



## S.M.S.100 Harness – User Guide



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## **SMS100 Sidemount Harness Manual – Doc. No. 12-4056 Rev. 1**

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Notified Body No: 0120'

Compliance with EN 1809:1997

Compliance with EN 250:2000

## **Hollis Gear ®**

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## **Trademark Notice**

Hollis and the Hollis logo are registered trademarks of Hollis. All rights are reserved

## **Patent Notice**

U.S. Patents have been issued, or applied for, to protect the following design features: backpack systems (U.S. Patent No. 5,378,084, Gas Impermeable Laminate (U.S. Patent No. 5,693,412), Harness Buckle (U.S. Patent No. D409,114), Weight Drop System (U.S. Patent No. 5,218,745), Soft Backpack (U.S. Patent No. 4,952,095), and Compensating Waistband (U.S. Patent No. 4,732,305). Also other Patents Pending

## **Limited Warranty**

For details, refer to the Product Warranty section on the Hollis web site:

[www.HollisGear.com](http://www.HollisGear.com)

## **Assessment of Risk**

Hollis BC's are designed and intended for use by divers who have successfully completed a nationally recognized course in scuba diving which includes Sidemount Training for this specific product. Hollis gear must NOT be used by untrained persons who may not have knowledge of the potential risks and hazards of scuba diving. As with all underwater life support equipment, improper use or misuse of this product can cause serious injury or death.

## **Introduction**

This User's Guide describes the unique functions and features of the SMS100 Sidemount Harness Kit. The more acquainted that you become with your new kit, the more you will enjoy your diving experience. By following the instructions in this guide, you will understand how the SMS100 works, how to make best use of its features and how to ensure it is set up best for your needs.

All Hollis BC's are constructed with the highest quality materials and utilize the latest computer aided design and manufacturing techniques to ensure their highest performance and reliability.

## Warnings

- Hollis BC's are intended for use by divers who have successfully completed a nationally recognized course in scuba diving. For the SMS100 – for use only by persons who have completed a recognized sidemount training course.
- Hollis BC's must not be used by untrained persons who may not have knowledge of the potential risks and hazards of scuba diving
- As with all underwater life support equipment, improper use or misuse of this product can cause serious injury or death.
- Improper use of the oral Inflation/ Deflation or dump valve assemblies may allow water to enter the BC with a subsequent reduction in buoyancy. Reducing buoyancy can cause a loss of buoyancy control resulting in serious injury or death.
- Temperature conditions for use (1 to 40 degrees C)
- Limitations of dimensions of cylinders (20L single cylinder, or Twin 15 litre cylinders)
- This is not a lifejacket it does not guarantee a head up position of the wearer at the surface.
- DO NOT depend on any Hollis BC to save your life under any circumstances.
- Prior to each dive, inspect and test your BC for proper operation. If any part does not function properly, DO NOT USE!
- In an emergency, Hollis BC's may not provide face-up flotation in all cases for all persons.
- DO NOT inhale gases from within any Hollis BC.
- On Hollis dual bladders, the bladder against the diver's back is the primary bladder. Do not inflate both bladders at the same time, this could decrease the overall lift provided by the bladder.
- If you do not fully understand how to use your Hollis BC, or if you have any questions regarding its functions, you should seek instruction in its use from your authorized Hollis dealer before you utilize this product.
- Read and understand the owner's guide completely before diving with any Hollis BC.
- Have your Hollis equipment inspected and serviced annually or any time you have any concern about your equipment's function or condition by an authorized Hollis dealer.
- Any questions/concerns can be directed towards your local Hollis dealer or you can contact one of our technical support representatives at 888.383.DIVE. Email us at [info@hollisgear.com](mailto:info@hollisgear.com).

# Overview

The SMS100 Sidemount system was designed not just with the sidemount cave divers in mind, but any diver. Whether you are a beginner, advanced or technical diver, this kit was designed for you. Kit comes pre-assembled making configuration much easier. The SMS100 is suitable for side mounting twin or single cylinders, but also for use with rebreathers or rear mounted singles. This system can be used in any environment from open water to overhead.

## Sidemount Diving Advantages:

- Greater Safety – Allows full visibility over system. Diver can perform gas checks/management, configure and monitors all of gauges, valves and hoses without assistance
- Reduces additional gear – Backplate / Doubles bands / Hardware / Manifold - Benefit when traveling
- Aids in transporting gear to and from the beach or boat – both tanks and one tank at a time. This includes exiting the water on a boat dive
- Streamlines profile which in turn reduces drag and energy which increases your bottom time

## System Details:

- Streamlined design for reduced drag and passing through tight areas
- Bulletproof Construction
- Single or Dual wing options available
- Central and uppermost located elbow to avoid overhead interference
- Upper & Lower cam band slots for rear mounted single tank
- Adjustable elastic bungee system (also removable)

## Specifications:

- 1000 Denier Cordura™ w/ PU lamination outer shell & 15mm urethane internal bladder
- 360 Degree wing - 52 lbs (231N) Lift
- Lower left pull relief valve on SMS100 wing + Lower right on SMS100D wing

## Understanding the SMS100 Harness



1. Shoulder Webbing woven through wing slots - Long to support shoulder weights
2. 1" D-rings on for bungee attachment – Top D-rings are preferred placement
3. Embroidered Hollis logo
4. SMS100 Wing - 52 lbs. lift - 360 Degree wing
5. Alternate mounting points for rail system
6. Rear mounted 2" D-ring for attaching accessories
7. Rail system used to attach sidemounted cylinders
8. 1" D-rings for attachment of canister light assembly
9. Tank Bungee for holding cylinder close to the diver – use top d-ring for best trim
10. Cam Strap slots for securing a single cylinder if needed

**\*Note:** This is only a suggestion on how to configure your SMS100 Regulator Kit. There are other configurations that you may find better suit your diving preference \*

## How To “Rig” Your Bottles



1. Right Bottle
2. Elastic Tank bungee
3. 7 ft. low pressure hose connected to primary 2<sup>nd</sup> stage w/bolt snap
4. 36 in. low pressure hose connected to alternate 2<sup>nd</sup> stage w/Reg necklace
5. Left Bottle
6. Brass SPG w/ 6" HP hose
7. 212 adjustable 2<sup>nd</sup> stage (unit shown – alternate)
8. Alternate low pressure quick disconnect hose – for Drysuit inflation if needed
9. Primary low pressure quick disconnect hose 15' – for LP inflator
10. DC1 First Stage – DIN

**\*Note:** This is only a suggestion on how to configure your SMS100 Regulator Kit. There are other configurations that you may find better suit your diving preference \*\*

## Attaching Cylinders to the SMS100

Provided with each SMS100 complete harness is the hardware to support two sidemounted tanks.

This includes the following (image below):

- SS Cam Bands – Qty 2
- SS Tri-Glides – Qty 2
- SS Bolt Snaps 4.5” – Qty 4
- Nylon Line (secures bolt snap to tank)

The image to the right shows how to secure the hardware properly. The top bolt snap is considered a “safety clip” or a redundant point of attachment in addition to the bungee which wraps around the tank valve. This clip connects to the shoulder D-ring on both the left and right side of SMS harness. The lower clip is secured using the Cam Band and Tri Glide and connects to the appropriate rail on the buttplate. Cam bands on both tanks should be roughly  $\frac{3}{4}$  the way down the tank as shown in the image.



**\*Note:** This is only a suggestion on how to configure your SMS100 Regulator Kit. There are other configurations that you may find better suit your diving preference \*\*



## Final Configuration

Your SMS100 Harness comes pre-assembled which makes final configuration much easier.

The last step is the adjustment of the harness. To ensure proper fit when donning the harness, first tighten the waist strap. This will help the following steps pull the harness tight against the body. Next, secure the sternum strap to its appropriate length – **Note:** tighten just enough to keep the straps straight over the shoulder – do not over tighten which causes the straps to pull towards middle. Finally, adjust the shoulder webbing accordingly. This should provide a firm and comfortable fit. You may need to give the sternum strap one final tug once complete.

The wing retention system or “bungee” is used to keep the wing streamlined when not fully inflated. It pulls the excess material in while still allowing full inflation. Adjusting the wing retention system can be done by unclipping the fastener attached to the lower 1” d-ring and moving to the desired location – usually up to an alternate d-ring. The bungee can also be trimmed to the desired length however use caution as you may need this at a later date. **\*\*Note:** Over tightening will reduce the amount of lift in the wing.

Although preparation will take some time, once you have completed the configuration steps for rigging the tanks, attaching the cylinders and adjusting the harness properly your in water characteristic should look something like this below. Trim is horizontal and streamlined. **\*\*TechTip:** Cam band more towards the rear or bottom of tank = Feet down / Cam band more towards the front or top of tank = head down **\*\***

Following your training course outline will have specified alternate methods of achieving perfect trim.



# SMS100 Reference/Part Information

## Complete Kits

208.1300.003	SMS100 - SM/MD - Single Pkg
208.1300.005	SMS100 - LG/XL - Single Pkg
208.1300.007	SMS100 - XXL - Single Pkg
208.1302.003	SMS100D - SM/MD - Dual Pkg
208.1302.005	SMS100D - LG/XL - Dual Pkg
208.1302.007	SMS100D - XXL - Dual Pkg

## Component Parts

208.1310	SMS100 Single Wing Only
208.1312	SMS100 Dual Wing Only
240.1500	SMS100 Mains Regulator Kit
240.1600	SMS100 Deco Regulator Kit
240.1550	SMS100 Mains Rigging Kit
240.1650	SMS100 Deco Rigging Kit

## Specific Kit Information

### 240.1500 - SMS100 Regulator Kit

Includes: (2) DC1 DIN / (2) 212 2<sup>nd</sup> stage / 36" LP hose / 84" LP hose / (2) Brass SPG / (2) 6" HP hose / Reg Necklace / 3" Bolt Snap / Tank Bungee

### 240.1600 – SMS100 Deco Regulator Kit

Includes: 02 Tech Regulator (1<sup>st</sup>/2<sup>nd</sup> stage & 40" LP hose) / Brass SPG / 6" HP hose / Tank Bungee / 3" Bolt Snap

### 240.1550 – SMS100 Mains Rigging Kit

Includes: (2) SS Cam Bands / (2) SS Tri-glides / (4) 4.5" SS Bolt Snaps / Nylon Line / Tank Bungee

### 240.1650 – SMS100 Deco Rigging Kit

Includes: SS Hose Clamp w/ Nylon sleeve / (2) 4.5" SS Bolt Snaps / Elastic Line / Tank Bungee

# Care and Maintenance

Your Hollis BC is a reliable piece of equipment that was designed to withstand the rigors of diving and will last for many years if cared for properly. Follow the procedures below to ensure a long life for your BC. You should have the entire BC inspected and serviced annually by an authorized Hollis dealer to ensure it is operating properly and that no components are showing signs of wear.

## Pre Dive Care

Before each dive check to make sure your equipment is working properly. If any piece of equipment is not working properly, DO NOT USE! And return to your authorized Hollis Dealer for repair.

- Under pressure, attach the Low Pressure Inflator Hose to the Inflator and depress the inflator button to make sure it is working properly.
- Check for leaks at connection of inflator.
- Check Oral Inflation/Deflation button is working properly.
- Fill the BC System with air and check to make sure there are no leaks in the Bladder. (Test both Bladders separately on Dual Bladder System)
- Check all dump valves to make sure air is not leaking in the closed position and that the air can be easily dumped.

## Post Dive Care

To keep your BC in top condition, follow these procedures, in sequence, after each day of diving:

- Fill the BC one third full of fresh water through the inflator mouthpiece.
- Inflate fully, then rotate and shake, ensuring a complete internal rinse.
- Hold upside down and completely drain the water through the mouthpiece.
- Thoroughly rinse the outside of the BC with fresh water.
- Store partially inflated out of direct sunlight in a cool, dry place.
- Periodically add BC disinfectant (available in dive stores) to rinse water to kill any bacterial growth.
- Transport your BC in a padded carrying case or equipment bag, separated from sharp items (e.g., dive knife, spear gun, etc.) that might puncture the bladder.
- You should also protect the inflation system from damage from heavy objects (e.g., dive light, weights, first stage, etc.).

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\*\*Photo Credit - pg#7: Underwater World – Issue #129 2010\*\*