W200

NB-IoT Smart Watch User Manual

V1.1.0

Document Information

Version	Time	Description	Remark
V1.0.0	2020-05-07	Preliminary version	Ming
V1.1.0	2022-05-31	Revise F/W	Ming

Table of contents

1. Description

W200 is a smartwatch based on NB-IoT. Build-in GNSS and Bluetooth can achieve indoor and outdoor real-time positioning combined with motion sensors. Supports real-time collection of health data such as heart rate, body temperature, blood pressure, and the number of steps. The data will be automatically transmitted to the platform through the NB-IoT Network
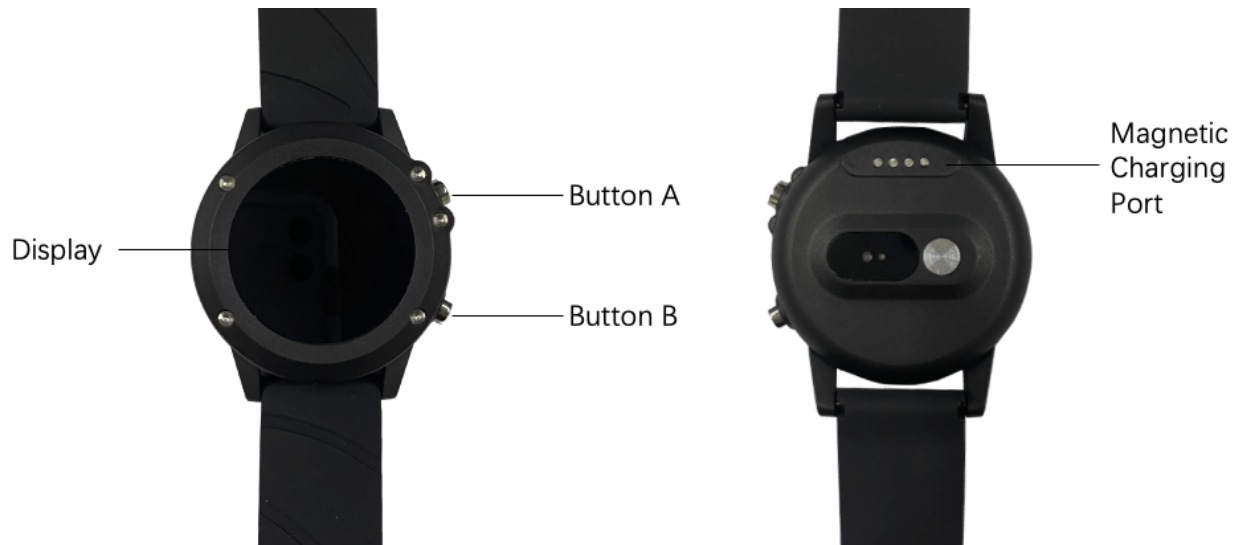

Application

- IoT based connected worker solution for Oil & Gas, mining, energy and utilities etc industries.
- Smart senior care, nursing home, Isolating people from airport, hospital. Alzheimer's

2. Features

- ✓ **Communication via NB-IoT**
- ✓ Build in GNSS+ Bluetooth chip, Indoor &outdoor **real-time tracking**
- ✓ **Heart rate, body temperature, blood pressure, number of steps**: the measurements are made at a configured frequency and automatically send to the network.
- ✓ **SOS in emergency**
- ✓ **Long Battery Life**: Battery life as long as 10hour @ 3mins uplink duty cycle,

3. Interface

Function	Description
Display	Display detection parameters
Power On	Press and hold button A 3 seconds
Power Off	Press and hold button A 5 seconds
Switch the screen	When the screen is off or in host interface, Press button A to switch the screen
Check system manual	Press button B to view the system menu and turn the page
SOS	Press and hold Button B 3 seconds to trigger SOS, the SOS ICON will display on host interface if sent successfully to the platform.
Charging	Use the standard magnetic charging cable to charge the device, can be fully charged within 2 hours

4. Specification

Parameters	Specification
Modem	NB-IoT
Positioning	Build in GNSS, Bluetooth and accelerometer, Positioning accuracy: 20 Meters CEP (Indoor positioning accuracy varies depending on Beacon density)
Bluetooth	Low power consumption Bluetooth for indoor positioning/ BLE5.0
Display	240*204 TFT Display
Rubber strap	22mm standard size (Replaceable)
Buttons	Function button A and B
Battery capacity	Polymer battery, 450mAh, 3.8V
Charging	Magnetic charging cable
Operation time	7 days standby; more than 10 hours @ 3 mins reporting interval
Enclosure	IP65
Health data	Heart rate, Blood pressure, Body temperature, Number of Steps
SOS	Support
Alarm	SOS alarm, wearable alarm, low power alarm
Operation temperature	0~45℃
Operation humidity	10%~90%, Non-condensing
Dimensions	TYP. 48*52*14.5mm (W*L*H)
Weight	50g

Table 4.1 specification

5. Operation guide

5.1 Power on

● In the shutdown state, the device automatically turns on when connected to the charging cable.

● Press and hold button A 3 seconds to power on the device. Screen lit up and display Welcome"

5.2 Join the Network

After turning on the device, it starts to search the NB_IOT network and register to the network, when successfully connected to the NB-IoT Network, the device will request UTC time synchronization from the server. The host interface will display the network signal, time and other information in the current environment.

5.3 Check system menu

Press button B to view the system menu and switch the page

5.4 Switch screen

When the screen is off or in host interface, Press button A to switch the screen

5.5 SOS

● Press and hold Button B 3 seconds to trigger SOS, the SOS alarm will display on host interface if sent

successfully to the platform.

- Press and hold again to exit. It will automatically quit SOS mode.

5.6 Charging

- Charge your device with a PELV or SELV **DC 5V – 500mA** charger/adapter at temperatures between 0°C to 45°C. Never use USB chargers not equipped with short-circuit protection as this may cause a fire hazard. Usually, the device can be fully charged within 2 hours.
- When the power is lower than 1%, it will automatically shut down

5.7 Device positioning

The default GPS/Bluetooth positioning interval is 3mins, can be adjusted. You also can set the positioning interval in different period, no more than 4 period.

5.8 Motion detection

The equipment regularly detects the current position of the person, and when the movement is detected, the current location is updated to the platform in real time. the watch will enter low power sleep mode when there is no movement in 40 mins.

5.9 Power off

Press and hold button A 5 seconds to power off the device.

6. Package

Item	Model No.	QTY	尺寸	N.W	Accessories
Smart	W200	1pcs/Box	109*75*59*MM	190g	charging cable*1, User manual*1, Warranty card*1