

Magensa Web Service

MPPG Decrypt and Forward Programmer's Reference Manual and API Specifications

February 25, 2015

Manual Part Number:
D99810049-20

REGISTERED TO ISO 9001:2008

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Printed in the United States of America

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Table 0.1 - Revisions

Rev Number	Date	By	Notes
10	2/25/2013	Carlos Hernandez	Initial release.
20	2/25/2015	Andy Deignan	Added several notes regarding functionality for Chase Paymentech where Auth and Force Auth are not supported on PC/KE10 and T110.

NOTICE

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Purpose of the document

The purpose of this document is to provide a description of how to call operations of the Magensa Services API.

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Overview

This document details how to process payment card transactions using the Magensa Payment Protection Gateway (MPPG).

The MPPG is a web service which provides the benefits of a payment gateway and the support of the following security features:

- Card encryption (from MagneSafe™ products)
- Device authentication (from MagneSafe™ products)
- Card authentication (using MagnePrint® technology)
- Qwick Codes (tokens for card swipes)
- Magensa's PCI-DSS compliant services

The web service operations are structured by the following input types:

- Card swipe:
 - The 3DES DUKPT encrypted data outputted by MagneSafe™ products. Card swipes allow for the use of MagnePrint®. MagnePrint® is a dynamic card authentication technology based on the naturally occurring “magnetic fingerprint” of every magnetic stripe card. It is a digital identifier or (DI) which provides validation that the card itself is genuine and that its encoded data has not been altered. For more information about MagnePrint®, please visit <http://www.magneprint.com/>.
- Qwick Code
 - Qwick Codes are tokens for previous Card swipes. They provide all the benefits of an encrypted card swipe plus the security and convenience of a card token, please visit <https://qwickcodes.com/>.
- Key entered Card data:
 - In the event that a Card swipe is not available, the MPPG also supports key entered data.
- Transaction ID
 - Transaction IDs are identifiers for previous transactions. They allow previous transactions to be processed (for Void or Refund) without presenting the card data again.

Programming Intro

This section provides basic programming instructions. To call the MPPG web service, both SOAP and HTTPS POST protocols are supported.

STEP 1. Add Magensa Host Credentials into your App

- Obtain from your Sales Rep “new” MPPG Host application credentials; these will include a ‘HostID’ and ‘HostPW’ required by each MPPG operation defined within this document.
- Code these credentials into your App when calling each operation.

Parameter	Value	Notes
HostID	<provided separately and securely>	
HostPW	<provided separately and securely>	
ResellerCode	<TBD>	Typically left <blank> during development. But is required before any production merchant can be boarded.

NOTE - It is highly recommended that you develop your App, whenever possible, using MagTek's Software Development Kits (SDKs) to interface to a Secure Card Reader Authenticator (SCRA) device.

STEP 2. Add TEST Merchant Credentials into your APP

- Obtain from your Sales Rep (NEW) test merchant credentials. Similar to the host credentials in Step-1, you will need to use these credentials during development.
- Code these test merchant credentials into your App.

WARNING – ProcessCS12, ProcessKE12 and ProcessPC12 are currently not compatible with test credentials. Please substitute ProcessCS10, ProcessKE10 and ProcessPC10 during development.

Parameter	Value	Notes
(TEST) MerchantID	<provided separately and securely>	
(TEST) MerchantPW	<provided separately and securely>	
ResellerCode	MAGTEK	The MAGTEK ResellerCode is default during development.

STEP 3. Send MPPG TEST Transactions

- Obtain from your Sales Rep a Secure Card Reader Authenticator (SCRA) device, specifically loaded with the Magensa Production Key (9011880) or custom production equivalent.
- Obtain from your Sales Rep a set of “test” credit cards. You will use these cards to perform card-swipe transactions with your application to simulate live customer traffic, verify each use case you have implemented and trouble-shooting any unexpected behavior.

STEP 4. Deploy APP into Production with Merchants

- Submit a request to Magensa for the creation of a “new” production merchant account using the MPPG Processor Information web portal found at <https://www.magensa.net/mppgpi/>. A separate request must be submitted for each new merchant you wish to board. Required in this form will be “Customer (Merchant) Info”, “Service Provider (Reseller) Info” and “Processor Info.” Magensa shall return to you an email containing the “new” production merchant credentials.

Parameter	Value	Notes
MerchantID	<provided separately and securely>	
MerchantPW	<provided separately and securely>	

- Code these “new” MPPG merchant credentials into your production App and deploy it with your merchant.

Use Case Scenarios

Below are guidelines on how to implement common use case scenarios using MPPG.

How to accept Tips

How to do a pre-authorization followed by a delayed capture for the collection of tips:

First, at the appropriate point in your App call ProcessCS10 (or ProcessCS12 if WorldPay is your processor), use TransactionType='A' ('A' is for authorization) and provide the original card swipe transaction data.

Second, if the Output Parameter returned by ProcessCS10 (or ProcessCS12 if WorldPay is your processor) has TransactionStatus='0' (zero is returned if the authorization was approved), then you must save the TransactionID in your App. Save also any other pertinent Output Parameter data that you need for reporting, troubleshooting or future processing purposes.

NOTE - This transaction ID is the actual reference TransactionID returned by your processor.

Finally, your App must call ProcessTI10 using TransactionType='D' ('D' is for delayed capture), and provide the TransactionID which you saved in Step-2 above. Use the 'Amt' field to specify exactly how much you would like to capture on the card e.g. the original authorized amount + tip = Amt.

NOTE - We have experienced many variations in how different processors handle delayed capture requests during batch settlement, especially if the tip amount is greater than 20%. Each processor has different SLAs for batch settlement, void before settlement, refund after settlement and reversals. Refer to "Appendix A - Processor SLA Table" for more details.

Operations

ProcessCS10 (Process Card Swipe)

This operation should be used within your App for credit card swipes to perform a sale, authorization or force authorization.

Inputs

Parameter (an asterisk * means required)	Description
TransactionType*	<ul style="list-style-type: none"> S for Sale A for Authorization* F for Force Authorization*
HostID*	Magensa assigned Host ID
HostPW*	Magensa assigned Host password
MerchantID*	Magensa assigned Merchant ID
MerchantPW*	Magensa assigned Merchant password
EncryptedTrack1*	Encrypted Track 1 data from a MagneSafe™ 1.0 product
EncryptedTrack2*	Encrypted Track 2 data from a MagneSafe™ 1.0 product
EncryptedTrack3	Encrypted Track 3 data from a MagneSafe™ 1.0 product
EncryptedMP*	Encrypted MagnePrint data from a MagneSafe™ product
KSN*	Key Serial Number from a MagneSafe™ product
MPStatus*	MPStatus from a MagneSafe™ product
Amt*	Amount to be processed
TaxAmt	Tax amount
PurchaseOrder	Purchase Order
InvoiceNumber	Invoice Number
CVV	Card Verification Value printed on credit cards
ZIP	Cardholder's ZIP code
AuthCode	Required for Force Authorization

* Not available for Chase Paymentech

Outputs

Parameter	Description
TransactionID	The unique payment reference number assigned to the transaction.
TransactionStatus	Transaction Status. A zero is returned for an approved transaction. Any other number implies the transaction was not approved.
TransactionMsg	Transaction Message. Describes the Transaction Status.
AuthCode	Authorization Code
CVVMatch	"match" is returned for a CVV match.
AVSMatch	"match" is returned for an AVS match.
StatusCode	Magensa status code.
StatusMsg	Magensa status message.
CardID	Card Identifier which uniquely identifies card without exposing any sensitive card data.
MPScore	MagnePrint® Score.
MPAge	MagnePrint® Age. Number of days since MagnePrint was registered.
MPCount	MagnePrint® Count. Number of MagnePrints on file.
MPRegisteredBy	Name provided, if any, when MagnePrint was registered.
PANLast4	Last four digits of PAN encoded on card
CHDName	Name encoded on card
CardExpDt	Expiration date encoded on card

Status Codes

StatusCode	StatusMsg	Notes
1000	OK	Successful Transaction
H001	H001	HostID has incorrect length - Input Validation
H002	H002	HostID has incorrect format - Input validation
H003	H003	HostPW has incorrect length - Input Validation
H004	H004	HostPW has incorrect format - Input validation
H005	H005	MerchantID has incorrect length - Input Validation
H006	H006	MerchantID has incorrect format - Input validation
H007	H007	MerchantPW has incorrect length - Input Validation
H008	H008	MerchantPW has incorrect format - Input validation
H176	H176	EncryptedTrack1 has incorrect format - Input Validation
H177	H177	EncryptedTrack1 has incorrect length - Input Validation
H178	H178	EncryptedTrack2 has incorrect format - Input Validation
H179	H179	EncryptedTrack2 has incorrect length - Input Validation
H180	H180	EncryptedTrack3 has incorrect format - Input Validation
H181	H181	EncryptedTrack3 has incorrect length - Input Validation
H182	H182	EncryptedMP has incorrect format - Input Validation
H183	H183	EncryptedMP has incorrect length - Input Validation
H186	H186	KSN has incorrect format - Input Validation
H187	H187	KSN has incorrect length - Input Validation
H188	H188	MPStatus has incorrect format - Input Validation
H189	H189	MPStatus has incorrect length - Input Validation
H320	H320	Invalid Amount - Input Validation
H321	H321	Invalid Transaction Type - Input validation
H322	H322	Invalid AuthCode - Input Validation
H380	H380	CVV has incorrect length - Input Validation
H381	H381	CVV has incorrect format - Input validation
H385	H385	ZIP has incorrect length - Input Validation
H386	H386	ZIP has incorrect format - Input validation
H400	H400	Invalid Tax Amount - Input Validation
C001	No PAN Found in Track2 Data	
C089	Error Validating Credentials	
C093	Invalid MagnePrint	
C094	Invalid MagnePrint	
C095	Error Scoring Card.	
C096	C096	Inactive MagnePrint Reference.
C097	C097	Replay Prevented. This occurs when the DUKPT KSN is invalid.
C098	Problem with Reader Data	
C099	Error Validating Credentials.	

ProcessDCS10 (Process Debit Card Swipe)

This operation should be used within your App for a debit card swipe to perform a sale or return.

Inputs

Parameter (an asterisk * means required)	Description
TransactionType*	<ul style="list-style-type: none"> S for Sale R for Return
HostID*	Magensa assigned Host ID
HostPW*	Magensa assigned Host password
MerchantID*	Magensa assigned Merchant ID
MerchantPW*	Magensa assigned Merchant password
EncryptedTrack1*	Encrypted Track 1 data from a MagneSafe™ 1.0 product
EncryptedTrack2*	Encrypted Track 2 data from a MagneSafe™ 1.0 product
EncryptedTrack3	Encrypted Track 3 data from a MagneSafe™ 1.0 product
EncryptedMP*	Encrypted MagnePrint data from a MagneSafe™ product
KSN*	Key Serial Number from a MagneSafe™ product
MPStatus*	MPStatus from a MagneSafe™ product
Amt*	Amount to be processed
TaxAmt	Tax amount
PurchaseOrder	Purchase Order
InvoiceNumber	Invoice Number
CVV	Card Verification Value printed on credit cards
ZIP	Cardholder's ZIP code
AuthCode	Required for Force Authorization
Pin*	16 alphanumeric characters. The encrypted PIN block returned by the PIN pad for U.S. Debit transactions. The transaction will fail if an unencrypted PIN value is used. This value must be 16 characters in length.
ExtData*	<KeySerialNumber>KeySerialNumber</KeySerialNumber> Required for U.S. Debit Sale and Return transactions. 16 alphanumeric characters. The unique DUKPT Key Serial Number value returned from the PIN pad for U.S. Debit and EBT Transactions. The exact length of the Key Serial Number is 16 digits. Example: 1289990000600019. If the PIN pad returns a 20 digit Key Serial Number and the first four (4) characters are "FFFF", strip the "FFFF" prior to
TransactionID	Required for Return Transaction Type. The unique payment reference number assigned to the transaction.

Outputs

Parameter	Description
TransactionID	The unique payment reference number assigned to the transaction.
TransactionStatus	Transaction Status. A zero is returned for an approved transaction. Any other number implies the transaction was not approved.
TransactionMsg	Transaction Message. Describes the Transaction Status.
AuthCode	Authorization Code
CVVMatch	“match” is returned for a CVV match.
AVSMatch	“match” is returned for an AVS match.
StatusCode	Magensa status code.
StatusMsg	Magensa status message.
CardID	Card Identifier which uniquely identifies card without exposing any sensitive card data.
MPScore	MagnePrint® Score.
MPAge	MagnePrint® Age. Number of days since MagnePrint was registered.
MPCount	MagnePrint® Count. Number of MagnePrints on file.
MPRegisteredBy	Name provided, if any, when MagnePrint was registered.
PANLast4	Last four digits of PAN encoded on card
CHDName	Name encoded on card
CardExpDt	Expiration date encoded on card

Status Codes

StatusCode	StatusMsg	Notes
1000	OK	Successful Transaction
H001	H001	HostID has incorrect length - Input Validation
H002	H002	HostID has incorrect format - Input validation
H003	H003	HostPW has incorrect length - Input Validation
H004	H004	HostPW has incorrect format - Input validation
H005	H005	MerchantID has incorrect length - Input Validation
H006	H006	MerchantID has incorrect format - Input validation
H007	H007	MerchantPW has incorrect length - Input Validation
H008	H008	MerchantPW has incorrect format - Input validation
H176	H176	EncryptedTrack1 has incorrect format - Input Validation
H177	H177	EncryptedTrack1 has incorrect length - Input Validation
H178	H178	EncryptedTrack2 has incorrect format - Input Validation
H179	H179	EncryptedTrack2 has incorrect length - Input Validation
H180	H180	EncryptedTrack3 has incorrect format - Input Validation
H181	H181	EncryptedTrack3 has incorrect length - Input Validation
H182	H182	EncryptedMP has incorrect format - Input Validation
H183	H183	EncryptedMP has incorrect length - Input Validation
H186	H186	KSN has incorrect format - Input Validation
H187	H187	KSN has incorrect length - Input Validation
H188	H188	MPStatus has incorrect format - Input Validation
H189	H189	MPStatus has incorrect length - Input Validation
H320	H320	Invalid Amount - Input Validation
H321	H321	Invalid Transaction Type - Input validation
H322	H322	Invalid AuthCode - Input Validation
H380	H380	CVV has incorrect length - Input Validation
H381	H381	CVV has incorrect format - Input validation
H385	H385	ZIP has incorrect length - Input Validation
H386	H386	ZIP has incorrect format - Input validation
H400	H400	Invalid Tax Amount - Input Validation
C001	No PAN Found in Track2 Data	
C089	Error Validating Credentials	
C093	Invalid MagnePrint	
C094	Invalid MagnePrint	
C095	Error Scoring Card.	
C096	C096	Inactive MagnePrint Reference.
C097	C097	Replay Prevented. This occurs when the DUKPT KSN is invalid.
C098	Problem with Reader Data	
C099	Error Validating Credentials.	

ProcessCS12 (Process Card Swipe – Used ONLY with WorldPay)

This operation should be used within your App for a credit card swipe to perform a sale, authorization or force authorization. It can ONLY be used with merchants who have WorldPay as their processor.

Inputs

Parameter (an asterisk * means required)	Description
EntryMode*	EntryMode (Required) 1=Normal Retail, 2=MOTO, 3=E-Commerce
PartialAuthSupport*	PartialAuthSupport (Required) 0=Terminal does not support partial authorization responses, 1=Terminal accepts partial authorization responses
Signature*	Signature (Required) 0=Not present, 1=Present
BillingName	BillingName (Required for E-commerce)
BillingAddress1	BillingAddress1 (Required for E-commerce)
BillingAddress2	BillingAddress2
BillingCity	BillingCity (Required for E-commerce)
BillingState	BillingState (Required for E-commerce)
BillingCountry	BillingCountry (Required for E-commerce)
TransactionType*	<ul style="list-style-type: none"> S for Sale A for Authorization F for Force Authorization
HostID*	Magensa assigned Host ID
HostPW*	Magensa assigned Host password
MerchantID*	Magensa assigned Merchant ID
MerchantPW*	Magensa assigned Merchant password
EncryptedTrack1*	Encrypted Track 1 data from a MagneSafe™ 1.0 product
EncryptedTrack2*	Encrypted Track 2 data from a MagneSafe™ 1.0 product
EncryptedTrack3	Encrypted Track 3 data from a MagneSafe™ 1.0 product
EncryptedMP*	Encrypted MagnePrint data from a MagneSafe™ product
KSN*	Key Serial Number from a MagneSafe™ product
MPStatus*	MPStatus from a MagneSafe™ product
Amt*	Amount to be processed
TaxAmt	Tax amount
PurchaseOrder	Purchase Order
InvoiceNumber	Invoice Number
CVV	Card Verification Value printed on credit cards
ZIP	Cardholder's ZIP code
AuthCode	Required for Force Authorization

Outputs

Parameter	Description
TransactionID	The unique payment reference number assigned to the transaction.
TransactionStatus	Transaction Status. A zero is returned for an approved transaction. Any other number implies the transaction was not approved.
TransactionMsg	Transaction Message. Describes the Transaction Status.
AuthCode	Authorization Code
CVVMatch	“match” is returned for a CVV match.
AVSMatch	“match” is returned for an AVS match.
StatusCode	Magensa status code.
StatusMsg	Magensa status message.
CardID	Card Identifier which uniquely identifies card without exposing any sensitive card data.
MPScore	MagnePrint® Score.
MPAge	MagnePrint® Age. Number of days since MagnePrint was registered.
MPCount	MagnePrint® Count. Number of MagnePrints on file.
MPRegisteredBy	Name provided, if any, when MagnePrint was registered.
PANLast4	Last four digits of PAN encoded on card
CHDName	Name encoded on card
CardExpDt	Expiration date encoded on card
PartialAuthIndicator	1 - if the amount authorized is less than the amount requested
AuthAmount	Amount authorized if Partial Authorization is done
OriginalAmount	Original Amount requested if Partial Authorization is done

Status Codes

StatusCode	StatusMsg	Notes
1000	OK	Successful Transaction
H001	H001	HostID has incorrect length - Input Validation
H002	H002	HostID has incorrect format - Input validation
H003	H003	HostPW has incorrect length - Input Validation
H004	H004	HostPW has incorrect format - Input validation
H005	H005	MerchantID has incorrect length - Input Validation
H006	H006	MerchantID has incorrect format - Input validation
H007	H007	MerchantPW has incorrect length - Input Validation
H008	H008	MerchantPW has incorrect format - Input validation
H176	H176	EncryptedTrack1 has incorrect format - Input Validation
H177	H177	EncryptedTrack1 has incorrect length - Input Validation
H178	H178	EncryptedTrack2 has incorrect format - Input Validation
H179	H179	EncryptedTrack2 has incorrect length - Input Validation
H180	H180	EncryptedTrack3 has incorrect format - Input Validation
H181	H181	EncryptedTrack3 has incorrect length - Input Validation
H182	H182	EncryptedMP has incorrect format - Input Validation
H183	H183	EncryptedMP has incorrect length - Input Validation
H186	H186	KSN has incorrect format - Input Validation
H187	H187	KSN has incorrect length - Input Validation
H188	H188	MPStatus has incorrect format - Input Validation
H189	H189	MPStatus has incorrect length - Input Validation
H320	H320	Invalid Amount - Input Validation
H321	H321	Invalid Transaction Type - Input validation
H322	H322	Invalid AuthCode - Input Validation
H332	H332	Invalid EntryMode - Input Validation
H333	H333	Invalid Signature - Input Validation
H334	H334	Invalid PartialAuthSupport - Input Validation
H335	H335	Invalid BillingName - Input Validation
H336	H336	Invalid BillingAddress1 - Input Validation
H337	H337	Invalid BillingCity - Input Validation
H338	H338	Invalid BillingState - Input Validation
H339	H339	Invalid BillingCountry - Input Validation
H380	H380	CVV has incorrect length - Input Validation
H381	H381	CVV has incorrect format - Input validation
H385	H385	ZIP has incorrect length - Input Validation
H386	H386	ZIP has incorrect format - Input validation
H400	H400	Invalid Tax Amount - Input Validation

StatusCode	StatusMsg	Notes
C001	No PAN Found in Track2 Data	
C089	Error Validating Credentials	
C093	Invalid MagnePrint	
C094	Invalid MagnePrint	
C095	Error Scoring Card.	
C096	C096	Inactive MagnePrint Reference.
C097	C097	Replay Prevented. Invalid DUKPT KSN
C098	Problem with Reader Data	
C099	Error Validating Credentials.	

ProcessPC10 (Process Qwick Code)

This operation should be used within your App for the redemption of Magensa Qwick Codes to perform a sale, authorization or force authorization. For more information about Magensa Qwick Codes visit <https://qwickcodes.com/>.

Inputs

Parameter (an asterisk * means required)	Description
TransactionType*	<ul style="list-style-type: none">S for SaleA for Authorization*F for Force Authorization*
HostID*	Magensa assigned Host ID
HostPW*	Magensa assigned Host password
MerchantID*	Magensa assigned Merchant ID
MerchantPW*	Magensa assigned Merchant password
PCode*	Qwick Code
PANLast4*	Last four digits of PAN swiped to create Qwick Code.
Amt*	Amount to be processed
TaxAmt	Tax amount
PurchaseOrder	Purchase Order
InvoiceNumber	Invoice Number
CVV	Card Verification Value printed on credit cards
ZIP	Cardholder's ZIP code
STZIP	Cardholder's Shipping ZIP code
AuthCode	Required for Force Authorization
CardLastName	Cardholder's Last Name
AuthenticationValue1	A future authentication value
AuthenticationValue2	A future authentication value
AuthenticationValue3	A future authentication value
Email	Email address
Username	Username for authentication
Password	Password for authentication

* Not available for Chase Paymentech

Outputs

Parameter	Description
TransactionID	The unique payment reference number assigned to the transaction.
TransactionStatus	Transaction Status. A zero is returned for an approved transaction. Any other number implies the transaction was not approved.
TransactionMsg	Transaction Message. Describes the Transaction Status.
AuthCode	AuthorizationCode
CVVMatch	“match” is returned for a CVV match.
AVSMatch	“match” is returned for an AVS match.
StatusCode	Magensa status code.
StatusMsg	Magensa status message.
CardID	Card Identifier which uniquely identifies card without exposing any sensitive card data.
MPScore	MagnePrint® Score.
MPAge	MagnePrint® Age. Number of days since MagnePrint was registered.
MPCount	MagnePrint® Count. Number of MagnePrints on file.
MPRegisteredBy	Name provided, if any, when MagnePrint was registered.
PANLast4	Last four digits of PAN encoded on card
CHDName	Name encoded on card
CardExpDt	Expiration date encoded on card

Status Codes

StatusCode	StatusMsg	Notes
1000	OK	Successful Transaction
H001	H001	HostID has incorrect length - Input Validation
H002	H002	HostID has incorrect format - Input validation
H003	H003	HostPW has incorrect length - Input Validation
H004	H004	HostPW has incorrect format - Input validation
H005	H005	MerchantID has incorrect length - Input Validation
H006	H006	MerchantID has incorrect format - Input validation
H007	H007	MerchantPW has incorrect length - Input Validation
H008	H008	MerchantPW has incorrect format - Input validation
H320	H320	Invalid Amount Type - Input validation
H321	H321	Invalid Transaction Type - Input validation
H322	H322	Invalid AuthCode - Input validation
H330	H330	PCode has incorrect length - Input Validation
H331	H331	PCode has incorrect format - Input validation
H375	H375	PANLast4 has incorrect length - Input Validation
H376	H376	PANLast4 has incorrect format - Input validation
H380	H380	CVV has incorrect length - Input Validation
H381	H381	CVV has incorrect format - Input validation
H385	H385	ZIP has incorrect length - Input Validation
H386	H386	ZIP has incorrect format - Input validation
H400	H400	Invalid Tax Amount - Input Validation
P001	No PAN Found in Track2 Data	
P021	Invalid Qwick Code	
P028	Expired Qwick Code.	
P031	Last 4 of PAN mismatch.	
P032	Last Name mismatch.	
P034	Invalid Qwick Code	
P089	Error Validating Credentials.	
P098	Problem with Reader Data	
P099	Error Validating Credentials.	

ProcessPC12 (Process Qwick Code – Used ONLY with WorldPay)

This operation should be used within your App for the redemption of Magensa Qwick Codes to perform a sale, authorization or force authorization. It can ONLY be used with merchants having WorlPay as their processor. For more information about Magensa Qwick Codes visit <https://qwickcodes.com/>.

Inputs

Parameter (an asterisk * means required)	Description
EntryMode*	EntryMode (Required) 1=Normal Retail, 2=MOTO, 3=E-Commerce
PartialAuthSupport*	PartialAuthSupport (Required) 0=Terminal does not support partial authorization responses,
Signature*	Signature (Required) 0=Not present, 1=Present
BillingName	BillingName (Required for E-commerce)
BillingAddress1	BillingAddress1 (Required for E-commerce)
BillingAddress2	BillingAddress2
BillingCity	BillingCity (Required for E-commerce)
TransactionType*	<ul style="list-style-type: none"> • S for Sale • A for Authorization • F for Force Authorization
HostID*	Magensa assigned Host ID
HostPW*	Magensa assigned Host password
MerchantID*	Magensa assigned Merchant ID
MerchantPW*	Magensa assigned Merchant password
PCode*	Qwick Code
PANLast4*	Last four digits of PAN swiped to create Qwick code.
Amt*	Amount to be processed
TaxAmt	Tax amount
PurchaseOrder	Purchase Order
InvoiceNumber	Invoice Number
CVV	Card Verification Value printed on credit cards
ZIP	Cardholder's ZIP code
STZIP	Cardholder's Shipping ZIP code
AuthCode	Required for Force Authorization
CardLastName	Cardholder's Last Name
AuthenticationValue1	A future authentication value
AuthenticationValue2	A future authentication value
AuthenticationValue3	A future authentication value
Email	Email address
Username	Username for authentication
Password	Password for authentication

Outputs

Parameter	Description
TransactionID	The unique payment reference number assigned to the transaction.
TransactionStatus	Transaction Status. A zero is returned for an approved transaction. Any other number implies the transaction was not approved.
TransactionMsg	Transaction Message. Describes the Transaction Status.
AuthCode	AuthorizationCode
CVVMatch	"match" is returned for a CVV match.
AVSMatch	"match" is returned for an AVS match.
StatusCode	Magensa status code.
StatusMsg	Magensa status message.
CardID	Card Identifier which uniquely identifies card without exposing any sensitive card data.
MPScore	MagnePrint® Score.
MPAge	MagnePrint® Age. Number of days since MagnePrint was registered.
MPCount	MagnePrint® Count. Number of MagnePrints on file.
MPRegisteredBy	Name provided, if any, when MagnePrint was registered.
PANLast4	Last four digits of PAN encoded on card
CHDName	Name encoded on card
CardExpDt	Expiration date encoded on card
PartialAuthIndicator	1 - if the amount authorized is less than the amount requested
AuthAmount	Amount authorized if Partial Authorization is done
OriginalAmount	Original Amount requested if Partial Authorization is done

Status codes

StatusCode	StatusMsg	Notes
1000	OK	Successful Transaction
H001	H001	HostID has incorrect length - Input Validation
H002	H002	HostID has incorrect format - Input validation
H003	H003	HostPW has incorrect length - Input Validation
H004	H004	HostPW has incorrect format - Input validation
H005	H005	MerchantID has incorrect length - Input Validation
H006	H006	MerchantID has incorrect format - Input validation
H007	H007	MerchantPW has incorrect length - Input Validation
H008	H008	MerchantPW has incorrect format - Input validation
H320	H320	Invalid Amount Type - Input validation
H321	H321	Invalid Transaction Type - Input validation
H322	H322	Invalid AuthCode - Input validation
H330	H330	PCode has incorrect length - Input Validation
H331	H331	PCode has incorrect format - Input validation
H332	H332	Invalid EntryMode - Input Validation
H333	H333	Invalid Signature - Input Validation
H334	H334	Invalid PartialAuthSupport - Input Validation
H335	H335	Invalid BillingName - Input Validation
H336	H336	Invalid BillingAddress1 - Input Validation
H337	H337	Invalid BillingCity - Input Validation
H338	H338	Invalid BillingState - Input Validation
H339	H339	Invalid BillingCountry - Input Validation
H375	H375	PANLast4 has incorrect length - Input Validation
H376	H376	PANLast4 has incorrect format - Input validation
H380	H380	CVV has incorrect length - Input Validation
H381	H381	CVV has incorrect format - Input validation
H385	H385	ZIP has incorrect length - Input Validation
H386	H386	ZIP has incorrect format - Input validation
H400	H400	Invalid Tax Amount - Input Validation
P001	No PAN Found in Track2 Data	
P021	Invalid Qwick Code	
P028	Expired Qwick Code.	
P031	Last 4 of PAN mismatch.	
P032	Last Name mismatch.	
P034	Invalid Qwick Code.	
P089	Error Validating Credentials.	
P098	Problem with Reader Data	
P099	Error Validating Credentials.	

ProcessKE10 (Process Key Entered card data)

This operation should be used within your App for manually key entered card data to perform a sale, authorization or force authorization.

Inputs

Parameter (an asterisk * means required)	Description
TransactionType*	<ul style="list-style-type: none">• S for Sale• A for Authorization*• F for Force Authorization*
HostID*	Magensa assigned Host ID
HostPW*	Magensa assigned Host password
MerchantID*	Magensa assigned Merchant ID
MerchantPW*	Magensa assigned Merchant password
PAN*	Payment Card Account Number
CHName*	Cardholder name as it appears on card
CardExpDt*	ExpDt as it appears on card
Amt*	Amount to be processed
TaxAmt	Tax amount
PurchaseOrder	Purchase Order
InvoiceNumber	Invoice Number
CVV	Card Verification Value printed on credit cards
ZIP	Cardholder's ZIP code
AuthCode	Required for Force Authorization

* Not available for Chase Paymentech

Outputs

Parameter	Description
TransactionID	The unique payment reference number assigned to the transaction.
TransactionStatus	Transaction Status. A zero is returned for an approved transaction. Any other number implies the transaction was not approved.
TransactionMsg	Transaction Message. Describes the Transaction Status.
AuthCode	Authorization Code
CVVMatch	“match” is returned for a CVV match.
AVSMatch	“match” is returned for an AVS match.
StatusCode	Magensa status code.
StatusMsg	Magensa status message.

Status Codes

StatusCode	StatusMsg	Notes
1000	OK	Successful Transaction
H001	H001	HostID has incorrect length - Input Validation
H002	H002	HostID has incorrect format - Input validation
H003	H003	HostPW has incorrect length - Input Validation
H004	H004	HostPW has incorrect format - Input validation
H005	H005	MerchantID has incorrect length - Input Validation
H006	H006	MerchantID has incorrect format - Input validation
H007	H007	MerchantPW has incorrect length - Input Validation
H008	H008	MerchantPW has incorrect format - Input validation
H320	H320	Invalid Amount - Input Validation
H321	H321	Invalid Transaction Type - Input validation
H322	H322	Invalid AuthCode - Input validation
H380	H380	CVV has incorrect length - Input Validation
H381	H381	CVV has incorrect format - Input validation
H385	H385	ZIP has incorrect length - Input Validation
H386	H386	ZIP has incorrect format - Input validation
H400	H400	Invalid Tax Amount - Input Validation
H401	H401	PAN has incorrect length - Input Validation
H402	H402	PAN has incorrect format - Input validation
H405	H405	Invalid CHName - Input Validation
H410	H410	CardExpDt has incorrect length - Input Validation
H411	H411	CardExpDt has incorrect format - Input validation
K089	Error Validating Credentials.	
K099	Error Validating Credentials.	

ProcessKE12 (Process Key Entered card data – Used ONLY with WorldPay)

This operation should be used within your App for manually key entered card data to perform a sale, authorization or force authorization. It can ONLY be used with merchants having WorldPay as their processor. For more information about Magensa Qwick Codes visit <https://qwickcodes.com/>.

InPuts

Parameter (an asterisk * means required)	Description
EntryMode*	EntryMode (Required) 1=Normal Retail, 2=MOTO, 3=E-Commerce
PartialAuthSupport*	PartialAuthSupport (Required) 0=Terminal does not support partial authorization responses, 1=Terminal accepts partial authorization responses
Signature*	Signature (Required) 0=Not present, 1=Present
BillingName	BillingName (Required for E-commerce)
BillingAddress1	BillingAddress1 (Required for E-commerce)
BillingAddress2	BillingAddress2
BillingCity	BillingCity (Required for E-commerce)
EntryMode*	EntryMode (Required) 1=Normal Retail, 2=MOTO, 3=E-Commerce
PartialAuthSupport*	PartialAuthSupport (Required) 0=Terminal does not support partial authorization responses,
TransactionType*	<ul style="list-style-type: none"> • S for Sale • A for Authorization • F for Force Authorization
HostID*	Magensa assigned Host ID
HostPW*	Magensa assigned Host password
MerchantID*	Magensa assigned Merchant ID
MerchantPW*	Magensa assigned Merchant password
PAN*	Payment Card Account Number
CHName*	Cardholder name as it appears on card
CardExpDt*	ExpDt as it appears on card
Amt*	Amount to be processed
TaxAmt	Tax amount
PurchaseOrder	Purchase Order
InvoiceNumber	Invoice Number
CVV	Card Verification Value printed on credit cards
ZIP	Cardholder's ZIP code
AuthCode	Required for Force Authorization

Outputs

Parameter	Description
TransactionID	The unique payment reference number assigned to the transaction.
TransactionStatus	Transaction Status. A zero is returned for an approved transaction. Any other number implies the transaction was not approved.
TransactionMsg	Transaction Message. Describes the Transaction Status.
AuthCode	Authorization Code
CVVMatch	“match” is returned for a CVV match.
AVSMatch	“match” is returned for an AVS match.
StatusCode	Magensa status code.
StatusMsg	Magensa status message.
PartialAuthIndicator	1 - if the amount authorized is less than the amount requested
AuthAmount	Amount authorized if Partial Authorization is done
OriginalAmount	Original Amount requested if Partial Authorization is done

Status Codes

StatusCode	StatusMsg	Notes
1000	OK	Successful Transaction
H001	H001	HostID has incorrect length - Input Validation
H002	H002	HostID has incorrect format - Input validation
H003	H003	HostPW has incorrect length - Input Validation
H004	H004	HostPW has incorrect format - Input validation
H005	H005	MerchantID has incorrect length - Input Validation
H006	H006	MerchantID has incorrect format - Input validation
H007	H007	MerchantPW has incorrect length - Input Validation
H008	H008	MerchantPW has incorrect format - Input validation
H320	H320	Invalid Amount - Input Validation
H321	H321	Invalid Transaction Type - Input validation
H322	H322	Invalid AuthCode - Input validation
H332	H332	Invalid EntryMode - Input Validation
H333	H333	Invalid Signature - Input Validation
H334	H334	Invalid PartialAuthSupport - Input Validation
H335	H335	Invalid BillingName - Input Validation
H336	H336	Invalid BillingAddress1 - Input Validation
H337	H337	Invalid BillingCity - Input Validation
H338	H338	Invalid BillingState - Input Validation
H339	H339	Invalid BillingCountry - Input Validation
H380	H380	CVV has incorrect length - Input Validation
H381	H381	CVV has incorrect format - Input validation
H385	H385	ZIP has incorrect length - Input Validation
H386	H386	ZIP has incorrect format - Input validation
H400	H400	Invalid Tax Amount - Input Validation
H401	H401	PAN has incorrect length - Input Validation
H402	H402	PAN has incorrect format - Input validation
H405	H405	Invalid CHName - Input Validation
H410	H410	CardExpDt has incorrect length - Input Validation
H411	H411	CardExpDt has incorrect format - Input validation
K089	Error Validating Credentials.	
K099	Error Validating Credentials.	

ProcessTI10 (Process Transaction ID)

This operation should be used within your App to specifically process a previously obtained Transaction ID in performing a refund, void or delayed capture.

Inputs

Parameter (an asterisk * means required)	Description
TransactionType*	<ul style="list-style-type: none">• R for Refund• V for Void• D for Delayed Capture*
HostID*	Magensa assigned Host ID
HostPW*	Magensa assigned Host password
MerchantID*	Magensa assigned Merchant ID
MerchantPW*	Magensa assigned Merchant password
TransactionID*	The unique payment reference number assigned to the transaction.
Amt	<p>For Refunds, if an Amt is provided, then that Amt will be refunded. If no Amt is provided, then the Amt of the Sale will be refunded.</p> <p>For Voids, do not specify an Amt. The transaction and thereby the Amt of the transaction is Voided.</p> <p>For Delay Captures, if an Amt is provided, then that Amt will be captured. If no Amt is provided, then the Amt of the Authorization will be captured.</p>

* Not available for Chase Paymentech

Outputs

Parameter	Description
TransactionID	The unique payment reference number assigned to the transaction.
TransactionStatus	Transaction Status. A zero is returned for an approved transaction. Any other number implies the transaction was not approved.
TransactionMsg	Transaction Message. Describes the Transaction Status.
AuthCode	AuthorizationCode
StatusCode	Magensa status code.
StatusMsg	Magensa status message.

Status Codes

StatusCode	StatusMsg	Notes
1000	OK	Successful Transaction
H001	H001	HostID has incorrect length - Input Validation
H002	H002	HostID has incorrect format - Input validation
H003	H003	HostPW has incorrect length - Input Validation
H004	H004	HostPW has incorrect format - Input validation
H005	H005	MerchantID has incorrect length - Input Validation
H006	H006	MerchantID has incorrect format - Input validation
H007	H007	MerchantPW has incorrect length - Input Validation
H008	H008	MerchantPW has incorrect format - Input validation
H320	H320	Invalid Amount - Input validation
H321	H321	Invalid Transaction Type - Input validation
T089	Error Validating Credentials.	
T099	Error Validating Credentials.	

Putting a transaction together

How to format and where to send your transaction

WSDLs describe the XML format for transactions. WSDLs are available at the following URL

<https://mppg.magensa.net/MPPG/service.asmx?op>.

Obtaining card data

MagTek offers ActiveX and Java Applets for obtaining card data from a USB MagneSafe™ product. Please see <http://www.magtek.com> for more information.

Sample data

The following illustrates a sample Card Swipe Sale transaction for \$1.38 for the ProcessCS10 operation

```
<TransactionType>S<TransactionType>
<HostID>MAG123456789<HostID>
<HostPW>TOPSECRET<HostPW>
<MerchantID>M1122334455<MerchantID>
<MerchantPW>SUPERSECRET<MerchantPW>
<EncryptedTrack1>B6FA568134DE355D47A2D3A1E4409BE9C9B344211D3673E9117A6DB4F
6688D016B440358296ABCA768F34032F63ED42EE4576D4F308A68D22D1FBDF4EF22F5B2< EncryptedTrack1>
<EncryptedTrack2>F074EDFA2DE68965A57A2EB893E70E3A92BC165CE3599AEC2542E434BC
6F84FA<EncryptedTrack2>
<EncryptedTrack3><EncryptedTrack3>
<EncryptedMP>48AA10C8BC19103F447FCFBCB78CA62A2D774089802D2DF277CEC1A30C9D
8AB3CA7C5FE50F11165723CAC31F4347794467EF6D5BAFBB754C<EncryptedMP>
<KSN>9011400B00CC6500011B<KSN>
<MPStatus>00220611<MPStatus>
<Amt>1.38<Amt>
<TaxAmt><TaxAmt>
<PurchaseOrder><PurchaseOrder>
<InvoiceNumber><InvoiceNumber>
<CVV><CVV>
<ZIP><ZIP>
```

Appendix A – Processor SLA Table

The following payment processors have provided Magensa with specific SLAs. This information is provided to you as a courtesy but it is subject to change by the processors without notice.

Processor/ Gateway	Batch Settlement Time	Void Before Settlement	Refund After Settlement	Reversal	Contact
WorldPay	4 AM EST	2-3 business days	2-3 business days	2-3 business days. Process on THU only.	800-859- 5965 option2
Global Payment	2 AM EST or Define by the merchant	Immediately	Immediately	2-3 business days	800-560- 2960
First Data	Defined by the merchant	Immediately	1-2 business days	1-2 business days	877-274- 7915
Phoenix	1 AM MST or Defined by the merchant	Depending on the issuer	Depending on the issuer	Immediately	623-209- 7776
Heartland	Defined by the merchant	Depending on the issuer	Depending on the issuer	Immediately	877-798- 9656
PPI	11 PM PST or Defined by the merchant	Immediately	2 business days	2 business days	800-774- 6462
PayPal	Defined by the merchant	Immediately	3-5 business days	Not Supported Reversal	888-662- 7725