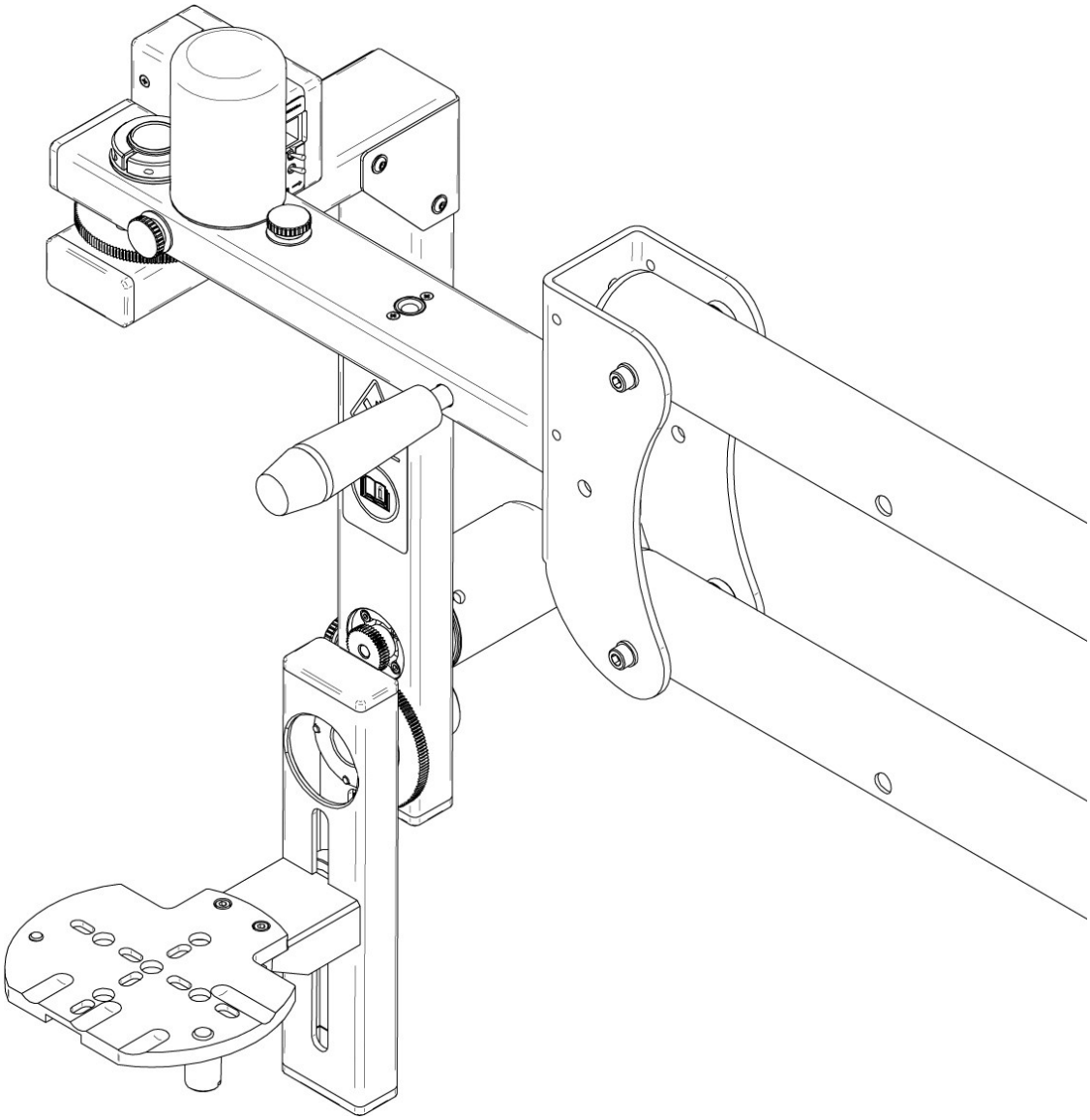
ALPHATRON

Alphatron Broadcast Electronics

JIB EPT

JIB & MOTORISED PAN AND TILT UNIT



USER MANUAL

EN

Please read this manual carefully before using the Alphatron JIB ETP unit!

Thank you for purchasing a Alphatron® product

The EPT head is developed for the lightweight range of Video Booms. The motor-driven controls allows for over 360 degrees rotation of unobstructed pan and tilt. Durable motors assure for a long and reliable life. The head unit is connected with a standard UTP cable up to 10 meter to the control unit.

Please note: **the manual is divided into two parts. The first part is the instruction for the EPT-unit and the second part is the instruction for the JIB-unit.**

The JIB/EPT unit includes:

- JIB video boom
- EPT adapter stud
- Tilt plate (fixed jib movement)
- Head Unit with Camera Platform
- Remote Control Joystick including handle and clamp unit
- Control frame including clamp unit
- AC/DC power adapter 110-240 V
- Signal/power cable 5meter length CAT-6 UTP cable

⚠ WARNING

WARNING: rotating gears - finger or hand entanglement

Please keep hands and fingers clear from the operational gear units.

WARNING: moving parts - finger or hand crush

Please keep hands and fingers clear from the moving parts of the operational EPT unit.

WARNING: twisting of the cables
Never rotate the pan or tilt movement more than two times around the axis (720degrees).
Before use check if the cables are twisted. Always untwist the cables before using the EPT unit. To untwist the cables at the pan and tilt axis by rotating the head in the opposite direction of the twisted cable.

WARNING: keep clear of obstacles when operating the EPT head.

CAUTION: do not manually force the pan or tilt movement when the gears are coupled, this may irreversibly damage the gears.

CAUTION: do not over-tighten knobs (5) and (6) shown in figure 1

INSTRUCTION EPT-UNIT

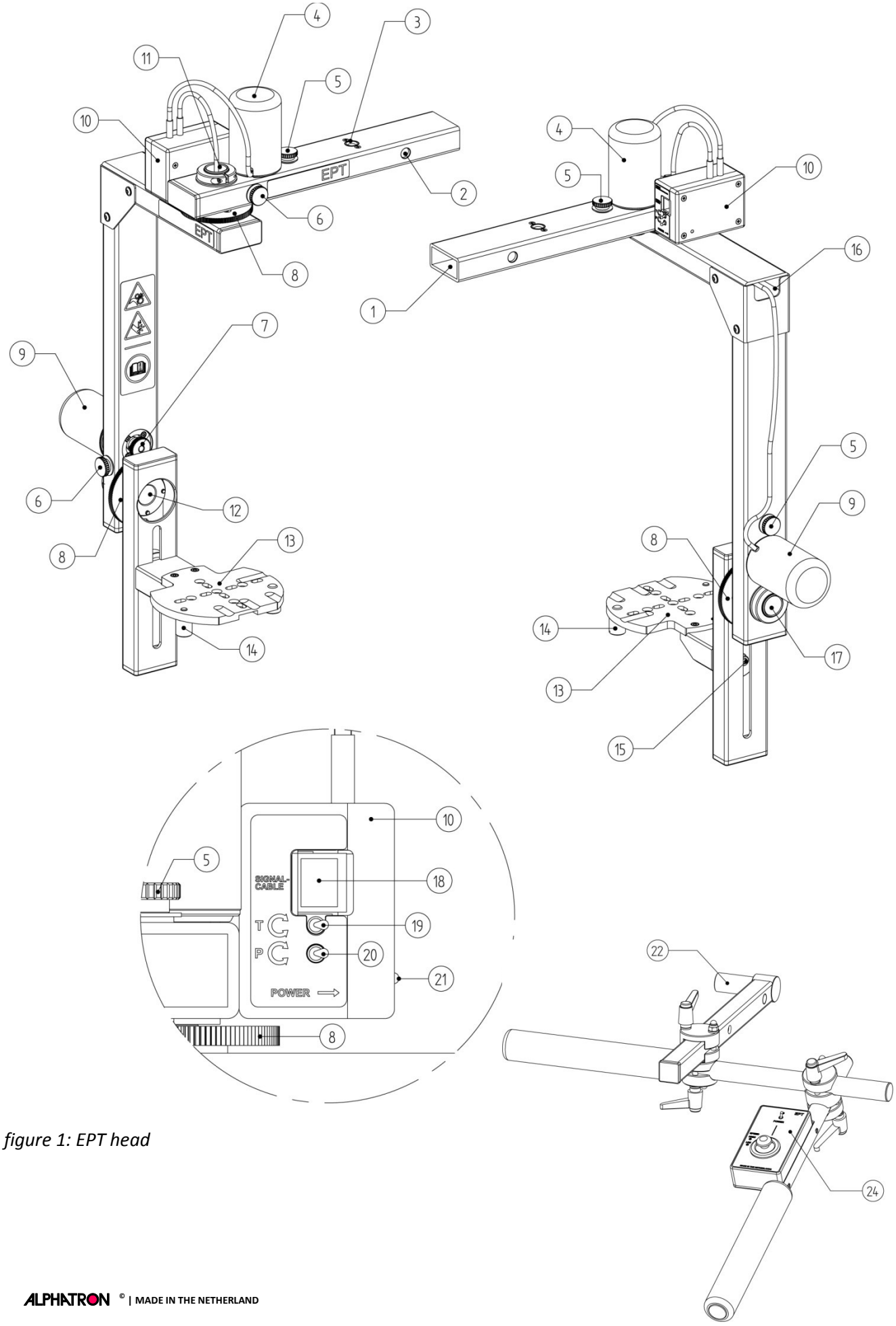


figure 1: EPT head

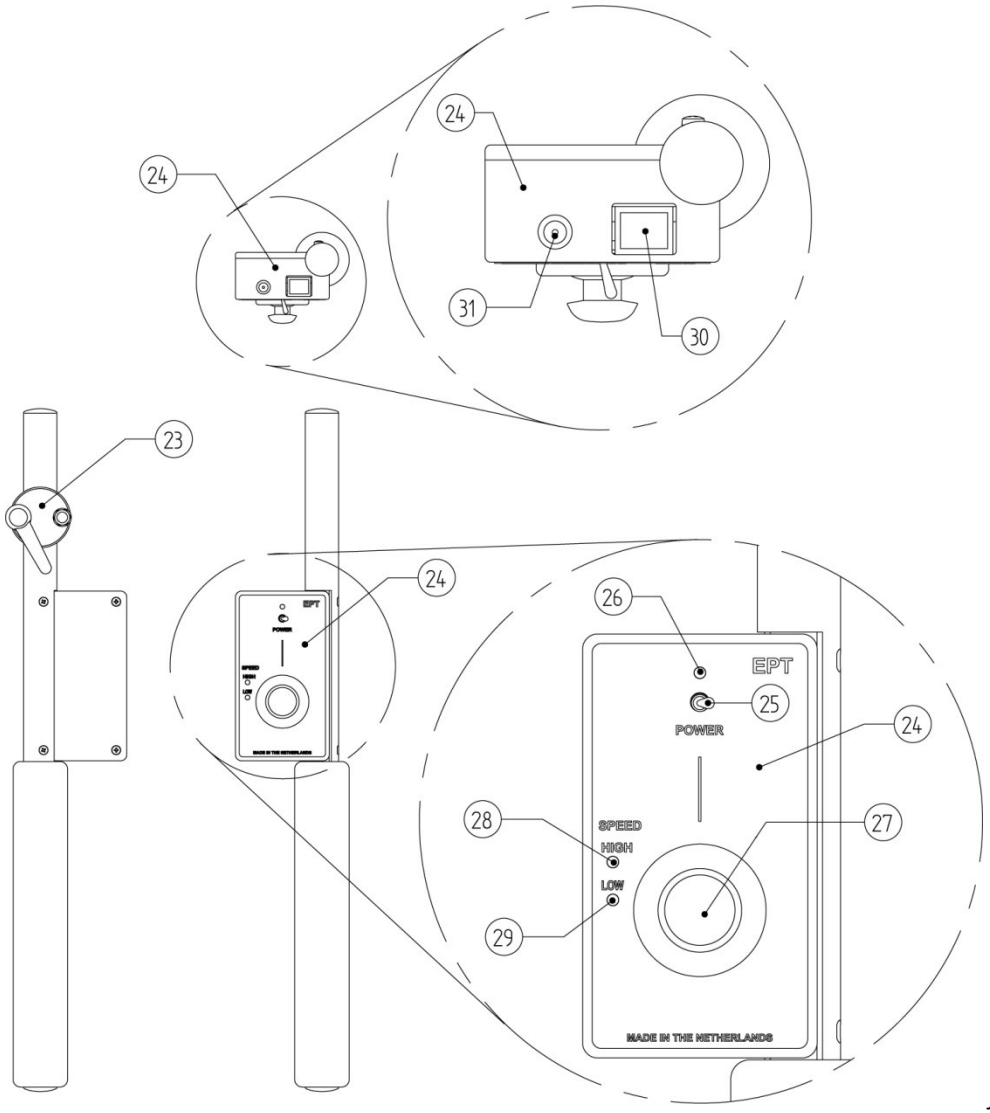


figure 2: EPT remote

Please note: these numbers only correspond to images 9 to 15.

1	Alphatron video-boom mount
2	Mount hole attachment handle
3	Tripod mount (3/8”)
4	Motor unit pan-movement
5	Locking knob motor slider (top)
6	Locking knob motor slider (side)
7	Brass motor gear (M0.5 z=42)
8	Delrin gear (M0.5 z=140)
9	Motor unit tilt-movement
10	Motor control unit
11	Cable feed-through EPT topside
12	Cable output camera side
13	Camera plate
14	Camera screw (3/8” and 1/4")
15	Camera height adjustment screw (Hex key 5mm)
16	Cable output EPT topside
17	Cable feed-through to the camera
18	Cable connector for the joystick unit
19	Direction switch tilt movement
20	Direction switch pan movement
21	Power-on led motor control unit
22	Alphatron control frame mount
23	Clamp joystick handle
24	Joystick unit
25	Power switch EPT
26	Power-on led joystick unit
27	Joystick pan/tilt movement, speed switch
28	Led indicator high speed setting
29	Led indicator low speed setting

Mounting the EPT unit to the JIB

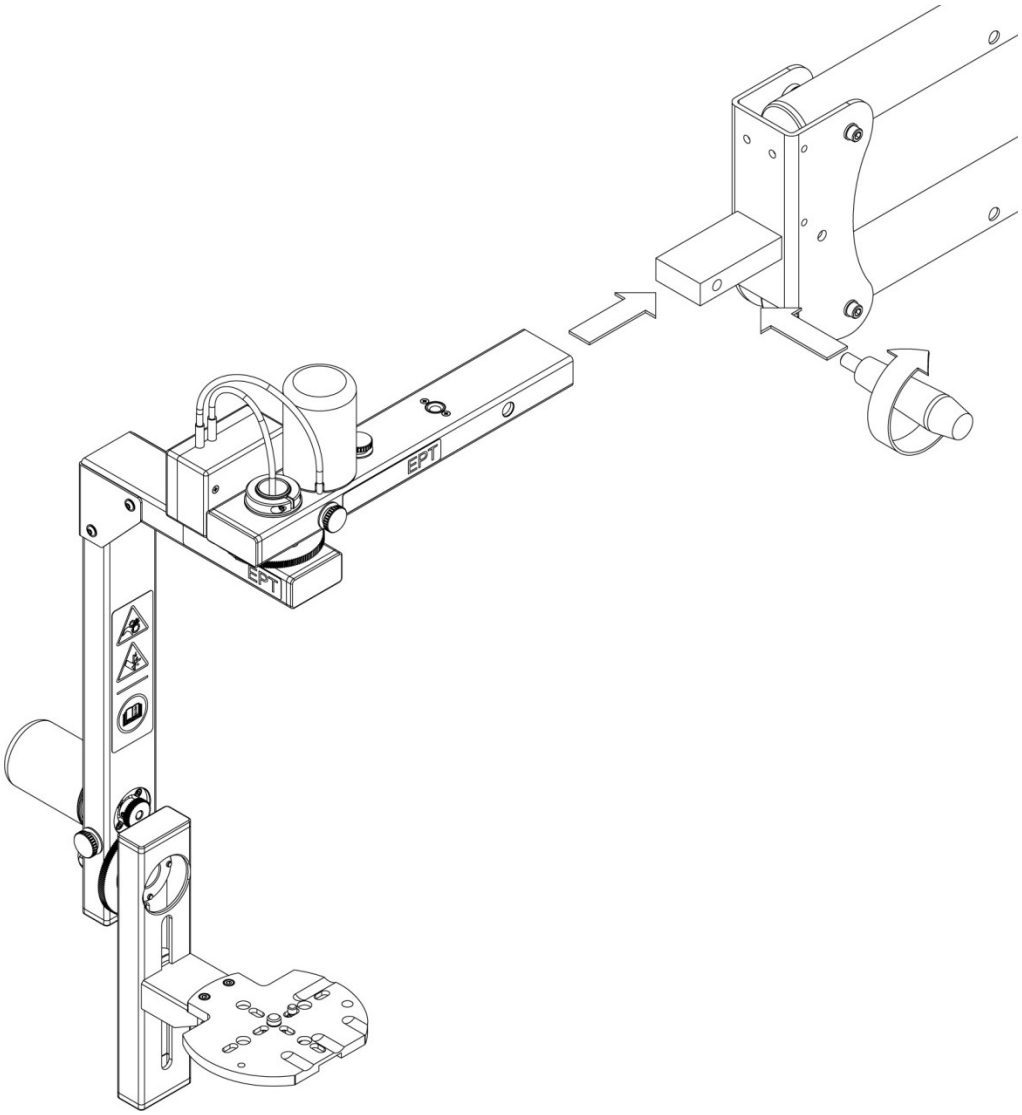


figure 3: EPT mount

The image above shows the EPT unit mounted to the JIB.

Mounting the EPT unit to a tripod

The EPT can also be mounted upside-down to a tripod using the tripod mount (20). When the EPT is used upside down the directions are mirrored, you can use the switches (19) and (20) to change the direction as desired.

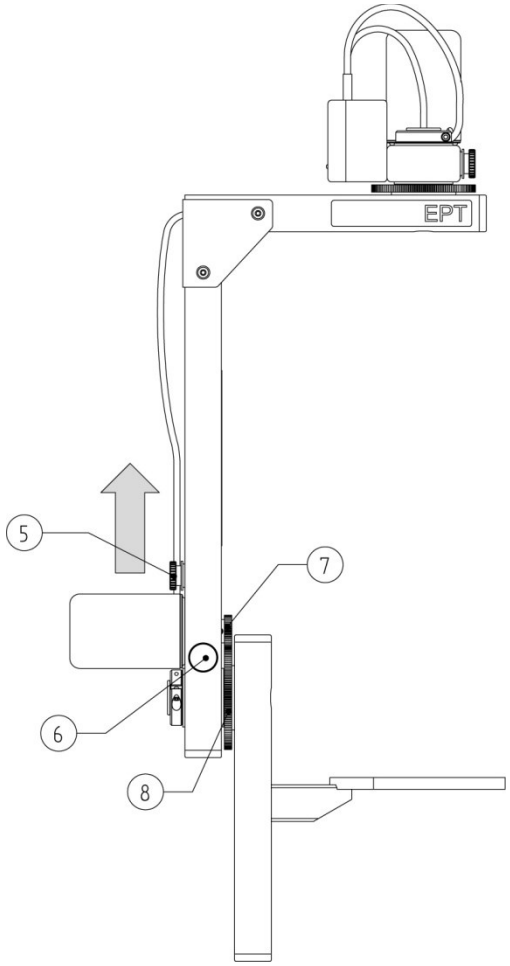
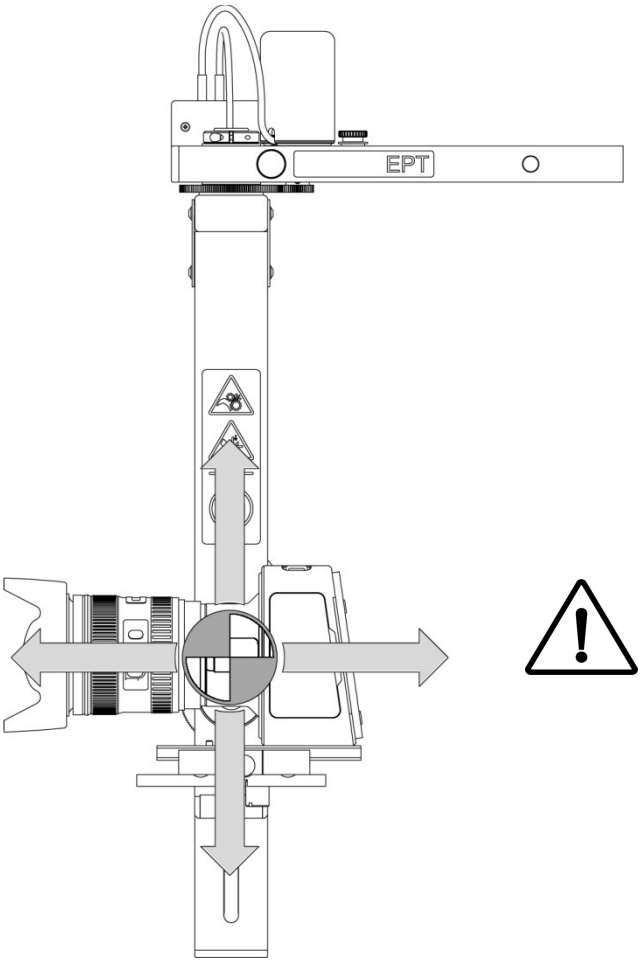


figure 4: decouple the gears



Mounting and balancing the camera

Camera's up to 5 kg can be used with the EPT head. It is advised to use a sliding quick release plate for mounting the camera to the EPT head.

It is important that the camera is balanced correctly for an optimal pan and tilt movement.

The camera is balanced correctly when the **centre of mass** of the camera, lens, adapter plate and camera plate (13 fig.1) is in the axis of the tilt movement.

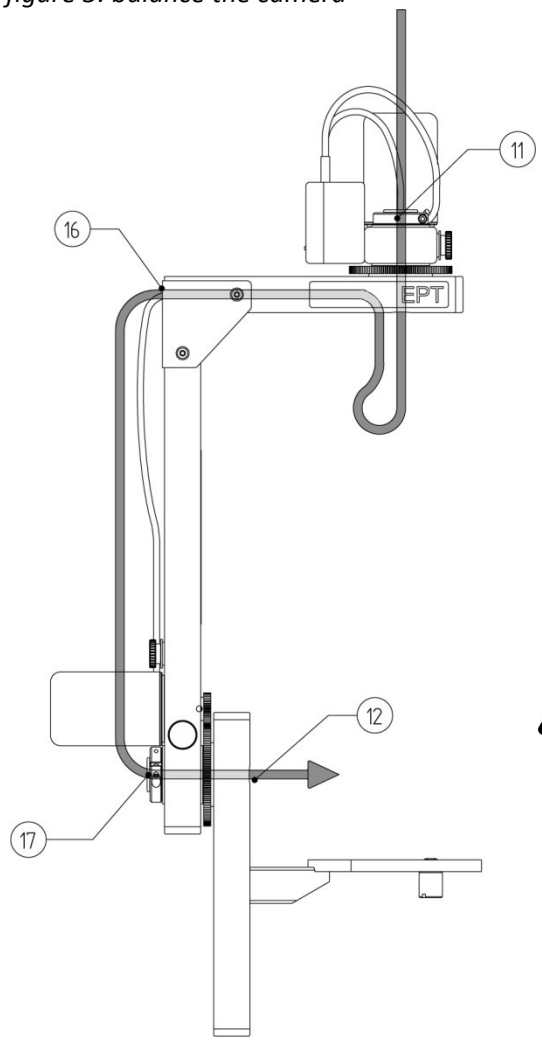
To **balance** the camera:

1. decouple the gears by loosening the two knobs (5) and (6)
2. slide the motor unit (9) upwards
3. when the gears are decoupled please lock either knob (5) or (6)
4. now the tilt movement can swivel freely around its axis, move the camera to the front or back until the camera is stationary (when doesn't tilt forward or backwards)
5. to align the centre of mass in the vertical direction please unlock hex bolt (15 fig.1), using a metric hex key 5mm
6. when the camera is balanced correctly please slide back the motor unit to couple the gears, **then slightly tighten knob (5) and (6)**

The pan and tilt motor unit is separated from the frame using a silicone rubber seal to reduce the vibration.

IT IS IMPORTAND NOT TO OVERTIGHTEN THE KNOB (5) AND (6) THIS WILL INCREASE THE VIBRATION LEVEL OF THE MOTOR UNIT

figure 5: balance the camera



Feed-trough camera cables

To feed through the signal or power cables to the camera please use the path shown in figure 6.

By feeding the cables though the axis of the pan a tilt movement the EPT head is capable of rotating freely up to 720 degrees around its axis without damaging the cables.

Safe use without damaging the cables is guaranteed up to 720 degrees of continuous rotation in one direction.

Alphatron is not responsible for damage to cables or camera that is caused by rotating (twisting) the head (cables) more than 720 degrees.

ALWAYS **RETURN TO THE NEUTRAL POSITION** (UNTWISTED CABLE POSITION) BEFORE USE.

figure 6: feed-trough camera cables

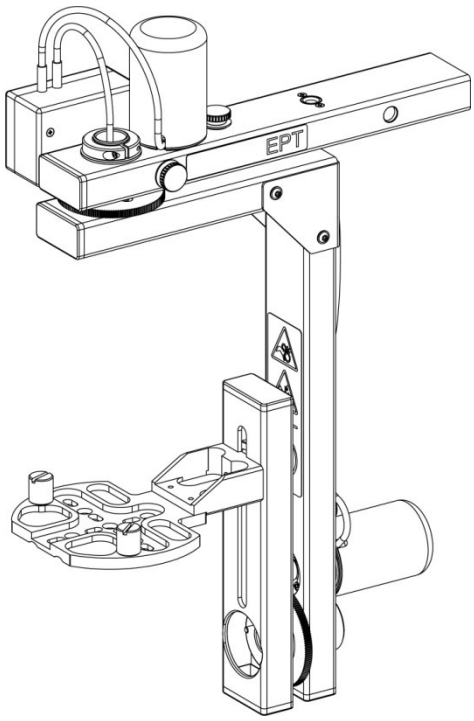


figure 7: compact transport configuration

Compact transport configuration

There are two ways to prepare the EPT for compact transport;

Option 1

- use the motor drive to rotate the pan and tilt unit to the position shown in figure 7

Option 2

- unlock knob (5) and (6)
- slide back the motor unit to decouple the gears
- rotate the pan and tilt unit to the position shown in figure 7
- slightly lock knobs (5) and (6)

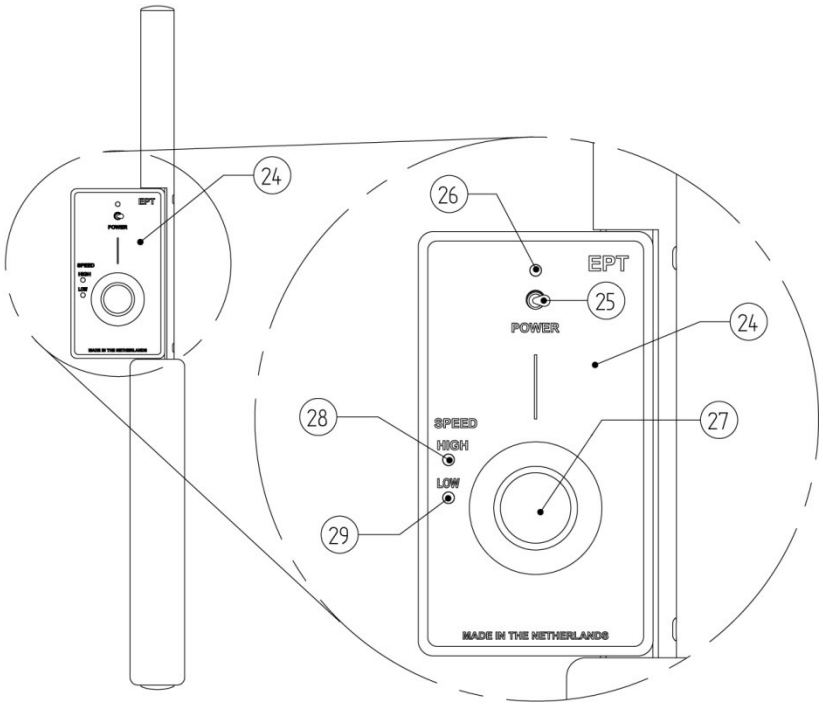


figure 8: EPT remote control unit

EPT signal and power cable

The remote control unit (24) is connected to the EPT head using a standard UPT cable (up to 10m). The cable is attached to the remote unit at connector (30 - fig2.) and at the motor control box at connector (18 - fig1.).

The EPT can be power by an 12V adapter or a 12-14.7V battery'

Note: correct operation of the EPT is only guaranteed when using the supplied power adapter.

Remote control unit

To turn on or off the EPT head please use switch (25).

To switch between the two speed setting please press the joystick (thumb-stick).

INSTRUCTION JIB-UNIT

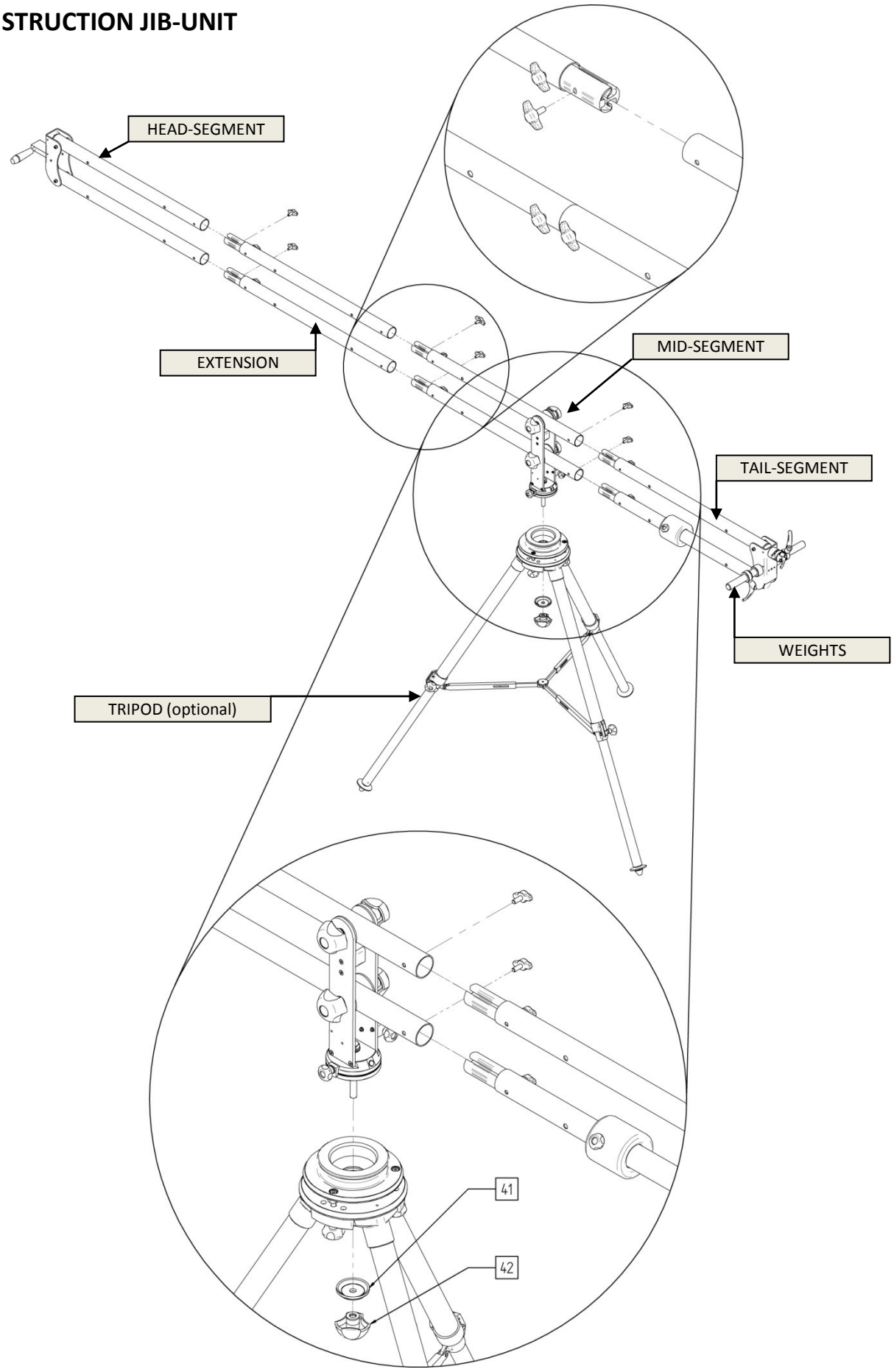


figure 9: JIB setup overview

ITEM LIST JIB

Please note: these numbers only correspond to images 9 to 15.

1	Tube clamp
2	Locking bolt tube clamp
3	Tube segment (0,75m)
4	Reinforced tube segment
5	Nylon bearing disc
6	Locking knob JIB rotation
7	Teflon© ring
8	Locking knob with axis
9	Washer 10,5 (din125a1)
10	Locking knob JIB movement
11	Mid-segment assembly
12	Hexagon Prevailing Torque Nut M4 (din985)
13	Standard stud adapter (e.g. monitor arm)
14	Locking knob accessory stud
15	Cross Countersunk Screws M4x40 (din965)
16	End cap tube segment
17	Handle and locking bolt EPT-unit
18	Adapter for EPT unit
19	Washer 5,3 (din125a1)
20	Hexagon Socket Head M5x16 (din912)
21	Delrin© filling ring
22	Front-end profile
23	Hexagon Dome Nuts M6 (din1587)
24	Washer 6,4 (din125a1)
25	Hexagon Socket Head M6x75 din912
26	Front segment assembly
27	Brass bearing
28	Adjustable counterweight
29	Hexagon Socket Head M6x20 din912
30	Washer 6,4 (din125a1) (same as #24)
31	Rear-end profile (same as #22)
32	Clamp for EPT control frame
33	Hexagon Socket Head M8x20 din912
34	Washer 8,4 (din125a1)
35	Filling ring counterweights
36	Locking ring counterweights
37	Counterweights axis
38	Direct camera plate (if not using the EPT)
39	Hexagon Socket Head M5x16 din912
40	Washer 5,3 (din125a1) (same as #19)
41	Clamp ring tripod bowl
42	Knob clamp ring tripod bowl

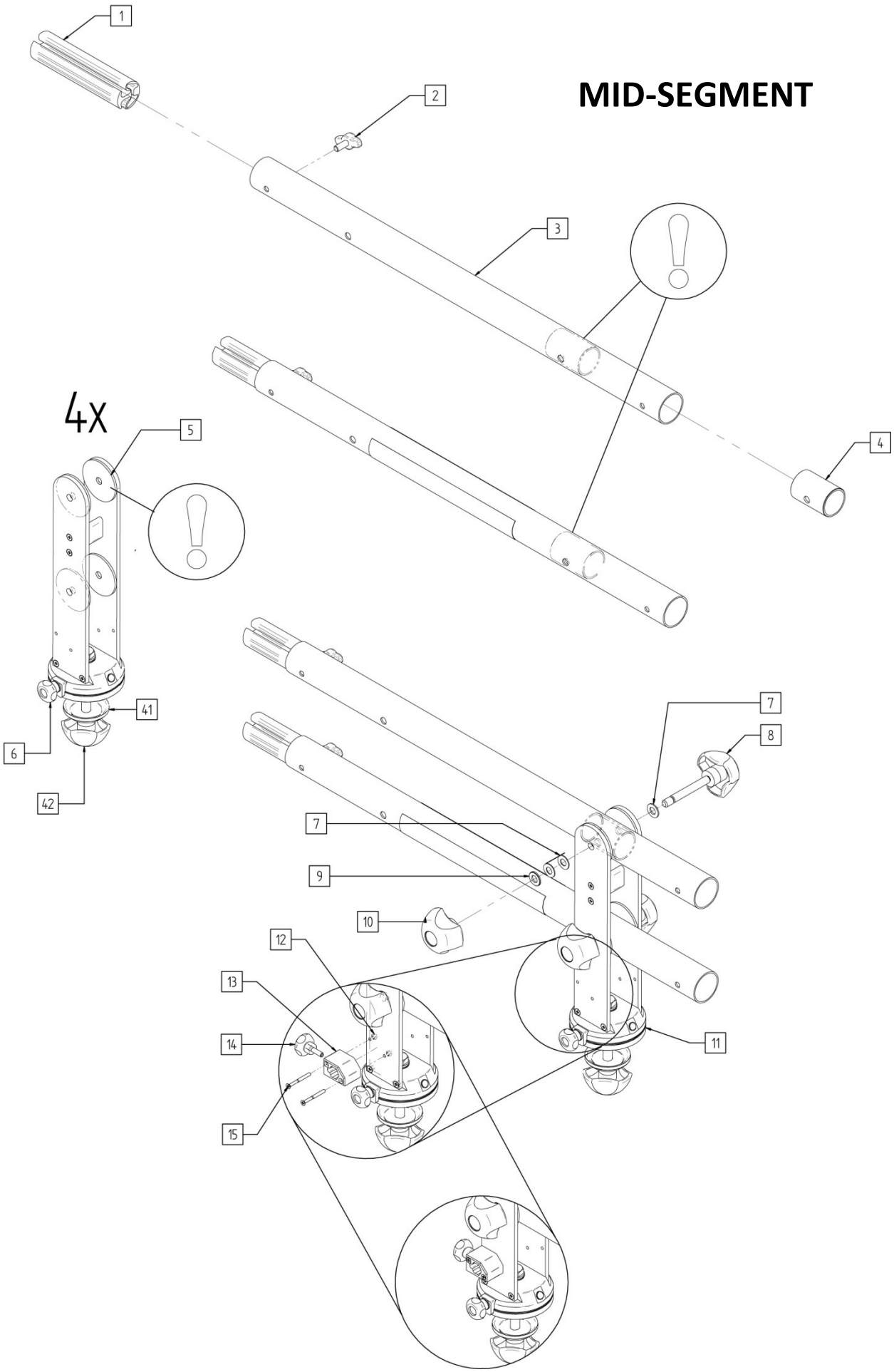
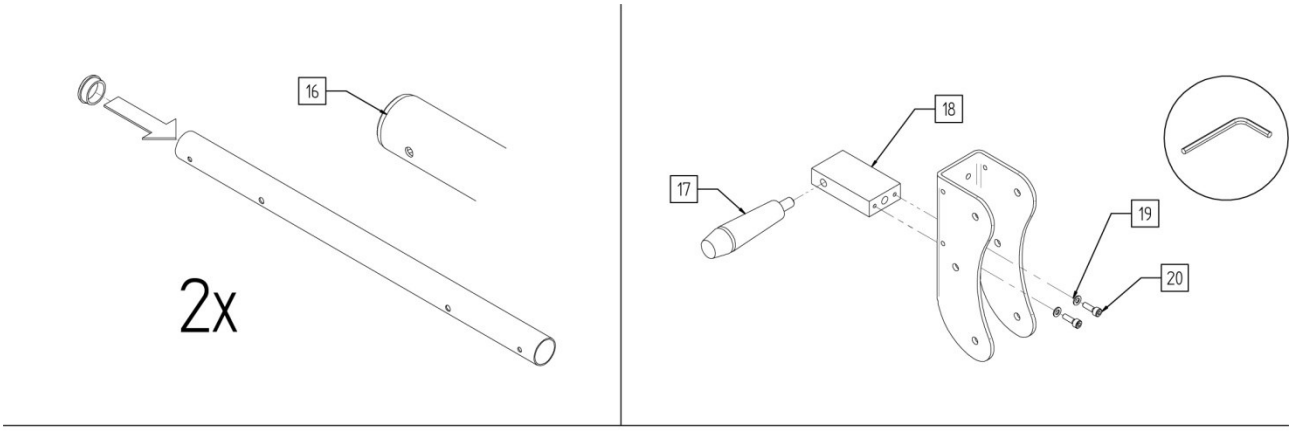


figure 10: JIB mid-segment



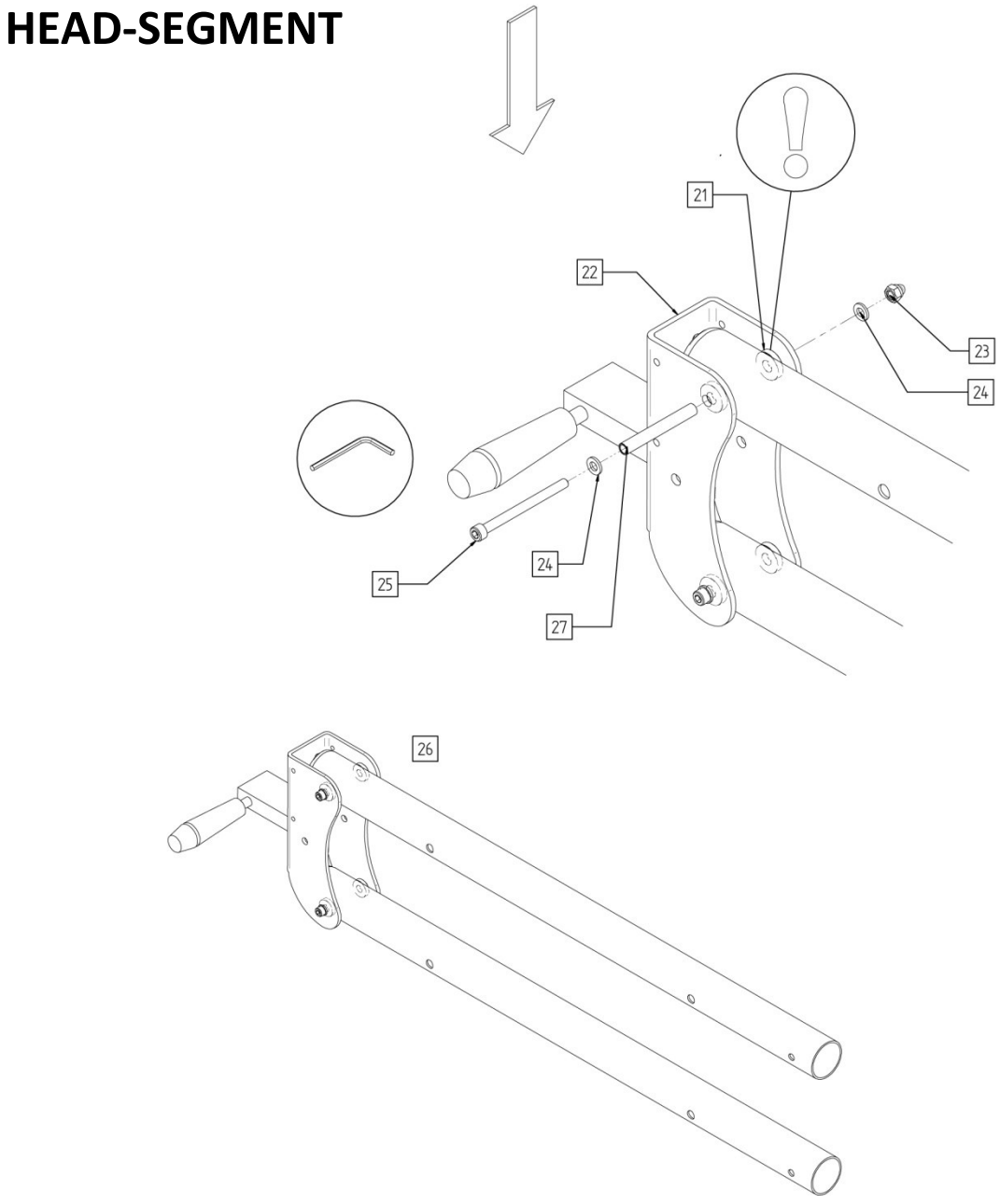
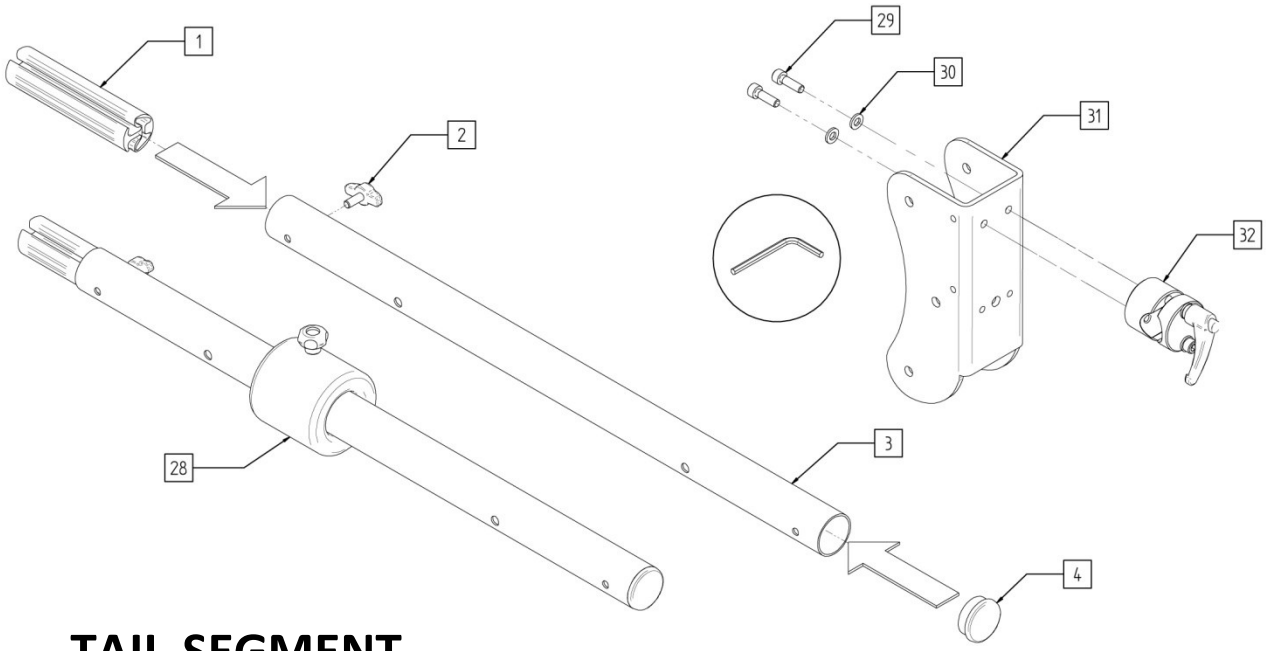


figure 12: JIB head-segment



TAIL-SEGMENT

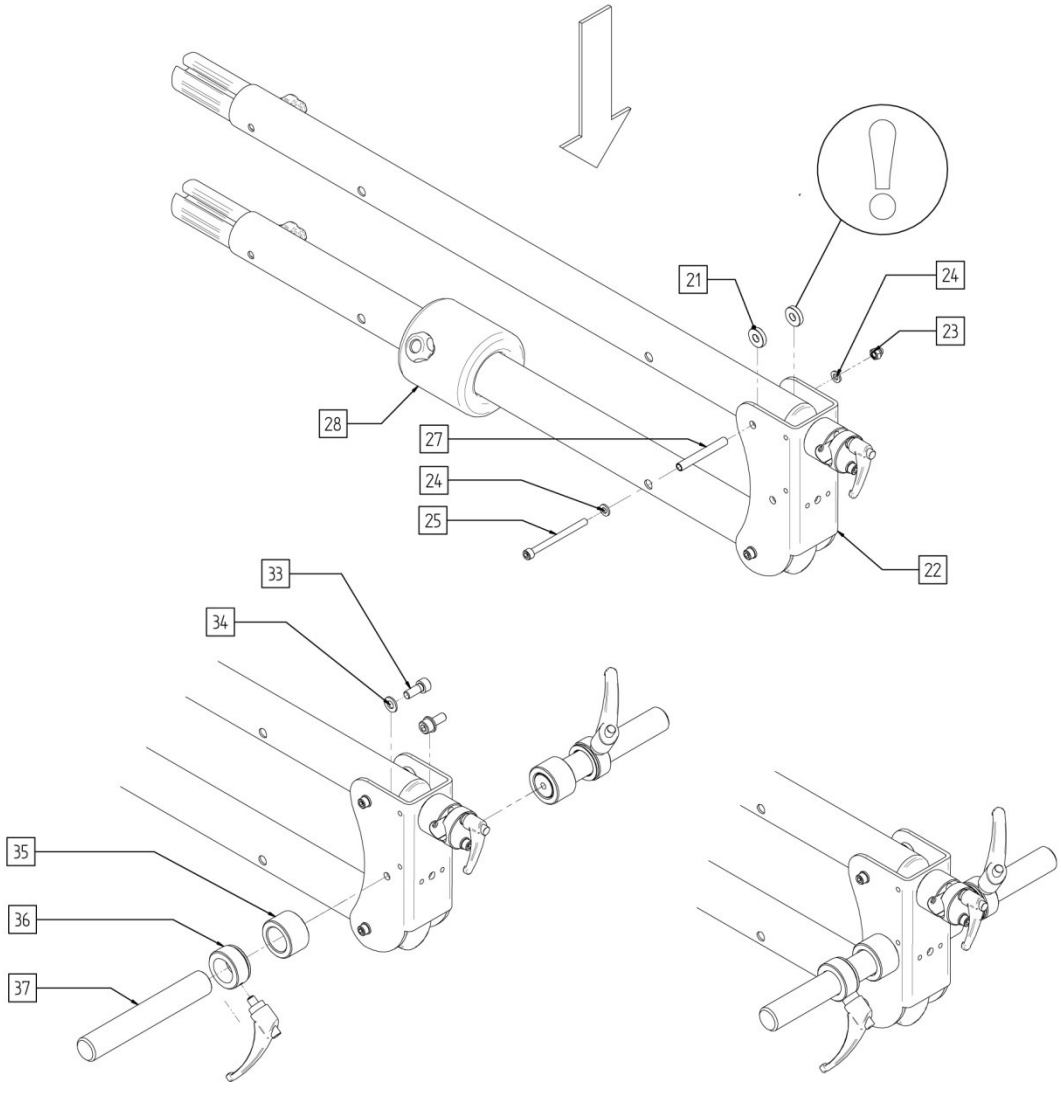


figure 11: JIB tail-segment

ASSEMBLY STEPS

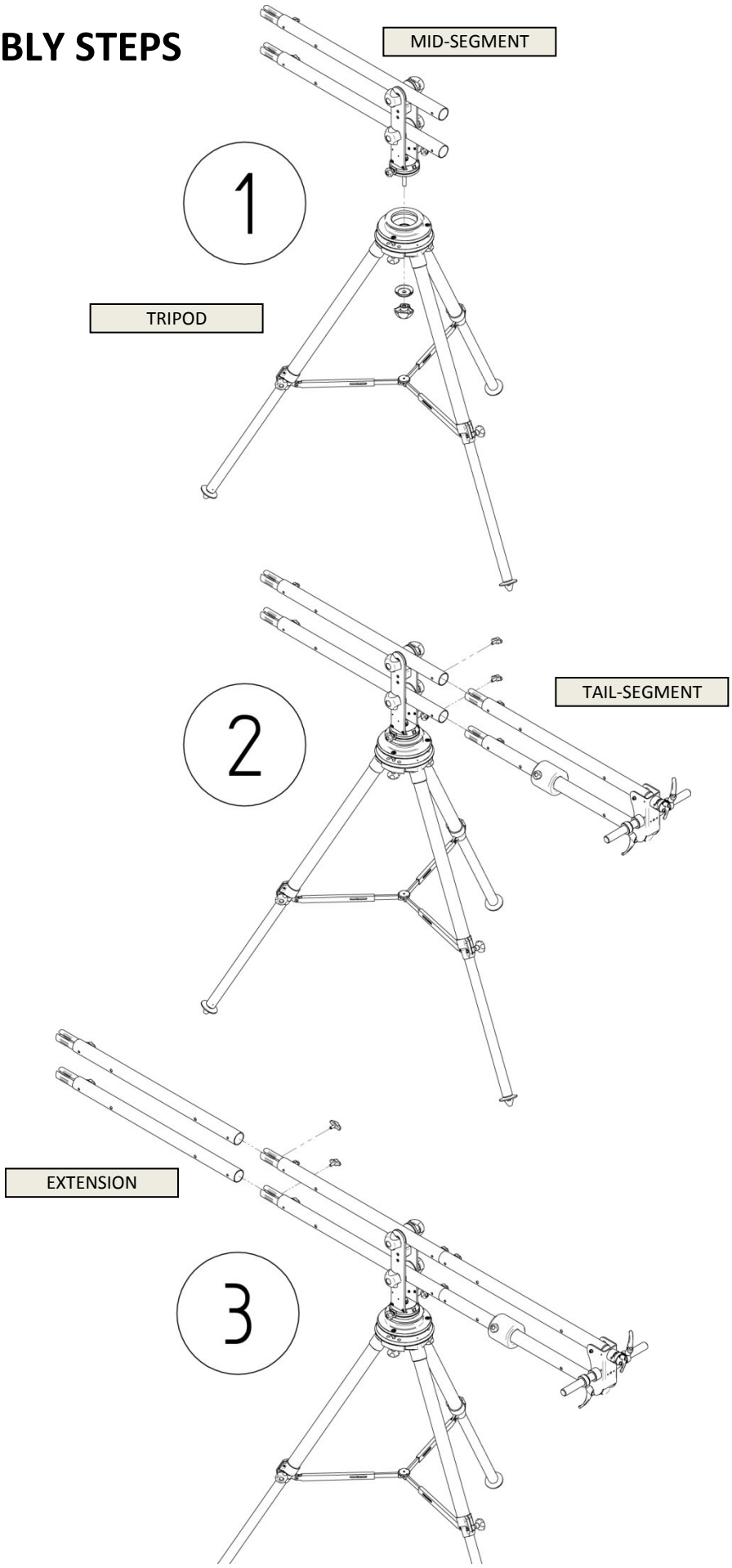


figure 13: assembly steps JIB

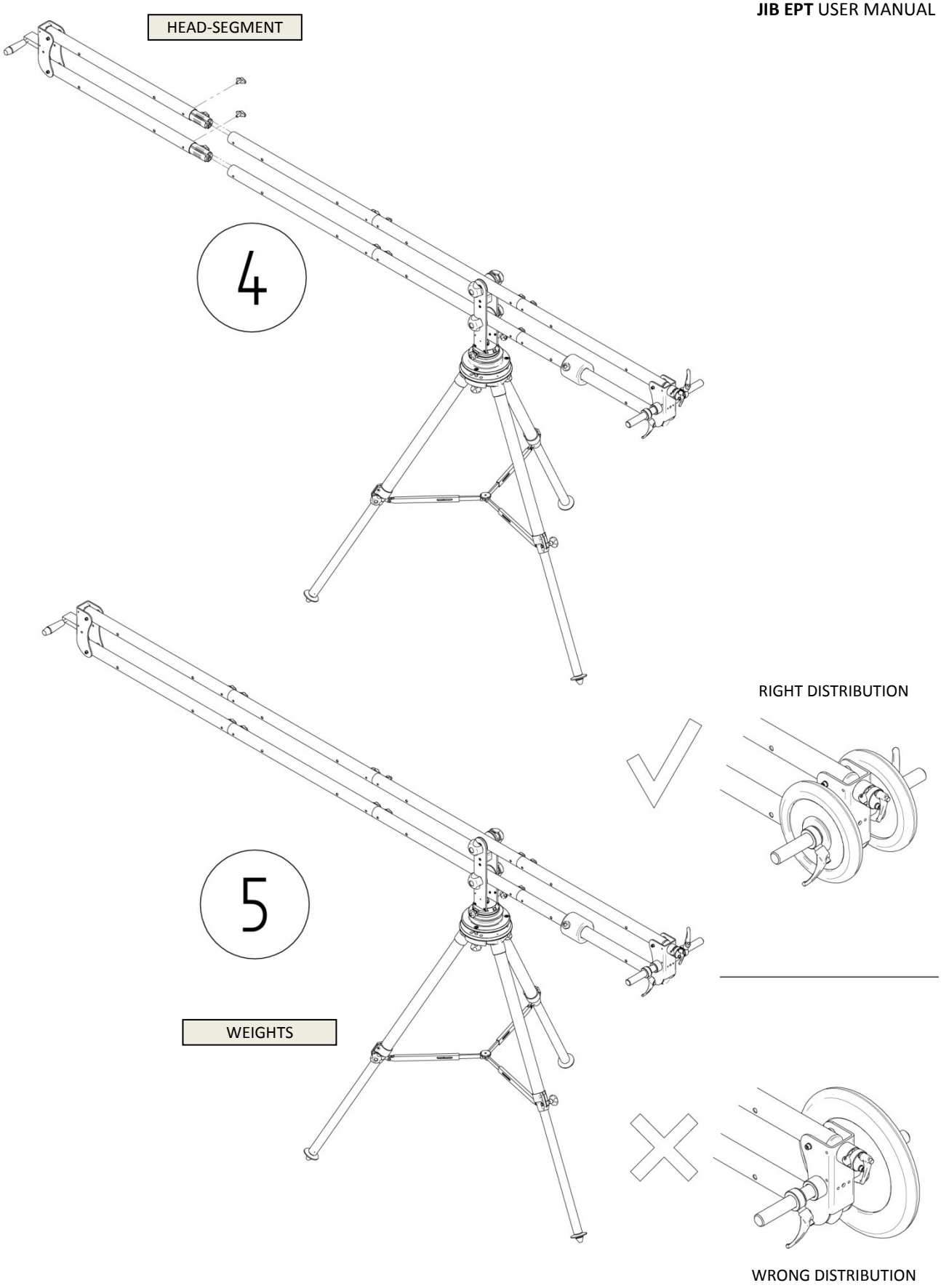
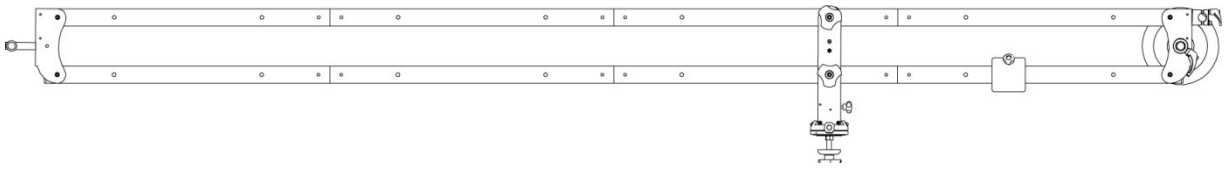
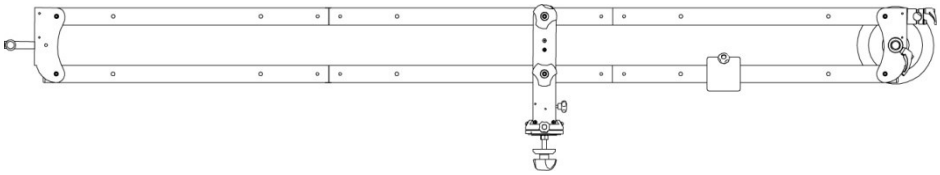


figure 13: assembly steps JIB

Standard length (with 0,75m extension)



Short length (without 0,75m extension)



Compact setup (with 0,75m extension)

Compact setup short (without 0,75m extension)

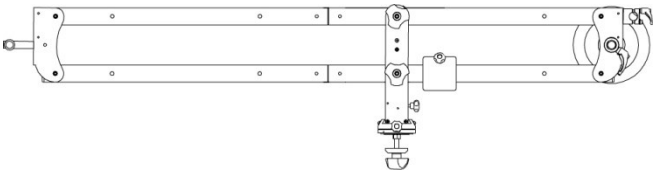


figure 14: different JIB setups

Load Specifications
- Load Capacity JIB/EPT Standard Length: 4,5 kg (10 lbs)
- Load Capacity JIB/EPT Short Length: 7,5 kg (16,5 lbs)
- Load Capacity JIB/TILT Compact Standard: 7,5 kg (16,5 lbs)
- Load Capacity JIB/TILT Compact Short Length: 12 kg (26,5 lbs)

- Load Capacity EPT (on tripod): 7,5 kg (16,5 lbs)

Spectifications EPT-unit
- Head Unit weight: 3 kg (6,5 lbs)
- Head Dimensions: 44x31x13cm (17x12x5")
- Durable brushless motors
- Black anodised aluminium
- Standard UTP for communication and power cable
- Power requirement 12 -14,8 V DC
- Tripod (3/8")mount option

Spectifications JIB-unit
(excl. EPT head and counterweights)
- Weight JIB Standard Length 9,6 kg
- Weight JIB Short Length 8,1 kg
- Weight JIB Compact Standard Length 8,1 kg
- Weight JIB Short Length 6,6 kg
- Black anodised aluminium

OPTIONAL JIB-TILT SETUP

FIXED CAMERA PLATE HEAD SEGMENT (when not using the EPT head)

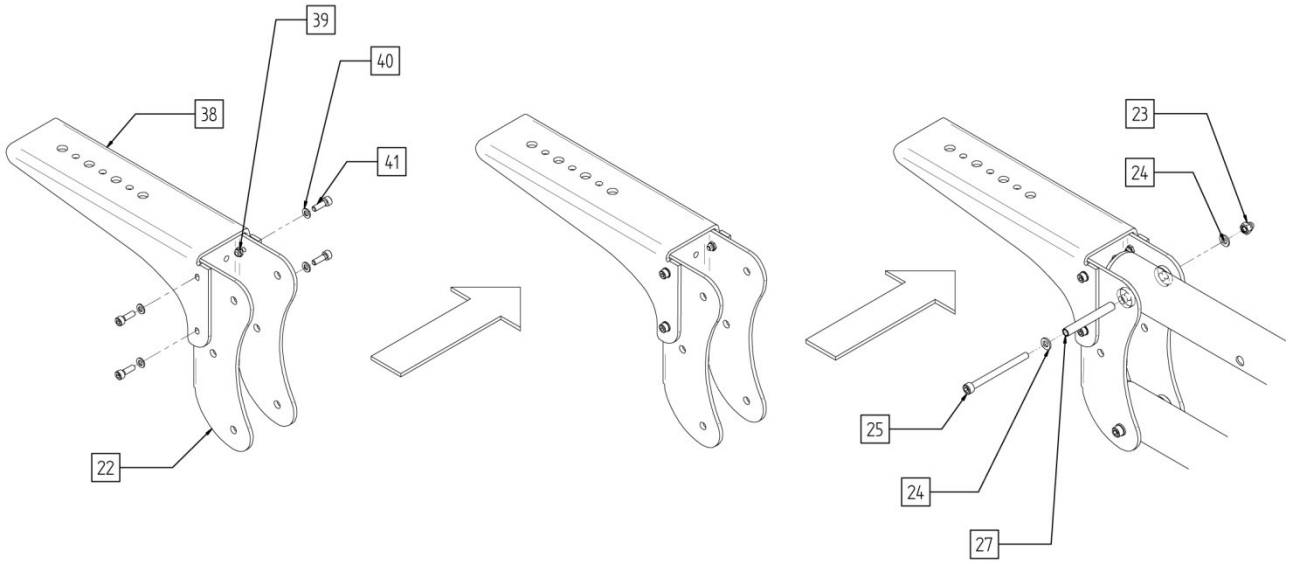


figure 15: Fixed camera plate, alternative setup head-segment JIB

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