

ELECTRONIC CASH REGISTERS

CHD

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**DRIVER DESCRIPTION
FISCAL PRINTER MODE**



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Revision history:

Date	Description of modifications	Author
15.10.2000	Separated from standard driver documentation	NN
11.12.2009	Country independent (ISO 8601:2004) date/time format used	NN
06.01.2012	Added commands for slip printing	MA
17.01.2012	Automatic retail transaction complete flag added (enter fiscal mode)	NN
19.01.2012	Slip printing, removed optional footer print	MA
16.02.2012	EFT commands added	NN
06.06.2012	Print barcode command added in case serial printer and EJ only	MA
23.08.2012	Print barcode command, max. barcode data length decreased	MA

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Driver usage:

SDRV.exe command filename [parameters]

Command – one of the actions below.

Command	Description
<i>ExecuteFiscal</i>	Used to send fiscal commands from an input file to ECR.
<i>ReadFiscalStatus</i>	Used to reads ECR fiscal status into an output file.

Filename – an input or output file name.

Parameters – INI-file parameters in form /Name=Value. Used to override INI-file configuration.

Driver return codes:

Error code	Description
0	OK
1	Command line error
2	Input file contains badly formatted, duplicate or empty records
3	ECR is busy
4	Command failed or can not be executed in current context
5	Communication error
10	Configuration error (bad or missing parameter)
11	Authorization failed (bad password)
12	Protocol is not activated
13	File open/read/write error
14	Some input file records were rejected by ECR
15	Unknown command
50	System error
99	Internal driver error

1. FISCAL PRINTER MODE COMMANDS

1.1. Enter fiscal mode

The command blocks ECR input devices (keyboard, key lock etc.) and switches ECR into a fiscal mode. Other fiscal commands can be issued only if ECR is in fiscal mode. The command can be issued only if ECR key-lock is in REG state and no transaction is started.

Command: 1

Data format:

№	Description	Type	Value	Default
1	Print receipt at transaction end	Integer	0 – OFF, 1 – ON	0
2	Automatic change	Integer	0 – OFF, 1 – ON	1
3	Allow percent modifiers without amount	Integer	0 – OFF, 1 – ON	0
4	Automatic retail transaction complete	Integer	0 – OFF, 1 – ON	1

File example:

```
1, 1, 0, 1, 0
2
```

1.2. Exit fiscal mode

The command unblocks ECR input devices (keyboard, key lock etc.) and switches off the fiscal mode. The command can be issued only if ECR is in fiscal mode and no transaction is started.

Command: 2

Data: none

File example:

```
1, 1, 1
2
```

1.3. Print comment

Command: 3 Data format:

№	Description	Type	Value
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1	Comment text	String	30 - symbols for all models; except CHD3030 – 18 symbols, CHD5880 - 46 symbols.
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File example:

```
1
4, 1, "Test item", 1, 1.56
3, "Comment"
10, 1, 1.56 2
```

1.4. Department sale

Command: 4

Data format:

№	Description	Type	Value	Default
1	Department number	Integer	1 ... department count	
2	Item name	String	1 ... (printer width symbols - 2 symbols) or an empty line to use department name	
3	Quantity	Decimal	0.001 ... 999999.999	
4	Price	Decimal	0.00 ... 9999999.99	
5	Void flag	Integer	0 – normal sale, 1 – void	0

File example: 1

```
4, 1, "Test item", 1, 1.56 10,
1, 1.56
2
```

1.5. Department return

Command: 5

Data format: the same as in department sale command.

File example: 1

```
5, 1, "Test item", 1, 1.56 10,
1, 1.56
2
```

1.6. PLU sale

Command: 6

Data format:

№	Description	Type	Value	Default
1	PLU number	Integer	1 ... $10^{14} - 1$	
2	Quantity	Decimal	0.001 ... 999999.999	
3	Price	Decimal	0.00 ... 9999999.99 or -1 to use default price	
4	Void flag	Integer	0 – normal sale, 1 – void	0

File example: 1

```
6, 1, 1, 1.56 10,
1, 1.56
2
```

1.7. PLU return

Command: 7

Data format: the same as in PLU sale command

File example:

```
1
7, 1, 1, 1.56 10,
1, 1.56
2
```

1.8. Modifier

Command: 8

Data format:

№	Description	Type	Value
1	Modifier number	Integer	1 ... modifier count
2	Amount ¹	Decimal	0.00 ... 9999999.99
3	Percent rate ²	Decimal	0.00 ... 99.99

- 1) For open amount modifier the field contains the modifier amount. For fixed amount modifiers the field should be set to 0. For percent modifiers the field is used to check if ECR uses the same calculation mechanism as an external application. In this case the field value is compared with an amount calculated by ECR (using the modifier percent rate). If amounts differ the command will result in error. To suppress check set an “enter fiscal mode” command “allow percent modifiers without amount” parameter to 1.
- 2) For open percent modifiers the field contains the modifier percent rate. For fixed percent modifiers the field should be set to 0.

File example:

```
1
4, 1, "Test item", 1, 1.56
8, 1, 0, 10
10, 1, 2.00
2
```

1.9. Subtotal

Command: 9

Data: none

File example:

```
1
7, 1, 1, 1.56
9
10, 1, 2.00
2
```

1.10. Tender

Command: 10

Data format:

№	Description	Type	Value
1	Tender number	Integer	1 ... tender count
2	Amount	Decimal	0.00 ... 9999999.99 or - 1 to use current subtotal

NOTE: The command should not be used for card (EFT) tenders.

File example:

```
1
7, 1, 1, 1.56
10, 1, 2.00
2
```

1.11. Change

Command: 11

Data: the same as in tender command

NOTE: The command should not be used for card (EFT) tenders.

By default change is given automatically. To suppress automatic change set an “enter fiscal mode” command “automatic change” parameter to 0.

File example:

```
1, 0, 0
7, 1, 1, 1.56
10, 1, 2.00
11, 1, 0.44
2
```

1.12. Received on account

Command: 12

Data format:

№	Description	Type	Value
1	Tender number	Integer	1 ... tender count
2	Amount	Decimal	0 ... 99999999.99
3	Count	Decimal	1 ... 99999999
4	Receive on account operation number ¹	Integer	1 ... RA operation count

¹⁾ Field is optional. If not specified a default receive on account will be used.

File example:


```
1
12, 1, 20.00, 5, 1
2
```

1.13. Paid out

Command: 13

Data format: the same as in received on account command, except the last (optional) field, is a paid-out operation number.

File example:

```
1
13, 2, 10.00, 2, 1
2
```

1.14. Complete transaction

Command: 14

Data: none

The command should be used for multi-line tender control (receive on account, pay out) and comment only transactions. Retail transactions are completed automatically on issuing a tender command.

File example:

```
1
4, 1, "Test item", 1, 1.56
14
2
```

1.15. Cancel transaction

Command: 15

Data: none

Example:

```
1
```

7, 1, 1, 1.56
15
2

1.16. Report

Command: 16

Data format:

№	Description	Type	Value
1	Report number	Integer	ECR report number
2	Report type: X or Z	Integer	0 – X report, 1 – Z report
3	Report start range ¹	Integer / String	0 ... 9999 / Format: YYYY.MM.DD
4	Report end range ¹	Integer / String	0 ... 9999 / Format: YYYY.MM.DD

¹⁾ At the moment range fields are used for fiscal memory reports only. For reports taken by Z number range start/end fields should contain integers. For reports taken by date range start/end fields should contain date strings.

Example:

1
16, 1, 0
2

1.17. Open cash drawer (NS)

Command: 17

Data: none

Example:

1 17
2

1.18. Resume transaction

The command marks the end of a resumed retail transaction. The command updates resumed transaction counters with a specified amount or current retail transaction subtotal.

Command: 19

Data format:

№	Description	Type	Value
1	Resumed transaction subtotal ¹⁾	Decimal	0.00 ... 99999999.99

¹⁾ Field is optional. If not specified current retail transaction subtotal is used.

Example 1:

```
1
4, 1, "Test item", 1, 1.00 19
4, 1, "Test item", 1, 3.00
10, 1, 6.00
```

2 Example

2:

```
1
19, 1.00
4, 1, "Test item", 1, 1.00 4,
1, "Test item", 1, 3.00
10, 1, 6.00
2
```

1.19. Suspend transaction

Command: 20

Data: none

The command updates suspended transaction counters with current retail transaction subtotal and deletes the transaction. The command can be issued for retail transaction without tender lines only.

Example:

```
1, 1, 1
4, 1, "Test item", 1, 1.00
20
2
```

1.20. Open cash drawer

Command: 24

Data: None

Example:

```
1
24
2
```

1.21. EFT Tender

Command: 30

Data: the same as in change command

NOTE: The command should be used for card (EFT) tenders only.

The command initializes EFT transaction and returns. The status of the transaction should be read using “EFT transaction status read” command.

File example:

```
1
6, 1, 1, 1.56
30, 2, 2.00
```

1.22. EFT change

Command: 31

Data: the same as in change command

NOTE: The command should be used for card (EFT) tenders only.

The command initializes EFT transaction and returns. The status of the transaction should be read using “EFT transaction status read” command.

By default change is given automatically. To suppress automatic change set an “enter fiscal mode” command “automatic change” parameter to 0.

File example:

```
1, 0, 0 7, 1,  
1, 1.56  
31, 2, 1.56
```

1.23. EFT transaction status read

EFT transaction status can be read using *ReadEftStatus* command.

Data format:

No	Description	Type	Value
1	EFT transaction status	Integer	0 – not in progress 1 – in progress
2	Last EFT transaction error code	String	
3	Last EFT transaction status message	String	

1.24. EFT transaction cancel

Command: 33

Data: None

The command cancels current EFT transaction.

Example:

```
33
```

1.25. Clear error

Command: 101

Data: None

The command tries to clear current ECR error.

Example: 101

1.26. Fiscal status

Fiscal status can be read using *ReadFiscalStatus* command.

Data format:

№	Description	Type	Value
1	ECR error status ¹	Integer	0 – not in error state 1 – in error state
2	Last ECR error code	Integer	See appendix B
3	Last ECR error message	String	See appendix B
4	ECR key-lock state	Integer	0 – NONE 1 – S 2 – PRG 3 – OFF 4 – REG 5 – X 6 – Z
5	Fiscal mode status	Integer	0 – not active 1 – active
6	Transaction (receipt) status	Integer	0 – not in progress 1 – in progress
7	Next receipt number	Integer	0 ... $2^{32}-1$
8	Current subtotal	Decimal	0 ... 0-99999999.99
9	Next daily financial Z-report number	Integer	1 ... $2^{32}-1$
10	Currently allowed command set ²	Integer	0 – all commands 1 – limited
11	Cash drawer status	Integer	0 – closed 1 – opened

1. ECR is initializing after a cold or a warm start.
2. ECR is in error state. A “clear error” command must be send.

¹⁾ If ECR is in error state. A “clear error” command must be send.

²⁾ Limited command set consists of “read status” and “clear error” commands. There are several reasons for command set to be limited:

3. Previous command is still being executed. For example, in case of paper end during a report printing ECR will go to error state. After inserting a new paper roll and issuing a “clear error” command the report will be reprinted. During the reprinting of the report command set will be limited.