NAUTIZ X9

MANUAL

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CONTENT

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DISCLAIMER

ABOUT THIS MANUAL

This user's manual provides the general information and installation instructions for the product. The manual is meant for the experienced users and integrators with hardware knowledge of personal computers. If you are not sure about any description in this manual, consult your vendor before further handling.

We recommend that you keep one copy of this manual for the quick reference for any necessary maintenance in the future. Thank you for choosing a Handheld product.

DECLARATION OF CONFORMITY

CE

The CE symbol on your product indicates that it is in compliance with the directives of the Union European (EU). A Certificate of Compliance is available by contacting Technical Support.

This product has passed the CE test for environmental specifications when shielded cables are used for external wiring. We recommend the use of shielded cables.

FCC

RF Exposure Information (SAR)

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. The exposure standard employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the EUT transmitting at the specified power level in different channels. The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this device is on file with the FCC and can be found under the Display Grant section of www.fcc.gov/eot/ea/fccid . To ensure that RF exposure levels remain at or below the tested levels, use a belt clip, holster, or similar accessory that have no metallic component in the assembly and must maintains a minimum separation distance of 10mm between your body and the device.

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

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.

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

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.

RoHS

Handheld Group AB certifies that all components in its products are in compliance and conform to the European Union's Restriction of Use of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive 2002/95/EC.

The above mentioned directive was published on 2/13/2003. The main purpose of the directive is to prohibit the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE) in electrical and electronic products. Member states of the EU are to enforce by 7/1/2006.

Handheld Group AB hereby states that the listed products do not contain unintentional additions of lead, mercury, hex chrome, PBB or PBDB that exceed a maximum concentration value of 0.1% by weight or for cadmium exceed 0.01% by weight, per homogenous material. Homogenous material is defined as a substance or mixture of substances with uniform composition (such as solders, resins, plating, etc.). Lead-free solder is used for all terminations (Sn(96-96.5%), Ag(3.0-3.5%) and Cu(0.5%)).

SVHC / REACH

To minimize the environmental impact and take more responsibility of the earth where we live, Handheld hereby confirms all products comply with the restriction of SVHC (Substances of Very High Concern) in (EC) 1907/2006 (REACH--Registration, Evaluation, Authorization, and Restriction of Chemicals) regulated by the European Union.

All substances listed in SVHC < 0.1 % by weight (1000 ppm)

Symbols Description

⚠ This symbol of "CAUTION" indicates that there is a danger of injury to the user or a risk of damage to the product, should warning notices be disregarded.

Important Safety Instructions

Read these safety instructions carefully:

1. Read all cautions and warnings on the equipment.

2. Place this equipment on a reliable surface when installing. Dropping it or letting it fall may cause damage

3. Make sure the correct voltage is connected to the equipment.

4. For pluggable equipment, the socket outlet should be near the equipment and should be easily accessible.

5. Keep this equipment away from humidity.

6. Disconnect this equipment from the A/C outlet before cleaning it. Use a moist cloth. Do not use liquid or sprayed detergent for cleaning.

7. To fully disengage the power to the unit, please disconnect the power from the AC outlet.

8. Do not scratch or rub the screen with a hard object.

9. Never use any of the solvents, such as Thinner Spray-type cleaner, Wax, Benzene, Abrasive cleaner, Acid or Alkaline solvent, on the display. Harsh chemicals may cause damage to the cabinet and the touch sensor.

10. Remove dirt with a lightly moistened cloth and a mild solvent detergent.

1. Then wipe the cabinet with a soft dry cloth.

11. The openings on the enclosure are for air convection and protect the equipment from overheating. DO NOT COVER THE OPENINGS

12. Position the power cord so that people cannot step on it. Do not place anything over the power cord.

13. If the equipment will not be used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.

14. Never pour any liquid into openings. This may cause fire or electrical shock.

15. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.

16. If one of the following situations arises, get the equipment checked by service personnel:

    a.   The power cord or plug is damaged.

    b.   Liquid has penetrated into the equipment.

    c.   The equipment has been exposed to moisture.

    d.   The equipment does not work well, or you cannot get it to work according to the user's manual.

    e.   The equipment has been dropped or damaged.

    f.   The equipment has obvious signs of breakage.

17. The sound pressure level at the operator's position, according to IEC 704-:1982, is no more than 70dB(A).

18. Keep this User's Manual for later reference.

19. DO NOT LEAVE THIS EQUIPMENT IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20° C (-4° F) OR ABOVE 60° C (140° F). THIS MAY DAMAGE THE EQUIPMENT.

Do not use the power adapter that isn't made for the equipment. Supplying the equipment with inappropriate voltage may cause harm to the battery or, even worse, burn the equipment.

To prevent possible hearing damage, do not listen at high volume levels for long periods

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Rechargeable Battery Pack Safety

With very little care, you can optimize the battery life and maximize the lifespan of the battery. Most importantly, use only the equipment in its ideal operating temperature – do not leave it in a hot trunk during the summer.

Important Terms to Understand

"Battery life" means the time the equipment will run before it must be recharged (sometimes this is also called "playtime" or "runtime").

"Battery lifespan" means the total amount of time your battery will last before it must be replaced.

Using the Equipment for the First Time

Be sure to fully charge the equipment when charging the equipment for the first time.

Long-Term Storage & Maintenance

If you are putting away the battery for more than three months, it is recommended that the battery should be stored separately and fully charged, and get recharged every three months. If you store an uncharged battery, it could fall into a deep worn-out state which would render it incapable of holding any charge. Be sure to store the equipment and battery at the proper temperature (as described in 1.5 Specifications).

Battery Lifespan

The removable batteries for the equipment are designed to retain up to 80% of their original capacity after 300 charging and recharging cycles when properly maintained. You may choose to purchase new battery when it no longer holds the sufficient charge that meets your needs.

- The lithium-ion battery is currently one of the most popular battery packs.

- The best advantage is that it has no memory effect, so users needn't worry about that issue. Users can charge the battery anytime whether it is fully drained or not. However, it's recommended that users drain the battery until the system shows power shortage warning and then recharge the battery. Doing so is helpful to the reliability of your battery.

- Don't use the battery pack as a power supply for other equipment.

- Don't expose the battery to elevated heat situations such as under direct sunlight in a car or near fire.

- Don't disassemble the battery, or the battery leakage might cause skin or eye injury. If electrolyte leaking from the battery contacts your skin or clothing, immediately flush it with running water. If it splashes into eye, rinse the eye at least 15 minutes with clean water and then seek medical attention.

- To avoid battery leakage or explosion, don't discard the battery into water or fire, or put them near a heat source such as a gas stove or an oven.

- If you are putting away the battery for more than three months, it is recommended that the battery should be stored separately and fully charged, and get recharged every three months. If you store an uncharged battery, it could fall into a deep worn-out state which would render it incapable of holding any charge. Be sure to store the equipment and battery at the proper temperature (as described in 1.5 Specifications).

- Use the appropriate container to store the battery such as a paper box. Do not allow a metal object to touch the terminal of the battery.

- The battery consists of precise electrical components and cells. Do not drop or hit the battery.

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Disposing of the Equipment

Within the European Union

EU-wide legislation, as implemented in each Member State, requires that waste electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste.

This includes monitors and electrical accessories, such as signal cables or power cords. When you need to dispose of your display products, please follow the guidance of your local authority, or ask the shop where you purchased the product, or if applicable, follow any agreements made between yourself. The mark on electrical and electronic products only applies to the current European Union Member States.

Outside the European Union

If you wish to dispose of used electrical and electronic products outside the European Union, please contact your local authority so as to comply with the correct disposal method.

Additional Information & Technical Support

You can download the related technical documents such as datasheet and user's manual as well as driver on our website.

Please do not hesitate to call or e-mail our customer service when you still cannot get the information you need.

https://www.handheldgroup.com/support-rugged-computers/knowledgebase/

E-mail: support@handheldgroup.com

Warranty

This product is warranted to be in good working order during the warranty period. Should this product fail to be in good working order at any time during this period, we will, at our option, replace or repair it at no additional charge except as set forth in the following terms. This warranty does not apply to products damaged by misuse, modifications, accident or disaster.

Vendor assumes no liability for any damages, lost profits, lost savings or any other incidental or consequential damage resulting from the use, misuse of, or inability to use this product. Vendor will not be liable for any claim made by any other related party.

Vendors disclaim all other warranties, either expressed or implied, including but not limited to implied warranties of merchantability and fitness for a particular purpose, with respect to the hardware, the accompanying product's manual(s) and written materials, and any accompanying hardware. This limited warranty gives you specific legal rights.

Return authorization must be obtained from the vendor before returned merchandise will be accepted. Authorization can be obtained by calling or faxing the vendor and requesting a Return Merchandise Authorization (RMA) number. Returned goods should always be accompanied by a clear problem description.

1. INTRODUCTION

1.1. Product Highlights

- Support Android 7.0

- Quad-core ARM Cortex-A53 1.3GHz

- Multiple connectivity including WLAN, WWAN, Bluetooth, NFC and 2G/3G/LTE

- Worldwide modem capability (Support FDD/TDD-LTE, WCDMA, CDMA2000 1xEV-DO GSM/GPRS/EDGE)

- IP67 rated water and dust resistance

- Drop proof: Up to 1.5m

- Accelerometer, Magnetometer, Gyroscope, Light sensor, GPS & Barometer

- Built-in 1D/2D barcode reader

1.2 Package Contents

Upon opening the package, carefully inspect the contents. If any of the items is missing or appears damaged, contact your local dealer or distributor. The package should contain the following items:

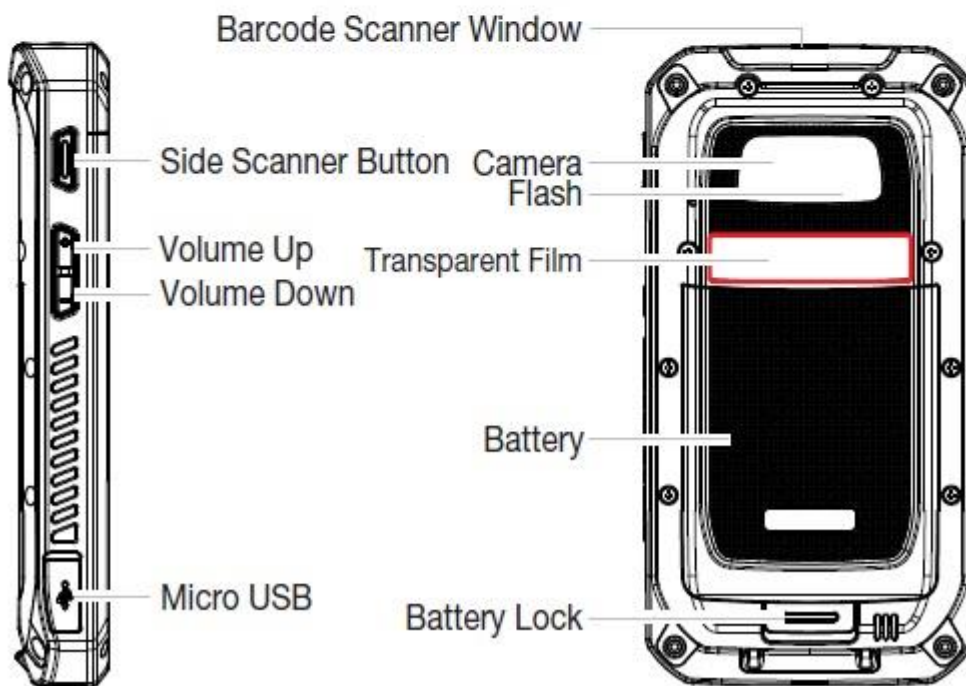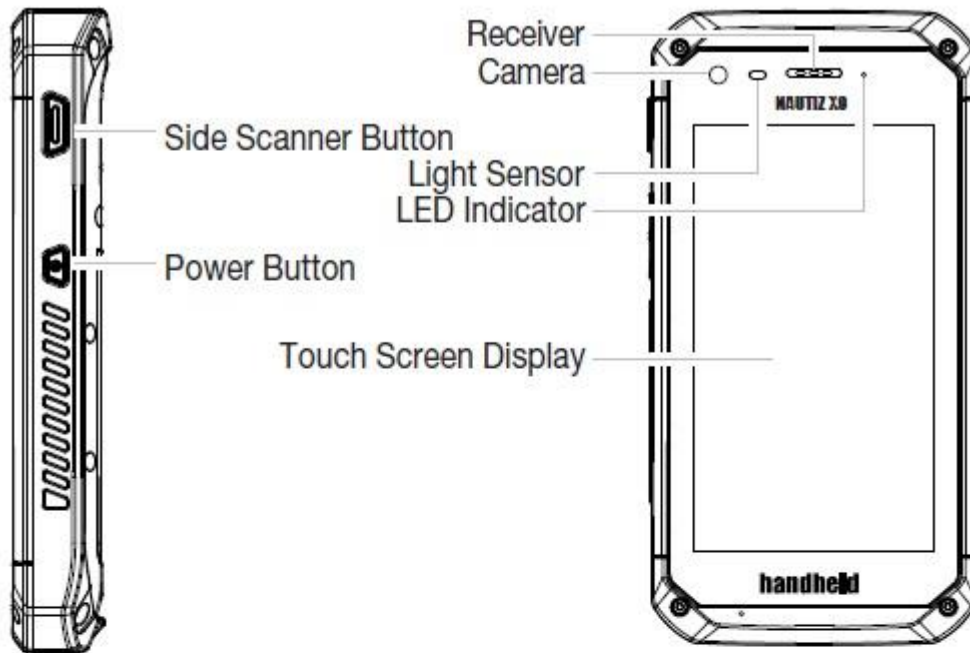Nautiz X9 Main Body   Standard Battery   Power Adapter   Quick Start Guide

1.3 Parts of the Device

Receiver
Camera
Side Scanner Button
Light Sensor
LED Indicator
Power Button
Touch Screen Display

Barcode Scanner Window
Side Scanner Button   Camera
Flash
Volume Up
Volume Down   Transparent Film
Battery
Micro USB
Battery Lock

NOTE Do not remove transparent film unless you are using the pistol grip accessory

1.4 Dimensions

25.6

86

165.8

Unit:mm

1.5 Specifications

System	
CPU	Quad Core ARM Cortex-A53 1.3GHz
OS	Android 7.0
Memory	2GB LPDDR2
Storage	16 GB eMMC
Peripherals and Devices	
Camera	Front: 2.0 MP camera
	Rear: 13.0 MP camera with Auto-Focus and Flashlight
Sensor	Magnetometer (M-Sensor/E-Compass) Accelerometer (G-sensor)
	Gyroscope Barometer Proximity sensor
	Ambient light sensor
	Magnetometer (M-Sensor/E-Compass) Accelerometer (G-sensor)
	Gyroscope Barometer Proximity sensor
	Ambient light sensor
Barcode Scanner	2D barcode reader with physical trigger button
Audio & Vibrator	1 x built-in microphone 1 x built-in speaker (1W) 1 x 3.5mm stereo headphone/microphone combo jack 1 x vibrator
Wireless	
WLAN	Integrated IEEE 802.11a/b/g/n
Bluetooth	Bluetooth 4.1 (BLE, HS compliant)
WWAN (Global)	2G GSM/GPRS/EDGE (900/1800) 3G WCDMA (B5, B8) 4G (B1, B3, B8, B20, B38, B40)
WWAN (NA)	2G GSM/GPRS/EDGE (900/1800) 3G WCDMA (B2, B5) 3G CDMA2000 (BC0/BC1) LTE (B2, B4, B12, B13, B17)

GPS	GPS/GLONASS
NFC	Yes

I/O Interface	
USB Port	1 x micro USB 2.0 port High Speed / OTG Compatible
SD Slot	1 x microSD card slot
SIM Cart	1 x micro-SIM (3FF) socket supporting 2G/3G/LTE 1 x micro-SIM (3FF) socket supporting 2G only
LCD Display	
Size/Type	5" TFT LCD
Resolution	720(W) x 1280(H)
Brightness (cd/m²)	400 cd/m²
Touch Screen	5 points capacitive touch (PCT)
Power Supply	
Battery Type	Lithium-ion rechargeable battery, field replaceable
Battery Capacity	Typical 3.7V, 4800mAh
Battery Life	TBD
Adapter Input	AC100~240C, 50~60 Hz
Adapter Output	5V/2A (10W)
Mechanical & Environmental	
Ingress Protection	IP67, Up to 1.5m drop resistance.
Operating Temp.	-20°C ~ 55°C (-4°F ~ 131°F)
Storage Temp.	-20°C ~ 60°C (-4°F ~ 140°F)
Operating Humidity	5~95% RH
Dimensions (mm)	165.8(H) x 86(W) x 25.6(D)
Weight	under 385g (0.85lb) (with battery)

2. GETTING STARTED

2.1 Installing microSD and SIM Card

To install the microSD card and/or SIM card(s):

1. Pull the back cover release latch towards the bottom of the phone to unlock the latch.

Latch locked

Latch unlocked

2. Insert a small flathead screwdriver into the notch and gently pry up the cover.

3. Remove the battery, if inserted. The battery is secured by a red slider. Move the slider to the right so that you can remove the battery.
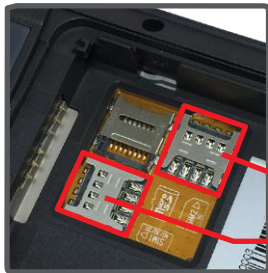

Move the slider to the right to unlock the battery.

4. Insert the SIM cards / microSD card following the direction as shown in the graphic.
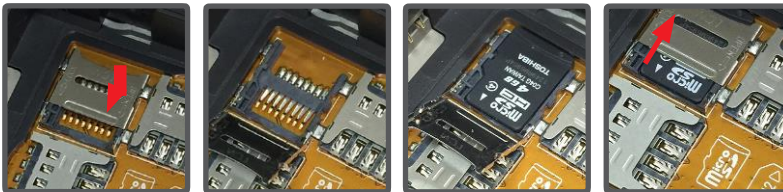
- To insert SIM card(s): The device comes with two SIM card slots, each with their own supported networks. SIM card slot 1 supports 2G, 3G and 4G while slot 2 supports 2G network. Make sure to insert your SIM cards correctly.

SIM slot 2: 2G

SIM slot 1: 2G/3G/4G

- To insert a microSD card: Push the microSD card cover toward SIM slot 1 to lift it up. Insert a microSD card following the direction as shown in the graphic. Then push the microSD card cover back into its original position to lock it.

5. Insert the battery back to the compartment while ensuring gold contacts align with the device contacts. Then move the slider to the left to secure the battery.

Move the slider to the left to secure the battery.

6. Replace the back cover and push the latch towards the cover to lock it.

After the SIM card(s) are properly installed, the device is ready to use the cellular network. See 3.3 Using Cellular Network to know how to use them.

2.2 Charging the Battery

You can charge the Nautiz X9 via the provided power adapter or computer USB connection.

- Due to shipment, the battery is partially drained when the package is delivered to you. Be sure to charge the battery to full when you are charging it for the first time.

- To use the power adapter: Connect the power adapter to your power outlet and connect the USB end to the USB port on the device.

- To use a computer USB connection: Using a USB cable, connect small end to the USB port on the device and the other end to the USB port on a computer.

⚠ WARNING: Use only the power adapter that comes with your device. Using a different power adapter may damage your device and may result in poor performance. It may also invalidate warranty applying to the device.
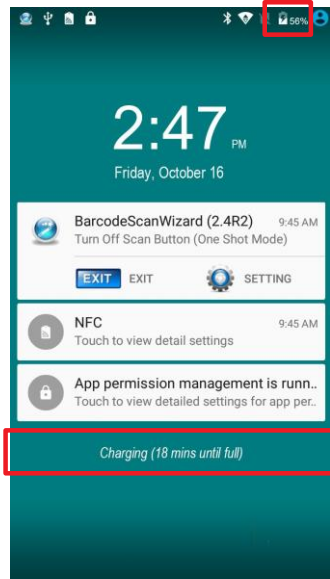
2.2.1 Checking the Battery Level

When you charge the Nautiz X9, the LED indicator will show the charging status as below:

- Charging in progress: Red, solid

- Fully charged: Green, solid

Also, a battery indicator will appear in the Notification Area showing the charging percentage. The remaining charging time will also be displayed.

When the battery is fully charged, unplug the USB cable from the device

2.3 Installing/Replacing the Battery

In case you need to install or replace the battery, follow the steps below to access the battery chamber and replace the battery.

1. Pull the back cover release latch towards the bottom of the phone to unlock the latch.

Latch locked

Latch unlocked

2. Insert a small flat head screwdriver into the notch and gently pry up the cover.

3. Remove the battery, if inserted. The battery is secured by a red slider. Move the slider to the right so that you can remove the battery.

Move the slider to the right to unlock the battery.

Ver 1.0

4. Insert the battery back to the compartment while ensuring gold contacts align with the device contacts. Then move the slider to the left to secure the battery.

Move the slider to the left to secure the battery.

5. Replace the back cover and push the latch towards the cover to lock it.
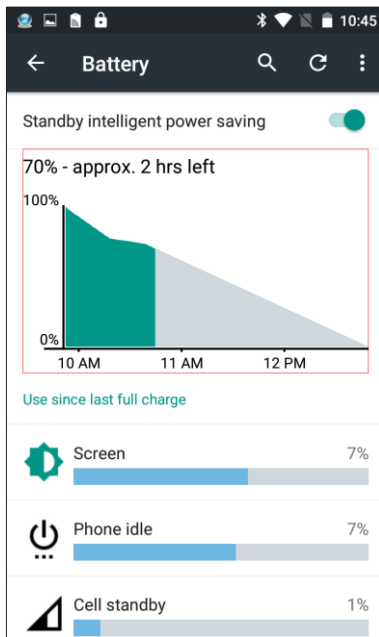
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2.4 Optimizing Battery Life

To optimize the operating time of the battery, it is recommended that you do the following:

Decrease the LCD display brightness.

- Set a shorter timeout of inactivity to allow the screen enter sleep mode.

- Turn off the display if you are not using it.

- Always exit the applications if it is not in use.

- Disable the Wi-Fi, Bluetooth or GPS function if you are not using it.

- Disable the App that heavily drains the battery if you are not using it.

    To view the battery usage by individual App, tap Settings | Device | Battery.

- Disconnect USB devices such as USB flash drive if it is not in use.

3. USING THE RUGGED HANDHELD DEVICE

3.1 Using the Barcode Scanner

Barcode scanner is an optional feature on the Nautiz X9. This section will walk you through the basic operations. To get the information on supported barcode formats, see 3.1.2 Supported Barcode Formats for details.

To use the barcode scanner, simply press the scan keys on either side of the Nautiz X9 to scan the barcode.
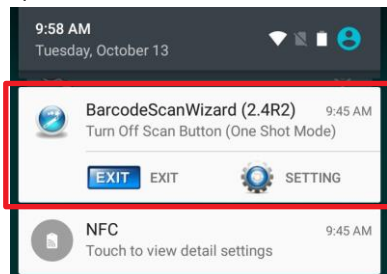

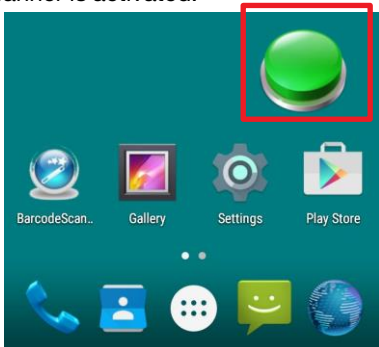### 3.1.1 Using the BarcodeScanWizard (Optional)

Generally a third-party barcode application will be used to process the data read by the scanner. An optional BarcodeScanWizard is installed on the Nautiz X9. The App provides on-screen buttons to activate the barcode scanner so that you don' need to press the triggers on either side of the Nautiz X9.

To use the App:

1. Launch the BarcodeScanWizard App.

2. Swipe down the Notification Area and make sure to turn on the Scan button.

3. A green button shall appear on the screen. Press the button to scan. The button turns green when the scanner is activated.

4. Press the red button to stop.

3.1.2 Supported Barcode Formats

Type	Formats
Linear	UPC/EAN, Bookland EAN, UCC Coupon Code, ISSN EAN, Code 128, GS1-128, ISBT 128, Code 39, Trioptic Code 39, Code 32, Code 93, Code 11, Interleaved 2 of 5, Discrete 2 of 5, Codabar, MSI, Chinese 2 of 5, Matrix 2 of 5, Korean 3 of 5, Inverse 1D, GS1DataBar, Composite Codes
2D Stacked	PDF417, MicroPDF417
2D Matrix	Data Matrix, Data Matrix Inverse, Maxicode, QR Code, MicroQR, QR Inverse, Aztec, Aztec Inverse
Postal	US Postnet, US Planet, UK Postal, Japan Postal, Australian Postal, Netherlands KIX Code, USPS 4CB/One Code/Intelligent Mail, UPU FICS Postal