

User Guide

Brama S-A1 / S-C

Document Version: 1.0

1. Introduction – About the Brama Devices

Brama Devices are the first dedicated lone worker device to support Indoor Location and Risk Messaging (automatic or manually delivered notifications directed to a user's device). The **Brama Device** is specifically designed as a personal device which is easy to use and discreet to carry. Containing mobile-phone (4G/LTE) technology, the device enables a 24/7 link to a dedicated, state of the art Alarm Receiving Centre (ARC) (or Monitoring Center) in the event a lone worker requires assistance.

1.1 About this Guide

At the push of a button, a trained ARC/Monitoring Center Operator is listening a potentially abusive or violent situation on your behalf and recording for future use if necessary (as potentially admissible evidence in court proceedings etc). The event handler will then escalate the situation in line with what is an appropriate response - including alerting the Emergency Services through the appropriate channels.

This user guide provides all the information you need to set up, operate and take care of your **Brama Device**.

This document details:

Brama S-C and S-A1 Layout and key functions

Initial Set Up, Care & Maintenance

How to Use Brama S-C and S-A1

Technical Specifications

Warranty

2. Brama Device Layout and Key Functions

2.1 Brama Device Layout



Figure 1: Brama S-A1 Main Functions

2.2 Key Functions

2.2.1 Device Check

This function allows you to check status of the Battery, Signal, GNSS (Global Navigation Satellite System), Wifi, and Bluetooth on your **Brama Device** and can be done at any time throughout your working day.

2.2.2 Status Check

This function allows you to leave a brief voice message before you begin each visit, or each time you move location by detailing where you are and for how long.

2.2.3 Red Alert

This function allows lone workers to discreetly raise an Alarm to a dedicated Alarm Receiving Centre/Monitoring Center whenever they feel vulnerable or threatened. This will be an audio call (via VoIP on LTE) activated by the device, to an ARC.

2.2.4 Incapacitation Alarm

This function can automatically initiate an alarm if your **Brama Device** detects you have become incapacitated.

The Incapacitation Alarm is not active by default. An Brama Device user determines when, (and for how long) incapacitation detection is enabled. Once the specified time elapses, incapacitation detection is inactive once more.

2.2.5 Risk Messaging

The Risk Messaging functionality on Brama Device allows a lone worker to be notified of useful or pertinent information based on their location.

The function can be enabled automatically by pre-defined message settings which are linked to the breaching of a Geofence. For customers, this is driven by a pre-defined schedule in the software management platform to reflect a worker's calendar or delivered directly by a lone worker's manager – again through the software management platform.

2.2.6 GNSS (Global Navigation Satellite System)

This function can assist the ARC in the event of a Red Alert and is used in conjunction with your Status Check Voice message to assist in determining your Location.

3. Initial Set Up and Care and Maintenance

3.1 Initial Set Up

3.1.1 What's included

The box containing your Brama Device includes the following items:

- Brama S-C or S-A1 device
- Charger and cable (including adapter for your region)

3.1.2 Initial Charge of your Brama Device

Your **Brama Device** must be fully charged before you attempt to use it; this conditions the battery fully. We recommend leaving the device on charge for a minimum of 2-3 hours the first time you charge it, and that it is only charged using the supplied charger.

3.2 Care and Maintenance

Brama Devices are purposely designed so that you do not need to perform any routine maintenance. However, you should note the following points about cleaning and general care.

3.2.1 Cleaning

Use a damp cloth (not wet) to remove any dirt from your **Brama Device**. Be very careful not to allow water into the unit.

Ensure the cloth is clean from grit or dirt when cleaning the camera lens as this could scratch the device lens.

Do not use any alcohol or chemical cleaning agents of any type.

3.2.2 Moisture Resistance

Brama Device is water resistant and can survive short lengths of submersion in shallow depths of water, less than 1m.

3.2.3 Impact Damage

Brama Devices are made from a tough ABS plastic case. It is designed to resist a certain amount of damage typical with general use, but the device will not withstand heavy impacts.

The touch screen is manufactured from toughened glass but should not be exposed to high force pressure and heavy impacts.

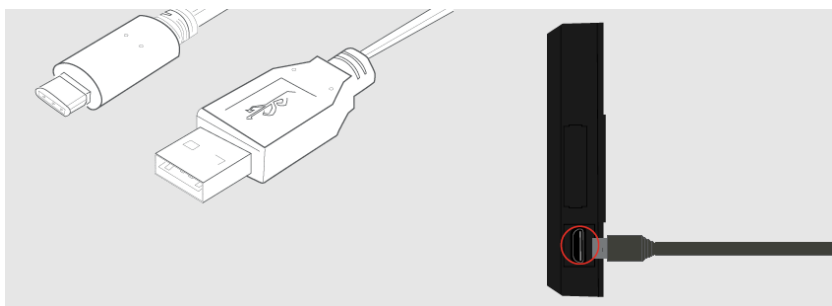
4. How to Use your Brama Device

4.1 Functionality

4.1.1 Charging & Powering your Device

You should ensure that your **Brama Device** is fully charged before use.

We recommend leaving the device on charge for a minimum of 3 hours per day or at the end of each shift using the supplied charger. Aside from the Incapacitation Alarm, the Alert functions of your Brama Device can still be used while the device is on charge.



Brama Devices are charged via a USB-Type C connection.

When your **Brama Device** is connected to the charger, the Battery Symbol on the display will reflect this. As the battery charges, the battery symbol shows more cells.

When you place your device onto charge, or remove it, the screen will “wake up” to indicate the change. If you put the device on charge while it is powered off, it will display a charging screen, which disappears once the device is removed from charge.

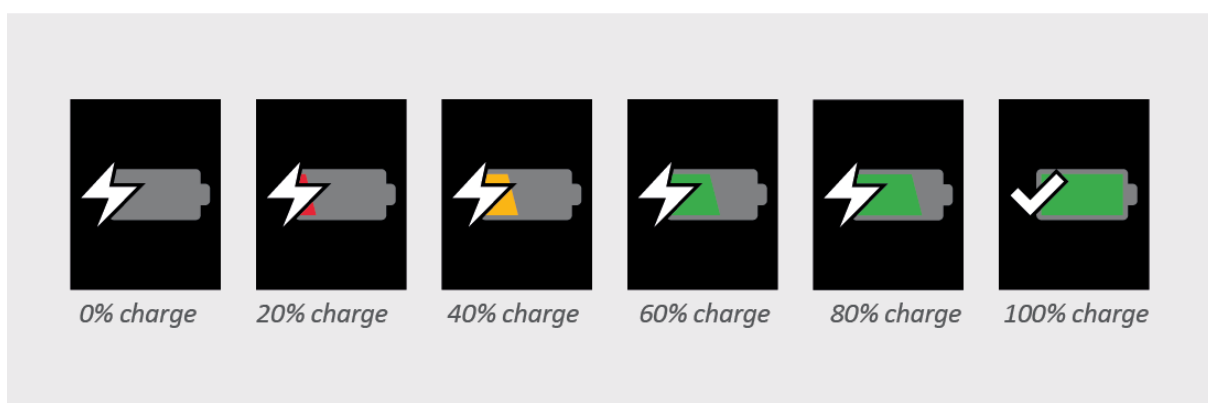


Figure 2: Charging your Brama Device

Powering your Brama Device on and off

Checking if Brama Device is already turned on:



First check if your **Brama Device** is on; this is done by completing a single, quick button press to the physical power button (do not push and hold this button).



If the device is turned on, this action will serve to wake the device and the screen will illuminate.



If you push the same button a second time, the display will return to its previous state and the device will remain on.

Figure 8: Checking whether Brama Device is on or off

If you perform the above, and the device does not wake, assume the device is turned off.

Powering on the Brama Device:

Press and hold the button shown to power the device on.

You will feel a single vibration.



The LCD on the your device will show the startup splash-screen as the device begins to boot up.



Once completed, the home screen will be displayed. Typically, this sequence should take no longer than 60 seconds.

Figure 9: Power your Brama Device On

When your **Brama Device** is on, it registers with the cellular network and is ready to communicate to the Alarm Receiving Centre/Monitoring Center.

Power Off Brama Devices:

Press and hold the button as shown (for 2 seconds) to power off the device.

You will feel two vibrations.



The screen on your device will go blank, and the device will be off.

Figure 10: Power off your Brama Device

Please note that the Brama Device has a built-in safe shutdown process whereby if the battery level reaches “critical” levels (~1%) the Brama Device will safely power down.

4.1.2 Alerts and Alarms

You can use the Device Check function on **Brama Device** to get visual feedback on several things including:

- Battery life
- Geolocation
- Mobile Signal strength



You can get a snapshot of your device functionality by viewing the status bar on Brama Device.



To view details regarding device status, the 'Device Status' icon can be selected and pressed.

This will take you through to the 'Device Status' screen where you can access the latest device information.

Figure 3: Brama Device - Device Status

Check In

A Check In is a short voice message to our ARC which is then saved and listened to in the event of a Red Alert. Relevant information informing an escalation process should be left here – including the outlining of any risks faced.



On the Brama Device's home screen, push the 'Check In' icon highlighted to enter the correct menu.

Then swipe the icon on the menu-bar from left to right to start the process of leaving the alert.

You will feel three single vibrations on the device and a timer will become visible.

This is the point at which a user's message should commence. The timer will count down from 20 to 0, at which point the message recording had finished.

The device will then vibrate twice to confirm completion of the 'Check In'.

Figure 4: Brama Device Check In

***When you begin a Check In, the device attempts to dial to allow your voice message to be left. If the voice call cannot be connected, it will retry several times. If your call fails to connect after this process, then your Brama Device will let you know by giving one long vibration.*

Red Alert

On the **Brama Device**, a Red Alert is an alarm call through to the Alarm Receiving Centre, available to a device user on a 24/7 basis.

A 'Red Alert' can be raised several ways:

Via the 'Red Alert' button:



By pressing and holding the 'Red Alert' on the device. This can be done discreetly and without breaking eye-contact.

Once a call is live, you will feel three short vibrations.

You will then feel a 'heartbeat' vibration every ten seconds, to reassure you that the ARC Operator is listening on your behalf.

This applies regardless of how a 'Red Alert' has been activated.



Figure 5: Brama Device Red Alert via button press

When in an area of no cellular coverage you will feel a single, long vibration rather than three short vibrations. This long vibration indicates that your 'Red Alert' call has not successfully connected. This applies regardless of how a 'Red Alert' has been activated.

Via the touch-screen interface:



First wake the device-screen with a single press to the power button.



Then select the 'Red Alert' icon on the device homepage to enter the correct menu.



Then swipe the icon from left to right. The screen will go blank as soon as a Red Alert is started.



The red bar, phone icon and call timer on the screen indicate that the 'Red Alert' is now live.

Figure 6: Brama Device Red Alert via device interface

Incapacitation Alarm

Brama Devices detect a fall or substantial impact followed by non-movement. Typically, a significant shock occurs followed by motionless for a period of 30 seconds (standard configuration), the unit will enter a pre-alarm phase and start to vibrate in order to make the user aware the device is going to alarm if left unchecked. If the device is not moved for a further 30 seconds, then it will automatically raise an Incapacitation Alarm and contact our ARC.

When an Incapacitation Alarm is started, your Brama Device gives three short bursts of vibration to confirm the state; and then opens a voice call to the ARC and enables the microphone, so that an ARC Operator can listen to and record the situation.

During an active Incapacitation Alarm, your device will periodically vibrate like a heartbeat; this is to provide reassurance that the call is active and open, and that someone is listening to and recording events.

If an Incapacitation call is closed accidentally then your device allows an ARC Operators to dial back into your device discreetly, you will feel 5 short buzzes. This gives reassurance that the incapacitation situation is again being monitored.

Activating Incapacitation Alarm

The Incapacitation Alarm is not active by default on the **Brama Device**. A user is required to manually activate a timer at the beginning of a period for however long they will be working where a risk of incapacitation is present (can be activated for a minimum of 15 minutes, and up to a maximum of 8 hours). This is done as follows:



Select the Incapacitation Alarm icon from page 1 of the device's interface.



Here you select the Incapacitation Timer icon (as highlighted).



On the screen that follows you use the slider (as highlighted) to select the length of time during which a risk of Incapacitation is present.



You must then select stopwatch timer icon to activate the timer.



Once the timer is active you will see the icon highlighted in the sidebar. To cancel or adjust the remaining time, you must once again visit the Timer screen (as detailed above).



When there is a minute left on your timer the device will enter an Alert-Expiry phase during which it notifies you (as highlighted, and by vibrating 4 times) of imminent timer expiry.

When the Timer expires (or is ended/cancelled) the device will give 2 long vibrations, and the Timer icon will disappear.



If your device recognizes Incapacitation while the Timer is active, it will raise an Alert into our ARC, when an operator will begin attempting to establish the degree of assistance you require.



You can also manually activate an Incapacitation Alarm by sliding the Incapacitation slider (as shown) to the right.



The Incapacitation Alarm is cancelled by sliding the Incapacitation slider (as shown) back to the left.

Figure 7: Brama Device Incapacitation Alarm activation

Incapacitation detection is always disabled when the unit is on charge or switched off.

**Check with your Employer or your Account Manager as to whether you have this feature available to you.*

Closing your Red Alert or Incapacitation Alarm

Once you feel that your situation no longer needs monitoring, you can close an alert down.

If your Red Alert activation was raised by the Rip Alarm, you must first re-insert the lanyard plug.

The Red Alert & Incapacitation Alarm call can only be closed by you. After you feel a set of 2 vibrations or 3 vibrations, press and hold the Red Alert button for 1.5 seconds, you will feel 2 longer vibrations. The Red Alert is now closed.

4.1.3 Location

The Brama Device comes equipped with multiple means by which a device user can be located should they require assistance. The Brama Device sends a periodic device status message to the software management platform, typically on 15-minute intervals. When an Alert is activated, the interval between device status updates reduces, typically to 30 seconds. This allows the ARC operators to confirm a device user's location with relative accuracy should they need assistance. These functions are described below.

GNSS (Global Navigation Satellite System)

GNSS requires a clear line of sight to the sky, not obstructed by buildings or other obstacles. The GNSS location operation will not work whilst the unit is indoors.

The GNSS technology within the Brama Device means

- GPS (United States)
- GLONASS (Russia)
- Galileo (European Union)
- Beidou (China)

As standard the Brama Device will come with the combination of GPS and GLONASS activated, however as the device supports the above, alternative combinations can be configured with agreement from your Account Manager.

Wifi/Cell Towers











Brama Devices report all local Wireless Access Point & Cell Tower information (without connecting to the networks themselves) to the ARC. This information can then be used in the event of an Alert being

raised in order to locate the user should GNSS or other services not provide a location due to a lack of coverage.

4.2 Brama Device Key Indicators

4.2.1 Icons

The following table summarizes the icons on your Brama Device screen.

Function	Symbol	Meaning
Battery Symbol (Charging)		Device is on charge and the battery level is between 0% - 20%
		Device is on charge and the battery level is between 20% - 40%
		Device is on charge and the battery level is between 40% - 60%
		Device is on charge and the battery level is between 60% - 80%
		Device is on charge and the battery level is 100%
		Device has been placed on charge using incompatible cable/charger
Battery Symbol (Off Charge)		Battery condition good (>75%)
		Battery condition normal (<75%)
		Battery condition low (<35%)
		Battery condition poor (<1 hour)












Function	Symbol	Meaning
		Battery condition critical (<15 mins)
Cellular Signal		Signal quality strong
		Signal quality good
		Signal quality medium
		Signal quality low
		Signal quality – none or critical
Sidebar Icons		A Check In is in progress
		A Red Alert is in progress
GNSS Signal		Searching for a valid GNSS location fix - low
		Searching for a valid GNSS location fix - medium
		Searching for a valid GNSS location fix - high

Table 1: Device Interface Icons

4.2.2 Vibration Patterns

The following table summarizes the standard vibration indications given by your Brama Device.

Brama Device Action	Vibration Pattern
Device is turned on	1 short vibration
Device is turned off	2 short vibrations
Check In is activated	3 long vibrations
Check In message recording begins	1 short vibration
Check In call is in progress	1 short vibration every 10secs
Check In call is ended	2 long vibrations
Incapacitation Timer Pre-Alert is activated	4 short vibrations
Incapacitation Timer ends	1 long vibration
Incapacitation Alarm is activated	3 short vibrations
Incapacitation Alarm call is connected	3 short vibrations every 10secs
Incapacitation Alarm call is ended (or cancelled)	2 long vibrations
Incoming call is made to the device	4 short vibrations

Incoming call to device is answered	1 short vibration every 10secs
Red Alert is activated	3 short vibrations
Red Alert call is connected	2 short vibrations
Red Alert call is in progress	2 short vibrations every 10secs
Red Alert is ended (or cancelled)	2 Long vibrations

Table 2: Vibration indication Table

5. Brama Device Technical Specification

5.1 Technical Specification Table

Device General	
Dimensions	48 x 79 x 18 mm
Overall weight	65g
Power	5V USB-C, 1,070mA
Ports	1 x USB Type C
Battery type	Rechargeable Lithium Ion battery, 3.85V, 1,070mAh
Battery life – standby	12-24 hours (depending on location scan period and configuration)
Battery life – talk/video time	1 hour
Operating temperature range	0°C to +40°C
Operating humidity range	Up to 95% non-condensing at +45°C
Communications/Environmental	
CPU	Qualcomm Snapdragon QM215
Modem	- 4G FDD-LTE: B1/2/3/4/5/7/8/12/17/20 - 3G WCDMA:B1/2/4/5/8 - 2G GSM B2, B3, B5, B8
GNSS	GNSS support: GPS only;GPS+BDS;GPS+GLONASS---support
	Channel: 46 Channel Max
	Sensitivity: Based on GPS NF=2.5dB, CN0@-130=41dBm. Cold start sensitivity >-147dBm, Hot start sensitivity >-159dBm, Tracking sensitivity >-163dBm
	Accuracy: in open sky 5-10M
	Interval: 2/5/10 minutes (can be configured)
Bluetooth	BLE 4.2 V2.1+EDR support
WiFi	802.11b/g/n (Read-only 2.4Ghz/5G (location sniffing))
Screen	1.3" - 240*240 IPS TFT , with Touch panel.
Audio in	Speaker 2x microphones
IP Rating	IP 67
Environmental sensors	Three axis MEMS accelerometer
	Ambient temperature sensor

Table 3: Technical Specification Table

5.2

5.3 Use of Brama Device in Restricted Areas

As with mobile phones, Brama Device usage should be in accordance with regulations, protocols and stipulations relating to the specific environment. Where the use of mobile phones is prohibited, Brama Devices should be turned off. There may be risks associated with interference with equipment sensitive to RFEE (such as aircraft, hospitals and healthcare facilities) or classified locations (ATEX/IECEX/class-division rated).

5.4 Disposal and Recycling Information

This product must not be disposed of as unsorted municipal waste. Please dispose of this product in accordance with local environmental laws and guidelines, by returning it to your point of sale or to your municipal collection point for recycling. Note that this product contains a battery that cannot be removed by the customer.

6. Warranty

Please refer to the Terms and Conditions in Section 13 - Warranties of your Master Service Agreement for more details or contact your Account Manager.

7. Glossary of Terms

Term	Definition
2G/3G/4G	2 nd , 3 rd , & 4 th Generation wireless telephone technology which digitally encrypts calls, video, and messages for a specific recipient.
AGC	Automatic Gain Control.
AGNSS, A-GNSS	Assisted GNSS
Alert	An inbound call, message, or event to an ARC.
APN	Access Point Name
ARC	Alarm Receiving Center – a 24/7 communications center that answers calls from lone worker devices and responds as required.
BS8484	A British Standard on the provision of lone worker services and devices.
Bluetooth	A wireless technology standard for exchanging data between fixed and mobile devices over short distances using short-wavelength UHF radio waves.
Check In	An alert left at the ARC detailing the user's current location, situation, and status in order to aid the operator in dealing with any subsequent alerts.
CLI	Caller Line Identification often known as Caller ID
COTS	Commercial Off the Shelf
Device Check	A function completed on the Brama device which allows battery life, GNSS fix, Cellular signal, local Wifi access points and (in range) Bluetooth Beacons to be sent to an ARC.
EDGE	Enhanced Data rates for GSM Evolution – allows improved data transmission rates over the GSM network.
Event Log	Record of specific data recorded and time stamped. This includes GNSS location fix data and Device checks.
Geo-fence	A virtual boundary i.e. one based on location rather than a physical fence, wall etc. A geo-fence is usually defined as a radius about a fixed point defined by latitude and longitude coordinates.
GNSS	Global Navigation Satellite System such as GPS, Glonass, and similar.
GPRS	General Packet Radio Service – a more reliable and faster means of sending data over the GSM network than SMS messaging.
GPS	See GNSS
GSM	Global System for Mobile Communications – a standard for cellular mobile communications, as used today for most mobile phones.

Term	Definition
Heartbeat (user)	an indication to the user periodically that shows the device is actively in alert mode and transmitting to the ARC.
Heartbeat (device)	Scheduled data transmission to management software platform that includes device status information and can provide location information to ARC during alarm conditions.
ICCID	SIM Serial Number
IMEI	International Mobile Equipment Identity - a unique 15 digit number assigned to every mobile device including (but not limited to) mobile phones and mobile broadband data cards.
IMSI	International Mobile Subscriber Identity – a unique number that identifies a SIM and thus a subscriber account.
Lone Worker Device	A device defined under standard BS8484 for the protection of workers who have risk of attack or incapacitation hazards whilst operating out of line of sight of co-workers.
Incapacitation	An event/status where the user is physically incapacitated – usually occurring following a slip, trip, or fall.
Incapacitation Alert	A high priority Incapacitation event requiring an immediate respond from the ARC
Mapping/Logging Server	This receives and stores all mapping/logging data from the device so it can be accessed by the ARC (Alarm Receiving Centre) if needed.
MNC	Mobile Network Code
Monitoring Station	see ARC
MWM	Mobile Workforce Management – a web-based mapping and alerting platform provided to customers to provide enhanced features for their user base.
NFC	Near Field Communications – an RF technology that allows two items to communicate when in proximity.
OS	Operating System
PPP	Point to Point Protocol
Red Alert	A high priority user triggered event requiring an immediate respond from the ARC
Risk Messaging	Short messages which can be sent to a device user to inform of risks or threats.
SIM	Subscriber Identity Module – a secure store for the subscriber information (e.g. the IMSI) for mobile equipment (e.g. GSM modem or phone).
SMS	Short Message Service – a text-based message facility for GSM phones.

Term	Definition
TCP/IP	Transmission Control Protocol/Internet Protocol – the standardized suite of protocols used to connect hosts over the internet. It provides end-to-end connectivity specifying how data should be formatted, addressed, transmitted, routed and received at the destination.
TTFF	Time to First Fix
User Profile	A User Profile is a set of information about the device user stored at the ARC for the purpose of assisting the operator in handling any Alert.
WiFi	A popular wireless networking technology that uses radio waves to provide wireless high-speed Internet and network connections.

Table 4: Glossary of Terms

FCC RF EXPOSURE INFORMATION:

WARNING!! Read this information before using your phone

In August 1986 the Federal Communications Commission (FCC) of the United States with its action in Report and Order FCC 96-326 adopted an updated safety standard for human exposure to radio frequency (RF) electromagnetic energy emitted by FCC regulated transmitters. Those guidelines are consistent with the safety standard previously set by both U.S. and international standards bodies. The design of this phone complies with the FCC guidelines and these international standards. Use only the supplied or an approved antenna. Unauthorized antennas, modifications, or attachments could impair call quality, damage the phone, or result in violation of FCC regulations. Do not use the phone with a damaged antenna. If a damaged antenna comes into contact with the skin, a minor burn may result. Please contact your local dealer for replacement antenna.

BODY-WORN OPERATION:

This device was tested for typical body-worn operations with the back/front of the phone kept 0.5cm from the body. To comply with FCC RF exposure requirements, a minimum separation distance of 0.5cm must be maintained between the user's body and the back/front of the phone, including the antenna. Third-party belt-clips, holsters and similar accessories containing metallic components shall not be used. Body-worn accessories

that cannot maintain 0.5cm separation distance between the user's body and the back/front of the phone, and have not been tested for typical body-worn operations may not comply with FCC RF exposure limits and should be avoided.

For more information about RF exposure, please visit the FCC website at www.fcc.gov

Your wireless handheld portable telephone is a low power radio transmitter and receiver. When it is ON, it receives and also sends out radio frequency (RF) signals. In August, 1996, the Federal Communications Commission (FCC) adopted RF exposure guidelines with safety levels for handheld wireless phones. Those guidelines are consistent with the safety standards previously set by both U.S. and international standards bodies:

<ANSI C95.1> (1992) / <NCRP Report 86> (1986) / <ICNIRP> (1999)

Those standards were based on comprehensive and periodic evaluations of the relevant scientific literature. For example, over 120 scientists, engineers, and physicians from universities, government health agencies, and industry reviewed the available body of research to develop the ANSI Standard (C95.1). Nevertheless, we recommend that you use a hands-free kit with your phone (such as an earpiece or headset) to avoid potential exposure to RF energy. The design of your phone complies with the FCC guidelines (and those standards).

Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the phone and may violate FCC regulations.

NORMAL POSITION:

Hold the phone as you would any other telephone with the antenna pointed up and over your shoulder.

RF Exposure Information:

This product is compliant with FCC RF Exposure requirements and refers to FCC website <https://apps.fcc.gov/oetcf/eas/reports/GenericSearch.cfm> search for FCC ID: VTJ-M2 to gain further information include SAR Values.

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: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

NOTE: 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:

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

Do not use the device with the environment which below minimum -10°C or over maximum 50°C, the device may not work.

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device is acting as slave and operating in the 2.4 GHz (2412 ~2462 MHz) band. Ad Hoc function is supported but not able to operate on non-US frequencies.

The frequency stability of all transmission frequencies of U-NII-1 and U-NII -3 meets the 47 CFR FCC Part15.407(g) requirements, and the manufacturer states that their transmissions remain within the U-NII-1 and U-NII -3 bands.