



Kirby Morgan Dive Systems, Inc.®

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Part #525-756 KM Diamond Water Shroud Kit Installation Instructions

PART #	DESCRIPTION	QTY
510-731	Shroud, Diamond Valve	1
510-732	Shroud, Inhale Regulator	1
510-733	Access Cover	1
510-734	Shroud, Side Block	1
510-736	Water Tube-A	1
510-737	Water Tube-B	1

PART #	DESCRIPTION	QTY
520-038	Tie Wrap	2
520-039	Tie Wrap	6
520-049	Tie Wrap	2
550-074	Bishop Pin	2
550-572	Adapter Sleeve	2
550-644	Pin	1

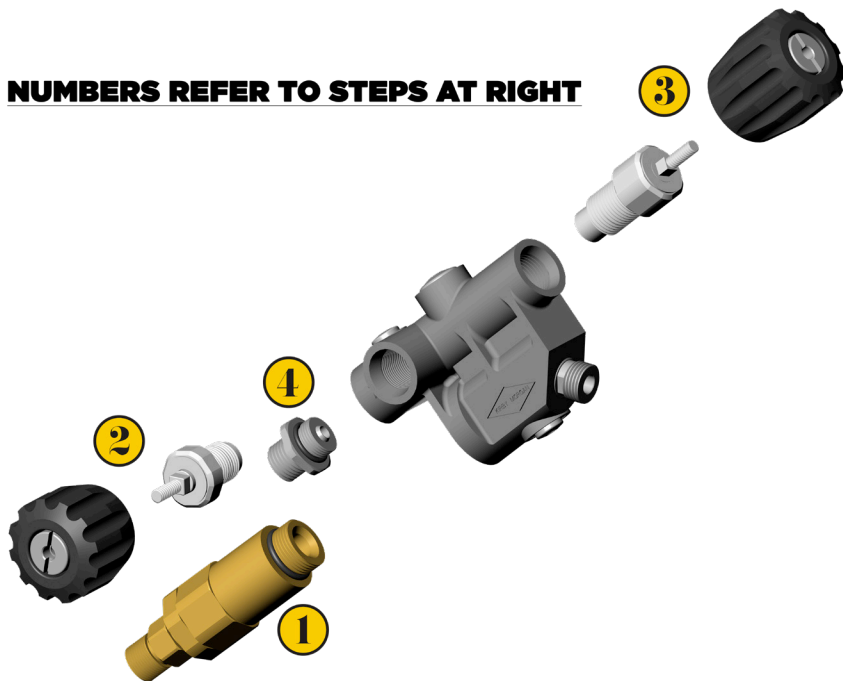
Tools Required:

- Tie Wraps
P/N 520-038 (1)
P/N 520-039 (3)
P/N 520-049 (1)
- Torque Wrench with Open End Attachments
1 $\frac{1}{16}$ and $\frac{7}{8}$ and 1 inch
- Open Ended Wrenches
1 $\frac{3}{16}$ and $\frac{7}{8}$ inch
- Small Flat Blade Screwdriver
- Diagonal Cutting Pliers
- Dow Corning® Molykote® 111 Lubricant

Remove the Diamond Exhaust assembly, see "1.6.4 Removal of the Diamond Exhaust Assembly" on page DIAMD-13.

Side Block Shroud

NUMBERS REFER TO STEPS AT RIGHT



1) Remove the one way valve assembly from the side block.

2) Remove the emergency valve control knob and all parts down to the seat assembly.

3) Remove the steady flow control knob and all parts down to the seat assembly.

4) Remove the bailout hose fitting.



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5) Remove the bent tube assembly. Refer to “1.3.1 Removal of the Bent Tube Assembly” on page BNT-4 in the KMDSI modular manual.



6) Install the side block shroud starting at the bailout end.

Fit the shroud onto the block while progressing towards the front of the block. Make certain the shroud is positioned properly. The fit should be snug and everything should align.

7) Reinstall all of the side block parts that were removed except the bent tube assembly and torque. Refer to “1.3.3 Reassembly of the Defogger Valve” on page SSB-8 and “1.4.3 Reassembly of Emergency Valve (EGS Valve)” on page SSB-13 in the KMDSI modular manual.

Inhale Regulator Shroud

Install the shroud with the access cover and pin removed.

8) Lightly lubricate the opening of the regulator shroud where the adjustment knob of the regulator will pass through. Notice the opening is surrounded by many fine slices to allow the shroud in that area, to easily spread over the large end of the adjustment knob.

9) Starting at the flex knob end of the regulator, slip the shroud over the adjustment knob. Make sure the opening for the access door is positioned away from the helmet and at the bottom portion of the regulator when pulling the cover on. Once the adjustment knob side is on all the way, stretch the opposite end, over the bent tube adapter and onto the regulator. Once fitted, make sure the shroud is aligned to the areas of the pod, that it needs to fit with. Pay particular attention to the Allen head screws that hold the pod onto the helmet.





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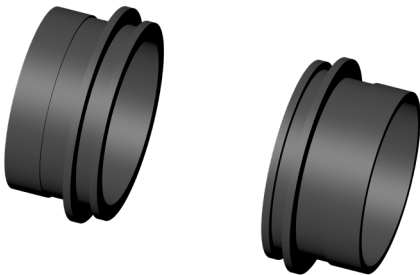
Installation of the Water Tubes A & B with Adapter Sleeves

10) Insert bent tube assembly into regulator inlet side and line up the bent tube mount nut to the side block.

The adapter sleeves have to be inserted onto the bent tube assembly and remain loose while the bent tube is being installed. The channeled ends of the sleeves will be facing each other while installing the bent tube assembly.

11) Swing the bent tube away from the side block and put the first adapter sleeve, P/N 550-572, onto the bent tube assembly first, channeled end facing away from regulator inlet.

UPPER (SIDE BLOCK)



LOWER (REGULATOR)

12) Fit the second adapter sleeve, P/N 550-572, over the bent tube assembly, channeled end facing away from the side block.



13) Complete installation of bent tube assembly. Refer to "1.2.3 Installation of the Bent Tube Assembly" on page BNT-2 from the KMDSI modular manual.



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14) Align detail features of the water tubes A and B with the mating details of both sleeves, and retain the two tubes in this position using three tie wraps. Little to no gap should be evident between the two tubes. Gas flow arrow is found on the A tube and should be positioned farthest away from the helmet.

Water flow arrow is found on the A tube and should be positioned farthest away from the helmet (on the outside)





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15) Use the three wider tie wraps P/N 520-039 (represented by the blue color in the photo) to secure the two tubes together, one in the middle and one on each of the leading edges of the tube. Little to no gap should be evident between the two tubes.

16) Using the narrow tie wrap, P/N 520-049, (represented by the yellow color in the photo), secure both the side block and regulator shrouds to the sleeves.



17) Align the access cover to the inhale regulator shroud and install the pin until it is evenly located into the area of the regulator shroud where it will stay.

Regulator Shroud



18) With the Diamond Exhaust Valve in one hand and water shroud in the other. Fit the shroud by angling the Overpressure Relief Valve into its respective opening and continue pushing the Diamond Exhaust assembly forward until the shroud is fitted properly.



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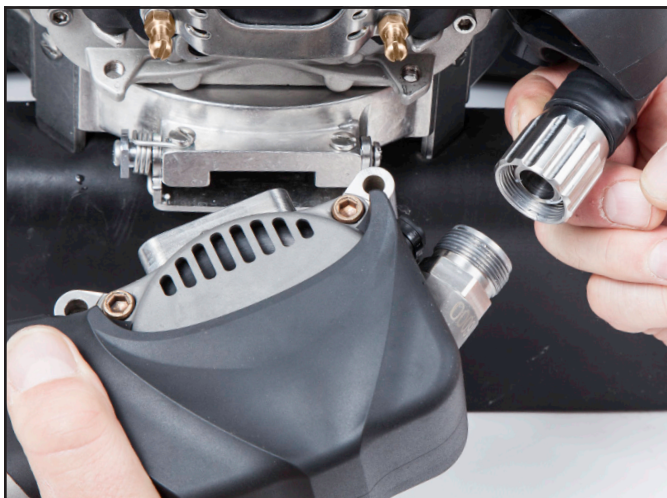
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19) Once the water shroud is fitted to the Diamond Exhaust Assembly use tie wrap P/N 520-038 to secure the shroud to the valve. You will find an extended feature on the back of the water shroud. Use this extended feature to secure the tie wrap onto the water shroud.

Diamond Exhaust Installation and Final Installation

20) First connect Diamond Exhaust Assembly to the knurled nut found on the Surface Bypass Hose. Once the hose is screwed in to its stopping point be sure to unscrew the fitting ½ turn. With the access cover open insert and install the Diamond Exhaust Assembly into the Diamond Pod



21) Fit the valve into the pod opening. Insert the valve into the opening as straight as possible. Once the valve is fitted into the pod opening, view the holes inside the inhale regulator shroud to verify the valve is completely pushed into its slot. The holes for the securing screws should reveal unobstructed circles.



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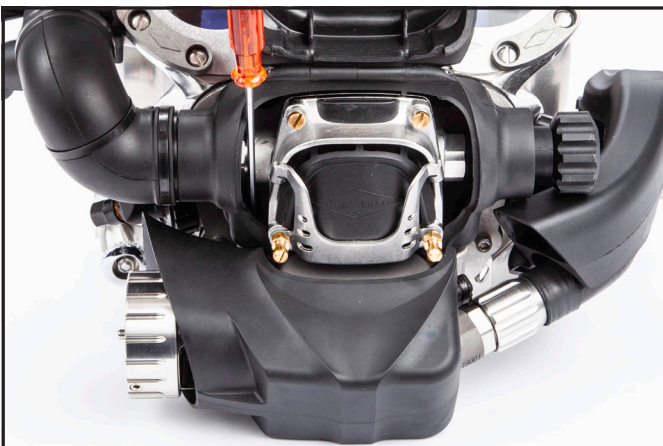
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22) Fit one of the $\frac{3}{16}$ " Allen screws into the receiving hole found just inside of the inhale regulator shroud.



23) Use the $\frac{3}{16}$ " Allen Wrench to turn each screw in a counter clockwise direction until you can hear or feel a click. This indicates a correct threading alignment.

24) Turn the Allen Screw in a clockwise direction until firmly snug and brass screws are bottomed out.



25) Close the access cover on the water shrouds.





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