DataTran 162 SL Installation Guide

RELIABLE INTEGRATED E-PAYMENT SOLUTIONS

datacap systems, inc.

For more information, call Datacap at 215 997 8989,
or visit our Web page at www.datacapsystems.com.

100 New Britain Blvd.
Chalfont, PA. 18914-1832
Phone: 215 997 8989
Fax: 215 997 3919
E-mail: sales@dcap.com

Warranty Terms and Conditions

Datacap Systems, Inc. (Datacap) warrants that each part of the products sold by it to the customer under these terms and conditions will be free from defects in materials and workmanship under normal use and service. Breach of warranty will be enforceable against Datacap only if written notice of rejection is received by Datacap within one year after the product's arrival at customer's site or designated delivery location.

The customer shall also provide Datacap with the opportunity to inspect or test the part or parts claimed to be defective on the customer's premises, itself or through a responsible third party, or, if Datacap deems it necessary at its expense, at Datacap's factory. Any adjustment is contingent upon Datacap's examination of the part or parts disclosing that apparent defects have not been caused by misuse, abuse, accident, or negligence in transportation, handling or use.

The liability of Datacap under this warranty is limited at the sole discretion of Datacap to either (i) the repair by Datacap of any product or part thereof (as Datacap may see fit) or (ii) the replacement by Datacap of any part or parts thereof (as Datacap may see fit) as to which any defect is claimed by the customer and duly verified. Transportation cost for the rejected part will be borne by Datacap only in cases where the part is defective and repair or replacement is made.

Except for a warranty of title, THE WARRANTY SET FORTH ABOVE IS EXCLUSIVE AND IN LIEU OF ALL WARRANTIES, EXPRESSED, OR IMPLIED IN FACT OR BY OPERATION OF LAW OR OTHERWISE, INCLUDING THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, OR OF MERCHANTABILITY, AND THE COMPANY SHALL HAVE NO OBLIGATION OR LIABILITY IN CONNECTION WITH OR RESULTING FROM THE FURNISHING, SALE, INSTALLATION, REPAIR OR USE OF ANY PRODUCT OR MATERIAL OR SERVICES SUPPLIED BY IT.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply.

Documentation Notice

Datacap Systems, Inc. reserves the right to make product changes and improvements without notice or obligation to notify any person or entity of such changes or improvements.

These manuals are updated periodically and any changes will appear in new editions. Datacap is not responsible for typographical errors or technical inaccuracies found in this manual.

Printed in U.S.A.

Date of last revision: May 5, 2001.

In addition to the DataTran 162 SL Installation Manual, the DataTran SL OEM Integration Guide may prove useful in the installation and operation of your system:

DataTran 162 Product Approvals

U. S. A. Emission Requirements: Class A

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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 interference to radio communications. Operation of this equipment in a residential area is likely to cause interference in which case the user will be required to correct the interference at his own expense.

FCC Requirements

1. The Federal Communications Commission (FCC) has established Rules which permit this device to be directly connected to the telephone network. Standardized jacks are used for these connections. This equipment should not be used on party lines or coin lines.

2. If this device is malfunctioning, it may also be causing harm to the telephone network; this device should be disconnected until the source of the problem can be determined and until repair has been made. If this is not done, the telephone company may temporarily disconnect service.

3. The telephone company may make changes in its technical operations and procedures; if such changes affect the compatibility or use of this device, the telephone company is required to give adequate notice of the changes. You will be advised of your right to file a complaint with the FCC.

4. If the telephone company requests information on what equipment is connected to their lines, inform them of:

a: The telephone number this unit is connected to
b: The ringer equivalence number
c: The USOC jack required
d: The FCC Registration number

Items ‘b’ and ‘d’ are indicated on the label.

The Ringer Equivalence Number (REN) is used to determine how many devices can be connected to your telephone line. In most areas, the sum of the RENs of all devices on any line should not exceed five (5.0). If too many devices are attached, they may not ring properly.

Service Requirements

In the event of equipment malfunction, all repairs should be performed by our Company or an authorized agent. It is responsibility of users requiring service to report the need for service to our Company or to one of our authorized agents. Service can be obtained at:

Company:	**Datacap Systems Inc.,**
Address:	**100 New Britain Blvd.,**
	Chalfont, PA 18914 USA
Telephone:	**215 997 8989**

Introduction

The DataTran 162 SL financial transaction processor provides software developers the ability to integrate on-line Electronic Draft Capture, Credit Authorization or other financially related processing with Point Of Sale or other related software applications.

This external device features an intelligent controller and a FLASH based design that utilizes nonvolatile memory with integrated long term battery protection to store transactions and network code modules. The 162 SL easily connects to the serial port of a host device (PC, ECR, Point Of Sale terminal) .

The DataTran 162 SL features include an integrated 2400 baud modem with a pass through data design, and Hayes SmartModem AT command compatibility.

The DataTran 162 SL also features interfaces to support an external MSR (Magnetic Stripe Reader) capable of reading cards with ABA Track 2 encoded data, and a MICR (Magnetic Ink Character Recognition) for reading information from checks. Operation of the MSR or MICR is under the control of the application software used on your PC, ECR or POS system.

Operation Modes

The DataTran 162 SL can operate in either of the following modes:

Transparent Mode - Because the DataTran uses a co-processor, you can actively perform normal data communication without effecting DataTran financial processing.

DataTran Mode - You can issue "AT&U" commands through the host device to activate the financial transaction processing functions of the DataTran. The DataTran will then process the command, assume control of the modem to complete the request, and return the results of the transaction requested to the host.

NOTE: *The operational uses of the DataTran 162 SL are normally controlled by the application software used on your PC, ECR or POS system. This software must be written with DataTran 162 SL support or it will not function properly. To verify that DataTran 162 SL support is built into your PC, ECR or POS software, contact the vendor of that software directly.*

For additional information about the DataTran command set, please refer to the DataTran SL OEM Integration Guide.

Before You Start

Datacap fully tests each DataTran 162 SL before shipment. The unit comes packed in a box with wrapping that protects it during shipping**. Keep the shipping carton and all packing materials.** If you must ship the unit anywhere for any reason, you must ship the unit in its original carton. Failure to do so may void the warranty or result in damage to the unit.

As with any electronic component, you should exercise reasonable care in the handling the DataTran during the installation process.

Hardware Requirements

The DataTran 162 SL requires the use of an external interface cable that connects from its microDIN-8 connector to a serial port on the host device (see cable diagram below). The DataTran 162 SL also has a modular RJ11 jack that connects to a phone line, a MicroDIN-6 connector for an optional communications adapter or MICR reader and an RJ12 for optional PIN pad.

Power Supply

The DataTran 162 SL uses an external power supply that plugs into the back of the unit via a female circular plug and into standard wall outlet.

Power Supply Ratings - Input: 120VAC 60Hz 15W, Output: 9.0VAC 1000mA.

Host Cable Interface Diagrams

DataTran uDIN-8 Pin	Signal	Host DB25F Pin	Host DB9F Pin	Input/Output
-	FG	1	Shell	From PC, ECR
3	TXD	2	3	To PC, ECR
5	RXD	3	2	From PC, ECR
1	RTS	4	7	To PC, ECR
2	CTS	5	8	From PC, ECR
4	DSR	6	6	From PC, ECR
Shell	SG	7	5	-
8	DCD	8	1	From PC, ECR
6	DTR	20	4	To PC, ECR
7	RI	22	9	From PC, ECR

If required, use the following cable interface information to connect the DataTran (via its MicroDIN-6 connector) to an external serial (RS-232C) device.

Pin #	Signal	Input/Output
6	Data Carrier Detect (DCD)	From PC, ECR
4	Data Receive (RXD)	From PC, ECR
3	Data Transmit (TXD)	To PC, ECR
5	Data Terminal Ready (DTR)	To PC, ECR
Shell	Signal Ground (SG)	
-	Data Set Ready (DSR)	
1	Request To Send (RTS)	To PC, ECR
2	Clear To Send (CTS)	From PC, ECR
-	Ring Indicator (RI)	

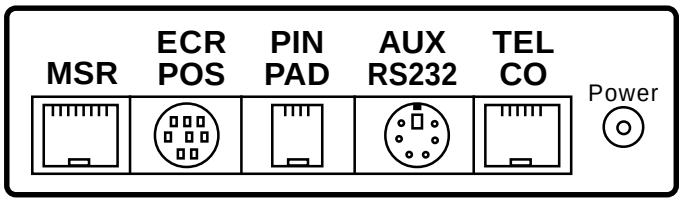
Installation

Do not use excessive force when installing the cables into the DataTran or your computer.

Do not place cups, cans, any type of liquid containers or foreign substances on the DataTran.

Do not place any heavy weights on the DataTran 162 SL enclosure.

NOTE: *Make sure to plug the PC, ECR or POS cable into the 8 position micro-DIN connector on the DataTran.*



Rear Connector Panel for DataTran 162 SL

Connectors

MSR	External MSR (Magnetic Stripe Reader)
ECR POS	Interface (RS232) to ECR or POS system
PIN Pad	Verifone1000 PIN pad port
AUX RS232	MICR Device or external communications adapter (eg ISDN, Satellite)
TELCO	Telephone line jack

To install the DataTran 162 SL:

1. Turn the power off on the PC, ECR or POS.

2. Using the appropriate cables, connect the DataTran to the PC, ECR or POS, and the phone line.

3. Connect the power supply to the DataTran (circular connector), then insert the plug of the power supply into an electrical outlet (110 volt). The power indicator on the front of the DataTran will then light up.

4. Apply power to the PC, ECR or POS.

After installation, verify all cable connections before applying power to the computer. Never unplug the DataTran from the PC, ECR or POS with the power on.

Testing the DataTran 162 SL

Following the installation of the DataTran, you should verify the communications link with the PC, ECR or POS application. If this test is not available, use a commercially available communications software package to test the DataTran's integrated modem (e.g. ProCOMM Plus)

To verify the modem, set the communications package to the following settings and the proper communications port:

- No parity
- 8 data bits
- 1 stop bit
- 2400 bits per second

Then issue the following verification/test command:

AT&UT99

When successfully installed, the DataTran 162 SL will respond with the following:

```
TOS  Ver:  N.NN
Dual Port Version
8000H Bytes Data RAM Installed
20000H Bytes Program (Flash) Memory in 4 Pages, Loadable at 4000H
ROM Checksum = XXXX
Program Memory Loaded
Load Program OK
OK
```

(where N.NN is the version number)
(where XXXX is the checksum)

To verify that the DataTran 162 SL has a network bundle loaded, issue the following command:

AT&UP96

When successfully installed, the DataTran 162 SL will respond with the following:

```
NDA   TCK   VS1   SRS   Ver: M   N.NN      (where N.NN is the version number)
ON    OFF   OFF   OFF
OK
```

The first line of the response message displays the three character code of each loaded network, and the network version number. The second line indicates if the network is active.

NOTE: If your DataTran does not have a network bundle installed, contact Datacap or your authorized DataTran dealer and arrange for a network download (You may incur a nominal fee for this service).

Troubleshooting

If your modem does not respond to your PC, ECR or POS application tests or the communications software verification command, perform the following steps:

1. Power down the PC, ECR or POS

2. Verify the following:

   - The DataTran 162 SL power indicator light is on.

   - The DataTran's power supply is plugged in.

   - The PC, ECR or POS system is turned on.

   - The PC, ECR or POS's communication port assignment is correct.

   - Verify the telephone line operation; plug a telephone into the DataTran, lift the handset, and listen for a dial tone.

   - The interface cable is connected and secured.

3. Retry one of the tests described above. If the unit fails the DataTran verification test, contact your authorized DataTran dealer.

This page is intentionally blank.