# INSTALLATION & HANDLING GUIDE

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# **PANEL INSTALLATION - Wall & Ceiling**



Application is quite easy, the panels are mounted on a rail system and can be changed with another Mikodam panel when desired.



The panels comes with Z shaped hanging profiles on it. During the installation, U shaped hanging profiles are mounted to the wall and the wall panels are assembled to these. The hardware details to be used are shown in the pictures below.

Hardware set for U shaped profiles to be mounted to the wall are included in the package.



Hardware set for U shaped profiles are included in the package.

#### **PANEL INSTALLATION - Wall & Ceiling**





We use 2 seal elements in order to separate metal installation elements from screws. To prevent any direct connection between the wall and the wall panels. This is acoustically required for vibration control from noises coming from the inside or the outside.

Z shaped hanging profiles are fixed on the panels comes at a standard height so that if you change the panel with another Mikodam panel you will not have to change the position of the U-shaped profile on the wall.



60x120 cm panels come with pre-inserted nuts at the corners on the back of the panel, ready to fix the Z-shaped profiles.

In the box of the panels, Z-shaped profiles, allen bolt, allen key, and lamellos for 60x120 cm panels comes separately in a bag.



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Standard panel size for Mikodam panels is  $23.60^{\circ} \times 23.60^{\circ}$  (60 cm x 60 cm) or  $23.60^{\circ} \times 47.20^{\circ}$ (60 cm x 120 cm). While the standard package size is  $50.59^{\circ} \times 25.79^{\circ}$  (1285 cm x 655 cm)

23.60" x 23.60" panels are boxed as a set of 4.

23.60" x 47.20" panels are boxed as a set of 2.



Each Mikodam Panel box is shipped together with a box of fasteners to hang the panel.



The fasteners box contains; 6 pcs of 59 cm (23 1/4") U- shaped profiles, 3 pcs of connecting piece, 2 bags that contains screws, anchors, plastic seals & EPDM seals





Connecting piece helps to connect 2 U-shaped profiles side by side. The piece also helps to align the profiles.

U-shaped profiles can be mounted on the wall adjacent or with a gap in between.







Using these pre-inserted nuts, Z-shaped profiles can be fixed according to the direction of the panel to be hung.

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The locations of the Z-shaped profiles are the same for all 60 x 120 panels so that if you change the panel with another 60 x 120 cm Mikodam panel you will not have to change the position of the U-shaped profile on the wall. You can also change the direction of the panels without changing the position of the U-shaped profiles.



While hanging the panels, both lower and upper z profiles should be used for the panel at the bottom. For the panels above it only the z profiles on the top are used.





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In order to hang four 60x120 panel in vertical position you will need;

6 pcs of 59 cm (23 1/4") U- shaped profiles, 12 pcs of Z- clips. In order to hang four 60x120 panel in horizantal position you will need;

10 pcs of 59 cm (23 1/4") U- shaped profiles, 10 pcs of Z- clips. 1ikod





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Lamello

Lamello biscuits are used to join and level the panels to each other.

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Lamello biscuits are used to join and level the panels to each other.







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End panels can be easily attached to the panels using lamellos.

# PANEL ENDING - (boxed panels)











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Given below is the method of installation of our panels hanging on the ceiling by using wire ropes. This method is preferred when the panels need to be hung at a distance from the ceiling instead of being directly mounted to the ceiling. (The examples in the following pages are given using Geta & Tora panels; the same system can also be applied to other Mikodam Panels.)







\*Similar system is used Haydar Aliyev Auditorium project









Geta panels











We use lamello biscuits to join and level the panels to each other.

The panels must be installed on ceilings following a certain order. The installation should start at the corner and follow the consecutive sequence in both directions as shown below, making sure the shorter edges join each other and the longer edges join each other as well.



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After hanging the first panel, the corner of the panel should be stabilized by hanging from three points on the ceiling. The other corners should be fixed by using temporary turnbuckles until the other panels are hung.



The second panel should be attached to the first panel on its shorter edge by using lamellos and zip ties. Free corners should be suspended from the ceiling by using temporary turnbuckles.



After the second panel is fixed in place temporarily, a wire rope should be inserted through the eyebolts at the outer corner of both panels. To tie the inner corners, the second row should be installed first.



The same steps should be applied until the installation of the last panel in the row. Then the height of the panels at both ends of the first row must be adjusted. After that the panels in the middle should be adjusted too, so that the height is the same for all the panels in the row.

The two corners in the starting row must be connected from 3 points on the ceiling so that the direction of the panels are fixed.

In order to provide stabilization, the panels should be hung not only from perpendicular points but also from cross points, on corners and every 5 to 6 panels in a row.



Then the first panel of the next row is installed, again first by using zip ties and hanging free corners from the ceiling by using temporary turnbuckles. Then a wire rope should be inserted through the eyebolts at the outer corners of the panels.



To pull the panels towards each other, the wire ropes must be inserted through the eyebolts at the corners of all adjacent panels.







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The panels should be hung not only from perpendicular points but also from cross points. In order to provide stabilization, it is necessary to hang them from 3 points on corners and every 5 to 6 panels in a row.









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If there is a need to reach behind the panels, some of the panels may be movable. In this situation, for movable panels, wire rope or lamellos should not be used. Moveable panels should be placed with the help of wooden wedges which can be removed when desired thus allowing to access behind the panels.









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#### **PANEL INSTALLATION - Ceiling - Rod Hangers**

Instead of using wire ropes, the same system can also be applied by using rod hangers. Rod hangers are used to hang the ceiling panels when the distance is low from the structure to hang, where we use wire ropes when the distance to hang is greater.



# PANEL INSTALLATION - Ceiling - Rod Hangers





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#### PACKAGING DETAILS (boxed panels)

The package of 23.60" x 23.60" (60cm x 60cm) panels contains 4 panels.

The package of 23.60" x 47.20" (60cm x 120cm) panels contains 2 panels. "All sides of the products are covered with honeycomb cardboard to prevent it from damages and being scratched. The products are wrapped with shrink packaging after being put in boxes specially prepared for the panels.













Labels on the panels have all the information about the panel & package which also can be reached online through the QR code as well. Each box has labels on 3 sides of the box.

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#### INSTRUCTIONS FOR STORAGE (boxed panels)





23.60" x 23.60" & 23.60" x 47.20" panels can be stored on top of each other on pallets or can be stored in racking.

The pallets should not be stacked on top of each other as it will damage the panels. Pallets can only be stacked only if a special middle pallet (see next page) is used in between. Hikodo

#### SHIPPING DETAILS





Standard panel size for Mikodam panels is  $23.60" \times 23.60"$  (60 cm x 60 cm) or  $23.60" \times 47.20"$ (60 cm x 120 cm). While the standard package size is  $50.59" \times 25.79"$  (1285 cm x 655 cm)

23.60" x 23.60" panels are packed as a set of 4.

23.60" x 47.20" panels are packed as a set of 2.



Standard pallet size of Mikodam Panels is 50.59" x 25.79" (1285 cm x 655 cm), while the height is up to 7 feet. Boxes on the pallets are strapped.

In most cases pallets are arranged to have the same panel type on them.

In cases where the number of the same panel type boxes cannot add up to the height of the container a middle pallet can be used in between to separate the panel types.



In other cases, mixed items on a pallet are to be minimized.

#### SHIPPING DETAILS



In order to fit our pallets into the container in the best possible way, we are using the layout shown above.

The tied pallets are loaded below 7 ft high but in order to stabilize them in the container another box can be placed by hand on top of each pallet and by this way the top space will be filled completely. When unloading, top box can be taken manually, then the pallets can be unloaded from the container easily with a pallet jack or a forklift.

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#### INSTRUCTIONS FOR CARRYING THE PANELS (for 95" -240 cm (h) panels)



For proper handling, Mikodam Panels should be carried with the long edge parallel and vertical to the ground, by 2 persons.



To prevent cracks on the corners, never put Mikodam Panels with their corners on the floor. The panels should always be placed in an upright position with the entire edge standing on the floor.



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#### PANEL INSTALLATION - Wall & Ceiling (for 95" -240 cm (h) panels)



The drawing above shows the standard heights of the U-shaped profiles. (dimensions given are based on the hole centers)



The same railing system can be applied both on walls and on ceilings .

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#### PANEL INSTALLATION - Wall & Ceiling (for 95" -240 cm (h) panels)





It may be necessary to fix the panels to the wall in order to prevent the panels from dislodging in extreme cases such as earthquakes. We suggest two methods for this. The first is to fix the panel in place by placing a wooden lath between the panel and the ceiling, thus clamping the panel. The second method is to fix the panel to the wall with the help of a metal profile previously mounted on the back of the panel. If the second method is chosen, acoustic seals included in the assembly kit should be used. The second method can also be applied to the last row of the panels installed on ceilings in order to fix them in place.

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#### PANEL INSTALLATION - Wall (for 95" -240 cm (h) panels)



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#### PANEL INSTALLATION - Wall (for 95" -240 cm (h) panels)

Our railing system can be applied both on wooden studs & metal profiles/studs. It can also be applied when there is no drywall on the surface and only studs & rockwool are available.





#### **RAILING SYSTEM**





# **PANEL INSTALLATION - Wall**

The photos below show an installation process on the wall.

















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The photos below show an installation process on the ceiling.







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# INSTRUCTIONS FOR STORAGE (for 95" -240 cm (h) panels)



Never put Mikodam Panels on top of each other.



The pictures above show proper vertical storage of our panels in our warehouse.

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#### PACKAGING DETAILS (for 95" -240 cm (h) panels)

Packaging details for 95" -240 cm (h) panels: First of all, we cover the product with interlining to prevent it from being scratched. We wrap the 4 edges and corners of the product with blue PE, as shown in the pictures and we cover the surface of the product with 10-12 mm PE. Finally, we wrap it with bubble paper and shrink packaging.



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