



SUPER ANCHOR SAFETY®

No. 1028 Swivel-D™ Instruction/Specification Manual 2020

ENGLISH
VERSION

!WARNING TO USER!

You are required to read and use the Instruction/Specification manual supplied at the time this device was shipped. Improper use and installation can result in serious injury or death. Follow inspection requirements before each use.

Material Specifications

D-Ring: Forged zinc plated, 2.0" i.d.
Min. Tensile Strength: 5,000lb
Proof Load: 3,600lb
Shackle: 304 stainless steel
Bushings: 304 stainless steel
Attachment Bolt Hole: 5/8"-11

Compliance:

ANSI Z359.18-17 Type A / OSHA 1925.502
Note: Consult OSHA definition for "qualified person*" term used in this manual.

⊗ Inspection Points

User PPE: Full body harness, personal energy absorber, lanyard, lifeline and rope grab that comply with current OSHA, ANSI or CSA standards.

Anchor Locations

Are determined by the Job Specific Fall Protection Plan as specified by the project architect, engineer or SAS plan service. Max. 20ft spacing between anchors.

Attachment Bolt

Use only certified 5/8"-11 grade 8, 18-8sst bolts or A-307 threaded rod with lock nuts. Use flat washer where specified. Bolt thread must penetrate lock nut a min. of 1/8" as shown at Fig.4. See Table 1.0 for bolt lengths.

Structural Support

Anchor attachment points must be structurally capable of supporting 5,000lb or 2x the intended fall protection load per OSHA 1910.140(13). 3rd party structural engineering is available from SAS upon request.

For example: 1 person w/energy absorber maximum arrest force of 1,800lb x 2 = 3,600lb attachment point strength.

1/4" Min. Thickness Structural Steel

Bolt holes must be located a min. 1.0" o.c. from any edge (See Fig.3).

Wood Framing

May be installed directly to 3/4" plywood or wood beams (See Figs. 5-6). For 2x top chords, OSB or thinner sheathing, a backer board is required between two chords (See Fig.7). **WARNING! Do not bolt directly to OSB substrates unless engineered by a qualified person*.**

2X Wood Purlins

Flat Purlins: As shown at Fig.8, install over sheathed framing only.

2xPurlins on Edge: See page 3.

Consult Purlin Anchor manual for additional instructions.

Metal Decks/Z Purlins

As shown at Fig.10, bolt to Type B 22ga or thicker metal decking. Z-Purlins shown on p. 2, Fig.11, install using No. 1028-BP1 base plate.

Metal Roofing Panels

Direct installation onto wide and narrow channel metal roofing. See page 3.

Standing Seam Metal Panels

Use with SAS Standing Seam Anchor. See page 4.

Concrete Embedment

See page 4.

Commercial Roof Anchors

See page 4.

User Specifications

No. Users: 1 person including tools and equipment
Max. User wt.: 130-340lb(59-154kg)
Max. Free Fall: 6ft(1.8m)
Fall Protection: Fall Arrest/Work positioning
Service Load: 360°
D-Ring Rotation: 180°

Applications: PPE anchor point, horizontal lifelines and SRL's. For window washing anchors, engineering is required by a qualified person*.

Installations: Permanent and temporary as specified in this manual.

Fig.1

No. 1028-Swivel-D

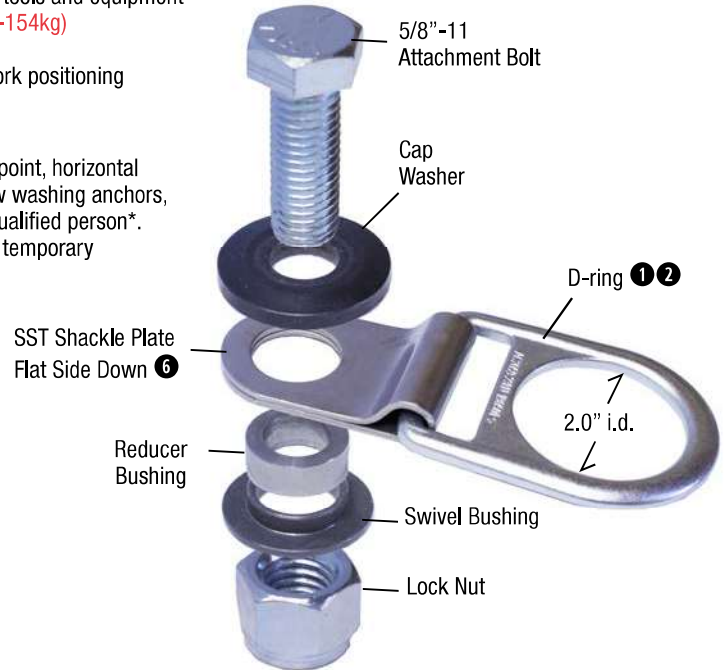


Fig.2



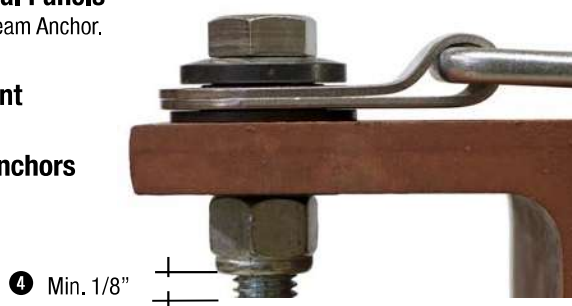
Fig.3

Edge Margin | 1.0" | Structural Steel Installation



Fig.4

Bolt Thread Penetration



Applications

Swivel-D is compatible with the SAS mfg. fall protection anchors shown in this manual. Additional applications and instructions are specified in addendums where noted. Attachment bolt lengths are shown in **Table 1.0**. Optional installations may be specified by the project architect, engineer or a qualified person*.

Fig.5
Plywood Substrates

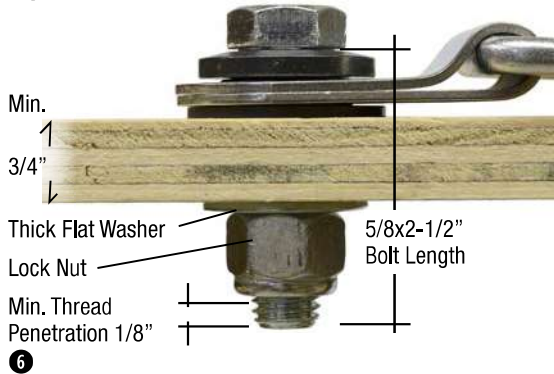


Fig.6
Wood Beams



Fig.7
2x Framing

Use correctly sized 5/8" hex head bolt or threaded rod, lock nuts and flat washer.

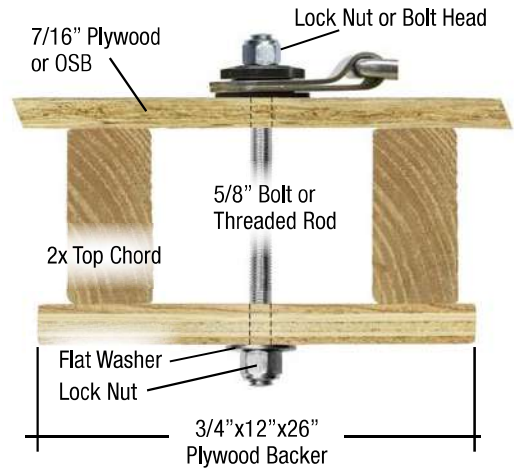


Fig.8

2x Flat Wood Purlin

Temporary Installation: requires min. 7/16" sheathing.

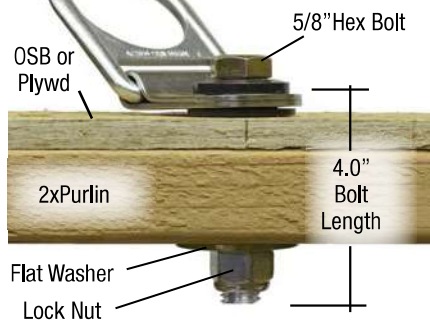


Fig.9

No. 1302 2XM Wood Purlin Anchor
Temporary Installation

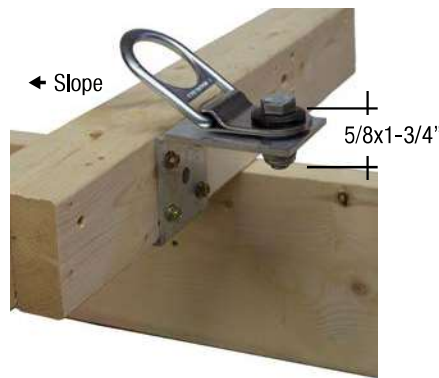


Fig.10

Type-B Metal Decking
Temporary Installation

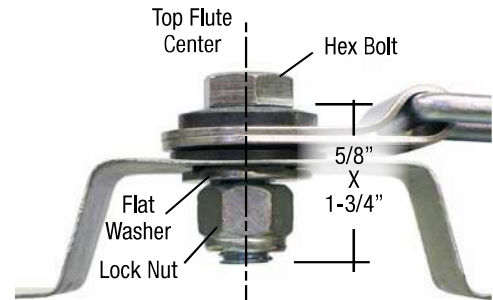
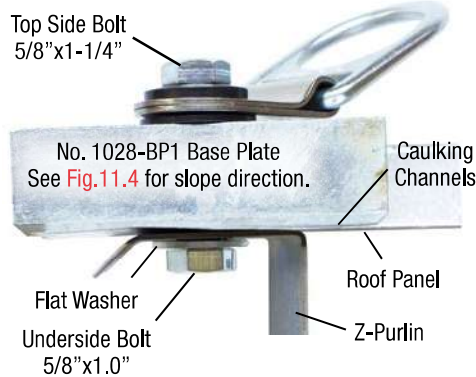


Fig.11.1

Z-Purlin Permanent Installation w/BP1 Base Plate



Instructions

Caulking and thread sealant are required to prevent water penetration.

- 1) Drill the Z-Purlin 5/8" attachment bolt hole.
- 2) Clean the metal panel and BP1 caulking surfaces prior to installation.
- 3) Apply caulking** to the underside of the BP1.
- 4) Securely bolt the BP1 to the Z-Purlin from the underside with a 5/8-1.0" bolt.
- 5) Apply perimeter caulk to the BP1.
- 6) Apply steel grade pipe thread sealant to the 5/8-1-1/2" attachment bolt and tighten.

**Caulking specified for use with the metal panel.

Fig.11.3

Caulking applied to base plate.



Fig.11.2

5/8" bolt hole through metal roofing and Z-Purlin top flange.

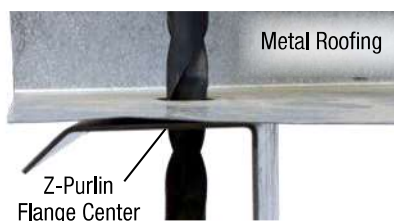
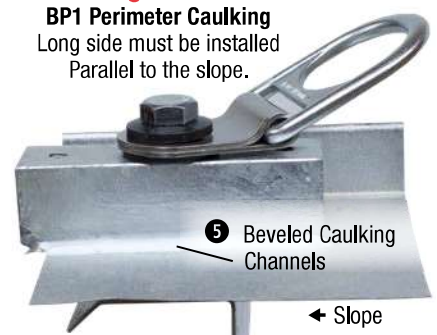


Fig.11.4

BP1 Perimeter Caulking
Long side must be installed Parallel to the slope.



No. 1028 BP1 Base Plate

Consult BP1 Instruction Manual prior to installation.

Optional 5/8"x3-1/2" Tap Bolt Specification

Follow installation instructions for waterproofing. Apply thread sealant to the tap bolt and thread fully into the BP1 top bolt hole. Insert bolt through Z-Purlin bolt hole, attach flat washer and securely tighten lock nut.

Metal Panel Roofing Over 2xPurlins/Permanent Installation

Framing Location: Install approx. 2ft from the ridge to prevent the ridge cap from covering the anchor. Shown at Figs.12.2-12.7, the D-ShakL is installed onto the flat plane of metal panel roofing using No.1302-2XM anchor and No.1028-BP1 base plate shown at Fig.12.1. The 2XM is attached to overlapping 2x4 wood purlins and requires the 2XM attachment bolt hole to be centered over the flat plane by adjusting its position left or right as shown at Fig.12.3.

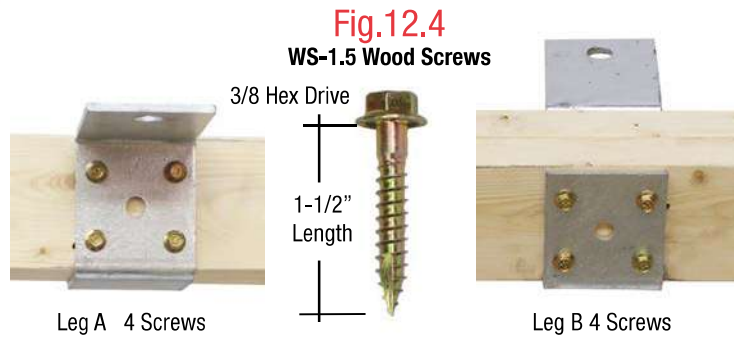
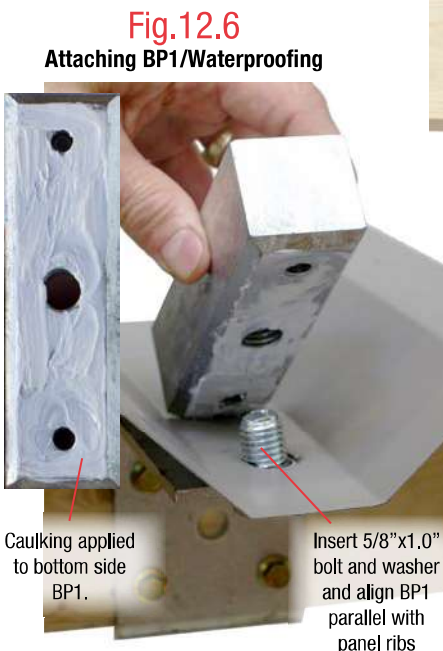
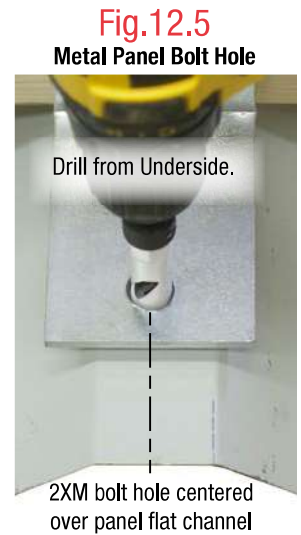
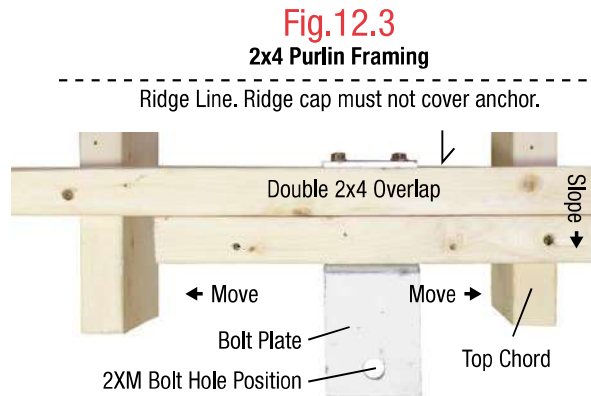
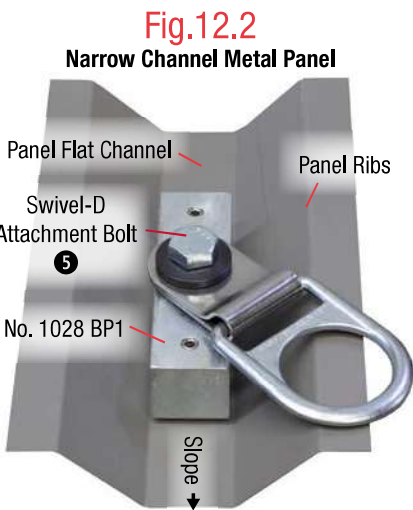
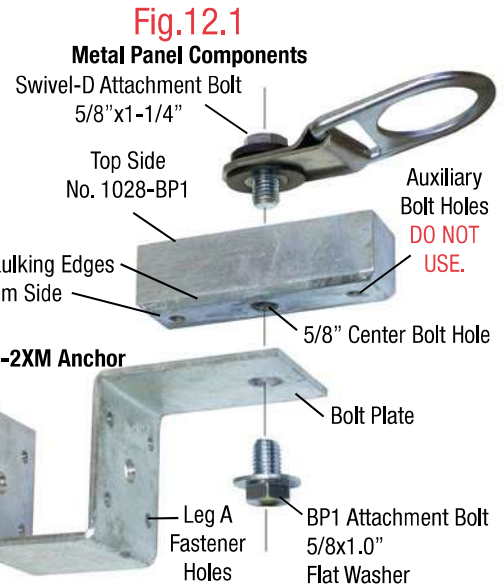
Note: Consult 2XM and BP1 Manuals for optional attachment instructions.

WARNING! Fasteners specified in this manual are sized to fit. Do not substitute with longer or shorter lengths and use only SAS supplied bolts and WS-screws.

Instructions:

- 1) Set metal panel over purlins and align 2XM bolt hole over the center of the panel flat channel as shown at Fig.12.7. Attach 2XM legs A/B w/4ea WS-1.5 wood screws (Fig.12.4).
- 2) Drill the attachment bolt hole using a 5/8" metal hole drill (Fig.12.5).
- 3) Apply an even layer of caulking** to the bottom of the 2XM (Fig.12.6). The beveled caulking edges must set on top of the metal panel.
- 4) From the panel underside attach the 2XM to the BP1 bottom side 5/8"x1.0" attachment bolt and flat washer as shown at Fig.12.7. Align the BP1 sides parallel to the panel ribs and securely tighten the attachment bolt with a 15/16" socket wrench.
- 5) Clean all metal surfaces and fill the BP1 caulking channels on all sides. Fig.12.8
- 6) As shown at Fig.12.9, apply thread sealant to the Swivel-D 5/8x-1-1/4" attachment bolt to prevent water penetration and securely tighten to the top side of the BP1 as shown at Fig.12.1. Assemble the D-ShakL bushings and shackle in the correct order as shown on page 1, Fig.1.

**Caulking must be compatible with the metal panel and hot dip galvanized BP1 coating. To prevent water penetration, caulking must be done professionally.



Inspections/Maintenance

Anchors are required to be inspected prior to installation and use for fall protection to confirm they are free of defects and to verify the correct fasteners have been used. A record of annual inspections by a qualified or competent person* should be maintained. SAS inspection points may be used as part of the building owner's maintenance plan. **Warning! Anchors subjected to a free fall or other damage must be tagged to prevent further use until inspected by a qualified or competent person*.**

Remove equipment from service if any of the following conditions are present:

⊗ = Inspection points **ACTION REQUIRED:** ☒=Remove ☑=Repair

Swivel D-Ring: If the D-Ring does not rotate easily, remove the attachment bolt and D-Ring assembly to determine the cause.

- 1 Inspect D-Ring. If deformation, cracks or bends are present or won't rotate easily. ☒
- 2 Rust present. ☑ Clean and apply cold zinc coating.
- 3 PID Label Missing. ☑ Request replacement labels.
- 4 Direct bolted: Check lock nut for tightness and min. thread penetration.
- 5 BP1 installation: Check attachment bolts for tightness.
- 6 Confirm D-Ring shackle plate is installed as shown at Fig.1, p.1.

WARNING! Anchors removed from service must be disposed of in a way that will prevent further use.

Fig.15

SAS mfg. Commercial Roof Anchors CTT and RTT w/Threaded Cap Risers

Permanent or Temporary Installation



5/8x1-1/2" Hex Bolt
Min./Max. Length.

Permanent Installation: Apply thread sealant as shown at Fig.12.9, p.2.

Fig.16

Concrete Expansion Bolt

Permanent or Temporary Installation



Bolt Specifications

Use only 5/8" diam. expansion type as specified by the project architect/engineer and installed as required by the bolt manufacturer.

Poured-in Place: 5/8" diam. J bolts, hex bolts w/flat washer or as specified by the project architect or engineer.

Fig.14

No. 1207 Standing Seam Anchor

Permanent or Temporary Installation

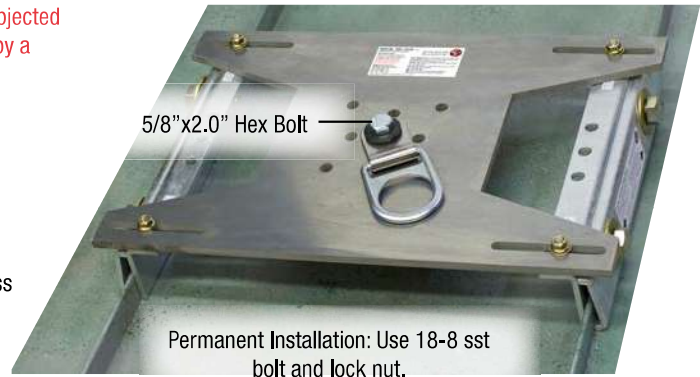


Table 1.0 Attachment Bolt Lengths

Note: Where ☐ is shown tap bolts must be used.

Application	Fig. No.	▲ Bolt Length	Washer
Structural Steel	3-4	▲ 2.0"	No
3/4" Plywood	5	▲ 2-1/2"	Yes
Wood Beams	6	Job Specify	Yes
2x Framing	7	Job Specify	Yes
2x4 Purlin	8	▲ 4.0"	Yes
2x Edge Purlin w/2XM Anchor	9	▲ 1-3/4"	No
Metal Decking	10	▲ 1-3/4"	Yes
Z-Purlin w/BP1 Base	11	☐▲ 1-1/4" Top	No
		☐▲ 1.0" Bottom	Yes
Metal Panel w/BP1 Base +2XM Anchor	12	☐▲ 1-1/4" Top	No
		☐▲ 1.0" Bottom	Yes
Standing Seam	13	▲ 2.0"	Yes
CTT and RTT	14	▲ 1-1/2"	No
Concrete	15	Job Specify	No

▲ Min. Length ▲ Max. Length ☐ Tap Bolt Only

PID Labels

Request replacement Product I.D. labels from SAS sales office.

Primary Label

Temp. WR.2
Mfg. Super Anchor Safety
Monroe, WA 98272
Swivel D-Ring No. 1028-SMD Zinc Plated Forged D-Ring
1 person max user wt 310lb
Min. Tensile Strength 5,000lb
Compliance:
ANSI Z359.1-07
OSHA 1926.502
Prior to use and installation consult manual shipped with this device.
Requires 1ea 5/8" d. Grade 8 or 18-8sst bolt w/lock nut
Mfg. China

Spanish

Temp. WR.2
Para ser empleada por una sola persona con peso máximo de 310lb.
5,000lb de tensión mínima a la tracción
Antes de usarla o instalarla, consulte el manual entregado junto con este dispositivo.
Antes de emplearla, pegar esta etiqueta al perno de sujeción.
Requiere dos pernos de 5/8" de diámetro Grado 8 o pernos de acero inoxidable 18-8.

Inspection

Temp. WR.2
Remove from service if subjected to a fall or evidence of damage or extreme corrosion.
Retirar del servicio si es sometida a una caída, si muestra señales de daños o si presenta alta corrosión.
Inspection

Year	Year