

**ANALOX WELDCHECK™**  
**Oxygen Analyser for purge welding**

IT IS IMPORTANT THAT THESE INSTRUCTIONS ARE  
READ BEFORE USING THE ANALOX WELDCHECK™

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We are delighted to welcome you as  
a user of the **Analox Weldcheck™**

The following guide should assist you  
in using your Weldcheck™

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## **1.0 Packaging & Contents**

On receipt of your Weldcheck, please ensure you have the following items inside the rigid carry case;

- Analox Weldcheck
- Aspirator kit (Flow adaptor, Aspirator bulb, Tubing & Probe)
- Test Certificate & Manual



**2.0 About the Weldcheck™**

The Analox WeldCheck™ has been specifically designed for the with the needs of inert gas welders in mind and will measure Oxygen levels in the range 0.05 – 99.99% O<sub>2</sub>. The WeldCheck™ is ideal for stainless steels, chrome-molybdenum and duplex steels where purging gases are used to improve weld quality and prevent coking, oxidation and discolouration.

The WeldCheck™ is an accurate, fast response O<sub>2</sub> analyser which gives a 0.05% resolution. The analyser has a built in, temperature compensated, electrochemical oxygen sensor and power is provided by a 9V battery which gives up to 3 years of operation before replacement is necessary.

**WARNING!**

**It is important that these instructions are read before the analyser is used.**

### 3.0 Operation

#### 3.1 Controls

The analyser is fitted with an on/off switch located on the front of the unit. Although the analyser's display will show an oxygen reading as soon as it is switched on, do not use before calibration (see paragraph 2.4 below).

Batteries MUST be changed before use if the low battery symbol is present in the corner of the screen (see section 7.0 Maintenance).

A calibration knob is located on the front of the unit. Turn it fully from left to right and then fully left. The reading should increase, and then decrease. (If the reading does not change see section 7.0 Maintenance).

#### 3.2 Air Calibration

Air calibration is essential before every use and is performed as follows.

Ensure that the sensor seal and any flow adaptors are removed and the reading on the display has stabilised.

Expose the analyser to clean air for two minutes and adjust the calibration knob until the display reads 20.9. (If this is not possible refer to paragraph 3.4 or to section 7.0 Maintenance).

The analyser is now ready for oxygen measurement.

#### 3.3 Analysing a sample

Connect the flow adaptor to the sensor and then attach the tubing from the aspirator bulb to 1 spigot and the tubing from the probe to the other.

With the end of the probe in the area being sampled pump the aspirator bulb to draw the gas over the sensor.

When the O<sub>2</sub> content falls to the required level welding may commence.

#### **WARNING!**

**Do not pressurise the sensor as inaccurate readings will result.**

### 4.0 Quick Check

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**ANALOX WELDCHECK™**

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SYMPTOM	REASON	SOLUTION
Low battery symbol	Low battery	Change battery
No display	Switched off Bad connection	Switch on Check display connection Check battery connection
Zero reading	Sensor disconnected Sensor expired	Check connection Change sensor
Reading erratic	Pressure on sensor RFI Sensor old or faulty Condensation on sensor	Check flow Move unit away Change sensor Dry sensor face
Reading does not change when calibration knob is turned	Faulty connections Sensor failure	Check connections Change sensor
Display segments missing	Display faulty	Return to dealer
Will not calibrate	Sensor faulty Sensor not in air High altitude	Change sensor Check flow adaptor Calculate percent equivalent = 20.9% x bar*
Reading drifts	Rapid temperature change	Do not move analyser from one temperature to another immediately before use

\* See full technical manual for further information

**5.0 After Sale Service**

**5.1 Spares**

- a) Aspirator Kit (Part number MIO2SDK)
- b) O2 Sensor (Part number 9100-9212-5Z)
- c) Battery (Standard 9V battery)

**5.2 Sensor replacement**

Remove the 4 screws located at each corner of the unit and carefully lift the lid.

Slide the sensor out of the lid, disconnect and dispose of in accordance with local regulations for Lead and Potassium Hydroxide solution.

Check the new sensor for leaks, remove from its bag and reconnect the lead.

Having slid the chimney of the sensor through the lid, reposition and screw down, taking care that the sensor locates properly and that wires are not trapped.

**5.3 Battery replacement.**

Remove the battery cover at the back of the case and carefully slide the battery out.

Disconnect the lead before reconnecting it to the new battery.

Replace the battery and the cover, taking care not to trap any wires.

**5.4 Care of the Weldcheck™**

Remember the Weldcheck™ is a precision oxygen analyser and should be looked after carefully to give long trouble-free service.

To clean the WeldCheck™ use a damp soft cloth.

Protect the WeldCheck™ from long periods of direct sunlight and do not subject it to high or low temperature extremes.

**WARNING!**

**If, after handling the sensor, your fingers or other part of your body feels slippery, or stings, wash with a lot of water.  
If stinging persists seek medical attention!**

**ANALOX 9212-5Z  
OXYGEN SENSOR**



**6.0 Safety Information**

**6.1 Sensor handling**

**6.1.1** Weldcheck™ oxygen sensors are supplied in sealed transparent bags and do not present a health hazard under normal circumstances. However, before opening the bag a visual check should be made to ensure the Potassium Hydroxide electrolyte has not leaked.

If leakage occurs avoid contact with the body or clothing and use rubber gloves and chemical splash goggles to handle and clean up. Rinse contaminated surfaces or parts of the body with copious amounts of water.

Expired or damaged sensors must be disposed of safely in accordance with local regulations.

**6.1.2** The sensor contains KOH Potassium Hydroxide solution which is hazardous and can have the following effects:

Skin	Potassium Hydroxide is corrosive –contact with skin could result in a chemical burn.
Ingestion	Can be harmful or FATAL if swallowed.
Eye	Contact can result in the permanent loss of sight.

First Aid procedures:

Skin	Wash the affected part with a lot of water and remove contaminated clothing. If stinging persists seek medical attention.
Ingestion	Drink a lot of fresh water. Do not induce vomiting. Seek medical attention.
Eye	Wash with a lot of water for at least 15 minutes and seek medical help immediately.

**6.2 Battery handling**

When the life of the battery has expired it should be disposed of safely in accordance with local regulations.

**7.0 Specifications**

Range	0.05-99.99% Oxygen
Accuracy	+/- 1%, +/- 0.02% of O <sub>2</sub> @ STP
Resolution	0.05% Oxygen
Response time	90% in less than 15 seconds
Sensor Type	Analox 9212-5Z
Sensor Life	3 years in air (18 month graded warranty).
Battery Type	9V Alkaline (PP3)
Battery Life	500 hours. Up to 36 months intermittent use.
Electronics Warranty	2 years
Operating temp.	-10 to 40° C
Storage temp.	-10 to 50° C
Pressure	Sensitive to the partial pressure of oxygen.