How to connect the chassis power locks to the added body power locks:

Service body power locks can be tied in to the power lock system of a Ram truck. There are two methods. If the vehicle is equipped with a VSIM, (Vehicle System Interface Module) it is highly recommended that service body lock and unlock functions be accomplished using the VSIM outputs. See VEHICLE SYSTEM INTERFACE MODULE section of the builders guide for details. However, if the vehicle is not equipped with VSIM, there is an alternate method.

This is accomplished by tying a pair of diode isolated SPDT relays into the truck’s lock motor drive circuits and driving the service body’s lock motors with the relays. (see schematic on next page)

The vehicle’s door locks are controlled by the CBC. The individual door modules or the RF Hub (lock/unlock signals from key FOB) sends a lock/unlock message to the CBC on the CAN bus. The CBC will send a 350 mS pulse to the door lock motors. The polarity of that pulse determines lock or unlock. The CBC controls the “driver’s unlock” function separately form the unlock function of the other doors in the vehicle. This is to support the “driver’s door only on first press” vehicle feature. There are three lock motor control circuits in the vehicle. P777 is the “all lock” circuit. P910 is the “driver’s door” unlock circuit and P292 is the “passenger and rear” unlock circuit. This procedure utilizes the “all lock” and “passenger and rear door” unlock circuits. Blocking diodes must be placed in series with the relay coils. This is to prevent the unlock relay from firing when the lock signal is sent or the lock relay from firing when the unlock signal is sent. Without the diodes, neither the service body nor the vehicle locks will work.

To access the circuits, the passenger kick panel/sill cover must be removed and the carper rolled towards the center of the vehicle. The wires come from under the front seat into a trough. They exit the trough at the forward end near the kick panel. This area is where the wires should be accessed. (see photo’s on following pages) The wires to be spliced are violet with a light green tracer and light green with a dark green tracer. Please note that there are a number of wires in this bundle with similar wire colors. Test these circuits with a circuit tester or volt meter prior to making the splice. Both circuits will pulse high when the appropriate lock or unlock button is pressed.

Construct the circuit as shown in the attached schematic. The 1N5359 diodes are fairly hearty devices but still should be located inside the cab, in an area that would protect them from moisture and abuse. The most convenient location seems to be behind the kick panel. Likewise, the relays should be mounted inside the cab, in an area that will protect from moisture and abuse. The most likely location is somewhere behind the dash. Wire gage, relay contact and fuse ratings should be sized to handle the total current demand of all of the lock motors in the service body. The lock and unlock circuits can be routed outside of the cab through an existing pass through and to the service body.
Chassis / Applied Body Connected Power Locks

Spec Fuse, Relay Contacts and Wire Appropriately for Number of Lock Motors Being Driven.

1N5359
24V, 5W

Relay 1
SPDT

Relay 2
SPDT

Service Body Lock Motors

M
M
M

Base Truck
Up Fitter

Splice

Splice

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