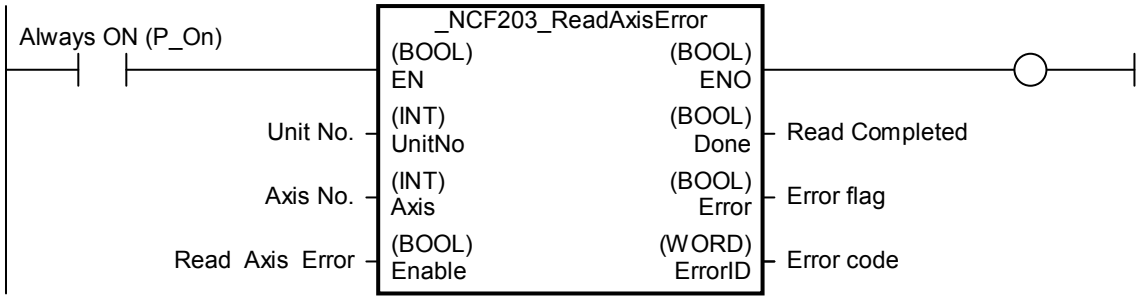
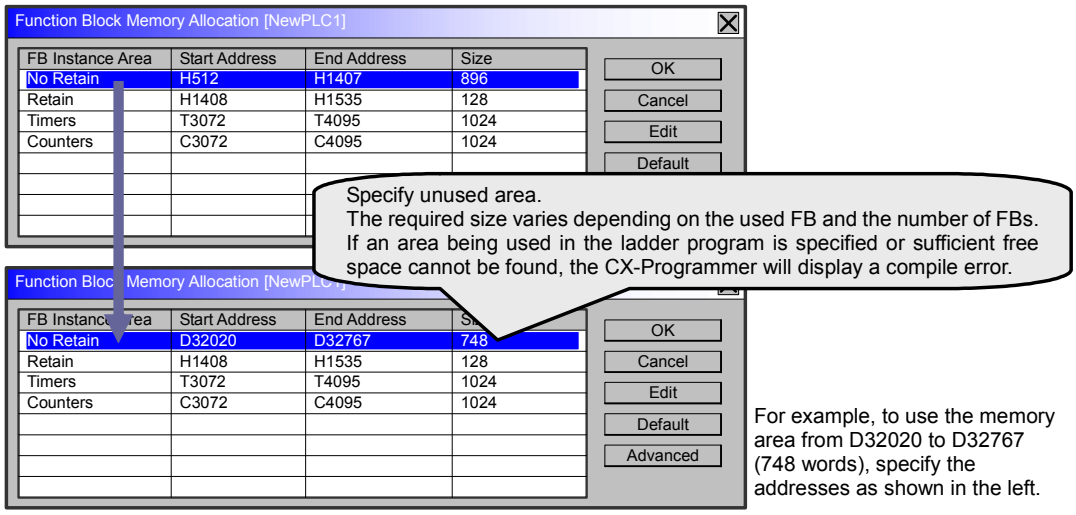
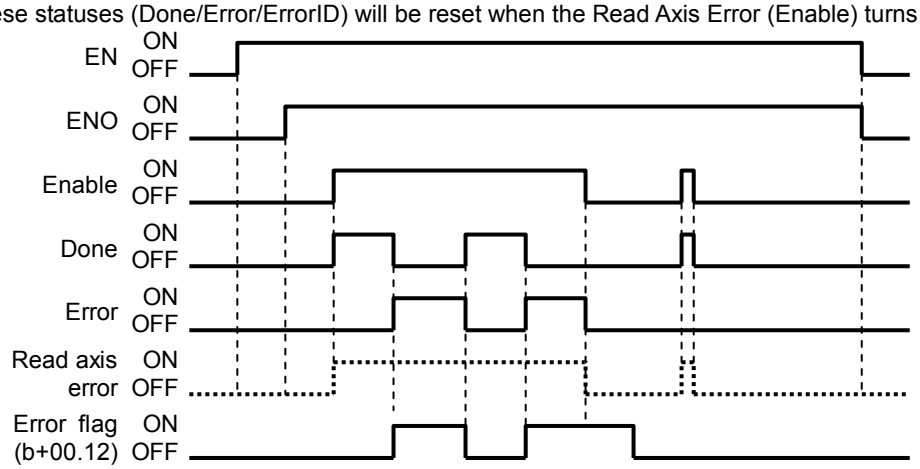
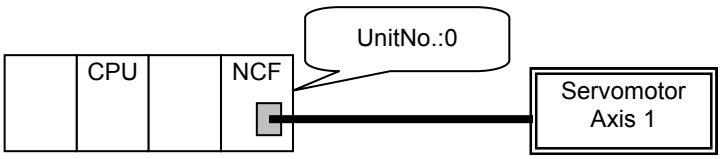
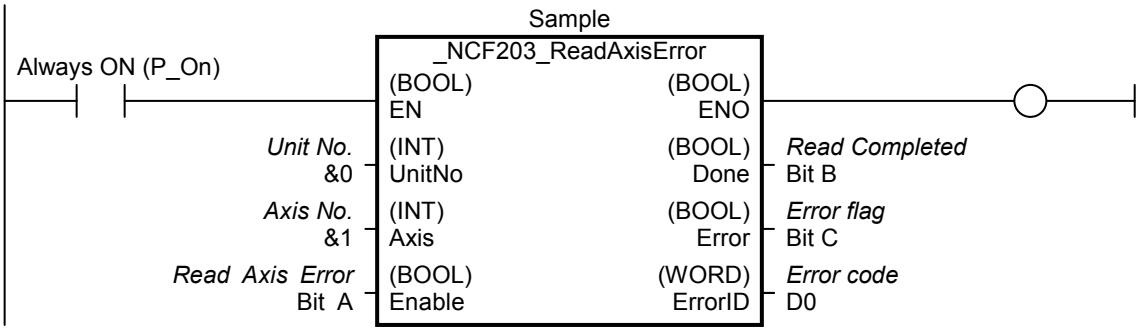
NCF 203	Read Axis Error _NCF203_ReadAxisError

Basic function	Reads error information of an axis.	
Symbol		
File name	Lib\FBL\omronlib\PositionController\NCF_NCF203_ReadAxisError11.cxf	
Applicable models	Position Unit	CJ1W-NCF71, CS1W-NCF71
	CPU Unit	CS1*-CPU**H Unit Version 3.0 or later CJ1*-CPU**H Unit Version 3.0 or later CJ1M-CPU** Unit Version 3.0 or later CP1H
	CX-Programmer	Version 5.0 or later
Languages in function block definitions	Ladder programming	
Conditions for usage	The following conditions for usage should be the Position Control Unit version 1.2 or earlier. (It will not be required in the Position Control Unit version 1.3 or later) ■CX-Programmer Setting The function blocks related to the Position Control Units will not operate if the area H512 or higher (default setting) is specified as the Non Retain Area through the Function block memory allocation. Make sure to change the memory area to unused area (DM or EM, for example) from the CX-Programmer. To change this value, click ***PLC/Function Block Memory/Function Block Memory Allocation*** from the Menu Bar.	



For example, to use the memory area from D32020 to D32767 (748 words), specify the addresses as shown in the left.

Function description	Axis error information for the axis of the specified Unit No. (UnitNo) and Axis No. (Axis) is read when the Read Axis Error (Enable) is turned ON. The Read Completed (Done) turns ON when there is no error on the Unit. The Error flag (Error) and the Error code (ErrorID) will show the status of errors for the Position Control Unit axis. The Error flag (Error) will also be turned ON when the unit number or axis number is not in range. These statuses (Done/Error/ErrorID) will be reset when the Read Axis Error (Enable) turns OFF. 
Kind of FB definition	Always execution type. Connect the EN input to the Always ON Flag (P_On). The same instance cannot be used in two or more places.
EN input condition	・Connect the EN input to the Always ON Flag (P_On). If another bit is connected to EN, the FB outputs will be held when the connected bit turns OFF.
Restrictions Other	・The Error Flag (Error) and Error Code (ErrorID) for this FB reflect the status of the Operating Input Memory Area in the Position Control Unit without alteration. ・This FB uses Unit Error Reset, Write Data, Read Data and Save Data Bits of the Position Control Unit (see Note). Therefore, do not turn these bits ON or OFF between the period from the rising edge of EN to the rising edge of ENO. For the same reason, do not use these bits for coil outputs (OUT commands). ・The output variable of FB may not change even if EN is turned ON. In that case, check if any of Unit Error Reset, Write Data, Read Data and Save Data Bit is left ON. Note: For calculation of bit addresses, these bits are referenced in this FB in the first execution of each instance, and when changing "Unit No. (UnitNo)", "Axis No. (Axis)" of the input variable and set "Output Enable Bit (Enable)".
Application example	When turning the Bit A ON from OFF, the axis error information of axis 1 of the Servomotor connected to the Position Control Unit with unit number 0 is read and stored in D0.  
Related manuals	Position Control Units OPERATION MANUAL (W426-E1) 12-4 Error Codes

■ **Variable Tables**

Input Variables

Name	Variable name	Data type	Default	Range	Description
EN	EN	BOOL			1 (ON): FB started 0 (OFF): FB not started
Unit No.	UnitNo	INT	&0	&0 to &15	Specify the unit number.
Axis No.	Axis	INT	&1	&1 to &16	Specify the axis number.
Read Axis Error	Enable	BOOL	0(OFF)		↑: Starts reading error

Output Variables

Name	Variable name	Data type	Range	Description
ENO	ENO	BOOL		1 (ON): FB operating normally 0 (OFF): FB not operating normally ・FB not started ・Input variable out of the range ・FB ended with error ・Common Parameters could not be read
Read Completed	Done	BOOL		1 (ON) indicates that there is no error on the specified axis.
Error flag	Error	BOOL		Turns ON when an error has occurred in the specified axis.
Error code	ErrorID	WORD		Returns the error code when an error has occurred in the FB. Refer to the *Related Manuals* for details on errors. A code of #0000 will be returned if any of the following conditions is satisfied. ・Input variable is out of range. ・The common parameters of the Position Control Units are out of range. ・Not established communications with a specified axis.

■ **Version History**

Version	Date	Contents
1.00	2004.06.	Original production
1.10	2005.01.	Limitation about the setting timing with " Unit No. " and " Axis No. " was removed.

■ The detailed contents of the upgrading

Version	Detailed Contents
1.10	In version 1.0x, " Unit No. " and " Axis No. " must be set when EN was ON and " Start (Execute) " was OFF. This means not sometimes working normally when " Unit No. " and " Axis No. " are changed simultaneously with ON of " Start (Execute) ". In version 1.10, this limitation was removed.

■ **Note**

This document explains the function of the function block.
It does not provide information of restrictions on the use of Units and Components or combination of them. For actual applications, make sure to read the operation manuals of the applicable products.