

MERCEDES-BENZ MOTION PLATFORM USER GUIDE

Mercedes-Benz



DBOX Mercedes Benz



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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 preexisting medical conditions. All such persons should consult their physicians before using this D-BOX haptic system.



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.



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 use this device near water.

- 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.



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.



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



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



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.

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 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° Pitch: +/- 1.5°
MAXIMUM VELOCITY	100 mm/s
MAXIMUM ACCELERATION	+/-1g-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) 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 Ax** 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.



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.



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.



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: <u>https://www.d-box.com/en/software-downloads</u>
- 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**:



DBOX

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



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:

D-BOX HaptiSync Center		- 0	×
	HaptiSync Configuration		
SYSTEM	HaptiSync System Status Ready		
demo2.dbox@gmail.com HaptiSync Subscription	HaptiSync Activation Activated for demo2.dboxggmail.com	Your PC is now activated as an HaptiSync device and is linked to this D- BOX Connect account:	
	Content Subscription Plan HaptiSync Subscription	demo2.dbox@gmail.com	
2 114 68 LAST UPDATED	O Haptic Content Download Downloading content - 6%		
HAPTISYNC MODE	Haptic System Test		
(?) HELP			

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				



D-BOX HaptiSync Center		<u> </u>
	Select D-BOX HaptiSync Mode	
Constraint System	D-BCK Coded Video	D-BCX Coded Gaming Adaptive Gaming Adaptive Audio
	Play	With D. DOV Coded Carries and a usual active accession D. DOV access
	Library	With D-BOX Coded Gaming mode, you can enjoy a premium D-BOX gaming experience with custom-crafted haptic feedback.
LAST UPDATED		1. Ensure that you are logged into your D-BOX Connect account.
2024-09-2516:38		 Follow the activation process as described <u>here</u>.
HAPTISYNC MODE D-BOX Coded Gaming		Set up I. Select the game in the Library. 2. Click on "Install" to download and install the haptic code for the game. Play 3. Click on "Launch" to start the game and begin playing!
(?) HELP		

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:

D-BOX HaptiSync Center	1 D-BOX G5 system			- o x
demo2.dbox@gmail.com HaptSyncSubscription	D-BOX G5 system d • System OK			
LIBRARY 2864 15 68 LIST LIBRARY 2024-10-02 09:00	Haptic Settings Mute Haptics Link Both Intensity Silders			
HAPTISYNC MODE	Haptic Movement Intensity -9 dB 			G5
	Advanced Configuration v	 Start Haptic System Test 	C Reset Unit	Monitoring & Diagnostics
(?) HELP				



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

D-BOX HaptSync Center d									
	1 HB501 Seat #1								
C SYSTEM demo2.dbox@gmail.com HaptSync Subscription	Advanced Configuration								
	Communication Unit								
	D-BOX Haptic Bridge (00000501)								
2867 115 68	Output Buffer Latency 0 ms		Karles S						
LAST UPDATED 2024-10-11 13:55	• • • • • • • • • • •			1012 / 95					
	Platform Optimization			-18×					
APTISYNC MODE	Automatic Detection 🗸 🗸								
D-BOX Coded Gaming	Idle Position								
	Park 🗸			65					
	Actuator Layout Rotation								
	None ~								
✓1 <u></u>		 Start Haptic System Test 	C Reset Unit	Monitoring & Diagnostics					
	Actuator Stroke								
	Automatic Detection								
	Set as Default Unit								
(?) HELP									

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".



Idle Position: 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.

Actuator Stroke: 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.

D-BOX Adaptive Gaming Configurator									- c	; נ	k .
Haptic Output Enabled On Con	Elden F	Ring (action	ad	ventu	re, gar	nepad)					
Adaptive Profile Selector											
Search P	Generic Cont	Neuro		0 manufina		Joystick Controllers					
🔁 🖂 Dead By DayLight (Third Person, Keyboard 📥	KB	Keyboard		0 mapping	(s)	No Joystick Controllers Detected.					
🕿 Destiny 2 (FPS, gamepad)	GC	Gamepad Controller		13 mapping	a(s)						
🞮 Diablo IV (top-down RPG, gamepad)											
🕿 Disney Speedstorm (arcade racing, gamep	Note										A.
Revealed the second sec		ment - lowstick			Note						
Elden Ring (action adventure, gamepad)		nent bystick									
🕿 Elite Dangerous (Space, Gamepad)		GC: AxisLeftY				Player Velocity	·	Intensity	· · ·	1.1	
Rescape From Tarkov (FPS, Keyboard)	Left-Right	GC: AxisLeftX						Variation			
🞮 Fall Guys (arcade, gamepad)		Set Input									
Rar Cry 5 (FPS, keyboard)		an an at the second second									L
🎮 Far Cry 6 (FPS, Keyboard)	Mover	nent - Joystick			Note						
Reference (Action, gamepad)		GC: AxisLeftY				Footsteps Ambience		Intensity			
Reference (battle royale, gamepad)		GC: AxisLeftX						Variation — — — — — — — — — — — — — — — — — — —			
🖂 GTA V (action, gamepad)		Set Input									
Reference (FPS, Keyboard)											
Register (adventure, gamepad)	🔿 🇹 Action	- Continuous			Shield Up						
Reague of Legends (top-down, keyboard)		GC: LeftShoulder				Aim Sights		Intensity	.		
Lies of P (Action Adventure, Gamepad)								Variation 🤤 🤤			
Monster Hunter Rise Sunbreak (action adv											
One Finger Death Punch (2d, mouse)	🔿 🧹 Action	- Button			Light Attack (1	Handed Axe)					
Pori and the Blind Forest (platformer, game 🚽		GC: RightShoulder				Charging Attack		Intensity			-
Create Profile Import Profile	Add Haptic	Effect in Profile	Ac	ld Group Se	lector					reserved	

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:

D-BOX System Monitor		×	D-BOX System Mo	nitor - Platform Detail					×
				aptic Bridge [tform #1 (00000501)	D-BOX Haptic Bride	ge (00	00050	1)	DBOX
Lastia Bridges D. DOX Lightin Bridge	- (00000E01) Distant #1 (00000E	01)	Overview	Connections	Details				Нер
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			Platfol						
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Vieta Da Voctoria Vieta V	Show Const aptic Bridge (00000501)	eters Export × DBOX	D-BOX System Mo	nitor - Matform Detail aptic Bridge [tform #1 (00000501)	D-BOX Haptic Brid	ge (00	00050	1)	× DBOX
ок			ок						
Overview Connections Details		Heb	Overview	Connections	Detoits				Help
3. BackLeft 1. FrontLeft	D. Front Right	2 Birk Rote	Motion Player		Actuators				
s oc	, ok	, ok	Field Overall State	Velue OK	Field Verall State	Actuator 0 OK	Actuator 1 OK	Adustor 3 OK	Actuator 2 OK
	· · · · · · · · · · · · · · · · · · ·		Dehult Mode Stroam Mode	Park Park	ACM Motor Slot Configured Model	0 40	0 0.40	0.40	0 0.40
l off		Right	Platform Discoverable Vanion bost	i True	Encoder Type Interface Index	Absolute Interface 1	Absolute Interfece 2	Absolute Interface 3	Absolute Interface 4
Leit		, ngin	Version hw Museima me		Location Maximum Acceleration	Front Right 9004 mm/s*	Front Left 9004 mm/s*	Deck Left 9604 mm/s*	Dack Right 9004 mm/s*
			Platform		Maximum Speed Sexual	120 mm/s 22090177	120 mm/s 22090300	120 mm/s 22060188	120 mm/s 22080277
			Field Value Overall State: OK		Supporting Axis	34.5 mm Roll Dich	34.5 mm Roll Date	34.5 mm Roll Darts	34.5 mm Roll Dich
					Туро	Heave Vortical	Heave Ventical	Henve Vertical	Hiterve Vertical
			Interfaces		Version boot Version hw				3
			Overall State Actuator Fault LED	ок ок ок	Auxiliary Supply Voltage	152V	152V	152V	15 V
			Actuator Status LED Effective Mode	Park Park	High Voltage Ral	168.7 V	168.5 V	168.3V	1/0.1V
			Intensity Reset Mode Local Mode	Disabled Enables	Logic Voltage Motor Temperature	5V 36 °C	4.9 V 36 °C	6 V 33.4 °C	5 V 36 °C
	D		Address Conference Code	101 102 10 10774 10774 107	Poston Power Bridge Tomperature	21.97 mm 26.8 °C	21.81 mm 24.3 °C	22.01 mm 26.4 °C	21.55 mm 21.5 °C
	Васк	COLUMN A	Model	Haptic Bridge Haptic Actuator Hap 00000501 00001873 000	6 Weight ACM Communication Last Earth	0 N	0 N	0 N	ON CHI
		0	Type Version boot	Haptic Bridge Haptic Actuator Hap 1 4 4	Actuator Hard Fault Bridge Temperature Sensor Fault	OIT	Off	OF OF	or or
			Version hw Version sw		Command Overrun Fault Communication Fault	Off	Off Off	01	Off Off
	Identity Actuators Te	est Platform Reset Platform	Celay Celay	0 ms	Critical Actuator Fault Encoder Fault	Off	Off Off	OF	OF U
						ALC: N		and the second second	



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**.



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!