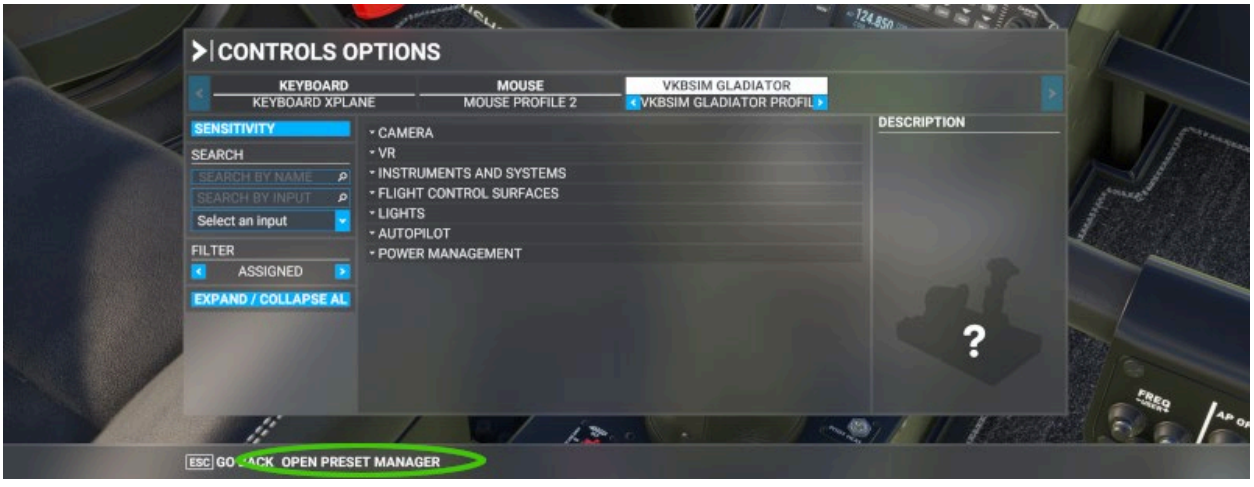
COWANSIM MSFS R66

USER MANUAL

Mapping Your Hardware

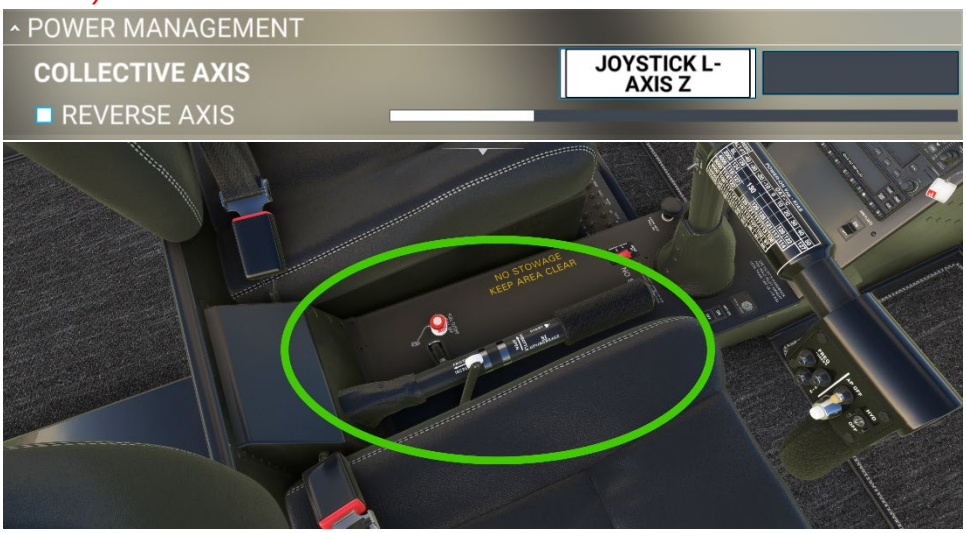
READ THIS: When flying a helicopter, you use the collective to provide power input and to go up/down, **NOT** the throttle. Make sure you map the collective and throttle to a **DIFFERENT** axis. You do not need to adjust the throttle manually; the governor does that for you automatically. (unless the 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.



Throttle (Twist Grip):

Search for **“heli”** to find **SET HELICOPTER THROTTLE AXIS** and map to any axis.
You may have to reverse it.

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

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:

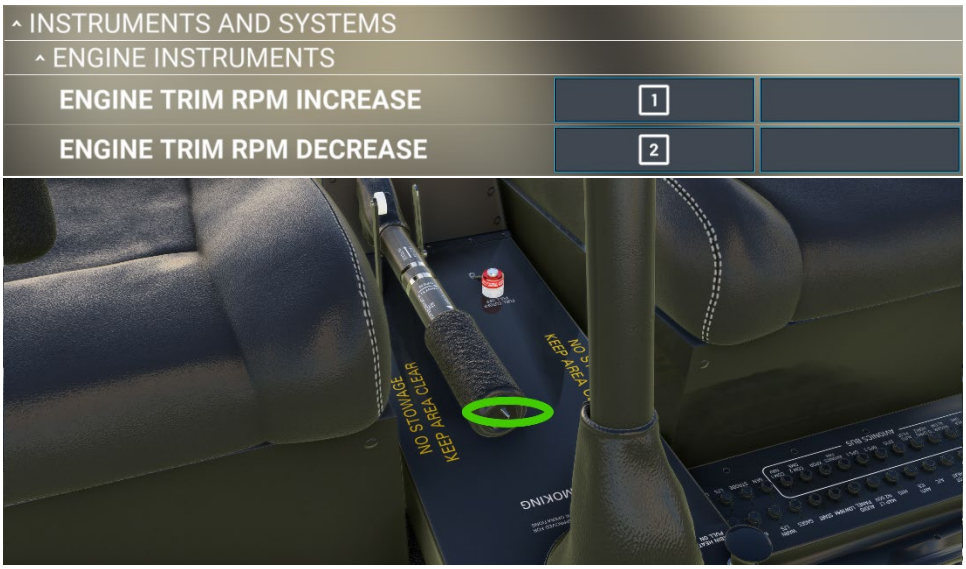
You can use the default rudder axis for the anti-torque pedals, but it is recommended to use the provided **TAIL ROTOR AXIS.**

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 tip of the collective that you can use to fine tune the rotor RPM when at max throttle**.**

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



Trim:

The trim hat switch is usually located on the cyclic so you can trim the helicopter during flight**.** The R66 does not have one on the cyclic, so there is no reference image. You can still map the trim and use it like any other helicopter.

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):

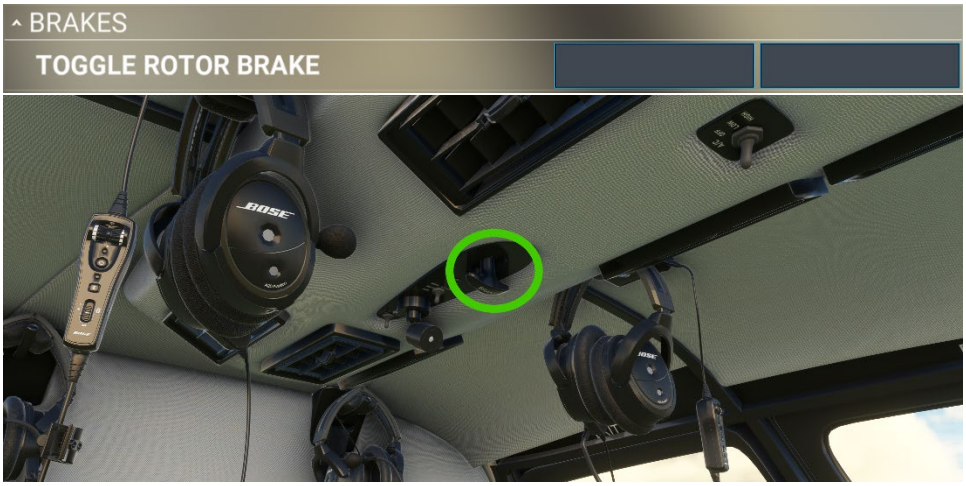
The force trim button is located on the cyclic**. Please read the SAS/AP manual.**

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

Rotor Brake:

The rotor brake is located on the upper panel.

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



MAIN ELECTRICAL PANEL (NEXT 5)

Battery:

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

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

Avionics:

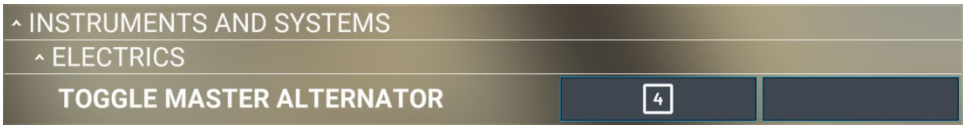
The avionics switch is located on the center switch panel**.**

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

Generator:

The generator switch is located on the center switch panel**.**

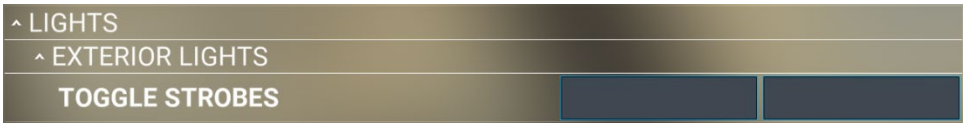
Search for **“alter”** to find **TOGGLE MASTER ALTERNATOR** and map it to any button/switch.



Strobe Lights:

The strobe lights switch is located on the center switch panel**.**

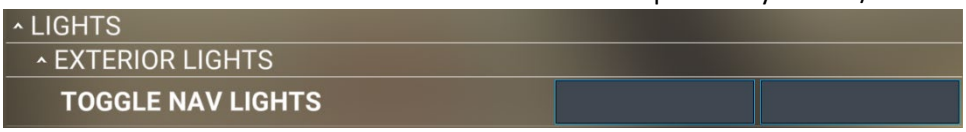
Search for **“stro”** to find **TOGGLE STROBES** and map it to any button/switch.



Navigation Lights:

The navigation lights switch is located on the center switch panel**.**

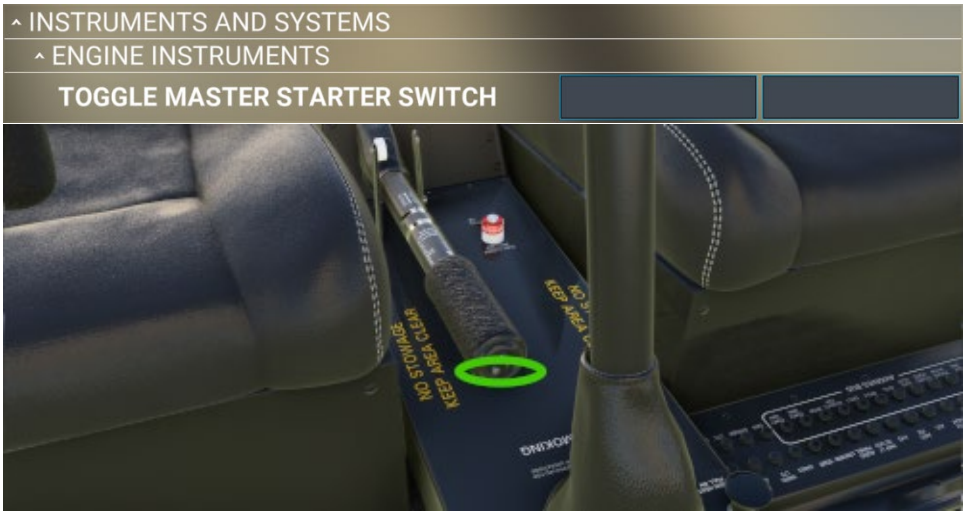
Search for **“nav l”** to find **TOGGLE NAV LIGHTS** and map it to any button/switch.



Starter:

The starter button is located on the tip of the cyclic**.**

Search for **“starte”** to find **TOGGLE MASTER STARTER SWITCH** and map it to any button/switch.
Note: this is a toggle so it will require toggling on/off to cycle and start again.



Ignition (key):

The igniter/ignition switch is the key located on the bottom right of the main panel.

Search for **“igni”** to find **TOGGLE TURBINE IGNITION SWITCH** and map it to any button/switch.

Fuel Cutoff (lower):

The fuel cutoff valve is located on the bottom/center console.

Search for **“fuel v”** to find **TOGGLE ENGINE 1 FUEL VALVE** and map it to any button/switch.

Main Fuel Valve (upper):

The main fuel valve is located to the right of the center electrical switches.

Search for **“fuel v”** to find **TOGGLE ENGINE 2 FUEL VALVE** and map it to any button/switch.

ELT:

The fuel cutoff valve is located on the bottom/center console.

Search for **“elt”** to find **TOGGLE ELT** and map it to any button/switch.

Anti-Ice:

The anti-ice switch is located on the bottom/center console.

Search for **“anti i”** to find **TOGGLE ANTI ICE** and map it to any button/switch.

Pitot Heat:

The pitot heat switch is located on the bottom/center console.

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

Landing Lights:

The landing lights switch is located on the center of the cyclic stick.

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

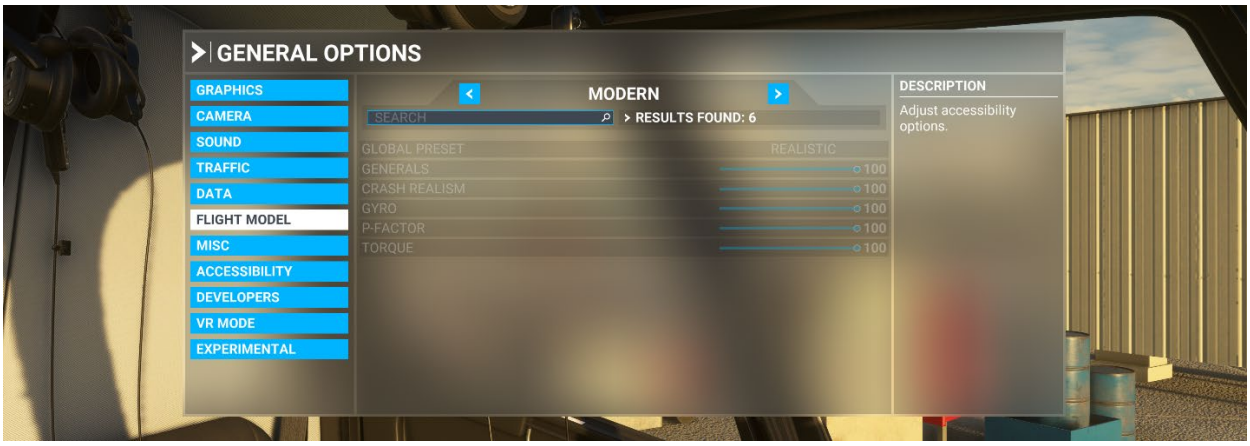
Other Bindings:

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.

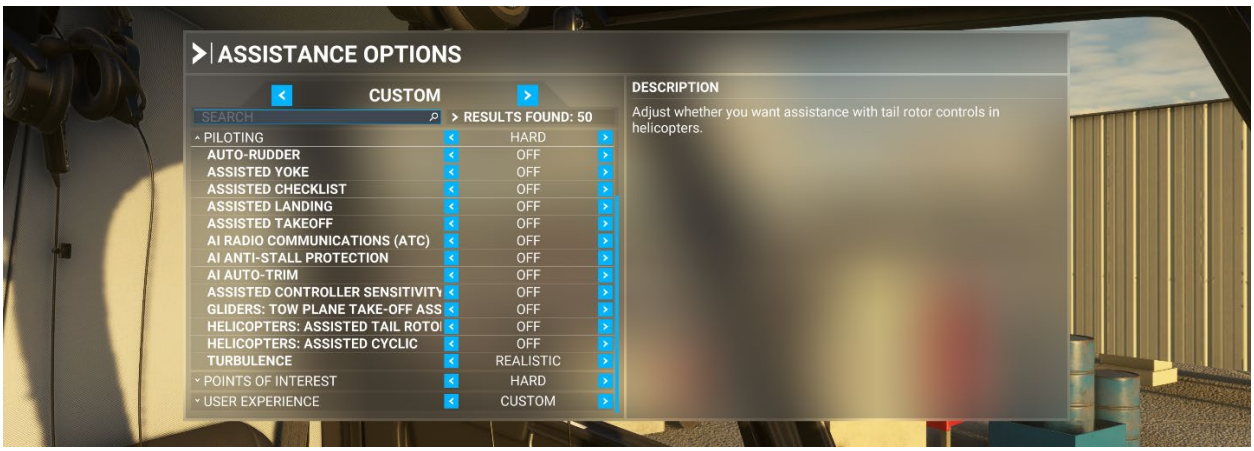
Flight Model

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.



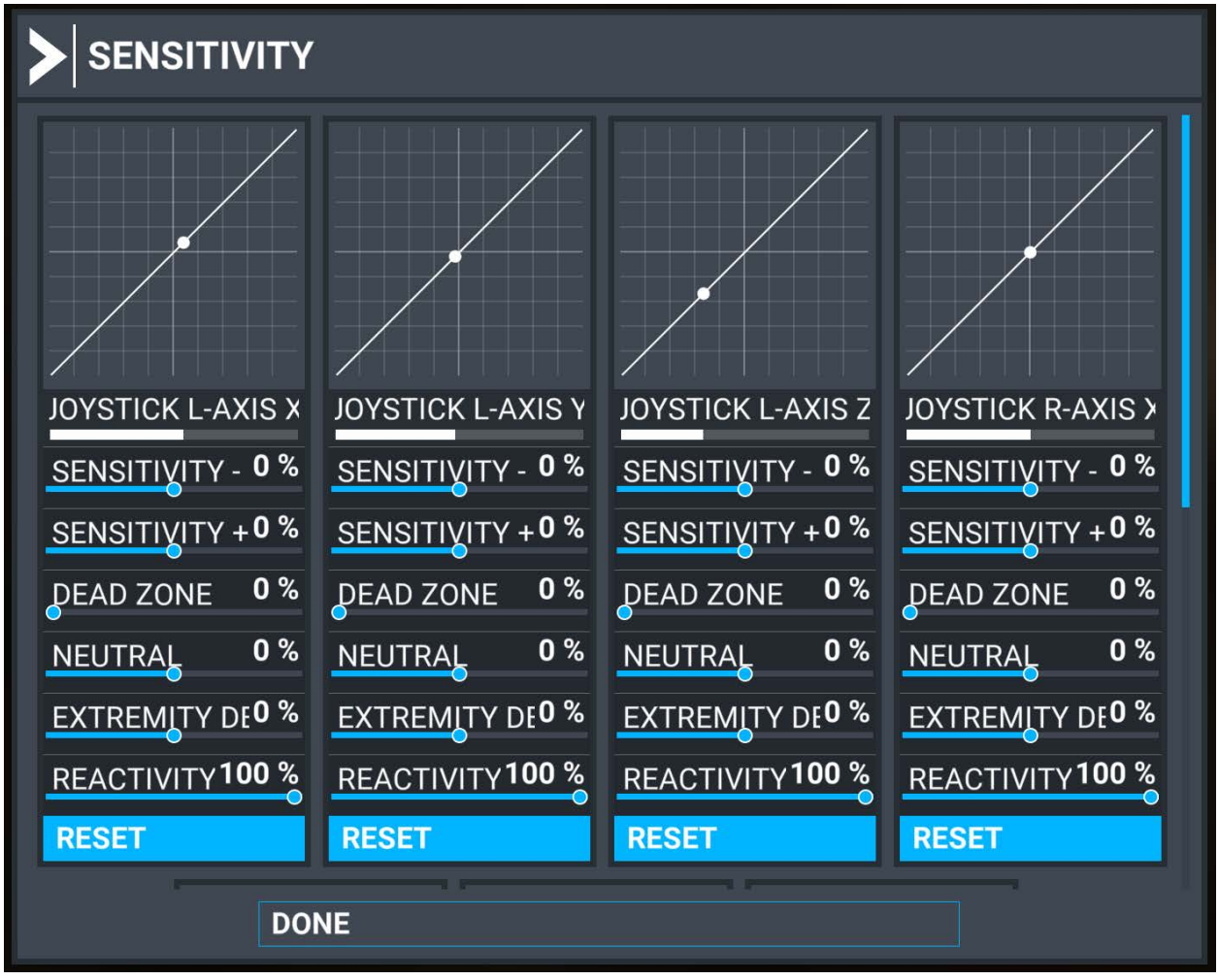
Assistance options

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.



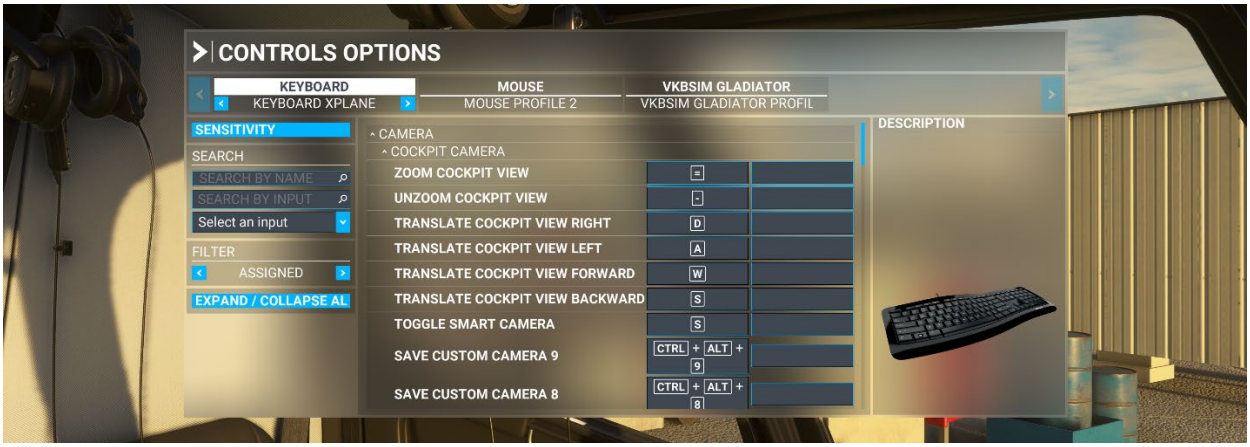
Sensitivity Curves/Settings:

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.

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

Panel Options

To switch between panel options simply flip the 3-way panel option switch.

Freeware & Payware GTN650 & GTN750 Integration

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

⚠ Important for PMS users:
PMS GTN650/750 users must install the **separate CowanSim PMS package** (included with your download) into the Community folder. This package enables full PMS integration with your CowanSim helicopter. Without it, the PMS GTN will not function.

Please refer to the official PMS and TDS product support for installation instructions. On our side, everything is already set up. Once the PMS or TDS software is correctly installed (and the CowanSim PMS package added for PMS users), either product will work automatically inside the simulator.

- **TDS GTNXi (Payware only)**
  You can find the TDS software here: https://tdssim.com/index

- **PMS GTN (Freeware and Payware options)**
  You can find the PMS software here: https://pms50.com/msfs/

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FOR NO REASON, JUST BECAUSE.

ENJOY THE SOFTWARE!

www.CowanSim.com