# AMERICAN EXPRESS GLOBAL CREDIT AUTHORIZATION GUIDE ISO 8583:1993 (VERSION 1) AUTHORIZATION ADJUSTMENT ADDENDUM OCTOBER 2014



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You will receive confirmation of your request in 3-5 business days. Changes, corrections and clarifications will be published in the next release.

For questions on modifications to existing functionality, contact your American Express representative.

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#### **Summary of Changes Table**

The Summary of Changes table includes an overview of technical changes made to the *GCAG Authorization Adjustment Addendum (ISO Format)* since its last publication date. All changes including corrections are included in the Revision Log located at the back of this addendum.

Data Field or Section Number	Description of Change	Reason for Change

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#### 1.0 About the GCAG Authorization Adjustment Addendum (ISO Format)

The authorization amount adjustment is designed to release funds held when the actual sale amount is less than the original authorized amount. This ISO 8583 message can be leveraged by Merchants to advise American Express of the exact amount of the completed sale. The Authorization Adjustment will release the difference between the original amount authorized and the final sale amount to the Cardmember's available credit or "open to buy". Merchants must only send an adjustment advice if the final sale amount is less than the original, approved authorized amount.

The GCAG Authorization Adjustment Addendum (ISO Format) contains software development instructions for use of the American Express Credit Authorization System. These instructions enable programmers to code software in accordance with American Express requirements. American Express will allow authorized Merchants and Third Party Processors that conform to this specification and pass our certification tests to access the American Express Global Network to submit authorization adjustments. Use of this specification prior to certification is prohibited.

This is an optional message format, but American Express strongly recommends its use.

Attention: This version of the *GCAG Authorization Adjustment Addendum (ISO Format)* applies to any Merchant, Third Party Processor or Vendor software providers that support Automated Fuel Dispensers.

#### 1.1 Who Should Use the GCAG Authorization Adjustment Addendum (ISO Format)

The GCAG Authorization Adjustment Addendum (ISO Format) is written for programmers working on the behalf of Merchants (Service Establishments, Host Link Partners), Third Party Processors (Authorized Processors, Gateway Providers, Payment Service Providers (Aggregators), OptBlue Participants and Vendor software (Third Party Developers) to enable authorization adjustments to be submitted to American Express systems.

#### 1.2 Related Documents

American Express Global Credit Authorization Guide (ISO Format)

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#### 2.0 Guidelines for Using the ISO 8583 Format

ISO 8583 standard provides for variable length messages that are bit map driven. A bit map consists of a 64-bit string contained within an eight-byte data field. The data content of a message is determined by the value (1) or (0) of bits in a bit map data field. Each bit is associated with a unique data field. If the data content for a data field is available, the bitmap position should be set to one (1) and the respective data field should be sent. If the data content for a data field is not available, the bitmap position should be set to zero (0) and the respective data field should not be sent.

A few of the data fields are fixed-length and others are variable-length. The Variable Length Indicator (VLI) indicates how many bytes of data will follow it. A length subfield or Variable Length Indicator (VLI) precedes the variable length data subfields. The length of the VLI will be encoded in either two or three character bytes. The length of the VLI is not included in the length of the variable data subfield it describes.

#### For example:

"LLVAR" — When present with a variable length data field specification, this indicates that the data field contains two subfields:

- "LL" indicates the number of positions in the VLI, and the value in the VLI shows the length of the variable-length data subfield that follows. The length may be 01 to 99, unless otherwise restricted.
- "VAR" is the variable length data subfield.

Example: A 27-byte data field with "LLVAR" indicates a VLI of 2 bytes with a maximum length of 25 bytes of variable data.

"LLLVAR" — When present with a variable length specification, this indicates that the data field contains two subfields:

- "LLL" indicates the number of positions in the variable-length data subfield that follows. Length may be 001 to 999, unless otherwise restricted.
- "VAR" is the variable length data subfield.

Example: A 503-byte data field with "LLLVAR" indicates a VLI of 3 bytes with a maximum length of 500 bytes of variable data.

#### 2.0 Guidelines for Using the ISO 8583 Format (continued)

- Unless otherwise specified, all fixed-length numeric data fields should be right justified and zero filled, fixed-length alphanumeric data fields should be left justified and character space filled, and binary data fields should be in eight-bit blocks that are left justified and zero filled.
- The message content must be configured in the EBCDIC character set, unless otherwise noted in the data field details.
- The communications protocol must support Transparency, due to the presence of binary data (e.g., bitmaps) that may be mistaken for communications control information.
- Some data fields are not supported in this version of the American Express ISO 8583 interface. However, to allow all processes to consistently and accurately deal with all data fields, all the attributes of all 64 data fields in the primary bit map are supplied beginning on page 5 and must be allowed while developing the interface. This allows a message to be sent, even when it contains unsupported data. The data will not be processed by the recipient nor returned to the sender, but the definitions allow each system to step past unsupported data fields to get to the following data fields.
- Some data fields of the message are required to process the message, while others are not required to process the message. Some data fields may be required in the response when present in the request. Data field requirements are as follows:.

Mandatory	Data field and contents are required to process this message. Data field must contain the appropriate text or numeric information as indicated.
Mandatory - Echo returned	Data field is mandatory for processing this message; and whenever included in an originating request message, it will be preserved and returned in the response message without alteration.
Optional	Data field and contents are not mandatory for processing the message, but should be provided if available.
Optional - Echo returned	Data field is optional for processing this message; and whenever included in an originating request message, it will be preserved and returned in the response message without alteration.
Conditional	A data field may be <i>conditional</i> if it is only used in certain circumstances. See Data Field Descriptions for specific details.
Conditional - Echo returned	Data field is conditional for processing this message; and whenever included in an originating request message, it will be preserved and returned in the response message without alteration.

#### 2.1 Variations from ISO 8583

Except as noted in the detailed message flows for most messages or data fields, no individual data field should exceed 290 bytes. For more information, contact your American Express representative.

American Express reserves the right to modify data field parameters (e.g., changing Data Field Type from numeric to alphanumeric, or vice-versa) to meet specific business and/or internal data and system requirements.

#### 2.2 ISO 8583 Message Bit Map Table

ISO 8583 may utilize either one or two 64-position bit maps, which are designated as the *Primary* and *Secondary* Bit Maps, to indicate which of up to 128 data fields are contained in a message. However, at this writing, American Express uses only the Primary Bit Map to indicate which of the first 64 data fields are included in each applicable message. The Secondary Bit Map and corresponding data fields 65-128 are unused at this time, and descriptive message format information is omitted from this document.

Note: Data fields shown in **reversed text** (white letters on a black background) are not used by American Express, and unauthorized use of these data fields may cause message rejection.

#### 2.2.1 Primary Bit Map

Data Field	Data Field Name	Max. Data Field Length	Data Field Type			
_	MESSAGE TYPE IDENTIFIER (MTI)	4 bytes, fixed	Numeric			
_	BIT MAP - PRIMARY	8 bytes, 64 bits	Binary			
1	BIT MAP - SECONDARY	8 bytes, 64 bits	Binary			
2	PRIMARY ACCOUNT NUMBER (PAN)	21 bytes, LLVAR	Numeric			
3	PROCESSING CODE	6 bytes, fixed	Numeric			
4	AMOUNT, TRANSACTION	12 bytes, fixed	Numeric			
5	AMOUNT, RECONCILIATION	12 bytes, fixed	Numeric			
6	AMOUNT, CARDHOLDER BILLING	12 bytes, fixed	Numeric			
7	DATE AND TIME, TRANSMISSION	10 bytes, fixed	Numeric			
8	AMOUNT, CARDHOLDER BILLING FEE	8 bytes, fixed	Numeric			
9	CONVERSION RATE, RECONCILIATION	8 bytes, fixed	Numeric			
10	CONVERSION RATE, CARDHOLDER BILLING	8 bytes, fixed	Numeric			
11	SYSTEMS TRACE AUDIT NUMBER	6 bytes, fixed	Alphanumeric & special characters			
12	DATE AND TIME, LOCAL TRANSACTION	12 bytes, fixed	Numeric			
13	DATE, EFFECTIVE	4 bytes, fixed Numeric				
14	DATE, EXPIRATION	4 bytes, fixed	Numeric			
15	DATE, SETTLEMENT	6 bytes, fixed	Numeric			
16	DATE, CONVERSION	4 bytes, fixed	Numeric			
17	DATE, CAPTURE	4 bytes, fixed	Numeric			
18	MERCHANT TYPE	4 bytes, fixed	Numeric			
19	COUNTRY CODE, ACQUIRING INSTITUTION	3 bytes, fixed	Numeric			
20	COUNTRY CODE, PRIMARY ACCOUNT NUMBER	3 bytes, fixed	Numeric			
21	COUNTRY CODE, FORWARDING INSTITUTION	3 bytes, fixed	Numeric			
22	POINT OF SERVICE DATA CODE	12 bytes, fixed	Alphanumeric			
23	CARD SEQUENCE NUMBER	3 bytes, fixed	Numeric			
24	FUNCTION CODE	3 bytes, fixed	Numeric			
25	MESSAGE REASON CODE	4 bytes, fixed	Numeric			
26	CARD ACCEPTOR BUSINESS CODE	4 bytes, fixed	Numeric			
27	APPROVAL CODE LENGTH	1 byte, fixed	Numeric			
28	DATE, RECONCILIATION	6 bytes, fixed	Numeric			
29	RECONCILIATION INDICATOR	3 bytes, fixed	Numeric			
30	AMOUNTS, ORIGINAL	24 bytes, fixed	Numeric			
31	ACQUIRER REFERENCE DATA	50 bytes, LLVAR	Alphanumeric & special characters			
32	ACQUIRING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric			

#### 2.2.1 Primary Bit Map (continued)

Data Field	Data Field Name	Max. Data Field Length Data Field Type					
33	FORWARDING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric				
34	PRIMARY ACCOUNT NUMBER, EXTENDED	30 bytes, LLVAR	Numeric				
35	TRACK 2 DATA	39 bytes, LLVAR	Alphanumeric & special characters				
36	TRACK 3 DATA	107 bytes, LLLVAR	Numeric & special characters				
37	RETRIEVAL REFERENCE NUMBER	12 bytes, fixed	Alphanumeric & special characters				
38	APPROVAL CODE	6 bytes, fixed	Alphanumeric & spaces				
39	ACTION CODE	3 bytes, fixed	Numeric				
40	SERVICE CODE	3 bytes, fixed	Numeric				
41	CARD ACCEPTOR TERMINAL IDENTIFICATION	8 bytes, fixed	Alphanumeric & special characters				
42	CARD ACCEPTOR IDENTIFICATION CODE	15 bytes, fixed	Alphanumeric & special characters				
43	CARD ACCEPTOR NAME/LOCATION	101 bytes, LLVAR	Alphanumeric & special characters				
44	ADDITIONAL RESPONSE DATA	27 bytes, LLVAR	Alphanumeric & special characters				
45	TRACK 1 DATA	78 bytes, LLVAR	Alphanumeric & special characters				
46	AMOUNTS, FEES	207 bytes, LLLVAR	Alphanumeric				
47	ADDITIONAL DATA - NATIONAL	304 bytes, LLLVAR	Alphanumeric & special characters				
48	ADDITIONAL DATA - PRIVATE	43 bytes, LLLVAR	Alphanumeric & special characters				
49	CURRENCY, CODE, TRANSACTION	3 bytes, fixed	xed Numeric				
50	CURRENCY CODE, RECONCILIATION	3 bytes, fixed	Alpha or Numeric				
51	CURRENCY CODE, CARDHOLDER BILLING	3 bytes, fixed	Alpha or Numeric				
52	PERSONAL IDENTIFICATION NUMBER (PIN) DATA	8 bytes, 64 bits	Binary				
53	SECURITY RELATED CONTROL INFORMATION	10 bytes, LLVAR	Alphanumeric				
54	AMOUNTS, ADDITIONAL	123 bytes, LLLVAR	Alphanumeric & special characters				
55	INTEGRATED CIRCUIT CARD SYSTEM RELATED DATA	259 bytes, LLLVAR	Alphanumeric & special characters, BCD or binary				
56	ORIGINAL DATA ELEMENTS	37 bytes, LLVAR	Numeric				
57	AUTHORIZATION LIFE CYCLE CODE	3 bytes, fixed	Numeric				
58	AUTHORIZING AGENT INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric				
59	TRANSPORT DATA	1002 bytes, LLLVAR	Alphanumeric & special characters				
60	NATIONAL USE DATA	303 bytes, LLLVAR	Alphanumeric & special characters				
61	NATIONAL USE DATA	103 bytes, LLLVAR	Alphanumeric & special characters				
62	PRIVATE USE DATA	63 bytes, LLLVAR	Alphanumeric & special characters or binary				
63	PRIVATE USE DATA	208 bytes, LLLVAR	Alphanumeric & special characters				
64	MESSAGE AUTHENTICATION CODE FIELD	8 bytes, 64 bits	Binary				

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#### 3.0 ISO 8583 Request/Response Message Formats

This section defines the Authorization Adjustment Financial Transaction Advice Request (1220) and Authorization Adjustment Financial Transaction Advice Response (1230) messages, as defined for the ISO 8583 format. These messages are constructed as specified in the ISO 8583-1993 standard. If your system supports a different version of ISO 8583, notify your American Express representative.

## 3.1 ISO 8583 Authorization Adjustment Financial Transaction Advice Request (1220) Message

Description:

This message is used by a Merchant to transmit an Authorization Adjustment Financial Transaction Advice Request (1220) message to American Express. The request contains Card and sales data necessary to adjust the funds held when the actual sale amount is less than the original, approved authorized amount. This message is intended to be used at automated fuel pumps or by Merchants where the preauthorization amount is regularly greater than the actual sale.

Data Field	Data Field Name	Max. Data Field Length	Data Field Type	Data Field Requirements	Page
	MESSAGE TYPE IDENTIFIER	4 bytes, fixed	Numeric	Mandatory	11
_	BIT MAP - PRIMARY	8 bytes, 64 bits	Binary	Mandatory	11
2	PRIMARY ACCOUNT NUMBER (PAN)	21 bytes, LLVAR	Numeric	Mandatory	13
3	PROCESSING CODE	6 bytes, fixed	Numeric	Mandatory	13
4	AMOUNT, TRANSACTION	12 bytes, fixed	Numeric	Mandatory	14
11	SYSTEMS TRACE AUDIT NUMBER	6 bytes, fixed	Alphanumeric & special characters	Mandatory	15
12	DATE AND TIME, LOCAL TRANSACTION	12 bytes, fixed	Numeric	Mandatory	16
19	COUNTRY CODE, ACQUIRING INSTITUTION	3 bytes, fixed	Numeric	Mandatory	17
22	POINT OF SERVICE DATA CODE	12 bytes, fixed	Alphanumeric	Mandatory	17
24	FUNCTION CODE	3 bytes, fixed	Numeric	Mandatory	18
25	MESSAGE REASON CODE	4 bytes, fixed	Numeric	Mandatory	18
26	CARD ACCEPTOR BUSINESS CODE	4 bytes, fixed	Numeric	Mandatory	19
30	AMOUNTS, ORIGINAL	24 bytes, fixed	Numeric	Mandatory	19
31	ACQUIRER REFERENCE DATA	50 bytes, LLVAR	Alphanumeric & special characters	Mandatory	20

Data Field	Data Field Name	Max. Data Field Length	Data Field Type	Data Field Requirements	Page
32	ACQUIRING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Optional	21
33	FORWARDING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Optional	22
37	37 RETRIEVAL REFERENCE NUMBER		Alphanumeric & special characters	Optional	22
41	CARD ACCEPTOR TERMINAL IDENTIFICATION	8 bytes, fixed	Alphanumeric & special characters	Optional	23
42	CARD ACCEPTOR IDENTIFICATION CODE	15 bytes, fixed	Alphanumeric & special characters	Mandatory	24
43	CARD ACCEPTOR NAME/LOCATION	101 bytes, LLVAR	Alphanumeric & special characters	Mandatory	25
49	CURRENCY CODE, TRANSACTION	3 bytes, fixed	Numeric	Mandatory	25
56	ORIGINAL DATA ELEMENTS	37 bytes, LLVAR	See page →	Mandatory	26

Data Field — None	MESSAGE TYPE IDENTIFIER
Length of Field:	4 bytes, fixed length
Field Type:	Numeric
Constant:	1220
Field Requirement:	Mandatory
Description:	The constant literal "1220" signifies the ISO 8583 Authorization Adjustment Financial Transaction Advice Request (1220) message.

Data Field — None	BIT MAP - PRIMARY
Length of Field:	8 bytes, 64 bits, fixed length for each bit map
Field Type:	Binary (hexadecimal configuration)
Constant:	None
Field Requirement:	Mandatory
Description:	Each bit in this data field signifies the presence (value 1) or absence (value 0) of a data field in the Authorization Adjustment Financial Transaction Advice Request (1220) message.
	If the data field is mandatory, or is optional and the Merchant elects to use that data field, its assigned bit map position must contain a value of "1", to indicate the data field is present. If the data field is optional and not used, its assigned bit map position must contain a value of "0", to indicate the data field is omitted.

#### Data Field — None

#### **BIT MAP - PRIMARY (continued)**

The following diagram illustrates a 64-bit string contained within an eight-byte data field. Each bit signifies the presence (1) or absence (0) of the data field used within the Authorization Adjustment Financial Transaction Advice Request (1220) message format:

1	0	9	0	17	0	25	1	33	1	41	1	49	1	57	0
2	1	10	0	18	0	26	1	34	0	42	1	50	0	58	0
3	1	11	1	19	1	27	0	35	0	43	1	51	0	59	0
4	1	12	1	20	0	28	0	36	0	44	0	52	0	60	0
		_		_				-							
5	0	13	0	21	0	29	0	37	1	45	0	53	0	61	0
6	0	14	0	22	1	30	1		0		0	54	0	62	0
7	0	15	0	23	0	31	1		0		0	55	0	63	0
8	0	16	0	24	1	32	1	40	0	48	0	56	1	64	0

The following diagram illustrates how to calculate the hexadecimal equivalent of the bit map from the table shown above:

Position 1-8 0111 = <b>7</b>	Position 17-24 0010 = <b>2</b>	Position 33-40 1000 = <b>8</b>	Position 49-56 1000 = <b>8</b>
0000 = 0	0101 = <b>5</b>	1000 = <b>8</b>	0001 = <b>1</b>
Position 9-16	Position 25-32	Position 41-48	Position 57-64
0011 = <b>3</b>	1100 = <b>C</b>	1110 = <b>E</b>	0000 = 0
0000 = <b>0</b>	0111 = <b>7</b>	0000 = 0	0000 = 0

Hexadecimal equivalents for bit map:

The hexadecimal equivalent for the bit map in this Authorization Adjustment Financial Transaction Advice Request (1220) message (as shown above) is:

70 30 25 C7 88 E0 81 00

Data Field 2 PRIMARY ACCOUNT NUMBER (PAN)

Length of Field:

3 bytes minimum, 21 bytes maximum, (LLVAR)

Variable Length Indicator: 2 bytes, EBCDIC, right justified, zero filled

Length of Variable Data: 19 bytes maximum, EBCDIC

Field Type: Numeric

Constant: None

Field Requirement: Mandatory

Description: This data field contains the *Primary Account Number/PAN* 

(a.k.a., Cardmember Account Number) that was transmitted in

the original Authorization Request (1100) message.

For details on formatting this entry and/or performing check

digit validation, see the GCAG (ISO Format).

Note: This data field is mandatory for processing this message, and it will be preserved and returned in the response message

without alteration.

Data Field 3 PROCESSING CODE

Length of Field: 6 bytes, fixed length

Field Type: Numeric

Constant: 220000

Field Requirement: Mandatory

Description: This data field contains the financial service being requested.

Valid Processing Code:

220000 = Authorization Adjustment

Note: This data field is mandatory for processing this message, and it will be preserved and returned in the response message

without alteration

Data Field 4		AMOUNT, TRANSACTION
Length of Field:		12 bytes, fixed length
	Field Type:	Numeric, right justified, zero filled
	Constant:	None
	Field Requirement:	Mandatory
	Description:	This data field contains the final <i>Transaction Amount</i> that was submitted. The currency and decimal point are determined by the entry in the Currency Code Transaction, Data Field 49.
		For more information, see Authorization Request (1100) message, Amount, Transaction description in the <i>GCAG (ISO Format)</i> .
		Notes:
		1. For canceled (i.e., previously approved, but abandoned) transactions, this data field is zero filled.
		2. This data field is mandatory for processing this message, and it will be preserved and returned in the response message without alteration.

Data Field 11	SYSTEMS TRACE AUDIT NUMBER
Length of Field:	6 bytes, fixed length
Field Type:	Alphanumeric (upper case) & special characters
Constant:	None
Field Requirement:	Mandatory
Description:	This data field must contain a unique trace number (assigned by the Merchant) to help identify an individual transaction.
	American Express returns this number without alteration in the Systems Trace Audit Number data field of the Authorization Adjustment Financial Transaction Advice Response (1230) message.

#### Data Field 12 DATE AND TIME, LOCAL TRANSACTION

Length of Field: 12 bytes, fixed length

Field Type: Numeric, YYMMDDhhmmss

Constant: None

Field Requirement: Mandatory

Description: This data field contains the year, month, day and local time

when the transaction took place at the card acceptor location. The format is YYMMDDhhmmss. The value of this data field

must be a valid date and time:

Subfield	Definition	Digits	Range
YY	Year	Last 2 only	00-99
MM	Month	2	01-12
DD	Day	2	01-31
hh	Hour	2	00-23
mm	Minute	2	00-59
SS	Second	2	00-59

Note: This data field is mandatory for processing this message, and it will be preserved and returned in the response message without alteration.

Data Field 19 COUNTRY CODE, ACQUIRING INSTITUTION

Length of Field: 3 bytes, fixed length

Field Type: Numeric

Constant: None

Field Requirement: Mandatory

Description: This data field contains the *Acquiring Institution Country Code* 

that was transmitted in the original Authorization Request

(1100) message.

For more information on numeric country codes, see the *GCAG* 

(ISO Format).

Data Field 22 POINT OF SERVICE DATA CODE

Length of Field: 12 bytes, fixed length

Field Type: Alphanumeric, upper case

Constant: None

Field Requirement: Mandatory

Description: This data field contains the *Point of Service (POS) Data Code* 

that was transmitted in the original Authorization Request

(1100) message.

For details on formatting this entry and/or more information on

POS Data Codes, see the GCAG (ISO Format).

Data Field 24	FUNCTION CODE
Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	202
Field Requirement:	Mandatory
Certification Requirement:	This data field contains a value that indicates the specific purpose of this message, within its message class.
	Valid entries include:
	202 = Authorization Adjustment

Length of Field:  Field Type:  Numeric  Constant:  None  Field Requirement:  Mandatory  Description:  This data field contains a four-digit Message Reason Code, which is provided by American Express during certification. The code used varies with the type of request submitted for processing by the Merchant or Third Party Processor. Proper use of this data field indicates that the Authorization Adjustment Financial Transaction Advice is certified by American Express.	Data Field 25	MESSAGE REASON CODE
Constant:  None  Field Requirement:  Mandatory  This data field contains a four-digit Message Reason Code, which is provided by American Express during certification. The code used varies with the type of request submitted for processing by the Merchant or Third Party Processor. Proper use of this data field indicates that the Authorization Adjustment Financial Transaction Advice is certified by American Express.	Length of Field:	4 bytes, fixed length
Field Requirement:  Mandatory  This data field contains a four-digit Message Reason Code, which is provided by American Express during certification. The code used varies with the type of request submitted for processing by the Merchant or Third Party Processor. Proper use of this data field indicates that the Authorization Adjustment Financial Transaction Advice is certified by American Express.	Field Type:	Numeric
Description:  This data field contains a four-digit Message Reason Code, which is provided by American Express during certification. The code used varies with the type of request submitted for processing by the Merchant or Third Party Processor. Proper use of this data field indicates that the Authorization Adjustment Financial Transaction Advice is certified by American Express.	Constant:	None
which is provided by American Express during certification. The code used varies with the type of request submitted for processing by the Merchant or Third Party Processor. Proper use of this data field indicates that the Authorization Adjustment Financial Transaction Advice is certified by American Express.	Field Requirement:	Mandatory
For information on valid codes and their use, contact your American Express representative.	Description:	which is provided by American Express during certification. The code used varies with the type of request submitted for processing by the Merchant or Third Party Processor. Proper use of this data field indicates that the Authorization Adjustment Financial Transaction Advice is certified by American Express.  For information on valid codes and their use, contact your

Data Field 26 CARD ACCEPTOR BUSINESS CODE

Length of Field: 4 bytes, fixed length

Field Type: Numeric

Constant: None

Field Requirement: Mandatory

Description: This data field contains the *Card Acceptor Business Code* 

(a.k.a., Merchant Category Code (MCC)) that was transmitted in the original Authorization Request (1100) message.

For more information on Merchant Category Codes (MCC), see

the GCAG (ISO Format).

Data Field 30 AMOUNTS, ORIGINAL

Length of Field: 24 bytes, fixed length

Field Type: Numeric

Constant: None

Field Requirement: Mandatory

Description: This data field contains the (transaction) Original Amount that

was previously approved by American Express.

Positions 1-12 of this data field are the original transaction amount from Data Field 4, Amount, Transaction, in the corresponding Authorization Response (1110) message.

Positions 13-24 are zero filled and reserved for future use.

For more information on the Amount, Transaction data field in the Authorization Response (1110) message, see the *GCAG* 

(ISO Format).

Note: This data field is mandatory for processing this message, and it will be preserved and returned in the response message

without alteration.

Data Field 31

## 3.1 ISO 8583 Authorization Adjustment Financial Transaction Advice Request (1220) Message (continued)

ACCILIBED DEFERENCE DATA

Note: This data field is mandatory for processing this message, and it will be preserved and returned in the response message

Data Field 31	ACUUIRER REFERENCE DAIA
Length of Field: Variable Length Indicator: Length of Variable Data:	3 bytes minimum, 50 bytes maximum, (LLVAR) 2 bytes, EBCDIC, right justified, zero filled 48 bytes maximum, EBCDIC
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Mandatory
Description:	This data field contains the 15-digit, numeric, <i>Transaction Identifier (TID)</i> that was transmitted in the original Authorization Response (1110) message.
	For details on formatting this entry and/or more information on the TID, see the <i>GCAG (ISO Format)</i> .

without alteration.

**Data Field 32** 

## 3.1 ISO 8583 Authorization Adjustment Financial Transaction Advice Request (1220) Message (continued)

# Length of Field: Variable Length Indicator: Length of Variable Data: 11 bytes maximum, (LLVAR) 2 bytes, EBCDIC, right justified, zero filled 11 bytes maximum, EBCDIC Field Type: Numeric Constant: None Field Requirement: Optional

Description: This data field contains the *Acquiring Institution Identification Code* that was transmitted in the original Authorization

Request (1100) message.

For details on formatting this entry and/or more information on the Acquiring Institution Identification Code, see the *GCAG* 

(ISO Format).

Note: This data field is optional for processing this message;

and if included, it will be preserved and returned in the

**ACQUIRING INSTITUTION IDENTIFICATION CODE** 

response message without alteration

#### Data Field 33 FORWARDING INSTITUTION IDENTIFICATION CODE

Length of Field: 3 bytes minimum, 13 bytes maximum, (LLVAR) Variable Length Indicator: 2 bytes, EBCDIC, right justified, zero filled

Length of Variable Data: 11 bytes maximum, EBCDIC

Field Type: Numeric

Constant: None

Field Requirement: Optional

Description: This data field contains the *Forwarding Institution* 

Identification Code that was transmitted in the original

Authorization Request (1100) message.

For details on formatting this entry and/or more information on the Forwarding Institution Identification Code, see the *GCAG* 

(ISO Format).

#### Data Field 37 RETRIEVAL REFERENCE NUMBER

Length of Field: 12 bytes, fixed length

Field Type: Alphanumeric & special characters

Constant: None

Field Requirement: Optional

Description: This data field contains a unique, 12-character reference

number.

For details on formatting this entry and/or more information on the Retrieval Reference Number, see the *GCAG (ISO Format)*.

Note: This data field is not required for processing this message; however, if included in an originating request message, it will be preserved and returned in the response

message without alteration

Data Field 41	CARD ACCEPTOR TERMINAL IDENTIFICATION
Length of Field:	8 bytes, fixed length
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Optional
Description:	This data field contains the <i>Card Acceptor Terminal Identification</i> that was transmitted in the original Authorization Request (1100) message.
	For details on formatting this entry and/or more information on the Card Acceptor Terminal Identification, see the <i>GCAG (ISO Format)</i> .
	Note: This data field is not required for processing this message; however, if included in an originating request message, it will be preserved and returned in the response message without alteration

Data Field 42	CARD ACCEPTOR IDENTIFICATION CODE
Length of Field:	15 bytes, fixed length
Field Type:	Alphanumeric & special characters, left justified, character space filled
Constant:	None
Field Requirement:	Mandatory
Description:	This data field contains the <i>Card Acceptor Identification Code</i> (a.k.a., Merchant ID) that was transmitted in the original Authorization Request (1100) message.
	For details on formatting this entry and/or more information on the Card Acceptor Identification code, see the <i>GCAG (ISO Format)</i> .
	Note: This data field is mandatory for processing this message, and it will be preserved and returned in the response message without alteration.

#### Data Field 43 CARD ACCEPTOR NAME/LOCATION

Length of Field: 3 bytes minimum, 101 bytes maximum, (LLVAR) Variable Length Indicator: 2 bytes, EBCDIC, right justified, zero filled

Length of Variable Data: 99 bytes maximum, EBCDIC

Field Type: Alphanumeric & special characters

Constant: None

Field Requirement: Mandatory

Description: This data field contains the *Card Acceptor Name/Location* that

was transmitted in the original Authorization Request (1100)

message.

For details on formatting this entry and/or more information on the Card Acceptor Name/Location, see the *GCAG (ISO Format)*.

#### Data Field 49 CURRENCY CODE, TRANSACTION

Length of Field: 3 bytes, fixed length

Field Type: Numeric

Constant: None

Field Requirement: Mandatory

Description: This data field contains the *Currency Code, Transaction* that

was transmitted in the original Authorization Request (1100)

message.

For details on formatting this entry and/or more information on the Currency Code, Transaction, see the *GCAG (ISO Format)*.

Data Field 56 ORIGINAL DATA ELEMENTS

Length of Field: 3 bytes minimum, 37 bytes maximum, (LLVAR) Variable Length Indicator: 2 bytes, EBCDIC, right justified, zero filled

Length of Variable Data: 35 bytes maximum, EBCDIC

Field Type: See individual subfields for Field Type

Constant: None

Field Requirement: Mandatory

Description: This data field contains four data fields from the original

Authorization Request (1100) message. These four subfields may total up to 35 characters, and they are preceded by a two-digit, Variable Length Indicator (VLI). See the following

table:

Subfield Name	Description	Data Field Type	Data Field Length
LL	VARIABLE LENGTH INDICATOR (VLI)	Numeric (EBCDIC)	2 bytes
Subfield 1	MESSAGE TYPE IDENTIFIER *	Numeric	4 bytes
Subfield 2	SYSTEM TRACE AUDIT NUMBER *	Alphanumeric (upper case) & special characters	6 bytes
Subfield 3	DATE AND TIME, LOCAL TRANSACTION *	Numeric	12 bytes
Subfield 4	ACQUIRING INSTITUTION IDENTIFICATION CODE *	Numeric or special characters	13 bytes (max.) LLVAR

Note: If subfield 4 (in above table) is unused, this is indicated by one backslash (\).

<sup>\*</sup> From the original Authorization Request (1100) message.

## 3.2 ISO 8583 Authorization Adjustment Financial Transaction Advice Response (1230) Message

Description:

This message is used by American Express to transmit an Authorization Adjustment Financial Transaction Advice Response (1230) message to the Merchant. The response contains Card and sales data necessary to adjust the funds held when the actual sale amount is less than the original, approved authorized amount. This message is intended to be used at automated fuel pumps or by Merchants where the preauthorization amount is regularly greater than the actual sale. However, this acknowledgement does not imply that American Express has taken a financial action(s) to adjust the Cardmember's account standing.

Data Field	Data Field Name	Max. Data Field Length	Data Field Type	Data Field Requirements	Page
_	MESSAGE TYPE IDENTIFIER	4 bytes, fixed	Numeric	Mandatory	28
_	BIT MAP - PRIMARY	8 bytes, 64 bits	Binary	Mandatory	28
2	PRIMARY ACCOUNT NUMBER (PAN)	21 bytes, LLVAR	Numeric	Mandatory - Echo returned	29
3	PROCESSING CODE	6 bytes, fixed	Numeric	Mandatory - Echo returned	29
4	AMOUNT, TRANSACTION	12 bytes, fixed	Numeric	Mandatory - Echo returned	30
11	SYSTEMS TRACE AUDIT NUMBER	6 bytes, fixed	Alphanumeric & special characters	Mandatory - Echo returned	30
12	DATE AND TIME, LOCAL TRANSACTION	12 bytes, fixed	Numeric	Mandatory - Echo returned	31
30	AMOUNTS, ORIGINAL	24 bytes, fixed	Numeric	Mandatory - Echo returned	31
31	ACQUIRER REFERENCE DATA	50 bytes, LLVAR	Alphanumeric & special characters	Mandatory - Echo returned	32
32	ACQUIRING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Conditional - Echo returned	32
37	RETRIEVAL REFERENCE NUMBER	12 bytes, fixed	Alphanumeric & special characters	Conditional - Echo returned	33
39	ACTION CODE	3 bytes, fixed	Numeric	Mandatory	34
41	CARD ACCEPTOR TERMINAL IDENTIFICATION	8 bytes, fixed	Alphanumeric & special characters	Conditional - Echo returned	35
42	CARD ACCEPTOR IDENTIFICATION CODE	15 bytes, fixed	Alphanumeric & special characters	Mandatory - Echo returned	35
49	CURRENCY CODE, TRANSACTION	3 bytes, fixed	Numeric	Mandatory - Echo returned	36
54	AMOUNTS, ADDITIONAL	123 bytes, LLLVAR	Alphanumeric & special characters	See page →	36

Data Field — None	MESSAGE TYPE IDENTIFIER
Length of Field:	4 bytes, fixed length
Field Type:	Numeric
Constant:	1230
Field Requirement:	Mandatory
Description:	The constant literal "1230" signifies the ISO 8583 Authorization Adjustment Financial Transaction Advice Response (1230) message.

Data Field — None	BIT MAP - PRIMARY
Length of Field:	8 bytes, 64 bits, fixed length for each bit map
Field Type:	Binary (hexadecimal configuration)
Constant:	None
Field Requirement:	Mandatory
Description:	See Bit Map - Primary description on page 11 of the Authorization Adjustment Financial Transaction Advice Request (1220) message.

Data Field 2 PRIMARY ACCOUNT NUMBER (PAN)

Length of Field: 3 bytes minimum, 21 bytes maximum, (LLVAR) Variable Length Indicator: 2 bytes, EBCDIC, right justified, zero filled

Length of Variable Data: 2 bytes, Ebobio, right justified, 2010 in

Field Type: Numeric

Constant: None

Field Requirement: Mandatory — Echo returned

Description: This data field is mandatory in the Authorization Adjustment

Financial Transaction Advice Request (1220) message, and it is

echo returned without alteration in the Authorization Adjustment Financial Transaction Advice Response (1230)

message.

Data Field 3 PROCESSING CODE

Length of Field: 6 bytes, fixed length

Field Type: Numeric

Constant: None

Field Requirement: Mandatory — Echo returned

Description: This data field is mandatory in the Authorization Adjustment

Financial Transaction Advice Request (1220) message, and it is

echo returned without alteration in the Authorization Adjustment Financial Transaction Advice Response (1230)

Data Field 4 AMOUNT, TRANSACTION

Length of Field: 12 bytes, fixed length

Field Type: Numeric, right justified, zero filled

Constant: None

Field Requirement: Mandatory — Echo returned

Description: This data field is mandatory in the Authorization Adjustment

Financial Transaction Advice Request (1220) message, and it is

echo returned without alteration in the Authorization Adjustment Financial Transaction Advice Response (1230)

message.

Data Field 11 SYSTEMS TRACE AUDIT NUMBER

Length of Field: 6 bytes, fixed length

Field Type: Alphanumeric (upper case) & special characters

Constant: None

Field Requirement: Mandatory — Echo returned

Description: This data field is mandatory in the Authorization Adjustment

Financial Transaction Advice Request (1220) message, and it is

echo returned without alteration in the Authorization Adjustment Financial Transaction Advice Response (1230)

Data Field 12 DATE AND TIME, LOCAL TRANSACTION

Length of Field: 12 bytes, fixed length

Field Type: Numeric, YYMMDDhhmmss

Constant: None

Field Requirement: Mandatory — Echo returned

Description: This data field is mandatory in the Authorization Adjustment

Financial Transaction Advice Request (1220) message, and it is

echo returned without alteration in the Authorization Adjustment Financial Transaction Advice Response (1230)

message.

Data Field 30 AMOUNTS, ORIGINAL

Length of Field: 24 bytes, fixed length

Field Type: Numeric

Constant: None

Field Requirement: Mandatory — Echo returned

Description: This data field is mandatory in the Authorization Adjustment

Financial Transaction Advice Request (1220) message, and it is

echo returned without alteration in the Authorization Adjustment Financial Transaction Advice Response (1230)

Data Field 31 ACQUIRER REFERENCE DATA

Length of Field: 3 bytes minimum, 50 bytes maximum, (LLVAR) Variable Length Indicator: 2 bytes, EBCDIC, right justified, zero filled

Length of Variable Data: 48 bytes maximum, EBCDIC

Field Type: Alphanumeric & special characters

Constant: None

Field Requirement: Mandatory — Echo returned

Description: This data field is mandatory in the Authorization Adjustment

Financial Transaction Advice Request (1220) message, and it is

echo returned without alteration in the Authorization Adjustment Financial Transaction Advice Response (1230)

message.

Data Field 32 ACQUIRING INSTITUTION IDENTIFICATION CODE

Length of Field: 3 bytes minimum, 13 bytes maximum, (LLVAR) Variable Length Indicator: 2 bytes, EBCDIC, right justified, zero filled

Length of Variable Data: 11 bytes maximum, EBCDIC

Field Type: Numeric

Constant: None

Field Requirement: Conditional — Echo returned

Description: This data field is not required for processing this message;

however, if included in an originating request message, it will be preserved and returned in the response message, without

alteration.

Data Field 37	RETRIEVAL REFERENCE NUMBER
Length of Field:	12 bytes, fixed length
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Conditional — Echo returned
Description:	This data field is not required for processing this message; however, if included in an originating request message, it will be preserved and returned in the response message, without alteration.

Data Field 39	ACTION CODE
Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	None
Field Requirement:	Mandatory
Description:	This data field contains the <i>Action Code</i> , indicating the American Express disposition for this transaction.
	Valid Action Codes:
	107 = Please Call
	110 = Invalid amount
	111 = Primary Account Number invalid
	181 = Format error
	183 = Invalid currency code
	900 = Advice accepted
	Note: American Express uses the Authorization Adjustment Financial Transaction Advice Response (1230) message to respond to a Merchant's Authorization Adjustment Financial Transaction Advice Request (1220) message. However, this acknowledgement does not imply that American Express has taken financial action(s) to adjust the Cardmember's account standing.

Data Field 41 CARD ACCEPTOR TERMINAL IDENTIFICATION

Length of Field: 8 bytes, fixed length

Field Type: Alphanumeric & special characters

Constant: None

Field Requirement: Conditional — Echo returned

Description: This data field may or may not be required for processing this

message; however, if included in an originating request message, it will be preserved and returned in the response

message, without alteration.

Data Field 42 CARD ACCEPTOR IDENTIFICATION CODE

Length of Field: 15 bytes, fixed length

Field Type: Alphanumeric & special characters, left justified, character

space filled

Constant: None

Field Requirement: Mandatory — Echo returned

Description: This data field is mandatory in the Authorization Adjustment

Financial Transaction Advice Request (1220) message, and it is

echo returned without alteration in the Authorization Adjustment Financial Transaction Advice Response (1230)

Data Field 49 CURRENCY CODE, TRANSACTION

Length of Field: 3 bytes, fixed length

Field Type: Numeric

Constant: None

Field Requirement: Mandatory — Echo returned

Description: This data field is mandatory in the Authorization Adjustment

Financial Transaction Advice Request (1220) message, and it is

echo returned without alteration in the Authorization Adjustment Financial Transaction Advice Response (1230)

message.

Data Field 54 AMOUNTS, ADDITIONAL

Length of Field:

4 bytes minimum, 123 bytes maximum, (LLLVAR)

Variable Length Indicator: 3 bytes, EBCDIC, right justified, zero filled

Length of Variable Data: 120 bytes maximum, EBCDIC

Field Type: Alphanumeric & special characters

Constant: None

Field Requirement: • Optional — American Express Prepaid Cards

Not Used — All others

Description: This data field contains the available amount remaining on

certain American Express Prepaid Card products. Merchants may wish to display this value on the POS terminal or print it

on the customer receipt.

Note: Balances may not be returned for some Prepaid Cards.

See additional details on next page.

#### **Data Field 54**

#### AMOUNTS, ADDITIONAL (continued)

Description (continued):

This data field is composed of a three-byte Variable Length Indicator (VLI) and 20 bytes of coded data that specifies the *Account* Type, *Amount* Type, Currency Code, Credit status and the Prepaid Card remaining balance. The format is:

1 2 12345678901234567890123

VVVAABBCCCD123456789012

	Length	Pos.	Description
VVV	3 bytes	1-3	VLI / Variable Length Indicator (always "020")
AA	2 bytes	4-5	Account Type Code (always "00")
BB	2 bytes	6-7	Amount Type Code (always "05")
CCC	3 bytes	8-10	Numeric Currency Code (e.g., US Dollars = "840"). For more information on numeric currency codes and decimal point positions, see Currency Codes in the GCAG (ISO Format).
D	1 byte	11	Credit Code ("C" = Credit)
123	12 bytes	12-23	12-digit, Prepaid Card balance, right justified, zero filled, with corresponding decimal implied (e.g., 840 / USD = two decimal places).

For example, a credit (remaining balance) of \$10.00 in US Dollars (840) would appear as:

1 2 12345678901234567890123

0200005840C000000001000

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### 4.0 Examples of Typical Message Formats

This section shows examples of typical layouts for each message-type class. However, not all possible data field and functionality combinations, which are described in applicable data field descriptions are shown.

## 4.1 ISO 8583 Authorization Adjustment Financial Transaction Advice Request (1220) Message

This diagram illustrates the layout for a typical, American Express, Authorization Adjustment Financial Transaction Advice Request (1220) message. The following Data Fields are included: 2, 3, 4, 11, 12, 19, 22, 24, 25, 26, 30, 31, 32, 33, 37, 41, 42, 43, 49 and 56.

Data Field:	MTI	TI Bit Map		2		١	3	4		11		
Bytes Max:	4	8				21		6	12		6	
Data:	1220	70 30 2	5 C7 8	8 E0 81 00	15371	449	63531100	)4	220000	00000000500	00	123456
Data Field:		12	19	22	1 :	24	25		26	30		
Bytes Max:		12	3	24		3	4		4	24		
Data:	0412	17145000	840	261101W001	20 2	02	1234	1	234 00	000001000000	000	0000000
Data Field:		31 32			33		- 1	37	I	41		
Bytes Max:		50		13	13			12		8		
Data:	1512	3456789012	2345	1145678912345 1145678912345 ABCDE1234567				1	23ABC45			
Data Field:		42					43					49
Bytes Max:		15					101					3
Data:	502	5021011432~~~~\\ 45AA~AUTO-GAS\1234~MAIN~ST\ANYTOWN\85054~~~\\ 8						840				
Data Field:			56		l							
Bytes Max:			123		]							
Data:	23	231100123456050120140530\										

In the preceding example:	<u>Page</u>
Data Field 3 is mandatory and contains Processing Code     "220000", which indicates that this message is a     Authorization Adjustment Request.	13
<ul> <li>Data Field 4 is mandatory and contains the Adjusted Amount (Final Amount).</li> </ul>	14
<ul> <li>Data Field 24 is mandatory and contains Function Code "202", which indicates that this message is an Authorization Adjustment.</li> </ul>	18
<ul> <li>Data Field 25 is mandatory and contains the Message Reason Code. However, note that "1234" is a placeholder only, and this value is not a valid entry. American Express assigns Message Reason Codes to Merchants during certification.</li> </ul>	18
<ul> <li>Data Field 30 is mandatory and contains the Original Amount Authorized from the Authorization Response (1110) message.</li> </ul>	19
<ul> <li>Data Field 43 is mandatory and contains the Card Acceptor Name/Location, which, in this example, is the Merchant's company name, street address, city and ZIP.</li> </ul>	25
<ul> <li>Data Field 56 is mandatory and contains the Original Data Elements from the Authorization Request (1100) request, which identify the transaction needing adjustment. In this example, Subfield 4, Acquiring Institution Identification Code, is not provided; and this unused subfield is indicated by one backslash (\)</li> </ul>	26

This diagram illustrates the layout for a typical, American Express, Authorization Adjustment Financial Transaction Advice Response (1230) message. The following Data Fields are included: 2, 3, 4, 11, 12, 30, 31, 32, 37, 39, 41, 42, 49 and 54.

Data Field:	MTI	Bit Map		2		3	3 4		11	
Bytes Max:	4	8			21		6	6 12		6
Data:	1230	70 30 0	70 30 00 07 0A CO 84 00		15371449635311004 220		220000	0000 000000005000		123456
Data Field:	· 	12		30	31		31		3	2
Bytes Max:		12	24		50			1	3	
Data:	0412	17145000	00	000000010000000000000000000000000000000		1511	11178912	34543	114567	8912345
Data Field:	· 	37	39 41		42	1	49	,	54	i
Bytes Max:		12	3 8		15		3	123		
Data:	ABCDI	E1234567	900	123ABC45	5021011432~~~	٠~~ (	340 (	0200005840C000000001000		0001000

In the example above:	<u>Page</u>
<ul> <li>Data Field 31 is mandatory and contains Acquirer Reference Data, which in this example is the Transaction Identifier (TID) inserted by the American Express Network.</li> </ul>	32
Data Field 39 is mandatory and contains Action Code value "900" that indicates, "Advice accepted".	34
Note: American Express uses the Authorization Adjustment Financial Transaction Advice Response (1230) message to respond to a Merchant's Authorization Adjustment Financial Transaction Advice Request (1220) message. However, this acknowledgement does not imply that American Express has taken financial action(s) to adjust the Cardmember's account standing.	

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### 5.0 Revision Log

The Revision Log contains a condensed overview of all *GCAG Authorization Adjustment Addendum (ISO Format)* changes. The Revision Log is divided into the following types of changes:

- General changes made to the cover and introduction sections
- Global changes made in multiple locations, not specific to a data field
- Specific data field changes changes made to specific data field(s) as noted
- Specific section changes changes made to specific section(s) as noted

### Publication: October 2014 | Global Data Quality & Standards (GDQ&S) | Contact: SpecQuestions@aexp.com

Type of Change/ Message Type	Data Field (DF)/ Section # / Title	Description	Spec Req#
General	Cover	Changed date from 'APRIL 2014' to 'OCTOBER 2014'.	
	Footer	Changed date from 'April 18, 2014' to 'October 17, 2014'.	
Specific Data Field Changes Authorization Adjustment Financial Transaction Advice Request (1220) Message	DF 3: Processing Code	Changed the <u>description</u> to 'This data field contains the financial service being requested. Valid Processing Codes:'.	10393DMF14
Authorization Adjustment Financial Transaction Advice Response (1230) Message	DF 39: Action Code	Changed the <u>description</u> to 'This data field contains the Action Code, indicating the American Express disposition for this transaction. Valid Action Codes:'	10393DMF14
Specific Section Changes	Section 1.0 About the GCAG Authorization Adjustment Addendum (ISO Format)	Added a box around the 'Attention' paragraph.	12075DMF14
	Section 3.1 ISO 8583 Authorization Adjustment Financial Transaction Advice Request (1220) Message	Removed <u>Length of Record</u> : 371 bytes maximum.	12075DMF14
	Section 3.2 ISO 8583 Authorization Adjustment Financial Transaction Advice Response (1230) Message	Removed <u>Length of Record</u> : 320 bytes maximum.	12075DMF14
	Section 5.0 Revision Log	Changed 'Writer: Randi Witham' to 'Global Data Quality & Standards (GDQ&S)'.	20620DMF14
		Changed 'Contact Name from Nicole Barnes 602-537-7867' to 'Contact: 'SpecQuestions@aexp.com'.	20620DMF14

### Publication: April 2014 | Writer: Randi Witham | Contact Name: Nicole Barnes 602.537.7867

Type of Change/ Message Type	Data Field (DF)/ Section # / Title	Description	Spec Req#
General		Addendum is reorganized.	10552DMF13
	Cover	Changed date to APRIL 2014.	
	Footer	Changed date to April 18, 2014.	
	Summary of Changes	Added 'Table' to the heading.	92123DMF13
		In the paragraph, changed 'guide' to 'addendum'.	10378DMF13
Global Changes	Multiple locations	Standardized naming convention for Authorization Adjustment Financial Transaction Advice Request/Response (1220/1230) message types.	11095DMF13
		Standardized <i>Global Credit Authorization Guide</i> by adding '(ISO Format)'.	11195DMF13
Specific Data Field Changes	DF 41: Card Acceptor Terminal Identification	In the <u>description</u> , removed 'code' after Card Acceptor Terminal Identification.	12032DMF13
Authorization Request (1220)			
	DF 43: Card Acceptor Name/Location	In the <u>description</u> , changed 'Card Acceptor Name and Location' to 'Card Acceptor Name/Location'.	12063DMF13
	DF 49: Currency Code, Transaction	In the <u>description</u> , changed 'Transaction Currency Code' to 'Currency Code, Transaction'.	12091DMF13
	DF 56: Original Data Elements	In the <u>description</u> , changed 'See table below:' to 'See the following table:'.	7418DMF13
Specific Section Changes	Section 1.0 About the GCAG Authorization Adjustment Addendum	Changed the first paragraph to 'The authorization amount adjustment is designed to release funds held when the actual sale amount is less than the original authorized amount. This ISO 8583 message can be leveraged by Merchants to advise American Express of the exact amount of the completed sale. The Authorization Adjustment will release the difference between the original amount authorized and the final sale amount to the Cardmember's available credit or "open to buy". Merchants must only send an adjustment advice if the final sale amount is less than the original, approved authorized amount'.	93416DMF13

### **Publication: April 2014 (continued)**

Type of Change/ Message Type	Data Field (DF)/ Section # / Title	Description	Spec Req #
Specific Section Changes (continued)	Section 1.0 About the GCAG Authorization Adjustment	In the <u>second paragraph</u> , capitalized 'global network'.	11063DMF13
	Addendum (continued)	Changed 'Software vendor' to 'Vendor software'.	73039DMF13
	Section 1.1 Who Should Use the GCAG Authorization Adjustment Addendum	In the third paragraph, changed 'Software vendor' to 'Vendor software'.	73039DMF13
	Section 2.0 Guidelines for Using the ISO 8583 Format	Combined the <u>bullet</u> that starts with 'This allows a message to be sent' with the bullet that starts with 'Some data fields are not supported' into one bullet.	93339DMF13
		In the "LL" examples, made subfields bullets and added "VAR" is the variable length data subfield to the LLL examples.	93339DMF14
	Section 2.2.1 Primary Bit Map	Changed <u>DF 46</u> , Amounts, Fees and DF 48, Additional Data - Private from 'LLVAR' to 'LLLVAR'.	10165DMF13
		Changed <u>DF 47</u> , Additional Data - National from '290 bytes, LLLVAR' to '304 bytes, LLLVAR	10115DMF13
	Section 3.1 ISO 8583 Authorization	Updated the <u>description</u> with verbiage in Subsection 2.4.1 from the October 2013 publication.	10552DMF13
	Adjustment Financial Transaction Advice	Created a table for the data fields found in this section.	10552DMF13
	Request (1220) Message	Removed the note 'See summary table'.	10552DMF13
	Section 3.2 ISO 8583 Authorization Adjustment Financial Transaction Advice Response (1230) Message	Updated the <u>description</u> with verbiage in Subsection 2.5.1 from the October 2013 publication.	10552DMF13

### **Publication: April 2014 (continued)**

Type of Change/ Message Type	Data Field (DF)/ Section # / Title	Description	Spec Req#
Specific Section Changes (continued)	Section 4.0 Examples of Typical Message Formats	In the first paragraph, changed the first sentence from 'The following subsections contain examples of typical layouts for each message-type class' to 'This section shows examples of typical layouts for each message-type class'.	10552DMF13
	Section 4.1 ISO 8583 Authorization Adjustment Financial Transaction Advice Request (1220) Message	Above the table, changed 'in the example above' to 'in the preceding example'.	74522DMF13
	Section 5.0 Revision Log	In the <u>first paragraph</u> , first sentence, changed 'GCAG ISO Authorization Adjustment Addendum' to 'GCAG Authorization Adjustment Addendum (ISO Format)'.	9322DMF13
		In the first paragraph, changed the <u>last sentence</u> from 'The Revision Log is broken out by the following types of changes' to 'The Revision Log is divided into the following types of changes'.	82910DMF14
		Changed the first <u>column heading</u> from 'Type of Change Message Types' to 'Type of Change Message Type'.	9322DMF13

### Publication: October 2013 | Writer: Randi Witham | Contact Name: Nicole Barnes 602.537.7867

Type of Change/ Message Type	Data Field (DF)/ Section # / Title	Description	Spec Req#
General	Cover Page	Changed date to OCTOBER 2013.	
	Header	Changed header to 'GCAG AAA (ISO Format)'.	12515DMF13
	Footer	Changed date to October 18, 2013.	
	Revision Log	Reformatted the Revision Log.	08426DMF13
	Summary of Changes	Added '(ISO Format)' to Global Credit Authorization Guide Authorization Adjustment Addendum.	12131DMF13
		Changed column heading from 'Data Element or Section Number' to 'Data Field or Section Number'.	94616DMF13
		Changed column heading from 'Benefit' to 'Reason for Change'.	13062DMF13
	Preface	Changed document reference to 'Global Credit Authorization Guide (ISO Format)'.	12131DMF13
	Related Documents	Changed 'American Express Global Credit Authorization Guide (GCAG)' to 'American Express Global Credit Authorization Guide (ISO Format)'.	12515DMF13
Global Changes	Multiple locations	Changed 'Message' to 'message' when following a message type.	15293DMF13
		Standardized naming convention for the 1220/1230 message types. For example, Authorization Adjustment Financial Advice Request (1220) message.	13125DMF13
		Changed 'element' to 'field' and added 'data' in front of field if necessary.	94616DMF13
		Added '(ISO Format)' to the end of 'Global Credit Authorization Guide Authorization Adjustment Addendum'.	11195DMF13
		Changed 'Global Credit Authorization Guide' to 'GCAG'.	11195DMF13
Specific Data Field Changes	DF 30: Amounts, Original	Standardized naming convention for the 1110 in Data Field 30.	09531DMF13
Specific Section Changes	Section 1.1 Overview	In the first paragraph, changed 'Merchants should only send an adjustment advice if the final sale amount is less than or equal to the original, approved authorized amount' to 'Merchants should only send an adjustment advice if the final sale amount is less than the original, approved authorized amount'.	10000DMF13
	Section 2.1 Guidelines for Using the ISO 8583 Format	In the first paragraph, changed 'Each bit is associated with a unique data element (data field)' to 'Each bit is associated with a unique data field'.	14484DMF13

### **Publication: October 2013 (continued)**

Type of Change/ Message Type	Data Field (DF)/ Section # / Title	Description	Spec Req#
Specific Section Changes (continued)	Section 2.2 Variations from ISO 8583	In the first paragraph, changed 'Except as noted in the detailed message flows for most messages or data fields, no individual data element data field should exceed 290 bytes' to 'Except as noted in the detailed message flows for most messages or data fields, no individual data field should exceed 290 bytes'.	07094DMF13
	Section 2.3.1 Primary Bit Map	Changed column heading from 'Data Element Name' to 'Data Field Name'.	09461DMF13
	Section 2.4 ISO 8583 Request Message Format	In the last sentence of the title paragraph, changed 'regularly less than the actual sale' to 'regularly greater than the actual sale'.	09495DMF13
	Section 2.5 ISO 8583 Response Message Format	In the last sentence of the title paragraph, changed 'regularly less than the actual sale' to 'regularly greater than the actual sale'.	09495DMF13

#### Version Date | Prepared By | Description

### October 2012 10/26/12 | Global Data Standards Management Team, Global Network Operations | R. Witham |

See Below

- Cover page: Added text as indicated: ISO 8583:1993 (VERSION 1) and changed date to October 2012.
- Footer: Changed date to October 26, 2012.
- Global: Changed copyright date to 2008-2012.
- Global: Changed 'field' to 'data field'.
- Global: Deleted references to POS document numbers.
- Global: Deleted the word please unless referring to a response or error message.
- Global: Changed text as indicated: see Global Credit Authorization Guide to see the Global Credit Authorization Guide.
- · Global: Changed Continued to continued.
- Global: Changed 'settlement' to 'submission'.
- Global: Changed text as indicated: MCC/Merchant Category Code to Merchant Category Code (MCC).
- Page iii: Added a Summary of Changes page.
- Page vii: Changed text as indicated: 'Aggregator' to 'Payment Service Providers (Aggregator)'. Changed text as indicated: Use of this new specification prior to certification is prohibited. Added text as indicated: (GCAG).
- Page 1: Changed heading to Authorization Amount Adjustment and changed text as indicated: The
  authorization amount adjustment service is designed to release funds held when the actual sale
  amount is less than the original authorized amount.
- Page 3: Changed the bullets to paragraphs.
- Page 4: Deleted text as indicated: For example, Data Fields 13 and 14 are conditional if the Merchant's system is unable to provide track data intact.
- Page 5: Changed the bullets to paragraphs. Changed text as indicated: For details more information, please contact your American Express representative.
- Page 11: Bit Map: Changed text as indicated: The following diagram below represents a 64-bit string contained within an eight-byte field.
- Page 12: Data Field 2: Changed text as indicated: Numeric, right justified, zero filled.
- Page 13: Data Field 4: Changed text as indicated: This data field contains the final Transaction Amount (i.e., the amount submitted for settlement that was submitted. Data Field 11: Changed text as indicated: This field must contain a unique trace number (provided assigned by the Merchant) to help identify an individual transaction. (Spec Reg#14093DMF11).
- Page 25: Data Field 56: Changed Subfield 2, Field Type to Alphanumeric (upper case) & special characters.
- Page 29: Data Field 3: Changed text as indicated: Numeric, right justified, zero filled.
- Page 30: Data Field 11: Changed text as indicated: Alphanumeric (upper case) & special characters.
- Page 39: Data Field 11: Changed text as indicated: Alphanumeric (upper case) & special characters.

#### Version Date | Prepared By | Description

### 2.0 09/14/10 | Network Strategy & Standards Team, Global Network Operations | R. Wong | See Below

- Global: Deleted references to document numbers "POS020041" and "POS020036".
- Page vii: Deleted text as indicated, "Attention: This version of the GCAG Authorization Adjustment
  Adden-dum applies to any Merchant, Third Party Processor or Software Vendor providers processing in
  the United States or Canada that support Automated Fuel Dispensers."
- Page 1, Overview: Deleted "Please note, Merchants that participate in authorization adjustment are required to use Partial Authorization or Authorization with Balance Return during the authorization request. For more information about Partial Authorization and Authorization with Balance Return, see Global Credit Authorization Guide (POS020041)." Also, reworded this subsection slightly to improve readability and made specific text changes, as indicated, "This ISO 8583 message can be leveraged by Merchants to advise American Express of will provide the exact amount of the sale once the sale is completed. The Authorization Adjustment returns the difference between the original authorized amount and final sale amount to the Cardmember's available credit or 'open to buy'. Merchants should only send an adjustment advice if the final sale amount is less than or equal to the original, approved authorized amount. The exact sale amount will then be held for settlement and any additional funds being held as part of the original approved authorization will be released."
- Pages 8 & 26: Reworded these subsections slightly to improve readability and made specific text
  changes, as indicated, "This message is intended to be used at automated fuel pumps or by merchants
  where the preautho-rization amount is regularly less than the actual sale. in combination with either
  Partial Authorization or Authorization with Balance Return. For more information, see Global Credit
  Authorization Guide (POS020041)."

#### 1.1 02/15/10 | L. Page | R. Wong | See Below

- Global: Made minor changes throughout document to align text with GCAG (POS020041), with no changes to technical content.
- Page vii: Added "or Canada" to paragraph beginning "Attention: This version of the GCAG..."
- Pages 3-5: Replaced text in sections 2.1 & 2.2 with same sections in GCAG.
- Page 5: Deleted "American Express strongly encourages Merchants and Third Party Processors to
  expand their system capabilities to include support of the secondary bit map, because it is anticipated
  that evolving technology and continuing development may soon warrant implementation of some of
  these additional fields".
- Page 7: Deleted "Note: Secondary Bit Map is unused in messages defined in this specification".
- Page 13: Revised text as indicated "The currency and decimal point is are determined by..." Also, added Note beginning "For canceled (i.e., previously approved, but abandoned..."
- Page 13: Changed from "This field contains the Systems Trace Audit Number, which is a
  Merchant-provided trace number that uniquely identifies this transaction" to "This field must contain a
  unique trace number (provided by the Merchant) to help identify an individual transaction".
- Page 15: Added text indicated "Field Type: Alphanumeric, upper case".
- Page 16: Changed text as indicated "Authorization Request Authorization Adjustment Financial Advice".
- Page 18: Changed from "Positions 1-12 must contain the same value (right justified and zero filled) ..."
   to "Positions 1-12 of this field are the original transaction amount ..."