HAND HELD® PRODUCTS
a Welch Allyn affiliate

Transaction Team™ 1500
LCD Signature Capture Terminal

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Web Address: www.handheld.com

CE The CE mark on the product indicates that the system has been tested to and conforms with the provisions noted within the 89/336/EEC Electromagnetic Compatibility Directive.

For further information please contact:
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  Warrington, Cheshire WA2 7LT
  England
Hand Held Products shall not be liable for use of our product with equipment (i.e., power supplies, personal computers, etc.) that is not CE marked.

Statement of Agency Compliance

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Class A Compliance Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Caution: Any changes or modifications made to this device that are not expressly approved by Hand Held Products may void the user's authority to operate the equipment.

Note: To maintain compliance with FCC Rules and Regulations, cables connected to this device must be shielded cables, in which the cable shield wire(s) have been grounded (tied) to the connector shell.

Canadian Notice

This equipment does not exceed the Class A limits for radio noise emissions as described in the Radio Interference Regulations of the Canadian Department of Communications (ICES-003).

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la classe A prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada (ICES-003).

Limited Warranty

Welch Allyn Data Collection, Inc., d/b/a Hand Held Products ("HHP") warrants its products to be free from defects in materials and workmanship and to conform to HHP's published specifications applicable to the products purchased at the time of shipment. This warranty does not cover any HHP product which is (i) improperly installed or used; (ii) damaged by accident or negligence, including failure to follow the proper maintenance, service, and cleaning schedule; or (iii) damaged as a result of (A) modification or alteration by the purchaser or other party, (B) excessive voltage or current supplied to or drawn from the interface connections, (C) static electricity or electro-static discharge, (D) operation under conditions beyond the specified operating parameters, or (E) repair or service of the product by anyone other than HHP or its authorized representatives.

This warranty shall extend from the time of shipment for the duration published by HHP for the product at the time of purchase ("Warranty Period"). Any defective product must be returned (at purchaser's expense) during the Warranty Period to HHP's factory or authorized service center for inspection. No product will be accepted by HHP without a Return Materials Authorization, which may be obtained by contacting HHP. In the event that the product is returned to HHP or its authorized service center within the Warranty Period and HHP determines to its satisfaction that the product is defective due to defects in materials or workmanship, HHP, at its sole option, will either repair or replace the product without charge, except for return shipping to HHP.

EXCEPT AS MAY BE OTHERWISE PROVIDED BY APPLICABLE LAW, THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER COVENANTS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, ORAL OR WRITTEN, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

HHP'S RESPONSIBILITY AND PURCHASER'S EXCLUSIVE REMEDY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT. IN NO EVENT SHALL HHP BE LIABLE FOR INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, AND, IN NO EVENT, SHALL ANY LIABILITY OF HHP ARISING IN CONNECTION WITH ANY PRODUCT SOLD HEREUNDER (WHETHER SUCH LIABILITY ARISES FROM A CLAIM BASED ON CONTRACT, WARRANTY, TORT, OR OTHERWISE) EXCEED THE ACTUAL AMOUNT PAID TO HHP FOR THE PRODUCT. THESE LIMITATIONS ON LIABILITY SHALL REMAIN IN FULL FORCE AND EFFECT EVEN WHEN HHP MAY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH INJURIES, LOSSES, OR DAMAGES. SOME STATES, PROVINCES, OR COUNTRIES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

All provisions of this Limited Warranty are separate and severable, which means that if any provision is held invalid and unenforceable, such determination shall not affect the validity of enforceability of the other provisions hereof.

The limited duration of the warranty for the Transaction Team 1500 is for one (1) year.

Table of Contents

Introduction

This guide is designed to help guide you through the installation of your Transaction Team 1500. It covers everything you'll need to know - from minimum system requirements and package contents, to hardware and software installation procedures.

Minimum System Requirements

The TT1500 is designed to quickly and easily connect to a wide variety of host systems. In fact, all that is really needed to connect this unit to a host is an available serial port. However, it is important to note that the level of functionality the TT1500 delivers is dependent on the software application you will be running. Because of this, your actual minimum system requirements will vary.

The following minimum system requirements can be used as a general guideline:

Minimum Hardware Requirements

- An available serial port

System Requirements for Development Software

- IBM-compatible PC
- MS-DOS®, Microsoft® Windows® 3.1, Microsoft® Windows® 95, Microsoft® Windows® 98, Microsoft® Windows® 2000, or Microsoft® Windows NT®
- Available host computer register port

(IBM-compatible PCs generally designate serial ports as COM1 through COM4. These are usually located on the back of the computer.)

Unpack and Check Contents

Please check to ensure that your kit package included all of the standard items listed below:

- Transaction Team 1500
- Durable non-electronic stylus
- Startup Guide
- TT1500 Software Suite CD
- RS-232 Cable
- Power Supply

If you are missing any of the above items, please contact the supplier where you purchased your TT1500 Signature Capture Device.

Optional Accessories

- Tethered stylus with thumbscrew
- Additional non-electronic stylus
- Paper guide
- Power adapter for PC keyboard/mouse port

Cables

- AC Power Adapter
- RS-232 cable (HDB15-D89), cable length: 12, 20, 30 feet

  or

- RS-232 pass-through Y cable (HDB15-Dual DB9), cable length: 12 feet

Hardware Installation Procedures

Before you begin the installation process, you need to determine what type of cable you will be using (see page 2 for cable options). If you are installing an RS-232 cable with an AC power cable, see page 3. If you are installing a power adapter cable, see page 4. If you are installing an RS-232 pass-through cable, see page 5.

RS-232 Cable / AC Power Installation
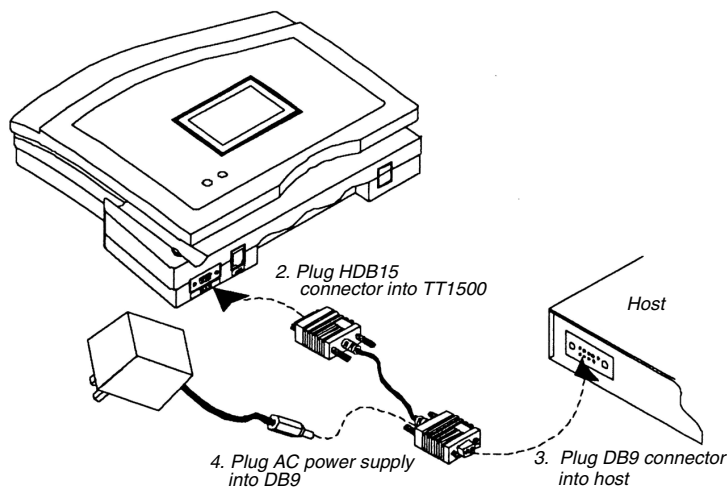
2. Plug HDB15 connector into TT1500

Host

4. Plug AC power supply into DB9

3. Plug DB9 connector into host

1. Make sure the power switch is turned off on the computer where you will be installing the TT1500.

2. Plug the 15-pin connector (HDB15) of the serial cable into the back of the TT1500.

3. Plug the 9-pin[1] connector (DB9) of the serial cable into an available serial port on your computer (usually COM port 1).

4. Plug the male connector of the AC power supply into the socket on the back of the 9-pin serial cable connector (DB9) which is plugged into the back of your computer.

5. Plug the base of the AC power supply into a standard 120 volt, 60 Hz, AC power outlet.

Installation is now complete. You may now turn on your computer.

1. If your computer has a 25-pin serial port, you will need to obtain a 25-pin to 9-pin adapter from your local computer store or other source.

Power Adapter Cable Installation

2. Plug HDB15 connector into TT1500

Host

5. Plug mouse into short connector

3. Plug DB9 connector into host

6. Plug into DB9

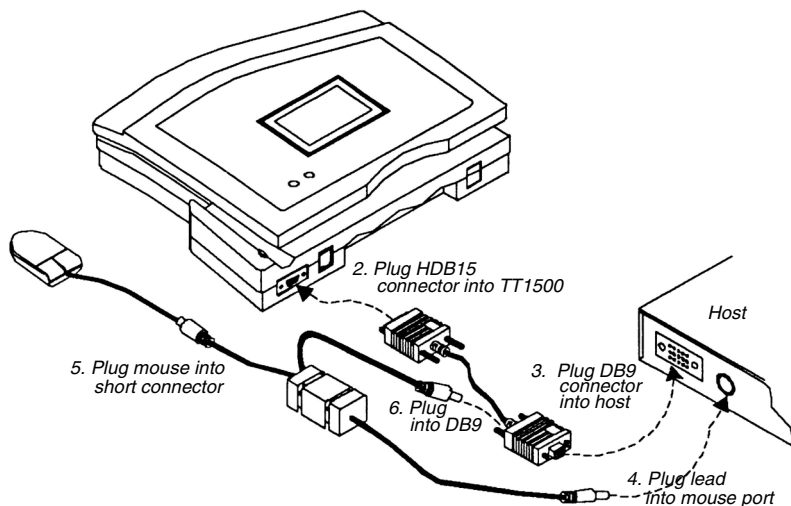4. Plug lead into mouse port

1. Make sure the power switch is turned off on the computer where you will be installing the TT1500.

2. Plug the 15-pin connector (HDB15) of the serial cable into the back of the TT1500.

3. Plug the 9-pin[1] connector (DB9) of the serial cable into an available serial port on your computer (usually COM port 1).

4. Plug the single lead coming from the PS/2 cable into the mouse port on the computer.

5. Plug the mouse into the shortest PS/2 connector on the two-lead side.

6. Plug the remaining long connector into the socket on the back of the DB9 connector, which is plugged into the host.

1. If your computer has a 25-pin serial port, you will need to obtain a 25-pin to 9-pin adapter from your local computer store or other source.

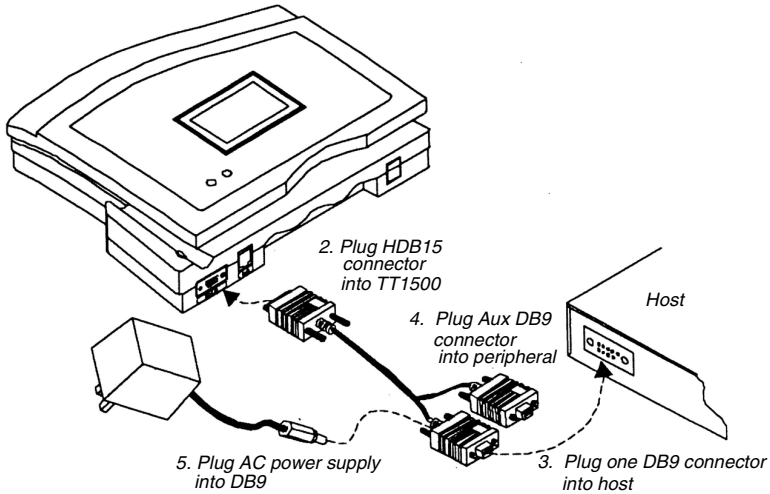## RS-232 Pass-Through Installation

2. Plug HDB15 connector into TT1500

4. Plug Aux DB9 connector into peripheral

Host

5. Plug AC power supply into DB9

3. Plug one DB9 connector into host

1. Make sure the power switch is turned off on the computer where you will be installing the TT1500.

2. Plug the 15-pin connector (HDB15) of the serial cable into the back of the TT1500.

3. Plug one of the host DB9 connectors into your host computer.

4. Plug the Aux DB9 connector into your peripheral device.

5. Plug the male connector of the AC power supply cable into the socket on the back of the 9-pin serial cable connector (DB9) which is plugged into the back of your computer.

6. Plug the base of the AC power supply into a standard 120 volt, 60 Hz, AC power outlet.

Software Installation

Installing the TT1500 Software Suite

The Transaction Team 1500 comes with a TT1500 Software Suite CD. This CD contains a 16 and 32-bit Software Development Kit (SDK) for use with the TT1500. The SDK consists of Tool Kit components and Software Utilities. The Tool Kit components provide various software tools to be used in conjunction with the appropriate software compiler or integrated development environment, which will enable you to develop your own software applications for use with the TT1500. The utilities software demonstrates the capabilities of the TT1500. The utilities were developed using the components of the Tool Kit.

To install the 16 or 32-bit SDK, turn on your computer and insert the TT1500 Software Suite CD into the CD drive on your computer. Select and run the setup program using the following procedure:

1. Place CD in the disk drive. The setup program appears.
2. Select either 16 or 32-bit SDK installation and follow menu steps until completion is indicated.

   or

1. With the CD in the disk drive, go to the Start menu and click on Run.

2. Select Browse and click on your CD drive.

3. Double click on Setup.

4. Click on OK.

5. Select either 16 or 32-bit SDK installation and follow menu steps until completion is indicated.

The Transaction Team 1500 is now set up with the necessary software tools and utilities. You now should be able to develop your own applications using the Tool Kit or demonstrate the capabilities of the TT1500 using the Software Utilities. For the latest updates, visit the Hand Held Products website at www.handheld.com.

NOTE: The appropriate software compiler (Microsoft C/C++, Borland C/C++) or Integrated Development Environment (Visual Basic, Visual C++, etc.) is required for you to develop your own applications. This compiler is NOT provided in the TT1500 Software Suite.

Contents of the SDK Tool Kit

The SDK Tool Kit components include the following libraries that can be used to develop your own applications in conjunction with your Microsoft C/C++ or Borland C/C++ compiler for use with the TT1500:

- **PADCOM -** Handles all the protocol necessary to communicate to the connected unit. Implements an operating system dependent RS-232 communications protocol. PADCOM links a C/C++ application on the CPU to the Transaction Team hardware. DOS, WIN16 and WIN32 PADCOM libraries are supplied for Microsoft and Borland applications development.

- **SIGKIT -** Aimed at post-processing signature data gathered from the unit using PadCom. SIGKIT handles signature storage and retrieval and allows a C/C++ application to utilize signatures. DOS, WIN16 and WIN32 SIGKIT libraries are supplied for Microsoft and Borland application development.

The SDK Tool Kit include the following ActiveX OCX control to be used to develop your own applications in conjunction with an ActiveX compatible development environment (Visual Basic, Visual C++, etc.) for use with the TT1500:

- **SIGBOX -** Applications use SIGBOX to link to the Transaction Terminal hardware. SIGBOX handles signature/Point-of-Sale data storage and retrieval. SIGBOX combines the functionality exposed in both the SIGKIT and PADCOM libraries. 16 and 32-bit OCX's are supplied for application development.

For further detailed information on the SDK Tool Kit components, refer to the respective user guides that are placed on you PC during installation.

Contents of the SDK Utilities

The Software Utilities includes the following applications that can be used with the TT1500 to demonstrate its capabilities:

- GETSIG for DOS and GETSIGW for Windows - GETSIG/GETSIGW can be used as a standalone program for capturing, saving, loading, displaying, and converting signatures. It can place signatures on the Windows clipboard. It works like a dialog box that can be called from other programs. For example, an MS Word macro can call GETSIG to display a dialog box that captures a signature and places it on the Windows clipboard, and then pastes it into a Word document. A shortcut can be created to capture or display signatures using GETSIG as a dialog box.

- SIGTOOL (for Windows) - SIGTOOL works as a stand alone program. SIGTOOL can view and can capture signatures from the Transaction Team hardware. SIGTOOL can save, load, compress, and alter signatures. SIGTOOL can convert signatures to different formats and can copy signatures to the Windows clipboard

- TESTER (for Windows) - Tester is used only for testing Transaction Team hardware (MSR, Signature Capture, Graphics, PINPad).

The Software Utilities also include a TT1500 initialization/hardware setup program:

- TTINIT - TTINIT works as a stand alone program for setting up the TT1500 hardware (pad calibration and LCD Clear Time). TTINIT can also be used to test the TT1500 hardware by displaying a signature captured from the pad.

Pad Calibration

The Transaction Team 1500 has a LCD screen. Pad calibration allows the touch surface of the device to be calibrated with its LCD. To calibrate the TT1500 via the TTINIT program:

1. Run the TTINIT program.

2. Click on the Start Calibration button. A cross appears in the upper left corner of the LCD.

3. Touch the LCD's surface at the center of the cross. Another cross appears in the lower right corner of the LCD.

4. Touch the LCD's surface again at the center of this new cross. The device is now calibrated.

5. Click on OK to return to the main window of the TTINIT program.

LCD Clear Time

You can set the LCD to automatically clear itself when a specified number of seconds elapses without any device activity. For example, if the clear time is set to 30, the device automatically clears itself when 30 seconds have elapsed since the last time it was touched. To configure the LCD Clear Time via the TTINIT program:

1. Run the TTINIT program.

2. In the main window of the TTINIT program, there is a LCD Clear Time frame. Position your cursor to the text box and enter the number of seconds for the clear time into the text box.

3. Verify by signing and seeing the LCD clear after the amount of seconds you have entered.

4. The device LCD clear time has now been set to your specified value. It retains this value even after powering off. To reset the LCD clear time, re-run the TTINIT program and repeat steps 1-3.

Technical Specifications

Signature Capture Device Technology	Resistive, transparent, pressure sensitive touch pad
Display	• High contrast, backlit LCD panel • 20 characters per line for standard font
Terminal Dimensions	7.6 in. L x 6 in. W x 1.5 in. H (19.3cm L x 15.2cm W x 3.8cm H)
LCD Dimensions	2.45 in. L x 1.26 in.W (6.2cm L x 3.2cm W)
Touch pad Resolution	1024 x 1024 x,y coordinates (418 dpi x 798 dpi)
Compression	5:1 standard Decompression at host
Connectivity	• RS-232 with AC power supply or power adapter cable • RS-232 pass-through
Other Features	Dual status LEDs
Hardware Options	Power adapter cable
Weight	1 lb. (.45 kg)
Power Sources	• 9VDC adapter • European and host-powered options also available

Software Options	• Software suite includes Software Developer's Kit (SDK), containing Tool Kit and Software Utility components supporting MS-DOS, Windows 3.x, Windows 95, Windows 98, Windows NT, Windows 2000
	• SDK Toolkit includes static library components supporting Borland and MS-DOS, Win 16, and Win32 applications.
	• SDK Toolkit includes visual library components. The 16 and 32-bit OCX control to be used in ActiveX compatible development environments
	• SDK Software Utilities to demonstrate capability of unit
	• Compression and scaling
	• Supported file formats: BMP, SIG, DBI, CGM, EPS, PCL, TIF, TXT, WMF, PLS

Maintenance

To clean your Transaction Team 1500, use a soft cotton cloth lightly dampened with isopropyl alcohol. This removes any ink, fingerprint smudges, or dirt.

Diagnostics

To perform power-on diagnostics:

1. The green LED should be flashing after unit is powered up.

2. Invoke self-test mode by touching pad.

3. Green LED will be off, red LED will be on.

4. All pixels on the LCD will be displayed.

Note: Any communication activity with the device aborts the diagnostics mode and the unit returns to idle mode, waiting for a command from the host.

Factory Service

Hand Held Products provides service for all its products through our service center. To obtain warranty or non-warranty service, return the unit to Hand Held Products (postage paid) with a copy of the dated purchase record attached.

In the United States, please contact the Hand Held Products' Product Service Department at the address/telephone number listed below to obtain a Return Material Authorization number (RMA #).

Hand Held Products
Product Service Department

7510 East Independence Boulevard
Charlotte, N.C. 28227

Telephone: (800) 782-4263 *or* (704) 568-0536
Fax: (704) 532-4191
E-Mail: productservice@handheld.com

For service in Europe, please contact your Hand Held Products' representative (at the address that follows) or your local distributor.

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5628 DB Eindhoven
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or   Int+353 1 295 6353

For service in Asia, please contact your Hand Held Products' representative (at the address that follows) or your local distributor.

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Wanchai, Hong Kong

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Fax: Int+852-251-1355

For service in Japan, please contact your Hand Held Products' representative (at the address that follows) or your local distributor.

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For service in Latin America, please contact your Hand Held Products' representative (at the address that follows) or your local distributor.

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Hand Held Products

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Telephone: (941) 263-7600
Fax: (941) 263-9689

Help Desk

If you need assistance installing or troubleshooting your Transaction Team 1500, please call your Distributor or the nearest Hand Held Products technical support office:

North America:

Telephone:(315) 685-2476 (8 a.m. to 6 p.m. EST)
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