

Head Cushion, Head Cushion Foam Spacer (HCFS) and Chin Cushion

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1.1 Head Cushion

⚠ WARNING

A loose fitting head cushion will cause poor oral nasal mask fit resulting in CO₂ buildup in the helmet. This condition could lead to a build up in CO₂ (Hypercapnia), possibly resulting in unconsciousness, serious injury or death.

The fit of the head cushion is critical to both comfort and safety. In general the head cushion should be snug fitting and help hold the helmet to your head. The head cushion should also be adjusted so it assists in the proper fit of the oral nasal mask to the face.

The fit of the helmet is primarily determined by the layers of open cell foam that fill the head cushion bag.

⚠ WARNING

Never dive with a Kirby Morgan helmet without a properly functioning oral nasal mask. Without an oral nasal mask, dangerous levels of carbon dioxide may accumulate in the helmet. This can lead to unconsciousness and death.

The head cushion is part of the helmet cushioning system that includes the head cushion, the head cushion foam spacer and the chin cushion.


1.1.1 Head Cushion Removal

The head cushion is fastened into the helmet with snaps. Remove the head cushion by putting a hand at the base of the snap and gently separating the snaps one at a time.

1.1.2 Head Cushion Test Fit

Fit test (follow these instructions if refitting or re-sizing the head cushion).

Make sure the neck pad on the locking collar is adjusted correctly to the divers neck size and also check the fit of the head cushion with the locking collar in the closed position.



NOTE

For divers with smaller sized heads use of the head cushion foam spacer (HCFS, P/N 525-745) might be required. It should be noted that the Chin Cushion P/N 510-683 can also be used to safeguard proper fit of the divers face into the oral nasal mask.

- 1) Snap chin cushion (if used) and head cushion into helmet.
- 2) Don the helmet and evaluate if it is the correct fit or will need to be adjusted.



If the head moves, the helmet should follow.

1.1.3 Stuffing the Head Cushion Bag

There are a number of ways to stuff the head cushion with foam. Different combinations of the provided foam can be set up and foam can be trimmed depending on desired fit. The below steps are intended to only aid and guide the user.



The components of the head cushion.



The neck pad foam P/N 510-832 can go on either side of the top foam strips P/N 510-830, against the neck or against the helmet shell. The neck pad foam is a sizing tool and can be removed or left in the head cushion bag to ensure proper fit and comfort.



First choose either the right or left side of the head cushion bag to begin stuffing the “egg shell” foam.



The “egg shell” side of the left and right side foams usually faces outward against the helmet shell.

Next insert the top foam, followed by the other side of “egg shell” foam and finish with the white neck foam pad.





1.2 Head Cushion Foam Trimming



NOTE

The side “egg shell” foams do not have ear holes. This is intentional. Ear holes may be cut in if preferred. The tips of the “egg shell” side can be trimmed off if the side foams are too tight.



The tips of the “egg shell” side can be trimmed off if the side foams are too tight.

1.2.1 Adding Earphone Holes to the Head Cushion



Using the template for general size and location, mark the desired area for cut out, if required.



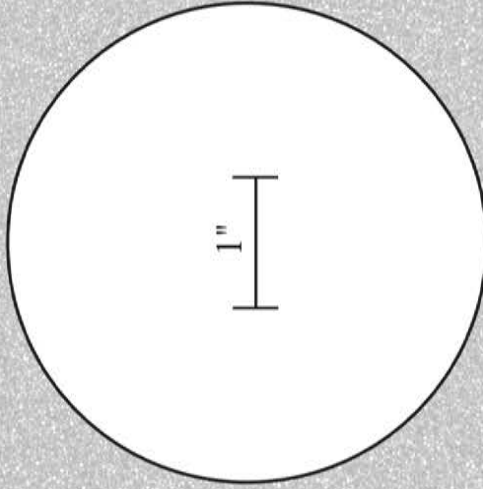
Trim the ear hole into the foam using the guide line made from the Ear Hole Template

1.3 Head Cushion Foam Spacer (HCFS)

The head cushion foam spacer (HCFS) is a simple length of foam that is nested into the head cushion. The spacer helps properly position the top and back of the head in the helmet by using a larger foam piece in the lower neck area which helps push the head forward, and the nose and mouth into the oral nasal mask.

Kirby Morgan®
Head Cushion Side Foam (L & R)
Ear Hole Trim Template

NOTE: The hole location and size are provided only as a general reference. The size and location can be changed to suit the individual.



- 1) Cut out template.
- 2) Match template to lower portion of head cushion side foams.
- 3) Mark hole using a felt tip pen.
- 4) Trim holes in foam.

Ear Hole Trim Template



The components of the head cushion foam spacer (HCFS).



1.3.1 Installation of Head Cushion Foam Spacer (HCFS)



NOTE

In September of 2012 the head cushion foam spacer (HCFS) was upgraded with an elastic/Velcro® strap at the top front part of the HCFS bag. This new feature is intended for use with head cushions P/N 510-754, or the 510-521 which has mating Velcro® patches.



NOTE

If using the HCFS with P/N 510-682 or a P/N 510-521 without a Velcro® patch, the elastic/Velcro® strap can simply be folded over the top front portion between the head cushion and the helmet shell, or it may be trimmed off if desired.

1) Install the HCFS into the top inside portion of the head cushion. Wrap the elastic/Velcro® strap around the front top edge and attach onto the mating Velcro® patch in front of the hanging loop.



The tag on the HCFS and sewing seam should be facing the back against the head cushion.



Proper installation and alignment of the HCFS in the helmet.



Hold the HCFS towards the back of the helmet when donning.

⚠ CAUTION

Ensure that the HCFS is properly positioned against the back of the head/neck and does not get caught between the helmet ring and the neck dam rings when closing the helmet. Failure to do so could result in an improper seal.

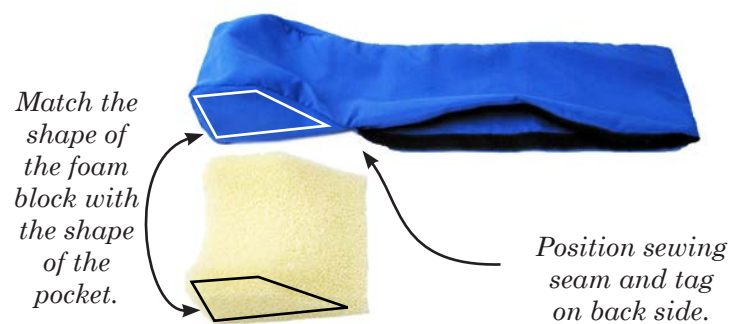
1.3.2 Stuffing the Head Cushion Foam Spacer (HCFS)

1) Stuff the neck foam block first, followed by the top foam into the HCFS bag. Close the Velcro®.



NOTE

Match the shape of the neck foam block with the shape of the HCFS bag.



1.4 Chin Cushion

The Chin cushion is fastened to the helmet with two snaps and should rest on the divers chin. The chin strap is tightened on the outside of the chin cushion as to press the chin cushion snug against the divers chin.



The chin strap is tightened on the outside of the chin cushion as to press the chin cushion snug against the divers chin.

1.4.1 Stuffing the Chin Cushion

Match the shape of the chin cushion foam to the chin cushion bag.



1.5 Clean and Inspect

The cushion foam must be replaced when the foam begins to crumble. Loose cushions will create a sloppy fit to the helmet and could cause discomfort and/or injury to the diver.

1) Clean head cushion bag using mild soap and water. Rinse thoroughly and hang dry.

2) Inspect the head cushion bag to ensure there are no rips or tears in the materials and that the sewing and Velcro® or zipper are in good working condition. Replace if needed; order head cushion bag, P/N 510-722.