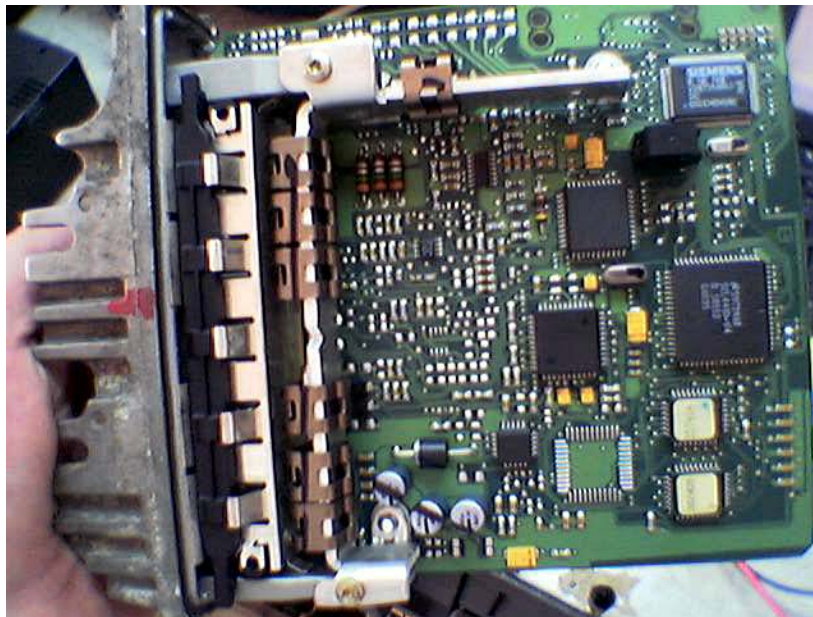


Bosch ECU used to control Renault 1.9 DTI engines. The immobilizer code is stored in I2C Bus memory (24C02).



1. Read 24C02 memory contents (256 Byte).
2. Locate the immobilizer code sequence – see picture below. Although the immo entry address is not constant, it is easy to find using this calculation method:
(\$0B \$04 + \$F4 \$FB = \$FF \$FF).

	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	0123456789ABCDEF
0x00	37	36	38	2E	30	32	AA	AA	37	36	38	2E	30	32	55	55	768.02\$\$768.02UU
0x10	AA	55	AA	55	AA	55	AA	55	01	C2	06	A4	00	00	00	00	ŞUŞUŞUŞU.Â.¤....
0x20	00	00	00	00	00	00	00	00	F6	4F	F4	67	00	00	00	00	.....øOøg....
0x30	28	00	00	00	00	0F	8F	00	00	0A	AA	48	00	00	0B	04	(.....Ž...ŞH....
0x40	F4	FB	00	00	00	01	03	00	01	00	00	00	93	6C	12	C6	ðû.....`1.Ć
0x50	AC	48	00	00	0B	04	F4	FB	00	00	00	01	03	00	01	00	-H....ðû.....
0x60	00	00	93	6C	12	C6	FF	00	12	11	60	8C	00	00	00	6F	..`1.Ć`...`Š...o
0x70	00	79	11	33	30	0C	00	47	FC	31	0F	09	11	44	C0	CE	.y.30..Gü1...DRÎ
0x80	00	64	C3	81	70	92	11	11	A2	8E	00	00	23	17	D4	00	.dĂp'...Ž...#.Ô.
0x90	13	44	02	8C	00	2E	F5	00	6C	21	21	44	01	88	00	08	.D.Š...š.1!!D.□..
0xA0	00	68	68	10	00	00	00	00	00	00	00	00	00	00	00	00	.hh.....
0xB0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
0xC0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
0xD0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
0xE0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
0xF0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....

3. Modify the memory contents – see picture below (\$00 \$00 + \$FF \$FF = \$FF \$FF).

	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	0123456789ABCDEF
0x00	37	36	38	2E	30	32	AA	AA	37	36	38	2E	30	32	55	55	068.02ŞŞ768.02UU
0x10	AA	55	AA	55	AA	55	AA	55	01	C2	06	A4	00	00	00	00	ŞUŞUŞUŞU.Â.¸....
0x20	00	00	00	00	00	00	00	00	F6	4F	F4	67	00	00	00	00	.....öOôg....
0x30	28	00	00	00	00	0F	8F	00	00	0A	AA	48	00	00	00	00	(.....Ž...ŞH....
0x40	FF	FF	00	00	00	01	03	00	01	00	00	00	93	6C	12	C6	....."1.Ć
0x50	AC	48	00	00	00	00	FF	FF	00	00	00	01	03	00	01	00	-H.....
0x60	00	00	93	6C	12	C6	FF	00	12	11	60	8C	00	00	00	6F	.."1.Ć'...'Ş...o
0x70	00	79	11	33	30	0C	00	47	FC	31	0F	09	11	44	C0	CE	.y.30..Gü1...DRÎ
0x80	00	64	C3	81	70	92	11	11	A2	8E	00	00	23	17	D4	00	.dĂp'...'Ž...#.Ô.
0x90	13	44	02	8C	00	2E	F5	00	6C	21	21	44	01	88	00	08	.D.Ş...ö.1!!D.□..
0xA0	00	68	68	10	00	00	00	00	00	00	00	00	00	00	00	00	.hh.....
0xB0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
0xC0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
0xD0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
0xE0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
0xF0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....

4. Programm the I2C memory. The immobilizer entry is cleared now but the ECU can not work without valid immobilizer module signal.