



EXTERNAL INTERFACE SPECIFICATIONS DATA CAPTURE RECORD FORMATS

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Chapter 1

Related documentation

1.1 Applicable documents

This document describes the request and response record formats for Second Generation point of sale (POS) authorization devices using TSYS Acquiring Solutions Authorization Services. The following documents provide additional definition and background information. Refer to the related documents listed for applicable information.

1.2 Related TSYS Acquiring Solutions documents

Related TSYS Acquiring Solutions documents are listed in the table below.

Reference number	Name	Revision / generation	Related topic
EIS 1051	External Interface Specification	v3.2	Authorization Link Level Protocol
EIS 1052	External Interface Specification	v3.3	Data Capture Link Level Protocol
EIS 1080	External Interface Specification	v7.4.1	Authorization Record Formats

1.3 Document revisions

Table 1.1 Version 14.2 document revisions

Chapter	Section	Action	Data
Overview	2.1	Update	Updated description in Section 2.1
	2.2	Update	Updated Section 2.2 with a new diagram
Record types	3.1	Update	Updated descriptions in Section 3.1
	3.2	Update	Updated description in Section 3.2 and added subheadings for Section 3.2.1 through Section 3.2.20
	3.2.2	Update	Updated Developer ID and Gateway ID in Table 3.2
	3.2.6	Update	Updated POS Data Code in Table 3.6
Field definitions	4.29	Update	Updated Version ID to Application ID
	4.43	Update	Updated definition in Section 4.43 .
	4.220	Update	Updated Section 4.220 and Table 4.46

Table 1.2 Version 14.1 document revisions

Chapter	Section	Action	Data
Field definitions	4.105	Update	Updated POS Data Code subfield 9 values 5 and 6 in Section 4.105 .
	4.220	Update	Updated value X in subfield 1, value X and Y in subfield 7 and added value Z in subfield 7

Table 1.3 Version 14.0 document revisions

Chapter	Section	Action	Data
Record types	3.2	Add	Added Lane ID to group 11 in Table 3.2.6 NOTE: The Lane ID will not be effective until April 2016.
Field definitions	4.160	Add	Added new Lane ID Section 4.160 NOTE: The Lane ID will not be effective until April 2016.
Appendix A	7.2	Update	Updated the Description in Table 7.1 for Error date field number 55 NOTE: The Lane ID will not be effective until April 2016.

Table 1.4 Version 13.9 document revisions

Chapter	Section	Action	Data
Record types	3.2	Add	Added Lane ID to group 11 in Table 3.2.6
Field definitions	4.1	Add	Added code W in Table 4.1
	4.58	Add	Added ID Code G in Table 4.16
	4.160	Add	Added new Lane ID Section 4.160
		Remove	Removed section Terminal number override
Appendix A	7.2	Update	Updated the Description in Table 7.1 for Error date field number 55

Table 1.5 Version 13.8 document revisions

Chapter	Section	Action	Data
Record types	3.2	Update	Updated description in Section 3.2

Table 1.6 Version 13.7 document revisions

Chapter	Section	Action	Data
Record types	3.2	Update	Updated Table 3.2.12
Field definitions	4.3	Remove	Removed RCK from Table 4.2
	4.5	Update	Updated information in Section 4.5
	4.14	Update	Updated definition in Section 4.14

Table 1.7 Version 13.6 document revisions

Chapter	Section	Action	Data
Record types	3.2	Update	Updated Table 3.2.6
Field definitions	4.165	Add	Added information to Section 4.165

Table 1.8 Version 13.5 document revisions

Chapter	Section	Action	Data
Field definitions	4.196	Add	Added new indicator in Table 4.40

Table 1.9 Version 13.4 document revisions

Chapter	Section	Action	Data
Record types	3.2	Update	Updated Table 3.2.2 , Table 3.2.6 , Table 3.2.7 , Table 3.2.9 and Table 3.2.12

Chapter	Section	Action	Data
Field definitions	4.102	Add	Added new Section 4.102
	4.103	Update	Updated Section 4.103
	4.105	Update	Updated Subfield 9 in Section 4.105
	4.137	Add	Added new tags in Table 4.30
	4.194	Update	Updated Table 4.39
	4.197	Add	Added new Section 4.197
	4.223	Add	Added new Section 4.223
	4.227	Update	Updated Section 4.227
	4.230	Add	Added Table 4.49
	4.276	Add	Added new Section 4.276
	4.277	Add	Added new Section 4.277
	4.278	Add	Added new Section 4.278
	4.279	Add	Added new Section 4.279
	4.281	Add	Added new Section 4.281
	4.283	Add	Added new Section 4.283
	4.312	Add	Added new value of 7 in Table 4.65
	4.315	Update	Updated Section 4.315
Appendix A	7.4	Add	Added new Section 7.4
Appendix A	7.2	Update	Updated Section 7.2

Table 1.10 Version 13.3 document revisions

Chapter	Section	Action	Data
Record types	3.3	Update	Updated Section 3.3 and updated Table 3.21
Field definitions	4.3	Update	Updated ARC description in Table 4.2
Record format examples	5.1	Add	Added value in Content for Byte 12 in Table 5.21

Table 1.11 Version 13.2 document revisions

Chapter	Section	Action	Data
Field definitions	4.194	Add	Added information to Table 4.39

Table 1.12 Version 13.1 document revisions

Chapter	Section	Action	Data
Field definitions	4.220	Remove	Removed the value of 9- Unknown, data not available from SUBFIELD 5 and SUBFIELD 6 in Table 4.46

Table 1.13 Version 13.0 document revisions

Chapter	Section	Action	Data
Record types	3.2	Update	Updated Table 3.2.6
Field definitions	4.148	Add	Added new Section 4.148
	4.174	Add	Added new Section 4.174
Appendix B		Add	Added new Appendix B

Table 1.14 Version 12.3 document revisions

Chapter	Section	Action	Data
Field definitions	4.111	Update	Updated Section 4.111
	4.137	Add	Added Tag to Table 4.30
	4.180	Add	Added Section 4.180
	4.194	Update	Updated Section 4.194
	4.220	Add	Added information in Table 4.46
	4.312	Add	Added information in Table 4.65
Appendix A	7.2	Add	Added value in Section 7.2

Table 1.15 Version 12.2 document revisions

Chapter	Section	Action	Data
Record types	3.1	Update	Updated Section 3.1 Deleted Table 3.20 Batch response record for ADLL - good batch in Section 3.2

Chapter	Section	Action	Data
Field definitions	4.2	Add	Added Section 4.2
	4.137	Update	Updated Section 4.137
	4.220	Add	Added values to Table 4.46
	4.265	Update	Updated Table 4.54
	4.294	Add	Added Section 4.294
	4.295	Add	Added Section 4.295
			Deleted ADLL type (not available at this time) section
			Deleted Terminal application section
Record format examples	5.8	Update	Updated Table 5.8
			Deleted Trailer “GB” response record for ADLL (accepted) section
Appendix A	7.2	Add	Added value in Section 7.2

Table 1.16 Version 12.1 document revisions

Chapter	Section	Action	Data
Record format examples	5.7	Update	Updated Table 5.7

Table 1.17 Version 12.0 document revisions

Chapter	Section	Action	Data
Record types	3.2	Add	Added Table 3.2.11
Field definitions	4.75	Add	Added Table 4.18
	4.137	Update	Updated Table 4.30
	4.146	Add	Added Section 4.146
	4.167	Add	Added Section 4.167
	4.218	Update	Updated Table 4.45
	4.263	Update	Updated Section 4.263
	4.265	Add	Added Section 4.265
	4.277	Add	Added Section 4.277
	4.312	Update	Updated Section 4.312

Table 1.18 Version 11.2 document revisions

Chapter	Section	Action	Data
Record types	3.2	Update	Updated Table 3.2.2
Field definitions	4.134	Add	Added new Section 4.134
	4.220	Add	Added information to the note.
	4.230	Add	Added value to Table 4.49

Table 1.19 Version 11.2 document revisions

Chapter	Section	Action	Data
Record types	3.2	Update	Updated Table 3.2.6 and Table 3.2.9
Field definitions	4.1	Update	Updated Table 4.1
	4.13	Update	Updated Section 4.13
	4.20	Update	Updated Table 4.8
	4.52	Update	Updated Section 4.52
	4.105	Update	Updated Section 4.105
	4.106	Add	Added Section 4.106
	4.137	Update	Updated Table 4.30
	4.194	Add	Added Section 4.194
	4.209	Update	Updated Section 4.209
	4.220	Update	Updated Table 4.46
	4.306	Update	Updated Section 4.306
	4.324	Update	Updated Table 4.66
Appendix A	7.3	Update	Updated Section 7.3
Appendix A	7.2	Update	Updated Table 7.1

Table 1.20 Version 11.1 document revisions

Chapter	Section	Action	Data
Field definitions	4.220	Add	Added a note to Section 4.220

Table 1.21 Version 11.0 document revisions

Chapter	Section	Action	Data
Record types	3.2	Update	Updated Table 3.2.6 , Table 3.2.7 and Table 3.2.9 added Table 3.2.8
Field definitions	4.34	Add	Added new values to Table 4.11
	4.82	Add	Added note to Section 4.82
	4.137	Add	Added new tag to Table 4.30
	4.188	Add	Added new Section 4.188
	4.301	Add	Added new Section 4.301
	4.307	Add	Added new value to Table 4.62

Table 1.22 Version 10.2 document revisions

Chapter	Section	Action	Data
Record types	3.2	Update	Updated Table 3.2.7
Field definitions	4.82	Update	Updated Section 4.82
	4.220	Update	Updated Table 4.46 and removed the Y- NFC enabled mobile phone in subfield 6

Table 1.23 Version 10.1 document revisions

Chapter	Section	Action	Data
Record types	3.2	Update	Updated Table 3.2.6
Field definitions	4.20	Update	Updated Section 4.20
	4.34	Update	Updated Section 4.34
	4.74	Update	Updated Section 4.74
	4.169	Update	Updated Section 4.169
	4.178	Update	Updated Table 4.37
	4.220	Update	Updated Table 4.46

Table 1.24 Version 10.0.1 document revisions

Chapter	Section	Action	Data
Record types	3.1	Update	Updated Section 3.1
	3.2	Add	Added new Table 3.7 and Updated Table 3.2.14
Field definitions	4.1	Update	Updated Table 4.1
	4.29	Add	Added Section 4.29
	4.30	Add	Added Section 4.31
	4.31	Add	Added Section 4.32
	4.53	Add	Added Section 4.54
	4.58	Update	Updated Table 4.17
	4.82	Add	Added Section 4.83
	4.89	Add	Added Section 4.90
	4.114	Add	Added new sentence Section 4.114
	4.116	Add	Added new sentence Section 4.116
	4.117	Add	Added new sentence
	4.127	Add	Added Section 4.129
	4.148	Add	Added Section 4.148
	4.149	Add	Added Section 4.150
	4.150	Add	Added Section 4.151
	4.274	Add	Added Section 4.274
	4.285	Add	Added Section 4.285
	4.287	Add	Added Section 4.287
	4.290	Add	Added Section 4.290
	4.291	Add	Added Section 4.291
	4.306	Add	Added Section 4.306
	4.317	Add	Added Section 4.317
Appendix A		Add	Added new chapter Appendix A

Table 1.25 Version 10.0 document revisions

Chapter	Section	Action	Data
Record types	3.1	Update	Updated Section 3.1
	3.2	Add	Added new group to Table 3.2.2
Field definitions	4.100	Add	Added Section 4.100
	4.101	Add	Added and updated Section 4.21
	4.116	Update	Updated Table 4.26
	4.137	Add	Added new device code to Table 4.30
	4.306	Add	Added Section 4.306
	4.308	Add	Added Section 4.308
	4.324	Add	Added Section 4.324

Table 1.26 Version 9.0.1 document revisions

Chapter	Section	Action	Data
Overview	2.2	Update	Updated Figure 2.1 .
Record types	3.1	Add	Added new header Encrypted Transmission Block (ETB) Record
			Updated text in Table 3.1
			Added Table 3.2.4
			Added row to Table 3.2.6
			Added row to Table 3.18
Field definitions	4.110	Add	Added Section 4.110
	4.106	Add	Added Section 4.106
	4.107	Add	Added Section 4.107
	4.137	Update	Updated field in Table 4.33
	4.230	Add	Added new record type in Table 4.49
	4.230.1	Update	Updated Section 4.230.1 title to Group Map
	4.303	Add	Added Section 4.303

Chapter	Section	Action	Data
Record format examples	5.2	Add	Added Section 5.2
	5.7	Add	Added Section 5.7
	5.9	Add	Added Section 5.9
	5.10	Add	Added Section 5.10
Level III and Fleet message format examples	6.4	Update	Updated Section 6.4
	6.5	Update	Updated Section 6.5

Table 1.27 Version 9.0 document revisions

Chapter	Section	Action	Data
Record types	3.2	Add	Added Group 44 in Table 3.2.6 Added note following the header in Table 3.2.6 Added row 44 in Table 3.18
Field definitions	4.2 -4.16	Add	Added Section 4.2 through Section 4.16
	4.300	Add	Added two new values to Table 4.59

Table 1.28 Version 8.6 document revisions

Chapter	Section	Action	Data
Field definitions	4.34	Add	Added two new values to Table 4.12
	4.38	Update	Updated Section 4.38

Table 1.29 Version 8.5 document revisions

Chapter	Section	Action	Data
Record types	3.2	Add	Added new Group 4 and removed Group 3 in Table 3.2.2
Field definitions	4.36	Add	Added new Section 4.36
	4.134	Add	Added new Section 4.134
	4.137	Add	Added new row in Section 4.137
Level III and Fleet message format examples	6.6	Update	Updated Section 6.6

Table 1.30 Version 8.4 document revisions

Chapter	Section	Action	Data
Field definitions	4.89	Update	Updated Section 4.89
	4.137	Update	Updated Section 4.137

Table 1.31 Version 8.3 document revisions

Chapter	Section	Action	Data
Field definitions	4.34	Add	Added new Table 4.12
	4.89	Add	Added new Section 4.89
	4.137	Add	Added new field to the table in Section 4.137
	4.218	Add	Added new value to Table 4.46
	4.300	Add	Added new transaction codes to Table 4.59
Appendix A	7.2	Update	Updated table in Section 7.2

Table 1.32 Version 8.2.1 document revisions

Chapter	Section	Action	Data
Field definitions	4.300	Add	Added two new transaction codes to Table 4.59

Table 1.33 Version 8.2 document revisions

Chapter	Section	Action	Data
POS Check is no longer supported effective 4/17/09. All references to POS Check have been removed from the spec.			
Record types	3.2	Add	Added new groups (25-30) and removed group 15 in Table 3.2.6 .
		Add	Added new Table 3.10 , Table 3.2.12 and Table 3.2.13
		Update	Updated values in Table 3.18

Chapter	Section	Action	Data
Field definitions	4.24	Add	Added new description
	4.25	Add	Added new description
	4.26	Add	Added new description
	4.33	Add	Added two new values to Table 4.10
	4.34	Update	Updated the name of Section 4.34 from Approval Code to Approval / Authorization Code
	4.59	Update	Updated the name of Section 4.59 from Cardholder Reference ID to Cardholder Reference ID / Purchase Order Number
	4.65	Update	Updated the name of Section 4.65 from Cash Back to Cash Back Total
	4.88	Add	Added new description
	4.93	Add	Added new description
	4.101	Add	Added two new codes to Table 4.21
	4.102	Add	Added subsections 4.103.1 , 4.103.2 , 4.101.3 , and 4.101.4
	4.104	Add	Added new description
	4.108	Add	Added new description
	4.117	Add	Added a value to Table 4.26
	4.121	Add	Added new description
	4.147	Add	Added new description
	4.153	Add	Added new description
	4.155	Add	Added new description
	4.156	Add	Added new description
	4.158	Add	Added new description
	4.164	Add	Added new description
	4.165	Add	Added text
	4.179	Update	Added new value
	4.187	Add	Added new description

Chapter	Section	Action	Data
	4.189	Add	Added new description
	4.193	Add	Added new description
	4.193	Add	Added new description
	4.195	Add	Added new description
	4.195	Add	Added new description
	4.196	Add	Updated value 5 in Table 4.40
	4.202	Add	Added new description
	4.208	Add	Added new description
	4.222	Add	Added subsections 4.222.1 , 4.222.2 , 4.233.3 , 4.233.4 , and 4.233.5
	4.223	Add	Added new description
	4.227	Add	Added new description
	4.227	Add	Added subsections , 4.240.2 , 4.240.3 , and 4.228
	4.230	Add	Added two new values to Table 4.49
	4.255	Update	Updated Table 4.60
	4.255	Add	Added Table 4.255
	4.276	Add	Added new description
	4.292	Add	Added new description
	4.313	Add	Added new description
	4.315	Add	Added subsections , , and 4.327.3
	4.318	Add	Added new description
	4.321	Add	Added subsections 4.321.1 , 4.321.2 , and 4.321.3
	4.322	Add	Added subsections 4.322.1 and 4.322.2
	4.323	Add	Added new description
Level III and Fleet message format examples		Add	Add new chapter and removed the POS Check Services chapter

Table 1.34 Version 8.1 document revisions

Chapter	Section	Action	Data
Field definitions	4.137	Add	Added a value to Section 4.137
	4.187	Add	Added new section Merchant seller ID
	4.300	Add	Added transaction code Table 4.59

Table 1.35 Version 8.0 document revisions

Chapter	Section	Action	Data
Field definitions	4.34	Add	Added values to Table & Table 4.11 , added note to Section 4.34
	4.101	Add	Added codes to Table 4.21
	4.133	Add	Added Table 4.133 , Table 4.133 , Table 4.133 , and Table 4.133

Table 1.36 Version 7.7.2 document revisions

Chapter	Section	Action	Data
Record types	3.2	Add	Added values to Table 3.2.6 and Table 3.18 .
Field definitions	4.27	Add	Added new section Amex auto rental fields
	4.28	Add	Added new section Amex insurance fields
	4.178	Add	Added values to Table 4.37
	4.218	Add	Added values to Table 4.45

Table 1.37 Version 7.7.1 document revisions

Chapter	Section	Action	Data
Field definitions	4.209	Add	Added note

Table 1.38 Version 7.7 document revisions

Chapter	Section	Action	Data
Field definitions	4.34	Add	Added to Table 4.11
	4.137	Add	Added to second table in Section 4.137
	4.178	Add	Added to Table 4.37
	4.179	Add	Added new Section 4.179
	4.182	Update	Updated definition in Section 4.182
	4.209	Update	Updated definition in Section 4.209
	4.210	Update	Updated definition in Section 4.210
	4.220	Add	Added note
	4.223	Updated	Updated definition in Section 4.223
	4.226	Add	Added two notes
Record format examples	5.1	Update	Updated Table 5.1
	5.2	Update	Updated Table 5.3
	5.4	Update	Updated Table 5.4
Appendix A		Add	Added Appendix A

Table 1.39 Version 7.6.1 document revisions

Chapter	Section	Action	Data
Record types	3.2	Remove	Removed Domestic JCB from Table 3.2.6 and Table 3.18 in group 40
Field definitions	4.105	Remove	Removed Domestic JCB from heading and table headings
	4.324	Remove	Removed Domestic JCB from Table 4.66

Table 1.40 Version 7.6 document revisions

Chapter	Section	Action	Data
Record types	3.2	Add	Added to Table 3.2.6 in group 40 and 41

Chapter	Section	Action	Data
Field definitions	4.101	Add	Added device code to Table 4.21
	4.105	Update	Updated heading and table headings
	4.137	Add	Added Section 4.137
	4.30	Add	Added Section 4.137
	4.174	Add	Added note
	4.177	Add	Added note
	4.179	Add	Added note
	4.180	Add	Added note
	4.218	Add	Added Section 4.218
	4.220	Update	Updated table in section
	4.226	Update	Updated definition
	4.324	Add	Added value to Table 4.66

All revisions supporting release 7.5.1 are marked with change bars.

Table 1.41 Version 7.5.1 document revisions

Chapter	Section	Action	Data
Record types	Table 3.2.6	Add	Added value to Transaction detail record - optional data groups
	Table 3.2.16	Add	Added Table 3.2.16
	Table 3.18	Add	Added values to Batch response record - good batch
Field definitions	Table 4.35	Add	Added line item to Table 4.35 , Line item type field values
Field definitions	Table 4.56	Add	Added line item to Table 4.56 , TAA line item count values
Field definitions	4.70	Add	Added new definition - Charge item amount
	4.71	Add	Added new definition - Charge item quantity
	4.105	Add	Added new definition - Discover/PayPal miscellaneous fields
	4.216	Add	Added new definition - Partial shipment indicator
	4.239	Add	Added new definition - Requester name
	4.281	Add	Added new definition - Tax type applied
	4.299	Add	Added new definition - Total tax amount
	4.324	Add	Added a new field description to the Version number definition

Table 1.42 Version 7.5 document revisions

Chapter	Section	Action	Data
Field definitions	4.34	Add	Added new table Approval / authorization code - MasterCard Approval Codes
			Update the value of D - Visa Signature Preferred
Field definitions	4.196	Add	Added values- Moto/e-Commerce indicator

Table 1.43 Version 7.4 and 7.4.1 document revisions

Chapter	Section	Action	Data
Record types	3.2	Update	Added Group 38, Visa Miscellaneous Fields in Transaction detail record - optional data groups
Record types	3.2	Update	Added Group 38, Visa Miscellaneous Fields in Batch response record - good batch
Field definitions	4.52	Add	Added new section - Card product code
Field definitions	4.324	Update	Revised section - Version number

Table 1.44 Version 7.4 document revisions

Chapter	Section	Action	Data
Record types	3.2	Update	Changed Group 2 description in Transaction header - optional data groups
Record types	3.2	Add	Added Group 37, MasterCard Miscellaneous Fields in Transaction detail record - optional data groups
Record types	3.2	Add	Added Group 37 in Table 3.18 , Batch response record - good batch
Field definitions	4.172	Update	Added date information for credits
Field definitions	4.252	Add	Added new section: Service code
Field definitions		Deleted	Deleted Transtain section
Field definitions	4.324	Add	Added new section: Version number
Record format examples	5.4	Update	Updated section and table name: Header record (hotel/auto rental/card not present)

Table 1.45 Version 7.3.2 document revisions

Chapter	Section	Action	Data
All	All	Update	Updated language to reflect Vital Processing Services name change to TSYS Acquiring Solutions.
Field definitions	4.224.3	Add	Added comment to hotel folio number, section 4.170.3.

Chapter 2 Overview

2.1 Introduction

This document describes the settlement request and response record formats for a Second Generation (Gen2) point of sale (POS) authorization terminal using TSYS Acquiring Solutions Data Capture Services. Refer to the EIS 1052 for information concerning link-level communication protocol.

[Figure 2.1](#) represents the sequence of data capture settlement formats with a subsequent batch response from the TSYS Acquiring Solutions host. Items in bold font indicate required records. All other records are conditional depending on transaction usage.

2.2 Data capture batch and response records

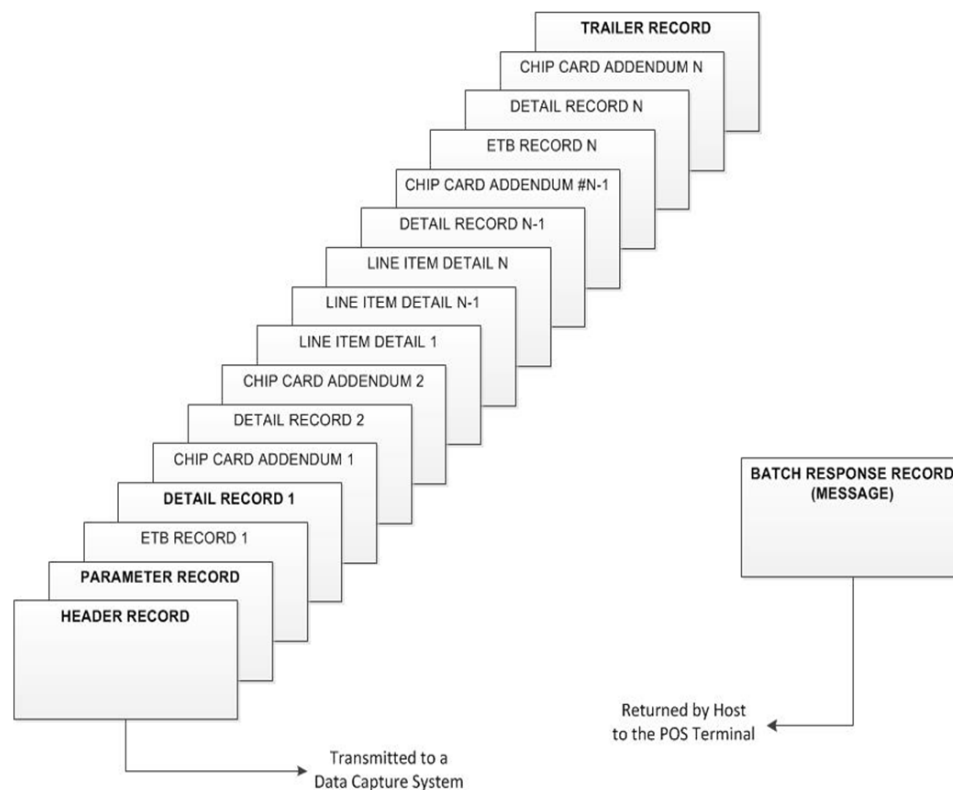


Figure 2.1 Data capture settlement formats

Chapter 3

Record types

3.1 Introduction

This section provides a general description of the message formats utilized during the batch settlement process. Information and specific examples are also provided concerning the actual structuring of settlement message format.

Header Record

The Batch Header record is required and contains data fields related to Bank and Network operational parameters and must be the first packet transmitted during the batch settlement process. The Batch Header record must be framed beginning with a Start-of-Text <STX> character and terminated with an End-of-Transmission Block <ETB> character.

Parameter Record

The Batch Parameter record is required and contains data fields related to the Merchant site and must be the second packet transmitted during the batch settlement process. The Batch Parameter record must be framed beginning with a Start-of-Text <STX> character and terminated with an End-of-Transmission Block <ETB> character.

Encrypted Transmission Block (ETB) Record

The ETB record is conditionally required and contains data fields related to the ETB for a grouping of transactions. It is required if the POS Device is utilizing a TSYS encryption solution. Today the only option available for TSYS encryption via Gen2 is Voltage Encryption. Other options may become available in the future Every Detail record after the Encrypted Transmission Block record (if encrypted) will use the ETB contained in the Encrypted Transmission Block record for decryption. If there are multiple ETBs used within a batch, then the Encrypted Transmission Block record must be included before the Detail record where the ETB is changed.

Here is an example of the sequence for submission of a batch with multiple ETBs. Please refer to [Figure 2.1](#) for a graphical explanation of record location.

HEADER
PARAMETER
ETB 1
DETAIL 1
DETAIL 2
DETAIL N
ETB 2
DETAIL N + 1
DETAIL N + 2
DETAIL N + N
TRAILER

Gen2 Authentication is required in order to use Encryption or Tokenization. Refer to Transaction header record, optional data group 4.

Detail Record

The Batch Detail record is required and contains data fields related to individual transaction requests. Detail records must be transmitted between Parameter and Trailer records during the batch settlement process. There is no limit to the number of Detail records that can be settled in a batch. All Batch Detail records must be framed beginning with a Start-of-Text <STX> character and terminated with an End-of-Transmission Block <ETB> character.

Chip Card Addendum Record

The Chip Card Addendum record is conditionally required and contains data fields related to a Chip Card or EMV transaction. If the transaction contains Chip Data, this record is required and follows a Detail Record. Please refer to [Figure 2.1](#) for a graphical explanation of record location.

Line Item Detail Record

The Line Item Detail Record is conditionally required and contains non-repeating data fields related to the informational aspects of a transaction. If present, the Line Item Detail Record follows either the Detail Record or the Chip Card Addendum Record. Each Line Item Detail Record will contain a Line Item Type associated with it, to differentiate the types of line items. Line Item Detail records are submitted only as addendum records to a base Detail Record containing the one-time occurring transaction information. The number of Line Item Detail records associated with a given Detail record is currently limited by the Line Item type. All records must be framed beginning with a Start-of-Text <STX> character and terminated with an End-of-Transmission Block <ETB> character. Please refer to [Figure 2.1](#) for a graphical explanation of record location.

Trailer Record

The Batch Trailer record is required and contains batch accumulator information necessary to conclude the batch settlement process. The Batch Trailer record must be framed with Start-of-Text <STX> and End-of-Text <ETX> characters.

Batch Response Record

The Batch Response record is sent by the host back to the point-of-sale. It contains the status of the batch submitted for settlement. The Batch Response record will be framed with Start-of-Text <STX> and End-of-Text <ETX> characters. The batch response record will normally be returned in response to the Batch Trailer record. However, this response can be returned in response to any settlement records (Header, Parameter, or Detail) if errors are detected.

3.2 Record structure

The general message format construct applies a “building block” concept whereby a fundamental base group of required data fields is provided in every message format structure. Appended to this base group can be one or more optional data fields (logically associated in groups). The necessity of any one or more Optional Data Groups (ODG) is generally related to industry or card type. The rules governing which optional data groups can be combined in a record format are described further in this section.

The following illustration provides an example of how message format components are assembled. The message formats contained in the last section provide specific examples of frequently utilized base and optional data groupings. These examples should not be interpreted as the full range of grouping possibilities.

Start-of-text <STX>
Base Group
Optional Data Group (N)
Optional Data Group (N + 1)
Optional Data Group (N + 2)
Termination Character <ETB>/<ETX>
Longitudinal Redundancy Check <LRC>

Tables [3.1](#) through [3.2.20](#) provide general information on the composition of each settlement record type.

WARNING: Header and Detail records are currently the only settlement formats for which optional (addendum) data groups can be appended. Batch Parameter and Batch Trailer records currently consist of only base group elements.

3.2.1 Transaction header- base group

Table 3.1 Transaction header record - base group

Group	Field	Length	Format	Reference	Content
0	Header Record				
		1	A/N	4.229	Record Format
		1	NUM	4.33	Application Type
		1	A/N	4.191	Message Delimiter
		1	A/N	4.327	X.25 Routing ID
		5	A/N	4.230	Record Type
		6	NUM	4.2	Acquirer BIN
		6	NUM	4.22	Agent Bank Number
		6	NUM	4.23	Agent Chain Number
		12	NUM	4.186	Merchant Number
		4	NUM	4.269	Store Number

Group	Field	Length	Format	Reference	Content
		4	NUM	4.289	Terminal Number
		1	A/N	4.101	Device Code
		1	A/N	4.142	Industry Code
		3	NUM	4.86	Currency Code
		2	NUM	4.160	Language Indicator
		3	NUM	4.293	Time Zone Differential
		4	NUM	4.46	Batch Transmission Date (MMDD)
		3	NUM	4.42	Batch Number
		1	NUM	4.47	Blocking Indicator

3.2.2 Transaction header - optional data groups

Table 3.2 Transaction header record - optional data groups

Group	Field	Length	Format	Reference	Content
ODG1	Passenger Travel				
		8	A/N	4.306	Travel Agency Code
		25	A/N	4.310	Travel Agency Name
ODG2	Hotel, Auto Rental, and Card not Present				
		11	A/N	4.184	Merchant Local Telephone No.
		11	A/N	4.61	Cardholder Service Telephone No.
ODG3	Opt Blue PSP/ Aggregator				
		12	A/N	4.223	PSP/ Aggregator Name
ODG4	Gen2 Authentication Genkey (Only for Gen2 Authentication participants)				
		24	ASCII	4.134	Genkey
ODG5	Developer ID - This group is mandatory effective March 1, 2016				
		6	A/N	4.100	Developer ID
		4	A/N	4.29	Application ID
ODG6	Gateway ID				
		10	A/N	4.134	Gateway ID

3.2.3 Transaction parameter record - base group

Table 3.3 Transaction parameter record - base group (no optional data groups)

Group	Field	Length	Format	Reference	Content
0	Parameter Record				
		1	A/N	4.229	Record Format
		1	NUM	4.33	Application Type
		1	A/N	4.191	Message Delimiter
		1	A/N	4.327	X.25 Routing ID
		5	A/N	4.230	Record Type
		3	NUM	4.79	Country Code
		9	A/N	4.75	City Code
		4	NUM	4.180	Merchant Category Code
		25	A/N	4.51.1	Merchant Name
		13	A/N	4.51.2 4.61	Merchant City or Cardholder Service Phone Number
		2	A/N	4.51.3	Merchant State/Province
		5	A/N	4.185	Merchant Location Number
		8	NUM	4.288	Terminal ID Number

3.2.4 Encrypted transmission block record

Table 3.4 Encrypted Transmission Block Record

Group	Field	Length	Format	Reference	Contents
0	Encrypted Transmission Block				
		1	A/N	4.229	Record Format
		1	NUM	4.33	Application Type
		1	A/N	4.191	Message Delimiter
		1	A/N	4.327	X.25 Routing ID
		5	A/N	4.230	Record Type
		1	A/N	4.112	Encryption Type
		5	NUM	4.111	Encryption Data Size

Group	Field	Length	Format	Reference	Contents
		VAR	A/N	4.110	Encrypted Transmission Block

3.2.5 Transaction detail record- base group

Table 3.5 Transaction detail record - base group

Group	Field	Length	Format	Reference	Contents
0	Detail Base Group				
		1	A/N	4.229	Record Format
		1	NUM	4.33	Application Type
		1	A/N	4.191	Message Delimiter
		1	A/N	4.327	X.25 Routing ID
		5	A/N	4.230	Record Type
		2	A/N	4.300	Transaction Code
		1	A/N	4.58	Cardholder Identification Code
		1	A/N	4.1	Account Data Source
		22	A/N	4.56	Cardholder Account Number
		1	A/N	4.238	Requested ACI
		1	A/N	4.248	Returned ACI
		1	A/N	4.37	Authorization Source Code
		4	NUM	4.303	Transaction Sequence Number
		2	A/N	4.240	Response Code
		6	A/N	4.34	Approval Code
		4	NUM	4.172	Local Transaction Date (MMDD)
		6	NUM	4.173	Local Transaction Time (HHMMSS)
		1	A/N	4.21	AVS Result Code
		15	A/N	4.301	Transaction Identifier
		4	A/N	4.320	Validation Code
		1	A/N	4.325	Void Indicator

Group	Field	Length	Format	Reference	Contents
		2	NUM	4.305	Transaction Status Code
		1	A/N	4.232	Reimbursement Attribute
		12	NUM	4.255	Settlement Amount
		12	NUM	4.38	Authorized Amount

3.2.6 Transaction detail record - optional data groups

Table 3.6 Transaction detail record - optional data groups

NOTE For Groups 8 & 22: Group 8 represents a previous implementation for Non T&E Commercial Card Level II. Group 22 contains the correct length for the "Customer Reference ID (17 characters)". All new implementations must use Group 22.

Group	Field	Length	Format	Reference	Content
ODG1	Cash Back				
		12	NUM	4.64	Cash Back Amount
ODG2	Restaurant				
		12	NUM	4.136	Gratuity Amount
ODG3	Direct Marketing				
		12	NUM	4.294	Total Authorized Amount
		1	A/N	4.225	Purchase Identifier Format Code
		25	A/N	4.223	Purchase Identifier
ODG4	Auto Rental				
		12	NUM	4.294	Total Authorized Amount
		1	A/N	4.225	Purchase Identifier Format Code
		25	A/N	4.223	Purchase Identifier
		1	A/N	4.178	Market Specific Data Identifier
		1	A/N	4.206	No Show Indicator
		6	A/N	4.122.1	Extra Charges
		6	NUM	4.233	Rental Date (YYMMDD)
ODG5	Hotel				
		12	NUM	4.294	Total Authorized Amount

Group	Field	Length	Format	Reference	Content
		1	A/N	4.225	Purchase Identifier Format Code
		25	A/N	4.223	Purchase Identifier
		1	A/N	4.178	Market Specific Data Identifier
		1	A/N	4.206 4.264	No Show or Special Program Ind.
		6	A/N	4.122	Extra Charges
		6	NUM	4.73	Check-in Date (YYMMDD)
ODG6	Hotel - Not Front Desk (Non-Lodging Purchase)				
		4	NUM	4.182	Merchant Category Code Override
ODG7	Hotel - American Express				
		1	A/N	4.72	Charge Type
		6	NUM	4.74	Checkout Date (YYMMDD)
		2	NUM	4.266	Stay Duration
		12	NUM	4.177	Lodging Room Rate
ODG8	Non-T&E Commercial Card Level II (Visa and MasterCard Only)				
		1	A/N	4.210	Optional Amount Identifier
		12	NUM	4.209	Optional Amount
		16	A/N	4.226	Purchase Order Number
ODG9	Passenger Transport (Visa Only)				
		1	A/N	4.241	Restricted Ticket Indicator
		2	NUM	4.199	Multiple Clearing Sequence Number
		2	NUM	4.197	Multiple Clearing Sequence Count
		13	A/N	4.292	Ticket Number
		20	A/N	4.217	Passenger Name
		6	NUM	4.94	Departure Date (MMDDYY)
		3	A/N	4.213	Origination City/Airport Code
		7	A/N	4.311	Trip Leg 1 Information

Group	Field	Length	Format	Reference	Content
		7	A/N	4.311	Trip Leg 2 Information
		7	A/N	4.311	Trip Leg 3 Information
		7	A/N	4.311	Trip Leg 4 Information
ODG10	Direct Debit				
		12	A/N	4.246	Retrieval Reference Number
		6	NUM	4.273	System Trace Audit Number
		1	A/N	4.204	Network Identification Code
		4	NUM	4.256	Settlement Date (MMDD)
ODG11	Lane ID				
		8	NUM	4.160	Lane ID
ODG12	Direct Marketing - Installment or Recurring Payments				
		2	NUM	4.199	Multiple Clearing Sequence Number
		2	NUM	4.197	Multiple Clearing Sequence Count
		1	A/N	4.196	MOTO/e-Commerce Indicator
ODG13	Auto Rental				
		20	A/N	4.237	Renter Name
		18	A/N	4.234	Rental Return City
		3	A/N	4.236	Rental Return State/Country
		10	A/N	4.235	Rental Return Location ID
ODG14	Service Development Indicator				
		1	NUM	4.254	Service Development Indicator
ODG16	Existing Debt Indicator (Visa Only)				
		1	NUM	4.120	Existing Debt Indicator
ODG17	Universal Cardholder Authentication				
		1	A/N	4.312	UCAF Collection Indicator
ODG18	e-Commerce Goods Indicator				
		2	A/N	4.109	e-Commerce Goods Indicator
ODG19	CCS Private Label Restricted for CCS use only (Mandatory for Private Label transactions)				

Group	Field	Length	Format	Reference	Content
		5	NUM	4.81	Credit Plan Number (Not Null)
		4	A/N	4.222	Product Code 1
		4	A/N	4.222	Product Code 2
		4	A/N	4.222	Product Code 3
		4	A/N	4.222	Product Code 4
		4	A/N	4.222	Product Code 5
		3	NUM	4.212	Org. ID (Not Null)
		9	NUM	4.268	Store Code (Not Null)
		6	NUM	4.228	Receiving Institution ID ("911111")
	This group will be mandatory for all Citi Commerce Solutions Private Label detail Records.				
	The existence of this group will determine that this transaction will be placed in the CCS specific 256 file and the contents of this field will be used to populate the Financial Data addendum record in the 256 file.				
	This group cannot be combined with any other optional groups as part of a financial transaction.				
	The Credit Plan Number, Org. ID, and Store Code cannot be blank. The batch will be rejected if any of these fields are left blank.				
	The Receiving Institution ID field should always be populated with a constant value of "911111."				
ODG20	Merchant Verification Value				
		10	A/N	4.190	Merchant Verification Value
ODG21	American Express Corporate Purchasing Card				
		9	A/N	4.272	Supplier Reference Number
		17	A/N	4.60	Cardholder Reference Number
		6	A/N	4.263	Shipped To ZIP Code
		6	N	4.249	Sales Tax
		40	A/N	4.66	Charge Descriptor 1
ODG22	U.S. Only Non-T&E Commercial Card Level II (Visa and MasterCard)				
		1	A/N	4.210	Optional Amount Identifier
		12	NUM	4.209	Optional Amount

Group	Field	Length	Format	Reference	Content
		17	A/N	4.226	Purchase Order No. - Customer Ref. ID
ODG23	Group Map Extension (Group 25 - 48) Reserved				
		4	A/N	4.230	Record Type @@@@
ODG24	Reserved (POS-partner) Use Only				
ODG25	Commercial Card / Level II (Non-T&E and Fleet Non-fuel)				
		12	NUM	4.294	Total Authorized Amount
		1	A/N	4.225	Purchase Identifier Format Code
		25	A/N	4.223	Purchase Identifier
		1	NUM	4.171	Local Tax Included Flag
		12	NUM	4.170	Local Tax
		1	NUM	4.201	National Tax Included Flag
		12	NUM	4.200	National Tax Amount
		17	A/N	4.226	Purchase Order No. / Cust. Ref. ID
ODG26	Visa Card Enhanced Data (Non-T&E and Fleet Non-fuel)				
		20	A/N	4.189	Merchant VAT Registration Number
		13	A/N	4.88	Customer VAT Registration Number
		4	A/N	4.270	Summary Commodity Code
		12	NUM	4.102	Discount Amount
		12	NUM	4.131	Freight Amount
		12	NUM	4.108	Duty Amount
		10	A/N	4.99	Destination Postal / ZIP Code
		10	A/N	4.257	Ship from Postal / ZIP Code
		3	A/N	4.98	Destination Country Code
		15	A/N	4.313	Unique VAT Invoice Reference Number
		6	NUM	4.211	Order Date
		12	NUM	4.321	VAT / Tax Amount (Freight/Shipping)

Group	Field	Length	Format	Reference	Content
		4	NUM	4.322	VAT / Tax Rate (Freight/Shipping)
		3	NUM	4.165	Line Item Count
ODG27	MasterCard Enhanced Data (Non-T&E and Fleet Non-fuel)				
		12	NUM	4.131	Freight Amount
		12	NUM	4.108	Duty Amount
		10	A/N	4.99	Destination Postal / Zip Code
		10	A/N	4.257	Ship From Postal / Zip Code
		3	A/N	4.98	Destination Country Code
		1	A/N	4.25	Alternate Tax Amount Indicator
		9	NUM	4.24	Alternate Tax Amount
		3	NUM	4.165	Line Item Count
ODG28	Not used				
ODG29	Canadian Tax Item Count				
		1	NUM	4.165	Line Item Count
ODG30	American Express CPC Charge Descriptors				
		40	A/N	4.67	Charge Descriptor 2
		40	A/N	4.68	Charge Descriptor 3
		40	A/N	4.69	Charge Descriptor 4
ODG31	Market Specific Data Indicator				
		1	A/N	4.178	Market Specific Data Indicator
ODG32	POS Data Code - This group is mandatory effective March 1, 2016				
		12	A/N	4.220	POS Data Code
ODG33	Retail Transaction Advice Addenda				
		40	A/N	4.242	Retail Department Name
ODG34	Lodging Transaction Advice Addenda				
		26	A/N	4.176	Lodging Renter Name

Group	Field	Length	Format	Reference	Content
ODG35	Transaction Advice Line Item Counts				
		3	NUM	4.275	TAD Line Item Count
		3	NUM	4.274	TAA Line Item Count
ODG36	Location Detail Transaction Advice Addenda				
		38	A/N	4.174	Location Detail Name
		38	A/N	4.174	Location Detail Address
		21	A/N	4.174	Location Detail City
		3	A/N	4.174	Location Detail Region Code
		3	A/N	4.174	Country Code
		15	A/N	4.174	Location Detail Postal Code
ODG37	MasterCard Miscellaneous Fields				
		3	NUM	4.324	Version Number
		3	A/N	4.252	Service Code
ODG38	Visa Miscellaneous Fields				
		3	NUM	4.324	Version Number
		2	A/N	4.52	Card product code
ODG39	Amex CAPN Corporate Purchasing Solution Extension				
		38	A/N	4.239	Requester Name
		12	Num	4.299	Total Tax Amount
		3	Num	4.281	Tax Type Code
ODG40	Discover/ PayPal Miscellaneous Fields				
		3	Num	4.324	Version Number
		13	A/N	4.105	Discover/ PayPal POS Data Code
		1	A/N	4.216	Partial Shipment Indicator
ODG41	Detail Extension				
		4	Num	4.30	Group Length
		Variable	A/N	4.137	Group Fields
	ODG 41 Tag Description				
	TAG	Max size	Format	Reference	Content/Description

Group	Field	Length	Format	Reference	Content
	OAI	1	A/N	4.210	Optional Amount Identifier
	OA	12	NUM	4.209	Optional Amount
	PON	25	A/N	4.226	Purchase Order Number
	PTI	3	NUM	4.218	Payment Transaction Indicator
	IIA	1	A/N	4.179	MC IIAS Indicator
	SID	20	A/N	4.187	Merchant Seller ID
	CDV	82	A/N	4.89	Custom Identifier Detail
	ATS	10	NUM	4.36	Association Timestamp
	TTT	2	NUM	4.307	Transit Transaction Type Indicator
	TMI	2	NUM	4.308	Transportation Mode Indicator
	TFA	9	A/N	4.301	Transaction Fee Amount with Indicator
	MDO	1	A/N	4.106	Domain Server
	MDE	2	A/N	4.194	Mobile Device Type
	DTC	1	A/N	4.146	Invoice Level Discount Treatment Code
	TTC	1	A/N	4.277	Tax Treatment Code
	SQI	1	A/N	4.265	Spend Qualified Indicator
	TAL	2	A/N	4.294	Token Assurance Level
	TRI	11	A/N	4.295	Token Requestor ID
	ARS	1	A/N	4.2	Account Range Status
	WID	3	A/N	4.180	MasterCard Wallet Identifier
	ISO	11	NUM	4.148	ISO ID
	PFI	11	NUM	4.218	Payment Facilitator ID NOTE: The presence of this tag requires use of the SMI TAG as well as Usage 2 of ODG 36 “Location Detail Transaction Advice Addenda.”

Group	Field	Length	Format	Reference	Content
	SMI	15	A/N	4.270	Sub-Merchant ID NOTE: The presence of this tag requires use of the PFI TAG as well as Usage 2 of ODG 36 "Location Detail Transaction Advice Addenda."
ODG42	Amex Auto Rental				
		14	A/N	4.27.1	Amex Auto Rental Agreement Number
		38	A/N	4.27.2	Amex Auto Rental Pickup Location
		18	A/N	4.27.3	Amex Auto Rental Pickup City Name
		3	A/N	4.27.4	Amex Auto Rental Pickup Region Code
		3	A/N	4.27.5	Amex Auto Rental Pickup Country Code
		8	NUM	4.27.6	Amex Auto Rental Pickup Date
		6	NUM	4.27.7	Amex Auto Rental Pickup Time
		18	A/N	4.27.8	Amex Auto Rental Return City Name
		3	A/N	4.27.9	Amex Auto Rental Return Region Code
		3	A/N	4.27.10	Amex Auto Rental Return Country Code
		8	NUM	4.27.11	Amex Auto Rental Return Date
		6	NUM	4.27.12	Amex Auto Rental Return Time
		26	A/N	4.27.13	Amex Auto Rental Renter Name
		4	A/N	4.27.14	Amex Auto Rental Vehicle Class ID
		5	NUM	4.27.15	Amex Auto Rental Distance
		1	A/N	4.27.16	Amex Auto Rental Distance Unit of Measurement
		1	A/N	4.27.17	Amex Auto Rental Audit Adjustment Indicator

Group	Field	Length	Format	Reference	Content
		12	NUM	4.27.18	Amex Auto Rental Audit Adjustment Amount
ODG43	Amex Insurance				
		23	A/N	4.28.1	Policy Number
		8	NUM	4.28.2	Coverage Start Date
		8	NUM	4.28.3	Coverage End Date
		7	A/N	4.28.4	Policy Premium Frequency
		23	A/N	4.28.5	Additional Insurance Policy Number
		25	A/N	4.28.6	Type of Policy
		30	A/N	4.28.7	Name of Insured
ODG44	ACH-TSYS Internal Use Only				
		3	A/N	4.2	ACH SEC Code
		9	NUM	4.4	ACH Routing Number
		15	A/N	4.5	ACH Check Number
		22	A/N	4.6	ACH Individual Name
		10	A/N	4.7	ACH Individual Reference ID
		10	A/N	4.8	ACH Telephone Number
		4	A/N	4.9	ACH Terminal City
		2	A/N	4.10	ACH Terminal State
		1	NUM	4.11	ACH Prenote Indicator
		1	A/N	4.12	ACH Checking/ Savings Indicator
		1	A/N	4.13	ACH Payment Type Indicator
		1	A/N	4.14	ACH Presentment Information
		1	A/N	4.15	ACH Returned Check Indicator
		1	A/N	4.16	ACH Check Reversal Indicator
ODG45	Transaction Security Indicator				
		1	A/N	4.303	Transaction Security Indicator
ODG46	Merchant Soft Descriptor				
		25	A/N	4.188	Merchant Soft Descriptor

3.2.7 Chip card addendum record

Table 3.7 Chip card addendum record

V	M	A	D	Length	Format	Reference	Contents
				1	A/N	4.229	Record Format
				1	NUM	4.33	Application Type
				1	A/N	4.191	Message Delimiter
				1	A/N	4.327	X.25 Routing ID
				5	A/N	4.230	Record Type
R	R	R	R	2	A/N	4.306	Transaction Type
R	R	R	R	6	NUM	4.290	Terminal Transaction Date
R	R	R	R	10	A/N	4.291	Terminal Verification Results
R	R	R	R	3	NUM	4.287	Terminal Currency Code
R	R	R	R	4	A/N	4.32	Application Transaction Counter
R	R	R	R	4	A/N	4.31	Application Interchange Profile
R	R	R	R	16	A/N	4.29	Application Cryptogram
R	R	R	R	8	A/N	4.317	Unpredictable Number
R	C	R	C	64	A/N	4.148	Issuer Application Data
R	R	R	O	2	A/N	4.83	Cryptogram Information Data
R	O	O	R	6	A/N	4.285	Terminal Capability Profile
C	C	R	R	3	NUM	4.54	Card Sequence Number
O	O	O	R	32	A/N	4.150	Issuer Authentication Data
O	R	O	O	6	A/N	4.90	CVM Results
R	O	O	C	50	A/N	4.151	Issuer Script Results
R	O	O	O	8	A/N	4.129	Form Factor Identifier

Key:

The "V", "M", "A", and "D" fields indicate card brand usage. A "V" means Visa. An "M" means MasterCard. An "A" means American Express. A "D" means Discover. The values under these headers indicate the requirements for the card brands. An "R" means Required, a "C" means Conditional (if it was included in the Auth, it should be included in the Capture), an "O" means Optional.

If a data element is optional and data is not sent, the field must be space or zero filled according to the data type of data element. If a data element is optional and data is sent, it must be of the correct length and format.

The Chip Card addendum record is optional for Visa transactions. If it is sent, it must contain all required data elements. It is required on MC, Amex, and Discover transactions.

NOTE: Incorrect formatting could result in an edit error and the batch could be rejected.

3.2.8 Chip card addendum record - optional data groups

Table 3.8 Chip card addendum record - optional data groups

Group	Field	Length	Format	Reference	Content
1	Cryptogram Amount				
		12	N	4.82	Cryptogram Amount

NOTE: ODG 1 should only be sent when the ARQC is sent in the Cryptogram field. If a TC cryptogram is sent in the Chip Card Addendum record this data group should not be sent .

3.2.9 Invalid group combinations

Table 3.9 Invalid group combinations

Group	Description	NOT Valid with Group	Comments
1	Cash back	2, 3, 12, 17, 18, 19, 25, 26, 27, 28, 29	
2	Restaurant	1, 4, 9, 13, 15, 17, 18, 19, 25, 26, 27, 28, 29, 33, 34, 42, 43	
3	Direct Marketing	1, 4, 5, 6, 7, 10, 13, 15, 19, 25, 26, 27, 28, 29, 34, 42, 43	
4	Auto Rental	2, 3, 5, 6, 7, 9, 10, 12, 15, 17, 18, 19, 25, 26, 27, 28, 29, 31, 33, 34, 35, 43	
5	Hotel	3, 4, 9, 10, 12, 13, 15, 17, 18, 19, 21, 25, 26, 27, 28, 29, 31, 33, 42, 43	
6	Hotel Non-Front Desk	3, 4, 9, 10, 12, 13, 15, 17, 18, 19, 21, 25, 26, 27, 28, 29, 31, 33, 42, 43	
7	Hotel AMEX	3, 4, 9, 10, 12, 13, 15, 17, 18, 19, 21, 25, 26, 27, 28, 29, 31, 33, 42, 43	
8	Visa Purchasing Card	10, 15, 18, 19, 21, 22, 25, 26, 27, 28, 29	

Group	Description	NOT Valid with Group	Comments
9	Passenger Transport	2, 4, 5, 6, 7, 10, 13, 15, 17, 18, 19, 25, 26, 27, 28, 29, 33, 34, 35, 42, 43	
10	Direct Debit	3, 4, 5, 6, 7, 8, 9, 12, 13, 17, 18, 19, 21, 22, 25, 26, 27, 28, 29, 34, 42, 43	
11	Multi-Terminal Stores	15, 19, 25, 26, 27, 28, 29	
12	Direct Marketing Install	1, 4, 5, 6, 7, 10, 13, 15, 19, 29, 34, 42, 43	Not valid without Group 3 or 25.
13	Auto Rental MasterCard	2, 3, 5, 6, 7, 9, 10, 12, 15, 17, 18, 19, 25, 26, 27, 28, 29, 31, 33, 34, 35, 42, 43	Not valid without Group 4.
14	Service Dev. Indicator	15, 19, 25, 26, 27, 28, 29	
15	Check Service	2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 17, 18, 19, 21, 22, 25, 26, 27, 28, 29, 34, 42, 43	The only allowable combinations are: 1 & 10; 10; 1, 10, & 20; or 10 & 20
16	Existing Debt Indicator	None	Available to ALL groups
17	Universal Cardholder Authentication Field	1, 2, 4, 5, 6, 7, 9, 10, 13, 15, 19, 34, 42, 43	
18	EC Goods Indicator	1, 2, 4, 5, 6, 7, 8, 9, 10, 13, 15, 19, 34, 42, 43	
19	Private Label	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 21, 22, 25, 26, 27, 28, 29, 31, 33, 34, 35, 42, 43	
20	Merchant Verification Code	None	Available to ALL Groups
21	AMEX Purchase Card	5, 6, 7, 8, 10, 15, 19, 22, 25, 26, 27, 28, 29, 31, 33, 34, 42, 43	
22	Commercial Card Level 2	8, 10, 15, 19, 21, 25, 26, 27, 28, 29	
23	Group Map Extension	None	Signifies Groups 25-48 present, holds the BITMAP for extended groups.
24	INVALID (Reserved for POS-Partner)	N/A	Reserved for POS-PARTNER only, and cannot be used.
25	Commercial Card Non-T&E / Level II	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 19, 21, 22, 29, 31, 33, 34, 35, 42, 43, 46	
26	Visa Card Enhanced Data / Level III	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 19, 21, 22, 27, 29, 31, 33, 34, 35, 42, 43, 46	Not allowed without Group 25.
27	MasterCard Enhanced Data / Level III	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 19, 21, 22, 26, 28, 29, 31, 33, 34, 35, 42, 43, 46	Not allowed without Group 25.

Group	Description	NOT Valid with Group	Comments
28	Unused	N/A	Unused
29	Canadian Tax Item Count	N/A	Allowed with all groups
30	Amex CPC Charge Descriptors	8, 10, 15, 19, 22, 25, 26, 27, 28, 29, 31, 42, 43	Not allowed without Group 21.
31	Market Specific Data Indicator	4, 5, 6, 7, 13, 19, 21, 25, 26, 27, 28, 29, 30	
32	POS Data Code	None	Available to ALL groups
33	Retail Transaction Advice Addenda	2, 4, 5, 6, 7, 9, 13, 19, 21, 25, 26, 27, 28, 29, 34, 42, 43	Amex Only
34	Lodging Transaction Advice Addenda	2, 3, 4, 10, 12, 13, 15, 17, 18, 19, 21, 25, 26, 27, 28, 29, 33, 42, 43	Amex Only
35	Transaction Advice Line Item Counts	4, 9, 13, 15, 17, 18, 19, 25, 26, 27, 28, 29, 42, 43	Amex Only
36	Location Detail Transaction Advice Addenda	None	Available to ALL groups
37	MasterCard Miscellaneous Fields	None	Available to ALL groups
38	Visa Miscellaneous Fields	None	Available to ALL groups
39	Amex CPS	5, 6, 7, 8, 10, 15, 19, 22, 25, 26, 27, 28, 29, 31, 33, 34, 42, 43	Not allowed without Group 21
40	Discover/PayPal Miscellaneous Fields	None	Available to ALL groups
41	Detail Extension	None	Available to ALL groups
42	Amex Auto Rental	2, 3, 5, 6, 7, 8, 10, 12, 13, 15, 17, 18, 19, 21, 25, 26, 27, 28, 29, 30, 33, 34, 35, 39, 43	
43	Amex Insurance	2, 3, 4, 5, 6, 7, 9, 10, 12, 13, 15, 17, 18, 19, 21, 25, 26, 27, 28, 29, 30, 33, 34, 35, 39, 42	
44	ACH Payment Transaction	None	Available to ALL groups. Currently TSYS Internal Use Only.
45	Transaction Security Indicator	None	Available to ALL groups
46	Merchant Soft Descriptor	25, 26, 27	

3.2.10 Visa card Non-T &E and Fleet (Non-Fuel) line item detail record

Table 3.10 Visa Card Non-T &E and Fleet (Non-Fuel) line item detail record

Group	Field	Length	Format	Reference	Content
0	Visa Card Non- T & E and Fleet (Non-Fuel) Line Item Base Group				
		1	A/N	4.229	Record Format
		1	NUM	4.33	Application Type
		1	A/N	4.191	Message Delimiter
		1	A/N	4.327	X.25 Routing ID
		5	A/N	4.230	Record Type “L@@@@@”
		4	A/N	4.164	Line Item Card Type “VISA”
		12	A/N	4.152	Item Commodity Code
		35	A/N	4.153	Item Description
		12	A/N	4.222	Product Code
		12	NUM	4.227	Quantity
		12	A/N	4.315	Unit of Measure/Code
		12	NUM	4.314	Unit Cost
		12	NUM	4.321	VAT/Tax Amount
		4	NUM	4.322	VAT/Tax Rate
		12	NUM	4.102	Discount Per Line Item
		12	NUM	4.167	Line Item Total

3.2.11 Visa card Non-T &E and Fleet (Non-Fuel) line item optional data groups

Table 3.11 Visa Card Non-T &E and Fleet (Non-Fuel) line item optional data groups

Group	Field	Length	Format	Reference	Content
1	Line Item Indicators				
		1	A/N	4.167	Line Item Discount Treatment Code

3.2.12 Canadian tax line item record

This record can be used only for MasterCard Canada Intracountry Commercial Data. It can be included up to six times.

Table 3.12 Canadian Tax Line Item record

Group	Field	Length	Format	Reference	Content
0	Canadian Tax Line Item base group				
		1	A/N	4.229	Record format
		1	NUM	4.33	Application Type
		1	A/N	4.191	Message Delimiter
		1	A/N	4.327	X.25 Routing ID
		5	A/N	4.230	Record Type “L@@@@@”
		1	A/N	4.277	Tax Amount Indicator
		12	NUM	4.276	Tax Amount
		5	NUM	4.278	Tax Rate
		1	NUM	4.279	Tax Rate Exponent
		4	A/N	4.281	Tax Type Applied
		2	NUM	4.283	Tax Type Identifier

3.2.13 Transaction advice detail line item base group

Table 3.13 Transaction advice detail line item base group

Group	Field	Length	Format	Reference	Content
	Transaction Advice Detail Line Item Base Group				
		1	A/N	4.229	Record Format
		1	NUM	4.33	Application Type
		1	A/N	4.191	Message Delimiter
		1	A/N	4.327	X.25 Routing ID
		5	A/N	4.230	Record Type “A@@@@@”
		3	A/N	4.169	Line Item Type
		3	NUM	4.20	Additional Amount Type
		12	NUM	4.18	Additional Amount
		1	A/N	4.19	Additional Amount Sign

3.2.14 Retail transaction advice addenda line item base group

Table 3.14 Retail transaction advice addenda line item base group

Group	Field	Length	Format	Reference	Content
	Retail Transaction Advice Addenda Line Item Base Group				
		1	A/N	4.229	Record Format
		1	NUM	4.33	Application Type
		1	A/N	4.191	Message Delimiter
		1	A/N	4.327	X.25 Routing ID
		5	A/N	4.230	Record Type “A@@@@"
		3	A/N	4.169	Line Item Type
		19	A/N	4.244	Retail Item Description
		3	NUM	4.245	Retail Item Quantity
		12	NUM	4.243	Retail Item Amount

3.2.15 Lodging transaction advice addenda line item base group

Table 3.15 Lodging transaction advice addenda line item base group

Group	Field	Length	Format	Reference	Content
	Lodging Transaction Advice Addenda Line Item Base Group				
		1	A/N	4.229	Record Format
		1	NUM	4.33	Application Type
		1	A/N	4.191	Message Delimiter
		1	A/N	4.327	X.25 Routing ID
		5	A/N	4.230	Record Type “A@@@@"
		3	A/N	4.169	Line Item Type
		12	NUM	4.177	Lodging Room Rate
		2	NUM	4.175	Lodging Number of Nights

3.2.16 Amex CPS advice addenda line item base group (Amex only)

Table 3.16 Amex CPS advice addenda line item base group (Amex only)

Group	Field	Length	Format	Reference	Content
	Amex CPS Advice Addenda Line Item Base Group (Amex only)				
		1	A/N	4.229	Record Format
		1	NUM	4.33	Application Type
		1	A/N	4.191	Message Delimiter
		1	A/N	4.327	X.25 Routing ID
		5	A/N	4.230	Record Type “A@@@@@”
		3	A/N	4.169	Line Item Type “CPS”
		3	NUM	4.71	Charge Item Quantity
		12	NUM	4.70	Charge Item Amount

3.2.17 Trailer record - base group

Table 3.17 Trailer record - base group (no optional data groups)

Group	Field	Length	Format	Reference	Content
0	Trailer Record Base Group				
		1	A/N	4.229	Record Format
		1	NUM	4.33	Application Type
		1	A/N	4.191	Message Delimiter
		1	A/N	4.327	X.25 Routing ID
		5	A/N	4.230	Record Type
		4	NUM	4.46	Batch Transmission Date
		3	NUM	4.42	Batch Number
		9	NUM	4.43	Batch Record Count
		16	NUM	4.40	Batch Hashing Total
		16	NUM	4.65	Cash Back Total
		16	NUM	4.41	Batch Net Deposit

3.2.18 Batch response record - good batch

Table 3.18 Batch response record - good batch

Group	Field	Length	Format	Reference	Content
0	Trailer Record - Good Batch				
		1	A/N	4.229	Record Format
		1	NUM	4.33	Application Type
		1	A/N	4.191	Message Delimiter
		1	A/N	4.327	X.25 Routing ID
		5	A/N	4.230	Record Type
		9	NUM	4.43	Batch Record Count
		16	NUM	4.41	Batch Net Deposit
		2	A/N	4.44	Batch Response Code - GB
		2	NUM	4.126	Filler
		3	NUM	4.42	Batch Number
		9	A/N	4.45	Batch Response Text
		16	A/N	4.125	Filler

3.2.19 Trailer response record - rejected batch

Table 3.19 Trailer response record - rejected batch

Group	Field	Length	Format	Reference	Content
0	Trailer Record - Rejected Batch				
		1	A/N	4.229	Record Format
		1	NUM	4.33	Application Type
		1	A/N	4.191	Message Delimiter
		1	A/N	4.327	X.25 Routing ID
		5	A/N	4.230	Record Type
		9	NUM	4.43	Batch Record Count
		16	NUM	4.41	Batch Net Deposit
		2	A/N	4.44	Batch Response Code - RB
		2	NUM	4.126	Filler
		3	NUM	4.42	Batch Number

Group	Field	Length	Format	Reference	Content
		1	A/N	4.117	Error Type
		4	NUM	4.115	Error Record Sequence Number
		1	A/N	4.116	Error Record Type
		2	NUM	4.114	Error Data Field Number
		32	A/N	4.113	Error Data

3.2.20 Batch response record - duplicate batch

NOTE: The host could respond “Duplicate Batch” to either a Header or Parameter record if a duplicate batch number is detected to exist. Batch numbers should not be repeated for a minimum of five days.

Table 3.20 Batch response record - duplicate batch

Group	Field	Length	Format	Reference	Content
0	Duplicate Batch Response				
		1	A/N	4.229	Record Format
		1	NUM	4.33	Application Type
		1	A/N	4.191	Message Delimiter
		1	A/N	4.327	X.25 Routing ID
		5	A/N	4.230	Record Type
		9	NUM	4.43	Batch Record Count
		16	NUM	4.41	Batch Net Deposit
		2	A/N	4.44	Batch Response Code - QD
		2	NUM	4.126	Filler
		3	NUM	4.42	Batch Number
		4	A/N	4.46	Batch Transmission Date - MMDD
		21	A/N	4.125	Filler

3.3 Binary bytes to ASCII character conversion

TSYS Acquiring Solutions' Second Generation message formats allow for only printable characters to appear in transaction data fields. To represent binary data, each byte of binary data is expanded into two hexadecimal characters. The upper four bits of a byte are represented by the first hexadecimal character, and the lower four bits are represented by a second hexadecimal character. Hexadecimal characters are to be encoded in ASCII. See table 3.22 below. For example, to represent a 20-byte binary field, 40 hexadecimal characters are used to define it.

Table 3.21 Byte to 2-Hex character conversion table

Byte	Byte is composed of 8 bits							
Bits in byte	7	6	5	4	3	2	1	0
Hexadecimal Character	First hexadecimal character				Second Hexadecimal character			
	0000 = '0' 1000 = '8'				0000 = '0' 1000 = '8'			
	0001 = '1' 1001 = '9'				0001 = '1' 1001 = '9'			
	0010 = '2' 1010 = 'A'				0010 = '2' 1010 = 'A'			
	0011 = '3' 1011 = 'B'				0011 = '3' 1011 = 'B'			
	0100 = '4' 1100 = 'C'				0100 = '4' 1100 = 'C'			
	0101 = '5' 1101 = 'D'				0101 = '5' 1101 = 'D'			
	0110 = '6' 1110 = 'E'				0110 = '6' 1110 = 'E'			
	0111 = '7' 1111 = 'F'				0111 = '7' 1111 = 'F'			

Chapter 4

Field definitions

This section provides individual field descriptions as used in the batch settlement record formats. The fields are arranged in alphabetical order.

4.1 Account data source code

This field contains a one-character code specifying the method used to obtain the cardholder account number (see [Table 3.2.4](#) for record format).

Table 4.1 [Account data source code](#)

Code	Description
A	Bar code/ Payment code read
B	OCR read
D	Full Track 2 Magnetic-stripe read
G	Chip Card Read (CCPS)
H	Full Track 1 Magnetic-stripe read
P	Manually keyed, Chip Card read capable terminal
Q	Proximity payment device using track data rules (transmit only Track two to Sierra)
R	Proximity payment device using EMV Chip data rules
S	Full Magnetic stripe read (Track two only), Chip Card capable terminal
T	Manually keyed, Track two capable device
X	Manually keyed, Track one capable device
@	Manually keyed, terminal has no card reading capability
E-F, I-O	Reserved for Asia/Pacific Region
W	Chip Card transaction processed as magnetic stripe due to the terminal application not having any EMV applications in common with the chip card.
Z	Chip Card transaction processed as magnetic stripe from a chip capable terminal, due to card or terminal failure
U, Y, 1-9	Reserved for future use

4.2 Account Range Status

This field identifies the account range as regulated or non-regulated and is received from the Card Brand. It will contain one of the below values to indicate the status of the account range and should be included in capture if present in the auth response.

Code	Description
R	Regulated
N	Non-Regulated

4.3 ACH SEC code

The Standard Entry Class (SEC) Code is used to determine the "ACH Rules" that apply to the transaction. These are TSYS Internal Use Only at this time.

Table 4.2 ACH SEC code

Code	Description
ARC	Accounts Receivable Entry - Enables originators to convert a consumer check received via the U.S. mail or at a drop box location for the payment of goods or services to a Single Entry ACH debit.
CCD	Cash Concentration or Disbursement - Can be either a credit or debit application where funds are either distributed or consolidated between corporate entities.
POP	Point of Sale Entry - Point of sale debit applications non-shared (POS) environment. These transactions are most often initiated by the consumer via a plastic access card.
PPD	Prearranged Payment and Deposits - Used to credit or debit a consumer account. Popularly used for payroll direct deposits and preauthorized bill payments.
TEL	Telephone-Initiated Entry - Used for the origination of a single entry debit transaction to a consumer's account pursuant to a verbal authorization obtained from the consumer via the telephone.
WEB	Internet (Web)-Initiated Entry - Used for the origination of debit entries (either Single or Recurring Entry) to a consumer's account pursuant to an authorization that is obtained from the Receiver via the Internet.

4.4 ACH routing number

This field contains the receiving Depository Financial Institution (DFI) identification/routing number and check digit.

4.5 ACH check number

This field contains the individual check number. This field must be present for transactions with an SEC Code of ARC or POP. Otherwise, it must be space-filled.

4.6 ACH individual name

This field contains the individual or receiving company name.

4.7 ACH individual reference ID

This field may contain meaningful merchant and customer information.

4.8 ACH telephone number

This field contains one of three options:

1. The merchant / business contact phone number for customer inquiry
2. REVERSAL indicates a reversal
3. REDEPCHECK indicates a returned check

4.9 ACH terminal city

This field represents the city, town, village, or township in which the merchant's terminal is located. It must be non-blank if the SEC Code is "POP".

4.10 ACH terminal state

This field represents the state location for the merchant's terminal. It must be non-blank if the SEC Code is "POP".

4.11 ACH prenote indicator

This field indicates whether the transaction is for pre-notification. It is used to aid in determination of the proper ACH Transaction Code.

Table 4.3 ACH prenote indicator

Value	Description
0	Not Prenote
1	Prenote

4.12 ACH checking/savings indicator

This field specifies the originating account type.

Table 4.4 ACH checking savings indicator

Value	Description
C	Checking
S	Savings
G	General Ledger. (Valid only when SEC Code is “CCD”)

4.13 ACH payment type indicator

This field indicates the transaction payment type. The following are valid values.

Table 4.5 ACH payment type indicator

Value	Description
Spaces	Used as a default for Non-WEB Transactions
R	Recurring
S	Single

Usage:

A value of R or S is required when the ACH SEC Code is WEB.

4.14 ACH presentment information

This is submitted as a value of zero.

4.15 ACH returned check indicator

This field indicates a returned check transaction.

Table 4.6 ACH returned check indicator

Value	Description
Y	The transaction is a returned check
N	The transaction is not a returned check

4.16 ACH check reversal indicator

This field indicates a check reversal transaction.

Table 4.7 ACH check reversal indicator

Value	Description
Y	The transaction is a check reversal
N	The transaction is not a check reversal

4.17 Acquirer Bank Identification Number (BIN)

This field contains a six-character numeric Bank Identification Number (BIN) issued by the merchant's member bank or processor (see [Table 3.1](#) for record format). The Acquirer BIN identifies the member bank or processor that signed the merchant using the POS application. This field should be configurable as a parameter.

4.18 Additional amount

This 12-character numeric field is used to report a breakdown of charges (e.g. taxes, gratuities, fees, adjustments) specific to particular markets/regions or transaction types (see [Table 3.10](#) for record format). These amounts are subtotals to (and must be included in) the value entered in the Transaction Amount field in the corresponding Base Detail record. If the value is non-numeric, the batch will be rejected.

4.19 Additional amount sign

This one-character alpha/numeric field contains a sign that indicates whether the corresponding Additional Amount field is a debit (+) or credit (-) to the Cardmember's account (see [Table 3.10](#) for record format).

4.20 Additional amount type

This three-character numeric field contains the type code that corresponds to the amount in the Additional Amount field in the corresponding Transaction Advice Detail Line Item record (see [Table 3.2.13](#) for record format). If the value is non-numeric, the batch will be rejected. Valid type codes are found in [Table 4.8](#).

Table 4.8 Additional amount type valid type codes

Type code	Description
001	Goods & Services Tax (GST)
013	Room Tax
015	Airport Tax
016	Food
017	Beverage
018	Food/Beverage
019	Bar

Type code	Description
020	Lodging
021	Restaurant/Room Service
022	Catering Charges
023	Bar/Mini-Bar
024	Phone
025	Internet Service
026	Movies/Pay-Per-View
027	Laundry/Dry-Cleaning
028	Barber/Beauty Salon
029	Health & Fitness
030	Gift Shop
031	Pro Shop
032	Parking
033	Pet Fees
034	Tours
035	Equipment Rental
036	Business Center
037	Convention Fees
038	Meeting/Conference Charges
039	No Show Charge
040	Express Service Charge
041	Charges Added After Check-Out/Departure
042	Misc Charges/Fees
046	Miscellaneous Tax
047	Reward Program Transaction
048	Surcharge
055	Freight/Shipping/Handling
056	Sales Tax
057	Value Added Tax (VAT)
058	Tip/Gratuity
060	Auto Rental Adjustment
074	Travel Transaction Fee
075	Travel Miscellaneous Charge

4.21 Address verification result code

This field contains a one-character Address Verification Result code (see [Table 3.2.4](#) for record format). If Address Verification service is being utilized, this field should contain the value returned in the original authorization response message. If the transaction is a Credit or was otherwise processed offline, this field should be defaulted to a zero.

4.22 Agent bank number

This field contains a six-character numeric number assigned by the merchant's bank or processor (see [Table 3.1](#) for record format). This field is issued by the merchant's member bank or processor for purposes of identifying a specific agent entity of the member bank or processor. This number must be right-justified and zero-filled. This field should be configurable as a parameter.

4.23 Agent chain number

This field contains a six-character numeric number assigned by the merchant's bank or processor (see [Table 3.1](#) for record format). This field is issued by the merchant's member bank or processor for purposes of identifying a specific chain of an agent organization. This number must be right-justified and zero-filled. This field should be configurable as a parameter.

4.24 Alternate tax amount

This field is used to record the second tax amount in countries where more than one type of tax can be applied to purchases.

4.25 Alternate tax amount indicator

This field indicates if Alternate Tax Amount is included in the purchase amount for countries that can have more than one type of tax applicable.

Table 4.9 Alternate tax amount indicator

Value	Definition
N	Not included
Y	Included

4.26 Alternate tax identifier

This field contains the tax identification number of the merchant that reported the alternate tax amount.

4.27 Amex auto rental fields

4.27.1 Amex auto rental agreement number

This field contains the Auto Rental Agreement / Invoice Number (a.k.a. contract number) that corresponds to the rental agreement issued by the auto rental agency and signed by the Cardmember.

4.27.2 Amex auto rental pickup location

This field contains the name of the business location where the rented vehicle was picked up. In most cases, this is the rental agency's business name that appears on the storefront and/or customer receipts, commonly referred to as the DBA (Doing Business As) name. However, if the vehicle was picked up at another location (e.g., a hotel, auto dealership, repair shop, etc.), the name of that location should be used.

4.27.3 Amex auto rental city name

This field contains the name of the city, town, or village where the vehicle was rented and/or picked up.

4.27.4 Amex auto rental pickup region code

This field contains the region code that corresponds to the state, province, or other country subdivision where the vehicle was rented and/or picked up.

4.27.5 Amex auto rental country code

This field contains the country code of the location where the vehicle was rented and/or picked up.

4.27.6 Amex auto rental pickup date

This field contains a value that corresponds to the local date when the vehicle was rented and/or picked up. The field must be in the format "CCYYMMDD" where "CC" is the century, "YY" is the year, "MM" is the month, and "DD" is the day.

4.27.7 Amex auto rental pickup time

This field contains a value that corresponds to the local time when the vehicle was rented and/or picked up. The field must be in the format "HHMMSS" where "HH" is the hours, "MM" is the minutes, and "SS" is the seconds.

4.27.8 Amex auto rental return city name

This field contains the name of the city, town, or village where the vehicle was returned.

4.27.9 Amex auto rental return region code

This field contains the region code that corresponds to the state, province, or other country subdivision where the vehicle was returned.

4.27.10 Amex auto rental return country code

This field contains the country code of the location where the vehicle was returned.

4.27.11 Amex auto rental return date

This field contains a value that corresponds to the local date when the vehicle was returned. The field must be in the format "CCYYMMDD" where "CC" is the century, "YY" is the year, "MM" is the month, and "DD" is the day. This entry must be greater than or equal to the value entered in the Amex Auto Rental Pickup Date field.

4.27.12 Amex auto rental return time

This field contains a value that corresponds to the local time when the vehicle was returned. The field must be in the format "HHMMSS" where "HH" is the hours, "MM" is the minutes, and "SS" is the seconds.

4.27.13 Amex auto rental renter name

This field contains the name of the person or business entity charged for the reservation of the vehicle rental.

4.27.14 Amex auto rental vehicle class ID

This field contains a code that corresponds to the classification of the rental vehicle. The following table contains accepted values.

Code	Vehicle class		Code	Vehicle class
0001	Mini		0018	24-foot truck
0002	Subcompact		0019	26-foot truck
0003	Economy		0020	Moped
0004	Compact		0021	Stretch
0005	Midsize		0022	Regular
0006	Intermediate		0023	Unique
0007	Standard		0024	Exotic
0008	Full size		0025	Small/medium truck
0009	Luxury		0026	Large truck
0010	Premium		0027	Small SUV
0011	Minivan		0028	Medium SUV
0012	12-Passenger van		0029	Large SUV
0013	Moving van		0030	Exotic SUV
0014	15-Passenger van		0031	Four wheel drive
0015	Cargo van		0032	Special
0016	12-foot truck		9999	Miscellaneous
0017	20-foot truck		4 spaces	Unused

4.27.15 Amex auto rental distance

This field contains a value that corresponds to the distance traveled during the rental period, in the units indicated in the Amex Auto Rental Distance Unit of Measurement field.

4.27.16 Amex auto rental distance unit of measurement

This field contains a code that corresponds to the unit of measurement applicable to the distance traveled in the preceding Amex Auto Rental Distance field. Valid codes are "M" for Miles, "K" for Kilometers, or Space for not used.

4.27.17 Amex auto rental audit adjustment indicator

This field contains a code that indicates if an adjustment for mileage, fuel, vehicle damage, etc. was made to a rental agreement, and whether the Cardmember was notified. The following table includes valid values.

Indicator	Description
Space	No Adjustments (default)
X	Multiple adjustments
Y	One adjustment only; Cardmember notified
Z	One adjustment only; Cardmember not notified

4.27.18 Amex auto rental audit adjustment amount

This field contains the Audit Adjustment Amount (for mileage, fuel, vehicle damage, etc.) added to a rental agreement after the vehicle was returned.

4.28 Amex insurance fields

4.28.1 Amex insurance policy number

This field contains the insurance policy number associated with this insurance policy.

4.28.2 Amex insurance coverage start date

This field contains a value that corresponds to the insurance coverage start date. The field must be in the format "CCYYMMDD" where "CC" is the century, "YY" is the year, "MM" is the month, and "DD" is the day.

4.28.3 Amex insurance coverage end date

format "CCYYMMDD" where "CC" is the century, "YY" is the year, "MM" is the month, and "DD" is the day. The value in this field must be greater than or equal to that in the Amex Insurance Coverage Start Date.

4.28.4 Amex insurance policy premium frequency

This field contains a brief, merchant-defined free-form text description, abbreviation, or code that corresponds to the frequency of payments applicable to the insurance policy premium.

4.28.5 Amex insurance additional policy number

This field contains an additional insurance policy number associated with this insurance policy.

4.28.6 Amex insurance type of policy

This field contains a brief, merchant-defined, free-form text description, abbreviation, classification, or code that corresponds to the type of insurance policy issued.

4.28.7 Amex insurance name of insured

This field contains the name of the insured, which may or may not be the Cardmember's name. An insured is the person, entity, or institution covered by this insurance policy.

4.29 Application ID

The Application ID provides a unique value to identify the software application. This identifier is assigned by TSYS Acquiring Solutions during certification.

4.30 Application cryptogram

Contains the clearing cryptogram used to validate transaction processing in the event of a dispute. The Cryptogram is returned by the ICC to the terminal in response of the GENERATE AC command.

4.31 Application interchange profile

Carried in VSDC transactions, this field provides a series of indicators that reflect the specific functions supported by the chip card account. For example, this field indicates whether cardholder verification is supported.

4.32 Application Transaction Counter (ATC)

Contains the count of the transactions performed within the application. This field increments by 1 each time a transaction is initiated. Multiple authorization requests for the same transaction will have the same ATC; for example, when online PIN fails and the next authorization represents a different PIN try for the same transaction, the ATC will be the same. For reversals and advices, the ATC is the value from the original message. Incrementing the ATC is managed by the ICC.

4.33 Application type

The TSYS Acquiring Solutions data capture system allows the user the option of settling single or multiple batches per connection. [Table 4.10](#) provides a listing of currently supported Application Types. Please reference EIS 1052 for a detailed description of the communication protocol differences dictated by each application type option.

Table 4.10 [Application type](#)

Application type	Description
1	Single batch per connection

Application type	Description
3	Multiple batches per connection
5	Single batch per transmission (Visa or MasterCard Line Item Details)
6	Multiple batch per transmission (Visa or MasterCard Line Item Details)

4.34 Approval / authorization code

This field contains the authorization code obtained from either authorization network or voice authorization center (see [Table 3.2.4](#) for record format). This field entry must be left-justified and space-filled to six positions. If the transaction is a credit or refund or other non-approved transaction type, this field must be defaulted to spaces.

Effective October 12, 2012, the Card Product Value in the sixth position of the approval code will no longer be supported by Visa.

NOTE: For Discover approved transactions on prepaid cards, the approval code will contain the available balance on the prepaid card.

MasterCard will be populating the sixth character of this field to [Table 4.11](#).

Table 4.11 Approval codes for MasterCard transactions

Value	Account type	Description
B	MasterCard Enhanced Value Platform	Enhanced (Consumer) Account qualifies for MasterCard Enhanced Value Platform only
C	Core Value Small Business (MCB, MEB, and MPC)	Account qualifies for MasterCard Core Value Small Business
D	Core Value Small Business (MCB, MEB, and MPC) and Product Graduation	Account qualifies for MasterCard Core Value Small Business and MasterCard Product Graduation
E	Business World (MWB)	Account qualifies for MasterCard Small Business
F	Business World (MWB) and Product Graduation	Account qualifies for MasterCard Small Business and MasterCard Product Graduation
G	Business World Elite (MAB)	Account qualifies for MasterCard Small Business
H	Business World Elite (MAB) and Product Graduation	Account qualifies for MasterCard Small Business and MasterCard Product Graduation
J	N/A	Account qualifies for MasterCard Small Business

Value	Account type	Description
K	N/A	Account qualifies for MasterCard Small Business and MasterCard Product Graduation
M	MasterCard Enhanced Value Platform and MasterCard Product Graduation	Account qualifies for MasterCard Enhanced Value Platform and MasterCard Product Graduation
P	MasterCard Product Graduation Only	Account qualifies for MasterCard Product Graduation Only
S	MasterCard High Value	Account qualifies for MasterCard High Value
T	MasterCard Product Graduation/ MasterCard High Value	Account qualifies for MasterCard Product Graduation and MasterCard High Value
Z	N/A	MasterCard provided default value indicating that the specific cardholder account found in DE 2 (Primary Account Number [PAN]) of the transaction does not participate in Account Level Management processing for MasterCard Enhanced Value Platform or MasterCard Product Graduation.

Table 4.12 Card products value in the sixth position of the approval code for Discover transactions

Value	Card product	Description
C	Consumer Credit	Core Card
R	Consumer Credit	Rewards Card
P	Consumer Credit	Premium Card
Q	Consumer Credit	Premium Plus Card
B	Commercial Credit Card	Commercial Credit Card
E	Commercial Credit Card	Commercial Executive Business Credit Card
Z	Unspecified Card Product	NA

4.35 Arrival time

This four-character numeric field contains the time a given flight leg is scheduled to arrive. This field must be supplied in HHMM format.

4.36 Association timestamp

This field contains timestamp data provided by the association.

4.37 Authorization source code

This field contains a one-character authorization source code used to provide information on the source or origin of the authorization code being settled (see [Table 3.2.4](#) for record format). If the transaction being settled was network authorized, this field must contain the value returned in the authorization response. If the transaction is a credit or refund, voice authorized, or otherwise processed offline, this field must contain one of the values defined in [Table 4.13](#).

Table 4.13 [Authorization source code](#)

Code	Description
6	POS Device generated authorization code
9	Not Authorized (Includes Credits/Refunds)
E	Offline voice center or chip-approved transaction, manually keyed approval code (for example, referrals)

4.38 Authorized amount

This 12-character numeric field contains the transaction amount contained in the original authorization request message (see [Table 3.2.4](#) for record format). This field is not impacted by reversals. If multiple authorizations and/or an authorization reversal were supplied, this field must contain the Authorized Amount from the first authorization response. The amount entry must be right-justified and zero-filled. If the transaction was voice-center or device approved, this field must be defaulted to zeros.

4.39 Auto towing charges

This field contains the total of any towing or roadside service expenses. Any amount provided in this field must be right-justified and zero-filled to 12 positions.

4.40 Batch hashing total

This 16-character numeric field contains the batch hashing total generated by the terminal (see [Table 3.17](#) for record format). The Hashing total is the gross dollar amount of the batch and is generated by adding together the absolute value of all Detail record amounts. Void and purchase return settlement amounts are treated as positive and added to the total, not subtracted from it. The Hashing total is right-justified and zero-filled to 16 positions.

4.41 Batch net deposit

This field contains the net deposit generated by the terminal. The net deposit total is generated by adding the settlement amounts of all Detail transaction records and subtracting credit or refund amounts from it. Void transaction amounts are not factored into this amount. The field entry must be right-justified and zero-filled to 16 positions. This field is represented as an “absolute value.”

4.42 Batch number

This field contains a three-character numeric batch sequence number generated by the POS device. The batch number must be a number within the range of 001-999. If the POS device is automatically incrementing the batch number, it should automatically advance the number from 999 to 001 (000 is invalid). Batch Numbers must not be reused or repeated within five consecutive days. This field should be configurable as a parameter.

4.43 Batch record count

This nine-character numeric field in the Batch Trailer record contains a batch record count calculated by the point of sale device. This field must contain the total number of all records in the batch, including Header, Parameter, Detail(s), any Addenda, and Trailer records. Blocking has no effect upon the record count. The total record count must be right justified and zero-filled to nine positions.

When this field is returned by the host in a batch response message, it will reflect the total number of records having been received by the host. In the case of a GB (Good Batch) response, the value returned should match the value supplied. However, in the case of an RB (Rejected Batch) response, the batch record count will reflect the total number of records received until the point of failure. Hence, the returned record count will reveal the sequential number of the record responsible for causing a rejected batch condition.

4.44 Batch response code

This field contains the two-character response code returned by the host indicating the status of the batch settlement attempt. [Table 4.14](#) provides a summary of the responses returned by the Visa data capture host.

Table 4.14 [Batch response code](#)

Code	Description
GB	Good Batch (see Table 3.18 , Table 3.2.19)
QD	Duplicate Batch (see Table 3.2.20)
RB	Rejected Batch (see Table 3.2.19)

4.45 Batch response text

This nine-character field will contain the text “_ACCEPTED” when a settlement batch has been successfully received by the host; however, the POS device should examine only the Batch Response code to determine the status of particular batch status.

4.46 Batch transmission date

This four-character numeric field contains the transmission date of the settlement batch. The transmission date must be provided in MMDD format.

4.47 Blocking indicator

The blocking indicator field is used to specify whether settlement records are being concatenated into a single settlement block (see [Table 3.1](#) for record format). Transaction blocking is beneficial in that it optimizes message size which serves to expedite the overall settlement process by minimizing the total number of settlement packets to be transmitted over the network. The maximum block size, including framing characters STX, ETB/ETX and LRC, must not exceed 640 bytes. To ensure that this threshold is not exceeded, it is recommended that no more than three records be concatenated within a single settlement block. Records may not be divided or segmented across blocks.

The data capture Header record may not be blocked with the other records in the batch. This restriction does not apply to Parameter, Detail, or Trailer records which may be blocked together.

This one-character numeric field must contain either a “0” (No Blocking) or a “2” (Blocking).

When transactions are blocked, the first three fields (record format, application type, and message delimiter) are not present in the second and third records contained in the block.

[Figure 4.1](#) represents an example of a blocked record.

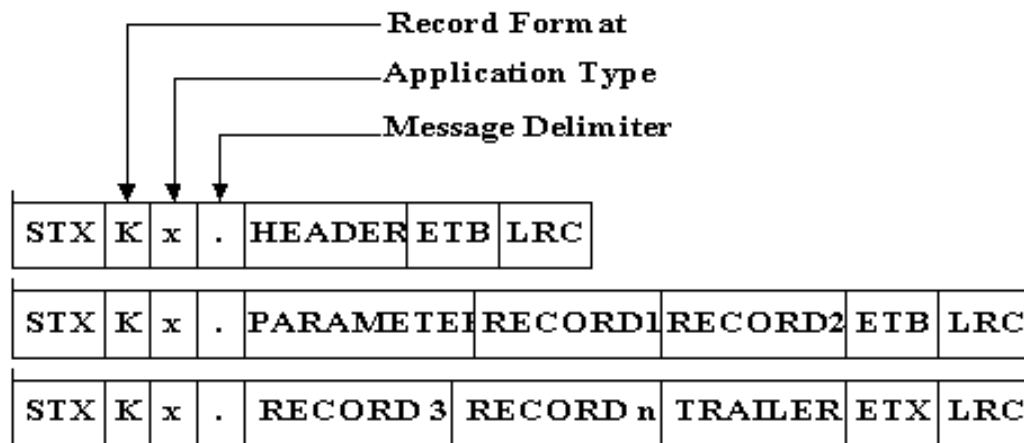


Figure 4.1 Blocked record

4.48 Business center charges

This field contains the total of any copies, faxes, and other business expenses associated with the transaction being settled. Any amount provided in this field must be right-justified and zero-filled to 12 positions.

4.49 Buyer fund symbol

This 21-character alphanumeric field contains the buyer's appropriation account code for Large Ticket transactions (IGOTS). The field entry must be left-justified and space-filled to 21 positions.

4.50 Car class code

This field contains a two-character code designating the class of the rental car.

4.51 Card acceptor data

The following three sub-fields provide additional merchant information. [Table 4.15](#) provides a description of individual data elements defined within the Card Acceptor Data field.

Table 4.15 [Card acceptor data](#)

Sub-field code	Byte	Format	Sub-field name	Section
NNNN.....NNNN	1-25	A/N	Merchant Name	4.51.1
LL.....LL	26-38	A/N	Merchant City	4.51.2
SS	39-40	A/N	Merchant State/Province	4.51.3

4.51.1 Merchant name

This 25-character field contains the merchant name as provided to the bank or processor. The Merchant Name provided will appear on the cardholder's statement. This field entry must be left-justified and space-filled. This field should be configurable as a parameter.

4.51.2 Merchant city

This 13-character field contains the merchant city as provided to the bank or processor. The Merchant Location provided will appear on the cardholder's statement. This field entry must be left-justified and space-filled. If the merchant is categorized as a Direct Marketer, this field should contain a Cardholder Service Phone Number ([Section 4.61](#)). This field should be configurable as a parameter. This field can be used for e-mail or URL.

4.51.3 Merchant state/province

This two-character field contains the merchant state as provided to the bank or processor. The Merchant State/Province provided will appear on the cardholder's statement. This field entry must be left-justified and space-filled. This field may contain only uppercase letters. This field should be configurable as a parameter.

4.52 Card product code

This field contains a two-character code created by Visa during the authorization process.

If the transaction being settled was authorized online, this field must contain the value returned in the authorization response. If the transaction is a credit or was otherwise processed offline, this field should be defaulted to two spaces.

4.53 Cardmember reference number

This field is defined by the Cardmember and entered by the Merchant at the point-of-sale. This field must be character space-filled if not used. This information will be displayed within the Statement/Reporting process and may include accounting information specific to the client.

NOTE: This field is mandatory, if the Merchant's customer provides Cardmember Reference data. Therefore, at the time of certification, the Merchant must demonstrate the ability to populate and transmit appropriate information in this field.

4.54 Card sequence number

Contains the number assigned to a specific card when two or more cards are associated with a single account number.

4.55 Card verification results

This field contains an eight-character code used to identify exception conditions detected by the chip card. This field is supplied as ASCII-coded binary data. Refer to [Section 3.3](#) for information concerning the conversion of binary to ASCII data.

4.56 Cardholder account number

This field contains the Cardholder Account Number (see [Table 3.2.4](#) for record format). This field entry must be left-justified and space-filled to 22 positions. This field must contain a minimum of five characters.

4.57 Cardholder certificate serial number

This field is assigned to a SET cardholder certificate issued by the Issuer's certificate authority. This feature is no longer supported.

4.58 Cardholder identification code

This field contains a one-character code specifying the method used to authenticate the identity of the cardholder for the transaction being settled (see [Table 3.2.4](#) for record format).

Table 4.16 *Cardholder identification code*

ID code	Identification method
A	Personal Identification Number - 23-byte static key
B	PIN at Automated Dispensing Machine - 32-byte static key
C	Self Svc Limited Amount Terminal (no ID method available)
D	Self-Service Terminal (no ID method available)
E	Cardholder Activated Automated Fuel Dispenser (no ID method available)
F	PIN Authentication by ICC (Chip Card) (Offline pin authentication for debit and credit chip card transactions)
G	Clear text PIN
J	PIN at Automated Dispensing Machine - 32- byte DUK/PT
K	Personal Identification Number - 32-byte DUK/PT (Online pin authentication for debit and credit transactions)
M	Address Verification or CPS/Card Present - Unable to read Magnetic Stripe
N	Address Verification, CPS/Card Not Present or e-Commerce
P	No CVM Required
R	Reserved Internal use only
S	Personal Identification Number - 32-byte static key
T	Reserved Internal use only
Z	Cardholder Signature - Terminal has a PIN Pad
@	Cardholder Signature - No PIN Pad available
1-8	Reserved Internal use only
0, 9, I, L, O, Q, U-Y	Reserved for future use

4.59 Cardholder reference ID / purchase order number

This field contains a 17-character reference identifier supplied by the Commercial Card cardholder. This field entry must be left-justified and space-filled to 17 positions.

4.60 Cardholder reference number

This field is defined by the card member and entered by the Merchant at the point-of-sale (see [Table 3.2.6](#) for record format). This field must be character space-filled if not used. This information will be displayed within the Statement/Reporting process and may include accounting information specific to the client.

NOTE:	This field is mandatory, if the Merchant's customer provides Card Member Reference data. Therefore, at the time of certification, the Merchant must demonstrate the ability to populate and transmit appropriate information in this field.
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4.61 Cardholder service telephone number

This field contains a merchant telephone number that the cardholder may call for service (see [Table 3.2.2](#) for record format). The telephone number must appear in the format “**NNN-nnnnnnn**.” A hyphen is required in the fourth character position. This field entry must be left-justified and space-filled. Depending upon its location, this field size may be either 11 or 13 characters. This field can be used for e-mail or URL.

4.62 Cardholder VAT registration number

This field contains a 13-character Value Added Tax registration number supplied by the Commercial Card cardholder. The field entry must be left-justified and space-filled to 13 positions.

4.63 Carrier code

This field contains a two or three-character accounting code associated with the carrier (for example, ARC, TWA). The field entry must be left-justified and space-filled to two or three positions as required.

4.64 Cash back amount

This 12-character numeric field contains the cash back amount contained in the original authorization request message (see [Table 3.2.6](#) for record format). This field should be defaulted to zeros if no cash back amount was requested. The field entry must be right-justified and zero-filled.

4.65 Cash back total

This field contains the total of all cash back amounts reflected in the settlement batch (see [Table 3.17](#) for record format). The cash back total amount must be right-justified and zero-filled to 16 positions. This field should be defaulted to zeros if cash back is not being utilized.

4.66 Charge descriptor one

This field contains 40 characters of free text (see [Table 3.2.6](#) for record format). This is a mandatory field in which spaces are allowed.

4.67 Charge descriptor two

This field contains 40 characters of free text (see [Table 3.2.6](#) for record format).

4.68 Charge descriptor three

This field contains 40 characters of free text (see [Table 3.2.6](#) for record format).

4.69 Charge descriptor four

This field contains 40 characters of free text (see [Table 3.2.6](#) for record format).

4.70 Charge item amount

These fields contain the unit cost that corresponds to the CPS item(s) described in the preceding fields. These entries must be in the currency designated by the Currency Code field in the Transaction header record - base group.

4.71 Charge item quantity

These fields contain the quantities purchase that correspond to the CPS item(s) described in the preceding fields.

4.72 Charge type

This field contains a one-character indicator used to identify a hotel charge type (see [Table 3.2.6](#) for record format). The field must contain a value defined in [Table 4.17](#).

Table 4.17 [Charge type](#)

Value	Description
1	Hotel
2	Restaurant
3	Gift Shop

4.73 Check-in date

This field contains the six-character numeric date reflecting when the cardholder checked into the Hotel (see [Table 3.2.6](#) for record format). If the transaction is an advance Check-in, this field should contain the date on which the reservation was made. If the transaction is a No

Show ([Section 4.206](#)), this field must contain the anticipated hotel arrival date. If the value contained in field [4.72](#) (Charge Type Values) is a “1,” this field must contain a valid date in YYMMDD format. If field [4.72](#) contains any other value, this field should be defaulted to zeros.

4.74 Checkout date

This field contains the six-character numeric date reflecting when the cardholder checked out of the hotel (see [Table 3.2.6](#) for record format). If the value contained in the Charge Type field [4.72](#) is a “1,” this field must contain a valid checkout date in YYMMDD format. If the Charge Type field contains any other value, this Checkout Date field should be defaulted to zeros.

4.75 City code

This field contains a nine-character value assigned by the merchant’s bank or processor to identify the merchant Postal/ZIP Code (see [Table 3.2.3](#) for record format). This field entry must be identical to the value provided in the original authorization request. The field entry must be left-justified and space-filled to nine positions. This field should be configurable as a parameter.

Table 4.18 *City code*

Usage	Format
U.S. ZIP Code	5 character, numeric, left justified, space-filled.
U.S. ZIP Code + Extension	9 character numeric.
Canadian Postal Code	6 character, "AnAnAn" format, left justified, space-filled.

4.76 Computer reservation system

This four-character field may contain an acronym identifying the computer reservation system being utilized. This field should contain one of the following codes or be defaulted to spaces.

Table 4.19 [Computer reservation system](#)

Code	Reservation system	Code	Reservation system
STRT	Start	DALA	Covia-Apollo
PARS	TWA	BLAN	Dr. Blank
DATS	Delta	DERD	DER
SABR	Sabre	TUID	TUI

4.77 Corporate ID

This 12-character numeric field may contain a corporate client identification code associated with the rental. The field entry must be left-justified and space-filled to 12 positions. This field may be defaulted to spaces.

4.78 Conjunction ticket number

This 13-character field contains the primary ticket number. This field is used to link additional tickets to the primary ticket number. This field should be blank for the first four trip legs. This field entry should be left-justified and space-filled to 13 positions.

4.79 Country code

This field contains a three-character numeric number assigned by the merchant's bank to identify the merchant's country location (see [Table 3.2.3](#), [Table 3.2.6](#) for record formats). U.S. merchants should utilize "840." This field should be configurable as a parameter.

4.80 Coupon number

This field contains a one-character numeric number identifying the coupon number within the ticket. Valid values are 1, 2, 3, or 4.

4.81 Credit plan number

This five digit field contains the credit plan, for example, six months same as cash, etc (see [Table 3.2.6](#) for record format). There is a unique credit plan assigned to each client promotion. Typically, each promotion is for a limited time, with established start and end dates.

4.82 Cryptogram amount

This 12-character numeric field contains the transaction amount used by the chip when calculating the last cryptogram.

NOTE: The Cryptogram Amount (Chip Card Addendum record ODG 1) is only required if an ARQC is sent in the Cryptogram field of the Chip Card Addendum record. If a TC cryptogram is sent in the Chip Card Addendum record the Cryptogram Amount will be the same as the Authorized Amount and is not required to be sent.

4.83 Cryptogram information data

Indicates the type of cryptogram and the actions to be performed by the terminal.

4.84 Cryptogram transaction type

This field contains the two byte numeric value which indicates the type of financial transaction. The Transaction Type is used by the card in the ARQC and TC. The values of this field are defined as the first two digits of the ISO 8583 Processing Code field. Typically this field will contain a value of “00” indicating “Goods/Service Purchase,” however, additional values may be defined in the future.

4.85 Cryptogram version number

This field contains a two-character code used to indicate which version of the cryptogram was used by the application for ARQC, TC, and AAC generation. This binary field is passed to the POS device in the Issuer Application Data field supplied by the integrated chip card. This field is supplied as ASCII-coded binary data. Refer to [Section 3.3](#) for information concerning the conversion of binary to ASCII data.

4.86 Currency code

This field contains a three-character numeric number assigned by the merchant’s bank to identify the merchant’s settlement currency (see [Table 3.1](#) for record format). “840” denotes U.S. dollars. This field should be configurable as a parameter.

4.87 Currency exponent indicator

This one byte numeric field provides the number of minor units of currency for amount fields in the batch unless otherwise specified in the given amount field description (for example, the “Unit Cost” amount has four implied decimal positions regardless of currency). All amount fields in a batch are submitted in local currency format. For example, Japanese Yen has no minor currency units and one Yen would be submitted as one with a Currency Exponent Indicator of “0.” US Dollar has two minor currency units and one Dollar would be submitted as 100 with a Currency Exponent Indicator of “2.” If this field is not present, the default Currency Exponent Indicator is two decimal positions (see [Table 3.2.2](#) for record format).

4.88 Customer VAT registration number

This field contains a 13-character Value Added Tax registration number supplied by the Commercial Card cardholder. The field entry must be left-justified and space-filled to 13 positions.

4.89 Custom Identifier

This field is used to send MasterCard custom identifier information and has a maximum length of 82 bytes in two subfields.

Subfield	Length	Format	Field value
Subfield 1 - Custom Identifier Type	6 bytes	A/N	CUSORD - Customer Order CUSTPO - Customer Purchase Order FOLNUM - Folio Number INVACT - Invoice or Account Number for Bill Payments OTHER1 - Other PMTREF - Payment Reference Number PRCHID - Purchase Identification RECLOC - Record Locator RESNUM - Reservation Number RNTAGR - Rental Agreement SUPINV - Supplier Invoice SUPORD - Supplier Order TKTNUM - Ticket Number TRANID - Transaction Identification TRKNUM - Tracking Number
Subfield 2 - Custom Identifier Detail	76 bytes	A/N	Free form text of information referenced in Custom Identifier Type

4.90 CVM results

Indicates the results of the last Cardholder Verification Method (CVM) performed.

4.91 Daily rental rate

This 12-character numeric field contains the daily rate used in the calculation of the charge. This field should be defaulted to zeros if a weekly rate is being applied. This field entry must be right-justified and zero-filled to 12 positions.

4.92 Days rented

This two-character numeric field contains the number of rental days associated with a car rental transaction. The field entry must be right-justified and zero-filled to two positions and may not be submitted as “00.”

4.93 Debit/credit indicator

This field represents the sign of the “extended item amount”.

Table 4.20 Debit/credit indicator

Value	Definition
C	Extended item Amount is Credit
D	Extended item Amount is Debit
<SPACE>	Not Supported

4.94 Departure date

This six-character numeric field contains the airline departure date in MMDDYY format (see [Table 3.2.6](#) for record format). The date supplied may be in the future. If not used, default the field to “000000.”

4.95 Departure time

This field contains the flight time when a given leg is scheduled to depart. This field must be supplied in HHMM format.

4.96 Derivation key index

This field contains a two-character code reflecting a value extracted from the integrated chip card which is used to identify the Issuer’s unique derivation key. This field is supplied as ASCII-coded binary data. Refer to [Section 3.3](#) for information concerning the conversion of binary to ASCII data.

4.97 Destination city/airport code

This three- or five-character field contains an airport code acronym of the destination city. This field may not be defaulted to spaces or zeros.

4.98 Destination country code

This three-character field contains the code of the country where the goods are being shipped. The field entry must be left-justified and space-filled to three positions.

4.99 Destination postal/ZIP code

This 10-character field contains the Postal/ZIP code of the address where purchased goods will be delivered. This field can be identical to the Ship From Postal/ZIP code if the customer is present and takes immediate possession of the goods. The field entry must be left-justified and space-filled to 10 positions.

4.100 Developer ID

The Developer ID provides a unique value to identify transactions originated by the Developer. This number is provided by TSYS Acquiring Solutions during certification.

4.101 Device code

This field contains a one-character value used to identify the device and type of the merchant submitting the settlement batch (see [Table 3.1](#) for record format). [Table 4.21](#) provides a summary of currently defined values. This field should be configurable as a parameter.

Table 4.21 [Device code](#)

Code	Device type	Code	Device type
0	Unknown or Unsure	P	RESERVED for POS-port* (USA)
C	Personal Computer (P.C.)	Q	Third Party Developer
D	Dial Terminal	R	POS-port (USA)
E	Electronic Cash Register (ECR)	S	POS Partner® (USA)
G	Mobile Payment Acceptance	T	Counter Payment Acceptance
H	TSYS Hosted Payment	W	Web Payment Acceptance
I	In-Store Processor	X	Aggregator
J	Multi Payment Acceptance	Z	Suppress PS2000/Merit fields (USA)
M	Main Frame		

4.102 Digital entity identifier

This is a unique identifier assigned by Visa at the time of authorization to identify transactions that originate from Visa Checkout.

4.103 Discount amount

4.103.1 Visa and MasterCard non-T&E and fleet non-fuel discount amount

The 12-character numeric field contains the amount of any discount applied by the merchant. The field entry must be right-justified and zero-filled to 12 positions.

4.103.2 Visa non-T&E and fleet non-fuel item discount amount

This field contains the total discount amount applied against the line item total. This field should be zeroes if the unit cost reflects a discount price or if no line item discount applies.

4.104 Discount indicator code

This one-character field indicates whether a discount was applied to the purchase price of the individual item purchased.

Table 4.22 Discount indicator code

Value	Discount indicator
Y	Amount is discounted
N	Amount is not discounted
<SPACE>	Not supported

4.105 Discover/PayPal miscellaneous fields

This field indicates the specific Card information capture conditions that were present at the time a Card Transaction took place at the point of service (POS).

Subfield 1- POS Device Attendance Indicator	
Discover/PayPal values	Discover/PayPal description
0	Attended POS device
1	Unattended POS device
2	No POS device used
9	Unknown
Subfield 2- Partial Approval Indicator	
Discover/PayPal values	Discover/PayPal description
0	Partial approval not supported
1	Partial approval supported: <ul style="list-style-type: none">• Merchandise can be partially approved• Cash Over can be partially approved
2	Partial approval supported: <ul style="list-style-type: none">• Merchandise can be partially approved• Cash Over must be fully approved or declined
3	Partial approval supported: <ul style="list-style-type: none">• Merchandise must be fully approved or declined• Cash Over can be partially approved

Subfield 2- Partial Approval Indicator

4	Partial approval supported: <ul style="list-style-type: none">• Merchandise must be fully approved or declined• Cash Over can be fully approved or declined
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Subfield 3- POS Device Location Indicator

Discover/PayPal values	Discover/PayPal description
0	On premises of merchant facility
1	Off premises of merchant facility (merchant POS device-remote location)
2	On premises of cardholder (home PC)
3	No POS device used (voice/ ARU Authorizations)
9	Unknown

Subfield 4- POS Cardholder Presence Indicator

Discover/PayPal values	Discover/PayPal description
0	Cardholder present
1	Cardholder not present, unspecified
2	Cardholder no present, mail/facsimile order
3	Cardholder not present, telephone/ARU order
4	Cardholder not present, standing order/recurring transactions (Automatic Payments)
5	Electronic order (Internet)
9	Unknown

Subfield 5- POS Card Presence Indicator

Discover/PayPal values	Discover/PayPal description
0	Card present
1	Card not present
9	Unknown

Subfield 6- POS Card Capture Capabilities Indicator

Discover/PayPal values	Discover/PayPal description
0	POS device/operator has no card capture capability
1	POS device/operator has card capture capability
9	Unknown

Subfield 7- POS Transaction Status Indicator

Discover/PayPal values	Discover/PayPal description
0	Normal request (original presentment)
4	Preauthorized request

Subfield 8- POS Transaction Security Indicator

Discover/PayPal values	Discover/PayPal description
0	No security concern
1	Suspected fraud (merchant suspicious)
2	ID verified
3	Cardholder verified by Biometrics
9	Unknown

Subfield 9- POS E-commerce indicator

Discover/PayPal values	Discover/PayPal description
1	Transaction is not an e-commerce transaction
4	In-App Authentication
5	Card Transaction is a secure e-commerce transaction (Cardholder authenticated using ProtectBuy)
6	Merchant attempted to authenticate the Cardholder information using ProtectBuy, but was not able to complete authentication because the Cardholder or the Issuer does not participate in ProtectBuy.
8	Transaction is an e-commerce transaction

Subfield 10- Reserved and zero filled**Subfield 11- POS Device Card Input Capability Indicator**

Discover/PayPal values	Discover/PayPal description
0	Unspecified
1	No POS device used (voice/ARU Authorization)
2	Magnetic stripe reader
3	Bar code/Payment code read
4	Optical character recognition
5	Integrated circuit card reader
6	Key entry only (manual)
7	Magnetic stripe reader and key entry
R	Radio Frequency Identification (RFID)(
S	Secure Electronic Transaction (SET) with certification

Subfield 11- POS Device Card Input Capability Indicator	
T	SET without certificate
U	Channel-encrypted Electronic Commerce Transaction (SSL)
V	Non-secure Electronic Commerce Transaction
Subfield 12- Reserved and zero filled	
Subfield 13- Reserved and zero filled	

4.106 Domain server

This field is used to indicate the remote domain server indicator for cardholder PayPass device types.

The following are valid values for the Domain Server:

Table 4.23 Domain server values

Value	Description
0	No domain
1	Issuer domain
2	Acquirer domain

4.107 Down line load phone number (not available at this time)

This field contains the telephone number that the terminal should call to perform a partial or full download (see [Table 3.2.19](#) for record format). This field also contains the dialing access code or sequence that precedes the telephone number in order to connect to the download host.

4.108 Duty amount

This 12-character numeric field contains the fee amount associated with the import of the purchased goods. The field entry must be right-justified and zero-filled to 12 positions.

4.109 e-Commerce goods indicator

This two-character alphanumeric field is used to identify the type of goods purchased over the internet (see [Table 3.2.6](#) for record format). This field must be left-justified and space-filled. [Table 4.24](#) provides the possible indicator values for this field.

Table 4.24 [e-Commerce goods indicator](#)

Indicator	Description
D	Digital Goods
P	Physical Goods

4.110 Encrypted transmission block

This is the ETB used by the block of transaction details to follow the ETB record. TSYS uses the ETB to decrypt the data. The ETB must be Base-64 encoded before transmission to TSYS.

NOTE Gen 2 Terminal Authentication is required for participation in Encryption.

4.111 Encryption data size

This is the size of the Encrypted Transmission Block data field. The value may vary depending on the encryption provider.

4.112 Encryption type

This describes the type of encryption used in the block of transactions. The following table provides a listing of encryption types accepted.

NOTE Gen 2 Terminal Authentication is required for participation in Encryption.

Table 4.25 *Encryption type*

Value	Record type
V	Voltage Encryption

4.113 Error data

This 32-character field contains the error data contained within the field that generated the rejected batch response message. This information can be useful in identifying and correcting the rejected batch condition. The value in the field can be of variable length, but the field itself will be space-padded to make the field 32 characters in length.

4.114 Error data field number

This two-character numeric field contains the sequential field number within the data record which generated the rejected batch response message (see [Table 3.2.19](#) for record format).

See Appendix B for more detail on error codes and their definitions.

4.115 Error record sequence number

This four-character numeric field contains the sequential number of the data record which caused the rejected batch state (see [Table 3.2.19](#) for record format). For example, a rejected Header Record would be “0001” and a rejected Parameter Record would be “0002.”

4.116 Error record type

This one-character field defines the data record which generated the rejected batch response message (see [Table 3.2.19](#) for record format). [Table 4.26](#) provides a listing of currently defined error record types.

See Appendix B for more detail on error codes and their definitions.

Table 4.26 [Error record type](#)

Value	Description
H	Header Record
P	Parameter Record
E	ETB Record
D	Detail Record
L	Line Item Detail Record
T	Trailer Record
K	Hierarchy Record
C	Chip Card Record

4.117 Error type

This one-character field defines the nature of a rejected batch. [Table 4.27](#) provides a listing of currently defined error types (see [Table 3.2.19](#) for record format).

See Appendix B for more detail on error codes and their definitions.

Table 4.27 [Error type](#)

Value	Description
B	Blocked Terminal
C	Card Type Error
D	Device Error
E	Error in Batch
L	Line Item Sequence Error
P	Platform Residency Requirement Error
S	Sequence Error

Value	Description
T	Transmission Error
U	Unknown Error
V	Routing Error

4.118 Exchange ticket amount

This 12-character numeric field contains the credit amount of any coupons being used as payment in an exchange ticket transaction. The field entry must be right-justified and zero-filled to 12 positions.

4.119 Exchange ticket number

This 13-character field contains the ticket number of the original ticket for which this ticket was exchanged. The field entry must be left-justified and space-filled to 13 positions.

4.120 Existing debt indicator

This one-character numeric field is used to identify transactions that were submitted for the payment of existing debt obligations, such as a car payment or loan (see [Table 3.2.6](#) for record format). A value of nine is the only allowable value for this field, and it indicates a payment on an existing debt transaction. If a value other than nine is received in this field, the batch will be rejected and receive an RB response.

4.121 Extended item amount

This nine-character numeric field contains the total amount of the individual item, typically calculated as price multiplied by quantity. This is a two-decimal digit inferred field, is right-justified and zero-filled to nine positions.

4.122 Extra charges

This field contains a six-character numeric value used to identify any additional ancillary charges that are booked to the cardholder's card after the transaction was completed (see [Table 3.2.6](#) for record format). The merchant may enter one or more codes on each transaction being settled. If extra charges are being submitted, this field must contain value(s) as defined in [Table 4.28](#) and [Table 4.29](#). Any field entries must be left-justified and zero-filled. For industries other than hotel and auto rental, this field must be defaulted to zeros.

4.122.1 Extra charges (auto rental)

Table 4.28 [Extra charges \(auto rental\)](#)

Value	Description
0 or <SPACE>	No Extra Charge

4.127 Flight number

This five-character field contains the airline designated flight number for a given trip leg of travel. This field should be left-justified and space-filled to five positions.

4.128 Folio/cash advances

This 12-character numeric field contains the total of any cash advances charges made against the folio. This field entry must be right-justified and zero-filled to 12 positions.

4.129 Form factor indicator

This field contains indicators related to the attributes of the cardholder's device and the technology used for the communication between the cardholder's device and the acquiring device.

4.130 Food/beverage charges

This 12-character numeric field contains the total of any restaurant and room service charges made against the folio. This field does not include mini bar charges. This field entry must be right-justified and zero-filled to 12 positions.

4.131 Freight/shipping amount

This 12-character numeric field contains the freight or shipping portion of the total transaction amount. The field entry must be right-justified and zero-filled to 12 positions.

4.132 Fuel charges

This 12-character numeric field contains the total of any fueling charges included in the purchase (including any fuel pre-purchases). Any amount provided in this field must be right-justified and zero-filled to 12 positions.

4.133 Gateway ID

Used to identify the Gateway, Aggregator, VAR, or other entity processing through the various TSYS Acquiring Solutions platforms.

4.134 Genkey

Randomly generated string of alphanumeric characters that will be returned in the POS device authentication response and associated with the terminal hierarchy. The Genkey must be stored in the POS device, must be sent with every request to the TSYS Acquiring Solutions host after authentication, and will be checked against the terminal hierarchy.

TAG	Max size	Format	Reference	Content/Description
ATS	10	NUM	4.36	Association Timestamp
TTT	2	NUM	4.306	Transit Transaction Type Indicator
TMI	2	NUM	4.308	Transportation Mode Indicator
TFA	9	A/N	4.301	Transaction Fee Amount with Indicator
MDO	1	A/N	4.106	Domain Server
MDE	2	A/N	4.194	Mobile Device Type
DTC	1	A/N	4.146	Invoice Level Discount Treatment Code
TTC	1	A/N	4.277	Tax Treatment Code
SQI	1	A/N	4.265	Spend Qualified Indicator
TAL	2	A/N	4.294	Token Assurance Level
TRI	11	A/N	4.295	Token Requestor ID
ARS	1	A/N	4.2	Account Range Status
WID	3	A/N	4.180	MasterCard Wallet Identifier
ISO	11	NUM	4.148	ISO ID
PFI	11	NUM	4.218	Payment Facilitator ID NOTE: The presence of this tag requires use of the SMI TAG as well as Usage 2 of ODG 36 "Location Detail Transaction Advice Addenda."
SMI	15	A/N	4.270	Sub-Merchant ID NOTE: The presence of this tag requires use of the PFI TAG as well as Usage 2 of ODG 36 "Location Detail Transaction Advice Addenda."
DEI	5	A/N	4.102	Digital Entity Identifier
MCI	1	A/N	4.197	Multi-Clearing Indicator

4.138 Group length

This field contains the total length of the group.

4.139 Health club charges

This 12-character numeric field contains the total of any health club or pool expenses (including equipment rental or green fees) associated with the transaction being settled. Any amount provided in this field must be right-justified and zero-filled to 12 positions.

4.146 Invoice level discount treatment code

Indicates how the merchant is managing discount calculations. This field requires the use of Optional Data Group 26.

Table 4.32 Invoice discount treatment code

Value	Description
0	No invoice-level discount was provided.
1	Tax was calculated on the post-discount invoice total.
2	Tax was calculated on the pre-discount invoice total.
Space	Field not used.

4.147 Invoice reference number

This 15-character field can contain a merchant-defined Invoice or Reference Number. The field entry must be left-justified and space-filled to 15 positions.

4.148 ISO ID

This 11-digit field, assigned by MasterCard, is assigned during registration via MasterCard Connect for a Service Provider designated as an “Independent Sales Organization.” This value must be provided on all MasterCard transactions where the merchant has a relationship with an ISO.

4.149 Issuer application data

Contains issuer application data depending upon the type of chip card and card brand. This is proprietary application data for transmission to the issuer in an online transaction.

4.150 Issuer authentication data

Data sent by the Issuer to the Chip Card for the Chip Card to validate the authenticity of the Issuer (during online Issuer authentication).

4.151 Issuer script results

Identifies the update command that the issuer sends in the authorization response to the card during online processing. With the command, the card updates the card parameters and records the success or failure of the updates in the Issuer Script Results field.

4.160 Lane ID

This field uniquely identifies a terminal at the card acceptor location or merchant POS system. It is an eight digit numeric field. It must be sent as 8 digits or the batch will reject.

NOTE: This field is currently used for MasterCard but can be sent for any card brand.

4.161 Language indicator

This field contains a two-character numeric language indicator. [Table 4.33](#) provides a summary of currently defined values (see [Table 3.1](#) for record format). This field should be configurable as a parameter.

Table 4.33 [Language indicator](#)

Indicator	Language
00	English
01	Spanish
02	Portuguese
03	Reserved for Irish
04	Reserved for French
05	Reserved for German
06	Reserved for Italian
07	Reserved for Dutch

4.162 Late return charges

This 12-character numeric field contains the total of any charges for late returns associated with the transaction being settled. Any amount provided in this field must be right-justified and zero-filled to 12 positions.

4.163 Laundry charges

This 12-character numeric field contains the total of any laundry or dry cleaning expenses associated with the transaction being settled. Any amount provided in this field must be right-justified and zero-filled to 12 positions.

4.164 Line item card type

This four-character field indicates the card type with which the line item details are associated. Valid values for this field are "VISA" for Visa and "MCRD" for MasterCard.

Table 4.35 Line item type field values

Line item type	Value
Transaction Advice Detail Line Item	“TAD”
Retail Transaction Advice Addenda Line Item Detail	“RET”
Lodging Transaction Advice Addenda Line Item Detail	“LOD”
CPS Advice Addenda Line Item Detail	“CPS”

4.170 Local tax

This 12-character numeric field contains the sales tax associated with the purchase. The field entry must be right-justified and zero-filled.

4.171 Local tax included flag

This one-character field contains a flag identifying the characteristics of the amount appearing in [Section 4.170](#). This field must contain one of the values defined in [Table 4.36](#).

Table 4.36 Local tax included flag

Flag	Description
0	Sales Tax not Provided
1	Local or Sales Tax Amount
2	Tax Exempt

4.172 Local transaction date

This four-character numeric field contains a Local Transaction Date associated with the transaction being settled (see [Table 3.2.4](#) for record format). The date supplied must be in MMDD format and reflect the following industry information. For credits, the date should be the same date as the capture transaction.

4.172.1 Transaction date

For Retail or General category merchants, this field must contain the authorization Transaction Date.

4.172.2 Shipping date

For Direct Marketing category merchants, this field must contain the Shipping Date.

4.172.3 Checkout date

For Hotel category merchants, this field must contain the Checkout Date.

4.174.1.3 Location detail city

This 21-character alphanumeric, upper case, left justified, space-filled field is used to identify the name of the city where the transaction took place. See [Table 3.2.6](#) for record format. If the name is more than 21 characters, use proper and meaningful abbreviation(s) when possible. Do not truncate.

For Mail Order, Phone Order, and Internet Industries, you may substitute the name of the city in which the merchant's order processing facility is located.

NOTE: The maximum used length for a non-American Express transaction is 13. Anything over 13 will be truncated.

4.174.1.4 Location detail region code

This three-character alphanumeric, upper case, left justified, space-filled field is used to identify the region code that corresponds to the state, province, or other country subdivision of the merchant location where the transaction took place. See [Table 3.2.6](#) for record format. For example, the region code for California, USA is "CA." Use of this and the country code fields should comply with the standards in [Appendix B](#) Country/State Code Combinations. For non-US and Canada country codes, this field should be populated with spaces or "XX."

4.174.1.5 Location detail country code

This three-character alphanumeric, upper case field is used to identify the country code of the location where the transaction took place. For example, the country code for USA is "840." Use of this and the region code fields should comply with the standards in [Appendix B](#) Country/State Code Combinations.

4.174.1.6 Location detail postal code

This 15-character alphanumeric, upper case, left justified, space-filled field is used to identify the postal/zip code of the location where the transaction took place. See [Table 3.2.6](#) for record format.

4.174.2 USAGE 2 (payment facilitator usage)

This usage of ODG 36 Location Detail is for Payment Facilitators who process transactions for multiple Sub-Merchants. The Card Brands are mandating that Payment Facilitators identify information about their Sub-Merchants in order to identify and/or prevent fraud, and to reflect Sub-Merchant information more accurately on cardholder statements.

This ODG usage is mandatory for any transaction using ODG 41 TAGs PFI and SMI.

The Fields in this group for Usage 2 are described as follows:

4.174.2.1 Location detail name

This 38-character alphanumeric, upper case, left justified, space-filled field is used to identify the Sub-Merchant name that is registered with the Card Brand. This field should be populated with the first three characters of the Payment Facilitator Name, followed by an asterisk, followed by the first 18 characters of the Sub-Merchant Name.

4.185 Merchant location number

This field contains a five-character value providing additional information on the location of the merchant (see [Table 3.2.3](#) for record format). Unless otherwise specified by the merchant's bank or processor, this field should be defaulted to 00001.

4.186 Merchant number

This field contains a 12-character numeric number assigned by the merchant's bank or processor (see [Table 3.1](#) for record format). This field contains a unique non-zero number used to identify the merchant within the member systems. This field should be configurable as a parameter.

4.187 Merchant seller ID

A seller/vendor code that uniquely identifies an aggregator's specific seller/vendor.

4.188 Merchant Soft Descriptor

The Merchant Soft Descriptor allows the merchant to enter a free-text value giving more information about the transaction. This is not a settlement field, but can be used for merchant or client reporting purposes.

4.189 Merchant VAT registration number

This 20-character field contains the government assigned tax identification number of the merchant from whom the goods or services were purchased from. The field entry must be left-justified and space-filled to 20 positions.

4.190 Merchant Verification Value (MVV)

This is a 10-character fixed-length field. Merchant Verification Value (MVV) is used by Visa to determine a merchant's eligibility to participate in a Select Merchant Fee (SMF) program (see [Table 3.2.6](#) for record format). The characters in the field may only be zero through nine and A-F. This value is issued by Visa and should be supplied by the merchant.

4.191 Message delimiter

The Message Delimiter separates the Record Format and Application Type designators from the body of the message of the message format. This character is defined as a “.” (Hex 2E/Decimal 46) character.

4.192 Message identifier

This 15-character field contains an identifier used to link commercial card financial and non-financial data elements. This field must contain a unique value. [Table 4.38](#) provides the required algorithm for generating this field.

Table 4.38 Message identifier

Position	Description
1-2	System Identifier (Default to 00)
3-6	System Date (YDDD Format)
7-11	System Time (Seconds from Start of Day)
12-15	Sequence Number 0000-9999 (Resets to 0000 at Start of Day)

4.193 Mini-bar charges

This 12-character numeric field contains the total of any in-room “mini-bar” food and beverage expenses associated with the transaction being settled. Any amount provided in this field must be right-justified and zero-filled to 12 positions.

4.194 Mobile device type

This field identifies the type of PayPass device used by the cardholder to initiate the transaction. This field is required for all MasterCard PayPass (contactless) transactions.

The table below shows valid values for the Mobile Device Type:

Table 4.39 Mobile device type values

Value	Description
00	Card (default)
01	Mobile Phone or Smartphone with Mobile Network Operator (MNO) controlled removable secure element (SIM or UICC)
02	Key Fob
03	Watch using a contactless chip or a fixed (non-removable) secure element not controlled by the MNO
04	Mobile Tag
05	Wristband
06	Mobile Phone Case or Sleeve
07	Mobile Phone or Smartphone with a fixed (non-removable) secure element controlled by the MNO (such as CDMA)
08	Mobile Phone or Smartphone with removable secure element not controlled by the MNO (such as a personalized SD Card)

Value	Description
09	Mobile Phone or Smartphone with a fixed (non-removable) secure element not controlled by the MNO
10	Tablet or E-Book with an MNO controlled removable secure element (SIM or UICC)
11	Tablet or E-Book with a fixed (non-removable) secure element controlled by the MNO
12	Tablet or E-Book with a removable secure element not controlled by the MNO (such as an SD Card)
13	Tablet or E-Book with fixed (non-removable) secure element not controlled by the MNO
14	Mobile Phone or Smartphone with a payment application running in a host processor
15	Tablet or E-Book with a payment application running in a host processor
16	Mobile Phone or Smartphone with a payment application running in the TEE of a host processor
17	Tablet or E-Book with a payment application running in the TEE of a host processor Watch with a payment application running in the TEE of a host processor
18	Watch with a payment application running in the TEE of a host processor
19	Watch with a payment application running in a host processor
20-99	Reserved for future device types. Any value in this range may occur within devices and transaction data without prior notice

4.195 Movie charges

This 12-character numeric field contains the total of any movie or in-room entertainment expenses associated with the transaction being settled. Any amount provided in this field must be right-justified and zero-filled to 12 positions.

4.196 Moto/e-Commerce indicator

This field contains a one-character transaction indicator identifying the type of transaction being settled (see [Table 3.2.6](#) for record format).

Table 4.40 [Moto/e-Commerce indicator](#)

Indicator	Description
SPACE	Not a Mail/Telephone Order Transaction
1	One Time Occurrence of a Mail/Telephone Order Transaction
2	Recurring Mail/Telephone Order Transaction

4.199 Multiple clearing sequence number

4.199.1 Multiple clearing sequence number (passenger transport)

For passenger transport merchants, this two-character numeric field is used to identify a specific clearing transaction record when multiple clearing records are submitted for a single authorization (see [Table 3.2.6](#) for record format). It is a sequential number implying order. If multiple passengers are on the same authorization, this value will be greater than 01.

All clearing messages linked to a single authorization request must contain a unique multiple clearing sequence number in the range one to the multiple clearing sequence count ([Section 4.198.1](#)), for example:

Record	Sequence number	Sequence count
First Record	01	03
Second Record	02	03
Third Record	03	03

4.199.2 Multiple clearing sequence number (direct marketing)

Direct Marketing merchants using installment payments should use this field (in conjunction with [Section 4.198.2](#)) to indicate which payment number this particular payment represents in the total count of installment payments to be made, for example:

Record	Sequence number	Sequence count
First Payment of 3	01	03
Second Payment of 3	02	03
Third Payment of 3	03	03

NOTE: If the transaction is not an installment payment, the sequence number must be set to zero.

4.200 National tax amount

This 12-character numeric field contains the national tax included in the transaction amount. The field entry must be right-justified and zero-filled to 12 positions.

4.201 National tax included flag

This field contains a one-character flag indicating whether the transaction being settled contains national tax information as may be required by fiscal authorities for tax reporting purposes.

Value	Description
0	Tax Not Included
1	Tax Included

4.207 Obliging document number

This 17-character alphanumeric field contains the Obliging Document Number provided by the buyer. The field entry must be left-justified and zero-filled to 17 positions.

4.208 One-way drop-off charges

This 12-character numeric field contains the total of any charges for returning the vehicle to a different location than the vehicle pick-up location. Any amount provided in this field must be right-justified and zero-filled to 12 positions.

4.209 Optional amount

This 12-character numeric field contains the amount as defined in [Section 4.210](#) (see [Table 3.2.6](#) for record format). The field entry must be right-justified and zero-filled. If the value in field [Section 4.210](#) is set to “0,” this field should be defaulted to zeros.

Any non-zero sales tax must have a minimum value of 0.1% and a maximum value of 22% of the sale amount.

NOTE Discover or PayPal transactions with an amount exceeding 999999 will be rejected.

4.210 Optional amount identifier

This field contains one-character identifying the characteristics of the amount appearing in [Section 4.209](#). This field must contain one of the values defined in [Table 4.44](#). See [Table 3.2.6](#) for record format.

Table 4.44 [Optional amount identifier](#)

Identifier	Optional amount description
0	Not Used
1	Local Sales Tax Amount
2	Tax Exempt

4.211 Order date

This six-character numeric field contains the purchase order date and must be supplied in YYMMDD format.

4.211.1 Order date (IGOTS)

This six-character alphanumeric field contains the purchase Order Date for Large Ticket transactions (IGOTS). The field entry must be left-justified and space-filled to six positions.

Table 4.45 Payment Transaction Identifiers

PTI	Description
C01	Person to Person
C02	MasterCard Rebate
C03	rePower Load Value
C04	Gaming Re-Pay
C05	Miscellaneous Payment Transaction
C06	Payment of Credit Card Balance with Cash or Check

4.220 POS data code

This 12-character alphanumeric field is mandatory for all POS device software. It contains data from the Point of Sale, including Card Data Input Capability, Cardholder Authentication Capability, Card Capture Capability, Terminal Operating Environment, Cardholder Present Data, Card Present Data, Card Data Input Mode, Cardholder Authentication Method, Cardholder Authentication Entity, Card Data Output Capability, Terminal Data Output Capability, and PIN Capture Capability (see [Table 3.2.6](#) for record format). The field is populated in 12 one-character alphanumeric subfields according to [Table 4.46](#).

The fields come in two types, static or dynamic.

Static Fields:

Static fields have the same value for every transaction. They do not typically change once the software and hardware are considered together in the environment in which they are deployed.

Example:

In Subfield 1 (Terminal Card Data Input Capability), say a terminal, its software, and the environment in which it is deployed have the value set at 2 - Magnetic stripe reader capability. For most cardholders, the magnetic stripe will work just fine. However, for a scenario where a cardholder's magnetic stripe is damaged and it will not swipe properly, the merchant has to enter it manually. This does not change the capability of the terminal, software, and environment.

Dynamic Values:

Dynamic fields can change based on the transaction scenario.

Example:

In Subfield 5 (Cardholder Present Data), for one transaction, the cardholder may be present (value 0), and for the next, the transaction is initiated by phone (value 3).

NOTE: The POS Data Code Field is not required for Discover if the Discover/PayPal Miscellaneous Field (Optional Data Group 40) is populated in its entirety.

NOTE: POS Data Code values sent in the Capture Record must match the values sent in the Authorization Request.

Table 4.46 POS data code

Value	Description
Subfield 1: Terminal Data: Card Data Input Capability - This subfield indicates the highest-level capability of the device and its software used to originate this transaction. The value is static depending on the card data input capabilities in the environment in which it is deployed.	
0	Unknown, data not available (INVALID - Internal Use Only)
1	Manual, no terminal; Voice auth / ARU only
2	Magnetic stripe reader capability only
3	Bar code/Payment code
4	Optical character reader capability, [MC]
5	Integrated circuit card (ICC) capability
6	Key entry only capability
A	PAN auto-entry via contactless magnetic stripe
B	Magnetic stripe reader and key entry capability
C	Magnetic stripe reader, ICC, and key entry capability
D	Magnetic stripe reader and ICC capability
E	ICC and key entry capability
H	ICC Reader and contactless capability; Magnetic stripe & manual entry implied
M	PAN auto-entry via contactless Chip Card
V	Other capability, [MC]
X	Reserved for private use.
Subfield 2: Terminal Data: Cardholder Authentication Capability - This subfield indicates the highest-level capability of the device and its software used to verify the Cardholder's identity at this terminal. The value is static depending on the terminal cardholder-authentication capabilities in the environment in which it is deployed.	
0	No electronic authentication capability
1	PIN entry capability
2	Electronic signature analysis capability, [MC]
5	Electronic authentication capability is inoperative, [MC]

Value	Description
6	Other,[MC]
9	Unknown, data not available (INVALID - Internal Use Only)
Subfield 3: Terminal Data: Card Capture Capability - This subfield indicates if the terminal is capable of pulling the card into the device while the transaction is taking place. The value is static depending on the terminal card-capture capabilities in the environment in which it is deployed.	
0	No capture capability
1	Card capture capability
9	Unknown, data not available (INVALID - Internal Use Only)
Subfield 4: Terminal Operating Environment - This subfield indicates the terminal's location and indicates whether it is attended by the card acceptor. The value is static depending on the terminal's operating capabilities in the environment in which it is deployed.	
0	No terminal used; Voice auth/ARU only
1	On card acceptor premises, attended terminal
2	On card acceptor premises, unattended terminal
3	Off card acceptor premises, attended terminal
4	Off card acceptor premises, unattended terminal
5	On cardholder premises, unattended terminal
6	Off cardholder premises, unattended terminal, [MC]
9	Unknown, data not available (INVALID - Internal Use Only)
M	Off card acceptor premises; merchant mobile POS environment, including mPOS [V, MC]
P	On card acceptor premises; merchant mobile POS environment, including mPOS [V, MC]
Q	Off card acceptor premises; cardholder mobile environment, including home PC, mobile phone, PDA [V, MC]
R	On card acceptor premises; cardholder mobile environment, including home PC, mobile phone, PDA [V, MC]
S	Electronic delivery of product, [AX]
T	Physical delivery of product, [AX]
Subfield 5: Cardholder Present Data - This subfield indicates if the Cardholder is present at the point of service and if not, the reason why. The value is dynamic based on the Cardholder presence at the time of the transaction	
0	Cardholder present
1	Cardholder not present, unspecified reason
2	Cardholder not present, mail transaction
3	Cardholder not present, phone transaction

Value	Description
4	Cardholder not present, standing (recurring) transaction such as a subscription
5	Cardholder not present, electronic commerce
8	Cardholder not present; recurrent billing such as a loan or installment payment
R	Recurring purchase transaction (original transaction was token-based with valid cryptogram)
P	Partial shipment purchase transaction (original transaction was token-based with valid cryptogram)

Subfield 6: Card Present Data - This subfield indicates if the card is present at the point of service. The value is dynamic based on the card presence at the time of the transaction.

0	Card not present
1	Card present
W	Transponder, [AX]
X	Contactless Chip
Z	Digital Wallet [AX]

Subfield 7: Card Data: Input Mode - This subfield indicates the method used to capture information from the card. The value is dynamic based on the input mode at the time of the transaction.

0	Unspecified, data not available (INVALID - Internal Use Only)
1	Manual input, no terminal; Voice auth/ARU only
2	Magnetic stripe reader input
3	Bar code/Payment code
6	Key entered input
A	PAN auth-entry via contactless magnetic stripe
B	Magnetic stripe reader input; track data captured and passed unaltered
C	Online Chip
F	Offline Chip
M	PAN auto-entry via contactless chip (EMV Mode)
N	Track data read and sent unaltered, chip capable terminal, chip data could not be read
P	Empty candidate list fallback
R	PAN entry via electronic commerce, including remote chip
S	Electronic commerce, no security, channel encrypted, or SET without cardholder certificate, [MC]
V	Manually entered with keyed CID, [AX, JCB Canada]
W	Swiped transaction with keyed CID, [AX, JCB Canada]

Value	Description
X	Reserved for private use
Y	Reserved for private use
Z	Contactless Interface Change Identifies when a chip card transaction with a dual-interface card switches from a contactless to a contact chip card transaction. [Discover]

Subfield 8: Cardholder Authentication Method - This subfield indicates the method used for verifying the Cardholder's identity. The value is dynamic based on the Cardholder Authentication Method at the time of the transaction.

0	Not authenticated
1	PIN
2	Electronic signature analysis, [MC]
5	Manual signature verification
6	Other manual verification (such as driver's license number)
9	Unknown, data not available, [MC] (INVALID - Internal Use Only)
S	Other systematic verification, [MC]
T	Electronic ticket environment, [AX]

Subfield 9: Cardholder Authentication Entity - This subfield indicates the component or person who verified Cardholder Identity reported in Cardholder Authentication (Subfield 8). The value is dynamic based on the Entity that performed the Authentication at the time of the transaction.

0	Not authenticated
1	ICC – Offline PIN
2	Card acceptance device (CAD)
3	Authorizing agent – Online PIN, [MC]
4	Merchant/card acceptor – signature
5	Other
9	Unknown; data not available, [MC] (INVALID - Internal Use Only)

Subfield 10: Card Data Output Capability - This subfield indicates the ability of the terminal and software to update or change the card. The value is static depending on the terminal and software capabilities in the environment in which it is deployed.

0	Unknown, data not available (INVALID - Internal Use Only)
1	None
2	Magnetic stripe write, [MC]
3	ICC
S	Other, [MC]

Value	Description
Subfield 11: Terminal Data Output Capability - This subfield indicates the ability of the terminal and/or software to print and/or display messages. This value is static depending on the terminal and/or software capabilities in the environment in which it is deployed.	
0	Unknown, data not available (INVALID - Internal Use Only)
1	None
2	Printing capability only
3	Display capability only
4	Printing and display capability
Subfield 12: PIN Capture Capability - This subfield indicates the length of the PIN that the terminal is capable of capturing. The value is static depending on the capability of the terminal in the environment in which it is deployed.	
0	No PIN capture capability
1	Unknown, data not available (INVALID - Internal Use Only)
2	Reserved
3	Reserved
4	PIN capture capability four characters maximum, [MC]
5	PIN capture capability five characters maximum, [MC]
6	PIN capture capability six characters maximum, [MC]
7	PIN capture capability seven characters maximum, [MC]
8	PIN capture capability eight characters maximum, [MC]
9	PIN capture capability nine characters maximum, [MC]
A	PIN capture capability ten characters maximum, [MC]
B	PIN capture capability eleven characters maximum, [MC]
C	PIN capture capability twelve characters maximum, [MC]

4.220.1 Application notes

For chip transactions, the Cardholder Verification Method (CVM) used for that transaction will be specified via the combination of values for Subfield 8 and Subfield 9 as shown in [Table 4.47](#).

Table 4.47 Subfield 8 and Subfield 9 values

CVM	Subfield 8	Subfield 9
Offline PIN	1	1
Online PIN	1	3
Signature	5	4

CVM	Subfield 8	Subfield 9
No CVM	0	0

4.221 Prepaid expenses

This 12-character numeric field contains the total of any prepaid amount or deposit applied against the folio. The field entry must be right-justified and zero-filled to 12 positions.

4.222 Product code

4.222.1 CCS private label product code

This four-character field may contain a merchant-defined description code of the item being purchased (see [Table 3.2.6](#) for record format). The field entry must be left-justified and space filled to four positions. The product code is translated via an in-house table to an actual product description.

4.222.2 Visa / MasterCard non-T&E and fleet non-fuel item product code

This 12-character field can contain a merchant-defined description code of the item being purchased. The field entry must be left-justified and space-filled to 12 positions.

4.223 PSP/Aggregator name

This is the name of the Payment Service Provider/ Aggregator. It should contain NO spaces.

This field is required for American Express transactions that are submitted by an Aggregator / Payment Service Provider.

4.224 Purchase identifier

This field contains a 25-character identifier assigned by the merchant (see [Table 3.2.6](#) for record format). If this field is utilized, it should contain a value other than zeros or spaces. The value should be left-justified, making sure the first position is not a space.

4.224.1 Purchase identifier (direct marketing/commercial card)

This field contains a Purchase Order Number assigned by the merchant. This field entry must be left-justified and space-filled to 25 positions. For American Express transactions, only use the first nine characters and space-fill to 25.

4.224.2 Rental agreement number (auto rental)

This field contains a Rental Agreement Number assigned by the merchant. This field entry must be left-justified and space-filled to 25 positions.

of the specified data group. Moving right to left, the sequence position number of each bit corresponds directly to the number of the desired Optional Group. The following figures provide an illustration of the correlation between bits and data groups:

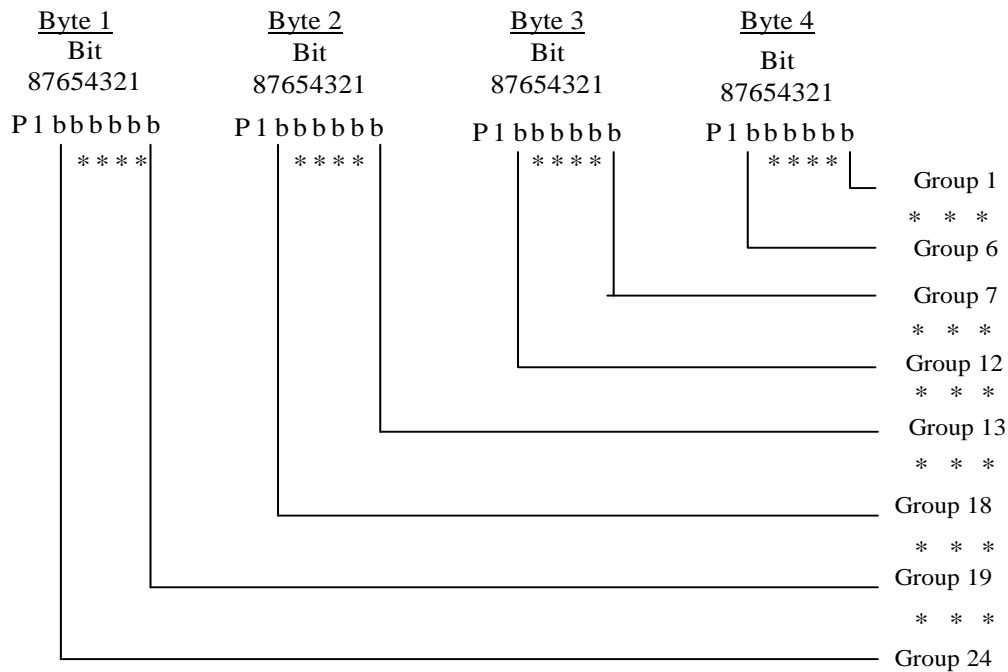


Figure 4.2 Record type for series one optional data groups

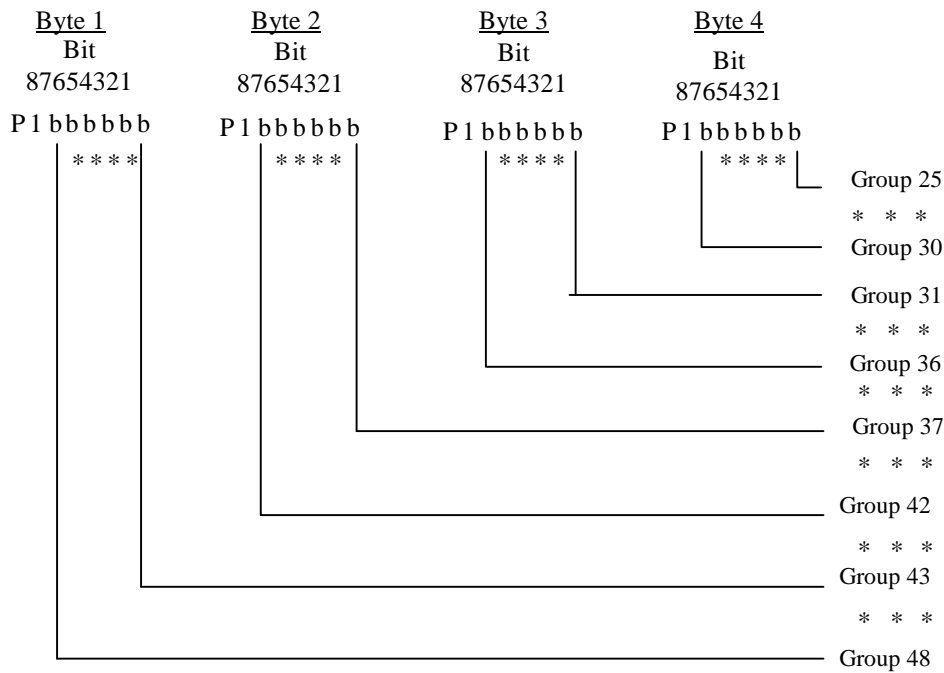


Figure 4.3 Record type for optional data group 24

Where the “P” in the high order position (bit eight of each byte) is the even parity bit for that byte. Bit position seven will always be a “1” to exclude the range of control character.

4.231 Regular mileage charges

This 12-character numeric field contains the total of charges for mileage below the mileage cap. Any amount provided in this field must be right-justified and zero-filled to 12 positions.

4.232 Reimbursement attribute

This field contains the one-character Reimbursement Attribute provided in the original authorization request message (see [Table 3.2.4](#) for record format). If the transaction was processed offline, or the value was not supplied in the original authorization request, this field should be defaulted to zero.

4.233 Rental date

This field contains the six-character numeric date when the cardholder first drove away the rented vehicle (see [Table 3.2.6](#) for record format). This field must be provided in YYMMDD format.

4.234 Rental return city

This field must contain the name of the city where the rented vehicle was returned (see [Table 3.2.6](#) for record format). The field entry must be left-justified and space-filled to 18 positions. This field may not contain only spaces.

4.235 Rental return location ID

This 10-character field must contain an identifier of the location where the rented vehicle was returned (see [Table 3.2.6](#) for record format). The field entry must be left-justified and space-filled to 10 positions. This field may not contain only spaces.

4.236 Rental return state/country

This three-character field must contain the name of the state and province or country where the rented vehicle was returned (see [Table 3.2.6](#) for record format). The field entry must be left-justified and space-filled to three positions. This field may not contain only spaces.

4.237 Renter name

This field must contain the name of individual renting the vehicle (see [Table 3.2.6](#) for record format). The field entry must be left-justified and space-filled to either 20 or 40 positions based upon the location of this field. This field may not contain only spaces.

Table 4.51 [Restricted ticket indicator](#)

Value	Description
<SPACE>	No Restriction
0	No Restriction
1	Restricted Ticket/Non-Refundable

4.242 Retail department name

This 40-character alpha/numeric uppercase, left justified space-filled field is used to identify the department name within the location where the transaction took place (see [Table 3.2.6](#) for record format).

4.243 Retail item amount

This 12-character numeric field contains the unit cost that corresponds to the retail item described in this line item record (see [Table 3.2.14](#) for record format). If the value is non-numeric, the batch will be rejected.

4.244 Retail item description

This 19-character alpha/numeric upper case, left-justified space-filled field contains a description of the retail item that was purchased (see [Table 3.2.14](#) for record format).

4.245 Retail item quantity

This three-character numeric right-justified zero-filled field contains the quantity purchased that corresponds to the retail item described in this line item record (see [Table 3.2.14](#) for record format). If the value is non-numeric, the batch will be rejected.

4.246 Retrieval reference number

This 12-character numeric field contains the Retrieval Reference number returned in the original debit authorization response message and is utilized for transaction tracking purposes (see [Table 3.2.6](#) for record format).

4.247 Return location

This field contains the city where the card is returned to the rental company. The field entry must be left-justified and space-filled to 25 positions.

4.254 Service development indicator

This one-character numeric field is used to identify various service development transactions (see [Table 3.2.6](#) for record format). The possible values for this field are shown in [Table 4.52](#). If any other values other than the ones described below are received in this field, the batch will be rejected and receive an RB response.

Table 4.52 [Service development indicator](#)

Value	Description
5	Transponder Indicator - transactions that use radio frequency devices to exchange information in certain attended and non-attended terminal environments (Visa only).
6	Relationship Participant Indicator - transactions that indicate the merchant's participation in the Visa Relationship Manager Service (Visa only).
7	Deferred Billing Indicator - transactions that were submitted to bill the cardholder for merchandise that was received within the past 90 days (Visa only).

4.255 Settlement amount

This 12-character numeric field contains the final settlement amount of the transaction (see [Table 3.2.4](#) for record format). The field entry must be right-justified and zero-filled and is represented in absolute value. This field must always be greater than zero.

4.256 Settlement date

This four-character numeric field contains the settlement date returned in the original debit authorization response message (see [Table 3.2.6](#) for record format). The settlement date must be provided in MMDD format and is utilized for transaction tracking purposes.

4.257 Ship from postal/ZIP code

This 10-character field contains the postal/ZIP code of the address from where the purchased goods are being shipped. The field entry must be left-justified and space-filled to 10 positions.

4.258 Ship to city

This 13-character alphanumeric field contains the City name of where the purchased goods are being shipped. The field entry must be left-justified and space-filled to 13 positions.

4.259 Ship to name

This 20-character alphanumeric field contains the contact name for the purchased goods are being shipped. The field entry must be left-justified and space-filled to 20 positions.

Table 4.54 *Spend qualified indicator*

Value	Description
B	Base spend assessment threshold has been met.
N	Spend qualification threshold has not been met.
Q	Spend qualification threshold has been met.
Space	Spend qualification does not apply.

4.266 Stay duration

This two-character numeric field contains the hotel Stay Duration (see [Table 3.2.6](#) for record format). The Stay Duration provided must be consistent with the Check-in and Checkout dates provided in fields [4.73](#) and [4.74](#). The field entry must be right-justified and zero-filled. If the charge type equals one, the Stay Duration can not equal 00. If the charge type is two or three, the Stay Duration must equal 00.

4.267 Stop-over code

This one-character field contains a value identifying whether a Stop-over is permitted with the purchased ticket.

Table 4.55 [Stop-over code](#)

Code	Description
<SPACE>	Not Applicable
O	Stop-over Allowed
X	Stop-over Not Allowed

4.268 Store code

The store code is made up of the clients Org. ID and the specific locations store number, for example, 555000001 (see [Table 3.2.6](#) for record format).

4.269 Store number

This four-character numeric field contains a number assigned by the merchant's bank or processor (see [Table 3.1](#) for record format). This field is used to identify a specific merchant store location within the member systems. This number must be right-justified and zero-filled. This field should be configurable as a parameter.

4.270 Sub-merchant ID

This 15-digit field, assigned by the Payment Facilitator or the Acquirer, must be provided on all MasterCard transactions that originate from a Payment Facilitator.

4.275 TAD line item count

This three-character numeric right-justified zero-filled field is used to indicate how many Transaction Advice Detail Line Item records are present for this transaction (see [Table 3.2.6](#) for record format). The current maximum value for this field is “005”. If the value is non-numeric, or exceeds “005”, the batch will be rejected.

4.276 Tax amount

This numeric 12-byte field contains the monetary amount of the additional tax. This value can be all zeroes.

4.277 Tax amount indicator

This one-byte alphanumeric field contains the code indicating how additional tax information is captured and reported.

Code	Description
Y	Tax is included in the total purchase amount
N	Tax is not included in the total purchase amount

4.278 Tax rate

This 5-byte numeric field contains the detailed tax rate applied to the purchase.

The Detail Tax Rate and Detail Tax Rate Exponent fields are used together to express the tax rate. For example, if the value in the Tax Rate field is 12345 and the value in the Rate Exponent field is 3, then the amount in the Tax Rate field is read as 12.345.

4.279 Tax rate exponent

This 1-byte numeric field contains the decimal location of the Detail Tax Rate.

The Detail Tax Rate and Detail Tax Rate Exponent fields are used together to express the tax rate. For example, if the value in the Tax Rate field is 12345 and the value in the Tax Rate Exponent field is 3, then the amount in the the Tax Rate field is read as 12.345.

4.280 Tax treatment code

Indicates how the merchant is handling tax calculations. This field requires the use of Optional Data Group 26.

Table 4.57 Tax treatment code

Value	Description
-------	-------------

0	NLL-Net prices with tax calculated at the line item level.
1	NIL- Net prices with tax calculated at the invoice level
2	GLL- Gross prices given with tax information provided at the line item level.
3	GIL- Gross prices given with tax information provided at the invoice level.
4	NON- No tax applies (small supplier) on the invoice for the transaction
Space	Field not used.

4.281 Tax type applied

This 4-byte alphanumeric field contains the code that defines a tax category that may apply to specific domestic processing arrangements.

This field is not required, unless directed otherwise by MasterCard.

4.282 Tax type code

For tax amounts that can be categorized as one tax type, this field contains the Tax Type Code that corresponds to the entry in the preceding Total Tax Amount field.

Valid entries include the following:

056 = Sales Tax

NOTE: As of version 7.5.1 of this document, 056 is the only valid code for USA submissions.

4.283 Tax type identifier

This 2-byte alphanumeric field contains the code that identifies the type of tax that Detail Tax Amount represents.

Code	Description
00	Unknown
01	Federal or National Sales Tax
03	State Sales Tax
04	Local Sales Tax
05	Municipal Sales Tax
06	Other Tax
10	Value Added Tax (VAT)
11	Goods and Services Tax (GST)
12	Provincial Sales Tax (PST)

4.297 Total fare amount

This 12-character numeric field contains the total fare amount for all legs of travel. The amount provided in this field must be right-justified and zero-filled to 12 positions.

4.298 Total fee amount

This 12-character numeric field contains the sum of all fees national tax included in the transaction amount. The field entry must be right-justified and zero-filled to 12 positions.

4.299 Total tax amount

This numeric field contains the Total Tax Amount assessed at the point-of-sale, for all line items. This entry is the total of all taxes applicable to this transaction and it should not be used to report individual line item details for taxes.

4.300 Transaction code

This field contains a two-character Transaction Code used to identify the transaction type being settled (see [Table 3.2.4](#) for record format). This field must contain one of the values defined in [Table 4.59](#).

Table 4.59 [Transaction code](#)

Transaction code	Description
54	Purchase (Online or Offline)
55	Cash Advance
56	Purchase/Card Not Present (Online or Offline)
57	Quasi-Cash
5B	Bill Payment Transaction
5G	Account Funding Purchase (Online or Offline)
5H	Account Funding Purchase/Card Not Present (Online or Offline)
5J	Cardholder Funds Transfer (Online or Offline)
5K	Cardholder Funds Transfer/Card Not Present (Online or Offline)
92	EBT/Food Stamps - Return
93	Debit Purchase (Online)
94	Debit Return (Online)
96	EBT/Cash Benefits - Cash withdrawal
98	EBT/Food Stamps - Purchase
9B	Bill Payment Transaction
9C	PINless Debit Bill Payment
9E	EBT/Food Stamps - Electronic voucher

Transaction code	Description
9F	EBT/Cash Benefits - Purchase or purchase with cash back
9G	Debit Account Funding Purchase (Online)
9H	Debit Account Funding Return (Online)
9J	Debit Cardholder Funds Transfer (Online)
9K	Debit Funds Transfer Return (Online)
A0	Chip Card Transaction Advice Record (Limited Availability)
CR	Credit/Return (Offline)
FR	Account Funding Credit/Return (Offline)
H4	ACH Purchase
HR	ACH Return
M6	Internal Use Only
MR	Internal Use Only
TR	Cardholder Funds Transfer Credit/Return (Offline)
R3	Debit Prepaid Load

4.301 Transaction fee amount

Transaction fee amount is used in credit transactions to carry the acquirer-assessed surcharge for informational purposes only. This field can be zero length or nine alphanumeric characters in length. The format of the nine characters is "annnnnnnn" where "a" is either "D" for debit or "C" for credit and where "nnnnnnnn" is the numeric fee amount with the decimal implied.

Example: "D00000150" is a \$1.50 transaction fee amount debited to the cardholder's account.

The following are valid values for the transaction fee indicator in the beginning of this field:

Value	Description
C	The surcharge indicates a credit to the consumer account.
D	The surcharge indicates a debit from the consumer account.

4.302 Transaction identifier

This 15-character field contains a Transaction Identifier associated with the transaction being settled (see [Table 3.2.4](#) for record format). If the transaction was authorized online, this field must contain the value (if returned) from the original authorization response message. If the Transaction Identifier received in the original authorization response message is less than 15-character numeric, left-justify and space-fill to 15 bytes in this field. If a value was not returned in the authorization response or the transaction was processed offline, this field must be defaulted to zeros.

4.303 Transaction security indicator

This indicates which kind of transaction security is contained in the detail record. This could be any of the values shown in [Table 4.60](#) below.

NOTE Gen 2 Terminal Authentication is required for participation in Encryption or Tokenization.

Table 4.60 Transaction security indicator

Value	Record type
E	The Card Account Number is Encrypted
T	The Card Account Number is a Token

4.304 Transaction sequence number

This field contains a four-character numeric Transaction Sequence number generated by the POS device for tracking purposes (see [Table 3.2.4](#) for record format). This field value should be right-justified and zero-filled. This field must contain the value populated during the original authorization request.

NOTE: This field will always contain at least one non-zero value populated during authorization.

4.305 Transaction status code

This field contains a two-character numeric code providing additional data on the characteristics of the transaction being settled (see [Table 3.2.4](#) for record format). The first position is utilized to indicate whether a partial authorization reversal is associated with the transaction being settled. The second position indicates whether a host acknowledgment (ACK) was received to a POS device generated debit confirmation message. If Authorization Reversal or Direct Debit transaction are not being supported, this field must be defaulted to “00.”

Table 4.61 Transaction status code

Position	Comments
1	REVERSAL TRANSMITTED 0 - No Authorization Reversal Transmitted 1 - An Authorization Reversal Was Transmitted
2	PROTOCOL COMPLETION STATUS 0 - Host Acknowledgment <ACK> Received 1 - Host Acknowledgment NOT Received

4.306 Transaction type

This field indicates the type of financial transaction used by the card to calculate the cryptogram. Valid values for Visa, MasterCard, PayPal and Discover are:

Value	Description
00	Goods or Service Purchase
01	Withdrawal/Cash Advance
02	Adjustment - Debit
03	Check Guarantee (funds guaranteed)
11	Quasi-Cash Transaction
17	Script
19	Fee Collection
20	Return (of goods)
22	Adjustment - Credit
29	Funds Disbursement
30	Available Funds Inquiry
40	Cardholder Account Transfer
A0	COPAC Goods or Service Purchaser (Obsolete)
A1	COPAC Withdrawal Cash Advance (Obsolete)

Valid values for American Express are:

Value	Description
00	Debit
01	Cash
20	Credit

4.307 Transit transaction type indicator

This field contains a two-character numeric value to identify the type of transit transaction.

Table 4.62 [*Transaction type*](#)

Value	Description
01	Prefunded
02	Real-time Authorized
03	Post-Authorized Aggregated
04	Authorized Aggregated Split Clearing
05	Other
07	Debt Recovery

4.321.2 Visa non-T&E and fleet non-fuel item VAT tax amount

This 12-character numeric field contains the amount of any value added taxes which can be associated with the purchased item. The field entry must be right-justified and zero-filled to 12 positions.

4.321.3 Visa motor fuel VAT tax amount

This nine-character field contains the amount of the value added tax. This field is left-justified and space-filled to nine positions.

4.322 VAT (or miscellaneous) tax rate

This four-character field contains the tax rate used to calculate the sales tax amount appearing in field 4.219. For fueling transactions, this field is expressed in percentage terms for the fuel purchased. This field has a two-character numeric implied decimal position. The field entry must be right-justified and zero-filled to four positions.

4.322.1 Visa and MasterCard VAT tax rate

This four-character field contains the tax rate used to calculate the tax amount. For fueling transactions, this field is expressed in percentage terms for the fuel purchased. This field has a two-character numeric implied decimal position. The field entry must be right-justified and zero-filled to four positions.

4.322.2 MasterCard fleet fuel item VAT tax rate

This five-character field contains the tax rate used to calculate the tax amount. For fuelling transactions, this field is expressed in percentage terms for the fuel purchased. This field has a two-character implied decimal position. The field entry must be right-justified and zero-filled to five positions.

4.323 Vendor name

This 17-character alphanumeric field contains the Vendor name of where the purchased goods are being shipped. The field entry must be left-justified and space-filled to 17 positions.

4.324 Version number

This three-character numeric field contains the version number for specific groups.

Table 4.66 Group values and description

Group	Value	Description
37	001	MasterCard Miscellaneous Fields
38	001	Visa Miscellaneous Fields
40	001	Discover/PayPal Miscellaneous Fields
41	001	Miscellaneous Payment Transaction Identifier

4.325 Void indicator

This field contains a one-character Void Indicator (see [Table 3.2.4](#) for record format). This field may contain a “V” if the transaction being settled was voided or canceled, although it is recommended that these transactions be deleted entirely from the settlement batch file and not be submitted during settlement. For any other transaction status, this field must be defaulted to a space.

4.326 Weekly rental rate

This 12-character numeric field contains the weekly rate used in the calculation of the charge. This field should be defaulted to zeros if a daily rate is being applied.

4.327 X.25 routing ID

The X.25 Routing Identifier is utilized for the routing of the settlement packets through the TSYS Acquiring Solutions system. This character is defined as a “Z.”

4.328 XID

This field contains a 40-character value assigned to a SET or 3-D Secure transaction as a unique transaction identifier. This feature is no longer supported in settlement.

Chapter 5

Record format examples

This section provides specific examples of frequently utilized message formats. These examples also provide default field values for illustration and testing purposes.

NOTE: Tables provided in this chapter are for example only. Please reference the sections provided for a complete description of all applicable values. For the Acquirer Bin, Agent Bank Number, Store, and Terminal Number in development usage, please contact the TSYS Acquiring Solutions Development Lab for specific values on these fields. For production development, please contact the Acquiring bank of the merchant for these and other applicable values.

5.1 Header record (base group)

Table 5.1 Header record (base group)

K-Format Header Record (Base Group)					
Byte	Length	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	H@@@@@	4.230
10-15	6	NUM	Acquirer BIN		4.2
16-21	6	NUM	Agent Bank Number	111111	4.22
22-27	6	NUM	Agent Chain Number	000000	4.23
28-39	12	NUM	Merchant Number		4.186
40-43	4	NUM	Store Number		4.269
44-47	4	NUM	Terminal Number		4.289
48	1	A/N	Device Code	C, D, E, I, M, Q	4.101
49	1	A/N	Industry Code	D, F, G, R	4.142
50-52	3	NUM	Currency Code		4.86
53-54	2	NUM	Language Indicator	00	4.160
55-57	3	NUM	Time Zone Differential		4.293
58-61	4	NUM	Batch Transmission Date	MMDD	4.46
62-64	3	NUM	Batch Number	001 - 999	4.42
65	1	NUM	Blocking Indicator	0 - Not Blocked 2 - Blocked	4.47

5.2 Header record (Gen 2 terminal authentication)

Table 5.2 Header record (Gen 2 terminal authentication)

Encrypted Transmission Block Record					
Byte	Length	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	H@@@H (Group 4)	4.230
10-15	6	NUM	Acquirer BIN		4.2
16-21	6	NUM	Agent Bank Number	111111	4.22
22-27	6	NUM	Agent Chain Number	000000	4.23
28-39	12	NUM	Merchant Number		4.186
40-43	4	NUM	Store Number		4.269
44-47	4	NUM	Terminal Number		4.289
48	1	A/N	Device Code	C,D,E,I,M,Q	4.101
49	1	A/N	Industry Code	D, F, G, R	4.142
50-52	3	NUM	Currency Code		4.86
53-54	2	NUM	Language Indicator	00	4.160
55-57	3	NUM	Time Zone Differential		4.293
58-61	4	NUM	Batch Transmission Date	MMDD	4.46
62-64	3	NUM	Batch Number	001 - 999	4.42
65	1	NUM	Blocking Indicator	0 - Not Blocked 2 - Blocked	4.47
66-89	24	ASCII	Genkey	ASCII Representation of HEX	4.134

5.3 Header record (passenger transport)

Table 5.3 Header record (passenger transport)

K-Format Header Record (Passenger Transport)					
Byte	Length	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	H@@@A (Group 1)	4.230

K-Format Header Record (Hotel/Auto Rental)					
Byte	Length	Format	Field description	Content	Section
49	1	A/N	Industry Code	A - Auto Rental H - Hotel	4.142
50-52	3	NUM	Currency Code		4.86
53-54	2	NUM	Language Indicator	00	4.160
55-57	3	NUM	Time Zone Differential		4.293
58-61	4	NUM	Batch Transmission Date	MMDD	4.46
62-64	3	NUM	Batch Number	001 - 999	4.42
65	1	NUM	Blocking Indicator	0 - Not Blocked 2 - Blocked	4.47
66-76	11	A/N	Merchant Local Phone Num	999-9999999	4.184
77-87	11	A/N	Cardholder Svc Phone Number	999-9999999	4.61

5.5 Parameter record (base group)

Table 5.5 Parameter record (base group)

K-Format Parameter Record (Base Group)					
Byte	Length	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	P@@@@	4.230
10-12	3	NUM	Country Code	840	4.79
13-21	9	A/N	City Code	Left-justified/space-filled	4.75
22-25	4	NUM	Merchant Category Code	5999	4.180
26-50	25	A/N	Merchant Name	Left-justified/space-filled	4.51.1
51-63	13	A/N	Merchant City	Left-justified/space-filled	4.51.2
64-65	2	A/N	Merchant State		4.51.3
66-70	5	A/N	Merchant Location Number	00001	4.185
71-78	8	NUM	Terminal ID Number		4.288

5.6 Parameter record (direct marketing)

Table 5.6 Parameter record (direct marketing)

K-Format Parameter Record (Direct Marketing)					
Byte	Length	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	P@@@@	4.230
10-12	3	NUM	Country Code	840	4.79
13-21	9	A/N	City Code	Left-justified/space-filled	4.75
22-25	4	NUM	Merchant Category Code	5999	4.180
26-50	25	A/N	Merchant Name	Left-justified/space-filled	4.51.1
51-63	13	A/N	Cardholder Svc.Phone Number	999-9999999	4.61
64-65	2	A/N	Merchant State		4.51.3
66-70	5	A/N	Merchant Location Number	00001	4.185
71-78	8	NUM	Terminal ID Number		4.288

5.7 Encrypted Transmission Block (ETB) record

Table 5.7 Encrypted Transmission Block (ETB) record

Encrypted Transmission Block Record					
Byte	Length	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	E@@@@@	4.230
10	1	A/N	Encryption Type	V	4.112
11-15	5	NUM	Encryption Data Size	264	4.111
-	VAR	A/N	Encrypted Transmission Block		4.110

5.8 Detail record (base group)

Table 5.8 Detail record (base group)

K-Format Detail Record (Base Group)					
Byte	Length	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	D@@@	4.230
10-11	2	A/N	Transaction Code	54 - Purchase 56 - Card not present CR - Credit/Return	4.300
12	1	A/N	Cardholder Identification Code	@ - Signature M - Bad Mag read	4.58
13	1	A/N	Account Data Source Code	@ - No Cardreader D - Track 2 Read H - Track 1 Read T - Keyed/Track 2 Capable X - Keyed/Track 1 Capable	4.1
14-35	22	A/N	Cardholder Account Number	Left-justified/space-filled	4.56
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37
39-42	4	NUM	Transaction Sequence Number	Right-justified/zero-filled	4.303
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Approval Code	Left-justified/space filled	4.34
51-54	4	NUM	Local Transaction Date	MMDD	4.172
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code	0 - No AVS	4.21
62-76	15	A/N	Transaction Identifier	Left-justified/space-filled	4.301
77-80	4	A/N	Validation Code		4.320
81	1	A/N	Void Indicator	<SPACE> - Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00	4.305
84	1	A/N	Reimbursement Attribute		4.232
85-96	12	NUM	Settlement Amount	Right-justified/zero-filled	4.255
97-108	12	NUM	Authorized Amount	Right-justified/zero-filled	4.38

5.9 Encrypted detail record

Table 5.9 Encrypted detail record

K-Format Detail Record with Encrypted PAN					
Byte	Length	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	DP@@@	4.230
10-11	2	A/N	Transaction Code	54 - Purchase 56 - Card not present CR - Credit/Return	4.300
12	1	A/N	Cardholder Identification Code	@ - Signature N- CNP/e-Commerce	4.58
13	1	A/N	Account Data Source Code		4.1
14-35	22	A/N	Cardholder Account Number	Encrypted Cardholder Account Number	4.56
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37
39-42	4	NUM	Trans Sequence Number	Right-justified/zero-filled	4.303
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Approval Code	Left-justified/space-filled	4.34
51-54	4	NUM	Local Transaction Date	MMDD	4.172
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code	0 - AVS	4.21
62-76	15	A/N	Transaction Identifier	Left-justified/space-filled	4.301
77-80	4	A/N	Validation Code		4.320
81	1	A/N	Void Indicator	<SPACE> - Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00	4.305
84	1	A/N	Reimbursement Attribute		4.232
85-96	12	NUM	Settlement Amount	Right-justified/zero-filled	4.255
97-108	12	NUM	Authorized Amount	Right-justified/zero-filled	4.38
109-112	4	A/N	Group Map	D@@@	4.230.1
113	1	A/N	Transmission Security Indicator	E	4.303

5.10 Detail record with token

Table 5.10 Detail record with token

K-Format Detail Record with Token					
Byte	Length	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	DP@@@	4.230
10-11	2	A/N	Transaction Code	54 - Purchase 56 - Card not present CR - Credit/Return	4.300
12	1	A/N	Cardholder Identification Code	@ - Signature N- CNP/e-Commerce	4.58
13	1	A/N	Account Data Source Code		4.1
14-35	22	A/N	Cardholder Account Number	Token	4.56
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37
39-42	4	NUM	Trans Sequence Number	Right-justified/zero-filled	4.303
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Approval Code	Left-justified/space-filled	4.34
51-54	4	NUM	Local Transaction Date	MMDD	4.172
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code	0 - AVS	4.21
62-76	15	A/N	Transaction Identifier	Left-justified/space-filled	4.301
77-80	4	A/N	Validation Code		4.320
81	1	A/N	Void Indicator	<SPACE> - Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00	4.305
84	1	A/N	Reimbursement Attribute		4.232
85-96	12	NUM	Settlement Amount	Right-justified/zero-filled	4.255
97-108	12	NUM	Authorized Amount	Right-justified/zero-filled	4.38
109-112	4	A/N	Group Map	D@@@	4.230.1
113	1	A/N	Transmission Security Indicator	T	4.303

5.11 Detail record (restaurant)

Table 5.11 Detail record (restaurant)

K-Format Detail Record (Restaurant)					
Byte	Length	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	D@@@B (Group 2)	4.230
10-11	2	A/N	Transaction Code	54 - Purchase 56 - Card not present CR - Credit/Return	4.300
12	1	A/N	Cardholder Identification Code	@ - Signature	4.58
13	1	A/N	Account Data Source Code	@ - No Cardreader D - Track 2 Read H - Track 1 Read T - Keyed/Track 2 Capable X - Keyed/Track 1 Capable	4.1
14-35	22	A/N	Cardholder Account Number	Left-justified/space-filled	4.56
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37
39-42	4	NUM	Trans Sequence Number	Right-justified/zero-filled	4.303
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Approval Code	Left-justified/space-filled	4.34
51-54	4	NUM	Local Transaction Date	MMDD	4.172
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code	0 - No AVS	4.21
62-76	15	A/N	Transaction Identifier	Left-justified/space-filled	4.301
77-80	4	A/N	Validation Code	Left-justified/space-filled	4.320
81	1	A/N	Void Indicator	<SPACE> - Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00	4.305
84	1	A/N	Reimbursement Attribute		4.232
85-96	12	NUM	Settlement Amount	Right-justified/zero-filled	4.255
97-108	12	NUM	Authorized Amount	Right-justified/zero-filled	4.38
109-120	12	NUM	Gratuity Amount	Right-justified/zero-filled	4.136

5.12 Detail record (direct marketing)

Table 5.12 Detail record (direct marketing)

K-Format Detail Record (Direct Marketing)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	D@@@D (Groups 3 and 12)	4.230
10-11	2	A/N	Transaction Code	56 - Card not present CR - Credit/Return	4.300
12	1	A/N	Cardholder Identification Code	N - AVS	4.58
13	1	A/N	Account Data Source Code	@ - No Cardreader T - Keyed/Track 2 Capable X - Keyed/Track 1 Capable	4.1
14-35	22	A/N	Cardholder Account Number	Left-justified/space-filled	4.56
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37
39-42	4	NUM	Transaction Sequence Number	Right-justified/zero-filled	4.303
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Approval Code	Left-justified/space-filled	4.34
51-54	4	NUM	Shipping Date	MMDD	4.172.2
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code		4.21
62-76	15	A/N	Transaction Identifier	Left-justified/space-filled	4.301
77-80	4	A/N	Validation Code	Left-justified/space-filled	4.320
81	1	A/N	Void Indicator	<SPACE> - Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00 - No Auth. Reversal 10 - Auth. Reversal Sent	4.305
84	1	A/N	Reimbursement Attribute		4.232
85-96	12	NUM	Settlement Amount	Right-justified/zero-filled	4.255
97-108	12	NUM	Authorized Amount	Right-justified/zero-filled	4.38
109-120	12	NUM	Total Authorized Amount	Right-justified/zero-filled	4.294
121	1	A/N	Purchase ID Format Code	1	4.225
122-146	25	A/N	Purchase Identifier	Left-justified/space-filled	4.223

K-Format Detail Record (Direct Marketing)					
Byte	Size	Format	Field description	Content	Section
147-148	2	NUM	Multiple Clearing Sequence Number		4.199
149-150	2	NUM	Multiple Clearing Sequence Count		4.197
151	1	A/N	MOTO/e-Commerce Indicator	1-Direct Marketing	4.196

5.13 Detail record (hotel)

Table 5.13 Detail record (hotel)

K-Format Detail Record (Hotel)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	D@@@P (Group 5)	4.230
10-11	2	A/N	Transaction Code	54 - Purchase 56 - Card not present CR - Credit/Return	4.300
12	1	A/N	Cardholder Identification Code	@ - Signature	4.58
13	1	A/N	Account Data Source Code	@ - No Cardreader D - Track 2 Read H - Track 1 Read T - Keyed/Track 2 Capable X - Keyed/Track 1 Capable	4.1
14-35	22	A/N	Cardholder Account Number	Left-justified/space-filled	4.56
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37
39-42	4	NUM	Transaction Sequence Number	Right-justified/zero-filled	4.303
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Approval Code	Left-justified/space-filled	4.34
51-54	4	NUM	Checkout Date	MMDD	4.172.3
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code	0 - No AVS	4.21

K-Format Detail Record (Hotel)					
Byte	Size	Format	Field description	Content	Section
62-76	15	A/N	Transaction Identifier	Left-justified/space-filled	4.301
77-80	4	A/N	Validation Code	Left-justified/space-filled	4.320
81	1	A/N	Void Indicator	<SPACE> - Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00 - No Auth. Reversal 10 - Auth. Reversal Sent	4.305
84	1	A/N	Reimbursement Attribute		4.232
85-96	12	NUM	Settlement Amount	Right-justified/zero-filled	4.255
97-108	12	NUM	Authorized Amount	Right-justified/zero-filled	4.38
109-120	12	NUM	Total Authorized Amount	Right-justified/zero-filled	4.294
121	1	A/N	Purchase ID Format Code	4	4.225
122-146	25	A/N	Hotel Folio Number	Left-justified/space-filled	4.224.3
147	1	A/N	Market Specific Data Identifier	H	4.178
148	1	A/N	No Show/Special Program Ind.	0 - Not Applicable 1 - No Show	4.206 and 4.264
149-154	6	A/N	Extra Charges	Left-justified/zero-filled	4.122
155-160	6	NUM	Check-in Date	YYMMDD (Refer to Section 4.73 if a Visa Advance Deposit)	4.73

5.14 Detail record (hotel/American Express)

Table 5.14 Detail record (hotel/ American Express)

K-Format Detail Record (Hotel/American Express)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	D@@AP (Groups 5 and 7)	4.230
10-11	2	A/N	Transaction Code	54 - Purchase 56 - Card not present CR - Credit/Return	4.300
12	1	A/N	Cardholder Identification Code	@ - Signature	4.58

K-Format Detail Record (Hotel/American Express)					
Byte	Size	Format	Field description	Content	Section
13	1	A/N	Account Data Source Code	@ - No Cardreader D - Track 2 Read H - Track 1 Read T - Keyed/Track 2 Capable X - Keyed/Track 1 Capable	4.1
14-35	22	A/N	Cardholder Account Number	Left-justified/space-filled	4.56
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37
39-42	4	NUM	Transaction Sequence Number	Right-justified/zero-filled	4.303
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Approval Code	Left-justified/space-filled	4.34
51-54	4	NUM	Checkout Date	MMDD	4.172.3
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code	0 - No AVS	4.21
62-76	15	A/N	Transaction Identifier	Left-justified/space-filled	4.301
77-80	4	A/N	Validation Code	Left-justified/space-filled	4.320
81	1	A/N	Void Indicator	<SPACE> - Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00 - No Auth. Reversal 10 - Auth. Reversal Sent	4.305
84	1	A/N	Reimbursement Attribute		4.232
85-96	12	NUM	Settlement Amount	Right-justified/zero-filled	4.255
97-108	12	NUM	Authorized Amount	Right-justified/zero-filled	4.38
109-120	12	NUM	Total Authorized Amount	Right-justified/zero-filled	4.294
121	1	A/N	Purchase ID Format Code	4	4.225
122-146	25	A/N	Hotel folio number	Left-justified/space-filled	4.224.3
147	1	A/N	Market Specific Data Identifier	H	4.178
148	1	A/N	No Show/Special Program Indicator		4.206 and 4.264
149-154	6	A/N	Extra Charges	Left-justified/zero-filled	4.122
155-160	6	NUM	Check-in Date	YYMMDD	4.73
161	1	A/N	Charge Type	1 - Hotel 2 - Restaurant 3 - Gift Shop	4.72
162-167	6	NUM	Checkout Date	YYMMDD	4.74
168-169	2	NUM	Stay Duration	Cannot be "00"	4.266

K-Format Detail Record (Hotel/American Express)					
Byte	Size	Format	Field description	Content	Section
170-181	12	NUM	Room Rate Amount	Right-justified/zero-filled	4.177

5.15 Detail record (auto rental)

Table 5.15 Detail record (auto rental)

K-Format Detail Record (Auto Rental)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	D@@@H (Group 4)	4.230
10-11	2	A/N	Transaction Code	54 - Purchase 56 - Card Not Present CR - Credit/Return	4.300
12	1	A/N	Cardholder Identification Code	@ - Signature	4.58
13	1	A/N	Account Data Source Code	@ - No Cardreader D - Track 2 Read H - Track 1 Read T - Keyed/Track 2 Capable X - Keyed/Track 1 Capable	4.1
14-35	22	A/N	Cardholder Account Number	Left-justified/space-filled	4.56
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37
39-42	4	NUM	Transaction Sequence Number	Right-justified/zero-filled	4.303
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Approval Code	Left-justified/space-filled	4.34
51-54	4	NUM	Rental Return Date	MMDD	4.172.4
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code	0 - No AVS	4.21
62-76	15	A/N	Transaction Identifier	Left-justified/space-filled	4.301
77-80	4	A/N	Validation Code	Left-justified/space-filled	4.320
81	1	A/N	Void Indicator	<SPACE> - Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00 - No Auth. Reversal 10 - Auth. Reversal Sent	4.305

K-Format Detail Record (Auto Rental/MasterCard)					
Byte	Size	Format	Field description	Content	Section
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37
39-42	4	NUM	Transaction Sequence Number	Right-justified/zero-filled	4.303
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Approval Code	Left-justified/space-filled	4.34
51-54	4	NUM	Rental Return Date	MMDD	4.172.4
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code	0 - No AVS	4.21
62-76	15	A/N	Transaction Identifier	Left-justified/space-filled	4.301
77-80	4	A/N	Validation Code	Left-justified/space-filled	4.320
81	1	A/N	Void Indicator	<SPACE> - Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00 - No Auth. Reversal 10 - Auth. Reversal Sent	4.305
84	1	A/N	Reimbursement Attribute		4.232
85-96	12	NUM	Settlement Amount	Right-justified/zero-filled	4.255
97-108	12	NUM	Authorized Amount	Right-justified/zero-filled	4.38
109-120	12	NUM	Total Authorized Amount	Right-justified/zero-filled	4.294
121	1	A/N	Purchase ID Format Code	3	4.225
122-146	25	A/N	Rental Agreement Number	Left-justified/space-filled	4.224.2
147	1	A/N	Market Specific Data Identifier	A	4.178
148	1	A/N	No Show/Special Program Indicator	0 - Not Applicable 1 - No Show	4.206
149-154	6	A/N	Extra Charges	Left-justified/zero-filled 1 - Gasoline 2 - Mileage 3 - Late Return 4 - One Way Service Fee 5 - Driving Violation	4.122
155-160	6	NUM	Rental Date	YYMMDD	4.233
161-180	20	A/N	Renter Name	Left-justified/space-filled	4.237
181-198	18	A/N	Rental Return City	Left-justified/space-filled	4.234
199-201	3	A/N	Rental Return State/Country	Left-justified/space-filled	4.236
202-211	10	A/N	Rental Return Location ID	Left-justified/space-filled	4.235

5.17 Detail record (passenger transport)

Table 5.17 Detail record (passenger transport)

K-Format Detail Record (Passenger Transport)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	D@@D@ (Group 9)	4.230
10-11	2	A/N	Transaction Code	54 - Purchase 56 - Card Not Present CR - Credit/Return	4.300
12	1	A/N	Cardholder Identification Code	@ - Signature	4.58
13	1	A/N	Account Data Source Code	@ - No Cardreader D - Track 2 Read H - Track 1 Read T - Keyed/Track 2 Capable X - Keyed/Track 1 Capable	4.1
14-35	22	A/N	Cardholder Account Number	Left-justified/space-filled	4.56
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37
39-42	4	NUM	Transaction Sequence Number	Right-justified/zero-filled	4.303
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Approval Code	Left-justified/space-filled	4.34
51-54	4	NUM	Local Transaction Date	MMDD	4.172
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code	0 - No AVS	4.21
62-76	15	A/N	Transaction Identifier	Left-justified/space-filled	4.301
77-80	4	A/N	Validation Code	Left-justified/space-filled	4.320
81	1	A/N	Void Indicator	<SPACE> - Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00 - No Auth. Reversal 10 - Auth. Reversal Sent	4.305
84	1	A/N	Reimbursement Attribute		4.232
85-96	12	NUM	Settlement Amount	Right-justified/zero-filled	4.255
97-108	12	NUM	Authorized Amount	Right-justified/zero-filled	4.38
109	1	A/N	Restricted Ticket Indicator		4.241

K-Format Detail Record (Passenger Transport)					
Byte	Size	Format	Field description	Content	Section
110-111	2	NUM	Multiple Clearing Sequence Number		4.199
112-113	2	NUM	Multiple Clearing Sequence Count		4.197
114-126	13	A/N	Ticket Number		4.292
127-146	20	A/N	Passenger Name	Left-justified/space-filled	4.217
147-152	6	NUM	Departure Date	MMDDYY	4.94
153-155	3	A/N	Origination City/Airport Code	Left-justified/space-filled	4.213
156-157	2	A/N	Leg 1 Carrier Code Abbreviation	Left-justified/space-filled	4.63
158	1	A/N	Leg 1 Service Class	Left-justified/space-filled	4.253
159	1	A/N	Leg 1 Stop-over Code	<SPACE> - Not Applicable O - Stop-over Allowed X - Stop-over Not Allowed	4.267
160-162	3	A/N	Leg 1 Destination City/Airport Code	Left-justified/space-filled	4.97
163-164	2	A/N	Leg 2 Carrier Code Abbreviation	Left-justified/space-filled	4.63
165	1	A/N	Leg 2 Service Class	Left-justified/space-filled	4.253
166	1	A/N	Leg 2 Stop-over Code	Left-justified/space-filled	4.267
167-169	3	A/N	Leg 2 Destination City/Airport Code	Left-justified/space-filled	4.97
170-171	2	A/N	Leg 3 Carrier Code Abbreviation	Left-justified/space-filled	4.63
172	1	A/N	Leg 3 Service Class	Left-justified/space-filled	4.253
173	1	A/N	Leg 3 Stop-over Code	Left-justified/space-filled	4.267
174-176	3	A/N	Leg 3 Destination City/Airport Code	Left-justified/space-filled	4.97
177-178	2	A/N	Leg 4 Carrier Code Abbreviation	Left-justified/space-filled	4.63
179	1	A/N	Leg 4 Service Class	Left-justified/space-filled	4.253
180	1	A/N	Leg 4 Stop-over Code	Left-justified/space-filled	4.267
181-183	3	A/N	Leg 4 Destination City/Airport Code	Left-justified/space-filled	4.97

5.18 Detail record (direct debit)

Table 5.18 Detail record (direct debit)

K-Format Detail Record (Direct Debit)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	D@@H@ (Group 10)	4.230
10-11	2	A/N	Transaction Code	93 - Debit Purchase 94 - Debit Return/Refund	4.300
12	1	A/N	Cardholder Identification Code	K - PIN	4.58
13	1	A/N	Account Data Source Code	D - Track 2 Read	4.1
14-35	22	A/N	Cardholder Account Number	Left-justified/space-filled	4.56
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37
39-42	4	NUM	Transaction Sequence Number	Right-justified/zero-filled	4.303
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Approval Code	Left-justified/space-filled	4.34
51-54	4	NUM	Local Transaction Date	MMDD	4.172
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code	0 - No AVS	4.21
62-76	15	A/N	Transaction Identifier	Left-justified/space-filled	4.301
77-80	4	A/N	Validation Code	Left-justified/space-filled	4.320
81	1	A/N	Void Indicator	<SPACE> - Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00 - <ACK> Received 01 - No <ACK> Received	4.305
84	1	A/N	Reimbursement Attribute		4.232
85-96	12	NUM	Settlement Amount	Right-justified/zero-filled	4.255
97-108	12	NUM	Authorized Amount	Right-justified/zero-filled	4.38
109-120	12	A/N	Retrieval Reference Number		4.246
121-126	6	NUM	System Trace Audit Number		4.273
127	1	A/N	Network Identification Code		4.204
128-131	4	NUM	Settlement Date	MMDD	4.256

5.19 Detail record (EBT)

Table 5.19 Detail record (EBT)

K-Format Detail Record (EBT)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	D@@H@ (Group 10)	4.230
10-11	2	A/N	Transaction Code	92 - EBT/FS Return 96 - EBT/CD Cash Withdrawal 98 - EBT/FS Purchase 9E - EBT/FS Electronic Voucher 9F - EBT/CD Purchase or Purchase with cash back	4.300
12	1	A/N	Cardholder Identification Code	K - PIN Z - Cardholder Signature - Terminal has a PIN Pad	4.58
13	1	A/N	Account Data Source Code	D - Track 2 Read T - Manual Entry/T2 X - Manual Entry/T1	4.1
14-35	22	A/N	Cardholder Account Number	Left-justified/space-filled	4.56
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37
39-42	4	NUM	Transaction Sequence Number	Right-justified/zero-filled	4.303
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Approval Code	Left-justified/space-filled	4.34
51-54	4	NUM	Local Transaction Date	MMDD	4.172
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code	0 - No AVS	4.21
62-76	15	A/N	Transaction Identifier	Left-justified/space-filled	4.301
77-80	4	A/N	Validation Code	Left-justified/space-filled	4.320
81	1	A/N	Void Indicator	<SPACE> - Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00 - <ACK> Received 01 - No <ACK> Received	4.305
84	1	A/N	Reimbursement Attribute		4.232
85-96	12	NUM	Settlement Amount	Right-justified/zero-filled	4.255

K-Format Detail Record (e-Commerce)					
Byte	Size	Format	Field description	Content	Section
84	1	A/N	Reimbursement Attribute		4.232
85-96	12	NUM	Settlement Amount	Right-justified/zero-filled	4.255
97-108	12	NUM	Authorized Amount	Right-justified/zero-filled	4.38
109-120	12	NUM	Total Authorized Amount	Right-justified/zero-filled	4.294
121	1	A/N	Purchase Identifier Format Code	1	4.225
122-146	25	A/N	Purchase Identifier	Left-justified/space-filled	4.223
147-148	2	NUM	Multiple Clearing Sequence Number		4.199
149-150	2	NUM	Multiple Clearing Sequence Count		4.197
151	1	A/N	MOTO/e-Commerce Indicator	7 - Channel Encrypted 8 - Non-Secure	4.196

5.21 Detail record (quasi-cash)

Table 5.21 Detail record (quasi-cash)

K-Format Detail Record (Quasi-Cash)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	D@@@	4.230
10-11	2	A/N	Transaction Code	57 - Quasi-Cash	4.300
12	1	A/N	Cardholder Identification Code	@ - Signature N - CNP/e-Commerce	4.58
13	1	A/N	Account Data Source Code	@ - No Cardreader D - Track 2 Read H - Track 1 Read T - Keyed/Track 2 Capable X - Keyed/Track 1 Capable	4.1
14-35	22	A/N	Cardholder Account Number	Left-justified/space-filled	4.56
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37
39-42	4	NUM	Transaction Sequence Number	Right-justified/zero-filled	4.303

K-Format Detail Record (Quasi-Cash)					
Byte	Size	Format	Field description	Content	Section
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Approval Code	Left-justified/space-filled	4.34
51-54	4	NUM	Local Transaction Date	MMDD	4.172
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code	0 - No AVS	4.21
62-76	15	A/N	Transaction Identifier	Left-justified/space-filled	4.301
77-80	4	A/N	Validation Code		4.320
81	1	A/N	Void Indicator	<SPACE> - Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00	4.305
84	1	A/N	Reimbursement Attribute		4.232
85-96	12	NUM	Settlement Amount	Right-justified/zero-filled	4.255
97-108	12	NUM	Authorized Amount	Right-justified/zero-filled	4.38

5.22 Detail record (CCS private label)

Table 5.22 Detail record (CCS private label)

K-Format Detail Record (CSS Private Label)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single Batch 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	DA@@@ (Group 19)	4.230
10-11	2	A/N	Transaction Code	54 - Purchase 56 - Card Not Present	4.300
12	1	A/N	Cardholder Identification Code	@ - Signature	4.58
13	1	A/N	Account Data Source Code	@ - No Cardreader D - Track 2 Read H - Track 1 Read T - Keyed/Track 2 Capable X - Keyed/Track 1 Capable	4.1
14-35	22	A/N	Cardholder Account Number	Left-justified/space-filled	4.56
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37

K-Format Detail Record (CSS Private Label)					
Byte	Size	Format	Field description	Content	Section
39-42	4	NUM	Transaction Sequence Number	Right-justified/zero-filled	4.303
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Approval Code	Left-justified/space-filled	4.34
51-54	4	NUM	Local Transaction Date	MMDD	4.172
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code	0 - No AVS	4.21
62-76	15	A/N	Transaction Identifier	Left-justified/space-filled	4.301
77-80	4	A/N	Validation Code		4.320
81	1	A/N	Void Indicator	<SPACE> - Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00	4.305
84	1	A/N	Reimbursement Attribute		4.232
85-96	12	NUM	Settlement Amount	Right-justified/zero-filled	4.255
97-108	12	NUM	Authorized Amount	Right-justified/zero-filled	4.38
109-113	5	NUM	Credit Plan Number	Right-justified/zero-filled	4.81
114-117	4	A/N	Product Code 1	Left-justified/space-filled	4.222
118-112	4	A/N	Product Code 2	Left-justified/space-filled	4.222
122-125	4	A/N	Product Code 3	Left-justified/space-filled	4.222
126-129	4	A/N	Product Code 4	Left-justified/space-filled	4.222
130-133	4	A/N	Product Code 5	Left-justified/space-filled	4.222
134-136	3	NUM	Org. ID	Right-justified/zero-filled	4.212
137-145	9	NUM	Store Code	Right-justified/zero-filled	4.268
146-151	6	NUM	Receiving Institution ID	Right-justified/zero-filled	4.228

5.23 Trailer record

Table 5.23 Trailer record

K-Format Trailer Record					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	T@@@@	4.230
10-13	4	NUM	Batch Transmission Date	MMDD	4.46
14-16	3	NUM	Batch Number	001 - 999	4.42
17-25	9	NUM	Batch Record Count	Right-justified/zero-filled	4.43
26-41	16	NUM	Batch Hashing Total	Purchases + Returns	4.40
42-57	16	NUM	Cash Back Total	0000000000000000	4.65
58-73	16	NUM	Batch Net Deposit	Purchases - Returns	4.41

5.24 Trailer record “GB” response record (accepted)

Table 5.24 Trailer record “GB” response record (accepted)

K-Format Trailer “GB” Response Record (Accepted)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	R@@@@	4.230
10-18	9	NUM	Batch Record Count	Right-justified/zero-filled	4.43
19-34	16	NUM	Batch Net Deposit	Right-justified/zero-filled	4.41
35-36	2	A/N	Batch Response Code	GB	4.44
37-38	2	NUM	Filler	00	4.126
39-41	3	NUM	Batch Number	999	4.42
42-50	9	A/N	Batch Response Text	_ACCEPTED	4.45
51-66	16	A/N	Filler	Spaces	4.125

5.25 Trailer “RB” response record (rejected)

Table 5.25 Trailer “RB” response record (rejected)

K-Format Trailer “RB” Response Record (Rejected)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 - Single 3 - Multiple Batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	R@@@@	4.230
10-18	9	NUM	Batch Record Count	Right-justified/zero-filled	4.43
19-34	16	NUM	Filler	0000000000000000	4.126
35-36	2	A/N	Batch Response Code	RB	4.44
37-38	2	NUM	Filler	00	4.126
39-41	3	NUM	Batch Number	999	4.42
42	1	A/N	Error Type	B - Blocked Terminal C - Card Type Error D - Device Error E - Error in Batch P - Platform Residency Requirement Error S - Sequence Error T - Transmission Error U - Unknown Error V - Routing Error	4.117
43-46	4	NUM	Error Record Sequence Number	Right-justified/zero-filled	4.115
47	1	A/N	Error Record Type	H - Header Record P - Parameter Record D - Detail Record T - Trailer Record K - Hierarchy	4.116
48-49	2	NUM	Error Data Field Number	99	4.114
50-66	17	A/N	Error Data	Left-justified/space-filled	4.113

5.26 Trailer “QD” duplicate batch response record

Table 5.26 Trailer “QD” duplicate batch response record

K-Format Trailer “QD” Duplicate Batch Response Record					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229

Chapter 6

Level III and Fleet message format examples

This section provides specific examples of frequently utilized message formats. These examples also provide default field values for illustration and testing purposes.

NOTE: The format examples provided in this section are not intended to illustrate the complete range of message format possibilities.

6.1 Header record level III or fleet data

K-Format Header Record Level III or Fleet Data (Base Group)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	5 = Single batch line item 6 = Mult. batch line item	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	H@@@@	4.230
10-15	6	NUM	Acquirer Bin	999995	4.2
16-21	6	NUM	Agent Bank Number	111111	4.22
22-27	6	NUM	Agent Chain Number	000000	4.23
28-39	12	NUM	Merchant Number	999999999911	4.186
40-43	4	NUM	Store Number	0011	4.269
44-47	4	NUM	Terminal Number	9911	4.289
48	1	A/N	Device Code	C, D, E, I, M	4.101
49	1	A/N	Industry Code	D, F, G, R	4.142
50-52	3	NUM	Currency Code		4.86
53-54	2	NUM	Language Indicator	00	4.160
55-57	3	NUM	Time Zone Differential		4.293
58-61	4	NUM	Batch Transmission Date	MMDD	4.46
62-64	3	NUM	Batch Number	001-999	4.42
65	1	NUM	Blocking Indicator	0 = Not blocked 2 = Blocked	4.47

6.2 Parameter record level III or fleet data

K-Format Parameter Record Level III or Fleet Data (Direct Marketing)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	5 = Single batch line item 6 = Mult. batch line item	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	P@@@@	4.230
10-12	3	NUM	Country Code	840	4.79
13-21	9	A/N	City Code	Left-justified/space filled	4.75
22-25	4	NUM	Merchant Category Code	5999	4.180
26-50	25	A/N	Merchant Name	Left-justified/space filled	4.51.1
51-63	13	A/N	Merchant City	Left-justified/space filled	4.51.2
64-65	2	A/N	Merchant State		4.51.3
66-70	5	A/N	Merchant Location Number	00001	4.185
71-78	8	NUM	Terminal ID Number	00000001	4.288

6.3 Parameter record level III or fleet data (direct marketing)

K-Format Parameter Record Level III or Fleet Data (Direct Marketing)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	1 = Single batch 3 = Multiple batch	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	P@@@@	4.230
10-12	3	NUM	Country Code	840	4.79
13-21	9	A/N	City Code	Left-justified/space filled	4.75
22-25	4	NUM	Merchant Category Code	5999	4.180
26-50	25	A/N	Merchant Name	Left-justified/space filled	4.51.1
51-63	13	A/N	Cardholder Service Phone Number	999-9999999	4.61
64-65	2	A/N	Merchant State		4.51.3
66-70	5	A/N	Merchant Location Number	00001	4.185
71-78	8	NUM	Terminal ID Number	00000001	4.288

6.4 Detail record level III or fleet data (Visa line items without group 12)

K-Format Detail Record Level III or Fleet Data (Base Group)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	5 = Single batch line item 6 = Mult. batch line item	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	DP@@@@	4.230
10-11	2	A/N	Transaction Code	54 = Purchase 56 = Card Not Present CR = Credit/Return	4.300
12	1	A/N	Cardholder Identification Code	@ = Signature M = Bad mag. read	4.58
13	1	A/N	Account Data Source Code	@ = No Cardreader D = Track 2 Read H = Track 1 Read T = Keyed/Track 2 Capable X = Keyed/Track 1 Capable	4.1
14-35	22	A/N	Cardholder Account Number	Left-justified/space filled	4.56
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37
39-42	4	NUM	Transaction Sequence Number	Left-justified/space filled	4.303
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Authorization Code	Left-justified/space filled	4.37
51-54	4	NUM	Local Transaction Date	MMDD	4.172
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code	0 = No AVS	4.21
62-76	15	A/N	Transaction Identifier		4.301
77-80	4	A/N	Validation Code		4.320
81	1	A/N	Void Indicator	<SPACE> = Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00	4.305
84	1	A/N	Reimbursement Attribute	0	4.232

K-Format Detail Record Level III or Fleet Data (Base Group)					
Byte	Size	Format	Field description	Content	Section
85-96	12	NUM	Settlement Amount	Right-justified/zero filled	4.255
97-108	12	NUM	Authorized Amount	Right-justified/zero filled	4.38
109-112	4	A/N	Group Map	@@@C	4.230.1
113-124	12	NUM	Total Authorized Amount	Right-justified/zero filled	4.294
125	1	A/N	Purchase Identifier Format Code		4.225
126-150	25	A/N	Purchase Identifier	Left-justified/space filled	4.223
151	1	NUM	Local Tax Included Flag		4.171
152-163	12	NUM	Local Tax	Right-justified/zero filled	4.170
164	1	NUM	National Tax Included Flag		4.201
165-176	12	NUM	National Tax Amount	Right-justified/zero filled	4.200
177-193	17	A/N	Cardholder Reference ID	Left-justified/space filled	4.59
194-213	20	A/N	Merchant VAT Reg./Single Business Ref. No.	Left-justified/space filled	4.189
214-226	13	A/N	Customer VAT Reg. No.	Left-justified/space filled	4.88
227-230	4	A/N	Summary Commodity Code	Left-justified/space filled	4.270
231-242	12	NUM	Discount Amount	Right-justified/zero filled	4.102
243-254	12	NUM	Freight Amount	Right-justified/zero filled	4.131
255-266	12	NUM	Duty Amount	Right-justified/zero filled	4.108
267-276	10	A/N	Destination Postal/ZIP Code	Left-justified/space filled	4.99
277-286	10	A/N	Ship from Postal/ZIP Code	Left-justified/space filled	4.257
287-289	3	A/N	Destination Country Code	Left-justified/space filled	4.98
290-304	15	A/N	Unique VAT Invoice Ref. No.	Left-justified/space filled	4.313
305-310	6	NUM	Order Date (YYMMDD)	Right-justified/zero filled	4.211
311-322	12	NUM	VAT/Tax Amount (Freight/Shipping)	Right-justified/zero filled	4.321
323-326	4	NUM	VAT/Tax Rate (Freight/Shipping)	Right-justified/zero filled	4.322
327-329	3	NUM	Line Item Count	Right-justified/zero filled	4.165

6.5 Detail record level III or fleet data (MasterCard line items without group 12)

K-Format Detail Record Level III or Fleet Data (Base Group)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	5 = Single batch line item 6 = Mult. batch line item	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	DP@@@@	4.230
10-11	2	A/N	Transaction Code	54 = Purchase 56 = Card Not Present CR = Credit/Return	4.300
12	1	A/N	Cardholder Identification Code	@ = Signature M = Bad mag. read	4.58
13	1	A/N	Account Data Source Code	@ = No Cardreader D = Track 2 Read H = Track 1 Read T = Keyed/Track 2 Capable X = Keyed/Track1 Capable	4.1
14-35	22	A/N	Cardholder Account Number	Left-justified/space filled	4.56
36	1	A/N	Requested ACI		4.238
37	1	A/N	Returned ACI		4.248
38	1	A/N	Authorization Source Code		4.37
39-42	4	NUM	Transaction Sequence Number	Right-justified/zero filled	4.303
43-44	2	A/N	Response Code		4.240
45-50	6	A/N	Authorization Code	Left-justified/space filled	4.37
51-54	4	NUM	Local Transaction Date	MMDD	4.172
55-60	6	NUM	Local Transaction Time	HHMMSS	4.173
61	1	A/N	AVS Result Code	0 = No AVS	4.21

K-Format Detail Record Level III or Fleet Data (Base Group)					
Byte	Size	Format	Field description	Content	Section
62-76	15	A/N	Transaction Identifier		4.301
77-80	4	A/N	Validation Code		4.320
81	1	A/N	Void Indicator	<SPACE>= Not Voided	4.325
82-83	2	NUM	Transaction Status Code	00	4.305
84	1	A/N	Reimbursement Attribute	0	4.232
85-96	12	NUM	Settlement Amount	Right-justified/zero filled	4.255
97-108	12	NUM	Authorized Amount	Right-justified/zero filled	4.38
109-112	4	A/N	Group Map	@@@E	4.230.1
113-124	12	NUM	Total Authorized Amount	Right-justified/zero filled	4.294
125	1	A/N	Purchase Identifier Format Code		4.225
126-150	25	A/N	Purchase Identifier	Left-justified/space filled	4.223
151	1	NUM	Local Tax Included Flag		4.171
152-163	12	NUM	Local Tax	Right-justified/zero filled	4.170
164	1	NUM	National Tax Included Flag		4.201
165-176	12	NUM	National Tax Amount	Right-justified/zero filled	4.200
177-193	17	A/N	Cardholder Reference ID	Left-justified/space filled	4.58
194-205	12	NUM	Freight Amount	Right-justified/zero filled	4.131
206-217	12	NUM	Duty Amount	Right-justified/zero filled	4.108
218-227	10	A/N	Destination Postal/ZIP Code	Left-justified/space filled	4.99
228-237	10	A/N	Ship from Postal/ZIP Code	Left-justified/space filled	4.257
238-240	3	A/N	Destination Country Code	Left-justified/space filled	4.98
241	1	A/N	Alternate Tax Amount Indicator		4.25
242-250	9	NUM	Alternate Tax Amount	Right-justified/zero filled	4.24
251-253	3	NUM	Line Item Count	Right-justified/zero filled	4.165

6.6 Visa line item record level III or fleet data

K-Format Detail Record Level III or Fleet Data (Base Group)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	5 = Single batch line item 6 = Mult. batch line item	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	L@@@@	4.230
10-13	4	A/N	Line Item Card Type	VISA	4.164
14-25	12	A/N	Item Commodity Code	Left-justified/space filled	4.152
26-60	35	A/N	Item Description	Left-justified/space filled	4.153
61-72	12	A/N	Product Code	Left-justified/space filled	4.222
73-84	12	NUM	Quantity	Right-justified/zero filled Four decimal places implied	4.227
85-96	12	A/N	Unit of Measure/Code	Left-justified/space filled	4.316
97-108	12	NUM	Unit Cost	Right-justified/zero filled Four decimal places implied	4.314
109-120	12	NUM	VAT/Tax Amount	Right-justified/zero filled	4.321
121-124	4	NUM	VAT/Tax Rate	Right-justified/zero filled	4.322
125-136	12	NUM	Discount Per Line Item	Right-justified/zero filled	4.102
137-148	12	NUM	Line Item Total	Right-justified/zero filled	4.167

6.7 MasterCard line item record level III or fleet data

K-Format Detail Record Level III or Fleet Data (Base Group)					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	5 = Single batch line item 6 = Mult. batch line item	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	L@@@@	4.230
10-13	4	A/N	Line Item Card Type	MCRD	4.164
14-49	35	A/N	Item Description	Left-justified/space filled	4.153
50-61	12	A/N	Product Code	Left-justified/space filled	4.222
62-73	12	NUM	Item Quantity	Right-justified/zero filled	4.227
74-85	12	A/N	Item Unit of Measure	Left-justified/space filled	4.314
86-100	15	A/N	Alternate Tax Identifier	Left-justified/space filled	4.26
101-104	4	NUM	Tax Rate Applied	Right-justified/zero filled	4.322
105-108	4	A/N	Tax Type Applied	Left-justified/space filled	4.318
109-120	12	NUM	Tax Amount	Right-justified/zero filled	4.321
121	1	A/N	Discount Indicator		4.104
122	1	A/N	Net/Gross Indicator		4.202
123-131	9	NUM	Extended Item Amount	Right-justified/zero filled	4.121
132	1	A/N	Debit/Credit Indicator		4.93
133-144	12	NUM	Discount Amount	Left-justified/space filled	4.102
145-149	5	A/N	Item Discount Rate	Right-justified/zero filled	4.156
150	1	A/N	Item Quantity Exponent Indicator	Space-fill if unused	4.158
151	1	A/N	Item Discount Exponent Indicator	Space-fill if unused	4.155

6.8 Trailer record level III or fleet data

K-Format Trailer Record Level III or Fleet Data					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	5 = Single batch line item 6 = Mult. batch line item	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	T@@@@	4.230
10-13	4	NUM	Batch Transmission Date	MMDD	4.46
14-16	3	NUM	Batch Number	001-999	4.42
17-25	9	NUM	Batch Record Count	Right-justified/zero filled	4.43
26-41	16	NUM	Batch Hashing Total	Purchases+Returns	4.40
42-57	16	NUM	Cash Back Total	0000000000000000	4.65
58-73	16	NUM	Batch Net Deposit	Purchases-Returns	4.41

6.9 Trailer record response level III or fleet data (accepted)

K-Format Trailer Record Level III or Fleet Data					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	5 = Single batch line item 6 = Mult. batch line item	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	R@@@@	4.230
10-18	9	NUM	Batch Record Count	Right-justified/zero filled	4.43
19-34	16	NUM	Batch Net Deposit	Right-justified/zero filled	4.41
35-36	2	A/N	Batch Response Code	GB	4.44
37-38	2	NUM	Filler	00	4.126
39-41	3	NUM	Batch Number	999	4.42
42-50	9	A/N	Batch Response Text	_ACCEPTED	4.45
51-66	16	A/N	Filler	Spaces	4.125

6.10 Trailer record rejected batch “RB” response level III or fleet data

K-Format Trailer Record Rejected Batch “RB” Response Level III or Fleet Data					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	5 = Single batch line item 6 = Multi batch line item	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	R@@@@	4.230
10-18	9	NUM	Batch Record Count	Right-justified/zero filled	4.43
19-34	16	NUM	Batch Net Deposit	0000000000000000	4.41
35-36	2	A/N	Batch Response Code	RB	4.44
37-38	2	NUM	Filler	00	4.126
39-41	3	NUM	Batch Number	999	4.42
42	1	A/N	Error Type	B = Blocked terminal C = Card type error D = Device error E = Error in batch S = Sequence error T = Transmission error U = Unknown error V = Routing error	4.117
43-46	4	NUM	Error Record Sequence Number	Right-justified/zero filled	4.115
47	1	A/N	Error Record Type	H = Header Record P = Parameter Record D = Detail Record L = Line item Detail Record T = Trailer Record	4.116
48-49	2	NUM	Error Data Field Number	99	4.114
50-81	32	A/N	Error Data	Left-justified/space filled	4.113

6.11 Duplicate batch “QD” response level III or fleet data

K-Format Duplicate Batch “QD” Response Level III or Fleet Data					
Byte	Size	Format	Field description	Content	Section
1	1	A/N	Record Format	K	4.229
2	1	NUM	Application Type	5 = Single batch line item 6 = Mult. batch line item	4.33
3	1	A/N	Message Delimiter	.	4.191
4	1	A/N	X.25 Routing ID	Z	4.327
5-9	5	A/N	Record Type	R@@@@	4.230
10-18	9	NUM	Batch Record Count	Right-justified/zero filled	4.43
19-34	16	NUM	Batch Net Deposit	Right-justified/zero filled	4.41
35-36	2	A/N	Batch Response Code	QD	4.44
37-38	2	NUM	Filler	00	4.126
39-41	3	NUM	Batch Number	999	4.42
42-45	4	NUM	Batch Transmission Date	MMDD	4.46
46-66	21	A/N	Filler	Spaces	4.125

Appendix A

7.1 Overview

This appendix contains definitions for the error codes generated in the Rejected Response record.

7.2 Error response code definitions

Table 8.1 below defines error response codes used in this specification by the Error Record Type (Field [4.116](#)), Error Type (Field [4.117](#)), and the Error Data Field Number (Field [4.114](#)).

Table 7.1 Error response code descriptions

Error type	Error record type	Error data field number	Description
B	0	11	Blocked Terminal Error
C	0	12	Terminal not enabled to Capture for either American Express, PayPal or Discover Card
C	0	15	Invalid American Express Card Account Number.
C	0	16	Invalid Discover/PayPal Card Account Number.
C	0	17	Invalid Diners Card Account Number.
C	0	18	Cashback transaction that is not Visa or Discover and is not Debit or Check Service; or an American Express transaction that contains Passenger Transport or Auto Rental without the American Express Auto Rental optional data group.
C	0	21	Card Type not activated for the terminal.
C	0	22	A non-American Express transaction which includes one of the optional data groups for American Express Transaction Advice Addenda data.
C	0	23	Could not translate the Card Account Number.
E	A	01	American Express Line Item Routing ID is not 'Z'.
E	A	55	American Express Line Item Type is invalid.

Error type	Error record type	Error data field number	Description
E	A	57	American Express TAD Line Item Additional Amount Type is invalid.
E	A	58	American Express TAD Line Item Additional Amount is invalid.
E	A	61	American Express Retail Line Item Quantity is invalid.
E	A	62	American Express Retail Line Item Amount is invalid.
E	A	63	American Express Lodging Line Item Room Rate is invalid.
E	A	64	American Express Lodging Line Item Number of Nights is invalid.
E	C	06	Transaction Type is invalid.
E	C	07	Terminal Transaction Date is invalid.
E	C	08	Terminal Verification Results missing.
E	C	09	Transaction Currency Code missing.
E	C	10	Application Transaction Counter missing.
E	C	11	Application Interchange Profile missing.
E	C	12	Application Cryptogram missing.
E	C	13	Unpredictable Number is missing on a Visa, MasterCard, or American Express transaction.
E	C	14	Issuer Application Data missing on a Visa or American Express transaction.
E	C	15	Cryptogram Information Data missing on a MasterCard or American Express transaction.
E	C	16	Terminal Capability Profile missing on a Visa or Discover transaction
E	C	17	Card Sequence Number missing on a Visa, American Express, or Discover transaction.
E	C	18	Issuer Authentication Data missing on a Visa transaction.
E	C	19	CVM Results missing on a MasterCard transaction.

Error type	Error record type	Error data field number	Description
E	C	20	Issuer Script Results missing on a Visa transaction.
E	C	21	Form Factor Identifier missing on a Visa transaction.
E	D	01	Routing ID is not 'Z'.
E	D	05	Record Type, or optional data groups are invalid.
E	D	06	Transaction Code is invalid.
E	D	07	Cardholder Identification Code is invalid.
E	D	08	Account Data Source is invalid.
E	D	09	Cardholder Account Number is invalid.
E	D	11	Returned ACI is invalid.
E	D	13	Transaction Sequence Number is invalid.
E	D	14	Response Code is invalid.
E	D	15	Approval Code is invalid.
E	D	16	Local Transaction Date is invalid.
E	D	17	Local Transaction Time is invalid.
E	D	18	AVS Result Code is invalid.
E	D	19	Transaction Identifier is invalid.
E	D	20	Validation Code is invalid.
E	D	21	Void Indicator is invalid.
E	D	22	Transaction Status Code is invalid.
E	D	23	Reimbursement Attribute is invalid.
E	D	24	Settlement Amount is invalid.
E	D	25	Authorized Amount is invalid.
E	D	26	Cashback Amount is invalid.
E	D	27	Gratuity Amount is invalid.
E	D	28	Total Authorized Amount is invalid.
E	D	29	Purchase Identifier Format Code is invalid.
E	D	30	Purchase Identifier is invalid.
E	D	31	Market Specific Data ID is invalid.
E	D	32	Special Program Indicator is invalid.

Error type	Error record type	Error data field number	Description
E	D	33	Extra Charges is invalid.
E	D	34	Rental or Check In Date is invalid.
E	D	35	Merchant Category Code Override is invalid.
E	D	36	Charge Type is invalid.
E	D	37	Checkout Date is invalid.
E	D	38	Stay Duration is invalid.
E	D	39	Lodging Room Rate is invalid.
E	D	40	Optional Amount Identifier is invalid.
E	D	41	Optional Amount is invalid.
E	D	42	Purchase Order Number or American Express Auto Rental Return Date is invalid.
E	D	43	Restricted Ticket Indicator or American Express Auto Rental Return Time is invalid.
E	D	44	Multiple Clearing Sequence Number or American Express Insurance Coverage Start Date is invalid.
E	D	45	Multiple Clearing Sequence Count or American Express Auto Rental Vehicle Class ID or American Express Insurance Coverage End Date is invalid.
E	D	46	Ticket Number is invalid.
E	D	47	Passenger Name or American Express Auto Rental Distance Unit of Measurement is invalid.
E	D	48	Departure Date or American Express Auto Rental Audit Adjustment Indicator is invalid.
E	D	49	City Airport Code is invalid.
E	D	50	Trip Leg Info is invalid.
E	D	51	Retrieval Reference Number is invalid.
E	D	52	System Trace Audit Number is invalid.
E	D	53	Network Identification Code is invalid.
E	D	54	Settlement Date is invalid.
E	D	55	Lane ID is invalid.

Error type	Error record type	Error data field number	Description
E	D	56	MOTO / e-Commerce Indicator or American Express Auto Rental Pickup Date is invalid.
E	D	57	American Express Auto Rental Pickup Time is invalid.
E	D	58	Rental Return City or Merchant Order Number is invalid.
E	D	59	Rental Return State / Country is invalid.
E	D	60	Rental Return Location ID is invalid.
E	D	61	Level 3 Order Date or ACH Security Code is invalid.
E	D	62	Level 3 Line Item Count or ACH Routing Number is invalid.
E	D	64	American Express CPS Total Tax Amount or Group Version Number is invalid.
E	D	66	Fleet Motor Fuel Unit of Measure is invalid.
E	D	71	Fleet Purchase Product Code or ACH Payment Type is invalid.
E	D	72	ACH Presentment is invalid.
E	D	74	Fleet Tax Rate or ACH Check Reversal Indicator is invalid.
E	D	82	ODG 45 Transaction Security Indicator is invalid.
E	D	89	Service Development Indicator is invalid.
E	D	91	Existing Debt Indicator is invalid.
E	D	92	E-Commerce Goods Indicator is invalid.
E	D	93	UCAF Collection Indicator is invalid.
E	D	96	Merchant Verification Value is invalid.
E	D	99	Detail Extension ODG 41 Validation Error. The specific tag and value will be added to the error description.
E	E	05	ETB record received with no terminal authentication.
E	E	06	Encryption Type is invalid.
E	E	07	Encrypted Transmission Block Data Size is invalid.

Error type	Error record type	Error data field number	Description
E	E	08	Encrypted Transmission Block is invalid.
E	K	04	Routing ID is not 'Z'.
E	K	05	Record Type is invalid.
E	K	06	BIN is invalid.
E	K	07	Merchant Number is invalid.
E	K	08	Agent Number is invalid.
E	K	09	Chain Number is invalid.
E	K	10	Store Number is invalid.
E	K	11	Terminal Number is invalid.
E	K	12	Device Code is invalid.
E	K	13	Merchant Currency Code is invalid.
E	K	14	Language Indicator is invalid.
E	K	15	Time Zone Differential is invalid.
E	K	16	Batch Transmission Date is invalid.
E	K	17	Batch Number is invalid.
E	K	18	Blocking Number is invalid.
E	L	01	Routing ID is not 'Z'.
E	P	04	Routing ID is not 'Z'.
E	P	05	Record Type is invalid.
E	P	06	Merchant Country Code is invalid.
E	P	07	Merchant City Code is invalid.
E	P	08	Merchant Category Code is invalid.
E	P	09	Merchant Name/City/State is invalid.
E	P	10	Merchant Location Number is invalid.
E	P	11	Merchant Terminal ID Number is invalid.
E	T	04	Routing ID is not 'Z'.
E	T	05	Record Type is invalid.
E	T	06	Batch Transmission Date is invalid.
E	T	07	Batch Number is invalid.
E	T	08	Batch Record Count is invalid.
E	T	09	Batch Hashing Total is invalid.

Error type	Error record type	Error data field number	Description
E	T	10	Cash Back Total is invalid.
E	T	11	Batch Net Deposit is invalid.
E	X	06	Invalid Canadian Tax Line Item Tax Amount Indicator
E	X	07	Invalid Canadian Tax Line Item Tax Amount format
E	X	08	Invalid Canadian Tax Line Item Tax Rate format
E	X	09	Invalid Canadian Tax Line Item Tax Rate Exponent format
E	X	11	Invalid Canadian Tax Line Item Tax Type Identifier
I	N/A	N/A	Input/Output System Error has occurred.
P	0	20	Hierarchy Validation Error
P	0	21	Card Type Validation Error
S	N/A	N/A	Record Sequence Error
U	N/A	N/A	Unknown Message or System Error has occurred.

Appendix B

8.1 Country/state code combinations

Country Code	Country Name	State Code	State Name
16	American Samoa		
28	Antigua and Barbuda		
44	Bahamas		
52	Barbados		
56	Belgium		
60	Bermuda		
76	Brazil		
84	Belize		
86	British Indian Ocean Territory		
92	British Virgin Islands		
104	Myanmar		
124	Canada	AB	Alberta
124	Canada	BC	British Columbia
124	Canada	MB	Manitoba
124	Canada	NB	New Brunswick
124	Canada	NF	Newfoundland
124	Canada	NL	Newfoundland Labrador
124	Canada	NS	Nova Scotia
124	Canada	NT	Northwest Territories
124	Canada	NU	Nunavut
124	Canada	ON	Ontario
124	Canada	PE	Prince Edward Island
124	Canada	PQ	Quebec
124	Canada	QC	Quebec
124	Canada	SK	Saskatchewan
124	Canada	YT	Yukon
136	Cayman Islands		
203	Czech Republic		
249	France		
250	France		
275	Palestinian Territory, Occupied		
316	Guam		
344	Hong Kong		
356	India		
388	Jamaica		
428	Latvia		
446	Macao		
484	Mexico		
500	Montserrat		
531	Curacao		
533	Aruba		

Country Code	Country Name	State Code	State Name
531	Curacao		
533	Aruba		
534	Saint Maarten (Dutch Part)		
535	Bonaire, Saint Eustatius and Saba		
580	Northern Mariana Islands		
581	US Minor Outlying Islands		
583	Micronesia, Federated States of		
584	Marshall Islands		
585	Palau		
630	Puerto Rico		
630	Puerto Rico	PR	
654	St. Helena, Ascension and Tristan Da Cunha		
659	St. Kitts-Nevis		
662	St. Lucia		
663	Saint Martin		
688	Serbia		
728	South Sudan		
729	Sudan		
756	Switzerland		
796	Turks and Caicos Islands		
826	United Kingdom		
840	US	AK	Alaska
840	US	AL	Alabama
840	US	AR	Arkansas
840	US	AZ	Arizona
840	US	CA	California
840	US	CO	Colorado
840	US	CT	Connecticut
840	US	DC	District of Columbia
840	US	DE	Delaware
840	US	FL	Florida
840	US	GA	Georgia
840	US	GU	Guam
840	US	HI	Hawaii
840	US	IA	Iowa
840	US	ID	Idaho
840	US	IL	Illinois
840	US	IN	Indiana
840	US	KS	Kansas
840	US	KY	Kentucky
840	US	LA	Louisiana
840	US	MA	Massachusetts
840	US	MD	Maryland
840	US	ME	Maine

Country Code	Country name	State code	State name
840	US	MI	Michigan
840	US	MN	Minnesota
840	US	MO	Missouri
840	US	MS	Mississippi
840	US	MT	Montana
840	US	NC	North Carolina
840	US	ND	North Dakota
840	US	NE	Nebraska
840	US	NH	New Hampshire
840	US	NJ	New Jersey
840	US	NM	New Mexico
840	US	NV	Nevada
840	US	NY	New York
840	US	OH	Ohio
840	US	OK	Oklahoma
840	US	OR	Oregon
840	US	PA	Pennsylvania
840	US	PR	Puerto Rico
840	US	RI	Rhode Island
840	US	SC	South Carolina
840	US	SD	South Dakota
840	US	TN	Tennessee
840	US	TX	Texas
840	US	UT	Utah
840	US	VA	Virginia
840	US	VT	Vermont
840	US	WA	Washington
840	US	WI	Wisconsin
840	US	WV	West Virginia
840	US	WY	Wyoming
840	US	XX	Unknown
850	US Virgin Islands		
894	Zambia		

