



Domestic ACH Transmission Toolkit

Revised (3/24)

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This publication is designed to provide accurate information about the subject matter covered. Please be aware that changes to the information may occur after the publication date.

Overview

Credit and Debit ACH transactions can be initiated by sending files to KeyBank using the industry standard format, as defined by the National Automated Clearing House Association (Nacha). For more detailed information and format of additional standard entry class (SEC) refer to Nacha.org for Operating Rules & Guidelines. KeyBank requires that an ACH file transmitted through Direct File Origination or web-based file transfer be received no later than 9:00 p.m. Eastern Time, one business day prior to the file’s anticipated settlement date. Sending your file in by 2:00 p.m. ET may provide an opportunity for correcting any issues with your file that resulted in failed/suspended status during processing while still meeting the 9 p.m. ET deadline. KeyBank and Nacha recommend that Payroll files be originated two business days prior to the desired effective/settlement date. While most files settle without incident, a two-day origination window provides additional assurance that a posting delay at the receiving financial institution will not impact your employees.

Please Note: ACH files can be sent up until 9 p.m. ET; however, files received after 5:00 p.m.ET may be assessed a late fee. Files can be received 24/7/365 and will process in the next available processing window operated by KeyBank.

Data Specifications for ACH Records

Type of Field	Alphabetic/Alphanumeric	Numeric
Valid Characters	0-9, A-Z, a-z, space, EBCDIC values greater than hexadecimal “3F”, ASCII values greater than hexadecimal “1F”	0-9
Justification	Left	Right
Empty Field Handling	Space Filled	Zero Filled
Special Notes	Certain fields require the use of UPPER CASE characters – see below	Decimal implicit, must be unsigned - Neither positive (+) or negative (-) signage.

KeyBank recommends the exclusive use of uppercase letters in your ACH files. Under the Nacha Operating Rules, Uppercase letters must be used for each of the following:

- All alphabetic characters within the Standard Entry Class Code field, and
- All alphabetic characters within the File ID Modifier field, and
- Company Entry Description fields containing the words “REVERSAL”, “RETURN FEE”, “RECLAIM”, “REDEPCHECK” (for RCK entries), and “HCCLAIMPMT” (for Health Care EFT Transactions). In addition, “ACCTVERIFY” for clients sending in Micro-Entry” as a type of ACH Entry.

File Formats

Record Layout Sequence (NACHA Format)

Diagram of Sequence of Records for ARC, BOC, CCD, CIE, MTE, POP, POS, PPD, RCK, SHR, TEL, and WEB Entries.
 *Note: Not all file formats use the File Transmission Record.

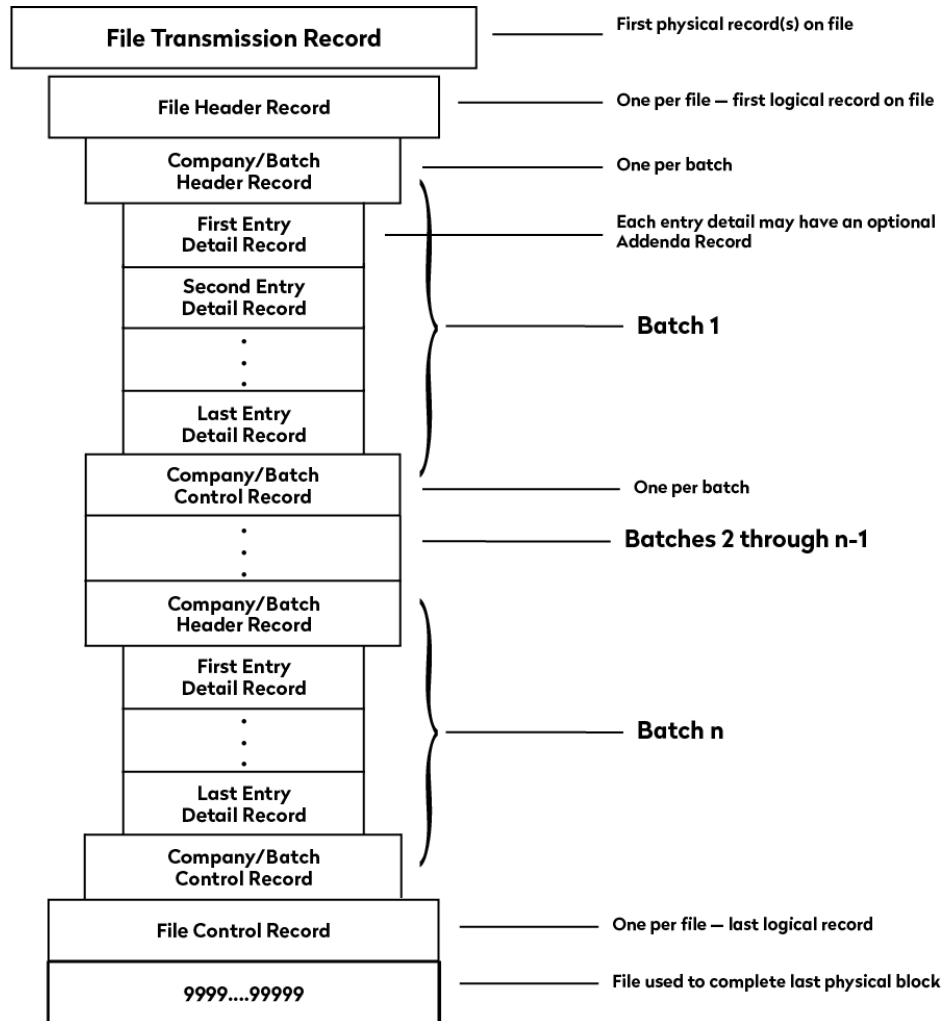
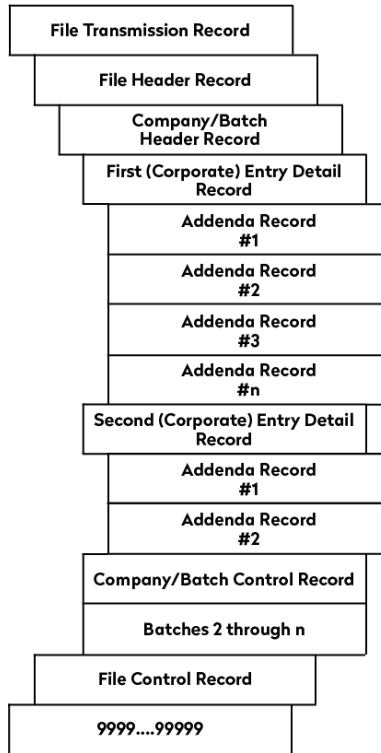


Diagram of Sequence of Records for CTX, ENR, IAT, and TRX Entries
 *Note: Not all file formats use the File Transmission Record.



Service Class Codes

Code	Definition
200	ACH Entries Mixed Debits and Credits
220	ACH Credits Only
225	ACH Debits Only
280	ACH Automated Accounting Advices

Standard Entry Class Codes

Code	Definition	Maximum Number of Addenda Records	Optional or Mandatory
ARC	Accounts Receivable Entry	0	Not Applicable
BOC	Back Office Conversion Entry	0	Not Applicable
CCD	Corporate Credit or Debit Entry	1	Optional
CIE	Customer Initiated Entry	1	Optional
CTX	Corporate Trade Exchange	9,999	Optional
IAT	International ACH Transaction	12	7 Mandatory Records (plus 5 Optional)
MTE	Machine Transfer Entry	1	Mandatory
POP	Point-of-Purchase Entry	0	Not Applicable
POS	Point-of-Sale Entry	1	Mandatory
PPD	Prearranged Payment and Deposit Entry	1	Optional
RCK	Re-presented Check Entry	0	Not Applicable
SHR	Shared Network Transaction	1	Mandatory
TEL	Telephone-Initiated Entry	0	Not Applicable
TRC	Check Truncation Entry	0	Not Applicable
TRX	Truncated Entries Exchange	9,999	Mandatory
WEB	Internet-Initiated/Mobile Entry	1	Optional
XCK	Destroyed Check Entry	0	Not Applicable

Transaction Codes

Demand Account Credit Records

Transaction Code	Definition
21	Return or Notification of Change for original transaction code 22, 23, or 24
22	Demand Credit
23	Prenotification of Demand Credit (zero-dollar)
24	Zero dollar with remittance data (for CCD, CTX, and IAT Entries only), or Acknowledgement Entries (ACK and ATX Entries only)

Demand Account Debit Records

Transaction Code	Definition
26	Return or Notification of Change for original transaction code 27, 28, or 29
27	Demand Debit
28	Prenotification of Demand Debit (zero-dollar)
29	Zero dollar with remittance data (for CCD, CTX, and IAT Entries only)

Savings Account Credit Records

Transaction Code	Definition
31	Return or Notification of Change for original transaction code 32, 33, or 34
32	Savings Credit
33	Prenotification of Savings Credit (zero dollar)
34	Zero dollar with remittance data (for CCD, CTX, and IAT Entries only), or Acknowledgement Entries (ACK and ATX Entries only)

Savings Account Debit Records

Transaction Code	Definition
36	Return or Notification of Change for original transaction code 37, 38, or 39
37	Savings Debit
38	Prenotification of Savings Debit (zero-dollar)
39	Zero dollar with remittance data (for CCD, CTX, and IAT Entries only)

Loan Account Credit Records

Transaction Code	Definition
51	Return or Notification of Change for original transaction code 52, 53, or 54
52	Loan Account Credit
53	Prenotification of Loan Account Credit (zero dollar)
54	Zero dollar with remittance data (for CCD and CTX Entries only)

Loan Account Debit Records (for Reversals only)

Transaction Code	Definition
55	Loan Account Debit
56	Return or Notification of Change for original transaction code 55

Addenda Type Codes

Code	Definition
02	Point of Sale (POS), Shared Network Transaction (SHR), or Machine Transfer Entry (MTE)
05	Addenda Record (applies to CCD, CIE, CTX, PPD, TRX, and WEB entries)
10	1 st Addenda Record for IAT Entry
11	2 nd Addenda Record for IAT Entry
12	3 rd Addenda Record for IAT Entry
13	4 th Addenda Record for IAT Entry
14	5 th Addenda Record for IAT Entry
15	6 th Addenda Record for IAT Entry
16	7 th Addenda Record for IAT Entry
17	Addenda Record for IAT Entry Remittance Information (Optional, up to 2 per IAT transaction)
18	Addenda Record for IAT Entry Foreign Correspondent Bank Information
98	Addenda Record for Notification of Change or refused Notification of Change (COR)
99	Return Entry Addenda Record

Addenda Record Indicator

Code	Definition
0	No Addenda Record follows the Entry
1	One or more Addenda Records follows the Entry

Originator Status Codes

Code	Definition
1	This code identifies the Originator as a depository financial institution
2	This code identifies the originator as a federal government entity or agency

ACH Format Reference (Domestic ACH)

Field Inclusion Requirements

The formatting requirements below are listed as shown in the Nacha Operating Rules. To ensure successful processing, KeyBank may enforce a higher requirement for individual fields, for example requiring specific data in a field Nacha considers Optional.

Code	Definition
M	Mandatory for ACH Operator Processing. A “Mandatory” field is necessary to ensure the proper routing and/or posting of an ACH Entry
R	Required for RDFI Processing. The omission of a “Required” field will not cause an Entry to reject at the ACH Operator but may cause a Reject at the RDFI and result in the return of an entry.
O	Optional. The inclusion or omission of an “Optional” data field is at the discretion of the Originator and the ODFI.

AII ENTRIES FILE HEADER RECORD

Field	1	2	3	4	5	6	7	8	9	10	11	12	13
Data Element Name	Record Type Code	Priority Code	IMMEDIATE DESTINATION	IMMEDIATE ORIGIN	File Creation Date	File Creation Time	File ID Modifier	Record Size	Blocking Factor	Format Code	Immediate Destination Name	Immediate Origin Name	Reference Code
Field Inclusion Requirement	M	R	M	M	M	O	M	M	M	M	O	O	O
Example	1	01	_123456789	_987654321	YYMMDD	HHMM	N	094	10	1	KEYBANK	XYZCORP	X

Field	Position	Length	Data Element Name	Definition or Common Usage
1	01	1	Record Type Code	Must contain a value of '1' always
2	02-03	2	Priority Code	Must contain a value of '01' always
3	04-13	10	*Immediate Destination	A single space (indicated by an underscore above) followed by the Originator's KeyBank Routing and Transit (RT) Number. See Appendix I for a list of routing numbers.
4	14-23	10	*Immediate Origin	A single space (indicated by an underscore above) followed by the Originator's Tax ID (EIN). Customers with multiple setups may be instructed by KeyBank to prefixed with a single alphanumeric character instead of a space, as needed to distinguish different setups.
5	24-29	6	File Creation Date	Date the file was created, using format YYMMDD
6	30-33	4	File Creation Time	Time of day the file was created, using format HHMM. 24-hour time is preferred but is not mandated.
7	34	1	File ID Modifier	Alphanumeric character which uniquely identifies multiple files created on the same calendar date. Formatting requirement: Numeric 0-9 or <u>uppercase</u> A-Z only. Lowercase letters are not permitted.
8	35-37	3	Record Size	Must contain a value of '094' always
9	38-39	2	Blocking Factor	Must contain a value of '10' always
10	40	1	Format Code	Must contain a value of '1' always
11	41-63	23	*Immediate Destination Name	Must contain a value of 'KEYBANK' always
12	64-86	23	*Immediate Origin Name	Originator's Company Name. KeyBank may require a specific value in this field. If so, this will be determined and defined to the Originator during the initial ACH setup process.
13	87-94	8	Reference Code	Optional field left available for the Originator's internal usage.

* KeyBank must be notified before the Originator makes any changes to fields marked with an asterisk.

ALL ENTRIES COMPANY/BATCH HEADER RECORD (EXCEPT IAT)

Field	1	2	3	4	5	6	7	8	9	10	11	12	13
Data Element Name	Record Type Code	Service Class Code	Company Name	Company Discretionary Data	Company ID	Standard Entry Class	Company Entry Description	Company Descriptive Date	Effective Entry Date	Settlement Date (Julian)	Originator Status Code	ODFI ID	Batch Number
Field Inclusion Requirement	M	M	M	O	M	M	M	O	R	Inserted by ACH Operator	M	M	M
Example	5	2nn	XYZ Company	12345678...	0123456789	PPD	PAYROLL	YYMMDD	YYMMDD	(blank)	1	04100103	0000001

Field	Position	Length	Data Element Name	Definition or Common Usage
1	01	1	Record Type Code	Identifies this as a Batch Header - Must contain a value of '5' always
2	02-04	3	Service Class Code	Identifies the general classification of dollar entries to be exchanged. (See Service Class Codes above.)
3	05-20	16	*Company Name	Identifies the source of the Entry and is used for descriptive purposes for the Receiver. This field should contain a name which is known to and readily recognized by the Receiver of the Entry.
4	21-40	20	Company Discretionary Data	Field is available for the ACH Originator's internal usage.
5	41-50	10	*Company Identification	An Alphanumeric code used to identify the Originator to KeyBank's systems. The most common format is '1' followed by the Originator's EIN. If multiple Settlement Accounts or distinct processing options are needed, this may be defined differently during the ACH Setup process. NOTE: This field is critical to the correct handling of your ACH batches. Any changes to this field may cause a delay in the processing of your files. For KeyNavigator ACH Module File Import, please refer to module guides.
6	51-53	3	Standard Entry Class (SEC)	Indicates the type of transaction and how it was authorized. See Standard Entry Class Codes Error! Reference source not found.
7	54-63	10	Company Entry Description	Provides the Receiver with a description of the purpose of the entry. Examples include 'PAYROLL', 'GAS BILL', 'REIMBURSE', etc. Certain transactions carry mandatory descriptions, please refer to the Nacha Operating Rules for additional information.
8	64-69	6	Company Descriptive Date	Optional Date Information – available for the Originator's internal usage.
9	70-75	6	Effective Entry Date	The date specified by the ACH Originator on which it intends a batch of Entries to be settled. Invalid Effective Dates (weekends or holidays) will result in the ACH Operator assigning the following business date for Settlement. Note: Originators should be aware that some RDFIs may choose to post credits prior to this date – this is permitted under the Nacha Operating Rules at the RDFI's discretion and cannot be controlled by KeyBank as ODFI. Debits cannot be posted prior to this date.
10	76-78	3	Settlement Date (Julian)	Must be left blank on the origination file. This field is populated by the ACH Operator only.
11	79	1	Originator Status Code	Must contain a value of '1' always
12	80-87	8	*Originating DFI Identification	The first 8 digits of the routing number used for Immediate Destination in the ACH File Header. Example: if the Immediate Destination is _041001039 then this field contains 04100103.
13	88-94	7	Batch Number	Sequential Numeric Batch Number – beginning with '0000001' in each new ACH file sent to KeyBank, and incrementing for each batch within the same file.

* KeyBank must be notified before the Originator makes any changes to fields marked with an asterisk.

CCD Entry Detail Record

Field	1	2	3	4	5	6	7	8	9	10	11
Data Element Name	Record Type Code	Transaction Code	Receiving DFI Identification	Check Digit	DFI Account Number	Amount	Identification Number	Receiving Company Name	Discretionary Data	Addenda Record Indicator	Trace Number
Field Inclusion Requirement	M	M	M	M	R	M	O	R	O	M	M
Example	6	22	04100103	9	00000123456789123	\$\$\$\$\$\$\$¢¢	CLIENT3518611	ABC INCORPORATED		0	04100103nnnnnnn

Field	Position	Length	Data Element Name	Definition or Common Usage
1	01	1	Record Type Code	Identifies this as an Entry Detail Record - Must contain a value of '6' always
2	02-03	2	Transaction Code	Transaction Codes identify different types of credit and debit entries. Refer to Transaction Codes above for detail.
3	04-11	8	Receiving DFI Identification	8-digit Routing and Transit Number for the Receiver's Financial Institution
4	12-12	1	Check Digit	Routing Check Digit, calculated using Modulus 10 as described in the Nacha Operating Rules
5	13-29	17	DFI Account Number	Transaction Receiver's account number. Left justified, numbers 0-9 and hyphens '-' only.
6	30-39	10	Amount	The unsigned decimal implicit transaction amount, to be posted by the RDFI to the designated account as authorized by the Receiver. A zero-dollar amount is acceptable only with certain Transaction Codes.
7	40-54	15	Identification Number	Number by which the Transaction Receiver is known to the Originator.
8	55-76	22	Receiving Company Name	This field identifies the Receiver of the Transaction.
9	77-78	2	Discretionary Data	Optional field available for the Originator's internal usage
10	79-79	1	Addenda Record Indicator	Must contain a value of '1' if the transaction is followed by an addenda record, otherwise '0'
11	80-94	15	Trace Number	The first 8 digits must match the value used in Field 12 (Originating DFI Identification) on the batch header. The trailing 7 digits should be assigned in sequence for each new transaction within a batch.

CTX Entry Detail Record

Field	1	2	3	4	5	6	7	8	9	10	11	12	13
Data Element Name	Record Type Code	Transaction Code	Receiving DFI Identification	Check Digit	DFI Account Number	Amount	Identification Number	Number of Addenda Records	Receiving Company Name / ID Number	Reserved	Discretionary Data	Addenda Record Indicator	Trace Number
Field Inclusion Requirement	M	M	M	M	R	M	O	M	R	N/A	O	M	M
Example	6	22	04100103	9	000123456789123	\$\$\$\$\$\$\$00	CLIENT3518611	0123	ABCLIENT1235123			1	04100103nnnnnn

Field	Position	Length	Data Element Name	Definition or Common Usage
1	01-01	1	Record Type Code	Identifies this as an Entry Detail Record - Must contain a value of '6' always
2	02-03	2	Transaction Code	Transaction Codes identify different types of credit and debit entries. Refer to Transaction Codes above for detail
3	04-11	8	Receiving DFI Identification	8-digit Routing and Transit Number for the Receiver's Financial Institution
4	12-12	1	Check Digit	Routing Check Digit, calculated using Modulus 10 as described in the Nacha Operating Rules
5	13-29	17	DFI Account Number	Transaction Receiver's account number. Left justified, numbers 0-9 and hyphens '-' only
6	30-39	10	Amount	The unsigned decimal implicit transaction amount, to be posted by the RDFI to the designated account as authorized by the Receiver. A zero-dollar amount is acceptable only with certain Transaction Codes
7	40-54	15	Identification Number	May be used by the Originator to insert its own number for tracing purposes
8	55-58	4	Number of Addenda Records	Must contain a 4-digit number 0000 through 9999, representing the number of Addenda Records associated with this Entry Detail Record. The field will be zero-filled only if Field 12 of the Record (Addenda Record Indicator) contains a value of '0'
9	59-74	16	Receiving Company Name / ID Number	This field identifies the Receiver and can be used for descriptive purposes. The field may contain the Receiving Company's name or an identifying number for that Company
10	75-76	2	Reserved	Must be space-filled always
11	77-78	2	Discretionary Data	Optional field available for the Originator's internal usage
12	79-79	1	Addenda Record Indicator	Must contain a value of '1' if the transaction is followed by an addenda record
13	80-94	15	Trace Number	The first 8 digits must match the value used in Field 12 (Originating DFI Identification) on the batch header. The trailing 7 digits should be assigned in sequence for each new transaction within a batch

PPD Entry Detail Record

Field	1	2	3	4	5	6	7	8	9	10	11
Data Element Name	Record Type Code	Transaction Code	Receiving DFI Identification	Check Digit	DFI Account Number	Amount	Individual Identification Number	Individual Name	Discretionary Data	Addenda Record Indicator	Trace Number
Field Inclusion Requirement	M	M	M	M	R	M	O	R	O	M	M
Example	6	22	04100103	9	00000123456789123	\$\$\$\$\$\$\$cc	CLIENT3518611	ABC INCORPORATED		#	04100103nnnnn

Field	Position	Length	Data Element Name	Definition or Common Usage
1	01-01	1	Record Type Code	Identifies this as an Entry Detail Record - Must contain a value of '6' always
2	02-03	2	Transaction Code	Transaction Codes identify different types of credit and debit entries. Refer to Transaction Codes above for detail.
3	04-11	8	Receiving DFI Identification	8-digit Routing and Transit Number for the Receiver's Financial Institution
4	12-12	1	Check Digit	Routing Check Digit, calculated using Modulus 10 as described in the Nacha Operating Rules
5	13-29	17	DFI Account Number	Transaction Receiver's account number. Left justified, numbers 0-9 and hyphens '-' only.
6	30-39	10	Amount	The unsigned decimal implicit transaction amount, to be posted by the RDFI to the designated account as authorized by the Receiver. A zero-dollar amount is acceptable only with certain Transaction Codes.
7	40-54	15	Individual Identification Number	Number by which the Transaction Receiver is known to the Originator.
8	55-76	22	Individual Name	This field is entered by the Originator to provide additional identification of the Receiver and may be helpful in identifying returned Entries.
9	77-78	2	Discretionary Data	Optional field available for the Originator's internal usage
10	79-79	1	Addenda Record Indicator	Must contain a value of '1' if the transaction is followed by an addenda record, otherwise '0'
11	80-94	15	Trace Number	The first 8 digits must match the value used in Field 12 (Originating DFI Identification) on the batch header. The trailing 7 digits should be assigned in sequence for each new transaction within a batch.

TEL/WEB Entry Detail Record

Field	1	2	3	4	5	6	7	8	9	10	11
Data Element Name	Record Type Code	Transaction Code	Receiving DFI ID	Check Digit	DFI Account Number	Amount	Individual ID Number	Individual Name	Payment Type Code	Addenda Record Indicator	Trace Number
Field Inclusion Requirement	M	M	M	M	R	M	O	R	O	M	M
Example	6	22	04100103	9	00000123456789123	\$\$\$\$\$\$\$c	CLIENT3518611	ABC INCORPORAT ED		#	04100103n nnnnnn

Field	Position	Length	Data Element Name	Definition or Common Usage
1	01	1	Record Type Code	Identifies this as an Entry Detail Record - Must contain a value of '6' always
2	02-03	2	Transaction Code	Transaction Codes identify different types of credit and debit entries. Refer to Transaction Codes above for detail.
3	04-11	8	Receiving DFI Identification	8-digit Routing and Transit Number for the Receiver's Financial Institution
4	12	1	Check Digit	Routing Check Digit, calculated using Modulus 10 as described in the Nacha Operating Rules
5	13-29	17	DFI Account Number	Transaction Receiver's account number. Left justified, numbers 0-9 and hyphens '-' only.
6	30-39	10	Amount	The unsigned decimal implicit transaction amount, to be posted by the RDFI to the designated account as authorized by the Receiver. A zero-dollar amount is acceptable only with certain Transaction Codes.
7	40-54	15	Individual Identification Number	Number by which the Transaction Receiver is known to the Originator.
8	55-76	22	Individual Name	This field is entered by the Originator to provide additional identification of the Receiver and may be helpful in identifying returned Entries.
9	77-78	2	Payment Type Code	Optional field available for the Originator's internal usage
10	79	1	Addenda Record Indicator	Must contain a value of '1' if the transaction is followed by an addenda record, otherwise '0'
11	80-94	15	Trace Number	The first 8 digits must match the value used in Field 12 (Originating DFI Identification) on the batch header. The trailing 7 digits should be assigned in sequence for each new transaction within a batch.

CCD, CTX and PPD, and WEB Addenda Record

Field	1	2	3	4	5
Data Element Name	Record Type Code	Addenda Type	Payment Related Information	Addenda Sequence Number	Entry Detail Sequence Number
Field Inclusion Requirement	M	M	O	M	R
Example	7	05	80 characters of Payment Related Information	0001	nnnnnn

Field	Position	Length	Data Element Name	Definition or Common Usage
1	01	1	Record Type Code	Identifies this as an Addenda Record - Must contain a value of '7' always
2	02-03	2	Addenda Type Code	The Addenda Type Code defines the specific interpretation and format for the Addenda Information contained in the Entry. See Addenda Type Codes above for additional information
3	04-83	80	Payment Related Information	<p>In the addenda records of CCD, CIE, ENR, IAT, PPD, and debit WEB Entries, an asterisk (***) must be used as the delimiter between data elements, and the backslash (\) or tilde (~) must be used as the terminator at the end of a data segment.</p> <p>CCD, PPD: Addenda Records contain payment related ANSI ASC X12 data segments or Nacha-endorsed banking conventions (i.e., Tax Payment, Third-Party Tax Payments, Child Support, or Electronic Dealer Drafting).</p> <p>CCD Entries which are Health Care EFT Transactions: the Payment Related Information Field of the Addenda Record must always contain the ASC X12 Version 5010 835 TRN Segment.</p> <p>CTX: This field contains information formatted in accordance with the syntax of ANSI ASC X12.5 and X12.6, an ASC X12 transaction set containing a BPR or BPS data segment, or payment related UN/EDIFACT syntax.</p>
4	84-87	4	Addenda Sequence Number	This number is consecutively assigned to each Addenda Record following an Entry Detail record. The first addenda sequence number must always be '0001'
5	88-94	7	Entry Detail Sequence Number	<p>This field contains the ascending sequence number section (positions 88-94) of the Entry Detail Record's trace number. This number is always the same as the corresponding Entry Detail Record.</p> <p>Example: a CTX transaction with a trace number 041001031234567 has four associated Addenda Records. Field #4, Addenda Sequence, will increment for each Addenda Record – 0001, 0002, 0003, 0004 – but each of the four addenda records will have the same Entry Detail Sequence Number as the Detail Record (1234567).</p>

ALL ENTRIES COMPANY/BATCH CONTROL RECORD (Trailer)

Field	1	2	3	4	5	6	7	8	9	10	11
Data Element Name	Record Type Code	Service Class Code	Entry/ Addenda Count	Entry Hash	Total Debit Entry Dollar Amount	Total Credit Entry Dollar Amount	Company ID	Message Authentication Code	Reserved	ODFI ID	Batch Number
Field Inclusion Requirement	M	M	M	M	M	M	R	O	N/A	M	M
Example	8	2nn	999999	9999999999	\$\$\$\$\$\$\$\$cc	\$\$\$\$\$\$\$\$cc	NNNNNNNNNN			04100103	0000001

Field	Position	Length	Data Element Name	Definition or Common Usage
1	01	1	Record Type Code	Identifies this as a Batch Control Record - Must contain a value of '8' always
2	02-04	3	Service Class Code	Identifies the general classification of dollar entries to be exchanged. (See Service Class Codes above.)
3	05-10	6	Entry/Addenda Count	Total number of Entry Records (beginning '6') and Addenda Records (beginning '7') in this batch. The field must be unsigned and numeric; each batch may contain up to 999,999 records. Additional records must be sent in additional batch(es) as necessary.
4	11-20	10	Entry Hash	The Receiving DFI Identification (8 digits in positions 04-11) of each Entry Detail Record within the batch is hashed to provide inadvertent alteration of data contents due to hardware or program error. NOTE: Information from Addenda Records is not included in hash total calculations; in the event the Entry Hash is more than 10 digits in length, only the rightmost 10 digits are used as the hash.
5	21-32	12	Total Debit Entry Dollar Amount	Accumulated Entry Detail Debit Totals within the batch. Must be unsigned and numeric. If no debits are present, this field must be filled with zeros as '000000000000'
6	33-44	12	Total Credit Entry Dollar Amount	Accumulated Entry Detail Credit Totals within the batch. Must be unsigned and numeric. If no credits are present, this field must be filed with zeros as "000000000000"
7	45-54	10	Company Identification	An Alphanumeric code used to identify the Originator to KeyBank's systems. The most common format is '1' followed by the Originator's EIN. If multiple Settlement Accounts or distinct processing options are needed, this may be defined differently during the ACH Setup process. Same ID as Batch Header Record.
8	55-73	19	Message Authentication Code	Leave Blank
9	74-79	6	Reserved	Leave Blank
10	80-87	8	*Originating DFI Identification	The first 8 digits of the routing number used for Immediate Destination in the ACH File Header. Example: if the Immediate Destination is _041001039 then this field contains 04100103.
11	88-94	7	Batch Number	Sequential Numeric Batch Number – beginning with '0000001' in each new ACH file sent to KeyBank and incrementing for each batch within the same file.

**** Field information must be the same as the Batch Header Record (Record Type Code '5') of the same batch**

ALL ENTRIES FILE CONTROL RECORD (Trailer Record)

Field	1	2	3	4	5	6	7	8
Data Element Name	Record Type Code	Batch Count	Block Count	Entry/Addenda Count	Entry Hash	Total Debit Entry Dollar Amount in File	Total Credit Entry Dollar Amount in File	Reserved
Field Inclusion Requirement	M	M	M	M	M	M	M	N/A
Example	9	999999	999999	9999999999	N9999999999	\$\$\$\$\$\$\$\$\$cc	\$\$\$\$\$\$\$\$\$cc	

Field	Position	Length	Data Element Name	Definition or Common Usage
1	01	1	Record Type Code	Identifies this as a Batch Control Record - Must contain a value of '9' always
2	02-07	6	Batch Count	Identifies the number of Company/Batch Header records in the file.
3	08-13	6	Block Count	Total number of Blocks in the file including both the file header record and file control record. (A block is 940 characters)
4	14-21	8	Entry/Addenda Count	Total number of Entry Records (beginning '6') and Addenda Records (beginning '7') in this batch. The field must be unsigned and numeric; each batch may contain up to 999,999 records. Additional records must be sent in additional batch(es) as necessary.
5	22-31	10	Entry Hash	The Receiving DFI Identification (8 digits in positions 04-11) of each Entry Detail Record within the batch is hashed to provide inadvertent alteration of data contents due to hardware or program error. NOTE: Information from Addenda Records is not included in hash total calculations; in the event the Entry Hash is more than 10 digits in length, only the rightmost 10 digits are used as the hash.
6	32-43	12	Total Debit Entry Dollar Amount	Accumulated Entry Detail Debit Totals within the batch. Must be unsigned and numeric. If no debits are present, this field must be filled with zeros as '000000000000'
7	44-55	12	Total Credit Entry Dollar Amount	Accumulated Entry Detail Credit Totals within the batch. Must be unsigned and numeric. If no credits are present, this field must be filled with zeros as "000000000000"
8	56-94	39	Reserved	Leave Blank

ACH Format Reference (Return Items)

Company / Batch Header Record (excluding IAT)

Field	1	2	3	4	5	6	7	8	9	10	11	12	13
Data Element Name	Record Type Code	Service Class Code	Company Name	Company Discretionary Data	Company Identification	Standard Entry Class (SEC)	Company Entry Description	Company Descriptive Date	Effective Entry Date	Settlement Date (Julian)	Originator Status Code	Originating DFI Identification	Batch Number
Field Inclusion Requirement	M	M	M	O	M	M	M	O	R	Inserted by ACH Operator	M	M	M
Example	5	2nn	XYZ CORPORATION		0123456789	ABC	PAYROLL	JUN 01	YYMMDD	nnn	1	04100103	0000001

Field	Position	Length	Data Element Name	Definition or Common Usage
1	01	1	Record Type Code	Identifies this as a Batch Header - Must contain a value of '5' always
2	02-04	3	Service Class Code	Identifies the general classification of dollar entries to be exchanged. (See Service Class Codes above.)
3	05-20	16	*Company Name	Identifies the source of the Entry and is used for descriptive purposes for the Receiver. This field should contain a name which is known to and readily recognized by the Receiver of the Entry.
4	21-40	20	Company Discretionary Data	Field is available for the ACH Originator's internal usage.
5	41-50	10	Company Identification	An Alphanumeric code used to identify the Originator to KeyBank's systems. The most common format is '1' followed by the Originator's EIN. If multiple Settlement Accounts or distinct processing options are needed, this may be defined differently during the ACH Setup process.
6	51-53	3	Standard Entry Class (SEC)	Indicates the type of transaction and how it was authorized. See Standard Entry Class Codes Error! Reference source not found..
7	54-63	10	Company Entry Description ¹	Provides the Receiver with a description of the purpose of the entry. Examples include 'PAYROLL', 'GAS BILL', 'REIMBURSE', etc. Certain transactions carry mandatory descriptions, please refer to the Nacha Operating Rules for additional information.
8	64-69	6	Company Descriptive Date	Optional Date Information – available for the Originator's internal usage.
9	70-75	6	Effective Entry Date	The date specified by the ACH Originator on which it intends a batch of Entries to be settled. Invalid Effective Dates (weekends or holidays) will result in the ACH Operator assigning the following business date for Settlement.
10	76-78	3	Settlement Date (Julian)	This field is populated by the ACH Operator only.
11	79	1	Originator Status Code ²	The Originator Status Code of the institution initiating the Return Entry
12	80-87	8	Originating DFI Identification ³	The Routing Number of the institution initiating the Return Entry
13	88-94	7	Batch Number ⁴	Sequential Numeric Batch Number – beginning with '0000001' in each new ACH file sent to KeyBank and incrementing for each batch within the same file.

NOTE: For Return Entries, each field of the Company / Batch Header remains unchanged from the original entry, unless otherwise noted:

1) May contain the identification of the ACH Operator converting the Entry.

- 2) Changed to reflect the Originator Status Code of the institution initiating the Return Entry.
- 3) Changed to reflect the Routing Number of the institution initiating the Return Entry (i.e., the RDFI of the original Entry)
- 4) Changed to the batch number assigned by the institution preparing the Automated Return Entry.

RETURNS – Corporate Entry Detail Record (NACHA Format)

FIELD	1	2	3	4	5	6	7	8	9	10	11	12	13
Data Element Name													
FIELD INCLUSION REQUIREMENT	M	M	M	M	R	M	O	M	R	N/A	O	M	M
EXAMPLE	6	NN	RRRRTTT T	C	9999999999999999	\$\$\$\$\$\$\$¢¢		9999	NNNNNNNNNN99999 9			1	9999999999999999

Field	Position	Length	Field Description	Definition
1	01-01	1	RECORD TYPE CODE	Entry Detail Identifier – Must contain a value of “6”
2 ¹	02-03	2	TRANSACTION CODE	Transaction codes identify various types of debit and credit Entries. (See transaction code chart in ACH Codes section above for detail)
3 ²	04-11	8	RECEIVING DFI IDENTIFICATION	R/T # of transaction receiver’s Financial Institution
4 ³	12-12	1	CHECK DIGIT	The Check Digit is computed using Modulus 10. R/T check digit of transaction receiver’s Financial Institution
5	13-29	17	DFI ACCOUNT NUMBER	Transaction receiver’s account number, left justified, Numbers <0-9> and hyphens <-> only, omit spaces
6	30-39	10	TOTAL AMOUNT	The net dollar value of all items paid to the same business is the total amount. The RDFI posts this total amount to the appropriate account.
7	40-54	15	IDENTIFICATION NUMBER	N/A for ACH Originators may be used by the ACH Operator to insert its own number for tracing purposes.
8	55-58	4	NUMBER OF ADDENDA RECORDS	This number represents the number of Addenda Records associated with the corporate Entry Detail Record. This field will be zero filled if Field 12 (Addenda Record Indicator Value) of the related Corporate Entry Detail Record contains a value of “0”.

9	59-74	16	RECEIVING COMPANY NAME/ID NUMBER	This field identifies the Receiver and can be used for descriptive purposes. The field may contain the Receiving Company's name or an identifying number for that Company.
10	75-76	2	RESERVED	N/A
11	77-78	2	DISCRETIONARY DATA	Optional field available for Company (ACH Originator) use
12	79-79	1	ADDENDA RECORD INDICATOR	Addenda record indicator – Must contain a value of "1"
13 ⁴	80-94	15	TRACE NUMBER	Sequential Numeric Batch # – Starting with "0000001"

RETURNS – Entry Detail Record (Except IAT)

FIELD	1	2	3	4	5	6	7	8	9	10	11
Data Element Name											
FIELD INCLUSION REQUIREMENT	M	M	M	M	R	M	O	R	R/M	M	M
EXAMPLE	6	NN	RRRRTTTT	C	9999999999999999	\$\$\$\$\$\$\$c	9999999999999999	ABC COMPANY		0	NNNNNNNNNNNNNNNN

Field	Position	Length	Field Description	Definition
1	01-01	1	RECORD TYPE CODE	Entry Detail Identifier – Must contain a value of “6”
2 ¹	02-03	2	TRANSACTION CODE	Transaction codes identify various types of debit and credit Entries. (See transaction code chart in ACH Codes section above for detail)
3 ³	04-11	8	RECEIVING DFI IDENTIFICATION	R/T # of transaction receiver’s Financial Institution
4 ³	12-12	1	CHECK DIGIT	The Check Digit is computed using Modulus 10. R/T check digit of transaction receiver’s Financial Institution
5	13-29	17	DFI ACCOUNT NUMBER	Transaction receiver’s account number, left justified. Numbers < 0-9> and hyphens “-” only, omit spaces
6 ⁴	30-39	10	AMOUNT	The Receiving Depository Financial Institution (RDFI) posts the amount to the appropriate account authorized by the Receiver. A zero Amount is acceptable only with specific Transaction codes.
7 ⁵	40-54	15	INDIVIDUAL IDENTIFICATION NUMBER/IDENTIFICATION NUMBER/CHECK SERIAL NUMBER	Number by which recipient is known to the Company (ACH Originator)
8 ⁵	55-76	22	INDIVIDUAL NAME/RECEIVING COMPANY NAME	This field is entered by the Originator to provide additional identification of the Receiver and may help when identifying returned Entries.
9 ⁶	77-78	2	DISCRETIONARY DATA/PAYMENT TYPE CODE/CARD TRANSACTION TYPE CODE	Optional field available for Company (ACH Originator) use
10	79-79	1	ADDENDA RECORD INDICATOR	Addenda record indicator – Must contain a value of “0” if no addenda (See addenda record indicator code chart in ACH Codes section above for detail)

11 ⁷	80-94	15	TRACE NUMBER	The first 8 characters must contain the first 8 digits of KeyBank's processing R/T (See Appendix I for R/T detail). The remaining 7 must be sequential numbers assigned by company.
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NOTE: For Return Entries, each field of the Entry Detail Record remains unchanged from the original entry, unless otherwise noted.

1 Changed to the appropriate Return Entry Transaction Code.(See Transaction Codes)

2 changed to the routing Number of the institution receiving the Return Entry (i.e. the ODFI of the original entry).

3 Changed to the Check Digit calculated according to NACHA standards and based on the Routing Number contained in positions 04-11.

4 For the return of an outbound Internal ACH transactions entry originated by a U.S. ODFI, this amount will be different from the amount reflected in the original forward entry if the exchange rate is different at the time of the return.

5 For CIE and MTE entries, positions 40-54 are used for a 15-character Individual Name, and positions 55-76 are used for an Individual Identification Number.

6 For SHR and POS return entries, this field (positions 77-78) is mandatory and contains the Card Transaction type Code (positions 77-78) of the original entry.

7 Changed to the Trace Number assigned by the institution preparing the Automated Return Entry.

Returns – Addenda Record (NACHA Format)

FIELD	1	2	3	4	5	6	7	8
Data Element Name								
FIELD INCLUSION REQUIREMENT	M	M	M	M	O	R	O	M
EXAMPLE	7	99	RNN	NNNNNNNNNNNNNNNN	YYMMDD	NNNNNNNN		

Field	Position	Length	Field Description	Definition
1	01-01	1	RECORD TYPE CODE	File Control Identifier – Contains a value of “7”
2	02-03	2	ADDENDA TYPE CODE	Contains a value of “99”
3	04-06	3	RETURN REASON CODE	This field contains a standard code used by n ACH Operator or RDFI to describe the reason for returning an Entry (See Appendix 2).
4 ¹	07-21	15	ORIGINAL ENTRY TRACE NUMBER	This field contains the Trace Number as originally included on the forward Entry or Prenotification. The RDFI must include the Original Entry Trace Number in the Addenda Record of an Entry being returned to an ODFI, in the Addenda Record of an NOC, within an Acknowledgement Entry, or with an RDFI request for a copy of an authorization.
5 ²	22-27	6	DATE OF DEATH	The date of death is to be supplied on Entries being returned for reason of death (return reason codes R14 and R15).
6 ³	28-35	8	ORIGINAL RECEIVING DFI IDENTIFICATION	This field contains the Receiving DFI identification as originally included on the forward Entry or Prenotification that the RDFI is returning or correcting. This field must be included in the Addenda Record for an Entry being returned to an ODFI, or within the Addenda Record accompanying a Notification of Change.
7	36-79	44	ADDENDA INFORMATION	The Addenda Information field of a Return Entry is used by the RDFI to relay explanatory information that is required with the use of Return Reason Codes “R11” (Check Truncation Return) and “R17” file Record Edit Criteria).
8	80-94	15	TRACE NUMBER	Must be blank

1 Copy data from positions 80-94 of the Entry Detail Record.
 2 To be used only with Return Code R14 or R15.
 3 Copy data from positions 04-11 of the original Entry Detail Record.in positions 04-11.

Appendix 1: Routing Numbers for ACH Transactions

Routing Numbers for ACH Transactions

State	Primary Routing Number for ACH
Alaska	125200879
Colorado	307070267
Idaho	124101555
Indiana	041001039
Maine	011200608
Michigan	041001039
New York	021300077
Ohio	041001039
Oregon	123002011
Utah	124000737
Vermont	211672531
Washington	125000574

Appendix 2

Return Reason Codes/Description/Time Frame

Code	Description	Time Frame
R01	Insufficient Funds - The available and/or cash reserve balance is not sufficient to cover the dollar value of the debit Entry.	*2 Banking Days
R02	Account Closed – A previously active account has been closed by action of the customer or the RDFI.	*2 Banking Days
R03	No Account/Unable to Locate Account – The account number structure is valid, and it passes the Check digit validation, but the account number does not correspond to the individual identified in the Entry, or the account number designated is not an existing account.	*2 Banking Days
R04	Invalid Account Number Structure – The account number structure is not valid.	*2 Banking Days
R05	Unauthorized Debit to Consumer Account Using Corporate SEC Code – CCD or CTX debit Entry was transmitted to a Consumer Account of the Receiver and was not authorized by the Receiver.	**60 Calendar Days
R06	Returned per ODFI's Request – The ODFI has requested that the RDFI return an Erroneous Entry.	Not defined, determined by ODFI and RDFI
R07	Authorization Revoked by Customer – The RDFI's customer (the Receiver) revoke the authorization previously provided to the Originator for this debit entry.	**60 Calendar Days
R08	Payment Stopped – The Receiver has placed a stop payment order on this debit Entry.	*2 Banking Days
R09	Uncollected Funds – A sufficient ledger balance exists to satisfy the dollar value of the transaction, but the available balance is below the dollar value of the debit Entry.	*2 Banking Days
R10	Customer Advises Unauthorized, Improper, Ineligible, or part of an Incomplete Transaction – The RDFI has been notified by the Receiver that the Entry is unauthorized, improper, ineligible, or part of an Incomplete Transaction.	**60 Calendar Days
R12	Account Sold to Another DFI – A financial institution received an Entry to an account that was sold to another financial institution.	*2 Banking Days
R13	Invalid ACH Routing Number – Entry contains a Receiving DFI Identification or Gateway Identification that is not a valid ACH routing number.	Next file delivery time following processing.
R14	Representative Payee Deceased or Unable to Continue in That Capacity – The representative payee is either deceased or unable to continue in that capacity. The beneficiary is not deceased.	*2 Banking Days
R15	Beneficiary or Account Holder (Other Than a Representative Payee) Deceased – (1) The beneficiary is deceased, or (2) The account holder is deceased.	*2 Banking Days
R16	Account Frozen/Entry Returned per OFAC Instruction – (1) Access to the account is restricted due to specific action taken by the RDFI or by legal action; or (2) OFAC has instructed the RDFI or Gateway to return the entry.	*2 Banking Days

Code	Description	Time Frame
R17	File Record Edit Criteria – Field(s) cannot be processed by RDFI.	*2 Banking Days
R20	Non-Transactional Account – ACH Entry to a non-Transactional Account.	*2 Banking Days
R21	Invalid Company Identification – The identification number used in the Company Identification Field is not valid.	*2 Banking Days
R22	Invalid Individual ID Number – The Receiver has indicated to the RDFI that the number with which the Originator was identified is not correct.	*2 Banking Days
R23	Credit Entry Refused by Receiver – Any credit Entry that is refused by the Receiver may be returned by the RDFI.	RDFI must transmit the Return Entry to the ACH Operator by the ACH Operator's deposit deadline for the Return Entry to be made available to the ODFI no later than the opening of business on the second Banking Day following the EDFI's receipt of notification of refusal of the Entry from its Receiver.
R24	Duplicate Entry – The RDFI has received what appears to be a duplicate Entry; i.e., trace number, date, dollar amount and/or other data matches another transaction.	*2 Banking Days
R29	Corporate Customer Advises Not Authorized – The RDFI has been notified by the Receiver (non-consumer) that a specific Entry has not been authorized by the Receiver.	*2 Banking Days
R31	Permissible Return Entry – The RDFI may return a CCD or CTX Entry that the ODFI agrees to accept.	Not defined, determined by ODFI and RDFI
R33	Return of XCK Entry – This Return Reason Code may only be used to return XCK Entries and is at the RDFI's sole discretion.	**60 Calendar Days
R50	State Law Affecting RCK Acceptance – The RDFI is located in a state that has not adopted Revised Article 4 of the Uniform Commercial Code (1980 Official Test) and has not revised its customer agreements to allow for Electronic presentment OR The RDFI is located within a state that requires all canceled Checks to a specific type of account to be returned to the Receiver within the periodic statement.	*2 Banking Days
R51	Item Related to RCK Entry is ineligible or RCK Entry is improper – An RCK Entry considered being ineligible or improper.	**60 Calendar Days
R52	Stop Payment on Item Related to RCK Entry – A stop payment order has been placed on the item to which the RCK Entry relates.	**60 Calendar Days

*Each Return Entry must be received by the RDFI's ACH Operator by its deposit deadline for the Return Entry to be made available to the ODFI no later than the opening of business on the second Banking Day following the Settlement Date of the original Entry.

**Each Return Entry must be received by the RDFI's ACH Operator by its d3posit deadline for the Return Entry to be made available to the ODFI no later than the opening of business on the Banking Day following the sixtieth calendar day following the Settlement Date of the original Entry.

ACH Frequently Asked Questions**1. Can the ACH department assist clients with creating files from their internal software?**

No. Clients must contact their own IT department or the software vendor for assistance with creating files.

2. How long after a valid test file is sent can a production file be sent?

The standard is five business days after a valid test file is received and approved.

3. Can KeyBank accept CTX and CCD standard entry class codes?

Yes. CCD transactions with one line of addenda information are accepted. CTX allows multiple lines of addenda information.

4. Do files have to be balanced?

No, KeyBank prefers ACH files to be unbalanced. Our ACH processing system will automatically create the proper settlement transactions and post them to your desired account.

5. Under what conditions is testing required?

- When upgrading software
- Name changes
- When experiencing Hash total problems
- When making changes to any of the fields noted above by "***"

6. What are some of the most common different types of Addenda?

- Free form
- Tax payments
- Child Support
- Healthcare

7. When are pre-notes required?

Clients may be required to pre-note with Tax payments; consult the taxing authority for details on their requirements.

8. Are file Control Totals required?

Yes, KeyBank requires its ACH Originators report file totals for each file they Originate. There are four methods available for reporting, they are via touch-tone telephone, internet based, email and transmission.

Note: Email and transmission methods require additional setup and testing.

9. When does KeyBank exchange transactions with the ACH Network?

ACH transactions are collected/distributed several times throughout the day. Our approximate ACH schedule is as follows: Collection/Distribution (6:00 AM EST), Collection (9:30 AM EST), Collection/Distribution (11:30 AM EST), Collection (2:00 PM EST), Collection/Distribution (4:30 PM EST), Collection/Distribution (7:00 PM EST), Collection/Distribution (9:00 PM EST), Our final cutoff is **9:00 PM EST** for clients to send us an ACH file.

10. Can KeyBank provide an electronic file for all returned transactions and notifications of change?

Yes, KeyBank can provide a NACHA formatted returns file, which will include all returned transactions, as well as notifications of change.

11. How will KeyBank provide any reports related to ACH Origination activities?

Reports are available via KeyNavigatorSM, and at an additional cost, via encrypted email.