Model 2081-9044 Overvoltage Protector Installation Instructions

GENERAL

The Simplex Model 2081-9044 protects Simplex building system equipment from overvoltage conditions induced on wire runs that are external to the building.

Model 2081-9044 is listed as compatible with the following circuits:

- 4120 Network Communications (RS-485 only)
- DC power to ZAMs and Annunciators
- MAPNET II® Communications
- RUI Communications
- 2120 Communications
- City Circuit Wiring (Local energy only)

Specifications

Maximum operating voltage:

38VDC, 27VAC RMS line to line

45VDC, 35VAC RMS line to ground

Maximum operating current:

200 MA

Series resistance:

3 Ohms per line (6 Ohms per protector)

INSTALLATION PROCEDURE (See illustration on next page.)

- For optimum protection, install the 2081-9044 apart from the protected equipment and as close as practical to the point where the circuit leaves or enters the building.
- Protected and unprotected wiring must not share the same conduit.

1. Mount the protector in a 4 in. (10.16 cm) or larger square box.
   - At least 2 in. (5.08 cm) distance must separate the “in” from the “out” conduit.
2. Cut the protector’s green lead as short as possible and tie it to the mounting box with a standard grounding screw.

MAPNET II® Communication Net is protected by U.S. Patent No. 4,796,025.

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All specifications and other information shown were current as of publication, and are subject to change without notice.

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3. Bond the box containing the protector to the grounding electrode system of the building containing the protected circuits.
   - Use 12 AWG (3.309 mm^2) or larger solid copper wire.
   - The ground wire's length must not exceed 28 ft. (8.6 m).
   - Bends in the ground wire of less than 2 in. (5.08 cm) radius are *not* permitted.
   - If enclosed in metal conduit, the ground wire must be bonded to the conduit at both ends.

4. A. Connect the protector's brown and violet leads to the lines coming from the protected equipment.
   B. Connect the protector's orange and yellow leads to the lines going out of the building.
   C. Connect one of the protector's gray leads to one of the cable shields. Then connect the remaining gray lead to the other shield.

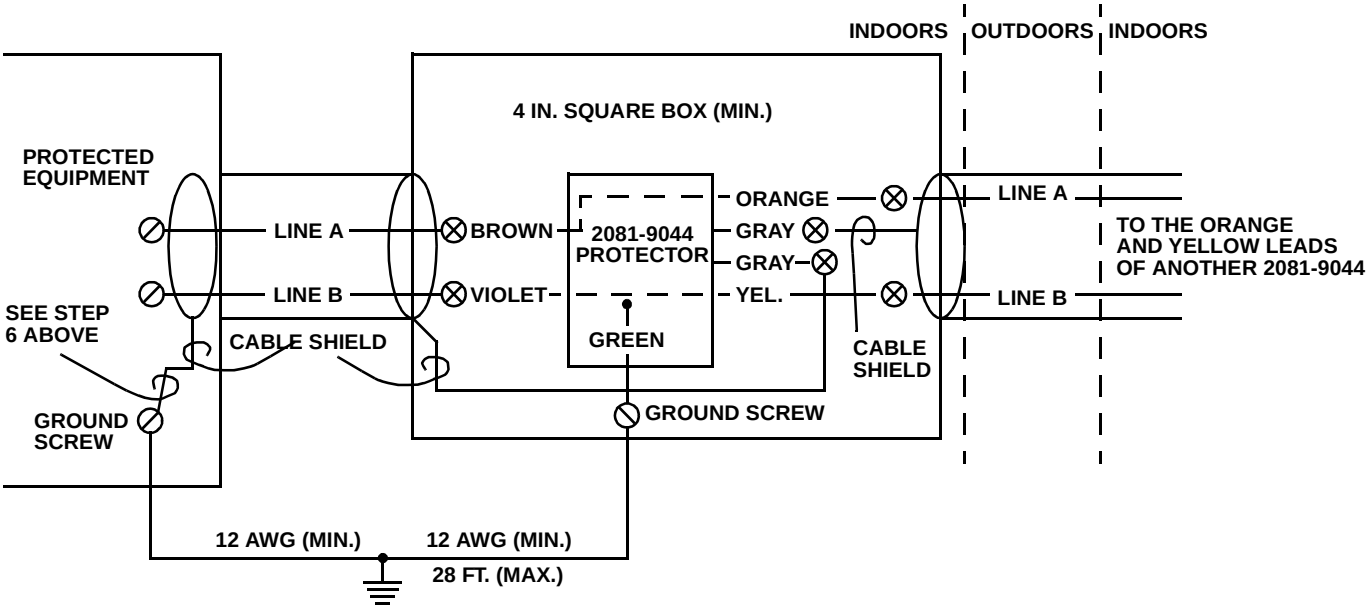
5. At the protector, dress the input and output cables as far apart as possible (no less than 2 in. [5.08 cm] distance must separate the two cables).

6. At the signal source, connect the cable shield to the cabinet's ground screw.
   - The following represent signal sources:

     2120 BMUX for 2120 Communications.

     Transponder or fire alarm panel for all other circuits.

TYPICAL CONNECTIONS



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INSTALLATION PROCEDURE (See illustration on next page.)

- For optimum protection, install the 2081-9044 apart from the protected equipment and as close as practical to the point where the circuit leaves or enters the building.
- Protected and unprotected wiring must not share the same conduit.

1. Mount the protector in a 4 in. (10.16 cm) or larger square box.
   - At least 2 in. (5.08 cm) distance must separate the “in” from the “out” conduit.
2. Cut the protector’s green lead as short as possible and tie it to the mounting box with a standard grounding screw.

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3. Bond the box containing the protector to the grounding electrode system of the building containing the protected circuits.
   - Use 12 AWG (3.309 mm^2) or larger solid copper wire.
   - The ground wire's length must not exceed 28 ft. (8.6 m).
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4. A. Connect the protector's brown and violet leads to the lines coming from the protected equipment.
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   C. Connect one of the protector's gray leads to one of the cable shields. Then connect the remaining gray lead to the other shield.

5. At the protector, dress the input and output cables as far apart as possible (no less than 2 in. [5.08 cm] distance must separate the two cables).

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