



## **Implementation Guide to Payment Order/Remittance Advice 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.

## **Purpose of Payment Order/Remittance Advice Message EDI 820**

The Payment Order/Remittance Advice EDI 820 message 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 One eBusiness tool) are described on the CN website at [www.cn.ca](http://www.cn.ca).

## **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 [www.cn.ca/guides](http://www.cn.ca/guides)

This Payment Order/Remittance Advice EDI 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**

CN provides an email address for Freight Payment inquiries [RMGEC@cn.ca](mailto:RMGEC@cn.ca)

The **EDI Onboarding team** email address is [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                    \*250124\*1031\*U\*00401\*000000382\*0\*P\*>  
GS\*RA\*SENDERID\*CN\*20250124\*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\*20250124  
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\*20240328  
SE\*26\*0372  
GE\*1\*382  
IEA\*1\*000000382

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

ISA\*00\* \*00\* \*ZZ\*SENDERID \*02\*CN \*250124\*1031\*U\*00401\*000000382\*0\*P\*>  
GS\*RA\*SENDERID\*CN\*20250124\*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\*20250116  
ENT\*2  
RMR\*IV\*012345682\*\*1938.13\*1938.13  
DTM\*003\*20250116  
ENT\*3  
RMR\*IV\*012345683\*\*2932.66\*2932.66  
DTM\*003\*20250117  
ENT\*4  
RMR\*IV\*012345684\*\*2932.66\*2932.66  
DTM\*003\*20250119  
ENT\*5  
RMR\*IV\*012345685\*\*2932.66\*2932.66  
DTM\*003\*20060522  
SE\*27\*000000044  
GE\*1\*615106036  
IEA\*1\*615106033

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

ISA\*00\*        \*00\*        \*ZZ\*SENDERID    \*02\*CN                    \*250124\*1031\*U\*00401\*000000382\*0\*P\*>  
GS\*RA\*SENDERID\*CN\*20250124\*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\*15\*000000007  
GE\*1\*614312050  
IEA\*A\*1\*614312049

## ISA Segment: Interchange Control Header

ISA\*00\*      \*00\*      \*ZZ\*SENDERID      \*02\*CN      \*250124\*1031\*U\*00401\*000000382\*0\*P\*>

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



**GS Segment: Functional Group Header****GS\*RA\*SENDERID\*CN\*20250124\*1031\*382\*X\*004010**

Ref. Des.	Name	Data Element	Attributes	
GS01	Functional Identifier Code (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 (CCYYMMDD)	373	DT	8/8
GS05	Time (HHMM)	337	TM	4/6
GS06	Group Control Number (Assigned number originated and maintained by the sender)	28	N0	1/9
GS07	Responsible Agency Code (X = Accredited Standards Committee X12)	455	ID	1/2
GS08	Version / Release / Industry Identity (CN is using version 004010 of the 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**

Ref. Des.	Name	Data Element	Attributes	
ST01	Transaction Set Identifier Code	143	ID	3/3
ST02	Transaction Set Control Number (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**

Ref. Des.	Name	Data Element	Attributes
BPR01	Transaction Handling code (I=Remittance Information Only) (D=Payment Only) (C or X=Payment accompanies remittance Advice)	305	ID 1/1
BPR02	Monetary amount (Amount paid)	782	R 1/15
BPR03	Credit/Debit Flag Code (C=Credit)	478	ID 1/15
BPR04	Payment method ID (ZZZ=\$CDN EFT Payments) (NON=Non-Payment Data) (X12=X120) (CHK=Check)	591	ID 3/3
BPR05	Payment Format (CTX= \$US Payments)	812	ID 1/10
BPR06	DFI ID no. qualifier (04 = \$C Payments) (01=\$US Payments)	506	ID 2/2
BPR07	DFI ID no. (Payer Bank Number (Transit))	507	AN 3/12
BPR08	Acct Number Qual. Code (Not used)	896	ID 2/2
BPR09	Account no. (Payor Bank Account Number)	508	AN 1/35
BPR10	Originating company ID no. (Not used)	509	AN 10/10
BPR11	Originating company ID Supplemental code (Not used)	510	AN 9/9
BPR12	DFI ID no. qualifier (04=\$C Payments) (01=\$US Payments)	506	ID 2/2
BPR13	DFI ID no. (CN Bank Number (Transit))	507	AN 3/12
BPR14	Acct Number Qual. Code (Not used)	896	ID 2/2
BPR15	Account no. (CN Account Number)	508	AN 1/35
BPR16	Effective entry date (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**

Ref. Des.	Name	Data Element	Attributes	
TRN01	Trace Type Code (I=Current Transaction Trace Number)	481	ID	1/2
TRN02	Reference Number (Transaction Trace Number)	127	AN	1/30
TRN03	Originating Company ID (Not used)	509	AN	10/10
TRN04	Reference Identification (Not used)	127	AN	1/30

**CUR Segment: Currency - Mandatory****CUR\*PR\*CAD**

Ref. Des.	Name	Data Element	Attributes	
CUR01	Entity ID (PR=for Payer)	098	ID	2/2
CUR02	Currency code (USD=US Dollars) (CAD=Canadian Dollars)	100	ID	3/3

**REF Segment: Reference Identification - Mandatory**

**REF\*CK\*001970**  
**REF\*EQ\*CNRU123456**  
**REF\*EQ\*GATX123456**  
**REF\*EQ\*CN649332**

Ref. Des.	Name	Data Element	Attributes	
REF01	Reference identification qualifier For Non-Payment 820 (CK=Check Number) (TN=Transaction Ref #) (EM=Electronic Payment Ref#) (EQ=Equipment Initials) (WY=Waybill Number) (BM=Bill of Lading Number)	128	ID	2/2
REF02	Reference identification (Reference Number)	127	AN	1/30
REF03	Description (Not used)	352	AN	1/80

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

**DTM\*097\*20250124**  
**DTM\*011\*20250111**

Ref. Des.	Name	Data Element	Attributes	
DTM01	Date / Time qualifier (097=for transaction creation) (011=Shipment Date) (003=Invoice Date)	374	ID	3/3
DTM02	Date (Transmission Date) Version 4010 or Higher - YYYYMMDD Lower than 4010 – YYMMDD	373	DT	8/8
DTM03	Time (Not used)	337	TM	4/6
DTM04	Time code (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**

Ref. Des.	Name	Data Element	Attributes	
N101	Entity ID code (PR=Payor - Mandatory) (PE=Payee - Optional)	98	ID	2/2
N102	Name (When N101 = PR Payor Name should be consistent in every 820 transmission from the customer to CN)	93	AN	1/35
N103	ID code qualifier (Not Used)	66	ID	1/2
N104	ID code (DUNS Number)	67	ID	2/17

**N3 Segment: Address Information - Optional**

**N3\*PO BOX 12345**

Ref. Des.	Name	Data Element	Attributes	
N301	Address (Street Address)	166	AN	1/35

**ENT Segment: Entity - Optional**

**ENT\*1**

Ref. Des.	Name	Data Element	Attributes	
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**

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

**SE Segment: Transaction Set Trailer****SE\*26\*0372**

Ref. Des.	Name	Data Element	Attributes	
SE01	Number of Included Segments (Includes ST and SE segments)	96	N0	1/10
SE02	Transaction Set Control Number (Repeated from ST segment ST02)	329	AN	4/9

**GE Segment: Functional Group Trailer****GE\*1\*382**

Ref. Des.	Name	Data Element	Attributes	
GE01	Number of Transaction Sets Included	97	N0	1/6
GE02	Group Control Number (Repeated from GS segment GS06)	28	N0	1/9

**IEA Segment: Interchange Control Trailer****IEA\*1\*000000382**

Ref. Des.	Name	Data Element	Attributes	
IEA01	Number of included Functional Groups	I16	N0	1/5
IEA02	Interchange Control Number (Same number as ISA13)	I12	N0	9/9