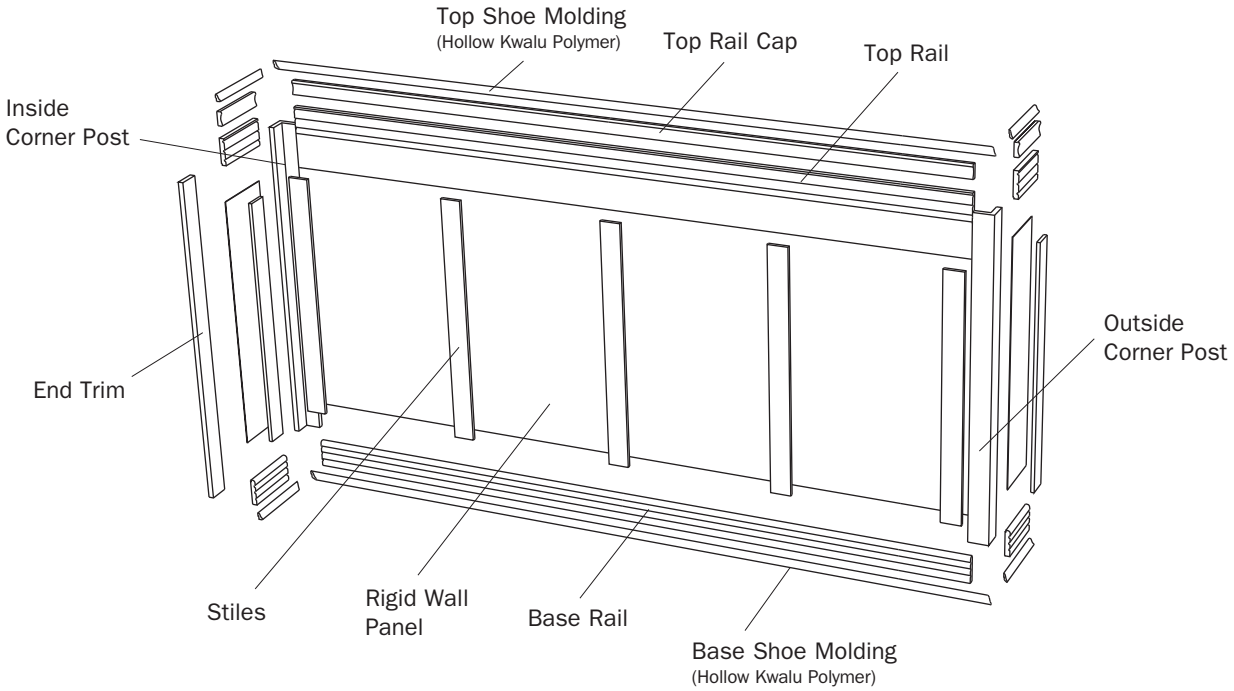
Installation Instructions
Wainscot Paneling

Kwalu WALL PROTECTION

1-877-MY-KWALU (695-9258) • kwalu.com

Note: Installation of Kwalu wainscot paneling generally requires at least two people working together.



Materials (supplied with order):

- Vertical Inside and Outside Corner Posts
- Vertical End Trim
- Vertical Stiles
- Rigid Wall Panels
- Color-matched Caulk
- Horizontal Top Rail
- Horizontal Rail Cap*
- Horizontal Top Shoe Molding (Hollow Kwalu Polymer) *
- Horizontal Base Shoe Molding (Hollow Kwalu Polymer) *
- Horizontal Base Rail

*These components are optional and may not be included in your wainscot paneling system. Refer to Kwalu quotation for bill of materials included in your system

Required Tools (supplied by Installer):

- Safety Glasses
- Protective Gloves
- Pencil/Felt Tip Marker
- Caulk Gun
- Tape Measure
- Laser Level and/or Chalk Line
- Minimum 10" Power Miter Saw w/ 80-Tooth Carbide Blade
- Power Jig Saw w/ Fine Tooth Blade
- Power Circular Saw
- Pneumatic Brad Nailer
- Stud Finder
- 2' or 4' Level
- Water Bucket & Clean Cloth/Sponge
- Power Drill
- 1/4" Diameter Drill Bit
- 2" and 1" Long 18 Gauge Wire Brads
- '0000' Fine Steel Wool
- Loctite Power Grab Heavy Duty or Loctite Power Grab All-Purpose Construction Adhesive

Delivery, Storage and Handling:

1. All materials will be delivered to the jobsite in original unopened factory packaging. Upon delivery, carefully inspect all packages to ensure that all required materials have been delivered in acceptable condition.
2. Store all materials flat in a dry, environmentally controlled area between 65˚F and 80˚F, and protected from direct sunlight and the elements.
3. Do not install wainscot wall panel systems until all facility finish work has been completed, including painting.
4. All materials must be acclimated to installation conditions at least 24 hours before installation is to begin.

Preparation:

1. Ensure that all wall surfaces and wall protection system components are free from moisture, dust, dirt, and wet or chipping paint, etc.
2. Ensure that all walls are straight, plumb and free of imperfections.
3. Check the floor for level. If the floor is not level, locate the highest and lowest points in each room to receive wainscot paneling, then determine the difference in height between the high point and the low point. If base shoe is not being used, the differential should not be more than $^1/_8$". If base shoe is being used (base shoe is always highly recommended to help mask variations in floor elevations), this floor elevation differential should not be more than $^1/_2$". If the change in floor elevation exceeds these parameters, base rails should be scribed to the floor to reduce the margin at the lowest elevation to an acceptable level. It is essential, however, that the base rail be installed on a true level plane.

Special Instructions:

1. For proper cutting, use only SHARP carbide tipped blades in circular saws and miter saws.
2. When using nail gun, hold in contact with surface to be fastened. DO NOT BOUNCE on the surface. Adjust the finish nail gun so that the nail head just penetrates the polymer layer.
3. Do NOT use nails closer than $^1/_4$" from the edge of the wall protection component.
4. Base shoe and top shoe molding may crack when pneumatic nailer is used to fasten them to the wall, particularly when not completely acclimated to room temperature. Use adhesive to fasten shoe moldings in place wherever possible, and utilize 1" wire brads where necessary.
5. Kwalu strongly recommends the use of Loctite Power Grab Heavy Duty or Loctite Power Grab All-Purpose Construction Adhesive. Other adhesives may cause a damaging reaction with the Kwalu product. Use of other adhesives will void the product warranty.
6. When applying construction adhesive to wall protection components, apply a $^1/_8$" bead in a loop or multiple overlapping circular patterns. Panels need only be adhered around the outer edges.

Installation:

1. Install Internal and External Corner Posts, and End Trim Posts

a. Locate studs along entire length of wall to receive wainscot installation. Use stud finder if necessary. Mark each stud location for later reference.
b. Draw or snap a LEVEL line 4 $^1/_4$" above the finished floor (AFF) for 4" rail and 8 $^1/_4$" AFF for 8" rail. Keep in mind that the base rail MUST be installed on a true level plane. Refer to Preparation Step 3 if you encounter floors that are out of level.
c. Subtract the height of the base rail from the overall height of the corner or end trim.

d. With this measurement, measure up from the floor and mark the height of your corner or end trim pieces on the wall. This will be where you place the top edge of the end trim or corner piece.
e. Without applying adhesive, dry-fit the corners and/or end trims in place.
f. Use a level to check that the corner trim is plumb along both sides. Also check to see that both outer edges of the corner piece are flush against the wall. If gaps exist, you will have to either shim the corner and the abutting rails to bring them all to an equal point, or carve out enough sheetrock at the interior part of the corner to bring the outer edges of the corner trim in line with the walls. Whichever method is chosen, it is important to keep the corner trim square with the two legs running parallel to the adjoining walls.
g. Use a pencil to lightly mark the position of the trim piece.
h. Apply construction adhesive to the back of the corner or end trim pieces.
i. Press in place. If needed, use a pneumatic finish nail gun to apply 2" finish nails to hold trim piece in place while adhesive cures.
j. Carefully clean all excess construction adhesive.

2. Install Base Rail

a. Measure between corners and/or end trim pieces. Cut baseboard to length. If more than one board is required, scarf or miter joints are recommended for optimum fit. Cut the adjoining base rail pieces at opposite 45° angles to join them together (**see figure 1**).

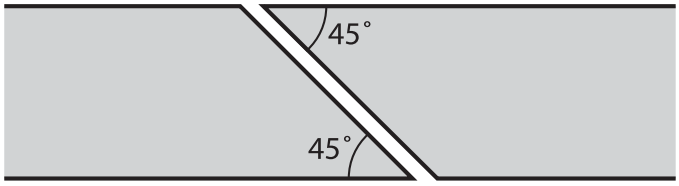


figure 1
Top view of base rail scarf joint

b. Find the slot in the base rail (**see figure 2**). This is the rear surface to be applied to the wall. Apply construction adhesive to the back of the base rail, and one surface of any miter joints necessary.

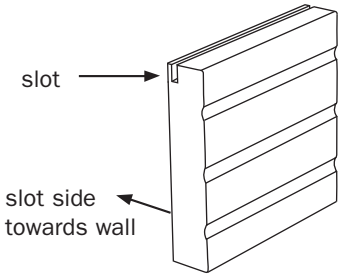


figure 2
Base slot pointed up
and towards wall

c. With the slot in the base rail pointed up and toward the wall, apply the base rail to the wall, beginning at one corner and following the marked level line across. If necessary, fasten a 2" nail at marked stud locations and/or into the wall framing base plate along the floor to ensure level is maintained while the adhesive cures.
d. Apply a thin bead of the color-matched caulk supplied with your order to the miter joint to provide a seamless transition. Clean excess caulk with a clean, damp cloth or sponge.
e. Carefully clean all excess construction adhesive.

3. Install Top Rail

a. Loosely set vertical stiles in place on top of the base rail, without using any adhesive or fasteners. Stiles are in place for measurement purposes only.

b. Measure between corners and/or end trim pieces. Cut top rail to length. If more than one board is required, scarf or miter joints are recommended for optimum fit. Cut the adjoining top rail pieces at opposite 45° angles to join them together.

c. Find the rabbet in the top rail (**see figure 3**). This is the rear surface to be applied to the wall. Apply construction adhesive to the back of the top rail, and one surface of any miter joints necessary.

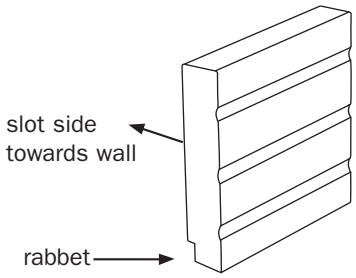


figure 3
Top rail slot pointed down and towards wall

d. With the rabbet in the top rail pointed down and toward the wall, apply the top rail to the wall, beginning at one corner and placing on top of stiles. If necessary, fasten a 2" nail at marked stud locations to ensure level is maintained while adhesive cures.

e. Apply a thin bead of the color-matched caulk supplied with your order to any miter joints to provide a seamless transition. Clean excess caulk with a clean, damp sponge or rag.

f. Remove stiles.

g. Carefully clean all excess construction adhesive.

4. Install Panels

a. Find wall panels to be installed and orient grain pattern in desired direction (vertical or horizontal). Your system was fabricated with a particular grain direction in mind (typically vertical), so check your Kwalu quote if you are unsure which direction to utilize.

b. Measure the locations of any electrical outlets or other wall-mounted units that must protrude through the panels. Transfer the measurements to the panel to cover that location, and mark the perimeter of the wall-mounted unit. Drill an access hole inside the marked perimeter using a power drill and $^1/_4$" brad point drill bit. Using a jig saw, start at the drilled hole and cut around perimeter of measured area.

c. Apply beads of construction adhesive along only the outer edges of the back of the panel.

d. Begin at one corner, and tilt the panel away from wall. Install the bottom edge of the panel into the slot in the back of the base rail (**see figure 4**).

e. Bow the panel out at the center and slide the top edge into the rabbet in the back of the top rail (**see figure 5**).

f. Butt the panel to corner or end trim pieces. Small gaps at any corner or end trim pieces are acceptable as they will be covered by stiles 3" wide stiles in the next procedure.

g. Repeat this procedure across wall.

h. Carefully clean all excess construction adhesive.

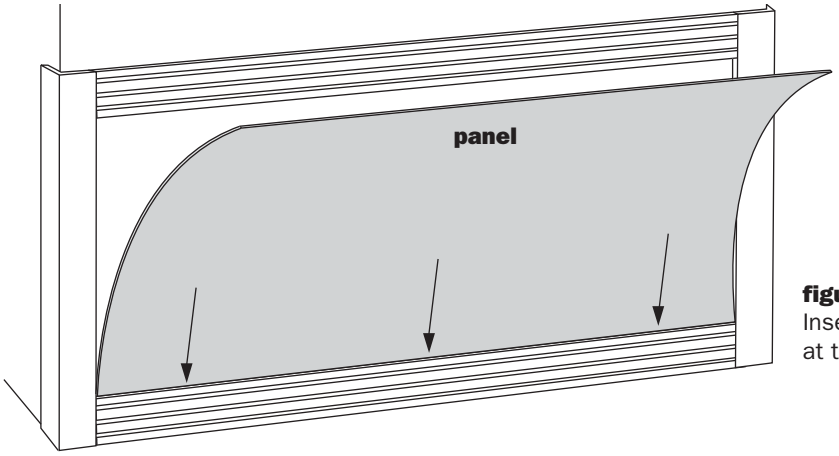


figure 4
Insert panel into slot
at the back of base rail

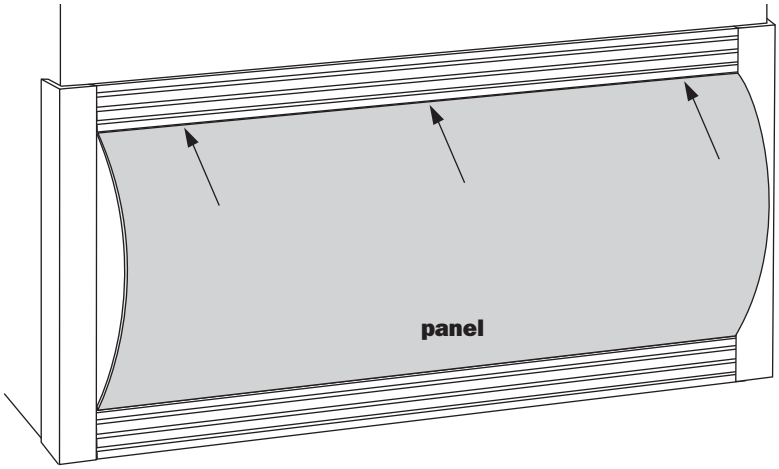


figure 5
Insert panel into rabbet
at back of top rail

5. Install Vertical Stiles

a. Apply construction adhesive to top and bottom edge and back of the stile.
b. Install the first two stiles butted against the corner posts or end trim pieces on each end of the wall.
c. Refer to Kwalu material quote for standard spacing between stiles.
d. Measure the remaining distance between the two end stiles. Calculate equal spacing between the remaining stiles to the closest approximation of quoted standard spacing, taking into account the length of the wall, the location of the seams between panels, and the location of any wall outlets, etc.
e. Install the remaining stiles using construction adhesive.
f. Carefully clean all excess construction adhesive.

6. Install Rail Cap

a. From the top edge of the top rail, measure the distance between corner/end trim pieces at each end of wall.
b. Cut the rail cap to length. If more than one board is required, scarf or miter joints are recommended for optimum fit. Cut the adjoining rail cap pieces at opposite 45° angles to join them together.
c. Apply construction adhesive to back of rail cap, and one surface of any miter joints necessary.
d. Begin installing at one corner post and install against top edge of top rail. If necessary, fasten a 2" finish nail at marked stud locations while adhesive cures.
e. Apply a thin bead of the color-matched caulk supplied with your order to any miter joints to provide a seamless transition. Clean excess caulk with a clean, damp sponge or rag.
f. Carefully clean all excess construction adhesive.

7. Install Base Shoe Molding

a. At floor level, measure the distance between corner/end trim pieces at each end of wall.
b. Cut the base shoe molding to length. If more than one board is required, scarf or miter joints are recommended for optimum fit. Cut the adjoining base rail pieces at opposite 45° angles to join them together. Apply a thin bead of the color-matched caulk supplied with your order to the miter joint to provide a seamless transition. Clean excess caulk with a clean, damp sponge or rag.
c. Apply construction adhesive to the wall and the floor where required.
d. Begin installing the base shoe at one corner post and apply to the bottom edge of the base rail. If further fastening strength is required due to inconsistencies in the wall, use 1" brad nails sparingly to secure where necessary. Use prefabricated end caps supplied with your order to finish ends.

8. Install Top Shoe Molding

a. At the top of the top rail cap, measure the distance between corner/end trim pieces at each end of wall.
b. Cut the top shoe molding to length. If more than one board is required, scarf or miter joints are recommended for optimum fit. Cut the adjoining base rail pieces at opposite 45° angles to join them together. Apply a thin bead of the color-matched caulk supplied with your order to the miter joint to provide a seamless transition. Clean excess caulk with a clean, damp sponge or rag.
c. Apply construction adhesive to wall and rail cap where required.
d. Begin installing top shoe at one corner post and apply to top edge of rail cap. If further fastening strength is required due to inconsistencies in the wall, use 1" brad nails sparingly to secure where necessary.

Clean for Desired Aesthetic Appearance:

1. NOTICE: CLEAN ALL EXCESS CONSTRUCTION ADHESIVE AND MAKE SURE THE ADHESIVE IS DRY BEFORE CONTINUING.
2. With a color-matched caulk, fill in nail holes and wipe away excess. If necessary for smooth finished surface, polish lightly with ‘0000’ fine steel wool.
3. Fill in all seams and imperfections between the wall and the components with the color-matched caulking compound supplied with your order. Wipe away excess caulk with a clean, damp sponge or cloth.
4. Wipe down surface with a soft, clean cloth.