

# **GoMerchant, LLC**

**Title: Sandbox Transaction Testing Guide**

**PRODUCT: Transaction Center & Gateway API**

Version 4.1.1

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# 1. Introduction

The Sandbox testing environment was developed to support merchants, software integrators and ISOs who require methods for testing the Transaction Center, XML Gateway API, Direct Gateway, Process Gateway, Web Payment Portal and Payment Portal DLL in a NON-Production environment with test credit card data. The Sandbox may be used for validation purposes prior to a release of software or for testing at any point thereafter.

## 1.1. Scope

This specification will walk the reader through the methods for producing different transaction responses for both authorization and decline. The messages sent may test AVS responses, CVV2 responses, authorization responses, decline responses and settlement responses.

## 1.2. Product Description

The Sandbox may be used inside the Virtual Terminal, the XML Gateway API, the Web Payment Portal or Payment Portal DLL to send testing transactions that will never reach the credit processing networks such as Visa and MasterCard. The transaction will be sent to the Sandbox where the response returned will be an exact replica of the response that would be received if the data had actually been sent to Visa or MasterCard.

The Sandbox will also perform simulated settlement of transactions. The settlement process includes a batch email that is returned each time settlement occurs. Settlement generally runs at 3:00am EST each day.

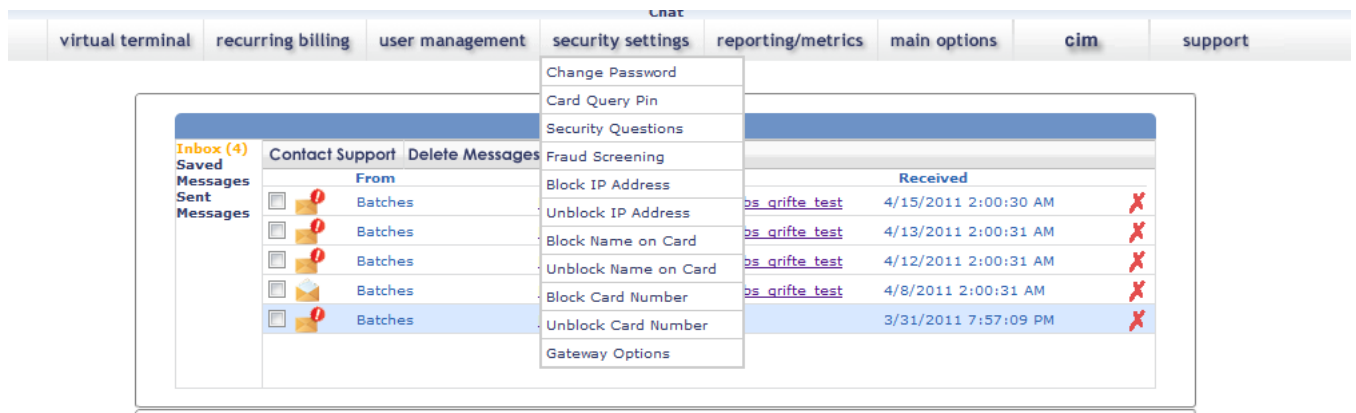
## 1.3. Intended Audience

This document is written exclusively for the use of approved merchants, ISOs and Software Integrators of GoMerchant, LLC. It is intended to assist with the task of integrating business solutions with products offered or approved for integration with GoMerchant’s secure gateway processing networks.

# 2. Sandbox Use

The Sandbox may be used once login to the Virtual Terminal has been successfully completed. The user must “enable” Sandbox use in the Virtual Terminal. See the illustration below:

### Step 1 - Click on the tab named Security Settings/Gateway Options



**Step 2 – Under Gateway Test Mode, check off the enable test mode and then check each account type you want to be able to test. Example below shows Ecom, MOTO and Retail.**

**Gateway Test Mode**

By enabling the test mode feature transactions submitted through the gateway with the test information below will mimic the behavior of the live payment gateway. These transactions are **not** submitted to financial institutions for authorization, you will be able to view them in the transaction center.

Enable Test Mode:

Processor: Sandbox

MID: 5266980000

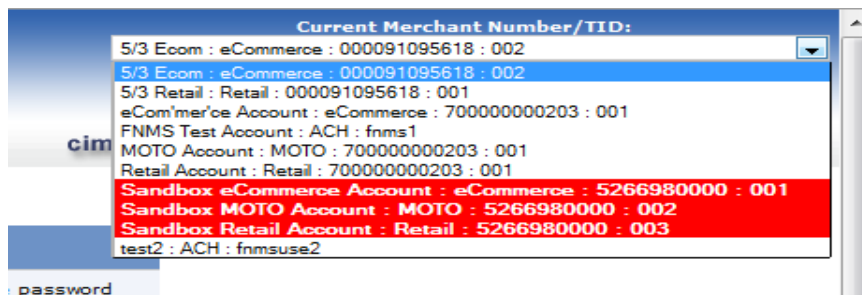
Account Type(s):  eCommerce TID: 001  
 MOTO TID: 002  
 Retail TID: 003

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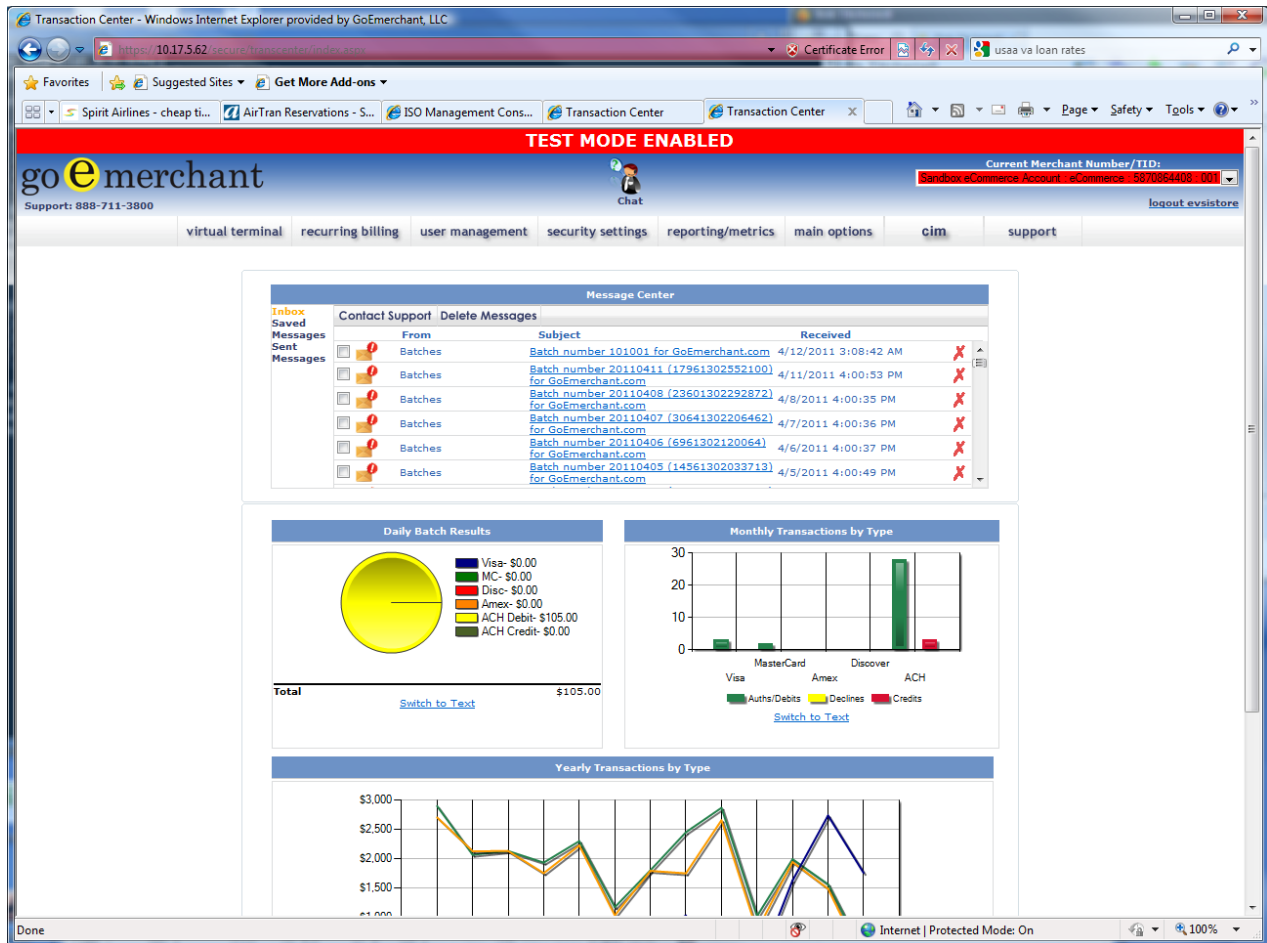
**Step 3 – Complete by clicking the button Update Gateway Test Mode.**

The merchant account is now available for Test Mode under all of the available tools listed in section 2.1 through 2.4. The Sandbox mode can be disabled at any time by performing the procedures above but un-checking all the values in the gateway options related to Test Mode.

NOTE – When selecting a Sandbox MID/TID, you will see those accounts listed in red in the Merchant Number/TID drop down box. See the image below:



To use Test Mode, select one of the Test MIDs, (highlighted in RED in the list box). Once the selection is made, a red bar is displayed at the top of the screen indicating TEST MODE is enabled.



The system will now perform all transactions in TEST MODE. Please see Section 3 on Transaction Responses and test cards.

To process live transactions again, select a live MID from the pull down. You will no longer see the red bar across the top of the screen indicating the Virtual Terminal is now in live mode.

## 2.1. Virtual Terminal Settings

See above for Sandbox use in the Virtual Terminal.

## 2.2. XML Gateway Use

The XML Gateway API may be tested once the Virtual Terminal Admin has enabled the Test Mode. It is quite easy to use the Sandbox Testing with the XML Gateway API. There are likely scenarios.

1. Single MID in Transaction Center.
  - a. Set the <FIELD KEY="Processor">sandbox</FIELD>
2. Multiple MIDs
  - a. Set the <FIELD KEY="Processor">sandbox</FIELD>
  - b. Set the <FIELD KEY="MID">enter a Sandbox MID from the Virtual Terminal list</FIELD>
  - c. Set the <FIELD KEY="TID">enter a Sandbox TID from the Virtual Terminal list</FIELD>
3. ACH Testing
  - a. Set the <FIELD KEY="Processor">sandbox\_echeck</FIELD>

- b. Set the <FIELD KEY="MID">enter a ACH Sandbox MID from the Virtual Terminal list</FIELD>

The MID and TID of the test account must be sent in the MID and TID field of the XML message if the account has more than one MID/TID such as in cases of and ecommerce MID/TID and a retail MID/TID. A transaction amount and card number or bank account information must be selected from the choices in Section 3. For ACH testing, only the MID is used.

### **2.3. Web Payment Portal/Payment Portal Use**

The Web Payment Portal as well as the Payment Portal DLL may be tested once the Virtual Terminal Admin has enabled the Test Mode. Much as with the XML Gateway API, there are 2 likely scenarios.

1. Single MID in Transaction Center.
  - a. Set the processor="sandbox" value
2. Multiple MIDs
  - a. Set the processor="sandbox" value
  - b. MID="enter a Sandbox MID from the Virtual Terminal list"
  - c. TID="enter a Sandbox TID from the Virtual Terminal list"
3. ACH Testing
  - a. Set the <FIELD KEY="Processor">sandbox\_echeck</FIELD>
  - b. Set the <FIELD KEY="MID">enter a ACH Sandbox MID from the Virtual Terminal list</FIELD>

The MID and TID of the test account must be sent in the MID and TID field of the XML message if the account has more than one MID/TID such as in cases of and ecommerce MID/TID and a retail MID/TID. For ACH testing, only the MID is used.

## **3. Credit Card Sandbox Test Response Specifications**

### **3.1. Test Credit Card numbers**

Although any credit card number that will pass a MOD 10 check will produce valid returns bases on the amount entered from the tables below, it is highly recommended that the following card numbers be used.

Visa: 4003000123456781  
MasterCard: 5499990123456781  
Discover: 6011000995500000  
American Express: 371449635398431  
JCB: 3566002020140006  
Diners Club: 36438999960016

### **3.2. Approval Override Cards**

These cards can be used to always produce a successful response despite the amount passed.

MasterCard: 5526671193809599  
Visa: 4716389275666851  
Visa: 4539394673694021

The below card can be used to produce a successful response that will not be partially approved even if the amount used is one designated as a partial approval amount.

Visa: 4539394673694021

### 3.3. **Decline Override Cards**

The below cards can be used to produce a declined transaction despite the amount passed.

MasterCard: 5130405452262903

Visa: 4532372221587696

### 3.4. **Authorization Approvals**

#### 3.4.1. **Requirements for AVS Testing**

AVS testing will always respond with an Authorization Approved. AVS testing is utilized to help ensure that all responses of AVS may be handled and understood by the end user.

The below test transactions should all produce Successful Authorizations. Response Approved, and randomly generate a 6 digit auth approval code.

To Produce AVS Responses Enter one of the card numbers from above with any future expiration date, Any Street and Zip Code will work. The response is based on the Auth Amount entered.

Auth Amount	AVS	Response Meaning
1.00	Y	Street and Zip Match
1.05	A	Street Match, Zip No Match
1.10	Z	Zip Match, Street No Match
1.15	S	Not Supported by Issuer
1.20	R	Unavailable, Try Again
1.25	U	Unavailable or Not Supported
1.30	N	Street No Match, Zip No Match
1.35	G	Not Verified (International)



1.40	E	Not eligible for AVS
1.45	B	Street Match, Zip Not Verified
1.50	P	Zip Match, Street Not Verified
1.55	C	Street and Zip Incompatible formats (International)
1.60	D	Street and Zip Match (International)
1.65	I	Street Not Verified (International)
1.70	M	Street and Zip Match (International)
1.75	F	Street and Zip Match (UK Only)
1.80	W	Zip Match, Street No Match (MasterCard)
1.85	X	Street and Zip Match (UK MasterCard)
1.90	T	Zip Match, Street No Match (Discover)

### 3.4.2. Requirements for CVV2/CVC/CID Testing

CVV2/CVC/CID testing will always respond with an Authorization Approved. The testing is utilized to help ensure that all responses of CVV2/CVC/CID may be handled and understood by the end user.

To Produce CVV2 Responses: Enter any card number from above with any future expiration date and the CVV2 and amount values below.

Auth Amt	CVV2 Val	CVV2 Resp	Response Meaning
1.95	123	M	Match
1.95	456	N	No Match
1.95	789	P	Not Processed
1.95	012	S	CVV2 should be on card but it was not entered
1.95	345	U	Not Supported by Issuer
1.95			No Response, CVV2 not entered or incorrect

### 3.4.3. Partial Approvals

Partial Approvals occur when a transaction is authorized for only a portion of the originally requested amount. This scenario can be simulated in the sandbox by using the following amounts: **30.00, 40.00, 50.00**.

Transactions submitted with these amounts will be partially approved for \$20.00 less than the amount submitted.

For example: A transaction submitted for \$40.00 will be approved for \$20.00.

## 3.5. Authorization Declines

Authorization decline messages are produced by entering in the specified transaction dollar amount listed in the table below.

Enter any test card number from above. The response is generated by the amount entered.

Amount	Error	Message	Description
2.00	200	Auth Declined	Cardholder's bank did not approve transaction.
2.01	201	Call Voice Oper	Authorizer needs more information for approval.

2.02	202	Hold - Call	Card issuer does not want that card used. Call for further instructions.
2.03	203	Call Voice Oper	Authorizer didn't respond within allotted time.
2.04	204	Invalid Card No	Account #/mag stripe is invalid.
2.05	205	Invalid Exp. Date	Expiration date is either incorrect format or prior to today.
2.06	206	Invalid ICA No	Invalid International Control Account number.
2.07	207	Invalid ABA No	Invalid American Banking Association number.
2.08	208	Invalid PIN No	The Personal ID Number for a debit transaction is incorrect.
2.09	209	Invalid Bank MID	The Bank Merchant ID is incorrect.
2.10	210	Invalid Term No	The merchant ID is not valid or active.
2.11	211	Invalid Amount	Amount is either: equal to 0, has no decimal, has decimal in wrong place, or has multiple decimals.
2.13	213	Invalid Tran Fmt	The transaction format isn't valid, typically invalid SIC code
2.14	214	Call Voice Oper	Authorization center cannot be reached.
2.15	215	Lost/Stolen Card	Card has been reported lost or stolen.
2.16	216	Invalid PIN	Personal ID code is incorrect.
2.17	217	Over Credit Flr	Amount requested exceeds credit limit.
2.18	218	Request Denied	Transaction is not valid for this authorizer.
2.20	220	Not Online to XX	Fatal communications error.
2.21	221	Auth Down-Retry	Debit authorizer temporarily unavailable.
2.22	222	Auth Declined	Vehicle not found in positive file.
2.23	223	Invalid Pin No	Driver # not found in positive file.
2.24	224	Auth Declined	Card is on private label negative file.
2.25	225	Card Not Allowed	Merchant does not accept this card.
2.26	226	PL Setup Reqd	Merchant not set up for Private Label.
2.27	227	BIN Not Allowed	Merchant cannot accept this Private Label BIN range.
2.28	228	Card Not Allowed	Merchant cannot accept this card.
2.29	229	Inv Merc Rstrct Code	Restriction code field contains invalid data.
2.30	230	Prod Restricted	Merchant attempted a product code not permitted by this merchant.
2.31	231	Prod Not On File	Merchant attempted a product code that does not exist on host.
2.32	232	Auth Declined	Invalid card type for Prior Auth sale.
2.33	233	Auth Declined	Terminal Type not supported.
2.34	234	Auth Declined	T&E card used for Sale when merchant only allows Auth Only.
2.35	235	*Request Denied*	Prior Auth selected with no Auth code provided.
2.38	238	Invalid Driver Number	The Driver Number entered is invalid.
2.45	245	Cannot Process Req	SV error on prior auth transaction
2.46	246	Unable to Void	ssuer unable to void transaction SV i
2.47	247	PIN Not Selected	EBT recipient has not selected a PIN for this card.
2.48	248	CVC2/CID ERROR	CVC2 or CID entered was not valid for the card number.
2.49	249	Tran Not Defined	This type of transaction is not allowed for this type of card.
2.57	257	Block Act Not Alwd	The merchant is not allowed to process Stored Value Block Activations
2.58	258	Incorrect Act Amt	The activation amount requested does not match

			the predenominated amount for the card.
2.92	292	Auth Down – Retry	Authorizer is not responding
2.93	293	Auth Busy – Retry	Authorizer not available at this time.
2.94	294	Auth Busy - Retry	Authorizer not available at this time
2.97	297	Auth Error - Retry	Authorizer not available at this time
2.98	298	Err - Pls Retry	Debit authorizer experienced an error.
2.99	299	Err - Pls Retry	Debit authorizer experienced an error.
3.00	300	Invalid Term ID	The length of the merchant ID is incorrect or contains invalid data.
3.01	301	Invalid Function	Tran code is incorrect or wrong length.
3.02	302	Invalid Card	Mag stripe contains invalid data or account # is greater than 19 digits
3.03	303	Invalid Exp. Date	Card has expired, month was not 01-12 or year was not 00-99.
3.04	304	Invalid Action Code	Action code is longer than 1 digit.
3.05	305	Amt Entry Error	Amount less than .01 or greater than 99999.99 or contained non- numeric data.
3.06	306	Invalid PIN	Incorrect PIN block length.
3.07	307	Invalid Card	Invalid card type or account number.
3.08	308	Auth # Not Entered	Auth code was not entered on a Prior Auth, Incremental or Rev.
3.09	309	Invalid Down Pay Ind	Insurance down payment indicator is invalid.
3.10	310	Policy # Wrong Len	Insurance policy number is incorrect length.
3.11	311	Invalid Ind Code	Industry type must be RE or DM.
3.12	312	Invalid Function	Tran code is invalid or contains alpha data.
3.13	313	Entry Mode Invalid	POS Entry mode does not contain a valid value.
3.14	314	Invalid Industry Data	The Industry Specific field contains invalid data.
3.15	315	Inv Fleet Data	The Fleet Card field contains invalid data.
3.16	316	Invalid Sys Info	The System Information field contains invalid data.
3.17	317	Invalid Format	Payment Service indicator or Transaction ID is invalid.
3.18	318	Inv Transaction Class	Transaction class not “F” for financial transaction.
3.19	319	Inv PIN Capability	Pin capability code field contains invalid data.
3.20	320	Inv/Missing Retr Ref	Retrieval Reference # is missing or contains alpha data.
3.21	321	Inv MSDI	Market Specific Data field contains invalid data.
3.22	322	Invalid Duration	Market specific data field Duration is 00, blank or missing.
3.23	323	Inv Pref Cust Ind	Preferred Customer indicator contains invalid data.
3.24	324	Inv MO/TO Number	Mail/Telephone Order number is invalid.
3.25	325	Inv Sale/Chg Des/Folio	Hotel Sale Code, Charge Descriptor or Folio contains invalid data.
3.26	326	Inv Mult Clr Seq No	Multiple Clearing sequence number is invalid.
3.27	327	Inv Purch Card Data	Purchasing card field contains invalid data.
3.28	328	Inv Input/Use VRU	Insurance transaction not from VRU.
3.29	329	Invalid EC Data 329	Invalid Electronic Commerce Data.
3.30	330	INV Function or Multiple FS or Unknown TKN	Indicates system problem, notify Chase Paymentech or Multiple field separators received without required

			data or A token of unknown definition was received
3.31	331	INV TKN Value	Invalid token value was received.
3.32	332	CVD Data Error	Error with the cardholder verification data received; invalid value or not allowable for this card for this transaction.
3.33	333	TKN Data Error	Indicates system problem, notify Chase Paymentech.
4.22	422	Invalid Term ID	Host couldn't read terminal file within specified time.
4.23	423	Proc Error 24	Host couldn't read reference number file within specified time.
4.24	424	Invalid Term ID	Transaction open flag has been set to "Y" within prior 3 minutes.
4.37	437	Failed-Plz Call	Failure occurred during encryption/decryption of PIN.
4.38	438	Failed-Plz Call	Error occurred while generating a debit working key.
4.39	439	Failed-Plz Call	The DB (debit) sponsor institution on the merchant file is not set up on sponsor file.
4.40	440	Failed-Plz Call	The network set up on the sponsoring bank file for this institution is not set up on the host's network file.
4.41	441	Failed-Plz Call	The host is unable to communicate with decryption device.
4.42	442	JCB Not Allowed	JCB CD flag on merchant record not set up for JCB transactions.
4.00	400	Invalid Term ID	Merchant ID not found in merchant file.
4.01	401	Invalid Term ID	Merchant ID not found in terminal file.
4.02	402	Term Not Active	Active flag for merchant set to "N".
4.03	403	Invalid Act Code	Merchant not set up for cash advance function.
4.04	404	Void Not Allowed	The transaction requested for voiding is not an EFT transaction.
4.05	405	Ref Num Not Found	Transaction requested for reversal not found.
4.06	406	Proc Error 7	The host can't clear all transaction records for the requested Batch Release.
4.07	407	Too Many Batches	There are 999 open batches for this merchant.
4.08	408	Release Batch	Current batch has 999 records. Release batch before continuing.
4.09	409	Invalid Function	Debit transaction requested but debit flag is set to "N".
4.10	410	Invalid Term ID	The Terminal ID portion of the merchant ID is incorrect.
4.11	411	Invalid Term ID	The maximum retries for this merchant have been exceeded.
4.12	412	Proc Error 13	Unable to read reference number file.
4.13	413	Proc Error 14	Unable to read reference number file.
4.14	414	Proc Error 15	Unable to update reference number file.
4.15	415	Invalid Function	Merchant is Authorization Only and a draft capture record was sent.
4.16	416	Invalid Function	Merchant is Authorization Only and a debit record was sent.
4.17	417	Invalid Function	Private label flag is "N" but a private label account

			number was sent.
4.18	418	Please Try Again	Incorrect debit working key.
4.19	419	Invalid Function	Manually entered transactions are not allowed for this terminal ID.
4.20	420	Amount Too Large	Maximum sale amount exceeded.
4.21	421	Amount Too Large	Maximum return amount exceeded.
4.25	425	Invalid Function	Cash management not allowed for this merchant ID.
4.26	426	Rev Not Allowed	Host found no batch number matching the one sent.
4.27	427	Rev Not Allowed	Host found no transactions meeting the specifications sent.
4.28	428	Dscv Not Allowed	Merchant not set up for Discover transactions.
4.29	429	Rev Not Allowed	The batch containing the transaction to void has been released.
4.30	430	Dscv Not Allowed	Merchant not set up for Discover.
4.31	431	DC Not Allowed	Merchant not set up for Diners Club.
4.32	432	CB Not Allowed	Merchant not set up for Carte Blanche.
4.33	433	Invalid Key	No AMEX subscriber number, process control ID or product code set up
4.34	434	Invalid Key	Future use.
4.35	435	Failed-Plz Call	Debit transaction being sent to an authorizer not set up on host file.
4.36	436	Failed-Plz Call	Debit security key does not exist on the security management file.
4.43	443	JCB subscriber number not set up for JCB transactions.	JCB Not Allowed
4.44	444	Bank Not On File	Debit BIN not set up for this merchant in routing table.
4.45	445	No Sponsor Inst	No valid sponsorship was found on Merchant record.
4.46	446	Failed Plz Call	Future use.
4.47	447	WX Not Allowed	Merchant not set up to accept WEX.
4.48	448	Amount Too Large	Amount exceeds maximum limit.
4.49	449	Reenter Odometer	Odometer was 000000 or contained non-numeric data.
4.50	450	<Duplicate Tran>	No ACK reversal was followed by a duplicate request
4.51	451	Tran Not Allowed	Requested transaction type is not allowed for this card/merchant.
4.52	452	Bat Already Rels	Batch has already been released
4.53	453	Invalid Rtnng Ind	Invalid Routing Indicator field
4.54	454	AX Not Allowed	AMEX not allowed
4.93	493	Amt Req Over Lmt	Total authorized amount will exceed the allowed Sales or Return limit for this device.
9.90	990	Invalid Merchant	Merchant number not on file.
9.91	991	Processing	Waiting on response from processor
9.92	992	Payment Server Unavailable	Unexpected error encountered while communicating with processor.

**Note:** If an amount is passed that is not shown in the tables above, the transaction will be declined and the response will be “Unknown”.

Any amount passed ending in .99 will be delayed for 60 seconds. This is useful for testing timeout situations.

## 4. ACH Sandbox Test Response Specifications

### 4.1. *Test Bank Account Info*

The ACH Sandbox platform mimics how the real ACH platform works. Every transaction submitted, which passes the basic validation tests will be successful and have a “**Pending**” status. You can use any routing and account number combination that you would like to submit transactions as long as they meet the required length and format.

ABA (Routing Number) – Must be 9 digit numeric value

DDA (Account Number) – Must be numeric value < 18 digits long

Examples of valid combinations:

ABA  
123456789  
111111111  
999999999

DDA  
1234567890  
1111111111  
12345678912345678

### 4.2. *Authorization Approvals*

All transactions submitted that meet the preliminary restrictions will be approved in a pending state. At 4pm EST, the transactions that are scheduled to close that day will be processed. This is when the transactions are posted to the clearing house.

When this is done, each previously marked “Pending” transaction will now show as “**Settled**”.

**Only transactions submitted with an amount of < \$2.00 will remain Approved. Any amount >= \$2.00 will generate a return as defined in section 4.3.**

### 4.3. *Authorization Returns*

ACH declines or rejections do not occur in real-time. For this reason, our ACH sandbox will also not decline transactions in real-time. This will allow you a more realistic environment to test with. Transactions will be rejected based on the amount of the transaction. There are three types of ACH returns: NOC (Notice of Change), Error, Returns. Only errors and returns result in a failure. An NOC will alert you but the transaction will still be successful.

An NOC is a notice of change. This means that if the same information is used again down the road, the transaction could return with an error or decline. The NOC indicates which information should be changed for future transactions against the same bank information.

The ACH Sandbox allows testing and handling of the response types based on the amount of the transaction processed. The responses are only simulations of what one would face in a live environment.

**\$2.00 - \$2.99**

Will be returned after 48 hours as a Rejection for "Insufficient Funds"

**\$3.00 - \$3.99**

Will be returned after 48 hours as an NOC or "Incorrect DFI Account Number"

**\$4.00 and above**

Will be returned after 48 hours as an Error for "Invalid Data"