



## **Implementation Guide to Payment and Remittance Message**

**EDI 820  
Version 4010**

**Description:** This transaction set can be an order to a financial institution to make a payment to a payee. It can also be a remittance advice identifying the detail needed to perform cash application to the payee's accounts receivable system. The remittance advice can go directly from payer to payee, through a financial institution, or through a third party agent.

## **Overview**

### ***Purpose***

The Payment Order/Remittance Advice transaction allows you to automate the exchange of payment details and payment to CN directly or through your bank. There are three EDI payment options:

1. Remittance with Payment, sent through your bank to CN
2. Remittance advice only, sent directly to CN (payment is made independently)
  - A. Remittance Advice sent through a VAN
  - B. Remittance Advice sent through secured FTP
3. Payment only, sent through your bank to CN

Throughout this document these will be referred to as Option 1, Option 2A & 2B and Option 3.

Other electronic payment options, such as eBill Service (a CN eBusiness tool) are described on the CN website at:

<http://www.cn.ca/eBill>

### ***EDI Version & Guidelines***

This document describes the implementation of EDI 820 payment details using ANSI version 3020 to 4010. The actual mapping requirements of version 4010 is contained in this Implementation Guide available on the website at:

<http://www.cn.ca/guides>

This Payment Order/Remittance Advice 820, version 004010, closely complies with the official published Guidelines of American National Standards Institute. US Dollar Payments are handled through the ACH CTX (Automated Clearing House Corporate Trade Exchange) network.

Canadian Dollar payments are handled through the Canadian banking network.

### ***Formats and Options***

It is entirely the responsibility of the Sender of the 820 to ensure that messages produced meet the descriptions and requirements set out in this document. Formats other than those presented in this guide must be reviewed with your CN representative prior to implementation.

### ***Connection Options***

CN has direct connection with 3 VAN's (Value Added Networks). They are GXS, Transentric, and Kleinschmidt (KNSX). Interconnection to other VANs is also available. Exchange through secured FTP is now available at CN and is free of charge to customers. Remittance details sent via FTP should conform to EDI 820 Standards.

Connection options to transmit information to your Bank may be different, and are not covered in this document.

### ***Message Timing***

Remittance Advice messages are accepted at all times of the day so you can send them as soon as your process completes the preparation of the file.

All Payments (options 1 and 3) sent by the bank to CN prior to 20:00 (Eastern Standard Time) are processed by CN in a batch job on the same business day.

For Option 2, the payment is only applied to your CN account the day after both payment and remittance details have been received. Remittance details should be received by CN prior to the payment.

### ***Payment Options***

If you are selecting option 1 above, all Remittance Details, as well as the Payment Order, will be transmitted to your bank. The bank will then forward Remittance details to CN and debit your account in favor of CN.

If you are selecting option 2 above, then you must make payment to CN in another transaction. This transaction must match the total amount stated in the EDI 820 detail transmission. CN's standard setup accepts payment details referencing invoice numbers only. Other payment detail reference formats are available upon request.

If you are selecting option 3, the payment order will be transmitted to the bank and the bank will forward the file to CN and debit your account in favor of CN.

Please note that CN still requires the details to be sent electronically for option 3. There is a manual transaction fee on details that have been forwarded non-electronically such as email, fax or other paper remittance.

Canadian and US Dollar payments must be handled in separate transactions if you are selecting option 1 and option 3. They can be handled in the same transaction for option 2

### ***CN Contact***

You can email us at [EDIMGR@cn.ca](mailto:EDIMGR@cn.ca). You can also visit us at [www.cn.ca](http://www.cn.ca).

## ***Getting Started***

To begin the process of implementation you should do the following:

1. Notify us at [EDIMGR@cn.ca](mailto:EDIMGR@cn.ca) that you want to Send Payment Orders or Remittance Advice using EDI. This message should include your full company name and location, as well as both an Accounts Payable and EDI Technical contact.
2. CN will then assign someone to work with you on the implementation
3. A review and walkthrough of the Mapping Guide and this Implementation Guide will facilitate understanding of the data and requirements.
4. Technical details must be resolved such as the Value Added Network to be used, and the sender and receiver IDs.
5. CN supports a fully functional test system for technical and business validation of the exchange.

## ***Using the Mapping Guide***

Each Segment and Data Element in the transaction is identified in Segment and Data element order. The following information is available for each:

- Element Code, this is the Data Segment + position within the segment
- Element Number, this is the ANSI reference to the data contained in this position
- Element Name, the name of the data
- Element Type, the ANSI designation for the Data Elements
- Element Length, showing the Minimum/Maximum length of the data
- Required, shows the Mandatory, Conditional, or Optional indication for this information
- Description, notes on CN's usage of this data element, including accepted values

**Sample EDI 820 transmission:**  
**(Cheque with Separate Payment Details)**

ISA\*00\* \*00\* \*ZZ\*SENDERID \*02\*CN  
\*180524\*1031\*U\*00401\*000000382\*0\*P\*>  
GS\*RA\*SENDERID\*CN\*20180524\*1031\*382\*X\*004010  
ST\*820\*0372  
BPR\*I\*1625.04\*C\*CHK  
TRN\*1\*PAYMENT REFERENCE NUMBER  
CUR\*PR\*CAD  
REF\*CK\*001970  
DTM\*097\*20180524  
N1\*PE\*CANADIAN NATIONAL RAILWAY  
N1\*PR\*COMPANY ABC  
N3\*PO BOX 12345  
ENT\*1  
RMR\*IV\*12345678\*\*509.24\*509.24\*0  
REF\*EQ\*CNRU123456  
DTM\*011\*20180411  
ENT\*1  
RMR\*IV\*12345679\*\*614.8\*614.8\*0  
REF\*EQ\*GATX123456  
DTM\*011\*20180410  
ENT\*1  
RMR\*IV\*12345680\*\*501\*501\*0  
REF\*EQ\*CN649332  
DTM\*011\*20180328  
SE\*22\*0372  
GE\*1\*382  
IEA\*1\*000000382

**Sample EDI 820 transmission:**  
**(ACH CTX)**

ISA\*00\* \*00\* \*ZZ\*SENDERID \*02\*CN  
\*180524\*1031\*U\*00401\*000000382\*0\*P\*>  
GS\*RA\*SENDERID\*CN\*20180524\*1031\*382\*X\*004010  
ST\*820\*000000044  
BPR\*C\*12674.24\*C\*ACH\*CTX\*01\*PAYOR BANK NUMBER\*\*PAYOR BANK  
ACCOUNT NUMBER\*\*\*01\*CN BANK NUMBER\*DA\*CN ACCOUNT  
NUMBER\*20060527  
TRN\*1\*PAYMENT REFERENCE NUMBER  
CUR\*PR\*USD  
REF\*RR\*0002200605260652249300024  
N1\*PR\*COMPANY ABC  
N1\*PE\*CANADIAN NATIONAL RAILWAY  
ENT\*1  
RMR\*IV\*012345681\*\*1938.13\*1938.13  
DTM\*003\*20180516  
ENT\*2  
RMR\*IV\*012345682\*\*1938.13\*1938.13  
DTM\*003\*20180516  
ENT\*3  
RMR\*IV\*012345683\*\*2932.66\*2932.66  
DTM\*003\*20180517  
ENT\*4  
RMR\*IV\*012345684\*\*2932.66\*2932.66  
DTM\*003\*20180519  
ENT\*5  
RMR\*IV\*012345685\*\*2932.66\*2932.66  
DTM\*003\*20060522  
SE\*23\*000000044  
GE\*1\*615106036  
IEA\*1\*615106033

**Sample EDI 820 transmission:**  
**(Payment Only)**

ISA\*00\*        \*00\*        \*ZZ\*SENDERID    \*02\*CN  
\*180524\*1031\*U\*00401\*000000382\*0\*P\*>  
GS\*RA\*SENDERID\*CN\*20180524\*1031\*382\*X\*004010  
ST\*820\*000000007  
BPR\*D\*123701.52\*C\*X12\*\*04\*PAYOR BANK NUMBER\*\*PAYOR BANK ACCOUNT  
NUMBER\*\*\*04\*CN BANK NUMBER\*DA\*CN ACCOUNT NUMBER\*060523  
TRN\*1\*PAYMENT REFERENCE NUMBER  
REF\*RR\*12345678901253  
N1\*PR\*COMPANY ABC  
N1\*PE\*CANADIAN NATIONAL RAILWAYS  
N2\*FINANCE DEPT.  
N3\*PO BOX 8100  
N4\*MONTREAL\*QC  
SE\*10\*000000007  
GE\*1\*614312050  
IEA\*A\*1\*614312049

## ISA Segment: Interchange Control Header

ISA\*00\*      \*00\*      \*ZZ\*SENDERID      \*02\*CN  
\*180524\*1031\*U\*00401\*000000382\*0\*P\*>

| Element<br>Seq | Element<br>Name   | Data<br>Element | Data<br>Type | Characters<br>Min/Max |
|----------------|---|-----------------|--------------|-----------------------|
| ISA01          | Authorization Information Qualifier                                 | I01             | ID           | 2/2                   |
| ISA02          | Authorization Information<br>(ten spaces)                           | I02             | AN           | 10/10                 |
| ISA03          | Security Information Qualifier                                      | I03             | ID           | 2/2                   |
| ISA04          | Security Information<br>(ten spaces)                                | I04             | AN           | 10/10                 |
| ISA05          | Interchange ID Qualifier  | I05             | ID           | 2/2                   |
| ISA06          | Interchange Sender ID<br>(SENDERID - fill out field with spaces)    | I06             | AN           | 15/15                 |
| ISA07          | Interchange ID Qualifier<br>(If RR SCAC use 02)                     | I05             | ID           | 2/2                   |
| ISA08          | Interchange Receiver ID<br>(CN- fill out field with spaces)         | I07             | AN           | 15/15                 |
| ISA09          | Interchange Date<br>(YYMMDD)  | I08             | DT           | 6/6                   |
| ISA10          | Interchange Time<br>(HHMM)  | I09             | TM           | 4/4                   |
| ISA11          | Repetition Separator<br>(Suggest “^”)                               | I65             |              | 1/1                   |
| ISA12          | Interchange Control Version Number<br>(Value 00401)                 | I11             | ID           | 5/5                   |
| ISA13          | Interchange Control Number<br>(a control number assigned by sender) | I12             | N0           | 9/9                   |
| ISA14          | Acknowledgment Requested<br>(0 = none requested, 1= requested)      | I13             | ID           | 1/1                   |
| ISA15          | Usage Indicator<br>(P = Production, T = Test)                       | I14             | ID           | 1/1                   |
| ISA16          | Component Element Separator<br>(Suggest “.”)                        | I15             | AN           | 1/1                   |



**GS Segment: Functional Group Header****GS\*RA\*SENDERID\*CN\*20180524\*1031\*382\*X\*004010**

| Element<br>Seq | Element<br>Name   | Data<br>Element | Data<br>Type | Characters<br>Min/Max |
|----------------|---|-----------------|--------------|-----------------------|
| GS01           | Functional Identifier Code<br>(RA= Payment Order/Remittance Advice (820))                         | 479             | ID           | 2/2                   |
| GS02           | Application Sender's Code   | 142             | AN           | 2/15                  |
| GS03           | Application Receiver's Code   | 124             | AN           | 2/15                  |
| GS04           | Date<br>(CCYYMMDD)  | 373             | DT           | 8/8                   |
| GS05           | Time<br>(HHMM)  | 337             | TM           | 4/6                   |
| GS06           | Group Control Number<br>(Assigned number originated and<br>maintained by the sender)              | 28              | N0           | 1/9                   |
| GS07           | Responsible Agency Code<br>(X = Accredited Standards Committee X12)                               | 455             | ID           | 1/2                   |
| GS08           | Version / Release / Industry Identity<br>(CN is using version 004010 of the<br>X12 EDI Standards) | 480             | AN           | 1/12                  |

**ST Segment: Transaction Set Header**

To indicate the start of a transaction set and to assign a control number

**ST\*820\*0372**

| Element<br>Seq | Element<br>Name   | Data<br>Element | Data<br>Type | Characters<br>Min/Max |
|----------------|---|-----------------|--------------|-----------------------|
| ST01           | Transaction Set Identifier Code   | 143             | ID           | 3/3                   |
| ST02           | Transaction Set Control Number<br>(Sequential control number generated by Customer) | 329             | AN           | 4/9                   |

**BPR Segment: Beginning Segment for Payment Order / Remittance Advice - Mandatory****BPR\*I\*1625.04\*C\*CHK**

| Element<br>Seq | Element<br>Name   | Data<br>Element | Data<br>Type | Characters<br>Min/Max |
|----------------|---|-----------------|--------------|-----------------------|
| BPR01          | Transaction Handling code<br>(I=Remittance Information Only;<br>D=Payment Only;<br>C or X=Payment accompanies remittance<br>Advice) | 305             | ID           | 1/1                   |
| BPR02          | Monetary amount<br>(Amount paid)  | 782             | R            | 1/15                  |
| BPR03          | Credit/Debit Flag Code<br>(C=Credit)  | 478             | ID           | 1/15                  |
| BPR04          | Payment method ID<br>(ZZZ=\$CDN EFT Payments;<br>NON=Non-Payment Data;<br>X12=X12;<br>CHK=Check)                                    | 591             | ID           | 3/3                   |
| BPR05          | Payment Format<br>(CTX= \$US Payments)  | 812             | ID           | 1/10                  |
| BPR06          | DFI ID no. qualifier<br>(04 = \$C Payments;<br>01=\$US Payments)  | 506             | ID           | 2/2                   |
| BPR07          | DFI ID no.<br>(Payer Bank Number (Transit))   | 507             | AN           | 3/12                  |
| BPR08          | Acct Number Qual. Code<br>(Not used)  | 896             | ID           | 2/2                   |
| BPR09          | Account no.<br>(Payor Bank Account Number)  | 508             | AN           | 1/35                  |
| BPR10          | Originating company ID no.<br>(Not used)  | 509             | AN           | 10/10                 |
| BPR11          | Originating company ID<br>Supplemental code<br>(Not used)   | 510             | AN           | 9/9                   |
| BPR12          | DFI ID no. qualifier<br>(04=\$C Payments;<br>01=\$US Payments)  | 506             | ID           | 2/2                   |
| BPR13          | DFI ID no.<br>(CN Bank Number (Transit))  | 507             | AN           | 3/12                  |
| BPR14          | Acct Number Qual. Code<br>(Not used)  | 896             | ID           | 2/2                   |
| BPR15          | Account no.<br>(CN Account Number)  | 508             | AN           | 1/35                  |
| BPR16          | Effective entry date<br>(Effective Payment Date)  | 513             | DT           | 8/8                   |

***NOTE: Data Elements BPR06, BPR07, BPR09, BPR12, BPR13, BPR15 are Mandatory when Transmitting Payment Order to a Banking Institution***

**TRN Segment: Trace - Mandatory**

**TRN\*1\*PAYMENT REFERENCE NUMBER**

| Element | Element   | Data    | Data | Characters |
|---------|---|---------|------|------------|
| Seq     | Name  | Element | Type | Min/Max    |
| TRN01   | Trace Type Code<br>(1=Current Transaction Trace Number) | 481     | ID   | 1/2        |
| TRN02   | Reference Number<br>(Transaction Trace Number)          | 127     | AN   | 1/30       |
| TRN03   | Originating Company ID<br>(Not used)                    | 509     | AN   | 10/10      |
| TRN04   | Reference Identification<br>(Not used)                  | 127     | AN   | 1/30       |

**CUR Segment: Currency - Mandatory**

**CUR\*PR\*CAD**

| Element | Element  | Data    | Data | Characters |
|---------|--|---------|------|------------|
| Seq     | Name   | Element | Type | Min/Max    |
| CUR01   | Entity ID<br>(PR=for Payer)                                | 098     | ID   | 2/2        |
| CUR02   | Currency code<br>(USD=US Dollars;<br>CAD=Canadian Dollars) | 100     | ID   | 3/3        |

**REF Segment: Reference Numbers - Mandatory**

**REF\*CK\*001970**

**REF\*EQ\*CNRU123456**

**REF\*EQ\*GATX123456**

**REF\*EQ\*CN649332**

| Element | Element   | Data    | Data | Characters |
|---------|---|---------|------|------------|
| Seq     | Name  | Element | Type | Min/Max    |
| REF01   | Reference identification qualifier<br>For Non-Payment 820<br>(CK=Check Number;<br>TN=Transaction Ref #;<br>EM=Electronic Payment Ref#;<br>EQ=Equipment Initials;<br>WY=Waybill Number;<br>BM=Bill of Lading Number) | 128     | ID   | 2/2        |
| REF02   | Reference identification<br>(Reference Number)  | 127     | AN   | 1/30       |
| REF03   | Description<br>(Not used)   | 352     | AN   | 1/80       |

**DTM Segment: Date and Time Reference - Optional**

**DTM\*097\*20180524**

**DTM\*011\*20180411**

| <u>Element<br/>Seq</u> | <u>Element<br/>Name</u>  | <u>Data<br/>Element</u> | <u>Data<br/>Type</u> | <u>Characters<br/>Min/Max</u> |
|------------------------|--|-------------------------|----------------------|-------------------------------|
| DTM01                  | Date / Time qualifier<br>(097=for transaction creation;<br>011=Shipment Date;<br>003=Invoice Date) | 374                     | ID                   | 3/3                           |
| DTM02                  | Date<br>(Transmission Date)<br>Version 4010 or Higher - YYYYMMDD<br>Lower than 4010 - YYMMDD       | 373                     | DT                   | 8/8                           |
| DTM03                  | Time<br>(Not used)   | 337                     | TM                   | 4/6                           |
| DTM04                  | Time code<br>(Not used)  | 623                     | ID                   | 2/2                           |
| DTM05                  | Century  | 624                     | ID                   | 2/2                           |

**N1 Segment: Name - Mandatory**

**N1\*PE\*CANADIAN NATIONAL RAILWAY**

**N1\*PR\*COMPANY ABC**

| <u>Element<br/>Seq</u> | <u>Element<br/>Name</u>  | <u>Data<br/>Element</u> | <u>Data<br/>Type</u> | <u>Characters<br/>Min/Max</u> |
|------------------------|--|-------------------------|----------------------|-------------------------------|
| N101                   | Entity ID code<br>(PR=Payor - Mandatory)<br>(PE=Payee - Optional)  | 98                      | ID                   | 2/2                           |
| N102                   | Name<br>(When N101 = PR<br>Payor Name should be consistent<br>in every 820 transmission from the customer to CN) | 93                      | AN                   | 1/35                          |
| N103                   | ID code qualifier<br>(Not Used)  | 66                      | ID                   | 1/2                           |
| N104                   | ID code<br>(DUNS Number)   | 67                      | ID                   | 2/17                          |

**N3 Segment: Address Information - Optional**

**N3\*PO BOX 12345**

| Element<br>Seq | Element<br>Name             | Data<br>Element | Data<br>Type | Characters<br>Min/Max |
|----------------|-----------------------------|-----------------|--------------|-----------------------|
| N301           | Address<br>(Street Address) | 166             | AN           | 1/35                  |

**ENT Segment: Entity - Optional**

**ENT\*1**

| Element<br>Seq | Element<br>Name | Data<br>Element | Data<br>Type | Characters<br>Min/Max |
|----------------|-----------------|-----------------|--------------|-----------------------|
| ENT01          | Assigned Number | 554             | N0           | 1/6                   |

**RMR Segment: Remittance Advice Accounts Receivable Open Item Reference - Mandatory**

**RMR\*IV\*12345678\*\*509.24\*509.24\*0**

**RMR\*IV\*12345679\*\*614.8\*614.8\*0**

**RMR\*IV\*12345680\*\*501\*501\*0**

| Element<br>Seq | Element<br>Name   | Data<br>Element | Data<br>Type | Characters<br>Min/Max |
|----------------|---|-----------------|--------------|-----------------------|
| RMR01          | Reference no. Qualifier<br>(IV,CN,OI,FR=CN Invoice Number;<br>EQ=Equipment Initials & Number;<br>WY=Waybill Number;<br>BM=Bill of Lading Number<br>CM=Credit Memo | 128             | ID           | 2/2                   |
| RMR02          | Reference no.<br>Note: can use CN Credit Note Number in this field  | 127             | AN           | 1/30                  |
| RMR03          | Payment Action Code<br>(Not used)   | 482             | ID           | 2/2                   |
| RMR04          | Monetary Amount<br>(Amount Paid)<br>Note: Credit amounts must be negative<br>unless CM qualifier used   | 782             | R            | 1/15                  |
| RMR05          | Total Credit/Debit Amount<br>(Not used)   | 777             | R            | 1/15                  |
| RMR06          | Discounted Amount Taken<br>(Not used currently)   | 780             | R            | 1/15                  |

**SE Segment: Transaction Set Trailer**

**SE\*22\*0372**

| Element<br>Seq | Element<br>Name   | Data<br>Element | Data<br>Type | Characters<br>Min/Max |
|----------------|---|-----------------|--------------|-----------------------|
| SE01           | Number Of Included Segments<br>(Includes ST and SE segments)      | 96              | N0           | 1/10                  |
| SE02           | Transaction Set Control Number<br>(Repeated from ST segment ST02) | 329             | AN           | 4/9                   |

**GE Segment: Functional Group Trailer**

**GE\*1\*382**

| Element<br>Seq | Element<br>Name   | Data<br>Element | Data<br>Type | Characters<br>Min/Max |
|----------------|---|-----------------|--------------|-----------------------|
| GE01           | Number of Transaction Sets Included                     | 97              | N0           | 1/6                   |
| GE02           | Group Control Number<br>(Repeated from GS segment GS06) | 28              | N0           | 1/9                   |

**IEA Segment: Interchange Control Trailer**

**IEA\*1\*000000382**

| Element<br>Seq | Element<br>Name                                      | Data<br>Element | Data<br>Type | Characters<br>Min/Max |
|----------------|--|-----------------|--------------|-----------------------|
| IEA01          | Number of included Functional Groups                 | I16             | N0           | 1/5                   |
| IEA02          | Interchange Control Number<br>(Same number as ISA13) | I12             | N0           | 9/9                   |

