

# InPower Technical Bulletin

Subject: Fault Shutdown Reset Procedure

Products: SSC32-275  
SSC32A-275

## Background:

The referenced power contactor products contain a feature that will “trip” (turn off) the DC power switch, resulting in no +12 volt power on the output (*Load* terminal). When this occurs, the power switch will remain latched in this off state until the unit is reset. The fault conditions that can cause power switch to turn off include:

1. Over Current (Load current greater than 275 amps for 750 milliseconds)
2. Over Temperature (Case temperature exceeds 85° C/185° F)
3. Loss of Ground (A poor connection between the power contactor ground and vehicle ground)

## Reset Procedure:

To reset the power contactor when it is in the latched off state due to a fault condition the control input voltage must be removed, then re-applied to turn the power switch back on. As these products contain multiple control inputs (both ground and +12 volts activated) be sure to verify that the correct input is reset (there should be only one input activated at a time).

Note that on this product family (other power contactor products are different) the control voltage on Input A and Input B must be taken below \_\_\_Vdc to turn off (or reset) the power switch. It must be taken to above +2.6 Vdc to turn it back on. For Input C and Input D, the control voltage must be taken above \_\_\_Vdc to turn the power switch off, and to below +2.1 Vdc to turn it back on.

Normally the control inputs are connected to +12 volts (or ground) through a contact closure such as a toggle switch or relay contact. However, in some applications there may be a control circuit that could keep a positive DC voltage on the power contactor’s control input, thereby preventing it from resetting. To verify that it is getting the correct reset, check the control input voltage with a voltmeter. Place the positive probe on the control input terminal and the negative probe on the ground connection on the power contactor. (The ground connection is the square pad on each of the four mounting holes.) Verify that the inputs are getting the correct voltage to perform the reset function.

An alternative method of resetting the power contactor after a fault shutdown is to disconnect the +12 volt battery cable from the *Battery +* terminal, then re-connect the cable. Removing the 12 volts from the power contactor will reset the unit.

If you verify that the power contactor is being correctly reset after a fault shutdown and there is no 12 volt power on the load terminal when the control input is activated you have a faulty power contactor.

## Reference Documents:

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| 1. Owners Manual for SSC32-275  | InPower document OM-41 |
| 2. Owners Manual for SSC32A-275 | InPower document OM-49 |