Models:
GENII MZS REM: Multi-zone Station Remote Expansion Module

GENII MZS REM
Multi-zone Station Remote Expansion Module

Overview
The Innotech GENII MZS REM Multi-zone Station Module is an expansion device for the GENESIS range of Digital Controllers.

The module is powered by 24VAC and provides a limited User Interface to the GENESIS Controller. There are no physical connections between field equipment and the GENII MZS REM, all input/output values are edited and viewed on the wall unit.

The GENII MZS REM may be located remotely from the GENESIS Controller providing a distributed User Interface for the system.

The GENII MZS REM communicates with the Genesis Controller via the REM Comms port. The remote link uses RS-485 at a baud rate of 38400. For pre-Version 5 controllers, a Gen II RMI Remote Module Interface is required.

Please refer to DS 15.01 for further information.

Features
- One three decimal place numerical value input.
- One three decimal place numerical output.
- One toggle digital input.
- One LED digital display output.
- One 'current zone' input.
- Housed in a switchplate that mounts in standard electrical wall plates.
- RS485 interconnection between REM Modules.
- 24VAC operation.
- Wiring Diagrams for modules generated by GEN2Config Software.
- Adjustable user input range.
- Configurable power on settings.
- Display Auto Dim when lights out.
- LED indication of network traffic on rear to ease debugging & setup.

Approvals
The GENII MZS REM conforms to:
- EN 55011 Class B Group 1 & AS/NZS 2064:1997 for RCM Labelling
- FCC Title 47 CFR, Part 15 Class A for FCC Marking
- UL listed to UL916, File Number E242628

Applications
Expands GENESIS Controller capabilities by providing a numeric output display, numerical value input, a single toggle digital input switch and single LED display output for distributed control via RS485.

The GENII MZS REM Module provides a visual display of up to 6 control values and a means to set up to 6 parameters.

Application Notes
A GENESIS Controller must have version 4 firmware installed to support REM Modules. Version 4.0 or higher Config Software must be used to configure a GENESIS Digital Controller that has REM Modules connected to it.

One GENESIS Controller can have up to 15 GENII MZS REM Modules* connected to it via the REM comms bus.

For detailed connection information to the pre-version 5 GENESIS Digital Controller Family, please refer to DS 99.03

Specifications

Power Supply

- Voltage: 24VAC ±10% @ 50/60Hz
- Power Consumption: 3VA max

The operating voltage must meet the requirements of Safety Extra Low Voltage (SELV) to EN60730. The transformer used must be a Class 2 safety transformer that has the energy and voltage limiting characteristics as described in the National Electrical Code, ANSI/NFPA70. It must also be sized and fused in compliance with local safety regulations.

Inputs

- Push buttons for adjusting control values
- Push button for toggling of “digital function”
- Push button for zone selection

Outputs

- No physical outputs
- Display of Temperature and Setpoint

Terminal Identification

1	24VAC Supply
2	0VAC Supply
3	Earth

TERMINAL 3 is for the protection of the Comms circuitry and must be connected to a good electrical bonded Earth.

COMMS Connection

SHLD 1	Shield from incoming Comms Cable.
+	RS 485 (+) signal.
-	RS 485 (-) signal.
SHLD 2	Shield from outgoing Comms Cable.

Temperature Ratings

- Storage 0 to 50°C non-condensing
- Operating 0 to 40°C non-condensing

Enclosure

The GENII MZS REM Modules are housed in switchplate that mounts in standard electrical wall plates.

Colour:	White
Mounting:	Wall mounted

Installation

- The Cable run between the GENII MZS REM and the GENII RMI should not exceed 500 mtrs. The Comms wiring requires cable especially suited for RS485. Other shielded cable is not suitable and may cause spasmodic Comms failures.
- Strictly follow the guidelines when installing the Comms wiring as outlined in the Genesis II Installation Manual
- Mount the GENII MZS REM in a dry and clean location free of excess vibration.

The REM address must be set by programming Parameter 0. Please refer to the Program Functions section of this data sheet for more specific information regarding this.

Wiring

- The cable used for RS485 Comms must be shielded single twisted pair, 120 ohms character impedence, 36 to 45pF per metre capacitance between conductors.
- The Comms cable must be organised as a bus topology. That is, starting at one end, devices are connected to it until the other end of the cable is reached. No “stubs” are allowed. To connect a device to the cable, as cut is made in the cable at the point where the device is to be situated along it. Then, the two new ends of the cable are wired into the device. The shields from the two new ends are then terminated into the terminals marked SHLD1 and SHLD2.

- Refer to the Genesis Network Installation Instructions for more information.

FCC Class A Notice

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Note – This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Modifications to this device, may void the authority granted to the user by the FCC to operate this equipment.

Program Functions On The GENII MZS REM

Start Programming Mode

To enter Programming Mode depress and hold the ▲ and OFF/ON buttons for 5 seconds. The display will become blank indicating that you are in the Programming Mode. Release both keys and the display will show parameter 0.

Whilst in the programming mode the following buttons are active:

OFF/ON — Change to the next parameter.

▲ — Increase the current parameters value.

▼ — Decrease the current parameters value.

Parameter 0: Rem Address

This parameter is only available for Zone 0.
The display will show the current REM Address of the device.

- The range of address is 0 to 15
- The default address is 0

Parameter 1: Maximum Input Value

The display will show the Maximum Input Value to which the module's input can be set.

- The range of Maximum Input Value is 0.0 to 99.9
- The factory default setting is 30.0

Parameter 2: Minimum Input Value

The display will show the Minimum Input Value to which the module's input can be set.

- The range of Minimum Input Value is 0.0 to 99.9
- The factory default setting is 15

Parameter 3: Decimal Position

The display will show the position of the decimal point.

- The range of Maximum Input Value is 0.0 to 2.0
- The factory default setting is 1.0

Parameter 4: Zone Enable

The display will show whether the zone is enabled.

- 1 - Zone Enabled
- 0 - Zone Disabled

Exit Programming Mode

To exit the Programming Mode depress the OFF/ON and ▲ buttons and the new setting will be saved.

Start Up Default Settings

The GENII MZS REM Module can be set to start in any mode of operation.

1. To set the start up default, adjust the GENII MZS REM Module to the desired settings and then press and hold the OFF/ON and ▼ buttons for 5 seconds.
2. The display will become blank indicating that the new settings have been saved.

Each Zone can have individual settings.

OPERATING FUNCTIONS ON THE GENII MZS REM

Numerical Output:

The GENII MZS REM Module will display a 3 digit, single decimal place analogue output value during normal operation.

Numerical Input:

The GENII MZS REM Module will provide a 3 digit, single decimal place analogue input value to the GENESIS Controller during normal operation.

This value can be modified by pressing the ▲ button to increase or the ▼ button to decrease the value. The value will increase or decrease by the least significant digit as set by Parameter 2.

Digital Input Toggle Value:

The OFF/ON button on the GENII MZS REM Module provides a digital input value to the GENESIS Controller during normal operation.

This operates as a standard toggle switch, i.e. Press the OFF/ON button once to change the state of the digital input. The state of the digital input value can also be changed by the Timer on the GENII MZS REM Module.

If the OFF/ON button is held for 5 seconds it will change the state of all ON/OFF's to the opposite of what they are.

Digital Run Led:

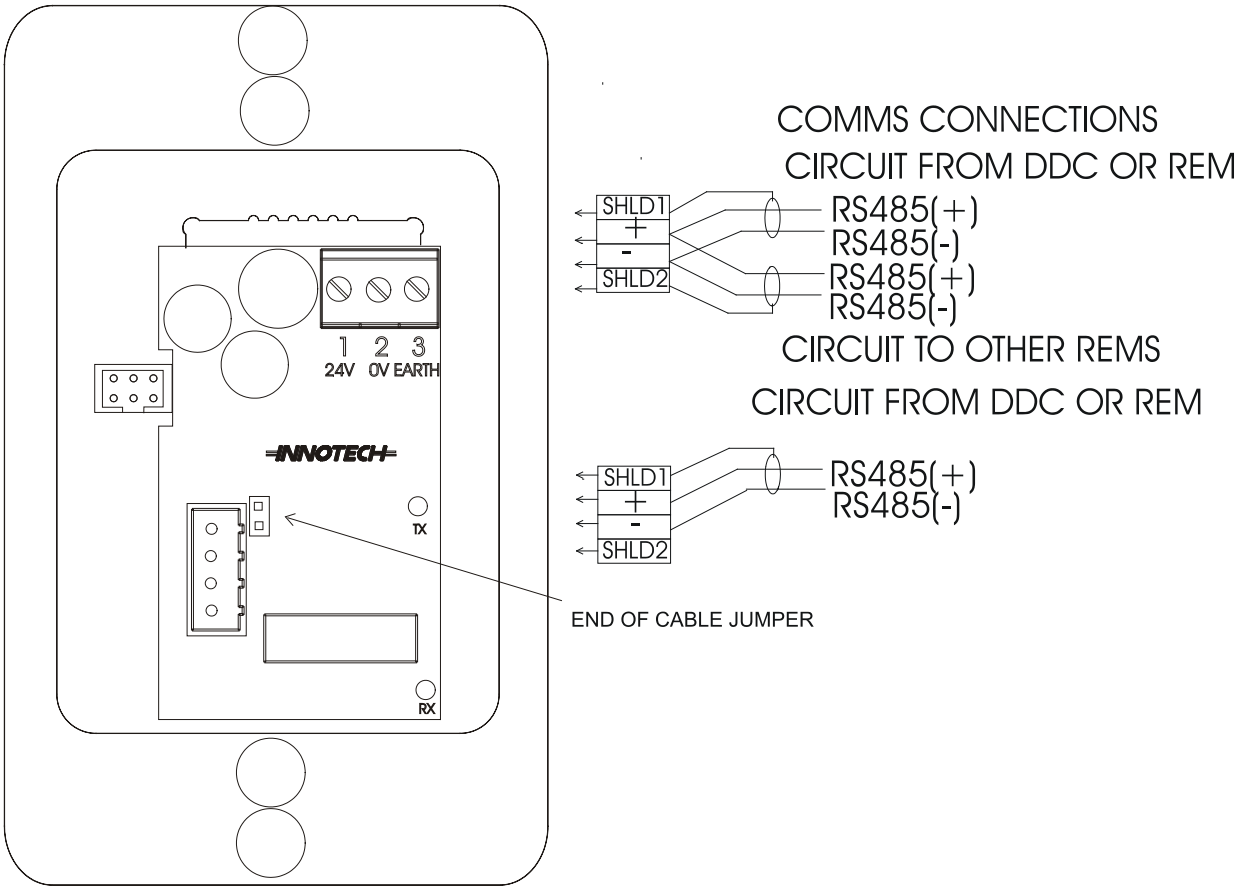
The GENII MZS REM displays a digital state via the run led during normal operation.

Select Button And Zone Led:

The Select button is used to increment the current zone to the next enabled zone. The zone led indicates which zone is current.

Each zone has its own set of parameters.

Wiring Diagram



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