

## SL-IV Cab Fault Light and Engineer Resets

- NPLR – No power light relay – This relay will light the fault light after 60 seconds of the master controller calling for P3 power and no power is being taken or detected.
  - Reset is accomplished through reset button on the trainline board in the firemen's panel. The reset only resets the fault light.
  
- GR & RGR – These relays are ground detection relays for the high voltage circuits and trip together. GR trips first which in turn trips RGR causing the car not to take propulsion power.
  - GR reset is accomplished through the reset plug on the master controller. This will allow the car to take Switch Power only.
  - RGR reset must be physically pushed on the relay in the Main Group outside the car.
  
- TRF – Transformer Hot Relay – This relay will trip and light the fault light when the temperature in the main transformer gets too hot. This relay will also light the blue fault light in the main group.
  - TRF reset can only be manually reset outside the car in the main group. The engineer cannot reset this relay from the cab.
  
- THR – Transformer Thermal Relay – This relay will trip and light the fault light when the main transformer gradually exceeds current of around 500 amps. THR will also shoot the line but not lower the pantograph. This relay will also light the blue fault light in the main group.
  - THR reset can only be manually reset outside the car in the main group. The engineer cannot reset this relay from the cab.
  
- OLR1,2,3 – A-Contactor Overloads – These relays will trip and light the fault light when the current exceeds 1400 amps. Once tripped these overloads will cause car not to take propulsion power.
  - OLR1,2,3 reset is accomplished through the reset plug on the master controller or the local reset switch in the main group.
  
- OLM1,2 – Traction Motor Overloads - These relays will trip and light the fault light when the current draw for the traction motor exceeds 750 amps. Once tripped these overloads will cause the car not to take propulsion power.
  - OLM1,2 reset is accomplished through the reset plug on the master controller or the local reset switch in the main group.

- DBOL – Dynamic Brake Out Light – This is a separate fault light in the cab that lights when a call for braking is initiated and the electronic cards do not see at least 90 motor amps output to the roof resistors.
  - DBOL is just an indicator light. Automatic reset is accomplished through the electronic cards.

\*Note: The faults listed are a trainline function meaning that if any car in the consist trips, it will light the fault light in the lead cab. The reset on the master controller also works trainline, which will reset any car in the consist. These faults will also display and latch in on the P&FI (Performance & Fault Indication) Panel in the offending car. The P&FI panel is located in the center of the car and with its latching function is used to determine which car had the fault.