Recipient Import Specifications
ACH NACHA Format

The ACH NACHA IMPORT function supports the use of an ACH formatted source file. This is a common format used within the banking and corporate financials arenas. ACH files can be produces using a payroll system, accounting system or an application designed specifically designed to produce them.

An ACH file must be properly formatted and contain each of the following, properly formatted and populated:

- o File Header Record
- o Batch Header Record
- o PPD or CCD Entry Detail Record
- o PPD or CCD Addenda Record (only if addenda information is included)
- o Batch Control Recordx
- o File Control Record

The Online Banking for Business service will validate the ACH File at the start of the import process and will not continue with the import if the file has formatting problems. Details about what is not correct about the file will be provided to the client via a System Error Message.

Other formatting validated for an ACH file:

- ☒ Total Entry Credit amount in the Batch Control Record does NOT match the sum of the credit amounts in the batch
- ☒ Entry Addenda Count in the Batch Control Record does NOT match the number of Entry Detail records + Entry Addenda records in the batch
- ☒ Entry Hash in the Batch Control Record does NOT match the accumulation of ROUTING/TRANSIT numbers from Entry Detail Records.
- ☒ One of the recipients does not have a Recipient ID specified. You will need to repair the file before you can successfully import it.

Important Information to Keep in Mind:

- ➢ An ACH file cannot contain both individual and business recipient information. Only one type will be imported based on the type of template being created.
- ➢ All recipients of the same type must be included in the same batch with in an ACH file. Recipient Types are designated in the Batch Header Record ("5" Record) in the Standard Entry Class Code Field, "PPD" for individual and "CCD" for Business.
- ➢ Recipient information is contained in the PPD or CCD Entry Detail Record ('6" Record) and the PPD or CCD Addenda Record ("7" Record).
- ➢ PRENOTE entries import must be imported in a separate file.

ACH Technical File
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ACH File Format Parameters

This section will detail the values for specific file records. In general, all ACH transactions are included in a file that has the following required sequence of records. This document lists every field in these standard NACHA records with a definition and all the potential values.

Required Record Sequence for all CCD & PPD files:

1. File Header Record (One per file – first logical record on file)
2. Company/Batch Header (One per batch – signifies start of batch)
3. Entry Detail Entry & Addenda Record (Each entry detail and an optional Addenda Record)
4. Company/Batch Control Record (One per batch – signifies end of batch)
5. Additional Batch-Detail-Control Records (Repeat items 2, 3 & 4 for all batches in a file)
6. File Control Record (One per file, last logical record)
7. Filler Record (a series of the number "9" to fill in the last block of data)

The specification for each of the Required Records is detailed below. Online Banking for Business values for the field are highlighted by italics. Standardized values are highlighted as embolden.

In the CCD & PPD **Formats in the NACHA Convention,** there are three types of data fields. Whether a data field is Mandatory, Optional or Required is noted in the Field Sequence column on each record format table with an "M," "O" or "R."

1) Mandatory	Any "Mandatory" field not included in an ACH entry will cause that entry, batch, or file to be rejected and returned to the Originating DFI (Depository Financial Institution) by the first ACH processing the file. A "Mandatory" field is necessary to ensure the proper routing and/or posting of an ACH entry.
2) Optional	The inclusion or omission of an "Optional" data field is at the discretion of the originating company and DFI. However, if a DFI does originate files using optional data fields, these fields must be returned to the Originating DFI if the entry is returned.
3) Required	The omission of a "Required" field will not cause an entry reject at the ACH Operator, but may cause a reject at the Receiving DFI. To avoid processing control problems at the Receiving DFI, the Originating Company and DFI should include data classified as "Required".

Justification of Field Contents: For all of the specifications tables that follow, when Field Contents are alphanumeric, information should be left-justified, with any remaining right spaces left blank. When Field Contents are numeric, information should be right justified, with any remaining spaces at the left filled with zeros.

Record 1: File Header Record Format

Field Sequence	Field Name	Field Contents	Columns From - To	Length (CHAR) = 94
1 (M)	Record Type Code	"1"	1 - 1	1
2 (R)	Priority Code	"01"	2 - 3	2
3 (M)	Immediate Destination ID Number	"bTTTTAAAAC"	4 - 13	10
4 (M)	Immediate Origin ID Number	"bTTTTAAAAC"	14 - 23	10
5 (M)	Transmission Date	YYMMDD	24 - 29	6
6 (O)	Transmission Time	HHMM	30 - 33	4
7 (M)	File ID Modifier	Alphanumeric	34 - 34	1
8 (M)	Record Size	"094"	35 - 37	3
9 (M)	Blocking Factor	"10"	38 - 39	2
10 (M)	Format Code	"1"	40 - 40	1
11 (M)	Immediate Destination Name	Alphanumeric	41 - 63	23
12 (M)	Immediate Origin Name	Alphanumeric	64 - 86	23
13 (O)	Reference Code	Alphanumeric	87 - 94	8

Explanation of Fields in File Header Record Format

1. **Record Type Code _ MANDATORY** This field should have the value of "**1**" to identify this record as a File Header Record.

2. **Priority Code _ REQUIRED** This field is included to allow for some future scheme for priority handling of files. At this time, a value of "**01**" should be used.

3. **Immediate Destination ID Number _ MANDATORY** This field identifies the DFI receiving the data for the transaction. The 10-character format begins with a blank in the first position, followed by the Transit/Routing number for the Federal Reserve Bank's ACH Origination in the DFI's district. "_**011002343**"

4. **Immediate Origin ID Number _ MANDATORY** This field identifies the DFI sending the data for the transaction. The 10-character format begins with a blank in the first position, followed by the 4-digit transit number, the 4-digit ABA number, and then the Check Digit, which should be in position 10 (this combination of numbers is commonly called the Transit/Routing number). This field is the financial institution's Transit/Routing number. "_**011002343**"

5. **Transmission Date _ MANDATORY** The Transmission (File Creation) Date is the date on which the data file is prepared by an Originating DFI (ACH Input files) or the date (Exchange Date) on which a file is transmitted from ACH to ACH, or from ACH to Receiving DFI (ACH Output Files). The Transmission Date is expressed in "**YYMMDD**" format.

6. **Transmission Time _ OPTIONAL** The Transmission (File Creation) Time is expressed in an **"HHMM"** (24-hour clock) format.

7. **File ID Modifier _ MANDATORY** The File ID Modifier is provided in the File Header Record to permit multiple files created on the same date and between the same participants to be distinguished. The company may establish a code within the letters A – Z. At this time, the value **"V"** must be used.

8. **Record Size _ MANDATORY** The Record Size field indicates the number of characters contained in each record. At this time, the value **"094"** must be used.

9. **Blocking Factor _ MANDATORY** The Blocking Factor for magnetic tape files defines the number of physical records within a magnetic tape block. For all tapes moving between a DFI and an ACH (either way) the value **"10"** must be used.

10. **Format Code _ MANDATORY** This code has been provided to allow for future format variations. As currently defined, the format for the tape files containing paperless entries will be value **"1."**

11. **Immediate Destination Name _ MANDATORY** The name of the ACH is included in this record to provide additional identification information. **"BOSTON_PRIVATE"**

12. **Immediate Origin Name _ MANDATORY** The name of the ACH is included in this record to provide additional identification information. **"BOSTON_PRIVATE"**

13. **Reference Code _ OPTIONAL.** This field is reserved for information pertinent to the sender. Use the same code as field 4. This field is the financial institution's Transit/Routing number. **"01100234"**

Record 5: Company/Batch Header Record Format

Field Sequence	Field Name	Field Contents	Columns From - To	Length (CHAR) = 94
1 (M)	Record Type Code	"5"	1 - 1	1
2 (M)	Service Class Code	ACH Cr & Dr = "200" ACH Credit = "220" ACH Debit = "225"	2 - 4	3
3 (M)	Company Name	Alphanumeric *No special characters allowed.*	5 - 20	16
4 (O)	Company Discretionary Data	Alphanumeric	21 - 40	20
5 (R)	Company Identification -Tax ID	Alphanumeric	41 - 50	10
6 (M)	Standard Entry Class Code	"CCD" or "PPD"	51 - 53	3
7 (M)	Company Entry Description **(BATCH NAME)**	Alphanumeric	54 - 63	10
8 (O)	Company Descriptive Date	Alphanumeric	64 - 69	6
9 (R)	Effective Entry Date	***YYMMDD***	70 - 75	6
10	Settlement Date (Julian)	***Numeric***	76 - 78	3

11 (M)	Originator Status Code	"1"	79 - 79	1
12 (M)	Originating DFI Identification	"TTTTAAAA"	80 - 87	8
13 (M)	Batch Number	Numeric	88 - 94	7

Explanation of Fields in Company/Batch Header Record Format

1. **Record Type Code _ MANDATORY** This field should have the value of "5" to identify this record as a Company/Batch Header Record.

2. **Service Class Code _ MANDATORY**. The Service Class Code (BAI specifications) identifies the general classification of dollar entries to be exchanged. This standard has been recommended to facilitate inter-DFI transmission of data. The value can be any of the three following values: **"200"** = ACH Entries Mixed Debits and Credits, **"220"** = ACH Credits Only, **"225"** = ACH Debits Only.

3. **Company Name - MANDATORY**. To further identify the source of the entry and for descriptive purposes for the receiver or customer, the company establishes the value of this field. No special Characters allowed

   Company Name is the name of the company originating the transaction via Online Banking for Business.

4. **Company Discretionary Data _ OPTIONAL.** This field allows companies and/or Originating DFIs to include codes (one or more) of significance only to them, to enable specialized handling of all subsequent entries in that batch. This field must be returned intact on any return entry.

5. **Company Identification _ REQUIRED** This is a 10 position field used to by the company to identify the transaction (Company Tax ID Number). "_#########"

6. **Standard Entry Class Code _ MANDATORY** This field is mnemonic, which permits various kinds of entries to be distinguished.

   "CCD" = Cash Concentration or Disbursement (This code is used for business-to-business ACH transactions.) Identifies entry as a debit or credit used by an Originator to collect funds from, or send funds to, their own accounts at another RDFI; or to collect/pay funds owed to another business Receiver.

   "**PPD**" = Pre-arranged/authorized Payments and Deposits Entry (This code is used for business-to-personal or personal-to personal transactions.) Identifies entry as a debit or credit that was initiated by a (usually) business Originator as a recurring ACH debit pursuant to a standing authorization (signed/written form) provided by the customer to the company. A PPD can also be a one-tine debit pursuant to a single entry authorization.

7. **Company Entry Description _ MANDATORY. (BATCH NAME)** The company establishes the value of this field to provide a description of the purpose of the entry when displayed to the receiver. All values used in this field should be left-justified and have the unused spaces blank. For example:

| For ACH Credits | Payroll; Expense Reimbursement; Payment |
| For ACH Debits | Collections; Receipt |

8. **Company Descriptive Date _ OPTIONAL** The company establishes this field as the date it would like to see displayed for descriptive purposes. This field is never used to control timing of any computer or manual operation. It is solely for descriptive purposes.

9. **Effective Entry Date _ REQUIRED** This is the date specified by the company on which settlement for an entry is to occur. Due to this standard, processing and transmittal of entries by the Originating ACH Operator should take place one or two banking days prior to the date specified.

10. **Settlement Date (Julian)** With respect to entries, the Receiving ACH inserts the scheduled settlement date. This is the Julian Date that corresponds to the date value in field 9.

11. **Originator Status Code - MANDATORY**: This code identifies the type of originator of an entry. The currently assigned value is "1". This code identifies the originator as a depository financial institution, which has agreed to be bound by these rules.

12. **Originating DFI Identification - MANDATORY**. The 8-character format used in this field begins with the 4-digit transit number, followed by the 4-digit ABA number to identify the DFI originating entries within a given batch. This field is the financial institution's Transit/Routing number "**01100234**".

13. **Batch Number - MANDATORY**. The Sending Point designates this number, assigned in ascending sequence to each batch in a given file of entries. Since the batch number in this record and the Company Batch Control record are the same, the ascending sequence number should be assigned by batch and not by record. This field should be right-justified, zero-filled. Create an incremental sequence number for each batch for the day, starting at 00000001.

Record 6: Entry Detail Record Format

Field Sequence	Field Name	Field Contents	Columns From – To	Length (CHAR) = 94
1 (M)	Record Type Code	"6"	1 – 1	1
2 (M)	Transaction Code	"22", "23", "27", "28", "32", "33", "37", or "38"	2 – 3	2
3 (M)	Receiving DFI Identification	"TTTT TAAAA"	4 – 12	9
4 (M)	Account Number	Alphanumeric	13 - 29	17
5 (M)	Deposit Amount	$$$$$$$$cc	30 - 39	10
6 (M)	Individual/Company ID Number	Alphanumeric *No special characters allowed*. Unique ID.	40 - 54	15
7 (M)	Individual/Company Name	Alphanumeric *No special characters or spaces allowed*.	55 - 76	22
8 (O)	Discretionary Data	Alphanumeric	77 – 78	2
9 (M)	Addenda Record Indicator	"0" = No Addenda Record "1" = Addenda Record	79 – 79	1
10 (M)	Trace Number	Numeric	80 – 94	15

Explanation of Fields in Entry Detail Record Format

1. **Record Type Code - MANDATORY.** This field should have the value of "**6**" to identify this record as an Entry Detail Record Format.

2. **Transaction Code _ MANDATORY** A Transaction Code has been defined to identify debit or credit entries. The possible values are in the table below: *(See next page.)*

Transaction Code	Account Type	Transaction Description
"22"	Demand	Automated Deposit ACH Credit Direct Dep/Disbursement
"23"	Demand	Pre-notification of Demand Credit (non-dollar)
"27"	Demand	Automated Payment ACH Debit Collection
"28"	Demand	Pre-notification of Demand Debit (non-dollar)
"32"	Savings	Automated Deposit ACH Credit Direct Dep/Disbursement
"33"	Savings	Pre-notification of Savings Credit (non-dollar)
"37"	Savings	Automated Payment ACH Debit Collection
"38"	Savings	Pre-notification of Savings Credit (non-dollar)

3. **Receiving DFI Identification _ MANDATORY** The 9-character format used the DFI **Routing Number** receiving entries within a given batch.

4. **Account Number _ MANDATORY** The Account Number field will identify the appropriate account used for posting of remittance deposits. This field should be left-justified and have the unused spaces blank.

5. **Deposit Amount _ MANDATORY** The Receiving DFI posts this Deposit Amount to the appropriate account authorized by the sender. This field should be right-justified and have unused spaces filled with zeros. No decimal point is used

6. Individual ID Number _ OPTIONAL *No special characters or spaces allowed.*

Example	
Transaction Type	**Value**
Payroll	EID number
Payment/Transfer	Customer number/TIN
All other transactions	Blank

7. Company Name _ MANDATORY This value is established by the Originator for purposes of further identifying the source of the entry and for descriptive purposes for the Receiver - Receiver's Name. *No special characters allowed.*

8. Discretionary Data _ OPTIONAL This field allows Originating DFIs to include codes, of significance only to them, to enable specialized handling of the entry. There will be no standardized interpretation for the value of this field. It can either be a single 2-character code, or two distinct 1-character codes, according to the needs of the Originating DFI and/or company involved. This field must be returned intact for any returned entry.

9. Addenda Record Indicator _ MANDATORY This field should have the value of "**1**" or "**0**" which indicates that one Special Addenda Record follows. Value "**0**" must be used (no Addenda Record).

10. Trace Number _ MANDATORY A Trace Number, assigned by the Originating DFI in ascending sequence, is included in each Entry Detail Record. Trace Numbers uniquely identify each entry within a batch in an ACH input file. In association with the batch number, transmission (file creation) date, and file ID modifier, the Trace Number uniquely identifies an entry within a given file. Throughout the entire processing cycle (from Originating DFI to Receiving DFI) the Trace Number is retained with the entry record. The Trace Number is critical in routing returned entries from the Receiving DFI back to the Originating DFI through the ACH. Since it is possible, although undesirable, for an Originating DFI to duplicate Trace Numbers on separate files or within different batches submitted during the same processing date, the file ID modifier contained in the Originating DFI's File Header Record should also be referenced when the Originating DFI is tracing returned entries. *First 8 digit Routing Number, then a 7 digit incremental sequence number for each transaction usually starting with* "**011002340000001**"

Record 7: Addenda Record Format

Field Sequence	Field Name	Field Contents	Columns From – To	Length (CHAR) = 94
1 (M)	Record Type Code	"7"	1 – 1	1
2 (M)	Addenda Type Code	"05"	2 – 3	2
3 (O)	Payment Related Information	Alphanumeric	4 – 83	80
4 (M)	Addenda Sequence Number	Numeric	84 - 87	4
5 (M)	Entry Detail Sequence Number	Numeric	88 - 94	7

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Explanation of Fields in Addenda Record Format

1. **Record Type Code _ MANDATORY** This field should have the value of "7" to identify this record as an Addenda Record.

2. **Addenda Type Code _ MANDATORY** The Addenda Type should have the value of "05".

3. **Payment Related Information - OPTIONAL** This field may contain alphanumeric information/text that further identifies the purpose of the transaction. This field may contain invoice or reference numbers to help the receiver apply the transaction in their accounting system.

4. **Addenda Sequence Number _ MANDATORY** This four position field is a number consecutively assigned to each addenda record following a sequence number entry detail record. For CCD+ or PPD+, this number will always begin with0001.

5. **Entry Detail Sequence Number _ MANDATORY** This number is the same as the last 7 digits of the trace number from the entry detail record.

Record 8: Company/Batch Control Record Format

Field Sequence	Field Name	Field Contents	Columns From - To	Length (CHAR) = 94
1 (M)	Record Type Code	"8"	1 – 1	1
2 (M)	Service Class Code	"200", " 220" or 225"	2 – 4	3
3 (M)	Entry Count	Numeric	5 - 10	6
4 (M)	Entry Hash	Numeric	11 - 20	10
5 (M)	Total Debit Entry Amount	$$$$$$$$$$cc	21 - 32	12
6 (M)	Total Credit Entry Amount	$$$$$$$$$$cc	33 - 44	12
7 (R)	Company ID Number	Alphanumeric	45 - 54	10
8	Reserved	Blanks	55 - 73	19
9	Reserved	Blanks	74 - 79	6
10 (M)	Originating DFI Identification	"TTTTAAAA"	80 - 87	8
11 (M)	Batch Number	Numeric	88 - 94	7

Explanation of Fields in Company/Batch Control Record Format

1. **Record Type Code _ MANDATORY** This field should have the value of "8" to identify this record as a Company/Batch Control Record.

2. **Service Class Code _ MANDATORY** The Service Class Code (BAI specifications) identifies the general classification of dollar entries to be exchanged. This standard has been recommended to

facilitate inter-DFI transmission of data. The value can be any of the three following values: **"200"** = ACH Entries Mixed Debits and Credits, **"220"** = ACH Credits Only, **"225"** = ACH Debits Only.

3. **Entry Count _ MANDATORY** This count is a tally of each Entry Detail Record processed within either the batch or file, as may be appropriate.

4. **Entry Hash _ MANDATORY** The critical Transit/Routing number in each entry is hashed to provide a check against inadvertent alteration of data contents due to hardware failure or program error.

5. **Total Debit Entry Amount _ MANDATORY** This field contains accumulated Entry Detail debit totals within a given batch (Company/Batch Control Record) and accumulated Company/Batch Control Record debit totals within a given file (File Control Record).

6. **Total Credit Entry Amount _ MANDATORY** This field contains accumulated Entry Detail credit totals within a given batch (Company/Batch Control Record) and accumulated Company/Batch Control Record credit totals within a given file (File Control Record).

7. **Company Identification _ REQUIRED** This is a 10-position field used to by the company to identify the transaction.

8. **Reserved _** To be filled with blanks

9. **Reserved _** To be filled with blanks

10. **Originating DFI Identification _ MANDATORY** The 8-character format used in this field begins with the 4-digit Transit Number, followed by the 4-digit ABA number to identify the DFI originating entries within a given batch. "**01100234**"

11. **Batch Number _ MANDATORY** This number, assigned in ascending sequence to each batch in a given file of entries, is designated by the sending point. Since the batch number in this record and the Company Batch Header Record is the same, the ascending sequence number should be assigned by batch and not by record. This field should be right-justified, zero-filled.

A file may contain several batches all with the sequence of:

1. **Record 2: Company/Batch Header** (One per batch – signifies start of batch)

2. **Record 3: Entry Detail Entry** (Each entry detail

3. **Company/Batch Control Record** (One per batch – signifies end of batch)

Record 9: File Control Record Format

Field Sequence	Field Name	Field Contents	Columns From - To	Length (CHAR) = 94
1 (M)	Record Type Code	"9"	1 – 1	1
2 (M)	Batch Count	Numeric	2 – 7	6
3 (M)	Block Count	Numeric	8 - 13	6
4 (M)	Entry Count	Numeric	14 - 21	8
5 (M)	Entry Hash	Numeric	22 - 31	10
6 (M)	Total Debit Entry Amount	$$$$$$$$$cc	32 - 43	12
7 (M)	Total Credit Entry Amount	$$$$$$$$$cc	44 - 55	12
8	Reserved	Blanks	56 - 94	39

Explanation of Fields in File Control Record Format

1. **Record Type Code _ MANDATORY** This field should have the value of "**9**" to identify this record as a File Control Record.

2. **Batch Count _ MANDATORY** The value of this field must be equal to the number of Company/Batch Header Records in the file. This field should be right-justified, zero-filled.

3. **Block Count _ MANDATORY** The Block Count contains the number of physical blocks in the file, including both the File Header and File Control Records. This field should be right-justified, zero-filled.

   The Block Count (located in record 9) is a calculation: 940/total number of characters in the batch, including header and control records (1, 5, 6, 7, and 8).

   Each record contains 94 characters.

Record 1	1 x 94	94
Record 5	1 x 94	94
Record 6	(# of records)1663 x94	156322
Record 8	1 x 94	94
Sub Total		156604
Divide	156604/940	*166.6

   *round up total

4. **Entry Count _ MANDATORY** This count is a tally of each Entry Detail Record processed within either the batch or file, as may be appropriate. This field should be right-justified, zero- filled.

5. **Entry Hash _ MANDATORY** The critical Transit/Routing number in each entry is hashed to provide a check against inadvertent alteration of data contents due to hardware failure or program error.

6. **Total Debit Entry Amount _ MANDATORY** This field contains accumulated Entry Detail debit totals within a given batch (Company/Batch Control Record) and accumulated Company/Batch Control Record debit totals within a given file (File Control Record).

7. **Total Credit Entry Amount _ MANDATORY** This field contains accumulated Entry Detail credit totals within a given batch (Company/Batch Control Record) and accumulated Company/Batch Control Record credit totals within a given file (File Control Record).

8. **Reserved _ To be filled with** blanks

Record 9: Filler Record Format

This record is nothing more than a series of the number "**9**" to fill in the last blocks of data so the total number of records is divisible by 1.