

# INSTALLATION INSTRUCTIONS AND WIRING FOR CAT. NO. SRU-2 SERIAL RELAY UNIT AND CAT. NO. SRE-8 SERIAL RELAY EXTENDER

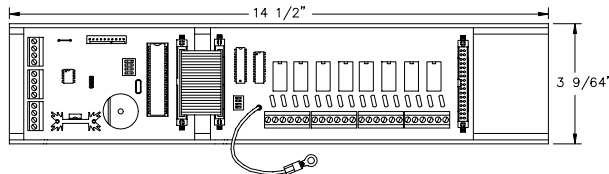
The SRU-2 Serial Relay Unit is an optional accessory for the MPC-6000 and MPC-7000 Fire Alarm System Control Unit. The SRU-2 includes a processor board and a relay board. The processor board receives commands from the control unit for activating the relays and transmits supervision and control functions to the control unit. The processor board can control up to 3 relay boards. Each relay board provides 8 relays with form C contacts. The control unit can address up to 8 Serial Relay Units and/or Serial Annunciator Units. Auxiliary power supplies will be required to power units beyond the control unit capability.

### SRU-2 PARTS SUPPLIED

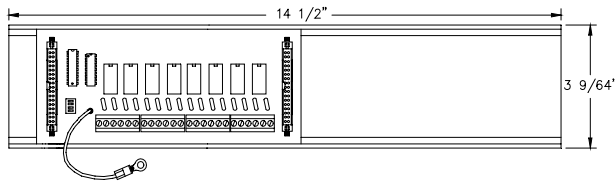
1	557-413829	Processor Board Assembly
1	557-413321	Relay Board Assembly
1	555-446653	34 pin Cable Assembly, 3 1/2"
1	195-447042	PCB Track, 14 1/2"
1	555-447080	10 pin Cable Assembly, 6"
1	235-443269	Screwdriver
3	899-G67197	Keps Nut, #6-32
1	315-447344	Instruction Sheet

### SRE-8 PARTS SUPPLIED

1	557-413321	Relay Board Assembly
1	555-446652	34 pin Cable Assembly, 15"
1	5555-446653	34 pin Cable Assembly, 3 1/2"
1	195-447042	PCB Track, 14 1/2"
3	899-G67197	Keps Nut, #6-32
1	315-447344	Instruction Sheet



**SRU-2 DIMENSIONS**



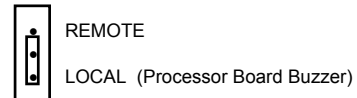
**SRE-8 DIMENSIONS**

- Step 1.) Installation is to be done by qualified personnel who have thoroughly read and understood this instruction sheet.
- Step 2.) Disconnect BATTERY and AC prior to working on equipment.
- Step 3.) Mount enclosure as required.
- Note: Enclosure must be UL Listed for Fire Protective Signaling Use.
- Step 4.) Attach conduit and run wires as required.
- Step 5.) Set processor board dip switch for proper remote address (1- 8).
- Step 6.) Set each relay board dip switch for proper relay set number (1- 8, 9-16, 17-24).
- Note: Relays are numbered from left to right:

Relay Set	TB1		TB2		TB3		TB4	
(1-8)	1	2	3	4	5	6	7	8
(9-16)	9	10	11	12	13	14	15	16
(17-24)	17	18	19	20	21	22	23	24

- Step 7.) Set jumper P6 for desired buzzer operation.

#### P6 – BUZZER ACTIVATION



- Step 8.) Mount PCB Track(s) using #6-32 keps nuts (P/N 899-G67197) and snap in PCB assemblies.
- Step 9.) Plug in the cable assembly(s) to the PCB assemblies as required.
- Step 10.) Connect ground wire(s) to chassis ground using #6-32 keps nut(s) (P/N 899-G67197).
- Step 11.) Connect IN wires from fire alarm system control unit or previous remote as required.
- Step 12.) Connect OUT wires to next remote or 120 ohm terminating resistor (P/N 140-820350), if last remote.
- Step 13.) Connect relay contacts, as required.
- Step 14.) Apply power to system.
- Step 15.) Program control unit for required relay operation.
- Step 16.) Check for proper operation of functions.

## SRU-2 / SRE-8 WIRING

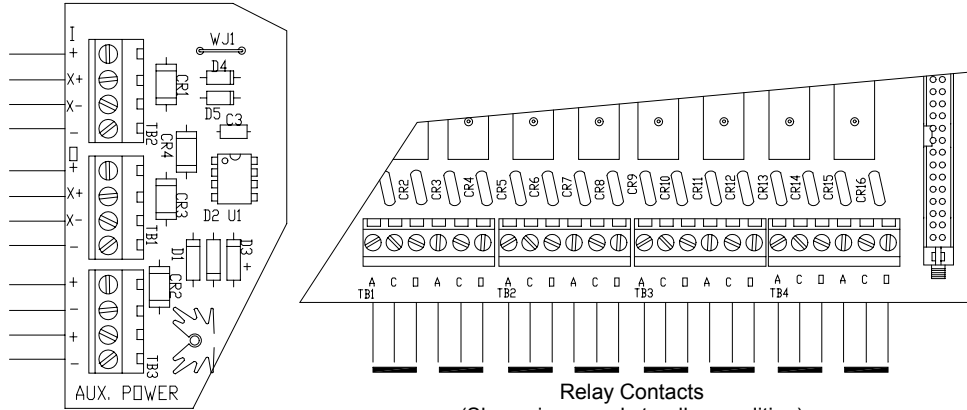
Power Limited, Supervised

Cable for power (+ & -) and Twisted pair Cable for data (X+ & X-) from panel or previous remote.

Cable for power (+ & -) and Twisted pair Cable for data (X+ & X-) to next remote or 120 ohm termination resistor (P/N 140-820350) on the last remote.

TB3 allows for connection to an external regulated and power limited 24VDC power supply, listed for fire protective signaling use.

Cut jumper WJ1 when external power is used.



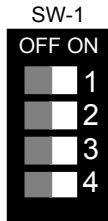
Relay Contacts  
(Shown in normal standby condition)  
1A@28VDC max., Resistive  
For Power Limited Source, Unsupervised

**Notes:**

- 1.) Units to be installed in accordance with all local codes.
- 2.) T-Tapping is not allowed! Communication wiring must be daisy chained from unit to unit.
- 3.) Terminal block will accept a maximum of 12 AWG wiring and minimum of 18 AWG.
- 4.) Use twisted pair cable with a characteristic impedance of approximately 120 ohms. 4000 feet maximum distance from end to end.
- 5.) Power Limited wiring must be kept separate from non-power limited wiring, 1/4 " minimum.
- 6.) The following table gives the currents necessary for power supply and battery calculations.

Model	Standby Current	Alarm Current	Voltage
SRU-2	0.032 A	0.192 A (All relays activated)	24 V nominal
SRE-8	0.000 A	0.160 A (All relays activated)	24 V nominal

### SRU-2 ADDRESS SETTING



Address	Switch 1	Switch 2	Switch 3	Switch 4
1	On	On	On	Not Used
2	Off	On	On	Not Used
3	On	Off	On	Not Used
4	Off	Off	On	Not Used
5	On	On	Off	Not Used
6	Off	On	Off	Not Used
7	On	Off	Off	Not Used
8	Off	Off	Off	Not Used

### PROCESSOR BOARD HEADER CONNECTIONS

Pin	P2 - Processor Board
1	24V Output
2	Not Used
3	Lamp Test Switch
4	Alarm Silence Switch
5	Trouble Acknowledge/Silence Switch
6	System Reset Switch
7	Remote Buzzer Output (open collector)
8	Alarm Silence Output (open collector)
9	Trouble Output (open collector)
10	Minus