

Assembly instruction for Conen height adjustable system for interactive whiteboards



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1. Introduction

1.1 Welcome

Thank you for choosing our height adjustable system.

The Conen height adjustable system allows you to combine board and projector in one system.

You can easily move the interactive board and the projector up and down and bring them into the preferred position. We differentiate between the wall mounted system with or without wings and the mobile system with or without wings. It is not necessary to adjust the picture after moving the board. The usage of a short distance projector or an ultra short distance projector guarantees, that you cannot see any shadow on the board. The height adjustable system enables the smallest and tallest to use the whole board.

This assembly instruction contains all information for installer and user of the height adjustable system.

1.2 Important Warnings

- Only included equipment should be used for installation.
- The total system weighs between 70 – 125 kg / 154 – 275 lb and should be installed with care.
- Before the installation of the wall mounted system the condition of the wall must be clear and suitable installation material must be used. Wall mounting work must be performed by a construction specialist.
- No unauthorised modifications or additions are to be made to the system.
- Do not hang from or climb on the system.
- Tighten all screws securely.
- **Do follow the assembly instruction!**



Please contact us for further information and support about the installation and use of this system.

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1.3 Parts Check

After unpacking, make sure that all the following parts are present.

1.3.1 Wall Mounted System without wings

Packing unit	Content
STM-L	1 x spring tension mechanism
AF-STM-...	1 x individual frame (4 parts) 1 x crossbar 1 x lower board bracket 2 x upper board bracket 2 x pen tray bracket Fittings: 6 x Allen head screw M4 x 10 4 x Allen head screw M6 x 15 4 x Allen head screw M6 x 20 4 x Allen head screw M8 x 20 2 x Allen head screw M8 x 35 4 x 8 mm washer 6 x 4 mm washer 4 x screw nut M6 2 x screw nut M8
G1-K	1 x G1 projector mount (3 parts) Fittings & tools: 1 x Allen head screw M10 x 25 1 x hexagon head screw M10 x 20 4 x 8 mm washer 1 x 10 mm washer 4 x Allen head screw M8 x 35 4 x self locking nut M8 4 x distance tube, diameter 15 mm, length 15 mm

Packing unit	Content
G2-EDA 100-K	1 x G2 projector mount (2 parts) Fittings & tools: 4 x Allen head screw M6 x 20 4 x Allen head screw M8 x 35 4 x 6 mm washer 4 x 8 mm washer 4 x 6 mm plastic washer 4 x self locking screw nut M8 4 x distance tube, diameter 15 mm, length 15 mm 1 x 5 mm Allen wrench 1 x 6 mm Allen wrench
... or G2-XL 50-K	1 x G2 projector mount (2 parts) Fittings & tools: 4 x Allen head screw M4 x 10 4 x Allen head screw M8 x 35 4 x 4 mm washer 4 x 8 mm washer 4 x 4 mm plastic washer 4 x self locking screw nut M8 1 x 3 mm Allen wrench 1 x 5 mm Allen wrench 1 x 6 mm Allen wrench

For the assembly you need (not included):

- 3 mm Allen wrench
- 5 mm Allen wrench
- 6 mm Allen wrench
- 8 mm Allen wrench
- 10 mm wrench or ratchet
- 13 mm wrench or ratchet
- 17 mm wrench or ratchet
- 10 mm wrench

1.3.2 Wall Mounted System with wings

Packing unit	Content
STM-M	1 x spring tension mechanism
AF-STM-...	1 x individual frame (4 parts) 1 x crossbar 1 x lower board bracket 2 x upper board bracket 2 x pen tray bracket Fittings: 6 x Allen head screw M4 x 10 4 x Allen head screw M6 x 15 4 x Allen head screw M6 x 20 4 x Allen head screw M8 x 20 2 x Allen head screw M8 x 35 4 x 8 mm washer 6 x 4 mm washer 4 x screw nut M6 2 x screw nut M8
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WBW...	2 x whiteboard wings 4 x hinge holder 4 x hinge 12 x sheet metal screw 4,2 x 25 8 x 6 mm washer 8 x self locking nut M6

For the assembly you need (not included):

- 3 mm Allen wrench
- 5 mm Allen wrench
- 6 mm Allen wrench
- 8 mm Allen wrench
- 10 mm wrench or ratchet
- 13 mm wrench or ratchet
- 17 mm wrench or ratchet
- 10 mm wrench
- Philips head screw driver

1.3.3 Mobile System without wings

Packing unit	Content
MST	1 x mobile stand (5 parts) Fittings: 4 x Allen head screw M8 x 85 8 x Allen head screw M10 x 60 8 x 10 mm washer 8 x 8 mm washer 4 x self locking nut M8
STM-L	1 x spring tension mechanism
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NBS (optional)	1 x notebook shelf Fittings: 2 x carriage bolt M8 x 75 2 x 8 mm washer 2 x wing nut

For the assembly you need (not included):

- 3 mm Allen wrench
- 5 mm Allen wrench
- 6 mm Allen wrench
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2. Assembly Instruction

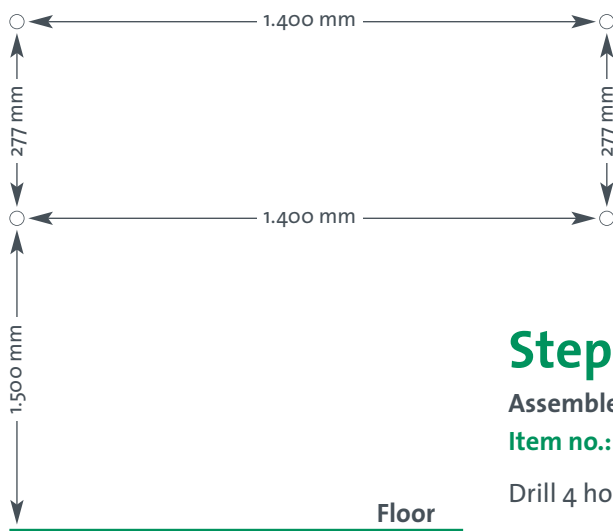
2.1 Wall Mounted System

Before the installation of the wall mounted system the condition of the wall must be clear and suitable installation material must be used. Wall mounting work must be performed by a construction specialist!

NO wallmounting materials are included,

because according to the condition of the wall different dowels and screws must be used. We suggest the use of our mobile stand in case that you are not absolutely sure that the system can be fixed properly. The wall has to carry dynamic weight. The board will be moved constantly during tens of years.

2.1.1 Wandmontiertes System ohne Flügel



Step 1

Assemble the spring tension mechanism to a concrete wall
Item no.: STM-L / STM-M

Drill 4 holes into the wall according to the drawing.



Fix the spring tension mechanism with the suitable assembly materials.

Wallmounting materials are NOT included!

Step 2

Attach the two bars with the aluminium profile to the spring tension mechanism.

Item no.: AF-STM...



Put the reels on the spring tension mechanism into the aluminum profile and hold the bar up with your knee.

Remove the end of the rope from the spring tension mechanism. Remove one of the screw nuts and one of the washers from the threaded rod at the end of the rope.



Put the threaded rod in the eye on the rectangular bar and fix it with the screw nut and washer you removed before.

Tighten the screw nut above and below the eye thoroughly. Repeat the procedure on the other side.



Pay attention!

The distance between the black rubber buffer and the lower bar of the spring case must be exactly the same on both sides.

The steel rope must run parallel to the black and to the white plastic wheels.



Step 3

Fix the lower crossbar.

Attach the aluminium pen tray to the lower crossbar. Use Allen Head screws M6 x 15 and 4 screw nuts to fix the brackets to the pen tray.

Use Allen head screws M8 x 35 and screw nuts M8 to attach the brackets to the lower crossbar. Depending on the board you can use a third bracket to hold the board in the middle of the lower crossbar.



Attach the crossbar to the side bars.

Fix the bar with one screw M8 x 20 and one washer on both sides. Tighten the screws thoroughly.



Step 4

Fix the crossbar in the middle of the frame at both sides of the frame. Use four screws M6 x 20 and the predrilled holes in the vertical bars. Do not use washers!



Step 5.1

Assemble the upper crossbar

Item no.: G2-XL50-K

G2-EDA100-K

Put the projector arm into the hole in the middle of the bar. The spare outs at the ends of the bar have to be in the front. The panel on the projector arm lays around the back of the bar.



Now put the crossbar on the frame and fix it on both sides with 2 screws M8 x 20 and 2 washers.

Fix the panel crossbar on 4 points. Use 4 screws M8 x 35, 4 washers and 4 screw nuts. Tighten the screws thoroughly.



Step 5.2

Item no.: G1-K

Now adapt the plate with tube for the G1 to the upper bar of the frame.

Use four screws M8 x 35, four washers and four nuts.

Then assemble the G1. Fix it by the Allen head screw M10 and the hexagon head screw M10. Use a washer.



Step 6

Assemble the board.

Remove the screw, inside the big plastic wheel with care.

Pull the mechanism down and stop it

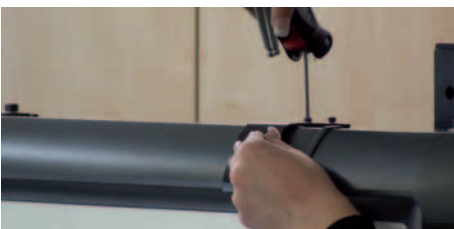
by using the security bolts on the right and left side.



Put the board carefully on the brackets at the crossbar.

Make sure that it is centered and

push it carefully against the upper crossbar.



Fix the board by pressing it against the frame.

Use 2 brackets, 2 screws M4 x 10 and 2 washers on each side.

Tighten the screws thoroughly.

Step 7.1

Install the projector

Item no.: **G2-EDA 100-K**

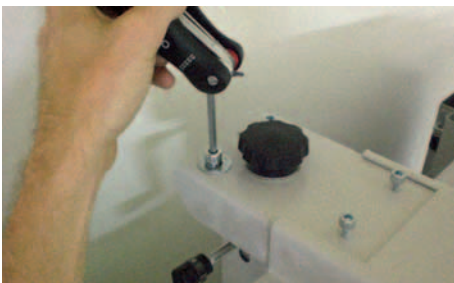
For projector Hitachi EDA 100 & EDA 101



Now assemble the projector mount:
Place the distance tubes on top of the holes in the projector.
Screw the 2 rails to the projector with 2 M6 x 25 screws.



Assemble the mount with 4 M6 x 20 screws and M6 nuts on the rails. The mount has to be positioned in the center of the lense.



Remove the Allen head screw and loosen the knurled head screw at the projector arm.
Slide the mount underneath the knurled head screw and washer and secure it.
Fix the projector mount also by the two Allen head screws.



Use the crank at the projector arm to adjust the height of the projector.
Attention! Lower the arm to move the system through a door!



Use the M6 Allen head screws and the M10 x 135 hexagon head screws to adjust the distance between the lense and the projection area.



Step 7.2

Install the projector

Item no.: **G2-XL 50-K**

For projector Sanyo XL 50



Put 4 x 6 mm plastic washers on top of the holes in the projector. Put the mount onto the washers. Now put the 4 mm washers on top of the mount and fix the mount with 4 M4 x 10 Allen head screws.



Remove the Allen head screws and release the knurled head screw at the projector arm.

Slide the mount underneath the knurled head screw and the washer and fix it. Fix the projector mount also with the two Allen head screws.



Use the crank at the projector arm to adjust the height of the projector.

Attention! Lower the arm to move the system through a door!



Use the M6 x 20 Allen head screws to adjust the distance between the lens and the projection area.



Use the M6 x 30 Allen head screws on top of the mount to level the picture out horizontally.



Step 7.3

Install the projector G1

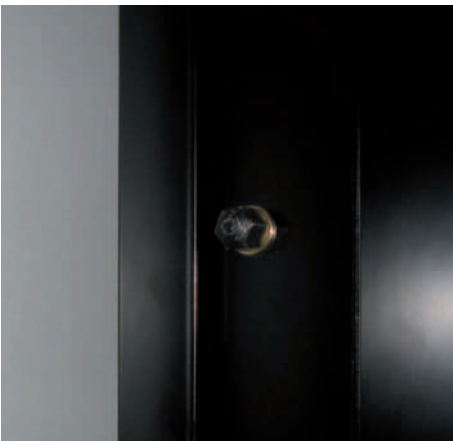
Item no.: G1-K

Attach the projector to the universal mount, using the screws supplied.



Slide the mount over the projector arm and secure it by the screws.

Slide the plastic cap over the projector arm and attach the cables to the projector.



Step 8

Adjust the spring tension mechanism

You can adjust the balance by turning the screw located on the right hand side of the mechanism. Use a 17 mm ratchet.

Turn clockwise to increase the tension (in case the board moves down)

Turn counter-clockwise to decrease the tension (in case the board moves up)

2.1.2 Wall Mounted System with Wings

Step 1

Perform as described in the **steps 1 – 7**, in chapter „2.1.1 Wall Mounted System without Wings“, page 12 – 18.



Step 2

Install the whiteboard wings
Item no.: WBW...

Unpack the wings. Leave the protective foil on the whiteboards until installation is finished! Attach the hinges to the system.



Fix the wings with 3 screws per hinge to the mechanism.



It is important that the wings run parallel and hide the board, when they are closed.

You can adjust the wings by moving the hinge over the slotted holes in the crossbars.

Please tighten all screws thoroughly again.

Step 3

Perform as described in **step 8**, in chapter „2.1.1 Wallmounted System without wings“, page 18.

2.2.1 Mobile System without wings



Step 1

Install the mobile stand
Item no.: MST

Tighten the screws in the casters thoroughly.



Attach the legs with 2 Allen head screws M10 x 60 and 2 x 10 mm washers to the feet with the casters.

The casters with the breaks must be in the front of the system.



Tighten the screws thoroughly.



Put the crossbar on one of the feet and fix it.
Use two screws M10 x 60 and washers.



Connect the foot and crossbar to the other foot.
Tighten the screws thoroughly.



Step 2

Assemble the spring tension mechanism

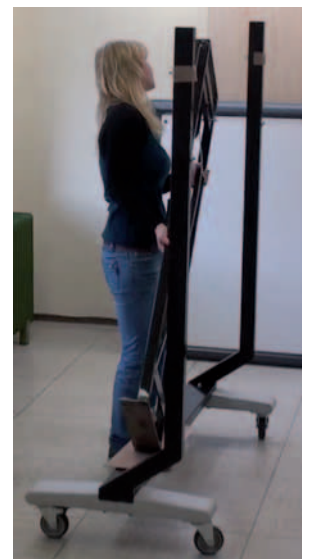
Item no.: STM-L / STM-M

Put two screws M8 x 85 and washers through the holes in the mobile stand and fix them with tape.



Protect the crossbar downside.
For example with a piece of carton.

Put one side of the spring case on the carton.



Hang up the spring tension mechanism firstly on one side at the top and fix it a little bit with one 8 mm washer and one self locking screw nut M8.



Now attach the other side of the spring case to the stand and fix it by a self locking nut. Use a washer!



Now put the two lower screws & washers through the holes in the mobile stand and the spring tension mechanism and fix it by the selflocking screw nuts.



Tighten all screws thoroughly.

Step 3

Perform as described in the **Steps 2 – 8**, in chapter „2.1.1 Wall Mountes System without Wings“, page 13 – 18.



Step 4

Install the PC shelf

Item no.: NBS

Put the PC shelf on the frame.

Position the screws M8 x 75 and gently drive them through the PC shelf.



Tighten the wing nuts.

Use washers.

2.2.2 Mobile System with wings



Step 1

Perform as described in the **steps 1 – 2**, in chapter „2.2.1 Mobile System without wings“, page 20 – 22.

Step 2

Perform as described in the **steps 2 – 7**, in chapter „2.1.1 Wall Mounted System without wings“, page 13 – 18.

Step 3

Perform as described in **steps 2 – 3**, in chapter „2.1.2 Wall Mounted System with wings“, page 19.

Step 4

Perform as described in **step 4**, in chapter „2.2.1 Mobile System without Wings“, page 22. The PC-shelf is an optional feature.



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