Installation instructions for Weline

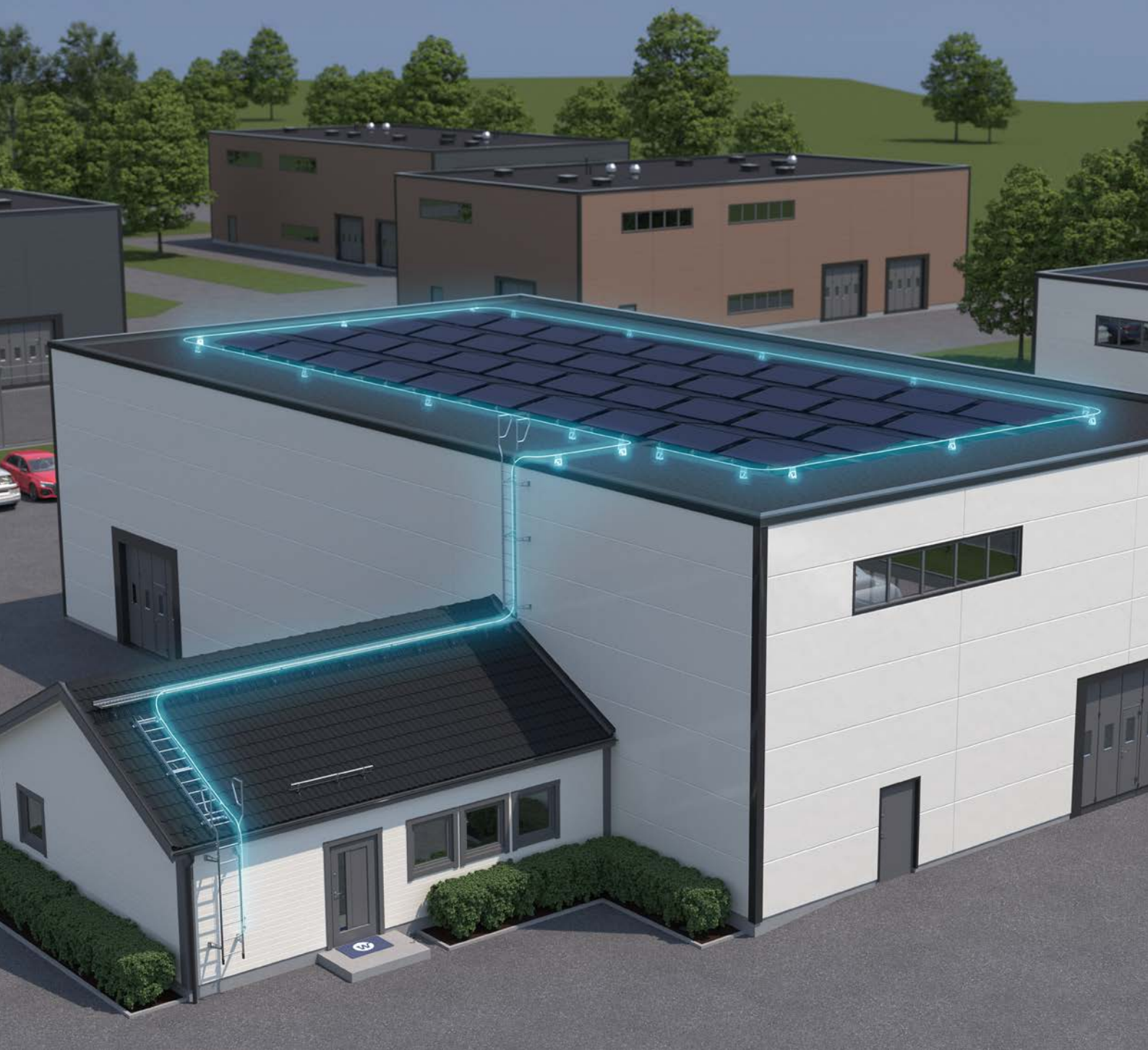
WIRE PROTECTION AND LIFELINE ATTACHMENTS
FOR VARIOUS PRODUCTS AND ROOF TYPES.

Version 3.0

WELAND

CONTENT

For more info and film for Weline One scan the QR code.



Read this before starting the installation!

- It is extremely important that the points in this guide are followed when installing the Weline cable system.
- Pay particular attention to how you tighten the wire corners so that the cable runner runs freely past the corner.
- Also note that MA1008 describes which forces the system must endure.

Weland app

Download our app and follow the installation instructions. In the app you will find pictures, documentation, information about inspections/annual checks, installation instructions and news from Weland.

*The app is called **Weland Norge** and exists for iOS and Android.*

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Fall protection

Weland offers flexible and simple solutions for fall protection that provide great freedom for you as a user. You connect to the cable runner and can move over long distances without having to switch to a new cable run.

NEWS!

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2

	Beskrivelse	Art.nr.
1	Weline ONE	WL1337
2	Wire bracket tube	WL1012

Tube

Tube for straight lines, corners and level differences. Here you connect your line to the cable runner that sits on the cable.

Sealing plate roof protection on Bitumen and PVC/TPO

	Detalj	Art. nr.
1	Sealing plate OPTI 360x450	TP3645
2	Sealing plate (518x346) elevated 350x520	TP3551
3	Coach bolt M10x30	VB1301/VB1305

	Detalj	Art. nr.
4	Bolt M10x20	BU1201/BU1200
5	Nut M10	MU1001/MU1010
6	Rubber washer Ø50 M10	GB5010

Bitumen-based sealing layer

1. Protective cover and covering collar

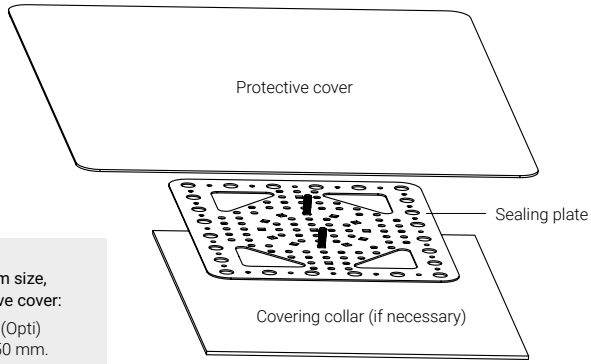
The protective cover must be ***at least 150 mm larger*** than the sealing plate in all directions. For TP3551, the cover must also be cut to the raised section.

If deemed necessary by the installer, a covering collar must also be fitted under the sealing plate. This collar must be 50 mm larger than the sealing plate.

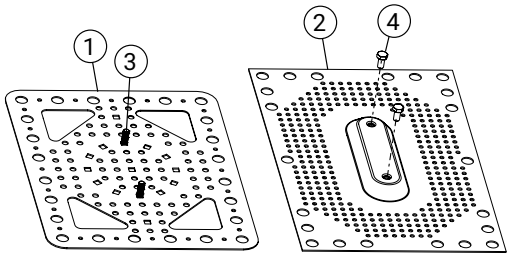
The sealing layer must be tested in accordance with EN 13707: 204+A2:2009 and satisfy the following minimum requirements:

Tensile strength: 550 N/50 mm
Shearing durability in joints: 550 N/50 mm
Tear strength: : 150 N
Resistance to cracks in joints: 150 N/50 mm

The work must be carried out by an approved roofer.

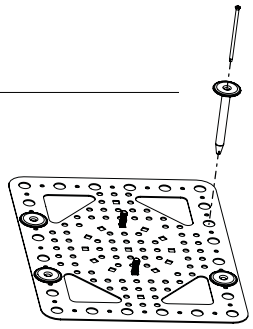


Minimum size, protective cover:
TP3645 (Opti)
660 x 750 mm.
TP3551 (Raised)
818 x 646 mm



2. Bolts

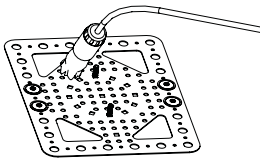
The OPTI sealing plate is installed using 2 coach bolts (3). Two M10x20 bolts (4) are fitted to the raised sealing plate (2),



3. Mechanical attachment

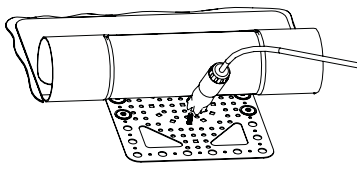
The sealing plates are installed mechanically to the bearing under-roof using ***at least 4 attachments, each of which must be rated to handle a tensile force of 1kN.***

NB Mechanical attachments are to be purchased separately and selected based on the type of roof construction.



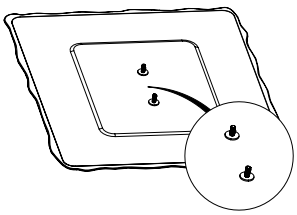
4. Pre-heat the substrate

Mark and pre-heat the substrate under the sealing plate so that the bitumen compound melts through the perforations in the plate.



5. Heating the sealing plate

Heat the protective cover together with the bitumen compound that has melted up through the sealing plate. Take care to ensure that sufficient heat is applied to melt the sealing plate into both layers. Finish by heating the protective cover around the entire sealing plate, securing it to the substrate.



6. Rubber washer

Finish by placing rubber washers (6) on the coach bolts (3)/bolts (4) and fit the bracket on top. Tighten the nuts (5).

	Part	Part. no.
1	Sealing plate OPTI 360x450	TP3645
2	Coach bolt M10x30	VB1301/VB1305

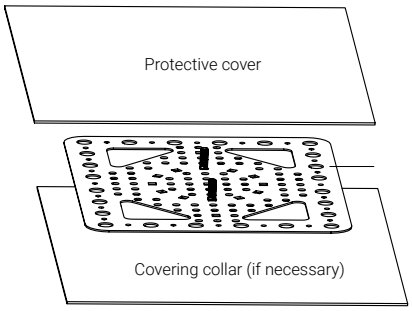
	Part	Part. no.
3	Nut M10	MU1001/MU1010
4	Rubber washer Ø50 M10	GB5010

PVC/TPO-based sealing layer

1. Protective cover and covering collar

The protective cover must be ***at least 50 mm larger*** than the sealing plate in all directions.

If deemed necessary by the installer, a covering collar must also be fitted under the sealing plate. This collar must be 50 mm larger than the sealing plate.



The sealing layer must be compliant with EN 13956 and satisfy the following requirements:

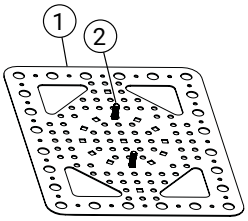
Tensile strength: min. 1050 N/50 mm (EN 12311-2)
Tear strength: min. 210 N/50 mm (EN 12310-2)
Shear strength in joints: min. 1000 N/50 mm (EN 12317-2)
Crack resistance in joints: min. 150 N/50 mm (EN 12316-2)

Minimum size, protective cover:
TP3645 (Opti)
550 x 460 mm.

The work must be carried out by an approved roofer.

2. Coach bolt

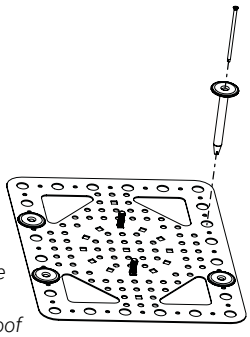
The OPTI sealing plate (1) is installed using 2 coach bolts (2).

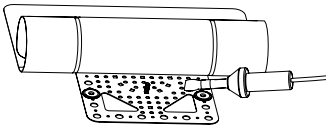


3. Mechanical attachment

The sealing plates are installed mechanically to the bearing under-roof using ***at least 4 attachments, each of which must be rated to handle a tensile force of 1kN.***

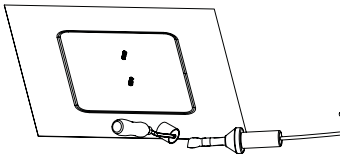
NB Mechanical attachments are to be purchased separately and selected based on the type of roof construction.





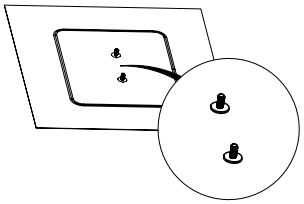
4. Welding sealing plate

Heat around the sealing plate and in the large triangles before fitting the protective cover.



5. Welding protective cover

Weld the protective cover securely around the sealing plate and carefully ensure that the surfaces also attach to each other in the triangles.



6. Rubber washer

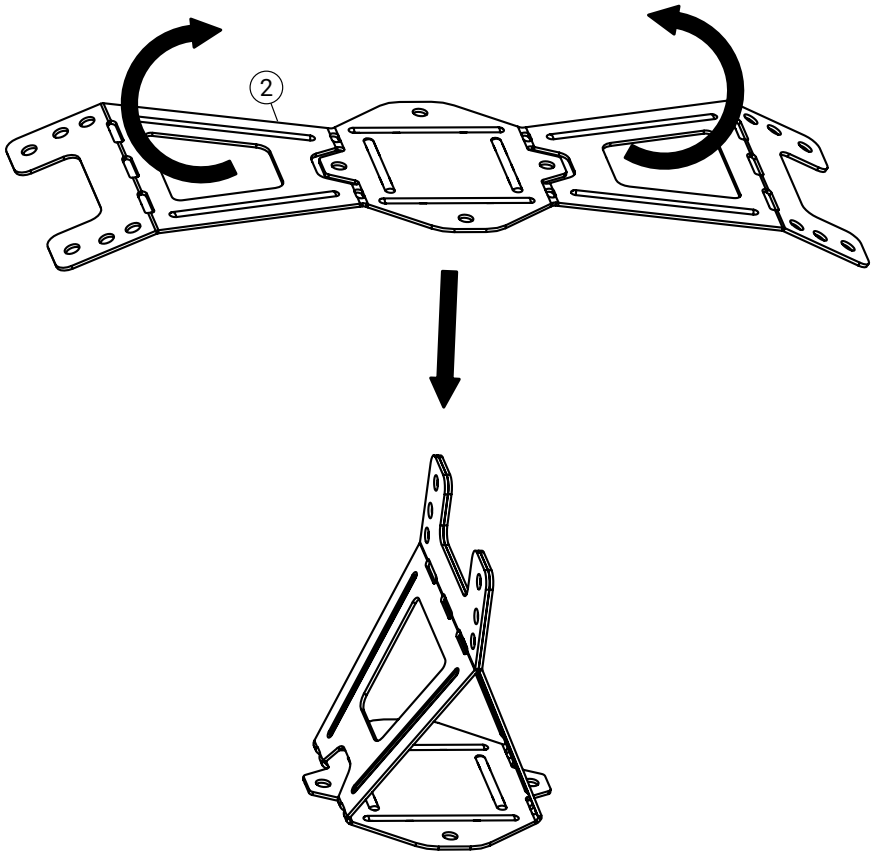
Finish by placing rubber washers (4) on the coach bolts (2) and secure using nuts (3).

Wire System – Weline on sealing membrane

	Detalj	Art.nr.
1	End bracket wire	WL1002
2	Bracket plain roof	WL1020
3	Wire runner open	WL1010
4	Wire bracket tube	WL1012
5	Wire joining tube	XWL1006
6	Wire clamping sleeve	XWL1014

	Detalj	Art.nr.
7	Wire	XWL1008
8	Bolt M10x20	BU1201/ BU1200
9	Nut M10	MU1001/ MU1010
10	Rubber washer Ø50 mm M10	GB5010
11	Infosign APP	IS1810

The maximum separation between supports is 10 m up to 15 degrees pitch.
Between 15-50 degrees gradient, the max. separation is 2.5m.
Above 50 degrees gradient, the max. separation is 1.2 m.

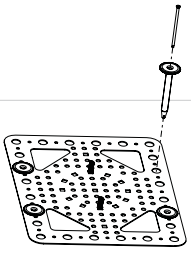


1. Fold Wire bracket

Fold the bracket (2) together by hand as illustrated above.

NB: *Bend only once. If this is bent several times, it will be damaged and must be replaced.*

For mechanical fitting of attachment plate, see MA1008



Installation Instructions

Wire System – Weline ONE on sealing membrane

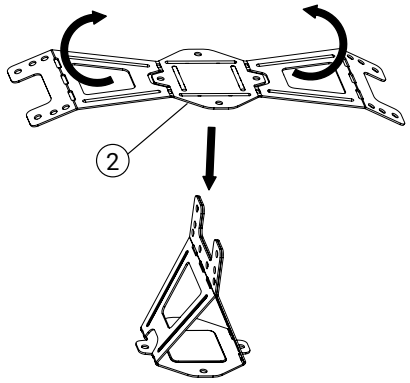
MA1810

	Part	Part. no.
1	ONE wire bracket	WL1337
2	Bracket plain roof	WL1020
3	ONE wire lock bolt kit	BS1300
4	Bolt M10x20	BU1201/BU1200

	Part	Part. no.
5	Nut M10	MU1001/ MU1010
6	Rubber washer Ø50 M10	GB5010
7	Coach bolt M10x30	VB1301/ VB1305

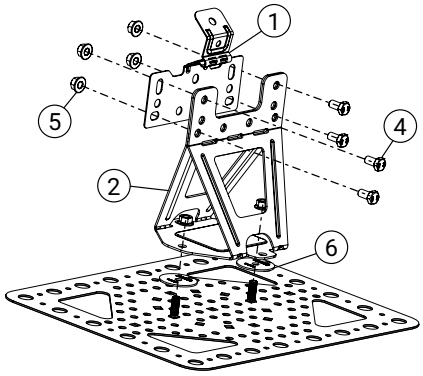
Check the wire to ensure that it has the blue Weland mark and that it is not damaged.

Read more about fastenings in relevant installation instruction MA1008



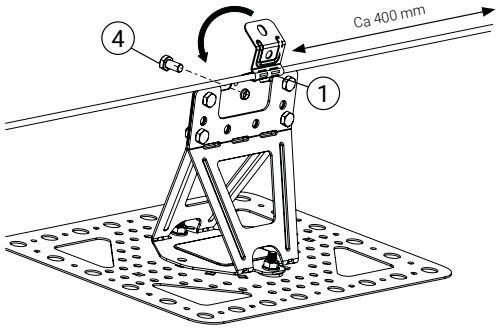
1. Wire bracket, plain roof

Fold the wire bracket (2) together by hand.
NB: only bend once. Bending this several times will damage it and must be replaced.



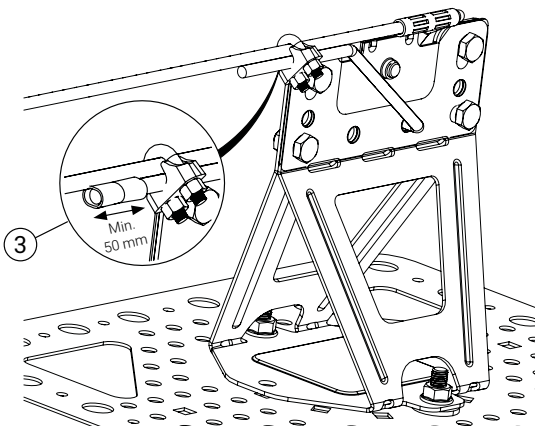
2. First bracket

Fit wire bracket (1) for plain roofs to the sealing plates. Attach using 2 x bolts (4), washers (6), and nuts (6) per bracket. Fit the ONE wire bracket (1) using 4 x bolts (4) + nuts (5).



3. Fit ONE wire bracket as start

Place wire in a ONE wire bracket (1), let out approx. 400 mm of wire and fold the bracket together. Secure using 1 x bolt (4).



4. Fitting wire lock

Pull the wire backwards and through the plain roof wire bracket and ONE wire bracket (1). Thread on clamp tube (3), clamp securely in position. Fit wire lock (3) at least 50 mm from the end of the wire. Tighten the wire lock to a torque of 10 Nm.

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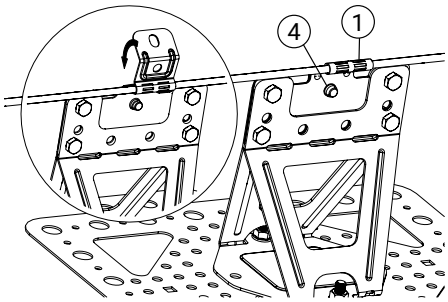
Installation Instructions

Wire System – Weline ONE on sealing membrane

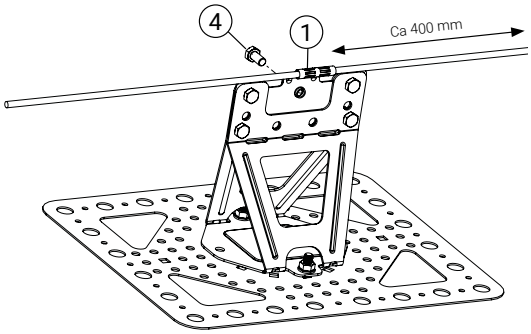
	Part	Part. no.
1	ONE wire bracket	WL1337
2	Bracket plain roof	WL1020
3	ONE wire lock bolt kit	BS1300
4	Bolt M10x20	BU1201/BU1200

	Part	Part. no.
5	Nut M10	MU1001/ MU1010
6	Rubber washer Ø50 M10	GB5010
7	Coach bolt M10x30	VB1301/ VB1305



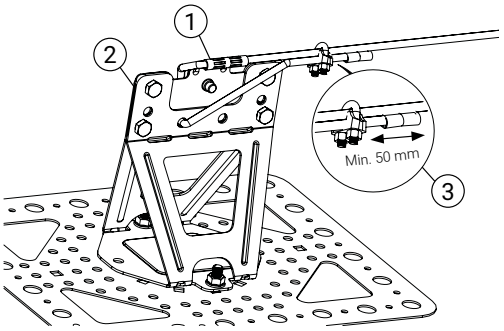
5. Fit ONE wire bracket

Place wire in ONE wire bracket (1), tension the wire by pulling it by hand and fold the ONE wire bracket together. Secure using 1 x bolt (6).



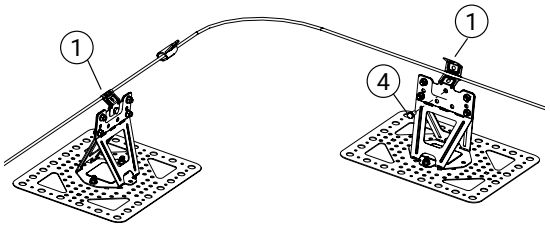
6. Finish wire

Fit any wire runners. Place wire in ONE wire bracket (1) (1), tension the wire by pulling it by hand and fold the ONE wire bracket together. Secure using 1 x bolt (6). Cut the wire approx. 400 mm from the bracket.



7. Finish wire

Pull the wire backwards and through the plain roof wire bracket (2) and ONE wire bracket (1). Thread on clamp tube, clamp securely in position.
Fit wire lock (3) at least 50 mm from the end of the wire. Tighten the wire lock to a torque of 10 Nm.



8. Wire with terminal

Place the wire in one wire holder ONE (1) and lay it in an even arc so that the runner moves freely. Place the wire in the next holder and secure with bolt (4).

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Installation Instructions

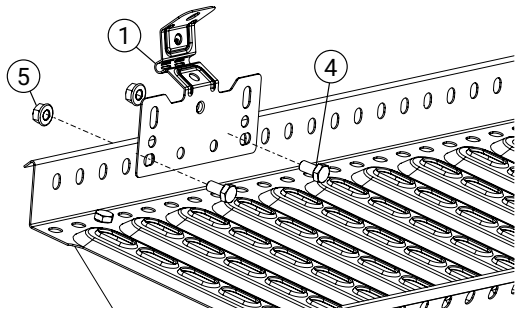
Wire System - Weline ONE on roof gangway

MA1811

	Part	Part. no.
1	ONE wire bracket	WL1337
2	ONE wire lock bolt kit	BS1300
3	Wire end bracket (terminated wire)	WL1002

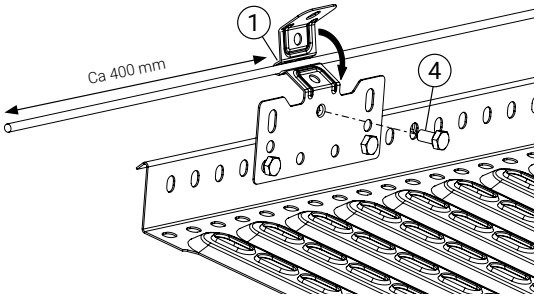
	Part	Part. no.
4	Bolt M10x20	BU1201/BU1200
5	Nut M10	MU1001/ MU1010

Check the wire to ensure that it has the blue Weland mark and that it is not damaged.



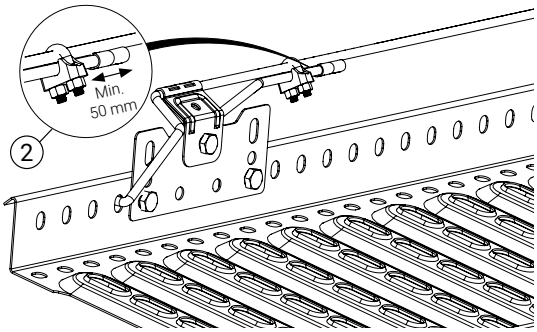
1. Fit ONE wire bracket

Fit a ONE wire bracket (1) to the gangway using 2 x bolts (4) + nuts (5) per bracket.



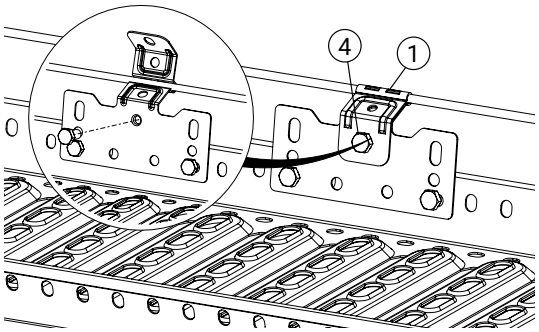
2. Fit ONE wire bracket as start

Place wire in ONE wire bracket (1), let out approx. 400 mm of wire and fold the bracket together. Secure using 1 x bolt (4).



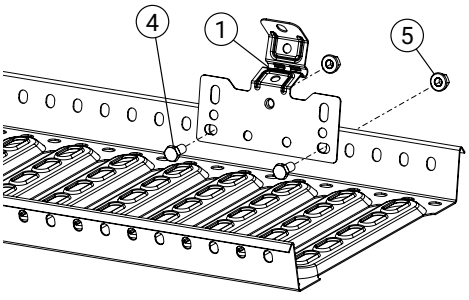
3. Lock installation

Pull the wire back through the gangway. Thread on clamp tube (2), clamp securely in position. Secure to outgoing wire using a wire lock (2). Tighten the wire lock to a torque of 10 Nm.



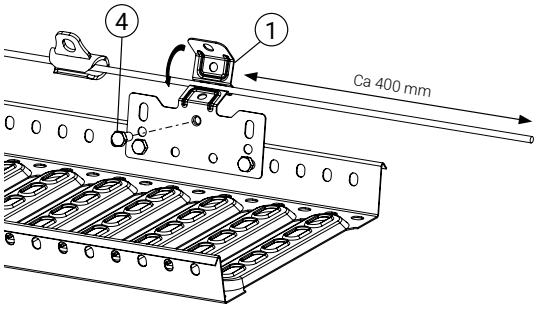
4. Fit ONE wire bracket

Place wire in ONE wire bracket (1), tension the wire by pulling it by hand and fold the ONE wire bracket together. Secure using 1 x bolt (4).



5. Finish wire

Fit a ONE wire bracket (1) to the gangway using 2 x bolts (4) + nuts (5) per bracket.



6. Finish wire

Fit any wire runners. Place wire in ONE wire bracket (1), tension the wire by pulling it by hand and fold the ONE wire bracket together. Secure using 1 x bolt (4). Cut the wire approx. 400 mm from the bracket.

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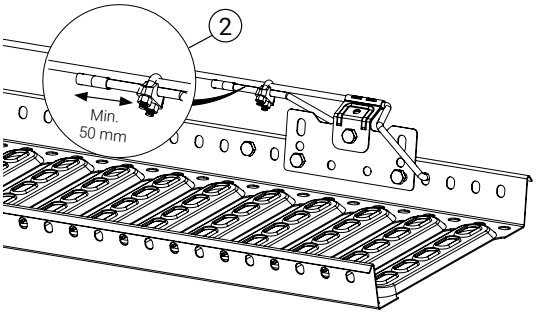
Installation Instructions

Wire System - Weline ONE on roof gangway

MA1811

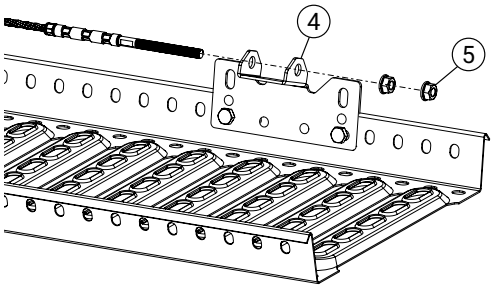
	Part	Part. no.
1	ONE wire bracket	WL1337
2	ONE wire lock bolt kit	BS1300
3	Wire end bracket (terminated wire)	WL1002

	Part	Part. no.
4	Bolt M10x20	BU1201/BU1200
5	Nut M10	MU1001/ MU1010



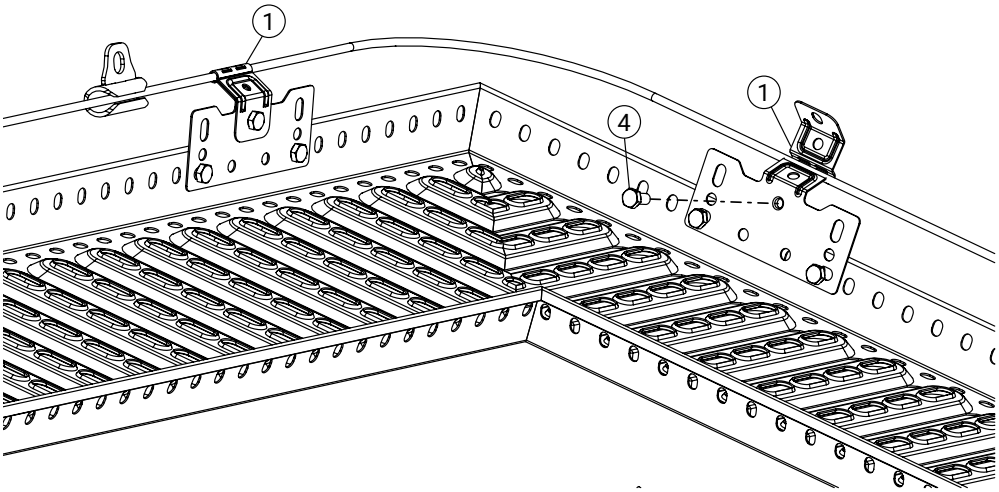
7. Finish wire

Pull the wire through the closest hole on the roof gangway to the outside of the gangway. Thread on clamp tube (2), clamp securely in position. Secure to the outgoing wire and wire lock (2) at least 50 mm from the end of the wire.



8. Wire with terminal

Fit end bracket (4) using 2 x bolts (5) + nuts (5).
When fitting the last bracket, also fit any wire runners.
Tension the wire so it does not sag.
Secure by tightening the other nut.



9. Wire corners and transitions

Place a wire in a ONE wire bracket (1) and make a uniform hoop, ensuring that the runner runs freely. Place in the next ONE wire bracket (1) and secure using 1 x bolt (4).

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Installation Instructions

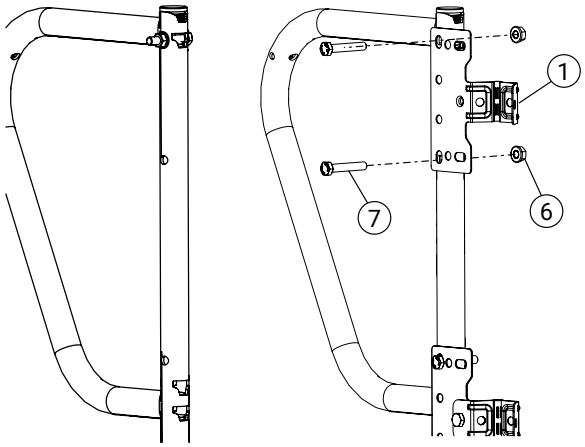
Wire System - Weline ONE on facade ladder/roof ladder

MA1812

	Part	Part. no.
1	ONE wire bracket	WL1337
2	ONE wire lock bolt kit	BS1300
3	ONE fall stop bolt kit	BS1301 L / BS1302 R
4	End bracket	WL1002

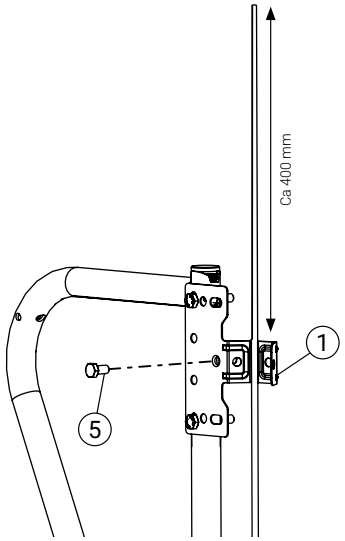
	Part	Part. no.
5	Bolt M10x20	BU1201/BU1200
6	Nut M10	MU1001/ MU1010
7	Bolt M10x60	BU1601

Check the wire to ensure that it has the blue Weland mark and that it is not damaged.



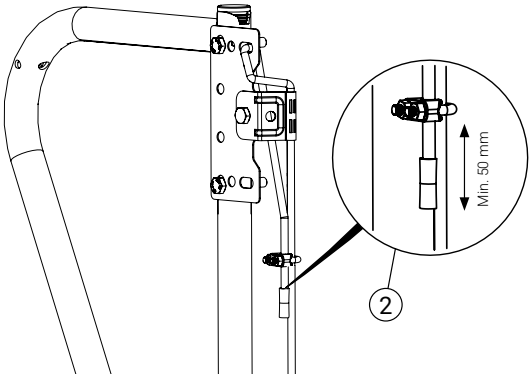
1. Fit ONE wire bracket

Fit the upper ONE wire bracket (1) to the handrail using 2 bolts (7) + nuts (6). If the ladder does not have a handrail, position the first ONE wire bracket as far up the ladder as possible.



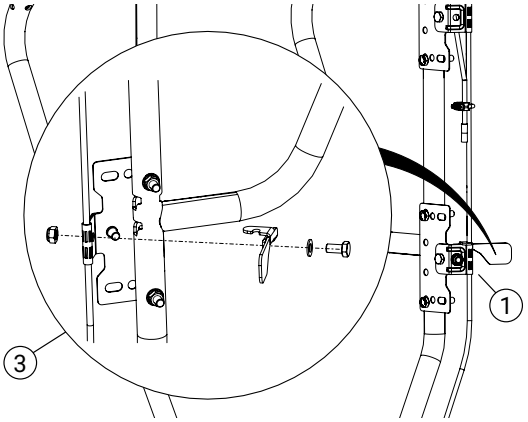
2. Fit ONE wire bracket as start

Place wire in ONE wire bracket (1), let out approx. 400 mm of wire and fold the bracket together. Secure using 1 x bolt (5).



3. Fit wire with wire lock

Pull the wire back through the wire bracket and secure with the downward wire. Thread on clamp tube (2), clamp securely in position. Fit wire lock (2) at least 50 mm from the end of the wire. Tighten the wire lock to a torque of 10 Nm.



4. Installation of fall stop

Fit fall stop at c/c 1200 mm on ONE wire bracket (1) using bolt, washer + locking nut (3), fit fall stop on left or right hand side. Depending on which side the wire bracket is located.

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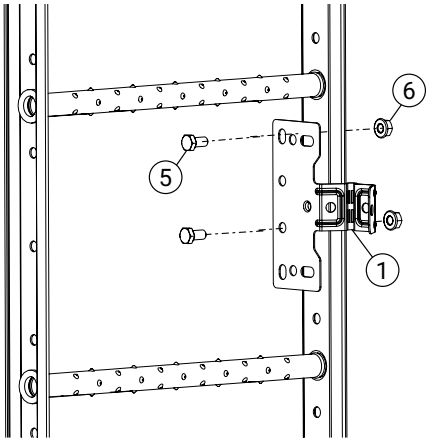
Installation Instructions

Wire System - Weline ONE on facade ladder/roof ladder

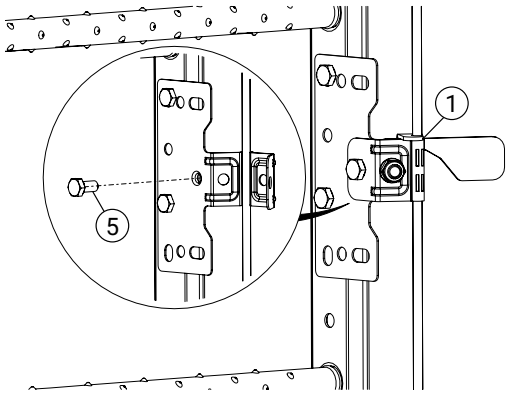
	Part	Part. no.
1	ONE wire bracket	WL1337
2	ONE wire lock bolt kit	BS1300
3	ONE fall stop bolt kit	BS1301 L / BS1302 R
4	End bracket	WL1002

	Part	Part. no.
5	Bolt M10x20	BU1201/BU1200
6	Nut M10	MU1001/ MU1010
7	Bolt M10x60	BU1601



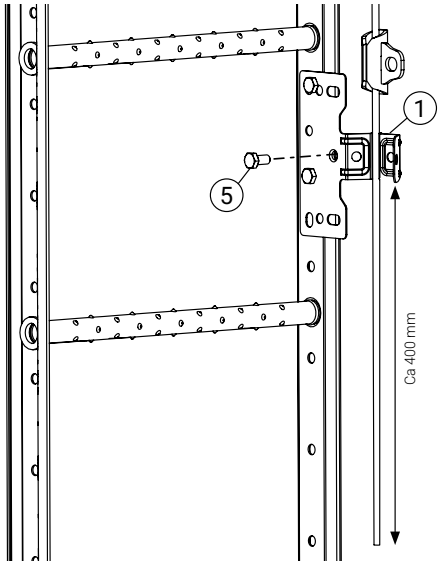
5. Installation of ONE intermediate bracket

Fit the ONE wire bracket (1) to the ladder using 2 bolts (5) + nuts (6) per bracket.



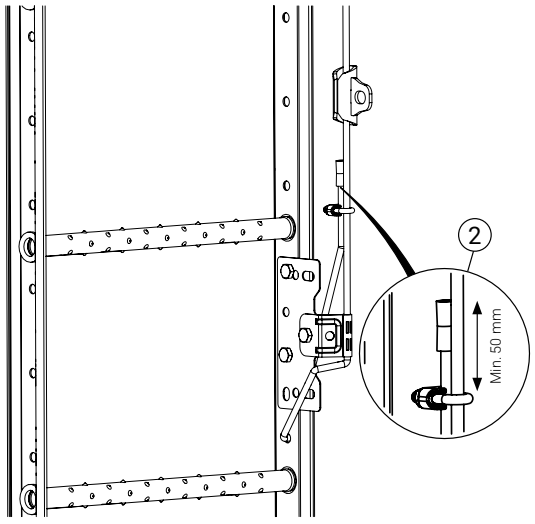
6. Wire installation

Place wire in ONE wire bracket (1), tension the wire by pulling it by hand and fold the ONE wire bracket together. Secure using 1 bolt (5). Fit fall stop as shown in Fig. 4.



7. Wire cutting

Fit any wire runners. Place wire in ONE wire bracket (1), tension the wire by pulling it by hand and fold the ONE wire bracket together. Secure using 1 bolt (5). Cut the wire approx. 400 mm from the bracket.



8. Finish wire

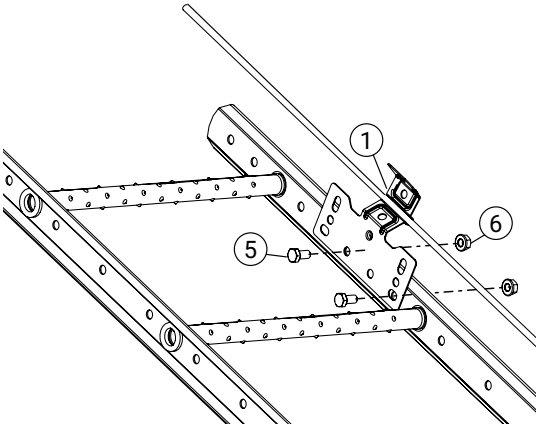
Pull the wire through the closest hole on the ladder to the outside of the ladder. Thread on clamp tube (2), clamp securely in position. Secure to the outgoing wire, install the wire lock (2) at least 50 mm from the end of the wire. Tighten the wire lock to a torque of 10 Nm.

Installation Instructions

Wire System - Weline ONE on facade ladder/roof ladder

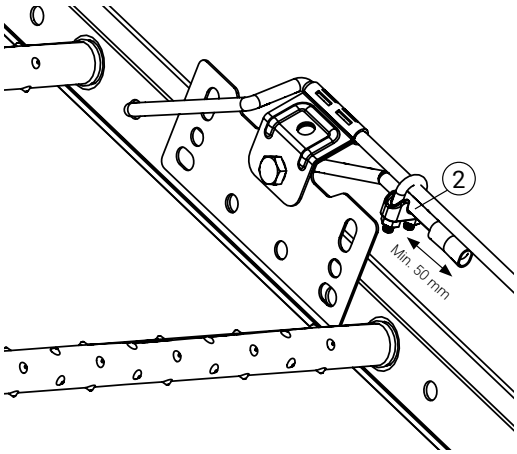
	Part	Part. no.
1	ONE wire bracket	WL1337
2	ONE wire lock bolt kit	BS1300
3	ONE fall stop bolt kit	BS1301 L / BS1302 R
4	End bracket	WL1002

	Part	Part. no.
5	Bolt M10x20	BU1201/BU1200
6	Nut M10	MU1001/ MU1010
7	Bolt M10x60	BU1601



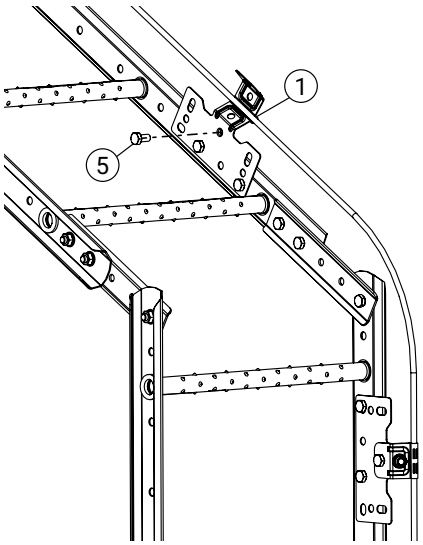
9. Fit ONE wire bracket as start/stop

Fit the ONE wire bracket (1) to the ladder using 2 bolts (5) + nuts (6) per bracket.



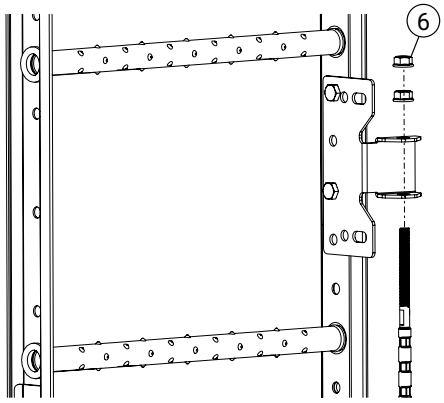
10. Installation of wire with wire lock as start/stop

Pull the wire back through the ladder side and secure with the downward wire. Thread on clamp tube (2), clamp securely in position. Fit wire lock (2) at least 50 mm from the end of the wire. Tighten the wire lock to a torque of 10 Nm.



11. Wire installation, corners and transitions

Install a ONE wire bracket (1) and make a uniform hoop from the wire, ensuring that the runner runs freely. Fold the brackets together and secure using 1 x bolt (5).



12. Start/stop terminated wire

Fit end bracket using 2 x bolts (5) + nuts (6).
When fitting the last bracket, also fit any wire runners.
Tension the wire so it does not sag.
Secure by tightening the other nut.

Installation Instructions

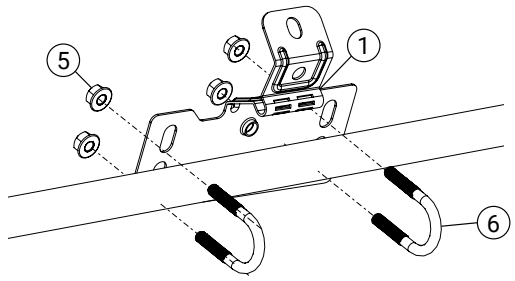
Wire System - Weline ONE on ridge railings

MA1813

	Part	Part. no.
1	ONE wire bracket	WL1337
2	ONE wire lock bolt kit	BS1300
3	End bracket (terminated wire)	WL1002

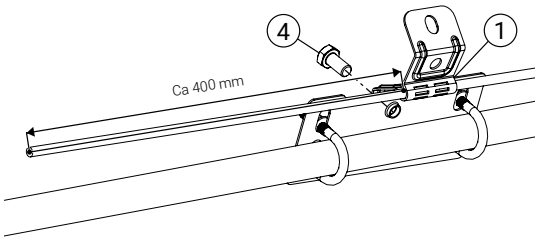
	Part	Part. no.
4	Bolt M10x20	BU1201/BU1200
5	Nut M10	MU1001/ MU1010
6	U-fitting set	UB0850

Check the wire to ensure that it has the blue Weland mark and that it is not damaged.



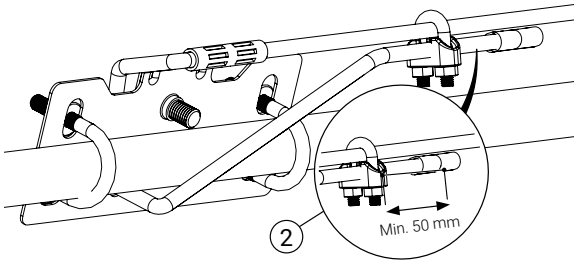
1. Fit ONE wire bracket

Fit the upper ONE wire bracket (1) to the ridge railing using 2 x U-fittings (6) + 4 x M8 nuts (6). Tighten the fittings to a torque of 5 Nm, the bracket will bend to the shape of the tube.



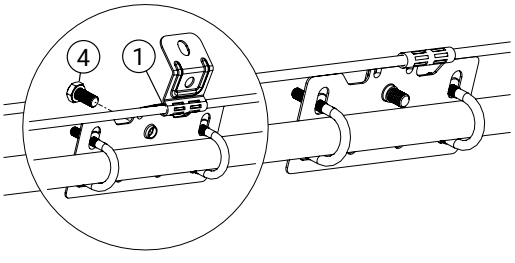
2. Fit ONE wire bracket as start

Place wire in ONE wire bracket (1), let out approx. 400 mm of wire and fold the bracket together. Secure using 1 bolt (4).



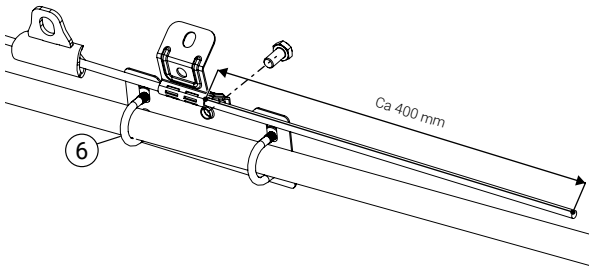
3. Fitting wire lock

Pull the wire back through the ONE wire bracket (1) and round the tube. Secure to outgoing wire. Thread on clamp tube (2), clamp securely in position. Fit wire lock (2) at least 50 mm from the end of the wire. Tighten the wire lock to a torque of 10 Nm.



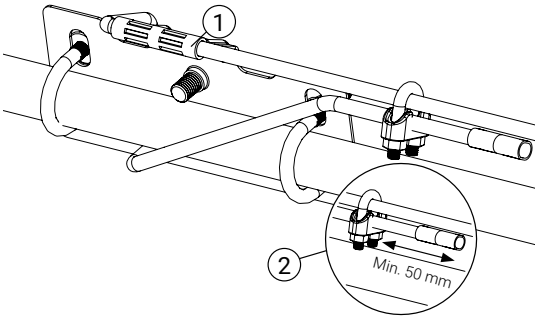
4. Fit ONE wire bracket

Place wire in ONE wire bracket (1), tension the wire by pulling it by hand and fold the ONE wire bracket (1) together. Secure using 1 x bolt (4).



5. Finish wire

Fit any wire runners. Fit ONE wire brackets (1) to the ridge railing using 2 x U-fittings (6) + 4 x M8 nuts (6) per bracket. Tighten the fittings to a torque of 5 Nm, the bracket will bend to the shape of the tube. Cut the wire approx. 400 mm from the bracket.



6. Finish wire

Pull the wire back through the wire bracket (1) and round the tube. Secure to outgoing wire. Thread on clamp tube (2), clamp securely in position. Fit wire lock (2) at least 50 mm from the end of the wire.
Tighten the wire lock to a torque of 10 Nm.

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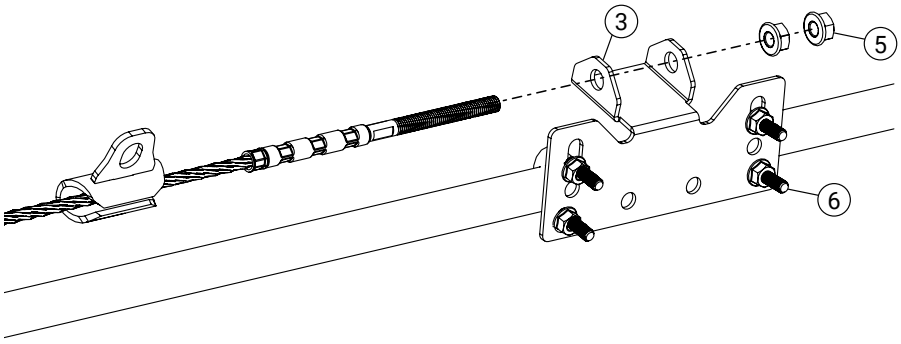
Installation Instructions

Wire System - Weline ONE on ridge railings

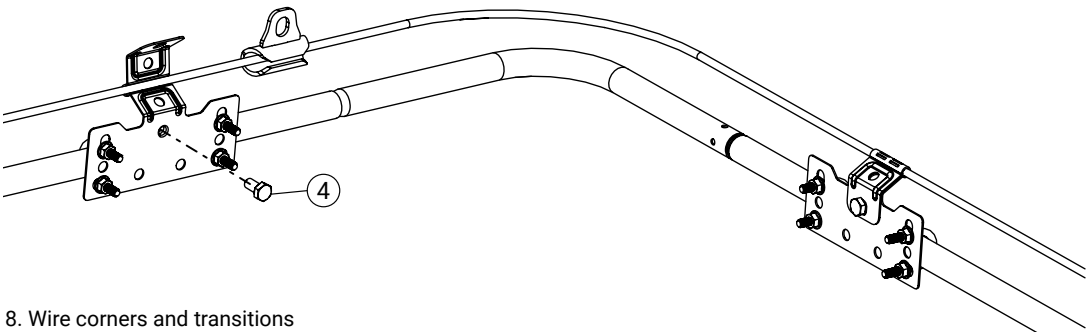
	Part	Part. no.
1	ONE wire bracket	WL1337
2	ONE wire lock bolt kit	BS1300
3	End bracket (terminated wire)	WL1002

	Part	Part. no.
4	Bolt M10x20	BU1201/BU1200
5	Nut M10	MU1001/ MU1010
6	U-fitting set	UB0850



7. Wire with terminal

Fit end bracket (3) using 2 x U-fittings + 4 x M8 nuts (6). When fitting the last bracket, also fit any wire runners. Tension the wire so it does not sag.
Secure by tightening the other nut.



8. Wire corners and transitions

Place a wire in one of the brackets and make a uniform hoop of wire, ensuring that the runner runs freely. Place the wire in the next bracket and secure in position using a bolt (4).

Installation Instructions

Wire System – Weline on sealing membrane

	Detalj	Art.nr.
3	Wire runner open	WL1010
7	Wire	XWL1008

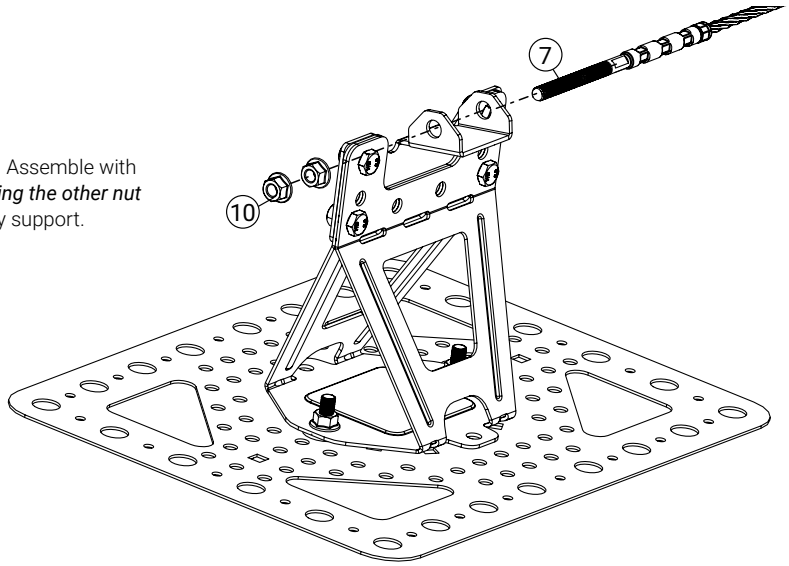
	Detalj	Art.nr.
10	Nut M10	MU1001/ MU1010

2. Installation of end bracket and wire

Start with one end bracket and continue with the wire supports. Pull the wire through, leaving a little slack. Then mark where the last bracket (the end bracket) is to be installed.

Install the first wire terminal

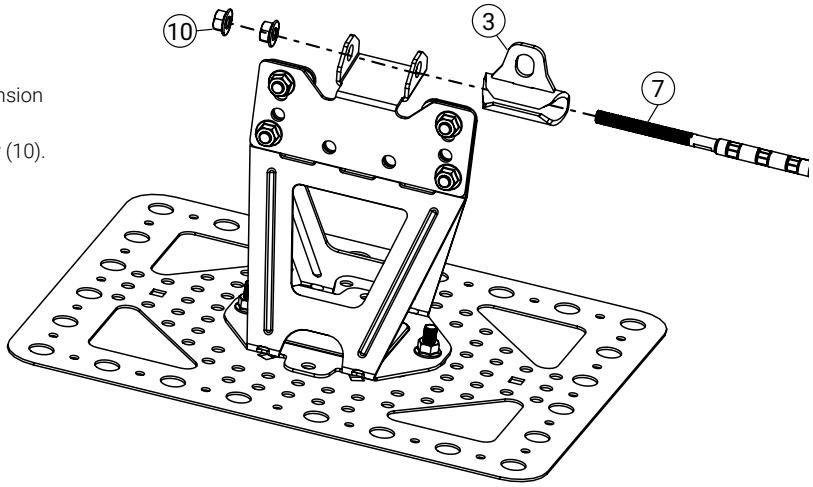
Install the first wire terminal (7). Assemble with two nuts (10) ***Secure by tightening the other nut (10).*** Route the wire through any support.



Install the last vire terminal

Install the last wire terminal (7). Thread on any wire runner (3). Tension the wire so it does not sag.

Secure by tightening the other nut (10).



Installation Instructions

Wire System – Weline on sealing membrane

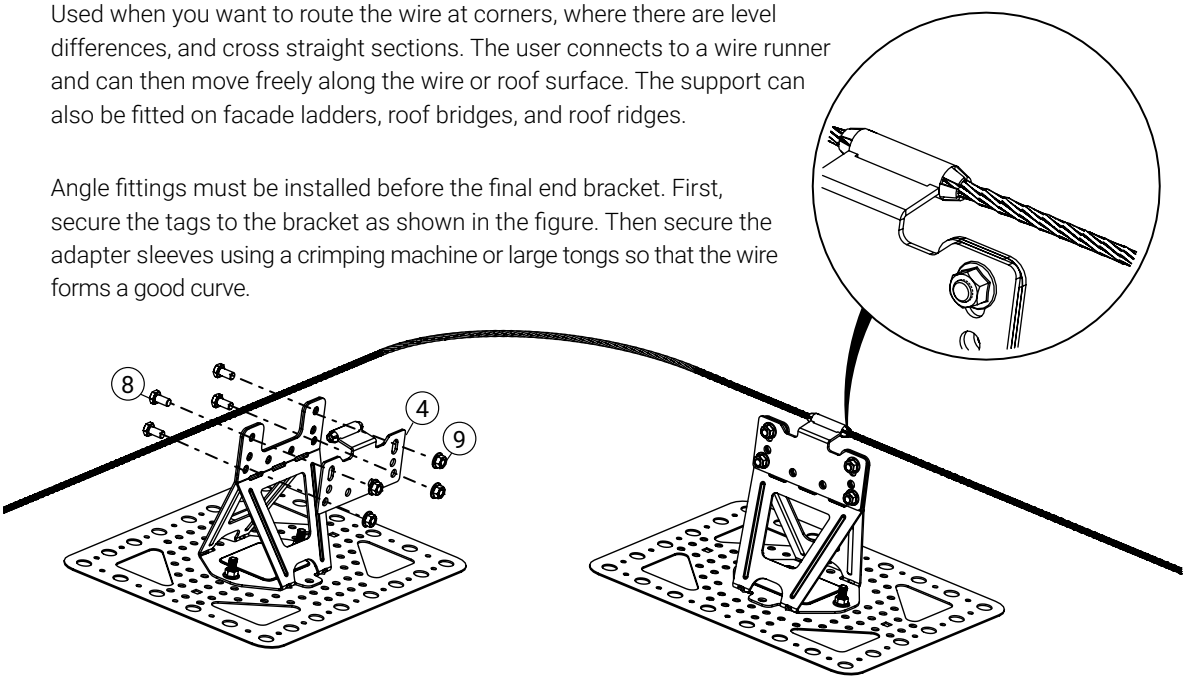
	Detalj	Art.nr.
4	Wire bracket tube	WL1012
6	Wire clamping sleeve	XWL1014

	Detalj	Art.nr.
8	Bolt M10x20	BU1201/ BU1200
9	Nut M10	MU1001/ MU1010

Wire Support Tube

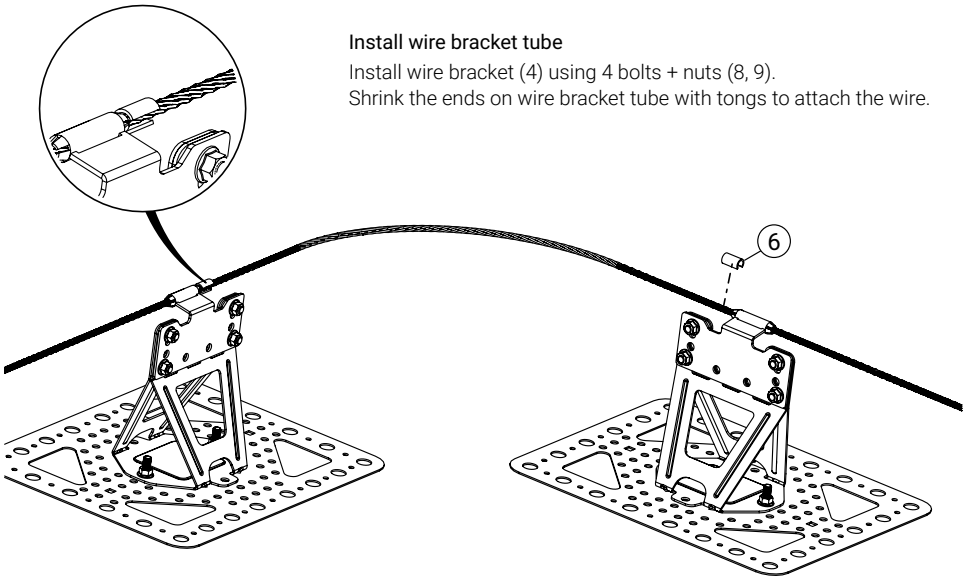
Used when you want to route the wire at corners, where there are level differences, and cross straight sections. The user connects to a wire runner and can then move freely along the wire or roof surface. The support can also be fitted on facade ladders, roof bridges, and roof ridges.

Angle fittings must be installed before the final end bracket. First, secure the tags to the bracket as shown in the figure. Then secure the adapter sleeves using a crimping machine or large tongs so that the wire forms a good curve.



Install wire bracket tube

Install wire bracket (4) using 4 bolts + nuts (8, 9).
Shrink the ends on wire bracket tube with tongs to attach the wire.



Wire clamping sleeve

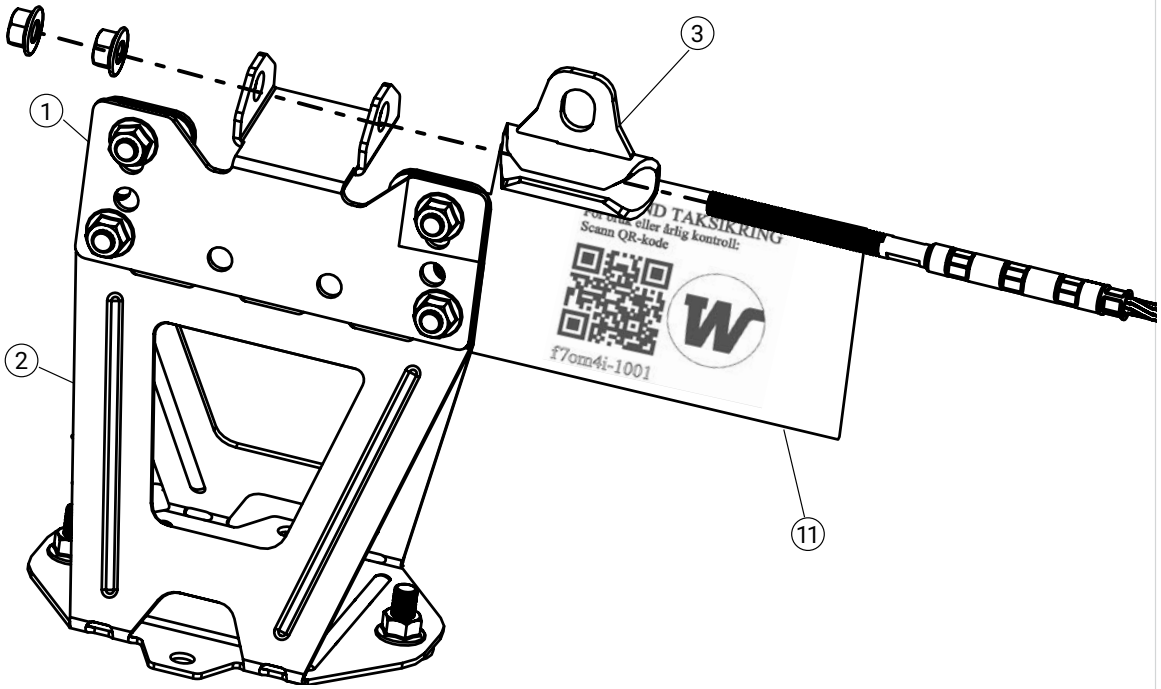
The sleeves (6) are pressed against the bracket, so the wire keeps its shape. Make the pinch using a press or with large tongs..

Installation Instructions

Wire System – Weline on sealing membrane

	Detalj	Art.nr.
1	End bracket wire	WL1002
2	Bracket plain roof	WL1020

	Detalj	Art.nr.
3	Wire runner open	WL1010
11	Infosign APP	IS1810



Fold WL1020 (2) Install Info Sign App (11) at the same time as End Bracket WL1002 (1) as shown in the figure.

Installation Instructions

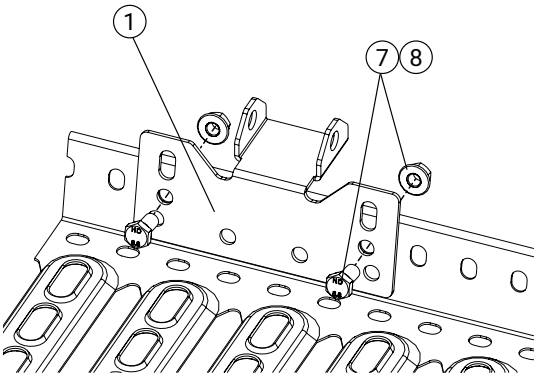
Wire system – WeLine roof gangway

MA1801

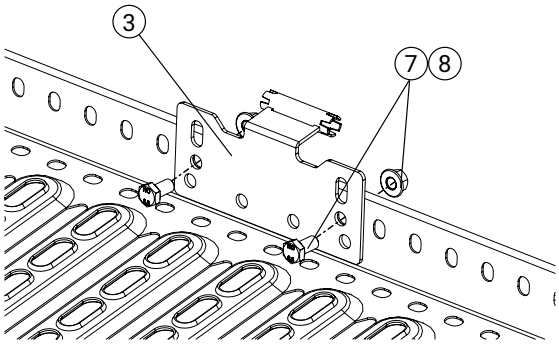
	Part	Part. no.
1	End bracket wire	WL1002
2	Wire runner open	WL1010
3	Wire bracket tube	WL1012
4	Wire joining tube	XWL1006
5	Wire clamping sleeve	XWL1014

	Part	Part. no.
6	Wire	XWLXXXX
7	Bolt M10x20	BU1201/ BU1200
8	Nut M10	MU1001/ MU1010
9	Coach bolt M10x30	VB1301/ VB1305

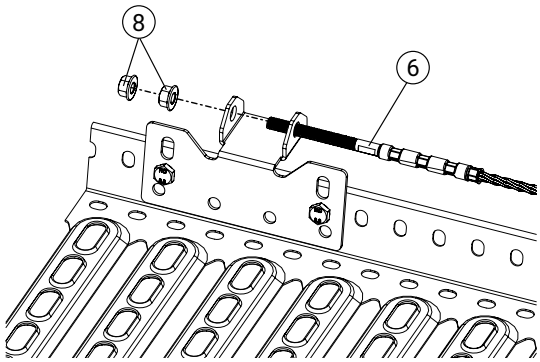
The maximum separation between supports is 10 m up to 15 degrees pitch.
Between 15-50 degrees gradient, the max. separation is 2.5m.
Above 50 degrees gradient, the max. separation is 1.2 m.



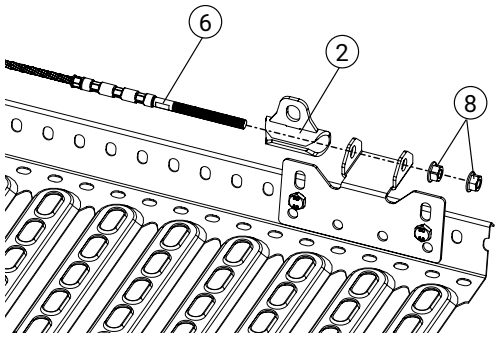
1. Brackets
Install end bracket (1) using 2 bolts + nuts (7, 8).



2 Support tube
Install wire support tube (3) using 2 bolts + nuts (7, 8).



3. Wire installation
Install the first wire terminal (6). Assemble with 2 nuts (8) **Secure by tightening the other nut** (8). Route the wire through any support.



4. Wire installation
Install the last wire terminal (6). Thread on any wire runner (2). Tension the wire so it does not sag.
Secure by tightening the other nut (8).

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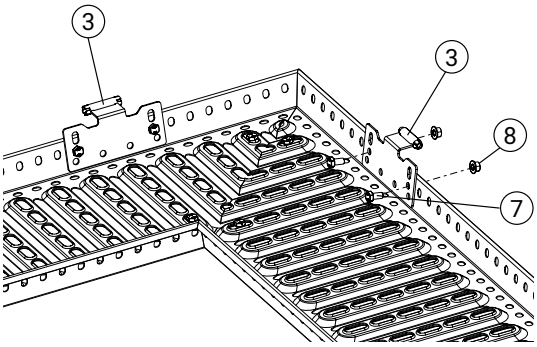
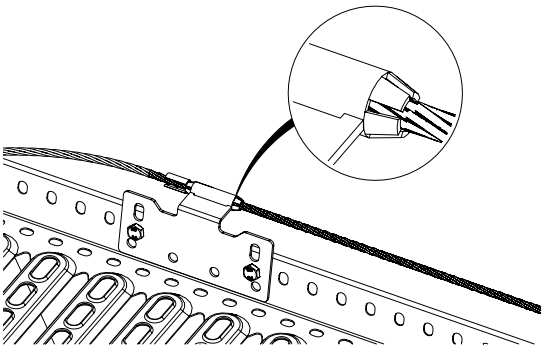
Installation Instructions

Wire system – WeLine roof gangway



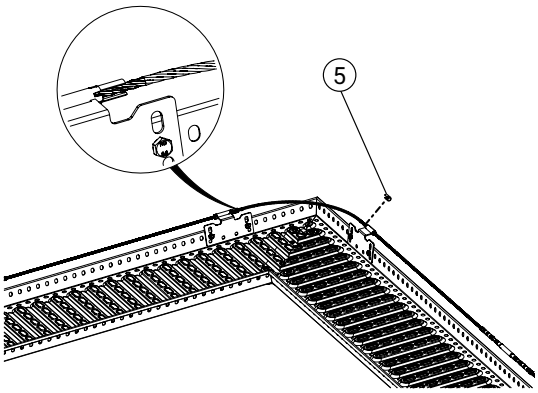
5. Wire corner

Install wire bracket tube (3) using 2 bolts + nuts (7, 8). Make a uniform hoop of the wire, so the runner runs freely.



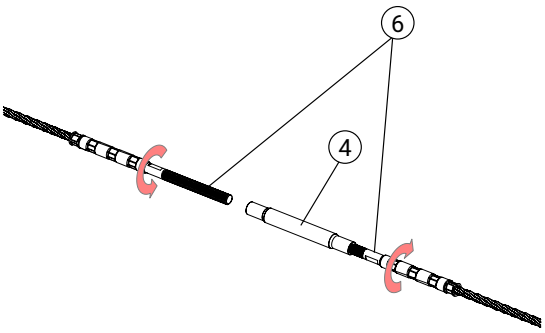
6. Shrinking

Shrink the ends on wire bracket tube with tongs to attach the wire.



7. Wire corner

The sleeves (5) are pressed against the bracket, so the wire keeps its shape. Make the pinch using a press or with large tongs.



8. Wire joint

Screw in the wire terminals (6) to the centre, so they meet in the wire joining tube (4). Tighten so the terminals lock against each other.

Installation Instructions

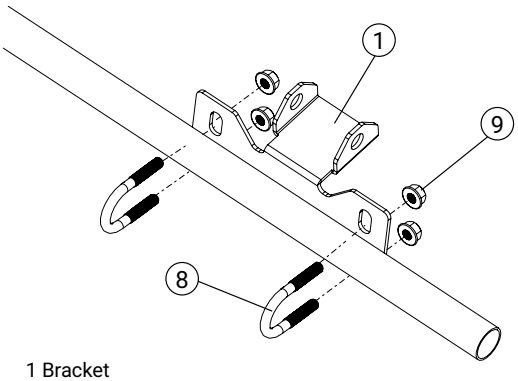
Wire System – Weline on ridge railings

MA1802

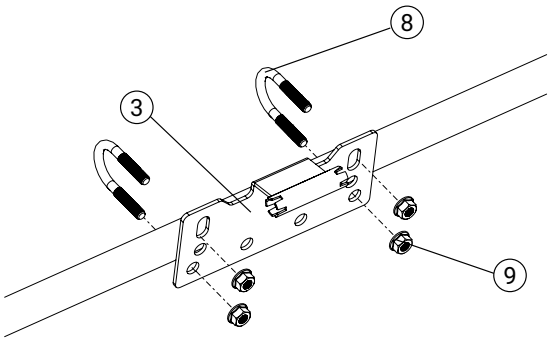
	Part	Part. no.
1	End bracket wire	WL1002
2	Wire runner open	WL1010
3	Wire bracket tube	WL1012
4	Wire joining tube	XWL1006
5	Wire clamping sleeve	XWL1014

	Part	Part. no.
6	Wire	XWLXXXX
7	Nut M10	MU1001/MU1010
8	U-fitting	XBY0850
9	Nut MB	MU0801/ MU0805

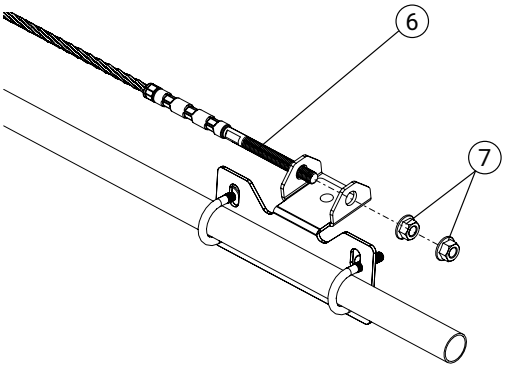
The maximum separation between supports is 10 m up to 15 degrees pitch.
Between 15-50 degrees gradient, the max. separation is 2.5m.
Above 50 degrees gradient, the max. separation is 1.2 m.



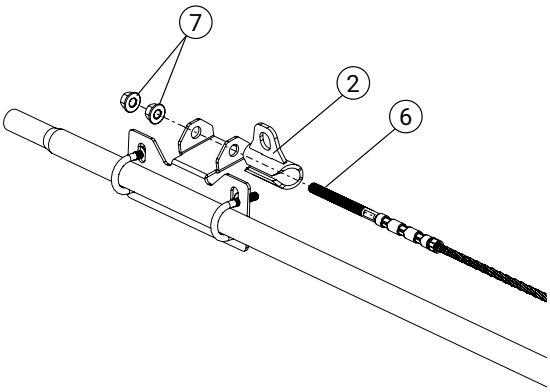
1 Bracket
Install end bracket (1) using 2 U-fittings + nuts (8,9).



2. Support tube
Install wire support tube (6) using 2 U-fittings + nuts (8, 9).



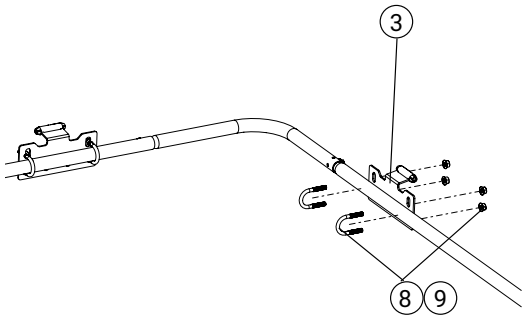
3. Wire installation
Install the first wire terminal (6). Assemble with 2 nuts (7) **Secure by tightening the other nut** (7). Route the wire through any support.



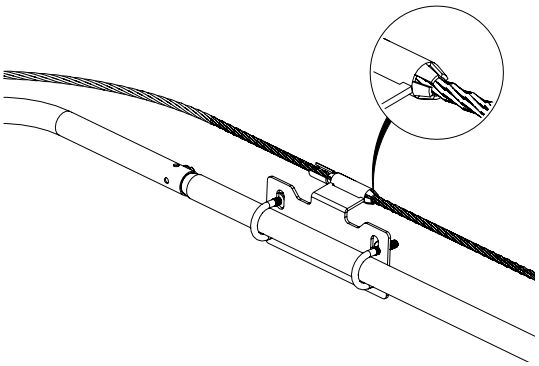
4. Wire installation
Install the last wire terminal (6). Thread on any wire runner (2). Tension the wire so it does not sag. **Secure by tightening the other nut** (7).

Installation Instructions

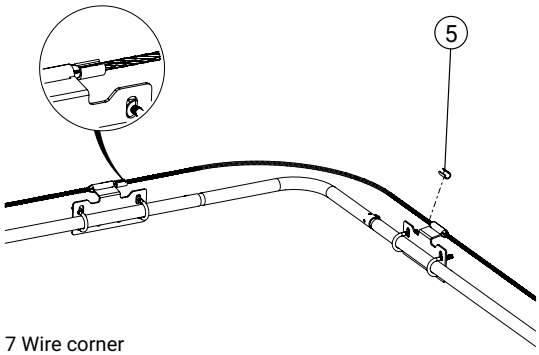
Wire System – Weline on ridge railings



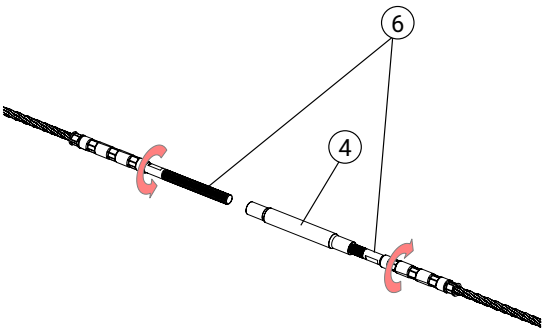
5 Wire corner
Install wire bracket tube (3) using 2 U-fittings + nuts (8, 9). Make a uniform hoop of the wire, so the runner runs freely.



6. Shrinking
Shrink the ends on wire bracket tube using tongs to attach the wire.



7 Wire corner
The sleeves (5) are pressed against the bracket, so the wire keeps its shape. Make the pinch using a press or with large tongs.



8. Wire joint
Screw in the terminals (6) to the centre, so they meet in the butt connector (4). Tighten so the terminals lock against each other.

Installation Instructions

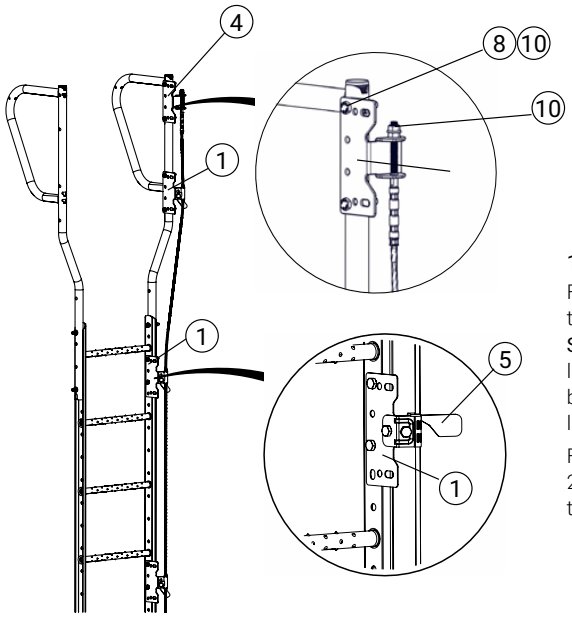
Wire system – WeLine on roof/cat ladder

MA1805

	Part	Part. no.
1	ONE wire bracket	WL1337
2	End bracket wire	WL1002
3	Wire runner open	WL1005
4	Wire bracket tube	WL1012
5	Right/left fall stop	BS1301(L)/BS1302(R)
6	8 mm wire	XWL1008

	Part	Part. no.
7	Bolt M10x20	BU1201/BU1200
8	Bolt M10x60	BU1601
9	Coach bolt M10x30	VB1301/VB1305
10	Flange nut M10	MU1001/MU1010
11	Wire clamping sleeve	XWL1014

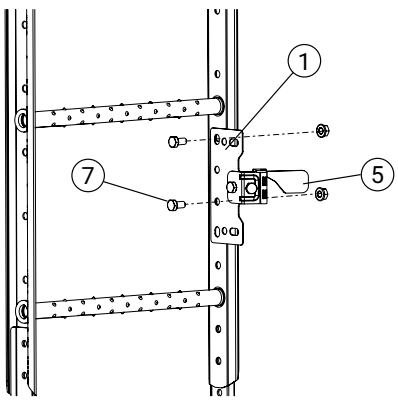
Recommended distances between supports/mounts:
10 m up to 15 degrees pitch, 2.5 m between 15-50 degrees pitch, and 0.9 m over 50 degrees pitch.



1. Wire installation

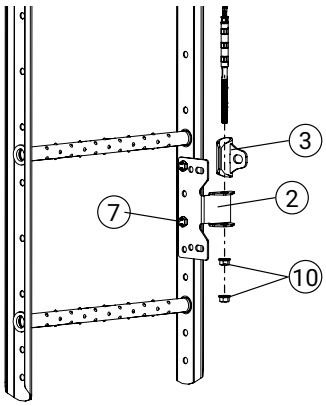
Fit upper end bracket wire (2) on the handrail using 2 bolts + nuts (8,10). **Secure by tightening the other nut** (10). If the ladder does not have a handrail, the last end bracket wire (2) is to be located as far up the ladder as possible.

Fit fall stop (5) on handrail using 2 bolts + nuts (8, 10). Route the wire through the fall stop.



2. Fall stop

Fit fall stop (5) of c/c 900 mm to cat ladder using 2 bolts + nuts (7,10).



3. Wire installation

Fit lower end bracket wire (2) using 2 bolts + nuts (7, 10). Thread on any wire runner (3). Tension tension the wire so it does not sag, fit using 2 nuts (10).

Secure by tightening the other nut.

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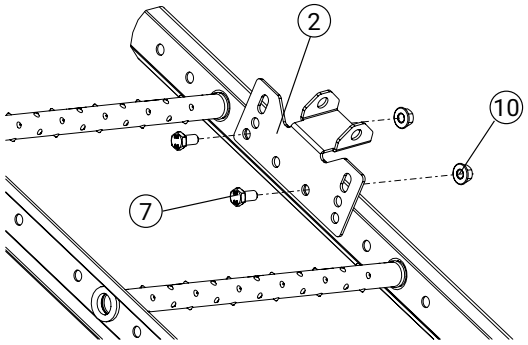
Installation Instructions

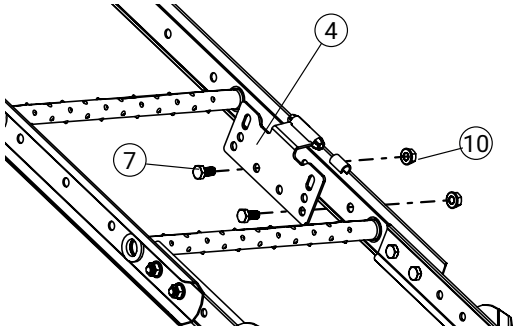
Wire system – WeLine on roof/cat ladder

Recommended distances between supports/mounts:
10 m up to 15 degrees pitch, 2.5 m between 15-50 degrees pitch, and 0.9 m over 50 degrees pitch.



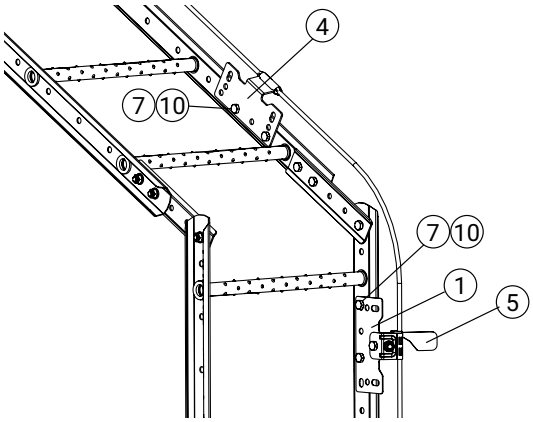
4. End bracket

Install end bracket (2) using 2 bolts + nuts (7, 10).



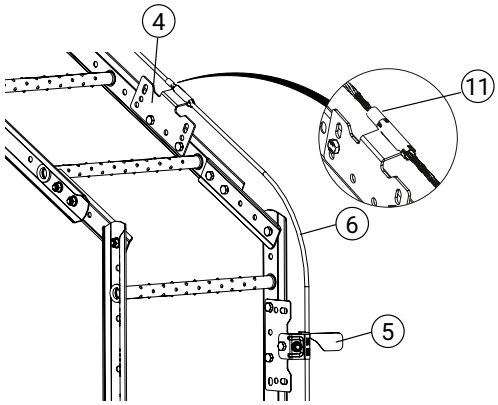
5. Support claw

Install bracket for wire support (4) using 2 bolts + nuts (7, 10).



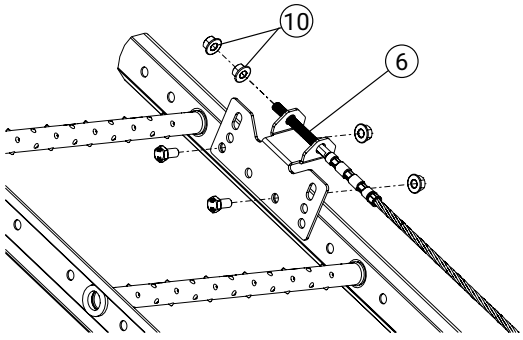
6. Transition

At transitions, fit the fall stop (5) on the cat ladder using 2 bolts + nuts (7,10), and tube attachment (4) on the roof ladder using 2 bolts + nuts (7,10).



7. Wire installation

Make a uniform hoop of the wire (6), so the runner runs freely. Crimp the ends of the fall stop (5). Pinch the sleeves against the inside of the wire bracket (4) so that the arc on the wire holds its shape. Make the pinch using a press or with large tongs. Crimp the sleeves (11) against the inside of the bracket, so that the arc holds its shape.



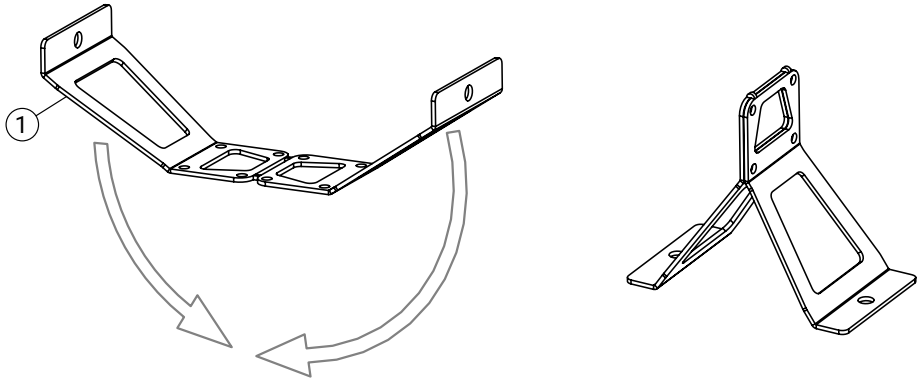
8. Wire installation

Fit the last wire terminal (6) using 2 nuts (10). Tension the wire so it does not sag. **Secure by tightening the other nut.**

Anchorage point

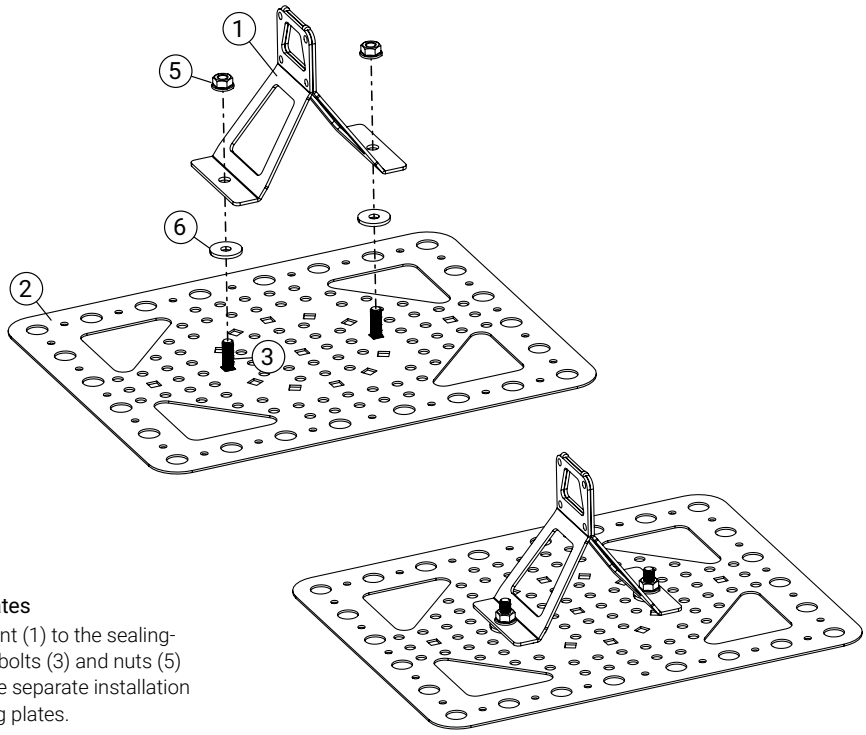
	Part	Part. no.
1	Anchorage point for lifelines	FP5150
2	Sealing plate	TP3551/TP3645
3	Coach bolt M10x30	VB1301/VB1305

	Part	Part. no.
4	Bolt M10x20	BU1201/BU1200
5	Nut M10	MU1001/MU1010
6	Rubber washer M10	GB5010



1. Fold the bracket

Fold the bracket (1)by hand. ***ATTENTION!*** *Remember to fold the bracket in the right direction. Only bend once. Bending it more than once will damage it and will need to be replaced.*



2. Fit to attachment plates

Screw the anchorage point (1) to the sealing-plates (2) using 2 coach bolts (3) and nuts (5) + rubber washers (6). See separate installation instruction for the sealing plates.

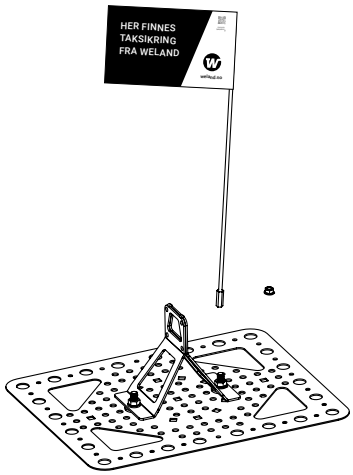
Snow depth marker

	Part	Part. no
1	Snow depth marker	NSDM2515
2	Sealing plate OPTI 360x450	TP3645
3	Lifeline anchor point	FP5150

Follow current regulations for working at heights. At heights above 2m, you must be properly secured.

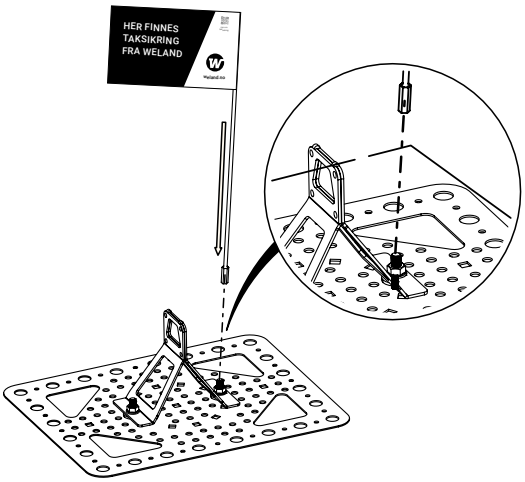
The NSDM is mounted on the mounting plate in combination with our roof protection products.
Below, FP5150 and WL1020 are shown as examples.

Sealing plate OPTI



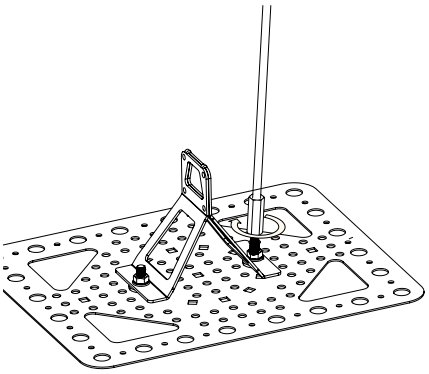
1. Snow depth marker

Remove the nut on the mount.
NOTE! *When reassembling, do not forget the rubber washer under the mount.*



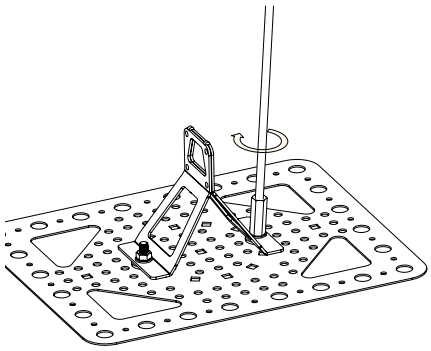
2. Install the long nut

Install the long nut with threaded rod on the bolt on the mount.



3. Long nut

The long nut is screwed down onto the fitting.



4. Threaded rod

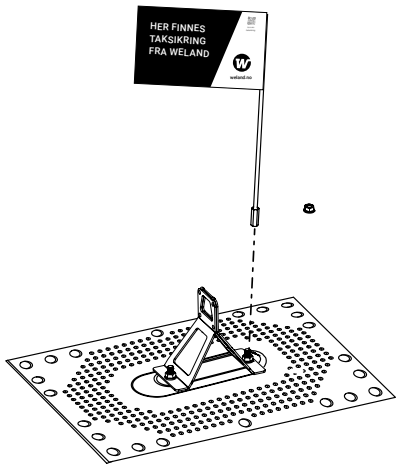
The threaded rod is screwed until it stops against the locking bolt.

Snow depth marker

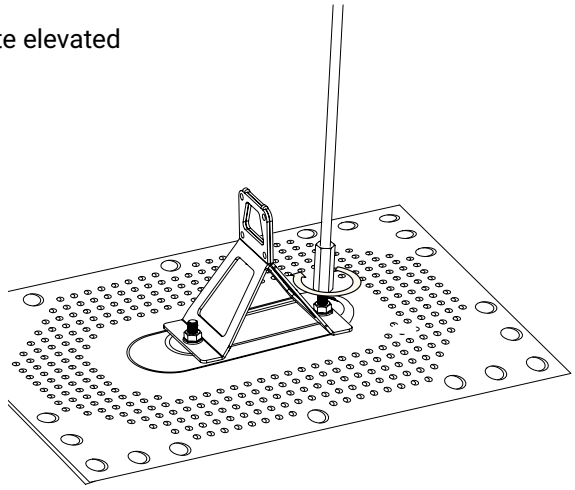
	Part	Part. no
1	Snow depth marker	NSDM2515
2	Sealing plate (518x346) elevated 350x520	TP3551
3	Lifeline anchor point	FP5150

Follow current regulations for working at heights. At heights above 2m, you must be properly secured.

The NSDM is mounted on the mounting plate in combination with our roof protection products.
Below, FP5150 and WL1020 are shown as examples.



Sealing plate elevated



1. Snow depth marker

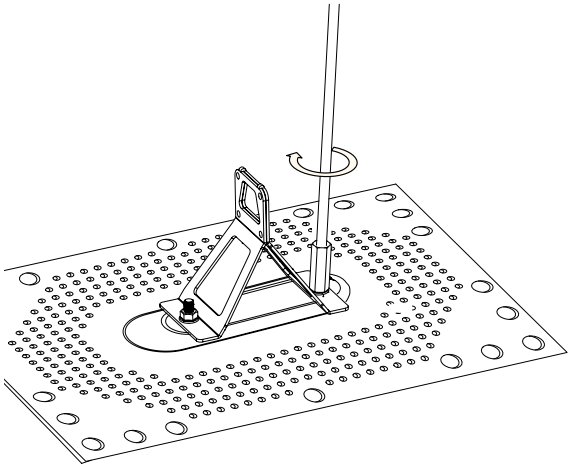
Remove the nut on the mount.

NOTE! *When reassembling, do not forget the rubber washer under the mount.*

2. Install threaded rod

Install the threaded rod with long nut in the sealing plate.

NOTE! *Screw the threaded rod until it touches the ceiling, then unscrew it one turn so that it does not rest against the ceiling covering. Don't forget the rubber washer under the mount.*



3. Long nut

The long nut is screwed down onto the mount.

Snow depth marker

	Detalj	Art. nr.
1	Snow depth marker	NSDM2515
2	Sealing plate OPTI 360x450	TP3645
3	Bracket plain roof	WL1020

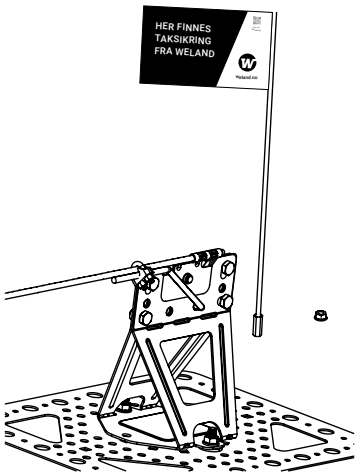
	Detalj	Art. nr.
4	ONE wire bracket	WL1337

Follow current regulations for working at heights. At heights above 2m, you must be properly secured.

The NSDM is mounted on the mounting plate in combination with our roof protection products.

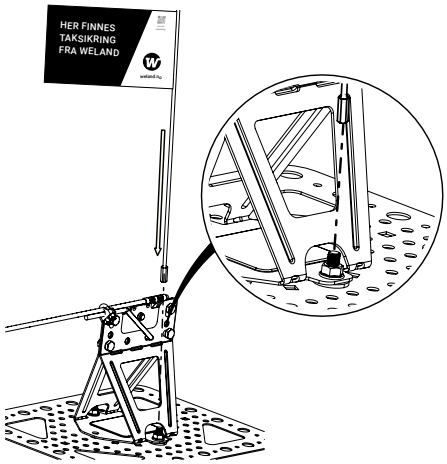
When installing Snow Depth Markers on an existing wire system, console WL1020 can be loosened if necessary and the bolt for attaching the Snow Depth Marker can be placed in an empty hole.

Sealing plate OPTI with Weline ONE



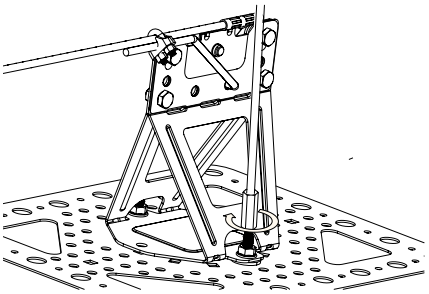
1. Snow depth marker

Remove the nut on the mount.
NOTE! *When reassembling, do not forget the rubber washer under the mount.*



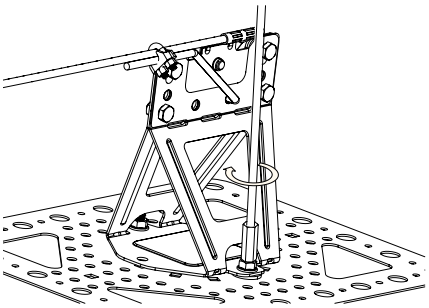
2. Install the long nut

Install the long nut with threaded rod on the bolt on the mount.



3. Long nut

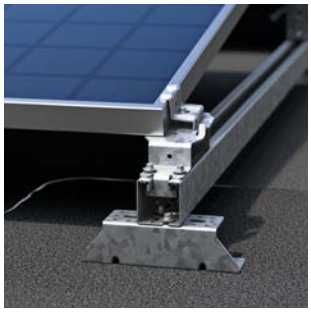
The long nut is screwed down onto the fitting.



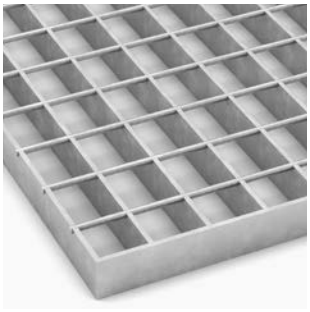
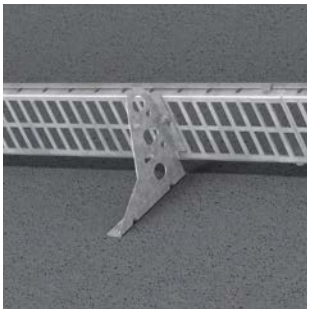
4. Threaded rod

The threaded rod is screwed until it stops against the locking bolt.









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