

USER INSTRUCTIONS

Smart Hard Hat Adapter



CONTENTS

INTRODUCTION	3
IMPORTANT INFORMATION	3
TERMINOLOGY	3
INTERFACE	4
PROXIMITY BEACON	5
SMART HARD HAT ADAPTER	5
SPARE USB CHARGING CABLE	5
DOWNLOAD THE “SAFETY COMMUNICATOR” APP	6
ASSEMBLE THE ADAPTER	7
ATTACH THE ADAPTER TO HARD HAT	7
ATTACH THE BEACON TO FORKLIFT	7
REMOVE THE SMART MAIN MODULE FROM THE ADAPTER	8
SWITCH ON THE SMART MAIN MODULE	8
CONNECT TO THE APP	8
SWITCH ON THE PROXIMITY BEACON	8
SOS - PANIC ALARM	9
TRIP / FALL / FAINT / PROXIMITY ALARM FUNCTION	9
CHARGING – SMART MAIN MODULE	9
CHARGING – PROXIMITY BEACON	9
FIRMWARE UPGRADE - PROXIMITY BEACON	10
SMART MAIN MODULE STATUS INDICATION	11
PROXIMITY BEACON STATUS INDICATION	12
PRODUCT SKUs	12
FCC INTERFERENCE STATEMENT	13
PATENTS	13
PRODUCT ENVIRONMENTAL INFORMATION	13

INTRODUCTION

The HONEYWELL NORTH SMART HARD HAT ADAPTER comes with a proximity alarm to prevent collisions with moving industrial equipment, a fall alarm, a panic button in case a worker has an emergency, a faint alarm in case a worker is down, a tamper alarm to verify whether workers are using the adapter correctly and an emergency broadcast alert in case of a dangerous situation where workers need to take shelter or evacuate.

IMPORTANT INFORMATION

Smart Main Module	
Battery Information	735 mAh, 4.40 V
Working Temperature	-10~55 °C
Working Humidity	15~95% RH
Charging Temperature	10~45 °C
Usage Environment	Industrial or Civil Outdoor
Alarm Type	Sound & LED light
Alarm Volume	85 dB @ 30 cm
Device Self Check	Yes, when powered on
System Language	English
IP Rate	IP55

Proximity Beacon	
Battery Information	735 mAh, 4.40 V
Working Temperature	-10~55 °C
Working Humidity	15~95% RH
Charging Temperature	10~45 °C
Usage Environment	Industrial or Civil Outdoor
Device Indication	LED light
Device Self Check	Yes, when powered on
System Language	English
IP Rate	IP55

TERMINOLOGY

Warnings, cautions and notes used in this manual have the following significance:

NOTE

Procedures and techniques that are considered important enough to emphasize.

CAUTION

Procedures and techniques which, if not carefully followed, will result in damage to the equipment.

⚠ WARNINGS

Thank you for purchasing and using Honeywell products. Please read the instructions carefully before using.

If you use, store or maintain the product in any way other than defined in this manual, we and our agent refuse to assume all responsibilities.

You shall prevent the product from all the dangerous damage related to the working environment, including but not being limited to high temperature, electrical shock, mechanical impact, acid and alkaline solution, more than 1m drop, etc.

Industrial operation environment is dangerous and complex, which may cause serious accidents and injuries. We remind you that you will be responsible for any accident or injury or death that occurs to you or a third party during or after the use of our products.

Our products are for use only by competent persons who have received formal training or operate under the supervision and guidance of a competent and experienced person.

Make sure you are fully trained in using this personal protection product and that you fully understand how it works. If in doubt, do not take risks. Seek guidance from others.

Before using the device, check whether the device is suitable for the site environment and ensure that the device can play its proper role. (cont.)

▲ WARNINGS (continued)

Please carefully check the configuration and connection of your smartphone when connecting it to work to ensure that the Bluetooth and GPS positioning functions of your smartphone device are enabled and the data network connection is unblocked. We and our agent refuse to assume all responsibilities for any consequences caused by the abnormal connection and work of your smartphone.

If any component works improperly or if any component is lost or damaged, stop using the equipment.

Before each use of the device, please check the working status of the device and the connection between the device and the mobile phone. If there is any problem, please contact authorized service for repair.

In order to avoid false alarms caused by jumping, fast movement and other actions, the critical value of the equipment's fall alarm is set to be triggered by a free fall of 1.2 meters or more, and the free fall below 1.2 meters will not trigger the fall accident alarm.

Because this equipment has the function of fainting alarm, proximity alarm etc., to avoid false alarm, please turn it off when you are off work or taking a nap with the device on.

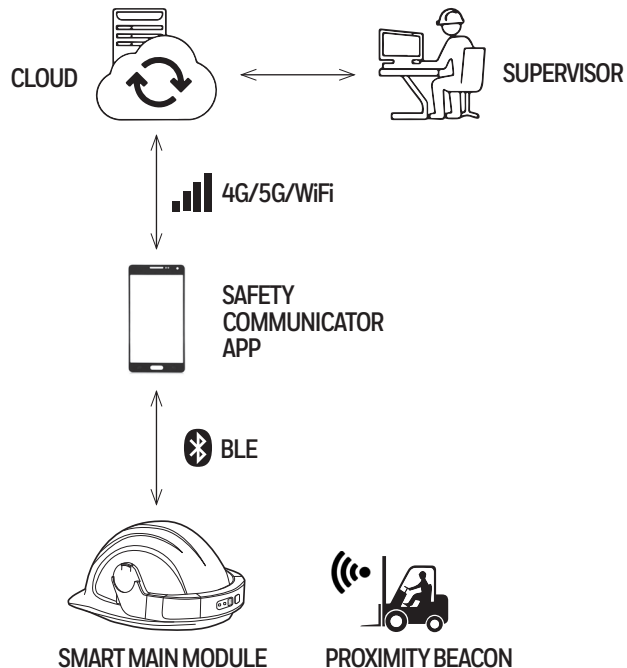
The proximity alarm function of the product is only used to remind the user of the forklift approaching, and it cannot avoid actively the collision of the forklift. In case of forklift collision accident, we and our agent refuse to assume any responsibility.

When the device is in charging, all alarm functions will be deactivated even when the device is powered on. The device can not be employed for the operation of toys. Operation onboard an aircraft, a ship or a satellite is prohibited.

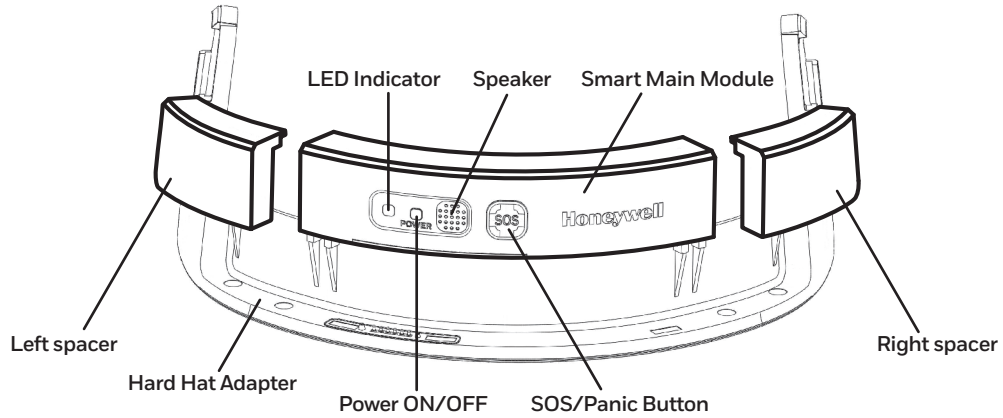
INTERFACE

The SMART MAIN MODULE communicates with the Safety Communicator App via Bluetooth™. The data from the Safety Communicator App is then collected in a cloud-based server and further evaluated in a Control Centre.

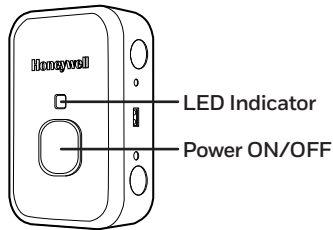
The PROXIMITY BEACON sends out UWB wireless signal that is detected by the SMART MAIN MODULE to determine the distance of the two.



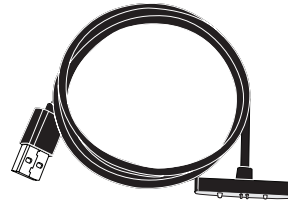
SMART HARD HAT ADAPTER



PROXIMITY BEACON



SPARE USB CHARGING CABLE





Safety Communicator App
for Android



Safety Communicator App
for iOS



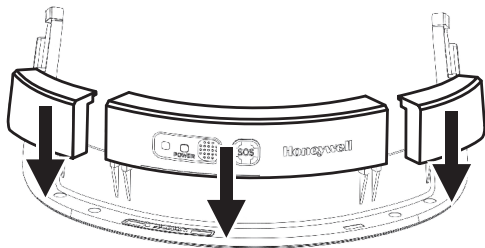
Safety Suite
User Instructions



DOWNLOAD THE “SAFETY COMMUNICATOR” APP

1. Ask the Safety Suite Administrator for a Safety Communicator App account.
2. Use the QR code shown on the left to download the Safety Communicator App for Android or iOS. Else search for the App on Google Play or App Store.
3. Download and install the Safety Communicator App.

Note: Use the QR code shown on the left to open detailed user instructions:

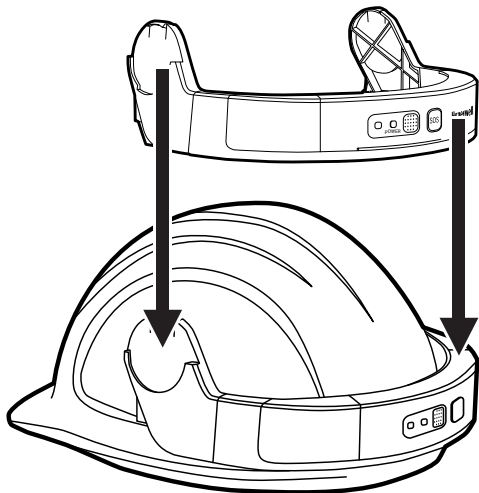


ASSEMBLE THE ADAPTER

1. Slide the SIDE SPACERS onto the adapter until you hear a click.
2. Slide the SMART MAIN MODULE onto the middle of the adapter until you hear a click.

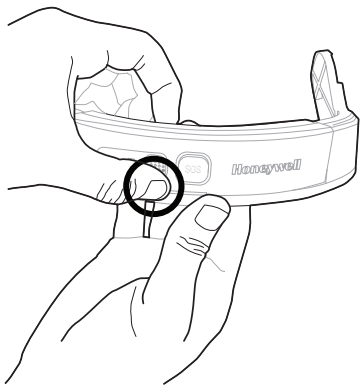
ATTACH THE ADAPTER TO HARD HAT

1. Slide the completed ADAPTER onto the back side of the hard hat.
2. Make sure the ADAPTER fully sits on the hard hat's rim and does not extend out or deform the hard hat.



ATTACH THE BEACON TO FORKLIFT

1. Use the magnets embedded in the housing to mount the BEACON onto the desired industrial vehicle (e.g., forklift).
2. Make sure the PROXIMITY BEACON is mounted on the dangerous end of the industrial vehicle.
3. Make sure there are no obstacles in the way of the wireless signal beam.

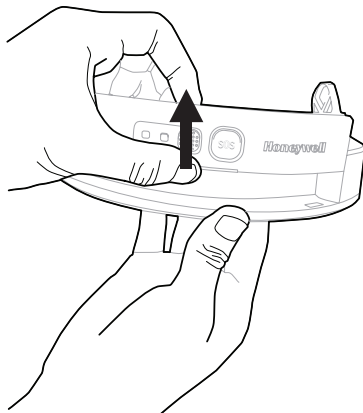


REMOVE THE SMART MAIN MODULE FROM THE ADAPTER

1. Use fingers and thumb to apply force to draw the Smart Main Module out of the Adapter.
2. Refer to the figures on the left for locations where to apply force.

SWITCH ON THE SMART MAIN MODULE

1. Press the POWER button for 2 seconds.
2. Wait until the blue LED light keeps flashing.
3. If the system check fails, the LED light stays solid red.
Refer to DEVICE STATUS INDICATION for more information.



CONNECT TO THE APP

1. Enable Bluetooth in your mobile phone's settings.
2. Launch the Safety Communicator App. Use the QR code shown on the right and follow the online instructions to add the c



SWITCH ON THE PROXIMITY BEACON

1. Press the POWER button for 2 seconds.
2. Wait until the blue LED light keeps flashing.
3. If the system check fails, the LED light stays solid red.
Refer to DEVICE STATUS INDICATION for more information.

SOS - PANIC ALARM

1. Press the SOS button for 2 seconds when you need immediate help or rescue service.

Note: SOS alarm can be canceled by holding the panic button for 2 seconds.

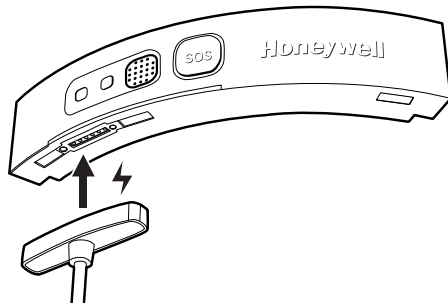
TRIP / FALL / FAINT / PROXIMITY ALARM FUNCTION

1. The Smart Main Module has an acceleration sensor inside, which can detect the user's Fall/Faint accident.
2. The alarm function gives the user sound alarm or reminder. It can have the status reported through the App using the mobile device.

CHARGING – SMART MAIN MODULE

1. Remove the Smart Main Module from the adapter.
2. Connect the Smart Main Module to the USB charging port within 5 minutes using the Spare USB Charging Cable, otherwise the tamper alarm will be activated if the module is powered on.
3. The LED light stays solid yellow green in a normal charging and turns green when the Smart Main Module is fully charged.

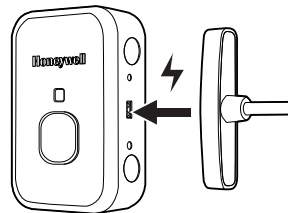
Note: If the Spare USB Charging Cable is properly connected and the LED can not turn into yellow green (in charging) or green (fully charged), a charging error has occurred.



CHARGING – PROXIMITY BEACON

1. Remove the Beacon from the forklift.
2. Connect the Beacon to a USB charging port using the Spare USB Charging Cable.
3. The LED light stays solid yellow green in a normal charging and turns green when the Beacon is fully charged.

Note: If the Spare USB Charging Cable is properly connected and the LED can not turn into yellow green (in charging) or green (fully charged), a charging error has occurred.



FIRMWARE UPGRADE - PROXIMITY BEACON

1. Ask the Safety Suite Administrator for a Device Configurator App account.
2. Use the QR code shown on the right to download the Device Configurator App for Android or iOS. Else search for the App on Google Play or App Store.
3. Download and install the Device Configurator App.
4. Launch the Device Configurator App and log in.
5. Power on the PROXIMITY BEACON. Its BLE module automatically turns on.
6. Within a 5-minute time window, use the Device Configurator App and scan for the Proximity Beacon BLE signal. When connected, the Proximity Beacon will be shown in the device list.

Note: If the Device Configurator App fails to connect to the Proximity Beacon within 5 minutes, power off and on the Proximity Beacon again to repeat the BLE pairing trial.

Note: Detailed instructions for use can be retrieved directly from the Device Configurator App.



Device Configurator App
for Android



Device Configurator App
for iOS



SMART MAIN MODULE STATUS INDICATION

Refer to the table below for a list of device status, problems, possible causes and remedy actions.

No#	Action/Status	Button	Button activity	LED	LED activity	Remedial Action/Comments	
1	Power On	Power On/Off	Hold 2s	Blue	Follow pairing status	-	
2	Self check - Fail	-	-	Red	Solid on	Remove the device from operation. Contact authorized service	
3	Power low, triggered at 20% battery level	-	-	Yellow	Keep flashing at 200ms on; 3s off	Go to charge	
4	Auto Shut Off, triggered at 10% battery level	-	-	Yellow	3 flashes	Go to charge	
5	Stand by with No BLE connected	-	-	Blue	Keep flashing at 500ms on, 500ms off	Restoring BLE connection	
6	Stand by with BLE connected	-	-	Blue	Keep flashing at 200ms on; 3s off	-	
7	Alarming	Panic	Panic button	Hold 2s	Red	Keep flashing rapidly	SOS request sent to Safety Suite
		Trip/Fall/Faint alarm	-	-			Alarm status sent to Safety Suite
		Tamper alarm	-	-			Please check your device installation status
		Proximity alert	-	-			Watch for approaching vehicles
		Emergency evacuate	-	-			Evacuate yourself to a safe place and acknowledge the alert
8	Emergency Evacuate Acknowledge	Panic button	Hold 2s	Back to Standby status		Evacuation alert being acknowledged and alarm tone stops	
9	Alarm cancel	Panic button	Hold 2s	Back to Standby status		Alarm (excluding proximity alert) stops	
10	Powering Off	Power On/Off	Hold 2s	-	-	-	
11	Charging	-	-	Yellow/ Green	Solid on	Solid on until USB-C disconnected or fully charged	
12	Charging 100% full power	-	-	Green	Solid on	Yellow LED turns off and green LED stays on when fully charged and with USB-C still connected	
13	Charging error status	-	-		LED cannot turn into "Charging" status (yellow & green LED solid on)	Error means USB-C connected but fails to charge	

PROXIMITY BEACON STATUS INDICATION

Refer to the table below for a list of device status, problems, possible causes and remedy actions.

No#	Action/Status	Button	Button activity	LED	LED activity	Remedial Action/Comments
1	Power On	Power On/Off	Hold 2s	Blue	Keep flashing at 500ms on, 1s off	-
2	Self check - Fail	-	-	Red	Solid on	Remove the device from operation. Contact authorized service
3	Power low, triggered at 20% battery level	-	-	Yellow	Keep flashing at 200ms on; 3s off	Go to charge
4	Auto Shut Off, triggered at 10% battery level	-	-	Yellow	3 flashes at 200ms on, 200ms off and then power off	Go to charge
5	Powering Off	Power On/Off	Hold 2s			
6	Charging	-	-	Yellow/ Green	Solid on	Solid on until USB-C disconnected or fully charged
7	Charging 100% full power	-	-	Green	Solid on	Yellow LED turns off and green LED stays on when fully charged and with USB-C still connected
8	Charging error status	-	-		LED cannot turn into "Charging" status (yellow & green LED solid on)	Error means USB-C connected but fails to charge

PRODUCT SKUs

SKU No#	Description
NS1001	Smart Main Module with USB Charging Cable
NS10VB	Smart Proximity Beacon
NS8001	Spare USB Charging Cable
NS9001	Basic Safety Suite License

FCC INTERFERENCE STATEMENT

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment 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 harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, 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:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio or television technician for help.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. Honeywell International Inc. is not responsible for any radio or television interference caused by unauthorized modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by Honeywell International Inc. The correction is the responsibility of the user.

RF Safety Notice

This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government and Canadian Government.

Avis de sécurité RF

Ce dispositif respecte les exigences du gouvernement en matière d'exposition aux ondes radio. Ce dispositif est conçu et fabriqué de manière à ne pas dépasser les limites d'émission pour l'exposition à l'énergie de radiofréquence (RF) établies par la Commission fédérale des communications des gouvernements américain et canadien.

INDUSTRY CANADA STATEMENT

This Class B digital apparatus complies with Industry Canada's license-exempt RSSs. Operation is subject to the following conditions:

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

CAN ICES-003 (B) / NMB-003 (B)

Cet appareil numérique est de la Classe B conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. Son fonctionnement est assujéti aux conditions suivantes :

1. Cet appareil ne doit pas causer de brouillage préjudiciable.
2. Cet appareil doit pouvoir accepter tout brouillage reçu, y compris le brouillage pouvant causer un fonctionnement indésirable.

CAN ICES-003 (B) / NMB-003 (B)

Battery Replacement Caution

Do not dismantle or replace the battery by yourself, which may result in risk of burns, fire, explosion, or other hazard. Dispose of batteries according to local regulations.

Précaution de remplacement de la batterie

Ne démontez pas et ne remplacez pas la batterie par vous-même, ce qui peut entraîner des risques de brûlures, d'incendie, d'explosion ou d'autres dangers. Jetez les piles conformément aux réglementations locales.



Frequency 2400-2483.5 MHz. Maximum power 8 dBm.

Fréquences 2400 à 2483,5 MHz. Puissance maximale 8 dBm.

PATENTS

For patent information, refer to www.hsmpats.com.

PRODUCT ENVIRONMENTAL INFORMATION

Refer to www.honeywell.com/PSSenvironmental for the RoHS/REACH/WEEE information.

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