

Fuses 168 / 328 Differences

Bit No. Low Fuse 168 and 328

0()CKSEL0	Select Clock source	-1
1()CKSEL1	Select Clock source	-1
2()CKSEL2	Select Clock source	-1
3(*)CKSEL3	Select Clock source	-0
4()SUT0	Select start-up time	-1
5()SUT1	Select start-up time	-1
6()CKOUT	Clock output	-1
7()CKDIV8	Divide clock by8	-1

Below 168 Low Fuses

Fuse Bit Details ✕

This dialog shows the name and discription of each bit in a fuse byte.
Double click to toggle state of any bit.
To change the fuse bits to factory defaults click Load default values.

Bit No.	Name	Description	Status	Default Value
0	CKSEL0	Select Clock source	UN PROGRAMMED(1)	PROGRAMMED(0)
1	CKSEL1	Select Clock source	UN PROGRAMMED(1)	UN PROGRAMMED(1)
2	CKSEL2	Select Clock source	UN PROGRAMMED(1)	PROGRAMMED(0)
3	CKSEL3	Select Clock source	PROGRAMMED(0)	PROGRAMMED(0)
4	SUT0	Select start-up time	UN PROGRAMMED(1)	PROGRAMMED(0)
5	SUT1	Select start-up time	UN PROGRAMMED(1)	UN PROGRAMMED(1)
6	CKOUT	Clock output	UN PROGRAMMED(1)	UN PROGRAMMED(1)
7	CKDIV8	Divide clock by 8	UN PROGRAMMED(1)	PROGRAMMED(0)

Below 328 Low Fuses

Fuse Bit Details ✕

This dialog shows the name and discription of each bit in a fuse byte.
Double click to toggle state of any bit.
To change the fuse bits to factory defaults click Load default values.

Bit No.	Name	Description	Status	Default Value
0	CKSEL0	Select Clock source	UN PROGRAMMED(1)	PROGRAMMED(0)
1	CKSEL1	Select Clock source	UN PROGRAMMED(1)	UN PROGRAMMED(1)
2	CKSEL2	Select Clock source	UN PROGRAMMED(1)	PROGRAMMED(0)
3	CKSEL3	Select Clock source	PROGRAMMED(0)	PROGRAMMED(0)
4	SUT0	Select start-up time	UN PROGRAMMED(1)	PROGRAMMED(0)
5	SUT1	Select start-up time	UN PROGRAMMED(1)	UN PROGRAMMED(1)
6	CKOUT	Clock output	UN PROGRAMMED(1)	UN PROGRAMMED(1)
7	CKDIV8	Divide clock by 8	UN PROGRAMMED(1)	PROGRAMMED(0)

Bit No.	High Fuse 168	
0(*)	BODLEVEL0	Brown-out -0
1(*)	BODLEVEL1	Brown-out -0
2()	BODLEVEL2	Brown-out -1
3()	EESAVE	memory is preserved -1
4()	WDTON	Watchdog timer On -1
5(*)	SPIEN	Enable Serial Data -0
6()	DWEN	debugWIRE Enable -1
7()	RSTDISBL	External Reset Disable -1

Below 168 High Fuses

Fuse Bit Details X

This dialog shows the name and discription of each bit in a fuse byte.
 Double click to toggle state of any bit.
 To change the fuse bits to factory defaults click Load default values.

Bit No.	Name	Description	Status	Default Value
0	BODLEVEL0	Brown-out Detector trigger level	PROGRAMMED(0)	UN PROGRAMMED(1)
1	BODLEVEL1	Brown-out Detector trigger level	PROGRAMMED(0)	UN PROGRAMMED(1)
2	BODLEVEL2	Brown-out Detector trigger level	UN PROGRAMMED(1)	UN PROGRAMMED(1)
3	EESAVE	EEPROM memory is preserved throu...	UN PROGRAMMED(1)	UN PROGRAMMED(1)
4	WDTON	Watchdog Timer Always On	UN PROGRAMMED(1)	UN PROGRAMMED(1)
5	SPIEN	Enable Serial Program and Data Dow...	PROGRAMMED(0)	PROGRAMMED(0)
6	DWEN	debugWIRE Enable	UN PROGRAMMED(1)	UN PROGRAMMED(1)
7	RSTDISBL	External Reset Disable	UN PROGRAMMED(1)	UN PROGRAMMED(1)

Below 328 High Fuses ERROR

Fuse Bit Details X

This dialog shows the name and discription of each bit in a fuse byte.
 Double click to toggle state of any bit.
 To change the fuse bits to factory defaults click Load default values.

Bit No.	Name	Description	Status	Default Value
0	BOATRST	Select Reset Vector	PROGRAMMED(0)	UN PROGRAMMED(1)
1	BOOTSZ0	Select Boot Size	PROGRAMMED(0)	PROGRAMMED(0)
2	BOOTSZ1	Select Boot Size	UN PROGRAMMED(1)	PROGRAMMED(0)
3	EESAVE	EEPROM memory is preserved throu...	UN PROGRAMMED(1)	UN PROGRAMMED(1)
4	WDTON	Watchdog Timer Always On	UN PROGRAMMED(1)	UN PROGRAMMED(1)
5	SPIEN	Enable Serial Program and Data Dow...	PROGRAMMED(0)	PROGRAMMED(0)
6	DWEN	debugWIRE Enable	UN PROGRAMMED(1)	UN PROGRAMMED(1)
7	RSTDISBL	Select if PC6 is I/O pin or RESET pin	UN PROGRAMMED(1)	UN PROGRAMMED(1)

Bit No	Extended Fuse 168	
0	()BOOTRST	Select Reset Vector -1
1	(*)BOOTSZ0	Select Boot Size -0
2	(*)BOOTSZ0	Select Boot Size -0
3	()UNIMPLEMENTED	-1
4	()UNIMPLEMENTED	-1
5	()UNIMPLEMENTED	-1
6	()UNIMPLEMENTED	-1
7	()UNIMPLEMENTED	-1

Below 168 Extended Fuses

Fuse Bit Details X

This dialog shows the name and discription of each bit in a fuse byte.
 Double click to toggle state of any bit.
 To change the fuse bits to factory defaults click Load default values.

Bit No.	Name	Description	Status	Default Value
0	BOOTRST	Select Reset Vector	UN PROGRAMMED(1)	UN PROGRAMMED(1)
1	BOOTSZ0	Select Boot Size	PROGRAMMED(0)	PROGRAMMED(0)
2	BOOTSZ0	Select Boot Size	PROGRAMMED(0)	PROGRAMMED(0)
3	UNIMPLEMENTED	---	UN PROGRAMMED(1)	UN PROGRAMMED(1)
4	UNIMPLEMENTED	---	UN PROGRAMMED(1)	UN PROGRAMMED(1)
5	UNIMPLEMENTED	---	UN PROGRAMMED(1)	UN PROGRAMMED(1)
6	UNIMPLEMENTED	---	UN PROGRAMMED(1)	UN PROGRAMMED(1)
7	UNIMPLEMENTED	---	UN PROGRAMMED(1)	UN PROGRAMMED(1)

Below 328 Extended Fuses ERROR

Fuse Bit Details X

This dialog shows the name and discription of each bit in a fuse byte.
 Double click to toggle state of any bit.
 To change the fuse bits to factory defaults click Load default values.

Bit No.	Name	Description	Status	Default Value
0	BODLEVEL0	Brown-out Detector trigger level	UN PROGRAMMED(1)	UN PROGRAMMED(1)
1	BODLEVEL1	Brown-out Detector trigger level	UN PROGRAMMED(1)	UN PROGRAMMED(1)
2	BODLEVEL2	Brown-out Detector trigger level	UN PROGRAMMED(1)	UN PROGRAMMED(1)
3	UNIMPLEMENTED	---	UN PROGRAMMED(1)	UN PROGRAMMED(1)
4	UNIMPLEMENTED	---	UN PROGRAMMED(1)	UN PROGRAMMED(1)
5	UNIMPLEMENTED	---	UN PROGRAMMED(1)	UN PROGRAMMED(1)
6	UNIMPLEMENTED	---	UN PROGRAMMED(1)	UN PROGRAMMED(1)
7	UNIMPLEMENTED	---	UN PROGRAMMED(1)	UN PROGRAMMED(1)

Changes High Fuse 328

Bit No. High Fuse 328

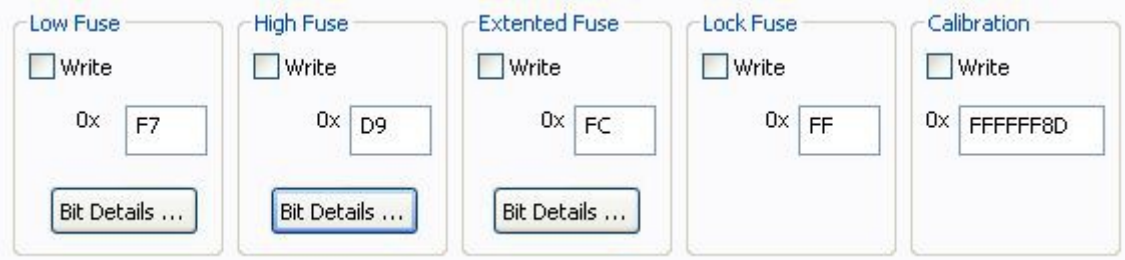
0()	BOTRST	Select Reset Vector	-1
1(*)	BOOTSZ0	Select Boot Size	-0
2(*)	BOOTSZ0	Select Boot Size	-0
3()	EESAVE	EEPROM memory is preserved	-1
4()	WDTON	Watchdog timer On	-1
5(*)	SPIEN	Enable Serial Data	-0
6()	DWEN	debugWIRE Enable	-1
7()	RSTDISBL	External Reset Disable	-1

Changes Extended Fuse 328

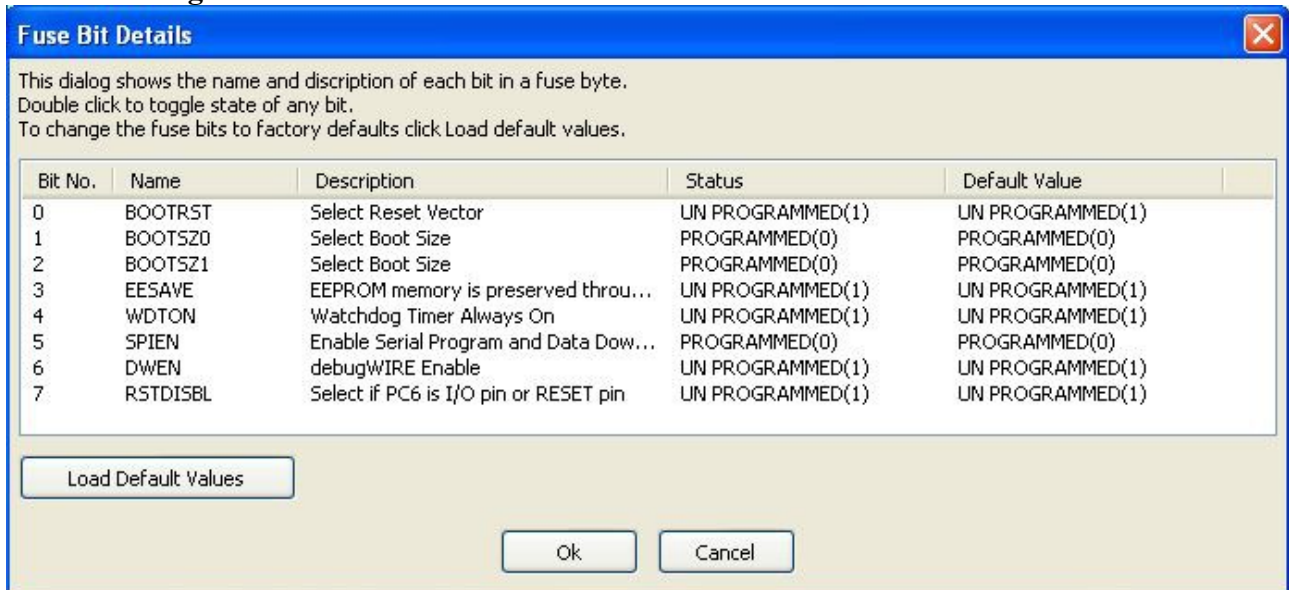
Bit No Extended Fuse 328

0(*)	BODLEVEL0	Brown-out	-0
1(*)	BODLEVEL1	Brown-out	-0
2()	BODLEVEL2	Brown-out	-1
3()	UNIMPLEMENTED		-1
4()	UNIMPLEMENTED		-1
5()	UNIMPLEMENTED		-1
6()	UNIMPLEMENTED		-1
7()	UNIMPLEMENTED		-1

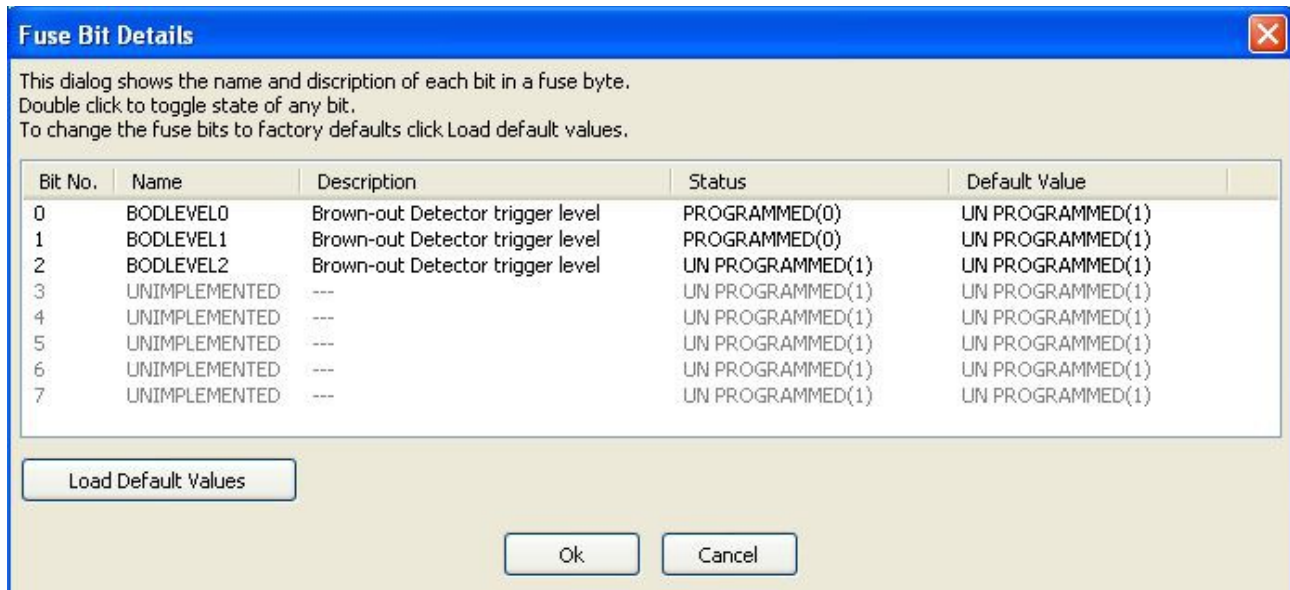
This gives us this corrected setting below for the 328-PU (ignoring Lock Fuse setting).



Below 328 High Fuses Corrected



Below 328 Extended Fuses Corrected



Programmer Settings

- (*)Auto Verify Flash After Recording
- (*)Auto Verify EEPROM After Recording
- (*)Fast Flash Verification
- (*)Fast EEPROM Verification