


PROMENAID® HANDRAIL INSTALLATION GUIDE

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 Videos: <https://promenaid.com/learning/how-to-videos>

BEFORE YOU START - PLEASE READ ALL INSTRUCTIONS CAREFULLY

Remove vinyl insert from channel before beginning installation

Use handrail tube as-is, or trim to length with a miter saw



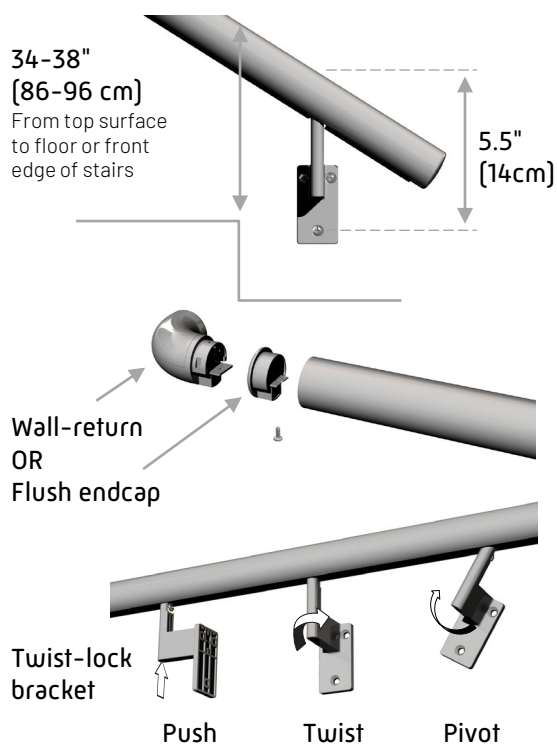
BILT.

Easy 3D instructions

Download the free app

DO NOT ATTACH BRACKETS TO WALL CLADDING. Screws must fix securely to wood studs, concrete, brick, or other structural members. Substitute concrete screws or use appropriate wall anchors when attaching to masonry.

RAILINGS GREATER THAN 96": Handrails longer than 96" (240 cm) are shipped in two or more pieces. Attach the pieces together using the splice kit and instructions supplied.



- 1 Handrails should be installed with top surface 34" (86 cm) to 38" (96 cm) above floor or stairs. Adjust as necessary for the height of the user(s). Mark position of far right and far left brackets on the wall, between 2" (5 cm) and 6" (15 cm) from the ends of the handrail tube. For hollow walls, use a stud finder to locate studs and adjust the position of brackets so that their attachment screws will line up with the structural members. Starting with a bracket at one end, mark position of lower bracket screw on the wall, 5-1/2" (14 cm) below the top surface of the handrail.
- 2 Insert endcaps or 90-degree wall returns into ends of tube, tapping with a wooden or plastic hammer if necessary. To secure them, screw the provided set screws through the notch (endcap) or hole (wall return) into the narrow groove in the railing channel. Hold endcap or wall return firmly in place while attaching.
- 3 Attach a bracket to the railing at one end only (additional brackets are added after the railing is secured to the wall). With the bracket head fully seated in the railing channel in the desired position, twist bracket clockwise 90 degrees. You should feel the bracket lock into place. After it is locked, pivot bracket so that it will be aligned vertically on the wall.

MARK AND DRILL PILOT HOLES FOR FIRST BRACKET: Using a bracket aligned vertically with the stud as a guide, mark locations of the two upper screw holes. For wood studs, drill pilot holes for the three screws using a 5/32" bit. **NOTE:** Angle top pilot holes slightly inward towards center of stud to prevent splitting.

ATTACH FIRST BRACKET loosely to wall with three screws. Use a #3 Philips head bit at least 3" (7.5 cm) long to avoid damaging bracket with drill chuck. Next, clip a bracket in place at the other end of the railing. Position railing on the wall matching the angle of the stairs (or horizontal if above a floor). Adjust bracket placement in the handrail to ensure that when the handrail is in the desired position the second bracket is vertical and aligned with a stud. Mark locations of the three screw holes for the second bracket.

PIVOT HANDRAIL OUT OF THE WAY TEMPORARILY and drill pilot holes for the three screws as before. Reposition handrail and attach second bracket. For railings longer than 38" (96 cm): after the handrail is screwed loosely to the wall with the two end brackets, install additional bracket(s) where screws will penetrate the wall structure. Brackets should be spaced maximum 32" (80 cm) apart for safety. Install remaining screws, making sure that brackets are vertical. Tighten all screws securely.

INSTALL ANTI-SLIP INSERT: With a sharp knife or shears, cut vinyl insert to fit between brackets and push into place in channel with ribbed side facing outwards and two small latches facing inwards. Pinch to insert one end and press latches into place an inch at a time, alternating from side to side.

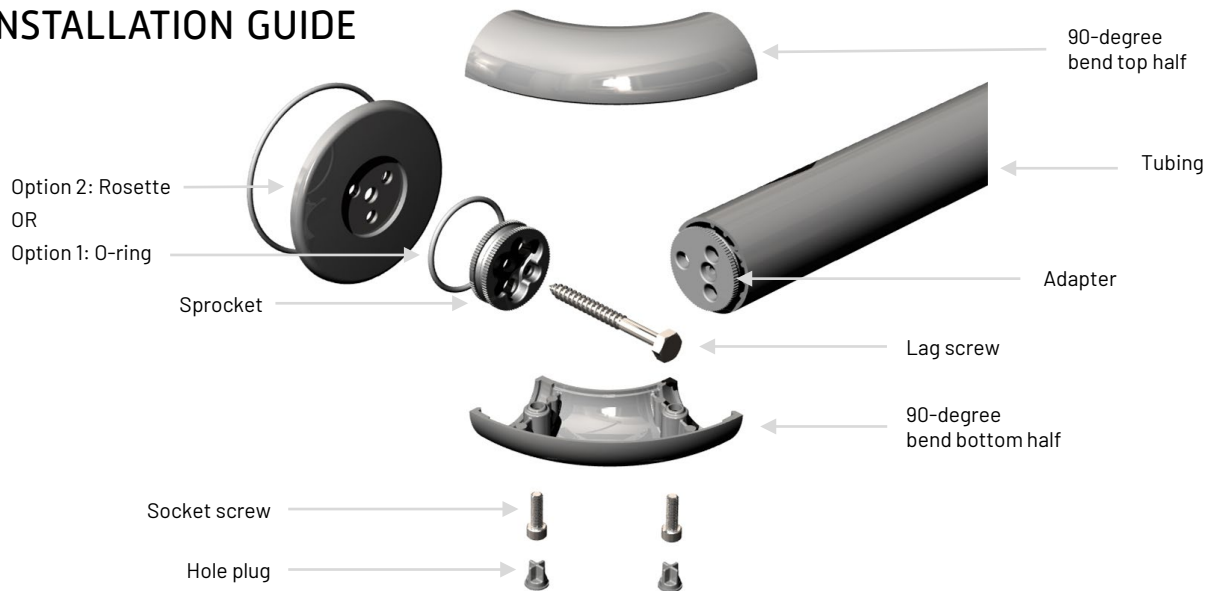
Problems? Call 888-992-4943

Promenaid® handrails and grab bars are guaranteed for five years against all manufacturing defects. Installation must be performed by qualified personnel.

PROMENAID® INTEGRA™ GRAB BAR INSTALLATION GUIDE

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INSTALLATION GUIDE



1 ASSEMBLE PARTS TEMPORARILY TO LOCATE MOUNTING POINTS ON WALL

Install bottom halves only of 90-degree bend assemblies on grab bar tubing and place sprockets in bends. Locate grab bar on wall and mark center holes of sprockets.

IMPORTANT: Sprockets should be attached to wooden studs or other structural members for safety. Toggle bolts may be used on metal studs or hollow structures with sufficient strength, but not on drywall alone.*

2 ATTACH SPROCKETS TO WALL

Wooden studs - drill 3/16" pilot holes and use supplied 1/4" x 2-1/2" lag screws. Tighten securely. Other structural members - Use fasteners rated at least 250 lbs pullout strength and follow manufacturer's instructions. Place small O-ring over sprocket for flangeless installation (Option 1).

IMPORTANT: To protect fragile walls from crushing (e.g. drywall, plaster, or thin tiles) sandwich rosette between sprocket and wall surface and do not use small O-ring (Option 2). Use large O-ring between rosette and wall where water seal is required.

3 FINAL ASSEMBLY

Attach both halves of 90-degree bends together with sprockets and adapters on grab bar tubing. The lip of the 90-degree bend must fit in the sprocket V-groove that is closest to the wall. Rotate tubing so anti-slip vinyl is facing the wall. Install socket screws with hex key. The screws should thread easily. Install hole plugs. **IMPORTANT:** Make sure that the installation is 100% to your satisfaction and that all screws are fully tightened before inserting hole plugs, as once installed they cannot be removed.

* To align sprockets with wall studs, or for other functional or aesthetic reasons, it may be desirable to modify the length of the grab bar. Integra™ grab bar tubing can be easily trimmed with a standard miter saw. Before trimming, remove the vinyl anti-slip extrusion and the pre-installed adapters from the grab bar tubing by undoing the set screws. After trimming the tube with a miter saw, reinstall the adapters by inserting and tightening the single set screw on the end before installing the other two screws. Cut the vinyl to length with a sharp knife or scissors and press it back into place.

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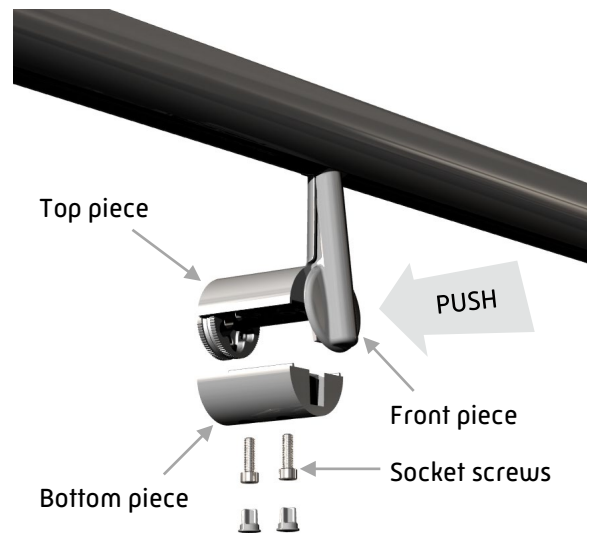
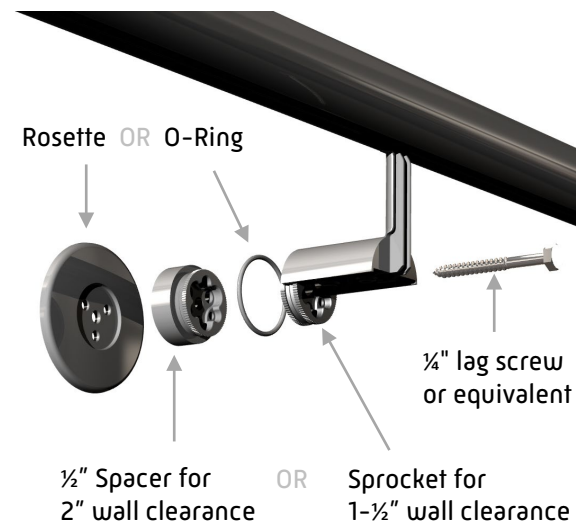
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SPROCKETLOCK™ BRACKETS

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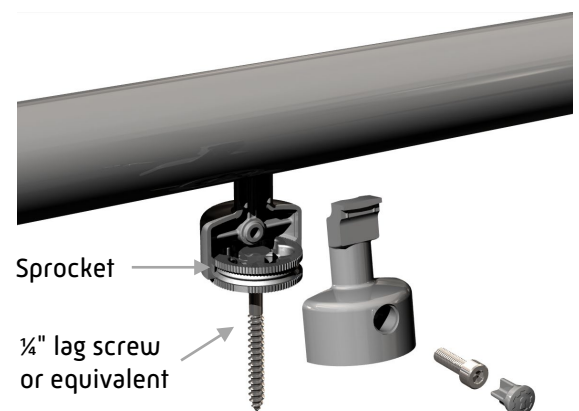
L-BRACKET INSTALLATION

- Install Sprocket in desired location. The center screw hole of the Sprocket should be 4" (100 mm) below the top surface of the handrail
- Use 1/2" Spacer instead of Sprocket if 2" (50 mm) wall clearance is required
- Use optional Rosette behind Sprocket to protect fragile walls
- If desired, use O-ring to fill small gap between bracket and wall when Sprocket only is employed
- Place the top pieces only of all brackets on the Sprockets.
- Set the handrail in place in the desired location, resting temporarily on the top pieces of the brackets
- One by one, insert front pieces of brackets at an angle and slide upward until bracket head is fully in channel.
- Lever bottom of front piece towards the wall. Push firmly until front piece clicks into place
- Slide the bottom piece upward into place and insert the socket screws. The screws should thread easily
- Tighten the socket screws thoroughly
- When job is complete and ALL screws are fully tightened, insert plastic plugs. Once inserted they cannot be removed



T-BRACKET INSTALLATION

- Install Sprocket, and any combination of collars, bends, or spacers necessary to achieve required wall clearance and bracket angle in desired location
- Position one half of T-bracket on Sprocket and inside handrail channel
- Pivot second half of T-bracket into place in channel and on Sprocket
- Squeeze halves of T-bracket together firmly and install socket screw. The screw should thread easily
- When job is complete and ALL screws are fully tightened, insert plastic plugs. Once inserted they cannot be removed



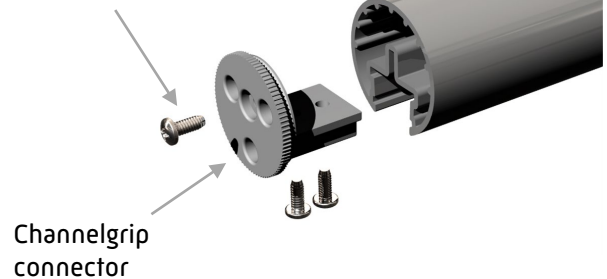
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CHANNELGRIP CONNECTOR INSTALLATION

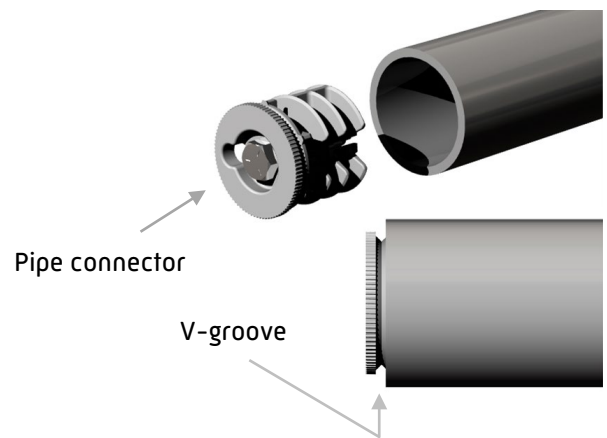
- Insert Channelgrip connector into handrail tubing
- Install single longitudinal set screw first and tighten securely
- Install two side-by-side set screws and tighten securely

Install this screw first



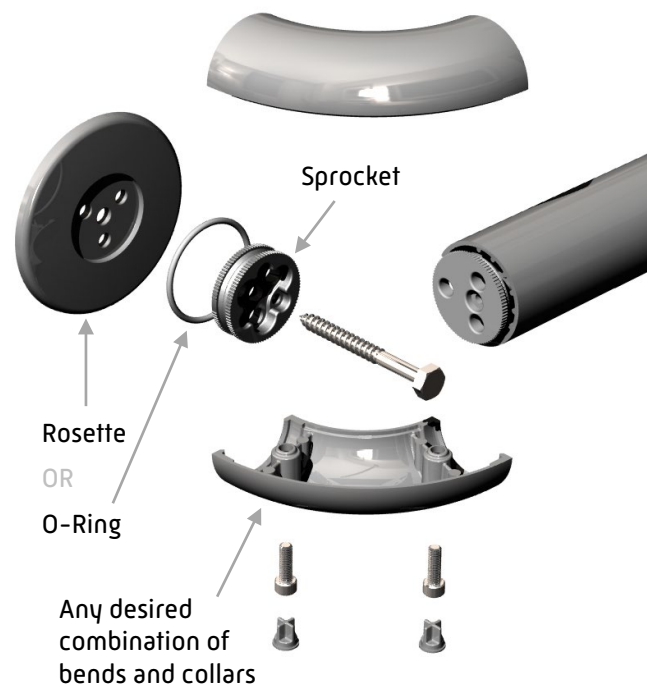
PIPE CONNECTOR INSTALLATION

- Insert Pipe Connector into Schedule 40 pipe and tap in place with a mallet until V-groove is just protruding
- A T-bracket may be used as an insertion tool and guide
- Tighten bolt on Pipe Connector with a socket wrench as firmly as you can



WALL CONNECTION INSTALLATION

- Install all components temporarily to determine Sprocket location(s)
- Attach Sprocket to wall with 1/4" bolt or equivalent
- **Option 1** – Install Rosette behind Sprocket to protect fragile walls
- **Option 2** – Install O-ring to fill small gap between wall and fitting
- Attach handrail tube to Sprocket with Collar for straight connection, with required combination of bends for angled connection, or with 90-degree bend for 90-degree wall connection
- Attach two halves of Collar or bends securely together with socket screws. Screws should thread easily
- When ALL components are in place and all screws are tightened, install hole plugs



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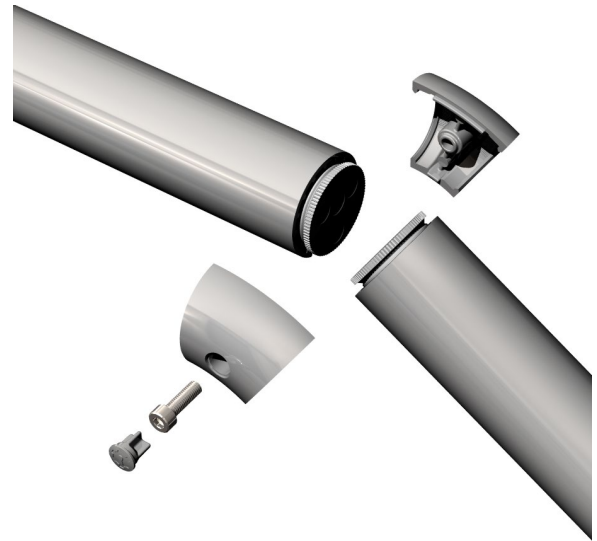
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SPROCKETLOCK™ BENDS

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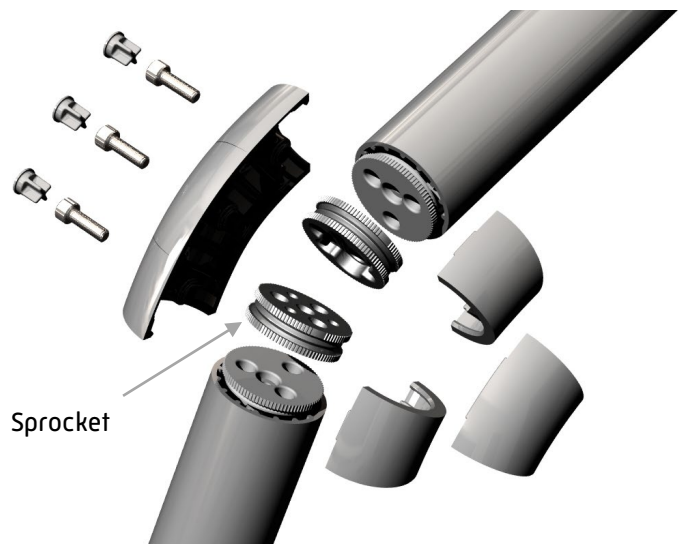
SINGLE BEND INSTALLATION

- First install Channelgrip Connectors or Pipe Connectors in tubing. Follow Connector instructions
- Clamp two halves of bend together with socket screws. The screws should thread easily
- When job is complete and ALL screws are fully tightened, insert plastic plugs. Once inserted they cannot be removed



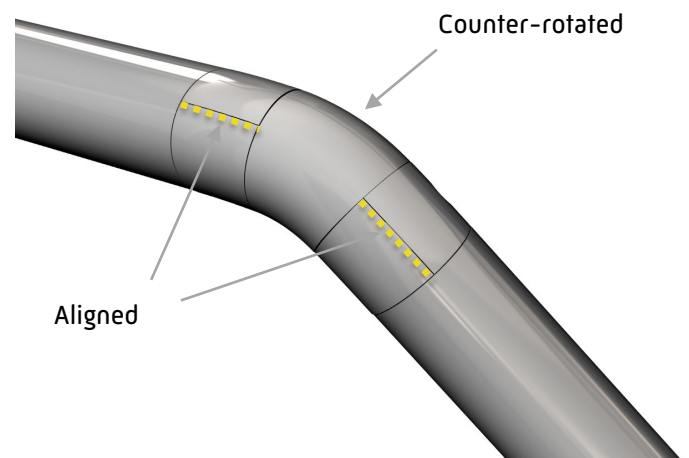
MULTIPLE BEND INSTALLATION

- Combine bends to produce desired angle
- Join bends together with Sprockets, making sure that Sprocket V-grooves align equally with both bends
- Clamp halves of bends together with socket screws
- When job is complete and ALL screws are fully tightened, insert plastic plugs. Once inserted they cannot be removed



ADJUSTABLE BEND INSTALLATION

- If you cannot achieve the desired angle with a simple combination of bends, use three bends together to create an adjustable joint
- **IMPORTANT** - the two outer bends must be identical
- Assemble the three bends but do not fully tighten the socket screws
- Keeping the two outer bends aligned and immobile, rotate the middle bend to add or subtract its angle from the sum of the angles of the outer bends
- When the desired angle is achieved, rotate the entire assembly in the opposite direction until it aligns with the railing tubes
- Tighten the socket screws completely, ensuring that the two outer bends are still aligned with each other
- When job is complete and ALL screws are fully tightened, insert plastic plugs. Once inserted they cannot be removed



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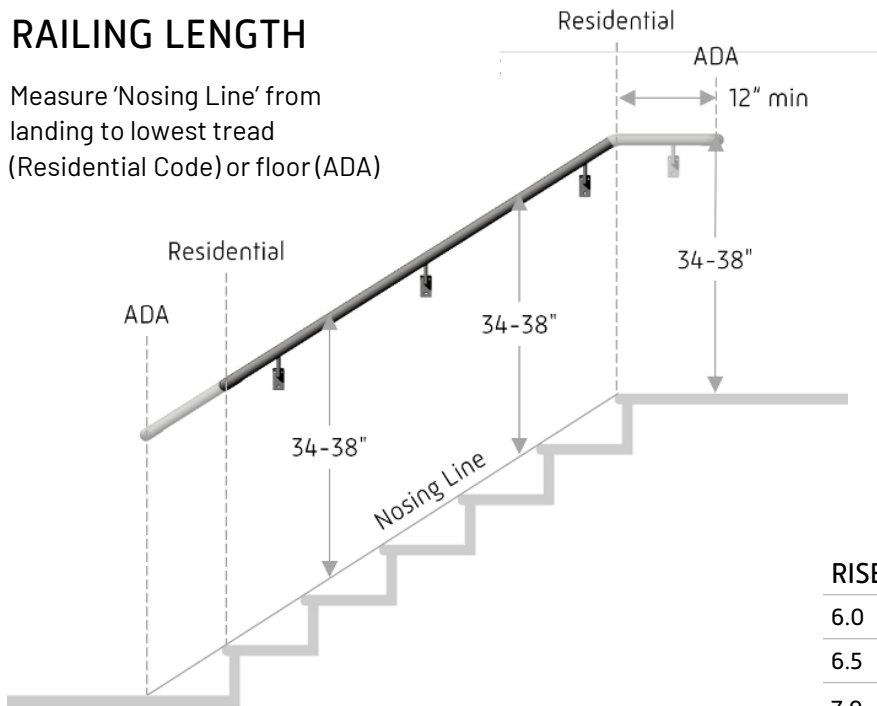
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HANDRAIL INSTALLATION ON STAIRS

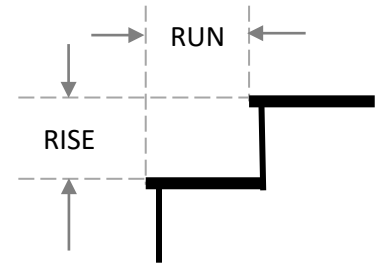
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RAILING LENGTH

Measure 'Nosing Line' from landing to lowest tread (Residential Code) or floor (ADA)



STAIR PITCH (angle)



Measure the rise and tread run as shown and use the table to determine the pitch in degrees

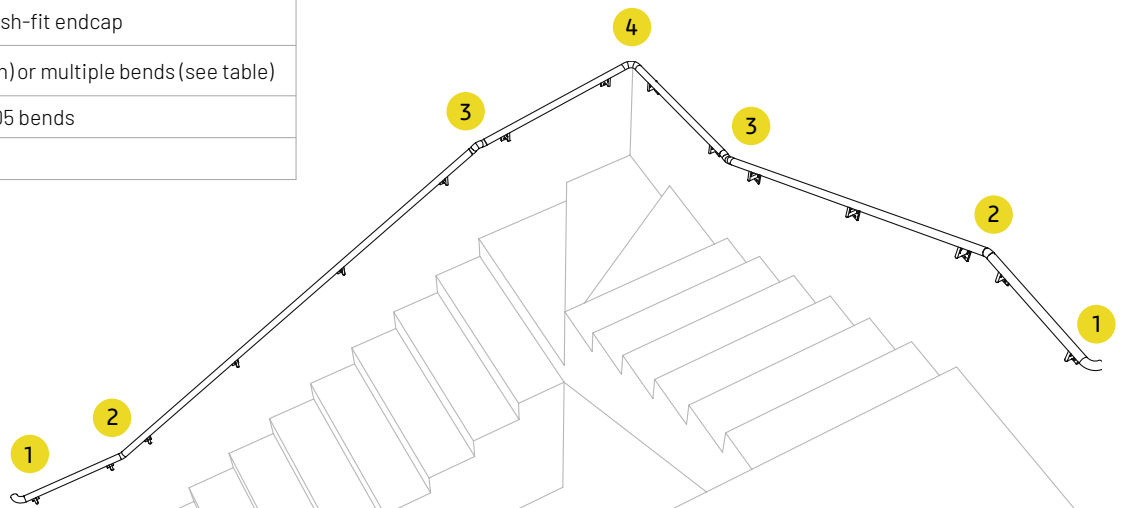
RISE (in)	RUN [Tread] (in)							
	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
6.0	35.2	33.7	32.3	31.0	29.7	28.6	27.6	26.6
6.5	37.4	37.4	34.4	33.0	31.8	30.6	29.5	28.4
7.0	39.5	39.5	36.4	35.0	33.7	32.5	31.3	30.3
7.5	41.4	41.4	38.3	36.9	35.5	34.3	33.1	32.0
8.0	43.3	43.3	40.1	38.7	37.3	36.0	34.8	33.7
8.5	45.0	45.0	41.8	40.4	39.0	37.7	36.5	35.3

If pitch is between 30° and 34°, use Promenaid C32 bends between horizontal and sloped sections

For all other pitch angles, use multiple bends

WINDING STAIRCASE HANDRAIL FITTINGS SELECTION

KEY	DESCRIPTION
1	ADA return (shown) or flush-fit endcap
2	C32 bend (standard pitch) or multiple bends (see table)
3	One C14 bend and two C05 bends
4	Three C32 bends



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SPROCKETLOCK™ ADJUSTABLE POST BASE INSTALLATION

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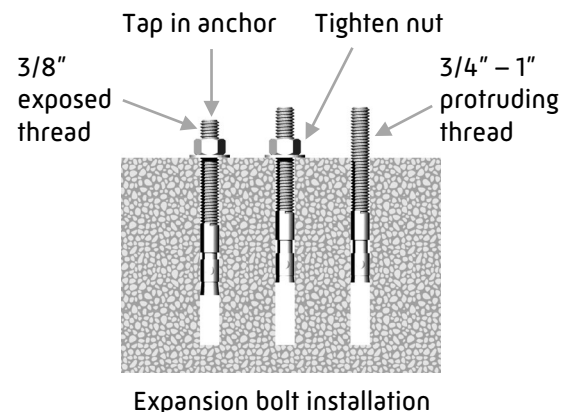
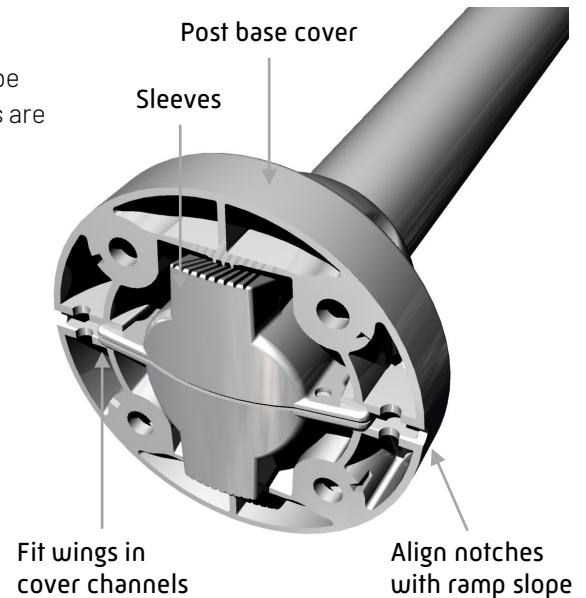
1 FASTENER SELECTION

Fasteners are not supplied with the Sprocketlock post base and must be purchased separately. Hot-dipped galvanized or stainless-steel screws are preferred for outdoor applications. The following are recommended:

- **Metal decking** – Use 3/8" through bolts and nuts
- **Wood surfaces** – Use 3/8" lag screws, minimum 3" long
- **Concrete surfaces** – Use 3/8" expansion bolts, minimum 4" long

2 PREPARATION

- Trim the post 1/4" (6 mm) shorter than the required final height
- Place the post base cover in the desired location and mark the four mounting holes. **IMPORTANT:** If installing on a ramp, rotate the post base so that the small notches on the edge are aligned in the direction of the ramp slope
- **Metal decking** – Drill 3/8" through holes
- **Wood surfaces** – Drill 15/64" pilot holes for 3/8" lag screws
- **Concrete surfaces** – Drill 3/8" holes at least 1" (25 mm) deeper than fastener length and clean the holes out well. For each expansion bolt, install a nut temporarily until 3/8" (10mm) of thread is exposed above it. With a washer under the nut, tap the expansion bolt all the way into the hole. Tighten the nut to lock the anchor in place. Remove the nut and discard the washer. Approximately 3/4" – 1" (18 - 25 mm) of the thread should protrude above the ground at this point. **IMPORTANT:** To ensure alignment, drill and install expansion bolts one at a time. After each fastener is inserted and locked, temporarily install the base cover and use it as a guide to drill the next hole



3 INSTALLATION

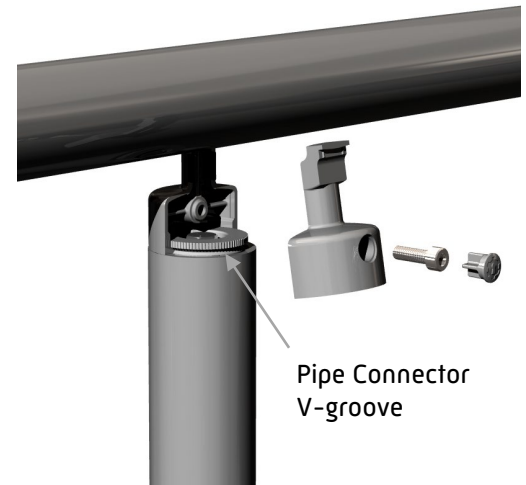
- Referring to the figure above, place the sleeves onto the end of the post and insert the assembly into the post base cover so that the wings on the sleeves fit in the base cover channels and the sleeves are centered in the cover. The assembly will be loose, and the sleeves will protrude from the bottom of the cover at this stage
- Place the complete assembly in position. Install and partially tighten the bolts or nuts until the assembly is no longer loose but there is still an even gap of approximately 1/4" (6 mm) between the cover and the ground
- Pivot the post until it is vertical. Tighten the screws or nuts gradually in a cross pattern while continuing to hold the post vertical. The sleeves should lock into the base cover at the required angle. If you need to select a different angle, disassemble the base by loosening the bolts, placing 1/4" (6 mm) shims between the cover and the ground, and tapping down on the top of the post with a mallet or wood block and hammer
- If necessary, install supplied shims at one or two fastener locations for fine adjustment of the post angle. Tighten all screws fully. There should be no visible gap between the base cover and the ground
- When the post is solid and the installation is completed to your full satisfaction, install the hole plugs. Once inserted, the plugs cannot be removed

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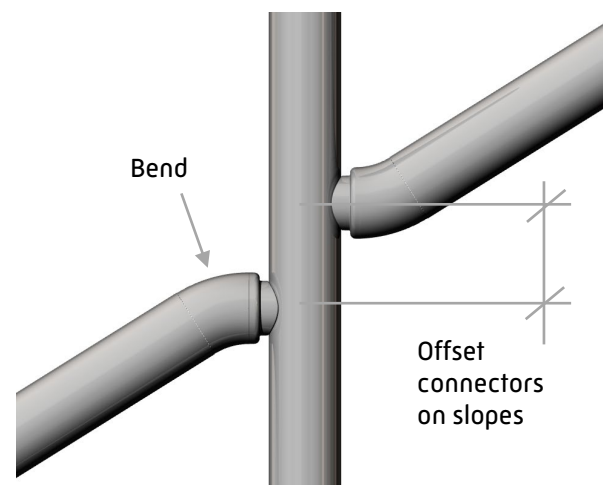
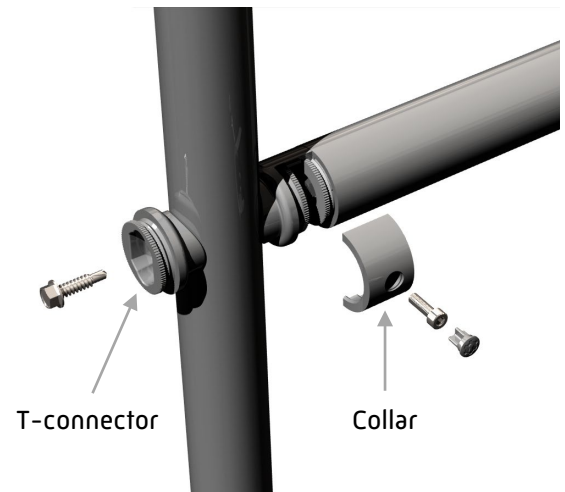
POST AND T-BRACKET INSTALLATION

- The top of the post tube should be 33" (840 mm) above ground level for 36" (914 mm) high handrail
- Insert Pipe Connector and tap in place until V-groove is just protruding. T-bracket may be used as an insertion tool and guide
- Tighten the Pipe Connector bolt with a socket wrench as firmly as you can
- Position one half of T-bracket on Pipe Connector and inside handrail channel
- Pivot second half of T-bracket into place in channel and on connector
- Squeeze halves of T-bracket together firmly and install socket screw. The screw should thread easily
- When job is complete and ALL screws are fully tightened, insert plastic plugs. Once inserted they cannot be removed



CROSS-BAR INSTALLATION

- Attach T-connectors to pipe at desired heights using 1/4" self drilling screws.
- **IMPORTANT:** For angled cross bars on ramps or stairs, offset heights of opposing T-connectors
Ramps (12:1 slope) - offset lower T-connector 5/16" (8 mm) below upper T-connector
Standard stairs (32-degree slope) - offset lower T-connector 2 7/16" (62 mm) below upper T-connector
- To attach T-connector to cross bar, use Collar (horizontal bar), 5-degree bend (inclined bar on ramp), or 32-degree bend (standard stairs)
- Install Collars or bends temporarily to measure and cut cross-bars
- Insert Pipe Connectors in both ends of cross-bar and tap in place until V grooves are just protruding. A T-bracket may be used as an insertion tool and guide
- Tighten bolts on Pipe Connectors with a socket wrench as firmly as you can
- Install Collars or bends permanently with socket screws
- When job is complete and ALL screws are fully tightened, insert plastic plugs. Once inserted they cannot be removed



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