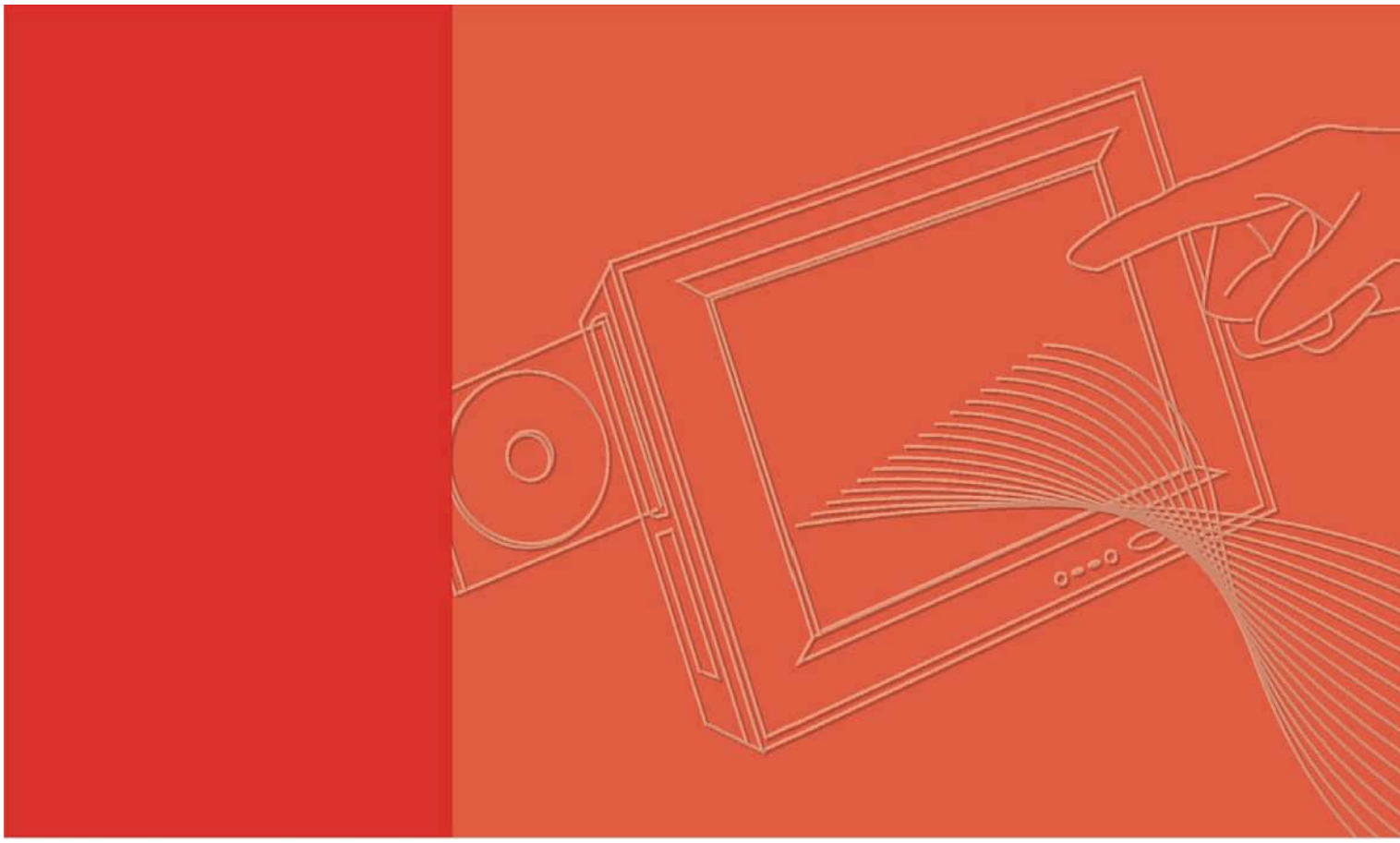

MARS-3070

Tablet PC

Trusted ePlatform Services

ADVANTECH

Copyright

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Acknowledgements

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All other product names or trademarks are properties of their respective owners.

Product Warranty (2 years)

Advantech warrants to you, the original purchaser, that each of its products will be free from defects in materials and workmanship for two years from the date of purchase.

This warranty does not apply to any products which have been repaired or altered by persons other than repair personnel authorized by Advantech, or which have been subject to misuse, abuse, accident or improper installation. Advantech assumes no liability under the terms of this warranty as a consequence of such events.

Because of Advantech's high quality-control standards and rigorous testing, most of our customers never need to use our repair service. If an Advantech product is defective, it will be repaired or replaced at no charge during the warranty period. For out-of-warranty repairs, you will be billed according to the cost of replacement materials, service time and freight. Please consult your dealer for more details.

If you think you have a defective product, follow these steps:

1 Collect all the information about the problem encountered. (For example, CPU speed, Advantech products used, other hardware and software used, etc.) Note anything abnormal and list any onscreen messages you get when the problem occurs.

2 Call your dealer and describe the problem. Please have your manual, product, and any helpful information readily available.

3 If your product is diagnosed as defective, obtain an RMA (return merchandise authorization) number from your dealer. This allows us to process your return more quickly.

4 Carefully pack the defective product, a fully-completed Repair and Replacement Order Card and a photocopy proof of purchase date (such as your sales receipt) in a shippable container. A product returned without proof of the purchase date is not eligible for warranty service.

5 Write the RMA number visibly on the outside of the package and ship it prepaid to your dealer.

Part No. 2006310002 Edition 3 Printed in Taiwan April 2008

Declaration of Conformity

CE

This product has passed the CE test for environmental specifications when shielded cables are used for external wiring. We recommend the use of shielded cables. This kind of cable is available from Advantech. Please contact your local supplier for ordering information.

CE

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

FCC Class B

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ¢ Reorient or relocate the receiving antenna.
- ¢ Increase the separation between the equipment and receiver.
- ¢ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ¢ Consult the dealer or an experienced radio/TV technician for help.

Europe œ EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

EN 60950-1: 2001

Safety of information technology equipment

IEEE Std. 1528: 2003

Recommended practice for determining the peak spatial-average specific absorption rate (SAR) in the human head from wireless communications devices: Measurement Techniques.

ANSI/IEEE C95.3: 2002

IEEE recommended practice for the measurement and computations of radio frequency electromagnetic fields with respect to human exposure to such fields, 100kHz-300GHz.

EN 300 328 V1.7.1 (2006-10)

Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive

EN 301 893 V1.2.3 (2003-08)

Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive

2005/513/EC, Commission Decision of 11 July 2005 on the harmonised use

of radio spectrum in the 5 GHz frequency band for the implementation of wireless access systems including radio local area networks (WAS/RLANs)

EN 301 489-17 V1.2.1 (2002-08) and EN 301 489-1 V1.4.1 (2002-08)

Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries under the following conditions and/or with the following restrictions:

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 œ 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

Cesky [Czech] [Advantech] tímto prohlałuje, _e tento [MARS-3070] je ve shodì se základními po_adavky a dalłími pøíslułnðmi ustanoveními smìrnice 1999/5/ES.

Dansk [Danish] Undertegnede [Advantech] erklærer herved, at følgende udstyr [MARS-3070] overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.

Deutsch [German] Hiermit erklärt [Advantech], dass sich das Gerät [MARS-3070] in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.

Eesti [Estonian] Käesolevaga kinnitab [Advantech] seadme [MARS-3070] vastavust direktiivi1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.

English Hereby, [Advantech], declares that this [MARS-3070] is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/ EC.

Español [Spanish] Por medio de la presente [Advantech] declara que el [MARS-3070] cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.

Ελληνική [Greek] ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ [Advantech] ?ΗΛ?ΝΕΙ ΟΤΙ [MARS-3070] ΣΥΜΜΟΡΦ?ΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙ??ΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣΣΧΕΤΙΚΕΣ ?ΙΑΤΑΞΕΙΣ ΤΗΣ Ο?ΗΓΙΑΣ 1999/5/ΕΚ.

Français [French] Par la présente [Advantech] déclare que l'appareil [MARS-3070] est con-forme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

Italiano [Italian] Con la presente [Advantech] dichiara che questo [MARS-3070] è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

Latviski Ar ¦o [Advantech] deklarç, ka [MARS-3070] atbilst Direktîvas 1999/5/EK bûtiskajâm prasîbâm

[Latvian] un citiem ar to saistîtajiem noteikumiem.

Lietuvių [Lithuanian] Łiuo [Advantech] deklaruoja, kad łis [MARS-3070] atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

Nederlands [Dutch] Hierbij verklaart [Advantech] dat het toestel [MARS-3070] in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

Malti [Maltese] Hawnhekk, [Advantech], jiddikjara li dan [MARS-3070] jikkonforma malhtigijiet essenzjali u ma provvedimenti ohrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.

Magyar [Hungarian] Alulírott, [Advantech] nyilatkozom, hogy a [MARS-3070] megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.

Polski [Polish] Niniejszym [Advantech] oŒwiadcza, ¿e [MARS-3070] jest zgodny z zasadniczymi wymogami oraz pozosta¹ymi stosownymi postanowieniami Dyrektywy 1999/5/EC.

Português [Portuguese] [Advantech] declara que este [MARS-3070] está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

Slovensko [Slovenian] [Advantech] izjavlja, da je ta [tip opreme] v skladu z bistvenimi zahtevami in ostalimi relevantnimi doloèili direktive 1999/5/ES.

Slovensky [Slovak] [Advantech] tõmto vyhlasuje, _e [tip opreme] spåòa základné po_iadavky a vłetky príslułné ustanovenia Smernice 1999/5/ES.

Suomi [Finnish] [Advantech] vakuuttaa täten että [tip opreme] tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

Svenska [Swedish] Härmed intygar [Advantech] att denna [tip opreme] står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

Technical Support and Assistance

1 Visit the Advantech web site at **www.advantech.com/support** where you can find the latest information about the product.
2 Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:

- Product name and serial number
- Description of your peripheral attachments
- Description of your software (operating system, version, application software, etc.)
- A complete description of the problem
- The exact wording of any error messages

Warnings, Cautions and Notes

Warning! Warnings indicate conditions, which if not observed, can cause personal injury!

Caution! *Cautions are included to help you avoid damaging hardware or losing data. e.g. There is a danger of a new battery exploding if it is incorrectly installed. Do not attempt to recharge, force open, or heat the battery. Replace the battery only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.*

Note! *Notes provide optional additional information.*

Document Feedback

To assist us in making improvements to this manual, we would welcome comments and constructive criticism. Please send all such - in writing to: **support@advantech.com**

Safety Instructions

1 Read these safety instructions carefully.
2 Keep this User Manual for later reference.
3 Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
4 For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
5 Keep this equipment away from humidity.

6 Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage.
7 The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.
8 Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9 Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10 All cautions and warnings on the equipment should be noted.
11 If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.
12 Never pour any liquid into an opening. This may cause fire or electrical shock.
13 Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
14 If one of the following situations arises, get the equipment checked by service personnel:
15 The power cord or plug is damaged.
16 Liquid has penetrated into the equipment.
17 The equipment has been exposed to moisture.
18 The equipment does not work well, or you cannot get it to work according to the user's manual.
19 The equipment has been dropped and damaged.
20 The equipment has obvious signs of breakage.
21 DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -10° C (-4° F) OR ABOVE 55° C (140° F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.
22 CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER, DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.
23 The sound pressure level at the operator's position according to IEC 704-1:1982

is no more than 70 dB (A). DISCLAIMER: This set of instructions is given according to IEC 704-1. Advantech disclaims all responsibility for the accuracy of any statements contained herein.

Wichtige Sicherheishinweise

1 Bitte lesen sie Sich diese Hinweise sorgfältig durch.
2 Heben Sie diese Anleitung für den späteren Gebrauch auf.
3 Vor jedem Reinigen ist das Gerät vom Stromnetz zu trennen. Verwenden Sie Keine Flüssig-oder Aerosolreiniger. Am besten dient ein angefeuchtetes Tuch zur Reinigung.
4 Die NetzanschluBsteckdose soll nahe dem Gerät angebracht und leicht zugänglich sein.
5 Das Gerät ist vor Feuchtigkeit zu schützen.
6 Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Verletzungen hervorrufen.
7 Die Belüftungsöffnungen dienen zur Luftzirkulation die das Gerät vor überhitzung schützt. Sorgen Sie dafür, daB diese Öffnungen nicht abgedeckt werden.
8 Beachten Sie beim. AnschluB an das Stromnetz die AnschluBwerte.
9 Verlegen Sie die NetzanschluBleitung so, daB niemand darüber fallen kann. Es sollte auch nichts auf der Leitung abgestellt werden.
10 Alle Hinweise und Warnungen die sich am Geräten befinden sind zu beachten.
11 Wird das Gerät über einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Überspannung eine Beschädigung vermieden.
12 Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. elektrischen Schlag auslösen.
13 Öffnen Sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von authorisiertem Servicepersonal geöffnet werden.
14 Wenn folgende Situationen auftreten ist das Gerät vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu überprüfen:
15 Netzkabel oder Netzstecker sind beschädigt.
16 Flüssigkeit ist in das Gerät eingedrungen.
17 Das Gerät war Feuchtigkeit ausgesetzt.

18 Wenn das Gerät nicht der Bedienungsanleitung entsprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.
19 Das Gerät ist gefallen und/oder das Gehäuse ist beschädigt.
20 Wenn das Gerät deutliche Anzeichen eines Defektes aufweist.
21 VOSICHT: Explisionsgefahr bei unsachgemaben Austausch der Batterie.Ersatz nur durch densellben order einem vom Hersteller empfohlene-mahnlichen Typ. Entsorgung gebrauchter Batterien navh Angaben des Herstellers.
22 ACHTUNG: Es besteht die Explosionsgefahr, falls die Batterie auf nicht fachmännische Weise gewechselt wird. Verfangen Sie die Batterie nur gleicher oder entsprechender Type, wie vom Hersteller empfohlen. Entsorgen Sie Batterien nach Anweisung des Herstellers.
23 Der arbeitsplatzbezogene Schalldruckpegel nach DIN 45 635 Teil 1000 beträgt 70dB(A) oder weiger.

Haftungsausschluss: Die Bedienungsanleitungen wurden entsprechend der IEC704-1 erstellt. Advantech lehnt jegliche Verantwortung für die Richtigkeit der in diesem Zusammenhang getätigten Aussagen ab.

Safety Precaution - Static Electricity

Follow these simple precautions to protect yourself from harm and the products from damage.

- ¢ To avoid electrical shock, always disconnect the power from your PC chassis before you work on it. Don't touch any components on the CPU card or other cards while the PC is on.
- ¢ Disconnect power before making any configuration changes. The sudden rush of power as you connect a jumper or install a card may damage sensitive electronic components.

FCC Part 15.21 information for user

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

FCC RF Radiation Exposure Statement:
1. This Transmitter has been demonstrated co-located compliace requirements with Bluetooth and WALN.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device was tested for typical lap held operations with the device contacted directly to the human body to the back side of the table PC. To maintain compliance with FCC RF exposure compliance requirements, avoid direct contact to the transmitting antenna during transmitting.

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Chapter 1 Using This Manual

This manual contains tool usage instructions.

Some of the illustrations shown in this manual may contain modules and optional equipment that are not included on your system. Contact your sales representative for availability of other modules and optional equipment.

1.1 Conventions

The following conventions are used.

1.1.1 Bold Text

Bold emphasis is used in procedures to highlight selectable items such as buttons and menu options.

Example:

- Press the **Y/✓** button.

1.1.2 Symbols

Different types of arrows are used.

The “greater than” arrow (>) indicates an abbreviated set of selection instructions.

Example:

- Select **Utilities > Tool Setup > Date**.

The example statement abbreviates the following procedure:

1. Navigate to the **Utilities** button.
2. Use the Thumb Pad to navigate to and highlight the **Tool Setup** submenu.
3. Use the Thumb Pad to navigate to and highlight the **Date** option from the submenu.
4. Press **Y/✓** to confirm the selection.

The solid arrows (◄, ►, ▼, ▲) are navigational instructions referring to the four directions of the Thumb Pad.

Example:

- Press the down ▼ arrow.

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1.1.3 Terminology

The term “select” means highlighting a button or menu item using the Thumb Pad and pressing the **Y/✓** button to confirm the selection.

Example:

- Select **Reset**.

The above statement abbreviates the following procedure:

1. Navigate to and highlight the **Reset** button.
2. Press the **Y/✓** button.

1.1.4 Notes and Important Messages

The following messages are used.

Notes

A NOTE provides helpful information such as additional explanations, tips, and comments.

Example:

NOTE:
For additional information refer to...

Important

IMPORTANT indicates a situation which, if not avoided, may result in damage to the test equipment or vehicle.

Example:

IMPORTANT:
Do not force the CompactFlash® card into the slot.

1.1.5 Procedures

An arrow icon indicates a procedure.

Example:

To change screen views:

1. Select the **View button**.
   The drop-down menu displays.
2. Select an option from the menu.
   The screen layout changes to the format you selected.

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Chapter 2 Introduction

The VERDICT™ Diagnostic Platform is a specialized personal automotive diagnostic solution that combines information with test instrumentation to help you diagnose symptoms, codes, and complaints quickly and efficiently, test vehicle systems and components, access service records and recorded data, and verify repairs. There are three main components to the VERDICT system:

- Display Device—the processor and monitor
- Data Acquisition Module—the wireless transmitter and receiver
- Vehicle Interface—the connection for accessing vehicle data

This manual describes the construction and operation of the D7 Display device, which works in conjunction with other system components. A variety of main components, accessories, and optional equipment allows you to custom build a VERDICT system to your personal specifications.

2.1 Functional Description

Figure 2-1 *Model D7 front view*

1— Audio Speaker
2— Power Indicator LED
3— Microphone
4— Hard Drive Activity LED
5— Directional Buttons; left (◄), right (►), up (▼), down (▲)
6— S Button (special functions)
7— Enter(back) Button
8— Camera (shutter) Button
9— Virtual Keyboard Button
10—Brightness Button
11—Power Button

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Figure 2-2 *Model D7 side views*

1— USB (universal serial bus) Ports (2)
2— Microphone Port
3— Audio (head phone) Port
4— DC Power Supply Input Port
5— SD (secure digital) Card Port
6— Mini USB Port

Figure 2-3 *Model D7 back view*

1— Battery Compartment Cover
2— Stylus
3— Camera Lens
4— Colapsable Stand (closed)

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2.2 Technical Specifications

Processor:
Intel Atom Z510

Operating System
Microsoft Windows XP Embedded SP2

Touch Screen
4-wire Resistive Touch Panel

Display:
7 inch diagonal, LCD TFT
1024 x 600 resolution
16 bit color

Battery:
Lithium Ion Smart Battery Pack
Approximately 3.5 hour run time
Approximately 4 hour charge time, unit not operating
Approximately 8 hour charge time, unit operating

Communications:
802.11 b/g/n Wireless
Bluetooth 2.0 Class 1

Dimensions:
Width:
9.9 inches
252 mm
Height:
6.8 inches
173 mm
Depth:
1.8 inches
46 mm

Weight (including battery):
2.7 lbs.
1.22 kg

Operating Temperature Range (ambient):
At 0 to 90% relative humidity (non-condensing)
32 to 113°F
0 to 45°C

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Storage Temperature (ambient):

At 0 to 70% relative humidity (non-condensing)

–4 to 140°F

–20 to 60°C

Environmental Conditions:

This product is intended for indoor use only

This product is rated for Pollution Degree 2 (normal conditions)

Power Supply:

Supply Rating; 19 VDC. 3.42A

2.3 Navigation, Controls, and Features

The external controls on the display device are simple because most operations are controlled through the touch screen. Touch screen navigation is menu driven, which allows you to quickly locate the test, procedure, or data that you need through a series of choices and questions. Detailed descriptions of the menu structures are found in the sections for the various modules.

The following sections describe the external controls and features of the display device.

2.3.1 Control Buttons

Name and location of control buttons:

Name	Button	Description
S Button		A function button that provides a shortcut for performing routine tasks.
Directional Buttons		Moves the cursor or highlight on the display screen up, down, right, or left.
Enter Button		Selects a highlighted item or returns the display to the previous screen.
Camera Button		Acts as a shutter for the built-in camera.
Keyboard Button		Opens or closes the virtual keyboard.
Brightness Button		Increases the screen backlighting in seven ncremental steps.
Power Button		Turns the unit on and off.

All other tool operations are controlled through the touch screen.

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2.3.2 LEDs

There are two light-emitting diodes (LEDs) on the front face of the device:

- Power Indicator LED—this device uses three colors to show the batteryand power status as follows:
  - Green indicates a either a battery with a full, or nearly full, charge or DC power
  - Orange indicates a battery that is charging. An orange LED that fades on and off at three second intervals indicates the unit is in standby mode.
  - Red indicates a low battery (15% of capacity or less).
- Hard Drive Activity LED—illuminates when the central processing unit (CPU) is reading or writing to the hard disk drive (HDD).

2.3.3 The Stand

The built-in stand extends from the back of the unit to allow hands-free viewing. The stand clips into the unit for storage and pivots out so the display is at a 35 degree angle when in use.

2.4 Power Sources

Your Display Device can receive power from any of the following sources:

- Internal Battery Pack
- AC/DC Power Supply
- Charging Station (Optional)

2.4.1 Internal Battery Pack

The display unit can be powered from the internal rechargeable battery. A fully charged standard battery provides sufficient power for about 3.5 hours of continuous operation. An optional high-capacity battery that provides 5.5 hours of operation is available. An LED on the front of the unit indicates the battery state of charge.

2.4.2 AC/DC Power Supply

The unit can be powered from a wall socket using the AC/DC power supply and power cord. The AC/DC power supply also powers the internal battery pack charging process.

2.4.3 Charging Station (Optional)

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The unit can be powered and operated when installed on the optional charging, or docking station. The docking station also powers the internal battery pack charging process and allows USB connectivity for attaching peripherals. Contact your sale representative for additional details.

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Chapter 3 Getting Started

Make sure the VERDICT D7 has a charged battery or is connected to an AC power supply (see “Power Sources” on page 7). It is highly recommended to back up personal and saved data to a USB mass storage device on a regular basis to prevent loss in the event of system corruption or hard disk drive failure.

3.1 Powering Up

Press the Power button to switch the unit on. The system boots up, then opens the VERDICT Home screen (Figure 3-1).

1— Module Buttons
2— VERDICT Toolbar
3— Windows Toolbar

Figure 3-1 *Sample VERDICT Home screen*

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3.1.1 Module Buttons

The Module buttons configure the VERDICT for the type of test to be performed. The table below gives brief descriptions of the available Module buttons, which operations are available depends upon the individual configuration of your VERDICT system.

Table 3-1 *Module buttons (sheet 1 of 2)*

Name	Button	Description
Vehicle ID		Identifies the test vehicle and organizes and manages work in progress.
OBD Direct		Allows you to perform generic OBD-II system tests without identifying the specific vehicle.
Component Test		Opens a diagnostic database of specific tests for the identified vehicle.
Help		Opens the on-line help for the system.
Data Manager		Opens the organization system for saved data files.
Scope Multimeter		Configures the unit to operate as a lab scope, graphing multimeter, or digital multimeter.

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Table 3-1 *Module buttons (sheet 2 of 2)*

Name	Button	Description
Scanner		Configures the unit to operate as a scan tool.
System Properties		Opens a window that contains details about the configuration of your VERDICT system.
Exit		Closes the VERDICT diagnostic Platform software and returns to the Windows desktop.

Use the stylus or your finger tip to select from the Module buttons.

3.1.2 Verdict Toolbar

Operation of the toolbar buttons located on the lower-left corner of the screen are described in the table below:

Table 3-2 *Module buttons*

Name	Button	Description
Home		Touching this button returns you to the VERDICT Home screen from any test.
Windows Toolbar		Touching this button opens and closes the standard Windows toolbars at the top and bottom of the screen.
Menu		Touching this button opens a menu that provides information on the screen being viewed.

3.1.3 Windows Toolbar

This is the standard Windows XPe toolbar. Your VERUS unit is a fully functional personal computer based on the Windows XPe operating system. Refer to Microsoft documentation for additional information.

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3.2 Powering Down

All vehicle communication must be terminated before shutting down the VERDICT unit. Failure to do so may lead to ECM problems on some vehicles. Exit the Scanner module before powering down the VERDICT unit.

To power down the VERDICT unit:

1. Navigate to the VERDICT Home screen.
2. Select the **Exit** button.
3. From the Windows desktop, open the Windows **Start** menu.
4. Select **Turn Off Computer**.
5. Select **Turn Off** in the dialog box.
   The open programs close and the power switches off.

3.2.1 Emergency Shutdown

In case of emergency, press and hold the Power button to force a shutdown.

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Chapter 4 Operations

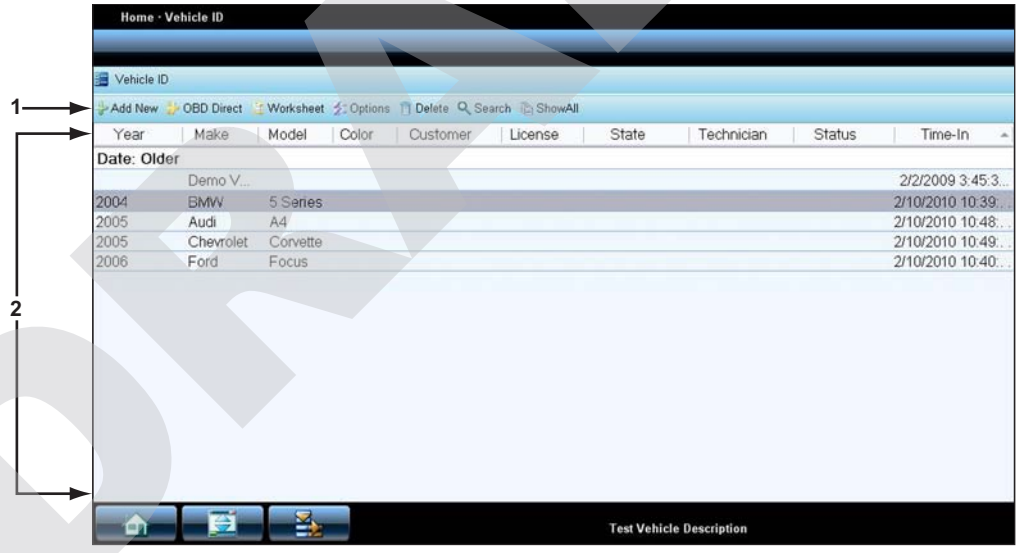
This section explains tests and operations that pertan to the display device only, or apply to all of the available modules. Included here are discussions of:

- Vehicle ID
- Help
- Data Manager

4.1 Vehicle ID

The Vehicle ID refers to any work in progress, such as a repair order, estimate or invoice, that has customer, vehicle, and repair information for a vehicle in your shop. The Vehicle ID is the starting point for using the VERDICT system. The Scanner and Component Test software get vehicle information from the Vehicle ID, and can only start after a Vehicle ID is opened.

There are two main parts to the Vehicle ID screen:



1— Vehicle ID Toolbar—lets you manage the vehicle data

2— Main Body—lists all open Vehicle IDs

Figure 4-1 *Sample Vehicle ID screen*

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4.1.1 Vehicle ID Toolbar

The table below gives brief descriptions of the control buttons on the toolbar:

Table 4-1 *Toolbar buttons*

Name	Button	Description
Add New	Add New	Use to create a new Vehicle ID
OBD Direct	OBD Direct	Use to quickly access generic OBD-II data without a Vehicle ID
Worksheet	Worksheet	Use to modify and add notes to a Vehicle ID
Options	Options	Use to configure which fields display on the main screen
Delete	Delete	Removes a Vehicle ID from the list
Search	Search	Use to locate a specific Vehicle ID
Show All	ShowAll	Available only after a search, use to return to a complete Vehicle ID list

Add New

Use this button to generate a new service record.

To create a new Vehicle ID:

1. Select **Add New** from the toolbar.
   The add Vehicle ID dialog box and the virtual keyboard open (Figure 4-2).

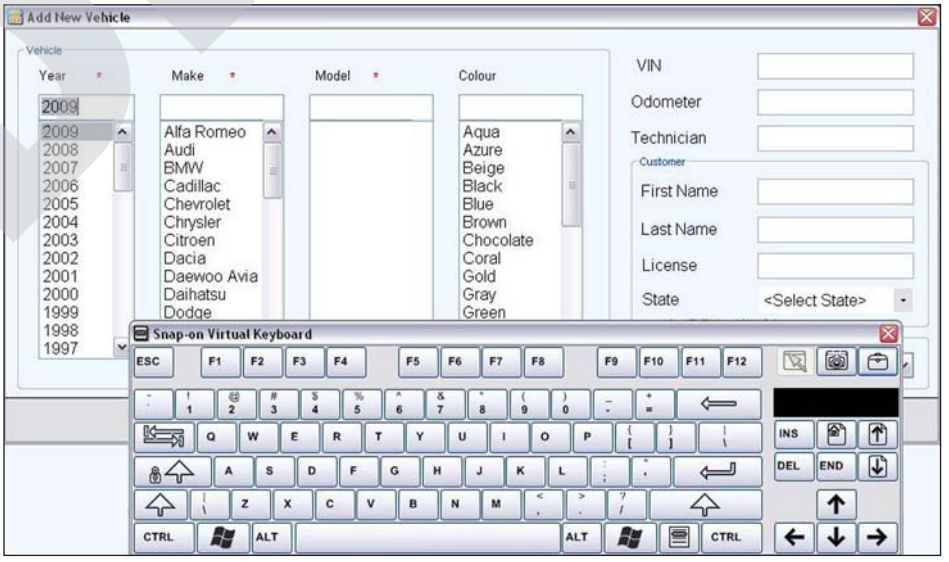

Figure 4-2 *Sample add Vehicle ID dialog box*

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2. Enter the year, make, and model of the test vehicle using either the dropdown menus or the virtual keyboard.

NOTE:
Year, make, and model are required fields, all other information on the dialog box is optional.

3. Fill in the other information as desired using the menus and keyboard.
4. Select **OK** to close the dialog box and return to the main Vehicle ID screen.
   The new item now appears on the list and is highlighted.

OBD Direct

This is a shortcut that allows you to select generic Scanner tests from the Module Toolbar without completing a Vehicle ID. This selection is designed for service writers and other personnel that need to quickly access vehicle systems to determine what repairs are needed before a formal work order or estimate is created.

Worksheet

Use this selection to edit, add notes, and print an existing Vehicle ID.

To modify an existing Vehicle ID:

1. Highlight the item to be modified, then select **Worksheet**.
   The worksheet opens along with the virtual keyboard, and new buttons are available on the toolbar.
2. Use the keyboard to enter information in the notes field, or to add an odometer reading.
3. Select **Edit** from the toolbar to make any other changes.
   The Edit Vehicle ID dialog box opens. Use the menus and keyboard to make changes.
4. Select **OK** to return to the worksheet.
5. Select **Save** from the toolbar to save the changes you made.
6. Select **Print** from the toolbar to print a copy of the worksheet.
7. Select **Close** from the toolbar to exit the worksheet.

Options

Use Options to determine which categories of information display in the main body of the Vehicle ID screen. Selecting the button opens the Display Options dialog box, shortcut buttons let you select all or deselect all of the items in the list (Figure 4-3).

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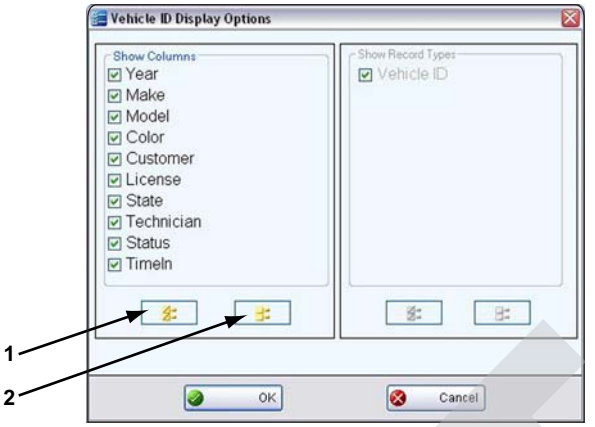

Figure 4-3 *Sample Display Options dialog box.*

1— Select All Button

2— Deselect All Button

Individual selections must be made one at a time.

To change a display option:

1. Highlight the item to change with the stylus.
   - items with a checked box display on the screen
   - items with an unchecked box do not display on the screen
2. Select **OK**.
   The dialog box closes and the screen updates.

Delete

Use the Delete button to remove unwanted items from the Vehicle ID list. Simply highlight the item to remove, then select Delete.

Search

Selecting Search opens a dialog box that allows you to search Vehicle ID items by category (Figure 4-4).

Figure 4-4 *Sample Search dialog box*

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To search:

1. Use the virtual keyboard to enter search criteria.
2. Use the dropdown menu to select the field to search.
3. Select **Find Now** to start the search.
4. Select **OK** to close the Search window.
   After a search, the Select All button becomes available on the toolbar.
5. Tap **Select All** to restore the complete Vehicle ID list.

4.1.2 Vehicle ID Main Body

The main body of the screen lists all of the available Vehicle ID items. By default, items are shown in the order in which they are entered. However, you can resort them by any of the categories shown as column headings. You can also resize the individual columns.

To sort Vehicle ID items:

1. Select a category heading.
   The listed items resort according to the selected category. A triangle appears alongside the name of the column that was used for the sort.
2. Select the triangle in the heading to reverse the sort order.

To resize a Vehicle ID column:

1. Touch the line separating two columns with the stylus.
   A line with arrowheads appears to show the column is ready for resizing.
2. Drag the stylus to increase or decrease the column width.

4.2 Help

Selecting Help from the Home screen opens this manual. Two buttons at the top of the screen allow you to select which format to view the files in:

- **Help**—displays in the web browser, use for screen viewing.
- **PDF**—displays in Acrobat Reader, use for printing

Figure 4-5 *Help format selection buttons*

Help is the default setting, so when the Help module is selected from the Home screen a hypertext markup language (HTML) file opens in the browser.

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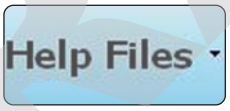
A tool bar just below the options buttons is used to navigate the HTML file. Toolbar operations are explained in the table below:

Table 4-2 *Help toolbar buttons*

Name	Button	Description
Back		Returns to the previously viewed page
Next		Advances to the next page
Stop		Cancels the last command
Refresh		Resamples and refreshes the current page.
Home		Returns to the first page of the document
Search		Opens a dialog box that allows you enter and search for specific topics
Help Files		Opens a dropdown menu of all the help files available for your VERDICT components
Close		Closes the help file

The three tabs below the toolbar control what displays in the left panel of the display:

- Contents—displays the table of contents for the manual, this is the defaut setting.
- Index—displays the index for the manual.
- Search—opens the search dialog box, which is the same as if selecting from the toolbar.

The scroll bars at the right side and bottom of each panel are used to move up and down and left and right within the field. Touch and drag the divider bar between the two panels to resize the panel widths.

When the PDF option is selected, use standard Acrobat navigation and operating procedures. Refer to Adobe help for additional information.

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4.3 Data Manager

Select Data Manager on the Module toolbar to open the file system. Use the toolbar at the top of the screen to navigate through the data. The folders panel below the toolbar displays the contents of the Windows “My Documents” folder.

1— Data Manager Toolbar

2— Folders Panel

Figure 4-6 *Sample Data Manager screen*

The Data Manager module is used to store, sort, and review saved files. Most operations are controlled through the toolbar. Toolbar functions are explained in the table below:

Table 4-3 *Help toolbar buttons (sheet 1 of 2)*

Name	Button	Description
Default	Default	Returns the folders view to the the original (My Documents) view.
Open	Open	Opens the highlighted folder or file.
New	New	Creates a new folder.
Delete	Delete	Deletes the highlighted file or folder. A confirmation message that requires a resopnse displays before the file is permanently errased.
Rename	Rename	Opens a dialog box and the virtual keyboard for renaming the selected file or folder.

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Table 4-3 *Help toolbar buttons (sheet 2 of 2)*

Name	Button	Description
Copy		Copies the selected file or folder.
Move		Relocates the selected file or folder.
Properties		Displays information about the selected file or folder.
Save		Saves the selected file.
Shortcut		Creates a shortcut for the selected file or folder.
Email		Attaches the selected file to a blank e-mail form. An internet connection is required.
Up		Moves what is displayed in the folders panel up one level.

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Chapter 5 Maintenance

This section covers how to care for your VERDICT Display Device.

5.1 Cleaning the Touch Screen

The touch screen can be cleaned with a soft cloth and alcohol or a mild window cleaner.

IMPORTANT:
Do not use any abrasive cleansers or automotive chemicals on the touch screen.

5.2 Cleaning and Inspecting the Unit

When using the VERDICT unit, make sure to do the following:

- Check the housing, wiring, and connectors for dirt and damage before and after each use.
- At the end of each working day, clean the housing, wiring, and connectors with a clean damp cloth.

IMPORTANT:
Do not use any abrasive cleansers or automotive chemicals on the VERDICT Display Device.

5.3 Battery Service

Follow all safety guidelines when handling the battery pack.

⚠ WARNING

Risk of electric shock.

- **Prior to recycling the battery pack, protect exposed terminals with heavy insulating tape to prevent shorting.**
- **Disconnect all test leads and turn diagnostic tools off before removing the battery pack.**
- **Do not attempt to disassemble the battery or remove any component projecting from or protecting the battery terminals.**
- **Do not expose the unit or battery pack to rain, snow, or wet conditions.**
- **Do not short circuit the battery terminals.**

Electric shock can cause injury.

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WARNING

Risk of explosion.

- **The Lithium battery is factory replaceable only, incorrect replacement or tampering with the battery pack may cause an explosion.**

Explosion can cause death or serious injury.

5.3.1 Battery Safety Guidelines

IMPORTANT:
The battery pack contains no user serviceable components. Tampering with the battery pack terminals or housing will void the product warranty.

Keep the following in mind when using and handling the VERUS battery pack:

- Do not short circuit battery pack terminals.
- Do not immerse the VERDICT Display Device or battery pack in water, or allow water to enter the unit or battery pack.
- Do not crush, disassemble, or tamper with the battery pack.
- Do not heat the battery pack to over 100°C (212°F), or dispose of it in a fire.
- Do not expose the battery pack to excessive physical shock or vibration.
- Keep the battery pack out of reach of children.
- Do not use a battery pack that appears to have suffered abuse or damage.
- Charge the battery pack in the appropriate charger only.
- Do not use a battery charger that has been modified or damaged.
- Use the battery pack for the specified product only.
- Store the battery pack in a cool, dry, well ventilated area.

NOTE:
The battery pack should be used within a short period of time (about 30 days) after charging to prevent loss of capacity due to self-discharging.

If long-term storage of the battery pack is necessary, it should be stored in a in cool, dry, well ventilated place with a 30 to 75 percent state of charge to prevent loss of characteristics.

To prolong the life of your battery, power off the unit or place it into hibernation mode when not in use. The VERDICT unit has a built in charger that recharges the battery on demand whenever it is connected to a power source.

5.3.2 Replacing the Battery Pack

If the battery pack no longer hold a charge, contact your sales representative to order a new one.

IMPORTANT:
Replace the battery pack with original Snap-on replacement parts only.

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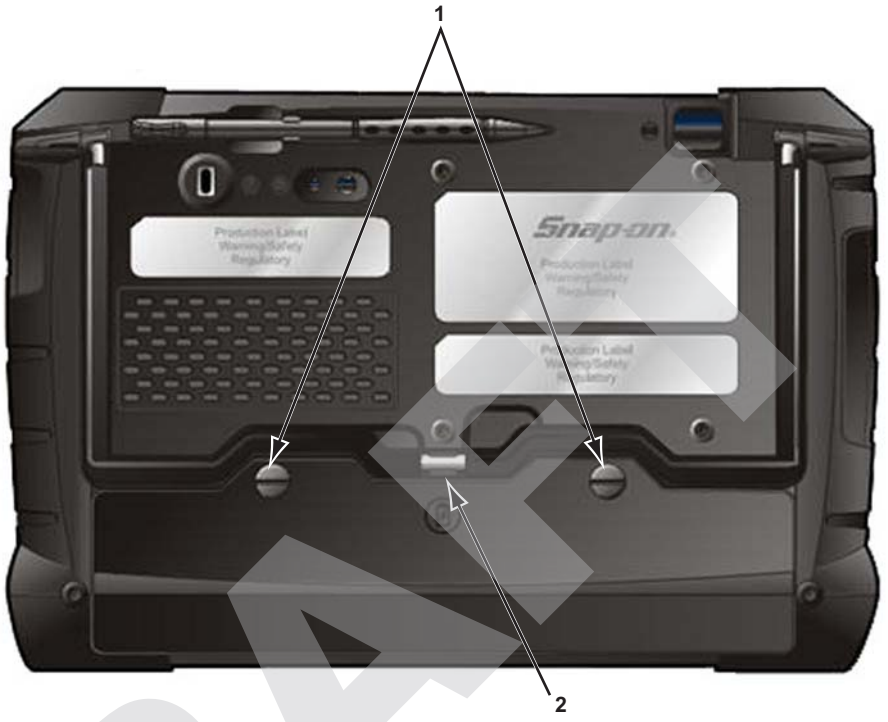
To replace the battery pack:

1. Remove the two captive screws the secure the battery pack to the back of the unit.
2. Insert a fingernail into the recess at the mid point of the top of the battery pack, then gently raise the battery pack up to release the electrical connector.



1— Captive Screws

2— Lifting Recess

Figure 5-1 *Battery pack replacement*

3. Lift the battery pack clear of the unit.
4. Fit the three tabs on the bottom of the new battery pack into the slots, then rotate the assembly into position.
5. Make sure the battery pack is fully seated.
6. Tighten the two captive screws.

5.3.3 Disposing of the Battery Pack

Always dispose of a lithium-ion battery pack according to local regulations, which vary for different countries and regions. The battery pack, while non-hazardous waste, does contain recyclable materials. If shipping is required, ship the battery pack to a recyling facility in accordance with local, national, and international regulations. For additional information contact:

- North America—Rechargeable Battery Recycling Corporation (RBRC) at http://www.rbrc.org or http://www.call2recycle.org, or call 1(800) 822-8837 (USA)
- United Kingdom—Electrical Waste Recycling Company at http://www.electricalwaste.com

Products bearing the WEEE logo (Figure 5-2) are subject to European Union regulations.

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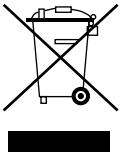

Figure 5-2 *sample WEEE logo*

NOTE:
Always dispose of materials according to local regulations.

Contact your sales representative for details.

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