

ARMOR

USER'S GUIDE | REVISION -

MODEL X10 TABLET COMPUTER



ARMOR X10 TRANSFLECTIVE



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MODEL X10 TABLET COMPUTER



VEHICLE DOCK



PORT REPLICATOR



VEHICLE DOCK WITH KEYBOARD PLATFORM



BATTERY CHARGER



BREAKOUT BOX



DESK DOCK



VEHICLE POWER SUPPLY



COMPACT KEYBOARD

To learn more about optional ARMOR accessories, please call 1-888-872-1100

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NOTICE:



- For body-worn operation, this computer has been tested and meets the FCC RF exposure guidelines when used with ARMOR supplied accessories, or accessories designed specifically for this product. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.
- To comply with RF exposure requirements, DRS recommends that you keep a distance of at least 6 inches between the antenna and nearby persons. Please contact [DRS Technical Support](#) for certification information
- This X10 tablet computer has been tested for compliance with ATEX directive 94/9/EC for INTRINSIC SAFETY II 1 G.
- This Class B digital apparatus complies with Canadian ICES-003, Issue 4 June 7, 2004 and RSS-210, Issue No 7 (June 2007) and No 5 (Nov 2001).
- Cet appareil numérique de la classe B est conforme à la norme NMB-003, No. 4, June 7, 2004; et CNR-210, No 7 (June 2007) et No 5 (Nov 2001).
- [In Canada], this product is restricted to indoor use due to its operation in the 5.15 to 5.25-GHz frequency range. Industry Canada requires this product to be used indoors to reduce the potential for harmful interference to co-channel mobile satellite systems.
- To prevent radio interference to the licensed service [in Canada], this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.
- Pour empêcher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit être utilisé à l'intérieur et devrait être placé loin des fenêtres afin de fournir un écran de blindage maximal. Si le matériel (ou son antenne d'émission) est installé à l'extérieur, il doit faire l'objet d'une licence.

MODEL X10 TABLET COMPUTER

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MODEL X10 TABLET COMPUTER**WARNING SUMMARY**

The ARMOR X10 complies with all applicable industrial health and safety requirements; however there are certain safety considerations such as battery safety that you need to be aware of. Please read and comply with all warnings and cautions in this guide and in all other X10 documentation.

A “ **Warning!**” notice indicates a condition or action that could possibly result in injury or death to the user. A “ **Caution!**” notice indicates a condition or action that could result in loss of data or damage to equipment.

**WARNING!**

Do not drop or mishandle the batteries, immerse them in water, or subject them to high heat. Doing so could increase the risk of explosion or leakage, and possibly cause injury.

**WARNING!**

The lithium-ion batteries used in this equipment contain material that is hazardous to your health. If battery contents come in contact with the eyes, IMMEDIATELY flush the affected area with clean water for 15 minutes and have someone else summon medical attention for you. Unaffected persons should assist the affected individual in the vital first flushing of the eyes.

**WARNING!**

If battery material comes in contact with the skin, flush the affected area with clean water and seek immediate medical treatment.

MODEL X10 TABLET COMPUTER**WARNING!**

Place all shipping bags and packing materials safely out of the reach of small children, especially infants and toddlers. These items may pose a choking or suffocation hazard.

**WARNING!**

Changes or modifications not performed by, or expressly authorized by, DRS Tactical Systems, Inc could be hazardous to your health, could cause damage to the equipment and could void your warranty, or could result in all of the above.

**WARNING!**

The heat sink on the back of the X10 is protected with a plastic shield. Do not attempt to defeat its purpose as this could result in burns to the arm or hands.

**CAUTION!**

Use this product only in vehicles with a voltage supply of +11 to +16 VDC \pm 2%. Voltages outside this range could cause unstable operation or result in permanent damage to the computer.

**CAUTION!**

DO NOT connect the DC power supply from a Rapid Battery Charger into the computer or docking mechanism. This power supply is 24 VDC and will cause permanent damage to the computer.

MODEL X10 TABLET COMPUTER**CAUTION!**

DO NOT connect the computer to more than one power source at a time such as with the AC adapter connected to the computer and vehicle power connected to the docking station. Permanent damage to the X10 batteries or to the computer itself may result.

**CAUTION!**

Use this computer only with DRS battery P/N0300-15663-0001.

**CAUTION!**

Changing or recharging the battery must only be carried out in a non-hazardous area using the supplied AC adapter. The definition of hazardous areas can be found in Standard EN 60079-10.

**CAUTION!**

DO NOT use this unit in classified areas unsuitable for its safety ratings. NE PAS UTILISER CETTE UNITÉ EN ZONES AINSI CLASSÉES IMPROPRES À SA COTE DE SÉCURITÉ

**CAUTION!**

When using IEEE 802.11a wireless LAN [in Canada], this product is restricted to indoor use due to its operation in the 5.15- to 5.25-GHz frequency range. Industry Canada requires this product to be used indoors for the frequency range of 5.15 GHz to 5.25 GHz to reduce the potential for harmful interference to co-channel mobile satellite systems. High power radar is allocated as the primary user of the 5.25- to 5.35-GHz and 5.65 to 5.85-GHz bands. These radar stations can cause interference with and/or damage to this device.

MODEL X10 TABLET COMPUTER

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MODEL X10 TABLET COMPUTER

Contents

WARNING SUMMARY	5
1. Welcome and Introduction	19
Your ARMOR X10 Purchase	20
ARMOR X10 Documentation	21
About This Guide	21
Viewing, Navigating, and Printing this Guide	21
Terminology Used in this Guide	21
Please Help Us Maintain Top Quality Documentation	22
2. Getting to Know your ARMOR X10	23
Key Features	23
Computer	23
Display	23
Batteries	23
PC Control Panel	28
Power On/Off Button	28
Original Equipment Manufacturer (OEM) Button	28
Power Indicator	29
Charging Status Indicator	29
Battery Gauge Indicators	29
Brightness Control	29
Disk Activity Indicator	29
Removable Components and Accessories	30
Battery Pack	30
Hard Drive	30
AC Adapter	31

MODEL X10 TABLET COMPUTER

Optional Accessories for Your X10	32
PCMCIA Cards	32
Subscriber Identity Module (SIM) Card	32
Compact Keyboard	32
Two-Bay External Battery Charger	33
Vehicle DC/DC Power Supply	34
Docking Stations and Port Replicators	35
3. Getting Started	39
Installing the Battery Packs	40
Power On/Off and Emergency Shutdown	43
Turning the Tablet On and Off	43
Emergency Shutdown	43
Touch Screen Operations	43
Using the Stylus	43
Configuring Your Touch Tablet for Screen Rotation	45
Pen Operations	46
Pen Adjustments	47
Rotating the Screen	47
Using the Intel Graphics Icon	48
Using the Intel Graphics Panel	48
Using a Keyboard "Hot Key" Combination	49
Operating with a Second Display	49
Working with the Extended Desktop	51
Using the Stylus or Pen with the Extended Desktop	52
Tips for Proper Use and Care Of Your Computer	52
4. Your ARMOR X10 Software	53
Windows XP Tablet Tutorials	53

MODEL X10 TABLET COMPUTER

Help with Microsoft Windows XP	54
Armor Utilities Program.....	55
About Tab.....	55
Batteries Tab.....	56
Health Tab.....	57
Backlight Tab	58
Serial/OEM Tab	59
OEM Button Tab	60
Hampshire TSHARC Control Panel Utility	61
Screen Selection Tab.....	61
Calibration Tab.....	62
Click Settings Tab	63
Touch Settings Tab.....	64
Tablet and Pen Settings Utility.....	65
Settings Tab	65
Display Tab	66
Pen Options Tab.....	67
Intel PROSet Wireless Utility	68
IVT BlueSoleil Utility	69
Realtek Audio Manager	70
Special Software Applications	70
Quick Reference List	71
5. Working with Your ARMOR X10 Tablet.....	73
Entering Data Using the Input Panel	73
Writing Pad.....	73
Character Pad	73
On-screen Keyboard	74

MODEL X10 TABLET COMPUTER

Customizing the Input Panel	74
Writing Documents Using Microsoft Windows Journal	74
Entering Data Using Speech Recognition	75
6. Networking	77
Managing Your Bluetooth Connections	77
Managing Your Wireless LAN Connections.....	78
Turning Off the Wireless Card.....	79
Wireless Signal Quality	79
Accessing a Network using an Ethernet Cable.....	79
7. Optional Wireless Capabilities	81
Flexspace	81
Global Positioning Satellite (GPS) Capability	81
Ease of Integration	81
NMEA Standard Support.....	81
GPS Specifications	82
8. Backup and Restore Procedures for Spinning Media Hard Drives	85
Backup with QuickBack™.....	85
Disk Partitions	85
How to Access QuickBack™ for Initial Set-Up and Help Features	86
Archive Backup	86
User Backups.....	87
System Recovery CD	87
9. Removal and Replacement	89
Removing and Replacing the Hard Drive	89
Removing and Replacing an Optional PCMCIA Card	89
10. Display Management	91
Adjusting the Display Brightness Manually.....	91

MODEL X10 TABLET COMPUTER

Using the OEM Button	91
Using the Armor Utilities Backlight Tab.....	91
Adjusting the Brightness Automatically.....	92
Setting the Advanced Backlight Control.....	92
Touch Screen Calibration and Settings (Touch Tablets Only).....	94
Calibrating the Touch Screen.....	94
Adjusting the Click Settings for the Touch Screen Stylus	97
Caring For the Touchscreen	99
Pen Screen Calibration and Settings (Pen Tablets Only).....	100
Calibrating the Active Pen Screen	100
Tablet and Pen Settings for Windows XP	102
Caring for the Pen Tablet Screen.....	106
Monitoring the Health of Your ARMOR X10	107
Generating a Log of Temperature Variations.....	108
Configuring the OEM Button.....	109
Disabled	110
Ctrl/Alt/Del.....	110
Sleep Button.....	110
Inc. Backlight.....	110
Dec. Backlight	110
Toggle Backlight.....	110
Cycle LCD/Display	110
Wi-Fi.....	110
11. Battery Management.....	111
Safety and Handling Considerations for Your Batteries	112
When to Recharge Batteries.....	112
How to Recharge Your Batteries	113

MODEL X10 TABLET COMPUTER

Conditioning Your Battery	113
How to Tell When Batteries Have Finished Charging	113
Charging a Battery with an External 2-Bay Battery Charger	114
Sequential Charger	114
Smart (SmBus) Charger	114
What to Do for Over-discharged Batteries	114
How to Increase Battery Service Time	115
When to Replace a Battery	115
Where to Purchase Replacement Batteries	116
How to Store Batteries When They Are Not in Use	117
Battery Tips for Best Performance	117
Disposing Of Your Batteries	118
Monitoring and Improving Battery Performance	119
Using the Power Meter Window	119
Using the ARMOR Utilities Batteries Tab	120
Setting Low Level and Critical Battery Alarms	121
Turning Off Power-Consuming Peripherals	122
Using Power Schemes to Conserve Batteries	123
Selecting a Pre-Configured Power Scheme	124
Customizing a Power Scheme	124
Activating Standby Power Mode	125
Activating Hibernation Power Mode	125
Enabling and Configuring Hibernation Mode	125
Manually Activating Hibernation Mode	128
12. Frequently Asked Questions	129
1. What Options Are Available For Loading Software Onto The ARMOR X10?	129
2. How Do I Install Drivers For Peripheral Devices Sold By DRS Technologies?	129

MODEL X10 TABLET COMPUTER

3.	How Do I Install Drivers For Peripheral Devices Not Sold By DRS Technologies?	129
4.	What External Peripherals Does the ARMOR X10 Support?	129
5.	How Do I Activate the On-Screen Keyboard?.....	130
6.	How Can Hand Writing Recognition Be Disabled?	130
7.	How Can I Open the Windows Task Manager (Ctrl-Alt-Del) Without A Keyboard? 130	
8.	What Do I Do If My X10 Locks Up Or Freezes?	130
9.	How Do I Clean The Docking (Champ) Connector On The Back Of The ARMOR X10? 130	
10.	How Do I Clean The Display Surface?	131
11.	What Do I Do When The Pen Gets Out Of Calibration?	131
12.	What If The Pen Still Will Not Align?.....	131
13.	What Can I Do When The "Start" Button Disappears?	131
14.	What Do I Do When The Battery Discharges and Will Not Charge In The Unit?	132
15.	How is USB supported by The ARMOR X10?	132
16.	What Are DRS Technical Support Hours Of Operation?	132
13.	DRS Technical Support	133
	Before You Contact Us	133
	How to Obtain Warranty Service	133
	If You Need Further Information	136
	Warranty Information	137
	General Information	137
	Length of Warranty.....	137
	Terms and Conditions	137
	Additional Information	138
14.	Acronyms and Glossary.....	139
	Acronyms.....	139
	Glossary.....	140

MODEL X10 TABLET COMPUTER

Figures

Figure 1. ARMOR X10 Components and Accessories	20
Figure 2. ARMOR X10 Key Features – Front View	24
Figure 3. ARMOR X10 Key Features - Left Side View	25
Figure 4. ARMOR X10 Key Features - Right Side View	26
Figure 5. ARMOR X10 Key Features - Rear View	27
Figure 6. ARMOR X10 Key Features - Bottom View	27
Figure 7. PC Control Panel	28
Figure 8. ARMOR X10 Battery Pack.....	30
Figure 9. ARMOR X10 Hard Drive	30
Figure 10. ARMOR X10 AC Adapter	31
Figure 11. ARMOR X10 Compact Keyboard	32
Figure 12. Two-Bay External Battery Charger	33
Figure 13. Vehicle DC/DC Power Supplies.....	34
Figure 14. ARMOR X10 Desk Dock.....	35
Figure 15. ARMOR X10 Port Replicator	36
Figure 16. ARMOR X10 Vehicle Docks	37
Figure 17. ARMOR X10 Battery Compartments	40
Figure 18. Battery Positioned for Insertion.....	41
Figure 19. Battery Latch in Locked Position	42
Figure 20. Intel Graphics Panel with Display Settings Option Selected.....	48
Figure 21. Intel Graphics Panel with Hot Keys Option Selected.....	49
Figure 22. Accessing Tablet PC Tutorials and Information.....	54
Figure 23. Armor Utilities Panel – About Tab.....	55
Figure 24. Armor Utilities Panel – Batteries Tab.....	56
Figure 25. Armor Utilities Panel – Health Tab.....	57
Figure 26. Armor Utilities Panel – Backlight Tab	58
Figure 27. Armor Utilities Panel – Serial/OEM Tab.....	59
Figure 28. Armor Utilities Panel – OEM Button Tab	60
Figure 29. Hampshire TSHARC Control Panel – Screen Selection Tab.....	61
Figure 30. Hampshire TSHARC Control Panel – Calibration Tab.....	62
Figure 31. Hampshire TSHARC Control Panel – Click Settings Tab	63
Figure 32. Hampshire TSHARC Control Panel – Touch Settings Tab.....	64
Figure 33. Tablet and Pen Settings Window – Settings Tab	65
Figure 34. Tablet and Pen Settings Window – Display Tab.....	66
Figure 35. Tablet and Pen Settings Panel – Pen Options Tab	67
Figure 36. Intel PROSet/Wireless Panel.....	68
Figure 37. IVT BlueSoleil Utility	69
Figure 38. Realtek Audio Manager Panel	70
Figure 39. Input Panel with No Mode Showing (for illustration purposes only).....	73

MODEL X10 TABLET COMPUTER

Figure 40. Writing Pad Mode	73
Figure 41. Character Pad Mode.....	74
Figure 42. On-Screen Keyboard Mode.....	74
Figure 43. IVT BlueSoleil Utility	77
Figure 44. Wireless Network Access	78
Figure 45. QuickBack™ Graphical User Interface	86
Figure 46. Armor Utilities Screen – Backlight Tab	91
Figure 47. Advanced Backlight Control Window.....	93
Figure 48. Settings Tab of the Tablet and Pen Settings Panel.....	102
Figure 49. Display Tab of the Tablet and Pen Settings Panel.....	104
Figure 50. Pen Options Tab of the Tablet and Pen Settings Panel.....	105
Figure 51. Armor Utilities Panel with Health Tab Displayed	107
Figure 52. Armor Utilities Panel OEM Button Tab	109
Figure 53. ARMOR X10 Battery Label.....	116
Figure 54. Battery Charge Status in the Power Meter Window.....	119
Figure 55. Armor Utilities Batteries Tab	120
Figure 56. Alarms Tab of the Power Options Properties Window.....	122
Figure 57. Power Schemes Tab of the Power Options Properties Window.....	123
Figure 58. Power Schemes Tab Showing Available Power Schemes	124
Figure 59. Hibernate Tab of the Power Options Properties Window	126
Figure 60. Power Schemes Tab with Hibernation Mode Enabled	127

Tables

Table 1. Install the Battery Packs	41
Table 2. Stylus Actions.....	44
Table 3. Configure the X10 for Screen Rotation.....	45
Table 4. Operate a Second Display with the X10	50
Table 5. Quick Reference List.....	71
Table 6. Set up a Physical LAN Connection	80
Table 7. Leadtek LR9548S GPS Receiver Specifications	82
Table 8. Boot the X10 from the Recovery CD.....	88
Table 9. Remove and Replace the Hard Drive	89
Table 10. Remove and Replace a PCMCIA Card.....	89
Table 11. Calibrate the Touch Screen	95
Table 12. Adjust Stylus Click Settings for the Touch Screen.....	98
Table 13. Calibrate the Active Pen Screen	101
Table 14. Generate a Temperature Variation Log	108
Table 15. Recover an Over-discharged Battery.....	115
Table 16. ARMOR X10 Battery Replacement Schedule.....	116
Table 17. Set Low Level and Critical Battery Alarms.....	121
Table 18. Enable and Configure Hibernation Mode.....	126

MODEL X10 TABLET COMPUTER

Table 19. Manually Activate Hibernation Mode 128

MODEL X10 TABLET COMPUTER

1. Welcome and Introduction

Congratulations and thank you for purchasing the ARMOR X10 Rugged Tablet with Intel® Core Duo™ Mobile technology. Your X10 is one of the most durable, reliable, and easy-to-use tablet computers on the market today.

The ARMOR new X10 is housed in magnesium alloy chassis with an aluminum insert for better heat dissipation. It comes with sealed external connector technology and meets IP 66 level protection from dust, dirt, water and other damaging elements.

Deleted: our specially designed

Deleted: Its hot-swappable battery access means you can change the batteries without the need for tools and without interrupting normal computer operations.

The ARMOR X10 ruggedized tablet computer can be mounted in a desk docking station or vehicle dock (shown here in a desk dock with a compact keyboard).



The ARMOR X10 gives you the power of a desktop computer in a rugged portable tablet computer. The X10 can be mounted in a vehicle or it can be used on a desktop, on the ground, held on the lap, or held in the crook of the arm. You can write and perform operations directly on the screen, work with a virtual on-screen keyboard, or attach a USB keyboard (compact keyboard, standard-sized USB keyboard, or Bluetooth keyboard).

We take pride in providing high-quality products and superior customer service. Thank you for choosing the DRS ARMOR X10 Tablet Computer, and for your trust in the ARMOR line of products.

MODEL X10 TABLET COMPUTER

Your ARMOR X10 Purchase

Your purchase includes the items and accessories shown in Figure 1. Please confirm that all of these items are present and in good condition. **NOTE:** Your hard drive is shipped already installed in the computer.

Contact your ARMOR X10 Tablet Computer sales representative if any item is missing or damaged.

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Figure 1. ARMOR X10 Components and Accessories

MODEL X10 TABLET COMPUTER

ARMOR X10 Documentation

The following documents are contained on your ARMOR X10 Tablet Computer in PDF format. To access these documents, double-click on the appropriate icon on the desktop.

- **ARMOR X10 User's Guide** – Provides operating information and descriptions of all controls and indicators. Contains necessary procedures to setup and operate the ARMOR X10.
- **ARMOR X10 Quick Start Guide** – The Quick Start Guide provides information to help you get your ARMOR X10 computer up and running as quickly as possible.
- **ARMOR X10 Maintenance Manual** – The Maintenance Manual provides troubleshooting information, special maintenance tasks, and a list of system specifications.

About This Guide

This manual and its complementary documents located on your hard drive will provide the majority of the information you will need to setup and maintain your ARMOR X10 Tablet Computer.

However, should you need additional technical information, please visit our web site at: www.drsarmor.com, or call DRS Technical Support toll-free at 1-888-872-1100.

Viewing, Navigating, and Printing this Guide

This guide can be viewed interactively on the tablet using Adobe Reader or printed to paper. To view this guide on the computer, click on the User's Guide icon on the desktop. The latest version of Adobe PDF Reader is available for downloading free from www.adobe.com.

If you are viewing this guide on the tablet, you can click on the [blue underlined](#) text to navigate within the guide and to access resources on the Internet.

To print the guide to paper, use the Adobe Reader "Print" menu options for best results.

Terminology Used in this Guide

As the result of long use and the evolution of the Windows operating system, some functions and buttons may be called by more than one name and some of these names are used interchangeably, which can lead to confusion. The following list provides some of the more common examples you may encounter in this manual:

- Standby = Stand By = Suspend
- Hibernate = Sleep
- OEM Button = Side Button = Windows Security Key Button

MODEL X10 TABLET COMPUTER**Please Help Us Maintain Top Quality Documentation**

This guide was produced with the latest information available and verified for accuracy. However, mistakes are possible, and product updates may supersede the information in this guide. We encourage you to contact DRS Technical Support toll-free at 1-888-872-1100 with suggestions and corrections so that we can maintain the highest possible quality documentation for you and for future customers.

MODEL X10 TABLET COMPUTER

2. Getting to Know your ARMOR X10

Key Features

The following paragraphs and images describe the principal components, controls, indicators, connectors and accessories of the ARMOR X10. Please take a few moments to read through this section to become more familiar with your computer. Refer to the ARMOR X10 Maintenance Manual for a list of hardware and environmental specifications.



All references to front/rear, left/right and top/bottom locations in this guide are relative to the front (or face-on) view of the computer as it appears when it is set up for operation.

Computer

The ARMOR X10 Tablet Computer ([Figure 2](#)) is equipped with an Intel® Core Duo U2500 Ultra-Low Voltage 1.2 GHz processor with up to 2 GB of random access memory (RAM). It comes configured with Windows® XP Tablet SP2, Vista Business, or Linux #1 operating system. It has an integrated Wi-Fi 802.11 a/b/g wireless LAN and Bluetooth wireless network and can be equipped with an optional GPS receiver.

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Display

The standard X10 display, a 1024 x 768 ppi TFT LED screen. An optional LCD transreflective screen is available for outdoor viewing in bright sunlight. This screen is optically bonded to enhance viewability.

Deleted: comes equipped with

If your X10 is a “touch tablet”, the display surface is constructed of a touch-sensitive film over glass that is operated by the pressure of a stylus or fingertip. If your X10 is a “pen tablet”, the display surface is glass with a special digitizer screen bonded to the inside of the glass. The display is operated using an inductively coupled pen.

Batteries

The X10 batteries are high efficiency lithium-ion batteries that are “hot swappable.” That is, if you have two batteries installed, you can replace one battery while the tablet operates on the other battery. With this capability, you do not have to shut down the computer or interrupt your current operating session in order to replace a battery. The X10 can operate as long as 4 hours on two fully charged batteries.

MODEL X10 TABLET COMPUTER



Figure 2. ARMOR X10 Key Features – Front View

MODEL X10 TABLET COMPUTER

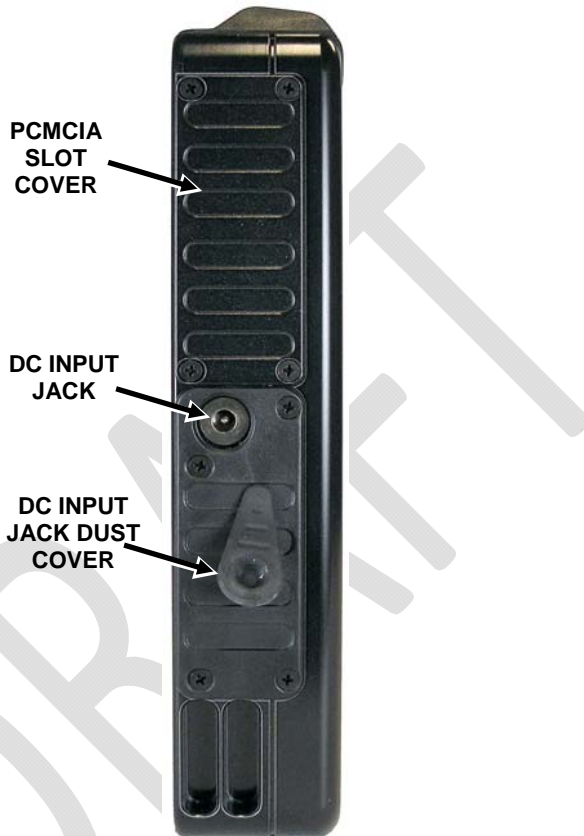


Figure 3. ARMOR X10 Key Features - Left Side View

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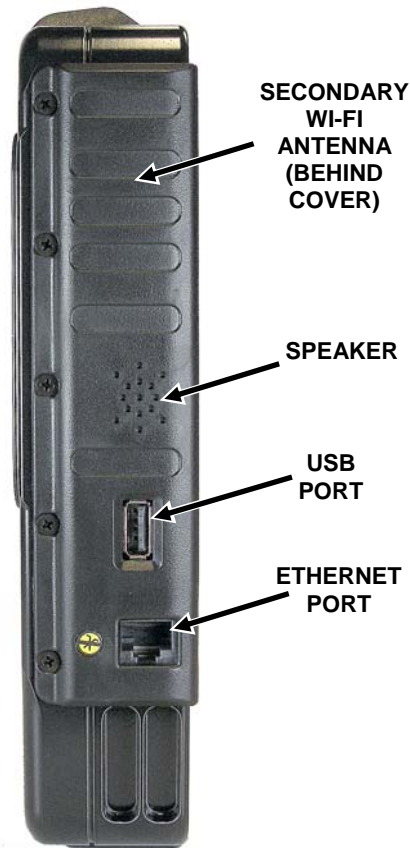


Figure 4. ARMOR X10 Key Features - Right Side View

MODEL X10 TABLET COMPUTER

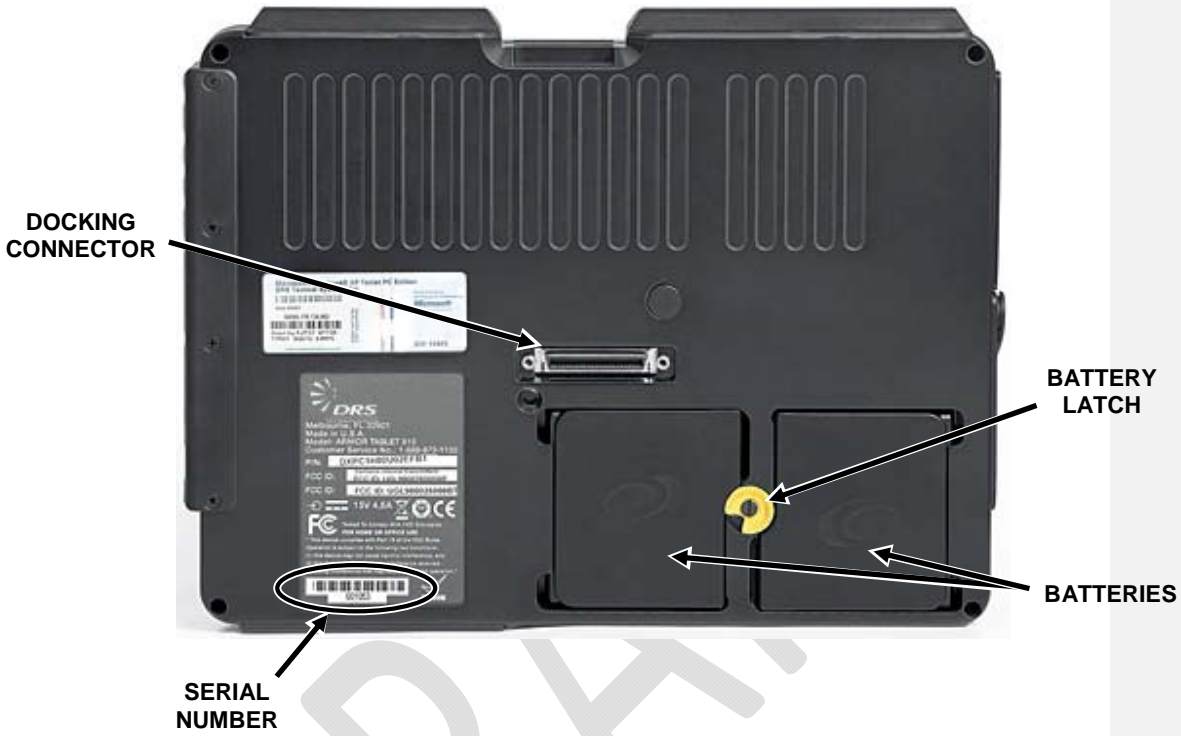


Figure 5. ARMOR X10 Key Features - Rear View

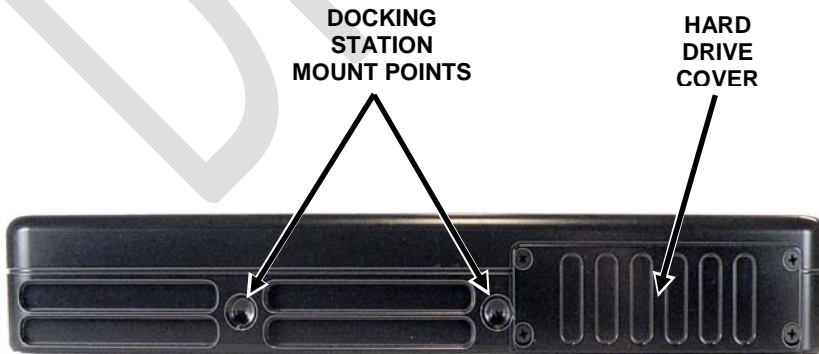


Figure 6. ARMOR X10 Key Features - Bottom View

MODEL X10 TABLET COMPUTER**PC Control Panel**

The PC Control Panel provides the primary controls and indicators for the ARMOR X10.

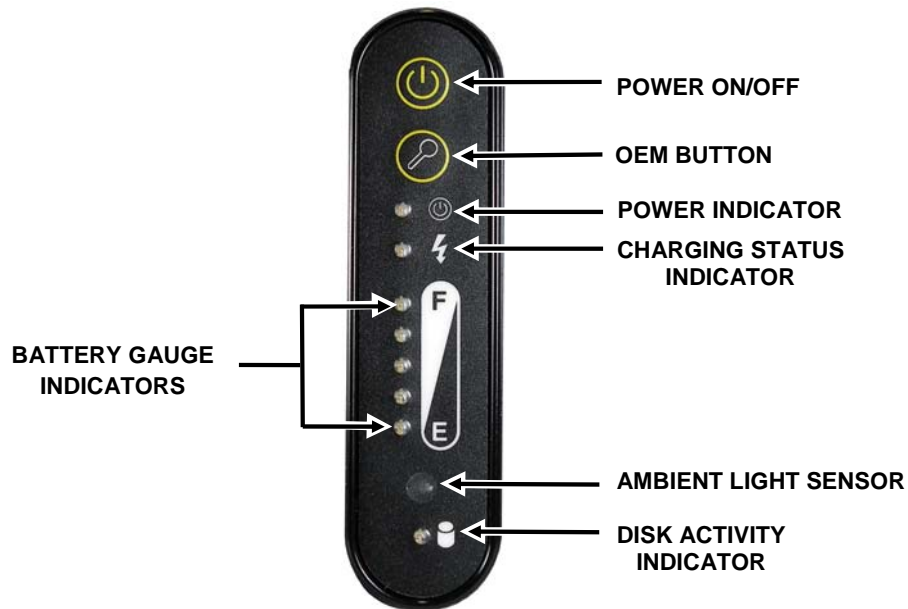


Figure 7. PC Control Panel

Power On/Off Button

To turn the computer on or off, press the **Power On/Off** button for 1-3 seconds. This duration provides a safeguard against accidentally bumping the button during mobile use.

In case of emergency, you can shut down the computer quickly by pressing and holding the Power On/Off button for 5 seconds or longer. However, this will result in an abnormal shutdown of the Windows operating system and any work in progress will be lost.

Original Equipment Manufacturer (OEM) Button

This button is also called the Side Button or Windows Security Key Button. It operates in a number of different ways depending on how it is configured in the ARMOR Utilities application. Its default setting invokes the Windows **CTRL-ALT-DEL** command, which opens the Windows Task Manager screen. It can also be programmed to do such tasks as switching between the tablet display and an external display, varying the display brightness, placing the computer in

MODEL X10 TABLET COMPUTER

hibernation mode, and turning the Wi-Fi card on and off. Complete instructions for configuring the OEM button can be found in [Configuring the OEM Button](#) in the Appendix.

Power Indicator

The Power indicator is a green LED that illuminates whenever the X10 is powered up.

Charging Status Indicator

The Charging Status indicator is a green LED that is lit whenever external power is available to charge the batteries. It blinks while the batteries are charging and is on steady when the batteries are fully charged. When the tablet is on batteries only, the Charging Status indicator is off.

Battery Gauge Indicators

The Battery Gauge consists of five LEDs that are used to indicate the charge remaining in your battery or batteries. Each light represents approximately 20% of the average charge of two batteries or the remaining charge of a single battery.

When all five LEDs are lit and the charging status indicator is on steady, the batteries are fully charged. As the batteries are used, the LEDs will turn off from top to bottom to indicate the remaining charge. Each LED will blink upon transitioning to next lower charge level indicator.

Brightness Control

The brightness of the display is varied by controlling the intensity of the LCD backlight. You can control the brightness (backlight level) manually or let the computer control it automatically. The brightness can be manually adjusted by repeatedly pressing the OEM button or by adjusting the slider in the Backlight tab of the Armor Utilities panel. **If you have a transfective screen, the effect of the brightness control when operating in bright sunlight will be minimal and the overall brightness will be the result of reflected light.**

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When the automatic **brightness** control is enabled, an ambient light sensor measures the surrounding light level. If the surrounding light level decreases by a certain percentage, the screen brightness will also decrease correspondingly. If the ambient light increases by a certain percentage, the screen brightness will increase correspondingly.



NOTE

If you use the automatic brightness control function, you must keep the light sensor uncovered.

Click on **Start** → **All Programs** → **ARMOR Utilities** and select the **Backlight** tab to adjust the backlight manually or to activate the light sensor for automatic brightness control. Refer to [Brightness Adjustment](#) for detailed information on adjusting the screen brightness.

Disk Activity Indicator

MODEL X10 TABLET COMPUTER

The Disk Activity indicator is a red LED that flashes when the disk drive is being accessed. The flashes are intermittent and depend on the read and write cycles of the hard drive.

Removable Components and Accessories

Battery Pack

Your ARMOR X10 comes can be equipped with 1 or 2 removable battery packs that are installed in compartments in the rear of the tablet (see [Figure 5](#)). These battery packs are hot-swappable and can be removed one at a time without interrupting computer operation. Two fully-charged battery packs will provide up to 4 hours of operation depending on the workload on the computer. **A single battery will provide 2-3 hours of operation depending on workload.**



Figure 8. ARMOR X10 Battery Pack

Hard Drive

The ARMOR X10 comes equipped with either a 2.5" SATA rotating media hard disk drive (HDD) or a 2.5" solid-state hard drive (SSHD). The hard drive houses the operating system and application software and provides non-volatile memory space for the CPU. A plastic tab is attached to the front of the drive to facilitate easy removal. For information on available hard drive capacities, please contact DRS Tactical Systems toll free at (888) 872-1100.

The drive is located in a compartment in the bottom of the tablet, as indicated in [Figure 6](#). This drive should only be removed or installed by a qualified technician.



Figure 9. ARMOR X10 Hard Drive

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MODEL X10 TABLET COMPUTER**AC Adapter**

Included with your ARMOR X10 is a +15 VDC, 4.8 amp power supply, or "AC Adapter". This external power supply is used to recharge your computer's battery packs and to provide power to the computer without draining the batteries. A European power cord is available.



Figure 10. ARMOR X10 AC Adapter

MODEL X10 TABLET COMPUTER**Optional Accessories for Your X10**

There are a number of optional accessories that extend the capabilities of the X10 or make it easier for you to use and maintain.

PCMCIA Cards

Your ARMOR X10 provides two PC/PCMCIA card slots that can accommodate either two Type II cards or a single Type III card. These cards can provide enhanced features such as extended communications capabilities and additional memory capacity.

Contact your ARMOR sales representative or [DRS Technical Support](#) for information on available PCMCIA card options.

Subscriber Identity Module (SIM) Card

Your X10 is equipped with a slot (see [Figure 17](#)) to enable use of a SIM card. A SIM card is a small electronic card that contains a cell phone subscriber's unique ID, billing information, and network permissions. It allows users to easily transport their phone numbers and contacts to new phones simply by removing the card from the old phone and inserting it in the new one.

This is a future capability that will allow you to receive and send cell phone calls and text messages through your X10 computer.

Compact Keyboard

A reduced-size USB keyboard ([Figure 11](#)) is available for use with the ARMOR X10 computer. The keyboard is approximately half the size of a standard keyboard and can be mounted on a special platform for use with a vehicle docking station or connected to a desk docking station to conserve space on a table or desktop.



Figure 11. ARMOR X10 Compact Keyboard

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MODEL X10 TABLET COMPUTER

Two-Bay External Battery Charger

A two-bay battery charger ([Figure 12](#)) is available for faster and more convenient charging. Each battery bay has a charging time of approximately 2.5 hours. The external charger is also handy for recharging spare battery packs or batteries kept in storage.

Two types of external battery chargers are available from DRS: a sequential charger that rapidly charges each battery and a “smart” battery charger has an extra “conditioning” feature (see [Smart \(SmBus\) Charger](#)). A European power cord is available for both types, and a DC power cable is also available for use in a vehicle or other mobile environments.

“Smart” Battery Charger with Battery Calibration

In addition to conditioning the battery, this type of charger provides the capability to re-program the battery gauge chip inside the battery to ensure that the Battery Gauge LEDs on the X10 correctly reflect the charge level in the battery. Only one battery can be calibrated at a time (in the left slot only) and the total processing time (conditioning + calibration) is approximately 8 hours. The right bay can still be used for conditioning other batteries.

Sequential Battery Charger without Battery Calibration

This type of charger conditions the battery in approximately 2.5 hours per bay. It does not recalibrate the battery gauge chip inside the battery.



Figure 12. Two-Bay External Battery Charger

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MODEL X10 TABLET COMPUTER**Vehicle DC/DC Power Supply**

The DC/DC converter power supply takes 11-16 VDC vehicle power and converts it to a regulated 15VDC, 5 amp output. Two styles are available, as shown in [Figure 13](#); a hard-wired version that can be directly connected to the vehicle fuse panel, and a plug-in version that can be plugged into the lighter socket.

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Figure 13. Vehicle DC/DC Power Supplies

MODEL X10 TABLET COMPUTER**Docking Stations and Port Replicators**

There are a number of docking stations available to support and enhance your X10 either on the desk top or in a vehicle.

Desk Dock

The desk dock ([Figure 14](#)) holds the X10 at a comfortable viewing angle on a desktop or table and provides connections for a second display or external video device, a second USB port, three serial com ports and a parallel port, plus external power for the X10.

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Figure 14. ARMOR X10 Desk Dock

MODEL X10 TABLET COMPUTER**Port Replicator**

The Port Replicator provides essentially the same features as the desk dock in a more compact form. It has connections for a second display or external video device, a second USB port, two serial com ports and a parallel port, plus external power for the X10. It is attached to the X10 docking connector and supports the computer at a comfortable viewing angle, as shown in

[Figure 15](#).



Figure 15. ARMOR X10 Port Replicator

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MODEL X10 TABLET COMPUTER**Vehicle Docks**

Several types of vehicle docking stations, or “vehicle docks”, are available for use with the ARMOR X10. Some can be equipped with a platform to support a compact keyboard or even a joystick to make it easier to perform the functions of the stylus or pen while operating in a vehicle. Figure 16 shows two types of vehicle docks. One is shown equipped with a mounting platform for the compact keyboard.

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Figure 16. ARMOR X10 Vehicle Docks

For information on these and any other ARMOR X10 accessories, please contact your ARMOR sales representative or call DRS Tactical Systems toll free at 1-888-872-1100.

MODEL X10 TABLET COMPUTER

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MODEL X10 TABLET COMPUTER

3. Getting Started

**CAUTION!**

Use this product only in vehicles with a regulated voltage supply of +11-16 VDC \pm 2%. Voltages outside this range could cause unstable operation or result in permanent damage to the computer.

**CAUTION!**

Use only the external AC Adapter provided with your ARMOR X10 or an equivalent model approved by DRS. Attempting to use a different model power supply could result in equipment damage.

**CAUTION!**

DO NOT connect the computer to more than one power source at a time (such as an AC power supply and docking station) or permanent damage to the battery and/or computer may result.

MODEL X10 TABLET COMPUTER

Installing the Battery Packs

i NOTE
If your X10 has only one battery pack, install it in the Primary Battery compartment.

The first step to getting your X10 operating is to install and charge the battery packs. The battery compartments are located on the rear of the unit, as shown in [Figure 17](#). Follow the procedure in [Table 1](#) to install the batteries.

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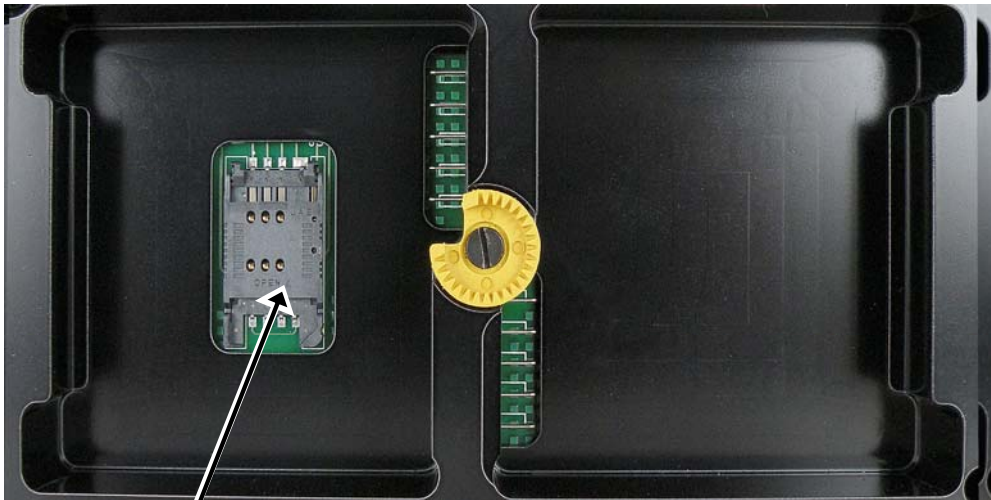
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**PRIMARY BATTERY
COMPARTMENT
(BATTERY #1)**

**SECONDARY BATTERY
COMPARTMENT
(BATTERY #2)**




**SUBSCRIBER IDENTITY
MODULE (SIM) CARD SLOT
(FUTURE CAPABILITY)**

Figure 17. ARMOR X10 Battery Compartments

MODEL X10 TABLET COMPUTER

Table 1. Install the Battery Packs

STEP	ACTION	CONDITION OR INDICATION
1.	Locate the yellow latch between the two battery compartments on the back of the unit, as shown in Figure 17 .	This latch holds the battery packs in place and is designed so that only <u>one</u> battery can be inserted or removed at a time.
2.	Press a fingertip into the latch and turn it until a detent is felt and the notch lines up with the corner of the battery that is to be installed.	
	<p style="text-align: center;"> CAUTION!</p> <p><i>Do not force the battery into position. If the battery will not slip easily onto the connector, pull it slightly toward the yellow latch and press in gently.</i></p>	
3.	Position the first battery as shown in Figure 18 , and gently press down on the battery until the connector seats.	

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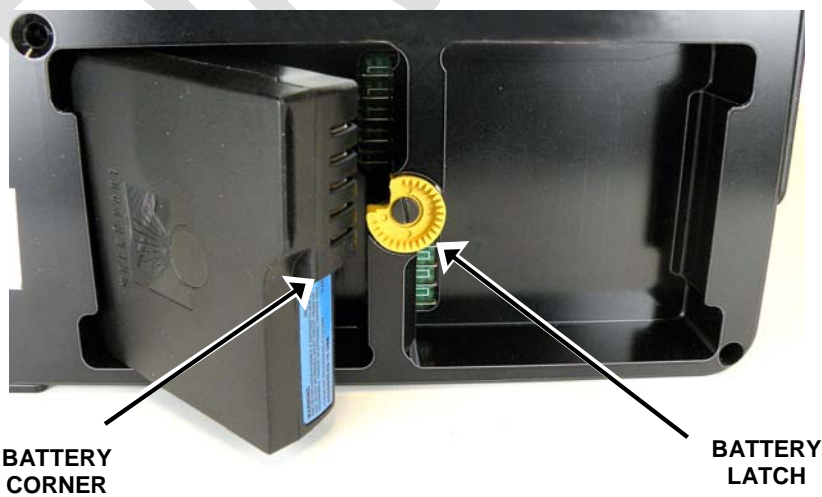


Figure 18. Battery Positioned for Insertion

MODEL X10 TABLET COMPUTER

STEP	ACTION	CONDITION OR INDICATION
4.	If your X10 has only one battery, go to Step 7.	
5.	If your X10 has two battery packs, turn the battery latch to line up with the edge of the second battery.	
6.	Install the second battery and press down until the connector seats.	
7.	Turn the battery latch to the position shown in Figure 19 to lock the battery (or batteries) in place.	
8.	Connect the AC Adapter to the DC input jack on the left side of the tablet and allow the batteries to charge for 3-8 hours (total time depends on the current level of charge when the batteries were unpacked).	You can power up and operate the X10 while the batteries charge, but the total charging time may be longer due to power demands by the computer.

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Figure 19. Battery Latch in Locked Position

MODEL X10 TABLET COMPUTER

Power On/Off and Emergency Shutdown

Turning the Tablet On and Off

Turn the computer on by pressing the **Power On/Off** button on the PC Control Panel for 1-3 seconds and then releasing.

The ARMOR X10 will perform self-checking routines during the start-up process. All units are configured at the factory to automatically boot to the Microsoft Windows desktop unless a custom configuration has been requested.

Turn the unit off by pressing the **Power On/Off** button again for 1-3 seconds or select **Start → Turn Off the Computer → Turn Off**. Windows will automatically shut down and the unit will turn off.

Emergency Shutdown

If an emergency condition occurs where the tablet needs to be shut down immediately, press and hold the on/off button for more than four seconds. This procedure should only be used in emergencies because improperly shutting down Windows may result in corruption of the operating system and/or the loss of data. Should system corruption or loss of data occur, please contact [DRS Technical Support](#).

Touch Screen Operations

Using the Stylus

If your tablet is equipped with a touchscreen display, the stylus is the primary means of operating the computer. A fingertip can also be used but with less accuracy. The Windows XP Tablet operating system allows the stylus to duplicate the functions of an external 2-button mouse. [Table 2](#) lists each stylus action, its purpose and the corresponding mouse action.

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NOTE

Tapping with the stylus requires only light to moderate pressure. It is possible to damage the stylus and/or the display by pounding the tip against the surface with too much force.



NOTE

The terms "click", "tap" and "select" refer to the same actions when using the stylus, or fingertip.

MODEL X10 TABLET COMPUTER

Table 2. Stylus Actions.

STYLUS ACTION	PURPOSE	CORRESPONDING MOUSE ACTION
Tap once	Select tabs or open submenus. Highlight a label or option. Fill selection boxes. Activate buttons. Deselect highlighted objects (tap next to the icon).	Left-click
Tap twice	Start an application or open a folder.	Double-click
Press over an object, hold contact with display, drag stylus and release pressure.	Move an object on the desktop.	Drag-and-drop
Press over icon or option and hold contact with display without moving stylus.	Open menu options.	Right-click
Press and hold contact with display, drag box around objects.	Selects multiple objects.	Left-click and drag box to select.

 **NOTE**

*If you have a touch tablet, **do not** use the Tablet and Pen Settings window in Control Panel to calibrate the screen. Doing so could cause the loss of screen calibration.*

After a period of normal usage, the screen may need to be calibrated with the stylus to ensure the actual touch point matches the position of the cursor. To perform this calibration, refer to [Calibrating the Touch Screen](#).

MODEL X10 TABLET COMPUTER

Configuring Your Touch Tablet for Screen Rotation



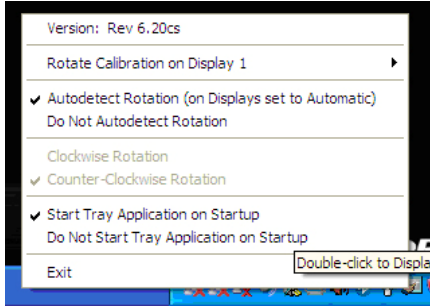

To rotate a touch tablet screen, you must have the TSHARC **HTrayApp.exe** program running in the background. When this application is running, a TSHARC icon  is displayed in the taskbar tray. To execute the HTrayApp.exe file, follow the procedure in [Table 3](#).

Table 3. Configure the X10 for Screen Rotation

STEP	ACTION	CONDITION OR INDICATION
1.	Click Start → Run → Browse and browse to your local disk (normally C:/) and select Program Files → Tsharc .	
2.	Double-click on the HTrayApp.exe file or highlight the file and click Open and then OK .	This will place a TSHARC icon  in the taskbar tray. The icon will look like a finger pointing to a display.
3.	Right click the TSHARC icon.	An options menu is displayed as shown below: 
4.	Make sure the Autodetect Rotation option is checked. This will ensure that you maintain calibration when rotating the screen.	 NOTE In Autodetect Rotation mode, the rotation direction options are grayed out and the computer automatically rotates your screen in the counterclockwise direction.

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MODEL X10 TABLET COMPUTER

STEP	ACTION	CONDITION OR INDICATION
5.	If you plan on using the rotation function on a regular basis, select the Start Tray Application on Startup option.	The TSHARC icon will be opened each time you start the computer.

Pen Operations

If your ARMOR X10 is a pen tablet, the pen is the primary screen navigation and data entry tool. Without a keyboard attached, the pen is the only means of communicating with the computer.

The pen functions like a two-button mouse. There are two switches: one in the pen tip and another on the barrel of the pen. The tip switch performs the same functions as the left button on a mouse and the barrel switch performs the same functions as the right mouse button.

**NOTE**

Do not depress the barrel switch when writing on the display as this will adversely affect handwriting recognition.

To activate the tip switch, simply press the tip of the pen against the display. This is similar to clicking the left button of a mouse. Double clicking is accomplished by double tapping with the pen. Move an icon by pressing the pen directly overhead and dragging the icon to the desired destination, keeping the pen in constant contact with the display.

For right click functions, just depress the switch on the barrel of the pen. Windows XP Tablet PC Edition software also allows you to right click by pressing and holding the pen on the screen for 1-2 seconds. Press and hold is an optional feature. You can turn this feature on or off by going to the **Control Panel**, and then selecting **Tablet and Pen Settings**.

**NOTE**

*If you have a pen tablet, **do not** use the Hampshire TSHARC panel to calibrate the screen. Doing so could cause the loss of screen calibration.*

After a period of normal usage, the screen may need to be calibrated with the pen to ensure accurate touches. To perform this calibration, refer to [Calibrating the Active Pen Screen](#).

MODEL X10 TABLET COMPUTER

Pen Adjustments

If your X10 uses the Windows XP Tablet PC operating system, you can adjust attributes related to use of the pen (e.g. tap speed, left/right hand orientation, etc.). Refer to [Tablet and Pen Settings for Windows XP](#) for instructions. If you have the Windows XP Pro operating system, look in the PenOffice tools folder found in the Windows Program list.

The location of the cursor on the display is the location of input regardless of the location of the pen tip. The cursor and the pen tip should be closely aligned when the pen is close to the surface of the display.

After a period of normal usage, the screen may need to be calibrated with the pen to ensure accurate touches. To perform this calibration, refer to [Calibrating the Active Pen Screen](#).

Rotating the Screen

Your ARMOR X10 supports the Windows XP Tablet function of rotating the screen layout between Portrait and Landscape modes. In Portrait mode, the long axis of the screen is along the left and right sides of the screen; in landscape mode (default orientation), the long axis is along the top and bottom of the screen. You can rotate the screen clockwise in four 90 degree steps, alternating between portrait and landscape orientation.



NOTE

If your X10 is a Touch tablet, refer to [Configuring Your Touch Tablet for Screen Rotation](#) before attempting to rotate the screen.



NOTE

If your X10 is a Pen tablet, do not use the Screen Orientation options in the Display tab of the Tablet and Pen Settings window. This could cause you to lose screen calibration.



NOTE


*If you lose calibration when rotating the screen and cannot use the stylus to return to the default orientation, attach an external keyboard and press **Ctrl+Alt+Up Arrow**. This will return the display to the default landscape orientation.*

MODEL X10 TABLET COMPUTER

There are three ways to rotate the screen:

1. By using the Intel Graphics icon in the task tray
2. By using the Intel Graphics panel
3. By using a Hot Key combination with the keyboard.


Using the Intel Graphics Icon

Right-click the Intel Graphics icon  in the task tray and select the **Rotation** option. Then select one of the four rotation angles. The “Normal” position is the default landscape mode as viewed with the PC Control Panel oriented to the upper right, as shown in [Figure 2](#).

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Using the Intel Graphics Panel

To open the Intel Graphics panel, right-click on the Intel Graphics icon  in the task tray and select **Graphics Properties** → **Display Settings**, or select **Start** → **Control Panel** → **Intel®GMA Driver for Mobile** → **Display Settings**. The Intel Graphics panel opens as shown in [Figure 20](#). Select the rotation angle and click **OK**.

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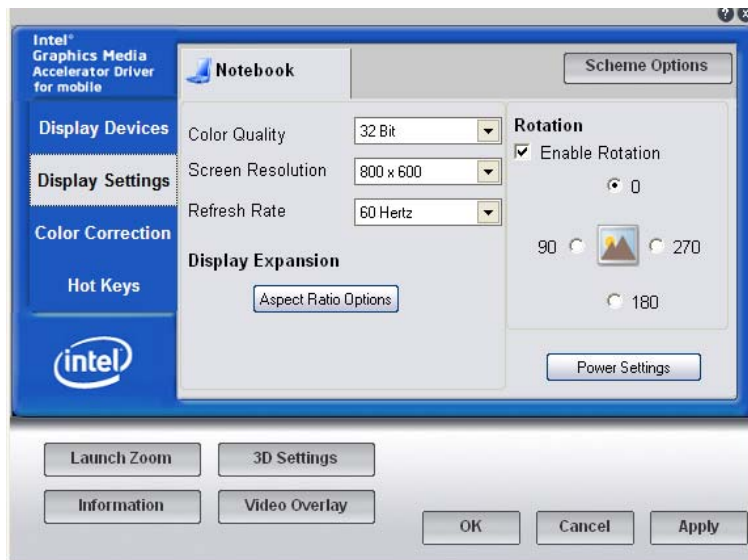


Figure 20. Intel Graphics Panel with Display Settings Option Selected

MODEL X10 TABLET COMPUTER

Using a Keyboard “Hot Key” Combination

Figure 21, shows a list of the default hot key combinations programmed into your ARMOR X10. You can view this listing by clicking on the **Hot Keys** option in the left pane of the Intel Graphics panel. The designations “Up”, “Left”, “Down” and “Right” refer to the arrow keys. You can use the on-screen keyboard or an attached USB keyboard to enter the hot key combinations.

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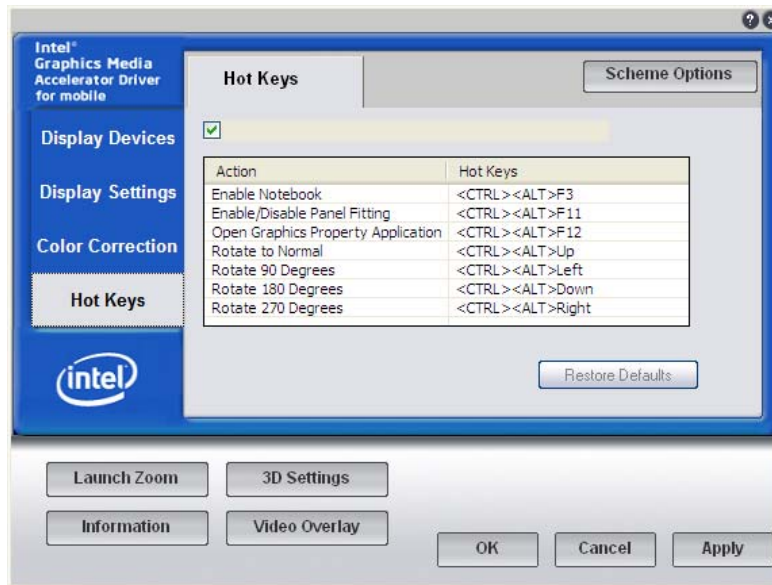


Figure 21. Intel Graphics Panel with Hot Keys Option Selected

Operating with a Second Display

The ARMOR X10 video circuits can drive both the built-in LCD display and a second external flat panel display or CRT monitor. The built-in LCD panel has a maximum screen resolution of 800 x 600 (SVGA) or 1024 x 768 (XGA) pixels per inch (ppi), while screen resolutions up to 1920 x 1440 ppi can be achieved using an external display. You can configure the X10 display and external display as follows:

- Tablet (notebook) display only
- External (monitor) display only
- Cloned – External display set to mirror the tablet display
- Cloned – Tablet display set to mirror the external display
- Extended desktop – Tablet is the primary display
- Extended desktop – External monitor is the primary display

MODEL X10 TABLET COMPUTER**i NOTE**

The X10 tablet does not have an external video connector. You must have a docking station or port replicator to connect a second display.

Follow the procedure in [Table 4](#) to connect and operate with a second display.

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i NOTE

Your last display selection remains when you shutdown and reboot the computer.

Table 4. Operate a Second Display with the X10

STEP	ACTION	CONDITION OR INDICATION
1.	Shut down the X10 and connect the external display's video cable to the VGA connector on the rear of the docking station, then reboot the computer.	
2.	Power up the external monitor.	The power light is lit but the display is off.
	i NOTE <i>Do not change the screen orientation settings.</i>	
3.	Once the X10 has booted up, right click on the desktop to open the desktop menu and select Graphics Options → Output To .	Another menu opens with the following options: <ul style="list-style-type: none"> • Monitor. • Notebook. • Intel® Dual Display Clone. • Extended desktop.

MODEL X10 TABLET COMPUTER

STEP	ACTION	CONDITION OR INDICATION
4.	To switch to the external monitor only, select the Monitor option.	The X10 display turns off and the external monitor display turns on. Use the stylus on the X10 touch screen to steer the cursor on the external monitor.
5.	To switch back to the X10 display only, right click on the X10 touch screen.	This will open a desktop menu on the external monitor.
6.	Select Graphics Options → Output To and tap on Notebook .	The external monitor display turns off and the X10 display turns on.
7.	To operate both the X10 and the external monitor display, right click on the desktop and select Graphics Options → Output To → Intel® Dual Display Clone and tap on Notebook + Monitor if you want the external monitor to be monitor #2; select Monitor + Notebook if the external monitor will be monitor #1.	Both displays turn on. Now, any actions you take on the X10 display are mirrored on the external display.

Working with the Extended Desktop

When you have a second display, you can configure it as an extended desktop. That is, the second display is combined with your tablet desktop. You can move documents back and forth between the two displays as if they were a single display.

To combine the external display with the X10 display and form a single or "extended" desktop, right click on the X10 display and select **Graphics Options → Output To → Extended Desktop** and tap on **Notebook + Monitor** if you want the external display to be monitor #2; select **Monitor + Notebook** if you want the tablet display to be monitor #2.

 **NOTE**

It is recommended that you attach a USB mouse when using the extended desktop rather than using the stylus.

Using a mouse, you can sweep the cursor back and forth between displays as if the two displays were one desktop. Using the stylus with the extended desktop can be a challenge because the stylus can only be used on the tablet touch screen to control the cursor on both displays. However, we will discuss how this is done in the following paragraphs.

MODEL X10 TABLET COMPUTER

Using the Stylus or Pen with the Extended Desktop

Because the X10 is the only one of your two displays with a touch screen or active pen screen, you must make all cursor movements for both displays from the X10 tablet display.

Mentally divide the X10 display in half. If you have the external monitor configured as display #2 (positioned to the right of the tablet), you should only operate the stylus on the right half of the X10 touch screen when the cursor is in the external display. If you have the external monitor configured for display #1 (positioned to the left of the tablet), you should only operate the stylus on the left half of the X10 screen when the cursor is in the external display.

Assume you have the external monitor set up on the right side (as display #2). Touch the X10 screen and drag the cursor to the right edge of the display until it appears on the external monitor. If you now lift the stylus and touch the middle of the X10 screen, the cursor will appear at the left-most edge of the external monitor screen.



NOTE

Once you start moving the cursor on the external display, it is best to keep the stylus in contact with the X10 display until you complete the movement. Otherwise, the cursor may jump back to the X10 display.

Drag the stylus to the right edge of the X10 and you will see that the cursor on the external monitor travels completely across the screen to the opposite edge. This means that the right half of the X10 screen corresponds to the entire screen of the external monitor when the cursor is in the external monitor part of the desktop.

The opposite will be true if you set up the external monitor to be display #1. You can now control the cursor in the left-hand external display using the left half of the X10 screen.

Tips for Proper Use and Care Of Your Computer

There are certain precautions you should take to ensure that your ARMOR X10 Tablet Computer continues to provide you with reliable service:

- Don't subject the computer to heat by placing it on the dashboard of a vehicle with the display facing the sun.
- Don't store the computer in temperatures below -40 degrees C.
- Don't pile tools or heavy objects on top of the computer.
- Avoid severe impacts, especially to the display.
- Don't try to take the computer apart. Disassembly of the unit by unauthorized personnel may void your warranty.
- Don't use excessive force when inserting PCMCIA cards. They are keyed to go in only one way and inserting the card incorrectly or using excessive force could result in damage to the cards or the computer.
- Keep your touchscreen clean and calibrated.

MODEL X10 TABLET COMPUTER

4. Your ARMOR X10 Software

Your ARMOR X10 comes with a variety of software and utility applications. Many of these are standard with the Windows XP operating system, some are provided by DRS to improve your configuration and control of the tablet and some may be custom software provided for your special requirements.

The following paragraphs provide you with an introduction to those Windows and DRS software applications that you will need to properly configure and begin using your X10 tablet. These include:

- Microsoft® Windows XP Tablet Tutorials
- ARMOR Utilities
- Hampshire® TSHARC Control Panel Utility
- Intel® PROSet Wireless Utility
- IVT® BlueSoleil Utility
- Realtek® Audio Manager

Windows XP Tablet Tutorials

The Windows XP™ Tablet operating system provides editing and authoring tools for entering data or writing on the tablet as if it were a sheet of paper. It has built-in tutorials for writing with the tablet, data entry, handwriting recognition, speech recognition, keyboard help information, and so on.

To access tutorials on using these tools, click on **Start → All Programs → Get Going with Tablet PC**. The “Welcome to tablet computing window” opens, as shown in [Figure 22](#). Follow the instructions on the screen to access the tutorials.

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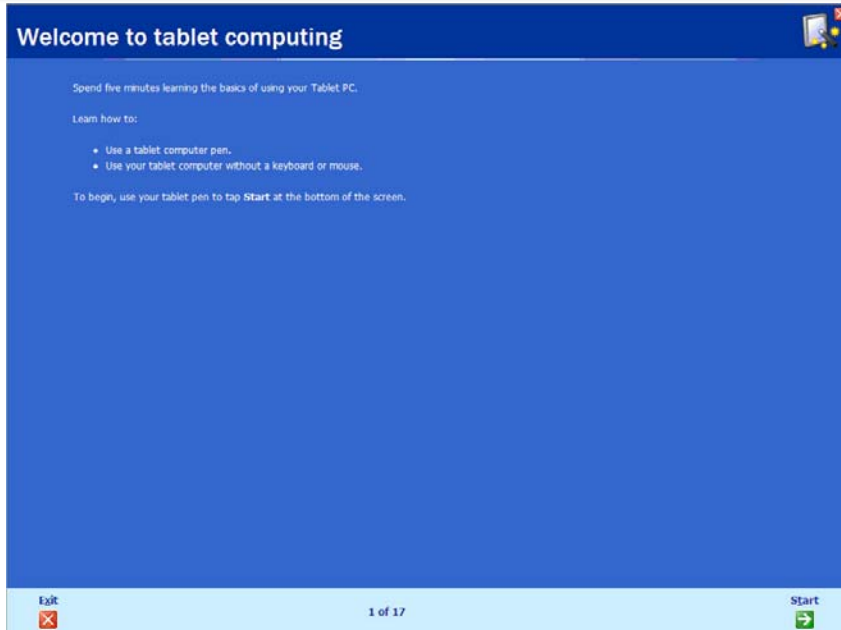
MODEL X10 TABLET COMPUTER

Figure 22. Accessing Tablet PC Tutorials and Information


Help with Microsoft Windows XP

For information on using Microsoft Windows XP features and options, refer to the Microsoft help files and documentation on the X10 Tablet Computer by clicking on **Start** and selecting the **Help and Support** option.

MODEL X10 TABLET COMPUTER

Armor Utilities Program

This utility program is provided to help you manage your X10 computer. It contains settings and information about the batteries, the internal temperature of the computer, backlight (brightness) adjustment, optional cards and serial port settings, and configuration of the OEM button.

To open the Armor Utilities window, click on the ARMOR Utilities icon  in the task bar tray or select **Start → All Programs → Armor Utilities**.

About Tab

The About tab is displayed by default when the application opens, as shown in [Figure 23](#). The Firmware Versions fields show the current firmware installed in the X10. The Serial Number field is not currently used.

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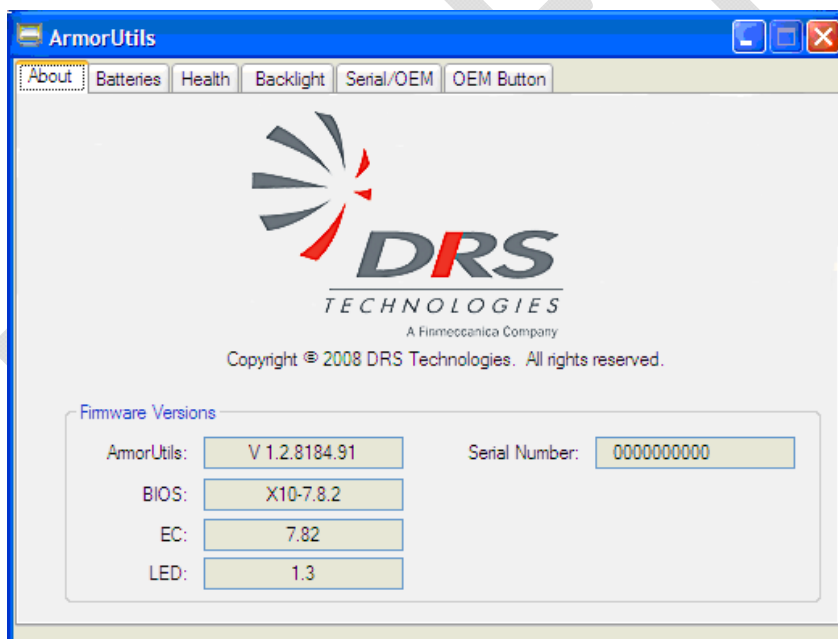


Figure 23. Armor Utilities Panel – About Tab

MODEL X10 TABLET COMPUTER

Batteries Tab

The Batteries Tab is shown in [Figure 24](#). This tab shows information for a primary and a secondary battery. If you have only one battery pack, it should be installed in the primary battery compartment. The primary and secondary battery compartment locations are shown in [Figure 17](#).

The Percent Remaining and the Cycles fields provide key information that you need to manage your batteries. The Percent Remaining fields give the percentage of charge in one or both batteries compared to a full charge. The Cycles fields show the number of discharge and recharge cycles the battery has experienced since it was installed.

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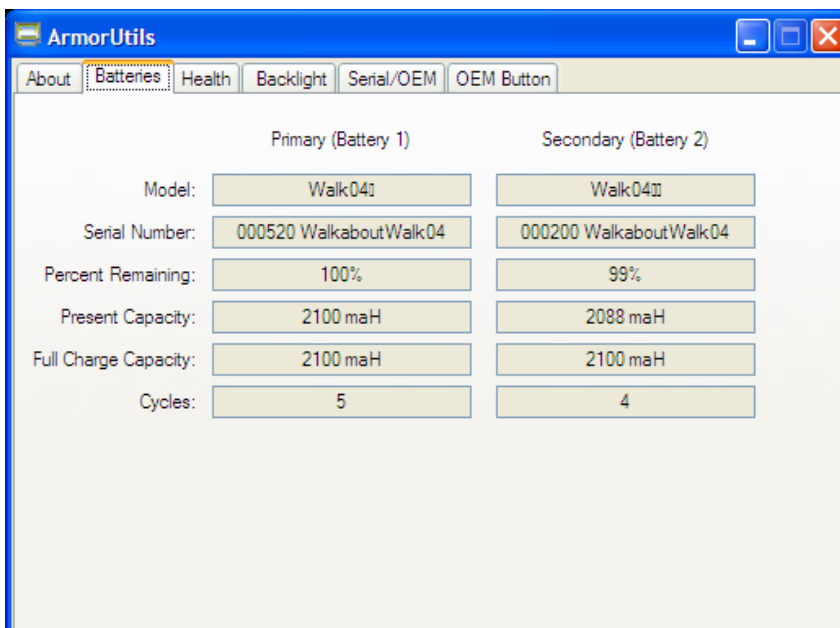


Figure 24. Armor Utilities Panel – Batteries Tab

MODEL X10 TABLET COMPUTER

Health Tab

The Health tab displays the current internal temperatures of the X10 tablet and the batteries, as shown in [Figure 25](#). It also provides options for recording (logging) temperature variations over time. Refer to [Generating a Log of Temperature Variations](#) for the procedure to set up a logging file.

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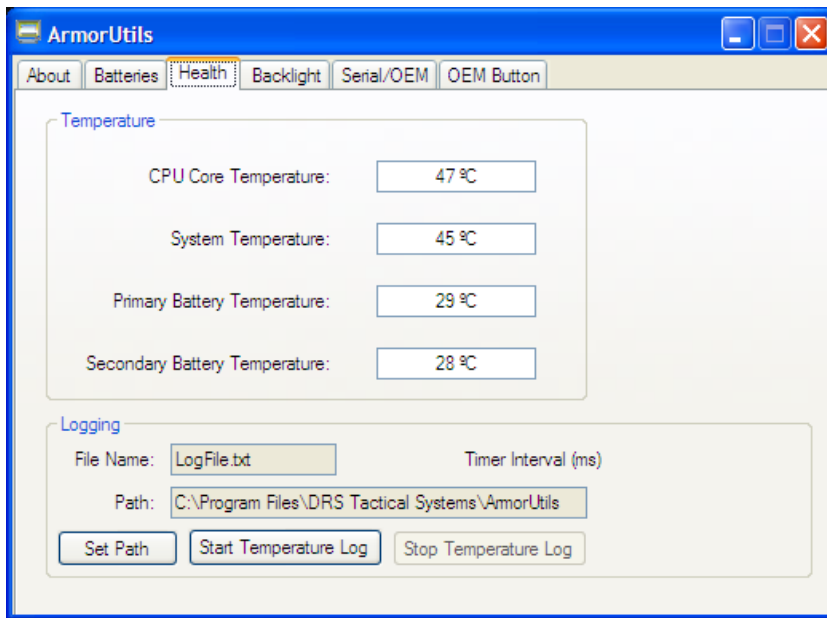


Figure 25. Armor Utilities Panel – Health Tab

MODEL X10 TABLET COMPUTER**Backlight Tab**

The Backlight tab (shown in [Figure 26](#)) provides options to adjust the brightness level manually or to select a built-in light sensor and control brightness automatically. In the automatic mode, if the surrounding (ambient) light level decreases, the screen brightness will decrease proportionally; if the surrounding light increases, the brightness will increase proportionally. The Advanced Backlight button permits custom settings of the brightness range for different lighting conditions or to suit visual preferences. Refer to [Setting the Advanced Backlight Control](#) for a procedure to configure custom brightness settings.

If you have a transfective screen, you should select the "Auto Off in Bright Light" option.

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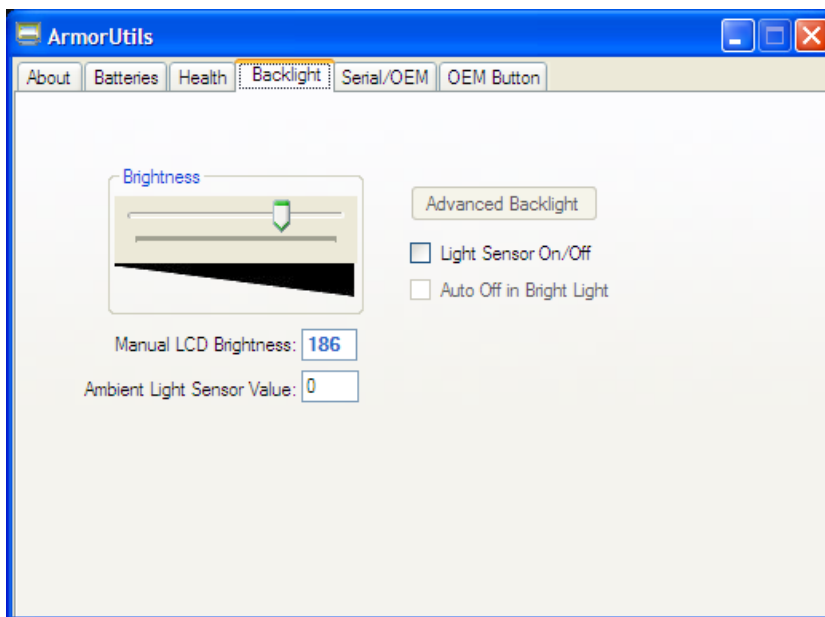


Figure 26. Armor Utilities Panel – Backlight Tab

MODEL X10 TABLET COMPUTER

Serial/OEM Tab



CAUTION!

These options are set at the factory for your particular configuration. Do not change these settings unless directed by DRS Technical Support personnel. Doing so could render your Flexspace or custom card inoperable.

The Serial/OEM tab ([Figure 27](#)) provides a way of enabling custom circuit cards like GPS or GPRS cards that have been installed in the Flexspace of your X10. The Flexspace is a customizable interface inside the tablet that allows customer-selected or specially designed cards to work with the ARMOR X10.

The top-level **ON** and **OFF** buttons enable or disable the Flexspace capability. The **Current State** toggles enable or disable the available connector ports.

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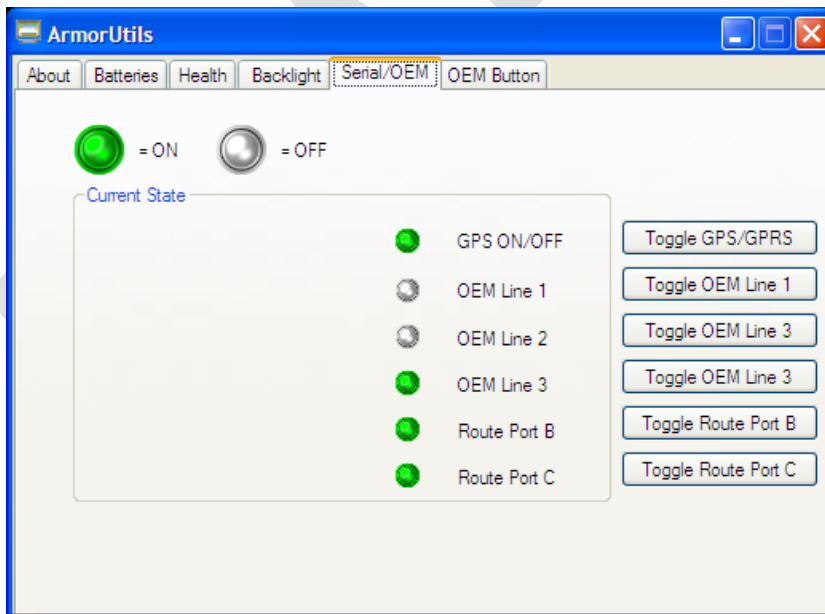


Figure 27. Armor Utilities Panel – Serial/OEM Tab

MODEL X10 TABLET COMPUTER

OEM Button Tab

The OEM Button tab ([Figure 28](#)) provides a way to customize the operation of the OEM button located on the PC Control Panel. The button can be programmed to perform multiple functions depending on how long the button is pressed and the current power state of the computer. Refer to [Configuring the OEM Button](#) for a detailed description and instructions.

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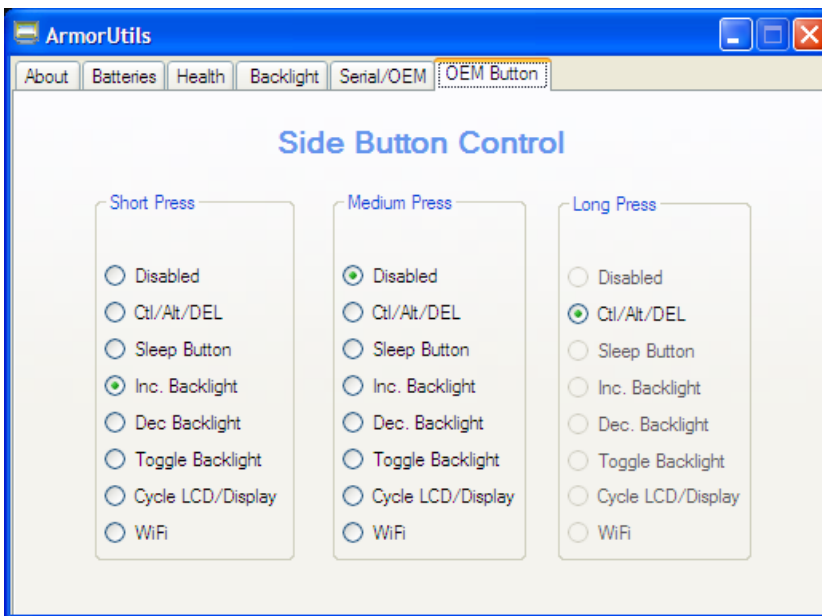



Figure 28. Armor Utilities Panel – OEM Button Tab

MODEL X10 TABLET COMPUTER**Hampshire TSHARC Control Panel Utility**

The TSHARC control panel provides options for configuring one or two displays, calibrating the touch screen, and adjusting the contact settings for the stylus.

To open the TSHARC panel, click on the TSHARC icon  in the task bar tray or select **Start → All Programs → Hampshire TSHARC Control Panel**. The Hampshire TSHARC Control Panel opens as shown in [Figure 29](#). Refer to [Touch Screen Calibration and Settings](#) for detailed instructions in using these settings.

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**NOTE**

The Capacitive tab is not used with the ARMOR X10.

Screen Selection Tab

The Screen Selection tab is only used when you have a second display configured. It allows you to select which display you want to calibrate. Refer to [Operating with a Second Display](#) for detailed instructions.

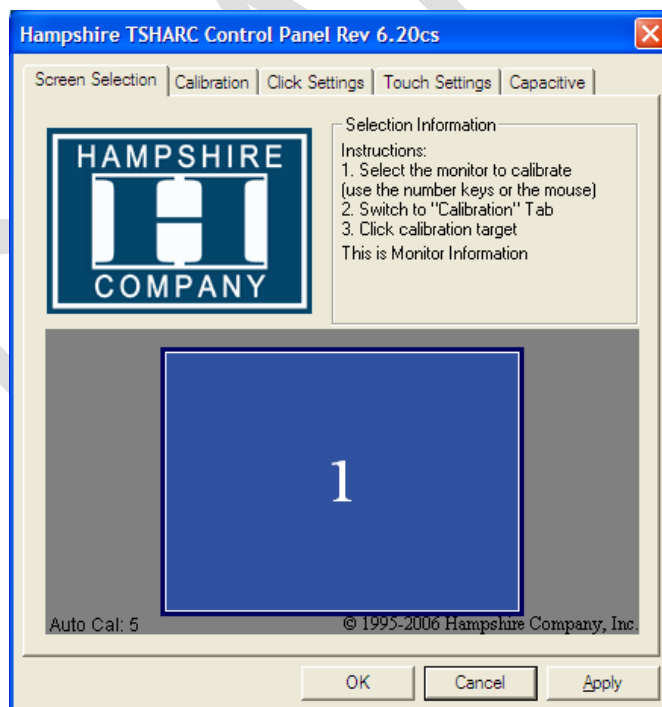


Figure 29. Hampshire TSHARC Control Panel – Screen Selection Tab

MODEL X10 TABLET COMPUTER**Calibration Tab**

The Calibration tab provides calibration options for an X10 equipped with a touch-sensitive screen. This calibration aligns the tip of the on-screen cursor with the touchdown point of the stylus. To use this tab in calibrating your display, refer to the procedure in [Calibrating the Touch Screen](#).

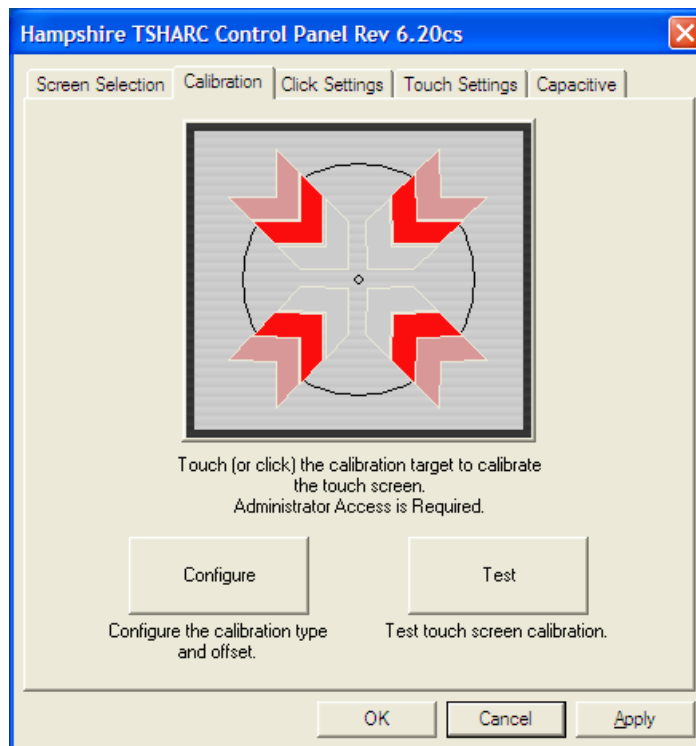


Figure 30. Hampshire TSHARC Control Panel – Calibration Tab

MODEL X10 TABLET COMPUTER**Click Settings Tab**

The Click Settings tab is shown in [Figure 31](#), and provides options to adjust the right-click and double-click functions. Refer to [Adjusting the Click Settings for the Touch Screen Stylus](#) for instructions on using these settings.

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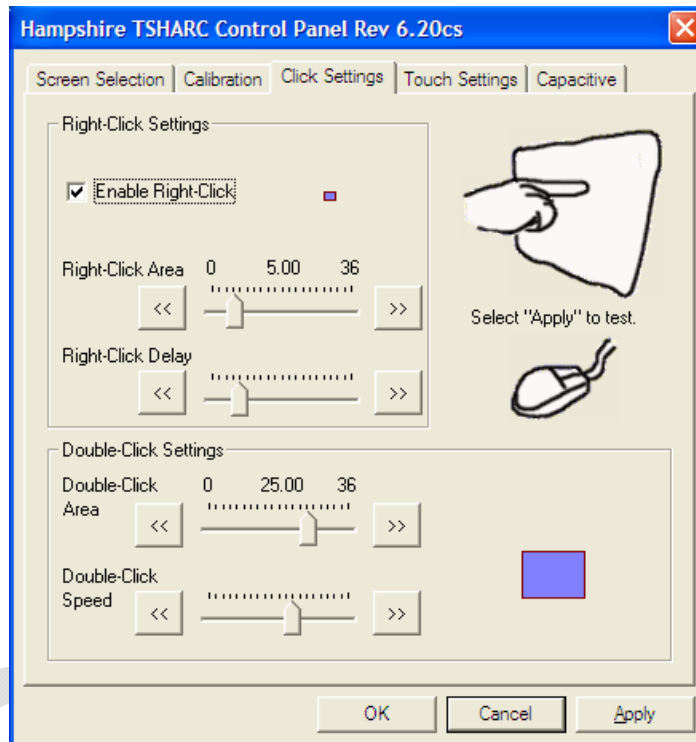


Figure 31. Hampshire TSHARC Control Panel – Click Settings Tab

MODEL X10 TABLET COMPUTER**Touch Settings Tab**

The options on this tab are currently not available with the ARMOR X10.

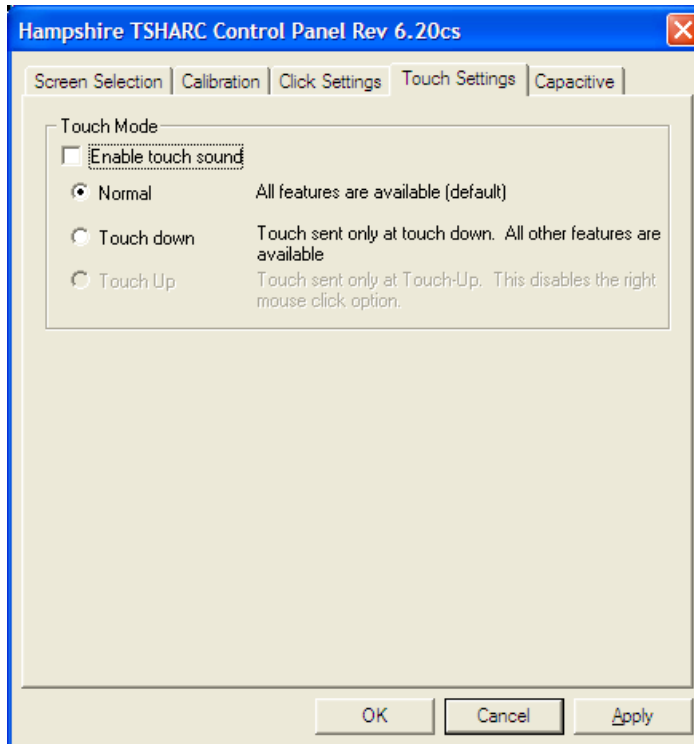


Figure 32. Hampshire TSHARC Control Panel – Touch Settings Tab

MODEL X10 TABLET COMPUTER**Tablet and Pen Settings Utility**

Windows XP Tablet lets you customize the tablet and the pen settings to suit the way you work with an active pen. To open the Tablet and Pen Settings window, select **Start → Control Panel → Tablet and Pen Settings**. Refer to [Tablet and Pen Settings for Windows XP](#) for instructions on using these settings.

Settings Tab

The Settings tab is shown in [Figure 33](#). With this tab, you can select whether you want to use the pen with the left hand or right hand, select menu positions, and calibrate the screen.

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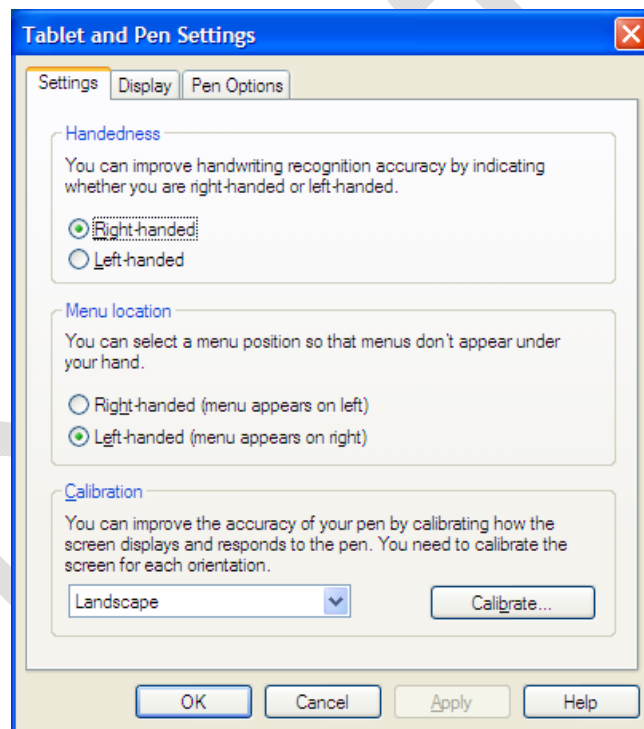


Figure 33. Tablet and Pen Settings Window – Settings Tab

MODEL X10 TABLET COMPUTER**Display Tab**

The Display tab is shown in [Figure 34](#). Refer to [Tablet and Pen Settings for Windows XP](#) for instructions in using these settings.

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i NOTE

It is recommended you do not use the Screen Orientation options to rotate the screen as this can cause the X10 to lose screen calibration. Instead, we recommend the procedures in [Rotating the Screen](#).

The **Screen Brightness** settings are not available from this window. To adjust the screen brightness, refer to [Display Management](#).

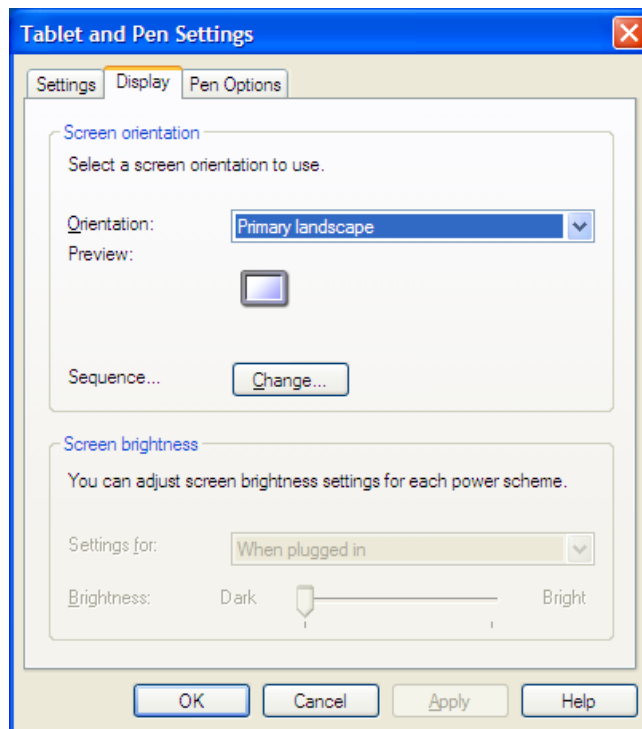


Figure 34. Tablet and Pen Settings Window – Display Tab

MODEL X10 TABLET COMPUTER**Pen Options Tab**

The Pen Options tab is shown in [Figure 35](#). Use this tab to adjust pen settings such as double-click, right-click, hover, and launch Input Panel. Refer to [Tablet and Pen Settings for Windows XP](#) for instructions in using these settings.

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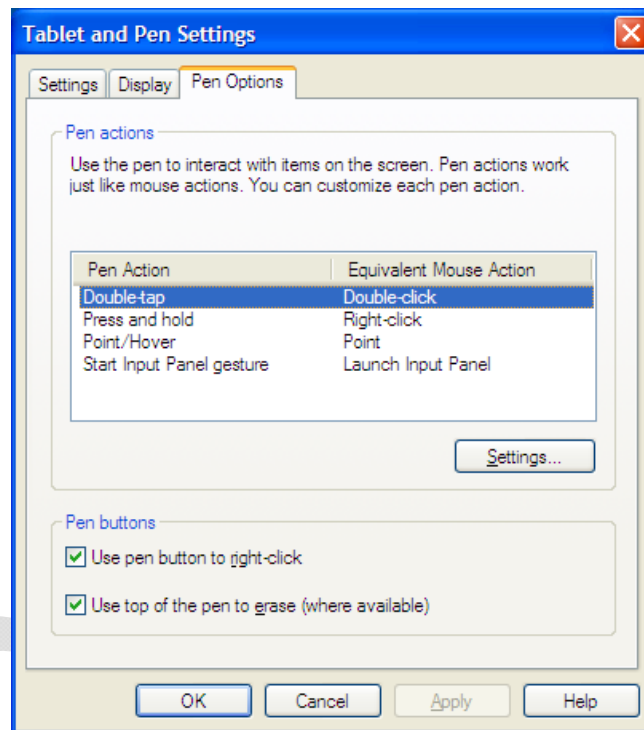



Figure 35. Tablet and Pen Settings Panel – Pen Options Tab

MODEL X10 TABLET COMPUTER**Intel PROSet Wireless Utility**

This utility enables you to manage your wireless network connections. To open the utility, double-click on the Intel PROSet Wireless Utility icon  in the task bar tray or select **Start → All Programs → Intel PROSet Wireless**. The Intel PROSet Wireless window opens as shown in [Figure 36](#). Refer to [Managing Your Wireless LAN Connections](#) for procedures to configure and access your wireless network connections.

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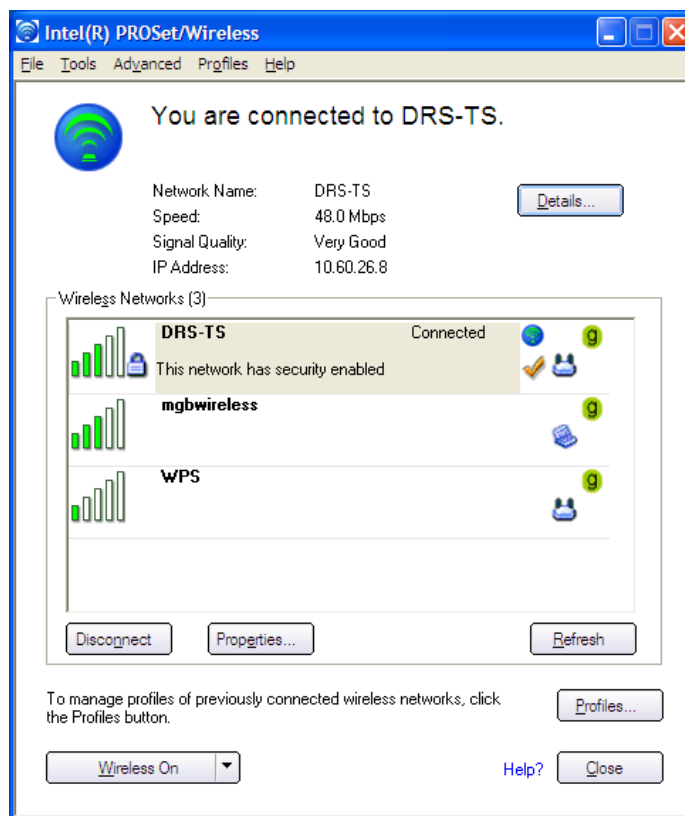



Figure 36. Intel PROSet/Wireless Panel

MODEL X10 TABLET COMPUTER**IVT BlueSoleil Utility**

This utility helps you manage your Bluetooth connections to wireless devices. To access this utility, right-click on the BlueSoleil  icon on the task bar and select the **Display Classic View** option. The BlueSoleil window opens as shown in [Figure 37](#). Refer to [Managing Your Bluetooth Connections](#) for instructions on connecting to wireless devices.

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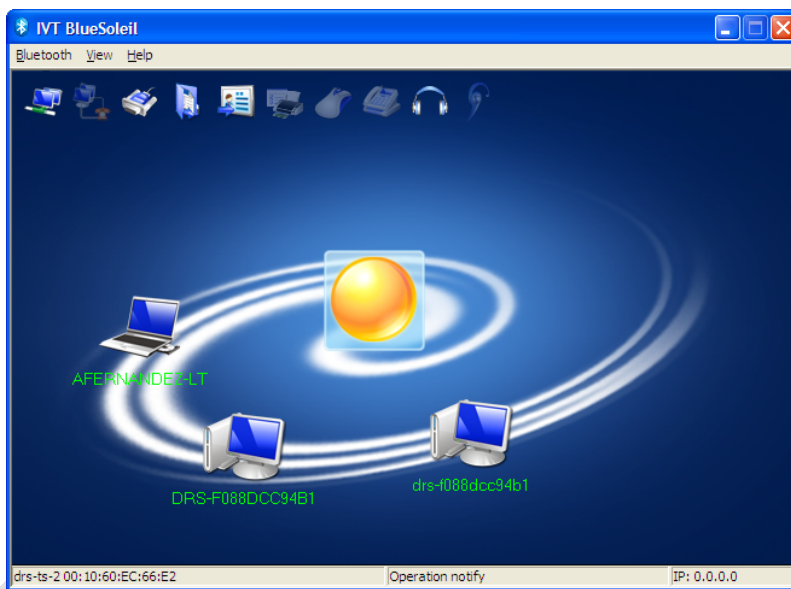



Figure 37. IVT BlueSoleil Utility

MODEL X10 TABLET COMPUTER

Realtek Audio Manager

This application is loaded with the sound card drivers and is provided for users who have a desk or vehicle docking station. The ARMOR 10 audio card supports a stereo or monaural output to an external speaker system only through the docking station audio connectors.

To activate the Audio Manager, click on the Audio Manager icon  in the task bar tray or select **Start → Control Panel → Realtek HD Sound Effect Manager**. The Audio Manager panel opens as shown in [Figure 38](#). Click on the **Help** option for information on configuring and using this application.

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Figure 38. Realtek Audio Manager Panel

Special Software Applications

You may have software programs other than those provided by DRS or the Windows XP Tablet operating system that were specially installed on your X10 for your operating needs. The operation and use of these applications is beyond the scope of this user's guide. Please refer to the help resources supplied with each application or contact your IT personnel to receive any required training.



MODEL X10 TABLET COMPUTER**Quick Reference List**

Table 5 provides a quick reference list of configuration or monitoring tasks and their corresponding software resources.




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Table 5. Quick Reference List

TASK	OBJECTIVE	RESOURCES
Power Settings	Monitor battery power, configure standby.	Start → Control Panel → Power Options
Power Button options	Configure Power Button actions.	Start → All Programs → ARMOR Utilities → OEM Button tab
Monitor Batteries	View charge status and number of charge cycles for each battery.	Start → All Programs → ARMOR Utilities → Batteries tab or Task Bar → right click on Battery icon  (when on batteries only)
Monitor Internal Temperatures	Monitor key system temperatures.	Start → All Programs → Armor Utilities → Health tab
Screen Calibration and Touch Settings	Touch screen calibration, stylus touch settings for touch tablets only.	Start → All Programs → Hampshire TSHARC Control Panel
	Active pen screen calibration, pen touch settings for pen tablets only.	Start → Control Panel → Tablet and Pen Settings
Display Settings	Adjust backlight (brightness).	Start → All Programs → ARMOR Utilities → Backlight tab or Task Bar → Armor Utilities icon 
Video Settings	Display settings, color corrections, hot keys.	Right click on desktop → Graphics Properties option or Start → Control Panel → Intel® GMA Driver for Mobile and Start → Control Panel → Display


MODEL X10 TABLET COMPUTER

Audio Settings	Set audio effects, input and output levels.	Start → Control Panel → Sounds and Audio Devices and Task Bar → right click on master volume icon  for menu options
Wireless LAN Settings	Connect to/disconnect from a wireless network, turn wireless on/off, configure LAN settings.	Start → All Programs → Intel® PROSet/Wireless or Task Bar → Intel PROSet Wireless icon  and Start → Control Panel → Network Connections
Bluetooth Settings	Manage Bluetooth wireless device connections.	Task Bar → BlueSoleil icon  → Display Classic View

MODEL X10 TABLET COMPUTER

5. Working with Your ARMOR X10 Tablet

Entering Data Using the Input Panel

Tap on the **Input Panel** icon  on the task bar to open the Input Panel window, as shown in [Figure 39](#).

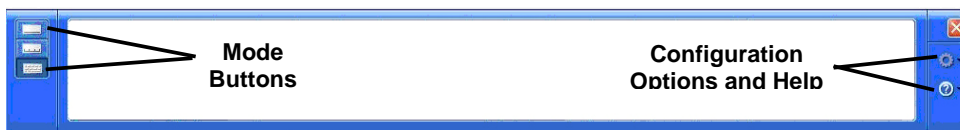


Figure 39. Input Panel with No Mode Showing (for illustration purposes only)

Using the Input Panel, you can write notes in your own handwriting or enter data one character at a time with the digital pen or the stylus.

The Input Panel has three modes for entering data: On-Screen Keyboard mode, Character Pad mode and Writing Pad mode. Each mode has a button on the left side of the panel. The Input Panel will always open in the last mode that was selected or used.

Writing Pad

Pressing the top mode button opens the Writing Pad ([Figure 40](#)) within the Input Panel. In this mode, you can enter text by using the stylus in your own handwriting, or “ink”. The Writing Pad is especially useful for tasks such as taking notes or adding text to an existing text file. As you write, the Input Panel expands to accommodate more text as needed. If you want to convert ink to text, the Input Panel does so dynamically.

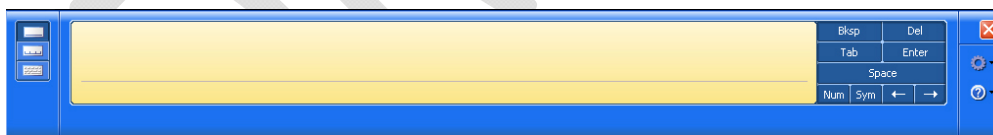


Figure 40. Writing Pad Mode

Character Pad

Pressing the middle button opens the Character Pad ([Figure 41](#)). The character pad can also convert your ink to text so that it can be inserted into a program, but this mode is used to enter one letter at a time using the stylus. The Character Pad is particularly useful when you need high accuracy—for example, when you’re entering an email address or a URL. The characters that you enter into the character pad are immediately converted to text, so you can spot errors immediately.

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MODEL X10 TABLET COMPUTER

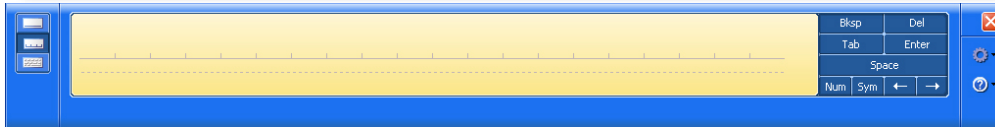


Figure 41. Character Pad Mode

On-screen Keyboard

Use the on-screen keyboard ([Figure 42](#)) when you don't want to use ink but you do want to use the pen, or when you're using a Tablet Computer without an attached keyboard. Simply tap the letters on the keyboard to form words. The Input Panel enters the text directly in the field or at the insertion point of the active program. The on-screen keyboard is especially useful for entering small amounts of text, such as passwords and file names.

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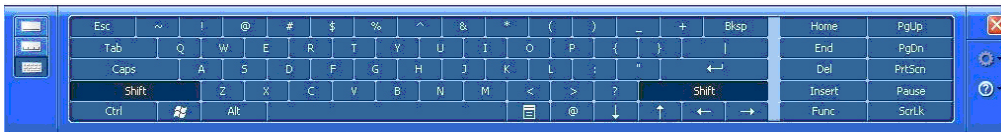



Figure 42. On-Screen Keyboard Mode

Customizing the Input Panel

You can customize the Input Panel based on your personal preferences, such as automatic text insertion, changing the ink thickness, and adjusting the amount of space between lines in the writing area. Click on the  icon to open a submenu and select **Options**.

Writing Documents Using Microsoft Windows Journal

Microsoft Windows Journal allows you to take notes or create documents in your own handwriting, just like on a sheet of paper, but with many capabilities of a word processor. You can later convert your writing to text if you wish or leave it as "ink." Your hand-written entries are completely searchable just like typed text.

To open Windows Journal, click on **Start → All Programs → Windows Journal**.

See the Help options in the Windows Journal toolbar for instructions and tutorials on using Windows Journal.

MODEL X10 TABLET COMPUTER**Entering Data Using Speech Recognition****NOTE**

You must have a high-quality microphone to use speech effectively. Look for a microphone that is built specifically for speech recognition programs.

With a USB microphone attached to the ARMOR X10, you can use your voice either to dictate information or give commands to the computer. For example, you can enter dictation as text into a program. You can use voice commands to cut, copy or paste text, format text that you have dictated, save documents, switch between programs, move around within a program, or perform other actions to control any Windows-based program. As you speak into your microphone, the Input Panel changes your spoken words into text.

To activate speech recognition, click on the Input Panel icon and select **Speech**. Follow the on-screen instructions to train the software to recognize your voice.

MODEL X10 TABLET COMPUTER

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MODEL X10 TABLET COMPUTER


6. Networking

Your ARMOR X10 has two built-in wireless network capabilities: Bluetooth and Wi-Fi™ (wireless fidelity). The Bluetooth network is primarily used for connecting wireless devices such as a wireless printer or scanner to your computer. It can also connect your X10 to a network entry point. The Wi-Fi network is primarily used for higher bandwidth connections such as Internet to a wireless LAN.

The X10 can also be connected to a LAN using a standard Ethernet cable.

Managing Your Bluetooth Connections

Your ARMOR X10 is equipped with a Bluetooth network interface that enables you to connect your computer to a variety of wireless devices such as routers, printers, keyboards, mice and even headsets or cell phones. The range of these connections is approximately 30 ft or 10 meters.

To see what devices are available to connect to, right-click on the BlueSoleil  icon on the task bar and select **Display Classic View**. The IVT BlueSoleil window will open, as shown in [Figure 43](#).

For information on using the BlueSoleil application click on the **Help** option.

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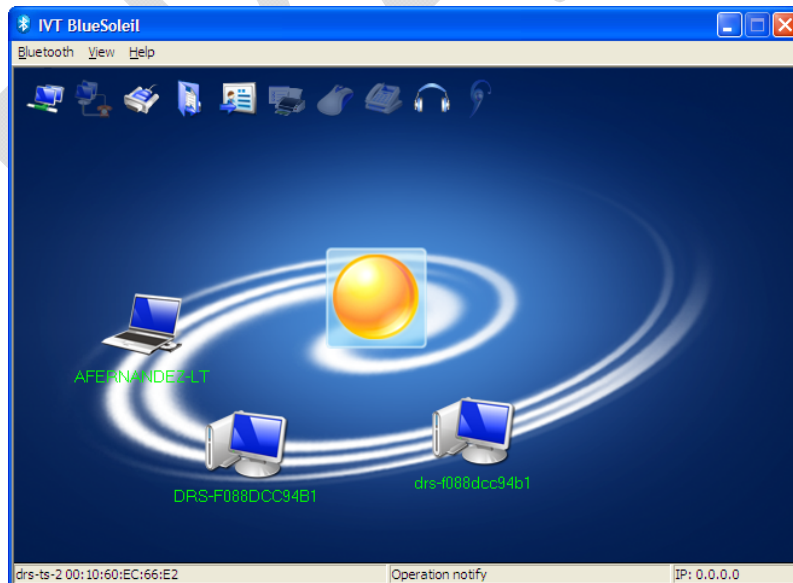



Figure 43. IVT BlueSoleil Utility

MODEL X10 TABLET COMPUTER

Managing Your Wireless LAN Connections

To access a wireless LAN or to verify a connection, click on the wireless icon  in the task bar or click on **Start → All Programs → IntelPROSet Wireless** to open the Intel PROSet/Wireless window. Be sure the button in the lower left corner says “Wireless On.” If it says “Wireless Off,” click on it to turn on the wireless radio. The button label will change to “Wireless On.”

Any networks in range will be shown as a separate entry in the Wireless Networks field with signal strength bars to the left of the entry, as shown in [Figure 44](#). The range of connection for Wi-Fi is approximately 300 feet or 100 meters. To refresh the screen and search for additional networks, click on the **Refresh** button. To disconnect from a network, highlight it and click on **Disconnect**. Multiple connections of different types are possible.

For additional information on using the Intel PROSet Wi-Fi application, click on the **Help** option.

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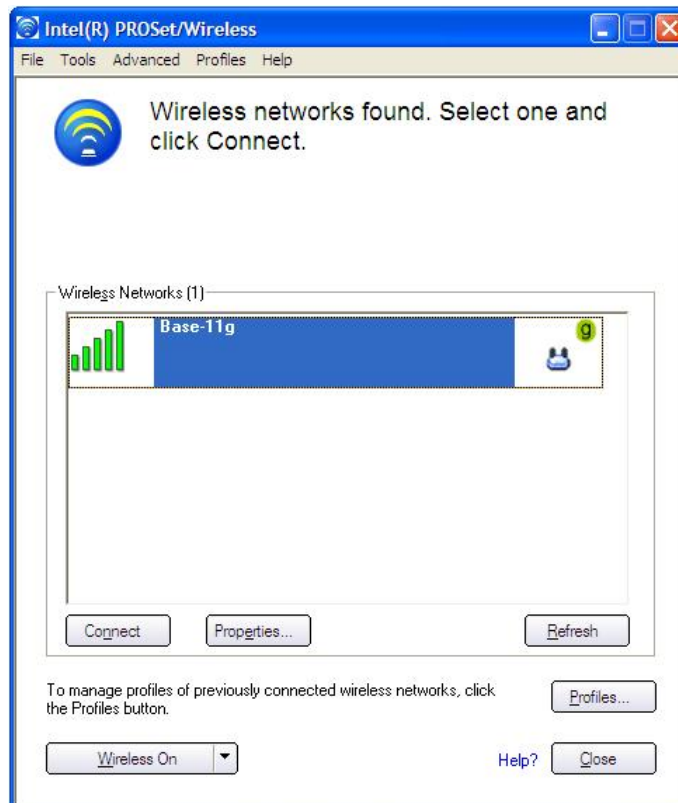



Figure 44. Wireless Network Access

MODEL X10 TABLET COMPUTER

Turning Off the Wireless Card

Sometimes you may want to turn off the wireless card but keep working on your computer, as when travelling on an airplane – the wireless transmitter can interfere with the aircraft's sensitive electronic systems.

To shut off your wireless card, left-click on the wireless icon  in the task bar and select the **Wireless Off** option, or click on **Start → All Programs → IntelPROSet /Wireless** to open the Intel PROSet/Wireless window and then click on the button in the lower left of the window and select **Wireless Off**.


Note that the button is now labeled "Wireless Off". To turn the wireless card back on, select the **Wireless On** option.

Wireless Signal Quality

Wireless signal quality is affected by several conditions:

- Distance from the access point (wireless transmit and receive antennas).
- Access rights (set up through an administrator).
- Your security settings.
- Orientation of the wireless antennas.

If you are having difficulty connecting to your network, try the following steps:

1. Left-click on the wireless icon  in the task bar and verify that the **Wireless On** option has a check by it. If not, select the **Wireless On** option to turn on the wireless radio.
2. If your tablet is not locked in a vehicle mount, try turning the unit in various directions to improve signal quality.
3. Try to get closer to the access point.
4. Move away from obstacles such as trees and metal objects which may be between you and the Access Point.
5. Verify that the access point is operating.

If none of these actions solves the problem, contact your Network Administrator for assistance.

Accessing a Network using an Ethernet Cable

The ARMOR X10 comes with an RJ-45 connector that allows a cable connection to an Ethernet LAN. This connection supports the 10/100 Base-T LAN standard. The connector is on the right side of the unit as shown in [Figure 4](#). Follow the procedure in [Table 6](#) to set up a physical LAN connection.


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MODEL X10 TABLET COMPUTER**Table 6. Set up a Physical LAN Connection**

STEP	ACTION	CONDITION OR INDICATION
1.	You will need to contact your IT department or internet provider to access the server and obtain an IP address for your X10.	
2.	When you obtain your IP address, click on Start → Settings → Network Connections .	This will open the Network Connections window.
3.	Click on File → New Connection .	The New Connection Wizard opens.
4.	Click Next and follow the instructions to set up your connection per your IT department or internet provider.	

If you are having problems with your Ethernet LAN connection, check for a network icon in the taskbar tray with a red "x" beside it , and select **Start → Control Panel → Network Connections**. Double-click on the **Local Area Connection** entry (not Wireless Network Connection) that has the red "x". Note the error message and correct the problem or contact your network administrator.

MODEL X10 TABLET COMPUTER

7. Optional Wireless Capabilities

Flexspace

The ARMOR X10 has a special compartment with a flexible interface that can accommodate custom circuit cards for added capability. This flexible card interface, or Flexspace, uses a 40-pin SMT stacking connector that provides power, 4 serial com ports, two USB ports and OEM connections. Cards can be designed by the customer or specially built by DRS. A separate space for a Flexspace card antenna is located behind the cover on the upper right side of the table (see [Figure 2](#)).

For more information on the Flexspace and its capabilities, contact DRS Tactical Systems toll free at 1-888-872-1100.

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Global Positioning Satellite (GPS) Capability

The ARMOR X10 can be equipped with a built-in GPS receiver and antenna that is capable of providing your position coordinates accurately to within 5 meters anywhere on the planet. The GPS engine is a Leadtek® LR9548S 20-channel receiver that is based on the GPS signal search capabilities of the SiRFstarIII™ low power single chipset (GSC3f/LP-7879), SiRF's newest chipset technology. The GPS circuit board is housed internally in a unique flexible compartment that provides space for a number of custom configurations.

Ease of Integration

The X10 GPS is designed to allow quick and easy integration for a wide range of OEM applications such as:

- PDA, Pocket PC, and other computing devices
- Car and marine navigation
- Fleet Management applications / Ocean Surveillance Information System Evolutionary Development
- Automatic Vehicle Location (AVL) application and Location-Based Services (LBS)
- Hand-held devices (HHDs) for personal positioning and navigation
- Satellite-based augmentation systems e.g. US WAAS or the European EGNOS system

NMEA Standard Support

The receiver supports the National Maritime Electronics Association (NMEA) standard, Version 2.20, January 1, 1997, and outputs the following sentences, depending on the applications selected:

- GGA - Time, position and fix-related data
- GLL - Latitude and longitude of present position, time of position fix and status

MODEL X10 TABLET COMPUTER

- GSA – Receiver operating mode, satellites used in the position solution, and dilution of precision (DOP) values
- RMC – Time, date, position, course and speed data
- VTG – Actual course and speed relative to the ground

For information and assistance with GPS capability, please contact DRS Tactical Systems toll free at 1-888-872-1100.

GPS Specifications

The following table provides technical specifications for the Leadtek® LR9548S GPS receiver.

Table 7. Leadtek LR9548S GPS Receiver Specifications

ITEM	PARAMETER	SPECIFICATION
Chipset	GSC3f/LP-7879	SiRF StarIII low power single chip
General	Frequency	L1, 1575.42 MHz
	C/A code	1.023 MHz chip rate
	Channels	20
	Sensitivity	-159dBm
Accuracy	Position	10 meters, 2D RMS
		5 meters 2D RMS, WAAS corrected
		<5meters(50%)
	Velocity	0.1 meters/second
	Time	1 microsecond synchronized to GPS time
Datum	Default	WGS-84
	Other	selectable for other Datum
Time to First Fix (TTFF) (Open Sky & Stationary Requirements)	Reacquisition	0.1 sec., average
	Snap start	1 sec., average
	Hot start	1 sec., average typical TTFF

MODEL X10 TABLET COMPUTER

ITEM	PARAMETER	SPECIFICATION
Dynamic Conditions	Warm start	35 sec., average typical TTFF
	Cold start	42 sec., average typical TTFF
	Altitude	18,000 meters (60,000 feet) max.
	Velocity	515 meters/second (1000 knots) max.
	Acceleration	4g, max.
	Jerk	20 meters/second ³ , max.
Power	Main power input	3.3 ~ 5.0 VDC input
	Power consumption	≈165 mW (continuous mode)
	Supply Current	≈49 mA
	Backup Power	1.65 ~ 5.0 VDC input.
Serial Port	Electrical interface	Two full duplex serial TTL interface.
	Protocol messages	NMEA-0183@4800 bps (Default)
Time-1PPS Pulse	Level	TTL
	Pulse duration	The 1PPS pulse width is 1 μs, this 1PPS is NOT suited to steer various oscillators (timing receivers, telecommunications system, etc).
	Time reference	At the pulse positive edge.
	Measurement	Aligned to GPS second, ±1 microsecond

MODEL X10 TABLET COMPUTER

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MODEL X10 TABLET COMPUTER

8. Backup and Restore Procedures for Spinning Media Hard Drives

Backup with QuickBack™

If your hard drive is a spinning media hard drive, QuickBack™ is included with your software package as a backup and restore feature. It allows you to make an exact copy of your hard disk's contents on a hidden partition of your computer. You can then use this backup to restore your PC if the hard drive becomes partially corrupted.

**NOTE**

If the entire hard drive becomes corrupted or the hard drive is damaged, this restore feature may not work.

ARMOR X10 ruggedized tablets implement the QuickBack™ functionality using the Acronis True Image OEM software package. The True Image application provides a number of useful System Backup features including the creation and storage of an Archival Backup, the ability to store up to two additional User created Backups, and the ability to create an Emergency Bootable CD for System Recovery.

The QuickBack backup feature is only one part of a complete tablet backup strategy. As mentioned above, if the entire hard drive becomes corrupted or if the hard drive itself becomes defective then the QuickBack™ feature will not be able to restore the system. Even if the System Recovery CD is used, it looks for the backup data on the hard drive. The periodic use of an alternate backup tool is recommended to provide backups on external media in case of catastrophic hard drive failures.

You may wish to purchase the upgraded full-featured Acronis True Image tool to be able to backup and recover all data saved from an external drive.

Disk Partitions

The hard drive is divided into several sections or "Partitions". The C: partition is the primary partition that contains the Windows files, Application Program files, User files, etc. The C: Partition is used as the primary system boot drive for normal operations.

The D: partition contains space for QuickBack™ Backups of the C: Partition. The D: partition has been made large enough to contain at least two standard-sized compressed User-generated backups.

The compressed backup copy of a partition can only be stored in one of the other partitions for backup purposes. This allows you to overcome the most common disk corruption issues and to restore the system back to the last saved state.

MODEL X10 TABLET COMPUTER

How to Access QuickBack™ for Initial Set-Up and Help Features

Once installed, the QuickBack™ feature can be accessed by clicking on the Acronis True Image shortcut on the computer's desktop. You can also access it by clicking on **Start → All Programs → Acronis → True Image**. The program includes an easy to use wizard interface and detailed HELP features. The startup screen is shown in [Figure 45](#).

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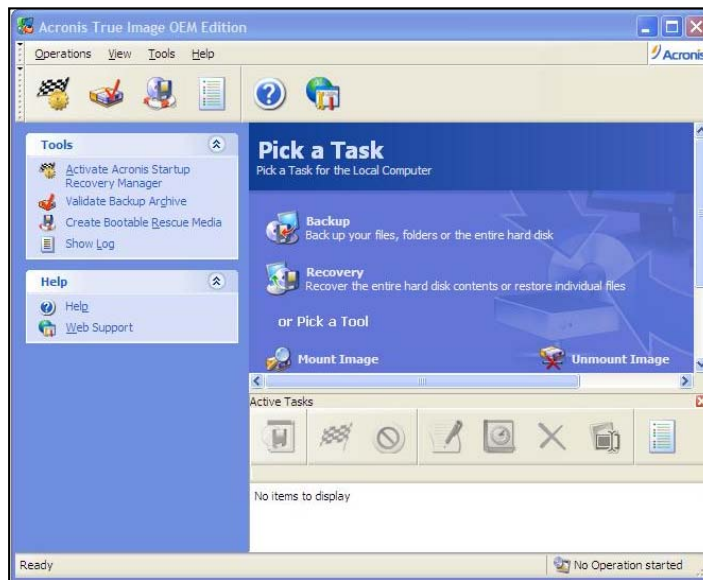


Figure 45. QuickBack™ Graphical User Interface

Archive Backup

The original Archive Backup is created automatically when you select the “Install QuickBack™” icon on the Desktop.

i NOTE

The QuickBack™ install is a lengthy process involving an automatic re-partitioning of the hard drive and the automatic backup process. A USB or other physical keyboard should be used for this operation.

The initial installation takes approximately 25 minutes. Subsequent user initiated backups will take less time. The system should be connected to external power prior to the initial installation or any subsequent user backup in order to ensure the backup process completes without interruption. The Archive Backup contains the original C and D partitions and is stored in a compressed form in a hidden partition on the system hard disk.

MODEL X10 TABLET COMPUTER

This hidden partition is not visible or accessible to you with the standard system file access toolset. To use the Archive Backup to restore the hard drive, press the F11 option (with external keyboard) when prompted during the system boot to immediately start the standalone True Image Application.



NOTE

If you choose the "Restore Original System Installation" option, any changes or additions to either of these two partitions since the initial QuickBack™ installation will be lost. This includes User Backups that have been placed in the D partition area.

Within the True Image application, you can select the "Restore Original System Installation" button and follow the on-screen directions to restore the entire Archive Backup onto the C and D partitions of the System Hard Drive.

User Backups

You can create up to two User Backups of the C partition (Compressed copies of C are stored up to the available space in the D partition). Backups are typically created as desired by using the True Image application under Windows. Backups are stored into the D partition of the system hard drive. Currently, with the existing C partition size, the size of the D partition allows up to two Backups to be saved at one time.

If you increase the C partition significantly with the addition of new software, then only one backup copy can be stored. With the addition of very large amounts of user data it is possible to grow the partition content large enough that it cannot be compressed into the available space on the D partition (In this case the True Image will inform you that no backup into the requested location is possible).

System Recovery CD

You can create a System Recovery CD using the True Image Application. For example, if the C drive becomes corrupted (system fails to boot normally), the Recovery CD allows you to boot the system to the True Image Application. You can then restore the C partition from one of the Backups.

Note that you create the Recovery CD using Windows and an attached CD disk drive with write capability. To create the Bootable CD, please refer to your Windows documentation. To boot from the Recovery CD, follow the procedure in [Table 8](#).

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MODEL X10 TABLET COMPUTER**Table 8. Boot the X10 from the Recovery CD**

STEP	ACTION
1.	Connect a USB CD-ROM Drive to the USB port.
2.	Place the recovery CD in the CD drive.
3.	Select Boot Manager .
4.	Boot the system and press the <ESC> key when the ARMOR splash screen appears.
5.	Select the CD drive (the exact text depends on the type of drive being used).

The recovery disc can actually make a brand new backup, which can be handy if you want to copy a data partition on a PC that's no longer bootable.

MODEL X10 TABLET COMPUTER

9. Removal and Replacement

Removing and Replacing the Hard Drive

**NOTE**

This drive should only be removed or installed by a qualified technician.

The hard drive is located in a slot in the bottom of the tablet. Follow the procedure in [Table 9](#) to remove or replace the drive.

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Table 9. Remove and Replace the Hard Drive

STEP	ACTION
1.	Remove the soft carry case cover, if installed and lay the ARMOR X10 tablet face up on a clean surface.
2.	Using a #1 Philips screwdriver, remove the four screws at the bottom right of the tablet securing the hard drive cover (see Figure 6) and remove the cover.
3.	Use the pull tab on the end of the drive to remove the drive from the tablet.
4.	Insert the replacement drive <u>with the label down</u> and press gently until it seats.
5.	Replace the cover and secure with the four screws.

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Removing and Replacing an Optional PCMCIA Card

The PCMCIA slots are located on the top left side of the tablet, as shown in [Figure 3](#). Follow the procedure in [Table 10](#) to remove or install a card.

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Table 10. Remove and Replace a PCMCIA Card

STEP	ACTION
1.	Remove the four screws securing the PCMCIA slot cover.
2.	Grasp the card and pull to remove it.

MODEL X10 TABLET COMPUTER**CAUTION!**

Do not force the card into the slot. If it binds, remove the card and try again. Be sure the card is not cocked at an angle and spanning two slots.

- | | |
|----|---|
| 3. | Insert the replacement card carefully into the slot and press in until it seats. It should slide in smoothly. |
| 4. | Replace the cover. |

MODEL X10 TABLET COMPUTER

10. Display Management

Adjusting the Display Brightness Manually

Your ARMOR X10 Tablet Computer is configured for manual adjustment of screen brightness (or backlight level) by default. The backlight level can be adjusted manually in two ways: by repeatedly pressing the OEM button or by adjusting the slider in the **Backlight** tab of the Armor Utilities panel.

Using the OEM Button

Your OEM button is pre-configured by default to adjust the backlight level in incremental steps starting with minimum brightness and increasing in 8 steps to maximum brightness. Once the maximum level is reached, pressing the OEM button again will repeat the cycle. You can change the operation of the OEM button to better suit your needs by following the procedures in [Configuring the OEM Button](#) in the Appendix.

Using the Armor Utilities Backlight Tab

Open ARMOR Utilities by clicking on **Start → All Programs → Armor Utilities** and selecting the **Backlight** tab. The Backlight tab opens as shown in [Figure 46](#).

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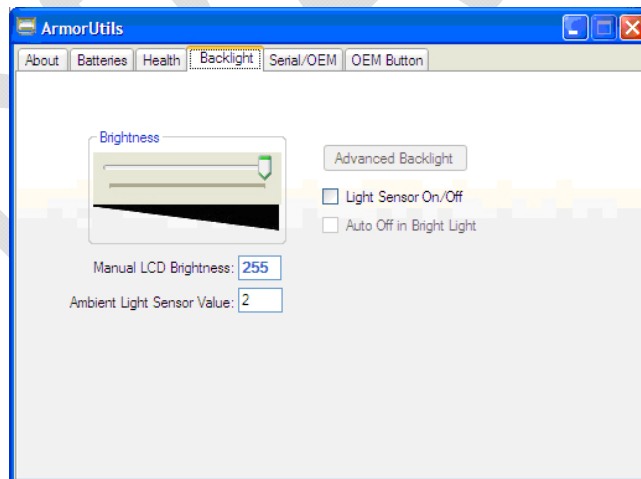


Figure 46. Armor Utilities Screen – Backlight Tab

MODEL X10 TABLET COMPUTER**i NOTE**

Do not use the "Auto Off in Bright Light" setting as this could turn off your display under bright light conditions.

The **Brightness** slider allows you to manually adjust the backlight brightness. Touch the tab on the bar and slide it to the left or right to achieve the desired brightness. The Manual LCD Brightness value represents the LCD brightness level as a number between 0 and 255. A setting of 127 is the mid point. This readout is a handy reference that you can use to quickly set the brightness to a desired value.

If you have selected the Backlight Cycling option on the OEM tab (see [Configuring the OEM Button](#) in The Appendix), you can change the brightness in 32 increments by pressing the Security Key button repeatedly.

Adjusting the Brightness Automatically

When the X10 is configured for automatic brightness control, the backlight level is automatically adjusted by an ambient light sensor. If the ambient light decreases, the brightness also decreases proportionally; if the ambient light increases, the brightness increases.

To enable automatic brightness adjustment, check the **Light Sensor On/Off** box in the Backlight tab.

Setting the Advanced Backlight Control

The Advanced Backlight control allows custom adjustments of the brightness range under different lighting conditions or for different personal preferences. To make custom modifications to the backlight settings, check the **Light Sensor On/Off** box and click on the **Advanced Backlight** button. The Advanced Backlight Control window opens, as shown in [Figure 47](#).

i NOTE

You must select the "Light Sensor On/Off" option on the Backlight tab to access the Advanced Backlight Control window.

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MODEL X10 TABLET COMPUTER

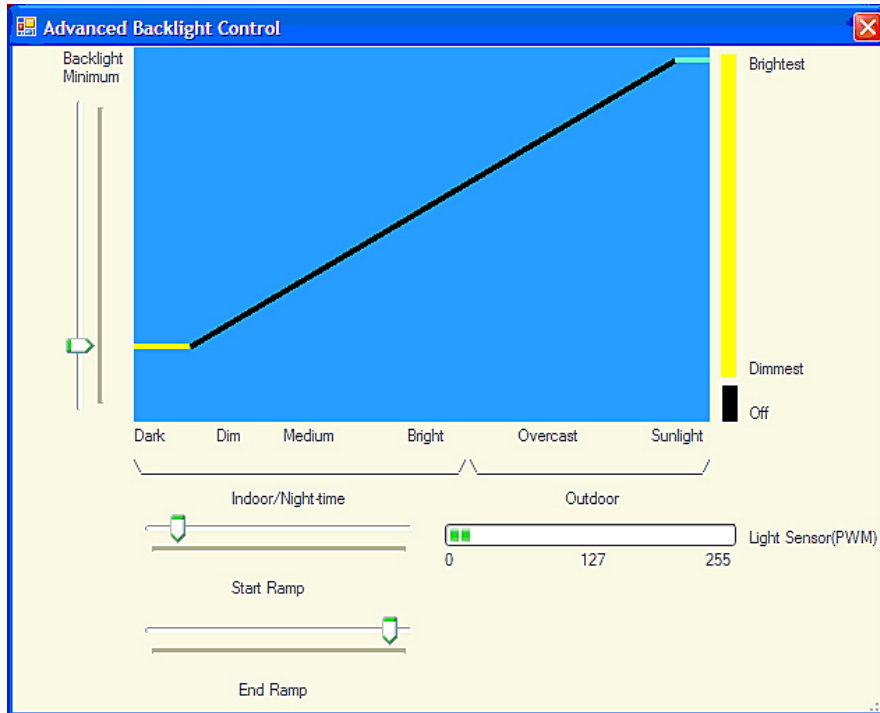


Figure 47. Advanced Backlight Control Window.

The labels at the bottom of the blue window in [Figure 47](#), represent ambient light levels from completely dark to bright sunlight. This range is divided into two portions: Indoor/Night-time and Outdoor.

The Indoor/Night-time portion represents the range of light levels encountered in a lighted building or in a night-time setting. The Outdoor portion represents the range of light levels encountered outside in overcast conditions to clear sky conditions. The black slanted line, or “ramp”, indicates the currently configured brightness adjustment range.

There are three slider adjustments for the advanced backlight control:

- 1) **Backlight Minimum** – The Backlight Minimum slider sets the minimum level from which the backlight will automatically adjust. Set this slider to the minimum level you want the brightness to reach.
- 2) **Start Ramp** – The Start Ramp slider sets the ambient light level at which the backlight begins to brighten from its minimum setting. Set this slider to the minimum level you want when the ambient light level for your location is at its minimum.
- 3) **End Ramp** – The End Ramp slider sets the ambient light level at which the backlight reaches maximum brightness. Set this slider to the maximum brightness you want when the ambient light level for your location is at its maximum.

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MODEL X10 TABLET COMPUTER**Touch Screen Calibration and Settings (Touch Tablets Only)****Calibrating the Touch Screen**

The stylus tip should be closely aligned with the cursor arrow when the stylus is in contact with the display. If the stylus and the cursor are not within approximately 1/8th inch of each other, perform the calibration procedure in [Table 11](#). Refer to [Hampshire TSHARC Control Panel Utility](#) for a description of the settings and options.

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**CAUTION!**

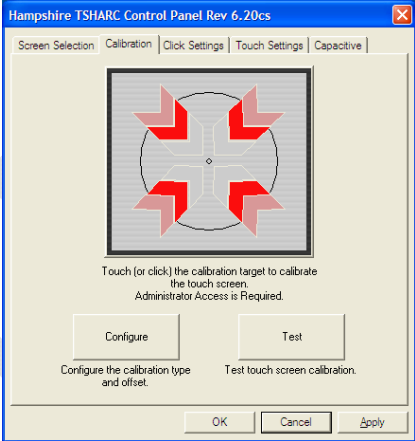
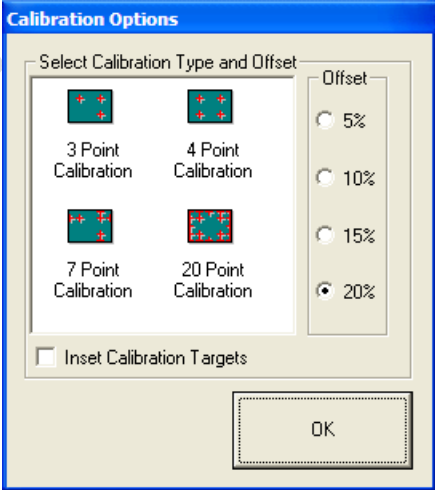
This procedure is for ARMOR X10 touch tablets only. For pen tablets, refer to [Calibrating the Active Pen Screen](#).

**NOTE**


Use the stylus instead of a fingertip to calibrate the touch screen.

MODEL X10 TABLET COMPUTER

Table 11. Calibrate the Touch Screen

STEP	ACTION	CONDITION OR INDICATION
1.	Select Start → All Programs → Hampshire TSHARC Control Panel and select the Calibration tab.	<p>A calibration target is displayed with arrows moving inward, as shown below.</p> 
2.	Select the Configure button.	<p>The Calibration Options screen is displayed, as shown below.</p> 
3.	Select the 4-point calibration pattern and click OK .	

MODEL X10 TABLET COMPUTER

STEP	ACTION	CONDITION OR INDICATION
	<p style="text-align: center;">i NOTE</p> <p><i>Use care not to accidentally touch the screen with a finger or the palm of the hand while performing the calibration.</i></p>	
4.	Touch the moving calibration target to begin.	<p>A calibration point appears in the upper left corner, as shown below:</p> 
5.	Touch and hold each calibration point until it contracts and the word "RELEASE" is displayed beside it.	
6.	Lift the stylus from the calibration point.	The next calibration point appears.
7.	Continue until all calibration points have been touched.	The message "Touch the screen to verify the target moves to your finger" appears.
8.	Touch and hold the stylus to the screen and drag the target when it appears.	The target moves in response to the movement of the stylus.
9.	Tap the Test button and touch at various points around the screen. Note the position of the cursor tip relative to the point of contact of the stylus tip.	
10.	Select OK to apply and save the new settings.	

MODEL X10 TABLET COMPUTER

STEP	ACTION	CONDITION OR INDICATION
11.	If the difference between the cursor arrow tip and the stylus tip is still too large, perform the calibration again using a higher number of test points. If the calibration is still off after 5 attempts, return the X10 for repair or call DRS Technical Support at 1-888-872-1100."	

Adjusting the Click Settings for the Touch Screen Stylus

The Hampshire TSHARC Control Panel also provides adjustments for the touch actions of the stylus, such as the size of the touch area, right-click delay, double-click area, and double-click speed.

Right-Click Area

This slider adjusts the size of the right-click touchdown area. The larger the area, the less accurate the stylus tip has to be in proximity to the object you want to right-click. This is especially true if you use a fingertip instead of the stylus. However, this increases the chance of right-clicking on the wrong object when options or icons are closer together.

Right-Click Delay

This slider adjusts the time the stylus must remain in contact with the touch screen before the computer interprets it as a right-click. This must be long enough so that the computer does not mistake it for a left-click action.

Double-Click Area

This slider adjusts the size of the double-click touchdown area to accommodate different hand and finger movement styles. The larger the area, the more likely the computer is to detect both taps and correctly interpret them as a double-click. However, the area must not be too large or you could end up double-clicking on the wrong object.

Double-Click Speed

This slider adjusts the sample time between the first and second click. The higher the setting, the shorter the sample time and the faster you must tap to have the computer correctly interpret the action as a double-click. The setting must be fast enough so that the computer does not interpret the action as a left click.

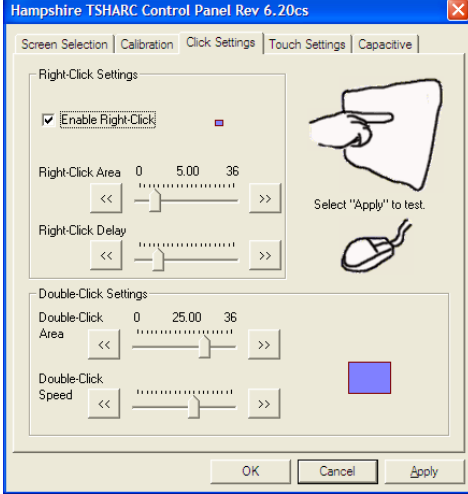
Follow the procedure in [Table 12](#) to adjust these settings.

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MODEL X10 TABLET COMPUTER

Table 12. Adjust Stylus Click Settings for the Touch Screen

STEP	ACTION	CONDITION OR INDICATION
1.	Select Start → All Programs→ Hampshire TSHARC Control Panel and select the Click Settings tab.	The Click Settings tab opens, as shown below. 
2.	Check the Enable Right-Click box.	
3.	Move the Right-Click Area slider to the right to increase the right click touch-down area (default value is 6) and click on Apply .	The farther to the right, the larger the touch-down area. This should be set to an area that is as large as your fingertip.
4.	Move the Right-Click Delay slider to the right to increase the time the stylus has to remain in contact with the screen and initiate a right-click action (default value is 5 tics from the left) and click on Apply .	The farther to the right, the longer the delay before the right-click action takes place.
5.	Move the Double-Click Area slider to the right to increase the size of the touch-down area (default value is 25).	Adjust this area for a good double-click action using the fingertip.

MODEL X10 TABLET COMPUTER

STEP	ACTION	CONDITION OR INDICATION
6.	Move the Double-Click Speed slider to the right to require a faster double-click.	The further to the right, the faster you have to double-click to generate a good action.

Caring For the Touchscreen

With minimal maintenance, the touch screen will last many years. When operating the touch screen, you should not use an abrasive or metallic pointer as this may damage the screen. We recommend using your fingertip or the plastic-tipped stylus that came with your tablet. Use a plastic cleaner such as Plexus™ to clean the stylus tip.

**CAUTION!**

Do not exceed 60 psi when using compressed air to clean the display. Damage to the screen surface could result.

Be careful not to let sand or grit stay on the screen. Be careful not to let sand or grit stay on the screen as this can scratch the surface if wiped with a cloth. Clean the display surface first with dry compressed air.

Any non-ammonia based glass cleaner can be used to clean the touch screen. Always spray the glass cleaner on the cloth or towel and then wipe the touch screen. Use a lint-free swab or soft brush to remove stubborn foreign matter. If necessary use a small amount of alcohol or dish soap.

Use a solution of dish soap and water to remove biological contaminants. If further cleaning is needed, use a solution of 5-10% chlorine bleach in clean water. Use this with caution as it could result in discoloration of material finishes.

MODEL X10 TABLET COMPUTER**Pen Screen Calibration and Settings (Pen Tablets Only)**

The pen tablet utilizes a proximity-sensing electromagnetic digitizer. This component tells the computer the pen's exact position relative to the screen. The computer senses the pen as it nears the display and the cursor appears when the pen is approximately an inch away. This allows visibility of the exact location of input before making actual contact with the display.

Calibrating the Active Pen Screen

The active pen screen should be calibrated using the procedure in [Table 13](#), any time display options or pen settings are changed. Refer to [Tablet and Pen Settings Utility](#) for a description of the settings and options for the Tablet and Pen Settings window.

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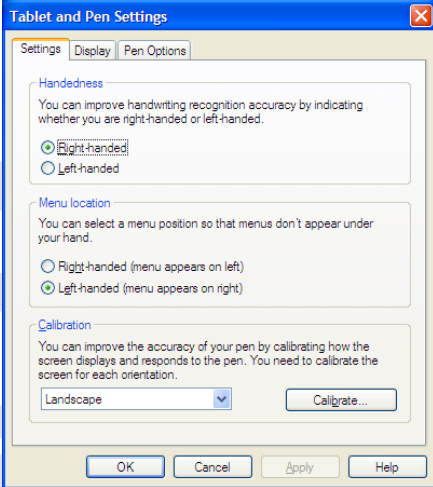
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**CAUTION!**

This procedure is for ARMOR X10 Pen tablets only. For Touch tablets, refer to [Calibrating the Touch Screen](#).

MODEL X10 TABLET COMPUTER

Table 13. Calibrate the Active Pen Screen

STEP	ACTION	CONDITION OR INDICATION
1.	Go to: Start → Control Panel → Tablet and Pen Settings .	<p>The Tablet and Pen Settings window opens with the Settings tab displayed, as shown below.</p> 
2.	Select Calibrate . Follow the on-screen instructions for calibrating the screen.	

MODEL X10 TABLET COMPUTER**Tablet and Pen Settings for Windows XP****Settings Tab**

The Settings tab is shown in [Figure 48](#). The Handedness and Menu Location settings are set to Right-handed by default. To more efficiently use the pen with the left hand, select the **Left-handed** option and then select **Left-handed (menu appears on right)**.

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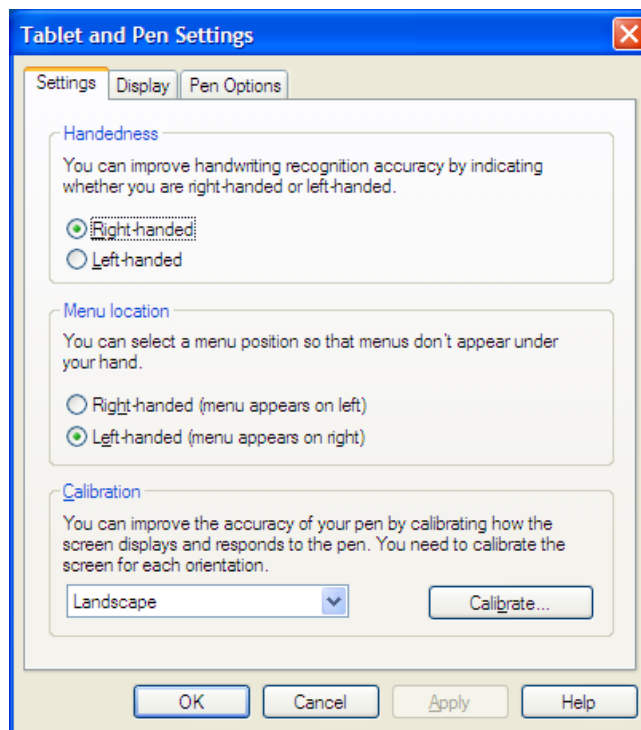


Figure 48. Settings Tab of the Tablet and Pen Settings Panel.

MODEL X10 TABLET COMPUTER**Display Tab**

The Display tab ([Figure 49](#)) allows you to select screen orientation and to adjust screen brightness.

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**NOTE**

It is recommended you not use the Screen Orientation options to rotate the screen as this could cause the X10 to lose screen calibration. Instead, we recommend the procedures in [Rotating the Screen](#).

Screen Orientation

Primary landscape – This is the default orientation setting for your tablet. When used in this position, the PC Control panel is located to the upper right.

Secondary landscape – This setting rotates the screen 180° from the default position.

Primary portrait – This setting rotates the screen 90° counterclockwise from the default orientation.

Secondary portrait – This setting rotates the screen 270° counterclockwise from the default orientation.

Sequence – Use these settings to determine the sequence of screen orientations that will occur when you repeatedly rotate the screen.

Screen Brightness

These options are not available with the ARMOR X10. To adjust the screen brightness, refer to the [Display Management](#) section.

MODEL X10 TABLET COMPUTER

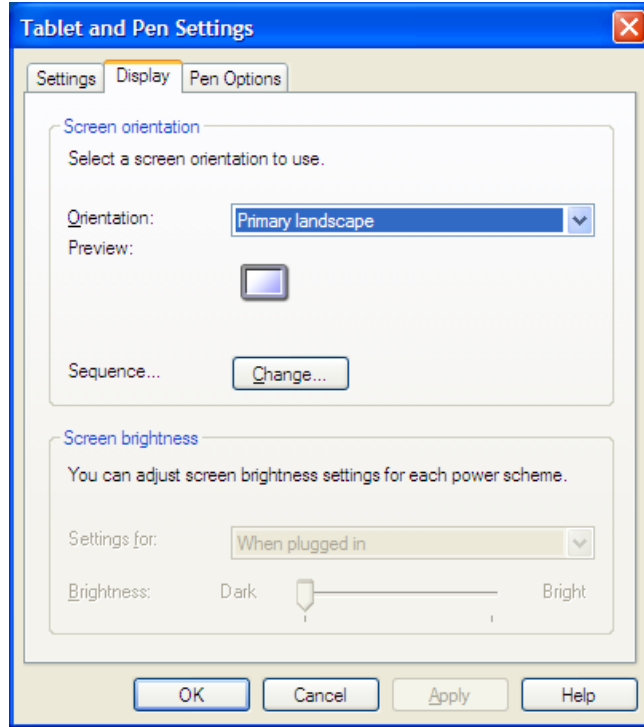


Figure 49. Display Tab of the Tablet and Pen Settings Panel.

MODEL X10 TABLET COMPUTER**Pen Options Tab**

Use this tab ([Figure 50](#)) to adjust pen settings such as double-click, right-click, hover, and launch Input Panel.

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Highlight the desired setting and click on the **Settings** button. Follow the instructions to make the appropriate adjustments and select available options.

You can also elect to use the pen button (located on the barrel of the pen) to right-click instead of hovering at a point on the screen. You can also elect to use the top of the pen to erase if that feature is included with the pen.

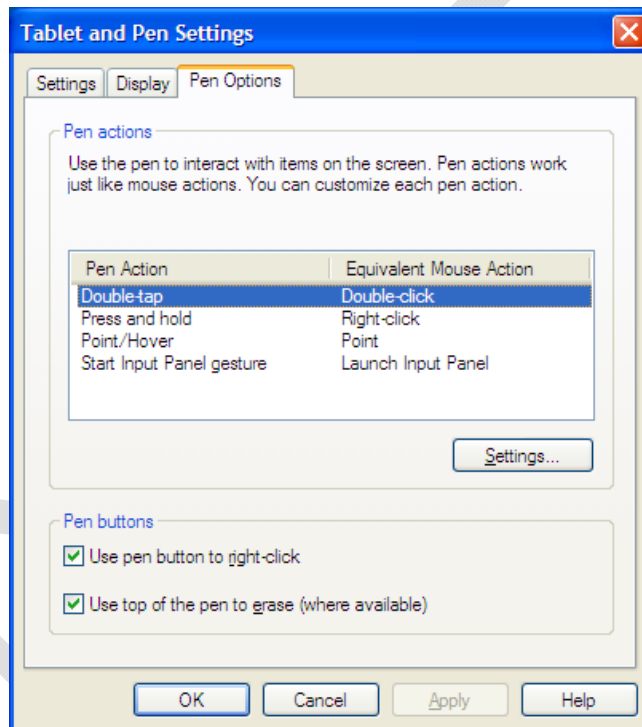


Figure 50. Pen Options Tab of the Tablet and Pen Settings Panel.

MODEL X10 TABLET COMPUTER**Caring for the Pen Tablet Screen**

Keeping your display screen clean will improve resolution and brightness. Be careful not to let sand or grit stay on the screen as this can scratch the glass if wiped with a cloth. Clean surfaces first with dry compressed air.

Any non-ammonia based glass cleaner can be used to clean the screen. Always spray the glass cleaner on the cloth or towel and then wipe the screen. Use a lint-free swab or soft brush to remove stubborn foreign matter. If necessary use a small amount of alcohol or dish soap.

We recommend that you use a solution of dish soap and water to remove biological contaminants.

MODEL X10 TABLET COMPUTER**Monitoring the Health of Your ARMOR X10**

The X10 may be subjected to extreme temperature variations that can affect the internal operating temperature of the tablet. So long as these internal temperatures remain within the operating design parameters, the tablet should not experience any loss of functionality.

If you are experiencing problems and suspect that they are temperature related, you can monitor the internal temperature of the X10. Click on **Start → All Programs → Armor Utilities** to open the Armor Utilities window (see [Figure 51](#)) and click on the **Health** tab. The Health tab displays the following internal temperatures of the X10 tablet:

- CPU core temperature
- System temperature
- Primary battery temperature
- Secondary battery temperature

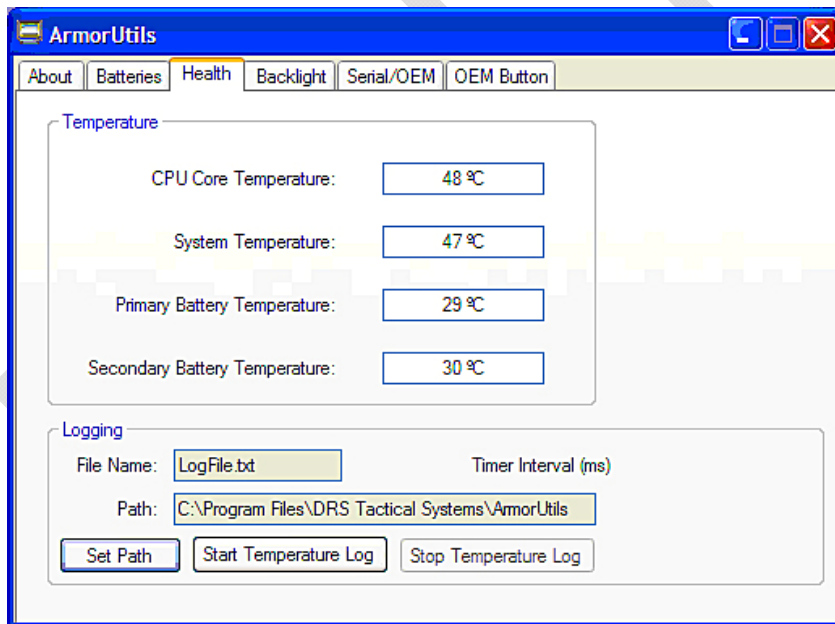


Figure 51. Armor Utilities Panel with Health Tab Displayed

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MODEL X10 TABLET COMPUTER**Generating a Log of Temperature Variations**

If the problems are occurring over time, you can record system temperature variations over time by creating a temperature variation log file. Follow the procedure in [Table 14](#) to set up the log file.

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Deleted: [Table 14](#)**Table 14. Generate a Temperature Variation Log**

STEP	ACTION	CONDITION OR INDICATION
1.	Select START → All PROGRAMS → ARMOR Utilities and click on the Health tab.	The Health tab is displayed, as shown in Figure 51 .
2.	Enter a name for the log file in the File Name field.	The name should be in the format xxxxx.txt
3.	In the Path field, enter the path to the folder where you want the log file to reside or click on the Set Path button and select the folder.	
4.	Select START TEMPERATURE LOG to begin generating a record of temperature changes over time.	
5.	Select the STOP TEMPERATURE LOG option to stop recording temperatures.	

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MODEL X10 TABLET COMPUTER**Configuring the OEM Button**

The OEM button is also referred to as the Side Button or the Windows Security Key Button. To configure the OEM Button, click on **Start → All Programs → ARMOR Utilities**, then select the **OEM Button** tab. Figure 52 shows the options available for the OEM button and the default values for each press. This button can be configured to perform up to three different tasks depending on the length of press and release of the button:

- Short press-and-release option – 1 second or less.
- Medium press-and-release option – 1-2 seconds.
- Long press-and-release option – 3-4 seconds.

The available options are arranged in three columns by length of press.

i NOTE

*Currently, there is only one option selectable for the long press: **Ctrl-Alt-Del**. The other options for long press cannot be implemented at this time without violating Microsoft's certification requirements.*

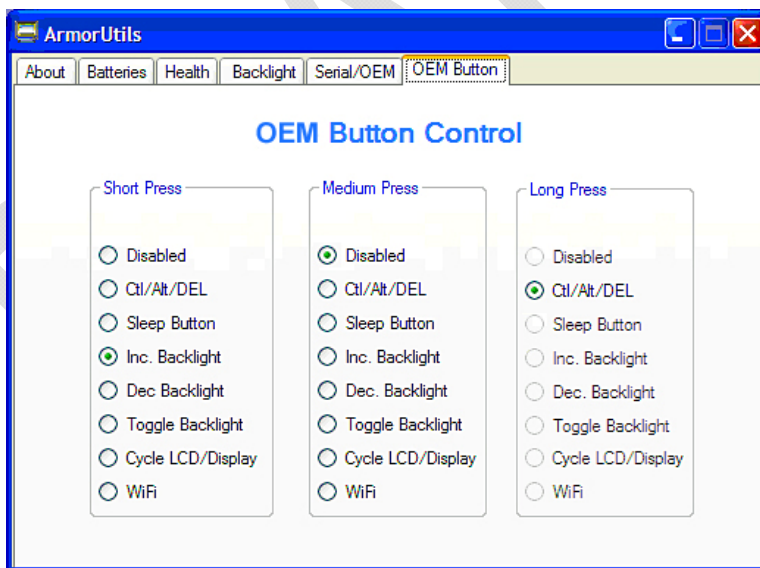


Figure 52. Armor Utilities Panel OEM Button Tab

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MODEL X10 TABLET COMPUTER**Disabled**

When this option is selected, all actions for this press are disabled.

Ctrl/Alt/Del

Selecting this option invokes the Ctrl+Alt+Del command and opens the Task Manager window.

Sleep Button

When this option is selected, pressing the OEM button will either place the X10 into Standby or Hibernation mode, depending on whether one or both of these modes are enabled in Control Panel/Power Options.

If the system is in Standby mode (not Hibernation mode), a medium press of the OEM button will wake up the tablet. A long press will put the tablet into Hibernation mode.

Inc. Backlight

When this option is selected, and the Light Sensor On/Off option in the Backlight tab of the Armor Utilities panel is not selected (brightness control is manual), pressing the OEM button will cause the display brightness to increase in steps until it reaches maximum brightness, then the cycle will start over from minimum brightness.

Dec. Backlight

When this option is selected, and the Light Sensor On/Off option in the Backlight tab of the Armor Utilities panel is not selected (brightness control is manual), pressing the OEM button will cause the display brightness to decrease in steps until it reaches minimum brightness, then the cycle will start over from maximum brightness.

Toggle Backlight

When this option is enabled, pressing the OEM button will turn off the display backlight. Pressing it again will turn on the backlight.

Cycle LCD/Display

When this option is enabled, and if a second display is connected to the X10, pressing the OEM button repeatedly will generate the following sequence: external display only → both displays → tablet display only. The X10 always defaults to the tablet display when started or rebooted.

Wi-Fi

When this option is enabled, pressing the OEM button turns off the Wi-Fi card. Pressing it again turns the card back on.

MODEL X10 TABLET COMPUTER

11. Battery Management

The Lithium Ion battery packs used in your ARMOR X10 computer offer the best technology available today. These 'Smart Batteries' provide ARMOR X10 users with the greatest power density and the most accurate "battery gauge" possible. To achieve the best possible performance from your batteries, we recommend using and maintaining the batteries in accordance with the instructions provided in this section.

Your ARMOR X10 Tablet Computer comes with one or two Lithium Ion battery packs that are shipped separately in the box with the tablet. Due to current regulations regarding shipment of Lithium Ion batteries, your batteries will arrive in a partially charged condition, typically with a maximum charge of 30% to 50%.

We recommend that you fully charge your batteries before using the computer on batteries alone. If you do not plan to use your computer immediately, be aware that the batteries will discharge at a slow rate even when not in use.

**WARNING!**

Do not drop or mishandle the batteries, immerse them in water, or subject them to high heat. Doing so could increase the risk of explosion or leakage, and possibly cause injury.

**WARNING!**

The lithium-ion batteries used in this equipment contain material that is hazardous to your health. If battery contents come in contact with the eyes, IMMEDIATELY flush the affected area with clean water for 15 minutes and have someone else summon medical attention for you. Unaffected persons should assist the affected individual in the vital first flushing of the eyes.

**WARNING!**

If battery material comes in contact with the skin, flush the affected area with clean water and seek immediate medical treatment.

MODEL X10 TABLET COMPUTER**Safety and Handling Considerations for Your Batteries**

Please use the following safety rules when handling and using lithium-Ion batteries.

- Do not expose the batteries to very high temperatures such as an open flame.
- Do not short circuit the battery or reverse its polarity.
- Do not let children play with the batteries.
- Do not crush, dent or allow any deformation of the battery.
- Do not disassemble or open the batteries or try to alter or bypass the internal safety circuits.
- Avoid exposing the battery to wet or extremely humid conditions.
- Avoid exposing the batteries to electrostatic discharge.
- Avoid dropping the battery.
- Do not use in or connect the battery to any other devices.
- Do not allow batteries to remain discharged for more than 1 week.

When to Recharge Batteries**NOTE**

When the lowest indicator begins to flash, the battery charge is at less than 10% charge and the tablet could shut down at any time, resulting in the loss of any work in progress.

The Battery Gauge LEDs on the PC Control Panel indicate the remaining charge of the battery (or batteries). At full charge, all five LED indicators of the Battery Gauge will be on steady and the Charging Status indicator will also be on steady if external power is applied.

At full discharge, the bottom Battery Gauge indicator will be flashing. At this point, the charge level is between 10% and 3% and the computer could shut down unexpectedly. To avoid a sudden shutdown and possible data loss, it's best to recharge or replace a battery when the top four LEDs are off and the bottom (10%) LED of the Battery Gauge is on steady. However, a battery can be recharged at any charge level without degrading the battery performance.

MODEL X10 TABLET COMPUTER

How to Recharge Your Batteries

The X10 batteries automatically begin charging when installed in the ARMOR Tablet and you apply external power.

**CAUTION!**


DO NOT connect the AC adapter from an external Rapid Battery Charger into the X10 computer or docking mechanism. This power supply is 24 VDC and will cause permanent damage to the computer.

To recharge the batteries, plug the circular connector of the AC Adapter into the DC input connector on the left side of the ARMOR X10, or into the PWR connector on the port replicator or desk dock unit. The ARMOR X10 is fully functional while the batteries are charging. Using the unit while it charges the batteries will only slightly lengthen the recharge time.

Don't be alarmed if batteries feel warm to the touch during this process. It is normal for a battery to become warm during charging and discharging.

Conditioning Your Battery

Lithium-ion batteries do not require a periodic deep discharge to maintain a full charge as with nickel-cadmium (Ni-Cad) batteries. However, you can help ensure the accuracy of the battery gauge and prolong battery life by periodically "conditioning" the battery. This involves allowing the battery to discharge to its lower limit (10%) and then fully recharging it.

DRS recommends that you perform this battery conditioning approximately every 30 cycles for each battery. To check the number of cycles for each battery, click on the ARMOR Utilities icon  in the task bar tray or select **Start → All Programs → Armor Utilities → Batteries.**"

How to Tell When Batteries Have Finished Charging

While the batteries are charging, the Battery Gauge LEDs will light to indicate the current level of charge and the green Charging Status indicator will flash at about a 1 second rate. When the batteries are fully charged, all five Battery Gauge LEDs and the Charging Status indicator will be on steady.

MODEL X10 TABLET COMPUTER**Charging a Battery with an External 2-Bay Battery Charger****CAUTION!**

The ARMOR X10 battery packs are specially built for DRS. Do not use any other model external battery charger than that supplied by DRS to charge the X10 battery packs. Serious damage to the batteries could result.

Sequential Charger

If you are charging only one battery pack, be sure to place it in the left slot. Two battery packs will take approximately 2.5 hours to reach full charge. A single battery pack will often take less than 2 hours.

Simply insert the battery and the charging process will begin automatically. An LED for each battery indicates the current status of the charging process.

Smart (SmBus) Charger

With this charger, you can charge two batteries at the same time in about 2.5 hours. However, the charger also has the capability to automatically condition, or “calibrate” a battery by fully discharging it first and then fully recharging it. This calibration feature is only available with the left slot. The total time to charge and calibrate a single battery is approximately 8 hours.

Once the battery has been charged, place it in the left slot and press the button in the center of the front panel labeled “Push Here to Recalibrate Left Battery Bay.” This will start the calibration process.

What to Do for Over-discharged Batteries

The Armor Tablet X10 has an internal Level 2 smart battery charger. One of the features of this charger is that it will attempt to recover a battery that has been deeply discharged (10% or less). This is done by applying a trickle current of 80 milliamps for about 3 minutes. This process normally injects enough energy into the battery to allow normal re-charging to occur. If the recovery process is successful, the Charging Status indicator will flash and the 10% LED will be on steady or flashing. Allow the battery to charge normally.

If this normal recovery process does not work (charging status indicator will not flash and the battery gauge LEDs will not light), perform the procedure in [Table 15](#).

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MODEL X10 TABLET COMPUTER**Table 15. Recover an Over-discharged Battery.**

STEP	ACTION
1.	Remove both batteries.
2.	Wait 5 seconds.
3.	Reinstall both batteries.
4.	Repeat steps 1-4 up to a maximum of five times.
5.	If the batteries still fail to start re-charging, they will have to be replaced.

The following suggestions will help to prevent an over-discharge condition from occurring.

- In Windows Control Panel, Power Options, ensure the low power alarm is set to **9%** and the critical alarm is set to **3%** with the Alarm Action set to shut down the system. Refer to [Setting Low Level and Critical Battery Alarms](#).
- Do not store the Armor X10 Tablet Computer for long periods with the batteries installed. Even when the unit is powered off, the tablet still draws a small amount of power.
- Do not leave the Armor Table X10 batteries in a discharged condition for long periods of time. The X10 batteries self-discharge over time. The batteries should be periodically recharged to between 30-50% of full charge about every six months of disuse.

How to Increase Battery Service Time

The total service time, or the time that a full battery charge can support normal operations, for the ARMOR X10 is approximately 4 hours with two batteries installed. However, this is dependent on a variety of factors including temperature, backlight requirements and computer usage. To ensure maximum performance of the batteries, you will need to optimize your computer's power management features.

Click on **Start → Control Panel → Power Options**. This will open the Power Options Properties screen. Here you will find power-saving and alarm settings. You will also be able to configure stand-by and hibernate modes.

When to Replace a Battery

MODEL X10 TABLET COMPUTER

Battery life is affected by the age of the battery, its operating temperature, and the number of discharge/charge cycles that it goes through over time. For optimum battery performance, it is recommended that you replace your batteries according to the following schedule (**NOTE:** "Normal ambient temperature" is room temperature in the range of +50°F to +73°F (+10°C to +23°C)).

Table 16. ARMOR X10 Battery Replacement Schedule

NORMAL USAGE	AT NORMAL AMBIENT TEMPS	AT EXTREME AMBIENT TEMPS
Stand alone or in a Desk Dock	1 yr or after 300-400 cycles	1 yr or after 200-300 cycles
In a Vehicle Dock	2 yrs or after 300-400 cycles	2 yrs or after 200-300 cycles

To determine the battery date, check the Lot number on the battery label (see [Figure 53](#)). This number is the date the battery was shipped. In the example shown, 0808 would represent September 2008 so the recommended replacement date would be September 2009.

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Figure 53. ARMOR X10 Battery Label

Where to Purchase Replacement Batteries

Your ARMOR X10 uses long lasting Lithium Ion batteries that are custom made for DRS Tactical Systems, Inc. If you need to purchase replacement batteries, notify your sales representative or contact [DRS Technical Support](#).


Do not substitute any other batteries. Substituting batteries could damage the X10 and may void your warranty.

MODEL X10 TABLET COMPUTER**How to Store Batteries When They Are Not in Use**

The following storage tips will help you optimize the capacity and performance of your batteries.

- If the battery will not be in use for longer than 30 days, it is recommended that it be removed from the computer for storage.
- Store batteries between temperatures of 32°F to 95°F (0°C to 35°C) and a humidity of 45-85%. The best place to store them is in a refrigerator or freezer.
- Do not leave batteries in direct sunlight or any other unusually hot location. Your battery may deteriorate more quickly if stored in high temperatures such as a vehicle in the hot sun.
- Do not expose battery terminals to metal objects or water, which may short-circuit your battery.
- For long-term storage, it's best to recharge as necessary to keep the battery level between 30%–50% of full charge (to check the battery charge, insert the battery in the computer, power up, and double-click on the Power Meter icon in the Task Bar).

Battery Tips for Best Performance

- Recharge the batteries within 24 hours of a full discharge. Batteries remaining in a fully discharged state longer than 24 hours may deteriorate more quickly.
- Battery charging should be done at temperatures between 32°F (0°C) to 95°F (35°C), but preferably at room temperature. The battery could deteriorate more quickly when charged at high temperatures.
- Discharging should be done at temperatures between –10°C to +60°C, preferably room temperature.
- You should perform a full discharge to the 10% level for each battery in operation every 30 cycles (click on the ARMOR Utilities icon  in the task bar tray or select **Start → All Programs → Armor Utilities → Batteries** to see the number of accumulated charge cycles).
- Ideally you should fully discharge a battery pack every time before recharging it. By charging the battery only after it is fully discharged, you will reduce the number of charge cycles and thus extend the life of your battery.
- When operating your ARMOR X10 on external power for extended periods of time (1 week or longer), it's best to remove the batteries and store them in a cool place until needed. If they will be removed for longer than 30 days, see [How to Store Batteries When They Are Not in Use](#)
- If possible, allow a battery to warm or cool to room temperature before installing it in the computer.

MODEL X10 TABLET COMPUTER**Disposing Of Your Batteries**

Lithium-ion batteries are fully recyclable and should not be simply thrown away. Please help protect our environment by turning in your defective batteries to an authorized recycler, or send them back to DRS.

DRS Tactical Systems, Inc, supports recycling of batteries and will take back your batteries using a Returned Material Authorization (RMA) form. Please contact the DRS Technical Support center toll-free at 1-888-872-1100 for more information.

Follow these precautions when handling or returning used batteries:

- Insulate the battery contacts with tape.
- Do not disassemble the batteries.
- Do not expose the batteries to flame or high heat.





Li-ion



MODEL X10 TABLET COMPUTER

Monitoring and Improving Battery Performance

Using the Power Meter Window

You can easily monitor the current charge level of each battery by opening the Power Meter window, as shown in [Figure 54](#). To open the Power Meter window, double-click on the battery icon  (if operating on batteries only) or the plug icon  (if external power is connected) in the Windows task bar. You can also open the window by selecting **Start** → **Control Panel** → **Power Options** and clicking on the **Power Meter** tab.

Battery #1 is the left-most battery when looking at the battery compartments from the back of the computer (see [Figure 17](#)). Battery #1 is also referred to as the “primary battery”. Battery #2 is the right-hand battery and is also referred to as the “secondary battery”. This window shows the total battery power remaining as a percentage of total charge. It also indicates the total operating time remaining for the current battery charge.

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NOTE

You must check the “Always show icon on the taskbar” option in this window for the icon to appear in the task bar.

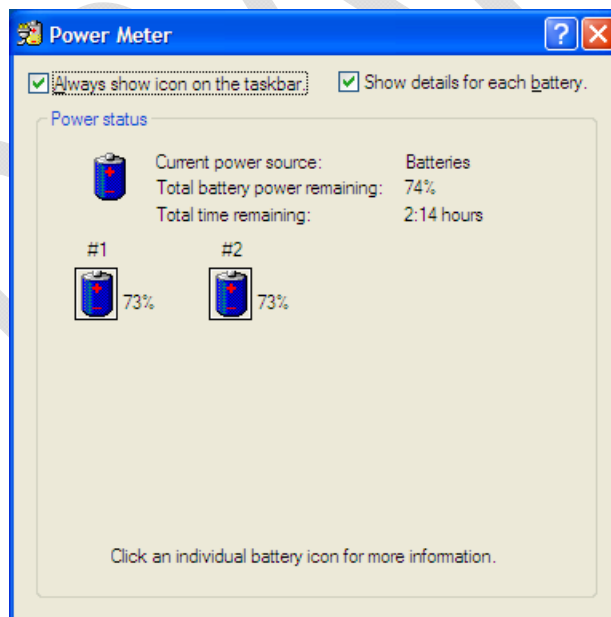


Figure 54. Battery Charge Status in the Power Meter Window

MODEL X10 TABLET COMPUTER**Using the ARMOR Utilities Batteries Tab**

You can also check the battery charge status by selecting **Start** → **All Programs** → **Armor Utilities** and select the **Batteries** tab to open the window shown in [Figure 55](#). A description of this window is found in ARMOR Utilities [Batteries Tab](#).

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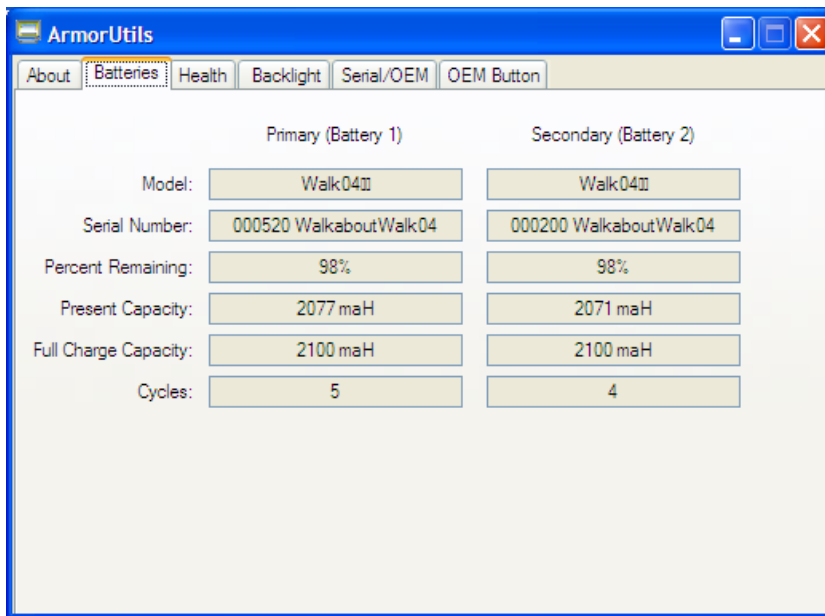



Figure 55. Armor Utilities Batteries Tab

MODEL X10 TABLET COMPUTER

Setting Low Level and Critical Battery Alarms

You can set a warning alarm that is activated when your battery falls below the levels you have defined as low level and critical. This is done through the Alarms tab of the Power Options window in Control Panel. Follow the procedure in [Table 17](#), to set the low level and critical battery alarms.

Table 17. Set Low Level and Critical Battery Alarms.

STEP	ACTION	CONDITION OR INDICATION
1.	Select Start → Control Panel and double-click on the Power Options icon.	
2.	Select the Alarms tab.	The Alarms tab window opens, as shown in Figure 56 .
3.	Under Low battery alarm and Critical battery alarm , specify the settings that you want by moving the sliders.	 NOTE <i>It is recommended that you set the low battery alarm point to 9% and the critical alarm point to 3%.</i>
4.	Click on Alarm Action to select the type of alarm notification and resulting action you want to occur for each alarm.	

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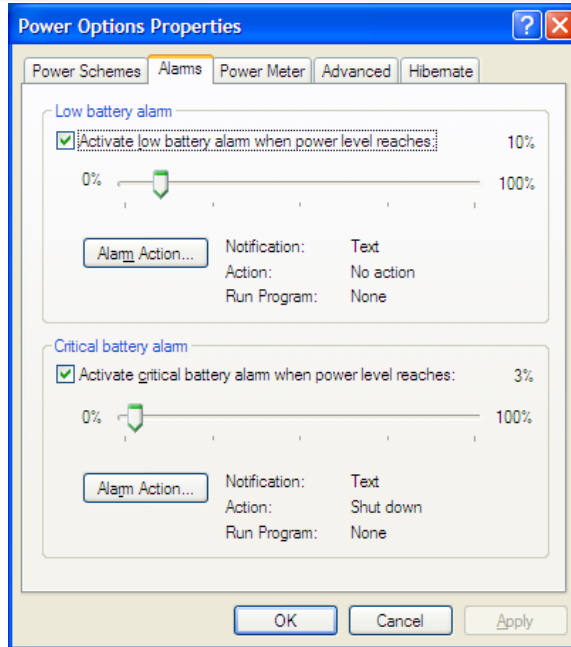

MODEL X10 TABLET COMPUTER

Figure 56. Alarms Tab of the Power Options Properties Window

Turning Off Power-Consuming Peripherals

Peripheral devices on your computer use power. For instance, your display draws significant power from the batteries as does your hard drive and your wireless adapter. USB devices such as external CD-ROM drives or printers can draw power even when not in use. Because these peripherals together can draw a significant amount of power, you should consider shutting them down when they are not needed, or temporarily disabling them in software after a set time delay. You can do this for your display and your hard drives in **Control Panel/Power Options**.

To shut off your wireless card, click on the wireless icon  in the task bar or click on **Start → All Programs → IntelPROSet /Wireless** to open the Intel PROSet/Wireless window. Click on the down arrow to the right of the **Wireless On** button, then select **Wireless Off**. To turn the wireless card back on, select the **Wireless On** option.

MODEL X10 TABLET COMPUTER**Using Power Schemes to Conserve Batteries**

Power schemes are a collection of settings that manage the power usage of your computer. With the options in the Power Schemes tab of the Power Options Properties window, you can:

- Select from a number of pre-configured power schemes that are available in Power Options in the Control Panel.
- Adjust individual settings of any available power scheme.
- Create your own power schemes to suit your particular system and preferences.

To access the Power Schemes tab, select **Start → Control Panel → Power Options**. The Power Options Properties window opens with the Power Schemes tab displayed by default, as shown in [Figure 57](#).

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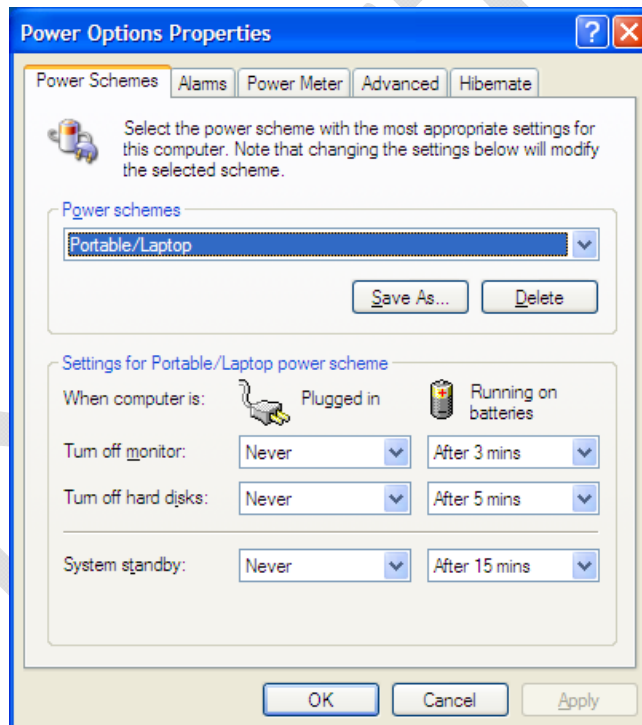


Figure 57. Power Schemes Tab of the Power Options Properties Window

MODEL X10 TABLET COMPUTER**Selecting a Pre-Configured Power Scheme**

Click on the down-arrow to the right of the Power Schemes field and select one of the available power schemes, as shown in [Figure 58](#). The setup parameters for that scheme will appear in the **Plugged in** and **Running on batteries** columns. "Portable/Laptop" is the default power scheme.

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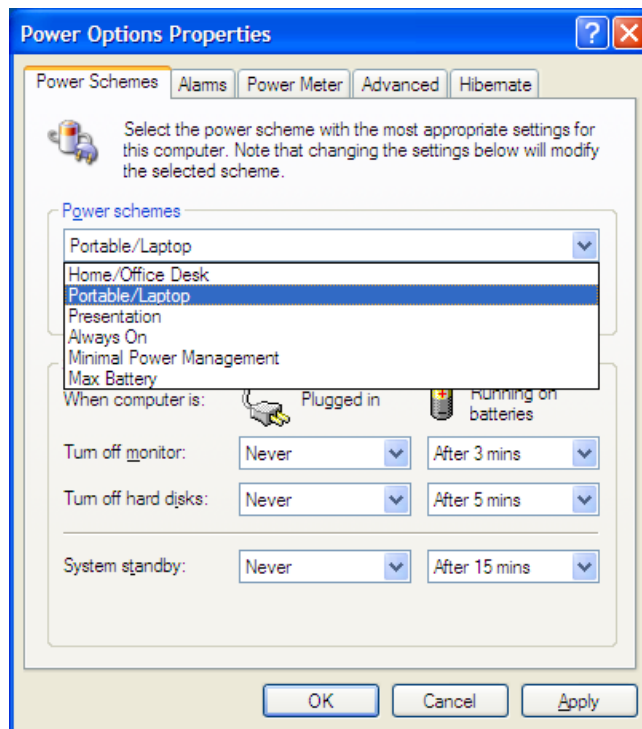


Figure 58. Power Schemes Tab Showing Available Power Schemes

Customizing a Power Scheme

You can customize an available power scheme to fit your needs and then rename it and save it as your own scheme. Just select an available power scheme from the drop-down list and change the settings in the available fields. When you have the settings the way you want them, click on the **Save As** button and enter the name you want for your new power scheme, then click **OK**. Your new power scheme will appear in the Power Schemes listing.

MODEL X10 TABLET COMPUTER

Activating Standby Power Mode

Standby mode is a low-power state in which your LCD and CPU turn off after a period of inactivity. When you want to use the computer again, it comes out of standby quickly and your desktop is restored exactly as you left it. Use the standby power mode to save battery power when you will be away from the computer for short periods of time.

**NOTE**

The terms “stand by” and “standby” are used interchangeably.

To enable standby mode, open the Power Schemes tab and select a time delay in both the **Plugged in** and **Running on batteries** columns. Your X10 will automatically go to standby mode after the preset time delays.

To manually force the computer into standby, select **Start → Turn Off Computer** and click on the **Stand By** button.

Activating Hibernation Power Mode

Hibernation mode is a state in which your computer shuts down to save power but first saves the any data in memory to your hard disk. When you restart the computer, your desktop is restored exactly as you left it and you can resume any work you had in progress. Use hibernation mode to save power when you will be away from the computer for an extended period of time.

Enabling and Configuring Hibernation Mode

To enable Hibernation power mode and configure it for your operations, follow the procedure in [Table 18](#).

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**NOTE**

Your ARMOR X10 will automatically go into Hibernation mode when the configured time delays expire. To resume from the hibernation mode, restart your computer using the Power On/Off button. Your desktop and any work in progress will be restored as you left it.

MODEL X10 TABLET COMPUTER

Table 18. Enable and Configure Hibernation Mode

STEP	ACTION	CONDITION OR INDICATION
1.	Click on Start → Control Panel → Power Options and select the Hibernate tab.	The Hibernate tab is displayed, as shown in Figure 59 .
2.	In the Disk space for hibernation section, verify that you have sufficient free disk space remaining to use the hibernation mode.	

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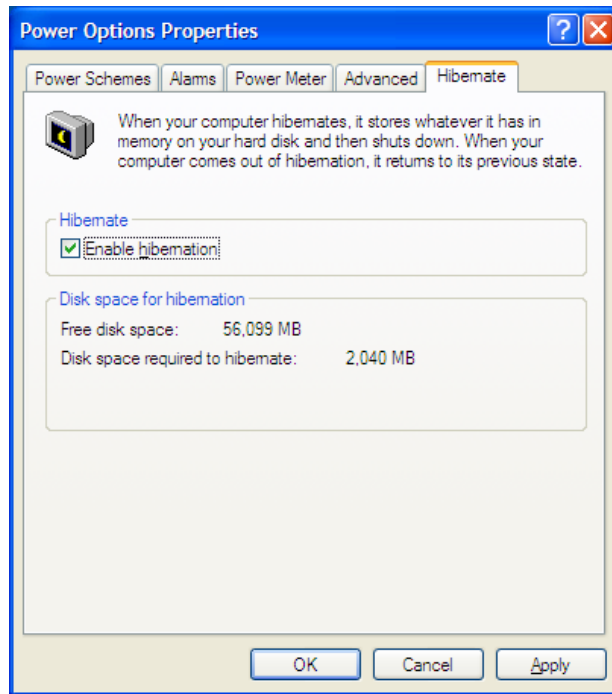


Figure 59. Hibernate Tab of the Power Options Properties Window

MODEL X10 TABLET COMPUTER

3.	Check the Enable Hibernation option and click on the Apply button at the bottom of the window.	
4.	Click on the Power Schemes tab.	The System hibernates settings are now available under the System standby settings.
5.	Select the time delays for the System hibernates settings in the Plugged in and Running on batteries columns.	
6.	Click OK to save the settings.	

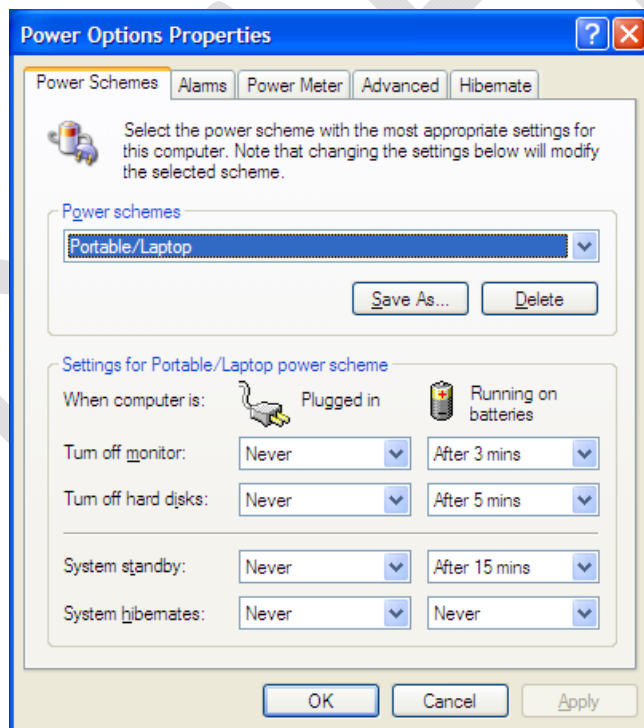


Figure 60. Power Schemes Tab with Hibernation Mode Enabled

MODEL X10 TABLET COMPUTER**Manually Activating Hibernation Mode**

Follow the procedure in [Table 19](#) to manually force the X10 into hibernation mode.

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Table 19. Manually Activate Hibernation Mode

STEP	ACTION	CONDITION OR INDICATION
1.	Click on the Input Panel icon in the Task Bar to open the Input Panel.	
2.	Select the on-screen keyboard by clicking on the bottom button on the left side of the panel.	
3.	On the Task Bar, Click on Start → Turn Off Computer .	The “Turn off computer” window will open.
4.	Tap on the keyboard Shift key to activate it.	The yellow Standby key label changes to “ Hibernate .”
5.	Click on the Hibernate button to place the computer in hibernation mode.	The computer will do an orderly shutdown and turn off. Any work in progress will be saved in memory and you can resume where you left off when you restart the tablet.
6.	Perform a normal startup to resume you session.	

MODEL X10 TABLET COMPUTER

12. Frequently Asked Questions

Following is a list of frequently asked questions about the ARMOR X10. If you don't see an answer to your question here, please contact DRS Technical Support at 888-872-1100 and one of our representatives will be happy to help you.

1. What Options Are Available For Loading Software Onto The ARMOR X10?

- Any USB storage device, i.e., CD-ROM/DVD drive, flash drive, floppy drive, etc.
- Wireless LAN
- Bluetooth wireless devices
- Direct Cable Connection

2. How Do I Install Drivers For Peripheral Devices Sold By DRS Technologies?

The device drivers for your peripherals were pre-installed on your hard drive prior to shipping. They are located on your C drive in a folder labeled "Drivers". If you order a new peripheral, the device drivers will either be on a disk shipped with the device or DRS will provide you with a source to download the drivers.

If you are not familiar with how to update drivers, request assistance from your IT support or contact DRS Technical Support at 888-872-1100.

3. How Do I Install Drivers For Peripheral Devices Not Sold By DRS Technologies?

First, contact the manufacturer or vender where you purchased your peripheral or search the internet for the latest drivers and instructions for loading the drivers.

If you still cannot locate the correct driver(s), contact DRS Technical Support at 888-872-1100 and we will attempt to help you.

4. What External Peripherals Does the ARMOR X10 Support?

Tablet only:

- 1 USB device – CD-ROM/DVD drive, printers, flash drives, etc.
- 1 RJ45 device – network printer
- 1-2 PCMCIA devices
- 1 Flexspace device
- Bluetooth wireless devices


With a docking station or port replicator:

- Up to 4 additional USB devices
- Up to 3 serial devices
- Second display or video device
- 1 Flexspace device

MODEL X10 TABLET COMPUTER

- Bluetooth wireless devices
- 1 standard parallel port device
- Up to two audio speakers

5. How Do I Activate the On-Screen Keyboard?

Click on the Input Panel icon  on the task bar and then select the bottom mode button on the left side of the panel, as shown in [Figure 39](#). For additional information, refer to [On-screen Keyboard](#).

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6. How Can Hand Writing Recognition Be Disabled?

- For XP Tablet Computer Edition, the handwriting recognition cannot be disabled.
- For MS Pen services, open the control panel applet for Hand Writer Settings. There is an option located under the Personal tab that will allow you to set the time delay for "Switch from Ink to Text Selection". Set this adjustment to the left (0.0 seconds) to disable Hand Writer Recognition.
- For Calligrapher, the handwriting recognition is only active when the calligrapher program is running.

7. How Can I Open the Windows Task Manager (Ctrl-Alt-Del) Without A Keyboard?

Press and hold the **OEM** button on the PC Control Panel for 4-5 seconds.

8. What Do I Do If My X10 Locks Up Or Freezes?

- Press and hold the OEM button on the PC Control Panel for 4-5 seconds to invoke the **CTRL-ALT-DEL** function. Select the **Applications** tab and highlight the offending application, then click on **End Task**.



CAUTION!

Be careful shutting down SYSTEM processes. Killing the wrong process could render the X10 inoperative or cause an immediate shutdown.

- If shutting down the application does not work, select the **Processes** tab. Highlight the process that is locked and then click on **End Process**.
- If this does not fix the problem, press and hold the **Power On/Off** button for five seconds to force a "hardware shutdown". Any work in progress will be lost.

9. How Do I Clean The Docking (Champ) Connector On The Back Of The ARMOR X10?

A non-metallic bristle brush can be used to clean out any dust or foreign particles. DRS recommends that you not lubricate the connector as this could interfere with data transmission and result in degraded performance.

MODEL X10 TABLET COMPUTER**10. How Do I Clean The Display Surface?**

When possible, remove loose dust and dirt from the display surface first with clean, dry compressed air. Do not use high pressure air (>60 psi) or any abrasive cleaner. Use a lint-free cotton swab or soft bristle brush to remove foreign matter around the edges of the display.

Wipe the display surface with any non-ammonia based glass cleaner. Always spray the glass cleaner on the cloth or towel first and then wipe the screen.

11. What Do I Do When The Pen Gets Out Of Calibration?**NOTE**

Use this procedure only for pen tablets.

Follow the procedure in [Calibrating the Active Pen Screen](#).

12. What If The Pen Still Will Not Align?

Check that the Windows Display settings have not been altered to a screen resolution other than factory default (1024 x 768 pixels, 32 bit color quality). If so, adjust the setting to factory default, reboot the unit and re-attempt pen alignment.

13. What Can I Do When The “Start” Button Disappears?

In pen computing, it is not uncommon for a user to inadvertently resize the task bar so that it is not visible on the screen.

First, attempt to recover the start button and task bar by moving around the edges of the display to see if you will get a double arrow. If you get a double arrow, simply drag the task bar to the size you need.

If not corrected, follow these directions (**NOTE:** you will need to attach a USB keyboard to perform this function. Do not attempt to use the pen during this process).

- a. Press and hold the <CTRL> key and then press the <ESC> key to display the “Start” menu.
- b. Press the <ESC> button and the menu will disappear. You have now placed the focus on the “Start” button.
- c. Press <ALT>, <SPACEBAR> keys in combination to display a context menu.
- d. Use the cursor keys to navigate in the context menu and highlight “Size”.
- e. Press <ENTER> and the pointer will move to the middle of the taskbar along the edge of the display and become a two-way arrow.
- f. Using the cursor key, size the task bar to your preference.
- g. Press the <ENTER> key to set the task bar size.

MODEL X10 TABLET COMPUTER

h. To avoid this problem in the future, try sizing the task bar to a size larger than the default. This can be done at your discretion. Windows XP also gives you the option of locking the task bar so this will not happen. We highly recommend locking your taskbar if you are using Windows XP. To lock your taskbar:

- 1) Right click on the taskbar.
- 2) Select the **Properties** tab.
- 3) Under task bar tab menu, check **“Lock the taskbar.”**

14. What Do I Do When The Battery Discharges and Will Not Charge In The Unit?

- First, try the recovery procedure described in [What to Do for Over-discharged Batteries](#).
- Next, try to charge a known good battery (if available) in the same battery compartment. If this works, then the battery in question is defective.
- If a known good battery fails to charge, then the internal battery charger has failed and the ARMOR X10 needs to be returned for service.

15. How is USB supported by The ARMOR X10?

- The ARMOR X10 is manufactured with a single USB connection on the side of the unit. This USB connection can be used for a wide variety of USB devices.
- The ARMOR X10 supports USB 1.1 and 2.0 functionality.
- DRS Tactical Systems can provide docking stations with a USB port that communicates with the ARMOR X10 via the docking connection.
- An externally powered USB Hub may be used on the X10 USB port.

16. What Are DRS Technical Support Hours Of Operation?

DRS Tactical Systems Inc. staffs the [Technical Support](#) call center 24 hours a day, 7 days a week.

MODEL X10 TABLET COMPUTER

13. DRS Technical Support

Before You Contact Us

Please have your local technical personnel check for network or custom software problems before contacting DRS Technical Support with a problem.

How to Obtain Warranty Service

Before proceeding, please read the [Warranty Information](#).

Notice: DRS reserves the right to charge a No Fault Found (NFF) fee for any unit returned for repair that is found to be fully operational.

1. Immediately notify DRS.

Inform DRS of your problem at one of the numbers below, or notify an authorized DRS Reseller.

In North America, call:	(888) 872-1100 or (321) 309-0599 – 24 hrs, 7 days a week
In the UK, call:	44-(0)-1252-730716
In Europe, call:	49-2246-915-99-77

2. Obtain a Return Merchandise Authorization (RMA) Number.

If it is determined that your product needs to be returned for replacement or repair, a customer service representative will give you an RMA number. The RMA number is required to return any product to DRS, regardless of the reason for the return.

MODEL X10 TABLET COMPUTER**If you already have a customer User Name and Password:**

You can choose to fill out our online RMA form in lieu of calling:

1. Go to www.drarmor.com.
2. Click on the **Support** tab and select **Online RMA**.
3. At the login screen, enter the following:
Username: drs
Password: drs
4. Click on **Send**.
5. Fill out the online form.
6. Print a copy of the form for your records.
7. Select **Send**.

3. Include the Following Required Information with Your Product(s):

- Company name, address and telephone number.
- RMA number received from DRS (if applicable).
- Serial number of the product.
- Date of purchase.
- Your ship-to address and any special shipping requirements.
- A detailed description of the problem.

4. Prepare your Products for Shipment.

- Use the original shipping container if possible to return your product.
- Remove the batteries and package them separately.
- If the original container is not available, wrap each item securely with bubble wrap or suitable cushioning material.
- Enclose a copy of the RMA form.
- Enclose a description of the problem and any special notes for the repair technician.

MODEL X10 TABLET COMPUTER**5. Ship Your Product(s).**

Ship your products to one of the addresses listed below:

**NOTE**

Transportation and insurance costs must be prepaid. DRS is not responsible for loss or damage which may occur in transit.

**NOTE**

Before you ship any product(s) to DRS, be sure to back up the data on any hard drive(s) and any other storage device(s). Remove any confidential, proprietary or personal information and any removable media such as floppy disks, CDs or PC Cards. DRS is not responsible for any confidential, proprietary or personal information, lost or corrupted data, or damaged or lost removable media.

Ship to:**In North America, ship to:**

DRS Tactical Systems, Inc.
1110 West Hibiscus Boulevard
Melbourne, Florida 32901 USA
ATTN: Service

In Europe, ship to:

DRS Tactical Systems, LTD.
The Trading Estate
Farnham Surrey, GU9 9NN UK
ATTN: Brian Perkins

or:

International – Markus Breuch
Rathausstr. 10
53797 Lohmar, Germany
ATTN: Silke Zaigler

MODEL X10 TABLET COMPUTER

Once your product(s) are repaired or replaced under the terms specified in the warranty, DRS will return your product(s), with shipping pre-paid, to the address included with your RMA.

If You Need Further Information

Please call us, fax us, email us, or visit our website.

Call us:
In North America, call: (888) 872-1100 or (321) 309-0599
In the UK, call: 44-(0)-1252-730716
In Europe, call: 49-2246-915-99-77

Fax us:
In North America: 321-725-0496
In the UK, fax: 44-(0)-1252-730522
In Germany, fax: 49-2246-915-99-78

Email us:

For Support:
In North America or UK: support@drs-ts.com
In Europe: sales@drsarmor.eu

For Sales and Information
In North America or UK: Sales@drsarmor.com
In Europe, email: Sales@drsarmor.eu

Or Visit our website at: www.drsarmor.com

For translation in German, click on "**Deutsch**" at the top of the page.

MODEL X10 TABLET COMPUTER

Warranty Information

**DRS TACTICAL SYSTEMS, INC.
LIMITED WARRANTY – HARDWARE
ARMOR PRODUCTS**

General Information

DRS Tactical Systems, Inc. ("DRS") warrants for the duration of this warranty that the DRS ARMOR product(s) ("Product(s)") produced by DRS will be free from defects in material and workmanship under normal use and service, subject to the terms and conditions set forth herein. This warranty applies to the Products only and excludes, but is not limited to, all other products and accessories supplied and/or distributed but not manufactured by DRS.

This warranty extends only to the original purchaser of Products from DRS or a DRS Authorized Reseller ("Original Purchaser"). It is not transferable to anyone who subsequently purchases or obtains the Products from the Original Purchaser.

Length of Warranty

The warranty is valid for a period of three (3) years from the original date of the packing slip from DRS and/or an Authorized Reseller. During this period, DRS will, at its option and expense, either repair or replace with new or reconditioned (of equal or better quality) parts of any of the Products which prove to be defective, provided that such Products are returned in accordance with the terms of this warranty. All exchanged parts and Products replaced under this warranty will become the property of DRS. If repair or replacement is not feasible, DRS will, at its option, refund the purchase price of the Product(s) on a three year straight line depreciation basis. Any replacement part or Product will be warranted for the remainder of the original warranty period or ninety (90) days, whichever is longer.

Terms and Conditions

This warranty covers defects in materials and workmanship in the Products, as follows:

Term	3 years standard
Technical Assistance	Yes
Shipping Costs	Shipping costs of a Product to DRS are not included as part of this Warranty. Shipping costs of a Product to the Original Purchaser after a warranty repair is included as part of this warranty. If after receipt of a Product for repair under this warranty, it is later determined to be a non-warranted repair, all shipping costs are to be paid by the Original Purchaser.

This warranty does not cover:

- Non-DRS ARMOR products (accessories) under the original manufacturer's warranty including, but not limited to, the carrying case, PCMCIA cards, etc. Non-DRS ARMOR branded products are not covered under an extended warranty period.
- Software, including the operating system and software added to the DRS ARMOR hardware products through our factory-integration system, third-party software, or the reloading of software;
- Scratches or abrasions to the Product's LCD screen/display, and abusive wear of the LCD screens;
- Consumables and High Wear Items. Batteries, Keyboards, Touch Pad, Touch Screen, AC Adaptor, and liquid crystal display (LCD) are covered under the Limited Warranty for one (1) year.
- Problems that result from external causes such as accident, fire, floods, or acts of God; abuse; misuse; or problems with electrical power; servicing not authorized by DRS; failure to follow the Product instructions or failure to perform preventative maintenance; problems caused by using accessories, parts, or components not supplied by DRS; improper installation (to

MODEL X10 TABLET COMPUTER

include the absence of surge protection in vehicle installations), testing, operation, use or handling of the Product; or unauthorized alteration of Products

- Products with missing or altered service tags or serial numbers.
- Products for which DRS has not received payment.
- DRS is not responsible for and shall not be liable for transportation and insurance charges incurred in or damages resulting from transporting the Products, Accessories and/or Replacement Products to DRS for warranty service.
- DRS is not responsible for any third-party software created for use in the integration and/or operation of any Products, Accessories and/or Replacement Products whether or not such third party software was installed by DRS. Maintenance and support service for third-party software is the sole responsibility of the creator thereof.

Additional Information

The agents, dealers, DRS Authorized Resellers and employees of DRS are not authorized to make any modifications to this warranty, or additional warranties binding on DRS about or for Products, Accessories and/or products sold or supplied by DRS. Additional statements, whether oral or written, except signed written statements from an officer of DRS, do not constitute warranties and should not be relied upon.

The Product is not designed or certified for use in high risk applications including, but not limited to, the operation of nuclear facilities, aircraft navigation or air traffic control systems, communications systems in which a failure thereof could cause death or serious injury or property damage (e.g., emergency or 911 communications systems), medical systems, life support, weapons systems or any other potentially life critical uses. Original Purchaser understands and agrees that DRS makes no assurances or warranties that the Product is suitable for any such high risk uses.

DRS' SOLE LIABILITY, AND ORIGINAL PURCHASER'S SOLE REMEDY, FOR ANY MALFUNCTIONS AND DEFECTS IN THE PRODUCTS IS LIMITED TO REPAIR AND REPLACEMENT AS SET FORTH IN THIS WARRANTY STATEMENT. EXCEPT AS OTHERWISE EXPRESSLY STATED HEREIN, DRS DISCLAIMS ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ANY IMPLIED WARRANTIES OTHERWISE ARISING FROM COURSE OF DEALING OR TRADE. NO WARRANTIES WILL APPLY AFTER THE WARRANTY PERIOD HAS EXPIRED.

DRS HEREBY DISCLAIMS, AND THE ORIGINAL PURCHASER HEREBY AGREES, THAT DRS DOES NOT ACCEPT LIABILITY BEYOND THE REMEDIES PROVIDED FOR IN THIS WARRANTY OR FOR ANY INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, ANY LIABILITY FOR THIRD PARTY CLAIMS FOR DAMAGES, FOR PRODUCTS NOT BEING AVAILABLE FOR USE, OR FOR LOST DATA OR LOST SOFTWARE. NOTWITHSTANDING ANYTHING CONTAINED HEREIN, DRS' TOTAL LIABILITY FOR ANY ALLEGED OR ACTUAL BREACH OF WARRANTY WILL BE NO MORE THAN THE AMOUNT PAID FOR THE PRODUCT THAT IS THE SUBJECT OF ANY SUCH CLAIM. THIS IS THE MAXIMUM AMOUNT FOR WHICH DRS SHALL BE RESPONSIBLE.

MODEL X10 TABLET COMPUTER

14. Acronyms and Glossary

Acronyms

ACRONYM	DEFINITION
AC	alternating current
BIOS	basic input/output system
CD-ROM	compact disk – read only memory
CPU	central processing unit
DC	direct current
DVD	digital video disk
GB	gigabytes
GPS	global positioning satellite system
HDD	hard disk drive
I/O	Input/Output
LCD	liquid-crystal display
LED	light-emitting diode
OEM	original equipment manufacturer
PC	personal computer
PCMCIA	personal computer memory card international association
ppi	pixels per inch
RAM	random access memory
SIM card	subscriber identity module
SmBus	system management bus
SODIMM	small outline dual in-line memory module

MODEL X10 TABLET COMPUTER

SSHD	solid-state hard drive
SVGA	super VGA (maximum of 800 x600 ppi)
TFT	thin-film transistor
USB	universal serial bus
VAC	volts AC
VDC	volts DC
VGA	video graphics array
XGA	extended VGA (1024 x 768 ppi)

Glossary

TERM	DEFINITION
ambient temperature	The temperature of the air surrounding an object
fully depleted battery	A lithium-ion battery that has discharged to a level of 3 % or below.
fully charged battery	A lithium-ion battery that has reached 100% of charge as indicated by a steady 100% LED on the Battery Gauge on the PC Control Panel.
fully discharged battery	A lithium-ion battery that has discharged to a level between 10% and 3% of charge, as indicated by a flashing 10% LED on the Battery Gauge.
Flexspace device	A custom circuit card that is mounted in a special compartment in the computer and connected to the X10 with a flexible communications interface.

MODEL X10 TABLET COMPUTER**RECORD OF CHANGES**

Rev	ECO#	Description Of Change
-	58633	Initial Release.
A	73341	Reorganized manual. Updated front and back covers. Updated tablet images and logos.
B	74704	See detailed record of changes following this page.

MODEL X10 TABLET COMPUTER**DETAILED RECORD OF CHANGES**

Document No: 9711-40132-0001		Title: ARMOR X10 User's Guide	
New Revision: B			
#	Additions / Corrections / Changes:		
	NOTE: Page numbers in this listing are based on the previous revision. Page numbering has changed significantly in this new revision.		
	NOTE: Referenced Figure and Table numbers in this list may be different from those shown in the manual. Check attached copy of manual for latest updates.		
1.	Global – Underlined all Figure and Table references and changed font color to blue.		
2.	Global – Replaced “DC Power Supply” with “AC Adapter”.		
3.	Global – Realigned page breaks - note new page numbering. All Heading 1 (numbered sections) should start on an odd page.		
4.	Global – Changed “ARMOR Technical Support” to “DRS Technical Support.		
5.	Global – Removed periods after all Table and Figure titles.		
6.	Global – Changed bulleting tab spaces from 0 to .5.		
7.	Global – Changed list spacing to 3 pt before/3 pt after, single spacing.		
8.	Global – Updated all figure, table, and hyperlinked references.		
9.	Page 2: ARMOR Accessories image, inside cover – Updated image and labels.		
10.	Page 3: Moved “Special Notes” from page 51 to after the Trade Statement. “Special Notes” changed to “NOTICE:” Added compliance statements for Industry Canada. Added compliance with ATEX directive.		
11.	Page 6: Warning Summary, second CAUTION -Changed “SmBus Pro” to “Rapid Battery”. Third CAUTION - Changed “such as an AC power supply and docking station” to “such as with the DC power supply connected to the computer and vehicle power connected to the docking station”. Last WARNING - Revised first part of sentence: “Changes or modifications not performed by, or expressly authorized by, DRS ~.”		

MODEL X10 TABLET COMPUTER

Document No: 9711-40132-0001		Title: ARMOR X10 User's Guide	
New Revision: B			
#	Additions / Corrections / Changes:		
	Added four new CAUTIONs.		
12.	<p>Page 15: Figure description revised to read: "The ARMOR X10 ruggedized tablet computer can be mounted in a desk docking station or vehicle dock (shown here in a desk dock with a compact keyboard)."</p> <p>Last sentence of last paragraph changed to following: "You can write and perform operations directly on the screen, work with a virtual on-screen keyboard, or attach a USB keyboard (compact keyboard, standard-sized USB keyboard, or a Bluetooth keyboard)."</p> <p>Added 3rd paragraph: "We take pride in providing high-quality products and superior customer service. Thank you for choosing the DRS ARMOR X10 Tablet Computer, and for your trust in the ARMOR line of products."</p>		
13.	<p>Page 16: Figure 1 – Deleted one battery.</p> <p>Changed label from "Batteries" to "Battery".</p> <p>Changed stylus label to: "Stylus with Lanyard."</p> <p>Added shoulder strap image and label and rearranged accessories.</p> <p>Replaced other images with higher resolution images.</p>		
14.	<p>Page 17: "ARMOR X10 Documentation", 1st sentence: Revised: "The following documents are contained on your ARMOR X10 Tablet Computer in PDF format. To access these documents, double-click on the appropriate icon on the desktop."</p> <p>Added new bullet #1 – "ARMOR X10 User's Guide – Provides operating information and descriptions of all controls and indicators. Contains necessary procedures to setup and operate the ARMOR X10."</p> <p>Last paragraph, last sentence – Revised text in parentheses to: "(compact keyboard shown above, standard-sized USB keyboard, or Bluetooth keyboard)."</p>		
15.	<p>Page 18: Deleted extra carriage return before page 19 which caused following page numbers to be off by 1.</p> <p>"Help Us Maintain Top Quality Documentation" title – Added "Please" before "Help".</p> <p>Deleted last paragraph.</p>		
16.	<p>Page 20: "Key Features" section, 1st sentence – Revised to read: "The following paragraphs and images describe the principal components, controls, indicators, connectors and accessories of the ARMOR X10."</p>		

MODEL X10 TABLET COMPUTER

Document No: 9711-40132-0001	Title: ARMOR X10 User's Guide
New Revision: B	
#	Additions / Corrections / Changes:
	<p>Added three new paragraphs after the NOTE.</p> <p>"Key Features" section, 1st paragraph – Modified 1st sentence to read: "The following paragraphs and images describe the principal components, controls, indicators and connectors, and included and optional accessories."</p> <p>Changed "Touch-Sensitive Screen" label to "Active Pen or Touch-Sensitive Screen" and moved label to top of figure.</p> <p>Changed "Optional GPS/GPRS Antennas" label to "Optional GPS Antenna".</p> <p>Moved "PC Control Panel" label to top of figure.</p>
17.	Page 22: Added label: "Secondary WI-FI Antenna (Behind Cover)."
18.	Page 23: Added "Serial Number" label to Figure 5.
19.	Page 24: Reduced arrowhead sizes to medium size.
20.	<p>Page 25: Power Indicator section - Changed "whenever power is applied" to "whenever the X10 is powered up."</p> <p>"Battery Gauge Indicators" section – Revised first paragraph to read: "The Battery Gauge consists of five LEDs that are used to indicate the charge remaining in your battery or batteries. Each light represents approximately 20% of the average charge of two batteries or the remaining charge of a single battery."</p> <p>Revised second paragraph to read: "When all five LEDs are lit and the charging status indicator is on steady, the batteries are fully charged. As the batteries are used, the LEDs will turn off from top to bottom to indicate the remaining charge. Each LED will blink upon transitioning to next lower charge level indicator."</p> <p>Brightness Control section - Deleted "or from an attached keyboard" from second sentence.</p>
21.	<p>Page 26: Changed main section title "Removable Components" to "Removable Components and Accessories".</p> <p>Changed section title "Removable Batteries" to "Battery Pack."</p> <p>1st paragraph, 3rd sentence – Revised: "Two fully-charged battery packs will provide up to 4 hours of operation depending on the workload on the computer."</p> <p>Figure 8 label – Changed "Battery" to "Battery Pack".</p> <p>Hard Drive section - 1st sentence, changed "is equipped" to "comes equipped".</p>

MODEL X10 TABLET COMPUTER

Document No: 9711-40132-0001		Title: ARMOR X10 User's Guide	
New Revision: B			
#	Additions / Corrections / Changes:		
	<p>Last sentence of 1st paragraph - Changed "sizes" to "capacities".</p> <p>Added sentence after last sentence: "This drive should only be removed or installed by a qualified technician."</p>		
22.	<p>Page 27: Added "AC Adapter" section and figure ahead of PCMCIA card section.</p> <p>Added new Heading 2 title: "Optional Accessories for your X10" with description ahead of PCMCIA card section.</p> <p>Renamed "PCMCIA Card (Optional)" section to "PCMCIA Cards"</p> <p>1st sentence rewritten to: "Your ARMOR X10 provides two PC/PCMCIA card slots that can accommodate either two Type II cards or a single Type III card."</p> <p>Added second sentence: "These cards can provide enhanced features such as extended communications capabilities and additional memory capacity."</p> <p>Added "Subscriber Identity Module (SIM) Card" section with description.</p> <p>Added "Compact Keyboard" section with description and figure.</p> <p>Added "Two-Bay External Battery Charger" section with figure.</p> <p>Added "Vehicle DC/DC Power Supply" section with figure.</p> <p>Added "Docking Stations" section with figure.</p> <p>Added "Port Replicator" section with figure.</p> <p>Added "Vehicle Docks" section with figure.</p> <p>Added sentence at end of optional accessories section: "For information on these and any other accessories, please contact your ARMOR sales representative or call DRS Tactical Systems toll free at 1-888-872-1100."</p>		
23.	<p>Page 28: Figure 7 - Redrew "Battery Gauge Indicators" arrows.</p>		
24.	<p>Page 30: Added NOTE after "Installing the Battery Packs" heading: "If your X10 came with only one battery, install it in the Primary battery compartment."</p> <p>Changed battery compartment labels to place battery #s in parentheses.</p> <p>Added SIM card label to Figure 10.</p>		
25.	<p>Page 33: Added new title "Using the Stylus" ahead of 1st paragraph.</p> <p>Revised 1st sentence of 1st paragraph of "Touch Screen Operations" – "If your tablet is equipped with a touchscreen display, the stylus is the primary means of operating the</p>		

MODEL X10 TABLET COMPUTER

Document No: 9711-40132-0001	Title: ARMOR X10 User's Guide
New Revision: B	
#	Additions / Corrections / Changes:
	<p>computer.”</p> <p>Added NOTE after Table 2 – “If you have a touch tablet, <u>do not</u> use the Tablet and Pen Settings window in Control Panel to calibrate the screen. Doing so could cause the loss of screen calibration.”</p> <p>Added following sentence after NOTE: “After a period of normal usage, the screen may need to be calibrated with the stylus to ensure the actual touch point matches the position of the cursor. To perform this calibration, refer to Calibrating the Touch Screen.”</p> <p>Added new section “Configuring Your Touch Tablet for Screen Rotation”.</p> <p>Added new Table 3.</p>
26.	Page 34: Moved “Screen Rotation” section after “Pen Operations” section.
27.	<p>Page 35: “Pen Operations” section, 1st sentence changed to read: “If your ARMOR X10 is a pen tablet, the pen is the primary screen navigation and data entry tool.”</p> <p>2nd paragraph, 2nd sentence – Deleted “on the pen”.</p> <p>Pen Adjustments section - Changed beginning of 1st sentence to read: “If your X10 uses the Windows XP Tablet PC operating system, you can adjust attributes related to use of the pen (e.g. tap speed, left/right hand orientation, etc.) by ~”</p> <p>Replaced second sentence with – “Refer to Tablet and Pen Settings for Windows XP for instructions.”</p> <p>Moved second paragraph to “Pen Screen Calibration and Settings (Pen Tablets Only)” section in “Display Management” section.</p> <p>Last paragraph, last sentence, changed to read: “To perform this calibration, refer to Calibrating the Active Pen Screen.”</p> <p>Inserted “Screen Rotation” section after “Pen Adjustments” section and renamed title to “Rotating the Screen”.</p> <p>“Rotating the Screen” section was completely revised (see revised manual).</p>
28.	<p>Page 36: “Operating with a Second Display” section, 2nd sentence, revised first part of sentence: “The built-in LCD panel has a maximum screen resolution of 800 x 600 (SVGA) or 1024 x 768 (XGA) pixels per inch (ppi), while ~ “</p> <p>First NOTE changed as follows: “The X10 tablet does not have an external video connector. You must have a docking station or port replicator to connect a second display”.</p> <p>Table 3 is now Table 4.</p>

MODEL X10 TABLET COMPUTER

Document No: 9711-40132-0001		Title: ARMOR X10 User's Guide	
New Revision: B			
#	Additions / Corrections / Changes:		
29.	<p>Page 37: "Working with the Extended Desktop" section - Moved last paragraph to 2nd paragraph.</p> <p>Now last paragraph, changed the first sentence to read: "Using a mouse, you can sweep the cursor back and forth between displays as if the two displays were one desktop."</p>		
30.	<p>Page 38: Changed "Using the Stylus with the Extended Desktop" section title to "Using the Stylus or Pen with the Extended Desktop."</p> <p>"Using the Stylus with the Extended Desktop" section, 1st sentence, revised to read: "Because the X10 is the only one of your two displays with a touch screen or active pen screen, you must make all cursor movements for both displays from the X10 tablet display."</p> <p>2nd paragraph – Removed double period from end of last sentence.</p>		
31.	<p>Page 41: Added two introductory paragraphs.</p> <p>Changed "Windows XP Tablet PC Edition Operating System" heading to "Windows XP Tablet Tutorials".</p> <p>Revised 1st paragraph into two paragraphs.</p> <p>Added "Microsoft" in front of "Windows" in "Help With Windows XP" section.</p>		
32.	<p>Page 42 et al: "Armor Utilities Panel" section, changed "Panel" to "Program" in title.</p> <p>Revised 1st paragraph into two paragraphs.</p> <p>Added figures and descriptions for each tab.</p>		
33.	<p>Page 43: "Hampshire TSHARC Control Panel Utility" section - Revised description and added note.</p> <p>Added figures and descriptions for each tab.</p> <p>Added "Tablet and Pen Settings" section with figures and descriptions for each tab.</p> <p>"Intel PROSet Wireless Utility section" – Added three new sentences to description.</p>		
34.	<p>Page 44: Revised BlueSoleil description.</p> <p>Revised "Realtek Audio Manager" description.</p> <p>Changed title of last section to "Special Software Applications".</p> <p>Revised beginning of first sentence to read: "You may have software programs other than</p>		

MODEL X10 TABLET COMPUTER

Document No: 9711-40132-0001		Title: ARMOR X10 User's Guide	
New Revision: B			
#	Additions / Corrections / Changes:		
	those provided by DRS or the Windows ~".		
35.	<p>Page 45: Quick Reference Guide section – Changed title of section to “Quick Reference List”.</p> <p>Deleted second sentence in description.</p> <p>Changed title of Table 4 (now Table 5) to “Quick Reference List”.</p> <p>Row 1 - Separated Power Settings and Power Button Options into two separate entries.</p> <p>Row 3 - Changed task to “Monitor Internal Temperatures.”</p> <p>“Display Settings” task, changed title to “Screen Calibration and Touch Settings.”</p> <p>Same task, under OBJECTIVE column, for touch screen calibration cell, added “for touch tablets only” at end of sentence.</p> <p>Same task, under OBJECTIVE column, for active pen screen calibration, added :”for pen tablets only” at end of sentence.</p> <p>Deleted Serial Port Settings and Tablet and Pen Settings rows (last two rows).</p>		
36.	<p>Page 47: “Writing Pad” section, 1st sentence - Added “<u>(Figure 40)</u>” between “Pad” and “within”.</p> <p>“Character Pad” section, 1st sentence – Added “<u>(Figure 41)</u>” at end of sentence.</p> <p>“On-screen Keyboard” section, 1st sentence – Added “<u>(Figure 42)</u>” between “keyboard” and “when”.</p>		
37.	<p>Page 49: 1st paragraph, 2nd sentence – Revised to read: “For example, you can enter dictation as text into a program.”</p>		
38.	<p>Page 51: Changed section title from “Wireless Networking” to “Networking”.</p> <p>1st paragraph, revised 2nd and 3rd sentences: “The Bluetooth network is primarily used for connecting wireless devices such as a wireless printer or scanner to your computer. It can also connect your X10 to a network entry point.”</p> <p>Added 2nd paragraph: “The X10 can also be connected to a LAN using a standard Ethernet cable.”</p> <p>Moved “Special Notes” to ahead of Warning Summary section.</p> <p>Added “Managing Your Bluetooth Connections” section.</p> <p>Changed title “Accessing a Wireless Network” to “Managing Your Wireless LAN Connections.”</p>		

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MODEL X10 TABLET COMPUTER

Document No: 9711-40132-0001	Title: ARMOR X10 User's Guide
New Revision: B	
#	Additions / Corrections / Changes:
	<p>Revised paragraph into two paragraphs (see manual)</p> <p>Added final paragraph: "For additional information on using the Intel PROSet Wi-Fi application, click on the Help option."</p>
39.	<p>Page 52: "Turning Off the Wireless Card" section, second paragraph – Revised second sentence to read: "To shut off your wireless card, left-click on the wireless icon  in the task bar and select the Wireless Off option, or click on Start → All Programs → IntelPROSet /Wireless to open the Intel PROSet/Wireless window and then click on the button in the lower left of the window and select Wireless Off."</p> <p>Added third paragraph: "Note that the button is now labeled "Wireless Off". To turn the wireless card back on, select the Wireless On option."</p>
40.	<p>Page 53: Second paragraph and list – Deleted 1st bulleted item.</p> <p>Changed list from bulleted to numbered.</p> <p>Revised item 1 to read – "Left-click on the wireless icon  in the task bar and verify that the Wireless On option has a check by it. If not, select the Wireless On option to turn on the wireless radio."</p> <p>Item 4 – Changed "Avoid" to "Move away from."</p> <p>"Accessing a Network Using an Ethernet Cable" section – Change "RG45" to RJ-45".</p> <p>Revised description into two paragraphs (second paragraph is after Table 6) (see manual).</p> <p>1st paragraph, last sentence – Revised to read: "Follow the procedure in <u>Table 6</u> to set up a physical LAN connection."</p> <p>Table 5 (now Table 6) - Renumbered steps.</p> <p>Revised step 1 – "You will need to contact your IT department or internet provider to access the server and obtain an IP address for your X10."</p> <p>Revised step 4 – "Click Next and follow the instructions to set up your connection per your IT department or internet provider."</p>
41.	<p>Page 55: Added new "Flexspace" section at beginning of page.</p> <p>"NMEA Standard Support" section, second paragraph - Revised sentence to read: "For information and assistance with GPS capability, please contact DRS Tactical Systems toll free at 1-888-872-1100."</p>

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 [Table 6](#)

MODEL X10 TABLET COMPUTER

Document No: 9711-40132-0001		Title: ARMOR X10 User's Guide	
New Revision: B			
#	Additions / Corrections / Changes:		
42.	Page 56: Corrected "Chipset" entry under PARAMETER column to "GSC3f/LP-7879."		
43.	Pages 58-62: Deleted "General Packet Radio System" section.		
44.	Page 61: Changed "USSD phrase" to "USSD phase".		
45.	<p>Page 63: 3rd paragraph, 3rd sentence revised: "Even if the System Recovery CD is used, it looks for the backup data on the hard drive."</p> <p>4th paragraph: Added "all data saved" between the words "recover" and "from".</p> <p>"Disk Partitions" section, first sentence: Replaced "several" with "multiple."</p> <p>Deleted 3rd paragraph beginning with "The DRS-Acronis ~".</p>		
46.	<p>Page 64: "How to Access QuickBack ~" section, revised last sentence: "The startup screen is shown in <u>Figure 45</u>".</p>		
47.	<p>Page 65: Change title "Emergency Bootable CD" to "System Recovery CD".</p> <p>1st sentence, replace "an Emergency Bootable CD" with "a System Recovery CD."</p> <p>2nd sentence, replace "Emergency Bootable CD" with "Recovery CD."</p> <p>2nd paragraph, replace "Bootable" with "Recovery".</p> <p>For "CD/DVD", delete "/DVD".</p>		
48.	<p>Page 67: Added "Adjusting and" before "Maintaining" in section title.</p> <p>Added new section heading "Removal and Replacement" ahead of "Removing and Replacing the Hard Drive" section.</p> <p>"Removing and Replacing the Hard Drive" section – Added NOTE after title: "This drive should only be removed or installed by a qualified technician".</p> <p>Table 9 – Renumbered steps.</p> <p>Step 1(formerly step 6) - changed "over" to "carry case cover".</p> <p>Step 2 – Revised sentence to read: "Using a #1 Philips screwdriver, remove the four screws at the bottom right of the tablet securing the hard drive cover (see <u>Figure 6</u>) and remove the cover."</p> <p>Table 10 - added caution after Step 2 "Do not force the card into the slot. If it binds, remove the card and try again. Be sure the card is not cocked at an angle and spanning two slots."</p>		

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MODEL X10 TABLET COMPUTER

Document No: 9711-40132-0001		Title: ARMOR X10 User's Guide	
New Revision: B			
#	Additions / Corrections / Changes:		
	Changed 3 rd step to read: "Insert the replacement card carefully into the slot and press in until it seats. It should slide in smoothly."		
49.	<p>Page 68: Moved "Caring for the Touchscreen" to after "Adjusting the Click Settings for the Touch Screen Stylus" section.</p> <p>Moved the "Monitoring the Health of Your ARMOR X10" section to after the "Caring for the Pen Tablet Screen" section.</p>		
50.	<p>Page 70: Moved the "Configuring the OEM Button" section from Appendix A and placed it after the "Monitoring the Health of Your ARMOR X10" section.</p>		
51.	<p>Page 71: Consolidated first paragraph (formerly under "Manual Brightness Adjustment") with description under new heading "Adjusting the Display Brightness Manually".</p> <p>Changed heading "Adjusting the Backlight Level Manually Using the OEM Button" section title to "Using the OEM Button"</p> <p>Modified first part of 1st sentence to read: "Your OEM button is pre-configured by default to ~"</p> <p>Changed "Adjusting the Backlight level manually Using the ARMOR Utilities Backlight Tab" section title to "Using the Armor Utilities Backlight Tab".</p> <p>"Using the Armor Utilities Backlight Tab" section, 1st sentence – Changed "select" to "selecting".</p> <p>Last sentence – "Replaced "below" with "in Figure 48."</p>		
52.	<p>Page 72: First paragraph, 1st sentence – Removed the word "in" at the end of the sentence.</p> <p>Changed "Automatic Brightness Control" section title to "Adjusting the Brightness Automatically".</p> <p>Changed "Advanced Automatic Brightness Control" section title to "Setting the Advanced Backlight Control."</p> <p>Moved "Setting the Advanced Backlight Control" section from Appendix A and placed it in the "Setting the Advanced Backlight Control" section.</p>		
53.	<p>Page 73: Changed "Calibrating the Touch Screen" section title to "Touch Screen Calibration and Settings (Touch Tablets Only)".</p>		

MODEL X10 TABLET COMPUTER

Document No: 9711-40132-0001	Title: ARMOR X10 User's Guide
New Revision: B	
#	Additions / Corrections / Changes:
	<p>1st paragraph – added sentence to end of paragraph: “Refer to Hampshire TSHARC Control Panel Utility for a description of the settings and options.”</p> <p>Added CAUTION: “This procedure is for ARMOR X10 touch tablets only. For pen tablets, refer to Calibrating the Active Pen Screen.”</p> <p>Added NOTE following CAUTION: “Use the stylus instead of a fingertip to calibrate the screen.”</p> <p>Table 12 (now Table 11), Step 1 – Changed sentence in Condition or Indication column to read: “A calibration target is displayed with arrows moving inward, as shown below.”</p> <p>Deleted Figure 27 and inserted the image into Step 1 Condition or Indication cell below text.</p> <p>Step 2, In Condition or Indication column - Added sentence: “The Calibration Options screen is displayed, as shown below.”</p> <p>Added Calibration Options image to Step 2 in Condition or Indication cell below text.</p> <p>Reversed Steps 10 and 11.</p> <p>Step 11 – At end of last sentence, remove period and add “or call DRS Technical Support at 1-888-872-1100.”</p>
54.	<p>Page 75: “Adjusting the Click Settings ~ “ section, 1st paragraph – Deleted last sentence. Added description of click setting options.</p> <p>Added last sentence: “Follow the procedure in Table 12, to adjust these settings.”</p> <p>Table 12, Step 1, Condition cell – Replaced “in Figure 28” with “as shown below.”</p> <p>Inserted the “Caring for the Touchscreen” section from original page 68.</p>
55.	<p>Page 76: Deleted Figure 28 and inserted image into Condition cell for Step 1.</p> <p>Table 13 (now Table 12) Step 6 - Bolded “Double-Click Speed”.</p>
56.	<p>Page 77: Added new top-level heading (Heading level 2): “Pen Screen Calibration and Settings (Pen Tablets Only)”. All other headings in section demoted accordingly.</p> <p>Added paragraph moved from “Pen Operations / Pen Adjustments” section.</p> <p>“Calibrating the Active Pen Screen” section - Added CAUTION after title: “This procedure is for ARMOR X10 Pen tablets only. For Touch tablets, refer to Calibrating the Touch Screen.”</p> <p>Table 14 (now Table 13) – Deleted Step 2 row.</p>



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MODEL X10 TABLET COMPUTER

Document No: 9711-40132-0001		Title: ARMOR X10 User's Guide	
New Revision: B			
#	Additions / Corrections / Changes:		
	Delete NOTE row in Table 14.		
57.	<p>Page 78 et al: "Tablet and Pen Settings for Windows XP" section, figures 29, 30, and 31 - Corrected label to "Tablet and Pen Settings Panel".</p> <p>"Settings Tab" section - Added new 1st sentence: "The Settings tab is shown in Figure 48." Deleted NOTE.</p>		
58.	Page 79: Revised entire "Display Tab" section.		
59.	<p>Page 80: Revised 1st sentence – Figure 31 is now Figure 50. 2nd paragraph, second sentence – inserted "available" between "select" and "options." Inserted new section "Caring for the Pen Tablet Screen". Inserted "Monitoring the Health of Your ARMOR X10" section from page 68 and updated figure and table numbers. Inserted "Configuring the OEM Button" section and updated figure number.</p>		
60.	<p>Page 81: 1st paragraph, end of last sentence – Replaced "below" with "in this section." Split 2nd paragraph into paragraphs 2 and 3. 3rd paragraph 1st sentence – Revised sentence to read: "We recommend that you fully charge your batteries before using the computer on batteries alone".</p>		
61.	<p>Page 82: 1st paragraph – Deleted 1st and 2nd sentence. Remaining sentence – "Changed Lithium ion" to "lithium-ion" 1st bullet – Revised to read: "Do not expose the batteries to very high temperatures such as an open flame." "When to Recharge Batteries" section - Revised entire section (see manual). Capitalized title "How to recharge your batteries." "How to Recharge Your Batteries" section – Revised entire section (see manual).</p>		
62.	<p>Page 83: 1st paragraph, 1st sentence – Replaced "DC power supply" with "AC Adapter." Same sentence - Replaced "in the ARMOR X10" with "on the left side of the ARMOR X10," 1st paragraph, last sentence – Changed "recharging" to "recharge". "How to Tell When Batteries Have Finished Charging" section – Revised entire paragraph.</p>		

MODEL X10 TABLET COMPUTER

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#	Additions / Corrections / Changes:		
	<p>Added new "Charging a Battery with an External 2-Bay Battery Charger" section before "What to Do for Over-discharged Batteries" section.</p> <p>"What to Do for Over-discharged Batteries" section, 1st paragraph, last sentence, revised to read: "If the recovery process is successful, the Charging Status indicator will flash and the 10% LED will be on steady or flashing."</p> <p>Added new last sentence to 1st paragraph: "Allow the battery to charge normally."</p> <p>Last two paragraphs – Consolidated to one sentence as follows: "If this normal recovery process does not work (charging status indicator will not flash and the battery gauge LEDs will not light), perform the procedure in <u>Table 15</u>."</p>		
63.	<p>Page 84: First bulleted item, revised sentence to: "In Windows Control Panel, Power Options, ensure the low power alarm is set to 9% and the critical alarm is set to 3% with the Alarm Action set to shut down the system."</p> <p>"How to Increase Battery Service Time" section, 1st sentence – Changed "3" hours to "approximately 4" hours.</p> <p>2nd sentence - Added "the age of the batteries," between "including" and "temperature".</p> <p>Completely revised "When to Replace a Battery" section.</p>		
64.	<p>Page 85: Completely revised "How to Store Batteries When They Are Not in Use" section.</p> <p>Completely revised "Battery Tips for Best Performance" section:</p>		
65.	<p>Page 86: "Disposing of Your Batteries" section – Added new first paragraph: "Lithium-ion batteries are fully recyclable and should not be simply thrown away. Please help protect our environment by turning in your defective batteries to an authorized recycler, or send them back to DRS."</p>		
66.	<p>Page 87: Changed "Monitoring Your Battery Status" to "Using the Power Meter Window".</p> <p>Revised first paragraph – "You can easily monitor the current charge level of each battery by opening the Power Meter window, as shown in <u>Figure 54</u>. To open the Power Meter window, double-click on the battery icon  (if operating on batteries only) or the plug icon  (if external power is connected) in the Windows task bar."</p> <p>Revised NOTE to read: "You must check the "Always show icon on the taskbar" option in this window for the icon to appear in the task bar."</p> <p>Moved NOTE after 2nd paragraph.</p> <p>Added "Using the ARMOR Utilities Batteries Tab" title ahead of 3rd paragraph.</p>		

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MODEL X10 TABLET COMPUTER

Document No: 9711-40132-0001		Title: ARMOR X10 User's Guide	
New Revision: B			
#	Additions / Corrections / Changes:		
67.	<p>Page 89: Table 16 (now Table 17) – Deleted row 3.</p> <p>Added NOTE to CONDITION column for Step 2.</p> <p>Row 5 (now row 4) – Revised sentence: “Click on Alarm Action to select the type of alarm notification and resulting action you want to occur for each alarm.”</p>		
68.	<p>Page 90: “Using Power Schemes to Conserve Batteries” section – Revised 1st sentence: “Power schemes are a collection of settings that manage the power usage of your computer. With the options in the Power Schemes tab of the Power Options Properties window, you can:”</p> <p>Revised last sentence: “To access the Power Schemes tab, select Start → Control Panel → Power Options. The Power Options Properties window opens with the Power Schemes tab displayed by default, as shown in Figure 57,”</p>		
69.	<p>Page 93: Added “Activating” before “Standby Power Mode” heading.</p> <p>Added “Activating” before “Hibernation Power Mode” heading. Made it a 2nd level heading.</p> <p>After section title “Enabling and Configuring Hibernation Mode,” added NOTE - “Your ARMOR X10 will automatically go into Hibernation mode when the configured time delays expire. To resume from the hibernation mode, restart your computer using the Power On/Off button. Your desktop and any work in progress will be restored as you left it.”</p>		
70.	<p>Page 95: Deleted last two sentences and made them a note at the beginning of the “Activating Hibernation Power Mode” section.</p>		
71.	<p>Page 97: “Frequently Asked Questions” section:</p> <p>Changed bulleting and numbering tab spaces from 0 to .5.</p> <p>1st paragraph, 1st sentence – Revised: “Following is a list of frequently asked questions about the ARMOR X10.”</p> <p>2nd sentence – Change “able” to “happy”. Change “Representatives” to lower-case “r”.</p> <p>Assigned numbers to FAQs.</p> <p>#1 “What Options ~ “ – Changed 1st and 2nd bulleted answers as follows:</p> <ul style="list-style-type: none"> •Any USB storage device, i.e., CD-ROM/DVD drive, flash drive, floppy drive, etc. •Wireless LAN <p>#2 “How Do I Install Drivers for Peripheral Devices Sold by DRS?”</p> <p>Removed bulleting.</p>		

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MODEL X10 TABLET COMPUTER

Document No: 9711-40132-0001	Title: ARMOR X10 User's Guide
New Revision: B	
#	Additions / Corrections / Changes:
	<p>Revised answer as follows:</p> <p>"The device drivers for your peripherals were pre-installed on your hard drive prior to shipping. They are located on your C drive in a folder labeled "Drivers". If you order a new peripheral, the device drivers will either be on a disk shipped with the device or DRS will provide you with a source to download the drivers.</p> <p>If you are not familiar with how to update drivers, request assistance from your IT support or contact DRS Technical Support at 888-872-1100."</p> <p>#3 "How Do I Install Drivers for Peripheral Devices Not Sold By DRS?"</p> <p>Deleted first sentence.</p> <p>2nd bulleted answer – Replaced "ARMOR" with "DRS". Deleted "and we will attempt to help you."</p> <p>Removed bulleting.</p> <p>#4 (formerly item 14) "What External Peripherals Does the ARMOR X10 Support?"</p> <p>Replaced "thumb" with "flash".</p> <p>Revised as follows:</p> <p>Tablet only:</p> <ul style="list-style-type: none"> • 1 USB device – CD-ROM/DVD drive, printers, flash drives, etc. • 1 RJ45 device – network printer • 1-2 PCMCIA devices • 1 Flexspace device • Bluetooth wireless devices <p>With a docking station or port replicator:</p> <ul style="list-style-type: none"> • Up to 4 additional USB devices • Up to 3 serial devices • Bluetooth wireless devices • Second display or video device • 1 Flexspace device • 1 standard parallel port device • Up to two audio speakers <p>Removed bulleting.</p> <p>#5 (formerly item 4) "How Do I Activate the On-Screen Keyboard?" – Revised answer as follows:</p> <p>"Click on the Input Panel icon  on the task bar and then select the bottom mode button</p>

MODEL X10 TABLET COMPUTER

Document No: 9711-40132-0001		Title: ARMOR X10 User's Guide	
New Revision: B			
#	Additions / Corrections / Changes:		
	on the left side of the panel, as shown in Figure 39 . For additional information, refer to On-screen Keyboard .”		
72.	<p>Page 98: #6 (formerly item 4) “How Can Hand Writer Recognition Be Disabled?” – Changed “Writer” to “Writing”.</p> <p>#7 (formerly item 6) “How Can I Open Windows Task ~ ?” - Replaced “3-4” with “4-5”.</p> <p>#8 (formerly item 7) “What Do I Do if My X10 Locks up or Freezes?”</p> <p>1st bulleted answer – Revised: “Press and hold the OEM button on the PC Control Panel for 4-5 seconds to invoke the CTRL-ALT-DEL function. Select the Applications tab and highlight the offending application, then click on End Task.”</p> <p>Added CAUTION before 3rd bullet: “Be careful shutting down SYSTEM processes. Killing the wrong process could render the X10 inoperative or cause an immediate shutdown.”</p> <p>2nd bulleted answer – Revised: “If shutting down the application does not work, select the Processes tab. Highlight the process that is locked and then click on End Process.”</p> <p>3rd bulleted answer – Bold “Power On/Off”.</p> <p>#9 (formerly item 8) “How Do I Clean the Champ ~ ?” - Replaced “Champ” with “Docking (Champ)”.</p> <p>Removed bulleting.</p> <p>#10 (formerly item 9) “How Do I Clean the Display Surface?” – Removed bulleting.</p> <p>Revised first and second paragraphs (see manual).</p> <p>#13 (formerly item 12) “What Can I Do when the “Start” Button Disappears?” – Revised bulleting.</p> <p>Revised item h (formerly item 8).</p>		
73.	<p>Page 99: #11 (formerly item 10) “What Do I Do When the Pen Gets Out of Calibration?”</p> <p>Removed bulleting.</p> <p>Revised answer: “Follow the procedure in Calibrating the Active Pen Screen.”</p> <p>#12 (formerly item 11) “What if the Pen Still Will Not Align?” Removed bulleting.</p> <p>Deleted second answer.</p> <p>#13 (formerly item 12) “What Can I Do ~ ?”, item 11, capitalize “lock”.</p>		
74.	Page 100: “What Do I Do When The Battery Discharges and Will Not Charge In The Unit?”		

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MODEL X10 TABLET COMPUTER

Document No: 9711-40132-0001		Title: ARMOR X10 User's Guide	
New Revision: B			
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	<p>1st bullet - Replaced "paragraph 0" with "What to Do for Over-discharged Batteries"</p> <p>2nd bullet – Revised 1st sentence: "Next, try to charge a known good battery (if available) in the <u>same</u> battery compartment. If this works, then the battery in question is defective."</p>		
75.	Page 101: "13. DRS Technical Support" - Revised entire section (see manual).		
76.	Page 108: Added the following terms and their definitions: "ambient temperature", "fully charged battery", "fully discharged battery", "Flexspace device".		
77.	Page 109: Moved "Configuring the OEM Button" and "Setting the Advanced Backlight Control" sections to section 9 "Maintaining Your Computer". Figures and headings adjusted accordingly.		

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Product Support

ARMOR computer systems are typically custom-configured for a given application. Before calling DRS, please check with your IT staff to resolve any software issues. Additional ARMOR Product Support is available 24/7 on the web at www.drsarmor.com and by telephone at 888.872.1100 or 321.309.0599. For Windows® information, please refer to www.microsoft.com.

