

Pin-BezeichnungenIC/Pin-Nummern

Daten-Bus:

68HC11 - 74HC373 - LM016L - 27C64 - PullUp

AD0-D0-DB0-D0-R1	1/31 - 4/3 - d/7 - 3/11
AD1-D1-DB1-D1-R2	1/32 - /4 - /8 - /12
AD2-D2-DB2-D2-R3	1/33 - /7 - /9 - /13
AD3-D3-DB3-D3-R4	1/34 - /8 - /10- /15
AD4-D4-DB4-D4-R5	1/35 - /13- /11- /16
AD5-D5-DB5-D5-R6	1/36 - /14- /12- /17
AD6-D6-DB6-D6-R7	1/37 - /17- /13- /18
AD7-D7-DB7-D7-R8	1/38 - /18- /14- /19

Adress-Bus:

74HC373 - 27C64

Q0-A0	4/2 - 3/10
Q1-A1	/5 - /9
Q2-A2	/6 - /8
Q3-A3	/9 - /7
Q4-A4	/12- /6
Q5-A5	/15- /5
Q6-A6	/16- /4
Q7-A7	/19- /3

68HC11 - 27C64

A8-A8	1/16 - 3/25
A9-A9	/15 - /24
A10-A10	/14 - /21
A11-A11	/13 - /23
A12-A12	/12 - /2
A13-N2/2-N3/1-N3/2	1/11 - 6/10 - 6/1 - 6/2
A14-A1/1	1/10 - 5/12
A15-N2/1-A1/2	1/9 - 6/9 - 5/13

Control-Bus

AS-LE	1/26 - 4/11
R/-W - N1/1 - D5	1/28 - 6/12 - d5
E - N1/2 - A3/2	1/27 - 6/13 - 5/2

68HC11:

Vss-0V-C7/1-C8/1-C9/1	1/23 - gnd
Vdd-5V-C7/2-C8/2-C9/2	1/48
PA0-R9/2	1/8
PA1-R10/2	1/7
PA2-R11/2	1/6
PA7-R12/2	1/1
R9/1-5V	
R10/1-5V	
R11/1-5V	
R12/1-5V	

AN0-R13/1	1/17
AN1-R14/2-R15/1	/18
AN2-R17/2	/19
AN3-R16/2	/20
R13/2-S5	
R14/1-0V	
R15/2-5V	
R16/1-R17/1-0V	
RxD-S4	1/42
TxD-S3	/43
S1-0V	
Vrh-C6/1-R18/2	1/22
Vr1-C6/2-0V	/21
R18/1-SW2/2	
SW2/1-3V	
MODB-J2-R22/2	1/24
J1-0V	
MODA-R21/2	/25
-SS - R20/2	/47
-XIRQ - R19/2	/40
R19/1-R20/1-R21/1-R22/1-5V	

74HC373:

-OE - 0V	4/1
GND - 0V	/10
Vcc - 5V	/20

27C64:

Vpp - -PGM - GND - 0V	3/1 - 3/27 - 3/26
Vcc - 5V	3/28
-CS - N1	3/20 - 6/11
-OE - N2	3/22 - 6/8

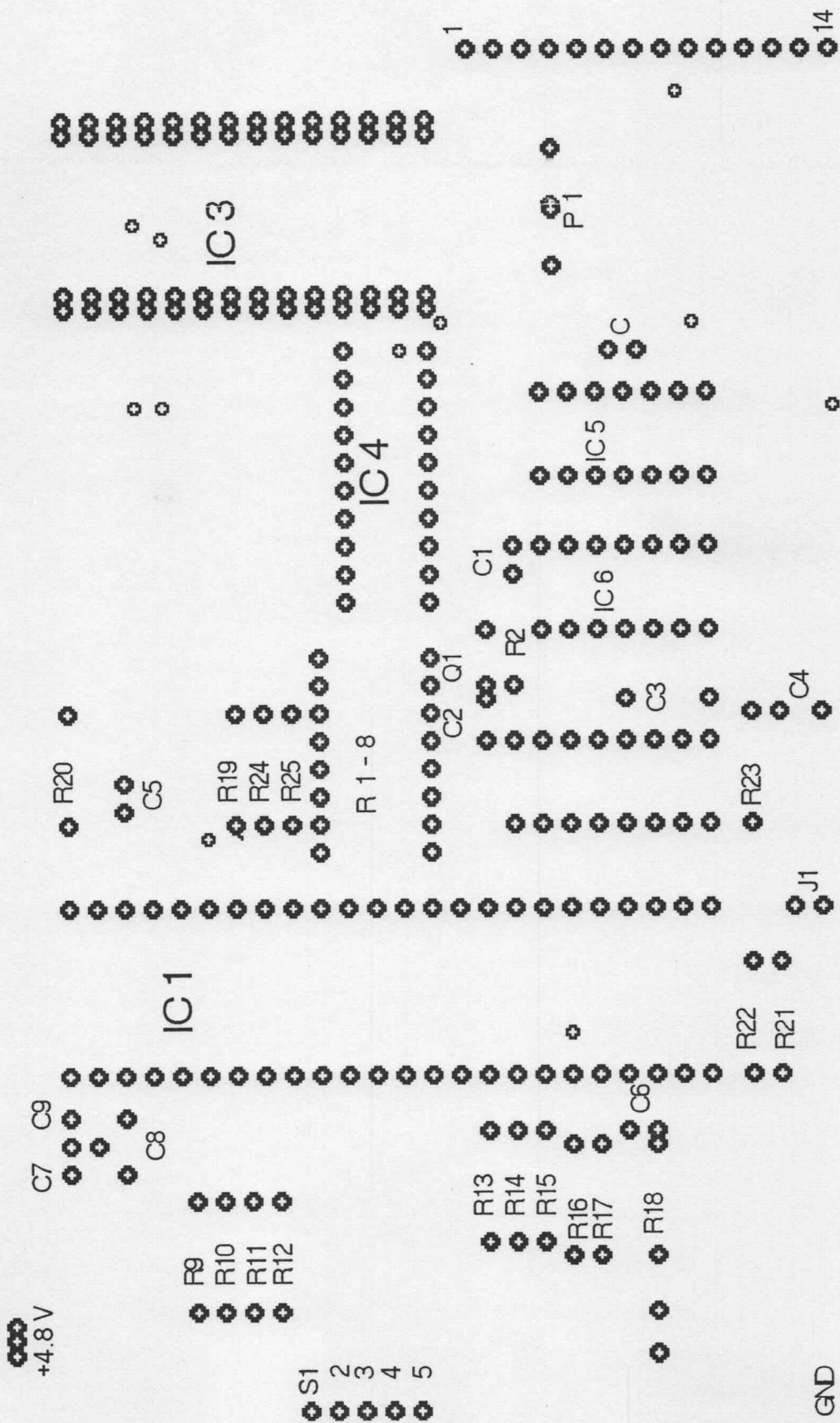
LM016L

A2 - E	5/8 - d6
A1 - A2/1	5/11 - 5/9
A3 - A2/2	5/3 - 5/10
N3 - A3/1	6/3 - 5/1
N4/1-N4/2-A4/1-A4/2-0V	6/4 - 6/5 - 5/4 - 5/5
Vss-0V	d1
PA4-RS	1/4 - d4
Vdd-5V	d2
V0-P1/2	d3
P1/1-5V	
P1/3-0V	

68HC68T1:

Vdd-Vsys-5V	2/16 - 2/12
SS-PA3	2/7 - 1/5
SCK-SCK	1/46 - 2/4
MISO-MISO	1/44 - 2/6
MOSI-MOSI	1/45 - 2/5
CLKOUT-EXTAL	2/1 - 1/29
-INT - R24/2 - -IRQ	2/3 - - 1/41

R24/1 - R25/1 - R23/1 - 5V
-CPUR - C5/1 - R25/2 - -RESET 2/2 - 1/39
C5/2 - C1/2 - C2/2 - C3/2
- C4/2 - 0V
R23/2 - C4/1 - POR 2/10
Vbatt - C3/1 - 3V 2/13
XTALIN - R26/1 - Q1/1 - C1/1 2/14
XTALOUT- R26/2 - Q1/2 - C2/1 2/15



Bestückungsplan Tauchcomputer
 M. Lardelli 89

Bauteileliste für Tauchcomputer:

- Mechanisches:

1 Platine, Europakartenformat, Epoxy
doppelseitig beschichtet

1 Sockel 48-Polig
1 Sockel 20-Polig
1 Sockel 28-Polig (Textool)
1 Sockel 16-Polig

1 Zweifachschalter
1 Stecherleiste >5Pol
1 Buchsenleiste >5Pol

1 Quarz 4.000 Mhz

- Halbleiter

1 MC68HC11A1 - Mikroprozessor
1 MC68HC68T1 - Real-Time Clock
1 74HC373 - Latch
1 27C64 - EPROM
1 74HC00 - NAND-Gates
1 Siliziumdiode
1 LC-Display 4x16

- Analog

1 Entkopplungskond. 10uF
1 " 0.01 uF
2 " 1uF
3 Elko 1uF

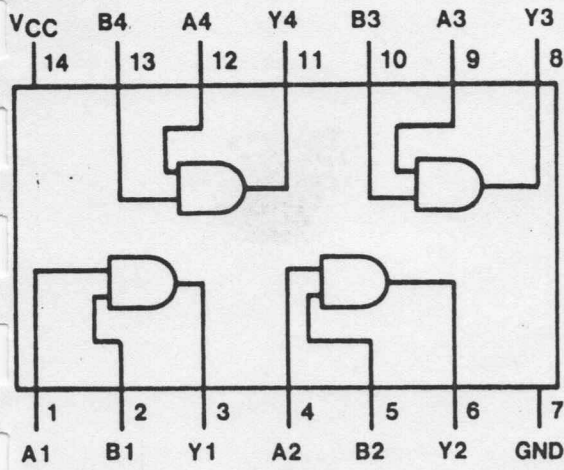
1 5pF
1 10pF

14 Widerstände 10K
7 " 4.7K
2 " 1K
1 " 22M
2 Widerstände 100K

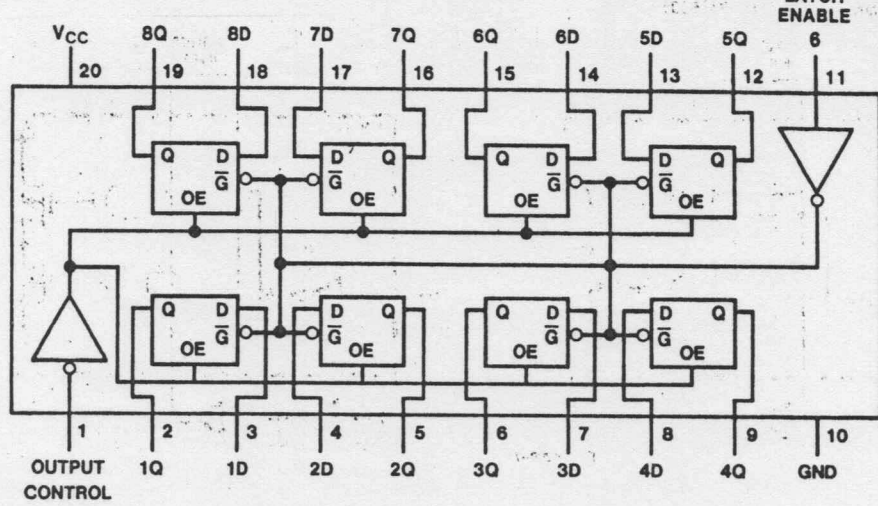
2 Potentiometer 20K

- Stromversorgung

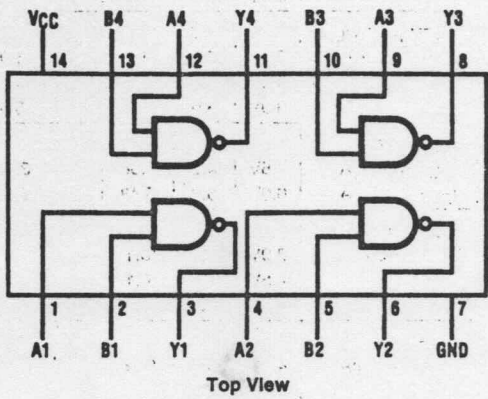
1 NC-Akku 4.8V/500mA
1 LiCl-Batterie
beide für Printmontage



Top View
74HC08

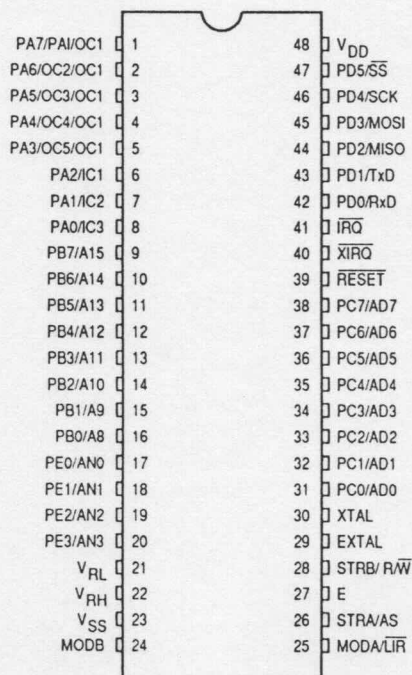


74HC373

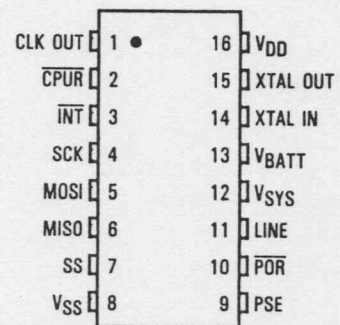


Top View
74HC00

2764	2732	2716	2716	2732	2764	
U _{pp}	---	---	1	---	U _{cc}	
A12	---	---	2	---	/PGM	
A7	A7	A7	3	24	U _{cc} A13	
A6	A6	A6	4	23	A8 A8 A8	
A5	A5	A5	5	3	22	A9 A9 A9
A4	A4	A4	6	4	21	U _{pp} A11 A11
A3	A3	A3	7	5	20	/OE /OE, U _{pp} /OE
A2	A2	A2	8	6	19	A10 A10 A10
A1	A1	A1	9	7	18	/CE /CE /CE
A0	A0	A0	10	8	17	D7 D7 D7
D0	D0	D0	11	9	16	D6 D6 D6
D1	D1	D1	12	10	15	D5 D5 D5
D2	D2	D2	13	11	14	D4 D4 D4
GND	GND	GND	14	12	13	D3 D3 D3



MC68HC11A8



MC68HC68T1

LM016XML

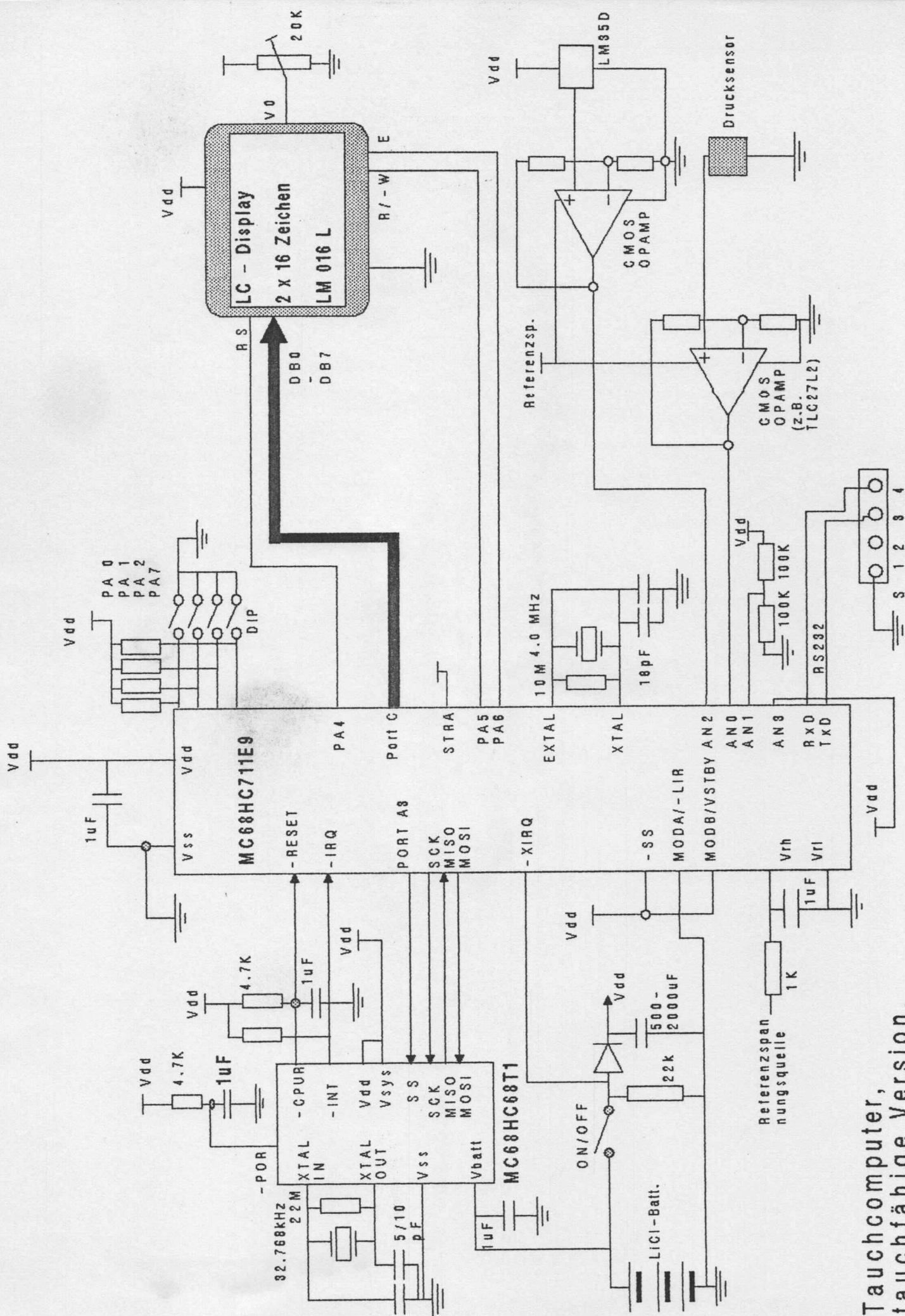
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
SYMBOL	V _{SS}	V _{DD}	V _O	R _S	R/W	E	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7

Anhang H

Platinenlayout und Belichtungsfolien

Anhang I

Schaltbeispiel für tauchfähige Version



Tauchcomputer,
tauchfähige Version.