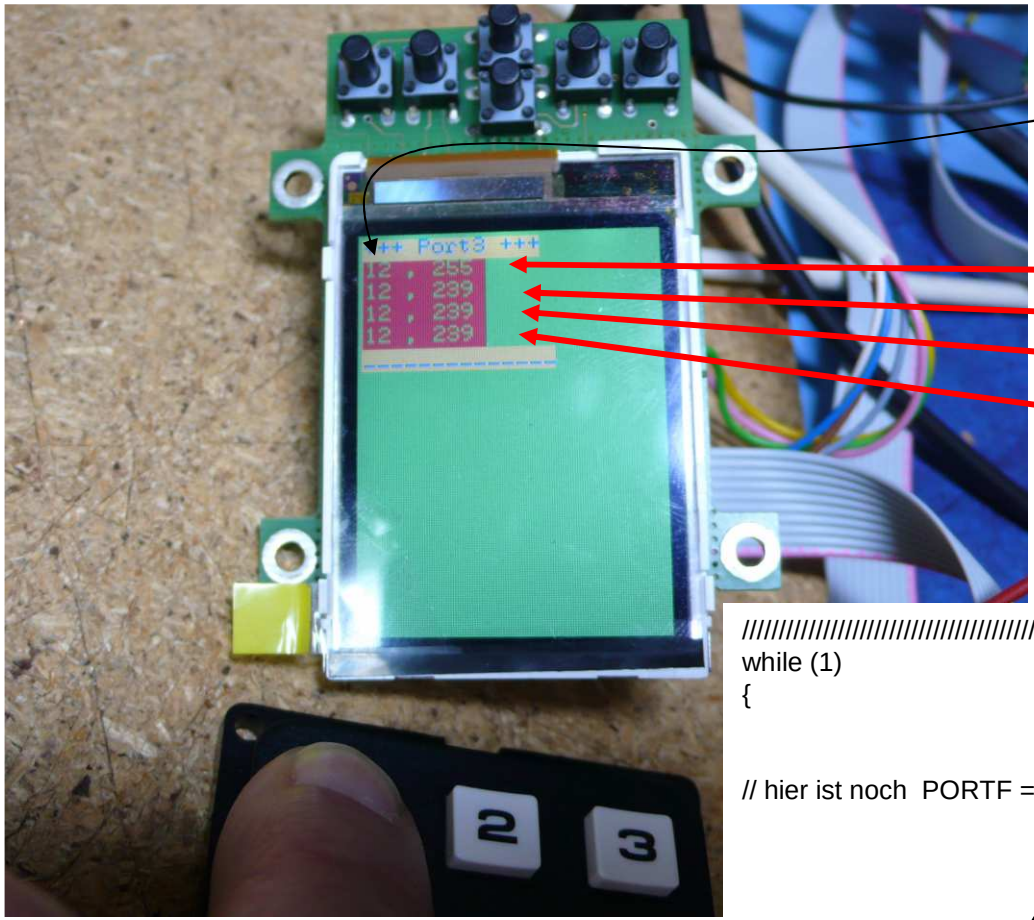
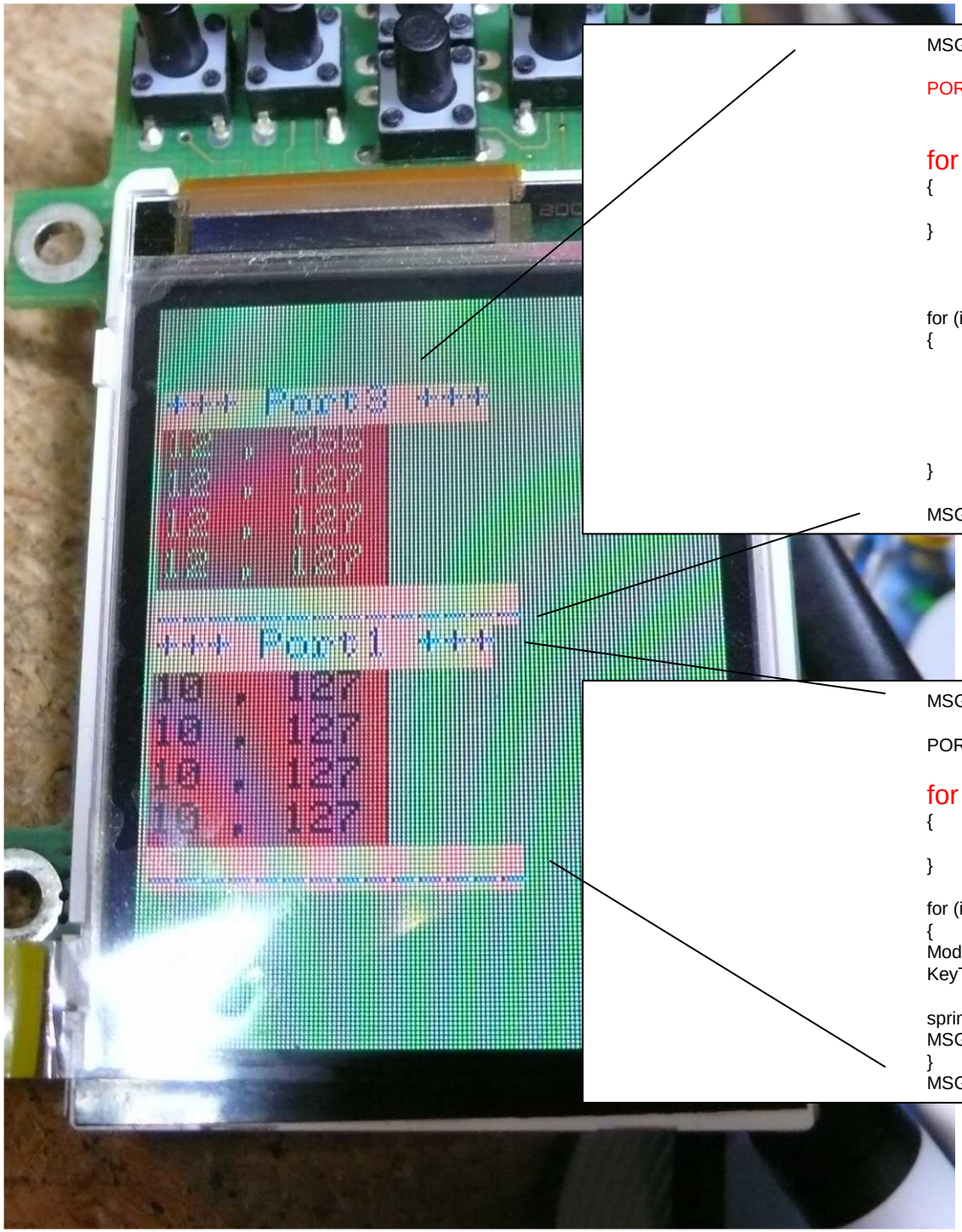


PINE

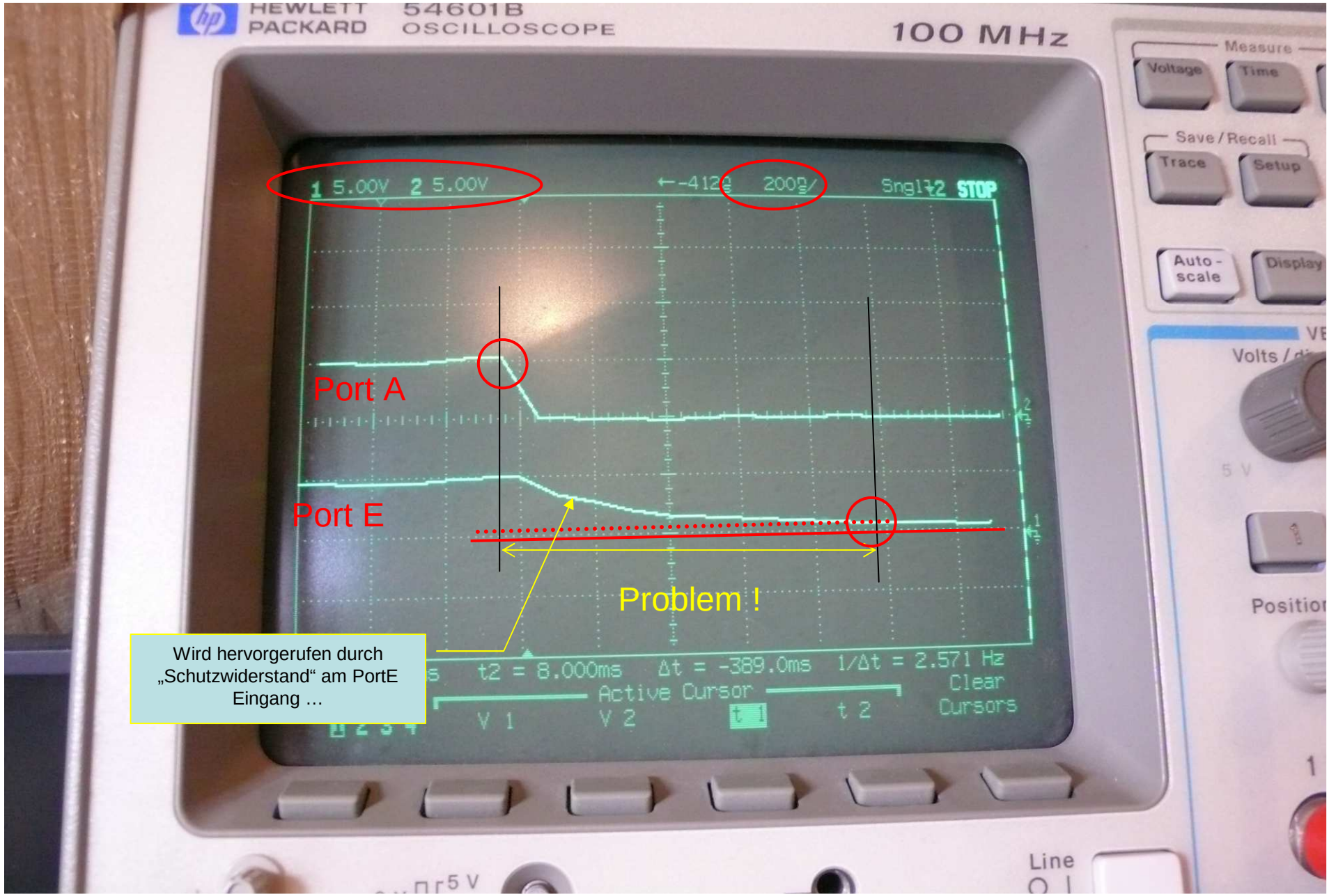
255	11111111
239	11101111
239	11101111
239	11101111

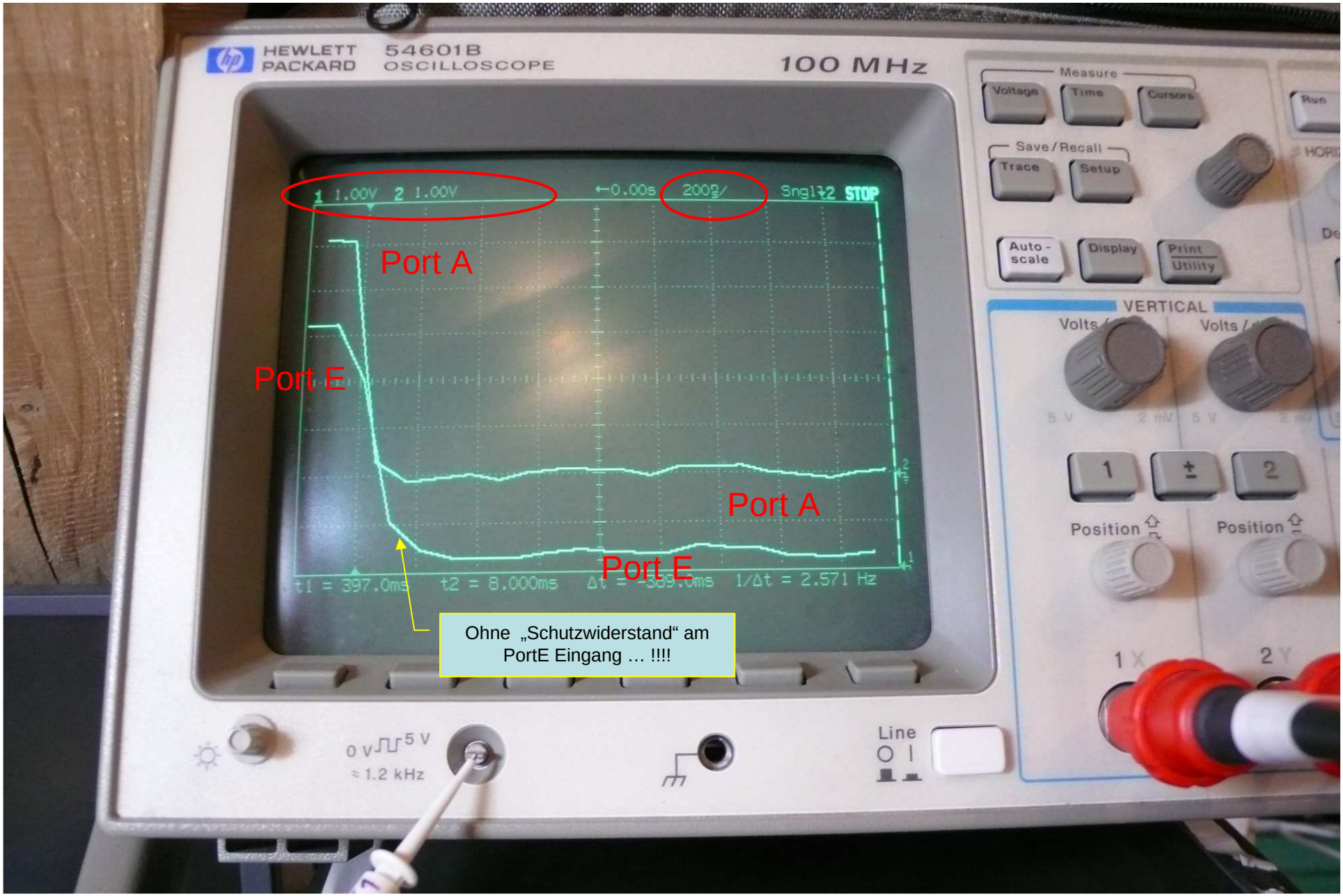
```
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
while (1)
{


// hier ist noch  PORTF = 00000000 und PINE = 11111111

                MSG_scroll ("+++ Port3 +++", 2);
                PORTF = MCPORT3 ;          // #define MCPORT3     0b00001100

                for (ii=1; ii< 5; ii++)
                {
                Modus = PINF;
                KeyTemp = PINE;

                sprintf ( msgstr1, "%i , %i ", (char) Modus, (char) KeyTemp);
                MSG_scroll (msgstr1, 3);
                }
                MSG_scroll ("_______________", 2);
                delay_ms(10000);

////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
```




```
MSG_scroll ("+++ Port3 +++", 2);

PORTA = MCPORT3;   // Zur Sicherheit ´mal anderen Port (A) ausprob.
                                        //#define MCPORT3 0b00001100

for (ii=1; ii < 6; ii++)
{
                        asm volatile ("nop");
}


for (ii=1; ii< 5; ii++)
{
                        Modus = PINA;
                        KeyTemp = PINE;

                        sprintf ( msgstr1, "%i , %i ", (char) Modus, (char) KeyTemp);
                        MSG_scroll (msgstr1, 3);
}

MSG_scroll ("_______________", 2);
```

```
MSG_scroll ("+++ Port1 +++", 2);

PORTA = MCPORT1 ;

for (ii=1; ii < 10; ii++)
{
                        asm volatile ("nop");
}

for (ii=1; ii< 5; ii++)
{
Modus = PINA;
KeyTemp = PINE;

sprintf ( msgstr1, "%i , %i ", (char) Modus, (char) KeyTemp);
MSG_scroll (msgstr1, 4);
}
MSG_scroll ("_______________", 2);
```


HEWLETT PACKARD
54601B OSCILLOSCOPE
100 MHz
1 5.00V 2 5.00V
Sngl
STOP
Port A
Port E
Problem !
Wird hervorgerufen durch „Schutzwiderstand“ am PortE Eingang …
t2 = 8.000ms
Δt = -389.0ms
1/Δt = 2.571 Hz
Active Cursor
V 1
V 2
t 1
t 2
Clear Cursors
Measure
Voltage
Time
Save/Recall
Trace
Setup
Auto-scale
Display
Line


HEWLETT PACKARD
54601B OSCILLOSCOPE
100 MHz
1 1.00V 2 1.00V
←0.00s
200g/
Sngl
STOP
Port A
Port E
Port A
Port E
t1 = 397.0ms
t2 = 8.000ms
1/Δt = 2.571 Hz
Ohne „Schutzwiderstand“ am PortE Eingang … !!!!
Measure
Voltage
Time
Cursors
Save/Recall
Trace
Setup
Auto-scale
Display
Print Utility
VERTICAL
Position
Position
0 V 5 V
≈ 1.2 kHz
Line