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CIRCULAR (draft)

**REGISTERED CASH REGISTER SYSTEM IN THE HOSPITALITY SECTOR,
IMPLEMENTATION OF THE ROYAL DECREE OF 30 DECEMBER 2009**

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CHAPTER 1: General remarks and scope of application

1. Article 13bis of Royal Decree No. 1 of 29 December 1992 regulating the payment of value added tax (hereinafter: Royal Decree No. 1) defines the acts with respect to which certain tax subjects are obliged to issue a simplified invoice. It also lays down an obligation to issue such simplified invoice by means of a registered cash register system in some circumstances.

The definition of a registered cash register system, and the conditions which it must fulfil, are given by the Royal Decree of 30 December 2009 which defines a registered cash register system in the hospitality sector and the conditions which it must fulfil (Belgian Official Journal of 31 December 2009, Edition 3, p. 82982 – 82983 and errata published in the Belgian

Official Journal of 26 January 2010, p. 3161; hereinafter referred to as the Royal Decree of 30/12/2009). In implementation of Article 4 of the Royal Decree of 30/12/2009, the present circular contains an explanatory memorandum to this Decree. This circular clarifies and specifies, among other things, the conditions which a registered cash register system and control module as described in Article 2, 7°, of the Royal Decree of 30/12/2009, must fulfil.

2. The draft has been notified pursuant to Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 which regulates the information procedure with respect to technical standards and regulations.

CHAPTER 2: Definitions

3. An electronic cash register system is understood to be any cash register system which uses a real-time operating system and which stores records in its internal memory by means of a system of counters. When producing a Z report (as defined in Article 2, 5°, of the Royal Decree of 30/12/2009) these counters are read and then reset to zero, and the records stored are summarised in the report.

A PC POS cash register system is understood to be any point of sale cash register system which consists of a computer, regardless of hardware characteristics, with a conventional operating system on which cash register software has been installed. Such cash register software produces records for each stored event, in one or more files. When producing a Z report (as defined in Article 2, 5° of the Royal Decree of 30/12/2009) a query is run on these files, which is summarised in the report.

4. Stored data, as referred to in Article 2, 1° and 2°, of the Royal Decree of 30/12/2009, shall be understood to be:

- records of goods and services transactions, training receipts produced,
- pro forma receipts produced,
- changes in prices,
- corrections and refunds, till opening events,
- generating reports,
- programming steps and configuration changes,
- all entries included in the booking management functionality (orders, refunds, corrections, payments, etc.)

5. An event is understood as any occurrence in the cash register system where data is transmitted to and/or received from the control module as provided in Article 2, 7° of the Royal Decree of 30/12/2009, as described in Chapter 3, nos. 30 to 34, of this circular. Each event consists of 2 components: the event type and the transaction type. Therefore, each event is formed by the combination of an event type and a transaction type.

The following event types are distinguished:

- NORMAL
- TRAINING
- PRO FORMA

Each event also contains one of the following transaction types:

- SALES
- REFUND

A registered cash register system shall assign a unique label to each of the various types of events and transactions, so that the control module can interpret them unambiguously. The table below gives the possible combinations of labels.

EVENT TYPE	TRANSACTION TYPE	EVENT LABEL
NORMAL	SALES	NS
NORMAL	REFUND	NR
TRAINING	SALES	TS
TRAINING	REFUND	TR
PRO FORMA	SALES	PS
PRO FORMA	REFUND	PR

6. A VAT cash receipt as referred to in Article 2, 4°, of the Royal Decree of 30/12/2009, is understood to be any cash receipt produced while the cash register system is in its normal recording mode, used to record sales of goods and/or services, including corrections and refunds recorded in the normal recording mode by means of the correction and refund functionalities. It is this cash receipt which must be issued by the registered cash register system as a simplified invoice, in accordance with the provisions of Article 13bis of Royal Decree no. 1. A refund receipt, as defined below, shall also be considered to be a VAT cash receipt in accordance with those provisions.

A refund receipt shall be understood to be any cash receipt produced while the cash register system is in its refund mode, and which contains information indicating that a previously issued cash receipt contained incorrect information or which contains information on a refund of money for returned or price-reduced goods or services. Such a refund receipt contains only negative, refunded amounts.

A training receipt shall be understood to mean any cash receipt which is produced while the entire cash register system is in its training mode, or which is produced by a user who is in training mode, where a user can be any person who records operations in the cash register system.

A pro-forma receipt shall be understood to mean any cash receipt which is produced while the entire cash register system is in its pro-forma mode, or which is produced by selecting this pro-forma functionality, and which contains similar information to a VAT cash receipt. A pro-forma receipt shall also be understood to include the interim statement of account overview produced when using the functionality of booking management, where a list of recorded orders and/or amounts due is produced without finalising the VAT cash receipt.

7. The control data shall be understood to mean the data which the cash register system will receive from the control module, and which must be printed at the bottom of the receipt as described in Chapter 5, no. 39.

8. The control module shall be understood to mean the module as defined in Article 2, 7° of the Royal Decree of 30/12/2009. Such control module consists of two components: the sales data controller (SDC) and the VAT signing card (VSC). The control module shall be connected to the cash register system, such that the SDC receives the fiscally relevant data from the cash register system, generates dates and times for the various events, transmits these fiscally relevant data to the VSC which will generate the digital signature, then receives the control data and the consecutive numbers for the various events from the VSC, stores the

fiscally relevant data and control data in a secured memory and finally sends the data produced (SDC and VSC identification data, date and time, event number and control data) back to the cash register system, so that they may be printed on the receipt.

9. A SALES DATA CONTROLLER (SDC) shall be understood to mean the part of the control module which is physically connected to the cash register system. It is described in detail in Chapter 7 of this circular.

10. The VAT signing card (VSC) shall be understood to mean the smartcard, as part of the control module, which shall be requested by the tax subject and issued by the Federal Finance Department (FOD Financiën). This smartcard shall be inserted into the sales data controller of the control module. This smartcard contains, among other things, software for producing: 1) consecutive event and transaction numbering, 2) a digital signature based on data received from the sales data controller, for which a certificate is installed on the smartcard, and 3) maintaining and updating a number of counters. It is described in detail in Chapter 7 of this circular.

CHAPTER 3: Requirements for registered cash register systems

3.1. Obligations of manufacturers, importers and distributors

3.1.1. Obligations of manufacturers and importers Certification

11. For every version of a cash register model or cash register software which will be placed on the market in Belgium for use as a registered cash register system by a tax subject, the producer or importer shall submit an application for certification to the competent agency of the Federal Finance Department.

Such application shall contain all necessary and useful supporting documents, which shall enable the Administration to assess in a reliable manner whether the product complies with the requirements. A comprehensive description of the certification procedure to be followed and the required supporting documents will be given in [Annex 1](#).

The manufacturer or importer of a certified cash register system shall be responsible for ensuring that each cash register system manufactured or imported is identical to the version submitted for certification.

12. If the cash register system complies with the requirements, the manufacturer or importer will be issued with a proof of certification, the model for which will be described in [Annex 1](#). On this proof of certification, the Administration shall state, among other things, the identification number (AAAA or BBBB) and certificate number (CC), which will uniquely identify the manufacturer or importer of an electronic or PC-based POS cash register system as well as the relevant version of the cash register model or cash register software. These numbers will be the basis for the unique serial number which shall be placed on each installed certified cash register system such that it is indelible (cf. no. 19).

13. The application referred to in no. 11 shall be received by the competent agency of the Federal Finance Department at least four weeks before the cash register system is placed on the Belgian market.

3.1.2. Obligations of manufacturers and importers Notifications

14. The manufacturer or importer shall notify to the Administration all serial numbers of all certified cash register systems delivered in Belgium for use as a registered cash register system by a tax subject. In addition, for each serial number, the notification shall also mention the tax subject (distributor or end-user) to whom the cash register system is supplied. These notifications shall be done following the procedure and deadlines as described in the aforementioned **Annex 1**.

3.1.3. Obligations of distributors: Notifications

15. The distributor of certified cash register systems shall notify the serial numbers of all purchased certified cash register systems to the Administration. Immediately after such a system is delivered by the distributor to a tax subject, he shall notify the associated serial number and identity of the buyer to the Administration. These shall be notified following the procedure and deadlines as described in the aforementioned **Annex 1**.

3.1.4. Documentation

16. The manual and documentation for the registered cash register system shall be in the Dutch, French, German or English language, and a copy thereof shall be delivered to the buyer upon the sale of the cash register system.

3.2. General requirements for registered cash register systems

17. Every registered cash register system shall have software (or a cash register programme) which controls, among other things, the functions described in these requirements.

18. Every registered cash register system shall at least be capable of creating VAT-cash receipts and of generating reports containing a summary of the records in the cash register system related to the daily turnover and all other stored data (Z report), to comply with Article 2, 4° and 5°, of the Royal Decree of 30/12/2009. It shall also be possible to generate so-called X reports, containing a summary of the records in the cash register system with respect to the turnover and all other stored data since the last Z report preceding it up to the time of generating the X report, to comply with Article 2, 3°, of the Royal Decree of 30/12/2009. VAT-cash receipts, Z reports and X reports shall comply with the requirements of Chapters 5 and 6 of this circular.

19. Every registered cash register system shall carry a model number and a serial number. The serial number shall be a unique number which uniquely identifies both the cash register system and its manufacturer. The serial number shall be structured as follows:

1. for electronic cash register systems:

AAAACCNNNNNN, where:

AAAA = manufacturer identification number (after certification, assigned by the Administration)

CC = manufacturer certificate number (after certification, assigned by the Administration)

NNNNNN = serial number (ascending, assigned by the manufacturer)

2. for PC POS cash register systems:

BBBBCCNNNNNN, where:

BBBB = software developer identification number (after certification, assigned by the Administration)

CC = manufacturer certificate number (after certification, assigned by the Administration)

NNNNNN = serial number (ascending, assigned by the manufacturer)

This unique serial number shall be placed on every installed certified cash register system in an indelible manner.

20. The cash register software installed on an electronic cash register system or PC POS cash register system shall carry a version number. This version number shall be a unique indication of the relevant software version, and shall be modified with each update to the software.

For cash register software installed in a cash register or terminal, the version number of the cash register software and the name of the programme's manufacturer shall be indicated.

21. No hardware or software may be connected to or integrated in the registered cash register system which affects, modifies or disrupts the normal operation of the functionalities as referred to in this circular.

22. A registered cash register system shall be able to record sales of goods and/or services only when the control module as referred to in Article 2, 7°, of the Royal Decree of 30/12/2009 is connected and fully operational, so that the control data described in that Article can be produced. The cash register system shall be able to independently detect whether the control module is operational.

3.3. Obligatory functionalities of registered cash register systems

23. If the registered cash register system has a function for printing training receipts or for printing pro forma receipts, such receipts shall be unequivocally distinguishable from VAT cash receipts. To ensure this, the designation TRAINING RECEIPT or PRO-FORMA RECEIPT shall be printed on the receipt. In addition, the following text shall be printed at the bottom of these receipts: "THIS IS NOT A VALID VAT CASH RECEIPT". These two additional texts shall be printed on the receipt in capitals in a bold font and in a font size which is at least one and a half times the size of the description of the operation.

Refund transactions for any event shall be clearly indicated as such by printing the text REFUND on the receipt, clearly distinguishing negative amounts from positive amounts by using a minus sign.

24. A user is a person who records operations by means of the registered cash register system. A user wishing to record operations must first log onto the registered cash register system. In addition, a registered cash register system shall not allow any operations at all without a user being logged on.

Every user of a registered cash register system, regardless of their position within the company, shall be clearly identifiable based on their social security number (ISNZ number). This number shall be stored in the waiter software or in the user database of the registered cash register system.

It shall be possible without difficulty to present a list of such software settings or database table to inspecting officials upon request.

3.4. Prohibited functionalities of registered cash register systems

25. A registered cash register system and the cash register software installed on it shall not have any other functionalities than those described in its documentation as submitted at the time of the application for certification.

26. A registered cash register system shall not have any functionalities enabling the removal, alteration or addition of previously entered records.

Therefore, corrections and refunds to a receipt that has not been finalised shall be clearly indicated as negative records on a separate line per item (or department, if appropriate). The same applies to corrections, cancellations and refunds which are carried out as part of the functionality of booking management. Any other corrections in orders within a booking that has not yet been settled (additions, corrections to quantities and items, cancellations of order lines, returned items etc.), shall also be listed on the final VAT cash receipt on separate lines.

27. A registered cash register system shall not have a possibility to record an operation of the NORMAL event type without at the same time printing a VAT cash receipt.

28. A registered cash register system shall not be able to print copies of VAT cash receipts in any form whatsoever.

29. A registered cash register system shall not have any function allowing changes to be made to the preset text for items and services while recording a VAT cash receipt.

3.5. Communications with the control module

30. A registered cash register system shall be able to transmit the data as described in no. 31 of this circular to the control module as described in Article 2, 7°, of the Royal Decree of 30/12/2009. The amounts stated on the various receipts shall always be expressed in EURO.

31. A registered cash register system shall be equipped with an algorithmic generator, which uses the item details (also referred to as PLU data, specifically the description, quantity and amount payable with respect to the operation) of receipts within a NORMAL event type to calculate a hash value which is then sent to the control module together with the receipt data. The algorithm used to calculate the hash shall be of the SHA-1 type.

32. A registered cash register system shall be able to receive the following data from the control module and print them on any receipt:

- a. day, hour, and second of creation of the receipt, generated by the real time clock embedded in the control module's SDC
- b. the identification data of the control module's SDC
- c. the receipt counter for the event, generated by the VSC in the control module
- d. the other control data (internal data hash, digital signature, etc.) produced by the VSC in the control module (but not including receipts with event types TRAINING and PRO FORMA, for which a digital signature is not produced).

33. A registered cash register system shall also be able to transmit and receive the necessary data for the other events as described in Chapter 1, no. 5 to and from the control module.

34. The communications protocol for data transmission (as referred to in nos. 30 to 33) between the registered cash register system and the control module is the subject of [Annex 2](#), which describes the technical modalities for the control module.

The data flow between the cash register system and the control module will be as follows:

1. the cash register system sends the following event data to the control module at the time when the receipt is finalised:
 - a. transaction date
 - b. transaction time
 - c. user ID
 - d. serial number of registered cash register system
 - e. receipt number of registered cash register system
 - f. event type transaction type
 - h. total receipt amount
 - i. total refund amount
 - j. per VAT percentage: VAT percentage and amount
 - k. calculated PLU hash value
2. the control module receives these event data
3. the control module generates the following control data and sends them to the cash register system, which after receiving them, finalises the receipt and prints all the data on the receipt:
 - a. SDC serial number
 - b. VSC ID
 - c. SDC date and time
 - d. Event label
 - e. VSC consecutive receipt counter
 - f. The VSC internal data hash (except for the event types TRAINING and PRO FORMA)
 - g. The event signature (except for the event types TRAINING and PRO FORMA)

CHAPTER 4: Electronic journal and journal log

35. A registered cash register system shall ensure, by means of the control module, the integrity of its stored data from the time it is entered into the cash register system until the end of the statutory archival period pursuant to Article 2, 1°, of the Royal Decree of 30/12/2009. It shall also ensure the retention of all its stored data pursuant to Article 2, 2°, of the Royal Decree of 30/12/2009.

To ensure this, all stored data as referred to in Chapter 2, no. 4 shall be recorded, immediately upon creation:

- in an electronic journal (for electronic cash registers)
- in a journal log (for PC POS cash register systems).

Contrary to the above, stored data other than events may be saved in a separate log.

CHAPTER 5: Requirements for VAT cash receipts

36. VAT cash receipts shall contain not only the records as defined in Article 2, 4°, of the Royal Decree of 30/12/2009, but shall also fulfil the requirements of Article 13bis of Royal Decree no. 1, as amended by the Royal Decree of 18/12/2009, in order to qualify as a simplified invoice.

To enable calculation of the control data by the control module as described in Article 2, 7°, of the Royal Decree of 30/12/2009, a VAT cash receipt shall have the following data:

- a. The complete designation “VAT CASH RECEIPT”
- b. Identification of the tax subject by stating his personal or company name, address and identification number as referred to in Article 50 of the VAT Code [Btw-Wetboek]
- c. The date and time of issue of the VAT cash receipt (as generated by the registered cash register system)
- d. Consecutive receipt number from an uninterrupted sequence (as generated by the registered cash register system)
- e. Identification of the user (such that he is identifiable within the company, as described in Chapter 3, no. 24)
- f. Recorded operations (PLU description, quantity, price and indication of the applicable VAT percentage), also including correction operations (cancellations, corrections, etc.) which are not included in a separate receipt
- g. Tax rate for each applicable VAT percentage
- h. VAT amount payable
- i. Any discounts and refunded amounts
- j. Identification of the cash register if the tax subject uses several cash registers
- k. The algorithm generated by the cash register system based on the PLU data
- l. The control data generated by and received from the control module
- m. Identification of the cash register system with the serial number referred to in Chapter 3, no. 19.

37. The reference to the VAT percentage under g shall have the following form:

VAT percentage identification number	VAT percentage	
1	High	21%
2	Mid	12%
3	Low	6%
4	Zero percentage	0%

38. As part of the control data (under l), the VAT signing card in the control module shall generate a consecutive receipt counter consisting of the following items:

X/Y ET, where:

- X = consecutive number of the transaction type within each event type (cf. table Chapter 1, no. 5)
- Y = total number of events generated up to the present
- ET = event label (cf. table in Chapter 1, no. 5)

39. To enable a uniform layout of the control data (see under l), irrespective of the type of cash register system, there shall be sufficient room at the bottom of the receipt, but just above the commercial footer, to print the entire text of the control data as received from the control module.

The contents of this section of the receipt shall be structured as follows:

- The designation “Control Data:”
- Timestamp from control module (dd/mm/yyyy and hh:mm:ss)
- “Receipt counter:” X/Y ET
- “Internal data hash”: hash value
- “Receipt signature:” hash value
- “Control module ID:” control module serial number
- “VAT signing card ID:” VAT signing card identification number

CHAPTER 6: Requirements for obligatory report generation

40. Pursuant to Article 2, 5°, of the Royal Decree of 30/12/2009, a tax subject who uses a registered cash register system shall be obliged to generate daily financial reports and daily user reports (Z reports). It shall also be possible to generate so-called X reports to comply with Article 2, 3°, of the Royal Decree of 30/12/2009 (cf. description in Chapter 3, no. 18).

41. A registered cash register system shall be able to generate daily “financial” Z reports as well as daily “users” Z reports, at the end of every block of opening hours of the establishment where it is installed.

When no report or only one of the aforementioned reports has been generated, the next report shall contain all the data for the entire period (from the time of the previous Z report(s) to the time of the new report(s)). The registered cash register system may have a functionality for automatic generation of these reports. These Z reports shall always clearly indicate the period to which they relate.

42. An X report shall contain at least the following data:

- a. personal or company name of the tax subject and his identification number as referred to in Article 50 of the VAT Code [Btw-Wetboek]
- b. date and time of generation
- c. identification of the cash register(s) to which the report applies
- d. total turnover amount realised for the respective period (including VAT)
- e. total turnover amount realised for the respective period (including VAT) per main group or department, if these are used
- f. the total tax rate for the respective period, for each applicable VAT percentage
- g. the total VAT amount for the respective period
- h. the contents of the till at the end of the respective period
- i. the number of VAT cash receipts issued during the respective period
- j. the number of till openings without recording an operation during the respective period
- k. the number of training receipts generated and their total amount (incl. VAT) during the respective period
- l. the number of refund receipts generated and their total amount (incl. VAT) during the respective period
- m. the number of pro-forma receipts generated and their total amount (incl. VAT) during the respective period
- n. the number of discounts given and their total amount (incl. VAT) during the respective period

- o. use of other functionalities (corrections, refunds, cancellations of lines, ...) which have reduced the total turnover amount, and their total amount (incl. VAT) during the respective period
- p. the cumulated grand total of the turnover (incl. VAT)
- q. the cumulated grand total of the functionalities which have reduced the turnover amount, including the totals of the refund receipts (incl. VAT)
- r. the cumulated grand total of the net turnover (incl. VAT), calculated by the following mathematical operation: the previous grand total of the net turnover (incl. VAT) + the total turnover amount (incl. VAT) realised during the respective period
 - the total amount (inclusive of VAT) of the discounts given during the respective period
 - the total amount (inclusive of VAT) of the other functionalities which have caused a reduction of turnover during the respective period
 - the total amount (inclusive of VAT) of the refund receipts issued during the respective period

43. A “financial ” Z report shall contain at least the following information:

- a. personal or company name of the tax subject and his identification number as referred to in Article 50 of the VAT Code [Btw-Wetboek]
- b. date and time of generation
- c. sequential number of the report, in an uninterrupted consecutive series
- d. identification of the cash register(s) to which the report applies
- e. total turnover amount realised for the respective period (including VAT)
- f. total turnover amount realised for the respective period (including VAT) per main group or department, if these are used
- g. the total tax rate for the respective period, for each applicable VAT percentage
- h. the total VAT amount for the respective period
- i. the contents of the till at the end of the respective period
- j. the number of VAT cash receipts issued during the respective period
- k. the number of till openings without recording an operation during the respective period
- l. the number of training receipts generated and their total amount (incl. VAT) during the respective period
- m. the number of refund receipts generated and their total amount (incl. VAT) during the respective period
- n. the number of pro-forma receipts generated and their total amount (incl. VAT) during the respective period
- o. the number of discounts given and their total amount (incl. VAT) during the respective period
- p. use of other functionalities (corrections, refunds, cancellations of lines, ...) which have reduced the total turnover amount, and their total amount (incl. VAT) during the respective period
- q. the cumulated grand total of the turnover (incl. VAT)
- r. the cumulated grand total of the functionalities which have reduced the turnover amount, including the totals of the refund receipts (incl. VAT)
- s. the cumulated grand total of the net turnover (incl. VAT), calculated by the following mathematical operation:
 - the previous grand total of the net turnover (incl. VAT)
 - + the total turnover amount (incl. VAT) realised during the respective period

- the total amount (inclusive of VAT) of the discounts given during the respective period
- the total amount (inclusive of VAT) of the other functionalities which have caused a reduction of turnover during the respective period
- the total amount (inclusive of VAT) of the refund receipts issued during the respective period

44. A “users” Z report shall contain at least the following information:

- a. personal or company name of the tax subject and his identification number as referred to in Article 50 of the VAT Code [Btw-Wetboek]
- b. date and time of generation
- c. sequential number of the report, in an uninterrupted consecutive series
- d. identification of the cash register(s) to which the report applies
- e. for each user: total turnover amount realised for the respective period (including VAT)
- f. for each user: total turnover amount realised for the respective period (including VAT) per main group or department, if these are used
- g. for each user: the contents of the till at the end of the respective period
- h. for each user: the time of logging into and out of the cash register system, if the cash register system has such functionality.
- i. for each user: the time of the first cash receipt generated and the time of the last cash receipt generated

CHAPTER 7: Requirements for the control module

45. This chapter contains the provisions clarifying and specifying the conditions which the control module of the registered cash register system (RCRS), as defined in Article 2, 7° of the Royal Decree of 30/12/2009, must fulfil.

Such control module shall be connected to the registered cash register system, forming an integral part thereof. Such control module consists of two components: the sales data controller (SDC) and the VAT signing card (VSC).

7.1. The sales data controller (SDC) of the control module

7.1.1. Obligations of manufacturers, importers and distributors

7.1.1.1. Obligations of manufacturers and importers Certification

46. For every version of a control module's SDC which will be placed on the market in Belgium for connection to a registered cash register system, the producer or importer shall submit an application for certification to the competent agency of the Federal Finance Department.

Such application shall contain all necessary and useful supporting documents, which shall enable a reliable assessment of whether the product complies with the requirements of this circular. A full description of the certification procedure to be followed, including the minimum periods to be observed, of the designation of the inspection agency which will

conduct the necessary investigations, and of the required supporting documents, is given in [Annex 1](#).

The manufacturer or importer of the SDC of a control module shall be responsible for ensuring that each control module manufactured is identical to the version submitted for certification.

47. If the SDC complies with the requirements, the manufacturer or importer will be issued with a proof of certification, the model for which will be described in [Annex 1](#). On this proof of certification, the Administration shall state, among other things, the identification number (AAA) and the certificate number (BB), which will uniquely identify the manufacturer or importer as well as the relevant version of the SDC. These numbers will be the basis for the unique serial number which shall be placed on each installed control module such that it is indelible (cf. no. 56).

7.1.1.2. Obligations of manufacturers and importers Notifications

48. The manufacturer or importer shall notify to the Administration all serial numbers of all SDCs delivered in Belgium for connection to a registered cash register system. In addition, for each serial number, the notification shall also mention the tax subject (distributor or end-user) to whom the SDC is supplied. These notifications shall be done following the procedure and deadlines as described in the aforementioned [Annex 1](#).

7.1.1.3. Obligations of distributors: Notifications

49. The distributor of an SDC shall notify the serial numbers of all purchased SDCs to the Administration. Immediately after an SDC is delivered by the distributor to a tax subject, he shall notify the associated serial number and identity of the buyer to the Administration. These notifications shall be done following the procedure and deadlines as described in the aforementioned [Annex 1](#).

7.1.1.4. Documentation

50. The control module's SDC shall be delivered together with a clear instruction manual for installing the SDC of the control module, connecting it to an RCRS, inserting the VSC into the SDC, using the optional functionality offered by port 4, and configuring the SDC.

Such instruction manual shall also outline all the functionalities of the control module's SDC.

The manual and documentation for the SDC shall be in the Dutch, French, German or English language, and a copy thereof shall be delivered to the buyer upon sale.

7.1.2. Requirements for the SDC

51. Every SDC shall comply with the requirements of the present circular.

52. The control module's SDC shall have only the functionalities mentioned in this circular. Any additional functionalities may only be permitted if they are necessary to meet the requirements of this circular. These additional functionalities shall be fully described in the documentation and expressly mentioned in the application for certification (cf. no. 46).

Port 1
VSC port

Port 3
SD-card port
Fiscal

Port 2
GKS port

Port 4
SD-card port
Electronic journal
mass storage

53. The connection of any other peripheral hardware component to the cash register system shall have no effect at all on the functionalities of the control module's SDC.

54. The control module's SDC shall be designed in such a way that it can operate normally when operations are recorded, while simultaneously copying the control data and transmitting them to a mass storage device belonging to the Administration, as described below in this Chapter.

55. The control module's SDC shall not overwrite or delete any stored data except stored data older than 8 years. The calculation of whether the data is “older than 8 years” shall be done on a day-to-day basis.

56. Each control module SDC shall have a unique serial number composed as follows: AAABBNNNNN, where:

AAA = manufacturer identification number (after certification, assigned by the Administration)

BB = manufacturer certificate number (after certification, assigned by the Administration)

NNNNNN = serial number (ascending, assigned by the manufacturer)

The unique serial number shall be retained/stored in the control module SDC during the production process. The unique serial number shall also clearly and indelibly placed on the outside of the control module's SDC by means of a label.

57. The control module's SDC shall carry at least the following information:

- Model number
- Serial number (as referred to in no. 56)
- Name of the agency conducting the certification.

The serial number shall be placed on the control module's SDC in an indelible manner.

7.1.3. Technical specifications for the SDC

58. The control module's SDC shall be equipped with the following ports:

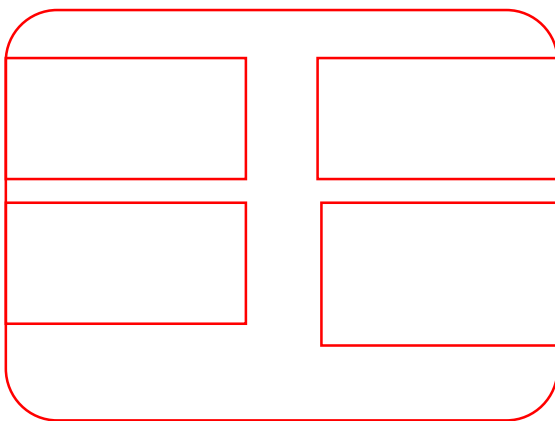


Figure: Control module's SDC, block diagram

59. The control module's SDC shall be able to receive the event data from the RCRS via port 2. Via the same port 2, the control data shall be sent back to the RCRS in order to be printed on the cash receipt.

Via port 1, the control module SDC transmits the event data received from the RCRS, and the timestamp generated by it, to the VSC, and receives the control data back from the VSC via the same port 1.

Via port 3, as soon as it is activated, the SDC control module sends a copy of all data stored in the internal memory and all data stored on the VSC, to the SD card.

Finally, the control module's SDC contains a second SD port as port 4. If the tax subject using the cash register system chooses to use it, this port may contain an SD card of any storage capacity, on which he may store either the original journal files or a copy thereof, in order to comply with his statutory archival obligations pursuant to Article 60 of the Value Added Tax Code. This port shall only receive data from the cash register system, and shall not send any data back to the cash register system, to the SDC or to the other ports of the control module.

Port 4 shall in no way whatsoever:

- interfere with the operation of and the communications between the other ports of the control module.
- interfere with the communications between the control module and the cash register system, and between the control module's SDC and VSC.
- disrupt the normal operation of the control module. Any malfunctions of this port shall also not interfere with the normal operation of the control module¹.

The control module's SDC shall in no event be equipped with any additional ports.

60. The control module's SDC shall have a dedicated power supply.

Clock

61. The control module's SDC shall be equipped with a real-time clock showing the date and time (including year, month, day, hour, minute and second) in accordance with Belgian standard time (UCT+1). This clock shall have an inaccuracy not exceeding 5 minutes per year at an ambient temperature of 20 °C.

Logical interface (ports)

62. The ports of the control module's SDC shall only transmit and receive data as described in the table below, and only in the direction indicated. A detailed description of these data will be given in **Annex 2**, which will contain the specifically technical aspects of this circular.

LOGICAL INTERFACE TABLE

Port	Interface to	Permitted data
Port 1	VAT SIGNING CARD (VSC)	IN: - VSC control data OUT:- data to be verified by VSC (original event data and SDC status check)

¹ The control module's SDC may alert to a malfunction of port 4 or of the SD card inserted in port 4 by giving a signal, but such an event shall not interfere with the normal operation of the SDC as part of the control module.

Port 2	RCRS	IN: - status check (online, memory, ...)- event data - request for control data from control module upon finalising receipt OUT: - status report - control data from the control module (SDC+VSC)
Port 3	Administration (SD card)	OUT: - data stored in SDC internal memory - status and data stored on VSC
Port 4	SD card	IN: - electronic journal/journal log OUT: - status check and status report

Physical interface (connections)

63. Connection 1: shall present for port 1 and comply with the ISO/IEC 7816-3 standard in order to use the “T =0” protocol. The port shall be able to receive smart cards of the physical format ID-1 as described in the ISO/IEC 7810 standard, (85.60 by 53.98 mm).

Connection 2: shall be present for port 2, and shall only be used for communications with the RCRS (type RS232).

Connection 3: shall be present for port 3, and shall be designed for the Secure Digital (SD) type standard, with functionality to store files in FAT16 and FAT32 file systems.

Connection 4: shall be present for port 4, and shall be designed for the Secure Digital (SD) type standard.

64. The control module's SDC shall have a communications protocol, for which the data formats for ports 1 to 3 will be laid down in [Annex 2](#). The data formats for communications with port 4 may be chosen freely.

The communications between the cash register system and port 4 shall be separated completely from the communications with the rest of the control module.

65. The settings of ports 1 to 3 shall be configured during the manufacture of the control module SDC.

The following configuration parameters may be set after manufacture:

- speed
- bits
- stop bits
- parity
- printer settings.

66. The control module's SDC shall generate a signal, via its own user interface, indicating both whether the control module is operational, and what its current status is. The user manual of the device shall contain a detailed description of this user interface.

Internal memory.

67. The control module's SDC shall have an internal memory capable of storing encrypted data.

The internal memory shall have sufficient capacity to store the data for a period of 8 years of activity (recalculated on a day-to-day basis). The manufacturer shall mention in his documentation the estimated number of receipts for which the data can be stored in the SDC's internal memory, so that a tax subject who considers using the SDC may make a correct assessment in advance.

68. The control module's SDC shall be designed such that every physical access or attempted access leaves clearly visible traces.

Physical connection between control module and registered cash register system.

69. The link between the RCRS and the control module SDC shall be made via the serial port of the RCRS.

Technical standards – interferences.

70. The control module's SDC shall comply at least with the standards for immunity to electro-magnetic waves as defined in the standard SS-EN 55024. The control module shall also be immune to magnetic devices used in the environment where it is installed.

71. The control module's SDC shall comply at least with the emission levels of category B as defined in the standard SS-EN 55022 with respect to radio waves.

72. The control module's SDC shall comply at least with the requirements for electrical safety as defined in the standard SS-EN 60 950-1.

The control module's SDC – data processing.

73.

The control module's SDC shall:

1. receive all data from the RCRS and process them in a format as described in Annex 2;
2. transmit data to the RCRS in a format as described in Annex 2;
3. transmit data to the VSC in a format as described in Annex 2;
4. receive all data from the VSC and process them in a format as described in Annex 2;
5. receive event data from the RCRS and forward them to the VSC;
6. receive all data from the VSC. These data shall consist partly of encrypted data and partly of response data;
7. store all encrypted data in its internal memory;
8. forward the response and control data to the RCRS;
9. exchange data with the VSC in a format as described in Annex 2;
10. exchange data with the RCRS in a format as described in Annex 2;

The control module – data for tax administrations

74. The control module's SDC shall automatically generate an SDC daily report based on the data stored in the internal memory after every 24-hour period and each time when port 3 is activated by inserting a SD card; the detailed contents and format of such reports are described in Annex 2.

75. Each time that the port 3 “SD card” of the control module's SDC is activated, such SDC shall generate report files and copy them to the SD card inserted in port 3. This process shall be triggered by the insertion of an SD card into the card reader.

Each triggering and copying action via port 3 shall be logged in the control module.

The control module's SDC shall continue to operate normally while copying is in progress.

76. The control module's SDC shall generate three report files to be used by official inspectors: sdcserial.txt, sdcmem.log and vscmem.log.

The report file “sdcserial.txt” shall contain the unique serial number of the SDC of the control module.

The report file “sdcmem.log” shall contain all data stored in the internal memory of the control module's SDC (event data, SDC daily report data and control data).

The report file “vscmem.log” shall contain all data stored in the memory of the smartcard. The format and detailed contents of these report files shall be laid down in [Annex 2](#).

The control module's SDC – requirements for performance

77. The control module's SDC shall be able to retain the stored data for a minimum of 8 years even in the absence of a power supply.

The control module's SDC shall not overwrite or delete any encrypted data unless they are at least 8 years old.

78. The control module's SDC shall perform all the necessary functionalities using software which cannot be read, modified or deleted without leaving visible traces.

The event and control data shall be stored in a memory in such a manner that they cannot be modified or deleted without leaving visible traces.

79. The set of functions² which the control module (the SDC plus the VSC) must perform, shall not slow down the normal operation of the RCRS such that its ease of use is noticeably affected³.

80. The control module's SDC shall indicate by means of a signal whether or not it is operating normally.

The control module's SDC shall indicate by means of a signal whether a VSC is present, and whether it is operational.

² This means specifically: receiving the event data from the cash register system, generating and appending the time stamp, appending the SDC ID, transmitting these data to the VSC, generating and appending - by the VSC - of the consecutive receipt counter, the internal data hash, the VSC ID, the electronic signature, transmitting these control data - by the VSC - to the control module SDC, receiving - by the control module SDC - and storing the relevant data and forwarding the control data to the cash register system to be printed on receipt, including all the required status checks and status reports.

³ This is the time between finalising the receipt and printing the customer receipt.

The control module's SDC shall indicate by means of a signal whether copying to port 3 has been successful or whether an error has occurred during copying.

The SDC's user manual shall describe the various signals of the user interface in detail.

The control module's SDC – environmental factors

81. The control module's SDC shall be capable of operating normally at ambient temperatures between +5 °C and +40°C.

The control module's SDC shall be capable of storing data in memory at ambient temperatures between -10°C and +55°C.

The control module's SDC shall be capable of operating normally at ambient humidity of between 10% and 85%.

7.2. The VAT signing card (VSC) of the control module

82. The control module shall not be able to communicate with the RCRS unless a VSC as defined in nos. 58 and 59 of this Chapter is placed in port 1.

83. This VSC shall be requested by the tax subject and shall be issued by the Administration. In his application, the tax subject shall inform the Administration of the serial numbers of the cash register system and SDC.

It will be assigned a unique identification number by the Administration.

84. The VSC will be assigned a unique certificate by the Administration for generating digital signatures.

85. The functionalities of the VSC and the software installed on it, and the specifications which they must fulfil, are described in Annex 3.

86. The VSC shall receive all data from the control module SDC and process them in a format as described in Annex 2.

The VSC shall also transmit data to the control module SDC in a format as described in Annex 2. These data shall consist partly of encrypted data and partly of response data.

The Minister responsible for Finances,

Didier REYNDERS

ANNEX 1: Certification and registration procedure

ANNEX 2: Technical modalities of the control module

ANNEX 3: Functionalities and specifications of the VSC