INSTALLATION HANDBOOK

ABSEILING SURFACELINK ANCHOR

SafetyLink is an innovative anchor company achieving success and keeping you safe whilst working at heights.

- **ROOF ANCHORS**
- **9** HORIZONTAL LIFELINES
- ¶ PERMANENT LADDERS
- **LADDER STABILISERS**
- **TEMPORARY ANCHOR**
- **N** WALKWAY & GUARDRAIL
- **X-RAIL HORIZONTAL RAIL**





Read entire handbook before installing Safety*Link* products. All products must be installed in accordance with Safety*Link*'s installation handbook, using only products supplied by Safety*Link* Pty Ltd. Failure to follow all warnings and instructions may result in serious injury or death.



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INSTALLATION OF SAFETYLINK ABSEILING SURFACELINK ANCHOR

WARNINGS	3
MAINTENANCE – PERIODIC INSPECTIONS	4
FIXED LADDERLINK: LADDER SUPPORT BRACKET	4
SAFETYLINK ANCHORAGES	4
WARRANTIES	5
ABSEILING CLASSIC SURFACELINK ANCHOR	6
COMPONENTS FOR METAL ROOF SHEETING - PRODUCT CODE: HSURFAB001+FIXINGS	6
COMPONENTS FOR PLYWOOD - PRODUCT CODE: HSURFAB001+SCREWS	6
POSITIONING OF SURFACELINK ANCHOR POINT (REFER TO APPENDIX DIAGRAMS)	7
INSPECT THE INTEGRITY OF THE STRUCTURE AND ROOF SHEETING	7
INSTALLATION ON STANDING SEAM / KLIP-LOK ROOF PROFILES	8
INSTALLATION ON PLYWOOD	8
ASSEMBLING	
INSTALLING	10
APPENDIX – DIAGRAM 2 – ANCHOR POSITIONING LAYOUT	11
IN CASE OF ACCIDENT	12



Safety Centre Training



Anchor Layout Video



Catalogue



Website





READ CAREFULLY SOMEONE'S LIFE DEPENDS ON IT

INSTALLATION MUST BE CARRIED OUT BY, OR UNDER THE SUPERVISION OF A COMPETENT HEIGHT SAFETY INSTALLER.

The building or structure for the anchorages should be assessed by an engineer, unless it is clear to a competent height safety installer that the anchorages system is structurally adequate.

STANDARD EYEBOLTS MUST ONLY BE USED AS A FALL ARREST ANCHOR.
ABSEILING EYEBOLTS ARE TO BE USED FOR ROPE ACCESS (ABSEILING).
RETRO EYEBOLTS USED FOR ROPE ACCESS (ABSEILING) EXCEPT ON HIGH PROFILE SECTION.

When installing anchor points all safety procedures must be complied with in accordance with the current safety code/s of practice/s for working at heights.

- Recommended waterproofing for roof tiles: Sika Flex Co-Polymer Sealant.
- Recommended waterproofing for metal roof: Silicone Sealant.
- A personal energy absorber or a fall-arrest device with a personal energy absorber must be used to connect to all SafetyLink Anchorages and (or) Strops.

▲ MAXIMUM USER PER EYEBOLT IS ONE (1)

WARNING

Locking Hex Nut must be fully screwed up the thread of the eyebolt to expose 30mm of thread.

This thread must be fully screwed into the bracket.

Locking Hex Nut must be firmly tightened onto the bracket to stop the eyebolt from unscrewing and to gain maximum strength.



EYEBOLTS - Threads need to have a minimum of SIX FULL 360° TURNS into the ultimate thread.

RETRO EYEBOLTS - Threads need to have a minimum of EIGHT FULL 360° TURNS into the ultimate thread.



Always use a spanner when tightening and un-tightening the locking hex nut.



WRONG

<u>DO NOT</u> place an object into the eye of the eyebolt to tighten or un-tighten the locking hex nut, as this may damage the eyebolt.

MAINTENANCE – PERIODIC INSPECTIONS

All items of height safety equipment which are in regular use shall be subjected to periodic inspection and servicing. These regular scheduled inspections and servicing must be carried out by a competent height safety installer.

FIXED LADDERLINK: LADDER SUPPORT BRACKET

ALL LADDERLINKS MUST BE INSPECTED EVERY 12 MONTHS, INSPECTIONS NEED TO BE CARRIED OUT BY A COMPETENT HEIGHT SAFETY INSTALLER.

Procedures to be followed at inspection time:

- Visually inspect ladder support brackets for any signs of deterioration or the protective coating being removed. (Note: LadderLink is made from marine grade aluminium and therefore should not corrode).
- Ensure LadderLink is firmly secured to the structure as per SafetyLink Installation Handbook. *(refer to Installing LadderLink)*.

SAFETYLINK ANCHORAGES

ALL ANCHORAGES MUST BE INSPECTED EVERY TWELVE MONTHS, INSPECTIONS NEED TO BE CARRIED OUT BY A COMPETENT HEIGHT SAFETY INSTALLER.

Procedures to be followed at inspection time:

- Visually inspect anchors for signs of deterioration.
- The FrogLink/TileLink anchor point has two energy absorbing regions and two stabilising joins which hold the eyelet in place during use. If these energy absorbing regions are expanded this will indicate the anchor point has arrested a fall. Similarly, if the two stabilising joins have been broken this would also indicate the FrogLink/TileLink has arrested a fall and should be replaced.
- The eyebolt should remain straight, a bent eyebolt will indicate that the anchor point has arrested a fall (*The design features of the eyebolt includes the ability to bend like a fishing pole starting from the top and working its way to the bottom, enabling it to use up energy as the eyebolt bends whilst lessening the force on the person falling and the attachment point).*
- Visually inspect the components of the anchor for corrosion, superficial surface marking is permitted while deeper corrosion or pitting would require attention.
- Manually (by hand) check the eyebolt for rigidity and tightness, if the eyebolt can turn in the anticlockwise direction it will require attention.
- Visually inspect the rubber hat washer and waterproofing components to ensure it has remained sealed.
- Visually inspect the attachment component of the anchorage where practically possible.
- Visually inspect the parent structure for modifications or deterioration which might lead to loss of anchorage strength.
- For Concrete Installation Only: To comply with Australian Standards, each ConcreteLink must be tested after installation and at every recertification inspection. Ensure you wait the recommended curing time as specified by the chemical anchor instructions. The pull test can be done using a 16mm threaded eyebolt. Test consists of ultimate pull out force proof loading to 50% of design purpose of anchorage.
- A personal energy absorber or a fall-arrest device with a personal energy absorber must be used in conjunction with all SafetyLink Anchorages and Lifeline systems.

IN ADDITION TO SAFETYLINK PTY LTD EQUIPMENT, ALL ANCILLARY EQUIPMENT MUST BE INSPECTED IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS AND THE MANUFACTURER'S INSTRUCTIONS.



FOR MAINTENANCE ADVICE AND SERVICES PLEASE CONTACT SAFETYLINK
ON +61 249 641068 OR 1300 789545 FOR YOUR NEAREST SAFETYLINK INSPECTION SERVICE
CENTRE OR EMAIL: info@safetylink.com



EXTRACT: SafetyLink Pty Ltd STANDARD TERMS AND CONDITIONS

- 11.1 To the extent permitted by law all implied conditions, warranties and undertakings are expressly excluded.
- 11.2 Except as provided in this clause the Company shall not be liable for any loss or damage, whether direct or indirect (including consequential losses or damage) arising out of any breach of contract by the Company or any negligence of the Company, its employees or agents.
- 11.3 Should the Company be liable for a breach of a guarantee, condition or warranty implied by the Australian Consumer Law (not being a guarantee, condition or warranty implied by sections 51, 52 and 53 of that Law) then its liability for a breach of any such condition or warranty express or implied shall be limited, at its option, to any one or more of the following.
 - A) in case of Goods
 - (I) the replacement of the Goods or the supply of equivalent Goods.
 - (II) the repair of the goods,
 - (III) the payment of the cost of replacing the Goods or acquiring equivalent Goods.
 - (IV) The payment of the cost of having the Goods repaired.

Provided that any such Goods are returned to the Company by the Purchaser at the Purchaser's expense.

- B) in the case of services
 - (i) the supply of the services again,
 - (ii) the payment of the cost of having the services supplied again.
- 11.4 The Company will not be liable for the costs of recovery of the Goods from the field, loss of use of the Goods, loss of time, inconvenience, incidental or consequential loss or damage, nor for any other loss or damage other than as stated above, whether ordinary or exemplary, caused either directly or indirectly by use of the Goods.
- 11.5 The Company warrants that at the time of shipment, Products manufactured by it will be free from defects in material and workmanship. In the absence of a modified written warranty, the Company agrees to making good any such defects by repairing the same or at the Company's option by replacement, for a period of (1) one year from the date of shipment. This limited warranty applies provided that:
 - (a) defects have arisen solely from faulty materials or workmanship;
 - (b) the Products have not received maltreatment, inattention or interference;
 - the Products have been installed in accordance with the Company's Installation Handbooks using only products supplied by the Company;
 - (d) accessories used with the Products are manufactured by or approved by the Company;
 - (e) the Products are maintained in accordance with Australian Standard 1891.4 (section 9).
 - (f) you notify any claim under this warranty to SafetyLink in writing to the address below no later than 14 days after the event or occurrence concerning the product giving rise to the claim and you pay all costs related to your claim.

This warranty does not apply to any defects or other malfunctions caused to the Goods by accident, neglect, vandalism, misuse, alteration, modification or unusual physical, environment or electrical stress.

Please note that the benefits to the purchaser (as a consumer) given by this warranty are in addition to your other rights and remedies under the Australian Consumer Law. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

- If any goods are not manufactured by the Company, the guarantee of the manufacturer thereof shall be accepted by the Purchaser as the only express warranty given in respect of the goods.
- 11.7 Except as provided in this clause 11, all express and implied warranties, guarantees and conditions under statute or general law as the merchantability, description, quality, suitability or fitness of the Products for any purpose or as to design, assembly, installation, materials or workmanship or otherwise are hereby expressly excluded (to the extent to which they may be excluded by law).

PLEASE SEE SAFETYLINK PTY LTD FULL STANDARD TERMS OF CONDITIONS OF SALE FOR FURTHER REFERENCE.

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	Return to Table of Contents
Ref: SurfaceLink_Abseil_Anchor_Handbook	Page 5 of 12
Safety Link '	Doc ID: MKT-199 Version: 22.0

ABSEILING CLASSIC SURFACELINK ANCHOR

COMPONENTS FOR METAL ROOF SHEETING - Product Code: HSURFAB001+FIXINGS

QTY DESCRIPTION **ITEM** 1 Collared Eyebolt M16 x 26mm 316 Stainless Steel Washer: 70mm 316 Stainless Steel 1 SurfaceLink Plate: 316 Stainless Steel with foam tape 1 Washer: 70mm 316 Stainless Steel 1 1 Washer: M16 Spring 1 Nut: M16 316 Stainless Steel 8mm Rivets (Drill Size 7.8-8.2mm, 27.7mm length, 8 1.0-9.5mm grip range) 2 Screws: Size 14-10 x 75mm Hex Head

COMPONENTS FOR PLYWOOD - Product Code: HSURFAB001+SCREWS

QTY	DESCRIPTION	ITEM
1	Collared Eyebolt M16 x 26mm 316 Stainless Steel ative Fall Protection	
1	Washer: 70mm 316 Stainless Steel	
1	SurfaceLink Plate: 316 Stainless Steel with foam tape	
1	Washer: 70mm 316 Stainless Steel	
1	Washer: M16 Spring	
1	Nut: M16 316 Stainless Steel	
10	Screws: Size 14-10x50mm screws	

Ref: SurfaceLink_Abseil_Anchor_Handbook
Return to Table of Contents
Doc ID: MKT-199
Version: 22.0

ABSEILING CLASSIC SURFACELINK ANCHOR

Product Code: HSURFAB001+FIXINGS

All safety procedures must comply in accordance with the current safety code(s) of practice(s) for working at heights. Ensure safety at all times by being attached to suitable anchor points and approved safety equipment or approved scaffolding.

POSITIONING OF SURFACELINK ANCHOR POINT (refer to appendix diagrams)

- The first SurfaceLink must be in a position easily and safely reached by a secured ladder or a manhole access point. Access to the underside of the roof is not required.
- Two (2) hex head screws will be used to help secure the SurfaceLink anchor correctly to the structure.
- Ensure there is suitable structure below the intended SurfaceLink location to secure the anchor prior to installation. These screws must penetrate the roof sheeting into a timber/metal batten or C purlin.

TIMBER FIXING: Two (2) x 14-10 x75mm Hex Head Screws must penetrate the timber a minimum of 35mm deep. **METAL FIXING**: Choose correct screw length to ensure thread is engaged with metal batten/C purlin.

INSPECT THE INTEGRITY OF THE STRUCTURE AND ROOF SHEETING

- Installation of anchors can only be made to roof sheeting strong enough to support the anchor point.
- MINIMUM roof sheet gauge is **0.42mm** for steel and **0.7mm** for aluminium.
- Roof sheets must be inspected thoroughly for splits, rust, corrosion damage and correct installation.
- Ensure the roof sheeting and structure is secured in accordance with current building codes and manufacturer's instructions.

SurfaceLink <u>must be</u> secured with <u>8 x 8mm Rivets</u>, and <u>2 x Hex Head with Seal</u>, Size 14-10 x 75mm Roofing Type 17 Screws. Hex head screws **must penetrate** the roof sheeting into a timber/metal batten or C purlin.

 \triangle If any doubt exists as to the strength of the structure an engineer should make the assessment.

⚠ During installation you must be safe at all times.



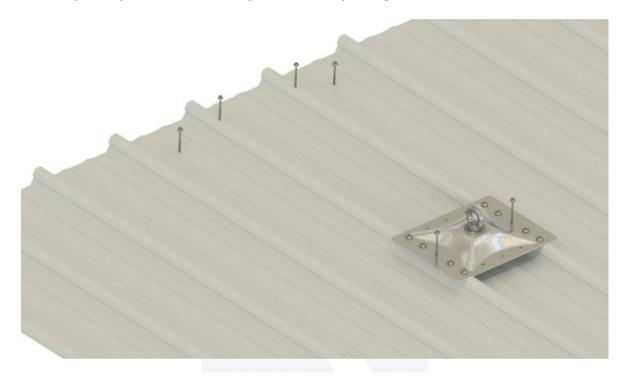


Product Code: HSURFAB001+FIXINGS

INSTALLATION ON STANDING SEAM / KLIP-LOK ROOF PROFILES

Surface Mounted Anchor systems installed on concealed fix roof types may require additional roof fixings. Additional securing can be made to roof sheets with 12 gauge roofing screws through the roof sheeting into the purlin/batten, four (4) above or four (4) below the anchor, on the side of the anchor that falls under two metres from an edge. This secures the roof sheeting in place to the purlins/battens to prevent horizontal movement in the event of a fall.

Note: screws may be required on both sides of the anchor depending on the individual situation.



IMPORTANT NOTICE:

Size 14-10 x 75mm Roofing Type 17 Screws are supplied but if they don't penetrate the timber by a minimum of 35mm or engage the thread with a metal batten or C purlin, longer length screws need to be used.

Innovative

Product Code: HSURFAB001+SCREWS

INSTALLATION ON PLYWOOD

- <u>FALLATION ON PLYWOOD</u>

 Installation of anchors can only be made to roof strong enough to support the anchor point.
- Ensure the roof structure and plywood is secured in accordance with current building codes and manufacturer's instructions.
- MINIMUM plywood thickness is 15mm.
- Plywood must be inspected thoroughly for splits, damage and correct installation.
- SurfaceLink must be secured with 10 x Hex Head with Seal, Size 14-10 x 50mm Roofing Screws.



Product Code: HSURFAB001+FIXINGS

ASSEMBLING

STEP 1

Apply adhesive waterproofing membrane under rivet location.



STEP 2

Place 70mm washer on SurfaceLink plate.



STEP 3

Insert collared eyebolt through 50mm washer then through SurfaceLink plate.





STEP 4

Place 70mm washer onto collared eyebolt on underside of SurfaceLink plate.



STEP 5

Place M16 Spring Washer and M16 Nut on eyebolt thread. Tighten M16 nut with a spanner making certain eyebolt lines up with fall of roof.



Threads need to have a minimum of six full 360° turns into the ultimate thread.

Product Code: HSURFAB001+FIXINGS

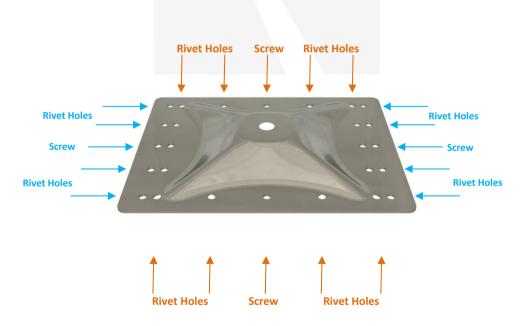
INSTALLING

WARNING: SURFACE MOUNTED ANCHOR SYSTEMS INSTALLED ON CONCEALED FIX ROOF TYPES MAY REQUIRE ADDITIONAL ROOF FIXINGS, PLEASE CHECK INDIVIDUAL ROOF SHEET TYPE INSTALLATION MANUALS.

- 1. Place SurfaceLink Plate on surface of roof sheets in required location (over timber/metal batten or C purlin).
- 2. Secure the SurfaceLink through pre-drilled holes in the plate into the structure using the two (2) hex head roofing screws. Pilot holes should be drilled. There <u>must be one hex head screw on either</u> side of the SurfaceLink Plate.
- 3. Size 14-10 x 75mm Roofing Type 17 Screws are supplied but if they don't penetrate the timber by a minimum of 35mm or engage the thread with a Metal Batten or C Purlin, longer length screws need to be used.
- 4. Drill eight (8) x 8mm holes into roof sheets through locating holes on both sides of the SurfaceLink Plate, four (4) each side.
- 5. Finish securing the SurfaceLink to the roof by riveting through the remaining holes in the plate and roof sheeting using 8mm Rivets, eight (8) rivets in total, four (4) each side of the SurfaceLink Plate.

IMPORTANT NOTICE:

- 2 Hex Head Screws must be installed through the SurfaceLink Plate with one (1) on each side into the Batten or C Purlin.
- Size 14-10 x 75mm Roofing Type 17 Screws are supplied but if they don't penetrate the timber by a minimum of 35mm or engage the thread with a Metal Batten or C Purlin, longer length screws need to be used.
- A minimum of Eight (8) x 8mm Rivets must be used to secure the SurfaceLink anchor to the roof sheeting, four (4) each side.

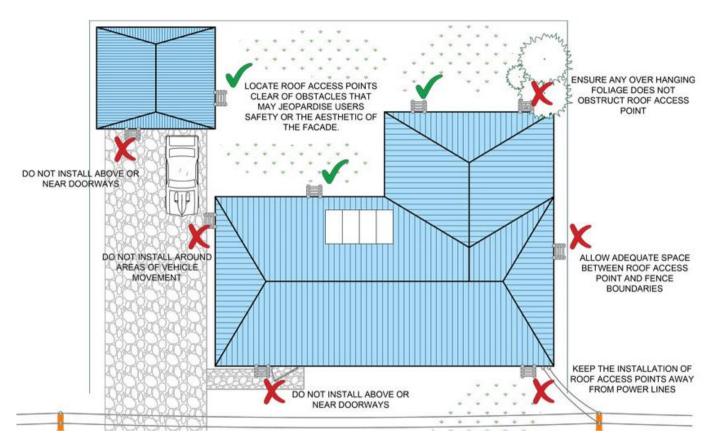


The SafetyLink Anchor Point is now ready for use, giving you an anchor point to attach to while installing the next SafetyLink.

APPENDIX - Diagram 2 - Anchor Positioning Layout

THIS IS A GUIDE ONLY

All working at heights safety procedures must be complied with when installing SafetyLink anchor points. For more information refer to your state or territories current legislation, regulations, policies and codes of practices.

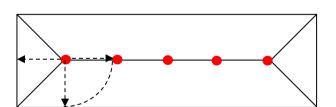


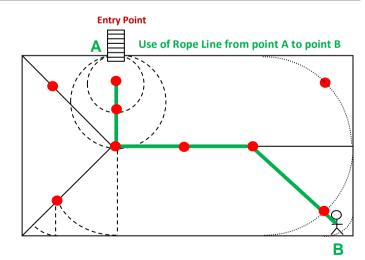
IF ANY DOUBT EXISTS WITH THE STRENGTH OF THE STRUCTURE OR ROOF SHEETS AN ENGINEER SHOULD MAKE THE ASSESSMENT.
 DURING INSTALLATION YOU MUST BE SAFE AT ALL TIMES.

INSTALLATION MUST BE CARRIED OUT BY, OR UNDER THE SUPERVISION OF A COMPETENT HEIGHT SAFETY INSTALLER.

ACCESS, LAYOUT AND USE OF A SAFETYLINK ANCHOR SYSTEM

SafetyLink anchor points are positioned by calculating the pendulum effect, this limits the likelihood of a fall past the edge of the roof space. The pendulum effect still applies to a flat roof.





SPACING MUST BE NO GREATER THAN THE RAFTER LENGTH, PLEASE CONTACT YOUR DISTRIBUTOR IF YOU ARE UNSURE.

SAFETYLINK HEIGHT SAFETY SYSTEMS MUST ONLY BE INSTALLED AS PER OUR INSTALLATION GUIDES, TO STRUCTURES AS SPECIFIED IN THE INSTALLATION MANUAL FOR EACH PRODUCT. SHOULD ANY DOUBT EXIST IN REGARD TO THE STRUCTURES INTEGRITY AN ENGINEER SHOULD BE CONSULTED.



IN CASE OF ACCIDENT

- **⚠** A FALL RESCUE PLAN AND SAFE WORK STATEMENT MUST BE DEVELOPED PRIOR TO USING SAFETYLINK SYSTEMS AND EQUIPMENT.
- **⚠ PERSONS WORKING AT HEIGHTS SHOULD NOT WORK ALONE.**

It is critical that before using any SafetyLink Systems a fall rescue plan is in place for any persons suspended midair following a fall. Serious injury or death can occur in a matter of minutes, particularly if a person's movement or breathing is restricted or loss of consciousness has occurred. In accordance with your fall rescue plan and appropriate first aid procedures it is essential to remove the person from the suspended position as quickly as possible.

In accordance with AS/NZS 1891.4:2009 clause 9.5

EQUIPMENT WHICH HAS ARRESTED A FALL OR SHOWS A DEFECT

Any piece of equipment including both personal and permanently installed items, which has been used to arrest a fall or which shows any defect during operator or periodic inspection shall be withdrawn from service immediately and a replacement obtained if necessary. A label indicating the condition or defect should be attached to the equipment, and it should be examined by a competent height safety installer who will decide whether the equipment is to be destroyed or repaired if necessary and returned to service. In the latter case, details of any repair shall be documented, and a copy given to the operator.





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