



# Throttle Quadrant

## Operating Manual

**English Version**



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## 1. Introduction

Welcome to the world of Cockpitsonic you have chosen our Throttle Quadrant which connects with Microsoft Flight Simulator FS9 and FSX with our interface programme.

The throttle quadrant has the following features:

- USB connection.
- Servo assisted throttle levers, speed brake lever and trim wheels.
- Servo's all work with feedback from your Flight Simulator auto throttle and autopilot controls.
- Thrust reverser levers.
- Fuel valve shutoff levers.
- Auto throttle disconnect and TOGA buttons
- Flaps lever with B737 0 – 40 degree detents.
- Motorized trim wheels operating as a feedback feature only.
- Park brake lever with LED indicator.

## 2. Installation

It is recommended to install the drivers before the Throttle Quadrant is physically connected by the USB to the computer. This will ensure that the Plug & Play procedure will work as required.

To install the Cockpitsonic driver for the Throttle Quadrant, the most up to date Cockpitsonic driver can be downloaded from the following web address [www.cockpitsonic.com](http://www.cockpitsonic.com) and then go to **Downloads** and download the Cockpitsonic Driver B737, once downloaded make a shortcut of the icon onto your desktop, then double click on the icon and the driver will run and should go into the desktop tray automatically, press right hand mouse button and you will get a box as below Fig. 1

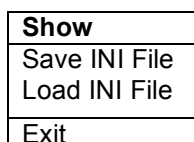


Fig. 1

Press the word **Show** and Fig.2 will come into view

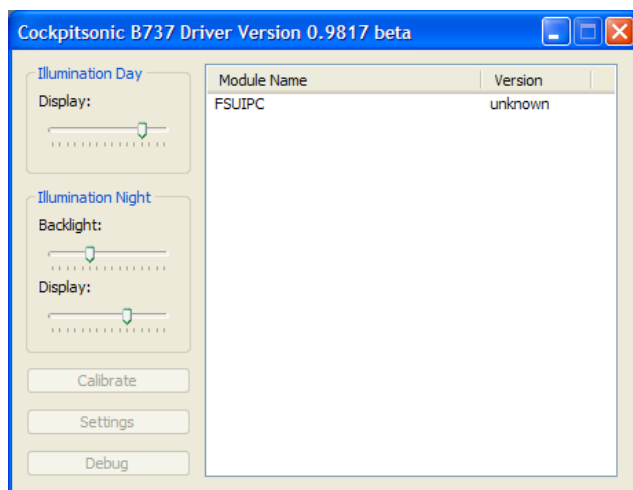


Fig.2

Connect the two flat ribbon cables to the appropriate connectors on the interface and connect the power supply to the interface (the middle of the connector is (-). The position with the hook is (+) 5 volts the opposite side is (+) 12 volts. The 12 volt supply is only required for the trim wheels if fitted. The 2 single wires are connected to the terminal block, these 2 cables are for the parking brake light. If the parking brake light does not come on the wires are connected the wrong way around and have to be connected the opposite way around. Now insert the USB connection and power supply into the throttle interface as photograph shows Fig.3

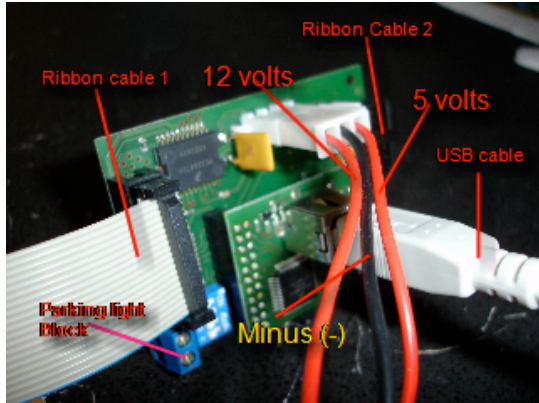


Fig.3

Connect the interface via USB cable to your FS computer and Fig.4 will show that the Throttle Quadrant is connected to your computer.

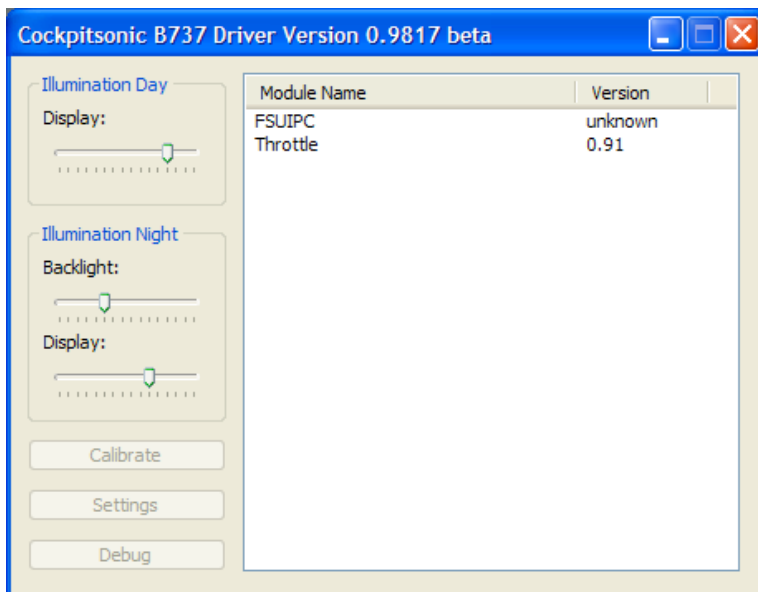


Fig.4

The B737 driver should show the throttle module as in Fig.4, if not please check your USB connection to the interface and the computer.

### 3. Calibration

Click on the Throttle module and click calibration. See Fig.5

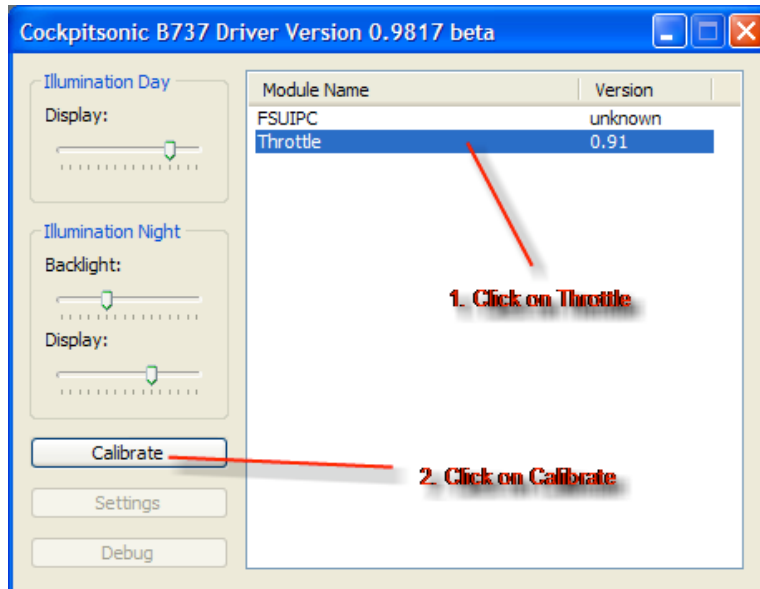


Fig.5

The first step is to calibrate the pots.

Set Lower limits first, please move all levers to their lowest position which is.

1. Flap lever to Flaps 0
2. Speed brake fully closed
3. Reversers not pulled out
4. Thrust levers to idle position

Click on the button get values in the lower limits area see Fig.6.

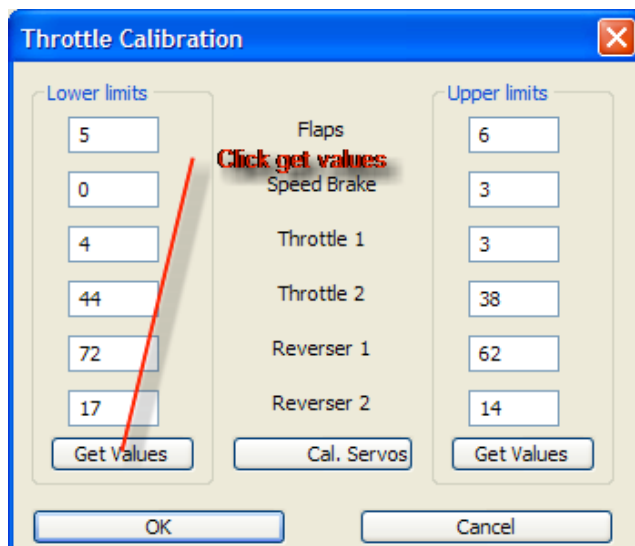


Fig.6

Now set the higher limits please move all levers to their highest position which is.

1. Flap lever to Flaps 40
2. Speed brake fully open
3. Reversers pulled out
4. Thrust levers to maximum position

Click the button get values in the higher limits area see Fig.7

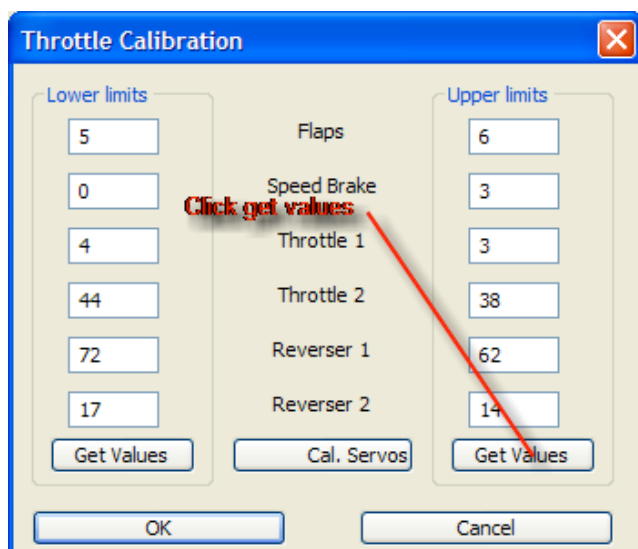


Fig.7

Now the throttle is calibrated for manual flying.

Next step is the calibration of the servos for Auto thrust.

Click the button calibrate servos see Fig.8

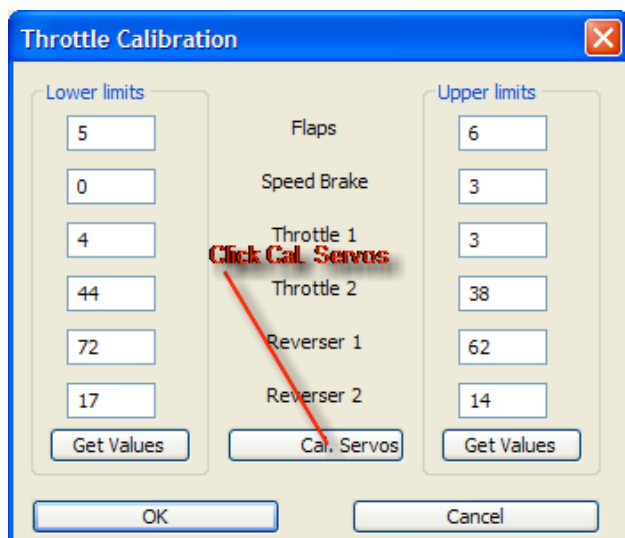


Fig.8

Clicking on Cal. Servos will open another screen see Fig.9

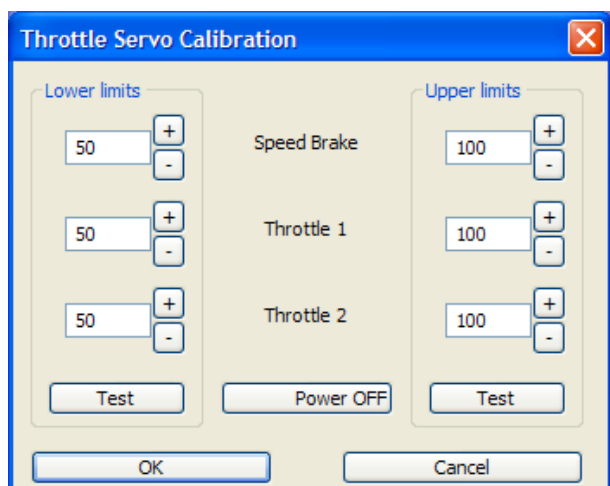


Fig.9

Click on Lower Limits test Fig.10

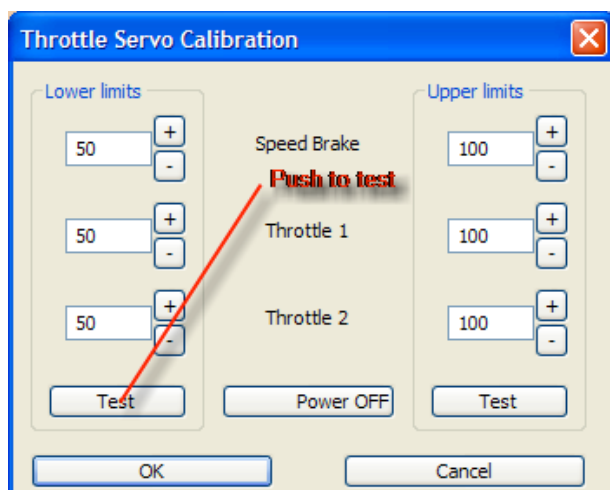


Fig.10

When you click on the Test button the levers will most probably do something completely uncontrolled.

To prevent any damage to any of the servos press the **POWER OFF** button immediately see Fig.11

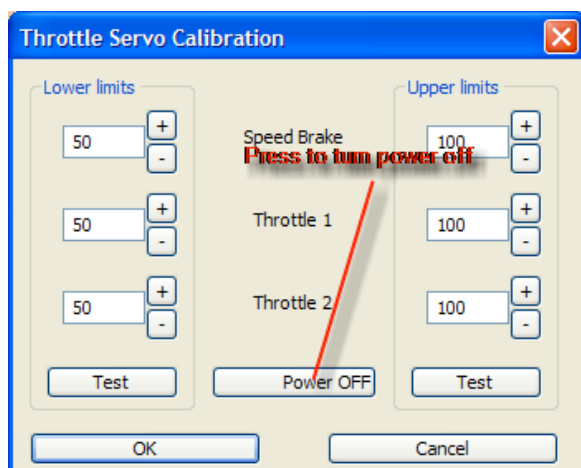


Fig.11

Now you can begin changing the values manually using the + or – signs see Fig.12 move in steps to get a feeling what will happen when you are adjusting the value.

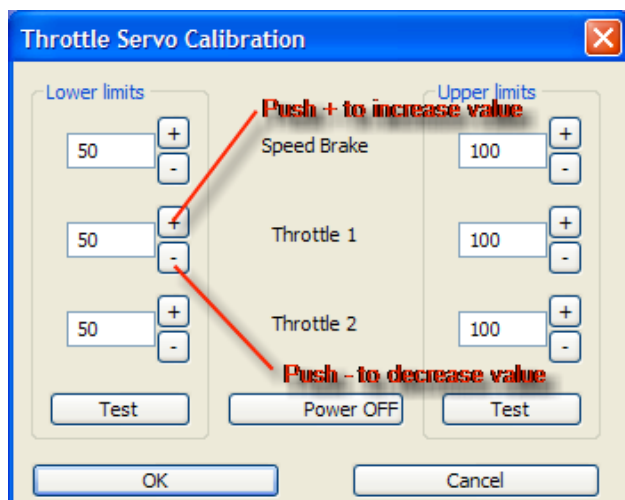


Fig.12

Begin with one lever at a time first set the Lower Limit by bringing it to the idle position then the Higher Limit by taking it to the Maximum thrust position. If the lever goes in the wrong direction then use the + or – button to take it to the opposite direction. Carry out this procedure for the Speed Brake, Throttle 1 and finally Throttle 2.

Always press the test buttons Fig.13 to see the effect of your settings and use the **POWER OFF** if there is a problem.

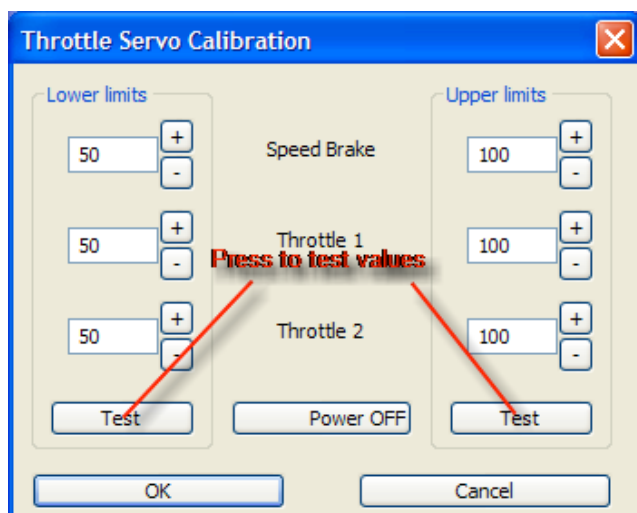


Fig.13

Once all levers are to the positions you have selected click on OK and setup is complete.



## 4. Using Your Throttle Quadrant

Once installed and calibrated, the Throttle Quadrant can be used normally.

Throttle levers are servo assisted and work independently for engine 1 and engine 2

The throttle levers are moved automatically by the servo motors when the auto throttle is engaged.  
**IMPORTANT:** Do not move the throttle levers manually while they are under the control of the servo motors as it may damage them.

Engine thrust reversers. They work independently for engine 1 and engine 2.  
Pull up to actuate the engine reversers, pushdown to disengage them.

Auto throttle disconnect buttons. Push to disconnect the auto throttle.

TOGA buttons. Push to activate the TOGA mode.

The speed brake lever is servo assisted, (for example, it moves to full extended position after landing). Pull gently to arm the speed brake when needed. Continue to pull gently, to extend the speed brakes at various degrees. Pushing the lever back to armed position retracts the speed brakes. Continue to push the lever gently, to disarm the speed brake.

**NOTE:** in order for the speed brake lever to move as expected, the engines must be running and you must under power on the throttle levers (do not use with engines at idle).

**IMPORTANT:** Do not apply any opposite force when the lever is under the control of servo motor, otherwise severe damage may arise.

Flaps lever. Pull up and move the lever to the proper detent, as desired. The detents are Positions 0 - 40 degrees.

The trim wheels turn under the control of servo motors.

**IMPORTANT:** This is purely an indicator only, do not turn the wheel manually, otherwise it may be damaged.

Stab trim indicators are for design purposes only and have no function.

These switches are for design purposes only and have no function

Fuel valve shutoff levers operate by pulling out and moving up & down, pull out to unlock the levers push back in to lock, open / close the fuel shutoff valve levers to ensure proper engine start up sequence.

Pull and push the park brake lever to engage and disengage the park brake. When engaged, the red indicator illuminates.

## 5. Contact Details

To contact Cockpitsonic to enquire about any problems you are having, check news and download the latest drivers, please use the website at the following address:

<http://www.cockpitsonic.com>