MAGNA

ANSI X12 - Version 003060 AIAG

IMPLEMENTATION GUIDE

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EDI OVERVIEW

Electronic Data Interchange (EDI) is the inter-company exchange of business documents between computer applications using a common industry standard. The use of (EDI) continues to expand in the automotive industry. Magna is committed to the use of EDI to allow organizations to operate more effectively, efficiently, and productively.

The 830 Material Release standard is the first document in a series of transaction sets that Magna will be implementing. This document communicates requirement information to a supplier on a regular basis. Magna's 830 is based upon the AIAG ANSI X12 Version 003060 document. The Magna EDI Implementation Guide has been prepared to provide you with the following information:

- Telephone numbers and Contacts
- EDI Definitions & Interchange Control Information
- Document requirements
- Glossary of Terms
- Document examples
- Implementation Process
- Profiles

In the future, Magna will be implementing the following documents:

Ship Notice (856)	The supplier will be sending this document to Magna.
Shipping Schedule (862)	Magna will be sending this document to the supplier.
Application Advice (824)	Magna will be sending this document to the supplier.
Receiving Advice (861)	Magna will be sending this document to the supplier.

As per the AIAG Supply Chain EDI requirements, any tier 2 suppliers shall transmit their material release requirements (830) via EDI to their tier 3 suppliers by early 1999.

In order to obtain further information about EDI and EDI education, you can contact The Electronic Commerce Council of Canada. (refer to *Contacts* in this guide)

Magna has partnered with GE Information Services (GEIS), the leader in EDI services, to work with Magna and it's suppliers to meet their objectives. (refer to *Contacts* in this guide)

All the information in this guide has been prepared to assist your company. To enable a successful and timely EDI implementation with Magna, please read and follow the information provided in this guide.

CONTACTS

AIAG (Automotive Industry Action Group)

26200 Lahser Road, Suite 200
Southfield, MI U.S.A. 48034 (810) 358-3570
www.aiag.org

Dun & Bradstreet Information Services

5770 Huronontario Street
Mississauga, ON Canada L5R 3G5 (905) 568-6000

1 Diamond Hill Road
Murray Hill, New Jersey U.S.A. 07974-0027 (908) 665-5000

www.dnb.com/dbis/dnbhome.htm

The Electronic Commerce Council of Canada

885 Don Mills Road, Suite 301
Don Mills, ON Canada M3C 1V9 (416) 510-8039

GE Information Services Canada Inc.

2300 Meadowvale Blvd.
Mississauga, ON Canada L5N 5P9
www.geis.com

For general inquiries:
1-800-EDI-KNOW
For on-going technical support:
1-800-EDI-CALL

Magna International Inc.

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375 Magna Drive
Aurora, ON Canada
L4G 7L6
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IMPLEMENTATION PROCESS

Transaction Set & Standard:

Planning Schedule with Release Capability or Material Release Transaction Set (830).
The 830 transaction set is based upon the AIAG ANSI X12 Version 003060 document.

Mapping and Business Rules:

A list of the EDI data elements and the corresponding business rules can be found in the appropriate document section.

Value Added Network:

Magna has partnered with GE Information Services (GEIS) to provide EDI and Electronic Commerce Services. GEIS provides Value Added Network Services, EDI translator software and EDI consulting.

Getting Ready

Select a Value Added Network (VAN).
Select the EDI translation and communications software.
Select the appropriate hardware.
Install and configure the hardware and software.
GEIS is available to assist you in this process. For inquiries, please call 1-800-EDI-KNOW (1-800-334-5669).

Process:

Review the technical document specifications found in the appropriate document section of this guide.
Configure and implement the appropriate document with the assistance of your software provider.
Connectivity testing with GEIS or your Value Added Network provider.
Receive and process the (830) Material Release document.
Generate and send the (997) Functional Acknowledgment document.
When you are ready to start testing, complete the EDI Profile sheet (refer to *Appendix C* in this guide) and fax to the Magna EDI Team at (905) 726-7295.

EDI Parallel Testing:

Upon completion of the above process, please contact your Magna division sponsor to schedule your parallel testing. During the testing phase, all current business processes (paper documents) will remain in effect until all testing is complete and approved. (Note: In this phase, the ISA15 indicator should be set to 'T' for test.)

EDI in Production:

Upon completion of parallel testing, you will be contacted by Magna to determine the date for live production for your EDI transmissions. (Note: In this phase, the ISA15 indicator should be set to 'P' for production.)

EDI DEFINITIONS

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INTERCHANGE CONTROL INFORMATION

Abbreviations in the usage column headed "Magna Requirements Description (Magna Req. Des.)" have the following definitions and will appear, as indicated, in all Magna Material Releases. The ANSI usage requirements have been provided in the table for reference purposes only.

Condition Designator

Segments:

M	Mandatory.	This data segment must be included in the Transaction set.
O	Optional.	The presence of this data segment is at the option of the sending party.

Data Elements:

C	Conditional.	The data element conditions are of three types: mandatory, optional, and relational, and define the circumstances under which a simple data element, composite data structure or component data element may be required to be present or absent in a particular segment or composite data structure.
M	Mandatory.	The element must be used. (Note: If a segment is defined as optional, and if the segment is used, one or more data elements may be listed as mandatory.)
O	Optional.	The presence of this data element is at the option of the sending party.
X	Relational.	The presence of this item is related to the presence or absence of other item(s). See Conditional.

Data Element Type

The follow types of data elements appear in this guide. Each data element is assigned a minimum and maximum length. The length of the data element value is the number of character positions used except as noted for numeric, and decimal elements.

Numeric	**Nn** (n indicates implied decimal positions)
Decimal Number	**R**
Identifier	**ID**
String	**AN** (alpha-numeric)
Date	**DT** (YYMMDD)
Time	**TM** (HHMM)

Numeric (Nn) and decimal (R) fields are assumed to be positive unless a leading minus sign indicating a negative value is transmitted. A plus sign is never transmitted. The minus sign (-) and the decimal point are not counted as part of the data element's length.

Control Concepts

The structure of the EDI standards provides the participant with multiple levels of control to ensure data integrity within a given transmission (ISA/IEA), functional group (GS/GE), or transaction set (ST/SE). This is accomplished through the use of header and trailer control segments designed to uniquely identify the start and end of a transmission, functional groups and transaction sets (see *Figure 1* below). The header segments (ISA) uniquely identify the start of the various levels within a transmission. The Interchange Control Header (ISA), starts and identifies an interchange of one or more functional groups and interchange related control segments beginning with ISA and ending with IEA. The Functional Group Header (GS), starts a group of related transaction sets beginning with GS and ending with GE. The business document, or transaction set, starts with a "ST" segment and ends with a "SE" segment. The EDI document will consist of header segments, one or more detail segments, and summary segments.

EDI standard protocol requires the use of a Transmission Control Header segment (ISA) which identifies both the sender and receiver of a transmission as well as other key transmission data. The Transmission Control Header (ISA), and Transmission Control Trailer (IEA) frame the data transmission group. The trailer (IEA) contains the number of functional groups (GS segments) within a transmission group. This value can be compared to an actual count of the number of functional groups (GS segments) to verify that nothing was lost. Multiple functional groups can be transmitted in a communications session.

EDI software should check counts and match control numbers within the transmission structure, and validate data segments and data elements.

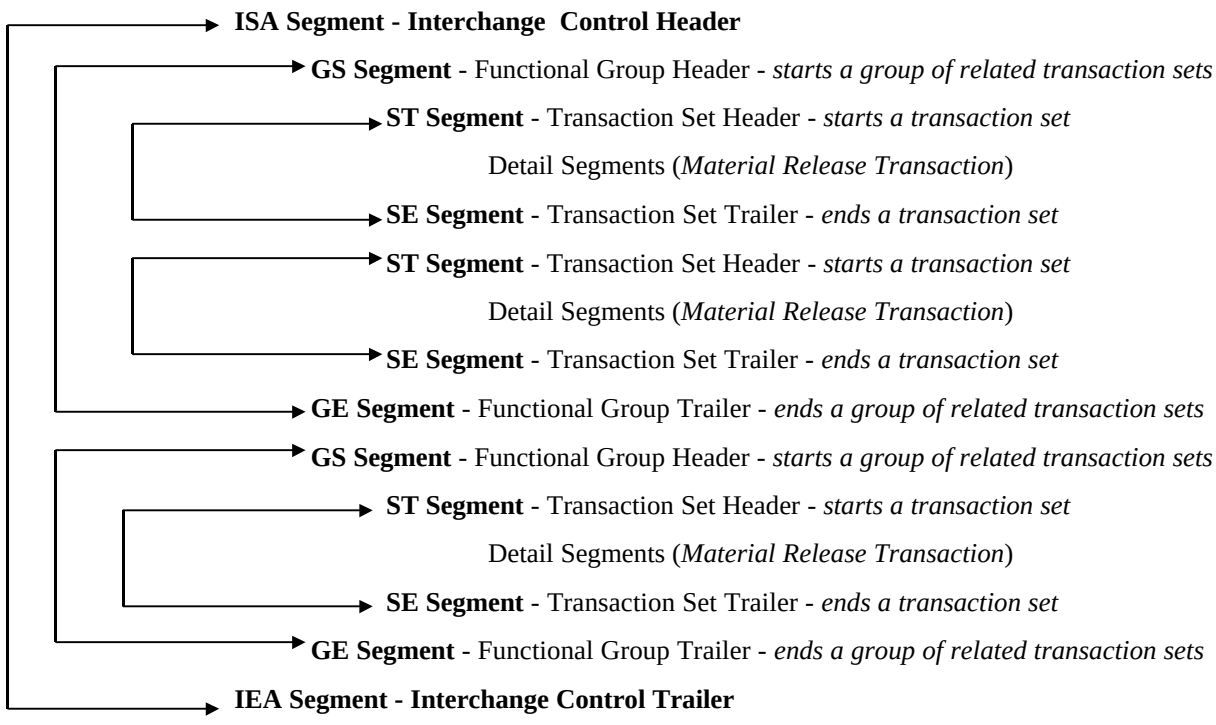

Figure 1

It is recommended that the minimum external control should be the generation of a functional acknowledgment (FA). This document should be produced by the receiver and would provide the basis for resolving any questions that may arise concerning a given transmission. (refer to *997 - Functional Acknowledgment* in this guide)

Segment: **ISA** **Interchange Control Header**
Position:
Loop:
Level: N/A
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of an interchange of one or more functional groups and interchange-related control segments.

Example:
ISA*00*bbbbbbbbbb*00*bbbbbbbbbb*01*123456789bbbbbb*01*987654321bbbbbb*970630*0807*U*00306*000000045*1*P*~$_{N/L}$
(NOTE: A fixed length field; "b" indicates a space.)

Notes: The Interchange control number (ISA13) in this header must match the Interchange control number (IEA02) in the Interchange Control Trailer (IEA)

Data Element Summary

Element ID	Data Element	Name	Magna Requirements	Description
ISA01	**I01**	**Authorization Information Qualifier** This field contains "00"	**M**	**ID 2/2**
ISA02	**I02**	**Authorization Information** This field contains 10 blanks/spaces	**M**	**AN 10/10**
ISA03	**I03**	**Security Information Qualifier** This field contains "00"	**M**	**ID 2/2**
ISA04	**I04**	**Security Information** This field contains 10 blanks/spaces	**M**	**AN 10/10**
ISA05	**I05**	**Interchange ID Qualifier** This field contains the sender's ID qualifier 01 DUNS number *or*, 14 DUNS plus Suffix *or*, 16 DUNS number with 4-character Suffix *or*, ZZ Magna assigned Supplier Code	**M**	**ID 2/2**
ISA06	**I06**	**Interchange Sender ID** This field contains the sender's EDI address e.g.: Magna/Division's Dun & Bradstreet number	**M**	**AN 15/15**
ISA07	**I05**	**Interchange ID Qualifier** This field contains the receiver's ID qualifier 01 DUNS number *or*, 14 DUNS plus Suffix *or*, 16 DUNS number with 4-character Suffix *or*, ZZ Magna assigned Supplier Code	**M**	**ID 2/2**
ISA08	**I07**	**Interchange Receiver ID** This field contains the receiver's EDI address Supplier's Dun & Bradstreet number *or*, Magna assigned Supplier Code	**M**	**AN 15/15**

(continued)

ISA Interchange Control Header **(continued)**

ISA09	**I08**	**Interchange Date** This field contains the date on which the interchange was created	**M**	**DT 6/6**
ISA10	**I09**	**Interchange Time** This field contains the time at which the interchange was created	**M**	**TM 4/4**
ISA11	**I10**	**Interchange Standard ID** This field contains “U”	**M**	**ID 1/1**
ISA12	**I11**	**Interchange Version ID** This field contains “00306” consistent with the 003060 AIAG document	**M**	**ID 5/5**
ISA13	**I12**	**Interchange Control Number** This field contains the control number for the interchange	**M**	**N0 9/9**
ISA14	**I13**	**Acknowledge Request** This field contains a “1” for an interchange acknowledgment request	**M**	**ID 1/1**
ISA15	**I14**	**Test Indicator** This field will contain a “T” for test or a “P” for production interchanges	**M**	**ID 1/1**
ISA16	**I15**	**Sub-element Separator** This field contains an ASCII value used to separate a data element e.g.: ASCII value “7E” or “~”	**M**	**AN 1/1**

Segment: **IEA** **Interchange Control Trailer**
Position:
Loop:
Level: N/A
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of an interchange of one or more functional groups and interchange related control segments.

Example: IEA*25*000000045$_{N/L}$

Notes: The Interchange control number (IEA02) in this trailer must match the Interchange control number (ISA13) in the Interchange Control Header (ISA)

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
IEA01	**I16**	**Number of Functional Groups** This field will contain the number of functional groups (GS) within the interchange	**M N0 1/5**
IEA02	**I12**	**Interchange Control Number** This field will contain the control number used in the corresponding ISA header segment	**M N0 9/9**

Segment: **GS** **Functional Group Header**
Position:
Loop:
Level: N/A
Usage: Mandatory
Max Use: 1
Purpose: To indicate the beginning of a functional group and to provide control information.

Example: GS*PS*123456789*987654321*970630*0807*45*X*003060$_{N/L}$

Notes: The Functional Group interchange control number (GS06) in this header must match the Functional Group interchange control number (GE02) in the Functional Group trailer (GE)

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
GS01	**479**	**Functional Identification** This field contains the two digit code indicating the document that will be sent in this functional group	**M ID 2/2**
GS02	**142**	**Application Sender's Interchange ID** This field contains the sender's interchange ID DUNS number Magna assigned Supplier Code	**M ID 2/15**
GS03	**124**	**Applications Receiver's Code** This field contains the receiver's interchange ID DUNS number *or,* Magna assigned Supplier Code *or,* a mutually defined code	**M ID 2/15**
GS04	**373**	**Data Interchange Date** This field contains the date on which the functional group was created	**M DT 6/6**
GS05	**337**	**Data Interchange Time** This field contains the time at which the functional group was created	**M TM 4/4**
GS06	**28**	**Data Interchange Control Number** This field contains the control number generated for the functional group	**M N0 1/9**
GS07	**455**	**Responsible Agency** This field contains "X" to indicate ANSI standards	**M ID 1/2**
GS08	**480**	**Version** This field contains the code indicating the version of ANSI/AIAG standards being used. For Magna this field contains "003060"	**M ID 1/12**

Segment: **GE** **Functional Group Trailer**
Position:
Loop:
Level: N/A
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of a functional group and related control numbers.

Example: GE*135*45$_{N/L}$

Notes: The Functional Group interchange control number (GE02) in this trailer must match the Functional Group interchange control number (GS06) in the Functional Group header (GS)

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
GE01	**97**	**Number of Transaction Sets** This field will contain a number identifying the number of documents (ST) within the functional group	**M N0 1/6**
GE02	**28**	**Data Interchange Control Number** This field will contain the control number that was used in the corresponding GS header segments (GS06)	**M N0 1/9**

830 Planning Schedule with Release Capability

Functional Group ID=PS

Introduction:

This Standard contains the format and establishes the data contents of the Planning Schedule with Release Capability Transaction Set (830) for use within the context of an Electronic Data Interchange (EDI) environment. The Transaction set can be used to provide for customary and established business practice relative to the transfer of forecasting/material release information between organizations. The Planning Schedule transaction may be used in various ways or in a combination of ways, such as: (1) a simple forecast; (2) a forecast with the buyer's authorization for the seller to commit to resources, such as labor or material; (3) a forecast that is also used as an order release mechanism, containing such elements as resource authorizations, period-to-date cumulative quantities, and specific ship/delivery patterns for requirements that have been represented in "buckets," such as weekly, or monthly.

Note: The following document is Magna's version and use of the EDI Implementation Guide for the Material Release (830). The basic assumption of requirements forecasting is that a purchase order exists which describes the contractual agreement between Magna division and the supplier. The Purchase Order type normally used is a blanket purchase order.

Business Practices & Rules: (consistent with the "*AIAG Supply Chain: Recommended Business Practices for EDI Implementation*")

- All previously transmitted forecast/released quantities for a customer, part/purchase order/engineering change, and ship to combination are being replaced by the latest transmission.
- A planning schedule can only be "replaced" (BFR01). Originals or cancellations are not allowed.
- An 830 should be released regularly, as close to the same time as possible. This allows the supplier receiving the releases to schedule system processing time more efficiently. However, if changes are made or new parts are added outside of the normal processing time, then only changed or new parts should be transmitted.
- All receipts increase the part cumulative (cums) received quantity. Received cums are not reduced by rejected or returned parts. Received cums do not necessarily reflect the inventory level because a receipt is only one type of inventory transaction.
- When using the forecast (FST04) timing qualifier of "W", the time period indicated begins on Monday and ends on Sunday.
- The following are ways to determine ahead, behind, or in-transit conditions:

  The supplier should calculate the past due quantity by comparing the quantity (ATH03) and their own internal cum shipped, adjusted by in-transit quantities, since last cum reset.

  In-transit quantities can be determined by using the SHP segment identifying the last received or shipped quantity considered by the customer and determining if any shipments have been made since the shipment referenced.

  If the customer's and supplier's cums are equal, then the quantity in the first FST is due.

  If the customer's cum is greater, then the supplier is in a behind schedule condition. The supplier must ship the difference plus any other requirements due.

  If the customer's cum is greater, then the supplier is in an ahead schedule condition. The supplier must subtract the difference from any other requirements due.

  ANY DISCREPANCIES IN CUMS SHOULD BE RESOLVED IMMEDIATELY.

830 Planning Schedule with Release Capability

Data Segment Sequence Table for the Heading Area:

Pos. No.	Seg. ID	Name	USAGE ANSI Req. Des.	USAGE Magna Req. Des.	Max.Use	Loop Repeat	Page No.
010	ST	Transaction Set Header	M	M	1		16
020	BFR	Beginning Segment for Planning Schedule	M	M	1		17
130	DTM	Date/Time Reference	O	O	10		19
		LOOP ID - N1				200	
230	N1	Name	O	M	1		20
240	N2	Additional Name Information	O	O	2		21
250	N3	Address Information	O	O	2		22
260	N4	Geographic Location	O	O	1		23

Data Segment Sequence Table for the Detail Area:

Pos. No.	Seg. ID	Name	USAGE ANSI Req. Des.	USAGE Magna Req. Des.	Max.Use	Loop Repeat	Page No.
		LOOP ID - LIN				>1	
010	LIN	Item Identification	M	M	1		24
020	UIT	Unit Detail	O	M	1		26
080	PID	Product/Item Description	O	O	1000		27
140	REF	Reference Identification	O	O	12		28
150	PER	Administrative Communications Contact	O	O	3		29
230	ATH	Resource Authorization	O	M	20		31
		LOOP ID - N1				200	
320	N1	Name	O	O	1		32
330	N2	Additional Name Information	O	O	2		33
340	N3	Address Information	O	O	2		34
350	N4	Geographic Location	O	O	1		35
		LOOP ID - SDP				260	
450	SDP	Ship/Delivery Pattern	O	O	1		36
460	FST	Forecast Schedule	O	O	260		37
		LOOP ID - SHP				25	
470	SHP	Shipped/Received Information	O	M	1		38
480	REF	Reference Identification	O	O	5		39

Data Segment Sequence Table for the Summary Area:

Pos. No.	Seg. ID	Name	USAGE ANSI Req. Des.	USAGE Magna Req. Des.	Max.Use	Loop Repeat	Page No.
010	CTT	Transaction Totals	O	O	1		40
020	SE	Transaction Set Trailer	M	M	1		41

Segment: **ST** **Transaction Set Header**
Position: 010
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a Transaction set and to assign a control number.

Example: ST*830*0001$_{N/L}$

Notes: The Transaction set control number (ST02) in this header must match the Transaction set control number (SE02) in the Transaction set trailer (SE)

Data Element Summary

Element ID	Data Element	Name	Magna Requirements	Description
ST01	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction set 830 X12.14 Planning Schedule with Release Capability	**M**	**ID 3/3**
ST02	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the Transaction set assigned by the originator for a Transaction set	**M**	**AN 4/9**

Segment: **BFR** **Beginning Segment for Planning Schedule**
Position: 020
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the beginning of a planning schedule Transaction set; whether a ship or delivery based forecast; and related forecast envelope dates.

Example: BFR*05**63099*SH*A*970630*970901*970630***A24446$_{N/L}$

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
BFR01	**353**	**Transaction Set Purpose Code** Code identifying purpose of Transaction set 05 Replace The code is always "05" even if it is the first time a release is being sent. If a part that was previously sent is not included in the current release, then previous requirements for that part are considered unchanged.	**M ID 2/2**
BFR02		**Not Used**	
BFR03	**328**	**Release Number** Number identifying a unique release against a Purchase Order previously placed by the parties involved in the transaction	**M AN 1/30**
BFR04	**675**	**Schedule Type Qualifier** Code identifying the type of dates used when defining a shipping or delivery time in a schedule or forecast. If the dates are delivery based, then this specifies when the materials must be at the Magna's receiving location. If the dates are shipment based, then this specifies when the materials must leave the suppliers shipping location. DL Delivery Based SH Shipment Based	**M ID 2/2**
BFR05	**676**	**Schedule Quantity Qualifier** Code identifying the type of quantities used when defining a schedule or forecast A Actual Discrete Quantities	**M ID 1/1**
BFR06	**373**	**Date** Date (YYMMDD) e.g.: The date when the forecast horizon begins	**M DT 6/6**
BFR07	**373**	**Date** Date (YYMMDD) e.g.: The date when the forecast horizon ends	**M DT 6/6**

(continued)

BFR Beginning Segment for Planning Schedule **(continued)**

BFR08	**373**	**Date** Date (YYMMDD) e.g.: The date the forecast data was generated (issue/release date)	**M**	**DT 6/6**
BFR09		**Not Used**		
BFR10		**Not Used**		
BFR11	**324**	**Purchase Order Number** Identifying number for Purchase Order assigned by the orderer/purchaser If there is only one purchase order number for the entire release, use PO Number (BFR11), otherwise use the PO number in the LIN segment (LIN04 & LIN05).	**O**	**AN 1/22**
BFR12		**Not Used**		
BFR13		**Not Used**		

Segment: **DTM** **Date/Time Reference**
Position: 130
Loop:
Level: Heading
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times.

Example: DTM*168*970630***19$_{N/L}$

Notes: This segment is being used in order to be Year 2000 compliant.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements	Description
DTM01	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 168 Release	**M**	**ID 3/3**
DTM02	**373**	**Date** Date (YYMMDD) (same as BFR08)	**M**	**DT 6/6**
DTM03	**337**	**Time** Code identifying the time	**O**	**TM 4/8**
DTM04		**Not Used**		
DTM05	**624**	**Century** The first two characters in the designation of the year (CCYY)	**O**	**N0 2/2**
DTM06		**Not Used**		
DTM07		**Not Used**		

Segment: **N1** **Name**
Position: 230
Loop: N1/200
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To identify a party by type of organization, name, and code.

Example: N1*SU*SUPPLIER XYZ*01*123456789$_{N/L}$

Notes: This N1 loop in the heading is used to identify the Material Release Issuer (MI), Supplier (SU), Ship From location (SF), and Ship To location (ST).
If the Ship To location is different for each part on the release, then the N1 segment for the Ship To is used in the detail area.
If the Ship From (SF) and Supplier/Manufacturer (SU) are different, send both codes. If they are the same, send only one code.
If either N103 or N104 is present, then the other is required.
Magna limits the usage of the loop repeat to 4.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements	Description
N101	**98**	**Entity Identifier Code** Code identifying an organizational entity or a physical location MI Planning Schedule/Material Release Issuer ST Ship To SF Ship From SU Supplier/Manufacturer	**M**	**ID 2/2**
N102	**93**	**Name** Free Form Name of the identified party	**O**	**AN 1/35**
N103	**66**	**Identification Code Qualifier** Code designating the system/method of code structure used for Identification Code (67) 1 DUNS number, Dun & Bradstreet 9 DUNS number with 4-character Suffix 92 Assigned by Buyer or Buyer's Agent 93 Assigned by the organization originating the transaction set	**M**	**ID 1/2**
N104	**67**	**Identification Code** Code identifying a party or other code DUNS number "123456789" Magna assigned Supplier Code If used, the DUNS number must have internal spaces and dashes suppressed.	**M**	**AN 2/20**
N105		**Not Used**		
N106		**Not Used**		

Segment: **N2** **Additional Name Information**
Position: 240
Loop: N1
Level: Heading
Usage: Optional
Max Use: 2
Purpose: To specify additional names or those longer than 35 characters in length.

Example: N2*XYZ-Division of $ABC_{N/L}$

Notes: The N2 segment permits free-form information which, under ANSI X12 standard implementation, is not machine processable in an automated environment. Therefore, the use of the N2 segment should be avoided, if at all possible.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements	Description
N201	**93**	**Name** Free-form name	**M**	**AN 1/35**
N202	**93**	**Name** Free-form name	**O**	**AN 1/35**

Segment: **N3** **Address Information**
Position: 250
Loop: N1
Level: Heading
Usage: Optional
Max Use: 2
Purpose: To specify the location of the named party.

Example: N3*123 Magna Drive$_{N/L}$

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
N301	**166**	**Address Information** Address information	**M AN 1/35**
N302	**166**	**Address Information** Address information	**O AN 1/35**

Segment: **N4** **Geographic Location**
Position: 260
Loop: N1
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To specify the geographic place of the named party.

Example: N4*Markham*ON*L3R 5L9$_{N/L}$

Notes: If N406 is present, then N405 is required.
A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.
N402 is required only if city name (N401) is in the U.S. or Canada.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements	Description
N401	**19**	**City Name** Free-form text for city name	**O**	**AN 2/30**
N402	**156**	**State or Province Code** Code (Standard State/Province) as defined by appropriate government agency	**O**	**ID 2/2**
N403	**116**	**Postal Code** Code defining international postal zone code excluding punctuation and blanks (zip code for United States)	**O**	**ID 3/15**
N404	**26**	**Country Code** Code identifying the country	**O**	**ID 2/3**
N405	**309**	**Location Qualifier** Code identifying type of location	**X**	**ID 1/2**
N406	**310**	**Location Identifier** Code which identifies a specific location	**O**	**AN 1/30**

Segment: **LIN** **Item Identification**
Position: 010
Loop: LIN/>1
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To specify basic item identification data for a given part.

Example: LIN**BP*111666A*VP*VP111$_{N/L}$

Notes: If either the LIN04 or LIN05 is present, the other is required. This same rule applies to the LIN06/LIN07 and LIN08/LIN09 segments.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
LIN01		**Not Used**	
LIN02	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) BP Buyer's Part Number	**M ID 2/2**
LIN03	**234**	**Product/Service ID** Identifying part number e.g.: Buyer's Part Number	**M AN 1/40**
LIN04	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) PO Purchase Order Number EC Engineering Change Level VP Vendor's (Seller's) Part Number If there is only one purchase order number for the entire release, use PO Number (BFR11), otherwise use the PO number in the LIN segment (LIN04). LIN04 through LIN09 provide additional pairs of Product Service ID Qualifiers and Product/Service IDs to further describe the line item. The above code list applies to each occurrence of data 235 in these pairs.	**X ID 2/2**
LIN05	**234**	**Product/Service ID** Identifying number for a product or service	**X AN 1/40**
LIN06	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234)	**X ID 2/2**
LIN07	**234**	**Product/Service ID** Identifying number for a product or service	**X AN 1/40**

(continued)

LIN Item Identification **(continued)**

LIN08	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234)	**X**	**ID 2/2**
LIN09	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN 1/40**
LIN10		**Not Used**		
LIN11		**Not Used**		
LIN12		**Not Used**		
LIN13		**Not Used**		
LIN14		**Not Used**		
LIN15		**Not Used**		
LIN16		**Not Used**		
LIN17		**Not Used**		
LIN18		**Not Used**		
LIN19		**Not Used**		
LIN20		**Not Used**		
LIN21		**Not Used**		
LIN22		**Not Used**		
LIN23		**Not Used**		
LIN24		**Not Used**		
LIN25		**Not Used**		
LIN26		**Not Used**		
LIN27		**Not Used**		
LIN28		**Not Used**		
LIN29		**Not Used**		
LIN30		**Not Used**		
LIN31		**Not Used**		

Segment: **UIT** **Unit Detail**
Position: 020
Loop: LIN
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To specify item unit data.

Example: UIT*EA$_{N/L}$

Notes: Magna requires this segment to be used.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
UIT01	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken **UIT01 is a composite data element, C001, which contains 15 simple data elements. Magna will utilize only the first component of the composite, Data Element 355. This guide reflects that decision by substituting 355 for C001, which is syntactically correct. See the chapter entitled "*Composite Data Elements*" in the ANSI X12 3060 standards guide for further explanation.**	**M ID 2/2**
UIT02		**Not Used**	
UIT03		**Not Used**	

Segment: **PID** **Product/Item Description**
Position: 080
Loop: LIN
Level: Detail
Usage: Optional
Max Use: 1000
Purpose: To describe a product or process in coded or free-form format.

Example: PID*F****WASHER 0.2 $MM_{N/L}$

Notes: The PID segment permits free-form information which, under ANSI X12 standard implementation, is not machine processable in an automated environment. Therefore, the use of the PID segment should be avoided, if at all possible.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
PID01	**349**	**Item Description Type** Code indicating the format of a description F Free-form	**M ID 1/1**
PID02		**Not Used**	
PID03		**Not Used**	
PID04		**Not Used**	
PID05	**352**	**Description** A free-form description to clarify the related data elements and their content (e.g.: part description, gauge, width, spec, and material size)	**X AN 1/80**
PID06		**Not Used**	
PID07		**Not Used**	
PID08		**Not Used**	
PID09		**Not Used**	

Segment: **REF** **Reference Identification**
Position: 140
Loop: LIN
Level: Detail
Usage: Optional
Max Use: 12
Purpose: To specify identifying information.

Example: REF*DK*DOCK1$_{N/L}$

Notes: Magna limits the usage of this segment to 4 occurrences.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements	Description
REF01	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification DK Dock Number HS Harmonized Code System (Canada) LF Assembly Line Feed Location RL Reserve Assembly Line Feed Location	**M**	**ID 2/3**
REF02	**127**	**Reference Identification** Reference information as defined by the Reference Identification Qualifier	**X**	**AN 1/30**
REF03		**Not Used**		
REF04		**Not Used**		

Segment: **PER** **Administrative Communications Contact**
Position: 150
Loop: LIN
Level: Detail
Usage: Optional
Max Use: 3
Purpose: To identify a person or office to whom administrative communications should be directed.

Example: PER*BD*JOHN BIG*FX*905-555-1212*EM*BIG@MAGNA.ON.CA*TE*905-555-1313$_{N/L}$

Notes: If either PER03 or PER04 is present, then the other is required. If either PER05 or PER06 is present, then the other is required. If either PER07 or PER08 is present, then the other is required.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements	Description
PER01	**366**	**Contact Function Code** Code identifying the major duty or responsibility of the person or group named BD Buyer Name or Department EX Expeditor	**M**	**ID 2/2**
PER02	**93**	**Name** Free-form name e.g.: Buyer's Name	**O**	**AN 1/35**
PER03	**365**	**Communication Number Qualifier** Code identifying the type of communication number EM Electronic Mail FX Facsimile TE Telephone PER03 through PER08 provide additional pairs of Communication Number Qualifiers and Communication Numbers to further describe the line item. The above code list applies to each occurrence of data 365 in these pairs.	**X**	**ID 2/2**
PER04	**364**	**Communication Number** Complete communications number including country or area code when applicable	**X**	**AN 1/80**
PER05	**365**	**Communication Number Qualifier** Code identifying the type of communication number	**X**	**ID 2/2**
PER06	**364**	**Communication Number** Complete communications number including country or area code when applicable	**X**	**AN 1/80**

(continued)

PER Administrative Communications Contact **(continued)**

PER07	**365**	**Communication Number Qualifier** Code identifying the type of communication number	**X**	**ID 2/2**
PER08	**364**	**Communication Number** Complete communications number including country or area code when applicable	**X**	**AN 1/80**
PER09		**Not Used**		

Segment: **ATH** **Resource Authorization**
Position: 230
Loop: LIN
Level: Detail
Usage: Mandatory
Max Use: 20
Purpose: To specify resource authorizations (i.e., finished labor, material, etc.) in the planning schedule.

Example: ATH*MT**8168**970304$_{N/L}$

Notes: The "PQ" code only is mandatory; the "FI" and "MT" codes are optional.
If ATH01 is present with a "PQ" code, then ATH02 is required.
The quantity transmitted is always cumulative.
Magna limits the usage of this segment to 3 occurrences.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements	Description
ATH01	**672**	**Resource Authorization Code** Code identifying the resource which the buyer is authorizing the seller to commit to FI Finished (Labor, Material, and Overhead/Burden) FAB Authorization MT Material Raw Material Authorization PQ Cumulative Quantity Required Prior to First Schedule Period	**M**	**ID 2/2**
ATH02	**373**	**Date** Date (YYMMDD) Required if ATH01 = "PQ". This date is the same as BFR06	**X**	**DT 6/6**
ATH03	**380**	**Quantity** Numeric value of quantity If ATH01 = "FI" or " "MT" then this is cumulative quantity that has been authorized from start date (ATH05). If ATH01 = "PQ" then this is cumulative quantity that has been authorized from start date (ATH05) through end date (ATH02).	**X**	**R 1/15**
ATH04		**Not Used**		
ATH05	**373**	**Date** Date (YYMMDD) The cumulative start date. (beginning inventory date)	**X**	**DT 6/6**

Segment: **N1** **Name**
Position: 320
Loop: N1/200
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code.

Example: N1*ST*PLANTS1-PLANT*01*987654333$_{N/L}$

Notes: This optional N1 loop is used only if the Ship To location varies for the different part numbers. This is the location where the Material Release Issuer wants the supplier to ship the product.
Magna limits the usage of the loop repeat to 1.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
N101	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, or an individual ST Ship To	**M ID 2/2**
N102	**93**	**Name** Free-form name	**O AN 1/35**
N103	**66**	**Identification Code Qualifier** Code designating the system/method of code structure used for Identification Code (67) 1 DUNS number, Dun & Bradstreet 9 DUNS number with 4-character Suffix 92 Assigned by Buyer or Buyer's Agent 93 Assigned by the organization originating the transaction set	**M ID 1/2**
N104	**67**	**Identification Code** Code identifying a party or other code DUNS number "123456789" Magna assigned Supplier Code	**M AN 2/20**
N105		**Not Used**	
N106		**Not Used**	

Segment: **N2** **Additional Name Information**
Position: 240
Loop: N1
Level: Detail
Usage: Optional
Max Use: 2
Purpose: To specify additional names or those longer than 35 characters in length.

Example: N2*PLANTS1-Division of $DEF_{N/L}$

Notes: The N2 segment permits free-form information which, under ANSI X12 standard implementation, is not machine processable in an automated environment. Therefore, the use of the N2 segment should be avoided, if at all possible.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description	
N201	**93**	**Name** Free-form name	**M**	**AN 1/35**
N202	**93**	**Name** Free-form name	**O**	**AN 1/35**

Segment: **N3** **Address Information**
Position: 250
Loop: N1
Level: Detail
Usage: Optional
Max Use: 2
Purpose: To specify the location of the named party.

Example: N2*456 Eddy Drive$_{N/L}$

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
N301	**166**	**Address Information** Address information	**M AN 1/35**
N302	**166**	**Address Information** Address information	**O AN 1/35**

Segment: **N4** **Geographic Location**
Position: 260
Loop: N1
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify the geographic place of the named party.

Example: N4*Toronto*ON*L5N 5P9$_{N/L}$

Notes: If N406 is present, then N405 is required.
A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.
N402 is required only if city name (N401) is in the U.S. or Canada.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements	Description
N401	**19**	**City Name** Free-form text for city name	**O**	**AN 2/30**
N402	**156**	**State or Province Code** Code (Standard State/Province) as defined by appropriate government agency	**O**	**ID 2/2**
N403	**116**	**Postal Code** Code defining international postal zone code excluding punctuation and blanks (zip code for United States)	**O**	**ID 3/15**
N404	**26**	**Country Code** Code identifying the country	**O**	**ID 2/3**
N405	**309**	**Location Qualifier** Code identifying type of location	**X**	**ID 1/2**
N406	**310**	**Location Identifier** Code which identifies a specific location	**O**	**AN 1/30**

Segment: **SDP** **Ship/Delivery Pattern**
Position: 450
Loop: SDP/260
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To identify specific ship/delivery requirements.

Example: SDP*D*$G_{N/L}$

Notes: This segment specifies the shipment day or week.
The intent of this segment is to define the routine ship or delivery patterns, as required. When order quantities are in "buckets", such as weekly, monthly. Ship/delivery patterns eliminate the need to transmit discrete quantities and dates for each required shipment or delivery. It is assumed that a "bucketed" quantity is to be divided equally by the ship/delivery pattern. For example, a weekly quantity of 100 with a delivery pattern of Monday and Wednesday would result in 50 to be delivered on Monday and 50 to be delivered on Wednesday.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description	
SDP01	**678**	**Ship/Delivery or Calendar Pattern Code** Code which specifies the routine shipments, deliveries, or calendar pattern **See the chapter entitled "Data Element Dictionary" in the ANSI X12 3060 standards guide for a complete code list.**	**M**	**ID 1/2**
SDP02	**679**	**Ship/Delivery Pattern Time Code** Code which specifies the time for routine shipments or deliveries **See the chapter entitled "Data Element Dictionary" in the ANSI X12 3060 standards guide for a complete code list.**	**M**	**ID 1/1**
SDP03		**Not Used**		
SDP04		**Not Used**		
SDP05		**Not Used**		
SDP06		**Not Used**		
SDP07		**Not Used**		
SDP08		**Not Used**		

Segment: **FST** **Forecast Schedule**
Position: 460
Loop: SDP
Level: Detail
Usage: Optional
Max Use: 260
Purpose: To specify the forecasted dates and quantities.

Example: FST*400*C*W*970630$_{N/L}$

Notes: This segment is used to transmit planning and firm requirements, with order dates and quantities. When existing requirements for a given part number/destination combination are canceled, one occurrence of an FST with a quantity of zero and the first requirement date will be sent.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements	
				Description
FST01	**380**	**Quantity** Numeric value of quantity The actual discrete quantity	**M**	**R 1/15**
FST02	**680**	**Forecast Qualifier** Code specifying Magna's confidence level of the forecast data or an action associated with a forecast C Firm D Planning	**M**	**ID 1/1**
FST03	**681**	**Forecast Timing Qualifier** Code specifying interval grouping of the forecast D Discrete M Monthly Bucket (Calendar Months) W Weekly Bucket (Monday through Sunday)	**M**	**ID 1/1**
FST04	**373**	**Date** Date (YYMMDD) If FST03 = "D", then this is the actual discrete date the quantity is due or shipped, based on BFR04. If FST03 = "M", then this is a first date of the month the quantity is due. If FST03 = "W", then this is a Monday date the quantity is due.	**M**	**DT 6/6**
FST05		**Not Used**		
FST06		**Not Used**		
FST07		**Not Used**		
FST08		**Not Used**		
FST09		**Not Used**		
FST10		**Not Used**		

Segment: **SHP** **Shipped/Received Information**
Position: 470
Loop: SHP/25
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To specify shipment and/or receipt information.

Example: SHP*02*900*051*970304**970512$_{N/L}$

Notes: If there have been no prior shipments for the part, the segment will still be sent, with quantity of zero in SHP02.
Otherwise, two occurrences will be sent: one to specify last discrete quantity shipped/received, and one to specify cumulative quantity shipped/received since last cum reset.
If SHP01 is present, then SHP02 is required. If SHP04 is present, then SHP03 is required.
Magna limits the usage of the loop repeat to 2.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements	Description
SHP01	**673**	**Quantity Qualifier** Code specifying the type of quantity 01 Discrete Quantity 02 Cumulative Quantity	**M**	**ID 2/2**
SHP02	**380**	**Quantity** Numeric value of quantity	**M**	**R 1/15**
SHP03	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time If SHP01 = "01" (Discrete) then this element will contain "011" for the date shipped, or "050" to indicate date received. If SHP01 = "02" (Cumulative) then this element will contain "051" to indicate cumulative quantity start date. 011 Shipped 050 Received 051 Cumulative Quantity Start	**M**	**ID 3/3**
SHP04	**373**	**Date** Date (YYMMDD) If SHP01 = "02", then this is the beginning inventory date.	**M**	**DT 6/6**
SHP05		**Not Used**		
SHP06	**373**	**Date** Date (YYMMDD) This is only used if the SHP01 = "02", then this is the supplier's last ship date.	**X**	**DT 6/6**
SHP07		**Not Used**		

Segment: **REF** **Reference Identification**
Position: 480
Loop: SHP
Level: Detail
Usage: Optional
Max Use: 5
Purpose: To specify identifying information.

Example: REF*SI*9848527$_{N/L}$

Notes: This segment allows the transmission of the shipper identification number for the last shipment received.
This segment may be sent when SHP01 = "01".
Magna limits the usage of this segment to 1 occurrence.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements	Description
REF01	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification SI Shipper's Identifying Number for Shipment (SID) A unique number (to the shipper) assigned by the shipper to identify the shipment	**M**	**ID 2/3**
REF02	**127**	**Reference Identification** Reference information as defined by the Reference Identification Qualifier e.g.: Last Receipt Shipper Number	**M**	**AN 1/30**
REF03		**Not Used**		
REF04		**Not Used**		

Segment: **CTT** **Transaction Totals**
Position: 010
Loop:
Level: Summary
Usage: Optional
Max Use: 1
Purpose: To transmit a hash total for a specific element in the Transaction set.

Example: CTT*1*10600$_{N/L}$

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
CTT01	**354**	**Number of Line Items** Total number of line items in the Transaction set (number of LIN segments)	**M N0 1/6**
CTT02	**347**	**Hash Total** This represents the sum of the values of the quantities (FST01) for each FST segment. All values in the data element will be summed without regard to decimal points (explicit or implicit) or signs. Truncation will occur on the left most digits if the sum is greater than the maximum size of the hash total of the data element. Example: Hash Total = Sum of FST Totals	**O R 1/10**
CTT03		**Not Used**	
CTT04		**Not Used**	
CTT05		**Not Used**	
CTT06		**Not Used**	
CTT07		**Not Used**	

Segment: **SE** **Transaction Set Trailer**
Position: 020
Loop:
Level: Summary
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of the Transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments).

Example: SE*31*0001$_{N/L}$

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
SE01	**96**	**Number of Included Segments** Total number of segments included in a Transaction set including ST and SE segments	**M N0 1/10**
SE02	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the Transaction set assigned by the originator for a Transaction set (same as ST02)	**M AN 4/9**

997 Functional Acknowledgment

Introduction:

A Functional Acknowledgment is required for data interchange. A Functional Acknowledgment is a transaction set (997) issued by the receiver to the original sender to indicate the status of a transmission with respect to standards adherence. This Functional Acknowledgment does not imply acceptance of the contents of the associated transaction set. The Functional Acknowledgment provides a positive indication that all transactions transmitted were received. If errors exist, it identifies the segment and rejected elements and indicates the reason for error. A Functional Acknowledgment is never transmitted to acknowledge receipt of a Functional Acknowledgment.

The purpose of this transaction is to acknowledge the success/failure of the recipient in translating the ISA and the IEA.

Note: This document is Magna's use of the Functional Acknowledgment (997) in compliance with the "*AIAG Supply Chain: Recommended Business Practices for EDI Implementation*". The Functional Acknowledgment is expected to be received by all Magna divisions in a timely manner consistent with the business flow of information.

Data Segment Table:

Pos. No.	Seg. ID	Name	USAGE ANSI Req. Des.	USAGE Magna Req. Des.	Max.Use	Loop Repeat	Notes and Comments
010	ST	Transaction Set Header	M	M	1		
020	AK1	Functional Group Response Header	M	M	1		
		LOOP ID - AK2				999999	
030	AK2	Transaction Set Response Header	O	M	1		
		LOOP ID - AK2/AK3				999999	
040	AK3	Data Segment Note	O	O	1		
050	AK4	Data Element Note	O	O	99		
060	AK5	Transaction Set Response Trailer	M	M	1		
070	AK9	Functional Group Response Trailer	M	M	1		
080	SE	Transaction Set Trailer	M	M	1		

Segment: **ST** **Transaction Set Header**
Position: 010
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a transaction set and to assign a control number.

Example: ST*997*0001$_{N/L}$

Notes: The Transaction Set Control Number entry in this header must match the Transaction Set Control Number entry in the Transaction Set Trailer (SE02).

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description	
ST01	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set 997 X12.20 Functional Acknowledgment	**M**	**ID 3/3**
ST02	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M**	**AN 4/9**

Segment: **AK1** **Functional Group Response Header**
Position: 020
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To start acknowledgment of a functional group.

Example: AK1*PO*1$_{N/L}$

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description	
AK101	**479**	**Functional Identifier Code** Code identifying a group of application related transaction sets Specific value of the GS01 of the functional group being acknowledged. Any code.	**M**	**ID 2/2**
AK102	**28**	**Group Control Number** Assigned number originated and maintained by the sender Specific value of the GS08 of the functional group being acknowledged.	**M**	**N0 1/9**

Segment: **AK2** **Transaction Set Response Header**
Position: 030
Loop: AK2/999999
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To start acknowledgment of a single transaction set.

Example: AK2*850*0001$_{N/L}$

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
AK201	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set Any code.	**M ID 3/3**
AK202	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set Contains the value in element ST02 in the transaction set being acknowledged.	**M AN 4/9**

Segment: **AK3** **Data Segment Note**
Position: 040
Loop: AK2/AK3/999999
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To report errors in a data segment and identify the location of the data segment.

Example: AK3*REF*25**2$_{N/L}$

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
AK301	**721**	**Segment ID Code** Code defining the segment ID of the data segment in error Any code.	**M ID 2/3**
AK302	**719**	**Segment Position in Transaction Set** The numerical count position of this data segment from the start of the transaction set: the transaction set header is count position 1	**M N0 1/6**
AK303	**447**	**Loop Identifier Code** The loop ID number given on the transaction set diagram is the value for this data element in segments LS and LE	**O AN 1/4**
AK304	**720**	**Segment Syntax Error Code** Code indicating error found based on the syntax editing of a segment Any code.	**O ID 1/3**

Segment: **AK4** **Data Element Note**
Position: 050
Loop: AK2/AK3
Level: Heading
Usage: Optional
Max Use: 99
Purpose: To report errors in a data element and identify the location of the data element.

Example: AK4*1*374*1$_{N/L}$

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
AK401	**722**	**Element Position in Segment** This is used to indicate the relative position of a simple data element, or the relative position of a composite data structure with the relative position of the component within the composite data structure, in error; in the data segment the count starts with 1 for the simple data element or composite data structure immediately following the segment ID AK401 is a composite data element, C030, which contains 2 simple data elements.	**M N0 1/2**
AK402	**725**	**Data Element Reference Number** Reference number used to locate the data element in the Data Element Dictionary	**O N0 1/4**
AK403	**723**	**Data Element Syntax Error Code** Code indicating the error found after syntax edits of a data element Any code.	**M ID 1/3**
AK404	**724**	**Copy of Bad Data Element** This is a copy of the data element in error	**O AN 1/99**

Segment: **AK5** **Transaction Set Response Trailer**
Position: 060
Loop: AK2
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To acknowledge acceptance or rejection and report errors in a transaction set.

Example: AK5*R*$5_{N/L}$

Notes: This segment is used to end the acknowledgment of a transaction set within the received functional group. The AK5 segment is mandatory in the AK2 - AK5 loop; however, the loop is optional. There is one AK5 segment per AK2 segment.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements	Description
AK501	**717**	**Transaction Set Acknowledgment Code** Code indicating accept or reject condition based on the syntax editing of the transaction set Any code.	**M**	**ID 1/1**
AK502	**718**	**Transaction Set Syntax Error Code** Code indicating error found based on the syntax editing of a transaction set Any code.	**O**	**ID 1/3**
AK503	**718**	**Transaction Set Syntax Error Code** Code indicating error found based on the syntax editing of a transaction set Any code.	**O**	**ID 1/3**
AK504	**718**	**Transaction Set Syntax Error Code** Code indicating error found based on the syntax editing of a transaction set Any code.	**O**	**ID 1/3**
AK505	**718**	**Transaction Set Syntax Error Code** Code indicating error found based on the syntax editing of a transaction set Any code.	**O**	**ID 1/3**
AK506	**718**	**Transaction Set Syntax Error Code** Code indicating error found based on the syntax editing of a transaction set Any code.	**O**	**ID 1/3**

Segment: **AK9** **Functional Group Response Trailer**
Position: 070
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To acknowledge acceptance or rejection of a functional group and report the number of included transaction sets from the original trailer, the accepted sets, and the received sets in this functional group.

Example: AK9*A*3*3*3$_{N/L}$

Notes: This segment is used to complete the response for the functional group acknowledgment. The AK9 segment is mandatory. In addition to completing the response, it provides a summary of the counts of the transaction sets.
If AK901 contains the value "A" or "E", then the transmitted functional group is accepted. If AK901 contains the value "R", then the transmitted group is rejected.

Data Element Summary

Element ID	Data Element	Name	Magna Requirements	Description
AK901	**715**	**Functional Group Acknowledge Code** Code indicating accept or reject condition based on the syntax editing of the functional group Any code.	**M**	**ID 1/1**
AK902	**97**	**Number of Transaction Sets Included** Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element Number of transaction sets (value of GE01 in the received functional group).	**M**	**N0 1/6**
AK903	**123**	**Number of Received Transaction Sets** Number of Transaction Sets received Receiver's count.	**M**	**N0 1/6**
AK904	**2**	**Number of Accepted Transaction Sets** Number of accepted Transaction Sets in a Functional Group	**M**	**N0 1/6**
AK905	**716**	**Functional Group Syntax Error Code** Code indicating error found based on the syntax editing of the functional group header and/or trailer Any code.	**O**	**ID 1/3**
AK906	**716**	**Functional Group Syntax Error Code** Code indicating error found based on the syntax editing of the functional group header and/or trailer Any code.	**O**	**ID 1/3**

(continued)

AK9 Functional Group Response Trailer **(continued)**

AK907	**716**	**Functional Group Syntax Error Code** Code indicating error found based on the syntax editing of the functional group header and/or trailer Any code.	**O**	**ID 1/3**
AK908	**716**	**Functional Group Syntax Error Code** Code indicating error found based on the syntax editing of the functional group header and/or trailer Any code.	**O**	**ID 1/3**
AK909	**716**	**Functional Group Syntax Error Code** Code indicating error found based on the syntax editing of the functional group header and/or trailer Any code.	**O**	**ID 1/3**

Segment: **SE** **Transaction Set Trailer**
Position: 080
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments).

Example: SE*77*0001$_{N/L}$

Notes: The Transaction Set Control Number value in this trailer must match the same element value in the 997 Transaction Set Header element (ST02).

Data Element Summary

Element ID	Data Element	Name	Magna Requirements Description
SE01	**96**	**Number of Included Segments** Code indicating accept or reject condition based on the syntax editing of the transaction set Any code.	**M N0 1/10**
SE02	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set (same as ST02)	**M AN 4/9**

APPENDIX A

GLOSSARY OF TERMS

ANSI ASC X12 American National Standards Institute Accredited Standards Committee. The overall governing body in the USA that sets standards on a wide variety of products/services. "X12" is the name of the committee responsible for setting the EDI Standards.

Data Element A basic unit of information in the EDI standards. Their structure includes numeric values, descriptions, and character codes.

DUNS # The DUN's # will be used as the EDI address; if not available, a Supplier Code will be assigned by Magna. An EDI address is a unique code to identify an EDI trading partner. An example, when used in the ISA header, is 01:123456789 where "123456789" is the ID value and "01" is the qualifier. Each EDI address must be unique to a single user. DUN's # is available from Dun & Bradstreet Information Services. (refer to *Contacts* in this guide)

EDI Electronic Data Interchange is the inter-company exchange of business documents between computer applications using an industry standard.

Element Separator A data element separator is used to separate data elements within a segment. When there is no data being transmitted for a defined element, the data element separator is transmitted to preserve the data element count unless the unused elements are last in the segment. For the remainder of this guide, "*" will be used to represent the data element separator. **The '*' is the Magna preference and recommended symbol.** This symbol may, otherwise, be mutually agreed upon by both users.

Loop A series of related data segments. The N1 through N4 "Name/Address" loop is an example.

Qualifier A qualifier is a 2 character code which defines a source of the ID value. Qualifier codes are defined in the standards data element dictionary.

Segment A transaction set consists of an ordered collection of smaller units known as segments, each of which begins with a standard 2- or 3-character segment identifier (such as ST,BEG,N4,etc.) and ends with a 1-character segment terminator. In general, a segment corresponds to a single line on a paper document.

Sub Element Separator A sub element separator is used to separate data within an element. For the remainder of this guide, "~" will be used to represent the sub element separator. **The '~' is the Magna preference and recommended symbol.** This symbol may, otherwise, be mutually agreed upon by both users.

Segment Terminator The data segment terminator indicates that all subsequent elements in that segment are unused and that the end of the segment has been reached. For the remainder of this guide, "$_{NL}$" or <cr> will be used to represent the data segment terminator. **The '$_{NL}$' is the Magna preference and recommended symbol.** This symbol may, otherwise, be mutually agreed upon by both users.

APPENDIX B - 1B

Example of the 830 Planning Schedule with Release Capability for "*key*" segments only (*refer Appendix B - 2B*).

Segment	Explanation
ST*830*0001$_{N/L}$	Header 830 - Transaction Set Identifier Code (Material Release) 0001 - Transaction Set Control Number
BFR*05**63099*SH*A*970630*970901*970630***A24446$_{N/L}$	05 - Purpose Code (Replace) 63099 - Release Number SH - Shipment Based A - Actual Discrete Quantities 970630 - Horizon Start Date (Jun 30, 1997) 970901 - Horizon End Date (Sep 1, 1997) 970630 - Release Date (Jun 30, 1997) A24446 - Purchase Order Number
N1*SU*SUPPLIER XYZ*01*123456789$_{N/L}$	SU - Supplier/Manufacturer Identifier Code 01 - DUNS number Qualifier 123456789 - DUNS number of Supplier/Manufacturer Location
LIN**BP*111666A*VP*VP111$_{N/L}$	BP - Buyer's Part Number Qualifier 111666A - Buyer's Part Number VP - Vendor's (Seller's) Part Number Qualifier VP111 - Vendor's Number
UIT*EA$_{N/L}$	EA - Unit of Measure (Each)
ATH*FI**3400**970304$_{N/L}$	FI - Finished (FAB Authorization) 3400 - Quantity 970304 - Date (Mar 4, 1997)
FST*1000*C*W*970707$_{N/L}$	1000 - Quantity C - Firm W - Weekly Bucket 970707 - Date (Jul 7, 1997)
SHP*01*400*050*970512 $_{N/L}$	01 - Discrete Quantity 400 - Quantity 050 - Date Received Qualifier 970512 - Shipped Date (May 12, 1997)
REF*SI*9848527$_{N/L}$	SI - Shipper's Identifying Number Qualifier 9848527 - Last Receipt Shipper Number
CTT*1*10600 $_{N/L}$	1 - Number of LIN segments 10600 - Hash Total = Sum of FST Totals
SE*31*0001 $_{N/L}$	31 - Total number of segments from ST to SE (including ST and SE) 0001 - Transaction Set Control Number

APPENDIX B - 2B

ANSI X12 830 Material Release

The following represents a sample 830 paper Material Release.

DATE: 06/30/97 **PAGE** 1
TIME: 8:07AM **** PLANNING SCHEDULE ****

Horizon Start Period: June 30, 1997
Shipment Based Release
Release Date: June 30, 1997

Horizon End Period: August 1, 1997
Actual Discrete Quantities
Release Number: 63099

Release Issuer:
Name: Plants1-Office
Duns Number: 987654321

Supplier:
Name: Supplier XYZ
Duns Number: 123456789

Ship From:
Name: XYZ Plant1
Supplier Code: XYZPLANT1

PART #: 111666A **VND#:** VP111 **Unit of Measure:** Each

Part Description: WASHER 0.2 MM **Dock Number:** DOCK1

Buyer: JOHN BIG **Phone #:** 905-555-1313 **Fax #:** 905-555-1212 **E-mail:** BIG@MAGNA.ON.CA

CUM START DATE: 03/04/97
PRIOR CUM REQ: 1000 **FAB. AUTH. CUM:** 3400 **RAW AUTH. CUM:** 8168
CUM REQ AS OF: 06/30/97

Ship To:
Name: PLANTS1-PLANT Duns #: 987654333

SHIPCODE: D

Req Qty:	Req Date	Forecast Qualifier	Timing Qualifier
400	97/06/30	Firm	Weekly
1000	97/07/07	Firm	Weekly
1000	97/07/14	Firm	Weekly
1000	97/07/21	Firm	Weekly
1128	97/07/28	Planning	Weekly
1320	97/08/04	Planning	Weekly
1320	97/08/11	Planning	Weekly
1320	97/08/18	Planning	Weekly
1320	97/08/25	Planning	Weekly
792	97/09/01	Planning	Weekly

Last Shipment Information: **Shipment Identification Number:** 9848527

Discrete Quantity Received: 400 **Received Date:** 97/05/12

Cum Quantity: 900 **Received Date:** 97/05/12 **Cum Start Date:** 97/03/04

APPENDIX B - 3B

The following represents a sample 830 paper Material Release with reference numbers.

DATE: 06/30/97 ①
PAGE 1
TIME: 8:07AM
**** PLANNING SCHEDULE ****

Horizon Start Period: June 30, 1997 ②
Horizon End Period: August 1, 1997 ②
Shipment Based Release
Actual Discrete Quantities
Release Date: June 30, 1997 ②
Release Number: 63099 ②

Release Issuer:
Name: Plants1-Office
Duns Number: 987654321 ③

Supplier:
Name: Supplier XYZ
Duns Number: 123456789 ④

Ship From:
Name: XYZ Plant1
Supplier Code: XYZPLANT1 ④

PART #: 111666A ⑤ **VND#:** VP111 ⑤ **Unit of Measure:** Each (98)

Part Description: WASHER 0.2 MM ⑥ **Dock Number:** DOCK1 (99)

Buyer: JOHN BIG **Phone #:** 905-555-1313 **Fax #:** 905-555-1212 **E-mail:** BIG@MAGNA.ON.CA

CUM START DATE: 03/04/97 ⑦
PRIOR CUM REQ: 1000 ⑦ **FAB. AUTH. CUM:** 3400 ⑨ **RAW AUTH. CUM:** 8168 ⑩
CUM REQ AS OF: 06/30/97 ⑦

Ship To:
Name: PLANTS1-PLANT Duns #: 987654333 ③***a***

SHIPCODE: D

Req Qty:	Req Date	Forecast Qualifier	Timing Qualifier
400 ⑧	97/06/30	Firm	Weekly
1000	97/07/07	Firm	Weekly
1000	97/07/14	Firm	Weekly
1000	97/07/21	Firm	Weekly
1128	97/07/28	Planning	Weekly
1320	97/08/04	Planning	Weekly
1320	97/08/11	Planning	Weekly
1320	97/08/18	Planning	Weekly
1320	97/08/25	Planning	Weekly
792	97/09/01	Planning	Weekly

Last Shipment Information: **Shipment Identification Number:** 9848527 (13)

Discrete Quantity Received: 400 (11) **Received Date:** 97/05/12

Cum Quantity: 900 (12) **Received Date:** 97/05/12 **Cum Start Date:** 97/03/04

APPENDIX B - 4B

The following represents a sample 830 Material Release in ANSI X12 EDI format.

ISA*00*bbbbbbbbbb*00*bbbbbbbbbb*01*123456789bbbbbb*01*987654321bbbbbb*970630*0807*U*00306*000000045*1*P*~

GS*PS*123456789*987654321***970630***0807***45*X*003060 ST*830*0001	①	Date and Time *(refer Pg. 12)*
BFR*05****63099***SH*A*970630*970901*970630******A24446*** DTM*168*970630***19	②	Release Number, PO Number *(refer Pg. 17)*
N1*MI*PLANTS1-OFFICE*01***987654321**	③	Release Issuer *(refer Pg. 20)*
N1*SU*SUPPLIER XYZ*01***123456789**	④	Supplier *(Supplier Code Address as per look up table-Pg. 20)*
N1*SF*XYZ PLANT1*92***XYZPLANT1**	④	Ship From *(Supplier Code Address as per look up table-Pg. 20)*
LIN****BP***111666A***VP***VP111**	⑤	Buyer and Vendor's Part Number *(refer Pg. 24)*
UIT*EA	⑱	Unit of Measurement *(refer Pg. 26)*
PID*F*****WASHER 0.2MM**	⑥	Description *(refer Pg. 27)*
REF*DK*DOCK1	⑲	Reference Identification *(refer Pg. 28)*
PER*BD*JOHN BIG*FX*905-555-1212*EM*BIG@MAGNA.ON.CA*TE*905-555-1313		
ATH*PQ*970630***1000****970304	⑦	Cum Required Prior to First Forecast Date *(refer Pg. 31)*
ATH*FI****3400****970304	⑨	FAB Authorization *(refer Pg. 31)*
ATH*MT****8168****970304	⑩	Material Authorization *(refer Pg. 31)*
N1*ST*PLANTS1-PLANT*01***987654333** SDP*D*G	③***a***	Ship To *(refer Pg. 32)*
FST***400***C*W*970630	⑧	Net Required *(refer Pg. 37)*
FST***1000***C*W*970707	⑧	Net Required *(refer Pg. 37)*
FST***1000***C*W*970714	⑧	Net Required *(refer Pg. 37)*
FST***1000***C*W*970721	⑧	Net Required *(refer Pg. 37)*
FST***1128***D*W*970728	⑧	Net Required *(refer Pg. 37)*
FST***1320***D*W*970804	⑧	Net Required *(refer Pg. 37)*
FST***1320***D*W*970811	⑧	Net Required *(refer Pg. 37)*
FST***1320***D*W*970818	⑧	Net Required *(refer Pg. 37)*
FST***1320***D*W*970825	⑧	Net Required *(refer Pg. 37)*
FST***792***D*W*970901	⑧	Net Required *(refer Pg. 37)*
SHP*01***400***050***970512**	⑪	Last Received Date and Quantity *(refer Pg. 38)*
SHP*02***900***051*970304****970512**	⑫	Cum Received *(refer Pg. 38)*
REF*SI***9848527** CTT*1*10600 SE*31*0001 GE*1*1 IEA*1*000000045	⑬	Shipper Number *(refer Pg. 39)*

APPENDIX C - 1C

EDI PROFILE

Company Name	DUNS #
Address	

EDI CONTACTS/PHONE NUMBERS		
Main Contact Name	**Phone/Fax #**	**Responsibility Area or Title**
Help Line Contact Name	**Phone/Fax #**	**Area (*if different*)**
Business Contact Name	**Phone/Fax #**	

TELECOMMUNICATIONS		
Van Used:		
Baud Rate	**Communications Protocol**	**Translator**

EDI ADDRESS INFORMATION	
ISA EDI ID:	**ISA EDI Qualifier:**
GS ID:	

APPENDIX C - 2C

EDI PROFILE (*Example*)

Company Name	DUNS #
ABC Company Ltd.	123456789
Address 123 Ford Drive Toronto, ON L5N 5P9 Canada	

EDI CONTACTS/PHONE NUMBERS		
Main Contact Name	**Phone/Fax #**	**Responsibility Area or Title**
Mr. Henry Smith	416-555-2345/416-555-6789	EDI Co-ordinator
Help Line Contact Name	**Phone/Fax #**	**Area (*if different*)**
(same as above)		
Business Contact Name	**Phone/Fax #**	
Mr. John Roe	416-555-2349/416-555-6789	Systems Manager

TELECOMMUNICATIONS		
Van Used: GEIS		
Baud Rate	**Communications Protocol**	**Translator**
9600	Asynchronous	EDI*PC Advanced System for DOS

EDI ADDRESS INFORMATION	
ISA EDI ID: 987654321	ISA EDI Qualifier: ZZ
GS ID: 987654321	