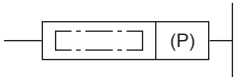# Calling a subroutine program

XCALL

FX5S   FX5UJ   FX5U   FX5UC

This instruction executes CALL for (turns on and executes) the subroutine program specified by (P) when the execution condition is established. When the condition is turned off, this instruction executes turns off and terminates for the subroutine program.

Ladder diagram	Structured text
⊣ [⌐ ⎯] (P) ├	Not supported

FBD/LD
Not supported.

Setting data

■Descriptions, ranges, and data types

Operand	Description	Range	Data type	Data type (label)
(P)	Start pointer number of the subroutine program	—	Device name	POINTER

■Applicable devices

Operand	Bit	Word			Double word		Indirect specification	Constant			Others
	X, Y, M, L, SM, F, B, SB, S	T, ST, C, D, W, SD, SW, R	U□\G□	Z	LC	LZ		K, H	E	$	
(P)	—	—	—	—	—	—	—	—	—	—	○

Processing details

- The XCALL instruction controls the execution and non-execution processing of subroutine programs.
  - In the execution of subroutine programs, each coil instruction is operated according to the ON/OFF status of the condition contact.
  - In the non-execution processing of subroutine programs, each coil instruction is operated with the OFF status of the condition contact applied.
- The following table lists the operation result of each coil instruction after the non-execution processing. Regardless of the status of the condition contact, the following result is applied.

Device used for operation	Operation result (device status)
1 ms timer, 10 ms timer, 100 ms timer	0
1 ms retentive timer, 10 ms retentive timer, 100 ms retentive timer, counter	The current status is held.
Device in the OUT instruction	Forcibly turned off.
Device in the SET, RST, or SFT(P) instruction or basic/applied instruction	The current status is held.
PLS instruction, pulse instruction (□P)	Same as when the condition contact is off

- The following shows the operation of the XCALL instruction.
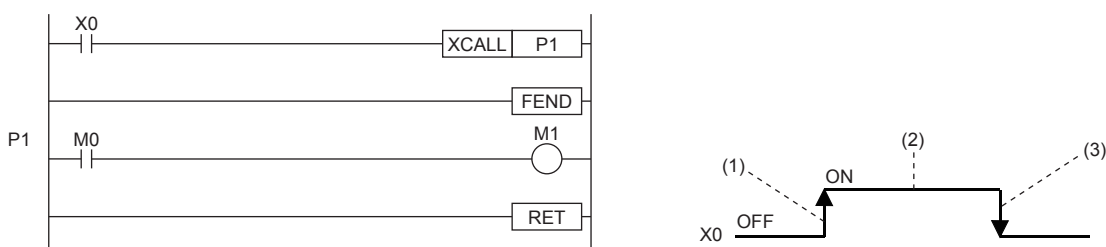
(1) Rising edge of X0 (OFF → ON): The subroutine program of P1 is executed.

(2) While X0 is on: The subroutine program of P1 is executed. (The rising edge of X0 is not included.)

(3) Falling edge of X0 (ON → OFF): The non-execution processing of the subroutine program of P1 is executed.

• The XCALL instruction can be nested up to 16 levels. However, the 16 levels are the total of the CALL(P) and XCALL instructions.
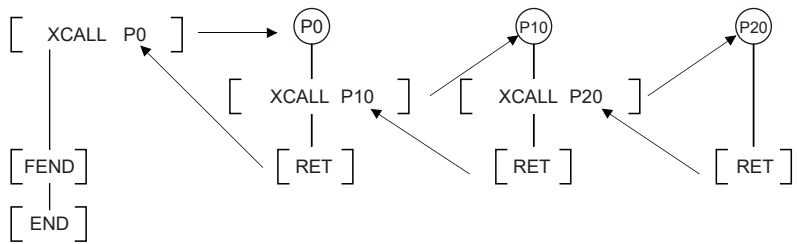
Operation error

Error code (SD0/SD8067)	Description
3360H	The 17th level of the nesting is executed.
3380H	The subroutine program specified by the pointer in the XCALL instruction does not exist.
3381H	After the XCALL instruction is executed, the END, FEND, GOEND, or STOP instruction is executed before the RET instruction is executed.
3382H	The RET (SRET) instruction is executed before the XCALL instruction is executed.

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