UL1449 3rd Edition Surge Products – Recommended Installation Practices for CHSPT1 and CHSPT2 Products

All UL® Listed Surge Protection Devices (SPD's), commonly known as surge suppressors, must comply with the new Underwriters Laboratories Standard UL 1449 3rd Edition. Formerly, all UL Listed surge suppressors complied with UL 1449 2nd Edition. The redesign of the residential SPD line has changed the recommended installation practice of these products.

What products does this impact?
The CHSPT1 series is dual rated for a Type 1 (installation ahead of a main disconnect) and Type 2 (installation after a main disconnect) application. A dedicated circuit breaker is not required for the installation of a Type 1 product, but is recommended in a Type 2 application for ease of installation. A Type 1 product may also be installed using lay-in lugs.

The CHSPT2 series is rated for a Type 2 (installation after a main disconnect) application and must be installed using a dedicated circuit breaker. The circuit breaker provides a means to connect the device to the loadcenter bus and short circuit current protection.

The SPD still must be installed using a dedicated unused or new circuit breaker in an available space closest to the location where the SPD is to be installed.

Can a 14 AWG wire be installed using a 50 ampere circuit breaker
Yes. The connecting wires do not carry load current. Instead, they carry only short-duration currents that are associated with a transient event.

What if my inspector questions my installation method?

Reference NEC® article 110.3 (B) which states that "listed or labeled equipment shall be installed and used in accordance with any instructions included in the listing or labeling" as well as the instruction bulletin for the SPD.

If an inspector continues to have a perceived issue, any dedicated 15 or 50 ampere circuit breaker may be used. The SPD will still perform its intended function but it is not guaranteed that the SPD will perform to its published ratings.

How else can I maximize the performance of the SPD?

In addition to installing the recommended circuit breaker for the SPD, installation wiring should be kept as short as possible (less than 12 inches is recommended) and have one twist per inch to reduce the impedance of the wire.

The following are the recommended types of circuit breakers for the new UL 1449 3rd Edition CHSPT1 and CHSPT2 products to achieve their published ratings.

Catalog Number	Recommended Dedicated Circuit Breaker Type
Type 1 Surge Protection	
CHSPT1ULTRA	2-pole 50 ampere circuit breaker
CHSPT1MAX	2-pole 50 ampere circuit breaker
CHSPT1MICRO	2-pole 50 ampere circuit breaker
CHSPT1-208Y	3-pole 50 ampere circuit breaker
Type 2 Surge Protection	
CHSPT2ULTRA	2-pole 50 ampere circuit breaker
CHSPT2MAX	2-pole 15 ampere circuit breaker
CHSPT2MICRO	2-pole 15 ampere circuit breaker

Note: Formerly, all 120/240V UL 1449 2nd Edition SPD's were recommended to be installed using a dedicated unused or new 2-pole 15 ampere circuit breaker in an available space closest to the location where the SPD was to be installed.

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