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BS22 6WA

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CE0088



## Auto Air Instruction Manual

**Important:** unlike the original Auto Air  
this is a balanced regulator and therefore  
does not need adjusting.

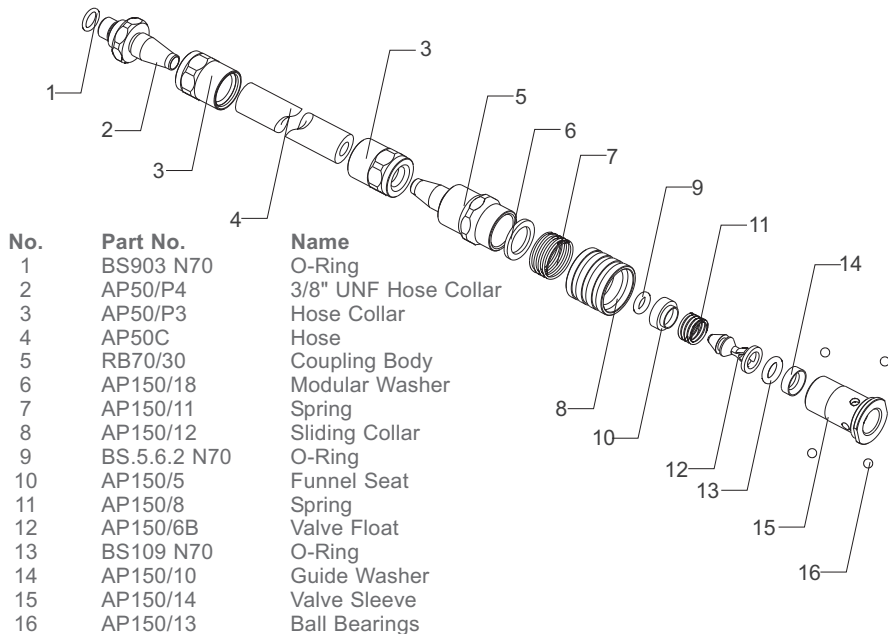
Introduction .....	3
Getting to know your Auto Air .....	4
Getting Started.....	5
Using your Auto Air.....	6
Buoyancy Control .....	6
Emergency Breathing .....	7
Buddy Breathing .....	8
Pre-dive Checks .....	9
Post-dive Maintenance.....	10
Trouble Shooter .....	11
Cautionary Notes.....	13
Parts lists .....	14
Warranty.....	19

All AP Diving products are sold on the understanding that only British Law applies in cases of warranty claims and product liability, regardless of where the equipment is purchased or used.

The Auto Air is warranted against faulty materials and workmanship for a period of one year from the date of purchase. If a fault occurs AP Diving will repair or replace at their own discretion and so all claims must be referred directly to AP Diving.

AP Diving reserves the right to verify all claims. If a fault occurs, firstly contact the factory for advice and, if necessary, the product should be returned directly back to the factory, postage and insurance pre-paid.

Due to the harsh nature of the diving environment, mis-use or neglect renders all warranties null and void.



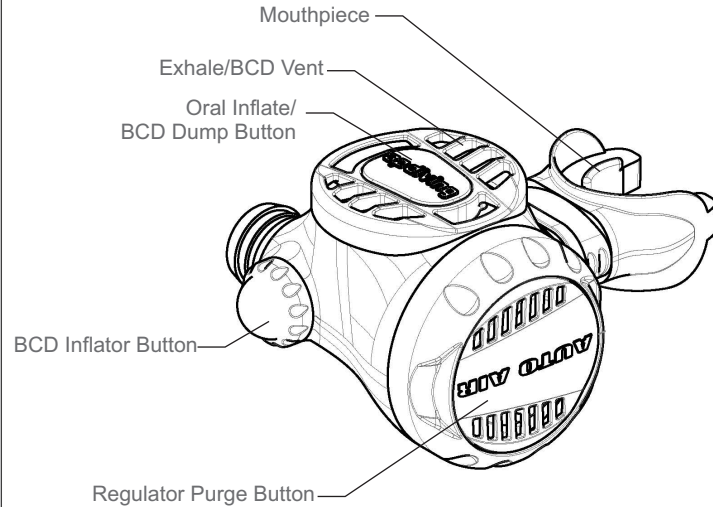
This instruction manual provides you with all the information you need to get the most out of your Auto Air. It is important that you read this manual to set up your equipment before you go diving. It doesn't take long and it's easy to do, just follow the instructions on the next few pages.

Here are some of the features of your new balanced Auto Air:-

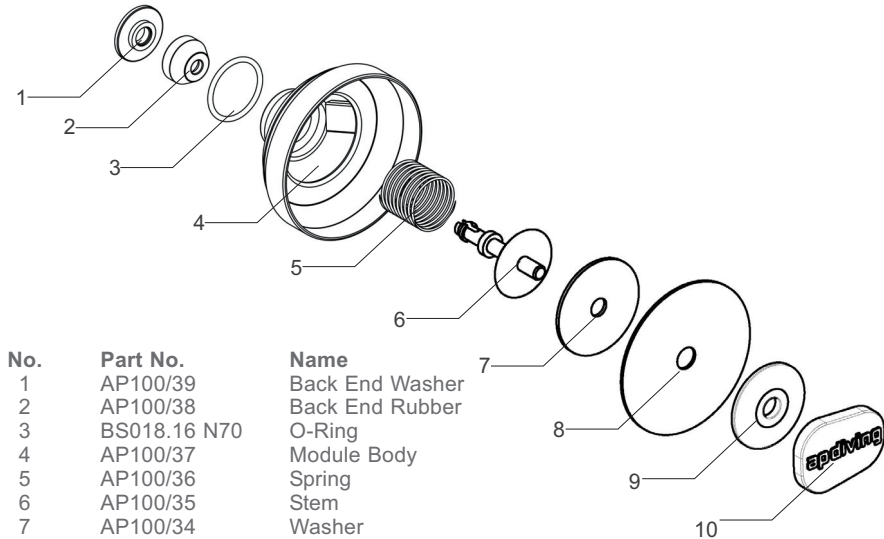
- High performance demand valve that acts as an "octopus" 2nd stage.
- Emergency breathing valve that allows the breathing of air from inside the buoyancy jacket should your main air supply fail or dry up.
- Buoyancy jacket direct feed inflator.
- Buoyancy jacket oral inflate.
- Buoyancy jacket deflate.
- Automatic adjustment to your 1st stage interstage pressure.

## 4 Getting to know your Auto Air

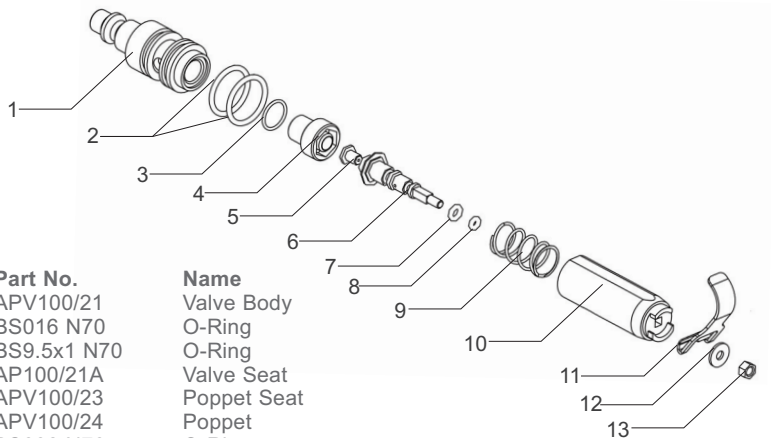
The press button controls of the Auto Air allow for direct feed inflation, jacket deflation, valve purging and oral inflation of the BCD. The Auto Air has been designed so that each of these buttons are located on a different plane to reduce the possibility of operating two buttons simultaneously.



## APV100/3 Breathing Valve Assembly - Parts List 17



No.	Part No.	Name
1	AP100/39	Back End Washer
2	AP100/38	Back End Rubber
3	BS018.16 N70	O-Ring
4	AP100/37	Module Body
5	AP100/36	Spring
6	AP100/35	Stem
7	AP100/34	Washer
8	AP100/33	Diaphragm
9	AP100/32	Diaphragm Washer
10	APV100/31	Button



No.	Part No.	Name
1	APV100/21	Valve Body
2	BS016 N70	O-Ring
3	BS9.5x1 N70	O-Ring
4	AP100/21A	Valve Seat
5	APV100/23	Poppet Seat
6	APV100/24	Poppet
7	BS006 N70	O-Ring
8	Bs004 N70	O-Ring
9	APV100/25	Spring
10	APV100/26	Valve Chamber
11	APV100/27	Lever
12	AP100/28	M3 Washer
13	AP100/28A	M3 Nut

## Connecting the Auto Air:

### To your Buoyancy Control Device (BCD)

Offer the Auto Air up to the BCD large bore breathing hose. Push the breathing hose over the large port on the Auto air, secure the Auto Air in place with a ty-rap.

### To your 1st Stage

Screw the 3/8" UNF end of the direct feed hose to a 3/8" UNF low pressure port on the 1st Stage, nip it up with a spanner but DO NOT over tighten.

If the direct feed hose is too long then one end can be removed, and re-fitted once the hose has been cut to the desired length.

Connect the Auto Air to the direct feed snap connector.

### Shoulder Pull Dump

If the BCD has a shoulder pull dump operated by pulling the breathing hose, don't forget to attach the cord to the Auto Air Pin.

### Important:

DO NOT connect the inflator hose to any port providing a pressure greater than 400PSI (28BAR) - higher pressure may cause damage or personal injury.

### Tip:

Connect the Auto Air to the direct feed hose with the air supply turned off.

### Important:

If the Auto Air free flows into the BCD or out of the mouthpiece the direct feed hose can be quickly disconnected by pulling back on the direct feed snap connector.

### Tip:

To avoid water entering your BCD, use the dump valves on your BCD for routine deflation. Use the Auto Air vent in only in an emergency.

## Buoyancy Control

### Power Inflate

To inflate your BCD using the air from your cylinders simply press the blue dome button located on the opposite side to the mouthpiece.

### Oral Inflate

To orally inflate press the large button in the middle of the exhaust valve, and blow into the mouthpiece.

### Deflating

Air can be vented from the BCD by lifting the Auto Air above the head and depressing the exhaust valve.

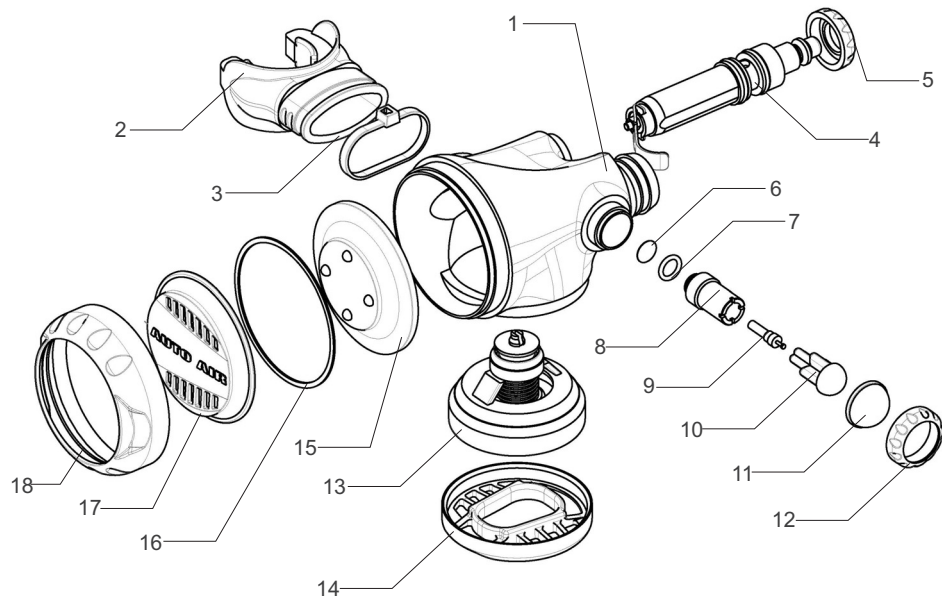
## Auto Air Component List

No.	Part No.	Name
1	APV100/1	Auto Air Main Body
2	AP16	Mouthpiece
3	AP21	Ty-Wrap
4	APV100/2	Demand Valve Assembly
5	APV100/6	Retaining Ring
6	AP100/41	Mesh Filter
7	BS011 N70	O-Ring
8	APV100/19N	Direct Feed Insert
9	APV100/44	Core Valve
10	AP100/15N	Plunger
11	AP100/14	Inflator Cap
12	AP100/13	Cap Retainer
13	APV100/3	Jacket Breathing module
14	APV100/10	Module Cap
15	AP100/5	Diaphragm
16	AP100/6	Skid Disk
17	APV100/9	Diaphragm Cover
18	APV100/7	Diaphragm Cap

### Ordering Spares

Spares and service kits are available directly from the factory, or website: [www.apdiving.com](http://www.apdiving.com)

Tel: (+44) 01326 565834  
email: [info@apdiving.com](mailto:info@apdiving.com)



### Emergency Breathing

To take advantage of the emergency breathing feature on the Auto Air your BCD will need to be fitted with an emergency cylinder like those fitted to the Commando, Explorer & Tekwing.

The Auto Air will continue to draw air from the main cylinder until all the air is depleted, it then **AUTOMATICALLY** switches over to the emergency jacket breathing valve.

The emergency breathing valve draws air from the BCD so normal breathing can continue. Air in the BCD can be replenished in short bursts from the emergency cylinder fitted to the BCD.

As you ascend the pressure in the main cylinder will increase, the Auto Air will **AUTOMATICALLY** use this air as it becomes available.

**Tip:**

Adding air from the cylinder during the exhale will maintain a steady buoyancy.

### Tip:

Keeping hold of the Auto Air for yourself instead of offering it to your buddy means you keep control of your buoyancy.

### Warning:

SCUBA complying with EN250 is not intended for more than one user to breathe from at the same time. Thus if connecting your Auto Air to the same 1st stage regulator as your primary regulator then breathing performance may not fulfil the requirements of EN250.

### Buddy Breathing

If your partner's air supply fails, you can make your own Demand Valve (DV) available, using the Auto Air for your own air supply.

Both divers can then continue to breathe normally from your main cylinder and ascend at a normal rate, monitoring each other and the air supply as you rise.

■ The use of compressed air underwater breathing equipment such as the Auto Air, is potentially dangerous for the untrained user. Instruction in the use of such equipment from a qualified instructor should be received before venturing into open water. The maximum certified depth using air (to EN12021) is 50m at 62,5 litres RMV and water temperature +10°C.

■ NEVER use the Auto Air with CO<sub>2</sub>.

■ Do not add or dump excessive amounts of air while diving. This can cause a dangerous rate of ascent or descent.

■ Always carry out the pre and post dive checks and have the Auto Air and direct feed hose serviced annually.

■ Always use the direct feed hose supplied with the Auto Air, never use other brands that may not provide the required flow rate.

■ Warning: SCUBA complying with EN250 is not intended for More than one user to breathe from at the same time. Thus if connecting your Auto Air to the same 1st stage regulator as your primary regulator then Breathing performance may not fulfil the requirements of EN250.



Continued...

or

A. Air is leaking through the quick release coupling when the hose is disconnected.

**Depress the direct feed button two or three times to remove any dust or grit. If this does not cure the problem - replace the core valve AP100/44 and O-ring BS011N70.**

**Q. On the surface the BCD breathing valve opens on inhalation, with the air turned on?**

A. The main cylinder valve is not completely turned on so causing a restriction.

**Turn the valve fully on.**

### Pre-dive Checks

#### Hose

Visually inspect for cuts, abrasions or any other signs of damage. Operate the snap connector by connecting and disconnecting it to the Auto Air. Ensure the operation is smooth.

#### Auto Air

Visually inspect the Auto Air for any signs of damage, especially the mouthpiece for holes and secure attachment.

#### Testing

Connect the Auto Air to your air supply. Turn the air on and listen for escaping air, if leaking try depressing the purge button two or three times to clear the valve seats of any obstructions such as salt crystals and dust.

#### **Safety Warning:**

Never put your ear to the leak, pressurised air can damage your hearing. If you suspect a leak always immerse the equipment in water to locate problem.

### Pre-dive Checks Continued...

Inhale and exhale through the Auto Air and make sure that air is being supplied via the direct feed and not from the BCD. Turn off the air supply and carry on breathing. As the air in the direct feed line is used up, the Auto Air will Automatically draw air from the BCD. Continue to draw air from the BCD, if you can still draw air from the BCD once it is empty, there is a leak in the system.

### Post-dive maintenance

With the Air turned on thoroughly rinse the Auto Air in fresh water. Depress the exhale valve button and allow water to wash over the valve seat.

Depress the purge button to blow air through the Auto Air and clear the chamber.

Inspect the Auto Air for damage or wear and tear, have the Auto Air serviced.

Have the Auto Air serviced by an AP Diving once a year.

### Q. Jacket Inflates without pressing the Inflator Button?

A. Air is bypassing the Direct Feed Insert AP100/19N.

**Depress the direct feed button two or three times to remove any dust or grit. If this does not cure the problem - replace the core valve AP100/44 and O-ring BS011N70.**

### Q. The BCD is deflating without operating any exhaust valves?

A. Air is leaking through or past the BCD breathing module **Unscrew the diaphragm cover AP100/10 and pull the jacket breathing module AP100/3 out. Check the O-ring BS.18.1.6N70 and Back End Rubber AP100/38 for damage and correct location on the module body - clean and replace as required.**

**or**

A. Air is leaking through the direct feed button cover AP100/14. Replace the direct feed button cover AP100/14.

### Tip:

It is easier to remove the breathing module by pushing it out from the inside.