



# SERIES 363 ENCLOSURE INSTRUCTION MANUAL

	<b>Version No:</b> 3	<b>Doc No: / Name:</b> MAG-080 Series 363 Enclosure Instruction Manual		
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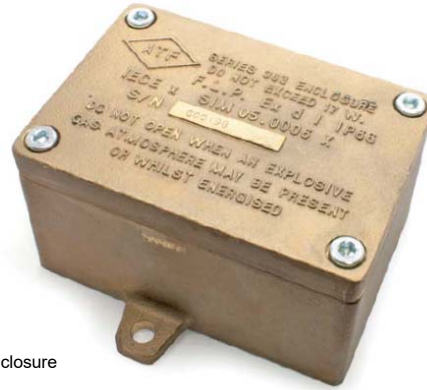
**MAG-080 SERIES 363 ENCLOSURE INSTRUCTION MANUAL**  
Version: 3, Date 22/08/2018

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**1. GENERAL COMMENTS**

The Series 363 Enclosure has been designed in accordance with:

- **IEC 60079-0, Ed. 3.1 (2000)**
- **IEC 60079-1, Ed. 4.0 (2001)**



Series 363 Enclosure

The Enclosure has been certified as explosion protected category Ex d for Group I gases (Methane) with a maximum surface temperature of  $\leq 150^{\circ}\text{C}$  as determined by the original test when operating at maximum power dissipation.

The equipment manufacturers are as shown in Table 1 below:

<p><b>Ampcontrol Service NSW</b> 21a Old Punt Road Tomago NSW 2322 Australia</p> <p>Certificate of Conformity IECEx SIM 05.0006X</p> <p>Recognised Service Facility Number: ANZEx SF 15.2000</p> <p>RSF License Number: MLA 12533</p>	<p><b>Ampcontrol SWG</b> 6-10 Martin Drive Tomago, NSW 2322 Australia</p> <p>Certificate of Conformity IECEx SIM 05.0006X</p> <p>Recognised Service Facility Number: ANZEx SF 17.2003</p> <p>RSF License Number: MLA 18381</p>
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**Table 1: Series 363 Enclosure Manufacturers**

For ongoing compliance with the designed Explosion Protection technique the equipment must be maintained in accordance with AS/NZS 3800 including compliance with regulatory requirements for onsite maintenance schemes.

When periodical major Overhaul is due the equipment should be returned to the OEM in order to ensure all aspects of the Certification are met as well as forming a registered record of the equipment's life cycle history.

## 2. UNLOADING

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Enclosure loading and unloading should be completed with appropriate rated slings or chains and eye bolts or shackles.

- Lift using the four shackles located on top of the enclosure
- DO NOT LIFT FROM SINGLE POINT OR BY SINGLE PAIRS
- When enclosure is mounted on a sled, lift using suitably rated forklift.
- Due to the length of some enclosures, caution must be exercised to prevent damage to end receptacles, junction boxes and plug sockets.
- ALWAYS sit on even ground with weight distributed evenly at each mounting point.
- DO NOT leave in direct weather conditions

## 3. ROAD TRANSPORT

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- Protect door mounted equipment from damage.
- Remove equipment which is subject to damage and pack separately.
  - Remove or secure computer keyboards
  - Tape foam rubber or equivalent over devices, such as, windows, Remote Display Modules (RDM's) and lights.
- Protect from weather.
  - Place plugs into outlets and /or tape/cover with plastic.
  - Cover entire unit with a tarpaulin or wrapped in plastic.
- Hold down with ties to lifting lugs, spaced to prevent abrasion to front mounted equipment and paintwork.

## 4. MINE TRANSPORT

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- The mine shall carry out a risk assessment on the transport of the enclosure taking into account the size, mass, roadway conditions etc.  
**Note:** The overall length of the unit will require care transporting around the mine site. In particular, negotiating corners.
- Fork lift on and off transport
- When lifting with fork lift tines, it is preferable to lift from rear underside at the centre of gravity to avoid damage to front mounted equipment.
- Lifting from a single end is to be avoided
- Fork lift on and off Dolly Car Transport.

Please consult the Mine Engineer for the loading, unloading, and transporting criteria.

## 5. STORAGE

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- Store in a dry cool place out of direct weather conditions.
- If equipment is to be stored for an extended period we recommend the installation of Silica Gel packs into each compartment and checked each month.
- Lubricate flamepaths and operators with a suitable anti-corrosive gel as stated in, and in accordance with, Section 8 Installation of this manual.

## 6. SPECIAL FASTENERS

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All doors and covers of flameproof enclosures (unless otherwise specified) are secured using Alloy Steel Class 12.9 socket head cap screws or Stainless Steel Grade A4-70 socket head cap screws. The individual type is defined on the Certified Drawing for each enclosure. It is critical for ongoing Ex compliance that the correct bolt be utilised.

To ensure the safety of the equipment, broken or missing fasteners are to be replaced with the type specified. Do not replace with a bolt selected at random. Please consult Ampcontrol for further information about these parts. When securing the door, the fasteners are to be tightened by hand, using hand tools only otherwise thread damage may occur.

### **DO NOT OVER TIGHTEN DOOR BOLTS**

## 7. REPLACEMENT PARTS

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Replacement parts affecting the explosion protection technique shall be separately certified parts as listed in the documentation. Interfaces between two separately certified parts must meet the higher of the two requirements. Failure to do so will result in the enclosures being rendered non explosion protected.

For any modification to the enclosure which may affect the explosion protection technique, the Certificate holder is to be notified. Refer to Bill of Material for specific applications.

Replacement of window lenses must be performed by appropriately qualified competent persons using material listed in the certification documentation.

## 8. INSTALLATION

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For safe operation please address the following items;

- That the enclosures are installed in a location suitable for the explosion protection technique as listed on the marking label and certification documents. Refer to site specific area classifications as per IEC 60079-10 Electrical equipment for explosive gas atmospheres – Part 10: Classification of hazardous areas.
- That the enclosures are located in a position so as to avoid damage from other equipment or machines.
- That the enclosures are located in a position that does not expose operators/maintenance personnel to injury from passing equipment, machines or other hazards.
- That the enclosures are installed in a suitable position to allow access for inspection and maintenance

- That the installation does not reduce the effectiveness of the explosion protection technique.
- That the enclosures are installed within the electrical ratings provided on the name plate or as listed in the certification documentation.
- That the enclosures are operated within the temperature ratings nominated in the documentation.
- That the name plate and other important information are not obstructed or removed.
- It is the owner / end user's duty to comply with the standards and provide necessary training instructions to all users.
- Site specific lifting and handling procedures are to be employed to avoid personnel injury when plugging and unplugging cables and other maintenance activities.

The Enclosure has been tested and certified with a ingress protection rating of IP66. Due regard to this rating must be given as to the installation location of the enclosure. When separately certified gland entries are fitted to the enclosure, they must be of equivalent rating if the degree of ingress protection is required to be maintained.

The ambient operating temperature range of the equipment is from -20°C to +40°C and due regard to this rating must be given as to the installation location of the Enclosure.

The maximum power dissipation of the equipment installed in the enclosure shall not exceed 17W.

Threaded entries for glands have Ex d properties and as such should be given individual inspection when glands or blanking plugs are altered to ensure no major thread damage exists.

All Flamepaths are treated with an anti-corrosion gel prior to despatch. It is recommended that the flamepaths of frequently accessed compartments have this gel maintained through regular checking and re-application, as necessary, must be of a type which does not support flame transmission. Ampcontrol recommend the use of ATF Mining Electrics "Fluid Film BW Gel (Part Number 101286)" or Fluid Film Liquid AR (Part Number 100971) for this purpose. All enclosure machined surface flamepaths, in particular the joint between the cover and the main base, must be clean of all containments prior to re-assembly.

## **9. PARAMETERS**

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Environment operating temperatures as stated in IEC Certificate of Conformity, with the external temperature of the enclosure to be  $\leq 150^{\circ}\text{C}$  when operating at maximum power dissipation.

Four times over pressure testing was successfully conducted on the enclosure at 2146 kPa. Routine Pressure testing of the equipment is therefore not required.

## **10. DISPOSAL**

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It is required that enclosures are returned to Ampcontrol for disposal.