



5.1 Introduction

Some GS1 Data Carriers (e.g. GS1-128, GS1 DataBar Expanded, GS1 DataBar Expanded Stacked and GS1 DataMatrix) allow information over and above item identification to be represented in bar coded form. Application Identifiers (AIs) effectively act as prefixes for this information and define the meaning and structure of the embedded data which follows.

AIs allow you to represent attribute information such as batch numbers, serial numbers, durability dates, and measurements, as well as item identification, locations, assets, and shipments in a standard format. This ensures that the attribute information encoded by one company can also be scanned and interpreted by any other company in the supply chain.

Each AI is a two-, three-, or four-digit prefix that defines the meaning and format of the data that follows. This data may comprise alphabetic and/or numeric characters, of any length up to thirty characters. The data fields are either fixed or variable length, depending on the AI. Individual AI structures are given in Table 42 on page 89.

If an AI appears on the same item more than once (e.g. if two labels are applied to the same item) the AI must be followed by the same information on each label.





5.2 Choosing the Correct AI

At present there are over 100 different AIs available to identify both identification and attribute data. To assist with selection of the appropriate AI we have grouped them below.

Identification of Trade Items

The following AIs identify different types of trade items.

- AI (01) - Global Trade Item Number (GTIN); see page 93
- AI (02) - GTIN of trade items contained in a logistic unit; see page 94
- AI (20) - Product variant; see page 98
- AI (8006) - Identification of the components of a trade item; see page 133

Trade Item Traceability

The following AIs are used for tracking and traceability of items.

- AI (00) - Serial Shipping Container Code (SSCC); see page 92
- AI (10) - Batch or lot number; see page 95
- AI (21) - Serial Number; see page 99
- AI (240) - Additional product identification assigned by the manufacturer; see page 100
- AI (241) - Customer part number; see page 100
- AI(242) - Made-to-Order Variation Number: see page 101
- AI (250) - Secondary serial number; see page 101
- AI (251) - Reference to source entity; see page 102
- AI (422) - Country of origin of a trade item; see page 121
- AI (423) - Country of initial processing (ISO country code); see page 122
- AI (424) - Country of processing; see page 122
- AI (425) - Country of disassembly; see page 123
- AI (426) - Country covering full process chain; see page 123





Date/Time Identification

The following AIs identify different types of dates. When used on non-retail trade items, the dates refer to the trade items contained inside the non-retail trade items.

- AI (11) - Production date; see page 96
- AI (12) - Due date; see page 96
- AI (13) - Packaging date; see page 97
- AI (15) - Best before date; see page 97
- AI (17) - Expiration date; see page 98
- AI (7003) - Expiration Date and Time; see page 125
- AI (8008) - Date and time of production; see page 134

The standard length of a date is six digits, in the format year, month, day (YYMMDD).

The structure is:

Year: the tens and units of the year (e.g. 2003 = 03), which is mandatory

Month: the number of the month (e.g. January = 01), which is mandatory

Day: the number of the day of the relevant month (e.g. second day = 02);
if it not necessary to specify the day, the field must be filled with two zeros.

Since the data field "year" consists of two positions, the century is established by the following procedure:

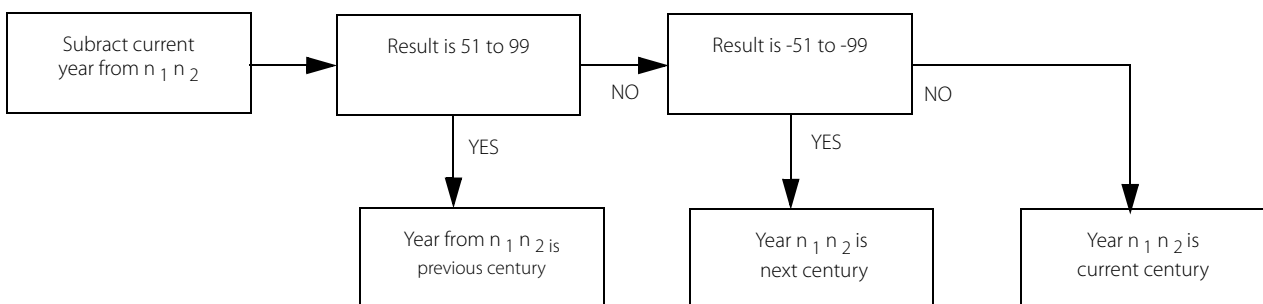


Figure 17 Calculation of Year



Documents

The following AI is a document identifier.

- AI (253) - Global Document Type Identifier; see page 102

Quantities

The following AIs identify the quantity of a trade item.

- AI (30) - Variable count; see page 103
- AI (37) - Count of trade items contained within a logistic unit; see page 112

Measurements

Suppliers will choose the value that best suits the respective trade item in terms of weight/size and the degree of accuracy required (e.g. grams) for the representation of weights and measures in the six-position data field.

GS1 encourages the use of the International System of Units (SI). The SI, commonly called the metric system, is now either obligatory or permissible throughout the world. However, in recognizing that not all trade is conducted using the SI metric system and many industries continue to use the inch/pound system (often referred to as "United States of America customary units"), GS1 make available Application Identifiers covering both the SI and inch/pound systems.

Trading partners should agree on the SI or inch/pound system per recognised industry convention. Those who interpret the data should be prepared to translate from one system to the other within their computer system.

For the full list of the AIs for the inch/pound system, contact GS1 Australia.

Metric Measurements – General

The following AI can be used to identify either a trade item or a logistic unit. Where the fourth digit is "n", this is the decimal point indicator, which shows where the decimal point belongs in the actual data. A fourth digit of 0 means that there is no decimal point and the digit 1 means that the decimal point is 1 position before the last digit of the encoded measurement.

- AI (337n) - Kilograms per square metre; see page 111



Metric Measurements – Trade

The following AIs identify different types of metric measurements for trade items. Where the fourth digit is “n”, this is the decimal point indicator, which shows where the decimal point belongs in the actual data. A fourth digit of 0 means that there is no decimal point and the digit 1 means that the decimal point is 1 position before the last digit of the encoded measurement.

- AI (310n) - Net weight in kilograms; see page 104
- AI (311n) - Length or first dimension in metres; see page 105
- AI (312n) - Width, diameter, or second dimension in metres; see page 105
- AI (313n) - Depth, thickness, height, or third dimension in metres; see page 106
- AI (314n) - Area in square metres; see page 106
- AI (315n) - Net volume in litres; see page 107
- AI (316n) - Net volume in cubic metres; see page 107

Metric Measurements – Logistic

The following AIs identify different types of metric measurements for logistic units. Where the fourth digit is “n”, this is the decimal point indicator, which shows where the decimal point belongs in the actual data. A fourth digit of 0 means that there is no decimal point and the digit 1 means that the decimal point is 1 position before the last digit of the encoded measurement.

- AI (330n) - Gross weight in kilograms; see page 108
- AI (331n) - Length or first dimension in metres; see page 108
- AI (332n) - Width, diameter, or second dimension in metres; see page 109
- AI (333n) - Depth, thickness, height, or third dimension in metres; see page 109
- AI (334n) - Area in square metres; see page 110
- AI (335n) - Gross volume in litres; see page 110
- AI (336n) - Gross volume in cubic metres; see page 111



Amount Payable/Pricing Identification

The following AIs identify amount payable and pricing identification. Where the fourth digit is “n”, this is the decimal point indicator, which shows where the decimal point belongs in the actual data. A fourth digit of 0 means that there is no decimal point and the digit 1 means that the decimal point is 1 position before the last digit of the amount payable.

- AI (390n) - Amount payable – Single monetary area; see page 112
- AI (391n) - Amount payable – With ISO currency code; see page 113
- AI (392n) - Amount payable for a variable measure trade item – Single monetary unit; see page 113
- AI (393n) - Amount payable for a variable measure trade item – With ISO currency code; see page 114
- AI (8005) - Price per unit of measure; see page 132
- AI (8007) - International Bank Account Number (IBAN); see page 134

References

The following AIs identify references. Reference numbers contain information having only an indirect connection with the identification number of the trade item contained. When printed in a bar code on a trade item references supply extra information which may be useful for organisational purposes.

- AI (400) - Customer’s purchase order number; see page 114
- AI (401) - Global Identification Number for Consignment ; see page 115
- AI (402) - Global Shipment Identification Number; see page 116
- AI (403) - Routing code; see page 117
- AI (8002) - Electronic Serial Identifier for Cellular Mobile Telephones; see page 129
- AI (8020) - Payment slip reference number; see page 136





Locations

The following AIs identify locations and their related functions.

Use Global Location Numbers (GLNs) to identify the designation of a company, a department, a warehouse, and so on.

- AI (254) - GLN Extension Component; see page 103
- AI (410) - Ship to (deliver to) GLN; see page 117
- AI (411) - Bill to (invoice to) GLN; see page 118
- AI (412) - Purchased from GLN of the party from whom goods are purchased; see page 118
- AI (413) - Ship for (deliver for/forward to) using GLN; see page 119
- AI (414) - GLN for physical location identification; see page 119
- AI (415) - GLN of the invoicing party; see page 120

Postal Codes

The following AIs identify postal codes. Postal codes are usually allocated by a national postal authority. Generally the codes do not identify a specific location but are used as attribute data in applications requiring sorting or routing of transport packages.

- AI (420) - Ship to (deliver to) postal code within a single postal authority; see page 120
- AI (421) - Ship to (deliver to) postal code with 3 digit ISO country code prefix; see page 121

Special Applications

The following AI is used in the USA as an addition to the GTIN for hospital pack pharmaceuticals.

- AI (22) - HIBCC – Secondary data (quantity, expiration date, and lot number) for specific health industry products; see page 99



70 Series AIs

The following AIs are assigned when an AI request meets all the normal criteria except for if the application is not multi-sectoral, or the application is restricted to a country or a region (e.g. is not global)

- AI (7001) - NATO stock number; see page 124
- AI (7002) - UN/ECE meat carcasses and cuts classification; see page 124
- AI (7004) - Active Potency of certain healthcare products; see page 126
- AI (703s)* - Approval number of processor with three-digit ISO country code; see page 127

* The fourth digit "s" indicates the sequence of procedures in the supply chain.

Dimensions

The following AI identifies the variable dimensions of roll products.

- AI (8001) – Roll Products – Width, length, core, diameter, direction, and splices; see page 128

Assets

The following AIs are used to identify different types of assets.

- AI (8003) - GS1 Identification Key of a returnable asset (GRAI); see page 130
- AI (8004) - GS1 Identification Key of an individual asset (GIAI); see page 131

Consignments

The following AI is used to identify a consignment:

- AI(401) - GS1 Identification Key of a consignment (GINC); see page 115



Shipments

The following AI is used to identify a logical grouping of physical units for the purpose of a transport shipment:

AI(402) - GS1 Identification Key of a shipment (GSIN); see page 116

Services

The following AI is used to identify a service.

- AI (8018) - Global Service Relation Number (GSRN); see page 135

Coupons

The following AIs are used for the identification of promotional coupons with distribution restricted to North America.

- AI (8100) - Coupon extended code – UCC Prefix + offer code; see page 136
- AI (8101) - GS1-128 coupon extended code – UCC Prefix + offer code + end of offer code; see page 137
- AI (8102) - GS1-128 coupon extended code – UCC Prefix; see page 137

Internal

The following AIs can be used for internal purposes and are not to be released into the open market.

- AI (90) - Mutually agreed between trading partners/internal applications (including FACT data identifiers); see page 138
- AI (91) to (99) - Company internal information; see page 138



5.3 All AIs - Detailed Information

The table below summarises the list of AIs currently available.

Please note the following:

- Particular AIs may require the use of a Check Digit on the data and, where appropriate, this is specified in the individual data format descriptions. You may also choose to use Check Digits for your own purposes in any portion of the data content chosen at your own discretion, for example, after batch numbers
- The use of the Symbol Check Character (Modulo 103) is mandatory for all GS1-128 Bar Codes
- The maximum lengths quoted do not include any auxiliary characters used when presenting the data in a GS1-128 Bar Code
- The AI is not part of the data field. When using the data in other applications, for example, in EDI applications, you must drop the AI

Conventions

The conventions that apply for AI data formats are:

- a alphabetic characters
- n numeric characters
- an alpha-numeric characters (i.e. alpha or numeric or mixed).

Examples

Some examples of AI data formats are:

- n3 three numeric characters, fixed length
- n..10 up to ten numeric characters, variable length
- an..30 up to thirty alpha-numeric characters, variable length



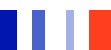
AI	Full Title	Format		Data Title	Page
		AI	Data		
00	Serial Shipping Container Code	n2	n18	SSCC	92
01	Global Trade Item Number	n2	n14	GTIN	93
02	GTIN of Trade Items Contained in a Logistic Unit	n2	n14	CONTENT	94
10	Batch or Lot Number	n2	an..20	BATCH/LOT	95
11*	Production Date (YYMMDD)	n2	n6	PROD DATE	96
12*	Date Due (YYMMDD)	n2	n6	DUE DATE	96
13*	Packaging Date (YYMMDD)	n2	n6	PACK DATE	97
15*	Best Before Date (YYMMDD)	n2	n6	BEST BEFORE or SELL BY	97
17*	Expiration Date (YYMMDD)	n2	n6	USE BY or EXPIRY	98
20	Product Variant	n2	n2	VARIANT	98
21	Serial Number	n2	an..20	SERIAL	99
22	Secondary Data for Specific Health Industry Products	n2	an..29	QTY/DATE/BATCH	99
240	Additional Product Identification Assigned by the Manufacturer	n3	an..30	ADDITIONAL ID	100
241	Customer Part Number	n3	an..30	CUST. PART NO.	100
242	Made-to-Order Variation	n3	n..6	VARIATION NUMBER	101
250**	Secondary Serial Number	n3	an..30	SECONDARY SERIAL	101
251**	Reference to Source Entity	n3	an..30	REF. TO SOURCE	102
253	Global Document Type Identifier	n3	n13+n..17	DOC. ID	102
254	GLN Extension Component	n3	an..20	GLN EXTENSION	103
30	Variable Count	n2	n..8	VAR. COUNT	103
310n	Net Weight – Kilograms – Trade	n4	n6	NET WEIGHT (kg)	104
311n	Length or First Dimension – Metres – Trade	n4	n6	LENGTH (m)	105
312n	Width, Diameter, or Second Dimension – Metres – Trade	n4	n6	WIDTH (m)	105
313n	Depth, Thickness, Height, or Third Dimension – Metres – Trade	n4	n6	HEIGHT (m)	106
314n	Area – Square Metres – Trade	n4	n6	AREA (m2)	106
315n	Net Volume – Litres – Trade	n4	n6	NET VOLUME (l)	107
316n	Net Volume – Cubic Metres – Trade	n4	n6	NET VOLUME (m3)	107
330n	Gross Weight – Kilograms – Logistic	n4	n6	GROSS WEIGHT (kg)	108

* When only year and month are required DD must be filled with "00".

** The actual data title may be specified by the issuer of the data.

*** The fourth digit of this AI, "s", indicates the sequence of the processors in the supply chain.

TABLE 42 List of Application Identifiers





AI	Full Title	Format		Data Title	Page
		AI	Data		
331n	Length or First Dimension – Metres – Logistic	n4	n6	LENGTH (m), logistic	108
332n	Width, Diameter, or Second Dimension – Metres – Logistic	n4	n6	WIDTH (m), logistic	109
333n	Depth, Thickness, Height, or Third Dimension – Metres – Logistic	n4	n6	HEIGHT (m), logistic	109
334n	Area – Square Metres – Logistic	n4	n6	AREA (m2), logistic	110
335n	Gross Volume – Litres – Logistic	n4	n6	VOLUME (l), logistic	110
336n	Gross Volume – Cubic Metres – Logistic	n4	n6	VOLUME (m3), logistic	111
337n	Kilograms Per Square Metre	n4	n6	KG PER m2	111
37	Count of Trade Items Contained in a Logistic Unit	n2	n..8	COUNT	112
390n	Amount Payable – Single Monetary Area	n4	n..15	AMOUNT	112
391n	Amount Payable – With ISO Currency Code	n4	n3+n..15	AMOUNT	113
392n	Amount Payable for a Variable Measure Trade Item – Single Monetary Unit	n4	n..15	PRICE	113
393n	Amount Payable for a Variable Measure Trade Item – With ISO Currency Code	n4	n3+n..15	PRICE	114
400	Customer's Purchase Order Number	n3	an..30	ORDER NO.	114
401	Global Identification Number for Consignment	n3	an..30	GINC	115
402	Global Shipment Identification Number	n3	n17	GSIN	116
403	Routing Code	n3	an..30	ROUTE	117
410	Ship To – Deliver To GS1 Global Location Number	n3	n13	SHIP TO LOC.	117
411	Bill To – Invoice to GS1 Global Location Number	n3	n13	BILL TO	118
412	Purchased From GS1 Global Location Number	n3	n13	PURCHASE FROM	118
413	Ship For – Deliver For – Forward To GS1 Global Location Number	n3	n13	SHIP FOR LOC.	119
414	Identification of a Physical Location GS1 Global Location Number	n3	n13	LOC. NO.	119
415	GS1 Global Location Number of the Invoicing Party	n3	n13	PAY TO	120
420	Ship To – Deliver To Postal Code Within a Single Postal Authority	n3	an..20	SHIP TO POST	120
421	Ship To – Deliver To Postal Code With Three-Digit ISO Country Code	n3	n3+an..9	SHIP TO POST	121
422	Country of Origin of a Trade Item	n3	n3	ORIGIN	121

* When only year and month are required DD must be filled with "00".

** The actual data title may be specified by the issuer of the data.

*** The fourth digit of this AI, "s", indicates the sequence of the processors in the supply chain.

TABLE 42 List of Application Identifiers





AI	Full Title	Format		Data Title	Page
		AI	Data		
423	Country of Initial Processing	n3	n3+n..12	COUNTRY – INITIAL PROCESS.	122
424	Country of Processing	n3	n3	COUNTRY – PROCESS.	122
425	Country of Disassembly	n3	n3	COUNTRY – DISASSEMBLY	123
426	Country Covering Full Process Chain	n3	n3	COUNTRY – FULL PROCESS	123
7001	NATO Stock Number	n4	n13	NSN	124
7002	UN/ECE Meat Carcasses and Cuts Classification	n4	an..30	MEAT CUT	124
7003	Expiration Date and Time	n4	n10	EXPIRY DATE/TIME	125
7004	Active Potency	n4	n..4	ACTIVE POTENCY	126
703s***	Approval Number of Processor with ISO Country Code	n4	n3+an..27	PROCESSOR # s	127
8001	Roll Products – Width, Length, Core Diameter, Direction, and Splices	n4	n14	DIMENSIONS	128
8002	Electronic Serial Identifier for Cellular Mobile Telephones	n4	an..20	CMT NO.	129
8003	GS1 Global Returnable Asset Identifier	n4	n14+an..16	GRAI	130
8004	GS1 Global Individual Asset Identifier	n4	an..30	GIAI	131
8005	Price Per Unit of Measure	n4	n6	PRICE PER UNIT	132
8006	Identification of the Components of a Trade Item	n4	n14+n2+n2	GCTIN	133
8007	International Bank Account Number	n4	an..30	IBAN	134
8008	Date and Time of Production	n4	n8+n..4	PROD. TIME	134
8018	GS1 Global Service Relation Number	n4	n18	GSRN	135
8020	Payment Slip Reference	n4	an..25	REF. NO.	136
8100	GS1-128 Coupon extender Code – U.P.C Prefix + Offer Code	n4	n1+n5	-	136
8101	GS1-128 Coupon Extender Code – U.P.C Prefix + Offer Code + End of Offer Code	n4	n1+n5+n4	-	137
8102	GS1-128 Coupon Extended Code – U.P.C Prefix	n4	n1+n1	-	137
90**	Information Mutually Agreed Between Trading Partners (Including FACT DIs)	n2	an..30	INTERNAL	138
91-99**	Company Internal Information	n2	an..30	INTERNAL	138

* When only year and month are required DD must be filled with "00".

** The actual data title may be specified by the issuer of the data.

*** The fourth digit of this AI, "s", indicates the sequence of the processors in the supply chain.

TABLE 42 List of Application Identifiers





AI (00) - Identification of a Logistic Unit

Data Format n18

Data Title SSCC

AI	Ext. Digit	GS1 Company Prefix →	Serial Reference ←	Check Digit
00	0-9	n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃ n ₁₄ n ₁₅ n ₁₆ n ₁₇		n ₁₈

TABLE 43 AI (00) Structure

Assign AI (00) to the serial coding of shipping containers.

AI (00) uniquely identifies logistic units. It also enables you to identify trade items which are packed differently from one transport package to another, for example, where trade items are picked and packed to meet individual orders. This supports operations such as despatch, distribution, and receiving non-standardised packages.

The Extension Digit is used to increase the capacity of the serial reference within the SSCC. It is assigned by the company that constructs the SSCC.

The GS1 Company Prefix used should belong to the company originating the logistic unit, which is not always the brand owner. It makes the SSCC unique worldwide but does not identify the origin of the unit.

If you have obtained a prefix to allocate twelve-digit GTINs either directly from GS1 US, GS1 Canada or via GS1 Australia, you must add a filler zero to the front of the prefix after the Extension Digit.

The Serial Reference is structured at the discretion of the company responsible for its assignment to uniquely identify each transport package. The method used to allocate the serial reference is at the discretion of the company bar coding the unit.

The Check Digit is mathematically calculated and ensures the whole number is correct. Correct calculation is essential for successful scanning of the bar code.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org.

For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 53.

Note: The AI (00) is not part of the Check Digit calculation.

For either method of calculating the Check Digit use the SSCC option.

For more information on numbering logistic units refer to chapter 3 Logistic Units on page 58.



AI (01) - Identification of a Trade Item

Data Format n14

Data Title GTIN

	AI	Global Trade Item Number (GTIN)	Check Digit
GTIN-12	01	0 0 n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃	n ₁₄
GTIN-13	01	0 n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃	n ₁₄
GTIN-14	01	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃	n ₁₄

TABLE 44 AI (01) Structure

Assign AI (01) to identify the Global Trade Item Number (GTIN). The solution using AI (01) and the GTIN, does not replace the standards for marking non-retail trade items with an EAN-13, UPC-A or ITF-14 Bar Code. It is provided as an alternative solution for specific applications.

The GTIN can include a GTIN-12, GTIN-13, or GTIN-14.

The Check Digit is mathematically calculated and ensures the whole number is correct. Correct calculation is essential for successful scanning of the bar code.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org.

For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 53.

Note: The AI (01) is not part of the Check Digit Calculation.,

For either method of calculating the Check Digit use the GTIN-14 option.

For a description of the number structures, see chapter 2 Numbering Trade Items on page 14.



AI (02) - Identification of Trade Items Contained in a Logistic Unit

Data Format n14

Data Title CONTENT

AI	GTIN of the Contained Trade Items	Check Digit
02	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃	n ₁₄

TABLE 45 AI (02) Structure

AI (02) may be used only on a logistic unit that is not itself a trade item, and if all trade items that are contained at the same level have the same GTIN.

The GTIN of the Contained Trade Items represents the identification number of the highest level of trade item contained in the logistic unit. If the GTIN of the contained trade items is a GTIN-12 or GTIN-13, add either one or two filler zeros respectively in front of the GTIN to increase it to a fourteen-digit number.

The Check Digit is mathematically calculated and ensures the whole number is correct. Correct calculation is essential for successful scanning of the bar code.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org.

For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 53.

Note: The AI (02) is not part of the Check Digit Calculation.

For either method of calculating the Check Digit use the GTIN-14 option.

AI (02) must always be followed with AI (37) - Quantity. It is also a requirement that this AI must be used in conjunction with AI (00) - Serial Shipping Container Code. AI (02) should never appear on a unit that already carries a unique GTIN.

For more information on numbering logistic units refer to chapter 3 Logistic Units on page 58.



AI (10) - Batch or Lot Number

Data Format an..20

Data Title BATCH/LOT

AI	Batch or Lot Number
10	$a_{n_1} - \text{variable} - a_{n_{20}}$

TABLE 46 AI (10) Structure

Assign AI (10) to identify a batch or lot number. The batch number may refer to either the trade item itself or to items contained. You can use up to twenty alphabetic and/or numeric characters, not including the AI.

Examples of information you can include in AI (10) are:

- production line numbers
- shift numbers
- time of production

Any internal structures encoded into a batch or lot number need not be used by a company other than the one creating the number. Other companies must use the complete number to identify the batch or lot number unambiguously. This is particularly important in situations such as a product recall.

AI (10) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.



AI (11) - Production Date

Data Format n6 (YYMMDD)

Data Title PROD DATE

AI	Year	Month	Day
11	n ₁ n ₂	n ₃ n ₄	n ₅ n ₆

TABLE 47 AI (11) Structure

Assign AI (11) to identify the production date. This is the production or assembly date determined by the manufacturer. The date may refer to the trade item itself or to items contained.

The standard length of a date is six digits, in the format year, month, day (YYMMDD). Please see Calculation of Year on page 81 for more information.

AI (11) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.

AI (12) - Due Date for Amount on Payment Slip

Data Format n6 (YYMMDD)

Data Title DUE DATE

AI	Year	Month	Day
12	n ₁ n ₂	n ₃ n ₄	n ₅ n ₆

TABLE 48 AI (12) Structure

Assign AI (12) to identify the date by which the invoice should be paid.

The standard length of a date is six digits, in the format year, month, day (YYMMDD). Please see Calculation of Year on page 81 for more information.

Since this information is an attribute of a Payment Slip Reference Number and the Global Location Number (GLN) of the invoicing party, it must always be used in conjunction with AI (8020) - Payment Slip Reference and AI (415) - Global Location Number of the Invoicing Party.



AI (13) - Packaging Date

Data Format n6 (YYMMDD)

Data Title PACK DATE

AI	Year	Month	Day
13	n ₁ n ₂	n ₃ n ₄	n ₅ n ₆

TABLE 49 AI (13) Structure

Assign AI (13) to identify the packaging date. This is the date when the goods were packed as determined by the packager. The date may refer to the trade item itself or to items contained.

The standard length of a date is six digits, in the format year, month, day (YYMMDD). Please see Calculation of Year on page 81 for more information.

AI (13) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.

AI (15) - Best Before Date

Data Format n6 (YYMMDD)

Data Title BEST BEFORE or SELL BY

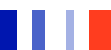
AI	Year	Month	Day
15	n ₁ n ₂	n ₃ n ₄	n ₅ n ₆

TABLE 50 AI (15) Structure

Assign AI (15) to indicate the best before date for the ideal consumption or best effective use date of a product. This is a statement about the quality of the trade item, and may also be referred to as a sell by date or minimum durability date.

The standard length of a date is six digits, in the format year, month, day (YYMMDD). Please see Calculation of Year on page 81 for more information.

AI (15) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.





AI (17) - Expiration Date

Data Format n6 (YYMMDD)

Data Title USE BY or EXPIRY

AI	Year	Month	Day
17	n ₁ n ₂	n ₃ n ₄	n ₅ n ₆

TABLE 51 AI (17) Structure

Assign AI (17) to indicate an expiration date, a date that determines the limit of consumption or use of a trade item. It is a statement about public safety and is often referred to as a use by date or maximum durability date.

The standard length of a date is six digits, in the format year, month, day (YYMMDD). Please see Calculation of Year on page 81 for more information.

AI (17) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.

AI (20) - Product Variant

Data Format n2

Data Title VARIANT

AI	Variant Number
20	n ₁ n ₂

TABLE 52 AI (20) Structure

AI (20) may be used to distinguish a variant from the usual item if the variation is not sufficiently significant to require a separate GTIN and is relevant only to the brand owner and any third party acting on its behalf.

The product variant is only for use by the brand owner and any third party acting on its behalf and not for dealings with any other trading partners. The product variant shall not be used where the variation would trigger the allocation of a different GTIN per the GTIN Allocation Rules.

The variant number must only be assigned by the brand owner. It forms a subsidiary numbering facility that can be used in addition to the item's GTIN and allows the creation of 100 variants of a particular trade item. Example, some types of promotions which do not require the allocation of a different GTIN, minor packaging design changes, side loading as opposed to top loading cases. Do not, however, use a product variant number previously used as a different variant of the same trade item until the number has been discontinued for the last twelve months.

Beyond the brand owner and any third party acting on its behalf the data from AI(20) transmitted by a bar code reader is decoded and ignored.

AI (20) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.





AI (21) - Serial Number

Data Format an..20

Data Title SERIAL

AI	Serial Number
21	an ₁ – variable – an ₂₀

TABLE 53 AI (21) Structure

Assign AI (21) to identify a serial number.

A serial number is a unique alpha or alpha-numeric number assigned by a company to an entity for its lifetime. Combined with a GTIN the serial number uniquely identifies each individual trade item. Use any structure to generate the serial number. However, it must be possible for any company to use the combination GTIN/serial number for identifying a specific trade item, regardless of the actual structure of the number.

AI (21) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN).

AI (22) - Secondary Data for Specific Health Industry Products (HIBCC)

Data Format an..29

Data Title QTY/DATE/BATCH

AI	Secondary Data Fields
22	an ₁ – variable – an ₂₉

TABLE 54 AI (22) - Structure

Note: GS1 has established 01 Jan 2013 as the global Sunset date for AI(22) as no continuing business rationale for it exists. After this date, GS1 will return AI(22) to the numbers available for assignment to new Application Identifier requirements.

Assign AI (22) to indicate a specific HIBCC Alternate Secondary Data Structure. This data structure includes an optional quantity field, an optional data field, a lot/batch or serial number, and a LINK character.

AI (22) must always be used in conjunction with the GTIN.

This AI must not be used in conjunction with AI (10) - Batch or Lot Number, AI (17) - Expiration Date, AI (21) - Serial Number, or AI (30) - Variable Count on the same item/unit at the same time.

This application is used in the USA as an addition to the GTIN for hospital pack pharmaceuticals. It was developed to accommodate an existing, non-GS1 System, standard used for specific healthcare products. AI (22) is not recommended for new applications or other industries. The use of AI (17) - Expiration Date and AI (10) - Batch or Lot Number is recommended instead.



AI (240) - Additional Product Identification Assigned by the Manufacturer

Data Format an..30

Data Title ADDITIONAL ID

AI	Additional Item Identification
240	an ₁ – variable – an ₃₀

TABLE 55 AI (240) Structure

AI (240) is used for the coding of additional item identification assigned by the manufacturer.

The data is structured at the discretion of the issuing company. The purpose of AI (240) is to enable identification data other than the GTIN to be represented in a GS1 Bar Code. It is a cross-reference to previously used catalogue numbers. The additional item identification is considered as an attribute of the GTIN e.g. to facilitate migration to the GS1 System during a transitional period. However, it must not be used to replace the GTIN.

AI (240) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.

AI (241) - Customer Part Number

Data Format an..30

Data Title CUST. PART NO.

AI	Customer Part Number
241	an ₁ – variable – an ₃₀

TABLE 56 AI (241) Structure

The purpose of AI (241) is to enable identification data other than the GTIN to be represented in an GS1 Bar Code. It is only to be used between trading partners that are currently using the customer part number for ordering and have agreed to a timetable to convert to the GTIN for their business purposes. The use of the GTIN and the AI (241) on the trade items is for transitional use while the conversion is taking place. The customer part number must not be used to replace the GTIN.

The customer part number is structured at the discretion of the purchaser of the goods.

AI (241) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.





AI (242) - Made-to-Order Variation Number

Data Format n...6

Data Title VARIATION NUMBER

AI	Made-to-Order Variation Number
242	$n_1 - \text{variable} - n_6$

TABLE 57 AI (242) Structure

The Made-to-Order Variation Number provides the additional data needed to uniquely identify a custom trade item.

There is a mandatory association of AI (242) with a GTIN-14, Indicator Digit 9. This association indicates that the GTIN-14, Indicator Digit 9 represents a custom trade item when paired with AI (242.)

A Made-to-Order Variation Number **may not** be used with the following GTINs: GTIN-8, GTIN-12, GTIN-13, and GTIN-14 Indicator Digit 1 through 8. The use of a GTIN-14, Indicator Digit 9 and a Made-to-Order Variation Number is only approved for the Maintenance, Repair, and Operation (MRO) industrial supply sector.

AI (242) will never appear alone, but always in conjunction with the GTIN-14, Indicator Digit 9.

AI (250) - Secondary Serial Number

Data Format an...30

Data Title SECONDARY SERIAL

AI	Secondary Serial Number
250	$an_1 - \text{variable} - an_{30}$

TABLE 58 AI (250) Structure

While the serial number encoded using AI (21) contains the serial number of the trade item/s, AI (250) is assigned to the coding of the serial number of one of the components of that item.

The secondary serial number may be generated from the primary serial number of the main trade item.

The issuer of the number should define detailed rules for using it. For example, the electronics industry could assign AI (250) to the identification of a chassis serial number.

It is the issuer's responsibility to associate the secondary serial number with the primary item identification number of the trade item to which it relates. Use of this AI in an open environment does not guarantee a unique and unambiguous secondary serial number.

AI (250) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and AI (21) - Serial Number.





AI (251) - Reference to Source Entity

Data Format an..30

Data Title REF. TO SOURCE

AI	Reference to Source Entity
251	$a_{n_1} - \text{variable} - a_{n_{30}}$

TABLE 59 AI (251) Structure

Use AI (251) to refer back to the original item the trade item was derived from.

For example, this may be useful for tracking the original animal from which a carcass of beef is derived. In the event that the original animal was found to be contaminated, all derived products could be isolated.

It may also be used for regulatory compliance when recycling parts from various white goods, such as refrigerators, where it is necessary to refer to the original appliance.

AI (251) must always be used in conjunction with the GTIN of the trade item.

AI (253) - Global Document Type Identifier (GDTI)

Data Format n13+n..17

Data Title DOC. ID

AI	GS1 Company Prefix	Document Type	Check Digit	Serial Component (Optional)
253	$n_1 n_2 n_3 n_4 n_5 n_6 n_7 n_8 n_9 n_{10} n_{11} n_{12}$		n_{13}	$n_1 - \text{variable} - n_{17}$

TABLE 60 AI (253) Structure

Assign AI (253) to identify a Global Document Type Identifier (GDTI).

The number is formed with your allocated GS1 Company Prefix, the document type reference which is assigned by the document user, and the Check Digit. The number is allocated in the same way as you allocate a number for a retail trade item. Refer to chapter 2 Numbering Trade Items on page 14.

If you have obtained a prefix to allocate twelve-digit GTINs either directly from GS1 US , GS1 Canada or via GS1 Australia, you must add a filler zero to the front of the prefix after the Application Identifier.

The optional serial component is assigned to a single document for its lifetime. When combined with a GDTI it uniquely identifies an individual document. The serial component field is numeric and may contain up to seventeen digits. The issuer of the document determines the serial component.



AI (254) - GLN Extension Component

Use AI (254) when the data field contains an extension component of a Global Location Number (GLN).

The use of AI (254) is optional but when used it must appear in conjunction with AI (414), identification of a physical location.

The GS1 Company Prefix owner determines the extension component. Once determined, it is unchanged for the life of the associated GLN.

Data Format an..20

Data Title GLN EXTENSION

AI	GLN Extension Component
254	$n_1 - \text{variable} - n_{20}$

TABLE 61 AI (254) Structure

AI (30) - Variable Count

Data Format n..8

Data Title VAR. COUNT

AI	Count of Items
30	$n_1 - \text{variable} - n_8$

TABLE 62 AI (30) Structure

Assign AI (30) to identify the number of items contained in a Variable Measure Trade Item.

AI (30) must not be used to indicate the contained quantity of a Fixed Measure Trade Item. However, if this AI appears on a Fixed Measure Trade Item (in error) it should not invalidate the item identification but should be treated as redundant data.

In order to generate a short bar code, always enter an even number of digits in the data field by inserting a leading zero.

AI (30) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9), or AI (02) - GTIN of Trade Items Contained in a Logistic Unit, a variable measure GTIN, and AI (37) - Count of Trade Items Contained in a Logistic Unit.





AI (310n) - Net Weight – Kilograms – Trade

Data Format n6

Data Title NET WEIGHT (kg)

AI	Value
310n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 63 AI (310n) Structure

Assign AI (310n) to identify the net weight in kilograms of a trade item. Use this weight in trading transactions as the basis for calculating the invoice amount.

The fourth digit in the AI represents the decimal point indicator, which shows where the decimal point belongs in the actual encoded value. For example, the digit 0 means that there is no decimal point, and the digit 1 means that the decimal point is between n₅ and n₆. If the digit is 3 the decimal point would be between n₃ and n₄

$$(3100)000035 = 000035\text{kg} = 35\text{kg}$$

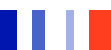
$$(3103)000035 = 0000\overbrace{35}^{3\ 2\ 1}\text{kg} = 0.035\text{kg} = 35\text{g}$$

In other words, starting at the very right of the measurement data field, count to the left between the digits by the amount stated in the decimal point indicator.

Note: That in the final expanded measurement, the decimal point may appear before the field of six digits, for example:

$$(3109)000035 = 0.\overbrace{00000000}^{9\ 8\ 7\ 6\ 5\ 4\ 3\ 2\ 1}35\text{kg}$$

AI (310n) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9), or AI (02) - GTIN of Trade Items Contained in a Logistic Unit, a variable measure GTIN, and AI (37) - Count of Trade Items Contained in a Logistic Unit.





AI (311n) - Length or First Dimension – Metres – Trade

Data Format n6

Data Title LENGTH (m)

AI	Value
311n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 64 AI (311n) Structure

Assign AI (311n) to identify the length or the maximum horizontal dimension, in metres, of a trade item placed in its normal position.

For further information on the fourth digit (n), please refer to page 104.

AI (311n) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9) or AI (02) - GTIN of Trade Items Contained in a Logistic Unit, a variable measure GTIN, and AI (37) - Count of Trade Items Contained in a Logistic Unit.

AI (312n) - Width, Diameter or Second Dimension – Metres – Trade

Data Format n6

Data Title WIDTH (m)

AI	Value
312n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 65 AI (312n) Structure

Assign AI (312n) to identify the width, diameter, or second dimension of a trade item in metres.

For further information on the fourth digit (n), please refer to page 104.

AI (312n) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9).





AI (313n) - Depth, Thickness, Height or Third Dimension – Metres – Trade

Data Format n6

Data Title HEIGHT (m)

AI	Value
313n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 66 AI (313n) Structure

Assign AI (313n) to identify the depth, thickness, height, or third dimension of a trade item in metres.

For further information on the fourth digit (n), please refer to page 104.

AI (313n) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9).

AI (314n) - Area – Square Metres – Trade

Data Format n6

Data Title AREA (m²)

AI	Value
314n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 67 AI (314n) Structure

Assign AI (314n) to identify the area, in square metres of a trade item, normally arrived at by multiplying the length by the width.

For further information on the fourth digit (n), please refer to page 104.

AI (314n) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9), or AI (02) - GTIN of Trade Items Contained in a Logistic Unit, a variable measure GTIN, and AI (37) - Count of Trade Items Contained in a Logistic Unit.





AI (315n) - Net Volume – Litres – Trade

Data Format n6

Data Title NET VOLUME (l)

AI	Value
315n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 68 AI (315n) Structure

Assign AI (315n) to identify the net volume of a trade item in litres.

For further information on the fourth digit (n), please refer to page 104.

AI (315n) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9), or AI (02) - GTIN of Trade Items Contained in a Logistic Unit, a variable measure GTIN, and AI (37) - Count of Trade Items Contained in a Logistic Unit.

AI (316n) - Net Volume – Cubic Metres – Trade

Data Format n6

Data Title NET VOLUME (m³)

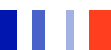
AI	Value
316n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 69 AI (316n) Structure

Assign AI (316n) to identify the net volume of a trade item in cubic metres, or the measurement normally arrived at by multiplying the maximum length, width, and height of a trade item.

For further information on the fourth digit (n), please refer to page 104.

AI (316n) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9), or AI (02) - GTIN of Trade Items Contained in a Logistic Unit, a variable measure GTIN, and AI (37) - Count of Trade Items Contained in a Logistic Unit.





AI (330n) - Gross Weight – Kilograms – Logistic

Data Format n6

Data Title GROSS WEIGHT (kg)

AI	Value
330n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 70 AI (330n) Structure

Assign AI (330n) to identify the gross weight of a logistic unit (the weight of the goods includes the packaging).

For further information on the fourth digit (n), please refer to page 104.

The AI (330n) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9), or AI (00) - Serial Shipping Container Code (SSCC).

AI (331n) - Length or First Dimension – Metres – Logistic

Data Format n6

Data Title LENGTH (m), log

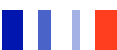
AI	Value
331n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 71 AI (331n) Structure

Assign AI (331n) to identify the length or first dimension of a logistic unit or the maximum horizontal dimension, in metres, of a logistic unit placed in its normal position.

For further information on the fourth digit (n), please refer to page 104.

AI (331n) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9), or AI (00) - Serial Shipping Container Code (SSCC).





AI (332n) - Width, Diameter or Second Dimension – Metres – Logistic

Data Format n6

Data Title WIDTH (m), log

AI	Value
332n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 72 AI (332n) Structure

Assign AI (332n) to identify the width, diameter, or the second dimension of a logistic unit in metres.

For further information on the fourth digit (n), please refer to page 104.

AI (332n) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9), or AI 00 - Serial Shipping Container Code (SSCC).

AI (333n) - Depth, Thickness, Height or Third Dimension – Metres – Logistic

Data Format n6

Data Title HEIGHT (m), log

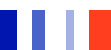
AI	Value
333n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 73 AI (333n) Structure

Assign AI (333n) to identify the depth, thickness, height or third dimension of a logistic unit in metres.

For further information on the fourth digit (n), please refer to page 104.

AI (333n) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9), or AI (00) - Serial Shipping Container Code (SSCC).





AI (334n) - Area – Square Metres – Logistic

Data Format n6

Data Title AREA (m²), log

AI	Value
334n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 74 AI (334n) Structure

Assign AI (334n) to identify the area, in square metres of a logistic unit, normally arrived at by multiplying the length by the width.

For further information on the fourth digit (n), please refer to page 104.

AI (334n) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9), or AI (00) - Serial Shipping Container Code (SSCC).

AI (335n) - Gross Volume – Litres – Logistic

Data Format n6

Data Title VOLUME (l), log

AI	Value
335n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 75 AI (335n) Structure

Assign AI (335n) to identify gross volume in litres of a logistic unit.

For further information on the fourth digit (n), please refer to page 104.

AI (335n) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9), or AI (00) - Serial Shipping Container Code (SSCC).





AI (336n) - Gross Volume – Cubic Metres – Logistic

Data Format n6

Data Title VOLUME (m³), log

AI	Value
336n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 76 AI (336n) Structure

Assign AI (336n) to identify the gross volume in cubic metres, or the measurement normally arrived at by multiplying the maximum length, width, and height, of a logistics item.

For further information on the fourth digit (n), please refer to page 104.

AI (336n) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 with 9), or AI (00) - Serial Shipping Container Code (SSCC).

AI (337n) - Kilograms Per Square Metre

Data Format n6

Data Title KG PER m²

AI	Value
337n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 77 AI (337n) Structure

Assign AI (337n) to indicate that the encoded data represents an exact measure of the kilograms per square metre of the trade item.

For further information on the fourth digit (n), please refer to page 104.

AI (337n) must always be associated with AI (01) - Global Trade Item Number (GTIN)



AI (37) - Count of Trade Items Contained in a Logistic Unit

Data Format n..8

Data Title COUNT

AI	Count of Trade Items
37	n ₁ – variable – n ₈

TABLE 78 AI (37) Structure

Assign AI (37) to identify the number of trade items contained within a logistic unit.

AI (37) is not stand alone and must only ever be used in conjunction with AI (02) - GTIN of Trade Items Contained within a Logistic Unit and AI (00) - Serial Shipping Container Code (SSCC).

AI (390n) - Amount Payable - Single Monetary Area

Data Format n..15

Data Title AMOUNT

AI	Applicable Amount Payable
390n	n ₁ – variable – n ₁₅

TABLE 79 AI (390n) Structure

Use AI (390n) to identify the amount payable of a payment slip expressed in the local currency.

To aid unambiguous processing AI (391n) should be used to indicate the currency in which the amount is expressed.

The fourth digit in the AI, “n”, indicates the implied decimal point position where, for example, the digit zero (0) means that there is no decimal point and the digit one (1) means that the decimal point is before the last position of the amount payable.

This information is an attribute to the payment slip reference number and the Global Location Number (GLN) and therefore must always be used in conjunction with AI (8020) - Payment Slip Reference and AI (415) - Global Location Number of the Invoicing Party.

As only one amount payable may be applied on a payment slip this must not be associated with AI (391n) - Amount Payable - With ISO Country Code.





AI (391n) - Amount Payable - With ISO Currency Code

Data Format n3+n..15

Data Title AMOUNT

AI	ISO Currency Code	Applicable Amount Payable
391n	n ₁ n ₂ n ₃	n ₄ – variable – n ₁₈

TABLE 80 AI (391n) Structure

Use AI (391n) to encode the amount payable of a payment slip which is expressed in the indicated currency.

The fourth digit in the AI, “n”, indicates the implied decimal point position where, for example, the digit zero (0) means that there is no decimal point and the digit one (1) means that the decimal point is before the last position of the amount payable.

The data consists of the three-digit ISO country code using the ISO 4217 standard followed by the applicable amount payable.

This information is an attribute of the payment slip reference number and the Global Location Number (GLN) and therefore must always be used in conjunction with the AI (8020) - Payment Slip Reference and AI (415) - Global Location Number of the Invoicing Party.

As only one amount payable may be applied on a payment slip this must not be associated with AI (390n) - Amount Payable - Single Monetary Area.

AI (392n) - Amount Payable for a Variable Measure Trade Item – Single Monetary Area

Data Format n..15

Data Title PRICE

AI	Applicable Amount Payable
392n	n ₁ – variable – n ₁₅

TABLE 81 AI (392n) Structure

Use AI (392n) to encode the amount payable in a single monetary area for a trade item which carries a variable measure GTIN, expressed in local currency.

The fourth digit in the AI, “n”, indicates the implied decimal point position where, for example, the digit zero (0) means that there is no decimal point and the digit one (1) means that the decimal point is before the last position of the amount payable.

AI (392n) is used as an attribute to a Variable Measure Trade Item, and therefore must always be used in conjunction with a variable measure GTIN (a GTIN-14 starting with 9). It cannot be used with AI (393n).





AI (393n) - Amount Payable for a Variable Measure Trade Item and ISO Currency Code

Data Format n3+n..15

Data Title PRICE

AI	ISO Currency Code	Applicable Amount Payable
393n	n ₁ n ₂ n ₃	n ₄ – variable – n ₁₈

TABLE 82 AI (393n) Structure

Use AI (393n) to encode the amount payable with ISO currency code for a Variable Measure Trade Item expressed in the indicated currency. The data consists of the three-digit ISO country code from the ISO/IEC 4217 standard to indicate the currency followed by the actual amount payable.

The fourth digit in the AI, “n”, indicates the implied decimal point position where, for example, the digit zero (0) means that there is no decimal point and the digit one (1) means that the decimal point is before the last position of the amount payable.

AI (393n) is used as an attribute to a variable measure trade item, and therefore must always be used in conjunction with a variable measure GTIN (a GTIN-14 starting with 9). It cannot be used with AI (392n).

AI (400) - Customer’s Purchase Order Number

Data Format an..30

Data Title ORDER NO.

AI	Customer’s Purchase Order Number
400	a _{n1} – variable – a _{n30}

TABLE 83 AI (400) Structure

Assign AI (400) to identify the customer’s purchase order number or the number assigned by the buyer to an order. It may also include release and line numbers at the discretion of the issuer.

Representing the purchase order number in bar code form allows you to check receipts of goods and automatically match the trade items to a delivery note and/or purchase order. In addition, it can facilitate more accurate invoice matching procedures.

AI (400) may be processed as stand-alone information where applicable or processed with the identification data of the same unit.

AI (400) and its associated data must be removed from the unit before the unit leaves the premises of the customer.





AI (401) - Global Identification Number for Consignment (GINC)

Data Format an..30

Data Title GINC



TABLE 84 AI (401) Structure

The Global Identification Number for Consignment is assigned to identify a logical grouping of goods (one or more physical entities) that has been consigned to a freight forwarder and is intended to be transported as a whole. The consignment number must be allocated by a freight forwarder (or carriers acting as a freight forwarder) or a consignor, but only if the prior agreement of the freight forwarder is given.

- A freight forwarder is a party that arranges the carriage of goods including connected services and/or associated formalities on behalf of a shipper or consignee
- A carrier is a party that undertakes the transportation of goods from one point to another
- A consignor is the party that sends the goods and a consignee the party that receives the goods

Normally AI (401) is used in conjunction with AI (00) - Serial Shipping Container Code (SSCC). The SSCC individually identifies each parcel being part of a shipment. The consignment number may be marked on the different components of a shipment to provide a common reference.

The GS1 Company Prefix used is the one belonging to the carrier.

If you have obtained a prefix to allocate twelve-digit GTINs either directly from GS1 US, GS1 Canada or via GS1 Australia, you must add a filler zero to the front of the prefix after the Application Identifier.

The Consignment Information is assigned at the discretion of the organisation issuing the number.

The GINC may be processed as stand-alone information where applicable or with other identification data appearing on the same unit.

An individual GINC must not be reallocated within one year of the shipment date from the freight forwarder assigning the GINC to a transport. However prevailing regulatory or industry organisation specific requirements may extend this period.

Note: If a new consignment is created, previous consignment data must be removed from the physical units.



AI (402) - Global Shipment Identification Number (GSIN)

Data Format n17

Data Title GSIN

AI	GS1 Company Prefix	Shipper Reference	Check Digit
402	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃ n ₁₄ n ₁₅ n ₁₆		n ₁₇

TABLE 85 AI (402) Structure

The Global Shipment Identification Number is a number assigned by a seller (sender) of the goods. It provides a globally unique number that identifies a logical grouping of physical units for the purpose of a transport shipment. It may be used by all parties in the transport chain as a communication reference, for example, in Electronic Data Interchange (EDI) messages where it can be used as a shipment reference and/or a consignor's loading list.

Note: When referring to multiple logistic unit identification for trade, GS1 uses the term shipment and when referring to multiple logistic unit identification for transport, GS1 uses the term consignment.

The GS1 Company Prefix used is the one belonging to the consignor.

If you have obtained a prefix to allocate twelve-digit GTINs either directly from GS1 US, GS1 Canada or via GS1 Australia, you must add a filler zero to the front of the prefix after the Application Identifier.

The Shipper Reference is assigned by the consigner. It is recommended that numbers are allocated sequentially.

The Check Digit is mathematically calculated and ensures the whole number is correct. Correct calculation is essential for successful scanning of the bar code.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org.

For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 53.

Note: The AI (402) is not part of the Check Digit Calculation.

For either method of calculating the Check Digit add a filler zero to the front of the number (this does not effect the calculation) and use the SSCC option.

An individual GSIN must not be reallocated within ten years of the shipment date from the seller or third party logistics provider (sender) of the GSIN to a trading partner buyer (recipient) to comply with the regulations of the World Customs Organisation (WCO). For goods that circulate within one country (domestic transport) the period of re-use is based on either governmental, industry or the discretion of the seller (sender) of the goods. However prevailing regulatory or industry organisation specific requirements may extend this period.

The GSIN may be processed as stand alone information where applicable or with the identification data appearing on the same unit.





AI (403) - Routing Code

Data Format an..30

Data Title ROUTE

AI	Routing Code
403	an ₁ – variable – an ₃₀

TABLE 86 AI (403) Structure

Assign AI (403) to encode data which represents the routing code as determined by the transport company.

AI (403) is an attribute to the Serial Shipping Container Code (SSCC) and is intended to provide a migration path to the adoption of a yet-to-be-defined international solution.

The routing code must not be used to encode information which could be encoded in a separate AI (such as a Ship to Postal Code).

The routing code's contents and structure are at the discretion of the parcel carrier issuing the code. If a parcel carrier wishes to enter co-operative agreements with other parcel carriers, then a mutually agreed indicator is required to indicate the structure of the routing code.

AI (403) is an attribute to the SSCC it must be used in conjunction with AI (00) - Serial Shipping Container Code (SSCC).

AI (410) - Ship To – Deliver To Global Location Number (GLN)

Data Format n13

Data Title SHIP TO LOC.

AI	GS1 Company Prefix	Location Reference	Check Digit
410	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂		n ₁₃

TABLE 87 AI (410) Structure

Assign AI (410) to indicate the GLN of the party to which goods should be delivered. This data may be processed independently or together with related identifications.

For more information on Global Location Numbers refer to chapter 4, section 4.1 Numbering Locations on page 72.



AI (411) - Bill To – Invoice To Global Location Number (GLN)

Data Format n13

Data Title BILL TO

AI	GS1 Company Prefix	Location Reference	Check Digit
411	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂		n ₁₃

TABLE 88 AI (411) Structure

Assign AI (411) to indicate the GLN identifying the party to whom an invoice is issued.

For more information on Global Location Numbers refer to chapter 4, section 4.1 Numbering Locations on page 72.

AI (412) - Purchased from Global Location Number (GLN)

Data Format n13

Data Title PURCHASE FROM

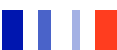
AI	GS1 Company Prefix	Location Reference	Check Digit
412	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂		n ₁₃

TABLE 89 AI (412) Structure

Assign AI (412) to indicate the GLN of the company from which the respective trade item has been purchased.

This data may be processed independently or together with related identifications.

For more information on Global Location Numbers refer to chapter 4, section 4.1 Numbering Locations on page 72.





AI (413) - Ship For – Deliver For – Forward to Global Location Number (GLN)

Data Format n13

Data Title SHIP FOR LOC.

AI	GS1 Company Prefix	Location Reference	Check Digit
413	$n_1 n_2 n_3 n_4 n_5 n_6 n_7 n_8 n_9 n_{10} n_{11} n_{12}$		n_{13}

TABLE 90 AI (413) Structure

AI (413) contains the GLN of the internal or subsequent final destination of a physical unit. This AI can be used in conjunction with AI (410) - Ship To, where the Ship-To GLN identifies the location of the intermediary destination such as a warehouse or cross docking station.

This data may be processed independently or together with related identifications.

Note: This data is for the internal use of the consignee and is not to be used by the carrier.

For more information on Global Location Numbers refer to chapter 4, section 4.1 Numbering Locations on page 72.

AI (414) - Identification of a Physical Location – Global Location Number (GLN)

Data Format n13

Data Title LOC. NO.

AI	GS1 Company Prefix	Location Reference	Check Digit
414	$n_1 n_2 n_3 n_4 n_5 n_6 n_7 n_8 n_9 n_{10} n_{11} n_{12}$		n_{13}

TABLE 91 AI (414) Structure

AI (414) is assigned to identify the GLN of a physical location. The GS1-128 Bar Code encoding AI (414) and the GLN will normally be fixed to the physical location being identified.

For more information on Global Location Numbers refer to chapter 4, section 4.1 Numbering Locations on page 72.



AI (415) - Global Location Number of the Invoicing Party

Data Format n13

Data Title PAY TO

AI	GS1 Company Prefix	Location Reference	Check Digit
415	$n_1 n_2 n_3 n_4 n_5 n_6 n_7 n_8 n_9 n_{10} n_{11} n_{12}$		n_{13}

TABLE 92 AI (415) Structure

Assign AI (415) to identify the GLN of the invoicing party to be used on a payment slip. This AI and its associated data are mandatory information for use on a payment slip. Together with AI (8020) - Payment Slip Reference Number, it identifies a payment slip uniquely.

AI (415) must always be used in conjunction with AI (8020) - Payment Slip Reference.

For more information on Global Location Numbers refer to chapter 4, section 4.1 Numbering Locations on page 72.

AI (420) - Ship to – Deliver to Postal Code Within a Single Postal Authority

Data Format an..20

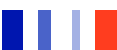
Data Title SHIP TO POST

AI	Postal Code
420	$a_{n_1} - \text{variable} - a_{n_{20}}$

TABLE 93 AI (420) Structure

Assign AI (420) to indicate the postal code of the party to which goods should be delivered. It is assumed that the “ship from” and “ship to” parties are located under the same postal authority.

AI (420) cannot be used in conjunction with AI (421) on the same unit at the same time.





AI (421) - Ship to – Deliver to Postal Code With Three-Digit ISO Country Code

Data Format n3+an..9

Data Title SHIP TO POST

AI	ISO Country Code	Postal Code
421	n ₁ n ₂ n ₃	a _{n4} – variable – a _{n13}

TABLE 94 AI (421) Structure

Assign AI (421) to indicate the ISO country code and the postal code of the party to which goods should be delivered. It is assumed that the “ship from” and “ship to” parties are located under different postal authorities.

Use the country codes established in the International Standards ISO 3166.

AI (421) cannot be used in conjunction with AI (420) on the same unit at the same time.

AI (422) - Country of Origin of a Trade Item

Data Format n3

Data Title ORIGIN

AI	ISO Country Code
422	n ₁ n ₂ n ₃

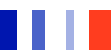
TABLE 95 AI (422) Structure

AI 422 is assigned to identify the country of origin. The country of origin is normally the country in which the goods have been produced or manufactured. However, due to a wide range of definitions for country of origin, it is the manufacturer’s responsibility to ensure that the correct country of origin is assigned.

The country of origin, calculated according to the appropriate rules, is coded according to the three-digit ISO 3166 standards.

AI (422) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.

AI (422) must not be used in conjunction with AI (426) - Country Covering Full Process Chain on the same item at the same time.





AI (423) - Country of Initial Processing

Data Format n3+n..12

Data Title COUNTRY – INITIAL PROCESS.

AI	ISO Country Code(s)
423	n ₁ n ₂ n ₃ ... n ₁₅

TABLE 96 AI (423) Structure

Assign AI (423) to encode the ISO country code(s) of the country or countries of initial processing of the trade item. The country of initial processing is normally the country in which the trade item has been produced or manufactured. However, in certain applications such as livestock fattening, there may be up to five different countries involved in the initial processing. It is the responsibility of the supplier to allocate the correct country code(s).

The country of origin is coded according to the three-digit ISO 3166 standards.

AI (423) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.

AI (423) must not be used in conjunction with AI (426) - Country Covering Full Process Chain on the same item at the same time.

AI (424) - Country of Processing

Data Format n3

Data Title COUNTRY – PROCESS

AI	ISO Country Code
424	n ₁ n ₂ n ₃

TABLE 97 AI (424) Structure

Assign AI (424) to identify the ISO country code of the country of processing of the trade item. It is the responsibility of the processor of the trade item to allocate the correct country code.

The country of origin is coded according to the three-digit ISO 3166 standards.

AI (424) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.

AI (424) must not be used in conjunction with AI (426) - Country Covering Full Process Chain on the same item at the same time.





AI (425) - Country of Disassembly

Data Format n3

Data Title COUNTRY – DISASSEMBLY

AI	ISO Country Code
425	n ₁ n ₂ n ₃

TABLE 98 AI (425) Structure

Assign AI (425) to identify the ISO country code of the country of disassembly of the trade item. It is the responsibility of the party doing the disassembly of the trade item to allocate the correct country code.

The country of origin is coded according to the three-digit ISO 3166 standards.

AI (425) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.

AI (425) must not be used in conjunction with AI (426) - Country Covering Full Process Chain on the same item at the same time.

AI (426) - Country Covering Full Process Chain

Data Format n3

Data Title COUNTRY – FULL PROCESS

AI	ISO Country Code
426	n ₁ n ₂ n ₃

TABLE 99 AI (426) Structure

Assign AI (426) to identify the ISO country code of the country where all the processing of the trade item took place. If this AI is used, the full processing of a trade item must have taken place in a single country. This is particularly important in certain applications, such as livestock (where it would cover things such as the animal's birth, fattening and slaughter), where processing could take place in different countries. In situations like this, AI 426 may not be used. It is the responsibility of the supplier to allocate the correct country code.

The country of origin is coded according to the three-digit ISO 3166 standards.

AI (426) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.



AI (7001) - NATO Stock Number (NSN)

Data Format n13

Data Title NSN

AI	NATO Supply Classification	Assigning Country	Sequential Number
7001	n ₁ n ₂ n ₃ n ₄	n ₅ n ₆	n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃

TABLE 100 AI (7001) Structure

The NATO stock number is the number allocated to any item of supply in the NATO Alliance. It is the responsibility of the country that manufactures or controls the design of the item to allocate the number.

This is only for use within the context of the supply within the NATO Alliance. Use of it is subject to the rules and regulations of the Allied Committee 135 (AC/135), the NATO Group of National Directors on Codification.

AI (7001) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.

AI (7002) - UN/ECE Meat Carcasses and Cuts Classification

Data Format an..30

Data Title MEAT CUT

AI	UN/ECE Product Classification
7002	an ₁ – variable – an ₃₀

TABLE 101 AI (7002) Structure

Assign AI (7002) to encode the UN/ECE product classification.

This AI is only for use within the context of UN/ECE standards for the quality of meat carcasses and cuts (bovine, porcine, ovine, and caprine).

AI (7002) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.





AI (7003) - Expiration Date and Time

Data Format n10(YMMDDHHMM)

Data Title EXPIRY DATE/TIME

AI	Expiry Date and Time				
	Year	Month	Day	Hour	Minutes
7003	n1n2	n3n4	n5n6	n7n8	n9n10

TABLE 102 AI (7003) Structure

The manufacturer determines the expiration date and time, which is relevant only for short duration and for items that will not be sent on long distances and not outside of the time zone. A typical application of AI (7003) is in hospitals or public pharmacies for special, customised, products which may have a "life duration" shorter than one single day.

Where there is no business requirement to express the expiration date to the nearest hour (or less), AI (17) Expiration Date should be used.

The structure is:

- Year:** the tens and units of the year (e.g., 2007 = 07), which is mandatory
- Month:** the number of the month (e.g., January = 01), which is mandatory
- Day:** the number of the day of the relevant month (e.g., second day = 02), which is mandatory.
- Hour:** the number of the hour based on local 24-hour time (e.g., 2 p.m. = 14), which is mandatory
- Minutes:** the number of the minutes based on local time (e.g., 15 minutes. = 15); if it is not necessary to specify the minutes, the field must be filled with two zeros. Time will then be interpreted as ending on the hour (e.g., 14:00 = expiry time at 14:00)

AI(7003) should be associated with the GTIN to which it relates.



AI (7004) - Active Potency

Data Format n...4

Data Title ACTIVE POTENCY

AI	Active Potency
7004	n ₁ – variable – n ₄

The Active Potency of certain healthcare products (e.g. certain biologics, such as haemophilia products) varies by batch, and this will vary, within agreed tolerances, from the Nominal Potency of the trade item.

Both the Nominal Potency and the Active Potency of the item are measured in International Units (IUs).

The Active Potency must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and AI(10) - Batch or Lot Number of the trade item to which it relates.

Printing of the Active Potency on the item is controlled by regulation. Human Readable Interpretation of the Active Potency is not required on the trade item.



AI (703s) - Approval Number of Processor With Three-Digit ISO Country Code

Data Format n3+an..27

Data Title PROCESSOR # s

AI	ISO Country Code	Approval Number of Processor
703s	n ₁ n ₂ n ₃	an ₄ – variable – an ₃₀

TABLE 103 AI (703s) Structure

The AI (703s) indicates that the data field contains the ISO country code (n3) and approval number of the processor (an..27) of a trade item. As many processors may be involved, each with an individual approval number, the fourth digit of the AI indicates the sequence of the processors. For a typical meat supply chain, the following sequence would be used:

- AI (7030) slaughterhouse
- AI (7031) first deboning/cutting hall
- AI (7032) to (7037) second through seventh processing location (cutting hall)
 - 7038 slaughterhouse
 - 7039 slaughterhouse

The approval number of the processor designates the approval number of the company who did the processing. The approval number is usually assigned by a national or pluri-national authority.

AI (703s) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.



AI (8001) - Roll Products - Width, Length, Core Diameter, Direction, Splices

Data Format n14

Data Title DIMENSIONS

AI	Variable Values of a Roll Product				
8001	n ₁ n ₂ n ₃ n ₄	n ₅ n ₆ n ₇ n ₈ n ₉	n ₁₀ n ₁₁ n ₁₂	n ₁₃	n ₁₄

TABLE 104 AI (8001) Structure

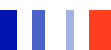
Owing to the method of production, some roll product cannot be numbered according to standard criteria which have been determined in advance. They are, therefore, classified as variable items. For those products where the standard trade measures are not sufficient, the following guidelines should be used.

The identification of a roll product consists of the GTIN and the variable attributes. The basic product (e.g. a certain type of paper) is numbered with a GTIN-14 and the variables contain information about the special features of the particular trade item that has been produced.

The variable values of a roll product, n₁ to n₁₄, consist of the following data:

- n₁ – n₄ slit width in millimetres (width of roll) 4 digits
- n₅ – n₉ actual length in metres 5 digits
- n₁₀ – n₁₂ internal core diameter in millimetres 3 digits
- n₁₃ winding direction (face out 0, face in 1, undefined 9) 1 digit
- n₁₄ number of splices (0 to 8 = actual number, 9 = number unknown) 1 digit

AI (8001) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9).





AI (8002) - Cellular Mobile Telephone Identifier (CMTI)

Data Format an..20

Data Title CMT NO.

AI	Identifier
8002	$a_{n_1} - \text{variable} - a_{n_{20}}$

TABLE 105 AI (8002) Structure

The purpose of an Electronic Serial Identifier, AI (8002), for cellular mobile telephones (CMTI) is to uniquely identify a cellular phone within a given jurisdiction.

This information from the bar code can be used to automate and speed up the capture of CMTIs.

The CMTI is usually assigned by a national or pluri-national authority and can be carried by a bar code placed directly on the cellular phone. Issuing authorities must ensure that the Electronic Serial Identifier is unique for each cellular phone. However, because Electronic Serial Identifiers are assigned by different issuing authorities, they are not unique worldwide.



AI (8003) - Global Returnable Asset Identifier (GRAI)

Data Format n14+an..16(optional)

Data Title GRAI

AI	GS1 Company Prefix	Asset Type	Check Digit	Serial Number (Optional)
8003	0 n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃	n ₁₄	an ₁ – variable – an ₁₆	

TABLE 106 AI (8003) Structure

Assign AI (8003) to identify a global returnable asset as a physical item with no reference to the contents.

A returnable asset is a reusable package or transport equipment of a certain value such as a beer keg, gas cylinder, plastic pallet or crate. AI (8003) facilitates the tracking and inventory control of returnable assets.

The GS1 Company Prefix is the one allocated to the owner of the asset.

The GS1 Company Prefix must have one filler zero added as shown in the table above. If you have obtained a prefix to allocate twelve-digit GTINs, either directly from GS1 US, GS1 Canada or via GS1 Australia, you must add a second filler zero to the front of the prefix in position n₂.

The Asset Type is a number assigned by the owner of the asset to uniquely identify each type of asset.

The Check Digit is mathematically calculated and ensures the whole number is correct. Correct calculation is essential for successful scanning of the bar code.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org.

For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 53.

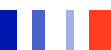
Note: The AI (8003) is not part of the Check Digit calculation.

For either method of calculating the Check Digit use the GTIN-14 option.

The Serial Number (optional) is assigned by the owner of the asset. It identifies an individual asset within a given asset type. The field is alphanumeric and variable in length up to 16 characters.

When it is not possible to assign an asset type (e.g. for museum exhibit), or when the type of asset is not required by the application (e.g. when the item is only used for a single type of asset then AI (8004) - Global Individual Asset Identifier (GIAI), should be used.

For more information on asset numbering refer to chapter 4 Numbering Assets on page 75.





AI (8004) - Global Individual Asset Identifier (GIAI)

Data Format an..30

Data Title GIAI

AI	GS1 Company Prefix →	Individual Asset Reference →
8004	$n_1 - n_g$	$a_{n_{g+1}} - \text{variable length} - a_{n_h} (h \leq 30)$

TABLE 107 AI (8004) Structure

AI (8004) is assigned for the unique identification of assets to provide a means to store relevant data.

An asset identified by AI (8004) is uniquely identified using the GS1 Company Prefix and an individual asset reference (serial number). The identification facilitates tracking and inventory control of the unique asset and recording the asset's:

- useable life cycle history
- calibration or test history
- history of the refilling of its contents
- assembled configuration history

AI (8004) may also be used when the combination of AI (01) - Global Trade Item Number (GTIN) and AI (21) - Serial Number is not appropriate. This is the case when no GTIN is available or when the GTIN is irrelevant to the application.

The GS1 Company Prefix is the one allocated to the company assigning the individual asset reference.

If you have obtained a prefix to allocate twelve-digit GTINs either directly from GS1 US or via GS1 Australia, you must add a filler zero to the front of the prefix, after the Application Identifier.

The Individual Asset Reference is allocated and structured at the discretion of the holder of the GS1 or U.P.C. Company Prefix. The data can be alphanumeric, and is of variable length, ensuring that the entire GIAI is not longer than 30 characters.

The exact method used to allocate the GIAI is left to the discretion of the issuing organisation. However, each GIAI must be unique for each individual asset being identified and, for ease of administration, the GS1 System recommends that GIAIs be allocated sequentially and not contain classifying elements.

AI (8004) may not be used to replace AI (00) - Serial Shipping Container Code (SSCC) or a GTIN.

For more information on asset numbering refer to chapter 4 Numbering Assets on page 75



AI (8005) - Price Per Unit of Measure

Data Format n6

Data Title PRICE PER UNIT

AI	Price Per Unit of Measure
8005	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 108 AI (8005) Structure

Assign AI (8005) to indicate the price per unit of measure of price marked goods on a Variable Measure Trade Item to discriminate price variants of the same item. It is considered as an attribute of the respective trade item and not as part of its identification.

This AI can be used when manufacturers source-mark the customer retail price on variable weight products, at the request of their customers.

AI (8005) should only be used when the source-marked customer retail price is variable between non-retail trade items.

Content and structure of the price per unit of measure field are left to the discretion of the trading partners.

AI (8005) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9), or AI (02) - GTIN of Trade Items Contained in a Logistic Unit, a variable measure GTIN, and AI (37) - Count of Trade Items Contained in a Logistic Unit.



AI (8006) - Identification of the Components of a Trade Item

Data Format n14+n2+n2

Data Title GCTIN

AI	Global Trade Item Number (GTIN)	Relative number of the Component Within the Assembly	Total Number of Components in the Assembly
8006	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃ n ₁₄	n ₁₅ n ₁₆	n ₁₇ n ₁₈

TABLE 109 AI (8006) Structure

AI (8006) identifies a parcel, which is part of an item identified with a GTIN. In some industries (such as furniture), a unit intended to be sold to the final consumer may be composed of several physical parcels. This AI is marked on each individual physical unit of the same retail unit. In shipping or receiving applications, it ensures that all components of the same retail unit are present.

The GTIN is the number under which the whole item is traded.

The Relative Number Field shows the consecutive number of a particular component within the assembly. A component of a given trade item must always be identical for the respective trade item.

The Total Number Field shows the total number of components of the trade item.

This AI should never be used on retail units which may be sold separately.

The AI (8006) can never be associated with another GTIN.



AI (8007) - International Bank Account Number (IBAN)

Data Format an..30

Data Title IBAN

AI	International Bank Account Number
8007	$a_{n_1} - \text{variable} - a_{n_{30}}$

TABLE 110 AI (8007) Structure

Use AI (8007) to indicate the International Bank Account Number (IBAN) as defined in ISO 13616. The standard specifies the elements of an IBAN that are used to facilitate international processing of data in financial environments and other industries.

It indicates the International Bank Account Number to which the amount of the respective payment slip is to be transferred. The invoicing party determines the applicable bank account number.

AI (8007) must always be used in conjunction with AI (8020) - Payment Slip Reference and AI (415) - Global Location Number (GLN) of the Invoicing Party.

AI (8008) - Date and Time of Production

Data Format n8+n..4(optional)

Data Title PROD TIME

AI	YY	MM	DD	HH	MM (Optional)	SS (Optional)
8008	$n_1 n_2$	$n_3 n_4$	$n_5 n_6$	$n_7 n_8$	$n_9 n_{10}$	$n_{11} n_{12}$

TABLE 111 AI (8008) Structure

Assign AI (8008) to encode both the date and time of production or assembly as determined by the manufacturer. The date and time may refer to the trade item itself or to the trade items contained.

The standard length of this data is variable up to twelve digits (with eight being mandatory and four being optional) in the format: year, month, day, hour, minutes, seconds (YYMMDDHHMMSS). For year calculation see Figure 17 on page 81.

AI (8008) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit.





AI (8018) - Global Service Relation Number (GSRN)

Data Format n18

Data Title Ref No

AI	GS1 Company Prefix	Service Reference	Check Digit
8018	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃ n ₁₄ n ₁₅ n ₁₆ n ₁₇		n ₁₈

TABLE 112 AI (8018) Structure

Assign AI (8018) to identify a Global Service Relation Number (GSRN).

When this number is used, the service provider must be identified by other means, such as a company card. If security is required, such as for monetary transactions, the security must be provided through other means.

The GS1 Company Prefix is the one allocated to the service provider.

If you have obtained a prefix to allocate twelve-digit GTINs either directly from GS1 US or via GS1 Australia, you must add a filler zero to the front of the prefix, after the Application Identifier.

The Service Reference is structured at the discretion of the company responsible for its assignment (the service provider).

The Check Digit is mathematically calculated and ensures the whole number is correct. Correct calculation is essential for successful scanning of the bar code.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org.

For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 53.

Note: The AI (8018) is not part of the Check Digit calculation.

For either method of calculating the Check Digit use the SSCC option.

The GSRN must remain unique for a period well beyond the lifetime of the records relevant to this service relationship.



AI (8020) - Payment Slip Reference Number

Data Format an..25

Data Title REF. NO.

AI	Payment Slip Reference Number
8020	$a_{n_1} - \text{variable} - a_{n_{25}}$

TABLE 113 AI (8020) Structure

Assign AI (8020) to identify the Payment Slip Reference Number.

The Payment Slip Reference Number, assigned by the invoicing party, is information identifying a payment slip within a given Global Location Number (GLN) of the invoicing party. Together with the GLN of the invoicing party it identifies a payment slip uniquely.

AI (8020) must be used in conjunction with AI (415) - Global Location Number of the Invoicing Party.

AI (8100) - Coupon Extended Code – U.P.C. Prefix + Offer Code

Data Format n1+n5

AI	U.P.C. Prefix	Offer Code
8100	n_1	$n_2 \ n_3 \ n_4 \ n_5 \ n_6$

TABLE 114 AI (8100) Structure

AI (8100) identifies the U.P.C. Prefix followed by a five-digit offer code generated by the coupon issuer.

The Offer Code is assigned by the issuer and identifies a particular promotion.

The Coupon Extender code is an attribute always used in conjunction with the GS1 US coupon number.

For more information regarding coupon numbers in Australia please refer to chapter 2, section 2.2.7 Coupons on page 35.





AI (8101) - Coupon Extended Code – U.P.C. Prefix + Offer + End of Offer Code

Data Format n1+n5+n4

AI	U.P.C. Prefix	Offer Code	Expiration Date (Month + Year)
8101	n ₁	n ₂ n ₃ n ₄ n ₅ n ₆	n ₇ n ₈ n ₉ n ₁₀

TABLE 115 AI (8101) Structure

AI (8101) identifies the U.P.C. Prefix followed by a five-digit offer code, followed by a four-digit expiration date (MMYY).

The Offer Code is assigned by the issuer and identifies a particular promotion.

The Expiration Date indicates the end of the redemption period of the coupon.

The Coupon Extender code is an attribute always used in conjunction with the GS1 US coupon number.

For more information regarding coupon numbers in Australia please refer to chapter 2, section 2.2.7 Coupons on page 35.

AI (8102) - Coupon Extended Code – U.P.C. Prefix

Data Format n1+n1

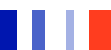
AI	Filler Digit	U.P.C. Prefix
8102	0	n ₁

TABLE 116 AI (8102) Structure

AI (8102) data consists of the U.P.C. Prefix preceded by a filler zero.

It is an attribute always used in conjunction with the GS1 US coupon number.

For more information regarding coupon numbers in Australia please refer to chapter 2, section 2.2.7 Coupons on page 35.





AI (90) - Information Mutually Agreed Between Trading Partners (Including FACT DIs)

Data Format an..30

Data Title INTERNAL

AI	Data field
90	a ₁ – variable – a ₃₀

TABLE 117 AI (90) Structure

AI (90) identifies information of any kind mutually agreed between trading partners with distribution restricted to the trading partners.

Companies may devise their own internal numbering structures of any length up to thirty characters, formed from alphabetic and/or numeric characters.

The bar code containing AI (90) should be removed from any trade item that leaves the jurisdiction of the trading partners.

AI (91) to (99) - Company Internal Information

Data Format an..30

Data Title INTERNAL

AI	Data field
91-99	a ₁ – variable – a ₃₀

TABLE 118 AI (91) to (99) Structure

Assign AIs (91) through (99) to internal applications.

Companies may devise their own internal code structures for their own purposes and encode them together with these AIs at their own discretion. These AIs are not to be used for open trade applications.

As an additional security against ambiguity, these AIs should be removed from any item that leaves the jurisdiction of the company.

