

# 30A Stand-alone Surge Suppressor

## Description

The 30A stand-alone surge suppressor provides up to three circuits per assembly and is ideal for protecting sensitive equipment used in telecommunications, security, fire, audio/visual, broadcast, sound recording and reinforcement, DSP, data storage, test and monitoring, process control, as well as business/retail PCs and point-of-sale terminals.

Versatile assemblies can be used as stand-alone surge suppressors or in conjunction with an AC loadcenter to provide protection to specific circuits. For large installations, more than one assembly can be connected to a single loadcenter. In addition, the assembly can be used with Lowell's sequence-controlled AC loadcenters (ACLC-series) to provide time sequenced power activation/deactivation with the added protection of surge suppression at the main box.

The assemblies are available with one, two or three 30A circuit modules installed in a 14"W x 14.5"H x 4"D enclosure with screw terminal outputs, knockouts on all sides, assorted bushings to protect wiring, front cover and an end cover kit for use in stand-alone applications. The front cover is punched to expose each module's three LEDs that provide visual circuit status indication without opening the device. For future expansion, a 30A circuit surge suppressor module is available.

## Features

- ETL Listed, ANSI C62.41 Compliant
- Conforms to UL1449-3
- LEDs provide visual system status
- Suppresses line to neutral with no ground contamination.
- TCR® technology defeats surges up to 72,000 amps with zero failures
- For use as a stand-alone unit or with an AC loadcenter

## A & E Specifications

The 30A circuit surge protection device shall be Lowell model \_\_\_\_\_ and shall have \_\_\_\_\_ circuits installed. The surge suppressor assembly shall be ETL listed and comply with UL1449-3. It shall meet ANSI C62.41 and protect the line to neutral without ground wire contamination. It shall be capable of protecting audio, video, broadcast, computer, DSP, sound recording and reinforcement equipment from transient voltages, spikes and surges. It shall include technology to defeat surges up to 72,000 amps and have a response time of less than 5 nanoseconds. It shall include transient noise reduction filtering of 25dB@100kHz, 50dB@1MHz. The front shall include three LEDs per circuit with LED openings in the cover and labeling for visual ground verification and diagnostics without opening the assembly.

The assembly shall install to an AC loadcenter, time sequenced loadcenter (such as Lowell's ACLC-series), or install as a stand-alone device. Stand-alone applications shall require the open end of the enclosure to be covered using the supplied end cover kit.



The surge suppressor is available with one, two or three 30A circuits.



## Mechanical Specifications:

Dimensions:	14"W x 14.5"H x 4"D
Weight:	9 lbs. approx.
Input Connections:	Hardwired pigtail leads, 10 gauge minimum
Output Connections:	3-point terminal block
Chassis:	Galvanized steel backbox with a steel cover plate finished in grey powder epoxy paint.
Mounting Options:	Open side mounts to an AC loadcenter or is closed using End Cover Kit (included) in stand-alone applications.

## Surge Suppressor:

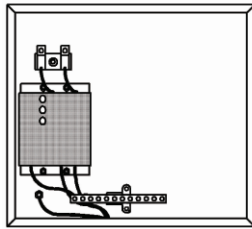
Operating Voltage/Current:	120VAC nominal / 30A
Maximum Surge Current:	72,000A (exceeds UL1449-3 6000V, 3000A)
Initial Clamping Voltage:	205V, UL rating 400V
Endurance:	IEEE C62.41-1991, B3 (C1), Pulses (lifetime): 1kv≥1,000,000; 3kv≥100,000; 6kv≥5000
Transient Noise Reduction:	25dB@100kHz, 50dB@1MHz
Response Time:	Less than 5 nanoseconds
Protection Mode:	Line to neutral, zero ground leakage
UL1449-2 Adjunct Results:	1000 surges, 6000 volts, 3000A, C1, and B3 waveforms (IEEE C62.41), <b>NO FAILURES</b>
Federal GSA specs (1996)	Grade A, Class 1, Mode 1
Diagnostic LEDs**	Top (green): ON = ground verified Center (green): ON = protection active Bottom (red): ON = protection reduced
Applicable Standards:	UL1449-3, IEEE standard 587-80 A & B, IEEE standard C62.41-1991, IEC 1000-4-5-1995 (IEC 801-5).
Safety Agency Approvals:	ETL Listed US and Canada

\*\*TCR® surge suppression technology provides the assurance of Grade A, Class 1, Mode 1 endurance and performance testing plus visual diagnostic LEDs. The ground verified (green LED), protection active (green LED) should always be ON and the reduced protection (red LED) should be OFF. In the unlikely event the red LED illuminates, full suppression capability is NOT immediately or even necessarily compromised. The red LED indicates the overall life expectancy of the unit may be reduced. Contact Lowell for repair or replacement under the unit's ten year warranty.

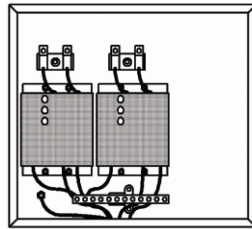
Model No.	Description	Amperage	No. of Circuits	Enclosure Size	Compatible with Loadcenter
ACSP-30-1C	Surge Suppressor	30A	1	14"W x 14.5"H x 4"D	ACLC-series
ACSP-30-2C	Surge Suppressor	30A	2	14"W x 14.5"H x 4"D	ACLC-series
ACSP-30-3C	Surge Suppressor	30A	3	14"W x 14.5"H x 4"D	ACLC-series

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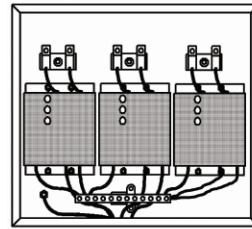
## Layout



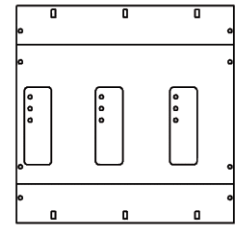
ACSP-30-1C



ACSP-30-2C



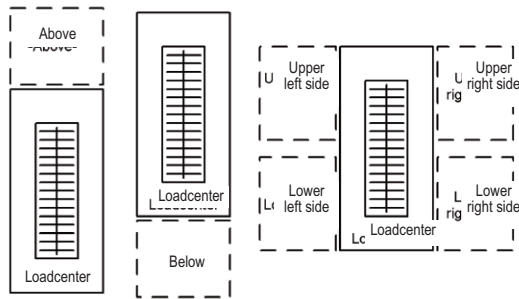
ACSP-30-3C



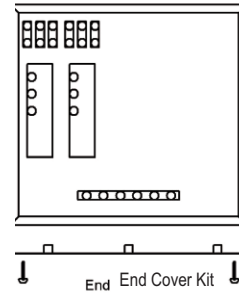
Front Cover

**Before Installation:** note that depending on the local construction trade situation, some or all of the following installations may have to be performed by a qualified electrician. Consult with the Authority Having Jurisdiction (AHJ) and/or the General Contractor if there are any questions.

## Installing SPD Panel



If SPD panel is to be installed adjacent to a loadcenter, it can be located in any of the positions shown above. The open side of the backbox must be installed against the side of the loadcenter. Remove appropriate knockouts in the loadcenter and install bushings (provided) as required to protect wiring between loadcenter and SPD panel.

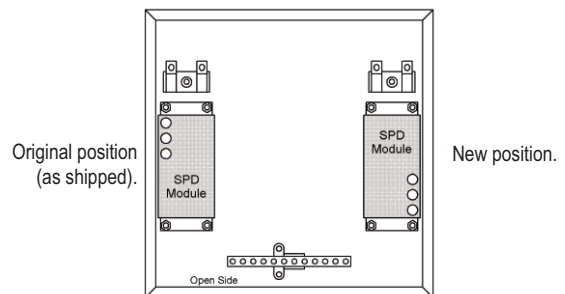


If SPD panel is to be installed in a location not adjacent to a loadcenter, install end cover kit over open side of back box. See instructions packed with end cover kit.

## Reorienting Modules for Optimum Label Readability (1 circuit shown)

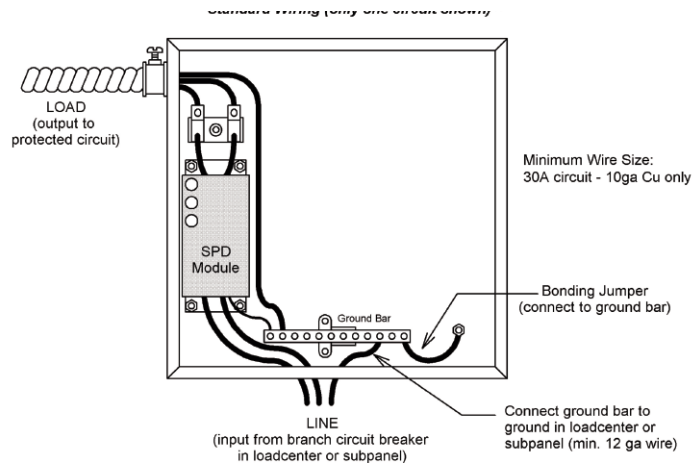
As shipped from the factory, panels are assembled so that the labels on the cover are right side up when backbox is positioned with the open side down. If the panel is to be installed in a different position, the modules and front cover can be rotated 180° (if desired).

1. Disconnect wiring from terminal block. Disconnect ground wire.
2. Remove nuts from four corner standoffs. Remove module and set aside.
3. Remove standoffs and reinstall in symmetrically opposite position on opposite side of backbox. Standoffs must be installed EXACTLY as before (metal on bottom).
4. Remove terminal block. Relocate to opposite side of backbox and reinstall.
5. Reinstall module on standoffs in new location rotated 180° from original position.
6. Reconnect ground wire.
7. Reconnect LOAD wires to terminal block. Enough extra lead length is provided to route wires in opposite directions beneath module. **CAUTION: Do not reverse line and load connections.**
8. When installing cover, be sure LEDs on modules align with lens on cover.

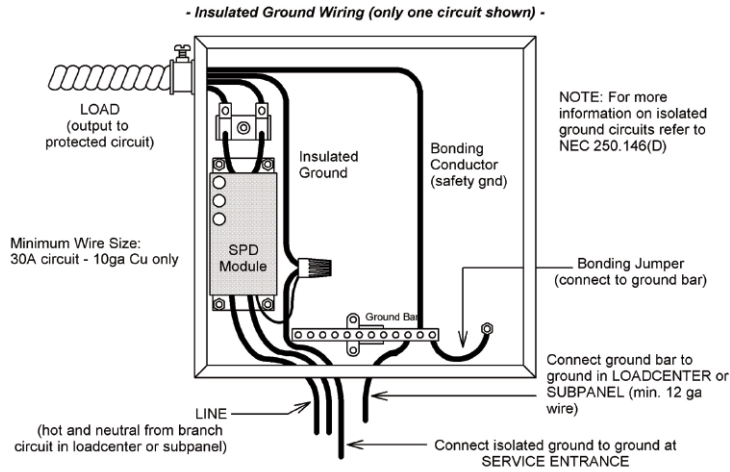


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## Standard Wiring (1 circuit shown)



## Insulated Ground Wiring (1 circuit shown)



## Alternate Method, Insulated Ground Wiring (1 circuit shown)

