

# *MagNum – The ergonomic lightweight lens control.*

The field-proven lens control system



Outstanding ergonomics and the lightest weight for a long, yet fatigue-free day of shooting. An absolutely reliable function through dual-band frequency selection, an intuitive, menu-driven operation and an unbeatable price-performance ratio along with many intelligent detail solutions make the MagNum unique.

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## Optimized in cooperation with actual users

This wireless remote control system was ergonomically and functionally optimized in cooperation with actual users. It is offered in three variations: the basic model with one motor channel (MN-101), a two-motor channel version with an upgrade option for a slider, not included with the hand unit (MN-150), as well as the fully equipped 2-motor channel version (MN-200). Additional modules expand the MN-150 or MN-200 with up to two other motor channels, and enhanced broadcast capabilities

## The Hand Unit



## Modules for up to 4 motor channels and for broadcast

With the concept of extension modules, Chrosziel offers innovation with MagNum. The MagNum Extension Module Motor and Lens Port (MN-EXT-MOT-LP) offers up to 3-motor channels and a camera lens port interface for universal use in Cine and Broadcast applications. The Extension Module Motor (AL2-EXT-MOT) rates the MN-200R on up to 4 motor channels for 3D or Specialty application users.



- Mounting of the extension module onto the extension interface slot of the MN-200R
- Extension module MN-EXT-MOT-LP with 1x motor channel and 1x camera 12-pin Hirose interface for full broadcast capabilities (video return and talkback switching, Iris RCP control, focus, iris and zoom follow voltage)
- Extension module AL2-EXT-MOT with two additional sockets for digital encoder motors (2x 7-pin Lemo)

\* MN-EXT-MOT-LP only

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## The three models at a glance

	MN-101	MN-150	MN-200
<b>User-optimized ergonomically hand unit</b>	✓	✓	✓
Left-handed mode through a symmetrical case	✓	✓	✓
Compact dimensions for both hand unit and receiver	✓	✓	✓
<b>Light weight (262 g two-channel receiver and 577 g)</b>	✓	✓	✓
Transmits via the worldwide shared 2.4 GHz-frequency band	✓	✓	✓
Menu-driven, intuitive operation via touch keys and color OLED display	✓	✓	✓
Multilingual display	✓	✓	✓
4 user-defined hotkeys	✓	✓	✓
Spectrum analyzer visualizes interfering frequencies to select the best transmission channel	✓	✓	✓
Remote Motor calibration from hand unit, also possible locally from receiver	✓	✓	✓
Support for photo lenses (manual motor calibration)	✓	✓	✓
Motor performance reinforced by internal booster to 30 V and adjustable	✓	✓	✓
Display of Metadata	✓	✓	✓
A fluid damped hand wheel	✓	✓	✓
Socket for connecting a gooseneck lamp to the hand unit	✓	✓	✓
Motor position and end stops stay in place following change of battery	✓	✓	✓
Spread a variable adjustment range of the lens by rotating the hand wheel	✓	✓	✓
Scale disc or scale ring (optional)	✓	✓	✓
Recording start / stop signal for the camera (optional cables required)	✓	✓	✓
USB-interface for updates	✓	✓	✓
Battery level indicator in the hand unit display	✓	✓	✓
Voltage supply indicator of the receiver on hand unit display	✓	✓	✓
5x ¼" screw thread on the hand unit	✓	✓	✓
Widely available Sony FM50 / 55 Li-Ion rechargeable battery in the hand unit	✓	✓	✓
Hand strap and padded neck strap	✓	✓	✓
<b>Dual-band system, sends in 430 MHz (5 channels) or in 2.4 GHz frequency band (11 channels)</b>		✓	✓
Combined socket for simultaneous connection of analog focus and zoom rear camera operations (Demands)		✓	✓
VariFluid, adjustable fluid damping in the hand wheel		✓	✓
VariLock II function, two freely adjustable mechanical end stops on the hand wheel		✓	✓
Mechanical brake within the hand wheel		✓	✓
Direct cable connection between the hand unit and the receiver via serial port makes hassle-free long distance operation possible		✓	✓
<b>Direct control of servo lenses (e.g. Cabrio- or ENG lenses)</b>		✓	✓
Support of Distance-Measurement and Auto-Focus Devices (CINE-TAPE etc.)		✓	✓
Antenna socket for the MHz range		✓	✓
Extension interface for extension modules like the third and fourth motor channel and camera Hirose 12-pin interface		✓	✓
DMX input to the hand unit e.g. for remotely controlling a head light on the receiver		✓	✓
Hermetically sealed slider for adjusting the aperture		(✓)	✓
Removable iris-scale made of aluminum, can be written upon on both sides		(✓)	✓
Two adjustable, mechanical end stops for the slide on the slide control		(✓)	✓

(✓) Included in the Upgrade Kit MN-150 (MN-200UP)

## MagNum MN-200



SteadyCam use at the 2014 FIFA World Cup in Brazil

## MagNum systems in comparison



<b>Model</b>	MN-101	MN-150	MN-200
<b>Motor channels</b>	1	1 (up to 4 possible)	2 (up to 4 possible)
<b>Transmitter</b>	MN100T	MN150T	MN200T
<b>Receiver</b>	MN101R	MN200R	MN200R
<b>Frequencies</b>	11x GHz	11x GHz + 5x MHz	11x GHz + 5x MHz
<b>Antennas</b>	Integrated (GHz)	2x BNC (MHz) and integrated (GHz)	2x BNC (MHz) and integrated (GHz)

The **MN-150** can be upgraded to the **MN-200** with the Upgrade Kit **MN-UP200**

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## MagNum MN-150 and MN-200

The Hand Units MN-150 and MN-200 each have a hand wheel with two adjustable stops (Vari-Lock II), adjustable fluid damping (VariFluid), a mechanical brake and the optional inclusion of scale discs or rings. The standard system contains the large-scale ring.



## Refined bracket

The optional belt holster MN-HOL attaches the hand unit securely to your belt. This means the focus assistant can safely perform without getting stuck or swinging off of the hand unit and the hand unit itself is close at hand.



## Mounting options

On any hot or cold shoe socket, the cold shoe bracket MN-RMB1 secures the Magnum receiver. Instead of the camera hot shoe socket, the receiver can be mounted laterally on Ø 15 and 19mm rods on the Quickfit 15/19mm MN-RMB2 with the cold shoe connection.

Alternatively, the articulating arm with ¼" screw threads 550-RA can be bolted directly to the receiver or be removable mounted in combination with the cold shoe connector adapter 550-RA-BU to the cold shoe bracket MN-RMB1 of the Magnum receiver.



Cold shoe bracket for Magnum Receiver (MN-RMB1)



Quickfit 15/19mm Cold Shoe Receiver (MN-RMB2)



Articulating arm Rambo (550-RA)



Cold shoe for articulated arm (550-RA-BU)



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## MagNum Kits ready to shoot

All kits include motor cables, a power cable with D-Tap connector (4-pin XLR in MagNum KIT Broadcast) and a high-quality carrying case with foam insert (except MN-ACKIT). Included as well are motors with gears 0.8 + 0.5 + 0.4 and a mounting clamp for Ø 19mm and 15mm rods. Additional kits are available without motors or with betz-tools motors.

### MagNum KIT 1-Channel Heden (MN-101KIT-M)



Kit also available without motor (MN-101KIT-0)

### MagNum KIT 1-Channel Extendable Heden (MN-150KIT-H)



Kit also available without motor (MN-150KIT-0)

### MagNum KIT 2-Channel Heden (MN-200KIT-H)



Kit also available without motor (MN-200KIT-0)

### MagNum KIT 3-Channel Heden (MN-300KIT-H)



Kit also available without motor (MN-300KIT-0)

### MagNum KIT Broadcast (MN-300KIT-BC-H)



Kit also available without motor (MN-300KIT-BC-0)

### MagNum KIT Convenience Accessory (MN-ACKIT)

The accessories Kit offers convenience for long shooting days and includes a price advantage. It comprises the scale illumination LED (SI), the belt holster (MN-HOL) and a battery (MN-BAT).



LTR: SI, MN-BAT, MN-HOL.

