

Void setup_timer_1 (mode)

This built-in function is used to configure T/MER 1 module operation. Required parameters is given by the mode, which is a group of constant values that can be OR'ed using | operator. The constants are defined in the devices .h file (i.e. 16F877A.h). T/MER 1 is a 16 bit timer. The 16-bit timer value may be read and written to using set_timer1() and get_timer1().

Constants that may be used in mode:

TI_DISABLED

//to turn off Timer 1 (related to T1CON control register bit 0 TMR1ON)

TI_INTERNAL

///internal clock source

TI_EXTERNAL, TI_EXTERNAL_SYNC

//External clock source at RC0/T1CK/ pin, and synchronization to internal clock

TI_CLK_OUT

//External low frequency oscillator as a clock source with the external oscillator

//between RC0/T1OSO and RC1/T1OS/ pins And prescaler options can be:

TI_DIV_BY_1, TI_DIV_BY_2, TI_DIV_BY_t, TI_DIV_BY_8

instructions: Example

```
setup_timer_1 ( T1_DISABLED );    //Turn OFF Timer1 module
```

```
setup_timer_1 ( T1_INTERNAL | T1_DIV_BY_4 );
```

```
setup_timer_1 ( T1_INTERNAL | T1_DIV_BY_8 );
```

//With an internal clock at 20mhz and with the T1_DIV_BY_8 mode, the timer will increment every

//1.6us. /t will overflow every 104.8576ms.