

# Opencockpits Modules (OCM) Manual

**for PSX**

Version 1.0, January 5, 2015  
for Windows Vista, or higher



***Powered by PSXseecon***



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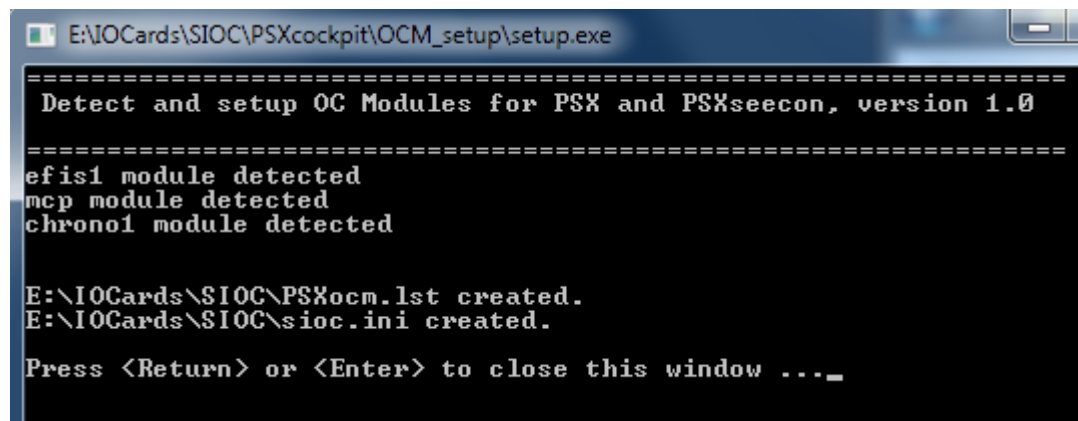
## Installation Instructions

*ASSUMPTIONS: You already have installed:*

- **SIOC 5.1** (or later) and
- **PSXseecon 1.3.2** (or later)

1. Download **PSXcockpit.zip** from [www.lekseecon.nl/PSXseecon.html](http://www.lekseecon.nl/PSXseecon.html), extract, move/copy folder **PSXcockpit** (with its sub-folders) into your SIOC folder.
2. **Plug in** all your Opencockpits Modules, i.e.:
  - EFIS (*max 2*)
  - MCP or MCPv3
  - ATC
  - FMC or FMCv3 (*max 3 in total*)
  - COMM (*max 3*)
  - CHRONO (*max 2*)
3. Run **PSXcockpit\OCM\_setup\setup.exe** (in the OCM\_setup folder!)  
A MS-DOS window will pop-up; no user interaction is needed.

Below an example for three modules: EFIS, MCP and CHRONO:



```
E:\IOCards\SIOC\PSXcockpit\OCM_setup\setup.exe
=====
Detect and setup OC Modules for PSX and PSXseecon, version 1.0
=====
efis1 module detected
mcp module detected
chronol module detected

E:\IOCards\SIOC\PSXocm.lst created.
E:\IOCards\SIOC\sioe.ini created.

Press <Return> or <Enter> to close this window ...
```

4. Note that you have to run the **setup** program:
  - The **first time** after installing the PSXcockpit software package;
  - And **each time** after you **plug in or out** an Opencockpits Module to or from a USB port.

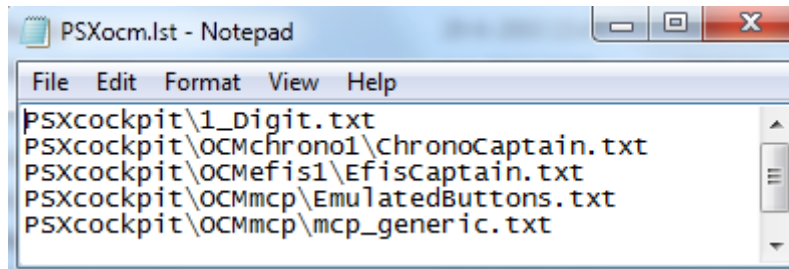
There is **no need** to install other Opencockpits software such as IOCP Server or software that may come with these modules.

5. Run PSX, run SIOC, run PSXseecon .... and then fly! Enjoy!

## What is going on under the Hood?

Setup will first detect which Opencockpits Modules are connected to the PC running SIOC.

For the modules found, setup will compose a file **PSXocm.lst** with the paths to the SIOC scripts needed for your modules, and it will write it in your SIOC folder. Here is the one for my three Modules:



After that it will write a fresh **sioc.ini** with the correct configuration parameters in your SIOC folder.

Below the sioc.ini for my three modules, the one that are configured are indicated with a blue arrow.

The MASTER and USBKey statements for the OC Modules that were not found still have the two question marks in it and they are commented out (between square brackets).

Note that the **PSXocm.lst** file is assigned to the parameter **CONFIG\_FILE**. SIOC will compile the scripts in PSXocm.lste when it starts and if there are no errors it will execute the compiled scripts.

```

File Edit Format View Help
; This sioc.ini was generated by setup PSX OCM version 1.0

[SIOC]
IOCP_port=8092
IOCP_timeout=4000
Minimized=No
toggle_delay=20
CONFIG_FILE=PSXocm.lst

[IOCARDS MODULE]
IOCard_disable=No
IOCard_LPT=No

[MASTERS]
[mcp]
MASTER=2,5,1,18
[mcpv3]
[MASTER=2,15,1,??]
[efis1]
MASTER=3,7,1,56
[efis2]
[MASTER=4,7,1,??]
[cduv31]
[MASTER=5,13,1,??]
[cduv32]
[MASTER=6,13,1,??]
[cduv33]
[MASTER=7,13,1,??]
[comm1]
[MASTER=8,8,1,??]
[comm2]
[MASTER=9,8,1,??]
[comm3]
[MASTER=10,8,1,??]
[atc]
[MASTER=11,11,1,??]
[chrono1]
MASTER=12,16,1,14
[chrono2]
[MASTER=13,16,1,??]

[USBKEYS]
[cdu1]
[USBKEYS=1,??]
[cdu2]
[USBKEYS=2,??]
[cdu3]
[USBKEYS=3,??]

[FSUIPC MODULE]
FSUipcdisable=Yes

[IOCP CLIENTS MODULES]
IOCPini_delay=3000
IOCPclient0_disable=Yes
IOCPclient0_host=localhost
IOCPclient0_port=8090
IOCPclient1_disable=Yes
IOCPclient1_host=localhost
IOCPclient1_port=8099

[SOUND MODULE]
Sound_disable=Yes

```

## What if a module is not detected?

In case your module is not detected it could be that it has a USB ProductID that is not yet known to me yet.

Please download and run the free USBDeview utility  
[http://www.nirsoft.net/utils/usb\\_devices\\_view.html](http://www.nirsoft.net/utils/usb_devices_view.html) and look in the line of your module for the **ProductID**. Post the ProductId in my PSXseecon forum  
<http://www.mycockpit.org/forums/lekseecon/> and I will add it to setup soon.

## PSX Functionality offered by the Opencockpit modules

### EFIS



The 737 EFIS works as expected as PSX EFIS, except that the CTR and TFC knobs are missing.

If you plug in one EFIS module it will be configured as EFIS Captain side.

If you plug in two EFIS modules one will be configured as EFIS Captains side and the other as EFIS FO-side.

### ATC



#### Display:

Shows the squawk code in PSX or the code you are currently dialing.

#### Rotaries:

You can dial squawk frequencies between 0000 and 7777.

As soon as you start dialing a 'd' will show up in front of the squawk code to indicate that you are dialing in a new one that is not yet synchronized with the one in PSX. If your new frequency is ok, you should set the XPNDR switch in the other position (1 or 2, does not matter) upon which PSXseecon will update the squawk code in PSX, so both are synchronized (and the 'd' will disappear).

*[Note: I had to implement this trick because PSX only understands key presses, no values]*

#### TCAS Selector :

Works as far as possible.

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## MCP



Special assignments to make this 737 MCP work for PSX:

CMD A: L CMD,  
CMD B: C CMD,  
CWS A: Alt Select  
CWS B: R CMD

HDG SEL push button:

- single click: HDG SEL
- double click: HDG HOLD

SPD Button:

- single click: SPD
- double click: SPD Intervention

Note: Two clicks within a time interval of 0.7 seconds are taken as a double click.

## MCP V3



As MCP above, but now without the need for functions via double clicking:

- SPD intervention via the new SPD INTV Push button
- HDG Hold via the HDG SEL button
- HDG SEL via the push button in the shaft of the HDG rotary

Flight Director MA Lights supported.

No A or B warnings in IAS/MACH display.



## FMC



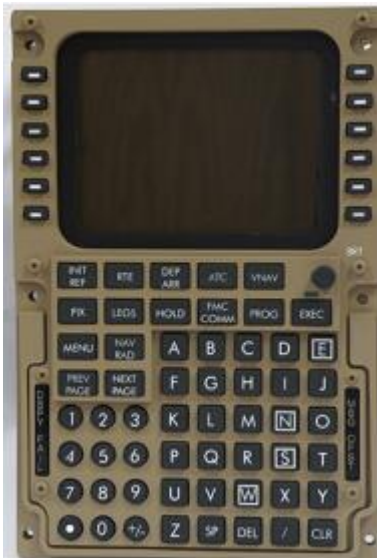
The 69 keys are operational.

Up to three FMC's can be plugged in (provided you are not also using FMC V3s...)

If you plug in one FMC module it will be configured as CDU Left.

If you plug in two FMC modules one will be configured as CDU Left and the other as CDU Right.

## FMC V3



The 69 keys are operational plus five indicators (leds).

Up to three FMC V3's can be plugged in (provided you are not also using FMCs...)

If you plug in one FMCV3 module it will be configured as CDU Left.

If you plug in two FMCV3 modules one will be configured as CDU Left and the other as CDU Right.

If you plug in a mix of FMC and FMC V3s, priority will be given to the V3s.

## COMM



The 737 COMM has can be used as RCP-L or RCP-R radio module in PSX. It shows numeric values only. It displays VHF-L, VHF\_C, VHF-R or HF. Leading zeroes in HF frequencies will be blanked.

Up to 3 COMM modules may be used.

If you plug in one COMM module it will be configured as RCP-L.

If you plug in two COMM modules one will be configured as RCP-L and the other as RCP-R.

At each module you can switch between VHF-L and VHF-R via the Test button.

### Displays:

The left display shows the Active frequency and the right display shows the standby frequency.

### Rotary:

You can change the standby frequency with the rotaries.

If turning right does not increment the value you can change the direction of the rotary by adding a parameter=1 definition to PSXseecon.cfg; see PSXseecon Manual section 3..

E.g. the possible values for VHF\_L are:

InvertBigFreqKnobL=1

InvertSmallFreqKnobL=1

InvertBigFreqKnobR=1

InvertSmallFreqKnobR=1

### TFR button:

Switches active and standby frequencies

### COMM TEST button:

Switches between VHF-L and VHF-R at this radio module, unless otherwise commanded in the PSX panel.

## CHRONO



If you plug in one CHRONO module it will be configured as Captains Clock..

If you plug in two CHRONO modules one will be configured as Captains and the other as FO's Clock.

Upper Display (4 digits): Zulu Time (HH:MM).

Lower Display (4 digits): Elapsed Timer (HH::MM) or Number of minutes of the Chronometer. Note that the Chronometer has priority over the Elapsed Timer, but in the background the Elapsed Timer continues.

CHR button: Start-Stop-Reset of the Chronometer; the seconds hand is also operational. If Chronometer is off the Hand goes to position 0 (*you can change that in the script if you like, change in Var 0: XHandRestPos = 45*).

ET button: Start-Hold-Start-, and so on, the Elapsed Timer.

RESET button: Resets the Elapsed Timer, digits go blank.

TIME/DATE, SET, + and - buttons: not functional.