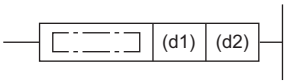
Batch-deactivating a step

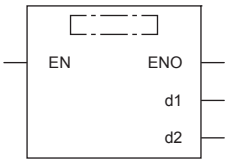
ZRST(P) [S□/BL□\S□]

FX5S FX5UJ FX5U FX5UC

Batch-deactivates the steps in the specified range.

Ladder diagram	Structured text
	ENO:=ZRST(EN,d1,d2); ENO:=ZRSTP(EN,d1,d2);

FBD/LD



Setting data

■Descriptions, ranges, and data types

Operand	Description	Range	Data type	Data type (label)
(d1)	A first step No. to be batch-deactivated	—	Bit	ANY_BOOL
(d2)	A last step No. to be batch-deactivated	—	Bit	ANY_BOOL
EN	Execution condition	—	Bit	BOOL
ENO	Execution result	—	Bit	BOOL

■Applicable devices

Operand	Bit	Word			Double word		Indirect specification	Constant			Others (BL□\S□)
	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	$	
(d1)	○*1	—	—	—	—	—	—	—	—	—	○
(d2)	○*1	—	—	—	—	—	—	—	—	—	○

*1 Only S can be used.

Processing details

- This instruction batch-deactivates the activated steps within the range specified by (d1) and (d2). When the instruction is executed and the number of activated steps in the corresponding block becomes 0, the block will be deactivated.
- Unify the device specified to (d1) or (d2) into S□ or BL□\S□. When devices are not unified (Example: [ZRST S2 BL0\S5]), an operation error occurs and the status of the step is not changed.
- If no block is specified, make sure to specify the step Nos. so as to be (d1) < (d2). When (d1) ≥ (d2), only one step No. that is specified to (d1) will be deactivated. When a step that does not exist is specified to (d1) or (d2), the steps that exist in the specified range will be deactivated.

- When a block is specified, specification is possible over blocks. Make sure to specify the block Nos. so as to be (d1) < (d2). When (d1) ≥ (d2), only one step No. that is specified to (d1) will be deactivated. When a block that does not exist is specified to (d1) or (d2), the steps that exist in the specified range will be deactivated.

Ex.

When executing [ZRST BL1\S20 BL5\S10] to SFC programs having the following configuration.

- Block 1, 3, 5: No block exists.
- Block 2: S0 to S5 exist.
- Block 4: S0 to S3 are exist.

Block No.	Step No.	Deactivating target
1 (No target)	21 to 511 (No target)	Excluded from target
2	0 to 5	Deactivates
	6 to 511 (No target)	Excluded from target
3 (No target)	0 to 511 (No target)	Excluded from target
4	0 to 3	Deactivates
	4 to 511 (No target)	Excluded from target
5 (No target)	0 to 10 (No target)	Excluded from target

- If the current step is specified so as to be in the deactivating target range within the action, the step will not be deactivated.
- If no block is specified, the following specified block step will be deactivated. Specification over blocks is not possible.

- When the instruction is executed in a sequence program: Block 0
- When the instruction is executed in an SFC program (within the action): Block where the instruction is executed (current block)

Ex.

When executing [ZRST S0 S511] in an within the action of block1 to SFC programs having the following configuration.

- Block 1: S0 to S255 exist.
- Block 2: S0 to S255 exist.

Block No.	Step No.	Deactivating target
1	0 to 255	Deactivates
	256 to 511 (Not target)	Excluded from target
2	0 to 255	Excluded from target
	256 to 511 (No target)	Excluded from target

- When one of the following conditions are satisfied, the instruction will be ignored.

- No steps in the specified range exist.
- If a block is specified, when no SFC program exists.
- If an SFC program exists, the instruction is executed when SM321 (Start/stop SFC program) is off.

Operation error

Error code (SD0/SD8067)	Description
2820H	When a block No. is specified, the specified block No. of (d1) or (d2) is out of the range of 0 to 31.
	When a block No. is specified, the specified step No. of (d1) or (d2) is out of the range of 0 to 511.
	When a block No. is not specified, the specified step No. of (d1) or (d2) is out of the range of 0 to 4095.
3405H	When S□ and BL□\S□ are mixed in the specified devices to (d1) and (d2).
3582H	The SFC control instruction is used in the interrupt routine program.