# Inverted Mounting Configuration for Omni-Rupter Switches


**Figure 1. 14.4-kV reciprocating operating handle Omni-Rupter Switch in the inverted mounting configuration.**

Birds and other wildlife are a major nuisance for an overhead distribution system. They can cause power outages, equipment damage, and lead to hefty fines if protected species are harmed. S&C provides solutions for Omni-Rupter Switches to help utilities prevent these events, including optional open-gap wildlife protection (not shown) and optional phase-to-ground wildlife protection discs (not shown). S&C is pleased to announce another option to protect wildlife—Omni-Rupter Switches in an inverted mounting configuration (see Figure 1).

Major features include:

### Inverted Mounting Configuration

The inverted mounting configuration places the live parts of the switch (including the terminal pads, blades, jaw contacts, and interrupters) underneath the base of the switch. This placement greatly reduces the chance of wildlife landing on live parts.

### Interrupters

No-external-arc interrupters are spring-driven instead of direct-driven, ensuring consistent interrupter operating speed, regardless of the operating pipe or hookstick mechanism speed. A multi-function operating cam and shunt arm work together to ensure smooth, consistent operation.

### Jaw Contacts

The jaw contact structure's floating contact buttons provide even contact forces across the jaw contacts, reducing friction during operation. Field-replaceable sacrificial guide fingers bring the blade into alignment and act as arcing contacts under fault-closing conditions.


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**Articulating Hinge Terminal Pad**
Patented articulating hinge-joint terminal pads permit 13 degrees of motion up and down, plus 3 degrees pivotally, allowing some degree of conductor misalignment while preventing added force or friction on the switch blade.

**Overtoggle Mechanism**
The overtoggle mechanism and indicator for reciprocating-type operating mechanisms and hookstick operating mechanisms ensure the switch is never left partially closed. High-visibility red reflective tape is visible when the switch is open and the overtoggle has not been engaged (see Figure 2). When the switch is fully closed and the overtoggle is engaged, the red reflective tape is covered to let the operator confirm switch position (see Figure 3). If the switch is not closed properly and the overtoggle is not engaged, some red reflective tape will be visible (see Figure 4). This alerts the operator of an unacceptable switch position.

**Operating Styles**
Inverted mounting configuration Omni-Rupter switches are offered in three operating styles: manually operated with a rotating operating handle, manually operated with a reciprocating operating handle, and manually operated with a hookstick operating mechanism.

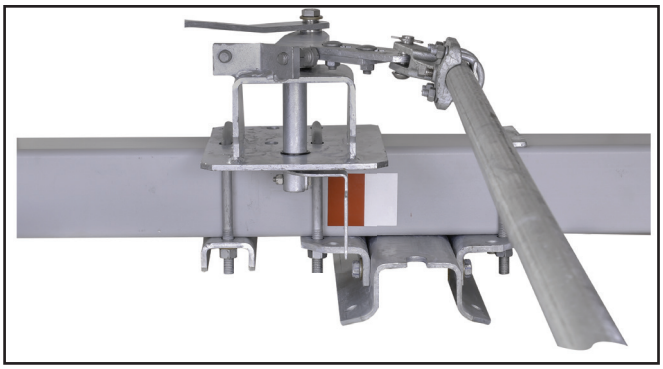

Figure 2: The switch open, not in overtoggle.

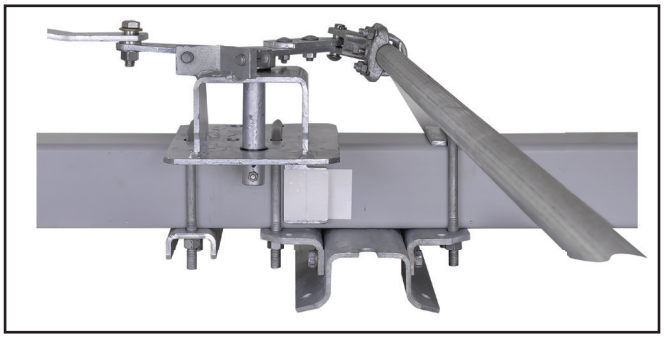

Figure 3: The switch closed, overtoggle engaged.

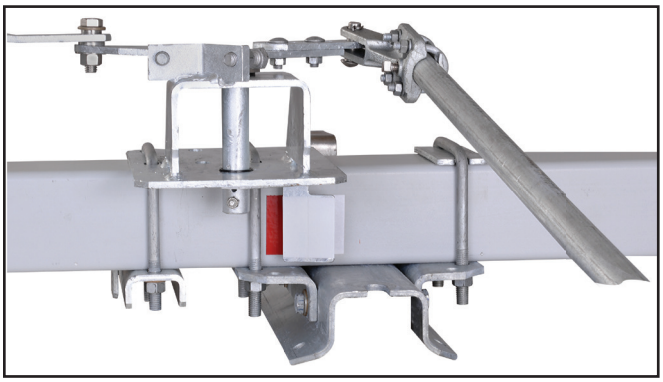

Figure 4: The switch improperly closed, not in overtoggle.

**Ratings★**

| kV | | | | Amperes | | | | Fault-Closing Capability, Amperes Peak | |
|---|---|---|---|---|---|---|---|---|---|
| Nom. | Max | BIL | Cont. | Interr. | Peak Withstand | One-Second RMS, Sym | Three-Second RMS, Sym | Two-Time Duty Cycle | Ten-Time Duty Cycle |
| 14.4 | 17.0 | 110 | 900 | 900 | 65 000 | 25 000 | 20 000 | 42 000 | 21 000 |
| 25 | 29 | 150 | | | | | | | |

★ For a full list of switch ratings, please see S&C Specification Bulletin 765-31.