TX7211

Addressable Sounder Circuit Module
Installation and Operation Manual

Product Safety

To prevent severe injury and loss of life or property, read the instruction carefully before installing the module to ensure proper and safe operation of the system.

European Union directive
2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points.

For more information please visit the website at www.recyclethis.info

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1 Introduction

1.1 Overview

TX7211 Addressable Sounder Circuit Module unit is an addressable interface module, which will integrate conventional detectors or conventional manual call points to addressable system. When any of the connected devices alarms are active, the unit can send the alarm message to fire alarm controller, which generates alarm signal and displays its address. The unit can match with the conventional optical smoke detector, conventional rate of rise and fixed temperature detector and conventional manual call point etc. It has the function of checking short or open circuit of the output connection, by the End of Line Resistor (EOLR). The fault massage includes open circuit, short circuit or any removal of the detectors.

The unit manufactured base on the requirement of EN 54 part 18, European Standard. The unit is aesthetically pleasing with unobtrusive design that will complement modern building designs and its plug-in type assembles make installation and maintenance more convenient to the installer. The unit is compatible to the TX7004 Analogue Intelligent Fire Alarm Control Panel, produced by single manufacture Tand to avoid addressable communication compatibility problem.

1.2 Feature and Benefits

- EN54-18 Compliance
- Built-in MCU processor and digital addressing
- Intelligent self-diagnosis of open circuit
- Enhanced capacity of interference resistance by using multilevel wave filtering process
- LED status indicator
- Onsite Adjustable Parameter
- Loop and external power input
- Aesthetically pleasing design
- Parallel connecting up to 10 fire alarm（≤500mA）

1.3 Technical Specification

• Compliance	EN54-18:2005/AC2007
• Operating Voltage	Loop: Loop 24V (16V~28V) Power:24VDC(20VDC~28VDC)
• Current Consumption	Loop: Standby 1.5mA, Alarm: 10mA External PSU: Standby4mA, Alarm: 500mA
• Alarm Mode	4 modes
• End of line Resistance	5.1Kohms/ ¼ W
• Programming Method	Electronically addressed with 1~242, occupies one or two addresses.
• Indicator Status	Fault LED: red, flashes when polling, flashes twice when the circuit is short, broken or 24V power off. Output Activation LED: red, illuminates when start.
• Material / Colour	ABS / White Glossy finishing
• Dimension / LWH	108 mm x 86 mm x38 mm
• Weight	154g (with Base), 83g (without Base)
• Operating Temperature	-10°C to +50°C
• Ingress Protection Rating	IP30
• Humidity	0 to 95% Relative Humidity, Non condensing

2 Installation

2.1 Installation Preparation

This Addressable Sounder Circuit Module Unit must be installed, commissioned and maintained by a qualified or factory trained service personnel. The installation must be installed in compliance with all local codes having a jurisdiction in your area or BS 5839 Part 1 and EN54.

Tand products has available range of Addressable Sounder Circuit Module Unit, each Unit is designed for specific application, it is essential to consider the requirement of both sides of the Unit to avoid malfunction and typical fault scenario. The main caution is to ensure that the voltage rating of the equipment and Unit are compatible.

2.2 Installation and Wiring

1. Mount the Addressable Sounder Circuit Module Unit base on standard one [1] gang electrical back box. Follow the arrow mark for the correct position. Do not over-tighten the screws otherwise the base will twist. Use two M4 standard screws.
2. Connect the wire in terminal according to the requirement as shown in Figure [2]. Verify the device address and other parameters then stick on the label before attaching the Unit. The sticker labels are available on the control panel. Align the Unit and tabs and gently pushing the device until it locks into place.

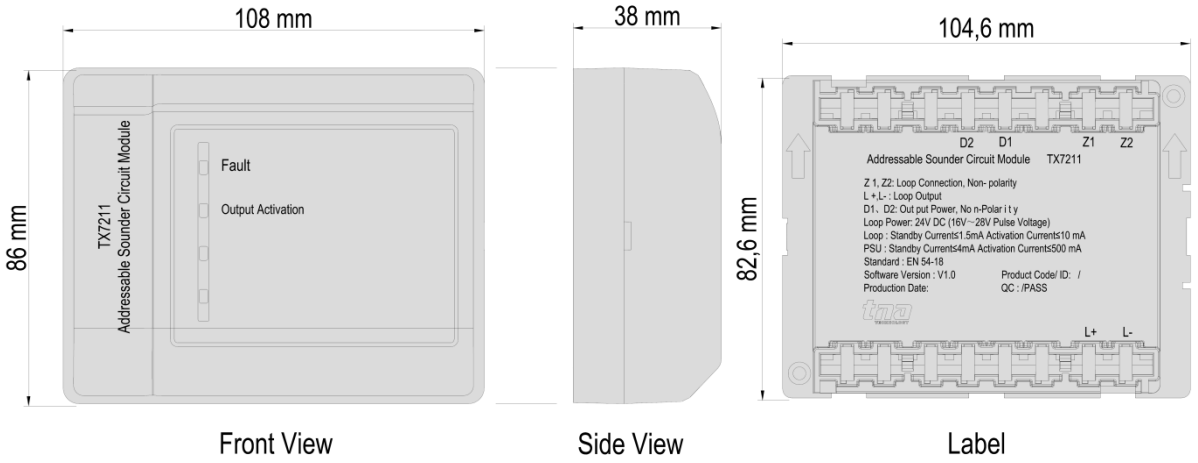
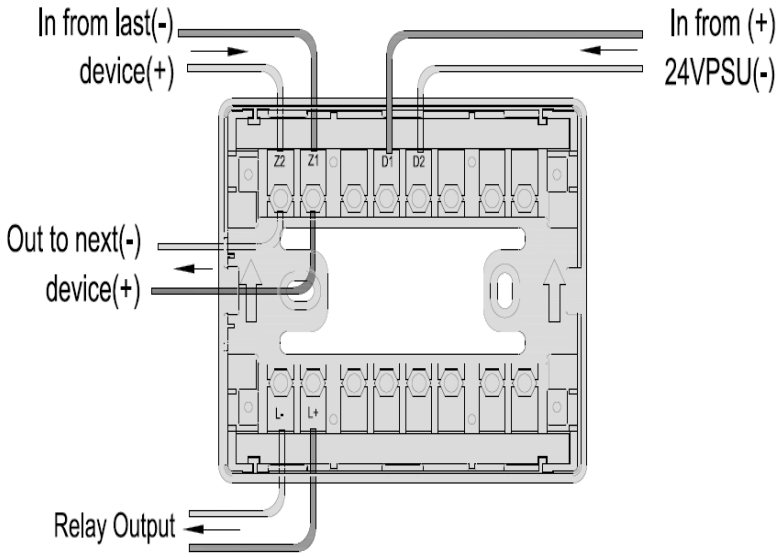


Figure 1: Addressable Sounder Circuit Module



Terminal Description

Z1 Signal In Non-polarity
Z2 Signal In Non-polarity
D1 External Power Supply In Non-polarity
D2 External Power Supply In Non-polarity
L+ Remote Indicator (+)
L- Remote Indicator (-)

Figure 2: Wiring

3 Addressable Sounder Circuit Module Unit Configuration

3.1 Preparation

The TX7930 handheld programmer is used to configure Addressable Sounder Circuit Module Unit soft address and parameter. This tools are not included, must be purchased separately. The programmer is packed with twin 1.5V AA battery and cable, ready for usage once received.

It is mandatory for the commissioning personnel to have programmer tool in order to adjust the Unit conferring to the site situation and environmental requirements.

Program a unique address number for each device according to the project layout before placing from the Terminal Base.

Warning: *Disconnect the loop connection whilst connecting to the handheld programmer.*

3.2 Write: Addressing

1. Connect the programming cable to Z1 and Z2 terminals (Figure 3). Press **"Power"** to switch on the unit.
2. Switch-on the programmer, then press button **"Write"** or number **"2"** to enter Write Address mode (Figure 4).
3. Input the desire device address value from 1 to 254, and then press **"Write"** to save the new address (Figure 5).

   Note: If display **"Success",** means the entered address is confirmed. If display **"Fail",** means failure to program the address (Figure 6).

4. Press **"Exit"** key to go back Main Menu. Press **"Power"** key to switch-off the programmer.

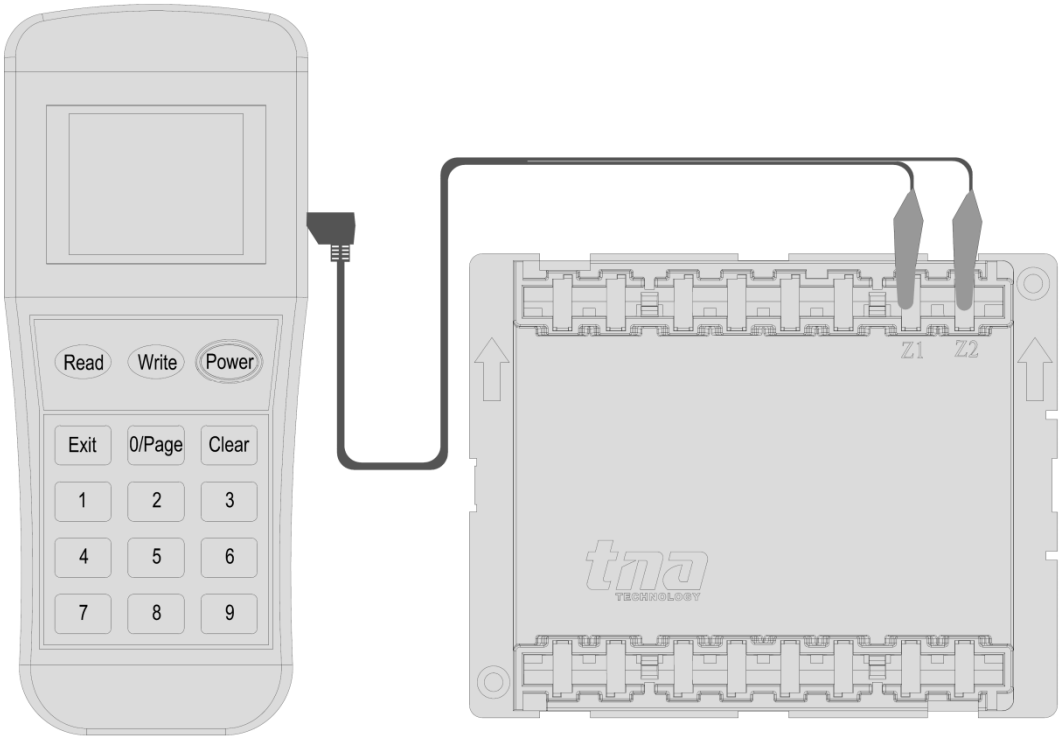


Figure 3: Programmer Connection Detail

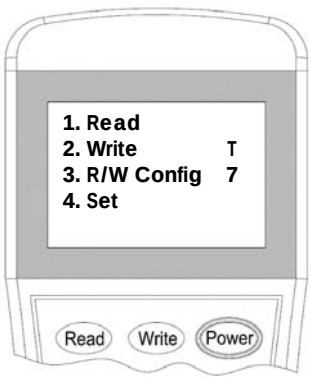


Figure 4

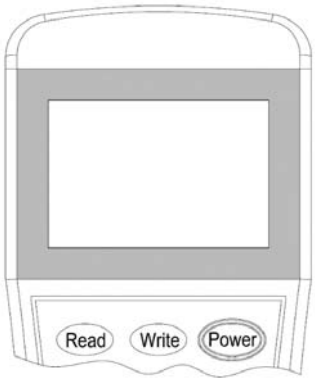


Figure 5

Figure 6

here are four working mode in the module. The module is defaulted mode I (1). Working mode (I, II, III, IV) can be set in field referring to the corresponding parameters (1, 2, 3, 4). Program the module before installation, use proper mode according to the field conditions.

Mode	Address Quantity	Output Type
Mode I	One	Continuous alarm signal
Mode II	Two	Low address: pre-alarm signal

		High address: Fire alarm signal
Mode III	One	Fire alarm signal
Mode IV	Two	Low address: pre-alarm signal
		High address: continuous alarm signal

Pulse durations of pre-alarm and fire alarm are shown in Fig.7 and Fig. 8.

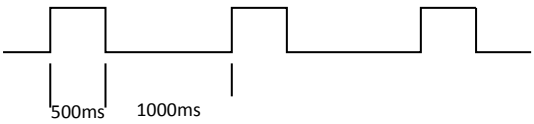


Fig.7 Re-alarm

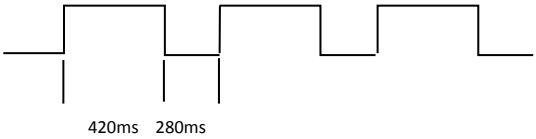


Fig.8 Fire alarm

The module can connect with conventional sounder directly. Take conventional sounder strobe as an example, the connection is shown in Fig. 9.

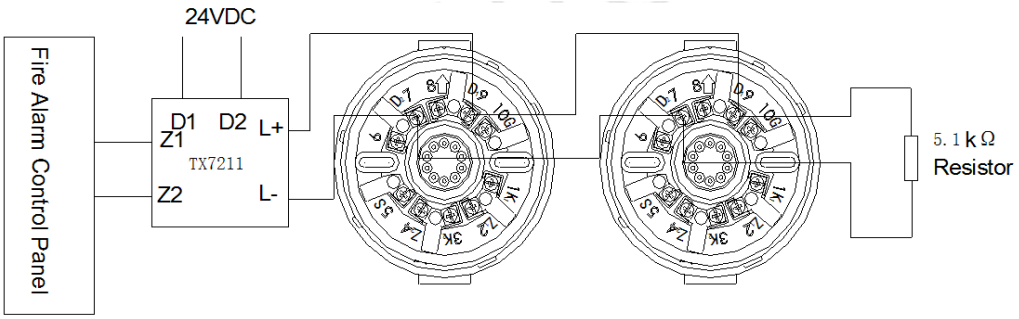


Fig.9

4 General Maintenance

1. Inform the suitable personnel before conducting the maintenance.
2. Disable Addressable Zone Monitor Unit on the control panel to prevent false alarm.
3. Do not attempt to repair the circuitry of the Addressable Zone Monitor Unit, it may affect the operation to respond to a fire condition and will void the manufacturer's warranty.
4. Use a damp cloth to clean the surface.
5. Notify again proper personnel after conducting the maintenance and make sure to enable the Addressable Zone Monitor Unit and confirm if up and running.
6. Perform the maintenance on semi-annually or depending on the site conditions.

5 Troubleshooting Guide

What you notice	What it means	What to do
Address not enrolling	The wiring is loose The address is duplicate	Conduct maintenance Re-Commission the device
Unable to commission	The damage the electronic circuit	Replace the device

Appendix 1

Limitation of Interface Module

The Addressable Sounder Circuit Module Unit cannot last forever. In order to keep the Addressable Sounder Circuit Module Unit working in good condition, please maintain the equipment continuously according to recommendations from manufacturers and relative nation codes and laws. Take specific maintenance measures on the basis of different environments.

These Addressable Sounder Circuit Module Unit contains electronic parts. Even though it is made to last for a long period of time, any of these parts could fail at any time. Therefore, test your Addressable Sounder Circuit Module Unit at least every half-year according to national codes or laws. Any Addressable Sounder Circuit Module Unit, fire alarm devices or any other components of the system must be repaired and/or replaced immediately as they fail.