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# **Enhancing the 750/760 Transfer Scheme for Incomer and Tie Breaker**

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## **PROBLEM**

In some situations the tie breaker, if “selected to trip”, will trip shortly after it has been closed by the transfer scheme. This may happen either because the tie breaker closing time is short compared to the incomer breaker trip time, or because the incomer breaker's auxiliary contacts are slow.

## **SOLUTION**

The problem can be solved connecting an auxiliary contact type 52/b in series with the output contact from Auxiliary Relay No. 6 in Figures 1 and 2 below. In this way the close command will be sent to the tie breaker only after the incomer from the lost source has tripped. The output type of Auxiliary Relay No. 6 must be set as “Pulse” and the pulse dwell time must be long enough to ensure correct operation of the scheme (longer than the incomer breaker trip time).

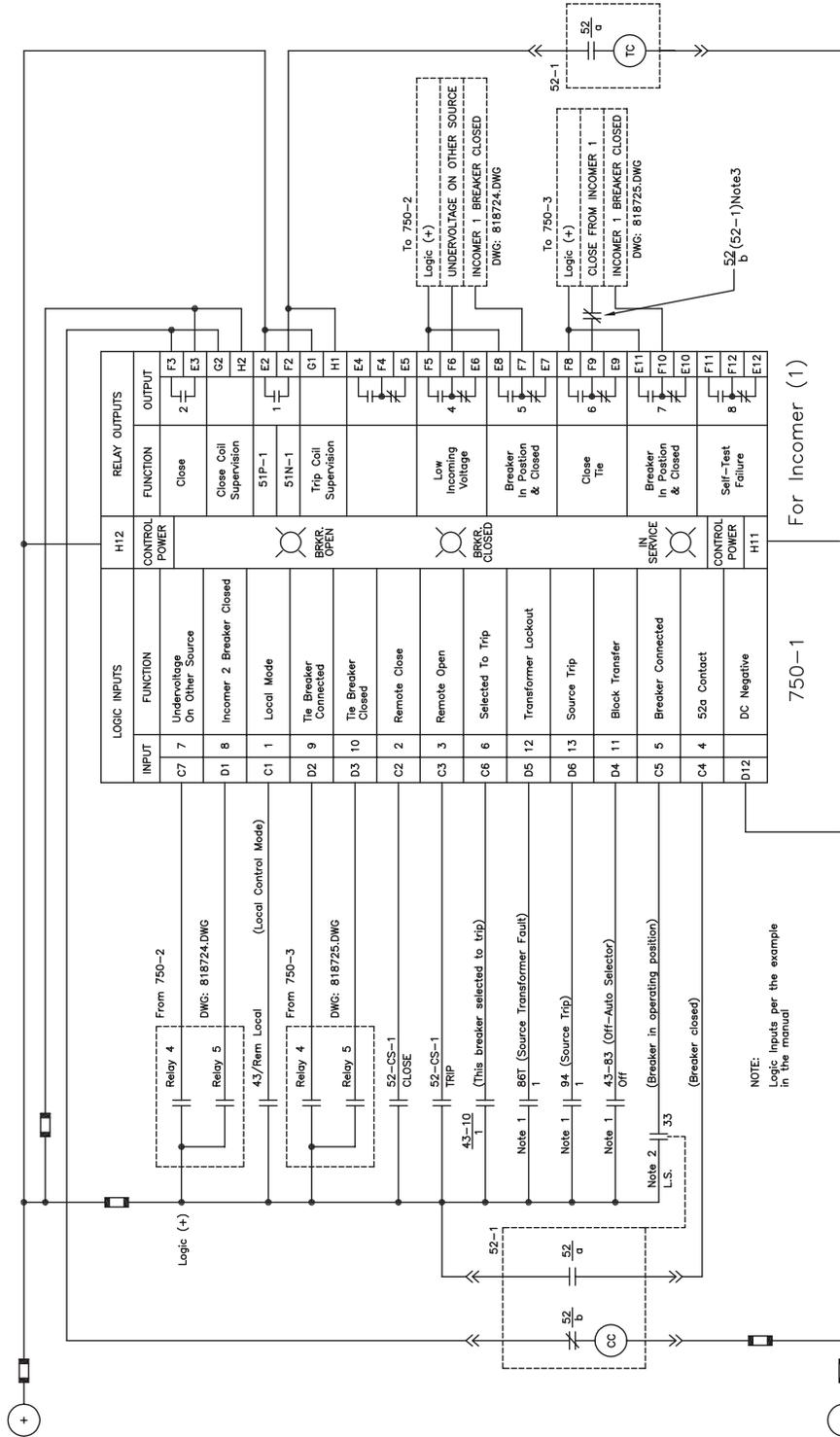


FIGURE 1. Transfer Scheme Incomer No. 1 DC Schematic

NOTES:

- 1) Optional
- 2) Limit Switch (LS) or Truck Operated Contact (TOC) for drawout breakers. Use isolator switches closed (or jumper) for non drawout breakers.
- 3) This 52<sub>b</sub> auxiliary contact will be included if necessary. This is when, due to breakers characteristics and performances, a race may occur between tripping of the incomer breaker and closing of the Tie breaker. See Application note No.023

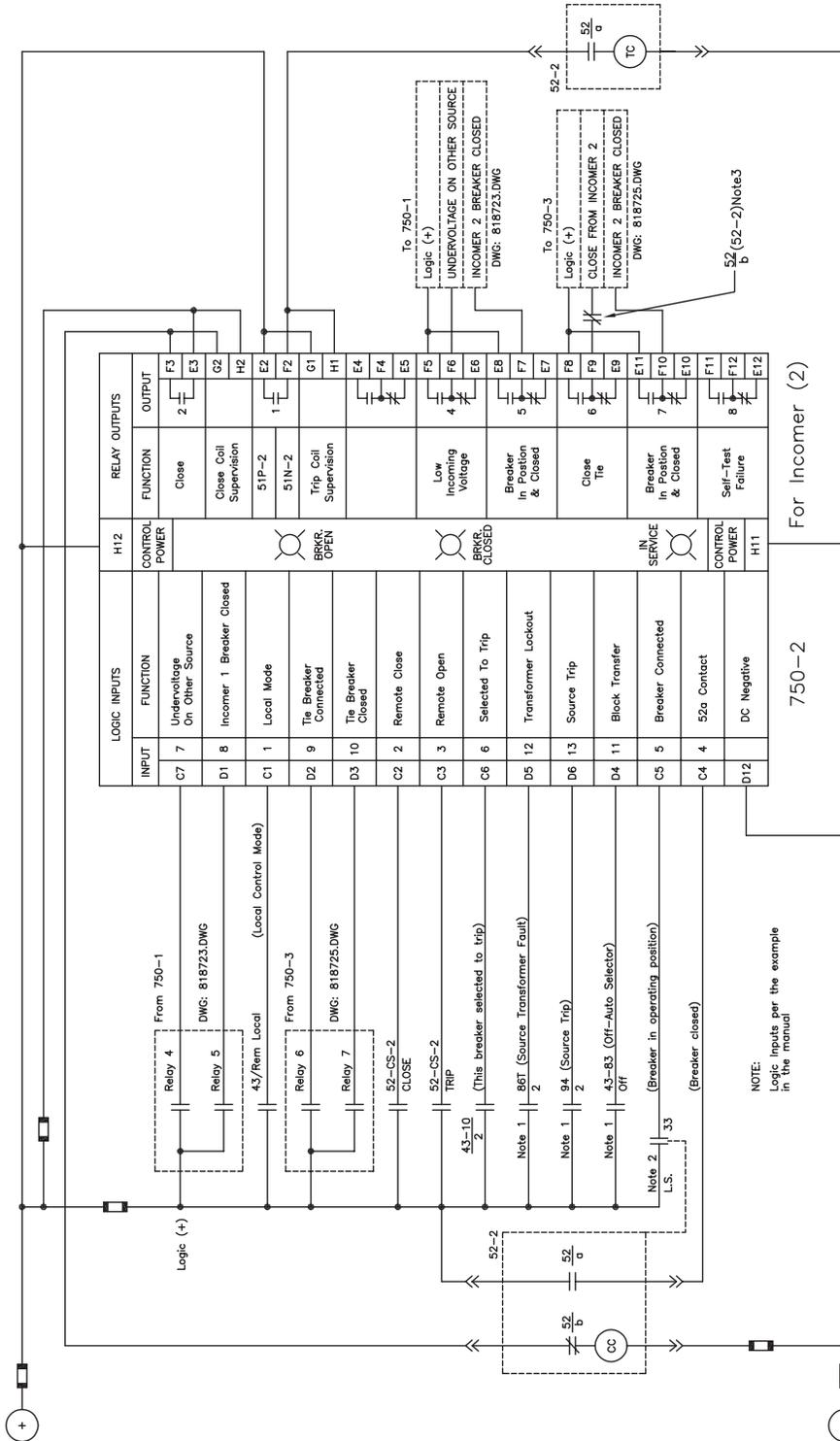


FIGURE 2. Transfer Scheme Incomer No. 2 DC Schematic

- NOTES:
- 1) Optional
  - 2) Limit Switch (LS) or Truck Operated Contact (TOC) for drawout breakers. Use isolator switches closed (or jumper) for non drawout breakers.
  - 3) This 52<sub>b</sub> auxiliary contact will be included if necessary. This is when, due to breakers characteristics and performances, a race may occur between tripping of the Incomer breaker and closing of the Tie breaker. See Application note No.023