



This document has been created to assist potential users of ACH Direct™ (direct deposit interface software) in determining if the software will be compatible with the user’s financial institution.

**Transactions generated by ACH Direct comply with ACH record formats specified by NACHA (National Automated Clearing House Association)**

**ACH FILE STRUCTURE**

The ACH format is fixed length ASCII, record length 94, Block 10. The file layout is as follows:

- File Header Record
- Batch Header Record
- Detail Records
- Batch Control Record
- File Control Record

A single file can contain multiple batches, in which case a batch header record will immediately follow the batch control record of the proceeding batch.

**Field Inclusion Requirements:**

Each field in each record is designated as mandatory, required or optional (M, R or O). For purposes of processing ACH format files, these terms are defined as follows:

- Mandatory**      The omission of a mandatory field will cause the entry, batch or file to reject at the originating depository financial institution (ODFI) and will be returned to the originator. Mandatory fields ensure the correct routing and/or posting of individual ACH entries.
- Required**        The omission of a required field will not cause an entry to reject at the ODFI, but may cause the entry, batch or file to reject at the receiving depository financial institution (RDFI). Required fields should be included to avoid processing problems at the RDFI.
- Optional**        Inclusion or omission of optional fields is entirely at the discretion of the origination entity.

**FILE HEADER RECORD ('1' Record)**

The file header fields designate physical file characteristics and identify the origin (sending point) and destination (receiving point) of the entries contained in the file. The file header also includes creation date and time fields which can be used to uniquely identify a file.

Record Type Code:	'1'
Immediate Destination:	Routing Number of the receiving point to which the file is being sent
Immediate Origin:	Routing Number of the sending point that is sending the file
Immediate Destination Name	The name of the receiving point for which the file is being sent
Immediate Origin Name:	The name of the sending point that is sending the file

## BATCH HEADER RECORD ('5' Record)

The batch header record identifies the originating entity and the type of transactions contained in the batch (i.e., the standard entry class, PPD for consumer). This record also contains the effective date, or desired settlement date, for all entries contained in this batch. The settlement date field is not entered as it is determined by the ACH operator.

Record Type Code:	'5'
Company Name:	The identifying name of the source of the entry
Company Identification:	An alphanumeric code used to identify the Originator
Standard Entry Class Code:	A mnemonic which permits various kinds of entries to be distinguished, ie. PPD: Prearranged Payment and Deposit
Company Entry Description:	The Originator provides this description of the purpose of the entry to be displayed back to the Receiver
Effective Entry Date:	The date specified by the Originator on which it intends a batch of entries to be settled

## ENTRY DETAIL RECORD ('6' Record)

The detail record contains the actual transaction data for an individual entry. Fields include those designating the entry as a deposit (credit) or withdrawal (debit), the transit routing number for the entry recipient's financial institution, the account number (left justify, no zero fill), name, and dollar amount.

Prenote entries are zero-dollar ACH entries which allow an originator to check the validity of its transaction (entry detail) data. RDFIs are required to notify the prenote originator of incorrect transaction data within six business days of the prenote effective date.

Receiving DFI Identification:	The first eight digits of the transit routing number for the transaction recipient's financial institution
Check Digit:	The ninth digit of the transit routing number of the transaction recipient's financial institution
DFI Account Number:	The account number of the consumer or corporate entity receiving the ACH entry (left justify, no zero fill)
Amount:	The dollar amount of the entry, decimal implied
Individual Name:	The name of the entry recipient
Addenda Record Indicator:	'0' for no addenda attached, '1' for addenda attached
Trace Number:	This field is made up of the first eight digits of the originating DFI transit routing number and a seven-digit (zero fill left) identifier (identifiers need to be sequential but must be ascending)

### **BATCH CONTROL (TRAILER) RECORD ('8' Record)**

This record contains entry counts, dollar total and has totals for all entries contained in the preceding batch.

Record Type Code:	'8'
Service Class Code:	Must match same field from the immediately preceding batch header record
Entry/Addenda Count:	Total detail and addenda records in the <u>batch</u>
Entry Hash:	Hash totals are the sum of all transit routing numbers (first eight digits only) from each entry detail record in the <u>batch</u> , truncated from the higher order if necessary
Total Debit Amount:	Total debits in the batch, decimal implied
Total Credit Amount:	Total credits in the batch, decimal implied
Company Identification:	Must match the Company ID from the batch header record
Originating DFI Identification:	Must match same field from the batch header record
Batch Number:	Must match the same field from the batch header record

### **FILE CONTROL (TRAILER) RECORD ('9' Record)**

This record contains entry counts, dollar totals and hash totals accumulated from each batch control record in the file.

Record Type:	'9'
Batch Count:	Total number of batches (i.e., '5' records) in the file
Block Count:	Total number of records in the file (include all headers and trailer) divided by 10 (This number must be evenly divisible by 10. If not, additional records consisting of all 9's are added to the file after the initial '9' record to fill out the block 10.)
Entry Addenda Count:	Total detail and addenda records in the <u>file</u>
Entry Hash:	Calculated in the same manner as the batch has total but includes total from entire <u>file</u>
Total Debit Dollar Amount:	Total debits in the <u>file</u> , decimal implied
Total Credit Dollar Amount:	Total credits in the <u>file</u> , decimal implied



**ALL 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
Contents	'1'	Numeric	bTTTTAAAAC	lTTTTAAAAC	YYMMDD	HHMM	Upper Case A-Z Numeric 0-9	'094'	'10'	'1'	Alphameric	Alphameric	Alphameric
Length	1	2	10	10	6	4	1	3	2	1	23	23	8
Position	01-01	02-03	04-13	14-23	24-29	30-33	34-34	35-37	38-39	40-40	41-63	64-86	87-94

**ALL ENTRIES FILE CONTROL 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
Contents	'9'	Numeric	Numeric	Numeric	Numeric	\$\$\$\$\$\$\$\$\$cc	\$\$\$\$\$\$\$\$\$cc	Blank
Length	1	6	6	8	10	12	12	39
Position	01-01	02-07	08-13	14-21	22-31	32-43	44-55	56-94

**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
Contents	'6'	Numeric	TTTTAAAA	Numeric	Alphameric	\$\$\$\$\$\$cc	Alphameric	Alphameric	Alphameric	Numeric	Numeric
Length	1	2	8	1	17	10	15	22	2	1	15
Position	01-01	02-03	04-11	12-12	13-29	30-39	40-54	55-76	77-78	79-79	80-94

**PPD ADDENDA RECORD**

FIELD	1	2	3	4	5
Data Element Name	Record Type Code	Addenda Type Code	Payment Related Information	Addenda Sequence Number	Entry Detail Sequence Number
Field Inclusion Requirement	M	M	O	M	M
Contents	'7'	'05'	Alphameric	Numeric	Numeric
Length	1	2	80	4	7
Position	01-01	02-03	04-83	84-87	88-94



**ALL ENTRIES COMPANY / BATCH HEADER RECORD**

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 Code	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
Contents	'5'	Numeric	Alphameric	Alphameric	Alphameric	Alphameric	Alphameric	Alphameric	YYMMDD	Numeric	Alphameric	TTTTAAAA	Numeric
Length	1	3	16	20	10	3	10	6	6	3	1	8	7
Position	01-01	02-04	05-20	21-40	41-50	51-53	54-63	64-69	70-75	76-78	79-79	80-87	88-94

**ALL ENTRIES COMPANY / BATCH CONTROL RECORD**

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 Identification	Message Authentication Code	Reserved	Originating DFI Identification	Batch Number
Field Inclusion Requirement	M	M	M	M	M	M	R	O	N/A	M	M
Contents	'8'	Numeric	Numeric	Numeric	\$\$\$\$\$\$\$\$\$cc	\$\$\$\$\$\$\$\$\$cc	Alphameric	Alphameric	Blank	TTTTAAAA	Numeric
Length	1	3	6	10	12	12	10	19	6	8	7
Position	01-01	02-04	05-10	11-20	21-32	33-44	45-54	55-73	74-79	80-87	88-94