archer3™

owner's manual

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WARNING! This symbol indicates that failure to follow directions could result in serious injury.

CAUTION: This symbol indicates that failure to follow directions could result in damage to equipment or loss of information.

Part Number 28226-01

JUNIPER® systems

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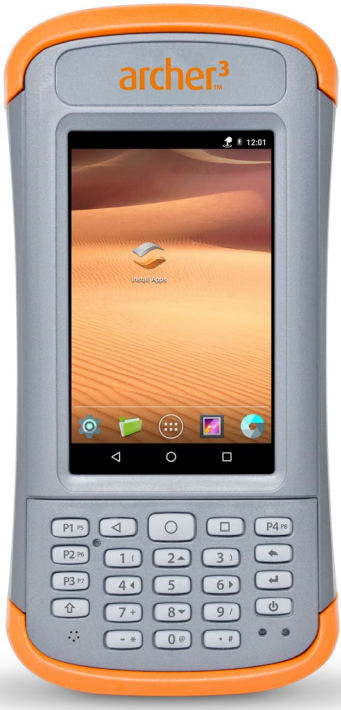
1
Getting Started



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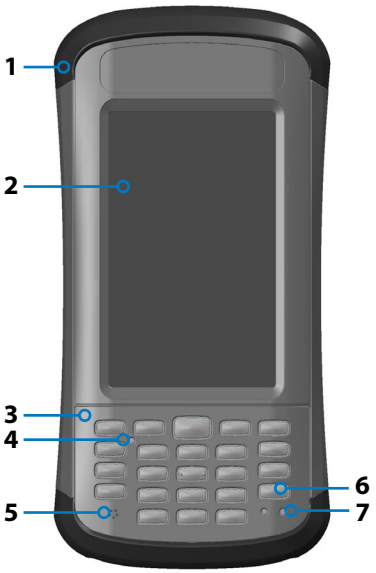
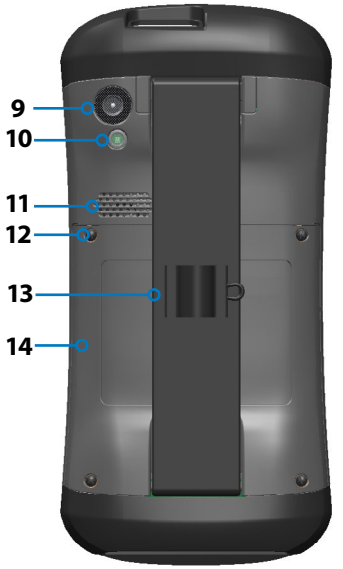
Getting Started

The Archer 3 Rugged Handheld™ powered by Android™ features *Bluetooth*, Wi-Fi, and a numeric keypad. Standard accessories include a lithium-ion battery pack, AC wall charger, USB micro client sync cable, hand strap, and a capacitive blunt tip stylus and tether. A camera, GPS/GNSS receiver, and barcode scanner are options.

The Anatomy of the Archer 3

Front and Back Features





1 Bumper, Top

2 Touchscreen

3 Keypad

4 Sensor (option)

5 Microphone

6 Power Button

7 LED Indicators (charging indicator on the right, status indicator on the left)

8 Barcode Window (option)

9 Camera Window (option)

10 Camera Flash and Flashlight Window (option)

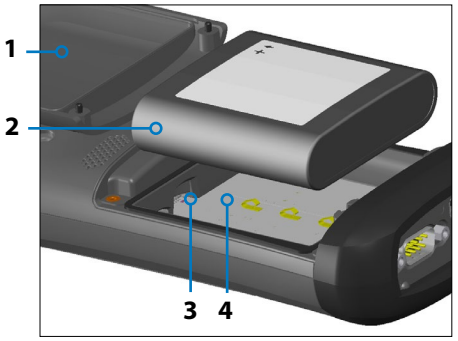
11 Speaker

12 Screw Holding Battery Door in Place (1 of 4 captive screws)

13 Hand Strap with Stylus Holder and Tether Ring

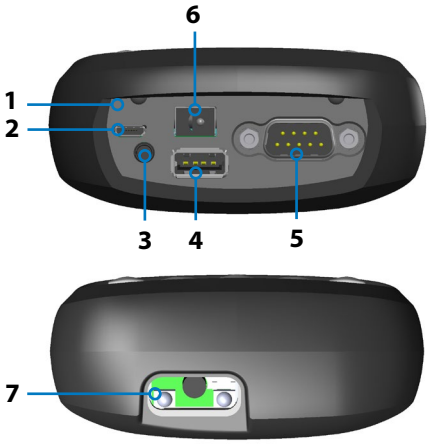
14 Door to Battery Compartment and SD Card Slot

Battery Compartment and Card Slots



1 Battery Door, Screws, Hand Strap (door removed)
2 Battery Pack
3 SD/SDXC Card Slot, Micro
4 Battery Compartment

Connector Module and Barcode Reader



1 Connector Module
2 USB Client, Micro
3 Microphone/Speaker Jack
4 USB Host, Full Size
5 9-pin Serial Port
6 12-24V DC Jack
7 Barcode Window (option)

Perform Initial Tasks

When you receive your Archer 3, perform the tasks outlined in this section before first use.

Install the Battery Pack and SD Card

The Archer 3 uses a rechargeable Li-Ion battery pack. Install and charge the battery pack as follows:

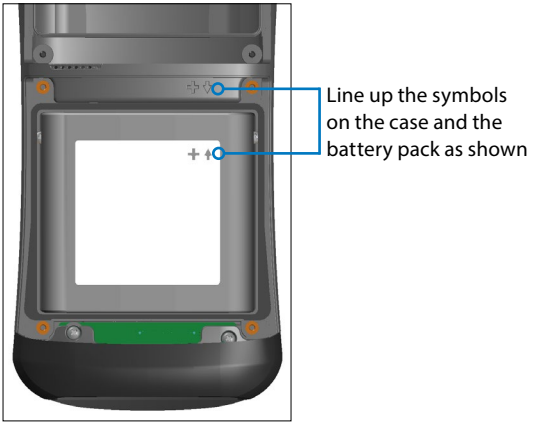
CAUTION: Power-off the Archer 3 before removing the battery. If you remove the battery without powering-off the handheld, you may damage the handheld and/or lose data.

1. The battery compartment is accessed from the back of the handheld. Loosen the four captive screws holding the battery compartment door in place using a #1 Phillips screwdriver. Remove the door. You do not need to remove the hand strap.

   CAUTION: The Archer 3 is not sealed against water and dust when the battery door is not installed.

2. If you are using a micro SD card for additional memory, you can install it now before you install the battery pack or at another time. See more details about installing an SD card, see *"Data Storage Options" on page 16*.

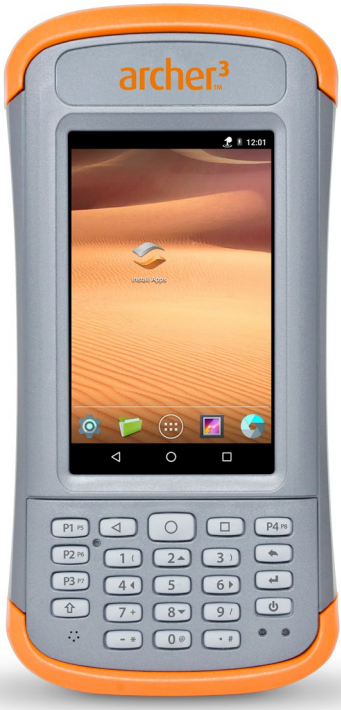
3. Place the Li-Ion battery pack in the compartment. Make sure the symbols on the battery pack label align with the symbols inside the compartment.



4. Replace the door and tighten the screws.

The red LED on the keypad blinks when the battery pack is charging. Charge the battery pack for 4-6 hours at room temperature.

2
Standard Features



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Standard Features

This chapter discusses the standard features included on all Archer 3 models.

Operating System

This Archer 3 is powered by the Android Open Source Project (AOSP) operating system. Juniper Systems chose this operating system because of its versatility and familiarity among users.

Turn on, Power Off, or Restart

To turn the Archer 3 on, press and release the power key. On the Lock Screen, swipe up to reveal the Home Screen.

Press and briefly hold the power key to select *Power Off* or *Restart*.

Note: The display automatically goes to sleep after a set amount of time passes (you can adjust this in Settings). Press the power key and the lock screen appears. After you swipe up, the last screen open is shown.

Preloaded Apps

The Archer 3 comes with the following preloaded apps:

- Calculator
- Calendar
- Camera
- Clock
- Contacts
- Downloads
- Email
- Files
- Gallery
- Music
- Opera (web browser)
- Search
- Settings
- Sound Recorder
- Barcode Scanner (barcode models)

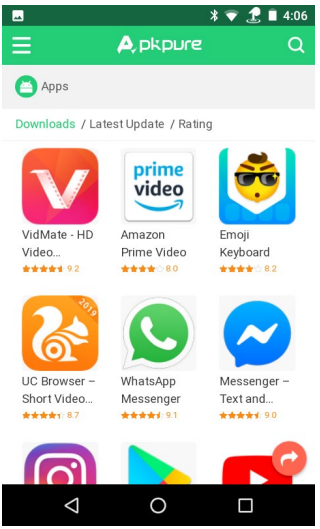
Note: Software on individual units may vary from this list.

Installing Apps

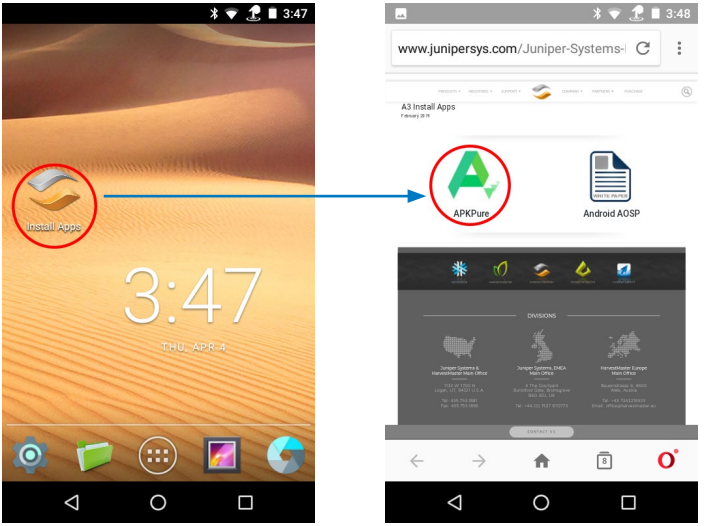
The Archer 3 is powered by the Android Open Source Project (AOSP). This project was created and is still maintained by Google, and it is at the core of every Android OS. However, many Android devices have another layer, called Google Mobile Services (GMS). This is a suite of Google apps with proprietary features that are owned by Google. The Archer 3 doesn't have GMS, which means that it doesn't have Google Play.

Although Google Play is a convenient and familiar way to download Android apps, it is not the only way.

Juniper Systems recommends the APK Pure app store where you will find many of the same apps available through Google Play.



Your Archer 3 came preloaded with a widget to take you to APK Pure. Tapping on this widget will open a Juniper Systems webpage with a link to APK Pure where you can download the app store and browse available apps.



Note: If APK Pure doesn't install after downloading, you may need to change a security setting. Go to Settings > Security. Turn on Unknown Sources. This allows the Archer 3 to accept installation of apps from a less familiar source. If desired, disable this setting after installing APK Pure.

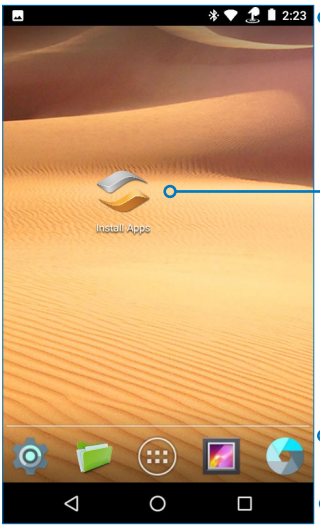
Other options for installing apps onto your Archer 3 include the Amazon App Store, app developer webpages, and side loading apps by downloading them to a PC and then sharing them via USB or Flash drive to your Archer 3. Android apps use the extension .apk.

Display and Touchscreen

To adjust display settings including brightness, wallpaper, sleep interval, font size, and orientation, go to *Settings > Display*.

Home Screen

The Home screen consists of the following elements:



Touchscreen Touch Control Setting

To adjust the Touchscreen Control setting, go to *Settings > Touch Control*. Select the profile you want the screen optimized for: Finger, Stylus, or Wet.

Note: When using the Archer 3 in wet conditions, you must use your finger or the blunt tipped stylus that is included. A hard-tipped stylus will not work. Other third party styli might work with the Archer 3 touch profiles.

Disabling and Enabling the Touchscreen

The touchscreen on the Archer 3 can be disabled. This is useful when you are running an application and you want to see the screen while avoiding accidental touchscreen activation. The touchscreen can also be disabled for cleaning purposes.

To disable the touchscreen, it is necessary to program one of the programmable keys to provide this functionality.

1. Go to Settings > Keypad.
2. Select a key to program (P1–P8).
3. Scroll up and select Touchscreen Enable/Disable.

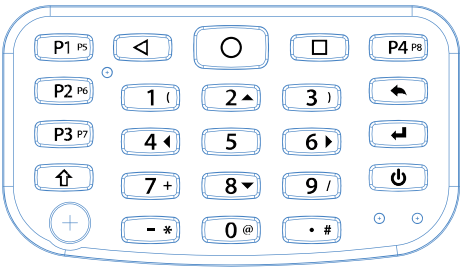
This programmed key will now function as the On/Off switch for the touchscreen.

While the touchscreen is disabled, the following icon displays in the Status bar:

Keypad Features

The Archer 3 has a sealed, backlit numeric keypad with function keys. Most of the keys are programmable.

To reprogram keys, go to *Settings > Keypad*.



The following table lists default settings for each key:

Button	Press and Release	Shift Function ⇧
○	Home	Home
◁	Back	Back
□	App select	App select
P1 P5	Left	Brightness up
P2 P6	Up	Brightness down
P3 P7	Down	Tab
P4 P8	Right	Volume up
2 ▲	2	Up
4 ◀	4	Left
6 ▶	6	Right
8 ▼	8	Down
←	Backspace (delete)	Volume down
↵	Enter	Enter
⇧	Shift (Function) ▪ Use specific shift function: Press and release ⇧ first, then press and release the button with the desired shift function. ▪ Turn shift function on for all keys: Press and release ⇧ twice. To turn shift off, press and release again. See green LED description	See description of the specific buttons
⏻	▪ Power ▪ Restart	None

The following functions are only available via programmable keys:

Volume Control
Control the volume on the Archer 3 using the programmable keys. The default volume keys are P8 (⇧ + P4) for *volume up* and ⇧ + ↩ for *volume down*. The keys can be customized according to what is most comfortable for you by going to *Settings > Keypad*.

Screenshots
Taking screenshots on the Archer 3 is enabled via the programmable key\s. There is no default key for taking screenshots. To enable this function:

1. Go to *Settings > Keypad*.
2. Select a key you would like to program to take screenshots (P1–P8).
3. Scroll up and select *Screenshot*.

Power Management

The Archer 3 uses a Li-Ion rechargeable battery pack. Battery life on a full charge can be 20 hours or more. This varies depending on the backlight, open applications, GNSS signals, and radio usage.

CAUTION: Only use batteries designed for the Archer 3 from an approved vendor. Use of non-approved batteries will void your product warranty.

Charging the Battery Pack
The Li-Ion battery pack is charged most efficiently at room temperature (68°F or 20°C), but it will still charge at any temperature between 32° and 122° F (0° to 50° C). The battery pack may not charge outside of this range.
It is not possible to overcharge the Archer 3 battery pack.

Removing the Battery for Long-Term Storage

To power off the Archer 3 for long-term storage, follow these steps:

1. Press and briefly hold the power button and select Power off.
2. Take out the battery pack and store it in a cool, dry location.
3. When you are ready to power on the Archer 3, replace the battery pack. Plug in the AC wall charger and connect it to the Archer 3 BEFORE you power it on. Press the power button, and the unit will start to boot up.

CAUTION: Power-off the Archer 3 before removing the battery. If you remove the battery without powering-off the handheld, you may damage the handheld and/or lose data.

How to Handle a Locked Up Unit

If the Archer 3 is completely stuck and won't respond, hold the power key down for 2 to 3 seconds until the Power menu appears. Select *Power Off*. If that doesn't work, hold the power key down for 10 seconds. This causes a hardware shut off. Press the power key again to power it on.

CAUTION: Forcing a shut-down while the unit is running can cause damage to the device. NEVER do this to power off an Archer 3 in normal circumstances.

LED Activity Indicators

LED activity indicators are located on the keypad underneath the power button.

Red LED on the right (associated with power adapter):

- Blinking: AC adapter is plugged in, and the battery is charging
- Solid: AC adapter is plugged in, and the battery is full (not charging)

Blue LED on the left (associated with notifications):

- When the operating system has something to notify you of, this LED behaves accordingly. For example, if you turn on GPS/GNSS, the blue LED blinks periodically.

Green LED on the left (associated with shift functions):

- Solid: When you press the shift key, the green LED lights up and stays on until another key is pressed. If the shift function is locked, the green LED stays on.

Data Storage Options

Flash Data Storage

The Archer 3 has 16 GB of internal flash data storage. Go to *Settings* > *Storage* to see how much storage is available, and how it is being used (storing Apps or Images, for example).

SD/SDXC Card

The Archer 3 has a slot for a micro SD/SDXC card located in the battery compartment. To insert or remove a card, follow these steps:

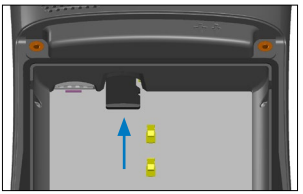
1. Power off the handheld by holding the power button until the Power menu appears and selecting *Power Off*.

CAUTION: Power-off the Archer 3 before removing the battery. If you remove the battery without powering-off the handheld, you may damage the handheld and/or lose data.

2. Loosen the screws to the battery compartment, and remove the door. The hand strap remains attached.

CAUTION: The Archer 3 is not sealed against water and dust when the battery door is not installed properly.

3. Remove the battery pack.
4. An image on the battery compartment label shows the correct location and orientation for the SD card (slot on the right). Push the card into the slot to insert it. To remove the SD card, pull it out.



5. Replace the battery pack, and attach the battery door.
6. Power up the handheld.

Bluetooth® Wireless Communication

The Archer 3 has built-in *Bluetooth*® wireless technology. It has a tested range of 100 feet (30 meters), but actual range varies depending on the output of both paired devices.

Test your Archer 3 with the devices you connect it with. You may find the actual range extends far beyond the tested range.

Pairing a Device

To pair the Archer 3 and another device using *Bluetooth* technology:

1. Turn both devices on.
2. Make *Bluetooth* discoverable on both devices. *Bluetooth* on the Archer 3 is off by default. To activate it, go to *Settings* > *Bluetooth*.
3. In the *Bluetooth* settings screen, a list of all *Bluetooth* devices within range is shown. Tap on the name of the device in the list that you would like to pair with. If prompted, enter the PIN or pass code of the device you want to pair with.

The Archer 3 should now be paired with the device.

Wi-Fi Wireless Networking

The Archer 3 has a built-in Wi-Fi antenna, which allows it to connect to 2.4 GHz Wi-Fi networks.

Connecting to a Wi-Fi Network

To use Wi-Fi, you need to be in range of a Wi-Fi access point to make a connection. To set up Wi-Fi on the Archer 3, follow these steps:

1. Go to *Settings* > *Wi-Fi*.
2. Toggle the radio button in the upper left corner to *On*.
3. The Archer 3 automatically starts scanning the area for available Wi-Fi networks and displays a list.
4. Select the network you want to use and enter the network password (for locked networks). The Archer 3 remembers the Wi-Fi network connections created.

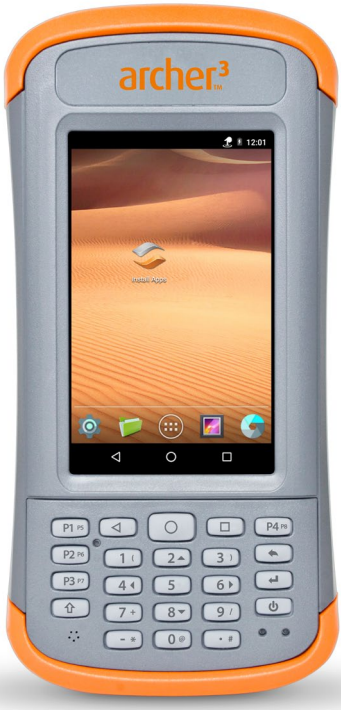
Wi-Fi can be turned off and on and settings can be managed from *Settings* > *Wi-Fi* screen. Tap the network the Archer 3 is currently connected to in order to view information like *Link speed*. Tap and hold to view other options like *Modify network*.

File Sharing

As with other Android devices, file sharing with the Archer 3 is fairly straight forward. The easiest method for sharing files directly with a PC is via micro USB cable. Once the Archer 3 is connected to the PC over the USB cable, the PC will ask permission and then recognized the Archer 3 as it would an external drive.

Other options for file sharing are USB flash drive, *Bluetooth* wireless communications, cloud services, app synching, and email.

3
Optional Features



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Optional Features

This chapter discusses the optional features that can be included with the Archer 3 Rugged Handheld.

GPS/GNSS

Archer 3 Geo models provide position information using an integrated GPS/GNSS receiver. Access the receiver by selecting *Settings* > *Location* and turning it on. Settings can be viewed and edited to suit your needs.

The camera application uses GPS/GNSS for embedding date, time, and GNSS postion into the image metadata. You may also run other navigation and data collection applications that use the position information provided by the GPS/GNSS receiver.

NMEA Sentences

Descriptions of the NMEA Sentences shown on the GNSS control panel menu follow.

NMEA Sentence	Description
DTM	Datum reference
GBS	Satellite fault detection used for RAIM
GGA	Detailed GPS position information
GLL	Latitude and longitude data
GNS	Fix data for single or combined satellite navigation systems
GSA	GPS DOP and active satellite information
GST	GNSS pseudorange error statistics
GSV	GNSS satellites in view
RMC	Recommended minimum specific GNSS data
VTG	Course over ground and ground speed
ZDA	UTC time and date information

NMEA Talker ID

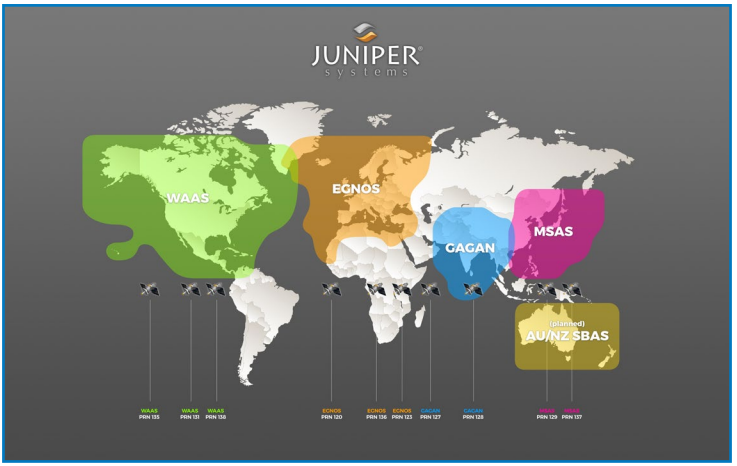
This setting configures the NMEA Talker IDs. These are the

2-character prefixes for every NMEA message that identifies the source GNSS constellation for the data.

- GP–Activates the "GP" (i.e., GPS) Talker ID prefix in any enabled NMEA strings.
- GN–Activates the "GL" (GLONASS), "GA" (Galieo), "GB" (BeiDou), or "GN" (Multi-GNSS) Talker ID prefixes in any enabled NMEA strings.

SBAS System

This setting specifies which SBAS satellites the Archer 3 should use for GPS correction. Usually, selecting Auto is sufficient, since the various SBAS services cover very different geographical areas. However, there are some areas where these services overlap (see map below).



For example, if you are collecting corrected GPS positions in the Northeastern United States, the Archer 3 may be receiving SBAS corrections from WAAS or EGNOS. If the receiver is set to Auto, it may even jump back and forth between the two. The two services use different reference datum or models. Switching between them can cause significant error between different points of data.

In areas of overlap, the best practice is to select a specific SBAS service from which the Archer 3 should accept corrections data.

Elevation Mask Angle
This setting specifies the elevation mask angle cutoff for the receiver. Any satellites below this angle will be ignored, even if available.

Select a value between 0° and 60°. The default angle is 5° because satellites below this angle may have significant tropospheric error.

GNSS Static Hold
The static hold mode is designed to allow you to set a threshold below which the unit will output a stationary position.

This feature is useful in situations where an operator standing still may be confused when the receiver continues to report updated positions and appears to be "bouncing around". This is also useful for operators collecting line or polygon features that need to stop momentarily and do not want to continue to collect data that has slightly different location info and could contribute to incorrect line lengths.

The values are entered in cm/second, with 45 cm/second being approximately one mile per hour. For example, if the threshold is set to 20 cm/second, you must be moving at a greater speed for the unit to update your position information. If your speed is below that threshold, Static Hold will be activated. If you wish to disable the Static Hold feature, set the threshold to zero.

Camera
Archer 3 has the option of a 5MP camera for taking photos and videos. Select the Camera app to manage features and take images.

The camera and flash are located on the back of the Archer 3. The flash can also be used as a flashlight.

Camera and Video Settings

By default, the camera is in photo mode when you open the app.

To switch to video, swipe left to right across the touchscreen. This will bring up a menu for switching between camera and video modes.

Swiping left to right also brings up a settings icon. Tap it to change camera settings.

GNSS Metadata

In Geo models, the Archer 3 can embed date, time, and GNSS position into the image metadata. To do this, Location services must be turned on.

1. Go to *Settings > Location*.
2. Select the radio button to turn on Location services.
3. Open the Camera app, which will then ask if you want to tag your photos and videos with the locations where they're taken.
4. Tap *Next*.

After enabling this feature, you can mange it (turn it off and on) by going to *Settings > Apps > Camera > Permissions*.

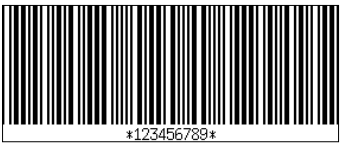
Barcode Scanner

Archer 3 models with a barcode scanner allow you to read 1D and 2D barcodes and easily import barcode data into apps running on the Archer 3.

Quick Start – Easily Scan a Barcode Now

You can scan a barcode as a test using the Barcode Connector app.

1. Open the Barcode Connector app.
2. Find a barcode to scan (samples below):



Code 39

QR Code

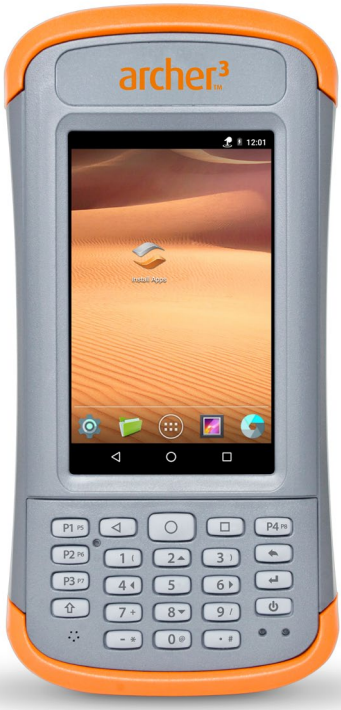
3. Aim the scanner at the barcode along the red beam. Press SCAN on the screen.
4. When the scanner decodes the barcode, the data is placed on the Barcode Connector screen.

Barcode Connector must be running in the background when you are using the scanner with other apps.

You can configure a button to use for scanning in the Barcode Connector app under *Menu > User > Scan Button.*

A

Storage, Maintenance, and Recycling



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Storage, Maintenance, and Recycling

Follow the instructions in this chapter to properly maintain and recycle the Archer 3.

Storing the Archer 3 for More than Two Weeks

To store the handheld for two weeks or more, complete the following steps:

1. Charge the battery pack 30 to 50 percent.
2. Close all running programs, and power off the handheld by holding the power button until the Power menu appears and selecting *Power Off*.

CAUTION: Power-off the Archer 3 before removing the battery. If you remove the battery without powering-off the handheld, you may damage the handheld and/or lose data.

3. Remove the battery pack.
4. Place the battery pack in a dry location.

Cleaning the Archer 3

Touchscreen

1. Rinse the touchscreen in a slow stream of running water to loosen and rinse off any mud, grit, or other abrasive.
2. Apply warm water or a mild cleaning solution to a microfiber cloth and gently wipe off the touchscreen.
3. Rinse with water and dry with a microfiber cloth.

CAUTION: Do not use abrasive pads, soft bristle brushes, or harsh cleaning solutions on the touchscreen.

Case, Bumpers, and Connector Module

Make sure the battery door is securely installed. Use warm water, a mild soap, and a soft bristle brush to clean the case, bumpers, and connector module.

CAUTION: Do not direct a high-pressure stream of water at the device to clean it. This action could break the seal, causing water to get inside the device and voiding the warranty.

CAUTION: Exposure to some cleaning solutions may damage your device, including automotive brake cleaner, isopropyl alcohol, carburetor cleaner, and similar solutions. If you are uncertain about the strength or effect of a cleaner, apply a small amount to a less visible location as a test. If any visual change becomes apparent, promptly rinse and wash with a known mild cleaning solution.

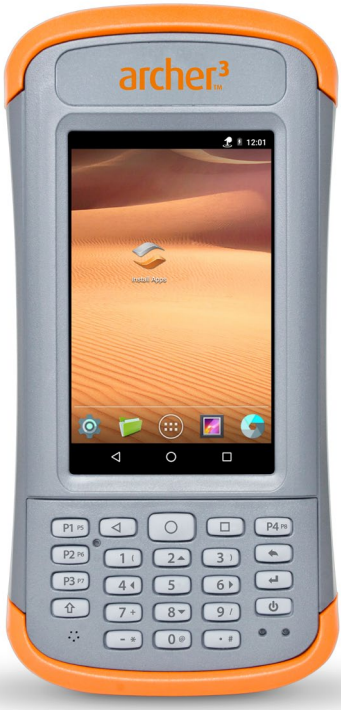
Recycling the Archer 3 and Batteries

When the Archer 3 reaches the end of its life, it must not be disposed of with municipal waste. It is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. If you cannot find a location, contact Juniper Systems for information about disposal.

The Li-Ion battery packs for your Archer 3 are recyclable. Avoid placing them in the trash or municipal waste system. To find the nearest battery recycling center in the USA, visit the Rechargeable Battery Recycling Corporation, *www.call2recycle.org*.

B

Warranty and Repair Information



JUNIPER® systems

Limited Product Warranty

Juniper Systems, Inc. ("JS") warrants that the Archer 3 Rugged Handheld shall be free from defects in materials and workmanship, under normal intended use, for a period of 24 months from the date of shipment.

JS warrants that the following items shall be free from defects in materials and workmanship, under normal intended use, for a period of ninety (90) days from the date of shipment:

- battery packs,
- media containing the Archer 3 programs,
- desktop computer programs,
- user documentation, and
- accessories.

Warranty Exclusions

This warranty shall not apply if:

(i) the product has been set up improperly or has been improperly installed or calibrated,

(ii) the product is operated in a manner that is not in accordance with the user documentation,

(iii) the product is used for a purpose other than for which it was designed,

(iv) the product has been used in environmental conditions outside of those specified for the product,

(v) the product has been subject to any modification, alteration, or change by or on behalf of customer (except and unless modified, changed or altered by JS or under direct supervision of JS),

(vi) the defect or malfunction results from misuse or accident,

(vii) the serial number on the product has been tampered with or removed, or

(viii) the product has been opened or tampered with in any way.

This warranty is exclusive and JS will not assume and hereby expressly disclaims any further warranties, whether express or implied, including, without limitation, any warranty as to merchantability, fitness for a particular purpose, non-infringement or any warranties arising from the course of performance, dealing, or usage of trade. JS specifically makes no warranties as to the suitability of its products for any particular application. JS makes no warranties that

- its products will meet your requirements or will work in combination with any hardware or applications software products provided by third parties,
- the operation of its products will be uninterrupted or error free, or
- all defects in the product will be corrected.

JS shall not be responsible for software, firmware, information, or memory data contained in, stored on, or integrated with any products returned to JS for repair, whether under warranty or not.

Remedy

In the event a defect in materials or workmanship is discovered and reported to JS within the specified warranty period, JS will, at its option, repair the defect or replace the defective part or product. Replacement products may be new or reconditioned. JS warrants any replaced or repaired product for a period of ninety (90) days from the date of return shipment, or through the end of the original warranty period, whichever is longer.

Limitation of Liability

To the fullest extent allowed by law, the obligation of JS shall be limited to the repair or replacement of the product. JS shall in no event be liable for special, incidental, or consequential, indirect, special or punitive damages of any kind, or for loss of revenue or profits, loss of business, loss of information or data, or other financial loss arising out of or in connection with the sale, installation, maintenance, use, performance, failure, or interruption of any product. Any responsibility and/or liability of JS shall, in connection with a

warranted product, be limited in the maximum amount to the original purchase price.

Warranty Repairs

To obtain warranty repair or service on the Archer 3, submit a repair order on our website at

http://www.junipersys.com/support/archer-3/my-product

or contact an authorized repair center within the applicable warranty period. Products returned for repair or service without proper authorization may acquire an additional handling fee and/or delay in the repair. The customer is responsible to prepay all shipping costs when sending equipment to a repair center. The repair center will return the repaired equipment by the same method it was received with costs of shipping prepaid.

Governing Law

This warranty is governed by the laws of Utah, U.S.A. and excludes the United Nations Convention on Contracts for the International Sale of Goods. The courts of Utah shall have exclusive personal jurisdiction in case of any disputes arising out of or in connection with this warranty.

Services and Materials Provided Under Warranty

- Analysis of problem by service technician
- Labor and materials required to fix defective parts
- Functional analysis performed after repair
- Repair turnaround within 10 working days of receipt unless special circumstances exist
- Shipping costs to return device to customer

Extended Warranties

The Archer 3 can be warranted up to 5 years (including the standard warranty period) through the purchase of an extended warranty.

Extended warranties apply only to the Archer 3, not battery packs, media containing the Archer 3 programs, desktop computer programs, user documentation, and accessories.

Parts that are excessively worn are not covered under all warranty plans. These may include, but are not limited to, the keyboard elastomer and switch matrix, hand straps, touchscreens, and connector modules.

Warranty Information

Warranty information for the Archer 3 Rugged Handheld is located on our website at

http://www.junipersys.com/support/archer-3/my-product

You can evaluate and order warranty extensions, check warranty status, and view warranty terms and conditions.

Repairing the Archer 3

CAUTION: Do not attempt to repair the Archer 3 yourself. This action voids the warranty.

Information about repairs, upgrades, and evaluations is located on our website at

http://www.junipersys.com/support/archer-3/my-product

You can locate a repair center, submit a repair order, check repair status, view terms and conditions, get shipping instructions, and view lead times.

Before returning a unit, please get permission by submitting a repair order from our website and waiting for confirmation or by contacting a repair center directly. Be prepared to provide the following information:

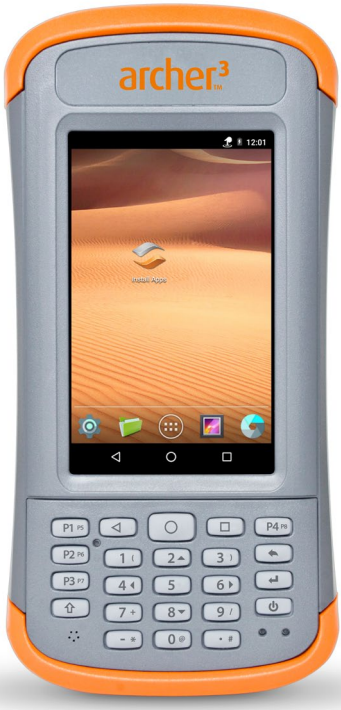
- Product serial number (inside the battery compartment; also found in System Information screen as described on the following page)
- Your name
- Name and shipping address of company/university/ agency
- Best contact method (phone, fax, email, cell/mobile)
- Clear, highly-detailed description of the repair or upgrade
- Credit card/ purchase order number and billing address (for a repair or upgrade that is not covered by the standard warranty or an extended warranty policy)

System Information for your Archer 3

When you contact a repair center, you need some unique system ID information for your Archer 3 (serial number, model number, etc.). Go to *Settings > About this device*. Information about software, hardware, the battery, the network and radio, regulatory information, and legal information can be viewed.

C

Warnings and Regulatory Information



JUNIPER® systems

Product Warnings

Follow the warnings in this chapter to use the AR3 (Archer 3) and accessories safely.

Battery Warnings

WARNING! This device is for professional use only.

This device comes with a lithium ion rechargeable battery pack. To reduce the risk of fire or burns, do not disassemble, crush, puncture, short external contacts, or expose the battery pack to fire.

Do not disassemble, open, crush, bend, deform, puncture, or shred.

Do not modify or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids, expose to fire, explosion or other hazard.

Only use the battery for the system for which it is specified.

Only use the battery with a charging system that has been qualified with the system per this standard. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage, or other hazard.

Do not short circuit a battery or allow metallic conductive objects to contact battery terminals.

Replace the battery only with another battery that has been qualified with the system.

Use of an unqualified battery may present a risk of fire, explosion, leakage or other hazard.

Promptly dispose of used batteries in accordance with local regulations.

Battery usage by children should be supervised.

Avoid dropping the battery. If the battery is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.

Improper battery use may result in a fire, explosion or other hazard.

CAUTION: Risk of explosion if battery is replaced by incorrect type.

Dispose of used batteries according to the instructions.

Wall Charger Warnings

WARNING! To reduce the risk of personal injury, electrical shock, fire or damage to the equipment:

Plug the wall charger into an electrical outlet that is easily accessible at all times.

Do not place anything on the wall charger cord or any of the other cables. Arrange them so that no one may accidentally step on or trip over them.

Do not pull on a cord or cable. When unplugging the wall charger from the electrical outlet, pull on the plug, not the cord.

Use only wall chargers intended for the Archer 3. Using any other external power source can damage your product and void your warranty.

Certifications and Standards

FCC - United States

In compliance with the FCC rules 47 CFR 15.19(a)(3), the statements that follow must appear on the device or in the user documentation.

This device complies with Part 15 of the FCC Rules. Operation of this equipment is subject to the following two conditions:

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

In compliance with the FCC rules, 47 CFR 15.105(b), the user must be notified that 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.

In compliance with the FCC rules, 47 CFR 15.21, the user must be notified that changes or modifications to the Rugged Handheld that are not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Only approved accessories may be used with this equipment. In general, all cables must be high quality, shielded, correctly terminated, and normally restricted to two meters in length. Wall chargers approved for this product employ special provisions to avoid radio interference and should not be altered or substituted.

This device must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada

This device complies with ISED licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the

device.

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

In compliance with Industry Canada rules, the following statement must appear on the device or in the user documentation:

> This Class B digital apparatus complies with Canadian ICES-003.

Radio Frequency Safety

This device has been evaluated for use in close proximity to the body. Use only accessories approved by Juniper Systems. The use of third party accessories may not comply with FCC and international RF exposure requirements. To comply with FCC and other national RF exposure requirements, do not co-locate this device with other transmitters.

This device operates in compliance with the radio frequency exposure limits for an uncontrolled environment. Users must follow instructions provided in the user documentation to satisfy compliance with radio frequency exposure requirements.

There cannot be any alteration to the authorized antenna system.

CE Marking (European Union)

Products bearing the CE marking comply with EU Directive 2014/53/EU.

CE compliance of this device is valid only if powered with/by a CE-marked wall charger provided by the manufacturer. Cables connecting to the USB host port must use a ferrite core/bead on the cable. The ferrite core must be placed on the cable near the end that connects to the Archer 3.

Declaration of Conformity
The Declaration of Conformity for CE Marking is available at: *http://www.junipersys.com/doc*.

Class I and LED Product (Barcode Scanner)
CLASSIFIED EN/IEC 60825-1 2007 & AS/NZS 2211.1:2004"

Complies with 21 CFR 1040.10 & 1040.11 except for deviations pursuant to Laser Notice No. 50 dated June 24, 2007.

CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This barcode scanner is not user-serviceable. Units requiring service or repair must be returned to the factory.

This barcode scanner is not to be opened or modified by the user. This product does not require scheduled maintenance to remain compliant to the applicable standards.

This laser product is designated as Class 1 during all procedures of operation.

Laser

Wavelength	650nm, nominal
Emission	Repetitive Pulsed
Pulse Energy*	7uJ
Pulse Width	9 mSec
Pulse Rep Rate	55Hz, nominal
Divergence	1 Radian XY, approximately
Classification	Class 1

LED (Australia New Zealand only)

Wavelength	635nm, peak
Bandwidth FWHM	20nm
Emission	Repetitive Pulsed
Pulse Energy*	≤3.1uJ
Pulse Width	0.98 mSec

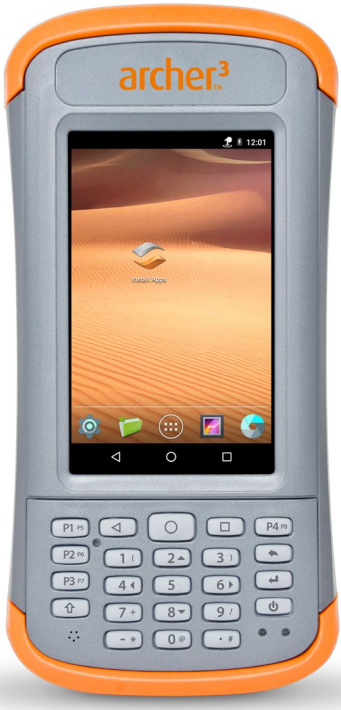
Pulse Rep Rate	55 Hz, nominal
Divergence	Extents: approach hemispheric
Classification	Class 1

Laser & LEDs pulse alternately

* Energy for Classification Purposes

A label with the unit serial number is located on the rear panel of the device

D
Specifications



JUNIPER® systems

Archer 3 Rugged Handheld Specifications

FEATURE	SPECIFICATION
Operating System	■ Android™ 7.1 AOSP by Google ■ English, French, German, Spanish, Brazilian Portuguese (see complete list in *Settings*)
Processor	■ 1.2 GHz Quad Core ARM Cortex A9 i.MX6
Memory	■ 2 GB RAM
Primary Data Storage	■ 16 GB Flash storage
Micro SD/SDXC Card Slot	■ Micro SD/SDXC slot, user accessible
Physical Features	■ Dimensions: 3.6" wide x 7.25" long x 1.5" thick (91 mm x 184 mm x 38 mm) ■ Weight, with battery: - Base - 1.3 lb (590g) - Geo - 1.42 lb (647g) ■ Durable hardened plastic in a shear-proof, shock-resistant design ■ Strong chemical resistance ■ Easy to grip ergonomic form factor ■ Impact-absorbing bumpers ■ Comfortable, wide hand strap
Display	■ Active viewing area: 4.3" (109 mm) color WVGA LCD TFT ■ 800 x 480 pixel resolution ■ LCD backlight ■ Outdoor viewable ■ Portrait (default) or landscape orientation
Touchscreen	■ Capacitive touch interface optically bonded to display to increase visibility ■ Strengthened glass ■ Scratch-resistant screen ■ Touchscreen disable function ■ Touchscreen profile options

FEATURE	SPECIFICATION
Keyboard	■ Numeric keypad ■ Modifier function ■ Programmable keys and LEDs ■ Backlight ■ On-screen keyboard option
Batteries	■ Rechargeable Li-Ion battery pack, 3.6VDC 12000mAh, 43.2Whr ■ Run time of up to 20 hours ■ Charging time 4 to 5 hours ■ Built-in battery intelligence ■ User-replaceable, field rechargeable
Connector I/O Module	■ RS-232C 9-pin D-sub connector, +5VDC @ 500 mA available on ring in pin 9 via software configuration ■ USB Host (Full A) ■ USB Client (Micro B) ■ 12-24VDC jack for power input and battery charging ■ 3.5mm audio jack, supports speaker/ microphone or stereo output (pin detect) ■ Docking contacts for charging ■ Connector protector (hazloc). ■ OEM configurable/customizable
Wireless Connectivity	■ *Bluetooth*® wireless technology 4.2 BR/BDR/BLE "Smart Ready," Class 1.5, range greater than 100 feet (30 m) ■ Wi-Fi 802.11b/g/n (2.4 GHz), U.S. and International
Audio	■ Speaker ■ Microphone ■ 3.5 mm audio jack, supports stereo headset and microphone at the same time (speaker disable)

FEATURE	SPECIFICATION
LED Activity Indicators	▪ Red: power applied/charging status ▪ Blue: notification, application programmable ▪ Green: shift function, application programmable
Temperature Specifications	▪ Operating Temperature: –22° to 140° F (–30° to 60° C). *Note: Bluetooth® wireless technology is rated to –4° to 122° F (–20° to 50° C).* ▪ Storage Temperature: –22° to 158° F (–30° to 70° C) ▪ Battery Charging Temperature: 32° to 122° F (0° to 50° C) ▪ Max use temperature for switching the power supply is 104° F (40° C)
Shock Resistance	▪ Withstands multiple 5 foot (1.5 m) drops to concrete
Environmental Ratings and Standards	▪ IP68 rating, waterproof and dustproof ▪ MIL-STD810G test procedures: - Method 500.5 Low Pressure (Altitude) - Method 501.5 High Temperature - Method 502.5 Low Temperature - Method 503.5 Temperature Shock - Method 506.5 Rain - Method 507.5 Humidity - Method 510.5 Sand and Dust - Method 512.5 Immersion - Method 514.6 Vibration - Method 516.6 Shock
Warranties	▪ 24 months for Archer 3 ▪ 90 days for accessories ▪ Extended service and maintenance plans

FEATURE	SPECIFICATION
Software Included	▪ Barcode Connector (Barcode models) ▪ Calculator ▪ Calendar ▪ Camera ▪ Clock ▪ Contacts ▪ Downloads ▪ Email ▪ Files ▪ Gallery ▪ Music ▪ Opera (web browser) ▪ Search ▪ Settings ▪ Sound Recorder *Note: Software on individual units may vary from this list.*
Configurations	▪ Base with Wi-Fi, Bluetooth, 2GB RAM, 16GB Storage - Optional Camera - Optional Barcode ▪ Geo with Base features plus GPS/ GNSS - Optional Camera - Optional Barcode ▪ Hazloc with Base features plus CI, II, III, D2 Hazloc ▪ Hazloc Geo with Base features plus CI, II, III, D2 Hazloc and GPS/GNSS - Optional Camera - Optional Barcode + Camera

FEATURE	SPECIFICATION
Camera	■ 5MP resolution ■ Autofocus ■ LED illuminator ■ Video capture ■ JPEG image format ■ Embed image metadata with date, time and GPS/GNSS position ■ Flash and flashlight
GPS/GNSS (Geo models)	■ High-sensitivity GPS, GLONASS, Galileo, BeiDou, QZSS, SBAS receiver ■ 2 to 5 meter typical accuracy ■ Enhanced performance under heavy canopy ■ Integrated real-time SBAS capability, support for WAAS, MSAS, EGNOS ■ File format NMEA-0183 version 4.0 output, default strings: GGA, GSA, GLL, GSV, RMC, VTG, ZDA, TXT ■ 72 GNSS tracking channels

FEATURE	SPECIFICATION
Barcode Scanner	▪ Sensor Resolution: 752 X 480 ▪ Field of View: Horizontal 40°, vertical 25° ▪ Reading Angles: Skew & pitch ±60°, roll 360° ▪ Read Range: 1" to 24" depending on code type, size, and density ▪ Symbologies: All common 1D, 2D (PDF417, MicroPDF417, Composite, RSS, TLC-39, Data matrix, QR code, Micro QR code, Aztec, MaxiCode, Postal codes, etc.) ▪ Trigger Buttons: Programmable ▪ Aiming Crosshair Pattern: Visible with low light illumination ▪ Barcode Connector™ Utility: Wedge and configuration ▪ Certification: Class 1 Laser and LED Product ▪ Power: 1.49W active, 0.54W standby, 8mW sleep; by default device returns to sleep after 1 second of inactivity
Certifications and Standards	▪ FCC Class B ▪ CE Marking (applicable EMC, R&TTE, and LVD directives) ▪ Industry Canada ▪ EN60950 Safety ▪ Bluetooth SIG qualification ▪ USB client ▪ IP68 waterproof (1.4m for 2 hours) and dustproof ▪ Designed to MIL-STD 810G ▪ Optional Class I, II, III Division 2 for hazardous locations

FEATURE	SPECIFICATION
Standard Accessories	■ Li-Ion battery ■ Hand strap ■ USB micro client sync cable ■ AC wall charger with international plug kit - Input: 100-240VAC, 50/60Hz, 0.5A - Output: 12VDC, 1.67A ■ Capacitive stylus and tether ■ Screwdriver ■ Quick Start Guide ■ Owner's Manual (available on our website) ■ Two-year warranty
Optional Accessories	■ Shoulder strap ■ Serial cable ■ Vehicle charging adaptor ■ Holster case ■ Flip cover fitted case ■ 8GB micro SDHC memory card ■ Premium screen protectors ■ External GNSS antenna *See your sales associate for more details on optional accessories.*

Note: Specifications are subject to change without notice.

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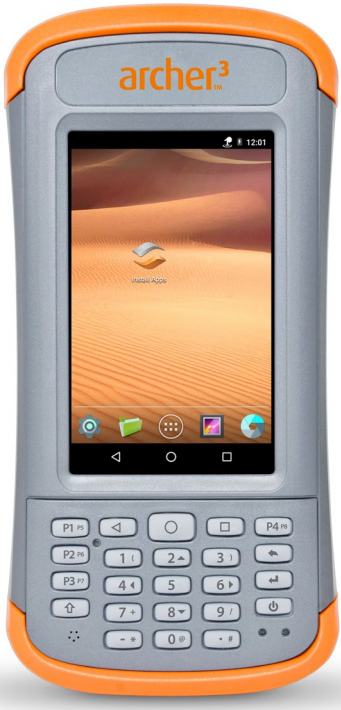

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