

Precision Flight Controls, Inc.

Serial CAT III and FSX System Setup Guide



(Shown with optional Garmin 430)

Preface

This setup guide will walk you through the necessary steps to setup your **CAT III System** with Microsoft Flight Simulator 2004. For connection diagram please refer to the packet that you received with the console.

This setup guide assumes that you have already installed the Microsoft Flight Simulator 2004 (FS2004). If you have not installed FS2004 software, please install it now and refer to this guide once installation is done. For reference on software installation, please refer to the software manual that you have received.

CAT III System includes:

- Cirrus II
- Avionics
- Cirrus Rudder Pedals

INSTALLATION OF PFC DRIVER (DLL)

- 1. Go to our webpage where you can Download the PFC driver from our site: http://www.flypfc.com/drivers.html
- 2. Choose the PFC Driver for Microsoft Flight Simulator X
- 3. When you click on the link it will ask where you want to save the file, make sure that you save it on your Desktop.
- 4. Now that you have downloaded the driver please close your browser.
- 5. On your desktop, please look for the PFCFSX.exe, and double click on it.
- 6. Click on Next



 Read through the license agreement. You will need to Accept the agreement to be able to use the driver. Once you have agreed click on Next.





8. Now click on Install.



 For most users, you will click on Cancel here. If you purchased FSUIPC and/or WideFS previously, please refer to the instructions that you have received.



10. Now click on OK.



11. Now click on OK then Finish.



COM PORT SELECTION

- 12. Let's go to Start, Control Panel
- 13. Do you see Pick a Category or do you see icons such as Accessibility, Add/Remove Programs?
- 14. If you are seeing pick a category, then choose Performance & Maintenance then choose System
- 15. If you are seeing icons such as Accessibility, Add/Remove Programs, choose System
- 16. From the Systems Window, choose Hardware then Device Manager
- 17. Expand the Ports list by clicking on the plus (+) sign
- 18. Make a note of the com port numbers as you will need this later in your setup.
 - My COM Port number/s :_____ and _____
- 19. Go ahead and close the System Window as well as the Control Panel Window

HARDWARE SETUP

- 20. Let's start Flight Simulator
- 21. Once it has completely started, choose Create a Flight.
- 22. Then click on Fly Now!
- 23. Once the flight sim should show a **PFC Control Connections Check** window.

PFC Control Connections Check		PFC Control Connections Check	×
Checking c	peration of the PFC equipment:	Checking o	peration of the PFC equipment:
Version of supporting FSUIPC module:	FSUIPC is okay. All options available: 3.470	Version of supporting FSUIPC module:	FSUIPC is okay. All options available: 3.470 🗸 🗸
COM serial port port connection:	COM1 open okay	COM serial port port connection:	COM1 open okay 🗸
Yoke–aileron control:	>>>>>>>>No results seen at all!	Yoke-aileron control:	Okay! 🗸
Yoke–elevator control:	>>>>>>>>No results seen at all!	Yoke-elevator control:	Okay!
Pedals-rudder control:	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Pedals-rudder control:	Okay!
Throttle quadrant operation:	>>>>>>>>No results seen at all!	Throttle quadrant operation:	Okay!
Avionics / radio stack connection:	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Avionics / radio stack connection:	>Okay!
Mode Control Panel (MCP) connection:	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Mode Control Panel (MCP) connection:	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
Project Magenta CDU connection:	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Project Magenta CDU connection:	>>>>>>>>>> Neither PM CDU nor RCDU seen!
Press RETRY, an	d move or fix controls within 8 seconds	Press RETRY, and	d move or fix controls within 8 seconds
PFC driver version 1.92	Retry Quit FS Continue FS	3 PFC driver version 1.92	Retry Quit FS Continue FS

- 24. Choose the comport which is Comport which is the port that your hardware is connected to.
- 25. It should say COM (x) open-okay. If it does not say OK look at you notes on Step18 and look at the second number that you wrote, change the COM port to that number and click on **Retry**.
- 26. Once the correct COM Port is selected you should get a green check on the Yoke-aileron Control, Yoke-Elevator Control, Pedal-Rudder Control, Throttle Quadrant Operation, and Avionics/Radio Stack connection.

NOTE:

- If you do not have PFC Cirrus Rudder Pedals the Pedals-Rudder Control Connection will not turn green
- If you do not have avionics panel the Avionics /Radio Stack Connection will not turn green
- If you do not have The PFC Mode Control Panel (MCP) the Mode Control Panel (MCP) Connection will not turn green.
- If you do not have the Project Magenta CDU the Project Magenta CDU connection will not turn green.
- 27. Now that all the controls that are applicable to you have checked OK, click on Continue FS.
- 28. Now press the ALT key on your keyboard and choose PFC.
 - If using FSX: Press the ALT key on your keyboard, then go to Add-On then PFC.
- 29. In the Precision Flight Controls window, choose Flight Controls.

ENABLE FLIGHT CONTROLS

- 1. Now choose the Flight Controls.
- 2. Now enable the **Elevator** and **Aileron**, by clicking on the enable box which is opposite of the **F** for filter box.

ecision Flight Contro	ls					
Main Avionics Flight C	ontrols Trims/Steering	Quadrants Co	nsoles Voke Buttons A	vionics Buttons	Test	
Set defaults						
Check to enable, check F=filtered;	Ailerons	Elevator	Rudder	LeftBrake	RightBrake ▼ F □	
	□ RVS	RVS	☐ RVS	RVS	RVS	
Input value:	59	71	54	0	0	
Maximum used:	108	108	108	108	108	
Centre high:	72	72	72	No	No	
Centre low:	56	56	56	centre	centre	
Minimum used:	20	20	20	20	20	
Scaled output:	0	0	-910	0	0	
Select or de-select:	Select	Select	Select	Select	Select	
				OK	Cance	2

AILERON CALIBRATION

- 3. Now click on Select button under the Aileron Axis. This should say Set Automatic now.
- 4. Turn your yoke all the way to the Left and hold it. Click on the Set left most limit.
- 5. Turn your yoke all the way to the **Right** and hold it. Click on the **Set right most limit**.

Precision Flight Controls				
Main Avionics Flight Controls	Trims/Steering Quadrants	Consoles Yoke Buttons	Avionics Buttons Te	st
Check to enable, check F=filtered:	Ailerons Elevato	Rudder	LeftBrake F	iightBrake
Input value: Set right-most limit: Set right centre limit: Set left centre limit: Set left-most limit: Scaled output:	64 64 80 112 70 62 58 62 48 11 0 655	57 127 57 44 0 0	44 80 Centre 23 74	41 108 No centre 20 48
Select or de-select: Se	et automatic Select	Select	Select	Select
			OK	Cancel

ELEVATOR CALIBRATION

- 6. Now click on **Select** button under the **Elevator Axis**. This should say **Set Automatic** now.
- 7. Pull your yoke all the way to the out and hold it. Click on the Set nose up limit.
- 8. Push your yoke all the way forward and hold it. Click on the Set nose down limit.



RUDDER CALIBRATION

- 9. If you have rudder pedals that those are enable now, but if you do not please uncheck
- 10. Now click on Select button under the Rudder Axis. This should say Set Automatic now.
- 11. Push your left pedals all the way to the Left and hold it. Click on the Set left most limit.
- 12. Push your right pedals all the way to the **Right** and hold it. Click on the **Set right most limit**.

Pr	ecision Flight Contr	ols				
ſ	Main Avionics Flight C	Controls Trims/Steering	Quadrants Co	nsoles Yoke Buttons A	avionics Buttons T	est
	Check to enable check F=filtered	Ailerons	Elevator	Rudder	LeftBrake	RightBrake
	Input value	F RVS	RVS	FRVS	RVS 44	RVS 41
	Set right-most limit: Set right centre limit:	108 72	112 62	80 70	80 No	108 No
	Set left centre limit: Set left-most limit:	56 20	62 11	58	23	20
	Scaled output Select or de-select	0 Select	655 Select	0 Set automatic	74 Select	48 Select
_						
						Lancel

- 1. Let us go to the Trims & Steering tab.
- 2. Enable the Aileron Trim and Rudder Trim and move them left to right and see if they are responding.

Precision Flight Controls				×
Main Avionics Flight Contr	ols Trims/Steering Qu	uadrants Consol	es Yoke Buttons Avion	ics Buttons Test
Set defaults Check to enable, check F=filtered:	AileronTrim	ElevatorTrim	RudderTrim	SteeringTiller
Input value:	F RVS	RVS	F RVS	RVS
Maximum used:	108	108	108	108
Centre high:	72	No	72	72
Centre low:	56	centre	56	56
Minimum used:	20	20	20	20
Scaled output:	0	16383	0	16383
Select or de-select:	Select	Select	Select	Select
				OK Cancel

AILERON TRIM CALIBRATION

- 3. Now click on Select button under the Aileron Trim Axis. This should say Set Automatic now.
- 4. Turn your Aileron Trim knob the way to the Left. Click on the Set left most limit.
- 5. Turn your Aileron Trim knob all the way to the Right. Click on the Set right most limit.

Precision Flight Controls					×
Main Avionics Flight Cont	rols Trims/Steering Q	uadrants Consol	es 🛛 Yoke Buttons 🗍 Avion	ics Buttons Test	
Set defaults Check to enable, check F=filtered: Response Curve Input value: Set right-most limit: Set right centre limit: Set left centre limit: Set left centre limit: Set left centre limit: Set left output: Sealed output:	AileronTrim ✓ F ✓ F ✓ F ✓ RVS 64 80 70 58 48 0 Set automatic	ElevatorTrim F - - - - - - - - - - - - - - - - - -	RudderTrim ✓ F Image: Select	SteeringTiller F RVS 255 108 72 56 20 16383 Select	
				OK Cano	el

RUDDER TRIM CALIBRATION

- 6. Now click on **Select** button under the **Rudder Trim Axis**. This should say **Set Automatic** now.
- 7. Turn your Aileron Trim knob the way to the Left. Click on the Set left most limit.
- 8. Turn your Aileron Trim knob all the way to the Right. Click on the Set right most limit.



ENABLE QUADRANTS

- 1. Now the next tab is the Quadrants.
- 2. You can enable the levers that you have by clicking on the Quadrant Enabled check box
- 3. And you can scroll through the list by clicking on the arrow on the right next to the "Single Prop Non Carbureted." Please also disable the one that you do not have.



ADDITIONAL OPTIONS

- 1. On the Consoles page, please check the box for Parking Brake is a switch.
- 2. Also on the same **Consoles** page, please increase the **Trim Sensitivity** from 16 to 55. This box is located on the right hand side.
- 3. Check the box for the Separate left and right cowl flaps.
- 4. Click on the predefined set. This should have changed the Action with PROP etc
- 5. At this point, please click on OK.

Precision Flight Controls					
Main Flight Controls Trims/Steering	Quadrants Consoles Yoke B	uttons Avionics Buttons Test			
Cirrus II or Profe	ssional Flight Console	CIRRUS II Console button codes enabled			
 Parking brake is a switch (i.e. it is not a momentary push butto Separate left and right cowl flaps Accessing engines (4 and 3 eng aircraft Left/Rght (i.e. 12 and 34, or 12 and Outer/Inner (i.e. 14 and 23, or 13 and 	n) Electric Trim S C Ignored C Disable: C Disconr d 2) Trim sensitiv	repeats when held Trim/shaker motor(s) fitted Switch (on Yoke, NOT hardware trim) when autopilot vertical modes engaged s only autopilot vertical modes when used nects autopilot completely when used vity (note: also affects AP trim rocker) = 55			
Programmable buttons/switches Button on Console	Action with JET	Rep/sec Action with PROP etc			
Left cowl flaps close	.0: No action assigned	▼ 2 ÷ Dec Cowl Flaps1 ▼			
Left cowl flaps open	.0: No action assigned	▼ 2 ÷ Inc Cowl Flaps1 ▼			
Alternate Air	.0: No action assigned	Carb heat/Anti-ice			
Right cowl flaps close	.0: No action assigned	▼ 2 ÷ Dec Cowl Flaps2 ▼			
Right cowl flaps open	.0: No action assigned	▼ 2 ÷ Inc Cowl Flaps2 ▼			
reserved	.0: No action assigned	💌 🖸 🌞 .0: No action assigned 💌			
List all FS ctrls List PM ctrls	List 767PIC ctrls	Predefined Set Clear all			
		OK Cancel			

- 6. Press the ALT key again and go to Flight and then Exit
- 7. Start Microsoft Flight Simulator again.
- 8. Start Flying!