

All SPCM modules sold via smartmeterdashboard.nl are tested one-by-one after they were manufactured. That means unless something has happened during transport OR a faulty connection is made to eg. the screw-contacts (note the modules description: NO power should be put onto the contacts) your module has to work right away.

When it appears that your module does not to work, you need to determine where the problem is. That means that you have to eliminate as much elements between the SOPCM module and what you see. To put things short: If the data the module sends out is visible on the operating system level, the module itself works. To test if this is the case, follow the following procedure step-by-step.

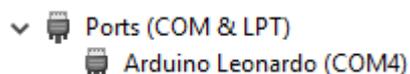
Linux (the example is RaspberryPi based, but the steps are valid for any Linux)

1. Have the SOPCM module disconnected from your system
2. Log in via SSH on the system . Typically PuTTY is used for that. PuTTY can be downloaded from the [PuTTY Download site](#) . Default login on RaspberryPi is username pi / password raspberry (you might have changed these during install of your system).
3. Do a `$ ls -l /dev/tty*` You will see a list of already known devices
4. Connect the SOPCM module on one of the USB ports of the system. Verify that you see a red (led) light inside the SOPCM module (that means the module is powered on)
5. Do another `$ ls -l /dev/tty*` Check wich device is now shown that was not shown before. Most likely the device is called "/dev/ttyACM0". This is the device name under which the module is know to your system.
6. You can check the functioning of the SOPCM module via a cat of the device, in the example: `$ cat /dev/ttyACM0`
7. If you do not get (a readable) response, chances are that the setting of the port is not correct. To fix that:
 - Check the speed of the port with `$ stty -F /dev/ttyACM0`
 - It should show "speed 9600 baud" (and some other data).
 - If a different speed is shows, change it to 9600 with `$ stty -F /dev/ttyACM0 9600`
8. The response should be something like:


```
/32432:S0 Pulse Counter V0.5
ID:32432:I:10:M1:0:0:M2:0:0:M3:0:0:M4:0:0:M5:0:0
ID:32432:I:10:M1:0:0:M2:0:0:M3:0:0:M4:0:0:M5:0:0
```
9. Proceed with the "Generic" section below.

Windows

1. Under Windows, you need a terminalprogram (in the old days Microsoft included Hyperterm with Windows) like PuTTY. And you need to install drivers for the module.
 - PuTTY can be downloaded from the [PuTTY Download site](#)
 - SOPCM drivers can be downloaded from www.smartmeterdashboard.nl (please check the SOPCM Driver Install.pdf manual too)
2. Figure out on what COM port the SOPCM module is. You can check that in Windows Device Manager, under "Ports" you should see something like (this is typically a SOPCM-5 module):



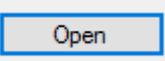
3. If you start PuTTY, set it to use "serial", appoint the COM port the SOPCM module is connected to and set the speed to 9600 baud.

Specify the destination you want to connect to

Serial line	Speed
COM4	9600

Connection type:

Raw
 Telnet
 Rlogin
 SSH
 Serial

4. Click 
5. The response should be something like:

```
/32432:S0 Pulse Counter V0.5
ID:32432:I:10:M1:0:0:M2:0:0:M3:0:0:M4:0:0:M5:0:0
ID:32432:I:10:M1:0:0:M2:0:0:M3:0:0:M4:0:0:M5:0:0
```
6. Proceed with the "Generic" section below

Generic

Note that the "32432" number is the UID of the particular module that was used for this manual. This number is different in your case.

The line that starts with /32432 is only shown once, and you might even have missed it!

The lines that start with ID:32432 will be presented once every 10 seconds

The zeroes after the M1, M2, etc show the number of pulses that has been counted (zero in the example)

If the "1" and "G" contacts of the SOPCM module are briefly connected with e.g. a paperclip,

You will notice the the zeroes after M1 will change into other numbers. The same goes for the other numbered contacts.

Example:

```
ID:32432:I:10:M1:1:1:M2:1:1:M3:1:1:M4:1:1:M5:0:0
ID:32432:I:10:M1:4:5:M2:1:2:M3:0:1:M4:0:1:M5:0:0
```

If you notice that while you only connected the "1" and the "G" also next to M2/M3/M4/M5 values other than zero are shown, that is and indicator that the power supply via the USB of your RaspberryPi is NOT sufficient. The use of a powered USB hub is advised.

If you do not see any of the output from the module that is described above, please try to test with another computer. Any Linux or Windows computer can be used.

Now, when you get no result on at least two computers, it is time to question if your SOPCM is not faulty. Please contact [smartmeterdashboard.nl](http://www.smartmeterdashboard.nl) via email on info@smartmeterdashboard.nl so we can offer you a working solution.