

5.4.2 Power-Up

After the power supply has been connected, the control system powers up. The HMI Embedded/HMI Advanced system software is installed on the PCU when the system is delivered, but it can also be installed via a PCMCIA card.

Note

The use of modules via L2-DP and certain CP modules means that the power up time is longer than a standard configuration.

NCK general reset

To bring the control system into a defined initial state, initialization (NCK general reset) is required when the power is first connected. To do this, turn the start-up switch S3 on the NCU/CCU to position "1" and switch the control on. The control then powers up, the SRAM memory is erased and the machine data are preset to the default values.

Table 5-1 For the significance of the NCK start-up switch S3 (see Fig. 5-1)

Setting	Meaning
0	Normal mode: Power-up with the set data.
1	Start-up MODE: The data in the buffered RAM (SRAM) is cleared and the default machine data is loaded.
2-7	Reserved

End of NCK power-up

Once the NCK has powered up correctly, the number "6" appears on the NCU status display. The LEDs "+5V" and "SF" (SINUMERIK READY) light up. Now switch NC start-up switch S3 back to the "0" position.

Status display during power-up

During power-up, the various power-up phases appear on the status display (7-segment display) on the NCU module.

Table 5-2 Power-up phases on the status display (7-segment display)

Power-up phase	Situation
.	An error was identified in the cyclical operation.
0	Real mode may have been switched to Protected mode.
1	Start of download from the PCMCIA card.
Number with decimal point	The number of the module that has just been downloaded appears on the status display.
2	Download from the PCMCIA card has ended successful.
3	The debug monitor is initialized.
4	Operating system was downloaded successfully.
5	Operating system has started up.
6	NCK software is initialized.