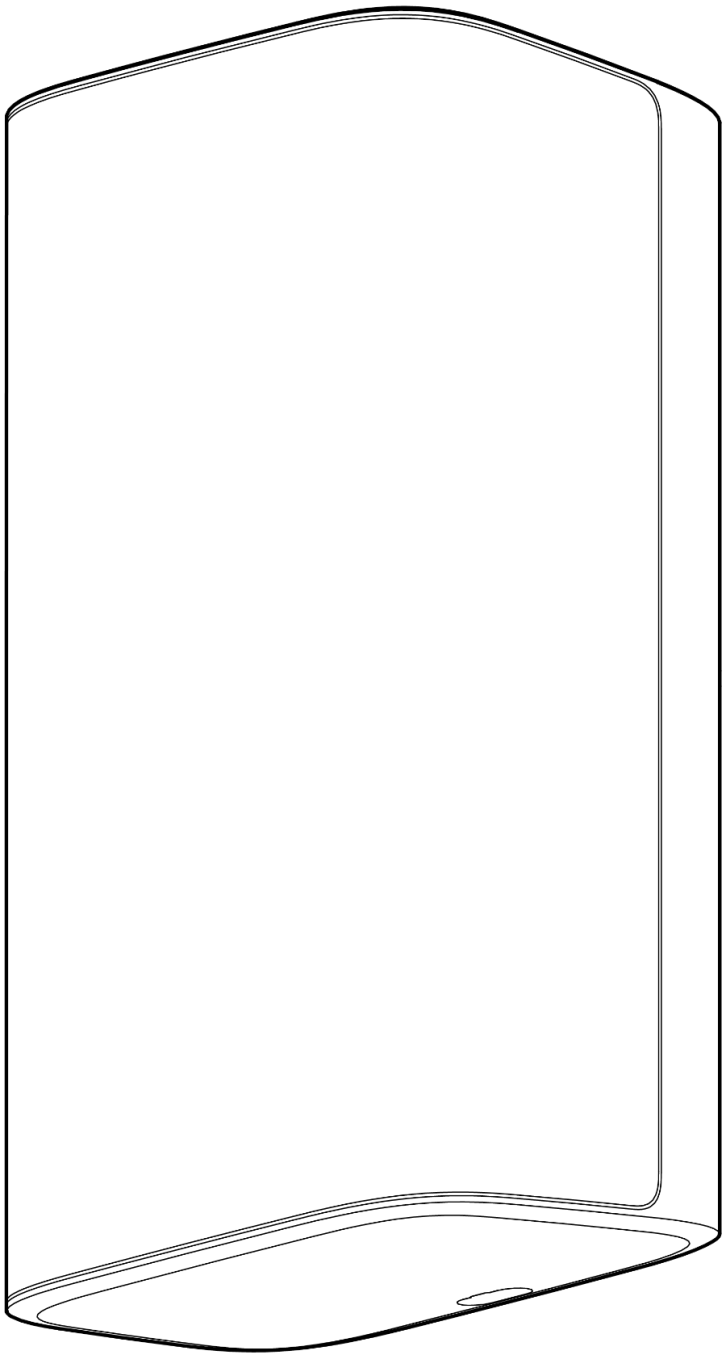
Install Guide

NS631-E

6.5” Outdoor Surface Mount Network Speaker



Document

Document Details

Version

V1.0 (20260916)
(V1.0 published 20260916*)*

Firmware

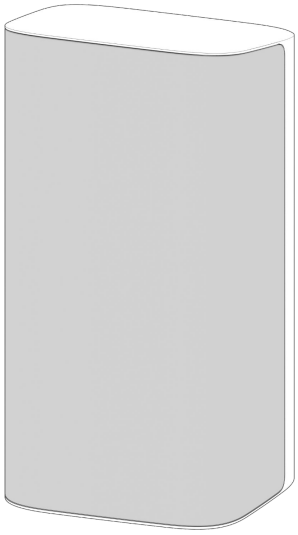
Firmware version can be verified on Verkada Command command.verkada.com.

Product Models

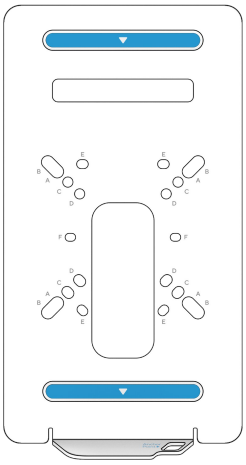
This install guide pertains to models:

- NS631-W-E-HW

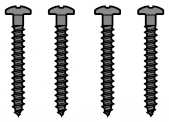
What's in the Box



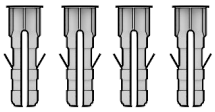
Speaker



Mount Plate



Wall Mount Screws (4 pcs)
Length: 25mm **Diameter:** 5mm
Drive: #2 Phillips

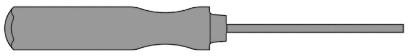


Wall Anchors (4 pcs)

3-5mm Grommet
(3 pcs)

7-9mm Grommet

3-Wire Grommet



T10 Torx Security Screwdriver

What you'll need

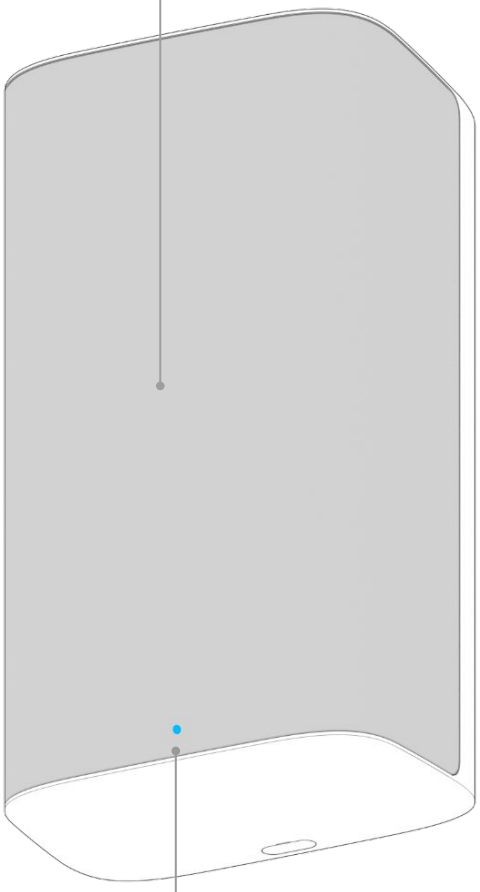
- A working Internet connection.
- 802.3af Power over Ethernet (PoE) switch, or a PoE injector.
- A smartphone or laptop
- A #2 Phillips screwdriver or power drill with a #2 Phillips driver bit
- 5/16 inch (8mm) drill bit for wall anchors
- 1/8 inch (3mm) drill bit for pilot holes
- A Cat5 or Cat6 Ethernet cable with a 0.2-0.25 inch diameter (5-6.5mm)

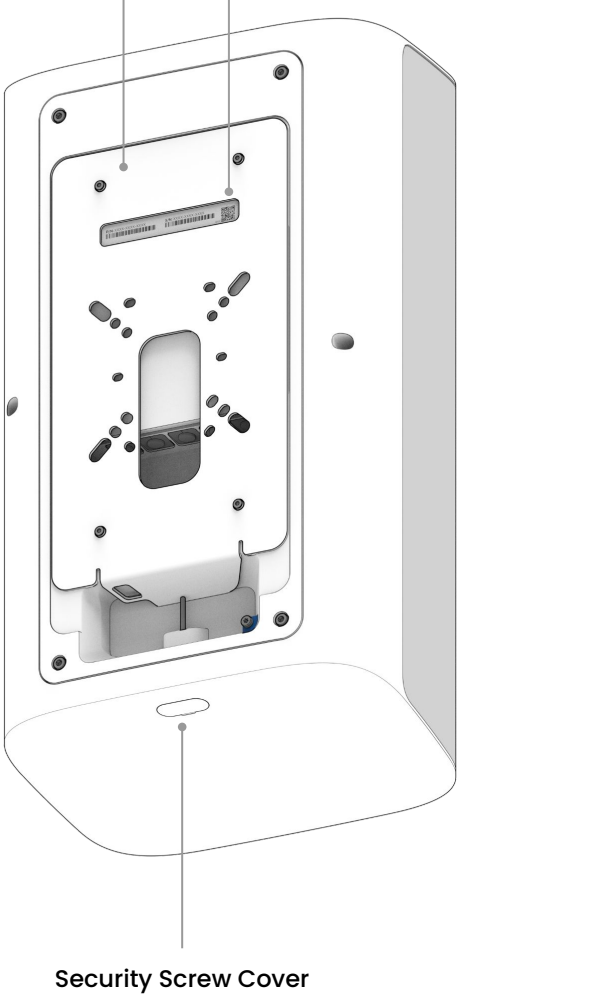
Connect

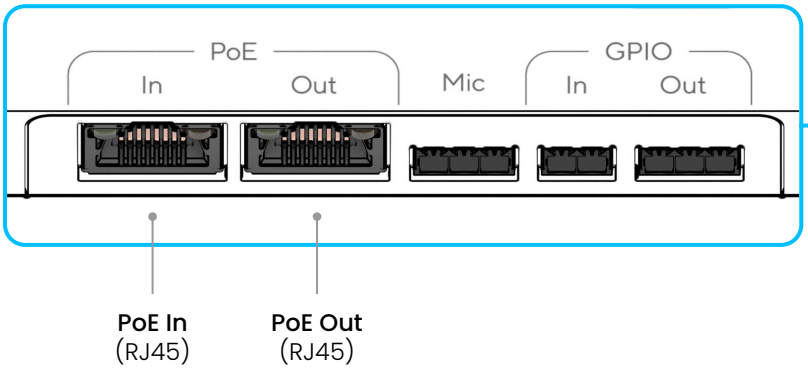
For easy registration and setup, scan the QR code on the product.

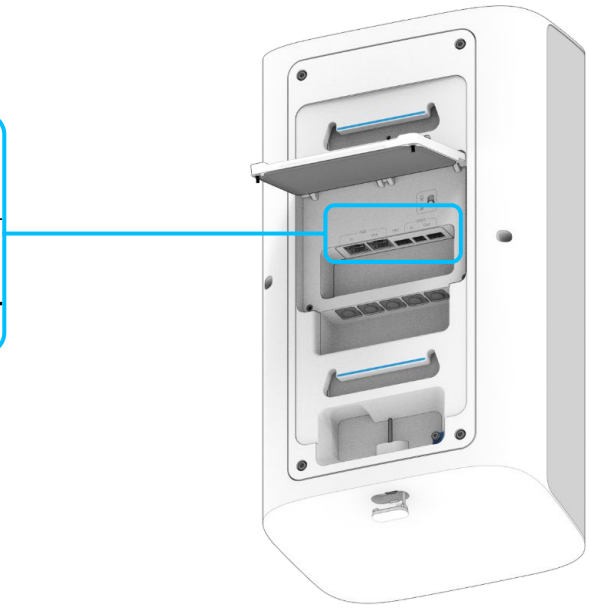
If you prefer to manually register your product, please proceed to: verkada.com/start

Overview


6.5” Coaxial Speaker
Status & Debug LED


Mount Plate
QR Code
Scan to register device in Verkada Command
Security Screw Cover

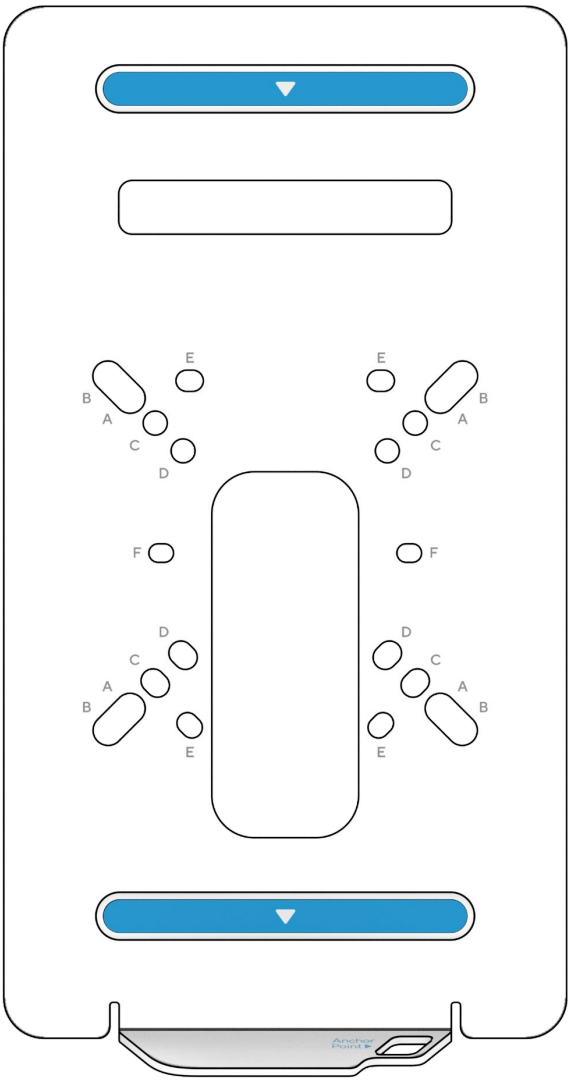

PoE
In
Out
Mic
GPIO
In
Out
PoE In
(RJ45)
PoE Out
(RJ45)



Overview

Mount Plate

A Speaker Angle Mount (ACC-NS-MNT-ANGLE-1)
B Wall/Ceiling/Square Junction Box (4in/1010.6mm)
C Round Junction Box (4in/101.6mm)
D Round Junction Box (3 1/2 in/88.9mm)
E Double Gang Junction Box
F European Junction Box



Cable Entry

Cable entry depends on your mount. ACC-NS-MNT-ANGLE-1 supports surface-run cabling.

All other mounting requires cabling through the mounting surface, or junction box.

⚠ Attention

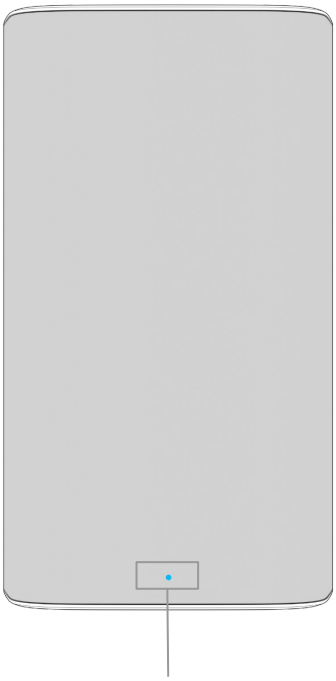
If mounting to a junction box, verify the box is rated to support the weight of the speaker.

Standard junction boxes installed by electricians often do not have sufficient structural integrity. Where possible, mount directly into studs or another load-rated surface.

LED Behavior

General Operation

- **Solid Blue**
  Speaker is running and connected.
- **Solid Orange**
  Speaker is on and booting up.
- **Flashing Orange**
  Speaker is updating firmware.
- **Flashing Red**
  Specific error, see “Network errors” below.
- **Solid Red**
  Contact support



Network errors

An error will be communicated through the Status LED, which will flash a specific number of times depending on the error state.

Example of **5 Red** flashes on the Status LED

1 Red - No IP Address
Speaker has not received an IP address.

2 Red - Duplicate IP
Speaker has detected duplicate IP addresses on the LAN.

3 Red - No Gateway
Speaker is not able reach the configured Gateway.

4 Red - No Switch
Speaker is connected with PoE, but unable to connect to the Switch.

5 Red - DNS error
Speaker is not able to resolve Verkada hostnames.

6 Red - NTP Error
Speaker is not able to receive a response from the NTP Server.

7 Red - Not Connected to Command
Verkada endpoints are not reachable after boot up.

Microphone Switch

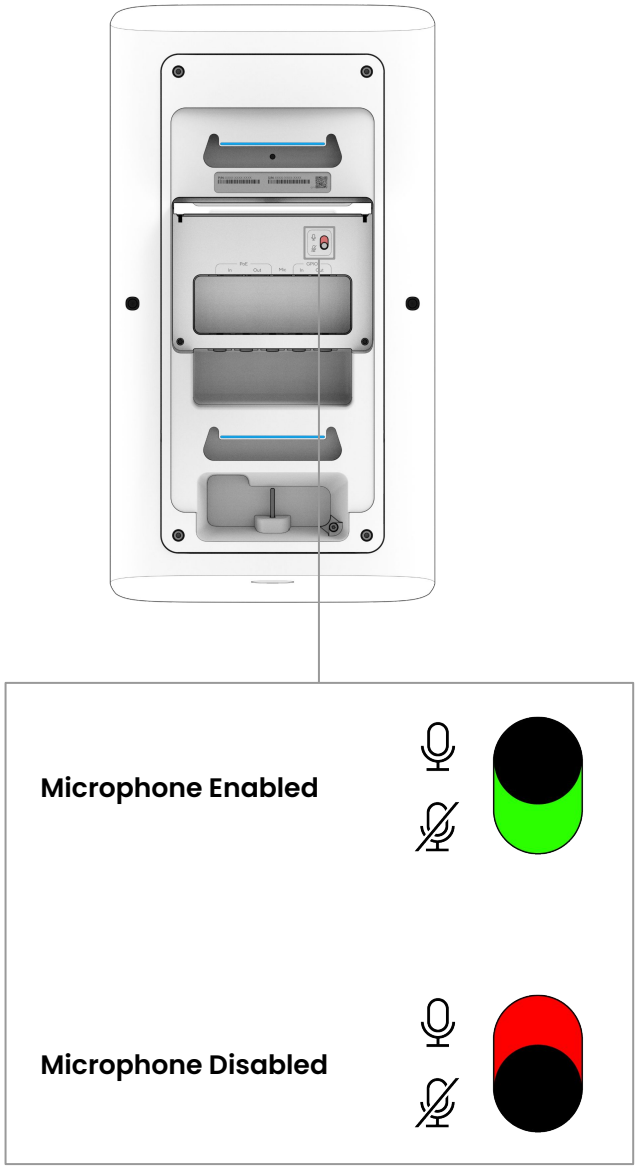
The microphone switch physically disconnects the unit's internal microphone, guaranteeing that no audio is recorded.

Speaker Microphone is enabled by default.

To disable the microphone, move the switch into the left position.

Alternatively, the microphone can be disabled in device settings on Command.

Note: The Microphone switch does not disable an external microphone.



Technical Specifications

Frequency Range	65 - 20,000 Hz +/- 3 dB
Drivers	6.5" (16.5 cm) coaxial
SPL	PoE+: 96dB SPL continuous / 100+dB SPL peak at 1m / 3.3ft PoE: 92dB SPL continuous / 96+dB SPL peak at 1m / 3.3ft
Dispersion Angle	Horizontal coverage angle 82˚ @ 1m (-6 dB) 500 Hz - 8 kHz Vertical coverage angle 90° @ 1m (-6 dB) 500 Hz - 8 kHz
Power Consumption	5W idle (no audio playing, no Mic input) 25W maximum (audio playing)
Input Power	IEEE 802.3af/at/bt PoE, PoE+, PoE++ (37VDC — 57VDC), 960mA maximum per pair Standalone: 802.3at (PoE, PoE+): 15W or 30W port budget required With PoE pass-through: 802.3bt Type 3 or Type 4 (PoE++): 60W or 75W port budget required
PoE Output	802.3af/at PoE, PoE+ (37VDC-57VDC), 30W maximum
Audio Input	4x omnidirectional digital MEMs microphones
General Purpose Input	Port reserved for future use.
General Purpose Output	Port reserved for future use.
Connectivity	Ethernet: 100/1000Mbps RJ45 for network connection.
Ingress Protection	IP66 Rated
Dimensions	221mm x 408mm x 161mm
Weight	6.4kg / 14lbs for speaker with mount plate
Operating Temp. & Humidity	-40 - 50C 0-90% RH non-condensing
Compliance	Please refer to https://www.verkada.com/compliance/

Power Options

This chart outlines the speaker's available PoE power options.

⚠ Warning

Do not daisy chain more than one speaker. Connect a maximum of two speakers per switch port.

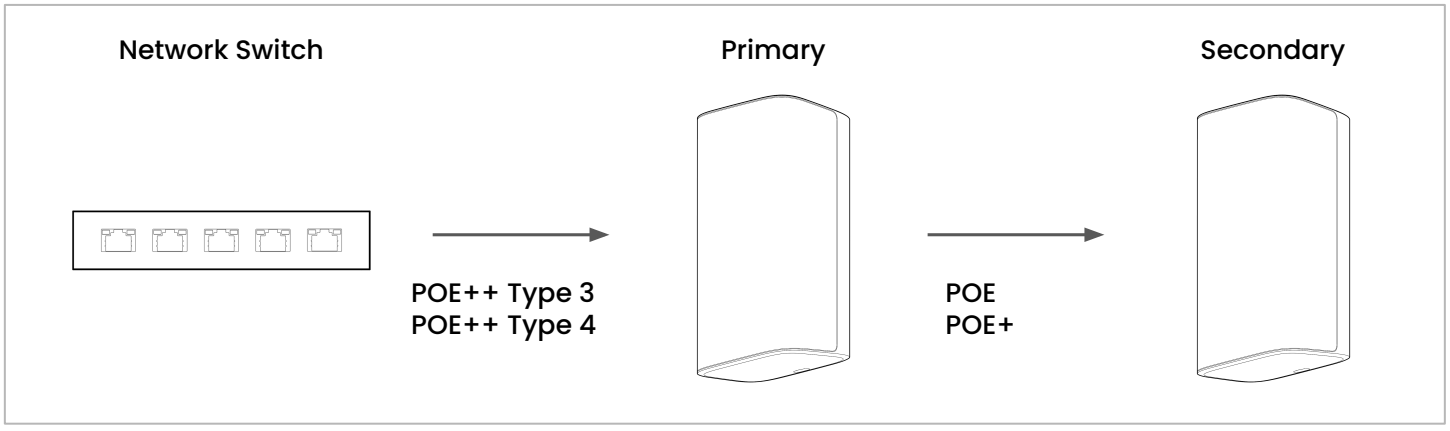
PoE audio devices experience an inrush current when an announcement is made. To prevent switch reboots and audio distortion during playback, always budget for the maximum rated power draw of each speaker and an additional 20% of safety headroom across the switch's total PoE budget.

For example, if your switch has a 100W PoE budget, keep total speaker draw at or below 80W to preserve 20% headroom. At a maximum draw of 20W per speaker, that supports up to 4 speakers.

Input PoE Standard	Type	Input Class	Amp Max Power	PoE Out Passthrough	PoE Out Max Passthrough Power
802.3af (PoE)	Type 1	Class 3	10W	Disabled	N/A
802.3at (PoE+)	Type 2	Class 4	20W	Disabled	N/A
802.3bt (PoE++)	Type 3	Class 6	20W	Yes	Class 3 (13W)
802.3bt (PoE++)	Type 4	Class 8	20W	Yes	Class 4 (25.5W)

PoE Passthrough (Maximum two Speakers)

If using PoE passthrough, a primary speaker must receive PoE++ Type 3 or Type 4 so it has enough passthrough budget for a secondary speaker.

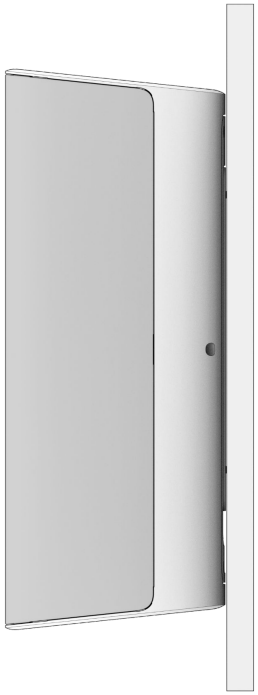


Mounting Options

The speaker can be mounted directly to a surface, on a junction box, or with the Verkada Speaker Angle Mount ACC-NS-MNT-ANGLE-1 (sold separately).

The following pages outline Direct Wall Mounting. *Refer to ACC-NS-MNT-ANGLE-1 install guide for Speaker Angle mounting instructions.*

Direct Wall Mounting
Cables must come through the mount surface.



Angle Mounting
Supports surface-run cabling

* Sold separately

⚠ Attention

If mounting to a junction box, verify the box is rated to support the weight of the speaker.

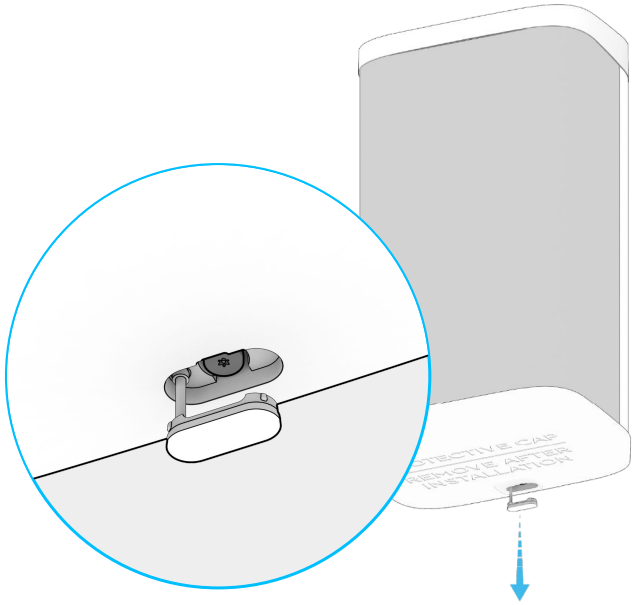
Standard junction boxes installed by electricians often do not have sufficient structural integrity. Where possible, mount directly into studs or another load-rated surface.

Preparation

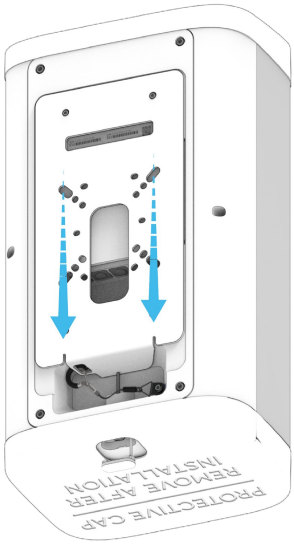
Take the speaker out of the packaging. Discard the foam and the plastic bag.

Note: DO NOT REMOVE the protective end caps until the installation is complete.

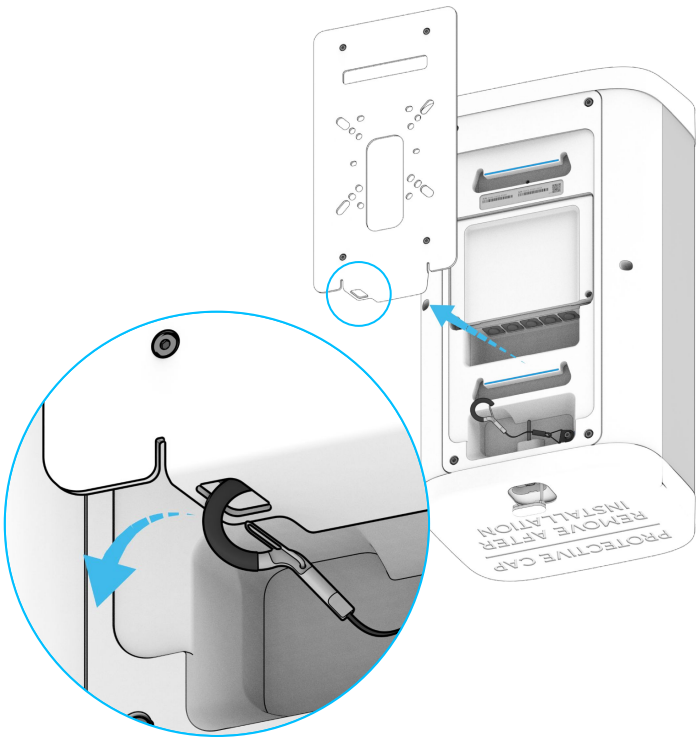
Disengage the Security Screw Cover to reveal the captive screw at the bottom of the speaker and use the provided T10 Torx Security Screwdriver to loosen the captive screw until it springs out.



To disengage the Mount Plate, slide it down and out.

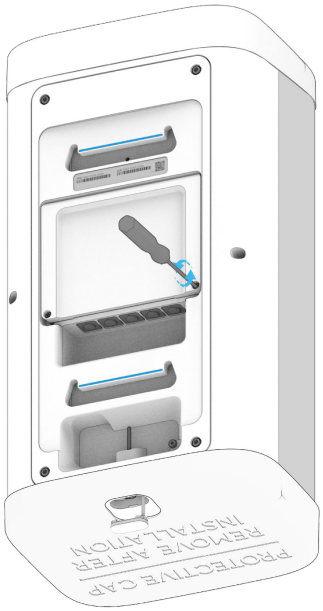


Unclip the Safety Tether from the Mount Plate.

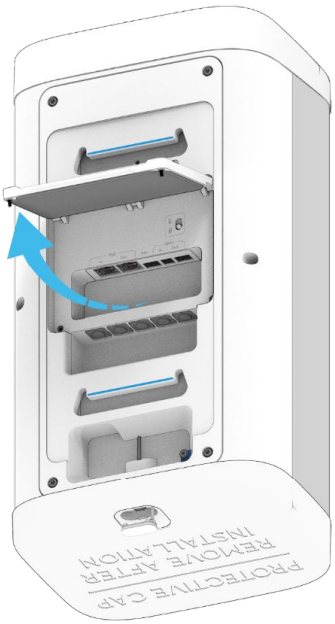


Preparation

Loosen the two captive security screws above the cable port, using the provided T10 Torx Security Screwdriver.



Open the cable door. This will allow you to access the ports during install.



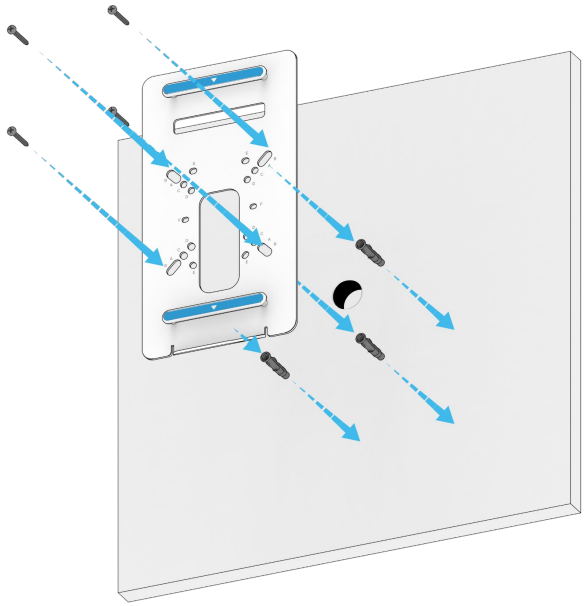
Mounting 1/5

Secure the mount plate to the mounting surface with the included screws and wall anchors.

If using wall anchors, drill 5/16 inch (8mm) pilot holes.

For a solid material like wood, drill 1/8 inch (3mm) pilot holes. Drive mounting screws directly into the pilot holes.

The mount plate is also compatible with a standard 4" Square Junction Box mount or the ACC-MNT-SJBOX-1.



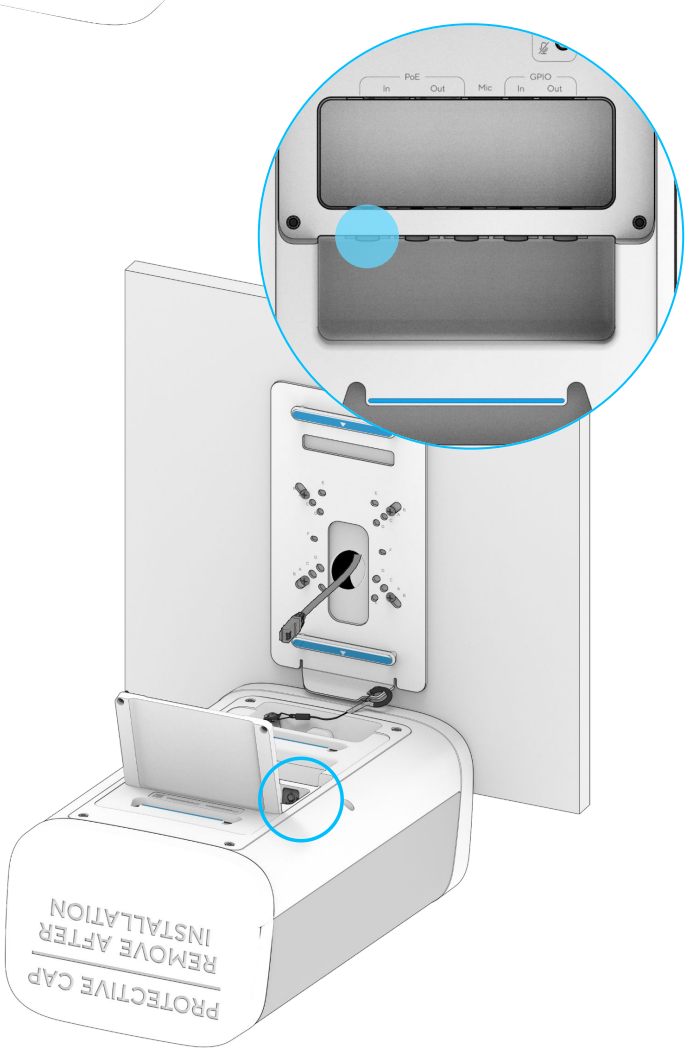
Route the Ethernet cable through the mount plate. **The cable must come through the mount surface (or junction box, if applicable).**

Note: Surface-run cabling is not supported in Direct Wall Mounting.

Mounting 2/5

Lift the speaker and hook it to the anchor point. It should be able to hang safely.

Remove the cable grommet and grommet plug from the passthrough-hole farthest to the left.



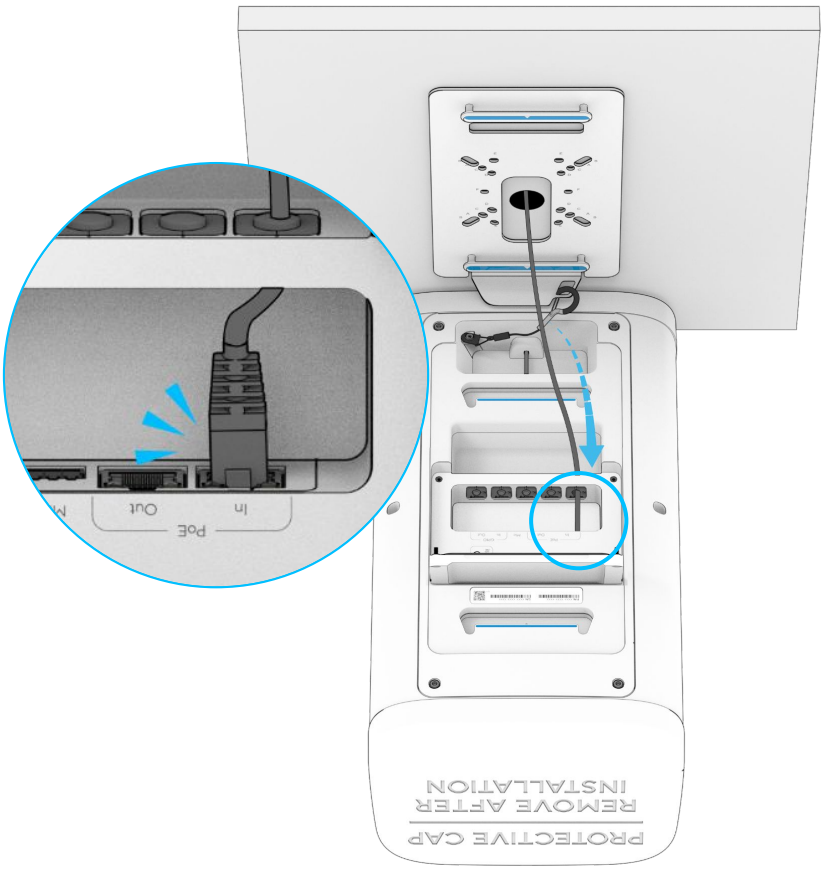
Mounting 3/5

Thread the Ethernet cable through the passthrough-hole, first port on the left, and plug it into the ‘PoE In’ port.

Use the appropriate cable grommet for your cable and attach it onto the cable.

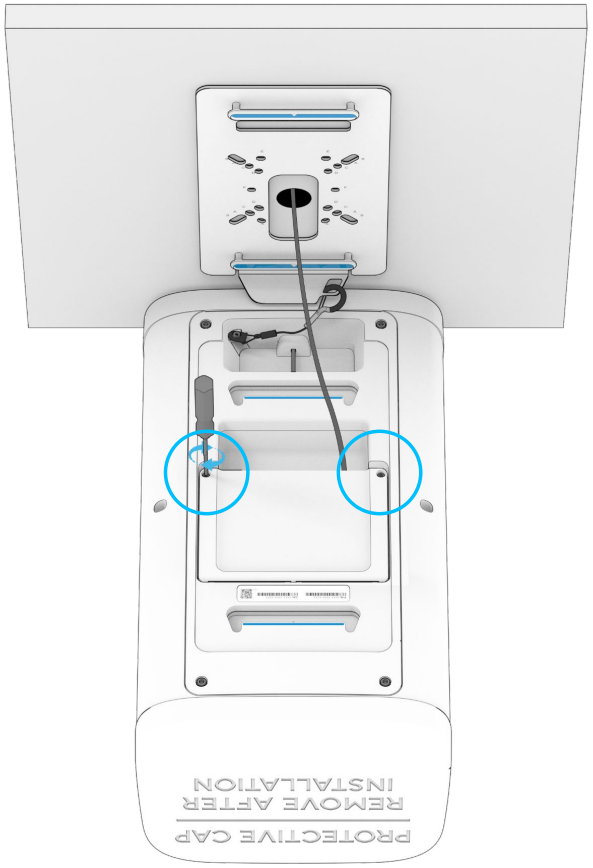
Slide the cable grommet up the cable and seal the passthrough hole.

Inspect the cable grommet to make sure that it is properly sealed, with no gaps.



Close the cable door and tighten the two captive security screws above the cable bay, using the provided T10 Torx Security Screwdriver.

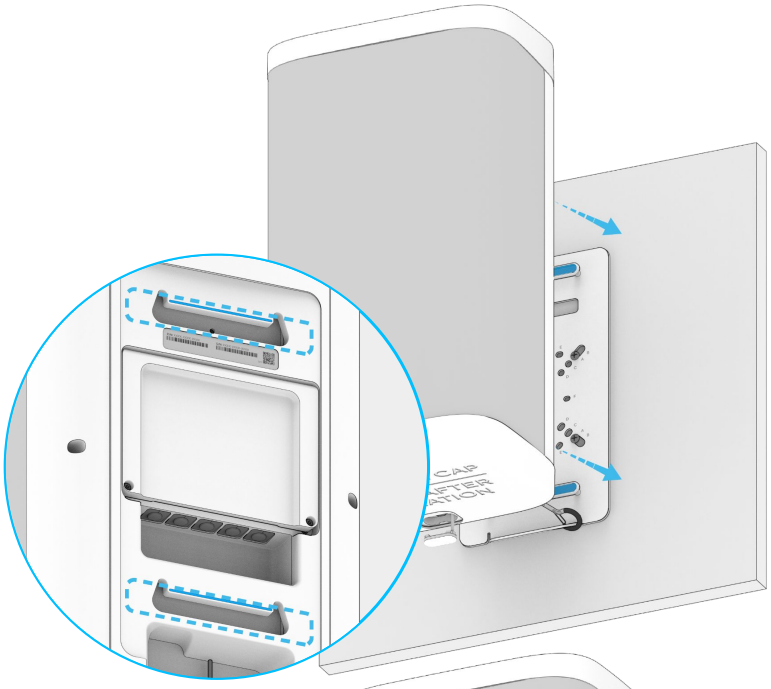
Note: Fully tighten both screws to insure a weather-proof seal.



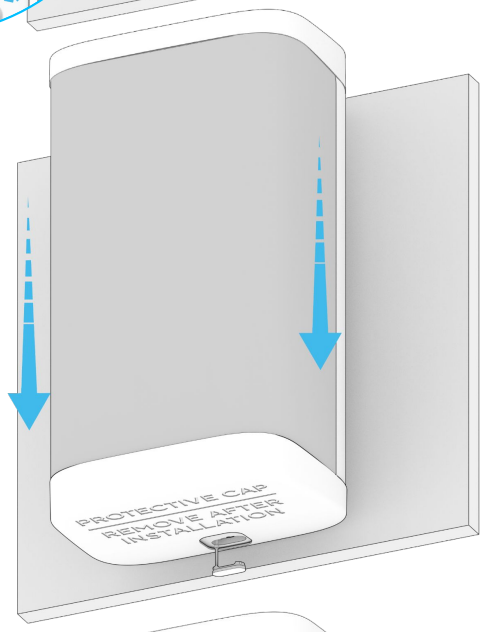
Mounting 4/5

Carefully slot the speaker onto the mount plate.

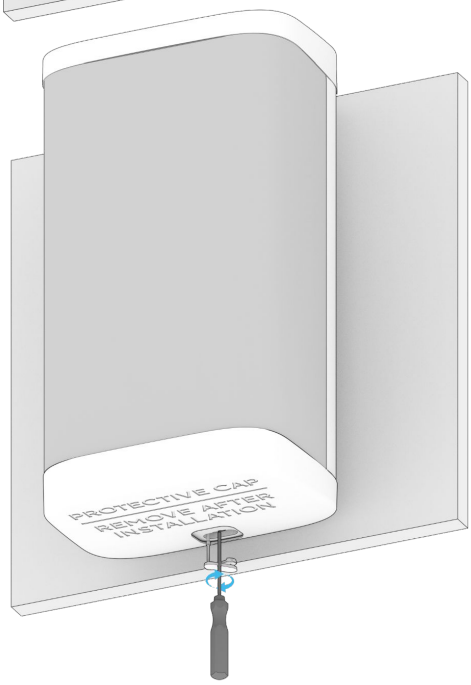
Note: Ensure the ethernet cable is not pinched and the safety tether is not blocking the mount plate from securing to the speaker.



Align the two blue tabs and slide it down until the Speaker and the Mount Plate are fully engaged.



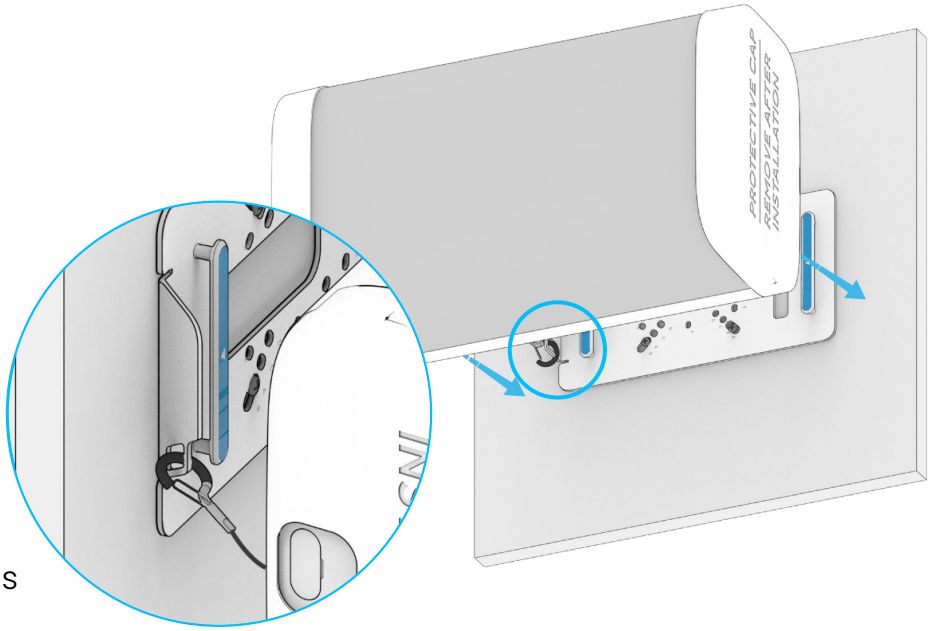
Tighten the security screw on the base of the speaker, using the provided T10 Torx Security Screwdriver.



Horizontal Mounting (Optional)

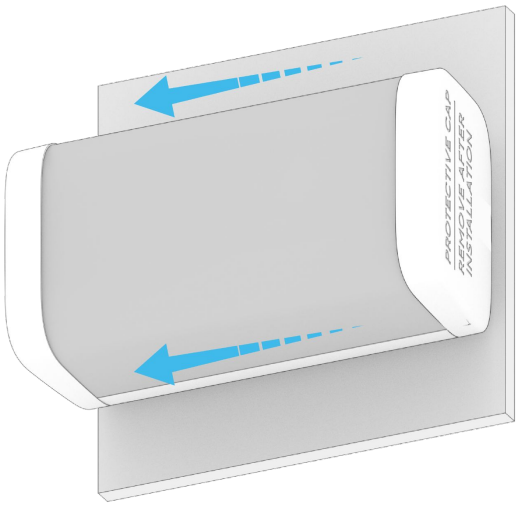
When mounting the Speaker horizontally, make sure the Safety Tether anchor point is toward the bottom.

Carefully slot the speaker onto the mount plate.

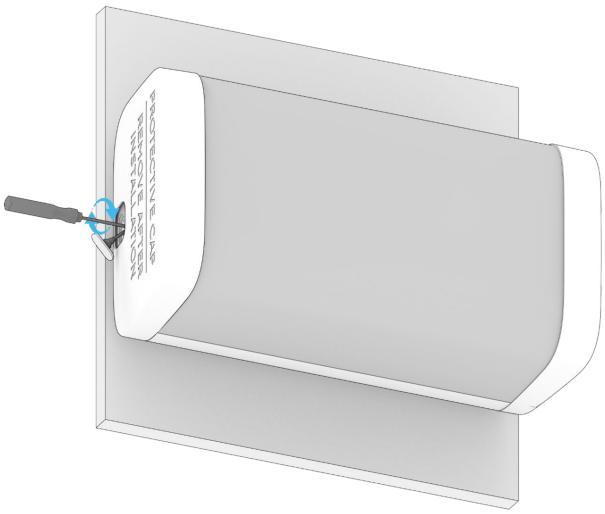


Note: Ensure the ethernet cable is not pinched and the safety tether is not blocking the mount plate from securing to the speaker.

Align the two blue tabs and slide it to the left until the Speaker and the Mount Plate are fully engaged.



Tighten the security screw on the base of the speaker, using the provided T10 Torx Security Screwdriver.



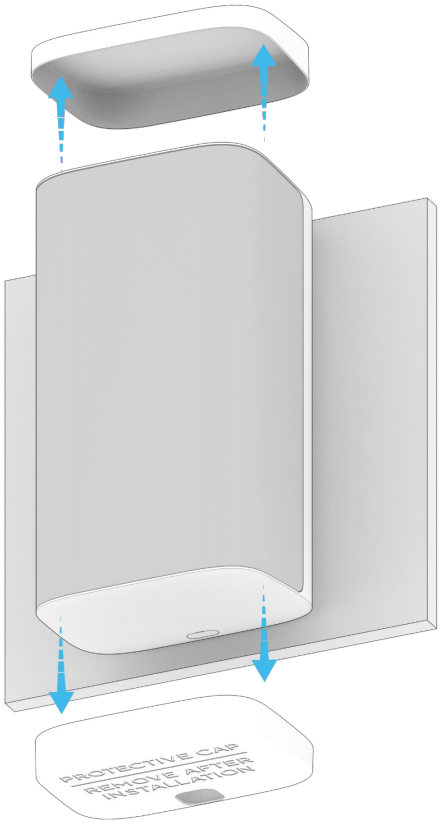
Mounting 5/5

Insert the Security Screw Cover.

Remove the protective end caps and the sticker.

Verify that the device is online and functioning by confirming that the status LED is solid blue.

If the LED is not solid blue, refer to the *LED Behavior* section of this document.



Appendix

Support

Thank you for purchasing this Verkada product. If for any reason you're experiencing issues or need assistance, please contact our 24/7 Technical Support Team immediately.

Sincerely,
The Verkada Team
verkada.com/support

Appendix

NS631 Compliance

FCC Compliance	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. NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. **Radiation Exposure Statement:** This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.
IC Statement	This device complies with ISED's licence-exempt RSSs. 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. **Radiation Exposure Statement:** This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with greater than 20cm between the radiator & your body. Le présent appareil est conforme aux CNR d' ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable. Déclaration d'exposition aux radiations: Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à plus de 20cm entre le radiateur et votre corps.
Spotify	Use your phone, tablet or computer as a remote control for Spotify. Go to spotify.com/connect to learn how The Spotify Software is subject to third party licenses found here: https://www.spotify.com/connect/third-party-licenses.