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# **Global Credit Authorization Guide**

## **(v4.3)**

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**AMERICAN EXPRESS**

**Network Development**



American Express Proprietary & Confidential  
POS020041, v4.3, April 23, 2010

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## Revision Log

Revision Number	Revision Date	Prepared By	Approved By	Description
4.3	04/23/10	R. Wong	Network Strategy & Standards Team, Global Network Operations	<ul style="list-style-type: none"> <li>•Pages 11-16: Expanded “1.5 Batch Authorization” and added subsections 1.5.1 through 1.5.2.2.</li> <li>•Page 24: To paragraph beginning “The Authorization Adjustment Addendum applies to...”, added “or Canada” and “contact your Amex representative and request the...”</li> <li>•Page 30: Deleted redundant text and added cross reference to remaining location, “For more information, see page 163”.</li> <li>•Page 50, 194: Revised as indicated, “This field <u>must</u> contains a <u>unique</u> trace number (<del>provided assigned by the Merchant</del>) <u>that uniquely identifies this, to help identify an individual transaction. A different number must be assigned to each</u> transaction”.</li> <li>•Page 54: Added to Note 2, “or standing authorization”.</li> <li>•Page 63: Changed text as indicated, “<del>Mandatory</del> <u>Optional</u> — Batch Authorization transactions”.</li> <li>•Page 101: Added Note 1, “If Field 55 is populated, ... Fields 49 and 55 ... must match.”</li> <li>•Page 102: Changed text as indicated, “<del>Conditional — Participating Merchants</del> <u>Optional — American Express transactions</u>”.</li> <li>•Page 103: Deleted “Merchant’s participation in the Keyed CID (a.k.a., 4DBC or 4CSC) Program requires enrollment with Amex. Please contact your Amex representative for more information.”</li> <li>•Page 106: Added “Note: The currency code entries in this subfield and Field 49...must match.”</li> <li>•Pages 109, 156: Changed from “...and binary (numeric or hexadecimal configurations)” to “..., and binary coded decimal (BCD) or unsigned binary numbers”.</li> <li>•Page 163: Revised introductory text and added details for <i>Merchant Initiated Reversal</i>.</li> <li>•Pages 166, 170, 171, 172, 174, 175, 176, 177, 177: Replaced similarly worded Descriptions with standardized text, “This field must contain the same ...value used in the original Authorization Request (1100) message”.</li> <li>•Page 167: To code 004000, added “System Generated Reversal”. Also, added “024000 = Merchant Initiated Reversal”.</li> <li>•Page 168: Changed Description from “See SYSTEMS TRACE AUDIT NUMBER description on page XX of the 1100 Authorization Request” to “This field must contain a unique trace number, assigned by the Merchant, to help identify an individual transaction. A different number must be assigned to each transaction.”</li> <li>•Page 170: Added “Conditional – Merchant Initiated Reversals” and two sub-bullets.</li> </ul>

## Revision Log

Revision Number	Revision Date	Prepared By	Approved By	Description
4.3 (Cont.)				<ul style="list-style-type: none"> <li>•Page 173: Deleted “Not used – Merchant systems”, “Mandatory – Amex systems” and “Note: During message routing, this field (which is unused by Merchants and/or TPPs) is added and populated by the Amex Global Network.” Added “Conditional – Merchant systems” and two bullets beginning “System Generated Reversal — ...” and “Merchant Initiated Reversal — ...”</li> <li>•Page 178: Deleted footnote and added “*This sub-field must contain the same value used in the original Authorization Request (1100) message.”</li> <li>•Page 185: Added two bullets beginning “System Generated Reversal — ...” and “Merchant Initiated Reversal — ...”</li> <li>•Pages 214, 216, 217: Changed Field 62 from “... and binary (numeric or hex)” to “...and binary”.</li> <li>•Pages 300, 305: Changed Swaziland currency name from Lilangeni to Emalengeni.</li> </ul>
4.2	10/30/09	R. Wong	Network Strategy & Standards Team, Global Network Operations	<ul style="list-style-type: none"> <li>•Global: Changed from “JAPA (Japan, Asia Pacific &amp; Australia)” to “APA (Asia Pacific &amp; Australia)”.</li> <li>•Global: Changed from “POS Implementation Representative” to “American Express representative”.</li> <li>•Pages 17-20: Deleted <i>Automated Address Verification (AAV)</i> subsection and added <i>Electronic Verification Services</i>.</li> <li>•Page 18: Moved <i>American Express Cards – Typical Examples</i> from Appendix to <i>Card Identifier (CID) Verification</i> subsection.</li> <li>•Page 26: Changed text as indicated “Please contact <del>the your</del> American Express representative <del>or Third Party Processor Representative</del> for additional information”.</li> <li>•Page 54: Added to Note 2 “or if this is a recurring billing transaction”.</li> <li>•Pages 57 &amp; 60: Changed “Bar Code” (Positions 1 &amp; 7, value “3”) from <b>reversed text</b> to “normal” to allow use.</li> <li>•Page 63: Added to Certification Requirement “(Function Codes 181 and 182)”, two places.</li> <li>•Page 64: Added underlined text “For these special Prepaid Card services, authorized Third Party Processors <u>and Vendor software</u> are required to...”</li> <li>•Page 101: Added “(primarily EMEA and APA)”.</li> <li>•Page 105: Added underlined text “Certification Requirement: Canada, <u>EMEA &amp; APA</u>”.</li> <li>•Pages 114-132: Added new Electronic Verification requirements for ZIP Code, Enhanced Authorization (Shipping), Telephone Number and E-Mail Address Verification requests.</li> </ul>

## Revision Log

Revision Number	Revision Date	Prepared By	Approved By	Description
4.2 (Cont.)				<ul style="list-style-type: none"> <li>•Pages 156-161: Added to Certification Requirement, “All Third Party Processors and Vendor software must certify to this field”. Also, added new Electronic Verification details for ZIP Code, Enhanced Authorization (Shipping), Telephone Number and E-Mail Address Verification responses.</li> <li>•Page 242: Deleted <i>American Express Cards - Typical Examples</i> (moved to page 18) and renumbered remaining subsections.</li> <li>•Pages 309-310: Changed from “JAPA” to “APA” (45 places) and deleted “JAPA - Japan”.</li> </ul>
4.1b	08/28/09	R. Wong	Network Strategy & Standards Team, Global Network Operations	<ul style="list-style-type: none"> <li>•Global: Changed from “Standard Address Verification” to “Automated Address Verification (AAV), including other slight variations in text.</li> <li>•Page 6, et al.: Deleted <i>Referral Link</i> (previously, section 1.3.2), and all figures and cross-references.</li> <li>•Page 17: Revised <i>Automated Address Verification (AAV)</i> section.</li> <li>•Page 46: Deleted stricken text: “The VLI must indicate the exact length of the account number <del>without padding...</del>”</li> <li>•Page 48: Changed text as indicated: “... the maximum value that can be <del>entered</del> <u>approved</u> in this...”</li> <li>•Page 101, Data Field 52: Deleted “Not used – All transactions”. Added “Conditional – Participating merchants (special certification required)”. Changed as indicated: “This field is <del>unused and</del> reserved..., and <del>may should</del> transport encrypted PIN data...”. And, deleted “Data must not be transmitted to American Express in this field”.</li> <li>•Page 114-132: Moved <i>Travelers Cheque Format</i> to page 130; and slightly modified AAV text to improve clarity, with no change to technical content.</li> <li>•Page 144: Added codes 106, 117, 119 &amp; 912.</li> <li>•Page 154, ISSUER AUTHENTICATION DATA: Revised Description and changed Field Length from 16 to 17 bytes.</li> <li>•Page 154, ISSUER SCRIPT DATA: Changed “LLLVAR” to “LLVAR”, Field Length from 128 to 129 bytes and Relative Position from “27-154” to “27-155”.</li> <li>•Page 154, RESERVED FOR FUTURE USE: Changed Field Length from 105 to 104 bytes and Relative Position from “155-259” to “156-259”.</li> <li>•Pages 156-161: Changed as indicated, “Mandatory – VISA <del>PS2000</del> transactions, <del>PS2000 requested</del>”. Also, expanded Description and first paragraph under VISA PS2000 Transactions.</li> <li>•Page 273: Changed both Track 1 and 2 subfields from “Service Code = 3” to “Interchange Designator = 1, Service Code = 2”.</li> </ul>

## Revision Log

Revision Number	Revision Date	Prepared By	Approved By	Description
4.1a	05/14/09	R. Wong	Network Strategy & Standards Team, Global Network Operations	<ul style="list-style-type: none"> <li>•Page xii, Related Documents: Added “USA and Canada” to POS020056. Also, added “<i>Implementing American Express EMV Acceptance on a Terminal</i>”, and the following Expresspay 2.0 documents: “<i>Terminal Specification</i>”, “<i>Card Specification</i>”, “<i>Card Specification Dual Interface Addenda</i>” and “<i>Communication Layer</i>”.</li> <li>•Pages xii, 25, 28 &amp; 239: Added footnote “USA &amp; Canada only. For information on connectivity...”</li> <li>•Page 58, POS Data Code, Pos. 4, Codes S &amp; T: Deleted “— Internet transaction”.</li> <li>•Pages 82, 102, &amp; 114, Certification Requirement: Added “&amp; JAPA”.</li> <li>•Pages 85 &amp; 114, Field Requirement: Deleted “In JAPA — Representatives define and maintain structure and content of Market Specific Data elements used in this field. Please contact your American Express representative for more information”.</li> </ul>
4.1	02/26/09	R. Wong	Network Strategy & Standards Team, Global Network Operations	<ul style="list-style-type: none"> <li>•Cover: In title, changed “(v4.0a)” to “(v4.1)”.</li> <li>•Global: Changed “ExpressPay” to “Expresspay”.</li> <li>•Page xii: Deleted <i>POS020041-EP</i>; and added <i>Acquirer Chip Card Implementation Guide</i>.</li> <li>•Page 2: Replaced <i>EMV</i> bullet with <i>Chip Cards</i>, which included revised Expresspay description.</li> <li>•Page 3, On-Line Authorizations: Added text “tapped against the contactless interface”.</li> <li>•Page 10: Replaced references to “ICC Data” with “AEIPS” and “Expresspay”. Also, deleted paragraph beginning “In some markets, Amex issues chip cards that are compliant to EMV ICC ...”</li> <li>•Pages 22-24, Section 1.10: Replaced <i>ExpressPay</i> with new subsections entitled <i>Chip Card</i>, <i>AEIPS</i> and <i>Expresspay</i>.</li> <li>•Page 58, POS Data Code, Pos. 4, Codes S &amp; T: Added “— Internet transaction”.</li> <li>•Page 59, POS Data Code, Pos. 6: Changed Code W Note to “For more info, see page 22”. Also, added “Code X = Contactless transactions, including Amex Expresspay”.</li> <li>•Page 73-74 &amp; 82-84: Added references to “Contactless card”, “Section 5.2” and “Expresspay Pseudo-Magnetic Stripe Format”.</li> <li>•Page 105: Field Requirement: Changed “ICC (EMV)” to “AEIPS”, and added “Mandatory – Expresspay EMV Mode transactions”. Description: Deleted “Pos. 1 = 5”, and “Pos. 9 = 1”, and added references to Expresspay 2.0 Card &amp; Terminal specs.</li> </ul>

## Revision Log

Revision Number	Revision Date	Prepared By	Approved By	Description
4.0a	11/12/08	R. Wong	J. Macaulay	<ul style="list-style-type: none"> <li>•Page 144: Deleted code 092.</li> <li>•Pages 241 &amp; 272-273: Added “Expresspay Pseudo-Magnetic Stripe Formats” and “Pseudo Track 1 &amp; Track 2 Subfields” subsections.</li> <li>•Global: Removed all text related to “Personal Check Guarantee service”.</li> <li>•Page xii, Related Documents: Added GCAG Auth Adjustment Addendum.</li> <li>•Page 22, Expresspay: Deleted “key fob”.</li> <li>•Page 24: Added Auth Adjust. Addendum section.</li> <li>•Page 33, Guidelines for Using ISO 8583 Format: Revised second bullet and Examples, to clarify VLI-related descriptions.</li> <li>•Page 48: Added “...(submitted) for US/Australian Cardmembers...” to maximum value descriptions.</li> <li>•Page 60: Added to value “5”, “(Note: Byte 7 = 5 only if this transaction contains EMV and Track 2 data captured intact from the chip.)”</li> <li>•Page 69: Revised description; added “US &amp; Canadian Merchants must comply with this standard. However, for all other global regions...”</li> <li>•Page 73: Added references to EMV &amp; other text changes, and updated sample data in examples.</li> <li>•Page 82: Deleted references to ICC Data and revised description text.</li> <li>•Pages 85-97: Changed Length of Field from 290 to 304 bytes max, and added IAC data. Request “comparison doc” to view other minor changes that were too numerous to list.</li> <li>•Page 101: Changed Field Requirement from “optional” to “not used” and revised description.</li> <li>•Page 106 &amp; 154: VLI (pos. 1-3), Field Type changed from “BCD” to “Numeric (EBCDIC)”.</li> <li>•Page 116: Changed 205-Byte Format description from “...both US and international shipping addresses” to “all shipping addresses”.</li> <li>•Page 120: VLI (pos. 1-3), Field Type changed from “Numeric” to “Numeric (EBCDIC)”.</li> <li>•Pages 121 &amp; 124: Changed from “international” to “non-US” in numerous places.</li> <li>•Pages 132, 162, 179 &amp; 189: Changed Field Requirement from “Mandatory” to “Not used” and added “This field is unused and reserved...” Also, page 132 only, added, “Data must not be transmitted ... may cause message rejection.”</li> <li>•Page 143: Added changes indicated: “NNNNNN = Authorization Code for all US, <u>Canadian</u> &amp; some <del>international</del> <u>regional</u> American Express Merchants. Note: All US <u>and Canadian</u>...” Also, “NN~~~~ = Auth code for some <del>international</del> <u>regional</u> American Express Merchants, only.”</li> </ul>

## Revision Log

Revision Number	Revision Date	Prepared By	Approved By	Description
4.0a (Cont.)				<ul style="list-style-type: none"><li>•Page 144: Added to Code 111 “Invalid MICR (Travelers Cheque)” and deleted codes 911 &amp; 912.</li><li>•Page 178: VLI Field Type changed from “Numeric” to “Numeric (EBCDIC)”.</li><li>•Page 191: Changed Length of Record from 52 to 1113 bytes maximum.</li><li>•Page 193 &amp; 201: Changed Field Requirement from “Conditional” to “Not used” and replaced description.</li><li>•Page 195: Deleted text “The following values for this field are reserved for future use” and codes 801, 802 &amp; 811.</li><li>•Page 199: Changed Length of Record from 49 to 1112 bytes maximum.</li></ul>
4.0	04/04/08	R. Wong	J. Macaulay	Initial release as “global” document.



## Table of Contents

<b>Preface .....</b>	<b>xi</b>
Organization .....	xii
Related Documents.....	xii
<b>1.0 Introduction to Credit Authorization .....</b>	<b>1</b>
1.1 Overview .....	1
1.2 American Express Authorization Policies.....	3
1.3 On-Line Authorizations .....	3
1.3.1 Non-Referral Link.....	4
1.3.2 Referral Queue .....	6
1.3.2.1 Referral Queue — Non-Referral Mode.....	6
1.3.2.2 Referral Queue — Referral Mode.....	8
1.4 Card Acceptance Guidelines .....	10
1.5 Batch Authorizations.....	11
1.5.1 Message Separation.....	12
1.5.2 Supported File Layouts .....	13
1.5.2.1 Variable Length Layout.....	14
1.5.2.2 Fixed Length Layout .....	15
1.6 Other Authorization Services .....	16
1.7 Verification Services .....	17
1.7.1 Electronic Verification Services .....	18
1.7.1.1 Card Identifier (CID) Verification.....	18
1.7.1.2 Automated Address Verification (AAV).....	18
1.7.1.3 Telephone Number Verification .....	20
1.7.1.4 E-Mail Address Verification.....	20
1.8 Financial Settlement.....	21
1.9 Prepaid Card Partial Authorization & Authorization with Balance Return Programs.....	21
1.10 Chip Card .....	22
1.11 Authorization Adjustment Addendum .....	24
<b>2.0 Implementation Planning .....</b>	<b>25</b>
2.1 Overview of Implementation Planning .....	25
2.2 Development Responsibilities.....	26

## Table of Contents

2.3	Development Steps .....	27
2.4	Hardware Requirements .....	28
2.5	Communications Options .....	28
2.5.1	Leased-Lines.....	28
2.6	Message Formats .....	29
2.6.1	ISO 8583 Message Format .....	29
2.6.1.1	Authorization Request/Please Wait/Response .....	29
2.6.1.2	Reversal Advice Request/Response.....	30
2.6.1.3	Network Management Request/Response .....	31
2.7	Merchant Certification Policies .....	31
<b>3.0</b>	<b>ISO 8583 Message Formats.....</b>	<b>33</b>
3.1	Guidelines for Using the ISO 8583 Format .....	33
3.2	Variations from ISO 8583 .....	35
3.3	ISO 8583 Message Bit Map Table.....	35
3.3.1	Primary Bit Map .....	36
3.3.2	Secondary Bit Map .....	38
3.4	ISO 8583 Request Message Formats .....	41
3.4.1	ISO 8583 Authorization Request (1100) .....	42
3.5	ISO 8583 Response Message Formats .....	133
3.5.1	ISO 8583 Authorization Response (1110) .....	134
3.6	ISO 8583 Reversal Advice Request /Response Format.....	163
3.6.1	ISO 8583 Reversal Advice Request (1420) .....	164
3.6.2	ISO 8583 Reversal Advice Response (1430).....	180
3.7	ISO 8583 Network Management.....	190
3.7.1	ISO 8583 Network Management Request (1804).....	191
3.7.2	ISO 8583 Network Management Response (1814) .....	199
3.7.3	ISO 8583 Network Management Notification (1844) .....	207
3.8	ISO 8583 Message Tables .....	212
3.8.1	ISO 8583 Authorization Request (1100) Message Table.....	213
3.8.1.1	ISO 8583 Authorization Request (1100) — VISA PS2000 .....	214
3.8.1.2	ISO 8583 Authorization Request (1100) — MasterCard, Diner’s Club & JCB .....	215

## Table of Contents

3.8.2	ISO 8583 Authorization Response (1110) Message Table .....	216
3.8.2.1	ISO 8583 Authorization Response (1110) — VISA PS2000 .....	217
3.8.2.2	ISO 8583 Authorization Response (1110) — MasterCard, Diner's Club & JCB .....	217
3.8.3	ISO 8583 Reversal Advice Request (1420) Message Table .....	218
3.8.4	ISO 8583 Reversal Advice Response (1430) Message Table .....	219
3.8.5	ISO 8583 Network Management Request (1804) Message Table .....	219
3.8.6	ISO 8583 Network Management Response (1814) Message Table .....	220
3.8.7	ISO 8583 Network Management Notification (1844) Message Table .....	220
3.9	Examples of Typical Message Formats .....	221
3.9.1	Authorization Requests & Responses — American Express .....	222
3.9.1.1	Authorization Request (1100) Messages — American Express .....	222
3.9.1.2	Authorization Response (1110) Message — American Express .....	225
3.9.2	Authorization Requests & Responses — VISA .....	226
3.9.2.1	Authorization Request (1100) Message — VISA .....	226
3.9.2.2	Authorization Response (1110) Message — VISA .....	227
3.9.3	Authorization Requests & Responses — MasterCard .....	228
3.9.3.1	Authorization Request (1100) Message — MasterCard .....	228
3.9.3.2	Authorization Response (1110) Message — MasterCard .....	229
3.9.4	Reversal Advice Request & Response Messages .....	230
3.9.4.1	Reversal Advice Request (1420) Message .....	230
3.9.4.2	Reversal Advice Response (1430) Message .....	231
3.9.5	Network Management Request, Response & Notification Messages .....	232
3.9.5.1	Network Management Request (1804) Message .....	232
3.9.5.2	Network Management Response (1814) Message .....	232
3.9.5.3	Network Management Notification (1844) Message .....	232
<b>4.0</b>	<b>Data and Certification Testing .....</b>	<b>233</b>
4.1	Data Validation Tests .....	233
4.1.1	Cardmember and SE Number Range Validation .....	234
4.1.2	Check Digit Verification .....	234
4.1.3	SE Number Check Digit Computation (Modulus 9 Check) .....	235
4.1.4	Cardmember Number Check Digit Computation (Modulus 10 Check) .....	237

## Table of Contents

4.2	Certification Tests.....	239
<b>5.0</b>	<b>Appendix.....</b>	<b>241</b>
5.1	American Express Magnetic Stripe Formats .....	242
5.1.1	ANSI X4.16 Standard.....	243
5.1.2	ISO 7813 Standard.....	243
5.1.3	ANSI X4.16 / ISO 7813Track 1 Message Formats .....	244
5.1.4	ANSI X4.16 / ISO 7813Track 2 Message Formats .....	259
5.2	Expresspay Pseudo-Magnetic Stripe Formats .....	272
5.3	Julian Date Calendar — Standard Year.....	274
5.4	Julian Date Calendar — Leap Year (2012, 2016, 2020, etc.).....	275
5.5	Merchant Category (MCC) Codes.....	276
5.6	Country & Currency Codes .....	283
5.6.1	Country Codes .....	283
5.6.2	Currency Codes .....	295
5.7	American Express Regions.....	306
5.8	Street Codes.....	312
5.9	ISO Account Number Ranges .....	315
5.10	EBCDIC & ASCII Code Translation Table .....	316

## Figures

#1-1	Non-Referral Link Processing .....	4
#1-2	Referral Queue for Non-Referral Mode .....	6
#1-3	Referral Queue for Referral Mode.....	8
#2-1	Steps for Authorization Implementation .....	27
#2-2	ISO 8583 Authorization Message Exchange .....	29
#2-3	ISO 8583 Reversal Message Exchange .....	30
#2-4	ISO 8583 Administration/Network Message Exchange .....	31

## Preface

The *Global Credit Authorization Guide* is written for programmers working on the behalf of Merchants (Service Establishments, Host Link Partners), Third Party Processors (Authorized Processors, Gateway Providers, Aggregators) and Software Vendors (Third Party Developers) to develop host- or personal computer-based interfaces to American Express systems.

**Attention: This version of the Global Credit Authorization Guide applies to any Merchant, Third Party Processor or Software Vendor providers that connect to an American Express front-end device.**

This guide 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 obtain authorizations for financial transactions. Use of this new specification prior to certification is prohibited.

Users of this specification are often classified by regions, which allow field requirements and certification requirements to be applied to a specific region. When no country or region is listed for a requirement it is assumed to be a global requirement for all regions; otherwise, the requirement applies to the countries and/or regions listed. The following acronyms are the recognized regional definitions:

- Canada — Canada
- EMEA — Europe, Middle East and Africa
- APA — Asia Pacific and Australia
- LA/C — Latin America and Caribbean
- USA — United States

For a complete list of regions and applicable countries, see *American Express Regions* on page 306.

## Organization

There are five sections in this document:

- 1.0 Introduction to Credit Authorization** — This section describes the authorization services offered by American Express.
- 2.0 Implementation Planning** — This section provides detailed information for managing the development and implementation of the Merchant's application software.
- 3.0 ISO 8583 Message Formats** — This section contains detailed record specifications of the ISO 8583 request and response messages.
- 4.0 Data and Certification Testing** — This section provides information on data tests that are required by American Express, and summarizes the procedures used by American Express to test a Merchant's application software. Also included are topics a Merchant should consider when preparing for a test.
- 5.0 Appendix** — This section contains information on Track 1 and Track 2 message formats, Card Acceptor Business Codes, and Country and Currency Codes as supported and/or defined by American Express.

## Related Documents

- *American Express Global Financial Settlement Guide (POS020036)*
- *American Express Global Credit Authorization Guide Authorization Adjustment Addendum (POS020041-A)*
- *American Express Card Acceptance & Processing Network Communications Guide (POS020056)\**
- *AEIPS Chip Card Specifications*
- *AEIPS Terminal Specifications*
- *Acquirer Chip Card Implementation Guide*
- *Implementing American Express EMV Acceptance on a Terminal*
- *Expresspay 2.0 Terminal Specification*
- *Expresspay 2.0 Card Specification*
- *Expresspay 2.0 Card Specification Dual Interface Addenda*
- *Expresspay 2.0 Communication Layer*

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\* USA and Canada only. For information on connectivity solutions in other global regions, please contact your American Express representative.

## 1.0 Introduction to Credit Authorization

### 1.1 Overview

The American Express Credit Authorization System (CAS) enables Merchants and Third Party Processors to obtain financial transaction authorizations for the following:

- American Express Cards
- American Express-supported Network Cards
- American Express Prepaid Cards
- Other financial transaction cards (MasterCard, VISA, Diners Club, JCB).  
Note: American Express only enables the redirecting of non-American Express cards.
- American Express Travelers Cheques

The Merchant or Third Party Processor must develop authorization software to enable the Merchant to collect point of sale (POS) information in any manner chosen by the Merchant's development team, and also to submit that data to American Express in a format prescribed by this document.

CAS offers the following services for the products it supports:

- **On-line Authorizations** — A Merchant who uses the on-line authorization service can transmit an authorization request and receive an authorization response, all in one individual session.
- **Batch Authorizations** — A Merchant who uses the batch authorization service can transmit authorization request files containing multiple authorization request transactions periodically during a day, or at the end of the business day. All authorization response transactions are batched into files and returned.
- **Other Authorization Services** — A Merchant may process other financial transaction cards, as well as American Express Travelers Cheque authorizations, through the American Express authorization system. The authorization requests for specified financial transaction cards other than American Express are forwarded to the appropriate card issuer. American Express processes Travelers Cheque authorizations.
- **Fraud Prevention Services** - A Merchant may send key data elements with the authorization request that can help prevent fraud at the point of authorization. These services include Automated Address Verification (AAV), CID, Track 1, Enhanced Authorization, Aggregator and Oil Tools, as well as Terminal ID.

## 1.1 Overview (Continued)

- **Prepaid Card Authorizations** — Partial authorizations allow a Merchant to accept and process an authorization request for American Express Prepaid Cards regardless of the remaining balance on the card. Typically, these transactions can be declined due to insufficient funds on the American Express Prepaid Card. Alternately, systems that do not support split tender capability (required for Partial Authorizations) can receive a response message containing the remaining balance (Authorization with Balance Return), so the customer can choose to submit a new request for an amount less than or equal to the funds available; or they can choose an alternate form of payment for the transaction.
- **Pre-Authorizations** — Any attempt to use the Authorization Request (1100) as a preauthorization, will be treated as a normal authorization transaction.
- **VISA, MasterCard and Other Bankcard Authorizations** — Limited processing instructions for non-American Express-supported bankcards are included in this guide. However, this information is provided for Merchants routing transactions via the American Express Card Acceptance and Processing Network to those non-American Express networks during bankcard network outages. This is *not* an alternate path for *normal* bankcard transaction processing.

Currently this function is an emergency backup option for *Merchant links* only. Authorized Third Party Processors are specifically excluded from this function. Merchants must notify American Express of their intent to implement this function before it is used, as transaction data for non-American Express supported bankcards are normally rejected upon receipt. In addition, American Express cannot guarantee bankcard interchange compliance. Please, contact your American Express representative.

- **Chip Cards** — In some markets, American Express issues cards that in addition to a magnetic stripe, also contain an integrated chip that conforms to the industry EMV specifications. These cards can support either a contactless interface (Expresspay) or a contact interface (AEIPS). In some cases, the card can contain both an Expresspay *and* an AEIPS interface. When these cards are used in a chip-accepting device that has been certified by American Express, additional data will be created that must be included in authorization message. For more information, see page 22.



## 1.2 American Express Authorization Policies

American Express offers a wide variety of Card products. Some are authorized differently from other brands of cards, such as bankcards. For these products, American Express does not impose a preset spending limit on the Cardmember. Other American Express products are tied to a line of credit. American Express Prepaid Cards are *loaded* with fixed limits.

During the transaction authorization process, for products without preset spending limits, American Express Credit Authorization System (CAS) considers Cardmember spending and payment history. Various additional factors are considered during the transaction authorization process for all Card products, including the risk of fraud.

## 1.3 On-Line Authorizations

The American Express on-line authorization process begins when a Cardmember uses the American Express Card to purchase goods or services from a Merchant. The purchase could occur at the physical location of the Merchant or remotely; e.g., a purchase through the internet, by mail-order or by telephone-order.

If the purchase occurs at the Merchant's location, the card is either swiped so that the Point of Sale terminal can read the magnetic stripe, inserted into a Chip Card capable terminal so the card data can be read from the embedded chip, tapped against the contactless interface or manually keyed. If the purchase is made remotely, the Cardmember is required to provide their card data to the Merchant to obtain authorization.

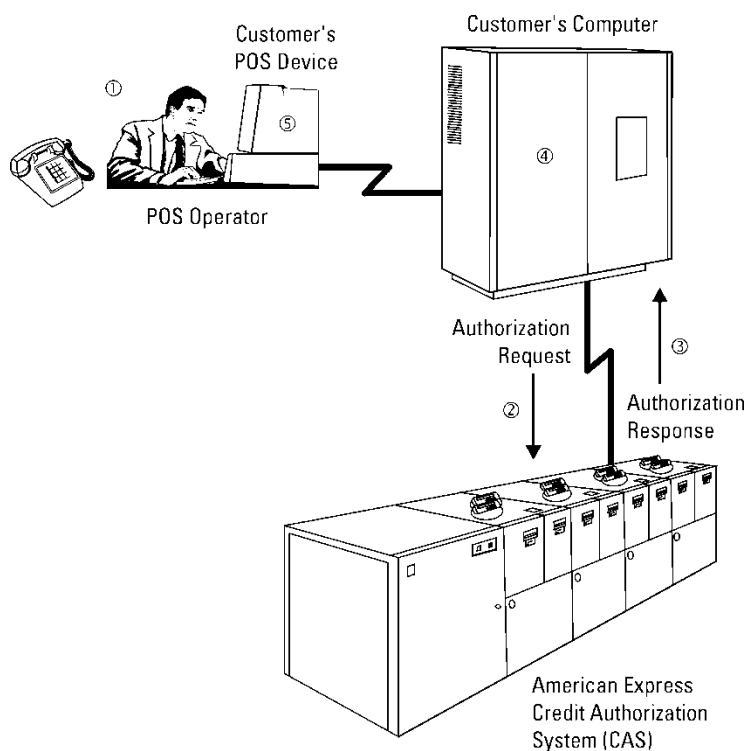
Once the information is complete, the data is transmitted to American Express. There are two services offered to Merchants who use on-line authorization:

- Non-Referral Link
- Referral Queue

### 1.3.1 Non-Referral Link

*Non-Referral Link* is the primary processing method used by most Merchants that accept the American Express Card and transmit authorization requests to the American Express Credit Authorization System (CAS). Non-Referral Link allows an authorization to be processed without electronically forwarding (a.k.a., *referring*) the request to an American Express-employee *Authorizer*. When the electronic authorization request is transmitted to American Express via a non-referral link, CAS evaluates various information, which may include the Cardmember's spending, payment and credit history and risk criteria associated with the transaction. If the request passes this evaluation, CAS approves the request, and returns an "APPROVED" message and approval code to the Merchant's system.

If the authorization request is not automatically approved by CAS, a message equivalent to "DENY" or "PLEASE CALL" is returned to the Merchant's system. When a Merchant receives a "PLEASE CALL" message, the POS Device Operator at the establishment must call American Express and speak to an Authorizer, who will verbally approve or deny the authorization request.



**Figure 1-1 Non-Referral Link Processing**

### 1.3.1 Non-Referral Link (Continued)

1. A POS Device Operator enters a transaction at the Merchant's system.
2. The Merchant's computer processes the transaction data and transmits an authorization request message to American Express CAS.
3. CAS receives and processes the request, then sends a response message to the Merchant's computer.
4. The Merchant's computer receives and processes the response message, then displays the response on the Merchant's system.
5. If CAS approves the request, an "APPROVED" message and an approval code are displayed at the Merchant's system.

If CAS declines the request, a message equivalent to "DENY" is displayed at the Merchant's system.

If CAS cannot make a decision, a "PLEASE CALL" message is displayed at the Merchant's system, and the POS Device Operator must then call an American Express Authorizer, who will analyze the transaction and verbally approve or deny the request.

### 1.3.2 Referral Queue

The referral queue option is available for both referral and non-referral processing links. The referral queue system assigns a four-digit referral number to each request that receives a “PLEASE CALL” authorization response, and places the request in a queue. The referral queue number is then included in the “PLEASE CALL” response message transmitted to the Merchant’s system.

The POS Device Operator calls American Express and provides the referral queue number. Based on the referral queue number, the call is transferred to the assigned Authorizer, who reviews the information and either approves or denies the transaction. This procedure eliminates the re-entry of transaction data during the authorization call.

Illustrations of referral queue processing for non-referral links are shown on the next few pages.

#### 1.3.2.1 Referral Queue — Non-Referral Mode

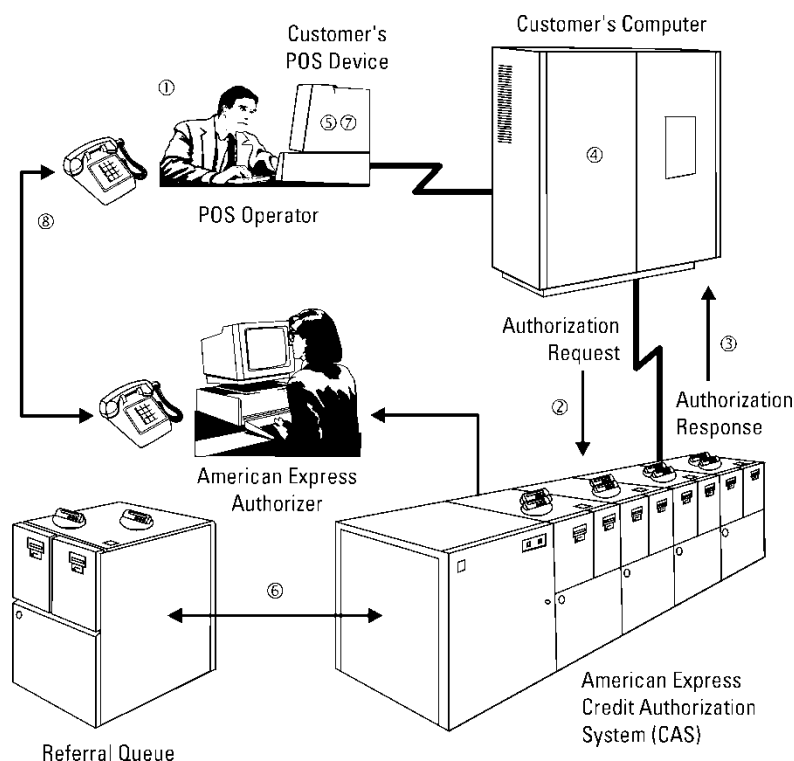
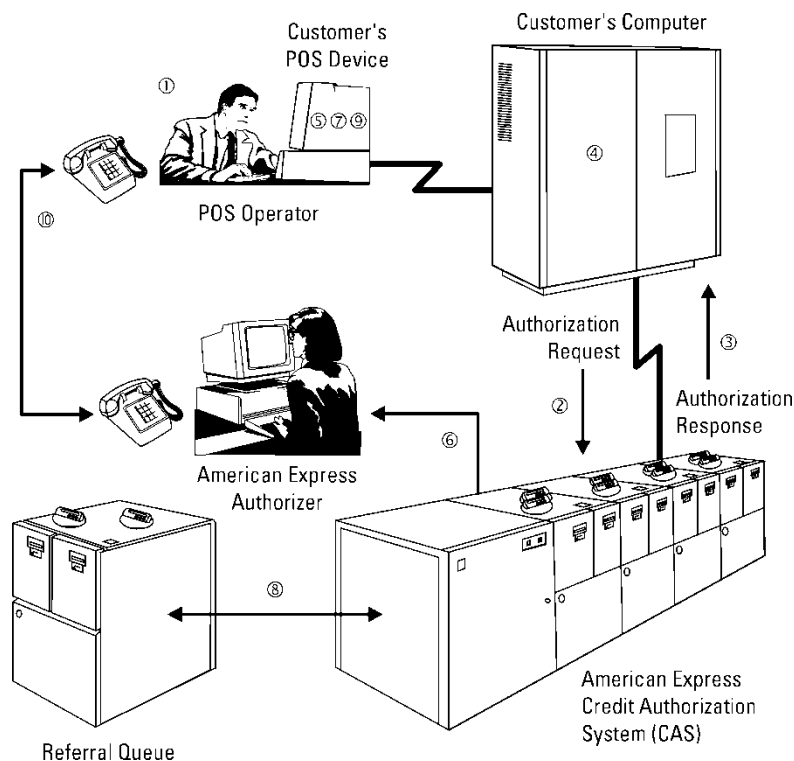


Figure 1-2 Referral Queue for Non-Referral Mode

**1.3.2.1 Referral Queue — Non-Referral Mode (Continued)**

1. A POS Device Operator enters a transaction at the Merchant's system.
2. The Merchant's computer processes the transaction data and transmits an authorization request message to American Express CAS.
3. CAS receives and processes the request, then sends a response message to the Merchant's computer.
4. The Merchant's computer receives and processes the response message, then displays the response on the Merchant's system.
5. If CAS approves the request, an "APPROVED" message and an approval code are displayed on the Merchant's system.
6. If CAS does not approve or deny the request, and the Merchant is not certified to receive deny responses, a referral number is assigned to the "PLEASE CALL" response message. The request is placed in the referral queue for easy access by American Express Authorizers.
7. The "PLEASE CALL" response message (with referral number) is transmitted to the Merchant's system, and both "PLEASE CALL" and the referral number are displayed on the Merchant's system.
8. The POS Device Operator calls American Express and provides the referral number. That number provides access to an American Express Authorizer.

### 1.3.2.2 Referral Queue — Referral Mode



**Figure 1-3 Referral Queue for Referral Mode**

1. A POS Device Operator enters a transaction at the Merchant's system.
2. The Merchant's computer processes the transaction data and transmits an authorization request message to American Express CAS.
3. CAS receives and processes the request, then sends a response message to the Merchant's computer.
4. The Merchant's computer receives and processes the response message, then displays the response on the Merchant's system.
5. If CAS approves the request, an "APPROVED" message and an approval code are displayed on the Merchant's system.

### 1.3.2.2 Referral Queue — Referral Mode (Continued)

6. If CAS does not approve the request, the request is transmitted to an Authorizer, and a “PLEASE WAIT” message is sent to the Merchant’s computer (if the Merchant’s system supports secondary messages). The Authorizer analyzes the request, as well as the spending and payment history of the Cardmember.
7. If the Authorizer approves the request, an “APPROVED” response and an approval code are transmitted to the Merchant’s computer. That computer processes the American Express response and sends the message to the Merchant’s system.
8. If the Authorizer does not approve the request automatically, a referral number is assigned to the “PLEASE CALL” response message. The request is placed in the referral queue for easy access by American Express Authorizers.
9. The “PLEASE CALL” response message (with the referral number) is transmitted to the Merchant’s computer, and both “PLEASE CALL” and the referral number are displayed on the Merchant’s system.
10. The POS Device Operator calls American Express and provides the referral number. That number provides access to an American Express Authorizer.
11. After examining the request, spending history and payment history of the Cardmember, the Authorizer will verbally approve or deny the request.

## 1.4 Card Acceptance Guidelines

American Express Card creation standards for magnetic stripe layouts may include additional data undefined in currently published American Express implementations of ANSI X4.16 and ISO 7813 formats. Magnetic stripe data fields in current use will not be moved; however, discretionary or unused fields may be redefined for use with future American Express Card products. Therefore, the field definitions referenced in Section 5.1 are for reference only and may not reflect all American Express Card variations that may be encountered. For this reason, when Track 1 and/or Track 2 data is read from a magnetic stripe, the acquirer, their devices, systems, software, Vendors and Third Party Processors should capture all characters between the start and end sentinels, strip off the sentinels and LRC, and forward the remainder to American Express in the appropriate ISO 8583 Track 1 and/or Track 2 field, without regard to the specific lengths referenced in Section 5.1. For more information, see *American Express Magnetic Stripe Formats* beginning on page 242.

If the Merchant's system supports capture of both Track 1 and Track 2, both tracks must be forwarded. If only one track is captured, Track 1 is preferred (see page 82). For systems that capture only Track 2, this less desirable alternative may be supplied in lieu of Track 1 (see page 73). American Express requires all Merchants and service providers as part of their Card Acceptance or servicing agreements to adhere to the American Express Data Security Operating Policy (DSOP). The policy requires Merchants to comply with the Payment Card Industry Security Standard to process, store or transmit Cardmember payment information. More information on the American Express DSOP and the PCI Data Security Standard can be found at [www.americanexpress.com/datasecurity](http://www.americanexpress.com/datasecurity).

During certification, *Merchants* must demonstrate the ability to populate and transmit Track 1 and/or Track 2 (Fields 45 and 35, respectively) for all Card Present transactions. For AEIPS and Expresspay EMV mode transactions, Track 2 must be present for all transactions. Similarly, *authorized Third Party Processors* and *Software Vendors* must demonstrate the ability to populate and transmit Track 1 and Track 2 (Fields 45 and 35, respectively) for all Card Present transactions. For all AEIPS and Expresspay EMV mode transactions, Track 2 must be present. After certification, Merchants, Third Party Processors and Software Vendors must forward all Point of Sale-provided track data in the appropriate field(s).

Both Track 1 and Track 2 must be converted from ASCII to EBCDIC, and character spaces must not be stripped. In addition, data must not be padded to standardize track lengths, and it must be transmitted as read.

The Authorization Request (1100) Message contains a field that describes point-of-service processing capabilities (Data Field 22). Merchants and Third Party Processors must ensure that authorization data in Data Field 22 is accurate. Specifically, accuracy of Card Present, Cardholder Present and Track Data Indicators can significantly affect message processing, decrease POS disruptions and maximize customer satisfaction.

For more information, please contact your American Express representative.



## 1.5 Batch Authorizations

The American Express Batch Authorization System accepts and processes files containing multiple authorization transactions; and the structure, content and format of batch authorization request (1100) messages are detailed in this specification. All authorization request files submitted for batch processing must contain valid, properly constructed, ISO 8583 authorization request (1100) records.

The American Express batch authorization process begins when a Cardmember uses the American Express Card to purchase goods or services from a Merchant. The Merchant's point of sale (POS) operator enters purchase information into the POS device. This may or may not include keyboard entry of Cardmember account information and/or swiping the Card so that the POS device can read data stored in the magnetic stripe. More information on the American Express Data Security Operating Policy (DSOP) and the PCI Data Security Standard can be found at [www.americanexpress.com/datasecurity](http://www.americanexpress.com/datasecurity).

Upon completion of data entry (which may occur periodically during the workday, or at the end of shift or business day), information accumulated from numerous transactions is transmitted to American Express in a file. The American Express Batch Authorization processor manages the exchange of request and response transactions between Merchant's system and American Express. Once processing of a file is completed, the Merchant retrieves the response batch file from American Express.

On occasion, message format errors or communication problems between Merchant and/or Authorized Third Party Processor systems and the American Express Batch Authorization System, may result in original, authorization *request* messages being returned in batch authorization *response* files.

**Therefore, when processing *responses* from American Express, Merchant and/or Authorized Third Party Processor systems must recognize and separate original authorization *requests*, for retransmission (in a new batch authorization *request* file) or voice authorization.**

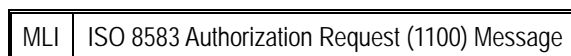
**Important Note: The Web Services IP Payments Gateway does not support the American Express Batch Authorization process. If necessary, please contact your American Express representative for more information.**

### 1.5.1 Message Separation

ISO 8583 messages are variable length and contain a combination of binary and character-encoded (primarily EBCDIC) text and numeric values. As a result, an ISO 8583 message must be treated as a stream of bytes in a file, rather than sequences of characters. Also, the binary data in some fields makes it impractical to use end-of-record terminator characters as delimiters to separate sequential records in the stream of data that comprises a file. However, the last two bytes of a fixed length file layout, authorization *request* (1100) message are reserved and echo returned as the last two bytes in the corresponding authorization *response* (1110); and these two characters may be used as Merchant-specified, *end-of-line* (EOL) terminators, if necessary. For more information, see page 15.

American Express utilizes a Message Length Indicator (MLI), transmitted as a prefix to each individual authorization request, to specify the exact record length; and no end-of-record terminator/delimiter character is used. The MLI is not part of the ISO 8583 authorization request (1100) message defined in this specification. Instead, it is considered part of the communication/transport mechanism.

The Message Length Indicator (MLI) is a two-byte, unsigned, short integer in binary, *network short/big-endian* format (i.e., most significant byte, followed by least significant byte), which reflects the combined length of the two-byte MLI *and* the individual authorization request (1100) message that immediately follows.



**Figure 1 — Message Length Indicator & ISO 8583 Authorization Request (1100) Message**

Messages in the batch *response* file are similarly formatted and contain a two-byte MLI that indicates the combined length of the MLI *and* the authorization *response* (1110) message.

## 1.5.2 Supported File Layouts

The American Express Batch Authorization System supports two file layout formats:

- Variable Length Format
- Fixed Length Format

During certification, Merchants must indicate which format they wish to use; and once certified, all files must be submitted in that format. Merchants wishing to change formats must recertify. American Express uses the same format for a batch response file as was used for the corresponding batch request file.

For both layouts, the Batch Authorization System uses the MLI to determine actual message length.

The table below contains sample data that appears on the following pages in both variable- and fixed-length formats. Please note that ISO 8583 defines some *fields* as variable length, with the data in these fields preceded by a Variable Length Indicator (VLI), in much the same manner as each message is preceded by an MLI. For this reason, individual message length varies in actual production files.

Field	Name	Required	Field Length	Sample Data	Hex Value
—	MESSAGE TYPE IDENTIFIER	M	4 bytes, fixed	1100	F1 F1 F0 F0
—	BIT MAP – PRIMARY	M	8 bytes, 64 bits	7030254000408000	70 30 25 40 00 40 80 00
2	PRIMARY ACCOUNT NUMBER (PAN)	M	21 bytes, LLVAR	370012345612345	F1 F5 F3 F7 F0 F0 F1 F2 F3 F4 F5 F6 F1 F2 F3 F4 F5 *
3	PROCESSING CODE	M	6 bytes, fixed	004000	F0 F0 F4 F0 F0 F0
4	AMOUNT, TRANSACTION	M	12 bytes, fixed	000000000100	F0 F0 F0 F0 F0 F0 F0 F0 F0 F1 F0 F0
11	SYSTEMS TRACE AUDIT NUMBER	M	6 bytes, fixed	000001	F0 F0 F0 F0 F0 F1
12	DATE AND TIME, LOCAL TRANSACTION	M	12 bytes, fixed	090100000000	F0 F9 F0 F1 F0 F0 F0 F0 F0 F0 F0 F0
14	DATE, EXPIRATION	M	4 bytes, fixed	1301	F1 F3 F0 F1
19	COUNTRY CODE, ACQUIRING INSTITUTION	M	3 bytes, fixed	840	F8 F4 F0
22	POINT OF SERVICE DATA CODE	M	12 bytes, fixed	101150600120	F1 F0 F1 F1 F5 F0 F6 F0 F0 F1 F2 F0
24	FUNCTION CODE	O	3 bytes, fixed	180	F1 F8 F0
25	MESSAGE REASON CODE	M	4 bytes, fixed	1234 <sup>†</sup>	F1 F2 F3 F4
26	CARD ACCEPTOR BUSINESS CODE	M	4 bytes, fixed	5399	F5 F3 F9 F9
42	CARD ACCEPTOR IDENTIFICATION CODE	M	15 bytes, fixed	12345678	F0 F0 F0 F0 F0 F0 F0 F1 F2 F3 F4 F5 F6 F7 F8
49	CURRENCY CODE, TRANSACTION	M	3 bytes, fixed	840	F8 F4 F0

**Figure 2 — Authorization Request Sample Data**

**Note:** Sample data in the preceding table and the following examples show values in hexadecimal notation for illustration purposes only. Actual batch authorization messages are transmitted as raw binary data. Total length of sample data is 113 bytes.

\* This field contains the Cardmember Account Number, preceded by a two-digit, Variable Length Indicator (VLI). The VLI must indicate the exact length of the account number, and no additional characters should be added to this field.

<sup>†</sup> “1234” is sample data only. Actual Message Reason Code is provided during Merchant certification.

### 1.5.2.1 Variable Length Layout

The *variable length file layout* is preferred for batch authorization files. Variable length files have no padding, nor end-of-record terminators; and, as a result, they are smaller than fixed length files that transport the same data.

The Message Length Indicator (MLI) is used in exactly the same manner in both the *variable* and *fixed* length file layouts, and the MLI indicates the combined length of the MLI *and* the variable data that comprises the actual authorization *request* (1100) message.

#### *Variable Length Layout (113 Bytes to 122 Bytes, Variable Message Length)*

Message 1	MLI (2 bytes)	Authorization Request (1100) Message (113 bytes)
Message 2	MLI (2 bytes)	Authorization Request (1100) Message (120 bytes)
Message 3	MLI (2 bytes)	Authorization Request (1100) Message (115 bytes)
Message 4	MLI (2 bytes)	Authorization Request (1100) Message (110 bytes)

**Figure 3 — Variable Length Layout**

*Message 1* is composed of a two-byte MLI preceding a 113-byte authorization request (1100) message. The MLI value is “115” (“00 73”, hex).

*Message 2* is 120 bytes in length. The MLI is “122” (“00 7A”, hex).

```
00 73 F1 F1 F0 F0 70 30 25 40 00 40 80 00 F1 F5 F3 F7 F0 F0 F1 F2 F3 F4 F5 F6 F1 F2
F3 F4 F5 F0 F0 F4 F0 F0 F0 F0 F0 F0 F0 F0 F0 F0 F1 F0 F0 F0 F0 F0 F0 F0 F1 F0
F9 F0 F1 F0 F0 F0 F0 F0 F0 F0 F0 F1 F3 F0 F1 F8 F4 F0 F1 F0 F1 F1 F5 F0 F6 F0 F0 F1
F2 F0 F1 F8 F0 F1 F2 F3 F4 F0 F7 F4 F2 F0 F0 F0 F0 F0 F0 F0 F1 F2 F3 F4 F5 F6 F7 F8
F8 F4 F0 00 7A F1 F1 F0 F0 70 30 25 40 00 40 80 00 F1 F5 F3 F7 F0 F0 F1 F2 F3 F4 F5
F6 F1 F2 F3 F4 F5 ...
```

**Figure 4 — Sample Data in Variable Length Format**

In the example above:

- *Message 2* is shown in shaded text.
- There is no padding, nor end-of-record terminator, between messages.

### 1.5.2.2 Fixed Length Layout

The *fixed length file layout* may be used by Merchants that utilize record-based file systems (e.g., a mainframe computer). In addition, Merchants that have difficulty creating files that conform to *variable length file layout* requirements may also use this alternate format. However, during certification, those Merchants must specify the fixed record length they wish to use.

In the examples below, *Message 1* has an authorization request (1100) message length of 113 bytes. The fixed length file layout requires that variable length messages be padded to the specified fixed record length using EBCDIC space characters (0x40). In these examples, the fixed record length is 150 bytes.

The Message Length Indicator (MLI) is used in exactly the same manner in both the *fixed* and *variable* length file layouts, and the MLI indicates the combined length of the MLI *and* the variable data that comprises the actual authorization *request* (1100) message (without padding).

The last two bytes of a fixed length file layout, authorization *request* (1100) message are reserved and echo returned as the last two bytes in the corresponding authorization *response* (1110). These two characters may be used as Merchant-specified, *end-of-line* (EOL) terminators, if necessary. Typical values may include the following:

- “0D 0A” hex (“EOL”, Windows character set)
- “20 0A” hex (“Space/EOL”, Unix character set)
- “40 25” hex (“Space/EOL”, EBCDIC character set)

#### ***Fixed Length Layout (150 Bytes, Fixed Record Length)***

Message 1	MLI (2 bytes)	Authorization Request (1100) Message (113 bytes)	Padding (35 bytes)	Reserved (2 bytes)
Message 2	MLI (2 bytes)	Authorization Request (1100) Message (120 bytes)	Padding (28 bytes)	Reserved (2 bytes)
Message 3	MLI (2 bytes)	Authorization Request (1100) Message (115 bytes)	Padding (33 bytes)	Reserved (2 bytes)
Message 4	MLI (2 bytes)	Authorization Request (1100) Message (110 bytes)	Padding (38 bytes)	Reserved (2 bytes)

**Figure 5 — Fixed Length Layout**

*Message 1* is composed of a two-byte MLI preceding a 113-byte authorization request (1100) message. The MLI value is “115” (“00 73”, hex).

*Message 2* is 120 bytes in length. The MLI is “122” (“00 7A”, hex).

### 1.5.2.2 Fixed Length Layout (Continued)

```

00 73 F1 F1 F0 F0 70 30 25 40 00 40 80 00 F1 F5 F3 F7 F0 F0 F1 F2 F3 F4 F5 F6 F1 F2
F3 F4 F5 F0 F0 F4 F0 F0 F0 F0 F0 F0 F0 F0 F0 F0 F1 F0 F0 F0 F0 F0 F0 F0 F1 F0
F9 F0 F1 F0 F0 F0 F0 F0 F0 F0 F0 F0 F1 F3 F0 F1 F8 F4 F0 F1 F0 F1 F1 F5 F0 F6 F0 F0 F1
F2 F0 F1 F8 F0 F1 F2 F3 F4 F0 F7 F4 F2 F0 F0 F0 F0 F0 F0 F0 F1 F2 F3 F4 F5 F6 F7 F8
F8 F4 F0 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40
40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40
40 40 80 00 F1 F5 F3 F7 F0 F1 F2 F3 F4 F5 F6 F1 F2 F3 F4 F5 ...

```

**Figure 6 — Sample Data in Fixed Length Format**

In the example above:

- The file is composed of variable length messages, each padded to exactly 150-bytes.
- *Message 2* is shown in shaded text.
- There is no end-of-record terminator between messages.

## 1.6 Other Authorization Services

American Express offers its Merchants authorization services for products other than American Express Cards. Those services are:

- Non-American Express card authorizations
- American Express Travelers Cheque verifications
- Prepaid Card authorizations

American Express will forward MasterCard, VISA, Diners Club and JCB transactions to the appropriate card issuer for authorization, and return the response from the issuer to the Merchant's system at the establishment.

American Express Travelers Cheques can be verified through the American Express system to ensure that the Travelers Cheque is not lost or stolen.

American Express Prepaid products can be authorized in the American Express system. See page 21.

## 1.7 Verification Services

American Express offers a number of tools by which Merchants can electronically verify information in the authorization process for Card Not Present transactions. These tools enable comparison of customer provided data with Cardmember information on file with the issuer. American Express recommends these verification tools be used simultaneously with other fraud mitigation tools such as *Enhanced Authorization* in multiple layers to help a Merchant mitigate the risk of fraud. These tools are not a guarantee that the transaction is in fact bona fide, or that the Merchant will not be subject to a Chargeback. In this specification, only Electronic Verification Services information is provided. For details on other verification services, please contact your American Express representative. For policy questions regarding transaction processing in the United States, please refer to the *American Express Merchant Regulations – U.S.*

### *Enhanced Authorization*

The Enhanced Authorization tool helps mitigate fraud before a transaction is authorized by analyzing key transaction data elements submitted with authorization requests. When these additional data elements are included in authorization requests, the issuer can make a more thorough risk assessment, enabling a more informed authorization decision.

Merchants may already capture Enhanced Authorization data elements and other Card information as part of the ordering process. While sending all data elements is the most effective use of Enhanced Authorization, any additional data elements can provide a more informed authorization response. Enhanced data elements may include:

- Internet Data — IP address, e-mail address, product SKU (Stock Keeping Unit)
- Phone Data — Order telephone number
- Airline Data — Passenger name, origin airport, destination airport, travel date, routing, class of service, number of passengers, airline carrier codes, e-mail address, IP address
- Shipping Data — Ship-to address, postal code, country code, telephone number, first and last name, and shipment method

Note: In the 1100 Authorization Request, Internet elements for Enhanced Authorization must be sent in the ITD format of Field 47, Airline elements must be sent in the APD/IAC format of Field 47, and Phone and Shipping elements must be sent in the 205-byte version of Field 63.

The Electronic Verification Services supported include the following:

- Card Identification (CID) Verification
- Automated Address Verification (AAV)
- ZIP Code Verification
- Telephone Number Verification
- E-Mail Address Verification

## 1.7.1 Electronic Verification Services

### 1.7.1.1 Card Identifier (CID) Verification

The Card Identifier (CID; a.k.a., 4DBC or 4CSC) Verification tool helps mitigate fraud on keyed and swiped Transactions. The CID number is associated with each individual Card. Merchants request the four-digit CID printed on the Card from the Cardmember at the time of purchase and then submit the CID with the Authorization request. Verification of the CID is one method to authenticate whether an individual making a purchase has possession of the Card.

The CID is a four-digit, (flat) number that is printed on every American Express Card. The CID is usually located above the Cardmember Account Number on the face of the Card. In each of the following illustrations of American Express Card products, the CID is circled. For details on CID/4DBC/4CSC entry in the 1100 Authorization Request, see page 102. See also, related topics on pages 60 and 144.

For more information on the American Express Keyed CID/4DBC/4CSC Program, please contact your American Express representative.



### 1.7.1.2 Automated Address Verification (AAV)

The Automated Address Verification tool compares the billing name, street address, and Zip Code provided by the customer with the Cardmember's billing information on file with the issuer.

Merchants, especially those operating in a *card not present* environment; e.g., mail-order, telephone-order and Internet, use Automated Address Verification (AAV) to evaluate Cardmember identity by comparing information provided by the customer at the point of sale with Cardmember billing information on file with the issuer.



### 1.7.1.2 Automated Address Verification (AAV) (Continued)

Merchants use the 1100 Authorization Request to transmit an independent AAV request, or a combination credit authorization/AAV request. To use AAV, a Merchant transmits a Cardmember's name (as it appears on the Card), *billing* street address and/or *billing* postal code for issuer verification.

Issuer systems compare the information provided by the Merchant with Cardmember data listed in the card issuer's records, and transmit a response in Field 44, Additional Response Data, of the 1110 Authorization Response, indicating if all information is valid or if the Cardmember name, *billing* address and/or *billing* postal code do not match. **American Express does not return Cardmember data to the Merchant.**

American Express encourages Merchants who physically deliver merchandise to include *Ship-to address* information as part of Enhanced Authorization tool (EA), which is available in the 205-byte version of field 63 of the 1100 Authorization Request.

#### *AAV Response Data*

Merchants certified for AAV must use Data Field 63, Private Use Data, in the 1100 Authorization Request. After processing, American Express returns the *AAV Response Code* in Data Field 44, Additional Response Data, or Data Field 62, Private Use Data, of the corresponding 1110 Authorization Response. For more information, see pages 114, 146 and 156.

### 1.7.1.2.1 ZIP Code Verification

In the United States, the ZIP Code Verification tool is part of Automated Address Verification (AAV). It compares the billing ZIP Code provided by the Cardmember with the billing ZIP Code on file with the issuer. The Cardmember is prompted to enter the billing ZIP Code at the point of sale.

Care should be taken when implementing this feature, because postal codes are *not* associated with *all* American Express Card numbers. One example of an American Express Card with no associated address would be a non-personalized American Express Prepaid Card. Improper Automated Address Verification programming can disrupt POS authorizations; for example, when no postal code is on file.

#### *ZIP Code Response Data*

Merchants certified for *ZIP Code* verification must use Data Field 63, Private Use Data, in the 1100 Authorization Request. After processing, American Express returns the *ZIP Code Response Code* in Data Field 44, Additional Response Data, or Data Field 62, Private Use Data, of the corresponding 1110 Authorization Response. For more information, see pages 114, 146 and 156.

### 1.7.1.3 Telephone Number Verification

The *Telephone Number Verification* tool compares the telephone number provided by the Customer at the point of sale with the Cardmember's billing telephone number on file with the issuer. This tool helps Merchants evaluate the validity of a charge by reviewing information about the Cardmember not available on the Card.

#### *Telephone Number Response Data*

Telephone Number Verification works much the same as Automated Address Verification (AAV). However, a certified Merchant transmits a billing telephone number in the 1100 Authorization Request, Data Field 63, Private Use Data. The issuer compares the information provided by the Merchant with the Cardmember's records, and returns the *Response Code* for Cardmember Phone Number in the 1110 Authorization Response, Data Field 62, Private Use Data. Data Field 62 also contains the matching results for the additional Automated Address Verification (AAV) subfields (i.e., Cardmember *billing* postal code, street address and name) and E-Mail Address verification. For more information, see pages 114 and 156. **As with all verification services, American Express does not return Cardmember data to the Merchant.**

### 1.7.1.4 E-Mail Address Verification

The *E-Mail Address Verification* tool compares the e-mail address provided by the Customer at the point of sale with the Cardmember's e-mail address on file with the issuer. This tool helps Merchants evaluate the validity of a charge by reviewing information about the Cardmember not available on the Card.

#### *E-Mail Address Response Data*

A certified Merchant transmits the Cardmember *E-Mail Address* in the 1100 Authorization Request in Data Field 47, Additional Data - National, using Card Not Present [ITD] or Internet Airline Customer [IAC] formats, and the formats of Data Field 63, Private Use Data, with RTI = "AE", to receive a response code for E-Mail Address Verification. The issuer compares the information provided by the Merchant with the Cardmember's records, and returns the *Response Code* for E-Mail Address in Data Field 62, Private Use Data, in the 1110 Authorization Response. Matching results for additional Automated Address Verification (AAV) fields (i.e., Cardmember *billing* postal code, street address and name) and Telephone number verification are also provided. For more information, see pages 85, 114 and 156. **As with all verification services, American Express does not return Cardmember data to the Merchant.**

## 1.8 Financial Settlement

Once authorization requests have been processed through American Express Credit Authorization System (transactions are approved for credit and/or Automated Address Verification), these records can be used to update shipping, inventory, accounts receivable, etc. These records can also be balanced and reconciled, then placed in a batch for transmission to American Express for financial settlement.

Data from the following fields in request and response messages for an approved authorization should be retained by the Merchant, since this information is required for financial settlement:

- Primary Account Number (PAN)
- Amount, Transaction
- Date and Time, Local Transaction
- Approval Code
- Acquirer Reference Data (Transaction Identifier/TID)

Note: Other data may also be required. For more information on data requirements for financial settlement, refer to the *American Express Global Financial Settlement Guide (POS020036)*.

## 1.9 Prepaid Card Partial Authorization & Authorization with Balance Return Programs

The *Prepaid Card Partial Authorization* and *Authorization with Balance Return* programs are designed to help Merchants provide Card balance information to American Express Prepaid Cardholders at the point of sale. The ISO 8583 formatted messages are exchanged to determine available funds to help the Merchant successfully complete Prepaid Card transactions in a timely manner.

Please note that the Prepaid Card Partial Authorization and Authorization with Balance Return Programs only apply to Prepaid Cards. Merchants who participate are not required to know which American Express products are prepaid. Instead, their authorization systems are modified using the specifications to indicate their ability to support the feature. American Express will return the specified information for transactions that qualify; otherwise, the responses will be the same as those they receive today.

American Express strongly recommends Partial Authorization, because it approves a request for the remaining balance rather than declining it when there are insufficient funds to cover the original amount.

The *Partial Authorization* program allows American Express to authorize a transaction for an amount less than the original Merchant requested amount. The Partial Authorization is used in circumstances where the Prepaid Card has insufficient funds to cover the original amount of the request. Rather than receiving a denial message, the transaction will be approved for the remaining balance of the Card. The Cardholder can then pay the Merchant the outstanding amount of the transaction via another form of payment. Field 24 (Function Code) of the 1100 message is used to identify a Merchant that accepts Partial Authorizations. The approved amount is returned in Field 4 (Amount, Transaction) of the 1110 response message. The original requested authorization amount is returned in Field 30 (Amounts, Original); and the available amount remaining on the Card (including a zero balance) is returned in Field 54 (Amounts, Additional).

## 1.9 Prepaid Card Partial Authorization & Authorization with Balance Return Programs (Continued)

As an alternative to the *Partial Authorization* program, American Express offers the *Authorization with Balance Return* program.

The *Authorization with Balance Return* program allows Merchants that choose not to use the Partial Authorization Program to receive the Prepaid Card balance on the 1110 response message. Field 24 (Function Code) of the 1100 message is used to identify an Authorization with Balance Return request. The available balance is returned to the Merchant in Field 54 (Amounts, Additional) in the 1110 response message, even if the transaction is denied. Transactions that are denied for insufficient funds can be resubmitted for an amount equal to or less than the remaining balance provided in the 1110 response message.

Merchants should develop internal instructions for using the Prepaid Card Partial Authorization or Authorization with Balance Return Programs at their point of sale. American Express will allow authorized Merchants that conform to this specification and pass our certification tests to access the American Express network to acquire Partial Authorization or Authorization with Balance Return.

Third Party Processors must develop support for both Partial Authorization and Authorization with Balance Return functionalities in order to provide the ability for their Merchants to utilize either program. Additional information may be obtained from your American Express representative.

Note: *Prepaid Card Balance Inquiry* may also be performed utilizing either the *Partial Authorization* or the *Authorization with Balance Return* program. This can be done by simply entering an amount of zero in the Field 4 (Amount, Transaction). The transaction will be approved, and the available balance is returned in Field 54 (Amounts, Additional). A new authorization request can then be created for an amount equal to or less than the remaining balance.

## 1.10 Chip Card

Two types of Chip Cards are issued by American Express, Contact and Contactless:

- **Contact** — A Contact Chip Card is physically inserted into a Card Reader to enable it to communicate with the Terminal. The American Express contact solution is called AEIPS (American Express ICC Payment Specifications).
- **Contactless** — A Contactless Chip Card uses radio frequency technology to communicate with the Terminal, and the card does not need to be inserted into a reader. Contactless transactions are typically faster than Contact transactions. The American Express contactless solution is called Expresspay.

In order to submit transactions from American Express Chip Cards for authorization and settlement, the Merchant, authorized Third Party Processor or Vendor Software must submit data to American Express in the formats prescribed by the *Global Credit Authorization Guide (POS020041)* and the *Global Financial Settlement Guide (POS020036)*.

### 1.10.1 AEIPS

In an AEIPS transaction, the card is inserted into the chip reader in the terminal; and the card data is read directly from the chip. The magnetic stripe is not used. As well as the usual card data that is read from the chip, additional transaction data is created during an AEIPS transaction. In an authorization, American Express uses Data Field 55. For more information on the breakdown of Field 55, see page 104.

American Express also mandates that as well as populating Data Field 55, AEIPS transactions must have the correct bits set in Data Field 22 (POS Data Code), and include Data Field 35 (Track 2 Data).

### 1.10.2 Expresspay

In an Expresspay transaction, the data is passed between the chip and the terminal using RF technology. As in an AEIPS transaction, additional data is created. However, where this data goes is dependent on the Expresspay mode used.

Expresspay has two different modes in which the Card and Terminal can operate:

- Expresspay EMV Mode — This mode of operation is designed for those issuers and acquirers that support EMV data in the authorization and clearing messages.
- Expresspay Magstripe Mode — This mode of operation is designed for issuers who cannot accept EMV data for Contactless transactions and for acquirers who have not implemented EMV acceptance.

If supporting Expresspay, Merchants, authorized Third Party Processors and vendor software must support Magstripe Mode.

It is mandatory for all Third Party Processors and Software Vendors to certify they can pass Expresspay data.

In order to submit transactions from Expresspay Cards for authorization and settlement, the Merchant, authorized Third Party Processor or vendor software must submit data to American Express in the formats prescribed by the *Global Credit Authorization Guide (POS020041)* and the *Global Financial Settlement Guide (POS020036)*.

## 1.10.2 Expresspay (Continued)

### *Expresspay Requirements*

Magstripe Mode	EMV Mode
<ul style="list-style-type: none"> <li>Track 1 (Field 45) and/or Track 2 (Field 35) must be present. For information on <i>Expresspay Pseudo-Magnetic Stripe Formats</i>, see page 272.</li> </ul>	<ul style="list-style-type: none"> <li>ICC System Related Data (Field 55) must be present.</li> <li>Track 2 Data (Field 35)</li> </ul>
<ul style="list-style-type: none"> <li>POS Data Code (Field 22)</li> </ul>	<ul style="list-style-type: none"> <li>POS Data Code (Field 22)</li> </ul>
<ul style="list-style-type: none"> <li>Position 6 = "x" (Contactless transactions, including American Express Expresspay)</li> </ul>	<ul style="list-style-type: none"> <li>Position 6 = "x" (Contactless transactions, including American Express Expresspay)</li> </ul>
<ul style="list-style-type: none"> <li>Position 7 = "2" (Magnetic stripe read; Track 1 and/or Track 2) or "W" (Swiped transaction with keyed CID/4DBC/4CSC)</li> </ul>	<ul style="list-style-type: none"> <li>Position 7 = "5" (Integrated Circuit Card [ICC]; EMV and Track 2 data captured from chip)</li> </ul>

#### Notes:

- Expresspay transactions must originate at a contactless reader and cannot be manually keyed.
- It is important to note that pseudo-magnetic stripe data from a chip card contactless reader differs slightly from track data obtained from a magnetic stripe read. For this reason, when Magstripe Mode, Track 1 and/or Track 2 pseudo-magnetic stripe data is supplied intact, the start and end sentinels should be stripped off; and all remaining characters between the sentinels (including the Interchange Designator and Service Code) should be forwarded to American Express without alteration, in the appropriate ISO 8583 Track 1 and/or Track 2 field (Data Fields 45 and/or 35, respectively). For complete lists of allowable Interchange Designator/Service Code combinations, see pages 251 and 263, respectively.

## 1.11 Authorization Adjustment Addendum

The Authorization Adjustment Service is designed to release held funds due to the actual sale amount being less than the original authorized amount. This ISO 8583 message will provide the exact amount of the sale once the sale is completed. The exact sale amount will then be submitted for settlement and any additional funds being held as part of the original approved authorization will be released.

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

The Authorization Adjustment addendum applies to any Merchant, Third Party Processor or Vendor Software provider processing in the United States or Canada that supports Automated Fuel Dispensers. For details on specific Authorization Adjustment requirements, please contact your American Express representative and request the *Global Credit Authorization Guide, Authorization Adjustment Addendum (POS020041-A)*.

## 2.0 Implementation Planning

This section addresses the requirements and procedures needed for implementing a Merchant's credit authorization software. This section contains the following subsections:

- 2.1 Overview of Implementation Planning
- 2.2 Development Responsibilities
- 2.3 Development Steps
- 2.4 Hardware Requirements
- 2.5 Communications Options
- 2.6 Message Formats
- 2.7 Merchant Certification Policies

### 2.1 Overview of Implementation Planning

Merchants and authorized Third Party Processors who are interested in developing an interface to American Express must first contact an American Express representative. The American Express representative will discuss the business and basic technical issues involved with credit authorization, Automated Address Verification (AAV), and, if necessary, financial settlement.

Once the business issues and decisions have been resolved, an American Express representative calls the Merchant, and acts as the primary American Express contact during all phases of development, until the software is approved for production use.

The American Express representative arranges for a technical conference call that includes members of the Merchant's technical staff and representatives of American Express. Prior to the first call, Merchants should become familiar with the contents of this document, as well as the following American Express documents:

- *American Express Card Acceptance & Processing Network Communications Guide (POS020056)*<sup>\*</sup>
- *American Express Global Financial Settlement Guide (POS020036)* (if implementing both authorization and settlement)

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<sup>\*</sup> USA and Canada only. For information on connectivity solutions in other global regions, please contact your American Express representative.

## 2.1 Overview of Implementation Planning (Continued)

During the technical conference call, Merchants may ask the American Express staff detailed questions about hardware, communications protocol and authorization service options. The American Express technical staff and American Express representative will provide detailed descriptions of processing options and message formats. The conference concludes when the Merchant and American Express agree on the authorization service options and interface requirements.

Following the initial conference calls, the American Express representative will arrange a technical conference call to review, in detail, the authorization message format selected by the Merchant. Following this call, a member of the American Express technical staff publishes a customized Business Requirements Document and test script, and forwards it to the American Express representative. The representative then sends these documents to the Merchant, along with a cover letter outlining the specific requirements for test scheduling and product migration.

Note: American Express requires chip card accepting devices to be approved by EMVCo. EMVCo approval can be obtained at an EMVCo approved laboratory. Further details can be obtained from the EMVCo website ([www.emvco.com](http://www.emvco.com)) or from your local American Express representative.

## 2.2 Development Responsibilities

The lists below outline the basic installation responsibilities for both American Express and the Merchant.

American Express provides the following services:

- Allows scheduled access to American Express testing facilities
- Allows 24-hour access to the American Express Consolidated Data Network (CDN)  
— (only after the Merchant is approved for production activities)
- Installs and maintains circuit modems for a leased-line authorization link, for qualified Merchants only. Please contact your American Express representative for additional information.

The Merchant provides the following:

- Develops or purchases credit authorization application and communications protocol software.
- Dedicates staff and computer resources to credit authorization software development within the project schedule agreed upon by American Express and the Merchant.



## 2.3 Development Steps

Most Merchants develop and implement their credit authorization software in these steps:

1. Participate in the technical conference call with American Express.
2. Receive and review the Business Requirements Document and Application Test Plan.
3. Develop credit authorization application and communications protocol software.
4. Test communications protocol with American Express. Then (after protocol approval by American Express), test credit authorization application software (with American Express), as stated in the Application Test Plan. Please see page 233 for more details on certification testing.
5. Receive American Express approval for production processing.

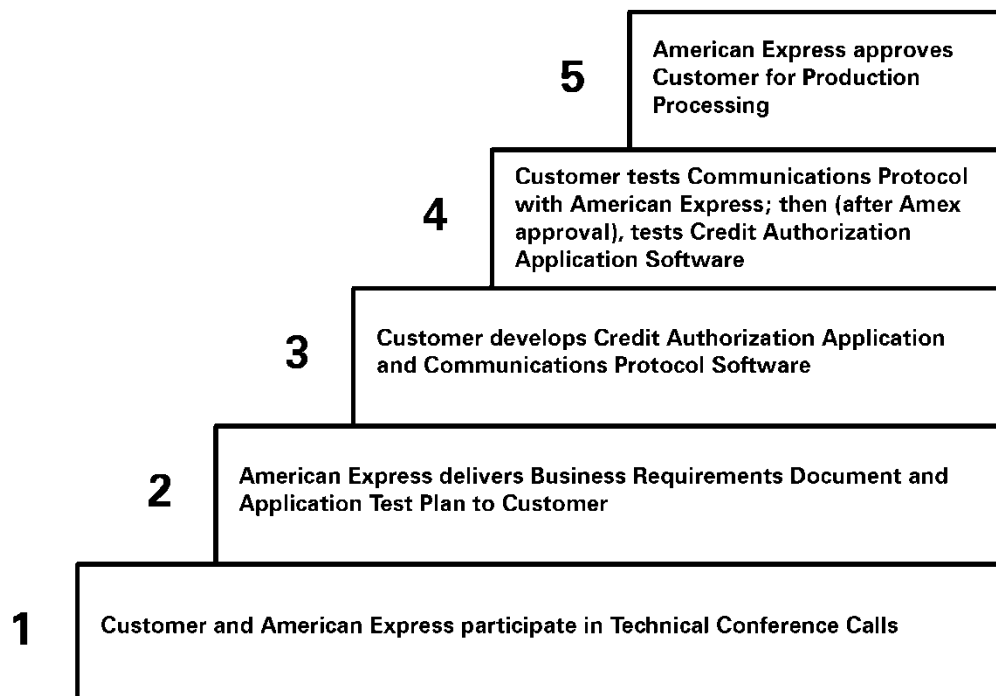


Figure 2-1 Steps for Authorization Implementation

## 2.4 Hardware Requirements

The requirements for the hardware used by the Merchant are dependent on the types of products and services to be supported by the Merchant. For this reason, hardware requirements are established during conversations with the American Express representative.

## 2.5 Communications Options

For details, please refer to the *American Express Card Acceptance & Processing Network Communications Guide (POS020056)*\*

### 2.5.1 Leased-Lines

Merchants who wish to use a leased-line must qualify by transaction volume. This qualification is negotiated between the Merchant, and the American Express representative. Qualified Merchants who choose a leased-line may either use on-line or batch services.

The costs associated with using a leased-line are contractually established between the Merchant and American Express. Merchants using their leased-line to obtain MasterCard and VISA authorizations through the American Express authorizations system, are assessed a small fee per transaction.

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\* USA and Canada only. For information on connectivity solutions in other global regions, please contact your American Express representative.

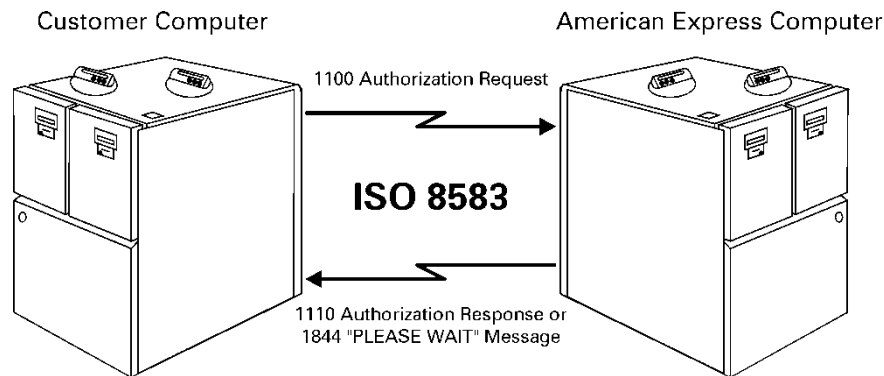
## 2.6 Message Formats

### 2.6.1 ISO 8583 Message Format

American Express supports the International Organization for Standardization ISO 8583 format to exchange messages for credit authorizations and/or Automated Address Verifications (AAV) on-line.

#### 2.6.1.1 Authorization Request/Please Wait/Response

- 1100 Message (used for authorization request messages)
- 1844 Message (optional “Please Wait” intermediary response message, prior to 1110 message)
- 1110 Message (used for authorization response messages)



**Figure 2-2 ISO 8583 Authorization Message Exchange**

Merchants use the Authorization Request (1100) message to transmit credit authorization and/or Automated Address Verification (AAV) request messages to American Express. American Express uses the Authorization Response (1110) message to respond to a Merchant's 1100 message. The American Express Credit Authorization System (CAS) places the credit analysis results for the request in the 1110 message.

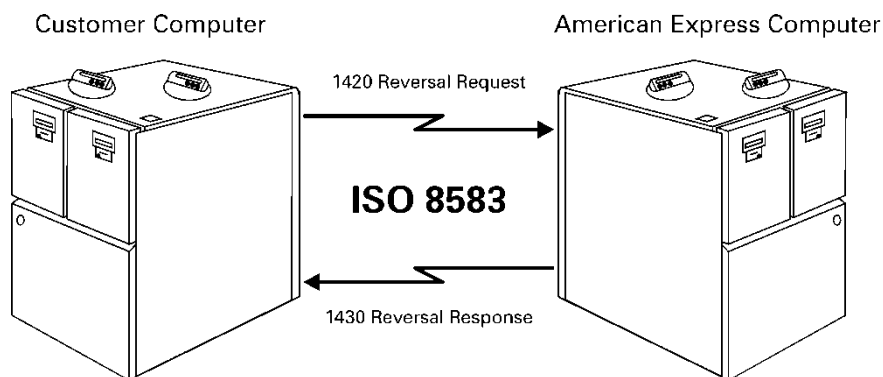
If a referral mode is used, an optional 1844 “PLEASE WAIT” intermediary response message is transmitted by American Express to the Merchant's system while an Authorizer is examining the request. A subsequent 1110 message may include an “APPROVED”, “PLEASE CALL”, or “DENY” response.

**Note:** If the Merchant's system cannot process secondary messages, CAS will inhibit the generation of the 1844 “PLEASE WAIT” message. Referral processing will operate normally, but the only messages that the Merchant's system will receive are “APPROVED” and “PLEASE CALL”.

Merchant time-out values are determined during the technical conference call.

### 2.6.1.2 Reversal Advice Request/Response

- 1420 Message (used for Reversal Advice Request messages)
- 1430 Message (used for Reversal Advice Response messages)



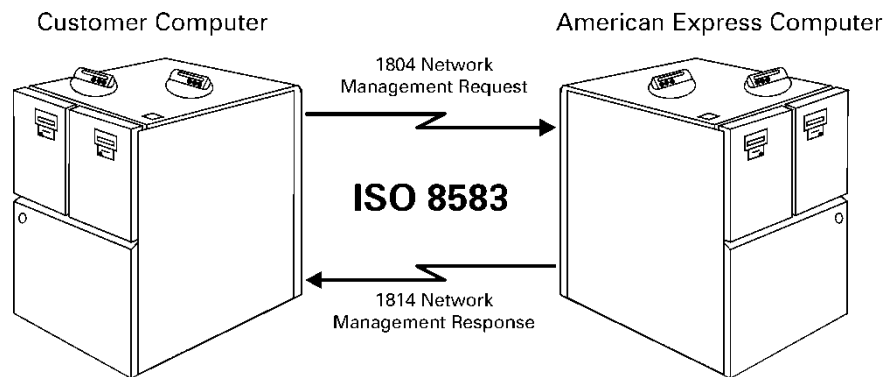
**Figure 2-3 ISO 8583 Reversal Advice Message Exchange**

These messages are constructed as specified in the ISO 8583-1993 standard. If your system supports a different version of ISO 8583, please notify your American Express representative.

The Reversal Advice Request allows the acquiring source to cancel the effects of a previous authorization transaction, completely. For more information, see page 163.

### 2.6.1.3 Network Management Request/Response

- 1804 Message (used for network management request messages)
- 1814 Message (used for network management response messages)



**Figure 2-4 ISO 8583 Administration/Network Message Exchange**

Network management messages are used to control the system security and operating condition of the interchange network and may be initiated by any interchanging party.

The Network Management Request (1804) message allows either side to send an “ARE YOU THERE?” message. When the 1804 message is received, it should be responded to by transmitting a Network Management Response (1814) message.

## 2.7 Merchant Certification Policies

American Express requires testing of the Merchant’s communications protocol with the American Express network and the Merchant’s credit authorization application software and its ability to adhere to the message specification as stated in this document. A Merchant must establish a communications link and successfully pass American Express (AMEX) communications protocol tests prior to proceeding with testing of credit authorization transactions. After communications protocol approval, a Merchant can submit credit authorization application tests to AMEX, as specified in the Merchant’s Application Test Plan.

Merchants conduct certification on the American Express test system. A Merchant is not granted access to the American Express production system, until the Merchant’s communications protocol and credit authorization application software are thoroughly tested and certified by American Express.

For additional information on American Express testing procedures, see page 233.

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### 3.0 ISO 8583 Message Formats

This section describes 1100 Request and 1110 Response 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, please notify your American Express representative.

#### 3.1 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 field. The data content of a message is determined by the value (1) or (0) of bits in a bit map field. Each bit is associated with a unique data element (field). If the data content for a field is available, the bitmap position should be set to one (1) and the respective field should be sent. If the data content for a field is not available, the bitmap position should be set to zero (0) and the respective field should not be sent.
- A few of the 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 field specification, this indicates that the data element 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 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 element 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.

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

### 3.1 Guidelines for Using the ISO 8583 Format (Continued)

- Unless otherwise specified, all fixed-length *numeric* fields should be right justified and zero filled, fixed-length *alphanumeric* fields should be left justified and character space filled, and *binary* 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 element 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 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 elements, all the attributes of all 64 data elements in the primary bit map are supplied beginning on page 35 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 elements to get to the following fields.

- Some fields of the message are required to process the message, while others are not required to process the message. Some fields may be required in the response when present in the request. Field requirements are as follows:

Mandatory	Field and contents are required to process this message. Field must contain the appropriate text or numeric information as indicated.
Mandatory - Echo returned	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	Field and contents are not mandatory for processing the message, but should be provided if available.
Optional - Echo returned	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 field may be <i>conditional</i> if it is only used in certain circumstances. See Data Field Descriptions for specific details.  For example, Data Fields 13 and 14 are <i>conditional</i> if the Merchant's system is unable to provide track data intact.
Conditional – Echo returned	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.

For certification requirements, see page 233.



### 3.2 Variations from ISO 8583

- Except as noted in the detailed message flows for most messages or data fields, no individual data element field should exceed 290 bytes. For details, please contact your American Express representative.
- Messages transmitted to American Express must not exceed 900 bytes in total length. Since all data fields in the 1100 section are *not* used for a given transaction, this maximum would not be exceeded. For example, Data Fields 45 and 35, TRACK 1 DATA and TRACK 2 DATA, are not used in *card not present* transactions. As another example, Data Field 47, ADDITIONAL DATA – NATIONAL, is not used in *card present* transactions. For assistance in selecting optional data fields, and determining the appropriate formats and variable field lengths to use, please contact your American Express representative.
- American Express reserves the right to modify field parameters (e.g., changing Field Type from numeric to alphanumeric, or vice-versa) to meet specific business and/or internal data and system requirements.

### 3.3 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 fields are contained in a message. All 128 fields and bit positions are listed in the tables below. However, at this writing, American Express uses only the Primary Bit Map to indicate which of the first 64 fields are included in each applicable message. The Secondary Bit Map and corresponding fields 65-128 are unused at this time, and descriptive message format information is omitted from this document.

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.

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

### 3.3.1 Primary Bit Map

Data Field	Data Element Name	Max. Field Length	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
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

### 3.3.1 Primary Bit Map

Data Field	Data Element Name	Max. Field Length	Field Type
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	290 bytes, LLLVAR	Alphanumeric & special characters
48	ADDITIONAL DATA – PRIVATE	43 bytes, LLLVAR	Alphanumeric & special characters
49	CURRENCY CODE, TRANSACTION	3 bytes, fixed	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

### 3.3.1 Primary Bit Map

Data Field	Data Element Name	Max. Field Length	Field Type
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

### 3.3.2 Secondary Bit Map

Data Field	Data Element Name	Max. Field Length	Field Type
65	RESERVED FOR ISO USE	8 bytes, 64 bits	Binary
66	AMOUNTS, ORIGINAL FEES	204 bytes, LLLVAR	Alphanumeric & special characters
67	EXTENDED PAYMENT DATA	2 bytes, fixed	Numeric
68	COUNTRY CODE, RECEIVING INSTITUTION	3 bytes, fixed	Numeric
69	COUNTRY CODE, SETTLEMENT INSTITUTION	3 bytes, fixed	Numeric
70	COUNTRY CODE, AUTHORIZING AGENT INSTITUTION	3 bytes, fixed	Numeric
71	MESSAGE NUMBER	8 bytes, fixed	Numeric
72	DATA RECORD	999 bytes, LLLVAR	Alphanumeric & special characters
73	DATE, ACTION	6 bytes, fixed	Numeric
74	CREDITS, NUMBER	10 bytes, fixed	Numeric
75	CREDITS, REVERSAL NUMBER	10 bytes, fixed	Numeric
76	DEBITS, NUMBER	10 bytes, fixed	Numeric
77	DEBITS, REVERSAL NUMBER	10 bytes, fixed	Numeric
78	TRANSFER, NUMBER	10 bytes, fixed	Numeric
79	TRANSFER, REVERSAL NUMBER	10 bytes, fixed	Numeric
80	INQUIRIES, NUMBER	10 bytes, fixed	Numeric
81	AUTHORIZATIONS, NUMBER	10 bytes, fixed	Numeric
82	INQUIRIES, REVERSAL NUMBER	10 bytes, fixed	Numeric
83	PAYMENTS, NUMBER	10 bytes, fixed	Numeric
84	PAYMENTS, REVERSAL NUMBER	10 bytes, fixed	Numeric
85	FEE COLLECTIONS, NUMBER	10 bytes, fixed	Numeric
86	CREDITS, AMOUNT	16 bytes, fixed	Numeric
87	CREDITS, REVERSAL AMOUNT	16 bytes, fixed	Numeric
88	DEBITS, AMOUNT	16 bytes, fixed	Numeric
89	DEBITS, REVERSAL AMOUNT	16 bytes, fixed	Numeric
90	AUTHORIZATIONS, REVERSAL NUMBER	10 bytes, fixed	Numeric

### 3.3.2 Secondary Bit Map

Data Field	Data Element Name	Max. Field Length	Field Type
91	COUNTRY CODE, TRANSACTION DESTINATION INSTITUTION	3 bytes, fixed	Numeric
92	COUNTRY CODE, TRANSACTION ORIGINATOR INSTITUTION	3 bytes, fixed	Numeric
93	TRANSACTION DESTINATION INSTITUTION IDENTIFICATION CODE	11 bytes, LLVAR	Numeric
94	TRANSACTION ORIGINATOR INSTITUTION IDENTIFICATION CODE	11 bytes, LLVAR	Numeric
95	CARD ISSUER REFERENCE DATA	99 bytes, LLVAR	Alphanumeric & special characters
96	KEY MANAGEMENT DATA	999 bytes, LLLVAR	Binary
97	AMOUNT, NET RECONCILIATION	16 bytes, fixed	X + N (see note at end of table)
98	PAYEE	25 bytes, fixed	Alphanumeric & special characters
99	SETTLEMENT INSTITUTION IDENTIFICATION CODE	11 bytes, LLVAR	Alphanumeric
100	RECEIVING INSTITUTION IDENTIFICATION CODE	11 bytes, LLVAR	Numeric
101	FILE NAME	17 bytes, LLVAR	Alphanumeric & special characters
102	ACCOUNT IDENTIFICATION 1	28 bytes, LLVAR	Alphanumeric & special characters
103	ACCOUNT IDENTIFICATION 2	28 bytes, LLVAR	Alphanumeric & special characters
104	TRANSACTION DESCRIPTION	100 bytes, LLLVAR	Alphanumeric & special characters
105	CREDITS, CHARGEBACK AMOUNT	16 bytes, fixed	Numeric
106	DEBITS, CHARGEBACK AMOUNT	16 bytes, fixed	Numeric
107	CREDITS, CHARGEBACK NUMBER	10 bytes, fixed	Numeric
108	DEBITS, CHARGEBACK NUMBER	10 bytes, fixed	Numeric
109	CREDITS, FEE AMOUNTS	84 bytes, LLVAR	Alphanumeric & special characters
110	DEBITS, FEE AMOUNTS	84 bytes, LLVAR	Alphanumeric & special characters
111	RESERVED FOR ISO USE	999 bytes, LLLVAR	Alphanumeric & special characters
112	RESERVED FOR ISO USE	999 bytes, LLLVAR	Alphanumeric & special characters
113	RESERVED FOR ISO USE	999 bytes, LLLVAR	Alphanumeric & special characters
114	RESERVED FOR ISO USE	999 bytes, LLLVAR	Alphanumeric & special characters
115	RESERVED FOR ISO USE	999 bytes, LLLVAR	Alphanumeric & special characters
116	RESERVED FOR NATIONAL USE	999 bytes, LLLVAR	Alphanumeric & special characters

### 3.3.2 Secondary Bit Map

Data Field	Data Element Name	Max. Field Length	Field Type
117	RESERVED FOR NATIONAL USE	999 bytes, LLLVAR	Alphanumeric & special characters
118	RESERVED FOR NATIONAL USE	999 bytes, LLLVAR	Alphanumeric & special characters
119	RESERVED FOR NATIONAL USE	999 bytes, LLLVAR	Alphanumeric & special characters
120	RESERVED FOR NATIONAL USE	999 bytes, LLLVAR	Alphanumeric & special characters
121	RESERVED FOR NATIONAL USE	999 bytes, LLLVAR	Alphanumeric & special characters
122	RESERVED FOR NATIONAL USE	999 bytes, LLLVAR	Alphanumeric & special characters
123	RESERVED FOR PRIVATE USE	999 bytes, LLLVAR	Alphanumeric & special characters
124	RESERVED FOR PRIVATE USE	999 bytes, LLLVAR	Alphanumeric & special characters
125	RESERVED FOR PRIVATE USE	999 bytes, LLLVAR	Alphanumeric & special characters
126	RESERVED FOR PRIVATE USE	999 bytes, LLLVAR	Alphanumeric & special characters
127	RESERVED FOR PRIVATE USE	999 bytes, LLLVAR	Alphanumeric & special characters
128	MESSAGE AUTHENTICATION CODE FIELD	8 bytes, 64 bits	Binary

Note: For Data Field 97, X = "C" credit or "D" debit, concatenated with "N" numeric amount.

### 3.4 ISO 8583 Request Message Formats

This section contains formatting specifications for the following 1100 Request Messages used by American Express:

<u>Subsection</u>	<u>Title</u>
3.4.1	<b>ISO 8583 Authorization Request (1100)</b> — This message is used to transmit an <i>Authorization</i> and/or <i>Automated Address Verification (AAV)</i> Request to American Express. Part of the request contains Card and sales data necessary for processing credit authorizations, and the remainder is used to submit Cardmember billing and/or shipping addresses for validation.

### 3.4.1 ISO 8583 Authorization Request (1100)

Length of Record: 900 bytes maximum (recommended)

Note: Messages transmitted to American Express must not exceed 900 bytes in total length. Since all data fields in the 1100 section are *not* used for a given transaction, this maximum would not be exceeded. For example, Data Fields 45 and 35 (TRACK 1 DATA and TRACK 2 DATA) are not used in *Card Not Present* transactions. As another example, Data Field 47, ADDITIONAL DATA – NATIONAL, is not used in *card present* transactions. For assistance in selecting optional data fields, and determining the appropriate formats and variable field lengths to use, please contact your American Express representative.

Description: This message is used to transmit an *Authorization* and/or *Automated Address Verification (AAV)* Request to American Express.

Data Fields in This Section:	— MESSAGE TYPE IDENTIFIER	Page 44
	— BIT MAP – PRIMARY	44
	2 PRIMARY ACCOUNT NUMBER (PAN)	46
	3 PROCESSING CODE	47
	4 AMOUNT, TRANSACTION	48
	7 DATE AND TIME, TRANSMISSION	50
	11 SYSTEMS TRACE AUDIT NUMBER	50
	12 DATE AND TIME, LOCAL TRANSACTION	51
	13 DATE, EFFECTIVE	52
	14 DATE, EXPIRATION	53
	15 DATE, SETTLEMENT	54
	19 COUNTRY CODE, ACQUIRING INSTITUTION	55
	22 POINT OF SERVICE DATA CODE	56
	24 FUNCTION CODE	63
	25 MESSAGE REASON CODE	67
	26 CARD ACCEPTOR BUSINESS CODE	68
	27 APPROVAL CODE LENGTH	69
	31 ACQUIRER REFERENCE DATA	70
	32 ACQUIRING INSTITUTION IDENTIFICATION CODE	71
	33 FORWARDING INSTITUTION IDENTIFICATION CODE	72
	35 TRACK 2 DATA	73



### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

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Data Fields in This Section:	37 RETRIEVAL REFERENCE NUMBER	Page 75
	41 CARD ACCEPTOR TERMINAL IDENTIFICATION	76
	42 CARD ACCEPTOR IDENTIFICATION CODE	77
	43 CARD ACCEPTOR NAME/LOCATION	79
	45 TRACK 1 DATA	82
	47 ADDITIONAL DATA – NATIONAL	85
	48 ADDITIONAL DATA – PRIVATE	98
	49 CURRENCY CODE, TRANSACTION	101
	52 PERSONAL IDENTIFICATION NUMBER (PIN) DATA	101
	53 SECURITY RELATED CONTROL INFORMATION	102
	55 INTEGRATED CIRCUIT CARD SYSTEM RELATED DATA	104
	60 NATIONAL USE DATA	108
	61 NATIONAL USE DATA	108
	62 PRIVATE USE DATA	109
	63 PRIVATE USE DATA	114
	64 MESSAGE AUTHENTICATION CODE FIELD	132

Note: See summary table and example of the Authorization Request (1100) message on page 213.

**3.4.1 ISO 8583 Authorization Request (1100) (Continued)**

<b>Data Field — None</b>	<b>MESSAGE TYPE IDENTIFIER</b>
Length of Field:	4 bytes, fixed length
Field Type:	Numeric
Constant:	1100
Field Requirement:	Mandatory
Description:	The constant literal “1100” signifies the ISO 8583 Authorization Request message.

<b>Data Field — None</b>	<b>BIT MAP – PRIMARY</b>
Length of Field:	8 bytes, 64 bits, fixed length for each bit map
Field Type:	Binary (hexadecimal configuration)
Constant:	None
Field Requirement:	Mandatory
Description:	<p>Each bit in this data element signifies the presence (value 1) or absence (value 0) of a field in the Authorization Request (1100) message.</p> <p>If the field is mandatory, or is optional and the Merchant elects to use that field, its assigned bit map position must contain a value of “1”, to indicate the field is present. If the field is optional and not used, its assigned bit map position must contain a value of “0”, to indicate the field is omitted.</p>

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field — None BIT MAP – PRIMARY (Continued)

The diagram below illustrates a 64-bit string contained within an eight-byte field. Each bit signifies the presence (1) or absence (0) of the data element used within the 1100 message format:

1 <u>0</u>	9 <u>0</u>	17 <u>0</u>	25 <u>0</u>	33 <u>1</u>	41 <u>1</u>	49 <u>1</u>	57 <u>0</u>
2 <u>1</u>	10 <u>0</u>	18 <u>0</u>	26 <u>1</u>	34 <u>0</u>	42 <u>1</u>	50 <u>0</u>	58 <u>0</u>
3 <u>1</u>	11 <u>1</u>	19 <u>1</u>	27 <u>1</u>	35 <u>1</u>	43 <u>1</u>	51 <u>0</u>	59 <u>0</u>
4 <u>1</u>	12 <u>1</u>	20 <u>0</u>	28 <u>0</u>	36 <u>0</u>	44 <u>0</u>	52 <u>0</u>	60 <u>0</u>
5 <u>0</u>	13 <u>1</u>	21 <u>0</u>	29 <u>0</u>	37 <u>1</u>	45 <u>1</u>	53 <u>1</u>	61 <u>0</u>
6 <u>0</u>	14 <u>1</u>	22 <u>1</u>	30 <u>0</u>	38 <u>0</u>	46 <u>0</u>	54 <u>0</u>	62 <u>0</u>
7 <u>1</u>	15 <u>0</u>	23 <u>0</u>	31 <u>0</u>	39 <u>0</u>	47 <u>1</u>	55 <u>0</u>	63 <u>1</u>
8 <u>0</u>	16 <u>0</u>	24 <u>1</u>	32 <u>1</u>	40 <u>0</u>	48 <u>1</u>	56 <u>0</u>	64 <u>0</u>

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> 0010 = <b>2</b>	Position 17-24 0010 = <b>2</b> 0101 = <b>5</b>	Position 33-40 1010 = <b>A</b> 1000 = <b>8</b>	Position 49-56 1000 = <b>8</b> 1000 = <b>8</b>
Position 9-16 0011 = <b>3</b> 1100 = <b>C</b>	Position 25-32 0110 = <b>6</b> 0001 = <b>1</b>	Position 41-48 1110 = <b>E</b> 1011 = <b>B</b>	Position 57-64 0000 = <b>0</b> 0010 = <b>2</b>

Hexadecimal equivalents for bit map:

0000 = 0	1000 = 8
0001 = 1	1001 = 9
0010 = 2	1010 = A
0011 = 3	1011 = B
0100 = 4	1100 = C
0101 = 5	1101 = D
0110 = 6	1110 = E
0111 = 7	1111 = F

The hexadecimal equivalent for the bit map in this Authorization Request (1100) Message (as shown above) is:

**72 3C 25 61 A8 EB 88 02**

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

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:	<ul style="list-style-type: none"> <li>• Mandatory — American Express Card transactions</li> <li>• Mandatory — Other Card products and bankcard transactions</li> </ul> <p>Note: American Express supports Diner's Club, JCB, VISA and MasterCard processing. For details, please contact your American Express representative.</p> <ul style="list-style-type: none"> <li>• Not used — American Express Travelers Cheques</li> </ul>
Description:	<p>This field contains the Cardmember Account Number, preceded by a two-digit, Variable Length Indicator (VLI). The VLI must indicate the exact length of the account number, and no additional characters should be added to this field.</p> <p>For example, the 15-digit American Express Account Number derived from an ANSI track data field that has embedded spaces (e.g., "3714 496353 11004") would have the spaces removed and appear as:</p> <pre> 0      1 12345678901234567 <b>15371449635311004</b> </pre> <p>Check digit validation is required. For details, see page 237.</p> <p>Note: This field is mandatory for processing this message, and it will be preserved and returned in the response message without alteration.</p>

**3.4.1 ISO 8583 Authorization Request (1100) (Continued)**

<b>Data Field 3</b>	<b>PROCESSING CODE</b>
Length of Field:	6 bytes, fixed length
Field Type:	Numeric, right justified, zero filled
Constant:	None
Field Requirement:	Mandatory
Description:	<p>This field indicates the financial service being requested. The codes that can appear in this field are:</p> <p>004000 = Card Authorization Request</p> <p>004800 = Combination Automated Address Verification (AAV) and Authorization</p> <p>034000 = AMEX Emergency Check Cashing</p> <p>064000 = AMEX Travelers Cheque Encashment</p> <p>174800 = Transaction for Automated Address Verification (AAV) Only</p> <p>Note: This field is mandatory for processing this message, and it will be preserved and returned in the response message without alteration.</p>

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

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:	<p>This field contains the total transaction amount (including tax), in the currency designated by the CURRENCY CODE, TRANSACTION field (Data Field 49).</p> <p>For example, for US Dollar (840) transactions, two decimal places are implied. Thus, the value \$100.00 would be entered as:</p> <p>“000000010000”</p> <p>For Japanese Yen (392) transactions, zero decimal places are implied. Thus, the value ¥10,000 would be entered as:</p> <p>“000000010000”</p> <p>American Express limits the maximum value that can be approved in this field, and transaction amounts greater than the following will result in an “invalid amount” edit error:</p> <ul style="list-style-type: none"> <li>• <i>US Dollar Transactions</i> (Field 49 <i>must</i> be “840”), submitted for US Cardmembers, by Merchants located in the USA* (Field 19 <i>must</i> be “840”) — The maximum value is “000999999999” (\$9,999,999.99 USD).</li> <li>• <i>Australian Dollar Transactions</i> (Field 49 <i>must</i> be “036”), submitted for Australian Cardmembers, by Merchants located in Australia (Field 19 <i>must</i> be “036”) — The maximum value is “000999999999” (\$9,999,999.99 AUD).</li> </ul> <p>In addition, the US Dollar equivalent of this entry must not exceed \$9,999,999.99 USD.</p> <ul style="list-style-type: none"> <li>• <i>Other Global Transactions</i> (Field 49 = Approved currency codes from list beginning on page 295) — The US Dollar equivalent of this entry must not exceed \$99,999.99 USD.</li> </ul>

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\* Including the following US Territories: American Samoa, Federated States of Micronesia, Guam, Marshall Islands, Northern Mariana Islands and Palau.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 4

#### AMOUNT, TRANSACTION (Continued)

##### *American Express Travelers Cheque Encashment*

For American Express Travelers Cheques, this field is used to capture the total amount of Travelers Cheques that will be encashed by a single customer, in the currency designated by the CURRENCY CODE, TRANSACTION field (Data Field 49). PROCESSING CODE (Data Field 3) must be “064000”.

For example, if a customer presents five, \$100 USD Travelers Cheques for encashment, this entry would be “000000050000” (\$500.00).

##### Notes:

1. If Field 3, Processing Code, is “174800” (Transaction for Automated Address Verification [AAV] Only), then this field must be zero filled.
2. A *Prepaid Card Balance Inquiry* for American Express Prepaid Card products can be submitted by zero-filling Field 4 (Amount, Transaction), if Field 24 (Function Code) value is “181” (Partial Authorization) or “182” (Authorization with Balance Return). The available balance is returned in response message Field 54 (Amounts, Additional). However, balance inquiries cannot be processed for Card products other than American Express Prepaid Cards; and for these invalid requests, Field 54 is *not* returned and Field 39 (Action Code) will contain code “110” (Invalid Amount).
3. This field is mandatory for processing this message, and it will be preserved and returned in the response message without alteration.

**3.4.1 ISO 8583 Authorization Request (1100) (Continued)****Data Field 7 DATE AND TIME, TRANSMISSION**

---

Length of Field: 10 bytes, fixed length

Field Type: Numeric, MMDDhhmmss

Constant: None

Field Requirement: Optional

Description: This field contains the system date and time (e.g., GMT) when the Merchant transmits the transaction information to American Express. The format is MMDDhhmmss. The value of this field must be a valid date and time.

Subfield	Definition	Digits	Range
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 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 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 field must contain a unique trace number, assigned by the Merchant, to help identify an individual transaction. A different number must be assigned to each transaction.

American Express returns this number without alteration in the SYSTEMS TRACE AUDIT NUMBER field of the Authorization Response (1110) message.



**3.4.1 ISO 8583 Authorization Request (1100) (Continued)****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 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 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 field is mandatory for processing this message, and it will be preserved and returned in the response message without alteration.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 13                      DATE, EFFECTIVE

---

Length of Field:                      4 bytes, fixed length

Field Type:                              Numeric, YYMM

Constant:                                None

Field Requirement:                      

- Conditional — American Express Card transactions
- Not applicable — Other transactions

Description:                              This field contains the effective date embossed on the face of the American Express or American Express-supported Card. If entered manually, the format is YYMM.

The value of this field must be a valid date. If the effective date is unavailable, omit this field. No default values or all zeros will be accepted (e.g., “0000”).

Subfield	Definition	Digits	Range
YY	Year	Last 2 only	00-99
MM	Month	2	01-12

Notes:

1. Most American Express Card products are embossed with the *effective* and/or *expiration dates* in format MMY. This requires the acquirer, their devices, systems, Software Vendors and Third Party Processors that prompt for or accept these dates in MMY format, to convert this data by reversing the month and year values, so that the entry in this field appears in YYMM format.
2. This field is not required if the message contains Track 1 (preferred), Track 2 or ICC data successfully read from a valid Card swipe or read.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 14 DATE, EXPIRATION

Length of Field: 4 bytes, fixed length

Field Type: Numeric, YYMM

Constant: None

Field Requirement:

- Conditional — American Express and American Express-supported Cards
- Mandatory — VISA

Description: This field contains the expiration date embossed on the face of the American Express or American Express-supported Card. If entered manually, the format is YYMM.

The value of this field must be a valid date. No default values or all zeros will be accepted (e.g., “0000”).

Subfield	Definition	Digits	Range
YY	Year	Last 2 only	00-99
MM	Month	2	01-12

#### ***VISA Transactions only:***

This field is mandatory for Merchants routing VISA transactions via the American Express Card Acceptance and Processing Network to non-American Express networks, during bankcard network outages. While American Express does not verify or validate this entry, VISA may reject transactions that do not include a valid card expiration date. For more information, please contact your VISA representative.

See Notes on next page.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

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Data Field 14	DATE, EXPIRATION (Continued)
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## Notes:

1. Most American Express Card products are embossed with the *effective* and/or *expiration dates* in format MMY. This requires the acquirer, their devices, systems, Software Vendors and Third Party Processors that prompt for or accept these dates in MMY format, to convert this data by reversing the month and year values, so that the entry in this field appears in YYMM format.
2. This field is not required if the message contains Track 1 (preferred), Track 2 or ICC data successfully read from a valid Card swipe or read; or if this is a recurring billing or standing authorization transaction.

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Data Field 15	DATE, SETTLEMENT
---------------	------------------

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Length of Field:	6 bytes, fixed length
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Field Type:	Numeric, YYMMDD
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Constant:	None
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Field Requirement:	Not used — All transactions
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Description:	This field is unused and reserved for future use.
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Data must not be transmitted to American Express in this field.  
Unauthorized use of this field may cause message rejection.

**3.4.1 ISO 8583 Authorization Request (1100) (Continued)**

<b>Data Field 19</b>	<b>COUNTRY CODE, ACQUIRING INSTITUTION</b>
Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	None
Field Requirement:	Mandatory
Description:	<p>This field contains the numeric country code corresponding to the country in which the Merchant is located.</p> <p>For example, the numeric country code for a Merchant located in the USA is “840”.</p> <p>For more information on numeric country codes, see <i>Country Codes</i> on page 283.</p>

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### 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:** The Point of Service (POS) Data Code is a series of codes that identify terminal capability, security data, and specific conditions present at the time a Transaction occurred at the point of service. The POS Data Code consists of twelve positions, and each position has its own list of values. For example, Position 1 indicates the Card Data Input Capability, which may be one (1) of several values such as Magnetic stripe read, Integrated Circuit Card (ICC), Key entered, and so on. Similarly, each of the other positions identifies a particular value related to the transaction.

Merchants must populate all positions in Data Field 22 with valid data. However, if the applicable information is unavailable or unknown, the Merchant should consult with their American Express representative to determine the appropriate value.

The POS Data Code must be determined from the table of values listed on the next page.

```

0           1
123456789012
261101200120

```

In the above example:

Position 1 = 2	Position 5 = 0	Position 9 = 0
Position 2 = 6	Position 6 = 1	Position 10 = 1
Position 3 = 1	Position 7 = 2	Position 11 = 2
Position 4 = 1	Position 8 = 0	Position 12 = 0

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 22 POINT OF SERVICE DATA CODE (Continued)

Notes:

1. Data fields shown in **reversed text** (white letters on a black background) are defined by ISO, but are either reserved for future use or not currently defined by American Express. For information on these fields, please contact your American Express representative.
2. The POS Data Codes used in this field must also be included in the corresponding settlement file.

Pos. 1 Code	Card Data Input Capability — This subfield indicates the maximum capability of the device used to originate this transaction.
0	Unknown
1	Manual, no terminal
2	Magnetic stripe read
3	Bar code
4	Optical Character Recognition (OCR)
5	Integrated Circuit Card (ICC)
6	Key entered
7	Reserved for ISO use
8	Reserved for national use
9	Reserved for private use
A-I	Reserved for ISO use
J-R	Reserved for national use
S-W	Reserved for private use
X	Magnetic stripe signature
Y-Z	Reserved for private use

Pos. 2 Code	Cardholder Authentication Capability — This subfield indicates the primary means used to verify the Cardmember's identity at this terminal.
0	No electronic authentication or unknown
1	PIN
2	Electronic signature analysis
3	Biometrics
4	Biographic
5	Electronic authentication inoperative
6	Other
7	Reserved for ISO use
8	Reserved for national use
9	Reserved for private use
A-I	Reserved for ISO use
J-R	Reserved for national use
S	Reserved for private use
T-Z	Reserved for private use

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 22 POINT OF SERVICE DATA CODE (Continued)

Notes:

1. Data fields shown in **reversed text** (white letters on a black background) are defined by ISO, but are either reserved for future use or not currently defined by American Express. For information on these fields, please contact your American Express representative.
2. The POS Data Codes used in this field must also be included in the corresponding settlement file.

Pos. 3 Code	Card Capture Capability — This subfield indicates if the terminal is capable of capturing card data.
0	None or unknown (Card Capture Capability unknown to acquirer)
1	Capture
2-4	Reserved for ISO use
5-7	Reserved for national use
8-9	Reserved for private use
A-I	Reserved for ISO use
J-R	Reserved for national use
S-Z	Reserved for private use

Pos. 4 Code	Operating Environment — This subfield indicates the terminal's location, and if it is attended by the card acceptor.
0	No terminal used or unknown
1	On premises of card acceptor, attended
2	On premises of card acceptor, unattended (e.g., Oil CAT/Customer Activated Terminals, kiosks, self-check out, etc.)
3	Off premises of card acceptor, attended
4	Off premises of card acceptor, unattended
5	On premises of Cardmember, unattended
6-7	Reserved for ISO use
8	Reserved for national use
9	Delivery mode unknown, unspecified
A-I	Reserved for ISO use
J-R	Reserved for national use
S	Electronic delivery of product
T	Physical delivery of product
U-W	Reserved for American Express network use
X-Z	Reserved for private use



### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 22 POINT OF SERVICE DATA CODE (Continued)

Notes:

1. Data fields shown in **reversed text** (white letters on a black background) are defined by ISO, but are either reserved for future use or not currently defined by American Express. For information on these fields, please contact your American Express representative.
2. The POS Data Codes used in this field must also be included in the corresponding settlement file.

Pos. 5 Code	Cardholder Present — This subfield indicates if the Cardmember is present at the point of service; and if not, the reason why.
0	Cardmember present
1	Cardmember not present, unspecified, unknown
2	Cardmember not present, mail order
3	Cardmember not present, telephone
4	Cardmember not present, standing authorization — To be used for situations where Cardmember billing information is on record (card on file); however, the billing frequency and amount are variable (e.g., travel, car rental, lodging, "preferred clubs", "frequent customer", etc.)
5	Reserved for ISO use
6	Reserved for ISO use
7-8	Reserved for national use
9	Cardmember not present, recurrent billing — Used for regular recurring transactions, such as a periodic billings (e.g., membership dues, subscribed services, insurance premiums, wireless services, newspaper and other regularly scheduled charges). The recurring billing amount can vary.
A-I	Reserved for ISO use
J-R	Reserved for national use
S	Cardmember not present, electronic transaction (e.g., Internet)
T	Reserved for American Express network use
U-Z	Reserved for private use

Pos. 6 Code	Card Present — This subfield indicates if the card is present at the point of service
0	Card not present
1	Card present
2-4	Reserved for ISO use
5-7	Reserved for national use
8-9	Reserved for private use
A-I	Reserved for ISO use
J-R	Reserved for national use
S	Reserved for private use
T	Reserved for private use
U	Reserved for private use
V	Reserved for private use
W	Transponder (RFID token) — For transactions initiated by an electronic, radio-frequency device (transponder or RFID, e.g., Speedpass), Field 22 Position 6 Code W may be used alone, or in conjunction with Field 62 transponder security/ID (code AXTN). Alternately, a transponder security/ID code may be entered in Field 62 without code W in Field 22 Position 6. Ideally, both items are transmitted. For more details, see page 109. Note: Do not use this value for American Express Expresspay transactions. For more information, see page 22.
X	Contactless transactions, including American Express Expresspay. For more information, see page 22.
Y-Z	Reserved for private use

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 22 POINT OF SERVICE DATA CODE (Continued)

Notes:

1. Data fields shown in **reversed text** (white letters on a black background) are defined by ISO, but are either reserved for future use or not currently defined by American Express. For information on these fields, please contact your American Express representative.
2. The POS Data Codes used in this field must also be included in the corresponding settlement file.

Pos. 7 Code	Card Data Input Mode — This subfield indicates the method used to capture information from the card.
0	Unspecified, unknown, track data present but incomplete or truncated
1	Manual, no terminal
2	Magnetic stripe read. (Note: Byte 7 = 2 only if this transaction contains Track 1 [preferred] and/or Track 2 data captured intact from the magnetic stripe.)
3	Bar code
4	Optical Character Recognition (OCR)
5	Integrated Circuit Card (ICC). (Note: Byte 7 = 5 only if this transaction contains EMV and Track 2 data captured intact from the chip.)
6	Key entered
7	Reserved for ISO use
8	Reserved for national use
9	Technical fallback - Transaction initiated as chip but was processed using an alternative technology (such as magnetic stripe).
A-I	Reserved for ISO use
J-R	Reserved for national use
S	Manually entered or keyed transaction with keyed CID/4DBC/4CSC. Data Field 53 (Security Related Control Information) must be present. For more information, see page 102.
T	Reserved for private use
U	Reserved for private use
V	Reserved for American Express network use
W	Swiped transaction with keyed CID/4DBC/4CSC. Data Field 53 (Security Related Control Information) must be present. For more information, see page 102.
X	Magnetic stripe signature.
Y	Magnetic stripe signature with keyed CID/4DBC/4CSC. Data Fields 53 (Security Related Control Information) and 62 (Private Use Data/Magnetic Stripe Signature) must be present. For more information, see pages 102 and 109, respectively.
Z	Reserved for private use

Note: See CID/4DBC/4CSC location on typical American Express Card products on page 18.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 22 POINT OF SERVICE DATA CODE (Continued)

Notes:

1. Data fields shown in **reversed text** (white letters on a black background) are defined by ISO, but are either reserved for future use or not currently defined by American Express. For information on these fields, please contact your American Express representative.
2. The POS Data Codes used in this field must also be included in the corresponding settlement file.

Pos. 8 Code	Cardmember Authentication Method — This subfield indicates the method for verifying the Cardmember identity.
0	Not authenticated, unknown.
1	PIN
2	Electronic signature analysis
3	Biometrics
4	Biographic
5	Manual signature verification
6	Other manual verification (e.g., drivers license)
7	Reserved for ISO use
8	Reserved for national use
9	Reserved for private use
A-I	Reserved for ISO use
J-R	Reserved for national use
S	Electronic Ticket Environment
T	Reserved for private use
U	Reserved for private use
V-Z	Reserved for private use

Pos. 9 Code	Cardmember Authentication Entity — Indicates component or person who verified Cardmember identity reported in Cardmember Authentication (Position 8).
0	Not authenticated, unknown
1	Integrated Circuit Card (ICC)
2	Card Acceptor Device (CAD)
3	Authorizing agent (identified in authorizing agent institution identification code)
4	By merchant
5	Other
6	Reserved for ISO use
7	Reserved for national use
8-9	Reserved for private use
A-I	Reserved for ISO use
J-R	Reserved for national use
S-Z	Reserved for private use

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 22 POINT OF SERVICE DATA CODE (Continued)

Notes:

1. Data fields shown in **reversed text** (white letters on a black background) are defined by ISO, but are either reserved for future use or not currently defined by American Express. For information on these fields, please contact your American Express representative.
2. The POS Data Codes used in this field must also be included in the corresponding settlement file.

Pos. 10 Code	Card Data Output Capability — This subfield indicates the ability of the terminal to update the card.
0	Unknown
1	None
2	Magnetic stripe write
3	Integrated Circuit Card (ICC)
4-5	Reserved for ISO use
6-7	Reserved for national use
8-9	Reserved for private use
A-I	Reserved for ISO use
J-R	Reserved for national use
S-Z	Reserved for private use

Pos. 11 Code	Terminal Output Capability — This subfield indicates the ability of the terminal to print and/or display messages
0	Unknown
1	None
2	Printing
3	Display
4	Printing and display
5-6	Reserved for ISO use
7-8	Reserved for national use
9	Reserved for private use
A-I	Reserved for ISO use
J-R	Reserved for national use
S-Z	Reserved for private use

Pos. 12 Code	PIN Capture Capability — This subfield indicates the PIN length that the terminal is capable of capturing.
0	No PIN capture capability
1	Device PIN capture capability unknown
2-3	Reserved for ISO use
4	Four characters
5	Five characters
6	Six characters
7	Seven characters
8	Eight characters
9	Nine characters
A	Ten characters
B	Eleven characters
C	Twelve characters
D-I	Reserved for ISO use
J-R	Reserved for national use
S-Z	Reserved for private use

**3.4.1 ISO 8583 Authorization Request (1100) (Continued)**

<b>Data Field 24</b>	<b>FUNCTION CODE</b>
Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	None
Field Requirement:	<ul style="list-style-type: none"> <li>• Optional — Batch Authorization transactions</li> <li>• Mandatory — Specific Merchants identified for Prepaid Card functionality. All identified Merchants are informed by their American Express representative.</li> <li>• Optional — All other Merchants for Prepaid Card functionality, but strongly recommended.</li> <li>• Optional — Deferred Payment Plan, Extended Payment Plan and Plan N</li> </ul>
Certification Requirement:	<p>USA &amp; Canada</p> <ul style="list-style-type: none"> <li>• Mandatory — Third Party Processors must be certified to pass Prepaid Card data (Function Codes 181 and 182) in this field. After certification, all Merchant-provided Prepaid Card data must be forwarded in this field.</li> <li>• Mandatory — Vendor software must be certified to pass Prepaid Card data (Function Codes 181 and 182) for Merchants that require this functionality. After certification, all Merchant-provided Prepaid Card data must be forwarded in this field.</li> </ul>
Description:	<p>This field contains a value that indicates the specific purpose of this message, within its message class.</p> <p>Valid entries include:</p> <p>100 = Authorization Request — This transaction can be used for normal Authorization Requests, including those used for processing a Payment Plan Authorization such as DPP, EPP or Plan N. Use of code “100” is optional.</p> <p>108 = Authorization Inquiry Request — This transaction can be used for processing Payment Plan Inquiries for Issuer DPP pre-Authorization Requests.</p>

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 24

#### FUNCTION CODE (Continued)

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180 = Batch Authorization — This transaction is part of a batch of non-time-critical authorization requests, which do not require the rapid response normally provided for real-time transactions. Use of code “180” for batch processing allows American Express to assign an appropriate priority in relation to transactions submitted from real-time POS environments. Typically, a Merchant utilizing Batch Authorization would *not* also participate in the special, Prepaid Card Partial Authorization services, described below. A Merchant using Batch Authorization can accept American Express Prepaid Cards as *normal* authorizations.

The following codes enhance acceptance, functionality and usage of American Express Prepaid Card products at the POS. For these special Prepaid Card services, authorized Third Party Processors and Vendor software are required to support both Prepaid Card functions, specifically *Partial Authorization* and *Authorization with Balance Return*. This enables their Merchants to select either option. Direct Link Merchants have the choice of selecting the feature(s) they want to support. American Express strongly recommends *Partial Authorization*, because it approves a request for the remaining balance rather than declining it when there are insufficient funds to cover the original amount.

181 = Prepaid Card Partial Authorization Supported — Indicates that the Merchant’s system accepts and processes Prepaid Card response messages for *partial authorization* of transaction amounts less than the full value originally submitted for authorization. Please note that the Merchant must collect the remainder from the Cardmember via another form of payment.

Merchants certified for Prepaid Card Partial Authorization should use code “181” for *all transactions*, and American Express systems will determine which Card products require a partial authorization response. Specifically, non-Prepaid Card products are ineligible for Partial Authorization; and using code “181” will not affect *normal* authorization requests.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 24 FUNCTION CODE (Continued)

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181 = (Continued)

When applicable, *Partial Authorization*-related data is returned in the Authorization Response (1110) message Data Fields, below:

- Data Field 4 — Amount, Transaction
- Data Field 30 — Amounts, Original
- Data Field 39 — Action Code
- Data Field 54 — Amounts, Additional

These data fields represent the amount authorized, the amount requested, the action taken and the balance remaining on the Prepaid Card. For details, see pages 137, 140, 144 and 151, respectively.

182 = Prepaid Card Authorization with Balance Return Supported — Indicates that the Merchant's system and/or POS device accepts and processes Prepaid Card balances in response messages. This alternative for systems that do not support *partial authorizations* returns the Prepaid Card balance to the Merchant so that an authorization request can be resubmitted for the *available amount* when transactions are denied for insufficient balance. Another form of payment (i.e., split tender) can be requested for the *remainder*.

Merchants certified for Prepaid Card Authorization with Balance Return should use code "182" for all transactions, and American Express systems will determine which Card products require a response related to Authorization with Balance Return. Specifically, non-prepaid Card products are ineligible for Authorization with Balance Return; and using code "182" will not affect normal authorization requests. Using code "182" indicates that the Merchant is requesting an authorization for the full amount, and that their system supports the return of Prepaid Card balance information from American Express.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 24 FUNCTION CODE (Continued)

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182 = (Continued)

When applicable, *Authorization with Balance Return*-related data is returned in the Authorization Response (1110) message Data Fields, below:

- Data Field 39 — Action Code
- Data Field 54 — Amounts, Additional

These data fields represent the action taken and the balance remaining on the Prepaid Card. For details, see pages 144 and 151, respectively.

Note: A *Prepaid Card Balance Inquiry* for American Express Prepaid Card products can be submitted by zero-filling Field 4 (Amount, Transaction), if Field 24 (Function Code) value is “181” (Partial Authorization) or “182” (Authorization with Balance Return). The available balance is returned in response message Field 54 (Amounts, Additional). However, balance inquiries cannot be processed for Card products other than American Express Prepaid Cards; and for these invalid requests, Field 54 is *not* returned and Field 39 (Action Code) will contain code “110” (Invalid Amount).



### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

Data Field 25	MESSAGE REASON CODE
Length of Field:	4 bytes, fixed length
Field Type:	Numeric
Constant:	None
Field Requirement:	<ul style="list-style-type: none"><li>• Mandatory — American Express Card (and American Express-supported Card) transactions</li><li>• Optional — VISA, MasterCard and JCB transactions</li><li>• Optional — American Express Travelers Cheques</li></ul>
Description:	<p>This field contains a four-digit <i>Message Reason Code</i>, 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 field indicates that the Authorization Request is certified by American Express.</p> <p>For information on valid codes and their use, please contact your American Express representative.</p>

**3.4.1 ISO 8583 Authorization Request (1100) (Continued)****Data Field 26****CARD ACCEPTOR BUSINESS CODE**

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Length of Field: 4 bytes, fixed length

Field Type: Numeric

Constant: None

Field Requirement: Mandatory

Description: This field contains the Merchant Category (MCC) Code that corresponds to the Merchant's type of business.

If the Merchant is considered an Aggregator (Third Party Biller), billing for services/goods rendered by another entity, the MCC code should reflect the classification for the specific entity rendering the goods or services. Therefore, this value may vary for each transaction dependent on the category applicable to the Aggregator's specific Sellers.

For a list of codes, see Merchant Category (MCC) Codes on page 276.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

<b>Data Field 27</b>	<b>APPROVAL CODE LENGTH</b>
Length of Field:	1 byte, fixed length
Field Type:	Numeric
Constant:	6 or 2
Field Requirement:	Optional
Description:	<p>The American Express preferred standard Approval Code for the 1110 Auth Response is a six-digit approval code. US and Canadian Merchants must comply with this standard. However, for all other global regions, American Express has the ability to provide either a two-digit or a six-digit approval code.</p> <p>When applicable, American Express representatives must be informed during the initial setup of the Merchant interface, that Data Field 27 will be used to determine the Approval Code length in the 1110 Auth Response. American Express will then set up procedures to check the value in Data Field 27 and provide the appropriate Approval Code length in the 1110 Auth Response. When the valid values of either “2” or “6” are present in this field, American Express will honor the request to send an Approval Code of the appropriate length.</p> <p>If the Merchant or TPP then submits the field with no value, American Express will follow additional rules to determine the proper length of the Approval Code. This procedure allows the Approval Code length to vary, which may suit the Merchant’s specific business rules.</p> <p>If the Merchant or TPP prefers not to use Data Field 27, American Express will still set up the link to return either a two-digit or six-digit Approval Code.</p>

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### 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: Not used — Merchant systems

Note: During message routing, this field (which is *unused* by Merchants and/or Third Party Processors) is added and populated by the American Express Global Network.

Description: This field contains the 15-digit, numeric, *Transaction Identifier (TID)*, a unique, American Express-assigned tracking number. The TID is used to identify and track a Cardmember transaction throughout its life cycle.

An example of a typical TID entry appears below:

```

0           1
12345678901234567
15123456789012345

```

- “15” is the two-byte, Variable Length Indicator (VLI).
- “123456789012345” is the 15-byte, numeric TID.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

Data Field 32	ACQUIRING INSTITUTION IDENTIFICATION CODE
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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 field contains the identification code of the party processing the request, preceded by a two-digit, Variable Length Indicator (VLI).

For example, the 11-digit acquiring institution identification code “45678912345” would appear as:

0	1
1234567890123	
<b>1145678912345</b>	

Note: If included in an originating request message, this field will be preserved and returned in the response message without alteration.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

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Data Field 33	FORWARDING INSTITUTION IDENTIFICATION CODE
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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 field contains the forwarding institution's identification code, preceded by a two-digit Variable Length Indicator (VLI).

For example, the 11-digit, forwarding institution identification code "45678912345" would appear as:

0	1
1234567890123	

**1145678912345**

Note: In certain unique implementations, this field may be redefined. For example, in the US, for non-American Express (i.e., bankcard) requests, this field may contain the ID number assigned to the POS network by the non-American Express service association (i.e., the ID number assigned by the network provider processing transactions on the acquiring bank's behalf).

If you wish to populate this field with data outside the basic definition of "the forwarding institution's identification code", please contact your American Express representative for assistance in determining the appropriate value to use.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 35

#### TRACK 2 DATA

Length of Field:	3 bytes minimum, 39 bytes maximum, (LLVAR)
Variable Length Indicator:	2 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	37 bytes maximum, EBCDIC
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Conditional
Certification Requirement:	During certification, <i>Merchants</i> must demonstrate the ability to populate and transmit Track 1, Track 2 and/or Integrated Circuit Card (ICC) Data (Fields 45, 35 and 55, respectively) for Card Present transactions when track or ICC data is successfully read from a valid Card swipe, EMV card read or Contactless card read.

Similarly, *authorized Third Party Processors* and *Software Vendors* must demonstrate the ability to populate and transmit Track 1, Track 2 and/or ICC Data (Fields 45, 35 and 55, respectively) for Card Present transactions when track or ICC data is successfully read from a valid Card swipe, EMV card read or a Contactless card read. After certification, *Merchants*, *Third Party Processors* and *Software Vendors* must forward all Point of Sale-provided track and/or ICC data in the appropriate field(s).

Description:	<p>This field contains the information encoded in a valid Track 2 magnetic stripe, an Integrated Circuit Card (ICC) or a Contactless card, preceded by a two-digit Variable Length Indicator (VLI). Actual Track 2 data is composed of the EBCDIC digits 0-9 and a field separator value.</p> <p>If POS Data Code, Position 7 = “2”, “5”, or “W”, then the full Track Data must be present. If Position 7 = “9”, then the full Track Data may or may not be present. Field 45 must be present if Field 35 is not present.</p> <p>If Field 45 (Track 1) is not present, Field 35 (Track 2) must be populated with either the information encoded in a Track 2 magnetic stripe read, or the Track 2 data stored on the chip of a Chip Card.</p>
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### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 35

#### TRACK 2 DATA (Continued)

Note: Track 1 and Track 2 data formats may vary slightly between various American Express products. The field definitions referenced in Sections 5.1 and 5.2 are for reference only and may not reflect all variations that may be encountered. For this reason, when Track 1 or Track 2 data is supplied intact, the acquirer, their devices, systems, Software Vendors and authorized Third Party Processors should capture all characters between the start and end sentinels, strip off the sentinels and LRC, and forward the remainder to American Express in the appropriate ISO 8583 Track 1 or Track 2 field, without regard to the specific lengths referenced in Sections 5.1 and 5.2.

For more information, see *American Express Magnetic Stripe Formats* beginning on page 242 and *Expresspay Pseudo-Magnetic Stripe Formats* on pages 272-273.

#### *ANSI X4.16 Format*

In the example below, the two-digit VLI is “29” and the digits that follow are the 29 bytes of Track 2 data in ANSI X4.16 format. The character “=” is used to depict the field separator. The total length of this example is 31 bytes.

```

0           1           2           3
1234567890123456789012345678901
29371449635311004=1211081112345

```

#### *ISO 7813 Format*

In the example below, the two-digit VLI is “37” and the digits that follow are the 37 bytes of Track 2 data in ISO 7813 format. The character “=” is used to depict the field separator. The total length of this example is 39 bytes.

```

0           1           2           3
123456789012345678901234567890123456789
37371449635311004=021110108111234567800

```

#### *Expresspay Pseudo-Magnetic Stripe Format*

In the example below, the two-digit VLI is “37” and the digits that follow are the 37 bytes of Track 2 data shown in Expresspay Pseudo-Magnetic Stripe Format. The character “=” is used to depict the field separator. The total length of this example is 39 bytes.

```

0           1           2           3
123456789012345678901234567890123456789
37371449635311004=111270212342474300200

```



**3.4.1 ISO 8583 Authorization Request (1100) (Continued)**

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**Data Field 35 TRACK 2 DATA (Continued)**

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## Notes:

1. If Tracks 1 and 2 are both captured, both should be forwarded. If only one track is captured, Track 1 is preferred (see page 82). For systems that capture only Track 2, this less desirable alternative may be supplied in lieu of Track 1.
2. American Express security requirements prohibit the storage of track data within Merchant or processor systems.

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**Data Field 37 RETRIEVAL REFERENCE NUMBER**

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Length of Field: 12 bytes, fixed length

Field Type: Alphanumeric & special characters

Constant: None

Field Requirement: Optional

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

Note: This 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.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

Data Field 41	CARD ACCEPTOR TERMINAL IDENTIFICATION
Length of Field:	8 bytes, fixed length
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	<ul style="list-style-type: none"><li>• Mandatory — American Express transactions in EMEA, LA/C &amp; APA</li></ul> <p>Note: Merchants in EMEA &amp; LA/C that are unable to provide a unique value for each terminal, can provide a central location Terminal ID</p> <ul style="list-style-type: none"><li>• Optional — American Express and other non-VISA transactions</li><li>• Mandatory — VISA PS2000</li></ul>
Description:	<p>This field contains a unique code that identifies a specific terminal at a Merchant location. It is used when the CARD ACCEPTOR IDENTIFICATION CODE (Data Field 42) does not uniquely identify the physical location of this transaction.</p> <p>Use of this field is <i>optional</i> (but strongly recommended) for American Express transactions, and mandatory for VISA PS2000 and other bankcards.</p> <p>Note: This field may or may not be mandatory for processing this message; however, if included in an originating request message, it will be preserved and returned in the response message without alteration.</p>

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

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:	<p>This field identifies the Merchant in a POS transaction and is required for ALL requests. The Merchant ID assigned to the POS location shall be one of the following, and must be left justified and character space filled:</p> <ul style="list-style-type: none"> <li>• 10-digit American Express SE Number.</li> <li>• Two-character alphanumeric Airline Code.</li> <li>• 4-8 digit store number.</li> <li>• IATA * Travel Agent ID (T + 5-8 digits).</li> </ul> <p>If the American Express SE Number is used in this field, check digit validation is required. For details, see page 235.</p> <p><b><i>Airline Code</i></b></p> <p>If a two-character alphanumeric Airline Code is used in this field, additional information may be included using the following format:</p> <p><b>XX~T12345678</b></p> <p>See Airline Code instructions on next page.</p>

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\* IATA = International Air Transport Association.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 42

#### CARD ACCEPTOR IDENTIFICATION CODE (Cont.)

In the example on the previous page, “XX” is the two-character alphanumeric Airline Code, “~” is a character space, the alpha character “T” is a constant that indicates that the value that follows is a travel agent number, and “12345678” is a 7-8 digit *IATA Travel Agent ID*, where the eight digits have the following significance:

- 12 = Two-digit State or Country Code
- 34567 = Five-digit Core Number
- 8 = Check Digit (optional). If unused, pad with a character space.

Notes:

1. For American Express transactions, use of formats other than the 10-digit American Express SE Number requires additional certification.
2. This field is mandatory for processing this message, and it will be preserved and returned in the response message without alteration.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

<b>Data Field 43</b>	<b>CARD ACCEPTOR NAME/LOCATION</b>
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:	USA, Canada, EMEA & LA/C <ul style="list-style-type: none"> <li>• Mandatory — Oil Company Industry, including Card Acceptor Terminal (CAT) transactions where a single Service Establishment Number is not used for each physical location</li> <li>• Mandatory — Aggregators (Third Party Billers)</li> <li>• Mandatory — VISA PS2000</li> <li>• Optional — All other transactions</li> </ul>
Certification Requirement:	Mandatory — Third Party Processors must be certified to pass data in this field. After certification, all Merchant-provided data must be forwarded in this field.  USA, Canada, EMEA & LA/C <ul style="list-style-type: none"> <li>• Mandatory — Vendor software must be certified to pass data for Merchants that require this functionality. After certification, all Merchant-provided data must be forwarded in this field.</li> </ul> Note: While this field is optional for many transactions, American Express strongly recommends that all Merchants populate this field in every authorization request.
Description:	This field contains the card acceptor name and location, which consists of six data elements with up to 99 characters total, preceded by a two-digit, Variable Length Indicator. The first three elements (subfield 1) are variable length and are separated from each other and the remaining elements by a back slash (\). The last three elements (subfields 2, 3 and 4) are fixed format.  See Subfield Table on next page.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

Data Field 43	CARD ACCEPTOR NAME/LOCATION (Continued)

	Oil Co. CAT	VISA PS2000	Aggregator	Other Trans.	Field Length	Field Type	Description
LL	M	M	M	M	2 bytes	Numeric	Variable Length Indicator
Subfield 1	M <sup>1</sup>	N/A <sup>2</sup>	M <sup>3</sup>	O	83 bytes max.	Alphanumeric & special characters	Name \ Street \ City \ (Oil Co. CAT and Aggregators must replace Name with unique identifier)
Subfield 2	M	M	M	O	10 bytes	Alphanumeric & special characters, left justified, space filled if not used	Postal Code
Subfield 3	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>	3 bytes	Alphanumeric & special characters	Region
Subfield 4	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>	3 bytes	Alphanumeric	Country Code

M = Mandatory    O = Optional    N/A = Subfield is unused

Notes:

1. For Oil Company Industry CAT transactions, Subfield 1 must contain a unique, Merchant-assigned, *station location code* in format “S#nnnnnnnnnnn\\”.

While the example above shows an 11-byte *station location code*, the actual value may vary in length within the 83-byte maximum allowed.

2. For VISA PS2000, Subfield 1 is omitted, indicated by three back slashes (\\), one per element (Name, Street and City).
3. For Aggregators (Third Party Billers), Subfield 1 must contain a unique, Merchant-assigned, 20-byte (max.), alphanumeric, *seller/vendor code* as the *Name* portion of “NAME\STREET\CITY”. *Street* and *City* are still required.

Format for *seller/vendor code* is:

"S#nnnnnnnnnnnnnnnnnnnnnnnnnn".

Example of typical entry:

S#12223ID\1234~ABC~STREET\PHOENIX\

Where a tilde ( $\sim$ ) represents a character space.

4. For all transactions, Subfields 3 and 4 are omitted, indicated by two back slashes (\\), one per subfield.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 43 CARD ACCEPTOR NAME/LOCATION (Continued)

*Typical example for most Merchants (except Oil Company and Aggregator)*

1	2	3	4	5	6
123456789012345678901234567890123456789012345678901234567890					
15\\85054~~~~\\					

*Typical example for entry of Oil Company Industry “Station Location Code”*

1	2	3	4	5	6
123456789012345678901234567890123456789012345678901234567890					
28S#12345678901\\85054~~~~\\					

*Typical example for entry of Aggregator (Third Party Biller) “Seller/Vendor Code”*

1	2	3	4	5	6
123456789012345678901234567890123456789012345678901234567890					
46S#12223ID\1234~ABC~STREET\PHOENIX\85054~~~~\\					

Note: In the example above, tilde (~) characters represent character spaces.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

Data Field 45	TRACK 1 DATA
Length of Field:	3 bytes minimum, 78 bytes maximum, (LLVAR)
Variable Length Indicator:	2 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	76 bytes maximum, EBCDIC
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	USA, Canada & LA/C <ul style="list-style-type: none"> <li>• Mandatory — Oil Company Industry Card Acceptor Terminal (CAT) transactions</li> <li>• Conditional — All other transactions with POS Data Code values noted in description</li> </ul>
Certification Requirement:	USA, Canada, LA/C & APA <p>During certification, <i>Merchants</i> must demonstrate the ability to populate and transmit Track 1 or Track 2 data (Fields 45 and 35, respectively) for Card Present transactions when track data is successfully read from a valid Card swipe or a Contactless card read.</p> <p>Similarly, <i>authorized Third Party Processors</i> and <i>Software Vendors</i> must demonstrate the ability to populate and transmit Track 1 or Track 2 data (Fields 45 and 35, respectively) for Card Present transactions when track data is successfully read from a valid Card swipe or a Contactless card read. After certification, <i>Merchants</i>, <i>Third Party Processors</i> and <i>Software Vendors</i> must forward all Point of Sale-provided track data in the appropriate field(s).</p>
Description:	<p>This field contains the information encoded in a valid Track 1 magnetic stripe or a Contactless card, preceded by a two-digit, Variable Length Indicator (VLI). The actual Track 1 data is composed of EBCDIC alphanumeric and special characters, and a field separator value.</p> <p>If POS Data Code, Position 7 = “2” or “W”, then the full Track Data must be present. Field 35 must be present if Field 45 is not present.</p> <p>If Field 35 (Track 2) is not present, Field 45 (Track 1) must be populated with the information encoded in a Track 1 magnetic stripe read, or the pseudo-Track 1 data stored on a Contactless card.</p>



### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 45

#### TRACK 1 DATA (Continued)

##### Description (Continued):

Note: Track 1 and Track 2 formats may vary slightly between various American Express products. The field definitions referenced in Sections 5.1 and 5.2 are for reference only and may not reflect all variations that may be encountered. For this reason, when Track 1 or Track 2 data is supplied intact, the acquirer, their devices, systems, Software Vendors and authorized Third Party Processors should capture all characters between the start and end sentinels, strip off the sentinels and LRC, and forward the remainder to American Express in the appropriate ISO 8583 Track 1 or Track 2 field, without regard to the specific lengths referenced in Sections 5.1 and 5.2.

For more information, see *American Express Magnetic Stripe Formats* beginning on page 242 and *Expresspay Pseudo-Magnetic Stripe Formats* on pages 272-273.

##### *Oil Company CAT Transactions*

This field is required for Oil Company Industry Card Acceptor Terminal (CAT) transactions. (Forwarding Track 1 data, which includes primary account number, effective and expiration dates, and Cardmember name, reduces fraud by allowing comparison of actual card data to the American Express database.)

##### Examples:

See below.

##### *ANSI X4.16 Format*

In the example below, the two-digit VLI is “59” and the digits that follow are the 59 bytes of Track 1 data in ANSI X4.16 format. The character “^” is used to depict the field separator, and tildes (~) represent character spaces. The total length of this example is 61 bytes.

0	1	2	3	4	5	6
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2	3	4	5	6
7	8	9	0	1	2	3
4	5	6	7	8	9	0
1	2	3	4	5	6	7
8	9	0	1	2	3	4
5	6	7	8	9	0	1
2	3	4	5	6	7	8
9	0	1	2	3	4	5
6	7	8	9	0	1	2
3	4	5	6	7	8	9
0	1	2				

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 45

#### TRACK 1 DATA (Continued)

*Expresspay Pseudo-Magnetic Stripe Format*

In the example below, the two-digit VLI is “60” and the digits that follow are the 60 bytes of Track 1 data shown in Expresspay Pseudo-Magnetic Stripe Format. The character “^” is used to depict the field separator. The total length of this example is 62 bytes.

0	1	2	3	4	5	6
12345678901234567890123456789012345678901234567890123456789012						

**60B371449635311004^VALUED/CARDMEMBER~~~~~012^1211702123424743**

Notes:

1. If Tracks 1 and 2 are both captured, both should be forwarded. If only one track is captured, Track 1 is preferred. For systems that capture only Track 2, this less desirable alternative may be supplied in lieu of Track 1 (see page 73).
2. American Express security requirements prohibit the storage of track data within Merchant or processor systems.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

Data Field 47	ADDITIONAL DATA – NATIONAL
Length of Field:	74 bytes minimum, 304 bytes maximum, (LLLVAR)
Variable Length Indicator:	3 bytes, EBCDIC
Length of Variable Data:	301 bytes maximum, EBCDIC
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	<ul style="list-style-type: none"> <li>• Optional — Merchants in mail-, telephone- and Internet-order industries that pass <i>Card Not Present (ITD)</i> data with transactions.</li> <li>• Optional — Merchants in the airline industry that pass <i>Internet Airline Customer (IAC)</i> data or <i>Airline Passenger Data (APD)</i> with transactions.</li> </ul>
Certification Requirement:	<p>USA, Canada, EMEA &amp; LA/C</p> <ul style="list-style-type: none"> <li>• Mandatory — Third Party Processors must be certified to pass <i>Card Not Present (ITD)</i> data in this field. After certification, all Merchant-provided ITD data must be forwarded in this field.</li> <li>• Mandatory — Vendor software must be certified to pass <i>Card Not Present (ITD)</i> data for Merchants that require this functionality. After certification, all Merchant-provided ITD data must be forwarded in this field.</li> <li>• Mandatory — Third Party Processors (TPPs) must be certified to pass <i>Internet Airline Customer (IAC)</i> data in this field. After certification, all Merchant-provided IAC data must be forwarded in this field.</li> <li>• Mandatory — Vendor software must be certified to pass <i>Internet Airline Customer (IAC)</i> data in this field. After certification, all Merchant-provided IAC data must be forwarded in this field.</li> <li>• Mandatory — Third Party Processors (TPPs) must be certified to pass <i>Airline Passenger Data (APD)</i> in this field. After certification, all Merchant-provided APD data must be forwarded in this field.</li> <li>• Mandatory — Vendor software must be certified to pass <i>Airline Passenger Data (APD)</i> data for Merchants that require this functionality. After certification, all Merchant-provided APD data must be forwarded in this field.</li> </ul>

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 47

#### ADDITIONAL DATA – NATIONAL (Continued)

Description:

**This field is used only for transactions where the Cardholder is *not* present.** Inappropriate use of this field (e.g., transactions where the Cardholder *is* present) may cause message rejection. Specifically, Track 1 (Field 45) or Track 2 (Field 35) data *cannot* be present in 1100 Authorization Request messages that contain Data Field 47.

This field is composed of three formats:

- The first is for Merchants that submit *Card Not Present* data specific to mail-, telephone- and Internet-order industries (ITD).

For Merchants using the *Card Not Present Data* format, ITD subfields may contain source data, including the Cardmember's Web and e-mail addresses, host computer name, HTTP browser, product SKU (Stock Keeping Unit) inventory reference number, shipping method and country to which product will be shipped.

- The second format is specific to airline industry Merchants that submit *Internet Airline Customer (IAC)* data.

For these Merchants, IAC subfields may contain additional travel-specific information, including the departure date, passenger name, travel origin and destination, routing cities, airline carriers, fare basis, number of passengers, and customer IP and e-mail addresses.

- The third format is specific to airline industry Merchants that submit *Airline Passenger Data (APD)*.

For these Merchants, APD subfields may contain additional travel-specific information, including the departure date, passenger and Cardmember names, travel origin and destination, routing cities, airline carriers, fare basis, number of passengers, e-ticket indicator and reservation code.

Note: Within the Airline Industry, the IAC format is recommended over the APD format, as it is more comprehensive. The APD format has been retained for Merchants, Processors and Vendors currently sending data in this format.

Merchants that could fall under ITD, IAC *or* APD categories should contact their American Express representative, to determine which format is appropriate for their business.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 47

#### ADDITIONAL DATA – NATIONAL (Continued)

Notes:

1. Only one of the three formats may be used for a given transaction. The ITD format has a minimum length of 74 bytes and a maximum of 265, including VLI. The IAC format has a minimum of 151 bytes and a maximum of 304, including VLI. The APD format has a minimum of 151 bytes and a maximum of 290, including VLI.
2. For all formats, unused fixed-length subfields must be character space or zero filled, as appropriate.
3. Unless otherwise indicated, for all formats, unused variable-length subfields must be a minimum of one byte, composed of a character space or zero, as appropriate. This is in addition to providing the preceding ID and VLI bytes. For example, the three-byte ID would be sent with two-byte VLI "01", and the one-byte subfield would contain a single character space or a zero, as appropriate.
4. Unless otherwise indicated, alphanumeric subfields are left justified, character space filled and *not* case sensitive; and numeric subfields are right justified and zero filled, as necessary.

## 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

## Data Field 47 ADDITIONAL DATA – NATIONAL (Continued)

*Card Not Present (Mail-, Telephone- and Internet-Order) ITD Format Table*

Relative Position	Subfield Name	Field Length	Field Type	Description
1-3	VARIABLE LENGTH INDICATOR (VLI)	3 bytes	Numeric (EBCDIC)	VLI indicates total length of <i>variable data</i> in this field (not including VLI).
4-5	PRIMARY ID	2 bytes	Alphanumeric	Primary ID (Card Type Code) is constant literal "AX" (American Express).
6-8	SECONDARY ID	3 bytes	Alphanumeric	Secondary ID (Data Type Code). Valid IDs include: ITD = Card Not Present Data
9-11	CUSTOMER EMAIL ID (CE ID)	3 bytes	Alphanumeric	Customer EMail ID is constant literal "CE~" (Customer EMail). Note: ~ = character space.
12-13	VARIABLE LENGTH INDICATOR (CE VLI)	2 bytes	Numeric	CE VLI indicates length of CUSTOMER EMAIL variable data (not including CE ID or VLI).
14-37	CUSTOMER EMAIL Note: Example is 24 bytes.	1-60 bytes	Alphanumeric & special characters	Customer's e-mail address. Example: CFFROST@EMAILADDRESS.COM
38-40	CUSTOMER HOSTNAME ID (CH ID)	3 bytes	Alphanumeric	Customer HostName ID is constant literal "CH~" (Customer HostName). Note: ~ = character space.
41-42	VARIABLE LENGTH INDICATOR (CH VLI)	2 bytes	Numeric	CH VLI indicates length of CUSTOMER HOST-NAME variable data (not including CH ID or VLI).
43-56	CUSTOMER HOSTNAME Note: Example is 14 bytes.	1-60 bytes	Alphanumeric & special characters	Name of server to which customer is connected. Example: PHX.QW.AOL.COM
57-59	HTTP BROWSER TYPE ID (HBT ID)	3 bytes	Alphanumeric	HTTP Browser Type ID is constant literal "HBT" (HTTP Browser Type).
60-61	VARIABLE LENGTH INDICATOR (HBT VLI)	2 bytes	Numeric	HBT VLI indicates length of HTTP BROWSER TYPE variable data (not including HBT ID or VLI).
62-107	HTTP BROWSER TYPE Note: Example is 46 bytes.	1-60 bytes	Alphanumeric & special characters	Customer's HTTP browser type. Example: MOZILLA/4.0~(COMPATIBLE;~MSIE~5.0;~WINDOWS~95) Note: ~ = character space.
108-110	SHIP TO COUNTRY ID (STC ID)	3 bytes	Alphanumeric	Ship To Country ID is constant literal "STC" (Ship To Country).
111-112	VARIABLE LENGTH INDICATOR (STC VLI)	2 bytes	Numeric	STC VLI indicates length of SHIP TO COUNTRY variable data. Must be constant literal "03".
113-115	SHIP TO COUNTRY	3 bytes	Alphanumeric	Three-byte, numeric Country Code. See list on page 283. Example for US: 840
116-118	SHIPPING METHOD ID (SM ID)	3 bytes	Alphanumeric	Shipping Method ID is constant literal "SM~" (Shipping Method). Note: ~ = character space.
119-120	VARIABLE LENGTH INDICATOR (SM VLI)	2 bytes	Numeric	SM VLI indicates length of SHIPPING METHOD variable data (not including SM ID or VLI). Must be constant literal "02".

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 47 ADDITIONAL DATA – NATIONAL (Continued)

*Card Not Present (Mail-, Telephone- and Internet-Order) ITD Industries Format Table (Continued)*

Relative Position	Subfield Name	Field Length	Field Type	Description
121-122	SHIPPING METHOD	2 bytes	Alphanumeric	Two-byte, shipment-type code: 01 = Same Day 02 = Overnight / Next Day 03 = Priority, 2-3 days 04 = Ground, 4 or more days 05 = Electronic Delivery 06–ZZ = Reserved for future use
123-125	MERCHANT PRODUCT SKU ID (MPS ID)	3 bytes	Alphanumeric	Merchant Product SKU ID is constant literal "MPS" (Merchant Product SKU).
126-127	VARIABLE LENGTH INDICATOR (MPS VLI)	2 bytes	Numeric	MPS VLI indicates length of MERCHANT PRODUCT SKU variable data (not including MPS ID or VLI).
128-135	MERCHANT PRODUCT SKU Note: Example is 8 bytes.	1-15 bytes	Alphanumeric & special characters	Unique SKU (Stock Keeping Unit) inventory reference number of product associated with this authorization request. For multiple items, enter SKU for single, most expensive item. Example: TKDC315U
136-150	CUSTOMER IP	15 bytes	Alphanumeric & special characters	Customer's Internet IP address, left justified and character space filled (as necessary) to 15 bytes. Example 1: 127.142.151.223 Example 2: 127.142.5.56~~~ Example 3: 12.142.49.190~~ Note: ~ = character space
151-160	CUSTOMER ANI	10 bytes	Alphanumeric & special characters	ANI (Automatic Number Identification) specified phone number that customer used to place order with Merchant. Example: 6025551212
161-162	CUSTOMER II DIGITS	2 bytes	Alphanumeric & special characters	Telephone company-provided ANI Information Identifier (II) digits associated with CUSTOMER ANI. II digits indicate call type. For example, cellular (61-63), payphone (27), toll free (24, 25), etc.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 47 ADDITIONAL DATA – NATIONAL (Continued)

##### *Card Not Present (Mail-, Telephone- and Internet-Order) ITD Example*

The example below corresponds to the ITD Position Format Table on the preceding pages, and illustrates a field entry for mail-, telephone- and Internet-order Merchants that submit *Card Not Present* data (Data Type Code “ITD”).

1	2	3	4	5	6
12345678901234567890123456789012345678901234567890					
<b>159AXITDCE~24CFFROST@EMAILADDRESS.COMCH~14PHX.QW.AOL.COMHBT4</b>					
				1	1
6	7	8	9	0	1
12345678901234567890123456789012345678901234567890					
<b>6MOZILLA/4.0~(COMPATIBLE;~MSIE~5.0;~WINDOWS~95)STC03840SM~02</b>					
1	1	1	1	1	
2	3	4	5	6	
123456789012345678901234567890123456789012					
<b>02MPS08TKDC315U127.142.005.056602555121200</b>					

##### Notes:

1. In the example above, tilde (~) characters represent character spaces.
2. This example represents data for multiple scenarios of a *Card Not Present* transaction. A typical transaction will probably not include all subfields (e.g., an Internet-order would not include Customer ANI and Customer II Digits; and a phone-order would not include Customer Hostname or Customer IP).



## 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

## Data Field 47 ADDITIONAL DATA – NATIONAL (Continued)

*Internet Airline Customer (IAC) Format Table*

Relative Position	Subfield Name	Field Length	Field Type	Description
1-3	VARIABLE LENGTH INDICATOR (VLI)	3 bytes	Numeric (EBCDIC)	VLI indicates total length of <i>variable data</i> in this field (not including VLI).
4-5	PRIMARY ID	2 bytes	Alphanumeric	Primary ID (Card Type Code) is constant literal "AX" (American Express).
6-8	SECONDARY ID	3 bytes	Alphanumeric	Secondary ID (Data Type Code). Valid IDs include: IAC = Internet Airline Customer
9-16	DEPARTURE DATE	8 bytes	Numeric	Departure Date (format CCYYMMDD). Example: 20030101
17-19	AIRLINE PASSENGER NAME ID (APN ID)	3 bytes	Alphanumeric	Airline Passenger Name ID is constant literal "APN" (Airline Passenger Name).
20-21	VARIABLE LENGTH INDICATOR (APN VLI)	2 bytes	Numeric	APN VLI indicates length of Airline PASSENGER NAME variable data (not including APN ID or VLI).
22-44	PASSENGER NAME Note: Example is 23 bytes.	23-40 bytes	Alphanumeric & special characters	Passenger Name in format: SURNAME~FIRSTNAME~MIDDLEINITIAL~TITLE Use character space as sub-element separator. Variable data must be 23-bytes minimum, space filled as necessary, 40-bytes maximum. Truncate at 40 bytes, if necessary. Example: FROST~JANE~M~MRS~~~~~~ Note: ~ = character space.
45-49	ORIGIN (Origin Airport)	5 bytes	Alphanumeric & special characters	First segment travel <i>origination</i> Airport. Note: Five-byte code sequence allows for anticipated expansion of present, three-character Airport Code. If necessary, left justify codes and character space fill each code sequence to five bytes. Example: ABC~~ Note: ~ = character space.
50-54	DEST (First Segment Travel Destination Airport)	5 bytes	Alphanumeric & special characters	<i>Destination</i> Airport for first travel segment of trip; not necessarily the <i>final</i> destination. For example, if passenger flies from STL to MIA with layover at JFK, Destination Airport for first segment is JFK. Note: Five-byte code sequence allows for anticipated expansion of present, three-character Airport Code. If necessary, left justify codes and character space fill each code sequence to five bytes. Example: XYZ~~ Note: ~ = character space.
55-57	ROUTING ID (RTG ID)	3 bytes	Alphanumeric	Routing ID is constant literal "RTG" (Routing).
58-59	VARIABLE LENGTH INDICATOR (RTG VLI)	2 bytes	Numeric	RTG VLI indicates combined length of NUMBER OF CITIES and ROUTING CITIES variable data (not including RTG ID or VLI).
60-61	NUMBER OF CITIES	2 bytes	Numeric	Number of Airports or Cities on ticket (10 max).

## 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

## Data Field 47 ADDITIONAL DATA – NATIONAL (Continued)

## Internet Airline Customer (IAC) Format Table (Continued)

Relative Position	Subfield Name	Field Length	Field Type	Description
62-120	ROUTING CITIES Note: Example is 59 bytes.	11-59 bytes	Alphanumeric & virgule (/)	Routing Airport or City Codes for each leg on ticket (including ORIGIN and DEST) in five-byte segments with virgule (/) separator. Example: ABC~~/DEF~~/GHI~~/JKL~~/MNO~~/ PQR~~/STU~~/VWX~~/YZA~~/XYZ~~ Note: ~ = character space.
121-123	AIRLINE CARRIERS ID (ALC ID)	3 bytes	Alphanumeric	Airline Carriers ID is constant literal "ALC" (Airline Carrier).
124-125	VARIABLE LENGTH INDICATOR (ALC VLI)	2 bytes	Numeric	ALC VLI indicates combined length of NUMBER OF AIRLINE CARRIERS and AIRLINE CARRIERS variable data (not including ALC ID or VLI).
126-127	NUMBER OF AIRLINE CARRIERS	2 bytes	Numeric	Number of Airline Carriers entered in AIRLINE CARRIERS subfield (9 max). Example: 09
128-180	AIRLINE CARRIERS Note: Example is 53 bytes.	5-53 bytes	Alphanumeric & virgule (/)	Airline Carrier Code for each leg on ticket (including ORIGIN and DEST) in five-byte segments with virgule (/) separator. Example: AB~~~/XY~~~/BC~~~/CD~~~/DE~~~/ DE~~~/CD~~~/BC~~~/AB~~~ Notes: 1. Each leg must have Airline Carrier Code entry, even if multiple (or all) legs are on same Airline. 2. ~ = Character space
181-204	FARE BASIS	24 bytes	Alphanumeric & special characters	Primary & secondary discount codes indicate class of service and fare level associated with ticket. Truncate at 24 bytes, if necessary. Example: ABC123DEF456GHI789JKL012
205-207	NUMBER OF PASSENGERS	3 bytes	Numeric	Number of passengers in party. Example: 001
208-222	CUSTOMER IP	15 bytes	Alphanumeric & special characters	Customer's Internet IP address, left justified and character space filled (as necessary) to 15 bytes. Example 1: 127.142.151.223 Example 2: 127.142.5.56~~~ Example 3: 12.142.49.190~~ Note: ~ = character space
223-225	CUSTOMER EMAIL ID (CE ID)	3 bytes	Alphanumeric	Customer EMail ID is constant literal "CE~" (Customer EMail). Note: ~ = character space.
226-227	VARIABLE LENGTH INDICATOR (CE VLI)	2 bytes	Numeric	CE VLI indicates length of CUSTOMER EMAIL variable data (not including CE ID or VLI).
228-251	CUSTOMER EMAIL Note: Example is 24 bytes.	1-60 bytes	Alphanumeric & special characters	Customer's e-mail address. Example: CFFROST@EMAILADDRESS.COM

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 47 ADDITIONAL DATA – NATIONAL (Continued)

##### *Internet Airline Customer (IAC) Example*

The example below corresponds to the IAC Position Format Table on the preceding pages, and illustrates a field entry for airline industry Merchants that submit *Internet Airline Customer* data (Data Type Code “IAC”).

1	2	3	4	5	6
123456789012345678901234567890123456789012345678901234567890					
251AXIAC20030101APN23FROST~JANE~M~MRS~~~~~ABC~~XYZ~~RTG611					
6	7	8	9	0	1
123456789012345678901234567890123456789012345678901234567890					
0ABC~~/DEF~~/GHI~~/JKL~~/MNO~~/PQR~~/STU~~/VWX~~/YZA~~/XYZ~~					
1	1	1	1	1	1
2	3	4	5	6	7
123456789012345678901234567890123456789012345678901234567890					
ALC5509AB~~~/XY~~~/BC~~~/CD~~~/DE~~~/DE~~~/CD~~~/BC~~~/AB~~~					
1	1	2	2	2	2
8	9	0	1	2	3
123456789012345678901234567890123456789012345678901234567890					
ABC123DEF456GHI789JKL012001127.142.005.056CE~24CFFROST@EMAIL					
2	2				
4	5				
12345678901					
ADDRESS.COM					

Note: In the example above, tilde (~) characters represent character spaces.

## 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

## Data Field 47 ADDITIONAL DATA – NATIONAL (Continued)

Airline Passenger Data (APD) Format Table

Relative Position	Subfield Name	Field Length	Field Type	Description
1-3	VARIABLE LENGTH INDICATOR (VLI)	3 bytes	Numeric (EBCDIC)	VLI indicates total length of <i>variable data</i> in this field (not including VLI).
4-5	PRIMARY ID	2 bytes	Alphanumeric	Primary ID (Card Type Code) is constant literal "AX" (American Express).
6-8	SECONDARY ID	3 bytes	Alphanumeric	Secondary ID (Data Type Code). Valid IDs include: APD = Airline Passenger Data
9-16	DEPARTURE DATE	8 bytes	Numeric	Departure Date (format CCYYMMDD). Example: 20030101
17-19	AIRLINE PASSENGER NAME ID (APN ID)	3 bytes	Alphanumeric	Airline Passenger Name ID is constant literal "APN" (Airline Passenger Name).
20-21	VARIABLE LENGTH INDICATOR (APN VLI)	2 bytes	Numeric	APN VLI indicates length of Airline PASSENGER NAME variable data (not including APN ID or VLI).
22-44	PASSENGER NAME Note: Example is 23 bytes.	23-40 bytes	Alphanumeric & special characters	Passenger Name in format: SURNAME~FIRSTNAME~MIDDLEINITIAL~TITLE Use character space as sub-element separator. Variable data must be 23-bytes minimum, space filled as necessary, 40-bytes maximum. Truncate at 40 bytes, if necessary. Example: FROST~JANE~M~MRS~~~~~ Note: ~ = character space.
45-47	CARDMEMBER NAME ID (CN ID)	3 bytes	Alphanumeric	Cardmember Name ID is constant literal "CN~" (Cardmember Name). Note: ~ = character space.
48-49	VARIABLE LENGTH INDICATOR (CN VLI)	2 bytes	Numeric	CN VLI indicates length of CARDMEMBER NAME variable data (not including CN ID or VLI).
50-72	CARDMEMBER NAME Note: Example is 23 bytes.	23-40 bytes	Alphanumeric & special characters	Cardmember Name in format: SURNAME~FIRSTNAME~MIDDLEINITIAL~TITLE Use character space as sub-element separator. Variable data must be 23-bytes minimum, space filled as necessary, 40-bytes maximum. Truncate at 40 bytes, if necessary. Example: FROST~CHARLES~F~MR~~~~~ Note: ~ = character space.
73-77	ORIGIN (Origin Airport)	5 bytes	Alphanumeric & special characters	First segment travel <i>origination</i> Airport. Note: Five-byte code sequence allows for anticipated expansion of present, three-character Airport Code. If necessary, left justify codes and character space fill each code sequence to five bytes. Example: ABC~~~ Note: ~ = character space.

## 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

## Data Field 47 ADDITIONAL DATA – NATIONAL (Continued)

## Airline Passenger Data (APD) Format Table (Continued)

Relative Position	Subfield Name	Field Length	Field Type	Description
78-82	DEST (First Segment Travel Destination Airport)	5 bytes	Alphanumeric & special characters	<i>Destination</i> Airport for first travel segment of trip; not necessarily the <i>final</i> destination. For example, if passenger flies from STL to MIA with layover at JFK, Destination Airport for first segment is JFK. Note: Five-byte code sequence allows for anticipated expansion of present, three-character Airport Code. If necessary, left justify codes and character space fill each code sequence to five bytes. Example: XYZ~~ Note: ~ = character space.
83-85	ROUTING ID (RTG ID)	3 bytes	Alphanumeric	Routing ID is constant literal "RTG" (Routing).
86-87	VARIABLE LENGTH INDICATOR (RTG VLI)	2 bytes	Numeric	RTG VLI indicates combined length of NUMBER OF CITIES and ROUTING CITIES variable data (not including RTG ID or VLI).
88-89	NUMBER OF CITIES	2 bytes	Numeric	Number of Airports or Cities on ticket (10 max).
90-148	ROUTING CITIES Note: Example is 59 bytes.	11-59 bytes	Alphanumeric & virgule (/)	Routing Airport or City Codes for each leg on ticket (including ORIGIN and DEST) in five-byte segments with virgule (/) separator. Example: ABC~~~/DEF~~~/GHI~~~/JKL~~~/MNO~~~/PQR~~~/STU~~~/VWX~~~/YZA~~~/XYZ~~~ Note: ~ = character space.
149-151	AIRLINE CARRIERS ID (ALC ID)	3 bytes	Alphanumeric	Airline Carriers ID is constant literal "ALC" (Airline Carrier).
152-153	VARIABLE LENGTH INDICATOR (ALC VLI)	2 bytes	Numeric	ALC VLI indicates combined length of NUMBER OF AIRLINE CARRIERS and AIRLINE CARRIERS variable data (not including ALC ID or VLI).
154-155	NUMBER OF AIRLINE CARRIERS	2 bytes	Numeric	Number of Airline Carriers entered in AIRLINE CARRIERS subfield (9 max). Example: 09
156-208	AIRLINE CARRIERS Note: Example is 53 bytes.	5-53 bytes	Alphanumeric & virgule (/)	Airline Carrier Code for each leg on ticket (including ORIGIN and DEST) in five-byte segments with virgule (/) separator. Example: AB~~~/XY~~~/BC~~~/CD~~~/DE~~~/DE~~~/ CD~~~/BC~~~/AB~~~ Notes: 1. Each leg must have Airline Carrier Code entry, even if multiple (or all) legs are on same Airline. 2. ~ = Character space

## 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

## Data Field 47 ADDITIONAL DATA – NATIONAL (Continued)

*Airline Passenger Data (APD) Format Table (Continued)*

Relative Position	Subfield Name	Field Length	Field Type	Description
209-232	FARE BASIS	24 bytes	Alphanumeric & special characters	Primary & secondary discount codes indicate class of service and fare level associated with ticket. Truncate at 24 bytes, if necessary. Example: ABC123DEF456GHI789JKL012
233-235	NUMBER OF PASSENGERS	3 bytes	Numeric	Number of passengers in party. Example: 001
236	E-TICKET INDICATOR	1 byte	Alphanumeric & special characters	Indicates if ticket is electronic. E = E-Ticket ~ = Other ticket types (non-electronic ticket) Note: ~ = Character space
237-239	RESERVATION CODE ID (RES ID)	3 bytes	Alphanumeric	Reservation Code ID is the constant literal "RES". (Reservation Code).
240-241	VARIABLE LENGTH INDICATOR (RES VLI)	2 bytes	Numeric	RES VLI indicates length of Reservation Code variable data (not including RES ID or VLI). Example: 15
242-256	RESERVATION CODE Note: Example is 15 bytes.	6-15 bytes	Alphanumeric & special characters	Reservation Code (a precursor to a ticket number) corresponds to an airline ticket purchase reservation made by an airline or Global Distribution System (GDS). Example: ABCDE1234567890

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 47 ADDITIONAL DATA – NATIONAL (Continued)

##### *Airline Passenger Data (APD) Example*

The example below corresponds to the APD Position Format Table on the preceding pages, and illustrates a field entry for airline industry Merchants that submit *Airline Passenger Data* (Data Type Code “APD”).

1	2	3	4	5	6
12345678901234567890123456789012345678901234567890					
253AXAPD20030101APN23FROST~JANE~M~MRS~~~~~CN~23FROST~CHARL					
6	7	8	9	0	1
12345678901234567890123456789012345678901234567890					
ES~F~MR~~~~ABC~~XYZ~~RTG6110ABC~~/DEF~~/GHI~~/JKL~~/MNO~~/P					
1	1	1	1	1	1
2	3	4	5	6	7
12345678901234567890123456789012345678901234567890					
QR~~/STU~~/VWX~~/YZA~~/XYZ~~ALC5509AB~~~/XY~~~/BC~~~/CD~~~/D					
1	1	2	2	2	2
8	9	0	1	2	3
12345678901234567890123456789012345678901234567890					
E~~~/DE~~~/CD~~~/BC~~~/AB~~~ABC123DEF456GHI789JKL012001ERES1					
2	2				
4	5				
1234567890123456					
5ABCDE1234567890					

Note: In the example above, tilde (~) characters represent character spaces.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 48

#### ADDITIONAL DATA – PRIVATE

Length of Field:	4 bytes minimum, 43 bytes maximum, (LLLVAR)
Variable Length Indicator:	3 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	40 bytes maximum, EBCDIC
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	<ul style="list-style-type: none"> <li>Optional — American Express installment plan programs, (special certification required)</li> <li>Not used — Other bankcards</li> </ul>
Description:	This field contains the American Express Extended Payment Indicator, which consists of the Plan Type and the Number of Installments, preceded by a three-digit, Variable Length Indicator (VLI).

0  
1234567

**LLLPPNN**

In the above example:

LLL = Variable Length Indicator (VLI)

PP = Plan Type

NN = Number of Installments

**Plan Type** — The Plan Type is used to indicate which payment plan is applicable to this transaction. Valid entries include:

03 = *Legacy Plan N and Extended Payment Plan (EPP) — Merchant Deferred Payment Plan*

05 = *Legacy American Express Deferred Payment Plan (DPP)*

**Number of Installments** — The Number of Installments is used to indicate the number of installment payments applicable to this transaction.

Note: In some global regions, these subfields are further defined to transport data that is used only in those areas. See regional definitions for *Plan N*, *EPP* and *DPP*, on the following pages.



### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 48

#### ADDITIONAL DATA – PRIVATE (Continued)

*Plan N — LA/C*

*EPP — APA*

For transactions processed per *Plan N* or *EPP*, Merchants receive *deferred payment installments* from American Express, and Cardmembers are billed in *deferred billing installments*. Depending on the Program Type, interest may be applied. By processing transactions using Plan N or EPP, the Merchant absorbs any interest accrual. See Plan N or EPP example below:

```
0
1234567
0040303
```

In the example above:

- 004 = VLI — Indicates that data length is 4 bytes.
- 03 = Plan Type — “03” = Plan N or EPP
- 03 = Number of Installments — “03” = 3 installments

*Deferred Payment Plan (DPP) —  
LA/C & APA*

For transactions processed per the *Deferred Payment Plan (DPP)*, Merchants are paid in one installment; and American Express bills Cardmembers in *deferred billing installments*, with or without interest.

DPP transactions may be submitted in two message formats:

***DPP Inquiry*** (Optional) — An inquiry is submitted to have American Express calculate a final, total transaction amount (including interest if applicable) based on the number of installments indicated. The transaction total returned in the response message is the same amount that will be used for processing an authorization request, when a *DPP Installment* message for the same base amount and number of installments is submitted.

Additional requirements for *DPP Inquiries*:

- PROCESSING CODE (Field 3) must be “004000”.
- FUNCTION CODE (Field 24) must be “108”.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 48

#### ADDITIONAL DATA – PRIVATE (Continued)

***DPP Installment*** — An installment is submitted to have American Express calculate a final, total transaction amount (including interest if applicable) based on the number of installments indicated, and process an authorization request for this amount.

Additional requirements for *DPP Installments*:

- PROCESSING CODE (Data Field 3) must be “004000”.
- FUNCTION CODE (Data Field 24) must be “100”.

See DPP Inquiry/Installment example below:

0  
1234567  
**0040503**

In the example above:

- 004 = VLI — Indicates that data length is 4 bytes.  
05 = Plan Type — “05” = DPP  
03 = Number of Installments — “03” = 3 installments

Note: The Number of Installments *default value* (which varies by region and country) is specified during terminal or system setup. For more information, contact your American Express representative.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

<b>Data Field 49</b>	<b>CURRENCY CODE, TRANSACTION</b>
Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	None
Field Requirement:	Mandatory
Description:	<p>This field contains the <i>numeric</i> code that describes the currency used in this transaction. For example, the numeric currency code for US Dollars is “840”.</p> <p>For more information on numeric currency codes and decimal point positions, see <i>Currency Codes</i> on page 295.</p> <p>Notes:</p> <ol style="list-style-type: none"> <li>1. If Field 55 is populated, the currency code entries in Fields 49 and 55 (Transaction Currency Code subfield, Positions 72-73) must match.</li> <li>2. This field is mandatory for processing this message, and it will be preserved and returned in the response message without alteration.</li> </ol>
<b>Data Field 52</b>	<b>PERSONAL IDENTIFICATION NUMBER (PIN) DATA</b>
Length of Field:	8 bytes, 64 bits
Field Type:	Binary
Constant:	None
Field Requirement:	Conditional — Participating Merchants (special certification required)
Description:	<p>This field is reserved for use in markets that support online PIN verification (primarily EMEA and APA), and should transport encrypted PIN data for PIN-based POS transactions. PIN length may vary. If this data is applicable to your business and you wish to utilize this field, please contact your American Express representative for more information. Unauthorized use of this field may cause message rejection.</p>

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 53 SECURITY RELATED CONTROL INFORMATION

Length of Field:	3 bytes minimum, 10 bytes maximum, (LLVAR)
Variable Length Indicator:	2 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	8 bytes maximum, EBCDIC
Field Type:	Alphanumeric
Constant:	None
Field Requirement:	<ul style="list-style-type: none"> <li>Optional — American Express transactions</li> <li>Not used — Other bankcards</li> </ul>
Certification Requirement:	USA, Canada, EMEA, LA/C & APA <ul style="list-style-type: none"> <li>Mandatory — Third Party Processors must be certified to pass data in this field. After certification, all Merchant-provided data must be forwarded in this field.</li> <li>Mandatory — Vendor software must be certified to pass data for Merchants that require this functionality. After certification, all Merchant-provided data must be forwarded in this field.</li> </ul>
Description:	This field contains the American Express <i>Card Identifier</i> (CID) code (a.k.a., 4DBC or 4CSC), preceded by a two-digit Variable Length Indicator (VLI). It is mandatory for American Express Authorization Requests if the POINT OF SERVICE DATA CODE, Data Field 22, Position 7, is set to “S”, “W” or “Y”. Extract of POS Data Code table appears below, or see Field 22, Position 7 on page 60.

S	Manually entered or keyed transaction with keyed CID/4DBC/4CSC. Data Field 53 (Security Related Control Information) must be present. For more information, see page 102.
W	Swiped transaction with keyed CID/4DBC/4CSC. Data Field 53 (Security Related Control Information) must be present. For more information, see page 102.
Y	Magnetic stripe signature with keyed CID/4DBC/4CSC. Data Fields 53 (Security Related Control Information) and 62 (Private Use Data/Magnetic Stripe Signature) must be present. For more information, see pages 102 and 109, respectively.

This value is manually entered by keying the four-digit CID/4DBC/4CSC, which is printed on the face of the American Express Card. See formatting details for *Manual Entry* on next page.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 53 SECURITY RELATED CONTROL INFORMATION (Cont.)

Note: American Express security requirements prohibit storage of *keyed CID/4DBC/4CSC* data within Merchant or Third Party Processor systems.

**Format for Manual Entry** — “04XXXX” where “04” is the Variable Length Indicator (VLI) and “XXXX” is the four-digit CID/4DBC/4CSC code from the face of the American Express Card.

Note: See CID/4DBC/4CSC location on typical American Express Card products on page 18.

The following requirements must be met prior to sending a keyed CID/4DBC/4CSC value that will be actioned by American Express:

- System accepts “Invalid card security code” (code 122) response, if CID/4DBC/4CSC is incorrect.
- Programming changes to Merchant’s systems (e.g., order entry screens, POS devices, registers, etc.) reviewed and approved by American Express. Please contact your American Express representative for more information.
- System change to send a second authorization request, if the initial entry results in “Invalid card security code” (code 122) response.

Note: American Express security requirements prohibit storage of *keyed CID/4DBC/4CSC* data within Merchant or Third Party Processor systems.

## 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

**Data Field 55                      INTEGRATED CIRCUIT CARD SYSTEM RELATED DATA**

Length of Field: 4 bytes minimum, 259 bytes maximum, (LLLVAR)

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

Length of Variable Data: 256 bytes maximum, EBCDIC, BCD or binary

Field Type: Alphanumeric & special characters, and binary coded decimal (BCD) or unsigned binary numbers

Note: Data Field 55 contains some subfields that are forwarded for transmission to an integrated circuit card or terminal, and are specified as *binary*. This data is in binary format in 8-bit blocks, right justified and zero filled, per the following:

1. Binary Coded Decimal (BCD)\* — Data items whose original formats are defined as *numeric* are represented with two digits per byte (“00” to “99”). Each digit is stored on four bits (one nibble) resulting in each byte storing two digits.

For example, a date subfield containing numerals representing the date November 30, 2006 in YYMMDD format would be three-bytes holding the six digits “06 11 30”. A *numeric* subfield with an odd number of digits is padded with a leading zero before packing.

2. Unsigned Binary Number† — Data items whose original formats are defined as *binary* are mapped directly as eight bits per byte, with the value for any binary byte of data varying from hexadecimal “00” to “FF”.

For example, the Application Transaction Counter (ATC) is defined as a two-byte, unsigned binary number. Thus, the ATC value “26” would be stored as “00 1A” hex.

Constant: None

\* Also referred to as *binary numeric* in some American Express documentation.

† Also referred to as *binary hexadecimal* in some American Express documentation.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 55 INTEGRATED CIRCUIT CARD SYSTEM RELATED DATA (Cont.)

Field Requirement:	<ul style="list-style-type: none"> <li>• Mandatory — AEIPS transactions (special certification required)</li> <li>• Mandatory — Expresspay EMV* Mode transactions</li> <li>• Not used — Other transactions</li> </ul>
Certification Requirement:	<p>Canada, EMEA &amp; APA</p> <ul style="list-style-type: none"> <li>• Mandatory — Third Party Processors must be certified to pass Card Present transactions for Integrated Circuit Cards (ICCs) in this field. After certification, all Merchant-provided ICC related data must be forwarded in this field.</li> <li>• Mandatory — Vendor software must be certified to pass Card Present transactions for Integrated Circuit Cards (ICCs) in this field. After certification, all Merchant-provided ICC related data must be forwarded in this field.</li> </ul>
Description:	<p>This field contains <i>Integrated Circuit Card (ICC) Related Data</i> defined in the subfield table below.</p> <p>If Field 22 (POS Data Code) Position 7 = “5”, then this data field must be present. Field 22 describes the interaction between Field 22 and Field 55.</p> <p>Before Merchants may use this field, special certification is required to process AEIPS or Expresspay transactions. For more information, reference the <i>AEIPS Chip Card Specification</i> and <i>AEIPS Terminal Specification</i>, in addition to contacting your American Express representative.</p> <p>Note: For Merchants who have not completed this certification, no data can be transmitted in this field to American Express. Unauthorized use of this field may result in message rejection.</p> <p>See table containing subfield details on next page.</p>

\* EMV is the abbreviation for Europay/MasterCard/VISA, joint sponsors of the global standard for electronic financial transactions using “chip card” technology.

## 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

## Data Field 55 INTEGRATED CIRCUIT CARD SYSTEM RELATED DATA (Cont.)

Relative Position	Subfield Name	Field Length	Field Type	Required	Description
1-3	VARIABLE LENGTH INDICATOR (VLI)	3 bytes	Numeric (EBCDIC)	Yes	VLI indicates total length of <i>variable data</i> in this field (not including VLI).
4-7	ICC HEADER VERSION NAME	4 bytes	Alphanumeric (EBCDIC)	Yes	Field 55 Version Header is constant literal "AGNS".
8-9	ICC HEADER VERSION NUMBER	2 bytes	Binary coded decimal (BCD)	Yes	Field 55 Version Number is constant literal "0001".
10-17	APPLICATION CRYPTOGRAM	8 bytes	Unsigned binary number	Yes	The Application Cryptogram generated by the chip card in response to GENERATE AC Command. In an online authorization message, this will be the Authorization Request Cryptogram (ARQC).
18-50	ISSUER APPLICATION DATA (IAD)	33 bytes, max (LLVAR)	Unsigned binary number	Yes	One byte, unsigned-binary-number VLI indicates subfield length, and precedes up to 32 bytes of variable data. For example, the VLI for 32 bytes of variable data is = "20" (one byte) in hex. See explanation of <i>unsigned binary number</i> format on page 104. Note: This subfield contains proprietary, issuer-defined application data transmitted from card to issuer. (For details, see AEIPS Chip Card Specification.) Only card issuer needs to know how to interpret. Networks and systems need only forward IAD in its entirety, without alteration, to card issuer.
51-54	UNPREDICTABLE NUMBER	4 bytes	Unsigned binary number	Yes	A terminal-generated Unpredictable Number, which is a randomly generated value that adds variability and uniqueness to the creation of the application cryptogram value in the preceding APPLICATION CRYPTOGRAM field.
55-56	APPLICATION TRANSACTION COUNTER (ATC)	2 bytes	Unsigned binary number	Yes	Counter maintained by application on the card. Chip Card increments this value for each transaction. Because counter includes failed transactions, this value cannot be used alone to track last transaction.
57-61	TERMINAL VERIFICATION RESULTS (TVR)	5 bytes	Unsigned binary number	Yes	Status of various functions, as determined by terminal. For details, see AEIPS Terminal Specification.
62-64	TRANSACTION DATE	3 bytes	Binary coded decimal (BCD)	Yes	Terminal-generated Transaction Date, in format "YY MM DD". Example: Jan. 1, 2007 = "07 01 01".
65	TRANSACTION TYPE	1 byte	Binary coded decimal (BCD)	Yes	Code indicates type of financial transaction represented by the first two digits of the ISO 8583 Processing Code. Valid entries include: 00 = Debit
66-71	AMOUNT AUTHORIZED	6 bytes	Binary coded decimal (BCD)	Yes	Authorization amount of transaction, provided by terminal to the card. Note: This value is used in cryptogram generation, and it may differ from other amount fields in this request message.
72-73	TRANSACTION CURRENCY CODE	2 bytes	Binary coded decimal (BCD)	Yes	ISO currency code for this transaction. Example: "124" (Canadian Dollars) is entered as "01 24" in 2-byte, BCD format. Note: The currency code entries in this subfield and Field 49 (Currency Code, Transaction) must match.

Continued on next page.



### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 55 INTEGRATED CIRCUIT CARD SYSTEM RELATED DATA (Cont.)

Relative Position	Subfield Name	Field Length	Field Type	Required	Description
74-75	TERMINAL COUNTRY CODE	2 bytes	Binary coded decimal (BCD)	Yes	ISO country code for terminal location. Example: "1 2 4" (Canada) is entered as "01 2 4" in 2-byte, BCD format.
76-77	APPLICATION INTERCHANGE PROFILE (AIP)	2 bytes	Unsigned binary number	Yes	Bitmap that indicates ability of the card to support specific functions. Contents of this element are described in AEIPS Chip Card Specification.
78-83	AMOUNT, OTHER	6 bytes	Binary coded decimal (BCD)	Yes	Secondary amount associated with transaction representing a cash-back amount. Zero-fill, if cash-back is not supported.
84	APPLICATION PAN SEQUENCE NUMBER	1 byte	Binary coded decimal (BCD)	Yes	Identifies and differentiates card applications with same PAN. Both PAN & PAN Sequence Number are required to validate Application Cryptogram.
85	CRYPTOGRAM INFORMATION DATA (CID)	1 byte	Unsigned binary number	Yes	Indicates type of cryptogram (TC, ARQC or AAC) returned by the card, and actions to be performed by terminal. Formatted per AEIPS Chip Card Specification.
86-259	RESERVED FOR FUTURE USE	174 bytes, max (LLVAR)	N/A	No	This subfield is reserved for future use and should be completely omitted (including LLVAR). Specifically, no information should be forwarded, as all data will be ignored by both network and issuer.

**3.4.1 ISO 8583 Authorization Request (1100) (Continued)****Data Field 60****NATIONAL USE DATA**

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Length of Field:	4 bytes minimum, 303 bytes maximum, (LLVAR)
Variable Length Indicator:	3 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	300 bytes maximum, EBCDIC
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Not used — All transactions
Description:	This field is reserved for future use.  Data must not be transmitted to American Express in this field. Unauthorized use of this field may cause message rejection.

**Data Field 61****NATIONAL USE DATA**

---

Length of Field:	4 bytes minimum, 103 bytes maximum, (LLVAR)
Variable Length Indicator:	3 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	100 bytes maximum, EBCDIC
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Not used — All transactions
Description:	This field is reserved for future use.  Data must not be transmitted to American Express in this field. Unauthorized use of this field may cause message rejection.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 62

#### PRIVATE USE DATA

Length of Field: 4 bytes minimum, 63 bytes maximum, (LLLVAR)  
 Variable Length Indicator: 3 bytes, EBCDIC, right justified, zero filled  
 Length of Variable Data: 60 bytes maximum, coding determined by field use

Field Type: Alphanumeric & special characters, and binary coded decimal (BCD) or unsigned binary numbers

Constant: None

Field Requirement:

- Mandatory — American Express Travelers Cheques
- Optional — Transponder transactions
- Optional — American Express Magnetic Stripe Signature Validation (certification required)
- Mandatory — VISA PS2000 transactions
- Not used — Other transactions

Description: This field is used for American Express Travelers Cheques, Transponder, American Express Magnetic Stripe Signature Validation or VISA PS2000 processing only.

Note: Transactions containing Transponder data are considered *card not present* transactions, while those containing Magnetic Stripe Signature data are considered *card present*.

#### American Express Travelers Cheque Encashment

For American Express Travelers Cheques (TC), this field is used to capture the *denomination* (face value) of the individual TC to be encashed, when the *Travelers Cheque Number* is manually entered in Field 63 (see page 131). This field must contain the denomination of the Travelers Cheque, in whole currency units (no decimals), in the currency designated by the CURRENCY CODE, TRANSACTION field (Data Field 49). For Example, for a \$50 USD Travelers Cheque, the variable data in this entry would be “50”; and for a \$100 Travelers Cheque, it would be “100”, etc.

If multiple Travelers Cheques are presented for encashment, the entry in this field must correspond to the *Travelers Cheque Number* entered in Data Field 63, PRIVATE USE DATA.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 62

#### PRIVATE USE DATA (Continued)

---

For American Express Travelers Cheques, the maximum length of variable data that can be transported in this field is 11 bytes.

See examples below:

0                      1  
12345678901234

**LLLSSRRDDDDDD**

- “LLL” is the three-digit, Variable Length Indicator (VLI), right justified and zero filled, if necessary.
- “SS” is the two-character, Service Identifier (SI).
- “RR” is the two-character, Request Type Identifier (RTI).
- “DDDDDD” is the Travelers Cheque denomination (seven-bytes, maximum).

#### *American Express Travelers Cheque Example*

123456789

**006AXTC50**

- “006” is the Variable Length Indicator (VLI).
- “AX” is the Service Identifier (constant literal “AX” = American Express).
- “TC” is the Request Type Identifier (constant literal “TC” = Travelers Cheque).
- “50” is the Travelers Cheque denomination (\$50 USD).

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

### Data Field 62

**PRIVATE USE DATA (Continued)**

## Transponder Transactions

This field may contain a Merchant-captured, security/identification code associated with processing Authorization Request (1100) messages initiated by electronic, radio-frequency devices (transponders or RFIDs; e.g., Speedpass<sup>TM</sup>). This unique, transponder-issuer assigned code corresponds to a customer-designated form of payment and Cardmember Account Number, on the transponder-issuer's system.

Note: For transactions initiated by an electronic, radio-frequency device (transponder or RFID, e.g., Speedpass), Field 62 (AXTN + transponder security/ID code) may be used alone or in conjunction with Field 22 Position 6 Code W. Alternately, Field 22 Position 6 Code W may be used without a transponder security/ID entered in Field 62. Ideally, both items are transmitted. For more details, see page 59.

Card type (primary) and Device Type (secondary) identifiers precede a variable-length security/identification code (19 bytes maximum), as illustrated in the format below:

0                      1                      2  
12345678901234567890123456

[illegible]

- “LLL” is the three-digit, Variable Length Indicator (VLI).
- “CC” is the two-character, Card Type code (always “AX”).
- “DD” is the two-character, Device Type code (always “TN”).
- “ssssssssssssssssssssss” is the variable-length, security/identification code (19 characters maximum, no padding).

### Transponder Data Example

In the following example, “023” is the three-digit, Variable Length Indicator (VLI); “AX” is the two-character, Card Type code (AX = American Express); “TN” is the two-character, Device Type code (TN = transponder); and “1234567890123456789” is the 19-character security/identification code.

0                      1                      2

12345678901234567890123456

023AXTN1234567890123456789

## 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

## Data Field 62

## PRIVATE USE DATA (Continued)

## American Express Magnetic Stripe Signature Validation

For Magnetic Stripe Signature Validation, this field contains security information used to validate an American Express Card's unique *magnetic stripe signature*. Certified Merchants acquire this data using approved POS devices with special card readers that scan and capture track data as well as a Card's *magnetic stripe signature* (not the Cardmember's signature).

Note: American Express security requirements prohibit storage of magnetic stripe signature, Track 1 data, Track 2 data and Card security data within Merchant or Third Party Processor systems.

A Variable Length Indicator (VLI), and Card Type and Device Type identifiers precede magnetic stripe signature data as illustrated in the example, below:

1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
L	L	L	C	C	D	D	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3
SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS

- “LLL” is the three-digit, Variable Length Indicator (VLI).
- “CC” is the two-character, Card Type code (always “AX”).
- “DD” is the two-character, Device Type code (always “MS”).
- “SS . . . SS” is the variable-length, *magnetic stripe signature* data, in binary hexadecimal format (54-characters maximum, no padding).

Note: The first seven bytes “LLLCDD” are shown in EBCDIC, while the magnetic stripe signature data “SS . . . SS” appears in binary hexadecimal format.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 62 PRIVATE USE DATA (Continued)

##### *Magnetic Stripe Signature Data Example*

In the following example, “058” is the three-digit, Variable Length Indicator (VLI); “AX” is the two-character, Card Type code (AX = American Express); “MS” is the two-character, Device Type code (MS = magnetic stripe); and “20 . . . DF” is magnetic stripe signature validation information in binary hexadecimal format.

										1											2
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0		
0	5	8	A	X	M	S	20	0B	C1	00	03	80	93	04	8A	F7	9A	09	01		
										3											4
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0		
94	FD	DD	35	13	4A	C2	CB	34	89	3D	4C	BB	BA	30	00	11	3F	AA	3D		
										5											6
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	
B2	96	74	1F	2F	42	50	0C	11	5B	F6	38	2F	08	04	57	0C	39	59	DB	DF	

If included in an originating request, it will not be preserved; and it is not returned in the response.

#### VISA PS2000 Transactions

The following code is entered in this field, if the transaction acquirer wishes to have this Authorization Request (1100) message considered for VISA PS2000:

**001Y**

In this example, “001” is the Variable Length Indicator (VLI), and the “Y” indicates that this transaction is being submitted for VISA PS2000 qualification.

Note: Additional sub-element values may exist, subject to VISA requirements.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 63

#### PRIVATE USE DATA

Length of Field:	4 bytes minimum, 208 bytes maximum, (LLLVAR)
Variable Length Indicator:	3 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	205 bytes maximum, EBCDIC
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	<ul style="list-style-type: none"> <li>• Mandatory — American Express Travelers Cheques</li> <li>• Optional — Automated Address Verification (AAV), ZIP Code Verification, Enhanced Authorization (Shipping), and Telephone Number Verification</li> <li>• Conditional — To participate in E-Mail Address Verification (if RTI = “AE” and Data Field 47 is present)</li> <li>• Not used — All other transactions</li> </ul>
Certification Requirement:	<p>USA, Canada, EMEA, LA/C &amp; APA</p> <ul style="list-style-type: none"> <li>• Mandatory — Third Party Processors must be certified to pass 33-, 78- and 205-Byte Formats of Automated Address Verification (AAV) and Telephone Number Verification data in this field. After certification, all Merchant-provided AAV and Billing Telephone Number data must be forwarded in this field.</li> <li>• Mandatory — Vendor software must be certified to pass 33-, 78- and 205-Byte Formats of Automated Address Verification (AAV) and Telephone Number Verification data for Merchants that require this functionality. After certification, all Merchant-provided AAV and Billing Telephone Number data must be forwarded in this field.</li> </ul>



### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 63

#### PRIVATE USE DATA (Continued)

##### Description:

This field contains data required to process certain types of 1100 Authorization Requests, such as American Express Travelers Cheque, and verifications for Cardmember Billing Name, Address, ZIP Code, and Telephone Number.

##### *Combination Address Verification & Authorization*

The format for this field must be consistent with PROCESSING CODE, Data Field 3, codes “004800” (Combination Address Verification and Authorization) and “174800” (Address Verification Only). For details, see page 157.

##### *Address Verification Only*

See descriptions and examples below and on the following pages.

##### *Electronic Verification*

American Express supports Automated Address Verification (AAV) and Telephone Number Verification.

The three formats that correspond to the length of variable data in this field (not including the three-digit VLI) are:

- **33-Byte Format** — AAV
- **78-Byte Format** — AAV
- **205-Byte Format** — AAV, Enhanced Authorization (Shipping) and Telephone Number Verification

These three formats transport different combinations of Cardmember Billing and/or Ship-to data in various subfields, as specified by a three-digit Variable Length Indicator (VLI).

Descriptions of AAV-types with corresponding VLIs appear on the next few pages, with tables that illustrate how the three formats are utilized to transmit different amounts of data. On page 120, a summary table lists Data Field 63 subfield names, relative positions, lengths, field types and usage.

Data Field 63 descriptions for Cardmember Billing subfields appear on page 121, followed by Ship-to descriptions on page 124.

Finally, examples of typical 33-, 78- and 205-Byte Format data appear on page 127 with an accompanying explanation.

## 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

## Data Field 63

## PRIVATE USE DATA (Continued)

## AAV (RTI=AD)

Optional Subfields:

- CM Billing Postal Code
- CM Billing (Street) Address
- CM First & Last Name
- CM Phone Number
- Ship-to Postal Code
- Ship-to Address
- Ship-to First & Last Name
- Ship-to Phone Number
- Ship-to Country Code

AAV with Request Type Identifier “AD” is used to submit various levels of Cardmember and shipping data for verification, as determined by the total data length of this field (not including VLI). All subfields are *optional*, but within a given format, unused subfields must be character space filled.

**33-Byte Format** — Used to forward the *Cardmember’s Billing Postal Code* and/or *Billing (Street) Address*.

**78-Byte Format** — Used to append the *Cardmember’s First and Last Name* to the preceding data.

**205-Byte Format** — Used to append the *Cardmember’s Billing Telephone Number* and Enhanced Authorization *shipping information* to the preceding data. Ship-to subfields may be populated for all shipping addresses.

See typical examples of these three formats on page 127.

Merchants are encouraged to use the *205-Byte Format* to include the billing telephone number and shipping data on *all* shipments, even if *Cardmember Billing* and *Ship-to* addresses are identical, because this data enhances the American Express ability to assess risk.

An AAV response is returned in the 1110 Authorization Response in Data Field 44, Additional Response Data, relative position 3, as a one-byte code that indicates if the *Cardmember Billing Postal Code, Address* and/or *First and Last Name* match American Express records. For details, see page 146.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 63

#### PRIVATE USE DATA (Continued)

##### AAV

The basic differences in AAV variants are illustrated in the tables below.

For AAV, the Request Type Identifier (RTI) is “AD”.

	Request Type Identifier (RTI)	Authorization Request	Data Field 3 Processing Code	CM Billing Postal Code	CM Billing Address	CM Billing Name	CM Billing Phone Number	Ship-to Postal Code	Ship-to Address	Ship-to Name	Ship-to Phone	Ship-to Country Code	Length of Variable Data
33-Byte Format	AD	Yes	004800	O	O								33
	AD	No	174800	O	O								33
78-Byte Format	AD	Yes	004800	O	O	O							78
	AD	No	174800	O	O	O							78
205-Byte Format	AD	Yes	004800	O	O	O	O	O	O	O	O	O	205
	AD	No	174800	O	O	O	O	O	O	O	O	O	205

*In the table, above:*

O = Optional — Subfield may be populated.

Note: *Optional* subfields including CM Billing Phone Number, that are not populated, must be character space filled to meet 33-, 78- or 205-byte variable data length specified. For summary of subfield positions and lengths, see table on page 120.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 63

#### PRIVATE USE DATA (Continued)

##### **Telephone Number Verification (RTI=AE)**

Merchants must submit Billing Telephone Number data using the 205-byte Format and Request Type Indicator (RTI) "AE".

##### Optional Subfield (in addition to AAV subfields):

- CM Phone Number

The Telephone Number Verification response is returned in the 1110 Authorization Response in Data Field 62, as a series of one-byte codes that indicate if the Customer telephone number, in addition to (billing) *Postal Code*, *Address* and *Name* match Card-member billing information on file with the issuer. For details, see page 156.

	Request Type Identifier (RTI)	Authorization Request	Data Field 3 Processing Code	CM Billing Postal Code	CM Billing Address	CM Billing Name	CM Billing Phone Number	Ship-to Postal Code	Ship-to Address	Ship-to Name	Ship-to Phone	Ship-to Country Code	Length of Variable Data
205-Byte Format	AE	Yes	004800	O	O	O	O	O	O	O	O	O	205
	AE	No	174800	O	O	O	O	O	O	O	O	O	205

*In the table, above:*

O = Optional — Subfield may be populated.

Note: *Optional* subfields including CM Billing Phone Number, that are not populated, must be character space filled to meet 33-, 78- or 205-byte variable data length specified. For summary of subfield positions and lengths, see table on page 120.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 63

#### PRIVATE USE DATA (Continued)

##### *E-Mail Address Verification (RTI=AE)*

For E-mail Address Verification, Merchants must submit the 33-, 78- or 205-byte format with Request Type Indicator (RTI) "AE".

	Request Type Identifier (RTI)	Authorization Request	Data Field 3 Processing Code	CM Billing Postal Code	CM Billing Address	CM Billing Name	CM Billing Phone Number	Ship-to Postal Code	Ship-to Address	Ship-to Name	Ship-to Phone	Ship-to Country Code	Length of Variable Data
33-Byte Format	AE	Yes	004800	O	O								33
	AE	No	174800	O	O								33
78-Byte Format	AE	Yes	004800	O	O	O							78
	AE	No	174800	O	O	O							78
205-Byte Format	AE	Yes	004800	O	O	O	O	O	O	O	O	O	205
	AE	No	174800	O	O	O	O	O	O	O	O	O	205

*In the table, above:*

O = Optional — Subfield may be populated.

Note: *Optional* subfields including CM Billing Phone Number, that are not populated, must be character space filled to meet 33-, 78- or 205-byte variable data length specified. For summary of subfield positions and lengths, see table on page 120.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 63 PRIVATE USE DATA (Continued)

##### Data Field 63 Subfield Summary Table

Note: See detailed descriptions of each subfield on the following pages.

Pos.	Data Field 63 Subfield Name	Length	Field Type	RTI = AD or AE
1-3	VARIABLE LENGTH INDICATOR (VLI)	3 bytes	Numeric (EBCDIC)	M
4-5	SERVICE IDENTIFIER	2 bytes	Alphanumeric	M
6-7	REQUEST TYPE IDENTIFIER	2 bytes	Alphanumeric	M
8-16	CARDMEMBER BILLING POSTAL CODE	9 bytes	Alphanumeric	O
17-36	CARDMEMBER BILLING ADDRESS	20 bytes	Alphanumeric	O
37-51	CARDMEMBER FIRST NAME	15 bytes	Alphanumeric	O
52-81	CARDMEMBER LAST NAME	30 bytes	Alphanumeric	O
82-91	CARDMEMBER BILLING PHONE NUMBER	10 bytes	Alphanumeric	O
92-100	SHIP-TO POSTAL CODE	9 bytes	Alphanumeric	O
101-150	SHIP-TO ADDRESS	50 bytes	Alphanumeric	O
151-165	SHIP-TO FIRST NAME	15 bytes	Alphanumeric	O
166-195	SHIP-TO LAST NAME	30 bytes	Alphanumeric	O
196-205	SHIP-TO PHONE NUMBER	10 bytes	Alphanumeric	O
206-208	SHIP-TO COUNTRY CODE	3 bytes	Numeric	O

M = Mandatory

O = Optional

*Optional* subfields that are not populated must be character space filled to meet 33-, 78- or 205-byte length specified.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 63

#### PRIVATE USE DATA (Continued)

##### AAV & Telephone Number Verification Subfield Descriptions

The following are detailed descriptions for the subfields that may be present in Data Field 63.

##### VLI, SI and RTI

The first 7 digits of the American Express Automated Address Verification (AAV) and Telephone Number Verification request are as follows:

0  
1234567

**LLLSSRR**

- “LLL” is the three-digit, Variable Length Indicator (VLI), right justified and zero filled, if necessary.
- “SS” is the two-character, Service Identifier (SI).
- “RR” is the two-character, Request Type Identifier (RTI).

##### Cardmember Billing Subfields

##### *Cardmember Billing Postal Code*

0 1  
890123456

**NNNNNNNNN**

“NNNNNNNNN” is the nine-character, *Cardmember Billing Postal Code*. For addresses in the US, this is a numeric 5+4 ZIP; or a five-digit ZIP, left justified and character space filled to nine characters.

For non-US addresses, the postal code may vary in length and contain alpha characters. Non-US postal codes must be padded with character spaces to nine characters, left justified. Alpha characters must be upper case.

Merchant and Third Party Processor systems must be capable of submitting both numeric ZIP and alphanumeric non-US postal codes in this subfield.

If a Cardmember Billing Postal Code is not entered, this subfield must be character space filled.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

### Data Field 63

**PRIVATE USE DATA (Continued)****Cardmember Billing Address**

1      2                      3

78901234567890123456

AAAAAAAAAAAAAAAAAAAAAAAAA

“AAAAAAAAAAAAAAAAAAAA” is the first 20 characters of the *Cardmember Billing Address* (including the unit, apartment, flat or suite number), left justified and character space filled, if necessary. Alpha characters must be upper case. Leading or trailing zeros and/or virgules (/) are not permitted as filler.

If a Cardmember Billing Address is not entered, this subfield must be character space filled.

Note: For *33-Byte Format*, Cardmember Billing Address is the last item in Data Field 63. See table on page 117.

*Cardmember First and Last Name*

3 4 5 6 7 8  
789012345678901234567890123456789012345678901

FFFFFFFFFFFFFFFFLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL

- “FFFFFFFFFFFFFFFF” is the 15-character, *Cardmember First Name* (as it appears on the Card), left justified and character space filled, if necessary.
- “LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL” is the 30-character, *Cardmember Last Name* (as it appears on the Card), left justified and character space filled, if necessary.

Alpha characters must be upper case. Leading or trailing zeros and/or virgules (/) are not permitted as filler. If a Cardmember First and Last Name are not entered, this subfield must be character space filled.

Note: For *78-Byte Format*, Cardmember Last Name is the last item in Data Field 63. See table on page 117.



### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 63

#### PRIVATE USE DATA (Continued)

*Cardmember Billing Phone Number — Use for Telephone Number Verification*

8                      9  
2345678901

**PPPPPPPPPP**

“PPPPPPPPPP” is the 10-digit, *Cardmember Billing Phone Number*. Leading or trailing zeros and/or virgules (/) are not permitted as filler. However, phone numbers less than 10 digits should be left justified and character space filled.

USA, Canada and other countries that follow the NANP phone numbering system should send all 10 digits of the phone number, including the area code. For countries that do not follow this system, send the last 10 digits.

For example:

- United Kingdom (UK) phone number “44-1234-123456” would be entered as “1234123456”.
- Australia (AU) phone number “61292-11-1234” would be entered as “1292111234”.
- Portugal (PT) phone number “351-911-444-555” would be entered as “1911444555”.

If a Cardmember Phone Number is not entered, this subfield must be character space filled.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 63

#### PRIVATE USE DATA (Continued)

##### Ship-to Subfields

##### *Ship-to Postal Code*

1  
9 0  
234567890

**ZZZZZZZZZ**

“ZZZZZZZZZ” is the nine-character, *Ship-to Postal Code*. For addresses in the US, this is a numeric 5+4 ZIP; or a five-digit ZIP, left justified and character space filled to nine characters.

For non-US addresses, the postal code may vary in length and contain alpha characters. Non-US postal codes must be padded with character spaces to nine characters left justified and character space filled to nine characters. Alpha characters must be upper case.

Merchant and Third Party Processor systems must be capable of submitting both numeric ZIP and alphanumeric non-US postal codes in this subfield.

If a Ship-to Postal Code is not entered, this subfield must be character space filled.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 63 PRIVATE USE DATA (Continued)

##### *Ship-to Address*

1	1	1	1	1	1
0	1	2	3	4	5
1	2	3	4	5	6
7	8	9	0	1	2
3	4	5	6	7	8
9	0	1	2	3	4
5	6	7	8	9	0

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

“A . . . A” (50 characters) is the 50-character, Ship-to Address, left justified and character space filled, if necessary. Alpha characters must be upper case. Leading or trailing zeros and/or virgules (/) are not permitted as filler.

If a Ship-to Address is not entered, this subfield must be character space filled.

##### *Ship-to First and Last Name*

1	1	1	1	1
5	6	7	8	9
1	2	3	4	5
6	7	8	9	0
1	2	3	4	5
6	7	8	9	0
1	2	3	4	5
6	7	8	9	0

SSSSSSSSSSSSSSSSNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN

- “SSSSSSSSSSSSSSSS” is the first 15 characters of the *Ship-to First Name*, left justified and character space filled, if necessary.
- “N . . . N” (30 characters) is the first 30 characters of the *Ship-to Last Name*, left justified and character space filled, if necessary.

Alpha characters must be upper case. Leading or trailing zeros and/or virgules (/) are not permitted as filler. If a Ship-to First and Last Name are not entered, this subfield must be character space filled.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 63

#### PRIVATE USE DATA (Continued)

---

##### *Ship-to Phone Number*

1 2  
9 0  
6789012345

**LLLLLLLLLL**

“LLLLLLLLLL” is the 10-digit, *Ship-to Phone Number*. Leading or trailing zeros and/or virgules (/) are not permitted as filler. However, phone numbers less than 10 digits should be left justified and character space filled.

USA, Canada and other countries that follow the NANP phone numbering system should send all 10 digits of the phone number, including the area code. For countries that do not follow this system, send the last 10 digits.

For example:

- United Kingdom (UK) phone number “44-1234-123456” would be entered as “1234123456”.
- Australia (AU) phone number “61292-11-1234” would be entered as “1292111234”.
- Portugal (PT) phone number “351-911-444-555” would be entered as “1911444555”.

If a Ship-to Phone Number is not entered, this subfield must be character space filled.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 63 PRIVATE USE DATA (Continued)

##### *Ship-to Country Code*

2  
0  
678

**CCC**

“CCC” is the three-digit, numeric, *Ship-to Country Code*. For more information on numeric country codes, see *Country Codes* on page 283.

If a Ship-to Country Code is not entered, this subfield must be character space filled.

Note: For *205-Byte Format*, Ship-to Country Code is the last item in Data Field 63. See table on page 117.

#### *Examples of Data Field 63 Formats*

*Unused* and *Optional* subfields that are not populated must be character space filled to meet 33-, 78- or 205-Byte Format specified. *Unit*, *apartment*, *flat* and *suite numbers* are included in street addresses, in positions 17-36.

#### *33-Byte Format (plus three-byte VLI) — AAV (RTI=AD) or E-Mail Verification (RTI=AE)*

0	1	2	3
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7	8	9	0
1	2	3	4
5	6	7	8
9	0	1	2
3	4	5	6
7			

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 63 PRIVATE USE DATA (Continued)

*205-Byte Format (plus three-byte VLI) — AAV (RTI=AD) or E-Mail Verification (RTI=AE)*

0	1	2	3	4	5	6
123456789012345678901234567890123456789012345678901234567890						
<b>205AXAD85054450018850~N~56~ST~#301~~JANE~~~~~SMITH~~~~</b>						
6	7	8	9	10	11	12
123456789012345678901234567890123456789012345678901234567890						
<b>~~~~~12345678908502218004102~N~289~PL~~~~~</b>						
1	1	1	1	1	1	1
2	3	4	5	6	7	8
123456789012345678901234567890123456789012345678901234567890						
<b>~~~~~ROBERT~~~~~JONES~~~~~</b>						
1	1	2				
8	9	0				
1234567890123456789012345678						
<b>~~~~~1234567890840</b>						

*205-Byte Format (plus three-byte VLI) — Telephone Number and/or E-Mail Verification (RTI=AE)*

0	1	2	3	4	5	6
123456789012345678901234567890123456789012345678901234567890						
<b>205AXAE85054450018850~N~56~ST~#301~~JANE~~~~~SMITH~~~~</b>						
6	7	8	9	10	11	12
123456789012345678901234567890123456789012345678901234567890						
<b>~~~~~12345678908502218004102~N~289~PL~~~~~</b>						
1	1	1	1	1	1	1
2	3	4	5	6	7	8
123456789012345678901234567890123456789012345678901234567890						
<b>~~~~~ROBERT~~~~~JONES~~~~~</b>						
1	1	2				
8	9	0				
1234567890123456789012345678						
<b>~~~~~1234567890840</b>						

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 63

#### PRIVATE USE DATA (Continued)

In the preceding examples:

- “033”, “078” and “205” are the three-byte, Variable Length Indicators (VLI).\*
- “AX” is the two-byte, Service Identifier (constant literal “AX” = American Express).
- “AD” is the two-byte, Request Type Identifier.  
“AD” = American Express AAV.  
“AE” = American Express Telephone Number Verification and/or E-Mail Address Verification.
- “850544500” is the nine-byte, Cardmember Billing Postal Code.
- “18850~N~56~ST~#301~~” is the first 20 bytes of Cardmember Billing Address. Note that *unit*, *apartment*, *flat* or *suite number* must be included in street address, if applicable. (See notes, below.)
- “JANE~...~SMITH~...~” is the 15-byte, Cardmember First Name; and 30-character, Cardmember Last Name.
- “1234567890” is the 10-byte, Cardmember Phone Number (used for Telephone Number Verification).
- “850221800” is the nine-byte, Ship-to Postal Code.
- “4102~N~289~PL~...~” is the 50-byte, Ship-to Address.
- “ROBERT~...~JONES~...~” is the 15-byte, Ship-to First Name; and 30-byte, Ship-to Last Name.
- “1234567890” is the 10-byte, Ship-to Phone Number.
- “840” is the three-digit, numeric, Ship-to Country Code. For more information on numeric country codes, see *Country Codes* on page 283.

Notes:

1. Tilde (~) characters represent character spaces.
2. See Street Codes (abbreviations) on page 312.
3. See Data Field 63 Subfield Summary Table on page 120.

---

\* Not counting the Variable Length Indicator (VLI) that populates the first three positions in this field.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

### Data Field 63

**PRIVATE USE DATA (Continued)**

## American Express Travelers Cheque Format

For American Express Travelers Cheque (TC) transactions, TC data may be machine read or manually entered.

The following are detailed descriptions for the subfields used to transmit TC information in Data Field 63.

### TC Data — MICR Entry

For TC transactions in which the *MICR* (*Magnetic Ink Character Recognition*) data is machine read, this field must contain the MICR data printed along the bottom edge of the TC.

0 1 2 3  
1234567890123456789012345678901

**LLSSRRNNNNNNNNNNNNNNNNNNNNNNNNNNNN**

- “LLL” is the three-digit, Variable Length Indicator (VLI), right justified and zero filled, if necessary.
- “SS” is the two-character, Service Identifier (SI).
- “RR” is the two-character, Request Type Identifier (RTI).
- “NNN . . .” is the 24-character, TC MICR line entry.

### Example of TC MICR Line TC Data

0 1 2 3  
1234567890123456789012345678901

028AXTC123456789T12D12345678901

- “028” is the Variable Length Indicator (VLI).
- “AX” is the two-byte, Service Identifier (constant literal “AX” = American Express).
- “TC” is the two-byte, Request Type Identifier (constant literal “TC” = Travelers Cheque, MICR line data).
- “123 . . .” is the 24-character, TC MICR line entry.

Note: Some symbols in the printed MICR line are field separators, which are translated to alpha characters when machine read.



## 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

## Data Field 63

## PRIVATE USE DATA (Continued)

*TC Data — Manual Entry*

For TC transactions in which the *Travelers Cheque Number* is *manually entered*, this field must contain the TC Alpha Prefix and Serial Number from the upper, right-hand corner of Travelers Cheque.

Note: For manually entered TC Numbers only, the corresponding TC *denomination* must be forwarded in Field 62 (see page 109).

The TC Alpha Prefix (leading alpha characters) *must* be converted to numbers prior to populating this field, because the TC Alpha Prefix and Serial Number must be transmitted as numerals. See *Travelers Cheque Alpha Prefix Conversion Table*, below:

*Travelers Cheque Alpha Prefix Conversion Table*

A = 1	J = 1	
B = 2	K = 2	S = 2
C = 3	L = 3	T = 3
D = 4	M = 4	U = 4
E = 5	N = 5	V = 5
F = 6	O = 6	W = 6
G = 7	P = 7	X = 7
H = 8	Q = 8	Y = 8
I = 9	R = 9	Z = 9

Note: Bullet characters (used as separators) are not transmitted.

0                      1  
 123456789012345678

**LLLSSRRNNNNNNNNNN**

- “LLL” is the three-digit, Variable Length Indicator (VLI), right justified and zero filled, if necessary.
- “SS” is the two-character, Service Identifier (SI).
- “RR” is the two-character, Request Type Identifier (RTI).
- “NNNNNNNNNN” is the 11-digit concatenation of the 2-digit numeric equivalent of the TC Alpha Prefix and the 9-digit, manually entered, Travelers Cheque Number.

### 3.4.1 ISO 8583 Authorization Request (1100) (Continued)

#### Data Field 63 PRIVATE USE DATA (Continued)

---

##### *Example of Manually Entered TC Data*

```

0          1
123456789012345678

```

**015AXTS12123456789**

- “015” is the Variable Length Indicator (VLI).
- “AX” is the two-byte, Service Identifier (constant literal “AX” = American Express).
- “TS” is the two-byte, Request Type Identifier (constant literal “TS” = Travelers Cheque, manually entered data).
- “12123456789” is the manually entered, TC Prefix (converted) and Travelers Cheque Number.

#### Data Field 64 MESSAGE AUTHENTICATION CODE FIELD

---

Length of Field: 8 bytes, 64 bits

Field Type: Binary

Constant: None

Field Requirement: Not used — All transactions

Description: This field is unused and reserved for future use.

This field is used for the data value that protects both a message’s integrity, as well as its authenticity, by allowing verifiers the ability to detect any changes to the message content.

Data must not be transmitted to American Express in this field. Unauthorized use of this field may cause message rejection.

### 3.5 ISO 8583 Response Message Formats

This section contains formatting specifications for the following 1110 Response Messages used by American Express:

<u>Subsection</u>	<u>Title</u>
3.5.1	<b>ISO 8583 Authorization Response (1110)</b> — This message is used by American Express to transmit an <i>Authorization</i> and/or <i>Automated Address Verification (AAV)</i> Response to a Merchant.

### 3.5.1 ISO 8583 Authorization Response (1110)

Length of Record: 801bytes maximum

Description: This message is used by American Express to transmit an *Authorization* and/or *Automated Address Verification (AAV)* Response to a Merchant.

Data Fields in This Section:	— MESSAGE TYPE IDENTIFIER	Page 135
	— BIT MAP – PRIMARY	135
	2 PRIMARY ACCOUNT NUMBER (PAN)	136
	3 PROCESSING CODE	136
	4 AMOUNT, TRANSACTION	137
	7 DATE AND TIME, TRANSMISSION	138
	11 SYSTEMS TRACE AUDIT NUMBER	138
	12 DATE AND TIME, LOCAL TRANSACTION	139
	15 DATE, SETTLEMENT	139
	30 AMOUNTS, ORIGINAL	140
	31 ACQUIRER REFERENCE DATA	141
	32 ACQUIRING INSTITUTION IDENTIFICATION CODE	142
	37 RETRIEVAL REFERENCE NUMBER	142
	38 APPROVAL CODE	143
	39 ACTION CODE	144
	41 CARD ACCEPTOR TERMINAL IDENTIFICATION	145
	42 CARD ACCEPTOR IDENTIFICATION CODE	145
	44 ADDITIONAL RESPONSE DATA	146
	49 CURRENCY CODE, TRANSACTION	151
	54 AMOUNTS, ADDITIONAL	151
	55 INTEGRATED CIRCUIT CARD SYSTEM RELATED DATA	153
	60 NATIONAL USE DATA	155
	61 NATIONAL USE DATA	155
	62 PRIVATE USE DATA	156
	63 PRIVATE USE DATA	162
	64 MESSAGE AUTHENTICATION CODE FIELD	162

Note: See summary table and example of the Authorization Response (1110) message on page 216.

**3.5.1 ISO 8583 Authorization Response (1110) (Continued)**

<b>Data Field - None</b>	<b>MESSAGE TYPE IDENTIFIER</b>
Length of Field:	4 bytes, fixed length
Field Type:	Numeric
Constant:	1110
Field Requirement:	Mandatory
Description:	The constant literal “1110” signifies the ISO 8583 Authorization Response message.

<b>Data Field - None</b>	<b>BIT MAP – PRIMARY</b>
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 44 of the Authorization Request (1100) message.

**3.5.1 ISO 8583 Authorization Response (1110) (Continued)**

<b>Data Field 2</b>	<b>PRIMARY ACCOUNT NUMBER (PAN)</b>
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 — Echo returned
Description:	This field is mandatory in the Authorization Request (1100) message, and is echo returned without alteration in the Authorization Response (1110) message.

<b>Data Field 3</b>	<b>PROCESSING CODE</b>
Length of Field:	6 bytes, fixed length
Field Type:	Numeric, right justified, zero filled
Constant:	None
Field Requirement:	Mandatory — Echo returned
Description:	This field is mandatory in the Authorization Request (1100) message, and is echo returned without alteration in the Authorization Response (1110) message.

### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

<b>Data Field 4</b>	<b>AMOUNT, TRANSACTION</b>
Length of Field:	12 bytes, fixed length
Field Type:	Numeric, right justified, zero filled
Constant:	None
Field Requirement:	<ul style="list-style-type: none"> <li>• Mandatory — Echo returned for Non-Prepaid Card Authorization Requests</li> <li>• Conditional — Prepaid Card Partial Authorization Requests (see explanation below)</li> </ul>
Description:	This field is mandatory in the Authorization Request (1100) message, and is generally echo returned without alteration in the Authorization Response (1110) message.

#### ***Partial Authorization — Prepaid Cards Only***

If FUNCTION CODE (Data Field 24) is “181” (Partial Authorization) in the Authorization Request (1100) message, and ACTION CODE (Data Field 39) is “002” in this Authorization Response (1110) message, then this AMOUNT, TRANSACTION field contains the *approved, authorized amount*, which will be less than the AMOUNT, TRANSACTION entry transmitted in the originating 1100 message.

Note: Merchant certification is required to receive *partial authorization responses*.

**3.5.1 ISO 8583 Authorization Response (1110) (Continued)**

<b>Data Field 7</b>	<b>DATE AND TIME, TRANSMISSION</b>
Length of Field:	10 bytes, fixed length
Field Type:	Numeric, MMDDhhmmss
Constant:	None
Field Requirement:	Conditional — Echo returned
Description:	This 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.

<b>Data Field 11</b>	<b>SYSTEMS TRACE AUDIT NUMBER</b>
Length of Field:	6 bytes, fixed length
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Mandatory — Echo returned
Description:	This field is mandatory in the Authorization Request (1100) message, and is echo returned without alteration in the Authorization Response (1110) message.



**3.5.1 ISO 8583 Authorization Response (1110) (Continued)**

<b>Data Field 12</b>	<b>DATE AND TIME, LOCAL TRANSACTION</b>
Length of Field:	12 bytes, fixed length
Field Type:	Numeric, YYMMDDhhmmss
Constant:	None
Field Requirement:	Mandatory — Echo returned
Description:	This field is mandatory in the Authorization Request (1100) message, and is echo returned without alteration in the Authorization Response (1110) message.

<b>Data Field 15</b>	<b>DATE, SETTLEMENT</b>
Length of Field:	6 bytes, fixed length
Field Type:	Numeric, YYMMDD
Constant:	None
Field Requirement:	<ul style="list-style-type: none"> <li>• Mandatory — MasterCard transactions</li> <li>• Not used — Other transactions</li> </ul>
Description:	<p>This field is used for MasterCard processing only.</p> <p>This field contains the BankNet Settlement Date of the card, as returned by MasterCard.</p> <p>The format is: YYMMDD</p> <p>YY = Year (last two digits only) — Optional</p> <p>MM = Month (two digits)</p> <p>DD = Day (two digits)</p> <p>See table on page 217 for more information on MasterCard requirements.</p>

### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

Data Field 30	AMOUNTS, ORIGINAL
Length of Field:	24 bytes, fixed length
Field Type:	Numeric
Constant:	None
Field Requirement:	<ul style="list-style-type: none"><li>• Conditional — Some American Express Prepaid Card transactions</li><li>• Not used — All others</li></ul>
Description:	<p>This field contains the <i>original amount requested</i> when a <i>partial amount</i> is approved.</p> <p>Merchants must be certified for <i>Partial Authorization</i> for the original amount to be returned in this field. See additional information on partial authorizations in Authorization Request (1100) message, Data Field 24, FUNCTION CODE, on page 63.</p> <p>Positions 1-12 of this field are the original transaction amount from Data Field 4, AMOUNT, TRANSACTION, in the originating Authorization Request (1100) message.</p> <p>Positions 13-24 are zero filled and reserved for future use.</p>

### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

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
	Note: This field is mandatory and created by the American Express Global Network, and always appears in response messages returned to Merchants and/or Third Party Processors.
Description:	<p>This field contains the 15-digit, numeric, <i>Transaction Identifier (TID)</i>, a unique, American Express-assigned tracking number. The TID is used to identify and track a Cardmember transaction throughout its life cycle.</p> <p>The value in this field must be retained by the Merchant's system and returned to American Express in the Transaction Advice Basic (TAB), Transaction Advice Detail (TAD) and Transaction Advice Addendum (TAA) financial settlement records that correspond to this authorization response. For more information, see the <i>American Express Global Financial Settlement Guide (POS020036)</i>.</p> <p>An example of a typical response appears below:</p> <pre> 0           1 12345678901234567 15123456789012345 </pre> <ul style="list-style-type: none"> <li>• “15” is the two-byte, Variable Length Indicator (VLI).</li> <li>• “123456789012345” is the 15-byte, numeric TID.</li> </ul>

**3.5.1 ISO 8583 Authorization Response (1110) (Continued)**

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**Data Field 32                      ACQUIRING INSTITUTION IDENTIFICATION CODE**

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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 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.

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**Data Field 37                      RETRIEVAL REFERENCE NUMBER**

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Length of Field:	12 bytes, fixed length
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Conditional — Echo returned
Description:	This 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.

### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

Data Field 38	APPROVAL CODE
Length of Field:	6 bytes, fixed length
Field Type:	Alphanumeric, left justified, character space filled
Constant:	None
Field Requirement:	<ul style="list-style-type: none"> <li>• Mandatory — “Approved” transactions</li> <li>• Optional — “Please Call Issuer” – American Express</li> <li>• Not used — Other transactions</li> </ul>
Description:	<p>If ACTION CODE (field 39) is an approval, this field contains an “authorization code” that corresponds to the authorization request, financial transaction or Automated Address Verification (AAV) request in the originating request message. Formats include:</p> <p><b>NNNNNN</b> = Authorization code for <i>all US, Canadian and some regional</i> American Express Merchants.</p> <p>Note: All <i>US and Canadian Merchants</i> must comply with the American Express Six-Digit Approval Code policy.</p> <p><b>NN~~~~</b> = Authorization code for American Express Travelers Cheques.</p> <p><b>NN~~~~</b> = Authorization code for <i>some regional</i> American Express Merchants, only.</p> <p><b>NNNNNN</b> = Authorization code for MasterCard, VISA and American Express-supported Cards.</p> <p><b>NN~~~~</b> = Authorization code for Diners Club.</p> <p>If ACTION CODE is “107 – Please Call Issuer”, this field may optionally contain a four-digit, <i>American Express (AMEX) Referral Queue Number</i>.</p> <p><b>NNNN~~</b> = AMEX Referral Queue Number (American Express option only — Not provided for all American Express products; e.g., Gift Cards).</p> <p>Notes:</p> <ol style="list-style-type: none"> <li>1. For more information on the AMEX Referral Queue Number, see page 6.</li> <li>2. In the examples above, “N” is an alphanumeric character, and the tilde (~) represents a character space.</li> </ol>

### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

Data Field 39	ACTION CODE
Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	None
Field Requirement:	Mandatory
Description:	This field contains the <i>Action Code</i> , which indicates the American Express disposition for this transaction.
	<u>Action Codes:</u>
	000 Approved
	001 Approve with ID
	002 Partial Approval (Prepaid Cards only)
	003 Approve VIP
	100 Deny
	101 Expired Card / Invalid Expiration Date
	106 Exceeded PIN attempts
	107 Please Call Issuer
	109 Invalid merchant
	110 Invalid amount
	111 Invalid account / Invalid MICR (Travelers Cheque)
	115 Requested function not supported
	117 Invalid PIN
	119 Cardmember not enrolled / not permitted
	122 Invalid card security code (a.k.a., CID, 4DBC, 4CSC)
	125 Invalid effective date
	181 Format error
	183 Invalid currency code
	187 Deny — New card issued
	188 Deny — Account canceled
	189 Deny — Canceled or Closed Merchant/SE
	200 Deny — Pick up card
	912 Issuer not available

#### Notes:

1. While Action Code “115” (Requested function not supported) means the issuer does not support the requested function, it can also mean “Service not permitted” (i.e., the Merchant or Third Party Processor has requested an authorization feature or function for which it is not certified).
2. Action Code “122” indicates keyed four-digit CID/4DBC/4CSC failed validation. For CID/4DBC/4CSC location on Cards, see page 18.

**3.5.1 ISO 8583 Authorization Response (1110) (Continued)**

<b>Data Field 41</b>	<b>CARD ACCEPTOR TERMINAL IDENTIFICATION</b>
Length of Field:	8 bytes, fixed length
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	<ul style="list-style-type: none"><li>• Mandatory — Echo returned for VISA PS2000</li><li>• Conditional — Echo returned for American Express and other non-VISA transactions</li></ul>
Description:	This 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.

<b>Data Field 42</b>	<b>CARD ACCEPTOR IDENTIFICATION CODE</b>
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 field is mandatory in the Authorization Request (1100) message, and is echo returned without alteration in the Authorization Response (1110) message.

### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

**Data Field 44****ADDITIONAL RESPONSE DATA**

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Length of Field:	3 bytes minimum, 27 bytes maximum, (LLVAR)
Variable Length Indicator:	2 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	25 bytes maximum, EBCDIC
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	<ul style="list-style-type: none"><li>• Conditional — American Express Automated Address Verification (AAV) and/or Keyed CID/4DBC/4CSC Validation programs</li><li>• Optional — American Express Dial Transfer</li><li>• Not used — Other transactions</li></ul>
Description:	<p>This field contains additional response data for certain Authorization Request (1100) messages; and it is mandatory if American Express Automated Address Verification (AAV) and/or Keyed CID/4DBC/4CSC validation is requested in Data Field 63 and/or 53 (respectively) of the 1100 message. However, this field may not be returned when certain error Action Codes (Data Field 39) are returned in the 1110 message; e.g., a “181” Format Error.</p> <p>Merchants that submit 78- or 205-Byte Format, Automated Address Verification (AAV) Requests in 1100 messages may receive <i>any</i> of the AAV responses described for this field. Therefore, the Merchant’s system(s) should be prepared to accept and process <i>all</i> of the responses detailed on the following pages. For more information on <i>Automated Address Verification</i> formats, see page 115.</p>



### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

#### Data Field 44

#### ADDITIONAL RESPONSE DATA

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***Variable Length Indicator (VLI)***

The first two digits in this field are the Variable Length Indicator (VLI). Besides indicating variable data length, the VLI is a key to the contents of this field.

- 01 = Variable data in the form of a one-byte response is used for American Express AAV. Example: “01Y”.
- 02 = Variable data in the form of a two-byte response, where the first byte (relative position 3) contains Billing Address Verification results; and the second byte (relative position 4) contains Keyed CID/4DBC/4CSC Validation results. Example: “02NY”.
- 15 = Variable data as a 15-byte field is reserved for *American Express Dial Transfer, Relay Phone Number* data. This rarely used option transports a phone number dial-string to a terminal, to facilitate autodialing to an American Express US CAS Authorizations Center (so that the Merchant can speak to an Authorizer). For more information on this option, please contact your American Express representative.

Note: See subfield layouts and examples that follow.

### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

#### Data Field 44

#### ADDITIONAL RESPONSE DATA (Continued)

##### VLI = "01" Format

For AAV responses, the format for this field is:

123

**LLX**

LL = Two-digit, Variable Length Indicator (VLI), right justified and zero filled.

X = One-character, Address Verification response code for American Express AAV requests.

Valid *Address Verification* response codes include the following:

Y = Yes, Billing Address and Postal Code are both correct.

N = No, Billing Address and Postal Code are both incorrect.

A = Billing Address only correct.

Z = Billing Postal Code only correct.

U = Information unavailable.

S = SE not allowed AAV function

R = System unavailable; retry.

L = CM Name and Billing Postal Code match.

M = CM Name, Billing Address and Postal Code match.

O = CM Name and Billing Address match.

K = CM Name matches.

D = CM Name incorrect, Billing Postal Code matches

E = CM Name incorrect, Billing Address and Postal Code match

F = CM Name incorrect, Billing Address matches

W = No, CM Name, Billing Address and Postal Code are all incorrect

### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

Data Field 44	ADDITIONAL RESPONSE DATA (Continued)
<b>Example of VLI = "01"</b>	<p>The following is a typical example of an AAV, one-byte response:</p> <p><u>123</u> <b>01Y</b></p> <p>01 = Two-digit, Variable Length Indicator (VLI). Y = One-character, Address Verification response code.</p>
<b>VLI = "02" Format</b>	<p>For AAV and/or Keyed CID/4DBC/4CSC Validation responses, the format for this field is:</p> <p><u>1234</u> <b>LLXB</b></p> <p>LL = Two-digit, Variable Length Indicator (VLI), right justified and zero filled.</p> <p>X = One-character, Address Verification response code for American Express AAV requests. See valid codes on previous page.</p> <p>Note: A character space in relative position 3, in lieu of an Address Verification response code, indicates that Data Field 63 (containing AAV data) was not present in the originating authorization request (1100) message.</p> <p>B = One-character, CID/4DBC/4CSC response code for American Express Keyed CID/4DBC/4CSC Validation requests.</p> <p>Valid CID/4DBC/4CSC response codes include the following:</p> <p>Y = CID/4DBC/4CSC matched N = CID/4DBC/4CSC did not match U = CID/4DBC/4CSC was not checked</p>

### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

#### Data Field 44

#### ADDITIONAL RESPONSE DATA (Continued)

##### Example #1 of VLI = "02"

The following is a typical example of an AAV with Keyed CID/4DBC/4CSC Validation, two-byte response to an 1100 message that contained both Data Field 53 (CID/4DBC/4CSC from the face of the Card) and Data Field 63 (address verification information):

1234

**02YN**

02 = Two-digit, Variable Length Indicator (VLI).

Y = One-character, AAV response code.

N = One-character, Keyed CID/4DBC/4CSC Validation response code.

##### Example #2 of VLI = "02"

The following is a typical example of a Keyed CID/4DBC/4CSC Validation, two-byte response to an 1100 message that contained Data Field 53 (CID/4DBC/4CSC from the face of the card) and *not* Data Field 63 (address verification information):

1234

**02~N**

02 = Two-digit, Variable Length Indicator (VLI).

~ = Character space.

N = One-character CID/4DBC/4CSC Verification response code.

##### Example of VLI = "15"

The following is a typical example of an American Express Dial Transfer, Relay Phone Number, 15-byte response:

0                      1  
12345678901234567

**15441101234567890**

15 = Two-byte, Variable Length Indicator (VLI).

441101234567890 = 15-byte, telephone number.

### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

<b>Data Field 49</b>	<b>CURRENCY CODE, TRANSACTION</b>
Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	None
Field Requirement:	Mandatory — Echo returned
Description:	<p>This field is mandatory in the Authorization Request (1100) message, and is echo returned without alteration in the Authorization Response (1110) message.</p> <p>For more information on numeric currency codes and decimal point positions, see <i>Currency Codes</i> on page 295.</p>

<b>Data Field 54</b>	<b>AMOUNTS, ADDITIONAL</b>
Length of Field:	4 bytes minimum, 123 bytes maximum, (LLVAR)
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:	<ul style="list-style-type: none"> <li>• Optional — American Express Prepaid Cards</li> <li>• Not used — All others</li> </ul>
Description:	<p>This field contains the available amount remaining on certain American Express Prepaid Card products. It is present in the response message, when Data Field 24 FUNCTION CODE in the originating request message contains codes “181” or “182”. Merchants may wish to display this value on the POS terminal or print it on the customer receipt. For more information, see page 63.</p> <p>Note: Balances may not be returned for some Prepaid Cards.</p>

## 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

## Data Field 54

## AMOUNTS, ADDITIONAL (Continued)

This 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
<b>VVV</b>	3 bytes	1-3	VLI / Variable Length Indicator (always "020")
<b>AA</b>	2 bytes	4-5	<i>Account</i> Type Code (always "00")
<b>BB</b>	2 bytes	6-7	<i>Amount</i> Type Code (always "05")
<b>CCC</b>	3 bytes	8-10	<i>Numeric</i> Currency Code (e.g., US Dollars = "840"). For more information on numeric currency codes and decimal point positions, see Currency Codes on page 295.
<b>D</b>	1 byte	11	Credit Code ("C" = Credit)
<b>123...</b>	12 bytes	12-23	12-digit, Prepaid Card balance, right justified, zero filled, with corresponding decimal implied (e.g., 840 / US Dollars = two decimal places).

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

1                      2

12345678901234567890123

**0200005840C000000001000**

## 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

**Data Field 55                      INTEGRATED CIRCUIT CARD SYSTEM RELATED DATA**

Length of Field: 4 bytes minimum, 259 bytes maximum, (LLLVAR)

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

Length of Variable Data: 256 bytes maximum, EBCDIC, BCD or binary

Field Type: Alphanumeric & special characters, and binary coded decimal (BCD) or unsigned binary numbers

Note: Data Field 55 contains some subfields that are forwarded for transmission to an integrated circuit card or terminal, and are specified as *binary*. This data is in binary format in 8-bit blocks, right justified and zero filled, per the following:

1. Data originally transmitted as *numeric* is formatted as binary coded decimal (BCD) with *two digits per byte* (“00” to “99”). Numeric subfields with an odd number of digits are padded with leading zeros.
2. Data originally transmitted as *binary* is mapped directly as *eight bits per byte*, with the value for any binary byte of data varying from hexadecimal “00” to “FF”.

For more information, see page 104.

Constant: None

Field Requirement:

- Mandatory — ICC (EMV<sup>\*</sup>) transactions (special certification required)
- Not used — Other transactions

Certification Requirement: Canada

- Mandatory — Third Party Processors must be certified to pass Card Present transactions for Integrated Circuit Cards (ICCs) in this field. After certification, all card issuer-provided ICC related data must be forwarded in this field.
- Mandatory — Vendor software must be certified to pass responses to Card Present transactions for Integrated Circuit Cards (ICCs), in this field. After certification, all card issuer-provided ICC related data must be forwarded in this field.

<sup>\*</sup> EMV is the abbreviation for Europay/MasterCard/VISA, joint sponsors of the global standard for electronic financial transactions using “chip card” technology.

## 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

**Data Field 55 INTEGRATED CIRCUIT CARD SYSTEM RELATED DATA (Cont.)**

## Description:

This field contains *Integrated Circuit Card (ICC) Related Data* that is forwarded for transmission to the integrated circuit on a *chip card*. If ICC data was read from the Card and included in the originating request message, some subfields are echo returned in this response.

Before Merchants may use this field, special certification is required to process ICC transactions. For more information on ICC support, reference the AEIPS Chip Card Specification and AEIPS Terminal Specification, in addition to contacting your American Express representative.

Note: For Merchants who have not completed this certification, no data will be transmitted in this field from American Express.

See subfield details below:

Relative Position	Subfield Name	Field Length	Field Type	Required	Description
1-3	VARIABLE LENGTH INDICATOR (VLI)	3 bytes	Numeric (EBCDIC)	Yes	VLI indicates total length of <i>variable data</i> in this field (not including VLI).
4-7	ICC HEADER VERSION NAME	4 bytes	Alphanumeric (EBCDIC)	Mandatory echo	Version header of the bit contents. Must be echoed without alteration from Network to Issuer Request, even if Bit 55 data (Issuer Authentication Data/ Issuer Script Data) is not present in the response. Required value: "AGNS"
8-9	ICC HEADER VERSION NUMBER	2 bytes	Binary coded decimal (BCD)	Mandatory echo	Version number of the bit contents. Must be echoed without alteration from Network to Issuer Request, even if Bit 55 data (Issuer Authentication Data/ Issuer Script Data) is not present in the response. Required value: "0001"
10-26	ISSUER AUTHENTICATION DATA	17 bytes, max (LLVAR)	Unsigned binary number	Conditional	One byte, unsigned-binary-number VLI indicates subfield length, and precedes up to 16 bytes of variable data. For example, the VLI for 16 bytes of variable data is = "1 0" (one byte) in hex. See explanation of <i>unsigned binary number</i> format on page 104. Note: This subfield contains proprietary, issuer-defined authentication data transmitted from issuer to card. (For details, see AEIPS Chip Card Specification.)
27-155	ISSUER SCRIPT DATA	129 bytes, max (LLVAR)	Unsigned binary number	Conditional	This field may be used only if Subfield 3, Issuer Authentication Data, is present. This field contains Issuer Script Template(s) and Command(s) to be communicated to the ICC in the Chip Card.
156-259	RESERVED FOR FUTURE USE	104 bytes, max (LLVAR)	N/A	No	This subfield is reserved for future use and is completely omitted (including LLVAR).



**3.5.1 ISO 8583 Authorization Response (1110) (Continued)****Data Field 60****NATIONAL USE DATA**

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Length of Field:	4 bytes minimum, 303 bytes maximum, (LLVAR)
Variable Length Indicator:	3 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	300 bytes maximum, EBCDIC
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Conditional — Echo returned
Description:	This field is reserved for future use.  Data must not be transmitted to American Express in this field. Unauthorized use of this field may cause message rejection.

**Data Field 61****NATIONAL USE DATA**

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Length of Field:	4 bytes minimum, 103 bytes maximum, (LLVAR)
Variable Length Indicator:	3 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	100 bytes maximum, EBCDIC
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Conditional — Echo returned
Description:	This field is reserved for future use.  Data must not be transmitted to American Express in this field. Unauthorized use of this field may cause message rejection.

### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

#### Data Field 62

#### PRIVATE USE DATA

Length of Field:	4 bytes minimum, 63 bytes maximum, (LLLVAR)
Variable Length Indicator:	3 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	60 bytes maximum, coding determined by field use
Field Type:	Alphanumeric & special characters, and binary coded decimal (BCD) or unsigned binary numbers
Constant:	None
Field Requirement:	<ul style="list-style-type: none"> <li>• Mandatory — American Express transactions, Telephone Number and E-Mail Verification</li> <li>• Mandatory — VISA PS2000 transactions, PS2000 requested</li> <li>• Not used — Other transactions</li> </ul>
Certification Requirement:	<p>All Third Party Processors and Vendor software must certify to this field. Merchants that submit <i>Billing Telephone Number</i> and/or <i>E-Mail Address</i> data in Data Field 63 and/or 47, respectively, in the 1100 Authorization Request, must also certify to this field. Therefore, the Merchant's system(s) should be prepared to accept and process <i>all</i> of the responses detailed on the following pages. For more information on <i>Automated Address Verification (AAV)</i>, <i>Telephone Number Verification</i> and/or <i>E-Mail Address Verification</i> formats, see pages 116, 118 and/or 119, respectively.</p>
Description:	<p>This field is used for <i>American Express Telephone Number Verification</i> and/or <i>E-Mail Address Verification</i> and VISA transaction responses. However, this field may not be returned when certain error Action Codes in Data Field 39 are returned in the 1110 Authorization Response e.g., a "181" Format Error.</p> <p>American Express strongly recommends that Merchant/processor systems be capable of supporting the full 60-byte (variable data) maximum length specified for this field, for future expansion.</p>

## 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

## Data Field 62

## PRIVATE USE DATA (Continued)

**Telephone Number  
and/or E-Mail Address  
Verification Transactions**

This field contains response codes that indicate if Cardmember information forwarded in an Address Verification Only (Processing Code “174800”) or a Combination Address Verification and Authorization (Processing Code “004800”) 1100 Authorization Request is valid. In addition to Automated Address Verification (AAV) responses, this field also provides *Cardmember Billing Telephone Number* and *E-Mail Address* verification.

**Combination Address  
Verification & Authorization  
— Processing Code “004800”**

The Cardmember *Postal Code*, *(Street) Address*, *Name*, *Billing Telephone Number* and *E-Mail Address* response codes returned in this field, correspond to data transmitted by the Merchant for Combination Address Verification and Authorization (Processing Code “004800”) in the 1100 Authorization Request, Data Fields 63 and 47. For more information, see pages referenced in table that follows.

**Address Verification Only —  
Processing Code “174800”**

*Address Verification Only* transactions (Processing Code “174800”) do not support *Billing Telephone Number* and *E-Mail Address* verification. However, if *Billing Telephone Number* and/or *E-Mail Address* data is submitted in the 1100 Authorization Request, these positions will contain code “S” (Service not allowed) in the 1110 Authorization Response.

This response is composed of a series of response codes, preceded by a three-digit, Variable Length Indicator (VLI). Currently, the typical variable data portion of the response is only five characters.

Each character in the five-byte variable data response indicates the status for specific Cardmember (CM) *billing* data submitted in the 1100 Authorization Request. For more information on the original data sent, see pages indicated in the table on the next page.

**3.5.1 ISO 8583 Authorization Response (1110) (Continued)****Data Field 62 PRIVATE USE DATA (Continued)***American Express AAV, Billing Telephone Number and  
E-Mail Address Verification Response Message Subfields*

Pos.	Subfield Name	Length	Comments (Message / Field Reference)	Page
1-3	VLI	3 bytes	3-digit Variable Length Indicator	—
4-5	Service Identifier	2 bytes	Constant literal "AX" = American Express	—
6-7	Request Type Identifier	2 bytes	Constant literal "AE" = Billing Telephone Number and E-Mail Address Verification Response	—
8	Cardmember Billing Postal Code	1 byte	1100 / 63 — 33-, 78- and 205-Byte Format	121
9	Cardmember Billing (Street) Address	1 byte	1100 / 63 — 33-, 78- and 205-Byte Format	122
10	Cardmember First and Last Name	1 byte	1100 / 63 — 78- and 205-Byte Format	122
11	Cardmember Billing Phone Number	1 byte	1100 / 63 — 205-Byte Format	123
12	Customer E-Mail Address	1 byte	1100 / 47 — ITD and IAC	88

Valid response codes for subfield positions 8-12 include:

Y = Yes, data matches

N = No, data does not match

~ = Data not sent. Note: Tilde (~) represents character space.

U = Data unchecked

R = Retry

S = Service not allowed

### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

#### Data Field 62 PRIVATE USE DATA (Continued)

---

*Layout for American Express AAV, Billing Telephone Number and E-Mail Address Verification Response*

0                      1  
123456789012

**LLLSSRRABCDE**

- “LLL” is the three-digit, Variable Length Indicator (VLI), right justified and zero filled, if necessary.
- “SS” is the two-character, Service Identifier (SI).
- “RR” is the two-character, Request Type Identifier (RTI).
- “ABCDE” are the five response codes, where:
  - A = Response code for Cardmember Billing Postal Code.
  - B = Response code for Cardmember Billing (Street) Address.
  - C = Response code for Cardmember First and Last Name.
  - D = Response code for Cardmember Phone Number (Billing Telephone Number).
  - E = Response code for Customer E-Mail Address.

Note: American Express strongly recommends that Merchant/processor systems be capable of supporting the full 60-byte (variable data) maximum length specified for this field, for future expansion.

### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

#### Data Field 62

#### PRIVATE USE DATA (Continued)

---

*Sample Data for American Express AAV, Billing Telephone Number and E-Mail Address Verification Response*

1  
1234567890123

**012AXAEYYNYY**

- “012” is the Variable Length Indicator (VLI).
- “AX” is the Service Identifier (constant literal “AX” = American Express).
- “AE” is the Request Type Identifier (constant literal “AE” = American Express Billing Telephone Number and E-Mail Address Verification).
- “YYNYY” are the five response codes, where:
  - Y = Yes, Customer Billing Postal Code matches Cardmember information on file with the issuer.
  - Y = Yes, Customer Billing Street Address matches Cardmember information on file with the issuer.
  - N = No, Customer First and Last Name does not match Cardmember information on file with the issuer.
  - Y = Yes, Customer Billing Phone Number matches Cardmember information on file with the issuer.
  - Y = Yes, Customer E-Mail Address data matches Cardmember information on file with the issuer.

### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

#### Data Field 62

#### PRIVATE USE DATA

##### VISA PS2000 Transactions

When used for *VISA processing*, this field contains the authorization response to the VISA card transaction data transmitted in the corresponding field in the originating 1100 Authorization Request.

If a VISA transaction is approved but it *does not* meet VISA PSIRF requirements, this field contains the Variable Length Indicator (VLI) “001” followed by the one-byte, payment service indicator “N”.

Example: **001N**

If a VISA transaction is approved and it *does* meet VISA PSIRF requirements, this field contains the following response:

0	1	2	3	4
1	2	3	4	5
6	7	8	9	0
1	2	3	4	5
6	7	8	9	0
1	2	3	4	5
6	7	8	9	0

**020Annnnnnnnnnnnnnnnnvvvv**

In the example above, “020” is the three-digit, Variable Length Indicator (VLI); “A” is the one-byte, payment service indicator; “n . . . n” is the 15-digit transaction identifier; and “vvvv” is the four-digit, alphanumeric validation code.

If a VISA transaction is *denied*, this field is omitted in the 1110 Authorization Response.

### 3.5.1 ISO 8583 Authorization Response (1110) (Continued)

**Data Field 63****PRIVATE USE DATA**

---

Length of Field:	4 bytes minimum, 103 bytes maximum, (LLVAR)
Variable Length Indicator:	3 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	100 bytes maximum, EBCDIC
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	<ul style="list-style-type: none"><li>• Mandatory — MasterCard transactions</li><li>• Not used — Other transactions</li></ul>
Description:	<p>This field is used for MasterCard transaction processing only.</p> <p>This field contains the BankNet Reference Number (assigned by MasterCard) for a MasterCard transaction. This is a nine-digit alphanumeric number (preceded by a three-digit VLI/Variable Length Indicator) that must be passed to the settlement record.</p>

**Data Field 64****MESSAGE AUTHENTICATION CODE FIELD**

---

Length of Field:	8 bytes, 64 bits
Field Type:	Binary
Constant:	None
Field Requirement:	Not used — All transactions
Description:	<p>This field is unused and reserved for future use.</p> <p>This field is used for the data value that protects both a message's integrity, as well as its authenticity, by allowing verifiers the ability to detect any changes to the message content.</p>



### 3.6 ISO 8583 Reversal Advice Request /Response Format

This section describes the 1420 Reversal Advice Request message and the 1430 Reversal Advice Response message, 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, please notify your American Express representative.

The 1420/1430 Reversal Advice Request/Response are optional messages initiated in the Merchant environment. Although these messages are optional, American Express strongly recommends their use.

The 1420 Reversal Advice Request can be generated by the Merchant in the following two situations:

- **System Generated Reversal:** An 1110 Authorization Response has not been received to an 1100 Authorization Request within the transaction timeout period. This type of reversal indicates that a request has been forwarded by the card acceptance device and no response has been received within the allocated time out period.
- **Merchant Initiated Reversal:** This is the cancellation of an already approved transaction that has not yet been submitted for settlement by the Merchant and which must equal the amount originally approved. This type of reversal can only be submitted after an 1110 Authorization Response has been received. At this time, only Merchant-Initiated Reversals for Prepaid products will have an immediate impact on a Card's balance.

The 1420 Reversal Advice Request message should be created by the electronic medium used to enter the original authorization request. Only the original data field values used to generate the original authorization request can be used to populate the data field values in the reversal message.

The acquiring source will receive a 1430 Reversal Advice Response message from the card issuer's system indicating acknowledgement of the reversal request. This acknowledgement does *not* imply that any financial action has been taken to adjust the Cardmember's account standing. Only Merchant-Initiated Reversals for Prepaid products will have an immediate impact on a Card's balance.

The 1420 Reversal Advice message is not intended for Customer or Merchant initiated Refunds, debit or credit adjustments, for transactions that have already been settled, or for amounts other than the original approved amount.

**Note:** The 1420 Reversal Advice Request message contains many of the same data elements found in an 1100 Authorization Request. When submitting a 1420 Reversal Advice Request, only the defined fields for that message should be sent.

### 3.6.1 ISO 8583 Reversal Advice Request (1420)

Length of Record: 318 bytes maximum

Description: This message is used by a Merchant to transmit a Reversal Advice Request to American Express.

Data Fields in This Section:	— MESSAGE TYPE IDENTIFIER	Page 165
	— BIT MAP – PRIMARY	165
	2 PRIMARY ACCOUNT NUMBER (PAN)	166
	3 PROCESSING CODE	167
	4 AMOUNT, TRANSACTION	168
	11 SYSTEMS TRACE AUDIT NUMBER	168
	12 DATE AND TIME, LOCAL TRANSACTION	169
	14 DATE, EXPIRATION	170
	19 COUNTRY CODE, ACQUIRING INSTITUTION	170
	22 POINT OF SERVICE DATA CODE	171
	25 MESSAGE REASON CODE	171
	26 CARD ACCEPTOR BUSINESS CODE	172
	31 ACQUIRER REFERENCE DATA	173
	32 ACQUIRING INSTITUTION IDENTIFICATION CODE	174
	33 FORWARDING INSTITUTION IDENTIFICATION CODE	175
	37 RETRIEVAL REFERENCE NUMBER	175
	41 CARD ACCEPTOR TERMINAL IDENTIFICATION	176
	42 CARD ACCEPTOR IDENTIFICATION CODE	177
	49 CURRENCY CODE, TRANSACTION	177
	56 ORIGINAL DATA ELEMENTS	178
	62 PRIVATE USE DATA	179
	64 MESSAGE AUTHENTICATION CODE FIELD	179

Note: See summary table and example of the Reversal Advice Request (1420) message on page 218.

**3.6.1 ISO 8583 Reversal Advice Request (1420) (Continued)**

<b>Data Field - None</b>	<b>MESSAGE TYPE IDENTIFIER</b>
Length of Field:	4 bytes, fixed length
Field Type:	Numeric
Constant:	1420
Field Requirement:	Mandatory
Description:	The constant literal "1420" signifies the ISO 8583 Reversal Advice Request message.

<b>Data Field - None</b>	<b>BIT MAP – PRIMARY</b>
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 44 of the Authorization Request (1100) message.

**3.6.1 ISO 8583 Reversal Advice Request (1420) (Continued)**

<b>Data Field 2</b>	<b>PRIMARY ACCOUNT NUMBER (PAN)</b>
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:	<ul style="list-style-type: none"><li>• Mandatory — American Express Card transactions</li><li>• Mandatory — Other Card products and bankcard transactions</li></ul> <p>Note: American Express supports Diner's Club, JCB, VISA and MasterCard processing. For details, please contact your American Express representative.</p> <ul style="list-style-type: none"><li>• Not used — American Express Travelers Cheques</li></ul>
Description:	<p>This field must contain the same PRIMARY ACCOUNT NUMBER (PAN) value used in the original Authorization Request (1100) message.</p> <p>See PRIMARY ACCOUNT NUMBER (PAN) description on page 46 of the Authorization Request (1100) message.</p>

**3.6.1 ISO 8583 Reversal Advice Request (1420) (Continued)**

<b>Data Field 3</b>	<b>PROCESSING CODE</b>
Length of Field:	6 bytes, fixed length
Field Type:	Numeric, right justified, zero filled
Constant:	None
Field Requirement:	Mandatory
Description:	<p>This field indicates the financial service being requested.</p> <p>The codes that can appear in this field are:</p> <p>004000 = Card Reversal Advice — System Generated Reversal</p> <p>024000 = Merchant Initiated Reversal</p> <p>Note: This field is mandatory for processing this message, and it will be preserved and returned in the response message without alteration.</p>

**3.6.1 ISO 8583 Reversal Advice Request (1420) (Continued)**

<b>Data Field 4</b>	<b>AMOUNT, TRANSACTION</b>
Length of Field:	12 bytes, fixed length
Field Type:	Numeric, right justified, zero filled
Constant:	None
Field Requirement:	Mandatory
Description:	<p>This field contains the amount of the original transaction (that is being reversed). The decimal point is determined by the CURRENCY CODE, TRANSACTION field (Data Field 49).</p> <p>See AMOUNT, TRANSACTION description on page 48 of the Authorization Request (1100) message.</p> <p>Note: This field is mandatory for processing this message, and it will be preserved and returned in the response message without alteration.</p>

<b>Data Field 11</b>	<b>SYSTEMS TRACE AUDIT NUMBER</b>
Length of Field:	6 bytes, fixed length
Field Type:	Alphanumeric (upper case) & special characters
Constant:	None
Field Requirement:	Mandatory
Description:	<p>This field must contain a unique trace number, assigned by the Merchant, to help identify an individual transaction. A different number must be assigned to each transaction.</p> <p>Note: American Express returns this number without alteration in the SYSTEMS TRACE AUDIT NUMBER field of the Reversal Advice Response (1430) message.</p>

**3.6.1 ISO 8583 Reversal Advice Request (1420) (Continued)****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 field contains the year, month, day and local time when this message was generated. The format is YYMMDDhhmmss. The value of this 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 field is mandatory for processing this message, and it will be preserved and returned in the response message without alteration.

### 3.6.1 ISO 8583 Reversal Advice Request (1420) (Continued)

<b>Data Field 14</b>	<b>DATE, EXPIRATION</b>
Length of Field:	4 bytes, fixed length
Field Type:	Numeric, YYMM
Constant:	None
Field Requirement:	<ul style="list-style-type: none"><li>• Conditional — System Generated Reversals, if the value was submitted in the original Authorization Request (1100) message.</li><li>• Conditional — Merchant Initiated Reversals<ul style="list-style-type: none"><li>— If the value was submitted in the original Authorization Request (1100) message.</li><li>— If the original transaction was a magnetic stripe read, in which case, the expiration date from the magnetic stripe should be used.</li></ul></li></ul>
Description:	See DATE, EXPIRATION description on page 53 of the Authorization Request (1100) message.

<b>Data Field 19</b>	<b>COUNTRY CODE, ACQUIRING INSTITUTION</b>
Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	None
Field Requirement:	Mandatory
Description:	<p>This field must contain the same COUNTRY CODE, ACQUIRING INSTITUTION value used in the original Authorization Request (1100) message.</p> <p>See COUNTRY CODE, ACQUIRING INSTITUTION description on page 55 of the Authorization Request (1100) message.</p>



**3.6.1 ISO 8583 Reversal Advice Request (1420) (Continued)**

<b>Data Field 22</b>	<b>POINT OF SERVICE DATA CODE</b>
Length of Field:	12 bytes, fixed length
Field Type:	Alphanumeric, upper case
Constant:	None
Field Requirement:	Mandatory
Description:	<p>This field must contain the same POINT OF SERVICE DATA CODE values used in the original Authorization Request (1100) message.</p> <p>See POINT OF SERVICE DATA CODE description on page 56 of the 1100 Authorization Request.</p>

<b>Data Field 25</b>	<b>MESSAGE REASON CODE</b>
Length of Field:	4 bytes, fixed length
Field Type:	Numeric
Constant:	None
Field Requirement:	<ul style="list-style-type: none"><li>• Mandatory — American Express Card (and American Express-supported Card) transactions</li><li>• Optional — VISA, MasterCard and JCB transactions</li><li>• Optional — American Express Travelers Cheques</li></ul>
Description:	See MESSAGE REASON CODE description on page 67 of the Authorization Request (1100) message.

**3.6.1 ISO 8583 Reversal Advice Request (1420) (Continued)**

<b>Data Field 26</b>	<b>CARD ACCEPTOR BUSINESS CODE</b>
Length of Field:	4 bytes, fixed length
Field Type:	Numeric
Constant:	None
Field Requirement:	Mandatory
Description:	<p>This field must contain the same CARD ACCEPTOR BUSINESS CODE value used in the original Authorization Request (1100) message.</p> <p>See CARD ACCEPTOR BUSINESS CODE description on page 68 of the Authorization Request (1100) message.</p>

### 3.6.1 ISO 8583 Reversal Advice Request (1420) (Continued)

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:	Conditional — Merchant systems <ul style="list-style-type: none"> <li>System Generated Reversal — This field is <i>unused</i> by Merchants and/or Third Party Processors.</li> <li>Merchant Initiated Reversal — This field must contain the same 15-digit <i>Transaction Identifier</i> provided in Field 31 of the Authorization Response (1110).</li> </ul>
Description:	<p>This field contains the 15-digit, numeric, <i>Transaction Identifier (TID)</i>, a unique, American Express-assigned tracking number. The TID is used to identify and track a Cardmember transaction throughout its life cycle.</p> <p>An example of a typical TID entry appears below:</p> <pre> 0           1 12345678901234567 ----- <b>15123456789012345</b> </pre> <ul style="list-style-type: none"> <li>“15” is the two-byte, Variable Length Indicator (VLI).</li> <li>“123456789012345” is the 15-byte, numeric TID.</li> </ul>

**3.6.1 ISO 8583 Reversal Advice Request (1420) (Continued)**

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**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:	Optional
Description:	<p>This field must contain the same ACQUIRING INSTITUTION IDENTIFICATION CODE value used in the original Authorization Request (1100) message.</p> <p>See ACQUIRING INSTITUTION IDENTIFICATION CODE description on page 71 of the Authorization Request (1100) message.</p> <p>Note: This field 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.</p>

**3.6.1 ISO 8583 Reversal Advice Request (1420) (Continued)**

---

**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:	<p>This field must contain the same FORWARDING INSTITUTION IDENTIFICATION CODE value used in the original Authorization Request (1100) message.</p> <p>See FORWARDING INSTITUTION IDENTIFICATION CODE description on page 72 of the Authorization Request (1100) message.</p>

---

**Data Field 37 RETRIEVAL REFERENCE NUMBER**

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Length of Field:	12 bytes, fixed length
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Optional
Description:	See RETRIEVAL REFERENCE NUMBER description on page 75 of the Authorization Request (1100) message.

### 3.6.1 ISO 8583 Reversal Advice Request (1420) (Continued)

<b>Data Field 41</b>	<b>CARD ACCEPTOR TERMINAL IDENTIFICATION</b>
Length of Field:	8 bytes, fixed length
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	<ul style="list-style-type: none"><li>• Optional — American Express and other non-VISA transactions</li><li>• Mandatory — VISA PS2000</li></ul>
Description:	<p>This field must contain the same CARD ACCEPTOR TERMINAL IDENTIFICATION value used in the original Authorization Request (1100) message.</p> <p>See CARD ACCEPTOR TERMINAL IDENTIFICATION description on page 76 of the Authorization Request (1100) message.</p> <p>Note: This field may or may not be mandatory for processing this message; however, if included in an originating request message, it will be preserved and returned in the response message without alteration.</p>

**3.6.1 ISO 8583 Reversal Advice Request (1420) (Continued)**

<b>Data Field 42</b>	<b>CARD ACCEPTOR IDENTIFICATION CODE</b>
Length of Field:	15 bytes, fixed length
Field Type:	Alphanumeric & special characters, left justified, character space filled
Constant:	None
Field Requirement:	Mandatory
Description:	<p>This field must contain the same CARD ACCEPTOR IDENTIFICATION CODE value used in the original Authorization Request (1100) message.</p> <p>See CARD ACCEPTOR IDENTIFICATION CODE description on page 77 of the Authorization Request (1100) message.</p>

<b>Data Field 49</b>	<b>CURRENCY CODE, TRANSACTION</b>
Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	None
Field Requirement:	Mandatory
Description:	<p>This field must contain the same CURRENCY CODE, TRANSACTION value used in the original Authorization Request (1100) message.</p> <p>See CURRENCY CODE, TRANSACTION description on page 101 of the Authorization Request (1100) message.</p> <p>Note: This field is mandatory for processing this message, and it will be preserved and returned in the response message without alteration.</p>

### 3.6.1 ISO 8583 Reversal Advice Request (1420) (Continued)

#### 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 field contains four data elements from the original transaction being reversed. These four subfields may total up to 35 characters, and they are preceded by a two-digit, Variable Length Indicator (VLI). See table below:

Subfield Name	Description	Field Type	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 & 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

\*This subfield must contain the same value used in the original Authorization Request (1100) message.

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



**3.6.1 ISO 8583 Reversal Advice Request (1420) (Continued)****Data Field 62****PRIVATE USE DATA**

---

Length of Field: 4 bytes minimum, 63 bytes maximum, (LLLVAR)  
Variable Length Indicator: 3 bytes, EBCDIC, right justified, zero filled  
Length of Variable Data: 60 bytes maximum, EBCDIC

Field Type: Alphanumeric & special characters

Constant: None

Field Requirement: Not used — All transactions

Description: This field is unused and reserved for future use.

If included in an originating request, it will not be preserved; and it may not be returned in the response. However, as long as it is properly formatted per this specification, its presence will not interfere with message processing.

**Data Field 64****MESSAGE AUTHENTICATION CODE FIELD**

---

Length of Field: 8 bytes, 64 bits

Field Type: Binary

Constant: None

Field Requirement: Not used — All transactions

Description: This field is unused and reserved for future use.

See MESSAGE AUTHENTICATION CODE FIELD description on page 132 of the Authorization Request (1100) message.

### 3.6.2 ISO 8583 Reversal Advice Response (1430)

---

Length of Record: 181 bytes

Description: This message is used by American Express to transmit a Reversal Response to a Merchant.

Data Fields in This Section:	—	MESSAGE TYPE IDENTIFIER	Page 181
	—	BIT MAP – PRIMARY	181
	2	PRIMARY ACCOUNT NUMBER (PAN)	182
	3	PROCESSING CODE	182
	4	AMOUNT, TRANSACTION	183
	11	SYSTEMS TRACE AUDIT NUMBER	183
	12	DATE AND TIME, LOCAL TRANSACTION	184
	31	ACQUIRER REFERENCE DATA	185
	32	ACQUIRING INSTITUTION IDENTIFICATION CODE	186
	37	RETRIEVAL REFERENCE NUMBER	186
	39	ACTION CODE	187
	41	CARD ACCEPTOR TERMINAL IDENTIFICATION	187
	42	CARD ACCEPTOR IDENTIFICATION CODE	188
	49	CURRENCY CODE, TRANSACTION	188
	64	MESSAGE AUTHENTICATION CODE FIELD	189

Note: See summary table and example of the Reversal Advice Response (1430) message on page 219.

**3.6.2 ISO 8583 Reversal Advice Response (1430) (Continued)**

<b>Data Field - None</b>	<b>MESSAGE TYPE IDENTIFIER</b>
Length of Field:	4 bytes, fixed length
Field Type:	Numeric
Constant:	1430
Field Requirement:	Mandatory
Description:	The constant literal “1430” signifies the ISO 8583 Reversal Advice Response message.

<b>Data Field - None</b>	<b>BIT MAP – PRIMARY</b>
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 44 of the Authorization Request (1100) message.

**3.6.2 ISO 8583 Reversal Advice Response (1430) (Continued)**

<b>Data Field 2</b>	<b>PRIMARY ACCOUNT NUMBER (PAN)</b>
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 — Echo returned
Description:	This field is mandatory in the Reversal Advice Request (1420) message, and is echo returned without alteration in the Reversal Advice Response (1430) message.

<b>Data Field 3</b>	<b>PROCESSING CODE</b>
Length of Field:	6 bytes, fixed length
Field Type:	Numeric, right justified, zero filled
Constant:	None
Field Requirement:	Mandatory — Echo returned
Description:	This field is mandatory in the Reversal Advice Request (1420) message, and is echo returned without alteration in the Reversal Advice Response (1430) message.

**3.6.2 ISO 8583 Reversal Advice Response (1430) (Continued)**

<b>Data Field 4</b>	<b>AMOUNT, TRANSACTION</b>
Length of Field:	12 bytes, fixed length
Field Type:	Numeric, right justified, zero filled
Constant:	None
Field Requirement:	Mandatory — Echo returned
Description:	This field is mandatory in the Reversal Advice Request (1420) message, and is echo returned without alteration in the Reversal Advice Response (1430) message.

<b>Data Field 11</b>	<b>SYSTEMS TRACE AUDIT NUMBER</b>
Length of Field:	6 bytes, fixed length
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Mandatory — Echo returned
Description:	This field is mandatory in the Reversal Advice Request (1420) message, and is echo returned without alteration in the Reversal Advice Response (1430) message.

**3.6.2 ISO 8583 Reversal Advice Response (1430) (Continued)**

<b>Data Field 12</b>	<b>DATE AND TIME, LOCAL TRANSACTION</b>
Length of Field:	12 bytes, fixed length
Field Type:	Numeric, YYMMDDhhmmss
Constant:	None
Field Requirement:	Mandatory — Echo returned
Description:	This field is mandatory in the Reversal Advice Request (1420) message, and is echo returned without alteration in the Reversal Advice Response (1430) message.

### 3.6.2 ISO 8583 Reversal Advice Response (1430) (Continued)

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
	<ul style="list-style-type: none"> <li>System Generated Reversal — This field is mandatory and created by the American Express Global Network, and it always appears in response messages returned to Merchants and/or Third Party Processors.</li> <li>Merchant Initiated Reversal — This field is mandatory in the Reversal Advice Request (1420) message and echo returned without alteration in the Reversal Advice Response (1430) message.</li> </ul>
Description:	<p>This field contains the 15-digit, numeric, <i>Transaction Identifier (TID)</i>, a unique, American Express-assigned tracking number. The TID is used to identify and track a Cardmember transaction throughout its life cycle.</p> <p>An example of a typical response appears below:</p> <pre> 0           1 12345678901234567 <b>15123456789012345</b> </pre> <ul style="list-style-type: none"> <li>“15” is the two-byte, Variable Length Indicator (VLI).</li> <li>“123456789012345” is the 15-byte, numeric TID.</li> </ul>

**3.6.2 ISO 8583 Reversal Advice Response (1430) (Continued)**

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**Data Field 32                      ACQUIRING INSTITUTION IDENTIFICATION CODE**

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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 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 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.



### 3.6.2 ISO 8583 Reversal Advice Response (1430) (Continued)

<b>Data Field 39</b>	<b>ACTION CODE</b>
Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	400
Field Requirement:	Mandatory
Description:	<p>The action code in this field indicates American Express' disposition for this transaction. The value "400" (Reversal Accepted) is the only response generated.</p> <p>Note: American Express uses the 1430 message as a response to 1420 <i>reversals</i>. This acknowledgement does <i>not</i> imply that financial action(s) have been taken to adjust the Cardmember's account standing.</p>

<b>Data Field 41</b>	<b>CARD ACCEPTOR TERMINAL IDENTIFICATION</b>
Length of Field:	8 bytes, fixed length
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Conditional — Echo returned
Description:	<p>This 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.</p>

**3.6.2 ISO 8583 Reversal Advice Response (1430) (Continued)**

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**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 field is mandatory in the Reversal Advice Request (1420) message, and is echo returned without alteration in the Reversal Advice Response (1430) message.

---

**Data Field 49                      CURRENCY CODE, TRANSACTION**

---

Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	None
Field Requirement:	Mandatory — Echo returned
Description:	<p>This field is mandatory in the Reversal Advice Request (1420) message, and is echo returned without alteration in the Reversal Advice Response (1430) message.</p> <p>For more information on numeric currency codes and decimal point positions, see <i>Currency Codes</i> on page 295.</p>

**3.6.2 ISO 8583 Reversal Advice Response (1430) (Continued)**

<b>Data Field 64</b>	<b>MESSAGE AUTHENTICATION CODE FIELD</b>
Length of Field:	8 bytes, 64 bits
Field Type:	Binary
Constant:	None
Field Requirement:	Not used — All transactions
Description:	<p>This field is unused and reserved for future use.</p> <p>See MESSAGE AUTHENTICATION CODE FIELD description on page 162 of the 1110 Authorization Response.</p>

### 3.7 ISO 8583 Network Management

This section describes the Network Management Request 1804 message and the Network Management Response 1814 message, 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, please notify your American Express representative.

The 1804/1814 message set is intended to provide an echo test, which allows one system to query another system as to its availability. If the Merchant's system initiates a Network Management Request 1804 message, the American Express system will respond with a Network Management Response 1814 message. This message set is primarily used in conjunction with real-time authorizations, as opposed to batch processing. If there is a need to use the Network Management message in other ways besides an echo test, please contact your American Express representative.

This section also defines an optional Network Management Notification "Please Wait" 1844 message. This intermediary message, generated by American Express, does not require a response. If this option is used, it allows American Express to notify the Merchant's system to "Please wait, additional processing time is required by this transaction". The intent is for the Merchant's system to reset its timers, thus preventing this transaction from timing-out.

### 3.7.1 ISO 8583 Network Management Request (1804)

Length of Record: 1113 bytes maximum

Description: This message is used by a Merchant to transmit a Network Management Request to American Express.

Data Fields in This Section:	—	MESSAGE TYPE IDENTIFIER	Page 192
	—	BIT MAP – PRIMARY	192
	1	BIT MAP – SECONDARY	193
	3	PROCESSING CODE	193
	11	SYSTEMS TRACE AUDIT NUMBER	194
	12	DATE AND TIME, LOCAL TRANSACTION	194
	24	FUNCTION CODE	195
	25	MESSAGE REASON CODE	195
	33	FORWARDING INSTITUTION IDENTIFICATION CODE	196
	93	TRANSACTION DESTINATION INSTITUTION IDENTIFICATION CODE	196
	94	TRANSACTION ORIGINATOR INSTITUTION IDENTIFICATION CODE	197
	96	KEY MANAGEMENT DATA	197
	100	RECEIVING INSTITUTION IDENTIFICATION CODE	198
	128	MESSAGE AUTHENTICATION CODE FIELD	198

Note: See summary table and example of the Network Management Request (1804) message on page 219.

**3.7.1 ISO 8583 Network Management Request (1804) (Continued)**

<b>Data Field - None</b>	<b>MESSAGE TYPE IDENTIFIER</b>
Length of Field:	4 bytes, fixed length
Field Type:	Numeric
Constant:	1804
Field Requirement:	Mandatory
Description:	The constant literal "1804" signifies the ISO 8583 Network Management Request (1804) message.

<b>Data Field - None</b>	<b>BIT MAP – PRIMARY</b>
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 44 of the Authorization Request (1100) message.

**3.7.1 ISO 8583 Network Management Request (1804) (Continued)****Data Field 1 BIT MAP – SECONDARY**

---

Length of Field: 8 bytes, 64 bits, fixed length for each bit map

Field Type: Binary (hexadecimal configuration)

Constant: None

Field Requirement: Not used — All transactions

Description: This field is unused and reserved for future use.

*Bit Map – Secondary* supports ISO fields 65 through 128.

Data must not be transmitted to American Express in this field.  
Unauthorized use of this field may cause message rejection.

**Data Field 3 PROCESSING CODE**

---

Length of Field: 6 bytes, fixed length

Field Type: Numeric, right justified, zero filled

Constant: None

Field Requirement: Mandatory

Description: This field indicates the processing service being requested.

At the present time, the only code being used is for communications verification. See processing code below:

000000 = System Audit Control/Echo Message  
“Are you there?”

**3.7.1 ISO 8583 Network Management Request (1804) (Continued)****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:	<p>This field must contain a unique trace number, assigned by the Merchant, to help identify an individual transaction. A different number must be assigned to each transaction.</p> <p>American Express returns this number without alteration in the SYSTEMS TRACE AUDIT NUMBER field of the ISO 8583 Network Management Response (1814) message.</p>

**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:	<p>This field contains the year, month, day and local time when this message was generated. The format is YYMMDDhhmmss. The value of this field must be a valid date and time.</p>

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



**3.7.1 ISO 8583 Network Management Request (1804) (Continued)**

<b>Data Field 24</b>	<b>FUNCTION CODE</b>
Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	None
Field Requirement:	Mandatory
Description:	<p>This field contains a three-digit code indicating the specific purpose of the message, within its message class.</p> <p>The required value for this field is:</p> <p>831 = System Audit Control/Echo Test – “Are you there?”</p>

<b>Data Field 25</b>	<b>MESSAGE REASON CODE</b>
Length of Field:	4 bytes, fixed length
Field Type:	Numeric
Constant:	None
Field Requirement:	Mandatory
Description:	<p>This field contains a four-digit <i>Message Reason Code</i>, 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 field indicates that the Network Management Request is certified by American Express.</p> <p>For information on valid codes and their use, please contact your American Express representative.</p>

**3.7.1 ISO 8583 Network Management Request (1804) (Continued)**

<b>Data Field 33</b>	<b>FORWARDING INSTITUTION IDENTIFICATION CODE</b>
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:	See FORWARDING INSTITUTION IDENTIFICATION CODE description on page 72 of the Authorization Request (1100) message.  This 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.

<b>Data Field 93</b>	<b>TRANSACTION DESTINATION INSTITUTION IDENTIFICATION CODE</b>
Length of Field:	3 bytes minimum, 11 bytes maximum, (LLVAR)
Variable Length Indicator:	2 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	9 bytes maximum, EBCDIC
Field Type:	Numeric
Field Requirement:	Not used — All transactions
Description:	This field is unused and reserved for future use.  This field is used to identify the institution for a transaction's destination.  Data must not be transmitted to American Express in this field. Unauthorized use of this field may cause message rejection.

**3.7.1 ISO 8583 Network Management Request (1804) (Continued)**

<b>Data Field 94</b>	<b>TRANSACTION ORIGINATOR INSTITUTION IDENTIFICATION CODE</b>
Length of Field:	3 bytes minimum, 11 bytes maximum, (LLVAR)
Variable Length Indicator:	2 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	9 bytes maximum, EBCDIC
Field Type:	Numeric
Field Requirement:	Not used — All transactions
Description:	<p>This field is unused and reserved for future use.</p> <p>This field is used to identify the institution of a transaction's originator.</p> <p>Data must not be transmitted to American Express in this field. Unauthorized use of this field may cause message rejection.</p>

<b>Data Field 96</b>	<b>KEY MANAGEMENT DATA</b>
Length of Field:	4 bytes minimum, 999 bytes maximum, (LLLVAR)
Variable Length Indicator:	3 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	996 bytes maximum, EBCDIC
Field Type:	Binary
Field Requirement:	Not used — All transactions
Description:	<p>This field is unused and reserved for future use.</p> <p>This field contains information on session keys and tokens. For more information, contact your American Express representative.</p> <p>Data must not be transmitted to American Express in this field. Unauthorized use of this field may cause message rejection.</p>

**3.7.1 ISO 8583 Network Management Request (1804) (Continued)**

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**Data Field 100 RECEIVING INSTITUTION IDENTIFICATION CODE**

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Length of Field:	3 bytes minimum, 11 bytes maximum, (LLVAR)
Variable Length Indicator:	2 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	9 bytes maximum, EBCDIC
Field Type:	Numeric
Field Requirement:	Not used — All transactions
Description:	<p>This field is unused and reserved for future use.</p> <p>This field is used to identify the receiving institution.</p> <p>Data must not be transmitted to American Express in this field. Unauthorized use of this field may cause message rejection.</p>

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**Data Field 128 MESSAGE AUTHENTICATION CODE FIELD**

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Length of Field:	8 bytes, 64 bits
Field Type:	Binary
Constant:	None
Field Requirement:	Not used — All transactions
Description:	<p>This field is unused and reserved for future use.</p> <p>See MESSAGE AUTHENTICATION CODE FIELD description on page 132 of the Authorization Request (1100) message.</p>

### 3.7.2 ISO 8583 Network Management Response (1814)

Length of Record: 1112 bytes maximum

Description: This message is used by American Express to transmit a Network Management Response to a Merchant.

Data Fields in This Section:	— MESSAGE TYPE IDENTIFIER	Page 200
	— BIT MAP – PRIMARY	200
	1 BIT MAP – SECONDARY	201
	3 PROCESSING CODE	201
	11 SYSTEMS TRACE AUDIT NUMBER	202
	12 DATE AND TIME, LOCAL TRANSACTION	202
	24 FUNCTION CODE	203
	33 FORWARDING INSTITUTION IDENTIFICATION CODE	203
	39 ACTION CODE	204
	93 TRANSACTION DESTINATION INSTITUTION IDENTIFICATION CODE	204
	94 TRANSACTION ORIGINATOR INSTITUTION IDENTIFICATION CODE	205
	96 KEY MANAGEMENT DATA	205
	100 RECEIVING INSTITUTION IDENTIFICATION CODE	206
	128 MESSAGE AUTHENTICATION CODE FIELD	206

Note: See summary table and example of the Network Management Response (1814) message on page 220.

**3.7.2 ISO 8583 Network Management Response (1814) (Continued)**

<b>Data Field - None</b>	<b>MESSAGE TYPE IDENTIFIER</b>
Length of Field:	4 bytes, fixed length
Field Type:	Numeric
Constant:	1814
Field Requirement:	Mandatory
Description:	The constant literal "1814" signifies the ISO 8583 Network Management Response message.

<b>Data Field - None</b>	<b>BIT MAP – PRIMARY</b>
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 44 of the Authorization Request (1100) message.

**3.7.2 ISO 8583 Network Management Response (1814) (Continued)**

<b>Data Field 1</b>	<b>BIT MAP – SECONDARY</b>
Length of Field:	8 bytes, 64 bits, fixed length for each bit map
Field Type:	Binary (hexadecimal configuration)
Constant:	None
Field Requirement:	Not used — All transactions
Description:	This field is unused and reserved for future use.  <i>Bit Map – Secondary</i> supports ISO fields 65 through 128.

<b>Data Field 3</b>	<b>PROCESSING CODE</b>
Length of Field:	6 bytes, fixed length
Field Type:	Numeric, right justified, zero filled
Constant:	None
Field Requirement:	Mandatory — Echo returned
Description:	This field is mandatory in the Network Management Request (1804) message, and is echo returned without alteration in the Network Management Response (1814) message.

**3.7.2 ISO 8583 Network Management Response (1814) (Continued)**

<b>Data Field 11</b>	<b>SYSTEMS TRACE AUDIT NUMBER</b>
Length of Field:	6 bytes, fixed length
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Mandatory — Echo returned
Description:	This field is mandatory in the Network Management Request (1804) message, and is echo returned without alteration in the Network Management Response (1814) message.

<b>Data Field 12</b>	<b>DATE AND TIME, LOCAL TRANSACTION</b>
Length of Field:	12 bytes, fixed length
Field Type:	Numeric, YYMMDDhhmmss
Constant:	None
Field Requirement:	Mandatory — Echo returned
Description:	This field is mandatory in the Network Management Request (1804) message, and is echo returned without alteration in the Network Management Response (1814) message.



**3.7.2 ISO 8583 Network Management Response (1814) (Continued)**

<b>Data Field 24</b>	<b>FUNCTION CODE</b>
Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	831
Field Requirement:	Mandatory — Echo returned
Description:	<p>See FUNCTION CODE description on page 195 of the 1804 Network Management Request.</p> <p>This field is mandatory in the Network Management Request (1804) message, and is echo returned without alteration in the Network Management Response (1814) message.</p>

<b>Data Field 33</b>	<b>FORWARDING INSTITUTION IDENTIFICATION CODE</b>
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:	<p>This 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.</p>

**3.7.2 ISO 8583 Network Management Response (1814) (Continued)**

<b>Data Field 39</b>	<b>ACTION CODE</b>
Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	800
Field Requirement:	Mandatory
Description:	The three-digit action code “800” indicates “Accepted”.

<b>Data Field 93</b>	<b>TRANSACTION DESTINATION INSTITUTION IDENTIFICATION CODE</b>
Length of Field:	3 bytes minimum, 11 bytes maximum, (LLVAR)
Variable Length Indicator:	2 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	9 bytes maximum, EBCDIC
Field Type:	Numeric
Field Requirement:	Conditional
Description:	See TRANSACTION DESTINATION INSTITUTION IDENTIFICATION CODE description on page 196 of the 1804 Network Management Request.

**3.7.2 ISO 8583 Network Management Response (1814) (Continued)**

<b>Data Field 94</b>	<b>TRANSACTION ORIGINATOR INSTITUTION IDENTIFICATION CODE</b>
Length of Field:	3 bytes minimum, 11 bytes maximum, (LLVAR)
Variable Length Indicator:	2 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	9 bytes maximum, EBCDIC
Field Type:	Numeric
Field Requirement:	Conditional
Description:	See TRANSACTION ORIGINATOR INSTITUTION IDENTIFICATION CODE description on page 197 of the 1804 Network Management Request.

<b>Data Field 96</b>	<b>KEY MANAGEMENT DATA</b>
Length of Field:	4 bytes minimum, 999 bytes maximum, (LLLVAR)
Variable Length Indicator:	3 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	996 bytes maximum, EBCDIC
Field Type:	Binary
Field Requirement:	Conditional
Description:	See KEY MANAGEMENT DATA description on page 197.

**3.7.2 ISO 8583 Network Management Response (1814) (Continued)**

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**Data Field 100 RECEIVING INSTITUTION IDENTIFICATION CODE**

---

Length of Field:	3 bytes minimum, 11 bytes maximum, (LLVAR)
Variable Length Indicator:	2 bytes, EBCDIC, right justified, zero filled
Length of Variable Data:	9 bytes maximum, EBCDIC
Field Type:	Numeric
Field Requirement:	Conditional
Description:	See RECEIVING INSTITUTION IDENTIFICATION CODE description on page 198 of the 1804 Network Management Request.

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**Data Field 128 MESSAGE AUTHENTICATION CODE FIELD**

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Length of Field:	8 bytes, 64 bits
Field Type:	Binary
Constant:	None
Field Requirement:	Not used — All transactions
Description:	This field is unused and reserved for future use.  See MESSAGE AUTHENTICATION CODE FIELD description on page 162 of the 1110 Authorization Response.

### 3.7.3 ISO 8583 Network Management Notification (1844)

---

Length of Record: 52 bytes maximum

Description: This message is used by American Express to transmit a Network Management Notification “Please Wait” message to a Merchant.

Data Fields in This Section:	— MESSAGE TYPE IDENTIFIER	Page 208
	— BIT MAP – PRIMARY	208
	3 PROCESSING CODE	209
	7 DATE AND TIME, TRANSMISSION	209
	11 SYSTEMS TRACE AUDIT NUMBER	210
	24 FUNCTION CODE	210
	37 RETRIEVAL REFERENCE NUMBER	211
	39 ACTION CODE	211

Note: See summary table and example of the Network Management Notification (1844) message on page 220.

**3.7.3 ISO 8583 Network Management Notification (1844) (Continued)**

<b>Data Field - None</b>	<b>MESSAGE TYPE IDENTIFIER</b>
Length of Field:	4 bytes, fixed length
Field Type:	Numeric
Constant:	1844
Field Requirement:	Mandatory
Description:	The constant literal "1844" signifies the ISO 8583 Network Management Notification "Please Wait" (1844) message.

<b>Data Field - None</b>	<b>BIT MAP – PRIMARY</b>
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 44 of the Authorization Request (1100) message.

**3.7.3 ISO 8583 Network Management Notification (1844) (Continued)**

<b>Data Field 3</b>	<b>PROCESSING CODE</b>
Length of Field:	6 bytes, fixed length
Field Type:	Numeric
Constant:	004000
Field Requirement:	Mandatory
Description:	This field indicates the processing service being requested.

<b>Data Field 7</b>	<b>DATE AND TIME, TRANSMISSION</b>
Length of Field:	10 bytes, fixed length
Field Type:	Numeric, MMDDhhmmss
Constant:	None
Field Requirement:	Conditional — Echo returned
Description:	This field is not required for processing this message; however, if included in an originating request (1100) message, it will be preserved and returned in the Network Management Notification “Please Wait” (1844) message, without alteration.

**3.7.3 ISO 8583 Network Management Notification (1844) (Continued)**

<b>Data Field 11</b>	<b>SYSTEMS TRACE AUDIT NUMBER</b>
Length of Field:	6 bytes, fixed length
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Mandatory — Echo returned
Description:	This field is mandatory in the Authorization Request (1100) Message, and is echo returned without alteration in the Network Management Notification “Please Wait” (1844) message.

<b>Data Field 24</b>	<b>FUNCTION CODE</b>
Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	805
Field Requirement:	Mandatory
Description:	<p>This field contains a three-digit code indicating the specific purpose of the message, within its message class.</p> <p>The required value for this field is:</p> <p>805 = “Please Wait”</p>



**3.7.3 ISO 8583 Network Management Notification (1844) (Continued)**

<b>Data Field 37</b>	<b>RETRIEVAL REFERENCE NUMBER</b>
Length of Field:	12 bytes, fixed length
Field Type:	Alphanumeric & special characters
Constant:	None
Field Requirement:	Conditional — Echo returned
Description:	This field is not required for processing this message; however, if included in an originating request (1100) message, it will be preserved and returned in the Network Management Notification “Please Wait” (1844) message, without alteration.

<b>Data Field 39</b>	<b>ACTION CODE</b>
Length of Field:	3 bytes, fixed length
Field Type:	Numeric
Constant:	182
Field Requirement:	Mandatory
Description:	The three-digit action code “182” indicates “Please Wait”.

### 3.8 ISO 8583 Message Tables

This section contains reference tables for ISO 8583 message formats, previously described.

Please note that these tables will be updated when all fields and messages have been finalized and approved.

MTI *	Message Description	Page
1100	Authorization Request	213
1100	Authorization Request — VISA PS2000	214
1100	MasterCard, Diner's Club, JCB	215
1110	Authorization Response	216
1110	Authorization Response — VISA PS2000	217
1110	Authorization Response — MasterCard, Diner's Club, JCB	217
1420	Reversal Advice Request	218
1430	Reversal Advice Response	219
1804	Network Management Request	219
1814	Network Management Response	220
1844	Network Management Notification	220

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\* ISO 8583 Message Type Identifier.

### 3.8.1 ISO 8583 Authorization Request (1100) Message Table

This table lists data fields that can appear in Authorization Request (1100) Messages.

Field	Data Element Name	Max. Field Length	Field Type	Field Requirements	Page
—	MESSAGE TYPE IDENTIFIER	4 bytes, fixed	Numeric	Mandatory	44
—	BIT MAP – PRIMARY	8 bytes, 64 bits	Binary	Mandatory	44
2	PRIMARY ACCOUNT NUMBER (PAN)	21 bytes, LLVAR	Numeric	Mandatory - AMEX Cards, other Card products & bankcards Not used - AMEX Travelers Cheques	46
3	PROCESSING CODE	6 bytes, fixed	Numeric	Mandatory	47
4	AMOUNT, TRANSACTION	12 bytes, fixed	Numeric	Mandatory	48
7	DATE AND TIME, TRANSMISSION	10 bytes, fixed	Numeric	Optional	50
11	SYSTEMS TRACE AUDIT NUMBER	6 bytes, fixed	Alphanumeric & special characters	Mandatory	50
12	DATE AND TIME, LOCAL TRANSACTION	12 bytes, fixed	Numeric	Mandatory	51
13	DATE, EFFECTIVE	4 bytes, fixed	Numeric	Conditional - AMEX Cards N/A - Other transactions	52
14	DATE, EXPIRATION	4 bytes, fixed	Numeric	Conditional - AMEX & AMEX-supported Cards Mandatory - VISA	53
15	DATE, SETTLEMENT	6 bytes, fixed	Numeric	Not used - All transactions	54
19	COUNTRY CODE, ACQUIRING INSTITUTION	3 bytes, fixed	Numeric	Mandatory	55
22	POINT OF SERVICE DATA CODE	12 bytes, fixed	Alphanumeric	Mandatory	56
24	FUNCTION CODE	3 bytes, fixed	Numeric	See page →	63
25	MESSAGE REASON CODE	4 bytes, fixed	Numeric	See page →	67
26	CARD ACCEPTOR BUSINESS CODE	4 bytes, fixed	Numeric	Mandatory	68
27	APPROVAL CODE LENGTH	1 byte, fixed	Numeric	Optional	69
31	ACQUIRER REFERENCE DATA	50 bytes, LLVAR	Alphanumeric & special characters	See page →	70
32	ACQUIRING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Optional	71
33	FORWARDING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Optional	72
35	TRACK 2 DATA	39 bytes, LLVAR	Alphanumeric & special characters	Conditional	73
37	RETRIEVAL REFERENCE NUMBER	12 bytes, fixed	Alphanumeric & special characters	Optional	75
41	CARD ACCEPTOR TERMINAL IDENTIFICATION	8 bytes, fixed	Alphanumeric & special characters	See page →	76
42	CARD ACCEPTOR IDENTIFICATION CODE	15 bytes, fixed	Alphanumeric & special characters	Mandatory	77
43	CARD ACCEPTOR NAME/LOCATION	101 bytes, LLVAR	Alphanumeric & special characters	See page →	79
45	TRACK 1 DATA	78 bytes, LLVAR	Alphanumeric & special characters	See page →	82
47	ADDITIONAL DATA - NATIONAL	304 bytes, LLLVAR	Alphanumeric & special characters	See page →	85
48	ADDITIONAL DATA - PRIVATE	43 bytes, LLLVAR	Alphanumeric & special characters	Optional - AMEX installment plans (certification required) Not used - Other bankcards	98
49	CURRENCY CODE, TRANSACTION	3 bytes, fixed	Numeric	Mandatory	101
52	PERSONAL IDENTIFICATION NUMBER (PIN) DATA	8 bytes, 64 bits	Binary	See page →	101
53	SECURITY RELATED CONTROL INFORMATION	10 bytes, LLVAR	Alphanumeric	See page →	102
55	INTEGRATED CIRCUIT CARD SYSTEM RELATED DATA	259 bytes, LLLVAR	Alphanumeric, special characters & binary	Mandatory - AEIPS & Express-pay EMV transactions (certification required). See page → Not used - Other transactions	104
60	NATIONAL USE DATA	303 bytes, LLLVAR	Alphanumeric & special characters	Not used - All transactions	108
61	NATIONAL USE DATA	103 bytes, LLLVAR	Alphanumeric & special characters	Not used - All transactions	108

### 3.8.1 ISO 8583 Authorization Request (1100) Message Table (Cont.)

Field	Data Element Name	Max. Field Length	Field Type	Field Requirements	Page
62	PRIVATE USE DATA	63 bytes, LLLVAR	Alphanumeric & special characters, and binary	Used for AMEX Travelers Cheque, Transponder, AMEX Mag Stripe Signature Validation & VISA PS2000. See page →	109
63	PRIVATE USE DATA	208 bytes, LLLVAR	Alphanumeric & special characters	See page →	114
64	MESSAGE AUTHENTICATION CODE FIELD	8 bytes, 64 bits	Binary	Not used - All transactions	132

#### 3.8.1.1 ISO 8583 Authorization Request (1100) — VISA PS2000

This table lists data fields that can appear in VISA PS2000 Authorization Request (1100) messages. This information is applicable only to VISA PS2000 transaction processing, because requirements on this page differ from information in other areas of section 3.4.1. Additional certification is required, and the specific format is subject to card network requirements at time of certification. For details, contact your American Express representative.

Field	Data Element Name	Max. Field Length	Field Type	Field Requirements	Page
—	MESSAGE TYPE IDENTIFIER	4 bytes, fixed	Numeric	Mandatory	44
—	BIT MAP – PRIMARY	8 bytes, 64 bits	Binary	Mandatory	44
2	PRIMARY ACCOUNT NUMBER (PAN)	21 bytes, LLVAR	Numeric	Mandatory	46
3	PROCESSING CODE	6 bytes, fixed	Numeric	Mandatory	47
4	AMOUNT, TRANSACTION	12 bytes, fixed	Numeric	Mandatory	48
11	SYSTEMS TRACE AUDIT NUMBER	6 bytes, fixed	Alphanumeric & special characters	Mandatory	50
12	DATE AND TIME, LOCAL TRANSACTION	12 bytes, fixed	Numeric	Mandatory	51
14	DATE, EXPIRATION	4 bytes, fixed	Numeric	Mandatory	53
19	COUNTRY CODE, ACQUIRING INSTITUTION	3 bytes, fixed	Numeric	Mandatory	55
22	POINT OF SERVICE DATA CODE	12 bytes, fixed	Alphanumeric	Mandatory	56
25	MESSAGE REASON CODE	4 bytes, fixed	Numeric	Optional	67
26	CARD ACCEPTOR BUSINESS CODE	4 bytes, fixed	Numeric	Mandatory	68
27	APPROVAL CODE LENGTH	1 byte, fixed	Numeric	Optional	69
32	ACQUIRING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Optional	71
33	FORWARDING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Optional	72
35	TRACK 2 DATA	39 bytes, LLVAR	Alphanumeric & special characters	Conditional	73
37	RETRIEVAL REFERENCE NUMBER	12 bytes, fixed	Alphanumeric & special characters	Optional	75
41	CARD ACCEPTOR TERMINAL IDENTIFICATION	8 bytes, fixed	Alphanumeric & special characters	Mandatory	76
42	CARD ACCEPTOR IDENTIFICATION CODE	15 bytes, fixed	Alphanumeric & special characters	Mandatory	77
43	CARD ACCEPTOR NAME/LOCATION	101 bytes, LLVAR	Alphanumeric & special characters	Mandatory - Subfield 2 Optional - Other subfields	79
45	TRACK 1 DATA	78 bytes, LLVAR	Alphanumeric & special characters	Conditional	82
49	CURRENCY CODE, TRANSACTION	3 bytes, fixed	Numeric	Mandatory	101
62	PRIVATE USE DATA	63 bytes, LLLVAR	Alphanumeric & special characters, and binary	Mandatory	109

### 3.8.1.2 ISO 8583 Authorization Request (1100) — MasterCard, Diner's Club & JCB

This table lists data fields that can appear in MasterCard Authorization Request (1100) messages. This information is applicable only to MasterCard transaction processing, because requirements on this page differ from information in other areas of section 3.4.1.

Note: The 1100 message formats for Diner's Club and JCB transactions can use the same format as MasterCard; however, additional certification is required for these cards. Specific formats are subject to individual card network requirements at time of certification. For details, contact your American Express representative.

Field	Data Element Name	Max. Field Length	Field Type	Field Requirements	Page
—	MESSAGE TYPE IDENTIFIER	4 bytes, fixed	Numeric	Mandatory	44
—	BIT MAP – PRIMARY	8 bytes, 64 bits	Binary	Mandatory	44
2	PRIMARY ACCOUNT NUMBER (PAN)	21 bytes, LLVAR	Numeric	Mandatory	46
3	PROCESSING CODE	6 bytes, fixed	Numeric	Mandatory	47
4	AMOUNT, TRANSACTION	12 bytes, fixed	Numeric	Mandatory	48
11	SYSTEMS TRACE AUDIT NUMBER	6 bytes, fixed	Alphanumeric & special characters	Mandatory	50
12	DATE AND TIME, LOCAL TRANSACTION	12 bytes, fixed	Numeric	Mandatory	51
14	DATE, EXPIRATION	4 bytes, fixed	Numeric	Conditional	53
19	COUNTRY CODE, ACQUIRING INSTITUTION	3 bytes, fixed	Numeric	Mandatory	55
22	POINT OF SERVICE DATA CODE	12 bytes, fixed	Alphanumeric	Mandatory	56
25	MESSAGE REASON CODE	4 bytes, fixed	Numeric	Optional	67
26	CARD ACCEPTOR BUSINESS CODE	4 bytes, fixed	Numeric	Mandatory	68
32	ACQUIRING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Optional	71
33	FORWARDING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Optional	72
35	TRACK 2 DATA	39 bytes, LLVAR	Alphanumeric & special characters	Conditional	73
37	RETRIEVAL REFERENCE NUMBER	12 bytes, fixed	Alphanumeric & special characters	Optional	75
41	CARD ACCEPTOR TERMINAL IDENTIFICATION	8 bytes, fixed	Alphanumeric & special characters	Optional	76
42	CARD ACCEPTOR IDENTIFICATION CODE	15 bytes, fixed	Alphanumeric & special characters	Mandatory	77
43	CARD ACCEPTOR NAME/LOCATION	101 bytes, LLVAR	Alphanumeric & special characters	Optional - Subfield 2 See page →	79
45	TRACK 1 DATA	78 bytes, LLVAR	Alphanumeric & special characters	Conditional	82
49	CURRENCY CODE, TRANSACTION	3 bytes, fixed	Numeric	Mandatory	101

### 3.8.2 ISO 8583 Authorization Response (1110) Message Table

This table lists data fields that can appear in Authorization Response (1110) messages.

Field	Data Element Name	Max. Field Length	Field Type	Field Requirements	Page
—	MESSAGE TYPE IDENTIFIER	4 bytes, fixed	Numeric	Mandatory	135
—	BIT MAP – PRIMARY	8 bytes, 64 bits	Binary	Mandatory	135
2	PRIMARY ACCOUNT NUMBER (PAN)	21 bytes, LLVAR	Numeric	Mandatory - Echo returned	136
3	PROCESSING CODE	6 bytes, fixed	Numeric	Mandatory - Echo returned	136
4	AMOUNT, TRANSACTION	12 bytes, fixed	Numeric	Mandatory - Echo returned Non-Prepaid Card Auth. Requests Conditional - Prepaid Card Partial Auth. Requests	137
7	DATE AND TIME, TRANSMISSION	10 bytes, fixed	Numeric	Conditional - Echo returned	138
11	SYSTEMS TRACE AUDIT NUMBER	6 bytes, fixed	Alphanumeric & special characters	Mandatory - Echo returned	138
12	DATE AND TIME, LOCAL TRANSACTION	12 bytes, fixed	Numeric	Mandatory - Echo returned	139
15	DATE, SETTLEMENT	6 bytes, fixed	Numeric	Mandatory - MasterCard Not used - Other transactions	139
30	AMOUNTS, ORIGINAL	24 bytes, fixed	Numeric	Conditional - Some AMEX Prepaid Cards Not used - All others	140
31	ACQUIRER REFERENCE DATA	50 bytes, LLVAR	Alphanumeric & special characters	Mandatory - Created by AEGN & echo returned by AMEX systems	141
32	ACQUIRING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Conditional - Echo returned	142
37	RETRIEVAL REFERENCE NUMBER	12 bytes, fixed	Alphanumeric & special characters	Conditional - Echo returned	142
38	APPROVAL CODE	6 bytes, fixed	Alphanumeric	Mand. - "Approved" transactions Opt. - AMEX "Pls Call Issuer" Not used - Other transactions	143
39	ACTION CODE	3 bytes, fixed	Numeric	Mandatory	144
41	CARD ACCEPTOR TERMINAL IDENTIFICATION	8 bytes, fixed	Alphanumeric & special characters	Mandatory - Echo returned for VISA PS2000 Conditional - Echo returned for AMEX & other non-VISA	145
42	CARD ACCEPTOR IDENTIFICATION CODE	15 bytes, fixed	Alphanumeric & special characters	Mandatory - Echo returned	145
44	ADDITIONAL RESPONSE DATA	27 bytes, LLVAR	Alphanumeric & special characters	Conditional - AMEX AAV & CID/4DBC/4CSC Optional - AMEX Dial Transfer Not used - Other transactions	146
49	CURRENCY CODE, TRANSACTION	3 bytes, fixed	Numeric	Mandatory - Echo returned	151
54	AMOUNTS, ADDITIONAL	123 bytes, LLLVAR	Alphanumeric & special characters	Opt. - AMEX Prepaid Cards Not used - All others	151
55	INTEGRATED CIRCUIT CARD SYSTEM RELATED DATA	259 bytes, LLLVAR	Alphanumeric, special characters & binary	Mandatory - ICC (EMV). Certification required. See page → Not used - Other transactions	153
60	NATIONAL USE DATA	303 bytes, LLLVAR	Alphanumeric & special characters	Conditional - Echo returned	155
61	NATIONAL USE DATA	103 bytes, LLLVAR	Alphanumeric & special characters	Conditional - Echo returned	155
62	PRIVATE USE DATA	63 bytes, LLLVAR	Alphanumeric, special characters & binary	Mandatory - AMEX transactions, telephone & e-mail verification Mandatory - VISA PS2000 Not used - Other transactions	156
63	PRIVATE USE DATA	103 bytes, LLLVAR	Alphanumeric & special characters	Mandatory - MasterCard Not used - Other transactions	162
64	MESSAGE AUTHENTICATION CODE FIELD	8 bytes, 64 bits	Binary	Not used - All transactions	162

### 3.8.2.1 ISO 8583 Authorization Response (1110) — VISA PS2000

This table lists data fields that can appear in VISA PS2000 Authorization Response (1110) messages.

Field	Data Element Name	Max. Field Length	Field Type	Field Requirements	Page
—	MESSAGE TYPE IDENTIFIER	4 bytes, fixed	Numeric	Mandatory	135
—	BIT MAP – PRIMARY	8 bytes, 64 bits	Binary	Mandatory	135
2	PRIMARY ACCOUNT NUMBER (PAN)	21 bytes, LLVAR	Numeric	Mandatory - Echo returned	136
3	PROCESSING CODE	6 bytes, fixed	Numeric	Mandatory - Echo returned	136
4	AMOUNT, TRANSACTION	12 bytes, fixed	Numeric	Mandatory - Echo returned	137
11	SYSTEMS TRACE AUDIT NUMBER	6 bytes, fixed	Alphanumeric & special characters	Mandatory - Echo returned	138
12	DATE AND TIME, LOCAL TRANSACTION	12 bytes, fixed	Numeric	Mandatory - Echo returned	139
32	ACQUIRING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Conditional - Echo returned	142
37	RETRIEVAL REFERENCE NUMBER	12 bytes, fixed	Alphanumeric & special characters	Conditional - Echo returned	142
38	APPROVAL CODE	6 bytes, fixed	Alphanumeric	Mand. - "Approved" transactions	143
39	ACTION CODE	3 bytes, fixed	Numeric	Mandatory	144
41	CARD ACCEPTOR TERMINAL IDENTIFICATION	8 bytes, fixed	Alphanumeric & special characters	Mandatory - Echo returned	145
42	CARD ACCEPTOR IDENTIFICATION CODE	15 bytes, fixed	Alphanumeric & special characters	Mandatory - Echo returned	145
49	CURRENCY CODE, TRANSACTION	3 bytes, fixed	Numeric	Mandatory - Echo returned	151
62	PRIVATE USE DATA	63 bytes, LLLVAR	Alphanumeric, special characters & binary	Mandatory	156

### 3.8.2.2 ISO 8583 Authorization Response (1110) — MasterCard, Diner's Club & JCB

This table lists data fields that can appear in MasterCard Authorization Response (1110) messages.

Note: The 1100 message formats for Diner's Club and JCB transactions can use the same format as MasterCard; however, additional certification is required for these cards. Note that Data Fields 15 and 63 are *not* included.

Field	Data Element Name	Max. Field Length	Field Type	Field Requirements	Page
—	MESSAGE TYPE IDENTIFIER	4 bytes, fixed	Numeric	Mandatory	135
—	BIT MAP – PRIMARY	8 bytes, 64 bits	Binary	Mandatory	135
2	PRIMARY ACCOUNT NUMBER (PAN)	21 bytes, LLVAR	Numeric	Mandatory - Echo returned	136
3	PROCESSING CODE	6 bytes, fixed	Numeric	Mandatory - Echo returned	136
4	AMOUNT, TRANSACTION	12 bytes, fixed	Numeric	Mandatory - Echo returned	137
11	SYSTEMS TRACE AUDIT NUMBER	6 bytes, fixed	Alphanumeric & special characters	Mandatory - Echo returned	138
12	DATE AND TIME, LOCAL TRANSACTION	12 bytes, fixed	Numeric	Mandatory - Echo returned	139
15	DATE, SETTLEMENT	6 bytes, fixed	Numeric	Mandatory - MasterCard Not used - Other transactions	139
32	ACQUIRING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Conditional - Echo returned	142
37	RETRIEVAL REFERENCE NUMBER	12 bytes, fixed	Alphanumeric & special characters	Conditional - Echo returned	142
38	APPROVAL CODE	6 bytes, fixed	Alphanumeric	Mand. - "Approved" transactions	143
39	ACTION CODE	3 bytes, fixed	Numeric	Mandatory	144
41	CARD ACCEPTOR TERMINAL IDENTIFICATION	8 bytes, fixed	Alphanumeric & special characters	Conditional - Echo returned	145
42	CARD ACCEPTOR IDENTIFICATION CODE	15 bytes, fixed	Alphanumeric & special characters	Mandatory - Echo returned	145
49	CURRENCY CODE, TRANSACTION	3 bytes, fixed	Numeric	Mandatory - Echo returned	151
63	PRIVATE USE DATA	103 bytes, LLLVAR	Alphanumeric & special characters	Mandatory - MasterCard Not used - Other transactions	162

### 3.8.3 ISO 8583 Reversal Advice Request (1420) Message Table

This table lists data fields that can appear in Reversal Advice Request (1420) messages.

Field	Data Element Name	Max. Field Length	Field Type	Field Requirements	Page
—	MESSAGE TYPE IDENTIFIER	4 bytes, fixed	Numeric	Mandatory	165
—	BIT MAP – PRIMARY	8 bytes, 64 bits	Binary	Mandatory	165
2	PRIMARY ACCOUNT NUMBER (PAN)	21 bytes, LLVAR	Numeric	Mandatory - AMEX Cards, other Card products & bankcards Not used - AMEX Travelers Cheques	166
3	PROCESSING CODE	6 bytes, fixed	Numeric	Mandatory	167
4	AMOUNT, TRANSACTION	12 bytes, fixed	Numeric	Mandatory	168
11	SYSTEMS TRACE AUDIT NUMBER	6 bytes, fixed	Alphanumeric & special characters	Mandatory	168
12	DATE AND TIME, LOCAL TRANSACTION	12 bytes, fixed	Numeric	Mandatory	169
14	DATE, EXPIRATION	4 bytes, fixed	Numeric	Conditional - See page ➔	170
19	COUNTRY CODE, ACQUIRING INSTITUTION	3 bytes, fixed	Numeric	Mandatory	170
22	POINT OF SERVICE DATA CODE	12 bytes, fixed	Alphanumeric	Mandatory	171
25	MESSAGE REASON CODE	4 bytes, fixed	Numeric	Mandatory - AMEX & AMEX-supported Cards Optional - VISA, MasterCard, JCB Optional - AMEX Travelers Cheques	171
26	CARD ACCEPTOR BUSINESS CODE	4 bytes, fixed	Numeric	Mandatory	172
31	ACQUIRER REFERENCE DATA	50 bytes, LLVAR	Alphanumeric & special characters	Conditional - Merchant systems See page ➔	173
32	ACQUIRING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Optional	174
33	FORWARDING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Optional	175
37	RETRIEVAL REFERENCE NUMBER	12 bytes, fixed	Alphanumeric & special characters	Optional	175
41	CARD ACCEPTOR TERMINAL IDENTIFICATION	8 bytes, fixed	Alphanumeric & special characters	Optional - AMEX & non-VISA Mandatory - VISA PS2000	176
42	CARD ACCEPTOR IDENTIFICATION CODE	15 bytes, fixed	Alphanumeric & special characters	Mandatory	177
49	CURRENCY CODE, TRANSACTION	3 bytes, fixed	Numeric	Mandatory	177
56	ORIGINAL DATA ELEMENTS	37 bytes, LLVAR	See page ➔	Mandatory	178
62	PRIVATE USE DATA	63 bytes, LLLVAR	Alphanumeric & special characters	Not used - All transactions	179
64	MESSAGE AUTHENTICATION CODE FIELD	8 bytes, 64 bits	Binary	Not used - All transactions	179



### 3.8.4 ISO 8583 Reversal Advice Response (1430) Message Table

This table lists data fields that can appear in Reversal Advice Response (1430) messages.

Field	Data Element Name	Max. Field Length	Field Type	Field Requirements	Page
—	MESSAGE TYPE IDENTIFIER	4 bytes, fixed	Numeric	Mandatory	181
—	BIT MAP – PRIMARY	8 bytes, 64 bits	Binary	Mandatory	181
2	PRIMARY ACCOUNT NUMBER (PAN)	21 bytes, LLVAR	Numeric	Mandatory - Echo returned	182
3	PROCESSING CODE	6 bytes, fixed	Numeric	Mandatory - Echo returned	182
4	AMOUNT, TRANSACTION	12 bytes, fixed	Numeric	Mandatory - Echo returned	183
11	SYSTEMS TRACE AUDIT NUMBER	6 bytes, fixed	Alphanumeric & special characters	Mandatory - Echo returned	183
12	DATE AND TIME, LOCAL TRANSACTION	12 bytes, fixed	Numeric	Mandatory - Echo returned	184
31	ACQUIRER REFERENCE DATA	50 bytes, LLVAR	Alphanumeric & special characters	Mandatory - See page ➔	185
32	ACQUIRING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Conditional - Echo returned	186
37	RETRIEVAL REFERENCE NUMBER	12 bytes, fixed	Alphanumeric & special characters	Conditional - Echo returned	186
39	ACTION CODE	3 bytes, fixed	Numeric	Mandatory	187
41	CARD ACCEPTOR TERMINAL IDENTIFICATION	8 bytes, fixed	Alphanumeric & special characters	Conditional - Echo returned	187
42	CARD ACCEPTOR IDENTIFICATION CODE	15 bytes, fixed	Alphanumeric & special characters	Mandatory - Echo returned	188
49	CURRENCY CODE, TRANSACTION	3 bytes, fixed	Numeric	Mandatory - Echo returned	188
64	MESSAGE AUTHENTICATION CODE FIELD	8 bytes, 64 bits	Binary	Not used - All transactions	189

### 3.8.5 ISO 8583 Network Management Request (1804) Message Table

This table lists data fields that can appear in Network Management Request (1804) messages.

Field	Data Element Name	Max. Field Length	Field Type	Field Requirements	Page
—	MESSAGE TYPE IDENTIFIER	4 bytes, fixed	Numeric	Mandatory	192
—	BIT MAP – PRIMARY	8 bytes, 64 bits	Binary	Mandatory	192
1	BIT MAP – SECONDARY	8 bytes, 64 bits	Binary	Not used - All transactions	193
3	PROCESSING CODE	6 bytes, fixed	Numeric	Mandatory	193
11	SYSTEMS TRACE AUDIT NUMBER	6 bytes, fixed	Alphanumeric & special characters	Mandatory	194
12	DATE AND TIME, LOCAL TRANSACTION	12 bytes, fixed	Numeric	Mandatory	194
24	FUNCTION CODE	3 bytes, fixed	Numeric	Mandatory	195
25	MESSAGE REASON CODE	4 bytes, fixed	Numeric	Mandatory	195
33	FORWARDING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Optional	196
93	TRANSACTION DESTINATION INSTITUTION IDENTIFICATION CODE	11 bytes, LLVAR	Numeric	Not used - All transactions	196
94	TRANSACTION ORIGINATOR INSTITUTION IDENTIFICATION CODE	11 bytes, LLVAR	Numeric	Not used - All transactions	197
96	KEY MANAGEMENT DATA	999 bytes, LLLVAR	Binary	Not used - All transactions	197
100	RECEIVING INSTITUTION IDENTIFICATION CODE	11 bytes, LLVAR	Numeric	Not used - All transactions	198
128	MESSAGE AUTHENTICATION CODE FIELD	8 bytes, 64 bits	Binary	Not used - All transactions	198

### 3.8.6 ISO 8583 Network Management Response (1814) Message Table

This table lists data fields that can appear in Network Management Response (1814) messages.

Field	Data Element Name	Max. Field Length	Field Type	Field Requirements	Page
—	MESSAGE TYPE IDENTIFIER	4 bytes, fixed	Numeric	Mandatory	200
—	BIT MAP – PRIMARY	8 bytes, 64 bits	Binary	Mandatory	200
1	BIT MAP – SECONDARY	8 bytes, 64 bits	Binary	Not used - All transactions	201
3	PROCESSING CODE	6 bytes, fixed	Numeric	Mandatory - Echo returned	201
11	SYSTEMS TRACE AUDIT NUMBER	6 bytes, fixed	Alphanumeric & special characters	Mandatory - Echo returned	202
12	DATE AND TIME, LOCAL TRANSACTION	12 bytes, fixed	Numeric	Mandatory - Echo returned	202
24	FUNCTION CODE	3 bytes, fixed	Numeric	Mandatory - Echo returned	203
33	FORWARDING INSTITUTION IDENTIFICATION CODE	13 bytes, LLVAR	Numeric	Conditional - Echo returned	203
39	ACTION CODE	3 bytes, fixed	Numeric	Mandatory	204
93	TRANSACTION DESTINATION INSTITUTION IDENTIFICATION CODE	11 bytes, LLVAR	Numeric	Conditional	204
94	TRANSACTION ORIGINATOR INSTITUTION IDENTIFICATION CODE	11 bytes, LLVAR	Numeric	Conditional	205
96	KEY MANAGEMENT DATA	999 bytes, LLLVAR	Binary	Conditional	205
100	RECEIVING INSTITUTION IDENTIFICATION CODE	11 bytes, LLVAR	Numeric	Conditional	206
128	MESSAGE AUTHENTICATION CODE FIELD	8 bytes, 64 bits	Binary	Not used - All transactions	206

### 3.8.7 ISO 8583 Network Management Notification (1844) Message Table

This table lists data fields that can appear in Network Management Notification “Please Wait” (1844) messages.

Field	Data Element Name	Max. Field Length	Field Type	Field Requirements	Page
—	MESSAGE TYPE IDENTIFIER	4 bytes, fixed	Numeric	Mandatory	208
—	BIT MAP – PRIMARY	8 bytes, 64 bits	Binary	Mandatory	208
3	PROCESSING CODE	6 bytes, fixed	Numeric	Mandatory	209
7	DATE AND TIME, TRANSMISSION	10 bytes, fixed	Numeric	Conditional - Echo returned	209
11	SYSTEMS TRACE AUDIT NUMBER	6 bytes, fixed	Alphanumeric & special characters	Mandatory - Echo returned	210
24	FUNCTION CODE	3 bytes, fixed	Numeric	Mandatory	210
37	RETRIEVAL REFERENCE NUMBER	12 bytes, fixed	Alphanumeric & special characters	Conditional - Echo returned	211
39	ACTION CODE	3 bytes, fixed	Numeric	Mandatory	211

### 3.9 Examples of Typical Message Formats

The following subsections contain examples that show typical layouts for each message-type class. However, not all possible data element and functionality combinations, which are described in applicable field descriptions, are shown.

- 3.9.1 Authorization Requests & Responses — American Express
  - 3.9.1.1 Authorization Request (1100) Messages — American Express
    - 3.9.1.1.1 Card Present Transaction with AAV & CID/4DBC/4CSC
    - 3.9.1.1.2 Card Not Present Transaction with AAV & CID/4DBC/4CSC
  - 3.9.1.2 Authorization Response (1110) Message — American Express
- 3.9.2 Authorization Requests & Responses — VISA
  - 3.9.2.1 Authorization Request (1100) Message — VISA
  - 3.9.2.2 Authorization Response (1110) Message — VISA
- 3.9.3 Authorization Requests & Responses — MasterCard
  - 3.9.3.1 Authorization Request (1100) Message — MasterCard
  - 3.9.3.2 Authorization Response (1110) Message — MasterCard
- 3.9.4 Reversal Advice Request & Response Messages
  - 3.9.4.1 Reversal Advice Request (1420) Message
  - 3.9.4.2 Reversal Advice Response (1430) Message
- 3.9.5 Network Management Request, Response & Notification Messages
  - 3.9.5.1 Network Management Request (1804) Message
  - 3.9.5.2 Network Management Response (1814) Message
  - 3.9.5.3 Network Management Notification (1844) Message

### 3.9.1 Authorization Requests & Responses — American Express

#### 3.9.1.1 Authorization Request (1100) Messages — American Express

##### 3.9.1.1.1 Card Present Transaction with AAV & CID/4DBC/4CSC

This diagram illustrates the message layout for a typical, American Express, *card present* transaction where both AAV and CID/4DBC/4CSC are transmitted. The following Data Fields are included: 2, 3, 4, 11, 12, 19, 22, 24, 25, 26, 32, 33, 35, 37, 41, 42, 43, 45, 49, 53 and 63.

Note: Data Field 47 *cannot* be used for *card present* transactions. Use of Data Field 47 in *card present* transactions may cause message rejection.

Data Field:	MTI	Bit Map				2	3	4	11
Bytes Max:	4	8				21	6	12	6
Data:	1100	70	30	25	C1 A8 E8 88 02	15371449635311004	004800	000000010000	123456
Data Field:	12	19	22	24	25	26	32	33	
Bytes Max:	12	3	12	3	4	4	13	13	
Data:	041217145000	840	261101W00120	181	1234	1234	1145678912345	1145678912345	
Data Field:	35					37	41	42	
Bytes Max:	39					12	8	15	
Data:	37371449635311004=940310191011234567800					ABCDE1234567	123ABC45	5021011432~~~~~	
Data Field:	43					45			
Bytes Max:	101					78			
Data:	45AA~CLEANERS\1234~MAIN~ST\ANYTOWN\85054~~~~~\					60B371449635311004^FROST/CHARLES			
Data Field:	45 (Continued)				49	53	63		
Bytes Max:	78 (Continued)				3	10	208		
Data:	~F.JR~~~~~^9403101910112345				840	049999	033AXAD850544500~~~~~		

In the example above:

- Data Field 3 is mandatory and contains *Processing Code* “004800”, which indicates that this message is a *Combination Automated Address Verification and Authorization Request*. 47
- Data Field 22 is mandatory and contains the *POS Data Code*. Position 7, Code “W”, indicates that this is a swiped transaction with keyed CID/4DBC/4CSC. This example shows that both Tracks 1 and 2 were captured. Note that Track 1 and Track 2 data examples illustrate the ISO 7813 format. For more information on Track formats, see pages 10, 73, 82 and 242. 56
- Data Field 24 contains the *Function Code*. The value “181” indicates that the Merchant’s system supports Prepaid Card Partial Authorizations. 63
- Data Field 25 is mandatory and contains the *Message Reason Code*. However, please 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. 67

### 3.9.1.1.1 Card Present Transaction with AAV & CID/4DBC/4CSC (Cont.)

	<u>Page</u>
<ul style="list-style-type: none"> <li>Data Field 43 is optional and contains the <i>Card Acceptor Name/Location</i>, which in this example is the Merchant's company name, street address, city and ZIP.</li> </ul>	79
<ul style="list-style-type: none"> <li>Data Field 53 is conditional and contains <i>Security Related Control Information</i>, which in this example is the keyed CID/4DBC/4CSC code.</li> </ul>	102
<ul style="list-style-type: none"> <li>Data Field 63 is mandatory for certain American Express transactions, including Auto-mated Address Verification, and contains Private Use Data, which in this example is basic 33-Byte Format, AAV (ZIP only) data associated with the swiped transaction.</li> </ul>	114

### 3.9.1.1.2 Card Not Present Transaction with AAV & CID/4DBC/4CSC

This diagram illustrates the message layout for a typical, American Express, ***card not present*** transaction where both AAV and CID/4DBC/4CSC are transmitted. The following Data Fields are included: 2, 3, 4, 11, 12, 14, 19, 22, 24, 25, 26, 32, 33, 37, 41, 42, 43, 49, 53 and 63.

Note: Data Field 47 is *not* shown, because of its length. However, American Express defines specific *card not present* formats for Data Field 47. For more details and examples of typical layouts, see pages 85-97.

Data Field:	MTI	Bit Map						2		3		4		11				
Bytes Max:	4	8						21		6		12		6				
Data:	1100	70	34	25	C1	88	E0	88	02	15371449635311004	004800	000000010000	123456					
Data Field:	12		14		19		22		24		25		26		32		33	
Bytes Max:	12		4		3		12		3		4		4		13		13	
Data:	041217145000		0512		840		160020800110		181		1234		1234		1145678912345		1145678912345	
Data Field:	37		41				42								43			
Bytes Max:	12		8				15								101			
Data:	ABCDE1234567		123ABC45				5021011432~~~~~								45AA~SOFTWARE\5678~MAIN~ST\ANYTOWN\			
Data Field:	43 (Continued)		49		53						63							
Bytes Max:	101 (Continued)		3		10						208							
Data:	85054~~~~~\		840		049999		033AXAD8505445004588~LOWELL~BLVD~~~											

In the example above:	<u>Page</u>
<ul style="list-style-type: none"> <li>Data Field 3 is mandatory and contains <i>Processing Code</i> "004800", which indicates that this message is a <i>Combination Automated Address Verification and Authorization Request</i>.</li> </ul>	47
<ul style="list-style-type: none"> <li>This Example shows that Data Field 14, <i>Expiration Date</i>, was provided, because Track 1 or Track 2 was not captured.</li> </ul>	53

**3.9.1.1.2 Card Not Present Transaction with AAV & CID/4DBC/4CSC (Cont.)**

	<u>Page</u>
• Data Field 22 is mandatory and contains the <i>POS Data Code</i> . Position 7, Code “S”, indicates that this is a <i>card not present</i> transaction with keyed CID/4DBC/4CSC.	56
• Data Field 24 contains the <i>Function Code</i> . The value “181” indicates that the Merchant’s system supports Prepaid Card Partial Authorizations.	63
• Data Field 25 is mandatory and contains the <i>Message Reason Code</i> . However, please 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.	67
• Data Field 43 is optional and contains the <i>Card Acceptor Name/Location</i> , which in this example is the Merchant’s company name, street address, city and ZIP.	79
• Data Field 53 is conditional and contains <i>Security Related Control Information</i> , which in this example is the keyed CID/4DBC/4CSC code.	102
• Data Field 63 is mandatory for certain American Express transactions, including Automated Address Verification, and contains <i>Private Use Data</i> , which in this example is only the 33-byte AAV (Postal ZIP and Street Address only) data. However, American Express prefers card not present transactions to contain the 208-byte AAV data. As this is a large field, it is not shown here. Please refer to the detail of Field 63 for a detailed example of the 208-byte AAV format.	114

### 3.9.1.2 Authorization Response (1110) Message — American Express

This diagram illustrates the message layout for a typical response to the authorization request submitted in the preceding examples. The following Data Fields are included: 2, 3, 4, 11, 12, 31, 32, 37, 38, 39, 41, 42, 44 and 49; and most entries are echo returned from the original 1100 message.

Data Field:	MTI	Bit Map						2		3		4		11	
Bytes Max:	4	8						21		6		12		6	
Data:	1110	70 30 00 03 0E D0 80 00						15371449635311004		004800		000000010000		123456	

Data Field:	12		31		32		37		38		39		41	
Bytes Max:	12		50		13		12		6		3		8	
Data:	041217145000		15123930120140500		1145678912345		ABCDE1234567		NNNNNN		000		123ABC45	

Data Field:	42		44	49	
Bytes Max:	15		27	3	
Data:	5021011432~~~~~		02ZY	840	

In the example above:

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                          |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| • Data Field 31 is mandatory and contains <i>Acquirer Reference Data</i> , which in this example is the <i>Transaction Identifier (TID)</i> inserted by the American Express Network.                                                                                                                                                                                                                                                                    | 141 |
| • Data Field 38 is mandatory for approved transactions and contains an <i>Approval Code</i> , because the value in Data Field 39 indicates that this transaction was approved.                                                                                                                                                                                                                                                                           | 143 |
| • Data Field 39 is mandatory and contains an <i>Action Code</i> that indicates that the transaction was approved.                                                                                                                                                                                                                                                                                                                                        | 144 |
| • Data Field 44 is mandatory for American Express Automated Address Verification and Keyed CID/ 4DBC/4CSC Validation, and contains <i>Additional Response Data</i> , which in this example is a four-byte entry composed of a two byte VLI and a two-byte AAV/CID/ 4DBC/4CSC response. The “Z” in relative position 3 indicates that the Postal (ZIP) Code matched, and the “Y” in relative position 4 indicates that the keyed CID/4DBC/4CSC was valid. | 146 |

## 3.9.2 Authorization Requests & Responses — VISA

### 3.9.2.1 Authorization Request (1100) Message — VISA

This diagram illustrates the typical message layout required for VISA PS2000 processing. The following Data Fields are included: 2, 3, 4, 11, 12, 19, 22, 25, 26, 32, 33, 35, 37, 41, 42, 43, 45, 49 and 62.

Data Field:	MTI	Bit Map					2	3	4	11
Bytes Max:	4	8					21	6	12	6
Data:	1100	70	30	24	C1 A8 E8 80 04	164011XXXXXXXXXXXXX	004000	000000010000	123456	
Data Field:	12			19	22		25	26	32	33
Bytes Max:	12			3	12		4	4	13	13
Data:	041217145000			840	261101200120		1234	1234	1145678912345	1145678912345
Data Field:	35					37		41	42	
Bytes Max:	39					12		8	15	
Data:	304011XXXXXXXXXXXXX=0508900705556					ABCDE1234567		123ABC45	5021011432~~~~~	
Data Field:	43				45					
Bytes Max:	101				78					
Data:	15\\85054~~~~~\\				58B4011XXXXXXXXXXXXX^SHOPPERS/MR~~~~~^0510901110336					
Data Field:	49	62								
Bytes Max:	3	63								
Data:	840	001Y								

In the example above:

- |                                                                                                                                                                                                                                                                                                  |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
|                                                                                                                                                                                                                                                                                                  | <u>Page</u> |
| • Data Field 22 is mandatory and contains the <i>POS Data Code</i> . Position 7 = Code “2”, indicates that this is a swiped transaction and Tracks 1 and/or 2 were captured. In this example, both tracks are captured.                                                                          | 56          |
| • Data Field 32 is optional and contains the <i>Acquiring Institution Identification Code</i> of the party processing the request.                                                                                                                                                               | 71          |
| • Data Field 33 is optional and contains the <i>Forwarding Institution Identification Code</i> , which for non-American Express (AMEX) requests may be the ID number assigned by the network provider processing transactions on the acquiring bank’s behalf.                                    | 72          |
| • Data Field 35 illustrates an example of Track 2 data for a VISA card. It is not meant to be an accurate representation of the format for VISA track data. It is simply a placeholder to show its position in the message.                                                                      | 73          |
| • Data Field 45 illustrates an example of Track 1 data for a VISA card. It is not meant to be an accurate representation of the format for VISA track data. It is simply a placeholder to show its position in the message.                                                                      | 82          |
| • Data Field 62 is mandatory for VISA PS2000 transactions and contains <i>Private Use Data</i> that American Express forwards to VISA to indicate that this transaction is being submitted for VISA PS2000 qualification. Additional sub-element values may exist, subject to VISA requirements. | 109         |

Note: See summary table on page 214 for more information on VISA requirements.



### 3.9.2.2 Authorization Response (1110) Message — VISA

This diagram illustrates the message layout for a typical response to the VISA PS2000 authorization request submitted in the preceding example. The following Data Fields are included: 2, 3, 4, 11, 12, 32, 37, 41, 42 and 49; and most entries are echo returned from the original 1100 message. In addition, Data Fields 38, 39 and 62 are included and contain data associated with a VISA PS2000 response.

Data Field:	MTI	Bit Map				2		3	4	11
Bytes Max:	4	8				21		6	12	6
Data:	1110	70 30 00 01 0E C0 80 04				164011XXXXXXXXXXXXX		004000	000000010000	123456

Data Field:	12		32		37		38	39	41	42	
Bytes Max:	12		13		12		6	3	8	15	
Data:	041217145000		1145678912345		ABCDE1234567		NNNNNN	000	123ABC45	5021011432~~~~~	

Data Field:	49	62		
Bytes Max:	3	63		
Data:	840	020Annnnnnnnnnnnnnnvvvv		

In the example above:

- Data Field 38 is mandatory for approved transactions and contains an *Approval Code*, because the value in Data Field 39 indicates that this transaction was approved. Page 143
- Data Field 39 is mandatory and contains an *Action Code* that indicates that the transaction was approved. 144
- Data Field 62 is mandatory for VISA processing and contains *Private Use Data*, which in this example is the Authorization Response Message for a VISA card transaction. This field is not present if the response from VISA is a decline. 156

Note: See summary table on page 217 for more information on VISA requirements.

### 3.9.3 Authorization Requests & Responses — MasterCard

#### 3.9.3.1 Authorization Request (1100) Message — MasterCard

This diagram illustrates the typical message layout required for MasterCard processing. The following Data Fields are included: 2, 3, 4, 11, 12, 19, 22, 25, 26, 32, 33, 35, 37, 41, 42, 43, 45 and 49.

Data Field:	MTI	Bit Map					2	3	4	11
Bytes Max:	4	8					21	6	12	6
Data:	1100	70 30 24 C1 A8 E8 80 00	165411XXXXXXXXXXXX			004000	000000010000		123456	
Data Field:	12		19	22		25	26	32	33	
Bytes Max:	12		3	12		4	4	13	13	
Data:	041217145000		840	261101200120		1234	1234	1145678912345	1145678912345	
Data Field:	35					37		41	42	
Bytes Max:	39					12		8	15	
Data:	305411XXXXXXXXXXXX=0508900705556					ABCDE1234567		123ABC45	5021011432~~~~~	
Data Field:	43			45						
Bytes Max:	101			78						
Data:	15\\85054~~~~~\\			58B5411XXXXXXXXXXXX^SHOPPERS/MR~~~~~^0510901110336						
Data Field:	49									
Bytes Max:	3									
Data:	840									

In the example above:

- |                                                                                                                                                                                                                                            |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
|                                                                                                                                                                                                                                            | <u>Page</u> |
| • Data Field 22 is mandatory and contains the <i>POS Data Code</i> . Position 7 = Code “2”, indicates that this is a swiped transaction and Tracks 1 and/or 2 were captured. In this example, both tracks are captured.                    | 56          |
| • Data Field 32 is optional and contains the <i>Acquiring Institution Identification Code</i> of the party processing the request.                                                                                                         | 71          |
| • Data Field 33 is optional and contains the <i>Forwarding Institution Identification Code</i> , which for non-AMEX requests may be the ID number assigned by the network provider processing transactions on the acquiring bank’s behalf. | 72          |
| • Data Field 35 illustrates an example of Track 2 data for a MasterCard card. It is not meant to be an accurate representation of the format for MasterCard track data. It is simply a placeholder to show its position in the message.    | 73          |
| • Data Field 41 is optional and contains the <i>Card Acceptor Terminal Identification code</i> . Use of this field is strongly recommended for American Express transactions and other bankcards.                                          | 76          |
| • Data Field 45 illustrates an example of Track 1 data for a MasterCard card. It is not meant to be an accurate representation of the format for MasterCard track data. It is simply a placeholder to show its position in the message.    | 82          |

Note: See summary table on page 215 for more information on MasterCard requirements.

### 3.9.3.2 Authorization Response (1110) Message — MasterCard

This diagram illustrates the message layout for a typical response to the MasterCard authorization request submitted in the preceding example. The following Data Fields are included: 2, 3, 4, 11, 12, 32, 37, 41, 42 and 49; and most entries are echo returned from the original 1100 message. In addition, Data Fields 15, 38, 39 and 63 are included and contain data associated with a MasterCard response.

Data Field:	MTI	Bit Map								2				3				4				11			
Bytes Max:	4	8								21				6				12				6			
Data:	1110	70	32	00	01	0E	C0	80	02	165411XXXXXXXXXXXXX				004000				000000010000				123456			

Data Field:	12				15				32				37				38				39				41			
Bytes Max:	12				6				13				12				6				3				8			
Data:	041217145000				041201				1145678912345				ABCDE1234567				NNNNNN				000				123ABC45			

Data Field:	42				49				63							
Bytes Max:	15				3				103							
Data:	5021011432~~~~~				840				009MCC123456							

In the example above:

- |                                                                                                                                                                                                                                                                  |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
|                                                                                                                                                                                                                                                                  | <u>Page</u> |
| • Data Field 15 is mandatory and contains the BankNet <i>Settlement Date</i> of the card, as returned by MasterCard.                                                                                                                                             | 139         |
| • Data Field 38 is mandatory for approved transactions and contains an <i>Approval Code</i> , because the value in Data Field 39 indicates that this transaction was approved.                                                                                   | 143         |
| • Data Field 39 is mandatory and contains an <i>Action Code</i> that indicates that the transaction was approved.                                                                                                                                                | 144         |
| • Data Field 63 is mandatory for MasterCard transactions and contains <i>Private Use Data</i> , which in this example is the BankNet Reference Number (assigned by MasterCard) for a MasterCard transaction. This value must be passed to the settlement record. | 162         |

Note: See summary table on page 217 for more information on MasterCard requirements.

### 3.9.4 Reversal Advice Request & Response Messages

#### 3.9.4.1 Reversal Advice Request (1420) Message

This diagram illustrates the message layout for a typical, American Express 1420 system reversal, which contains many of field entries from the original 1100 message. The following Data Fields are included: 2, 3, 4, 11, 12, 14, 19, 22, 25, 26, 32, 33, 37, 41, 42, 49 and 56.

Data Field:	MTI	Bit Map				2	3	4	11
Bytes Max:	4	8				21	6	12	6
Data:	1420	70	34	24	C1 88 C0 81 00	15371449635311004	004000	000000010000	123456

Data Field:	12	14	19	22	25	26	32	33
Bytes Max:	12	4	3	12	4	4	13	13
Data:	041217145000	0502	840	261101200120	1234	1234	1145678912345	1145678912345

Data Field:	37	41	42	49	56
Bytes Max:	12	8	15	3	37
Data:	ABCDE1234567	123ABC45	5021011432~~~~~	840	231100123456050120140530\

In the example above:

- |                                                                                                                                                                                                                                                                                                                                |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
|                                                                                                                                                                                                                                                                                                                                | <u>Page</u> |
| • Data Field 14 is optional and contains the Card <i>Expiration Date</i> embossed on the face of the American Express or American Express-supported Card.                                                                                                                                                                      | 170         |
| • Data Field 25 is mandatory and contains the <i>Message Reason Code</i> . However, please 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.                                                                       | 171         |
| • Data Field 32 is optional and contains the <i>Acquiring Institution Identification Code</i> of the party processing the request.                                                                                                                                                                                             | 174         |
| • Data Field 33 is optional and contains the <i>Forwarding Institution Identification Code</i> , which for non-AMEX requests may be the ID number assigned by the network provider processing transactions on the acquiring bank’s behalf.                                                                                     | 175         |
| • Data Field 37 is optional and contains the <i>Retrieval Reference Number</i> .                                                                                                                                                                                                                                               | 175         |
| • Data Field 41 is optional and contains the <i>Card Acceptor Terminal Identification</i> code. Use of this field is strongly recommended for American Express transactions and mandatory for VISA PS2000 and other bankcards.                                                                                                 | 176         |
| • Data Field 56 is mandatory and contains the <i>Original Data Elements</i> from the 1100 request, which identify the transaction needing correction or reversal. In this example, Subfield 4, <i>Acquiring Institution Identification Code</i> , is not provided; and this unused subfield is indicated by one backslash (\). | 178         |

### 3.9.4.2 Reversal Advice Response (1430) Message

This diagram illustrates the message layout for a typical response to the reversal advice request submitted in the preceding example. The following Data Fields are included: 2, 3, 4, 11, 12, 31, 32, 37, 39, 41, 42 and 49; and most entries are echo returned from the original 1420 message.

Data Field:	MTI	Bit Map				2	3	4	11
Bytes Max:	4	8				21	6	12	6
Data:	1430	70	30	00	03 0A C0 80 00	15371449635311004	004000	000000010000	123456

Data Field:	12	31	32	37	39	41
Bytes Max:	12	50	13	12	3	8
Data:	041217145000	15111117891234543	1145678912345	ABCDE1234567	400	123ABC45

Data Field:	42	49
Bytes Max:	15	3
Data:	5021011432~~~~~	840

In the example above:

- 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. Page 185
- Data Field 39 is mandatory and contains *Action Code* value “400” that indicates “reversal acknowledged”. 187

Note: American Express uses the 1430 message as a response to 1420 *system reversals* only. This acknowledgement does *not* imply that financial action(s) have been taken to adjust the Cardmember’s account standing.

### 3.9.5 Network Management Request, Response & Notification Messages

#### 3.9.5.1 Network Management Request (1804) Message

This diagram illustrates the message layout for a typical, American Express, network management request (1804), “Are you there?” message. The following Data Fields are included: 3, 11, 12, 24 and 25.

Data Field:	MTI	Bit Map	3	11	12	24	25
Bytes Max:	4	8	6	6	12	3	4
<b>Data:</b>	<b>1804</b>	<b>20 30 01 80 00 00 00 00</b>	<b>000000</b>	<b>123456</b>	<b>041217145000</b>	<b>831</b>	<b>1234</b>

#### 3.9.5.2 Network Management Response (1814) Message

This diagram illustrates the message layout for a typical, American Express, network management response (1814) acknowledgement message. The following Data Fields are included: 3, 11 and 12.

Data Field:	MTI	Bit Map	3	11	12
Bytes Max:	4	8	6	6	12
<b>Data:</b>	<b>1814</b>	<b>20 30 00 00 00 00 00 00</b>	<b>000000</b>	<b>123456</b>	<b>041217145000</b>

#### 3.9.5.3 Network Management Notification (1844) Message

This diagram illustrates the message layout for a typical, American Express, network management notification (1844), “Please wait” message. The following Data Fields are included: 3, 11, 12, 24, 37 and 39; and Data Fields 11, 12 and 37 are echo returned from the current 1100 message in progress.

Data Field:	MTI	Bit Map	3	11	12	24	37	39
Bytes Max:	4	8	6	6	12	3	12	3
<b>Data:</b>	<b>1844</b>	<b>20 30 01 00 0A 00 00 00</b>	<b>004000</b>	<b>123456</b>	<b>041217145000</b>	<b>805</b>	<b>ABCDE1234567</b>	<b>182</b>

## 4.0 Data and Certification Testing

This section addresses two testing issues:

- Data Validation Tests
- Certification Tests

**The Merchant's credit authorization application software must apply the data and certification tests as described in this section. In the event data or system errors occur, either from the Merchant's computer or from American Express systems, notification must be delivered to the POS device or to the operator's terminal. If an error is generated from American Express, the appropriate action code will be returned in Field 39 of the 1110 response message to the Merchant's system. The non-approved transaction which is not specifically a "DENY", must not be treated as an American Express denial of the Cardmember's transaction.**

Certification requirements are as follows:

Mandatory	Third Party Processors and Software Vendors must certify that they can pass meaningful data in the field. And, after certification, all Merchant-provided data must be forwarded in the field.
-----------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### 4.1 Data Validation Tests

Before a Merchant transmits an authorization request to American Express, the Merchant's authorization software must conduct validation tests on the Service Establishment (SE) Number assigned to the Merchant by American Express, and to the Cardmember's American Express or American Express Partner Account Number. This subsection defines the valid range of acceptable numbers, as well as the process of performing check digit validation tests on SE Numbers, and American Express and American Express Partner Cardmember Account Numbers.

Merchants must code their authorization software to detect and identify any SE Number or Cardmember Account Number that fails the examinations defined in this section. Any transactions received by American Express that do not pass the validation tests are rejected during processing of the authorization request.

### 4.1.1 Cardmember and SE Number Range Validation

American Express and American Express-supported Cards begin with 34, 35 or 37. Account numbers that do not have 34, 35 or 37 as the first two digits are invalid American Express account numbers.

The first six digits of the Primary Account Number (PAN) indicate the card type/issuer.

340000-349999 = American Express

352800-358999 = Japan Credit Bureau

370000-379999 = American Express

American Express Merchants have 10-digit identification numbers referred to as “Service Establishment (SE) Numbers”.

### 4.1.2 Check Digit Verification

The last digit to the right of each Service Establishment (SE) Number or Cardmember Number is a check digit. Check digit verification is a comparison of the given check digit with a calculated value derived from a series of arithmetic operations performed on the other digits in the SE Number or Cardmember Number. If the calculated value matches the given check digit, the SE Number or Cardmember Number is valid. If they do not match, the account number is invalid and should be rejected.

The check digit verification algorithm used to validate SE Numbers is different from the one used for Cardmember Numbers.

You must code your software to detect and identify SE Numbers and Cardmember Numbers that fail the procedures described above and detailed on pages 236 and 238. Any non-American Express or non-American Express Partner Card transaction(s) will be rejected during processing.



### 4.1.3 SE Number Check Digit Computation (Modulus 9 Check)

The American Express Service Establishment (SE) Number is a ten-digit account number that identifies a Merchant. This number is assigned to Merchants when they sign up to accept the American Express Card at their establishments.

As with the check digit computation for Cardmember Numbers, the last digit to the right of the SE Number is the check digit. The computation described below determines the validity of an account number by comparing the given check digit with a calculated value derived from a series of arithmetic operations performed on the other digits in the SE Number. If the calculated value matches the given check digit, the SE Number is valid. If they do not match, the account number is invalid and should be rejected.

The steps to validate an SE Number are:

1. Do not include the check digit (last number to the right) in the calculation.
2. If the first three digits of the SE Number to be validated are less than 930 **or** greater than 939, replace the first digit to the left (first digit in the number) with zero (0).
3. Starting with the second digit from the left (second digit in the number), add together every other digit.
4. Starting with the first digit from the left (first digit in the number), multiply every other digit by two (2).
5. If any product of Step 4 is a two-digit number, add the two digits of the product.
6. Add the products produced in Step 5.
7. Add the results of Steps 3 and 6.
8. If the result of Step 7 is an exact multiple of ten (10, 20, 30, etc.), the check digit is zero (0). If the result of Step 7 is not an exact multiple of ten, subtract that result from the next higher multiple of ten. The result is the check digit.

If the calculated value matches the given check digit, the SE Number is valid.

If the calculated value does not match the given check digit, the SE Number is invalid and should be flagged.

A detailed example of the SE Number, check digit verification procedure described above appears on the following page.

**4.1.3 SE Number Check Digit Computation (Modulus 9 Check) (Cont.)****Example: Service Establishment Number 5021011432      The check digit is 2**

1. Do not include the check digit (last number to the right) in the calculation.	5   0   2   1   0   1   1   4   3
2. If the first three digits of the number are less than 930 or greater than 939, replace the first digit to the left with zero (0).	0   0   2   1   0   1   1   4   3
3. Starting with the second digit from the left, add together every other digit.	0   +   1   +   1   +   4   =   6
4. Starting with the first digit from the left, multiply every other digit by two.	<div> 0            2            0            1            3  <u>x2</u>        <u>x2</u>        <u>x2</u>        <u>x2</u>        <u>x2</u>  0            4            0            2            6 </div>
5. If any product of Step 4 is a two-digit number, add the two digits of the product.	0            4            0            2            6
6. Add the products produced in Step 5.	0   +   4   +   0   +   2   +   6   =   12
7. Add the results of Steps 3 and 6.	6   +   12   =   18
8. If the result of Step 7 is a multiple of 10, the check digit is zero (0). If the result of Step 7 is not a multiple of 10, subtract the result from the next higher multiple of 10. The new result is the calculated check digit.	20   -   18   =   2
If the calculated check digit matches the given check digit, the Service Establishment Number is valid.	<p>Given check digit is 2.</p> <p>Calculated check digit is 2.</p> <p>Service Establishment Number is valid.</p>
If the check digits do not match, the SE Number is invalid and must be flagged as invalid.	

#### 4.1.4 Cardmember Number Check Digit Computation (Modulus 10 Check)

The Cardmember Number, check digit computation is very similar to the algorithm used to validate SE Numbers. However, the procedures are not exactly the same; and this should be noted in the coding.

As with the check digit computation for SE Numbers, the last digit to the right of the Cardmember Number is the check digit. The computation described below determines the validity of an account number by comparing the given check digit with a calculated value derived from a series of arithmetic operations performed on the other digits in the Cardmember Number. If the calculated value matches the given check digit, the Cardmember Number is valid. If they do not match, the account number is invalid and should be rejected.

The steps to validate a Cardmember Number are:

1. Do not include the check digit (last number to the right) in the calculation.
2. Starting with the last digit to the right (excluding the check digit) and working right to left, multiply every other digit by two (2).
3. If any product of Step 2 is a two-digit number, add the two digits of the product.
4. Add the products produced in Step 3.
5. Add all the digits not used in Step 2.
6. Add the results of Step 4 and Step 5.
7. If the result of Step 6 is an exact multiple of ten (10, 20, 30, etc.), the check digit is zero (0). If the result of Step 6 is not an exact multiple of ten, subtract that result from the next higher multiple of ten. The result is the check digit.

As with the SE Number check digit computation, if calculated value matches the given check digit, the Cardmember Number is valid.

If the calculated value does not match the given check digit, the Cardmember Number is invalid and should be flagged.

A detailed example of the Cardmember Number, check digit verification procedure described above appears on the following page.

Note: The example on the next page is for a 15-digit American Express Card number. Check digit computation for an American Express Partners' Card is performed in a similar manner, except the number of columns upon which arithmetic computations are performed is altered to match the number of digits in the account number (excluding the check digit). For further information, please contact your American Express representative.

#### 4.1.4 Cardmember Number Check Digit Computation (Modulus 10 Check) (Continued)

**Example: Cardmember Number 373872186011004**

**The check digit is 4**

1. Do not include the check digit (last number to the right) in the calculation.	3	7	3	8	7	2	1	8	6	0	1	1	0	0
2. Starting with the last digit to the right, and working right to left, multiply every other digit by two.		7		8		2		8		0		1		0
		<u>x2</u>		<u>x2</u>		<u>x2</u>		<u>x2</u>		<u>x2</u>		<u>x2</u>		<u>x2</u>
		14		16		4		16		0		2		0
3. If any product of Step 2 is a two-digit number, add the two digits together.		5		7		4		7		0		2		0
4. Add the products produced in Step 3.		5	+	7	+	4	+	7	+	0	+	2	+	0
														= 25
5. Add all the digits not used in Step 2.	3	+	3	+	7	+	1	+	6	+	1	+	0	
														= 21
6. Add the results of Steps 4 and 5.	25	+	21											= 46
7. If the result of Step 6 is a multiple of 10, the check digit is zero (0). If the result of Step 6 is not a multiple of 10, subtract the result from the next higher multiple of 10. The new result is the calculated check digit.	50	-	46											= 4
If the calculated check digit matches the given check digit, the Cardmember Number is valid.	Given check digit is 4. Calculated check digit is 4. Cardmember Number is valid.													
If the check digits do not match, the Cardmember Number is invalid and must be flagged as invalid.														

## 4.2 Certification Tests

Merchants must pass both protocol and applications software testing prior to connecting to American Express production systems. This subsection addresses the testing and certification of the applications software. Protocol testing is described in the *American Express Card Acceptance & Processing Network Communications Guide (POS020056)*\* and must be passed before applications testing can occur.

During testing of the authorization applications software, Merchants work with the American Express representative to arrange the following activities:

- Applications Test Plan Execution
- Verification of transmission/reception of authorization request/response messages

The American Express representative will schedule testing and assist with communications set-up.

American Express provides the specific testing procedures to Merchants in the Merchant's Applications Test Plan. This test plan is developed by the American Express representative, in conjunction with the Merchant's management and applications programming staff members. The test plan describes in detail the selected message formats, and provides a test script.

The test script provides the details needed by the Merchant to construct test authorization request messages, including test account numbers and amounts. It also informs the Merchant of the expected response from American Express for the request message. Merchants must verify their authorization software by ensuring that each authorization request message invokes the correct response message as defined in the test script. The testing outline on the following page lists the major application software verification steps.

Note: In markets where EMV chip cards are accepted, additional processes demonstrating compliance to the American Express ICC Payment Specification (AEIPS) have been established. Further details on these additional test plan, technical requirements, etc. can be obtained from your local American Express representative.

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\* USA and Canada only. For information on connectivity solutions in other global regions, please contact your American Express representative.

## 4.2 Certification Tests (Continued)

1. Merchant obtains the Applications Test Plan from the American Express representative.
2. Merchant contacts the American Express representative to schedule testing and coordinate certification activities.
3. Merchant executes test script transactions.
4. American Express representative verifies Merchant's data, format and ensures compliance with business rules.
5. Merchant verifies receipt of response messages from American Express.
6. Merchant confirms compliance with American Express business rules and procedures as they relate to the authorization response variables.
7. Merchant proceeds with the Applications Test Plan, until all selected service options and combinations are verified.
8. If any difficulties arise during testing, the American Express representative assists the Merchant in troubleshooting and correcting the problem.
9. After successful completion of authorization testing, the Merchant contacts the American Express representative, who provides the Merchant with required information and additional American Express contacts for routine production operations.

## 5.0 Appendix

The Appendix contains the following subsections:

- 5.1 American Express Magnetic Stripe Formats
- 5.2 Expresspay Pseudo-Magnetic Stripe Formats
- 5.3 Julian Date Calendar — Standard Year
- 5.4 Julian Date Calendar — Leap Year (2012, 2016, 2020, etc.)
- 5.5 Merchant Category (MCC) Codes
- 5.6 Country & Currency Codes
- 5.7 American Express Regions
- 5.8 Street Codes
- 5.9 ISO Account Number Ranges
- 5.10 EBCDIC & ASCII Code Translation Table

## 5.1 American Express Magnetic Stripe Formats

Merchants that use the ISO 8583 message format may elect to read American Express magnetic card stripes. Merchants must design their systems to accept the following card formats, both of which are used by American Express:

- ANSI X4.16 standard
- ISO 7813 standard

If Tracks 1 and 2 are both captured, both should be forwarded. If only one track is captured, Track 1 is preferred (see page 82). For systems that capture only Track 2, this less desirable alternative may be supplied in lieu of Track 1 (see page 73).

Magnetic stripe data contained on either Track 1 (preferred) or Track 2 must pass parity and LRC tests prior to the transmitting of this data to American Express. The American Express Cardmember Account Number must pass the check digit test described on page 237.

Discretionary Data is used by American Express for the effective date, card identifier, and in Track 2, language code. Unused portions of Discretionary Data are omitted at card creation time in all formats except ISO 7813, Track 2, where zeros are used.

### Notes:

1. Track 1 and Track 2 data formats may vary slightly between various American Express products. The field definitions referenced in this section are for reference only and may not reflect all variations that may be encountered. For this reason, when Track 1 and/or Track 2 data is supplied intact, the acquirer, their devices, systems, software, Software Vendors and Third Party Processors should capture all characters between the start and end sentinels, strip off the sentinels and LRC, and forward the remainder to American Express in the appropriate ISO 8583 Track 1 and/or Track 2 field, without regard to the specific lengths referenced in this section.
2. If the Merchant's system supports capture of both Track 1 and Track 2, both tracks must be forwarded. If only one track is captured, Track 1 is preferred (see page 82). For systems that capture only Track 2, this less desirable alternative may be supplied in lieu of Track 1 (see page 73). American Express requires all Merchants and service providers as part of their Card Acceptance or servicing agreements to adhere to the American Express Data Security Operating Policy (DSOP). The policy requires Merchants to comply with the Payment Card Industry Security Standard to process, store or transmit Cardmember payment information. More information on the American Express DSOP and the PCI Data Security Standard can be found at [www.americanexpress.com/datasecurity](http://www.americanexpress.com/datasecurity).
3. During certification, *Merchants* must demonstrate the ability to populate and transmit Track 1, Track 2 and/or Integrated Circuit Card (ICC) Data (Fields 45, 35 and 55, respectively) for Card Present transactions when track or ICC data is successfully read from a valid Card swipe or read. Similarly, *authorized Third Party Processors* and *Software Vendors* must demonstrate the ability to populate and transmit Track 1, Track 2 and/or ICC Data (Fields 45, 35 and 55, respectively) for Card Present transactions when track or ICC data is successfully read from a valid Card swipe or read. After certification, Merchants, Third Party Processors and Software Vendors must forward all Point of Sale-provided track and/or ICC data in the appropriate field(s).

The American Express magnetic stripe formats are provided on the next page.



**5.1.1 ANSI X4.16 Standard****Track 1 (Preferred)**

<u>Field Name</u>	<u>Digit</u>
Start Sentinel	1
Format Code	1
Account Number (PAN) *	17
Field Separator	1
Cardmember Name	26
Field Separator	1
Expiration Date (YYMM)	4
Effective Date (YYMM)	4
Discretionary Data	5
End Sentinel	1
LRC †	1
Unused	17
<b>Total</b>	<b>79</b>

**Track 2**

<u>Field Name</u>	<u>Digit</u>
Start Sentinel	1
Account Number (PAN)	15
Field Separator	1
Expiration Date (YYMM)	4
Effective Date (YYMM)	4
Discretionary Data	5
End Sentinel	1
LRC †	1
Unused	8
<b>Total</b>	<b>40</b>

**5.1.2 ISO 7813 Standard****Track 1 (Preferred)**

<u>Field Name</u>	<u>Digit</u>
Start Sentinel	1
Format Code	1
Account Number (PAN)	15
Field Separator	1
Cardmember Name	26
Field Separator	1
Expiration Date (YYMM)	4
Interchange Designator	1
Service Code	2
Effective Date (YYMM)	4
Discretionary Data	5
End Sentinel	1
LRC ‡	1
Unused	16
<b>Total</b>	<b>79</b>

**Track 2**

<u>Field Name</u>	<u>Digit</u>
Start Sentinel	1
Account Number (PAN)	15
Field Separator	1
Expiration Date (YYMM)	4
Interchange Designator	1
Service Code	2
Effective Date (YYMM)	4
Discretionary Data	8
Language Code	2
End Sentinel	1
LRC ‡	1
<b>Total</b>	<b>40</b>

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\* Account Number (PAN) numeric format includes spaces in the 17-digit field parameter.

† Longitudinal Redundancy Check; may or may not be present in ANSI X4.16 format.

‡ Longitudinal Redundancy Check.

### 5.1.3 ANSI X4.16 / ISO 7813 Track 1 Message Formats

<b>Subfield 1 — ANSI X4.16</b>	<b>START SENTINEL</b>
<b>Subfield 1 — ISO 7813</b>	<b>START SENTINEL</b>

---

Length of field: 1 byte

Field Type: Special character

Approximate Position: Position 1 — ANSI X4.16  
Position 1 — ISO 7813

Constant: %

Required Field: Mandatory

Description: This field identifies the beginning of a stripe.

Notes:

1. The START SENTINEL is not sent in the authorization request message.
2. The constant literal “%” appears here for example purposes only. Other values may appear in actual magnetic stripe data for American Express Cards.

The diagram below, and those on the following pages, show the approximate position of each field for ISO 7813 Standard Track 1.

Message:	%	B	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	^	F	R
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	O	S	T	/	C	H	A	R	L	E	S		F	.	J	R				
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Message:					^	9	4	0	3	1	0	1	9	1	0	1	1	2	3	4
Position:	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Message:	5	?																		
Position:	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	

### 5.1.3 ANSI X4.16 / ISO 7813 Track 1 Message Formats (Cont.)

Subfield 2 — ANSI X4.16	FORMAT CODE
Subfield 2 — ISO 7813	FORMAT CODE

Length of field:	1 byte
Field Type:	Alpha
Approximate Position:	Position 2 — ANSI X4.16 Position 2 — ISO 7813
Constant:	B
Required Field:	Mandatory
Description:	This field indicates the use of standard format “B”; format “A” is for proprietary use only.

Message:	%	<b>B</b>	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	^	F	R
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	O	S	T	/	C	H	A	R	L	E	S		F	.	J	R				
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Message:					^	9	4	0	3	1	0	1	9	1	0	1	1	2	3	4
Position:	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Message:	5	?																		
Position:	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	

### 5.1.3 ANSI X4.16 / ISO 7813 Track 1 Message Formats (Cont.)

#### Subfield 3 — ANSI X4.16 ACCOUNT NUMBER (PAN)

#### Subfield 3 — ISO 7813 ACCOUNT NUMBER (PAN)

Length of field:	17 bytes — ANSI X4.16 15 bytes — ISO 7813
Field Type:	Numeric
Approximate Position:	Positions 3-19 — ANSI X4.16 Positions 3-17 — ISO 7813
Constant:	None
Required Field:	Mandatory
Description:	This field contains the Cardmember's PRIMARY ACCOUNT NUMBER (PAN).

Note: (ANSI X4.16, only)

The ACCOUNT NUMBER (PAN) numeric format includes spaces in the 17-digit field parameter.

Message:	%	B	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	^	F	R
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	O	S	T	/	C	H	A	R	L	E	S		F	.	J	R				
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Message:					^	9	4	0	3	1	0	1	9	1	0	1	1	2	3	4
Position:	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Message:	5	?																		
Position:	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	

### 5.1.3 ANSI X4.16 / ISO 7813 Track 1 Message Formats (Cont.)

Subfield 4 — ANSI X4.16	FIELD SEPARATOR
Subfield 4 — ISO 7813	FIELD SEPARATOR

Length of field:	1 byte
Field Type:	Special character
Approximate Position:	Position 20 — ANSI X4.16 Position 18 — ISO 7813
Constant:	^
Required Field:	Mandatory
Description:	This field separates units of information within the track.

Note: The constant literal “^” appears here for example purposes only. Other special character values may appear in actual magnetic stripe data for American Express Cards. Alpha and numeric values are not permitted. The Field Separator values in Track 1 must be the same.

Message:	%	B	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	^	F	R
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	O	S	T	/	C	H	A	R	L	E	S		F	.	J	R				
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Message:					^	9	4	0	3	1	0	1	9	1	0	1	1	2	3	4
Position:	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Message:	5	?																		
Position:	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	

### 5.1.3 ANSI X4.16 / ISO 7813 Track 1 Message Formats (Cont.)

Subfield 5 — ANSI X4.16	CARDMEMBER NAME
Subfield 5 — ISO 7813	CARDMEMBER NAME

Length of field: 26 bytes

Field Type: Alphanumeric & special characters

Approximate Position: Positions 21-46 — ANSI X4.16  
Positions 19-44 — ISO 7813

Constant: None

Required Field: Mandatory

Description: This field contains the Cardmember's name, which is encoded in magnetic stripe data for American Express Cards. The following characters are used to separate the elements of a Cardmember's name:

- “ / ” (virgule) = surname/first name separator.
- “ ” (space) = first name/middle name separator, or first name/middle initial separator (as required). Spaces used to fill the name field are not to be removed from this field.
- “ . ” (period) = name/title separator (as required).

Examples:

- Surname only: **FROST/**
- Surname, first name: **FROST/CHARLES**
- Surname, first name, middle initial: **FROST/CHARLES F**
- Surname, first initial, middle initial: **FROST/C F**
- Surname, first name, middle name, title: **FROST/CHARLES FRANCIS .JR**

Message:	%	B	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	^	F	R
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	O	S	T	/	C	H	A	R	L	E	S		F	.	J	R				
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Message:					^	9	4	0	3	1	0	1	9	1	0	1	1	2	3	4
Position:	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Message:	5	?																		
Position:	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	

### 5.1.3 ANSI X4.16 / ISO 7813 Track 1 Message Formats (Cont.)

Subfield 6 — ANSI X4.16	FIELD SEPARATOR
Subfield 6 — ISO 7813	FIELD SEPARATOR

Length of field:	1 byte
Field Type:	Special character
Approximate Position:	Position 47 — ANSI X4.16 Position 45 — ISO 7813
Constant:	^
Required Field:	Mandatory
Description:	This field separates units of information within the track.

Note: The constant literal “^” appears here for example purposes only. Other special character values may appear in actual magnetic stripe data for American Express Cards. Alpha and numeric values are not permitted. The value in this subfield must be the same as the value in Subfield 4 (Field Separator) in Track 1.

Message:	%	B	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	^	F	R
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	O	S	T	/	C	H	A	R	L	E	S		F	.	J	R				
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Message:					^	9	4	0	3	1	0	1	9	1	0	1	1	2	3	4
Position:	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Message:	5	?																		
Position:	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	

### 5.1.3 ANSI X4.16 / ISO 7813 Track 1 Message Formats (Cont.)

Subfield 7 — ANSI X4.16	EXPIRATION DATE
Subfield 7 — ISO 7813	EXPIRATION DATE

Length of field:	4 bytes
Field Type:	Numeric, YYMM
Approximate Position:	Positions 48-51 — ANSI X4.16 Positions 46-49 — ISO 7813
Constant:	None
Required Field:	Mandatory
Description:	This field contains the year and month in which the American Express Card is no longer valid.  The card expires on the last day of the month.

Message:	%	B	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	^	F	R
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	O	S	T	/	C	H	A	R	L	E	S		F	.	J	R				
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Message:					^	9	4	0	3	1	0	1	9	1	0	1	1	2	3	4
Position:	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Message:	5	?																		
Position:	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	



### 5.1.3 ANSI X4.16 / ISO 7813 Track 1 Message Formats (Cont.)

#### **Special Note for Subfields 8 and 9**

Subfields 8 and 9 (ISO 7813) are used in conjunction with each other. However, only certain combinations are valid for American Express Card magnetic stripe data. The following values are the possible combinations of Interchange Designators and Service Codes that are valid for American Express Card Track data. The composite descriptions for these values are derived by combining the definitions of the individual subfields.

101	201	501	601	701	901
102	206	502	606	702	902
103	220	503	621	703	903
106	221	506	622		
120	223	520	626		
121	226	521			
122		522			
123		526			
126					

These three-digit combinations may be used by card issuers to request specific authorization processing. Currently, American Express has no definite plans to require USA Merchants to interrogate and act on these codes at the terminal level. Merchants that wish to participate in such processing may need to update their terminals and would require additional certification. For details, contact your American Express representative.

### 5.1.3 ANSI X4.16 / ISO 7813 Track 1 Message Formats (Cont.)

#### Subfield 8 — ISO 7813 INTERCHANGE DESIGNATOR

Length of field:	1 byte
Field Type:	Numeric
Approximate Position:	Position 50 — ISO 7813 Note: This field applies only to ISO 7813 Standard Track 1 and is not applicable to ANSI X4.16.
Constant:	None
Required Field:	Mandatory
Description:	This field indicates whether the American Express Card can be used outside the country of issue.  1 = Available for international interchange. 2 = Chip card. 5 = Available for interchange only in country of issue. 6 = Chip card, available for interchange only in country of issue. 7 = Not available for general interchange. 9 = System test card.

See *Special Note for Subfields 8 and 9*, on page 251.

Message:	%	B	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	^	F	R
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	O	S	T	/	C	H	A	R	L	E	S		F	.	J	R				
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Message:					^	9	4	0	3	1	0	1	9	1	0	1	1	2	3	4
Position:	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Message:	5	?																		
Position:	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	

### 5.1.3 ANSI X4.16 / ISO 7813 Track 1 Message Formats (Cont.)

#### Subfield 9 — ISO 7813 SERVICE CODE

Length of field:	2 bytes
Field Type:	Numeric
Approximate Position:	Positions 51-52 — ISO 7813 Note: This field applies only to ISO 7813 Standard Track 1 and is not applicable to ANSI X4.16.
Constant:	None
Required Field:	Mandatory
Description:	This field indicates whether the American Express Card can be used for ATM/Cash Access, or if positive authorization is required.  01 = No restrictions. 02 = No ATM service. 03 = ATM Service only. 06 = No restrictions; prompt for PIN, if PIN pad is present. 10 = No cash advance. 11 = No cash advance or ATM service. 20 = Requires positive authorization by issuer or issuer's agent. 21 = Authorization by issuer only. 22 = Authorization by issuer only; Goods & Services. 23 = Authorization by issuer only; ATM only, PIN required. 26 = Authorization by issuer only; prompt for PIN, if PIN pad is present.

See *Special Note for Subfields 8 and 9*, on page 251.

Message:	%	B	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	^	F	R
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	O	S	T	/	C	H	A	R	L	E	S		F	.	J	R				
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Message:					^	9	4	0	3	1	0	1	9	1	0	1	1	2	3	4
Position:	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Message:	5	?																		
Position:	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	

### 5.1.3 ANSI X4.16 / ISO 7813 Track 1 Message Formats (Cont.)

<b>Subfield 8 — ANSI X4.16</b>	<b>EFFECTIVE DATE</b>
<b>Subfield 10 — ISO 7813</b>	<b>EFFECTIVE DATE</b>

---

Length of field:	4 bytes
Field Type:	Numeric, YYMM
Approximate Position:	Positions 52-55 — ANSI X4.16 Positions 53-56 — ISO 7813
Constant:	None
Required Field:	Mandatory
Description:	This field contains the year and month in which the American Express Card becomes valid.  The card becomes valid on the first day of the month.

Message:	%	B	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	^	F	R
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	O	S	T	/	C	H	A	R	L	E	S		F	.	J	R				
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Message:					^	9	4	0	3	1	0	1	9	1	0	1	1	2	3	4
Position:	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Message:	5	?																		
Position:	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	

### 5.1.3 ANSI X4.16 / ISO 7813 Track 1 Message Formats (Cont.)

Subfield 9 — ANSI X4.16	DISCRETIONARY DATA
Subfield 11 — ISO 7813	DISCRETIONARY DATA

Length of field:	5 bytes
Field Type:	Numeric
Approximate Position:	Positions 56-60 — ANSI X4.16 Positions 57-61 — ISO 7813
Constant:	None
Required Field:	Mandatory
Description:	This field contains American Express discretionary data.

Message:	%	B	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	^	F	R
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	O	S	T	/	C	H	A	R	L	E	S		F	.	J	R				
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Message:					^	9	4	0	3	1	0	1	9	1	0	1	1	2	3	4
Position:	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Message:	5	?																		
Position:	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	

### 5.1.3 ANSI X4.16 / ISO 7813 Track 1 Message Formats (Cont.)

**Subfield 10 — ANSI X4.16**    **END SENTINEL**  
**Subfield 12 — ISO 7813**    **END SENTINEL**

---

Length of field: 1 byte

Field Type: Special character

Approximate Position: Position 61 — ANSI X4.16  
Position 62 — ISO 7813

Constant: ?

Required Field: Mandatory

Description: This field identifies the end of the stripe.

Notes:

1. The END SENTINEL is not sent in the authorization request message.
2. The constant literal “?” appears here for example purposes only. Other values may appear in actual magnetic stripe data for American Express Cards.

Message:	%	B	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	^	F	R
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	O	S	T	/	C	H	A	R	L	E	S		F	.	J	R				
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Message:					^	9	4	0	3	1	0	1	9	1	0	1	1	2	3	4
Position:	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Message:	5	?																		
Position:	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	

### 5.1.3 ANSI X4.16 / ISO 7813 Track 1 Message Formats (Cont.)

<b>Subfield 11 — ANSI X4.16</b>	<b>LONGITUDINAL REDUNDANCY CHECK (LRC)</b>
<b>Subfield 13 — ISO 7813</b>	<b>LONGITUDINAL REDUNDANCY CHECK (LRC)</b>

Length of field: 1 byte

Field Type: Binary

Approximate Position: Position 62 — ANSI X4.16  
Position 63 — ISO 7813

Constant: None

Required Field: Mandatory

Description: This unique character appears in each stripe and immediately follows the end sentinel, when the card is read from the start sentinel.

This field is used as an error-checking device and will vary for each card.

Notes:

1. LRC is not sent in an authorization request message.
2. LRC may or may not be present in ANSI X4.16 format.

Message:	%	B	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	^	F	R
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	O	S	T	/	C	H	A	R	L	E	S		F	.	J	R				
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Message:					^	9	4	0	3	1	0	1	9	1	0	1	1	2	3	4
Position:	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Message:	5	?																		
Position:	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	

### 5.1.3 ANSI X4.16 / ISO 7813 Track 1 Message Formats (Cont.)

**Subfield 12 — ANSI X4.16    UNUSED**  
**Subfield 14 — ISO 7813    UNUSED**

---

Length of field:                      17 bytes — ANSI X4.16  
                                              16 bytes — ISO 7813

Field Type:                            Binary

Approximate Position:              Positions 63-79 — ANSI X4.16  
                                              Positions 64-79 — ISO 7813

Constant:                             None

Required Field:                      No

Description:                          Reserved for future use.

Message:	%	B	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	^	F	R
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	O	S	T	/	C	H	A	R	L	E	S		F	.	J	R				
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Message:					^	9	4	0	3	1	0	1	9	1	0	1	1	2	3	4
Position:	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Message:	5	?																		
Position:	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	



#### 5.1.4 ANSI X4.16 / ISO 7813 Track 2 Message Formats

<b>Subfield 1 — ANSI X4.16</b>	<b>START SENTINEL</b>
<b>Subfield 1 — ISO 7813</b>	<b>START SENTINEL</b>

---

Length of field: 1 byte

Field Type: Special character

Approximate Position: Position 1 — ANSI X4.16  
Position 1 — ISO 7813

Constant: ;

Required Field: Mandatory

Description: This field identifies the beginning of a stripe.

Notes:

1. The START SENTINEL is not sent in the authorization request message.
2. The constant literal “;” appears here for example purposes only. Other values may appear in actual magnetic stripe data for American Express Cards.

The diagram below, and those on the following pages, show the approximate position of each field for ISO 7813 Track 2.

Message:	;	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	=	9	4	0
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Message:	3	1	0	1	9	1	0	1	1	2	3	4	5	6	7	8	0	0	?	
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

#### 5.1.4 ANSI X4.16 / ISO 7813 Track 2 Message Formats (Cont.)

Subfield 2 — ANSI X4.16	ACCOUNT NUMBER (PAN)
Subfield 2 — ISO 7813	ACCOUNT NUMBER (PAN)
Length of field:	15 bytes
Field Type:	Numeric
Approximate Position:	Positions 2-16 — ANSI X4.16 Positions 2-16 — ISO 7813
Constant:	None
Required Field:	Mandatory
Description:	This field contains the Cardmember's PRIMARY ACCOUNT NUMBER (PAN).

Message:	;	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	=	9	4	0
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	3	1	0	1	9	1	0	1	1	2	3	4	5	6	7	8	0	0	?	
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

#### 5.1.4 ANSI X4.16 / ISO 7813 Track 2 Message Formats (Cont.)

<b>Subfield 3 — ANSI X4.16</b>	<b>FIELD SEPARATOR</b>
<b>Subfield 3 — ISO 7813</b>	<b>FIELD SEPARATOR</b>

---

Length of field:	1 byte
Field Type:	Alpha or special character
Approximate Position:	Position 17 — ANSI X4.16 Position 17 — ISO 7813
Constant:	=
Required Field:	Mandatory
Description:	This field separates units of information within the track.

Note: The constant literal “=” appears here for example purposes only. Other alpha or special character values may appear in actual magnetic stripe data for American Express Cards. Numeric values are not permitted.

Message:	;	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	=	9	4	0
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	3	1	0	1	9	1	0	1	1	2	3	4	5	6	7	8	0	0	?	
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

#### 5.1.4 ANSI X4.16 / ISO 7813 Track 2 Message Formats (Cont.)

Subfield 4 — ANSI X4.16	EXPIRATION DATE
Subfield 4 — ISO 7813	EXPIRATION DATE

Length of field:	4 bytes
Field Type:	Numeric, YYMM
Approximate Position:	Positions 18-21 — ANSI X4.16 Positions 18-21 — ISO 7813
Constant:	None
Required Field:	Mandatory
Description:	This field contains the year and month in which the American Express Card is no longer valid.  The card expires on the last day of the month.

Message:	;	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	=	9	4	0
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	3	1	0	1	9	1	0	1	1	2	3	4	5	6	7	8	0	0	?	
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

#### 5.1.4 ANSI X4.16 / ISO 7813 Track 2 Message Formats (Cont.)

##### **Special Note for Subfields 5 and 6**

Subfields 5 and 6 (ISO 7813) are used in conjunction with each other. However, only certain combinations are valid for American Express Card magnetic stripe data. The following values are the possible combinations of Interchange Designators and Service Codes that are valid for American Express Card Track data. The composite descriptions for these values are derived by combining the definitions of the individual subfields.

101	201	501	601	701	901
102	206	502	606	702	902
103	220	503	621	703	903
106	221	506	622		
120	223	520	626		
121	226	521			
122		522			
123		526			
126					

These three-digit combinations may be used by card issuers to request specific authorization processing. Currently, American Express has no definite plans to require USA Merchants to interrogate and act on these codes at the terminal level. Merchants that wish to participate in such processing may need to update their terminals and would require additional certification. For details, contact your American Express representative.

## 5.1.4 ANSI X4.16 / ISO 7813 Track 2 Message Formats (Cont.)

### Subfield 5 — ISO 7813 INTERCHANGE DESIGNATOR

Length of field:	1 byte
Field Type:	Numeric
Approximate Position:	Position 22 — ISO 7813 Note: This field applies only to ISO 7813 Standard Track 2 and is not applicable to ANSI X4.16.
Constant:	None
Required Field:	Mandatory
Description:	This field indicates whether the American Express Card can be used outside the country of issue.  1 = Available for international interchange. 2 = Chip card. 5 = Available for interchange only in country of issue. 6 = Chip card, available for interchange only in country of issue. 7 = Not available for general interchange. 9 = System test card.

See *Special Note for Subfields 5 and 6*, on page 263.

Message:	:	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	=	9	4	0
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	3	1	0	1	9	1	0	1	1	2	3	4	5	6	7	8	0	0	?	
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

#### 5.1.4 ANSI X4.16 / ISO 7813 Track 2 Message Formats (Cont.)

##### Subfield 6 — ISO 7813

##### SERVICE CODE

Length of field:	2 bytes
Field Type:	Numeric
Approximate Position:	Positions 23-24 — ISO 7813
	Note: This field applies only to ISO 7813 Standard Track 2 and is not applicable to ANSI X4.16.
Constant:	None
Required Field:	Mandatory
Description:	<p>This field indicates whether the American Express Card can be used for ATM/Cash Access, or if positive authorization is required.</p> <p>01 = No restrictions.  02 = No ATM service.  03 = ATM Service only.  06 = No restrictions; prompt for PIN, if PIN pad is present.  10 = No cash advance.  11 = No cash advance or ATM service.  20 = Requires positive authorization by issuer or issuer's agent.  21 = Authorization by issuer only.  22 = Authorization by issuer only; Goods &amp; Services.  23 = Authorization by issuer only; ATM only, PIN required.  26 = Authorization by issuer only; prompt for PIN, if PIN pad is present.</p>

See *Special Note for Subfields 5 and 6*, on page 263.

Message:	:	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	=	9	4	0
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	3	1	0	1	9	1	0	1	1	2	3	4	5	6	7	8	0	0	?	
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

#### 5.1.4 ANSI X4.16 / ISO 7813 Track 2 Message Formats (Cont.)

<b>Subfield 5 — ANSI X4.16</b>	<b>EFFECTIVE DATE</b>
<b>Subfield 7 — ISO 7813</b>	<b>EFFECTIVE DATE</b>

---

Length of field:	4 bytes
Field Type:	Numeric, YYMM
Approximate Position:	Positions 22-25 — ANSI X4.16 Positions 25-28 — ISO 7813
Constant:	None
Required Field:	Mandatory
Description:	This field contains the year and month in which the American Express Card becomes valid.  The card becomes valid on the first day of the month.

Message:	;	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	=	9	4	0
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	3	1	0	1	9	1	0	1	1	2	3	4	5	6	7	8	0	0	?	
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40



**5.1.4 ANSI X4.16 / ISO 7813 Track 2 Message Formats (Cont.)**

<b>Subfield 6 — ANSI X4.16</b>	<b>DISCRETIONARY DATA</b>
<b>Subfield 8 — ISO 7813</b>	<b>DISCRETIONARY DATA</b>

Length of field:	5 bytes — ANSI X4.16 8 bytes — ISO 7813
Field Type:	Numeric
Approximate Position:	Positions 26-30 — ANSI X4.16 Positions 29-36 — ISO 7813
Constant:	None
Required Field:	Mandatory
Description:	This field contains American Express discretionary data.

Message:	;	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	=	9	4	0
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	3	1	0	1	9	1	0	1	1	2	3	4	5	6	7	8	0	0	?	
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

## 5.1.4 ANSI X4.16 / ISO 7813 Track 2 Message Formats (Cont.)

Subfield 9 — ISO 7813	LANGUAGE CODE
Length of field:	2 bytes
Field Type:	Numeric
Approximate Position:	Positions 37-38 — ISO 7813 Note: This field applies only to ISO 7813 Standard Track 2 and is not applicable to ANSI X4.16
Constant:	None
Required Field:	Mandatory
Description:	<p>This field identifies non-Canadian versus Canadian Cardmembers; and if Canadian, whether English or French language.</p> <p>00 = Non-Canadian Cardmembers.  01 = Canadian Cardmembers — English Language.  02 = Canadian Cardmembers — French Language.</p> <p>Note: Other format options exist for specific American Express Card-issuing partners. Ask your American Express representative for more details, if applicable.</p>

Message:	:	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	=	9	4	0
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	3	1	0	1	9	1	0	1	1	2	3	4	5	6	7	8	0	0	?	
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

### 5.1.4 ANSI X4.16 / ISO 7813 Track 2 Message Formats (Cont.)

<b>Subfield 7 — ANSI X4.16</b>	<b>END SENTINEL</b>
<b>Subfield 10 — ISO 7813</b>	<b>END SENTINEL</b>

---

Length of field:	1 byte
Field Type:	Special character
Approximate Position:	Position 31 — ANSI X4.16 Position 39 — ISO 7813
Constant:	?
Required Field:	Mandatory
Description:	This field identifies the end of the stripe.

Notes:

1. The END SENTINEL is not sent in the authorization request message.
2. The constant literal “?” appears here for example purposes only. Other values may appear in actual magnetic stripe data for American Express Cards.

Message:	;	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	=	9	4	0
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Message:	3	1	0	1	9	1	0	1	1	2	3	4	5	6	7	8	0	0	?	
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

#### 5.1.4 ANSI X4.16 / ISO 7813 Track 2 Message Formats (Cont.)

Subfield 8 — ANSI X4.16	LONGITUDINAL REDUNDANCY CHECK (LRC)
Subfield 11 — ISO 7813	LONGITUDINAL REDUNDANCY CHECK (LRC)

Length of field: 1 byte

Field Type: Binary

Approximate Position: Position 32 — ANSI X4.16  
Position 40 — ISO 7813

Constant: None

Required Field: Mandatory

Description: This unique character appears in each stripe and immediately follows the end sentinel, when the card is read from the start sentinel.

This field is used as an error-checking device and will vary for each card.

Notes:

1. LRC is not sent in an authorization request message.
2. LRC may or may not be present in ANSI X4.16 format.

Message:	:	3	7	1	4	4	9	6	3	5	3	1	1	0	0	4	=	9	4	0
Position:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Message:	3	1	0	1	9	1	0	1	1	2	3	4	5	6	7	8	0	0	?	
Position:	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

**5.1.4 ANSI X4.16 / ISO 7813 Track 2 Message Formats (Cont.)****Subfield 9 — ANSI X4.16      UNUSED**

---

Length of field:	8 bytes — ANSI X4.16
Field Type:	Binary
Approximate Position:	Positions 33-40 — ANSI X4.16 Note: This field applies only to ANSI X4.16 Standard Track 2 and is not applicable to ISO 7813.
Constant:	None
Required Field:	No
Description:	Reserved for future use.

## 5.2 Expresspay Pseudo-Magnetic Stripe Formats

In an Expresspay magstripe transaction, chip card data is transmitted in Track 1 (Field 45) and/or Track 2 (Field 35). The Merchant's POS device must format the chip-card payment data into pseudo-magnetic stripe Track 1 and/or Track 2 data, which is then used to populate Fields 45 and/or 35, respectively, in the authorization request (1100) message. For more information, see pages 82 and 73.

The following data elements are generated by the POS device (using the chip on the Expresspay Card product) and utilized to construct the pseudo Track 1 and Track 2 formats shown on the next page.

- **Account Number** — The *Application PAN* retrieved from the Expresspay Card product in the Read Application Data phase is in EMV-compressed-numeric format, which is converted to the appropriate character format for inclusion in Track 1 (Field 45) and/or Track 2 (Field 35).
- **Cardmember Name** — The *Cardmember Name* retrieved from the Expresspay Card product in the Read Application Data phase is a variable-length alphanumeric value up to 26 bytes long. The Cardmember Name entry that appears in pseudo Track 1 is formed from the chip card *Cardmember Name* data element, as follows:
  - If Cardmember Name is longer than 23 bytes, it is truncated to 23 bytes.
  - If Cardmember name is less than 23 bytes long, it is left justified and character space filled to 23 bytes.

Note: The *Cardmember Name* retrieved from the Expresspay Card product may contain a generic name that is common for all cards.

- **ATC** — The *ATC* retrieved from the Expresspay Card product is a two-byte hex value converted to a decimal value and padded with leading zeros, prior to populating Track 1 (Field 45) and/or Track 2 (Field 35). The last three digits are placed in the applicable field of the track data.
- **Expiration Date** — The *Application Expiration Date* retrieved from the Expresspay Card product is in format “YYMMDD”. The “DD” is dropped prior to populating the relevant field of track data.
- **Application Cryptogram** — The 5CSC data field in the track data is used to convey a portion of the cryptogram returned from the Expresspay Card product in response to the GENERATE AC command.

The cryptogram is an eight-byte hex value that is modified prior to populating this field. First, the five most-significant bytes are discarded. Then, the three remaining least-significant bytes are converted to a decimal value, which is then used in this field.

For example, for cryptogram “12 35 69 AB CD 11 29 87”, the five most-significant bytes are discarded, leaving “11 29 87”, which is then converted to the decimal value “1124743”. If the resultant value is less than five digits long, it is padded with leading zeros to five digits. However, this example is seven digits long, so the first two digits are discarded, leaving the five-digit value “24743”, which is then placed in this field of the track data.

- **Service Code and Language Code** — These data fields are extracted from the *Track 2 Equivalent Data* retrieved from the Expresspay Card product in the Read Application Data phase.

### 5.2.1 Expresspay Pseudo Track 1 & Track 2 Subfields

#### Track 1 (Preferred)

<u>Field Name</u>	<u>Digit</u>
Start Sentinel	1
Format Code	1
Account Number (PAN)	15
Field Separator	1
Cardmember Name	23
ATC	3
Field Separator	1
Expiration Date (YYMM)	4
Interchange Designator	1
Service Code	2
Unpredictable Number	4
Cryptogram	5
End Sentinel	1
<b>Total</b>	<b>62</b>

#### Track 2

<u>Field Name</u>	<u>Digit</u>
Start Sentinel	1
Account Number (PAN)	15
Field Separator	1
Expiration Date (YYMM)	4
Interchange Designator	1
Service Code	2
Unpredictable Number	4
Cryptogram	5
ATC	3
Language Code	2
End Sentinel	1
<b>Total</b>	<b>39</b>

### 5.3 Julian Date Calendar — Standard Year

001	01/01	060	03/01	121	05/01	182	07/01	244	09/01	305	11/01
002	01/02	061	03/02	122	05/02	183	07/02	245	09/02	306	11/02
003	01/03	062	03/03	123	05/03	184	07/03	246	09/03	307	11/03
004	01/04	063	03/04	124	05/04	185	07/04	247	09/04	308	11/04
005	01/05	064	03/05	125	05/05	186	07/05	248	09/05	309	11/05
006	01/06	065	03/06	126	05/06	187	07/06	249	09/06	310	11/06
007	01/07	066	03/07	127	05/07	188	07/07	250	09/07	311	11/07
008	01/08	067	03/08	128	05/08	189	07/08	251	09/08	312	11/08
009	01/09	068	03/09	129	05/09	190	07/09	252	09/09	313	11/09
010	01/10	069	03/10	130	05/10	191	07/10	253	09/10	314	11/10
011	01/11	070	03/11	131	05/11	192	07/11	254	09/11	315	11/11
012	01/12	071	03/12	132	05/12	193	07/12	255	09/12	316	11/12
013	01/13	072	03/13	133	05/13	194	07/13	256	09/13	317	11/13
014	01/14	073	03/14	134	05/14	195	07/14	257	09/14	318	11/14
015	01/15	074	03/15	135	05/15	196	07/15	258	09/15	319	11/15
016	01/16	075	03/16	136	05/16	197	07/16	259	09/16	320	11/16
017	01/17	076	03/17	137	05/17	198	07/17	260	09/17	321	11/17
018	01/18	077	03/18	138	05/18	199	07/18	261	09/18	322	11/18
019	01/19	078	03/19	139	05/19	200	07/19	262	09/19	323	11/19
020	01/20	079	03/20	140	05/20	201	07/20	263	09/20	324	11/20
021	01/21	080	03/21	141	05/21	202	07/21	264	09/21	325	11/21
022	01/22	081	03/22	142	05/22	203	07/22	265	09/22	326	11/22
023	01/23	082	03/23	143	05/23	204	07/23	266	09/23	327	11/23
024	01/24	083	03/24	144	05/24	205	07/24	267	09/24	328	11/24
025	01/25	084	03/25	145	05/25	206	07/25	268	09/25	329	11/25
026	01/26	085	03/26	146	05/26	207	07/26	269	09/26	330	11/26
027	01/27	086	03/27	147	05/27	208	07/27	270	09/27	331	11/27
028	01/28	087	03/28	148	05/28	209	07/28	271	09/28	332	11/28
029	01/29	088	03/29	149	05/29	210	07/29	272	09/29	333	11/29
030	01/30	089	03/30	150	05/30	211	07/30	273	09/30	334	11/30
031	01/31	090	03/31	151	05/31	212	07/31	274	10/01	335	12/01
032	02/01	091	04/01	152	06/01	213	08/01	275	10/02	336	12/02
033	02/02	092	04/02	153	06/02	214	08/02	276	10/03	337	12/03
034	02/03	093	04/03	154	06/03	215	08/03	277	10/04	338	12/04
035	02/04	094	04/04	155	06/04	216	08/04	278	10/05	339	12/05
036	02/05	095	04/05	156	06/05	217	08/05	279	10/06	340	12/06
037	02/06	096	04/06	157	06/06	218	08/06	280	10/07	341	12/07
038	02/07	097	04/07	158	06/07	219	08/07	281	10/08	342	12/08
039	02/08	098	04/08	159	06/08	220	08/08	282	10/09	343	12/09
040	02/09	099	04/09	160	06/09	221	08/09	283	10/10	344	12/10
041	02/10	100	04/10	161	06/10	222	08/10	284	10/11	345	12/11
042	02/11	101	04/11	162	06/11	223	08/11	285	10/12	346	12/12
043	02/12	102	04/12	163	06/12	224	08/12	286	10/13	347	12/13
044	02/13	103	04/13	164	06/13	225	08/13	287	10/14	348	12/14
045	02/14	104	04/14	165	06/14	226	08/14	288	10/15	349	12/15
046	02/15	105	04/15	166	06/15	227	08/15	289	10/16	350	12/16
047	02/16	106	04/16	167	06/16	228	08/16	290	10/17	351	12/17
048	02/17	107	04/17	168	06/17	229	08/17	291	10/18	352	12/18
049	02/18	108	04/18	169	06/18	230	08/18	292	10/19	353	12/19
050	02/19	109	04/19	170	06/19	231	08/19	293	10/20	354	12/20
051	02/20	110	04/20	171	06/20	232	08/20	294	10/21	355	12/21
052	02/21	111	04/21	172	06/21	233	08/21	295	10/22	356	12/22
053	02/22	112	04/22	173	06/22	234	08/22	296	10/23	357	12/23
054	02/23	113	04/23	174	06/23	235	08/23	297	10/24	358	12/24
055	02/24	114	04/24	175	06/24	236	08/24	298	10/25	359	12/25
056	02/25	115	04/25	176	06/25	237	08/25	299	10/26	360	12/26
057	02/26	116	04/26	177	06/26	238	08/26	300	10/27	361	12/27
058	02/27	117	04/27	178	06/27	239	08/27	301	10/28	362	12/28
059	02/28	118	04/28	179	06/28	240	08/28	302	10/29	363	12/29
		119	04/29	180	06/29	241	08/29	303	10/30	364	12/30
		120	04/30	181	06/30	242	08/30	304	10/31	365	12/31
						243	08/31				



## 5.4 Julian Date Calendar — Leap Year (2012, 2016, 2020, etc.)

001	01/01	061	03/01	122	05/01	183	07/01	245	09/01	306	11/01
002	01/02	062	03/02	123	05/02	184	07/02	246	09/02	307	11/02
003	01/03	063	03/03	124	05/03	185	07/03	247	09/03	308	11/03
004	01/04	064	03/04	125	05/04	186	07/04	248	09/04	309	11/04
005	01/05	065	03/05	126	05/05	187	07/05	249	09/05	310	11/05
006	01/06	066	03/06	127	05/06	188	07/06	250	09/06	311	11/06
007	01/07	067	03/07	128	05/07	189	07/07	251	09/07	312	11/07
008	01/08	068	03/08	129	05/08	190	07/08	252	09/08	313	11/08
009	01/09	069	03/09	130	05/09	191	07/09	253	09/09	314	11/09
010	01/10	070	03/10	131	05/10	192	07/10	254	09/10	315	11/10
011	01/11	071	03/11	132	05/11	193	07/11	255	09/11	316	11/11
012	01/12	072	03/12	133	05/12	194	07/12	256	09/12	317	11/12
013	01/13	073	03/13	134	05/13	195	07/13	257	09/13	318	11/13
014	01/14	074	03/14	135	05/14	196	07/14	258	09/14	319	11/14
015	01/15	075	03/15	136	05/15	197	07/15	259	09/15	320	11/15
016	01/16	076	03/16	137	05/16	198	07/16	260	09/16	321	11/16
017	01/17	077	03/17	138	05/17	199	07/17	261	09/17	322	11/17
018	01/18	078	03/18	139	05/18	200	07/18	262	09/18	323	11/18
019	01/19	079	03/19	140	05/19	201	07/19	263	09/19	324	11/19
020	01/20	080	03/20	141	05/20	202	07/20	264	09/20	325	11/20
021	01/21	081	03/21	142	05/21	203	07/21	265	09/21	326	11/21
022	01/22	082	03/22	143	05/22	204	07/22	266	09/22	327	11/22
023	01/23	083	03/23	144	05/23	205	07/23	267	09/23	328	11/23
024	01/24	084	03/24	145	05/24	206	07/24	268	09/24	329	11/24
025	01/25	085	03/25	146	05/25	207	07/25	269	09/25	330	11/25
026	01/26	086	03/26	147	05/26	208	07/26	270	09/26	331	11/26
027	01/27	087	03/27	148	05/27	209	07/27	271	09/27	332	11/27
028	01/28	088	03/28	149	05/28	210	07/28	272	09/28	333	11/28
029	01/29	089	03/29	150	05/29	211	07/29	273	09/29	334	11/29
030	01/30	090	03/30	151	05/30	212	07/30	274	09/30	335	11/30
031	01/31	091	03/31	152	05/31	213	07/31	275	10/01	336	12/01
032	02/01	092	04/01	153	06/01	214	08/01	276	10/02	337	12/02
033	02/02	093	04/02	154	06/02	215	08/02	277	10/03	338	12/03
034	02/03	094	04/03	155	06/03	216	08/03	278	10/04	339	12/04
035	02/04	095	04/04	156	06/04	217	08/04	279	10/05	340	12/05
036	02/05	096	04/05	157	06/05	218	08/05	280	10/06	341	12/06
037	02/06	097	04/06	158	06/06	219	08/06	281	10/07	342	12/07
038	02/07	098	04/07	159	06/07	220	08/07	282	10/08	343	12/08
039	02/08	099	04/08	160	06/08	221	08/08	283	10/09	344	12/09
040	02/09	100	04/09	161	06/09	222	08/09	284	10/10	345	12/10
041	02/10	101	04/10	162	06/10	223	08/10	285	10/11	346	12/11
042	02/11	102	04/11	163	06/11	224	08/11	286	10/12	347	12/12
043	02/12	103	04/12	164	06/12	225	08/12	287	10/13	348	12/13
044	02/13	104	04/13	165	06/13	226	08/13	288	10/14	349	12/14
045	02/14	105	04/14	166	06/14	227	08/14	289	10/15	350	12/15
046	02/15	106	04/15	167	06/15	228	08/15	290	10/16	351	12/16
047	02/16	107	04/16	168	06/16	229	08/16	291	10/17	352	12/17
048	02/17	108	04/17	169	06/17	220	08/17	292	10/18	353	12/18
049	02/18	109	04/18	170	06/18	231	08/18	293	10/19	354	12/19
050	02/19	110	04/19	171	06/19	232	08/19	294	10/20	355	12/20
051	02/20	111	04/20	172	06/20	233	08/20	295	10/21	356	12/21
052	02/21	112	04/21	173	06/21	234	08/21	296	10/22	357	12/22
053	02/22	113	04/22	174	06/22	235	08/22	297	10/23	358	12/23
054	02/23	114	04/23	175	06/23	236	08/23	298	10/24	359	12/24
055	02/24	115	04/24	176	06/24	237	08/24	299	10/25	360	12/25
056	02/25	116	04/25	177	06/25	238	08/25	300	10/26	361	12/26
057	02/26	117	04/26	178	06/26	239	08/26	301	10/27	362	12/27
058	02/27	118	04/27	179	06/27	240	08/27	302	10/28	363	12/28
059	02/28	119	04/28	180	06/28	241	08/28	303	10/29	364	12/29
060	02/29	120	04/29	181	06/29	242	08/29	304	10/30	365	12/30
		121	04/30	182	06/30	243	08/30	305	10/31	366	12/31
						244	08/31				

## 5.5 Merchant Category (MCC) Codes

This list contains the four-digit Merchant Category (MCC) Codes (a.k.a., Standard Industrial Classification codes/SIC codes) to be used in the CARD\_ACCEPTOR\_BUSINESS\_CODE field in American Express authorization request messages.

## 5.5 Merchant Category (MCC) Codes (Continued)

Code	Description
0742	Veterinary Services
0743	Wine Producers
0744	Champagne Producers
0763	Agricultural Cooperatives
0780	Landscaping and Horticultural Services
1520	General Contractors - Residential and Commercial
1711	Heating, Plumbing, and Air Conditioning Contractors
1731	Electrical Contractors
1740	Masonry, Stonework, Tile-Setting, Plastering, and Insulation Contractors
1750	Carpentry Contractors
1761	Roofing, Siding, and Sheet Metal Work Contractors
1771	Concrete Work Contractors
1799	Special Trade Contractors - Not Elsewhere Classified
2741	Miscellaneous Publishing and Printing Services
2791	Typesetting, Plate Making, and Related Services
2842	Specialty Cleaning, Polishing, and Sanitation Preparations
4011	Railroads
4111	Local and Suburban Commuter Passenger Transportation, including Ferries
4112	Passenger Railways
4119	Ambulance Services
4121	Taxicabs and Limousines
4131	Bus Lines
4214	Motor Freight Carriers and Trucking - Local and Long Distance, Moving and Storage Companies, and Local Delivery
4215	Courier Services - Air and Ground, and Freight Forwarders
4225	Public Warehousing and Storage - Farm Products, Refrigerated Goods, and Household Goods
4411	Steamship and Cruise Lines
4457	Boat Rentals and Leasing
4468	Marinas, Marine Service, and Supplies
4511	Airlines and Air Carriers
4582	Airports, Flying Fields, and Airport Terminals
4722	Travel Agencies and Tour Operators
4784	Tolls and Bridge Fees
4789	Transportation Services - Not Elsewhere Classified
4812	Telecommunication Equipment and Telephone Sales
4814	Telecommunications Services, including Local and Long Distance Calls, Credit Card Calls, Calls through use of Magnetic-Stripe-Reading Telephones, and Fax Services
4815	Monthly Summary Telephone Charges
4816	Comp Network/Information Services

**5.5 Merchant Category (MCC) Codes (Continued)**

Code	Description
4821	Telegraph Services
4829	Wire Transfers and Money Orders
4899	Cable and Other Pay Television Services
4900	Utilities - Electric, Gas, Water, and Sanitary
5013	Motor Vehicle Supplies and New Parts
5021	Office and Commercial Furniture
5039	Construction Materials - Not Elsewhere Classified
5044	Office, Photographic, Photocopy, and Microfilm Equipment
5045	Computers, Computer Peripheral Equipment, and Software
5046	Commercial Equipment - Not Elsewhere Classified
5047	Dental/Laboratory/Medical/ Ophthalmic Hospital Equipment and Supplies
5051	Metal Service Centers and offices
5065	Electrical Parts and Equipment
5072	Hardware Equipment and Supplies
5074	Plumbing and Heating Equipment and Supplies
5085	Industrial Supplies - Not Elsewhere Classified
5094	Precious Stones and Metals, Watches, and Jewelry
5099	Durable Goods - Not Elsewhere Classified
5111	Stationery, office Supplies, Printing and Writing Paper
5122	Drugs, Drug Proprietors, and Druggists' Sundries
5131	Piece Goods, Notions, and Other Dry Goods
5137	Men's, Women's, and Children's Uniforms and Commercial Clothing
5139	Commercial Footwear
5169	Chemicals and Allied Products - Not Elsewhere Classified
5172	Petroleum and Petroleum Products
5192	Books, Periodicals, and Newspapers
5193	Florists' Supplies, Nursery Stock, and Flowers
5198	Paints, Varnishes, and Supplies
5199	Non-Durable Goods - Not Elsewhere Classified
5200	Home Supply Warehouse Stores
5211	Lumber and Building Materials Stores
5231	Glass, Paint, and Wallpaper Stores
5251	Hardware Stores
5261	Lawn and Garden Supply Stores, including Nurseries
5271	Mobile Home Dealers
5300	Wholesale Clubs
5309	Duty Free Stores
5310	Discount Stores
5311	Department Stores
5331	Variety Stores
5399	Miscellaneous General Merchandise
5411	Grocery Stores and Supermarkets
5422	Freezer and Locker Meat Provisioners
5441	Candy, Nut, and Confectionery Stores
5451	Dairy Products Stores

## 5.5 Merchant Category (MCC) Codes (Continued)

Code	Description
5462	Bakeries
5499	Miscellaneous Food Stores - Convenience Stores and Specialty Markets
5511	Car and Truck Dealers (New and Used) Sales, Service, Repairs, Parts, and Leasing
5521	Car and Truck Dealers (Used Only) Sales, Service, Repairs, Parts, and Leasing
5531	Auto and Home Supply Stores
5532	Automotive Tire Stores
5533	Auto Parts and Accessories Stores
5541	Service Stations (with or without Ancillary Services)
5542	Automated Fuel Dispensers
5551	Boat Dealers
5561	Camper, Recreational, and Utility Trailer Dealers
5571	Motorcycle Shops and Dealers
5592	Motor Home Dealers
5598	Snowmobile Dealers
5599	Miscellaneous Automotive, Aircraft, and Farm Equipment Dealers - Not Elsewhere Classified
5611	Men's and Boys Clothing and Accessory Stores
5621	Women's Ready To Wear Stores
5631	Women's Accessory and Specialty Stores
5641	Children's and Infants' Wear Stores
5651	Family Clothing Stores
5655	Sports and Riding Apparel Stores
5661	Shoe Stores
5681	Furriers and Fur Shops
5691	Men's and Women's Clothing Stores
5697	Tailors, Seamstresses, Mending, and Alterations
5698	Wig and Toupee Stores
5699	Miscellaneous Apparel and Accessory Stores
5712	Furniture, Home Furnishings and Equipment Stores, and Manufacturers, except Appliances
5713	Floor Covering Stores
5714	Drapery, Window Covering, and Upholstery Stores
5715	Alcoholic Beverage Wholesalers
5718	Fireplaces, Fireplace Screens, and Accessories Stores
5719	Miscellaneous Home Furnishings Specialty Stores
5722	Household Appliance Stores
5732	Electronics Stores
5733	Music Stores - Musical Instruments, Pianos, and Sheet Music
5734	Computer Software Stores
5735	Record Stores
5811	Caterers
5812	Eating Places and Restaurants
5813	Drinking Places (Alcoholic Beverages) - Bars, Taverns, Nightclubs, Cocktail Lounges, and Discotheques
5814	Fast Food Restaurants
5912	Drug Stores and Pharmacies
5921	Package Stores - Beer, Wine, and Liquor
5931	Used Merchandise and Secondhand Stores

## 5.5 Merchant Category (MCC) Codes (Continued)

Code	Description
5932	Antique Shops - Sales, Repairs, and Restoration Services
5933	Pawn Shops
5935	Wrecking and Salvage Yards
5937	Antique Reproduction Stores
5940	Bicycle Shops - Sales and Service
5941	Sporting Goods Stores
5942	Book Stores
5943	Stationery, office, and School Supply Stores
5944	Jewelry, Watch, Clock, and Silverware Stores
5945	Hobby, Toy, and Game Stores
5946	Camera and Photographic Supply Stores
5947	Gift, Card, Novelty, and Souvenir Stores
5948	Luggage and Leather Goods Stores
5949	Sewing, Needlework, Fabric, and Piece Goods Stores
5950	Glassware and Crystal Stores
5960	Direct Marketing - Insurance Services
5962	Telemarketing - Travel-Related Arrangement Services
5963	Door-to-Door Sales
5964	Direct Marketing Catalog Merchants
5965	Direct Marketing - Combination Catalog and Retail Merchants
5966	Direct Marketing - Outbound Telemarketing Merchants
5967	Direct Marketing - Inbound Telemarketing Merchants
5968	Direct Marketing - Continuity/Subscription Merchants
5969	Direct Marketing/Direct Marketers - Not Elsewhere Classified
5970	Artist Supply and Craft Stores
5971	Art Dealers and Galleries
5972	Stamp and Coin Stores
5973	Religious Goods Stores
5975	Hearing Aids Sales, Service, and Supplies
5976	Orthopedic Goods and Prosthetic Devices
5977	Cosmetic Stores
5978	Typewriter Stores - Sales, Service, and Rentals
5983	Fuel Dealers - Fuel Oil, Wood, Coal, and Liquefied Petroleum
5992	Florists
5993	Cigar Stores and Stands
5994	News Dealers and Newsstands
5995	Pet Shops, Pet Food and Supplies
5996	Swimming Pools - Sales, Supplies, and Services
5997	Electric Razor Stores - Sales and Service
5998	Tent and Awning Stores
5999	Miscellaneous and Specialty Retail
6010	Financial Institutions - Manual Cash Disbursements
6011	Financial Institutions - Automated Cash Disbursements
6012	Financial Institutions - Merchandise and Services
6051	Non Financial Institutions - Foreign Currency, Money Orders, (not Wire Transfer), Scrip, and Travelers Cheques

## 5.5 Merchant Category (MCC) Codes (Continued)

Code	Description
6211	Securities - Brokers and Dealers
6300	Insurance Sales, Underwriting, and Premiums
7011	Lodging Hotels, Motels, and Resorts
7012	Timeshares
7032	Sporting and Recreational Camps
7033	Trailer Parks and Campgrounds
7210	Laundry, Cleaning and Garment Services
7211	Laundry Services - Family and Commercial
7216	Dry Cleaners
7217	Carpet and Upholstery Cleaning
7221	Photographic Studios
7230	Beauty and Barber Shops
7251	Shoe Repair Shops, Shoe Shine Parlors, and Hat Cleaning Shops
7261	Funeral Services and Crematories
7273	Dating and Escort Services
7276	Tax Preparation Services
7277	Counseling Services - Debt, Marriage, and Personal
7278	Buying and Shopping Services and Clubs
7296	Clothing Rental - Costumes, Uniforms, and Formal Wear
7297	Massage Parlors
7298	Health and Beauty Spas
7299	Miscellaneous Personal Services - Not Elsewhere Classified
7311	Advertising Services
7321	Consumer Credit Reporting Agencies
7322	Debt Collection Agencies
7333	Commercial Photography, Art, and Graphics
7338	Quick Copy, Reproduction, and Blueprinting Services
7339	Stenographic and Secretarial Support Services
7342	Exterminating and Disinfecting Services
7349	Cleaning, Maintenance, and Janitorial Services
7361	Employment Agencies and Temporary Help Services
7372	Computer Programming, Data Processing, and Integrated Systems Design Services
7375	Information Retrieval Services
7379	Computer Maintenance and Repair Services - Not Elsewhere Classified
7392	Management, Consulting, and Public Relations Services
7393	Detective Agencies, Protective Agencies, and Security Services, including Armored Cars and Guard Dogs
7394	Equipment, Tool, Furniture, and Appliance Rental and Leasing
7395	Photo Finishing Laboratories and Photo Developing
7399	Business Services Not Elsewhere Classified
7512	Automobile Rental Agency
7513	Truck and Utility Trailer Rentals
7519	Motor Home and Recreational Vehicle Rentals
7523	Parking Lots and Garages
7531	Automotive Body Repair Shops
7534	Tire Re-Treading and Repair Shops

## 5.5 Merchant Category (MCC) Codes (Continued)

Code	Description
7535	Automotive Paint Shops
7538	Automotive Service Shops (Non-Dealer)
7542	Car Washes
7549	Towing Services
7622	Electronics Repair Shops
7623	Air Conditioning and Refrigeration Repair Shops
7629	Electrical and Small Appliance Repairs
7631	Watch, Clock, and Jewelry Repair Shops
7641	Furniture - Re-Upholstery, Repair, and Refinishing
7692	Welding Services
7699	Miscellaneous Repair Shops and Related Services
7829	Motion Picture and Video Tape Production and Distribution
7832	Motion Picture Theaters
7841	Video Tape Rental Stores
7911	Dance Halls, Studios, and Schools
7922	Theatrical Producers (except Motion Pictures) and Ticket Agencies
7929	Bands, Orchestras, and Miscellaneous Entertainers - Not Elsewhere Classified
7932	Billiard and Pool Establishments
7933	Bowling Alleys
7941	Commercial Sports, Professional Sports Clubs, Athletic Fields, and Sports Promoters
7991	Tourist Attractions and Exhibits
7992	Public Golf Courses
7993	Video Amusement Game Supplies
7994	Video Game Arcades and Establishments
7995	Betting, including Lottery Tickets, Casino Gaming Chips, Off-Track Betting, and Wagers at Race Tracks
7996	Amusement Parks, Circuses, Carnivals, and Fortune Tellers
7997	Membership Clubs (Sports, Recreation, Athletic), Country Clubs, and Private Golf Courses
7998	Aquariums, Seaquariums, and Dolphinariums
7999	Recreation Services Not Elsewhere Classified
8011	Doctors and Physicians Not Elsewhere Classified
8021	Dentists and Orthodontists
8031	Osteopaths
8041	Chiropractors
8042	Optometrists and Ophthalmologists
8043	Opticians, Optical Goods, and Eyeglasses
8049	Podiatrists and Chiropodists
8050	Nursing and Personal Care Facilities
8062	Hospitals
8071	Medical and Dental Laboratories
8099	Medical Services and Health Practitioners - Not Elsewhere Classified
8111	Legal Services and Attorneys
8211	Elementary and Secondary Schools
8220	Colleges, Universities, Professional Schools, and Junior Colleges
8241	Correspondence Schools
8244	Business and Secretarial Schools

**5.5 Merchant Category (MCC) Codes (Continued)**

Code	Description
8249	Trade and Vocational Schools
8299	Schools and Educational Services - Not Elsewhere Classified
8351	Child Care Services
8398	Charitable and Social Service Organizations
8641	Civic, Social, and Fraternal Associations
8651	Political Organizations
8661	Religious Organizations
8675	Automobile Associations
8699	Membership Organizations Not Elsewhere Classified
8734	Testing Laboratories (Non-Medical)
8911	Architectural, Engineering, and Surveying Services
8931	Accounting, Auditing, and Bookkeeping Services
8999	Professional Services Not Elsewhere Classified
9211	Court Costs, including Alimony and Child Support
9222	Fines
9223	Bail and Bond Payments
9311	Tax Payments
9399	Government Services Not Elsewhere Classified
9402	Postal Services Government Only



## 5.6 Country & Currency Codes

### 5.6.1 Country Codes

The following tables list the Country Codes used by American Express. The first is in Country/Entity Name order, and the other is sorted by numeric Country Code. Please note that *alpha* Country Codes (shown in **shaded text**) are included for reference only and should not be used. Only *numeric* Country Codes are used in the file layouts detailed in this specification.

#### 5.6.1.1 Country Codes — Country/Entity Name Order

Country or Entity Name	Country Code	
	Num	Alpha
Afghanistan	004	AFG
Aland Islands	248	ALA
Albania	008	ALB
Algeria	012	DZA
American Samoa	016	ASM
Andorra	020	AND
Angola	024	AGO
Anguilla	660	AIA
Antarctica	010	ATA
Antigua and Barbuda	028	ATG
Argentina	032	ARG
Armenia	051	ARM
Aruba	533	ABW
Australia	036	AUS
Austria	040	AUT
Azerbaijan	031	AZE
Bahamas	044	BHS
Bahrain	048	BHR
Bangladesh	050	BGD
Barbados	052	BRB
Belarus	112	BLR
Belgium	056	BEL
Belize	084	BLZ
Benin	204	BEN
Bermuda	060	BMU
Bhutan	064	BTN
Bolivia	068	BOL
Bosnia and Herzegovina	070	BIH
Botswana	072	BWA
Bouvet Island	074	BVT
Brazil	076	BRA
British Indian Ocean Territory	086	IOT
Brunei Darussalam	096	BRN
Bulgaria	100	BGR

### 5.6.1.1 Country Codes — Country/Entity Name Order

Country or Entity Name	Country Code	
	Num	Alpha
Burkina Faso	854	BFA
Burundi	108	BDI
Cambodia	116	KHM
Cameroon	120	CMR
Canada	124	CAN
Cape Verde	132	CPV
Cayman Islands	136	CYM
Central African Republic	140	CAF
Chad	148	TCD
Chile	152	CHL
China	156	CHN
Christmas Island	162	CXR
Cocos (Keeling) Islands	166	CCK
Colombia	170	COL
Comoros	174	COM
Congo, Republic of the	178	COG
Congo, The Democratic Republic of	180	COD
Cook Islands	184	COK
Costa Rica	188	CRI
Cote D'Ivoire (Ivory Coast)	384	CIV
Croatia, Republic of	191	HRV
Cuba	192	CUB
Cyprus	196	CYP
Czech Republic	203	CZE
Denmark	208	DNK
Djibouti	262	DJI
Dominica	212	DMA
Dominican Republic	214	DOM
Ecuador	218	ECU
Egypt	818	EGY
El Salvador	222	SLV
Equatorial Guinea	226	GNQ
Eritrea	232	ERI
Estonia	233	EST
Ethiopia	231	ETH
Falkland Islands (Malvinas)	238	FLK
Faroe Islands	234	FRO
Fiji	242	FJI
Finland	246	FIN
France	250	FRA
French Guiana	254	GUF
French Polynesia	258	PYF
French Southern Territories	260	ATF
Gabon	266	GAB
Gambia	270	GMB
Georgia	268	GEO

### 5.6.1.1 Country Codes — Country/Entity Name Order

Country or Entity Name	Country Code	
	Num	Alpha
Germany	276	DEU
Ghana	288	GHA
Gibraltar	292	GIB
Greece	300	GRC
Greenland	304	GRL
Grenada	308	GRD
Guadeloupe	312	GLP
Guam	316	GUM
Guatemala	320	GTM
Guernsey	831	GGY
Guinea	324	GIN
Guinea-Bissau	624	GNB
Guyana	328	GUY
Haiti	332	HTI
Heard and McDonald Islands	334	HMD
Honduras	340	HND
Hong Kong	344	HKG
Hungary	348	HUN
Iceland	352	ISL
India	356	IND
Indonesia	360	IDN
Iran, Islamic Republic of	364	IRN
Iraq	368	IRQ
Ireland	372	IRL
Isle of Man	833	IMN
Israel	376	ISR
Italy	380	ITA
Jamaica	388	JAM
Japan	392	JPN
Jersey	832	JEY
Jordan	400	JOR
Kazakhstan	398	KAZ
Kenya	404	KEN
Kiribati	296	KIR
Korea, Democratic People's Republic of	408	PRK
Korea, Republic of	410	KOR
Kuwait	414	KWT
Kyrgyzstan	417	KGZ
Lao People's Democratic Republic	418	LAO
Latvia	428	LVA
Lebanon	422	LBN
Lesotho	426	LSO
Liberia	430	LBR
Libyan Arab Jamahiriya	434	LBY
Liechtenstein	438	LIE
Lithuania	440	LTU

### 5.6.1.1 Country Codes — Country/Entity Name Order

Country or Entity Name	Country Code	
	Num	Alpha
Luxembourg	442	LUX
Macau	446	MAC
Macedonia	807	MKD
Madagascar	450	MDG
Malawi	454	MWI
Malaysia	458	MYS
Maldives	462	MDV
Mali	466	MLI
Malta	470	MLT
Marshall Islands	584	MHL
Martinique	474	MTQ
Mauritania	478	MRT
Mauritius	480	MUS
Mayotte	175	MYT
Mexico	484	MEX
Micronesia, Federated States of	583	FSM
Moldova, Republic of	498	MDA
Monaco	492	MCO
Mongolia	496	MNG
Montenegro	499	MNE
Montserrat	500	MSR
Morocco	504	MAR
Mozambique	508	MOZ
Myanmar	104	MMR
Namibia	516	NAM
Nauru	520	NRU
Nepal	524	NPL
Netherlands	528	NLD
Netherlands Antilles	530	ANT
New Caledonia	540	NCL
New Zealand	554	NZL
Nicaragua	558	NIC
Niger	562	NER
Nigeria	566	NGA
Niue	570	NIU
Norfolk Island	574	NFK
Northern Mariana Islands	580	MNP
Norway	578	NOR
Oman	512	OMN
Pakistan	586	PAK
Palau	585	PLW
Palestinian Territory, Occupied	275	PSE
Panama	591	PAN
Papua New Guinea	598	PNG
Paraguay	600	PRY
Peru	604	PER

### 5.6.1.1 Country Codes — Country/Entity Name Order

Country or Entity Name	Country Code	
	Num	Alpha
Philippines	608	PHL
Pitcairn	612	PCN
Poland	616	POL
Portugal	620	PRT
Puerto Rico	630	PRI
Qatar	634	QAT
Reunion	638	REU
Romania	642	ROU
Russian Federation	643	RUS
Rwanda	646	RWA
Samoa	882	WSM
San Marino	674	SMR
Sao Tome and Principe	678	STP
Saudi Arabia	682	SAU
Senegal	686	SEN
Serbia	688	RSD
Seychelles	690	SYC
Sierra Leone	694	SLE
Singapore	702	SGP
Slovakia	703	SVK
Slovenia	705	SVN
Solomon Islands	090	SLB
Somalia	706	SOM
South Africa	710	ZAF
South Georgia & South Sandwich	239	SGS
Spain	724	ESP
Sri Lanka	144	LKA
St. Barthelemy	652	BLM
St. Helena	654	SHN
St. Kitts-Nevis	659	KNA
St. Lucia	662	LCA
St. Martin	663	MAF
St. Pierre and Miquelon	666	SPM
St. Vincent and the Grenadines	670	VCT
Sudan	736	SDN
Suriname	740	SUR
Svalbard and Jan Mayen Islands	744	SJM
Swaziland	748	SWZ
Sweden	752	SWE
Switzerland	756	CHE
Syrian Arab Republic	760	SYR
Taiwan	158	TWN
Tajikistan	762	TJK
Tanzania, United Republic of	834	TZA
Thailand	764	THA
Timor-Leste	626	TLS

### 5.6.1.1 Country Codes — Country/Entity Name Order

Country or Entity Name	Country Code	
	Num	Alpha
Togo	768	TGO
Tokelau	772	TKL
Tonga	776	TON
Trinidad and Tobago	780	TTO
Tunisia	788	TUN
Turkey	792	TUR
Turkmenistan	795	TKM
Turks and Caicos Islands	796	TCA
Tuvalu	798	TUV
U.S. Minor Outlying Islands	581	UMI
Uganda	800	UGA
Ukraine	804	UKR
United Arab Emirates	784	ARE
United Kingdom	826	GBR
United States	840	USA
Uruguay	858	URY
Uzbekistan	860	UZB
Vanuatu	548	VUT
Vatican City State (Holy See)	336	VAT
Venezuela	862	VEN
Vietnam	704	VNM
Virgin Islands, British	092	VGB
Virgin Islands, U.S.	850	VIR
Wallis and Futuna Islands	876	WLF
Western Sahara	732	ESH
Yemen	887	YEM
Zambia	894	ZMB
Zimbabwe	716	ZWE

### 5.6.1.2 Country Codes — Numeric Country Code Order

Country or Entity Name	Country Code	
	Num	Alpha
Afghanistan	004	AFG
Albania	008	ALB
Antarctica	010	ATA
Algeria	012	DZA
American Samoa	016	ASM
Andorra	020	AND
Angola	024	AGO
Antigua and Barbuda	028	ATG
Azerbaijan	031	AZE
Argentina	032	ARG
Australia	036	AUS
Austria	040	AUT
Bahamas	044	BHS
Bahrain	048	BHR
Bangladesh	050	BGD
Armenia	051	ARM
Barbados	052	BRB
Belgium	056	BEL
Bermuda	060	BMU
Bhutan	064	BTN
Bolivia	068	BOL
Bosnia and Herzegovina	070	BIH
Botswana	072	BWA
Bouvet Island	074	BVT
Brazil	076	BRA
Belize	084	BLZ
British Indian Ocean Territory	086	IOT
Solomon Islands	090	SLB
Virgin Islands, British	092	VGB
Brunei Darussalam	096	BRN
Bulgaria	100	BGR
Myanmar	104	MMR
Burundi	108	BDI
Belarus	112	BLR
Cambodia	116	KHM
Cameroon	120	CMR
Canada	124	CAN
Cape Verde	132	CPV
Cayman Islands	136	CYM
Central African Republic	140	CAF
Sri Lanka	144	LKA
Chad	148	TCD
Chile	152	CHL
China	156	CHN
Taiwan	158	TWN
Christmas Island	162	CXR

### 5.6.1.2 Country Codes — Numeric Country Code Order

Country or Entity Name	Country Code	
	Num	Alpha
Cocos (Keeling) Islands	166	CCK
Colombia	170	COL
Comoros	174	COM
Mayotte	175	MYT
Congo, Republic of the	178	COG
Congo, The Democratic Republic of	180	COD
Cook Islands	184	COK
Costa Rica	188	CRI
Croatia, Republic of	191	HRV
Cuba	192	CUB
Cyprus	196	CYP
Czech Republic	203	CZE
Benin	204	BEN
Denmark	208	DNK
Dominica	212	DMA
Dominican Republic	214	DOM
Ecuador	218	ECU
El Salvador	222	SLV
Equatorial Guinea	226	GNQ
Ethiopia	231	ETH
Eritrea	232	ERI
Estonia	233	EST
Faroe Islands	234	FRO
Falkland Islands (Malvinas)	238	FLK
South Georgia & South Sandwich	239	SGS
Fiji	242	FJI
Finland	246	FIN
Aland Islands	248	ALA
France	250	FRA
French Guiana	254	GUF
French Polynesia	258	PYF
French Southern Territories	260	ATF
Djibouti	262	DJI
Gabon	266	GAB
Georgia	268	GEO
Gambia	270	GMB
Palestinian Territory, Occupied	275	PSE
Germany	276	DEU
Ghana	288	GHA
Gibraltar	292	GIB
Kiribati	296	KIR
Greece	300	GRC
Greenland	304	GRL
Grenada	308	GRD
Guadeloupe	312	GLP
Guam	316	GUM



### 5.6.1.2 Country Codes — Numeric Country Code Order

Country or Entity Name	Country Code	
	Num	Alpha
Guatemala	320	GTM
Guinea	324	GIN
Guyana	328	GUY
Haiti	332	HTI
Heard and McDonald Islands	334	HMD
Vatican City State (Holy See)	336	VAT
Honduras	340	HND
Hong Kong	344	HKG
Hungary	348	HUN
Iceland	352	ISL
India	356	IND
Indonesia	360	IDN
Iran, Islamic Republic of	364	IRN
Iraq	368	IRQ
Ireland	372	IRL
Israel	376	ISR
Italy	380	ITA
Cote D'Ivoire (Ivory Coast)	384	CIV
Jamaica	388	JAM
Japan	392	JPN
Kazakhstan	398	KAZ
Jordan	400	JOR
Kenya	404	KEN
Korea, Democratic People's Republic of	408	PRK
Korea, Republic of	410	KOR
Kuwait	414	KWT
Kyrgyzstan	417	KGZ
Lao People's Democratic Republic	418	LAO
Lebanon	422	LBN
Lesotho	426	LSO
Latvia	428	LVA
Liberia	430	LBR
Libyan Arab Jamahiriya	434	LBY
Liechtenstein	438	LIE
Lithuania	440	LTU
Luxembourg	442	LUX
Macau	446	MAC
Madagascar	450	MDG
Malawi	454	MWI
Malaysia	458	MYS
Maldives	462	MDV
Mali	466	MLI
Malta	470	MLT
Martinique	474	MTQ
Mauritania	478	MRT
Mauritius	480	MUS

### 5.6.1.2 Country Codes — Numeric Country Code Order

Country or Entity Name	Country Code	
	Num	Alpha
Mexico	484	MEX
Monaco	492	MCO
Mongolia	496	MNG
Moldova, Republic of	498	MDA
Montenegro	499	MNE
Montserrat	500	MSR
Morocco	504	MAR
Mozambique	508	MOZ
Oman	512	OMN
Namibia	516	NAM
Nauru	520	NRU
Nepal	524	NPL
Netherlands	528	NLD
Netherlands Antilles	530	ANT
Aruba	533	ABW
New Caledonia	540	NCL
Vanuatu	548	VUT
New Zealand	554	NZL
Nicaragua	558	NIC
Niger	562	NER
Nigeria	566	NGA
Niue	570	NIU
Norfolk Island	574	NFK
Norway	578	NOR
Northern Mariana Islands	580	MNP
U.S. Minor Outlying Islands	581	UMI
Micronesia, Federated States of	583	FSM
Marshall Islands	584	MHL
Palau	585	PLW
Pakistan	586	PAK
Panama	591	PAN
Papua New Guinea	598	PNG
Paraguay	600	PRY
Peru	604	PER
Philippines	608	PHL
Pitcairn	612	PCN
Poland	616	POL
Portugal	620	PRT
Guinea-Bissau	624	GNB
Timor-Leste	626	TLS
Puerto Rico	630	PRI
Qatar	634	QAT
Reunion	638	REU
Romania	642	ROU
Russian Federation	643	RUS
Rwanda	646	RWA

### 5.6.1.2 Country Codes — Numeric Country Code Order

Country or Entity Name	Country Code	
	Num	Alpha
St. Barthelemy	652	BLM
St. Helena	654	SHN
St. Kitts-Nevis	659	KNA
Anguilla	660	AIA
St. Lucia	662	LCA
St. Martin	663	MAF
St. Pierre and Miquelon	666	SPM
St. Vincent and the Grenadines	670	VCT
San Marino	674	SMR
Sao Tome and Principe	678	STP
Saudi Arabia	682	SAU
Senegal	686	SEN
Serbia	688	RSD
Seychelles	690	SYC
Sierra Leone	694	SLE
Singapore	702	SGP
Slovakia	703	SVK
Vietnam	704	VNM
Slovenia	705	SVN
Somalia	706	SOM
South Africa	710	ZAF
Zimbabwe	716	ZWE
Spain	724	ESP
Western Sahara	732	ESH
Sudan	736	SDN
Suriname	740	SUR
Svalbard and Jan Mayen Islands	744	SJM
Swaziland	748	SWZ
Sweden	752	SWE
Switzerland	756	CHE
Syrian Arab Republic	760	SYR
Tajikistan	762	TJK
Thailand	764	THA
Togo	768	TGO
Tokelau	772	TKL
Tonga	776	TON
Trinidad and Tobago	780	TTO
United Arab Emirates	784	ARE
Tunisia	788	TUN
Turkey	792	TUR
Turkmenistan	795	TKM
Turks and Caicos Islands	796	TCA
Tuvalu	798	TUV
Uganda	800	UGA
Ukraine	804	UKR
Macedonia	807	MKD

**5.6.1.2 Country Codes — Numeric Country Code Order**

Country or Entity Name	Country Code	
	Num	Alpha
Egypt	818	EGY
United Kingdom	826	GBR
Guernsey	831	GGY
Jersey	832	JEY
Isle of Man	833	IMN
Tanzania, United Republic of	834	TZA
United States	840	USA
Virgin Islands, U.S.	850	VIR
Burkina Faso	854	BFA
Uruguay	858	URY
Uzbekistan	860	UZB
Venezuela	862	VEN
Wallis and Futuna Islands	876	WLF
Samoa	882	WSM
Yemen	887	YEM
Zambia	894	ZMB

## 5.6.2 Currency Codes

The following tables list the Currency Codes used by American Express. The first is in Country/Entity Name order, and the other is sorted by Currency Name.

Currencies from countries with which American Express is prohibited from doing business due to USA economic sanctions, or which may be subject to other internal American Express restrictions, are shown in shaded text and should not be used. For more information, please contact your American Express representative.

### Table Notes:

1. Currency of prohibited country — Prohibited country currencies are those with which American Express is prohibited from doing business due to economic sanctions. No currency information is shown for these countries.
2. The American Express designated name, code and/or decimalization for this currency may differ from ISO 4217.

### 5.6.2.1 Currency Codes — Country/Entity Name Order

Currency Name	Country or Entity Name	Code	Dec	Notes
Afghanistan Afghani	Afghanistan	971	2	
Euro	Aland Islands	978	2	
Albanian Lek	Albania	008	2	
Algerian Dinar	Algeria	012	2	2
Euro	American Samoa	978	2	
U.S. Dollar	American Samoa	840	2	
Euro	Andorra	978	2	
Angolan Kwanza	Angola	973	2	
E. Caribbean Dollar	Anguilla	951	2	
E. Caribbean Dollar	Antigua and Barbuda	951	2	
Argentine Peso	Argentina	032	2	
Armenian Dram	Armenia	051	2	
Aruban Guilder	Aruba	533	2	
Australian Dollar	Australia	036	2	
Euro	Austria	978	2	
Azerbaijani Manat	Azerbaijan	944	2	
Bahamian Dollar	Bahamas	044	2	
Bahraini Dinar	Bahrain	048	3	
Bangladesh Taka	Bangladesh	050	2	
Barbados Dollar	Barbados	052	2	
Belarusian Ruble	Belarus	974	0	
Euro	Belgium	978	2	
Belize Dollar	Belize	084	2	
CFA Franc BCEAO	Benin	952	0	
Bermudian Dollar	Bermuda	060	2	
Bhutan Ngultrum	Bhutan	064	2	
Bolivian Boliviano	Bolivia	068	2	
Bosnian Mark	Bosnia and Herzegovina	977	2	
Botswana Pula	Botswana	072	2	
Norwegian Krone	Bouvet Island	578	2	
Brazilian Real	Brazil	986	2	
U.S. Dollar	British Indian Ocean Territory	840	2	
Brunei Dollar	Brunei Darussalam	096	2	
Bulgarian Lev	Bulgaria	975	2	
CFA Franc BCEAO	Burkina Faso	952	0	
Burundi Franc	Burundi	108	0	
Cambodian Riel	Cambodia	116	2	
CFA Franc BEAC	Cameroon	950	0	
Canadian Dollar	Canada	124	2	
Cape Verde Escudo	Cape Verde	132	2	
Cayman Islands Dollar	Cayman Islands	136	2	
CFA Franc BEAC	Central African Republic	950	0	
CFA Franc BEAC	Chad	950	0	
Chilean Peso	Chile	152	0	
China Yuan Renminbi	China	156	2	
Australian Dollar	Christmas Island	036	2	
Australian Dollar	Cocos (Keeling) Islands	036	2	
Colombian Peso	Colombia	170	2	
Comoro Franc	Comoros	174	0	
CFA Franc BEAC	Congo, Republic of the	950	0	
New Zealand Dollar	Cook Islands	554	2	

### 5.6.2.1 Currency Codes — Country/Entity Name Order

Currency Name	Country or Entity Name	Code	Dec	Notes
Costa Rican Colon	Costa Rica	188	2	
CFA Franc BCEAO	Cote D'Ivoire (Ivory Coast)	952	0	
Euro	Croatia, Republic of	978	2	
Kuna	Croatia, Republic of	191	2	
U.S. Dollar	Croatia, Republic of	840	2	
	Cuba			1
Euro	Cyprus	978	2	
Czech Koruna	Czech Republic	203	2	
Danish Krone	Denmark	208	2	
Djibouti Franc	Djibouti	262	0	
E. Caribbean Dollar	Dominica	951	2	
Dominican Republic Peso	Dominican Republic	214	2	
Ecuadorian Sucre	Ecuador	218	2	2
U.S. Dollar	Ecuador	840	2	
Egyptian Pound	Egypt	818	3	2
El Salvadorian Colon	El Salvador	222	2	
CFA Franc BEAC	Equatorial Guinea	950	0	
Estonia Kroon	Estonia	233	2	
Ethiopian Birr	Ethiopia	230	2	
Euro	Ethiopia	978	2	
Falkland Islands Pound	Falkland Islands (Malvinas)	238	2	
Danish Krone	Faroe Islands	208	2	
Fiji Dollar	Fiji	242	2	
Euro	Finland	978	2	
Euro	France	978	2	
Euro	French Guiana	978	2	
Central French Polynesian Franc	French Polynesia	953	0	2
Euro	French Southern Territories	978	2	
CFA Franc BEAC	Gabon	950	0	
Gambia Dalasi	Gambia	270	2	
Georgia Lari	Georgia	981	2	
Euro	Germany	978	2	
Ghanaian Cedi	Ghana	936	2	
Gibraltar Pound	Gibraltar	292	2	
Euro	Greece	978	2	
Danish Krone	Greenland	208	2	
E. Caribbean Dollar	Grenada	951	2	
Euro	Guadeloupe	978	2	
U.S. Dollar	Guam	840	2	
Guatemalan Quetzal	Guatemala	320	2	
Guinean Franc	Guinea	324	0	
CFA Franc BCEAO	Guinea-Bissau	952	0	
Guyana Dollar	Guyana	328	2	
Haiti Gourde	Haiti	332	2	
U.S. Dollar	Haiti	840	2	
Australian Dollar	Heard and McDonald Islands	036	2	
Honduran Lempira	Honduras	340	2	
Hong Kong Dollar	Hong Kong	344	2	
Hungarian Forint	Hungary	348	2	
Icelandic Krona	Iceland	352	2	
Indian Rupee	India	356	2	

## 5.6.2.1 Currency Codes — Country/Entity Name Order

Currency Name	Country or Entity Name	Code	Dec	Notes
Indonesian Rupiah	Indonesia	360	2	
	Iran			1
Iraqi Dinar	Iraq	368	3	
Euro	Ireland	978	2	
New Israeli Shekel	Israel	376	2	
Euro	Italy	978	2	
Jamaican Dollar	Jamaica	388	2	
Japanese Yen	Japan	392	0	
Jordanian Dinar	Jordan	400	3	
Kazakhstan Tenge	Kazakhstan	398	2	
Kenyan Shilling	Kenya	404	2	
Australian Dollar	Kiribati	036	2	
North Korean Won	Korea, Democratic People's Republic of			
South Korean Won	Korea, Republic of	410	0	
Kuwaiti Dinar	Kuwait	414	3	
Kyrgyzstan Som	Kyrgyzstan	417	2	
Laotian Kip	Lao People's Democratic Republic	418	2	
Latvian Lats	Latvia	428	2	
Lebanese Pound	Lebanon	422	2	
Lesotho Loti	Lesotho	426	2	
Liberian Dollar	Liberia	430	2	
Libyan Dinar	Libyan Arab Jamahiriya	434	3	
Swiss Franc	Liechtenstein	756	2	
Lithuanian Litas	Lithuania	440	2	
Euro	Luxembourg	978	2	
Macao Pataca	Macao	446	2	
Macedonia Denar	Macedonia	807	2	
Malagasy Ariary	Madagascar	969	2	
Malawi Kwacha	Malawi	454	2	
Malaysian Ringgit	Malaysia	458	2	
Maldivian Rufiyaa	Maldives	462	2	
CFA Franc BCEAO	Mali	952	0	
Euro	Malta	978	2	
U.S. Dollar	Marshall Islands	840	2	
Euro	Martinique	978	2	
Mauritania Ouguiya	Mauritania	478	2	
Mauritius Rupee	Mauritius	480	2	
Euro	Mayotte	978	2	
Mexican Peso	Mexico	484	2	
U.S. Dollar	Micronesia, Federated States of	840	2	
Moldovan Leu	Moldova, Republic of	498	2	
Euro	Monaco	978	2	
Mongolian Tugrik	Mongolia	496	2	
Euro	Montenegro	978	2	
E. Caribbean Dollar	Montserrat	951	2	
Moroccan Dirham	Morocco	504	2	
Metical	Mozambique	943	2	
	Myanmar			1
Namibian Dollar	Namibia	516	2	
South African Rand	Namibia	710	2	
Australian Dollar	Nauru	036	2	



**5.6.2.1 Currency Codes — Country/Entity Name Order**

Currency Name	Country or Entity Name	Code	Dec	Notes
Nepalese Rupee	Nepal	524	2	
Euro	Netherlands	978	2	
Netherlands Antillian Guilder	Netherlands Antilles	532	2	
Central French Polynesian Franc	New Caledonia	953	0	2
New Zealand Dollar	New Zealand	554	2	
Nicaraguan Cordoba Oro	Nicaragua	558	2	
CFA Franc BCEAO	Niger	952	0	
Nigeria Naira	Nigeria	566	2	
New Zealand Dollar	Niue	554	2	
Australian Dollar	Norfolk Island	036	2	
U.S. Dollar	Northern Mariana Islands	840	2	
Norwegian Krone	Norway	578	2	
Omani Rial	Oman	512	3	
Pakistan Rupee	Pakistan	586	2	
U.S. Dollar	Palau	840	2	
U.S. Dollar	Panama	840	2	
Papua New Guinea Kina	Papua New Guinea	598	2	
Paraguan Guarani	Paraguay	600	2	
Peruvian Nuevo Sol	Peru	604	2	
Philippine Peso	Philippines	608	2	
New Zealand Dollar	Pitcairn	554	2	
Polish Zloty	Poland	985	2	
Euro	Portugal	978	2	
U.S. Dollar	Puerto Rico	840	2	
Qatari Rial	Qatar	634	2	
Euro	Reunion	978	2	
Romanian Leu	Romania	946	2	
Russian Federation Ruble	Russian Federation	643	2	
Rwanda Franc	Rwanda	646	0	
Euro	San Marino	978	2	
Sao Tome and Principe Dobra	Sao Tome and Principe	678	2	
Saudi Arabian Riyal	Saudi Arabia	682	2	
CFA Franc BCEAO	Senegal	952	0	
Serbian Dinar	Serbia (see also, Macedonia)	941	2	
Seychelles Rupee	Seychelles	690	2	
Sierra Leone Leone	Sierra Leone	694	2	
Singapore Dollar	Singapore	702	2	
Euro	Slovakia	978	2	
Euro	Slovenia	978	2	
Solomon Islands Dollar	Solomon Islands	090	2	
Somali Shilling	Somalia	706	2	
South African Rand	South Africa	710	2	
Euro	Spain	978	2	
Sri Lanka Rupee	Sri Lanka	144	2	
Euro	St. Barthelemy	978	2	
St. Helena Pound	St. Helena	654	2	
E. Caribbean Dollar	St. Kitts-Nevis	951	2	
E. Caribbean Dollar	St. Lucia	951	2	
Euro	St. Martin	978	2	
Euro	St. Pierre and Miquelon	978	2	
E. Caribbean Dollar	St. Vincent and the Grenadines	951	2	

### 5.6.2.1 Currency Codes — Country/Entity Name Order

Currency Name	Country or Entity Name	Code	Dec	Notes
	Sudan			1
Surinam Dollar	Suriname	968	2	
Norwegian Krone	Svalbard and Jan Mayen Islands	578	2	
Swaziland Emalengeni	Swaziland	748	2	
Swedish Krona	Sweden	752	2	
Swiss Franc	Switzerland	756	2	
Syrian Pound	Syrian Arab Republic	760	2	
New Taiwan Dollar	Taiwan	901	2	
Tajik Somoni	Tajikistan	972	2	
Tanzanian Shilling	Tanzania, United Republic of	834	2	
Thailand Baht	Thailand	764	2	
U.S. Dollar	Timor-Leste	840	2	
CFA Franc BCEAO	Togo	952	0	
New Zealand Dollar	Tokelau	554	2	
Tongan Pa'anga	Tonga	776	2	
Trinidad and Tobago Dollar	Trinidad and Tobago	780	2	
Tunisian Dinar	Tunisia	788	3	
Turkish Lira	Turkey	949	2	
U.S. Dollar	Turks and Caicos Islands	840	2	
Australian Dollar	Tuvalu	036	2	
U.S. Dollar	U.S. Minor Outlying Islands	840	2	
Uganda Shilling	Uganda	800	2	
Ukraine Hryvnia	Ukraine	980	2	
U.A.E. Dirham	United Arab Emirates	784	2	
United Kingdom Pound Sterling	United Kingdom	826	2	
U.S. Dollar	United States	840	2	
Peso Uruguayo	Uruguay	858	2	
Uzbekistan Som	Uzbekistan	860	2	
Vanuatu Vatu	Vanuatu	548	2	
Euro	Vatican City State (Holy See)	978	2	
Bolivar Fuerte	Venezuela	937	2	
Vietnamese Dong	Vietnam	704	2	
U.S. Dollar	Virgin Islands, British	840	2	
U.S. Dollar	Virgin Islands, U.S.	840	2	
Central French Polynesian Franc	Wallis and Futuna Islands	953	0	2
E. Caribbean Dollar	West Indies	951	2	
Moroccan Dirham	Western Sahara	504	2	
Samoa Tala	Western Samoa	882	2	
Yemeni Rial	Yemen	886	2	
Zambia Kwacha	Zambia	894	2	2
Zimbabwe Dollar	Zimbabwe	716	2	

### 5.6.2.2 Currency Codes — Currency Name Order

Currency Name	Country or Entity Name	Code	Dec	Notes
	Cuba			1
	Iran			1
	Myanmar			1
	Sudan			1
Afghanistan Afghani	Afghanistan	971	2	
Albanian Lek	Albania	008	2	
Algerian Dinar	Algeria	012	2	
Angolan Kwanza	Angola	973	2	
Argentine Peso	Argentina	032	2	
Armenian Dram	Armenia	051	2	
Aruban Guilder	Aruba	533	2	
Australian Dollar	Australia	036	2	
Australian Dollar	Christmas Island	036	2	
Australian Dollar	Cocos (Keeling) Islands	036	2	
Australian Dollar	Heard and McDonald Islands	036	2	
Australian Dollar	Kiribati	036	2	
Australian Dollar	Nauru	036	2	
Australian Dollar	Norfolk Island	036	2	
Australian Dollar	Tuvalu	036	2	
Azerbaijani Manat	Azerbaijan	944	2	
Bahamian Dollar	Bahamas	044	2	
Bahraini Dinar	Bahrain	048	3	
Bangladesh Taka	Bangladesh	050	2	
Barbados Dollar	Barbados	052	2	
Belarusian Ruble	Belarus	974	0	
Belize Dollar	Belize	084	2	
Bermudian Dollar	Bermuda	060	2	
Bhutan Ngultrum	Bhutan	064	2	
Bolivar Fuerte	Venezuela	937	2	
Bolivian Boliviano	Bolivia	068	2	
Bosnian Mark	Bosnia and Herzegovina	977	2	
Botswana Pula	Botswana	072	2	
Brazilian Real	Brazil	986	2	
Brunei Dollar	Brunei Darussalam	096	2	
Bulgarian Lev	Bulgaria	975	2	
Burundi Franc	Burundi	108	0	
Cambodian Riel	Cambodia	116	2	
Canadian Dollar	Canada	124	2	
Cape Verde Escudo	Cape Verde	132	2	
Cayman Islands Dollar	Cayman Islands	136	2	
Central French Polynesian Franc	French Polynesia	953	0	2
Central French Polynesian Franc	New Caledonia	953	0	2
Central French Polynesian Franc	Wallis and Futuna Islands	953	0	2
CFA Franc BCEAO	Benin	952	0	
CFA Franc BCEAO	Burkina Faso	952	0	
CFA Franc BCEAO	Cote D'Ivoire (Ivory Coast)	952	0	
CFA Franc BCEAO	Guinea-Bissau	952	0	
CFA Franc BCEAO	Mali	952	0	
CFA Franc BCEAO	Niger	952	0	
CFA Franc BCEAO	Senegal	952	0	
CFA Franc BCEAO	Togo	952	0	

### 5.6.2.2 Currency Codes — Currency Name Order

Currency Name	Country or Entity Name	Code	Dec	Notes
CFA Franc BEAC	Cameroon	950	0	
CFA Franc BEAC	Central African Republic	950	0	
CFA Franc BEAC	Chad	950	0	
CFA Franc BEAC	Congo, Republic of the	950	0	
CFA Franc BEAC	Equatorial Guinea	950	0	
CFA Franc BEAC	Gabon	950	0	
Chilean Peso	Chile	152	0	
China Yuan Renminbi	China	156	2	
Colombian Peso	Colombia	170	2	
Comoro Franc	Comoros	174	0	
Costa Rican Colon	Costa Rica	188	2	
Czech Koruna	Czech Republic	203	2	
Danish Krone	Denmark	208	2	
Danish Krone	Faroe Islands	208	2	
Danish Krone	Greenland	208	2	
Djibouti Franc	Djibouti	262	0	
Dominican Republic Peso	Dominican Republic	214	2	
E. Caribbean Dollar	Anguilla	951	2	
E. Caribbean Dollar	Antigua and Barbuda	951	2	
E. Caribbean Dollar	Dominica	951	2	
E. Caribbean Dollar	Grenada	951	2	
E. Caribbean Dollar	Montserrat	951	2	
E. Caribbean Dollar	St. Kitts-Nevis	951	2	
E. Caribbean Dollar	St. Lucia	951	2	
E. Caribbean Dollar	St. Vincent and the Grenadines	951	2	
E. Caribbean Dollar	West Indies	951	2	
Ecuadorian Sucre	Ecuador	218	2	2
Egyptian Pound	Egypt	818	3	2
El Salvadorian Colon	El Salvador	222	2	
Estonia Kroon	Estonia	233	2	
Ethiopian Birr	Ethiopia	230	2	
Euro	Aland Islands	978	2	
Euro	American Samoa	978	2	
Euro	Andorra	978	2	
Euro	Austria	978	2	
Euro	Belgium	978	2	
Euro	Croatia, Republic of	978	2	
Euro	Cyprus	978	2	
Euro	Ethiopia	978	2	
Euro	Finland	978	2	
Euro	France	978	2	
Euro	French Guiana	978	2	
Euro	French Southern Territories	978	2	
Euro	Germany	978	2	
Euro	Greece	978	2	
Euro	Guadeloupe	978	2	
Euro	Ireland	978	2	
Euro	Italy	978	2	
Euro	Luxembourg	978	2	
Euro	Malta	978	2	
Euro	Martinique	978	2	

### 5.6.2.2 Currency Codes — Currency Name Order

Currency Name	Country or Entity Name	Code	Dec	Notes
Euro	Mayotte	978	2	
Euro	Monaco	978	2	
Euro	Montenegro	978	2	
Euro	Netherlands	978	2	
Euro	Portugal	978	2	
Euro	Reunion	978	2	
Euro	San Marino	978	2	
Euro	Slovakia	978	2	
Euro	Slovenia	978	2	
Euro	Spain	978	2	
Euro	St. Barthelemy	978	2	
Euro	St. Martin	978	2	
Euro	St. Pierre and Miquelon	978	2	
Euro	Vatican City State (Holy See)	978	2	
Falkland Islands Pound	Falkland Islands (Malvinas)	238	2	
Fiji Dollar	Fiji	242	2	
Gambia Dalasi	Gambia	270	2	
Georgia Lari	Georgia	981	2	
Ghanaian Cedi	Ghana	936	2	
Gibraltar Pound	Gibraltar	292	2	
Guatemalan Quetzal	Guatemala	320	2	
Guinean Franc	Guinea	324	0	
Guyana Dollar	Guyana	328	2	
Haiti Gourde	Haiti	332	2	
Honduran Lempira	Honduras	340	2	
Hong Kong Dollar	Hong Kong	344	2	
Hungarian Forint	Hungary	348	2	
Icelandic Krona	Iceland	352	2	
Indian Rupee	India	356	2	
Indonesian Rupiah	Indonesia	360	2	
Iraqi Dinar	Iraq	368	3	
Jamaican Dollar	Jamaica	388	2	
Japanese Yen	Japan	392	0	
Jordanian Dinar	Jordan	400	3	
Kazakhstan Tenge	Kazakhstan	398	2	
Kenyan Shilling	Kenya	404	2	
Kuna	Croatia, Republic of	191	2	
Kuwaiti Dinar	Kuwait	414	3	
Kyrgyzstan Som	Kyrgyzstan	417	2	
Laotian Kip	Lao People's Democratic Republic	418	2	
Latvian Lats	Latvia	428	2	
Lebanese Pound	Lebanon	422	2	
Lesotho Loti	Lesotho	426	2	
Liberian Dollar	Liberia	430	2	
Libyan Dinar	Libyan Arab Jamahiriya	434	3	
Lithuanian Litas	Lithuania	440	2	
Macao Pataca	Macau	446	2	
Macedonia Denar	Macedonia	807	2	
Malagasy Ariary	Madagascar	969	2	
Malawi Kwacha	Malawi	454	2	
Malaysian Ringgit	Malaysia	458	2	

### 5.6.2.2 Currency Codes — Currency Name Order

Currency Name	Country or Entity Name	Code	Dec	Notes
Maldivian Rufiyaa	Maldives	462	2	
Mauritania Ouguiya	Mauritania	478	2	
Mauritius Rupee	Mauritius	480	2	
Metical	Mozambique	943	2	
Mexican Peso	Mexico	484	2	
Moldovan Leu	Moldova, Republic of	498	2	
Mongolian Tugrik	Mongolia	496	2	
Moroccan Dirham	Morocco	504	2	
Moroccan Dirham	Western Sahara	504	2	
Namibian Dollar	Namibia	516	2	
Nepalese Rupee	Nepal	524	2	
Netherlands Antillian Guilder	Netherlands Antilles	532	2	
New Israeli Shekel	Israel	376	2	
New Taiwan Dollar	Taiwan	901	2	
New Zealand Dollar	Cook Islands	554	2	
New Zealand Dollar	New Zealand	554	2	
New Zealand Dollar	Niue	554	2	
New Zealand Dollar	Pitcairn	554	2	
New Zealand Dollar	Tokelau	554	2	
Nicaraguan Cordoba Oro	Nicaragua	558	2	
Nigeria Naira	Nigeria	566	2	
North Korean Won	Korea, Democratic People's Republic of			
Norwegian Krone	Bouvet Island	578	2	
Norwegian Krone	Norway	578	2	
Norwegian Krone	Svalbard and Jan Mayen Islands	578	2	
Omani Rial	Oman	512	3	
Pakistan Rupee	Pakistan	586	2	
Papua New Guinea Kina	Papua New Guinea	598	2	
Paraguan Guarani	Paraguay	600	2	
Peruvian Nuevo Sol	Peru	604	2	
Peso Uruguayo	Uruguay	858	2	
Philippine Peso	Philippines	608	2	
Polish Zloty	Poland	985	2	
Qatari Rial	Qatar	634	2	
Romanian Leu	Romania	946	2	
Russian Federation Ruble	Russian Federation	643	2	
Rwanda Franc	Rwanda	646	0	
Samoa Tala	Western Samoa	882	2	
Sao Tome and Principe Dobra	Sao Tome and Principe	678	2	
Saudi Arabian Riyal	Saudi Arabia	682	2	
Serbian Dinar	Serbia (see also, Macedonia)	941	2	
Seychelles Rupee	Seychelles	690	2	
Sierra Leone Leone	Sierra Leone	694	2	
Singapore Dollar	Singapore	702	2	
Solomon Islands Dollar	Solomon Islands	090	2	
Somali Shilling	Somalia	706	2	
South African Rand	Namibia	710	2	
South African Rand	South Africa	710	2	
South Korean Won	Korea, Republic of	410	0	
Sri Lanka Rupee	Sri Lanka	144	2	
St. Helena Pound	St. Helena	654	2	

### 5.6.2.2 Currency Codes — Currency Name Order

Currency Name	Country or Entity Name	Code	Dec	Notes
Surinam Dollar	Suriname	968	2	
Swaziland Emalengeni	Swaziland	748	2	
Swedish Krona	Sweden	752	2	
Swiss Franc	Liechtenstein	756	2	
Swiss Franc	Switzerland	756	2	
Syrian Pound	Syrian Arab Republic	760	2	
Tajik Somoni	Tajikistan	972	2	
Tanzanian Shilling	Tanzania, United Republic of	834	2	
Thailand Baht	Thailand	764	2	
Tongan Pa'anga	Tonga	776	2	
Trinidad and Tobago Dollar	Trinidad and Tobago	780	2	
Tunisian Dinar	Tunisia	788	3	
Turkish Lira	Turkey	949	2	
U.A.E. Dirham	United Arab Emirates	784	2	
U.S. Dollar	American Samoa	840	2	
U.S. Dollar	British Indian Ocean Territory	840	2	
U.S. Dollar	Croatia, Republic of	840	2	
U.S. Dollar	Ecuador	840	2	
U.S. Dollar	Guam	840	2	
U.S. Dollar	Haiti	840	2	
U.S. Dollar	Marshall Islands	840	2	
U.S. Dollar	Micronesia, Federated States of	840	2	
U.S. Dollar	Northern Mariana Islands	840	2	
U.S. Dollar	Palau	840	2	
U.S. Dollar	Panama	840	2	
U.S. Dollar	Puerto Rico	840	2	
U.S. Dollar	Timor-Leste	840	2	
U.S. Dollar	Turks and Caicos Islands	840	2	
U.S. Dollar	U.S. Minor Outlying Islands	840	2	
U.S. Dollar	United States	840	2	
U.S. Dollar	Virgin Islands, British	840	2	
U.S. Dollar	Virgin Islands, U.S.	840	2	
Uganda Shilling	Uganda	800	2	
Ukraine Hryvnia	Ukraine	980	2	
United Kingdom Pound Sterling	United Kingdom	826	2	
Uzbekistan Som	Uzbekistan	860	2	
Vanuatu Vatu	Vanuatu	548	2	
Vietnamese Dong	Vietnam	704	2	
Yemeni Rial	Yemen	886	2	
Zambia Kwacha	Zambia	894	2	2
Zimbabwe Dollar	Zimbabwe	716	2	

## 5.7 American Express Regions

The following table is a list of countries sorted by applicable *American Express Region*.

### 5.7 American Express Regions (Continued)

Amex Region	Country or Entity Name
CAN	Canada
EMEA	Afghanistan
EMEA	Albania
EMEA	Algeria
EMEA	Andorra
EMEA	Angola
EMEA	Armenia
EMEA	Austria
EMEA	Azerbaijan
EMEA	Bahrain
EMEA	Belarus
EMEA	Belgium
EMEA	Benin
EMEA	Bosnia and Herzegovina
EMEA	Botswana
EMEA	Bouvet Island
EMEA	British Indian Ocean Territory
EMEA	Bulgaria
EMEA	Burkina Faso
EMEA	Burundi
EMEA	Cameroon
EMEA	Cape Verde
EMEA	Central African Republic
EMEA	Chad
EMEA	Comoros
EMEA	Congo, Republic of the
EMEA	Congo, The Democratic Republic of
EMEA	Cote D'Ivoire (Ivory Coast)
EMEA	Croatia, Republic of
EMEA	Cyprus
EMEA	Czech Republic
EMEA	Denmark
EMEA	Djibouti
EMEA	Egypt
EMEA	Equatorial Guinea
EMEA	Eritrea
EMEA	Estonia
EMEA	Ethiopia
EMEA	Falkland Islands (Malvinas)
EMEA	Faroe Islands



## 5.7 American Express Regions (Continued)

Amex Region	Country or Entity Name
EMEA	Finland
EMEA	France
EMEA	French Guiana
EMEA	French Southern Territories
EMEA	Gabon
EMEA	Gambia
EMEA	Georgia
EMEA	Germany
EMEA	Ghana
EMEA	Gibraltar
EMEA	Greece
EMEA	Greenland
EMEA	Guinea
EMEA	Guinea-Bissau
EMEA	Hungary
EMEA	Iceland
EMEA	Iran, Islamic Republic of
EMEA	Iraq
EMEA	Ireland
EMEA	Israel
EMEA	Italy
EMEA	Jordan
EMEA	Kazakhstan
EMEA	Kenya
EMEA	Kuwait
EMEA	Kyrgyzstan
EMEA	Latvia
EMEA	Lebanon
EMEA	Lesotho
EMEA	Liberia
EMEA	Libyan Arab Jamahiriya
EMEA	Liechtenstein
EMEA	Lithuania
EMEA	Luxembourg
EMEA	Macedonia
EMEA	Madagascar
EMEA	Malawi
EMEA	Mali
EMEA	Malta
EMEA	Martinique
EMEA	Mauritania
EMEA	Mauritius
EMEA	Mayotte
EMEA	Moldova, Republic of
EMEA	Monaco
EMEA	Montenegro

## 5.7 American Express Regions (Continued)

Amex Region	Country or Entity Name
EMEA	Morocco
EMEA	Mozambique
EMEA	Namibia
EMEA	Netherlands
EMEA	Niger
EMEA	Nigeria
EMEA	Norway
EMEA	Oman
EMEA	Pitcairn
EMEA	Poland
EMEA	Portugal
EMEA	Qatar
EMEA	Reunion
EMEA	Romania
EMEA	Russian Federation
EMEA	Rwanda
EMEA	San Marino
EMEA	Sao Tome and Principe
EMEA	Saudi Arabia
EMEA	Senegal
EMEA	Serbia
EMEA	Seychelles
EMEA	Sierra Leone
EMEA	Slovakia
EMEA	Slovenia
EMEA	Somalia
EMEA	South Africa
EMEA	Spain
EMEA	St. Barthelemy (see note at end of table)
EMEA	St. Helena
EMEA	St. Martin (see note at end of table)
EMEA	St. Pierre and Miquelon
EMEA	Sudan
EMEA	Suriname
EMEA	Svalbard and Jan Mayen Islands
EMEA	Swaziland
EMEA	Sweden
EMEA	Switzerland
EMEA	Syrian Arab Republic
EMEA	Tajikistan
EMEA	Tanzania, United Republic of
EMEA	Togo
EMEA	Tunisia
EMEA	Turkey
EMEA	Turkmenistan
EMEA	Uganda

## 5.7 American Express Regions (Continued)

Amex Region	Country or Entity Name
EMEA	Ukraine
EMEA	United Arab Emirates
EMEA	United Kingdom
EMEA	Uzbekistan
EMEA	Vatican City State (Holy See)
EMEA	Wallis and Futuna Islands
EMEA	Western Sahara
EMEA	Yemen
EMEA	Zambia
EMEA	Zimbabwe
APA	Australia
APA	Bangladesh
APA	Bhutan
APA	Brunei Darussalam
APA	Cambodia
APA	China
APA	Christmas Island
APA	Cocos (Keeling) Islands
APA	Cook Islands
APA	Fiji
APA	French Polynesia
APA	Heard and McDonald Islands
APA	Hong Kong
APA	India
APA	Indonesia
APA	Kiribati
APA	Korea, Democratic People's Republic of
APA	Korea, Republic of
APA	Lao People's Democratic Republic
APA	Macau
APA	Malaysia
APA	Maldives
APA	Mongolia
APA	Myanmar
APA	Nauru
APA	Nepal
APA	New Caledonia
APA	New Zealand
APA	Niue
APA	Norfolk Island
APA	Pakistan
APA	Papua New Guinea
APA	Philippines
APA	Samoa
APA	Singapore
APA	Solomon Islands

## 5.7 American Express Regions (Continued)

Amex Region	Country or Entity Name
APA	Sri Lanka
APA	Taiwan
APA	Thailand
APA	Timor-Leste
APA	Tokelau
APA	Tonga
APA	Tuvalu
APA	Vanuatu
APA	Vietnam
LA/C	Anguilla
LA/C	Antigua and Barbuda
LA/C	Argentina
LA/C	Aruba
LA/C	Bahamas
LA/C	Barbados
LA/C	Belize
LA/C	Bermuda
LA/C	Bolivia
LA/C	Brazil
LA/C	Cayman Islands
LA/C	Chile
LA/C	Colombia
LA/C	Costa Rica
LA/C	Cuba
LA/C	Dominica
LA/C	Dominican Republic
LA/C	Ecuador
LA/C	El Salvador
LA/C	Grenada
LA/C	Guadeloupe
LA/C	Guatemala
LA/C	Guyana
LA/C	Haiti
LA/C	Honduras
LA/C	Jamaica
LA/C	Mexico
LA/C	Montserrat
LA/C	Netherlands Antilles
LA/C	Nicaragua
LA/C	Panama
LA/C	Paraguay
LA/C	Peru
LA/C	Puerto Rico
LA/C	St. Barthelemy (see note at end of table)
LA/C	St. Kitts-Nevis
LA/C	St. Lucia

## 5.7 American Express Regions (Continued)

Amex Region	Country or Entity Name
LA/C	St. Martin (see note at end of table)
LA/C	St. Vincent and the Grenadines
LA/C	Trinidad and Tobago
LA/C	Turks and Caicos Islands
LA/C	Uruguay
LA/C	Venezuela
LA/C	Virgin Islands, British
LA/C	Virgin Islands, U.S.
USA	American Samoa
USA	Guam
USA	Marshall Islands
USA	Micronesia, Federated States of
USA	Northern Mariana Islands
USA	Palau
USA	U.S. Minor Outlying Islands
USA	United States

Note: St. Barthelemy and St. Martin have Merchants supported by both EMEA and LA/C.

## 5.8 Street Codes

These American Express-defined street codes should be used in Automated Address Verification (AAV) entries in the ISO 8583 Authorization Request (1100) message.

### 5.8.1 Street Numbers

Length of Code	Street Code	Definition
1 byte	1	1ST
1 byte	2	2ND
1 byte	3	3RD
1 byte	4	4TH
1 byte	5	5TH
1 byte	6	6TH
1 byte	7	7TH
1 byte	8	8TH
1 byte	9	9TH
2 bytes	10	10TH
2 bytes	11	11TH
2 bytes	12	12TH
2 bytes	13	13TH

### 5.8.2 Spelled Numbers

Length of Code	Street Code	Definition
1 byte	1	FIRST
1 byte	2	SECOND
1 byte	3	THIRD
1 byte	4	FOURTH
1 byte	5	FIFTH
1 byte	6	SIXTH
1 byte	7	SEVENTH
1 byte	8	EIGHTH
1 byte	9	NINTH
2 bytes	10	TENTH
1 byte	1	ONE
1 byte	2	TWO
1 byte	3	THREE
1 byte	4	FOUR
1 byte	5	FIVE
1 byte	6	SIX
1 byte	7	SEVEN
1 byte	8	EIGHT
1 byte	9	NINE
2 bytes	10	TEN

### 5.8.3 Street Abbreviations

Code Length	Street Code	Code Definition	Code Length	Street Code	Code Definition
1 byte	#	APT	3 bytes	POB	P_O_BOX
2 bytes	AV	AVE	3 bytes	POB	PO_BOX
2 bytes	AV	AVENUE	3 bytes	POB	PO_BOX
3 bytes	BCH	BEACH	3 bytes	POB	POBOX
3 bytes	BDG	BRIDGE	3 bytes	POB	POBX
4 bytes	BLVD	BOULEVARD	2 bytes	PT	POINT
4 bytes	BRCH	BRANCH	2 bytes	PT	PORT
3 bytes	BRK	BROOK	2 bytes	RD	ROAD
2 bytes	BY	BAY	3 bytes	RDG	RIDGE
3 bytes	CIR	CIRCLE	3 bytes	RIV	RIVER
4 bytes	CNYN	CANYON	2 bytes	RT	R#
3 bytes	CRK	CREEK	2 bytes	RT	ROUTE
2 bytes	CT	COURT	2 bytes	RT	RR
3 bytes	CTR	CENTER	2 bytes	RT	RRT
2 bytes	CV	COVE	2 bytes	RT	RURAL ROUTE
2 bytes	DL	DALE	1 byte	S	SO
2 bytes	DR	DRIVE	1 byte	S	SOUTH
1 byte	E	EAST	2 bytes	SE	SOUTHEAST
3 bytes	FLD	FIELD	3 bytes	SQR	SQUARE
3 bytes	FOR	FOREST	2 bytes	ST	STREET
2 bytes	FT	FORT	2 bytes	ST	SUITE
3 bytes	GRV	GROVE	2 bytes	SW	SOUTHWEST
3 bytes	HBR	HARBOR	3 bytes	VLG	VILLAGE
2 bytes	HL	HILL	3 bytes	VLY	VALLEY
2 bytes	HS	HOUSE	1 byte	W	WEST
3 bytes	HWY	HIGHWAY	2 bytes	WY	WAY
2 bytes	LD	LAND			
2 bytes	LK	LAKE			
2 bytes	LN	LANE			
2 bytes	MT	MOUNT			
3 bytes	MTN	MOUNTAIN			
1 byte	N	NO			
1 byte	N	NORTH			
2 bytes	NE	NORTHEAST			
2 bytes	NW	NORTHWEST			
2 bytes	PK	PARK			
2 bytes	PK	PEAK			
2 bytes	PL	PLACE			
2 bytes	PL	PLAIN			
3 bytes	POB	_BX			
3 bytes	POB	BOX			

### 5.8.4 International Abbreviations

Change From	To	Change From	To	Change From	To	Change From	To	Change From	To
ZERO	0	QUATTRO	4	HUIT	8	BOSQUE	BOSQ	NORTE	N
CERO	0	CUATRO	4	ACHT	8	BOSQUES	BOSQ	NOSSA	NSA
NULL	0	QUATRE	4	OITO	8	BQE	BOSQ	NOSSO	NSO
PRIMO	1	VIER	4	NONO	9	BQUES	BOSQ	NTE	N
PREMIER	1	QUATRO	4	NEUVIÈME	9	BRIG	BRI	ORIENTE	OTE
PREMIÈRE	1	CUATRO	4	NOVENO	9	BRIGADEIRO	BRI	PARQUE	PQE
PRIMER	1	QUINTO	5	NEUNTER	9	BSQUE	BOSQ	PIS	P
PRIMER(O)	1	CINQUIÈME	5	NOVE	9	CALLE	C	PISO	P
ERSTER	1	QUINTO	5	NUEVE	9	CALLEJON	CJON	PLAZA	PZA
UNO	1	FÜNFTER	5	NEUF	9	CALZADA	CALZ	POSTFACH	PF
UNO	1	CINQUE	5	NEUN	9	CAMINO	CAM	PRACA	PCA
UN	1	CINCO	5	NOVE	9	CAP	CP	PRAIA	PRA
EINS	1	CINQ	5	DECIMO	10	CAPITAO	CP	PREFEITO	PREF
UM	1	FÜNF	5	DIXIÈME	10	CERRADA	CDA	PRESIDENTE	PRES
UMA	1	CINCO	5	DÉCIMO	10	CIRCUITO	CTO	PRIVADA	PRIV
SECONDO	2	SESTO	6	ZEHNTER	10	COR	CEL	PRIVADO	PRIV
DEUXIÈME	2	SIXIÈME	6	DIECI	10	CORONEL	CEL	PROF	PRF
SEGUNDO	2	SEXTO	6	DIEZ	10	CZDA	CALZ	PROFESSOR	PRF
ZWEITER	2	SECHSTER	6	DIX	10	DIAGONAL	DIAG	PROLONGACION	PROL
DUE	2	SEI	6	ZEHN	10	DON	DN	PUERTO	PTO
DOS	2	SEIS	6	ALAM	AL	DONA	DNA	RETORNO	RET
DEUX	2	SIX	6	ALAMEDA	AL	DOUTOR	DR	RINCON	RCON
ZWEI	2	SECHS	6	ALLEE	A	EDIFICIO	EDIF	RODOV	ROD
DOIS	2	SEIS	6	ALMIRANTE	ALM	ENGENHEIRO	ENG	RODOVIA	ROD
DUAS	2	SETTIMO	7	AM	A	FILHO	FIL	RUA	R
TERZO	3	SEPTIÈME	7	AMTE	ALM	FRANCISCO	FCO	SAN	SN
TROISIÈME	3	SÉPTIMO	7	AN DEN	A D	FTES	FNTE	SANTA	STA
TERCER(O)	3	SIEBTER	7	AN DER	A D	FUENTE	FNTE	SENHOR	SHR
TERCER	3	SETTE	7	ANTINGUO	ANT	FUENTES	FNTE	SENHORA	SHRA
DRITTER	3	SIETE	7	AP	APT	GAL	GEN	SIERRA	SA
TRE	3	SEPT	7	APARTAMENTO	APT	GENERAL	GRAL	STRASSE	STR
TRES	3	SIEBEN	7	APTO	APT	GENERAL	GEN	SUR	S
TROIS	3	SETE	7	AUF DEN	A D	GUILLERMO	GMO	VISC	VIS
DREI	3	OTTAVO	8	AUF DER	A D	HACIENDA	HDA	VISCONDE	VIS
TRES	3	HUITIÈME	8	AVE	AV	IN DEN	I D	VOR DEN	V D
QUARTO	4	OCTAVO	8	AVENIDA	AV	IN DER	I D	VOR DER	V D
QUATRIÈME	4	ACHTER	8	BARRANCA	BCA	JARDIN	JD		
CUARTO	4	OTTO	8	BLOCO	BL	MARECHAL	MAL		
VIERTER	4	OCHO	8	BLV	BLVD	MONTE	MTE		



## 5.9 ISO Account Number Ranges

The number ranges below are registered for card issuers as prescribed by the International Organization for Standardization.

<u>Range</u>	<u>Assigned To</u>
1001 – 1999	IATA *
2001 – 2999	IATA
300000 – 305999	Diners Club
340000 – 349999	American Express
352800 – 358999	Japan Credit Bureau
360000 – 369999	Diners Club
370000 – 379999	American Express
380000 – 389999	Diners Club
390000 – 392799	Carte Blanche
392900 – 399999	Carte Blanche
4 Range (partial)	VISA
5 Range (partial)	MasterCard
601100 – 601199	Discover

For a complete list, see ISO Numeric Register.

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\* IATA = International Air Transport Association.

## 5.10 EBCDIC & ASCII Code Translation Table

### 5.10.1 EBCDIC & ASCII Code Translation Table — Part A

Dec.	Hex	Instruction (RR)	Graphics and Controls			7-Track Tape BCDIC (2)	Card Code EBCDIC	Binary
			BCDIC	EBCDIC (1)	ASCII			
0	00			NUL	NUL		12-0-1-8-9	0000 0000
1	01			SOH	SOH		12-1-9	0000 0001
2	02			STX	STX		12-2-9	0000 0010
3	03			ETX	ETX		12-3-9	0000 0011
4	04	SPM		PF	EOT		12-4-9	0000 0100
5	05	BALR		HT	ENQ		12-5-9	0000 0101
6	06	BCTR		LC	ACK		12-6-9	0000 0110
7	07	BCR		DEL	BEL		12-7-9	0000 0111
8	08	SSK			BS		12-8-9	0000 1000
9	09	ISK			HT		12-1-8-9	0000 1001
10	0A	SVC		SMM	LF		12-2-8-9	0000 1010
11	0B			VT	VT		12-3-8-9	0000 1011
12	0C			FF	FF		12-4-8-9	0000 1100
13	0D			CR	CR		12-5-8-9	0000 1101
14	0E	MVCL		SO	SO		12-6-8-9	0000 1110
15	0F	CLCL		SI	SI		12-7-8-9	0000 1111
16	10	LPR		DLE	DLE		12-11-1-8-9	0001 0000
17	11	LNR		DC1	DC1		11-1-9	0001 0001
18	12	LTR		DC2	DC2		11-2-9	0001 0010
19	13	LCR		TM	DC3		11-3-9	0001 0011
20	14	NR		RES	DC4		11-4-9	0001 0100
21	15	CLR		NL	NAK		11-5-9	0001 0101
22	16	OR		BS	SYN		11-6-9	0001 0110
23	17	XR		IL	ETB		11-7-9	0001 0111
24	18	LR		CAN	CAN		11-8-9	0001 1000
25	19	CR		EM	EM		11-1-8-9	0001 1001
26	1A	AR		CC	SUB		11-2-8-9	0001 1010
27	1B	SR		CU1	ESC		11-3-8-9	0001 1011
28	1C	MR		IFS	FS		11-4-8-9	0001 1100
29	1D	DR		IGS	GS		11-5-8-9	0001 1101
30	1E	ALR		IRS	RS		11-6-8-9	0001 1110
31	1F	SLR		IUS	US		11-7-8-9	0001 1111
32	20	LPDR		DS	SP		11-0-1-8-9	0010 0000
33	21	LNDR		SOS	!		0-1-9	0010 0001
34	22	LTDR		FS	"		0-2-9	0010 0010
35	23	LCDR			#		0-3-9	0010 0011

**5.10.1 EBCDIC & ASCII Code Translation Table — Part A**

Dec.	Hex	Instruction (RR)	Graphics and Controls			7-Track Tape BCDIC (2)	Card Code EBCDIC	Binary
			BCDIC	EBCDIC (1)	ASCII			
36	24	HDR		BYP	\$		0-4-9	0010 0100
37	25	LRDR		LF	%		0-5-9	0010 0101
38	26	MXR		ETB	&		0-6-9	0010 0110
39	27	MXDR		ESC	'		0-7-9	0010 0111
40	28	LDR			(		0-8-9	0010 1000
41	29	CDR			)		0-1-8-9	0010 1001
42	2A	ADR		SM	*		0-2-8-9	0010 1010
43	2B	SDR		CU2	+		0-3-8-9	0010 1011
44	2C	MDR			,		0-4-8-9	0010 1100
45	2D	DDR		ENQ	-		0-5-8-9	0010 1101
46	2E	AWR		ACK	.		0-6-8-9	0010 1110
47	2F	SWR		BEL	/		0-7-8-9	0010 1111
48	30	LPER			0		12-11-0-1-8-9	0011 0000
49	31	LNER			1		1-9	0011 0001
50	32	LTER		SYN	2		2-9	0011 0010
51	33	LCER			3		3-9	0011 0011
52	34	HER		PN	4		4-9	0011 0100
53	35	LRER		RS	5		5-9	0011 0101
54	36	AXR		UC	6		6-9	0011 0110
55	37	SXR		EOT	7		7-9	0011 0111
56	38	LER			8		8-9	0011 1000
57	39	CER			9		1-8-9	0011 1001
58	3A	AER			:		2-8-9	0011 1010
59	3B	SER		CU3	;		3-8-9	0011 1011
60	3C	MER		DC4	<		4-8-9	0011 1100
61	3D	DER		NAK	=		5-8-9	0011 1101
62	3E	AUR			>		6-8-9	0011 1110
63	3F	SUR		SUB	?		7-8-9	0011 1111

Notes (for Part A):

- Two columns of EBCDIC graphics are shown. The first gives standard bit pattern assignments. The second shows the T-11 and TN text printing chains (120 graphics).
- Add C (check bit) for odd or even parity as needed, except as noted.
- For even parity, use CA.

Two-Character BSC Data Link Controls:

Function	EBCDIC	ASCII
ACK-0	DLE, X'70'	DLE, 0
ACK-1	DLE, X'61'	DLE, 1
WACK	DLE, X'68'	DLE, ;
RVI	DLE, X'7C'	DLE, <

## 5.10.2 EBCDIC &amp; ASCII Code Translation Table — Part B

Dec.	Hex	Instruction (RX)	Graphics and Controls				7-Track Tape BCDIC (2)	Card Code EBCDIC	Binary
			BCDIC	EBCDIC (1)		ASCII			
64	40	STH		Sp	Sp	@	(3)	no punches	0100 0000
65	41	LA				A		12-0-1-9	0100 0001
66	42	STC				B		12-0-2-9	0100 0010
67	43	IC				C		12-0-3-9	0100 0011
68	44	EX				D		12-0-4-9	0100 0100
69	45	BAL				E		12-0-5-9	0100 0101
70	46	BCT				F		12-0-6-9	0100 0110
71	47	BC				G		12-0-7-9	0100 0111
72	48	LH				H		12-0-8-9	0100 1000
73	49	CH				I		12-1-8	0100 1001
74	4A	AH		¢	¢	J		12-2-8	0100 1010
75	4B	SH	.	.	.	K	B A 8 2 1	12-3-8	0100 1011
76	4C	MH	¤	<	<	L	B A 8 4	12-4-8	0100 1100
77	4D		[	(	(	M	B A 8 4 1	12-5-8	0100 1101
78	4E	CVD	<	+	+	N	B A 8 4 2	12-6-8	0100 1110
79	4F	CVB	¢			O	B A 8 4 2 1	12-7-8	0100 1111
80	50	ST	& +	&	&	P	B A	12	0101 0000
81	51					Q		12-11-1-9	0101 0001
82	52					R		12-11-2-9	0101 0010
83	53					S		12-11-3-9	0101 0011
84	54	N				T		12-11-4-9	0101 0100
85	55	CL				U		12-11-5-9	0101 0101
86	56	O				V		12-11-6-9	0101 0110
87	57	X				W		12-11-7-9	0101 0111
88	58	L				X		12-11-8-9	0101 1000
89	59	C				Y		11-1-8	0101 1001
90	5A	A		!	!	Z		11-2-8	0101 1010
91	5B	S	\$	\$	\$	[	B 8 2 1	11-3-8	0101 1011
92	5C	M	*	*	*	\	B 8 4	11-4-8	0101 1100
93	5D	D	]	)	)	]	B 8 4 1	11-5-8	0101 1101
94	5E	AL	;	;	;	¬ ^	B 8 4 2	11-6-8	0101 1110
95	5F	SL	Δ	¬	¬	—	B 8 4 2 1	11-7-8	0101 1111
96	60	STD	-	-	-	`	B	11	0110 0000
97	61		/	/	/	a	A 1	0-1	0110 0001
98	62					b		11-0-2-9	0110 0010
99	63					c		11-0-3-9	0110 0011

## 5.10.2 EBCDIC &amp; ASCII Code Translation Table — Part B

Dec.	Hex	Instruction (RX)	Graphics and Controls				7-Track Tape BCDIC (2)	Card Code EBCDIC	Binary
			BCDIC	EBCDIC (1)		ASCII			
100	64					d		11-0-4-9	0110 0100
101	65					e		11-0-5-9	0110 0101
102	66					f		11-0-6-9	0110 0110
103	67	MXD				g		11-0-7-9	0110 0111
104	68	LD				h		11-0-8-9	0110 1000
105	69	CD				i		0-1-8	0110 1001
106	6A	AD		:		j		12-11	0110 1010
107	6B	SD	,	,	,	k	A 8 2 1	0-3-8	0110 1011
108	6C	MD	% (	%	%	l	A 8 4	0-4-8	0110 1100
109	6D	DD	Y	_	_	m	A 8 4 1	0-5-8	0110 1101
110	6E	AW	\	>	>	n	A 8 4 2	0-6-8	0110 1110
111	6F	SW	++	?	?	o	A 8 4 2 1	0-7-8	0110 1111
112	70	STE				p		12-11-0	0111 0000
113	71					q		12-11-0-1-9	0111 0001
114	72					r		12-11-0-2-9	0111 0010
115	73					s		12-11-0-3-9	0111 0011
116	74					t		12-11-0-4-9	0111 0100
117	75					u		12-11-0-5-9	0111 0101
118	76					v		12-11-0-6-9	0111 0110
119	77					w		12-11-0-7-9	0111 0111
120	78	LE				x		12-11-0-8-9	0111 1000
121	79	CE				y		1-8	0111 1001
122	7A	AE	b	:	:	z	A	2-8	0111 1010
123	7B	SE	# =	#	#	{	8 2 1	3-8	0111 1011
124	7C	ME	@ '	@	@		8 4	4-8	0111 1100
125	7D	DE	:	'	'	}	8 4 1	5-8	0111 1101
126	7E	AU	>	=	=	~	8 4 2	6-8	0111 1110
127	7F	SU	√	"	"	DEL	8 4 2 1	7-8	0111 1111

## 5.10.3 EBCDIC &amp; ASCII Code Translation Table — Part C

Dec.	Hex	Instruction and Format	Graphics and Controls			7-Track Tape BCDIC (2)	Card Code EBCDIC	Binary
			BCDIC	EBCDIC (1)	ASCII			
128	80	SSM -S					12-0-1-8	1000 0000
129	81			a	a		12-0-1	1000 0001
130	82	LPSW -S		b	b		12-0-2	1000 0010
131	83	Diagnose		c	c		12-0-3	1000 0011
132	84	WRD -S1		d	d		12-0-4	1000 0100
133	85	RDD -S1		e	e		12-0-5	1000 0101
134	86	BXH -RS		f	f		12-0-6	1000 0110
135	87	BXLE -RS		g	g		12-0-7	1000 0111
136	88	SRL -RS		h	h		12-0-8	1000 1000
137	89	SLL -RS		i	i		12-0-9	1000 1001
138	8A	SRA -RS					12-0-2-8	1000 1010
139	8B	SLA -RS		{			12-0-3-8	1000 1011
140	8C	SRDL -RS		≤			12-0-4-8	1000 1100
141	8D	SLDL -RS		(			12-0-5-8	1000 1101
142	8E	SRDA -RS		+			12-0-6-8	1000 1110
143	8F	SLDA -RS		+			12-0-7-8	1000 1111
144	90	STM -RS					12-11-1-8	1001 0000
145	91	TM -S1		j	j		12-11-1	1001 0001
146	92	MVI -S1		k	k		12-11-2	1001 0010
147	93	TS -S		l	l		12-11-3	1001 0011
148	94	NI -S1		m	m		12-11-4	1001 0100
149	95	CLI -S1		n	n		12-11-5	1001 0101
150	96	OI -S1		o	o		12-11-6	1001 0110
151	97	XI -S1		p	p		12-11-7	1001 0111
152	98	LM -RS		q	q		12-11-8	1001 1000
153	99			r	r		12-11-9	1001 1001
154	9A						12-11-2-8	1001 1010
155	9B			}			12-11-3-8	1001 1011
156	9C	SIO, SIOF -S		⌘			12-11-4-8	1001 1100
157	9D	TIO, CLRIO -S		)			12-11-5-8	1001 1101
158	9E	HIO, HDV -S		±			12-11-6-8	1001 1110
159	9F	TCH -S		■			12-11-7-8	1001 1111
160	A0			—			11-0-1-8	1010 0000
161	A1			~	°		11-0-1	1010 0001
162	A2			s	s		11-0-2	1010 0010
163	A3			t	t		11-0-3	1010 0011

**5.10.3 EBCDIC & ASCII Code Translation Table — Part C**

Dec.	Hex	Instruction and Format	Graphics and Controls			7-Track Tape BCDIC (2)	Card Code EBCDIC	Binary
			BCDIC	EBCDIC (1)	ASCII			
164	A4			u	u		11-0-4	1010 0100
165	A5			v	v		11-0-5	1010 0101
166	A6			w	w		11-0-6	1010 0110
167	A7			x	x		11-0-7	1010 0111
168	A8			y	y		11-0-8	1010 1000
169	A9			z	z		11-0-9	1010 1001
170	AA						11-0-2-8	1010 1010
171	AB				L		11-0-3-8	1010 1011
172	AC	STNSM -S1			Г		11-0-4-8	1010 1100
173	AD	STOSM -S1			[		11-0-5-8	1010 1101
174	AE	SIGP -RS			≥		11-0-6-8	1010 1110
175	AF	MC -S1			●		11-0-7-8	1010 1111
176	B0				0		12-11-0-1-8	1011 0000
177	B1	LRA -RX			1		12-11-0-1	1011 0001
178	B2	See below			2		12-11-0-2	1011 0010
179	B3				3		12-11-0-3	1011 0011
180	B4				4		12-11-0-4	1011 0100
181	B5				5		12-11-0-5	1011 0101
182	B6	STCTL -RS			6		12-11-0-6	1011 0110
183	B7	LCTL -RS			7		12-11-0-7	1011 0111
184	B8				8		12-11-0-8	1011 1000
185	B9				9		12-11-0-9	1011 1001
186	BA	CS -RS					12-11-0-2-8	1011 1010
187	BB	CDS -RS			J		12-11-0-3-8	1011 1011
188	BC				г		12-11-0-4-8	1011 1100
189	BD	CLM -RS			]		12-11-0-5-8	1011 1101
190	BE	STCM -RS			≠		12-11-0-6-8	1011 1110
191	BF	ICM -RS			–		12-11-0-7-8	1011 1111

Notes (for Part C):

Op code (S format)

B202 – STIDP	B207 – STCKC	B20D – PTLB
B203 – STIDC	B208 – SPT	B210 – SPX
B204 – SCK	B209 – STPT	B211 – STPX
B205 – STCK	B20A – SPKA	B212 – STAP
B206 – SCKC	B20B – IPK	B213 – RRB

## 5.10.4 EBCDIC &amp; ASCII Code Translation Table — Part D

Dec.	Hex	Instruction (SS)	Graphics and Controls				7-Track Tape	Card Code	Binary
			BCDIC	EBCDIC (1)		ASCII	BCDIC (2)	EBCDIC	
192	C0		?	{			B A 8 2	12-0	1100 0000
193	C1		A	A	A		B A 1	12-1	1100 0001
194	C2		B	B	B		B A 2	12-2	1100 0010
195	C3		C	C	C		B A 2 1	12-3	1100 0011
196	C4		D	D	D		B A 4	12-4	1100 0100
197	C5		E	E	E		B A 4 1	12-5	1100 0101
198	C6		F	F	F		B A 4 2	12-6	1100 0110
199	C7		G	G	G		B A 4 2 1	12-7	1100 0111
200	C8		H	H	H		B A 8	12-8	1100 1000
201	C9		I	I	I		B A 8 1	12-9	1100 1001
202	CA							12-0-2-8-9	1100 1010
203	CB							12-0-3-8-9	1100 1011
204	CC			J				12-0-4-8-9	1100 1100
205	CD							12-0-5-8-9	1100 1101
206	CE			Y				12-0-6-8-9	1100 1110
207	CF							12-0-7-8-9	1100 1111
208	D0		!	}			B 8 2	11-0	1101 0000
209	D1	MVN	J	J	J		B 1	11-1	1101 0001
210	D2	MVC	K	K	K		B 2	11-2	1101 0010
211	D3	MVZ	L	L	L		B 2 1	11-3	1101 0011
212	D4	NC	M	M	M		B 4	11-4	1101 0100
213	D5	CLC	N	N	N		B 4 1	11-5	1101 0101
214	D6	OC	O	O	O		B 4 2	11-6	1101 0110
215	D7	XC	P	P	P		B 4 2 1	11-7	1101 0111
216	D8		Q	Q	Q		B 8	11-8	1101 1000
217	D9		R	R	R		B 8 1	11-9	1101 1001
218	DA							12-11-2-8-9	1101 1010
219	DB							12-11-3-8-9	1101 1011
220	DC	TR						12-11-4-8-9	1101 1100
221	DD	TRT						12-11-5-8-9	1101 1101
222	DE	ED						12-11-6-8-9	1101 1110
223	DF	EDMK						12-11-7-8-9	1101 1111
224	E0		‡	\			A 8 2	0-2-8	1110 0000
225	E1							11-0-1-9	1110 0001
226	E2		S	S	S		A 2	0-2	1110 0010
227	E3		T	T	T		A 2 1	0-3	1110 0011



## 5.10.4 EBCDIC &amp; ASCII Code Translation Table — Part D

Dec.	Hex	Instruction (SS)	Graphics and Controls			7-Track Tape BCDIC (2)	Card Code EBCDIC	Binary
			BCDIC	EBCDIC (1)	ASCII			
228	E4		U	U	U	A 4	0-4	1110 0100
229	E5		V	V	V	A 4 1	0-5	1110 0101
230	E6		W	W	W	A 4 2	0-6	1110 0110
231	E7		X	X	X	A 4 2 1	0-7	1110 0111
232	E8		Y	Y	Y	A 8	0-8	1110 1000
233	E9		Z	Z	Z	A 8 1	0-9	1110 1001
234	EA						11-0-2-8-9	1110 1010
235	EB						11-0-3-8-9	1110 1011
236	EC			rl			11-0-4-8-9	1110 1100
237	ED						11-0-5-8-9	1110 1101
238	EE						11-0-6-8-9	1110 1110
239	EF						11-0-7-8-9	1110 1111
240	F0	SRP	0	0	0	8 2	0	1111 0000
241	F1	MVO	1	1	1	1	1	1111 0001
242	F2	PACK	2	2	2	2	2	1111 0010
243	F3	UNPK	3	3	3	2 1	3	1111 0011
244	F4		4	4	4	4	4	1111 0100
245	F5		5	5	5	4 1	5	1111 0101
246	F6		6	6	6	4 2	6	1111 0110
247	F7		7	7	7	4 2 1	7	1111 0111
248	F8	ZAP	8	8	8	8	8	1111 1000
249	F9	CP	9	9	9	8 1	9	1111 1001
250	FA	AP		I			12-11-0-2-8-9	1111 1010
251	FB	SP					12-11-0-3-8-9	1111 1011
252	FC	MP					12-11-0-4-8-9	1111 1100
253	FD	DP					12-11-0-5-8-9	1111 1101
254	FE						12-11-0-6-8-9	1111 1110
255	FF						12-11-0-7-8-9	1111 1111

Notes (for Part D):

ANSI-Defined Printer Control Characters (A in RECFM field of DCB)

Code	Action before printing record
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blank	Space 1 line
0	Space 2 lines
-	Space 3 lines
+	Suppress space
1	Skip to line 1 on new page

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