



## **Solenoid Shut Off Valve**

User Instruction Manual

## Important Information

- Check the operation of the solenoid before diving to ensure that the solenoid shut off valve is in the OPEN position.
- Check the operation of the manual inflator to ensure that there is a good supply of gas to the valve.
- Always engage the yellow solenoid shut off valve clip in the GC3 shut off valve to prevent inadvertent operation.
- DO NOT begin a dive with a faulty solenoid; the solenoid shut off valve is for emergency use only.

## Introduction

The solenoid shut off valve kit has been specially developed for use with the APD range of rebreathers: the Inspiration, Evolution and Evolution+.

The purpose of the valve is to allow the user to shut off the supply of oxygen to the solenoid, without cutting the supply of oxygen to the manual inflator or oxygen contents gauge. If the solenoid free-flows during a dive, the supply of oxygen can be shut off to the solenoid and the diver can still add gas manually using the oxygen manual inflator, located on the exhale lung. The diver can also continue to monitor the pressure in the oxygen cylinder in the normal way.

The shut off valve kit comprises of four main components which are purchased separately. The hose lengths are tailored for each rebreather and lung size. Please see Figure 1 to ensure you have the correct hoses.

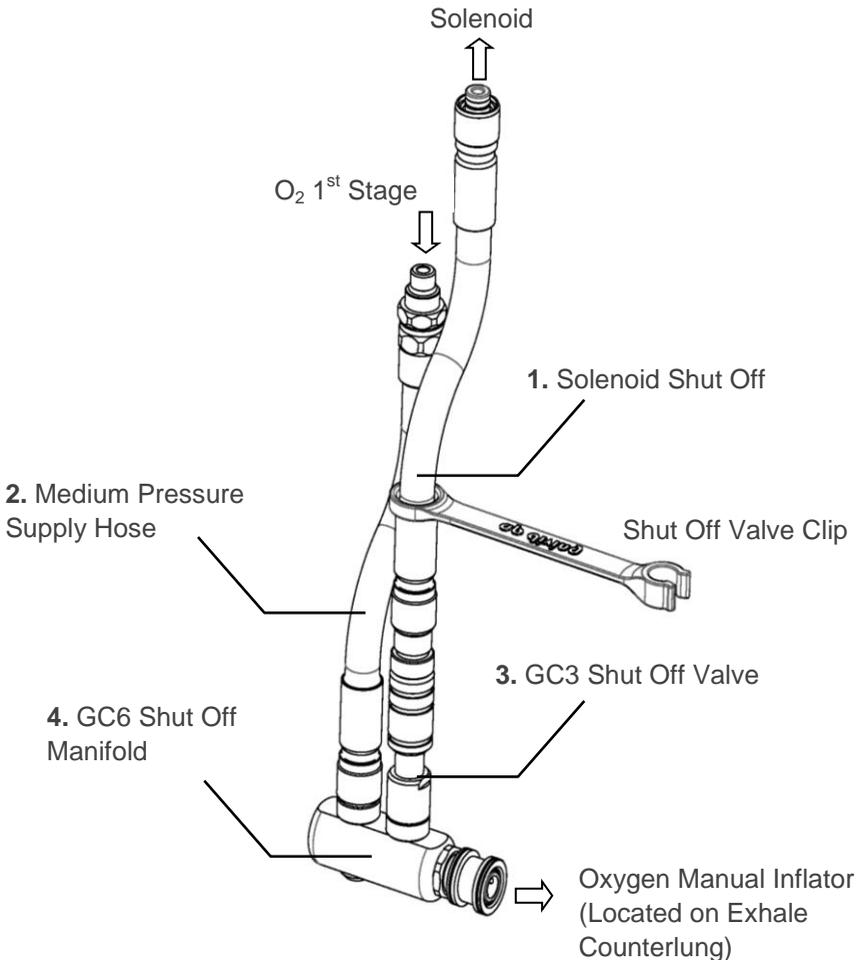
**Table 1. Shut Off Valve Components & Part Numbers**

No.	Component	Evolution & Evolution+		Inspiration	
		Lung (Medium)	Lung (Large)	Lung (Medium)	Lung (Large)
1	Solenoid shut off hose c/w clip	EV20/14	EV20/15	RB20/14	RB20/15
2	Medium Pressure Supply Hose	AP300/41	AP300/43	AP300/42.5	AP300/44.5
3	Shut off valve	GC3	GC3	GC3	GC3
4	Shut off manifold	GC6	GC6	GC6	GC6

## Configuration

Connect the shut off valve components to the solenoid, oxygen 1<sup>st</sup> stage and manual inflator, as shown in Figure 2. Ensure all connections are secure and perform a leak test before use. Tidy away all hoses using the hose guides along the side of the counterlungs.

**Figure 1. Shut Off Valve Configuration**



**IMPORTANT:** You must ensure you connect the hose between the Solenoid and the GC3 Flowstop (Shut Off Valve) the correct way round. The hose ends are shown below.

**Figure 2. Solenoid Shut Off Valve Hose Connection**



## Normal Operation

During normal diving conditions, the shut off valve should be in the fully **OPEN** position to allow the solenoid to function in the normal way. The yellow shut off valve clip **MUST** be clipped onto the GC3 shut off valve to prevent inadvertent operation to the closed position.

### GC3 Shut off valve in the OPEN position



## Shut Off Operation

If the solenoid malfunctions, pull the yellow shut off valve clip from the GC3 shut off valve and slide the valve collar to the **CLOSED** position, cutting off the supply of oxygen to the solenoid. As a precaution the yellow shut off valve clip **MUST** be re-inserted into the GC3 shut off valve to prevent the collar from being moved inadvertently back to the open position. The diver should now abort the dive, using the oxygen inflator to inject oxygen into the breathing loop manually, as covered in your training. Please refer to your training agency/manual for full details of this dive-abort procedure.

### GC3 Shut off valve in the CLOSED position



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