

# THE PAYMENT SOLUTIONS EXPERTS



[www.skipjack.com](http://www.skipjack.com)

TSYS PIN-based  
Debit Services  
Guide



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## About this Document

This guide contains information about the Skipjack TSYS PIN-based Debit Service. This is an overview of integration details and related information intended for developers and others looking for details about processing PIN-based debit cards and using TSYS as your Payment Processor.

### Copyright Notice

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### Trademark Notice

All trademarks, registered trademarks, and service marks mentioned or used within this document are owned wholly by their respective owners.

### Interchange Qualifications and Transaction Rates

As your Payment Solution Skipjack Financial Services cannot guarantee interchange qualification for any transaction. It is the responsibility of each Merchant to confirm that their transactions are qualifying for the correct interchange rates in consultation with their merchant account provider/processor.

If you experience issues with interchange qualification, please contact our Support Group so that we can work with your processor to identify and correct any issues. Your Payment Processor must provide the necessary information to direct you and/or Skipjack in the resolution process.

### Publication History

Date	Version	Comments
August 2008	Version1.0_RevA1	Draft version sent for internal review purposes.
August 2008	Version1.0_RevA2	Updated with minor changes as per reviewers comments.

## Documentation Conventions

The information presented in this guide uses the following text conventions throughout.

Convention	Usage	Example
Blue courier text	Code Snippets, HTML Code, Skipjack Transaction Network Request Response	<code>&lt;form name="Button" action="https://vpos.skipjack.com/ezPay/order.asp" method="post"&gt;</code>
<b>Bold text</b>	Browser Elements, Fields Names, and Menu Items, Emphasis Notes	...click on a <b>Swipe Card</b> item .... ...make sure you enter your <b>HTML Serial Number</b> ... <b>NOTE: You must consider the following when... Never delete Settled transactions.</b>
<u>Blue Underline</u>	Hyperlinks to external locations on the Web or into the bundled Help file (PC version only).  <b>NOTE: The links to Help File topics in this document will only function from the Help (CHM-based) documentation and not from with the PDF version of this document.</b>	Visit <a href="https://www.skipjack.com">https://www.skipjack.com</a> to learn more about Skipjack Financial Services.
<i>Italics</i>	Titles of documents	<i>Skipjack Integration Guide</i>
"Quoted text"	Cross-references (clickable hotlink in the PDF version) to a location within this document	See the "About this Document" section for details.

## Permitted Syntax

The permitted syntax for variables and other fields described in this guide are defined below. When specified, please ensure you follow these conventions when entering data into each field or request variable.

Formatting Type	Description of Permitted Characters	Usage Notes
Numeric	All number characters only.	Includes all integers.
Alphabetic (Alpha) Only	All letters of the alphabet only.	All letters of the alphabet excluding special characters &,%,#,*,+,-,@.
Alpha-Numeric	All numeric characters and alphabetic characters but excluding restricted characters.	All numeric and alphabetic characters excluding special characters &,%,#,*,+,-,@.
All Characters	All numeric characters, all letters of the alphabet, and most symbols but excluding restricted characters.	All characters, including alpha-numeric characters but excluding restricted characters &,%,*.
Restricted Characters	Characters that are reserved for special uses by internal system use and cannot be included in variable names or field values.	Restricted for special (system) uses: &,%.*

## ***Obtaining Additional Development Information and Documentation***

This section contains information about obtaining additional information about this product and how to contact Skipjack Financial Services.

### **Obtaining Reference Documents and Related Resources**

A complete listing of Developer resources including User Guides, Developer and Merchant Resources, support links and resources is available from the Skipjack Financial Services Web site at <http://www.skipjack.com/developers.aspx>.

You can obtain a complete version (PDF format) this document as well as other documents that are referenced by this document at this site. Consult each document as required.

- [\*Skipjack Integration Guide\*](#)
- [\*Skipjack Merchant Reporting Guide\*](#)
- [\*Skipjack Merchant Services Guide\*](#)
- [\*Skipjack Reporting API Integration Guide\*](#)
- [\*Skipjack Integration Overview Guide\*](#)
- [\*Skipjack TSYS PIN-based Debit Services Guide\*](#) – (*Latest version of this Guide*)

### **Contacting Skipjack Financial Services**

If you have problems using the TSYS PIN-based Debit Service or have questions about its use that are not covered in this documentation, please contact Skipjack Financial Services.

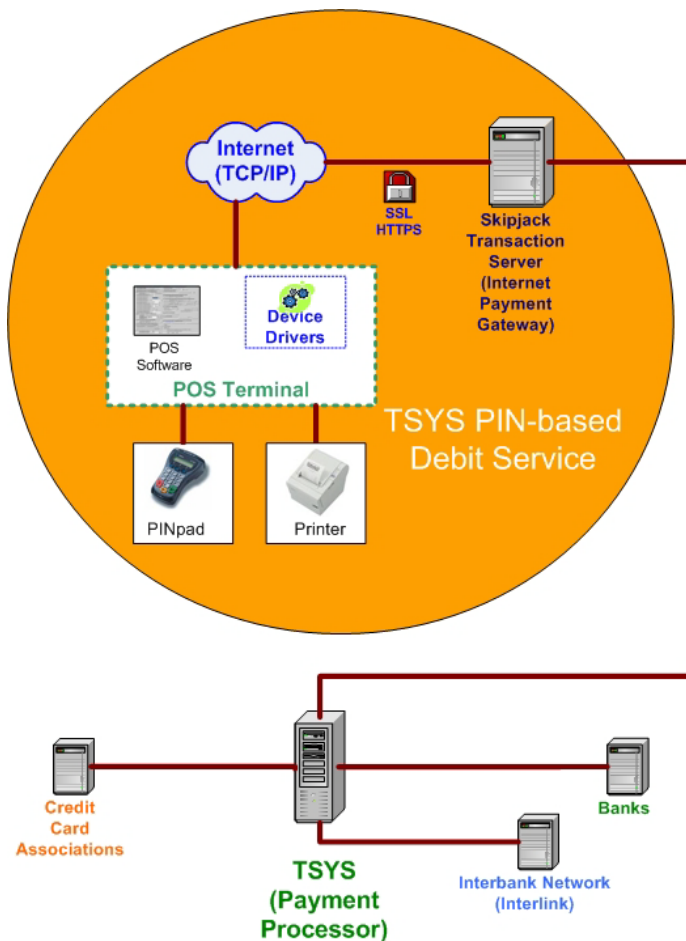
- On the Web: <http://www.skipjack.com>
- Toll-Free Telephone Support Line: 1-888-368-8507
- By E-mail: [support@skipjack.com](mailto:support@skipjack.com)

## Skipjack TSYS PIN-based Debit Service Functional Overview

The Skipjack TSYS PIN-based Debit Service is a transaction processing service which enables processing PIN-based debit transaction processing using TSYS as your Payment Processor. Transactions are sent via the Skipjack Transaction Network and all transaction data are transmitted using a Secure Sockets Layer (SSL) HTTPS connection for data transmission security.

The transaction request and response formatting for this service are the same as those required for debit card transactions. For detailed transaction processing information, including all the Authorize/Authorize API messaging requirements, variables and permitted values see the [Skipjack Integration Guide](#).

**NOTE: Skipjack Financial Services does not provide support for PINpad hardware. PINpads listed in this guide are supported by the vendor and acquiring bank. If you have any support questions related to these devices, such as device drivers and hardware connectivity issues contact your acquiring bank, device manufacturer, or the PINpad distributors, as appropriate.**



## ***Features and Benefits of the TSYS PIN-based Debit Service***

- Provides PIN-based debit card processing for Merchants with an American-based (USA) Merchant Account.
- Supports **Debit** transactions and **Credit** transactions.
- Provides **PIN-based debit card transaction processing** when using TSYS as the Payment Processor.
- **Cash Back option** is supported for all Purchases (Not available for Reversals or Credit transactions).
- **Reversals** can be performed to reverse the actions a previous transaction– **Debit** or **Credit**.
- A broad range of **DUKPT-compliant** swipe devices and PINpads are supported, each using a highly secure, **encrypted, management key** that is unique to transaction.
- **Full Developer support** is provided by Skipjack Financial Services Customer Support including phone support and online (e-mail) support throughout your development and integration period.
- Skipjack Financial Services allows **full access to the full range of Skipjack Financial Services online tools** including the **Skipjack Merchant Register** and the **Skipjack Reports Manager**. These are used to view, access, and perform advanced transaction processing functions on previously submitted transactions. For information about these tools and services, visit the Skipjack website at <http://www.skipjack.com/solutions.aspx>.

## ***Performance Specifications and Features***

### **Supported PINpad Devices**

The following PINpad devices are supported for use with the TSYS PIN-based debit service. For more information about acquiring any of these devices please contact your acquiring bank about their fees, processes, and timelines that apply.

To use swipe devices and PINpads not listed below, first ensure that they are **DUKPT-compliant**. Then contact your acquiring bank and/or Skipjack Financial Services for additional information and guidance.

- AT&T 5944 PIN Pad, model 0101
- Bull - Telesincro TPP12 (Non-KCSM compatible)
- Dassault Artema with Internal Pin Pad- Mobil- CDPD
- Dassault AT Freesia 5000/UDT
- Dassault AT SPP20
- Dassault AT TPC 232
- Dassault Freesia 5000 (Non-KCSM compatible)
- Dassault AT Talento External PIN Pad
- Dassault Pin Pad TSC
- DataCard Jigsaw JSPP
- DataCard Jigsaw JSTM
- DataCard SPPII PIN Pad
- De La Rue Fortronic F9000
- HHP Inc. TT3101
- Hypercom T7Plus Terminal w/Internal PIN Pad
- Hypercom S7 PIN Pad
- Hypercom S7CR PIN Pad
- Hypercom S8D PIN Pad
- Hypercom S9 PIN Pad
- Hypercom S9C PIN Pad
- Hypercom S9SC PIN Pad
- Hypercom ICE5000 Terminal w/Internal PIN Pad
- Hypercom ICE5500 Terminal w/Internal PIN Pad
- Hypercom ICE5500 Plus Terminal w/Internal PIN Pad
- Hypercom ICE5700 Terminal w/Internal PIN Pad
- Hypercom ICE6500 Terminal w/Internal PIN Pad
- Hypercom P1300
- Hypercom PV1310
- Ingenico I3010
- Ingenico i5100
- Ingenico eN-Touch 1000 (Non-KCSM compatible)
- Intellect Australia 7170 PIN Pad, model 0200
- Intellect Australia 7270 PIN Pad, model 0100
- Intellect Australia 7270 PIN Pad, model 0300
- IVI C2000 Protege PIN Pad
- IVI SRP-II PIN Pad

- IVI CheckMate CM2001 PIN Pad (Non-KCSM compatible)
- IVI CheckMate EnCrypt 100
- CyberNet Jade BreakThrough (Non-KCSM compatible)
- Lipman Nurit 202 PIN Pad
- Lipman Nurit 222 PIN Pad (Non-KCSM compatible)
- Lipman Nurit 252 PIN Pad
- Lipman Nurit 2080 w/Internal PIN Pad
- Lipman Nurit 3000 w/Internal PIN Pad
- Lipman Nurit 3010 w/Internal PIN Pad
- Lipman Nurit 8000 w/Internal PIN Pad
- Lipman Nurit 292S PIN Pad
- Lipman Nurit 8320S w/Internal PIN Pad (US-M11)
- Lipman Nurit 8320S w/Internal PIN Pad (US-M12)
- Lipman Nurit 8320S w/Internal PIN Pad (US-M42)
- Lipman Nurit 8320S w/Internal PIN Pad (US-M43)
- Lipman Nurit 8000S w/Internal PIN Pad (RIM802)
- Lipman Nurit 8000S w/Internal PIN Pad (RIM902)
- Lipman Nurit 8000S w/Internal PIN Pad (MX1 GPRS)
- Lipman Nurit 8100S w/Internal PIN Pad (US-M1X)
- Verifone Nurit 8020 (P/N BLU 8020US11D04)
- Magtek DUKPT PIN Pad
- Magtek IntelliPIN RS232 Portable (30015107)
- Magtek IntelliPIN Keyboard Wedge (30015110)
- MGR Industries 1K12P104
- MGR Industries 1K12P105
- MGR Industries 1K12P107
- MIST Inc Freedom II w/Internal PIN Pad
- MIST Inc FreedomSPD PIN pad
- MIST Inc FreedomPINpad
- National Business Systems, Danyl/Schlumberger CVC-DES-KB PIN Pad
- National Business Systems, PIN 40 PIN Pad
- NCR 5991 Model 0402 PIN Pad
- NCR 5992 K100 (non-KCSM compatible)
- NCR 5992 K150 (non-KCSM compatible)
- Omega Digital Solo TL 8/9
- Schlumberger Electronic Transactions SuperSAM v1.0
- Schlumberger MagiC 1000 PIN pad
- Schlumberger MagiC PIN PAD (Non-KCSM compatible)
- Schlumberger MagiC 9000 (Non-KCSM compatible)
- Tillsmith Systems K23 w/Internal PIN Pad
- Verifone Everest PIN Pad (Non-KCSM compatible)
- Verifone Everest Plus
- Verifone Folio
- Verifone Omni 470 Internal PIN Pad/Terminal
- Verifone Omni 490
- Verifone Omni 1450

- Verifone Omni 3210 w/Internal PIN Pad
- Verifone Omni 3600 w/ Internal PIN Pad
- Verifone Omni 3750 w/ Internal Pin Pad
- Verifone Omni 3740 w/ Internal Pin Pad (P/N M197-510-14-US1)
- Verifone Omni 7000 (P/N M077-011-00)
- Verifone Omni 7100 (P/N M078-014-00)
- Verifone PIN Pad 1000
- Verifone PIN Pad 1000se (P/N P003-160-02)
- Verifone PIN Pad 1000se (P/N P003-170-02)
- Verifone PIN Pad 102
- Verifone PIN Pad 2000
- Verifone PIN Pad 301
- Verifone SC 455
- Verifone SC 550
- Verifone Omni 3740 (P/N M197-450-14-US1)
- Verifone SC5000 (P/N M108-120-00)
- Verifone SC5000 (P/N M108-43Y-A0-R)
- Verifone Vx510 (P/N M251-000-33-NAA)
- Verifone Vx610 (P/N M254-513-06-DEM)
- Verifone Vx670 (P/N M267-012-11-USA)
- Verifone Vx570 (P/N M257-553-02-DEM)
- Verifone 1000SE (P/N P003-180-02-R)
- Verifone Vx510 (M251-000-33-NAD)

## Required and Optional Authorization Variables by Transaction Type

The following table lists and describes the required and optional request variables used for the TSYS PIN-based Debit Service. Your application must use the following variables in properly formatted, fully-formed name-value pairs for each transaction request.

**NOTE: Variables in red are new variables introduced by this Service.**

- For more information about these variables including formatting and values used in the Authorization request for TSYS PIN-based debit transactions see the “Transaction Requests for Authorize and AuthorizeAPI” section of the [Skipjack Integration Guide](#) for details.

	Debit (Purchase)	Credit	Reversal
Details	<p>A transaction amount with a positive value is made to the Skipjack Transaction Network and this amount is debited from the customer’s bank account.</p> <p>A record of the transaction will appear on the customer’s bank record if not credited.</p>	<p>A transaction amount with a negative value is made to Skipjack Transaction Network and this amount is credited to the customer’s bank account.</p> <p>The Credit transaction will appear as a distinct transaction on the customer’s bank record.</p> <p>A Credit can be applied to an existing transaction record after 60 minutes have elapsed from the original transaction was authorized.</p>	<p>Reversal can be used to reverse either a Debit or a Credit. A transaction amount with a negative value is made to the Skipjack Transaction Network and this amount will be reversed from the customer’s bank account.</p> <p>No record of this transaction will appear on the customer’s bank account record.</p> <p>Reversals must be submitted by using the Unqtransactionid variable to identify the original transaction and be submitted within 60 minutes of the original transaction otherwise a Credit must be performed.</p>
Required Request Variables	<b>PINBlock</b> TransactionAmount SerialNumber OrderNumber SJName StreetAddress City State Zipcode Country E-mail ShiptoPhone OrderString	<b>PINBlock</b> TransactionAmount SerialNumber OrderNumber SJName StreetAddress City State Zipcode Country E-mail ShiptoPhone OrderString	<b>Unqtransactionid</b> TransactionAmount SerialNumber OrderNumber SJName Street address City State Zipcode Country E-mail ShiptoPhone OrderString Accountnumber Month Year
Optional Request Variables	<b>CashbackAmount</b>	None	None

## Example Code Snippets

### Request Variables

**NOTE:** In the code snippet below, the new variables used for this service are highlighted in **red text**.

```

<head>
<title>Tsys Pin Debit</title>
</head>
<body>
<h1>Tsys Pin Debit</h1>
<form action="https://developer.skipjackic.com/scripts/evolvcc.dll?AuthorizeAPI"
method="post">
purchase or credit or reversal
<br /><br />
serial number <input type="text" name="serialnumber" value=""><br />
order number <input type="text" name="ordernumber" value=""><br />
sjname <input type="text" name="sjname" value=""><br />
street address <input type="text" name="streetaddress" value="" /><br />
city <input type="text" name="city" value="" /><br />
state <input type="text" name="state" value="" /><br />
zip code <input type="text" name="zipcode" value="" /><br />
country <input type="text" name="country" value="" /><br />
email <input type="text" name="email" value="" /><br />
phone <input type="text" name="shiptophone" value="" /><br />
orderstring <input type="text" name="orderstring" size="40" value="" /><br />
amount <input type="text" name="transactionamount" value="" /><br />
cash back (optional) <input type="text" name="cashbackamount" value="" /><br />
<br />
purchase or credit
<br /><br />
track data <input type="text" name="trackdata" size="120" value="" /><br />
pin block <input type="text" name="pinblock" size="40" value="" /><br />
<br />
reversal
<br /><br />
transaction id <input type="text" size="40" name="unqtransactionid" value="" /><br />
account number <input type="text" size="40" name="accountnumber" value="" /><br />
expiry month <input type="text" name="month" value="" /><br />
expiry year <input type="text" name="year" value="" /><br />
<br />
<input type="submit" value="submit" />
</form>
</body>
</html>

```

### Example Response String

The example below illustrates a typical Authorization response for the TSYS PIN-based debit service.

Note that the szCAVVResponseCode value returned denotes the Settlement date for the transaction in **MonthMonthDayDay** format. For Reversals, the szCAVVResponseCode value returned denotes the settlement time of the original transaction.

## Response Example 1: Authorize

```
"<!--AUTHCODE=VITAL5--><!--szSerialNumber=111222333444--><!--szTransactionAmount=1900--><!--szAuthorizationDeclinedMessage=--><!--szAVSResponseCode=N--><!--szAVSResponseMessage=Card authorized, no address or zip code match.--><!--szOrderNumber=1--><!--szAuthorizationResponseCode=000067--><!--szReturnCode=1--><!--szCVV2ResponseCode=--><!--szCVV2ResponseMessage=--><!--szIsApproved=1--><!--szTransactionFileName=9802850951761.009--><!--szCAVVResponseCode=1225-->
```

## Development Notes for the TSYS PIN-based Debit Service

The following development guidelines apply:

- The **PINBlock** is 32 characters long and must be formatted in following way: **AAAAAAAAAAAAAAAAAKKKKKKSSSSSSSSSS**, where **A** represents Expanded Encrypted PIN Block Data (16 characters), **K** (6 characters) represents Key Set Identifier (KSID), and the **S** (10 characters) represents the Expanded TRSM ID (PIN Pad Serial Number).
- The **PINBlock** is encrypted and is not stored within the Skipjack Transaction Network.
- When reversing a Debit transaction using Reversals the **Unqtransactionid** is used to uniquely identify the original transaction to be reversed, not the **OrderNumber**.
- The **TransactionAmount** used for a Credit or a Reversal may not exceed the original TransactionAmount, otherwise a szReturnCode = -57 error will be returned.
- In the case of a **Credit Reversal**, the **szCAVVResponseCode** will contain the date in **DDMM** format of the original transaction authorization.
- Credits require that a negative value is submitted for **TransactionAmount**.
- When the Cash Back (optional) feature is used the **TransactionAmount** contains the sum of the product or service purchased plus the amount of cash disbursed as the Cashback amount.
- For additional information, including Skipjack Financial Services Certification Test Cases and other details see “Appendix B: Test Cases for Skipjack Financial Services Certification Testing”.

## Process for Integrating and Certifying the TSYS Pin Debit Service

This section describes the integration requirements and suggested deployment lifecycle for using the TSYS Pin Debit Service. Please read and understand the information below and in all referenced documents prior to beginning your application development.

Please note that some steps have a waiting period associated with them that is required to process paperwork and to perform required hardware PINblock injections. The length of time for this processing is outside of the control of Skipjack Financial Services. You should contact your acquiring bank for specific timelines and fees associated with their processes. Any timelines used in this guide should only be considered rough guidelines only and reflect *typical* times required.

1. Obtain a Skipjack Development Account by calling Skipjack Financial Services (toll-free) at 1-(866) 438-8767. A Skipjack Customer Support Representative will provide you with an appropriate Skipjack Development Account. Upon completion of this call, you will receive e-mail from Skipjack Financial Services containing all information required to access and use the Skipjack Transaction Network, including:

- HTML Serial Number(s) and Developer Serial Number(s): Required to submit transactions to the Skipjack Transaction Network.
- Vendor Login Serial Number, Username, and Password: Required for Secure Login using Web interface at <https://secure.skipjack.com> (For Reports Manager and Merchant Register access).

2. Obtain and read and understand the documentation about TSYS Pin Debit Service and applicable sections about authorization variables in the *Skipjack Integration Guide*.
3. You must obtain a Skipjack Test Account, PINpad with a PINBlock injected, and test debit cards (virtual) from TSYS or its authorized agents and/or acquiring bank. Contact your acquiring bank for details about obtaining these items. Once you have a PINpad and test cards you can begin processing transaction in the Test (Development) Environment.

**NOTE: Contact Skipjack Financial Services if you require assistance in ordering a PINpad and debit test cards or have any questions regarding specific hardware requirements that cannot be answered by your acquiring bank. Skipjack Financial Services will make every effort to provide you with any guidance, if required, in selecting your PINpad for your development processes.**

4. Develop and integrate your POS application using the documented requirements and specifications described in this guide and all other referenced documents.
5. Test your POS application as described in the *Skipjack Integration Guide*.
6. You must obtain **Production** debit PINpad(s) from your acquiring bank to be able to submit and process debit transactions in the Production (Live) environment. Contact your acquiring bank for details about the fees, processes, and timelines involved in obtaining PINpads or swipe devices for use in a Production environment.
7. Schedule a time to certify your application as Skipjack Certified by contacting Skipjack Financial Services. Ensure that your application integration functions correctly with the Test cases listed in “Appendix B: Test Cases for Skipjack Financial Services Certification Testing”.

8. Register your implementation online with Skipjack's Solution Finder to maximize your business opportunities. Registration in Solution Finder is free and provides Skipjack's sales partners with a link from their customers to your Web site. For more information about registering online, go to <https://secure.skipjack.com/partners/search.aspx> or email [partners@skipjack.com](mailto:partners@skipjack.com).

**NOTE: Skipjack Financial Services suggests keeping a Test PINpad on hand for troubleshooting and testing purposes even after you deploy your application in the Live (Production) environment.**

### *Suggested Debit Transaction Processing Logic*

This section contains information about a typical logic required for processing Debit card transactions. Your application should handle this logical workflow to ensure that your application functions effectively for processing transactions.

**NOTE: This transaction logic is intended as a guide and your POS application must include all logic required to process transactions effectively and to handle error conditions and states. Key sequences and key labels may be different and will depend on the actual PINpads you are using in your application.**

1. The POS application totals the transaction. For a Purchase, if there is a **Cash Back** option enabled by the POS application, the **TransactionAmount** used in the transaction must be the sum of the **CashbackAmount** plus the purchase amount. This transaction amount must be passed from the POS application and displayed on the screen on the PINpad or POS terminal to the customer.
2. Customer is prompted by the PINPAD to **enter** their **PIN** and typically select **Enter** or **OK** button.
3. An authorization request is submitted to the Skipjack Transaction Network. At this point the PINblock and all authorization name-value pairs are submitted to the Skipjack Transaction Network.
4. The response of the authorization request is returned and is displayed on the PINpad screen as either **Approved** or **Declined**.
5. For Declined transaction the Customer is prompted to re-try their transaction and resubmit the transaction.
6. If receipt printing is enabled, the POS application prints the receipt confirming the transaction status of the transaction for both the Customer and the Merchant.
7. The POS stores the results of the transaction locally for subsequent processing steps, if required, such as Reversal or Credit processing.

**NOTE: To comply with card processor security rules the card credentials including the card number, and expiry date must not be stored by your POS applications.**

8. The Merchant uses the Merchant Register to determine the transaction status for their account and for an individual transaction. Additional transaction processing options may be selected.

## Frequently Asked Questions

This section contains questions and answers related to the TSYS PIN-based Debit. Please read this section carefully along with all other supporting documentation before contacting Skipjack Financial Services with any support questions.

### *PINpad Questions*

#### **How do I obtain my Debit PINpad (Production and Test)?**

Merchants and Developers can obtain any of the supported PINpads listed in the “Supported PINpad Devices” section by contacting their acquiring bank. You must obtain these PINpads directly from your acquiring bank, or their approved representative. Please contact your bank directly to understand the fees, time requirements, and other details regarding their specific process for acquiring PINpads. PINpad will be injected with a PINblock that is required for processing debit transactions using the TSYS PIN-based Debit Service.

#### **Are PINpads other than those listed in this guide supported?**

All **DUKPT-compliant** PINpads and swipe devices are supported by the TSYS PIN-based Debit Service on Skipjack Financial Services. Contact your acquiring bank for details and any fee associated with using non-listed PINpads **DUKPT-compliant** PINpads including having the PINblock injection completed.

### *Test Card Questions*

#### **How do I obtain my test cards?**

Contact your acquiring bank for information and all other details about obtaining Debit test cards.

#### **Some test transactions are being Declined. Is there are maximum transaction amount for use with the test cards?**

Yes, there is a maximum amount of \$200.00 per transaction for card transactions when using the test card. Transactions with amounts greater than this will be Declined. In the test environment, certain transaction amounts are used for specific test cases and may result in Declines. Please see the “Appendix A: Error Codes Returned in the Test Environment” for details.

#### **Is there a virtual test debit card that I can use while I am waiting for my real debit test cards to arrive?**

In some cases, yes. You must contact your acquiring bank to obtain a debit test card (real and virtual) for your integration development and testing purposes.

**NOTE: Virtual test cards, if used, cannot be used to submit transactions in the Live (Production) environment. Doing so will cause the Live transactions to fail Settlement.**

## ***Reversals and Reversal File Questions***

### **What is a “Reversal”?**

A Reversal is transaction that reverses the actions of a previous transaction, either a Credit or a Debit (Purchase). However, there are usage guidelines to consider for Reversals. Reversals can only be done within one hour of the original transaction authorization. Also reversed transactions **do not appear on the customer’s bank account records**. After the one hour period elapses a Credit must be applied instead and this transaction will appear as a separate transaction on the customer’s bank account records.

## ***Settlement Questions***

### **Is there a Settlement lifecycle associated with TSYS PIN-based Debit Service transactions?**

Yes, debit transactions will settle immediately, however Reversals for both Purchases (Debits) and Credits can still be applied to transactions.

## ***Skipjack Certification Questions***

### **Do I need to certify my POS application with TSYS before I can actually process Live debit transactions?**

No. The TSYS PIN-based Debit Service has already been Certified by TSYS with Skipjack Financial Services so further certification is not required by your organization.

However, you must complete Skipjack Financial Services Certification Testing for your application before you can process Live transactions (Production environment). For information about the test cases that your application must demonstrate and pass see “Appendix B: Test Cases for Skipjack Certification Testing” section.

### **I have my Skipjack Financial Services Test Account. Can I use the TSYS PIN-based Debit Service and begin my development and submit transactions for processing?**

You will **not** be able to submit **debit** transactions to TSYS without a PINpad and debit test cards. You must obtain each of these from your acquiring bank.

## Order Number Questions

### Why should I use a unique Order Number?

A unique Order Number is intended to serve as a unique identifier for the transaction which allows the Skipjack Transaction Network to identify the transaction without ambiguity.

Not using a unique Order Number means that:

- Reversals will fail if an exception occurs because Skipjack Financial Services will not know which transaction to reverse and may reverse the wrong record or fail to automatically to reverse any records which increases the workload required to handle Reversals. See also “Reversals and Reversal File Questions”.
- You will have to perform additional steps to identify the transaction record for advanced transaction (optional) processing methods.
- The incorrect transaction may be reversed in certain circumstances.
- **Order Number must use alpha-numeric characters ONLY.** Spaces, special characters or restricted characters (!@#\$%, etc) are automatically removed during transaction processing by the Skipjack Transaction Network and will result in the automatic Reversals working incorrectly and Reversal Records to be removed from the Reversal File without the actual Reversal being performed. See also “Reversals and Reversal File Questions”.

## ***Payment Processor Questions***

### **What Payment Processors are currently supporting this service? Are there any plans to add others?**

Currently for PIN-based debit card processing, TSYS is the sole provider of PIN-based debit card transactions for US-based Merchants.

## ***Miscellaneous Questions***

### **How do I test my connection to the Skipjack Transaction Network?**

You can confirm that your connectivity to the Skipjack Transaction Network is functioning by simply clicking on or entering the following addresses in your browser address field: <https://developer.skipjackic.com> or <https://ms.skipjackic.com>.

### **Do we need to program into our application any Skipjack Financial Services HTTPS URLs?**

All appropriate HTTPS URLs must be used to post transactions to the Skipjack Transaction Network as described in the *Skipjack Integration Guide*. Please ensure that you are posting your authorization requests to the correct URLs.

### **I've connected my PINpad to the COM port, but it is not being detected. How do I resolve this issue?**

You must obtain this and other troubleshooting information for supported PINpad devices directly from the device supplier or distributor. Contact your PINpad device supplier to resolve any hardware issues you encounter including driver usage and installation.

## Merchant Register Questions

### I have successfully submitted transactions, but how do I view and interact with the transactions I have submitted?

The Merchant Register and Reports Managers are two Web-based interfaces designed to display transactions that have been submitted for processing and in some cases perform additional operations on them. Some actions, such as enabling certain Skipjack Merchant Account configuration settings, can only be configured using the Merchant Services Register.

To view transaction using the Transaction Register (Merchant Register):

1. Direct your Web browser to <https://secure.skipjack.com>.
2. Enter your Merchant Account credentials into the appropriate fields: (**Vendor (Login) Serial #, User Name, Password**)
3. Select the **Merchant Services** (Merchant Register access) radio button for the appropriate environment, either Live (Production) or Development (Demo), and click on the **Login** button.
4. On **Account Summary** page displayed, select the **View Register** button to display the Transaction (Merchant) Register page.
5. Specify the desired dates in the **From** and **To** fields and click on the **New Register** button to display the transaction records. The window will refresh with the results returned for your Merchant Account, as shown below.

The screenshot shows the 'TRANSACTION REGISTER' page. At the top, there are navigation links: Preferences | Reports | Manage Users | Tutorial | Help. Below that, there are links: Accounts | Statement | Register | Pending | Exit. The main form includes 'From: 08/20/08' and 'To: 08/20/08' fields, both with 'mm/dd/yyyy' format indicators. A 'For: 000123456789' field is also present. There are navigation buttons for '<<', '<', '>', '>>' and a 'Page of 10 Transactions' dropdown. A 'Jump to page' field is also visible. A 'New Register' button is located below the form. Below the form, there is a table with the following columns: Authorize (with sub-columns for Authorize, Credit, Debit, Nothing), AuthCode/Order Number, Date/Time, Customer Name, Amount, Status, and Adjusted Amount. The table contains 10 rows of transaction data. At the bottom of the table, there is a 'Submit' button and an 'E-mail Support' link. A small copyright notice is visible at the very bottom: 'Copyright © 1996-2008. All rights reserved.'

Authorize	AuthCode/Order Number	Date/Time	Customer Name	Amount	Status	Adjusted Amount
o	000048	08/20/08 01:10	Richard Kirby	4.00	Settled	
o	F2042TVV4T18766H84UM	08/20/08 09:27	Richard Kirby	7.25	Settled	
o	000027	08/20/08 09:28	Richard Kirby	7.25	Settled	
o	000027	08/20/08 09:28	Richard Kirby	7.25	Settled	
o	000027	08/20/08 09:28	Richard Kirby	7.25	Settled	
o	000027	08/20/08 09:28	Richard Kirby	7.25	Settled	
o	000027	08/20/08 09:28	Richard Kirby	7.25	Settled	
o	000027	08/20/08 09:28	Richard Kirby	7.25	Settled	
o	000027	08/20/08 09:28	Richard Kirby	7.25	Settled	
o	000027	08/20/08 09:28	Richard Kirby	7.25	Settled	

**NOTE 1: To access the Merchant Register, you must use the credentials that were assigned to your Merchant Account by Skipjack Financial Services when you sign-up for a Development Test Account.**

**NOTE 2: You can also access submitted transactions by date or order number programmatically using the Skipjack Get Status Method.**

### See Also

- For more information about using the Merchant Register, see the [Skipjack Merchant Services Guide](#).

## Sample Receipts

This section shows sample receipts (Merchant/Store and Customer copies) that debit transactions should display. This is the recommended minimal information that your POS application should provide to each the Merchant and Customer for every transaction.

This information is provided for guidance only and receipt printing is not a requirement of using the TSYS PIN-based Debit Service. Contact your acquiring bank and Payment Processor to determine specific requirements for printed transaction receipts.

### *Sample Receipts for Approved Transaction – Debit*

**NOTE: The “----” characters denote the line where the receipts are cut by the printer.**

```

===== TRANSACTION RECORD =====
                Store Copy
Sample Merchant Name and Address
TYPE           : PURCHASE
AMOUNT         : 1.00
CARD NUMBER    : 4506364400*****
ACCOUNT TYPE   : CHEQUING
DATE/TIME      : Tue Aug 22 02:19:38 2006
REFERENCE#     : 357780 5EG3D30P18SZ S
AUTH. CODE     : 131900
TRANSACT ID.   : 9802852308756.022
STATUS         : APPROVED
                001 APPROVED - THANK YOU 00
-----
===== TRANSACTION RECORD =====
                Customer Copy
Sample Merchant Name and Address
TYPE           : PURCHASE
AMOUNT         : 1.00
CARD NUMBER    : 4506364400*****
ACCOUNT TYPE   : CHEQUING
DATE/TIME      : Tue Aug 22 02:19:38 2006
REFERENCE#     : 357780 5EG3D30P18SZ S
AUTH. CODE     : 131900
TRANSACT ID.   : 9802852308756.022
STATUS         : APPROVED
                001 APPROVED - THANK YOU 00

```

## Sample Receipts for Approved Transaction – Debit with Cash Back

**NOTE: The Cash Back Amount has been added to the Transaction Amount. (This is done by your POS application).**

===== TRANSACTION RECORD =====

Store Copy  
Mr. Sample's Sushi Place  
TYPE : PURCHASE  
AMOUNT : 10.00  
CARD NUMBER : 4506364400\*\*\*\*\*  
ACCOUNT TYPE : CHEQUING  
DATE/TIME : Fri Sep 01 03:03:36 2009  
REFERENCE# : 357780 1OT55DJ8F1AN S  
AUTH. CODE : 140257  
TRANSACTION ID. : 9802852328835.022  
STATUS : APPROVED  
001 APPROVED - THANK YOU 00

-----  
Cash Back 1 3.00  
Bento Box12 1 7.00

===== TRANSACTION RECORD =====

Customer Copy  
Mr. Sample's Sushi Place  
TYPE : PURCHASE  
AMOUNT : 10.00  
CARD NUMBER : 4506364400\*\*\*\*\*  
ACCOUNT TYPE : CHEQUING  
DATE/TIME : Fri Sep 01 03:03:36 2006  
REFERENCE# : 357780 1OT55DJ8F1AN S  
AUTH. CODE : 140257  
TRANSACTION ID. : 9802852328835.022  
STATUS : APPROVED  
001 APPROVED - THANK YOU 00

## Appendix A: Error Codes Returned in the Test Environment

The following values and error codes are returned when the request values for the transaction amounts indicated below are submitted in an authorization request. Use this information in application development testing. Your application should provide appropriate end-user error messages in appropriate cases.

Request Value Amount Sent	Response Text
\$0.11	Amount Error
\$0.12	Can't Verify PIN
\$0.16	Cashback Not Avl
\$0.17	Error (General)
\$0.20	Decline
\$0.29	Expired Card
\$0.40	PIN Exceeded
\$0.41	RE-ENTER
\$0.47	Wrong PIN

## Appendix B: Test Cases for Skipjack Certification Testing

The following Test Cases are intended to test your application for Skipjack Financial Services Certification.

Case No.	Transaction Type	Instructions	Expected Responses	
			szResponseCode	szIsApproved
1.	Authorization	Purchase \$1.00	1	1
2.	Authorization	Credit \$2.00	1	1
3.	Authorization	Reverse \$3.00	1	1
4.	Authorization	Purchase Reversal, \$3.00	1	1
5.	Authorization	Credit \$4.00	1	1
6.	Authorization	Reverse Credit, \$4.00	1	1
7.	Authorization	Purchase 6.00 with 1.00 cash back (purchase 5.00 plus 1.00 cash back)	1	1
<b>Get Status Test Cases</b>			<b>Expected Responses</b>	
			<b>szError Code</b>	<b>Transaction Status Code</b>
8.	Get Status – Authorized Transaction	Must be able to successfully pass/receive Get Status instructions with either Transaction ID or Order Number	0	12 or 15
9.	Get Status – Declined Transaction	Must be able to successfully pass/receive Get Status instructions with either Transaction ID or Order Number	0	20
10.	Get Status – Credited Transaction	Must be able to successfully pass/receive Get Status instructions with either Transaction ID or Order Number	0	40,41, or 42
11.	Get Status – Authorized Transaction	Invalid Data	-1 = Invalid Command -2 = Parameter Missing -3 = Failed retrieving response -4 = Invalid Status -5 = Failed reading security flags -6 = Developer serial number not found -7 = Invalid Serial Number	See the <i>Skipjack Integration Guide</i> Transaction Status Code section for details.
<b>Batch Settlement Test Cases</b>				
12.	Get batch settlement status	Open Batch	Batch Status = 2	
13.	Close Batch Settlement	Closed Batch	Batch Status = 3	
14.	Failed Attempt	Make Attempt Fail	See the <i>Skipjack Integration Guide</i>	

Reporting API Test Cases		
15	Transaction Detail	Demonstrate 5 successful attempts
16	Daily Summary	Demonstrate 5 successful attempts
17	Batch Summary	Demonstrate 5 successful attempts