

# AVENGER™

## **IMPORTANT**

Always check your entire skate before skating, this includes the pivot pins, cushions, toe stops, boots, plate / frame, and the mounting hardware.

## Avenger plate Specifications:

\*Plate weights are one plate, kingpins, pivot cups, and toe stop screw.

Size	Avenger Mg	Avenger Al
0	216	298
1	220	305
2	225	311
3	229	316
4	233	325
5	238	332
6	242	338
7	247	345
8	251	352

Wheel base (center of axle to center of axle):

Size	Axle to Axle (mm)
0	130
1	140
2	150
3	160
4	170
5	180
6	190
7	200
8	210

Short Forward size chart (based on standard shoe size):

Boot size	Plate size
4	0
5, 6	1
7	2
8, 9	3
10, 11	4
12, 13	5
14	6

Standard Size Chart (based on standard shoe size mounted slightly off the heel)

Boot size	Plate size
4	1
5, 6	2
7	3
8, 9	4
10, 11	5
12, 13	6
14	7
15+	8

## Pivot adjustment:

Pivot pins are not factory adjusted. Always adjust the pivot pins so that the ball just touches the bottom of the Delrin pivot cup. The pivot pin adjustment should be checked regularly once installed. Do not assume the pivot pin adjustment is correct if no movement is felt when checking the adjustment. It could be adjusted longer than necessary. Pivot pins adjusted too long can cause the skate to have an unpleasant “darting” feel when skating. If the pivot pin ball does not touch the pivot cup you will be able to press down on the truck assembly and feel or see a slight movement of the pivot pin into and out of the cup. Adjust the pivot pin until the pressure applied to the truck no longer results in this movement. When satisfied that the pivot pin is resting with slight pressure in the pivot cup, secure the pivot pin lock nut firmly against the truck housing. NEVER skate your plates with the pivot pin lock nuts improperly tightened. Loose pivot pins will self-adjust and possibly damage the threads in the trucks.

## Cushions:

The DA45 truck is very unique when compared to other trucks on the market. Due to its extreme angle it must use a special set of cushions, one “barrel” and one “conical” cushion. We developed a special urethane with 4 different hardness levels to fine tune the action of your skate.

Blue – 72A

Yellow – 79A

Purple – 85A

Red – 93A

Tips for tuning your action.

- 1) Remember a stiff action may make a skater feel more stable initially, however, it has several adverse side effects. The most important one to consider is the amount of force needed to make the skate do what you want it to do. The stiffer the action, the harder you need to work to get the skate to turn. This effort can lead to premature wear or failure of boots or worse, your feet. A simple rule of thumb. The stiffer the action, the more the SKATE controls where you are going. The softer the action, the more YOU control where you are going. How is that again? You say you have experienced a loose action behave like it has a mind of its own?? Not so. The skate is simply going where you tell it to go and you are over correcting. The more you over correct, the more erratic the skating becomes.
- 2) The DA45 action turns more quickly and easily than any other design on the market. It will go exactly where you tell it to go if properly adjusted. Do not hamper this ability by over tightening the action. If you can see the side of the barrel cushion even starting to bulge out the side, you have the action too tight and you should use a stiffer cushion set. Over tightening the action can cause the entire skate to fail.
- 3) Do not loosen the action more than necessary. If you can easily turn the cone cushion retainer with your fingers, the action is too loose. Use softer cushions to get the desired turning behavior.
- 4) Cushion sets can be split to get optimum tuning. Typically a softer cone is used with a harder barrel cushion. An example is a purple barrel with a blue cone cushion. While this give an overall feel similar to a pair of yellow cushions, the purple barrel will provide a better push than the yellow barrel and the blue cone will compensate for the extra stiffness of the purple barrel.
- 5) It is essential to experiment with your skates to find the best setting for you. It is also essential to verify you are using the best setting for your improving skills by continuing to experiment.
- 6) Remember to adjust the pivot pins after adjusting or replacing cushions.

**\*Weights are an average of several production samples. Weights will vary due to manufacturing production limits.**