

# NEWTON<sup>®</sup>

MOVING TV CAMERAS  
CLOSER TO THE  
ACTION.



**THE NEWTON SYSTEM** enables TV broadcasters to capture steady shots from a variety of moving devices. With reliable gyro-stabilization, unlimited pan and full 4K broadcast compatibility, NEWTON is the preferred control system of remote cameras on 1D/2D/3D cable cams, towers, rails, cranes, jib arms and vehicles.

**NEWTON S2** is a compact, gyro-stabilized, remote controlled camera head. Together with the intuitive and operator praised control of **NEWTON C1**, the system allows for more creative placement and more dynamic movement of cameras in live TV broadcast.

## FEATURES

- ▶ 3 axis stabilization in all angles, with low gyro-drift and reliable auto-horizon performance, both indoors and outdoors.
- ▶ Supports unlimited pan in 4K or 1080p broadcast with genlock and remote camera control.
- ▶ Designed for clean, compact and discreet camera installations.
- ▶ Supports multi-frequency long-range wireless data links or control over cable.
- ▶ Supports cameras and lens control systems from all major broadcast equipment manufacturers.
- ▶ Fast setup and teardown with travel friendly cases and batteries.
- ▶ Optional camera cage with counterweights, for storing camera & lens balanced and ready to quickly mount onto NEWTON S2.
- ▶ Proven on various applications, for several years, at the world's most prestigious broadcast events.
- ▶ Priced to enable outstanding production value.

**WE ARE NEWTON NORDIC FROM SWEDEN.** With proprietary technology we strive to be the best provider of moving camera systems for the world's TV broadcasters. Please reach out for integration of our technology into your broadcast applications. See more at [www.newtonnordic.com](http://www.newtonnordic.com)

**NEWTON<sup>®</sup>**

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**THE NEWTON SYSTEM IS MADE FOR LIVE BROADCAST** where reliable and constant high performance is key. To ensure that every production is successful, NEWTON is sold with training and our dedicated support. Combined with robust and weather protected design, tool and device free handling, ease of transportation and intuitive control, NEWTON has grown popular among service and rental companies around the world. The NEWTON system has since its introduction in early 2016, been used extensively in top tier live broadcast events such as Eurovision Song Contest, Champions League and the Oscars.

**THE NEWTON S2 STABILIZED HEAD** features a passthrough for standardized communication and broadcast signals, enabling it to instantly integrate into broadcast infrastructure and fiber networks. Its ultra-compact design enables installations of remote special cameras in front or overhead of audience, without obstructing the view of spectators nor other cameras.

**THE NEWTON C1 CONTROLLER** offers high-precision control of the NEWTON heads as well as Fujinon, Canon and Teradek RT lens motors. It is made for long broadcast sessions and is highly appreciated by operators for its ergonomics, customizability and intuitive control feel. Between its comfortable wrist rests it features a joystick, focus wheel, iris knob, zoom rocker and start/stop button for film cameras. The large high-resolution display supplies real-time gimbal, camera and lens data and lets the operator define the input functions of all buttons and knobs. Introduced to the market in 2015, NEWTON C1 has set a new industry standard in design and functionality.

**THE PROPRIETARY STABILIZATION AND CONTROL** technology generates low drift, precise control and high data accuracy, making NEWTON future proof for the growing demand for augmented reality and motion control applications in live broadcast. NEWTON's firmware is under constant improvement and new features are released regularly. Together with a passthrough supporting fiber-optic communication, NEWTON S2 will match the latest broadcast demands for years to come.

# NEWTON S2 STABILIZED HEAD

## PHYSICAL

## DIMENSIONS

Mounted size (approx):  
410 x 285 x 380 mm (HxWxD).  
Packing size:  
390 x 170 x 350 mm (HxWxD).

## MATERIAL

Machined aluminum.

## WEIGHT

6.7 kg empty.  
7.2 kg with camera mount and dove tail.

## ROTATION SPECIFICATION

Pan rotation: unlimited.  
Tilt: +45/-135 degrees.  
Roll: +/-45 degrees.

## MAX ROTATION SPEED

360 deg/sec.

## MOUNTING

Mitchell mount or cheeseplate.  
Mounted over-slung & under-slung.

## DISPLAY

2.4" TFT-LCD Color (320 x 240).

## ENVIRONMENTAL

## PROTECTION

Dust and water protected.

## TEMPERATURE RANGE

-20 °C to +45 °C (-4 °F to 113 °F).

## POWER

## INPUT SUPPLY

24–36 V DC.  
12-24 V with reduced power.

## BATTERY

2 x battery (14.4 V).

## POWER CONSUMPTION

Standby: approx. 15 W.  
Average: approx. 35 W.

## POWER OUTPUT

Mounting point:  
15 V regulated 30 W.  
Camera:  
15 V regulated, up to 150 W.

## CONTROL DATA LINK

## WIRELESS

2.4000-2.4835 GHz frequency  
hopping spread spectrum.  
Supports other frequencies via third  
party links.

## WIRELESS RANGE

Up to 1000 m.

## WIRED

Ethernet UDP.

## INTEGRATION

## CINEMA CAMERA RUN/STOP

RED Epic/Dragon/Weapon.  
ARRI Alexa Mini.  
Others via RTMotion Lens control.

## LENS CONTROL

Canon Broadcast lenses.  
Canon Cine-Servo.  
Fujinon Broadcast lenses.  
Teradek RT MK3.1.

## MOUNTING POINT CONNECTORS

1x 3G-SDI or ST-UPC single mode fiber  
passthrough.  
1x HD-SDI passthrough.  
1x Ethernet control.  
1x Ethernet camera passthrough.  
1x Power in.  
1x Power out.  
1x CAN bus (IA-CAN).

## CAMERA CONNECTORS

1x 3G-SDI or ST-UPC single mode fiber  
passthrough.  
1x HD-SDI passthrough.  
1x Ethernet camera passthrough.  
1x Power out.  
1x CAN bus (IA-CAN).

## SOFTWARE UPGRADE

Via CAN bus (IA-CAN).  
(Mac OS X, Windows)

# NEWTON C1 CONTROLLER

## DIMENSIONS

396 x 209 x 115 mm.

## MATERIAL

Machined Aluminum.

## MOUNTING

100 mm NATO accessory rail.  
Tripod mount.  
Neck strap and harness attachment rail.

## CONNECTORS

2x IA-CAN connectors.  
2x Power out.  
1x Power in.  
1x SD-card.  
1x USB.  
1x Ethernet control.

## WEIGHT WITH BATTERY

3.3 kg / 7.3 Lbs.

## DISPLAY

5" TFT-LCD Color (800 x 480).

## POWER INPUT SUPPLY

12-24 V DC.

## POWER CONSUMPTION

5 W.

## POWER OUTPUT

External supply voltage  
(12-24 V) or;  
battery voltage  
(14.4 V nom), Max 2.5 A.

## BATTERY

Integrated 14.4 V Li Ion.

