



Setting The Rudder Pedal/Toe Brakes to Release the Parking Brake.

PARKING BRAKES - Press PERIOD (.) to release.

We found that some add-on aircraft do not action the Parking Brake correctly, that is turn it off when the toe brakes are applied if it is set to on. Most noticeably the PMDG737NG. In the real 737NG, depressing the Toe Brakes should automatically turn off the Parking Brake.

In development tests, although the aircraft responded to correctly assigned left and right brake application, the internal Parking Brake logic did not respond to axis inputs. So, a solution had to be found.

Procedure

Since Version 3.96 of FSUIPC (January 2010), Peter has included a solution to releasing the Parking Brake by depressing the toe brakes. Toe Brake Axes have to be assigned and calibrated in FSUIPC.

He states that the Parking Brake does not respond to Toe Brake Axes Inputs and therefore a Parking Brake could not be released by depressing the Toe Brakes.

So, to overcome this he has included the line `BrakeReleaseThreshold=75` in the General Section of the FSUIPC.ini file.

So, manually add this line to the [General] section of your FSUIPC.ini file

```
BrakeReleaseThreshold=75
```

Your Toe Brake Input will now turn off the Parking Brake.

It is recommended that you make a backup of your FSUIPC.ini file before you manually edit it just in case something goes wrong.

Version 3.96 (January 2010)

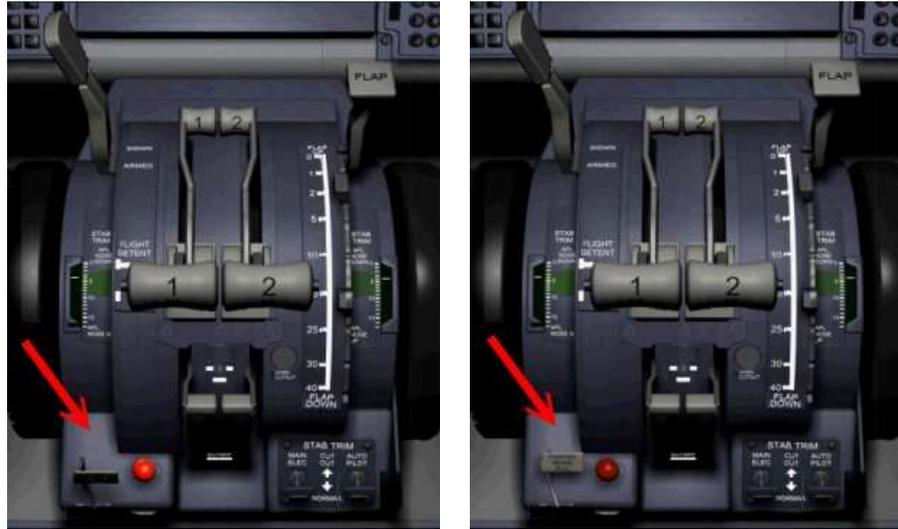
- Added a position synchronisation option to the 4 throttles, 4 prop pitch, and 4 mixtures calibration pages so that multiple levers can be calibrated to line up when applying the same inputs to FS.
- A new option has been added to control a "brake release threshold", for when your braking is controlled by toe pedals rather than by using the keyboard or joystick buttons assigned to non-axis brake controls. In the latter cases, operating the brakes automatically releases the parking brake (and possibly may also cancel autobraking action). This doesn't normally happen with brake axes being used for braking, as they are separate controls. That could be viewed as a drawback of having proper toe brake action, so there's now a new parameter in the [General] section of the FSUIPC INI file:

BrakeReleaseThreshold=75

This sets the amount of braking needed to release the parking brake. The number is a percentage of total braking -- so the default here is 75%. If you set 0% it turns the facility off. Pressure on *both* brakes to at least the set level is required, and the release action is not "re-armed" until both brakes have returned to "off". The toe brakes must both be calibrated in FSUIPC.]

Alternative Solution.

We noticed that aircraft add-on's did respond to the assigned key input. For our tests we used the PMDG737NG.



The image on the left is Parking Brake Set. Depressing the Toe Brakes had no effect on the Parking Brake. It was only when we depressed the '.' Key that the Parking Brake released. So, how do we get round this? Not difficult.

CONTROLS - ASSIGNMENTS

BUTTONS / KEYS

Normal flight Slew mode

Event category: All commands | Joystick type: []

Assignment list

Event	Keyboard	Joystick	Repeat
Backup electric vacuum pump on/off			
Brakes (apply left)	F11		
Brakes (apply right)	F12		
Brakes (apply/release)	.		
Bring window to front	#		
Carb heat/eng anti-ice on/off	H		
Center landing light	CTRL + SHIFT + NUM		

Change Assignment... | Reset Defaults

Delete Key Assignment | Delete Joystick Assignment

se assignment you want to change or delete.

HELP | CANCEL | OK

The default key for Brakes (apply/release) is the `.` (Period) key. If you have a registered version of FSUIPC, Peter Dowson has included the ability for us to assign an action when any range is entered on an axis.

Go to the Axis Assignment Page. Identify and assign your Left Brake Axis. Repeat with the Right Brake making sure that both Axes are `sent to FSUIPC calibration`. Now go to the FSUIPC Joystick Calibration pages and on Page 2 you can calibrate your brake axes. At this point, it is worth checking that the Brakes work in your aircraft in the correct sense. That means when you press the brake pedals, do the brakes apply. You may have to reverse the Axes. Also double check that your toe brakes are not assigned in FS (or FSX)

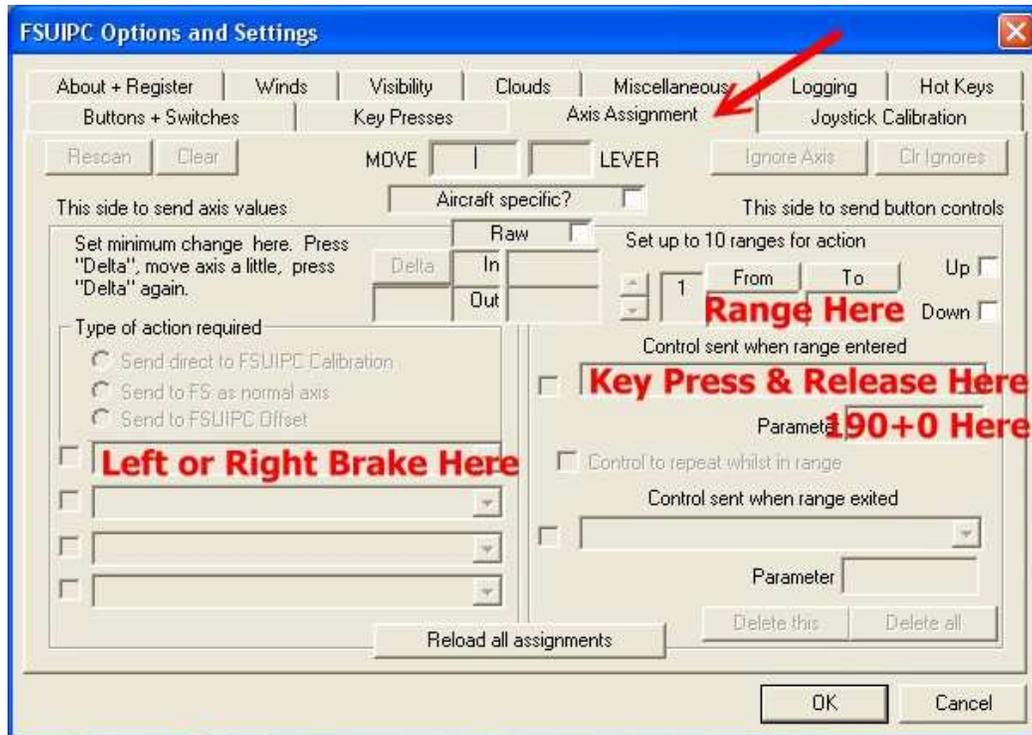
Return to the Axis Calibration Page and identify your left brake axis. On the right side of the page, you will see a section which allows you to send an action when a range on an axis is entered. As you depress the Left Brake Pedal, you will see the numbers in the IN & OUT boxes change if the axis is being read.

Fully depress the Left Brake Pedal and on the Right side of the box, click the From button. The number in the OUT box has now been written to the From Box.

Release the Left Brake slightly so the numbers change in the OUT box, for example from -16380 to -14500, then click the To button. You have now set the range for an action. Check the Up & Down Boxes.

In the dropdown Menu, one of the options is Keypress and Release, select this option.

Now we need to tell FSUIPC what key to send when the axis range is entered. That is done in the Parameter Box. Each Key has a code of it's own which you can find in the FSUIPC Advanced User's Guide. For our purpose, we want to send `.` When the rage is entered. The period key has a code of 190. The Parameter Box requires two numbers separated by a `+` sign. The second number can be left at 0 because we only need to send a non-accompanied key. So in the Parameter Box type 190+0. Click OK.



What we have done is set the Left Brake to send a `.' Period' key when the Left Brake is fully depressed. Now repeat with the Right Brake Axis.

A point to note is that your setup may use a different key for the Brakes. If that is the case, then you will need to substitute your key code for the 190 which this example uses.

Comments or Corrections always appreciated.....

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