CONFIDENTIAL — PRIVATE PREPRODUCTION STATUS

SONETICS APEX CONNECT

BETA UNIT

OVERVIEW

The Sonetics Apex Connect allows users in low noise environments to connect with their teams in high noise environments without having to wear a hearing protection headset. Users simply leverage their existing corded wired headset or Bluetooth® headset to plug or pair to the Sonetics Apex Connect to communicate with their team up to 800 feet line of sight, hands-free. The Sonetics Apex Connect is rugged and rated at IP67, so it's waterproof and portable to different environments.

CONTENTS

- Sonetics Apex Connect
- Belt clip w/magnet
- USB-C Charging Cable
- AC Wall Adapter
- Either corded headset or Bluetooth ear buds or Bluetooth speaker

FEATURES

DECT7 — Hands-free communication over a secure and encrypted frequency
Bluetooth — Pairing to headsets
Mute — Blocks all outbound communication
Light Weight — 6.7 ounces and a mere 3" x 3" x 1"
Adjustable Volume Control
Rugged Design — IP-67 dust and water ingress rating - waterproof
Flexible Charging — AC adapter and DC automotive charging adapter

POWERING ON/OFF

- Apply a 1 second short Power Button ⏻ press to turn ON the device
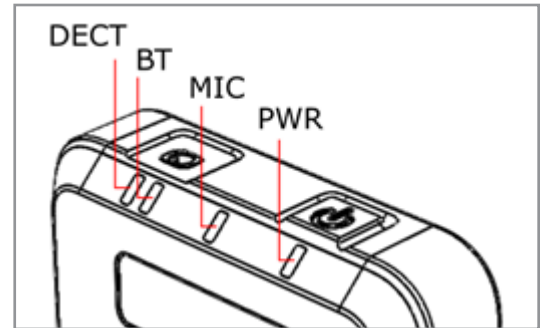- Apply a 1 second short Power Button ⏻ press to tun OFF the device

Note: Using a 3-second-long Power Button ⏻ press puts the Apex Connect in Safe Mode (aka Boot Loader mode), indicated by a fast blinking Red LED light below the power button. If this happens, let the Red LED fast blink time out (about 1 minute). Then proceed to turn Off or On the device with a 1 second Power Button ⏻ press. If device is not connected to a base station it will power down after 10 minutes.

CHARGING

1. Use the provided USB-C charging cable to connect into the Apex Connect and into the AC wall adapter.
2. The Power LED (far right) will turn red and slow blink while charging. When charge completes, light turns steady green.

LED INDICATIONS

- Green, Yellow, and Red LED (far right LED)
  - Green — 75% to full battery
  - Green — 51% to 75% battery
  - Yellow — 25% to 50% battery
  - Red — 25% or less
- Green (far left LED) — Fast Blink — trying to find DECT connection
- Green (far left LED) — Slow Blink — in DECT pairing mode
- Green (far left LED) — Solid — DECT Paired
- Red (Middle LED) — Solid — PTT transmit for radio transmit
- Red (Middle LED) — Fast Blink — Device Mute
- Blue (Second from left LED) — Slow Blinking — Bluetooth pairing mode
- Blue (Second from left LED) — Solid — Bluetooth Paired and Audio Link Active
- Blue (Second from left LED) — OFF — Bluetooth inactive
- Blue (Second from left LED) — Triple Blink - Pairing Establish, Awaiting Audio Start *(Apple Airpods only)*.

DECT PAIRING

1. Have base station in pairing mode.
2. With Apex Connect powered ON, press and hold the Power ⏻ and PTT ◻ buttons simultaneously until far left LED blinks, then let go.
3. LED will remain solid green once DECT pairing is established.

Notes:

- *DECT paring will timeout after 40 seconds.*
- *If Connect has low radio signal to its base station it will report "Radio Low".*
- *If Connect loses signal to the base station it will report "Base station Disconnected"*
- *If Connect regains signal to the base station it will report "Base station Connected*

BLUETOOTH PAIRING

1. Have the Apex Connect powered ON.
2. Press and hold the PTT ◻ and ➕ buttons simultaneously until Blue LED blinks slow.
3. Put your Bluetooth headset or ear buds into pairing mode and place within 3" of the Apex Connect (pairing can take up to 1 minute).

Notes:

- *Bluetooth pairing behavior is still under development.*
- *Bluetooth pairing will timeout after 40 seconds.*
- *When corded headset is plugged in, Bluetooth turns off.*
- *BT headsets (or other BT devices) will connect to other BT devices they have previously paired to, ensure your BT device you are using with the Apex Connect "Forgets" these other devices. The easiest way to achieve this is to reset headset.*
- *Connect only remembers the last device paired.*

VOLUME CONTROL

- ➕ (plus) and ➖ (minus) buttons on the side of the Apex Connect control the speaker/headset volume you hear.

DEVICE MUTE

This feature blocks all outbound communication from your device.

- With Apex Connect power ON and your headset plugged in or paired via Bluetooth

  - Press and hold the ▬ (minus) button.
  - System is Muted when the Red Mic LED is alternately blinking on and off quickly.
  - Press and hold the ▬ (minus) button again or press and release the "PTT" button to turn OFF the Device Mute feature.

PTT BUTTON

- Large square button on front of the Apex Connect allows for communication over two-way radios via PTT (and intercom operation in Intercom PTT and Intercom Toggle modes).
- Simply press and hold the PTT ☐ button on the Apex Connect to communicate over the two-way radio frequency connected to your ComHub.

ADVANCED MENU

Navigation:

- **Enter Advanced Menu:** Hold Plus + Minus + Power (Voice prompt announces the menu setting it's on)
- **Change Menu Item:** Press and release PTT button
- **Change Menu Setting:** Press Plus or Minus buttons to scroll through setting options
- **Exit Advanced Menu:** Power (or Plus + Minus + Power)

  - **Note:** Advanced Menu times out after 30s of inactivity

Menu Settings:

- **Bluetooth Mic Gain Settings:**

  - Min, 1, 2, 3, 4, 5, 6, 7, Max

- **Corded Mic Gain Settings:**

  - Min, 1, 2, 3, 4, 5, 6, 7, Max

- **Noise Gate Settings:**

  - Off, 1, 2, 3, 4, 5, Max

- **Radio / Intercom modes:**

  - **Radio VOX:**   **Radio PTT / Intercom VOX** *(default)*
  - Radio PTT: Radio PTT / Intercom PTT
  - Intercom VOX: Radio Off / Intercom VOX
  - Intercom PTT: Radio Off / Intercom PTT
  - Intercom Toggle: Radio Off / Intercom Toggle with button

- **Corded Sidetone:** On/**Off** (On is default)
- **Version:** [#] (firmware version)
- **Radio Level Report:** On/**Off** (Continuous report of DECT RSSI, development tool that will be altered for field)
- **DECT Mode: Wide** / Narrowband
- **DECT Registration Mode: On** / Off

PRIVATE ALPHA AND BETA DRAFT DOCUMENTATION NOTICE

This Sonetics Apex Connect Alpha Unit and document is in private preproduction status. The unit itself, and the information contained in this document are for informational sharing purposes for customer evaluation and should be considered in your capacity as a beta customer only.

REGULATORY

FCC

FCC ID APEX Connect:	V9N950140600V1
FCC Part 15:	All Models

INDUSTRY CANADA

IC UPN APEX Connect:	7895A-950140600

BLUETOOTH® SPECIFICATIONS

Class:	Class 2 Device
Frequency Bandwidth:	2400 MHz to 2485 MHz
Maximum Output Power:	4 dBm (peak)
Range:	Up to Bluetooth standard 33 feet (10 meters)
Version:	Bluetooth Version 5.0 & 4.2

DECT SPECIFICATIONS

COMMON DECT SPECIFICATIONS

Carrier Spacing:	1.724 MHz
Time Slots:	2 x 12 (up and down stream)
Channel Allocation:	Dynamic
Encryption:	DECT Standard Cipher with 35-bit initialization vector
Audio Bandwidth:	300 Hz to 3.4 kHz, Narrow Band, G.726 compression
	50 Hz to 7 kHz, Wide Band, G.722 compression

REGION 1 SPECIFIC SPECIFICATIONS

Authorized for use in:	Canada, USA
Frequency Bandwidth:	1919.808 MHz to 1930.176 MHz
Number of Carriers:	5
Total Time Slots:	60 in G.726(narrow band) / 30 in G.722(wide band)
Average Output Power:	4 mW
Maximum Output Power:	100 mW
Range (line of sight):	1600 feet maximum

IMPORTANT SAFETY INFORMATION

CAUTION!

Follow all warnings and instructions marked on the product or contained in the owner's manual.

When using this product, always follow basic safety precautions to reduce the risk of fire, electric shock and injury to persons, including the following:

⚠ The Headset water and dust egress IP rating does not apply when the battery door or Auxiliary input door is open. DO NOT expose this unit to rain or moisture with either door open.

⚠ The Headset is not certified for explosive environments. Do not use the Headset to report a gas leak in the vicinity of the leak.

⚠ There are no user serviceable parts inside the Headset. Disassembly will void the warranty and will degrade the water sealing and hearing protection.

⚠ Use only the power adapters, power cords and batteries indicated in the manual. If more than one type of power adapter is included in the product, the manual specifies which adapter should be used for each component. Be sure to use the proper adapter for each product component.

⚠ Do not place the power cord where it creates a trip hazard or where it could become chafed and create a fire or electrical hazard.

⚠ Do not subject the unit to high temperatures or leave it in direct sunlight for an extended period of time.

⚠ Retention of dangerous objects: The Headset may hold small objects in the area of the earpiece. Before use, check that the earpiece area is free of staples, pins, clips or any other small metallic objects or foreign matter.
SAVE THESE INSTRUCTIONS

GENERAL WARNING FOR SENSITIVE ELECTRONIC DEVICES

This equipment and any radio-based electronics can potentially cause electromagnetic interference with other equipment and can be interfered with other equipment. This also applies with DECT Equipment. Due to the very low transmission power associated with DECT, the chance for interference is small. However some specific precautions must be taken into account for sensitive electronic equipment, e.g. sensitive laboratory equipment, medical instruments or medical implants to avoid incidental influence of equipment operated in straight nearness to sensitive electronic equipment. You are therefore advised not to place the DECT equipment or its antenna in close proximity to sensitive equipment by maintaining a 20cm minimum distance between the sensitive equipment even in standby mode. Please also consider referencing the documentation provided by us and the manufacturer of sensitive electronic items guiding its proper usage.

GENERAL COMMUNICATION PRIVACY NOTICE

Although this equipment may contain specific protocols that enhance security and privacy of communication, privacy of communication may not be ensured when using this equipment.

IC INDUSTRY CANADA (I.C.) NOTICE (APX-CONNECT)

This section applies to radio frequency equipment bearing an I.C. Equipment ID Number (UPN).

This device if labeled with an IC UPN, complies with Industry Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions:

(1) this device may not cause interference, and

(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet 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.

Canada SAR Information:

This device contains a radio transmitter. This device has been shown to be capable of compliance for localized specific absorption rate for uncontrolled environmental / general public exposure limits specified in RSS-102, ANSI/IEEC95.1-2002 and have been tested in accordance with the measurement procedures specified in IEE 1528-2003.

Déclaration d'exposition aux radiations: Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

Any Base Station or approved Base Station antenna meant to be used in conjunction with this equipment must not be used in close proximity to the body. Keep a minimum distance of greater than 20 CM to the human body. This device and antenna must not be co-located in conjunction with any other equipment antenna or transmitter.

IC COMPLIANCE STATEMENT (APX-CONNECT)

This Class A digital apparatus complies with Canada ICES-003 requirements for unintentional radiator for Class A Digital Devices.

CET appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

FC FCC PART 15 INFORMATION (APX-CONNECT)

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.

Modifications not expressly approved by Sonetics Corporation could void the user's authority to operate the equipment.

FCC/IC RF Exposure Warning

- This product complies with FCC radiation exposure limits set forth for an uncontrolled environment.
- The Headset is designed for body-worn operation and meets FCC RF exposure guidelines when used with accessories supplied with this product. (All necessary accessories are included in the package; any additional or optional accessories are not required for compliance with the guidelines.) Use of other accessories might not comply with FCC or IC RF exposure guidelines.
- This product may not be co-located or operated in conjunction with any other antenna or transmitter.
- Any Base Station or approved Base Station antenna meant to be used in conjunction with this equipment must not be used in close proximity to the body Keep a minimum distance between human body and Base Station and base antenna of at least 20 CM (8.0 inches) at all times.
- This Headset device and antenna must not be co-located in conjunction with any other equipment, antenna or transmitter.
- This Headset has been tested and meets the FCC RF exposure guidelines.

FCC PART 15 INFORMATION (APX-CONNECT)

FCC PART 15.105(a): 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 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.

RECHARGEABLE BATTERY INFORMATION

CAUTION!

Risk of explosion if battery is replaced by an incorrect type!

Dispose of used batteries according to the instructions.

Do not open or mutilate the battery.

Disconnect the battery before shipping this product.

⚠ This equipment contains a rechargeable Lithium-Ion (Li-Ion) battery (with protection circuit). This battery is not user-serviceable.

⚠ Do not modify or attempt to open the battery cell. In case of exposure to the cell contents, wash the affected area thoroughly and seek medical attention.

⚠ Do not expose the battery to temperatures in excess of 140° F (60° C).

⚠ Do not short-circuit the battery or expose battery to moisture

⚠ Exercise care when handling a battery near conductive materials such as jewelry or buttons: conductive materials can short the battery, and the battery or conductor can overheat and cause burns.

⚠ When charging this equipment, only use the charger designed to charge the battery as specified in the owner's manual: using any other charger may damage the product or cause the battery to explode.

⚠ Before placing the Headset in the charger, make sure the battery is installed and the battery cover is securely in place.

⚠ Do not place the batteries in your regular trash. All batteries must be recycled or disposed of in an environmentally sound manner. Contact your local waste management officials for information and regulations on the proper collection, recycling, and disposal of batteries.

⚠ Use only the replacement batteries approved by Sonetics Corporation which have internal protection circuit, use of non-approved battery replacements may cause fire, injury or damage product.

⚠ Always observe correct battery polarity during use and charging.

⚠ *Do not place batteries in your regular trash.*

⚠ *All batteries must be recycled or disposed of properly.*