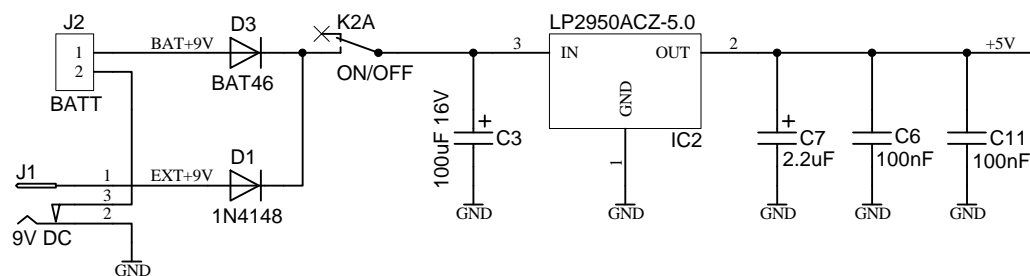
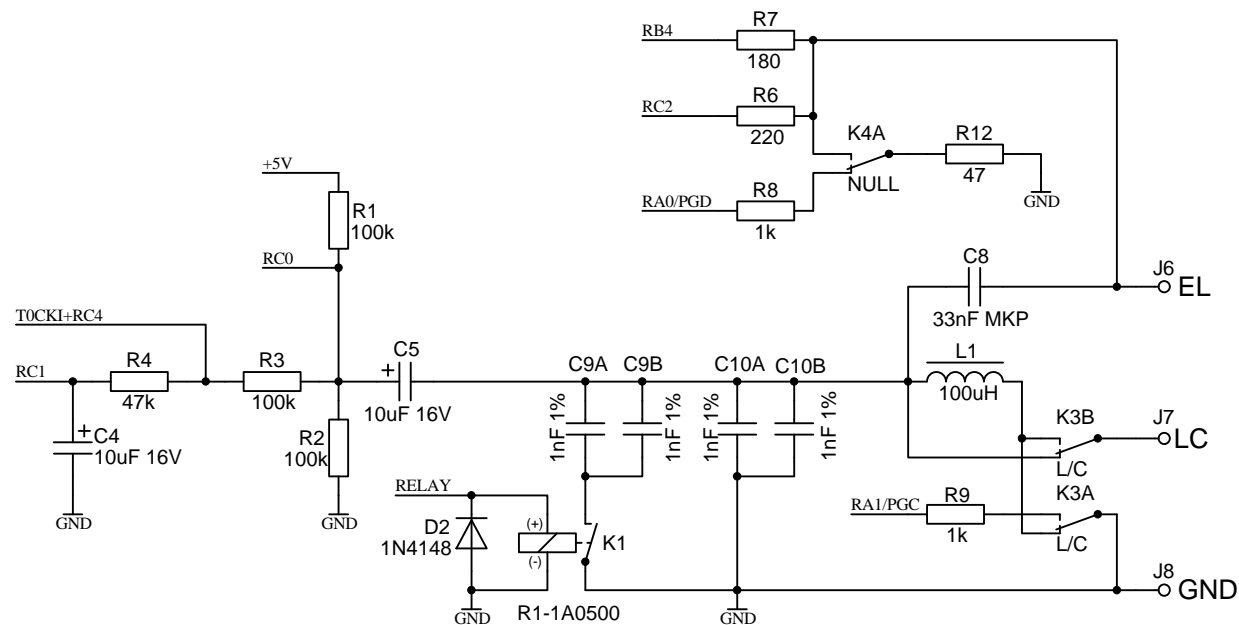
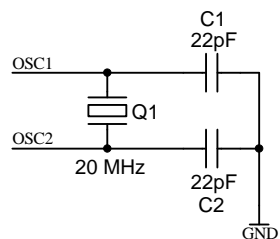
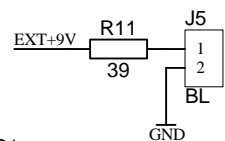
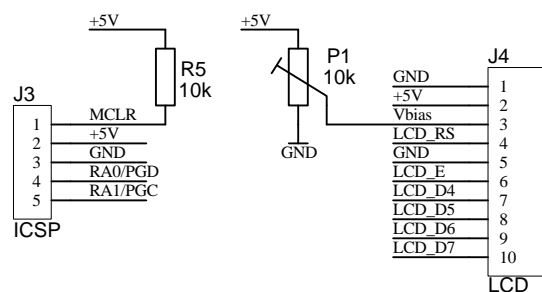
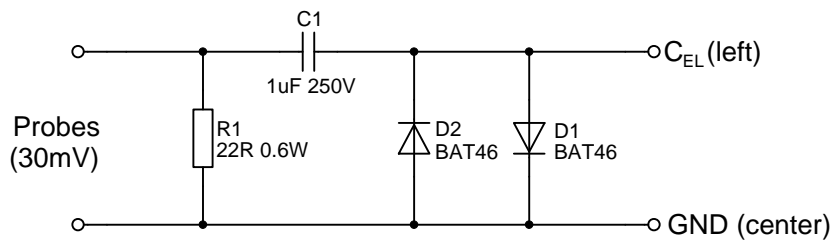
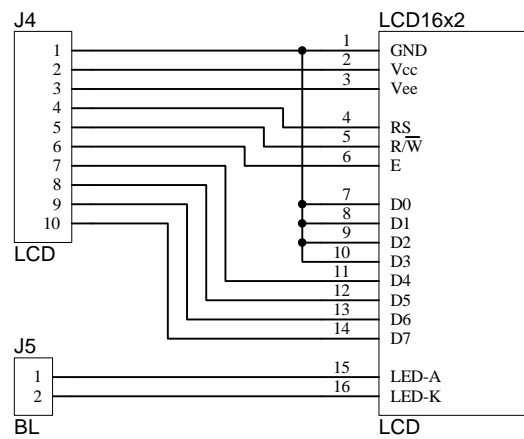


Eredeti terv: Pudics István and Piri Dániel

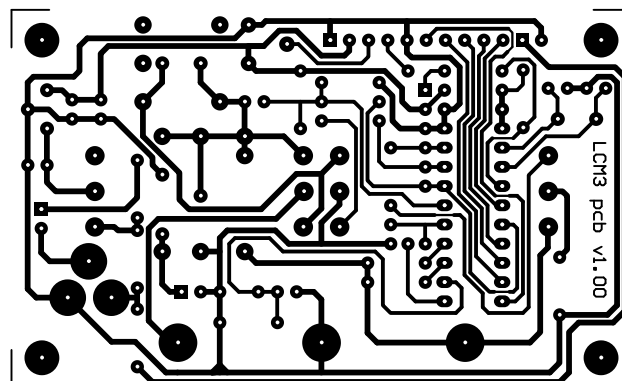
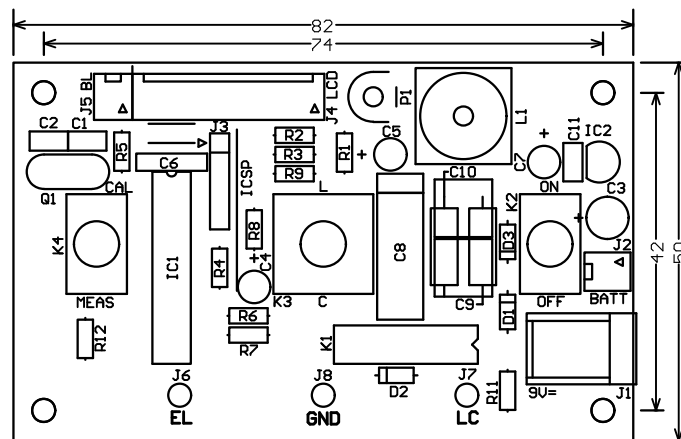
(http://www.hobbielektronika.hu/kapcsolasok/lcm3_alkatresz_mero_muszer_-_kit_lehetoseg.html)

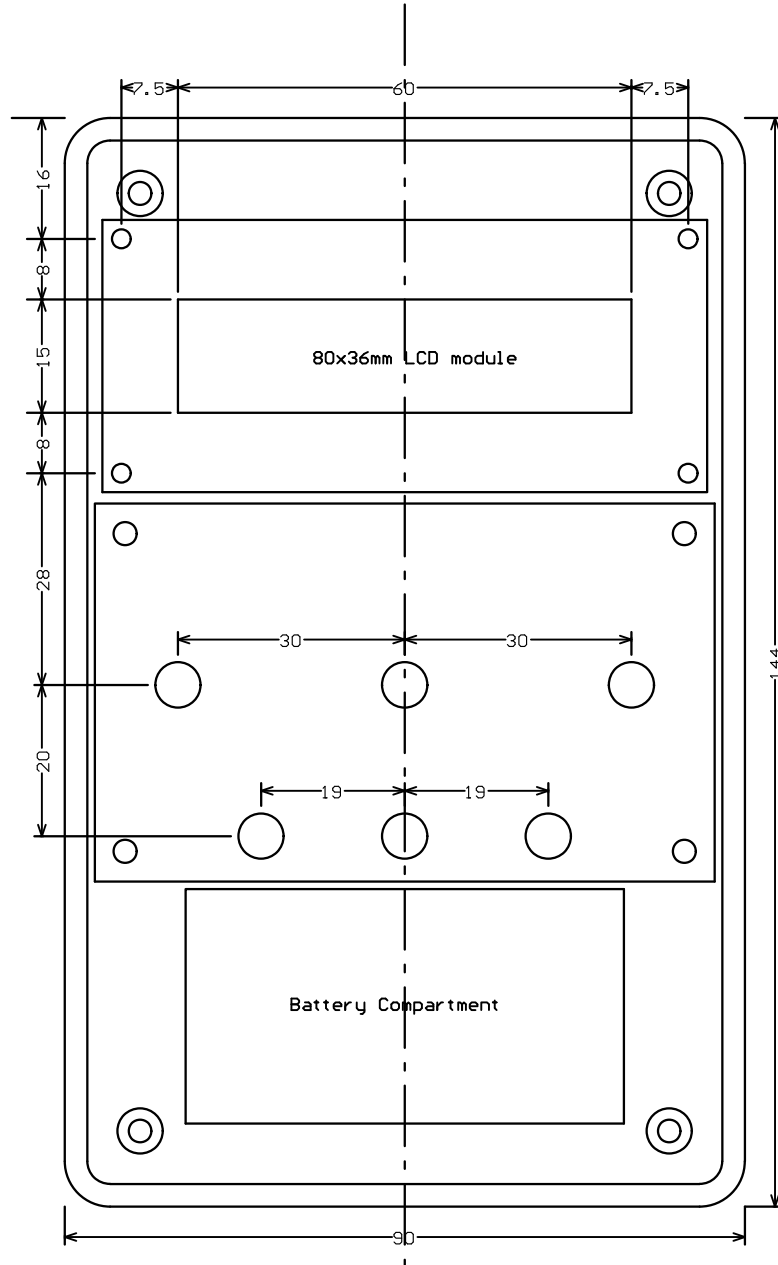
IC1		PIC16F690	
+5V	1	VDD	20
OSC1	2	RA5/OSC1	19
OSC2	3	RA4/OSC2	18
MCLR	4	RA3/MCLR/VPP	17
LCD_D7	5	RC5	16
T0CKI+RC4	6	RC4/C2OUT	15
LCD_D6	7	RC3/C12IN3-	14
LCD_D5	8	RC6	13
LCD_D4	9	RC7	12
LCD_E	10	RB7	11
		VSS	1
		RA0/C1IN+/PGD	19
		RA1/PGC	18
		RA2/C1OUT	17
		RC0/C2IN+	16
		RC1	15
		RC2	14
		RC3/C12IN1-	13
		RC2/C12IN2-	12
		RELAY	11
		LCD_RS	10





In Circuit ESR adapter





Bill of Material for lcm3.sch

Used	Part Type	Designator	Description	Source
=====				
1	22	Merovezetek	Ellenallas 0.6W 1%	
1	39	R11	Ellenallas 0.6W 1%	
1	47	R12	Ellenallas 0.6W 1%	
1	180	R7	Ellenallas 0.6W 1%	
1	220	R6	Ellenallas 0.6W 1%	
2	1k	R8 R9	Ellenallas 0.6W 1%	
1	10k	R5	Ellenallas 0.6W 1%	
1	47k	R4	Ellenallas 0.6W 1%	
3	100k	R1 R2 R3	Ellenallas 0.6W 1%	
1	10k	P1	Trimmer (PT-065C)	Lomex 05-05-46
=====				
2	1nF 1%	C9 C10	Polystyrene kondenzator 1% -> LCR COMPONENTS - EXFS/HR 1nF 1% 63V -> vagy LCR COMPONENTS - FSCEX 1nF 1% 250V	Farnell 9520236 Farnell 9520651
1	33nF MKP	C8	MKP kondenzator 5% -> PANASONIC ECWH8333HA - 800V 33NF 3% -> vagy 33nF 630V Polyprop 5%	Farnell 1854933 HQ C 33N 630/MKP
1	1uF 250V	Merovezetek	WIMA foliakondenzator	Lomex 07-05-77
2	22pF	C1 C2	Keramia kondenzator 1#	
2	100nF	C6 C11	Keramia kondenzator 1# es 3#	
1	2.2uF	C7	Tantal kondenzator (polarizalt!)	
2	10uF 16V	C4 C5	Tantal kondenzator (polarizalt!)	
1	100uF 16V	C3	Elektrolit kondenzator	
=====				
1	100uH	L1	Induktivitas -> 11x7 AL160 fazekvas 25 menet 0.3-as huzal -> 11x7 AL250 fazekvas 20 menet 0.3-as huzal -> vagy 0.32A 0.4R 10% RAD RLB0712-101KL	??? ??? Lomex 55-01-50
=====				
2	1N4148	D1 D2	Dioda	
3	BAT46	D3 + Merovezetek	Shottky dioda	
=====				
1	PIC16F690	IC1	8 bit MCU	Chipcad / HQ
1	LP2950ACZ-5.0	IC2	Stabilizator IC	Lomex 32-19-04
=====				
1	20 MHz	Q1	Quartz	
1	R1-1A0500	K1	SIL REED rele -> R1-1A0500 -> R1-1A0550	Lomex 42-03-12 Lomex 42-03-09
1	-	K3	Kapcsoló 2 x Morze (TA202A2)	Lomex 45-04-78
1	-	K2 K4	Kapcsoló 1 x Morze (TA102A2)	Lomex 45-04-83
1	9V DC	J1	2.1/5.5 anya tapcsatlakozó NYAK-ba	Lomex 43-07-67
1	ICSP	J3	1x5-os tuskesor	
1	LCD	J4	10-es 90 fokos tapcsatlakozó	Lomex 43-10-00
1	BL	J5	2-es 90 fokos tapcsatlakozó apa	Lomex 43-09-94
1	-	J4	10-es tapcsatlakozó anya	Lomex 43-09-12
1	-	J5	2-es tapcsatlakozó anya vagy egyben 12-es tapcsatlakozó anya (J4-J5)	Lomex 43-09-06 Lomex 43-09-13
12	-	J4 J5	tapcsatlakozó érintkező -> vagy	Lomex 43-13-40 Lomex 43-09-17
2	-	J6 J7	Bananhüvely piros	Lomex 43-04-39
1	GND	J8	Bananhüvely fekete	Lomex 43-04-33
1	-	-	Banandugó piros	Lomex 43-12-08
1	-	-	Banandugó fekete	Lomex 43-12-38
1	-	-	Krokodil csipesz piros	Lomex 43-06-40
1	-	-	Krokodil csipesz fekete	Lomex 43-06-35
1	-	-	Merozsínor az in circuit ESR mereshez	HQ M.TL002
=====				
1	-	-	PA58B muanyag doboz elemtartóval 144x90x31	Lomex 47-02-08
1	-	-	16x2 karakteres LCD modul (80x36mm)	Lomex 37-00-66
1	-	-	LCM3 Nyaklemez	
-	-	-	vezeték zsugorcso, 4db 2-es csavar	
=====				