

**Surge Guard Plus**  
**Automatic Transfer Switch**  
**with RV Power Protection**  
**120/240V, 90A, 60 Hz**

Total electrical protection for your RV. Protects your RV bumper to bumper from faulty park power. Optional, easy to read LCD display constantly monitors and displays the condition of power being supplied to your RV.

**Automatic Transfer Switch Features**

Unit will transfer to either shore power or generator automatically when energized. In the event both shore and generator powers are available, generator power will dominate after a 30 second delay. Once the generator is shut down, shore power will activate after a 2 second delay.

**Model**  
**41290**



Optional

**FEATURES**

- 90A full rated contactor mounted on vibration isolators to ensure quiet operation.
- Over/under voltage protection. Contactor opens outside of (102-132V) range after 9-second delay. Instantaneous trip at voltages above 140V and below 70V.
- Over/under frequency protection. Contactor opens outside of (54-70Hz) range after 30-second delay.
- Source power connection integrity. Contactor will not close or will open in the event of an open source conductor or miswire. (L1, L2, Neutral and Ground.)
- Brown/blackout protection 2 min 15 second delay is initiated after removal of power to ensure AC compressor head bleed off. Feature can be disabled on remote. (optional)
- Measures and displays both L1 & L2 load current independently.

**Surge Guard Features:**

- 4-mode protection, 3,350 Joules
- Energy capacity – 130,000 Amps peak.
- Fuse protected L1/L2 surge suppressers.
- Plain text display (Replace Surge) of open fuses indicating a failed MOV or open surge connection.

**Remote Panel Indicator (Optional):**

- Continuous visual indication of source voltage (L1, L2) load current or diagnostics.
- Plain English display of faults. No cryptic error codes.
- LCD technology with automatic light sensitive back lighting for easy reading in any ambient light condition.

**3<sup>rd</sup> Party Display System:**

- RS232 proprietary output data stream for communication with external equipment.

L1 - Neut. Reading	L2 - Neut. Reading	Neutral Status	Ground Status	Ground Current	Display Example
102-132V	102-132V	(Normal)	(Normal)	(Normal)	120V/25A 118V/30A
Less Than 75V	(Normal)	(Normal)	(Normal)	(Normal)	L1 Open
(Normal)	Less than 75V	(Normal)	(Normal)	(Normal)	L2 Open
76-101V	(Normal)	(Normal)	(Normal)	(Normal)	Low Volt L1=95V
(Normal)	76-101V	(Normal)	(Normal)	(Normal)	Low Volt L2=95V
Greater than 132V	(Normal)	(Normal)	(Normal)	(Normal)	High Volt L1=135V
(Normal)	Greater than 132V	(Normal)	(Normal)	(Normal)	High Volt L2=135V
Greater than 140V	(Normal)	(Normal)	(Normal)	(Normal)	Reverse Polarity
(Normal)	Greater than 140V	(Normal)	(Normal)	(Normal)	Reverse Polarity
(Normal)	(Normal)	(Normal)	(Normal)	(Normal)	Low Freq 52-hz
(Normal)	(Normal)	(Normal)	(Normal)	(Normal)	High Freq 75-hz
(Normal)	(Normal)	Open	(Normal)	(Normal)	Open Neutral
(Normal)	(Normal)	(Normal)	Open	(Normal)	Open Ground
Open L1 Fuse	Open L2 Fuse				Contact Mfg.