



*THE RECOGNISED AUTHORITY ON BUOYANCY
CONTROL IN THE U.K.*

INSTRUCTION MANUAL

*Read this instruction manual in its entirety
before using your BUDDY ABJ.
It contains important information on proper
usage, maintenance and safety precautions.*



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ABJ

IMPORTANT CAUTIONARY NOTES

DO

- Read the instruction manual in its entirety prior to use of BUDDY ABJ.
- Have your BUDDY ABJ set up at the dive shop.
- Pre-dive check prior to each dive.
- Recharge your emergency air cylinder prior to every dive.
- Post-dive maintenance.
- Have your 0.4l emergency cylinder visually inspected every 2 years or immediately if you suspect water has entered the cylinder and tested/replaced every 5 years (Ref. BS EN 1802:2002).
- Become familiar with ABJ operation and adjustments in swimming pool prior to use in open water.
- Have your BUDDY ABJ serviced annually by a competent person.
- Use only original A.P. Valves components for repair and service of your equipment.
- Insure all of your diving equipment.
- Be aware that your weight belt plays a crucial role in the surface support position. It acts like the keel of a boat. If you remove your weight belt, the surface support position may be compromised.
- Ensure exposure to direct sunlight is kept to a minimum. All products degrade when so exposed. All A.P. Valves materials are designed to withstand exposure but, as with all man-made polymers, there are limitations.

DO NOT

- Add excessive amounts of air to the ABJ while submerged. This can cause a dangerous rate of ascent.
- Be insufficiently buoyant or excessively weighted when submerged. This can cause a dangerous rate of descent.
- Connect the direct feed inflator supply hose to any first stage regulator port providing over 400 psi (28 BAR).
- Mix different makes of mini-cylinders with different makes of ABJs. The valve flow rates, working pressures and strength of construction are all factors which are carefully matched to provide a reliable product.
- Recharge the mini-air cylinder from an aqualung with a greater working pressure than that indicated on the mini-cylinder.
- Travel with mini-air cylinder fully charged. Air pressure at 10 psi is sufficient to ensure moisture does not enter the cylinder. It is normal to completely discharge the cylinder for air travel.
- Inflate jacket when washing internal bladder.
- Inflate jacket if outer bag zip is undone.
- Suspend heavy or expensive items from the plastic D Rings.
- Dive with an empty emergency cylinder.

INTRODUCTION

All BUDDY models are referred to as ABJs, Adjustable Buoyancy Jackets. They are rugged, divers' buoyancy jackets with mini-cylinders for supplying emergency air. All BUDDY ABJs are fitted with an automatic mouthpiece, which allows the diver to breathe the emergency air easily.

BUDDY ABJs must not be confused with American Style Buoyancy Compensators (BC), which have only direct feed inflation and, in some instances, CO₂ feed for emergency inflation. While a BUDDY can be used in the same way as a BC, a BC cannot and must not be used in the same manner as a BUDDY ABJ. A BC does not have an independent air cylinder to provide emergency buoyancy at depth and cannot be used for emergency breathing.

Generally, the surface support position of a BUDDY ABJ is superior to ordinary surface jackets but because of the number of variations in diving equipment and types of suit used. A BUDDY ABJ does not guarantee a head up position, and cannot be regarded as a British Standards Surface Lifejacket.

CAUTION

It is most important to buy a jacket that fits you. Buying one that is too big for you, possibly because it has more buoyancy is dangerous. A jacket that is too big will result in excessive cylinder movement and will not provide adequate surface support. If in doubt please refer to the size guide or ask for advice from the factory.

The use of compressed air life support equipment, which includes the ABJ, is potentially dangerous to the untrained user. Instruction in the use of such equipment by a qualified instructor should be received before venturing into open or deep water.

CONSTRUCTION FEATURES

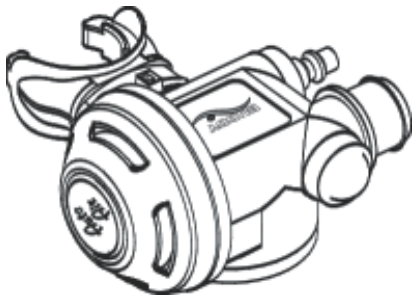
MATERIALS

All BUDDY ABJs produced since 1980 are manufactured using the dual bag principle. The heavy duty outer bag resists cuts, tears and abrasion while the extremely flexible, puncture resistant inner bag provides the air holding properties required. All materials have been specially developed for ABJs by A.P.Valves and have proven over the years to outlast all other makes, whether the jackets be used for sport diving or in harsh daily use in military applications. Properly maintained BUDDY ABJs will provide years of reliable service.

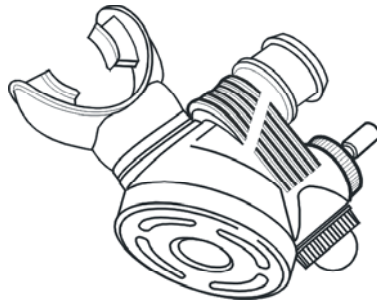
The outer bag material has proven in tests to be five times more abrasion resistant and three times more puncture resistant than nylon (polyamide) fabrics used so extensively by rivals. The inner bag is extremely resistant to ultra-violet light, ozone, sea water, oil and bacteria. The material is non-laminated which aids seam reliability and stores without puncturing itself on the fold - a common problem with single bag/laminated materials. The material is compounded with antibacterial additives to resist fungal growth.

EMERGENCY BREATHING, INFLATION VALVES

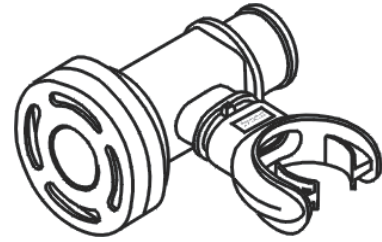
AP100 Auto Air



AP200 Direct Feed Inflator



AP1 jacket Breathing Valve



The AP1, the original A.P.Valve, was invented in the 1960's by the Company founder, David Parker. It allows the diver to breathe air from the ABJ by simply inhaling and exhaling without pressing any buttons and allows press button jacket deflation and oral inflation. A simplified AP1 module is also incorporated in both the AP100 and AP200 valves.

In addition to hands free emergency breathing, both the AP100 (Auto Air) and AP200 allow press button jacket inflation. The Auto Air also allows the diver to breathe from the main air cylinder via the regulator's first stage, behaving like a conventional "Octopus or Spare 2nd stage," with the added benefit of switching to breathe from the jacket if the main air supply fails.

AP100 AUTO AIR

(Made under European Patent No. 0318157 & UK Patent No. 2037587) For full setting, operating and maintenance instructions please consult the separate Auto Air manual and the AP31 Hose Exhaust Valve section if the Auto Air is to be used in combination with this valve.

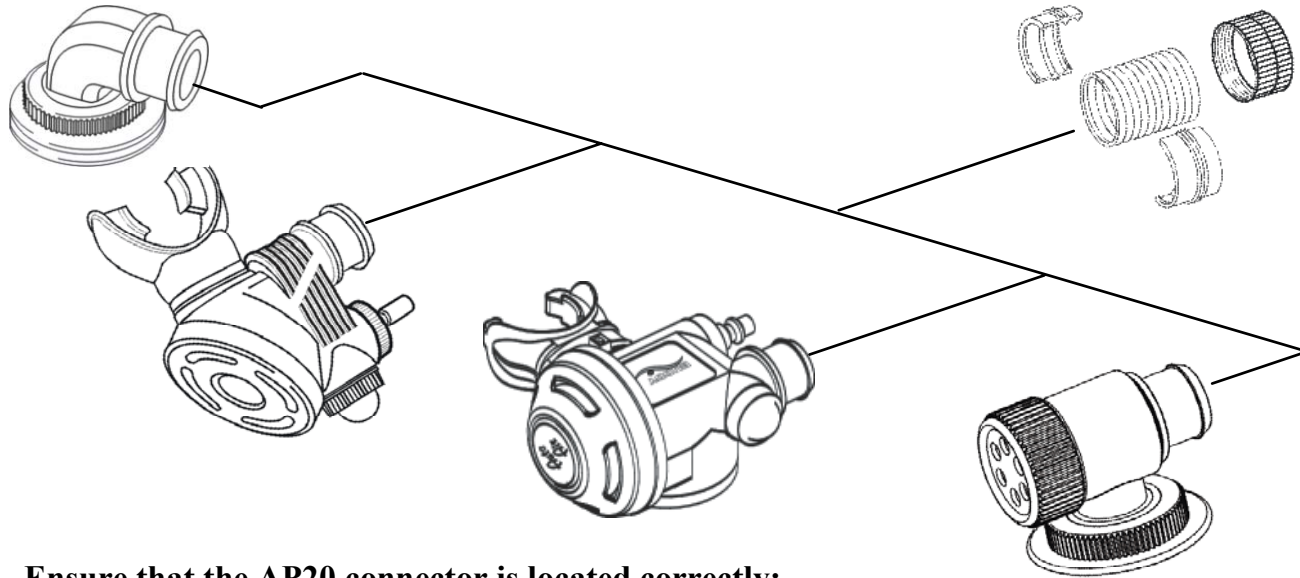
AP200 DIRECT FEED INFLATOR FOR ROUTINE AIR INFLATION

The press button inflator uses low pressure air from an auxiliary low pressure port on the first stage of the regulator, some regulator manufacturers call it medium or intermediate pressure, less than 400 psi (28 BAR), and allows reasonably rapid inflation of the jacket, approx. 7 seconds to inflate fully. The hose can be connected and disconnected using the chromed brass quick release coupling. To disconnect, grip the grooved sleeve with the thumb and forefinger and slide back. Reconnect by retracting the grooved sleeve, pushing the coupling over the fitting on the side of the direct feed tap and releasing the sleeve.

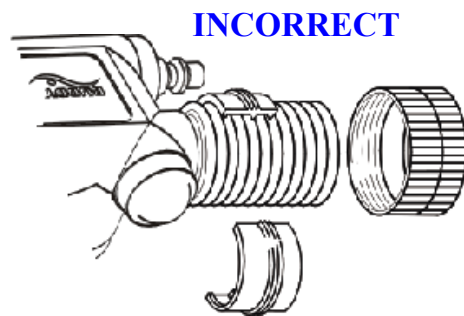
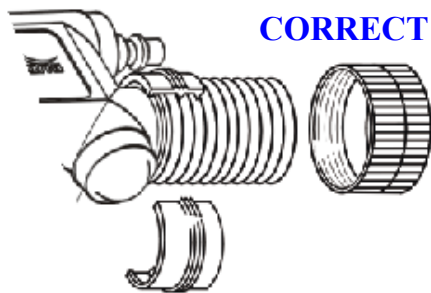
The standard low pressure hose is approx. 80cm/31" long (collar jackets) or 60cm/24" long (waistcoat jackets), though any length hose can be supplied. The inflator hoses can be customised as the fittings are re-useable, by cutting the hose to length and refastening the fitting using two spanners. This must be done by a competent individual and must be fully tested before use. If in doubt, return to the factory for free modification.

AP20 CONVOLUTED HOSE CONNECTOR

The AP20 hose connectors are re-useable and are used instead of ty-raps. They fasten the convoluted hose to the AP30 elbow, AP200 inflator, AP100 Auto Air, AP1 automatic mouthpiece and AP31 hose exhaust valve. Disconnecting at these junctions allows easier maintenance. Care should be taken when re-fitting: Ensure that the convoluted hose is positioned correctly onto the moulding, (AP30, AP31, AP200, AP100, or AP1), Position the inner collar onto the hose, taking care that its tiny internal lip fits over the large collar on the moulding. Thread the outer ring over the inner and tighten until secured firmly, taking care not to cross-thread.



Ensure that the AP20 connector is located correctly:



HOSE EXHAUST VALVE (AP31)

The hose exhaust valve, fitted as standard on the Pioneer jackets, Redwing, Tekwing and Travelwing, provides an additional manual dump. It is actuated by pulling down on the inflator, which is connected to the valve via a cord inside the convoluted hose. As with the Auto pressure relief valves, this action opens a spring loaded exhaust valve in the jacket fitting to allow air to escape. The valve closes automatically when tension is released. This is also a preferred method of exhausting air from the jacket as a built in non-return valve prevents the ingress of water while the valve is held open. When using the valve it is important to remember that:

- a. The medium pressure hose must be long enough to allow full movement of the valve mechanism. Restricting movement prevents the dumping elbow from working correctly. Check for correct operation by disconnecting the inflator at the quick release coupling and pulling down on the inflator with the jacket held stationary. Repeat this with the inflator hose reconnected and ensure the same movement is available.
- b. If the Auto Air is used in combination with this valve and it is donated to your buddy diver in an emergency, there is a risk that the hose exhaust valve may be operated in this situation. This may be avoided by holding onto each other when buddy breathing or donating your own 2nd stage and using the Auto Air yourself.

DUMP/AUTO PRESSURE RELIEF VALVE (AP5)

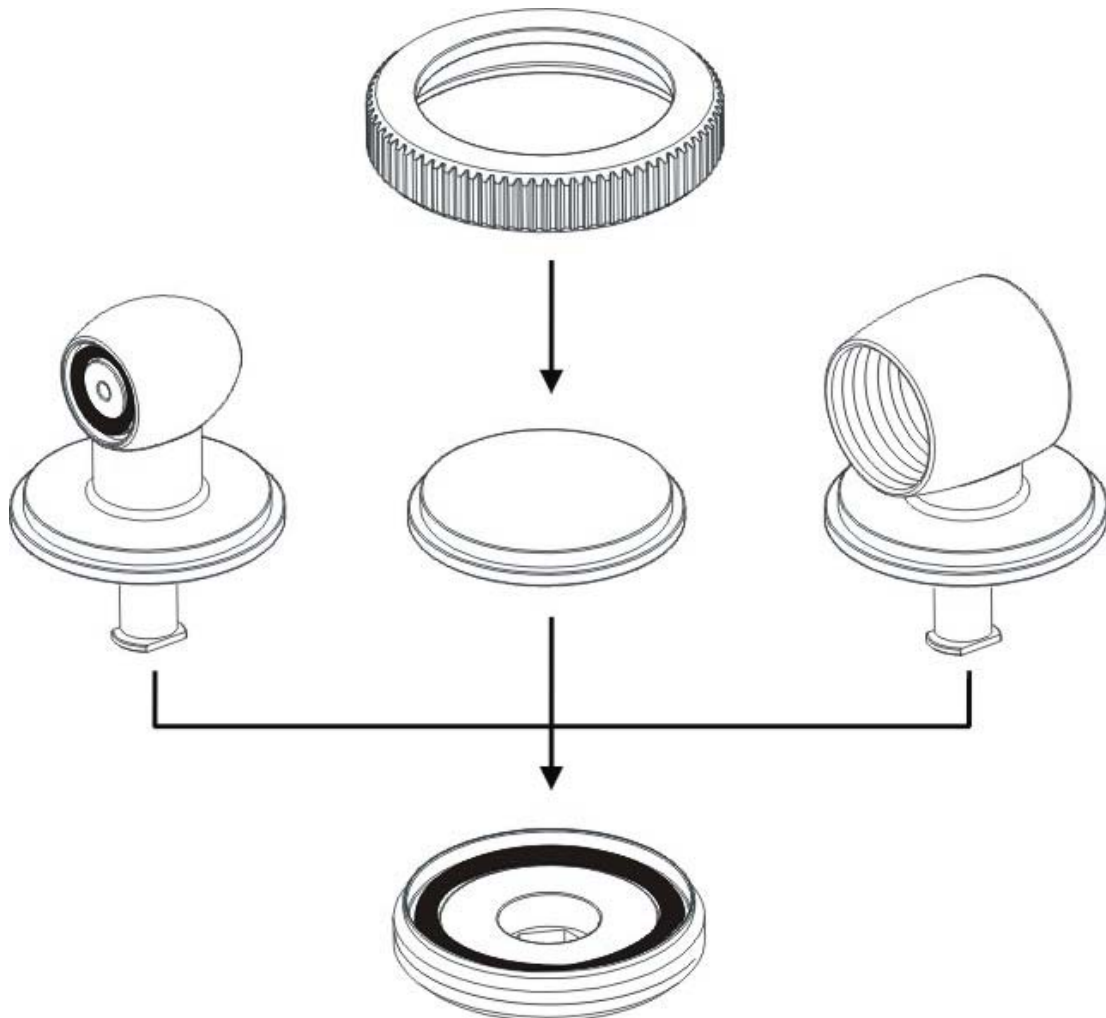
All BUDDY's are fitted with manual dump/automatic pressure relief valves which are actuated by pulling straight down on the moulded knob to open a spring loaded valve and allows air to escape from the jacket. The valve will automatically close when tension is released. This is a preferred method to exhaust air from the jacket as a built in non-return valve prevents the ingress of water into the inner bag while the dump valve is held open. There must be air beneath the valve for it to operate; it may be necessary to slightly raise the shoulder to which the valve is fitted to exhaust the last residue of air from the inner bag. This applies to each valve used for exhausting air.

DRAIN VALVE (AP10)

This enables easy washing of the inner bag. There is a simple neoprene disc inside the screw cap which must be located properly at the bottom of the thread to effect a perfect seal. The screw cap must be repositioned properly, hand tight only, after every washing. **The mains water supply must not be connected to this fitting as the jacket may burst. The over pressure valve is designed to relieve air pressure only. This applies to each inlet into the jacket including the cylinder post and elbows.**

CYLINDER POST (AP35)

The mini-air cylinder valve attaches to the jacket mounted cylinder post. The post has a non-return valve that not only prevents air from leaking out of the ABJ but also prevents water entering the ABJ. This means that the ABJ can be used without the mini-air cylinder attached if required. By fitting the optional blanking cap to the jacket fitting the cylinder post may be removed. On the International A Clamp version ensure the O Ring is located in the post before attaching the cylinder valve. Unscrewing the cylinder post locking ring enables the cylinder post to be removed to allow the easy washing of the inner bag.



MINI-AIR CYLINDER FOR EMERGENCY AIR SUPPLY

All BUDDY ABJs except the Buddy Sport are fitted with a mini-air cylinder. This can, if required, inflate the ABJ very quickly, however, short bursts admitting small quantities of air is the preferred method of inflation. All BUDDY cylinders are fitted with a balanced high pressure valve, needing a constant closing and opening effort regardless of cylinder pressure. Exact details of the cylinder are stamped on each unit. Typically the volume would be 0.4 litres water capacity and 232 BAR working pressure, providing nearly 93 litres of free air which is enough to inflate an 18 litre ABJ 5 times at the surface. As the ambient pressure is 4 BAR at 30 metres as opposed to 1 BAR at the surface the same cylinder provides up to 1.28 inflations at 30m. The same cylinder would provide enough air for one full inflation even at 41 metres! As explained in the Emergency Breathing section only a small amount of air is required in the jacket for emergency breathing and, as explained in the Buoyant Ascents section, air should only be admitted in small quantities to eliminate the risk of rapid ascent and its inherent dangers.

Note Always ensure the cylinder is fully charged before diving.

HOW TO RE-FILL THE MINI-AIR CYLINDER

Before you start make sure that your mini-cylinder matches your main cylinder i.e. DIN or A-Clamp and 232 BAR or 300 BAR. Check that the O-ring is in place.

Remove the mini-air cylinder from your jacket and visually inspect it for any signs of damage. Open and close the valve to ensure that the valve operates, return the valve to the closed position.

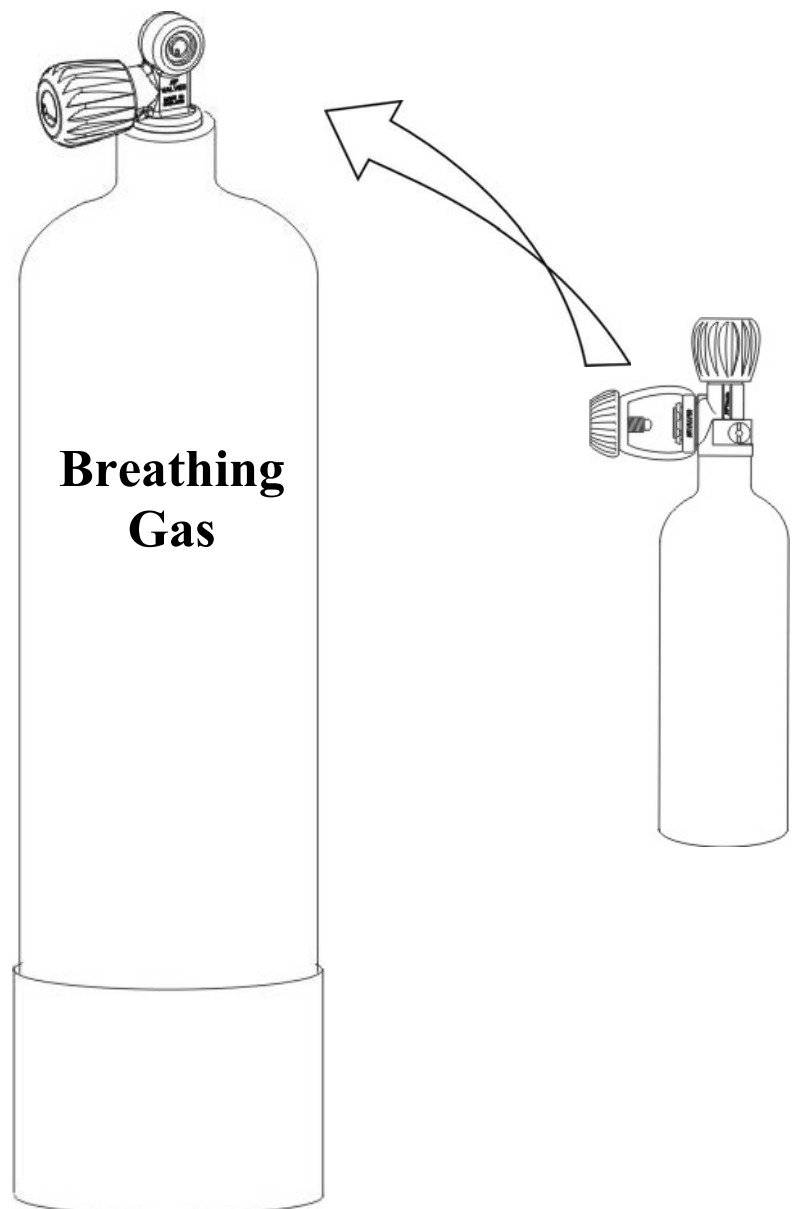
Connect the mini-cylinder valve to your main cylinder valve.

Once the valve is screwed on slowly open the main cylinder valve, if air is escaping the O-ring is either damaged or missing. Slowly open the mini-cylinder valve, air will decant into the mini-cylinder until the pressure in each cylinder is equal. You will hear air going in to the mini-cylinder and it will heat up – this is normal.

Once the cylinders have equalised close both valves. To release the pressure that is trapped between the valves push the purge button located on the side of the mini-cylinder valve.

The mini-cylinder can now be unscrewed from the main cylinder valve. Open and close the mini-cylinder valve to make sure that it has filled. **DO NOT OVERTIGHTEN THE VALVE.**

Re-fit the mini cylinder to the jacket.



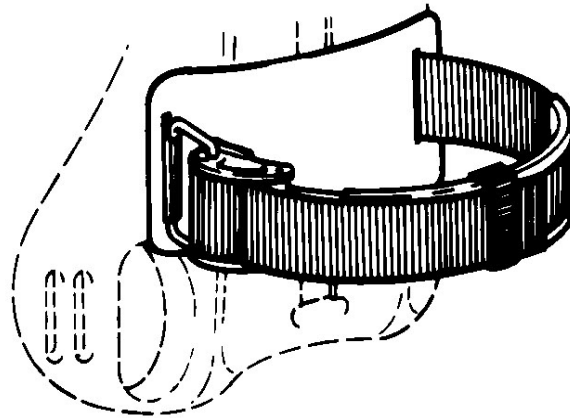
SINGLE CYLINDER BAND

The Buddy Cam band is designed for easy adjustment, easy tightening and extremely secure fastening of the jacket to the cylinder.

The Cam band material does not change when wet so, unlike most makes, can be tightened securely when dry, eliminating the need for pre-soaking.

The standard cylinder band, supplied with Buddy jackets can be adjusted to fit diving cylinders with a diameter up to 203mm (8"). e.g. the 15 litre steel and the 12 litre "dumpy". Larger diameter cylinders can be used with a special order cam band.

The maximum size and number of cylinders that can be used on a jacket varies with the size of the person and suit worn. As a rough guide: twin 12 litre aluminium cylinders can be used with a thin wetsuit or no suit and twin 12 litre steel cylinders can be used with a thick wetsuit or dry suit. In some circumstances it is possible to carry many cylinders e.g. twin 12 litre steels with twin 7 litre steels plus an Argon cylinder is not unusual on a Medium Pioneer TD when used in conjunction with a dry suit.

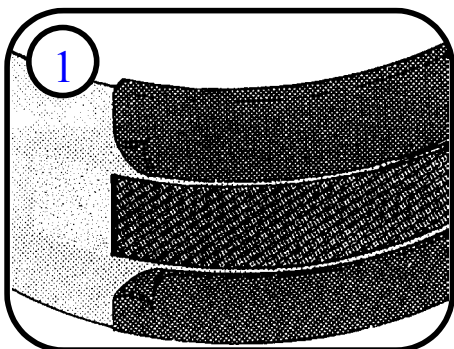


CAUTION:

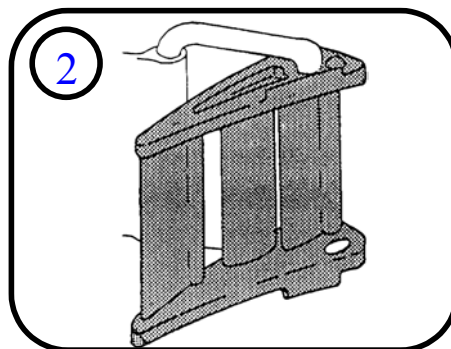
Using the correct cylinder(s) for the diving environment and suit choice is important. A 12 litre steel cylinder or two may be appropriate for open water use with a thick wetsuit or dry suit but the same cylinder(s) would most probably be unsuitable for use in a swimming pool with no suit. As a rough guide use Steel cylinders in cold water and Aluminium cylinders in warm water.

If in doubt seek advice from your training agency, instructor or call the factory for advice and practice first in sheltered, shallow water.

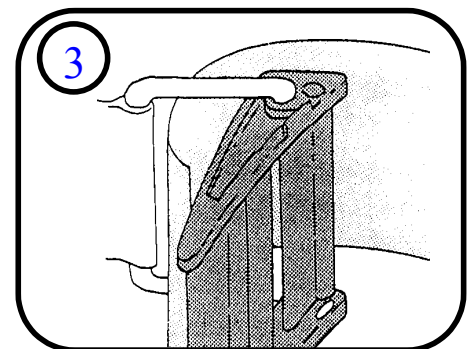
CAMBUCKLE FITTING INSTRUCTIONS



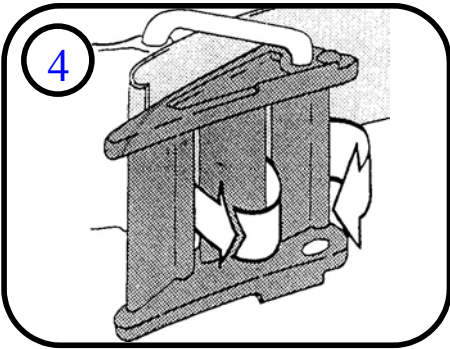
For a 200mm (8") cylinder the rubber sleeve aligns with the velcro. Move the sleeve back 75mm (3") for every inch decrease in diameter of the cylinder.



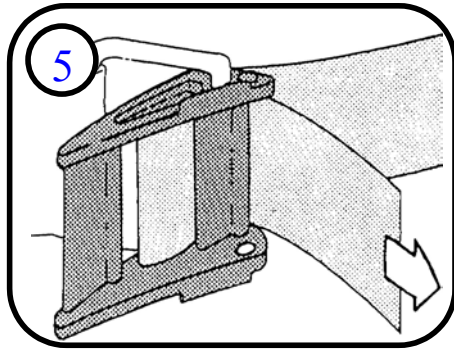
Before threading the buckle turn it back against the metal.



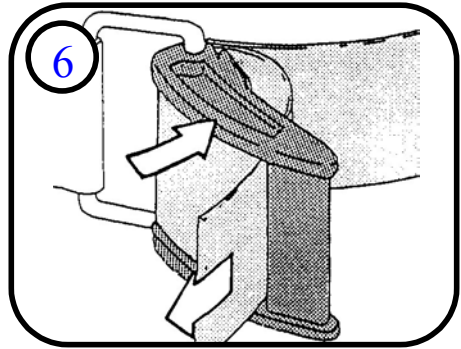
To rethread the buckle start by pulling the webbing through the hoop.



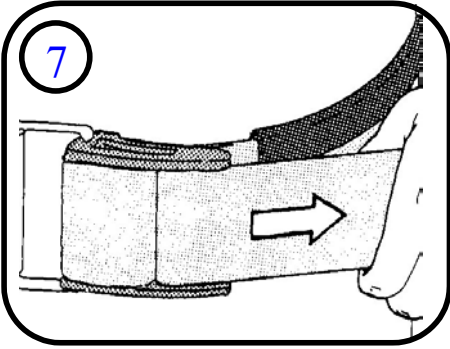
Now thread the webbing through the buckle as shown.



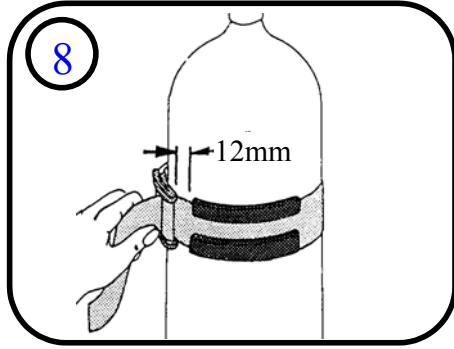
The belt can now be tightened against the cylinder by pulling on the webbing.



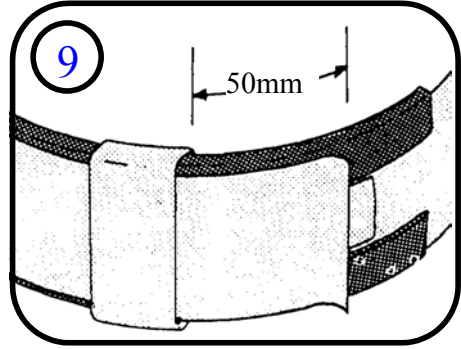
Secure the webbing by pulling the buckle slightly forward. Now thread remaining webbing through the buckle as shown.



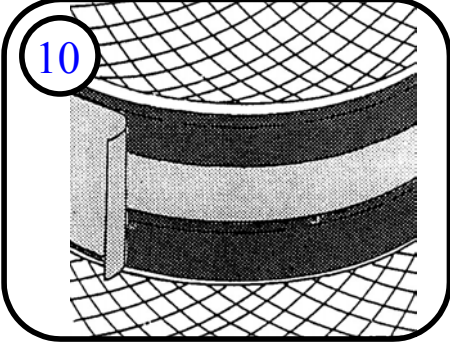
To finally clamp cam, pull on the webbing to make the buckle snap over.



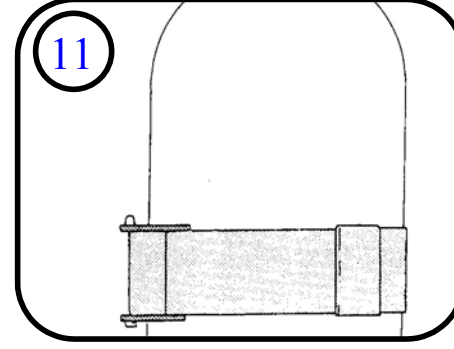
Ensure that the rubber sleeve does not interfere with the buckle.



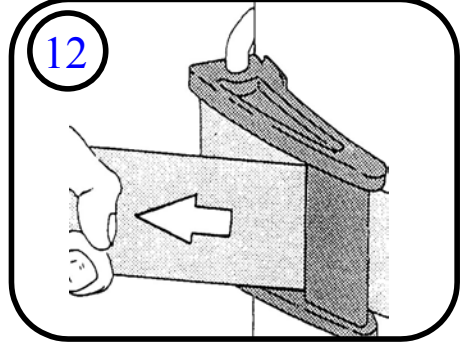
Once secure, the webbing is then velcroed down and tucked under the loop, leaving 50mm 2" spare.



If mesh is used on the cylinder, part it to allow the cam band to grip on the painted surface.

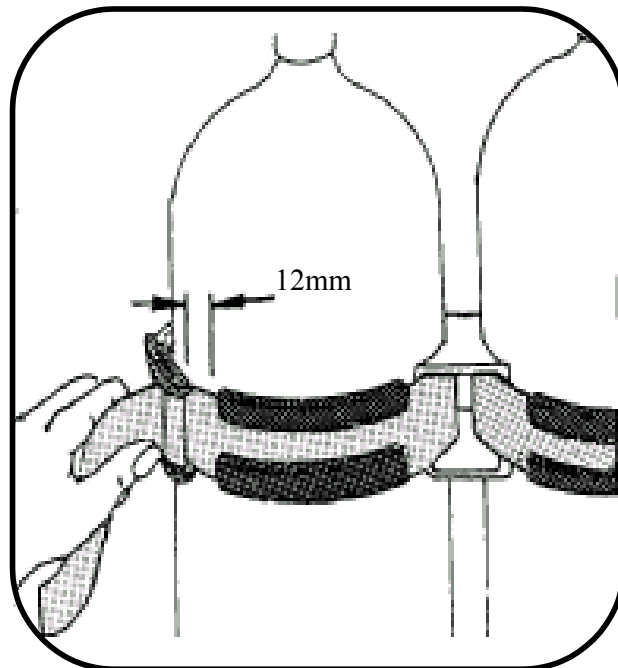
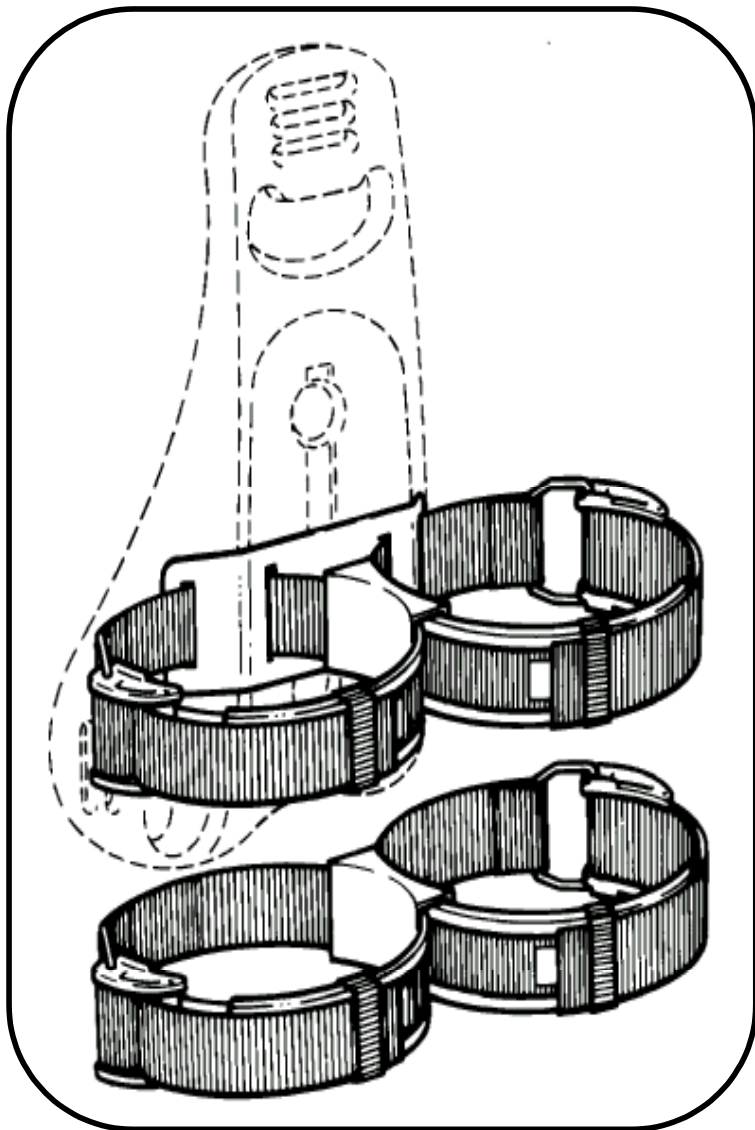


After securing the cylinder, check that the belt is sitting straight and firmly.

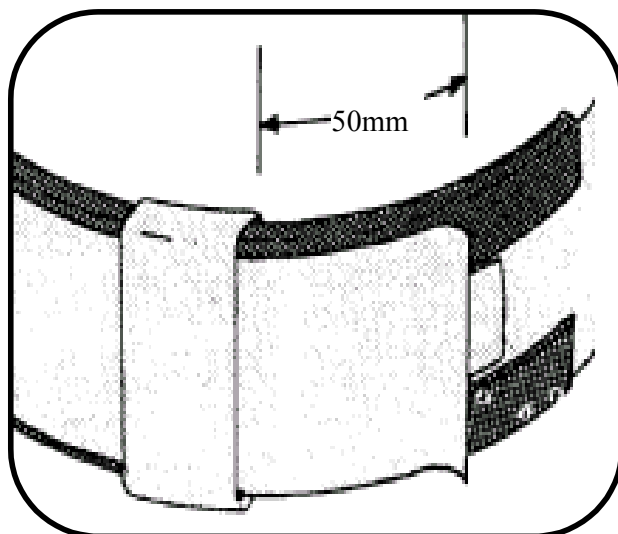


To release cam just pull on the webbing. The belt can be slid off and on the cylinder without re-adjustment.

TWIN SET FITTING INSTRUCTIONS



When the cam system is undone, align the rubber sleeve so that it does not interfere with the buckle.



Once secure, the webbing is then velcroed down and tucked under the loop, leaving 50mm (2") spare.

Standard Kits:

BK15 5.5" (140mm) dia cylinders (typically 2x7 l)

BK16 7" (178mm) dia cylinders (2x 10 l or 2x12 l)

BK17 8" (203mm) dia cylinders (2x15 l or 2x dumpy 12 l)

There is a reasonable amount of leeway on the bands to allow for cylinders with unusual diameters.

The twin set kits can be used with or without a manifold. If necessary, the gap between the cylinders can be increased successfully by building up layers of 3mm and 1mm rubber and decreased by changing the separation blocks. Contact the factory for more information.

To fit the twin set kit, the lower pair of cam bands are fitted first: but these should not be fitted too tightly as room should be allowed for the top bands to be secured. The top pair are first threaded through the backpack and then around the cylinders. Cam both top bands simultaneously and then retighten lower bands.

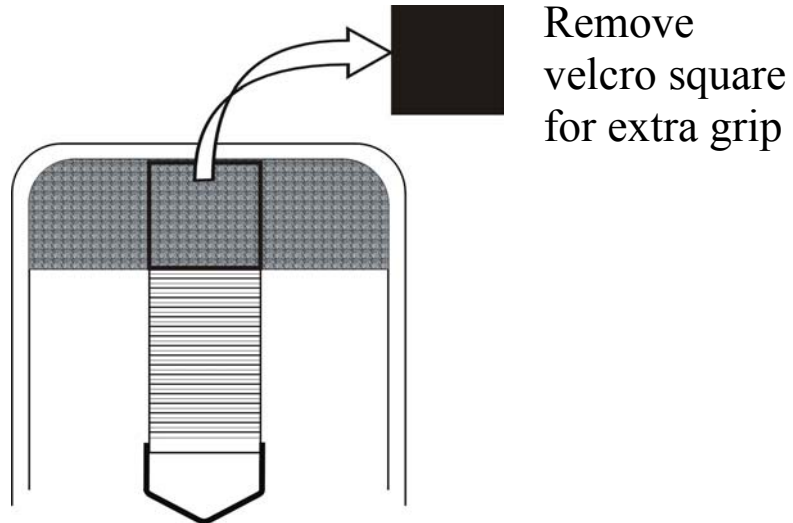
SMB POUCH

SMB pouches are fitted to the Buddy Commando, Pioneer and Explorer jackets. The Pouch is designed to hold a Buddy SMB securely.

NOTE: The pouch is not large enough to fit an SMB with an inflation cylinder fitted.

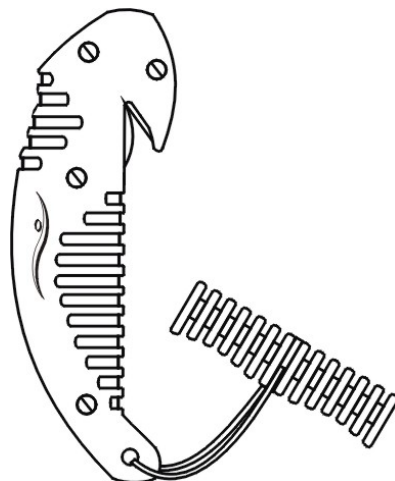
To deploy the SMB simply pull downwards on the D-ring attached to the flap.

If desired, the Velcro square can be removed to uncover an additional area for extra grip.



EMERGENCY NET CUTTER

The silver coloured net cutter is stowed in the small mesh pocket on the Commando, Ranger, Explorer and Pioneer BCD,s. The knife can be easily pulled out of the pocket and used in an emergency



PREPARATION

Note It is recommended that your new BUDDY ABJ be customised by the dive shop. Begin by attaching the low pressure inflator hose to an auxiliary low pressure port on the first stage of the regulator. Ensure that the hose is NOT accidentally attached to a high pressure port and is only screwed into a low pressure port with a 3/8" UNF thread. Most makes of regulators have the high pressure ports clearly marked and the low pressure ports have a standard 3/8" UNF thread - however, check that your regulator's port is the correct thread. If in doubt, contact A.P. Valves direct by telephone for instant confirmation. Adaptors are available and must be used if your regulator uses another thread. If you cannot determine which is a low pressure port, first test by connecting a submersible pressure gauge to the port and connecting the regulator to a fully charged cylinder. If the gauge is connected to a low pressure port it will indicate less than 400 psi (28 BAR). **DO NOT ATTACH THE INFLATOR HOSE TO ANY PORT PROVIDING A PRESSURE GREATER THAN 400 PSI (28 BAR).**

Waistcoat style ABJs (Commando, Explorer, Ranger, Sport and Pioneer)

Sea King, Trident or Wing type ABJs:

Attach the jacket to the aqualung making sure the cylinder band is securely tightened against the cylinder and cannot slip or slide. Adjust the chest strap when the jacket is inflated.

The shoulder buckles are easy to operate with a straight finger push onto the area marked "PRESS." It is necessary to release the left shoulder buckle with your right hand and vice versa. Tighten by pulling down on the loose end of webbing and loosen by tilting the buckle upwards.



Collar style ABJs (BUDDY Pacific, Arctic or Double Gold):

Unlike other makes of ABJs, the harness, both crutch and waist straps, must be adjusted reasonably tightly while the jacket is deflated. Due to the superior harness design squeeze on inflation is minimal.

IMPORTANT - SURFACE TRIM

The positioning of the jacket on the cylinder is extremely important for achieving correct surface support/balance, particularly for the Commando, Explorer, Ranger and Pioneer styles. The alteration of this can result in the jacket going from one extreme of holding the diver on his back to the other extreme of holding the diver face down. When set correctly the jacket will hold you bolt upright.

To achieve correct positioning of jacket on cylinder the diver should be fully kitted and correctly weighted, i.e. weighted so the diver is neutrally buoyant at the last decompression/safety stop at 3m with 50 BAR in the aqualung (see over weighting section).

Surface Trim with the jacket fully inflated:

Adjust the jacket position in relation to the cylinder until the jacket holds the diver upright on the surface.

- If the jacket pulls the diver onto his back, move the jacket 50mm (2") higher up the cylinder and re-test.
- If the jacket pushes the diver onto his face, move the jacket 50mm (2") lower down the cylinder towards the boot and re-test.

Be aware that your weight belt plays a crucial roll in the surface support position. It acts like the keel of a boat. If you remove your weight belt, the surface support position may be compromised.

OVER WEIGHTING

Over weighting is a common problem amongst trainee divers and if not corrected is often done for many years by "experienced divers". Carrying more lead than you need puts more strain on your back, it means you have to add more air to your ABJ, which decreases your streamlining which increases your gas consumption which may lead you to buy a bigger cylinder which in turn decrease your streamlining etc. Get your weights right at the start and it will pay dividends. Commonly, divers with semi-dry suits have the most problems because of the trapped air in the suit at the start of the dive. Ensure all the trapped air is out of the suit and ABJ and then add lead to your weight belt until the water is level with your eyes with your lungs half full. So with full lungs you float and empty lungs you sink - you are now in control.

PRE DIVE CHECK

Before each use, the BUDDY should be given a thorough visual examination and functional test. Make sure the drain cap is on properly, fully inflate ABJ and set aside for 30 mins; loss of firmness indicates leakage which must be corrected before use. Make sure all fittings are firmly attached to the jacket. Connect the direct feed hose and test the direct feed inflator. Press the button until the ABJ is fully inflated and air vents from the relief valve. Check for proper operation of the mouthpiece valve and the dump valves. Finally inspect the jacket and harness for cuts, worn stitching or other damage.

JUST BEFORE EVERY DIVE RE-FILL THE MINI-CYLINDER – see ‘How to fill the mini-air cylinder’

Ensure your weight belt is on top of all ABJ straps and ensure that the ABJ does not interfere with weight belt release and jettison.

IF A COMPONENT FAILS THE PRE-DIVE CHECK DO NOT DIVE WITH IT. If it cannot be repaired or replaced - cancel the dive.

POST DIVE MAINTENANCE AND STORAGE

After **EACH** use soak the ABJ thoroughly, with the mini-air cylinder attached, in warm fresh water, thoroughly rinsing between the outer and inner bags. Pour at least 3 pints of warm, fresh water into the inner bag through the drain valve or mouthpiece, swish around, the empty by dumping some water out through the dump valve(s), some through the mouthpiece valve and the excess out through the drain valve (if fitted). Ensure you refit the drain cap. Remove the mini-air cylinder and dry off exterior before storage.

Never inflate jacket when washing, water lying over the inside of the pressure relief valve cannot expel fast enough to prevent bursting. This is common to all makes. If you burst your ABJ, contact the factory for repair advice, dual bag jackets can always be repaired.

After cleaning, store the jacket **partially** inflated in a cool, dry and dust free place, **not in direct sunlight**. Avoid exposure to direct ultraviolet radiation and radiant heat.



Buddy BCD's have a 25mm female clip next to the mini cylinder pouch. The male chest clip can be clipped in to this to keep the BCD neatly folded. The BCD also comes with a mesh draw string storage bag.



BUOYANT ASCENTS

DO NOT add excessive amounts of air to the ABJ while submerged. This can cause a dangerous rate of ascent. Fine buoyancy control can be achieved by operating the inflation and deflation valves in short bursts.

THE ABJ SHOULD NOT BE USED FOR BUOYANT ASCENTS DURING NORMAL DIVING. Ascending and descending should be done by swimming, using fine adjustments of the ABJ controls to maintain neutral buoyancy. However, in emergencies a slow buoyant ascent can be achieved by feeding a small quantity of extra air into the ABJ. As you ascend the air in the ABJ will expand and so increase the buoyancy. Regular dumping in short bursts is necessary to prevent a too rapid ascent. A recognised safe ascent speed is 10metres/minute; a rough guide is to ascend no faster than the smallest air bubbles. Special care must be taken between 10m depth and the surface as the volume of air will double in this region if not vented. **Special care must be taken when using a dry suit as this also needs to be vented during the ascent.**

EMERGENCY JACKET BREATHING

Breathing from a BUDDY is a very easy procedure. However, practice first in the pool under proper supervision. The BUDDY ABJ enables the diver to be completely self sufficient in emergency situations as the mini-air cylinder is completely independent of the aqualung, providing the wearer with a 2nd air source should the aqualung fail. Although diver training teaches us to rely on our diving partner in emergencies, none of us can be sure that they will be close by or will be able to render assistance. We can all, however, learn how to obtain the most from our BUDDY ABJ, ensure we individually know how to operate it properly and further our own self-confidence in the underwater environment.

1. To breathe from the BUDDY, raise the mouthpiece above head to allow any water in the corrugated hose to drain into the jacket (**DO NOT** press any buttons).
2. Feed a small quantity of air into the jacket from either the mini-air cylinder or the direct feed (if aqualung is operational). If any water has accidentally entered the breathing hose, it will now be displaced down into the jacket. If you have not used the mouthpiece for dumping, the breathing hose will almost certainly be dry anyway.
3. Insert the mouthpiece into your mouth in the same way as your normal regulator mouthpiece.
4. Exhale to clear water from the mouthpiece.
5. Breathe normally; as air supply in jacket diminishes allow another small quantity of air to enter. After only a little practice you will tend to admit just enough air for one breath at a time, during exhalation, so that neutral buoyancy is maintained.
6. Signal to your diving partner and start to ascend by swimming. See Buoyant Ascent Section.

DO NOT USE ANY A.P BREATHING VALVES ON JACKETS WITH CO₂ INFLATION.

WARRANTY

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

The inner bag, outer bag and all valves are covered by a one owner lifetime warranty.

The product is warranted against faulty materials and workmanship for the lifetime warranty. If a fault occurs, A.P.Valves will repair or replace at their own discretion, so all claims must be referred directly to A.P.Valves.

There are some exceptions to the lifetime warranty and it is necessary to study the warranty card issued with the product. Exceptions include the Auto Air and emergency air cylinder that are covered by a 2 year warranty.

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

TECHNICAL DATA

Jacket operating temperature range:

Air: -10 to +50°C

Water: -2 to +40°C

Inflator Hose Supply Pressure:

Max 28 BAR

Min 6.5 BAR

All Jackets are tested to BS EN1809:1998

Shelf life of unused jacket: When stored in accordance with BS3574 the shelf life is 7 years (derived from the inflator hose and seals).

SIZE AND BUOYANCY TABLE

Jacket	Size	Max. Buoyancy (Kg)	Buoyancy (N)
Pioneer (inc. TD)	S	11.79	110
Explorer (inc. TD)	M	14.74	140
Ranger (inc. TD)	L	16.66	160
Sport (inc. PD)	XL	18.00	180
Commando (inc. TD)	M	17.27	170
	L	22.72	220
	XXL	26.36	260
Sea King	One Size	21.36	210
Arctic	One Size	17.72	170
Pacific	One Size	17.72	170
Double Gold	One Size	21.36	210
Travel Wing 13	One Size	13.00	130
Travel Wing 16	One Size	16.00	160
Tek Wing	One Size	22.50	220
Trident (One Wing Size)	S	22.50	220
	M	22.50	220
	L	22.50	220

EC Type Examination by:

SGS United Kingdom Ltd

Weston-Super-Mare

Somerset

BS22 6WA

Notified body 0120

All BUDDY ABJs are manufactured in the U.K. by Parker Diving Ltd.
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