

# Software Information Sheet



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## General Information

<b>Model Name:</b>	TAIKO GBR&SCO-3020-X4			<b>SW.Reg. No.</b>				
<b>SW. Name:</b>	PUB-7(GBR&SCO) ID-002/003/0E3/0D3			<b>Date:</b> (mm,dd,yyyy)	07.29.2008	<b>Rev:</b>	B1	
<b>SW. Version:</b>	V1.20-31			<b>Note:</b>				
<b>Country (Code):</b>	England & Scotland(GBR&SCO)			<b>Guide:</b>	Type-2(76mm/83mm)			
<b>Currency:</b>	Pounds			<b>Check Sum:</b>	67FD			
<b>Direction:</b>	4Way			<b>CRC (seed= 0000):</b>	3173			
<b>Denomination: Years &amp; MRI Ident #</b> By 66thEdition	<b>Bank of England</b>				<b>Clydesdale Bank Plc</b>			
	<b>Denomi.</b>	<b>Printed</b>	<b>Issued</b>	<b>MRI#</b>	<b>Denomi.</b>	<b>Printed</b>	<b>Issued</b>	<b>MRI#</b>
	5	'02	'02	GBP-BoE5.5	5	'90~	'90~	SCO-CB5.1
	10	'00	'00	GBP-BoE10.4	10	'97~	'97~	SCO-CB10.2
	20	'99	'99	GBP-BoE20.3	10	'06	'06	SCO-CB10.4
	20	'06	'07	GBP-BoE20.4	20	'97~	'97	
	<b>Bank of Scotland</b>				20			SCO-CB20.4
	<b>Denomi.</b>	<b>Printed</b>	<b>Issued</b>	<b>MRI#</b>	Commemorative	'97		
	5	'95~	'95~	SCO-BS5.1	20	'99	'99	SCO-CB20.7
	5	'07	'07	SCO-BS5.2	20	'05	'05	SCO-CB20.6
	10	'95~	'95~	SCO-BS10.1				
	10	'07	'07	SCO-BS10.2	<b>Royal Bank of Scotland</b>			
	20	'95~	'95~	SCO-BS20.1	<b>Denomi.</b>	<b>Printed</b>	<b>Issued</b>	<b>MRI#</b>
	20	'07	'07	SCO-BS20.2	5	'88~	'88~	SCO-RB5.1
					10	'92~		SCO-RB10.1
				20	'91~99		SCO-RB20.1	

<b>AcceptanceRate:</b>	No less than 90%
<b>EPROM:</b>	Flash ROM only(8Mbit)
<b>Modifications:</b>	<b>V1.17-22 =&gt; V1.20-31</b>
Validation:	
Operation:	<ol style="list-style-type: none"> <li>1. In the prior software, the banknotes could be rejected during the IDLING status. This problem has been corrected in this version.</li> <li>2. In the prior software, the bezel LED pattern #3, solid blue was set as default, instead of #1. This problem has been corrected in this version. (Once the V1.17-22 has been installed in the unit, the bezel illumination pattern #3, solid blue will continued to be set as default until the DIP-switches is re-set.)</li> </ol>
Interface:	
<b>Modifications:</b>	<b>V1.16-21 =&gt; V1.17-22</b>
Validation:	<ol style="list-style-type: none"> <li>1. Added the “unvarnished“ Bank of England 5 Pounds banknotes recognition.</li> <li>2. Improved the new Bank of England 20 Pounds (’06) banknotes recognition.</li> </ol>
Operation:	<ol style="list-style-type: none"> <li>1. Added the following LED illumination patterns #3 through #6 during the IDLING status. <ul style="list-style-type: none"> <li>- #3: Lit in solid blue.</li> <li>- #4: Lit in solid green.</li> <li>- #5: Blink slowly in glue.</li> <li>- #6: Blink slowly in green.</li> </ul> For how to set the illumination pattern, refer to the (*2) “LED Illumination Pattern Setting“.</li> </ol>
Interface:	<ol style="list-style-type: none"> <li>1. In the previous software, when initializing in the ID-0D3 (MDB interface), the “Unit Disable“ was not given, This problem has been corrected in this version.</li> </ol>
<b>Modifications:</b>	<b>V1.15-19 =&gt; V1.16-21</b>
Validation:	<ol style="list-style-type: none"> <li>1. Added the following banknotes acceptance using the 100 exemplar received in July, 2007. <ul style="list-style-type: none"> <li>- Bank of Scotland 5 (2007) Pounds</li> <li>- Bank of Scotland 10 (2007) Pounds</li> <li>- Bank of Scotland 20 (2007) Pounds</li> </ul> </li> <li>2. Increased the maximum number of the denominations recognized in 4-way to 26. (Updated to Vx.xx-21 level.)</li> </ol>
Operation:	
Interface:	<ol style="list-style-type: none"> <li>1. Support the ccTalk Command 250-253. (Vx.xx-20 level.)</li> </ol>
<b>Memo:</b>	<ul style="list-style-type: none"> <li>- The 5 and 10 Pounds banknotes need to be inserted in the lower tray of the bezel, and the 20 Pounds in the upper tray.</li> <li>- “No Security” for the following banknotes. <ul style="list-style-type: none"> <li>● Bank of England 10 Pounds</li> <li>● Bank of Scotland 10 Pounds</li> <li>● Royal Bank of Scotland 5 Pounds</li> <li>● Royal Bank of Scotland 10 Pounds</li> <li>● Clydesdale Bank 5 Pounds</li> </ul> </li> <li>- Low security for the following banknotes. (Counterfeit notes could be accepted in the field.) <ul style="list-style-type: none"> <li>● Bank of England 5 Pounds</li> <li>● Bank of Scotland 5 Pounds</li> <li>● Bank of Scotland 20 Pounds</li> <li>● Clydesdale Bank 10 Pounds (’97)</li> </ul> </li> <li>- <b>Once the Vx.xx-22 or Vx.xx-30 has been installed in the unit, the bezel illumination pattern #3, solid blue will continued to be set as default until the DIP-switches is re-set to select the illumination pattern after installing this software.</b></li> </ul>

## Dip Switch Settings

#	Dip Switch																
1	OFF	Normal operation															
	ON	Test Mode(Setting Mode)															
2	OFF	1-time scan mode (without validation retry)															
	ON	2-time scan mode (with validation retry)															
3	OFF	Without Option Unit (future use)															
	ON	With Option Unit (future use)															
4	OFF	1-time spin mode															
	ON	5-time spin mode															
5	Serial I/F mode(Dip-Sw8=OFF)		Pulse I/F mode(Dip-Sw8=ON)														
			<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th style="width: 10%;">SW5</th> <th style="width: 10%;">PULSE WIDTH</th> </tr> <tr> <td style="text-align: center;">OFF</td> <td style="text-align: center;">50ms/50ms</td> </tr> <tr> <td style="text-align: center;">ON</td> <td style="text-align: center;">150ms/180ms</td> </tr> </table>	SW5	PULSE WIDTH	OFF	50ms/50ms	ON	150ms/180ms								
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OFF	50ms/50ms																
ON	150ms/180ms																
		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th style="width: 10%;">SW6</th> <th style="width: 10%;">SW7</th> <th style="width: 10%;">Number of PULSE</th> </tr> <tr> <td style="text-align: center;">OFF</td> <td style="text-align: center;">OFF</td> <td style="text-align: center;">5Pounds = 1Pulse</td> </tr> <tr> <td style="text-align: center;">OFF</td> <td style="text-align: center;">ON</td> <td style="text-align: center;">5Pounds = 2Pulse</td> </tr> <tr> <td style="text-align: center;">ON</td> <td style="text-align: center;">OFF</td> <td style="text-align: center;">5Pounds = 5Pulse</td> </tr> <tr> <td style="text-align: center;">ON</td> <td style="text-align: center;">ON</td> <td style="text-align: center;">5Pounds =10Pulse</td> </tr> </table>	SW6	SW7	Number of PULSE	OFF	OFF	5Pounds = 1Pulse	OFF	ON	5Pounds = 2Pulse	ON	OFF	5Pounds = 5Pulse	ON	ON	5Pounds =10Pulse
SW6	SW7	Number of PULSE															
OFF	OFF	5Pounds = 1Pulse															
OFF	ON	5Pounds = 2Pulse															
ON	OFF	5Pounds = 5Pulse															
ON	ON	5Pounds =10Pulse															
6	SW6	SW7	I/F selection														
	OFF	OFF	ID-003														
7	ON	OFF	ID-0D3														
	OFF	ON	ID-0E3 without Encryption														
ON	ON	ID-0E3 with Encryption *1															
8	OFF	Serial I/F Mode ( Selected by Dip6&7 )															
	ON	Pulse I/F Mode															

\*1

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

To write a new serial number manually, set DIP-SW1,2,3,4,5,6,7 ON, DIP-SW8OFF, and supply power. Set DIP-SW1 OFF and the TAIKO enters the serialnumber writing mode. Enter 6-digit serial number using the Serial Number Writer program, and the entered number is stored as an encryption code.

(\*1) Denomination Setting Mode

1. Make a note of the current DipSw setting.
2. Power off.
3. Power up the acceptor at TEST MODE operation (DipSw1=ON).
4. Keep DipSw1=ON and set DipSw6=ON. Other Switches=OFF.
5. Set DipSw1=OFF to enter the standby mode (Status LED will Blink in sky blue or orange).
6. Set Enable or Disable mode
  - . Enable Denomination mode: DipSw7=OFF(Status LED will Blink in sky blue).
  - . Disable Denomination mode: DipSw7=ON (Status LED will Blink in orange).
7. Insert a bill you wish to set enable / disable.
8. Acceptor rejects the bill in one of the following conditions:
  - . When Enable Denomination Setting > Reject with status LED in Skyblue.
  - . When Disable Denomination Setting > Reject with status LED in orange.
  - . When validation was not good > Reject with status LED in red.
9. For another banknote, repeat from step 5.
10. If Setting is completed, power off.
11. Restore the original DipSw setting.
12. Power up.
13. Acceptor returns to standby mode, and the setup is completed.

(\*2) LED Illumination Pattern Setting

1. Make a note of the current DipSw setting.
2. Power off.
3. [Pattern 1] Power up the acceptor with DipSw1,2,7 = ON. Other switches = OFF.  
[Pattern 2] Power up the acceptor with DipSw1,3,7 = ON. Other switches = OFF.  
[Pattern 3] Power up the acceptor with DipSw1,7 = ON. Other switches = OFF.  
[Pattern 4] Power up the acceptor with DipSw1,2,3,7 = ON. Other switches = OFF.  
[Pattern 5] Power up the acceptor with DipSw1,4,7 = ON. Other switches = OFF.  
[Pattern 6] Power up the acceptor with DipSw1,2,3,4,7 = 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.

## ID-003 Data Setting specification

### VERSION DATA

SW. Version	P(GBR/SCO)-07 ID003-04V120-31 28JUL08 3173
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### ESCROW DATA

Code	Denomination
<b>61h</b>	<b>5</b>
<b>62h</b>	<b>10</b>
<b>63h</b>	<b>20</b>
64h	Reserved
65h	Reserved
66h	Reserved
67h	Reserved
68h	Reserved
69h	Reserved

### CURRENCY ASSIGN DATA

Code	Country	Denomi	Exp.
<b>61h</b>	<b>17h</b>	<b>05h</b>	<b>00h</b>
<b>62h</b>	<b>17h</b>	<b>0Ah</b>	<b>00h</b>
<b>63h</b>	<b>17h</b>	<b>14h</b>	<b>00h</b>
64h	00h	00h	00h
65h	00h	00h	00h
66h	00h	00h	00h
67h	00h	00h	00h
68h	00h	00h	00h
69h	00h	00h	00h

### ENABLE/DISABLE DATA

DATA bit	Data 1	Data 2
<b>0</b>	<b>5</b>	Reserved
<b>1</b>	<b>10</b>	Reserved
<b>2</b>	<b>20</b>	Reserved
3	Reserved	Reserved
4	Reserved	Reserved
5	Reserved	Reserved
6	Reserved	Reserved
7	Reserved	Reserved

0: Enable 1: Disable (Default: **F8FFh**)

### SECURITY DATA

DATA bit	Data 1	Data 2
<b>0</b>	<b>5</b>	Reserved
<b>1</b>	<b>10</b>	Reserved
<b>2</b>	<b>20</b>	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

DATA bit	Direction	Sample: USA
0	'A' Direction	
1	'B' Direction	
2	'C' Direction	
3	'D' Direction	
4	Not used	
5	Not used	
6	Not used	
7	Not used	

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

### OPTIONAL FUNCTION DATA

DATA bit	Data 1	Data 2
0	Hanging Function[01]	Not use
1	Not use	Not use
2	Not use	Not use
3	Not use	Not use
4	Not use	Not use
5	Not use	Not use
6	Not use	Not use
7	Not use	Not use

0: Disable 1: Enable (Default: **0100h**)

#### [01] Hanging Function

Rejection of the bill is completed with the end of the bill kept remaining in the acceptor.  
(To prevent dropping of the bill)

\*1. When the rejected banknote is blocking the entry sensors, the "Reject" status remains unchanged.

\*2. "Jam in Stacker" and "Power Up with Bill in Stacker" are both treated as jams which cannot be cleared unless attendants remove the jammed note. After clearing the jam, make sure to send reset command from the host machine.

## ID-0E3 Data specification

<b>Equipment category ID</b>	"Bill Validator"		
<b>Product code</b>	"PUB-7"		
<b>Build Code</b>	"Standard"		
<b>Manufacturer ID</b>	"JCM"		
<b>Software Revision</b>	"V1.20-31"		
<b>Comms Revision</b>	"1"+"4"+"0"		
<b>Polling priority</b>	<b>Units</b>	<b>Value</b>	
	"1"	"200"	
	200ms = "1" + "200"		
<b>Country scaling factor</b>	<b>Scaling factor LSB</b>	<b>Scaling factor MSB</b>	<b>Decimal places</b>
	100	0	2
<b>Bill position</b>	<b>Data 1</b>		<b>Data 2</b>
	"00000111B"		"00000000B"
<b>Bill id</b>	<b>Bill TYPE x</b>	<b>Bill ID</b>	
	<b>Bill Type 1</b>	"GB0005A"	
	<b>Bill Type 2</b>	"GB0010A"	
	<b>Bill Type 3</b>	"GB0020A"	
	<b>Bill Type 4</b>	"....."	
	<b>Bill Type 5</b>	"....."	
	<b>Bill Type 6</b>	"....."	
	<b>Bill Type 7</b>	"....."	
	<b>Bill Type 8</b>	"....."	
	<b>Bill Type 9</b>	"....."	
	<b>Bill Type 10</b>	"....."	
	<b>Bill Type 11</b>	"....."	
	<b>Bill Type 12</b>	"....."	
	<b>Bill Type 13</b>	"....."	
	<b>Bill Type 14</b>	"....."	
	<b>Bill Type 15</b>	"....."	
	<b>Bill Type 16</b>	"....."	

### Bank note event code

Data	Denomination
1	5 Pounds
2	10 Pounds
3	20 Pounds
4	Reserved
5	Reserved
6	Reserved
7	Reserved
8	Reserved

### Modify inhibit data

DATA bit	Data1	Data2
0	5 Pounds	Reserved
1	10 Pounds	Reserved
2	20 Pounds	Reserved
3	Reserved	Reserved
4	Reserved	Reserved
5	Reserved	Reserved
6	Reserved	Reserved
7	Reserved	Reserved

## Supported specification list

1. cctalk Generic Specification Issue 3.2
2. cctalk Expansion for Bill Validators Issue 2.1
3. 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 241 - Request software revision
- Header 242 - Request serial number

### 3. Bill Validator Commands

- Header 136 - Store encryption code
- Header 137 - Switch encryption code
- Header 145 - Request currency revision
- 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 213 - Request Option flags
- Header 216 - Request data storage availability
- Header 227 - Request inhibit status
- Header 228 - Modify master inhibit status
- Header 230 - Request inhibit status
- Header 231 - Modify inhibit status
- Header 247 - Request variable set
- Header 249 - Request polling priority

### 4. MDCES-Multi-Drop Command Extension Set

- Header 250 - Address Random
- Header 251 - Address Change
- Header 252 - Address Clash
- Header 253 - Address Poll

# ID-0D3 Setup Command

## SETUP Command (31H)

### Response DATA (Z1-Z27)

Data No.	HEX Code	Note	
Z1	01h	Feature Level	Level 1
Z2	18h	Currency Code	ISO 4217 currency code GBR/SCO is 826
Z3	26h		
Z4	00h	Bill Scaling Factor	1.00 for the GBP
Z5	64h		
Z6	02h	Decimal Places	2 for the GBP
Z7	00h	Stacker Capacity	Non
Z8	00h		
Z9	FFh	Bill Security Levels	High security level
Z10	FFh		
Z11	FFh	Escrow / No Escrow	Validator has escrow capacity
Z12	05h	Bill type Credit	Bill type 1 ( 5 Pounds)
Z13	0Ah		Bill type 2 (10 Pounds)
Z14	14h		Bill type 3 (20 Pounds)
Z15	00h		Bill type 4 (Not used)
Z16	00h		Bill type 5 (Not used)
Z17	00h		Bill type 6 (Not used)
Z18	00h		Bill type 7 (Not used)
Z19	00h		Bill type 8 (Not used)
Z20	00h		Bill type 9 (Not used)
Z21	00h		Bill type 10 (Not used)
Z22	00h		Bill type 11 (Not used)
Z23	00h		Bill type 12 (Not used)
Z24	00h		Bill type 13 (Not used)
Z25	00h		Bill type 14 (Not used)
Z26	00h		Bill type 15 (Not used)
Z27	00h		Bill type 16 (Not used)