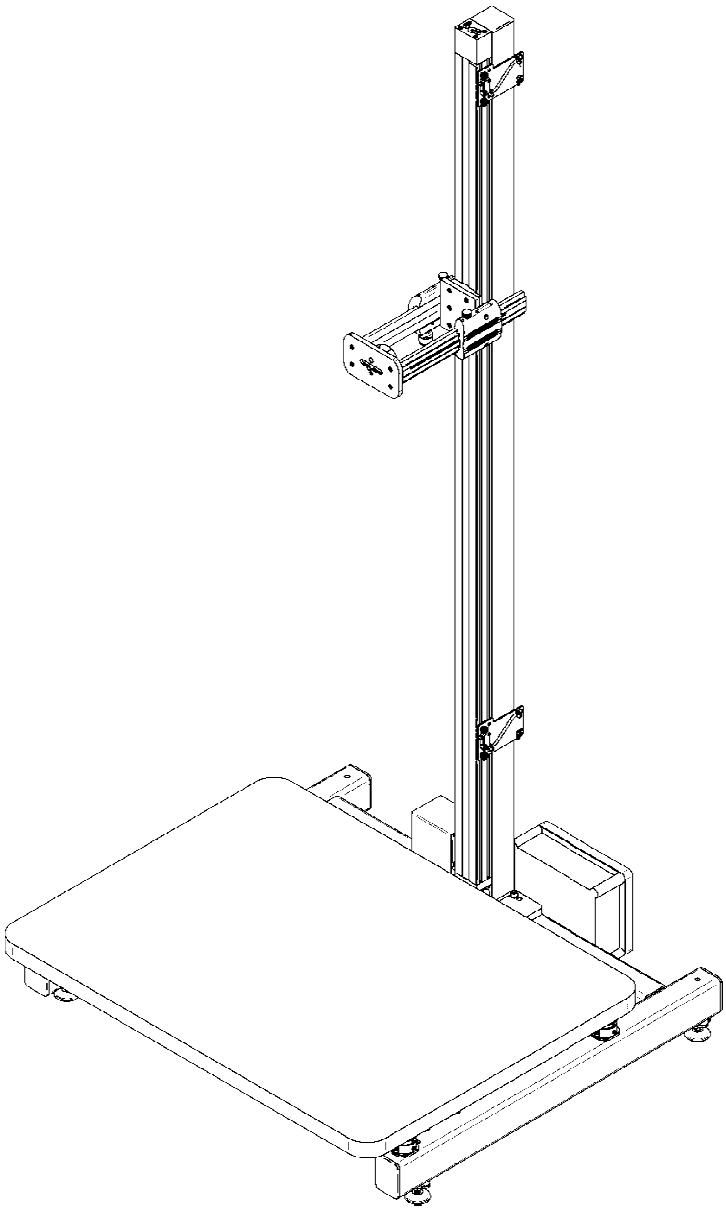
RPS SYSTEM

MOTORISED REPRODUCTION COLUMN



INSTRUCTION MANUAL EN

PLEASE READ THIS MANUAL CAREFULLY BEFORE USING THE CAMBO RPS SYSTEM

Contents:

Cambo Photographic Industry B.V. / Cambo Video and Broadcast Products B.V. Cambo R&D 10 December 2013

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Cambo RPS Repro Stand System

Motorised Column for Reproduction Photography Cambo's RPS Repro Stand System can be configured from different elements to ensure the best possible solution for the reproduction photographer.

It features a motorised vertical column with extended movement controls, a precision geared moveable camera-arm, wall mount options, a sturdy and stable base and an optional baseboard.

Safety warnings

IMPORTANT!: please check the **specified voltage** (115V or 220V) on the powersupply is corresponts with the voltage used in your area. If the specified voltage doesn't correspont please contact your Cambo dealer. **DO NOT USE** a 115 volt power supply with a 220 volt mains or vice versa.

✖ The motorized column features two height adjustable end-stops (end-switch). When the camera-bracket passes one of these switches the drive stops. When positioned correctly, this end-stop prevents the bracket or camera-unit from accidently hitting the baseboard, floor, ceiling or object (placed on the base board).

BEFORE USE ENSURE THAT THE END-STOPS ARE POSITIONED CORRECTLY. Thus in a way so the bracket or camera-unit stops before colliding with the baseboard, floor, ceiling or placed object.

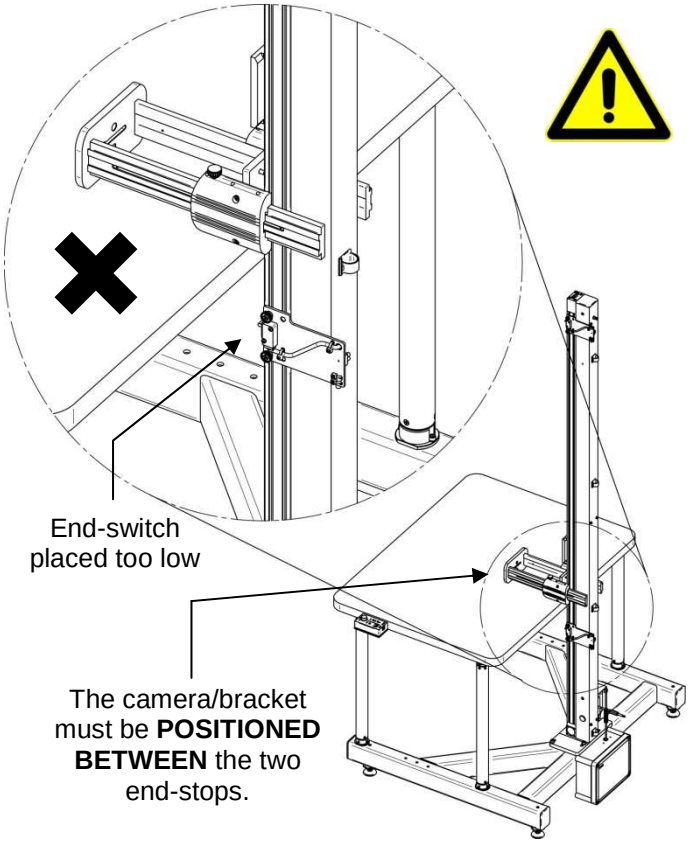


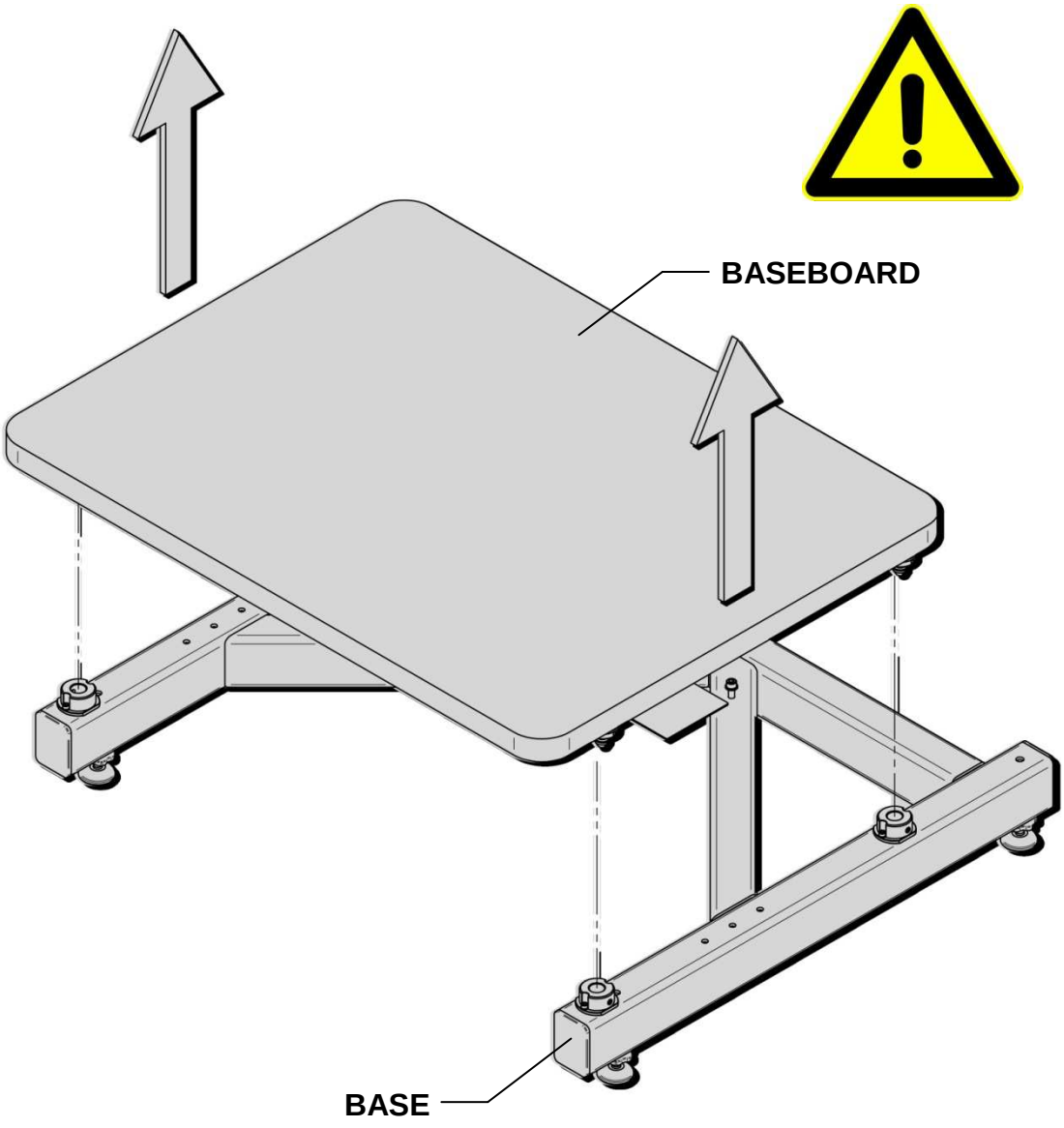
Fig. 1: wrong positioning of the end-switch

✖ After adjusting the height of the end-stops ensure that the cables are guided properly at the back of the column.

✖ Never disconnect the cable between "the remote and the power supply" during use, this may damage the electronics components.

Caution, when removing or placing the “baseboard” from or to the “base”.

It’s advised to perform the following instruction with two persons. Please remove or insert the baseboard uniformly distributed and parallel to the base (to prevent jamming).



Overview RPS system

RPS system

1. column (RPS-100)
2. base (RPS-120)
3. base board (RPS-150)
4. height extenders (RPS-222)
5. wall brackets (RPS-170)
6. power supply (part of RPS-100)
7. remote control (part of RPS-100)

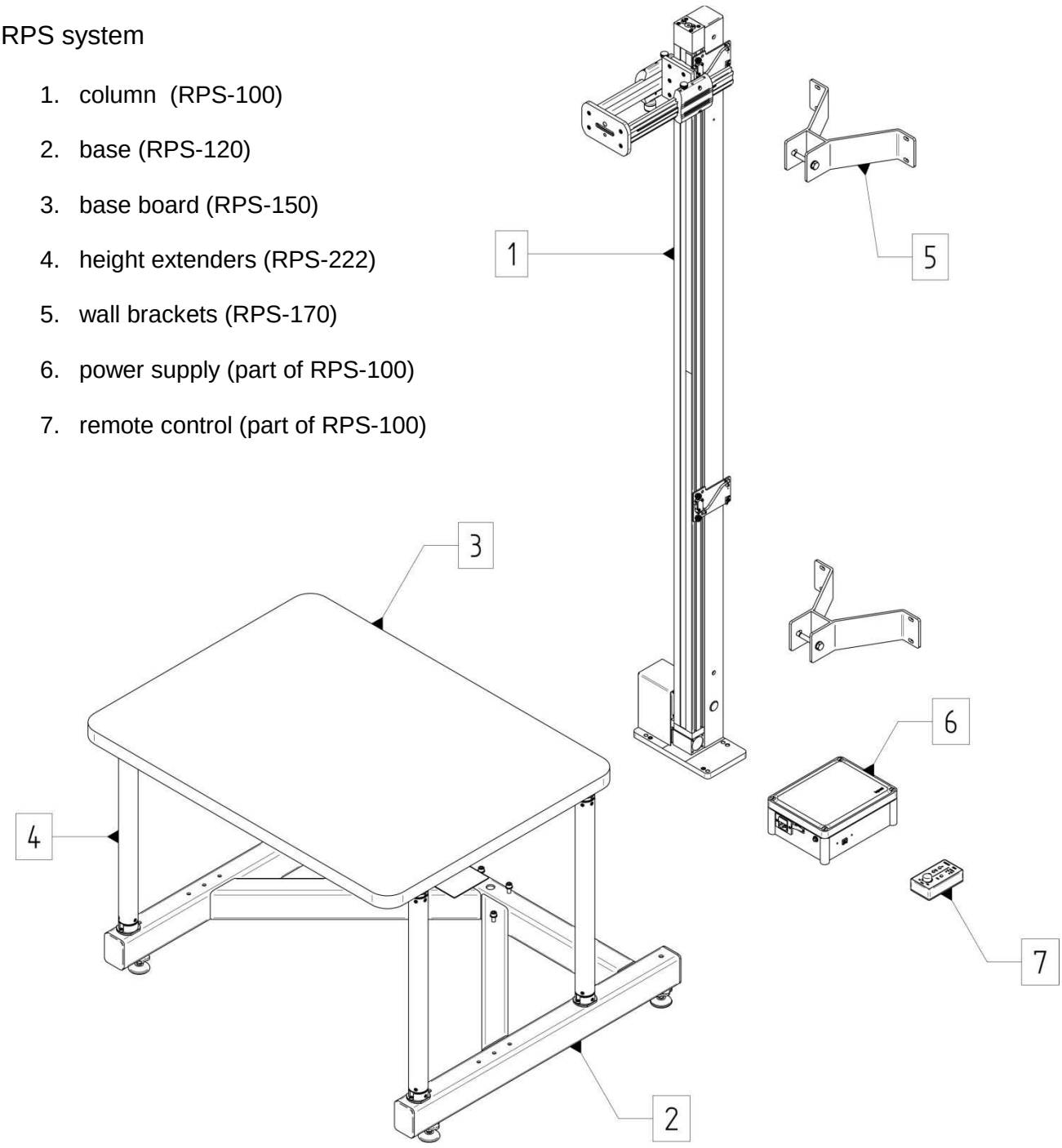


Fig. 2: overview of the Cambo RPS system

RPS versions

The column (RPS-100) can be mounted to a wall using the wall brackets (RPS-170) or for stand-alone use the column can be mounted to the base (RPS-120). TIP: for extra stability of the column/base version a wall bracket can be used.

Before use

The RPS column uses a counterweight system to reduce unwanted external vibrations in the column. This counterweight is locked for transport using 2 setscrews (a.) on either side. **BEFORE USE**: please loosen (counter-clockwise) these screws, using the provided Allen-key (metric size 2,5mm).

REMEMBER: before transport please tighten these 2 setscrews (fig.3. a.).

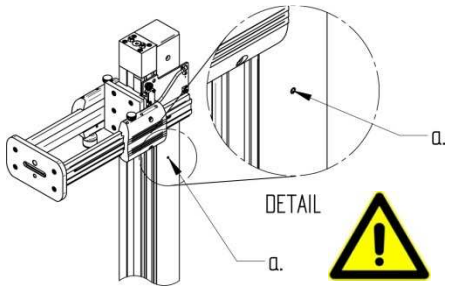


Fig.3: Counterweight setscrews

Column-base setup

Please use a spirit level (fig.4. a.) to check if the base is levelled. The base features 4 adjustable feet (b.), first loosen the locking ring (d.) then use a spanner (metric 14mm) to adjust (c.) the height of each feet until the base is levelled. When the base is levelled please tighten the locking rings (d.).

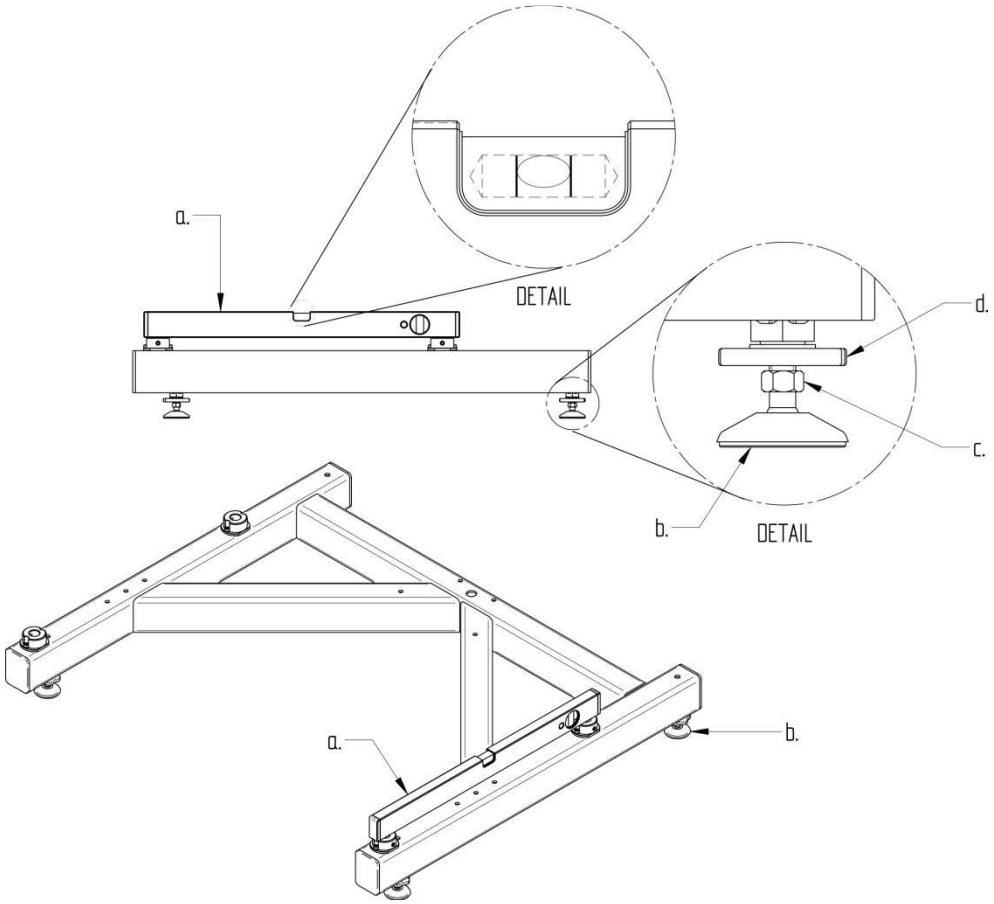


Fig.4: levelling the base

The column is fixed to the base using 4 bolts (hexagon socket Allen key 6mm).

TIP: it is advised to perform this installation with two persons. Please place the column on the base, then place the top washer (b.) and insert the bolt (a.), at the bottom please place the other washer (b.) and screw on the nut (c.). Repeat this for the other bolts, do not fully tighten the bolt yet. When al 4 bolts (b.) are in place please use the Allen key (6mm) and a spanner (13mm) to fully tighten the nuts (c.).

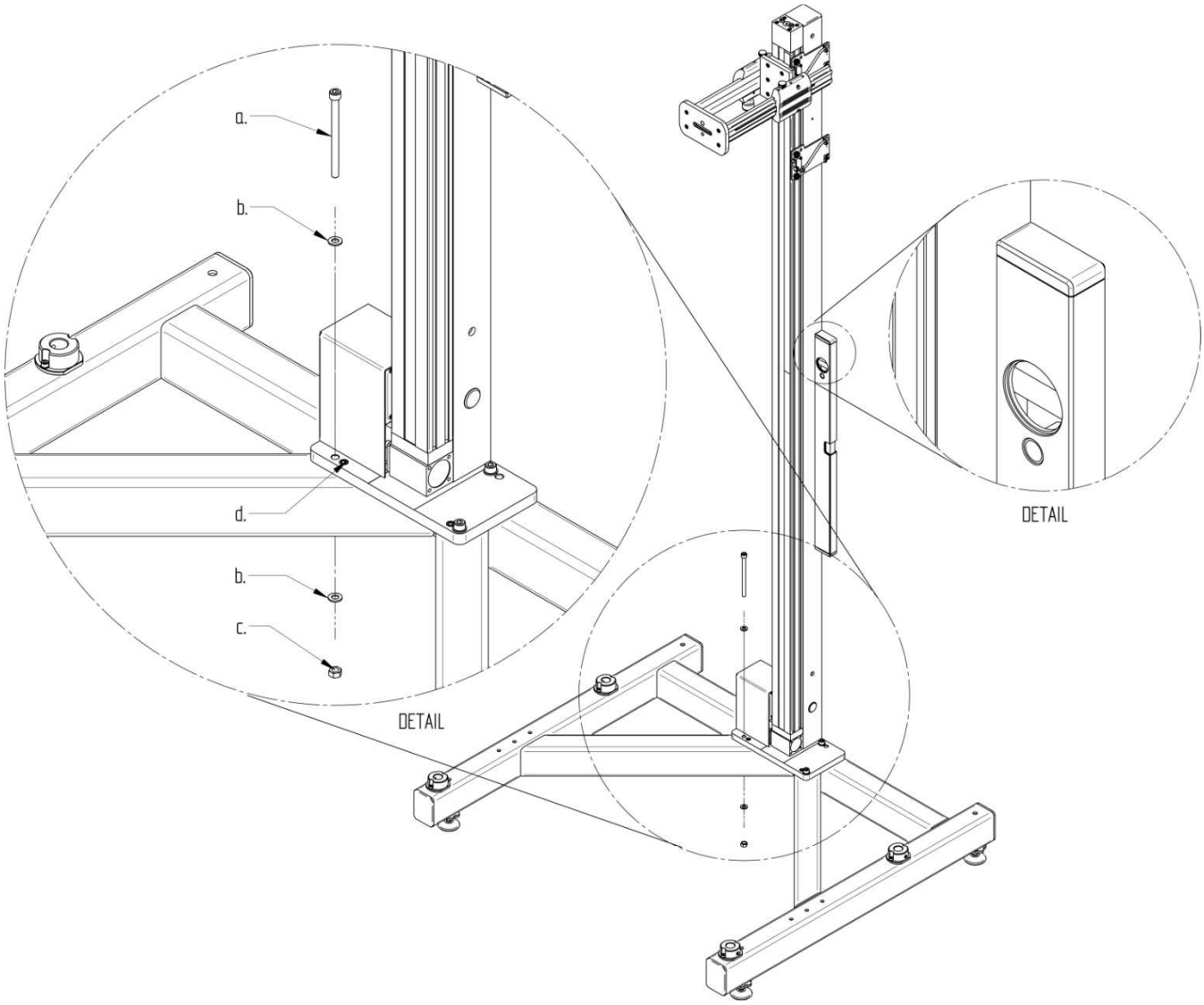


Fig. 5: Column-base installation

Please use a spirit level to check if the column is levelled (assuming that the base is levelled correctly). When the column is slightly off you can use the set screws (d.) near each bolt (a.) to fine adjust the level of the column. Please only perform this operation when the level of the column is off, slightly loosen the bolts (a.), then screw in the appropriate set-screw (d.) to level the column. When the column is levelled please tighten the 4 bolts (a.).

Column-wall setup

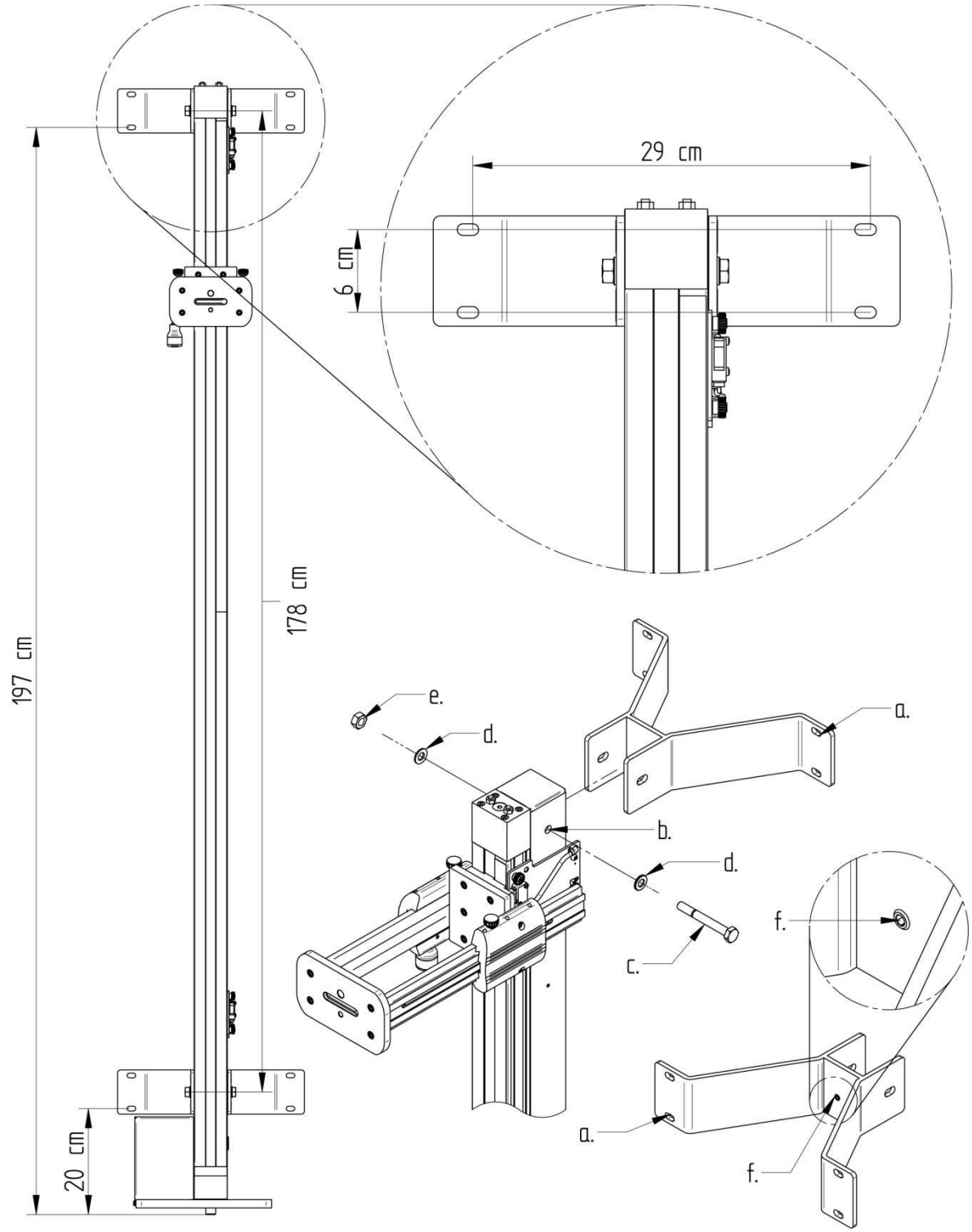


Fig.6: RPS column with wall mounting brackets

a. Mounting hole bracket/wall
b. Mounting hole bracket/column
c. Hex bolt (M10x85)
d. Washer
e. Nut (M10)
f. Set-screw

Note: when fixing the top bracket to the wall ensure that the distance between bracket and the floor (note figure 6) is at least 197cm.

1. Please fix the top bracket to the wall first with a minimum of 2 screws (one on each side).

2. After fixing the top bracket to the wall, please fix the other bracket to the bottom of the column using: note figure 6; bolt (c.), washer (d.) and nut (e.).

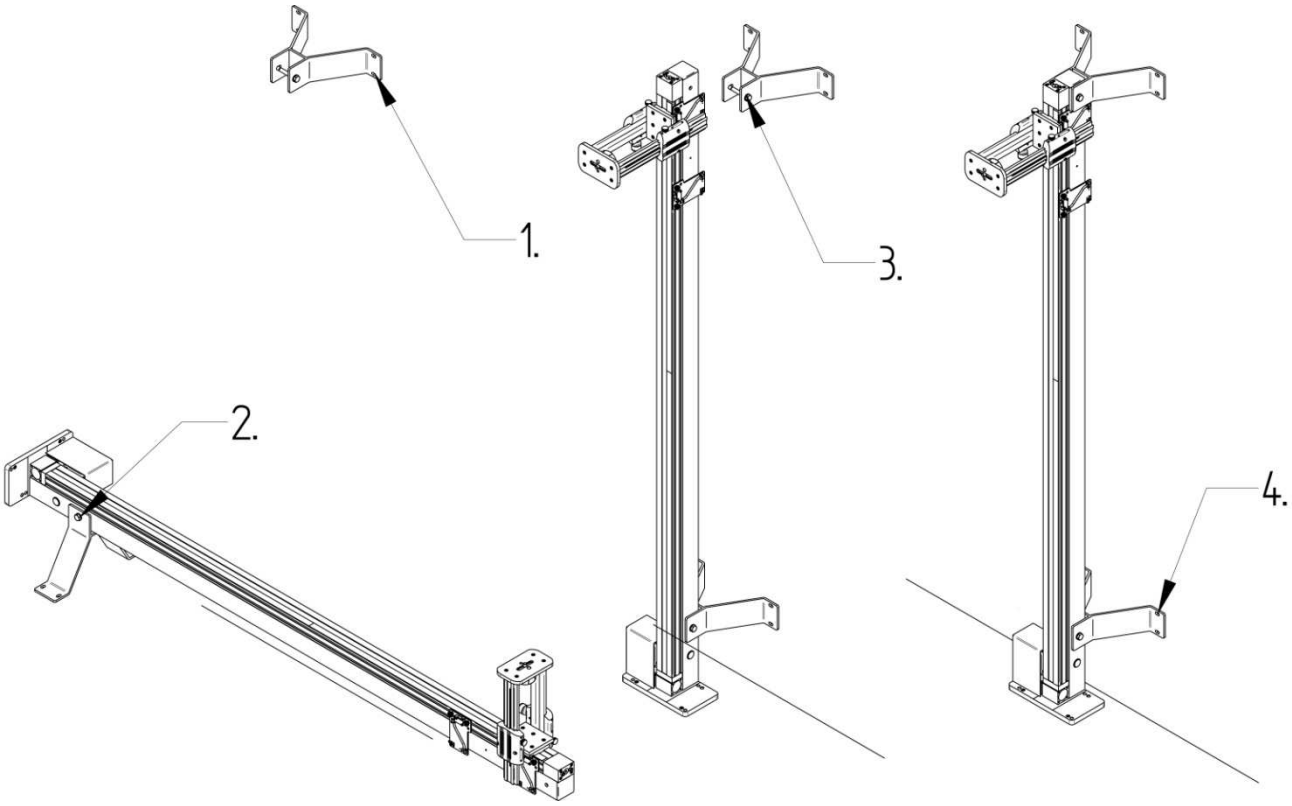


Fig.7: RPS-wall installation

Note: please use a level to determine if the column is levelled correctly.
now please fix the column to the top bracket (already fixed to the wall). The distance between the 2 mounting holes (b.) on the column is 178cm.

3. After fixing the top bracket to the wall, please fix the other bracket to the bottom of the column using: note figure 6; bolt (c.), washer (d.) and nut (e.).

4. After levelling the column, please fix the lower bracket to the wall (at least two screws, one on either side).

Note: for fine tuning you can adjust the position of the column in the bracket. First slightly loosen the bolt of the bracket (e. in figure 6), then tighten the setscrew (f. in figure 6). When the column is levelled, please tighten bolt (e.).

Baseboard/extender setup

a. Extender

b. Coupler (base)

c. Baseboard

d. Lock extender

e. Lock baseboard

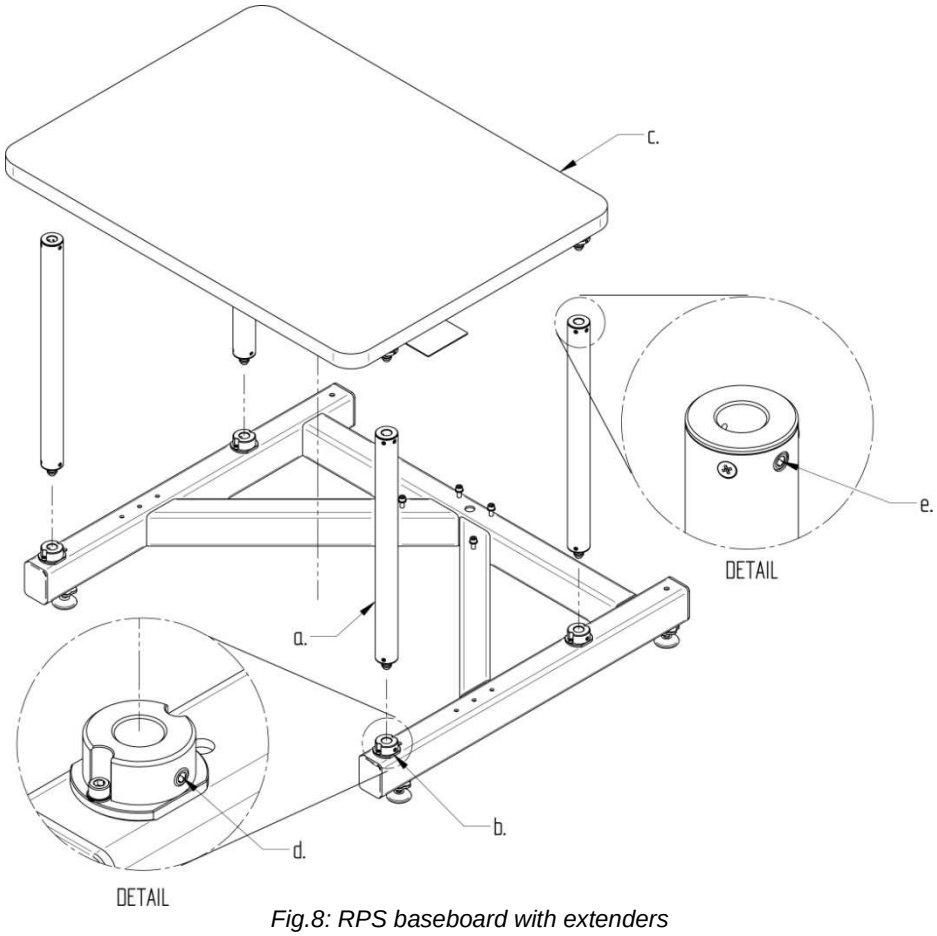


Fig.8: RPS baseboard with extenders

Installation baseboard/extenders:
Please ensure that all setscrews (d. Lock baseboard, 4x) are loosened. Place the four extenders (a.). It is best to perform the following instruction with two persons. Please insert the baseboard uniformly distributed (to prevent jamming). Now first tighten the extender locks (setscrew d., 4x), second; please tighten the baseboard locks (setscrew e., 4x).

Installation baseboard:
Please ensure that all setscrews (d. Lock baseboard, 4x) are loosened. It is best to perform the following instruction with two persons. Please insert the baseboard uniformly distributed (to prevent jamming). Now please tighten the extender locks (setscrew d., 4x).

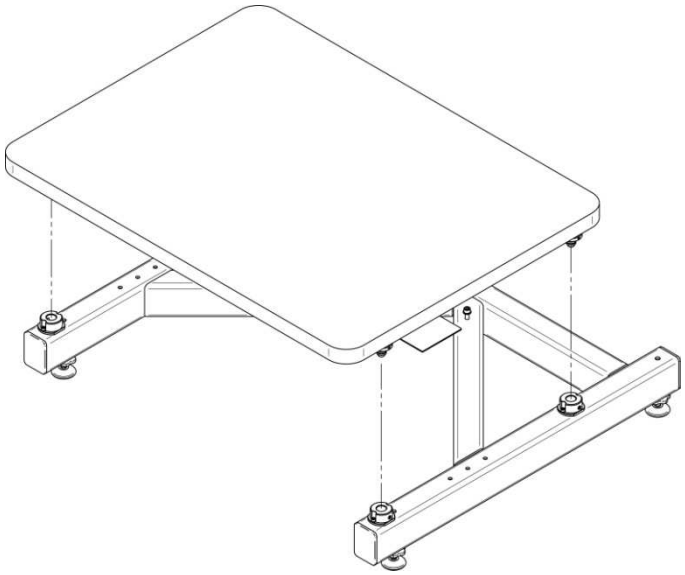


Fig.9: RPS baseboard

Connections and interface

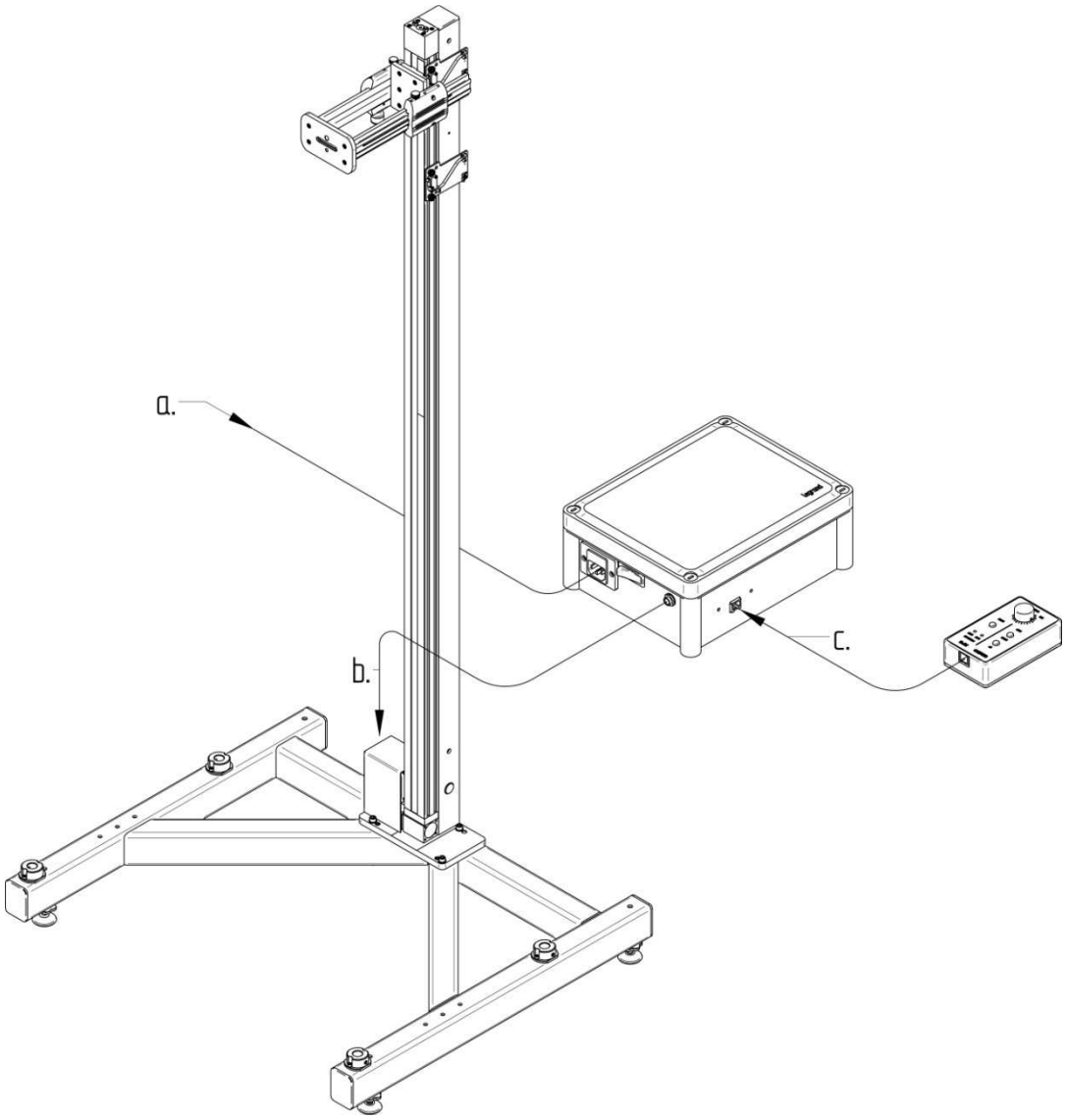


Fig.10: Cable connection scheme

a. Connection between the power supply box and the AC power (electric mains). WARNING: before connecting theca cable, please determine if the input power specified on the power supply corresponds with the AC power used in your area, if not do not connect the AC cable.

b. Connection between the power supply box and the motor unit. WARNING: never un-plug the connector when the unit is in use, this will damage the electronics.

c. Connection between the power supply and the remote control unit. WARNING: never un-plug the connector when the unit is in use, this will damage the electronics.

Power supply unit

a. Socket AC power cable

b. Socket motor cable

c. Socket remote control

Note: only use/connect supplied cables.

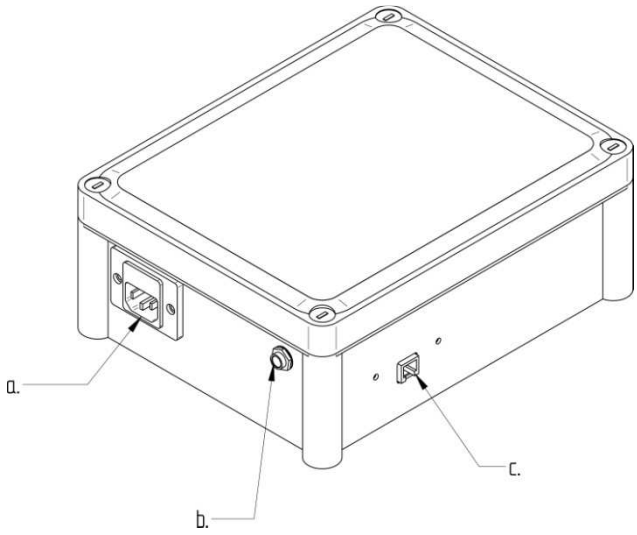


Fig.11: Power supply unit

Remote control unit

a. Pushbutton up

b. Pushbutton down

c. Low/high indication light

d. Mode high/low switch

e. Speed potentiometer min/max

f. Socket remote control cable

g. Magnets (4x)

h. Weight compensation potentiometer

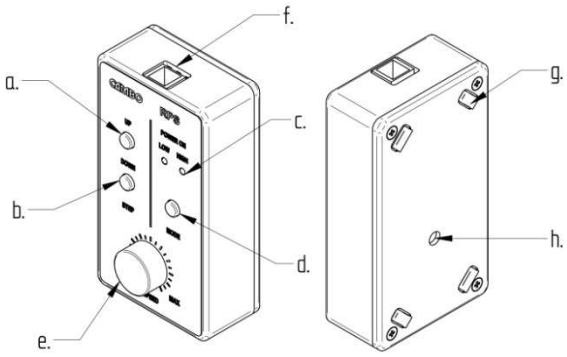


Fig.12: Remote control

Weight compensation potentiometer (fig.12 h.)

Because of the weight of the camera, the downward speed will be higher that the upward speed. The control module can compensate this difference, because the weight of the camera varies, the degree of weight compensation is different. This is why you can adjust the degree of weight compensation using the potentiometer (h.). To adjust the potentiometer please use a small flat screwdriver.

Column and horizontal arm

a. Lock horizontal arm

b. Drive knob horizontal arm

c. Camera mount plate

d. Lock safety end-switch

e. Safety end-switch

f. Wall bracket (RPS-170)

g. Lock anti-vibration weight

Adjusting the safety end-stops

To adjust the height of the safety end-switch, please unlock knob d. (2x) and slight the plate (switch) to the desired position and tighten knob d. (2x).

Maximum camera weight

The maximum allowed weight to use with the horizontal arm depends on the distance between the mount plate and the column.

At the minimal distance the maximal load at the camera plate is 12kg, the minimal distance is about 10cm between camera plate and column (note fig. 13).

At the maximal distance between the camera plate and the column (about 32cm) the maximal load is 5kg.

Don't exceed the maximal allowed loads.

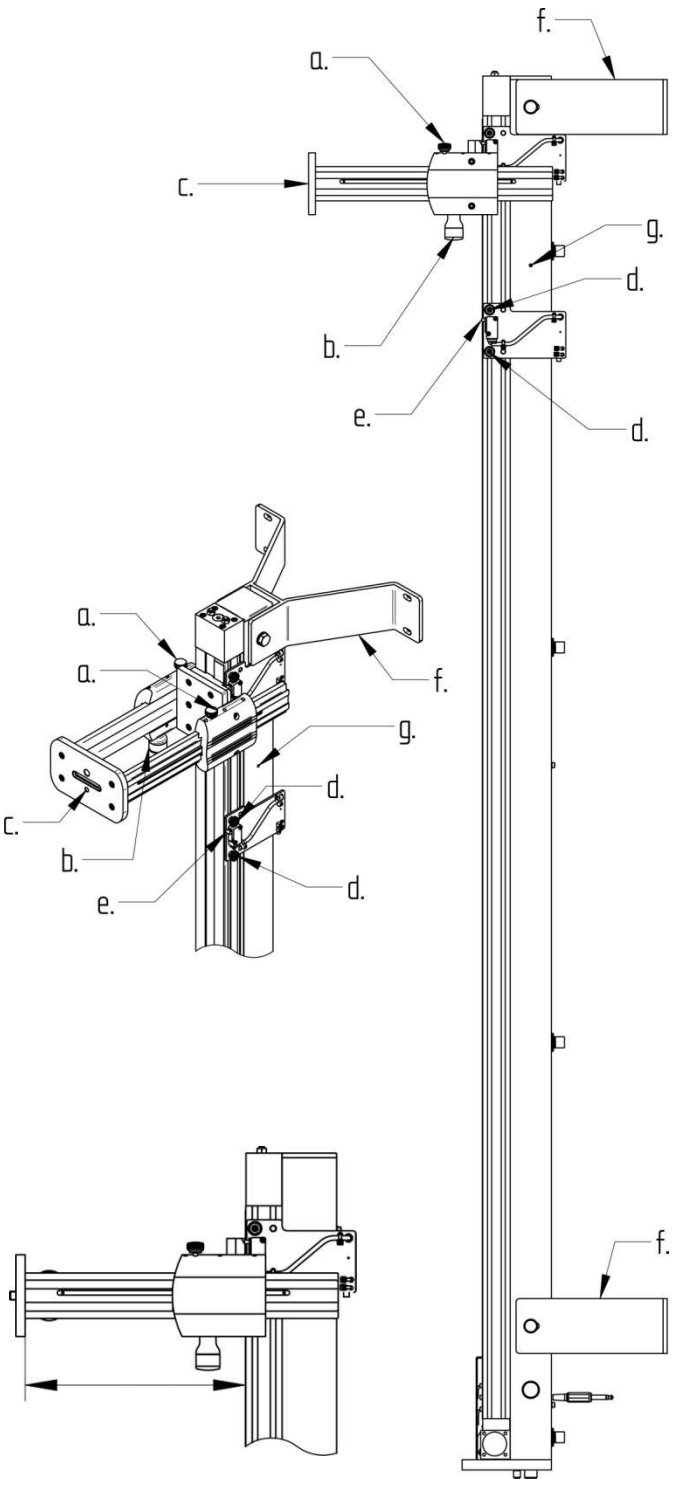


Fig.13: Column and horizontal arm

RPS-180 level disc (optional)

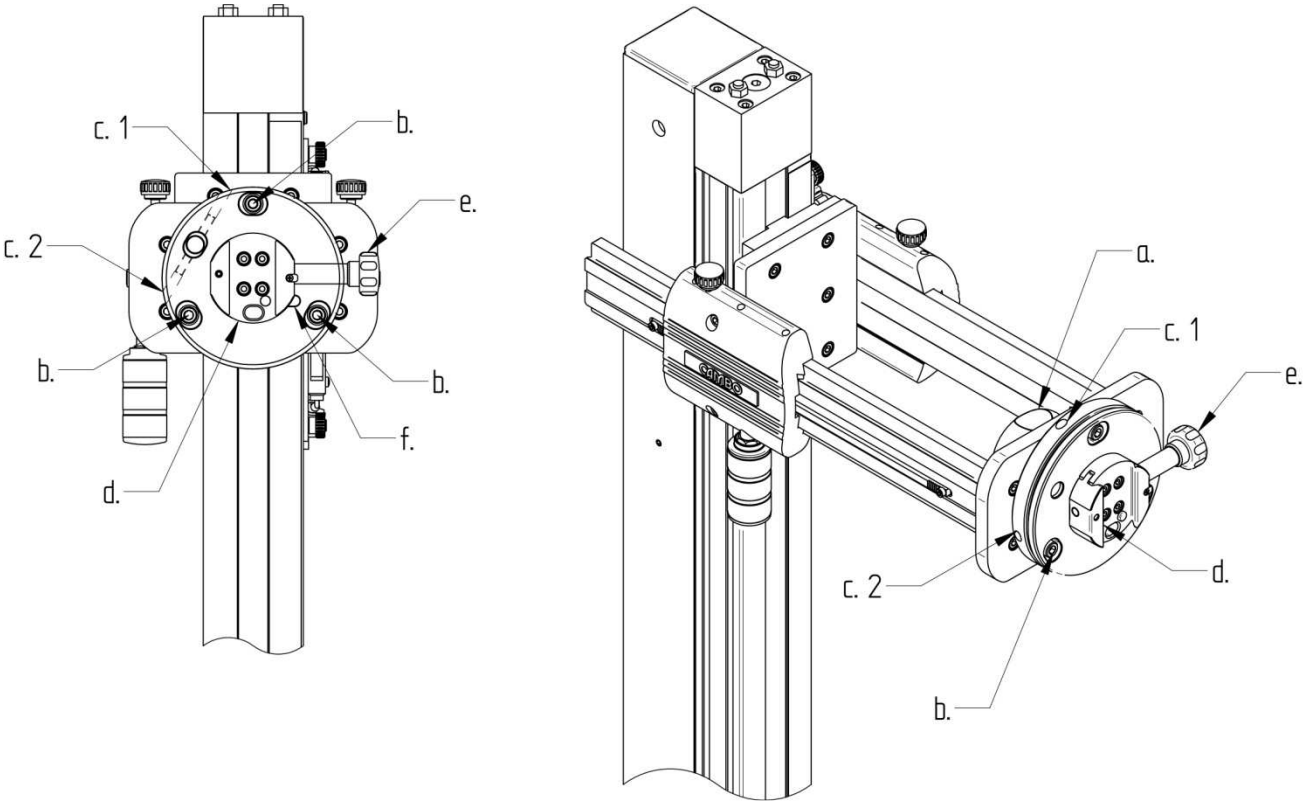


Fig.14: Level disc RPS-180 (optional)

a. Camera plate knob (3/8”)

b. Levelling dial, 3x hexagon bolt (Allen key 5mm)

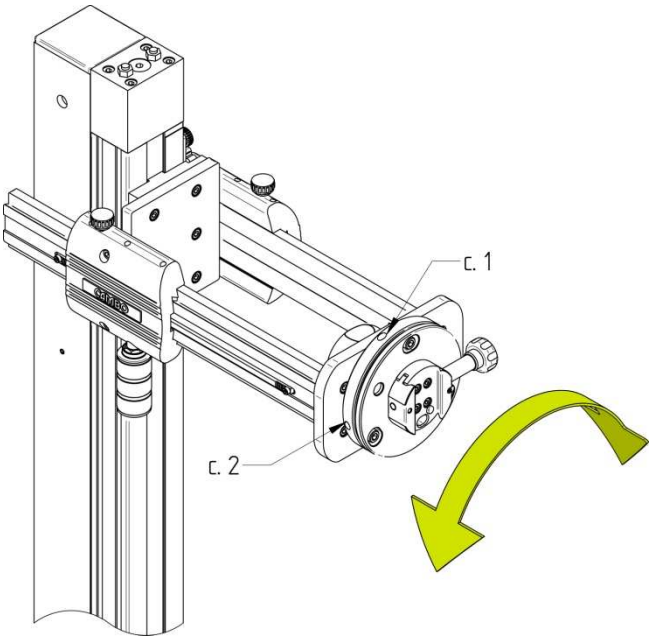
c. Angle adjustment, two setscrews c.1 and c.2 (Allen key 4mm)

d. Cambo quick release profile (fits 45Repro-D monorail). To mount the 45Repro-D camera; unscrew end of the rail, slide in the rail, lock the clamp (e.), screw in the end cap of the rail.

e. Quick release clamp

Levelling the camera using the RPS-180 level plate

The level disc enables the user to fine-tune the level of the camera.



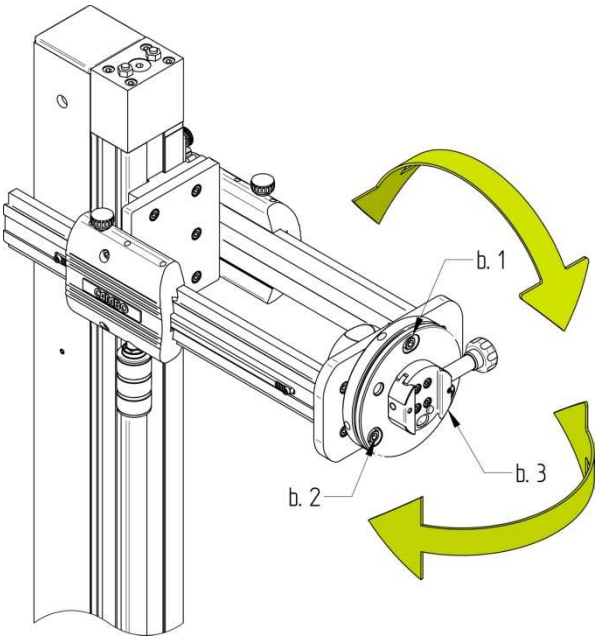
The RPS-180 level head features an adjustment of the horizontal plane of 5 degrees. To fine-tune the level of the horizontal plane, please use the tw0 setscrews c.1 and c.2 (Allen key 4mm).

ATTENTION: for the adjustment always loosen one of the screws and then tighten the other. When tightening the setscrews, don't overt-tighten (fixed = fixed).

To adjust the level counter clockwise ↺, loosen c.2 until the camera is levelled, then tighten screw c1.

To adjust the level clockwise ↻, fully loosen c.1 then tighten screw c.2, until the camera is levelled, then tighten c1.

Fig.15: Level disc RPS-180 (optional),level horizontal plane



To level the vertical plane please use the level screws (b.).

Screw b.2 and b.3 tilts and swings the camera, by tightening or loosening the screws b.2 and b.3.

Note: only in exceptional circumstances screw b.1 is used this is only when the adjustments of b.2 and b.3 are not sufficient. To use (reach) screw b.1 the rail must be sided down in the quick release clamp.

Fig.16: Level disc RPS-180 (optional), level vertical plane

Cambo reproduction solutions

Cambo RPS Copy Stand

RPS-100	Repro Copy Stand Column
RPS-120	Repro Copy Stand
RPS-150	Repro Copy Stand with Baseboard
RPS-170	Set of Wall-mounting Brackets
RPS-180	Heavy duty level plate
RPS-222	Set of Height Extenders for RPS-150
WRA-40	Anti Reflective Lens Shield d=100 mm, lens tread M40.5
WRA-440	Anti Reflective Camera Shield d=400 mm, lens tread M40.5

Cambo 4x5 Reproduction Monorail Camera

45Repro-D	Monorail Camera dedicated to Reproduction Setup
C-223	Flat Lens board #0
C-224	Flat Lens board #1
C-225	Flat Lens board #3
DPB-45	Direct adapter Plate 4x5
SLW-80	Interface plate with Hasselblad-V mount
SLW-89	Interface plate with Hasselblad-H mount
SLW-87	Interface plate with Contax 645 mount
SLW-88	Interface plate with Mamiya 645 AFd mount
UL-15	Monorail Extension 15 cm /6"
LM-25	Monorail Extension 25 cm /10"
LM-42	Monorail Extension 42 cm /16"
LM-65	Monorail Extension 65 cm /26"
C-306	Extended Bellows 4x5"

WDS Reproduction Camera

WDS-REPRO	WDS Camera dedicated to Reproduction Setup
WDS-611	WDS Rear frame with Hasselblad V interface
WDS-612	WDS Rear frame with Hasselblad H1 interface
WDS-617	WDS Rear frame with Contax 645 interface
WDS-614	WDS Rear frame with Mamiya 645AFd interface
WDS-504	Revolving back 4x5"
WDS-110	Macro-Adapter for Wide DS 10mm Extension
WDS-118	Macro-Adapter for Wide DS 18mm Extension
WDS-131	Macro-Adapter for Wide DS 31mm Extension

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