

## Procedure for installation of the RM-1:

### **How it works brief:**

- The RM-1 is a computer controlled, 2 separate, relay switches. It has the capability to switch on and or off any load up to 360 watts. Example: 24 volt @ 10 amps or 120 volts @ 3 amps. All units are sent out with standard fast blow 3 amp fuses.

### **Parts needed:**

- RM-1
- 120 Power Line @ 5Amps with building Ground wire.
- Data Lines from the CM-1. (2) 22 Gauge low voltage cables, Green and White
- Bell or Load wiring
- Mounting hardware
- Small flat head screwdriver

### **Receiving Procedure:**

- Remove RM-1 from packaging.
- Inspect RM-1 for damage from shipping.
- Notify IES ASAP if damage has occurred during shipping.
- Open RM-1 enclosure and inspect all items to be attached and not loose from shipping.

Please reattach any items before putting the RM-1 into service.

Mount the RM-1 in a warm dry space that is easily accessible.

### **Field Wiring Procedure:**

- Make sure that the field wiring is capable of carrying the prescribed voltage and current. 24 volt @ 10 amps or 120 volts @ 3 amps. All units are sent out with standard fast blow 3 amp fuses.
- To make all field wiring connections to ZONE 1 and ZONE 2 Relays, do as follows:
  - A= Armature
  - O= Normally Open (Contact)
  - C= Normally Closed (Contact)

Line= Supplying the Power.

Load= Receiving the power.

Relays are intended to switch only the Hot or High side of the Line Power to the Load. The Neutral or Low side is always connected directly to the Load (Not Switched).

**See typical wiring Diagram below.**

### **Connect the Data Lines:**

- Use 22 Ga. Low voltage cabling to connect the RM-1 to the CM-1 output data lines.  
Make sure to follow the polarity of the CM-1 data output lines:  
+ to + and - to -.

Note: The standard DC-digital colors are:

Green= - (Negative) Data

White= + (Positive) Data

### **Connect the Power:**

- Make sure that the RM-1 will be receiving 120 VAC @ 5 amps of clean dedicated power. Do not connect the RM-1 to power lines that share AC Motors, Heaters, Inductive loads. This will cause sporadic non linear switching and undesirable results in correct relay activation and deactivation.
- Make sure that the breaker that is supplying the power to the RM-1 is off before connecting it.
  
- Always connect to the Green Ground wire first before making any other connections.
- Connect the Neutral second.
- Connect the 120 VAC Hot side last.

Green= Line Ground

16 VAC Transformer Black= Line Neutral

16 VAC Transformer Black= Line Hot

Check all connections:

Pull each wire connection to ensure that they are properly secured to each connection point.

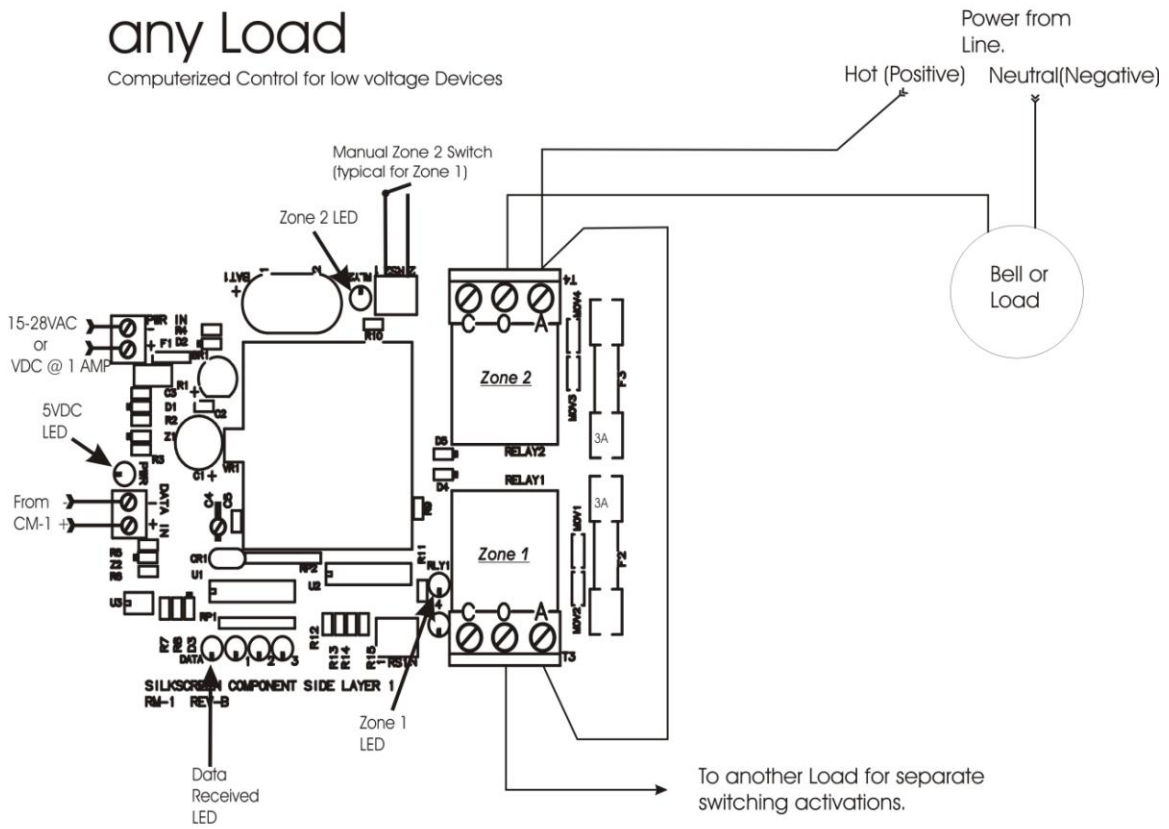
Do the same for all wiring.

### **Apply Power to the RM-1.**

- Observe: The RED 5 volt LED will light. (It is the LED closest to the Data input screw terminals).
- The Data LED will flash every time the RM-1 receives data from the CM-1 and EZ-time Software. See Drawing on the location of the DATA LED.
- Test:
  - Manually:  
Press either ZONE 1 or ZONE 2 pushbutton. The Appropriate load will be energized and the appropriate LED will light.
  
  - Automatic: See EZ-time Manual on how to set up the programming for ringing bells or activating the Zones or Relays.

# RM-1 Relay Module to Bells or any Load

Computerized Control for low voltage Devices



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