

PROV/

Railing System

Getting Started

Thank you for choosing Prova for your railing project! The following guidelines will help you ensure that your railing is installed as designed. Each project is unique-- yours may require some or all of these tools. To make your installation as streamlined as possible, please look through this list and review the installation instructions included in this guide to determine which tools you will need.

Note: Due to the variety of backing materials that are unique to each project, many of our items do not include mounting hardware. Please determine what material(s) you will be mounting into and purchase appropriate mounting hardware prior to beginning your installation.

Installation Videos 💌

Many of our components have video installation instructions available. When you see this symbol, clicking the product name will take you to the video!

Commonly Used Tools

Mounting Tools

- Phillips screwdriver
- Metric Allen wrench set
- Fractional inch drill bit set
- Open-ended wrench
- Construction adhesive
- Drill
- Mallet

Cutting Tools

- Sharp cable snips
- Electrical tape
- Hacksaw with metal blade
- Chop saw

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Top Mount Posts

Prova Top Mount Posts are designed for use with Prova stainless steel cable, Prova stainless steel tube infill, and other Prova accessories right out of the box.

Prova 36-inch posts provide 8 levels of horizontal infill and a maximum handrail height of 38-3/4 inches. Prova 42-inch posts provide 10 levels of horizontal infill and a maximum handrail height of 45-1/4 inches.



Installation Instructions

- 1. Verify backing material and purchase applicable hardware prior to installation.
- 2. On concrete, do not mount within 1 inch of the surface edge. On wood, do not mount within $\frac{3}{4}$ -inch of the surface edge.
- 3. Always use all four (4) of the provided mounting screw holes to secure posts. Never cut or drill new holes into the post base.
- 4. Recommended post spacing is 3.25 feet on center. Do not install posts further than 4 feet apart.
- 5. When using cable infill, dual post placement is necessary to navigate corners.

Compatible Accessories

Wood Lag Screws and Concrete Anchors are available for mounting. When mounting on an uneven surface, use the Post Leveler.

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Side Mount Posts

Prova Side Mount Posts are designed for use with Prova stainless steel cable, Prova stainless steel tube infill, and other Prova accessories right out of the box.

Prova 36-inch posts accommodate 8 levels of horizontal infill and a maximum handrail height of 37-3/4 inches. Prova 42-inch posts accommodate 10 levels of horizontal infill and a maximum handrail height of 45-1/4 inches. Please keep in mind that overall height will vary based on the mounting placement of the side mount posts.



Installation Instructions

- 1. Verify backing material and purchase applicable hardware prior to installation.
- 2.On concrete, do not mount within 1 inch of the surface edge. On wood, do not mount within ³/₄-inch of the surface edge.
- 3. Always use all four (4) of the provided mounting screw holes to secure posts. Never cut or drill new holes into the post base.
- 4. Recommended post spacing is 3.25 feet on center. Do not install posts further than 4 feet apart.
- 5. When using cable infill, dual post placement is necessary to navigate corners.

Compatible Accessories

Wood Lag Screws and Concrete Anchors are available for mounting. When mounting on an uneven surface, use the Post Leveler.

<u>Stainless Steel Cable Infill</u> 🗩

Stainless steel cable infill is made from grade 304 stainless steel and designed for use with Prova top mount posts, Prova side mount posts, and other Prova accessories.



Installation Instructions

- 1. Install handrails prior to installing cable infill to provide stability and ensure less post movement when tensioning the cable.
- 2. Install isolation tubes (included) into the post fittings excluding beginning and end posts. Isolation tubes provide a 1/8-inch opening to prevent cable movement.
- 3. Thread cable through each post. Cut cable with sharp, heavy-duty cable snips. Electrical tape can be applied to the end of the cable before cutting to prevent fraying.
- 4. At beginning and end posts, use post adjustment terminals to secure cable infill.
- 5. DOLLE recommends that a single cable run does not exceed 60 feet.

Compatible Accessories

Secure the cable to posts using Cable Post Adjustment Terminals. Secure the cable to the wall using Cable Wall Adjustment Terminals. Two cables can be connected mid-run using Cable Connectors. Use Cable Elbows for navigating corners.

<u>Stainless Steel Tube Infill</u> 💽

Stainless steel tube infill is made from grade 304 stainless steel and designed for use with Prova top mount posts, Prova side mount posts, and other Prova accessories.



Installation Instructions

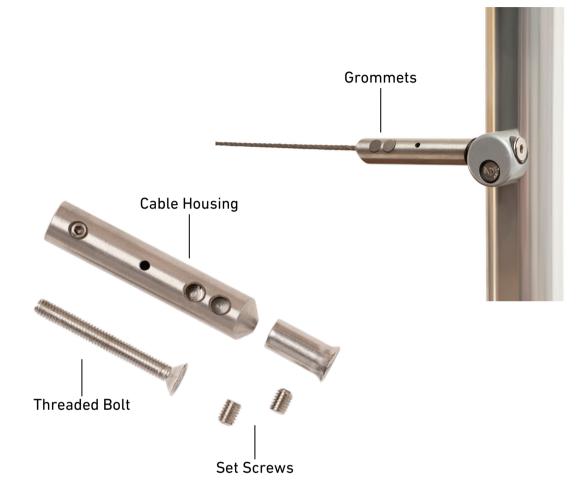
- 1. Tube infill is installed directly through post fittings.
- 2.Loosen the set screw on each post fitting and slide tubes through. Then, tighten the set screw to secure the tube at the desired angle for your project.
- 3. For seamless tube-to-tube connections, splice tubes together at the post fittings and connect inside.
- 4. Use rubber end caps (included) to finish tube ends.
- 5. For best results when cutting tubes, use a chop saw and make quick cuts.

Compatible Accessories

Secures tubes to the wall with Wall Terminals. Tube Elbows can be used to navigate corners.

Cable Post Adjustment Terminals 💽

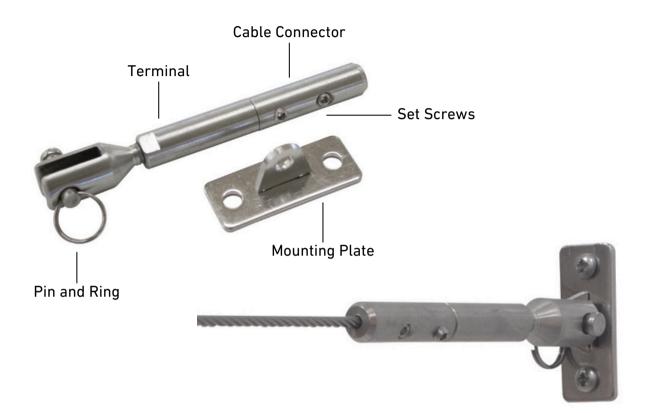
Cable Post Adjustment Terminals are used at the start and end of cable infill runs to connect to Prova top mount posts or Prova side mount posts.



- 1.Loosen set screws and remove grommets from the back of the terminal. Set aside for later use. Remove the metal pin placeholder and discard.
- 2. Separate the two sections of the terminal by removing the threaded bolt from the cable housing.
- 3. Slide the threaded bolt through the fitting on the post and reassemble the terminal. Reinsert grommets into the terminal. Insert 1-1/2 inches of the cable into the tensioner and tighten the set screws to secure the cable in place.
- 4. When cutting cables, use sharp, heavy-duty cable snips. Electrical tape can be applied to the end of the cable to prevent fraying.
- 5. Use an Allen wrench (not included) to tighten the bolt until the cables are taut.

Cable Wall Adjustment Terminals 💽

Cable Wall Adjustment Terminals are used at the start and end of cable infill runs when terminating at a wall rather than a post.



- 1. Only suitable for mounting into solid backing; do not use in drywall. The mounting plate attaches to the wall using 2 screws. Purchase suitable hardware prior to installation.
- 2. Disassemble the terminal by removing pins and separating all components.
- 3. Determine wall mount location using post and cable infill. Secure the mounting plate on the wall at the desired location with hardware (not included).
- 4. Once the mounting plate is secured to the wall, reattach the terminal with the pin and ring.
- 5. Unscrew the bolt and leave 1/2-inch of bolt threading exposed for final tightening.
- 6. Loosen the set screw on the large end of the cable connector and slide it onto the terminal. Tighten the set screw to secure.
- 7. Loosen the set screw at the other end of the cable connector and carefully thread the cable in. Be sure there is still slack in the cable.
- 8. Tighten the set screws to secure the cable. Use an open-ended wrench (not included) to tighten the bolt for final cable tensioning.

Cable Connectors

Cable Connectors are used to connect two (2) runs of stainless steel infill cable mid-field between Prova posts. Maximum cable run length is 60 feet. For cable runs over 60 feet, use Cable Connectors to extend your infill run.



Installation Instructions

- 1. Loosen the set screws on one side of the cable connector.
- 2. Carefully thread the cable into the connector while it still has slack.
- 3. Tighten set screws to secure the cable.
- 4. Repeat these steps on the other side of the connector with a second piece of cable infill.
- 5. Complete final tightening of all set screws to ensure the cable is secure.

Stainless Steel Tube Elbow Connectors

Steel Tube Elbow Connectors are used to connect tube infill at a corner. Adjustable elbows can also be used when changing elevations going on a flight of stairs.



- 1. Apply a small amount of construction adhesive (not included) onto the ends of the connector.
- 2.Insert the connector into the end of the tube. Twist to spread adhesive inside the tube.
- 3. Once established and set, tighten the set screw to secure the connector at the desired angle for your project.
- 4. Repeat these steps on the other side of the connector with a second piece of tube infill.
- 5. Wipe off any excess adhesive immediately.
- 6. Allow 24 hours for the adhesive to fully dry.

Wall Terminals for Tube Infill 🛑

Wall Terminals for Tube Infill are used to connect Prova stainless steel tube infill to a perpendicular wall.



Installation Instructions

- 1. Mark the mounting locations by aligning the tube infill with the terminals on the wall.
- 2. Secure the terminals to the wall using hardware (not included)*.
- 3. Slide tubes into wall terminals and tighten set screws to secure.

*Due to various backing materials unique to each project, mounting hardware is not included. For best results, mount wall terminals into solid wood backing. If mounting into drywall, a toggle bolt or heavy-duty drywall anchor (not included) may be used.

90-degree Corners for Cable or Tube Infill

90-degree Corners for Tube or Cable Infill are used to connect Prova tube infill runs or Prova cable infill runs at a rounded 90-degree corner.



- 1. Loosen the set screws on the post fittings.
- 2. Slide the tubes through each post fitting.
- 3. Tighten the set screws to secure the corner.
- 4.For use with cable infill, thread the cable through corner tubes and continue the cable run to the next post.

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Beechwood Handrails

Wood handrails are available in finished beechwood or unfinished beechwood. Handrails can be installed on Prova top mount posts, Prova side mount posts, or directly onto a wall. Wood handrails are for indoor use only.



Unfinished Beechwood Handrail



Finished Beechwood Handrail

Installation Instructions

- 1. Remove the top plate from the post or handrail wall mount bracket.
- 2.Use the wood screws (included) to attach the wood handrail directly to the post or the handrail wall mount bracket.*

*See page 14 for further handrail wall mount installation instructions.

Further Customization

Handrail Endcaps, Wall Mounts, Handrail-to-Handrail Connectors, and Handrail Elbows are available to further customize your project. Based on the accessories used, PA21 or PA97 Drilling Templates are recommended for installation.

Aluminum Handrails

Aluminum handrails are offered in aluminum or anthracite finishes. Handrails can be installed on Prova side mount posts, Prova top mount posts, or directly onto a wall. Aluminum handrails are for indoor or outdoor use.



Aluminum Handrail



Anthracite Handrail

Installation Instructions

- 1. Loosen the top plate from the post or handrail wall mount bracket.
- 2. The loosened bracket plate will slide into the cutout channel on the bottom of the handrail.
- 3. Once the handrail is in the correct position, tighten the set screws to secure it in place.
- 4. If you are cutting your handrail, a hacksaw with a metal blade is recommended for the cleanest cut.

Further Customization

Handrail Endcaps, Wall Mounts, and Handrail Elbows are available to further customize your project.

Handrail Elbow

The Prova Handrail Elbow can be used with Prova wood handrails or Prova aluminum handrails. The handrail elbow is designed to achieve any angle from 90 degrees to 180 degrees by adjusting the pivot screw connecting both halves of the elbow. This handrail elbow can help navigate elevation changes on a flight of stairs, a ramp, etc.



Installation Instructions

For use with an aluminum handrail:

- 1. Loosen set screws and remove the stainless steel connectors from each end of the elbow.
- 2. Mount one stainless steel connector to the end of each aluminum handrail using the included hardware.
- 3. Slide the elbow over the connector on one handrail. Tighten the set screw to secure.
- 4. Loosen the main screw and pivot the elbow to the desired angle. Re-tighten the set screw to secure the angle.
- 5. Slide the elbow over the remaining exposed connector on the other handrail. Tighten the set screw to secure the elbow.

For use with a wood handrail:

- 1. Loosen set screws and remove the stainless steel connectors from each end of the elbow.
- 2. Drill pilot holes into one end of each wood handrail. To ensure proper pilot hole placement, use the Prova Drilling Template for wood handrails.
- 3. Mount one stainless steel connector, using the included hardware, to the center of each wood handrail aligning with the pilot hole.
- 4. Slide the elbow over the connector on one handrail. Tighten the set screw to secure.
- 5. Loosen the main screw and pivot the elbow to the desired angle. Re-tighten the set screw to secure the angle.
- 6. Slide the elbow over the remaining exposed connector on the other handrail. Tighten the set screw to secure the elbow.

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Handrail Endcap

Handrail endcaps can be installed on Prova wood handrails or Prova aluminum handrails to put the finishing touch on a handrail run.



Installation Instructions

For use with an aluminum handrail:

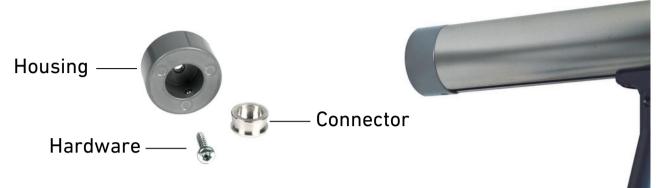
- 1. Loosen set screws and remove the stainless steel connector.
- 2. Mount the stainless steel connector into the center of the aluminum handrail using the included hardware.
- 3. Slide the handrail endcap over the connector and tighten the set screw to secure it.
- 4. Repeat these steps on the other end of your handrail run.

For use with a wood handrail:

- 1. Loosen set screws and remove the stainless steel connector.
- 2. Drill a pilot hole into the end of the handrail. To ensure proper pilot hole placement, use the Prova Drilling Template for wood handrails.
- 3. Mount one stainless steel connector, using the included hardware, to the center of the wood handrail aligning with the pilot hole.
- 4. Slide the handrail endcap over the connector and tighten the set screw to secure it.
- 5. Repeat these steps on the other end of your handrail run.

Wall Terminal/Handrail Connector

Wall terminals are used with Prova wood or aluminum handrails to join handrails together in a straight line configuration or to terminate handrail at a wall location.



Installation Instructions

For aluminum handrail-to-handrail connections:

- 1. Loosen set screws and remove the stainless steel connector.
- 2. Mount the stainless-steel connector into the center of one aluminum handrail with included hardware.
- 3. Mount the outside housing of the terminal to a second aluminum handrail.
- 4. Slide handrails together, inserting the connector into the housing.
- 5. Tighten the set screw to secure.

For wood handrail-to-handrail connections:

- 1. Loosen set screws and remove the stainless steel connector.
- 2. Drill holes into both wood handrails. For centered holes, we recommend using the Drilling Template for wood handrails.
- 3. Mount the connector into the center of one wood handrail aligning with the drilled hole.
- 4. Mount the outside housing of the terminal to the center of the second wood handrail.
- 5. Slide handrails together, inserting the connector into the housing.
- 6. Tighten the set screw to secure.

For wall termination:

- 1. Loosen set screws and remove the stainless steel connector.
- 2. Using provided screws, mount the stainless steel connector to the end of the handrail.
- 3. Mount the outside housing of the terminal to the wall.
- 4. Slide the connector on the handrail into the housing on the wall.
- 5. Tighten the set screw to secure.

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Handrail Wall Mount

Handrail Wall Mounts are used to mount Prova wood and Prova aluminum handrails directly onto a wall. Due to various backing materials unique to each project, mounting hardware is not included. Recommended spacing between wall mounts is 40 to 60 inches.



Installation Instructions

For use with aluminum handrails:

- 1. Mount the handrail wall mount to the desired wall location. Hardware not included; please verify backing material and purchase appropriate hardware prior to installation.
- 2. Loosen the center screw to adjust the mount to desired angle. Tighten the screw to secure the angle of the mount.
- 3.Loosen the screws on the underside of the wall mount. Loosen the top plate from the mount but do not fully remove it.
- 4. Slide cutout channel in the handrail over the loosened brackets.
- 5. Once the handrail is in the correct position, tighten the underside screws to secure the handrail to the mount.

For use with wood handrails:

- 1. Mount handrail wall mount to desired wall location. Hardware not included; please verify backing material and purchase appropriate hardware prior to installation.
- 2. Loosen the center screw to adjust the mount to desired angle. Tighten the screw to secure the angle of the mount.
- 3. Loosen the screws on the underside of the wall mounts and completely remove the top plate from the mount. You will not use the top plate with a wood handrail.
- 4. Align the handrail on top of the wall mount and mark pilot hole locations on the handrail.
- 5. Remove the handrail from the mount and drill pilot holes in the marked locations.
- 6. Align the pilot holes on the handrail to the top of the wall mount. Use included wood screws to attach the handrail to wall mounts.

Handrail Connector

Handrail connectors are used to connect two Prova wood handrails together in a straight line.



- 1. Drill a pilot hole in the center of the first handrail. For centered holes, we recommend using the PA97 Drilling Template.
- 2. Insert the handrail connector into the pilot hole. Use a rubber mallet to tap the connector into place until the plate is flush with the handrail.
- 3. Drill a pilot hole in the center of the second handrail.
- 4. Align the pilot hole of the second handrail with the connector in the first handrail.
- 5. Push the handrails together and twist until the second handrail is flush with the connector.

Heavy Duty Post Anchor for Concrete

The Heavy Duty Post Anchors are designed to mount Prova top mount posts and Prova side mount posts into concrete backing. The 2-3/4 inch compression anchor requires a 3/8-inch pilot hole.



Installation Instructions

- 1. Do not install within 1 inch of the edge of the concrete surface.
- 2. Only for use with solid concrete, not veneers.
- 3. Always ensure adequate backing before installation.
- 4. Once mounted, use the included screw caps to cover bolt heads.

Hex Screws for Wood

The Hex Screws are used to mount Prova top mount posts and Provaside mount posts into wood backing. The 2-5/8 inch screws require a 5/16-inch pilot hole.



- 1. Screws are required to be anchored into solid wood backing (lateral bracing, framing, etc.).
- 2. Do not install within 3/4-inch of the edge of the backing lumber.
- 3. Always ensure adequate backing before installation.
- 4. Once mounted, use the included screw caps to cover bolt heads.

Side Mount Post Spacers (

Side mount post spacers are used to extend Prova side mount posts away from stair nosing or other obstacles. PA12 spacers provide an additional 1 inch of clearance. PA13 spacers provide an additional 2 inches of clearance.



Installation Instructions

- 1. Mount the post mounting plate to the desired location (hardware not included)*.
- 2. Place post spacers between the mounted plate and post to extend horizontal clearance.
- 3.Use included bolts to secure the post and spacers to the mounting plate.

*Due to the variety of backing materials unique to every project, mounting hardware is not included. Please purchase appropriate mounting hardware prior to installation.

<u>Post Leveler</u>

The Post Leveler is used to level a Prova top mount post or a Prova side mount post on an uneven surface prior to installation.



- 1. Align the post leveler underneath the mounting base of the post prior to installation.
- 2. Use the appropriate hardware to mount the post to the surface.

Post Angle Mount

Post Angle Mounts are used to secure Prova posts to any angled surface, such as an angled half wall or a ramp.



- 1. Due to the various backing materials unique to every project, mounting hardware is not included. Please verify your backing material and purchase suitable hardware prior to installation.
- 2. Always use all four (4) of the provided mounting screw holes to secure posts. Never cut or drill new holes into the post base plate.
- 3. When using more than one angle mount in a run, alternate the mounting position for optimal tensioning.

Drilling Template for Wood Handrails

The Drilling Template for Wood Handrails is a guide to help you drill perfectly centered holes in Prova wood handrails for wall terminal, elbow, and endcap connections.



Installation Instructions

- 1. Place the template over the end of the Prova wood handrail prior to drilling.
- 2. Insert the drill bit into the hole in the template and drill the pilot hole.
- 3. The drilling template is compatible with the following Prova accessories:
 - Handrail Endcap
 - Handrail Elbow
 - Wall Terminals

Drilling Template for PA98 💽

The Drilling Template for PA98 is a guide to help you drill perfectly centered holes in Prova wood handrails for handrail-to-handrail connections.



- 1. Place the template over the end of the Prova wood handrail prior to drilling.
- 2. Insert the drill bit into the hole in the template and drill the pilot hole.
- 3. The drilling template is compatible with the Wood Handrail Connector