

PD470
Mobile Computing Device

User's Manual

Version 2.0



2018.11

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Revision History

Version	Release Time	Description
1.0	November 2018	Initial release
2.0	Dec 2018	Add FCC warning

Copyright

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The information in this document is subject to change without prior notice in order to improve the reliability, design and function. It does not represent a commitment on the part of the manufacturer.

Under no circumstances will the manufacturer be liable for any direct, indirect, special, incidental, or consequential damages arising from the use or inability to use the product or documentation, even if advised of the possibility of such damages.

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 AMobile products.

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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. This kind of cable is available from AMobile. Please contact your local supplier for ordering information.

Emergency call

If any emergency arises, dial 112/911 (or other emergency call number) for emergency help.

Due to the nature of cellular networking, the success of emergency call is not guaranteed.

FCC Warning:

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.

Any changes or modifications not expressly approved by the guarantee of this device could void the user's authority to operate the device.

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.

The SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue.

Mobile Computing Device PD470 model (FCC ID: 2AQ5W-PD470) has also been tested against this SAR limit. The highest reported SAR values for head, body-worn accessory, and product specific (Hotspot) are 0.78W/kg, 0.79 W/kg, and 0.79 W/kg respectively. The Max simultaneous SAR is 1.10 W/kg. This device was tested for typical body-worn operations with the back of the handset kept 10mm from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain a 10mm separation distance between the user's body and the back of the handset. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.

5G

For 5150-5250 and 5725-5850 frequency band,

Operations in the 5150-5250 and 5725-5850 band are restricted to indoor usage only.

5G:

Any emission is maintained within the band of operation under all conditions of normal operation. The max. frequency stability is less than 20ppm.

RoHS

AMobile Intelligent Corporation 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 Device (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.

AMobile Intelligent Corporation 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 to the earth we live, AMobile 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)

Safety Symbols



This symbol indicates that a potential hazard to personal safety exists from a laser source. When this symbol is displayed in this manual, pay special attention to the specific safety information associated with the symbol

Important Safety Instructions

Read these safety instructions carefully:

1. Read all cautions and warnings on the device.
2. Dropping it or letting it fall may cause damage
3. Make sure the correct voltage is connected to the device.
4. For pluggable device, the socket outlet should be near the device and should be easily accessible.
5. Disconnect this device from the A/C outlet before cleaning it. Use a moist cloth. Do not use liquid or sprayed detergent for cleaning.
6. Do not scratch or rub the screen with a hard object.
7. 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.

8. Remove dirt with a lightly moistened cloth and a mild solvent detergent. Then wipe the cabinet with a soft drycloth.
9. If the device will not be used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
10. Never pour any liquid into openings. This may cause electrical shock.
11. Never open the device. For safety reasons, the device should be opened only by qualified service personnel.
12. If one of the following situations arises, get the device checked by service personnel:
 - a. The power cord or plug is damaged.
 - b. Liquid has penetrated into the device.
 - c. The device does not work well, or you cannot get it to work according to the user's manual.
 - d. The device has been damaged.
 - e. The device has obvious signs of breakage.
13. Keep this User's Manual for later reference.
14. Do not leave this device in an uncontrolled environment where the storage temperature is below -20°C (-4°F) or above 55°C (131°F). This may damage the device.



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



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

Laser Safety

The device's barcode scanner that uses laser lights is a class 2 laser product. DO NOT stare into the laser beams or point the laser beam at anyone's eyes when the barcode scanner is in operation.



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 device in its ideal operating temperature (as described in [1.5 Specifications](#)) – do not leave it in a hot trunk during the summer.

- **Important Terms to Understand**

“Battery life” means the time the device 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 Device for the FirstTime**

Be sure to fully charge (approx. 3 hours) the device when charging the device for the first time.

- **Long-Term Storage & Maintenance**

If you are putting away the device for more than three months, it is recommended that get recharged every three months. If you store with 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 device at the proper temperature (as described in [1.5 Specifications](#)).

- **Battery Lifespan**

The non-replaceable batteries for the device are designed to retain up to 80% of their original capacity after 300 charging and recharging cycles when properly maintained. You may choose to replace new battery with the help of qualified service personnel 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 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 fully charged, and get recharged every three months. If you store the device with 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 your the device and battery at the proper temperature (as described in [1.5 Specifications](#)).
- The battery consists of precise electrical components and cells. Do not drop or hit the battery.

General Cleaning Tips

You may need the following precautions before you begin to clean the device. When you clean any single part or component for the device, please thoroughly read and understand the details below.

1. We strongly recommended that you should shut down the system before you start to clean.
2. When you need to clean the device, please rub it with a piece of dry cloth.
3. Never get circuit board damp or wet.
4. Be cautious of all kinds of cleaning solvents or chemicals when you use it for the sake of cleaning. Some individuals may be allergic to the ingredients.
5. Try not to put any food, drink or cigarette around the device.

Cleaning Tools

Although many companies have created products to help improve the process of cleaning your devices and peripherals, users can also use household items to clean their devices and peripherals. Below is a listing of items you may need or want to use while cleaning your devices or peripherals. Keep in mind that some components in your device may only be able to be cleaned using a product designed for cleaning that component, if this is the case it will be mentioned in the cleaning.

- **Cloth:** A piece of cloth is the best tool to use when rubbing up a component. Although paper towels or tissues can be used on most hardware as well, we still recommend you to rub it with a piece of cloth.
- **Water or rubbing alcohol:** You may moisten a piece of cloth a bit with some water or rubbing alcohol and rub it on the device. Unknown solvents may be harmful to the plastics parts.
- **Cotton swabs:** Cotton swabs moistened with rubbing alcohol or water are excellent tools for wiping hard to reach areas in your keyboard, mouse, and other locations.
- **Foam swabs:** Whenever possible, it is better to use lint-free swabs such as foam swabs.

Recommended Cleaning Procedures

1. Close all application programs
2. Close operating software
3. Turn off the device
4. Remove all peripherals
5. Disconnect the power cable
6. Proceed to clean.

Disposing of the Device

- **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.

http://amobile-solutions.com/web_en/contact.php

E-mail: support@amobile.com.tw

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.

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Chapter 1

Introduction

1.1 Product Highlights

- Fully rugged for warehousing / transportation / medical / retail applications
- IP67, 1.5M (5ft.) drop resistance
- 5" TFT color LCD 1280 x 720 HD resolution
- Projected capacitive multi-touch panel with anti-reflection Corning® glass
- High mobility with multiple connectivities including WLAN, Bluetooth and WWAN
- Optional built-in barcode imager
- With optimized battery life up to 8 hours
- G-sensor, gyroscope, light sensor, E-compass, GPS navigation
- Fingerprint authentication for security protection
- Lightweight design for daily use, 243g

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:



5" Rugged Android™ Mobile Computing Device



USB Cable



User Manual



Adapter

1.3 Parts of the Device



1	Barcode Scanner	9	Barcode Trigger Key (Left)
2	Front Camera	10	Volume Key
3	USB Port	11	Power Key
4	SIM Card Slot	12	Barcode Trigger Key (Right)
5	Function Key	13	Rear Camera

1.4 Dimension



1.5 Specifications

Durability Features	
IP-67	
1.5M (5ft.) drop-resistance	
System	
CPU	octa-core processor MTK 6762 4*A53 2.0GHz/4*A53 1.5GHz
OS	Android™ 8.1
Memory	2GB
Storage	16GB
Audio	Integrated microphone
	Integrated speaker
Peripherals and Devices	
Camera	Front: 5.0 megapixel camera
	Rear: 13.0 megapixel AF camera with LED
Sensor	Accelerometer (G-sensor)
	3-axis digital gyroscope
	E-Compass/Proximity Sensor
Light Sensor	Ambient light sensor
WLAN	Integrated IEEE 802.11 a/b/g/n /ac/r
Bluetooth	Integrated Bluetooth 4.2 LE + with HID input
WWAN	Support, details refer to datasheet
Navigation	GPS, Glonass, Beidou
Barcode Scanner	1D/2D barcode reader with physical trigger buttons
I/O Interface	
USB Port	1x Nano+ T Card/ 2x Nano (up to 128GB)
SD Slot	1 x microSD card slot (up to 128GB)

LCD Display	
Size/Type	5" TFT LCD
Resolution	1280 x 720
Touch Screen	
Type	5-point Projected Capacitive Touch screen
	Corning® glass coating w/ anti-reflection coating
Power Supply	
Power System	Lithium-ion battery
	Lithium-ion rechargeable battery
Battery Type	non-replaceable
Battery Capacity	4000mAh
Battery Life	Up to 8 hours battery life
Adapter Input	Input: AC100~240C, 50~60 Hz
Adapter Output	DC power output: 9V/2A
Mechanical & Environmental	
Operating Temp.	-40 ~ 70°C (-40°F ~ 158°F)
Storage Temp.	-20 ~ 55°C (-4°F ~ 131°F)
Dimensions (W x H x D)	160 x 76 x 22 mm (6.3" x 2.99"x 0.87")
Weight	243g (0.54lb) (with battery)

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Chapter 2

Getting Started

2.1 Installing microSD and SIM Card

To install the microSD card and/or SIM card:



Figure 2-1
Pull out the plug



Figure 2-2
Insert the small hole with
a metal pin



Figure 2-3
Take out the SIM Tray when it
pops up.



Figure 2-4
As the diagram shown, insert
SIM Card and TF Card.

2.2 Charging the Battery

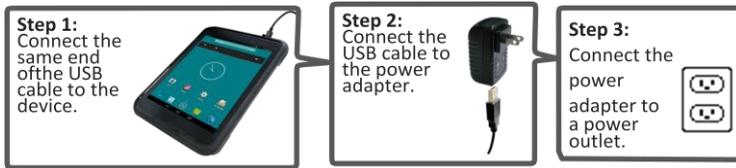
Due to shipment, the battery is partially drained when the package is delivered to you. Be sure to charge the battery to full when you are charging it for the first time.

Caution: Do not charge the PD470 via computer USB connection due to that the voltage output from computer USB is not enough to charge the device.

2.2.1 Charging the Battery

To charge the battery using an electrical outlet:

1. Using the USB cable that comes with the device, connect the small end of the cable to the USB port on the device.
2. Then connect the other end of the USB cable to the power adapter.
3. Connect the power adapter to an electrical outlet.



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.

2.2.2 Checking the Battery Level

When the charging is in process, a battery indicator will appear in the status bar showing the charging percentage. Unplug the USB cable from the device when the battery is fully charged.

2.3 Installing/Replacing the Battery

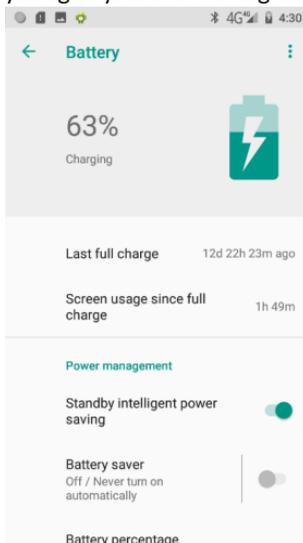
Please contact qualified service personnel for battery replacement.

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 access settings-> Battery.



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

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Chapter 3

Using the Rugged Mobile Computing Device

3.1 Using Touch Screen

The PD470 comes with a projected capacitive multi-touch screen. Touch control is the main way to interact with the PD470. Users are able to manipulate icons, graphic buttons, menus, the onscreen keyboard or any onscreen items with touch control. This chapter will walk you through the basic operations.

3.1.1 Basic Operations

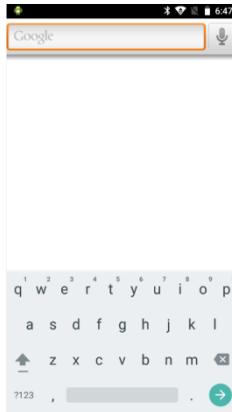
The table below provides instructions on how to use the multi-touch screen:

Operation	Description
Tap	Tap an item and quickly release to select an item, launch an application, or open a menu.
Tap and hold	Tap and hold an item or a blank area on the screen for a few seconds until a menu opens or an option appears.
Drag	Tap and hold on an item, such as an image or an icon, then move it to the target position. While dragging, do not release until you have reached the target position.
Swipe	Move your finger horizontally or vertically across the screen to scroll through the screen, App menu, pages, lists and so on.
Zoom in / out	Move two fingers closer together on an item, such as a picture, web page, or map, to zoom out, or move two fingers apart to zoom in.
Double Tap	For some applications, quickly tap twice on an item to zoom in and double-tap again to zoom out.

3.1.2 Text Input

The PD470 doesn't have a physical keyboard to receive user's text input. To input text on the device, it relies on the "onscreen keyboard" featured by the operating system. An "onscreen keyboard" is a virtual keyboard with most of the standard keys.

To open the onscreen keyboard, simply tap a text input field and the keyboard appears.



3.1.3 Sleep Mode

When the device suspends to sleep mode, it enters a low power state and the display is off to save the battery power. You can manually force the device to enter sleep mode or specify a period of inactivity before it automatically enters sleep mode. While the device is in sleep mode, it is still capable of receiving messages and calls and processing tasks like downloading.

To switch to sleep mode, press the **Power** key until the screen is turned off.

To wake up the device from sleep mode, press the **Power** key until the screen is turned on. If the screen is locked, swipe the lock icon to the outer circle to unlock the device.

To specify the period of inactivity, swipe down the **Status Bar** in the upper right corner and tap **Settings | Display | Sleep**. Then select a time of inactivity before the device enters sleep mode

3.2 Home Screen

The **Home** screen provides you with an instant access to device status, notifications, application shortcuts, folders and widgets. Simply tap an item and you can launch the associated application. You can also add desired items to the **Home** screen, extend the **Home** screen or personalize the wallpaper to tailor it to your personal needs.

When you power on the device for the first time, a typical **Home** screen looks like the example below.



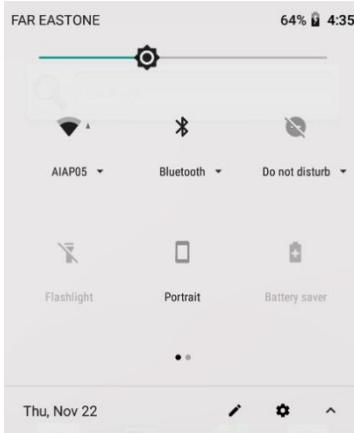
The table below describes the elements on a typical **Home** screen:

Element	Descriptions
Notification Area	<p>The Notification Area is visible across the Home screens. This area informs you of new messages, events, alarms, and activities in progress. Applications you install on your device may show their own icons or messages in the area.</p> <p>You can access the notification panel to see more information by swiping down the Notification Area.</p>
Status Bar	<p>The Status Bar is visible across the home screens. It shows the time, signal strength, battery status, and other information. Applications you install on your device may show their own icons in this area.</p> <p>You can swipe down the Status Bar to access a Quick Settings panel where you can quickly access some most commonly used settings and features.</p>
Home Screen	<ul style="list-style-type: none"> • Tap an item on this screen to launch that item. • To delete an icon or widget, tap and drag the item to the top of the screen until the Remove bar appears on the top of the screen. Then move the icon to the Remove bar. • Tap and hold any empty spot on this screen to customize your home screen.
Widget	The miniature of an application that functions directly on the Home screen.
App Launcher	Tap it to open the " App Launcher " where all applications installed on the PD470 can be viewed and launched.
Bottom Dock	The dock is visible across the home screens. It shows the most commonly used App icons for quick access. You can change the icons as needed.
Back Button	Tap to go to the previous screen.
Home Button	Tap to return to Home scree.

3.2.1 Using the Quick Settings Panel

Swiping down the **Status Bar** will bring up a **Quick Settings** panel where you can quickly access some most commonly used settings and features. To enable/disable a feature or switch between available options , simply tap the intended tile. It appears dimmed when disabled and brightened when enabled.

For some features such as Wi-Fi, Bluetooth, Flashlight, Portrait, Airplane mode, you can also tap and hold the tile to directly access the settings page.



Swipe down the **Status Bar** to access the **Quick Settings** panel.

For some feature tiles, you can

- tap to enable/disable a feature
- tap and hold to quickly access its settings page

3.2.2 Extending Home Screen

The **Home** screen is extended beyond the screen width to provide more space for adding application shortcuts and widgets.

To access the extended **Home** screen, swipe on the **Home** screen to the left or right.

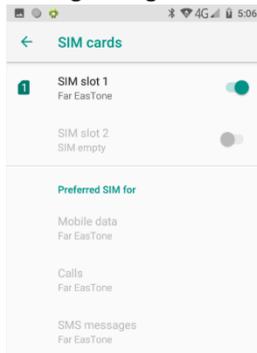
To add application icons or widgets to the extended **Home** screen:

1. Tap the **App Launcher** icon on the **Home** screen to locate the target application icon or widget.
2. Tap and hold the target icon or widget until the extended **Home** Screen appears.
3. Move the icon or widget to desired screen and then release.

3.3 Using Cellular Network

After you insert the SIM card(s) to the PD470 for the first time and power on the PD470, depending on your mobile network carrier you might be guided to activate the account and connect to your mobile network. If you are asked for a PIN to unlock the SIM card when powering on the PD470, contact your cellular network carrier for the default PIN.

When a new SIM card is detected by the PD470, you will be prompted to configure its usage, including voice call, messaging and data connection. You can configure it now or change the settings later by accessing setting-> Network & Internet->SIM Cards.



Featuring dual-SIM card slots, the PD470 supports dual-SIM mobile connection, allowing you to enjoy constant and seamless Internet connection. Two cellular network icons will be displayed in the **Status Bar** to indicate the connectivity and signal strength.

Icon	Description
	No signal or no SIM card inserted.
	Connected to a cellular network. (The more bars are lit, the stronger the wireless signal is)

Different locations may have different mobile networks available. The PD470 adopts the fastest mobile network available for data. However, in order to extend the battery life, you can configure the PD470 to use only a slower 2G network for data. You can also configure the PD470 to access a different set of networks entirely, or to behave in special ways when roaming.

If there is no SIM card, the PD470 isn't capable of 3G voice and data services; however it is still able to connect to a Wi-Fi network to log into a wireless local area network. To learn more, see [3.4 Using the Wi-Fi Feature](#).

3.3.1 Making/Receiving Calls

After you activate your SIM card(s), the PD470 auto-connects to your cellular network when it powers on. You can start to use the phone service.

Using phone service, e.g., making or answering a call, is similar to the way you use a mobile phone.

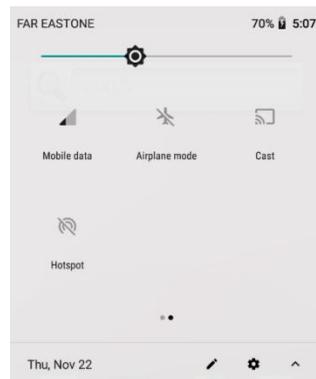
To use the device for phone service, it is suggested that you connect a wired headset to the device's headset connector or use a wireless Bluetooth headset or car kit. For instructions on how to connect to a Bluetooth device, see [3.5 Using the Bluetooth Feature](#) for details. And you can hold the device at the ear as well.

3.3.2 Data Connection

Connecting to a cellular network enables you to use voice service as well as data connection service, e.g., the Internet connection. However, in most cases using Wi-Fi for data connection is faster and less expensive than using a cellular network and you may want to disable data connection of your SIM card when Wi-Fi is available. On the other hand, you may want to enable cellular data connection when Wi-Fi is not available.

To enable or disable data connection:

1. Swipe down the **Status bar** and tap **Mobile data**.
2. Enable data connection for a desired SIM card or tap **Off** to disable data connection.



3.3.3 Data Roaming

When the PD470 moves to where your cellular network is not available, data roaming connects the PD470 to other service providers. This is often useful abroad if you want to keep receiving data across networks. However, the mobile rates can substantially increase as the costs for accessing the Internet are particularly high. Under such situation you may want to disable the data roaming function of the SIM card.

To enable or disable data roaming:

Swipe down the **Status bar** and tap **Settings | NETWORK & INTERNET | SIM Cards**

While data roaming is disabled, you can still use Wi-Fi connection to access the Internet data. See [3.4 Using the Wi-Fi Feature](#) for more information.

3.4 Using the Wi-Fi Feature

The PD470 is capable of Wi-Fi networking. Wi-Fi is a wireless networking technology that uses an access point, also known as the “hotspot”, to connect to an Internet service provider over the wireless local area network (WLAN). Some hotspots are open to connect while others request you to present a key to authenticate your connection. The PD470 needs to be configured including such key to connect to a hotspot.

Follow the guide below to connect the PD470 to your wireless local area network:

Note: Turn off Wi-Fi when it isn’t used to extend battery life.

The **Status Bar** displays the following icons that shows Wi-Fi status.

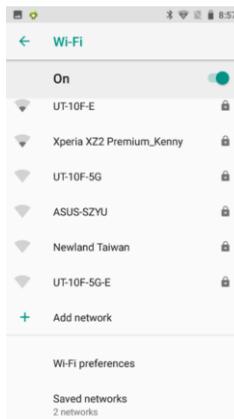
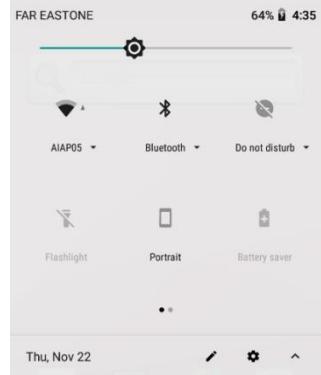
Icon	Description
	Notifies that an open Wi-Fi network is in range.
	Notifies that a Wi-Fi network is connected. Waves indicate signal strength.

3.4.1 Enabling Wi-Fi and Connecting to a WLAN

1. Swipe down the **Status bar** and tap the **WI-FI** tile to enable Wi-Fi if it isn't enabled yet.
2. In the **Quick Settings** panel, tap and hold the **WI-FI** tile to access the Wi-Fi settings page.

The PD470 then proceeds to scan for available Wi-Fi networks in range and displays the names of those found. Secured networks are displayed with waves denoting signal strength plus a lock on  while the open networks don't.

To re-scan for available Wi-Fi networks, tap the menu Off, and on.



Tap a network to connect to it. To connect to a secured network, you're prompted to enter a password or other credentials. (Ask your network administrator for details.)

If the PD470 detects a network previously connected to, the PD470 auto-connects to it.

Once a Wi-Fi network is connected, it displays as "connected" on the Wi-Fi settings screen. Tap it to see the details about the speed, security, address, and related info.

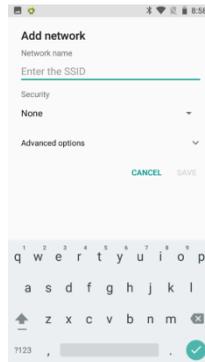
3.4.2 Adding a Wi-Fi Network

Under the following situations, you may need to manually add a Wi-Fi network:

- When a Wi-Fi network doesn't broadcast its name (SSID)
- When a Wi-Fi network is out of range and you want the PD470 to remember it and auto-connect to it as soon as it gets in range.

To add a Wi-Fi network:

1. Swipe down the **Status bar** and tap the **WI-FI** tile to enable Wi-Fi if it isn't enabled yet.
2. In the **Quick Settings** panel, tap and hold the **WI-FI** tile to access the Wi-Fi settings page.
3. Tap the plus sign icon to open the **Add network** dialog box.



4. Enter the SSID (name) of the network. If the network is secured, tap the triangle at the right of the **Security** field to select the type of security deployed on the network and enter any required security credentials.
5. Tap **Save**.

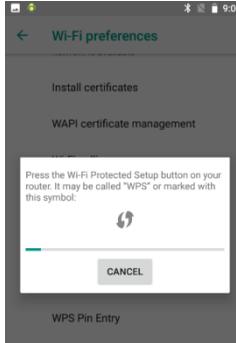
The PD470 then proceeds to connects to the Wi-Fi network. Any credentials entered are saved so the PD470 automatically connects it the next time the PD470 gets it within the range.

3.4.3 Connecting to a Wi-Fi Network by WPS

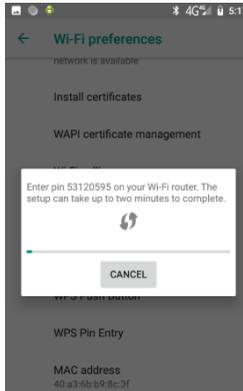
Wi-Fi Protected Setup (WPS) is a feature that allows WPS-compliant devices to connect to each other instantly in a secure way. As the WPS devices automatically configure the SSID and WPA security key, it eliminates the need for users to manually enter the SSID and password. WPS works in two methods: Push or personal identification number (PIN). To connect to a Wi-Fi network via WPS:

1. Swipe down the **Status bar** and tap the **WI-FI** tile to enable Wi-Fi if it isn't enabled yet.
2. In the **Quick Settings** panel, tap and hold the **WI-FI** tile to access the Wi-Fi settings page.
3. Use either of the following methods to make the connection:

Wi-Fi | Wi-Fi preferences | advanced | WPS Push button, tap the WPS icon and a prompt message will appear. Then press the WPS button on your WPS router within two minutes



To use PIN method, **Wi-Fi | Wi-Fi preferences | advanced | WPS Pin Entry** tap the **WPS Pin Entry**. You will be prompted with a PIN. Enter that PIN on your Wi-Fi router within twominutes.



4. WPS authentication process will start. When the authentication is done, you will be prompted that connection is successful.

3.4.4 Forgetting/Modifying a Wi-Fi Network

When you don't want the PD470 to "auto" connect to a Wi-Fi network or when it is a network that you no longer use, remove the Wi-Fi network by the steps below:

1. Swipe down the **Status bar** and tap the **WI-FI** tile to enable Wi-Fi if it isn't enabled yet.
2. In the **Quick Settings** panel, tap and hold the **WI-FI** tile to access the Wi-Fi settings page.
3. On the Wi-Fi settings screen, tap network to forget.
4. Tap **Forget**.

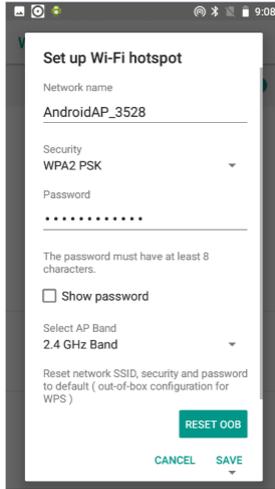
Some Wi-Fi networks may periodically change their passwords to enhance the network security. When this occurs, you need to change the saved login credentials. To change the password, follow the steps above to access the context menu of the intended network. Then tap **Modify network** to make the changes.

3.4.5 Making Your Device a Wi-Fi Hotspot

When the PD470 is connected to a 3G network, you can share the connection with your laptop or other devices by making your PD470 a Wi-Fi hotspot. To do so:

1. Swipe down the **Status bar** and tap **SETTINGS | NETWORK & INTERNET | Hotspot & tethering | Wi-Fi hotspot**.
2. Tap Wi-Fi hotspot slider to enable the hotspot function.
3. Tap **Set up Wi-Fi hotspot** to configure the settings as needed:
 - **Network name:** Enter a name to identify the wireless network created by the PD470.
 - **password:** To prevent your device from being accessed by unauthorized users, it is strongly recommended that you set up a password to protect your network.

When Wi-Fi hotspot is enabled, a Wi-Fi hotspot icon  will appear in the **Notification Area**. You can swipe down the icon to see the connection information.



3.5 Using the Bluetooth Feature

Bluetooth enables the wireless connection over a short distance about 8 meters. It is specified as a "wireless personal area network" (WPAN). The PD470 is Bluetooth-capable to synchronize data with other Bluetooth-capable devices such as PCs, laptops, hands-free, headsets, printers, PDAs and cell phones.

Before the PD470 can connect a Bluetooth device, it needs to pair with that device. Such "pairing" involves the authentication between them to justify their accesses to each other. Once they are paired, they stay paired unless they are unpaired.

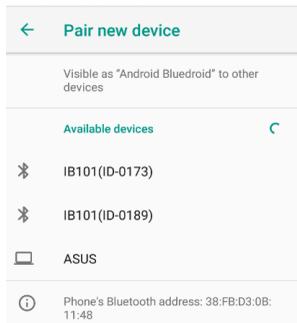
The **Status bar** displays the following icons that indicate Bluetooth status.

Icon	Description
	Bluetooth is on.
	Connected to a Bluetooth device.

3.5.1 Enabling Bluetooth and Pairing with Bluetooth Device

To enable or disable the Bluetooth function:

1. Swipe down the **Status bar** and tap the **BLUETOOTH** tile to enable Bluetooth if it isn't enabled yet.
2. In the **Quick Settings** panel, tap and hold the **BLUETOOTH** tile to access the Bluetooth settings page.
3. If the Bluetooth device you want to pair with is not displayed in the **AVAILABLE DEVICES** list, tap **Pair new device**.

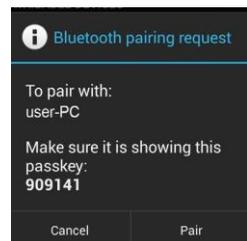


The PD470 proceeds to scan for any Bluetooth device in range. Then it displays the names of the device(s) found.

If the PD470 stops scanning before the other device becomes discoverable, tap **Pair new device** again.

Note: If the device to pair with isn't displayed after the scan, check if it is configured to be discoverable.

4. Tap the device you want to pair with. When the **Bluetooth pairing request** dialog box appears, tap **Pair**. The PD470 will then send a connection request to the device you want to pair with.



On the device to pair with, a dialog box appears requesting to enter or verify the pairing code. The passkey entered or shown on the PD470 and the Bluetooth device must be the same.

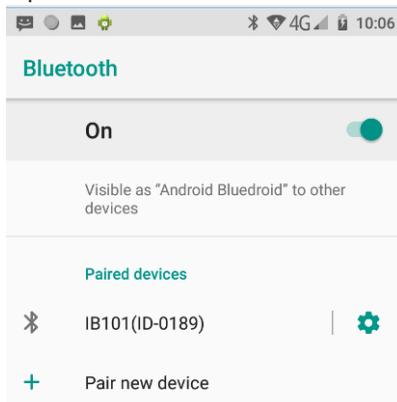
If you're prompted to enter a pin code, try entering 0000 or 1234 (the most common pin code), or look up in the documentation that came with the other Bluetooth device to learn its pin code.

Then the devices proceed to pair with each other.

3.5.2 Configuring Bluetooth Features to Use

A "Bluetooth profile" defines the features supported by a Bluetooth device. For two Bluetooth devices to share files with each other, they need to both support the right profile. Some Bluetooth devices have multiple profiles. A profile can provide the ability to transmit phone conversations, to play music in stereo, or to transfer files or other data. The operating system allows you to configure the profiles you want to use on the PD470.

1. Swipe down the **Status bar** and tap the **BLUETOOTH** tile to enable Bluetooth if it isn't enabled yet.
2. In the **Quick Settings** panel, tap and hold the **BLUETOOTH** tile to access the Bluetooth settings page.
3. Tap the  icon at the right of a paired device. A "Paired Bluetooth device" page opens for that paired device.
4. Select or deselect a profile to use it.



3.5.3 Disconnect from a Bluetooth Device

To disconnect the PD470 from a Bluetooth device:

1. Swipe down the **Status bar**. In the **Quick Settings** panel, tap and hold the **BLUETOOTH** tile to access the Bluetooth settings page.
2. In the **PAIRED DEVICES** list, find the device to disconnect.
3. Tap the  icon at the right of the device.

A "Paired Bluetooth device" page opens for that paired device.

4. Tap **FORGET**.

The selected device is unpaired and disconnected.

3.5.4 Making Your Bluetooth Device Discoverable

To allow other Bluetooth-enabled device to find the PD470, you have to make sure the PD470 is visible to other devices in addition to enabling Bluetooth feature. After you turn on the Bluetooth the PD470 will be visible.

3.5.5 Additional Bluetooth Settings

From the Bluetooth settings page, tap the menu icon on to get the following options:

1. **Device name:** Allows you to edit the Bluetooth name of the PD470 that will be shown to others when they try to search for it.
2. **Received files:** Open the location where downloaded and uploaded Bluetooth files are stored.

3.6 Using the Location Feature

The PD470 features positioning function to identify your location. It allows location-based Apps to collect and use your location information to provide location-related service. For example, a third-party App might want to pinpoint a vehicle's location so as to provide a more efficient route for the driver upon traffic congestion. For a location-based App, you can individually configure whether it is allowed to access to location services when the service is on.

Note: When you turn off the location service, you also turn it off for the Apps that use this service. That means location-based service will stop and not be available.

3.6.1 Enabling/Disabling Location Service

To turn on or off location service, swipe down the **Status bar** to bring up the **Quick Settings** panel. Then access the **Security & location | Location** tile to turn it on or off.

3.6.2 Location Mode

In addition to GPS satellite method, the PD470 also supports Assisted GPS (A-GPS), a method using Wi-Fi and cellular networks to speed up startup positioning performance. According to the position mode, the battery drain and position accuracy varies.

To select a location position mode when the location service is on,

1. Swipe down the **Status bar** and tap the **LOCATION** tile to enable the location service if it isn't enabled yet.
2. In the **Quick Settings** panel, tap and hold the **LOCATION** tile to access the location settings page.
3. Tap **Mode** and select a mode:
 - **High accuracy:** This mode uses GPS, Wi-Fi and cellular networks to determine location. It drains the battery faster yet higher accuracy is achieved compared to the other two modes. Select this mode if precise location matters to you.

- **Battery saving:** This mode uses Wi-Fi and cellular networks to determine your location. Select this mode if you need to extend the battery life.
- **Device only:** This mode determines your location using GPS only. Without using Wi-Fi and cellular networks to improve the startup process, it takes longer to determine the location.

3.7 Using Camera

The device is equipped with two cameras: a front-facing camera and a back-facing camera with LED flash. Using the native camera application that comes with the operation system, you can switch between the front and rear cameras and perform other camera operations.

To access the camera application, on the **Home** screen tap the camera icon



The camera application then opens.



Various camera modes and effects/ Auto mode/ Switches between the front- and rear-camera.

Recorder icon. Tap it to shoot a video.

Shutter icon. Tap it to take a picture

When taking a photo:

- To zoom in and out, place two fingers apart or together.
- When you frame your subject on the screen, the camera will Auto Focus on the center of the screen with a focus indicator. To manually make a focus, tap the target or area that you want to focus on.
- To take a photo, press the shutter icon.

When recording a video:

- To enable/disable the microphone, tap the Settings icon and then video icon.
- To start the recording, tap the Recorder icon and the timer starts.
- To stop the recording, tap the Recorder icon again.



3.8 Using the NFC Feature

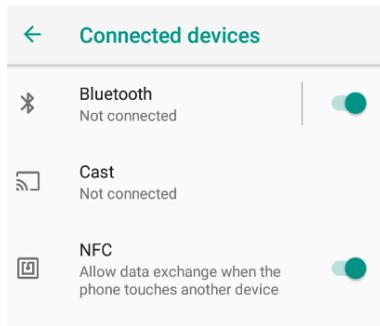
Near Field Communication (NFC) is a short-range wireless communication technology that enables NFC-capable devices to exchange data such as contacts, photos, music, or web address over a short distance less than 4 centimeters.

The NFC detection area is at the back side of the PD470. When you tap other NFC devices, tags, or readers, the NFC areas of both devices should be close to one another so that the connection can be established.

3.8.1 Enabling/Disabling NFC

To enable or disable the NFC function:

1. Swipe down the **Status bar** and tap **Settings | Connected devices | NFC**.
2. Tap the NFC slider to turn it on or off.



3.8.2 Configuring NFC Modes

The PD470 supports NFC modes.

3.8.3 Exchanging Data with NFC-Enabled Device

To use NFC to exchange App contents, both sending and receiving devices must be NFC-enabled and unlocked. The following describes how to beam App content from the PD470 to another NFC device:

1. Make sure both devices are NFC-enabled. For your PD470, enable NFC as described in [3.7.1 Enabling/Disabling NFC](#) if it isn't enabled yet.
2. Open the content you want to exchange.
3. Make sure the screen of both devices are unlocked, then touch the devices together, back to back.
4. On the PD470, you will hear a sound and be prompted a message "**Touch to beam**". Touch the screen of the PD470 to begin the beaming process.
5. The content will appear on the other devices's screen.

3.9 Using the Barcode Scanner

Barcode scanner is an optional feature on the PD470. Depending on your models, your PD470 might be equipped with 1D/ 2D barcode scanner. This section will walk you through the basic operations. To get the information on supported barcode formats, see [3.8.3 Supported Barcode Formats](#) for details.

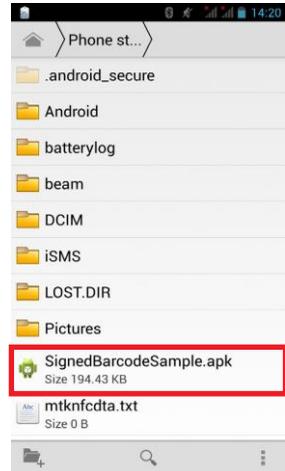
Caution: The barcode scanner uses laser lights to scan barcodes. DO NOT stare into the laser beams or point the laser beam at anyone's eyes when the barcode scanner is in operation.



3.9.1 Installing APK File

As of the time of release, the PD470 may not have the barcode scanner software installed. If this is the case, you must install the APK file on your PD470 first in order to activate the scanner function.

1. Download the APK file (**SignedBarcodeSample.apk**) from the Partner Zone of our website and save the file to your computer first.
2. Connect the PD470 to that computer using a USB cable. The PD470 will prompt you to choose a USB option. Select "**USB storage**" to transfer files between your computer and the PD470.
3. Copy the APK file from your computer to the PD470's internal USB storage or SD card. Then disconnect your computer from the PD470.
4. On the PD470, use the **File Manager** App to navigate to the APK file.
5. Tap the APK file and then follow the prompts to install the application.



3.9.2 Scanning the Barcode

Generally a third-party barcode application will be used to process the data read by the scanner. This user manual will not cover these applications. The following steps serve as an example only to show the basic operation of the barcode scanner.

1. To scan a 2D barcode like QR code: Launch the web browser.
2. Point the scanner window at the barcode and press either of the two **Scan** keys. The scanner will project an aiming beam.
3. According to the barcode scanned, the scanned data is displayed in the text field or an action is triggered .



Scan key

3.9.3 Supported Barcode Formats

2D Model

Type	Formats
Linear	Code 39, Code 128,
2D Stacked	PDF417, QR Code, Aztec, Codablock-F,
2D Matrix	Data Matrix
Product code	100% UPCA
Postal	Australian Post Standard Customer, Planet Code 12, Royal mail 4-State, USPS PostNet 5, USPS PostNet 9, USPS PostNet 11, UPU S10,