



# ATI-RAM1

## Remote Alarm Module

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### INSTRUCTIONS

#### Installation and Operation of the ATI-RAM1 Remote Alarm Module



### IMPORTANT

Please read these installation and operating instructions completely and carefully before starting. Failure to do so will void warranty.

filename:  
ATI.MAN.RAM1

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## **1 - WARRANTY**

The ATI-RAM1 Remote Alarm Module is warranted against defects in material and workmanship for a period of one (1) year from date of shipment. During the warranty period, *Armstrong Technologies Inc. (ATI)* will repair or replace components that prove to be defective in the opinion of ATI. ATI is not liable for auxiliary interfaced equipment, or consequential damage. This warranty shall not apply to any product, which has been modified in any way, which has been repaired by any other party other than a qualified technician or authorized ATI representative, or when such failure is due to misuse or conditions of use.

### **1.1 - LIABILITY**

All ATI products must be installed and maintained according to instructions. Only qualified technicians should install and maintain the equipment. ATI shall have no liability arising from auxiliary interfaced equipment, for consequential damage, or the installation and operation of this equipment. ATI shall have no liability for labour or freight costs, or any other costs or charges in excess of the amount of the invoice for the products.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND SPECIFICALLY THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE THEREOF.

### **1.2 - MODIFICATIONS AND SUBSTITUTIONS**

Due to an ongoing development program, ATI reserves the right to substitute components and change specifications at any time without incurring any obligations.

### **1.3 - PRODUCT RETURN**

All products returned for warranty service will be by prepaid freight and they will only be accepted with an R.G.A. number issued by ATI. All products returned to the client will be freight collect.

### **WARNING**

<p><b>USING ELECTRICALLY OPERATED EQUIPMENT NEAR GASOLINE OR OTHER COMBUSTIBLE VAPOURS MAY RESULT IN FIRE OR EXPLOSION, CAUSING PERSONAL INJURY AND PROPERTY DAMAGE. CHECK TO ASSURE THE WORKING AREA IS FREE FROM SUCH HAZARDS DURING INSTALLATION OR WHEN PERFORMING MAINTENANCE, AND USE PROPER PRECAUTIONS.</b></p>
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## 2 - PRODUCT INFORMATION

**NOTE:** This page must be filled-in at site by client, contractor or installer and this manual returned to the owner or manager.

### 2.1 - REMOTE ALARM MODULE

Module Serial Number .....	_____
Module Warranty Period .....	1 year
Power Supply Requirement .....	12 VDC
Operating Temperature .....	-20 to +65 °C (-4 to +149 °F)
Operating Pressure .....	Ambient atmospheric pressure

### WARNING

**THIS UNIT DOES NOT HAVE AN I.S. BARRIER AND CAN ONLY BE USED IN NON-HAZARDOUS LOCATIONS. THIS UNIT IS DESIGNED TO WORK WITH NORMALLY OPEN CONTACTS ON THE MONITORING EQUIPMENT.**

### Note:

**All *Armstrong Technologies Inc.* systems must be installed and maintained according to instructions, to ensure proper operation. Only qualified technicians should install and maintain the equipment.**

## **3 - PRODUCT DESCRIPTION**

### **3.1 - GENERAL DESCRIPTION**

The ATI-RAM1 Remote Alarm Module is designed to interface with Normally Open (N/O) contacts on an ATI monitor or user's equipment. It provides audible and visual remote indication of an alarm condition, as shown in FIGURE 1.

#### **3.1.1- EXTERNAL FEATURES**

- |                          |   |
|--------------------------|---|
| 1. ALARM INDICATOR LIGHT | An alarm condition is indicated by a high-intensity Red LED light.                    |
| 2. AUDIO ALARM (BUZZER)  | The buzzer is activated by an alarm condition on the associated monitoring equipment. |
| 3. ACKNOWLEDGE SWITCH    | A buzzer DISABLE, pushbutton switch is provided to silence the buzzer.                |

#### **3.1.2- INTERNAL FEATURES**

- |                   |   |
|-------------------|---|
| 4. MOUNTING HOLES | For the convenience of mounting the module on any flat surface. |
| 5. TERMINAL BLOCK | For connection of 12 VDC external power.                        |

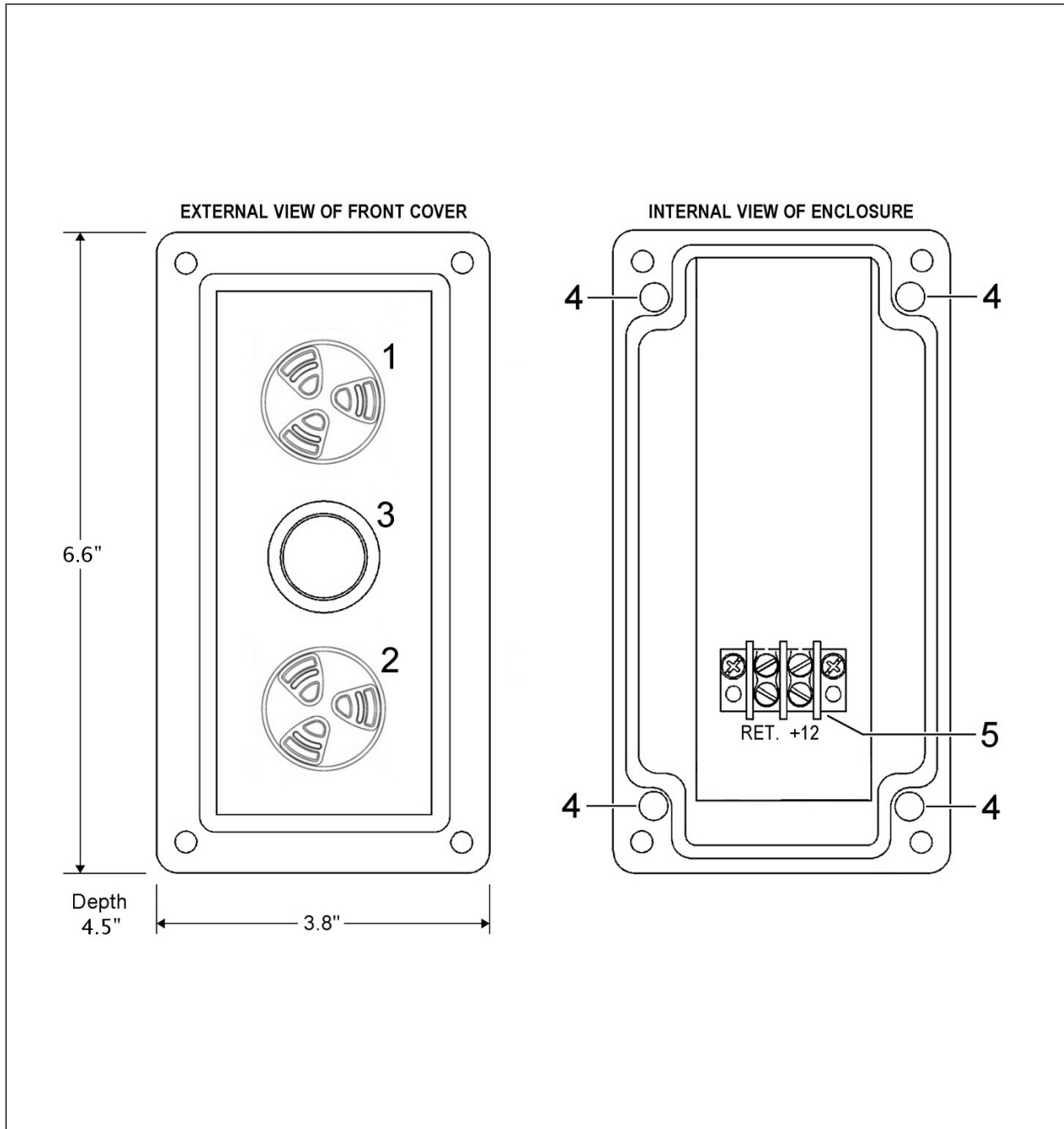


FIGURE 1: Dimensions and features of the ATI-RAM1 module unit.

## 4 - INSTALLATION

### 4.1- LOCATION AND MOUNTING

Care should be taken to securely fasten the module (via the mounting holes) to a solid, vertical, non-vibrating surface or structure. Position the module right side up in the desired location, mark the four (4) holes, then remove the module to drill the mounting holes.

**CAUTION: All cable entry MUST BE through the BOTTOM of the enclosure only. Other entry locations will allow foreign materials to enter the enclosure, causing possible damage to the internal components. The proper method of installation and use of approved mounting hardware and sealing fittings is highly recommended to ensure sound and durable installation.**

Mount the module in an easily accessible, NON-HAZARDOUS area where the unit can be observed and acknowledged when required.

### 4.2- WIRING THE MODULE

For maximum noise rejection, cable shields and metal conduits should be grounded at the monitoring equipment. A cable size of 20 or 22 AWG is recommended for wiring the module.

Refer to FIGUREs 2 to 6 for the following.

POWER / ALARM	The module operates on a 12 VDC supply wired through Normally Open contacts on the monitor or user's equipment. All connections are made to the terminal block located on the aluminum plate inside the unit.
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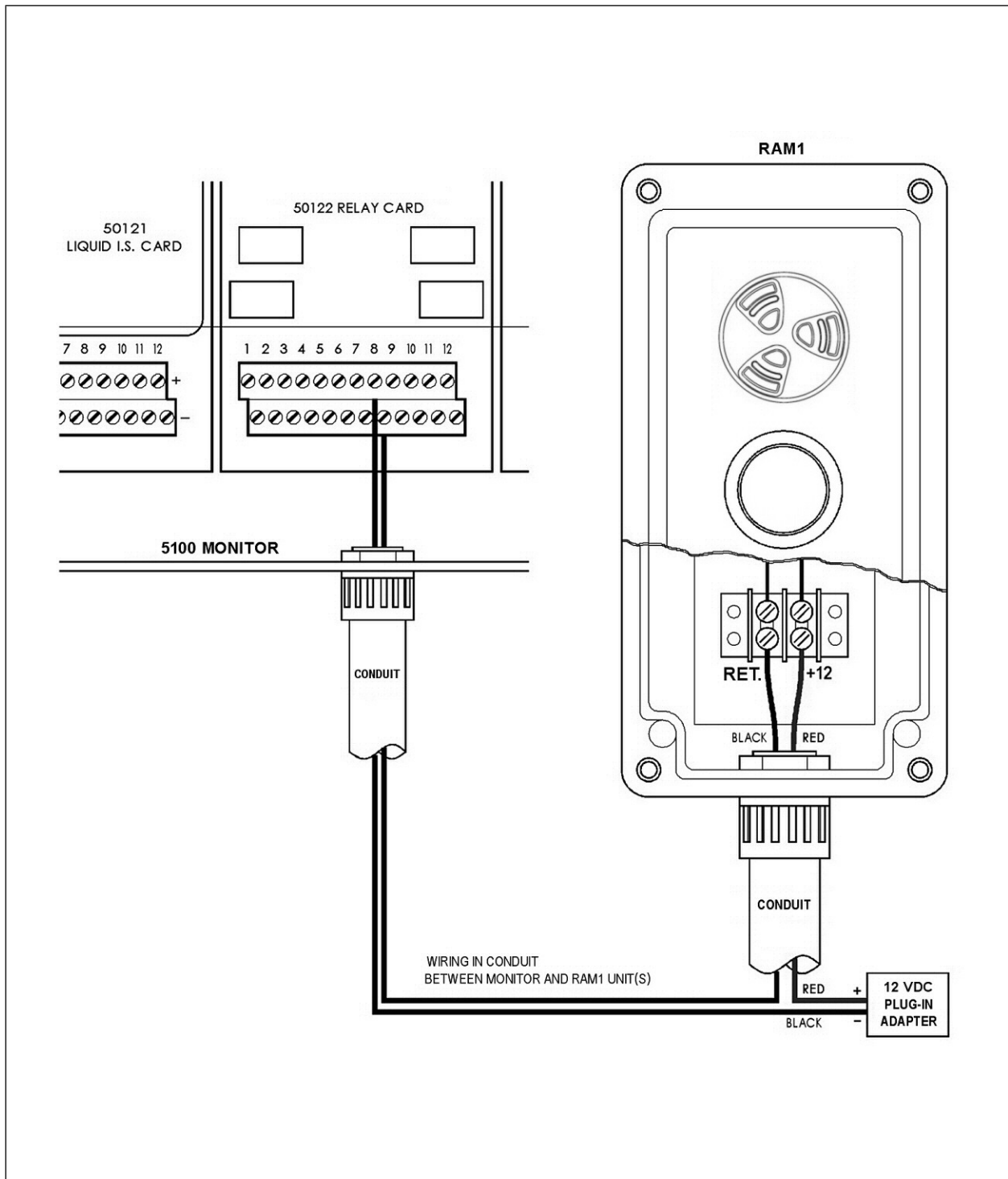


FIGURE 2: Wiring of the ATI-RAM1 module to an ATI-5100 monitor.



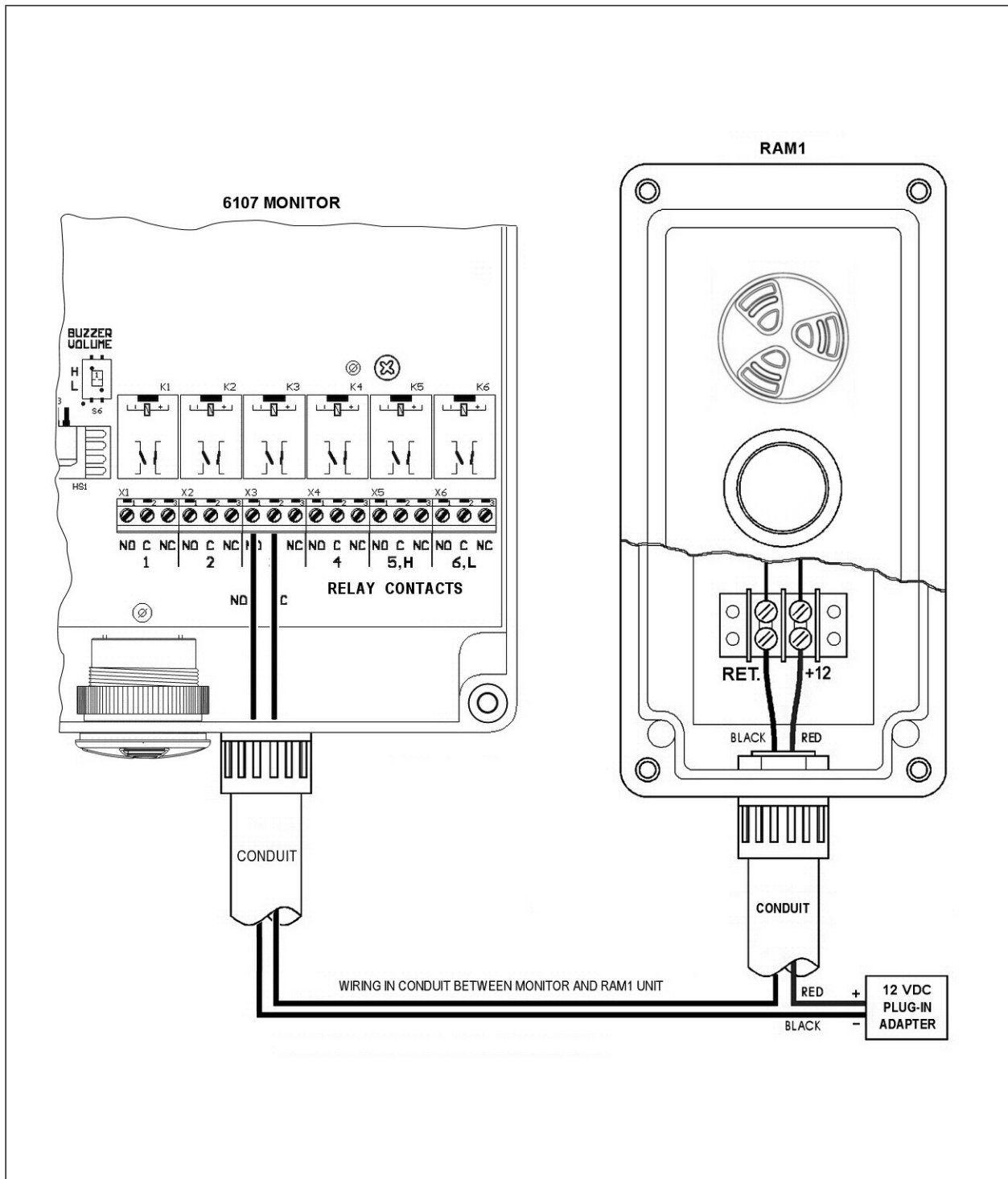


FIGURE 3: Wiring of the ATI-RAM1 module to an ATI-6107 monitor panel.

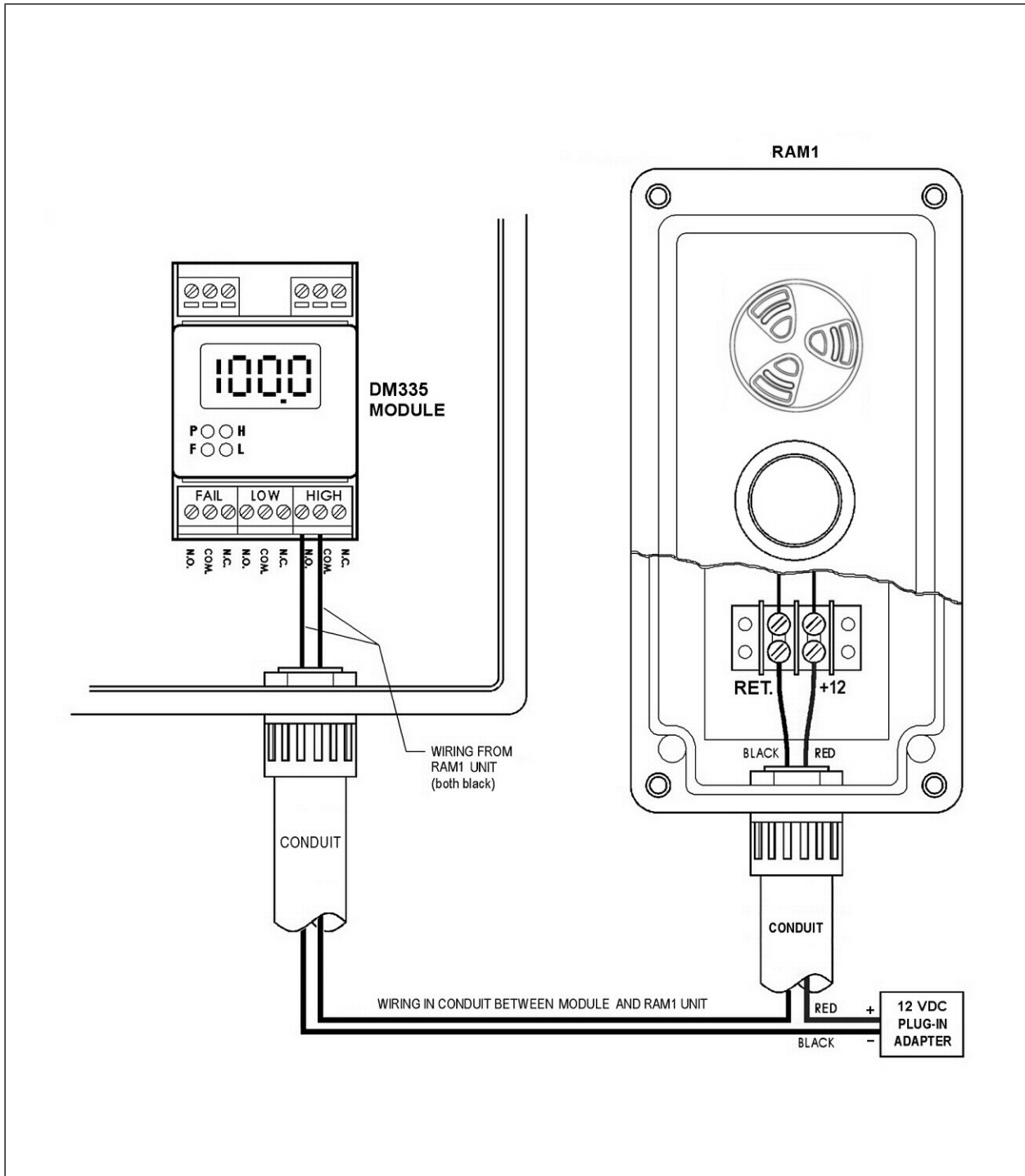


FIGURE 4: Wiring of the ATI-RAM1 module to an ATI-DM335 module.

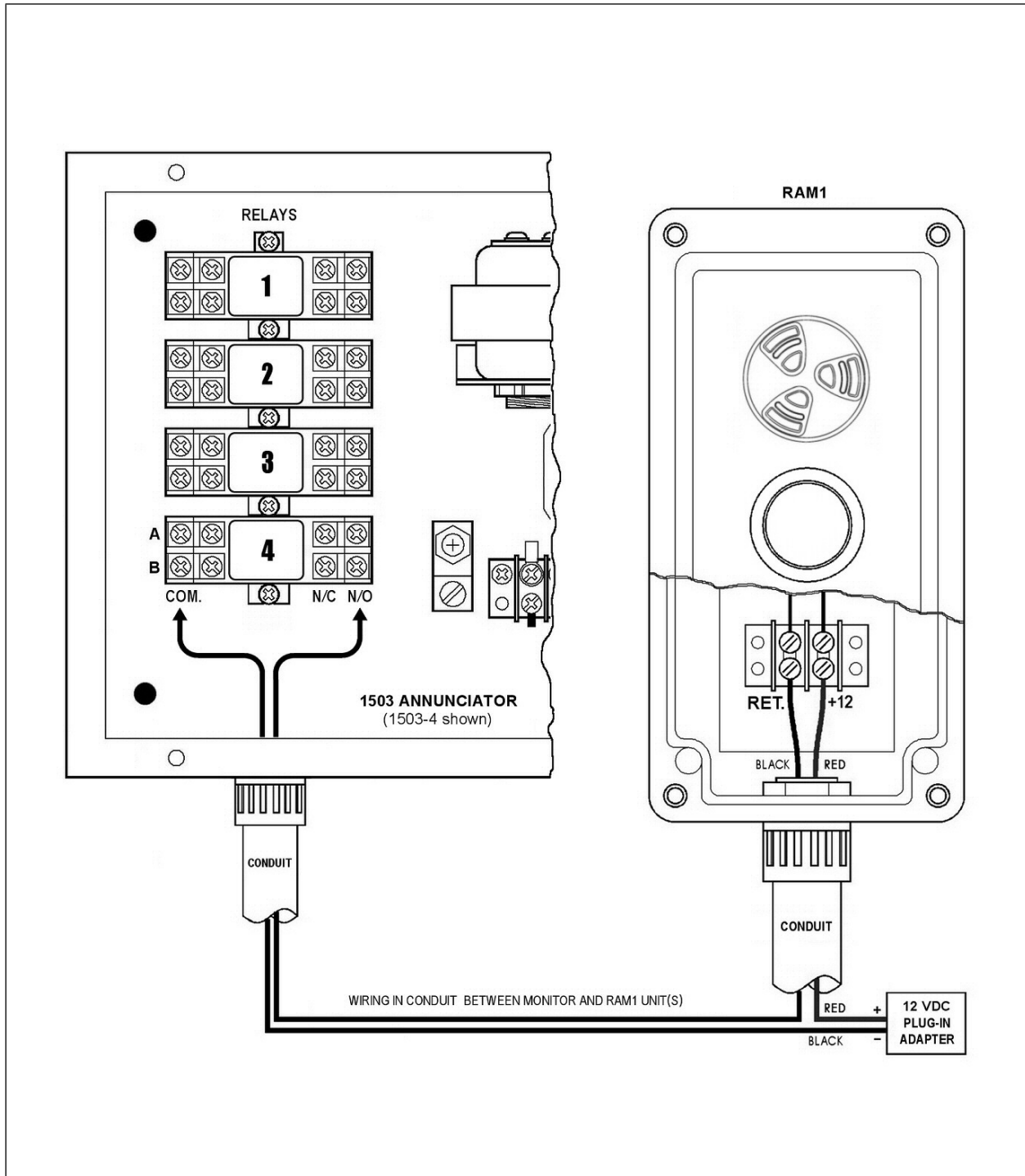


FIGURE 5: Wiring of the ATI-RAM1 module to an ATI-1503 annunciator.

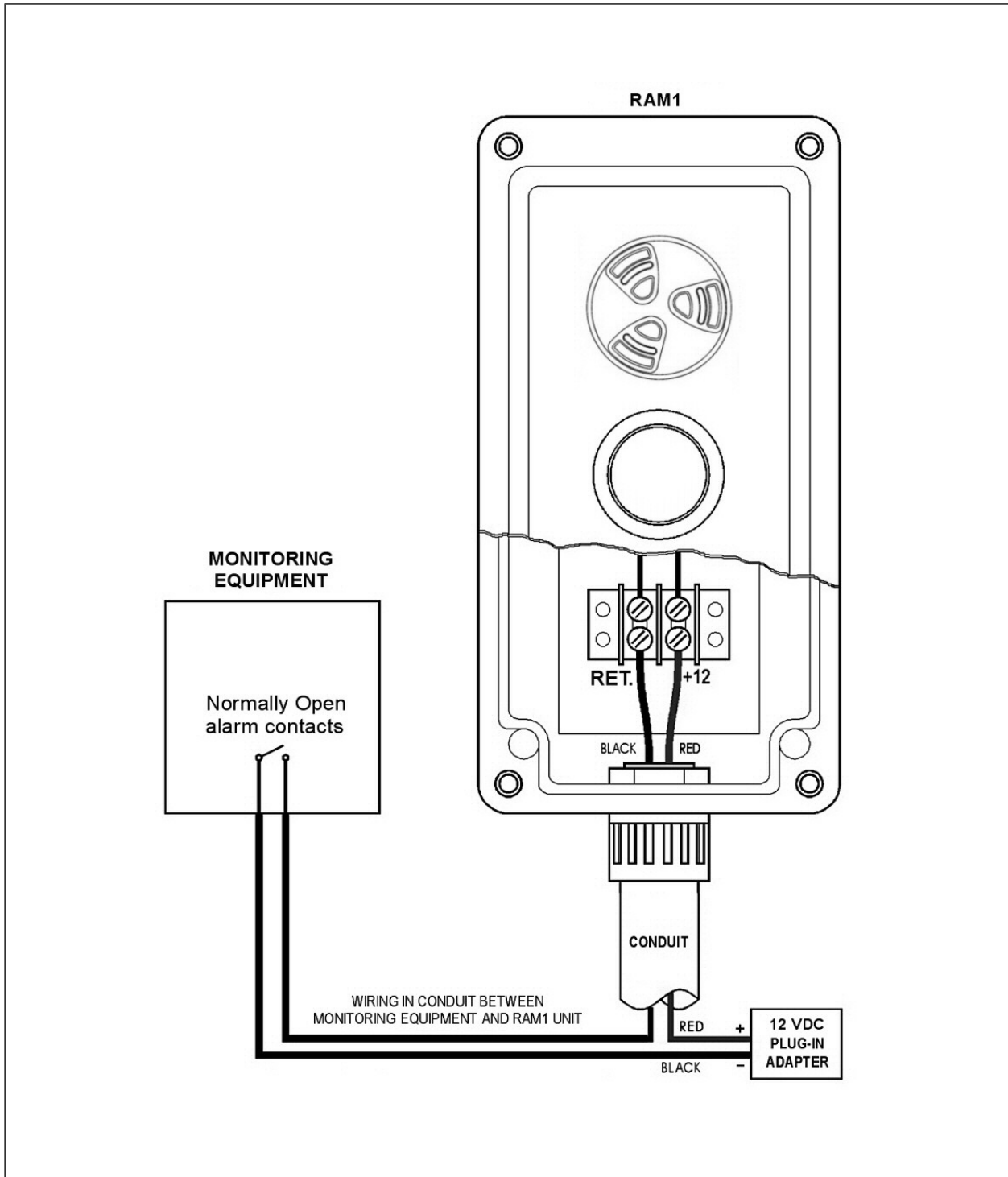


FIGURE 6: Generic wiring of the ATI-RAM1 module to user's equipment.

## 5 - OPERATION

**BEFORE switching on the main power, MAKE SURE that all connections are secure.**

### 5.1 - ALARM ACTIVATION

If an alarm condition occurs at the monitoring equipment, it will activate the Red alarm light and buzzer on the ATI-RAM1 module.

### 5.2- AUDIO ALARM DISABLE

When an alarm condition occurs, the buzzer can be shut off by pressing the pushbutton switch, located on the front cover of the module. The alarm light will remain on until the alarm condition is no longer present.

## 6 - PREVENTIVE MAINTENANCE

**CAUTION:** Avoid strong hose spraying and extreme conditions that could allow liquid to enter the monitor and cause possible damage to the internal components. Do NOT use any abrasive products. Do NOT use cleaners that contain ammonia.

The enclosure should be wiped clean regularly, only with a soft cloth and a solution of water with mild soap or detergent. Rinse well with clear water, then blot dry using a clean soft cloth.

To remove foreign material (caulking, grease, fresh paint, etc.) use naphtha or isopropyl alcohol, then clean as described above.

**NOTE:** The enclosure's NEMA-4X (IP66) rating will protect the monitor from normal conditions such as cleaning, dust, rain, and splashing from vehicles.