

Tech Note: NJ/NX Series CPUs

Shutdown Methodology In the Event of a Power Loss

NX701
NJ501
NJ301
NJ101
S8BA
S8VK





Figure 2 – Wiring of S8VK to S8BA

Wire the output of the S8VK to the input of the S8BA, then, Output of S8BA to the NJ PD3001. Daisy-chain the DC power to the NX Coupler A shown below.



Figure 3 –CPU Power and I/O wiring overview

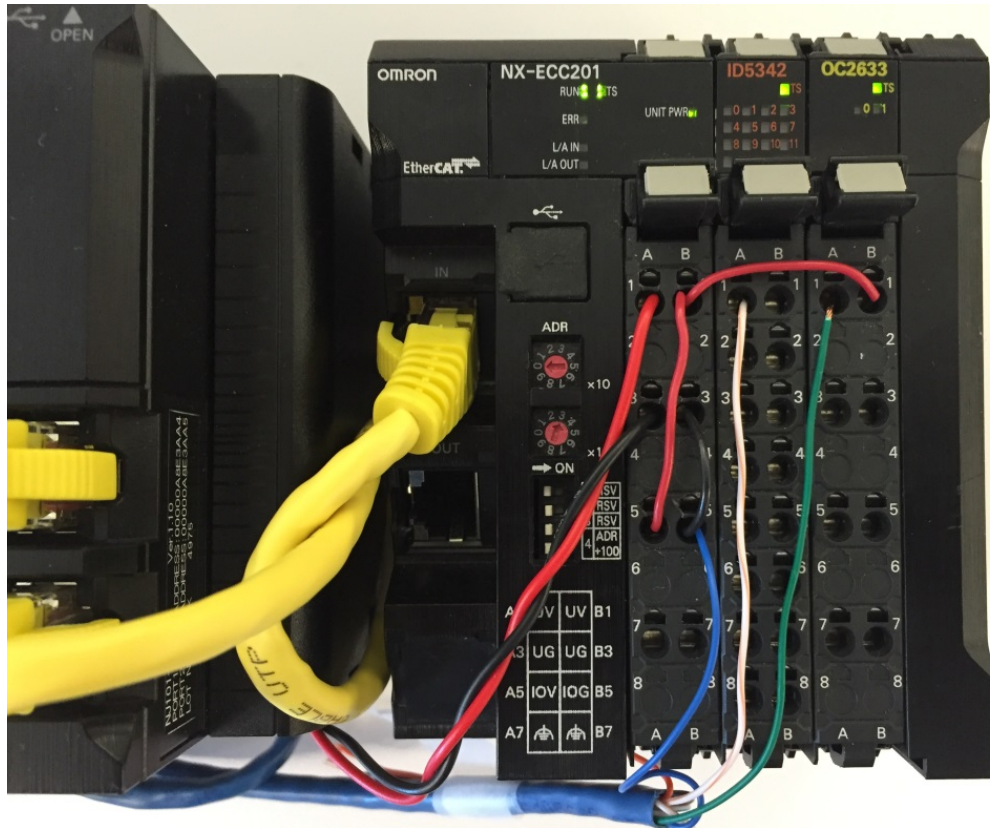


Figure 4 –detailed view of NX I/O wiring (Blue, Orange/White, Green)

■ Cable pin configuration

【UPS side】			【Cable side】	
I/O	CONTACT port		S8BW-C02	
	Signal name	Pin number	Pin number	Cable color
I	Backup signal output (BU)	1	1	White / Orange
O	Remote ON/OFF input (-)	2	2	Orange
-	Trouble signal output (TR)	3	3	White / Green
O	COMMON (COM)	4	4	Blue
I	Battery LOW signal output (BL)	5	5	White / Blue
O	Backup stop signal input (BS)	6	6	Green
I	Battery Replacement Signal output (WB)	7	7	White / Brown
	Remote ON/OFF input (+)	8	8	Brown

Figure 5 – Pin-Out diagram of **S8BW-C02** contact I/O cable of S8BA

Create the program below.

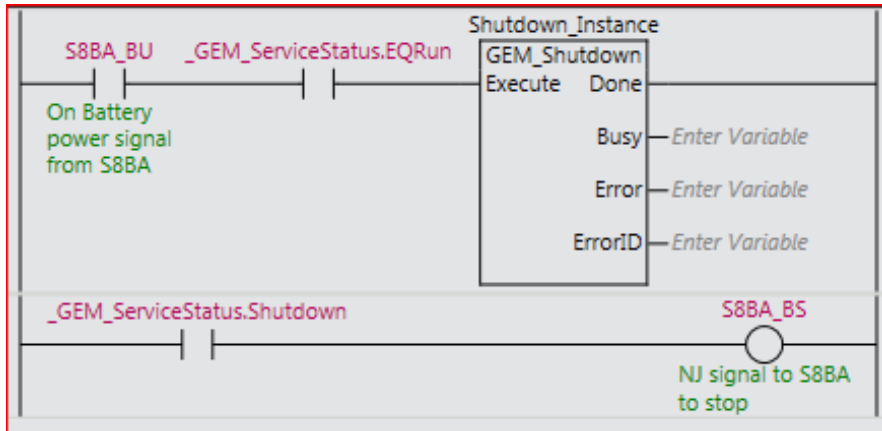


Figure 7 – Sysmac Studio program

When power is lost to the S8BA, it will go to battery mode and turn ON its BU signal.

If the GEM Service is running, this will in turn execute the GEM Service Shutdown command to properly stop the service.

When the service shutdown command is executed and the service is actually stopped, it turns ON the internal status bit `_GEM_ServiceStatus.Shutdown` flag.

This will turn ON the NJ output which instructs the S8BA to shutdown and turn off the battery which powers down the entire system properly.

SQL CPU's have similar system variables and procedures:

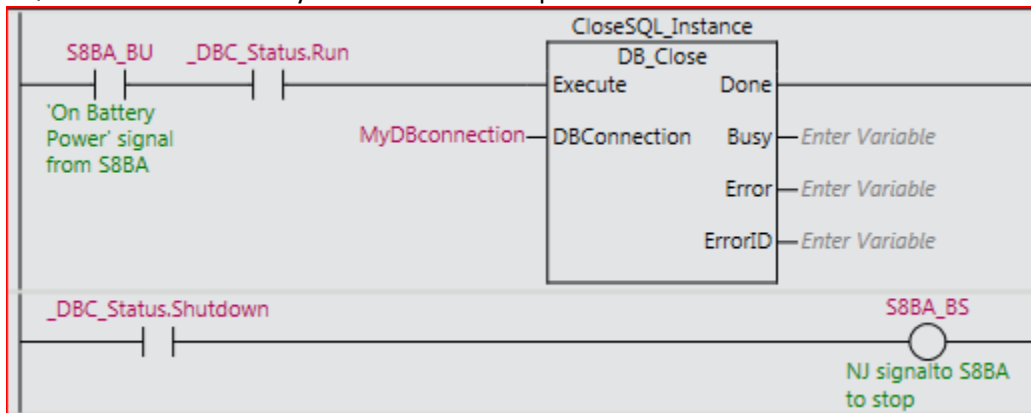


Figure 8 – SQL CPU program to properly shutdown

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