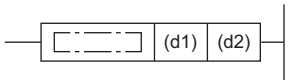
Batch-resetting devices

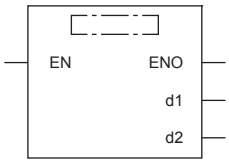
ZRST(P)

FX5S FX5UJ FX5U FX5UC

These instructions reset all data among devices of same type specified by (d1) and (d2). Use these instructions for restarting operation from the beginning after pause or after resetting control data.

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)	Head bit or word device number to be reset	—	Bit/16-bit signed binary	ANY_ELEMENTARY*1
(d2)	Last bit or word device number to be reset	—	Bit/16-bit signed binary	ANY_ELEMENTARY*1
EN	Execution condition	—	Bit	BOOL
ENO	Execution result	—	Bit	BOOL

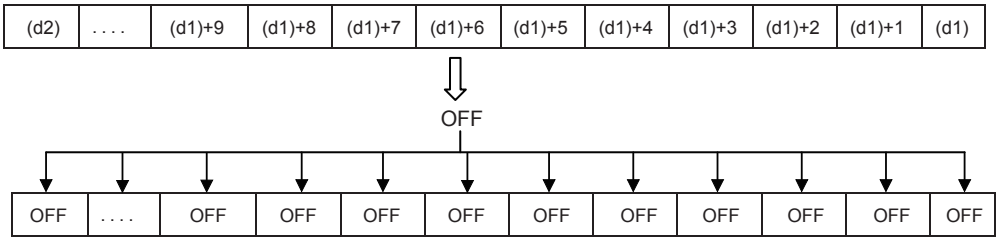
*1 Digit specified bit type label cannot be used.

■Applicable devices

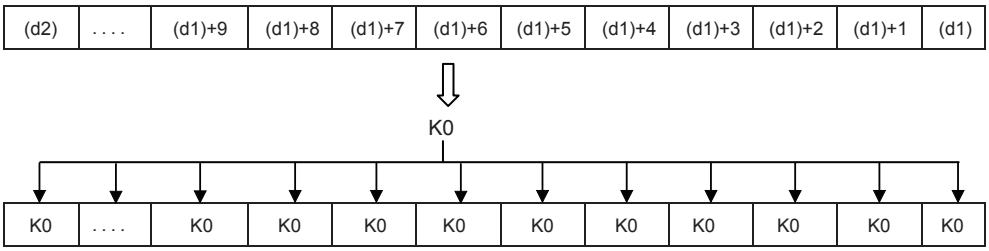
Operand	Bit	Word			Double word		Indirect specification	Constant			Others
	X, Y, M, L, SM, F, B, SB, S	T, ST, C, D, W, SD, SW, R	U□\G□	Z	LC	LZ		K, H	E	$	
(d1)	○	○	○	○	○	○	○	—	—	—	—
(d2)	○	○	○	○	○	○	○	—	—	—	—

Processing details

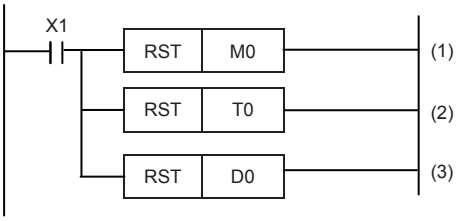
- These instructions reset all data among devices of same type specified by (d1) and (d2).
- OFF (reset) is written to the entire range of devices from (d1) to (d2) all at once if (d1) and/or (d2) are bit devices.



- K0 is written to the entire range of devices from (d1) to (d2) all at once if (d1) and/or (d2) are word devices.

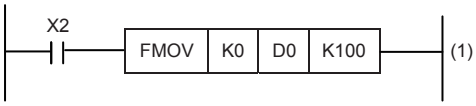


- As a reset instruction for individual devices, the RST instruction can be used for bit devices and word devices.



(1): M0 is reset.
(2): The current value of T0 is reset.
(3): D0 is reset.

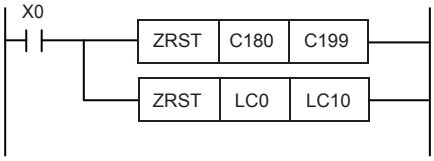
- The FMOV(P) instruction is a batch write instruction for a constant (K0 for example) that can write "0" for word devices (including digit specification of bit devices).



(1): K0 is written to D0 to D99.

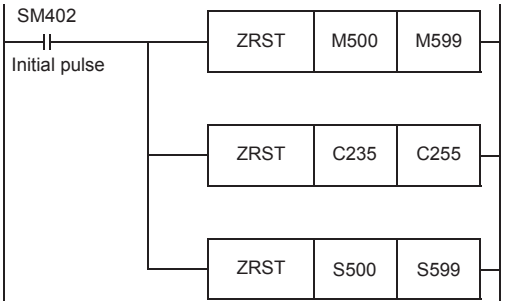
Precautions

- Specify the same type of device for (d1) and (d2) so that (d1) number is less than (d2) number. If the (d1) number≥(d2) number, only the device specified by (d1) is reset.
- The ZRST(P) instruction is a 16-bit instruction, but long counter (LC) and long index register (LZ) can be specified for (d1) and (d2).



Program example

In the program shown below, when the power to the CPU module is turned ON or when the PLC mode is changed to RUN, the specified ranges of bit devices and word devices are reset at one time.



M500 to M599 are reset at one time.

C235 to C255 are reset at one time.
("0" is written to them, and their contacts are reset.)

S500 to S599 are reset at one time.

Operation error

Error code (SD0/SD8067)	Description
2820H	The number of devices to be reset is 32768 or more when module access device has been specified for (d1) and/or (d2).
3405H	Device type specified by (d1) differs from type specified by (d2).
	Module number for (d1) and (d2) differ when module access device is specified.