EDI Documentation – UniBox (26.01.15)

The specifications and data of this document can be changed without a previous announcement. The companies, other firms or data used in the examples are, as far as nothing else is stated, imaginary.

The realization of the GLS EDI shipping system does not imply the right to infiltrate the created GLS „integrated router label“ into the GLS system. Only after a successful acceptance (see chapter 6 test and release / local release criterions) of the GLS EDI shipping system by GLS IT Services Denmark, it is allowed to print “integrated router labels” and send parcels into the GLS-system.

In the interests of our customers the GLS EDI shipping system is permanently optimized. In the course of these optimizations there can occur adoptions and extensions of basic courses according to the system. An already accepted EDI shipping system has to be adapted to the new demands within three months; otherwise the accorded operating license will expire.

Overview of GLS products and services

The UniBox supports dispatching of the following products

- BusinessParcel
- Euro BusinessParcel
- Business PalletSolution
- GLS Express’ SameDaySolution

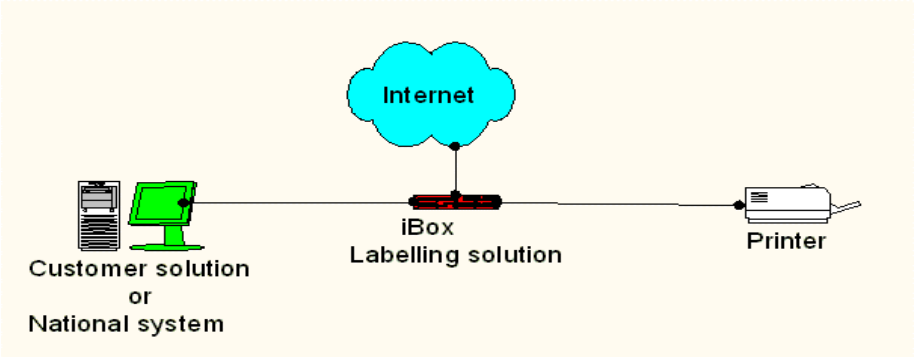
The UniBox supports dispatching of the following services

- CashService
- AddOnLiabilityService
- Express10Service
- Express12Service
- Pick&ReturnService (national)
- Pick&ShipService
- ShopDeliveryService (for parcel to DK, AU, DE, PL, BE)
- ShopReturnService (label print)
- ShopReturnService (mail with PDF label for customer)
- Mail advice
- DepositService
- AddresseeOnlyService

Overview

The UniBox includes the whole field of the parcel routing, the print activation (label print), the data communication, the day-end closing and the automatic GLS master data updating.

The UniBox is installed per interface cable or network between the shipping system, PC/Server and the printer.



The shipping system-software communicates via TAG-instructions (see chapter 0 TAG-Language in, page 2) with the UniBox. Within the TAG-sequence all information necessary for delivery, such as sender and receiver address, weight, wanted product type etc. are transmitted.

With the transmitted information the UniBox prepares the necessary delivery label and parcel data, passes the routing of the parcel, activates the connected printer and transmits the parcel data to the GLS system.

The UniBox owns a data communication connection to the GLS system, because for a high-quality dispatch the master data of the UniBox have to be updated and the parcel data has to be transmitted to the GLS system. It is possible to input necessary updates of the UniBox software over this data communication connection, without adoption of the software at the customer or a manual intervention.

Accessing the UniBox
The UniBox can be accessed like below.

Preferred solutions:

- Socket Communication: The dispatch system sends a TAG-Stream via Socket-Client to a defined port of the UniBox.
- NFS: the UniBox is part of the customer's network. The customer's UNIX dispatch system can access a defined directory via NFS.
- Samba: the UniBox is part of the customer's network. The customer's Windows dispatch system can access a defined directory via Samba.

Alternative solutions:

- Serial Communication: the UniBox is connected to the dispatch system via a serial 1:1 cable locally.
- Parallel Communication: the UniBox is connected to the dispatch system via a parallel cable locally.
- FTP: the UniBox is part of the customer's network. The dispatch system will upload the required TAG files into a defined directory.
- Accessing common UniBox published on the internet. Contact GLS IT Services Denmark for details.

Please always consult with GLS IT Services Denmark for choosing the right solution for your exact solution and demands!

Prints
The UniBox solution can work with printing like below.

Preferred solutions:

- Your system handles the printing.
  For this solution you need to be running Socket Communication and only one or two types of printers (e.g. ZPL and/or EPL printers). You will get the print stream back in the socket communication, and can do with it what you will.

- The UniBox handles the printing on network printers.
  For this solution you can run all available communication methods and one or two types of printers. In the TAG stream you will inform the printer which has to be used for this specific print. You yourself have to maintain the printers via CUPS software on the UniBox.

TAG-Language in general
The UniBox normally acts like a cable. All information and control characters are transmitted unmodified from the particular used input to the particular output. If the UniBox recognizes the Start-TAG defined by GLS, the proximate data will be evaluated until the receipt of the end-TAG. The

UniBox uses this information to print the actual parcel ticket and to transmit the data to the central server directly after day-end closing.

Please note that within the transmitted data the divider Pipe („|“) are used by GLS and are not allowed to be used in you data!

```
\\\\\GLS\\\\\ T<Tagnumber>:<tagvalue>| /////GLS/////
```

The following example shows how a data stream to the UniBox for a standard national parcel looks like – when the UniBox administrated the number ranges:

```
\\\\\GLS\\\\\T020:LPR, lpr -r -PMST|T021:|T050:Navision|T051:Version
2.6|T100:DK|T207:BP|T330:6000|T530:2.51|T545:29.10.2014|T750:BUSINESS
PARCEL|T800:Sender:|T805:2080060990|T810:General Logistics
Systems|T811:|T820:Kokmose
3|T821:DK|T822:6000|T823:Kolding|T850:Receiver:|T851:Client
No:|T852:|T853:REF-NR:|T854:ABC123abc|T860:Testfirma A/S|T862:Hans Hansen|
T863:Vejlevej 168|T864:Kolding|
T8970:A|T8971:A|T8974:|T8795:Y|T8796:A|T8904:1|T8905:1|T8980:AA|/////GLS///
//
```

The following example shows how a data stream to the UniBox for a standard national , with COD and AddOnLia parcel looks like – when the customer administrate the number ranges:

```
\\\\\GLS\\\\\T020:LPR, lpr -r -PMST|T021:|T050:Navision|T051:Version
2.6|T100:DK|T203:C|T207:COD;AOI|T220:5000|T221:DKK|
T330:6000|T530:2.51|T545:29.10.2014|T750:BUSINESS
PARCEL|T800:Sender:|T805:2080060990|T810:General Logistics
Systems|T811:|T820:Kokmose
3|T821:DK|T822:6000|T823:Kolding|T850:Receiver:|T851:Client
No:|T852:|T853:REF-NR:|T854:ABC123abc|T860:Testfirma A/S|T862:Hans Hansen|
T863:Vejlevej 168|T864:Kolding|T1262:9500|T8794:6099012345|
T8970:A|T8971:A|T8974:D|T8795:Y|T8796:A|T8904:1|T8905:1|T8980:AA|/////GLS//
///
```

The following example shows how a data stream to the UniBox for a national parcel, with ShopDeliveryService – when the UniBox administrated the number ranges:

```
\\\\\GLS\\\\\T020:LPR, lpr -r -
PZebraPrinter|T021:ZebraGLSLabelPrinter|T100:DK|T207:SHD|T330:6000|T530:2.5
1|T545:01.06.2011|T203:|T750:SHOPDELIVERY|T800:Sender:|T805:2080060990|T810
:General Logistics Systems A/S|T811:GLS Logistikhotel|T820:Kokmose
3|T821:DK|T822:6000|T823:Kolding|T850:Receiver:|T851:Client
No:|T852:|T853:REF-NR:|T854:ABC123abc|T860:GLS Pakke Shop
Kolding|T861:Thomas Hansen |T862:Pakkeshop:96606|T863:Kokmose
3|T864:Kolding|T1020:25241100|T1021:test@gls-
denmark.com|T8794:|T8795:Y|T8796:2080060990|
T8904:1|T8905:1|T8914:2080000000|T8915:2080060990| T8970:A|T8971:A|
T8980:AA|T8974:n|/////GLS/////
```

The following example shows how a data stream to the UniBox for a ShopReturnService /PDF label for customer national parcel – when the UniBox administrated the number ranges:

```
\\\\\GLS\\\\\T020:LPR, lpr -r -
PZebraPrinter|T021:ZebraGLSLabelPrinter|T090:NOPRINT|T100:DK|T207:SRS|T330:
6000|T530:2.51|T545:01.06.2011|T203:|T750:SHOPRETURN|T751:PREPAID|
T800:Sender:|T805:2080060990|T810:Hans Hansen|T811:|T820:Bygaden
27|T821:DK|T822:5500|T823:Middelfart|T850:Receiver:|T851:Client
No:|T852:|T853:REF-NR:|T854:ABC123abc|T860: GLS Denmark
A/S|T861:|T862:|T863:Kokmose 3|T864:Kolding|T1020:25241100|T1021:test@gls-
denmark.com|T8794:|T8795:Y|T8796:2080060990|T8798:E|T8904:1|T8905:1|
T8970:A|T8971:A|T8914:2080000000|T8915:2080060990|T8980:AA|T8974:d|/////GLS
/////
```

The following example shows how a data stream to the UniBox for a standard international parcel looks like:

```
\\\\\GLS\\\\\T020:LPR, lpr -r -
PZebraPrinter|T021:ZebraGLSLabelPrinter|T100:DE|T207:EBP|T330:12345|T530:2.
51|T545:01.06.2011|T750:EURO BUSINESS PARCEL|
T800:Sender:|T805:2080060990|T810:General Logistics Systems A/S|T811:GLS
Logistikhotel|T820:Kokmose
3|T821:DK|T822:6000|T823:Kolding|T850:Receiver:|T851:Client
No:|T852:|T853:REF-NR:|T854:|T860:Transport Germany|T862:Transport
Department|T863:Test Strasse  2-4|T864:Hamburg|T884:MR BEYER|
T8794:|T8795:N|T8796:2080060990|T8797:IBOXCUS|T8904:1|T8905:1|T8914:2080000
000|T8915:2080060990|T8970:A|T8971:A|T8974:|T8980:CC|/////GLS/////
```

The following example shows how a data stream to the UniBox for a standard national, with Mail advice, parcel looks like – when the UniBox administrated the number ranges:

```
\\\\\GLS\\\\\T020:LPR, lpr -r -
PZebraPrinter|T021:ZebraGLSLabelPrinter|T100:DK|T207:BP|T330:6000|T530:2.51
|T545:01.06.2011|T203:|T750:BUSINESS
PARCEL|T800:Sender:|T805:2080060990|T810:General Logistics Systems
A/S|T811:GLS Logistikhotel|T820:Kokmose
3|T821:DK|T822:6000|T823:Kolding|T850:Receiver:|T851:Client
No:|T852:|T853:REF-NR:|T854:ABC123abc|T860:GLS-DENMARK
A/S|T861:Logistikafdelingen|T863:Højager  2-4|T864:TÅSTRUP|T884:Lejlighed
25,opgang B|T1021:test@gls-denmark.com|T8798:E|T8248:Hans
Hansen|T8974:AA|T8794:|T8795:Y|T8796:2080060990|
T8904:1|T8905:1|T8914:2080000000|T8915:2080060990|
T8970:A|T8971:A|T8980:AA|/////GLS/////
```

TAG-Language and Products

Depending on the transacted parcel product, the shipping system has got extensive information- and disclosure-TAGs. This subchapter describes all kinds of TAG, which are now available. It is divided into the fields of the general TAG-definitions (TAGs which are used from all product types respectively which are available for all product types) and the fields of the product depending TAGs. Furthermore it is exactly defined which TAGs are mandatory fields and which are optional.

TAG	Example	Max. Length	Type	Description
T000:	6350010005	12	N M	CANCELLATION for parcel number
T010:	09999900023:9999900003	25	O	Reprint – old parcelnumber:new parcelnumber
T020:	LPR, lpr –r -Pprintername	25	A O/M	Printer-alias, also for selection of the Default-interface
T021:	Zebrazpl	25	A O	printer-name, includes the name of the template
T050:	Navision MBS 2.60	20	A M	Name of Software
T051:	Version DK 2.60.D	20	A,M	Version of software
T090:	NOSAVE	6	A O	Print label without saving on the box
T100:	DK	3	A M	Receiver Country code
T201:		2	A O	2-digit product code, booked for extensions
T202:		2	A O	2-digit product code, booked for extensions
T203:	C	2	A O	Cash code C
T204:	T	2	A O	Time definite code for Express 09:30 delivery
T207	P&S	10	A M	Tag used for product/services (see attached matrix)
T220:	15725,75	9	A O	COD amount, decimal divider , (comma)
T221:	DKK	3	A O/M	Currency for COD amount, Mandatory if COD parcel
T330:	2630	10	A M	Receiver zip code
T400	099999999952	12	N O	GLS Parcel number 11 digits + 1check digit (see page 28)
T530:	16.55	2.15	N M	Parcel weight, decimal divider , (point)
T545:	01.11.2014	10	A M	Date of shipping (sending date), format DD.MM.YYYY
T750-T759:	Business-Parcel	50	A M	Product information, specific content see corresponding product

				description, e.g. Cash-Service
T800:	Sender:	15	A M	Text-indication of sender address
T805:	2080063500	10	N M	GLS Customer number
T810:	GLS Denmark A/S	50	A M	Sender address1
T811:	IT Afdelingen	50	A O	Sender address2
T812:	Department EDP	50	A O	Sender address3
T820:	Kokmose 3	50	A M	Sender street and house number
T821:	DK	2	A M	Sender-country indicator
T822:	6000	10	A M	Sender zip code
T823:	Kolding	50	A M	Sender city name
T850:	Receiver:	15	A M	Text-indication of receiver address
T851:	Client No:	25	A O	Description of the customer number of the receiver
T852:	123456789	10	N O	Customers own number of the receiver
T853:	REF-NR:	15	A M	REF-NR: caption
T854:	12345678	15	A O	Customer Reference (searchable in Your-GLS T&T)
T860:	AS Transport ApS	30	A M	Receiver name1
T861:	Logistikafdelingen	30	A O	Receiver name2
T862:	Arno Kristiansen	30	A O	Attention
T863:	Højager 2-4	30	A M	Receiver street and house number
T864:	Høje Taastrup	30	A M	Receiver city name
T871:	+4576331100	12	N O	Receiver Phone number
T884		30	A O	Receiver street name2
T900	Hans Hansen A/S	30	A M	Pickup Name 1 for Pick&Ship
T901	Warehouse Dep.	30	A O	Pickup Name 2 for Pick&Ship
T902	Manager Office	30	A O	Pickup Street 2 for Pick&Ship
T903	H.C. Andersens Vej 25	30	A M	Pickup Street for Pick&Ship
T904	DK	2	A M	Pickup Countrycode for Pick&Ship
T905	8000	10	N M	Pickup Zipcode for Pick&Ship
T906	Aarhus	50	A M	Pickup City for Pick&Ship
T907	+4578945612	12	A M	Contact Telephone Number for Pick&Ship
T908	31.03.2011	10	N M	Pickup Date for Pick&Ship
T909	Call before pickup	30	A O	Info Text
T910	Peter Madsen	30	A M	Pickup Contact Name for Pick&Ship
T920:		30	A M	Comment 1 – transmitted to GLS – mandatory when choosing Deposit-Service
T921:		30	A O	Comment 2 – only on the label – not in data
T1020:	+4525252525	14	N O/M	Contact Mobile
T1021:	mail@mail.com	50	A O/M	Contact mail for ShopDelivery, ShopReturn and Mail advice for all parcels
T8248	Mr. Hansen		A O	Attention
T8696	P	1	A O/M	Pallet mark, if the shipment is a pallet this is mandatory
T8700	DK0060	8	A O	Alternative shipper location
T8748	Page 16	5	N O	Special function
T8794	6350010000	10/11	N M	GLS DK National Number tag - used for customer systems.
T8795	Y	1	A M	The presence of this tag indicates the TU is a domestic TU.
T8797	IBOXCUS	20	A M	Source Type. Official replacement for SOURCETYPE.
T8798	E	1	A O	Email flag, in relation to T1021
T8796	2080063500	10	N M	Shipper GLS CustomerID (same as T805)
T8904	1	3	N M	Parcel number in shipment
T8905	3	3	N M	Parcel amount in shipment
T8914	2080000000	10	N M	Shipper GLS ContactID
T8915	2080063500	10	N M	Shipper GLS CustomerID (same as T805)
T8970	A	1	A M	Used for 2D barcode

T8971	A	1	A M	Used for 2D barcode
T8974	D	1/2/3	A O	Service code used for 2D barcode (Mandatory when using services - see Product matrix)

Mandatory Tags to use for parcels send as ShopDeliveryService. Examples

T860:	Parcelshop Name	30	C M	Bilka Servicecenter
T861:	Receiver Name	30	C M	Hans Hansen
T862:	Parcelshop addr 2	30	C M	Pakkeshop: 97001
T863:	Parcelshop addr 1	30	C M	Agerøvej 7
T864:	Parcelshop cityname	30	C M	Tilst
T1020:	Customer Mobile number	14	N M	25252525
T1021:	Customer Email	50	C M	test@test.com

N = numeric, A = alphanumeric
M = mandatory field, O = optional field

Complete TAG description

T000: Cancellation of a printed label, if the label will not be used.
If a customer creates a label, and the label will not be used, the customer has to make a cancellation of the label before pick up time that day.

Ex: T000:060990123456 → 060990123456 is the parcel number.
No other values have to be sent with the tagstream.
Optional – depend of the use of this

T010: To initiate a reprint a data stream has to be sent with T010. This includes the original parcel number first and then the new parcel number.
This tag is only to be used when the customer is generating the parcel number from his own system and sent it in T8794.

T020: Printer alias.
This value will be customer unique depending on setup and way of accessing the UniBox.

Ex: LPR, lpr –r –PZebraGLSPrinterQueue
LPR = Line printing
Lpr –r –P = Must parameter
ZebraGLSPrinterQueue = The name of the printerqueue on the network, the name of the printer queue is for the customer to define themselves – not GLS specific.
Mandatory – if you want the printer to make the label

T021: Printer name and template name
This value will be customer unique and depends on specific choice of printer and label size.

Ex: ZebraGLSLabelPrinter → this can be defined by the customer
If nothing is inside this tag, default label will be selected by the UniBox.
Optional

T050: Name of software
The name of the software parsing the information to the UniBox.
Optional

T090: Tag for printing without saving or sending files without printing (can be used for tests)
Example if transaction should not be printed:
`\\\\\GLS\\\\\T090:NOPRINT|...////GLS/////`
Example if transaction should not be saved (Only to be used doing development):
`\\\\\GLS\\\\\T090:NOSAVE|...////GLS/////`
Example if transaction should not be saved nor printed:
`\\\\\GLS\\\\\T090:NOSAVE;NOPRINT|...////GLS/////`
Optional

T100: Receiver country code
2-digit alphanumeric ISO 3166 code for receiver country.
Example: Denmark is DK, Germany is DE.

EX. For DK parcels always set to T100:DK
Germany T100:DE
Mandatory

T201: **Optional**
T202: **Optional**

T203: Cash Service parcels
If the parcel is cash service, insert C as value here.
If the parcel is not COD, do not enter anything.

If this tag is set to T203:C → T220 has always to be set with a value Ex. 2000,00 (T220:2000,00) → T221 has to be set with the currency ex. DKK for Danish kroner (T221:DDK)
Mandatory if Tag T220 and T221 is filled and COD is needed.

T204: **Optional**
T207: Service tag (see matrix) **Mandatory**

T220 Amount for Cash-Service (COD) parcels.
If the parcel is COD the amount are entered here.
Amount has to be at least 1,00 DKK, and always with decimal divider , (comma). Always together with Tag T203 and T221
Mandatory if Tag T203 and T221 is filled and COD is needed.

T221 Currency for COD amount
This will always be DKK for Denmark.
Always together with Tag T203 and T221
Mandatory if Tag T203 and T220 is filled and COD is needed.

T330: The postal number of the receiver.
The delivery of parcels naturally is only possible with a correct delivery zip code. The UniBox will validate at every print if the zip code is correct for the given country. If the zip code is correct the print will be provided as normal, if the zip code is incorrect you will get an error, and the UniBox will not print a label!

Ex: T330:6000 → for Kolding.
Mandatory

T400: Parcel number
Enter the 11 digit national or 12 digit international parcel number here.
Check digits calculation is described on page 28

This tag is only filled if using the globale uniboxes

T530: Parcel weight
The weight of the parcel shall be entered here.
Weight has to be in whole numbers, if decimals are used, use , (point) as decimal divider.

Ex. of correct weight: 16.5 or 16.55 or just 16
Please secure that weight are always within the allowed range for the specific service and product!
T530:16.55
Mandatory

T545: Date of shipping
Enter the date where the parcels are turned over to GLS Denmark.
Normally this will be present day, but if the customer works long shifts or pack in advance it is critical that T545 is the exact date where GLS picks up the parcel
The format has to be DD.MM.YYYY, example: 31.01.2007
Mandatory

T750-759: These tags are used for information in relation to the selected product and service.
They have to correspond to the product and service chosen for the specific delivery.
The rest of the texts can be found in the product matrix
Please see extended information in the examples of how to generate the tags for the different parcel and product types.
Mandatory for the rules discript.

T800: Enter the text “Sender:”
Mandatory

T805: GLS CustomerID (Same as T8796)
Enter the 10-digit sender GLS costumer number.
Example: 2080063500
Mandatory

T810: Enter the sender address 1, please note that this is a mandatory field.
Mandatory

T811: Enter the sender address 2.
Optional

T812: Enter the sender address 3.
Optional

T820: Enter the sender street name and house number.
Mandatory

T821: Sender country code
2-digit alphanumeric ISO 3166 code for shipper country.
Example: Denmark is DK, Germany is DE.
Mandatory

T822: Senders postal number.
Mandatory

T823: Senders city name.
Mandatory

T850: Enter the text “Receiver:”
Mandatory

T851: Enter the text “Client No:”
Optional

T852: Customers own number of receiver.
If the sender wants their customer’s number on the label, enter it here.
Optional

T853: Enter the text “REF-Nr.”
Mandatory

T854: Customer Ref no. → Ex. ABC123abc
Optional

T860: Enter receiver name 1.
Mandatory

T861: Enter receiver name when it's a ShopDelivery parcel
Mandatory if ShopDelivery

T862: Attention name.
Enter Attention name when it's a ShopDelivery
Mandatory if ShopDelivery

T863: Receiver street and house number.
Mandatory

T864: Receiver city name.
Mandatory

T871: Receiver phone number - Ex. +457331100
Optional

T884: Receiver Street2 - Ex. Apartment 25

T900: Pickup Name 1 for Pick&Ship - Ex. Hans Hansen A/S
Mandatory if it's a Pick&Ship

T901: Pickup Name 2 for Pick&Ship - Ex. Warehouse Department
Optional

T902: Pickup Street 2 for Pick&Ship - Ex. Manager Office
Optional

T903: Pickup street for Pick&Ship - Ex. H.C. Andersens Vej 25
Mandatory if it's a Pick&Ship

T904: Pickup Countrycode for Pick&Ship - Ex. DK
Mandatory if it's a Pick&Ship

T905: Pickup Zipcode for Pick&Ship - Ex. 8000
Mandatory if it's a Pick&Ship

T906: Pickup City for Pick&Ship - Ex. Aarhus
Mandatory if it's a Pick&Ship

T907: Contact Telephone Number for Pick&Ship - Ex. +4578241556
Optional

T908: Pickup Date for Pick&Ship - Ex. 31.03.2011
Mandatory if it's a Pick&Ship

T909: Info text for Pick&Ship - Ex. Call before pickup
Optional

T910: Pickup Contact Name for Pick&Ship - Ex. Peter Madsen
Mandatory if it's a Pick&Ship

T920: Comment - Ex. Må stilles i hundehuset
Mandatory if it's a DepositService

T921: Comment - Ex. Må stilles i hundehuset
Optional

T1020: Contact Mobile phone number
Optional

T1021: Contact mail
For ShopDelivery parcels always Mandatory
For ShopReturn parcels, with only one label which is send in an email to your customer, through GLS mail system as a PDF doc, the T1021 has to be filled.
For all other parcels a mail in T1021 will automatic send an advice to your customer first time the parcel has a scan in the GLS system.
T8798 must also be set to "E" for a mail to be sent.

T8248: Attention
Optional

T8696: Pallet mark
If the shipment is a pallet, enter P as value in this tag.
Always verify that the weight for a pallet has to be minimum 30,0 kg and maximum 500,0 kg.
Mandatory if shipment is P

T8700: Alternative shipper location.
Optional

T8748: The delivery of all parcels to one consignee can be activated by T8748. The T8748 has to be transmitted along with the data stream for every single parcel of a consignment. This is a special function

Example:
```
\\\\\GLS\\\\\T8748|T400:<parcel_no>|T545:<date>|….//////GLS/////
```
Optional

T8794: Parcel number
Enter the 10 digit national or 11 digit international parcel number here.

This tag is only filled if the box is not handling the number ranges administration.
Mandatory if it's not the UniBox that is taken care of the parcel number ranges administration.

T8795: Y/N
This tag indicates if the parcel is a domestic parcel
Mandatory

T8796: GLS CustomerID
Enter the 10-digit sender GLS customer number. Example: 2080063500
Mandatory

T8797: The source type – always set to "IBOXCUS"
Mandatory

T8798: Mail flag – must be set to "E"
This tag indicates if a mail is to be send to the Contact email in T1021
This in relation to ShopReturn mail-service, and T&T mail advice.
Optional

T8904: Parcel number in a shipment
Ex. T8904:1 → first parcel in a shipment
Mandatory

T8905: Parcel amount in a shipment
Ex. T8905:5 → 5 parcels in the shipment
Mandatory

T8914: GLS ContactID.
Set always to T8914:2080000000
Mandatory

T8915: GLS CustomerID (Same as T8796)
Mandatory

T8970: Used for 2D barcodes and always A
Mandatory

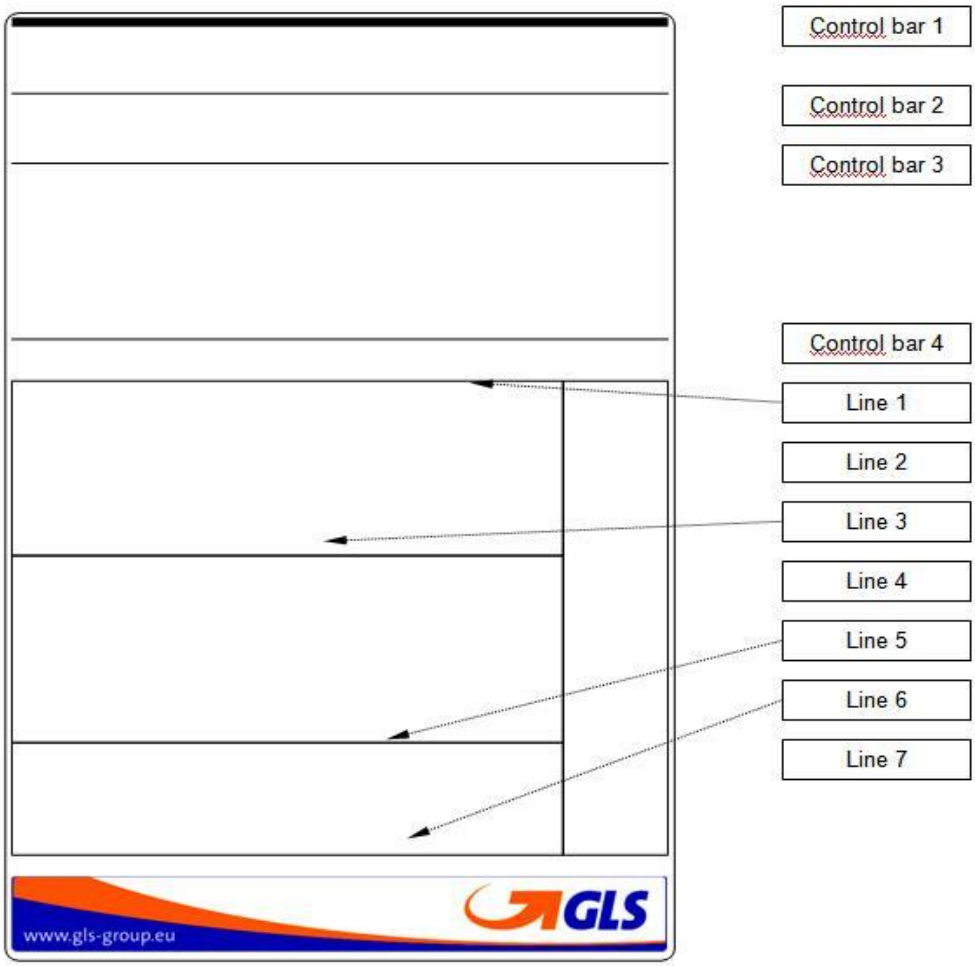
T8971: Used for 2D barcodes and always A
Mandatory

T8974: Service code used for 2D barcode. This is the service code that will be printed in primary 2D barcode. See product matrix for allowed combinations
Always 1 char → Ex. T8974:D
Mandatory if it's in the matrix

T8980: Product code used for 2D barcode. This is the product code that will be printed in the primary 2D barcode. See product matrix for allowed combinations. EX. T8980:AA
Mandatory if it's in the matrix

Label layout and definition
This type of label is printed by using the GLS UniBox.
The integrated UniCode contains all relevant routing and address information to guarantee a smooth transportation within the GLS network. The integrated UniCode consists of the UniCode and additional consignee and consignor information.
Inside the label there are 4 control bars. These control bars are used to check whether the print of the label was successful or not. The position of the control bars is described in the following chapter.

Position of control bars and lines

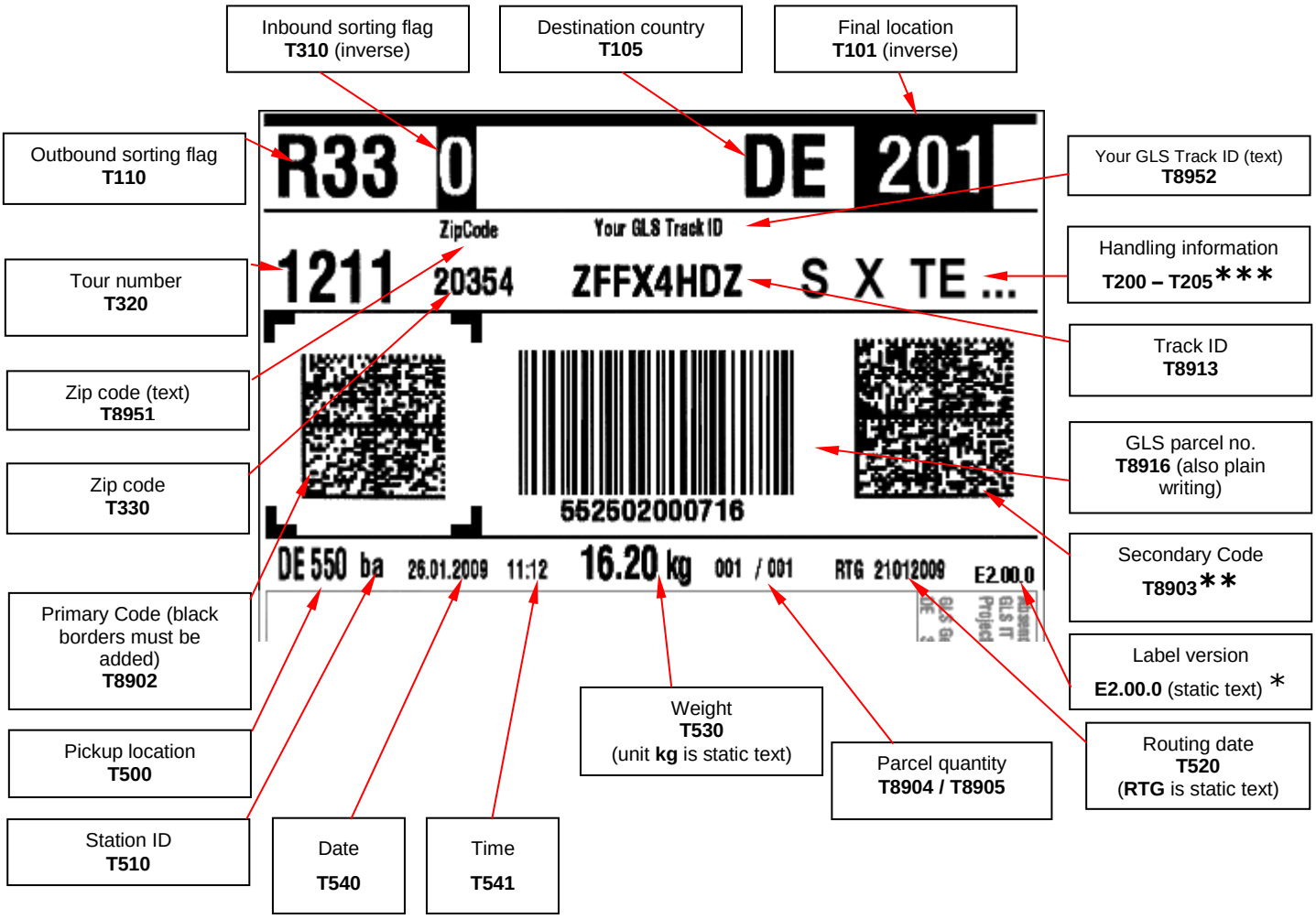


Pic. 7 integrated Router Label – position of control bars and lines

	Start		End		height
	x-axis	y-axis	x-axis	y-axis	
control bar 1	0	0	100	0	2
control bar 2	0	11,5	100	11,5	0,2
control bar 3	0	23	100	23	0,2
control bar 4	0	51	100	51	0,2
line 1	1	58	99	58	0,1
line 2	1	58	1	133	0,1
line 3	1	87	83	87	0,1
line 4	83	58	83	133	0,1
line 5	1	116	83	116	0,1
line 6	1	133	99	133	0,1
line 7	99	58	99	133	0,1

Table 3 integrated Router Label – position of control bars

Measurement of label and construction of label Hardware
For the use of the UniBox you need labels with a minimum of 100 mm x 150 mm.
Header of the label (including TAG description):



Integrated Router Label – Content
T8902 = Primary 2D barcode
T8903 = Secondary 2D barcode

The GLS Data Matrix Code (UniCode)

GLS is using 2D barcodes (UniCode). These **Data Matrix** Codes are based on the ECC 200 scheme. GLS reserves the right to change the type and the content of this bar code upon appropriate announcement.

The characteristics decisive for the machine readability of the bar codes are:

Zymology	: **Data Matrix ECC 200**
Standard	: **ISO/IEC 16022**
Symbol size	: **36x36 or 40x40**
Capacity	: **127 (max.)**
Correctable errors	: **21 (max.)**
Physical size	: **min. 18 x 18 mm**
Character set	: **ISO 8859-1 (LATIN1)**

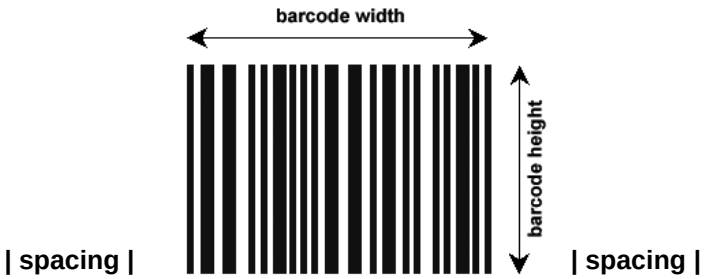
On the integrated routing label there are two data matrix codes. The **Primary Code** is located in the upper left corner. This code contains information about the Transport Unit and delivers complete routing information, which is necessary for the transportation of a parcel within the GLS System.

The **Secondary Code** in the upper right corner includes address data.

The GLS Denmark barcode

The bar code used in GLS Denmark is called **interleaved 2 of 5**. GLS Denmark reserves the right to change the type and the content of this barcode upon appropriate announcement.
The characteristics decisive for the machine readability of the barcodes are:

- ➔ the relation of the barcode modules to each other (bar strengths)
- ➔ the relation of the barcode height to the barcode width
- ➔ the compliance of the spacing
- ➔ the contrast of the single barcode modules and the paper
- ➔ the plausibility of the check digit



Spacing:	At least **5 mm** to each side	
Aspect Ratio:	Relation of barcode height to barcode width	
Parcel number barcode:	0,57 : 1	Aspect Ratio = **57 %**
Barcode height:	20 mm	
Barcode width:	Small bar Wide bar Ratio	**0,25 mm** **0,50 mm** **1:2**

UniCode and barcode

The parcel number is printed on the routing label as data matrix and barcode information. This code information is for the automatic sorting of the parcels at the reloading point and for the faster data capturing of the parcel numbers.

Human Readable

The human readable information on the integrated routing label is for the determination of the consignee and for the identification of special features. The following has to be indicated in detail:

- ➔ consignee's address (street and number as large as possible to ensure that the driver can assign the parcel)
- ➔ parcel information (parcel weight, shipping information)
- ➔ consignor's address
- ➔ shipping date
- ➔ check date (date of the last master data update, corresponds with the file – date of the routing files provided by the depot)
- ➔ routing information (the EPL-number large, inverse and underlined, to ensure that the number can be clearly identified when sorting manually)
- ➔ parcel number and APL-depot
- ➔ parcel weight – characteristic
- ➔ parcel product – characteristic

Print Quality

In order to reach a sufficient print quality the integrated routing label has to be printed **exclusively** with a laser printer, a thermo-transfer printer or a thermo-direct printer.

Content

1. Station ID

The Station ID indicates where the Label has been printed. There are two options:

Option 1 – aa	Indicates that the Label was printed out of a Customer Solution. Therefore these values are the Station ID´s. Values for boxes are from aa to zz and for connect are 1a-9z possible.
Option 2 – www	Indicates that the Label was printed out of the WebPortal.

2. Additional Service Information

This field is used to display additional information if the TU is sent with a service offered by GLS.

3. Consignee Information

The complete consignee information will appear here.

4. B2C Information

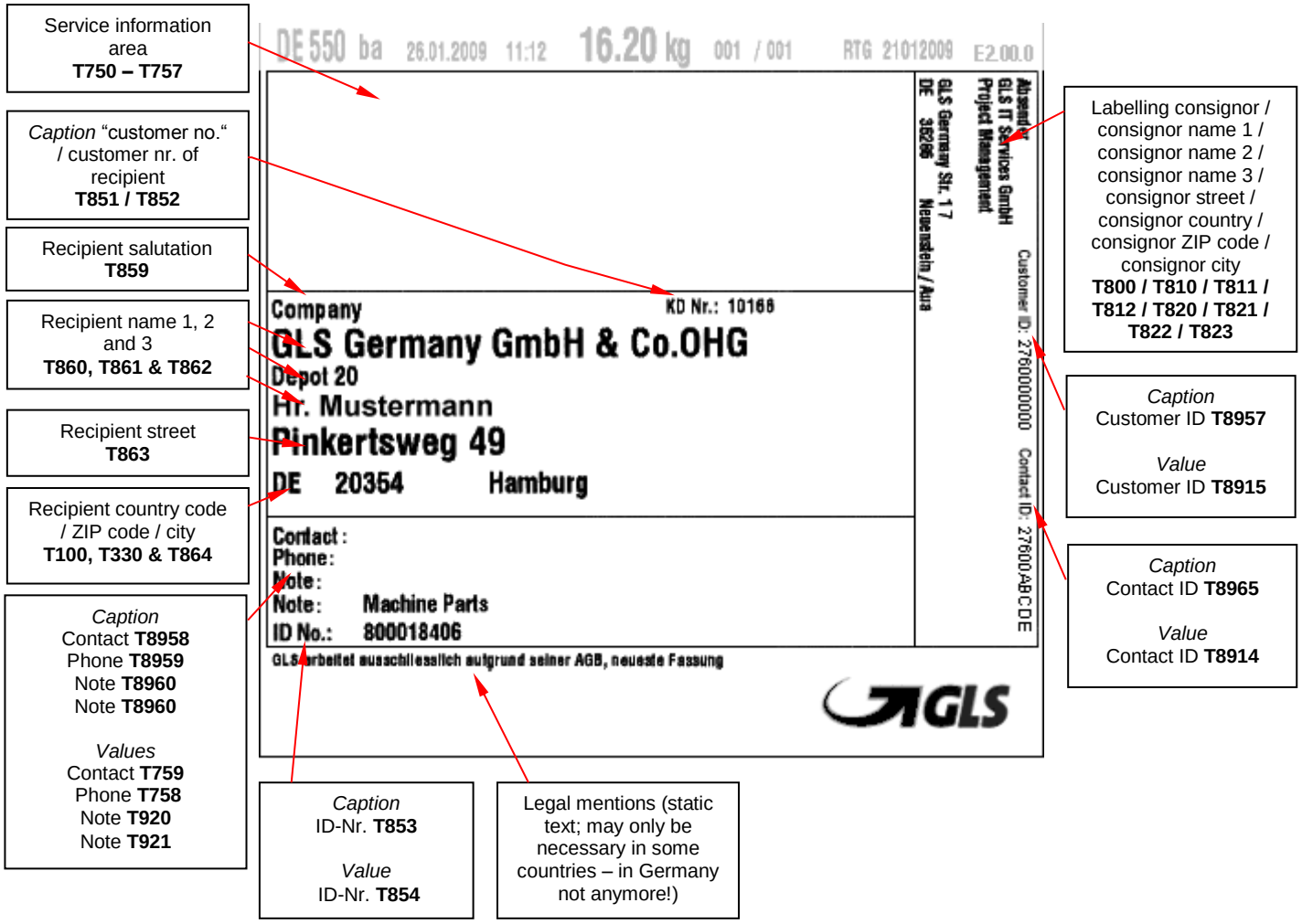
Additional consignee information can appear here, e.g. building, contact person etc.

5. Sender information

The complete sender information can appear here. The Customer No and the Contact ID of the sender as well as the complete sender address will appear here.

	TAG information		Positioning		Font	Font size	Special
	TAG	max. digits	x-axis	y-axis			
Station ID	510	3	15	56	Swiss721 Cn BT	3	n
Consignee Information							
Salutation of consignee	???	-	2	90,5	Swiss721 Cn BT	10	n
Name 1	860	40	2	95	Swiss721 Cn BT	12	bold
Name 2	861	-	2	99,5	Swiss721 Cn BT	10	n
Name 3	862	-	2	104,5	Swiss721 Cn BT	10	n
Streetname and number	863	35	2	111	Swiss721 Cn BT	12	bold
Final Country	100	3	2	114,5	Swiss721 Cn BT	10	n
Zip Code	330	7	2	114,5	Swiss721 Cn BT	10	n
City	864	31	2	114,5	Swiss721 Cn BT	10	n
"Cust. Ref:"	851	-	62	89	Swiss721 Cn BT	6	n
Value - Cust.Ref	852	-			Swiss721 Cn BT	6	n
B2C Information							
"Contact"	8958	-	2	119	Swiss721 Cn BT	8	n
Value - Contact	8906	-	13	119	Swiss721 Cn BT	8	n
"Phone"	8959	-	2	122,5	Swiss721 Cn BT	8	n
Value - Phone	871	-	13	122,5	Swiss721 Cn BT	8	n
"Note"	8960	-	2	129	Swiss721 Cn BT	8	n
Value - Note	8907, 8908	-	13	129	Swiss721 Cn BT	8	n
"Ref-No:"	853	-	2	132	Swiss721 Cn BT	8	n
Value - Ref-No	854	-	13	132	Swiss721 Cn BT	8	n
Sender Information							
"Sender"	800	-	97	59	Swiss721 Cn BT	6	rotate down to 90°
"Customer ID"	8957	-	97	67	Swiss721 Cn BT	6	rotate down to 90°
Value - Customer ID	805	-	97	94	Swiss721 Cn BT	6	rotate down to 90°
"Contact ID"	8965	-	97	119	Swiss721 Cn BT	6	rotate down to 90°
Value - Contact ID	8914	-	97	119	Swiss721 Cn BT	6	rotate down to 90°
Value - Name 1	810	-	94	59	Swiss721 Cn BT	6	rotate down to 90°
Value - Name 2	811	-	91,5	59	Swiss721 Cn BT	6	rotate down to 90°
Value - Name 3	812	-	89	59	Swiss721 Cn BT	6	rotate down to 90°
Streetname and number	820	-	86	59	Swiss721 Cn BT	6	rotate down to 90°
ISO Country Code	821	-	84	59	Swiss721 Cn BT	6	rotate down to 90°
Zip Code	822	-	84	64	Swiss721 Cn BT	6	rotate down to 90°
City	823	-	84	71	Swiss721 Cn BT	6	rotate down to 90°

Body of the label (including TAG description):



**** Delimiter in Secondary Code (T8903)**

GLS UniBox internally uses the following delimiter in TAG T8903:

¬ (ANSI, Hex: AC, DEZ: 172)

It is mandatory before printing to convert it into "pipe" **|**. During scan process of the Secondary Code therefore the subfields have to be separated by a pipe.

***** Handling Information (T200-205)**

Order of the handling TAGs is (from the left to the right):

T204/T203 (using same position), **T202**, **T200**, **T205**, **T201**

GLS Label – Services

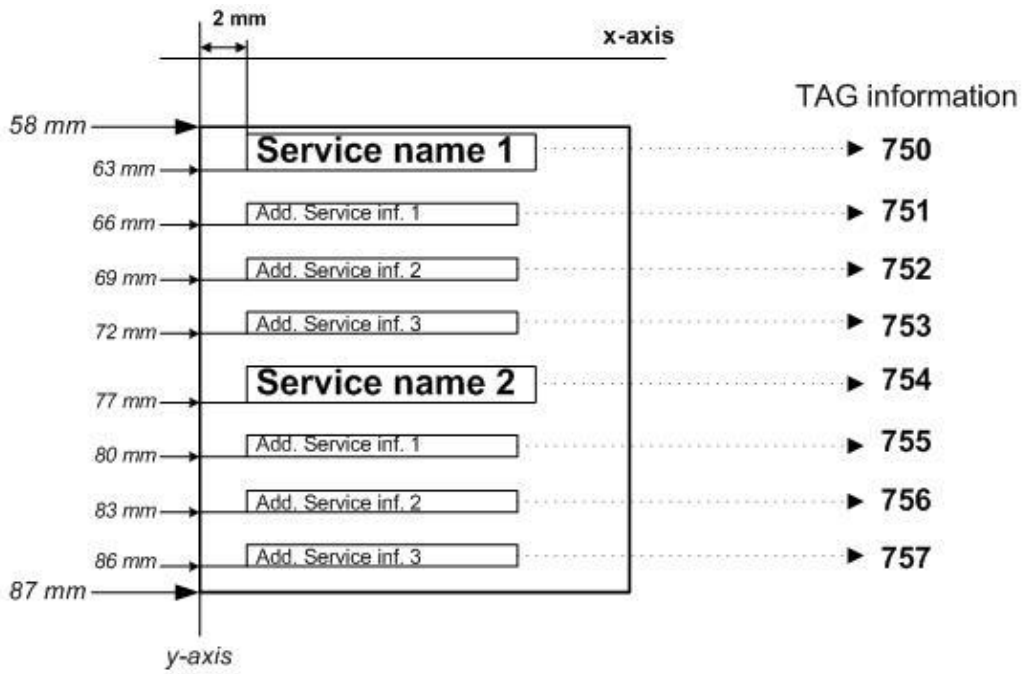
The basic body of the service labels is like the structure of the normal integrated UniCode. Therefore this chapter will describe the structure of the **Additional Service Information field** as well as the additional printed service label if needed.

!!! ATTENTION !!!

A Standard parcel can be combined with several services. When using a special service the additional service field will be filled with the according service information. **Up to two service information can be printed in that area.**

If the parcel is combined with more than two services an **additional service label** has to be printed. Therefore make sure that at least two services and additional service information fit into the service field.

For every service there are four TAG information (lines) reserved. The first TAG (first line) information always contains the service name of the chosen service. The last three TAG (3 lines) information is used for additional service information.
Therefore, four lines are reserved for one Service!
The following picture should illustrate where the service information must appear on the label and which TAG´s are used:



Additional Service Information field – description

Content

	TAG information		Positioning		Font	Font size	Special
	TAG	max. digits	x-axis	y-axis			
Service Name	750	-	2	63	Swiss721 Cn BT	14	bold
Service inf 1	751	-	2	66	Swiss721 Cn BT	8	n
Service inf 2	752	-	2	69	Swiss721 Cn BT	8	n
Service inf 3	753	-	2	72	Swiss721 Cn BT	8	n

Check-, Duty- and Information Routines (in general)

The following check- and duty routines are possible within the transaction:

- Reprint:
  To initiate a reprint, a data stream has to be send with TAG T010. This includes the original parcel number at first and after this a new parcel number:
  `\\\\\GLS\\\\\T010:201110001218: 201110001225|/////GLS/////`

  When this TAG is used the original label may NOT be used, it has been canceled in the system.

Special Functions

The parameter for the corresponding special functions of the UniBox is transmitted in the TAG T090. You have the following possibilities:

Determination of the routing information

The parcel data determined from the transmitted data stream inclusive routing information is given back to the dispatch system without printing an integrated routing label.

Example if transaction should not be printed:
`\\\\\GLS\\\\\T090:NOPRINT|.../////GLS/////`
Example if transaction should not be saved (only to be used doing development):
`\\\\\GLS\\\\\T090:NOSAVE|.../////GLS/////`
Example if transaction should not be saved nor printed:
`\\\\\GLS\\\\\T090:NOSAVE;NOPRINT|.../////GLS/////`

MultiLocation

With the function “MultiLocation” a UniBox can be used for several APL depots. If for example a customer has several subsidiaries in Germany but only wants to use one UniBox for the handling of his parcels. In this case the desired location and the corresponding parcel number have to be transmitted along with every data stream. At the day’s closing the parcel data are transmitted to the respective depots. The necessary location codes can be asked for at the responsible depot.

Example:
Subsidiary in Kolding:
`\\\\\GLS\\\\\T8700:DK0060|T400:099999000108|T530:12,6|…./////GLS/////`
Subsidiary in Herning:
`\\\\\GLS\\\\\T8700:DK0069|T400:201200018324|T530:27,2|…./////GLS/////`

*** GLS Parcel Shop ID Search**

The UniBox determines the Parcel Shop ID automatically on basis of the consginees zip code and fills the TAG 8237 with the according data.

The consignor has the possibility to search for GLS parcel shops over the UniBox. This
1) By use of the GLS TAG protocol the UniBox will contact a central service which is able to return a list of parcel shops within a defined distance of a zip code.
Please, keep in mind that the distance between the consignee’s zip code and the GLS parcel shop is based on air-line distance calculation. The kilometre of road might be higher.

Incoming-TAGs

T100:	Country code of the consignee (ISO 3166 ALPHA-2) **or**
T8640:	Three-digit code of destination country (ISO 3166 numeric)
T330:	Zip code of consignee
T1149:	Maximum distance (in km)
T1478:	Quantity (of requested shops)

Response-TAG

T1479: ParcelShop List
Format: ParcelShopID^ParcelShopName1^ParcelShopStreet^ ParcelShopStreetBlockNo1^ParcelShopZipCode^ParcelShopCity^Distance;...

Currently a max. search distance of 50 kilometres is supported. The maximum shop quantity is 10.

Example
Request – for danish zip code 6000 the box has to find the next 5 shops within 10 km. Use the following TAG stream:

```
\\\\\GLS\\\\\F2197:|T8640:208|T330:6000|T1149:10|T1478:5/////GLS/////
```

or

```
\\\\\GLS\\\\\F2197:|T100:DK|T330:6000|T1149:10|T1478:5/////GLS/////
```

Response

```
\\\\\GLS\\\\\E000:OK|T1479:2080097011^Bilka
kundeservice^^Skovvangen^40^6000^Kolding^208^1.50^^^^9.45911^55.51194^^^+45
76 34 60
00^^^^^^^^^^^^^208,DK,Denmark^N^^0,77992,080000,,,220000+1,77993,080000,,,22
0000+2,77994,080000,,,220000+3,77995,080000,,,220000+4,77996,080000,,,22000
0+5,77997,080000,,,180000+6,77998,100000,,,170000^2002498386;2080097130^She
ll 7-Eleven^^Hylkedalvej^2^6000^Kolding^208^2.52^^^^9.44683^55.48329^^^-
^^^^^^^^^^^^208,DK,Denmark^N^^0,77992,060000,,,230000+1,77993,060000,,,2300
00+2,77994,060000,,,230000+3,77995,060000,,,230000+4,77996,060000,,,230000+
5,77997,070000,,,230000+6,77998,070000,,,230000^2002503157;2080097644^Stato
il^^Buen^13^6000^Kolding^208^3.33^^^^9.4809^55.48776^^^-
^^^^^^^^^^^^208,DK,Denmark^N^^0,77992,060000,,,240000+1,77993,060000,,,2400
00+2,77994,060000,,,240000+3,77995,060000,,,240000+4,77996,060000,,,240000+
5,77997,070000,,,240000+6,77998,070000,,,240000^2002498038;2080097815^Shell
/7-Eleven^^Ndr. Ringvej^118^6000^Kolding^208^3.51^^^^9.49158^55.49639^^^-
^^^^^^^^^^^^208,DK,Denmark^N^^0,77992,060000,,,230000+1,77993,060000,,,2300
00+2,77994,060000,,,230000+3,77995,060000,,,230000+4,77996,060000,,,230000+
5,77997,070000,,,230000+6,77998,070000,,,230000^2002499931;2080096392^Sydby
ens Tips og
Lotto^^Haderslevvej^116^6000^Kolding^208^3.80^^^^9.46932^55.47613^^^+45 75
52 36
44^^^^^^^^^^^^208,DK,Denmark^N^^0,77992,070000,,,173000+1,77993,070000,,,17
3000+2,77994,070000,,,180000+3,77995,070000,,,173000+4,77996,070000,,,18000
0+5,77997,070000,,,170000^2504799|/////GLS/////
```

Response/Error codes

E000	OK
E999	General central system error
E570	<Tag> is missing
E805	Invalid field value
E998	No record found
E028	Invalid tag stream

Matrix

T207	T750	T751	T752	T203	T220	T22	T1262	T8798	T8980	T8974	Info
BP	BUSINESS PARCEL								AA		National Parcel
BP	BUSINESS PARCEL	DepositService							AA	C	National Parcel with DepositService
BP	BUSINESS PARCEL	AddresseeOnlyService							AA	B	National Parcel with AddresseeOnlyService
AOI	BUSINESS PARCEL						5000		AA		National Parcel with AddOnLiabilityService
AOI	BUSINESS PARCEL	AddresseeOnlyService					5000		AA	B	National Parcel with AddOnLiabilityService and AddresseeOnlyService
COD	BUSINESS PARCEL	CashService		C	1000	DKK			AA	D	National Parcel with CashService
T10	BUSINESS PARCEL	Express10Service							EE	8	National Parcel with Express10Service
T12	BUSINESS PARCEL	Express12Service							EE	a	National Parcel with Express12Service
COD;AOI	BUSINESS PARCEL	CashService		C	1000	DKK	5000		AA	D	National Parcel with CashService and AddOnLiabilityService
COD;AOI;T10	BUSINESS PARCEL	CashService	Express10Service	C	1000	DKK			EE	D8	National Parcel with CashService and Express10Service
COD;AOI;T12	BUSINESS PARCEL	CashService	Express12Service	C	1000	DKK			EE	Da	National Parcel with CashService and Express12Service
COD;AOI;T10	BUSINESS PARCEL	CashService	Express10Service	C	1000	DKK	5000		EE	D8	National Parcel with Cash, AddOnLiabilityService and Express10Service
COD;AOI;T12	BUSINESS PARCEL	CashService	Express12Service	C	1000	DKK	5000		EE	Da	National Parcel with Cash, AddOnLiabilityService and Express12Service
EBP	EURO BUSINESS PARCEL								CC		International Parcel
AOI	EURO BUSINESS PARCEL						5000		CC		International Parcel with AddOnLiabilityService
P&R	Pick&ReturnService								AA	P	National Pick&Return
P&S	Pick&ShipService								AA	Q	National Pick&Ship
PAP	BUSINESS PALLET								AA	O	National Pallet
PAP;AOI	BUSINESS PALLET						5000		AA	O	National Pallet with AddOnLiabilityService
PAP;COD	BUSINESS PALLET	CashService		C	1000	DKK			AA	DO	National Pallet with CashService
PAP;COD;AOI	BUSINESS PALLET	CashService		C	1000	DKK	5000		AA	DO	National Pallet with Cash and AddOnLiabilityService
SHD	ShopDeliveryService								AA	n	National ParcelShop Parcel
SRS	ShopReturnService	ShopReturnService							AA	d	National Shop Return Parcel
SRS	ShopReturnService	ShopReturnService						E	AA	d	ShopReturn PDF label for customer sent by GLS
GLS Express Sameday Matrix											
SD	SameDaySolution								EE	V	SameDay parcel
SD	SameDaySolution	Pallet							EE	OV	SameDay pallet
SD;P&R	SameDaySolution Pick&ReturnService								EE	P	SameDay Pick&Return
SD;P&S	SameDaySolution Pick&ShipService								EE	Q	SameDay Pick&Ship

DepositService has to be filled as a normal BusinessParcel and with a capital C in T8974 and the text DepositService in T751.
T920 is mandatory in connection with DepositService.

AddresseeOnlyService has to be filled as a normal Business Parcel and with a capital B in T8974 and the text AddresseeOnlyService in T751.

Description of Error-TAG‘s

The UniBox generates error messages for different happenings. It is a demand that you interpretate these messages for storage of parcel number and displaying of errors back to the users for them to understand why they did not get a label.
Depending on which solution there’s being used there are different ways how the error file looks like.

If it’s the socket solution, the error codes look like this:
`\\\\\GLS\\\\\E001:T100|/////GLS/////`

If you are using file drop to the scan folder, the error codes will be return in the log folder looking like this:
E001:T100

The following error codes can occur:

E000
This code is send back, if no errors have been occurred. That means, that all mandatory fields as well as necessary data are transmitted correctly. This TAG includes the parcel number which you need to store in your system.
Example: `\\\\\GLS\\\\\E000:207112000112|/////GLS/////`

E001
E001 will be send back, if a mandatory field in the data stream is missing, with the information of which field are missing.
Example: `\\\\\GLS\\\\\E001:T100|/////GLS/////`

E002
If a wrong format is transmitted in a TAG, E002 will be send back. If for example the wrong weight is transmitted, the following data stream is send back:
Example: `\\\\\GLS\\\\\E002:T530:15 kg|/////GLS/////`

E003
E003 will be send back, if for example in TAG T330 a zip code is transmitted, which is not available in the routing tables. E003 is always send back with the incorrect zip code.
Example: `\\\\\GLS\\\\\E003:T330:12345|/////GLS/////`

E004
This error message will be send back, if no free parcel number is available within the (NDI-)parcel number ranges. The country indicator of the country of destination is transmitted in the data segment.
Example: `\\\\\GLS\\\\\E004:GB|/////GLS/////`

Please contact GLS IT Services Denmark in the case of this message.

E005
If a parameter is missing within the configuration file of the UNIBOX, E005 will be send back with the missing parameter.
Example: `\\\\\GLS\\\\\E005:IBZIPERROR|/////GLS/////`

Please contact GLS IT Services Denmark in the case of this message.

E006
The error code E006 will occur, if the application is not able to make the routing. The incorrect part is sent back in the content of data. This normally means that the postal number exist but is a post box, please check, and if possible alter the postal number.
Example: `\\\\\GLS\\\\\E006:T330:1234|/////GLS/////`

Please contact GLS IT Services Denmark in the case that you are 100 % sure that the postal number does exist and is not a postal box.

E007
A template file could not be open. The data segment will contain the same name of the file the UniBox could not locate.

E008
If E008 is send back, the accessed interface cannot be opened. Within the data segment the interface is transmitted, which cannot be opened.
Example: `\\\\\GLS\\\\\E008:COM1|/////GLS/////`

E009
Not used on the UniBox

E010
E010 will be send back, if T204 is transmitted and 2 kg are exceeded. Then the current transmitted weight is send back:
Example: `\\\\\GLS\\\\\E010:2,5|/////GLS/////`

E011
Not used on the UniBox.

E012
Exception E012 is be returned if the check digit present in **T400** is incorrect. The application should replace the incorrect digit with the correct one, override the TU number in **T400** and return the full, new, correct number in the data segment.
Example: `\\\\\GLS\\\\\E012:900812345677|/////GLS/////`

E013
The error message E013 is displayed, if the product code T for Express parcel was transmitted in the data stream and the country of destination is not Denmark.
Example: `\\\\\GLS\\\\\E013|/////GLS/////`

E014
If the shipping date in T545 of an Express parcel is not the same as the current date, the error message E014 is send back.
Example: `\\\\\GLS\\\\\E014|/////GLS/////`

E015
Not used on the Danish box

E016
Not used on the Danish box

E017
Not used on the Danish box

E018
If a parcel number is send to the UniBox more than one, the error code E018 will occur. A parcel number is only allowed to be transmitted to the system one time.
Example: `\\\\\GLS\\\\\E018:151201356492|/////GLS/////`

E019
If a wrong parcel number of a product or a parcel number with a wrong service product code is send, the error code E019 will be generated! This error message is normally an indication of incorrect product combinations.
Example: `\\\\\GLS\\\\\E019|Invalid TU/Product Combination/////GLS/////`

E210

This error occurs when the configuration doesn't match your solution. Please contact GLS IT support
Example: \\\\\GLS\\\\\E210:T8794:92083134223|/////GLS/////
Or
Example: \\\\\GLS\\\\\E210:T8796:92083134223|/////GLS/////

Labels with special NDI barcodes

T600: National Delivery Information GB (CODE128 Subset A and plain writing)
Barcode width: 58 mm
Barcode height: 20 mm
Ratio Bars: 1:3 (narrow : large)

T601: National Delivery Information GB, Product identifier

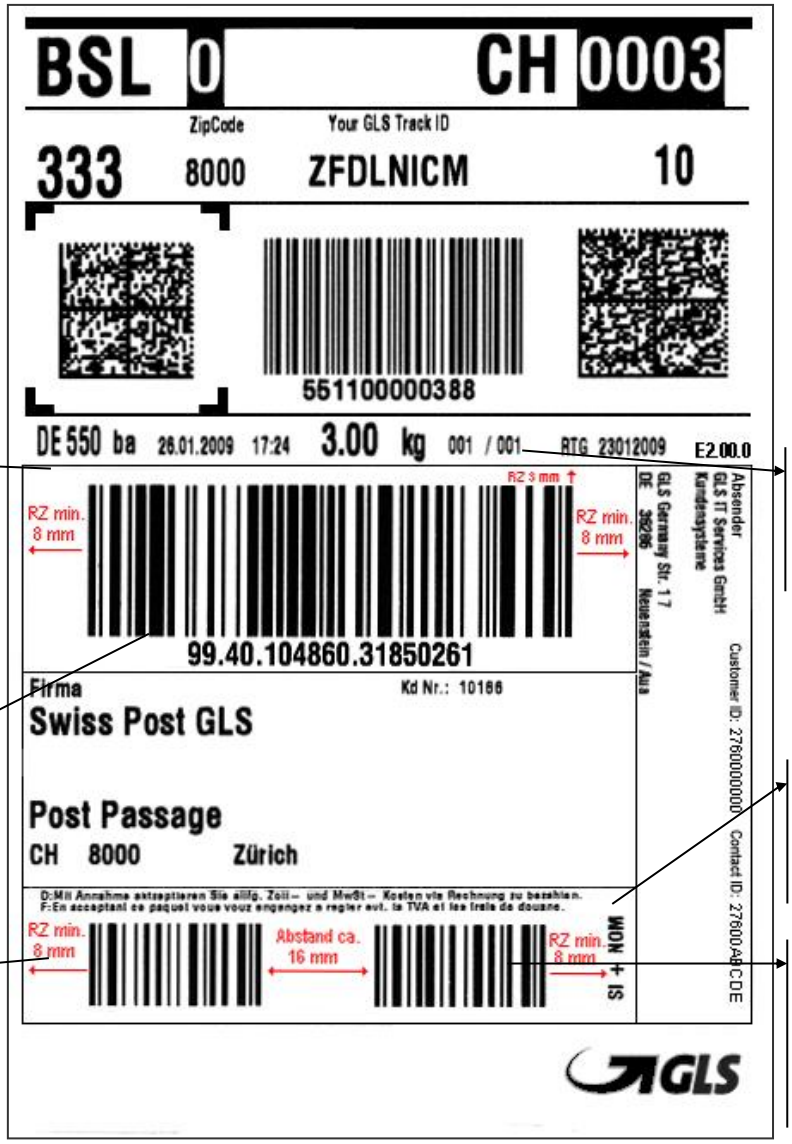
T602: National Delivery Information GB, Zip Code

T603: National Delivery Information GB, Post office Barcode (CODE128 Subset A)
Barcode width: 34 mm
Barcode height: 10 mm
Ratio Bars: 1:3 (narrow : large)

T690: National Delivery Information Switzerland, Swiss Post No., height min. 20 mm (CODE128 Subset C)

T692: National Delivery Information Switzerland, Swiss Post No. (plain writing, Arial, size ca. 14)

Static barcode „PRI“, contains always the value **0509**, heigt min. 10 mm (CODE128 Subset C)



“RZ”: spacing min. 8 mm to each side; 3 mm to the top and bottom

Static: **SI+NOM** (plain writing, Arial, size ca. 14)

Static barcode „SI+NOM“, contains always the value **1307**, height min. 10 mm (CODE128 Subset C)

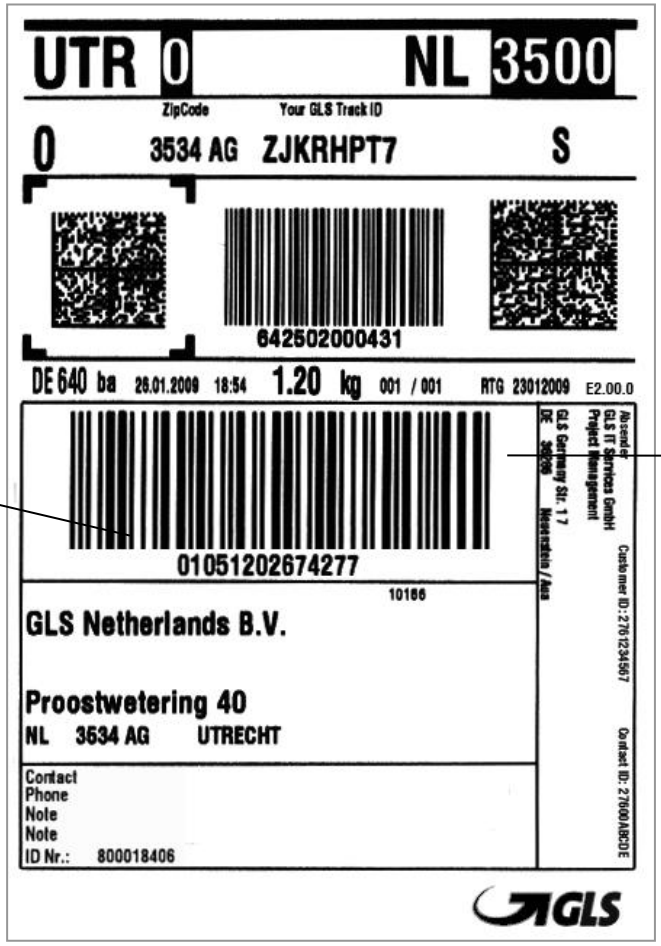
T660: National Delivery Information Sweden (EAN 128, 20 digits, numeric, without check digit)

Barcode width: 58 mm

Barcode height: 20 mm

T660: National Delivery Information Sweden (plain writing)

T620: National Delivery Information Netherlands (plain writing)



T620: National Delivery Information Netherlands (2 / 5 Interleaved, 14 digits, alphanumeric, without check digit)

Barcode width: 65 mm

Barcode height: 25 mm

Static information, must always be printed *

T660: National Delivery Information for Norway (EAN 128, 20 digits, numeric, without check digits)
Barcode width: 58 mm
Barcode height: 12 mm

* this information must be printed for every parcel with destination Norway:

2

Customer no.: 00107184715

GLS Norway c/o PGO NO

NO – 0060 Oslo

Check sum calculation

National consignments, modulus 10 check

The check sum in the bar code is calculated according to modulus 10 check. The bar code number consists of 12 digits, the first digit is always a ‘0’, the next 10 are the serial number and the last is the check digit.

The check digit appears as follows:

Every value is called Vn, where n states the postion, n=1 to 12

∑ **uneven** =V1+V3+V5+V7+V9+V11

∑ **even** =V2+V4+V6+V8+V10

∑ **total** =∑ even+3*∑ uneven

∑ **total round up** =∑ total round up tot he nearest 10

Check sum =∑ total round up - ∑ total = **V12**

Calculation examples are shown below:

Ex. 1, Parcel number 66141 00071

V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12
0	6	6	1	4	1	0	0	0	7	1	?

∑ uneven = 6 + 4 + 0 + 0 + 1 = 11

∑ even = 6 + 1 + 1 + 0 + 7 = 15

∑ total = 15 + 3 * 11 = 48

∑ total round up = 48 round up = 50

Check sum = V12 = 50 - 48 = **2**

Bar code number is now written as: **066141000712**

Ex. 2, Parcel number; 66141 00034

V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12
0	6	6	1	4	1	0	0	0	3	4	?

∑ uneven = 6 + 4 + 0 + 0 + 4 = 14

∑ even = 6 + 1 + 1 + 0 + 3 = 11

∑ total = 11 + 3 * 14 = 53

∑ total round up = 53 round up = 60

Check sum = V12 = 60 - 53 = 7

Bar code is now written as: **066141000347**

International consignments, modulus 10+1 check

The check sum in the bar codes is calculated according to modulus 10+1 check.
The bar code number consists of 12 digits, the first digit is always a '9', the next 10 are the serial number and the last is the check digit.
The check digit appears as follows:

Where the value is called Vn, where n states the postion, n=1 til 12

∑ **uneven**=V1+V3+V5+V7+V9+V11

∑ **even**=V2+V4+V6+V8+V10

∑ **total**=∑ even+3*∑ uneven+1

∑ **totalopr** =∑ total round up to nearest 10

Check sum =∑ total round up - ∑ total

The calculation example is shown below:
Ex. Parcel number; 900 15678901

V1	**V2**	**V3**	**V4**	**V5**	**V6**	**V7**	**V8**	**V9**	**V10**	**V11**	**V12**
9	0	0	1	5	6	7	8	9	0	1	?

∑ even = 0 + 1 + 6 + 8 + 0 = 15

∑ uneven = 9 + 0 + 5 + 7 + 9 + 1 = 31

∑ total = 15 + 3 * 31 + 1 = 109

∑ total round up = 109 round up = 110

Checksum = V12 = 110 - 109 = 1

The barcode number is now written as: **900156789011**