

## Summary

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## DRIVER

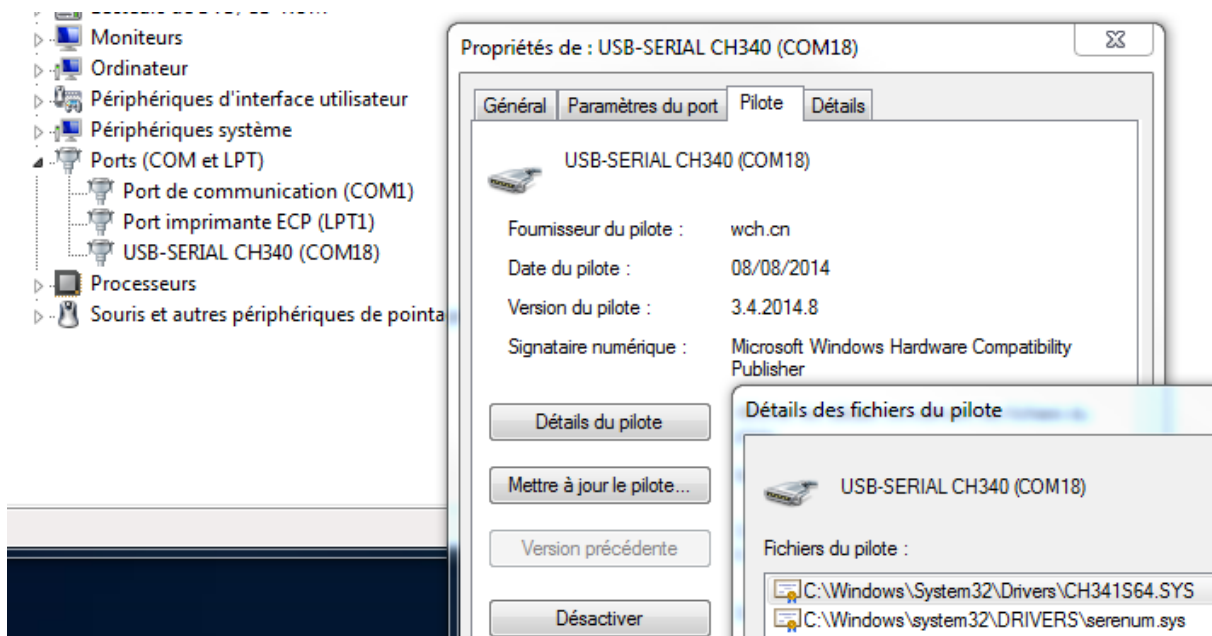
Install **CH340G** driver

Windows: <http://www.arduined.eu/tag/windows-7/>

Mac: [https://wiki.wemos.cc/\\_media/ch341ser\\_mac\\_1.5.zip](https://wiki.wemos.cc/_media/ch341ser_mac_1.5.zip)

Chip Manufacturer driver [http://www.wch.cn/download/CH341SER\\_EXE.html](http://www.wch.cn/download/CH341SER_EXE.html)

After restarting the PC, plug in the TCI v10 via USB connector and it will be ready to go.



If it's not working, open "*Device Manager*", plug the CDI in, open *Ports, Driver* tab, if another Windows driver is in there, then "*Update driver*" find and install the one above for CH340.

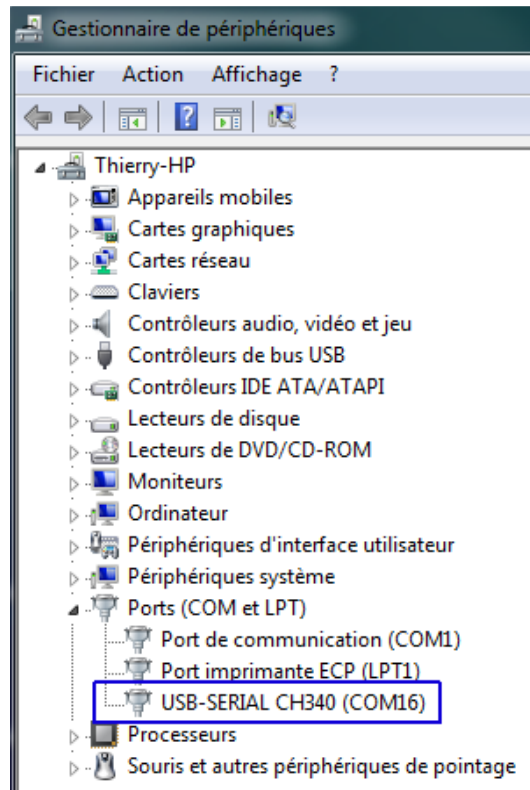
If Windows doesn't recognize the device, it'll appear in "*Other devices*" folder.



## COM PORT

Open "*Device Manager*" under "*Ports (COM&LPT)*" you should notice a new COM-port

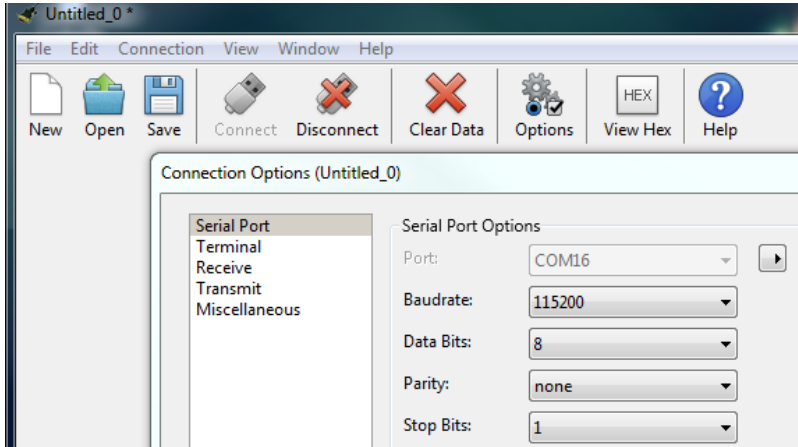
Note the number.



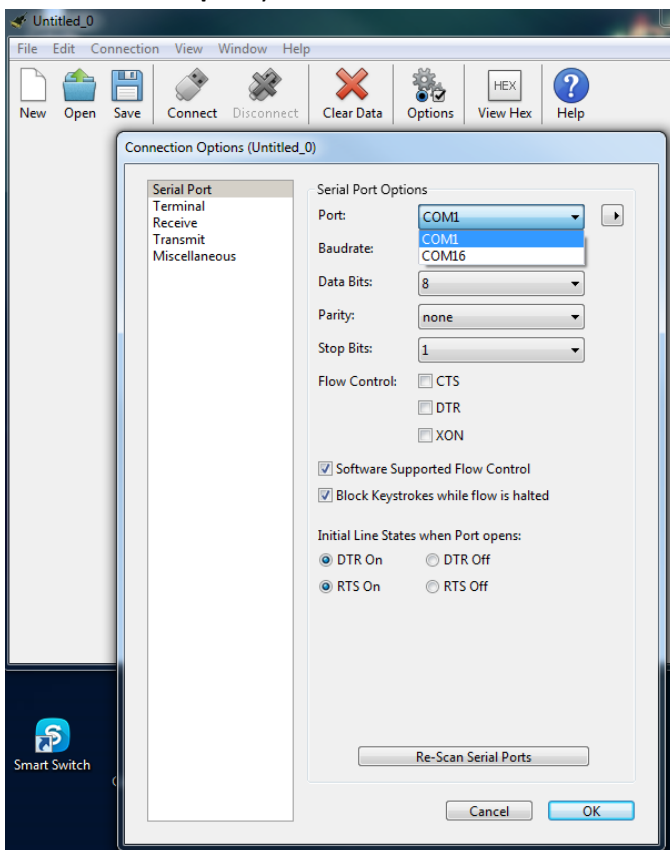
# Terminal

Launch a terminal on your PC (I recommend **CoolTerm** <http://freeware.the-meiers.org>)

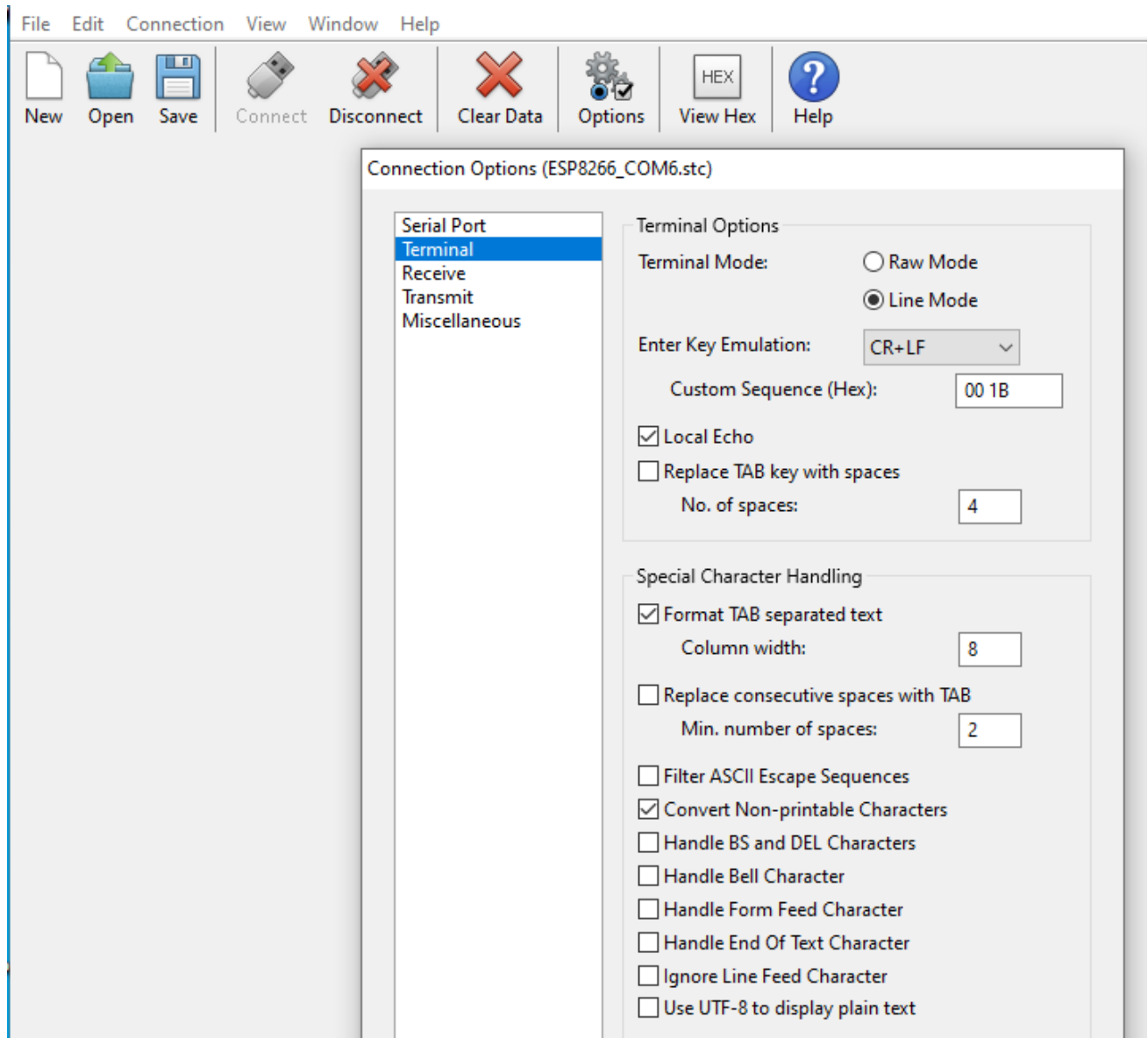
Go to **Options > Serial Port**, Setup the terminal to **115200.N.8.1**



Select the **COM-port** you have noted above.

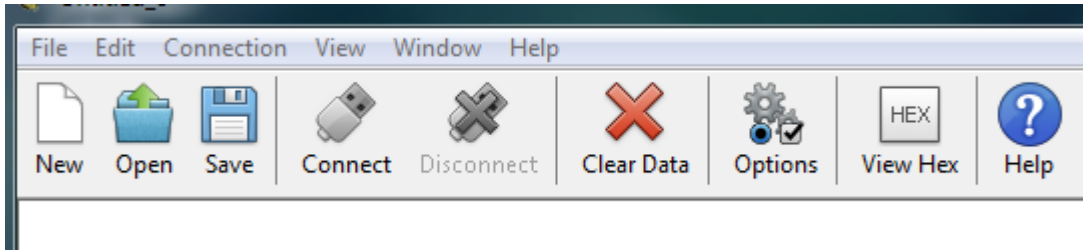


Under **Terminal** check *Line Mode*, *local Echo* and *Format TAB* > **OK**.

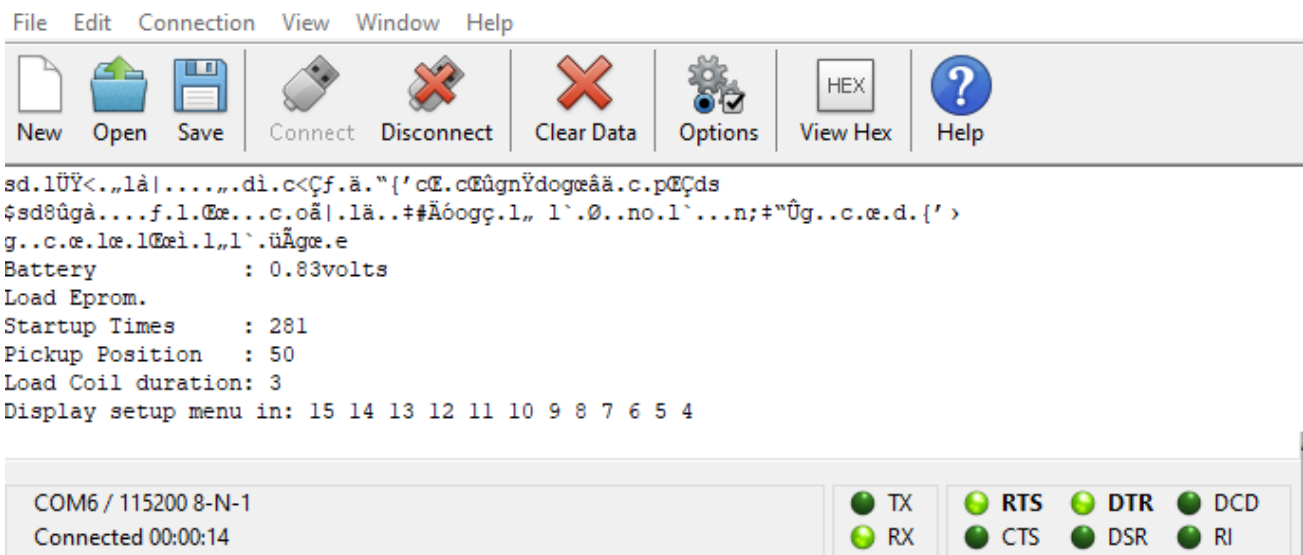


## Connection

Click on "**Connect**" button



TCI v10 banner is displayed:

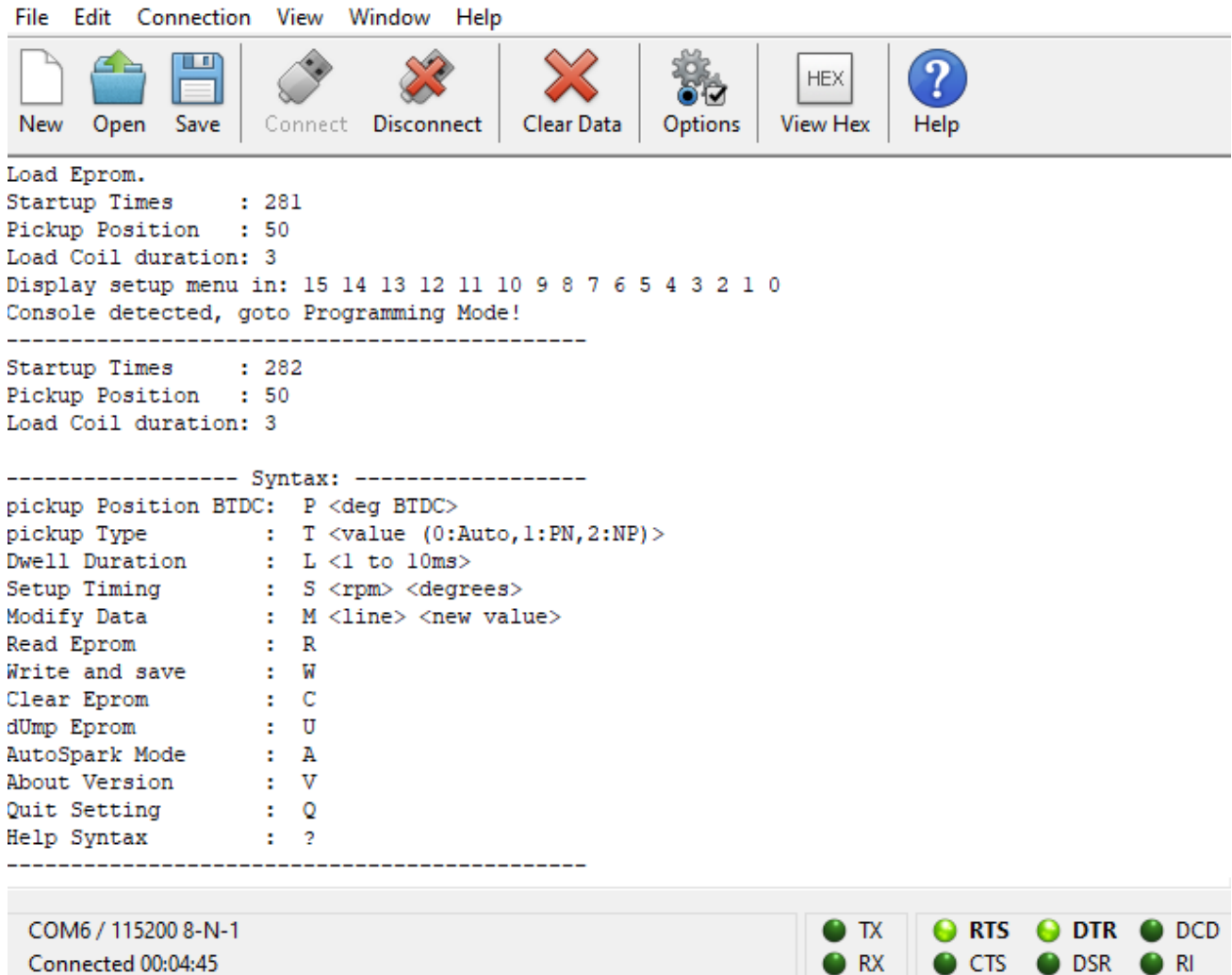


The TCI is waiting 15seconds to let you connect the communication software.

If you connect after the countdown is finish then press ? (question mark) key at any time to display the Menu.

## Menu

When the countdown is done or ? key has been entered, the Setup **MENU** is displayed:



The screenshot displays a software interface with a menu bar at the top containing: File, Edit, Connection, View, Window, Help. Below the menu bar is a toolbar with icons for New, Open, Save, Connect, Disconnect, Clear Data, Options, View Hex, and Help. The main window shows the following text:

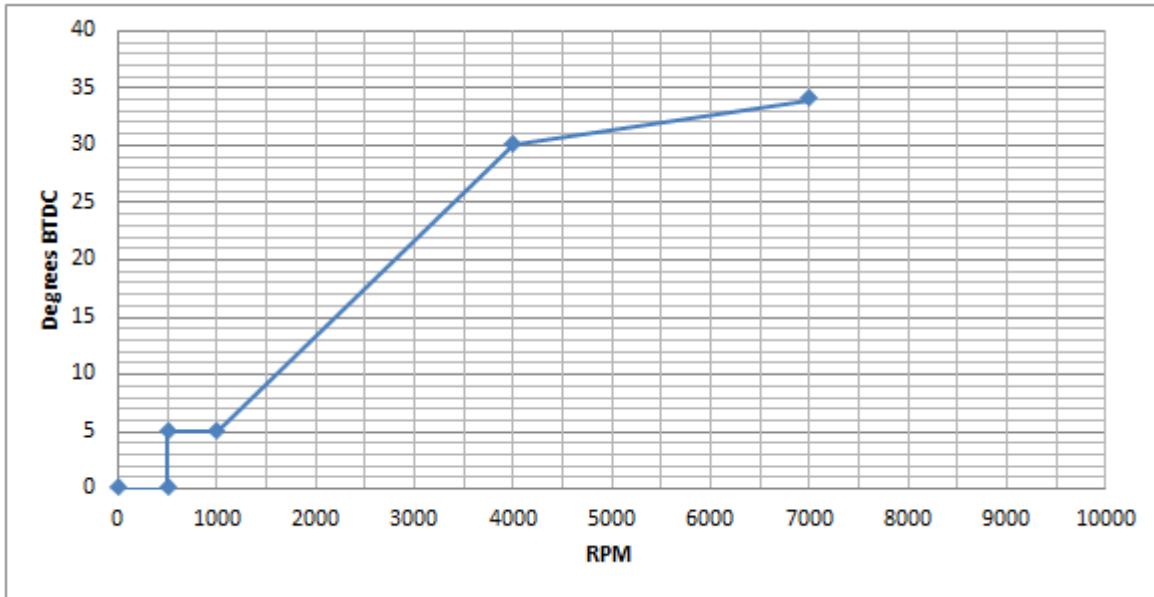
```
Load Eprom.
Startup Times      : 281
Pickup Position    : 50
Load Coil duration: 3
Display setup menu in: 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
Console detected, goto Programming Mode!
-----
Startup Times      : 282
Pickup Position    : 50
Load Coil duration: 3

----- Syntax: -----
pickup Position BTDC: P <deg BTDC>
pickup Type         : T <value (0:Auto,1:PN,2:NP)>
Dwell Duration      : L <1 to 10ms>
Setup Timing        : S <rpm> <degrees>
Modify Data         : M <line> <new value>
Read Eprom          : R
Write and save      : W
Clear Eprom         : C
dUmp Eprom          : U
AutoSpark Mode     : A
About Version       : V
Quit Setting        : Q
Help Syntax         : ?
-----
```

At the bottom, a status bar shows: COM6 / 115200 8-N-1, Connected 00:04:45, and a set of status LEDs for TX, RX, RTS, CTS, DTR, DSR, DCD, and RI.

## Setup

Assuming you want this ignition timing:



One can define the curve with 4 points but you can use up to 13 points.

*In red: command you type in, in blue: TCI response*

```
Console detected, goto Programing Mode!
```

```
-----  
Startup Times      : 1  
Pickup Position    : 0  
Load Coil duration: 0
```

```
----- Syntax: -----  
pickup Position BTDC: P <deg BTDC>  
pickup Type         : T <value (0:Auto,1:PN,2:NP)>  
Dwell Duration      : L <1 to 10ms>  
Setup Timing        : S <rpm> <degrees>  
Modify Data         : M <line> <new value>  
Read Eprom          : R  
Write and save      : W  
Clear Eprom         : C  
dUmp Eprom          : U  
AutoSpark Mode     : A  
About Version       : V  
Quit Setting        : Q  
Help Syntax         : ?  
-----
```

```
P 50  
    Pickup Position: 50 deg BTDC.  
L 3  
    Load Coil Duration(ms): 3  
S 500 5  
    @1 500rpm = 5deg.  
S 1000 5  
    @9 1000rpm = 5deg.  
S 4000 30  
    @17 4000rpm = 30deg.  
S 7000 35
```



```
@25 7000rpm = 35deg.
```

R

<Line><value>

```
1      500
5      5
9      1000
13     5
17     4000
21     30
25     7000
29     35
33     0
...
105    0
109    0
113    50
```

----- Syntax: -----

*If you want to modify the advance timing for 7000rpm and set 34° instead of 35° at line 29:*

M 29 34

<Line><new value>

Modify Line:29 with new value:34

R

```
1      500
5      5
9      1000
13     5
17     4000
21     30
25     7000
29     34
33     0
```

W

Saved.

Q

Quit.

*TCl is now rebooting...*

## Console during Running mode

While the TCI is connected via USB to a PC and the countdown is displayed, power the TCI ON with a +12v. At the end of the countdown, TCI will detect the battery and restart in running mode.

```
Display setup menu in: 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
Battery                : 12.36volts
Battery detected, Restart in running mode...
```

<glibberrish...>

```
Battery                : 12.38volts
Load Eprom.
Startup Times         : 3
Pickup Position      : 50
Load Coil duration: 3
-----
```

```
Pickup Type           : AUTO
Waiting for Pickup...
```

*Crank the engine*

```
Detected Type: NP
Ready to race!
```

*Auto detection mode* cannot be 100% reliable, especially when the pickup signal is weak!  
I hardly recommend to hard setup the *pickup Type* once for all by typing: **T 1** or **T 2** accordingly.