



VNM SIMULATION

USER MANUAL

MOTION CABINET & ACTUATOR



“VNM Simulation, the manufacturer of simulation systems, sincerely thank you for choosing and trusting our products. Our advanced simulation solutions are designed to deliver a highly realistic and comfortable experience, with reliable performance driven by precise and smoothly integrated mechanical and electronic control systems. We hope our products will provide you with exceptional moments of entertainment and training. We truly hope you enjoy your new system!”

*Warm regards,
VNM Simulation Team*

Our experts are always ready to support you!
Vnmsimulation.com



ASK SUPPORT

Our experts are ready to assist you:

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Email: sale@vnmsimulation.com



SEARCH OUR TUTORIALS

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<https://vnmsimulation.com/quick-guide/>



SUPPORTED GAMES

Racing games and professional simulation software:

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DISCORD YOU ASK, WE ANSWER

Join our discord server to ask questions:

<https://discord.gg/aUjXnUdQ9k>

1. SAFETY PRECAUTIONS

Read all safety instructions carefully before installation and use. Retain this manual for future reference. If the product is transferred to another user, include this manual.

Black and red boxes indicate important information and warnings.

NOTE

The instructions included in this frame indicate information that is considered important, but not injury or damage related.

WARNING

The instructions included in this frame indicate a dangerous situation that, if not avoided, could result in a user injury or device damage.

1.1. GENERAL SAFETY

WARNING



Always keep your hands and those of others away from the moving parts of the motion system.

WARNING



Always ensure that all mounting points in the cockpit can withstand the forces applied by the VNM Motion Cabinet (structurally approved or verified for the expected load). Check that no mounting points in the cockpit are loose.

WARNING



To reduce the risk of burns, fire, electrical shock, injury, or mechanical damage always **TURN OFF THE POWER SUPPLY** before plugging and unplugging the VNM Motion Cabinet.

Dangerous voltages level can be present in Power Cabinet for a few minutes after turning off the machine.

WARNING



The device is intended solely for individuals **OVER THE AGE OF 16**. In case of use by individuals with limited physical, sensory, or mental capabilities, strict supervision is required. Read safety instructions before using the device.

- Use the VNM Motion Cabinet only for its intended purpose, according to instructions.
- Unplug the VNM Motion Cabinet from the power supply if it is not used for an extended period or when there is a need to perform hardware installation, maintenance, servicing, or repairs.
- Turn off the VNM Motion Cabinet when it is not in use.
- The VNM Motion Cabinet was designed for indoor use only - **DO NOT** store or use the product outdoors.
- Keep the VNM Motion Cabinet away from the heat sources, high humidity, water, and other liquids. **DO NOT** store in cold places where water condensation may occur.
- **DO NOT** disassemble the product. Any tampering with or altering the product will void the warranty, pose a serious risk of electric shock, and may irreparably damage the product.
- **DO NOT** cover the ventilation holes in the VNM Motion Cabinet.
- Keep the power cord plug and the socket dry, clean, and dust-free.
- Protect the power cord from damage caused by being stepped on, rubbed against, or pinched.

- **DO NOT** use the VNM Motion Cabinet if it has been damaged, or any component is broken or missing. Please contact technical support.
- **DO NOT** use attachments or replacement parts not recommended or approved by the manufacturer. If you must replace a power cord, use only certified products with the same rating as the one being replaced.
- Connect the VNM Motion Cabinet to a properly grounded outlet only.

WARNING

Stop using the VNM Motion system and contact technical support immediately if the unit produces unusual noise, emits smoke, or shows any other signs of abnormal operation.

1.2. HEALTH AND SAFETY INSTRUCTION

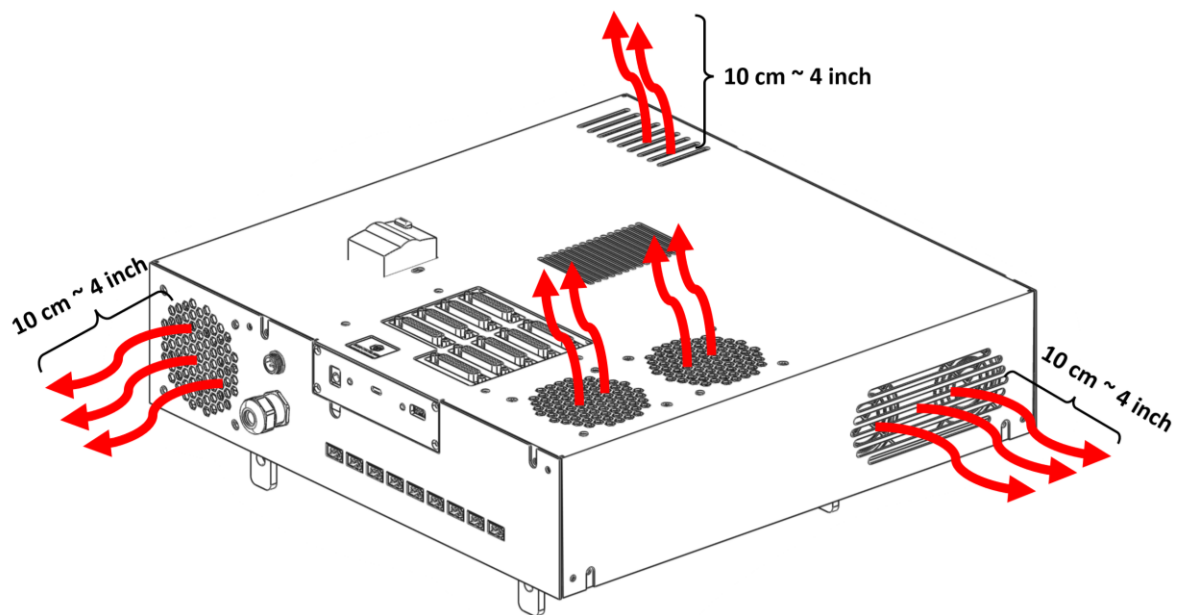
The safety of users operating the VNM Motion system is our highest priority. To protect users and nearby personnel from injury due to moving mechanical components and electric shock, the following instructions **MUST BE** strictly followed.

WARNING

As with any mechanical equipment, the user is responsible for checking the condition of the system before use and ensuring that all operating conditions are safe.

What must be checked before turning on the device:

- Ensure that nothing is blocking machine's movements or air vents. The minimum distance between the air vents in the VNM Motion Cabinet and any outside part of the cockpit equipment is 10 cm (4 in).



- Check if cables are mounted correctly – they must **NOT** be stretched or loosely connected to the socket. Place them out of the moving range of the device components.
- Check if all components are correctly mounted.
- Check if there are no sharp edges near the moving range of the cockpit.

WARNING



High voltage is present in VNM Motion Cabinet and cables during operation and may remain for several minutes after power is turned off.

How to safely turn on and use the VNM Motion:

- Ensure that everyone around is aware of cockpit's rapid movements.
- Ensure that no one stands in the range of the motion (minimum of 1.5 m [5 feet]).

WARNING

During calibration, the VNM Motion system will move after power-on and when the EMC Stop button is reset. Keep a safe distance from the motion and do not attempt to interfere.

- **DO NOT** change the payload weight mounted to the VNM Motion during a start-up calibration.
- EMC Stop Button should be mounted within the reach of the user – it must be available immediately in every situation. Different seat positioning setups should be taken into account.
- Check the EMC Stop Button **AT LEAST** once a month to reduce the possibility of unknown and unexpected failure.
- Before getting on and off the machine activates EMC Stop Button by pressing it down.
- In case of game crash or freeze - EMC Stop Button must be triggered (pressed down) before getting off the machine.
- *For VR Headset users:*
 - Remove the VR goggles before entering or exiting the rig.
 - Ensure that cables from the VR Headset are not in the movement range of the VNM Motion.
 - Ensure that the whole VR setup is not in the motion range of the VNM Motion.

- Ensure that VR setup cables are protected from being crushed by the VNM Motion and **DO NOT** place them loosely under the motion rig.

- **DO NOT** use VNM Motion if you are pregnant, tired, or under the influence of alcohol or narcotic substances.
- **STOP USING** the VNM Motion immediately if you start feeling pain, fatigue or any physical or mental discomfort.
- For every two hours of playing, we recommend at least **15 MINUTES OF BREAK**.
- **DO NOT** put your hands or legs in the actuator's range of motion!
- **DO NOT** use the VNM Motion with small children or pets around.
- **DO NOT** put any items between actuators and stabilization plates.
- **DO NOT** pull the wires connecting the actuators with the VNM Motion Cabinet

WARNING

Please note that motion platforms built with VNM Actuators and the VNM Motion Cabinet depend on the user's design choices and judgment. The system can generate highly dynamic movements based on simulator telemetry, so the rig must be constructed to meet appropriate safety standards. Always use caution during installation and operation.