# D-BOX

# MERCEDES-AMG MOTION PLATFORM

# USER GUIDE

# LIMITATION OF LIABILITY

# TABLE OF CONTENTS

# IMPORTANT SAFETY INSTRUCTIONS

- Read, keep, and follow these instructions.
- Heed all warnings:

This D-BOX haptic system may be harmful to women who are pregnant, persons with heart conditions, the elderly, or those with other pre-existing medical conditions. All such persons should consult their physicians before using this D-BOX haptic system.

Use of this D-BOX haptic system is not recommended for children under the age of ten years old without adult supervision. Owners and/or users of this D-BOX haptic system should consult and comply with the user guide enclosed.

Use of this D-BOX haptic system is a risk to hands and feet. Do not put hands or feet underneath the seat or near the haptic system. This may lead to serious injury.

Unplug this device during electrical storms or when unused for long periods of time.

Use of hot liquids in the vicinity of this D-BOX haptic system should always be avoided to prevent spillage which could cause serious injuries to the user.

Do not install near any heat sources such as radiators, heat registers, stoves or any other appliances (including amplifiers).

Do not use this device near water.

Refer all servicing to qualified personnel. Servicing is required when the device has been damaged in any way. For example: if liquid has been spilled or objects have fallen onto it, if it has been exposed to rain or moisture, if it does not operate normally or, it has been dropped.

- Only clean the device with a dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Protect all the cables (USB, network, power, etc.) from being walked on or pinched, particularly at the ends.
- Use only attachments/accessories specified by the manufacturer.

Owners and/or users of this D-BOX haptic system are responsible for the dissemination of this information to all such persons named herein. Each owner and/or user of this D-BOX haptic system agrees to evaluate and bear all risks associated with the use of this D-BOX haptic system for themselves and for any subsequent users of this D-BOX haptic system and any subsequent users of this D-BOX haptic system shall be deemed to be using this D-BOX haptic system under the direct supervision of such owner/user and such owner/user will be deemed to have communicated this advisory to all person described herein.

D-BOX Technologies Inc. is in no way responsible for any damages of any kind arising from the use of this D-BOX haptic system and the owners and/or users of this D-BOX haptic system hereby agree not to hold D-BOX Technologies Inc. responsible for any and all damages of any kind arising from the use of this D-BOX haptic system including, but not limited to direct or indirect, punitive, incidental, special or consequential damages arising out of or in any way connected with the use of this D-BOX haptic system.

# 1. SPECIFICATIONS



## TECHNICAL SPECIFICATIONS

| | |
|---|---|
| **POWER REQUIREMENTS (MAX.)** | 120V, 50/60 Hz, 8A<br>230V, 50/60 Hz, 4.2A |
| **PC CONNECTION** | USB 2.0 or higher |
| **OPERATING SYSTEM** | Windows 10 64-bit (version 1809) or later |
| **HAPTIC SYSTEM** | 4 x G5 haptic actuators (3DoF) mounted horizontally |
| **MAXIMUM STROKE** | 1.5 inch / 38.1 mm |
| **MAXIMUM LIFTING CAPACITY** | 700 lbs (317.5 kg) |
| **MAX ANGULAR DISPLACEMENT** | Roll: +/- 4.5°<br>Pitch: +/- 1.5° |
| **MAXIMUM VELOCITY** | 100 mm/s |
| **MAXIMUM ACCELERATION** | +/- 1 g-force |
| **FREQUENCY RANGE** | 0-100 Hz |
| **OPERATING TEMPERATURE RANGE** | 0°C – 40°C (32°F – 104°F) |
| **OPERATION HYGROMETRY** | 10 to 85% (Free from condensing) |
| **DIMENSIONS** | 68.2" (L) x 34.7" (W) x 5.5" (H)<br>1731mm (L) x 881mm (W) x 140mm (H) |
| **WEIGHT** | 163 lbs (74kg) |

## Dimensions:
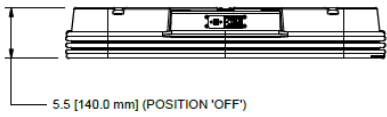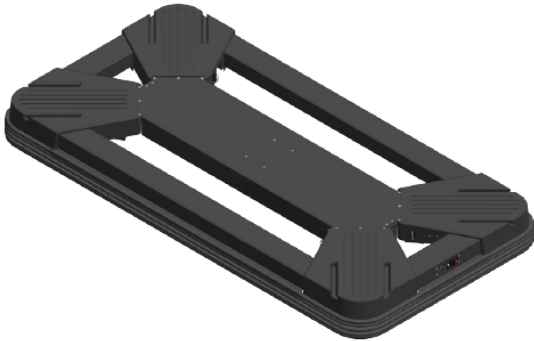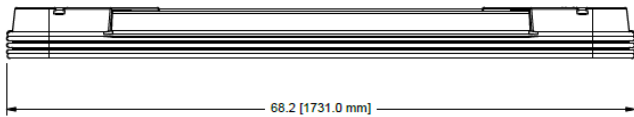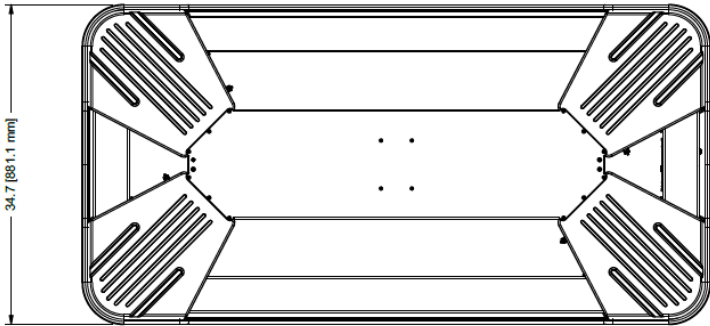
## 2. HARDWARE COMPONENTS



1. Motion platform (factory assembled).

2. **4x** Mounting brackets for bottom support.

3. **4x** Mounting brackets for sofa and furniture mounting.

4. **4x** Mounting brackets for round or square tube–based sim racing chassis.

5. **4x** Mounting brackets for sim racing chassis (aluminum extrusions) with screws.

6. **2x** Hex key wrenches (5mm & 6mm).

7. Power cable & yellow plug lock insert.

8. USB–A to USB–B cable & USB extension.

## 3. UNBOXING

Proceed with the unboxing by following the steps below, ensuring that at least two (2) people are present during any lifting operations for safety. This will help prevent injuries and ensure that the platform is handled properly:
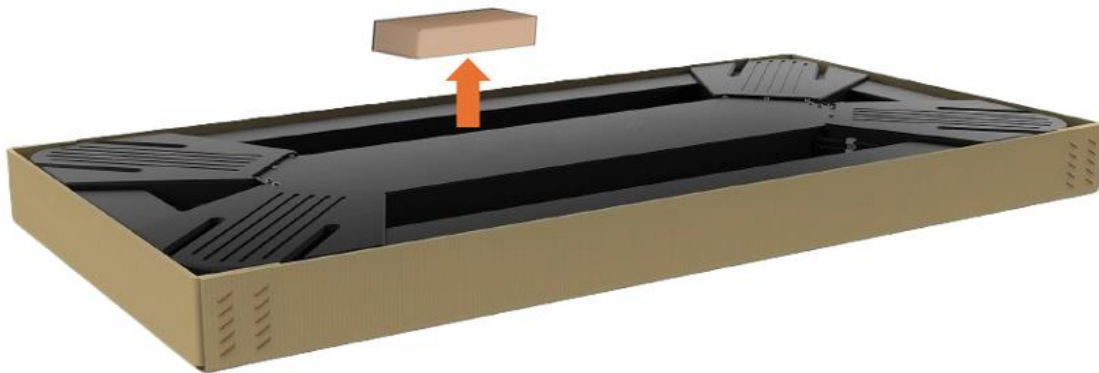
**STEP 1:** Carefully cut the straps using scissors to open the package. Ensure you take your time to avoid damaging any contents inside:
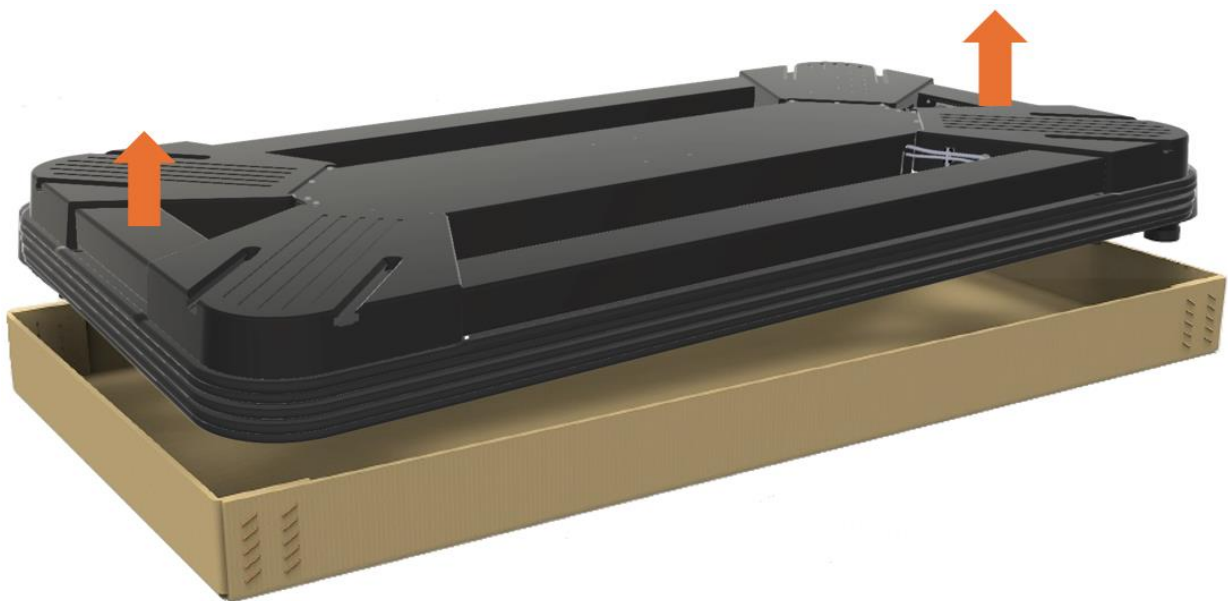


**STEP 2:** Remove the box cover:
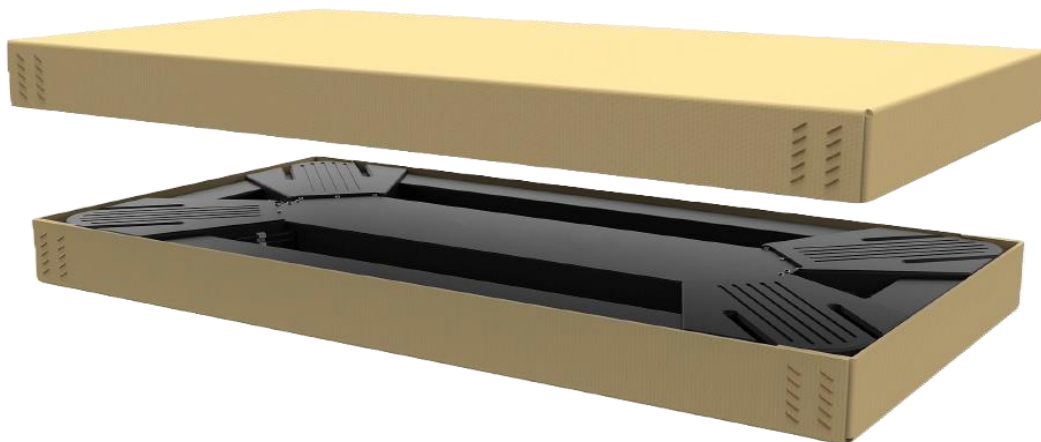
**STEP 3:** Remove the accessory box from the packaging. Once it's out, check to ensure that all items listed in section 2 are included:



**STEP 4:** Remove all the additional packaging and lift the platform:

# 4. ASSEMBLY

The following sections describe how to secure your simulator (2 types) or sofa on your motion platform. Properly securing your equipment is essential for safety and optimal performance. Please follow the outlined steps carefully to ensure everything is in place.

## 4.1 Sim Racing Rig Setup (Aluminum Profiles)

**STEP 1:** Place the platform on a flat surface, ensuring that all four (4) legs are level for optimal operation. **This alignment is crucial for proper functionality and to prevent any potential wear on the components.**

Make sure that the front panel (Power and USB) is oriented to the desired position, as you'll need to connect the platform to your PC (via USB) and to a power outlet. See Section 5 for the wiring diagram.

Front Panel



**STEP 2:** Proceed with the bracket assembly as shown below. Please do not tighten the screws at this time; this will allow for adjustments later in the installation process:

**STEP 3:** Position your simulator on top of the platform, ensuring it is centered. Once it is correctly placed, slide the bracket assembly into the T-channels as shown below:



**STEP 4:** Secure all four (4) brackets to the aluminum side profiles using screws and T-nuts (**not included**). Ensure that everything is tight and stable:
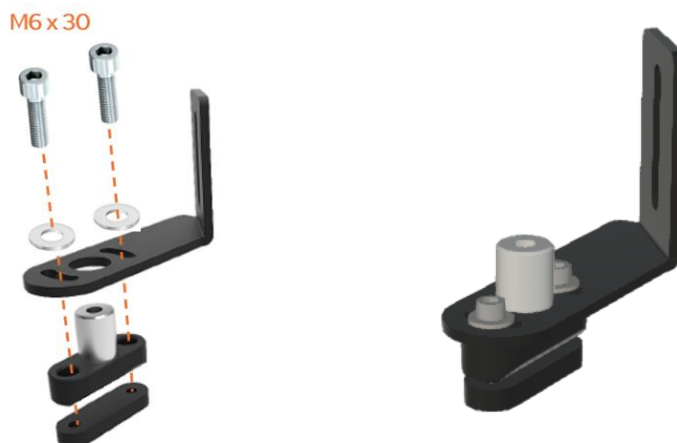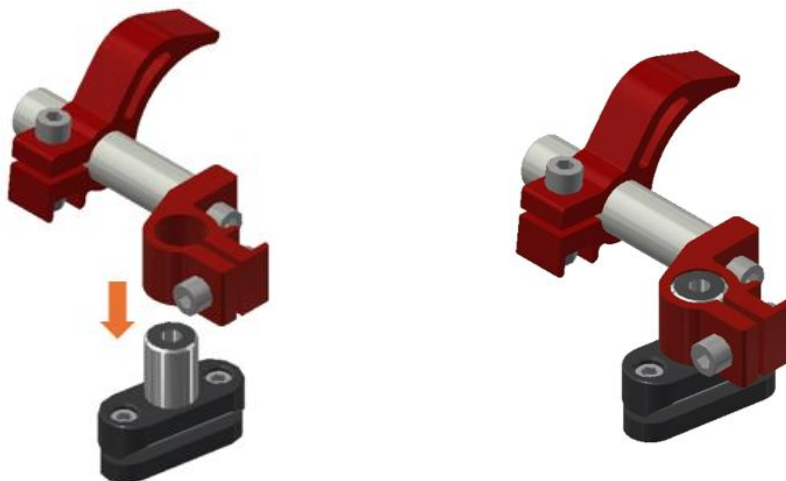
## 4.2  Sim Racing Rig Setup (Round & Square Tubing)

**STEP 1:** Place the platform on a flat surface, ensuring that all four (4) legs are level for optimal operation. **This alignment is crucial for proper functionality and to prevent any potential wear on the components.**

Make sure that the front panel (Power and USB) is oriented to the desired position, as you'll need to connect the platform to your PC (via USB) and to a power outlet. See Section 5 for the wiring diagram.



Front Panel

**STEP 2:** Proceed with the bracket assembly as shown below. Please do not tighten the screws at this time; this will allow for adjustments later in the installation process:

**STEP 3:** Position your simulator on top of the platform, ensuring it is centered. Once it is correctly placed, slide the bracket assembly into the T-channels as shown below:



**STEP 4:** Secure all four (4) brackets to the rig. Ensure that everything is tight and stable:

## 4.3  Home Cinema Setup (Sofa)

**STEP 1:** Place the platform on a flat surface, ensuring that all four (4) legs are level for optimal operation. **This alignment is crucial for proper functionality and to prevent any potential wear on the components.**

Make sure that the front panel (Power and USB) is oriented to the desired position, as you'll need to connect the platform to your PC (via USB) and to a power outlet. See Section 5 for the wiring diagram.
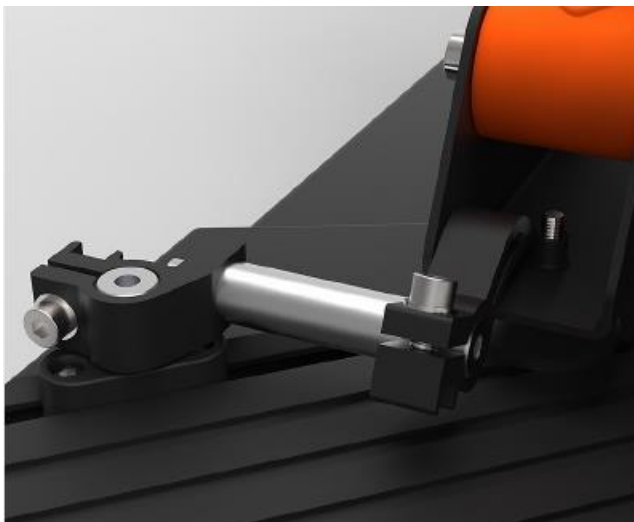
Front Panel



**STEP 2:** Proceed with the bracket assembly as shown below. Please do not tighten the screws at this time; this will allow for adjustments later in the installation process:

**STEP 3:** Position your sofa on top of the platform, ensuring it is centered. Once it is correctly placed, slide the bracket assembly into the T-channels as shown below:



**STEP 4:** Secure all four (4) brackets to the sofa legs. Ensure that everything is tight and stable:
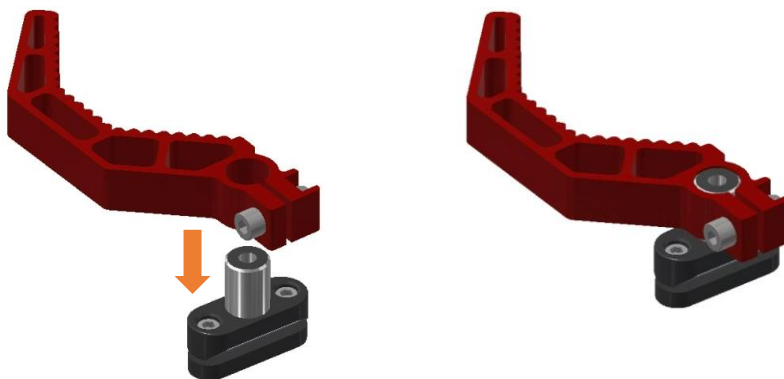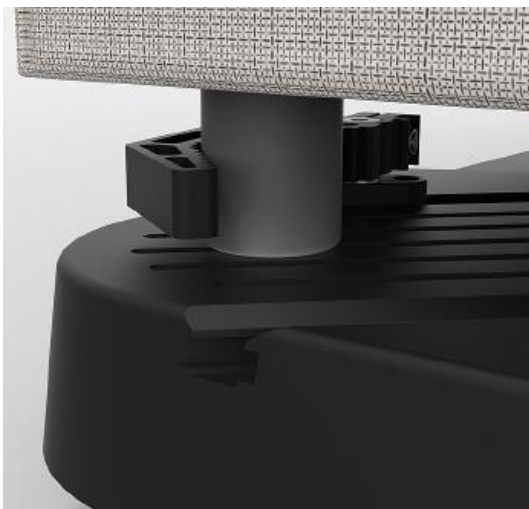
## 5. WIRING DIAGRAM



**STEP 1:** Connect the platform to the PC using the provided USB-A to USB-B cable. If needed, you can use the included USB extension to facilitate the connection.

**Do not connect the platform through a USB hub. Direct connection to the PC is essential for optimal performance and functionality.**

**STEP 2:** Slide the yellow IEC plug lock insert onto the power cable to secure it and prevent disconnection:



**STEP 3:** Connect the power cable to the platform and then to a power outlet. Ensure that the outlet is properly grounded and that the connection is secure:

# 6. CREATE YOUR D-BOX CONNECT ACCOUNT

Create your D-BOX Connect account. This is mandatory for installing and updating haptic codes for D-BOX coded games and accessing haptic codes for movies. Ensure that you complete this step to fully utilize the features of your motion platform.

Here is the link to access the D-BOX Connect website: https://connect.d-box.com/

Follow the on-screen instructions to complete the setup process.

# 7. SOFTWARE INSTALLATION (HAPTISYNC CENTER)

The D-BOX HaptiSync Center is a comprehensive application that allows you to manage and customize all experiences provided by your motion platform.

The D-BOX HaptiSync Center software package includes the system's driver in addition to the following software and utilities:

- D-BOX HaptiSync Center
- D-BOX Adaptive Gaming Configurator
- D-BOX System Monitor
- D-BOX Stimuli Presenter

## 7.1   Minimum System Requirements (PC)

Here are the minimum requirements to run the D-BOX software on your PC:

**Microsoft Windows:** Windows 10 x64 (1809 or later) or Windows 11

**RAM:** 512 MB of free RAM for D-BOX Coded Gaming, plus an additional 1 GB if using D-BOX Coded Video

**Storage:** 850 MB of free space on the drive for D-BOX Coded Gaming, and an additional 23 GB for the D-BOX Coded Video haptic library

**USB Port:** USB 2.0 Full Speed (or faster)

## 7.2 D-BOX HaptiSync Center Installation and Activation

**STEP 1:** Download and install the D-BOX HaptiSync Center software available at:
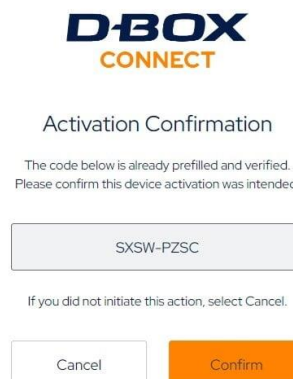https://www.d-box.com/en/software-downloads

**STEP 2:** From the Windows Start menu, open D-BOX HaptiSync Center. In System, HaptiSync Activation, you will see the message "Activation Required", if not already activated:
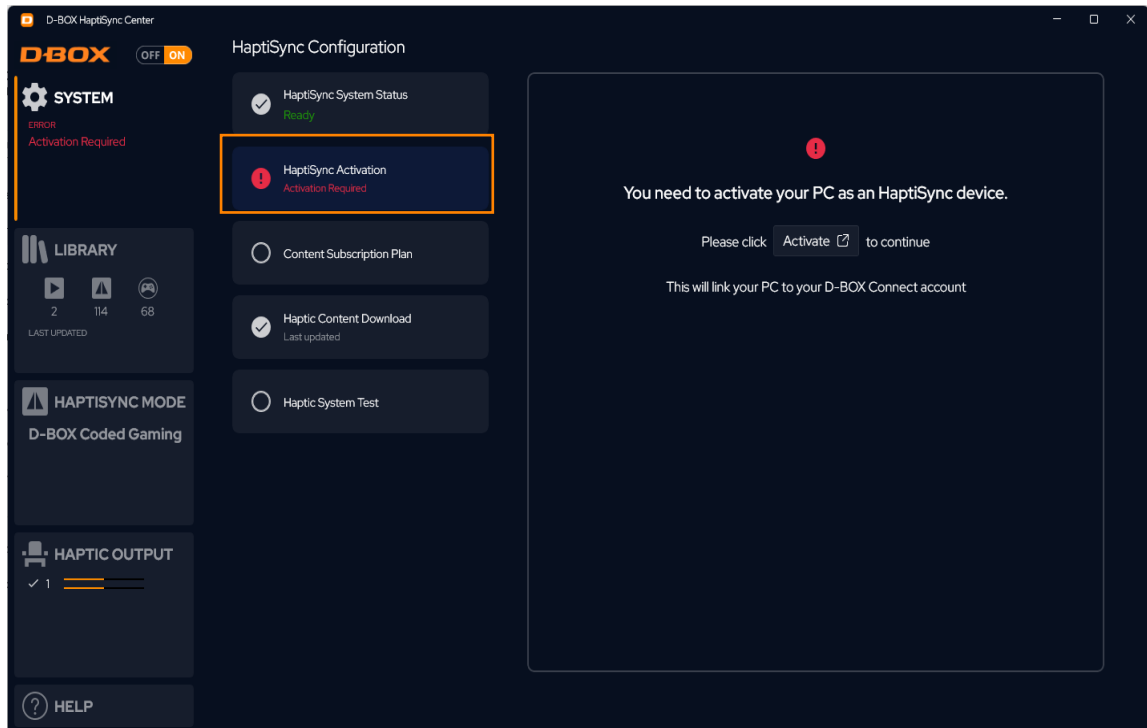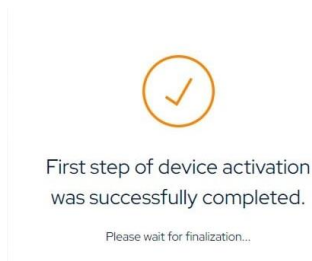


Click on "**Activate**" to activate your PC.

If you have already a D-BOX Connect account, you will see the following screen appear. Click on **Confirm**:

After clicking on 'Confirm,' you will see this message:

First step of device activation
was successfully completed.

Please wait for finalization...

You might need to enter your login and password for your D-BOX Connect account. If you do not have a D-BOX Connect account already, you will be able to create one while activating your PC.

**STEP 3:** Return to the HaptiSync Center. You will see that under **HaptiSync Activation**, your PC is now linked to your D-BOX Connect account.

If you purchased a subscription for the D-BOX Coded Video mode, you will see 'Downloading Content' under Haptic Content Download. Please note that the initial content download may take a couple of hours, depending on your internet speed:
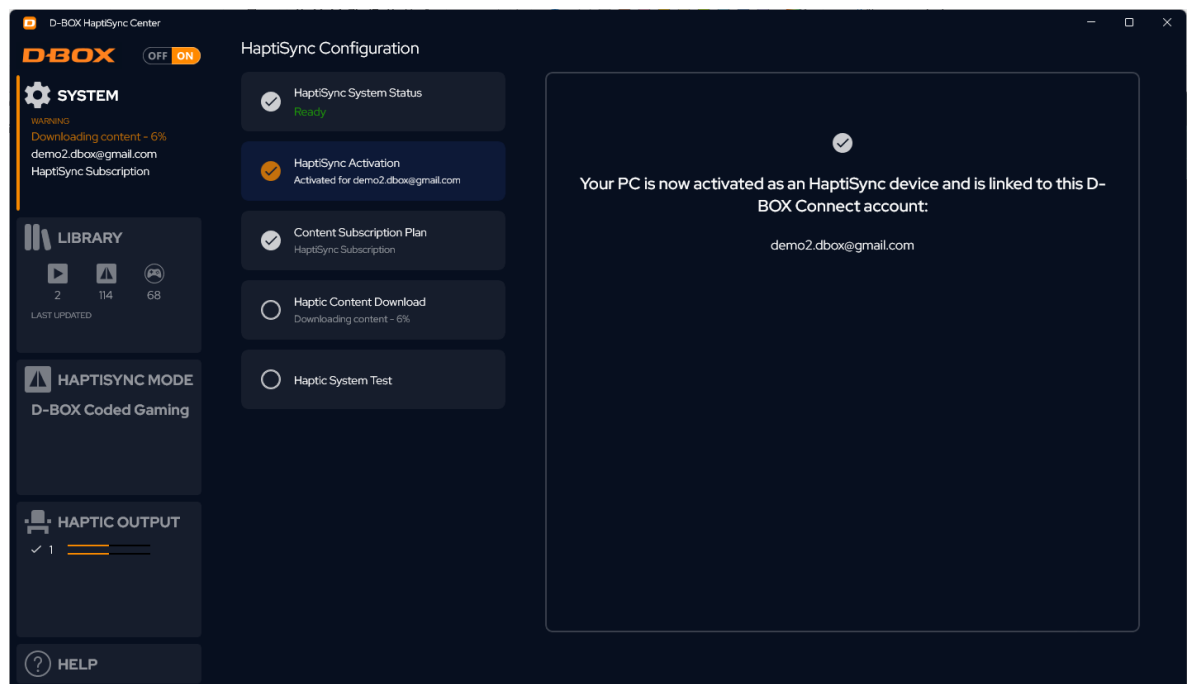


**IMPORTANT:** Please note that a subscription is not required to download and install haptic codes for games. They can be manually downloaded and installed from the Library in the Play section.

Your PC is now linked to your D-BOX Connect account.

## 7.3 D-BOX HaptiSync Center – HaptiSync Modes

There are four (4) HaptiSync modes available:

| | |
|---|---|
| **D-BOX Coded Gaming** | Premium haptic experiences for D-BOX coded apps, simulators & games. Use the Adaptive Gaming mode if your title is not in the list. Visit this page for detailed instructions: https://support.d-box.com/en/knowledge/hsc-dbox-coded-gaming |
| **D-BOX Coded Video** | Premium haptic experiences for D-BOX coded movies and TV shows, using audio synchronization. Visit this page for detailed instructions: https://support.d-box.com/en/knowledge/hsc-dbox-coded-video |
| **Adaptive Gaming** | Haptic experiences based on real-time events from game controller or keyboard. Visit this page for detailed instructions on how to use this feature: https://support.d-box.com/en/knowledge/hsc-adaptive-gaming |
| **Adaptive Audio** | Automated haptic experiences for any movie, music, TV show and games using audio processing: https://support.d-box.com/en/knowledge/hsc-adaptive-audio |

Select your haptic experience in the D-BOX HaptiSync Mode section:
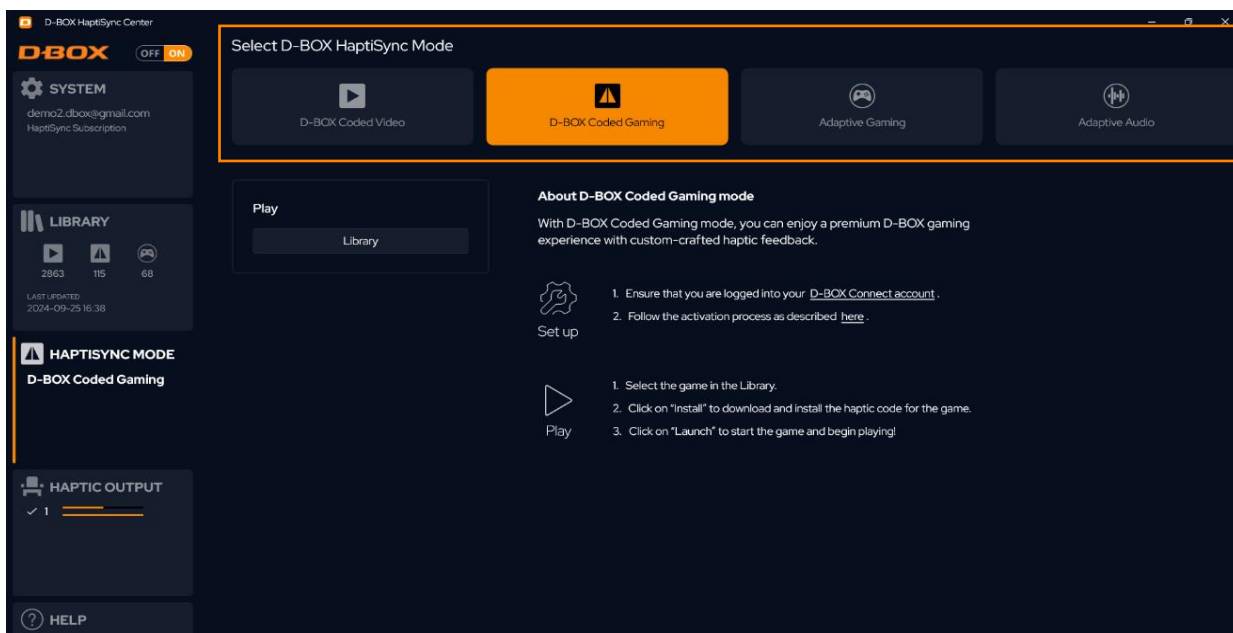


## 7.4  D-BOX HaptiSync Center – Haptic Output section

The Haptic Output section of the D-BOX HaptiSync Center allows you to manage the settings and features related to your motion platform. These settings will apply to all HaptiSync Modes, including all games and movies/series:
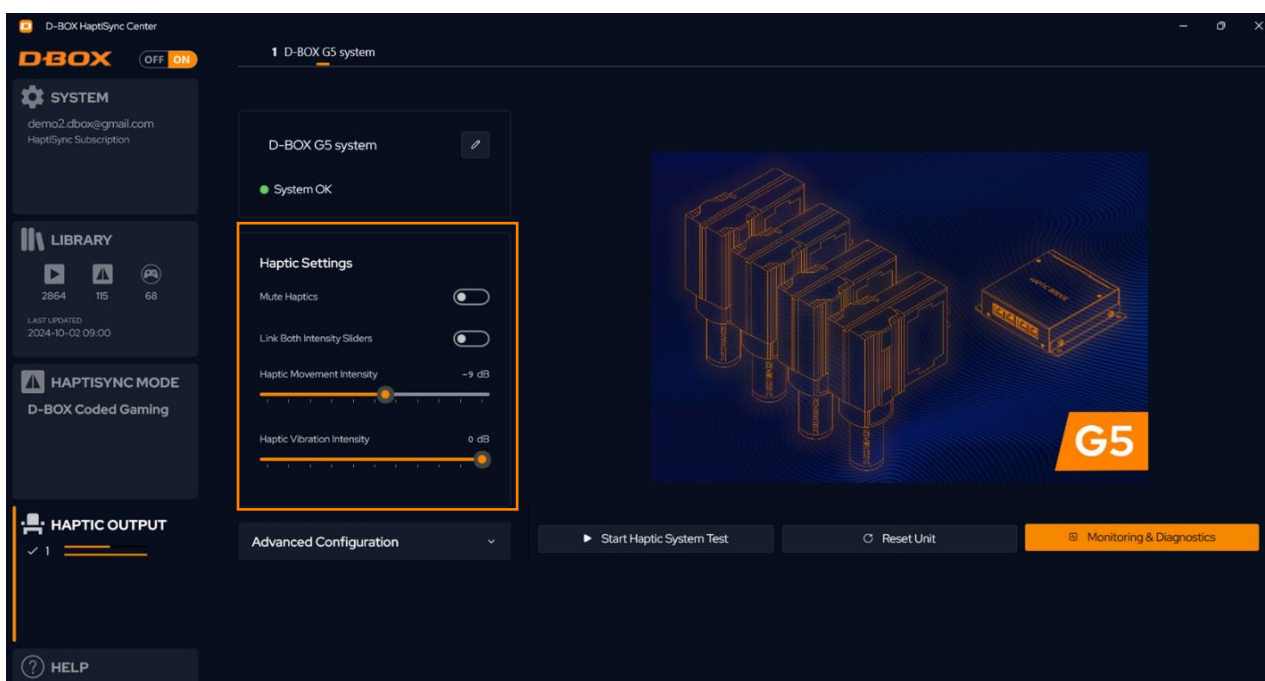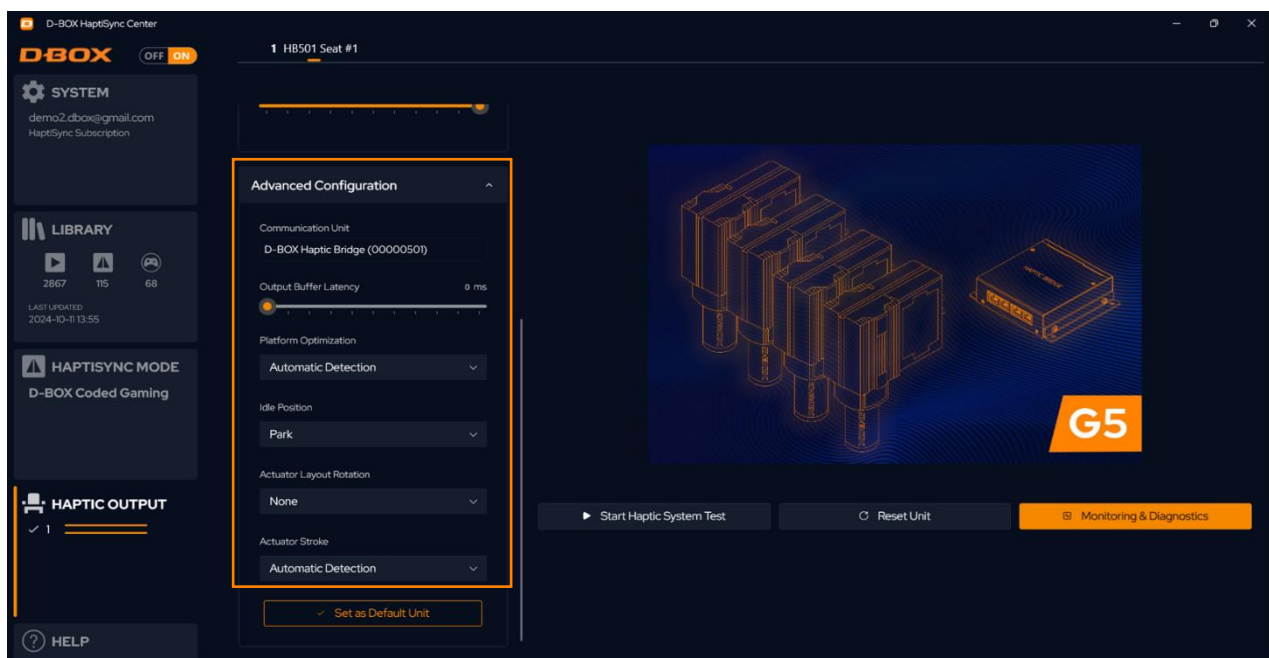
**Mute Haptics:**  Mutes the motion stream sent to the motion platform.

**Link Both Intensity Sliders:**  Links the haptic movement intensity and haptic vibration intensity sliders together.

**Haptic Movement Intensity:** Adjusts the intensity of the movement.

**Haptic Vibration Intensity:** Adjusts the intensity of the vibration.

## Advanced Configuration



**Output Buffer Latency:**  For optimal performance, set the slider to zero. If you notice unexpected "ticks" caused by motion discontinuity, you may need to increase the Output Buffer Latency depending on your computer's performance.

**Platform Optimization:**  Leave this setting at "Automatic Detection".

<u>Idle Position:</u>  Define the idle position after 1 minute of inactivity.

- **Park:** The haptic actuators are not powered, and they will go to the lower position (minimum electrical consumption).
- **Hold Center:** The haptic actuators are powered, and they will go to the middle position.
- **Hold Low:** The haptic actuators are powered, and they and they will go to the lower position.

<u>Actuator Layout Rotation:</u>  This setting allows you to quickly modify the orientation of your motion platform. Here are the available settings:
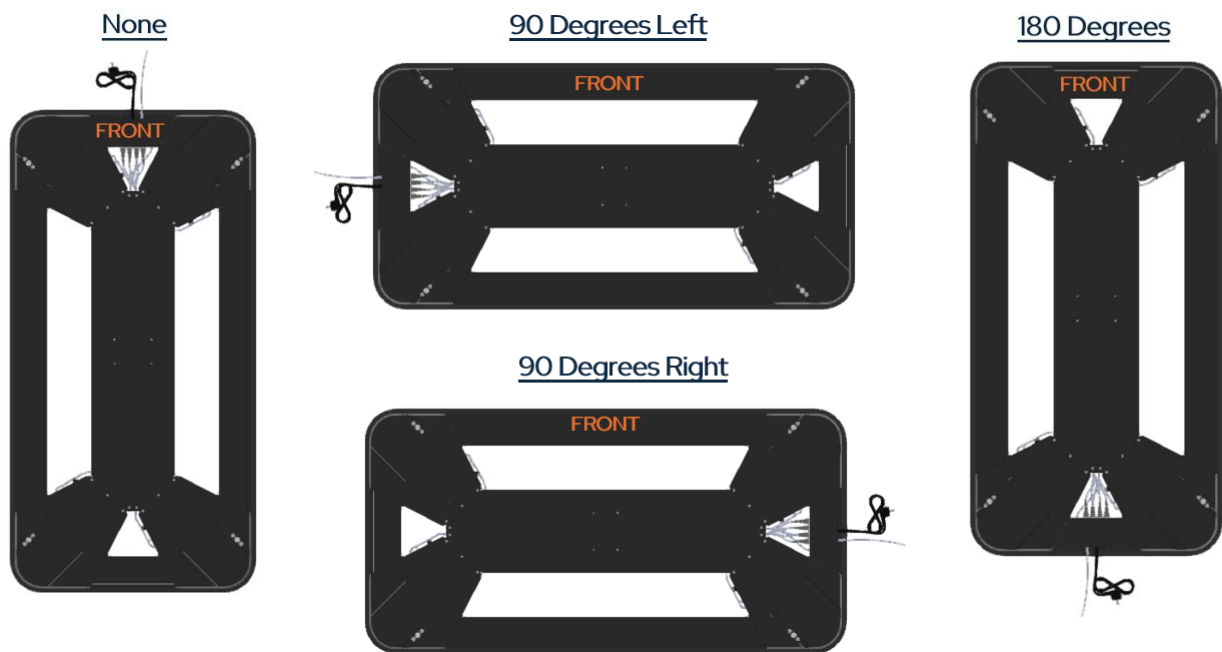


The "**None**" and "**180 Degrees**" settings can be selected for a sim racing rig setup. For a sofa, you can choose the "**90 Degrees Right**" or "**90 Degrees Left**" settings.

<u>Actuator Stroke:</u>  Leave this setting at "Automatic Detection".

## 7.5 D-BOX Adaptive Gaming Configurator

This application allows you to build, modify and activate your Adaptive Gaming profiles. You can also share your favorite profiles with other D-BOX users.
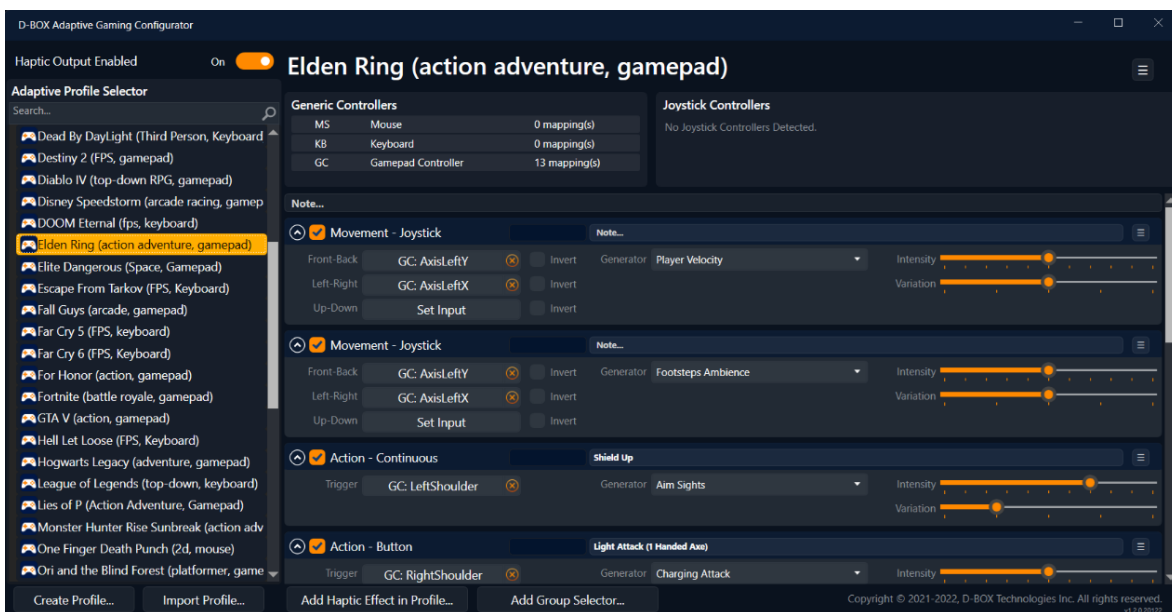


## 7.5.1 D-BOX System Monitor

This application displays live health and operational data for all connected haptic systems. This is useful to troubleshoot your motion platform:
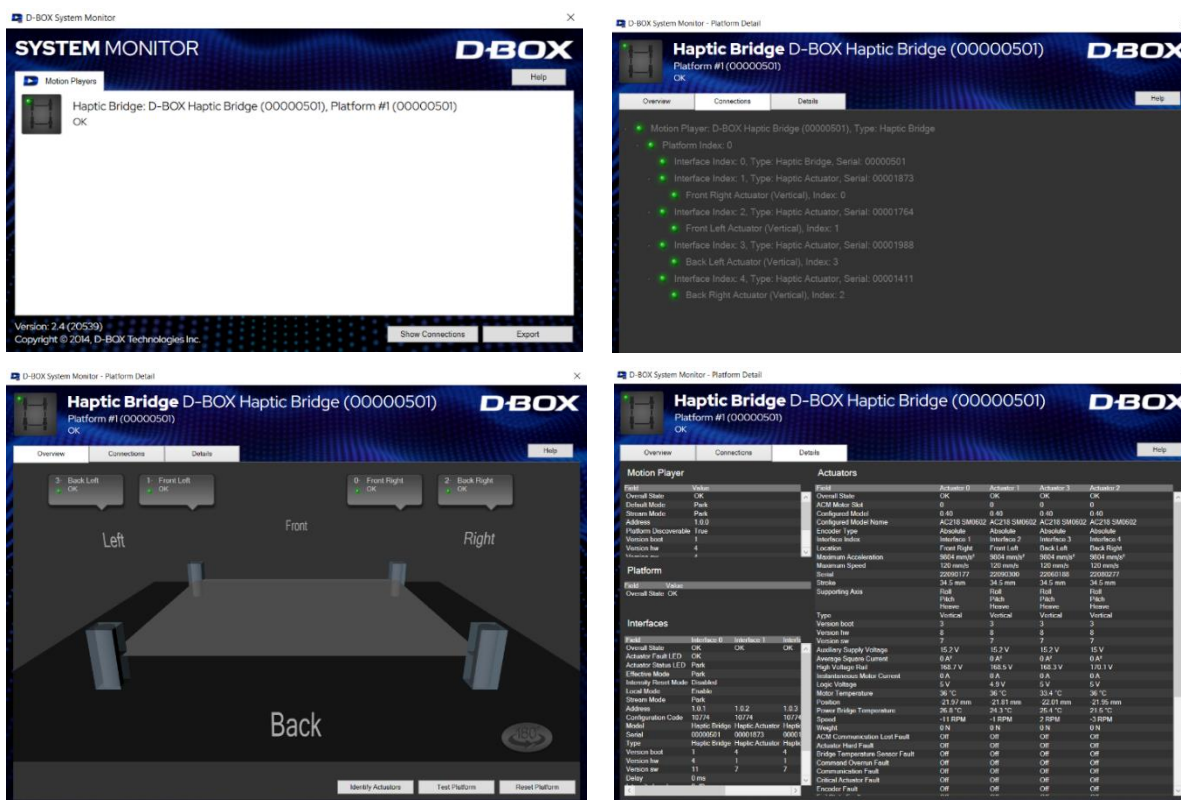
## 7.6   D-BOX Stimuli Presenter

The D-BOX Stimuli Presenter is a keyboard-controlled application that enables you to send basic signals to the motion platform, making it useful for tests and demonstrations. **Please ensure you are in D-BOX Coded Gaming mode when using the Stimuli Presenter**.

```
■ D-BOX Stimuli Presenter
Initializing...
Started

Travel time:   1.0 s.
Ambiance and effect intensity:   0 dB
=== PRESENTER MENU ===

Roll/Pitch TRAVEL DIRECTION   Heave TRAVEL DIRECTION        TRAVEL DURATION
  Left /|\ Right                        Up
   [7] [8] [9]    Forward               /|\                 [-] Decrease
<-[4] [5] [6]-> Center                 arrows               [+] Increase
   [1] [2] [3]    Backward             \|/
        \|/                            Down

[T][Y] Gun effect (front)    [B] Boat ambiance            EFFECT INTENSITY
[G][H] Gun effect (back)     [C] Climb ambiance
[E] Explosion effect         [R] Rumble ambiance           [/] Decrease
                                                           [*] Increase

[I] Sine Generator           [U] Decrease Frequency
                             [O] Increase Frequency
[L] Stop ambiances           [Q] Quit
```

# 8. MOTION PLATFORM OPERATION

Power on your motion platform using the power button. The platform will perform a homing sequence, moving all the way up, then down, and finally centering itself. This is normal behavior.

You are now ready to enjoy an immersive haptic experience!