
★ FENZY X4 ★

TECHNICAL MANUAL



PN 854710 (orange)

PN 854420 (black)

AQUA  LUNG®

FENZY X4 B.C. MANUAL

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FENZY X4 B.C. OWNER'S MANUAL, P/N 840574

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Warnings, Cautions and Notes:

Pay special attention to information provided in warnings, cautions, and notes, that is accompanied by these symbols:



A **WARNING** indicates a procedure or situation that, if not avoided, could result in serious injury or death to the user.



A **CAUTION** indicates any situation or technique that could cause damage to the product, and could subsequently result in injury to the user.




A **NOTE** is used to emphasize important points, tips, and reminders.


CONTENTS


General Precaution & Warning	4
Attaching the LP Hose to the First Stage	6
Donning and Adjustment Procedures	7
Inflation Methods	8
Deflation Methods.....	9
Special Features.....	10
Pre Dive Inspection	10
Post Dive Care & Maintenance	11
Warranty Information	12
Technical Data	13
Exploded Diagram	14
Parts List.....	15
Spare Parts Kit	16
Annual Service & Inspection Record.....	17


GENERAL PRECAUTIONS & WARNINGS


 Before using this Buoyancy Compensator, you must have successfully received training and certification in the technique of SCUBA diving from a recognized certification agency (or any Military or government operated diving school). Use of this equipment by a person who is not certified by a recognized agency shall render all warranties, express or implied, null and void.


Use of SCUBA equipment by uncertified or untrained persons is dangerous and can result in serious injury or death.


 In an emergency such as an out of air situation or uncontrolled rapid descent, it is important to immediately remove and jettison weight immediately.

 In the event of an uncontrolled, rapid ascent, it is important to immediately begin venting air from the BC. Continue venting air to slow your ascent rate if neutral buoyancy cannot be reestablished.

 Your BC is not a lift bag. DO NOT rely on it to bring heavy objects to the surface. Doing so may permanently damage the BC, and could result in serious injury or death.

 **NEVER** lubricate any part of the BC with any lubricant. Lubrication of certain parts and assemblies must only be performed by U.S. Divers trained service technician.

 Do not apply any type of aerosol spray to the BC. Doing so may damage certain plastic components, including important valve connections.

 Repair, service, or disassembly must not be attempted by persons who are not factory trained and authorized by Aqua Lung America, Inc. Unauthorized service will render the warranty null and void.

FENZY X4 B.C. MANUAL



WARNING: A buoyancy compensator (BC) is NOT a life jacket! It is not designed to provide face-up flotation in all situations; therefore it does not meet U.S. Coast Guard regulations for a life preserver or personal flotation device (PFD). If you become unconscious in the water without a buddy present to immediately give assistance, you may suffer serious injury or death from drowning.

Your buoyancy compensator is primarily designed to help you maintain neutral buoyancy while in a comfortably balanced, face-down swimming position underwater. It is also designed to provide you with flotation so that you can rest on the surface, but it is not designed to function as a life preserver or personal flotation device (PFD). In order to meet U.S. Coast Guard regulations, a PFD must be designed so that it automatically rights you to a face-up position and holds your head out of the water on the surface.

The design characteristics of a personal flotation device are different from those of a buoyancy compensator. The ability of any flotation device to float you in a face-up position can also be affected by other diving equipment you wear, including a cylinder, weight or exposure suit, and whether it can be inflated before you lose consciousness.

For this reason, it is important always to dive with a buddy, and maintain close proximity with them at all times. Do not depend on any flotation device to hold your face above the surface in the event that you are rendered unconscious in the water while diving.



WARNING: Although this manual provides some basic guidelines for certain buoyancy control techniques, it is not a substitute for training from a professional diving instructor. Failure to weight yourself properly may create a hazardous condition that could lead to serious injury or death. If you are unsure how to weight yourself in order to achieve optimum buoyancy underwater and on the surface, do not dive until you have obtained the necessary instruction from your diving instructor.



NOTE: *If you have any questions regarding your Buoyancy Compensator or these instructions, contact your local dealer or Aqua Lung at (760) 597-5000*

NOTE: This buoyancy compensator is provided without the auxiliary air cylinder.

Attaching the LP Hose to the First-Stage



WARNING: DO NOT connect the inflator hose to a high pressure (HP) port (greater than 200 psi / 14 bar). This may cause the hose to burst when pressurized, which can result in serious injury. If you are unsure which regulator port is low pressure (LP) or high pressure (HP), consult your regulator owner's manual or your dealer before attaching the hose.

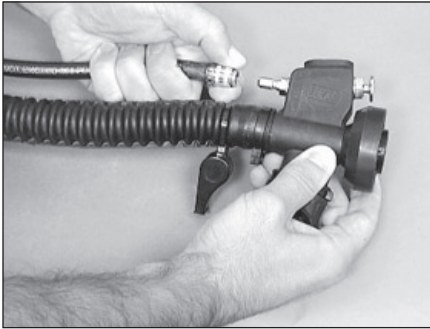


Fig. 1

1. Remove the inflator hose from the power inflator body by gripping the grooved sleeve over the quick disconnect coupling with your thumb and forefinger and sliding the sleeve back (**Fig. 1**).



Fig. 2

2. Remove the port plug from a low pressure (LP) port on the regulator using an appropriately sized wrench (**Fig. 2**).



Fig. 3

3. Check to ensure the O-ring is present and in good condition, and screw the threaded end of the hose into the port. Tighten to 40 inch-pounds (46 kg cm) with a 9/16" wrench (**Fig. 3**).

DONNING & ADJUSTMENT PROCEDURES

1. Unsnap the two waist buckles and the crotch strap buckle.
2. Place BC over your head and around your neck. Back strap will hang parallel with your back.
3. Make sure strap is not twisted. Snap the two waist buckles into place.
4. Bend down and grab crotch strap. Snap it into place.
5. Grab the the ends of the waist strap and pull to fit your size preference.
6. Using the slide on the back strap, adjust the backstrap length to your size preference.

Donning and adjustment is now complete.



INFLATION METHODS

Oral Inflation

To orally inflate your BC, place your lips on the oral inflator mouthpiece (4a) and exhale a small amount of air into the mouthpiece to purge any water that may still be in the housing. While continuing to exhale into the mouthpiece, depress the oral inflator button (4b) to inflate the BC. Immediately after exhaling, release the oral inflator button to prevent air from escaping.

Power Inflation

To inflate your BC with low pressure air, depress the power inflator button (4c). Do not hold the inflator button depressed continuously underwater, as this could cause you to become excessively buoyant. Instead, depress the button in short bursts until you become neutrally buoyant.



Inflation via Emergency Cylinder

The Fenzy X4 can be inflated with an emergency 0.4L cylinder. The cylinder is fitted on the bladder by using a yoke connection. The handwheel of the cylinder valve is located on the right hand side of the diver.



WARNING: Do not rely on the power inflator as the only means to inflate your BC. It is important to practice the technique for orally inflating your BC so that you are prepared for any type of malfunction or out of air situation that could render the power inflator inoperable. You may otherwise be unable to achieve positive buoyancy in an emergency, which could lead to serious injury or death.



Emergency Cylinder

DEFLATION METHODS

Throughout the course of a dive, it will be necessary to release air from the BC using one of the two methods described in the following instructions. Each method uses a valve that is in a different location. Always remember to utilize the valve that is at the highest point on the bladder, depending on your position in the water.

Deflation via Oral Inflator

To deflate the BC using the oral inflator, lift the airway to its highest possible position (above the head). Press the oral inflator button (*Fig. 4b, previous page*) to start venting air. This method is most effective on the surface when starting the initial descent.

Overpressure Relief (OPR)/Dump Valves

The Fenzy X4 is equipped with an OPR/dump valve located on the right shoulder. Its primary function is to relieve excess air pressure inside the bladder, but it can also be opened manually by pulling on the ball and cord assembly to quickly dump air. To dump air as quickly as possible, always use the dump valve at the highest point in the water column.



CAUTION: The proper function of the overpressure relief valve is vital to prevent damage to the BC bladder. Unauthorized service or tampering may render these valves inoperable, and could cause the bladder to leak or burst. This type of damage is not repairable, and is not covered under warranty.



WARNING: Most training agencies recommend that you descend in an upright, feet-first position, in order to maintain a slower and more controlled descent. This is especially true if you experience difficulty equalizing your ears, or if you are descending in low visibility conditions.

SPECIAL FEATURES

BC Air Breathing

The oral inflator is equipped with a breathing valve that allows the diver to breathe air from the buoyancy compensator. This device is only to be used in case of an emergency.

To breathe air from your BC, first slightly exhale through the oral inflator mouthpiece in order to remove the excess of water trapped in the mouthpiece's body. Then, inhale through the mouthpiece. This will activate the breathing valve and deliver air from the BC's bladder.

When done inhaling, exhale through the mouthpiece. The breathing valve permits both inhaling and exhaling without any manipulation.



WARNING: Always keep in mind that breathing air from the BC also deflates the BC and changes your buoyancy. Always be prepared to add air in the BC from the emergency cylinder in order to get extra air to breathe and also extra buoyancy.

Pocket

The Fenzy X4 features one large pocket located on the front side of the BC.



Drain Plug

The Fenzy X4 is equipped with one drain plug located on the back side of the BC, left hand side of the diver. The drain plug is used to rinse the inside of the bladder (see post dive care & maintenance section).



PRE DIVE INSPECTION



WARNING: Before each use, the BC must be given a thorough visual inspection and functional test. NEVER dive with a BC that shows signs of damage to its bladder or valves until it has received a complete inspection and service from an authorized dealer.

Inspection Checklist:

1. Connect the power inflator to a source of clean, compressed breathing gas, via the LP quick disconnect hose. Depress and release the inflator button intermittently to ensure that the airflow is unobstructed, and that the airflow stops completely when the button is released.
2. Manually operate the overpressure relief (OPR) valve by pulling on the attached ball and cord to release air from inside the BC, and then fully inflate the BC until the OPR valve opens. Examine the operation of the OPR valve by repeatedly inflating the BC to ensure that it opens to relieve excess pressure, yet close immediately afterward to allow the bladder to remain taut and fully inflated.
3. Check the function of the oral inflator button and overpressure relief/manual dump valve to ensure a rapid and unobstructed exhaust from each valve. Fully inflate the BC once again, and disconnect the Power Inflator from the compressed breathing gas supply and listen closely for any leaks.
4. Operate the emergency cylinder valve and check the correct inflation of the BC.



WARNING: If you can hear any leaks, or if the bladder begins to deflate within 5-10 minutes, **DO NOT** attempt to use the BC until it has received service from an authorized dealer.

Cylinder Filling (cylinder supplied separately):

1. Connect the cylinder to a high pressure air source, making sure high pressure does not to exceed maximum working pressure stamped on the Fenzy cylinder.
2. Fully open the Fenzy cylinder valve.
3. Slightly open the airsource valve. Make sure not to over inflate or inflate too quickly.
4. Close the airsource valve and then the Fenzy cylinder valve. Purge the residual high pressure gas using the Fenzy cylinder purge button.
5. Disconnect the Fenzy cylinder from the air source.



WARNING: The Fenzy cylinder may be hot after filling. After it cools, recheck pressure and fill to capacity if needed.

POST DIVE CARE & MAINTENANCE

With proper care, your BC will provide many years of reliable service. The following preventive maintenance must be performed to extend the life of your BC:

1. Avoid prolonged exposure to direct sunlight and extreme heat. Nylon fabric can quickly fade when exposed to the sun's ultraviolet rays, and extreme heat may damage the welded bladder seams.
2. Avoid repeated or prolonged use in heavily chlorinated water, which can cause the BC fabric to discolor and decay prematurely.
3. Do not allow the BC to chafe against any sharp objects or rough surfaces that could abrade or puncture the bladder. Do not set or drop heavy objects such as block weights on the BC.
4. Avoid any contact with oil, gasoline, aerosols, or chemical solvents.
5. To preserve the life of the bladder, rinse it inside and out with fresh water after every day of use, using the following procedure:
 - a) Pressurize the power inflator with low pressure (LP) air via the LP hose.
 - b) Using a garden hose, direct water through the oral inflator mouthpiece to flush the interior of the bladder, and then thoroughly rinse the exterior of the BC.



CAUTION: Before rinsing, ensure that the power inflator is pressurized with air. This will prevent debris and contaminants from entering the valve mechanism if the inflator button is accidentally depressed.

- c) Completely drain the bladder of water, either through the oral inflator or through the drain cap.
- d) Inflate the BC, and allow it to dry inside and out. Store the BC partially inflated, away from direct sunlight, and in a clean, dry area. Do not store the BC in an enclosed space, such as a car trunk, where temperatures may fall below 0°F (-18°C) or rise above 120°F (49°C).

WARRANTY INFORMATION

All warranty transactions must be accompanied by proof of original purchase from an Aqua Lung® authorized dealer/agent. Be sure to save your sales receipt, and present it whenever returning your BC for warranty service.

The Aqua Lung One Year Limited Warranty™

Aqua Lung America warrants to the original purchaser for a period of one year from the date of purchase that the product will be free from defects in material and workmanship; provided that it receives normal use, proper care, and prescribed dealer service subject to those restrictions stated below.



WARNING: It is dangerous for untrained and uncertified persons to use the equipment covered by this warranty. Therefore, use of these products by an untrained person renders any and all warranties null and void. Use of SCUBA equipment by anyone who is not a certified diver, or receiving training through a recognized certification agency, shall render void all warranties, expressed or implied.

ALL WARRANTIES, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES, OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO A PERIOD ENDING ONE YEAR FROM THE DATE OF PURCHASE.

AQUA LUNG AMERICA DISCLAIMS AND EXCLUDES ANY LIABILITY FOR INCIDENTAL, OR CONSEQUENTIAL DAMAGES. SOME STATES DO NOT ALLOW EXCLUSIONS OF LIABILITY, SO THIS MAY NOT APPLY TO YOU.

Restrictions

The following restrictions apply to this warranty:

- This warranty extends to inflator parts, and to the seams of the BC bladder. Factory prescribed annual service by a trained technician is required.
- This warranty does not extend to abrasion, punctures, or tears of the bladder, or seam separation caused by chemical attack; including prolonged exposure to chlorine.
- This warranty does not extend to damages caused by improper use, improper maintenance, neglect, unauthorized repairs, modifications, accidents, fire, or casualty.
- Cosmetic damage, such as scratches, fraying, and nicks are not covered by this warranty.
- This warranty covers products purchased in the United States. For warranties that may apply elsewhere, please contact your local representative.
- Failure to meet any of the above requirements will render the warranty null and void.

ANNUAL MAINTENANCE

The Fenzy X4 is subject to annual maintenance. All parts listed in the spare parts kits (p. 16), must be replaced annually, even if they appear to be in good condition. Use Annual Service and Inspection Record (p. 17) to track maintenance.

TECHNICAL DATA

Composition:

Outer Bag - heavy-duty, urethane 1000 denier material which resists cuts, tears and abrasion, and is impervious to sunlight and saltwater.

Bladder - heavy-duty microbe resistant polyurethane

1 Drain Cap

1 Yoke Connection for Cylinder (cylinder supplied separately)

1 Oral Inflator with Breathing Valve

1 Overpressure Relief Dump Valve



Cylinder connector

Features:

Volume - 38 lbs / 17.2 L

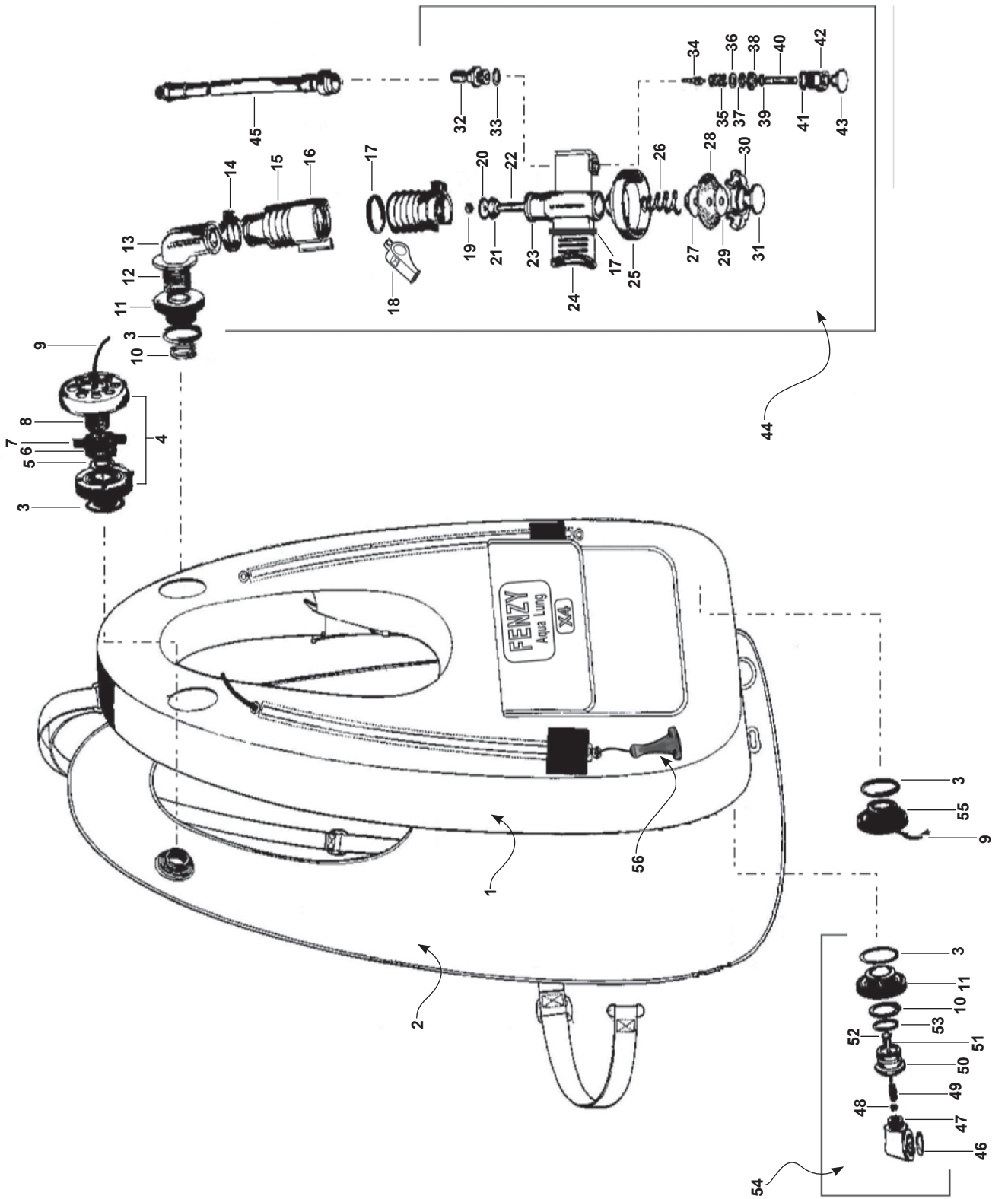
Weight - w/o Cylinder: 3.1 lbs / 1400 g

w/ Steel Cylinder: 7.3 lbs/3320 g

Packing (indiv. box) - 21 3/8 in. x 10 in. x 3 1/2 in. (55 cm x 25.5 cm x 11.5 cm)

Colors - Black (854420), Orange (854710)

EXPLODED DIAGRAM



FENZY X4 B.C. MANUAL

PARTS LIST

Key #	PN	Description	Qty
1	854122	Outer Bag, Fenzy X4, orange	1
	854421	Outer Bag, Fenzy X4, black	1
2	854103	Bladder, Fenzy X4	1
3	820320	O-ring, 2-120 E0540-80	4
4	852120	Body and Cap	1
5	113235	Exhalation valve, Aquilon	1
6	852114	Valve	1
7	852113	Valve Holder	1
8	852115	Spring	1
9	17504	Cord	
10	101344	Retaining Ring, non magnetic	2
11	850441	Handwheel, Fenzy	2
12	820015	O-ring, 2-015 E0540-80	1
13	850444	Elbow	1
14	850408	Clamp	2
15	862473	Hose	1
16	included 854122	Retaining Strap, Hook and Loop	1
17	104913	Clamp Strap Back	2
18	762979	Whistle, ball type	1
19	101267	Locknut	1
20	101247	Washer, non magnetic	1
21	101226	Valve, rubber	1
22	101248	Stem, non magnetic	1
23	850455	Housing, Inflator, direct system	1
24	104138	Mouthpiece, Octopus	1
25	101231	Housing, Inflator, lower	1
26	101246	Spring, non magnetic	1
27	101232	Valve, plastic	1
28	101233	Diaphragm, Inflator MP	1
29	101234	Washer	1
30	101236	Cage	1
31	101222	Push Button	1
32	850434	Nipple	1
33	820038	O-ring, 5-584 E0540-80	1
34	778564	Valve	1
35	850431	Spring	1
36	113268	Washer	1
37	850437	Circlip	1
38	850428	Nut	1
39	850433	O-ring R0	1
40	850424	Spindle	1
41	820312	O-ring 2-012 E0540-80	1
42	850426	Plug	1
43	850430	Button	1
44	854101	Airway Complete, Fenzy X4	1
45	24827	Low Pressure Hose 27"	1
46	820094	O-ring 5-588 E0540-80	1
47	840450	Adaptor	1
48	101335	Locknut 5mm	1
49	101332	Spring	1
50	101334	Connector	1
51	820005	O-ring 2-005 E0667-70	1
52	101328	Pin	1
53	820089	O-ring 5-589 E0667-70	1
54	850440	Connector Assembly	1
55	850405	Cap	1
56	12277	Pull Knob	1

FENZY X4 B.C. MANUAL

SPARE PARTS KIT

840570: Kit, dump valve, Fenzy X4

Key #	PN	Description	Qty
3	820320	O-ring, 2-120 E0540-80	1
5	113235	Exhalation valve, Aquilon	1
6	852114	Valve	1
7	852113	Valve holder	1
9	750418246	Cord (25 in)	1

840571: Kit, airway, Fenzy X4

Key #	PN	Description	Qty
3	820320	O-ring, 2-120 E0540-80	1
12	820015	O-ring, 2-015 E0540-80	1
14	850408	Clamp	2
21	101226	Valve, rubber	1
27	101232	Valve, plastique	1
28	101233	Diaphragm, inflator MP	1
29	101234	Washer	1
31	101222	Push button	1
33	820038	O-ring, 5-584 E0540-80	1
39	850433	O-ring R0	1
41	820312	O-ring 2-012 E0540-80	1

840572: Kit, drain cap, Fenzy X4

Key #	PN	Description	Qty
3	820320	O-ring, 2-120 E0540-80	1
9	750418182	Cord (6.5 in)	1

840573: Kit, connector, Fenzy X4

Key #	PN	Description	Qty
3	820320	O-ring, 2-120 E0540-80	1
46	820094	O-ring 5-588 E0540-80	1
51	820005	O-ring 2-005 E0667-70	1
53	820089	O-ring 5-589 E0667-70	1

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