

### Product Information

#### AT-MZA-EXP

#### Power consumption

The additional sensing zones are powered by the AT-MZA motherboard, no additional power is required.

#### Relays

One LEAK relay per zone (maximum 8) SPDT  
 One common LEAK relay SPDT  
 One summary FAULT (cable break/power failure) SPDT  
 Rating: 3 A at 250Vac/24Vdc

#### Temperature

Storage: -18°C to 60°C (0°F to 140°F)  
 Operating: 0°C to 50°C (32°F to 122°F)

#### Approvals



The MZA is approved for use in ordinary areas. The module must be located in an Ordinary Area, but may monitor intrinsically safe TraceTek sensing cables located in Hazardous Locations:

- TraceTek sensing cable in Class I, Division 2, Groups A, B, C, D Hazardous Locations.
- If protected by agency-approved zener barrier TraceTek sensing cable in Class I, Division 1, Groups A, B, C, D Hazardous Locations (Zone 0 or Zone 1 in Europe). Contact your TraceTek distributor/agent to select proper zener barrier.

#### Maximum Circuit length per zone

100m (328ft) TraceTek sensing cable or 10 water or optical oil probes per zone. Leader and jumper cable lengths are not included in this limitation.

### General Information

Please read these instructions carefully and keep them in a safe place (preferably close to the module) for future reference. These instructions must be followed carefully to ensure proper operation.

The AT-MZA-EXP multi zone alarm expansion card has been designed specifically for use with the AquiTron AT-MZA panel.

These installation instructions should be read in conjunction with the installation instructions of the AT-MZA panel H9600

**Note:** To avoid damage to the MZA and the MZA-EXP electronics, store them in their cardboard boxes until construction is complete.

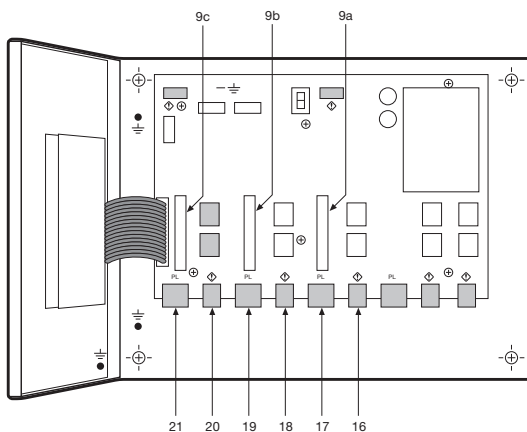
#### Tools required

- Drill or hole punch for electrical conduit entries
- Phillips (cross-head) screwdriver
- Small flat-head screwdriver

#### Storage

Keep the module in a dry place prior to installation to avoid possible damage to internal components.

Figure 1



9. AT-MZA-EXP zone expansion card slot

9a. connector for zones Z3 + Z4

9b. connector for zones Z5 + Z6

9c. connector for zones Z7 + Z8

16. Z3/4 Leak relay plug and socket

17. Z4/4 Sensing cable plug and socket

18. Z5/6 Leak relay plug and socket

19. Z5/6 Sensing cable plug and socket

20. Z7/8 Leak relay plug and socket

21. Z7/8 Sensing cable plug and socket

⚠ WARNING: Shock hazard. Shut off power before opening enclosure door.

PL Indicates power limited circuits.

## Fitting the Expansion card

**Important:** The MZA-EXP is an electronic unit. During installation, take the following precautions to avoid damage to its electronic components:

- The MZA panel should not be powered when installing the MZA-EXP card.
- Anti static precautions should be taken before touching the boards inside.
- Handle with care, avoid mechanical damage.
- Keep the electronics dry.
- If handling circuit boards, hold them by their edges to avoid physical contact with electronic components.
- Avoid exposure to static electricity.
- Avoid contamination with metal filings, liquids, or other foreign matter.

- A maximum of three MZA-EXP cards can be added to a MZA panel.
- Each MZA-EXP provides two additional zones of sensing.
- Remove the card from its static free packaging.
- Insert the first card on vertical connector marked 9a on figure 1 and Z3 - 4 on the mother board and insert the following cards on zones (9b.) Z5-6 and (9c.zones Z7-8. The card will only fit in one direction.
- Push the card securely to the base connector.
- Once the card has been securely installed the MZA panel can be powered.

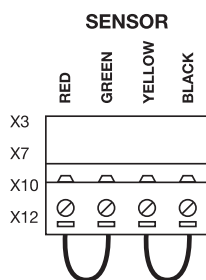
### Isolate spare sensing zones

If the second zone in any of the two zone blocks is not to be used it must be terminated with loops of cable between red-green and yellow-black. (See figure 2). This will prevent the system identifying this zone as having a cable break.

However, should there be a requirement for all three-expansion cards to be installed, but not used, then these must be terminated in a similar fashion.

Each spare sensing zone circuit must be terminated with a loop of cable between red-green and yellow-black. See figure 6. This will prevent the system seeing this zone as a cable break. The loop is only required if zone 1 or 2 are not connected and any subsequent zone where a MZA-EXP zone expansion card are fitted.

Figure 2



## Start-Up and System Testing

### Power up the system

**Note:** Check the voltage selector switch has been set to the correct country/application voltage.

After connections are complete supply power to the unit. If the sensing circuit is complete and free of leaks or other problems, the green Monitoring LED only will illuminate.

If this is not the case, you can find additional information in the MZA Operation and Maintenance Manual supplied with the module.

### Commissioning

Your system should be commissioned by an authorised Aquitrone™ or TraceTek representative. The system map is a crucial part of the system and should be located adjacent to the unit and within the O&M documents.

**Important:** Store hardware and documentation supplied with the MZA in a secure place for later use (commissioning, connecting interfaces, operating).

### Testing the Module

#### Test after supplying power

- Close and latch the enclosure door.
- Supply power to the unit. When power is supplied, the green LED illuminates for mains power (red for battery supply). After the start-up sequence is complete, the module should report a fault alarm (this is normal: there is no sensing cable attached). Press the red Silence key to silence the audible alarm. Verify that the red Alarm plus yellow Cable Break LED's appear.

If anything other than the above occurs, check all connections.

If the unit still does not appear to operate properly contact your supplier for assistance.

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