Software Information Sheet

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General Information

Model Name:	VEGA-100/101/102/104-SH/SU/SD/SUB/SDB	**SW. Req. No.**	C19-0030-01 G19-006
SW. Name:	VEGA(RUS) ID-003 / 0E3 / 0D3	**Date:** (mm,dd,yyyy)	01.24.2019 **Rev:** A1
SW. Version:	V2.26-18	**Note:**	-
Country (Code):	Russia (RUS)	**Guide:**	SH TYPE3 (71mm)
Currency:	Ruble	**Check Sum:**	9CB9
Direction:	4Way	**CRC (seed= 0000):**	93E1

Denomination: Years & MRI Ident
MRI Bankers' Guide to Foreign Currency 92nd Edition

RUB10.1 and RUB10.2 refer to MRI Bankers' Guide to Foreign Currency 81st Edition

Denomi.	Printed	Issued	MRI#	Denomi.	Printed	Issued	MRI#
10	'97	'98	RUB10.1	500	'97	'04	RUB500.2
10	'97	'04	RUB10.2	500	'97	'11	RUB500.3
50	'97	'98	RUB50.1	1000	'97	'01	RUB1000.1
50	'97	'04	RUB50.2	1000	'97	'04	RUB1000.2
100	'97	'98	RUB100.1	1000	'97	'10	RUB1000.3
100	'97	'04	RUB100.2	2000	'17	'17	RUB2000.1
200	'17	'17	RUB200.1	5000	'97	'06	RUB5000.1
500	'97	'98	RUB500.1	5000	'97	'11	RUB5000.2

Acceptance Rate:	Not less than 95%
EPROM:	Flash ROM only (16Mbit)
Modifications:	**V2.25-18 → V2.26-18**
Validation	1. Improved acceptance for RUB500.3.
Operation	-
Interface	-

RC-30	**Version**	V1.026E	**CRC**	2D77	**Check Sum**	33F6
	ID-003	Supported.	ID-0E3	Supported.	ID-0D3	Supported.
RC-Twin	**Version**	V1.002E	**CRC**	2526	**Check Sum**	C43D
	ID-003	Supported.	ID-0E3	Supported.	ID-0D3	Supported.

Memo:	• **The recycle denomination settings are different to the versions V1.xx-xx** • The older BootRom versions before B11 can cause a communication problem in the ID-0E3. • **In order to use ccTalk DES Encryption function, the BootRom version B20, or greater must be mounted.** • **In order to use ccTalk DES Encryption with a VEGA unit in which an older version before x.xx-48 has been installed, after replacing it with this software, the special number needs to be re-entered. This case, please re-enter the serial number only after downloading this version to the unit.** • If the bezel LED is lit in purple after the power-on, refer to the "Dip Switch Settings" below. If the unit is turned on when the DIP Switches #1-1, #2-6, #2-7, and #2-8 are not set properly, the LED will continue to be purple. • If the "05" Error is reported by the VEGA-RC (when the red LEDs are lit, and the "05" is displayed in the seven segments on the RC unit), turn the power off, and specify the denomination of the note that has been stored in the VEGA-RC to be recycled with the DIP Switches on it referring to the "VEGA-RC Dip Switch Settings" below. Then, the "05" Error will be cleared after the power is turned on again. • The number of notes that the "Nearly Full" function detects by cash box capacity differs. o 210 notes for 300-notes cash box o 700 notes for 1000-notes cash box • The counting process for the "Nearly Full" function initializes to '0' when the cash box is removed. **Attention when using this software for the first time -** After installing this software and running with ID-003, remove and empty the cash box. The reason for this operation is because it initializes the counting process for the "Nearly Full" function. • Maximum Baud rate of ID-003 Download Communication. o Photo-coupler isolation : 9600bps o TTL : 38400bps o RS232C : 38400bps • **In the ID-0D3, in normal case (DIP-switch #2-1 to OFF) the 5,000 Ruble are not supported by MDB. Although 5,000 Ruble can be enabled by DIP-switch #2-1 to ON, but in this case MDB will not support 10 Ruble notes. Switching of DIP-switch #2-1 also changes Scaling Factor. Switching of DIP-switch #2-2 changes Decimal Places:** • #2-1 OFF #2-2 OFF Decimal Places = 2, Scaling factor 1000, Working mode: 10...1000; • #2-1 OFF #2-2 ON Decimal Places = 0, Scaling factor 10, Working mode: 10…1000; • #2-1 ON #2-2 OFF Decimal Places = 2, Scaling factor 5000, Working mode: 50...5000; • #2-1 ON #2-2 ON Decimal Places = 0, Scaling factor 50, Working mode: 50...5000.

Dip Switch Settings

#	Dip Switch 1		Dip Switch 2	
1	OFF	Normal operation	OFF	**Select Working mode in 0D3: 10…1000 Ruble**
	ON	Test Mode	ON	**Select Working mode in 0D3: 50…5000 Ruble**
2	OFF	**200 Ruble ACCEPT**	OFF	**Select Decimal Places in 0D3: Decimal Places = 2**
	ON	**200 Ruble INHIBIT**	ON	**Select Decimal Places in 0D3: Decimal Places = 0**
3	OFF	**2000/5000 Ruble ACCEPT**	OFF	Use 300-note cash box.
	ON	**2000/5000 Ruble INHIBIT**	ON	Use 1000-note cash box.
4	OFF	**10 Ruble ACCEPT**	OFF	The response is sent again at the reception time-out of ACK if it is ID-0D3 mode.
	ON	**10 Ruble INHIBIT**	ON	The response is not sent again at the reception time-out of ACK if it is ID-0D3 mode.
5	OFF	**50 Ruble ACCEPT**	OFF	Blink LEDs in blue in "INHIBIT".
	ON	**50 Ruble INHIBIT**	ON	**Turn off LEDs in "INHIBIT".**
6	OFF	**100 Ruble ACCEPT**		
	ON	**100 Ruble INHIBIT**		
7	OFF	**500 Ruble ACCEPT**		
	ON	**500 Ruble INHIBIT**		
8	OFF	**1000 Ruble ACCEPT**		
	ON	**1000 Ruble INHIBIT**		

SW6	SW7	SW8	I/F selection
OFF	OFF	OFF	ID-003 (RS-232C)
OFF	ON	ON	ID-003 (Photocoupler)
OFF	ON	OFF	ccTalk (Not Encrypted, DES Enable)
ON	ON	OFF	ccTalk (Encrypted, DES Disable)
ON	OFF	ON	ccTalk (Simple Check Sum, DES Enable)
ON	ON	ON	ccTalk (Encrypted, DES Enable)
ON	OFF	OFF	MDB

When Encryption code becomes unknown in ID-0E3 encryption code, set DIP-SW1, 2, 3, 4, 5, 6 ON, DIP-SW7, 8 OFF and supply power. Set DIP-SW1 OFF and the original encryption code (the last 6 digit of the serial number) is restored.

LED Illumination Pattern Setting when VEGA in Idling state.

1. Make a note of the current DipSw setting.
2. Power off.
3. [**Idling Gradation**] Power up the acceptor with DipSw 1, 2, 7 = ON. Other switches = OFF. (by default)
   [**Idling Green**] Power up the acceptor with DipSw 1, 3, 7 = ON. Other switches = OFF.
   [**Idling Blue**] Power up the acceptor with DipSw 1, 4, 7 = ON. Other switches = OFF.
   [**Idling LED off**] Power up the acceptor with DipSw 1, 2, 3, 4, 7 = ON. Other switches = OFF.
4. Power up.
5. Set DipSw1 = OFF, then LED illumination pattern is selected.
6. If Setting is completed, Power OFF.
7. Restore the original DipSw setting.
8. Power up.
9. Acceptor returns to standby mode and the setup is completed.

LED Illumination Pattern Setting when VEGA in Inhibit state.

1. Make a note of the current DipSw setting.
2. Power off.
3. [**Inhibit Blue blink**] Power up the acceptor with DipSw 1, 2, 6, 7 = ON. Other switches = OFF. (by default)
   [**Inhibit Purple blink**] Power up the acceptor with DipSw 1, 3, 6, 7 = ON. Other switches = OFF.
   [**Inhibit LED off**] Power up the acceptor with DipSw 1, 2, 3, 4, 6, 7 = ON. Other switches = OFF.
4. Power up.
5. Set DipSw1 = OFF, then LED illumination pattern is selected.
6. If Setting is completed, Power OFF.
7. Restore the original DipSw setting.
8. Power up.
9. Acceptor returns to standby mode and the setup is completed.

VEGA-RC Dip Switch Settings

SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8	Recycle Denomination
OFF	OFF	OFF	OFF	OFF	OFF	Reserved ALL: OFF		The setting of the denomination recycled before the power-off will be effective.
ON	OFF	OFF	OFF	OFF	OFF			**10 Ruble Recycle**
OFF	**ON**	OFF	OFF	OFF	OFF			**50 Ruble Recycle**
OFF	OFF	**ON**	OFF	OFF	OFF			**100 Ruble Recycle**
OFF	OFF	OFF	**ON**	OFF	OFF			**500 Ruble Recycle**
OFF	OFF	OFF	OFF	**ON**	OFF			**1000 Ruble Recycle**
OFF	OFF	OFF	OFF	OFF	**ON**			**5000 Ruble Recycle**
ON	**ON**	OFF	OFF	OFF	OFF			**200 Ruble Recycle**
ON	OFF	**ON**	OFF	OFF	OFF			**2000 Ruble Recycle**
Other settings								Don't Recycle

Whatever the DIP switch setting is, the notes for the denomination specified by the ID-003 "RECYCLE ENABLE/DISABLE DATA" or the ID-0E3 "Modify variable MC Set data" will be recycled when the RC is empty.

In the ID-0D3, in normal case (DIP-switch #2-1 to OFF) the 5,000 Ruble are not supported by MDB. Although 5,000 Ruble can be enabled by DIP-switch #2-1 to ON, but in this case MDB will not support 10 Ruble notes.

Dip Switch setting for VEGA-RC-Twin not implemented.

ID-003 Data Setting specification

VERSION DATA

SW. Version	V(RUS)-100-SH ID003-05 V226-18 24JAN19 93E1

ESCROW DATA

Code	Denomination
61h	**200**
62h	**2000**
63h	**10**
64h	**50**
65h	**100**
66h	**500**
67h	**1000**
68h	**5000**
69h	Reserved

CURRENCY ASSIGN DATA

Code	Country	Denomi	Exp.
61h	**27h**	**14h**	**01h**
62h	**27h**	**C8h**	**01h**
63h	**27h**	**01h**	**01h**
64h	**27h**	**05h**	**01h**
65h	**27h**	**0Ah**	**01h**
66h	**27h**	**32h**	**01h**
67h	**27h**	**64h**	**01h**
68h	**27h**	**32h**	**02h**
69h	00h	00h	00h

ENABLE/DISABLE DATA

DATA bit	Data 1	Data 2
0	**200**	Reserved
1	**2000**	Reserved
2	**10**	Reserved
3	**50**	Reserved
4	**100**	Reserved
5	**500**	Reserved
6	**1000**	Reserved
7	**5000**	Reserved

0: Enable 1: Disable (Default: **00FFh**)

SECURITY DATA

DATA bit	Data 1	Data 2
0	Reserved	Reserved
1	Reserved	Reserved
2	Reserved	Reserved
3	Reserved	Reserved
4	Reserved	Reserved
5	Reserved	Reserved
6	Reserved	Reserved
7	Reserved	Reserved

0: Normal 1: Security Level high (Default**: 0000h**)

DIRECTION DATA

Bit	Direction	Example: 10 Ruble
0	A	
1	B	A → B
2	C	
3	D	
4	Not used	
5	Not used	C → D
6	Not used	
7	Not used	

0: Not Inhibit 1: Inhibit (Default: **00h**)

OPTIONAL FUNCTION DATA

Bit	Data 1	Data 2
0	Not used	CHANGE PAY VALID TIMING [01]
1	Power Recovery [02]	Box Information [02]
2	Pause Reset [04]	Not used
3	Not used	Not used
4	RC Skew Reject [10]	Not used
5	Nearly Full [20]	Nearly Full LED Display [20]
6	Entrance Sensor Event [40]	Not used
7	Encryption [80]	Not used

0: Disable 1: Enable (Default: **0000h**)

Optional Function Description:

[0200] POWER RECOVERY

Limited to the case where power up status is〔POWER UP WITH BILL IN STACKER〕with power supply off while ACCEPTOR is in〔STACKING〕status, 〔VEND VALID〕is outputted in case initializing is completed normally.

[0400] PAUSE RESET

Modify the operations when receiving the ID-003 Reset Command during the PAUSE Status if the Optional Function is enabled:

- When the note is at a position where it can be rejected. --> The note will be rejected with the Reject Code. The initialization will be performed after the rejection of the note.
- When the note is at a position where it cannot be rejected. --> The note will be stored in the cash box with the "Stacked". The initialization will be performed after the note is stored. No Vend Valid will be sent.

** These Reject Code and "Stacked" will be reported only for indicating the destination of the note, and NOT for making sure whether the credit has been given, or not for the note.

[1000] RC Skew Reject

In the previous software versions (before V1.xx-50), in case the notes that should have been recycled were considered as skewed for the RC, they were stored in the cash box. In new software versions (from V1.xx-50), such notes can be rejected with the ID-003/0E3 Commands. (The rejection or the storage in the cash box can be selected via the Commands.)

- ID-003: Can be set with the Optional Function “RC Skew Reject”.
- ID-0E3: Can be set with the “Modify settings of RC skew reject” Command.

[2000] Nearly Full Function

The Nearly Full function will be enabled when “1” is set in the OPTIONAL FUNCTION DATA Bit 5. Add the function to set and to request the number of the notes at which the ID-003 Nearly Full should be detected (as default Normal: 210 / Large: 700). Nearly Full Function supports the following Commands: “Box Capacity request”, “Nearly Full detection number of notes request”. Vega will respond only if the Nearly Full Function is enabled. If this Function is set, “Nearly Full detection number of notes” can be set. (Will respond only when the Nearly Full function is enabled, and the Status is [INITIALIZE].) If this function is set and Nearly Full situation is detected, Vega will send back to Host “Cashbox Nearly Full” after “STACKED”.

[4000] Entrance Sensor Event

The "Entrance Sensor Event" will be enabled when “1” is set in the OPTIONAL FUNCTION DATA Bit 6. Description of function:

1. When the Entrance Sensor detects a note while the ACCEPTOR is in the DISABLE (INHIBIT) Status, the insertion of the note will be reported to the CONTROLLER in the Status Response from the ACCEPTOR.
2. This function will be included in the OPTIONAL FUNCTION. When the setting is enabled, a data byte [one byte] will follow the DISABLE (INHIBIT) Status of the ACCEPTOR and the status of the Entrance Sensor (ON or OFF) will be reported to the CONTROLLER in the lower byte.
3. This setting will be cleared when the ACCEPTOR is powered off, or the Reset Command from the CONTROLLER is received.

[8000] Encryption

When the “1” is set in the OPTIONAL FUNCTION DATA Bit7 the ENCRYPTION will be enabled.
When the ENCRYPTION is enabled, the ESCROW and VEND VALID messages will be encrypted.

[0001] CHANGE PAY VALID TIMING

If this Optional Function is enabled, after Payout operation, Pay Stay will be sent and then immediately Pay Valid. Otherwise, if this Optional Function is not enabled, after Payout operation, Pay Stay will be sent, but Pay Valid will be sent only after note was taken out from VEGA.

[0002] Box Information

If RC30 unit is connected to Vega and this function is enabled, instead of “STACKING” and “STACKED” VEGA sends to Host additional information, where note was stacked: “STACKING to Cash BOX” or “STACKED to BoxNo.1”. Not affect at Vega with RCTWIN unit connected (for RCTWIN no need to set this Optional Function – Box Information will send by default)

[0020] Nearly Full LED Display

With optional function „Nearly Full LED Display” it’s possible to control the front LED when it is „Nearly Full” state (display with orange color when in „Idling“). Optional function „Nearly Full” has to be enabled too.

ID-003 Recycler Data Setting specification

RECYCLE BOX NUMBER (Only Twin)

Number	Code	Recycle Box
1	01h	Lower Recycle Box
2	02h	Upper Recycle Box

RECYCLE DENOMINATION (settings are different from the versions V1.xx-xx)

DATA bit	Data 1	Data 2
0	**200 Ruble**	Reserved
1	**2000 Ruble**	Reserved
2	**10 Ruble**	Reserved
3	**50 Ruble**	Reserved
4	**100 Ruble**	Reserved
5	**500 Ruble**	Reserved
6	**1000 Ruble**	Reserved
7	**5000 Ruble**	Reserved

0: None Recycle 1: Recycle (Default: **0000h**)

ID-0E3 Data specification

Equipment category ID	"Bill Validator"					
Product code	"VEGA"					
Build Code	"Standard"					
Manufacturer ID	"JCM"					
Software Revision	"V2.26-18"					
Comms Revision	"1"+"4"+"6" (When the BootRom version is older than 20, the data will be "1"+"4"+"5".)					
Polling priority	**Units**		**Value**			
	"1"		"200"			
	200ms = "1" + "200"					
Country scaling factor	**Scaling factor LSB**	**Scaling factor MSB**	**Decimal places**			
	100	0	2			
Bill position	**Data 1**		**Data 2**			
	"11111111B"		"00000000B"			
Bill id	**Bill TYPE x**	**Bill ID**	**SF**	**DP**	**IL**	**IN**
	Bill Type 1	"RU0010A"	2	2	A	1
	Bill Type 2	"RU0050A"	2	2	A	1
	Bill Type 3	"RU0100A"	2	2	A	1
	Bill Type 4	"RU0500A"	2	2	A	1
	Bill Type 5	"RU1000A"	2	2	A	1
	Bill Type 6	"RU5000A"	2	2	A	1
	Bill Type 7	"RU0200A"	2	2	A	1
	Bill Type 8	"RU2000A"	2	2	A	1
	Bill Type 9	"……."	0	0	-	-
	Bill Type 10	"……."	0	0	-	-
	Bill Type 11	"……."	0	0	-	-
	Bill Type 12	"……."	0	0	-	-
	Bill Type 13	"……."	0	0	-	-
	Bill Type 14	"……."	0	0	-	-
	Bill Type 15	"……."	0	0	-	-
	Bill Type 16	"……."	0	0	-	-

Bank note event code

Data	Denomination
1	**10 Ruble**
2	**50 Ruble**
3	**100 Ruble**
4	**500 Ruble**
5	**1000 Ruble**
6	**5000 Ruble**
7	**200 Ruble**
8	**2000 Ruble**

Modify inhibit data

DATA bit	Data 1	Data 2
0	**10 Ruble**	Reserved
1	**50 Ruble**	Reserved
2	**100 Ruble**	Reserved
3	**500 Ruble**	Reserved
4	**1000 Ruble**	Reserved
5	**5000 Ruble**	Reserved
6	**200 Ruble**	Reserved
7	**2000 Ruble**	Reserved

Supported specification list

1. cctalk Generic Specification Issue 4.6
2. cctalk Serial Protocol Encryption Standard Version 1.0

Supported commands list

1. Core Commands
Header 192 - Request build code
Header 244 - Request product code
Header 245 - Request equipment category id
Header 246 - Request manufacturer id
Header 254 - Simple poll

2. Core Plus Commands
Header 001 - Reset device
Header 004 - Request comms revision
Header 197 - Calculate ROM checksum
Header 241 - Request software revision
Header 242 - Request serial number

3. Bill Validator Commands
Header 136 - Store encryption code
Header 137 - Switch encryption code
Header 141 - Request firmware upgrade capability
Header 145 - Request currency revision
Header 149 - Request individual error counter
Header 150 - Request individual accept counter
Header 152 - Request bill operating mode
Header 153 - Modify bill operating mode
Header 154 - Route bill
Header 155 - Request bill position
Header 156 - Request country scaling factor
Header 157 - Request bill id
Header 159 - Read buffered bill events
Header 170 - Request base year
Header 194 - Request reject counter
Header 195 - Request last modification date
Header 196 - Request creation date
Header 213 - Request Option flags
Header 216 - Request data storage availability
Header 225 - Request accept counter
Header 227 - Request inhibit status
Header 228 - Modify master inhibit status
Header 230 - Request inhibit status
Header 231 - Modify inhibit status
Header 232 - Perform self-check
Header 247 - Request variable set
Header 249 - Request polling priority

4. Multi-drop Commands
Header 250 - Address random
Header 251 - Address change
Header 252 - Address clash
Header 253 - Address poll

5. DES-Encryption Commands
Header 108 - Request encrypted monetary id
Header 110 - Switch encryption key
Header 111 - Request encryption support
Header 112 - Read encrypted events

ID-0E3 Recycler Data Setting specification

RECYCLE BOX NUMBER (Only Twin)

Number	Code	Recycle Box
1	01h	Lower Recycle Box
2	02h	Upper Recycle Box

RECYCLE DENOMINATION

MC Type	Recycle Denomination
1	**10 Ruble**
2	**50 Ruble**
3	**100 Ruble**
4	**500 Ruble**
5	**1000 Ruble**
6	**5000 Ruble**
7	**200 Ruble**
8	**2000 Ruble**
9	Not Assigned
10	Not Assigned
11	Not Assigned
12	Not Assigned
13	Not Assigned
14	Not Assigned
15	Not Assigned
16	Not Assigned

Supported commands list for Recycler

1. **Bill Validator Commands for Recycler**
   Header 21 – Clear total count
   Header 22 – Pump RNG
   Header 23 – Request cipher key
   Header 24 – Request variable setting
   Header 25 – Request variable key setting
   Header 26 – Request total count
   Header 27 – Enable Recycler
   Header 28 – Dispense bills
   Header 29 – Request recycler status
   Header 30 – Emergency stop
   Header 31 – Request store to cash box
   Header 32 – Modify recycle currency setting (*)
   Header 33 – Request recycler software version
   Header 34 – Request recycle count (*)
   Header 35 – Modify recycle count (*)
   Header 36 – Request recycle current count
   Header 37 – Request setting of Recycler skew reject
   Header 38 – Modify setting of Recycler skew reject
   Header 39 – Request recycle tracing data (*)
   Header 52 – Request Recycle Operating Mode
   Header 53 – Modify Recycle Operating Mode
   Header 59 – Recycle Read buffered Bill events

Remark:
In the Recycle Commands, [**Header 32 – Modify variable MC set**], [**Header 34 – Request RC count**], and [**Header 35 – Modify RC count**] the time-out period for the response should be 100 mm seconds or longer.
[**Header 39 – Request recycle tracing data**] – supported only with RC-30 installed and only after activation of 1D2M mode.

ID-0D3 Data specification

SETUP Command (31H)

Response DATA (Z1-Z27)

Data No.	HEX Code	Note	
Z1	02h	Feature Leve2	Level 2
Z2	18h	Currency Code	ISO 4217 currency code RUS is 810
Z3	10h		

*** Decimal Places = 2, Scaling Factor = 1000 (SW2.1 = OFF, SW2.2 = OFF)**

Z4	03h	Bill Scaling Factor	1000 for the RUB
Z5	E8h		
Z6	02h	Decimal Places	2 for the RUB

*** Decimal Places = 0, Scaling Factor = 10 (SW2.1 = OFF, SW2.2 = ON)**

Z4	00h	Bill Scaling Factor	10 for the RUB
Z5	0Ah		
Z6	00h	Decimal Places	0 for the RUB

*** Decimal Places = 2, Scaling Factor = 5000 (SW2.1 = ON, SW2.2 = OFF)**

Z4	13h	Bill Scaling Factor	5000 for the RUB
Z5	88h		
Z6	02h	Decimal Places	2 for the RUB

*** Decimal Places = 0, Scaling Factor = 50 (SW2.1 = ON, SW2.2 = ON)**

Z4	00h	Bill Scaling Factor	50 for the RUB
Z5	32h		
Z6	00h	Decimal Places	0 for the RUB

Z7	01h	03h	Stacker Capacity	300 bill capacity or 1000 bill capacity *Refer to the description of the DIP Switch #2-3 of the “Dip Switch Settings“.
Z8	2Ch	E8h		
Z9	FFh		Bill Security Levels	High security level
Z10	FFh			
Z11	FFh		Escrow / No Escrow	Validator has escrow capacity

*** Working mode 10…1000 Ruble (SW2.1 = OFF)**

Z12	01h	Bill type Credit	Bill type 0 (10 Ruble)
Z13	05h		Bill type 1 (50 Ruble)
Z14	0Ah		Bill type 2 (100 Ruble)
Z15	32h		Bill type 3 (500 Ruble)
Z16	64h		Bill type 4 (1000 Ruble)
Z17	00h		Bill type 5 (Not used)
Z18	14h		Bill type 6 (200 Ruble)
Z19	C8h		Bill type 7 (2000 Ruble)

*** Working mode 50…5000 Ruble (SW2.1 = ON)**

Z12	00h	Bill type Credit	Bill type 0 (Not used)
Z13	01h		Bill type 1 (50 Ruble)
Z14	02h		Bill type 2 (100 Ruble)
Z15	0Ah		Bill type 3 (500 Ruble)
Z16	14h		Bill type 4 (1000 Ruble)
Z17	64h		Bill type 5 (5000 Ruble)
Z18	04h		Bill type 6 (200 Ruble)
Z19	28h		Bill type 7 (2000 Ruble)

Z20	00h		Bill type 8 (Not used)
Z21	00h		Bill type 9 (Not used)
Z22	00h		Bill type 10 (Not used)
Z23	00h		Bill type 11 (Not used)
Z24	00h		Bill type 12 (Not used)
Z25	00h		Bill type 13 (Not used)
Z26	00h		Bill type 14 (Not used)
Z27	00h		Bill type 15 (Not used)

・In the [RECYCLER ENABLE(37 04h)], the same denominations will be specified both to be manually dispensed and transported to the cash box.

The note will be stored in the RC unit when any of the following is specified in the Y3-Y18 (in the MDB Specification) as it cannot detect the conditions of the notes:

1 = Only High quality bills are used
2 = Only High and Medium quality bills are used
3 = Use all possible bills (...

If the “0” is specified, the note will be transported to the cash box.

・The RC-30 unit cannot recycle more than one denomination, so if more than one denomination is specified to be recycled, the NAK will be sent as a response. The RC-Twin unit cannot recycle more than two denominations, so if more than two denominations are specified to be recycled, the NAK will be sent as a response.

Restrictions of RC-Twin due to MDB Interface:

・Denominations to store cannot be same for both drums.
・When only one bill type is recycled, it is always recycled in the lower drum.
・The smaller denomination bill type of the two set is recycled in the lower drum, higher denomination – in the higher drum.

・When an instantaneous power discontinuity occurs while a note is being paid out in the [DISPENSE BILL(37 06h)] or the [DISPENSE VALUE(37 07h)], the response to the [POLL(33h)] after the power recovery will be as follows:

If the note that was being paid out has been transported to the cash box,
“FX* = TRANSFERRED FROM RECYCLER TO CASHBOX” will be sent.
If the note that was being paid out has not been able to be transported to the cash box,
“EX* = MANUAL DISPENSE” will be sent.

*The “X” will be the Bill Type.