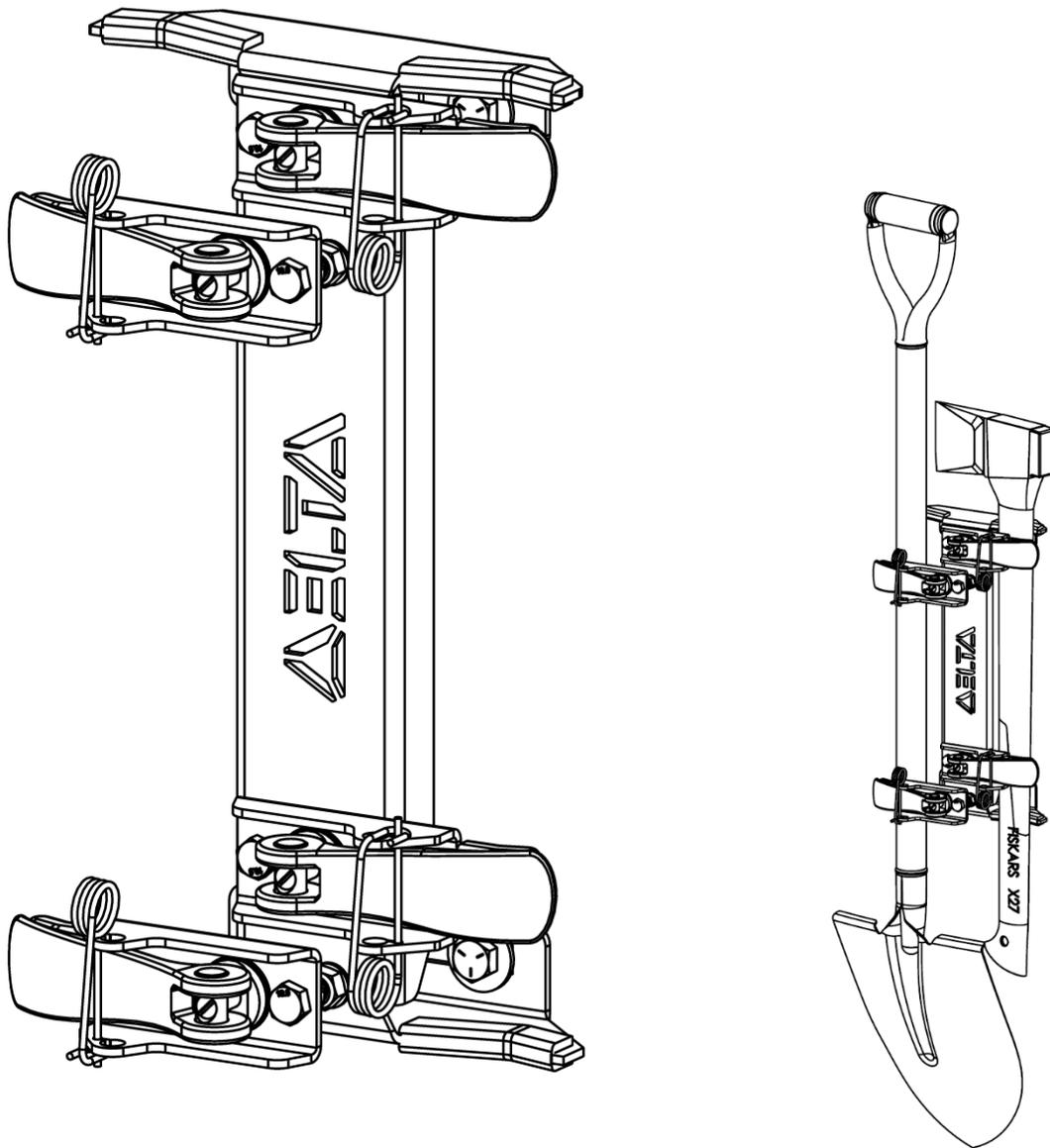


AR “ANTI-RATTLE” CAMLOCK-DOUBLE



PICTURED WITH EXAMPLE SHOVEL AND AXE which are **NOT** INCLUDED WITH THE **DELTA AR CAMLOCKS.**

Overview

Congratulations on your purchase of a DELTA Vehicle Systems AR “Anti-Rattle” camlock. This quick and secure retainment solution has been designed in CAD, CNC laser cut, formed, fabricated, and powder coated 100% in the U.S.A. It is adjustable for round, oval, rectangular items like shovels and axes up to 1.5 inches thick. The easy to adjust and operate camlocks provide quick access to your items while providing rigid mounting when adjusted properly. Unlike rubber straps which rot and break after a short time in the sun, this mount is made of steel and aluminum to provide years of robust use.

Product Compatibility

This is a universal fit product. It can mount to any flat surface with the provided hardware. Alternatively, it can mount to roll cage tubes when coupled with saddle bolts.

DELTA Parts List

Part Number	Description	Quantity	
11082	AR Camlock-Double	1	<input type="checkbox"/>

Hardware List

Part Number	Description	Quantity	
10662	.375 Washer	8	<input type="checkbox"/>
10997	.375-16 Nyloc Flange Nut	4	<input type="checkbox"/>
10390	.375-16x1L Bolt	4	<input type="checkbox"/>
10844	.375-16x1L Carriage Bolt	2	<input type="checkbox"/>
10873	Coil Wire Lock Pin	4	<input type="checkbox"/>

Tools Required

- 9/16” socket and box wrench
- 13mm box wrench
- 13mm socket wrench

Packaged By _____

Mounting and adjustment notes:

To complete the install process of the AR Camlock, you will need the objects being retained. Adjustment of the cams will be set **by you** for that particular objects thickness. If you want to place something else in the AR Camlock, you will need to repeat the adjustment process for the new object.

1a

Mounting to a flat surface



If mounting to a flat surface, use the provided 3/8 hardware to mount the AR camlock with 9/16 hand socket and box wrench.

If you need to drill your own holes, the mounting holes should be 12 inches apart. A minimum of 2 bolts is required (one on each tab below each camlock). 2 bolts per side spaced far apart will provide maximum stability.

You can alternatively use your own hardware for custom mounting.

For mounting to DELTA products, there are many items that this mount will fasten right up to like the DELTA ladder, fuel storage containers, and MSS (Modular Storage System) Components.

1b

Mounting to a round tube



If you are installing the AR Camlock to a roll cage or other tube, you will need to get a matching U-bolt set that is the same diameter as the tube you intend to mount onto. McMaster-Carr can be a great supplier for these.

1.5" tube PN-3042T84

1.75" tube PN-3042T85

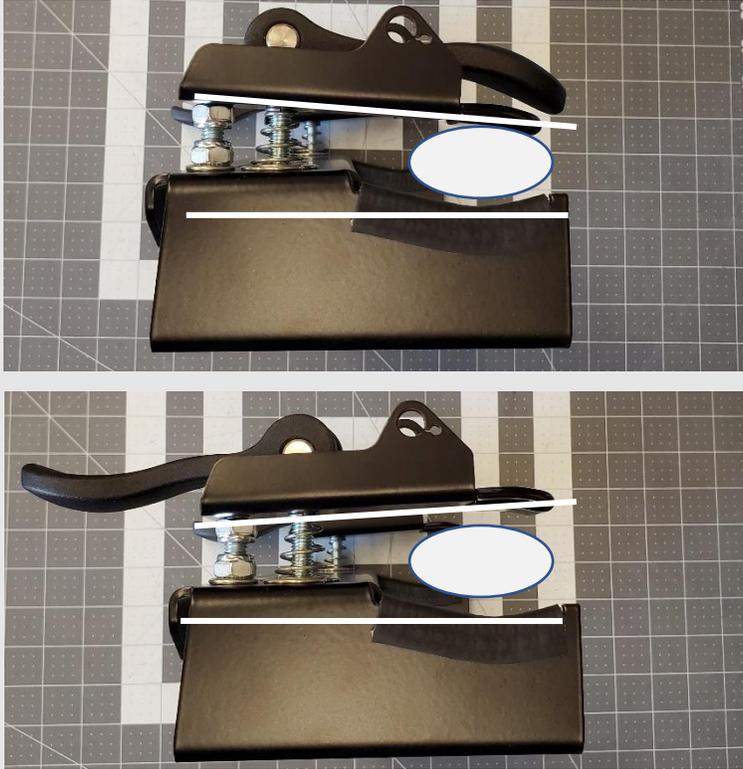
2.0" tube PN-3042T88

Simply discard the hardware in the AR-Camlock kit and substitute the U-Bolts which you sourced as shown.

Pro tip: Get nyloc nuts to ensure the clamps do not come loose in a vibrating environment.

2a

Camlock adjustment-goal



The camlocks are adjustable for items up to 1.5" thick. The depth of the Cam-bolt (bolt with spring) and the rear rocker bolt (double nut) will need to be adjusted together to change the overall height of the item you are trying to secure. For this example, we will be mounting a shovel, but this process will work for other objects that are round or oval shaped in cross-section.

For maximum retention, the final closed position of the Cam-mount should be slightly passed parallel with the top logo surface (like the top picture).

When open, the Cam-mount should be slightly angled/tapered open (like the lower picture) to easily remove the object captured when unlocked.

2b

Camlock adjustment-set lock height



Adjustment is typically best done after the AR Camlock is mounted but can be done on a work bench. You will need the object you want to secure to set the depth of the cam.

While holding the object in place or set in the mount when on a horizontal surface, adjust the rear rocker bolt depth. The cam handle will also need to be adjusted. Turned clockwise to reduce the size or counter-clockwise to make the clasp area larger.

The goal is to get the pair adjusted so the clamping area is pinching down snugly around the object when closed but rocking open when the cam handle is in the open position.

You may need to use two wrenches to back off the nut (arrow).

2c

Camlock adjustment-lock height with jam nut



With the cam handle in the closed position and the object firmly held in place, the rocker bolt should not be able to spin. Use a 13mm box wrench to turn the rocker jam nut and snug it firmly against the bottom of the mount. This will prevent the rocker from spinning out of adjustment.

Depending on the amount of angle the cam clamp is set to, you may need to adjust the upper nut by the head of the bolt to have proper opening and closing distance on the camlock. To fine-tune this, use a socket on the head of the bolt and turn the nut closest to the head. **Do not** set the gap too close as it will interfere with the cam clamp and prevent it from rocking open and closed. There should be a little over 1/16" (1.7mm) of play between the head of the bolt and the nut.

2d

Camlock adjustment-repeated on other camlock



Repeat steps 2a-2c on the other camlock holding your object in place and then repeat for the other 3 cams.

When complete, both rockers bolts should have their jam nuts snugged and the cam handles should be able to cycle open and closed. The spring on the cam handle bolt should spring the cam clamp open and provide just enough clearance to remove your object and insert it back in without force or binding.

If you have a large awkward object that won't clear, a single turn of the cam handle counter-clockwise will provide additional clearance for removing your object. This would be a similar method for undoing a quick release cam on a front bicycle fork to remove the wheel.

3

Camlock security



For typical trail use, the provided lock pins can hold the cam handle closed.

If you want extra security, the cam system can be locked closed with a tall padlock as shown.

Note: With enough force or determination someone can pry the object out of the camlock. This mount is for quick and easy access to objects like shovels and axes. If you are worried about the security of your object, the best case is to lock it in your vehicle if you are leaving it for some time and returning it to the AR Camlock before departure.

4

Closing notes



There are many ways to use the AR Camlock.

Our preferred mounting configurations for use on horizontal surfaces are with the **Cam Handles** and **mount** pointed up. This way you can easily set your object in place and have it retained while you close the cams.

This is especially useful for when mounting in a truck bed or overhead on a roof rack.