**Background**

In a small number of installations, the onboard relay of the Keyless Entry System (KES) may be insufficient for the power requirements of the door strike system. The relay is rated at 110V 5A, but there are a wide variety of equipment and installation scenarios that can result in a door strike power draw that is outside of these specifications. This is likely to be the case if the relay fails multiple times, for example, 3 times within a 36 month period.

**Solution**

Finding the exact situation that is creating the excess power draw can be a complex task. Understanding exactly what is going on, from a wiring problem to an over-sized “industrial” strike is a good thing to do. In any case, the KES relay needs to be protected.

**Wiring**

In the standard diagram the strike power “A” goes through the KES relay “B” and energizes the door strike “C”. By adding an additional high capacity relay to the system, the KES relay is protected with minimal additional cost.

![Wiring Diagram](image)

A stout 15A relay (image below) with a terminal base can be purchased at most electrical suppliers for approximately $25. By wiring the KES relay so it controls the large relay, the additional power requirement is accommodated.

See diagrams on next page >>
Diagram 1 – Relay Connections

Control Power from existing Doorbell controller

KES relay contacts

Industrial relay control contacts (pins A & B)

Door strike circuit wiring now moves to relay contacts on industrial relay

Diagram 2 – Relay Location

New relay fits here electrically, physical location may vary.

Note: care must be taken to ensure that the power draw of the additional relay does not exceed the available output of the doorbell transformer.