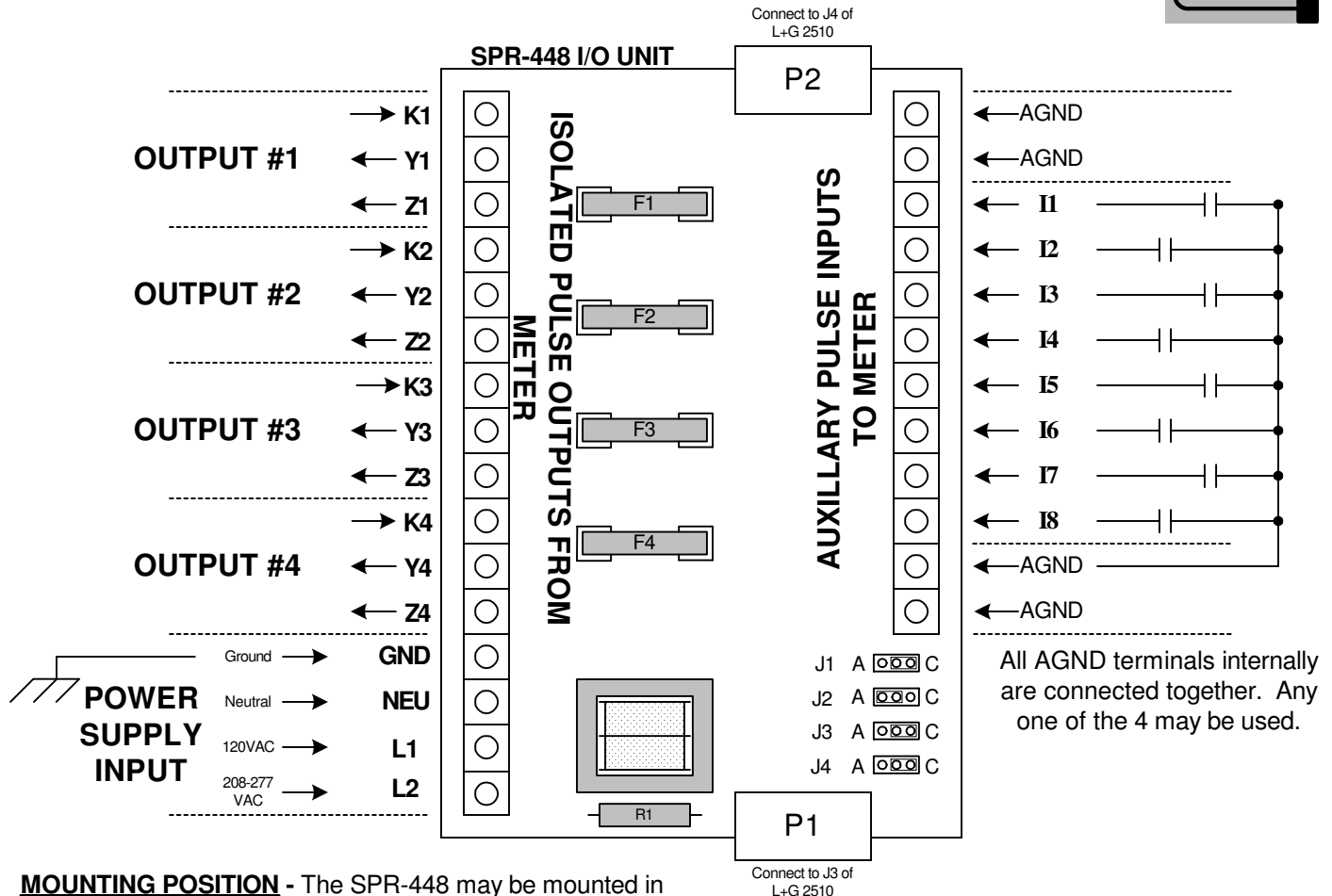


# INSTRUCTION SHEET

## SPR-448 I/O UNIT



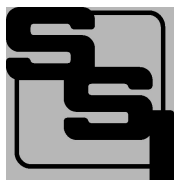
**MOUNTING POSITION** - The SPR-448 may be mounted in any position.

**POWER INPUT** - The SPR-448 can be powered by 120VAC or 208 to 277VAC. Connect the Neutral lead to the NEU terminal. Connect the **L1** terminal to the 120VAC "Hot" lead for 120VAC operation. Connect the **L2** terminal to the 208, 240, or 277 "Hot" lead. **Do not use both L1 and L2.** If Neutral does not exist at the meter, connect both NEU and GND to Ground.

**GROUND** - The GND terminal on the left side of the board (Terminal #4) is the electrical system ground. Connect this terminal to the electrical system ground. **DO NOT** connect the AGND terminals on the right side of the board to the electrical system ground. They are floating input grounds for the meter's auxiliary inputs only.

**KYZ INPUT TO SPR-448** - The SPR-448 has four field-selectable 2-wire (Form A) or 3-wire (Form C) inputs (J1 through J4) which receive pulses from a Landis + Gyr (L+G) 2510 meter's pulse outputs by means of **P1**, a DB25 Male connector. This interfaces directly with the L+G 2510 meter's **J3** wire harness with a mating connector. Set Jumpers J1 through J4 for the correct input configuration as defined by the meter's output configuration. The SPR-448's supplies a +13VDC wetting voltage from the Y and Z terminals to "wet" the meter's output contacts. As the pulse output of the meter toggles, the Y and Z inputs are alternately switched to the K terminal, thus activating the SPR-448's isolated outputs. When the Y input of each channel receives a pulse from the meter, the corresponding Red LED will light. When the Z input receives a pulse the channel's Green LED will light. Input pulses from the meter are "echoed" on the corresponding output of the SPR-448.

All AGND terminals internally are connected together. Any one of the 4 may be used.



## SOLID STATE INSTRUMENTS

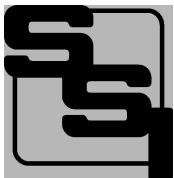
a division of Brayden Automation Corp.  
 6230 Aviation Circle, Loveland Colorado 80538  
 Phone: (970)461-9600 Fax: (970)461-9605  
 E-mail: support@solidstateinstruments.com

**RELAY OUTPUTS** - Each of the SPR-448's four inputs has a 3-wire isolated, dry-contact solid state output for repeating the pulses received from the L+G meter via the P1 connector. Outputs are K1, Y1, & Z1 for channel #1, K2, Y2, & Z2 for channel #2, etc. The output relay contacts are "dry" (no voltage present). A wetting voltage must be supplied from the destination device to each output's "K" terminal. Arc suppression for the contacts is provided internally by metal oxide varistor (MOV) surge suppression devices. Outputs are rated at 250VAC/VDC @ .1 Amp. Maximum on-state power dissipation is 800mW.

**FUSES** - The fuses are type 3AG or AGC and may be up to 1/10th Amp in size. Four 1/10 Amp fuses (F1-F4) are supplied standard with the unit unless otherwise specified. Care should be taken to insure that the input burden of the destination device will not exceed the rating of the fuse.

**AUXILLARY PULSE INPUTS** - The SPR-448 is equipped with eight input terminals, labeled **I1** through **I8**, which serve as termination points for the L+G 2510 meter's auxillary inputs. The **I1** through **I8** input terminals are routed to the SPR-448's DB25 Female connector, labeled "**P2**". The P2 terminal connects directly to the L+G 2510 meter's **J4** wiring harness. A Red LED next to each input terminal allows for field observation of the inputs' status. A +15VDC voltage to "wet" the contacts connected to each input is supplied by the meter. Each input is switched to the Auxillary Input Ground (AGND) terminals as shown in the drawing. Four AGND terminals are provided for convenience. All four AGND's are connected together internally and does not matter which one of the four AGND terminals is used for any specific initiating switch. When the initiating switch is closed, the input is brought low, thus making the the input line active and lighting the Red LED. The auxillary inputs are compatible with dry-contact isolated switch contacts only.

**ADDITIONAL METER COMPATIBILITY** - The SPR-448 is also 100% compatible with the Landis + Gyr's MAXsys Elite meter.



## SOLID STATE INSTRUMENTS

a division of Brayden Automation Corp.

6230 Aviation Circle, Loveland Colorado 80538

Phone: (970)461-9600 Fax: (970)461-9605

E-mail: [support@solidstateinstruments.com](mailto:support@solidstateinstruments.com)