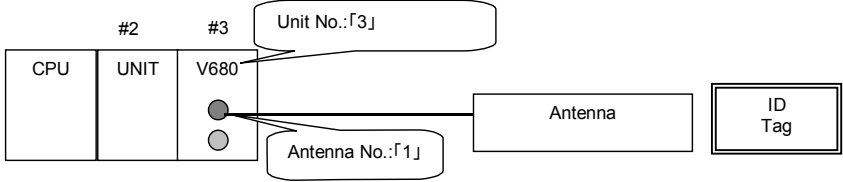


V68x407	Write with Error Correction _V68x407_WriteDataErrorCorrection
---------	--

Basic unction	ID tag with the data from the error correcting writes.	
Symbol		
File name	Lib\FBL\omronlib\RFID\V680_V68x407_WriteDataErrorCorrection10.cxf	
Applicable models	ID Sensor Units	CS1W-V680C11/V680C12 and CJ1W-V680C11/V680C12
	CPU Unit	CS1*-CPU**H Unit version 3.0 or higher CJ1*-CPU**H Unit version 3.0 or higher CJ1M-CPU** Unit version 3.0 or higher CP1H
	CX-Programmer	Version 5.0 or higher
Language used	Ladder Language	
Function description	Writes the designated data to the ID Tag beginning from the specified start address, and writes the Tag memory check code and error correction code to the next 5 bytes of memory. Up to 510 bytes (255 words) can be specified for one command execution.	
Kind of FB definition	more-cycle execution type After it starts, this FB is processed across two or more cycles. Because the state is maintained internally, the same instance cannot be used in two or more places at the same time.	

<p>FB precautions</p>	<ul style="list-style-type: none"> •The FB is processed over multiple cycles. The BUSY output variable can be used to check whether the FB is being processed. •OK or NG will be turned ON for one cycle only after processing is completed. Use these flags to detect the end of FB processing. <p>■Timechart</p> <p>The timechart illustrates the following sequence: 1. A pulse on 'Start Trigger (User to FB)' initiates the process. 2. 'FB_BUSY (FB to User)' turns ON. 3. 'Command issued (FB to Unit)' is sent. 4. 'ID Tag information is received (ID Tag to Unit)' occurs. 5. 'Data transmission (Unit to ID Tag)' takes place. 6. 'Complete processing (Unit to FB)' is finished. 7. 'FB_OK (FB to User)' turns ON for one cycle. Dotted lines indicate the duration of the command and data transmission phases.</p> <ul style="list-style-type: none"> •This FB cannot be executed if the ID Sensor Unit is busy. The NG Flag will turn ON if an attempt is made. •When FB is executed if result monitor output of the system construction is set to the setting of the noise level, the noise level is output to the error code. •The word designation for storing the data is specified using the area type and beginning word address. For example, for D1000, the area type is set to P_DM and the beginning word address is set to &1000.
<p>EN input condition</p>	<p>Connect EN to an OR between an upwardly differentiated condition for the start trigger and the BUSY output from the FB.</p>
<p>Restrictions Input variables</p>	<ul style="list-style-type: none"> •Always use an upwardly differentiated condition for EN. •If the input variables are out of range, the ENO flag will turn OFF and the FB will not be processed. •Always specify a antenna number of &1 for One-antenna ID Sensor Units (CS1W-V680C11 and CJ1W-V680C11). •Check the memory capacity of the ID Tag when specifying the ID Tag address and ID Tag number of bytes to process. An address error will be output if the specified ID Tag address and ID Tag number of bytes to process are not suitable for the memory capacity of the ID Tag being communicated with. •Check area behind the 5 bytes is the area code for the check, Write to the ban. •Up to 510 bytes (255 words) can be write at one time. •Bytes to write in ID Tag is 0 if executed, the units depend on the state of no clear error code. And a normal end.
<p>Output variables</p>	<ul style="list-style-type: none"> •This FB requires multiple cycles to process. Always connect an OR including the BUSY output variable to the EN input variable to ensure that the FB is processed to completion (see <i>Symbol</i>). •Do not turn the BUSY output variable ON or OFF outside the FB.

<p>Application example</p>	<p>When bit A turns ON in the following example, data stored in D1000 will be written to the ID Tag connected to Antenna 1 of the ID Sensor Unit with unit number 3.</p>  <pre> graph LR subgraph Units CPU[CPU] U2[UNIT #2] U3[UNIT #3 V680] end U3 --- Antenna[Antenna] Antenna --- IDTag[ID Tag] subgraph Callouts C1[Unit No.:「3」] --- U3 C2[Antenna No.:「1」] --- Antenna end </pre> <p>Bit A</p> <p>1</p> <p>Bit B</p> <table border="1" data-bbox="730 448 1098 1070"> <tr> <td colspan="2">_V68x407_WriteDataErrorCorrection</td> <td></td> </tr> <tr> <td>(BOOL)</td> <td>EN</td> <td>(BOOL) ENO</td> </tr> <tr> <td>(INT)</td> <td>UnitNo</td> <td>(BOOL) BUSY</td> </tr> <tr> <td>(INT)</td> <td>AntennaNo</td> <td>(BOOL) OK</td> </tr> <tr> <td>(WORD)</td> <td>TagAddress</td> <td>(BOOL) NG</td> </tr> <tr> <td>(INT)</td> <td>WriteBytes</td> <td>(WORD) ErrorCode</td> </tr> <tr> <td>(WORD)</td> <td>DataAreaID</td> <td></td> </tr> <tr> <td>(INT)</td> <td>DataAreaNo</td> <td></td> </tr> <tr> <td>(INT)</td> <td>Communications</td> <td></td> </tr> <tr> <td>(INT)</td> <td>ByteOrder</td> <td></td> </tr> <tr> <td>(BOOL)</td> <td>Cancel</td> <td></td> </tr> </table> <p>Unit No. &3</p> <p>Antenna No. &1</p> <p>ID Tag address #10</p> <p>Bytes to write in ID Tag &20</p> <p>Write data storage area type P_DM</p> <p>Write data storage word address &1000</p> <p>Communications designation &0</p> <p>Processing designation &0</p> <p>Cancel Bit X</p> <p>Busy Flag Bit B</p> <p>Normal end Bit C</p> <p>Error end Bit D</p> <p>Error code</p>	_V68x407_WriteDataErrorCorrection			(BOOL)	EN	(BOOL) ENO	(INT)	UnitNo	(BOOL) BUSY	(INT)	AntennaNo	(BOOL) OK	(WORD)	TagAddress	(BOOL) NG	(INT)	WriteBytes	(WORD) ErrorCode	(WORD)	DataAreaID		(INT)	DataAreaNo		(INT)	Communications		(INT)	ByteOrder		(BOOL)	Cancel	
_V68x407_WriteDataErrorCorrection																																		
(BOOL)	EN	(BOOL) ENO																																
(INT)	UnitNo	(BOOL) BUSY																																
(INT)	AntennaNo	(BOOL) OK																																
(WORD)	TagAddress	(BOOL) NG																																
(INT)	WriteBytes	(WORD) ErrorCode																																
(WORD)	DataAreaID																																	
(INT)	DataAreaNo																																	
(INT)	Communications																																	
(INT)	ByteOrder																																	
(BOOL)	Cancel																																	
<p>Related manuals</p>	<p>ID Sensor Unit Operation Manual (SCHI-711) 4 I/O Data Allocations, Error Codes 6 Communications Commands, Write with Error Correction</p>																																	

■Variable Tables
Input Variables

Name	Variable name	Data type	Default	Range	Description																														
EN	EN	BOOL			ON is executed when FB has been turned on. 1 (ON): FB started. 0 (OFF): FB not started.																														
Unit No.	UnitNo	INT	&0	&0~&95	Specify the unit number.																														
Antenna No.	AntennaNo	INT	&1	&1~&2	Specify the antenna number. &1: Antenna 1 &2: Antenna 2 (Two-antenna Controllers only)																														
ID Tag address	TagAddress	WORD	#0		Specify the ID Tag address.																														
Bytes to write in ID Tag	WriteBytes	WORD	&0	&0~&510	Specify the number of processing bytes of ID tag. Nothing will be performed and a normal end will be output for &0. Consider the ID Tag capacity when setting.																														
Write data storage area type	DataAreaID	WORD	#00B0	At right.	Specify the write data storage area type. P_CIO (#00B0): CIO Area P_WR (#00B1): Work Area P_HR (#00B2): Holding Area P_DM (#0082): DM Area P_EM0 (#0050) to P EMC (#005C): EM Area bank 0 to C																														
Write data storage word address	DataAreaNo	INT	&0		Write data storage location of the beginning of the channel number.																														
Communications designation	Communications	INT	&0	&0~&6	Specify the communication method with the ID tag. &0: Trigger &1: Auto &2: Repeat auto &3: FIFO trigger &4: FIFO repeat &5: Multi-access trigger &6: Multi-access repeat																														
Processing designation	ByteOrder	INT	&0	&0~&1	Specify the byte order. &0: Upper to lower &1: Lower to upper 0: Upper to lower <div style="display: flex; justify-content: space-around; align-items: center;"> <table border="1" style="font-size: small;"> <thead> <tr> <th>Address</th> <th>ID Tag memory</th> <th>CPU Unit memory</th> </tr> </thead> <tbody> <tr> <td>0010</td> <td>01</td> <td>01 02</td> </tr> <tr> <td>0011</td> <td>02</td> <td>←→ 03 04</td> </tr> <tr> <td>0012</td> <td>03</td> <td></td> </tr> <tr> <td>0013</td> <td>04</td> <td></td> </tr> </tbody> </table> </div> 1: Lower to upper <div style="display: flex; justify-content: space-around; align-items: center;"> <table border="1" style="font-size: small;"> <thead> <tr> <th>Address</th> <th>ID Tag memory</th> <th>CPU Unit memory</th> </tr> </thead> <tbody> <tr> <td>0010</td> <td>01</td> <td>02 01</td> </tr> <tr> <td>0011</td> <td>02</td> <td>←→ 04 03</td> </tr> <tr> <td>0012</td> <td>03</td> <td></td> </tr> <tr> <td>0013</td> <td>04</td> <td></td> </tr> </tbody> </table> </div>	Address	ID Tag memory	CPU Unit memory	0010	01	01 02	0011	02	←→ 03 04	0012	03		0013	04		Address	ID Tag memory	CPU Unit memory	0010	01	02 01	0011	02	←→ 04 03	0012	03		0013	04	
Address	ID Tag memory	CPU Unit memory																																	
0010	01	01 02																																	
0011	02	←→ 03 04																																	
0012	03																																		
0013	04																																		
Address	ID Tag memory	CPU Unit memory																																	
0010	01	02 01																																	
0011	02	←→ 04 03																																	
0012	03																																		
0013	04																																		
Cancel	Cancel	BOOL	0(OFF)		0→1: Cancels processing.																														

Output Variables

Name	Variable name	Data type	Default	Description
ENO (May be omitted.)	ENO	BOOL		1 (ON): FB processed normally. 0 (OFF): FB not processed or ended in an error.
Busy Flag	BUSY	BOOL		Automatically turns OFF when processing is completed.
Normal end	OK	BOOL		Turns ON for one cycle when processing ends normally.
Error end	NG	BOOL		Turns ON for one cycle when processing ends in an error.
Error code	ErrorCode	WORD		<p>Outputs the results from the ID Sensor Unit. Refer to the <i>Related Manuals</i> for details.</p> <ul style="list-style-type: none"> #0014: Data storage area Specification error * #0014: Command error * #0070: ID Tag communications error #0071: Verification error #0072: ID Tag missing error #0076: Status Flag #0077: Error correction #0079: ID system error 1 #007A: ID Tag address error #007C: Antenna error flag #007D: Write protection error #007E: ID system error 2 #007F: ID system error 3 #FFFE: ID Tag is communicating. #FFFF: Input parameter error <p>* :#0014 has two item factor. Please confirm, and divide the corresponding flag about details.「Related manuals SCHI-711 7 Abnormal processing 」</p>

■Version History

Version	Date	Contents
1.00	2008.04	Original production