SOMEWEAR NODE Multi Network Device User Guide

Contents

SOMEWEAR

SOMEWEAR NODE Multi Network Device

Specifications:

- Device: Somewear Node
- Functionality: Multi-network device for data routing
- Networks: Mesh or satellite
- Features: Programmable button, SOS function, LED indicators, internal antennas, external antenna ports, USB-C charging port

Product Overview:
Somewear Node is a versatile device designed to intelligently route data via mesh or satellite networks. It enables teams to maintain agile and resilient communications in any environment.

Usage Instructions:

Powering On:
Press and hold the Power button for 3 seconds to turn on the device.

Programmable Button:
The programmable button can be configured in settings to disable/enable satellite or location tracking.

LED Patterns:
Refer to the LED patterns section in the manual for detailed information on the status of the device, location tracking, and more.

Connecting External Antennas:

1. Open the external antenna ports located next to the USB port.
2. Plug in the MCX connector of the desired antenna to the correct antenna port.
3. Mount the antenna on the roof of the vehicle oriented towards the sky for optimal signal reception.

FAQ:

- **Q: How do I activate the SOS function?**
  A: Remove the cap and hold the SOS button for 6 seconds to activate the SOS function.

PRODUCT OVERVIEW

1. **POWER**

Hold for 3 seconds to turn on PROGRAMMABLE BUTTON Programmable button to disable/enable satellite or location tracking (configurable in settings)

2. **Sos**

   Remove cap and hold for 6 seconds to activate

3. **LED LIGHT**

   See LED patterns section for details

4. **USB CHARGING AND LINE-IN**

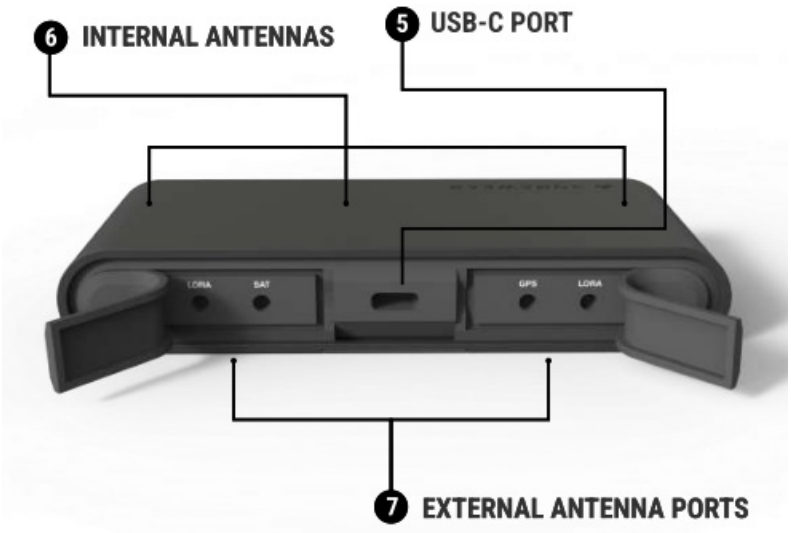
   Connect USB cable to charge and to use Node with a hardwired connection instead of Bluetooth

5. **INTERNAL ANTENNAS**

   Ensure logo is always facing up towards the sky or out if mounted on your body to optimize signal strength

6. **EXTERNAL ANTENNA PORTS**

   Attach optional external antennas depending on your mission and applications



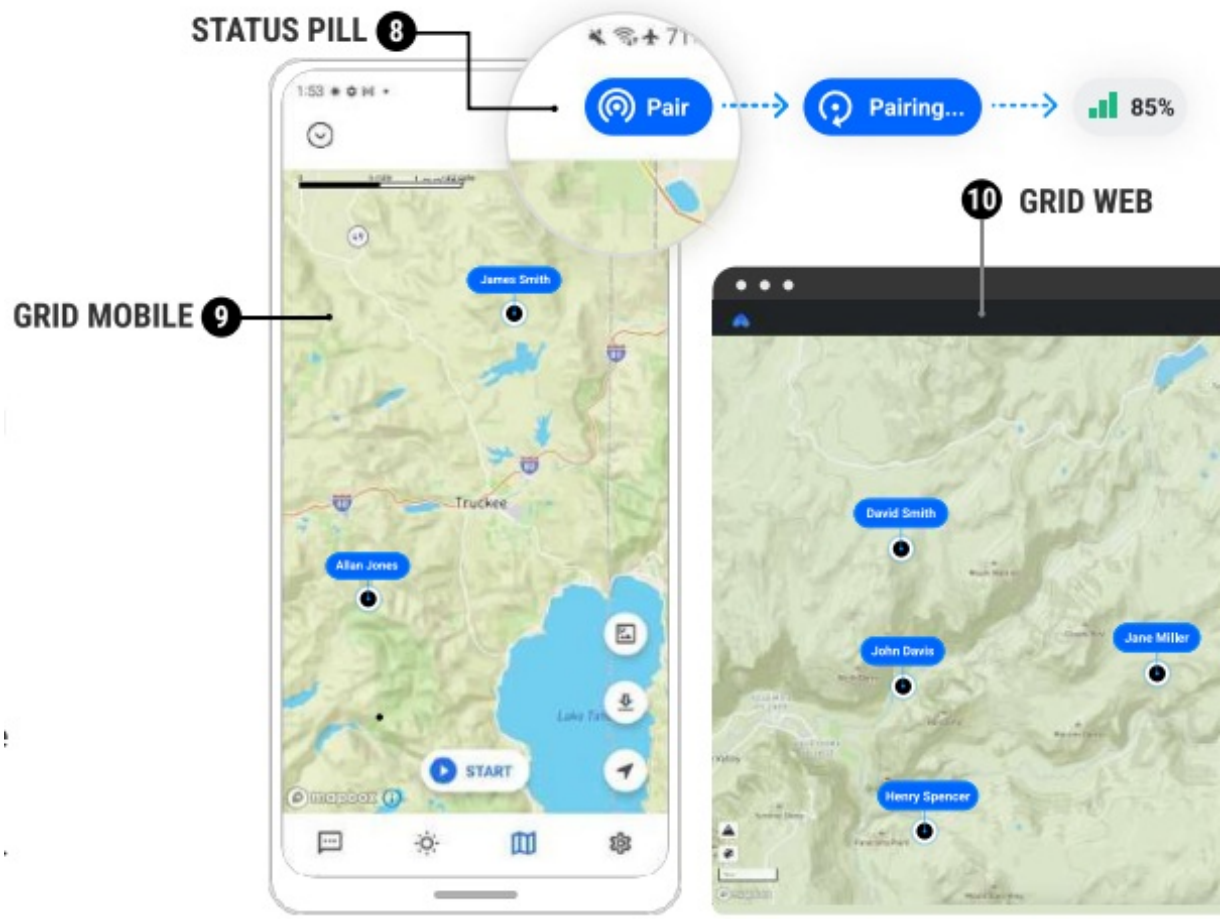
7. **STATUS PILL**

   Tap to pair, then use the status pill to access device information, ensuring comprehensive device management and maintenance.

8. **GRID MOBILE**

Maximize situational awareness in the field

- Messaging
- Tracking
- Waypoints
- sos



9. **GRID WEB**

   Remotely oversee and manage operations; enhance personnel accountability, facilitate messaging, ensure constant situational awareness, and manage devices/accounts.

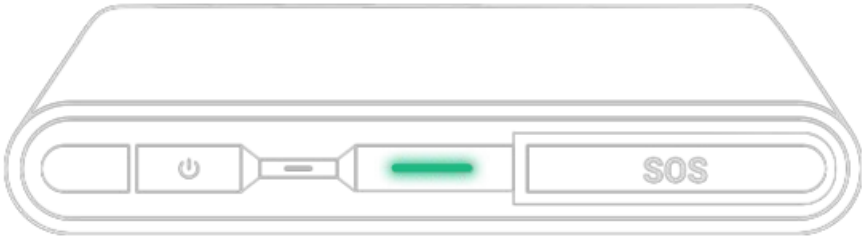
ORIENTING NODE

For optimal satellite connectivity
Ensure that Node is placed with the Some wear logo facing outward towards the sky. Avoid any obstructions in the surroundings including, tall buildings and dense foliage. A direct line of sight to the sky will improve satellite signal strength.

LED PATTERNS

The primary LED button on Node indicates the status of the device, location tracking, and more.

Pairing mode	White	Fast blink
On (unpaired)	Green	Slow blink
On (paired)	Blue	Slow blink
Tracking on (unpaired)	Green	Fast blink
Tracking on (paired)	Blue	Fast blink
Low battery	Red	Slow blink
Function activated via programmable button	Green	Rapid blink for 2s
Function deactivated via programmable button	Red	Rapid blink for 2s
Device firmware upgrade	Yellow Purple	Fast blink (downloading firmware) Slow blink (install)



SOS
The SOS button has its own set of white LED lights

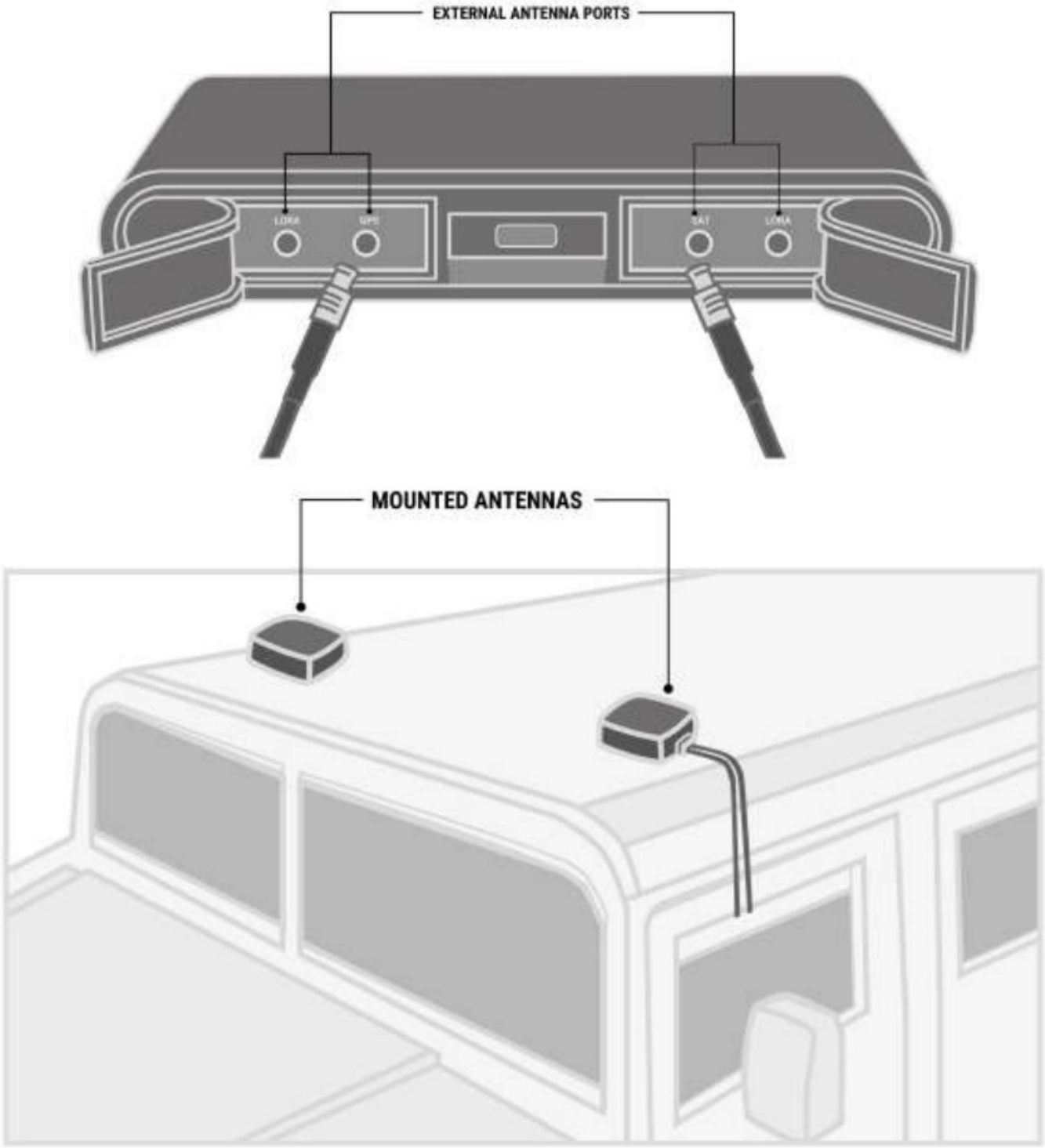
Sending	White
Delivered	White
Cancelling SOS	White

VIBRATION FEEDBACK

On start	Single pulse
On shutdown	Double pulse
Pairing mode	Short pulse every 2s until paired
Function activated via programmable button	Single pulse
Function deactivated via programmable button	Double pulse
SOS activated	3 short pulses, 3 long pulses, 3 short pulses
SOS cancelled	Single pulse
Firmware update starts	Triple pulse

CONNECTING EXTERNAL ANTENNAS

1. Open the external antenna ports located next to the USB port
2. Plug in the MCX connector of the desired antenna to the correct antenna port
3. Mount the antenna on the roof of the vehicle oriented towards the sky



Note: Satellite external antenna should not exceed 2.2 dBi gain. Lora external antennas should not exceed 1.5 dBi gain.

QUICK START GUIDE

1. DOWNLOAD THE SOMEWEAR MOBILE APP

Google Play

https://play.google.com/store/apps/details?id=com.somewearlabs.sw&hl=en_US

App Store

https://apps.apple.com/us/app/somewear/id1421676449

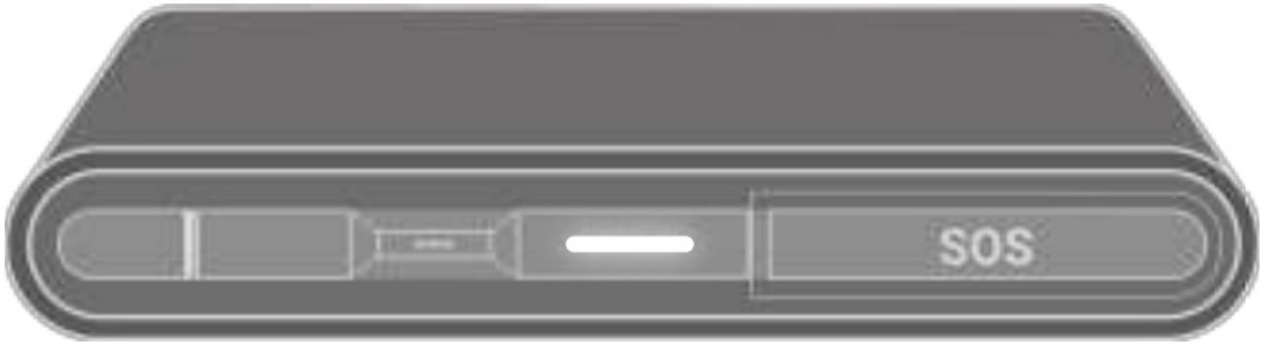
2. CREATE YOUR SOMEWEAR ACCOUNT

   On the mobile app, select “Get Started” and follow the on-screen prompts. If you don’t have an account already, your account will be created upon sign in

   NOTE: When Somewear asks if you own a hardware device select NO.

3. CONFIRM YOUR WORKSPACE

   Once in the app, verify that you are part of the correct Workspace by going to “Settings” and checking your Active Workspace. Then, navigate to messages and try sending a message to your Workspace chat to confirm messages are being received. If you aren’t part of an active workspace, please contact your administrator or see JOINING A WORKSPACE.



4. PAIRING YOUR DEVICE

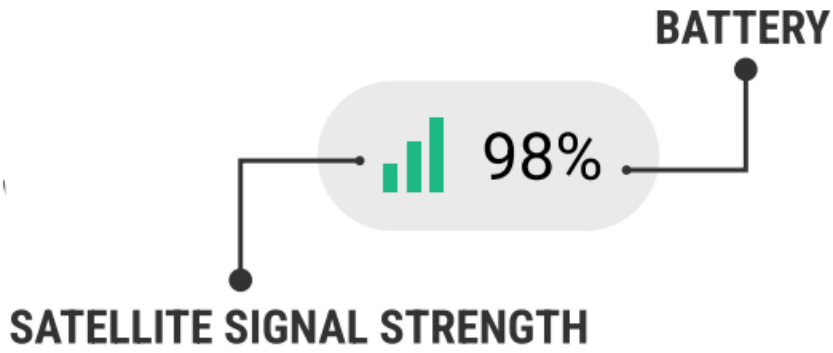
   STEP ONE

   Put Node into pairing mode. To do so, ensure Node is OFF. Then, press Node’s power button until the LED begins to flash white.

   STEP TWO

   Tap the 

in the app. Once paired you should see Node details appear in the header, indicating you are connected. You will also see a battery and signal strength indicator.



5. CONDUCT A COMMS CHECK

   Before you begin your operations, confirm that you are setup correctly.

   - Switch your phone to airplane mode and ensure you aren't connected to a WiFi network
   - To test mesh: send a message to the Workspace (ensure there is a Node user in range)
   - To test satellite: shut off all Nodes in range and send a message to the Workspace

JOINING A WORKSPACE

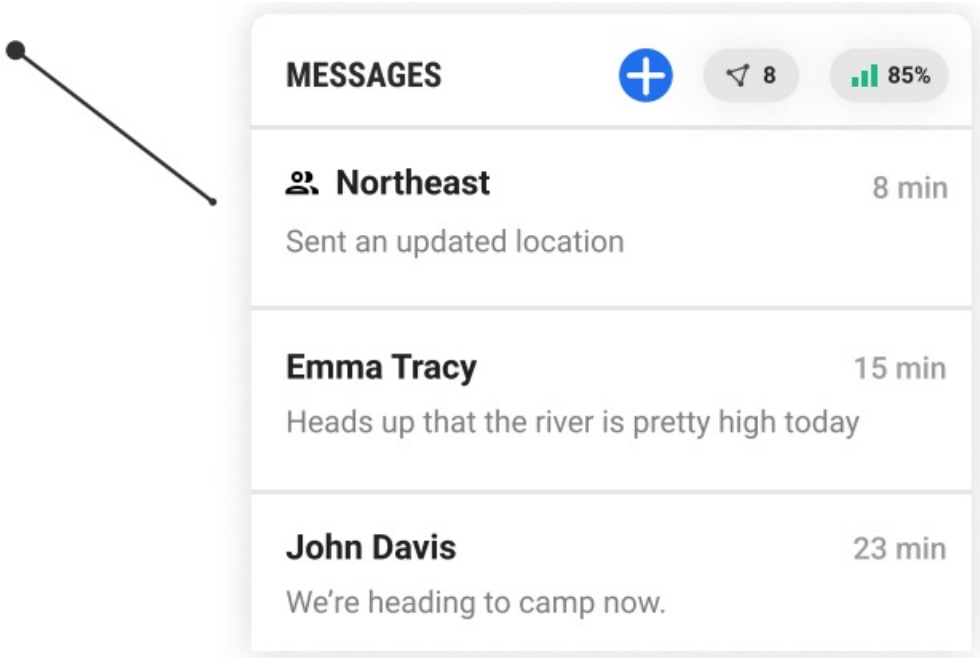
1. Tap "Settings"
2. Select "Active Workspace"
3. Tap ⊕ Join a new workspace
4. You will be prompted to either scan or paste a QR code from an existing workspace (generated from the web app)

MESSAGES

Communicate with team members to maintain situational awareness, and leverage Node to send messages over Mesh or Satellite in the absence of traditional networks.

SENDING A MESSAGE

1. From the bottom navigation, tap the Messages icon
2. Select your Workspace chat from the list (it'll always be the first one on the list)
3. Any message sent in this Workspace chat will be received by everyone in the Workspace.

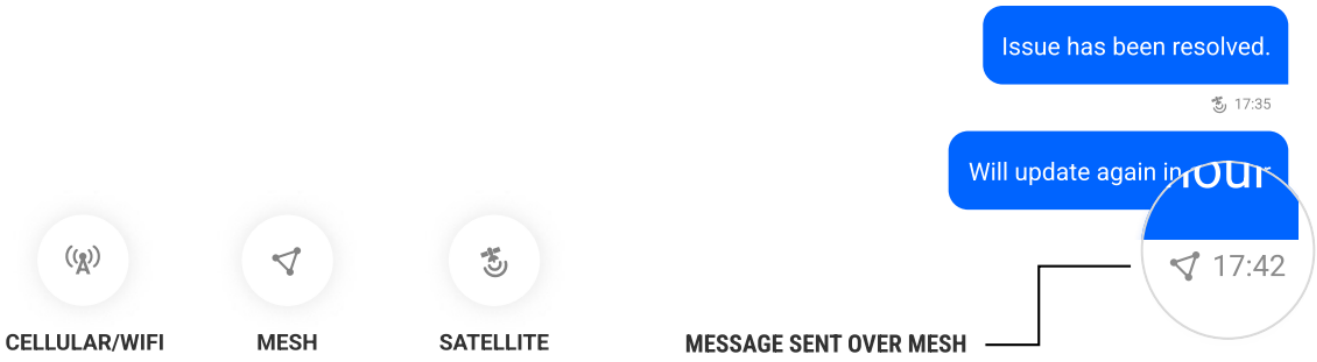


UNIFIED MESSAGING EXPERIENCE
All messages, whether leveraging a cell/wifl, mesh or satellite network, will appear in the same Workspace, for unified and streamlined communications.

***NOTE**
Smart Routing will automatically detect which networks (cell/wifi, mesh, satellite) are available and intelligently transmit your message via the most efficient channel.

NETWORK STATUS

The icon under your message indicates which network your message was sent through.



ADVANCED NODE SETTINGS
Navigate to HARDWARE in "Settings" to manage your device preferences

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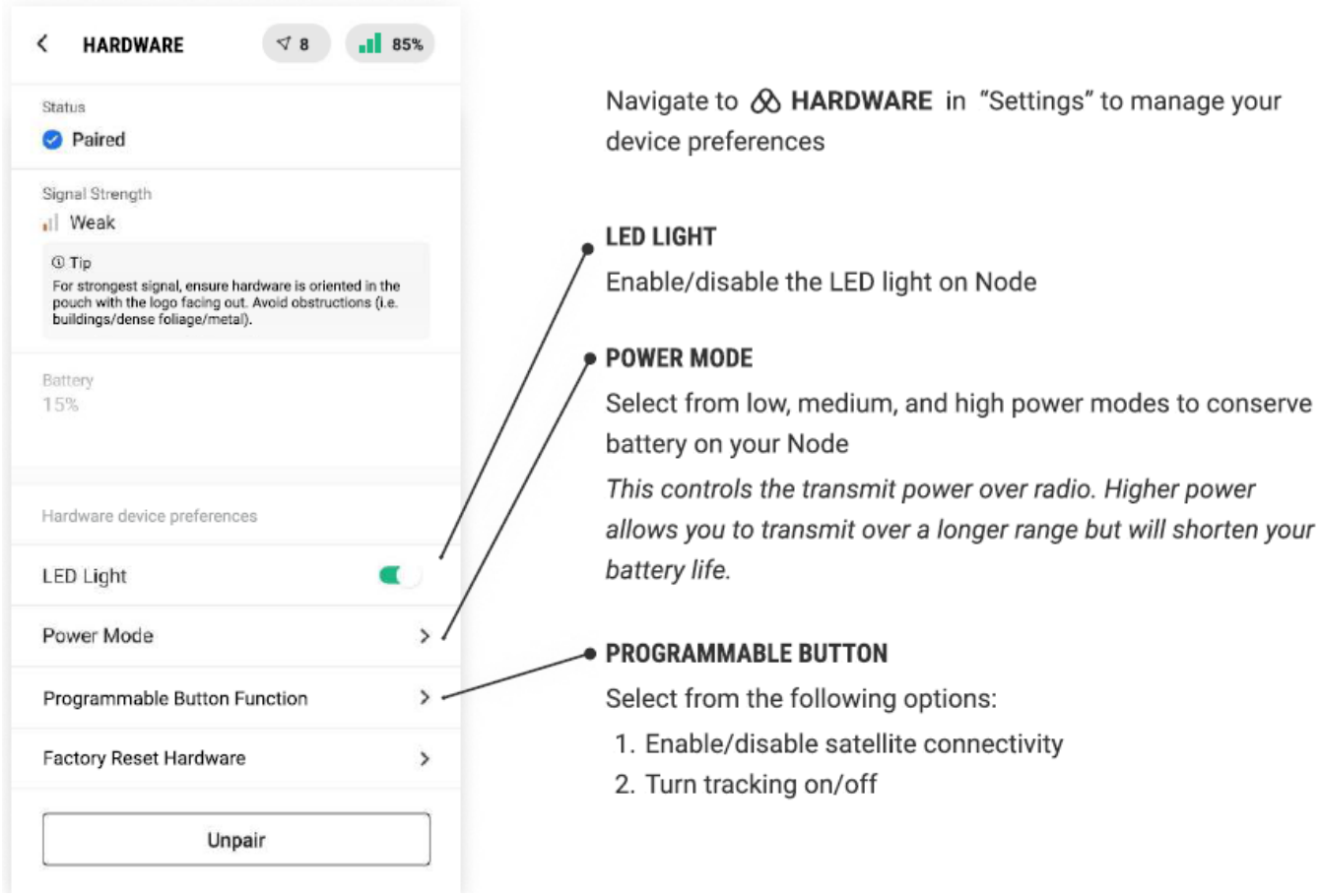
Navigate to HARDWARE in “Settings” to manage your device preferences



LED **LIGHT**
Enable/disable the LED light on Node

POWER MODE
Select from low, medium, and high power modes to conserve battery on your Node This controls the transmit power over radio. Higher power allows you to transmit over a longer range but will shorten your battery life.

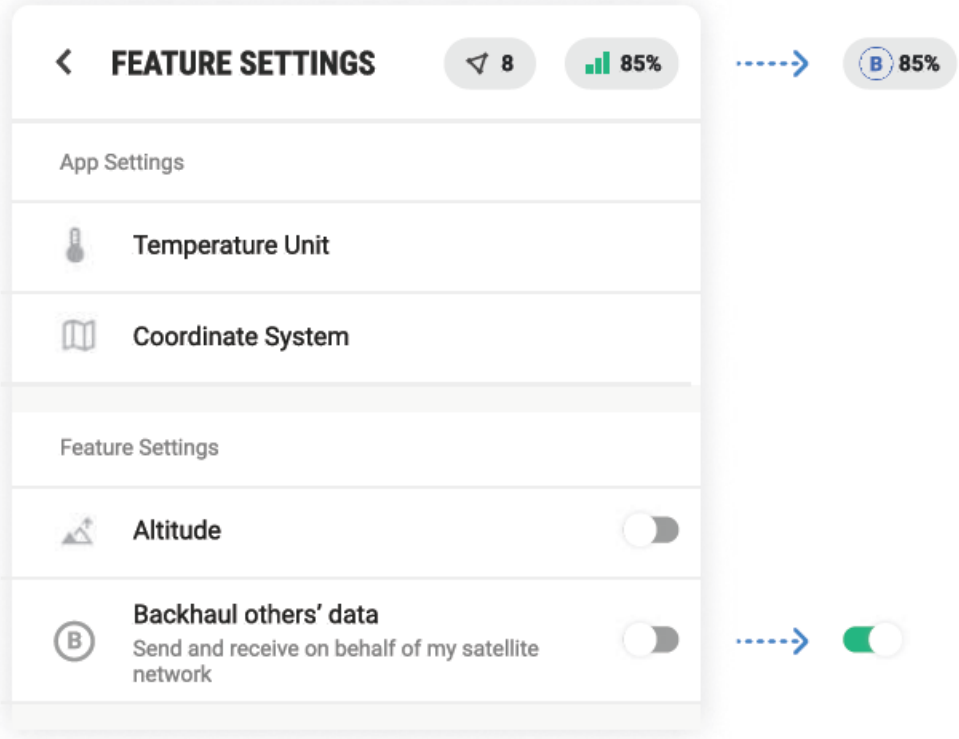
PROGRAMMABLE BUTTON
Select from the following options:

1. Enable/disable satellite connectivity
2. Turn tracking on/off

APP & FEATURE SETTINGS

Navigate to App & Feature Settings in “Settings” for advanced settings

ALTITUDE
Enable/disable altitude reporting with every PLI point



SMARTBACKHAULTM
SmartBackhaulTM intelligently routes data from the mesh network to the Node(s) that have the best satellite or cellular connectivity to serve as the most optimal wireless backhaul(s). Each team member carrying a Node can serve as a reliable backhaul.

ACTIVATING THE BACKHAUL

1. Navigate to “Settings”
2. Tap on “Feature Settings”
3. Toggle “Backhaul others’ data”
4. Confirm Backhaul is enabled for your device by making sure there is a B in the status pill next to the battery percentage

For optimal backhaul performance, we recommend no more than 3 Nodes per backhaul to avoid satellite congestion.

HOW TO USE BACKHAUL

1. When sending a message, long-press the send button and then tap “backhaul”
2. Long-press a message that’s already been sent and tap “backhaul”

TRACKING

Tracking empowers team members to automatically broadcast their position in real-time to everyone in the Workspace. Node can be used as a standalone blue force tracker, or paired to the app to provide operators with greater situational awareness.

NODES IN NETWORK
View the number of active Nodes in your network. Tap to see all active + inactive devices

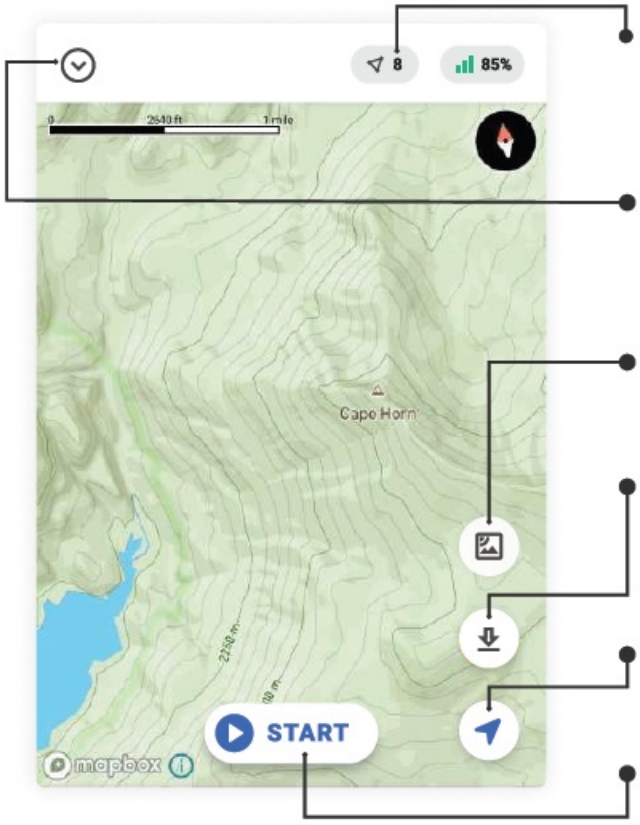
MAP TOOLS & FILTERS
Adjust your tracking interval, access offline maps, and apply filters to view active/inactive users or specific assets.

MAP STYLE
Toggle between topographic and satellite map view

DOWNLOAD MAPS
Download a section of the map to access offline. *Maps must be downloaded with cell/wifi connectivity

GO TO CURRENT LOCATION
Go to your current location on the map

TRACKING
Start and stop a tracking session.

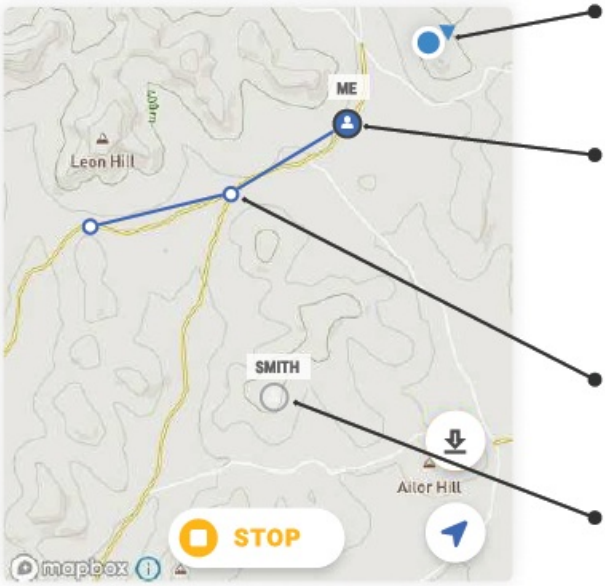


CURRENT LOCATION
This icon shows your current location on the map.

LAST SHARED LOCATION
This dot shows your last known location that was sent to your team. When followers receive a location update, they will see this as your location.

PREVIOUS LOCATIONS
This dot shows past locations in your tracking session.

OTHER SOMEWEAR USERS
This icon indicates other users in your Workspace.

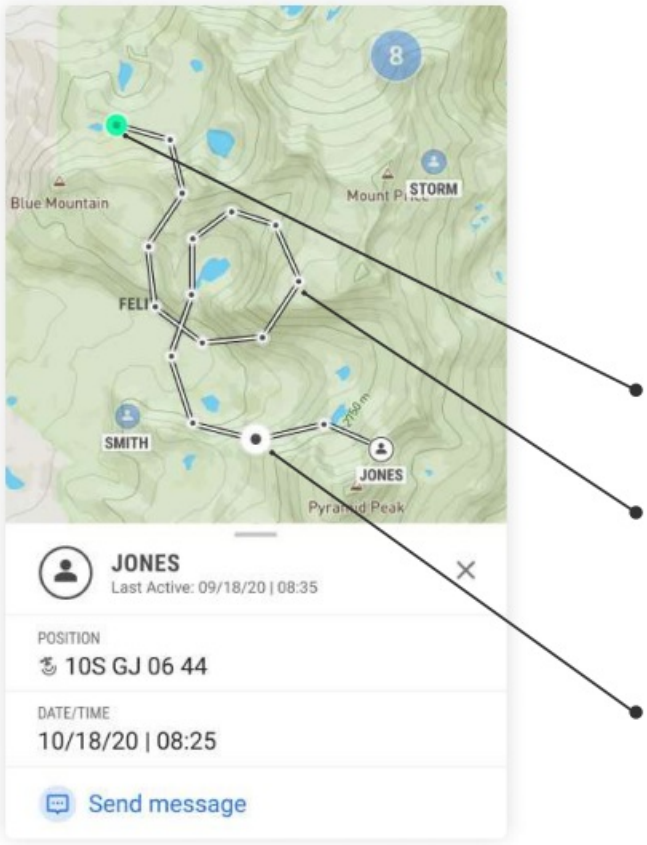


TRACK DETAILS
Tap “Expand” to view a full historical track and then select a users previous location point to view details such as coordinates, date/time stamps, and biometrics (if enabled).

FIRST RECORDED TRACKING POINT
This icon indicates the beginning of a track

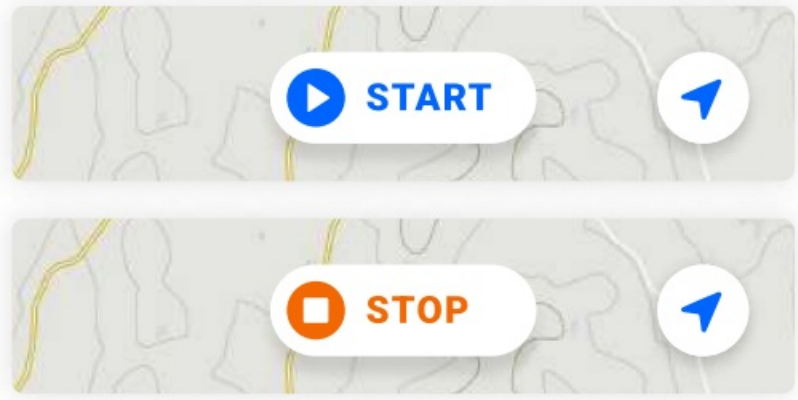
PREVIOUS LOCATION POINT
Previous location points can be viewed in the expanded trackview. These points can be tapped to view details such as coordinates and date/time stamps.

SELECTED LOCATION POINT
When a point from a track is selected, point details are displayed at the bottom of the screen.



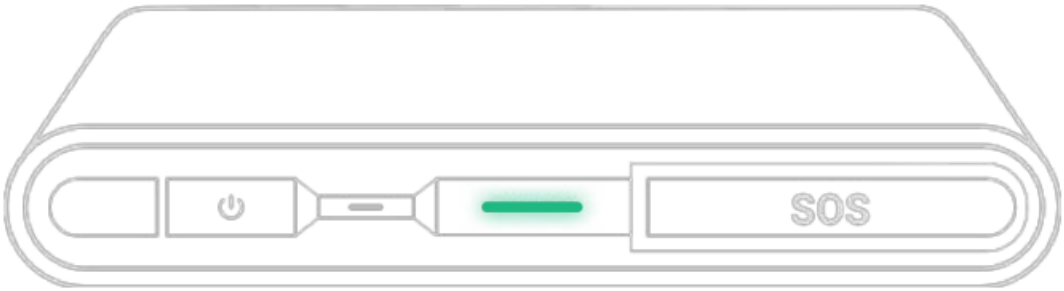
TURNING TRACKING ON/OFF

1. Ensure Node is paired (look for the status pill)
2. Navigate to the Map screen
3. Tap “Start” on the map to begin tracking
4. To stop tracking, tap “Stop”



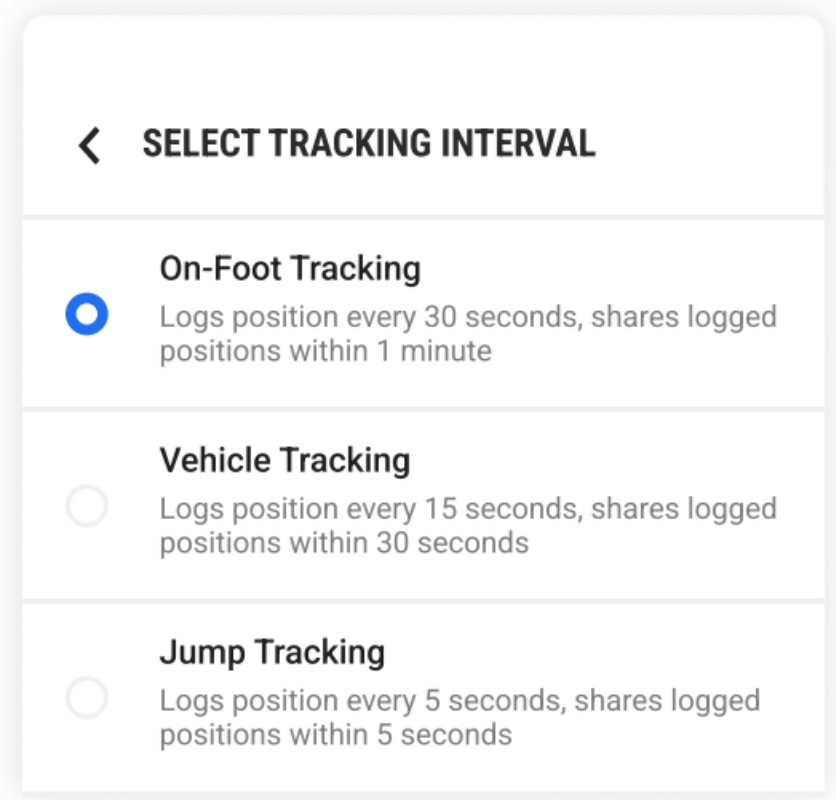
ACTIVATE TRACKING FROM NODE

1. Verify that Node is turned on
2. To turn tracking on, press the power button 3 times consecutively — the green LED light will flash rapidly.
3. To turn tracking off, press the power button 3 times consecutively — the red LED light will flash rapidly to indicate tracking has ended.



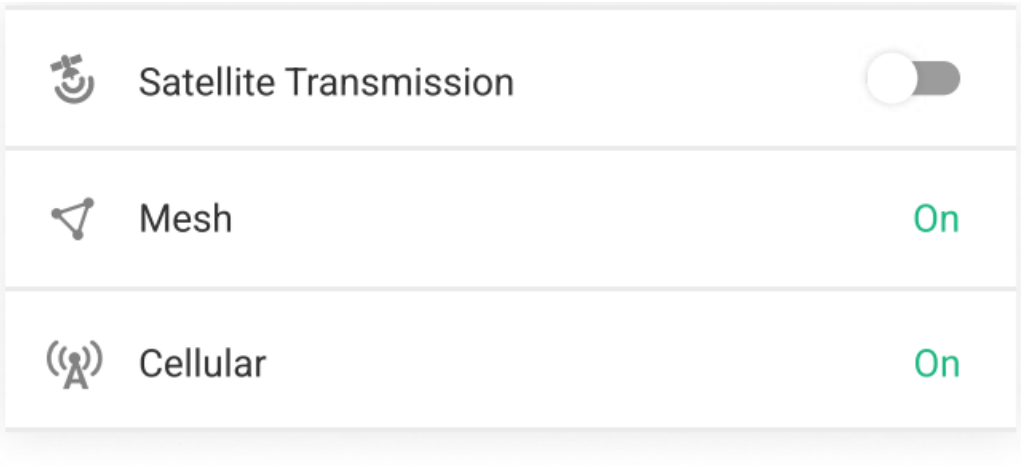
UPDATING THE TRACKING INTERVAL

1. Ensure Node is paired
2. Navigate to the Map screen
3. Tap on  in nav
4. Select “Tools”
5. Select “Tracking Interval”



NETWORK SETTINGS

1. Ensure Node is paired
2. Tap “Settings”
3. Select “App & Feature Settings”
4. See what networks are available to you as well as the option to toggle Satellite on/off

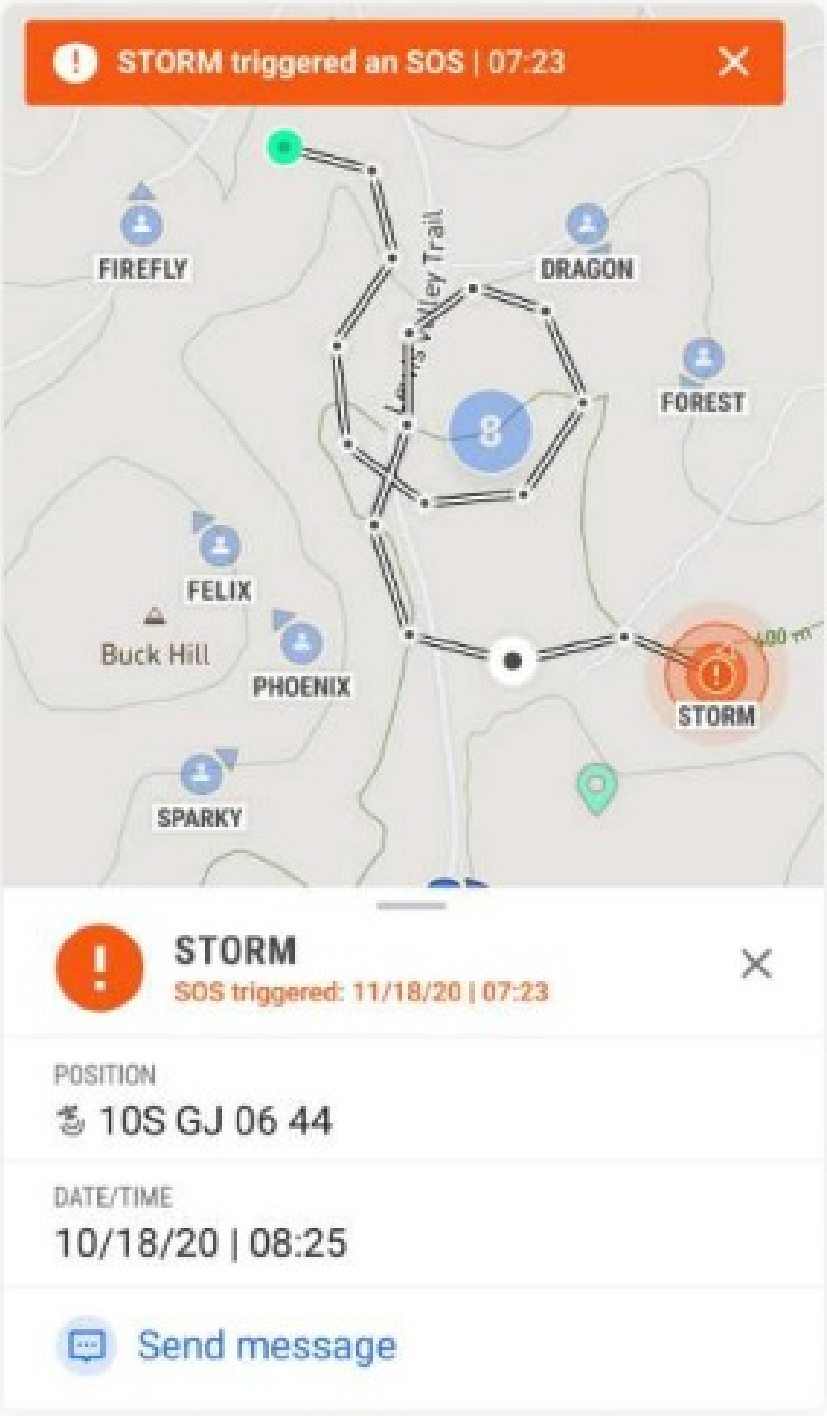


SOS

SOS's are triggered from Node. Upon triggering an SOS, your entire Workspace will be alerted in app and via email. Triggering an SOS will not alert EMS.

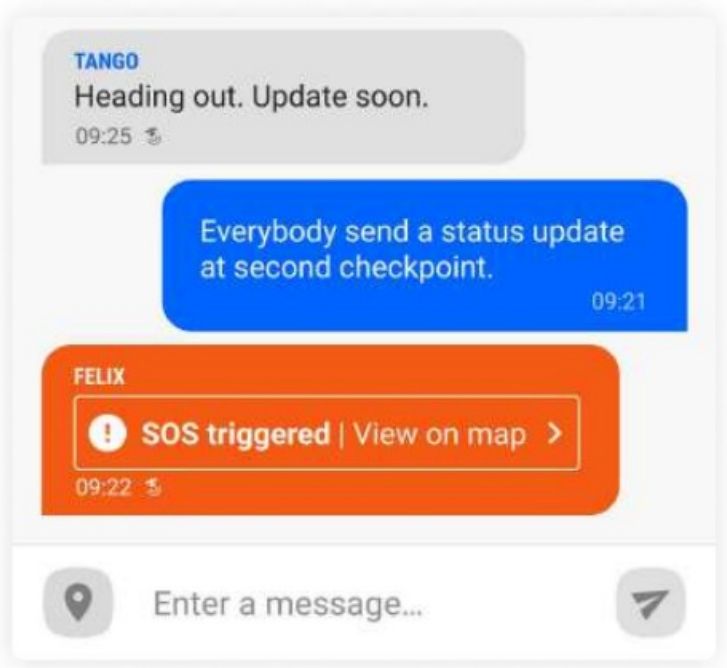
TRIGGERING AN SOS

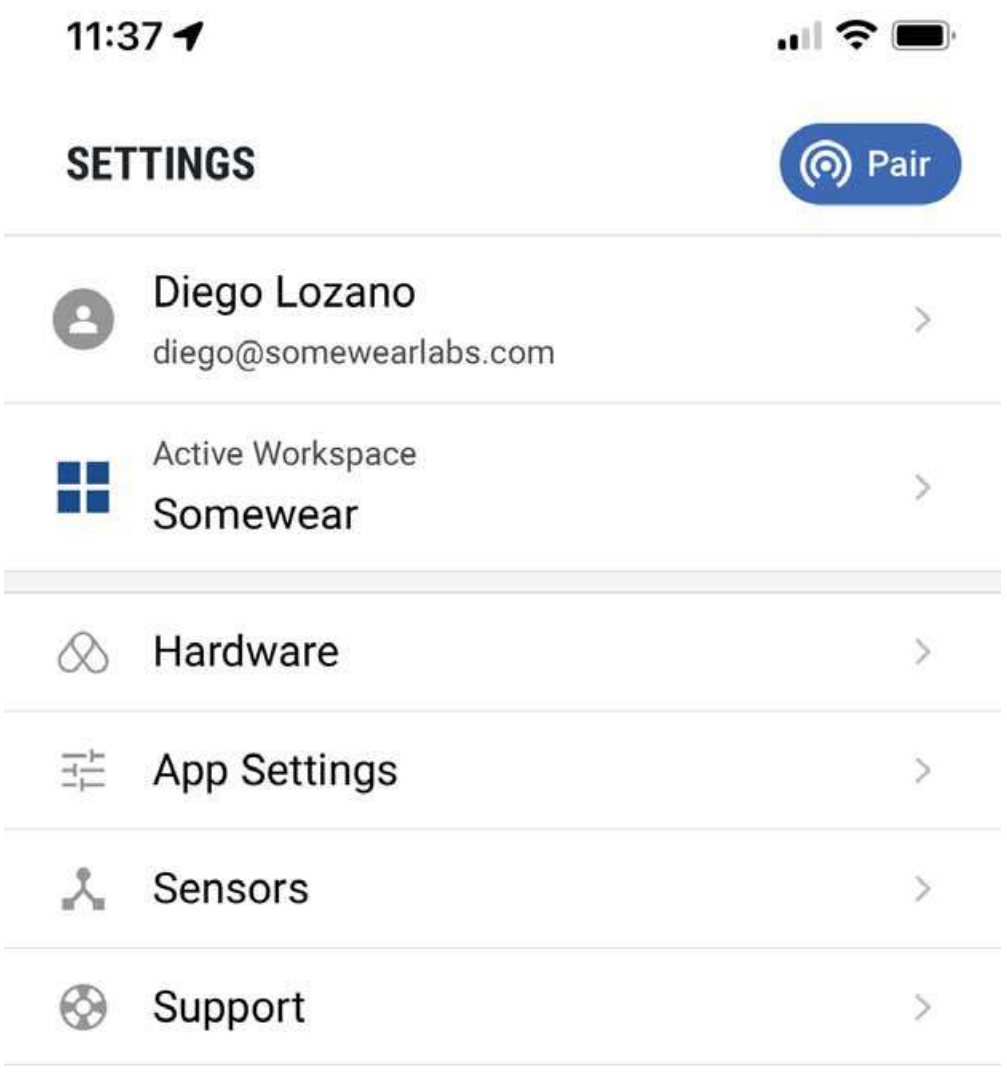
1. Open the SOS cap on Node to reveal the SOS
2. Press and hold the SOS button for 6 seconds until the "Sending SOS" LED blinks
3. Your SOS has been successfully delivered when the "SOS delivered" LED is on.
4. NOTE: To ABORT the SOS, press and hold the SOS button until both LEDs blink. The SOS has been aborted when the blinking stops.

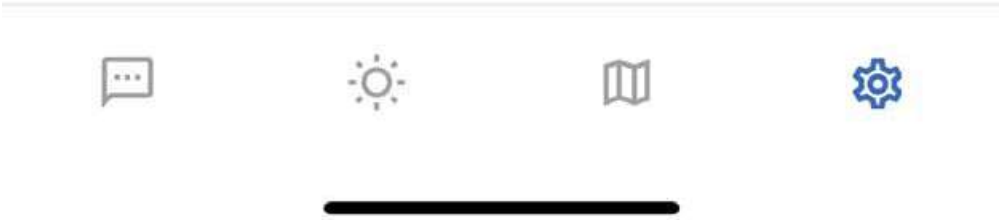


WORKSPACE SOS ALERT

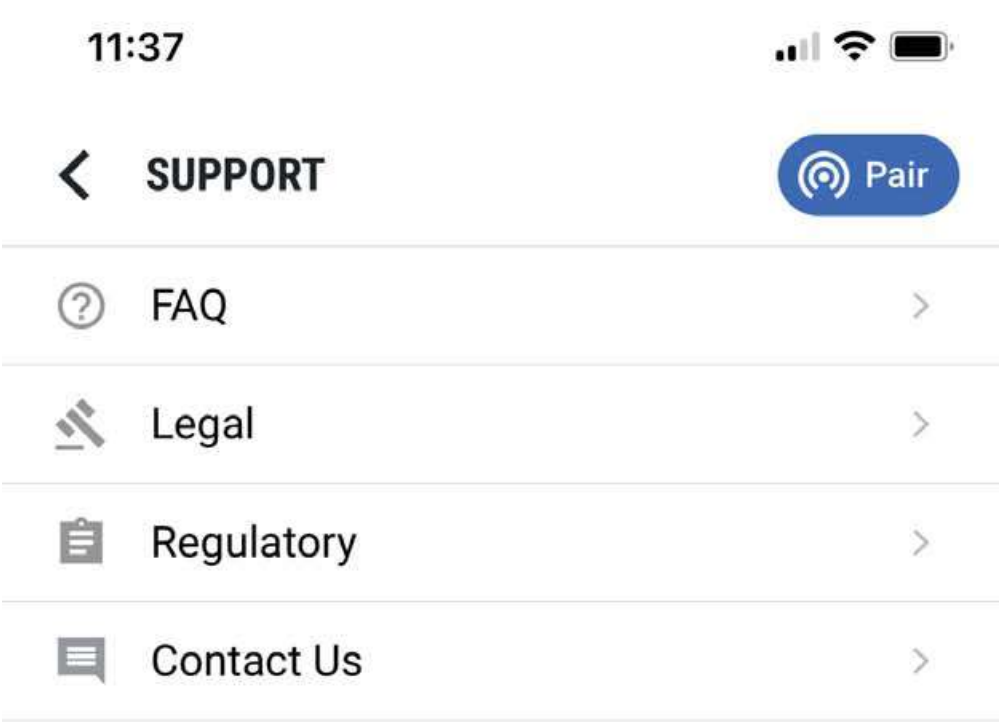
When an SOS has been triggered, your entire Somewear workspace will be alerted with the callsign, location of the SOS trigger, and timestamp. When tapped, the SOS banner will take a user directly to the SOS on the map. If the banner is closed, the SOS will still remain active until the SOS has been resolved or aborted.

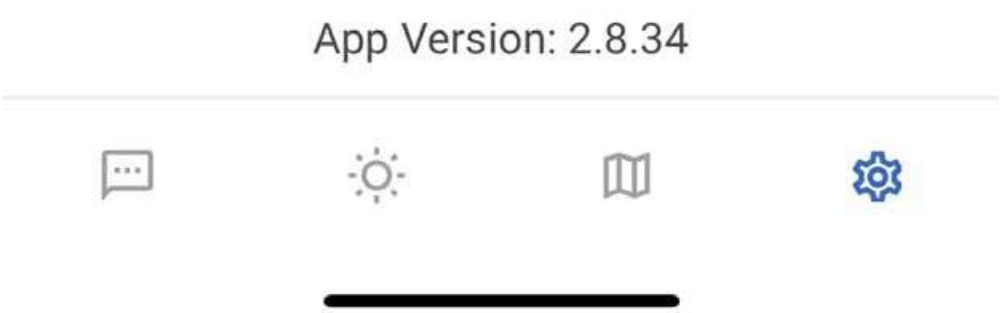

TANGO
Heading out. Update soon.
09:25
Everybody send a status update at second checkpoint.
09:21
FELIX
SOS triggered | View on map
09:22
Enter a message...


11:37
SETTINGS
Pair
Diego Lozano
diego@somewearlabs.com
Active Workspace
Somewear
Hardware
App Settings
Sensors
Support



Diego Lozano
diego@somewearlabs.com





REGULATORY

- Somewear Labs Regulatory

Information

- SWL-I Hotspot:
- Contains FCC ID: 2AQYN9603N
- Contains FCC ID: SQGBL652
- Contains IC: 24246-9603N
- HVIN: 9603N
- Conatins IC: 3147A-BL652
- HVIN: BL652-SC
- SWL-2 Node:
  FCC ID: 2AQYN-SWL2
- IC: 24246-SWL2 HVIN: SWL-2

FCC STATEMENT

This device complies with part 1 5 of the FCC Rules and Industry Canada License-exempt RS Sstandard(s). 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.

Any changes/modifications to this equipment not approved by Somewear Labs could void the user's authority to operate the equipment.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Documents / Resources

	SOMEWEAR NODE Multi Network Device [pdf] User Guide 2AQYN-SWL2, 2AQYNSWL2, SWL2, NODE Multi Network Device, NODE, Multi Network Device, Network Device, Device

References

- Somewear Labs
- User Manual

Manuals+, Privacy Policy

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