

# User Manual

HGN-4 2D remote controlled head is a device designed for precise rotation of the camera or photo camera in X-axis and Y-axis.



## Slide Kamera HGN-4 2D Remote Controlled Head



Pdf version of the manual available for download: [www.slidekamera.eu](http://www.slidekamera.eu)

Before you start your work with Slide Kamera HGN-4 2D remote controlled head we strongly recommend to read the manual carefully.

**Please note that using the head in a manner inconsistent with the manual can cause damage or malfunction the manufacturer is not responsible for.**

## Table of contents

1. Elements of HGN-4 2D head.....	2
2. Construction.....	2
2.1. HGN-ST controller.....	2
2.2. Head.....	3
3. Mounting.....	3
3.1. Mounting remote controlled head on devices equipped with 3/8", 1/4" thread.....	3
3.2. Mounting remote controlled head on camera cranes equipped with 75mm/100mm socket.....	4
3.3. Mounting accessories and cabling system.....	4
4. Working with HDN-1 2D remote controlled head.....	5
4.1. Joystick.....	5
4.2. SPEED knobs.....	5
4.3. REVERS buttons.....	5
4.4. RAMP knobs.....	5
4.5. SAVE buttons (memory banks).....	6
5. Technical Specification.....	6
6. Maintenance and operation.....	6
7. Terms of warranty.....	7

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# 1. Elements of HGN-4 2D head

Once the shipment is received please make sure that all the components of HGN-4 2D head are inside.

## The set includes:

- ☑ HGN-4 2D remote controlled head [1]
- ☑ HGN-ST controller [2]
- ☑ 5m steering cable [3]
- ☑ 1/4" camera head screw [4]
- ☑ 3/8" camera head screw [5]
- ☑ AC adapter [6]
- ☑ CSK-HGN-4 transport case [7]



**NOTE:** 12V 7Ah battery with a charger is not a part of HGN-4 2D head. Please purchase separately.

# 2. Construction

## 2.1. HGN-ST controller

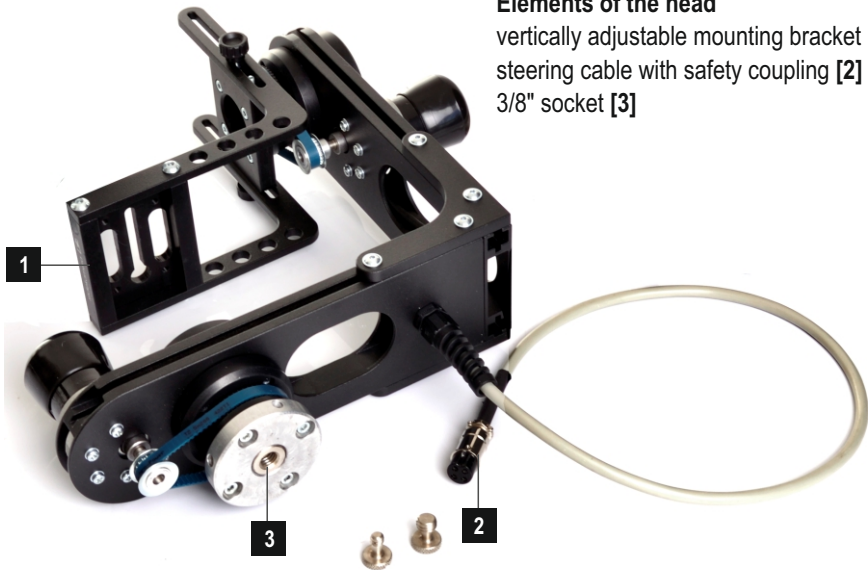
Joystick and the knobs are located on the front panel of the controller. Electric connectors sockets and the power switch are located on the side wall of the controller housing.

- joystick [1]
- SAVE buttons [2]
- REVERS buttons [3]
- RAMP knobs [4]
- SPEED knobs [5]
- power switch [6]
- motors socket [7]
- power socket [8]
- 1/4 mounting hole [9]



## 2.2. Head

Thanks to the use of worm gears and steering that maintains steady speed regardless of the load, the head does not require precise balancing. Mounting bracket moves up and down, allowing to set the accessories in the rotation axis of the head. Mounting slot allows to move the accessories forward and backward. Accessories are mounted on the mounting bracket with the use of 1/4" lub 3/8" screws. To connect the head with the controller use the cable with the safety coupling. The safety coupling disconnects the cable in case it wraps around the axis of the head thus preventing it from damage. There is a 3/8" hole in the head base to mount it on other devices equipped with 3/8" screw, such as camera cranes, tripods.



### Elements of the head

vertically adjustable mounting bracket [1]

steering cable with safety coupling [2]

3/8" socket [3]

## 3. Mounting

### 3.1. Mounting remote controlled head on devices equipped with 3/8", 1/4" thread

HGN-4 2D remote controlled head can be directly mounted on any device equipped with 3/8" screw. In case of device equipped with 1/4" screw you can use for instance Slide Kamera AF-5 3/8" i 1/4" reduction set

**There is a set of mandrels in AF-5 reduction set:**

AF-6 1/4"-3/8" reduction screw [1]

AF-11SL reduction 1/4"-3/8" mandrel [2]

AF-12SL reduction 3/8" mandrel [3]



**NOTE:** Reducton is not a part of HGN-4 2D head. Please purchase separately.

## 3.2. Mounting remote controlled head on camera cranes equipped with 75mm/100mm socket

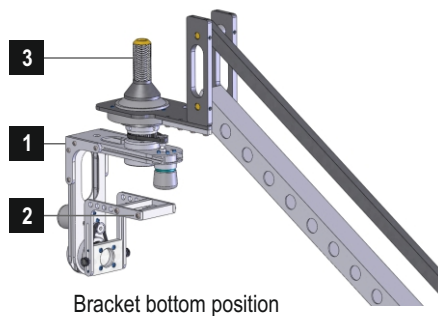
HGN-4 2D remote controlled head can be mounted on camera cranes equipped with 75mm/100mm bowl with the use of leveling half ball or rigidly, with the use of Slide Kamera HSZ-2 quick mounting screw.

### Examples of mounting the head on the crane equipped with 75mm socket.

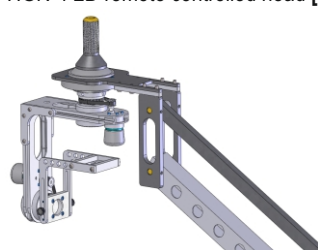
Manfrotto 520 BALL leveling half ball [1]

Camera crane bracket with 75mm socket [2]

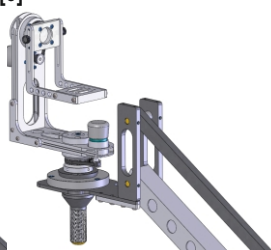
HGN-4 2D remote controlled head [3]



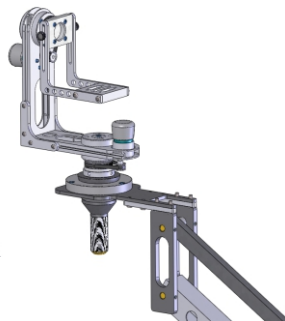
Bracket bottom position



Bracket bottom position  
head on the top



Bracket upper position  
head reversed



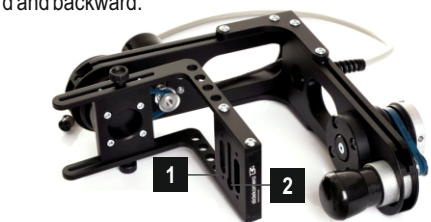
Bracket upper position

## 3.3. Mounting accessories and cabling system

Photo camera / camera is mounted on the mounting bracket [1] equipped with a mounting slot for 3/8" and 1/4" screws [2]. Mounting bracket moves up and down, allowing to set the accessories in the rotation axis of the head. Mounting slot allows to move the accessories forward and backward.

1/4" camera head screw [3]

3/8" camera head screw [4]



HGN-4 2D head is connected with the controller with a steering cable equipped with safety coupling. The safety coupling disconnects the cable in case it wraps around the axis of the head thus preventing it from damage.



Cables that run between remote controlled head and the controller or cables that control the camera/photo camera are attached to arm of the crane with velcro straps.



Camera head is powered by plugging the adapter into the socket on the HGN-ST controller

## 4. Working with HGN-1 2D remote controlled head

To operate the head use the controller connected to the head by steering cable.

### Basic features of the HGN-4 ST controller:

- intuitive controls
- speed of the rotation is linearly proportional to the joystick deflection
- smooth change of speed
- movement direction changes with one button
- smooth regulation of gentle start/ stop
- possibility to disable the gentle start
- 3 memory banks to store and playback the motion ( Bank1 - 6min 40s, Banks 2 and 3 – 3min 20s)
- possibility to playback the recorded motion and mix it with joystick
- stores recent settings and recorded motion after switching off the power.

### 4.1. Joystick

Linear deflection of the joystick corresponds to head rotation speed in a given axis thus making the steering easy and intuitive.

### 4.2. SPEED knobs

In order to change the set point speed use the SPEED knob. Turning the knob right increases speed and corresponds to the maximum deflection of the joystick. Turning the SPEED knob maximally to the left results in turning off the given axis (REVERS button light switches off)

### 4.3. REVERSE buttons

In order to change the direction of the rotation use REVERS buttons. Pushing the button for a moment changes the direction of the rotation for a given axis (button light changes from green to red or vice versa). Pushing the REVERS button for a longer time (>0,7s) either enables or disables the gentle start for a given axis. Disabling gentle start is signalized by REVERS button flashing.

### Possible options of REVERS buttons lights:

- turned off – given axis is disabled
- green/red light on – given axis is active, gentle start enabled
- green/red light flashes – given axis is active, gentle start disabled

### 4.4. RAMP knobs

Use the RAMP knobs to change gentle start/stop. Turning the knob right extends time of the gentle start/stop (maximum acceleration for a given axis reduces). In order to achieve gentle stop let go of the joystick when the head is in motion (the joystick comes back to the neutral position).

**NOTE!** Deflecting joystick in the opposite direction will terminate the gentle stop (the head will instantly stop and start to rotate in the opposite direction).

## 4.5. SAVE buttons (memory banks)

The controller is equipped with three memory banks that allow to store and playback the information about the motion. Every memory bank stores three movements of both axes. Maximum recording times are respectively 6m 40s, 3m 20s, 3m 20s. The recordings are stored in permanent memory (they are not deleted after the power is switched off or the safety coupling is disconnected).

To activate a recording from a particular memory bank hold the appropriate SAVE button for a moment (>0,7s) (button light flashes). The recording starts when the joystick leaves the neutral position. Pushing the flashing SAVE button again ends the recording.

To playback the movement push the appropriate SAVE button (the light turns on). It is possible to correct the speed range (SPEED knob) and to set the speed with the use of joystick (so called mixing) during the playback. Pushing the appropriate SAVE button again ends the playback.

### Possible options of SAVE buttons lights:

- turned off - memory bank disabled
- turned on – playingback the stored movement
- flashes – recording the movement

## 5. Technical specification

Head weight	1,8 kg
Head size	265 x 100 x 278 mm
Head load capacity	4 kg
Maximum size of the camera / photo camera	width: 140mm height: 180mm
Range of the head rotation angles in the X-axis and Y-axis	N x 360°
Maximum rotation speed	~30°/s (180°/6s)
Supply voltage	7..14,4V 15W
Battery working time 12V 7Ah	min. 10h
Operating temperature range	10-40°C
Recommended relative humidity	up to 90%

Unauthorized repair attempts or any kind of modification of the drive can cause a damage the manufacturer is not responsible for.

## 6. Maintenance and operation

The crane does not need any additional service or lubrication of the components. Maintenance procedures are reduced to keeping the equipment clean.

## 7. Terms of warranty

All Slide Kamera products are covered manufacturer's warranty for a period of 12 months from the date of sale. Warranty covers any design faults or of the material of the product which resulted in the product malfunctioning. The warranty covers the repair, or, if the repair proves impossible, replacement of the product with a new one. However, the cost of replacing the product cannot overrun the catalogue value of the product. The warranty does not cover damage and / or product defects resulting from the improper usage, as well as not following product maintenance specifications.

### The warranty excludes:

- unauthorized attempts to repair or modify
- mechanical damage caused during transport and operation of such features, scratches, dents, pits, dirt, etc ...
- flooding, moisture

To obtain warranty service the purchaser should deliver the damaged product together with a proof of purchase and proof of payment (invoice, cash register receipt). After the warranty period is exceeded any spare parts can be purchased directly from the manufacturer or in any selected points of sale:

[www.slidekamera.pl](http://www.slidekamera.pl) / [www.slidekamera.eu](http://www.slidekamera.eu)

The manufacturer runs also a post warranty service: HET-CNC s.c., 80-175 Gdańsk, Ul. Kartuska 386



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