag.
- Store in a dry and cool place (5°C to 25°C).
- Avoid exposing the batteries to freezing temperature.

CAUTION: If you are exposed to a leaking electrolyte, clean with water immediately and consult a physician.

Battery Disposal Tips

- You must dispose the Lithium-ion battery correctly, as the battery contains metallic lithium that reacts with moisture.
- Discharge the battery fully before you recycle the battery. Battery recycle prevents hazardous material to contaminate the environment. For more information, check with you local Rechargeable Battery Recycling program.

CAUTION: Do not incinerate the battery as a fire can cause an explosion.