



CLS-E MK II JOYSTICK.

The Active Force Feedback Joystick you were waiting for!

The BRUNNER CLS-E MK II Active Force Feedback Joystick meets the highest demands of Enthusiast flight simulation. As the newest member of our Control Loading System portfolio of leading drop-in devices, the CLS-E MK II Joystick integrates perfectly into many Flight Simulation environments. Beside Aircraft Solutions, the BRUNNER CLS-E Joystick MK II finds perfect application for military ground vehicles or any other application where a modern stick solution is used for system control. The BRUNNER CLS-E MK II Joystick provides excellent quality, highest fidelity and unique durability at an unmatched price-performance level.

The high dynamic brushless DC motor technology and BRUNNER's Active Control Loading Technology reacts with realistic movements to even finest inputs and offers an excellent artificial feeling!

Compared to the previous version the BRUNNER CLS-E MK II Joystick offers higher peak forces as well as higher stability & flexibility. Beside a Plug&Play™ HOTAS and Virpil grip interface (grip not included), it is also available with an A320 grip or a BRUNNER Jet grip.

Additionally, CLS-E MK II Joystick simulates and represents various functions like autopilot and trim and allows easy and fast installation and setup through a real Plug- and Play capability. Enabled by our CLS2Sim software environment, the CLS-E MK II Joystick communicates easily with commercially available flight simulation software such as X-Plane, MSFS, Prepar3D® and DCS.

Any third party simulation solution connects via a simple TCP/IP or UDP remote interface protocol.



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Features.

- BRUNNER Drop-In: fully integrated, with built-in control unit and 36VDC power inlet (ext. power supply included)
- Simulated effects: engine, ground, turbulence, real trim, autopilot, stall etc.
- Pre-Configured dynamic profiles available (e.g. A320)
- Compatible with all HOTAS and Virpil grips, or available with preinstalled A320 or BRUNNER Jet grip
- Plug & Play (USB or CAN), Ethernet via optional high-speed E2CAN gateway
- Long life brushless DC technology
- Contactless high-resolution position feedback
- Reliable, smooth, backlash and maintenance free design
- No fan, very quiet, highly efficient
- Direct support for X-Plane, FSX, MSFS, DCS and Prepar3D® with BRUNNER CLS2SIM SW, X-Plane plugin for Windows, Linux and Mac.
- Swiss Made
- 2 Years warranty

Specification.

Peak Force	6.8 Nm / 5.01 ft-lb for 35s *
Nominal Force	4 Nm / 2.9 ft-lb *
Travel Pitch	20.5° (HOTAS/JET), 16° (A320)
Travel Roll	20.5° (HOTAS/JET), 19° (A320)
Grip	HOTAS Interface (w/o grip) A320 or BRUNNER JET grip
Interface	USB 2.0 Typ-B / DirectX
Power	300 W peak (no fan)
Operating Voltage	36 VDC
Size	220 x 145 x 143 mm 8.66 x 5.7 x 5.63 in
Weight	3.5 kg / 7.7 lb (w/o grip) 4.5 kg / 9.9 lb (with grip)

*the force values are valid for 30°C case temperature. With higher case temperature the forces could be lower or motor temperature protection can be triggered.



Dimensions.

