
APPENDIX A

INSPIRATION PREPARATION CHECK LIST

- **Analyse gases**
 - Analyse the oxygen and diluent cylinders to verify contents.
- **Absorbent duration**
 - Verify the absorbent log to ensure there is sufficient duration to complete your dive.
- **Positive pressure test**
 - Screw counterlung over-pressure and dump valve to maximum tension
 - Inflate counterlungs to full pressure until over-pressure valve blows off
 - Close mouthpiece valve
 - Leave inflated for at least 5 minutes
 - If any deflation investigate for leaks
- **Negative pressure test**
 - Unscrew counterlung over-pressure and dump valve to minimum tension
 - Suck all air from counterlungs whilst gently squashing the breathing hoses with both hands
 - Close the mouthpiece valve to seal the breathing loop
 - Leave deflated for at least 5 minutes
 - If any re-inflation or breathing hoses recover their normal shape investigate for leaks
- **Oxygen system pressure test**
 - SLOWLY open oxygen cylinder valve
 - Listen for pressure up and obvious leaks
 - Verify cylinder pressure is adequate for the dive
 - Verify operation of manual inflator valve
 - Verify security of manual inflator button and hose connector
- **Diluent pressure test**
 - Open diluent cylinder valve
 - Listen for pressure up and obvious leaks
 - Verify cylinder pressure is adequate for the dive
 - Verify operation of manual inflator valve
 - Verify security of manual inflator button and hose connector
 - Verify operation of bailout regulator
 - Verify operation of BC controls
- **Power up handsets**
 - Switch on master handset
 - Listen for double beep and solenoid click
 - Switch on slave handset
 - Listen for double beep and solenoid click
 - Confirm no low battery warnings
- **Calibration of oxygen sensors**
 - Calibrate at least once a day. IF IN DOUBT CALIBRATE.
 - Follow all calibration steps
 - Look for lengthy calibration time
 - If calibration time is short re-calibrate
 - Monitor and note values as they rise and just prior to calibration
 - If the values are not similar and/or steady just prior to calibration re-calibrate until satisfactory or investigate fault
- **Confirm operation of warning buzzer**
 - Flush with diluent until PO₂ drops to 0.4 bar and buzzer sounds
 - Confirm all of the sensors react equally and have similar values
- **Pre-breathe for 3 min**
 - Check for CO₂ build up
 - Check set point maintained

APPENDIX B

POST KIT-UP CHECK LIST

Post Kit-up Checklist (GBH)

G - Gas

Cylinders

- Check both cylinders on
- Check both pressure gauges

ADV operation

- Isolator valve (if fitted) open
- Check operation by breathing the loop

Overpressure exhaust valve

- Check fully open position.

B - Buttons and Bailout

Manual inflators

- Oxygen and diluent
- Check operation

Wing inflator

- Check operation

Dry suit inflator?

- Check operation

Bailout regulator operation

- Check operation
- No pressure gauge needle deflection

H - Handsets

Turned on


- Beeps + solenoid click from each
- In 'Dive' mode
- Master + slave

Calibrate if necessary

Pre-breathe for > 3 minutes

- Check for any ill effects of high CO₂ levels
- Verify the functioning of the handsets
- Check solenoid operating

Check stable PO₂



APPENDIX C

DEPTH VS PO₂ TABLE

Depth	PO ₂
5 m	0.32 bar
10 m	0.42 bar
15 m	0.53 bar
20 m	0.63 bar
25 m	0.74 bar
30 m	0.84 bar
35 m	0.95 bar
40 m	1.05 bar