Fisher™ ARMOR Battery

WARNING

Failure to follow these instructions or to properly install and maintain this equipment could result in an explosion and/or fire causing property damage and personal injury or death.

Fisher™ equipment must be installed, operated and maintained in accordance with federal, state and local codes, rules and regulations and Emerson Process Management Regulator Technologies Inc. (Emerson) instructions.

Only personnel trained in the proper procedures, codes, standards and regulations, for the applicable industries should install and service this equipment.

Figure 1. *ARMOR Battery*

Safety Messages

WARNING

Read this manual before working with the product. For personal and system safety and for optimum product performance, ensure you thoroughly understand the contents before installing, using or maintaining this product.

EXPLOSIONS

Explosions could result in death or serious injury.

In an explosion proof/flame proof installation, do not remove the device cover when power is applied to the ARMOR 8000 Series.

Installation of device in an explosive environment must be in accordance with appropriate local, national and international standards, codes and practices. Review the Product Certifications section of this manual for any restrictions associated with a safe installation.

Before connecting a handheld communicator (smartphone or PC) in an explosive atmosphere, ensure that the instruments are installed in accordance with intrinsically safe or non-incendive field wiring practices.

ELECTRICAL SHOCK

Electrical shock can result in death or serious injury.

Avoid contact with the leads and terminals. High voltage that may be present on leads can cause electrical shock.

Specifications

This section lists the specifications for the ARMOR Battery.

Maximum Operating Temperature[1]
-40 to 158°F / -40 to 70°C

Maximum Operating Pressure[1]
1500 psig / 103 barg

Recommended Operating Conditions
Relative Humidity: 0 to 95% Non-condensing Relative Humidity
Pollution Degree: 3
Altitude: 6562 ft / 2000 m
Ingress Protection: IP66 / NEMA Type 4

Note: Operating conditions are applicable only when the battery is used in the ARMOR device.
1. The pressure/temperature limits in this Instruction Manual and any applicable standard or code limitation should not be exceeded.

PHYSICAL ACCESS

Unauthorized personnel may potentially cause significant damage to and/or misconfiguration of end users' equipment. This could be intentional or unintentional and needs to be protected against.

Physical security is an important part of any security program and fundamental in protecting your system. Restrict physical access by unauthorized personnel to protect end users' assets. This is true for all systems used within the facility.

- ⚠ **SAFETY ALERT SYMBOL:** This symbol is used to alert you to potential personal injury hazards. Follow all safety messages that accompany this symbol to avoid injury or loss of life.
- ⚠ **DANGER:** Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
- ⚠ **WARNING:** Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
- ⚠ **CAUTION:** Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
- **NOTICE:** Addresses practices not related to personal injury, such as property damage, equipment damage, data loss, hardware damage and/or software damage.

Introduction

This manual provides specifications, battery replacement instructions and parts ordering information for the ARMOR Battery.

Product Recycling/Disposal

⚠ WARNING

Read and understand all instructions. Failure to follow these instructions may result in system overpressure, serious personal injury or death.

Only qualified personnel with the appropriate training and experience should service, maintain and operate, decommission and dispose the equipment. The equipment must be serviced, maintained, operated, decommissioned and disposed in accordance with local, state, national and federal codes, rules and regulations.

Always wear appropriate personal protective equipment when servicing, maintaining, operating, decommissioning and disposing the equipment to avoid personal injury.

1. Consider recycling equipment. Dispose of packaging in accordance with local and national legislation/regulations.
2. Where possible, recycle components such as metals and plastics in accordance with environmental regulations to minimize waste and environmental impact.
   a. Plastic: Ensure it is dismantled and disposed of separately.
   b. Steel: Disassemble and collect separately for recycling at designated centers.

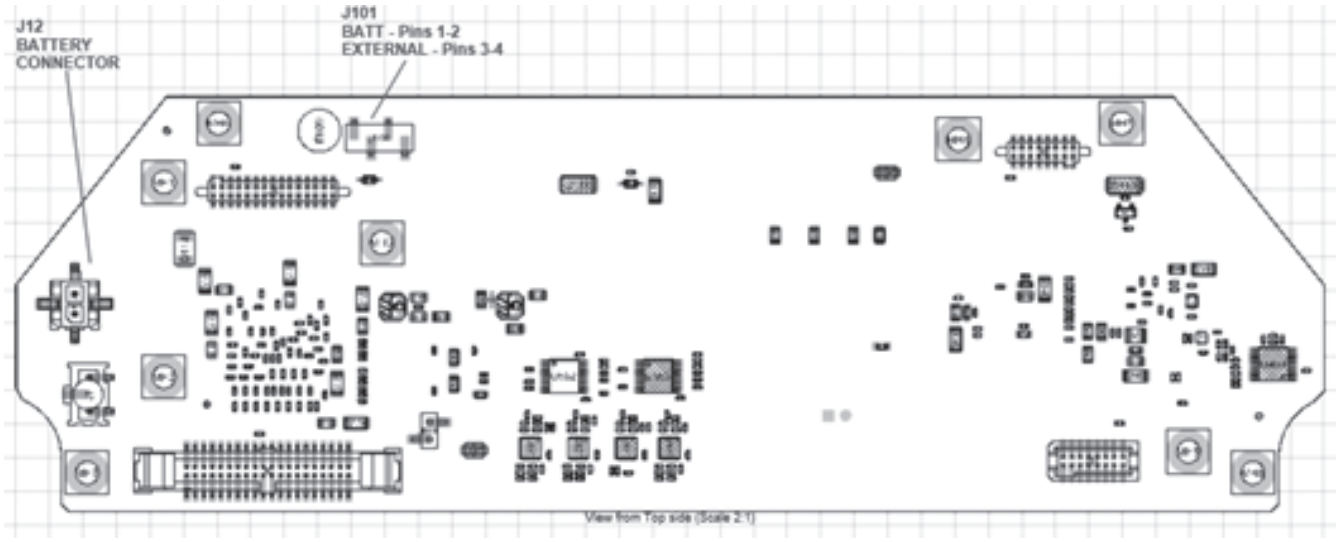

Figure 2. *Battery Replacement*

c. Stainless Steel: Disassemble and collect separately for recycling at designated centers.

d. Aluminum: Disassemble and collect separately for recycling at designated centers.

e. Pneumatic/Electric Components: Disassemble for potential reuse if in good condition, otherwise overhaul and recycle them where possible.

3. Ensure that decommissioning and disposal activities do not harm the environment. This includes preventing contamination of soil, water and air.

4. Ensure that personnel involved in decommissioning and disposal are adequately trained and supervised. They should be familiar with the equipment, hazards and procedures involved.

Battery Replacement

⚠ WARNING

Procedures and instructions in this section may require special precautions to ensure the safety of the personnel performing the operations.

ARMOR Device needs to be removed and moved to a safe area before the Battery Pack can be replaced.

Lithium Ion is a fire, explosion, and severe burn hazard. Do not recharge, disassemble, heat above 212°F / 100°C or expose contents to water.

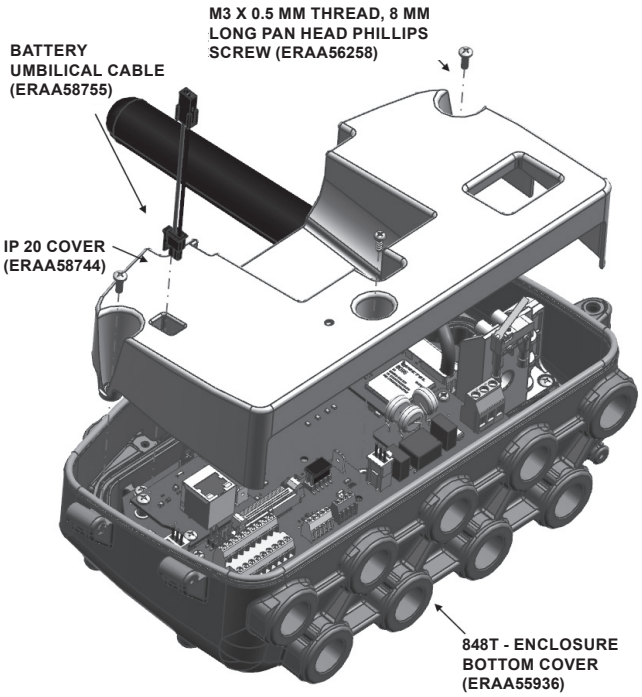

Figure 3. *IP20 Cover*

The field replaceable battery pack is connected to connector J12 on main as shown in the Figure 2. Battery leads are positive (+Ve) Red and negative (-Ve) Black in color. Battery is connected via a Battery Umbilical Cable which will fit according to the polarity on J12 as shown in Figure 3. Battery pack should be tightened with three screws on battery bracket in enclosure.

Remove the IP20 cover. Find the two-pin connector for the battery module (J12) on the main and verify that the Battery Umbilical cord is plugged in (see Figure 3).

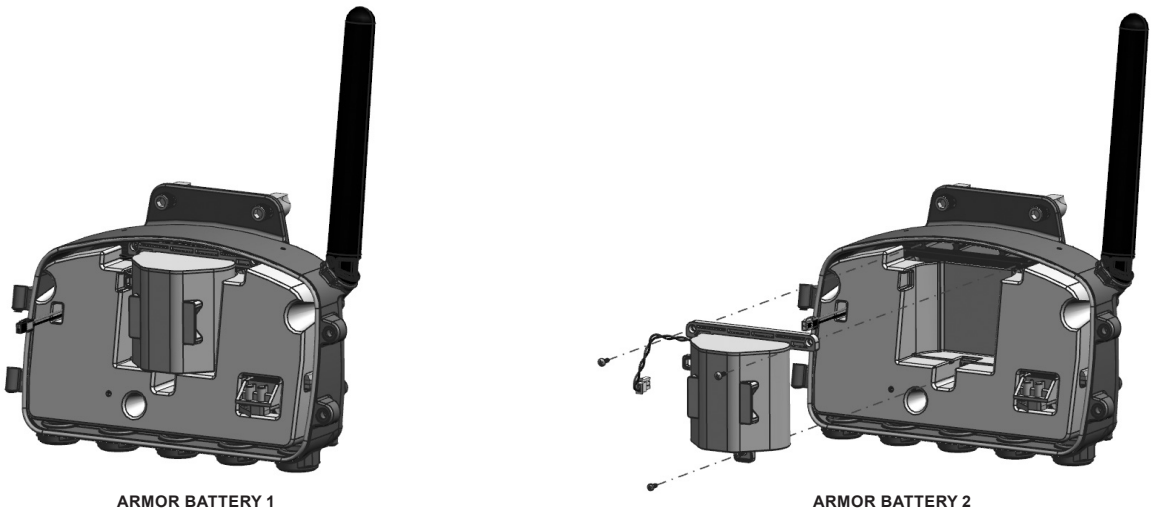

Figure 4. *ARMOR Battery*

Install the IP20 cover onto the bottom enclosure using two M3 x 0.5 mm Thread, 8mm Long Pan head Philip's Screws.

During Battery mode operation, Ethernet connectivity is not available on the device and cellular reporting of data to Zedi Cloud is done typically every 24 hrs with an option of different configurations from minimum of 1 hour to 7 days.

Install the Power Module into the IP20 cover using two M3 x 0.5 mm Thread, 16 mm Long Steel Pan Head Phillips screws. The other end must be mounted with a connector board bracket using a No. 4 Size, 3/8 in. Long Phillips Rounded Head Thread-Forming screw. Verify that the snap contact is correctly made with the Battery Umbilical Cable see Figure 4.

Recommended battery pack ERAA57423A0 is available only through Emerson specified vendors.

Parts Ordering

When corresponding with your local Sales Office about this equipment, include the type number, serial number and other information stamped on the nameplate.

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