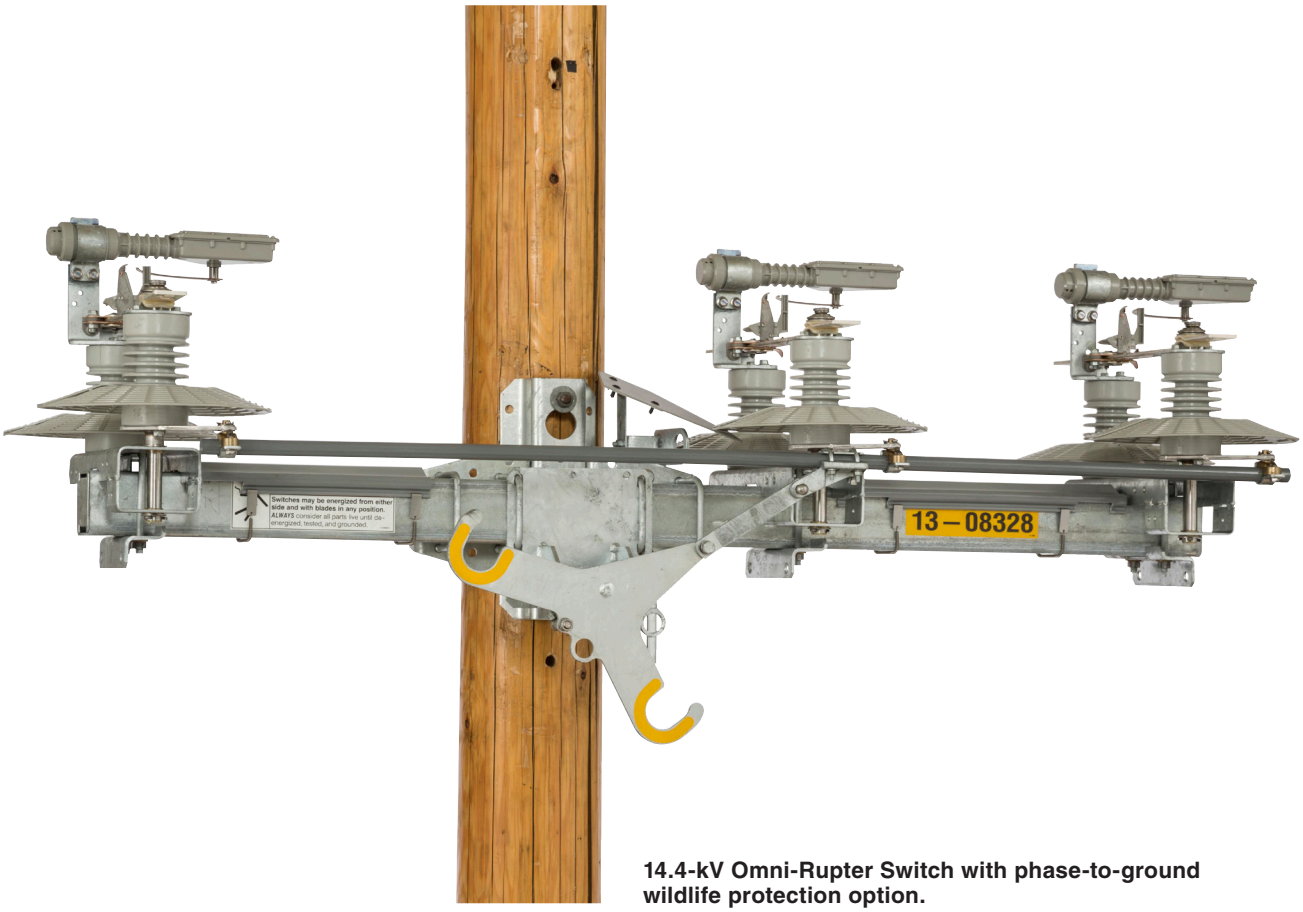
Wildlife Protection for Omni-Rupter Switches

Birds, tree squirrels, and other animals are a leading cause of power outages on utility distribution systems —a concern as utilities face increasing pressure to improve power service reliability, as well as strict government regulations intended to protect threatened species. Wildlife intrusions can also cause costly damage to electrical equipment.

S&C offers a variety of solutions for Omni-Rupter Switches to protect against damaging wildlife contact with the switch. The different options allow you to tailor your Omni-Rupter Switch to safeguard against the specific wildlife issues in a given area.



14.4-kV Omni-Rupter Switch with phase-to-ground wildlife protection option.

Phase-to-Ground Wildlife Protection

Power outages and equipment damage can result if tree squirrels or other animals make phase-to-grounded part contact on a switch. To address this problem, S&C offers a wildlife protection option for manually operated Omni-Rupter Switches in the upright mounting configuration. This option effectively prevents animals from making phase-to-grounded part contact.

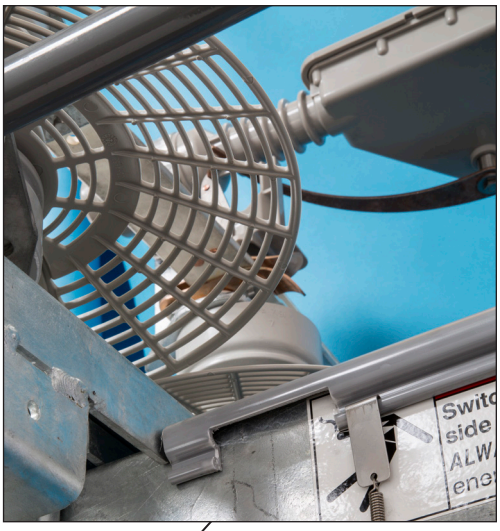
The key to the **phase-to-ground** wildlife protection option is its unique angled wildlife discs that cover the bases of the support insulators—providing an excellent barrier between the energized and grounded parts of the switch. These discs snap together without tools, and fit both Cypoxy™ and porcelain insulators.

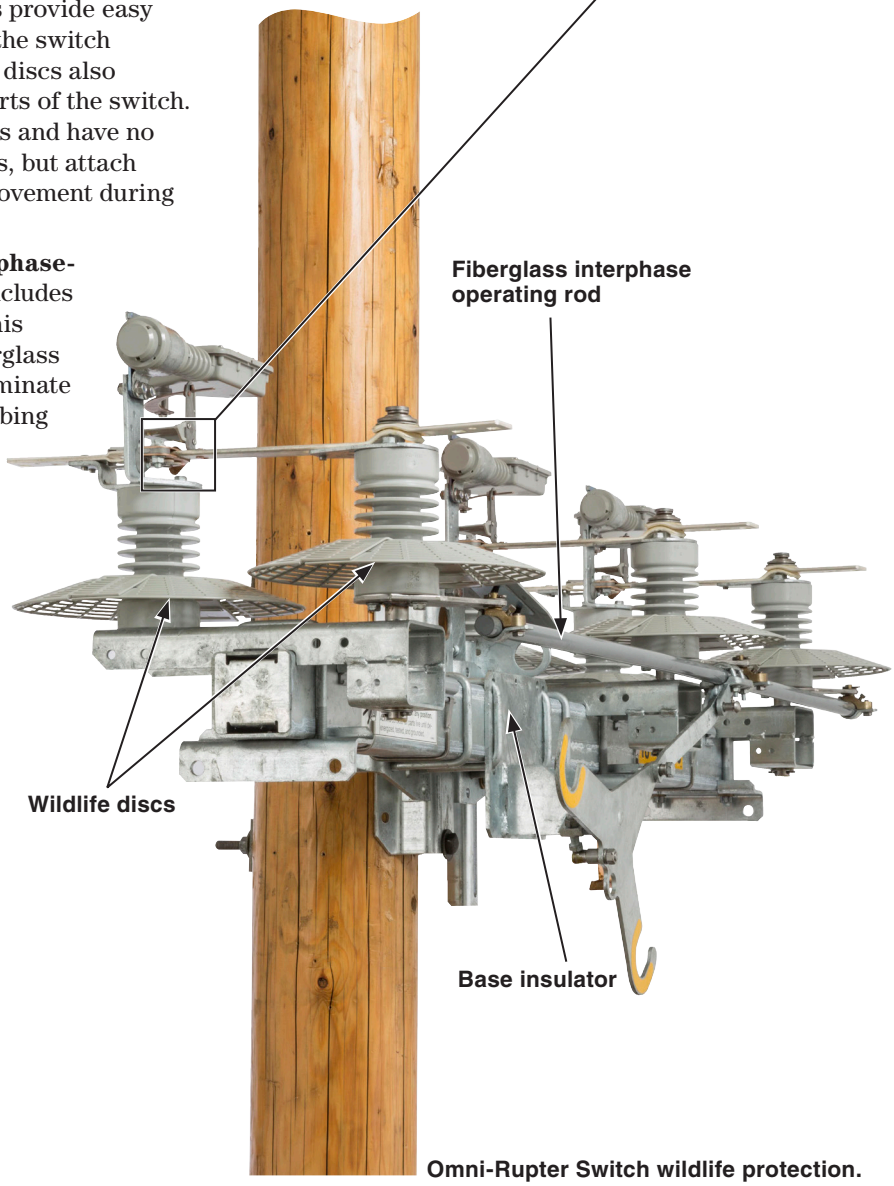
The wildlife discs are made of a durable, flexible, UV-stabilized polycarbonate material—the same material S&C has used on distribution fuse rain caps for over 25 years.

The perforations in the wildlife discs provide easy visibility of the open or closed state of the switch contact position. The steep slope of the discs also deters nest building under energized parts of the switch. The wildlife discs float on the insulators and have no effect on their insulation characteristics, but attach securely enough to avoid spinning or movement during high winds.

In addition to the wildlife discs, the **phase-to-ground** wildlife protection option includes insulated covers for the switch base. This option also comes standard with a fiberglass interphase operating rod, to further eliminate the possibility of perching birds or climbing animals making phase-to-grounded part contact.

View of jaw contact through wildlife protection disc





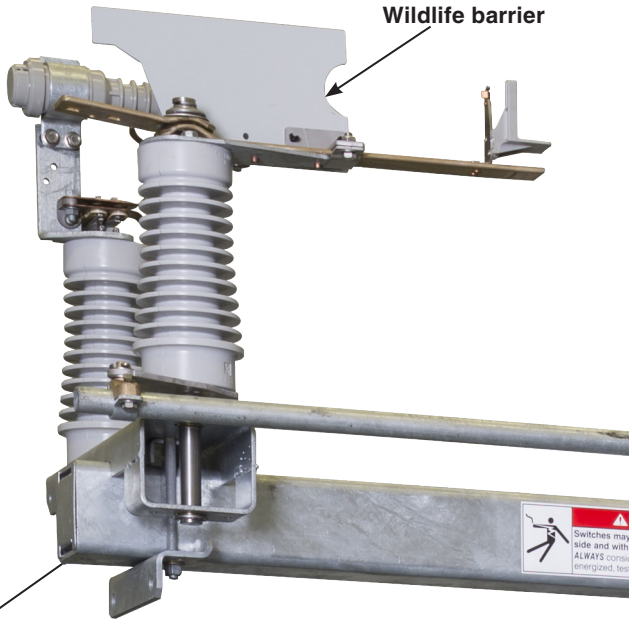
Omni-Rupter Switch wildlife protection.

Open-Gap Wildlife Protection

Squirrels cause a majority of animal-related outages, and can be found on every continent of the world except Australia and Antarctica. A sectionalizing switch left in the open position, or opened to de-energize a section of a line for maintenance, does not discourage squirrels from traversing power lines.

To help deter squirrels and other small animals from making contact across the open gap of an Omni-Rupter Switch, S&C is pleased to offer **open-gap wildlife protection** ... for switches in the upright mounting configuration. The blade-mounted barriers force a climbing animal to jump over the insulated panel installed on the disconnect blade, making it more difficult for squirrels and other small climbing animals to bridge an open gap.

The barriers do not interfere with the operation of the switch, or jumper and cable connections. The insulated panels are made of the same painted fiberglass material as Omni-Rupter ice shields, and are connected to the blades with corrosion resistant stainless-steel mounting hardware. The barriers are assembled on the switch at the factory, further streamlining installation time in the field.



14.4 Omni-Rupter switch with open-gap wildlife protection.

Solutions for Installed Switches

Adding wildlife protection to previously installed Omni-Rupter Switches is easy. Both the phase-to-ground and open-gap wildlife protection options can be retrofitted to installed switches without removing the switch from the utility pole. The phase-to-ground option uses the same wildlife discs and insulated guards for the base, but includes wrap-around insulating covers for the interphase operating pipe—eliminating the need to disassemble the switch to install an insulated interphase rod.

The open-gap wildlife protection option is just as easy to install to a de-energized and grounded switch. The barriers install to the blade with a simple mounting bracket. Open-gap wildlife protection can be retrofitted to upright switches with the “R4” catalog number suffix.

Additional Solutions for Wildlife Protection

S&C offers additional solutions to reduce the possibility of wildlife-related outages, including switches with fiberglass bases, insulators of the next-higher voltage level, and switches in the inverted configuration—along with a broad range of custom features such as special phase spacing. Contact S&C for more information about how S&C can help reduce the possibility of damaging wildlife interference with your overhead distribution switches.