COWANSIM MSFS 222UT

USER MANUAL

Mapping Your Hardware

READ THIS: When flying a helicopter, you use the collective to provide power input and to go up/down, **NOT** the throttle. Make sure you map collective and throttle to a **DIFFERENT** axis. You do not need to adjust the throttle manually; the governor does that for you automatically. (unless the governor fails or if the breaker is pulled) Simply roll the throttle to maximum, then use the collective to fly. If you do not have a dedicated axis for the throttle, then **DO NOT** use it, use the mouse instead. The throttle and collective **MUST** have their own axis.

Always set a unique profile for each aircraft to prevent double bindings and headaches. You can set up custom profiles by clicking "OPEN PRESET MANAGER" at the bottom of the CONTROLS OPTIONS page.

Collective:

Search for **“coll”** to find **COLLECTIVE AXIS** and map it to any axis.

You may have to reverse it.

Throttles 1 & 2 (Twist Grips):

Search for **“heli”** to find **SET HELICOPTER THROTTLE 1 & 2 AXIS** and map them to any axis.

You may have to reverse them.

IF YOU DO NOT HAVE A DEDICATED HELICOPTER THROTTLE, THEN DO NOT USE THIS. (SEE ABOVE)

Idle Stop Switch:

The idle stop switch is located on the collective box. The switch is designed with a 5 second delay relay. The idle stop eliminates the chance of unintentionally cutting off the throttle by preventing rolling the throttle down any further than idle. To cut the throttle off, use this binding to flip the 3-way switch for the respective throttle, then roll off the throttle.

Search for **"cut"** to find **THROTTLE 1 & 2 CUT** and map them to any buttons/switches.

Cyclic Stick:

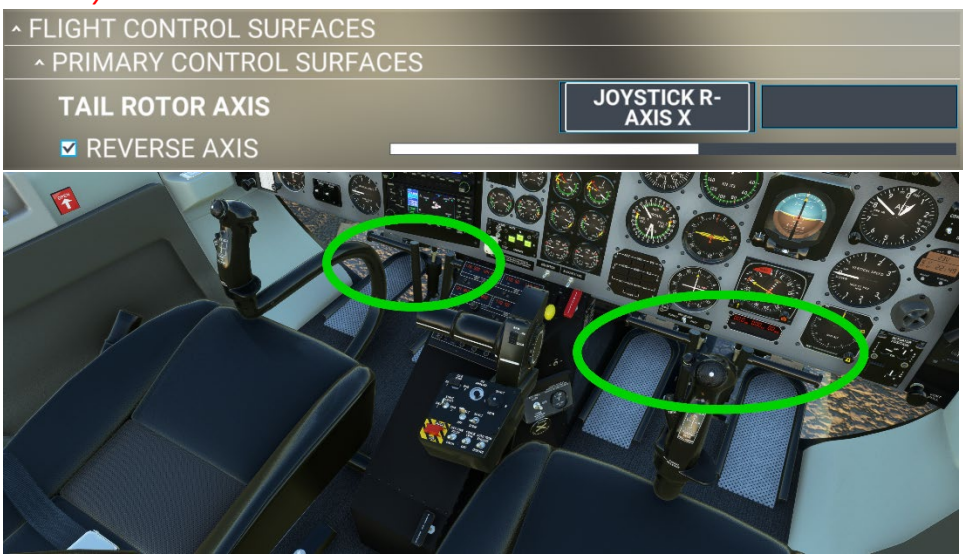
You can use the default aileron and elevator axis for the cyclic, but it is recommended to use the provided **SET CYCLIC LONGITUDINAL & LATERAL AXIS.**

Search for **"cyc"** to find **SET CYCLIC LONGITUDINAL & LATERAL AXIS** and map them to your stick axis. *You may have to reverse them.*

Anti-Torque Pedals:

You can use the default rudder axis for the anti-torque pedals, but it is recommended to use the provided **TAIL ROTOR AXIS.**

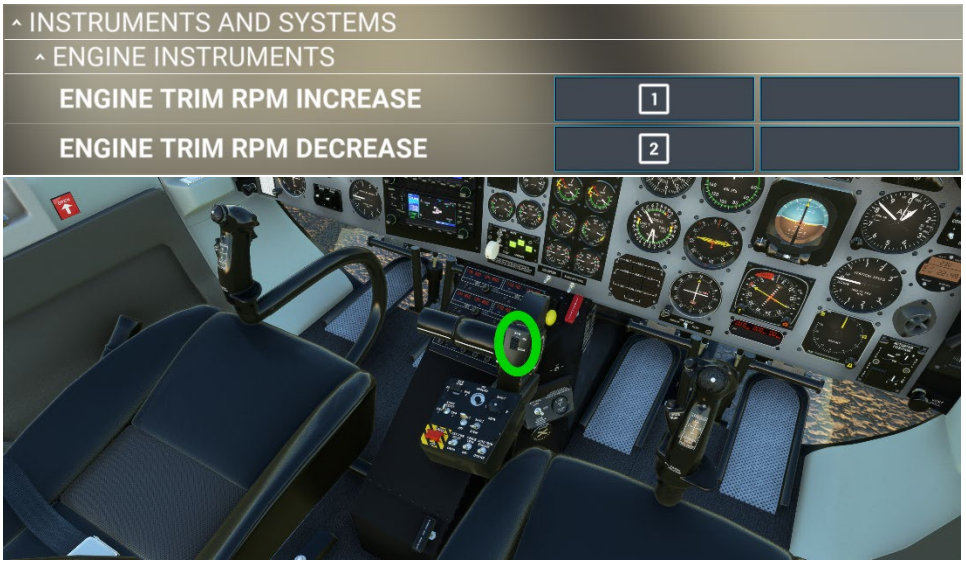
Search for **“tail”** to find **TAIL ROTOR AXIS** and map it to your pedals or joystick twist axis.
You may have to reverse it.



Governor (BEEP) Switch:

The “BEEP” switch is a toggle located on the head of the collective that you can use to fine tune the rotor RPM when at max throttle. It’s not animated when using the binding.

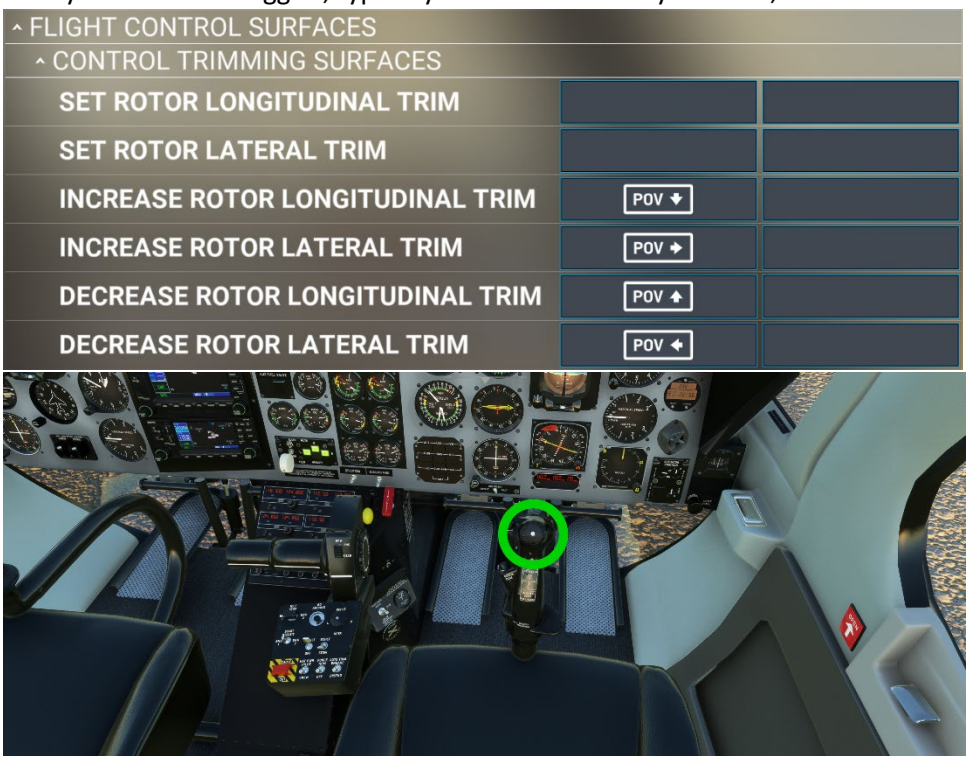
Search for **“trim”** to find **ENGINE TRIM RPM INCREASE & DECREASE** and map them to any two buttons or switch.



Trim:

The trim hat switch is located on the cyclic so you can trim the helicopter during flight**.** Map the trim and use it like any other helicopter. It's not animated when using the binding.

Search for **"rotor l"** to find **INCREASE/DECREASE ROTOR LONGITUDINAL/LATERAL TRIM** and map them to any 4 buttons or toggles, typically the hat switch on your stick, as illustrated below.



Trim Reset (Force Trim):

The force trim button is located on the cyclic. **Please read the SAS/AP manual.**

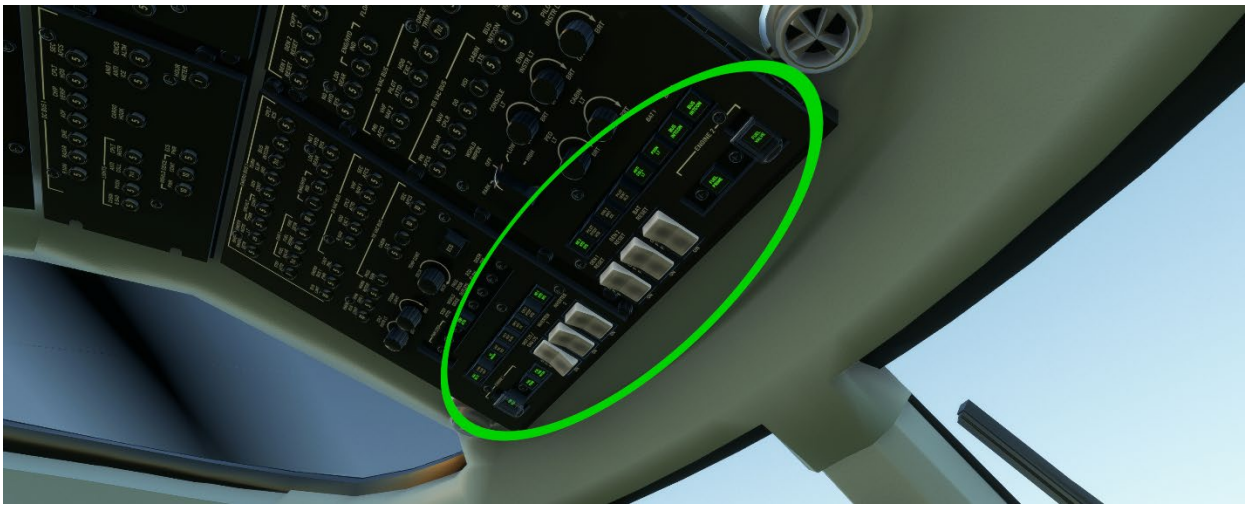
Search for **"trim re"** to find **ROTOR TRIM RESET** and map it to any button/switch.

Rotor Brake:

The rotor brake is located to the right of the pilot's seat.

Search for **"brake"** to find **TOGGLE ROTOR BRAKE** and map it to any button/switch.

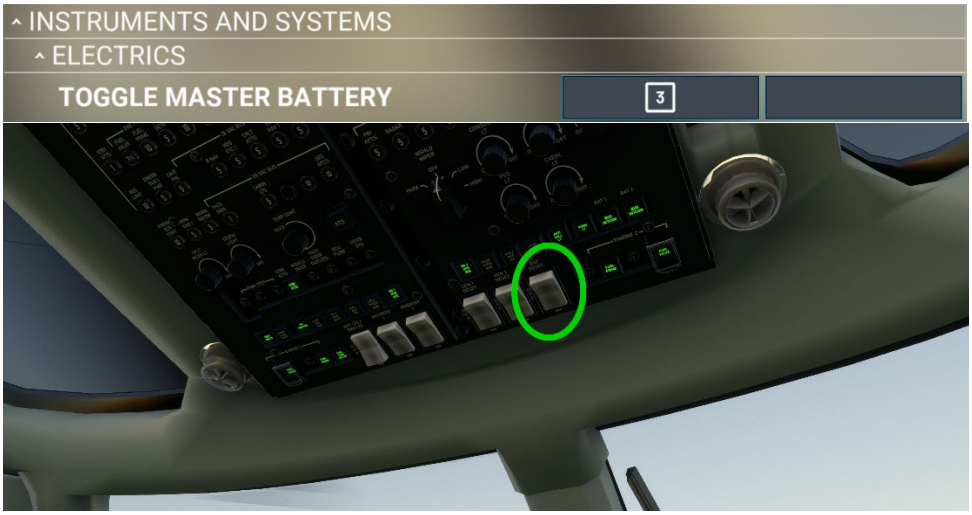
MAIN ELECTRICAL PANEL (NEXT 11)



Battery:

The battery switch is located on the upper panel**.**

Search for **“bat”** to find **TOGGLE MASTER BATTERY** and map it to any button/switch.



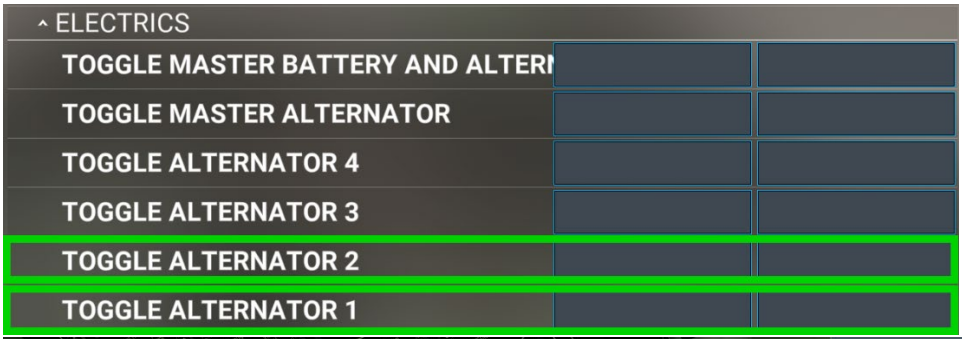
Inverters:

The inverter switches are located on the upper panel. There are currently no bindings for these.

Generator:

The generator switches are located on the upper panel**.**

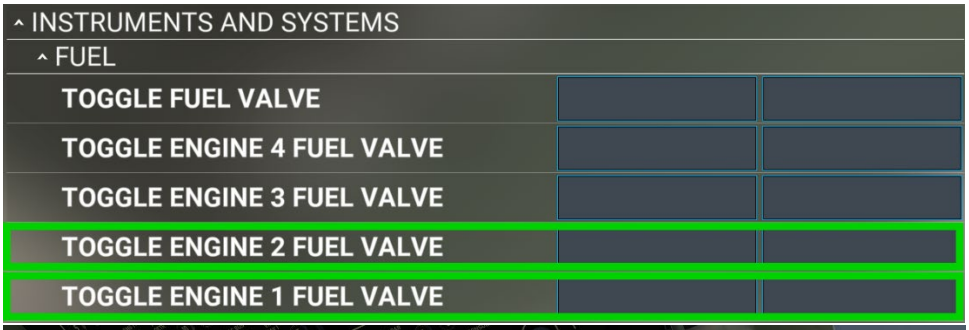
Search for **“alter”** to find **TOGGLE ALTERNATOR 1 & 2** and map them to any buttons/switches.



Fuel Valves:

The fuel valve switches are located on the upper panel.

Search for **“fuel v”** to find **TOGGLE ENGINE 1 & 2 FUEL VALVE** and map them to any buttons/switches.

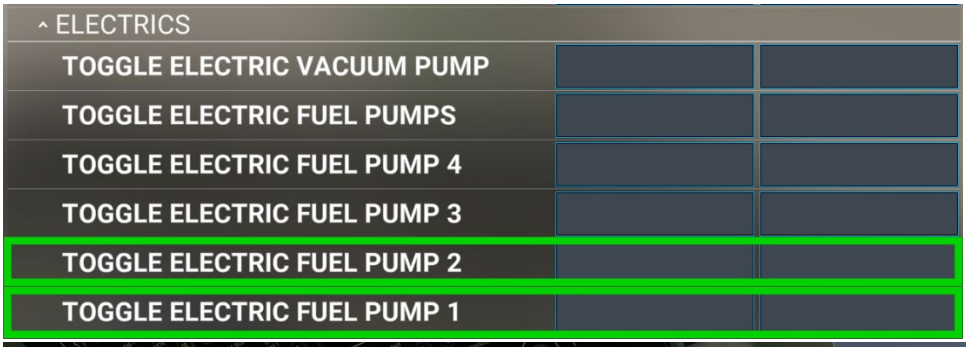


Fuel Primers:

The fuel primer switches are located on the upper panel.

~~Search for **"pump"** to find **TOGGLE ELECTRIC FUEL PUMP 1 & 2** and map them to any buttons/switches.~~

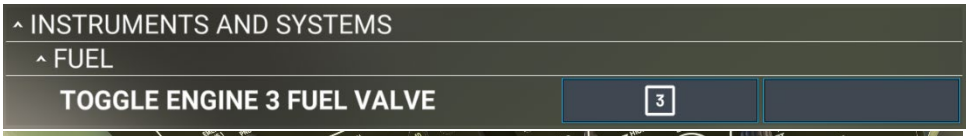
The internal code for the default bindings is wrong. We will wait for it to be fixed. Skip these for now.



Fuel Tank Interconnect:

The fuel tank interconnect switch is located on the upper panel.

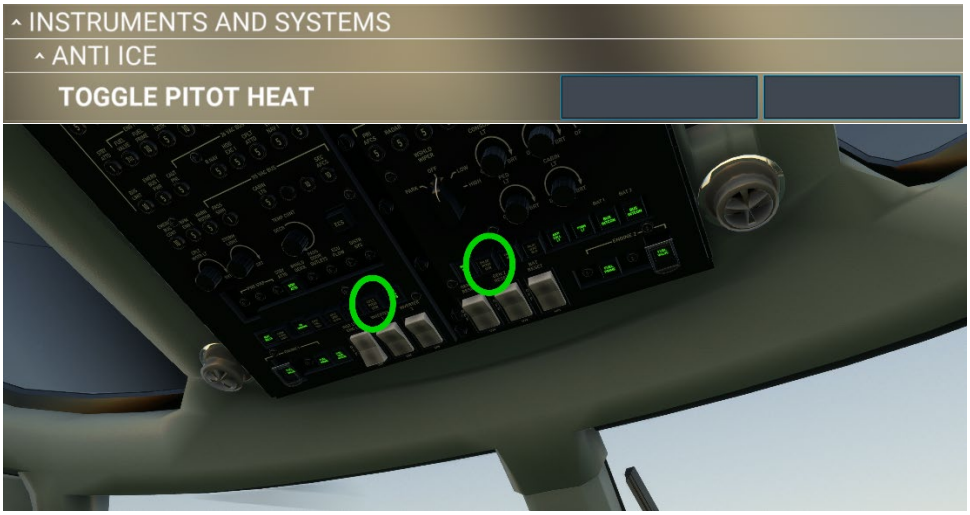
Search for **"fuel v"** to find **TOGGLE ENGINE 3 FUEL VALVE** and map it to any button/switch.



Pitot Heat:

The pitot heat switches are located on the upper panel. There is only one binding for both.

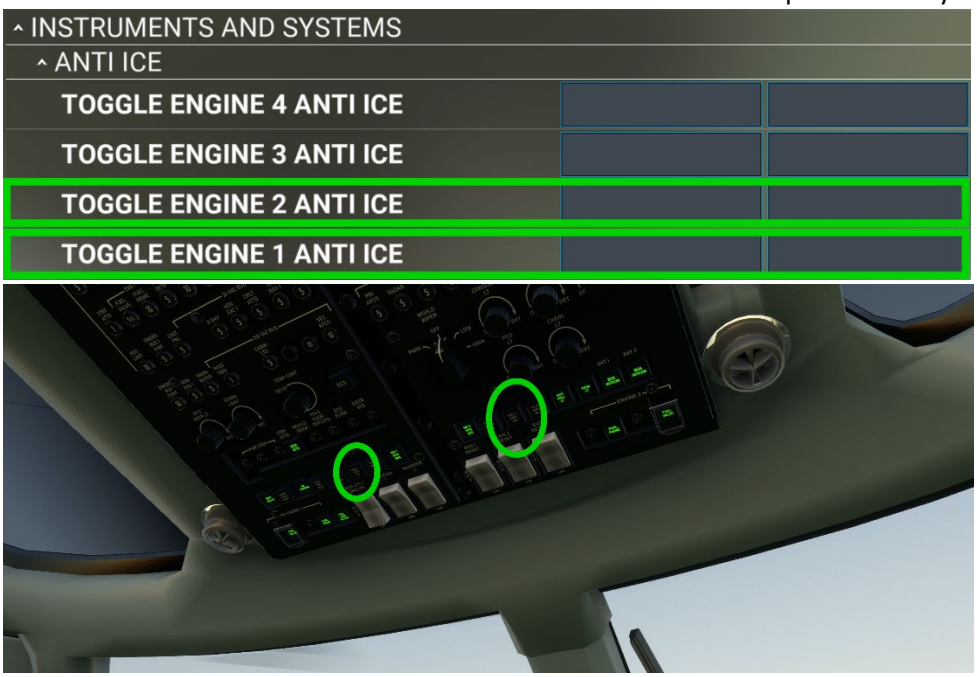
Search for **“pito”** to find **TOGGLE PITOT HEAT** and map it to any button/switch.



Anti-Ice:

The anti-ice switches are located on the upper panel**.**

Search for **“anti i”** to find **TOGGLE ENGINE 1 & 2 ANTI ICE** and map them to any buttons/switches.



Anti-collision Lights:

The anti-collision lights switch is located on the upper panel**.**

Search for **“bea”** to find **TOGGLE BEACON LIGHTS** and map it to any button/switch.

Position Lights:

The position lights switch is located on the upper panel**.**

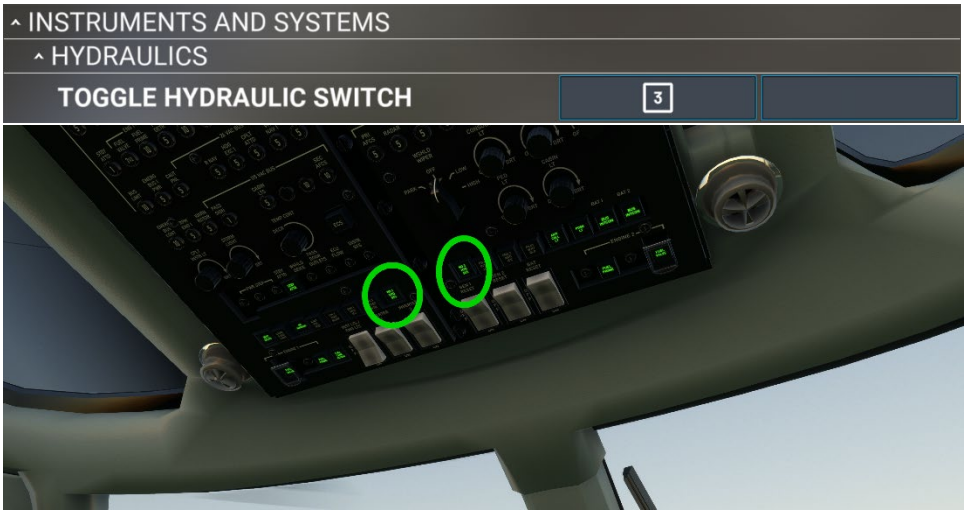
Search for **“nav l”** to find **TOGGLE NAV LIGHTS** and map it to any button/switch.

Hydraulics:

The hydraulics switches are located on the upper panel**.**

~~Search for **"hyd"** to find **TOGGLE HYDRAULIC SWITCH** and map it to any button/switch.~~

The internal code for the default bindings is wrong. We will wait for it to be fixed. Skip these for now.



Horn Mute / Master Caution:

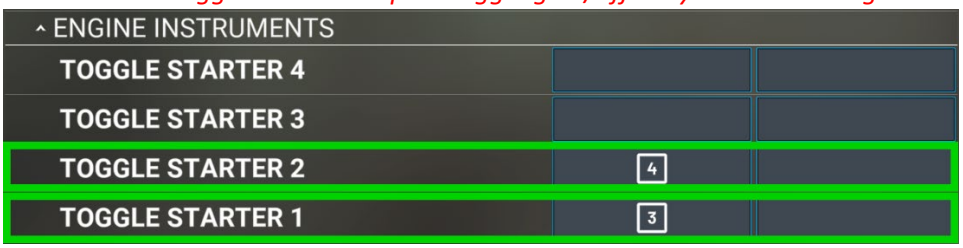
The horn/caution mute light/button is located on the main panel.

Search for **"mast"** to find **TOGGLE MASTER CAUTION** and map it to any button/switch.

Starters:

The starter buttons are located on the main panel.

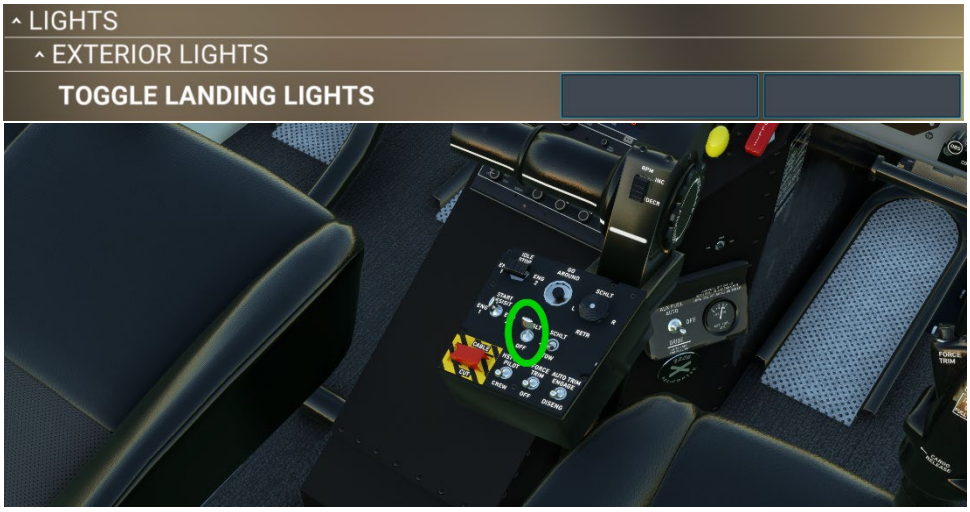
Search for **“starte”** to find **TOGGLE STARTER 1 & 2** and map them to any buttons/switches.
Note: this is a toggle so it will require toggling on/off to cycle and start again.



Landing Lights:

The landing lights switch is located on the collective head.

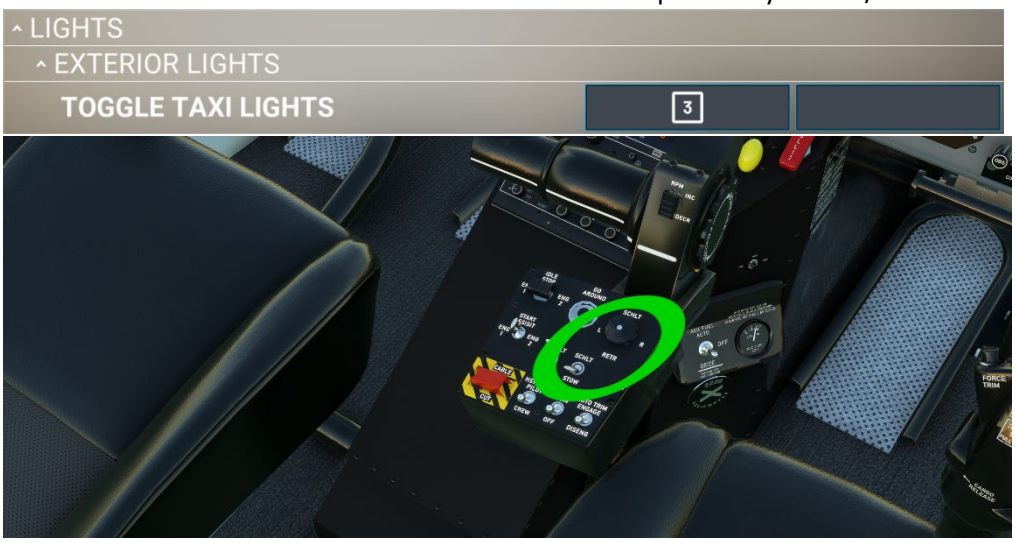
Search for **“landing l”** to find **TOGGLE LANDING LIGHTS** and map it to any button/switch.



Search/Spotlight:

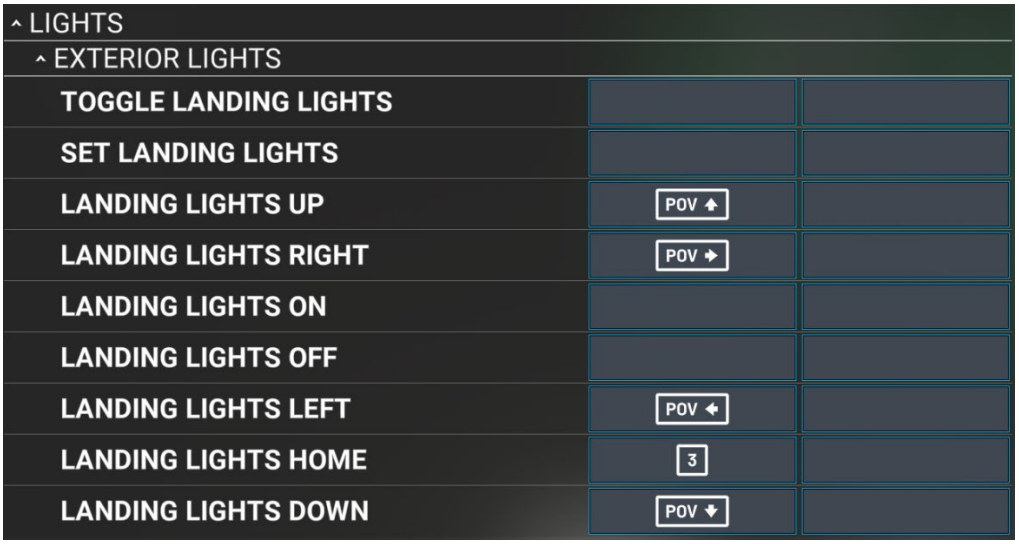
The search light is connected to the taxi light. The switch is located on the collective box.

Search for **“taxi l”** to find **TOGGLE TAXI LIGHTS** and map it to any button/switch.



Search/Spotlight Movement:

The search light can be aimed with the 4-way 3D switch, or by using the bindings, typically mapped to a hat switch, as illustrated below. The **HOME** binding returns the light to the default position. Search for **“landing l”** to find **LANDING LIGHTS UP/DOWN/LEFT/RIGHT** and map them to any buttons/ switches.



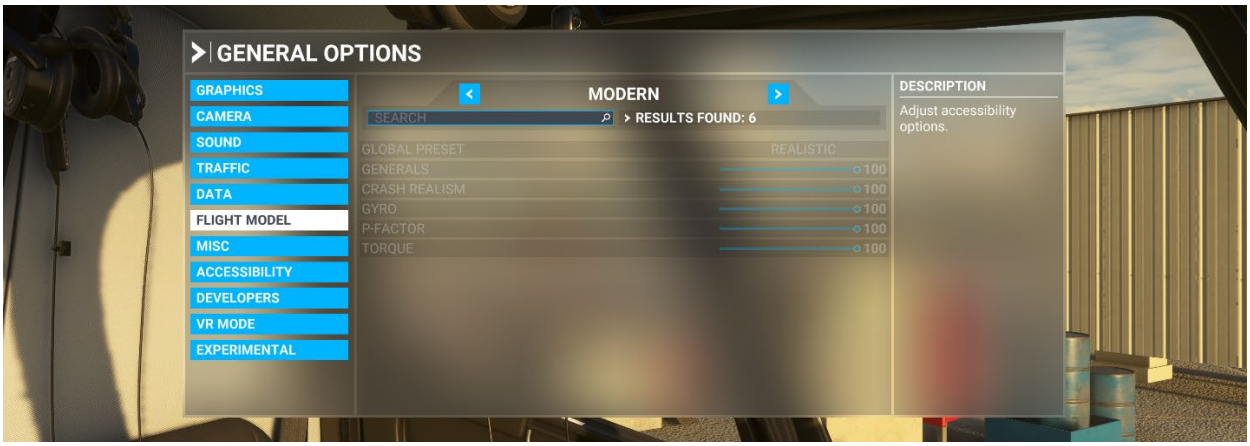
Other Bindings:

All other bindings are default and can be mapped at your discretion. Just remember to always use a unique profile for each aircraft to prevent double bindings and other issues. You can set up custom profiles by clicking **“OPEN PRESET MANAGER”** at the bottom of the **CONTROLS OPTIONS** page.

Some custom coded items cannot be mapped to an axis or switch since we currently have no way to make custom bindings, only overriding the current bindings available to us all. Please refer to MSFS documentation for all other bindings.

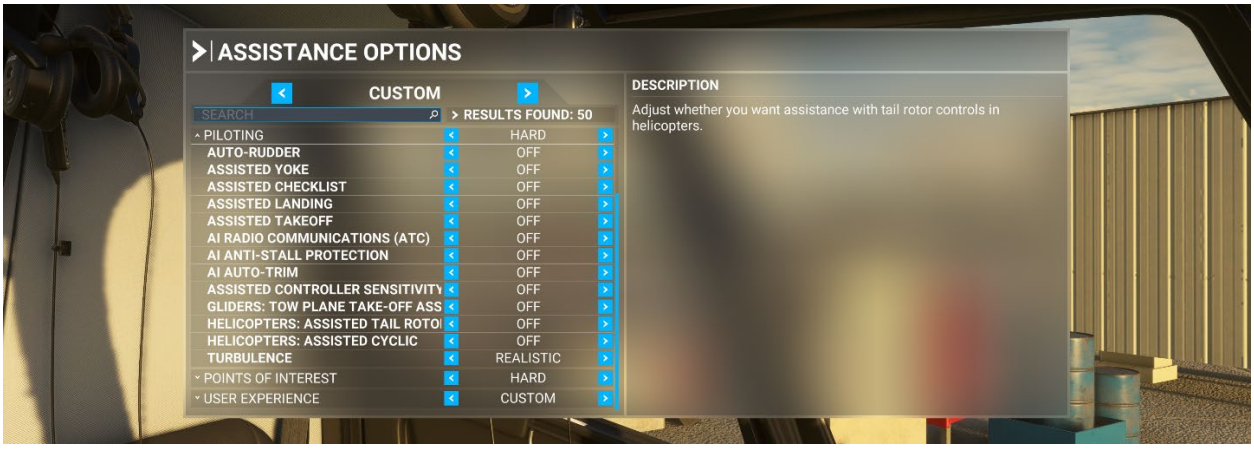
Flight Model

In general settings make sure that you have MODERN flight model selected. The was an issue in the past where this needed to be cycled through LEGACY and MODERN to correct some bugs. If you have issues, then try that first.



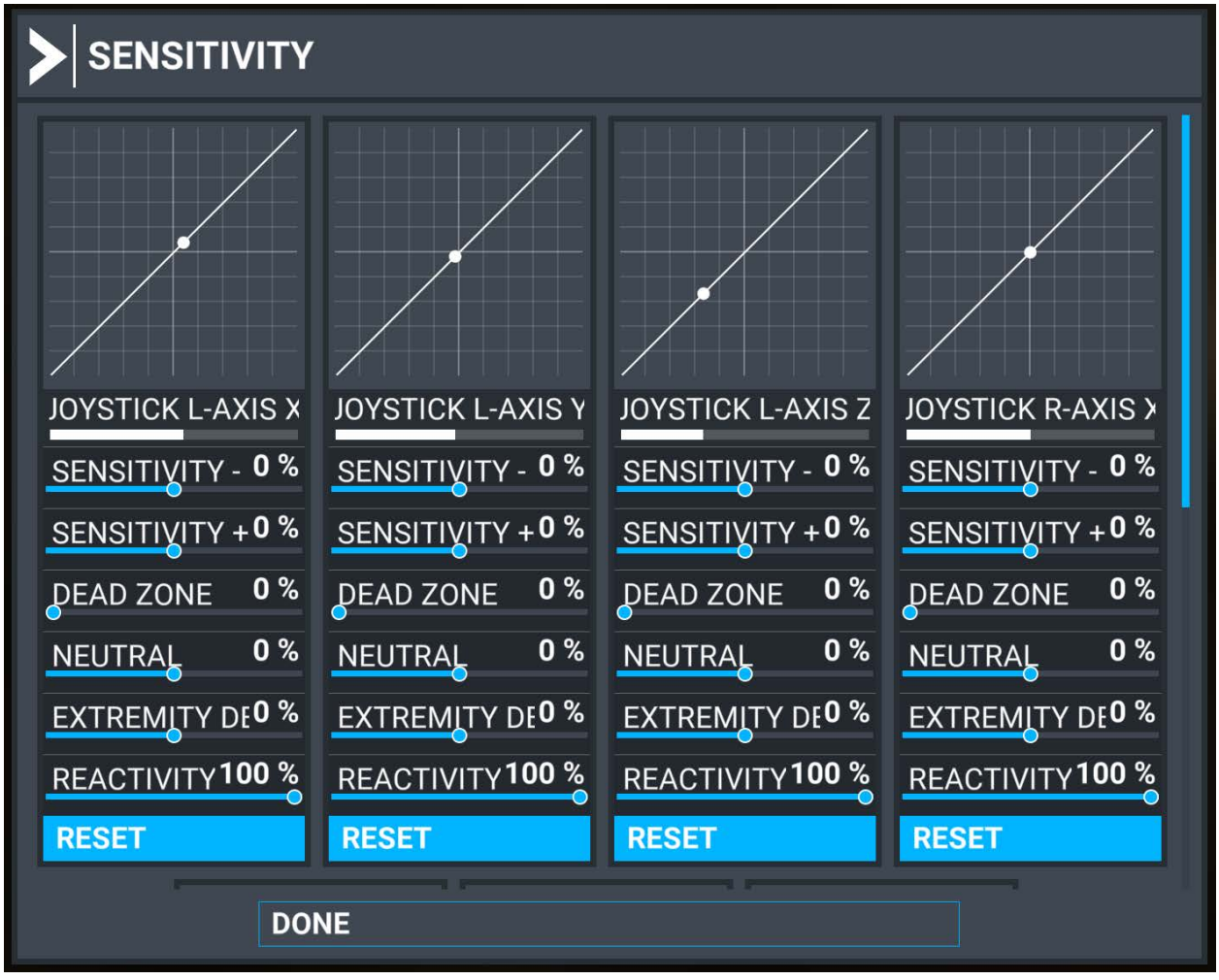
Assistance options

In assistance options, under the PILOTING drop down, make sure that you have HELICOPTERS: ASSITED TAIL ROTOR and ASSITED CYCLIC turned OFF for realistic flight dynamics. If you are a beginner or would like an easy game like flying experience then you can switch them on, and the helicopter will become extremely easy to fly. Helicopters are not easy to fly unless you are experienced.



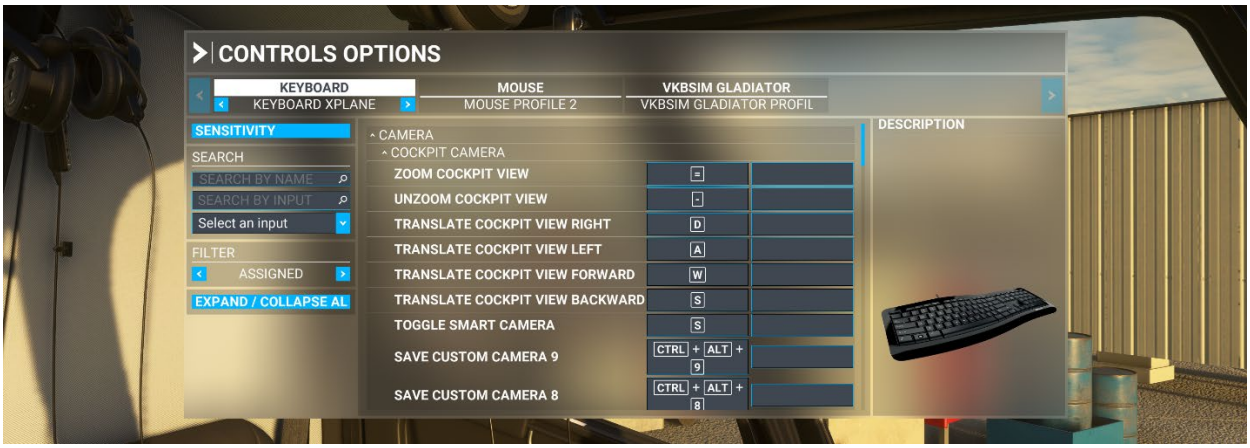
Sensitivity Curves/Settings:

What are the most realistic sensitivity settings? That is a question asked way too often. These settings are for you, and only you. Everyone has a different perception and idea of what seems realistic. You will NEVER get the same answer from anyone. These are personal settings to fine tune to your own preference. The fight model is designed to be neutral and this is where you can make it your own. There are too many variables involved with flight sims and the biggest one of all is hardware. Even if people are using the same hardware, everyone experiences the sim differently. Use your own judgment here.



Moving Around

To move around, like opening the doors and “walking” around outside, then map your keyboard just like you would with any first-person game like in the example illustrated below.



Click Spots

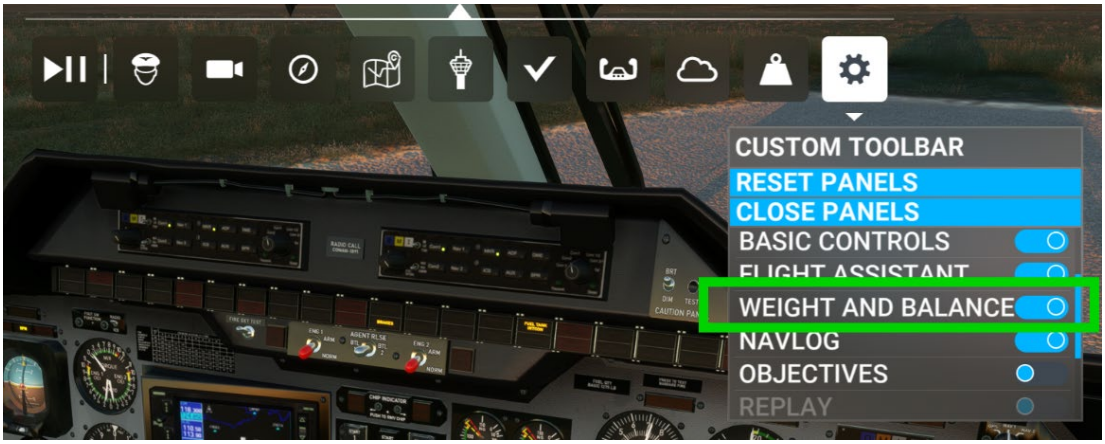
There are click spots tied to objects throughout the cockpit. Click spots can only be used in cockpit view, which is why the moving around explanation up above is important if you would like to open and close the doors while outside. It is not possible from the external view. Some click spots are hidden and some will glow when hovered over. The image below shows where two hidden click spots are. One for the optional visor and upper window.

Accessing Options

Weight and Balance:

To access options like passengers and other objects, make sure that the weight and balance options window is ticked on in the upper menu settings window, as illustrated below.

DUE TO THE PERSISTANCE CODE THAT REMEMBERS YOUR SETTINGS, YOU WILL HAVE TO CHANGE OPTIONS WHILE THE HELICOPTER IS LOADED. IT REMEMBERS YOUR LAST FLIGHT, SO SETTING THE WIEGHT AND BALANCE BEFORE THE FLIGHT, FROM THE MAIN MENU, WILL BE OVERWRITTEN WHEN LOADING AND IT WILL LOAD WITH THE LAST FLIGHTS OPTIONS AND WEIGHTS INSTEAD.



Once activated, you can add/remove weight to show/hide all options available.

GTN/Panel Options

To switch between panel options (black or grey) simply flip the 2-way panel option switch.
If you have the GTN software installed then you can use the 3way switch to cycle through 530/650/750.

Freeware & Payware GTN650 & 750:

This model comes with PMS and TDS GTN software integration. If you have either one installed, then you will be able to use the **GTN OPTION** switch to cycle through your preferred choice.

You can find the TDS software here: https://tdssim.com/index

You can find the PMS software here: https://pms50.com/msfs/

TDS is payware and PMS has both freeware and payware options.

Please refer to their product support for installation. We have everything covered on our side. Once installed correctly then either product will work automatically.

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FOR NO REASON, JUST BECAUSE.

ENJOY THE SOFTWARE!

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