

Removing the Shoulder Strap

1. Press in the clips to release them from the metal loop.
2. Remove the clips.

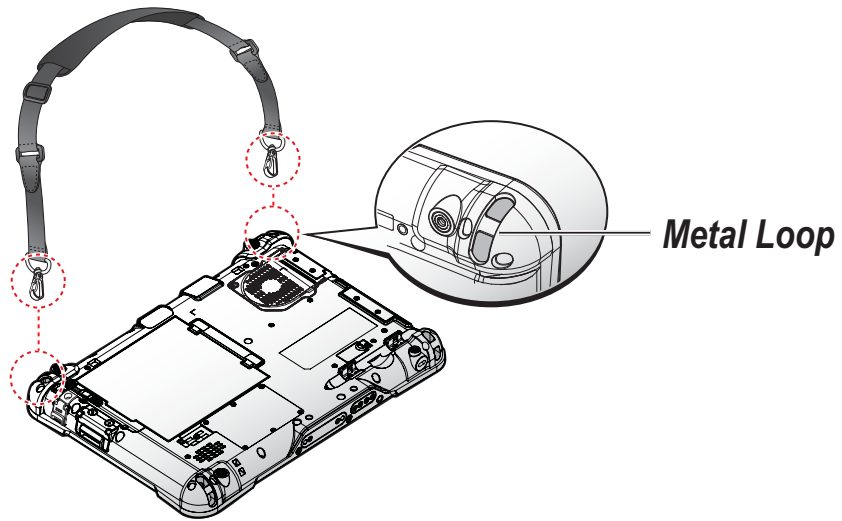


Figure 43. Removing the Shoulder Strap

Installing the Standard Battery

The following instructions are for both standard and external batteries. The external battery is an optional component. Only use components specifically designed for this device. Contact your local representative for ordering information.



Make sure the power switch is switched to ON before installing the standard/external battery. See “First Time Use” on page 18.

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

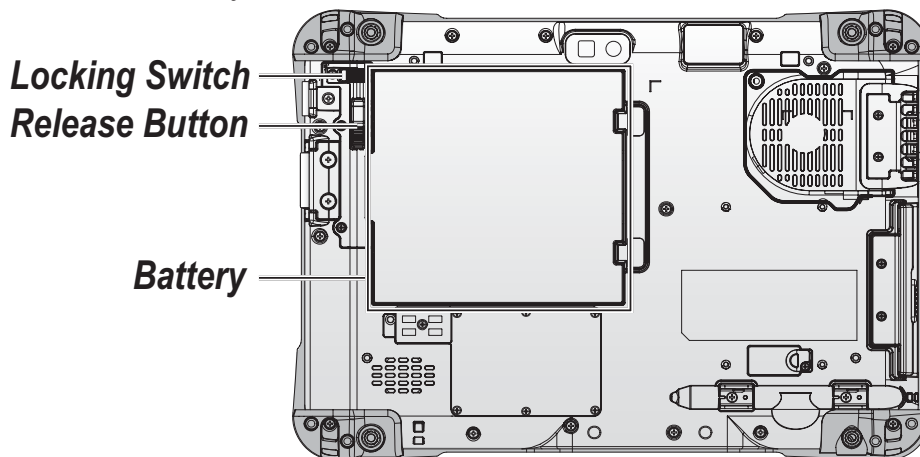


Figure 44. Rear View: Locating the Battery

3. Align the tabs on the battery with the slots on the chassis.
4. Angle the battery in place and set the tabs in the chassis slots.
5. Lower the raised end of the battery and press in place until an audible click is heard.

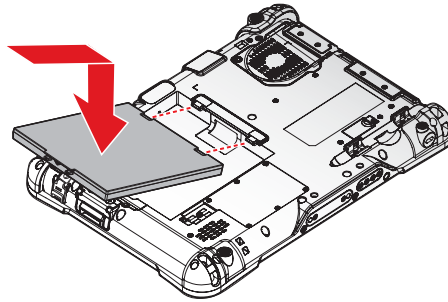


Figure 45. Installing the Battery

6. Slide the locking switch on the top-left side to lock the battery.

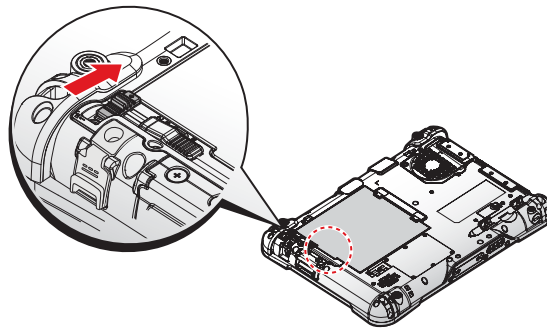


Figure 46. Locking the Battery



Make sure the latch is securely locked to prevent the battery from falling.

Removing the Standard Battery

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

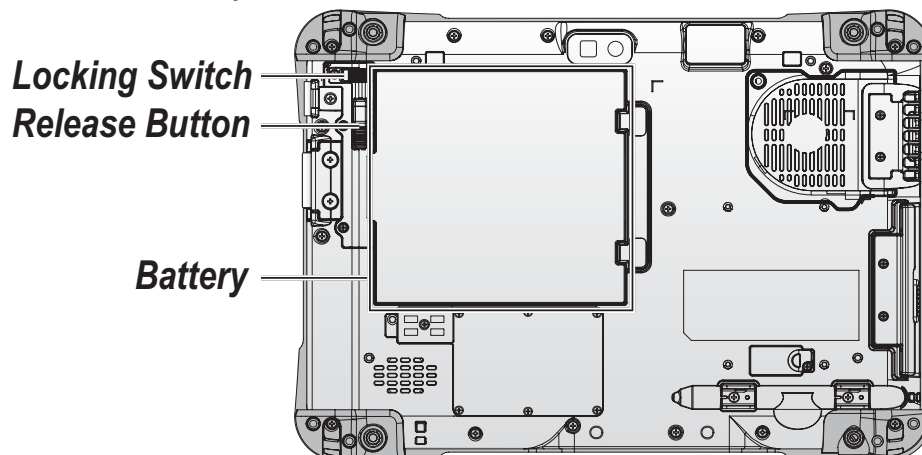


Figure 47. Rear View: Locating the Battery

3. Slide the locking switch on the top-left side to the unlock position.

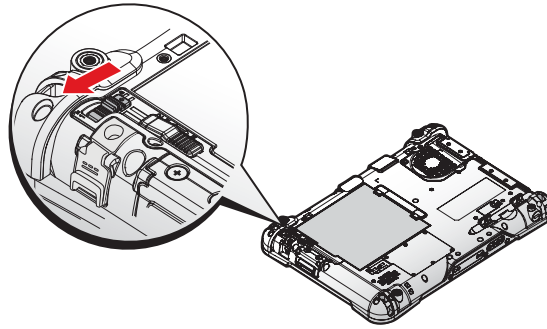


Figure 48. Unlock the Battery

4. Press and hold the release button as shown in the image to release the battery.
5. Hold the battery and angle the left side up to remove.

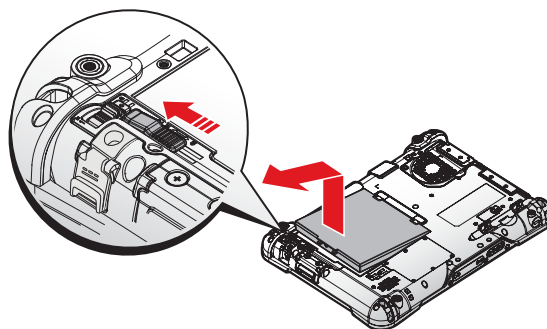


Figure 49. Removing the Battery

Connecting to a Wireless Network

Before you can make use of the PX-501 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.
 - Look at the Network icon located at 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 W-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 to, 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.

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 7 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. Perform one of the following:
 - If the PX-501 is powered off
Press the Power button to start up the device. The power LED lights.
Quickly press and hold the Windows Home key until the BIOS Post screen displays.
 - If the PX-501 is powered on
Press the Power button to shut down the device.
Quickly press and hold the Windows Home Key until the BIOS Post screen displays.

The BIOS POST screen appears as shown.

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

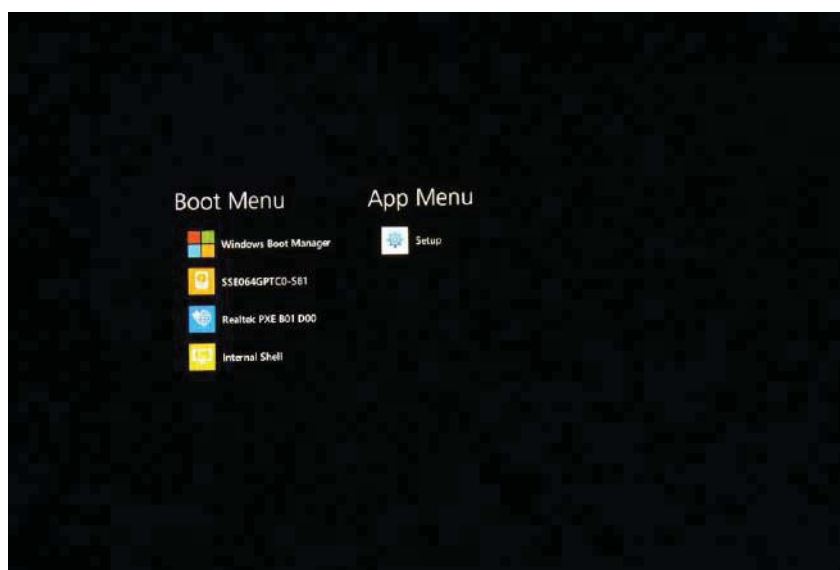


Figure 50. BIOS POST Screen

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 Home key.

The App Menu displays.



Figure 51. BIOS Setup Utility: App Menu Screen

Installation an Operating System

Setting Up a Windows 7 Installation Environment

There are several settings in BIOS that must be modified before you can install a Windows 7 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 38.
 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.

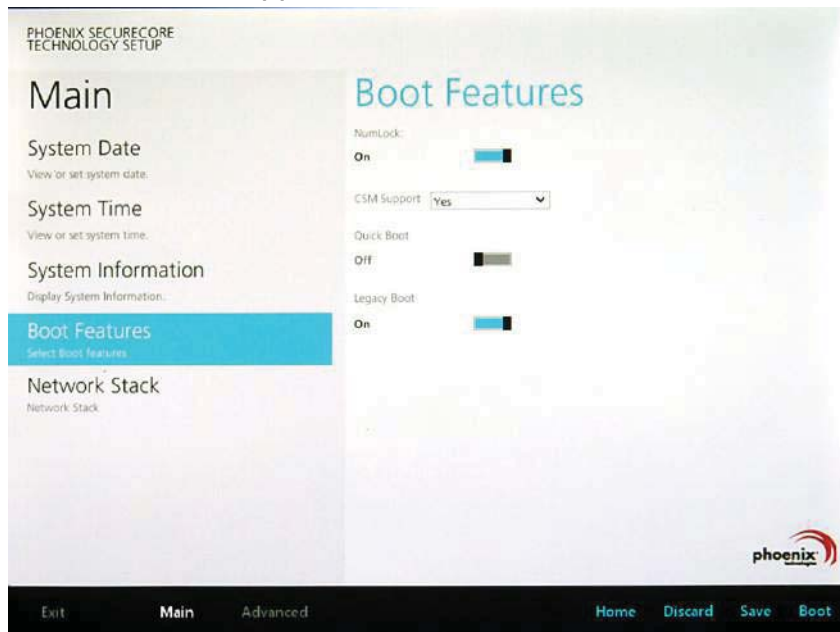


Figure 52. Main > Boot Features

■ Step 2 Enable Legacy Boot

1. Access the BIOS Setup Utility, see “Accessing the BIOS Setup Utility” on page 38.
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.

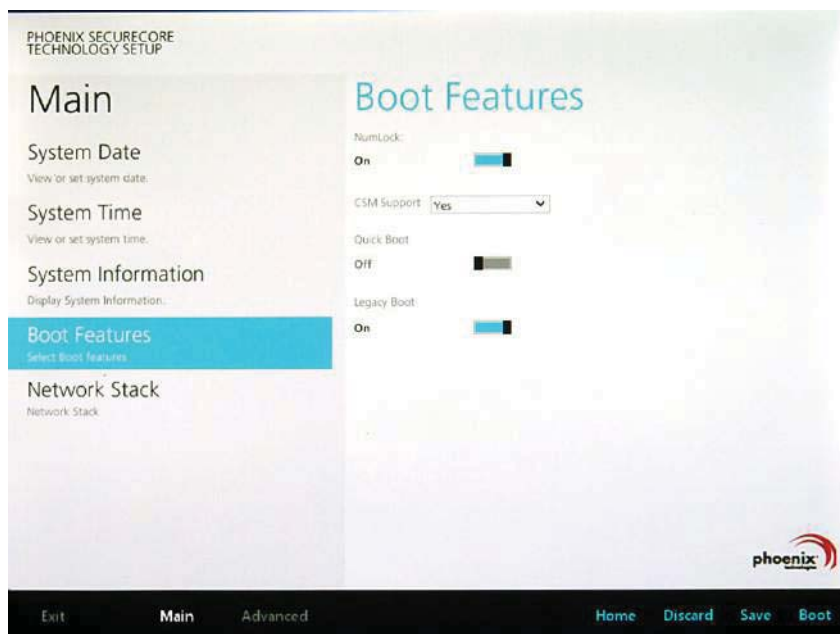


Figure 53. Main > Boot Features

- 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**.

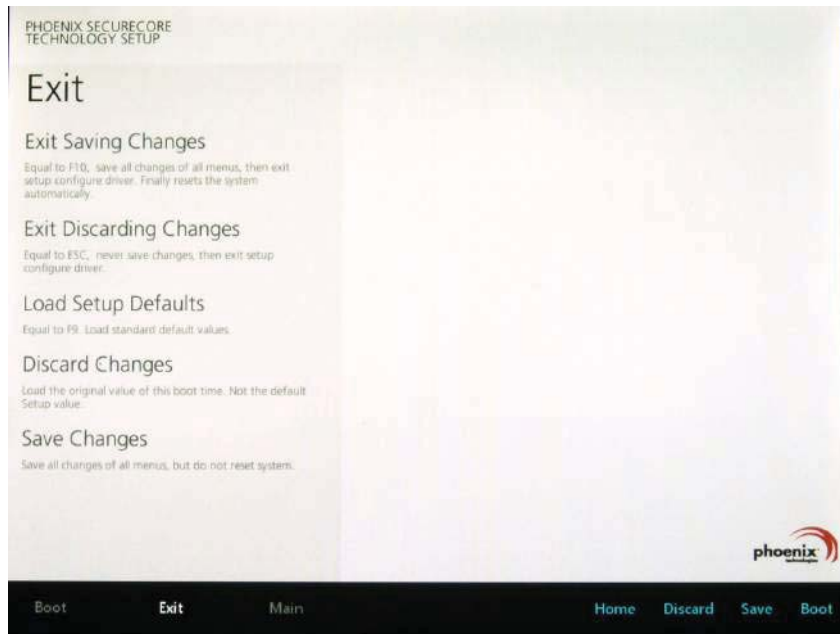


Figure 54. Exit the BIOS Utility

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

The BIOS settings are configured and the Windows 7 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 55. Security > Account's Password Status

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

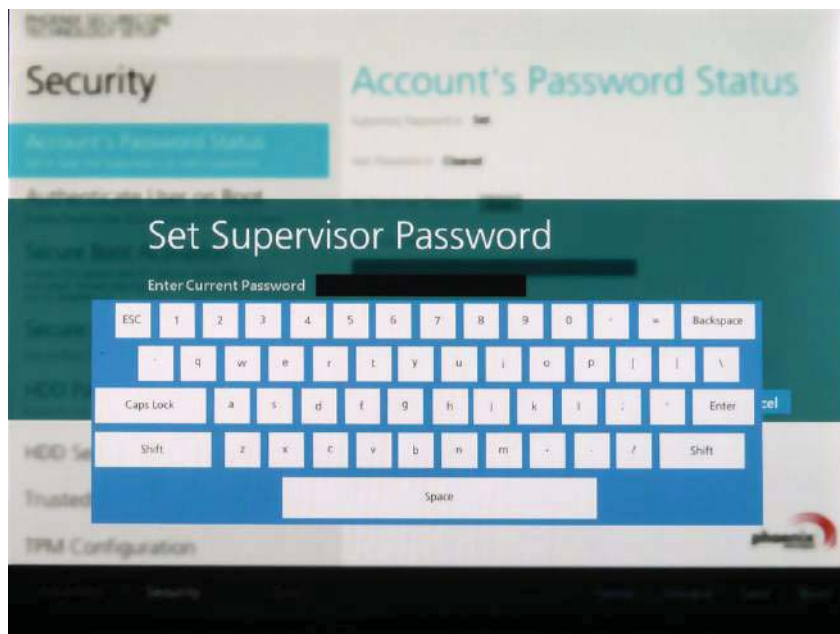


Figure 56. Set Supervisor Password

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**.

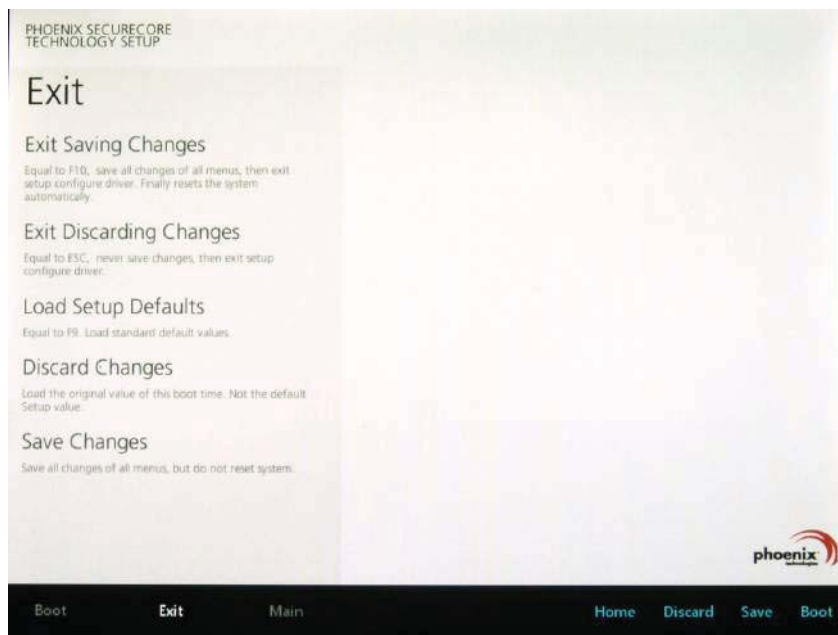


Figure 57. Exit Screen

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 44 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 PX-501.



A USB keyboard is required for entering command.

4. Once the device is on and the Windows 8 Home screen displays, open the Charms bar by sliding your finger inward from the screen's right edge. The Charms bar displays.
5. Tap **Settings** from the displayed menus.

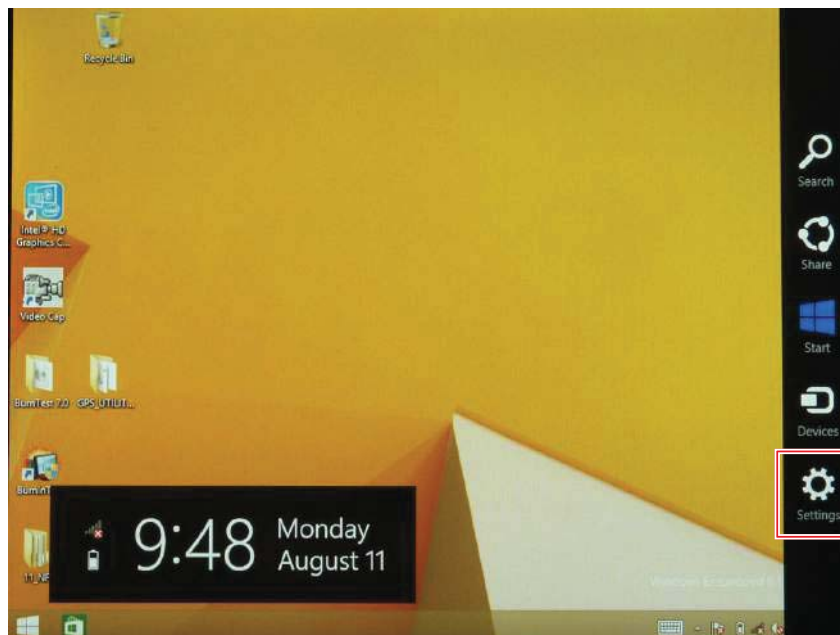


Figure 58. Charms Bar > Settings

6. Tap **Change PC settings**.

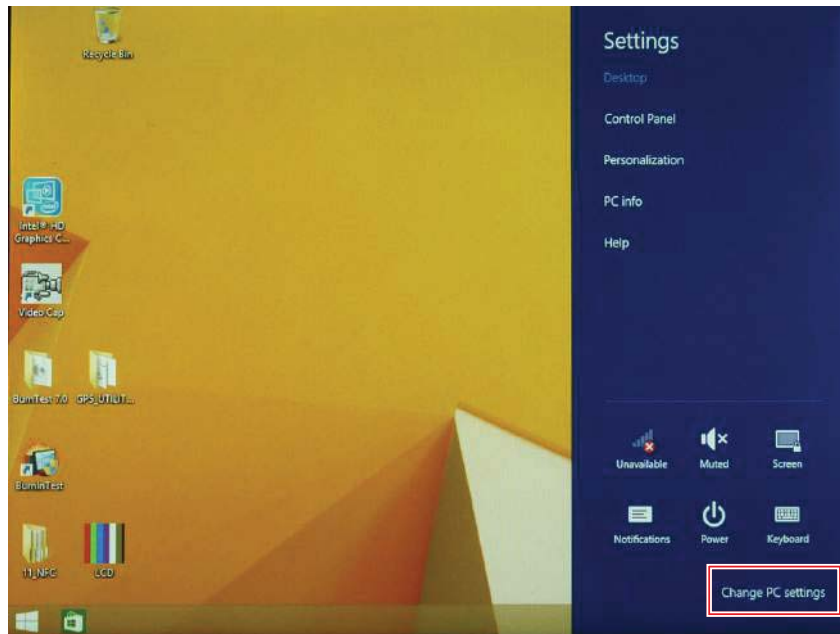


Figure 59. Change PC Settings

7. From the PC settings menu, tap **Update and recovery** to continue.

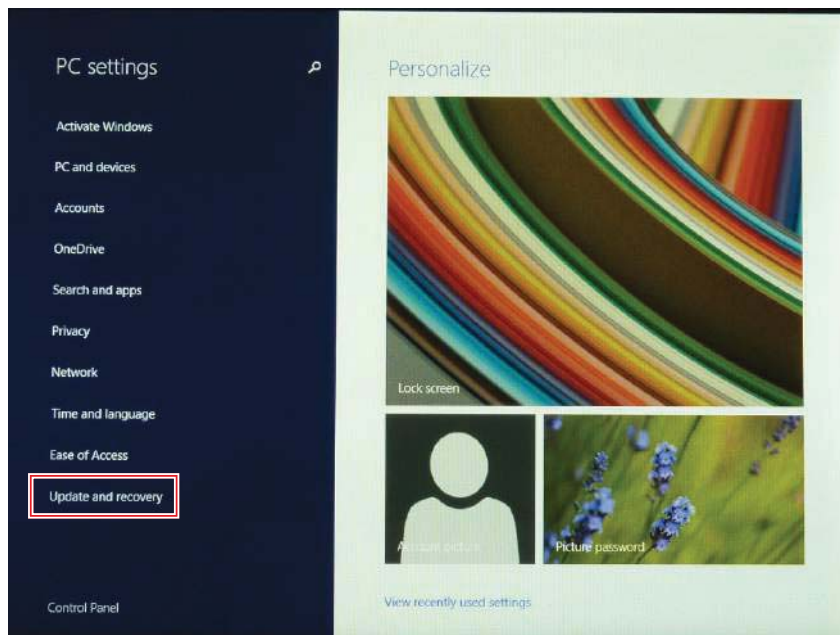


Figure 60. Update and Recovery

- From the **Update and recovery** screen, tap **Recovery**. The **Advanced startup** option displays.

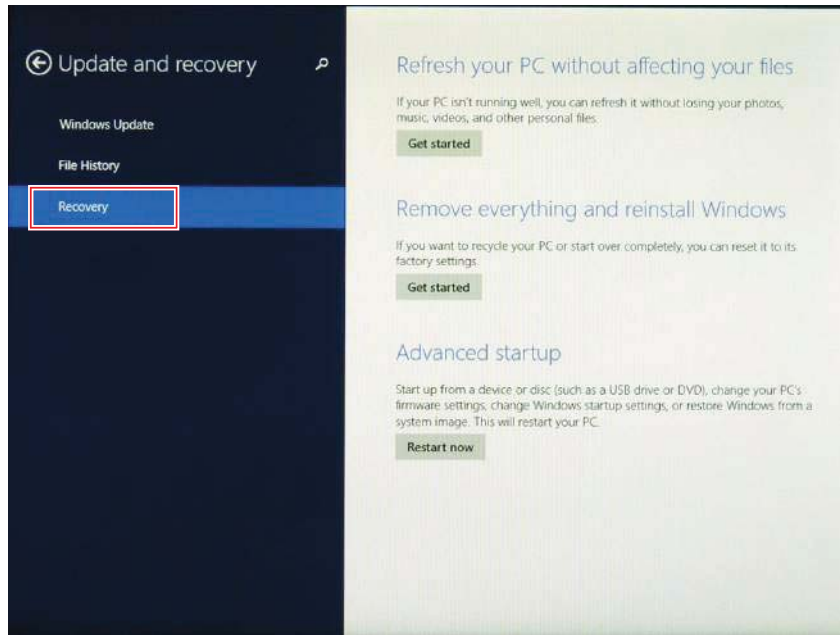


Figure 61. Recovery

- Under **Advanced startup**, tap **Restart now**.

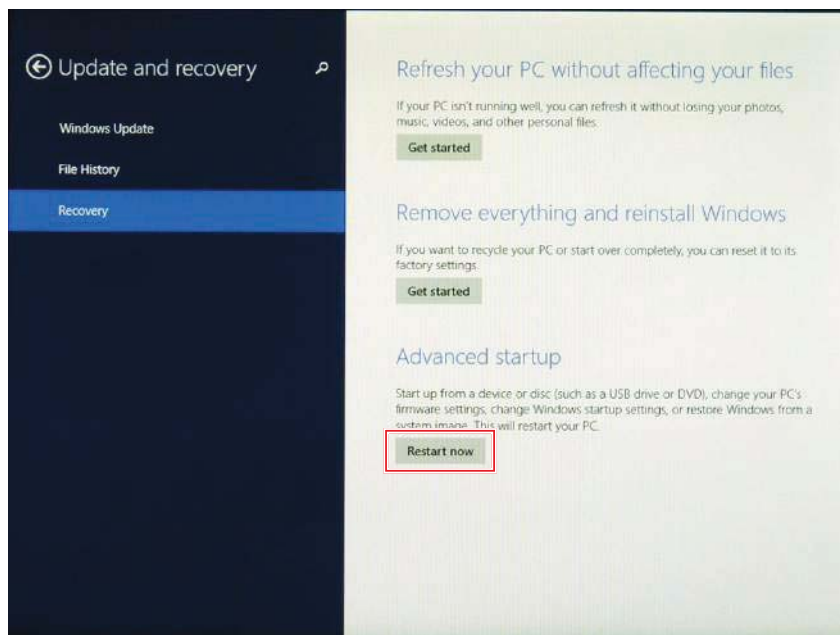


Figure 62. Restart Now

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

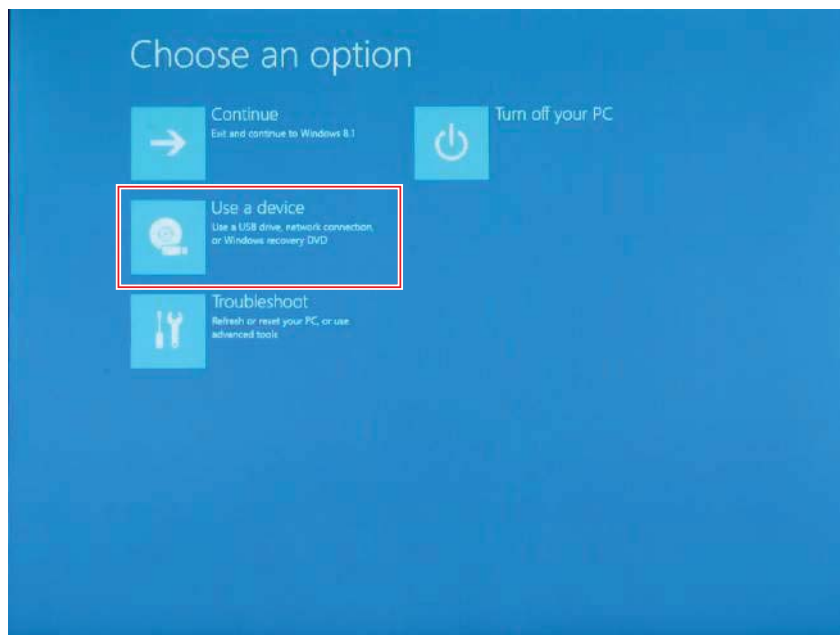


Figure 63. Use a Device

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



Make sure connect the PX-501 to the AC adapter to prevent a sudden loss of power.

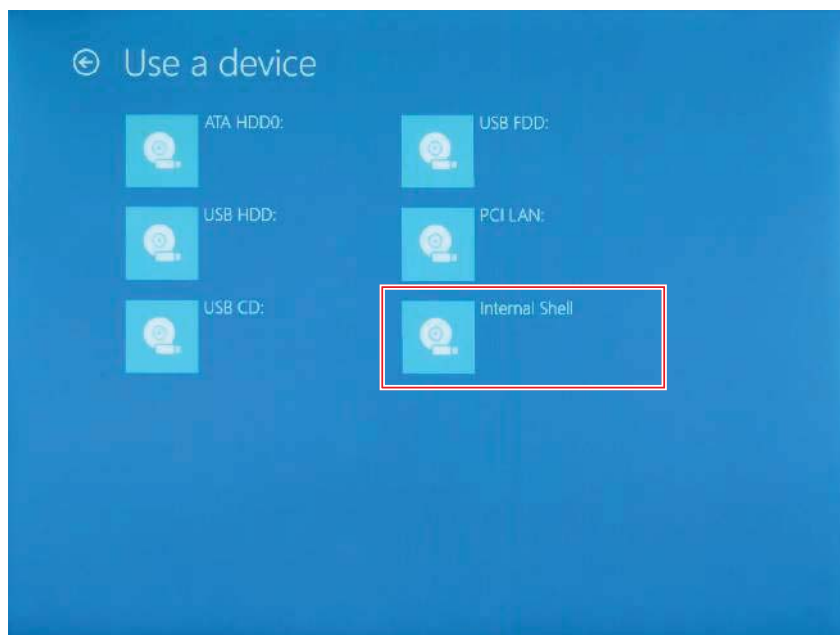


Figure 64. Internal Shell

- 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.Sig63207C05-5490-4090-A1FC-809CA105BF30)
fs1 :Removable BlockDevice - Alias f20a0 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.Sig63207C05-5490-4090-A1FC-809CA105BF30)
blk1 :Removable BlockDevice - Alias f20a0 fs1
      Acpi (PNP0A03.0)/Pci (1410)/Usb (0,0)
blk2 :HardDisk - Alias (null)
      Acpi (PNP0A03.0)/Pci (1310)/Sata (0,0,0)/HD (Part1.Sig4BE671EF-2704-4990-8B93-86836F80EA7)
blk3 :HardDisk - Alias (null)
      Acpi (PNP0A03.0)/Pci (1310)/Sata (0,0,0)/HD (Part3.SigE75F2A22-F220-4198-BEC2-A05D73A37FC6)
blk4 :HardDisk - Alias (null)
      Acpi (PNP0A03.0)/Pci (1310)/Sata (0,0,0)/HD (Part4.Sig2CED0750-5200-4BC6-8761-0965185E9B84)
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 65. Internal Shell Command Screen

- If the BIOS file is in a folder and not in the root directory, navigate to the target folder.
- 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.
- Once the process is complete, the PX-501 automatically reboots.

The BIOS is now updated.

Updating EC



Connect the PX-501 to the AC adapter to prevent a sudden loss of power.

- Updating EC requires the use of the Internal Shell Command menu, refer to steps 1 to 12 of “Updating BIOS”.
- Enter the EC source file folder.
- In the source folder, enter `fs1`.
- 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 the DashON program from the task manager or the ambient light sensor to prevent the function buttons from malfunctioning.



Figure 70. DashON Overview

Function	Description
EXIT	Close DashON and return to the desktop.
Button Lock	Lock or unlock the function keys on PX-501.
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. Note: The function is only available on Windows 7.
Brightness	Adjust brightness level for PX-501.
Volume Control	Adjust volume level for PX-501.
GNSS	Disable or enable GNSS function.
Wi-Fi	Disable or enable Wi-Fi function.
Bluetooth	Disable or enable Bluetooth function.
Mobile Broadband	Disable or enable mobile broadband function.
Touch Screen Lock	Lock or unlock the touch screen.

Function	Description
ECO Mode	Disable or enable ECO mode to save battery life when using the device. Note: The function is only available on Windows 7.
Power Plan	Manage how your PX-501 uses power. Note: The function is only available on Windows 7.
Info Viewer	View PX-501 system specifications. The menu is for display only.
Display Switch	Choose a display mode when connect to another output device.
Pass-through Switch	Connect to the pass-through switch.
Button Setting	Pre-defined functions settings. Supports function button customizing.

Button Lock

The Button Lock function disables or enables the use of the functions buttons. Tap to enable or disable the function.



Figure 71. Button Lock

Screen Auto Rotate

The Screen Auto Rotate function disables or enables the auto screen rotation when the device is being rotated. Tap to enable or disable the function.



Figure 72. Screen Auto Rotate

Airplane Mode

The Airplane function disables or enables Airplane Mode. While in Airplane Mode all functions except broadcasting functionality are available. Tap to enable or disable the function.



Figure 73. Airplane Mode

Battery

Shows the battery level or charging status.



Figure 74. Battery

Brightness

The Brightness function disables or enables the auto brightness function. Tap to enable or disable the function. The slide bar allows for manual adjustment of the brightness setting.



Figure 75. Brightness

Volume Control

The Volume Control function disables or enables the mute function. Tap to enable or disable the function. The slide bar allows for manual adjustment of the volume level.



Figure 76. Volume Control

GNSS

The GNSS function disables or enables the Global Navigation Satellite System module. Tap to enable or disable the function.



Figure 77. GNSS

Wi-Fi

The Wi-Fi function disables or enables wireless module. Tap to enable or disable the function.



Figure 78. Wi-Fi

Bluetooth

The Bluetooth function disables or enables bluetooth module. Tap to enable or disable the function.



Figure 79. Bluetooth

Mobile Broadband

The Mobile Broadband function disables or enables mobile broadband module. Tap to enable or disable the function.



Figure 80. Mobile Broadband

Touch Screen Lock

The Touch Screen Lock function disables the touch functionality on the screen.

Tap to enable or disable the function.



Figure 81. Touch Screen Lock

To enable touch functionality, tap the Fn key until the Touch Screen Unlocked screen displays.



Figure 82. Unlock Touch Screen

ECO Mode

The ECO Mode provides three states: On, Auto, and Off, to help in battery life management.



Figure 83. ECO Mode

Tap **On** to enable the mode whenever the device is turned on.

Tap **Auto** to allow the utility to select periods of inactivity to power down.

Tap **Off** to disable the ECO Mode.

Tap **Cancel** to return to the main menu.



Figure 84. ECO Mode Menu

Power Plan

The Power Plan provides settings to manage how the device uses and conserves power. A power plan can be setup to maximize the device performance, save energy or balance energy conservation with performance.



Figure 85. Power Plan

Modify the On Battery, In Charge, or ECO Mode states to define the power scheme best suited to your needs.

To modify the a power plan, tap the drop-down menu of the relevant setting, then tap **Save** to create the new power plan scheme. Alternatively, tap **Cancel** to return to the previous screen without saving.



Figure 86. Power Plan Menu

Info Viewer

The Info Viewer displays the system's hardware specifications.

Tap to display system information. The setting is for display purposes only.



Figure 87. Info Viewer

Display Switch

The Display Switch function supports four types of display options:

- View desktop on main display
- View desktop on main display and show extended display
- Duplicate both displays
- View desktop on extended display.



Figure 88. Display Switch



Figure 89. Display Switch Menu

Pass-through Switch

This function is only available when an antenna pass-through is connected to the port, see “Bottom View” on page 13. GPS, WWAN and Wi-Fi settings are available once the optional RF antenna is connected.



Figure 90. Pass-through Switch



Figure 91. Pass-through Switch Menu

Button Setting

The external function buttons are configured with pre-defined commands. However, the buttons can be configured to open any number of executable commands. In combination with the Fn key, the function buttons can trigger up to six different commands.



Figure 92. Button Setting

Select the function key to define and tap the drop-down menu to choose from a pre-defined list of commands.

Alternatively, tap **Other** to select a specific executable file to attach to the function key.

Additional shortcuts can be created by enabling the Fn + button. This allows the creation of a second set of short cuts available by pressing Fn + Function Button.



Figure 93. Button Setting Menu

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 PX-501.

To avoid electric shock, turn the PX-501 off and disconnect it from the power supply before cleaning or maintaining it.

Housing

- The housing of the PX-501 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 PX-501 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 PX-501.

Contacting RuggON

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

www.ruggon.com

