



PM-311B

User's Manual



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About This Manual

The PM-311B User's Manual provides instruction for qualified personnel to follow when setting up a new PM-311B device.

This document is intended for use by qualified personnel to compliment the training and expertise, not to replace it.

Related Information

Current information and manuals are available for download at the following website:

<http://www.ruggon.com>

Conventions

Bolded or underlined text is used to emphasize the designated information.



A Note is used to provide additional information for the device or settings.



A Caution is used to warn against potential hazards or to caution against unsafe practices.



A Warning is used to identify immediate hazards for property damage, injury or death.

Basic Safety Guidelines

The following safety guidelines are intended to help protect the user from injury and prevent damage to the hardware.

- Do not place anything on the AC adapters power cable and make sure the cable is not located where it can be tripped over or stepped on.
- Do not cover the AC adaptor as it reduces the cooling
- Do not use the AC adapter while it is inside the carrying case.
- Use only the AC adapter, power cord, and batteries that are approved for use with the device. Use of another type of battery or AC adapter may cause risk of fire or explosion.
- If you use an extension cable with the AC adapter, ensure that the total ampere rating of all products plugged in to the extension cable does not exceed the ampere rating of the extension cable.
- If the device is moved between environments with very different temperature and/ or humidity ranges, condensation may form on or within the device. Avoid damaging the device by allowing sufficient time for the moisture to evaporate before using the device.
- When disconnecting cables, pull on the connector or on its strain relief loop, not on the cable itself. When pulling out or plugging in the connector, keep it evenly aligned to prevent bending the connector pins.

Intended Use

The PM-311B rugged tablet is equipped with multi-functional terminals for stationary and mobile applications in industrial environments such as logistics, warehousing, fleet management, manufacturing and the automotive industry.

Read the safety guidelines thoroughly before starting any servicing on the device. Read the guidelines before powering up the device, and keep this document for later use.

The operator is solely responsible for any damage resulting from unauthorized modifications to the device.

Unintended Application Use

The device is not designed for use in life-support systems or critical safety/security systems where system malfunction can lead to the direct or indirect endangerment of human life. The operator is fully responsible for using the device in these situations.

Maintenance and Operation Overview

The PM-311B is designed and manufactured according to strict controls and following the stated safety regulations. The following list identifies incorrect operating uses of the PM-311B. Incorrect use of the PM-311B can lead to hardware damage, safety issues and possible risk to personnel health:

- The PM-311B is under operation by untrained personnel;
- The PM-311B is not maintained as recommended;
- The PM-311B is not used as intended.

Safety

To prevent injury and damage, read the following safety guidelines prior to operating the device. The manufacturer assumes no liability for any and all damages arising from misuse or noncompliance with these guidelines.

Electrical Hazards

Cleaning/Service: Power Off the PM-311B

- Disconnect the PM-311B from power before cleaning or servicing it.

Power Adapter

Contact an authorized service personnel for repairs to the power pack. In the event of a blown fuse after replacing the fuse, contact an authorized service personnel to avoid electrical shock.

Use only Supplied Power Cables

RuggON power cables meet industrial requirements for low-temperature flexibility, UV resistance, and oil resistance. Use only supplied power cables from RuggON.

If other power cables are used, the following may apply:

- The operator is solely responsible for the resulting damage;
- All RuggON warranties are void.

Environmental Hazards

Do not use the PM-311B in locations near/with flammable gases or vapor.

The use of electrical equipment in explosive environments can be dangerous.

- Turn off the device when near a gas station, fuel depot, chemical plant or a place where blasting operations take place.

Safety Guidelines for Mounting

- If the PM-311B is installed on a mounting bracket, make sure all mounting equipment meets with safety and regulatory standards to prevent damage to the hardware or injury.
- If installing in a fixed location, it is advised to properly secure the device to prevent loss of the device.

Environmental

Ambient Temperature

The PM-311B operates on the basis of a passive cooling concept which internal waste heat is released via the housing surface and requires fresh airflow in the environment.

- Operating the PM-311B with no fresh cooling air may cause overheating and damage to the device.
- The operating environment should not be enclosed to prevent the cool air being heated by the heat waste from the device.

Connecting and Disconnecting External Devices

To prevent the considerable damage, the PM-311B and the external device should be disconnected from power when connecting/disconnecting excluding USB devices.

Only Use Authorized Accessories

Only use the supplied cables, power packs and other accessories that have been tested and approved by RuggON. Contact your local distributor for further information.

Radio Transmissions

Permitted Transmission Power

Follow the national regulations for the maximum permitted transmission power.

The operator is solely responsible for this type of operation.

Radio Frequency Limited Locations

Considering the radio frequency limitation in hospitals and aircraft, the PM-311B can only be installed with permission.

Industrial computers may affect the function of implanted medical devices such as pacemakers and may cause malfunction.

Cleaning and Servicing

- Disconnect the PM-311B from power before cleaning or servicing.
- Never clean the PM-311B with compressed air, a pressure washer or a vacuum cleaner.
- If necessary, clean the housing of the PM-311B with a damp cloth.
- Clean the touch-screen with a nonabrasive cloth.

Regulatory and Certification

FCC

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 when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio / TV technician for help.



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

This device is operation in 5.15 – 5.25GHz frequency range, then restricted in indoor use only, Outdoor operations in the 5.15 – 5.25GHz is prohibit.

This device is slave equipment; the device is not radar detection and not ad-hoc operation in the DFS band.

Labeling Requirements

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.

RF Exposure Information (SAR)

This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the EUT transmitting at the specified power level in different channels.

The highest SAR value for the device as reported to the FCC is **1.487** W/kg when placed next to the body.

CE Marking

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. Please contact your local representative for ordering information.

This product has passed the CE test for environmental specifications. Test conditions for passing included the equipment being operated within an industrial enclosure. In order to protect the product from being damaged by ESD (Electrostatic Discharge) and EMI leakage, we strongly recommend the use of CE-compliant industrial enclosure products.

R&TTE

This device complies with the essential requirements of the R&TTE Directive 2014/53/EU.

CB

This device complies with the IEC 60950-1:2005 (second edition) +Am1:2009+Am2: 2013.

Lithium Battery Safety Statement



Lithium battery inside. Danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by battery manufacturer.

Chapter 1 . Introduction

The PM-311B is a rugged device equipped with 802.11, Bluetooth and GNSS for wireless data communications.

The PM-311B is a rugged 7" tablet computer capable of 1024 x 600 resolution.

The PM-311B supports the following operating systems:

- Windows® 10 IoT Enterprise for Small Tablets 64bits
- Windows® Embedded 8.1 Industry Pro Tablet 64bits
- Windows® Embedded Standard 8 64bits

About This Guide

The PM-311B User Manual provides instruction for qualified personnel to use as a guide for setup of the device. This document is not intended to replace the training and expertise of the end-user.

Unpacking the Device

Before you begin the installation or configuration process make sure to inspect all components and accessories. Contact your representative if there are any missing or damaged items. See "Contacting RuggON" on page 69.

Technical Specifications

Table 1. Technical Specifications

Item	Description
Display	7" LED Backlight, 1024 (W) x 600 (H)
Touch screen	Multiple capacitive touch screen
Brightness	850 nits (optical bonding with AR/AF sunlight readable solution)
CPU	Intel® Celeron® Processor N2930
Operating System (Optional)	<ul style="list-style-type: none"> ■ Windows® 10 IoT Enterprise for Small Tablets 64bits ■ Windows® Embedded 8.1 Industry Pro Tablet 64bits ■ Windows® Embedded Standard 8 64bits
RAM	DDR3L@1600 MHz 4 GB RAM (optional: 8 GB)
Storage	M.2 SSD 128 GB (optional: 256 GB)
Battery	<ul style="list-style-type: none"> ■ Standard battery: 7.5V, 2900mAh, Li-ion ■ Extended hot swappable battery: 7.4V, 4200 mAh, Li-ion (optional)
Power Supply	AC 100V ~ 240V, 50~60Hz input; 19VDC@3.42A, 65W
Dimensions (W x H x L)	225 mm (8.86") x 27 mm (1.06") x 168 mm (6.61")
Weight	950 g (2.09 lbs)

Item	Description
Wireless	
WLAN	Wi-Fi IEEE 802.11 a/b/g/n/ac
Bluetooth	Bluetooth V4.0
WWAN (Optional)	Option for 4G LTE
Sensor	
Sensor	Gyroscope, G Sensor, E-compass, Light Sensor
I/O	
Docking Connector	32-pin
DC-IN Jack	x1
Micro SIM Card Slot	x1
MicroSD Slot	x1
Audio Jack	x1; headphone / microphone combo
USB 3.0	x2; type A
RS-232	x1
Ethernet	x1
Security	
TPM	TPM 2.0
Data Collection	
Camera	<ul style="list-style-type: none"> ■ Front: 2.0 Mega-Pixels camera ■ Rear: 8.0 Mega-Pixels camera with LED auxiliary light and Auto-focus
GNSS	YES
NFC	Frequency: 13.56MHz
Fingerprint Reader	Optional, capacitance type, 508 dpi resolution
Magnetic Stripe Reader + 2D Barcode	Optional
Magnetic Stripe Reader + Machine-Readable Zone Reader	Optional

Item	Description
Rugged Specifications	
Drop	153 cm (5 feet), 26 drops on plywood
MIL-STD 810G	<ul style="list-style-type: none"> ■ Vibration (MIL-STD-810G CHANGE 1 Method 514.7 Category 4, Fig 514.7C-2, Fig 514.7C-3, Fig 514.7C-4) ■ Drop (MIL-STD-810G CHANGE 1 Method 516.7 Procedure IV) ■ Mechanical shock (MIL-STD-810G CHANGE 1 Method 516.7 Procedure I, Procedure V) ■ Operation and storage temperature (MIL-STD-810G CHANGE 1 Method 501.6 and 502.6) ■ Humidity MIL-STD-810G CHANGE 1 Method 507.6 Humidity Procedure II Aggravated Cycles (Fig 507.6-7)
IP rating	IP65
Operating Temperature Range	-20°C (-4°F) to 50°C (122°F)
Storage Temperature Range	-30°C (-22°F) to 70°C (158°F)
Humidity	5-95% without condensation

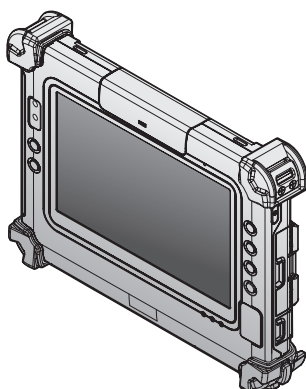
PM-311B Configuration Options

The following options are available for the PM-311B:

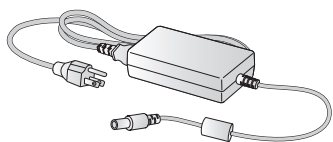
- Fingerprint reader
- 2-in-1 SnapON: MSR & 2D barcode
- 2-in-1 SnapON: MSR & MRZ reader
- Extended battery
- 4G LTE

Parts List

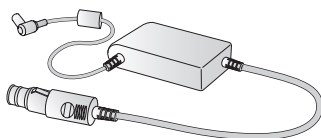
The PM-311B is shipped with the following items. All other accessories are sold and ordered separately. For help, contact your local RuggON sales representative. See “*Contacting RuggON*” on page 69.



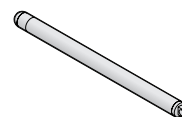
PM-311B



Power Adapter



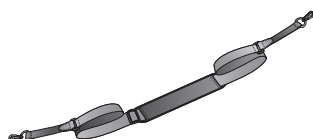
Car Adapter*



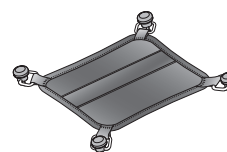
Stylus



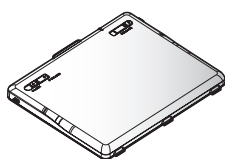
2-Point Carrying Handle



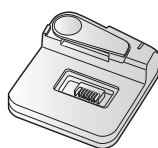
2-Point Shoulder Strap



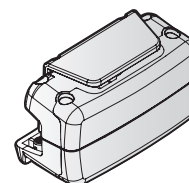
4-Point Handstrap with Hitch D-rings (Attaching straps)



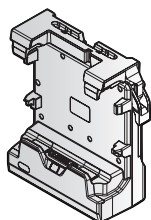
Extended Battery*



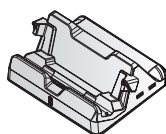
Battery Charger*



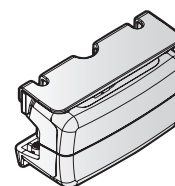
Magnetic Stripe Reader with 2D Barcode*



Vehicle Dock*



Desktop Dock*



Magnetic Stripe Reader with Machine-Readable Zone Reader

*Optional, not included in the standard package.

Identifying the Device

Overview

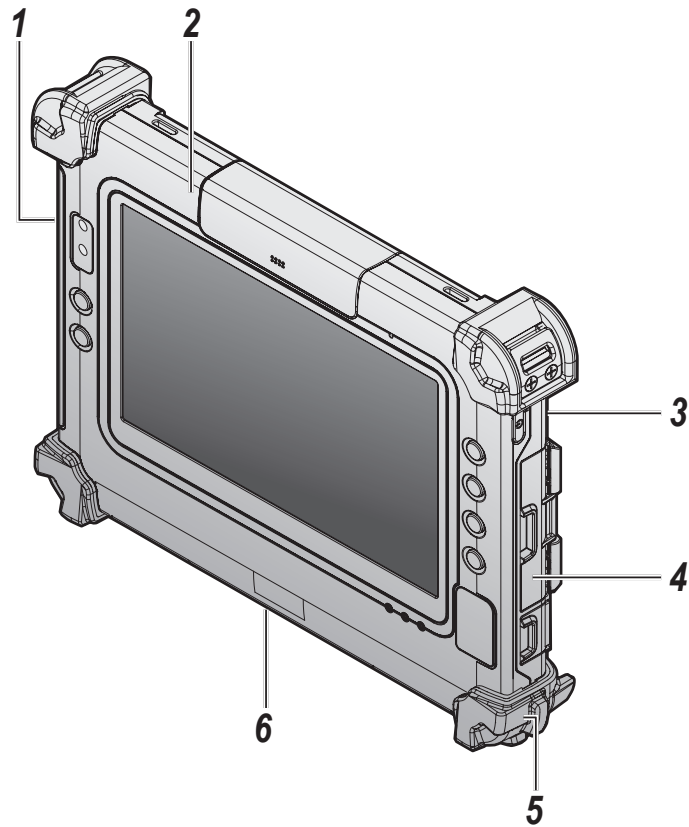


Figure 1. Overview

Table 2. Overview

No	Item	Description
1	Left view	See “ <i>Side View</i> ” on page 13 for further information.
2	Front view	See “ <i>Front View</i> ” on page 11 for further information.
3	Rear view	See “ <i>Rear View</i> ” on page 14 for further information.
4	Right view	See “ <i>Side View</i> ” on page 13 for further information.
5	Rubber bumpers	Easy to grip rubber bumpers enable the rugged tablet to withstand shocks and drop for use in demanding environments.
6	Bottom view	See “ <i>Bottom View</i> ” on page 12 for further information.

Front View

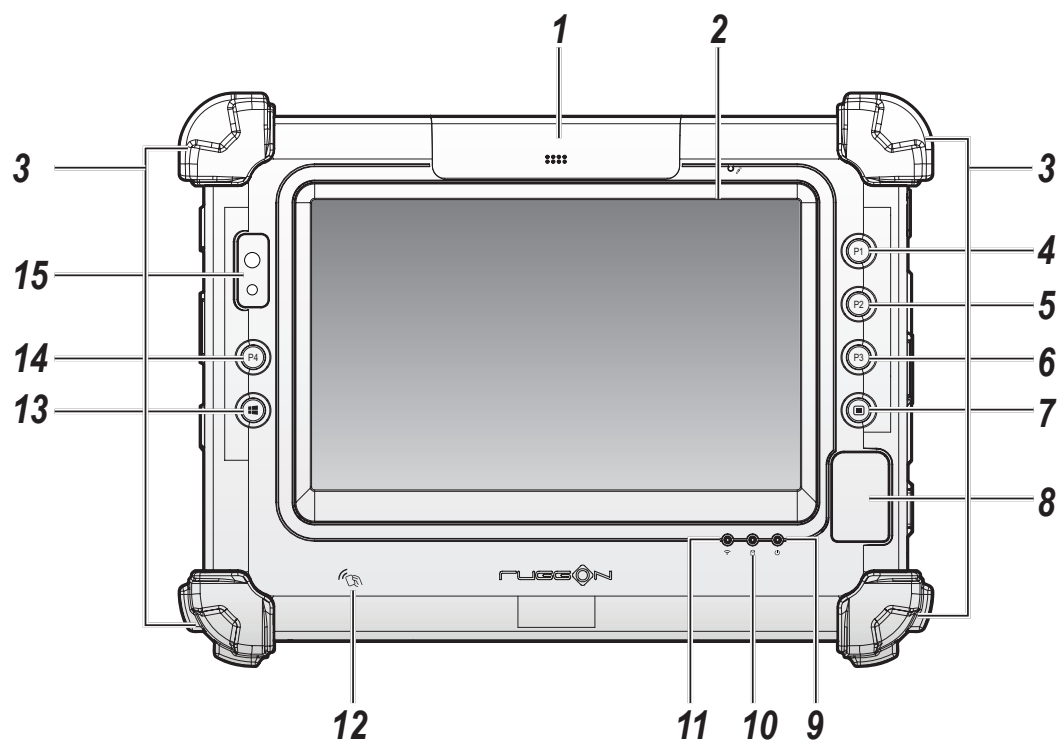


Figure 2. Front View

Table 3. Front View

No	Item	Description
1	Snap-on module connector cover	Open to access snap-on module connector.
2	Touch screen	Capacitive touch panel.
3	Rubber bumpers	Easy to grip rubber bumpers enable the rugged tablet to withstand shocks and drop for use in demanding environments.
4	P1 button	Programmable function button.
5	P2 button	Programmable function button.
6	P3 button	Programmable function button.
7	Menu button	Enter DashON function.
8	Fingerprint reader	Read fingerprint for biometric authentication.
9	Power LED	The LED lights when the device is on or when the battery is being charged.
10	Storage access LED	The LED (blue) lights during access of system storage drive.
11	Wi-Fi LED	The LED lights to indicate Wi-Fi is enabled.
12	NFC sensor	Pairing with NFC devices or reading RFID cards.
13	Windows button	Windows® Start button (also can trigger BIOS setup and work as enter button in BIOS mode).
14	P4 button	Programmable function button.
15	Front camera	2 Mega-Pixels camera.

LED Status

Table 4. LED Status

Item	Status	Description
Power	Green: On	Power on / not charging
	Green: Blinking	Battery charging
	Amber: On	Low battery
Storage Access	Green: On	The system is accessing storage drive
	Off	The system is not accessing storage
Wi-Fi	Green: On	Wi-Fi is enabled
	Off	Wi-Fi is disabled

Bottom View

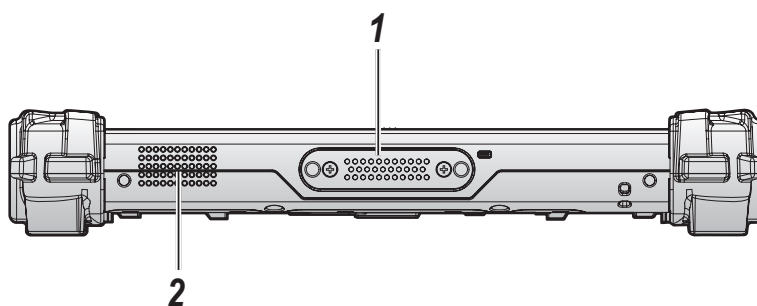


Figure 3. Bottom View

Table 5. Bottom View

No	Item	Description
1	Docking connector	32 pin connector for docking onto a station.
2	Speaker	1 x 1W waterproof, front mounted speaker.

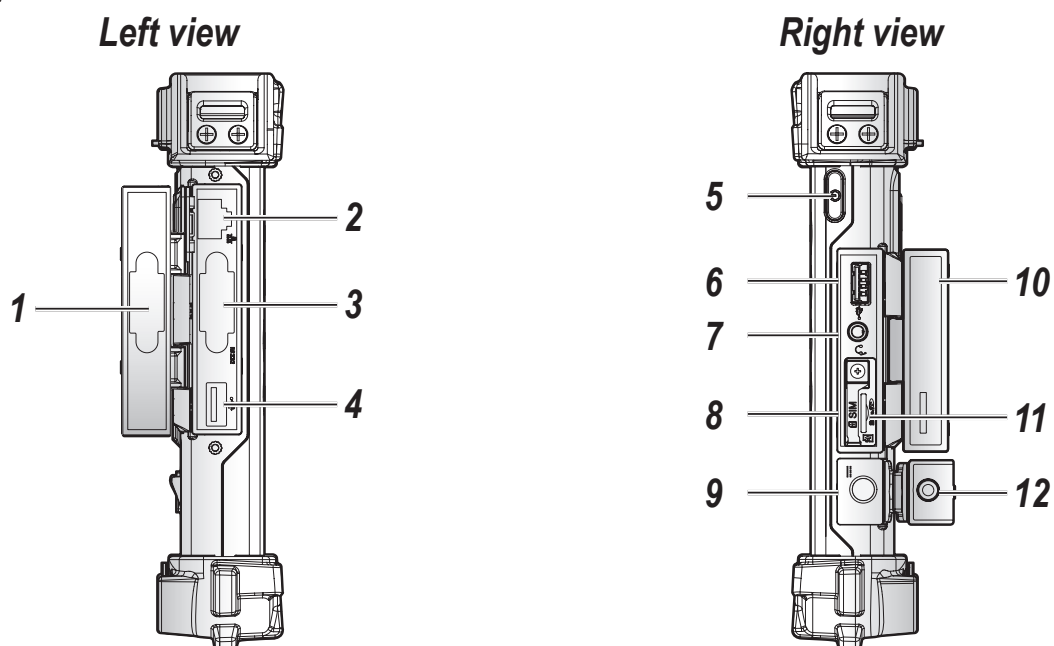
Side View

Figure 4. Side Views

Table 6. Side View

No	Item	Description
1	Left I/O compartment cover	Open to access the left I/O ports.
2	LAN	Connect the PM-311B to an Ethernet interface.
3	RS-232	Connect the PM-311B to a serial device.
4	USB 3.0	Connect USB devices to the PM-311B.
5	Power button	Turns the PM-311B on or off.
6	USB 3.0	Connect USB devices to the PM-311B.
7	Audio jack	Connect a headphones or external microphone.
8	Micro SIM slot	Insert micro SIM card for 4G communication function.
9	DC-IN jack	Insert power connector to charge battery.
10	Right I/O compartment cover	Open to access the right I/O ports.
11	MicroSD slot	Insert microSD card in to slot.
12	DC-IN cover	Open to access the DC-IN jack.

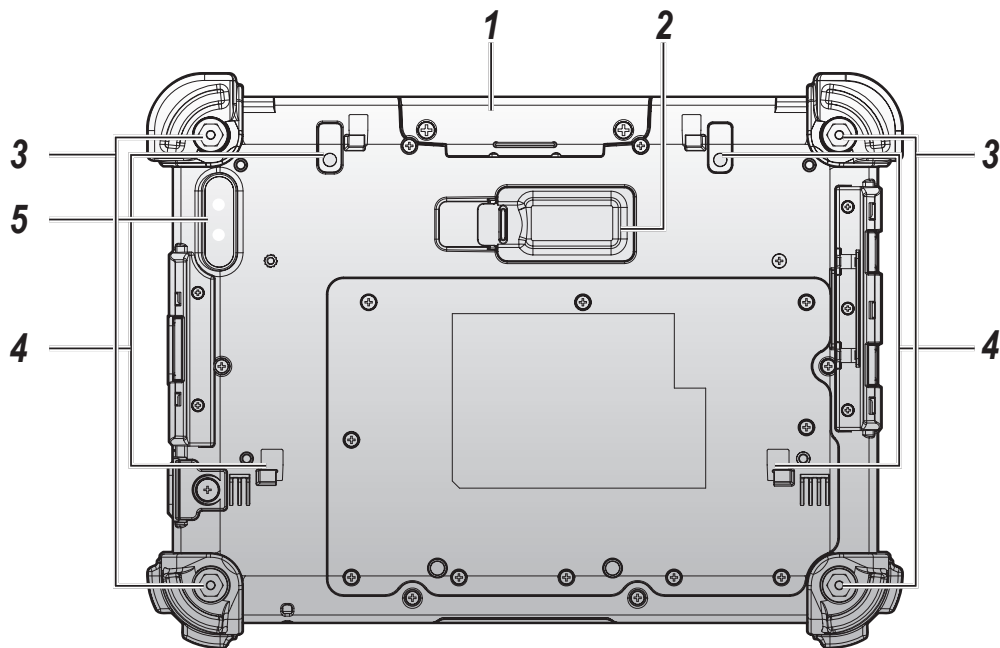
Rear View

Figure 5. Rear View

Table 7. Rear View

No	Item	Description
1	Snap-on module connector cover	Open to access snap-on module connector.
2	Extended battery connector cover	Open to access extended battery connector. The extended battery is optional.
3	Securing holes	Location of holes to secure the handstrap.
4	Extended battery bracket slots	Align with the extended battery bracket when installing.
5	Rear camera	8.0 Mega-Pixels camera with LED auxiliary light.

Dimensions

The following image lists the device dimensions without add-ons (mm/inches).

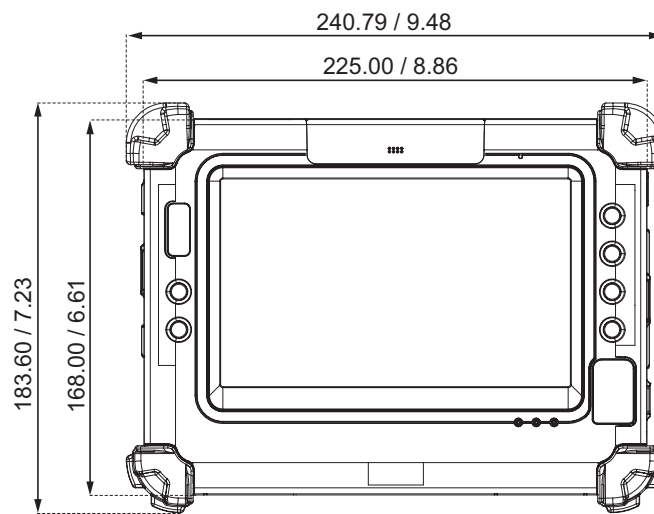


Figure 6. Front View Dimensions

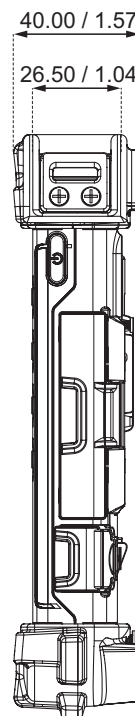


Figure 7. Side View Dimensions

Touch Screen Features



Always use the point of the stylus for clicking or making strokes on the touch screen.
Never use an actual pen, pencil, or sharp/abrasive object on the touch screen.

The stylus is used as if it were a pen or pencil. Touch the screen with the tip of the stylus then remove the stylus from the screen.

After each use, replace the stylus in the stylus holder for proper care and to preserve the life of the stylus.

Using a stylus is similar to moving the mouse pointer then left-clicking icons on a desktop computer screen.

The following actions are available through the use of the stylus:

- Open applications
- Choose commands in menu
- Select options in dialog box or drop-down menu
- Drag the scroll bar
- Drag across the text to select content
- Place the cursor in a text box before typing

A right click is generated by tapping the mouse icon in the system tray. After tapping, the mouse icon highlights the right button of the icon in red. The next touch screen tap is treated as a right click. The mouse icon returns to the left button highlighted in red so subsequent taps are treated as left clicks.

A stylus replacement kit is available.



To prevent damage or malfunction, always dry the touch screen when wet.

Chapter 2. Getting Started

This section provides an outline of the steps necessary to setup a new PM-311B. A detailed guide follows the listed items, see as follows.

For additional technical assistance, contact your RuggON representative. See “*Contacting RuggON*” on page 69.



It is recommended to installing or remove accessories on a clean, well-lit work surface. To protect yourself and the device from electrostatic discharge, wear anti-static wrist straps or place the device on an anti-static mat.

Charging the Battery

When you use the AC adapter to connect your PM-311B to a power outlet, the standard and extended (optional) battery will automatically begin to recharge.

While the battery is charging, the power LED will be active. When the battery is fully charged, the power LED is lit a solid green.



Before first use, fully charge the battery.

1. Locate the DC-IN cover.

Right view

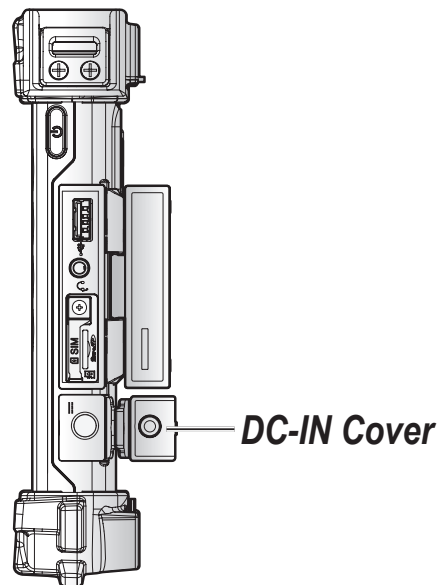


Figure 8. Right View: Locating the DC-IN Cover

2. Flip open the DC-IN cover to expose the DC-IN jack.

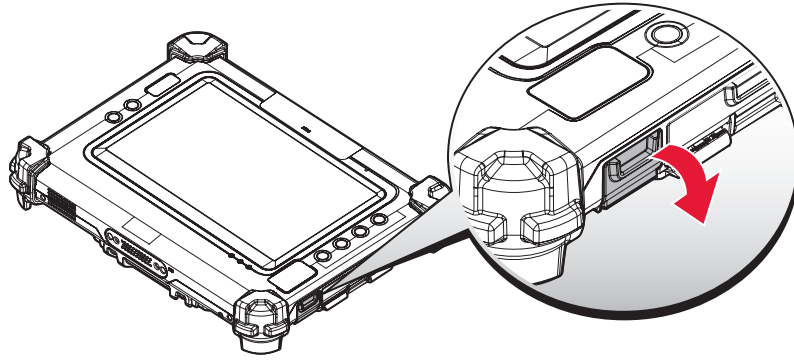


Figure 9. Opening the DC-IN Cover

3. Connect the AC adapter to the DC-IN port.

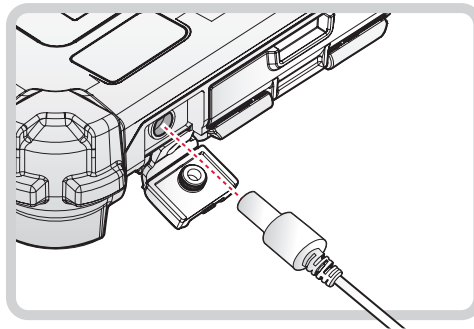


Figure 10. Connecting the AC Adapter

After charging the battery, disconnect the AC adapter and close the DC-IN cover.

1. Locate the DC-IN cover.

Right view

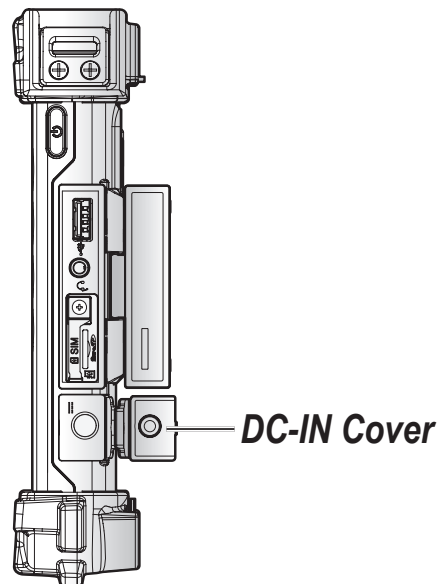


Figure 11. Right View: Locating the DC-IN Cover

2. Flip the DC-IN cover and install.

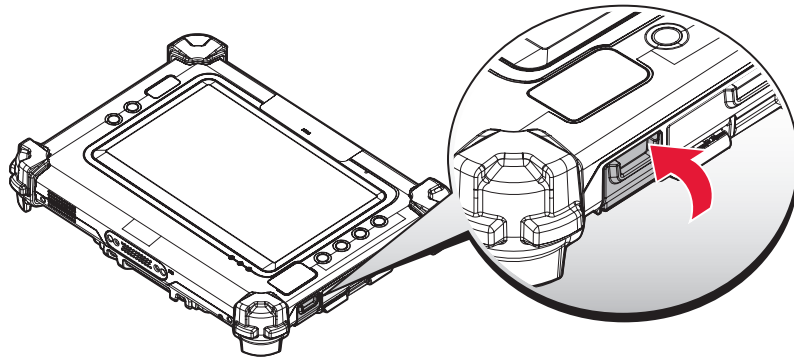


Figure 12. Closing the DC-IN Cover



The DC-IN cover must be inserted correctly to prevent internal damage to the device.

Powering the Device On and Off

Powering On the Device

Only power on the PM-311B after connecting all of the peripherals and cabling.

1. Press and hold the power button until the screen lights. The device runs through the start up sequence and powers up.

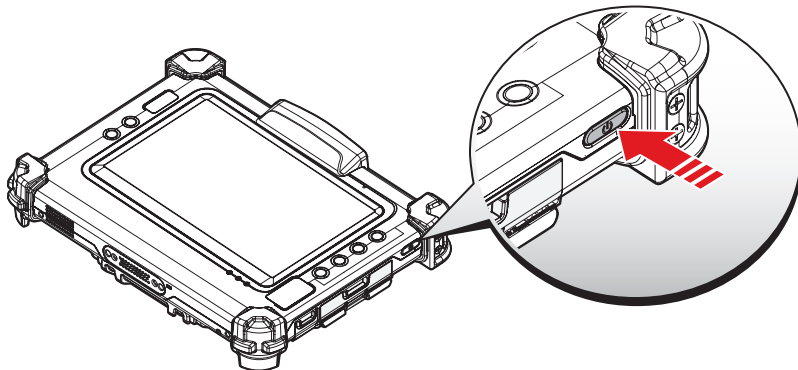




Figure 13. Power On the PM-311B

Powering Off the Device

- Start screen:
Tap  > **Shut down**.
- Desktop screen:
 1. Tap and hold  at the bottom left corner of the Desktop screen.
 2. Tap **Shut down or sign out** > **Shut down**.
- Both Start screen and Desktop screen:
 1. Display charm bar and tap **Settings**.
 2. Tap **Power** > **Shut down**.

Installing the Micro SIM Card

The device includes a micro SIM card slot for cellular and wireless connection. Only a micro SIM card is supported in the slot.



Check with your network or cellular service provider for availability and cost rates.

1. Power off the PM-311B. See “Powering Off the Device” on page 20.
2. Open the right I/O compartment cover. See “Opening the I/O Compartment Cover” on page 34.
3. Locate the micro SIM slot in the right I/O parts.

Right view

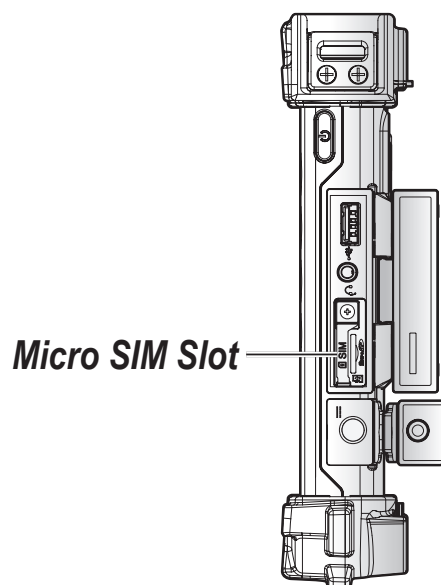


Figure 14. Right View: Locating the Micro SIM Slot

4. Remove the screw securing the SIM slot securing bracket.
5. Remove the securing bracket.

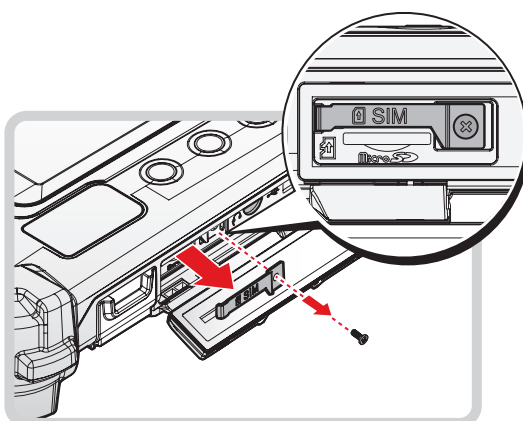


Figure 15. Removing the SIM Slot Securing Bracket

6. Take the micro SIM card from its packaging.
7. The micro SIM card has a corner missing. Align the SIM card with the slot making sure that the corners match.
8. Insert the micro SIM card and press it in until an audible click sounds.

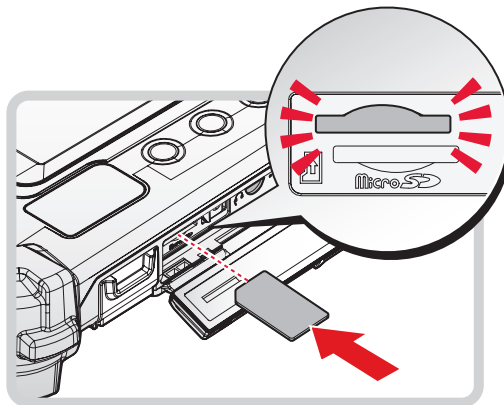


Figure 16. Installing the Micro SIM Card

9. Install the securing bracket.
10. Secure the securing bracket with a screw.

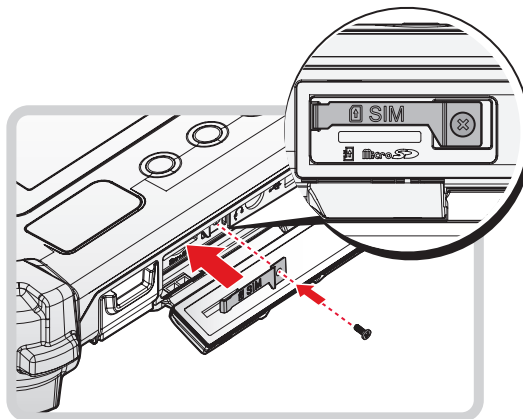


Figure 17. Installing the SIM Slot Securing Bracket

11. Close the right I/O compartment cover. See “Closing the I/O Compartment Cover” on page 35.

Removing the Micro SIM Card

1. Power off the PM-311B. See “Powering Off the Device” on page 20.
2. Open the right I/O compartment cover. See “Opening the I/O Compartment Cover” on page 34.
3. Locate the micro SIM slot in the right I/O parts.

Right view

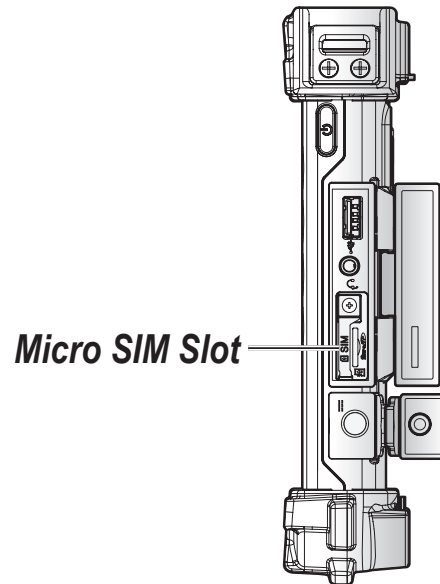


Figure 18. Right View: Locating the Micro SIM Slot

4. Remove the screw securing the SIM slot securing bracket.
5. Remove the securing bracket.

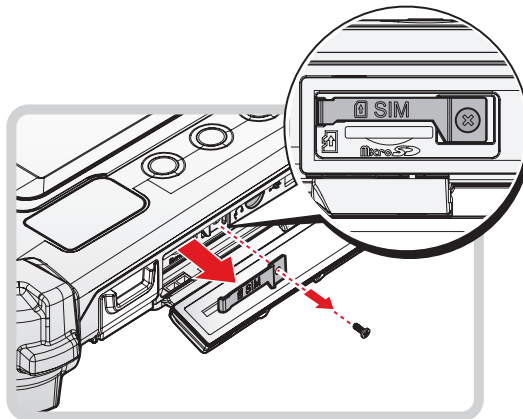


Figure 19. Removing the SIM Slot Securing Bracket

6. Press the micro SIM card in and release it. The card springs out.
7. Grasp the micro SIM card and remove it from the slot.

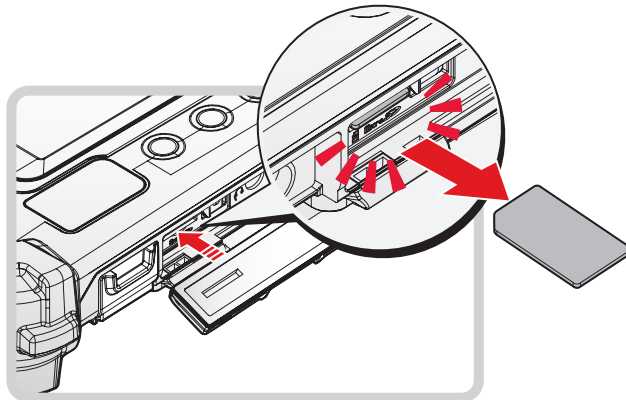


Figure 20. Removing the Micro SIM Card

8. Install the securing bracket.
9. Secure the securing bracket with a screw.

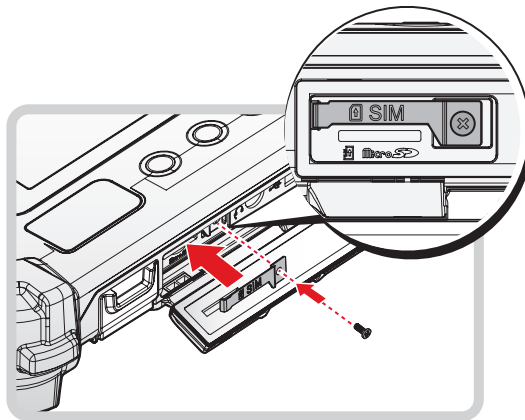


Figure 21. Installing the SIM Slot Securing Bracket

10. Close the right I/O compartment cover. See “Closing the I/O Compartment Cover” on page 35.

Installing the MicroSD Card

The device supports microSD card for easier data storage.

1. Open the right I/O compartment cover. See “Opening the I/O Compartment Cover” on page 34.
2. Locate the microSD slot in the right I/O parts.

Right view

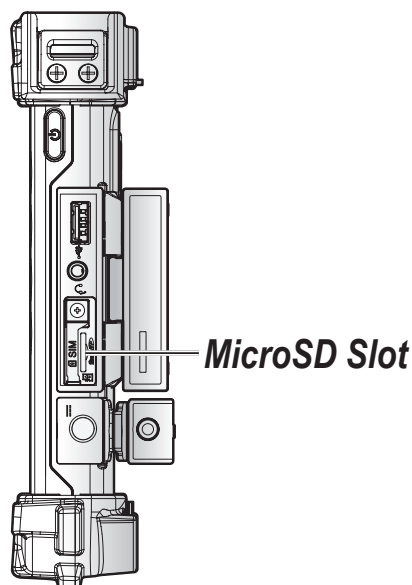


Figure 22. Right View: Locating the MicroSD Slot

3. The microSD card has a beveled edge. Align the microSD card with the slot making sure that the corners match.
4. Insert the microSD card and press it in until an audible click sounds.

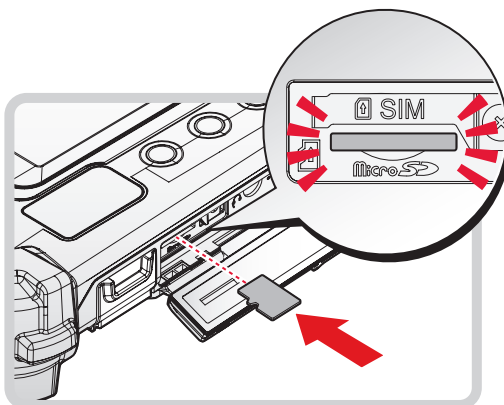


Figure 23. Installing the MicroSD Card

5. Close the right I/O compartment cover. See “Closing the I/O Compartment Cover” on page 35.

Removing the MicroSD Card

1. Open the right I/O compartment cover. See “Opening the I/O Compartment Cover” on page 34.
2. Locate the microSD slot in the right I/O parts.

Right view

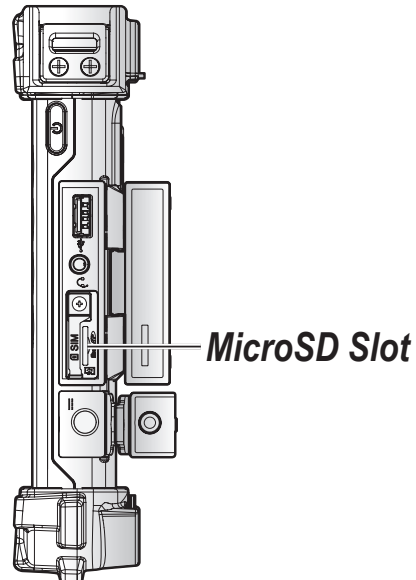


Figure 24. Right View: Locating the MicroSD Slot

3. Press the microSD card in and release it. The card springs out.
4. Grasp the microSD card and remove it from the slot.

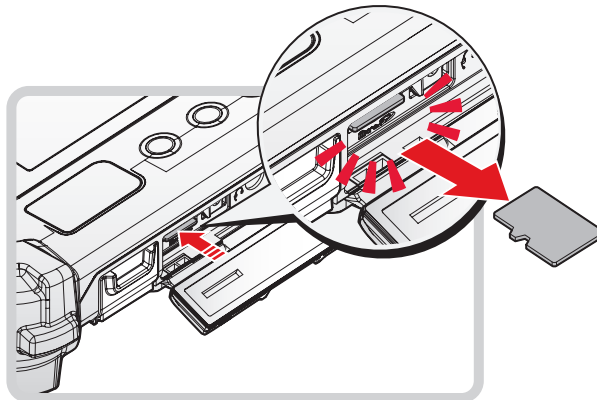


Figure 25. Removing the MicroSD Card

5. Close the right I/O compartment cover. See “Closing the I/O Compartment Cover” on page 35.

Installing on the Vehicle Dock

1. Power off the PM-311B. See “Powering Off the Device” on page 20.
2. Flip the levers upward on the both sides.

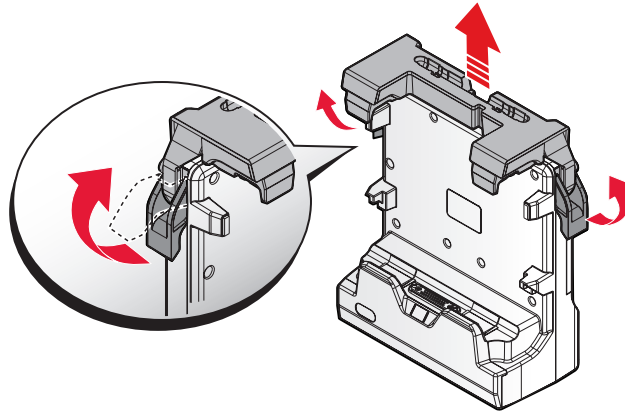


Figure 26. Releasing the Levers

3. Align the docking connector on the PM-311B with the connector on the vehicle dock and push downward.
4. Push the PM-311B forward and make sure it is fixed with latches.

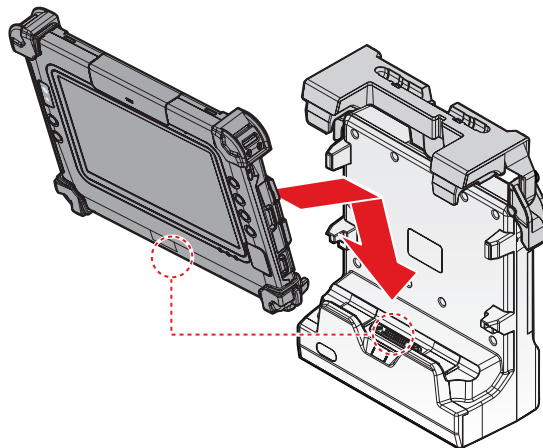


Figure 27. Installing the PM-311B

5. Press down the levers at the same time to lock.

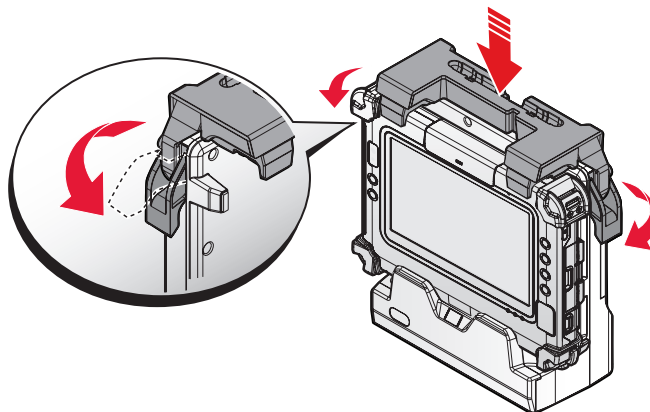


Figure 28. Installing the PM-311B

6. Connecting the cabling to the vehicle dock.

Removing from the Vehicle Dock

1. Power off the PM-311B. See “Powering Off the Device” on page 20.
2. Disconnect the cabling from the vehicle dock.
3. Flip the levers upward on the both sides.

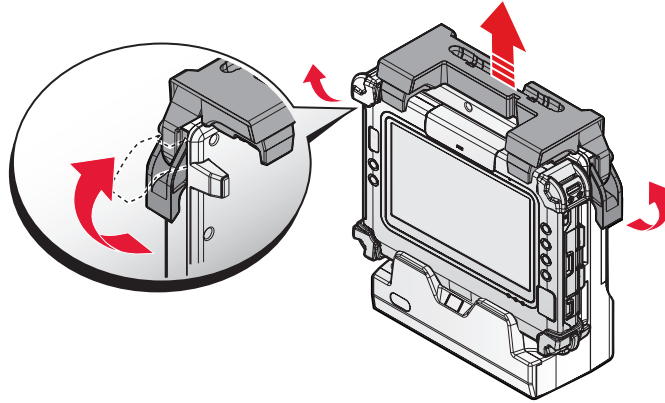


Figure 29. Releasing the Levers

4. Remove the PM-311B from the vehicle dock with an angle.

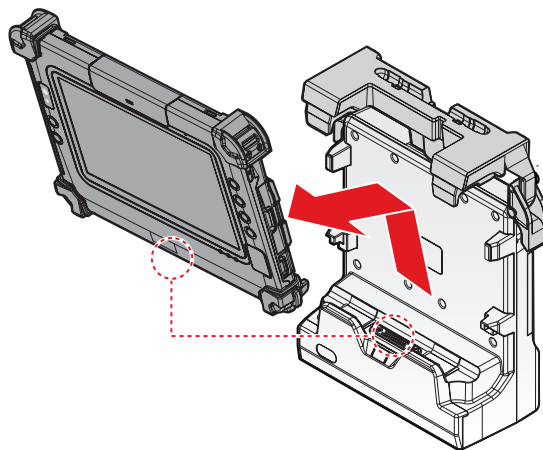


Figure 30. Removing the PM-311B

Installing on the Desktop Dock

1. Power off the PM-311B. See “*Powering Off the Device*” on page 20.
2. Align the docking connector on the PM-311B with the connector on the desktop dock and push downward.
3. Push the PM-311B downward.

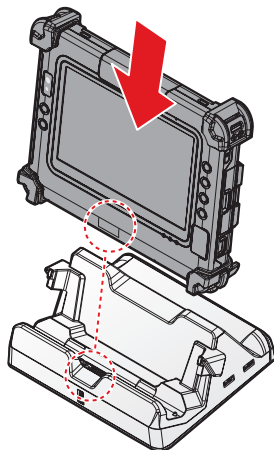


Figure 31. Installing the PM-311B

4. Connecting the cabling to the desktop dock.

Removing from the Desktop Dock

1. Power off the PM-311B. See “*Powering Off the Device*” on page 20.
2. Disconnect the cabling from the desktop dock.
3. Remove the PM-311B from the desktop dock.

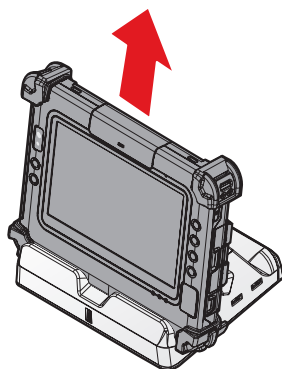


Figure 32. Removing the PM-311B

Using the Stylus

Following the information below when using a stylus:

- Use only the included stylus to touch the screen. Do not place any objects on its surface and do not press down strongly with sharp-pointed or hard objects that may leave marks (e.g., nails, pencils and ball point pens).
- Use the stylus only for touching the screen. Using it for any other purpose may damage the stylus and result in scratches on the screen.
- The pointer cannot follow the stylus movement if you move the stylus too quickly.

To make a selection, tap the screen once with the stylus. To double-click, tap twice without pausing. To do a long click, tap the screen and hold it for a few seconds.

Removing the Protective Film from the Display

The front display of the PM-311B is protected during transport by a transparent film. This film should remain on the front display during assembly to avoid damage to the front display surface.

Only remove the film once all of the assembly work has been completed.

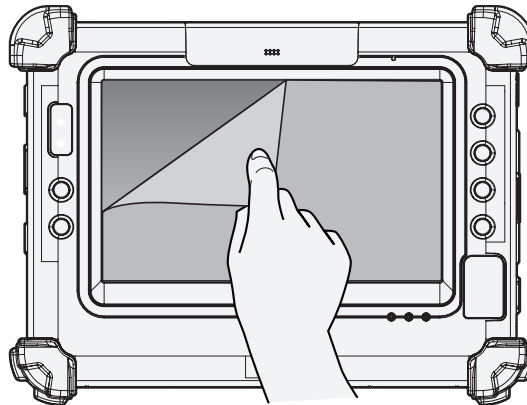


Figure 33. Removing the Protective Film

Chapter 3. Operation

Removing the Snap-on Module Connector Cover

The snap-on module connector is located on the top side of the device. For further information see “Overview” on page 10

1. Locate the snap-on module connector cover.

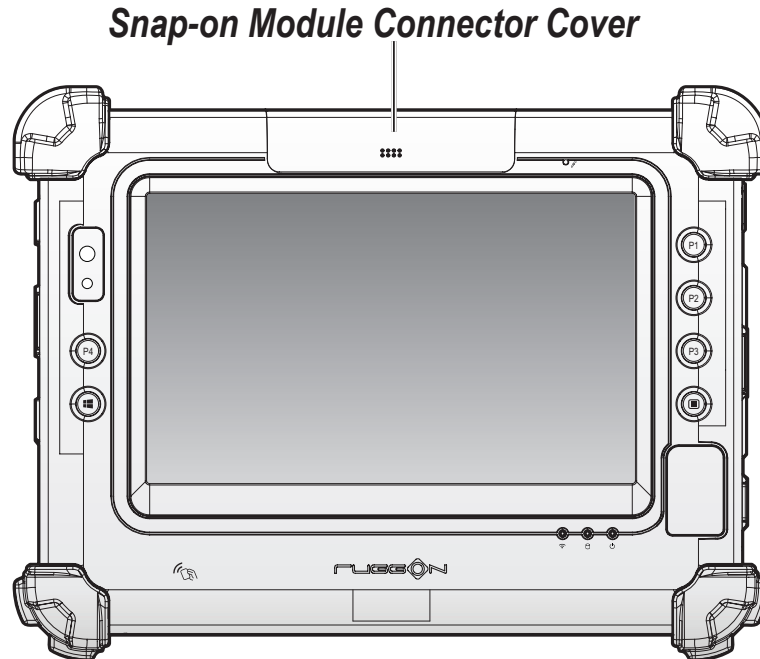


Figure 34. Front View: Locating the Snap-on Module Connector Cover

2. Place the device display side down on a clean work surface.
3. Remove the screws securing the cover.

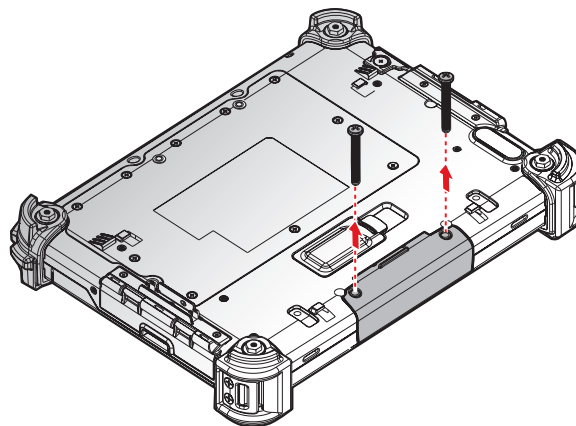


Figure 35. Removing the Screws

4. Remove the cover.

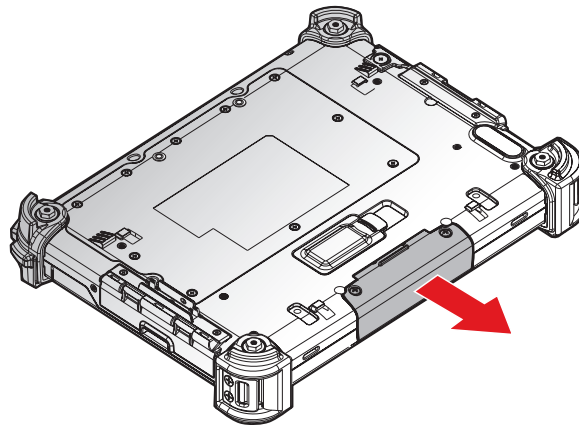


Figure 36. Removing the Snap-on Module Connector Cover

Replacing the Snap-on Module Connector Cover

The snap-on module connector is located on the top side of the device. For further information see “Overview” on page 10.

1. Locate the snap-on module connector cover.

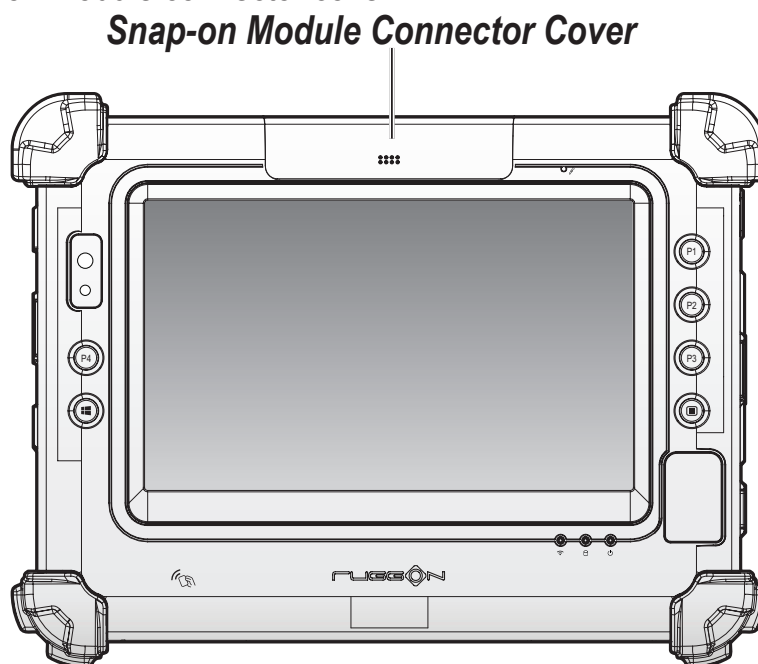
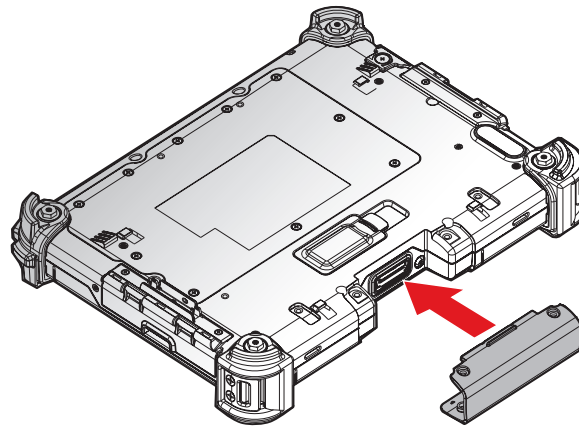


Figure 37. Front View: Locating the Snap-on Module Connector Cover

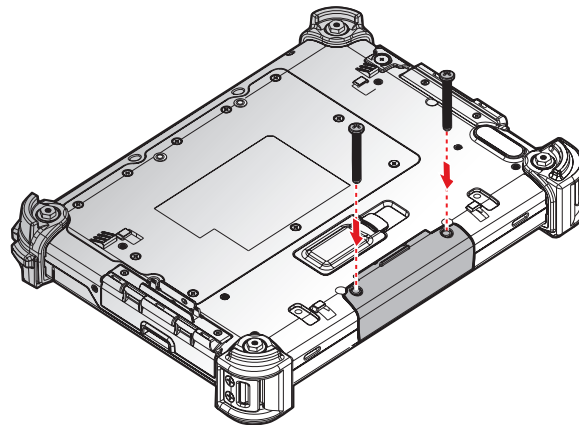
2. Align the holes on the bottom of the cover with the pins on the top of the housing and insert.
3. Place the device display side down on a clean work surface.

Figure 38. Installing the Snap-on Module Connector Cover



4. Secure the cover and the PM-311B with screws.

Figure 39. Securing the Screws



Snap-on module connector cover is not be closed well may damage the PM-311B.

Opening the I/O Compartment Cover

1. Place the device display side down on a clean work surface.
2. Locate the I/O compartment cover.

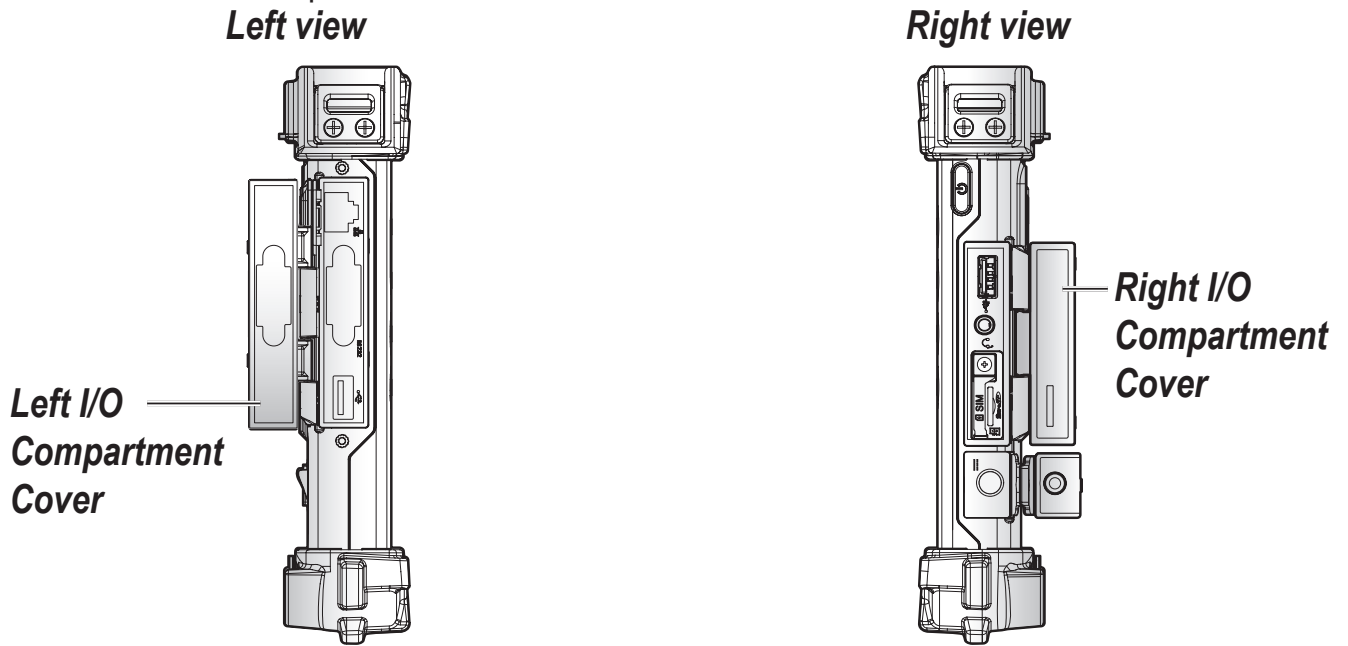


Figure 40. Side View: Locating the I/O Compartment Cover

3. Pull out the I/O compartment cover.

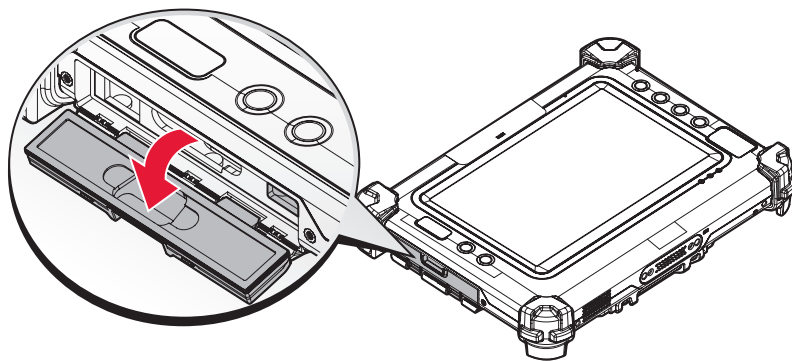


Figure 41. Opening the I/O Compartment Cover

Closing the I/O Compartment Cover

1. Place the device display side down on a clean work surface.
2. Locate the I/O compartment cover.

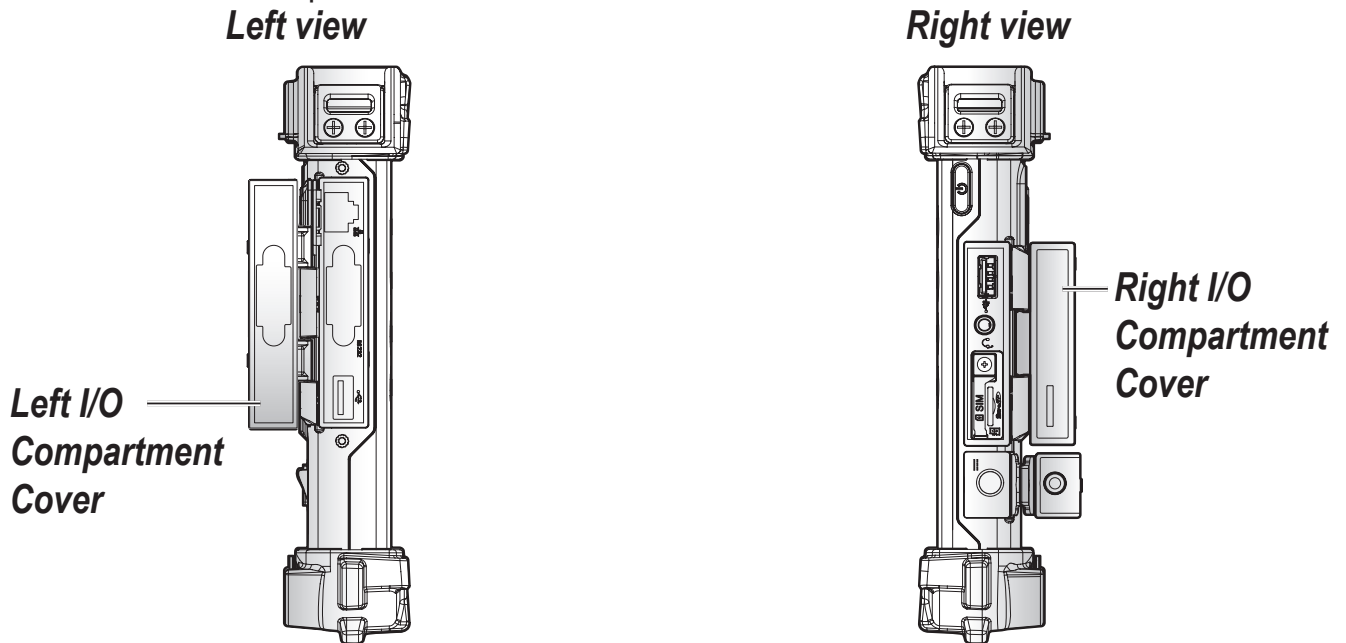


Figure 42. Side View: Locating the I/O Compartment Cover

3. Flip the I/O compartment cover and install.

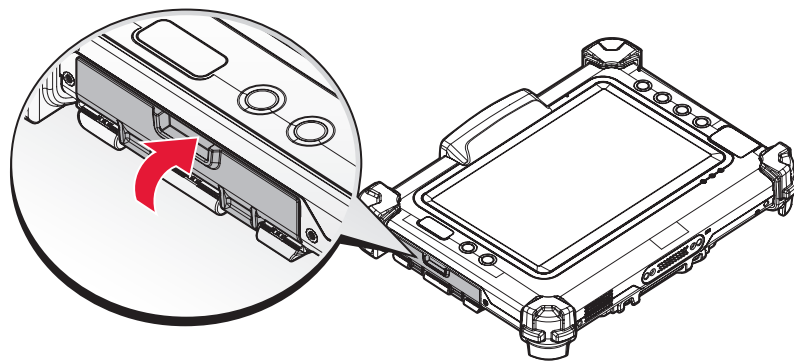


Figure 43. Closing the I/O Compartment Cover



The I/O compartment cover must be inserted correctly to prevent internal damage to the device.

Connecting to External Cabling



To prevent damage to the device, connect all cabling and accessories before powering up the device.

Connect USB Cabling

The PM-311B have two USB ports for connecting USB devices, such as a digital camera, scanner, printer, modem, and mouse. The USB port support USB 2.0 or USB 3.0 devices.

1. Open the left or right I/O compartment cover. See “Opening the I/O Compartment Cover” on page 34.
2. Connect to USB device via USB cable.

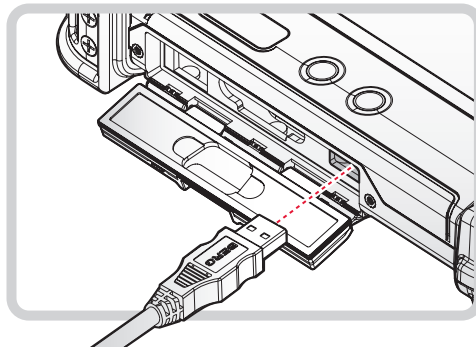


Figure 44. Connect USB Cabling

Connect Ethernet Cabling

The PM-311B provide have a Ethernet port for connecting Ethernet.



Use a shielded cable is required to maintain emissions and susceptibility compliance.

1. Open the left I/O compartment cover. See “Opening the I/O Compartment Cover” on page 34.
2. Connect LAN cable to Ethernet port on the PM-311B.

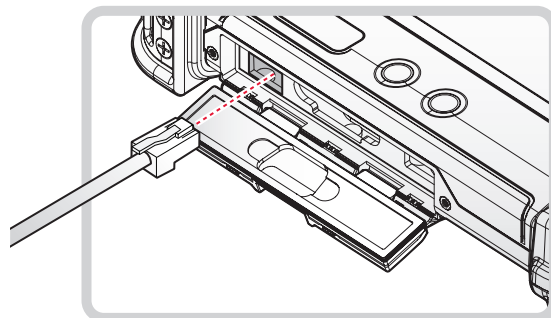


Figure 45. Connect Ethernet Cabling

Connect Audio Cabling

For higher audio quality, you can send sound through external audio devices such as speakers, headphones, or earphone using audio connector.

1. Open the right I/O compartment cover. See “Opening the I/O Compartment Cover” on page 34.
2. Connect the audio cable.

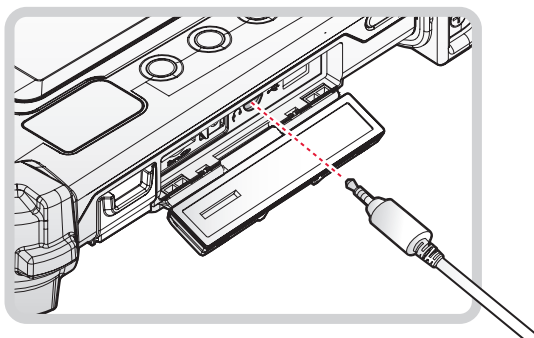


Figure 46. Connect Audio Cabling

Connect RS-232 Cabling

Connect to RS-232 devices with an RS-232 cable.

1. Open the left I/O compartment cover. See “Opening the I/O Compartment Cover” on page 34.
2. Align the RS-232 cable with the port in the device and connect it.
3. Turn the locking screws on the cable to secure it to the device.

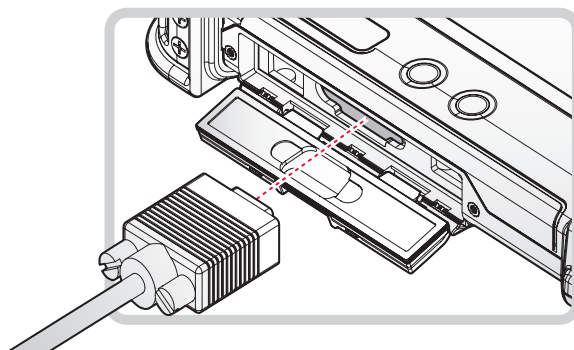


Figure 47. Connect RS-232 Cabling

Handstrap, Carrying Handle and Shoulder Strap

The PM-311B is equipped with a handstrap, a carrying handle and a shoulder strap for convenience and choice. Select the accessory that is right for your needs.

The handstrap can be installed with either the shoulder strap or the carrying handle. However, the handle and shoulder strap can not be installed together due to space constraints.

For more information, see “*Connecting the Handstrap*” on page 38, “*Connecting the Carrying Handle*” on page 39 and “*Connecting the Shoulder Strap*” on page 41.

Connecting the Handstrap

The handstrap makes it easy to carry the device with a single hand.

When attached, the handstrap blocks access to the extended battery and connector. To install the extended battery, you will need to remove the handstrap if it is previously installed.

1. Position the handstrap so that the inner strap is facing the device.
2. Place the D-rings over the upper and lower positions on the device.
3. Twist the D-rings (clockwise) to secure the handstrap.

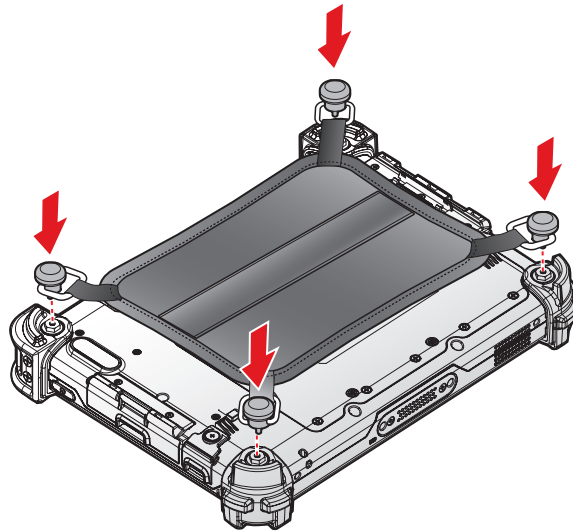


Figure 48. Securing the Handstrap

Removing the Handstrap

1. Unscrew the D-rings securing the handstrap to the device.
2. Remove the handstrap from the PM-311B.

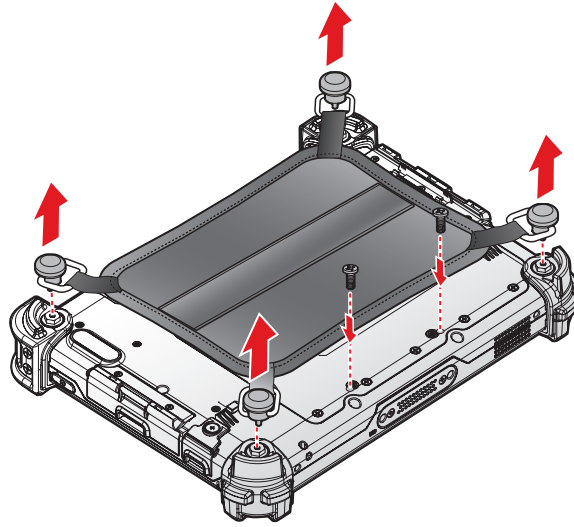


Figure 49. Removing the Handstrap

Connecting the Carrying Handle

1. The handle must face the correct way. The securing post and velcro should be facing outward.
2. Thread one end of the strap through the metal loop on the bumper.

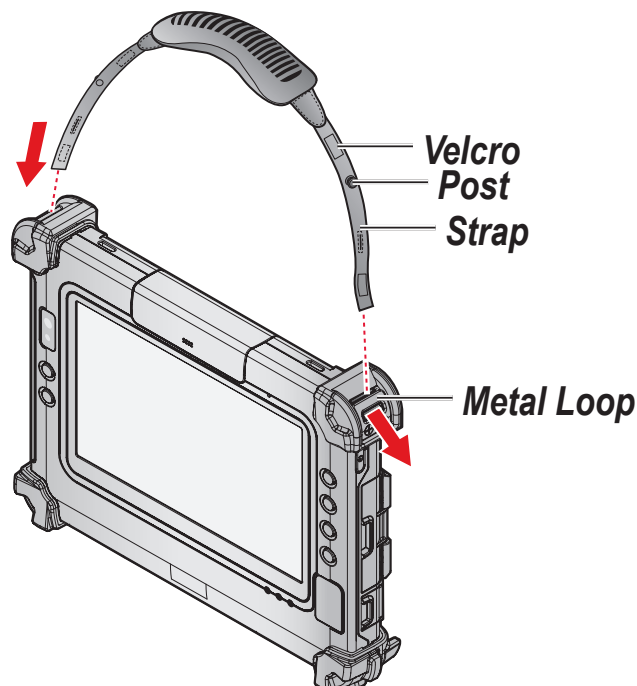


Figure 50. Inserting the Carrying Handle Through the Loop

Operation

3. Pull the strap end through the loop and insert the post through the slit on the strap.
4. Secure the strap by attaching the two velcro ends together.

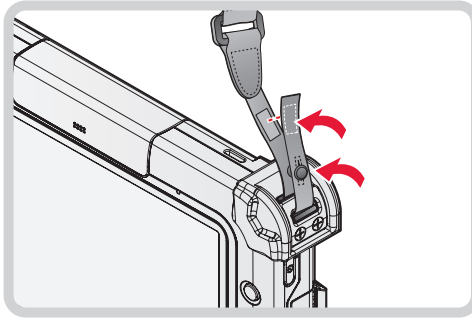


Figure 51. Securing the Strap

5. Repeat for the remaining strap end.

Removing the Carrying Handle

1. Remove the strap from the velcro and securing post.

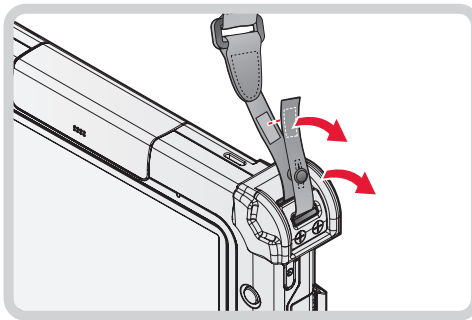


Figure 52. Removing the Strap

2. Pull the strap through the metal loop on the bumper.

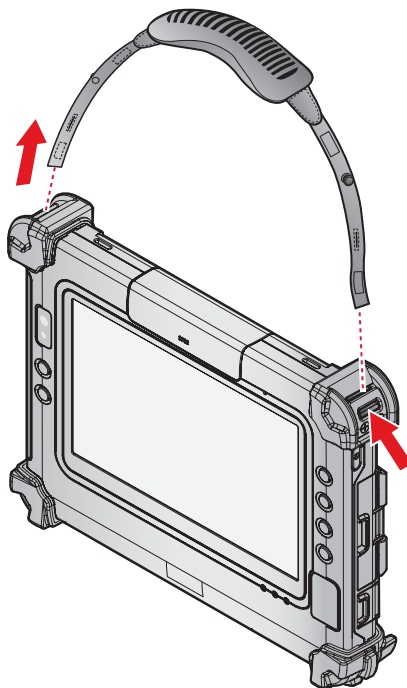


Figure 53. Removing the Carrying Handle

3. Repeat for the remaining strap end.
4. Remove the carrying handle.

Connecting the Shoulder Strap

1. The shoulder strap must face the correct way. The securing post and velcro should be facing outward.
2. Thread one end of the strap through the metal loop on the bumper.

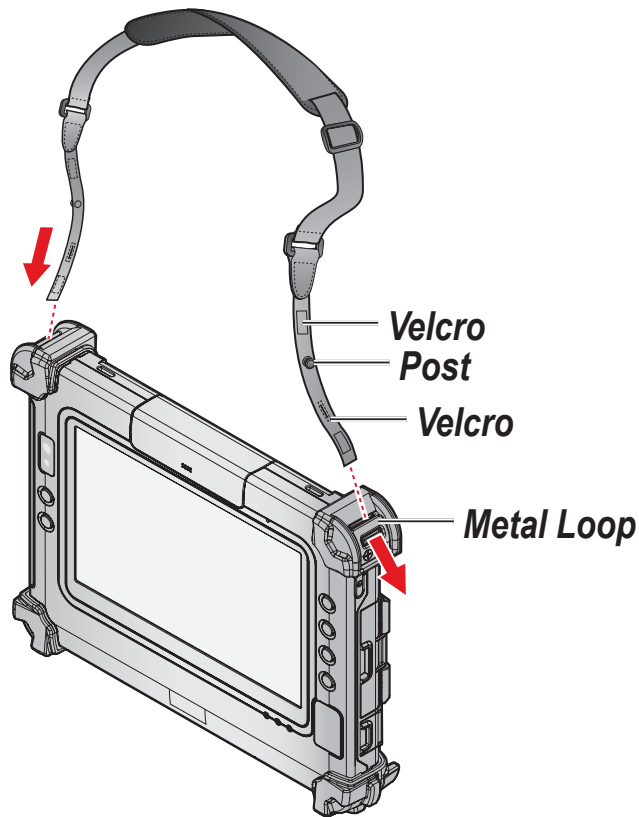


Figure 54. Inserting the Shoulder Strap Through the Loop

3. Pull the strap end through the loop and insert the post through the slit on the strap.
4. Secure the strap by attaching the two velcro ends together.

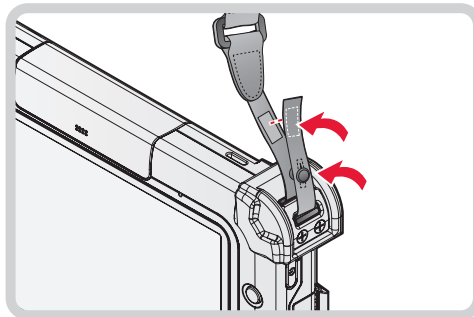


Figure 55. Securing the Strap

5. Repeat for the remaining strap end.

Removing the Shoulder Strap

1. Remove the strap from the velcro and securing post.

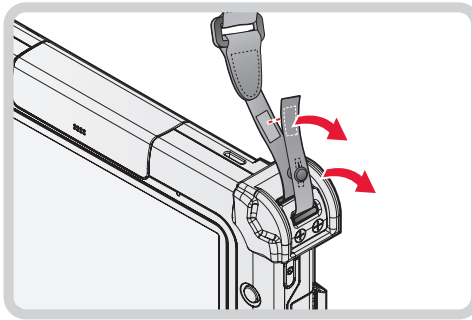


Figure 56. Removing the Strap

2. Pull the strap through the metal loop on the bumper.

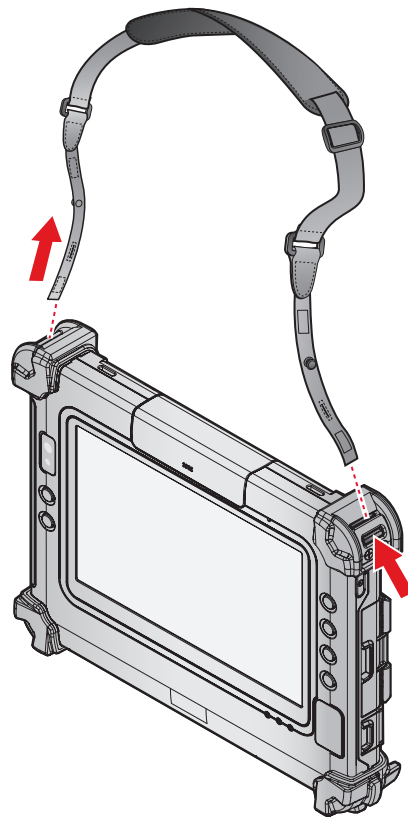


Figure 57. Removing the Shoulder Strap

3. Repeat for the remaining strap end.
4. Remove the shoulder strap.

Installing the Extended Battery

The extended battery is an optional component. Only use components specifically designed for this device. Contact your local representative for ordering information.

1. Place the device display side down on a clean work surface.
2. Locate the extended battery connector cover.

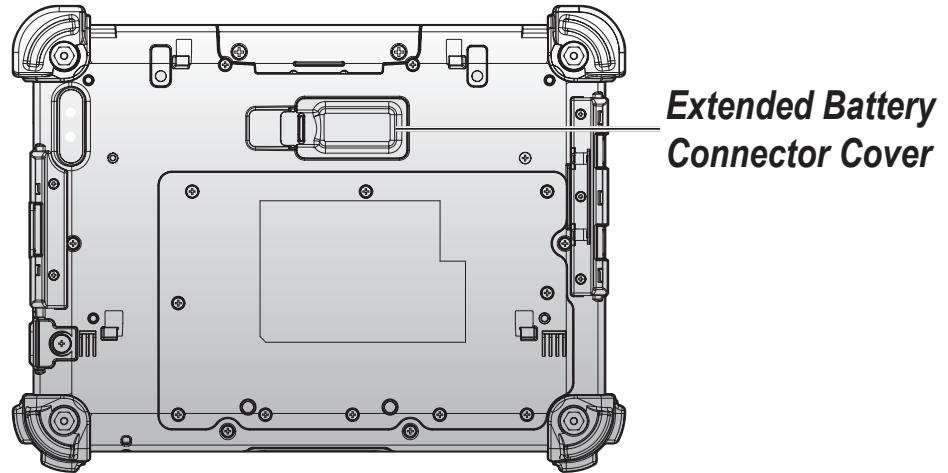


Figure 58. Rear View: Locating the Extended Battery Connector Cover

3. Flip the connector cover up to remove it from the compartment.

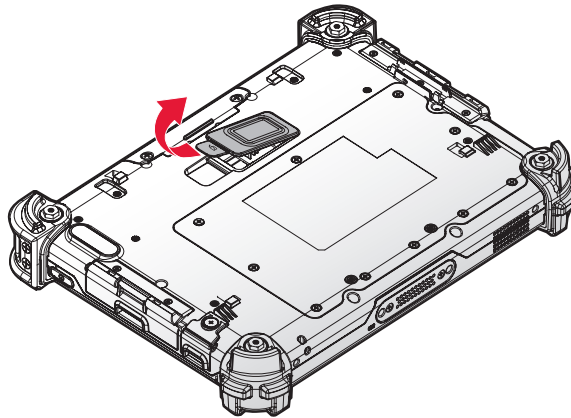


Figure 59. Removing the Extended Battery Connector Cover

4. Align the tabs on the extended battery bracket with the slots on the rear side of the PM-311B.

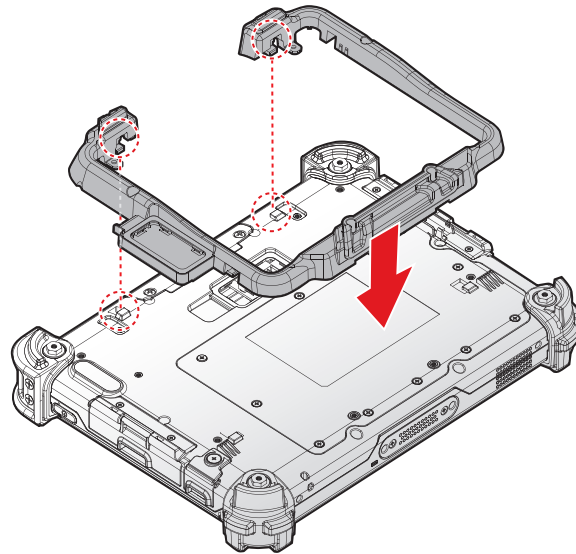


Figure 60. Aligning the Extended Battery Bracket

5. Push the extended battery bracket toward to lock.

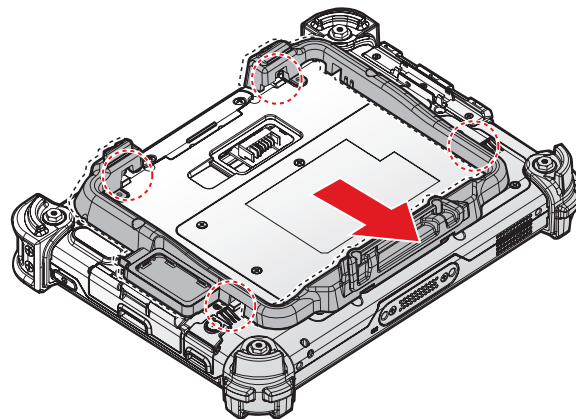


Figure 61. Installing the Extended Battery Bracket

6. Securing the extended battery bracket and the PM-311B with screws.

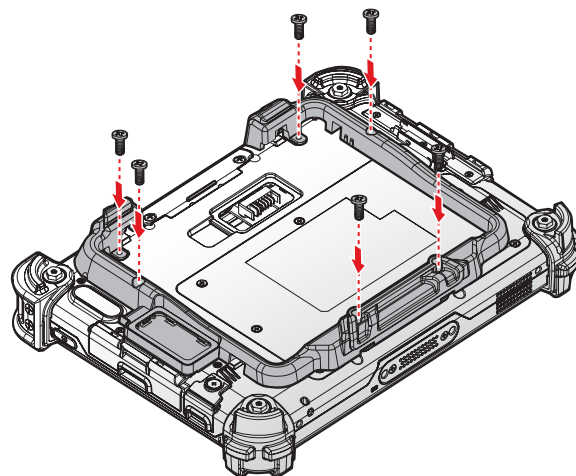


Figure 62. Securing the Screws

7. Install the connector cover in the cover placeholder.

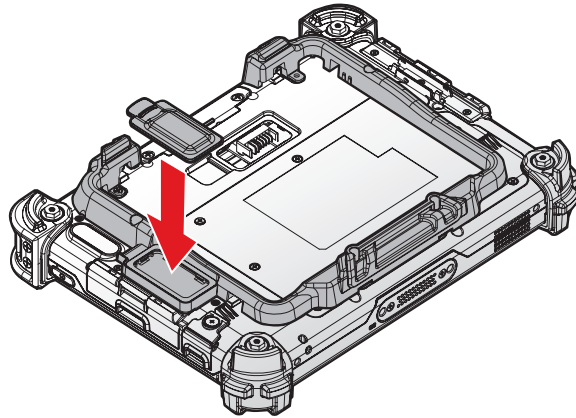


Figure 63. Placing the Extended Battery Connector Cover in the Cover Placeholder

8. Align the tabs on the extended battery with the slots on the extended battery bracket.
9. Angle the battery in place and set the tabs in the bracket slots.
10. Lower the raised end of the extended battery and press in place until an audible click is heard.

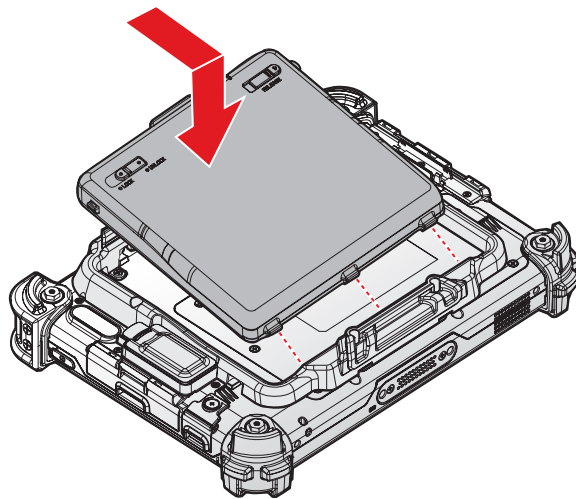


Figure 64. Installing the Extended Battery

11. Press the locking switch on the top-left side to lock the extended battery.

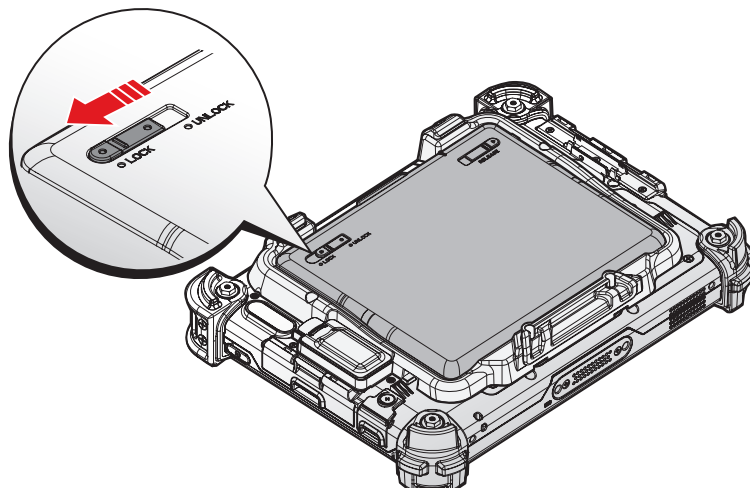


Figure 65. Locking the Extended Battery

Removing the Extended Battery

1. Press the locking switch on the top-left side to the unlock position.

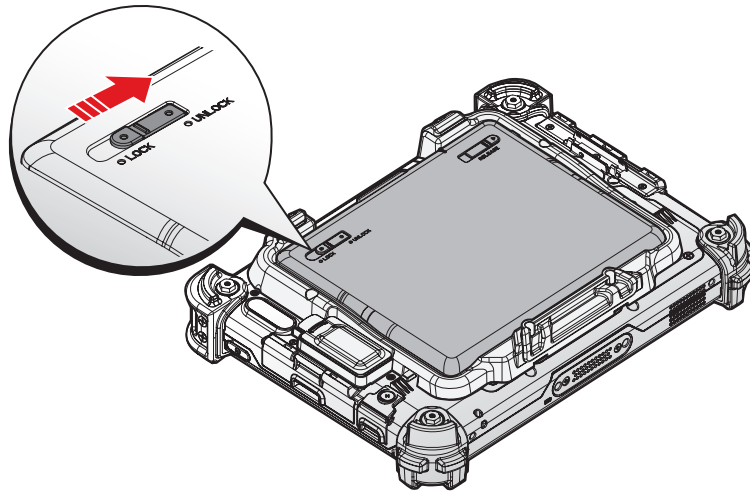


Figure 66. Unlock the Extended Battery

2. Press and hold the release button as shown in the image to release the battery.
3. Hold the battery and angle the top side up to remove.

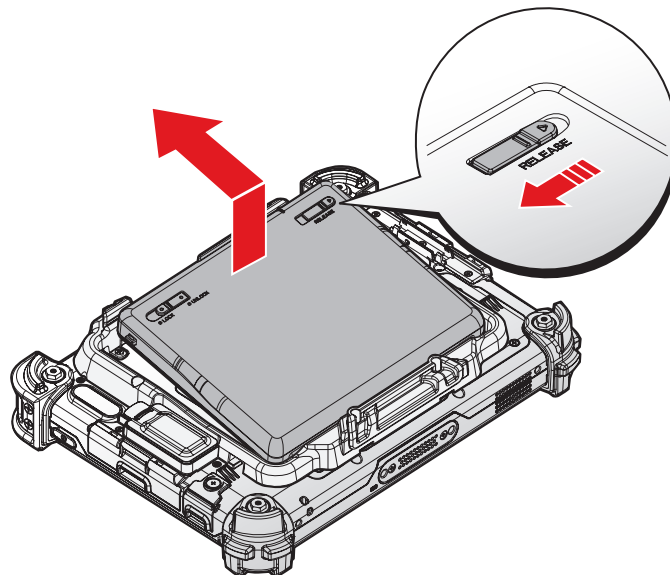


Figure 67. Removing the Extended Battery

4. Flip the connector cover up to remove it from the cover placeholder.

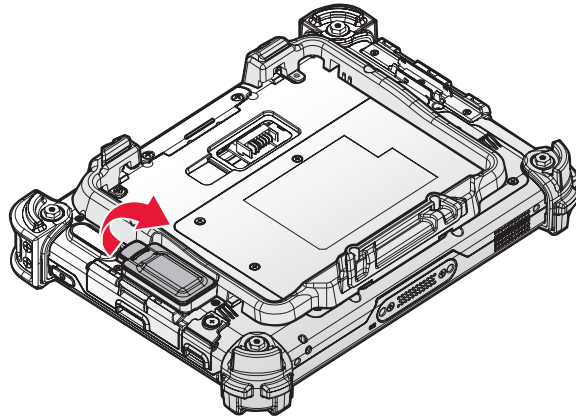


Figure 68. Removing the Extended Battery Connector Cover

5. Remove the screws securing the extended battery bracket.

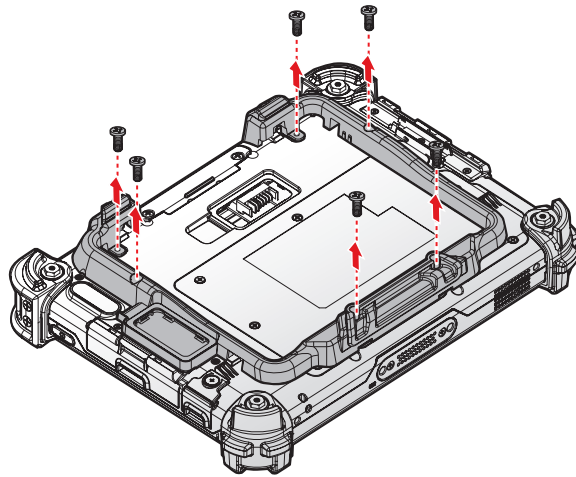


Figure 69. Removing the Screws

6. Push the extended battery bracket forward the bottom of the PM-311B to release the bracket.

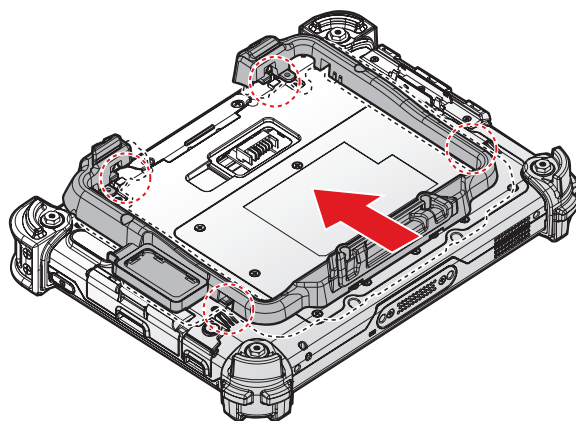


Figure 70. Releasing the Extended Battery Bracket

7. Remove the extended battery bracket.

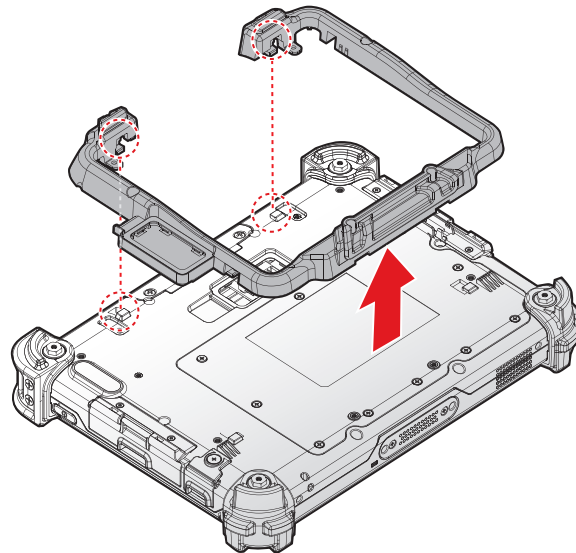


Figure 71. Removing the Extended Battery Bracket

8. Install the connector cover in the extended battery compartment to protect the battery connector.

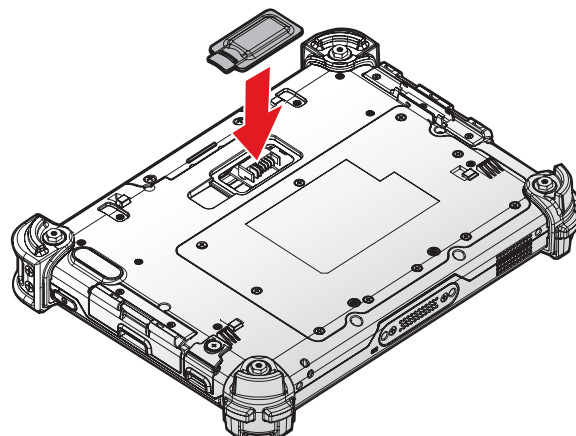


Figure 72. Installing the Extended Battery Connector Cover

Magnetic Stripe Reader and Barcode Scanner

The Magnetic Stripe Reader (MSR) and Barcode Scanner modules are optional components. Contact your representative for ordering information.

Installing the Module

1. Power off the PM-311B. See “Powering Off the Device” on page 20.
2. Remove the snap-on module connector cover. See “Removing the Snap-on Module Connector Cover” on page 31.
3. Align the module correctly. The barcode scanner sensor must be facing the front of the device.
4. Align connectors on the module and the device.
5. Insert the device over the connector and press down. An audible click sounds when the module is installed correctly.

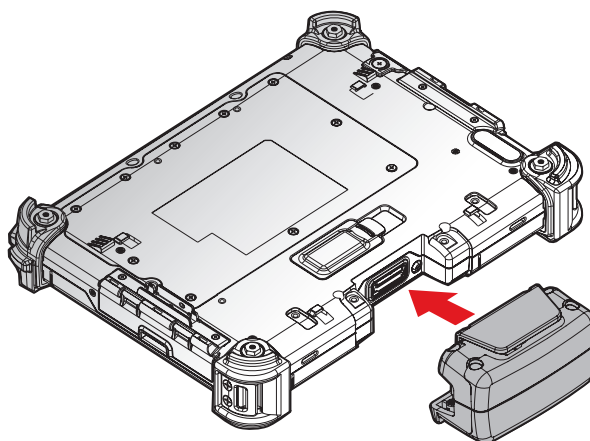


Figure 73. Installing the Module

6. Secure the module and the PM-311B with the screws.

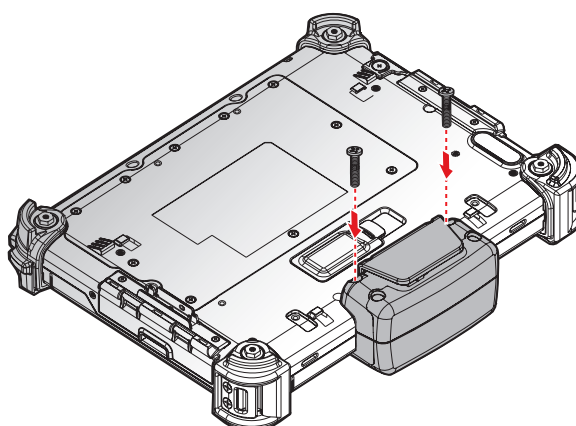


Figure 74. Installing the Screws

Removing the Module

1. Power off the PM-311B. See “*Powering Off the Device*” on page 20.
2. Remove the screws securing the module.

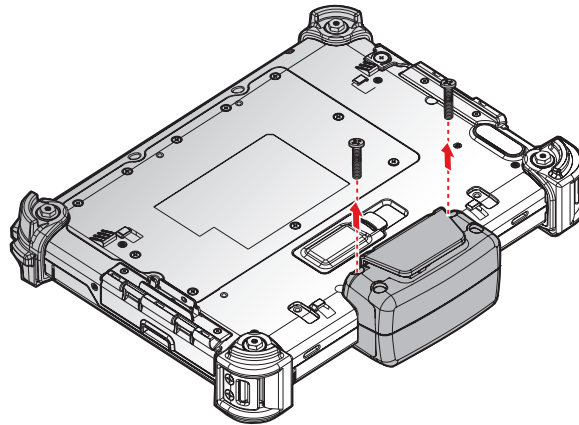


Figure 75. Removing the Screws

3. Grasp the module from both sides and gently pull the module off.
4. Remove the module.

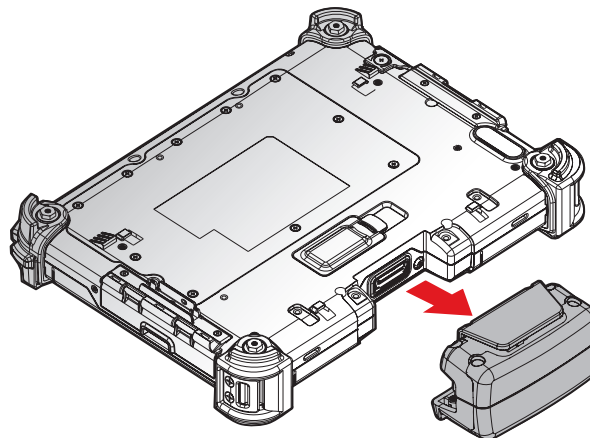


Figure 76. Removing the Module

5. Replace the snap-on module connector cover. See “*Replacing the Snap-on Module Connector Cover*” on page 32.

Magnetic Stripe Reader and Machine-Readable Zone Reader

The Magnetic Stripe Reader (MSR) and Machine-Readable Zone Reader modules are optional components. Contact your representative for ordering information.

Installing the Module

1. Power off the PM-311B. See “Powering Off the Device” on page 20.
2. Remove the snap-on module connector cover. See “Removing the Snap-on Module Connector Cover” on page 31.
3. Align the module correctly. The reader sensor must be facing the front of the device.
4. Align connectors on the module and the device.
5. Insert the device over the connector and press down. An audible click sounds when the module is installed correctly.

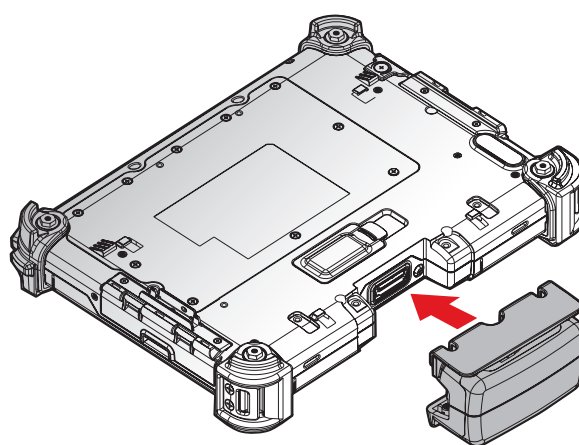


Figure 77. Installing the Module

6. Secure the module and the PM-311B with the screws.

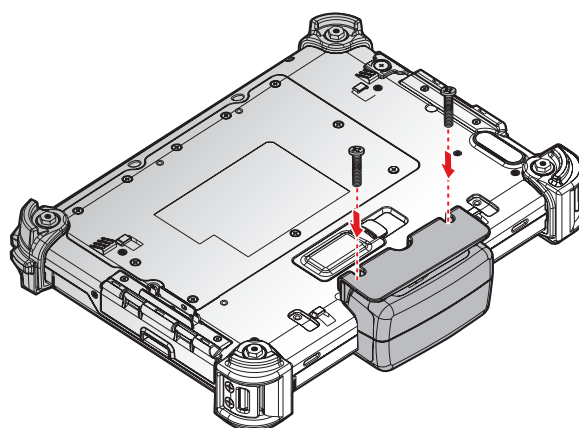


Figure 78. Installing the Screws

Removing the Module

1. Power off the PM-311B. See “Powering Off the Device” on page 20.
2. Remove the screws securing the module.

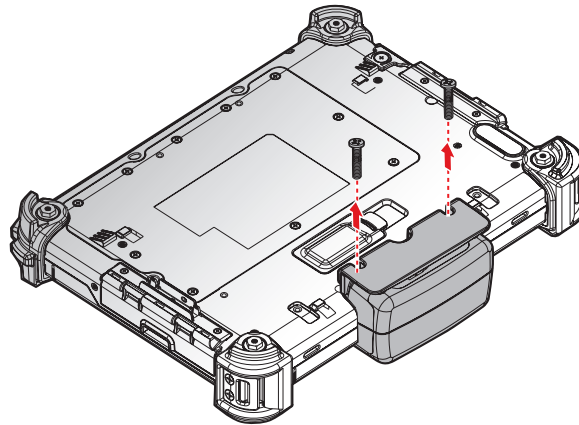


Figure 79. Removing the Screws

3. Grasp the module from both sides and gently pull the module off.
4. Remove the module.

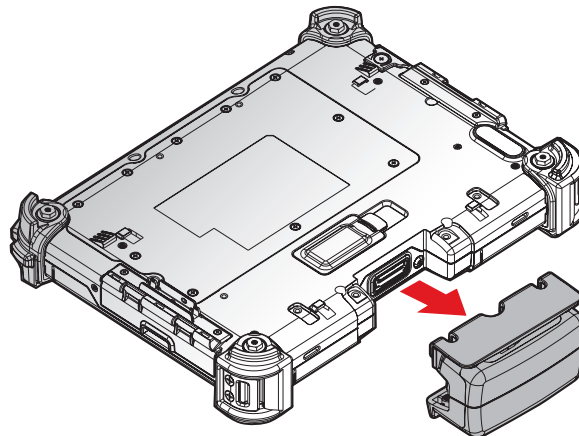


Figure 80. Removing the Module

5. Replace the snap-on module connector cover. See “Replacing the Snap-on Module Connector Cover” on page 32.

Connecting to a Wireless Network

Before you can make use of the PM-311B wireless functions, you need to connect to a network. The following is a set of procedures for connecting to a wireless network.

1. Before beginning, make sure your Wi-Fi setting is enabled and you are within range of a wireless network. If your Wi-Fi setting is disabled, proceed to step 2.
 - Find the network icon located on the right side of the taskbar. If the icon displays an X in a red circle, you are not within range of a wireless network. Move to a different spot until the Wi-Fi icon changes status indicating availability to a wireless network.
2. From any screen, open the Charms bar by sliding your finger inward from the screen's right edge. The Charms bar displays along the screen's right side.
3. In the Charms bar, tap **Settings** to open the **Settings** menu.

4. In **Settings**, tap the Network icon to display the Networks connection settings.
5. The Wi-Fi menu displays. By default, the Wi-Fi menu is set to Off. Tap the bar next to Off to toggle Wi-Fi to On. This enables the Wi-Fi option.
6. Once Wi-Fi is enabled a listing of all available wireless networks displays. The wireless networks with the strongest signal are atop the list.
7. Select the network you want to connect, and tap the **Connect** button. You can tap the **Connect Automatically** check box if you connect to this network frequently. If you connect to the network, you are finished with the process. The network is considered an Open unsecured network, no password is required.
8. If a password is required, type the password in the **Enter the network security key** field. Alternatively, you can also push the WPS button on your router to begin the security handshake.
9. Tap **Next** to finish the connection process.

You have successfully connected to a wireless network.

Pairing the NFC Device

The NFC function allows the transfer of information between two NFC-equipped devices. Before beginning the procedure make sure your smart device has the NFC function enabled.

To enable and use the NFC function:

1. Tap **APPS > Setting > More....**
2. Tap **NFC** to turn the NFC function on.
3. Use your NFC-enabled device to touch to the PM-311B.

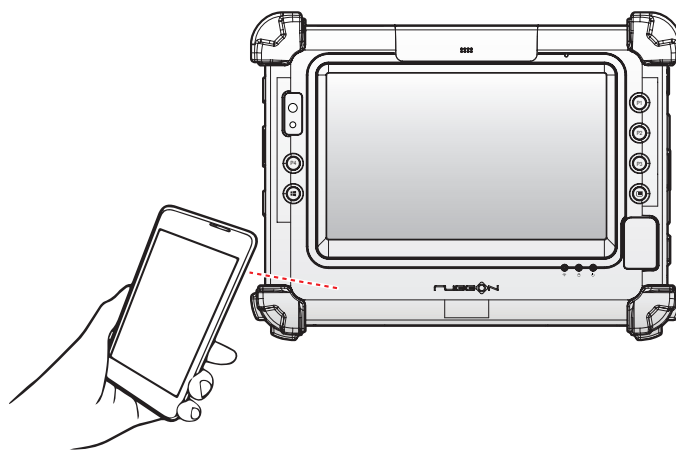


Figure 81. Pairing the NFC Device

Once the two devices are paired, information sharing is available through the NFC connection.

Chapter 4. Using BIOS Setup Utility

Your ruggedized tablet has a BIOS setup utility which allows you to configure important system settings, including settings for the Boot and AP menus as well as the device's basic settings--the system reads the basic settings during initialization in order to boot correctly

When to Use the BIOS Setup Utility

You need to run the BIOS Setup utility when:

- Restoring to BIOS settings to factory default
- Modifying specific hardware settings
- Modifying specific settings to optimize system performance
- Installing Windows 10 operating system

Accessing the BIOS Setup Utility



The BIOS Setup Utility screens shown in this chapter are for your reference only. The actual images or settings on your tablet computer may differ.

The BIOS Setup Utility program may have been updated after the publication of this manual.

To run the BIOS Setup Utility, use the following procedures:

1. Connect a keyboard to the PM-311B.
2. When the PM-311B is powered off, press the Power button to start up the device. The power LED lights. Press **F5** on the keyboard or **Home** key on the PM-311B until the BIOS Post screen displays.

The BIOS POST screen appears as shown.

3. From the BIOS POST screen select **App Menu** to open the BIOS Setup Utility.

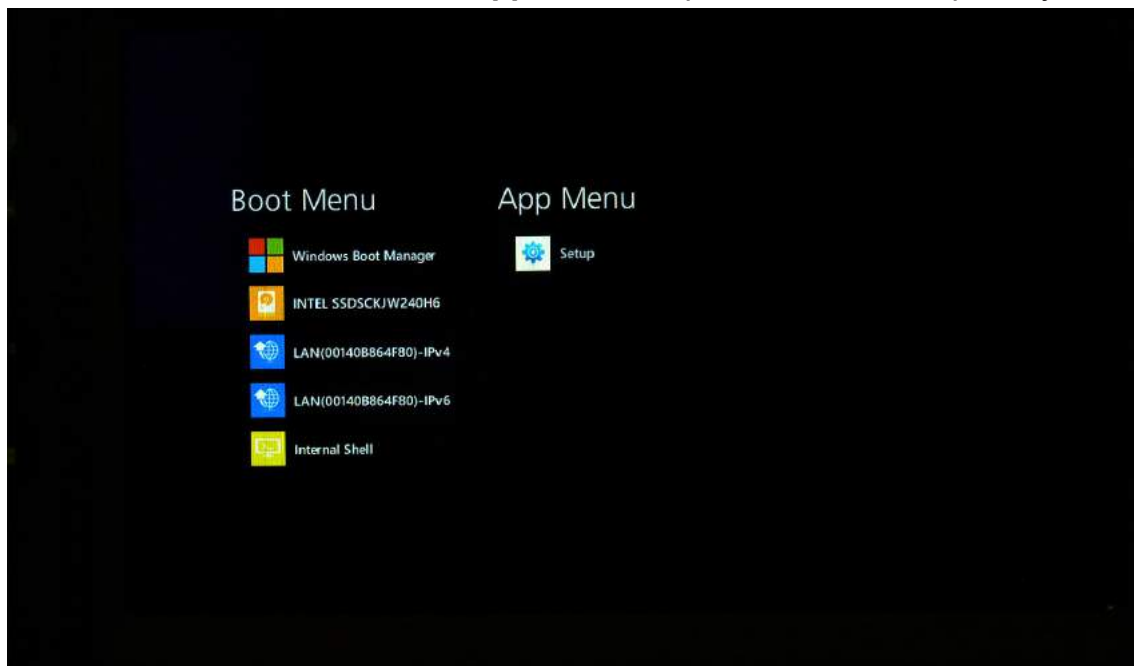


Figure 82. BIOS POST Screen

Due to the device's fast boot up and boot down time, there is only a small time frame of a few seconds between the release of the Power button and the opportunity to press the Windows button.

The App Menu displays.

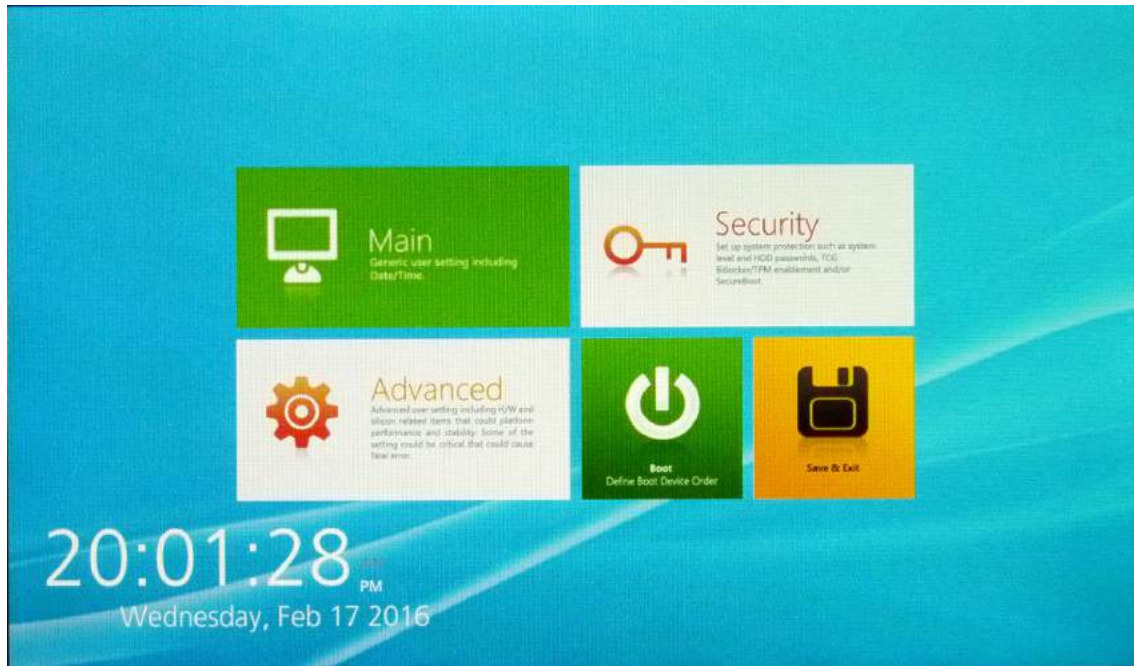


Figure 83. BIOS Setup Utility: App Menu Screen

Installation an Operating System

Setting Up a Windows 10 Installation Environment

There are several settings in BIOS that must be modified before you can install a Windows 10 operating system.

Use the following guidelines to prepare the BIOS environment:

- Step 1: Enable CSM Support
 1. Access the BIOS Setup Utility, see “*Accessing the BIOS Setup Utility*” on page 54.
 2. Navigate to **APP Menu > Main > Boot Features**.
 3. Locate the **CSM Support** setting and tap the drop-down menu to display the options.
 4. Tap **Yes** to enable CSM support.

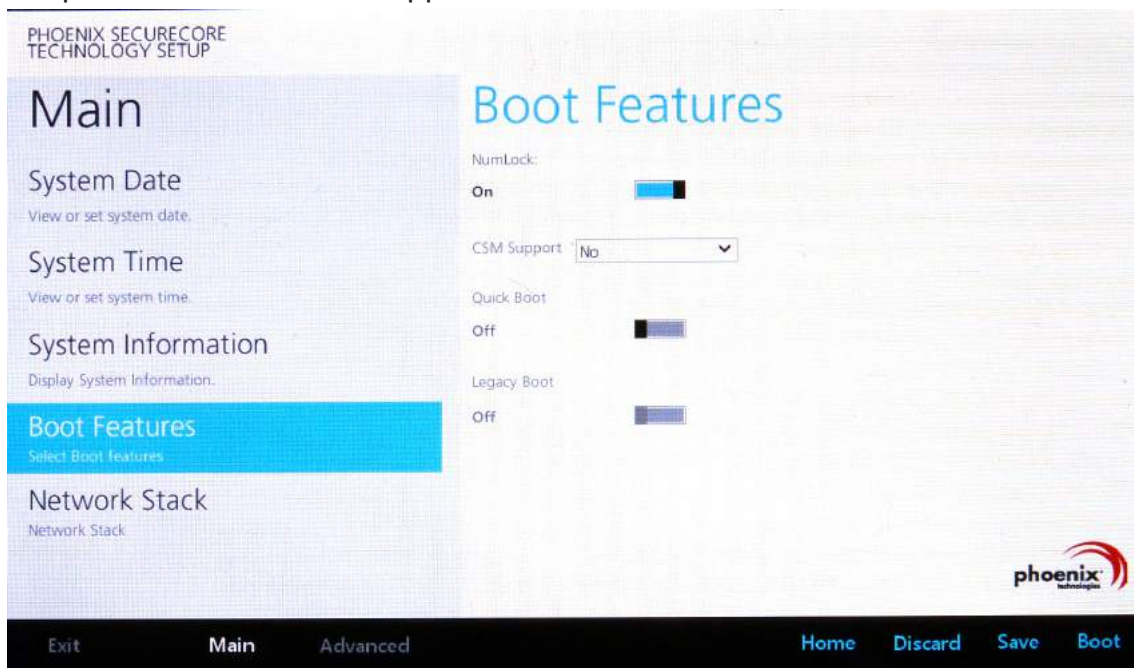


Figure 84. Main > Boot Features

■ Step 2 Enable Legacy Boot

1. Access the BIOS Setup Utility, see “Accessing the BIOS Setup Utility” on page 54.
2. Navigate to **APP Menu > Main > Boot Features**.
3. Locate the **Legacy Boot** setting and tap on the menu to select **On** enable legacy boot.

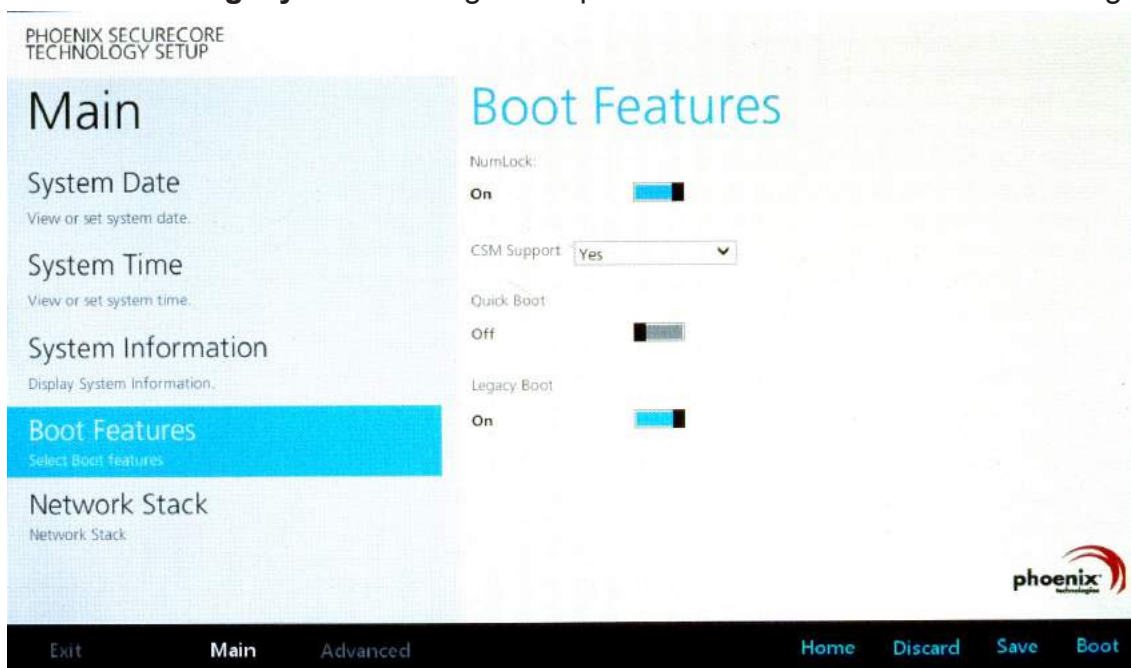


Figure 85. Main > Boot Features

■ Step 3: Advanced > Miscellaneous Configuration

■ Save the Settings

After you configure BIOS, you will need to save the settings.

1. Navigate to **APP Menu > Exit** and tap **Exit Saving Changes**.

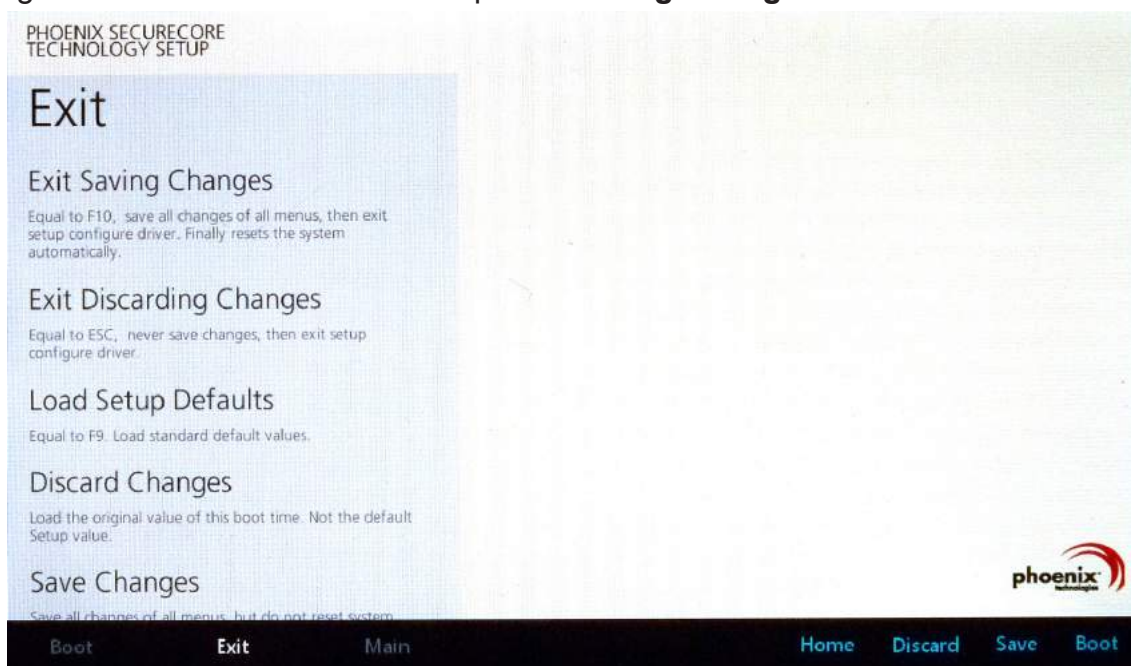


Figure 86. Exit the BIOS Utility

2. A prompt display, tap **Yes** to save the configuration.

The BIOS settings are configured and the Windows 10 operating system can be installed.

BIOS Passwords

Setting Up a Supervisor Password

To setup a supervisor password, follow the procedure as described:

1. Go to **APP Menu > Security > Account's Password Status**.
2. Tap the **Enter** icon next to **Setup the Supervisor Password** to access the virtual keyboard.

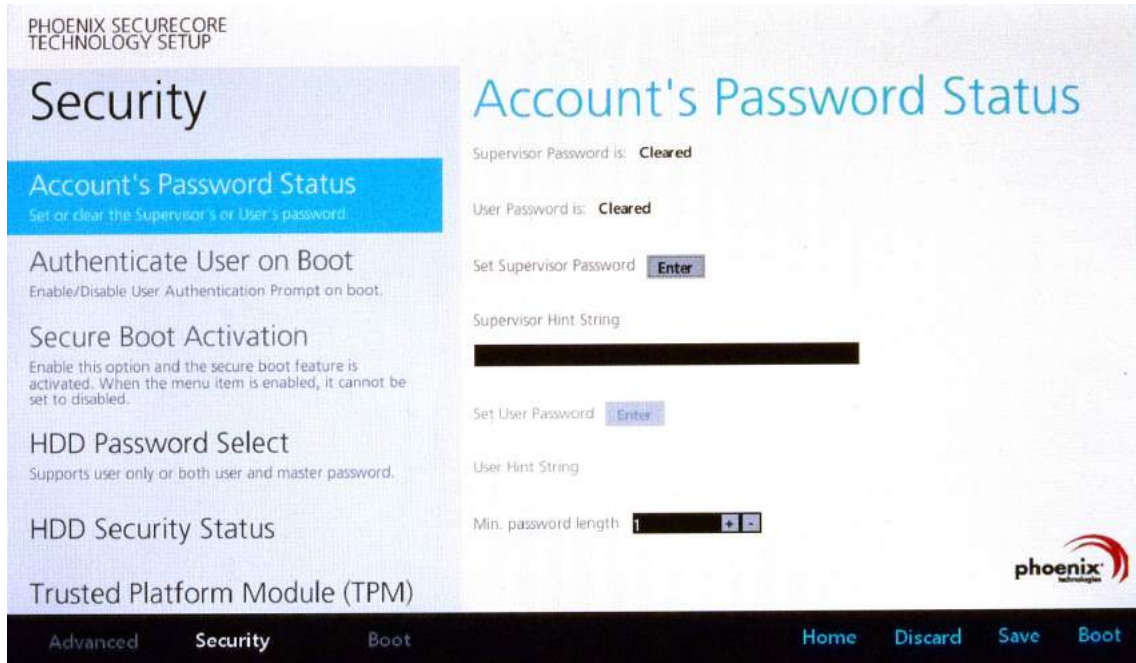


Figure 87. Security > Account's Password Status

3. Tap the password to use for the Supervisor profile and tap **Enter**.

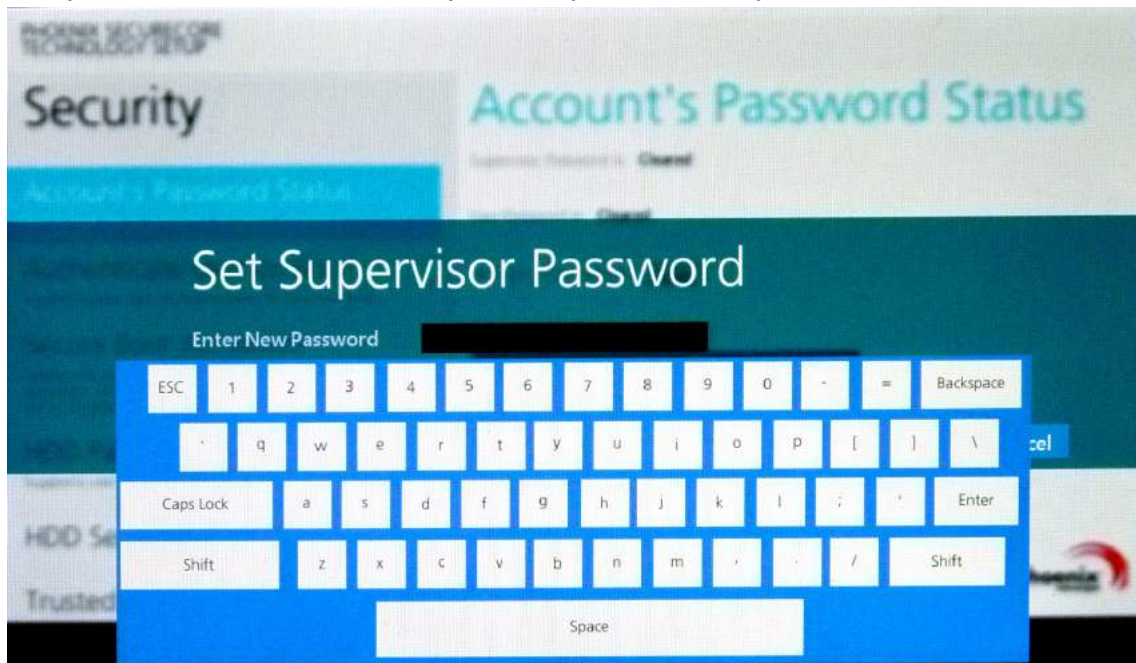


Figure 88. Set Supervisor Password

4. Verification of the password is required. Tap the same password again and tap **Enter** to confirm the new password.
5. Navigate to **APP Menu > Exit**.

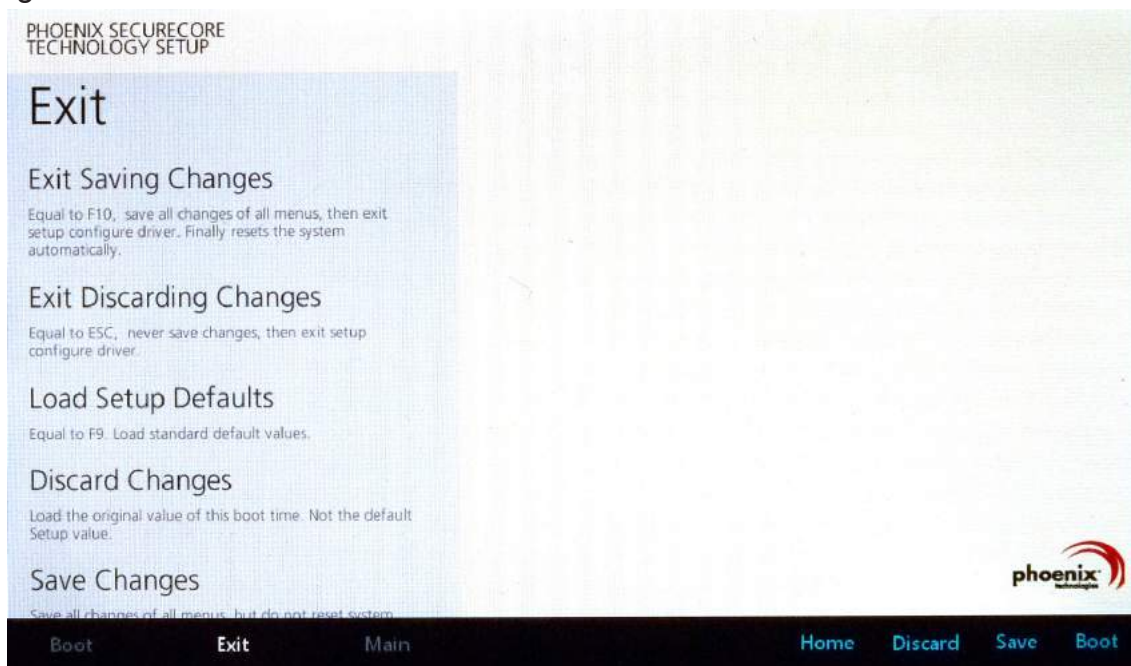


Figure 89. Exit Screen

6. Tap **Exit Saving Changes** to display the confirmation screen.
7. Tap **Yes** to save the new configuration settings.

After setting the Supervisor password, the password is required to access the BIOS Setup Utility.

Changing a Supervisor Password

1. Navigate to **APP Menu > Security > Account's Password Status**.
2. Tap the **Enter** icon next to **Setup Supervisor Password**.
3. Enter the current supervisor password.
4. Enter a new password.
5. Enter the new password again to confirm.
6. Go to **APP Menu > Exit**.
7. Tap **Exit Saving Changes** and tap **Yes** to save the configuration.

Resetting a Supervisor Password

A supervisor password can not be reset. In the event that you forget the supervisory password, you will need to reflash the BIOS to enter the BIOS menus. Refer to *“Updating BIOS”* on page 60 to reflash the BIOS.

EC and BIOS

Updating BIOS

This procedure allows you to update and reflash the system BIOS. Both procedures follow the same steps as described in the following.



Make sure to protect your device from power loss during the BIOS update procedure to prevent irreparable damage to your system's mainboard.

For this procedure, it is highly recommended to connect the device to the AC adapter to prevent a sudden loss of power during the BIOS updating process.

1. Contact your technical sales or technical representative to obtain the correct BIOS file.
2. Copy the BIOS file on to the USB device.
3. Connect the USB device to one of the device's USB ports and power on the PM-311B.



A USB keyboard is required for entering command.

4. Once the device is on and the Windows 10 Home screen displays, open the Charms bar by sliding your finger inward from the screen's right edge. The Charms bar displays.
5. Tap **All settings** from the displayed menus.

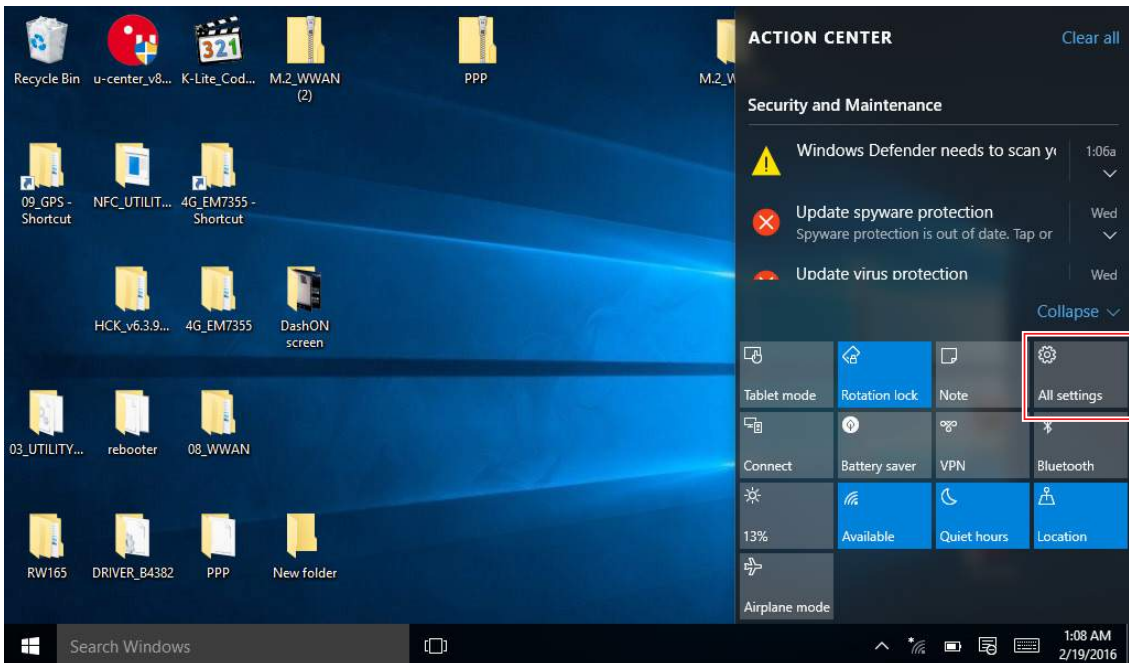


Figure 90. Charms Bar > All Settings

6. Tap **UPDATE & SECURITY**.

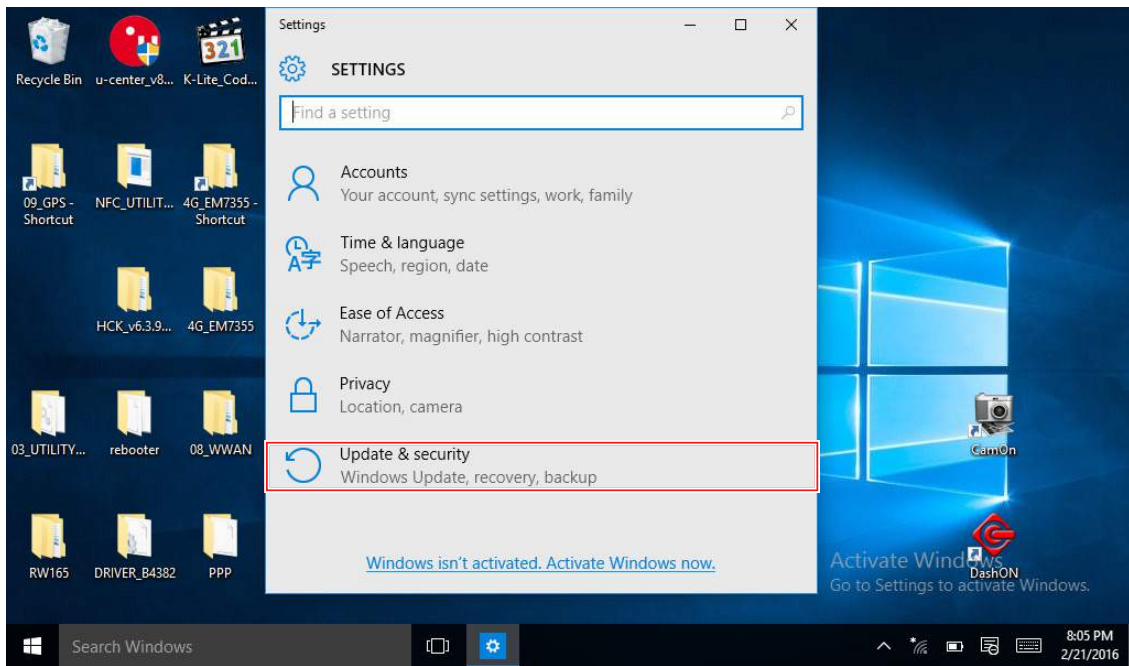


Figure 91. UPDATE & SECURITY

7. From the **UPDATE & SECURITY** menu, tap **Recovery** to continue.

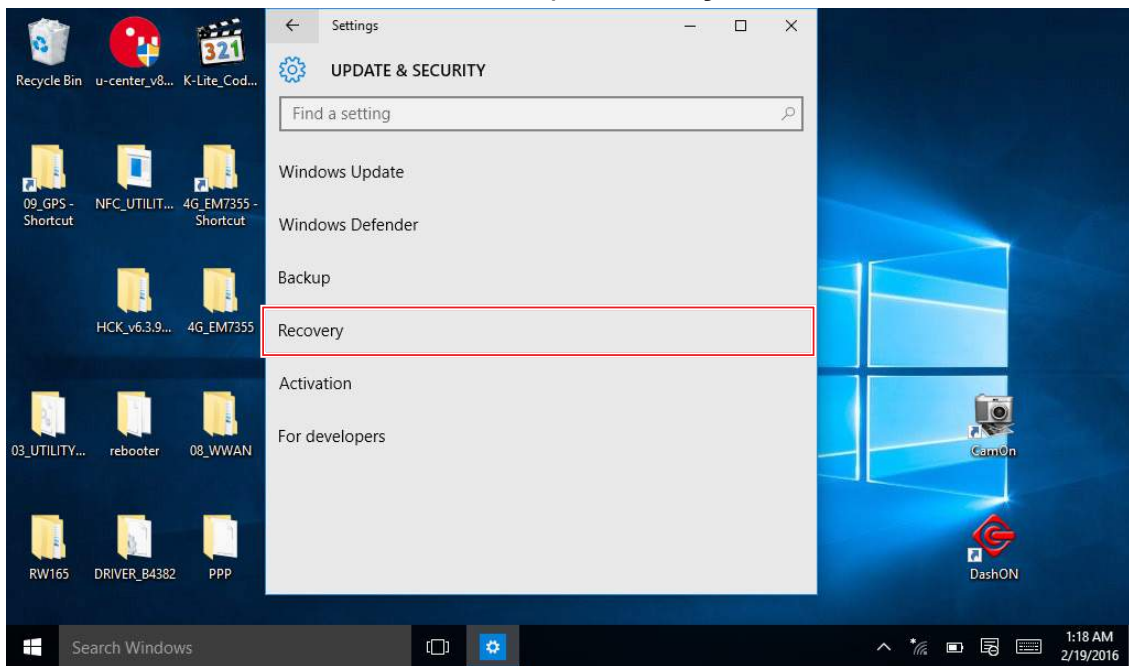


Figure 92. Recovery

8. From the **RECOVERY** screen, tap **Restart now**.

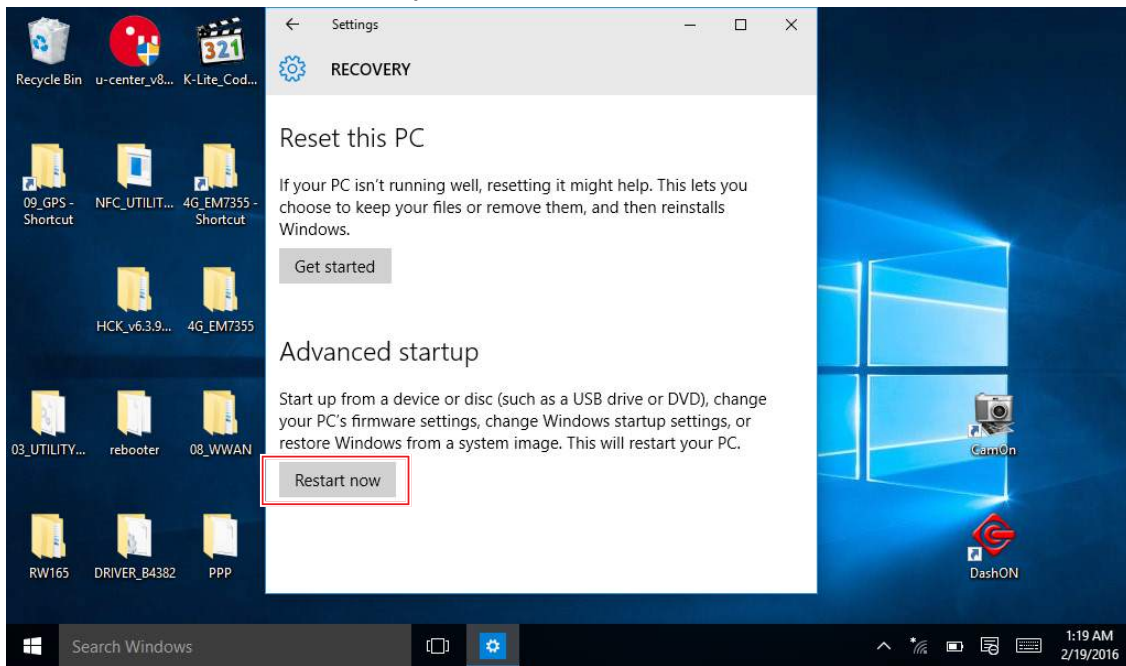


Figure 93. Restart Now

9. Tap **Use a device** to select a boot up preference.

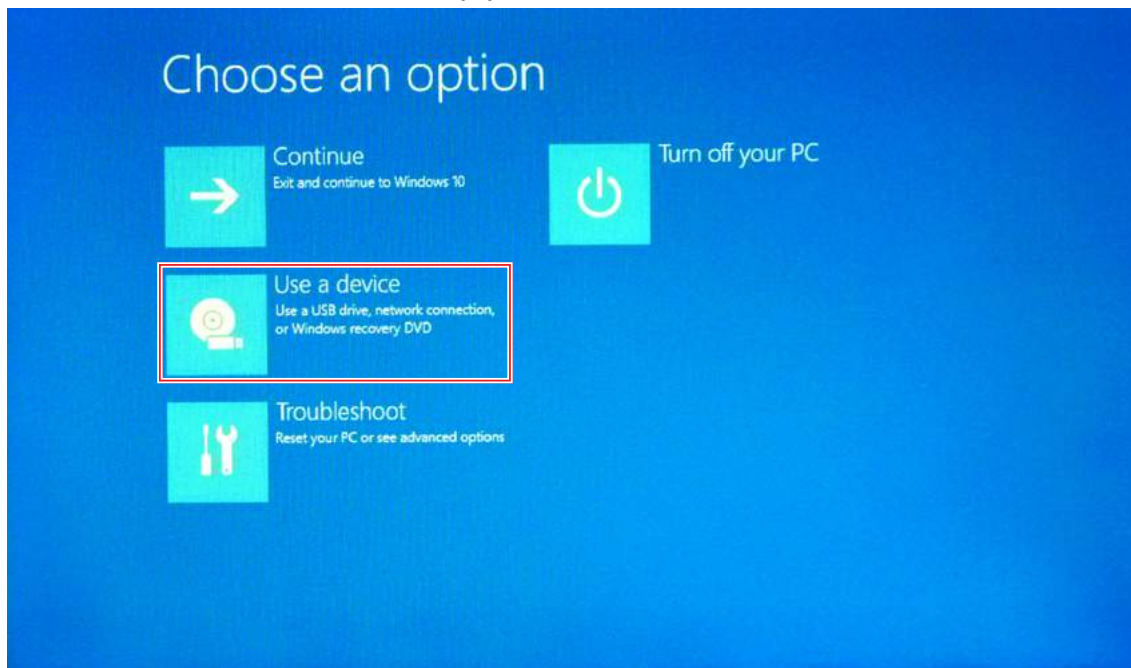


Figure 94. Use a Device

10. From the **Use a device** menu, tap **Internal Shell** to open the command screen.



Make sure connect the PM-311B to the AC adapter to prevent a sudden loss of power.

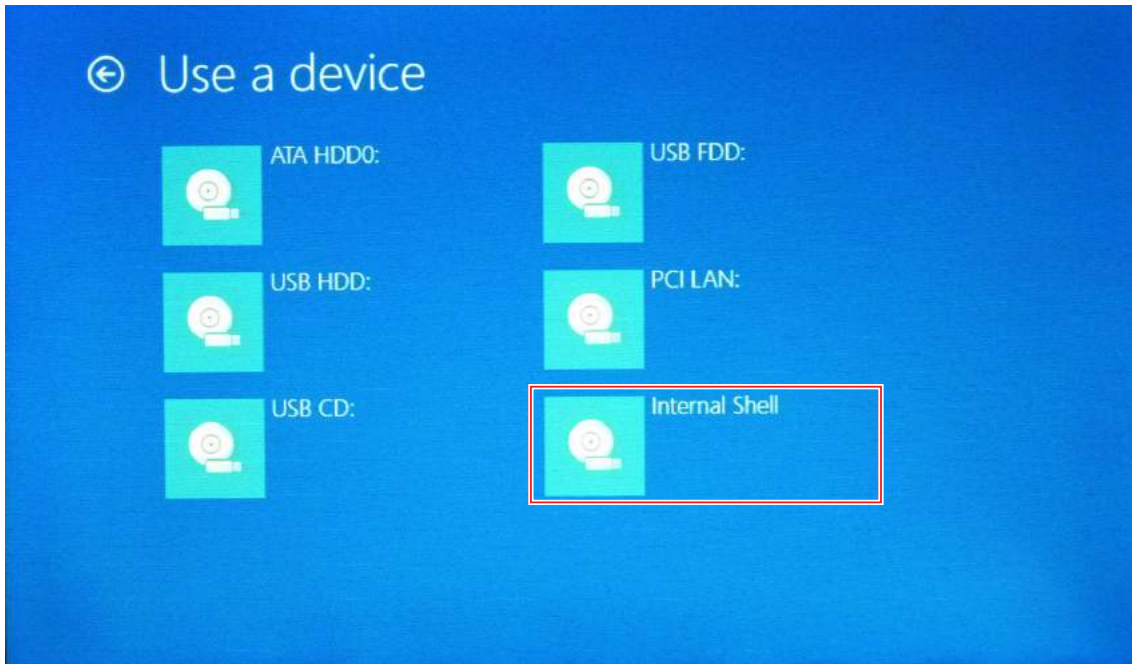


Figure 95. Internal Shell

11. In the command screen, enter `fs1 :` to select the USB device already connected to the device. The command directs you to the USB device's root menu.

```
EFI Shell version 2.31 (4660,22136)
Current running mode 1.1.2
Device mapping table
fs0 :HardDisk - Alias hd19c blk0
      Acpi (PNP0A03,0)/Pci (1310)/Sata (0,0,0)/HD (Part2, Sig632a7c05-549a-4a90-a1fc-809ca105bf3a)
fs1 :Removable BlockDevice - Alias f28a0 blk1
      Acpi (PNP0A03,0)/Pci (1410)/Usb (0,0)
blk0 :HardDisk - Alias hd19c fs0
      Acpi (PNP0A03,0)/Pci (1310)/Sata (0,0,0)/HD (Part2, Sig632a7c05-549a-4a90-a1fc-809ca105bf3a)
blk1 :Removable BlockDevice - Alias f28a0 fs1
      Acpi (PNP0A03,0)/Pci (1410)/Usb (0,0)
blk2 :HardDisk - Alias (null)
      Acpi (PNP0A03,0)/Pci (1310)/Sata (0,0,0)/HD (Part1, Sig48e671ef-27a4-4990-8b93-86836fbb8a27)
blk3 :HardDisk - Alias (null)
      Acpi (PNP0A03,0)/Pci (1310)/Sata (0,0,0)/HD (Part3, SigE75f2a22-f220-419b-bec2-a05d73a37fc6)
blk4 :HardDisk - Alias (null)
      Acpi (PNP0A03,0)/Pci (1310)/Sata (0,0,0)/HD (Part4, Sig2ced0750-52b0-4bc6-b761-0965185ef9b4)
blk5 :BlockDevice - Alias (null)
      Acpi (PNP0A03,0)/Pci (1310)/Sata (0,0,0)

Press ESC in 1 seconds to skip startup.nsh, any other key to continue.
Shell: _
```

Figure 96. Internal Shell Command Screen

12. If the BIOS file is in a folder and not in the root directory, navigate to the target folder.
13. Type `wf (.nsh)` and tap Enter. `wf` is the designated BIOS file.
Do not turn off your device or interfere with the reflash process until the process is complete.
14. Once the process is complete, the PM-311B automatically reboots.

The BIOS is now updated.

Updating EC



Connect the PM-311B to the AC adapter to prevent a sudden loss of power.

1. Updating EC requires the use of the Internal Shell Command menu, refer to steps 1 to 12 of *“Updating BIOS”*.
2. Enter the EC source file folder.
3. In the source folder, enter `f`.
4. Do not turn off your device or interfere with the reflash process until the process is complete. The system reboots once the process is completed.

Chapter 5. Using the DashON Utility

Overview

The DashON resident program is designed to provide near-instant access to your device's settings and configuration within a single, easy to use interface.

The following information illustrates and describes the various settings available for configuration through the DashON menus.

Important: Do not terminate or remove the DashON program manually or the ambient light sensor and the function buttons will be malfunction.



Figure 97. DashON Overview

Function	Description
EXIT	Minimize DashON and return to the desktop.
Button Lock	Lock or unlock all the physical buttons except Power button.
Screen Auto Rotate	Disable or enable screen auto rotate function.
Airplane	Turn on or off the airplane mode.
Battery	Shows the battery level or charging status.
Brightness	Adjust brightness level and enable or disable auto brightness function.
Volume Control	Adjust volume level and enable or disable mute function.
GNSS	Disable or enable GNSS function.
Wi-Fi	Disable or enable Wi-Fi function.
Bluetooth	Disable or enable Bluetooth function.
Touch Screen Lock	Lock or unlock the touch screen.
ECO Mode	Disable or enable ECO mode to save battery life when using the device.

Function	Description
Power Plan	Manage how your tablet uses power.
Info Viewer	View system specifications. The menu is for display only.
Display Switch	Choose a display mode when connect to another output device.
Button Setting	Pre-defined functions settings. Supports function button customizing.
Camera	Use the rear camera to take photos and videos.

Chapter 6. Troubleshooting

Use the troubleshooting tables in this section to fix problems with the Wi-Fi connection, 802.1x security, or general problems with operating the computer.



If you send the computer in for service, it is your responsibility to save the computer data and configuration. RuggON is responsible only for ensuring that the hardware matches the original configuration when repairing or replacing the computer.

Troubleshoot the Wi-Fi Connection

Use this troubleshooting table to help solve problems with your 802.11 radio connection.

- Q.** When you turn on the computer after it was suspended for a while (10 to 15 minutes or longer), it can no longer send or receive messages over the network.
- A.** Host may have deactivated or lost current terminal emulation session. In a TCP/IP direct connect network, turn off the “Keep Alive” message from host to maintain the TCP session while the computer is suspended.
- Q.** The computer is connected to the network and you move to a new site to collect data. Your computer now shows you are not connected to the network.
- A.** Move closer to an access point or to a different location to reestablish communications until you reconnect with the network.
- Q.** The computer appears to be connected to the network, but you cannot establish a terminal emulation session with the host computer.
- A.** There may be a problem with the host computer, or with the connection between the access point and the host computer. Check with the network administrator to make sure the host is running and allowing users to log in to the system.
- Q.** The computer appears to be connected to the network, but the host computer is not receiving any information from the computer.
- A.** There may be a problem with the connection between the access point and the host computer. Check with the network administrator or use your access point user’s manual.
- Q.** A network connection icon appears in the toolbar, but then disappears.
- A.** The computer may not be communicating with the intended access point. Make sure the network name matches the access point network name.
The access point may not be communicating with the server. Ensure the access point is turned on, properly configured, and has 802.1x security enabled.

Troubleshoot Operating the Computer

Use this section to troubleshoot problems that may prevent you from being able to operate the computer.

Q. You press the Power button and nothing happens.

A. Make sure that power is connected to the computer.

Q. The computer appears to be locked up and you cannot enter data.

A. Restart the computer.

Call Product Support

Simple instructions please contact the dealer, contact ruggon representative, or leave a message visit the RuggON website at www.ruggon.com.

To better assist you have the following information ready:

- Configuration number
- Serial number
- Operating system, BIOS, and MCU versions
- Service pack version
- System component versions
- If you are using security, know the type and the full set of parameters

Chapter 7. Maintenance

Cleaning the Device



Danger to electric shock when cleaning or maintaining the PM-311B.

To avoid electric shock, turn the PM-311B off and disconnect it from the power supply before cleaning or maintaining it.

Housing

- The housing of the PM-311B is best cleaned with a damp cloth.
- Use compressed air, a high-pressure cleaner or vacuum cleaner may damage the surface.
- Use a high-pressure cleaner, the additional risk of water entering the PM-311B may damage the electronics or touch screen.

Touch Screen

- Use neutral detergent or isopropyl alcohol on a clean soft cloth to clean the panel surface.
- Prevent using any kind of chemical solvent, acidic or alkali solution.

Returning the Device

Please put the contents in the original package gently when you need to return the PM-311B.

Contacting RuggON

If you experience technical difficulties, please consult your distributor or contact the technical services department:

www.ruggon.com

