

**Driver LINUX®
for Ditron cash registers**

Release 4.0.8

Updated 19/06/2009

Warning! This document replaces the previous one!!!

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TECHNICAL NOTES ABOUT USE OF PROGRAMS

File Record description for transmission of data to the ECR

FILE LINE SEQUENCE:

FD REGCAS1 LABEL RECORD IS STANDARD
RECORD CONTAINS 50 CHARACTERS
DATA RECORD IS F-REGCAS1.

```

01  F-REGCAS1.
03  R1--TIPO          PIC X(2).
03  R1--DATA.
      05  R1--DES          PIC X(35).
      05  R1--PRZ          PIC 9(9).
      05  R1--PRZ1 REDEFINES R1- - PRZ.
          07  R1--APRZ      PIC X(9).
      05  FILLER REDEFINES R1- - PRZ.
          07  R1 -- QTA      PIC 9(6)V9(3).
      05  R1-- REP          PIC 9(2).
03  C-REGCAS1          PIC XX.

```

Description of various type commands:

R1--TYPE = "00" Record quantity if <> 1 .
It must be inserted before Article or Refund line.
Used filed is R1--QTA.

R1--TYPE = "01" Record Article.
R1-- DES = Contain a description.
R1--PRZ = Contain a price.
R1--REP = Contain a department.

R1--TYPE = "02" Record Line Refund.
It must be inserted before line Article.

R1--TYPE = "03" Record operator.
R1-- DES = 35 spaces.
R1--PRZ = 9 zeros
R1--REP = Contain an operator number.
It must be inserted before transaction begins.

R1--TYPE = "04" Record Comment.
R1--DATA = Massage to print.

The maximum length of the message is 35 characters,
Of course the value should be less than 35 and number that ECR
can print.
The command can be inserted after the sales line.

R1--TYPE = "06"	Line Discount as amount. R1--PRZ = Contains discount as amount.
R1--TYPE = "07"	Line Discount as percent. R1--PRZ = Contains discount as percent.
R1--TYPE = "08"	Change description. R1--DES = Contains a description
R1--TYPE = "10"	Payment in cash R1--PRZ = Contains price.
R1--TYPE = "12"	Payment in cash R1--PRZ = Contains price. This command is identical to R1--TYPE="10" It prepares an output file with .fis extension which contains fiscal data (serial number, date, time, receipt number) (See note Y)
R1--TYPE = "11"	Total receipt closure without amount. It used to close f.e. deposit and withdrawal.
R1--TYPE = "13"	Total receipt closure without amount. It used to close f.e. deposit and withdrawal. This command is identical to R1--TYPE="11" It prepares an output file with .fis extension which contains fiscal data (Serial number, date, time, receipt number) (See note Y)
R1--TYPE = "15"	Subtotal line.
R1--TYPE = "20"	Payment in checks. R1--PRZ = Contains price.
R1--TYPE = "21"	Payment with main sub-tender 1 R1--PRZ = Contains price.
R1--TYPE = "23"	Payment with main sub-tender 1 R1--PRZ = Contains price. This command is identical to R1--TYPE="21" It prepares an output file with .fis extension which contains fiscal data (Serial number, date, time, receipt number) (See note Y)

R1--TYPE = "22"	Payment with main sub-tender 2 R1--PRZ = Contains price.
R1--TYPE = "24"	Payment with main sub-tender 2 R1--PRZ = Contains price. This command is identical to R1--TYPE="22" Prepares an output file with .fis extension which contains fiscal data (Serial number, date, time, receipt number) (See note Y)
R1--TYPE = "30"	Payment with credit card R1--PRZ = Contains price. R1--REP = 2 Used only for payment with credit card.
R1--TYPE = "35"	Accounts (last operation to execute).
R1--TYPE = "40"	Open of non fiscal deposit. It must be followed with line Payment and terminated with the line of closure.
R1--TYPE = "50"	Open of non fiscal withdrawal. It must be followed with line Payment and terminated with the line of closure.
R1--TYPE = "51"	Fiscal read R1--REP = TYPE of reading (see note Z).
R1--TYPE = "52"	Non fiscal reading R1--REP = TYPE of reading (see note X).
R1--TYPE = "1C"	Clear+Key REG
R1--TYPE = "2C"	Clear+ Key X
R1--TYPE = "3C"	Clear+ Key Z
R1--TYPE = "99"	Verify transaction in progress If there is a transaction in process ends with exit code 99.

Not indicated fields should be filled with 0 or spaces depending on the type.

Field C-RTEGCAS1 must be set to ".." in order to avoid problems with payments.

Record layout of file of reading data from expansion memory**FILE LINE SEQUENCE:**

FD REGCAS1 LABEL RECORD IS STANDARD
 RECORD CONTAINS 50 CHARACTERS
 DATA RECORD IS F-REGCAS1.

```

01  F-REGCAS1.
03  R1—COMMAND          PIC X(2).
03  R1--DATA.
    05  R1—FILENAME      PIC X(35).
    05  R1—OPTIONS       PIC 9(9).
    05  R1--MODE         PIC 9(2).
    03  C-REGCAS1        PIC XX.
```

Description of various type commands:

R1--COMMAND = "53"	Cancellation of totalizers. It must be inserted after reading of totalizers.
R1--COMMAND = "54"	Reading of totalizers. R1-- FILENAME = Name of file to save data. R1-- OPTIONS = Not used (filled with 9 zeros) R1--MODE = If 01 writes in mode append, if 00 overwrite. It must be inserted before cancelation of totalizers
R1--COMMAND = "55"	Reading of ECR movements R1-- FILENAME = Name of file to save data. R1-- OPTIONS = Not used (filled with 9 zeros) R1-- MODE = See note.

Note:

The file name can be at most 16 characters long, if less must be terminated with a hyphen (-).

For clarification see the example of record layout.

For the format of the output file of movements it's possible two formats: one standard Ditron and one described in Appendix B2.

To choose the format and way of managing the output file use two digits of MODE, where the first one indicates format Ditron (0) or B2 format (1), while the second sets Overwrite (0) or Append (1).

For a brief description of the meaning of the records in output file refer to Appendix B2. For more details, see the "Manual of connection protocol" and its appendix "Expansion memory."

Note Y :

Record layout of file to read the fiscal data of ECR

FILE LINE SEQUENCE:

FD REGCAS1 LABEL RECORD IS STANDARD
RECORD CONTAINS 50 CHARACTERS
DATA RECORD IS F-REGCAS1.

```
01  F-REGCAS1.  
03  R1--COMMAND          PIC X(2).  
03  R1--DATA.  
    05  R1--FILENAME      PIC X(35).  
    05  R1--OPTIONS       PIC 9(9).  
    05  R1--MODE          PIC 9(2).  
03  C-REGCAS1           PIC XX.
```

Description of various commands:

R1--COMMAND = "60"	Fiscal data reading.
R1--FILENAME	= Name of file to save data
R1--OPTIONS	= Not used (filled with 9 zeros)
R1--MODE	= If 01 writes in mode append, if 00 overwrite.

Note:

The file name can be at most 16 characters long, if less must be terminated with a hyphen (-).

For clarification see the example of record layout.

For the format of the output file of movements it's possible two formats: one standard Ditron and one described in Appendix B1.

Record layout of file of adding attached message**FILE LINE SEQUENCE:**

FD REGCAS1 LABEL RECORD IS STANDARD
RECORD CONTAINS 50 CHARACTERS
DATA RECORD IS F-REGCAS1.

01 F-REGCAS1.
03 R1--COMMAND PIC X(2).
03 R1--DATA.
05 R1--MESSAGE PIC X(46).
03 C-REGCAS1 PIC XX.

Description of various commands:

R1--COMMAND = "70"	Activation of attached message. It must be inserted before the payments begin.
R1--COMMAND = "71"	Line of attached message. R1--MESSAGGE = Message to print. Maximum message length is 27 characters; Number of characters should be less than 27 and number that ECR can print. It must be inserted after the activation of attached message and after the completion of payments.
R1--COMMAND = "72"	Closing of attached message. It must be inserted after completion of message.

Record layout of file of inserting customer VAT number**FILE LINE SEQUENCE:**

FD REGCAS1 LABEL RECORD IS STANDARD
RECORD CONTAINS 50 CHARACTERS
DATA RECORD IS F-REGCAS1.

01	F-REGCAS1.	
03	R1--COMMAND	PIC X(2).
03	R1--DATA.	
05	R1--DESCRIPTION	PIC X(35).
05	R1--OPTIONS	PIC 9(9).
05	R1--MODE	PIC 9(2).
03	C-REGCAS1	PIC XX.

Description of various commands:

R1--COMMAND = "75"	Inserting customer VAT number
	R1 -- DESCRIPTION = VAT number
	It must be inserted before the payments begin.

Record layout of file to print in non-fiscal mode**FILE LINE SEQUENCE:**

FD REGCAS1 LABEL RECORD IS STANDARD
 RECORD CONTAINS 50 CHARACTERS
 DATA RECORD IS F-REGCAS1.

01 F-REGCAS1.
 03 R1—COMMAND PIC X(2).
 03 R1--DATA.
 05 R1--MESSAGE PIC X(44).
 05 R1--MODE PIC X(2).
 03 C-REGCAS1 PIC XX.

Description of various commands:

R1--COMMAND = "80" Activation of non-fiscal mode.
 Must be inserted while transaction is closed (Use COMMAND 99 to
 verify if any transaction is active)

R1--COMMAND = "81" Line of non-fiscal message.
 R1--MESSAGE = Message to print.
 Maximum message length is 27 characters; Number of characters
 should be less than 27 and number that ECR can print.
 Must be inserted after activation of non-fiscal mode

R1--COMMAND = "83" Line of non-fiscal message.
 R1--MESSAGE = Message to print.
 Maximum message length is 27 characters; Number of characters
 should be less than 27 and number that ECR can print.
 It must be inserted after activation of non-fiscal mode.
 Characters preceded with “~” symbol **will** be printed with double
 width.
 R1—MODE = If equals 01 produce a Line Feed
 If it equals to 08 characters will be printed with
 double height.
 If it equals to 00 characters will be printed with
 normal height.
 If it equals to 16 produces a paper cut.
 E.g. R1=17
 Produces Line Feed + Paper Cut (only ZIP rev. firmware 3.0F)
 This COMMAND is valid for ECR HT, LC series

R1--COMMAND = "DY" Writes a message on display.
 R1--MESSAGE = Message to write.
 Maximum message length is 16 characters.
 R1—MODE = First character should possess the value:

1 = Line 1 of operator display

2 = Line 2 of operator display

4 = Line 1 of customer display

5 = Line 2 of customer display

Second character can posses one or more values:

1=send Clear display and then visualize Message

2 = send message and then produce a beep

E.g. R1=42

Send a message on line 1 of customer display and then produce a beep.

R1--COMMAND = "82"

Closure in non-fiscal mode.

It must be inserted at message completion.

Example of receipt with customer VAT:

```
00                00000340001.. #34 pieces
01FRAGOLA         000030.0001.. #article for 30.00 EURO on dep.1
70AAABBB00X00X000X00000000000.. #customer VAT
11                00000000000.. #payment without change
```

Example of non-fiscal receipt:

```
99                00000000000.. #check transaction in progress
80                00000000000.. #Indication of 'Non fiscal'
81 Check non fiscal 123456 01.. #Message first line
81 Line 2          .. #Message second line
81                END NON FISCAL .. #Messaggio ultima riga
82                00000000000.. #Chiusura scontrino non fiscale
```

Syntax of Xditron command:

Command to send to the ECR batch file previously described above has the following syntax:

`xditron [file|file device|file device speed]`

file = represents the batch file to read;
default is XDITRON00.ECR
device = represents the logical device that is connected to serial port;
Default is /dev/ca300
speed = It's a speed including: speed, parity, bit, stop (without spaces);
Default is 38400,n,8,1 (equals to ECR protocol 50187)

Example:

`XDITRON cassa1.ecr /dev/ca302 38400,n,8,1`

This command launches the program (XDITRON) and sends to the ECR, connected to the serial port of the PC linked to the device logic / dev/ca302, the match file cassa1.ecr.

Prg. to be placed in the program directory:

XDITRON : driver for ECR
XDitron00.ECR : Examples file of one line for 5 cents

For the full version it's also necessary to place a file:

mat.dat : file to prepare with >> mat.dat

Besides, during the first execution the program will ask to input:

“Enter Code” :

At this point you will need to pass the serial number of ECR without two initial letters to your dealer who will give you the code.

NOTE: The normal version differs from the full only for the absence of technical assistance and not for limitations in functionality.

TECHINICAL NOTE FOR DRIVER INSTALLATION

Installation of Xditron driver on disc DOS:

Insert the diskette in the drive of your computer; go in the program directory and type:

```
doscp a : XDITRON xditron
doscp a : MAT.DAT mat.dat
doscp a : XDITRON00.ECR XDITRON00.ECR
doscp a : XDITRON01.ECR XDITRON01.ECR
doscp a : XDITRON02.ECR XDITRON02.ECR
```

```
chmod 777 XDITRON
```

link physical device(s) of computer with logical:

example

```
ln -s /dev/ttyS0 /dev/ca300 (link COM1 with logical device ca300)
ln -s /dev/ttyS1 /dev/ca301 (link COM2 with logical device ca301)
```

execute program "XDITRON" for the first ECR (connected on COM1)

`XDITRON XDITRON00.ECR /dev/ca300` where ca300 is the logical device linked on serial port 1

Full version during the first execution will ask to input:

Enter Code :

You will need to pass the serial number of ECR without two initial letters to your dealer who will give you the code

This operation should be executed for each ECR, so for the second one you need to enter:

`XDITRON XDITRON00.ECR /dev/ca301` where ca301 is the logical device linked on serial port 2

CONFIGURATION OF ECR

Serial port settings for connection to PC

WhiteLine:

Blue Line:

For connection to the computer configure the serial port 1:

<4> <KEY> (SET will be displayed)

Press <9> <SELECT> then enter <CONFIRM> with <SELECT>

HOST <CONFIRM> then enter protocol 50187 <CONFIRM> then insert

EXTERNAL FILE = <SELECT> NO <CONFIRM> EMULATION = <SCELTA>

YES <CONFIRM> and leave the rest to NO by pressing

<CONFIRM> Until HOST, go out with <END> <END> then <8> <9>

<CONFIRMA> ONLINE will be displayed.

<1> <KEY> to return to REG.

Grey Line:

For connection to the computer configure the serial port 1:

<4> <KEY> (SET will be displayed)

Press <9> <SELECT> then enter <CONFIRM> with <SELECT>

HOST <CONFIRM> then enter protocol 50187 <CONFIRM> then insert

EXTERNAL FILE = <SELECT> NO <CONFIRM> EMULATION = <SCELTA>

YES <CONFIRM> and leave the rest to NO by pressing

<CONFIRM> Until HOST, go out with <END> <END> then <1> <0> <1>

<CONFIRMA> ONLINE will be displayed.

<1> <KEY> to return to REG.

Settings for the use of sub-tender

Regardless of the product line to enter the programming menu <4> <KEY>, and select the sub-tender using the <SELECT> button.

Continue with <CONFIRM> and set the parameters and description of the sub-tender chosen.

For more information refer to the technical manual.

Settings to enable the obligatory selection of ECR operator

For all machines:

<4> <KEY> (SET will be displayed)

press <7><SELECT> then <CONFIRM> select with < CONFIRMA >

Operator obl. Then with <SELECT> YES, exit with <END><END> .

<1> <KEY> to return to REG.

Settings to program ECR operator password

White Line:

Blue Line:

<4> <KEY> (SET will be displayed)

Press <32><SELECT> then <CONFIRM>

Enter the number of operator that you intend to protect with password and confirm with <CONFIRM>

Enter the password and press <CONFIRM><CONFIRM><END>

<1> <KEY> to return to REG.

Grey Line:

<4> <KEY> (SET will be displayed)

Press <3><SELECT> then <CONFIRM>

Enter the number of operator that you intend to protect with password and confirm with <CONFIRM>

enter the password and press <CONFIRM><CONFIRM><END>

<1> <KEY> to return to REG.

Note:

Check the technical manual if cash register has options of operators' management.

Configuration of Ditron expansion memory

White Line:

Blue Line:

Expansion memory is initialized by the following:

<4> <KEY> (SET will be displayed)

Press <2><0><0><CONFIRM><CONFIRM>

Enter the first part of configuration <60201010> and press <CONFIRM>

Enter the second part of configuration <02061606> and press <CONFIRM>

at the end of initialization procedure the receipt will be issued. Press

<6><3><CONFIRM><SELECT> YES <CONFIRM>

then <8><9> <CONFIRM> indicates ONLINE .

<1> <KEY> to return to REG.

Grey Line:

Expansion memory is initialized by the following:

<4> <KEY> (SET will be displayed)

press <1><2><0><CONFIRM><CONFIRM>

enter the first part of configuration <60201010> and press <CONFIRM>

enter the second part of configuration <02061606> and press <CONFIRM>

at the end of initialization procedure the receipt will be issued. Press

<4><9><2><CONFIRM><SELECT> YES <CONFIRM>

then <1><0><1> <CONFIRM> indicates ONLINE .

<1> <KEY> to return to REG.

Note:

For the meaning of the configuration string you should refer to the manual attached to the expansion card.

CONFIGURATION OF ECR

AI: history

Release 4.0.8 (19/06/2009)

Fixed bug of slow printing with COMMAND 70.

Release 4.0.7 (20/01/2009)

Extension of COMMAND "03" operator record to handle 15 operator only for ZIP ECR 60/80 with ver. Firmware 3.1 or higher

Release 4.0.6 (30/09/2008)

Extension of COMMAND "83" for sending a command paper cut during the non-tax print usable only with ZIP rev. Firmware 3.0f or greater

Implemented a new COMMAND "DY" for sending messages to the customer and / or operator display.

Release 4.0.5(beta) (03/07/2008)

New COMMAND "83" during non fiscal print and possibility to print with double width and/or height and send of Line Feed.

Commands 1C,2C,3C only preceded by Clear

Release 4.0.4.4(beta) (05/06/2008)

Fixed bug on fiscal register SERANA C

Release 4.0.4.3(beta) (13/05/2008)

Fixed bug identification fiscal printer DS280

Release 4.0.4.2(beta) (08/05/2008)

Fixed bug when reading fiscal data COMMAND 60

Simultaneous management of records "FD REGCAS1" with a length of 31 to 50 characters

Open sales management of departments 29 and 30

Release 4.0.4.1(beta) (21/04/2008)

Modified record layout: "FD REGCAS1". The size of the record has changes from 31 to 50 characters, that's why was changed the dimension of the "R1-data" records to 31 characters that was not handled by the new driver.

Added four new commands to generate an output file containing the data of fiscalization:

COMMAND 12 can be used as an alternative COMMAND 10

COMMAND 13 can be used as an alternative COMMAND 11

COMMAND 23 can be used as an alternative COMMAND 21

COMMAND 24 can be used as an alternative COMMAND 22

For the detail of the output file See Note Y.

Fixed bug on command 51 and 52 for the readings and zero tax.

Fixed bug when printing the receipt with the fiscal code.

Fixed bug when reading fiscal data COMMAND 55

New commands:

1C KEY REG

2C KEY X

3C KEY Z

Changed the name of the error file: "dumpMMDD.log" where MM = month DD = day

Release 4.0.2 (20/01/2005)

Added three new commands that allow you to use the non fiscal mode in machines that support it.

Fixed a bug that in case of syntax or connection errors, continued sending of the successive lines which are terminated with an error message.

Release 4.0.1 (30/04/2004)

Completely rewritten the protocol engine is now faster in handling abnormal situations generated by the loss of characters in serial multiport.

Release 3.0.3 (28/01/2004)

Added Appendix B3 showing the copy of the file ExitDefine.h, to have at hand all possible error codes that the driver can 'return.

The status bar was changed. Now it presents for all commands DownLoad (54.55 and 60), and before they appear, clean the screen, write the name of the extended COMMAND currently running and displays the word wait.

Controls appear:

54 - Reading internal totalizers.

55 - Reading movements expansion.

60 - Reading expansion totalizers.

Release 3.0.2 (10/11/2003)

Adding commands 51 and 52 for reading and zeroing.

Adding commands 70, 71 and 72 for printing the attachment message.

Adding the COMMAND 75 for entering the fiscal code or VAT.

Added display of a progress bar for the COMMAND of DownLoad movements (COMMAND 60).

Release 3.0.1 (06/03/2003)

Adding commands 21 and 22 for the closing of the transactions with sub-tender.

Adding the COMMAND 99 for the verification of a transaction in progress, in which case the driver program immediately terminates its execution and returns the error code 99.

Added new entries to the file format in Appendix B1 and B2.

Release 3.0.0 (07/11/2001)

Adding of functions to read the fiscal data of ECR.

Added a description of the COMMAND 01 - Record article, missing by misprint.

Modified COMMAND 02 - Record line refund, now you can also enter the quantity.

Added COMMAND 03 - Record operator, time and possibility to handle operators.

Modified COMMAND 55 - Read ECR movements, adding a possibility of having two different output formats: a standard Ditron, another in the format shown in Appendix B2.

Release 2.0.0 (07/11/2001)

Adding of functions to read the expansion card.

Release 1.0.0 (07/11/2001)

Official release of the driver, fixed a bug in connection with machines 3150 (pre EURO)

Release 0.9.0 (07/05/2001)

Latest checks and pre release version, correct minor bugs

Release 0.1.0 (13/03/2001)

Start writing the driver and release the first beta works.

B1: Description of the records layout of the file fiscal data**Example of layout:**

IT	XXLL999999	DDMMYY	HHMMSS			
RE	01	DEPARTMENT 01		0000000000	0000000000	0000000000
RE	02	DEPARTMENT 02		0000000000	0000000000	0000000000
RE	03	DEPARTMENT 03		0000000000	0000000000	0000000000
RE	04	DEPARTMENT 04		0000000000	0000000000	0000000000
RE	05	DEPARTMENT 05		0000000000	0000000000	0000000000
RE	06	DEPARTMENT 06		0000000000	0000000000	0000000000
RE	07	DEPARTMENT 07		0000000000	0000000000	0000000000
RE	08	DEPARTMENT 08		0000000000	0000000000	0000000000
RE	09	DEPARTMENT 01		0000000000	0000000000	0000000000
RE	10	DEPARTMENT 10		0000000000	0000000000	0000000000
RE	11	DEPARTMENT 11		0000000000	0000000000	0000000000
RE	12	DEPARTMENT 12		0000000000	0000000000	0000000000
RE	13	DEPARTMENT 13		0000000000	0000000000	0000000000
RE	14	DEPARTMENT 14		0000000000	0000000000	0000000000
RE	15	DEPARTMENT 15		0000000000	0000000000	0000000000
RE	16	DEPARTMENT 16		0000000000	0000000000	0000000000
RE	17	DEPARTMENT 17		0000000000	0000000000	0000000000
RE	18	DEPARTMENT 18		0000000000	0000000000	0000000000
TO	SO	0000	0000000000			
TO	CA	0000	0000000000			
TO	NE	0000	0000000000			
TO	LO	0000	0000000000			
TO	CR	0000	0000000000			
TO	RE	0000	0000000000			
TO	SC	0000	0000000000			

Description of the various fields*Record Head*

IT	XXLL999999	DDMMYY	HHMMSS	
----	------------	--------	--------	--

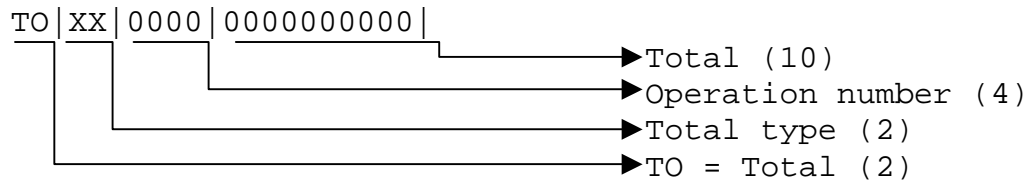
IT = start transaction (2)
 Serial number (10)
 Date of operation (6)
 Time of operation (6)

Record Department

RE	NN	REPARTOxNNxxxxxx	0000000000	0000000000	0000000000
----	----	------------------	------------	------------	------------

RE = Department (2)
 Department number (2)
 Department description (16)
 Quantity with 3 decimals (10)
 Gross Total (10)
 Net Total (10)

Record Total



The types of provided totals are:

CA = ECR Total
 NE = Net Total
 LO = Gross Total
 CO = Total cash
 CR = Total credit
 AS = Total checks
 BU = Total point
 CC = Total credit card
 SO = Total receipts
 RE = Total refund
 AN = Total cancelled
 SA = Total absolute discounts
 MA = Total surcharges
 VO = Total void
 SC = Total cancelled

Note: the number of characters is given in brackets.

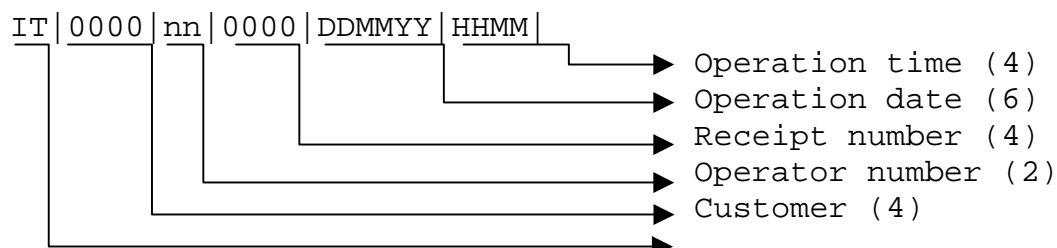
B2: Brief description of the records layout of the expansion memory data

Example of layout:

IT	0000	nn	0000	DDMMYY	HHMM
VE	nn	0000000000	0000000000		
RE	nn	0000000000	0000000000		
AN	nn	0000000000	0000000000		
SU	0000	0000000000	DDMMYY	HHMM	
ST	0000	0000000000			
SS	0000000000				
SP	0000	0000000000	0000000000		
SV	0000000000	0000000000			
TV	0000	0000000000	DDMMYY	HHMM	000000
FT	tt	0000000000			

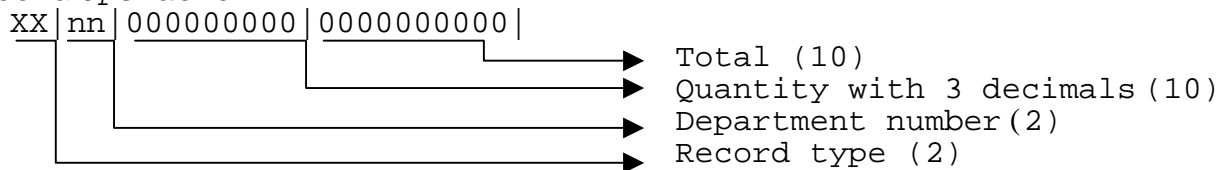
Description of the various fields

Record Head



IT = start transaction (2)

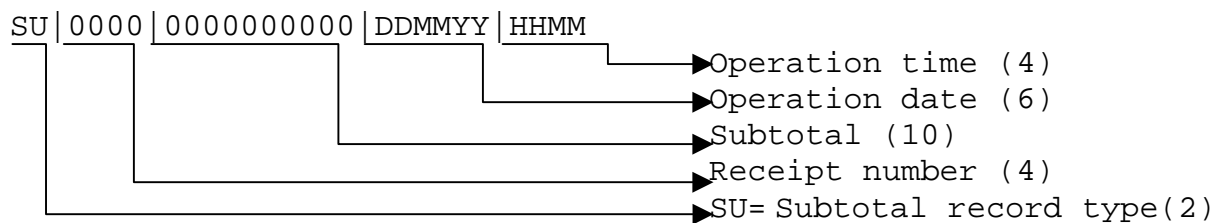
Record Operation



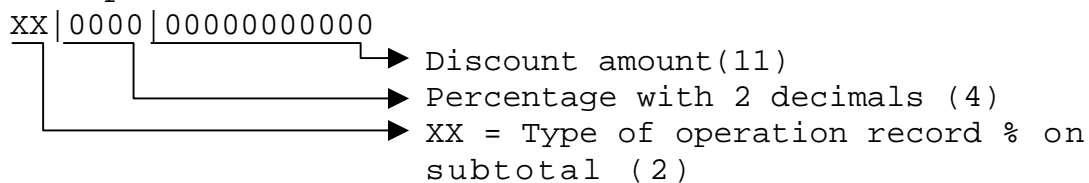
The provided types of operation records:

VE = Sale
RE = Refund
AN = Cancel or void

Record Subtotal.



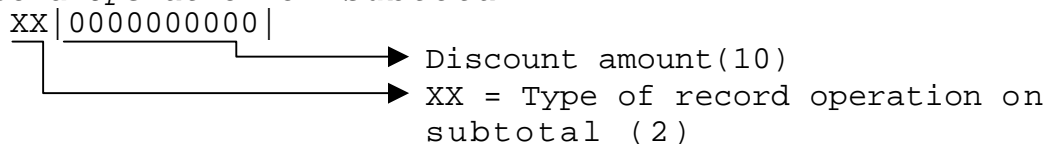
Record Operation % on subtotal



The provided types of record operation % on subtotal

ST = Discount
AT = Cancelled discount
MT = Surcharge
AA = Cancelled surcharge

Record Operation on subtotal



The provided types of record operation on subtotal

SS = Discount
AS = Cancelled discount
MS = Surcharge
AC = Cancelled surcharge

Record Operation % on article

XX|0000|000000000000|00000000000|

Article code(10)
Discount amount (11)
% with two decimals (4)
XX=Type of record operation(2)

The provided types of record operation on article:

SP = Discount
AP = Cancelled discount
MP = Surcharge
A9 = Cancelled surcharge

Record Operation on article

SV|000000000000|00000000000|

Article code (10)
Discount amount (10)
SV=Type of record operation(2)

The provided types of record operation on article:

SV = Discount
AV = Cancelled discount
MV = Surcharge
AB = Cancelled surcharge

Record Total

TV|0000|00000000000|GGMMAA|HHMM|000000|

Points number (6)
Operation time (4)
Operation date (6)
Net total amount (10)
Receipt number (4)
TV = Record type (2)

Record Closure

FT|nn|00000000000|

Given amount (10)
Tender type (2)
FT = Record Type End transaction (2)

Provided tender types:

01 = Cash
02 = Credit
03 = Checks
04 = Points
05 = Credit card

Note:

The number of characters is given in brackets.

The fields marked with * are filled with zeros (not managed).

The data-collect records types that are not managed are described in Chapter 8 of Communication protocols Manual, are usually indicated by two digits.

B3: Copy the file *ExitDefines.h* (driver output values)

```

/*****
                                ExitDefines.h - description
                                -----
begin                          : Mon May 6 2002
copyright                      : (C) 2001 by Ditron s.r.l.
author                         : Biase Celano
email                         : biase@best.unina.it
*****/

/*****
*
* This program is free software; you can redistribute it and/or modify
* it under the terms of the GNU General Public License as published by
* the Free Software Foundation; either version 2 of the License, or
* (at your option) any later version.
*
*****/

//
// File defines the output codes of the xditron driver
//

#ifndef ExitDefinesH
#define ExitDefinesH

//-----
// Codes of communication error
//

# define MP_NO_ERRORS                0
# define MP_NO_ERRORS_E              "No error"
# define MP_E_INV_HANDLE              2
# define MP_E_INV_HANDLE_E           "Error of port opening (INVALID_HANDLE_VALUE)"
# define MP_E_PURGE                    7
# define MP_E_PURGE_E                 "Error Clean Buffer Rx (PurgeComm)"
# define MP_E_WRITE                    8
# define MP_E_WRITE_E                 " Writing Error in (WriteFile)"
# define MP_E_CRCFAILS                9
# define MP_E_CRCFAILS_E              "Error Checksum (CRCFAILS)"
# define MP_E_READ                    10
# define MP_E_READ_E                  "timeout error during reception"
# define MP_E_TIMEOUT                 11
# define MP_E_TIMEOUT_E               "Error timeout (Sending Data)"
# define MP_E_COMM_INIT               12
# define MP_E_COMM_INIT_E             "Problem of initialization (Init ())"
# define MP_E_WRITEBUSY               13
# define MP_E_WRITEBUSY_E             "Device is occupied"
# define MP_E_OVERFLOW                14
# define MP_E_OVERFLOW_E              "COMMAND length is more than allowed"
# define MP_E_STATUS                  15
# define MP_E_STATUS_E                "This device is not connected"
# define MP_E_FRAME                   17
# define MP_E_FRAME_E                 18
# define MP_E_SENDCCHAR_E             "COMMAND not accepted"
# define MP_E_CHANNELBUSY              19
# define MP_E_CHANNELBUSY_E           "physical channel busy"
# define MP_E_DATATOSEND               20
# define MP_E_DATATOSEND_E            "Buffer in TX not empty"

//-----
// / Return Codes critical errors.
// / These errors can occur only after the serial port was
// / Open and may be due to: paper end, head is rised, wrong
// / key mode, ECR is off during communication, etc. ..
#define ECR_IE_BUSY                    0x00000001 //00000000.00000000.00000000.00000001
#define ECR_IE_SENDDATA                0x00000002 //00000000.00000000.00000000.00000010
#define ECR_IE_WAIT                    0x00000004 //00000000.00000000.00000000.00000100
#define ECR_IE_DATA                    0x00000008 //00000000.00000000.00000000.00001000
#define ECR_IE_ECR                     0x00000010 //00000000.00000000.00000000.00010000
#define ECR_IE_CRITICAL                0x00000020 //00000000.00000000.00000000.00100000
#define ECR_IE_LOADCONF                0x00000040

```



```
//-----
// / Main Error codes.
// / these errors usually occur when the channel is very noisy or
// / the system is too loaded and results a buffer overflow
// / in Rx of serial.
// / Note: In the most cases this problem is solved by the internal retry
// / directly by the driver.
#define MP_RX_ERR 101
#define MP_RX_ERR_E "Ecr answers ERR in Sending Data "
#define MP_RX_NACK 102
#define MP_RX_NACK_E "Ecr answers NACK in Sending Data "
#define MP_RX_SKIP 103
#define MP_RX_SKIP_E "Ecr answers SKIP in Sending Data "
#define MP_RX_DLE 104
#define MP_RX_DLE_E "Ecr answers DLE in Sending Data "
#define MP_RX_UNEXP 105
#define MP_RX_UNEXP_E "Ecr answers Unexp in Sending Data "
#define MP_RX_TIMEOUT 106
#define MP_RX_TIMEOUT_E "_Ecr not answers (TimeOut Sending Data)"
//-----

#endif // ExitDefinesH
```

Note Y: Example file of fiscalization:

If the input file has name XDITRON00.ECR the output file will have name XDITRON00.fis and content:

```
[FISCALI]
MF_FULL=TV45256387 // unique ecr identifier
MATRICOLA_FISCALE=45256387 // serial number id. univ. ecr
DATA_FISCALIZZAZIONE=28-03-08 16:49:50 // DD-MM-YY HH24:MM:SS
DATA_FISCALIZZAZIONE_MGA=03-28-08 16:49:50 // MM-DD-YY HH24:MM:SS
DATA_FISCALIZZAZIONE_AMG=08-03-28 16:49:50 // YY-MM-DD HH24:MM:SS
ANNO_FISCALIZZAZIONE=08
MESE_FISCALIZZAZIONE=03
GIORNO_FISCALIZZAZIONE=28
ORA_FISCALIZZAZIONE=16
MINUTI_FISCALIZZAZIONE=49
SECONDI_FISCALIZZAZIONE=50
PROGRESSIVO_SCONTRINO=0024 // Receipt number
```