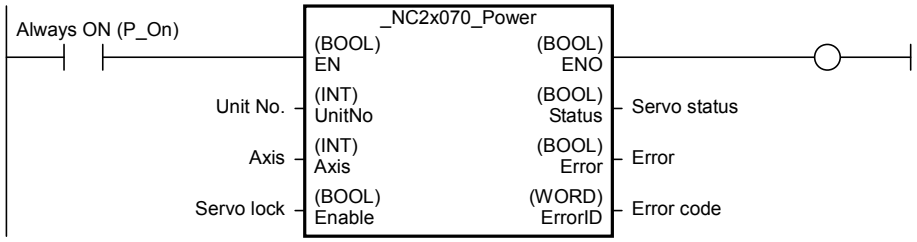
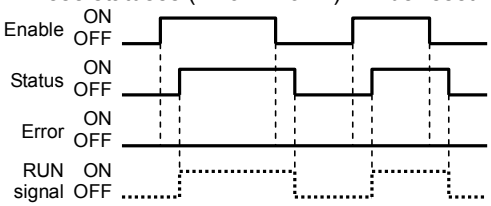
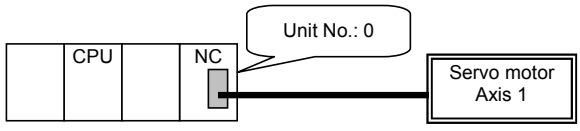
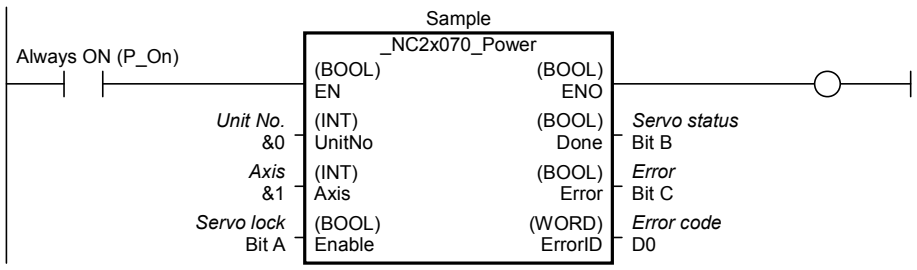
| NC2x 070 | Operation Command _NC2x070_Power |
|---|---|

| | |
|---|---|
| **Basic function** | Turns the main circuit ON or OFF. |
| **Symbol** |  |
| **File name** | Lib\FBL\omronlib\PositionController\NC2x_NC2x070_Power10.cxf |
| **Applicable models** | Position Control Units: CJ1W-NC214/234/414/434<br>CPU Unit: CJ1*-CPU**H Version 3.0 or later<br>CJ1M-CPU** Version 3.0 or later<br>CP1H<br>CJ2H-CPU**(-EIP)<br>CX-Programmer: Version 5.0 or later |
| **Languages in function block definitions** | Ladder programming |
| **Conditions for usage** | ・When using this FB, the following setting is required for the axis parameter of the Position Control Unit. |

| Address | Name | Size | Range | Setting value |
|---|---|---|---|---|
| +2.00 | I/O Function Selection<br>RUN Output Function | 1 bit | 0, 1 | 1: Use as RUN output |

・If the setting is not made correctly, the FB will not work normally.

| | |
|---|---|
| **Function description** | ・For the axis of the specified "Unit No. (UnitNo)" and "Axis (Axis)", the servo lock operation (RUN signal turned ON) is started when "Servo lock (Enable)" turns ON and the servo unlock operation (RUN signal turned OFF) is started when it turns OFF.<br>・"Servo status (Status)" will reflect the RUN signal status of the applicable axis.<br>・"Error flag (Error)" will be turned ON "Error code (ErrorID)" will be output if an error occurs for the FB. This will not occur for error in other FBs or other instances of the FB.<br>・These statuses (Error/ErrorID) will be reset when "Servo lock (Enable)" turns OFF.<br>  |
| **Kind of FB definition** | Always execution type.<br>Connect the EN input to the Always ON Flag (P_On).<br>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).<br>If another bit is connected to EN, the FB outputs will be held when the connected bit turns OFF. |
| **Restrictions Other** | ・This FB does not recognize the existence of the axis specified in "Unit No. (UnitNo)" and "Axis (Axis)". If these input variables have not been set correctly, the FB may not work normally.<br>・This FB uses bits of the Position Control Unit. Therefore, do not turn these bits ON or OFF. For the same reason, do not use these bits for coil outputs (OUT commands).<br>Refer to the "■Used bits list" for the bits used by this FB. |
| **Application example** | Turning ON bit A will output the RUN signal for the Servomotor (Axis 1) connected to the Position Control Unit of unit number 0.<br>  <br>  |

| Related manuals | CJ-series Position Control Unit Operation Manual (W477)<br>5-3 Axis Parameters<br>I/O Function Selection<br>12-6 Error Code List |
|---|---|

**■Variable Tables**

**Input Variables**

| Name | Variable name | Data type | Default | Range | Description |
|---|---|---|---|---|---|
| EN | EN | BOOL | | | 1(ON): FB started<br>0(OFF): FB not started |
| Unit No. | UnitNo | INT | &0 | &0 to &94 | Specify the unit number. |
| Axis | Axis | INT | &1 | &1 to &4 | Specify the axis number. |
| Servo lock | Enable | BOOL | 0(OFF) | | ↑: Starts the servo lock operation.<br>↓: Starts the servo unlock operation. |

**Output Variables**

| Name | Variable name | Data type | Range | Description |
|---|---|---|---|---|
| ENO | ENO | BOOL | | 1(ON): FB operating normally<br>0(OFF): FB not started / FB ended with error |
| Servo status | Status | BOOL | | 1(ON): The RUN signal is output status.<br>0(OFF): The RUN signal is stopping status. |
| Error | Error | BOOL | | Turns ON when an error has occurred in the FB. Refer to "Error code (ErrorID)" for details. |
| Error code | ErrorID | WORD | | Returns the error code when an error occurred in the FB. Refer to "■Error code list" for details. |

**■Error code list**

| Error name | Error code | Probable cause | Clearing method |
|---|---|---|---|
| Input variable out of range | #0001 | The value of input variable of this FB is out of valid range. | Set the value of input variable within the specified range. |
| Operating memory area allocation out of range | #0002 | The allocation of Axis Operating Memory Area of Common Parameter is out of allowable setting range. | Correct the allocation of Axis Operating Memory Area of Common Parameter so that it falls within the allowable setting range of data. |
| Unit error | #1001 | An error in individual unit has occurred. | Check "Unit common error code". Identify the error cause from the Operation Manual of the Position Control Unit. |
| Axis error | #1002 | An error in individual axis has occurred. | Check "Axis error code". Identify the error cause from the Operation Manual of the Position Control Unit. |
| Unit setup | #2000 | The Position Control Unit is not in unit ready status. | Execute the FB after putting the Position Control Unit in unit ready status. |
| Command disabled | #2300 | FB commands have not been accepted. | Execute the FB after putting the unit in status that can accept commands. |
| Servo lock | #3100 | “Servo lock” of the Manual Operation Command Memory area has been operated by the outside of the FB. | Do not operate each bit which the active FB is operating, by the external unit of the FB.<br>Do not use it on OUT command. |
| Servo unlock | #310F | “Servo unlock” of the Manual Operation Command Memory area has been operated by the outside of the FB. | |

**■Used bits list**

| Memory area | Name | Data type | Address | Note |
|---|---|---|---|---|
| Manual Operation Command Memory area | Servo lock | BOOL | A+00.00 | |
| | Servo unlock | BOOL | A+00.15 | |

**■Version History**

| Version | Date | Contents |
|---|---|---|
| 1.00 | 2009.06. | Original production. |
| 1.01 | 2011.04. | The problem that Status flag remains ON when "Servo lock (Enable)" is continuously switched has been improved. |

**■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.