


# Fuses

ATmega8



## Fuses

- „globální nastavení“
- 2 byty, změna pouze při programování
- při Chip Erase se nemažou
- nelze měnit, je-li LB1 nastaven
  - ⇒ programovat Fuses před programováním LB
- 1... unprogrammed, 0 ... programmed

	7	6	5	4	3	2	1	0
Fuse HIGH	RSTDISBL	WDTON	SPIEN	CKOPT	EESAVE	BOOTSZ1	BOOTSZ0	BOOTRST
Fuse LOW	BODLEVEL	BODEN	SUT1	SUT0	CKSEL3	CKSEL2	CKSEL1	CKSEL0

## Fuse High 7-4


	7	6	5	4	3	2	1	0
	RSTDISBL	WDTON	SPIEN	CKOPT	EESAVE	BOOTSZ1	BOOTSZ0	BOOTRST

**RSTDISBL** RESET pin disable  
 0 ... PC6 is I/O pin      **1** ... PC6 is RESET pin

**WDTON** Watchdog control  
 0 ... WDT always on      **1** ... WDTCR controls WDT

**SPIEN** Serial programming enable  
**0** ... enabled      1 ... disabled

**CKOPT** Clock options  
 0                              **1**  
 (based on clock source)



## Fuse High 3-0


	7	6	5	4	3	2	1	0
	RSTDISBL	WDTON	SPIEN	CKOPT	EESAVE	BOOTSZ1	BOOTSZ0	BOOTRST

**EESAVE** EEPROM behaviour during Chip Erase  
 0 ... erased      **1** ... preserved

**BOOTSZ1-0** Boot Code size

1 1	128	0xF80
1 0	256	0xF00
0 1	512	0xE00
<b>0 0</b>	1024	0xC00

**BOOTRST** Select Reset Vector  
 0 ... jump to Boot Loader      **1** ... jump to 0x000




## Fuse Low 4-7

	7	6	5	4	3	2	1	0
	BODLEVEL	BODEN	SUT1	SUT0	CKSEL3	CKSEL2	CKSEL1	CKSEL0

**BODLEVEL** Brown-out detection level (hysteresis 130mV, min 2µs)  
 0 ... 4.0V      **1** ... 2.7V

**BODEN** Brown-out detection  
 0 ... enabled      **1** ... disabled

**SUT1-0** Startup time  
**1 0** (maximum)  
 (based on clock source)



## Fuse Low 3-0

	7	6	5	4	3	2	1	0
	BODLEVEL	BODEN	SUT1	SUT0	CKSEL3	CKSEL2	CKSEL1	CKSEL0

**CKSEL3-0** Clock source selection

0000	External Clock
<b>0001</b> – 0100	Calibrated Internal RC Oscillator
0101 – 1000	External RC Oscillator
1001	External Low-frequency Crystal
1010 – 1111	External Crystal/Ceramic Resonator

